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The Programmer is designed to give you the ease and convenience of programming the memories and options of the radio from your PC.

Using the Programmer, you can create separate files for unique applications such as travel, emergency activities, or special events. These files can contain different settings, such as memories, power management features, and DTMF numbers, for each purpose.

The Programmer also gives you the ability to read a configuration from the radio. The configuration would be stored in a file on your computer to be changed easily. Then, with minimal button pushing, you can send the altered file back to program the radio.

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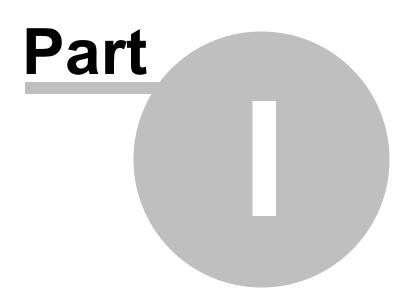
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## Foreword

These help files are offered as reference for the features of the programmer and with some added information about the features and functionality of the radio.

The final reference for a feature of the radio is the Users' Manual for that radio. Any error, omission or misrepresentation of a radio's ability is unintentional.

The Programmer cannot make the radio do anything that it cannot do from the face of the unit. It makes it easier to set options for the existing functions.



## 1 VX-8 and VX-8D Comparison

# Working with the original VX-8 and the new VX-8D in the Programmer

Upon visual inspection of the original VX-8 and the new VX-8D, it is impossible to tell the two apart unless you check the label under the battery. Identical in appearance and similar in features, the differences in the features become significant when programming the radio with the software. Their "little brains" are significantly different when viewed by the Programmer.

The ADMS-VX8 Programmer contains details for both the original VX-8 and the new VX-8D (which will be referred to in this Help as Original and "D" for clarity). To access the added features for the VX-8D, execute Communications | Get Data From radio. Only the radio can tell the Programmer that it is a "D" model.

If you are switching between an original and a new "D" radio, execute Communications | Get Data From radio into a new file each time you switch between radios to let the Programmer know which radio is being addressed.

The Programmer makes it possible to use the same memory channel files for an original or a "D" radio. The two radios **CANNOT USE THE SAME SETTING FILES.** This is where all the differences are found. If you are using one radio, this will not pose a problem. If you are using an original AND a new "D" model radio, there will be extra steps and file management for programming the two.

Note: Whenever you do File | New and open a new VX-8 radio programming file, the Programmer will tell you which radio it is ready to address. In the titlebar at the top of the Programmer, VX-8 Programmer (for the original) or VX-8D Programmer (for the new "D" model) will be shown. The presence of the "D" lets you know that the Programmer is ready to send data to the "D" radio.

If you plan to work on your Original VX-8 radio and the titlebar shows "VX-8D", execute Communications | Get Data From radio into a new file using the original VX-8 radio. This will switch the Programmer back to being dedicated to the original VX-8.

**Suppose you have a new "D" radio as your only VX-8 radio.** (You are working within one Programmer for one radio. No extra attention to file management is needed other than the initial Get Data From radio process.)

Execute Communications | Get Data From radio with your new radio

Save the file.

Use this file to enter frequency information.

Make any other files that you want. You will always have all the details of this radio available for programming.

Access Settings | Radio Menu Settings. Make necessary changes.

Save the Settings file for the new radio. (Suggestion: Name the file in a way that you know in the future that it is for a "D" radio. This information in the filename may come in handy.)

Execute Communications | Send Data To radio.

These two files work together to program your "D" radio.

Create other memory channel files and other settings files as needed for your activities.

#### Suppose you have a new "D" radio in addition to your original VX-8 radio.

Close the file that opens with the Programmer.

Create a new file (File | New).

Execute Communications | Get Data From radio with the "D" radio

Re-open the original file.

Execute Communications | Send Data To for the "D"radio.

If you use options from the Settings menu, access Settings | Radio Menu Settings. Make necessary changes.

Save the Settings file for the new radio. (Suggestion: Name this settings file something different from what you named the original settings file... if nothing else, put a D at the end of the file name.)

Now, these two files will work together to program your "D" radio.

Execute Communications | Send Data To for the "D"radio.

When later you want to reprogram your original VX-8 radio,

Close all programming files saving as necessary.

Create a new file (File | New)

Execute Communications | Get Data From radio with your original radio.

Open the original file: make changes, make a new file, whatever you need to do at this point for the ORIGINAL radio.

Save your file.. give it a good name to identify it for the original radio.

Execute Communications | Send Data To radio to program your original radio.

## Suppose you are only making changes to memory channel information for both of your original and "D" radios.

Open the file.

Make changes.

Save the file- either same name or different - your choice.

Check the titlebar. Execute Communications | Send Data To radio with the radio that matches that of the titlebar (i.e., VX-8 Programmer - to the original radio / VX-8D Programmer - to the "D" radio).

Close all files in the Programmer saving as necessary.

For the **"other"** radio:

Open New File (File | New)

Execute Communications | Get Data From radio. Be sure to Get Data From the "other" radio.

Notice that the designation in the titlebar changes (now with or without the "D" as appropriate for the radio). This should be different from what was there before you read the radio.

Open the file into which you made the changes.

Execute Communications | Send Data To radio to program this radio.

This may seem a little clumsy given the radios appear to be so similar. Suffice to say, "Appearances are deceiving".

#### What's New

Changes to APRS settings. These include:

- APRS Beacon new tab that contains all the options for this feature. This tab appears in the Settings file only when working with a "D" radio.
- Smart Beacon setting in with Manual and Auto of Beacon Tx.
- Settings for options of three types of Smart Beaconing
- Digi Path Now 2 paths instead of one.
- My Symbols Four choices to set for use.
- My Position Additional option of GPS
- TX delay More choices for the duration of the delay.
- Tx Message Two additional. Now 7 rather than 5 in the original version.
- Msg Flash Three options for different messages. This one is undocumented in the User's Manual; but is very apparent when the option is accessed in the set mode.



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## 2 What Is the Radio Programmer

The Programmer is designed to give you the ease and convenience of programming the memories and options of the radio from your PC.

Using the Programmer, you can create separate files for unique applications such as travel, emergency activities, or special events. These files can contain different settings, such as memories, power management features, and DTMF numbers, for each purpose.

These files are saved separately to be sent to the radio at any time. One file can be sent to the radio at any one time. Be sure to put everything you want into each file as you build it.

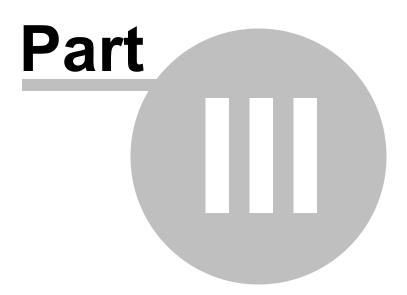
The Programmer also gives you the ability to read a configuration from the radio. The configuration would be stored in a file on your computer to be changed easily. Then, with minimal button pushing, you can send the altered file back to the radio.

## Hardware Requirements

Hardware requirements for the Version 4 Programmers include

- A PC running Microsoft Windows: XP, Vista (32 or 64 bit), and Windows 7 (32 or 64 bit). The programmer will NOT work on Windows 98, ME, NT or 2000.
- The correct computer interface cable as shown in the *Radio to Computer Cabling* section of this help.

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### **3 Getting Started**

### Creating the file

The Programmer gives you an easy way to access details for memory channels and other settings of the radio.

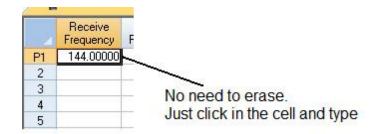
Open the programmer by clicking on the icon that was created during installation. The programmer opens to a default file.

				Window E ØNa⊉↓																	
1	/X-5 Untit	ledi x																			
Fit	squency		Offset Frequency		Operating Mode	Tone Mode		DCS	Tx Power	Skip	Step	Mask	lcon	Half Dev	Clock Shift	Bank 1	Bank 2	Bank 3	Bank 4	Bank 5	
1	44.00000	144.00000		Simplex 💌	FM 💌	None 💌	100.0 Hz	023	High 💌	OH 💌	5kHz 💌	0	Icon 12	12	. (23)	12	10	12	門	23	
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			VEDA									- 23		81	10	100	12	E3 -	12	1.1	

Note: The default file contains memory channel information on several of the screens. This information is needed by the radio to "fill spaces in its little brain". You can change the default entries that you see; but anything that is completed in the default file cannot be left blank. The Programmer will help you with this. If information is required, it will warn you when it is missing.

Enter a receive frequency

]\_\_\_\_\_

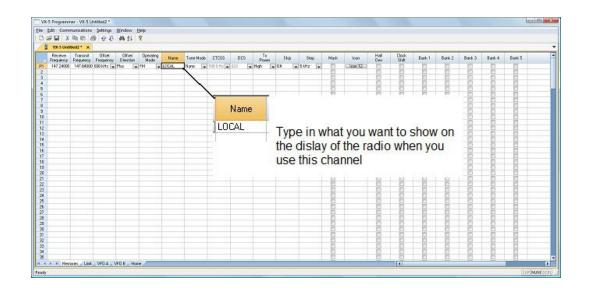


In this example we'll enter 147.240 MHz with standard offset, a Name of Local, and a tone of 100hz.

- Type one four seven period two four zero into the receive frequency column.
- Press Enter.
- The program completes much of the channel information with defaults. The Transmit frequency, Offset frequency, Offset Direction and Operating Mode are completed. This satisfies the "Standard offset" requirement from the original information.

			Settings )																				
	VX-5 Untitle		-		÷																		
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-			P1	14	7.24000	14	1.84000	600 k	HZ 💌	Plus	10	FM		-						10	23	8	
-	-		2			1	10.000			1										8		- 53	
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	_								-			-	E.			1	1	18	8	1	13	<u>8</u>	
-	-		-						-		-	-				100	- 8-			100		10	
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1											-	-	E	-		100	1	E	1	1	13	<u>的</u>	
			VFD A VI										1 2			100		13	1.1	1	E3	10	

• Press tab or use your mouse to select the Name cell. Type LOCAL. You choose upper or lower case on many radios. On others, only upper case letters are allowed. The programmer will help you. If a letter or symbol will not work on the radio, you will not be able to enter it here.



• Press tab to move to the Tone Mode cell. Setting up the tone of 100hz requires TW steps (just as it would if you were doing this from the face of the radio). Turn on Tone Mode AND then set the 100hz tone.

VX S UNIX	led2* ×	-						_													
	Transmit Frequency 147,84300 f	Office Frequency 6001tHz 💌	Other Direction Plus (#	Operating Mode	Nane LOCAL	Tone Made	CTCSS TOO D Har 💽	DCS   523   -	Te Pover High (w	Skø I Cit i Cit	Step  SKH: w	Nak	iten Ioan 12	Hat Concocco	Clock Shit	Eorth 1	Bork 2	Bark 3	80%.4	Bork 5	
	States and																				
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					-	to Th	ne u nis k	nles eep:	s yoi s yoi	u set u froi		Ton	e Mo ting t	de t	first.		one				

- This channel is ready to use.
- The other columns are set only if you need them for better radio performance. See Regular Memory Channels in this help and the User's Manual for the radio for details on what these features do and the settings

for them.

There is more to this radio than just memory channels. So, there is more to the programmer. Tabs at the bottom of the main screen give you access to Limit memories, Home channels, Hypermemories, VFO, Marine and Shortwave channels, that apply to your radio.

Transmit Frequency 10 144.00000		Offset Direction implex 💽 I	Operating Mode FM 💌	Nome	Tone Mode None	CTCSS	DCS	Tx Power	10000	The second		_							
					Mana .				Skip	Step	Mask	loon	Half Dev	Clock. Shift	Bank 1	Bank 2	Bank 3	Bank 4	Bank 5
						100.0 Hz	023	High w	Off .	5kHz 💌	0	Icon 12	0.04	0				10	
					2.0	- C-	2	1	Q	10 22	0		0	10	E).	0	0	0	10
					-							-	- 27	- 19		27	199	19	10
											- E		1	- 8-	-B-	6	-B-	B	1
													<u>81</u>	177		10	13	10	10
													-8-	-8-	-8-			- 8-	
											1		10	1	1	10		1	1
											(E)			1	8	10	1	1	1
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								-					1	- H	1	1		E .	1
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-		_			-							-	10	100	- 8-		10	10	10
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					Cino	100,		3, 11	onne		10		1	10		10	10	10	1
			- cha	anne	ls, et	c as	thev	app	v to	_		-	100		-		<u> </u>	2	1
		_	-			-11-	1		/				- 22		10	10		10	
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			- /			/	/				<u> </u>	_	20	100	<u>F1</u>	100	10	13	5
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				cha	channe	channels, et	channels, etc as	Limit memories, VFC channels, etc as they a specific radio	channels, etc as they appl	Limit memories, VFOs, Home channels, etc as they apply to a specific radio	channels, etc as they apply to	Limit memories, VFOs, Home channels, etc as they apply to a specific radio	Limit memories, VFOs, Home channels, etc as they apply to a specific radio	Limit memories, VFOs, Home channels, etc as they apply to a specific radio	Limit memories, VFOs, Home channels, etc as they apply to a specific radio	Limit memories, VFOs, Home channels, etc as they apply to a specific radio	Limit memories, VFOs, Home channels, etc as they apply to a specific radio	Limit memories, VFOs, Home channels, etc as they apply to a specific radio	Limit memories, VFOs, Home channels, etc as they apply to a specific radio

Click a tab. A screen opens with the details that can be entered for these radio functions. You can work with the radio without ever using these tabs. There are default values on these screens that never need to be changed. Make changes for your special activities when you plan to use one of these functions of the radio.

### Save the file

Now that you have the frequencies entered into the memory channels, Save the file.

	Edit Comm	runications Settings	Bindow	Help																	
1	2 E 2	BB 6 98	ah 24	8																	
-	DOTest*	×																			
	Receive Frequency	Transmit Officer Frequency Frequency	Other Direction	Operating Mode	Nane	Tone Mode	CTCSS	DCS	DCS Polaty	Uter CTCSS	Tx Power	Ship	Step	Mark.	Altenator	S-Meter Squeich	Ect	Hall Dev	Clock Shitt	BANK 1	BANK 2
2	147,24000	147.84000 6001/Hz	Pho	PH		Name	TOUD Hr		INSTN.	1600 Hz	High (5 W)	DH	15 8992	15	10	01	Ce .	10	11	11	15
2	147.24500	147.04500 6001412	Pha	714		None	100 D Hz	823	DS-TN	1600 Nz	High (5 W)	Diff	154945	- 23	2	Dt	CE	12	1	19	25
<u>3</u>	147 25000	147 85000 600 kHz	Pha	FM		Nove	100 D H:	\$22	RNTN	1600 Hz	High (5 W)		15.6-6	- 23	10	01	01	10	1		- 21
4	147,29500	147,85500 680 kHz	Plus	EM.		Norie	100.0 Hz	928	RN-TM 1	1600 Hz	High (5W)	01	15 6Hz	- 63	23	01	01	- E)	10	1	- 25
5	147 26000	147.96000.600 hHz	Pho	84		None	1000 Hz	123	ENTN.	1600 Hg	High (5 W)	0H	15 kHz	- 13	10	09	01	10	10	10	100
6	147,25500	147.86500.600 kHz	Plut	PH		None	100 D Hz	623	RIS-TAL	1600 Hz	High (5 W)	DH	15 kHz	123	100	01	08	10	10	19	1
7	147.27000	147.07000 600 kHz	Phui	FH.		None	100 0.942	023	RM-EN.	1600143	Ngh (5 W)		15494	10	10	01	CT.	19	1	1	19
8	147 27500	147 87500 600 kHz	Phis	84		None	110E.D.Hz	022	RNTH	16011-2	Hot (5W)		1549-0	10	10	01	G¥.	10	10	11	10
9	147,29000	147 88000 600 kHz	Pho	PH .		Nane	1100 D Hz		BM EN	1600 Hz	High (5W)		15 444	- 19	100	01	Q#	10	10	10	- 21-
10	147,29500	147.88500.6001Hz	Phe	84		None	100 0 Hz		BATA	1600 Hz	High (5 W)		15 kHz	- 24	- M-	04	0.0	- 21 -		- 14	- 91-
11	147,23000	147.89000 600 kHz	fhe	71	- 3	None	100.0 Hz	\$25	FIS-FN	1630713	High (5 W)		15 895	- 16 -	10	01	01	10	10	- 14 -	- H-
12	147,29500	147.05500 600 MHz	Pha	PH		Nane	100 D Hz	\$20	DS-TN	1600142	High (5 W)		15 49-15	- H -	1	01	05	10			1
13	147 20000	147 90000 600 kHz	Pho	PM .		Nove	100.D.Hz	222	RNITA	1600142	Hot 5WI		15.65-0	- 19	10	01	01	191	1	11	- 21
14	147 30500	147,90500 680 kHz	Bu	PH .		Nané	100.0 Hz	823	RNTM	1800 Hz	High (5W)		15 642	- 14	1 10	04	01	10	10		
15	147 31000	147 91000 600 kHz	But	84		None	TOUDHE		BATA	1600Hz	High 5 WI		15 404	10		01	0.	- 10	10	1	- 10
32	445 25000			In II			100 D He		BATN D		High  5 W.		50 810	- 16	1		05 (*)	- 20	10	10	- 24-
17	445 25500	465,25500	Sinplex	194		None	100 0.42	023	TIMEN.	1600115	High (5 W)		50 845	-14-	1 20-	01	Gr (w)	- 24	- 10 -	- 14 -	- 14-
18	445 25000	445,26000	Sinples	PH .		None	100 B.Hz	423	RMTM	1600 Hz	High (5 W)		50.640	- 16 -	10	01	01		- 11	- 11 -	
15	445 28500	445,26500	Singles	PM .		Name	100 0 Hz		BALTA	1600 Hz	High (5 W)		50.642	-16-		01	08	- 5 -	- 10	- 6-	-8-
20	445 27000	445,22000	Simplex	84		None	100 0 Hz	123	BAIN	1600Hz	High (5 W)		50 kHz	-16-	1	09	08	- 20	- 14	-6-	- 8-
21	445 27500	46,27500		2M		None	100 D Hz	\$23	PIS-TN.	16307/2			50 870	-14-	1	01	01	- 22-			
	445 27500	465,20000	Simplex	214		None	100 D Hz	123	FIN-TN FIN-	1600Ng	High (5 W)		50 870	-8-	- 8-	01	Cir .				
22			Sinples	PM PM							High (5 W)			-8-	8		OF .	- 51	-6-	-6-	-8-
23	445 29500	445.28500	Sinples			Nane	1100 D Hz	223	RAITA	1600Hz	High (5 W)		50446	- 19		01				-8-	
24	445 29000	445.29000	Singlex	RH		Nané	-100.0 Hz	823	BN-TN-	1600 Hz	High (5W)	019	50 kHz	- 62	1	01	01	- <u>E</u>		- 6-	
25	445 29500	445.29500	Simplex	84		None	100 D Hz	823	BNTN	1600 Hz	High (5 W)		50 KHz			09	0#			- 6-	
26	445 30000	445.30000	Sinplex	<b>FM</b>		None	100 D Hz	523	HIS-TN	103010	High (5 W)		50 896	-B	- S-	01	0.5			-8-	
27	445 30500	445.30500	Sinples	FM.		None	100 E Hz	\$23	EN DI	1600Ha	High (5 W)		50 846	-8-	- 8-	01	0 f			-8-	
28	445 21000	445.31000	Singles	PM		None	100.0 Hz	0.23	RNTN	1600Hz	High (5W)		504442			01	0 F	- 92			- 51-
25	445 31 500	445.31500	Simplex	94		Nane	100.0 Hz	023	BATA	1600 Hz	High (5W)		50 kHz		2	09	01	- <u>C</u>	- E	1	- 0
30	445 32000	445.32900	Simplex	.9H		None	100 B Hz	123	BATA	1600 Hz	High (5 W)		50 kHz	- 12 -	- El -	09	0.9	E	- E	10	- 21
31	445 12500	445.32500	Simplex	714		None	100.0 Hz	3,20	RMTN	10001/2	High (SW)		50 896	_8	- 9	011	01		E	1	
32	445 23005	445.33000	Sinples	PH		None	100 D Hz	\$23	RISTN	1600 Hz	High (SW)		50 849	- D	0	01	01	E3		12	0
33	445 33501	445.33500	Sinples	PH .		Nane	100.0 Hz	\$23	RNTN	1610142	High (5W)		50 442	- E3		01	08		- C3 -	13	. 8
34	445 34000	445.34000	Simplex	PH .		Name	100 0 Hz	823	BN TN	1800 Hz	High (5 W)	09	50 kHz	63	1.12	01	0#	- 63	10	10	. 6
35	445 34500	445.34500	Simplex	84		None	100 D Hz	623	BATM.	1608 Hz	High (5 W)	DH	50 kHz	13 -	0	014	C#		10	- 12	- 10
100	Burney Brann	niet Skip Link Ed	A VED A	VFO.8 / Ha	ie Maire	Parks Ch	V Baska / V	and a							4			and the second second	1000	100	

In the menu, click File | Save As

Save in:	🔰 VX-8 Prog	rammer		- G 💈	Þ 📂 🖽 🗸	
(Pa)	Name	Date modif	Туре	Size	Tags	
Recent Places Desktop	DCSTest Reader Test1	eral Travel and Er	ntertainment			
Computer						
Computer Vetwork	File <u>n</u> ame:	DCSTest			• S	ave

Enter a filename. You can be as descriptive as you want. 256 characters including spaces, upper and lower letters, and much more to describe this file. The programmer will enter the extension so it can find the file later.

Once you complete this part of the process, the program will open the last file when it starts up.

## **Even More Radio Functions**

Today's radios can do so much. Many of the features are not a part of the details for a memory channel. These other options are set once for the radio to use no matter what channel you're operating on: memory channel, limit memory, VFO or Home channel.

These options may include, but are not limited to, Lock mode, ARTS details, display brightness and color, DTMF memories, scan resume options, and many others.

Select Settings | Radio Menu settings from the menu at the top of the main screen to access these options. The Settings screen opens to a page with check boxes, list boxes and edit fields. A sample Settings screen would look like this.

ommon ARTS / CW / EAI			LVCO and Manu Cl			
ARTS / CW / EAL	messages   50un	ds   D i Mir 7 internet	Pro and Menu Sk	ap   Arns / Grs		
Attenuator Broadcast	Antenna - AM		Moni/TCal	Spec-Analyzer	BlueTooth Set	Password
Attenuator Marine	BAR & EXT 👻	Enable 👻	Moni 🔻	1 Time 🔻		Enable
Attenuator Weather	Antenna - FM	HM/BV	Priority Time	Time Out Timer		
Auto Repeater Shift	EXT Antenna 💌	Reverse 💌	5 seconds 💌	3.0 min 🔻	Mode Mono 👻	Programmable Key Assignment:
Busy Channel Lockout	Audio Mute Level	Lock 📄 Enable	PTT Delay	VF0 Mode	Save Off 👻	Internet Key
Busy LED	Off 👻	Dial + Key 💌	Off -	Band 💌		Internet 👻
Fast Tone Search	Auto Power Off	Mem Fast Step	RX AF Dual	VOL Key Mode	Power On 💌	My Key
Memory Protect		10 CH -	TRX1 sec •	Hold -	P-Code 6111	DC Voltage 👻
Priority Revert	C			)		
Split Tone	Channel Counter	Memory Write	Rx Save	Vox Off •	Timers	Scanning
Split Tone Tone Search Mute				C	Enable	V Lamp
	FW Key Timer	Mic Gain	Smart Search	Vox Delay	Off 00.00	
Tx Save	0.5 sec 🔻	Level 5 🔻	Single 💌	0.5 seconds 💌	Character and	Memory Scan Mode
Display	C		0.114		On Enable	
Dual/Mono	Sensor DC	▼ Lamp ▼ Key5se		de Cursor	00:00	VFO Scan Mode
( <u></u> )	Lance -					Band 💌
Altitude Units / Offset	Temperature	LCD Con		de Format	Weather	Resume Mode
lfeet ▼ 0 ÷	Fahrenheit	Level 13	3 💌 List	•	🔄 Weather Alert	5.0 sec 🔻
Barometric Units / Offset	Wave Monitor	LED Dim	mer S-Meter	Symbol	Active Channel	Restart Time
mb 🕶 0 ≑	All	▼ Level 4		- 8	1 - 162.550 MHz 🔹	2.0 sec 💌

Set the options as you need them to get the performance you want from your radio. The settings shown for your radio will correspond to your radio's features.

Once you have the options like you want it, save this file. Yes, this is saved separately from the frequencies in the memory channels.

To save the file, select File | Save from the menu on the Settings page. Enter a name when the window opens. You will not have to set these options again when you start a new file of memory channels.

Once the file is saved, select File | Exit to return to the main screen of the programmer.

### Sending the file(s) to the radio (programming the radio)

The new *RT Systems*' Version 4 programmers have no comport setup. Using the *RT Systems*' USB cable, you attach the cable, attach the radio, and get the programming done.

#### First: Communications | Get data from

Although you really want to put the details of your file into your new radio so you can use it, doing Get data from with this new radio gets the process started and may help prevent problems sending the file to the radio.

## This process is REQUIRED if your radio has been modified to transmit outside the ham band.

- From the menu at the top of the main window, select File | New. Open a new file to protect the file that you created.
- Connect the RT Systems USB cable to a port on your computer. Wait until the New Hardware Found process completes.
- With the radio off, connect the other end of the cable to the radio.
- From the menu at the top of the main window, select Communications | Get data from.

## A screen will open with details about this process specific to your radio.

- Follow these steps carefully until this process is complete.
- Open the file that you created earlier. To open a file select File | Open from the menu at the top. Select your file from those in the list. Or with Version 4, your file may already be open in the other tab.

		nunications §																				
Ь.	* . *	ne s	00	科会	8																	
0	DCSText*	× 🛙 vx-a	Untitle	-	TODO Untitled	1																
			08580	Officer	Operate	A Name	Tone M	ode CTCSS	DCS	DCS	Uper	. Tx	Skip	Step	Mark.	Attenuetor	S-Meter	Bell	Half	Dock	BANK 1	BANK 2
		Flequency Fe		Directio		1+are				ruar		Power			Poge.	MACHEORY	Squeich		Dev	Shit	Devisit: 1	Diversity
P1		147.84000 600		-	PH.	1	Nore	100.0 Hz	023	BN-TN	1600 Hz	High (5W)	OH	15 kHz		-	OH	OF		-8-		
2	147.24500			Plus	111	100	Fac	h tab	ic a	diffo	ront fi	0					OH	0¥				
3	147.25000			Plus Plus	FM FM		Lac	man	15 u	unic	CILI	IC.					OH OH	OF OF				
4	147.25500			Plue	FM	202											OR	0F				
5	147.26000			Plur	FM	-										-	08	0F	- 53 -			
6	147.26500			Plus Plus	FM	-	The	files		-	ho fo	e diffe	ront	radia	0	-	OR	UF OF	- 53 -			
6	147.27500			Plue	FM	-	me	files	Lall	even	De lo	I UIIIE	rent	Taulo	15.	-	OB	DF	- 5-	-8-		
8	147.2/500			Plue	FM	-										-	08	OF .	- 5-	8-		
×	147.28500			Plue	FM	-	Norm	TOUDHE	1823	IBN-IN			22	15 884	12.27		08	OF	- 53 -			
10		147.89000 600		Plus	EM	-	None	103.0 Hz	023	BN-TN	1600 Hz	High (5 W) High (5 W)		15 kHz		- E-	0H	OF .				
11		147.89900 600		Plus	FM		None	103.0 Hz	1023	BN-TN	1600 Hz	High (5 W)		15 kHz			OB	DF	- 5-			
		147,90000 600		Pho	FM		Norse	103.0 Hz	1023	BN-TN	1600 Hz	High (SW)		15kHz			08	OF				
13	147.30500			Phe	FM		None	103.0 Hz	0.23	BN-TN	1600 Hz	High (SW)		15kHz			0H	OF				
14	147.30600			Plur	FM	-	None	103.0 Hz	1023	BN-TN	1600 Hz	High (SW)		15 kHz			0H	0F	- 53 -	-8-		
10	445.25000	445,29000		Simples		-	None	100.0 Hz		Se SN-TN		<ul> <li>High (5 W)</li> </ul>		SONH:				OF -		-8-		
16	445,25500			Simples	FM	*	None	100.0 Hz	023	BN-TN	1600 Hz			50kHz			OR N	DF w				
17	445,25000			Simples	FM	110	None	100.0 Hz	023	BN-IN BN-TN	1600 Hz	High (5 W) High (5 W)		50 kHz			08	OF				
	445,26500			Simples	FM		None	103.0 Hz	1023	BN-TN	1600 Hz			50 kHz			08	0F	- 53 -			
19	445,27000			Simples	EM			103.0 Hz	1023	BN-TN	1600 Hz	High (5 W)		50 kHz			OR	OF .		-8-		
20	445.27500				FM		Nore	103.0 Hz	1023	BN-TN	1600 Hz	High (5 W)		50 kHz			OB	DF		-8-		
21	445,28000			Simples Simples	FM		Nore	100.0 Hz	1023	BN-IN BN-TN	1600 Hz	High (5 W) High (5 W)		50 kHz			08	OF				
22								100 D Hz	0.23					50 kHz				0F				
23	445,28500			Simplex	FM	-	None	103.0 Hz	1023	BN-TN	1600 Hz	High (5 W)		50 kHz			OH	0F	- 53-	8		
24	445,29000			Simples	FM	-	None			BN-TN	1600 Hz	High (5 W)							- 53-	-8-		
3	445,29500 445,30000			Simples	FM	-	None	103.0 Hz	023	BN-TN BN-TN	1600 Hz 1600 Hz	High (5 W)		50 kHz 50 kHz			OH OH	OF OF	- 53-			
26	445 30500			Simples	FM	-	Nore	103.0 Hz	023	BN-TN BN-TN		High (5 W) High (5 W)		50 kHz			OH OH	0F	- 53-	8		
27				Simplex	FM	-	None	100 D Hz	0.23		1600 Hz	High (SW)		50 kHz			OR	0F	- 53-	8		
28	445.31000			Simplex		-			1023	BN-TN	1600 Hz						OR OR	UF OF	- 53-	-8-		
29	445.31500 445.32000			Simples	FM	-	None	103.0 Hz	1023	BN-TN	1600 Hz 1600 Hz	High (5 W)		50 kHz 50 kHz			OB	DF DF	- 53-	-8-		
30		445.32000		Simples	FM	-	Nore	100.0 Hz	023	BN-TN BN-TN		High (5 W)		50 kHz 50 kHz			OH OH	0F		-8-		
31				Simplex	FM	-	Nore	103.0 Hz	023	BN-TN BN-TN	1600 Hz	High (SW)		50 kHz			OH	OF OF	- 53-	-8-		
32	445.33000			Simplex		-					1600 Hz	High (5 W)					OH	OF OF	- 53		- 5-	
33	445.33500			Simples	FM	-	None	103.0 Hz	023	BN-TN	1600 Hz	High (5 W)		50 kHz								
34	445.34000			Simples	FM	-	Nore	100.0 Hz	023	BN-TN	1600 Hz	High (5 W)		50 kHz			OH OH	OF OF				
35		445.34900		Simples	FM		Nore	100.0 Hz	0.23	BN-TN	1600 Hz	High (5 W)	UR	50 kHz			UR	UF .				-8-
1	F. H. Meni	ories Skip L	init EAI	VFO.4	VFO B	Home Mar	ine Banks	SW Banko	ileatiel							1000		- Com				

#### Second: Communications | Send data to

• When your file is ready, select Communications | Send data to from the menu at the top of the main screen.

## A screen will open with details about this process specific to the radio.

- Follow the steps carefully to complete this process and program the radio. Read the screen carefully. The steps are often different from those used to get data from the radio.
- Turn off the power. Disconnect the programming cable from the radio.

Your radio may still be in VFO mode after it is programmed. This is a normal mode for the radio. Press the key on the face of the radio as described in the User's Manual for the radio to put the radio into Memory mode and see what you programmed.

### **Hardware Requirements**

Hardware requirements for the Version 4 Programmers include:

- A PC running Microsoft Windows (XP, Vista or Windows 7). The Version 4 *RT Systems'* software will not work on Windows 98, 2000, ME, or NT.
- Version 4 An open USB port or the RTS-03 USB to serial adapter to work with an original *RT Systems*' 9-pin serial cable.

*Note: The Version 4 programmers will not recognize any other cable or USB adapter. They will not work through a serial port.* 

• The correct computer interface cable as shown in the *Radio to Computer Cabling* section of this help.



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### 4 Using the Programmer - Overview

The Programmer is designed to be used in conjunction with the manual for the radio. The Programmer provides easy feature configuration while the written manual provides an explanation of a feature and its use.

## **Working with Programming Files**

The radio Programmer has the ability to work on more than one file at a time. These can be files for the same radio or for different radios: even radios from different manufacturers.

You can copy and paste frequencies from one file to another. This added feature makes it even easier to create new files as you take pre-programmed memory information from other files.

The name of the file currently being edited is shown in the title bar at the top of the window. If the file has not yet been named, "Untitled #" appears. The "#" increments when multiple new files are being worked on. *Note: Untitled #, the default filename, should not be used for permanent file storage. Even if you work in this file, be sure to enter a different filename when you save.* The file being edited is referred to in this help as the current file.

### **Creating a New Programming File**

Just like in any other editor, there are several ways to create a new cloning file.

- You can open an existing file, save it with a different filename.
- You can use the File | New command as a starting point for a new "blank" file. This file begins with default information for the radio. The "default' information you see in the file is the same as what was in your radio when you bought it new.
- Another way to create a data file is to upload the contents of the radio with the Communications | Get data from menu command. After executing this command, the current file will reflect the memory channels and feature settings of the radio. Changes are easily made to these settings and the new file saved.

#### Note: Not all the menu settings of the radio are associated with memory channels. Many are "global" settings that affect the radio during memory or VFO operations. These settings are handled in the fields found on the screen accessed under Settings | Radio Menu Settings.

The global settings will be read from the radio; however, by default, these settings are not saved with the file. Select Settings | Radio Menu Settings to view, change and save these settings. Once saved, these global settings will be sent to the radio every time it is programmed. If they are not saved, default settings will be sent to the radio with the memory programming.

#### To save these Global settings

- Select Settings | Radio Menu Settings in the menu on the main screen. The Settings screen opens.
- Verify that your settings are as you want them or make changes.
- From the top of this screen, select File | Save. A Save dialog opens into which you enter a filename. Enter the name for this file and click Save.
- Exit the Settings screen by selecting File | Exit.

This settings file is now available for use by any saved file that you send to your radio.

## Creating and using multiple Global settings files

There may be global settings of the radio that you want configured differently for different activities. You can make changes to your settings file and save it separately.

To select a settings file for use:

- Select Settings | Radio Menu Settings from the main page of the programmer.
- From the Radio Menu Settings screen, select File | Open. A list of settings files will be presented.
- Select the file you want to use and click Open.
- Verify that this is the settings file that you want to use. Check also that the proper filename appears in the bar at the top of the Menu Settings window.

 Select File | Exit to close this screen. These settings will be sent to the radio with each memory channel file until you change this file selection again.

Having multiple memory channel files and multiple global setting files gives you the ability to mix and match the features of your radio to suit your needs. This makes it easy to customize the radio for a special event without disturbing the original programming files. Then once the event is over, simply reprogram the radio with the memory channel information and settings that you use everyday.

## Tying Global Settings to a Memory Channel File

The Version 3 and Version 4 programmers have the option of saving the global settings with the memory channel information. This new feature is not the default for the programmer; but may be valuable under certain programming circumstances (i.e., programming many radios when you want to be absolutely certain that the settings and the frequencies are properly set for a given activity).

To contrast and compare the two Radio Menu Setting options:

• Use Separate file for menu settings (default)

This is the default for the programmer.

This option is based on a "Set and Forget" plan. Once the global settings are configured to your liking and saved, you do not have to repeat this process. This configuration does not change with a new memory channel file.

The last settings file saved is the one that will be used when a memory file is sent to the radio.

You can save several different settings files (i.e., one for your radio and a different one for your son's radio). Then easily match the settings to the radio being programmed without having to make changes in the file repeatedly.

• Keep menu settings and frequencies in a single file. (option)

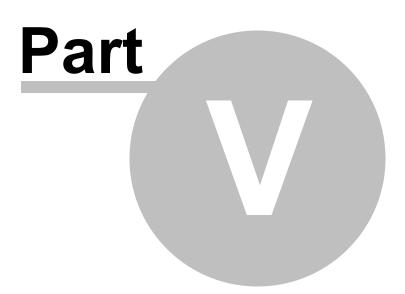
This option is set on the Settings | Preferences screen.

With this option selected, the Radio Menu Settings as assigned on the Settings | Radio Menu Settings screen are assigned ONLY in this file.

With each new file created the Radio Menu Settings return to factory defaults.

You have the ability to customize the global settings just as you customize the memory channel file. This would be useful if you are programming each radio uniquely.

No guesswork about what the configuration of the global settings. Once they are set, they stay set in this file until you make a change to them.



## 5 Viewing and Changing Programming Files

The Programmer begins in a screen displaying memory channel information for the radio. Default information found in a factory fresh radio is contained in the file. Anywhere this information is displayed it can be changed.

Memory information is easily entered in a spreadsheet style layout. You can view, rearrange, eliminate, or edit these entries. Memory channel 1 must be programmed in most radios. VFOs and Home channels must be programmed. Memory channel 1 and limit memory channels. VFO and Call channels must each contain a frequency appropriate for the band. The programmer checks for missing data when Send data to is executed.

Columns not regularly used are easily hidden with the selections under Settings | Preferences (View | Preferences in earlier versions). Customize your screen for the information you use most often.

## **Radio Menu Settings**

Global menu settings which in earlier programmers occupied the opening screen are now entered on a Settings screen accessed under Settings | Radio Menu Settings (View | Settings in earlier versions). Here options are set for menu settings of the radio that do not change with each memory channel. These settings affect the radio whether it is in memory mode or VFO mode.

The Radio Menu Settings screens contain check boxes for single click settings and easily filled blanks for personalized options. Once configured, these Settings are saved for use by new files. There is no longer a need to reset the options in each new file or to begin a file from an existing one.

Note: Radio Option Settings (including Lock, Beeps, etc) are read from the radio with the Get data from command. Be sure that settings you have customized are saved in the programmer. Access the Settings screen and use File | Save to make the options that were taken from the radio permanent for programming the radio later. Once saved, the settings will be repeated with each new file of memory channel details.

The programmer has two options for these Settings. Multiple Settings files can be created just as multiple frequency files. Then you can "mix and match" as needed to program a radio for a given situation. Alternately, you can opt to save the Settings as part of an individual file.

You can find more details on these two options under Using the Programmer -

Overview and *Radio Menu Settings - General Overview* in this help. Using individual and separate settings files is the default.



### 6 Easy Editing in the Grid

36

Many new data management commands are available in the programming software from *RT Systems*.

The commands listed here are available through a right click menu or from the list that opens when you select Edit from the menu at the top of the screen. These commands can be used on any of the spreadsheets in the program.

#### **Right Click Menu**

Select a row to be edited by clicking on the number to the left of that row. You will notice that the entire row is highlighted (not just the Receive Frequency cell). Release the left mouse button. You will notice that the row remains highlighted until you left click someplace else on the screen of the programmer.

Note: You can select several rows at once (to copy, delete, etc) by clicking on the number to the left of the first of the selection then while holding the left mouse button, drag the mouse across the number of each of the channels to be included. This must be a continuous group.

With the mouse pointing at the highlighted area (anyplace as long as the point of the mouse pointer is within the highlighted area), press the right mouse button. A menu opens with editing options. Release the right mouse button once that menu opens.

Use the mouse to point at the desired command. Left click the mouse to execute that command.

#### Edit Menu

Select a row to be edited by clicking on the number to the left of that row. You will notice that the entire row is highlighted (not just the Receive Frequency cell). Release the left mouse button. You will notice that the row remains highlighted until you left click someplace else on the screen of the programmer.

Note: You can select several rows at once (to copy, delete, etc) by clicking on the number to the left of the first of the selection then while holding the left mouse button, drag the mouse across the number of each of the channels to be included. This must be a

### continuous group.

Holding neither of the mouse buttons, move the mouse pointer to Edit in the menu at the top of the screen. Press the left mouse button to select this menu option.

Holding neither of the mouse buttons, use the mouse pointer to select one of the editing options shown in the menu. Click the left mouse button to execute this command.

## **Editing Commands**

The examples here will use the programmers for the Yaesu FT-60 (ADMS-1J) and the lcom IC-91 (WCS-91). You will see by the screen shots that you can copy and paste between files: even files for radios from different manufacturers. The programmer will take care of the similarities and differences.

**Cut (Ctrl+X)** - Removes the selected entry and leaves the memory channel blank. This feature is designed to work for deletion of all the data in a memory channel rather than data in a specific column.

Copy (Ctrl+C) - Copies the selected data.

You can copy two different ways:

Copy <u>all the details</u> of a Memory Channel (one or several at once) or Copy <u>details within one column</u> (from one cell to one or many at one time)

- In most cases, data can be copied from one tab to another (as in left and right memories).
- It can also be copied from one programmer to another (both files Version 3 or Version 4 or even between Version 3 and Version 4 files).
- Data that is not appropriate for where it is to be pasted (i.e., a VHF frequency into a UHF channel) will not be pasted.

### Copying an entire memory channel or group of channels

Shown here are details for copying within a file. The same actions apply to copy data to another tab of the file or to another programmer.

Open the file.

	Edit Can	municipliens	Settings	Window	Help	_	_			_	_				_						_			
		Ba (8) 2																						
		medi* x																						
ŕ	Receive	Transmit	Office	Offset	Operating		Stee						Ced	Te	Tx	Paser								T
	Frequency	Frequency		Direction	Mode	Name	Name	Tone Mode	CTCSS	DCS	Skp	Step	shft	Pover	Harrow	Pager Drabks	Bark 1	Bark 2	Bank 3	Bark 4	Bark S	Bank 6	Bark 7	
	143.25000			Singlex	Auto	SIMPLE		None	\$00.0 Http	023	Off	AL/O	1	High	1	1	13	1		13	1		13	
	140.26250	143.26250		Smplex	Auto	SEMPLE	- 13	None	300.0 Hz	023	OH	Auto	10	High				13	D	0	- 13		<u> </u>	
	143-27500	143.27500		Seplex	Auto	SIMPLE	- 11-	None	300.0 Hz	023	OH	Au/o		High			- 0-			_ 0_			- 0-	
	142.28750	143.28753		Sinplex	Auto	SIMPLE		None	200.0 Hz	623	OH OH	46.00		High				10		-8-				
	143.38000			Smplex	Auto	SEMPLE		None	300.0 Hz	623	Off	Auto		High						-8-				
	143.31250 143.32500	143.31250		Smplex Smplex	Auto	SUMPLE	- 6-	None	300.0 Hz	023	off	ALAD	- 8	High	- 8-	- 61	- 8-	- 8-	- 61 -	-8-			- 8-	
	143.33750	143.31750		Singlex	Auto	SEMPLE		None	200.0 PV	623	Off	44.40	10	High	100	1	- 10-	10	10	- 10	10	10	10	
	143.35000	143.35000		Singles	Auto	SIMPLE		None	100.0 Hz		Off	Auto		Hah	100		- 11-			-8-			- 11-	
r	143.36250	143.36230	1.1			SIMPLE	- 14		300.0 Hz		- OH	- Auto	<b>F</b>		- H	1	- 14 -	- 14 -	- H-	- 14 -	- 14	1	14	
ŕ	143.32500	143.37500		Simplex 19	Auto	SIMPLE	11	None	200.010	023	ON NO	4,40	1	High	10	171	P1	171	11	10	171	11	11	
	142.28750			Singlex	Auto	SIMPLE	1	None	100.0 Hz	822	OH!	84.40	1 14	High	1 10	Pi Pi	- 16 -	10	M	- 14 -	P	P	10	
	143.48000	143,40000		Smplex	Auto	SIMPLE	1 PT	None	300.0 Hz	023	Off	Auto	11	High	10	11	10	10	PI	E .	17	Pl	10	
	143.41250			Smplex	Au/00	SIMPLE	FI	None	300.0 Hg	023	Off	Ja, Ab	11	High	11	11	E	13	12	13	12	11	E	
	143.42300	141.42500		sepiex	Au/00	GRAND	36	None	100.0 Hg	023	0ff	34,40	12	HUN	12	12	10	10	12	10	13	13	10	
	143.43750	143.43750		Sinplex	Auto	DOWN .	96	None	\$00.0 mg	0.23	0ff	ALAD.	11	High	1	13	13	1	13	13	1	11	13	
	143.45000	143.49000		Smplex	Auto	CANYON	10	None	100.0 Hz	023	Off	Auto	13	High	123	13	10	13	13	13	10	13	13	
	143.46250	143,46230		Seplex	Auto	KU43P	1	None	300.0Ptr	0.23	04	Auto .	13	High	13	13	10	13		13	10	1	13	
	143.47500			Seplex	Auto	100040	1X	None	300.0 Hz	823	0H	ALA0	13	High	13	13	- 13 -	13	10	- 13	10	10	10	
	141.48750			Simplex	Auto			None	300.0 Hz	023	Off	Auto	13	High	1	E		1	1	- D		E	13	
	143.58000			Smplex	Auto		- 13	None	300.0 Mz	123	OH	Auto	10	High						- 13				
	143.51250	143.51250		Serplex	Au/00		13	None	300.0 Hg	623	off	4,40	13	High	13	13	- 13	10	10	- 13 -	10	10	- 13	
	143.52500	143.52500		Sinplex	Au/00			None	300.0 Pg	023	Mo	44,40	11	High	1	1		12	1	- 6	1	1	- 6	
	143.53750	143.53750		Smplex	Auto	-	- 0-	None	500.0 mg	623	OM	AL10	- 0	High	10	0	- 8-		0		1	- 6	- 0-	
	143.55000	143.55000		Sinplex	Auto		- 8-	None	100.0 Hz	023	OH	Auto		High		8	- 8-	- 61	- 8-	-8-	- 63	- 61-	-8-	
	143.59250	143.56250		Seglex	Auto	-	8	None	200.0 Hz	023	OH	ALAD ALAD	- 8	High	1 12	8	-8-	- 8-	- 8-	-8-	- 10-	- 6-	- 8-	
ŀ	143,58750			Sinplex		-	- 8-			023	Off	ALID ALID		High	- 8-	8	-8-	- 61-	8	-8-	10	- 12-	-8-	÷
	143.68000	143.68750		Smplex	Auto			None	300.0 Hz	023	OM	Auto		High	1 10		- 8-			- 8-			-8-	
	143.63290	143.61290		Simplex Simplex	Auto	-	8	None	200.0 Hg	023	off	34,40		High	1 10	8	- 8-	10	1	- 6-	1		- 6-	
	143.62500	143.63500		Singlex	Auto		1	None	100.0 mg	623	off	ALAD	1	High	10	100	100	10	1	- 11-	10	1	100	
ŕ	143.62300	143.63750		Smplex	Auto	-	H	None	100.0 Mg		Off	Auto	1	High	10	H	H H	10	E I	1	10	11	H H	+
	143.65000	143.65000		Singlex	Auto	-	- M-	None	300.0Hz	023	OH	A./0	- 14	Hoh	1 10	1	- 14	- 14 -	1	-14-	1	1	10	
	143,66250	143.66250		Singlex	Auto		m	None	200.0 PW	823	Off	4.40	11	High	1 11	11	1	10	1	- Pi -	171	Pl	1	
	142.67500	143.67500		Singlex	Auto		10	None	100.0 Hz	823	Off	Auto	1	High	1	1	10	10	10	10	1	1	10	
	143.68750	143.68750		Smplex	Auto		1	None	300.0 Hz	623	OH	Auto	17	High	10	E	10	10	10	10	17	11	10	
	143.79000	143.70000		Smplex	Auto		12	None	100.0HP	023	Off	ALA0	171	High	171	121	12	15	11	13	121	11	13	
	143.71250	143.71250		Singlex	Auto		10	None	200.0 Hg	823	off	44,40	12	Hgh	12	123	10	12	123	13	E	13	E	
	143.72500			Singlex	Auto		10	None	300.0 mg	823	Off.	ALAD.	11	High	1	10	13	1	1	13	1	17	13	
	143.73750			Smplex	Auto		0	None	300.0 Hz	823	Off	ALA0	13	High	10	13	10	10	10	13	13		13	
	143.79000	143,79000		Service	Auto		13	None	300.0 Hz	023	OH	A,40	13	High	173	13	10	173	13	13	12	13	13	
	143.76250			Singlex	Auto		13	None	300.0 Hg	823	Off	ALAD.	13	High	13	13	13	10	13	10	13	13	13	
	140.77500	143.77500		Smplex	Auto		E	None	300.0 Hz	823	OH	ALAD	13	High	1	10	E	12	C	- 63	13	E	E	
	143.79750	143.78750		Smplex	Auto		1	None	100.0 Hz	023	OH	Auto	10	High	10	0	0	13	1	13		1	13	
	143.80000	143.80000		Serpiex	Au/00		10	None	300.0 HQ	823	Off	4,40	11	High	13	10	10	13	10	- 10	13	10	- 61	
	143.81250	143.81250		Simplex	Auto	SEMPLE	E1-	None	300.0147	023	0M	44,40	11	High	E.	1	0	10	-	- 0	1	E	- 13	
	143.82500			Smplex	Auto	SIMPLE	- 6-	None	500.0 Hz	023	Off	AL/O	1	High	10	0	- 0-		0	- 6-	1	- 6	- 61-	
	143.83750			Smplex	Auto	SEMPLE		None	300.0192	023	OH	Auto.		High	10		- 8-	- 61-	- 8-	-8-	- 10	- 6	- 8-	
		143.89000		Seglex	Acto	SEMPLE	0	None	300-0 PR	923	ÓN.	44,40	10	High	10	1 13	0	13	0	- 10	12	- 0	0	J.
	<ul> <li>» Men</li> </ul>	oriet ( Link)	Amones_	VFO Hom											4									

Select the data to be copied.

To select an **entire row**, point your mouse at the <u>number in the blue box at</u> <u>the left of the row</u>. Click and release the left mouse to select that row. The entire row will be highlighted when it is selected.

To select **multiple rows**, point your mouse at the number in the blue box at the left of the first row to be selected. Click and hold the left mouse button as you drag the pointer over the next several channels that you want to copy. The channels must be sequential for multi channel copying. All the selected channels will be highlighted.

To select **all rows**, point your mouse at the number in the blue box at the left of the first row. Left click the mouse. Release the mouse. Press Ctrl A to select all. The entire page will be highlighted. **Note:** If you have a lot of channels to select, rather than trying to select them with the mouse, simply select the first one and press Ctrl A. The copy and paste process does not care if blank channels are selected.

2	K 🖬 🕯	B B 6	000	dh 24	8																			
	FT-60 Und	Bed1* ×																						
	Receive	Transmit Frequency	Offset Frequency	Offset	Operating Mode	Name	Show	Tone Mode	CTCSS	DCS	Skp	Shep	Geck	Tx Power	Tx Narrow	Pager Frable	Bank 1	Bank 2	Bank 3	Bank 4	Bank 5	Bank 6	Barik 7	
i	243.25000			Sepiex	Auto	SINFLE	12	None	100.0 Hz	023	Off	Au/to	13	High	13	13	13	123	12	13	13	10	13	1
	243.26250	143.26250		Snplex	Auto	SIMPLE	123	None	100.0 Hz	023	011	Au/00	123	High	E	13	1	E3	E	13	13	12	P3	
	343.27500			Simplex	Auto	SINFLE	13	None	100.0 Hz	023	Off	Au,to	123	High	13	13	13	11	11	13	13	11	11	
	343.28753	143.28750		Sinplex	Auto	SINFLE	8	None	100.0 Hz	023	Off	Auto	13	High	13	13	13	13	13	8	13	13	13	
	243.30000			Snplex	Auto	STYPLE	1	None	100.0 Hz	023	011	AURO	10	High	1	13	1		13	10	- E3	<u> </u>	10	
	343.31250			Sinples	A,40	SNPLE	13	None	\$00.0 Hz	023	011	AL.CO	12	High	13	11	13	10	11	12	10	13	11	
		143.32500		Sinplex	Auto	SIMPLE	13	None	100.0 Hz	023	off	Auto	13	High	1	13	13	1	1	13	13	1	13	
	243.33750			Seplex	Auto	SIMPLE	1	None	100.0 Hz	023	OFF	Auto	1	High	1	1	<u> </u>		1	1			1	
Ļ	\$43,39000	\$43.35000		Sinplex	Auto	SINFLE	13	None	\$00.0 Hz	023	Off	Auto	13	High	13	13	13	13	13	13	13	10	13	
Ļ	343.36250	143.36250				STARTE	-		100.0 Hz			w Auto	-	High is	-	-		-	-	1		-	-	
	143.37500	143.37500		Sepiex	Auto	SINFLE		None	100.0 Hz		OFF	Auto		High	-	1	0		-	E				
	\$43.38750	147.38750		Sinplex	Auto	SINFLE	12	None	100.0 Hz	023	off	Au,to	10	High	-		10	13		13	10	10		
	343.40000	143.40000		Sepiex	Auto	SINPLE	1	None	100.0 Hz		Off	Auto		High	-		-		1					
	143.41250			Septex	Auto	GRAND		None	100.0 Hz			Auto		High	10		10	-	-	0				
	143,43750	143.42500 143.43750		Singles Singles	Auto Auto	DOWN	N N	None	100.0 Hz		110	Auto		High	10	100		100			10			
	243.45000			Singles	Auto	CANTON	N I	None	100.0 Hz		Off	AUto		High			8		8	8			8	
	243.46250			Singlex	Auto	KHP	192	None	100.0 Hz		OFF	Auto		High	10	10	100	-	1	100	-	100	-	
	143,47500	143,47500		Singles	Ada	100140	128	None	100.0 Hg		off	Auto		High	10		1	1	1	101	10		-	
	243.48750	143.40750		Singles	Auto		1	None	100.0 Hz		off	Auto		High			100		100	10				
	243.50000	143.50000		Simplex	Auto		11	None	100.0 Hz		OFF	Auto	1	High	10	1	10	1	10	191	10	E III	m	
	\$43.51250			Sinplex	Auto			None	100.0 Hz		Off	Auto		High	-	1	10	1	1	1		-	1	
	143,52500			Sepiex	Auto		m	None	100.0 Hz		Off	ALC: N	P1	High	11	171	11	11	11	171	11	10	10	
	543.53750	143.53750		Sergiex	Auto		11	Nome	100.0 Hz		OFF	Auto	171	High	11	1	10	11	11	m	100	11	E1	
	143.55000	143.55000		Sopies	Auto		E	None	100.0 Hz		ott	Auto	P	High	E.	1	13	E I	F	E	1		F	
	143.56250	143.56250		Singles	Auto		11	None	100.010		Off	Auto	1	High	ET.	ET.	13	11	11	11	1	11	m	
	143.57500	143.57500		Sepiex	Auto		1	None	100.0 Hz		Off	ALICO	1	High	1	2	13	1	1	E	2	1	1	
	143.58750	143.58750		Singles	Auto		1	None	100.0 Hz		off	44,00	1	Hoh		1	1	1	1	1	1	-		
	143.68000	143.60000		Sinplex	Auto		13	None	100.0 Hz		Off	Auto	12	High	11	11	1	11	12	13	1	1	1	
	343.61250	143.61250		Sinclex	Auto		E	None	100.0 Hz		off	Auto	1	High	13	13	1		6	8	13	1	E	
	143.62500	143.62500		Singles	Auto		13	None	100.0 Hz		OFF	Auto	10	High	1	1	13	11	11	13	13	13		
	\$43.63753	143.63750		Sinplex	Auto		13	None	100.0 Hz		Off	Auto	13	High	11	13	13	121	10	15	100	13	11	
	343.65000	143.65000		Sinplex	Auto		13	None	100.0 Hz		off	Auto	12	High	1	1	13	1	1	13		13	1	
	243.66250	143.66250		Sepiex	Auto		1	None	100.0 Hz		OFF	AL/to		High	1	1	1		1	1	13			
	\$43.67500			Sinplex	Auto		13	None	100.0 Hz	023	Off	Au,to	13	High	13	13	13	13	1	13	13	13	13	
	143.68750	143.68750		Sepier	Auto		1	None	100.0 Hz		Off	Auto		High	1				1	1				
	\$43,70000	143.70000		Seplex	Auto		13	None	100.0 Hz		Off	Auto	13	High	13	13	13	13	13	13	1	13	1	
	143.71250	143.71250		Sinplex	Auto		1	None	100.0 Hz		off	Auto		High	1	1	12	13	1	10		13	1	
	343.72500	143.72500		Sinplex	Auto .			None	100.0 Hz		Off	Auto .		High		1	10		1	12	1	1		
	143.73750			Sinplex	Auto		13	None	100.0 Hz	023	Off	Auto	1	High	1	1	13		1	13	13	13	6	
	143.79000	143.75000		Sinplex	Auto			None	100.0 Hz		Off	AURO	-	High	- E	-			-	1	-			
	\$43.76250			Sinplex	Auto		- 0-	None	100.0112		110	Auto		High		1	- 2-	- 6-	0	1			- G-	
	343.77500			Sinplex	Auto		11	None	100.0 Hz	023	off	Auto	1	High			100	10		10	-			
	243.78750	143.78750		Singlex	Auto			None	100.0 Hz		OFF	Auto		High	-		0	- 0-	0	-				
	\$43.80000	147.80000		Sinplex	Auto	-		None	100.0 Hz		0H	AL/to		High	-		- 8-			10	-			
	343.81250	143.81250		Simplex	Auto	SINFLE	-	None	100.0 Hz		Off	Auto		High	-		-	-		1	1	1		
	143.82500			Serpiex	Auto	SINPLE	-	None	100.0 Hz		OFF	Auto	-	High	-		-				10			
	\$43.83750	143.83750 143.85000		Sinplex Sinplex	Auto Auto	SINPLE	1	None	100.0 Hz	023	011	Auto	1	High		1.1	1.1	in the second se	in the second	and and	1.1	-	- EI	

# Copy Command

From the menu at the top of the screen, use your mouse to left click on Edit. From the menu that opens, use the mouse to left click on Copy.

You can also copy by pressing Ctrl C on the keyboard.

Or while pointing at the screen of the programmer, right click and select Copy from the menu that opens.

100	Communications :	Settings Windo												20
1	Undo	Chi+2	24	8										
F	04 Carry	Chiex Chiec	set than	Operating Node	None	Show	Tane Made	CTCSS	DCS	Skip	Step	Clock. Shift	Tx Power	To Nampey
	Paste	Colley	× •	FN +			None -	10010H2 +	023	01	- 25kHz - 1		High -	
		Sound		FM		Г	None	103.0Hz	023	01	5kHz	Г	High	Г
	Simple Mode			FM		- F	None	103.0Hz		Off	5kHz	Г	High	Г
	End	Ctrit+F		FN		Г	None	100.0Hz		Off	5kHz	Г	High	Г
	FindFilent			FN		Г	None			Off	5kHz	Г	High	Г
		10		FN		Г	None			OIT	5kHz	Г	High	Г
	Goto Channel	Chil+G		FM		Г	None			01	5kHz	Г	High	Г
	Insert Channel	Shift+Ins		FN		<b>_</b>	None	100.0Hz	023	01	5kH2		High	
	Delete Channel	Shift+Del		FM		- IE	None	100.DHE	023	01	5kHz		High	. D:
	Gear Channel			FN		Г	None	100.0Hz	023	01	5kHz	Г	High	17
	Move Up	Chi+U		FN		- F	None	100.DHE	023	01	5kHz	F	High	E
	Move Down	Ctri+D		FN		Г	None	100.DHz	023	01	5kHz	Г	High	E
_	Piere comi	CONTR		FM		- F	None	100.DHz	023	01	5kHz	E	High	E
	Add Frequency Range			FM		- F	None	100.DHz	023	01	5kHz	D	High	- E
	Sort			FN		F.	None	100.DHz	023	01	5kHz	_ E	High	E
_	Undo Sort			FN		F.	None	100.0Hz	023	01	5kHz	Г	High	- C
-						- F.	_				_	F.		D
						- F				-	_	- F	_	- D
						1	_		_	_				
						1	_					1		
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-						1	-			-		-		-
1	H Memories / Limit M	Concerns and in concerns	Home				_						1	

It will appear that nothing has happened. The program in conjunction with built in commands of the operating system of the computer has copied the data. It is waiting for you to Paste it where you want it.

**Paste (Ctrl+V)** - Writes the selected data to the current position of the cursor overwriting the data from that point. The Version 3 and Version 4 programmers have the ability to copy and paste data in a single column as well as for an entire row.

Paste Complete Channels

Use the mouse to select the channel where you want the data to start. This can be in another file for the same radio or one for any radio for which you use an RT Systems Version 4 programmer.

Select the row that is the **first** into which the data is to be pasted. The Paste process will begin in that location with the first copied channel and continue in each channel after that with the rest of the channels that were copied.

			IC-91 Unit										_				
Freq	vency F	Frequency	Offset Frequency	Deection	Operating Mode	Name	Tone Mode	CTCSS	Rx CTCSS	DCS	Polarity	Skip	Step	Bank	Bank Channel	Comment	
246	.01000	146.01000	*	Simplex in	FM .		None ja	88.5Hz	88.5Hz	023	Bath N	Off 1	25 kHz				
1.94		110.0000		and a state of the			- ma					411	1744				
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From the menu at the top of the screen, use your mouse to left click on Edit. From the menu that appears, use the mouse to left click on Paste.

You can also paste by pressing Ctrl V with the mouse pointing within the selected area (i.e., just look at where the mouse pointer is on the screen. It must by within the black area on the screen of the programmer for this keystroke to have any effect.).

Or while pointing within the highlighted area, right click and select Paste from the menu that opens.

-	62. <b>P</b>	Constantions :	Seconds Wares	w Del	P										12.1	<b>D</b> '
31	8	Undo	Chi+2	24	8											
	F	Out, Sapy	Ctrl+X Ctrl+C	bet chan	Operating Mode	None	Show Name	Tane Made	CTCSS	DCS	Skip	Step	Clock Shift	Tx Power	Te Narcev	
1		Paste	ChileV	х.	FN		- E.	None	103.0Hz	023	01	25 kHz	- E	High	- E	T
2					FN		- E	None	100.0Hz	023	OIT	5 kHz	E	High	E	T
3		Simple Mode			FN		- F	None	100.0Hz	023	OIT	5 kHz		High	E	T
4	1	End	Chil+F		FN		- Г	None	100.0Hz	023	OIT	5 kHz		High	E	T
5		FindWant	13		FN		- F	None	100.0 Hz	023	01	5 kHz		High	E	T
3					FN		- F		100.0 Hz	023	01	5 kHz	F	High	E	
7		Goto Channel	Chil+G		FN		- Г	None	100.0Hz	023	01	5 kHz	- F	High	E	
3		[rsert Channel	Shift+Ins		FN		- Г	None	100.0Hz	023	01	5 kHz	F	High	- E	
3		<b>Delete Channel</b>	Shift+Cel		FN		- Г.		100.DH2	023	01	5 kHz	- F	High	- E	
Û		Gear Channel			FN		- Г.	None	100.DH2	023	01	5 kHz	F	High	D	
1		Move Up	Chil+U		FN		- Г	None	100.DH2	023	01	5kHz	- F	High	E	
2		Move Down	Chil+D		FN		- E	None	100.0Hz	023	01	5kHz	Г.	High	E	
3		PIONE COMMI	CONFR		FN		- F	None	100.0Hz	023	01	5 kHz	E .	High	E	
4		Add Frequency Range	teres .		FN		- T	None	100.0Hz	023	01	5 kHz		High	E	
5		Sort			FN		- F	None	100.DHz	023	01	5 KHz		High	E	
6		tindo Sort			FN		- E	None	100.0 Hz	023	01	5 kHz	Г	High	- E	
7	4						- E						L .		- E	
8							- F						F		- D	
9							- E.						Г.		- D	
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9	-					_										
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2	-				-		E.	_		-		-	F	-	5	4
3	-				-		1	-		-	-		F	-	- C-	4
4	-				-		1	-		-	-		F	-	_ <u>_</u>	4
5		H Memories Linit M	Annories / VFO	How			- F								. I.	

The information is pasted into the selected channels.

1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1		Receive Frequency	Transmit	Offset	Offset	Operating	Name	Tone Mod	le CTCSS	Rx CTCSS	DCS	DCS Polarity	Sib	Step	Bank	Bank Channel	Comment	
2         13.379         13.379         13.379         13.379         14.309         14.309         14.309         14.309         14.309         14.309         14.309         14.309         14.309         14.309         14.309         14.309         14.309         14.309         14.309         14.309         14.309         14.309         14.309         14.309         14.309         14.309         14.309         14.309         14.309         14.309         14.309         14.309         14.309         14.309         14.309         14.309         14.309         14.309         14.309         14.309         14.309         14.309         14.309         14.309         14.309         14.309         14.309         14.309         14.309         14.309         14.309         14.309         14.309         14.309         14.309         14.309         14.309         14.309         14.309         14.309         14.309         14.309         14.309         14.309         14.309         14.309         14.309         14.309         14.309         14.309         14.309         14.309         14.309         14.309         14.309         14.309         14.309         14.309         14.309         14.309         14.309         14.309         14.309         14.309							STAPLE	None	100.0 Hz				OF	skHz w		Charles		
9         9         9         9         9         9         9         9         9         9         9         9         9         9         9         9         9         9         9         9         9         9         9         9         9         9         9         9         9         9         9         9         9         9         9         9         9         9         9         9         9         9         9         9         9         9         9         9         9         9         9         9         9         9         9         9         9         9         9         9         9         9         9         9         9         9         9         9         9         9         9         9         9         9         9         9         9         9         9         9         9         9         9         9         9         9         9         9         9         9         9         9         9         9         9         9         9         9         9         9         9         9         9         9         9         9         9	1																	
1         1         1         1         1         1         0         1         0         1         0         1         0         1         0         1         0         1         0         1         0         1         0         1         0         1         0         1         0         1         0         1         0         1         0         1         0         1         0         1         0         1         0         1         0         1         0         1         0         1         0         1         0         1         0         1         0         1         0         1         0         1         0         1         0         1         0         1         0         1         0         1         0         1         0         1         0         1         0         1         0         1         0         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1 <th1< th="">         1         1         1</th1<>	2	343.38750	143.38750		Simplex	PM	STYPLE	None	100.0 Hz	67.0Hz		Seth N	Off	5 kHz				
5         18.4280         18.4280         18.4280         18.4280         18.4280         18.4280         18.4280         18.4280         18.4280         18.4280         18.4280         18.4280         18.4280         18.4280         18.4280         18.4280         18.4280         18.4280         18.4280         18.4280         18.4280         18.4280         18.4280         18.4280         18.4280         18.4280         18.4280         18.4280         18.4280         18.4280         18.4280         18.4280         18.4280         18.4280         18.4280         18.4280         18.4280         18.4280         18.4280         18.4280         18.4280         18.4280         18.4280         18.4280         18.4280         18.4280         18.4280         18.4280         18.4280         18.4280         18.4280         18.4280         18.4280         18.4280         18.4280         18.4280         18.4280         18.4280         18.4280         18.4280         18.4280         18.4280         18.4280         18.4280         18.4280         18.4280         18.4280         18.4280         18.4280         18.4280         18.4280         18.4280         18.4280         18.4280         18.4280         18.4280         18.4280         18.4280         18.4280         18.4280         18.4	3	243.40000	143.40000		Singlex	FM	STYPLE	None	100.0 Hz	67.0 Hz	023	Bath N	off	5 kHz				
9         10         COVIN         Nore         Nore         COVIN         Nore	4				Singlex			None	100.0 Hz			Beth N						
2         36.4000         36.4000         36.4000         36.4000         36.4000         36.4000         36.4000         36.4000         36.4000         36.4000         36.4000         36.4000         36.4000         36.4000         36.4000         36.4000         36.4000         36.4000         36.4000         36.4000         36.4000         36.4000         36.4000         36.4000         36.4000         36.4000         36.4000         36.4000         36.4000         36.4000         36.4000         36.4000         36.4000         36.4000         36.4000         36.4000         36.4000         36.4000         36.4000         36.4000         36.4000         36.4000         36.4000         36.4000         36.4000         36.4000         36.4000         36.4000         36.4000         36.4000         36.4000         36.4000         36.4000         36.4000         36.4000         36.4000         36.4000         36.4000         36.4000         36.4000         36.4000         36.4000         36.4000         36.4000         36.4000         36.4000         36.4000         36.4000         36.4000         36.4000         36.4000         36.4000         36.4000         36.4000         36.4000         36.4000         36.4000         36.4000         36.4000         36.4000         36.4	5							None										
9         14.4620         15.4620         Engine         Pin         NuP         NuP        NuP        NuP	6																	
9         14.4703         13.4703         13.4703         13.4703         13.4703         13.4703         13.4703         13.4703         13.4703         13.4703         13.4703         13.4703         13.4703         13.4703         13.4703         13.4703         13.4703         13.4703         13.4703         13.4703         13.4703         13.4703         13.4703         13.4703         13.4703         13.4703         13.4703         13.4703         13.4703         13.4703         13.4703         13.4703         13.4703         13.4703         13.4703         13.4703         13.4703         13.4703         13.4703         13.4703         13.4703         13.4703         13.4703         13.4703         13.4703         13.4703         13.4703         13.4703         13.4703         13.4703         13.4703         13.4703         13.4703         13.4703         13.4703         13.4703         13.4703         13.4703         13.4703         13.4703         13.4703         13.4703         13.4703         13.4703         13.4703         13.4703         13.4703         13.4703         13.4703         13.4703         13.4703         13.4703         13.4703         13.4703         13.4703         13.4703         13.4703         13.4703         13.4703         13.4703         13.4	7				Simplex			None										
90         94.18         91.4         91.4         91.4         91.4         91.4         91.4         91.4         91.4         91.4         91.4         91.4         91.4         91.4         91.4         91.4         91.4         91.4         91.4         91.4         91.4         91.4         91.4         91.4         91.4         91.4         91.4         91.4         91.4         91.4         91.4         91.4         91.4         91.4         91.4         91.4         91.4         91.4         91.4         91.4         91.4         91.4         91.4         91.4         91.4         91.4         91.4         91.4         91.4         91.4         91.4         91.4         91.4         91.4         91.4         91.4         91.4         91.4         91.4         91.4         91.4         91.4         91.4         91.4         91.4         91.4         91.4         91.4         91.4         91.4         91.4         91.4         91.4         91.4         91.4         91.4         91.4         91.4         91.4         91.4         91.4         91.4         91.4         91.4         91.4         91.4         91.4         91.4         91.4         91.4         91.4	8																	
11         14.1000         14.1000         16.1000         16.1000         16.1000         16.1000         16.1000         16.1000         16.1000         16.1000         16.1000         16.1000         16.1000         16.1000         16.1000         16.1000         16.1000         16.1000         16.1000         16.1000         16.1000         16.1000         16.1000         16.1000         16.1000         16.1000         16.1000         16.1000         16.1000         16.1000         16.1000         16.1000         16.1000         16.1000         16.1000         16.1000         16.1000         16.1000         16.1000         16.1000         16.1000         16.1000         16.1000         16.1000         16.1000         16.1000         16.1000         16.1000         16.1000         16.1000         16.1000         16.1000         16.1000         16.1000         16.1000         16.1000         16.1000         16.1000         16.1000         16.1000         16.1000         16.1000         16.1000         16.1000         16.1000         16.1000         16.1000         16.1000         16.1000         16.1000         16.1000         16.1000         16.1000         16.1000         16.1000         16.1000         16.1000         16.10000         16.10000         16.10000	9						1000/4D											
12         13.5129         13.5129         13.5129         13.5129         14.5129         14.5129         14.5129         14.5129         14.5129         14.5129         14.5129         14.5129         14.5129         14.5129         14.5129         14.5129         14.5129         14.5129         14.5129         14.5129         14.5129         14.5129         14.5129         14.5129         14.5129         14.5129         14.5129         14.5129         14.5129         14.5129         14.5129         14.5129         14.5129         14.5129         14.5129         14.5129         14.5129         14.5129         14.5129         14.5129         14.5129         14.5129         14.5129         14.5129         14.5129         14.5129         14.5129         14.5129         14.5129         14.5129         14.5129         14.5129         14.5129         14.5129         14.5129         14.5129         14.5129         14.5129         14.5129         14.5129         14.5129         14.5129         14.5129         14.5129         14.5129         14.5129         14.5129         14.5129         14.5129         14.5129         14.5129         14.5129         14.5129         14.5129         14.5129         14.5129         14.5129         14.5129         15.5129         14.5129         14.																		
31         31.8.589         10.5.589         10.5589         10.5589         10.5589         10.5589         10.5589         10.5589         10.5589         10.5589         10.5589         10.5589         10.5589         10.5589         10.5589         10.5589         10.5589         10.5589         10.5589         10.5589         10.5589         10.5589         10.5589         10.5589         10.5589         10.5589         10.5589         10.5589         10.5589         10.5589         10.5589         10.5589         10.5589         10.5589         10.5589         10.5589         10.5589         10.5589         10.5589         10.5589         10.5589         10.5589         10.5589         10.5589         10.5589         10.5589         10.5589         10.5589         10.5589         10.5589         10.5589         10.5589         10.5589         10.5589         10.5589         10.5589         10.5589         10.5589         10.5589         10.5589         10.5589         10.5589         10.5589         10.5589         10.5589         10.5589         10.5589         10.5589         10.5589         10.5589         10.5589         10.5589         10.5589         10.5589         10.5589         10.5589         10.5589         10.5589 <th10.5589< th="">         10.5589         10</th10.5589<>	11																	
H     HAS378	12						-											
39         31         31         31         31         31         31         31         31         31         31         31         31         31         31         31         31         31         31         31         31         31         31         31         31         31         31         31         31         31         31         31         31         31         31         31         31         31         31         31         31         31         31         31         31         31         31         31         31         31         31         31         31         31         31         31         31         31         31         31         31         31         31         31         31         31         31         31         31         31         31         31         31         31         31         31         31         31         31         31         31         31         31         31         31         31         31         31         31         31         31         31         31         31         31         31         31         31         31         31         31         31<																		3
9     94     94     94     Nore     100 <sup>+</sup> 97 <sup>-</sup> 91 <sup>-</sup> <td></td>																		
12     13.5730     13.5730     13.5730     13.5730     13.5730     13.5730     13.5730     13.5730     13.5730     13.5730     13.5730     13.5730     13.5730     13.5730     13.5730     13.5730     13.5730     13.5730     13.5730     13.5730     13.5730     13.5730     13.5730     13.5730     13.5730     13.5730     13.5730     13.5730     13.5730     13.5730     13.5730     13.5730     13.5730     13.5730     13.5730     13.5730     13.5730     13.5730     13.5730     13.5730     13.5730     13.5730     13.5730     13.5730     13.5730     13.5730     13.5730     13.5730     13.5730     13.5730     13.5730     13.5730     13.5730     13.5730     13.5730     13.5730     13.5730     13.5730     13.5730     13.5730     13.5730     13.5730     13.5730     13.5730     13.5730     13.5730     13.5730     13.5730     13.5730     13.5730     13.5730     13.5730     13.5730     13.5730     13.5730     13.5730     13.5730     13.5730     13.5730     13.5730     13.5730     13.5730     13.5730     13.5730     13.5730     13.5730     13.5730     13.5730     13.5730     13.5730     13.5730     13.5730     13.5730     13.5730     13.5730     13.5730     <							-											
B         14.5720         15.5720         15.5720         15.5720         15.5720         15.5720         15.5720         15.5720         15.5720         15.5720         15.5720         15.5720         15.5720         15.5720         15.5720         15.5720         15.5720         15.5720         15.5720         15.5720         15.5720         15.5720         15.5720         15.5720         15.5720         15.5720         15.5720         15.5720         15.5720         15.5720         15.5720         15.5720         15.5720         15.5720         15.5720         15.5720         15.5720         15.5720         15.5720         15.5720         15.5720         15.5720         15.5720         15.5720         15.5720         15.5720         15.5720         15.5720         15.5720         15.5720         15.5720         15.5720         15.5720         15.5720         15.5720         15.5720         15.5720         15.5720         15.5720         15.5720         15.5720         15.5720         15.5720         15.5720         15.5720         15.5720         15.5720         15.5720         15.5720         15.5720         15.5720         15.5720         15.5720         15.5720         15.5720         15.5720         15.5720         15.5720         15.5720         15.5720         15.5																		
9         9         10         000000000000000000000000000000000000							-											
9         93         93         93         93         93         93         93         93         93         93         93         93         93         93         93         93         93         93         93         93         93         93         93         93         93         93         93         93         93         93         93         93         93         93         93         93         93         93         93         93         93         93         93         93         93         93         93         93         93         93         93         93         93         93         93         93         93         93         93         93         93         93         93         93         93         93         93         93         93         93         93         93         93         93         93         93         93         93         93         93         93         93         93         93         93         93         93         93         93         93         93         93         93         93         93         93         93         93         93         93         93 </td <td></td>																		
12         14.4200         14.4200         14.4200         14.4200         14.4200         14.4200         14.4200         14.4200         14.4200         14.4200         14.4200         14.4200         14.4200         14.4200         14.4200         14.4200         14.4200         14.4200         14.4200         14.4200         14.4200         14.4200         14.4200         14.4200         14.4200         14.4200         14.4200         14.4200         14.4200         14.4200         14.4200         14.4200         14.4200         14.4200         14.4200         14.4200         14.4200         14.4200         14.4200         14.4200         14.4200         14.4200         14.4200         14.4200         14.4200         14.4200         14.4200         14.4200         14.4200         14.4200         14.4200         14.4200         14.4200         14.4200         14.4200         14.4200         14.4200         14.4200         14.4200         14.4200         14.4200         14.4200         14.4200         14.4200         14.4200         14.4200         14.4200         14.4200         14.4200         14.4200         14.4200         14.4200         14.4200         14.4200         14.4200         14.4200         14.4200         14.4200         14.4200         14.4200         14.																		
20         MAX2700         MAX																		
20         Statistic         Service         PH         Hore         UnD-Price         Alta         Statistic         Service           25         Alta																		
H         HA44290         HA46290         HA46							-											
20         MAXP00																		
90         91         91         91         91         91         91         91         91         91         91         91         91         91         91         91         91         91         91         91         91         91         91         91         91         91         91         91         91         91         91         91         91         91         91         91         91         91         91         91         91         91         91         91         91         91         91         91         91         91         91         91         91         91         91         91         91         91         91         91         91         91         91         91         91         91         91         91         91         91         91         91         91         91         91         91         91         91         91         91         91         91         91         91         91         91         91         91         91         91         91         91         91         91         91         91         91         91         91         91         91         91<																		
27         MAX000         MAX0000         MAX0000         MAX0000         MAX0000         MAX0000         MAX000         MAX0000																		
30         MA7.200         MA7							-											
9         94.7200         14.7200         14.7200         14.7200         14.7200         14.7200         14.7200         14.7200         14.7200         14.7200         14.7200         14.7200         14.7200         14.7200         14.7200         14.7200         14.7200         14.7200         14.7200         14.7200         14.7200         14.7200         14.7200         14.7200         14.7200         14.7200         14.7200         14.7200         14.7200         14.7200         14.7200         14.7200         14.7200         14.7200         14.7200         14.7200         14.7200         14.7200         14.7200         14.7200         14.7200         14.7200         14.7200         14.7200         14.7200         14.7200         14.7200         14.7200         14.7200         14.7200         14.7200         14.7200         14.7200         14.7200         14.7200         14.7200         14.7200         14.7200         14.7200         14.7200         14.7200         14.7200         14.7200         14.7200         14.7200         14.7200         14.7200         14.7200         14.7200         14.7200         14.7200         14.7200         14.7200         14.7200         14.7200         14.7200         14.7200         14.7200         14.7200         14.7200         14.7																		
90         93.73793         93.73793         93.73793         93.73793         93.73793         93.73793         93.73793         93.73793         93.73793         93.73793         93.73793         93.73793         93.73793         93.73793         93.73793         93.73793         93.73793         93.73793         93.73793         93.73793         93.73793         93.73793         93.73793         93.73793         93.73793         93.73793         93.73793         93.73793         93.73793         93.73793         93.73793         93.73793         93.73793         93.73793         93.73793         93.73793         93.73793         93.73793         93.73793         93.73793         93.73793         93.73793         93.73793         93.73793         93.73793         93.73793         93.73793         93.73793         93.73793         93.73793         93.73793         93.73793         93.73793         93.73793         93.73793         93.73793         93.73793         93.73793         93.73793         93.73793         93.73793         93.73793         93.73793         93.73793         93.73793         93.73793         93.73793         93.73793         93.73793         93.73793         93.73793         93.73793         93.73793         93.73793         93.73793         93.7374         93.73794         93																		
ji j																		
12         147.17201         147.17201         147.17201         147.17201         147.17201         147.17201         147.17201         147.17201         147.17201         147.17201         147.17201         147.17201         147.17201         147.17201         147.17201         147.17201         147.17201         147.17201         147.17201         147.17201         147.17201         147.17201         147.17201         147.17201         147.17201         147.17201         147.17201         147.17201         147.17201         147.17201         147.17201         147.17201         147.17201         147.17201         147.17201         147.17201         147.17201         147.17201         147.17201         147.17201         147.17201         147.17201         147.17201         147.17201         147.17201         147.17201         147.17201         147.17201         147.17201         147.17201         147.17201         147.17201         147.17201         147.17201         147.17201         147.17201         147.17201         147.17201         147.17201         147.17201         147.17201         147.17201         147.17201         147.17201         147.17201         147.17201         147.17201         147.17201         147.17201         147.17201         147.17201         147.17201         147.17201         147.17201         147.1																		
30         30.7590         10.7590         10.7590         10.7590         10.7590         10.7590         10.7590         10.7590         10.7590         10.7590         10.7590         10.7590         10.7590         10.7590         10.7590         10.7590         10.7590         10.7590         10.7590         10.7590         10.7590         10.7590         10.7590         10.7590         10.7590         10.7590         10.7590         10.7590         10.7590         10.7590         10.7590         10.7590         10.7590         10.7590         10.7590         10.7590         10.7590         10.7590         10.7590         10.7590         10.7590         10.7590         10.7590         10.7590         10.7590         10.7590         10.7590         10.7590         10.7590         10.7590         10.7590         10.7590         10.7590         10.7590         10.7590         10.7590         10.7590         10.7590         10.7590         10.7590         10.7590         10.7590         10.7590         10.7590         10.7590         10.7590         10.7590         10.7590         10.7590         10.7590         10.7590         10.7590         10.7590         10.7590         10.7590         10.7590         10.7590         10.7590         10.7590         10.7590         10.																		
H         HAT.7979         HA																		3
35     34.0000     34.0000     34.0000     34.0000     34.0000     34.0000     34.0000     34.0000     34.0000     34.0000     34.0000     34.0000     34.0000     34.0000     34.0000     34.0000     34.0000     34.0000     34.0000     34.0000     34.0000     34.0000     34.0000     34.0000     34.0000     34.0000     34.0000     34.0000     34.0000     34.0000     34.0000     34.0000     34.0000     34.0000     34.0000     34.0000     34.0000     34.0000     34.0000     34.0000     34.0000     34.0000     34.0000     34.0000     34.0000     34.0000     34.0000     34.0000     34.0000     34.0000     34.0000     34.0000     34.0000     34.0000     34.0000     34.0000     34.0000     34.0000     34.0000     34.0000     34.0000     34.0000     34.0000     34.0000     34.0000     34.0000     34.0000     34.0000     34.0000     34.0000     34.0000     34.0000     34.0000     34.0000     34.0000     34.0000     34.0000     34.0000     34.0000     34.0000     34.0000     34.0000     34.0000     34.0000     34.0000     34.0000     34.0000     34.0000     34.0000     34.0000     34.0000     34.0000     34.0000     34.0000     34.0000     34.0000     <																		
58         JULX 200         Service         PM         SMP4E         Nore         UDO-112         Bin H1         Off         Servic           39         JULX 200         Service         PM         SMP4E         Nore         UDO-112													Off					
30         MAX3790         HAX3790         HAX370         HAX370 <td>36</td> <td>143.81250</td> <td>143.81250</td> <td></td> <td>Simplex</td> <td>FM</td> <td>50YPLE</td> <td>None</td> <td>100.0 Hz</td> <td>67.0 Hz</td> <td></td> <td>Bath N</td> <td>Off</td> <td>5 kHz</td> <td></td> <td></td> <td></td> <td></td>	36	143.81250	143.81250		Simplex	FM	50YPLE	None	100.0 Hz	67.0 Hz		Bath N	Off	5 kHz				
93         943.8500         943.8500         943.8500         943.8500         943.8500         943.8500         943.8500         943.8500         943.8500         943.8500         943.8500         943.8500         943.8500         943.8500         943.8500         943.8500         943.8500         943.8500         943.8500         943.8500         943.8500         943.8500         943.8500         943.8500         943.8500         943.8500         943.8500         943.8500         943.8500         943.8500         943.8500         943.8500         943.8500         943.8500         943.8500         943.8500         943.8500         943.8500         943.8500         943.8500         943.8500         943.8500         943.8500         943.8500         943.8500         943.8500         943.8500         943.8500         943.8500         943.8500         943.8500         943.8500         943.8500         943.8500         943.8500         943.8500         943.8500         943.8500         943.8500         943.8500         943.8500         943.8500         943.8500         943.8500         943.8500         943.8500         943.8500         943.8500         943.8500         943.8500         943.8500         943.8500         943.8500         943.8500         943.8500         943.8500         943.8500         9	37	243.83500	143.82500			FM	STYPLE	None	100.0 Hz	67.0 Hz		Bath N		5 kHz				
90         34343303         103.68239         50.68230         30.482301         30.482301         30.482301         30.482301         30.482301         30.482301         30.482301         30.482301         30.482301         30.482301         30.482301         30.482301         30.482301         30.482301         30.482301         30.482301         30.482301         30.482301         30.482301         30.482301         30.482301         30.482301         30.482301         30.482301         30.482301         30.482301         30.482301         30.482301         30.482301         30.482301         30.482301         30.482301         30.482301         30.482301         30.482301         30.482301         30.482301         30.482301         30.482301         30.482301         30.482301         30.482301         30.482301         30.482301         30.482301         30.482301         30.482301         30.482301         30.482301         30.482301         30.482301         30.482301         30.482301         30.482301         30.482301         30.482301         30.482301         30.482301         30.482301         30.482301         30.482301         30.482301         30.482301         30.482301         30.482301         30.482301         30.482301         30.482301         30.482301         30.482301         30.482301         30.4823	38	\$43.83750	143.83750		Simplex	PM .	504PL8	None	100.0 Hz	67.0 Hz		Soth N	Off	5 kttp				
34         J41.37503         Margine         PM         S0P4U         Alore         ID3.01/2         G23         Ibih N         Off         34/9           40         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4 </td <td>29</td> <td>243.85000</td> <td>143.85000</td> <td></td> <td>Simplex</td> <td>FM</td> <td>SOVPLE</td> <td>None</td> <td>100.0 Hz</td> <td>67.0 Hz</td> <td>023</td> <td>Sath N</td> <td></td> <td>5 kHz</td> <td></td> <td></td> <td></td> <td></td>	29	243.85000	143.85000		Simplex	FM	SOVPLE	None	100.0 Hz	67.0 Hz	023	Sath N		5 kHz				
	40																	
		\$43.87500	143.87500		Singlex	FM	STAFFE	None	100.0 Hz	67.0 Hz	023	Both N	Off	\$100				
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You can make this process even easier by splitting the screen into two parts. Select Window New Vertical Tab Group for this result.

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-		Transmit Offset	Offset	Operating		Shew	1		-	-			Receive	Transmit	Offset	Offset	Operation				Re	1	OCS	-
	Frequency	Frequency Frequen	cy Direction	Mode	Name	Name	Tone Mode	CTCSS	DCS	Skp	Step		Frequency	Frequency	Frequency	Direction	Mode	Nome	Tone Mode	CTCSS	CTCSS	OCS	Polarity	Skip
	143.25000		w Smplex		SOMPLE	10		100.0 Hz		w)Off	w Auto	0	143.36250			Seplex a		SIMPLE		100.0 Hz				• Off
		143.26250	Sinplex	4.00	STYPLE			100.0 Hz	023	011	Au/10	1	143.37500	143.37900		Simplex	FM	SIMPLE	None	\$00.0 Hz	67/0Hz	023	Both N	017
	343.27500 343.28750	143.27500	Sinplex	Auto	504PLE	- 8		100.0 Hz	023	Off	Au/to Au/to	2	143.38750 143.40000			Simplex Simplex	PM PM	STAPLE	None	300.0 Hz	67,0 Hz		Both N Both N	0#
		143.20000	Singlex	Auto	574918			100.0 Hz	023	Off	AUTO	1	143.40000			Smplex	FM	STATE	None	100.0 Hz	67,0 Hz		Both N	off
		143.31250	Sinplex	Ato	STYPE	11		100.019	023	Off	Auto		143.42500			Simplex	PM.	GRAND	None	100.01%	67.0 Hz		Both N	Off
		143.32900	Singlex	Auto	STIFLE	PH-		100.0 Hz	023	Off	Auto	i i	143, 43750			Smplex	PM.	DOWN	None	100.0 Hz	67.0 Hz	023	Doth N	Off
		143.33750	Singlex	Auto	57915	10		100.0 Hz	023	OFF	Auto	7	143.45000			Smplex	<b>FM</b>	CANYON	None	100.0 Ptz	67.0 Hz		Both N	OF
		143.35000	Singlex	ALIO	SOVPLE	17		100.0 Hz	023	Off	Auto		143.46250			Simplex	FM	KU 40P	None	100.0 Hz	67.0 Hz	023	Both N	Off
	343.36250	143.36250	Sinplex	Auto	STYPLE	11	None	100.0 Hz	023	off	Auto	9	143.47500	143.47500		Simplex	FM	00040	None	300.0 Hz	67.0 Hz	023	Both N	off
	243.37900	143.37500	Simplex	Auto	STIFLE	17		100.0 Hz	023	OFF	Auto	10	143.48750			Simplex	FM		None	100.0 Hz	67.0 Hz	023	Both N	Off
		143.38750	Sinplex	Auto	SOVPLE	8		100.0 Hz	023	ott	Au/00	11	143.50000			Simplex	FM		None	\$30.0 Hz	67.0 Hz	023	Both N	0#
		143.40000	Sinplex	Auto	STIPLE	12		100.0 Hz	023	Off	Auto	12	143.51250			Smplex	PM		None	100.0 Hz	67.0 Hz	023	Both N	off
		143.41250	Sinplex	Auto	SOMPLE	1		100.0 Hz	023	Off	Auto	13	143.52500			Simplex	FM		None	100.0 Hz	67.0 Hz	023	Both N	Off
		143.42500	Sinplex	Auto	GRAND	N.		100.0 Hz	023	Off	AU/10	14	143.53750			Smplex	FM		None	100.0 Hz	67,0 Hz	023	Both N	off
		143.43750	Snplex	Auto	OOMN	8		100.0 Hz	023	Off	Auto	15	143.55000			Smplex	PM .	-	None	100.0 Hz	67.0 Hz	023	Both N	Off
		143.45000	Sinplex	Auto	CANTON	1		100.0 Hz	023	Off	Auto	16	143.56250			Smplex	FM		None	100.0 Hz	67.0 Hz	023	Both N	off
		143.46250	Singlex	Auto	KUHIP	M		100-0 Hg	023	OFF	AUTO	17	143.57500			Smplex	FM	_	none	100.0142	67,0112	023	Both N	Off
		143.47900	Sinplex	Auto	1000400	(M)		100.0 Hz	023	off	Auto	10	143.58750			Simplex	FM FM		None	100.0 Hz	67.0 Hr	023	Doth N	off
		143.40750 143.50000	Sinplex	Auto				100.0 Hz	023	Off	Auto	19	143.60000			Smplex	FM	_	None	100.0 Hz	67.0 Hz	023	Both N Both N	Off
		143.51250	Singlex	Auto Auto		- 8-		100.0 Hz 100.0 Hz	023	Off	Au/to Au/to	20	143.61250 143.62500			Simplex Simplex	EM .		None	100.0 Hz	67.0 Hz	023	Both N	Off
	143.52500		Serplex	Auto		10		100.0 Hz	023	Off	Auto	22	143.63750			Smplex	PM .	_	None	100.0 Hz	67.0 Hz	023	Both N	off
		143.53750	Singlex	4.00				100.0 Hz	023	Off	Au/10	23	143,65000			Smplex	FM		None	100.0 Hz	67.0 Hz	023	Both N	01
		143.55000	Sinplex	Auto		100		100.0 Hz		Off	4/10	24	143.66250			Smplex	FM		None	100.0 Hz	67.0 Hz		Both N	off
		143.56250	Simplex	Auto		121		100.0 Hz	023	Off	Auto	25	143.67500			Simplex	EM		None	100.0 Hz	67.0 Hr		Both N	Off
		143.57900	Sinplex	A./0		E		100.0 Hz	023	Off	Auto	25	143.68750			Smplex	FM		None	100.0 Hz	67,0 Hz		Both N	off
		143.58750	Singlex	A.fp		m	None	100.0 Hg		Off	4,10	27	143,70000			Smplex	FM		None	100.0 Hg	67.0 Hz	023	Both N	off
		143.60000	Sinplex	Auto		PI		100.0 Hz	023	Off	Auto	28	143,71250			Simplex	PM.		None	300.0 Hz	67.0 Hr		Both N	off
		143.61250	Singlex	Auto		E		100.0 Hz	023	Off	Auto	3	143.72500			Smplex	PM .		Tione	100.0 Ht	67.0 Hz	023	Doth N	Off
	243.62500	143.62500	Singlex	A.40		11	None	100.0 Hg	023	Off	Au/10	30	143.73750	143.73750		Smplex	FM		None	\$90.0 Hz	67.0 Hz	023	Both N	Off
	343.63753	143.63750	Sinplex	Auto		10	None	100.0 Hz	023	Off	Auto	31	143.75000	\$43,75000		Simplex	FM		None	100.0Hz	67.0 Hz	023	Doth N	off
	243.65000	143.65000	Simplex	Auto		12	None	100.0 Hz	023	Off	Auto	32	143.76250	143.76250		Smplex	PM		None	100.0 Hz	67.0 Hz	023	Both N	off
	\$43.66250	143.66250	Sinplex	Auto		12	None	100.0 Hz	023	Off	Au/10	- 33	143.77900	143.77900		Simplex	FM		None	\$300.0 Hz	67.0 Hz	023	Both N	Off
	343.67503	143.67500	Sinplex	Auto		12	None	100.0 Hz	023	Off	Auto	34	143.79750	143.79750		Smplex	FM		None	300.0 Hz	67.0Hz	023	Both N	off
	243.68750	143.68750	Simplex	Auto		1	None	100.0 Hz	023	Off	Auto	35	143.80000			Smplex	FM		None	100.0 Hz	67.0 Hz	023	Both N	Off
		143.70000	Sinplex	AL10		13		100.0 Hz	023	011	Au/10	36	143.81250			Simplex	FM	SIMPLE	None	\$30.0 Hz	67.0 Hz	023	Both N	0#
		143.71250	Sinplex	Auto	-	1		100.0 Hz	023	Off	AUTO	37	143.82500			Smplex	PM	STAFLE	None	100.014z	67.0Hz	023	Soth N	Off
		143.72500	Sinplex	Auto	_	10		100.0 Hz	023	011	Auto	38	143.83750			Smplex	FM	SIMPLE	None	100.0 Hz	67.0 Hz	023	Both N	017
		143.73750	Sinplex	AUTO		10		100.0 Hz	023	Off	AUTO	37	1+3.85000			Smplex	FM	STAPLE	None	100.0 Hz	67/0Hz	023	Both N	Off
1		143.75000	Singlex	Auto .	-	8		yrt 0.001	023	Off	Auto	40	143.86250			Smplex	<b>FM</b>	STAPLE	None	100.0 Hz	67.0 Hz	023	Both N	Off
	343.76253		Sinplex	Auto				100.0 Hz	023	Off	Auto	41	143.87500	143.87900		Smplex	PM	STAFIE	None	100.0 Ht	67.0 Hz	023	Both N	off
		143.77500 143.78750	Singlex Singlex	Auto	-	121		100.0 Hz 100.0 Hz	023	Off	Auto	42					-	-			-	-	-	-
		143.80000	Sinplex	Auto	-	10		100.0 Hz	023	off	Auto	44					-	-	-		-	-	-	-
		143.81250	Singlex	Auto	50141.6	11		100.0 Hz	023	OFF	Auto	45					-	-	-		-	-	-	
		143.82900	Sinplex	Auto	SUPPLE	H		100.0 Hz	023	Off	AUTO	4					-	-	-	-	-		-	-
		143.83750	Sinplex	Auto	STYLE	1 H		100.0 Hr	023	Off	Auto	47						-	-			-	-	-
		143.85000	Seplex	Auto	STATE	111		100.0 Hz		Off	Auto	48					-			-	-	-		
		143.86250	Singlex	4.40	STYPLE	PI		100.0 Hz	023	Off	4/10	-77					-					-		-
		143.87500	Sinplex	Auto	504PLE	111		100.0 Htr	023	Off	Auto	50												
		143.88750	Sinplex	Auto	STIFLE	E		100.0 Hz	023	Off	Auto	51												
	143.90000		Singlex	Auto		10		100.0 Hz		OFF	AU10	52												

Copying details from one cell to change many rows at once.

• **Column editing:** This editing allows you to change the data in the same column of several rows at once. It works a little differently for columns with text (including those into which you enter text and those that you select text from a list) and check box fields. Each of these scenarios is presented here in an example.

<u>Text Cell Editing</u> - To change Tone Mode to Tone for several channels.

Select the Tone Mode field of the first of the channels to be changed.

Make the change by pulling the drop-down and selecting Tone from the list.

1	Copy and	Paste* ×						_														_		
	Receive Frequency	Frequency		Operating Mode	Name	Shew Name	Tone Mode		DCS	Skp	Step	Cleak Shift	Tx Power	Тк Narrow	Pager Enable	Bank 1	Bank 2	Bark 3	Bank 4	Bank 5	Sank 6	Bank 7	Bank 8	Ber
1	343.25000		Simplex a		STAPLE	13		100.0 Hz w			w chuk w	13	Hgh 💌	1	1	1	1	1	1	13	17	1	1	E
4	143.26350	143.26250	Sinplex	Auto Auto	SIMPLE		None a		023	off	AU/00	- 63	Hgh								10			
2	143.27508	143.27500 143.28750	Singlex	Auto	STYPLE	10	TSd H			Off	AU10	- 22	High		- 10	10	- 11		1	10	10	- 21-	1	-
	143.30000	143.30000	Singlex	Auto	STYPLE	11	Rev CTC:			Off	AU/00	- 14	Hdh	- 14	11	- H	10	- 14 -	11	- M	10	10	10	-
6	143.31258	143.31250	Singles	Alto	SIMPLE	H				orr	Auto	11	High	11	H	11	11	10	11	- M	11	11	10	
2	343.32500		Singlex	Auto	STIFLE	P			023	Off	Auto	10	High	- 11	- M	- PI	10	1	Pl	1	1	10	1	
8	243.33758	143.33750	Singlex	ALTO	537471.0	11				OFF	Auto	11	High	1	11	11	P1	11	171	Pl	Pl	171	Pl	
9	\$43,35000	143.35000	Singles	Auto	SIMPLE	171	Nome	100.0 Hz		Off	Auto	121	High	11	121	17	13	1	17	121	11	11	12	
0	343.36350	143.36258	Sinplex	Auto	STIPLE	11	None	100.0 Hz		Off	Auto	12	High		11	10	1		17	11	1	10	1	
1	243.37500	143.37500	Simplex	Auto	STYPLE	171	None	100.0 Hz		OFF	Auto	171	High	17	11	171	17	17	17	171	173	191	17	
2	143.38750	143.38750	Sinplex	ALCO	SIMPLE	123	None	100.0 Hz	023	Off	AL/00	123	High	13	12	12	13	10	13	13	23	13	1.123	
3	343.40000		Sinplex	Auto	STYPLE	13	None			Off	AL/10	12	High	11	12	13	12	10	10	13	23	10	10	
4	143.41250	143.41250	Singlex	Auto	SIMPLE	1 13				Off	Auto	- 83	High	- 13	13	1.12	13	13	13	13	13	- 13	1.13	
5	143.42500	143.42500	Singlex	Auto	GRAND	1				off	Ai/30	123	High	12	- 13	13	13	13	13	13	13	13	1.13	
6	143.43758	143.43750	Sinplex	Auto .	OOMN	1	None			Off	Au/to	13	High	1	13	13	13	10	13	13	13	10	10	
7	243.45000	143.45000	Sinplex	Auto	CANTON	1				Off	Auto	13	High	10	13	13	13	10	12	13	13	10	1	
3	243.46250	143.46250	Singlex	Auto	KUHIP	8				Off	AU/10	- 13	High		- 13				10	13			E	
9		143.47500	Sinplex	Auto	100040	1			023	Off	Auto	- 13	High	- 11	- 13 -		10		11	13	13		10	
0	242.48750		Sinplex	Auto					023	Off	Auto	13	High				13			11	1	13		
1	243.50000	143.50000	Singlex	Auto		13			023	Off	AJ10		High		1	0			1	E	13			
2	\$43.51250	143.51250	Sinplex	Auto		13			023	Off	Auto	13	High		- 13 -	10	13		13	13	13	- 13	13	
3	243.52500	143.52500	Singlex	Auto	_	13				Off	Auto	- 13	High	-		10			1	1	13			
4	243.53750	143.53750	Sinplex	A.10		10			023	Off	AL/10	- 13	Hgh	- 13	0	0	13		0	13	13	- 0	10	
۶.	143.55000	143.55000	Sinplex	Auto		10				off	4,/10	13	Hgh		11	11	11			11	13	- 13 -	1	
6	143.56253	143.56250	Sinplex	Auto						Off	Auto		High							1	10			
7	143.57500	143.57500	Sinplex	Auto					023	off	Auto	- 11	Hgh							13	10			
8	143.58758	143.58758 143.60008	Singlex	Auto						Off	AU/10 AU/10	-8-	High									- 53 -	- 8-	
0	243.61250	143.61250	Sinplex	Auto						Off	AU10 AU10	-12-	High										- 51	
11	143.61500	143.62500	Singlex	A.10		100				Off	A./0	- 14	High		111	101		101	100	121	12	100	100	-
2	143.62750	143.63750	Singles	Auto		- 14				Off	Auto	-8-	Hah			- 8-				- 11 -		- 21 -	- 8-	-
3	243.65000	143.65000	Singlex	Auto					023	Off	Auto	- 12	High				100		10	10	10	100		
4	543.66250	143.66250	Septex	A.10		10				Off	A-00	- 10	Hidh	1	11	1	12	10	10	11	12	10	1	
\$	143.67500	143.67500	Singley	Auto		- 24	None			Off	A/10	-12-	High		- 21	- 8-	- 10-		- 24	- 14	8	- 24 -	- 24 -	
5	243.68750	143.68750	Singles	Auto		171				OFF	Auto	10	High	11	171	171	171	10	171	171	173	171	171	
2	243.70000	143.70000	Singlex	4.00		P				off	A./20	10	Hgh	1	PI	- M	PI	1	E E	m	E	10	1	
8	143.71250	143.71250	Sinplex	Auto		m				Off	Au/10	10	Hgh	11	P1	ET.	E I	10	PI	PI	E .	171	11	
5	143.72500	143,72500	Singlex	Auto		11				Off	Auto	121	Hgh	1	P	Pl	10	1	11	121	12	10	10	
5	243.73750	143.73750	Singlex	A.10		E				Off	AU10	17	Hgh	10	E	E	17	1	E	E1	12	17	1	
1	143.75000	143.75000	Singlex	Auto		P1				orr	A/10	175	High	11	PI	11	10	E.	11	17	17	111	11	
2	143.76250	143.76250	Sinplex	Auto		E				off	Auto	13	High	E	E	6	6	E	E	1	6	1	E	
3	243.77500	143.77500	Singlex	Auto		17	None	100.0 Hz		Off	Auto	13	High	1	11	1	1	1	17	17	1	10	1	
4	\$43.78750	143.78750	Sinplex	Auto		10			023	Off	Au/to	13	High	12	13	13	13	10	11	13	13	13	10	
5	343.00000	143.00000	Sinplex	Auto		1	None	100.0 Hz	023	off	Auto	12	High		1	10	10	1	1	1	10	10	1	
5	243.81250	143.81250	Simplex	Auto	STIFLE	171	None	100.0 Hz		Off	Auto	171	High	11	11	173	10	1	17	11	10	17	171	
7	143.82500	143.82500	Sinplex	ALCO	SIMPLE	E3	None	100.0 Hz	023	Off	Au/10	12	High	13	- 63	13	13	13	12	13	12	13	10	
5	143.83750	143.83750	Sinplex	Auto	STIPLE	11	None			Off	Auto	13	High	11	11	12	17	1	11	13	13	1	11	
2	143.85000	143.85000	Sinplex	Auto	STIPLE	1.13			023	011	Auto	- 123	High	12	13	123	- 83	12	1.10	13	13	- 13	1.13	
2	143.86250	143.86250	Sinplex	Auto	STYPLE	E3	None		023	Off	Au/10	123	Hgh	13	E	E3	123	12	E3	E3	13	13	13	
1	143.87500	143.87500	Singlex	Auto	SPIPLE	13				Off	Auto	12	High	11	13	12	13	11	11	13	13	13	11	
2	143.88750		Sinplex	Auto	STIFLE	- 6			023	Off	Auto	12	High	1	E	1	6	1	1	1	13	13	1	
3	143.90000	143.90000	Singlex	Auto		10	None	100.0 Hz		OFF	AURO	10	19gh	10	10	10	123	10	10	10	13	10	10	

Once the selection is made, the focus will move to the next field. Click back into the Tone Mode field that displays the correct value. When you move back into the field you can copy the information if the field is highlighted with a ring around its border or if the text within is shaded (indicating that it is selected).

Press Ctrl + C, select Edit | Copy from the menu at the top of the screen, or right click and select Copy from the menu that appears. (Just as with row copying in the first example.)

Select the first cell to be changed by pressing Down arrow until that cell is highlighted (the cell will be in the same column so using the Down Arrow key will easily move you to another nearby cell). If you need to move quite a way in the file, move to the first cell to be changed and click the mouse to select that cell.

14	Copy and	Paste* ×																						
	Receive Frequency	Transmit Frequency	Offset Offset Frequency Director	Operating Mode	Name	Shevr Name	Tone Mode	CTCSS	DCS	Skp	Step	Clerk Shift	Tx Power	Tx Narrow	Pager Erwible	Bank 1	Bank 2	Bank 3	Bank 4	Bank 5	Sank 6	Barik 7	Barik 8	
	343.25000		Simplex	Auto	STYPLE	23	Tone	100.0 Hz	023	Off	Auto	13	High	1	13	13	13		10	13	12	1	1	
	143.26250		- Sinplex		- SIMPLE	10	None 👻	300.0 Hz 🖵			- 4/30 -	13	Hgh 🖵		13	10	13		- 6	E	23		- 63	
4	343.27508	143.27500	Sinplex	Auto	SPIPLE	11	None			Off	AL/10	- 13	High		1	11				1	- 13			
4	143.28750		Simplex	Auto	SOVPLE	1	None		023	Off	Auto	- 13	High		13	10	13			13	13			
4	143.30000		Sinplex	Auto	STYPLE		None		023	Off	AUTO	- 13	Hgh			- 8-				- 13	- 13	- 12	- 53	
	243.31258 243.32508	143.31250 143.32500	Singlex	Auto Auto	STIPLE	- 6-	None		023	Off	Auto Auto	-8-	High High	-8-	-8-	- 8-	- 8-	- 8-		- 8-	- 8-	-8-	-8-	
-	243.33750	143.32500	Singlex	Auto	57915		None			Off	Auto	- 12	High			100		- 14 -					- 14	
-	543.35000	143.33750	Sinplex	Auto	SIMPLE		None			Off	Auto	- 12	High		121	100	12		10	121	10	10	121	+
	343.36250	143.36250	Sinplex	Auto	STIPLE	11	None			off	Auto	-14-	High	- 14	1	- 14 -	- 14 -	- 14 -	- 14	- 14 -	- 11	- 24 -	- 24 -	
٠	243.37500	143.37500	Singley	A.to	STALE	11	None			Off	Auto	11	High	10	11	171	171	11	11	171	173	11	11	
	142.28753	143.38750	Sinplex	4.00	SIMPLE	11	None			Off	4.00	10	High	- 11	M	P	17	1	11	M	M	11	11	-
	343.40000	143.40000	Simplex	Auto	STYPLE	m	None			Off	Auto	11	High	- 11	M	PI	PI I	10	PI	PI	171	11	11	
	243.41250	143.41250	Singlex	Auto	SIMPLE	171	None			Off	Au/10	121	High	11	Pl	E1	171	1	Pl	E1	171	171	19	
	143.42508	143.42500	Sinplex	AL10	GRAND	10	None			Off	4,/10	173	High	10	E	11	1	1	E	E	13	17	E	
	143.43758	143.43750	Sinplex	Auto	DOWN	191	None			Off	Auto	175	High	11	11	171	12	11	11	121	12	12	121	
	243.45000	143.45000	Singlex	Auto	CANTON	1	None	100.0 Hz		Off	Auto	10	High	12	E	6	6	8	6	6	63	10	E	
	243.46250	143.46250	Singlex	Auto	KUH/P	1	None	200.0 Hz		Off	4,00	23	High	12	11	83	10	12	11	10	17	173	17	
	\$43,47500	143.47500	Sinplex	Auto	100040	12	None	500.0 Hz	023	Off	Auto	123	High	12	12	173	12	12	11	121	15	12	12	
	343.48758	143.40750	Sinplex	Auto		173	None		023	off	Auto	173	High	1	E1	E3	1	1	1	1	13	1	1	
	243.50000	143.50000	Singlex	Auto		1	None		023	Off	Au/10	13	High	1	1	10	13		1	1	1	1	1	
	\$42.51250	143.51250	Sinplex	Auto		12	None		023	Off	Auto	12	High	12	13	12	13	12	13	13	12	12	12	
5	343.52508	143.52500	Sinplex	Auto		173	None			Off	Auto	23	High	1	1	12	13	1	1	1	13	100	1	
1	243.53750	143.53750	Sinplex	A.10		10	None			Off	AL/00	- 13	High	- 13	10	10	13	- 13	13	13	13	- 63	10	
	143.55000	143.55000	Sinplex	Auto .		13	None			Off	44,00	23	High		1	1	1			E1	- 13		10	
	143.56258	143.56250	Sinplex	Auto		1	None			Off	Auto	- 13	High		1	10	13			1	13			
<u>.</u>	143.57500	143.57500	Sinplex	ALIO		13	None		023	off	AURO	10	Hgh		13	13	13		13	13	13	10	10	
4	143.58750	143.58750	Singlex	Auto		10	None			Off	AU/10		High	- 8-	10	10	- 13-			10	- 0	- 13		
	343.60000	143.60000	Sinplex	Auto			None		023	off	Auto		High		0	10				<u> </u>				
2	143.61250	143.61250	Sinplex	Auto			None			Off	Auto Auto	- 11	High											
	243.62500 243.62750	143.62500 143.63750	Singlex	Auto			None		023	Off	A/10	-8-	High	-8-									-8-	
	243.65000	143.65000	Sinplex	Auto			None		023	Off	Auto	- 12	High			10	100			12	- 12	100		
-	143.66250	143.66258	Singley	AL10			None			Off	A.00	- 12	High				123			123				-
	143.67500	143.67500	Singley	Auto		- 24	None			Off	Auto	-12-	High	- 8-		100	- 10-		- 24	8	- 10	- 24	- 24 -	
	243.68750		Simplex	Auto		171	None			Off	Auto	10	High	- 21	171	121	171	10	171	171	171	171	11	
,	143.70000	143.70000	Sinplex	A.10		1 Pl	None			Off	A./00	10	Hgh	- 14	Pl	E	PI	1	PI	E E	17	171	10	-
	143.71258	143.71250	Sinplex	Auto		H	None			off	Auto	11	High	1	E	Ē	E .	1	E	E	E	171	10	
	143.72500	143,72500	Singlex	Auto		173	None			Off	Auto	121	High	17	10	17	11	1	17	12	12	12	12	
	243.73750	143.73750	Singlex	A.00		173	None			Off	AU/10	13	High	17	E	E	E3	10	17	E	23	17	10	
	143.75000	143.75000	Singlex	A.to		11	None			orr	Au/10	113	High	17	17	11	10	11	171	11	173	11	11	
	143.76250	143.76250	Sinplex	Auto		1	None	100.0 Hz	023	Off	Auto	13	High	10	6	10	6	1	10	1	13	10	6	
	243.77508	143.77500	Sinplex	Auto		17	None	100.0 Hz		Off	Auto	173	High	1	11	173	13	10	17	17	1	17	17	
	\$43.78750	143.78750	Sinplex	Auto		10	None		023	Off	Auto	13	High	12	13	15	13	10	11	13	13	10	10	
	343.00000	143.00000	Sinplex	Auto		12	None		023	Off	Auto	12	High	12	13	12	1	1	11	12	1	1	12	
	143.81258	143.81250	Simplex	Auto	50191.6	1	None			Off	Au/to	13	High	1	1	1	1		1		13		1	
1	\$43.82500	143.82500	Sinplex	A.10	SIMPLE	10	None		023	011	AL/10	13	High	10	E3	13	13	13	E	13	13	10	13	
	143.83750	143.83750	Sinplex	Auto	STIPLE	. 17	None			Off	AUTO	13	High	1	13	17	11	11	11	11	1	10	11	
	143.85000	143.85000	Sinplex	Auto	STATE	. 0	None		023	Off	Auto	13	Hgh	13	13	10	13	1	10	0	13	13	13	
	143.86250	143.86250	Sinplex	AU10	STYPLE	E3	None		023	Off	AU/10	13	Hgh	1	10	12	13	12	13	E	13	12	13	
9	143.87500	143.87500	Sinplex	Auto	STIPLE	10	None	100.0 Hz	023	Off	Auto	- 12	High		10	1				0	1		1	
	143.88750		Sinplex	Auto	STIFLE	1	None		023	Off	Auto	12	Hgh	1	13	10	10	1	10	10	11	12	10	
5	143.90000	143.90000	Singlex	Auto		1.1	None	100-0 Hg		OFF	AURO	10	16gh	1.1	1.1		1 10				123	1	1.1	

If several consecutive rows are to be changed, select them all by holding the Shift Key while you Down Arrow through them or hold the Left Mouse Key while you move your mouse over them (normal Windows selection processes). When they are selected, they will be highlighted in a color based on the scheme of your computer.

Press Ctrl + V, select Edit | Paste from the menu at the top of the screen, or Right Click and select Paste from the options in the menu that opens. The copied value will appear in each of the fields.

1	Copy and	Faste* ×																							
	Frequency		Offset Frequency	Offset Direction	Operating Mode	Name	Shew Name	Tone Mode	cress	DCS	Skp	Step	Clerk Shift	Tx Power	Tx Narrow	Pager Erwible	Sank 1	Bank 2	Bank 3	Bank 4	Bank 5	Sank 6	Bark 7	Bank 8	50
1		143.25000		Simplex	Auto	STYPLE	17	Tone	100.0 Hz	023	Off	Auto	13	High	1	1	17	173		1	17	17	1		
2	243.26350 243.27500				Auto	STYPLE		Tone v	100.0 Hz	023	Joff G	A/10 w	- 13	Hgh 🖵			10	- 13			- 13-	13	10		
1	143.28753			Sinplex Sinplex	Auto	STAFLE	10	Tone	100.0 Hz		Off	Auto	- 10	High	10	Pl	PI I	10	- 14 -	1	Pl	10		- 24 -	
	143.30000			Sinplex	A.10	STYPLE	14	Tone	100.0 Hz		Off	4,00	- 21	Hah	- 14	11	10	10	- 24	- 14	1	10	10	- 24	
5	243.31258			Singlex	A.to	SIMPLE	11	Tone	100.01%		orr	Auto	121	High	11	11	10	11	11	11	11	11	11	11	
,	343.32500			Sinplex	Auto	STIFLE	13	Tone	100.0 Hz		Off	Auto	13	High	1	E	10	13	1	13	1	13	13	10	
3	243.33758			Sinplex	Auto	52915	11	Tone	100.0 Hz		OFF	Auto	12	High	1	11	10	10	10	17	12	12	12	10	
9	\$43.35000			Snplex	Auto	SINPLE	- 13	Tone	100.0 Hz	023	orr	Auto	123	High	- 13	13	13	13	13	13	12	13	12	12	
10	343.36253			Sinplex	Auto	27952	12	Tone	100.0 Hz	023	Off	Auto	171	High	1	1	1	1	10	1	12	1	1	1	
1	243.37500			Simplex	Auto	STYPLE	1	Tene	100.0 Hz		Off	Auto	13	High	1	1	1	1			1	13	10		
2	\$43.38750			Sinplex	Auto	STARLE	- 13	Tone	100.0 Hz	023	off	Auto	- 13	High		10	10				13	10			
13	343.40000	143.40000 143.41250		Simplex Simplex	Auto	SIMPLE		Tone	100.0 Hz		Off	Auto Auto	- 11	Hoh										- 51-	
5	143.41250			Sinplex	AL10	GRAND	12	Tone	100.0 Hz		Off	4,00	- 11	Hgh	- 14	1	10	- 10	- 10	- 14	10	10	10	- 24	
6	143.43758			Sinplex	Auto	DOWN	104	Tone	100.0 Hz		Off	Auto	11	High	10	11	121	11	- 14	11	11	121	111	- 14	
7	243.45000			Sinplex	Auto	CANTON	1	Tone	100.0 Hz		Off	Auto	10	Hdh	10	E	10	10	10	P	B	10	10	- 19	
3	243.46350			Singlex	Auto	KHP	1	Tone	100.0 Hz		Off	AU/10	123	19gh	12	11	11	10	12	11	11	13	173	17	
9	\$43,47500	143.47500		Sinplex	Auto	100040	12	Tone	100.0 Hz	023	Off	Auto	173	High	12	11	173	173	12	11	173	173	12	12	
0	243.48750	143.40750		Sinplex	Auto		173	Tone	100.0 Hz	023	off	Auto	23	High	1	E1	13	23	1	1	1	13	1	1	
1	243.50000			Singlex	Auto		11	Tene	100.0 Hz	023	Off	Av/10	1	High	1	11	1	1	1	12	1	1	1	1	
2	\$42.51250			Sinplex	Auto		13	Tone	100.0 Hz	023	Off	Auto	13	High	10	13	13	13	10	13	13	13	12	12	
3	243.52500			Sinplex	Auto		13	Tone	100.0 Hz		Off	Auto	13	High	-	1	1	10	1	1	1	1	1	1	
4	243.53750			Sinplex	A.00		10	Tene	100.0 Hz	023	Off	A(20	- 13	High	- 13	0	0	- 63	- 0	- 0	13	10	10	- 63 -	
5	143.55000			Sinplex	Auto		11	Tone	100.0 Hz		Off	4,00	12	High		11	10				10	10	- 12		
5	143.56253 243.57503			Simplex Simplex	Auto Auto			Tone	100.0 Hz		off	Auto		Hgh Hgh											
8	143.58750			Singlex	ALIO ALIO		- 14	Tone	100.0 Hz		Off	AUD AUD	- 11	High	- 14	10	- 10		- 24		10		10	- 10	
9	343.60000			Singles	Auto		121	Tone	100.0 Hz		Off	Auto	- 14	High	10	PI	121	10	10	10	121	11	10	- 24	
0	143.61250			Inpiex	Auto.		- 171	Tone	100.0 Hz		Off	Auto	- 21	High	10	Pl	10	171	10	P	11	1	12	- 21	
1	143.62500	143.62500		Singlex	A.40		111	Tone	100.0 Hg		Off	A./10	171	High	P	11	171	11	11	11	11	171	17	11	
2	141.63750	143.63750		Sinplex	Auto		1	Tone	100.0 Hz	023	Off	Auto	12	High	1	E	1	1	10	1	1	1	10	10	
3	243.65000	143.65000		Sinplex	Auto		17	Tone	100.0 Hz		Off	Auto	12	High	1	1	173	23	1	1	12	12	12	17	
4	\$43,66250			Sinplex	Auto		13	Tone	100.0 Hz	023	Off	Au/10	13	High	- 13	13	10	13	13	13	13	13	13	- 13	
5	143.67900			Sinplex	Auto		12	Tone	100.0 Hz		off	Auto	12	High		1	12	10	1.1	1	12	12	17	1	
6	243.68758			Simplex	Auto		1	Tene	100.0 Hz		Off	Auto	13	High	1	1	11	13	1	1	13	13	1	1	
?	243.70000			Sinplex	ALTO		- 13	Tone	100.0 Hz	023	011	Au/10	- 13	Hgh		13	13	- 13		13	13	13	12	- 13	
8	143.71250			Singlex	Auto		- 13	Tone	100.0 Hz		Off	AUTO	- 13-	High		- 13	10	- 12 -			- 13	- 8-	- 13 -	-8-	
9	143.72500 243.73750			Sinplex Sinplex	Auto		121	Tone	100.0 Hz		off	Auto	- 22	Hgh Hgh			10				1	100		- 61	
1	143.75000			Singlex	Alto		11	Tane	100.0112		off	AU0	- 14	High	- 14	- 14	10	- 14	- 10	- 14	12	10	10	100	
2	343.76250			Singlex	Auto		M	Tone	100.0 Hz	023	Off	Au/10	10	Hah	1	H	Pi -	Pi -	1	P.	PI-	Pi -	10	- 11	
3	243.77500			Singlex	Auto		17	Tone	100.0 Hz	023	Off	AU12	121	High	17	11	17	173	17	17	11	10	171	17	
4	\$43.78750			Sinplex	Auto		10	Tone	100.0 Hz	023	Off	Au/to	173	High	17	13	13	13	10	11	11	13	13	10	
5	343.00000			Sinplex	Auto		17	Tone	100.0 Hz	023	off	Auto	171	Hgh	1	13	1	1	17	1	1	1	17	1	
6	143.81250			Simplex	Auto	50191.E	11	Tene	100.0 Hz		Off	Auto	11	High	1	1	11	1	1	11	11	13	1	1	
7	\$43.82900			Sinplex	AL10	SIMPLE	- 63	Tone	100.0 Hz	023	0ff	A./10	12	High	13	13	13	13	13	13	13	13	13	- 63	
8	343.83750			Sinplex	Auto	STIPLE	10	Tone	100.0 Hz		Off	Auto	12	High	1	1	1	1		1	1	1	1	- 11	
9	143.85000			Sinplex	Auto	STIPLE	- 0	Tone	100.0 Hz	023	Off	Auto	- 13	High	1	10	10	- 63	10	10	10	10	10	13	
0	143.86250			Sinplex	Auto Auto	STYPLE	- 12	Tone	100.0 Hz	023	Off	Auto Auto	-12-	Hgh	- 51	1	10	10	- 11	1	- 8-	10	- 10	- 10	
1		143.88750		Sinplex Sinplex	AUTO	57412	- 8-	Tone	100.0 Hz		off	AU10	-14-	Hgh Hgh	- 11		1	- 10	- 10	1	8	1	1	- 51-	
		143.90000		Singlex	Alto	STATE.	- 8-	None	100.0192		Off	AU10 AU10	- 10	High	- 14	1	10	10	10	1	- 61-	10	10		

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Column editing will address a selection of consecutive cells all at once or individual cells repeatedly. If the items to be changed are not consecutive, you can select and paste repeatedly until all the cells are addresses. You do not have to copy again. The programmer retains the copied value.

<u>Check Box Cell Editing</u> - If you want to put several channels into a Bank, there is no reason to do this one row at a time.

This process varies from the other by how the cells are selected. Check box cells act differently than those that contain text. You can copy from one check box column into another.

In this example, put channels several into Bank 1 without checking the Bank 1 box for each channel.

First, select Settings from the menu at the top of the page. From that menu, select Bank Settings. Several columns of the screen will be hidden leaving only Receive Frequency, Name and Banks. This makes working on the screen easier since you no longer must scroll through several columns that you are not using now.

	Lat Communication												
	Copy and Faste ' X												
	Receive Name	Bank 1	Bank 2	Bank 3	Bank 4	Bank S	Bank 6	Bank 7	Bank 8	Bank 9	Bank 20	Camment	
	143.25000 S0MPLE	171	173	121	121	123	123	123	123	23	12		
	143.25250 S3MPLE	1	12	1	10	1 10	E	13	1	1	6		
	143.27500 SIMPLE	11	175	175	175	100	15	13	175	10	1		
	143.28750 STIPLE	63	63	10	10	8	8	6	6	6	8		
	143.30000 ST/PLE	23	E3	121	1273	100	173	123	100	10	0		
	143.31250 SIMPLE	11	123	83	83	10	10	10	10	113	0		
1	143.32500 STIFLE	13	1	. 83	10	6	1	6	10	6			
	143.33750 S04PLE	1	10	100	81	10	10		10	10	1		
	143.35000 STYPLE	13	10	13	13	10	10		15	13	10		
	043.36250 S3MPLE	1	1	12	1	12	12	1	1	13	-		
	243.37500 S0VPLE	1	12	10	10	12	10	(Ľ)	10	- 23	13		
	143.38750 SIMPLE	13	12	12	13	1.63	- 13	13	13	13			
	143.40000 S3MPLE	1	12	1	10	10	1	1	E.		2		
	143.41250 SIMPLE	13	13	13	10	10	13	13	13	10			
	143.42500 (SRAND		13	10		10	- 13	13		- C			
	143.43753 DOWN	- 12	- 8-			- 0-	0	0	<u> </u>	<u> </u>	<u> </u>		
	243.45000 CANFON	13	10	10		10	10	13	10		8		
	243.46250 KU43P	10	- 13 -	10	0	<u> </u>	0	13	<u> </u>	9	9		
	543.47503 X00(4D	- 0-					- 0-				- 2 -		
	143.48750	11	10	100				101			-		
	243.50000					- 8-					8		
	543.51250	11	10	100	101			100	103		8		
	143.52500 143.53750		100					100					
	143.55000				- 51				8	-8-	8		
	143.56250	11	100	100		- 12	10			- 12-	8		
	143,57500	10	12	121		1	10	101	100	- 2	8		
	143.58750	11	10	100	- 21	100	10	10	100	10	8		
	143.68000	11	121	121	195	101	121	192	195	24	8		
	143.61250	PI	1	100	- H-	- H-	- H	- M	100	14	H		
	243.62500	- Pl	171	175	191	11	m	175	175	10	H		
	\$43.63750	PI	E FI	- m	R	- H-	m	E I	m	H	H		
	143.65000	E1	11	1	1	1 10 -	10	10	10	10	1		
	143.66250	171	171	171	171	m	m	m	171	PN.	M		
	\$42.67900	10	11	10	10	1 10	10	10	1	13	1		
	143.68750	13	10	10	10	1 10	10	10	10	0	1		
	143.70000	13	123	123	1.123	1 23	10	123	173	13	10		
	143.71250	13	E	10	123	1 23	10	1	10	10			
	143.72500	13	173	123	10	10	123	10	15	15	10		
	143.73750	6	1 13	1	6	0	6	6	6	6	6		
	243.79000	13	E3.	13	10	10	10	10	13	13	0		
	543.76250	13	12	123	10	10	15	15	12	10			
	143.77503	13	1	1	10	1 13	10	10	1	13	- H		
	243.78750	13	13	1	10	1.12		1	10	13	1		
	\$47.90000	13	10	10	13	10	13	13	13	13			
	143.01250 STAPLE	1	1	12	1	1 23	E	1	10	10	- E		
	543.81500 SIMPLE	13	12	10	10	1 13	10	10	10	10	10		
	143.83750 S3MPLE	23	- 83	12	23	1.12	13	13	13	13	8		
	043.85000 S3MPLE	10	1 12	100	100	1 23	17	175	175	175	10		

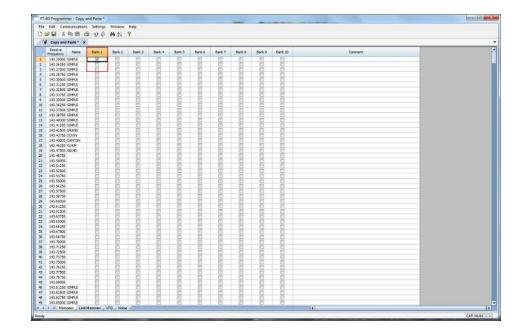
For Channel 1, put a check in the box under Bank 1.

Edit Communication	8 9 8												
Copy and Paste* X Receive	_												
Frequency name	Bank 1	Bank 2	Bank 3	Barik 4	Bank 5	Bank 6	Bank 7	Bank 8	Bank 9	Bank 10	c	Innent	
143.25000 SIMPLE	N	13	17	10	- 63	13	10	- 13	- 23	- 23			
243.26250 SIMPLE		10	12				13	13		8			
143.27500 SIMPLE		0		8	8	8		0	- 8-	8			
243.28750 S2MPLE 243.30000 S2MPLE	10	10	- 63				- 00	03					
143.31250 SD4PLE	121	121	123	- 24	- 22-	10	12	12					
243.32500 STYPLE	10	- 22	- 22	- 21	- 24 -	10	10	100	- 24	8			
243.33750 50/PLE	171	121	175	100	1	11	175	100	- 24				
543.39000 SIMPLE	11	11	121	11	1	E H	11	m	M	H			
243.36250 ST/FLE	1	11	1	10	1	1	10	13	1	H			
243.37500 SIMPLE	17	1	173	10	13	13	10	15	10	1			
143.38750 S3MPLE	13	17	13	13	13	E	13	13	10	8			
143.40000 SIMPLE	13	13	13	10	10	13	12	13	13				
143.41250 S04PLE	10	13	13	13	10	10	13	23	- 13	0			
243.42500 (RAMD	1	13							E3				
343.43750 DOWN	0	10		- 0-		0			-0-				
243.45000 CANTON	11	10	11	10	10	10	1	173	10				
243.46250 KU43P			- 13			0	10			8			
543.47503 (00(4)) 243.48750		- 0	- 0-			8	- 0	- 8	- 8-	8			
243.50000	121	121	11				123	01					
\$43.51250	12	12			- 8-			10	- 8-	8			
243.52500	11	121	10	100	- 24	121	121	100	- 24	8			
143.53750	171	171	171	11	10	11	171	175	10	10			
243.55000	H	m	171	10	H	M	171	10	14	H			
243.56250	11	13	175	123	10	10	173	13	10	8			
243.57500	6	13	12	12	123	63	10	15	10	8			
143.58750	E	13	13	23	10	63	1	63	63	-			
143.60000	1	11	15	23	13	13	1	10	10	2			
243.61250	1	13	13	10	12	10	15	12					
243.62500	1		13	2		10	13			<u> </u>			
543.63750	13	1	- 13	- 6	C	- 61	13	- 10	- 61	0			
243.65000	17	12	10	10			10	123	-8-	8			
243.66250		10			- 8-			-	- 8-	8			
\$43.67500 \$43.68750		12	11			10		100					
243.68750 243.70000	10	10	10			10	10	10	- 14	8			
243.70000	1	10	171		1	10	10	10	8	H			
143.72500	171	171	171	121	1	- Pl	10	175	175	P			
243.73750	E	<b>H</b>	E	1	- H	E.	F	1	R	8			
243.75000	E	10	13	10	1	10	10	13	10	H			
243.76250	171	171	175	19	10	1	15	15	11	H			
243.77503	E	13	13	10	10	6	10	1	10	B			
243.78750	1	1	1	1		10	1	11	11	1			
\$43.90000	12	12	15	10	13	10	13	13	10	E .			
143.01250 STYPLE	12	13	12	10	10	13	12	15	13	10			
143.81500 S0VPLE	13	13	13	13	13	10	12	13	10	12			
243.83750 SIMPLE	12	13	- 13	23	10	13	13	13	- 63				
143.85000 SIMPLE	11	175	177	1979	175	171	171	1715	175				

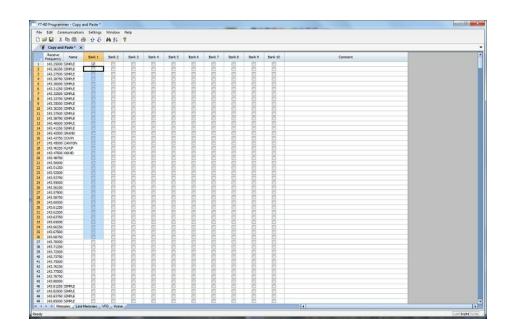
At this point you CANNOT copy this field. Press Tab or Enter to move out of the field.

The process is more easily done now with the keyboard rather than the mouse.

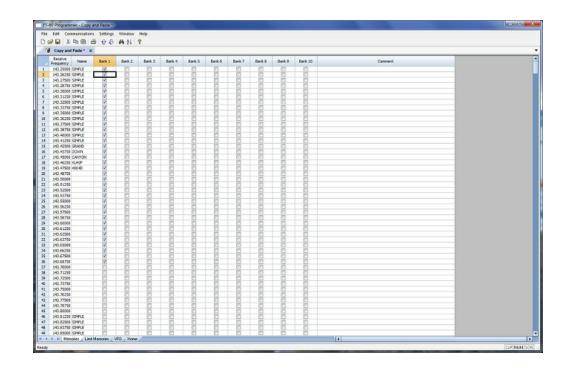
Press Right Arrow to move focus back into the Bank 1 column. Notice that there is now a black border on that cell. The cell is now ready to be copied. Press Ctrl C or select Edit from the menu then copy from the list that opens to copy the cell.



Press and Hold the Shift key while pressing the Down Arrow key to select the rows that will be set with this information.



Press Ctrl V to paste the selecting into the fields.



**Simple Mode**: Hides several of the columns for each memory channel. Those remaining are the ones that are most needed for any memory channel. Those remaining include:

Receive Frequency - A channel cannot be programmed without a receive frequency. This is the frequency you listen to.

Transmit Frequency - The programmer will complete this automatically. The column is included in case you need to enter the value other than the default for the receive frequency based on the band plan (i.e., an odd split pair).

Offset Direction - Again, the programmer will complete this automatically based on the band plan for the receive frequency. However, an occasional repeater will differ from the band plan. Including this column gives you the ability to address that difference.

Name - This column is for personalized information to identify the channel.

Tone Mode - The repeater operator controls this detail for the repeater. There is nothing standard that can be completed automatically. You need to select the Tone Mode then assign the CTCSS frequency or DCS code as needed for a particular repeater.

Skip - Use at your discretion to include or exclude a frequency during memory channel scanning.

Comment - Personalized notes up to 80 characters. This information remains a part of the file and is not transferred to the radio.

	-60 Untitled1 Receive	Transmit	Offset							
	Frequency	Frequency	Direction	Name	Tone Mode		DCS	Skip	Comment	
1	430.00000	430.00000	Simplex 💌		None 🔻	100.0 Hz 👻	023 👻	Off 👻		
2								-		
3 1										
* 5										
5										
,										
3										
9										
U 1										
2										
3										
4										
5										
6										
7 8										
9										
0										
1										
2	h hi bior	norios (Limi	t Memories / N	(E0 / Home	. /					
-	P PI MCI		(meniories /	TO / HUIR	2/					

*Note: While in Simple Mode, you cannot access the Preferences screen (Settings | Preferences). The columns that are hidden in Simple mode are predetermined by the programmer.* 

All columns are visible on the screen when you are no longer in Simple Mode. If you want to hide other columns, you can do that through individual selection on the Settings | Preferences page.

**Find (Ctrl+F)** - Finds specific text in a specified column. Once you select this command or press Ctrl+F a screen opens into which you enter the text (or number) to be found.

Find	
Look in:	ОК
Receive Frequency	Cancel
Find text:	

Select the field to be searched (i.e., Receive frequency, Transmit frequency, etc.)

Enter the text (or numbers) to be found.

Click OK to move to the first item found. The search always begins at the top of the list and stops at the end.

**Find Next (F3)** - Use the F3 function key to repeat the specified find and move to the next item. For example: You choose to search for 145 in the Receive Frequency column in a file with 5 channels beginning with 145. OK in the Find box takes you to the first one. F3 takes you to the second; then the third; then the fourth: and so on until you have stopped at each of those that match the criteria.

**Goto Channel (Ctrl+G)** - Moves to the indicated channel number. When this option is selected a screen opens into which you enter the channel number. Enter the number and click OK to move to that memory channel (programmed or not).

Goto Channel	
Enter channel number to move to.	ОК
Channel	Cancel

**Insert Channel (Shift+Ins)** - Inserts a blank row without deleting information present. The current information and all that follows is "pushed-down" to make room. The number of rows inserted will equal the number of rows selected. This is a great way to slip channel information into a list of channels.

Note: Insertion of rows can result in the loss of data from the bottom of the list. You will be warned if there is danger of data loss and given the opportunity to cancel the process to prevent this loss.

**Delete Channel (Shift+Del)** - Removes the selected row. All the data following the deleted row is "pulled-up" to eliminate the blank row. Beware!! Deleted data cannot be recovered. Neither the Insert nor the Paste commands write the data to the grid. If you accidentally delete data, exit the Programmer WITHOUT saving. The file will be restored to its condition when you last saved and the last deleted data will be restored. Multiple channels can be deleted by selecting them all at once and selecting delete.

**Clear Channel** - Removes the data from the selected channel without moving all those that follow up to fill this space. Leaves the channel blank.

**Move Up (Ctrl+U)** - The ability to select a channel and have it "change places" with the channel immediately preceding it. Repeat this command on a selected channel to "walk" it into place in your list. Sequential channels can be selected and moved at once. The group will move up one channel at a time. The displaced memory channel will move to the end of the group being moved.

**Move Down (Ctrl+D)** - The ability to select a channel and have it "change places" with the channel immediately following it. Repeat this command on a selected channel to "walk" it into place in your list. Sequential channels can be selected and moved at once. The group will move down one channel at a time. The displaced memory channel will move to the top of the group being moved.

Add Frequency Range - A convenient way to add lots of channels at once. This is great for setting up a radio for scanning a certain range of channels. When this option is selected you are presented with a window into which you enter the details of the channels to be entered.

Add Frequency List
Starting Frequency MHz
Number of channels 1
Frequency Step 5 kHz
Cancel

<u>Enter Starting Frequency</u>: The value of the first frequency of the list to be entered. Any allowable frequency of the radio being programmed.

<u>Number of channels</u> - Enter the number of channels to be entered. You can insert as few as 1 to as many as 1000 channels at once. You are not warned if you select more than the number of memory channels. The process just inserts all that it can and ignores the rest.

<u>Frequency Step</u> - Enter the value that will separate each of the frequencies in these channels. Select 5kHz to 200 kHz.

Click OK and watch the screen fill. Or Cancel to exit the process without change to your file.

The channels are inserted beginning at the currently selected channel (i.e., if you have selected channel 40, the first channel will be added at channel 40).

You are warned if a channel will be overwritten and given the ability to not overwrite or to cancel the process. If you choose No to prevent loss of the current channel information, the skipped frequency is entered into the next available space and not lost.

**Sort** - Great for data management or to arrange your channels permanently for a special use. The version 3 and Version 4 programmers have the ability to Undo a sort. You can now sort the list on a given parameter, touch-up a group of entries, then put the list back in its original order with the changes that you made. When this option is selected you are presented with a window for selection of the options.

Connect
Cancel
el Sort Selectioin elected channels II Channels

Sort by - Select a column for the initial sort.

Then Sort By - Select a second column for a secondary sort.

<u>Sort Mode</u> - Ascending for lowest to highest. Descending for highest to lowest.

<u>Channel Sort Selection</u> - Selected Channels to sort only a group form the file. All Channels to sort all the channels in the file.

If the result is not quite what you expected, select the Undo Sort option to return the list to the point you left it last.

Always save your file before you sort. At the very worst you can exit the file without saving to return to the order of that last save.

Blank memory channels are always sorted to the top of bottom of the list based on the Ascending or Descending selection.

Different fields sort differently. If a field is a text field in one programmer and a drop down list in another, the sort results will be different. It has to do with how the computer interprets the values in these different types of fields. While this was present in the older programmers, it should not be a problem in the Version 3 or Version 4 programmers where the fields are consistent between the radio programmers.

**Unsort** - For use after sorting to return the list to the last saved order. Use Sort and Unsort to easily edit channels with the same info that needs to be changed. Sort to bring those channels together. Edit the details (see cell editing). Then unsort to return the list to the last saved order with the edits in place.

### **Quick File Access Commands**

- Ctrl 0 (Control zero) Open existing file for same radio. Calls the Open dialog for the programmer being used allowing you to select a file to be opened without having to select the file type first. This is especially helpful when several programmers are loaded on one system. (i.e., Lets you select another FT-7800 file without having to select that file type first from the open box.)
- **Ctrl O (Control letter "O")** File | Open. Presents the box from which the file type is selected just as File | Open. Select the type of file to be opened. The programmer will look in the location of that last file for that particular file type. (i.e., you can open an FT-60 file while working with the FT-7800 programmer as long as you have the Version 3 or Version 4 module for the FT-60. With both open, you can copy and paste between the files or send each to the proper radio without having to close and reopen the Version 3 or Version 4 programmers separately.)
- **Ctrl M** Automatically create a new file for the programmer being used. Eliminates having to select the file type first.
- Ctrl N File | New. Presents the box from which the file type is selected just as in File | New in the menu. Select the file type for the programmer to create a new file for that radio (the same as the one you're working with now or for a different radio for which you have the Version 3 or Version 4 module.)



# 7 Screen Appearance and Default Options

The screen of the programmer can be customized to make data entry that much easier. Options for screen appearance are accessed under Settings | Preferences from the menu on the main screen of the programmer. This screen appears when that option is selected:

	Mark the columns to h	ide.
Freeze Columns  1 📑	Column	Hide 🔺
Alternational	Transmit Frequency	
Alternate row colors	Offset Frequency	
1 Bow 1	Offset Direction	Г
1 Row 1 2 Row 2	Operating Mode	
2 Row 2 3 Row 3	Name	
4 Bow 4	Show Name	
4 NOW 4	Tone Mode	Г
Fore Back	CTCSS	
	DCS	Г
Radio Menu Settings	Step	Г
	Clock Shift	Г
<ul> <li>Use Separate file for menu settings.</li> </ul>	Tx Power	Г
menu solungs.	Skip	Г
Keep menu settings and	Skip HM 2	Г
frequencies in a single file.	Skip HM 3	

## Freeze Columns

The option to "freeze" can be applied to any or all columns. Select the number of columns to remain on the screen at all times as you scroll to the right of the spreadsheet.

Having these columns always available for reference can be a great help for identifying the memory channel being edited.

# Hidden Columns (Mark the columns to hide)

Selected columns can be marked as hidden which removes them from the screen display. During editing, these fields are completed with default

information for the radio. This option is a global setting and will affect every file, new or existing.

In an existing file the data in these columns is not lost: it is simply not displayed.

In a new file, a hidden column is filled with a default value.

Hidden column data is not printed. Columns can be marked as hidden to customize printed output and then restored for additional data management.

Note: Several columns are hidden and unhidden with the Simple Mode option found under Edit from the menu of the main screen. Simple mode hides all but the columns required for memory channel operations. When you leave Simple Mode, all columns will again be visible.

#### Alternate row colors

Select a color for the text (Fore) and/or background (Back) for rows 2, 4, 6, etc. This can help the readability of the spreadsheet.

#### Radio Menu Settings

Sets the option for how the global settings of the radio are saved in the file. These options for saving are explained in great detail in the Using the Programmer - Overview section of this help.

Briefly, the radio settings contained on the Settings screen are options that are not specific to any one memory channel. The radio uses this setting whether it is in memory mode, VFO, on a Home channel, or, basically, whenever it is on. The settings for these options are sent automatically to the radio with the channel information.

The Settings can be saved as part of the channel data file or in a separate file.

As part of the channel data file, they are reset to defaults each time you start a new file. You set them to your specifications for the file that is being created.

As a separate file, they are set once, saved, then sent to the radio with every saved channel data file.

The pros and cons of both of these option are discussed in detail in the Using the Programmer - Overview section of this help.

### Memory Defaults

You have complete control of the programmer. These options control default values for the channel data for memory channels, VFOs, Limits, Home, etc. Making one change here controls how a channel will be completed when a frequency is entered.

To access the Memory Defaults screen,

- Select Settings from the menu at the top of the screen.
- Select Preferences
- Once on the Preferences screen select the Memory Defaults tab.

V	Check ShowName Automatically	- Offset Fre	quency Defaul	2
7	Convert Split offsets to standard Plus or Minus when available.	600	1.00 MHz	-
V	Disable CTCSS, DCS and other Tone	2m	600 kHz	•
	columns according to the Tone Mode selection.	1.23cm	1.60 MHz	-
		70cm	5.00 MHz	•
		10		

<u>Check Show Name Automatically</u> - For radios with an extra column for show name, having this option selected (checked) lets the programmer mark that check automatically when you enter a name for that memory channel. this eliminates that extra step.

With this option checked, you can uncheck a Show Name box at any time if you would rather display the frequency for a given memory channel.

<u>Convert Split Offsets to standard Plus and Minus when available</u> - This option is for programming Yaesu radios only as lcom radios work only with Plus (+Dup) and Minus (-Dup) offsets. See the discussion of Non-standard offsets in the Programmer Main Window section of this help for a complete explanation.

<u>Disable CTCSS, DCS and other Tone columns according to the Tone Mode</u> <u>selection</u> - Beginning in the Version 3 programmer and continuing into future versions, the programmers have been designed to help you enter information for tones used for repeater access. You cannot enter a tone unless you have selected a Tone Mode which tells the radio to use that tone. The tone value columns are disabled until you turn the tone on. Then only the appropriate column is made active. When this option in unchecked, you will be able to adjust the tone value even if the Tone Mode has not been set for that memory channel.

<u>Offset Frequency Defaults</u> - Defaults are set for US radios. Others are presented to make data entry easier in other countries where those defaults are different.



# 8 Split Screen for Multiple Files

The Version 4 programmer can display more than one file simultaneously in the programmer's main window. Opening several files at once makes it even easier to copy and paste between them (even files for different radios from different manufacturers) or just to compare the frequency lists.

-	Settings n	ot coming fro	m radio )	C A Ne	w Radio File	-	1	test x						-		1C-91 Unt	tiedl x						
	Receive	Transmit Frequency F	Offset	Offset Direction	Operating Mode	Name		Receive Frequency	Transmit Frequency	Offset Frequency	Offset Direction	Operating Mode	Name	-		Receive Frequency	Transmit Frequency	Offset Frequency	Offset Direction	Operating	Name	Tone Mode	
N.	145.00000	145.00000 64	00 kHz	ARS S	FM .	TEST	1	145.00000	145.60000	600 kHz	Plus I	FM .	TEST		0	146.01000	146.01000		Simplex 💽	FM .		None .	88.
	139.00000	139.00000		Simplex	FM	TORI	2	450.00000	447.00000		Minus	FM	TEST2		1	440.00000	440.00000		Simplex	FM		None	88.
		144.00000		Simplex	PM	OTHER	3	450.00500	450.00500		Simplex	FM	TEST3		2								
	165.00000	165.00000		Simplex	FM	TEST	4	450.01000	449.51000		Minus	FM			3								
		170.00000		Simplex	FM	OTHER	5	450.01500	450.01500		Simplex	FM			4								
		174.00000		Simplex	FM	TORI	6	450.02000	450.02000		Simplex	FM		_	5						_		_
	134.00000	134.00000		Simplex	FM	OTHER	7	450.02500	450.02500		Simplex	FM		_	6	-					_	_	-
							8	450.03000	450.03000		Simplex	FM			7							_	+
							9	450.03500	450.03500		Simplex	FM			8								+
1							10	450.04000	450.04000		Simplex	FM FM		_	9						-	_	+
							11	450.04500	450.04500		Simplex	rm.			10	1						_	+
							12	142.00000	142.00000	-	Simplex	Auto			11	-					-	-	-
8	-				+		13	142.00500			Simplex	Auto			13	-					-	_	+
							15	142.01000	142.01000		Simplex	Auto			14								+
							16	142.01500	142.01500		Simplex	Auto			15					-			+
							17	142.02000	142.02000		Simplex	Auto			16						-		+
	_						18	142,02500	142.02500		Simplex	Auto			17						-		+
							19	142.03000	142.03000		Simplex	Auto			18								+
					-		20	142.03500	142.03900		Simplex	Auto			19					-	-		+
							21	142.04000	142.04000		Simplex	Auto			20								T
							22	142.04900	142.04500		Simplex	Auto			21								T
							23	142.05000	142.05000		Simplex	Auto			22								T
ĸ							24	142.05500	142.05500		Simplex	Auto			23								
							25	142.06000	142.06000		Simplex	Auto			24								1
							26	142.06500	142.06500		Simplex	Auto			25								
							27	142.07000	142.07000		Simplex	Auto			26								
							28				0.000				27								
							29								28								
							30				_				29								
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2					-		32				-	-	_		31						-		
3	N K Mem				1		33				VFD IT I				32		A Memories				channe .		100

Open the files

From the menu at the top of the main screen, select Window | New Vertical tab group

The screen will separate into two parts taking the selected file to the new group.

To work with three as shown above, simple select another file and repeat the process.

A horizontal split is also possible.

				Mindow Mindow													
•	FT-2600 Un	titled1	FT-90 U	ntitledi ×													
	Receive Frequency	Frequency			Operating Mode	Nome	Show Name	Tone Mode		DCS	PONER	Skip	Step	ARTS Mode	Packet Speed	Comment	
	145.00000	145.00000	1.0	Simplex .	Auto 💌		8	None 🙀	100.0 Hz	023	High .	Off [2	SkHz .	• Off	1200 bps 💌		
							0										
				-			<u> </u>				-		-	-	-		
	N N Harry	wine (1 inte	Manarias	VFG Home			Contraction of the local division of the loc			-	_		1				
	FT-90 Unti		and the second of the										- N				
ĺ	Receive	Transmit	Offset	Offset	Operating	Name	Show	-		-	Tx			ARTS	Padiet	Comment	_
	Frequency			Direction	Mode	Name	Name	Tone Mode			Power	Skip	Step	Mode	Speed	Comment	
Ļ	145.00000	145.00000		Simplex .	Auto 💌		10	None	100.0 Hz	023	+High +	Off 3	- 5 kHz	• Off	1200 bps 🐱		
				-			1										
ļ							1			_							
							12		-								
	► ► Mem	ories Limit	Memories	VFG Home	7		2010						1		A. (16)		
i	IC-91 Until	tied1 ×															
ĺ	Receive		Offset	Offset	Operating Mode	Name	Tone Mode	CTCSS	Rx	DCS	DCS Polarity	Skip	Step	Bank	Bank Channel	Comment	
	146.01000			Simplex -			None -	88.5 Hz			Both N	lotr G	15 kHz	-			
		440.00000		Simplex	FM			98,5 Hz	88.5 Hz	023	Both N	off	25 kHz				
										_							
							-				-		-	-			
				-			-		-	-	-						
										_				_			
														-			

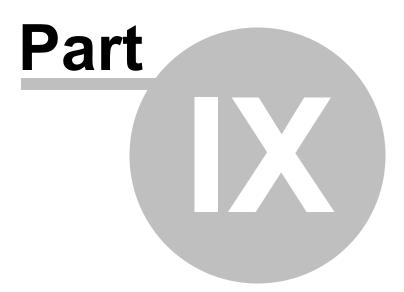
Open the files

From the menu at the top of the main screen, select Window | New Horizontal tab group

The screen will separate into two parts taking the selected file to the new group.

To work with three as shown above, simple select another file and repeat the process.

Note: Once you divide the screen horizontally or vertically, the other separation is not available. Selections for vertical and horizontal groups will be enabled and disabled in the menu as necessary.



# 9 Menu Item Cross Reference

The Programmer presents all the options for the radio in easy to use grid, check box, list and combo box formats. Most radios these days have so many options that organizing them in the Programmer can be a challenging task.

The location in the Programmer is described as a "path". For example.

Settings | Radio Menu Settings | Common tab | Antenna - AM

- Click on Settings at the top of the screen
- Select Radio Menu Settings from the menu that opens
- Select the Common tab
- The option is named Antenna AM on the Common tab.

		Set Mode
Menu	ltem	Programmer Item
	1	
1	Antenna AM	Settings   Radio Menu Settings   Common tab   Antenna - AM
2	Antenna FM	Settings   Radio Menu Settings   Common tab   Antenna - FM
3	Antenna ATT	Settings   Radio Menu Settings   Common tab   Attenuator
		Broadcast, Marine, Weather.
		(The option can be set separately for each of these bands.)
4	APO	Settings   Radio Menu Settings   Common tab   Auto Power Off
5	ARTS Beep	Settings   Radio Menu Settings   ARTS/CW/EAI tab   ARTS Beep
6	ARTS Interval	Settings   Radio Menu Settings   ARTS/CW/EAI tab   ARTS
		Interval
7	Bank Link	Settings   Bank Names and Linking
8	Bank Name	Settings   Bank Names and Linking
9	BCLO	Settings   Radio Menu Settings   Common tab   Busy Channel
		Lockout
10	Beep Edge	Settings   Radio Menu Settings   Sounds tab   Band Edge Beep
11	Beep Level	Settings   Radio Menu Settings   Sounds tab   Beep Level
12	Beep Melody	Settings   Radio Menu Settings   Sounds tab   User Beep Melody
13	Beep Select	Settings   Radio Menu Settings   Sounds tab   User Beep
		Selection
14	Bell Ringer	Settings   Radio Menu Settings   Sounds tab   CTCSS/DCS Bell
15	Bell Select	Main page   Bell (this option can be set for each memory
		channel)
16	Blue Tooth P-	Settings   Radio Menu Settings   Common tab   P-Code (in
		<b>3 1 1 1</b>

	Code	Bluetooth section)
17	Blue Tooth	Settings   Radio Menu Settings   Common tab   Bluetooth
	Set	
18	Busy LED	Settings   Radio Menu Settings   Common tab   Busy LED
19	Ch Counter	Settings   Radio Menu Settings   Common tab   Channel Counter
20	Clock Shift	Main Page   Clock Shift (this option can be set for each memory
20		channel)
21	CW ID	Settings   Radio Menu Settings   ARTS/CW/EAI tab   CW ID
22		The option is engaged from the face of the radio.
23	CW Pitch	Settings   Radio Menu Settings   ARTS/CW/EAI tab   CW Pitch
23		(in CW Learning/Training section)
24	CW Training	The option is engaged from the face of the radio.
24	CW Training	
25	DC Voltage	Not to be set from the Programmer. Access this menu item from
		the face of the radio to check the current DC voltage available to
26		the radio.
26	DCS Code	Main screen   DCS (This option can be set for each memory
		channel. The option cannot be changed unless Tone Mode is set
07	DCS	to a DCS selection that uses this code.)
27		Main screen   DCS Polarity (This option cam be set for each
	Inversion	memory channel. The option cannot be changed unless Tone
- 20		Mode is set to a DCS selection that uses this option.)
28	DTMF Delay	Settings   Radio Menu Settings   DTMF / Internet tab   DTMF
- 20		Delay (in DTMF Settings section)
29	DTMF Auto/	Settings   Radio Menu Settings   DTMF / Internet tab   Auto Dialer
30	Manual	(in DTMF Settings section)
30	DTMF Select	Settings   Radio Menu Settings   DTMF / Internet tab   Channel (in DTMF Settings section)
31	DTMF Speed	
51	D I MI Speed	Speed (in DTMF Settings section)
32	EAI	Settings   Radio Menu Settings   ARTS/CW/EAI tab   Enable (in
52		EAl section)
33	EAI Time	Settings   Radio Menu Settings   ARTS/CW/EAI tab   Time (in
55		EAl section)
34	Emergency	Settings   Radio Menu Settings   ARTS/CW/EAI tab   Emergency
54	Select	Signal (in Emergency section)
35	Extended	Settings   Radio Menu Settings   VFO and Menu Skip tab
55	Menu	Extended Menu On
36	FW Key Hold	Settings   Radio Menu Settings   Common tab   FW Key Timer
50	Time	Settings [Inadio Wend Settings [Common tab [FW Key IIIIei
37	Half	Main screen   Half Dev (This option can be set for each memory
57	Deviation	channel.)
38	Home VFO	Settings   Radio Menu Settings   Common tab   Home VFO Dial
39	Home/	Settings   Radio Menu Settings   Common tab   HM/RV
39		
40	Reverse INT Manual/	Sattings   Dadio Manu Sattings   DTME / Internet tab   Auto Dialor
40		Settings   Radio Menu Settings   DTMF / Internet tab   Auto Dialer Mode (in Internet (Wires) Settings section)
11	Auto	
41	Internet	Not in the Programmer. Engaged from the face of the radio.

42	Internet Code	Settings   Radio Menu Settings   DTMF / Internet tab   Access
		Number (in Internet (Wires) Settings section)
43	Internet Key	Settings   Radio Menu Settings   Common tab   Internet Key (in
		Programmable Key Assignments section)
44	Internet Mode	51 51
45		(in Internet (Wires) Settings section)
45	Internet	Settings   Radio Menu Settings   DTMF / Internet tab   DTMF and
40	Select	Name table (in Internet (Wires) Settings section)
46	Lamp	Settings   Radio Menu Settings   Common tab   Lamp (in Display section)
47	Language	Not in the Programmer. The option is set on the radio.
48	LCD	Settings   Radio Menu Settings   Common tab   LCD Contrast (in
	Contrast	Display section)
49	LCD Dimmer	Settings   Radio Menu Settings   Common tab   LCD Dimmer (in
		Display section)
50	LED Light	Not in Programmer. Engaged from the face of the radio.
51	Lock	Settings   Radio Menu Settings   Common tab   Lock (selection
	LOCK	from list box for Lock condition)
52	Memory Fast	Settings   Radio Menu Settings   Common tab   Mem Fast Step
	Step	
53	Memory	Main screen   Name (This option can be set for each memory
	Name	channel.)
54	Memory	Settings   Radio Menu Settings   Common tab   Memory Protect
	Protect	(check box)
55	Memory Skip	Main screen   Skip (This option can be set for each memory
		channel.)
56	Memory	Settings   Radio Menu Settings   Common tab   Memory Write
	Write	
57	Message List	Settings   Radio Menu Settings   Messages tab   Member list (in
	U U	Message (Member) List section)
58	Message	Settings   Radio Menu Settings   Messages tab   Sel check box
	Register	(in the Message Select (List) section)
59	Message	Settings   Radio Menu Settings   Message tab   Message Text (in
	Select	the Message Select (List) section)
60	Mic Gain	Settings   Radio Menu Settings   Common tab   Mic Gain
61	Moni/TCall	Settings   Radio Menu Settings   Common tab   Moni/TCall
62	Mute	Settings   Radio Menu Settings   Common tab   Audio Mute Level
63	Off Timer	Settings   Radio Menu Settings   Common tab   Off (in Timers
		section)
64	On Timer	Settings   Radio Menu Settings   Common tab   On (in Timers
		section)
65	Opening	Settings   Radio Menu Settings   Messages tab   Type (in
	Message	Opening Message section)
66	Pager	Settings   Radio Menu Settings   ARTS/CW/EAI tab   Answer
	Ans-Back	Back (in Pager section)
67	Pager Code-	Settings   Radio Menu Settings   ARTS/CW/EAI tab   Receive
	Rx	Codes (in Pager section)

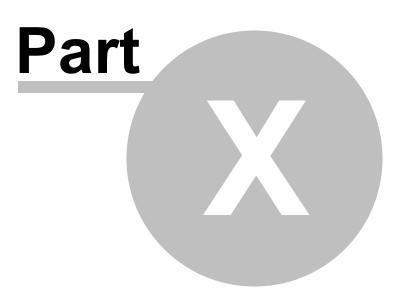
	Pager	Settings   Radio Menu Settings   ARTS/CW/EAI tab   Transmit
60 1	Code-Tx	Codes (in Pager section
09 1	Password	Settings   Radio Menu Settings   Common tab   edit box in
		Password section
70 F	PR	Main screen   User CTCSS (This option can be set for each
F	Frequency	memory channel. The option cannot be changed unless Tone
	. ,	Mode is set to User CTCSS selection.)
71	Pri Revert	Settings   Radio Menu Settings   Common tab   Priority Revert
		(check box)
72 F	Pri Time	Settings   Radio Menu Settings   Common tab   Priority Time
	PTT Delay	Settings   Radio Menu Settings   Common tab   PTT Delay
74	RPTARS	Settings   Radio Menu Settings   Common tab   Auto Repeater
		Shift (check box)
75   F	RPT Shift	Main screen   Offset Direction (This option can be set for each
		memory channel.)
76   F	RPT Shift	Main screen   Offset Frequency (This option can be set for each
F	Freq	memory channel.)
77 F	RX AF Dual	Settings   Radio Menu Settings   Common tab   RX AF Dual
78 F	Rx Mode	Main screen   Operating Mode (This option can be set for each
		memory channel.)
79 3	Save Rx	Settings   Radio Menu Settings   Common tab   Rx Save
	Save Tx	Settings   Radio Menu Settings   Common tab   Tx Save (check
		box)
81 \$	Scan Lamp	Settings   Radio Menu Settings   Common tab   Lamp (in
	Scan Lamp	Scanning section)
02 0	Seen De	
	Scan Re-	Settings   Radio Menu Settings   Common tab   Restart Time (in
	Start	Scanning section)
	Scan	Settings   Radio Menu Settings   Common tab   Resume Mode
	Resume	(in Scanning section)
	Sensor	Settings   Radio Menu Settings   Common tab   Sensor (in
	Display	Display section)
85 8	Sensor	Not something to be programmed. This is the display of he
	Information	information from an internal sensor of the radio. Access it as
		needed to check the internal workings of the radio.
86 \$	Set Mode	Settings   Radio Menu Settings   Common tab   Set Mode Cursor
	CSR	(in Display section)
	Set Mode	Settings   Radio Menu Settings   Common tab   Set Mode Format
	Format	(in Display section)
	Smart	Settings   Radio Menu Settings   Common tab   Smart Search
	Search	
		Sattings   Dadio Monu Sattings   Common tab   S. Matar Symbol
	S-Meter	Settings   Radio Menu Settings   Common tab   S-Meter Symbol
	Symbol	(in Display section)
90 8	Speaker Out	Settings   Radio Menu Settings   Sounds tab   FM Speaker
		Output
	Spec-	Settings   Radio Menu Settings   Common tab   Spec-Analyzer
	Analyzer	
92 3	SQL Level	Settings   Radio Menu Settings   Sounds tab   Squelch (This

		option can be set differently for several conditions. The
		Programmer presents all those options on the Sounds tab.)
93	SQL S-Meter	
94	SQL Split	Settings   Radio Menu Settings   Common tab   Split Tone (check
		box) Note: This options is engaged automatically by the
		Programmer for channels that have a split tone option set for
		Tone Mode.
95	SQL Type	Main screen   Tone Mode (This option can be set for each
		memory channel. The option must be set before a CTCSS
		frequency or DCS code can be changed.)
96	Step	Main screen   Offset Frequency (This option can be set for each
07	Frequency	memory channel.)
97	Stereo	Settings   Radio Menu Settings   Sounds tab   FM Broadcast
98	Time Set	Not addressed in the Programmer. If it were, the time on the
		radio would reset to the value in the file each time the radio was
		programmed with this file. Once the option is set on the radio, it
	Tana	is not changed by the Programmer.
99	Tone	Main screen   CTCSS (This option can be set for each memory
	Frequency	channel. The option cannot be changed unless Tone Mode is set to a CTCSS option that uses this value.)
100	Tone-SRCH	Settings   Radio Menu Settings   Common tab   Tone Search
	Mute	Mute (check box)
101	Tone-SRCH	Settings   Radio Menu Settings   Common tab   Fast Tone
	Speed	Search (check box)
102	TOT	Settings   Radio Menu Settings   Common tab   Time Out Timer
103	Unit Offset	Settings   Radio Menu Settings   Common tab   Altitude and
		Barometric Units/Offset (in Display section)
104	Unit Select	Settings   Radio Menu Settings   Common tab   Altitude and
_		Barometric Units/Offset (in Display section)
105	VFO Mode	Settings   Radio Menu Settings   Common tab   VFO Mode
106	VFO Skip	Main screen   VFO tab   Skip
107	Volume	Settings   Radio Menu Settings   Common Tab   Volume Key
	Mode	Mode (In the Programmer, the settings for this option, Hold and 3
		sec, reflects the description of the Normal and Auto Back
		functions as detailed in the User's Manual for the radio.)
108	VOX	Settings   Radio Menu Settings   Common tab   VOX
	VOX Delay	Settings   Radio Menu Settings   Common tab   VOX Delay
110	Wave	Settings   Radio Menu Settings   Common tab   Wave Monitor (in
	Monitor	Display section)
111	Wx Alert	Settings   Radio Menu Settings   Common tab   Weather Alert (in
		Weather section)

	APRS/GPS Set Mode				
1	APRS AF	Settings   Radio Menu Settings   ARPS / GPS tab   AF Dual (check			
	Dual	box)			
2	APRS	Not accessible to the Programmer. Fixed value.			

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	Destination	
3	APRS Filter	Sattinga   Padia Manu Sattinga   APPS / CPS tab (NanD ) / arrian)
3	AFROFILLE	Settings   Radio Menu Settings   ARPS / GPS tab (NonD Version),
$\vdash$	4000	APRS Beacon tab (D-Version)   Beacon Filter
	APRS	Settings   Radio Menu Settings   ARPS / GPS tab   APRS Modem
	Modem	
5	APRS Msg	Settings   Radio Menu Settings   ARPS / GPS tab   Message Flash
	Flash	(check box)
6	APRS Msg	Settings   Radio Menu Settings   ARPS / GPS tab   Message Text
	Text	
7	APRS Mute	Settings   Radio Menu Settings   ARPS / GPS tab   B-Band Mute
		(check box)
8	APRS	Settings   Radio Menu Settings   ARPS / GPS tab   Message Ringer
	Ringer Msg	(check box)
		Settings   Radio Menu Settings   ARPS / GPS tab (NonD Version),
Ĭ	Bcon	APRS Beacon tab (D-Version)   Beacon Ringer (check box)
10	APRS Unit	Settings   Radio Menu Settings   ARPS / GPS tab (NonD Version),
		APRS Beacon tab (D-Version)   APRS Units
11	APRS Tx	Settings   Radio Menu Settings   ARPS / GPS tab   TX Delay
' '		Settings   Radio Menu Settings   ARFS / GFS tab   IN Delay
	Delay	Cattings   Dadia Many Cattings   ADDS / ODS tab (NanD ) (arrive)
	Beacon	Settings   Radio Menu Settings   ARPS / GPS tab (NonD Version),
	Interval	APRS Beacon tab (D-Version)   Beacon Interval
	Beacon	Settings   Radio Menu Settings   ARPS / GPS tab (NonD Version),
	Stats Txt	APRS Beacon tab (D-Version)   Beacon Status Text
14	Beacon Tx	Settings   Radio Menu Settings   ARPS / GPS tab (NonD Version),
$\vdash$		APRS Beacon tab (D-Version)   Beacon TX
15	Digi Path	Settings   Radio Menu Settings   ARPS / GPS tab (NonD Version),
		APRS Beacon tab (D-Version)   Digi Path
		Note: This options is expanded in the D-Version to include more
		options. Each is appropriately presented for each radio.
16	GPS Datum	Settings   Radio Menu Settings   ARPS / GPS tab   Datum (in GPS
		section)
17	GPS Time	Settings   Radio Menu Settings   ARPS / GPS tab   Time Set (in
	Set	GPS section)
18	GPS Unit	Settings   Radio Menu Settings   ARPS / GPS tab   Altitude,
		Position, Speed (in GPS section)
19	Msg Filter	Settings   Radio Menu Settings   ARPS / GPS tab   Message Group
	My Callsign	Settings   Radio Menu Settings   ARPS / GPS tab   My Callsign
	My Position	Settings   Radio Menu Settings   ARPS / GPS tab   My Position
I I I	My Symbol	Settings   Radio Menu Settings   ARPS / GPS tab   My Symbol
	Position	Settings   Radio Menu Settings   ARPS / GPS tab   Position
	Comment	Comment
21	Smart	Settings   Radio Menu Settings   ARPS Beacon tab   Smart Beacon
24		
	Beaconing	Setting (to customize) AND Smart Beacon Type (to set one for use
		when Beacon Tx is set to Smart).
		This item is not a part of the original VX-8 radio. It does not appear
	<u>-</u>	in the Programmer for that model.
25	Time Zone	Settings   Radio Menu Settings   ARPS / GPS tab   Time Zone



# 10 Auto Range Transponder System

The Automatic Range Transponder System (ARTS) uses DCS signaling to inform you and another ARTS-equipped station that they are within range for communication. You need not have two matching radios to use this function. Any two radios equipped with the ARTS function can be used.

ARTS is used in simplex mode. The radio must receive on the same frequency as that transmitted by the other radio.

When setting up a channel for ARTS (VFO or memory), set the

- Offset Direction to SIMPLEX,
- Tone Mode to DCS,
- DCS code to the same value in each radio.

Besides its value in search and rescue operations, ARTS makes a great "did you hear me" feature. As long as the two radios show "IN RANGE", you can be sure that the radio received your audio . Presuming that the volume on the receiving radio is sufficient, you can be sure that your signal was heard. Especially when driving, the other operator may not be able to respond immediately to your communication. If ARTS remains successful, you can be sure that the voice transmission was heard (just as the ARTS signal is heard).

During the ARTS function, your radio will transmit a signal every 15 (or 25) seconds. This transmission includes the DCS tone. The receiving radio will hear only the signal with the tone. An extraneous signal that lacks the tone will not interfere with the ARTS functionality between these two radios.

The other radio does the same in a comparable time period. As long as the two remain within range, the displays will show "IN RANGE". Should one of the radios move too far from the other, three beeps will sound and the display changes to "OUT RANGE". Once with radios are again within range, a single beep will sound and the display will change to "IN RANGE". Whether or not you talk, the ARTS function continues until you deactivate it.

During ARTS operation, it is impossible to change the operating frequency or other settings of the radio. This prevents accidental loss of contact. You must terminate ARTS operations to resume normal operations including access to menu settings on the radio. The radio can be turned off even with ARTS engaged. This will cause an out-of-range situation for other radios.

Options for ARTS operations are entered on the [ARTS, CW, EAI] tab of the Radio

Menu Settings screen of the Programmer.

**ARTS Beep** - The ARTS function can operate either silently or audibly. Silently, the display shows the IN RANGE or OUT RANGE condition of the transceivers. The beep alerts you to the location status of the radios. The available options include

<u>OFF</u> - for silent operations.

<u>IN RANGE</u> - for a beep only when the radios first confirm that you are within range. The radios then remain silent as long as you remain within range.

<u>ALWAYS</u> - for a beep to sound every time a polling transmission is received from the other station.

**ARTS Enable** - Check to activate ARTS functionality. The radio will operate in ARTS mode immediately after it is programmed with this file.

Note: Remember, this is an option of the Settings file that programs the radio with every file of frequencies. You might prefer to turn this option on and off from the face of the radio thus gaining more control over this functionality.

To engage ARTS from the face of the radio press the FW then the [4] key. To disengage ARTS, press the [4] key.

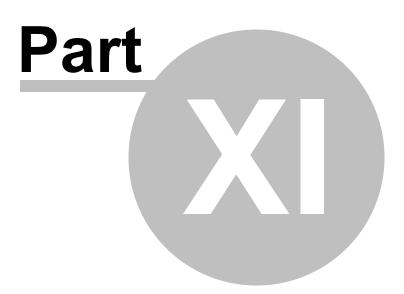
**ARTS Interval** - Set the frequency for ARTS polling. Available options are 25 seconds for maximum battery conservation or 15 seconds for extra security.

Note: ARTS will not function if the PTT is locked.

Transmissions during the ARTS function, whether or not accompanied by voice transmissions, require that you ID every 10 minutes to satisfy FCC identification requirements. Remember to enter your callsign into the CW ID field and check Enable to engage this part of the function.

**CW ID** - The callsign, name, or other identifying information (up to 16 characters) that will be transmitted to identify this radio. Enter the callsign and check Enable to activate its use by the radio.

When using ARTS this must be a callsign for legal operations. If this is used for EAI in emergency situations, other identifying information may be more helpful.



# 11 Emergency Automatic ID

The Emergency Automatic ID (EAI) feature can be used for searching for persons who are incapacitated. Search-and-rescue personnel who may have become injured in a debris field would especially benefit from this feature.

With EAI enabled, the radio of the incapacitated person will respond automatically when a unique CTCSS tone pair is received. The others of the group can perform direction-finding on this signal to locate the person. The callsign of the incapacitated person will also be transmitted if these options have been set for this feature.

The EAI feature requires several steps for setup. These include

1) Storing the desired frequency into the EAI Memory Channel

2) Setting up the CTCSS Tone Pair into the Receiving Pager Memory

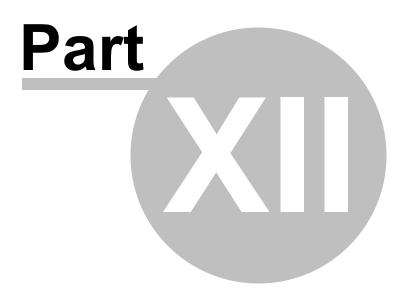
3) Entering the callsign, name, or other identifying information into the CW ID.

4) Setting the response interval.

Details are included here for setting up each of these from the Programmer

- 1) Storing the desired frequency into EAI Memory Channel
  - On the main screen of the Programmer, select the EAI tab from those at the bottom of the screen.
  - Enter the details for the channel to be used. *Note: This must be a UHF frequency.*
- 2) Setting up the CTCSS Tone Pair into the Receiving Pager Memory
  - Access the Settings screen using Settings | Radio Menu Settings from the main screen of the Programmer.
  - Once there, select the [ARTS / CW / EAI] tab.
  - The CTCSS Tone pair is selected from those available in the Receive Codes fields of the Pager section.
- 3) Entering the callsign, name, or other identifying information into the CW ID.

- This will identify the receiving radio in the emergency situation (the one of the person in trouble). This automatic ID option is especially useful when voice transmission is not possible.
- Access the Settings screen using Settings | Radio Menu Settings from the main screen of the Programmer.
- Once there, select the [ARTS / CW / EAI] tab.
- Enter your callsign, name or other identifying string (up to six characters) in the CW ID.
- 4) Setting the response interval.
  - Access the Settings screen using Settings | Radio Menu Settings from the main screen of the Programmer.
  - Once there, select the [ARTS / CW / EAI] tab.
  - Set Timer in the EAI section on this screen. The radio can be set to transmit a brief (0.5 second) beep tone every 2.5 seconds (Interval) or to transmit continuously (Continuous) for the time assigned.



# 12 Emergency Operations

## **Emergency Operations**

The radio has an Emergency feature that must be activated from the face of the radio. This feature would be helpful for finding someone lost, but not incapacitated, or for alerting others traveling with you of a danger in your vicinity.

The Emergency feature is activated by pressing and holding in the **[Hm/RV]** key for one second.

When this is feature is engaged

- The radio is placed on the UHF amateur band Home channel (be sure everyone in the group is on the same frequency);
- The radio emits a loud "Alarm" sound (the volume is controlled by the DIAI knob while pressing & holding the [VOL] key);
- The LED of the radio flashes in white;
- The emergency feature can be disabled temporarily when the PTT is pressed allowing for transmission on the UHF Home channel frequency; and
- The emergency feature automatically begins again 2 seconds after the transmission has ended.

Using the settings of the Emergency option on the ARTS/CW/EAI tab of the menu settings screen (Settings | Radio Menu Settings | ARTS/CW/EAI), select the alarm used when the Emergency function is engaged. Available values include the following with a default of Beep and Strobe.

- Beep+Strobe: Loud alarm sounds along with flashing of the LED.
- Beep: Loud "Alarm" sounds.
- Strobe: The LED flashes bright white.
- Beam: The LED glows continuously in white.
- Beam + Beep: A loud alarm sounds and the LED glows white continually.

80

- CW: The Busy LED flashes the message in 5 wpm Morse code\*. The message is entered in the Message field of the Emergency section.
- CW+Beep: The LED flashes the message in 5 wpm Morse Code\* and simultaneously a loud alarm is sounded.
- CW ID TX S: Transmits the programmed Emergency message (Morse Code)\* and flashes the white LED light, according to the programmed Emergency message (Morse Code)\* on the air beginning one minute after activation of the Emergency function.

```
* Note: The internationally-recognized Morse Code "SOS" message (
... - - - ...) is programmed at the factory for the Emergency message.
```

To program the Emergency Message:

Press [MODE] key to display previously stored emergency message

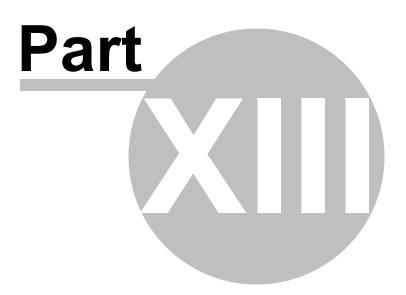
Press and hold the [HM/R] key for 2 seconds to clear previous message

Rotate DIAL knob (or press a keyboard key) to select the first letter/number of message

Press [MODE] key to move to next character

If you make a mistake press the [BAND] key to backspace & re-enter correct character. Press & hold the [HM/RV] key for 2 seconds to delete all data after the cursor that may have been previously entered/ stored erroneously

When message is complete, press [MODE] key again to confirm message, then press the PTT switch to save the settings and exit to normal operation.



# 13 Enhanced Paging and Coded Squelch

The radio includes an Enhanced CTCSS tone encoder/decoder and a dedicated microprocessor providing paging and selective calling features. This allows you to place a call to a specific station (Paging), and to receive calls of your choice directed only to you (Code Squelch).

The paging and code squelch systems use two pairs of CTCSS tones which are stored in the pager memories. Basically, your receiver remains silent until it receives the CTCSS tone pair that matches those stored in the Receiving Pager Memory.

The squelch then opens so the caller is heard, and the paging ringer immediately sounds, if activated. When you press the PTT to transmit, the CTCSS tone pair that is stored in the Transmitting Pager Memory will be transmitted automatically allowing you to talk to the other radio.

On the *paged* radio, the Coded Squelch will cease automatically after the incoming page ends. This allows you to talk to others with this functionality and others on the same frequency without this functionality (this person should have no tone mode set for the channel).

Meanwhile, on the *paging* radio, the Coded Squelch will be disabled when the PTT is released after the initial paging transmission. Conversation can continue between all parties and others on the frequency.

#### Note: If there are others in the group without the Enhanced Paging and Coded Squelch system, they cannot initiate a call to you since they cannot transmit the tones needed to open the squelch on the radios with this feature. They can participate in a conversation only once it has begun.

The Coded Squelch is reactivated after about 20 seconds of silence. When the Coded Squelch feature is activated, the "P" notation will appear at the 100 MHz digit of the frequency display. When the Coded Squelch is open, the "P" will flash on the display. This gives you a visual indication of your ability to receive calls from all persons in your group.

If you want to have your radio remain silent until a call is received from anyone in your group, use TSql (Tone Squelch) as the tone mode rather than the Enhanced Paging and Coded Squelch system to allow for those who do not have this feature. It is safe to say that of today's radios, all have Tone Squelch available while few have the Enhanced Paging and Coded Squelch system.

To setup the Enhanced Paging and Coded Squelch system in the Programmer.

#### 1) Enter the memory channel information for the frequency to be used

Note: Most repeaters do not pass tone. Unless you are sure of the repeater's ability to complete this part of the transmission, this feature should be used for simplex (radio to radio) transmissions.

2) On this memory channel, set Tone Mode to "Pager". You will notice that none of the tone frequency fields become available on the main screen when this option is selected. This is normal functionality for the Programmer since tone frequencies for this function are not set here.

3) Set the Bell to ring when a call is received (Optional). This is done by setting the Bell column on the Main screen of the Programmer to a selection other than Off.

4) From the menu at the top of the screen, select Settings | Radio Menu Settings. The Menu Settings screen opens.

5) Select the [ARTS / CW / EAI] tab.

6) In the Pager section on this page, set the CTCSS tones for Receive and Transmit Codes. Both the number of the selection and the tone to be used are shown in the Programmer.

7) Check the box for Answer Back to have the radio respond automatically to the received call (optional) Contingent on FCC rules governing automatic transmissions in the 144 Mhz frequency range.

8) If the Bell option is engaged (Bell column on the main page of the Programmer), select the "Sounds" tab of the Menu Settings screen.

9) Set the option for CTCSS/DCS Bell to the number of rings or Continuous.

10) If the Bell option is set to "User 1, 2, or 3" (on the main page of the Programmer), configure that user melody in the User Beep Melody section of this screen.

11) Select File | Save to save the changes to the settings made on the Menu Settings screen. If you are working in Untitled.rsf, you will be prompted for a filename. Enter a name to complete the process.

12) **Select File | Exit to close this screen** and return to the main screen of the Programmer.



# 14 Internet /WIRES Functionality

WIRES<sup>™</sup> (Wide-Coverage Internet Repeater Enhancement System) is a comprehensive and easy-to-use system for linking repeaters and/or home stations together, using Internet voice technology. Similar to voice over IP phone systems, this Internet connection can put you in touch with others around the world using using your handheld.

Now you can talk around the world using your hand-held or mobile radio via a WIRESequipped node. You can easily set up your own WIRES<sup>™</sup> node with a minimal equipment investment.

This site, www.vxstd.com/en/wiresinfo-en/, contains information regarding the WIRES <sup>TM</sup> Internet linking system from Vertex Standard. We welcome you to the World of WIRES<sup>TM</sup>. The site has lots of details for this feature including repeater frequencies, tones and access IDs. Find the latest details there.

The radio can be used to access a "node" (repeater or base station) which is tied into the Vertex Standard WIRES<sup>™</sup> (Wide-Coverage Internet Repeater Enhancement System) network. The VX-8 can operate on the SRG (Sister Radio Group) or FRG (Friendly Radio Group) mode.

Note: If other users report that you always have a DTMF "beep" at the beginning of each transmission, and you are not operating in conjunction with Internet access, disable the Internet access feature from the face of the radio by quickly pressing the [X] button. The [X] icon that indicates use of this feature will disappear from the screen once the feature is disabled.



# 15 Programming Memory Channels

# Working with the original VX-8 and the new VX-8D in the Programmer

Upon visual inspection of the original VX-8 and the new VX-8D, it is impossible to tell the two apart unless you check the label under the battery. Identical in appearance and similar in features, the differences in the features become significant when programming the radio with the software. Their "little brains" are significantly different when viewed by the Programmer.

The ADMS-VX8 Programmer contains details for both the original VX-8 and the new VX-8D (which will be referred to in this Help as Original and "D" for clarity). To access the added features for the VX-8D, execute Communications | Get Data From radio. Only the radio can tell the Programmer that it is a "D" model.

If you are switching between an original and a new "D" radio, execute Communications | Get Data From radio into a new file each time you switch between radios to let the Programmer know which radio is being addressed.

The Programmer makes it possible to use the same memory channel files for an original or a "D" radio. The two radios **CANNOT USE THE SAME SETTING FILES.** This is where all the differences are found. If you are using one radio, this will not pose a problem. If you are using an original AND a new "D" model radio, there will be extra steps and file management for programming the two.

Note: Whenever you do File | New and open a new VX-8 radio programming file, the Programmer will tell you which radio it is ready to address. In the titlebar at the top of the Programmer, VX-8 Programmer (for the original) or VX-8D Programmer (for the new "D" model) will be shown. The presence of the "D" lets you know that the Programmer is ready to send data to the "D" radio.

If you plan to work on your Original VX-8 radio and the titlebar shows "VX-8D", execute Communications | Get Data From radio into a new file using the original VX-8 radio. This will switch the Programmer back to being dedicated to the original VX-8.

**Suppose you have a new "D" radio as your only VX-8 radio.** (You are working within one Programmer for one radio. No extra attention to file management is needed other than the initial Get Data From radio process.)

Execute Communications | Get Data From radio with your new radio

Save the file.

Use this file to enter frequency information.

Make any other files that you want. You will always have all the details of this radio available for programming.

Access Settings | Radio Menu Settings. Make necessary changes.

Save the Settings file for the new radio. (Suggestion: Name the file in a way that you know in the future that it is for a "D" radio. This information in the filename may come in handy.)

Execute Communications | Send Data To radio.

These two files work together to program your "D" radio.

Create other memory channel files and other settings files as needed for your activities.

#### Suppose you have a new "D" radio in addition to your original VX-8 radio.

Close the file that opens with the Programmer.

Create a new file (File | New).

Execute Communications | Get Data From radio with the "D" radio

Re-open the original file.

Execute Communications | Send Data To for the "D"radio.

If you use options from the Settings menu, access Settings | Radio Menu Settings. Make necessary changes.

Save the Settings file for the new radio. (Suggestion: Name this settings file something different from what you named the original settings file... if nothing else, put a D at the end of the file name.)

Now, these two files will work together to program your "D" radio.

Execute Communications | Send Data To for the "D"radio.

When later you want to reprogram your original VX-8 radio,

Close all programming files saving as necessary.

Create a new file (File | New)

Execute Communications | Get Data From radio with your original radio.

Open the original file: make changes, make a new file, whatever you need to do at this point for the ORIGINAL radio.

Save your file.. give it a good name to identify it for the original radio.

Execute Communications | Send Data To radio to program your original radio.

# Suppose you are only making changes to memory channel information for both of your original and "D" radios.

Open the file.

Make changes.

Save the file- either same name or different - your choice.

Check the titlebar. Execute Communications | Send Data To radio with the radio that matches that of the titlebar (i.e., VX-8 Programmer - to the original radio / VX-8D Programmer - to the "D" radio).

Close all files in the Programmer saving as necessary.

For the **"other"** radio:

Open New File (File | New)

Execute Communications | Get Data From radio. Be sure to Get Data From the "other" radio.

Notice that the designation in the titlebar changes (now with or without the "D" as appropriate for the radio). This should be different from what was there before you read the radio.

Open the file into which you made the changes.

Execute Communications | Send Data To radio to program this radio.

This may seem a little clumsy given the radios appear to be so similar. Suffice to say, "Appearances are deceiving".

# **Programming Memory Channels (Original or "D")**

The radio has lots of different types of memory channels. In the Programmer, these all program in a spreadsheet dedicated to that "type" of memory.

Use the links to access details for any one of these.

Regular Memory Channels - The several hundred all radios have these days. The ones you will use most often.

Home Channels Memories - These are special memory channels that have one button access from the face of the radio. See the User's Manual for the radio for details of how to access these memories from the face of the radio.

Limit Memories - These memory channels can be used as "regular" memories giving you that many more memory channels for individual use; however, these also control the top and bottom range of scanning when you begin scanning on one of these.

Marine and SW Banks - Many of the radios have preprogrammed marine and shortwave frequencies. These channels can be assigned to banks and have names appended for better organization.

Skip Memories - Frequencies that are to be skipped during VFO scanning.

VFO Memories - Settings for VFO operations when the file is first sent to the radio. This channel has no one button recall on the radio and will change when the tuning knob is used. To be able to recall settings at any time, use the Regular Memory Channels.

EAI and Weather Memories - A special memory channel programmed as an Emergency Automatic ID (EAI) channel. The preprogrammed NOAA weather frequencies can have names appended for easier identification.

Details on the special editing abilities of the Programmer are included in the *Easy Editing in the Grid* section. Review these details to make data entry even easier.

At any time, these topics are available from the Table of Contents at the left.

#### 15.1 Regular Memory Channels

The Main window of the Programmer is designed for memory channel entry.

All details associated with the memory channels are programmed from this screen. These are not all the functions of the radio. Other features are set once for the radio to use no matter which memory channel you're on. These items are set on the Settings screen accessed through Settings | Radio Menu Settings from the menu at the top of the screen. In the VX-8, there are LOTS of other options to be set. Columns continue off the right side of the window. Use the bar at the bottom of the screen to move to these columns or press ENTER to step through each column.

Columns can be hidden using the selections of the Preferences screen. Select Settings | Preferences in the menu to access this screen. These columns remain hidden in this and any other file (new or otherwise) until they are "unhidden" on the Preferences screen. Information is entered into these columns automatically when a new frequency is entered. The information in a hidden column is always there: it is just not visible.

*Make programming extra easy. Try Simple Mode in the software for even less to enter.* "Simple Mode" is a quick memory channel entry. In Simple Mode only the columns needed for the minimum information to set up the channel are shown on the screen. Extra columns are hidden and filled with default information. To put the screen into Simple Mode, select Edit | Simple Mode from the menu. While in Simple Mode, you cannot access the Preferences screen. The Programmer controls what columns are hidden while in this mode.

#### **Details to be entered for Memory Channels**

**Receive Frequency**: Enter a receive frequency for the memory channel. Acceptable frequencies are detailed in the User's Manual for the radio.

- Unacceptable frequencies cannot be entered into the Programmer. Cellular frequencies are blocked.
- Memory channels can store any acceptable frequency in any order (i.e., UHF can follow VHF or any other band order).
- The first memory channel must be programmed.
- While memory channels can be entered in any order, the sub-band receives on fewer bands than does the main band. Realize that memory channels containing frequencies outside the range of the sub-band will not be displayed there as they will be on the main band. The radio will simple skip over that memory channel when tuning in memory mode or scanning on the sub-band.

**Transmit Frequency**: Enter a specific transmit frequency or let the Programmer calculate this frequency based on the offset. This field is always available; however the transmit frequency for an "odd split" is the only value that must be manually entered. Acceptable transmit frequencies are 144 - 148 MHz and 430 - 450 MHz.

Note: In the Programmer you can enter details for frequencies outside the transmission abilities of the radio. However, the software

#### will not enable transmission on these frequencies. Transmission will be possible only if the radio has been properly modified.

**Entering a "Split" pair:** When you are given information to program your radio, you may be given a "pair" of frequencies (one for transmit and a different one for receive). This pair is referred to as a split.

In a Yaesu radio, a split is truly "odd" if the difference between the two frequencies is not evenly divisible by 50. If this is the case, the pair can be entered with a plus or minus offset making the radio perform more efficiently. It also gives you back the Reverse function should you ever need to listen to the input frequency for the repeater. If this is the case, see the section on Using a Non-Standard Offset Frequency Value just below in this Help section.

This information is easily entered into the Programmer and sent to the radio.

- First, enter the Receive Frequency into that column of the Programmer. This will be the frequency that you list on.
- Press Enter. The Programmer will fill the remaining columns with default information which may or may not be right for your particular situation.
- The Transmit field will be active as indicated by the dark border. Enter the Transmit Frequency from the information you have into this field. (Note: Simply type the first number of that frequency. The field will change without having to erase what is there.)
- Press Enter.
- The Programmer will set the Offset Frequency and Offset Direction as needed for this pair. Ignore these two columns. The information in these two columns may change when the file is opened again if the offset can be figured to a 50kHz value and the direction set to plus or minus. This gives you back functionality on the radio that is lost with a channel marked "Split". If you see this change, ignore it. The radio will function exactly the same when you use it with these different settings.

You are finished with this entry unless you need to enter Name, Tone or other details for this memory channel.

**Offset Frequency**: Standard offsets include 100, 500, and 600 kHz and 1.0, 1.6, 1.7, 3.0, 5.0, 7.6, and 99.0 MHz.

The default Offset Frequency depends on the band of the Receive Frequency being entered (i.e., 2M Band is always 600 kHz, 430 Band is always 5.0 MHz, etc)

Although an Offset Frequency is displayed for every memory channel, it is not used by the radio if the Offset direction is set to Simplex.

Yaesu radios can use an Offset Frequency of any value in 50 kHz steps (i.e., any value ending in .x00 or .x50 where x is any digit from 0 to 9) with a Plus or Minus Offset Direction. This gives you the ability to use the Reverse function of the radio although your frequency pair is not separated by a standard offset value.

Any offset frequency value is ignored by the radio if the offset direction is set to Simplex or Split.

A **nonstandard Offset Frequency** value is entered by typing that value into the Offset Frequency field after the Receive Frequency has been entered for that channel. Then select Plus or Minus in the Offset Direction column and watch the Programmer calculate the Transmit Frequency.

Values would be entered as an exact number including the decimal to denote kHz.

- Given the pair 146.650 and 147.300
- The Offset Frequency entered would be .650 (decimal six five zero) Without the decimal, an error is raised in the Programmer that a valid Offset Frequency should be entered.
- The Offset Direction would be set to Plus

As another example:

- The pair 147.255 and 145.940 could not be entered with an Offset Frequency and an Offset Direction.
- The resulting offset for this pair us 1.315 MHz, which is not on a 50 kHz step (does not divide evenly by 50).
- This pair requires entry of both the Receive and Transmit frequency with the Offset Direction set to Split.
- In this case, any value that appears in the Offset Frequency column will be ignored by the radio when it uses this memory channel.

Offset Direction: This function denotes how the receive and transmit frequency differ.

Simplex - transmit and receive frequencies are the same;

Minus - the offset is subtracted from the receive frequency;

Plus - the offset frequency is added to the receive frequency;

<u>Split</u> - for a non-standard offset. The user enters both the receive and transmit frequencies.

**Operating Mode**: Assign FM, AM, or WFM as appropriate for the frequency.

**Name**: Enter an Alpha/Numeric tag (up to 16 characters) to a memory channel to provide an easy reminder of the function of a particular channel. The Name is displayed automatically on the radio beneath the operating frequency. The name will not be displayed if the radio is operated in Dual Receive mode.

**Tone Mode**: Use of the tone systems of the radio allows for silent monitoring until a call is received with a corresponding tone. Tone mode also allows access to repeaters that are made private with a PL tone.

The radio offers CTCSS (Continuous Tone Coded Squelch System) or DCS (Digital Coded Squelch) to be tailored to your particular needs.

Use of either of the tone systems requires two steps:

1) Turning on the Tone Mode and

2) Selecting the CTCSS tone or DCS code from the values in the appropriate column.

The **Tone Mode** options are:

<u>None</u> - No tone system activated. Even if the CTCSS Tone or DCS Code column is set to the appropriate value, transmissions will not get through unless this column is set to an appropriate function.

<u>Tone</u> - CTCSS tone generator is activated for transmission only (this mode is used for many if not most repeater operations). When this option is selected, the CTCSS column becomes available. Select the tone frequency from those in the list. The value must be in the list. With Tone selected as the Tone Mode, the value that appears in the DCS code column is ignored by the radio.

<u>TSql</u> - CTCSS tone squelch is activated for both transmission and reception (only signals "encoded" with the matching tone will open the squelch. Your radio will remain silent otherwise). When this option is selected, the CTCSS column becomes available. Select the tone frequency from those in the list. The value must be in the list. The radio uses the frequency set in the CTCSS

Tone column for both Encode and Decode (transmission and reception) With TSql selected as the Tone Mode, the value that appears in the DCS code column is ignored by the radio.

<u>DCS</u> - Digital Coded Squelch mode is activated for transmission and reception. When this option is selected, the DCS column becomes available. Select the code from those in the list. The value must be in the list. The radio uses the DCS Code for both transmissions and reception. With DCS selected as the Tone Mode, the value that appears in the CTCSS tone column is ignored by the radio.

<u>Rev CTCSS (Rev Tone)</u> - Activates the reverse CTCSS Decoder which mutes the receiver when a matching CTCSS tone is heard. When this option is selected, the CTCSS column becomes available. Select the tone frequency from those in the list. The value must be in the list.

<u>User CTCSS (PR Freq)</u> - Activates the User programmed Reverse CTCSS Decoder which mutes the receiver when the matching tone is received. When this option is selected, the User CTCSS column becomes available. Select a value between 300Hz and 3000Hz (in 100 Hz steps). The default is 1600Hz. With User CTCSS selected as the Tone Mode, the values that appear in the CTCSS and DCS tone columns are ignored by the radio.

# Note: User CTCSS is not a feature that allows you to program a custom tone for repeater use. Alternately, it is not to be used for the tone needed for repeater operations. This is a special feature of the radio designed for a specific function rather than general use.

Pager - Activates the Enhanced Paging and Code Squelch system.

Note: When this option is selected, none of the tone frequency columns on the main screen become available. Tones are not set here for this function. See the Enhanced Paging and Coded Squelch (EPCS) section of this Help for details on setting up the other options for this function.

<u>Message</u> - Activates the Message feature. See the section on this feature for details on setting up the other options for this function.

<u>D Code</u> - Digital Coded Squelch mode is activated for transmission only. With D selected as the Tone Mode, the value that appears in the CTCSS Tone column is ignored by the radio. The radio uses the DCS Code set in the DCS code column for transmissions only. Reception is open for any signal.

<u>T DCS</u> - CTCSS encode (tone squelch) is activated for transmission and Digital Coded Squelch for reception. With T-DCS selected as the Tone Mode, the values that appear in the CTCSS Tone and DCS Code columns are both used by the radio. The CTCSS Tone selection is used for

transmissions while the DCS Code selection is used for reception. Be sure that you set both the CTCSS Tone and the DCS Code once this option is selected.

<u>D Tone</u> - Digital Coded Squelch is activated for transmission and CTCSS decode for reception. With D - TSQL selected as the Tone Mode, the values that appear in the CTCSS Tone and DCS Code columns are both used by the radio. The CTCSS Tone selection is used for reception while the DCS Code selection is used for transmission. Be sure that you set both the CTCSS Tone and the DCS Code once this option is selected.

**CTCSS Tone**: This field is available when Tone Mode is set to Tone, T Sql, Rev CTCSS, T DCS or D Tone. Select one of 50 tone frequencies to be used in the Encode or Decode modes. This value is set independently for each memory channel. A value that appears in this field is *ignored* by the radio if one of the tone modes that uses CTCSS is not activated.

**DCS Code**: This field becomes active when Tone Mode is set to DCS, D Code, T DCS or D Tone. Select one of the 104 codes available for use when the radio is in DCS mode. This value is set independently for each memory channel. A value that appears in this field is *ignored* by the radio if one of the tone modes that uses DCS is not activated.

**DCS Polarity**: This field becomes available when the Tone Mode is set to DCS, D Code, T DCS or D Tone. Select the function for the "inverted" DCS Tone. See the section on DCS Tone Inversion in this Help for more details on this function of the radio.

Generally, this options is left as the default RN-TN for normal DCS tone operations. The options for this function include:

<u>RN -TN</u>: Receive and transmit the Normal DCS Tone.

<u>RI-TN</u>: Receive the Inverted DCS Tone and transmit the Normal DCS Tone.

<u>RB -TN</u>: Receive both Normal and Inverted DCS Tones and transmit the Normal DCS Tone.

<u>RN - TI</u>: Receive the Normal DCS Tone and transmit the Inverted DCS Tone.

<u>RI-TI</u>: Receive and transmit the Inverted DCS Tone.

<u>RB -TI</u>: Receive both Normal and Inverted DCS Tones and transmit the Inverted DCS Tone.

**User CTCSS**: This field becomes active when Tone Mode is set toe User CTCSS. Select a value between 300Hz and 3000Hz (in 100 Hz steps). The default is 1600Hz. With User CTCSS selected as the Tone Mode, the values that appear in the CTCSS and DCS tone columns are ignored by the radio.

# Note: User CTCSS is not a feature that allows you to program a custom tone for repeater use. Alternately, it is not to be used for the tone needed for repeater operations. This is a special feature of the radio designed for a specific function rather than general use.

**Tx Power**: The output power can be set individually set for each memory channel to address the exact needs of each operation. Select Low1, Low2, Low3, or High for each memory channel. The power out for each of these settings varies for this radio depending on its power source (battery or DC power supply) and frequency. See the User's manual for the specifics.

**Skip**: Marks selected memory channel to be skipped during scanning These channels remain available for manual selection by turning the knob.

<u>Off</u> - The channel will be scanned for activity whenever scanning is done.

Skip - The channel will be skipped.

<u>P-Scan</u> - The channel is included in a special scanning group. These channels are scanned when scanning is begun on a P-scan channel.

**Step**: The frequency that the radio is on changes by the value of the step when tuning manually. This value is used by the radio in Memory Tune mode. This value is not critical in memory mode since the original memory channel frequency can be retrieved by exiting Memory Tune mode. In VFO, this value could keep you from returning to your original frequency. Select from Auto / 5 / 6.25 / 10 / 12.5 / 15 / 20 /25 / 50 / or 100 kHz steps as needed.

Note: There are some special exceptions for setting step including

- AM Broadcast band only step values of 9.0 and 10.0 kHz are available;
- Air band includes 8.33 kHz. This step value is not available in other modes;
- 5 kHz not available in 250 300 MHz range or above 580 MHz.

Mask: A masked channel is not available for use either during scanning or when the

radio is tuned manually in memory mode.

Masking a channel "hides" it until you "unmask" it from the face of the radio or by sending a file with this option unchecked. Only then will it be available for use. This is a good way to prevent another user from accidentally accessing a channel or to store memories for another area that are used only when you visit that place.

**Attenuator**: Check to enable the front end attenuator that will reduce received signals and noise in an attempt to make reception better in a noisy setting. With this option On, weaker signals may not be heard. The options are On (checked) and Off (unchecked). The default is Off. This is normally a global option in Yaesu radios. This is the first of the radios that allows you to control attenuation for each memory channel giving you more control for operations on each channel.

**Internet:** Enables / disables connection into the Vertex Standard WIRES<sup>™</sup> (Wide-Coverage Internet Repeater Enhancement System) network. See the Radio Menu Settings | DTMF/Internet section of this Help for more details.

**S-Meter Squelch:** Adjust the RF Squelch threshold level. As the squelch level increases, weaker signals are not heard and incoming noise is eliminated when listening on the channel. If after you program the radio with this file it receives continuously or does not receive an expected signal, increase or reduce the squelch for the channel.

**Bell**: During CTCSS Decode (TSqI), DCS, Message, or Enhanced Paging Code Squelch (Pager) operation, you may set up the radio so a ringing "bell" sound (or user programmed beep) alerts you to an incoming call. Select from Off (no ring) On (pre-programmed sound), or one of three User defined ringers.

Using this feature requires several things:

1) You are using CTCSS Decode (T Sql), DCS, Message, or Enhanced Paging & Code Squelch (Pager) set up for this channel.

- CTCSS Decode (T Sql) and DCS are set up from the main page of the Programmer by turning on the Tone Mode and setting the CTCSS frequency or DCS code.
- Paging & Pager requires more setup. See the Enhanced Paging and Code Squelch section of this Help for more details.
- Message required more setup. See the Message section (located

under Programming Other Radio Set Items) of this Help for details.

2) You select a Bell option from those listed on the main page of the Programmer.

3) You set the action of the bell (number of rings or Continuous) from the Sounds page of the Menu Settings screen accessed from the Settings | Radio Menu Settings item in the menu at the top of the main screen.

A fourth step is required if you are using a customized sound for the bell.

The User defined ringers are set up on the Sounds tab of the Menu Settings section of the Programmer accessed from the main screen with Settings | Radio Menu Settings.

**Half Dev(iation)**: Check the box to engage Narrow (+ 2.5 kHz) Deviation as compared to + 5 kHz normally or when this option is off. This change helps prevent interference with other stations in a crowded environment.

#### Note: The receiver's IF filter bandwidth is not changed via this setting. This setting will not enable the radio to perform on new commercial channels that are on 2.5kHz steps. Those frequencies are reserved for commercial use and are not available to amateur equipment.

**Clock Shift**: Shifts the internal reference frequency slightly to eliminate "birdies" that interfere on other channels.

**Banks**: Check the box to assign a memory channel to a given Bank. More details about using banks can be found in the Memory Banks section of this Help.

Note: If you are assigning channels to banks after you have entered all of them, use Bank Settings (Settings | Bank Settings or Ctrl B) in the Programmer to make access to these columns easier by hiding several of the columns that are not needed for this operation. To return all the columns to the screen, select Settings | Bank Settings again.

**Comments** An identifying comment up to 80 characters. This information is not transferred to the radio.

#### 15.1. .1 Memory Banks

The VX-8 provides 24 Memory Banks, labeled "b 1" through "b24". Each Memory Bank can be assigned up to 100 channels from the regular memory channels.

The regular memory channels include 900 standard channels numbered 1 ~ 900.

Memory banks offer a way to organize your channels for specialized operations. A simple scenario of this organization might include:

- Putting all your VHF and UHF ham repeaters into Bank 1. If you use your radio mainly for "hamming" you would operate in Bank 1 most of the time so you can scan without having to listen to all the other traffic.
- Then put your Fire and Rescue channels into Bank 2. When you're on the scene of an emergency, you would operate in Bank 2 to eliminate interference from the amateur traffic.
- If you travel for business to one other location repeatedly, put the channels for that location into Bank 3. When you are there, you operate in Bank 3. Then when you scan for activity, you scan 10 channels instead of the 100 you now have in memory. Remember, if one of these repeaters is the same as one in your "home" group, including Tone mode and value) there is no need to program that repeater into another memory channel. Simply include it in both Banks 1 and 3 to have it available in both locations.

This is a simple example. The types of activities may not even apply to you; but the concept is the same no matter what the activities.

### **Memory Bank Assignments**

To assign a memory channel to a bank, check the box for that channel under the column for the Bank. Keep this in mind as you do your assignments:

A channel can be include in no bank.

A channel an be included in all banks.

A channel can be included and not included as needed in your organization of your channels.

Use Settings | Bank Settings from the menu at the top of the main screen to make the process of assigning channels to banks easier. When Bank Settings is engaged, several columns are removed from the screen automatically. This makes it easy to work with the spreadsheet without

having to scroll across so many columns.

You will need to know how to access memory banks from the face of the radio. Consult your operating manual for details.

## **Accessing Memory Banks**

The programmer makes it easy to assign the channels to memory banks. However, it cannot select the bank to be used. That is done from the face of the radio after it is programmed.

To access the memory banks:

Be sure the radio is in memory mode as indicated by the MR next to the displayed frequency. If it is not, press the **[V/M]** key briefly to enter memory mode.

Press **[BAND]** key to enter bank mode as indicated by the "B #" that replaces the MR next to the displayed frequency (# is the bank number). The radio will return to the last bank used or will go to bank 1 if this is the first time you have accessed bank mode.

Now that you are in bank mode, press **[FW]** then **[Band]** again to enter bank selection mode. The frequency on the radio will be replaced by Bank # or the bank name (Entering bank names using the programmer is discussed in the next section of this help topic.)

Turn the **KNOB** to select a bank.

Press **[Band]** again to lock in that selection. In bank mode, the radio operates only on the channels assigned to that bank.

To return to operations on all memory channels, press **[Band]** key. The MR will return to the display to the left of the frequency indicating that the radio is operating in memory mode with all channels available.

### **Bank Names and Linking**

These features are programmed under Settings | Bank Names and Linking

**Name** - An alpha/numeric tag (up to 6 characters) can be assigned to a memory bank to more easily identify it.

That name appears at the top of the bank column in the Programmer

It appears on the radio when you are selecting a bank.

**Link** - Check the box to "join" banks for scanning. When scanning is begun on any one of the banks in the linked group, all the channels of these banks will be included.

Note: Bank linking is only for scanning. When tuning manually in a bank, only the memory channels in that bank will be available.

You can have only one linked combination . . . so choose carefully.

Remember, if you begin scanning on a bank that is not linked, you will scan only the channels in that one bank.

#### 15.1.3 Bell

The Main window of the Programmer is designed for memory channel entry.

All details associated with the memory channels are programmed from this screen. These are not all the functions of the radio. Other features are set once for the radio to use no matter which memory channel you're on. These items are set on the Settings screen accessed through Settings | Radio Menu Settings from the menu at the top of the screen. In the VX-8, there are LOTS of other options to be set.

Columns continue off the right side of the window. Use the bar at the bottom of the screen to move to these columns or press ENTER to step through each column.

Columns can be hidden using the selections of the Preferences screen. Select Settings | Preferences in the menu to access this screen. These columns remain hidden in this and any other file (new or otherwise) until they are "unhidden" on the Preferences screen. Information is entered into these columns automatically when a new frequency is entered. The information in a hidden column is always there: it is just not visible.

*Make programming extra easy. Try Simple Mode in the software for even less to enter.* "Simple Mode" is a quick memory channel entry. In Simple Mode only the columns needed for the minimum information to set up the channel are shown on the screen. Extra columns are hidden and filled with default information. To put the screen into Simple Mode, select Edit | Simple Mode from the menu. While in Simple Mode,

you cannot access the Preferences screen. The Programmer controls what columns are hidden while in this mode.

#### **Details to be entered for Memory Channels**

**Receive Frequency**: Enter a receive frequency for the memory channel. Acceptable frequencies are detailed in the User's Manual for the radio.

- Unacceptable frequencies cannot be entered into the Programmer. Cellular frequencies are blocked.
- Memory channels can store any acceptable frequency in any order (i.e., UHF can follow VHF or any other band order).
- The first memory channel must be programmed.
- While memory channels can be entered in any order, the sub-band receives on fewer bands than does the main band. Realize that memory channels containing frequencies outside the range of the sub-band will not be displayed there as they will be on the main band. The radio will simple skip over that memory channel when tuning in memory mode or scanning on the sub-band.

**Transmit Frequency**: Enter a specific transmit frequency or let the Programmer calculate this frequency based on the offset. This field is always available; however the transmit frequency for an "odd split" is the only value that must be manually entered. Acceptable transmit frequencies are 144 - 148 MHz and 430 - 450 MHz.

#### Note: In the Programmer you can enter details for frequencies outside the transmission abilities of the radio. However, the software will not enable transmission on these frequencies. Transmission will be possible only if the radio has been properly modified.

**Entering a "Split" pair:** When you are given information to program your radio, you may be given a "pair" of frequencies (one for transmit and a different one for receive). This pair is referred to as a split.

In a Yaesu radio, a split is truly "odd" if the difference between the two frequencies is not evenly divisible by 50. If this is the case, the pair can be entered with a plus or minus offset making the radio perform more efficiently. It also gives you back the Reverse function should you ever need to listen to the input frequency for the repeater. If this is the case, see the section on Using a Non-Standard Offset Frequency Value just below in this Help section. This information is easily entered into the Programmer and sent to the radio.

- First, enter the Receive Frequency into that column of the Programmer. This will be the frequency that you list on.
- Press Enter. The Programmer will fill the remaining columns with default information which may or may not be right for your particular situation.
- The Transmit field will be active as indicated by the dark border. Enter the Transmit Frequency from the information you have into this field. (Note: Simply type the first number of that frequency. The field will change without having to erase what is there.)
- Press Enter.
- The Programmer will set the Offset Frequency and Offset Direction as needed for this pair. Ignore these two columns. The information in these two columns may change when the file is opened again if the offset can be figured to a 50kHz value and the direction set to plus or minus. This gives you back functionality on the radio that is lost with a channel marked "Split". If you see this change, ignore it. The radio will function exactly the same when you use it with these different settings.

You are finished with this entry unless you need to enter Name, Tone or other details for this memory channel.

**Offset Frequency**: Standard offsets include 100, 500, and 600 kHz and 1.0, 1.6, 1.7, 3.0, 5.0, 7.6, and 99.0 MHz.

The default Offset Frequency depends on the band of the Receive Frequency being entered (i.e., 2M Band is always 600 kHz, 430 Band is always 5.0 MHz, etc)

Although an Offset Frequency is displayed for every memory channel, it is not used by the radio if the Offset direction is set to Simplex.

Yaesu radios can use an Offset Frequency of any value in 50 kHz steps (i.e., any value ending in .x00 or .x50 where x is any digit from 0 to 9) with a Plus or Minus Offset Direction. This gives you the ability to use the Reverse function of the radio although your frequency pair is not separated by a standard offset value.

Any offset frequency value is ignored by the radio if the offset direction is set to Simplex or Split.

A *nonstandard Offset Frequency* value is entered by typing that value into the Offset

Frequency field after the Receive Frequency has been entered for that channel. Then select Plus or Minus in the Offset Direction column and watch the Programmer calculate the Transmit Frequency.

Values would be entered as an exact number including the decimal to denote kHz.

- Given the pair 146.650 and 147.300
- The Offset Frequency entered would be .650 (decimal six five zero) -Without the decimal, an error is raised in the Programmer that a valid Offset Frequency should be entered.
- The Offset Direction would be set to Plus

As another example:

- The pair 147.255 and 145.940 could not be entered with an Offset Frequency and an Offset Direction.
- The resulting offset for this pair us 1.315 MHz, which is not on a 50 kHz step (does not divide evenly by 50).
- This pair requires entry of both the Receive and Transmit frequency with the Offset Direction set to Split.
- In this case, any value that appears in the Offset Frequency column will be ignored by the radio when it uses this memory channel.

Offset Direction: This function denotes how the receive and transmit frequency differ.

Simplex - transmit and receive frequencies are the same;

Minus - the offset is subtracted from the receive frequency;

Plus - the offset frequency is added to the receive frequency;

<u>Split</u> - for a non-standard offset. The user enters both the receive and transmit frequencies.

**Operating Mode**: Assign FM, AM, or WFM as appropriate for the frequency.

**Name**: Enter an Alpha/Numeric tag (up to 16 characters) to a memory channel to provide an easy reminder of the function of a particular channel. The Name is displayed automatically on the radio beneath the operating frequency. The name will not be displayed if the radio is operated in Dual Receive mode.

**Tone Mode**: Use of the tone systems of the radio allows for silent monitoring until a call is received with a corresponding tone. Tone mode also allows access to repeaters that are made private with a PL tone.

The radio offers CTCSS (Continuous Tone Coded Squelch System) or DCS (Digital Coded Squelch) to be tailored to your particular needs.

Use of either of the tone systems requires two steps:

1) Turning on the Tone Mode and

2) Selecting the CTCSS tone or DCS code from the values in the appropriate column.

The **Tone Mode** options are:

<u>None</u> - No tone system activated. Even if the CTCSS Tone or DCS Code column is set to the appropriate value, transmissions will not get through unless this column is set to an appropriate function.

<u>Tone</u> - CTCSS tone generator is activated for transmission only (this mode is used for many if not most repeater operations). When this option is selected, the CTCSS column becomes available. Select the tone frequency from those in the list. The value must be in the list. With Tone selected as the Tone Mode, the value that appears in the DCS code column is ignored by the radio.

<u>TSql</u> - CTCSS tone squelch is activated for both transmission and reception (only signals "encoded" with the matching tone will open the squelch. Your radio will remain silent otherwise). When this option is selected, the CTCSS column becomes available. Select the tone frequency from those in the list. The value must be in the list. The radio uses the frequency set in the CTCSS Tone column for both Encode and Decode (transmission and reception) With TSql selected as the Tone Mode, the value that appears in the DCS code column is ignored by the radio.

<u>DCS</u> - Digital Coded Squelch mode is activated for transmission and reception. When this option is selected, the DCS column becomes available. Select the code from those in the list. The value must be in the list. The radio uses the DCS Code for both transmissions and reception. With DCS selected as the Tone Mode, the value that appears in the CTCSS tone column is ignored by the radio.

<u>Rev CTCSS (Rev Tone)</u> - Activates the reverse CTCSS Decoder which mutes the receiver when a matching CTCSS tone is heard. When this option is selected, the CTCSS column becomes available. Select the tone frequency from those in the list. The value must be in the list.

<u>User CTCSS (PR Freq)</u> - Activates the User programmed Reverse CTCSS Decoder which mutes the receiver when the matching tone is received. When this option is selected, the User CTCSS column becomes available. Select a value between 300Hz and 3000Hz (in 100 Hz steps). The default is 1600Hz. With User CTCSS selected as the Tone Mode, the values that appear in the CTCSS and DCS tone columns are ignored by the radio.

Note: User CTCSS is not a feature that allows you to program a custom tone for repeater use. Alternately, it is not to be used for the tone needed for repeater operations. This is a special feature of the radio designed for a specific function rather than general use.

Pager - Activates the Enhanced Paging and Code Squelch system.

Note: When this option is selected, none of the tone frequency columns on the main screen become available. Tones are not set here for this function. See the Enhanced Paging and Coded Squelch (EPCS) section of this Help for details on setting up the other options for this function.

<u>Message</u> - Activates the Message feature. See the section on this feature for details on setting up the other options for this function.

<u>D Code</u> - Digital Coded Squelch mode is activated for transmission only. With D selected as the Tone Mode, the value that appears in the CTCSS Tone column is ignored by the radio. The radio uses the DCS Code set in the DCS code column for transmissions only. Reception is open for any signal.

<u>T DCS</u> - CTCSS encode (tone squelch) is activated for transmission and Digital Coded Squelch for reception. With T-DCS selected as the Tone Mode, the values that appear in the CTCSS Tone and DCS Code columns are both used by the radio. The CTCSS Tone selection is used for transmissions while the DCS Code selection is used for reception. Be sure that you set both the CTCSS Tone and the DCS Code once this option is selected.

<u>D Tone</u> - Digital Coded Squelch is activated for transmission and CTCSS decode for reception. With D - TSQL selected as the Tone Mode, the values that appear in the CTCSS Tone and DCS Code columns are both used by the radio. The CTCSS Tone selection is used for reception while the DCS Code selection is used for transmission. Be sure that you set both the CTCSS Tone and the DCS Code once this option is selected.

CTCSS Tone: This field is available when Tone Mode is set to Tone, T Sql, Rev

CTCSS, T DCS or D Tone. Select one of 50 tone frequencies to be used in the Encode or Decode modes. This value is set independently for each memory channel. A value that appears in this field is *ignored* by the radio if one of the tone modes that uses CTCSS is not activated.

**DCS Code**: This field becomes active when Tone Mode is set to DCS, D Code, T DCS or D Tone. Select one of the 104 codes available for use when the radio is in DCS mode. This value is set independently for each memory channel. A value that appears in this field is *ignored* by the radio if one of the tone modes that uses DCS is not activated.

**DCS Polarity**: This field becomes available when the Tone Mode is set to DCS, D Code, T DCS or D Tone. Select the function for the "inverted" DCS Tone. See the section on DCS Tone Inversion in this Help for more details on this function of the radio.

Generally, this options is left as the default RN-TN for normal DCS tone operations. The options for this function include:

- RN -TN: Receive and transmit the Normal DCS Tone.
- <u>RI-TN</u>: Receive the Inverted DCS Tone and transmit the Normal DCS Tone.

<u>RB -TN</u>: Receive both Normal and Inverted DCS Tones and transmit the Normal DCS Tone.

- RN TI: Receive the Normal DCS Tone and transmit the Inverted DCS Tone.
- RI-TI: Receive and transmit the Inverted DCS Tone.
- <u>RB -TI</u>: Receive both Normal and Inverted DCS Tones and transmit the Inverted DCS Tone.

**User CTCSS**: This field becomes active when Tone Mode is set toe User CTCSS. Select a value between 300Hz and 3000Hz (in 100 Hz steps). The default is 1600Hz. With User CTCSS selected as the Tone Mode, the values that appear in the CTCSS and DCS tone columns are ignored by the radio.

# Note: User CTCSS is not a feature that allows you to program a custom tone for repeater use. Alternately, it is not to be used for the tone needed for repeater operations. This is a special feature of the radio designed for a specific function rather than general use.

**Tx Power**: The output power can be set individually set for each memory channel to

address the exact needs of each operation. Select Low1, Low2, Low3, or High for each memory channel. The power out for each of these settings varies for this radio depending on its power source (battery or DC power supply) and frequency. See the User's manual for the specifics.

**Skip**: Marks selected memory channel to be skipped during scanning These channels remain available for manual selection by turning the knob.

<u>Off</u> - The channel will be scanned for activity whenever scanning is done.

<u>Skip</u> - The channel will be skipped.

<u>P-Scan</u> - The channel is included in a special scanning group. These channels are scanned when scanning is begun on a P-scan channel.

**Step**: The frequency that the radio is on changes by the value of the step when tuning manually. This value is used by the radio in Memory Tune mode. This value is not critical in memory mode since the original memory channel frequency can be retrieved by exiting Memory Tune mode. In VFO, this value could keep you from returning to your original frequency. Select from Auto / 5 / 6.25 / 10 / 12.5 / 15 / 20 /25 / 50 / or 100 kHz steps as needed.

Note: There are some special exceptions for setting step including

- AM Broadcast band only step values of 9.0 and 10.0 kHz are available;
- Air band includes 8.33 kHz. This step value is not available in other modes;
- 5 kHz not available in 250 300 MHz range or above 580 MHz.

**Mask**: A masked channel is not available for use either during scanning or when the radio is tuned manually in memory mode.

Masking a channel "hides" it until you "unmask" it from the face of the radio or by sending a file with this option unchecked. Only then will it be available for use. This is a good way to prevent another user from accidentally accessing a channel or to store memories for another area that are used only when you visit that place.

**Attenuator**: Check to enable the front end attenuator that will reduce received signals and noise in an attempt to make reception better in a noisy setting. With this option On, weaker signals may not be heard. The options are On (checked) and Off (unchecked). The default is Off. This is normally a global option in Yaesu radios. This is the first of the radios that allows you to control attenuation for each memory channel giving you more control for operations on each channel.

**Internet:** Enables / disables connection into the Vertex Standard WIRES<sup>™</sup> (Wide-Coverage Internet Repeater Enhancement System) network. See the Radio Menu Settings | DTMF/Internet section of this Help for more details.

**S-Meter Squelch:** Adjust the RF Squelch threshold level. As the squelch level increases, weaker signals are not heard and incoming noise is eliminated when listening on the channel. If after you program the radio with this file it receives continuously or does not receive an expected signal, increase or reduce the squelch for the channel.

**Bell**: During CTCSS Decode (TSql), DCS, Message, or Enhanced Paging Code Squelch (Pager) operation, you may set up the radio so a ringing "bell" sound (or user programmed beep) alerts you to an incoming call. Select from Off (no ring) On (pre-programmed sound), or one of three User defined ringers.

Using this feature requires several things:

1) You are using CTCSS Decode (T Sql), DCS, Message, or Enhanced Paging & Code Squelch (Pager) set up for this channel.

- CTCSS Decode (T Sql) and DCS are set up from the main page of the Programmer by turning on the Tone Mode and setting the CTCSS frequency or DCS code.
- Paging & Pager requires more setup. See the Enhanced Paging and Code Squelch section of this Help for more details.
- Message required more setup. See the Message section (located under Programming Other Radio Set Items) of this Help for details.

2) You select a Bell option from those listed on the main page of the Programmer.

3) You set the action of the bell (number of rings or Continuous) from the Sounds page of the Menu Settings screen accessed from the Settings | Radio Menu Settings item in the menu at the top of the main screen.

A fourth step is required if you are using a customized sound for the bell.

The User defined ringers are set up on the Sounds tab of the Menu Settings section of the Programmer accessed from the main screen with Settings | Radio Menu Settings.

**Half Dev(iation)**: Check the box to engage Narrow (+ 2.5 kHz) Deviation as compared to + 5 kHz normally or when this option is off. This change helps prevent interference with other stations in a crowded environment.

Note: The receiver's IF filter bandwidth is not changed via this setting. This setting will not enable the radio to perform on new commercial channels that are on 2.5kHz steps. Those frequencies are reserved for commercial use and are not available to amateur equipment.

**Clock Shift**: Shifts the internal reference frequency slightly to eliminate "birdies" that interfere on other channels.

**Banks**: Check the box to assign a memory channel to a given Bank. More details about using banks can be found in the Memory Banks section of this Help.

Note: If you are assigning channels to banks after you have entered all of them, use Bank Settings (Settings | Bank Settings or Ctrl B) in the Programmer to make access to these columns easier by hiding several of the columns that are not needed for this operation. To return all the columns to the screen, select Settings | Bank Settings again.

**Comments** An identifying comment up to 80 characters. This information is not transferred to the radio.

#### 15.1.3.1 DCS Code Inversion (Polarity)

The DCS system was first introduced in the commercial LMR (Land Mobile Radio) service, where it is now in widespread use. DCS is sometime referred to by its different proprietary names, such as DPL® (Digital Private Line®, a registered trademark of Motorola, Inc.).

DCS uses a codeword consisting of a 23-bit frame, transmitted (subaudible) at a data rate of 134.4 bps (bit/sec). Occasionally, signal inversion can result in the complement of a code being sent or received. This prevents the receiver's squelch from opening with DCS enabled, since the decoded bit sequence would not match that selected for the channel.

Typical situations that might cause inversion to occur are:

- Connection of an external receiver preamplifier.
- Operating through a repeater.
- Connection of an external linear amplifier.

## Note that code inversion does not mean that any of the above listed equipment is defective!

In certain amplifier configurations, the output signal (phase) is inverted from the input. Small signal or power amplifiers having an odd number (1, 3, 5, etc.) of amplification stages may result in inversion of a transmitted or received DCS code.

While under most circumstances this should not occur (amplifier designs and industry standards take this into account), if you find that your receiver squelch does not open when both you and the other station are using a common DCS code, you OR the other station (but not both) should try setting DCS priority to something other than "normal" (RN -TN).

#### 15.1.9 Entering "Split" Pair

The Main window of the Programmer is designed for memory channel entry.

All details associated with the memory channels are programmed from this screen. These are not all the functions of the radio. Other features are set once for the radio to use no matter which memory channel you're on. These items are set on the Settings screen accessed through Settings | Radio Menu Settings from the menu at the top of the screen. In the VX-8, there are LOTS of other options to be set.

Columns continue off the right side of the window. Use the bar at the bottom of the screen to move to these columns or press ENTER to step through each column.

Columns can be hidden using the selections of the Preferences screen. Select Settings | Preferences in the menu to access this screen. These columns remain hidden in this and any other file (new or otherwise) until they are "unhidden" on the Preferences screen. Information is entered into these columns automatically when a new frequency is entered. The information in a hidden column is always there: it is just not visible.

*Make programming extra easy. Try Simple Mode in the software for even less to enter.* "Simple Mode" is a quick memory channel entry. In Simple Mode only the columns needed for the minimum information to set up the channel are shown on the screen. Extra columns are hidden and filled with default information. To put the screen into Simple Mode, select Edit | Simple Mode from the menu. While in Simple Mode, you cannot access the Preferences screen. The Programmer controls what columns

are hidden while in this mode.

#### **Details to be entered for Memory Channels**

**Receive Frequency**: Enter a receive frequency for the memory channel. Acceptable frequencies are detailed in the User's Manual for the radio.

- Unacceptable frequencies cannot be entered into the Programmer. Cellular frequencies are blocked.
- Memory channels can store any acceptable frequency in any order (i.e., UHF can follow VHF or any other band order).
- The first memory channel must be programmed.
- While memory channels can be entered in any order, the sub-band receives on fewer bands than does the main band. Realize that memory channels containing frequencies outside the range of the sub-band will not be displayed there as they will be on the main band. The radio will simple skip over that memory channel when tuning in memory mode or scanning on the sub-band.

**Transmit Frequency**: Enter a specific transmit frequency or let the Programmer calculate this frequency based on the offset. This field is always available; however the transmit frequency for an "odd split" is the only value that must be manually entered. Acceptable transmit frequencies are 144 - 148 MHz and 430 - 450 MHz.

#### Note: In the Programmer you can enter details for frequencies outside the transmission abilities of the radio. However, the software will not enable transmission on these frequencies. Transmission will be possible only if the radio has been properly modified.

**Entering a "Split" pair:** When you are given information to program your radio, you may be given a "pair" of frequencies (one for transmit and a different one for receive). This pair is referred to as a split.

In a Yaesu radio, a split is truly "odd" if the difference between the two frequencies is not evenly divisible by 50. If this is the case, the pair can be entered with a plus or minus offset making the radio perform more efficiently. It also gives you back the Reverse function should you ever need to listen to the input frequency for the repeater. If this is the case, see the section on Using a Non-Standard Offset Frequency Value just below in this Help section.

This information is easily entered into the Programmer and sent to the radio.

- First, enter the Receive Frequency into that column of the Programmer. This will be the frequency that you list on.
- Press Enter. The Programmer will fill the remaining columns with default information which may or may not be right for your particular situation.
- The Transmit field will be active as indicated by the dark border. Enter the Transmit Frequency from the information you have into this field. (Note: Simply type the first number of that frequency. The field will change without having to erase what is there.)
- Press Enter.
- The Programmer will set the Offset Frequency and Offset Direction as needed for this pair. Ignore these two columns. The information in these two columns may change when the file is opened again if the offset can be figured to a 50kHz value and the direction set to plus or minus. This gives you back functionality on the radio that is lost with a channel marked "Split". If you see this change, ignore it. The radio will function exactly the same when you use it with these different settings.

You are finished with this entry unless you need to enter Name, Tone or other details for this memory channel.

**Offset Frequency**: Standard offsets include 100, 500, and 600 kHz and 1.0, 1.6, 1.7, 3.0, 5.0, 7.6, and 99.0 MHz.

The default Offset Frequency depends on the band of the Receive Frequency being entered (i.e., 2M Band is always 600 kHz, 430 Band is always 5.0 MHz, etc)

Although an Offset Frequency is displayed for every memory channel, it is not used by the radio if the Offset direction is set to Simplex.

Yaesu radios can use an Offset Frequency of any value in 50 kHz steps (i.e., any value ending in .x00 or .x50 where x is any digit from 0 to 9) with a Plus or Minus Offset Direction. This gives you the ability to use the Reverse function of the radio although your frequency pair is not separated by a standard offset value.

Any offset frequency value is ignored by the radio if the offset direction is set to Simplex or Split.

A **nonstandard Offset Frequency** value is entered by typing that value into the Offset Frequency field after the Receive Frequency has been entered for that channel. Then

select Plus or Minus in the Offset Direction column and watch the Programmer calculate the Transmit Frequency.

Values would be entered as an exact number including the decimal to denote kHz.

- Given the pair 146.650 and 147.300
- The Offset Frequency entered would be .650 (decimal six five zero) Without the decimal, an error is raised in the Programmer that a valid Offset Frequency should be entered.
- The Offset Direction would be set to Plus

As another example:

- The pair 147.255 and 145.940 could not be entered with an Offset Frequency and an Offset Direction.
- The resulting offset for this pair us 1.315 MHz, which is not on a 50 kHz step (does not divide evenly by 50).
- This pair requires entry of both the Receive and Transmit frequency with the Offset Direction set to Split.
- In this case, any value that appears in the Offset Frequency column will be ignored by the radio when it uses this memory channel.

Offset Direction: This function denotes how the receive and transmit frequency differ.

Simplex - transmit and receive frequencies are the same;

Minus - the offset is subtracted from the receive frequency;

<u>Plus</u> - the offset frequency is added to the receive frequency;

<u>Split</u> - for a non-standard offset. The user enters both the receive and transmit frequencies.

**Operating Mode**: Assign FM, AM, or WFM as appropriate for the frequency.

**Name**: Enter an Alpha/Numeric tag (up to 16 characters) to a memory channel to provide an easy reminder of the function of a particular channel. The Name is displayed automatically on the radio beneath the operating frequency. The name will not be displayed if the radio is operated in Dual Receive mode.

**Tone Mode**: Use of the tone systems of the radio allows for silent monitoring until a call is received with a corresponding tone. Tone mode also allows access to repeaters that are made private with a PL tone.

The radio offers CTCSS (Continuous Tone Coded Squelch System) or DCS (Digital Coded Squelch) to be tailored to your particular needs.

Use of either of the tone systems requires two steps:

1) Turning on the Tone Mode and

2) Selecting the CTCSS tone or DCS code from the values in the appropriate column.

The **Tone Mode** options are:

<u>None</u> - No tone system activated. Even if the CTCSS Tone or DCS Code column is set to the appropriate value, transmissions will not get through unless this column is set to an appropriate function.

<u>Tone</u> - CTCSS tone generator is activated for transmission only (this mode is used for many if not most repeater operations). When this option is selected, the CTCSS column becomes available. Select the tone frequency from those in the list. The value must be in the list. With Tone selected as the Tone Mode, the value that appears in the DCS code column is ignored by the radio.

<u>TSql</u> - CTCSS tone squelch is activated for both transmission and reception (only signals "encoded" with the matching tone will open the squelch. Your radio will remain silent otherwise). When this option is selected, the CTCSS column becomes available. Select the tone frequency from those in the list. The value must be in the list. The radio uses the frequency set in the CTCSS Tone column for both Encode and Decode (transmission and reception) With TSql selected as the Tone Mode, the value that appears in the DCS code column is ignored by the radio.

<u>DCS</u> - Digital Coded Squelch mode is activated for transmission and reception. When this option is selected, the DCS column becomes available. Select the code from those in the list. The value must be in the list. The radio uses the DCS Code for both transmissions and reception. With DCS selected as the Tone Mode, the value that appears in the CTCSS tone column is ignored by the radio.

<u>Rev CTCSS (Rev Tone)</u> - Activates the reverse CTCSS Decoder which mutes the receiver when a matching CTCSS tone is heard. When this option is selected, the CTCSS column becomes available. Select the tone frequency from those in the list. The value must be in the list. <u>User CTCSS (PR Freq)</u> - Activates the User programmed Reverse CTCSS Decoder which mutes the receiver when the matching tone is received. When this option is selected, the User CTCSS column becomes available. Select a value between 300Hz and 3000Hz (in 100 Hz steps). The default is 1600Hz. With User CTCSS selected as the Tone Mode, the values that appear in the CTCSS and DCS tone columns are ignored by the radio.

Note: User CTCSS is not a feature that allows you to program a custom tone for repeater use. Alternately, it is not to be used for the tone needed for repeater operations. This is a special feature of the radio designed for a specific function rather than general use.

Pager - Activates the Enhanced Paging and Code Squelch system.

Note: When this option is selected, none of the tone frequency columns on the main screen become available. Tones are not set here for this function. See the Enhanced Paging and Coded Squelch (EPCS) section of this Help for details on setting up the other options for this function.

<u>Message</u> - Activates the Message feature. See the section on this feature for details on setting up the other options for this function.

<u>D Code</u> - Digital Coded Squelch mode is activated for transmission only. With D selected as the Tone Mode, the value that appears in the CTCSS Tone column is ignored by the radio. The radio uses the DCS Code set in the DCS code column for transmissions only. Reception is open for any signal.

<u>T DCS</u> - CTCSS encode (tone squelch) is activated for transmission and Digital Coded Squelch for reception. With T-DCS selected as the Tone Mode, the values that appear in the CTCSS Tone and DCS Code columns are both used by the radio. The CTCSS Tone selection is used for transmissions while the DCS Code selection is used for reception. Be sure that you set both the CTCSS Tone and the DCS Code once this option is selected.

<u>D Tone</u> - Digital Coded Squelch is activated for transmission and CTCSS decode for reception. With D - TSQL selected as the Tone Mode, the values that appear in the CTCSS Tone and DCS Code columns are both used by the radio. The CTCSS Tone selection is used for reception while the DCS Code selection is used for transmission. Be sure that you set both the CTCSS Tone and the DCS Code once this option is selected.

**CTCSS Tone**: This field is available when Tone Mode is set to Tone, T Sql, Rev CTCSS, T DCS or D Tone. Select one of 50 tone frequencies to be used in the Encode or Decode modes. This value is set independently for each memory channel.

A value that appears in this field is *ignored* by the radio if one of the tone modes that uses CTCSS is not activated.

**DCS Code**: This field becomes active when Tone Mode is set to DCS, D Code, T DCS or D Tone. Select one of the 104 codes available for use when the radio is in DCS mode. This value is set independently for each memory channel. A value that appears in this field is *ignored* by the radio if one of the tone modes that uses DCS is not activated.

**DCS Polarity**: This field becomes available when the Tone Mode is set to DCS, D Code, T DCS or D Tone. Select the function for the "inverted" DCS Tone. See the section on DCS Tone Inversion in this Help for more details on this function of the radio.

Generally, this options is left as the default RN-TN for normal DCS tone operations. The options for this function include:

<u>RN -TN</u>: Receive and transmit the Normal DCS Tone.

RI-TN: Receive the Inverted DCS Tone and transmit the Normal DCS Tone.

<u>RB -TN</u>: Receive both Normal and Inverted DCS Tones and transmit the Normal DCS Tone.

RN - TI: Receive the Normal DCS Tone and transmit the Inverted DCS Tone.

RI-TI: Receive and transmit the Inverted DCS Tone.

<u>RB -TI</u>: Receive both Normal and Inverted DCS Tones and transmit the Inverted DCS Tone.

**User CTCSS**: This field becomes active when Tone Mode is set toe User CTCSS. Select a value between 300Hz and 3000Hz (in 100 Hz steps). The default is 1600Hz. With User CTCSS selected as the Tone Mode, the values that appear in the CTCSS and DCS tone columns are ignored by the radio.

Note: User CTCSS is not a feature that allows you to program a custom tone for repeater use. Alternately, it is not to be used for the tone needed for repeater operations. This is a special feature of the radio designed for a specific function rather than general use.

**Tx Power**: The output power can be set individually set for each memory channel to address the exact needs of each operation. Select Low1, Low2, Low3, or High for each memory channel. The power out for each of these settings varies for this radio

depending on its power source (battery or DC power supply) and frequency. See the User's manual for the specifics.

**Skip**: Marks selected memory channel to be skipped during scanning These channels remain available for manual selection by turning the knob.

<u>Off</u> - The channel will be scanned for activity whenever scanning is done.

<u>Skip</u> - The channel will be skipped.

<u>P-Scan</u> - The channel is included in a special scanning group. These channels are scanned when scanning is begun on a P-scan channel.

**Step**: The frequency that the radio is on changes by the value of the step when tuning manually. This value is used by the radio in Memory Tune mode. This value is not critical in memory mode since the original memory channel frequency can be retrieved by exiting Memory Tune mode. In VFO, this value could keep you from returning to your original frequency. Select from Auto / 5 / 6.25 / 10 / 12.5 / 15 / 20 /25 / 50 / or 100 kHz steps as needed.

#### Note: There are some special exceptions for setting step including • AM Broadcast band - only step values of 9.0 and 10.0 kHz are available:

- Air band includes 8.33 kHz. This step value is not available in other modes;
- 5 kHz not available in 250 300 MHz range or above 580 MHz.

**Mask**: A masked channel is not available for use either during scanning or when the radio is tuned manually in memory mode.

Masking a channel "hides" it until you "unmask" it from the face of the radio or by sending a file with this option unchecked. Only then will it be available for use. This is a good way to prevent another user from accidentally accessing a channel or to store memories for another area that are used only when you visit that place.

**Attenuator**: Check to enable the front end attenuator that will reduce received signals and noise in an attempt to make reception better in a noisy setting. With this option On, weaker signals may not be heard. The options are On (checked) and Off (unchecked). The default is Off. This is normally a global option in Yaesu radios. This is the first of the radios that allows you to control attenuation for each memory channel giving you more control for operations on each channel. **Internet:** Enables / disables connection into the Vertex Standard WIRES<sup>™</sup> (Wide-Coverage Internet Repeater Enhancement System) network. See the Radio Menu Settings | DTMF/Internet section of this Help for more details.

**S-Meter Squelch:** Adjust the RF Squelch threshold level. As the squelch level increases, weaker signals are not heard and incoming noise is eliminated when listening on the channel. If after you program the radio with this file it receives continuously or does not receive an expected signal, increase or reduce the squelch for the channel.

**Bell**: During CTCSS Decode (TSql), DCS, Message, or Enhanced Paging Code Squelch (Pager) operation, you may set up the radio so a ringing "bell" sound (or user programmed beep) alerts you to an incoming call. Select from Off (no ring) On (pre-programmed sound), or one of three User defined ringers.

Using this feature requires several things:

1) You are using CTCSS Decode (T Sql), DCS, Message, or Enhanced Paging & Code Squelch (Pager) set up for this channel.

- CTCSS Decode (T Sql) and DCS are set up from the main page of the Programmer by turning on the Tone Mode and setting the CTCSS frequency or DCS code.
- Paging & Pager requires more setup. See the Enhanced Paging and Code Squelch section of this Help for more details.
- Message required more setup. See the Message section (located under Programming Other Radio Set Items) of this Help for details.

2) You select a Bell option from those listed on the main page of the Programmer.

3) You set the action of the bell (number of rings or Continuous) from the Sounds page of the Menu Settings screen accessed from the Settings | Radio Menu Settings item in the menu at the top of the main screen.

A fourth step is required if you are using a customized sound for the bell.

The User defined ringers are set up on the Sounds tab of the Menu Settings section of the Programmer accessed from the main screen with Settings | Radio Menu Settings.

Half Dev(iation): Check the box to engage Narrow (+ 2.5 kHz) Deviation as compared

to + 5 kHz normally or when this option is off. This change helps prevent interference with other stations in a crowded environment.

Note: The receiver's IF filter bandwidth is not changed via this setting. This setting will not enable the radio to perform on new commercial channels that are on 2.5kHz steps. Those frequencies are reserved for commercial use and are not available to amateur equipment.

**Clock Shift**: Shifts the internal reference frequency slightly to eliminate "birdies" that interfere on other channels.

**Banks**: Check the box to assign a memory channel to a given Bank. More details about using banks can be found in the Memory Banks section of this Help.

Note: If you are assigning channels to banks after you have entered all of them, use Bank Settings (Settings | Bank Settings or Ctrl B) in the Programmer to make access to these columns easier by hiding several of the columns that are not needed for this operation. To return all the columns to the screen, select Settings | Bank Settings again.

**Comments** An identifying comment up to 80 characters. This information is not transferred to the radio.

#### 15.2 Skip Memories

The radio has 99 "Frequency Skip Memories" numbered 901-999.

The Skip memories are those that are to be **omitted during VFO scanning**. These may include the frequency of a spurious emission from a television or a radio station that you would rather not hear.

The same information as that entered for any memory channel is entered for these. See the Regular Memory Channels section for the details about the information to be entered.

Note: Although these memory channels can be programmed with all the details of a regular memory channel, the only important data here *is the Receive Frequency since the channel is being used only for VFO memory skip.* 

If these channels are programmed, they can be accessed as regular memory channels (notice that they are included when you turn the dial when tuning in memory mode).

Be careful using them as memory channels. These frequencies WILL BE SKIPPED when scanning in VFO.

#### **15.3 Limit Memories**

This feature allows you to set sub-band limits for either scanning or manual VFO operation.

For example, you might wish to set up a limit (in North America) of 144.300 MHz to 148.000 MHz so as to prevent encroachment into the SSB/CW "Weak Signal" portion of the band below 144.300 MHz. Then when you scan using this limit pair, you will begin scanning at 144.300 and continue to scan up to 148.000 before returning to 144.300 to begin the cycle again.

The Limit Memory channels are entered on the Limit Memories page accessed through the tab of the same name at the bottom of the screen. The same information as that entered for any memory channel is entered for these. See the Regular Memory Channels section for the details about the information to be entered. In the Limit Memory channels, **Step** becomes much more important since you plan to begin scanning from one of these channels. Remember that scanning will increment the frequency by the value in the Step field. Choose your value to be sure you do not miss channels in your range.

See page 68 in the operating manual of the radio for details on accessing this scanning method from the face of the radio.

Some options for scanning can be set from the Programmer. These are global items that are accessed from Settings | Radio Menu Settings from the menu at the top of the screen. Once on the Settings screen, scanning functions are found on the first screen that opens, the Common screen.

#### **15.4 EIA and Weather Memories**

#### **EAI Memories**

Your radio includes an Emergency feature that may be useful if you have someone monitoring the same frequency as your transceiver's UHF "Home" channel. The **Emergency Automatic ID** (EAI) feature can be used for searching for persons who are incapacitated in disasters like earthquakes, especially search-and-rescue personnel who may have become injured in a debris field. In such cases, if another searcher sends out a unique command (CTCSS tone pair), the radio of the incapacitated party, who may not be able to speak or even press the PTT switch, will automatically cause the injured party's radio to transmit, so others may perform direction-finding and effect a rescue. The callsign of the incapacitated person will also be transmitted, to assist the rescue team.

For more details on setting the EAI features, see the Emergency Automatic ID section of this Help.

#### **Weather Memories**

Ten NOAA weather channel frequencies are programmed into memory for easy access.

A name, alpha "tag", can be added to identify the channel.

A scan option can be set for each.

These channels can be organized into banks. Any channel can be put into none, one, multiple, or all banks.

#### Note: If you are working in a reduced screen, you may need to click the right arrow button at the lower left of the screen to scroll to this tab.

To program the Weather memory, select the Weather Memories tab at the bottom of the screen.

#### **15.5 VFO Memories**

The VFO memories provide "temporary" memory channels for quick access. The VFO memory is temporary since it is lost when the radio is tuned while in VFO mode.

Note: Remember, the VFO memory is temporary. The programmed frequencies appear immediately after the file is sent to the radio. When the radio is manually tuned in VFO mode, the programmed frequency

#### cannot be recalled as a memory channel frequency will be.

Programming the VFO memory from the Programmer can be particularly helpful for reoccurring events for which the details of this channel are needed along with other memory channels.

Memories do not have to be programmed into VFO before being programmed into the memory channels when entering details in the Programmer. Memory channels are programmed directly into the spreadsheet that appears when the Programmer opens.

To program the VFO memory, select the VFO tab at the bottom of the screen. Enter a frequency that is appropriate for the band. The details that you enter will replace the default of the radio. Simply type over the information shown to make the changes. These channels must contain a frequency appropriate for the band. They cannot be blank.

The information to be entered is the same as that for regular Memories except that the VFO's do not have an alpha label available to be programmed. See Regular Memory Channels for details of the fields. In VFO mode, **Step** is important to ensure that you can tune manually to a certain frequency. Pay careful attention to this column when programming the VFOs.

#### **15.6 Home Channels Memories**

The Home channel memory provides convenient, one-touch access to your most often used frequency in each band. Home channel memories are programmed on the Home tab of the Programmer.

The information to be programmed for the Home Channels is the same as that for the regular Memories. See Regular Memory Channels for the details.

Once programmed and sent to the radio, the Home channels are recalled by pressing the [F/W] then the [Hm/Rv] key while operating in either VFO or Memory Mode. The radio will access the Home channel for the band on which you are currently operating.

To return to the last operating frequency (either VFO or Memory channel), again press the [F/W] then the [Hm/Rv] key.

Be sure you have set the functionality of the [Hm/Rv] key to "Home" with the drop down box on the Settings screen that controls this option.

*Note, the UHF (430) Home channel is the one used during "Emergency channel operations". Plan carefully if you are using that feature of the radio along with other Home channel activities.* 

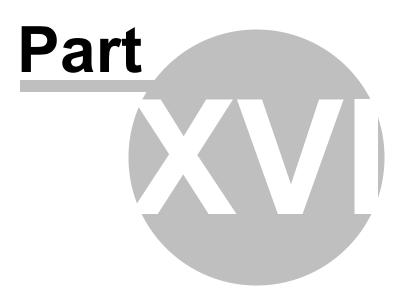
#### **15.7 Marine and SW Memories**

The radio comes preprogrammed with many frequencies in the Marine and Shortwave portions of the band. These channels can be included in the Banks of the radio. When operating in Bank mode, these channels will be available along with the regular memory channels in a selected bank.

A channel can be put into none, one, any combination of, or all of the memory banks.

Note: There is no need to put all channels in all banks. All channels are available when you are not operating in Bank mode.

*The SW and Marine frequencies are available when operating in Broadcast or Marine bands.* 



#### 16 Programming Other Set Menu Items

Programming any radio involves details for each memory channel and settings that are global to the radio no matter which memory channel, VFO or Call channel you're operating on.

The Memory Channel details are entered on the grid that appears when the Programmer is first opened. This is only part of what needs to be done to make your radio your own.

The global settings are entered on the screens accessed from **Settings** | **Radio Menu Settings** in the menu at the top of the main screen. Don't miss these settings. Getting them the way you want them can significantly enhance the performance of your radio.

Details for the options are found in sections of this Help that correspond to the screens in the Programmer where you will find that option. Everything starts in the Programmer from Settings | Radio Menu Settings from the menu at the top of the main screen.

Radio Menu Settings - Common - The screen that opens when you select Settings | Radio Menu Settings. This screen contains the more commonly changed settings such as Beep, Lock and options for Scanning functions.

Radio Menu Settings - ARTS/CW/EAI - Options on this screen include those for ARTS (Auto Range Transponder System), Pager, EAI (Emergency Automatic Identifier), other Emergency operations, CW ID and CW Training.

Radio Menu Settings - Messages - Options on this screen of the Settings file include Opening Message as well as Message Groups, Message Text, Message Member List and Message Select List for GPS and APRS transmissions

Radio Menu Settings - Sounds - Adjustments for volume, squelch, bell ringers, speaker output and customized melody for User Beep are made with the options on this screen.

Radio Menu Settings - DTMF/Internet - Fields here address options for DTMF and Internet functionality.

Radio Menu Settings - VFO and Menu Skip - Make adjustments to hide and show menu items and Ham bands on the radio.

Radio Menu Settings - APRS / GPS - Adjust settings for GPS and APRS features.

Radio Menu Settings - APRS Beacon - Options for APRS Beaconing and Smart Beaconing are adjusted on this page of the Settings file. You will find that these headers correspond with screen names in the Programmer. This makes finding the details for the settings on a certain screen easier.

The Programmer offers three options for managing the global settings:

<u>Set and forget</u> - The Radio Menu Settings screens are there for you to use to easily customize your radio to suit your use. Once you make your selections and save them, you don't have to do it again, even it you start a new frequency file.

<u>Create and use multiple global settings files</u> - This might be the best option if you program the frequencies for several different people. You can customize the global functions for the individual without having to recreate the frequency file.

Save the settings as part of the file with the memory information - This might be best if you are programming different frequencies AND different global settings for different groups. You might even want to use this option if you travel. How you use your radio at home may differ from how it should function on the same frequency in another city. Then each time you travel, simply load the corresponding file into the radio to have frequency and global settings as you need them for where you're going.

The three options are discussed in detail below. Once you decide, set the Programmer for the option that you want on the Preferences screen (Settings | Preferences) in the Programmer.

#### Set and Forget

This is the default of the Programmer.

Not using the Radio Menu Settings (Settings | Radio Menu Settings) settings can result in your radio "acting funny" every time you program it. That's because something is getting reset in the radio by a setting in this file.

From the main screen of the Programmer, select Settings | Radio Menu Settings. Explore these screens. If you fear you have made changes you don't want, click the "X" at the upper right of the Settings screen. Answer No to the prompt to save. Then click the "X" again to close. The screen will close without saving anything you have done.

Details for the options on this page are found on several pages of this Help. Each page contains the details for the options on that page. The pages in the TOC begin with the words "Radio Menu Settings". The information there can help you decide how best to customize a setting.

Once you complete your selections:

- Click File | Save
- If you are working in a default file (Untitled.rsf), you will be prompted for a filename.
- Enter a name for this file. This can be the same as the name you're using for the memory channel information or it can be a name unique to these settings. IKf you're at a loss, use "Settings".
- Click Save to close the Save dialog
- Click File | Exit to close the Settings screen.

The Programmer will take it from here making sure these customized settings go to the radio along with the memory channel information.

#### Creating and using multiple global settings files

There may be global settings of the radio that you want configured differently for different activities. You can make changes to your settings file and save it separately.

Having multiple memory channel files (."radio name") and multiple global setting files (. rsf) gives you the ability to mix and match the features of your radio to suit your needs. This makes it easy to customize the radio for a special event without disturbing the original programming files. Then once the event is over, simply reprogram the radio with the memory channel information and settings that you use everyday.

When a new file is begun, the **same settings used in the last settings file saved** will be used automatically. You need not re-enter the settings each time, nor are you forced to always begin a new file by renaming an existing file. You need only enter memory channel details.

#### To select a settings file for use:

- Select Settings | Radio Menu Settings from the main page of the Programmer.
- From the Radio Menu Settings screen, select File | Open. A list of settings files will be presented. Do not change the Files of Type selection at the bottom. The Programmer presents appropriate files to choose from.
- Select the file you want to use and click Open.
- Verify that this is the settings file that you want to use. Check also that the proper filename appears in the titlebar at the top of the Menu Settings window.

- Click File | Save to reset the Programmer to use this file.
- Select File | Exit to close this screen. These settings will be sent to the radio with the memory channel file until you change this file selection again.

# Save the settings as part of the file with the memory information

You have the option of saving the global settings with the memory channel information.

This feature is good two ways. First, if you think that you'll always use only one file for programming and you are more comfortable knowing that EVERYTHING that is going to the radio is in this one file, select this option. Second, if you are programming similar, but not identical, memory channel information for people who use their radios very differently, keeping radio menu settings in the file with the memory channel information would reduce the chance of programming a radio incorrectly.

#### Keep menu settings and frequencies in a single file. (option)

- From the main screen of the Programmer, select Settings | Preferences
- Click OK to close this screen.
- From the main screen of the Programmer, select Settings | Radio Menu Settings.
- Make changes as needed.
- Click Close | Apply changes and close (if you want to save) or Discard all changes and close (if you think you're made mistakes and need to return to the last time you saved this file).

Remember, with each new file created the Radio Menu Settings return to factory defaults. You must set these option for EACH memory channel file created.

Another feature of this option is the ability to use the settings from a settings file that you already created.

- From the Menu Settings screen, select External Setting Files
- From that menu select Open
- Select a settings file from the list presented. The settings file must be for the same radio.
- To set these to be used in this file, select Close | Apply changes and close.

The settings from the other file will be saved to this file and sent to the radio with this memory channel programming.

#### 16.1 Radio Menu Settings - Common

All the options shown on the Common tab of the Settings screen in the Programmer are listed here in alphabetical order rather than the order in which they appear on the screen. This should make it easier to find the details for an option that you're curious about.

**Antenna - AM** - Select the antenna to be used for AM Broadcast listening. Options include:

Bar & Ext: Use both the internal Bar antenna and the external rubber flex antenna

Bar Antenna: Use the internal Bar antenna only.

Note: The Bar antenna is directional. Rotate the radio for the best reception.

**Antenna - FM** - Select the antenna to be used for FM Broadcast listening. Options include:

Ext Antenna: Use the rubber flex antenna.

Earphone: Use the earphone antenna.

Note: When receiving a weak signal reception may be noisy.

Attenuator (Broadcast/Marine/Weather) - Enables or disables the front-end attenuator for operations in these three special memory channel bands. The front-end attenuator reduces all signals and noise which may make reception better in a noisy setting (i.e. electric noise). With this option On, weaker signals may not be heard since the sensitivity of the radio is reduced in an effort to eliminate interference.

**Audio Mute Level** - Automatically reduce the audio level of the "Receive Only" band when a signal is received on the "Main" band. The audio can be reduced 30%, 50%, or 100%.

**Auto Power Off** - Set the time after which the transceiver will automatically shut off in an attempt to conserve battery life.

**Auto Repeater Shift** - The Auto Repeater Shift option automatically sets the offset for any frequency to which you tune manually while in VFO. The shift is determined by a preset plan as shown in the Automatic Repeater Offset section of the radio's manual. While this option is useful while in VFO or memory tune (any time you tune the radio manually), it does not affect the functionality of the Programmer nor the radio's functionality on a memory channel. The option in On by default.

**BlueTooth Set** - The radio has the ability to use the options BH-1 or BH-2 Bluetooth headset for wireless Vox operations. Use of this device requires installation of the BU-1 Bluetooth Adapter Unit in the radio.

Options to be configured include:

<u>VOX</u> - Enables functions of the TX/RX switching circuit of the *Bluetooth* function.

- Off Disable the receive function
- PTT The Bluetooth function works through the PTT.
- High Vox operations with increased receive sensitivity (high gain).
- Low Vox operations with decreased receive sensitivity (low gain).

<u>Mode</u> - Control the receiver audio output mode of the Bluetooth unit. (ignored with BH-2)

 Stereo - Outputs stere receive audio while listening to FM Broadcast.

#### Note: When this option is selected, the VOX function is disabled even if it has been engaged. TX/RX switching is performed only by pressing the PTT.

 Mono - Outputs monaural receive audio while listening to FM Broadcast.

<u>Save</u> - Enable or disable the battery saver in the BH-1 or BH-2 device. If there has been no signal for 20 seconds the saver puts the BH-1 or BH-2 into sleep mode to conserve battery life. The device becomes active again when a signal is received or the PTT is pressed.

<u>Power</u> - Enable or disable the *Bluetooth* unit.

<u>P-Code</u> - The code used to identify your *Bluetooth* device to your radio. The

default code can be changed. See Manual for details of how to assign that code to the BH-1 or BH-2 once it has been changed in the radio.

**Busy Channel Lockout** - The Busy Channel Lock Out feature stops the radio from transmitting if a signal is being received.

**Busy LED** - Control the LED that lights in the Band A or B key indicating signal reception. Disengaging this option will help to conserve battery life.

**Channel Counter** - The radio has the ability to give a good indication of a transmission frequency without knowing that exact frequency in advance. This feature works when the radio is close to the radio that is transmitting. Through a high speed search over a range above and below the displayed frequency, the radio identifies the strongest signal in the preset range. The identified channel is then written to a special "Channel Counter" memory. The preset range is to be set with this option in the Programmer. Select the range to be used in this operation.

Note: This Channel Counter is designed to provide an indication of the operating frequency of the incoming signal or one that is close enough that the user can tune to the exact frequency of the other station. The feature is not designed as a way to get a precise determination of the other station's frequency.

Altitude Units / Offset - Set the units for display of altitude. Enter the elevation for your location for the radio to use as an offset to calculate altitude at any other location.

**Barometric Units / Offset** - Set the units for display of barometric pressure. Enter the current calibrated barometric pressure for your location.

**Dual/Mono (Triple)** - Set the radio for Dual, Mono, or Triple receive. Triple receive is the AF-Dual function of the radio that allows you to monitor two ham band frequencies while listening to the broadcast band.

Note: Names will NOT be displayed when the radio is in Dual mode. To switch between modes on the radio, press the B-key next to the display.

**Lamp** - Control the backlighting when a key is pressed. Options are for the lamp to remain lit for 2 to 10 seconds with a key press, to be on continuously, or to not light at any time.

LCD Contrast - Set to control how dark the type is on the display of the radio.

Note: If this option is set to a value less than 20 you will not see the characters on the display at all. If set higher than 30, the background will darken along with the characters.

**LED Dimmer** - Control the brightness of the backlighting. Level 1 turns the backlighting off. Level 4 is the brightest.

Sensor - Choose information to be included as part of the display. Choices include:

DC - Battery voltage and battery type. (default)

Temperature - Current temperature inside the radio's case.

<u>Wave</u> - A visual representation of the RX and TX audio wave-form.

Barometer - Barometric pressure or current location.

<u>Altitude</u> - Altitude at current location.

Off - Disables sensor display. Current time will be displayed.

#### Note: Sensor information is displayed only if the radio is in mono receive mode with small characters (not large characters as stated in the Users Manual).

**Set Mode Cursor** - Choose the cursor that is displayed beside the option once you are into and editing an item of the set mode.

Set Mode Format - Control access to the Set Mode items.

List - The Set Mode items are listed alphabetically by name and number.

<u>Item</u> - The Set Mode items are shown one at a time with the default for that particular item. The display advances through the items in alphabetical order.

**S-Meter Symbol** - Select the symbol to be used for S-meter display. The S-meter displays the strength of a received for transmitted signal.

**Temperature** - Set the units for display of temperature within the case of the radio.

Wave Monitor - Choose which information is to be included in the display.

<u>All</u> - Both TX and RX signal are displayed in the wave form

<u>Rx Signal</u> - Receive audio signal is displayed in the wave form

Tx Modulation - Transmitted audio signal is displayed in the wave form.

**Fast Tone Search** - Select to enable fast Tone Search Scanner speed. Available speeds are Fast (2.5 tone/sec) when checked or Slow (1.25 tone/sec) when unchecked.

**FW Key Timer** - Select how long the function state remains available once the FW key is pressed. This is the time during which a second key is pressed to access the secondary function of that key.

**Home VFO Dial** - By default, when the radio is operating in Home Channel mode, turning the knob will switch operations to VFO. As you continue to rotate the knob, the radio will tune in VFO mode. By setting this option to Disable, the radio will remain in Home Channel mode even when the knob is turned.

**HM/RV** - Selects the function of the **[HM/RV]** button (middle row left on the face of the radio). If used with the Func key (i.e., Func then Hm/Rv) the opposite functionality is triggered in the radio.

Home - One touch recall a Home channel

Reverse - Reverses the transmit and receive frequencies (default)

**Lock/Lock Mode** - Enable locking as set in the Lock Mode field on this screen. A lock appears on the screen to let you know when the lock is activated.

Set the lockout combination for the Lock function. Select from:

Key - The front panel keys are locked

Dial - The dial on the top panel is locked

Key + Dial - Both the keypad and dial are locked

PTT - The PTT switch is locked and transmission is not possible

Key + PTT - Both the keys and the PTT switch are locked

<u>Dial + PTT</u> - Both the dial and the PTT switch are locked

<u>All</u> -The front panel keys, the top panel dial and the PTT switch are all locked.

Beware - if you lock the keys you will not be able to communicate with the radio from the Programmer. Although the radio will come on in CLONE mode, it will not respond to the key press needed for the remainder of the process.

The keys are unlocked by pressing the power button ever so briefly. Watch for the lock symbol to disappear from the face of the radio indicating that the lock is off. This can be done while the radio is in CLONE mode.

**Mem(ory)** Fast Step - Select the number of channels to advance with each click of the knob while tuning in memory mode. To access Fast Step tuning, press [Func] key then

turn the knob while the "F" appears on the screen.

Note: You might want to change the FW Key Timer option to give you more time to tune if you used the Fast Step feature often.

**Memory Protect** - When this feature is set to on (checked), the memory write operation is ignored.

#### This option does the opposite of what it implies. If engaged, your memory channels are not protected as well as they are when it is not engaged.

When engaged, this option gives you complete control of where a memory channel is stored. In this mode, it will be more than easy to store right over the last memory channel you were working before going to VFO to enter the details for this new memory channel. The chance for loss of data is great. Leaving this option off and letting the radio select the memory channel location may save you the frustration of having to reenter a channel that was "there a minute ago?!?!?".

**Memory Write** - Selects the method that the radio uses for selection of the next memory channel slot into which your settings are saved when programming from the face of the radio. The options are:

<u>Lower</u> - Stores the data into the next available "free" channel (Puts the new memory channel somewhere in the list of memories to prevent breaks in the list).

<u>Next</u> - Stores the data into the memory channel which is the next highest from the last stored memory channel (Keeps everything in order as you enter them even if there are breaks in the list).

**Mic Gain** - Adjust the microphone gain level from Level 1 - Level 9 to improve transmission quality.

**Moni\TCall** - Sets the function of the [MONI] key (the one just below the [PTT] key). When that button is pressed the radio will complete one of the following options. The default is Moni.

Moni - Open the squelch to allow weak signals to be heard

T.Call - Activated a 1750-Hz burst tone used for repeater access in many countries

**Password** - Enter and enable a password for the radio. The Programmer will not allow you to set a blank password. Enable will become active once an entry is made for the password.

Note: You cannot put the radio with a password into CLONE mode.

## Be sure you know how to turn this option off from the face of the radio to again be able to access CLONE mode for programming.

**Priority Revert** - Activates the Priority Revert Mode. During Priority Channel operations (also referred to as Dual Watch), the Priority channel is accessible even when activity is not present on that channel. With this feature enabled and priority monitoring engaged, pressing the PTT switch instantly reverts operations to the Priority Channel.

To set the Priority Channel using the Programmer,

- Choose the memory channel that you want as the priority channel by clicking on the number for that channel. You will notice that the entire line becomes highlighted indicating the selection.
- Select Edit from the menu at the top of the screen then Set Priority Channel from the menu that opens.
- You will notice a "P" appears next to the channel number giving you clear indication that this is now your Priority Channel selection.
- The same "P" appears on the face of the radio when that memory channel is selected.

**Priority Time** - Set the time between instances of monitoring the Priority Channel during other operations. The default is 5 seconds. This means that every 5 seconds the radio will leave its current operating frequency and check the Priority Channel for activity. If activity is heard, operations will remain on the Priority Channel according to the condition set in the Scan Resume option.

**Programmable Key Assignments** - The Internet key (the button at the lower left corner of the radio's keypad) can be set for functionality other than the default.

Internet - Enable or disables the Internet function

<u>Int MR</u> - Recalls the Internet Access Number (SRG) or Access String (FRG). These details for Internet functinality are set on the DTMF and Internet tab of the Settings screen.

<u>My Key / Set Mode</u> - Assign an item from the Set Menu to be accessed via this button. The set menu item is selected from those in the My Key field.

**PTT Delay** - Set the delay time before the carrier is transmitted when the PTT is pressed.

**RX AF Dual** - Select the resume mode for the AF-Dual Operation (monitoring two amateur band frequencies while listening to an AM or FM broadcast.)

<u>TX 1 sec - TX 10 sec</u>: Sets the period of time after activity ceases in the amateur band before the AM or FM station will again be heard unless another signal is received before the timer expires and the broadcast reception is resumed and the AF-Dual Operation must be resumed manually.

<u>TXR 1 sec - TXR 10 sec</u>: When the selected time passes after the amateur band signal drops of transmission is over, the AM or FM station will again be heard and the AF-Dual Operations is resumed.

<u>Hold</u> - When activity occurs in the amateur band, the AF-Dual Operation is halted and can only be resumed manually.

**RX Save** - Set the Receive-mode battery saver interval that controls the "sleep" function. This battery saver mode puts the radio to "sleep" at times of little activity. The radio then "wakes" at a given interval to listen for activity. The available values are Off, 200 ms, 300 ms, 500 ms, and 1 second to 10 seconds. The default is 200 ms.

**Scan Lamp** - Enables or disables illumination of the LCD lamp whenever the scanner stops while scanning. When enabled, you are able to see the frequency of the incoming signal more easily in a low light situation.

**Memory Scan Mode** - Select the scanning to be performed while in memory mode.

All Channel - Scanning includes all the memory channels.

<u>Tag 1</u> - Scanning includes only those memory channels with the same first digit of the name as that of the channel where scanning was begun.

<u>Tag 2</u> - Scanning includes only those memory channels with the same first and second digits of the name as that of the channel where scanning was begun.

<u>Band</u> - Scanning includes only those memory channels in the same operating band as that of the channel where scanning was begun.

<u>PMS-X</u> - Scanning includes only those memory channels within the selected PMS frequency pair. The PMS (Programmed Memory Scan) limits are set as Limit Memories in the Programmer.

**Scan Restart Time** - Used in conjunction with Busy resume mode, scanning begins again once the signal has been lost for the time designated.

**Scan Resume Mode** - Determines how the radio will restart scanning once a signal has been heard.

2 - 10 Seconds: Scanning will halt for the time selected when a signal is heard. It will restart even if the signal is still active.

<u>Busy</u>: Scanning will halt on a signal and remain there until the signal is lost for a time set in the Scan Restart option.

<u>Hold</u>: Scanning will halt on a signal and remain there. Scanning must be restarted manually.

**VFO Scan Mode** - Select the scanning to be performed while in VFO mode.

<u>Band</u> - Scanning includes frequencies in the current band. Note: Step is an important part of scanning. Set too low, scanning may be too slow. Set too high, you may miss frequencies you really wanted to check. VFO step is adjusted in the Programmer on the VFO tab. It can be set independently for each band.

<u>All</u> - Scanning includes frequencies across the entire receiving range of the radio other than the FM broadcast band. Remember, the radio has Skip channels that mark a frequency to be skipped during scanning. Use of these can make VFO scanning much more efficient.

<u>+1 MHz, +2 MHz, +5 MHz</u> - Scanning will include frequencies within the designated bandwidth.

<u>PMS-X</u> - Scanning includes only those memory channels within the selected PMS frequency pair. The PMS (Programmed Memory Scan) limits are set as Limit Memories in the Programmer.

**Smart Search** - Set the Smart Search sweep option. Available values are Single and Continuous (as described below). The default is Single.

<u>Single</u> - The transceiver sweeps the current band once in each direction starting at the current frequency. All channels with activity (up to 15 in each direction) are loaded into the Smart Search memories. Whether or not all the memories are filled, the search is halted after one sweep in each direction.

<u>Continuous</u> - The transceiver sweeps in each direction starting at the current frequency continuously until all the Smart Search memories are filled.

**Spec**(trum)-**Analyzer** - Sets the sweep mode for the spectrum analyzer function. The Spectrum Analyzer presents a visual representation of activity above and below the current operating frequency.

<u>1 Time</u> - The sweep covers the band once.

<u>Continuous</u> - The transceiver sweeps the current band repeatedly.

<u>Full Time</u> - The transceiver sweeps the current band repeatedly with audio remaining on the current operating frequency.

**Split Tone** - Enables or disables split CTCSS/DCS tones. When one of the split tone indicators is set and saved for a memory channel, this selection is set automatically. The default is Off.

**Time Out Timer** - Set the maximum time of continuous transmission after which the radio is forced back into receive mode. Available values are .5 to 10 minutes and Off. The default is 3 minutes.

**Timers** - Set details to control the radio's ability to turn itself on and off at preset times. Check to enable and set the desired time.

Note: This function will not work unless the radio's clock is set. This function is done from the face of the radio not from the Programmer. See Manual for details on setting the clock.

**Tone Search Mute** - Enable / disable the radio's audio output while Tone Search scanning is activated.

**Tx Save** - Enables or disables the Transmitter Battery Saver function that automatically lowers the power output level based on the strength of the last signal received. The options are On (checked) and Off (unchecked). The default is Off.

**VFO Mode** - Set the VFO band edge condition for manual tuning.

<u>All</u> - When the VFO frequency reaches the high end of the current band, scanning continues with the low end of the next band.

<u>Band</u> - When the VFO frequency reaches the hight end of the current band, scanning continues at the low end of the same band.

**VOL Key Mode** - Change how the Vol key responds when pressed. This change determines whether you continue to hold the Vol key while turning the Knob to adjust the volume or whether the Vol key holds automatically for 3 seconds during which time adjustments can be made using the Knob. Options are

<u>Normal</u> - Volume adjustment via the knob is possible while the Vol key is being held.

<u>3 Seconds</u> - Volume adjustment via the knob is possible for 3 seconds after the Vol key has been pressed and released: the Vol key does not have to be held during that adjustment.

**Vox** - Enable and set Vox sensitivity. Vox is the ability to transmit through the radio without pressing the PTT. The radio becomes voice activated. While this feature is good in some situations, remember, you are not the only thing it will hear and transmit. In a noisy setting, you radio could transmit continually, making communications impossible for others on that frequency.

**Vox Delay** - Set the Vox delay or hang time. This is the transmit-receive delay at the end of a signal through the Vox system (i.e., it's how long the radio will continue to "hear" you after you stop talking.)

**Weather Alert** - Enable or disable the Weather Alert Scan process of the radio. With this option enabled, the radio will check the weather channels for activity every five seconds while scanning in VFO or memory mode. The default for this option is Off or unchecked.

Note: Since weather emergencies can arise at any moment, it is recommended that you review the Weather Alert Scan section of the User's Manual. You should know how to engage and disengage this option from the face of the radio making it available to you even when the computer is not.

**Active Channel** - Select the active weather channel from the 10 preprogrammed NOAA frequencies listed.

#### 16.2 Radio Menu Settings - ARTS / CW / EAI

**ARTS - Auto Range Transponder System** - The Automatic Range Transponder System (ARTS) uses DCS signaling to inform you and another ARTSequipped station that they are within range for communication. You need not have two matching radios to use this function. Any two radios equipped with the ARTS function can be used. See the Auto Range Transponder System section of this Help for further details.

**CW Learning/Training** - The radio is equipped with a feature to help you learn Morse Code (CW). The tones heard during Learning and Training are not transmitted over the air. Several options control this function.

Form - Set to Characters per minute (CPM) or Words per minute (WPM).

<u>Strobe LED</u> - Check to enable flashing of the LED (white) for a visual representation of the CW being sent.

<u>CW Pitch</u> - Set from 400 - 1000 MHz to suit your ability to hear the tone.

Learning Mode - Choose the characters to be studied

- Alpha Sends the same alpha character repeatedly
- Alpha Auto Sends an alpha character then moves to the next character automatically.
- Number Sends the same number repeatedly.
- Number Auto Sends the number then moves to the next number automatically.
- Symbol Sends the same symbol repeatedly.
- Symbol Auto Sends the symbol then moves to the next symbol automatically.

<u>Learning Alpha</u> - Assign the letter to be repeated or upon which to start the auto progression through the letters.

<u>Learning Number</u> - Assign the number to be repeated or upon which to start the auto progression through the characters.

<u>Learning Symbol</u> - Assign the symbol from the list to be repeated or upon which to start the auto progression through the characters.

Learning Speed - Set the speed for the code.

<u>Learning Repeat</u> - Set the number of repeats for Alpha, Number or Symbol mode.

Training Speed - Set the speed for the code.

Training Mode - Choose the characters and pattern to be used for training.

- Alpha 5 Chr A group of five letters is sent once.
- Alpha Repeat Groups of five letters are sent. The letters are in random order. The same group is not sent repeatedly.
- Number 5 Chr A group of five numbers is sent once.
- Number Repeat Groups of five numbers are sent repeatedly. The numbers are in random order. The same group is not sent repeatedly.
- Mix 5 Chr A group of five alpha, number, "?" or "/" characters is sent once.
- Mix Repeat Groups of five alpha, number, "?" or "/" characters are sent repeatedly. Characters of the groups are in random order. The

same group is not sent repeatedly.

**EAI (Emergency Automatic Identification)** - The Emergency Automatic Identification (EAI) feature is useful in situations where a person has become incapacitated. Voice transmissions are not possible; however, with this feature properly configured and engaged, the radio *will respond automatically* without having to press any buttons.

Setup for EAI is detailed in the Emergency Automatic ID section of this Help. There are several other details to be addressed along with the two listed here.

Enable - Check to turn the EAI function on.

<u>Time</u> - Set the interval of the emergency signal and the length of time it will be transmitted.

**Emergency Operations** - The radio has an Emergency feature that must be activated from the face of the radio (i.e., used by someone who is not incapacitated). This feature would be helpful for finding someone lost, but not incapacitated, or for alerting others traveling with you of a danger in your vicinity. See Emergency Operations section of this Help

**Pager** - The radio includes an Enhanced CTCSS tone encoder/decoder and a dedicated microprocessor providing paging and selective calling features. This allows you to place a call to a specific station (Paging), and to receive calls of your choice directed only to you (Code Squelch).

Configure the options here for:

<u>Answer Back</u> - Check the box to have the radio respond automatically to the received call.

<u>Receive Codes</u> - The pair of tones that must be received before you can hear a signal while you are using Paging.

<u>Transmit Codes</u> - The pair of tones that are transmitted with your signal so that others engaged in Paging can receive and hear your signal.

Setup for the Paging functionality are detailed in the Enhanced Paging and Coded Squelch section of this Help. There are several other details to be addressed along

with those listed here.

## 16.3 Radio Menu Settings - Messages

# **Open Message**

**Type** - Select an option for the initial display of the radio at power on:

<u>Off</u> - There is no initial display. The radio comes on ready to use.

<u>DC</u> - Voltage available to the radio is displayed beneath the Vertex Standard logo.

<u>Message</u> - Text of up to 13 characters is displayed beneath the Vertex Standard Logo. Enter those characters in the Text field of this section.

Normal - Yaesu is displayed beneath the Vertex Standard logo.

**Text** - Enter up to 13 characters to be displayed when Message type is engaged.

# **Text Messages**

The radio provides a message feature, which sends a text message (up to 16 characters) instead of sending a voice transmission.

This part of the Help covers briefly the details of what is to be entered for the fields. More details on this feature can be found in Messages - In Detail section of this Help.

**Message (Member) List** - Enter an identifier (up to 8 characters) for those in the group who will be sending and receiving messages. This can be name, callsign or other identifying information. Check the box next to the one that is your personal identification.

**Message Select (List)** - Enter the text to be sent (up to 16 characters). Check the box next to the one that you want to send.

#### 16.3.1 Messages - In Detail

The radio provides a message feature, which sends a text message (up to 16 characters) instead of sending a voice transmission. Twenty (20) different messages can be programmed into memory for easy access. When one is selected to be sent, the text and your ID are sent.

#### NOTE: The Message Feature requires that all members

- (1) Use the VX-3R, FTM-10R or VX-8 transceiver (a combination of these three can be used);
- (2) Store the same message text into the Message Select (List);
- (3) Store the same member text into the same location of the

Message (Member) List; and

(4) Set the same frequency.

Messages cannot be sent through repeaters.

To set up messages:

1) **Enter the frequency for the channel**. This must be a simplex channel as repeaters do not pass this information.

2) Set the Tone Mode to Message.

3) **Set the Bell option** (optional) in the Bell column on the main page of the Programmer.

4) Access the Menu Settings screen through the Settings | Radio Menu Setting menu at the top of the main screen.

5) Select the Messages tab of the Settings screen.

6) **Enter the Member ID**. Twenty different member IDs can be entered of up to 8 characters each. This information is sent as part of the message text. The received message appears as "Message from Message ID" so enter your ID carefully since it will be sent.

7) Check the box for the one to be sent as the message ID.

8) Enter the Message Text. Twenty different messages can be entered of up to 16 characters each into the Message Text of the Message Select (List).

8) **Check the box to select the Message text to be sent**. This is the message that will be sent when the radio is programmed with this file. To send other messages, you need to know how to select a message and an ID from the face of the radio.

Things to consider about messages and IDs:

- 1. Both radios must contain the same messages. In testing, the message text could occupy different message slots; however, it had to be there to be displayed.
- 2. Both radios must contain the same message IDs. You do not enter your information into all of the 20 slots. The information of the person that you will receive a message from must also appear in the list for it to be displayed on the radio with the message.

## 16.4 Radio Menu Settings - Sounds

**Band Edge Beep** - Enables or disables the audible tone that sounds when the radio reaches a band edge during tuning or scanning.

**Beep Level** - The volume of the beep is controlled by the audio volume level. The volume of the beep can be adjusted relative to the volume by setting the level in this option.

**Beep Mode** - Select which action will cause the radio to emit an audible tone.

Off - No sound is heard

<u>Key + Scan</u> - A beep is heard when a key is pressed or when scanning halts on a signal.

<u>Key</u> - A beep is heard when a key is pressed.

**CTCSS/DCS Bell** - Tone squelch operations have the option of sounding a bell when a call is received. This field sets the number of rings for the bell.

FM Speaker Output - Control audio output for FM Broadcast.

<u>Auto</u> - The FM Broadcast audio output is directed automatically to the internal speaker or the earphone depending on connection of the earphone antenna.

<u>Speaker</u> - The FM Broadcast audio output is heard through the internal speaker and the earphone.

**FM Broadcast** - Enable/disable the stereo output while listening to FM broadcast. Set to stereo to enable or mono to disable. This is separate from the control for *Bluetooth* operations.

**User Beep Melody** - Select the note and duration of that note for your own personal melody that sounds when a call is received during CTCSS operations.

**User Beep Selection** - Select the User Beep to be used. Enter the melody for the User Beep in the User Beep Melody section on this screen.

**Volume and Squelch** - The radio has independent adjustments for A-Band, B-Band and Radio Band (AM/FM broadcast reception) operations. These include:

<u>Speaker Volume</u> - Set the volume for sound from the speaker of the radio.

<u>Earphone Volume</u> - Set the volume for the sound through an earphone connected to the radio. Setting or checking this option on the radio is possible only if an earphone is attached.

<u>Squelch</u> - Control squelch levels that are appropriate for each of these bands of the radio.

# 16.5 Radio Menu Settings - DTMF / Internet

**DTMF Settings** - DTMF Autodial memories are provided, allowing you to store telephone numbers for autopatch use, repeater control, or Internet link access. You can also store short autopatch or Internet-link access code streams so as to avoid having to send them manually.

The 16-button keypad allows easy DTMF dialing for Autopatch, repeater control, or Internet-link access purposes.

Besides numerical digits [0] through [9], the keypad includes the [\*] and [#] digits, plus the [A], [B], [C], and [D] tones often used for repeater control.

**DTMF Auto Dialer** - Enable or disable the DTMF Autodialer feature to allow transmission of DTMF tones for autopatch or Internet-link access.

**DTMF Channel** - Select the one of the 10 DTMF memory channels to use.

**DTMF Speed** - Set the speed at which the DTMF tones are transmitted. Some repeaters require alteration to this speed to hear all the tones correctly.

**DTMF Delay** - Set the amount of time that passes between when the PTT is pressed and the first tone is heard.

**DTMF (Memories)** - Enter up to 16 characters into each of the 10 memories for DTMF tones. Acceptable entries are 0-9, A-D, \*(E), #(F) and - (pause)

**Internet (Wires) Settings** - The radio can be used to access a "node" (repeater or base station) which is tied into the Vertex Standard WIRES™ (Wide-Coverage Internet Repeater Enhancement System) network, operating in the "SRG" (Sister Radio Group) mode.

Access Number - Set the DTMF tone for SRG access.

**Auto Dialer Mode** - Enable or disable the auto dialer for transmission of access tones. This auto dialer is independent of that for the non-Internet DTMF memories.

Link Mode - Select SRG or FRG as the Internet access mode.

**Memory Selection** - Select one of the 64 preprogrammed Internet access memories to use for FRG access.

**Memory Channels** - Enter a DTMF access string up to 8 characters and a Name of up to 8 characters to identify that connection.

Note: Turning on the Internet function is not included in the Programmer. When this option is on, a DTMF tone is transmitted at the beginning of every transmission. This is an annoying and unexpected action of the radio if this option were to be set when you were not ready to operate on the Internet.

The Programmer makes it easy to configure the settings for the Internet functionality. Engaging that functionality is left for you to do from the menu of the radio when you are ready to use it.

More details on this feature can be found in the Internet / WIRES Functionality section of this Help.

# 16.6 Radio Menu Settings - VFO and Menu Skip

# My Bands (VFO skip bands)

The My Bands feature lets you select bands to be omitted when selecting VFOs with the Band key.

In the Programmer, an unchecked selection is included on the radio. To omit a band, check the box next to that selection.

Both AM and FM cannot checked. Similarly, all of the ham bands cannot be omitted.

# Menu Item Skip

This process is completed in two steps.

1). Select the menu items that will not appear when you access the Set Item menu in the radio.

2). Check Extended Menu On to hide these items on the radio.

If items are selected and the Extended Menu On item is not, the selected items will appear with an asterick beside each. Once the Extended Menu item is set to On (either in the radio or from the Programmer), these menu items will be hidden.

Note: You should know how to engage and disengage each of these functions from the face of the radio. In the field, away from your computer, you may need tp access a band or an item that is hidden.

# 16.7 Radio Menu Settings (VX-8) - APRS / GPS

The **A**utomatic **P**acket **R**eporting **S**ystem (APRS) was designed to support rapid, reliable exchange of information for local, tactical real-time information, events or nets.

The concept, which dates back to the mid 1980's, is that all relevant information is transmitted immediately to everyone in the net and every station captures that information for consistent and standard display to all participants. The primary objective is consistent exchange of information between everyone. For more information on this system, search the web for APRS. The search will return many articles with a plethora of information including several from the ARRL site.

The VX-8 displays your position (Longitude/Latitude) when the optional FGPS-2 GPS Antenna Unit is attached to the radio. The radio is also equipped with a data modem to enable APRS transmissions. The APRS is a software program and registered trademark of Bob Bruninga, WB4APR. Many of the APRS and GPS details can be preset in the Programmer. Some must be handled in the field as an operational part of the radio. These are not included in the Programmer.

To program those APRS and GPS details that are available in the Programmer, select Settings | Radio menu settings from the menu at the top of the screen. This can be accessed while you are on any of the spreadsheets of the program. Once the Settings screen opens, select the APRS / GPS (or APRS Beacon tab).

# **GPS Settings**

Altitude - Set for feet or meters

**Datum** - Select GPS datum type. Most operations including APRS use the default "WGS84"; however, there are other databases available.

**My Position** - Select the information be used for your current location. The option can be set to GPS, Auto, Longitude, Latitude or one of the 10 memorized positions.

<u>Man / P1 - P10 Table</u> - The table displays memorized positions used during GPS operations.

**Position** - Set for .MMM or SS

**Speed** - Set in kmph, mph or knot.

Time Set - Set use of the GPS clock data to Auto or Manual.

# **APRS Settings**

**AF Dual** - Enable/disable the AF-Dual function while operating in APRS. This is the RX AF-Dual function that allows you to monitor two ham band frequencies while listening to a broadcast band. Although engaged during normal operations, this feature can be engaged or disengaged during APRS operations.

**APRS Modem** - Enable/disable the APRS mode and set the baud rate.

**B-Band Mute** - Enable/disable audio output on the B-Band during APRS operations.

**Message Flash** - Visual indication by the radio's LED when a message in one of the three; MSG, GRP or BLN; types is received. The "flash" response can be set differently for each of the three types of messages.

# Note: This option is not detailed in the manual for the VX-8D. You will see the change to this option on the face of the radio.

**Message Ringer** - Enable/disable the audible sound heard when an APRS *Message* is received. This option can be set independently for a message, group message or

**My Symbol** - Select an icon which will be displayed on the monitors of other stations with your APRS transmission.

The new VX-8D has more than 180 individual symbols separated into 4 groups.

Set one for each group.

Select one to be used with the 1-4 button selection.

The radio will use the one selected and have the others immediately available for use through manual selection from the APRS set menu Item 22.

My Callsign - Enter your callsign to identify your station.

**Message Text** - Enter text of up to 16 characters for each of the seven fixed form messages. Check the box next to the one of these messages you want to use when this file is sent to the radio. To select a different message when operating the radio, access APRS menu item 6 and select from those that appear.

**Message Group (Filter)** - Select an option to receive only specific types of message information. Unlike beacon filters, message filtering is limited to one selection. G1 - G5 affect message group code while B1 - B3 affect bulletin group code.

Position Comment - A brief description of your station or situation that is

included with APRS transmissions.

**Time Zone** - Set the time offset between local time and UTC time. See the map in the Operating Manual on page 78 for additional information.

**Tx Delay** - Set the time delay between transmitting the preamble (flag code) then the APRS data.

Note: When working with the radio, the APRS / GPS information is accessed when you press the Menu button briefly. The first screen that appears is current information coming from the FGPS-2 unit. If that unit is not attached, these fields will be blank.

The fields that you are setting in the Programmer are accessed in the APRS menu on the radio. That menu is found by pressing the Menu button briefly then once in the APRS/GPS screen, press and hold the Menu button until the APRS/GPS menu becomes available. This menu is easily identified by the "APRS" or "GPS" that is included with the label for each of the items.

### 16.8 Radio menu Settings (VX-8D) - APRS Beacon

The Programmer handles additional information for APRS beaconing on this screen. Items to be set include:

**Beacon Filter** - Select the specific types of APRS beacon to be received or rejected. Check to receive. Uncheck to reject.

**Beacon Interval** - The length of time between beacon transmissions when beacons are being transmitted automatically.

**Beacon Ringer** - Enable/disable the audible sound heard when an APRS Beacon is received.

**Beacon Status Text** - Enter a message for APRS beacon. Select one to be transmitted. The first text message is transmitted by default.

**Beacon TX** - Control beacon transmission.

- Auto The radio transmits the APRS beacon automatically at the time interval set in the Beacon Interval option.
- Manual The APRS beacon is transmitted only when the [X] key is

pressed. You remain in complete control of when the beacon is transmitted.

• Smart - Enable automatic transmission in accordance with the interval determined in the Smart Beacon Settings for Type 1, 2 or 3.

**Digi Path** - Set up to eight digipeaters for the APRS packet path.

The radio is preset to "Wide1-1" and "Wide1-1/Wide2-1" digipath to insure that your transmitted APRS Beacon is repeated by the new N paradigm digipeaters. Yaesu recommends that you use this setting by default.

#### Six other options for settings are available for you to customize.

**Smart Beacon Type** - Select Type 1, 2 or 3 to use when Beacon TX is set to "Smart". This selection correlates to the Type 1, 2 or 3 settings in the Smart Beacon Settings section.

**Smart Beacon Setting** - Set the options for each of three Smart Beacon types. The radio transmits the APRS beacon automatically when any parameter value exceeds the set point.

The default values are suggested as Type 1 for walking, Type 2 for bicycling, and Type 3 for travel in a vehicle. Adjustments are suggested if these do not generate the desired rate of transmission during your given activity.

Note: There is nothing really special about one of these as compared to another. This menu item (APRS/GPS Menu Item 24) simply gives you three sets of the same parameters to set as you need for experimentation or for three different activities once you establish suitable values for that activity.

You need to know how to change between the Types from the face of the radio. Then you can experiment with the three sets of values while in the field to find those that work best for you. To make you selection, access the APRS/GPS menu, select item #24, select Type 1, 2, or 3. Exit the menu and resume your activities.

**Units** - Control how received data is displayed on your radio.

- Altimeter Set to feet or meters
- Distance Set to mile or kilometer
- Position Set to MM.MM' or MM'SS"

- Speed Set to kmph, knot, or mph.
- Temperature Set to Farenheit or Celcius.
- Rain Set to mm or inch.
- Wind Set to m, s, or mph.



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# 17 Radio / Computer Data Transfer

Data flow two ways: from the computer to the radio or from the radio to the computer. Even when you are sending a file to the radio, some data must be sent from the radio to the computer to ensure that the two are "talking" before transfer of the file ever gets started.

In all cases, *be sure to follow the directions presented on the screen carefully*. The wrong button press can result in a communications failure.

Details for this process are contained in these sections:

Communications | Get Data From - Always the best place to start. Even if there is nothing in your radio. It gets the data "flowing" between the two.

Communications | Send Data To - This process programs the radio with the details of the file that is on the screen. If the file is blank, you will have a blank radio. Be sure you see your frequencies on the screen before you start this part of the process.

Radio to computer cabling - Check the photos to be sure you are using the correct cabling for your radio.

# 17.1 Communications | Get Data From Radio

Uploads the contents of the radio memory to the computer. This function is often referred to as "reading" the radio since memory information is "read" from the radio.

This step is required before the first file can be sent to the radio. Files with frequency information can be created in the Programmer without executing this step.

# "The data from the radio will overwrite this file. Continue?"

This message will be raised by the programmer when you select Communications | Get data from radio with a file open that is not a new (default) file into which no entries have been made.

This message is warning you that you will replace any information you have entered with whatever is in the radio. The "whatever" could be all blank channels.

Answer "yes" if you want to lose all the information that appears on the screen. Answer "no" if you don't want to lose several hours of work spent creating the file on the screen. To prevent loss of information, first do File | New to open a new (default) file. Then while looking at that file, do Communications | Get data from radio and complete that process. Your file will drop to the background and be protected from during this part of the process.

Once you complete Communications | Get data from radio, return to your file a) select the tab at the top of the page; or b) select File | Open and open the file from the list presented (if you closed it some time during the process.)

#### The Get Data From process (reading the radio)

- Connect the cables properly to the radio. See the Radio to Computer Cabling section of this Help for details of that cabling.
- Be sure the battery is charged completely or that you are connected to an external power source before beginning this process. Loss of power during communications may result in a reset radio.
- The screen that opens has details for completing the process to Get Data From the radio (read the radio).

# Read the screen carefully. The steps differ with each model. All the steps you need to do are listed on this screen.

Get Data From VX-8
<ol> <li>Plug the cable securely into the Speaker/Mic jack on the top of the radio.</li> </ol>
2. Press and hold the [FW] while turning the radio on.
3. Verify the radio displays CLONE.
4. Click the OK button.
OK Cancel

• Now that the radio is in CLONE mode, click OK to continue.

or Teaching States
Press and release the [Band] key to start the transfer.
Cancel

- Press the button on the radio to start the transfer.
- A transfer status bar is displayed on the computer to let you know that the computer is receiving the data being sent from the radio. If the "blue/green bar" does not appear and fill, cancel the process and try again.

Note: If the "blue/green bar" does not appear and begin to fill immediately, the first steps in troubleshooting are as follows:

- Do NOT turn the radio off. Do these steps exactly as listed here.
- Cancel the process on the computer.
- Once the screen closes, select Communications | Get Data From radio from the main page of the Programmer.
- When the screen opens, skip to step 4 and click OK without doing anything on the radio.
- Then press the [Band] key and watch the radio change. If it changes to CLONE, press the [Band] key again.

#### The radio was always in CLONE mode. There was no reason to turn it off an back on again. This often gets the process going after a failure.

When the Get Data From process is complete, the Programmer will return to the spreadsheet of the main window where the information taken from the radio is displayed. This information is ready to be edited and saved.

The radio can remain connected to the computer while changes are being made in the Programmer. These changes are not reflected in the radio until you complete the Send Data To process in the Programmer. Leave the radio in CLONE mode or turn it off while it is connected to the radio. If it is on in normal mode, it may "act funny" since the PTT line is active in the programming cabling.

If you are doing major editing, turn the radio off and remove the cloning cable. Then return to the Programmer for editing the file. Once your editing is complete, connect

the radio to the computer and complete the Send Data To process to transfer the changes to the radio.

# Troubleshooting

"Nothing" happens when I press the button indicated on the second screen of the Get Data From process.

If this is "nothing on the radio", check that your keys are not locked. The lock symbol appears on the screen with the word "CLONE". Simply press the power button briefly to unlock the keys. Then press the Band button again to continue.

If this is "nothing on the computer" (i.e., the transfer status bar does not appear and begin to fill), check the cable connections between the radio and the computer.

Should the problem persist, contact *RT Systems* for personal assistance.

## 17.2 Communications | Send Data To Radio

Sends the contents of the current file and the settings file to the radio.

Note: In the Version 4 Programmers you can have files open for several different radios at one time. The Programmer can send a file only to the radio it is for. The extension of the file tells you which radio it is for.

You can open and send a file created for one radio to another; however, you must open that file as one for the receiving radio. See the File | Open section of this Help for details on this process.

#### **Current File**

The Programmer can work with several radio files at one time. There is no need to close extra files before executing the Send Data To process.

The current file will be sent to the radio during the Send Data To process. The current file is the one that appears in the main window of the Programmer. Basically, what you see on the screen is what is sent to the radio.

#### **Settings File**

Check your global settings under Settings | Radio Menu Settings to be sure the right information is being sent. The items on this screen are the radio settings that are not associated with a specific memory channel.

These settings are set once to be sent to the radio with any file that you create. Details on these settings can be found in the Programming Other Set Menu Items of this Help.

If the radio "acts funny" after it is programmed,

- Check the Radio Menu Settings.
- Make changes to the settings as needed.
- Save the settings file.
- Do Communications | Send Data To with the same memory channel file.

The settings will be sent with the memory data.

#### **Completing the Send Data To Process**

When you execute the Radio | Send Data To command, you are presented with instruction for putting the radio into clone mode.

Read the screen carefully. The steps to put the radio into clone mode differ with each model. Pressing the wrong button will result in no response or the wrong response for the process. The key sequence for sending data to the radio is different in all radios than that to Get Data From the radio.

Send Data	To VX-8
1.	Plug the cable securely into the Speaker/Mic jack on the top of the radio.
2.	Press and hold the [FW] key while turning on the radio.
3.	Verify the radio displays CLONE.
4.	Press the [Mode] key on the radio.
5.	Verify that the radio shows WAIT
6.	Click DK to start transfering the data.
	OK Cancel

Follow the steps on this screen. When you click OK a progress bar appears letting you know that the process is being completed.

When the transfer is complete, the transfer status window disappears and the Programmer returns to the Main Window.

With the radio off, remove the cloning cable. The radio is ready to power-up and use with the newly programmed settings.

# Troubleshooting

#### **Communications | Get Data From Radio required first**



The first time you attempt to send your file to the radio, this message may appear.

This indicates that you have not read the configuration of the radio into the

Programmer.

There are details that the Programmer can get only from the radio. Even if the radio is not yet programmed, these "background" details are necessary for the Programmer to send a file to your radio successfully.

To complete this process:

- 1) Select File | New from the menu at the top of the screen.
- 2) Turn off the radio.

3) Select Communication | Get Data From Radio from the menu at the top of the screen.

4) Complete the process detailed on the screen.

5) Once the process is complete, click the tab at the top of the screen showing your filename. The file that you want to send to the radio will be displayed on the screen.

6) Select Communications | Send Data To Radio from the menu at the top of the screen.

7) Complete the process following each step carefully to program these channels into the radio.

#### **Modified Radio**

If your radio has been modified, you need to read from the radio (Get Data From) into a new file before you attempt to write data to the radio. When the Get Data From process is used, even if the radio is not yet programmed, the Programmer gets the data it needs to know that the radio is modified.

When you use Get Data From for the sake of establishing communications, you need to save the file ONLY if you want to save the memory data that is currently in the radio. The Programmer already has what it needs. The option to save is available should you want to save the pre-programmed data.

#### The radio is not programmed after the process is complete

This could indicate several things. Most of those are specific to the radio. The most general error is not an error in programming; but the need to put the radio into Memory mode once programming is complete. Many of the radios return to VFO when they are programmed. Press the V/M or MR or DM key on the radio (See the manual for your specific model to identify the key press that changes the radio from VFO to memory mode. It will be detailed there.)Once in memory mode the information programmed will

be available for use.

Several of the Yaesu radios truly are not programmed when the download process is complete. These radios have encountered an error during the programming process. Try the process again. It it continues to fail, first, be sure you are using the latest version of the Programmer by updating from the Software Updates link of the website. If the problem persists, send the file that you are attempting to send to the radio. We will examine it for any problem that might exist in the data.

Check the cabling between the radio and the computer by disconnecting and reconnecting at all connections. Try the process again.

#### If you have problems sending a certain file to the radio.

Cancel the Send Data To process and execute Get Data From. Be sure to open a New file (File | New) into which the data will be read. This prevents loss of data in the file that you are sending to the radio. Getting data from the radio is a less critical process that can help get communications established.

The radio must be connected to the computer with the proper cables for that radio. See Radio to Computer Cabling in this Help for details and pictures.

Should the problem persist, contact *RT Systems* for personal assistance.

#### 17.3 Comport Setup

The VX-8 Programmer uses the *RT Systems*' USB cable. *No comport setup* is required.

# Troubleshooting

When I select Communications | Send Data To, I get the following error:

Communication Error
Could not find a USB cable attached.
ОК

The only cable configuration that works with the VX-8 Version 4 *RT Systems'* Programmers is the *RT Systems'* USB-59 cable.

Be sure to give the computer enough time to do its internal setup once the cable is attached. On some machines this can take up to a minute (a long time in computer time). Once the cable is ready for use, the program will continue into the steps for transferring data between the radio and the computer.

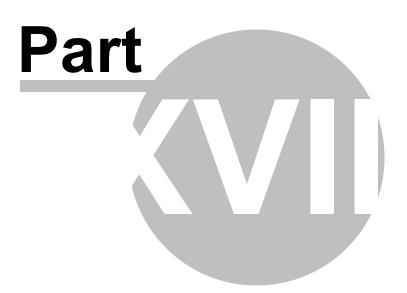
## 17.4 Radio to Computer Cabling

The radio must be connected to the computer with the proper cables for that radio.

The cable is included in the ADMS-VX8 kit with the RT Systems' software.

This USB-59 cable is easily identified by its blue color, its unique 7-pin plug on one end of the cable, and the RT Systems logo on the USB end of the cable.





# 18 File Maintenance

Just as in a word process or other Windows based program, you will create files in the programmer for use in the radio. You can create as many files as the space on your hard drive will allow.

Remember, with the exception of the lcom IC-7000, all other programmers erase everything in the radio and replace it with what is in the file. Be sure everything you want in the radio is in the file that is sent. This is an "all or nothing" process.

From the File menu at the top of the main window, select:

New - Create a new file in any Version 3 programmer you have installed.

Open - Open an existing file in any of the Version 3 programmers you have installed.

Open Travel Plus Link - Active only if a list is open in Travel Plus. Accesses that Travel Plus list. Details on this functionality are available in the ARRL Travel Plus section of the help.

Close - Closes the current file.

Save - Saves the current file.

Save As - Saves the current file giving you the opportunity to enter a new name. This creates a copy of the file and saves it with the new name you entered.

Import - Advanced functionality that addresses data from a "flat" ASCII file. Details on this process are found in the Import and Export section of the help.

Export - Extracts data from the programmer file to a "flat" ASCII file. Details on this process are found in the Import and Export section of the help.

Print Preview - Lets you see the formatted information on the screen before it prints.

Print - Prints the current file

Send File as E-mail - Sends the current file to *RT Systems'* tech support. This functionality is dependent on the e-mail program of your computer.

Files 1-4 - Up to four files that you last worked in and saved.

Exit - Closes the programmer.

# 18.1 File | Exit

Exits the Programmer.

If files have been changed, you will be prompted to save or cancel the Exit command to avoid data loss in that file.



Yes - Exits the program saving the file.

No - Exits the program without saving any work done in the file since the last time you saved.

Cancel - Halts the Exit option. The program returns to the open file.

# 18.2 File | New

Use this command for setting up a "clean slate" into which you enter memory frequencies. A "clean slate" or default file will often have at least one channel programmed on the memory channel screen. This is a factory default that is in your radio when it is new. The information for this channel can be changed; however, in most radios, channel 1 must be programmed.

Use the quick key command of Ctrl M for easy access to a new file.

If you have been working to create a file with memory channels, use File | New before using Communications | Get data from to prevent losing all the work you have done in

this file. The Get data from process will replace the information in the open file with what is in the radio.

## Other Radio Menu Settings and a New File

The radio is more than just memory channels. There are features that are controlled once for the radio. They cannot be customized for each memory channel. These features are address in the programmer under Settings | Radio Menu Settings.

The settings for these features that were last saved are use whenever a New file is created. There is no need to reset these features for each new file. If you have not saved a settings file, factory these radio menu items are set to factory defaults( as if you reset your radio).

Note: If you radio "acts funny" after you download to it (i.e., keypad beeps are different, squelch is open, Scan resume settings are changed, etc.,) you have not yet set these options in the Settings portion of the programmer. To make these option settings permanent:

- Select Settings | Radio Menu Settings from the menu at the top of the screen.
- Personalize your options just as you did on the radio.
- Select File | Save from the menu on the Settings screen.
- Enter a filename when prompted and click Save.
- Select File | Exit from the menu on the Settings screen.
- You will not have to change these again unless you want them to function differently.

The settings file will change only if you read from the radio (Communications | Get data from) and send that file back to the radio (Communications | Send data to) without saving the memory information that you retrieved. This is helpful if you are programming a friend's radio in which he has all these options set up as he wants them.

The File|New command can be used to open several new files at once. Memory channel information can be copied between these files (even from V3 to V4), regardless of which radio they are for.

# 18.3 File | Open

Just as in a word processor or other Windows programs, the command opens a previously saved file.

You are not limited to one programming file for your radio. Make as many as you want. Then choose the one you want when you open the programmer.

Working with the programmers is a little different if you have one programmer or several programmers installed on this machine. Click the topic for details on

Opening a file with the Version 3 or Version 4 programmer (One Version 3 or Version 4 programmer installed)

The Version 3 and higher programmers allow you to "share" Version 3 and higher files from other radios...even radios from other manufacturers. Click the topic for details.

Opening ANY Version 3 file

There have been many *RT Systems'* programmers over the years. The Version 3 or higher programmers can open and convert files from those older programmers. Click to topic for details.

Opening existing programming files (\*.rdf or \*.icf files)

#### 18.3.1 Opening files from older programmers

# **Opening existing programming files (\*.rdf or \*.icf files)**

The Version 3 or higher programmers can open a file created with an original RT Systems' ADMS or WCS programmer for the same radio.

In this example, a file for the Yaesu FT-60 that was created in the original ADMS-1J programmer (an .rdf file) will be opened in the Version 3 programmer for the FT-60. This process is the same in the Version 4 programmers although the screens will look

a little different.

Directory selections may vary on your system depending on your choices in the original programmer. This example is designed based on defaults from the original programmers.

To open an existing file from the original programmer:

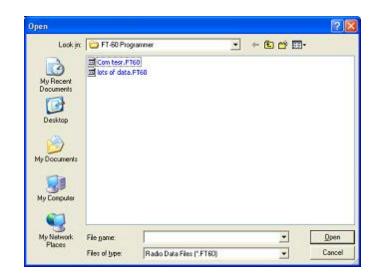
geve Ctr	HN I	8									
	H+0									10000	1.00
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Hypernemory examples F18800(JC7000) Hypernemory examples F18800 TP List F11802 Lanta Test XC2820											
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• In the V3 Programmer, select File | Open.

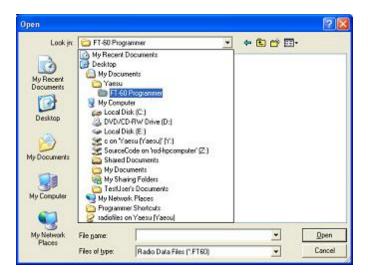
• If you have several Version 3 programmers installed, you will need to select FT-60 Radio Data File from the list in box that opens next. This step is omitted if only one programmer is installed.

OK Cancel

• An Open Dialog appears



• Since the Version 3 programmer is geared to look in its own directory, we need to "find" the original file to be opened (We must change filing cabinet drawers as the old analogy was described.) Use your mouse to left click the down arrow to the right of the Look In box. A directory listing appears. The one highlighted in the list simply indicates the "drawer" you are in now. Do not be afraid. This is only a list from which we will make a selection. You cannot hurt anything with these steps and actions.



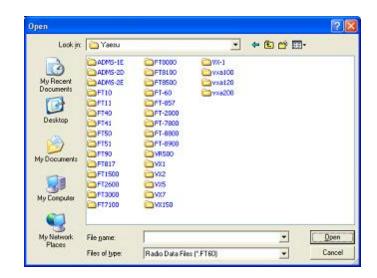
• Use your mouse to left click on Local Disk (C) in the list. On your machine this wording can vary a little. In general, you're looking for that "(C)" to know you've made the correct selection.

Open				2 🛛
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My Network Places	File game		¥	<u>D</u> pen
	Files of type: Radio D	ata Files (*.FT60)	*	Cancel

• What you see now are directories (the ones with the little yellow folders) and files. Find the little yellow folder that says Yaesu next to it. Put your mouse on it and Left click. Once Yaesu is highlighted, let go of the mouse button, move the pointer to the Open button, then use your mouse to left click on the Open button.

Look jrc	😂 Local Disk (C:)		+ 🗈	😁 🖽 -	
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My Network Places	File game:			9 [	<u>D</u> pen

• After clicking Open, the contents of the Yaesu directory appear.



 In this example, there are lots of directories (the ones with the little yellow folders) since all the original programmers were installed on this machine. In your case, there is probably only one directory (little yellow folder). In either case, find the FT-60 directory (the one with the little yellow folder and the words "FT-60" next to it. Find the FT-60 directory. Point at it with your mouse. Use the Left mouse button to click on it. Release the mouse button. Move the pointer to the Open button. Left click the mouse once on the Open button.

Open					2 🛛
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My Network Places	File pame:	I.	_	- [	<u>D</u> pen
	Files of type:	Radio Data Fées (*.FT60)	_	-	Cancel

• Yes, a blank screen appears. This is normal. At the bottom of that screen, find the "Files of type" box. Use the left mouse button to click on the down arrow at the right of that box. Select Old Radio Files (\*.rdf) from that list. The names of the available files will appear on the screen.

Open					2 🛛
	E FT-60 클 Original Rea 로 RadoRead2		×	* 6 0 0	-
My Computer	File pame: Files of type:	Old Radio Files	[ <sup>*</sup> .id <sup>*</sup> ]	•	<u>Open</u> Cancel

• Use the mouse to point at the name of the file that you want to open. Click the left mouse button once to select that file.

)pen				2
	r: 🔁 FT-50	• •	6 d II-	

• Release the left mouse button. Move the pointer to Open. Click the left mouse button once to open the file.

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1	430.00000	430.00000		Simplex w		*		T.	None		100.0Hz 💌		* 08		
2	147.00000	147.60000	600 kHz	Plus	FN			L.	None		100.0Hz	023	08	5kHz	
3	147.00500	147.60500	600 kHz	Plus	FN			F	None		100.0Hz	823	08	5kHz	
4	147.01000	147.61000	600 kHz	Plus	FN			E	None		100.0Hz	823	08	5kHz	
5	147.01500	147.61500	600 kHz	Plus	FN			E	None		100.0Hz	823	08	5kHz	
6	147.02000	147.62000	600 kHz	Plus	FN			E	None		100.0Hz	823	08	5kHz	
7	147.02500	147.62500	600 kHz	Plus	FN	- 1		- F	None		100.0Hz	823	08	5kHz	
8	147.03000	147.63000	600 kHz	Plus	FN			17	None		100.0Hz	823	08	5kHz	
3	147.03500	147.63500	600 kHz	Plus	EN			17	None		100.0Hz	823	08	5kHz	
10	147.04000	147.64000	600 kHz	Plus	EN	1		L.	None		100.0Hz	823	08	5kHz	
11	147.04500	147.64500	600 kHz	Plus	EN			L.	None		100.0Hz	823	08	5kHz	
12	147.05000	147.65000	600 kHz	Plus	EN			F	None		100.0Hz	823	08	5kHz	
13	147.09900	147.65500	600 kHz	Plus	EN			E	None		100.0Hz	823	08	5kHz	
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- All the data of the original file is converted into a new Version 3 file for the FT-60.
- Now, save this new file so you don't have to do this again every time. Also, once saved as a new Version 3 file, you can use this data for other radios once you have the Version 3 programmer for them. (Advanced feature explained below). From the menu, select File then Save as from the list. Use the left mouse button to make this selection.

Save As						2 🔀
Save in: My Recent Documents Desktop My Documents My Computer My Computer	T 50 Plog	50	*	÷ € ď	-	
My Network Places	File game:	Driginal FT60 File		<u>.</u>		Save
	Save as type:	Radio Data Files (*.FT60)	2			Cancel

• Enter a filename in the File name field at the bottom of this screen. Use your left mouse button to click Save.

Note: Only files from the original ADMS-1J for the FT-60 Version 2 programmer can be accessed with the FT-60 Version 3 programmer. Files ending in \*.rdf for other Yaesu radios cannot be opened in the FT-60 Version 3 programmer.

#### 18.3.2 Opening a V3 or V4 file from a different radio

The Version 3 programmers have the ability to "share" memory channel information between radios. It makes o difference if the radios are from the same manufacturer or not. As long as both files are from an RT Systems' Version 3 programmers, they can be used by the Version 3 programmer for any other radio.

## To open a Version 3 file from a different radio:

The steps detailed here are based on the directory structure of this machine. Make changes to directories as needed to locate files that you want to open.

Files that you create in Version 3 can now be shared easily with anyone else who has a Version 3 programmer. Simply post the Version 3 file for anyone to download.

In this example, a file for the lcom IC-T81 will be opened to be sent to the Yaesu FT-60.

Proguency         Proguency         Direction         Node         Name         Tone Mode         CTCSs         DCS         Skip         Skip           430000001         430.00000         w         Simplex:         w         F         None         w         DD. DHz w	43000000 430.00000 V Simplex V PN V Norme V 100.0Hr V 003 V 001 V 25MHr V
F K Menories / Lind Menories / VPO / Hone / 4	H Menories / Link Menories / VFO / Hone /

• Open the FT-60 Version 3 programmer.

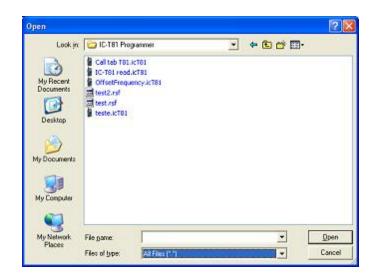
• From the menu at the top of the screen, select File | Open. A box appears from which you select the programmer for the *radio to be programmed (in this case, the FT-60).* 

New	ОК
FT-1802 Radio Data File	
FT-1807 Radio Data File	Cancel
FT-50 Radio Data File	
FT-60 Radio Data File	×

• An Open Dialog box appears. By default it is looking in the FT-60 directory since it is trying to help you find an FT-60 programming file. You will change directories to where the file is stored that you want to open. (Note: If you received the file via e-mail or from an Internet site, you chose where it was saved. Personalize the steps here to move to that location.)

Open						2
Look in My Recent Documents Desistop My Documents My Conguter	E 🤭 IC-181 Pro	igrammet	×	<b>₩</b>	<b>≝</b>	
My Network Places	File game: Files of type:	Radio Data Files	P ET 571		ন ন	<u>D</u> pen Cancel

• When the contents of that directory are displayed, it probably will be blank as shown. You have done nothing wrong. This is normal. The process is still looking for an FT-60 file. From the Files of type field at the bottom of the screen (the one highlighted blue in the figure above), select All files (\*.\*).



• A listing will appear with more than just the file that you're looking for. Everything in that directory is listed. Your file will be in the list. Select the file from the list.

Look jr	C 😂 IC-T81 Pro	grammet	٠	* 🗈 😁	- T	
My Recent Documents Desistop My Documents My Computer	Call teb T01 IC-T01 read ClostFrom test2.rsf test.rsf teste.icT01	.ktBl kency.icTBL				
My Network	File game:	OfficetFrequency.icT81		v		<u>D</u> pen
Places	and the second sec	and the second descent of the second s				

- Click Open in the lower right corner.
- The resulting file contains frequencies that can be sent to the FT-60. The blanks represent frequencies that were removed during the conversion. These frequencies would be invalid for the FT-60.

14	1.1	Frequency	Frequency	Direction	Operating Node	Name	Show Name	Tane Mode	CTCSS	DCS	Skip	Step 💼
			-	-	a contract of the second s		E		-			
		145.01000	2	Sinplex	FN		- E	Noné	88.5Hz	023	01	5 kHz
44	0.00000	440.00000		Sinplex	FN		- D	None	88.5Hz	023	011	5kHz
							- E			×10.10	100	2000
	2222	100000000		200000	1000			1000 C		1.7.3	22	
14	2,66000	145.66000		Sinplex	FN			Noné	88.5Hz	023	011	15kHz
			<u> </u>	and the second se	FN		-			8.80		15kHz
14.	.55500	147.55500		Sinplex	FN			None	88.5Hz	023	011	10 KH2
	-						10					
	-	-					10					
	-	-					E	-				
							Ē					
	I Men	nories / Linit	Menories	VEO Hom	0		-	1		and the second second		100

Creation of this file did not disturb the original file. The memory channel information was not removed from the original. A copy was made by the programmer for the conversion.

You can edit the file. In this case it needs to be edited to be sure that memory channel 1 is programmed. You can remove the blank channels if you want. You can add others.

Alternately, you can send this file to the radio just as it is...other than channel 1 needing to be programmed with something allowable for the radio.

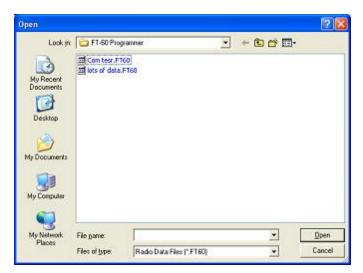
Once you have used this to program the FT-60, you can save the file or close without saving depending on your needs for the data.

#### 18.3.3 Opening a V3 or V4 file

Opening a file with the Version 3 programmer (One Version 3 programmer installed)

- 💈 IC-2820 Pregrammer IC-2820 Untilled Else Edit Communications Settings (Star Window Help Beve Open 18 Chi+N OrderO Qose Seve DCS Polarity John V Dif John N Dif Dpenating Node R∎ CTCSS 88.5Hz ▼003 88.5Hz 003 1 Name Tone Node CTCSS Cirl+5 DCS Skip Save As... FN FN . Name ¥ 88.5 Hz ¥ 88 Name 88.5 Hz 88 **v** 8 \* [inport... Export ... Etint Preview... Brint ... Col+P Send File as E-Mail... 1 Hypermemory examples. FT8800()C7000) 2 Hypermemory examples. PT8800 fat 41 ٠Ē Open an existing document
- Select File|Open from the menu at the top of the screen.

• A Windows Open dialog appears.



• Select the file that you want to open from the list presented. Click the Open

button at the bottom right. This files opens in the programmer.

# Opening a file with the Version 3 programmer (More than one Version 3 programmer installed)

• Select File|Open from the menu at the top of the screen.

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open	Corl+O	1	_	_							-
Opers Travel Flue List:	1002	-									
Qose Seve	Chil+5	Open No	eing de	Nane	Tone Node	CTCSS	Ra CTCSS	DCS	DCS Polarity		
Save As		+ FN		0.000			88.5Hz 💌			+ 0f	-
(inport Export		FN			None	88.5 Hz	83.5Hz	023	floth N	0¥	
Brint Prendem Brint	CbiHP										
Send File as E-Mail		-			-					-	
1 Hypermemory examples. FT6800()C 2 Hypermemory examples. FT6800 3 TP Ust. FT1602 4 Limits Test. X2820	7000)										
tyt							10.4	100			
-		Cal /	_				4				

• A window opens listing the programmers installed on this machine. Select the radio from the list that will be programmed by this file being opened.

<u>l</u> ew	ΟΚ
FT-50 Radio Data File	
FT-60 Radio Data File	Cance
FT-7800 Radio Data File	

• A Windows Open dialog appears with a list of the files for that radio.

The subscription of the local division of th		- + E	- 🖬 🐿 🕻	
I Com tesr.FT 편 lots of data.				
File game:	11		-	Dpen
			File game:	File game:

• Select the file that you want to open from the list presented. Click the Open button at the bottom right. This files opens in the programmer.

#### 18.4 File | Print

Prints the Memory channel information of the displayed page of the current file (i.e., if you are on the memories tab, the memory channel information is printed. Similarly, if you are on the VFO tab, the VFO channel information is printed.)

- When this command is selected, a print dialog will give you the opportunity to setup your printer.
- Hidden columns are not printed. A printout can be customized (including increasing type size) by deliberately hiding columns before printing. To hide column, select Settings | Preferences from the menu of the programmer.
- Only memory channels that are programmed are printed. Your printout will not include the blank channels in the file.
- Use Print Preview to see what your printout will look like and how many pages will be included before you send it to the printer. This new option will help save lots of wasted paper.

#### 18.5 File | Print Preview

This new feature of the Version 3 programmers lets you preview the data to be printed before you waste paper sending it to the printer. With the file open that you want to print, select File | Print Preview.

You will notice first that the screen changes. It is filled with the data that will be printed. This is just a temporary change. The order of your channels has not been changed in the file.

Then the screen opens to display the printed output you can expect.

	←	← P	reviou	٩	Zoon	1	Prin	t	🔓 Set	up	Page 1 of 1	N
Reserve         Tranunts         Other         Other         Other         Non-No           1         4451700         4451700         4491         Non-         65514         Off           2         4451700         4401700         4491         Non-         65514         Off           2         4451700         4401700         4491         Non-         65514         Off           20         455200         449         Non-         65514         05514         Off           20         455200         455200         455200         455200         Off         455200           22         455200         455200         548         None         65514         05714         Off           22         455200         548         None         65514         05714         Off         455200           23         455200         548         None         65514         05714         Off         45540         Off												
1         400100         Bargko         Hd         None         80514         80514         015           2         400000         400000         Bargko         Hd         None         80514         80514         015           3         450000         450000         Bargko         Hd         None         80514         80514         016           3         450000         45000         Bargko         Hd         None         80514         80514         016           3         450100         45000         Bargko         Hd         None         80514         80514         016           3         450100         45010         Bargko         Hd         None         80514         80514         016           3         450200         45010         Bargko         Hd         None         80514         85140         016           3         450200         45020         Bargko         Hd         None         80514         85140         016           3         450200         45020         Bargko         Hd         None         85140         05140         016           3         450200         45020         Bargko	8						IC-T7 Pr	ogramme	er - 10-177	United 1		
1         4401100         Bargles         HA         None         HD514         OF           10         4400000         Bargles         HA         None         HD514         OF		Receive Frequenca	Transmit Frequency	Office: Frequences	Offices Urrection	Operating Minde	Tone Mode	стсяа	Ra OTCSS	Ship	Commerc	
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202         4456/150         Hingston         H-M         Home         BL5142         D5142         D6142         D5142         D6142         <												
State         145/02/0         Implies         He         Pernet         08/51/2         Off           State         1450/200         Implies         HM         Pernet         08/51/2         06/51/2         06/51/2           State         1450/200         Implies         HM         Pernet         08/51/2         06/51/2         06/51/2           State         1450/200         Implies         HM         Pernet         06/51/2         06/51/2         06/51/2           State         1450/200         Implies         HM         Pernet         06/51/2         06/51/2         06/51/2         06/51/2         06/51/2         06/51/2         06/51/2         06/51/2         06/51/2         06/51/2         06/51/2         06/51/2         06/51/2         06/51/2         06/51/2         06/51/2         06/51/2         06/51/2         06/51/2         06/51/2         06/51/2         06/51/2         06/51/2         06/51/2         06/51/2         06/51/2         06/51/2         06/51/2         06/51/2         06/51/2         06/51/2         06/51/2         06/51/2         06/51/2         06/51/2         06/51/2         06/51/2         06/51/2         06/51/2         06/51/2         06/51/2         06/51/2         06/51/2         06/51/2 <td></td> <td>-</td>												-
No.         456/0200         Hergins         Hol         Ponnel         BLS1u2         Off           20         1450/000         Hergins         HA         Ponnel         BLS1u2         Off           20         1450/000         Hergins         HA         Ponnel         BLS1u2         Off           20         1450/000         Hergins         HA         Ponnel         BLS1u2         Off           21         1450/000         Hergins         HA         Ponnel         BLS1u2         Off           22         1450/000         Hergins         HA         Ponnel         BLS1u2         Off           23         1450/000         Hergins         HA         Ponnel         BLS1u2         Off           24         1450/000         Hergins         HA         Ponnel         BLS1u2         Off           26         1450/000         Hergin												-
SS         445.000         Implies         H-M         Perror         86.512         Off           SS         445.000         Serples         H-M         Perror         86.512         Off           SS         445.000         Serples         H-M         Perror         85.512         Off           SS         145.000         Serples         H-M         Perror         85.512         Off				- 23								<u>1</u>
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No.         145.0200         Sergina         H-H         Turne         H-S142         Of           387         145.0200         Sergina         H-H         Turne         H-S142         Of	27	_		33								
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1450000         1450000         Jarryana,         Initial         Initia         Initial         Initial         <		-										-
54												
24												
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24												
24												
14												
									- 4			

Notice at the top of the page you can see that your have "X of X pages". Making small changes can help reduce this number if it is not as you expect.

For example, reduce the size of the comment column since it is not being used (or hide it completely). This move could save an additional page (or pages) by getting all the columns to fit on one page.

				-	IC-T7	_	-						
ext	-	← P	revio	us	Q Zo	om	8	prir	nt [	😭 Seti	up qu		Page 1 of
_			_		_							_	_
						IC-T7 P	ngaamma	r - IC-17	- fballint				
	Fauntier Proganaus	Taxend Preparety	Dilut Pripartop	Different	Durrating Mater	True Mades	1128	Re CTUBE	Zhu	Denned			
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21	98,880	16.630		Rampimi	PM .	Foren	BUILTER .	BLIF /	18				
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2	145.696	144.030		Renaims	PU .	Kane	80.0 Ez	BLI Hz	DW .				
- 22	MANE SAME	146.642		Narrysins Narrysins	en l	North Contract	BLIFU BLIFU	83Hz 83Hz	08	6			
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		_						ž					

Under Printer setup, change the margins to print on as much of each page of paper as possible. Again, this can make it possible for all the columns to fit on one (or half the number of) page.

Use Zoom to read the data in the preview more easily. Click Zoom again to return to this view.

#### **18.6 Saving Programming Files**

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Many different files can be saved to your hard drive for permanent storage giving you the ability to reprogram your radio quickly and easily to suit your current use.

- Files are saved using the File | Save or File | Save As command.
- When the window opens for the filename, enter any name up to 256 characters (including spaces) but without a period at the end or an extension. The Programmer will enter that information for you automatically.

Save As							×
Save in:	🔒 FT-2600 F	Programmer			0 1	19 🛄 🔻	
æ.	Name	Date modif	Туре	Size		Tags	
Recent Places	settings test	not coming from	radio				
Desktop							
Karin							
						15	
Computer							
2	Ente	er filename	here				
Network	File name:					-	Save
	Save as type:	Radio Data F	iles (*.FT2600)			-	Cancel

#### 18.6.1 File | Save

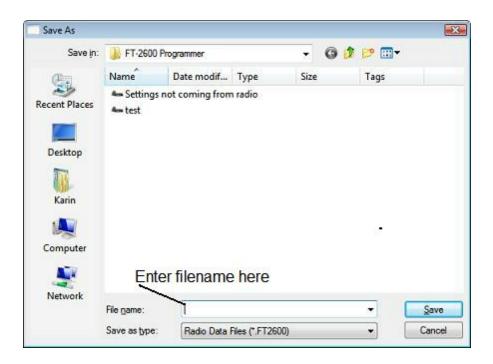
Saves the current file to your computer hard drive.

If several files are open, the current file (the one on top: the one you are working in) is the one that will be saved. Be sure to save the changes to each of the open files before closing the Programmer.

It is recommended that you save the current file during data input and before sending it to the radio. Just as with a word processor, it's an awful shame to lose everything if something happens to the computer during either of these processes.

If the name of the current file is Untitled (in the main window title bar), you will be

presented with a save file dialog and should enter a new filename.



The filename can be any combination of characters and spaces including numbers and letters.

When saving a file, let the Programmer do the work. All you need to enter is the name you want for the file.

#### 18.6.2 File | Save As

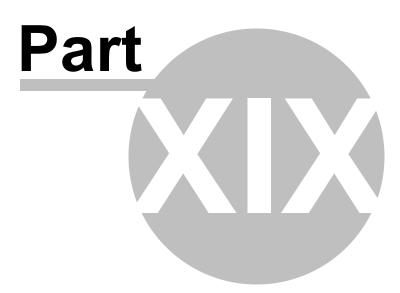
Saves the current file under a new name. Used if you want to make a copy of the file that you're working in to maintain the original without the changes you're making now.

- If several files are open, the one that is active is the current file. This file will be saved with the Save As command.
- This is a good way to start another file for editing. Changes made to this file do not affect the data in the original file.
- When this command is selected, a save file dialog containing a list of

existing files is presented. You can either select one of these to be overwritten or enter a new filename. The Programmer will add the extension so you should not enter an extension or a period at the end of the filename.

Save As							
Save in:	3 FT-2600 F	rogrammer			0 🕽	10 🛄 🗸	
(Pa)	Name	Date modif	Туре	Size		Tags	
Recent Places	Settings test	not coming from	n radio				
Desktop							
Karin							
Computer							
<u>.</u>	Ente	er filename	e here				
Network	File name:	7				•	Save
	A CONTRACTOR OF A CONTRACTOR OFTA CONTRACTOR O						

- The title bar of the window changes to reflect the new filename.
- When saving a file, let the Programmer do the work. All you need to enter is the name you want for the file.



#### 19 ARRL TravelPlus\*

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*RT Systems'* Version 4 programmers have a feature that opens a TravelPlus list in the radio programmer. This makes the data available for creating files for programming your radio without the need to import the data from a file.

This Help file contains sections on creating the list in TravelPlus\* and on getting that list ready to program your radio. Takes only a few mouse clicks to have your radio programmed for that trip or other special event.

Creating a list in TravelPlus\* - Brief details on this process. For more details, see the help file in TravelPlus\*.

Opening the list in the radio Programmer - Details on opening the list in the radio programmer and the controls on that list.

Using the TravelPlus\* list with an existing radio programming file -Sometimes you don't want all the repeaters found for an area by TravelPlus\*... or you want to put what you found into a certain group of memory channels in the radio programming file. This section details how to use the list selectively in the radio file.

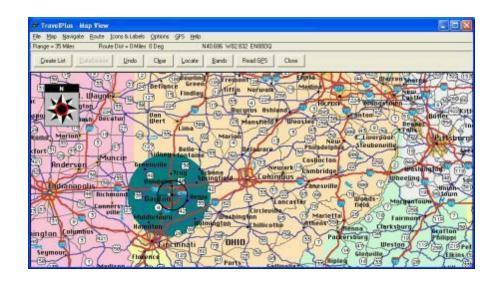
\*TravelPlus is a product of the American Amateur Radio League. Any images from TravelPlus included in this help are copyrighted to DHF Systems, LLC.

#### **19.1 Creating a list in TravelPlus\***

*RT Systems'* Version 4 programmers have a feature that opens a TravelPlus\* list in the radio programmer. This makes the data available for creating files for programming your radio without the need to import the data from a file.

These instructions very briefly cover creation of the list from TravelPlus\*. It is not intended to teach you to use that program. Detailed instructions are included in this help for using the information from that list in a file for programming your radio.

Open TravelPlus\* from the link provided when that program was installed. Select a location or create a route.



Once you have the area defined on the map, click the Create List button from the top of the screen. TravelPlus\* displays the list of repeater frequencies found within your search area.

Błe i	6#	San Ship											
	eaten L by Sec	ixied 123 paince											
	Seq:	Band	Con	atry	State	Region	location	Output	Input	Call	Repeater Notes	CTCSS	31.
١.	1	144-140 3	Hr USA	č – 1	0810	NONTGOMERT	Isyton	145.1100	82	WCBOB.	G(CA)els 67.0	67.D	P
	2	144-148 #	Hz USA		OHIO	NONTGOMERT	Jayton.	146.6400	-	WBBCQR	O(CA) EWX		10
	3	144-145 3	Hz USA		0810	NONTGOMERT	Dayton	146.8200	-	WARPLZ	c (CA) e		20
8.	4	144-148 8	480 SR		0810	NONTGOMERT	bayton -	146.9100	÷.	ABBCOR	0(CA) e		10
	5	144-148 3	HE USA		0810	<b>NONTGOMERT</b>	Dayton	146.9400	-	WBB1	ce 100.0	100.0	3.
	6	144-148 8	HE UDA		0810	NONTGOMERT	layton.	\$47.1350	+	VD0:SHC	0 (CA) =		Fr
	7	144-146 #	ME USA		0810	NONTGOMERT	Dayton.	147.3400		WASPL2	0(CA) e 77.0	77.0	*
	8	420-450 8	HE USA		0010	NONTGOMERT	Dayton	442.0000	+	VEROID	0	2010/01	10
8	9.	420-450 #	HE UBA		OHIO	NONTGOMERT	Dayton.	442.3000	+	WBBI	0		P.:
	10	420-450 8	HE USA		ONIO	BONTGOMERT	layton.	443.0000	+	VBDSHC	o (CA) az		TI
	11	420-450 8	HE USA		0810	BONTOOMERT .	bayton.	443.0500	+	NEED	0		31
	12	420-450 8	Hz USA		0110	BONTGORERT	Dayton.	443.5000	+	ZB02R	0		3:
	13	480-450 #	HE USA		CBIO	NONTGOMERT	<b>Bayton</b>	448.6000	+	NY1A	05		10
	14	420-450 #	HE USA		OHIO	NONTGOMERT	Dayton	443.7500	+	SEBSC	c 123.0	123.0	-
	15	420-450 8	HE USA		0810	NONTGOMERT	layton .	448.7750	+	WF08	0 111.9	131.0	10
8	16.	420-450 8	HE UBA	8	0810	BONTCOMERT.	Jayton	444.0500	+	RABFGJ	0.001 100.0	100.0	Br.
3	17	420-450 8	Hz USA		0010	BONTGORERT	Jayton	444.2500	+	ND0CQR	0		10
	18	420-450 8	HE USA	8	CHIO	NONTGOMENT	Jayton.	444.7625	+	WENCI	(CA) e .77,0	77.0	E.
	19	420-450 8	Hz USA		0810	NONTGOMERT	Trotwood	443.9250	+	88206	0 (CA)		n.
	20.	420-450 #	HE USA		0810	BONTGOMERT	Trotwood	448.9780	+	W8PB	0		n
	21	144-145 8	HE USA		OHIO	BONTGORERY	Kettering	146.9850		RABPGJ	01 100.0	100.0	Z.
	22	144-148 #	Hz USA		OHIO	NONTGOMERT	Rettering	147.0750	+	WORKSC	oe		33
	23	420-450 8	ME USA		OHIO	NONTGOMERT	Rettering	444.8425	4	WHOTC.	c(CA) t		-
	24	420-450 #	HE UDA	8	ORIO	NONTGOMERT	W Carrollto	443.8500	+	N828	0		10
	2.5	420-450 #	HE USA		Otto	NONTGOMERT	W Carrolito	444.5000		8820	caelt		-

Check the list. If you don't like the results, try again. Once you are satisfied with the list, you are finished with TravelPlus<sup>\*</sup>. You can exit that program or leave it running while you access the *RT Systems*' radio programmer.

Run the *RT Systems* programmer (Version 4 only). If the programmer is already running, switch to it now to create a file from this list for programming the radio.

\*TravelPlus is a product of the American Amateur Radio League. Any images from TravelPlus included in this help are copyrighted to DHF Systems, LLC.

#### **19.2** Opening the list in the Programmer

Once you have created a list in TravelPlus\* (Version 10.0 or higher), open any one of the Version 4 programmers installed on your machine.

To access the list:

- Select File from the menu at the top of the screen.
- Select Open TravelPlus\* list (this option was disabled until you created the list)

IC	2820 Programmer - IC-28	20 Untitled	51		-	_	_	-	-				_
File	Edit Communications	Settings	DStar	Win	dow H	elp							
	New	Ctrl+N	in 14 h 2 ↓	2									
1	Open	Ctrl+O											
	Open Travel Plus List <u>C</u> lose		Offset Direction		Operating Mode	Name	То	ne Mode	CTCS	s	Rx CTCSS		DCS
	Save	Ctrl+S				-	None		88.5 Hz	Ţ	88.5 Hz	hashed	
	Save As	$\sim$	Simplex	F	м		None		 88.5 Hz		88.5 Hz	02	3
	Import												
	Export			-					 			-	
8	Print Preview Print	Ctrl+P			Fror	n the M				the	en		
	Send File as E-Mail					Open	Trave	el Plus	list				
	1 C:\Users\\Complete VX 2 C:\Users\\654 3 C:\Users\\test 4 C:\Users\\test	6 File											
	Exit												
10			-	-								_	
20				+									
21													
22													
23													
24				_					 			_	
25				+					 				
20				+		-							
28				+									
29				-									
30													

	IC-2820 Untit	led1	U M 2↓ Plus List ×	8							
	Output Frequency	Input 0 Frequency Dir		lsign ame) CTCSS	DCS City	State	Region F	Repeater Notes (Comment)	442.82500		
	442,82500	Plus	WC4E		Hapevile	GEORGIA		167.9	145,29000		
	145.29000	Minus			Atlanta	GEORGIA		8.5 (CA)	145.35000		
	145.35000	Minus			Allanta	GEORGIA		146.2e	145.41000		
	145.41000	Minus				GEORGIA		100.0e	146.62500		
	146.62500	Minus			Anamia	GEORGIA		100.0e	146.64000		
	146.64000	Minus			Allanta	GEORGIA	ot		146.65500		
	146.65500	Minus			Atlanta	GEORGIA		151.4aelRB	146.73000 146.82000		
	146.82000	Minus			Atlanta	GEORGIA	ol	146.2 (CA)e	146.97000		
	146.97000	Minus			Atlanta	GEORGIA	ot		147.00000		
	145.57000	Minus			Atlanta	GEORGIA		CAJ	147.03000		
	147.03000	Plus	wide Wide		Atlanta	GEORGIA	0		147.50500		
	147,28500	Plus	KC4Z		Allanta	GEORGIA		BB	147.34500	Notice the two tabs. The radio file and the	
	147,34500	Plus	N4NE		Atlanta	GEORGIA		151.4 (CAlIRBz	147.10500		
	147,10500	Plus	W849	TH 107.2	Atlanta CARES	GEORGIA	01	107.2	421.25000	Travel Plus List are clearly identified.	
	421.25000	434.0000 Spik	W4Z	L	Atlanta	GEORGIA	0		440.60000		
	440.60000	Plus	W4D	00	Allanta	GEORGIA	1		442.02500		
	442.02500	Plus	W4D		Allanta	GEORGIA		127.3	442.12500		
	442.12500	Plus	W4Z		Atlanta	GEORGIA	01	100.0es	442.22500		
	442.22500	Plus	W858		Atlanta	GEORGIA			442.47500		
	442.47500	Plus	NA4D		Atlanta	GEORGIA		72.3	442.52500		
	442.52500	Plus	N4X0		Allanta	GEORGIA		110.9	442.67500		
L	442.67500	Plus	KE4P		Allanta	GEORGIA		100.0el	442.80000		
	442.80000 442.87500	Plus	N4NF K4RF		Atlanta Atlanta	GEORGIA	lio	1 100.0eBB	442.87500 442.97500		
	442.87500	Plus	WA4		Atlanta	GEORGIA		(CA)	442.97500		
	442.37300	Plus	W/4D		Allanta	GEORGIA		127.3	443.31200		
	443.31200	Plus	W440		Allanta	GEORGIA	1	127.01	443.60000		
	443.60000	Plus	KASV		Atlanta	GEORGIA		146.7aRB	443.65000		
	443.65000	Plus	W4D		Atlanta	GEORGIA		123.7	443,80000		
	443.80000	Plus	N4NF		Atlanta	GEORGIA		151.4 (CA)eIRB	444.05000		
	444.05000	Plus	N4NE	Q 151.4	Allanta	GEORGIA		151.4e	444.15000		
	444.15000	Pius	W4P		Atlanta	GEORGIA		100.0e	444.45000		
	444.45000	Plus	W4D		Atlanta	GEORGIA		146.2e	444.50000		
	444.50000	Plus	KD4G		Atlanta	GEORGIA		110.9	444.77500		
	444.77500	Plus	N4NE		Allanta	GEORGIA		151.4a(CA)elRB	444.82500		
	444.82500	Plus	W4D		Allanta	GEORGIA		146.2 (CA)e	444.92500		
L	444.92500	Plus	WA4		Atlanta	GEORGIA	0		444.97500		
	444.97500 442.35000	Plus Plus	WA4 KG4F		Atlanta Calina Park	GEORGIA		(CA)IRB 30.0 RB V/X	442.35000		
	442.35000	1272.0000 Solit	KLi4H KB4K		College Park Atlanta	GEORGIA	10		1292.00000 145.15000		
	145.15000	1272.0000 Spik			Georgia Tech	GEORGIA		167.9 (CA)ez	145.45000		
	145.45000	Minus			Decalur	GEORGIA	01	ror s (chijez	442,20000		
	142.40000	190150									
	Modules		-	Nam	e Callsion	Comment	Repeater No	lotes -	Select All		
			•		< Canada		mepeaker no	ioles •	Jeleus All		

• The list appears in the window of the programmer

#### Customizing the list for the radio file:

Several selections appear at the bottom of the window that contains the list. These options control how the programmer will handle the data from the list in creating the radio programming file. These fields and their options are described below.

• <u>Selected Bands</u>: Lists the bands of the frequencies in the list. All the bands are selected by default. Uncheck those that you don't want as part of the file for the radio.

If you are programming a 2 Meter radio with a file that contains 6 Meter repeaters, you can choose to eliminate those frequencies in this step to better understand what will be contained in your resulting file. If you skip this step, the programmer will omit these frequencies in the resulting radio file since the radio does not operate on these frequencies.

If you do not eliminate the bands that cannot be used by your radio, the resulting radio file will contain blanks for each frequency the programmer

removes during file creation. Although the radio does not care, you may not want all those blanks in your radio file.

If the TravelPlus\* list contains too many frequencies for the radio, using the Selected Bands option would remove unused frequencies thus lowering the number in the file and making it possible to create a radio file with all those frequencies that you want. (i.e., Your TravelPlus\* file has 512 frequencies in the selected area. Your radio has 450 channels. You Select Bands and eliminate 6M, 10M and 220 Mhz Bands. The resulting list now has 432 frequencies... few enough that they all will fit into the radio file.)

4	E-3830 UHR	wa/E	Travel Plus U	я ж								
	Dulput Frequency	Input Feequency	Direction	Caltign (Name)	C1035 0	005 Oby	State	Region	Repeater Noter (Consent)	442,82508		
E	442 82500		Plat	KC4NL	167.9	Hapevile	GSGR5M		o167.5	145,2000		
	14529000		Minut	WIERM	99.5	Atlasta	GEOREIA		B2.5 (EA)	145.25080		
	145 25000		Mean	V1000	148.2	Alignia a	05088M		e 146.2e	145.41080		
	145.41000		Minut	WARME	108.0	Adarta	GEGREM		c100.0e	146.62580		
	146 62500		Messi	wig1	108.0	Atlanta	0608566		e 100.6e	105.54000		
	145 \$4000		Minut	W\$400P	100.0	Atlanta	AGR03D		dill.	146.65580		
	146 85500		Minut	NAMEP	92.4	Atlasta	GEOREAN		o 151.4 MRR	166.72080		
	145,73000		Ment	VEMC WEDGE	145.2	Alloria	AIGR030		d	146.83080		
	146 82000 146 97000		Minut	KACU	16.2	Atlanta	GEOREIA GEOREIA		o 1462 (D/)a et	146.37080		
	147 80000		Minut	VOLUMENT.		Atlanta	GEOREAA		dCAI	147.03080		
	147 82000		Plas	WIRLIG		Adama	GEOREAN		e alla	147,28580		
	147 28500		Plas	10422	-	Albria .	OSOREA .		coF8	147.34580		
	147 34500		Plat	NAMED	151.4	Atlanta	GEGREAN		e 151.4 (EAGER)	147.10580		
	147 10500		Pla	WRIRTH	107.2	Alianta CARES	GEOREAN		e1072	421,25000		
	421 25000	434,0800		WHETL		Atlanta	GEOREIA		0	440 50080		
	440 60000		Phei	WEDDC		Atleta	G609546		Î.	442-02580		
	442 02500		Plat	WIELD.	327.3	Alignia (	05088M		e127.3	44212500	Options to customize	
	44212500		Plat	WHET	108.0	Atlanta	GEOREM		e-100.6ec	442:22580	options to customize	
	442 22500		Plus	WRSESI	108.0	Alderia .	0509544			442.47500		
	442 47500		Plat	NAMORI	72.3	Atlanta	GEGREAA		o 72.3	442.52580	details for radio file	
	442 \$2500		Phei	NOOM	118.9	Atlanta	GEOREAN		e110.9	442-67580		
	442 87500		Plut	FE4NE	108.0	Alignia (	AGR030		e 100.0el	442,80000	Lange and the state of the lange state of the state of th	
	442 80000		Plas	NAMEP		Adasta	ALBRDDD		20	442:87580	located on this screen.	
	442 87500		Plus	KARR	108.0	Alignia	0508544		e 100.0eF8	442,97500		
	442 57500		Plat	VARINE		Adanta	GEGREIA		ok[EA]	443.02580	11	
	643 82500		Plus	WICH.	\$27.3	Atlasta	GEOREAN		e127.3	442.31280	//	
	443 71200		Plut	WHAT I		Alloria	AGR030			443.50080	//	
	442 80000		Plat	KASWZY W/J/M	346.7	Atheta	GEOREM		a1467.4FB	442-65080		
	443 85000		Plus	NAME:	\$23.7	Atlanta Atlanta	ALGREGE ALGREGE		e 123.7 e 151.4 (EAbi/10	443-80000		
	443 80000		Plat	NINED	101.4	Activity	GEOREAN		e 151.4 (LAjemp	41415080		
	444 15000		Plus Plus	WINEU	108.0	Albria	AGRONDIA AGROSO		e 151.4e	444.45000	/ /	
	444.45300		Plas	WEDDC	346.2	Adapta	GEOREM		c1463e	444,50000		
	444 90000		Plan	KD45PI	110.9	Alignia .	GEOREAN		e110.8	444.72512		
	444,77500		Plat	NAMED	151.4	Atlanta	GEGREIA		e 151.4alCAMPD	444 (0.50)		
	644 82500		Plas	WIDOC	145.2	Atlanta	GEOREAN		e1462(EA)	414 32580	/	
	444 52500		Plat	VOLMING		Albria	OS075M		0	444.97580		
	444 \$7500		Plas	WARNZ		Atlanta	GEOREM		(RDOR)	46.2000		
	442 95000		Plun	1064PT0	108.0	College Park.	0508544	1	108.0 RB V/X	1282.0000		
	1252 80000	1272.0800		KE40N		Atlanta	GEGREM.	-	6	161580		
	14515300		Messi	WIMAN.	167.9	Seogia Tech	0009366		e 167.9(CA0ez	112 2000		
	145.6000		Mout	WEDD		Decalus	OSCI15M	_	0	Ac. 2000		
		_			_	/		_	/			_
	Modules			-	Name	Calign	· Connert [	Repeate	Notes +	Select.44		
	-	Select a M			Rectord Banch					UnSelect Al		

• <u>Name</u>: The TravelPlus\* list contains information that does not "match" directly to a column in the radio programmer. One of the columns in the programmer accept data from these columns is the Name field.

Name in the programmer is the field that sets the alpha display on the radio. Generally, this display is limited to 5-8 characters depending on the radio (other than the VX-8 that allows 16 characters).

By default, the programmer associates Callsign from the TravelPlus\* list to Name in the programmer.

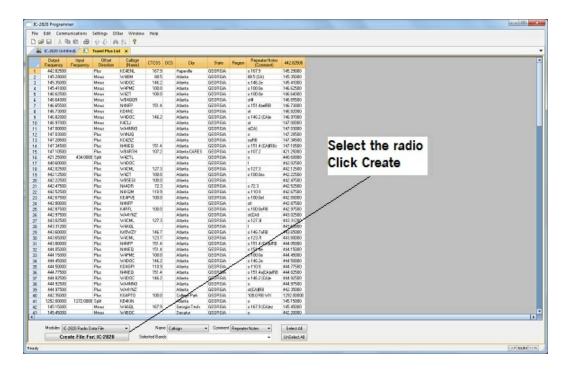
You can change that association by selecting another column from those listed.

• <u>Comment</u>: The TravelPlus\* list contains information that does not "match" directly to a column in the radio programmer. One of the columns in the programmer accept data from these columns is the Comment field.

Comment in the programmer is a field of information that helps you while you work with the programmer. This information does not transfer to the radio.

By default, the programmer associates City from the TravelPlus\* list to Comment in the programmer.

You can change that association by selecting another column from those listed.



• <u>Module</u>: Select the radio for which you want to create a file.

The resulting file appears in its own tab.

		nunications Settings Phill B B B B			-														
2		Alles E Dave Pa	_		alled? X														
2	Receive Frequency	Transmit Offset Frequency Frequency	Offset Deection		Name	Tone Made	CTCSS	Rx CTCBS	DCS	Polarity	Sep	Step	Digital Squeich	Cade	four Callegn	Rot-1 Caltign	Rot-2 Califign	Bank	Bank Channel
4	442.02500		+OUP	N IN N	AC4D4	Tone	× 157.910 ×	20.510 1		Doth N 6	04	SHE	< 00 La	0 10					0 5
÷	245.29000	244,69000 600 kHz 344,75000 600 kHz	-DLP	24	WEDOC	Tone	88.5H2 146.2Hz	00.5Hz	023	Soth N	04	Skrig	0.00		cqcqcq				0.1
ę.	245.42000		OUP	PM .	WHEE	Tane	100.010	100.5110 100.5110	023	Stath N	of	500	off	Č.					01
÷			OUP	214	WAT	Tone		88.5Hz		Solth N	0#	Skrie	OF	0					
2	346.64000	146.02500 500 kHz 146.04000 500 kHz	009	EM .	WEADER	none	00.514z	00.510		Doth N	Off Off	Stere	Off Off						0 ) ot#
-		246.03500 600 kHz	OLP	PM	2444	Take	151.400	58.5Hz		Date N	of	SHE	08	0					
÷	346.73000		-DLP	754	KD-RIC	Tone	00.5Hz	58.5Hz		Doth N	0#	Same	09	0					0 1
4		346, 23000 600 KH2	OLP	PM I	WHEEL	Tane	146.3142	88.5 HD	02.5	Both N	of	5 670	off						0.0
÷			OLP	PN				ALSHO ALSHI		Soft N	OF OF	SkHe	08	0					
	347,08000	146, 37000, 680 kHz		EM .	KHOLT	None	88.5Hz	00.514	023	Coth N	0#	Stere	OF OF						ot
10			-0LP +0.P	PM PM	WROD	none	00. SH2	20.510 35.510		Doth N Roth N	of	500	OF OF		-				05
11	247.03000			PH		None							08	N	-				
12	347.28530		+OUP		KC4212	None	60. S Hz	60.5Hz		Soth H	Off Off	Skrig	01						046
13		340,94600 600 kHz	+DUP	PH PH	panel	Tone	151.4142	88.5 HJ	023	HolD N			08	0					01
14		347, 70500, 500 kHz	+DUP		WEARTH	Tone	107.2Htr	55.5Hz	023	Softh N	0#	SkHe							0)
15		434,08080 s3:75 MHz	+buP	PM	WELL	None	00. S Hz	99.5Hz	023	Coth N	04	Site	Off	0					٥
18	440.680000		+0.P	PH	M-EOC	None	88.5 Hz	55.5Hz	023	Soften	0¥	Silve	Off	0					-
17		447.02580 5.08 MMz	+OUP		WYCML	Tone	127.3Hz	00.5Hz		Coth N	0#	Skrie							01
18	442.12300		+DUP	PM	WHIT	Tane	100.0143	88.5 HJ	023	16475 N	off	5.640	off	0					0.2
15		447,22500 5.00 PMtr	40.P	194	WERE	Tone	100.0Hz	58.5 Hz	023	Softh N	0#	Skrie	0#	0					
28	442.47530		+DUP	FM	INHER	Tane	199. S H2	89L5 H3	023	Doth N	Off.	Skitz	0#	0					0.7
21	+42,52500		+0,P	294	194024	Tone	130.5Hz	88.5 Hz	023	Selly N	0#	SHE	08	0					01
22	442.67530		+0.P	/H	1242	Tone	\$00.0Hz	00.5Hz		Dorth N	04	Skhiz	0#						0.0
23	442.880000	447.80000 5.00 PMg	+0./P	PM	11494	none	388, 5 Hz	88L5 HJ	023	0647514	off	3 640	08	0					08
24	442,87500	447,87500 5,00 PMt	40.P	PH	KADPL	Tone	800.0Hz	68.5 Hz		Softh N	0#	Skhie	09						0 )
25	442.97530		+DUP	FM	W#492	None	99. S Hz	89.5 Hz	023	000111	04	SkHtz	0#	0					(10)
28	+40.02500	448.02500 5.00 PMg	+0.P	PH	WHCHL	Tone	127.3 Hr	88.5 Hz		Softh N	0#	Stric	0#	0					01
27	440.68000	448.68080 5.08 Mits	+0.P	/H	KASVIZY	Tone	00.5Hz	00.5Hz	02.5	Dorth N	04	Skrie	041	0					0 1
28	443,45000	448.65000 5.00 PMg	+0./P	PH	WHOM:	Tane	88.5 Hz	88.5 H2	023	10403-14	off	3440	08	0					01
25	443,580080	448.80000 5.00 PPtz	40.P	294	11007	Tone	151,4Hz	68.5 Hz		Softh N	0#	Skhie	0#						01
28	444.05000	449.05000 5.00 MHz	+DUP	FM	13-96Q	Tane	151.40KT	198.5 Hz	023	diam'r	Off.	Skitz	08	0					01
31	444,15000	449.15000 5.00 PMg	+0.P	199	WHE	Tone	100.0Hz	88.5 Hz		Softh N	0#	Skrie	0#						01
32	444,45000	449.45000 5.00 MHz	+3.9	/M	WEDOC	Tone	\$46.2Hz	00.5Hz	023	Cotth N	04	Skritz	04	0					0 1
33	444, 50000	449, 50000 5,00 PMg	+0.P	PM	KD40PD	Tone	130.9142	38.5 Hz	023	860h N	off	3440	08	0					0.1
34	444,77500	449.77500 5.00 PPtr	40.P	PM	14PEQ	Tone	151,4Hz	58.5 Hz		Softh N	0#	Skrie	0#						01
25	444.92500	449.92500 5.00 MHz	+DUP	FM	WEDOC	Tane	146.2142	88.5HJ	023	BOTH N	04	Silve	04	0					0.5
28	444.92500	449.92500 5.00 PP/g	+DUP	294	WERRO	None	88.5 Hz	58.5 Hz		Softh N	0#	SHE	04	0					2
37	444,97530		+0.9	/M	W#490	None	00.5Hz	00.5Hz		Doth N	04	Strite	041	0					080
38	442.330000	447. 33000 S.O. Phy	+0.P	PM	KD-PTD	Tone	\$00.0HF	88.5 Hz	023	Bully N	off	3440	0#	0					1.00
39	345.15000	344,55000 600 kHz	OUP	PH	W44QL	Tone	157.5Hz	58.5 Hz		Softh N	0#	5 kHz	0#						0.8
4		344,95000 600 kHz	-01.9	FM	WHECC	none	SELS HO	188.5 HJ	023	SOTH N	04	Skie	off.	ò					0
41		447, 20000 5-00 PMg	+DJP	PM	153478	None	55.5 Hz	88.5 Hz		Salth N	0#	Skrie	0#	0					08
4		449,25000 5.00 MMT	+3.9	PM .	W4000	Tione	00.5Hz	00.510		Doth N	04	Skitz	0#	0					0
41		447, 17500 S.00 PM-9	+0.1P	PM	KM.ID	none	28L 1 H2	88.5 Hz	023	Parts N	of	3444	00	0					ř
44		448.97500 5.00 MMz	+DUP	PM	12490	None	05.5 Hz	58.5 Hz		Softh N	0#	Skrie	OW.						010
-		344, 57000 600 kHz	-CLP	EM.	034000	fane	146.3147	100.5142	022	BOTH N	Of	Ske	0ff	6					0.5
-		244,73080,580 kHz	OLD.	254	1014002	None	55.5 Hz	AL 114		Bath N	0#	Skrie	04						
	B M Man	ores Lanks WHUA	VHU 8 / I	A SPEMA				and all the	a lost			200.0		4					

The file is ready to be sent to the radio.

\*TravelPlus is a product of the American Amateur Radio League. Any images from TravelPlus included in this help are copyrighted to DHF Systems, LLC.

#### **19.3 Using the TravelPlus\* List with existing programmer file**

You may not want to use all the information from the TravelPlus\* list in a separate file for your radio. You may already have a file to which you want to add only some of the information from the List.

Using the list from TravelPlus\* along with a Version 4 RT Systems radio programmer, you can copy and paste selected channels from the list to a file for your radio.

- Begin by creating your list in TravelPlus\* as detailed in Creating a List in TravelPlus\* in this help.
- Open the programmer.
- Open the file into which the frequencies are to be inserted.

• Access the TravelPlus\* list through the link in the file menu. Both the list and the file are now open in the programmer. Working in reduced screen mode is helpful with this process to let you see both files at one time.

Under         Index         Index         Other         Generation         Register         Regis	ŝ	IC-2820 Untitl	ed1	Travel Plus Li	st ×								
16:300       Mrus       VM20C       85       Alleria       GEORDA       85:101       16:300         16:300       Mrus       VM2VC       100.0       Make       GEORDA       9:16.2       16:4:100         16:400       Mrus       VM2VC       100.0       Make       GEORDA       9:10.0       16:4:200         16:6200       Mrus       VM2VC       100.0       Make       GEORDA       9:10.0       16:4:200         16:6200       Mrus       VM2VC       100.4       Make       GEORDA       100.0       16:4:2000         16:7000       Mrus       VM2VC       16:2       Alleria       GEORDA       16:2:100       16:2:000         16:7000       Mrus       VM2VC       16:2       Alleria       GEORDA       16:2:000       16:2:000         16:7000       Mrus       VM2VC       16:2       Alleria       GEORDA       16:2:000       16:2:000       16:2:000       16:2:000       16:2:000       16:2:000       16:2:000       16:2:000       16:2:000       16:2:000       16:2:000       16:2:000       16:2:000       16:0:000       16:0:000       16:0:000       16:0:000       16:0:000       16:0:000       16:0:000       16:0:0000       16:0:000       16:0:0000<				Offset Dilection		CTCSS D	cs City	State	Region		442.82500		
16:3000       Muru       V400C       12       Allerie       0000       1000       1000       1000       1000       1000       1000       1000       1000       1000       1000       1000       1000       1000       1000       1000       1000       1000       1000       1000       1000       1000       1000       1000       1000       1000       1000       1000       1000       1000       1000       1000       1000       1000       1000       1000       1000       1000       1000       1000       1000       1000       1000       1000       11000       11000       11000       11000       11000       11000       11000       11000       11000       11000       11000       11000       11000       11000       11000       11000       11000       11000       11000       11000       11000       11000       11000       11000       11000       110000       110000       110000       110000       110000       110000       110000       110000       110000       110000       110000       110000       110000       110000       110000       110000       110000       110000       110000       1100000       1100000       1100000       1100000	1	442.82500		Plus	NC4ENL	167.9	Hapeville	GEORGIA		o 167.9	145.29000		
163:1000       Mrug       We/ET       1000       Adverse       000 De       166:600         164:500       Mrug       We/ET       100       Adverse       000 De       166:600         166:500       Mrug       We/ET       100       Adverse       000 De       166:600         166:500       Mrug       We/ET       100       Adverse       000 De       166:600         166:500       Mrug       We/ET       100       Adverse       000 De       166:500         166:500       Mrug       We/DC       164       Adverse       000 De       166:500         160:000       Mrug       We/DC       164       Adverse       000 De       160:500         160:000       Mrug       We/DC       164       Adverse       000 De       160:500         160:000       Pug       We/DC       Adverse       000 De       160:200       170:200         167:000       Pug       We/DC       Adverse       000 De       170:22       41:200       170:000       Travel Plus       List are clearly identified.         171:000       Pug       We/DC       Adverse       000 De       42:200       Travel Plus       List are clearly identified.						88.5							
164         Muru         Vi21         100         Advoire         0000004         et 164         64000         et 164         65000         et 164         650000         et 164         660000         et 164         6600000         et 164         6600000         et 164         66000000         et 164         6600000000000000000000000000000000000						146.2							
164 6000       Marua       Weilight       Alapha a       COIDDA       Weilight       Tell (14)       Coin (14)       C													
History       MAUR       NAMP       101.4       Adjusta       0.51.4 warB       14.5300       Multical       Notice       Notice </td <td></td> <td></td> <td></td> <td></td> <td></td> <td>100.0</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>						100.0							
16:2000       Minus       DAUC       Alberta       GEQPBUN       442 2000       145 2000         16:2000       Minus       V4C0C       162 2       Alberta       GEQPBUN       442 2000         16:2000       Minus       V4C0C       162 2       Alberta       GEQPBUN       442 2000         17:2000       Minus       V4AU0       Alberta       GEQPBUN       64       167 3600         17:2000       Pus       V4AU0       Alberta       GEQPBUN       61       173 3600         17:2000       Pus       V4AU0       Alberta       GEOPBUN       61       173 3600         17:2000       Pus       V4BETH       1714       Alberta       GEOPBUN       61       173 3600         17:2000       Pus       V4BETH       GEOPBUN       61       442 0000       173 3642       173 3660         17:2000       Pus       V4BETH       172 3       Alberta       GEOPBUN       61       442 0000         412:000       Pus       V4BETH       172 3       442 2000       173 342 2000       442 2000         42:1000       Pus       V4BETH       100 6       442 2000       173 342 2000       442 2000         442:1000       Pus													
164.0000       Marue       V/600C       164.2       Allera       GEURGIA       ct/16.2       C/16.2       Allera       GEURGIA       ct/16.2       147.0000       Marue       V/64.00       Allera       GEURGIA       ct/16.2       Marue       V/60.00       Notice the two tabs. The radio file and the Travel Plus List are clearly identified.         17/2000       Puis       V/801C       Allera       GEURGIA       c107.2       c21.2001       440.0000       c10.2000						151.4							
164 57000       Minuz       KCLU       Alberte       GEURGIA       16       147 0000         170 0000       Pius       VKANN0       Alberte       GEURGIA       0       172 3000         172 3000       Pius       VKANN0       Alberte       GEURGIA       0       172 3000         172 3000       Pius       VKANN0       Alberte       GEURGIA       0       151 4 (CA/RE       173 4500         173 3000       Pius       VKANN0       GEURGIA       0       151 4 (CA/RE       173 4500         173 3000       Pius       VKARN1       T22       Alberte       GEURGIA       0       440 0000         174 12000       Pius       VKAR11       172 3       Alberte       GEURGIA       0       440 0000         441 2000       Pius       VKAR1       GEURGIA       0       100 bet       442 22500       Pius       VKAR1       100 det       442 25500       Pius       442 57000       Pius       449 7700       Alberte       GEURGIA       610									-				
147 0000       Minus       Weikulo       Alberta       GECIPEIa       (CA)       127 0000       No         172 0000       Pike       Weikulo       Alberta       GECIPEIa       0       170 0000       No       No       170 0000       No       No       170 0000       No       170 0000       No       170 0000       No       No       170 0000       No       No       170 0000       No       No       170 0000       No       No       170 1000       170 1000       170 1000       170 1000       170 1000       170 1000       170 1000       170 1000       170 1000       170 1000       170 1000       170 1000       170 1000       170 1000       170 1000       170 1000       170 1000       170 1000       170 1000       170 1000       170 1000       170 1000       170 1000       170 1000       170 1000       170 1000       170 1000       170 1000       170 1000       170 1000       170 1000       170 1000       170 1000						146.2							
147.0000       Para       VV4U0       Allerie GEOPBiA       0       173.3500         172.2500       Para       K4202       Allerie GEOPBiA       0       173.3500         173.3500       Para       M44E0       151.4       Allerie GEOPBiA       0       153.4 (CA)PE       173.3500         171.1000       Para       M44E0       151.4       Allerie GEOPBiA       0       440.2000       151.4 (CA)PE       173.4500       173.4500       Para       Notice the two tabs. The radio file and the Travel Plus List are clearly identified.         421.2500       Para       V420C       Allerie GEOPBiA       0       440.000       440.000         442.0500       Para       V420C       Allerie GEOPBiA       0       441.2500       Fara       Fara         442.0500       Para       V420C       Allerie GEOPBiA       0       172.3       442.2500       Fara						-							
147.2500       Put       KC222       Allerta       GCDPGA       weR8       11 vision       Natice the two tabs. The radio file and the Travel Plus List are clearly identified.         127.3500       Put       W4RD       111 4       Allerta       GCDPGA       e117 2 433       Natice the two tabs. The radio file and the Travel Plus List are clearly identified.         127.2001       40000       Put       W4C1       Allerta       GCDPGA       e       440.8000         440.0001       Put       W4C0L       Allerta       GCDPGA       i       442.12500       Hart       Hart       Hart       GCDPGA       i       442.12500       Hart       Hart       Hart       GCDPGA       i       442.12500       Hart       Hart       Hart       Hart       GCDPGA       i       442.12500       Hart       Hart       Hart       GCDPGA       i       HART       H											147.03000		
147:3800       Put       NHEQ       151:4       Allenia       CEDRGA       •151:4 (CX/RE       151:4 (CX						-					147 34500	Notice the two tabs The radio file and the	
It? 1000       Put       WF8TH       1072       Allente GEORGIA       0 1072       421 2000       440 8000         442 2000       Put       WF8TL       Allente       GEORGIA       1       444 8000         440 8000       Put       WF8TL       Italia       GEORGIA       1       444 8000         440 8000       Put       WF8TL       100.0       Allente       GEORGIA       1       442 1350         442 1350       Put       WF8TL       100.0       Allente       GEORGIA       0 100 be       442 1350         442 1350       Put       W485CI       100.0       Allente       GEORGIA       0 100 be       442 1350         442 1350       Put       M402H       100.0       Allente       GEORGIA       0 100 be       442 1350         442 1450       Put       M402H       100.0       Allente       GEORGIA       0 100 be       442 6750         442 1500       Put       KEAVE       Allente       GEORGIA       0 100 be       442 6750       442 6750         Put       KEAVE       Allente       GEORGIA       0 100 be       442 6750       442 6750         Put       KEAVE       Allente       GEORGIA       0 100 be						151.4							
421.2000       43.0000       598       V/4CTL       Alberta       6CPR540       0       440.000         440.0000       Pair       V/4CDL       Alberta       6CPR540       1       442.0500         442.0500       Pair       V/4CDL       127.3       Alberta       6CPR540       1       442.0500         442.0500       Pair       V/4CHL       1000       Alberta       6CPR540       e127.3       442.1500         442.2500       Pair       V/4CHL       1000       Alberta       6CPR540       e127.3       442.1500         442.2500       Pair       W/85CIL       1000       Alberta       6CPR540       e127.3       442.5500         442.2500       Pair       M400R       100       Alberta       6CPR540       e123.3       442.5500         442.5500       Pair       M400R       100       Alberta       6CPR540       e12.3       442.5700         442.5500       Pair       H44PP       Alberta       6CPR540       e10.3       442.5700         442.5700       Pair       H44PP       Alberta       6CPR540       e10.3       443.5000         442.5700       Pair       H44PP       Alberta       6CPR540       e143.72												Travel Plus List are clearly identified.	
446 0000       Pus       V4OCL       Alberta       6CDPGiA       1       442 (0350)         42 (0350)       Pus       V4CML       123       Alberta       6CDPGiA       6127 34       442 (1350)         42 (1350)       Pus       V4CML       100.0       Alberta       6CDPGiA       642 (1350)         442 (1350)       Pus       V4SEGI       100.0       Alberta       6CDPGiA       442 (1350)         442 (1350)       Pus       NAGM       72.3       Alberta       6CDPGiA       642 (1350)         442 (1350)       Pus       NAGM       72.3       Alberta       6CDPGiA       642 (1350)         442 (1550)       Pus       NAGM       100.0       Alberta       6CDPGiA       610.0 Pus       442 (1550)         442 (1550)       Pus       KAPR       100.0       Alberta       6CDPGiA       610.0 Pus       442 (1550)         442 (1550)       Pus       KAPR       100.0       Alberta       6CDPGiA       610.0 Pus       442 (1550)         442 (1550)       Pus       KAPR       100.0       Alberta       6CDPGiA       612.7 3.6 43 (150)         443 (1500)       Pus       KAPR       Alberta       6CDPGiA       612.7 3.6 443 (150)						101.6							
442.0280       Puz       V4CH       102       Albela       GEDRGA       e127.3       442.1280         442.1280       Puz       V4CT       100       Albela       GEDRGA       e100.e       442.4280         442.2280       Puz       V4SE       100       Albela       GEDRGA       e100.e       442.4280         442.2580       Puz       V4SE       100.0       Albela       GEDRGA       e72.3       442.5580         442.5580       Puz       N4AOR       112.5       Albela       GEDRGA       e72.3       442.5580         442.6780       Puz       N4AOR       110.5       Albela       GEDRGA       e10.0       e42.5780         442.6780       Puz       N4APP       Albela       GEDRGA       e10.0       e42.5780         442.6780       Puz       N4APP       Albela       GEDRGA       e10.0       e42.5780         442.6780       Puz       V4ANL       Albela       GEDRGA       e10.0       e42.5780         442.6780       Puz       V4ANL       Albela       GEDRGA       e10.3       e43.5000         443.5700       Puz       V4ANL       Albela       GEDRGA       e142.72.445.5000         444.57800										ľ.			
14212300       Puz       V/CT       100.0       Alberta       0CLP00A       0       00.0 Re       4422300         4222300       Puz       V/95Cill       100.0       Alberta       0CLP00A       4424750         4242500       Puz       NAGOR       72.3       Alberta       0       62CP06A       4424750         4242500       Puz       NAGOR       72.3       Alberta       0ECP06A       0       4426750         42425500       Puz       KE4VZ       100.0       Alberta       0ECP06A       0       100.0       4426750         42425500       Puz       KE4VZ       100.0       Alberta       0ECP06A       0       0       426750         42425500       Puz       KAHFL       100.0       Alberta       0ECP06A       0       0       426750         42425500       Puz       KAHFL       100.0       Alberta       0ECP06A       0       127.3       443020         44313200       Puz       V4ADL       127.3       Alberta       0ECP06A       1127.3       4430200         44315000       Puz       KAMPZ       1447       0.00 C       0       147.78       4430000         44450000       Puz						127.3				o 127.3			
442 47000       Puz       NAOA       72.3       Adbris       6CPR6JA         442 5500       Puz       N4OA       101.9       Albris       6CPR6JA       e10.0       e42.6500         442 5500       Puz       KE4VE       100.0       Albris       6CPR6JA       e10.0       e42.6500         442 5500       Puz       KE4VE       100.0       Albris       6CPR6JA       e10.0       e42.6500         442 55700       Puz       K44FF       Albris       6CPR6JA       eff       e42.8550         442 5500       Puz       K44FL       100.0       Albris       6CPR6JA       eff       e42.8550         442 5500       Puz       K44FL       100.0       Albris       6CPR6JA       e10.0       e12.3       e43.0500         443 5500       Puz       V44CML       12.3       Albris       6CPR6JA       e12.3       e14.5500         443 5500       Puz       V44CML       12.3       Albris       6CPR6JA       e12.3       e14.5500         443 5500       Puz       K4500       Puz       K4500       e14.7780       e44.5500         444 5000       Puz       K4500       Puz       K4500       e14.7780       e44.5900 </td <td></td> <td></td> <td></td> <td></td> <td>W4ZT</td> <td>100.0</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>					W4ZT	100.0							
442.4700       Pua       NA/OR       7.2.3       Adbris       0 CC/051         442.5700       Pua       N4/OH       7.2.3       Adbris       0 CC/051         442.5700       Pua       KE4/VE       100.0       Albris       0 CC/051       0 442.6750         442.5700       Pua       KE4/VE       100.0       Albris       0 CC/051       0 442.6750         442.6700       Pua       K44/F       Albris       0 CC/051       0 442.6750         442.5700       Pua       K44/K       127.3       Albris       0 CC/051       1 443.0500         443.5000       Pua       K44/K       127.3       Albris       0 CC/051       1 443.0500         443.5000       Pua       K44/K       100.0       0 143.748       443.0000         444.5000       Pua       M4HE       0 CC/051		442.22500		Plus	W85EGI	100.0	Atlanta	GEORGIA			442.47500		
442.6700       Puz       FL#VE       100.0       Alberta       GEURGIA       = 00.0.0       442.8000         442.6000       Puz       H4HPF       Alberta       GEURGIA       = 010.0.0       442.8750         442.6700       Puz       K4HPL       100.0       Alberta       GEURGIA       = 010.0.0.0       442.8750         442.6700       Puz       K4HPL       100.0       Alberta       GEURGIA       = 010.0.0.0.0       442.8750         443.0200       Puz       W4AN/L2       Alberta       GEURGIA       = 010.0.0.0.0.0       443.020         443.0200       Puz       W4AUL       127.3       Alberta       GEURGIA       = 142.8500         443.5000       Puz       K4AVZ       TAberta       GEURGIA       = 142.8500         443.5000       Puz       K4AVZ       145.7       Alberta       GEURGIA       = 142.8500         443.6000       Puz       K4AVZ       145.7       Alberta       GEURGIA       = 142.8500         444.6000       Puz       K4AVE       151.4       Alberta       GEURGIA       = 142.8500         444.6000       Puz       K4AVE       151.4       Alberta       GEURGIA       = 151.4       Alberta       GEURGIA		442,47500		Plus	NA4DR					0723	442.52500		
442.0000       Puz       HAHP       Albeita       GEORGIA       eff       442.9750         442.9750       Puz       KAPE,       Albeita       GEORGIA       eff       42.9750         442.9750       Puz       WACNL2       Albeita       GEORGIA       eff(A)=442.9750         442.9750       Puz       WACNL2       Albeita       GEORGIA       eff(A)=442.9750         443.0500       Puz       WACNL       127.3       Albeita       GEORGIA       eff(A)=443.0320         443.0500       Puz       WACNL       127.4       Albeita       GEORGIA       eff(A)=443.0300         443.0500       Puz       WACNL       127.7       Albeita       GEORGIA       eff(A)=444.05000         443.0500       Puz       WACNL       127.7       Albeita       GEORGIA       eff(A)=444.05000         444.0500       Puz       WACNL       127.7       Albeita       GEORGIA       eff(A)=444.05000         444.0500       Puz       WACNL       127.7       Albeita       GEORGIA       eff(A)=444.05000         444.0500       Puz       WACNC       145.2       Albeita       GEORGIA       eff(A)=444.05000         444.0500       Puz       WACNC       145.2		442.52500		Plus	N4XOM	110.9	Atlanta	GEORGIA		o 110.9	442.67500		
442 67800       Puis       K4RF,       100.0       Albrits       6CDR61A       = 000.0FB       442 97800         442 67800       Puis       Vi4ANL       127.3       Albrits       6CDR61A       = 010.0FB       443 0300         443 0300       Puis       Vi4ANL       127.3       Albrits       6CDR61A       = 012.31       443 0320         443 0300       Puis       Vi4ANL       Albrits       6CDR61A       = 1       443 0300         Puis       KARXY       145.7       Albrits       6CDR61A       = 1       443 0300         443 0300       Puis       KARXY       145.7       Albrits       6CDR61A       = 148 748       43 0300         444 0300       Puis       KARXY       145.7       Albrits       6CDR61A       = 142 730       443 0300         444 0300       Puis       M4HE       151.4       Albrits       6CDR61A       = 154 4 45000         444 0300       Puis       Vi4ME       100.0       Albrits       6CDR61A       = 144 2 45000         444 0300       Puis       Vi4ME       100.0       Albrits       6CDR61A       = 144 2000         444 0300       Puis       KV4C0C       144 2       Albrits       6CDR61A <td< td=""><td></td><td>442.67500</td><td></td><td>Plus</td><td>KE4PVE</td><td>100.0</td><td>Atlanta</td><td>GEORGIA</td><td></td><td>o 100.0el</td><td>442.80000</td><td></td><td></td></td<>		442.67500		Plus	KE4PVE	100.0	Atlanta	GEORGIA		o 100.0el	442.80000		
442 57000     Pur     V/40/L     Albrita     6CDR5/A     eqCA3     443 5300       443 53200     Pur     V/40/L     Albrita     6CDR5/A     e12 34     443 3320       443 53200     Pur     V/40/L     Albrita     6CDR5/A     e12 34     443 3320       443 53200     Pur     V/40/L     Albrita     6CDR5/A     e12 37     443 5320       443 55000     Pur     V/40/L     123 7     Albrita     6CDR5/A     e12 37     443 5320       443 55000     Pur     V/40/L     123 7     Albrita     6CDR5/A     e12 37     440 5900       444 55000     Pur     V/40/L     151 4     Albrita     6CDR5/A     e15 44 4000       444 5000     Pur     V/40/L     151 4     Albrita     6CDR5/A     e15 44 4000       444 5000     Pur     V/40/L     145 2     Albrita     6CDR5/A     e15 44 4000       444 5000     Pur     V/40/L     145 2     Albrita     6CDR5/A     e16 2     444 7500       444 5000     Pur     V/40/L     151 4     Albrita     6CDR5/A     e16 2     444 7500       444 5000     Pur     V/40/L     151 4     Albrita     6CDR5/A     e16 44 5500       444 5000     Pur     V/40/L		442.80000		Plus	N4NFP		Atlanta	GEORGIA		oti	442.87500		
443.0300       Puz       V420L       12.3       Alberta       GEORGIA       •12.3       443.0300         443.0320       Puz       V420L       Alberta       GEORGIA       1       443.000         443.0320       Puz       V420L       Alberta       GEORGIA       1       443.000         443.000       Puz       KAPKZY       145.7       Alberta       GEORGIA       •148.7818       443.0000         443.000       Puz       K4PKZY       151.4       Alberta       GEORGIA       •148.7818       443.0000         444.000       Puz       M44EP       151.4       Alberta       GEORGIA       •151.4 (ZA)#B       443.0000         444.000       Puz       M44EP       151.4       Alberta       GEORGIA       •151.4 (ZA)#B       443.0000         444.000       Puz       V420C       146.2       Alberta       GEORGIA       •151.4 (ZA)#B       443.0000         444.000       Puz       V420C       146.2       Alberta       GEORGIA       •116.4       444.0000         444.9700       Puz       V420C       146.2       Alberta       GEORGIA       •113.4       444.9000         444.9700       Puz       V420C       146.2       Alb		442.87500		Plus	K4RFL	100.0	Atlanta	GEORGIA		o 100.0eRB	442.97500		
443.3200       Pur       V/401,       Albrita       GCDPGIA       1       443.0000         443.6000       Pur       KA9NCY       Albrita       GCDPGIA       0       445.6000         443.6000       Pur       V/401,       122.7       Albrita       GCDPGIA       0       42.87800         443.6000       Pur       V/401,       123.7       Albrita       GCDPGIA       0       42.87800         443.6000       Pur       V/401,       151.4       Albrita       GCDPGIA       0       43.478800         444.6000       Pur       V/4014       100       Albrita       GCDPGIA       0       151.4       44.0000         444.1000       Pur       V/4014       100       Albrita       GCDPGIA       0       154.4       44.0000         444.1000       Pur       V/4010       IA.2       Albrita       GCDPGIA       0       165.4       44.0000         444.1000       Pur       V/4010       IA.2       Albrita       GCDPGIA       0       165.2       44.4500         444.000       Pur       V/4010       IS.2       Albrita       GCDPGIA       0       151.4       44.7500         440.0000       Pur       V													
443.0000       Puz       KA9x2Y       146.7       Alberta       0.146.74PB       45.0000         443.0000       Puz       W4CML       1227       Alberta       0.146.74PB       45.0000         443.0000       Puz       M4HP       151.4       Alberta       0.6CPR3L       0.151.4 (X0300         443.0000       Puz       M4HED       151.4       Alberta       0.6CPR3L       0.151.4 (X0300         444.0000       Puz       W4HEM       100.0       Alberta       0.6CPR3L       0.151.4 (X0300         444.0000       Puz       W4HME       100.0       Alberta       0.6CPR3L       0.154.4 (43000         444.45000       Puz       W42OC       145.2       Alberta       0.6CPR3L       0.162.4 (43000         444.45000       Puz       KV4COC       145.2       Alberta       0.6CPR3L       0.163.4 (43000         444.7500       Puz       KV4COC       145.2       Alberta       0.6CPR3L       0.163.4 (43000         444.7500       Puz       KV4COC       145.2       Alberta       0.6CPR3L       0.162.4 (43000         444.7500       Puz       KV4COC       145.2       Alberta       0.6CPR3L       0.162.4 (435000         444.7500       Puz<						127.3							
443 65000         Pus         V4CML         122.7         Albrha         6CDR5JA         e 123.7         443 80000           443 65000         Pus         M4HFP         151.4         Albrha         6CDR5JA         e 123.7         4443 80000           444 65000         Pus         M4HFP         151.4         Albrha         6CDR5JA         e 151.4         40.000           444 15000         Pus         M4HFD         151.4         Albrha         6CDR5JA         e 151.4         440.000           444 15000         Pus         M4HFD         151.4         Albrha         GCDR5JA         e 150.4         440.000           444 45000         Pus         M4HFD         151.4         Albrha         GCDR5JA         e 100.0         444.4500           9 Pus         M4HFD         151.4         Albrha         GCDR5JA         e 143.2         444.7500           444 7500         Pus         M4HED         151.4         Albrha         GCDR5JA         e 151.44.25500           444 65500         Pus         M4HD         Albrha         GCDR5JA         e 154.37560         e 444.35500           442 5500         Pus         M4HAH         GCDR5JA         e 154.497560         e 44.35500           <													
443.0000       Plue       N4MEP       151.4       Allenta       GEORGIA       o 151.4 (DA)NEG         444.0500       Plue       N4MED       151.4       Allenta       GEORGIA       o 151.4 (A)NEG         444.0500       Plue       N4MED       151.4       Allenta       GEORGIA       o 151.4 (A)NEG         444.0500       Plue       V420CE       145.2       Allenta       GEORGIA       o 100.0       e 444.9500         444.9500       Plue       V420CE       145.2       Allenta       GEORGIA       o 100.0       e 444.9500         444.7500       Plue       K04CP       110.9       Allenta       GEORGIA       o 110.8       e 444.9500         444.7500       Plue       K04CP       145.2       Allenta       GEORGIA       o 143.2 (C)a       e 444.9500         444.7500       Plue       K04CP       145.2       Allenta       GEORGIA       o 143.2 (C)a       e 44.9500         444.7500       Plue       M4RPUZ       Allenta       GEORGIA       o 143.2 (C)a       e 44.9500         444.9500       Plue       MARMUZ       Allenta       GEORGIA       o 160.7804       122.0000         125.0000       122.0000       CalegoPath       GEORGIA <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>													
444 (5000)         Plur         M44E0         151 4.4         Allenta         GEORGIA         • 151 4.6         444 (1900)           444 (1900)         Plur         Vv4PME         100 0.         Allenta         GEORGIA         • 151 4.6         444 (1900)           444 (1900)         Plur         Vv4PME         100 0.         Allenta         GEORGIA         • 160 0.6         444 4900           444 (1900)         Plur         Vv4PME         Allenta         GEORGIA         • 146 2.6         444 4900           444 (1900)         Plur         Vv4DOC         146 2.         Allenta         GEORGIA         • 146 3.6         444 7500           444 (1900)         Plur         M4HE0         151 4.4         GEORGIA         • 151 4.44 7500         444 7500           Plur         M4HE0         151 4.4         GEORGIA         • 151 4.44 2500         444 7500           Plur         Vv4OVC         Allenta         GEORGIA         • 151 4.44 2500         444 3500           444 7500         Plur         Vv4AVND         Allenta         GEORGIA         • 150 4.44 3500           142 5500         Plur         Vv4AVND         Allenta         GEORGIA         • 100 0.8 Vv4 12.2000         122.0000         122.0000         122.00													
444 1000         Plus         Vv4PVE         100.0         Allenia         GEDRGIA         = 100.0         6.445000           444 4500         Plus         Vv4POC         146.2         Allenia         GEDRGIA         = 148200           444 45000         Plus         KV4POC         146.2         Allenia         GEDRGIA         = 148200           444 45000         Plus         KV4POC         116.2         Allenia         GEDRGIA         = 148200           444 7500         Plus         KV4POC         146.2         Allenia         GEDRGIA         = 148200           444 7500         Plus         Vv4POC         146.2         Allenia         GEDRGIA         = 148200           444 7500         Plus         Vv4POC         146.2         Allenia         GEDRGIA         = 158200           444 7500         Plus         Vv4POC         146.2         Allenia         GEDRGIA         = 444.55000           444 7500         Plus         Vv4PVC         100.0         CelopPak         GEDRGIA         = 642.9500           444 7500         Plus         Vv4PVC         100.0         CelopPak         GEDRGIA         = 642.9500           122: 00000         122: 00000         IS49000         IS4900													
444 45000         Pur         V400C         146.2         Albrink         GEDRGIA         • 146.2e         444 5000           444 5000         Pur         KVAGPI         110         Albrink         GEDRGIA         • 146.2e         444 7500           444 5000         Pur         KVAGPI         110         Albrink         GEDRGIA         • 151 442 7500           444 7500         Pur         M4HED         151.4         Albrink         GEDRGIA         • 151 442 7500           444 75500         Pur         M4HD         Albrink         GEDRGIA         • 151 442 5500           444 75500         Pur         VAAND         Albrink         GEDRGIA         • 162 42 3500           444 75500         Pur         VAAND         Albrink         GEDRGIA         • 164 7500           443 75500         Pur         VAAND         Albrink         GEDRGIA         • 162 7500           443 7500         Pur         KG4PT0         100.0         GEDRGIA         • 100.0 RvK         122 50000           122 20000         152 46444         GEDRGIA         • 100.0 RvK         126 50000         126 50000           145 15000         Minus         V440L         157 9         GerergaTech         GEDRGIA         • 165													
444.7500         Plue         KD467P         110.9         Alberta         6CDR50A         o 110.9         444.7500           444.7500         Plue         HAHED         151.4         Alberta         6CDR50A         o 110.9         444.7500           444.7500         Plue         MAHED         151.4         Alberta         6CDR50A         o 116.9         444.7500           444.7500         Plue         W4A0NO         146.2         Alberta         6CDR50A         o 148.2         25300           444.95500         Plue         W4A0NO         Alberta         6CDR50A         e         444.95500           444.95500         Plue         WAANTZ         Alberta         6CDR50A         e         444.95500           444.9500         Plue         WAANTZ         Alberta         6CDR50A         e         444.95500           122.0000         Plue         WAANTZ         Alberta         6CDR50A         100.0 RW         122.0000           122.0000         IZ448H         Alberta         6CDR50A         0.0 RW         122.0000           124.9000         Mmus         V440L         157.9         GengaTech         6CDR50A         6CDR50A           143.9000         Mmus         V440L													
444.7500         Plur         M4HE         151.4         Albrita         6ECPEGIA         o 151.442/AHPE         444.85500           444.6550         Plur         V4ODC         145.2         Albrita         GECPEGIA         o 151.442/AHPE         444.85500           444.6550         Plur         V/A0NC         Albrita         GECPEGIA         o 151.442/CNP         444.95500           444.95500         Plur         V/A4NVD         Albrita         GECPEGIA         e         444.95500           442.95500         Plur         KG4PT0         100.0         GECPEGIA         e/CAPHE         42.95000           122.0000         t52         KG4PT0         100.0         Colego Pak         GECPEGIA         e/CAPHE         42.95000           125.0000         Minus         KG4PT0         100.0         GECPEGIA         e/CAPHE         42.95000           145.1900         Minus         V4A0L         167.9         GeorgaTech         GECPEGIA         e/CAPHE         42.20000           145.4900         Minus         V4A0L         167.9         GeorgaTech         GECPEGIA         e/CAPHE         42.20000           145.4900         Minus         V4A0L         167.9         GEORGIA         e/CAPHE         42.													
444 (2500)         Plus         VrVADNO         146.2         Allenta         GEOPGIA         - 146.2 (2A)e         444 (3500)           444 (3550)         Plus         VrVADNO         Allenta         GEOPGIA         - 444 (3550)           444 (3550)         Plus         VrVADNO         Allenta         GEOPGIA         - 444 (3550)           444 (3550)         Plus         VrVADNO         Allenta         GEOPGIA         - 444 (350)           442 (3500)         Plus         VrVADNO         Allenta         GEOPGIA         - 444 (350)           1422 (3000)         T22 (3000         Spit         KS4PTO         100.0         Colego Park         GEOPGIA         - 442 (350)           122 (3000)         Spit         KS4PTO         100.0         Colego Park         GEOPGIA         - 442 (350)           123 (3000)         Minus         VrVAQL         167.9         Georga Tech         - 6EOPGIA         - 445 (300)           145 (3500)         Minus         VrVAQL         167.9         Georga Tech         - 6EOPGIA         - 442 (300)           145 (440)         Minus         VrVAQL         167.9         Georga Tech         - 6EOPGIA         - 645.7         - 442 (300)													
444 05300         Plur         V/4A/ND         Allenia         GEDRGIA         e         444 97500           444 97500         Plur         V/4A/NZ         Allenia         GEDRGIA         e(14) 42,5000           442 97500         Plur         KG4/PO         100,0         GEDRGIA         e(16) 41,614,814         42,5000           442 97500         Plur         KG4/PO         100,0         GEDRGIA         e(16) 41,814,844         GEDRGIA         e(14) 42,5000           1252,0000         1272,0005 Spit         KG4/PO         Allenia         GEDRGIA         e(16) 41,614,900           145,15000         Minus         V/4A0L         167,9         GeorgaTech         GEDRGIA         e 167,5 (CA)ee         165,4900           145,9500         Minus         V/4B0L         Decebur         GEDRGIA         e 442,20000         E													
444 97800         Plus         V/44/V1Z         Albrits         GEORGIA         ortCAJRE         442 58000           442 55000         Plus         KGAPTO         100.0         Colego Palk         GEORGIA         100.0 RB VxH         12520000           1222 0000         1272 0000         Spik         KEANN         Albrits         GEORGIA         0         1454 15000           145 15000         Minus         V/440L         167.9         Georga Tech         GEORGIA         0         167.9 (CA)e           145 45000         Minus         V/480C         Decxtur         GEORGIA         0         642.9000						146.2							
442:5000 Plus KG4PT0 100.0 Colego Pask GCPRGIA 100.0 RVX 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:00000 122:00000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:0000 122:00000 122:00000 122:00000 122:00000 122:00000 122:0000 12						-							
1252.00000 1272.0000 Spik K-840N Allanta GEORGIA o 145.19000 145.19000 Minus IV4AQL 167.9 Georgia Tech GEORGIA o 167.9 (CA)ex 145.49000 145.49000 Minus IV480C Decstur GEORGIA o 442.0000						100.0							
145/19000 Minus W440L 167.9 GeorgaTech GEORGIA e167.9 (CAse 145.49000 145.49000 Minus W480C Decelus GEORGIA e 442.20000						100.0							
145 45000 Minus IV/480C Decotus GEORGIA o 442 20000						167.0							
						167.3							
Modules View Callign V Commert Repeater Notes V Select A1		140.40000	_	PH BY	W HOUL		- Decour	sconos	_	v	445.20000		
Modules Varie Calisign Comment Repeater Notes V Select AI													
		Modules			-	Name	Callsign	<ul> <li>Comment</li> </ul>	Repeate	n Notes 👻	Select All		

• Select a group of channels.

Point your mouse at the CHANNEL NUMBER (the grey shaded column on the left) and left click. Don't let go of the left click button if you want more than one.

While holding the left mouse button, drag the mouse over the CHANNEL NUMBER of all the channels you want. If there are more than those on the screen, just keep going at the bottom. The screen will scroll to let you continue your selection.

*Note: The entire row of a selected channel will turn be highlighted. If only the Receive Frequency is highlighted, then ONLY that information will be copied.* 

		ng/ El	Travel Plus D	N X MI	C-2620 (1980)	est -					
I	Dulput Frequency	Input Frequency	Direction	Callign (Name)	C1035 0	CS Chy	State	Region	Repeater Noter (Consent)	442,82908	
	442 82500		Plat	NORN.	167.9	Hapeville	AG103D		0167.5	145.29000	
	14529000		Minut	WHEN	99.5	Aclasta	AG28222	6	225 (EA)	145.25080	
	145 25000		Mente	V/4000	148.2	Alderia a	05085M		o 146.2e	145.41080	
	145.41000		Minut	WAPME	108.0	Adapta	GEORGIA		c-100.6e	146.62580	
	146 62500		Messi	W121	108.0	Atlanta .	0609844		e 100.6e	146.84000	
	145 \$4000		Minut	W\$406P		Allaria	AGROSO		84	146.65580	
	146 65500		Minut	NAMEP	121.4	Adapta	GEOREM		o 151 AwRR	166.73080	Calast shannals to same
	14573000		Mean	KD4NC		Alfonia I	A689030			146.83080	Select channels to copy
	146 82900		Minut	W4D0C	146.2	Atlanta	AGROOD		o 146.2 (DA)e	146.37080	
	145 \$7900		Messe	K40.J		Atlanta	GEOREIA		et.	147 00000	
	147.80880		Minut	VOLAND		Atlanta	AGEOREA	8	(CA)	147.03080	
	147 83000		Plus	WINUG.		Atlasta	GEOREAN	6		147.28580	
1	147 28500		Plan	R0422		Atlanta	AGR030		coF8	147.34580	
	147.34500		Plat	NAMED	151.4	Atlanta	Marpap		o 151.4 (EA)(FR2:	147.10580	
E	14710500		Plus	WBARTH	107.2	Atlanta CARES	GEOREIA		e107.2	421,29080	
	421 25000	434.0808		WHETL		Atlanta	AGEOREM	6	0	440,50080 -	
	440 60000		Plas	WIDOC		Atlanta	GEOREM	1		442-02580	
	442 82500		Plat	WIRCHL.	127.5	Atlanta	05085M		e127.3	44212580	
	44212500		Plat	WART	108.0	Atlanta	GEOREM	6	c 100.5ec	442:22580	
	442 22500		Plus	WRITERI	108.0	Atlanta	GEOREMA			442.47580	
	442.47500		Plat	NA4DFI	72.3	Atlanta	GEOREIA		0723	442.52580	
	442 \$2500		Plus	NOOM	118.9	Atlanta	GEOREM		e110.9	442-67580	
	442.67500		Plut	REANE	108.0	Atlanta	AGR030		e 100.0el	442,80080	
	442 80000		Plat	NAMED		Atlanta	Marpap	6	oti ili	442:07580	
	442.87500		Plus	K4RR	108.0	Atlanta	GEOREMA		e 100.0eF8	442-97580	
	442 57500		Plat	VARIAZ		Atlanta	GEGREM		(KEA)	443.02580	
	44312500		Plas	WICHL	\$27.3	Jobeth	GEOREAL		e127.8	442 21200	
2	443 31200		Plan	WHADE.		Alianta .	AGR030			443.50080	
1	442 60000		Plat	KARACZY	146.7	Atlasta	GEOREM		o 146.7.4FB	442-65080	
	443 65000		Plun	WROM:	\$23.7	Alderia .	05085M		e123.7	443-80000	
1	443 80000		Plat	NAME	151.4	Atlanta	GEGREM			444.05080	
	444.05000		Plus	NINED	12.4	Julanta .	GEOREAN		o 151.4e	414115080	
	444.15000		Plan	WIRWS	108.0	Alfonia I	AIGR030		e-100.0e	444.45000	
	444.45300		Plas	WHERE	146.2	Adapta	AG2903D		o1463e	444.50080	
	444 50000		Plus	K045P1	110.9	Alignia .	0508544		e110.8	444,72500	
	444.77500		Plat	N4NED	151.4	Atlanta	GEGREM	6	o 151.4 v(CAMPID	444.02580	
r	444.82500		Plas	WIDOC	145.2	Arrient a	6509546		e 146.2 (CA)e	41432580	
2	444 52500		Plan	VOL8893		Alfonia	AGR030		0	444,57500	
6	444.57500		Plat	WARNE		Adapta	GEOREM		REATER STREET	442:25080	
	442,95000		Plun	K64P10	108.0	College Park.	05085M	1	108.0 FB VA:	1282.00000	
i l	1252 80000	1272.0808		KE40N		Atlanta	GEGREM	6		145,15080	
	14515300		Menui	WISHOS.	967.9	Seogia Tech	GEOREMA		e 167.9(CAleo	125 25080	
2	145,45000		Mout	WREDC		Decatur	AGE DOD		0	442,20080	
	Modules IDS	1920 Radio D.	ata File	•	Name	Cahign	· Connert	Repeated	Notes +	Select.44	
	C Pres	4- 58- F-	r: 10-2828		skeded Bands					UnSelect.AJ	

• Copy the channels

With the mouse pointing at the highlighted channels right click and select Copy from the menu that opens.

OR... with your mouse, left click to select Edit from the menu at the top of the screen. From the menu that opens, select Copy.

It will appear that nothing has happened; however, Windows has copied the information.

• Use the mouse to click into the programmer file.

Note: If you are using the programmer in full screen mode, select Window from the menu then the programmer file name from the bottom of that list to switch between the two screens.

Alternately, you can select Window | Tile to have the programmer display the two windows equally in the main window.

- Select the first channel in the file into which the information is to be pasted.
- Paste the information into the radio file

With the mouse pointing at the highlighted channels right click and select Paste from the menu that opens.

OR... with your mouse, left click to select Edit from the menu at the top of the screen. From the menu that opens, select Paste.

• View the results

The resulting file now contains only those selected pieces of information from the TravelPlus\* list along with all the original information of that file.

345.03 440.00 345.97 347.00 347.00 347.03 347.01 347.11	C Frequency 346.0100 440.0000 440.0000 440.0000 440.0000 00 146.3700 00 146.3700 00 146.3700 00 146.3700 00 146.3700 00 146.3700 00 146.3700 00 146.3700 00 146.3700 00 146.3700 00 146.3700 00 146.3700 00 146.3700 00 146.3700 00 146.3700 00 146.3700 00 146.3700 00 146.3700 00 146.3700 00 146.3700 00 146.3700 00 146.3700 00 146.3700 00 146.3700 00 146.3700 00 146.3700 00 146.3700 00 146.3700 00 146.3700 00 146.3700 146.3700 146.3700 146.3700 146.3700 146.3700 146.3700 146.3700 146.3700 146.3700 146.3700 146.3700 146.3700 146.3700 146.3700 146.3700 146.3700 146.3700 146.3700 146.3700 146.3700 146.3700 146.3700 146.3700 146.3700 146.3700 146.3700 146.3700 146.3700 146.3700 146.3700 146.3700 146.3700 146.3700 146.3700 146.3700 146.3700 146.3700 146.3700 146.3700 146.3700 146.3700 146.3700 146.3700 146.3700 146.3700 146.3700 146.3700 146.3700 146.3700 146.3700 146.3700 146.3700 146.3700 146.3700 146.3700 146.3700 146.3700 146.3700 146.3700 146.3700 146.3700 146.3700 146.3700 146.3700 146.3700 146.3700 146.3700 146.3700 146.3700 146.3700 146.3700 146.3700 146.3700 146.3700 146.3700 146.3700 146.3700 146.3700 146.3700 146.3700 146.3700 146.3700 146.3700 146.3700 146.3700 146.3700 146.3700 146.3700 146.3700 146.3700 146.3700 146.3700 146.3700 146.3700 146.3700 146.3700 146.3700 146.3700 146.3700 146.3700 146.3700 146.3700 146.3700 146.3700 146.3700 146.3700 146.3700 146.3700 146.3700 146.3700 146.3700 146.3700 146.3700 146.3700 146.3700 146.3700 146.3700 146.3700 146.3700 146.3700 146.3700 146.3700 146.3700 146.3700 146.3700 146.3700 146.3700 146.3700 146.3700 146.3700 146.3700 146.3700 146.3700 146.3700 146.3700 146.3700 146.3700 146.3700 146.3700 146.3700 146.3700 146.3700 146.3700 146.3700 146.3700 146.3700 146.3700 146.3700 146.3700 146.37000 146.37000 146.37000 146.37000 146.37000 146.370000 146.37	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Singlex Singlex	FM FM FM FM	e (HQL)	Tone Made hone Rone	00.516 88.516	Rx CTC35 00.510 88.5142	003	DCS Polantsy Dorth H Ballh N	OF OF	Step Silve 23 line	Digital Squidh Off	Oignal Cade 0	tour Callogn CQCQCQ CQCCQCQ	Rat-1 Callign	Rot-2 Califign	Bank	Bank Channel	
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431.29	500 347.70500		+DUP	194	WEARTH	Tene	107.2Ht	55.5 Hz	023	Softh N	0#	Skrie	0#	0						0)
	434,0808		+DUP	PM .	wert.	None	99.5 Hz	99. S HJ	023	Doth N	Off Off	5440	04	0						٥
440.60	500 447.0250	5.00 PPH	+0.P +0.P	/M	W4DOC W4CML	Tone	127.3Hz	68.5 Hz	023	Both N Both N	04	Skrie	04	10						01
	100 447.12300		+0.P	PM .	WET	Tone	100.014	88.510	023	18401 N	off	5440	01	0						0.5
	500 447, 2250		40.JP	PM	WESEL	Tone	800.0Hz	68.5 Hz		Soth N	0#	Skrie	0#	0						1
	500 447, 4750	5.00 PHIC	+0.9	FM	AMOR .	Tane	199. S H2	89.5 Hz	02.0	DOCT N	Off.	Skitz	08'	0						03
412,52	500 447.5250	5.00 PPH	+0.P	PM	1949(24)	Tone	130.5Hz	58.5 Hz	023	Solth N	0¥	Strip	OF	0						01
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	000 447.80000		+0.P	PM	2467	None	BILS HD	88L 5 H2	023	86011	0#	3 640	off	0						44
	500 447,8750		40UP	PM FM	KAPPL	Tone	100.0Hz	55,5 Hz	023	Both N Both N	0#	SkHz SkHz	04							03
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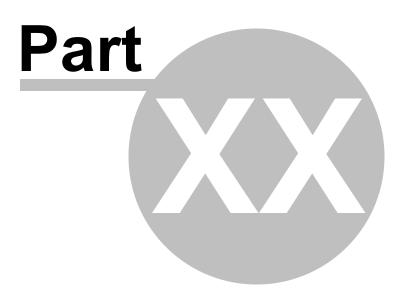
• Save the programmer file to make this change permanent.

Press Ctrl S or select File then Save from the menu that opens

With either process it will appear that nothing happens; however, Windows has made the change to the radio file permanent.

• Send the file to your radio.

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# 20 Copying From an Excel Spreadsheet

The Programmer can handle information copied from an Excel spreadsheet.

Although this process is very valid for transferring data between these programs, it is not recommended for original file creation. It can be tedious getting all the information into the file to be copied. For example, why struggle to find information for the offset frequency and offset direction for your Excel list when the programmer will complete this information automatically when frequencies are entered there.

Limitations for use of another commercial spreadsheet program include:

- The spreadsheet program will know none of the limitations of the radio. It will allow you to enter any value in any space. You will have to enter transmit and receive frequencies, CTCSS tones, and DCS codes carefully to be sure they are imported correctly to the radio.
- You will need to organize your data carefully. The Programmer will import all the items from a single column as the same thing. This can cause an odd split to be entered as Simplex or a non-standard offset to be ignored if non-similar data is listed in the same column.

Let the Programmer help you as you create your original file with its defaults and automatic settings. Once the file is created you could export the data for other uses.

#### 20.1 Step 1

The Programmer makes no assumptions about the information being handed to it from the Excel file. You need to be familiar with the data in the file to the point you can identify that data to the programmer during the copy process.

#### Step 1

Open the Excel file. Select and copy the information you want to put into the programmer.

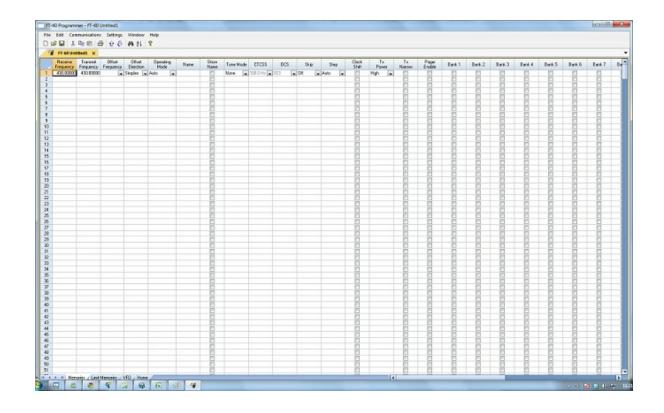
147.1 146.5 147.2 146.5 147.2 146.5 147.4 146.5 147.4 146.5 147.4 146.5 147.4 146.5 147.4 146.5 147.4 146.5 147.2 146.5	Ca Painter Transmi 345 360 525		E	F Mode	Algoree G name	Br Wra Bill Mor Int H		J		- 23 ;	Conditional Formatting •	Format as Table -	Norma Good S	al Igles	Bad Neutral	1	Hame Insert	Delete Fo			27 Pa	b.
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147.0		600 kHz	Minus	FM	KL		Tone	94.8														
	000 147.0	000		FM	MIA Tall		NoTone															
146.6	270	600 kHz	Plus	FM	MIA open		No Tone															
	540	600 kHz	Minus	FM	MIA BCH		Tone	103.5														
444.8	800	5000 kHz	Plus	FM	PSL Echo		Tone	107.2														
443.8		5000 kHz			WP8 Echo		Tone	110.9														
443.0		5000 kHz			FLL Echo		Tone	110.9														
147.5		600 kHz	Plus		FLL Echo		Tone	110.9														
443.4		5000 kHz			Mia Echo		Tone	94.8														
442.3	100	5000 kHz	Plus	FM	KL Echo		Tone	94.8														
147.0		600 kHz	Plus	FM	Kau Culta		No Tone															
147.1		600 kHz	Plus	FM	Key-Cudjo Key-Largo		Tone	94.8														
146.0		600 kHz		FM	Key-BPK		Tone	94.8														
147.3		600 kHz	Plus	FM	Key-Mara		Tone	94.8														
146.7		600 kHz		FM	Key-Plan		Tone	94.8														
						_								_		-						
+ H Sheet	1 Sheet2	/Sheet3 / 2	1			-							14					-		-		

#### 20.2 Step 2

Open the Programmer to which the data is to be pasted.

It is recommend that you import into a new file to prevent loss of data from an existing file. Channel information can be copied to an existing file, and put exactly where you want it, after the process of copying from Excel is complete.

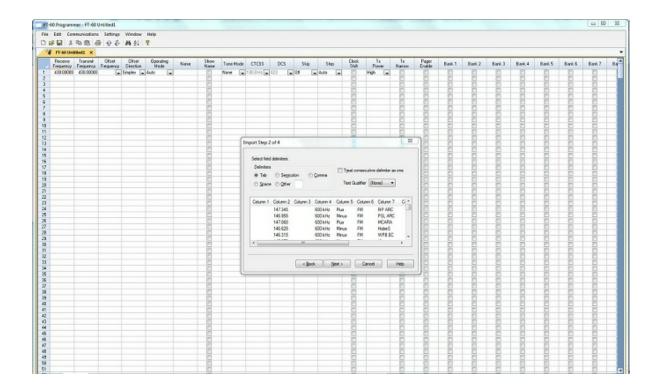
Note: The FT-60 is used here as an example. The process works the same for any RT Systems Version 4 programmer although column names may differ or not be available.



#### 20.3 Step 3

Paste: Ctrl V or right click and select Paste or select Edit then Paste from the menu at the top of the screen.

A window opens to complete the process.



### 20.4 Step 4

On this screen, you may need to use the Text Qualifier to remove quotes from your data.

The data should be appear as it does in this image: without quotes and separated into columns.

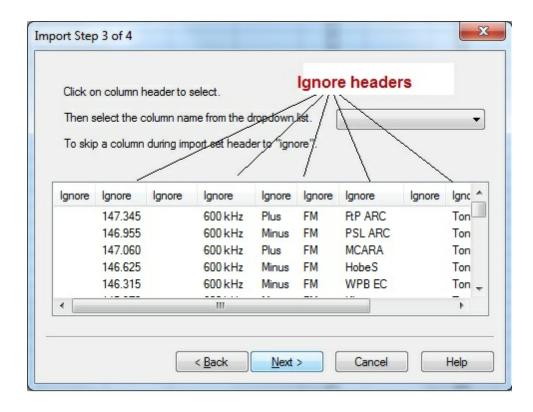
<ul> <li>Delimiters</li> <li>Tab</li> <li>Space</li> </ul>	Semic	olon ©	) <u>C</u> omma	_		delimiter as o one} 💌	one
Column 1	Column 2	Column 3	Column 4	Column 5	Column 6	Column 7	C
	147.345		600 kHz	Plus	FM	FtP ARC	
	146.955		600 kHz	Minus	FM	PSL ARC	
	147.060		600 kHz	Plus	FM	MCARA	
	146.625		600 kHz	Minus	FM	HobeS	
	146.315		600 kHz	Minus	FM	WPB EC	
•							÷.

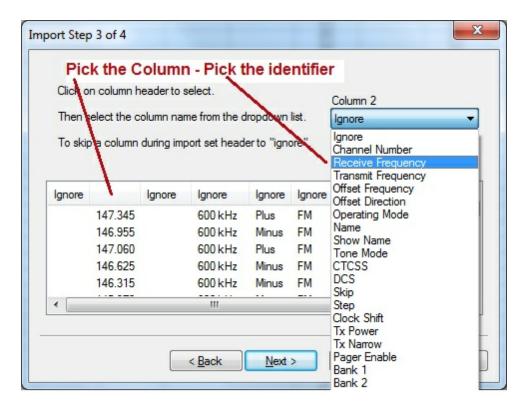
Click Next to continue.

#### 20.5 Step 5

In this step of the process, you identify the information in your spreadsheet for the programmer. The programmer attempts to identify the columns based on the headers that you have for the columns.

The programmer makes no assumptions and will set any non-matched column to "Ignore". The data in an ignored column will not be used in this process.





The column header changes to show your selection. Be sure to identify each of the

columns you want used. The data in an "ignored" column will be set to defaults in the resulting file. Your specifics will not be used.

The	1	column	an e from	the diopdov		Column 1	0		•
ns	Offset F	Offs	Ope	Name	Ignore	Tone	CTC	Ignore	
	600 kHz	Plus	FM	RtP ARC		Tone	107.2		L
	600 kHz	Minus	FM	PSL ARC		Tone	107.2		
	600 kHz	Plus	FM	MCARA		Tone	107.2		
	600 kHz	Minus	FM	HobeS		Tone	110.9		
	600 kHz	Minus	FM	WPB EC		Tone	110.9		
						-		•	

Click Next to continue.

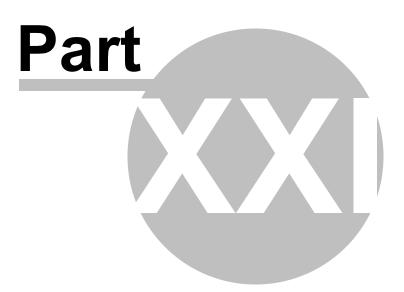
# 20.6 Step 6

Complete the options on the final screen and click Finish.

Startin	g radio memory 1		Overwrite existing c	
	lable Channels: 999 Total Channels: 1000		Show only selected Show only valid free	
	nnels Selected: 22	Sele	ect All Dese	lect All
Ignore	Receive Frequency	Transmit Frequency	Offset Frequency	Offset Directio
1	147.345		600 kHz	Plus
1	146.955		600 kHz	Minus
1	147.060		600 kHz	Plus
1	146.625		600 kHz	Minus
1	146.315		600 kHz	Minus
•				

The resulting file contains the data just as it was in the Excel spreadsheet.

	Receive Frequency	Transnik Frequency	Officer Frequency	Offset Direction	Operating Mode	Name	Show	Tane Made	CTCSS	DCS	Skip	Step
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2	145.01000	145.01000	2	Simplex	FN		- E	None	88.5Hz	023	01	5kHz
	440.00000	440.00000		Simplex	FN		D	None	88.5Hz	023	0/1	5 kHz
I.	200000000						- E			X1010	1.12	222.02
18					-		- E					
	1000000000						E			A 21.97	22.5	2000
	145.66000	145,66000		Simplex	FM		E	None	88.5Hz	023	00	15 kHz
	-6.9833						E			12.2	148	
1	147.55500	147.55500		Simplex	FM		<ul> <li>E</li> </ul>	None	88.5Hz	023	00	15 kHz
Û	Departmented				1000		_ E			X1010	115	
1							_ E					
2					-		_ D					
3					-		- E					
4	122201020			and the second			- F	1.02				
4	F H Mer	nories / Linit	Meniories	VFO Hom	0		1	- X		100		P (1)



# 21 Importing a file

The Programmer can Import data from delimited text files. These files can be created using the Export feature of the Programmer for another radio, Travel Plus for Repeaters by ARRL, commercial spreadsheet programs, or text editors.

Limitations for use of another commercial spreadsheet program include:

- The spreadsheet program will know none of the limitations of the radio. It will allow you to enter any value in any space. You will have to enter transmit and receive frequencies, CTCSS tones, and DCS codes carefully to be sure they are imported correctly to the radio.
- You will need to organize your data carefully. The Programmer will import all the items from a single column as the same thing. This can cause an odd split to be entered as Simplex or a non-standard offset to be ignored.

The easiest way to begin a text file for your Programmer is to Export a file from the Programmer first. In that exported file, you will see column headers for the details that the Programmer expects to import. You will also see the format of the information. You can edit or add to this file with any commercial spreadsheet program or text editor.

Note: The new features off the programmer include the ability to enter a series of channels by entering just a beginning frequency and the number to be entered, column editing, copy and paste of one or multiple rows of data, rearrangement of columns, hiding columns that need not be edited, and automatic completion of data based on band defaults for a frequency entered. Given that the programmer is designed for the data of the radio, you might find editing in the programmer easier than using another spreadsheet program.

The file to be imported must contain at a minimum Receive frequency to define a valid memory channel. The programmer will fill the rest of the details for that channel with defaults just as if that frequency had been entered.

The Programmer makes no assumptions about the information available. If a piece of information is omitted, the Programmer imports the memory as a simplex channel and fills other fields with defaults.

Although this process is very valid for transferring data from one radio Programmer to another and for using the data from other sources such as ARRL Travel Plus, it is not recommended for original file creation. It can be tedious getting all the information into the file to be imported just like the Programmer wants it. Let the Programmer help you as you create your original file with its defaults and automatic settings. Once the file is created you could export the data for other uses.

#### 21.1 Creating a file for Import

#### Checking a file to use with the Programmer

If you are given a file that you want to import into a programmer for use by your radio and are not sure if it is a "flat file", test the file by opening it with Windows notepad.

If the Notepad display is full of strange characters with very little legible text, this file is not ready to be imported by the programmer. The file may or may not be able to be used for import depending how it was created and saved.

Try opening the file in Microsoft Excel or other commercial spreadsheet program. If everything looks good there carefully save the file in as delimited text (this could be called several different things in the program that you are using. If the first one you try does not produce the file format that you want, try selecting a different File Type during the save process. The details for this process are included below for Microsoft Excel.

Open the file that you created during the save process in Notepad. As before, if the display is legible data separated by commas you are well on your way. If, however, the data appears in one very long line, you should return to the original source to extract the data with line feed breaks at the end of each record.

If the Notepad display has orderly lines of legible data separated by commas, it is ready for use by the programmer. It is fine if you see two commas right together. The process can handle a blank field.

# Saving an Excel file for import

If you work on a file in Excel for import to the programmer, that file must be saved as a comma delimited file before you leave Excel. The Programmer cannot import an Excel file with all its formatting codes. What it can work with is the "flat file" output of that file.

- In Excel, select File|Save as
- In the Save As window change the Save as Type to CSV (comma

delimited) \*.csv

- Enter a file name for the output file. Pay attention to the drive and directory to which the file is being saved. You will need to be able to find the file later for use during import.
- Excel will raise a warning(s) about worksheets and formatting that will be lost if the file is saved in this format. Answer to the affirmative (OK or Yes) to the message(s);eliminating the formatting is exactly what you want.
- When you exit Excel, you will be asked again if you want to save the \*.csv file. If you have made no changes since you lost saved, answer No. If you have made changes, answer Yes and proceed through the warnings again to save the file again.

#### Limitations for use of another commercial spreadsheet program include:

- The spreadsheet program will know none of the limitations of the radio. It will allow you to enter any value in any space. You will have to enter transmit and receive frequencies, CTCSS tones, and DCS codes carefully to be sure they are imported correctly to the radio.
- You will need to organize your data carefully. The Programmer will import all the items from a single column as the same thing. This can cause an odd split to be entered as Simplex or a non-standard offset to be ignored if the data is not in a column labeled correctly or is mixed in with dissimilar data.

# The Import File

The Import function is designed to assimilate some if not all of the following pieces of information for use by the Programmer. As radio features vary, so will the information to be imported (i.e., frequency ranges, the way offsets are handled, special options such as mask, clock shift, etc.)

**Channel Number**: If your file has channel numbers and you opt to use this column during import, your resulting file might not be what you expect.

• If the "Overwrite existing channels" option is checked: The information will

be inserted into the specific channel no matter what is in the file at that location now . While the channel numbers can help to organize the information being imported, it can result in data being overwritten in the process

 If the "Overwrite existing channels" option is unchecked: The information from the file being imported will be skipped if there is already information in the channel. The data in the existing radio file will not be overwritten.

#### It is always recommended that you import into a new file to prevent data loss in an existing radio file. Once the information is in the programmer file, it can be copied into an existing file. With the copy process, you have more control of where the data is inserted into the file.

**Receive Frequency**: The very least a file must have to be imported is the receive frequency. This may be called the "output frequency" depending on whether you're referring to the radio or the repeater. If the column header is "Receive Frequency", the import process will recognize this label and identify the information automatically.

- Acceptable receive frequencies are detailed in the User's Manual for the radio. In the text file, the frequency should be entered in the format "MHz decimal kHz" (i.e., 146.450) with up to five digits following the decimal.
- Although, unacceptable frequencies can be entered into the text file, they will not be imported into the Programmer. They will result in a blank memory channel when import is completed.

**Transmit Frequency**: Enter a specific transmit frequency in the format "MHz decimal kHz" (i.e., 146.450) with up to five digits following the decimal.

#### This information can be omitted from the file.

• If you are importing repeater information where all the repeaters have standard offsets (none operates on an "odd" split) the import process will calculate the Transmit Frequency from other information in the file.

# *This information must be included in a separate column for an "odd split".*

- The column cab be empty other than the specific information for those few "odd split" repeaters. The import process will calculate the Transmit Frequency from other information in the file for the other channels.
- Acceptable transmit frequencies are detailed in the manual for your radio.

#### Note: In the Programmer you can enter details for frequencies outside the transmission abilities of the radio; however, the software will not enable transmission on these frequencies. Transmission will be possible only if the radio has been properly modified.

**Offset Frequency**: This is the amount that the Receive Frequency changes to produce the Transmit Frequency. Standard offsets in the programmer include 100, 500, and 600 kHz (0.1, 0.5 and 0.6 MHz) and 1.0, 1.6, 3.0, 5.0, and 7.6 MHz.

- In Yaesu radios any value in 50 kHz increments can be used as an offset (i. e., .650, .550, .050)
- In an Icom radio, there are no Splits. Everything must be entered with an exact Offset Frequency.
- The Offset Frequency is used by the radio along with the Offset Direction to calculate the Transmit Frequency. The Programmer does the same.
- This is one place that the import process will make an assumption for you. It uses 600 kHz for the offset for VHF and 5 MHz for the offset for UHF if no other offset is specified.

### Non-Standard Offsets

The Offset Frequency can be used in conjunction with Offset Direction for a value in 5 kHz steps (i.e., any value ending in .xx5 where x is any digit from 0 to 9). This gives you the ability to use the Reverse function of the radio although your frequency pair is not separated by a standard offset value. This is considered a non-standard offset.

To use a non-standard offset in your text file enter the Receive Frequency. Then the Offset Frequency as an exact value including the decimal to denote kHz. For example, given the pair 146.650 and 147.300, the Offset Frequency entered would be .650 (decimal six five zero). And the Offset Direction as Plus or Minus. With these three pieces of information, the import process will setup this memory channel correctly for use by the radio with the most functionality.

#### Note: You may see this import with one of the standard Offset Frequencies; however, once the file is saved, closed and reopened, the Plus or Minus and the Offset Frequency value as entered will appear.

Offset Direction: The Offset Direction lets the Import process know whether to add

(plus) or subtract (minus) the Offset Frequency from the Receive Frequency when calculating the Transmit Frequency for the memory channel.

Enter Plus, Minus, + or - for the process to recognize the command.

# *NOTE: Be sure to use Offset Direction if your file contains + and & endash; in this column. Using Offset Frequency for this column will result in all channels being imported as simplex.*

**Operating Mode**: Enter FM, AM, or WFM as appropriate for the frequency.

**Name**: Enter an Alpha/Numeric tag (up to 8 characters) for the memory channel to provide an easy reminder of the function of a particular frequency. Not all radios have this available for each memory channel. Consult your Users' Manual for details.

**Tone Mode**: Use of the tone systems of the radio allows for silent monitoring until a call is received with a corresponding tone. Tone mode also allows access to repeaters that are made private with a PL tone. Most radios offer CTCSS (Continuous Tone Coded Squelch System) or DCS (Digital Coded Squelch) to be tailored to your particular needs. Consult your Users' Manual for details specific to your model.

Use of either of the tone systems requires two steps. Your import file will handle these steps in THREE (3) columns.

• Step 1: Turning on Tone Mode

There are now so many different tone modes and combinations of them, we recommend that you use the designation just as it appears in the Programmer for your radio to identify the Tone Mode to be used. Examples would include but not be limited to:

- None Tone mode off
- Tone Encode
- T Sql Encode/Decode
- DCS DCS Tone
- Others specific to your radio as detailed in the Tone Mode column of the programmer.
- Step 2: Setting the tone frequency (CTCSS) or selecting the code for the tone (DCS).

Note: The CTCSS tone frequencies and the DCS tone codes should be stored in TWO separate columns in your file to be imported. The

# *import process does not separate. It will ignore incorrect values leaving the tone set incorrectly for the channel.*

• **CTCSS Tone**: Enter one of the 50 tone frequencies in the format MHz decimal kHz with only one digit to the right of the decimal.

This value must be entered exactly as shown in the chart in the Users Manual. A value that is not in the table will result in an incorrect tone value setting in the resulting Programming file.

This value is set independently for each memory channel.

• **DCS Code**: Enter one of the 104 codes in a three digit format (This will appear as two digits if you editor does not show leading zeroes. Two digits are acceptable when the third is a leading zero).

This value must be entered exactly as shown in the chart in the Users Manual.

A value that is not in the table will result in an incorrect tone value setting.

This value can be set independently for each memory channel that uses a DCS tone.

**Skip**: Marks selected memory channel to be *skipped during scanning* This field should contain one of the following:

Scan, 0, or Stop to include the channel to be scanned

Skip or 1 to mark the channel to be skipped.

PScan or 2 to mark the channel as Preferential Scan

**Step**: The frequency being used by the radio changes by the value of the step when tuning manually. This value is used by the radio in Memory Tune mode. This value is not critical in memory mode since the original memory channel frequency can be retrieved by exiting Memory Tune mode.

Enter 5/10/12.5/15/20/25/50 or 100 as needed.

**Clock Shift**: Shifts the internal reference frequency slightly to eliminate "birdies" that interfere on other channels.

Enter On or 1 / Off or 0

**Tx Power**: The output power can be set individually set for each memory channel to address the exact needs of each operation.

Enter High / Med / Low

Half Deviation: Enter On or Off as needed for the channel

Comments: Enter an identifying comment up to 80 characters.

You can see by the details here that creating a file for import can be a tedious process. Although this process is very valid for transferring data from one radio Programmer to another and for using the data from other sources such as ARRL Travel Plus, it is not recommended for original file creation.

Let the Programmer help you as you create your original file with its defaults and automatic settings. Once the file is created you could export the data for other uses.

The comma-delimited file can contain this information in any order. It must contain only the Receive frequency to be a valid memory channel. The Programmer makes no assumptions about the information available. If a piece of information is omitted, the Programmer imports the memory as a simplex channel and fills other fields with defaults.

This data can be entered in any order. You will identify the specifics to the Programmer during the Import process. If you find after several entries that you need another column for additional information, simply add it at the end. The Programmer will correct the order when it imports.

Save the data in your file often to prevent loss. Be sure to save the file as text with delimiters (separators) rather than as a worksheet of the program in which you are working. The Programmer cannot use a worksheet created by the other program.

To save as a text file, select File | Save (in the spreadsheet program). In the Save file window, select a different file type from the selection at the bottom of the screen. Acceptable formats are those that specify Text (i.e., .cvs, or .txt file extension).

Exit the spreadsheet program. Your file is ready to be imported into the Programmer. Changes can be made within the Programmer after you import the data.

### 21.2 Import - Step 1

In the Programmer select File | Import.

From the Import Radio File dialog that opens, select the file to be opened.

Import Radio	o File					? 🛛
Look in: 🔯	Көл	-	¢	£	ď	-
IC208.det IC208.det IC208.ic20 Renr Adjust Renr Adjust Renr Adjust IC208.ic20	ed for Tone.CSV					
File name:		_	_			Open
Files of type:	All files (".") Tab Delimited ("tab) Comma Delimited (".csv)		_	J	_	Cancel

This screen gives you the ability to find and open the file to be imported.

- Use "Look in:" at the top to change directories as needed
- Use "File of type:" at the bottom to show other files in the directory you selected. Since the most common file types are \*.csv and \*.tab you may need to change types for your file to appear.
- Once your file is highlighted, select Open to proceed.

# Import Step 1 of 4: Identify one or more of the first rows of data to be omitted

18 🛨	Select rows from begining of list to skip on import	
	beginning o	hannels from t of the list by the counter.
Column 1		<u>^</u>
	00", +, H., 127.3", 127.3", Salem	_
"147.0400", "0.60	00", +, H. 127.3", 127.3", Aptch	
	00", +", ", "H", 127,3", 127,3", "HdRvr	
	00","+","","","H","127.3","127.3","MtHood","" 00","+","",","H","127.3","127.3","Brshpr","	
	00 + , , , H , 127.3 , 127.3 , bringe , 00", +, , , , , H', 127.3 , 127.3 , Vnew ', ''	
	00".+"."."."."."."."	~
<)		1.14

This screen was used originally to omit headers, columns without data, from the import. This is no longer necessary.

### Actually, it is recommended that you leave the headers to help you more easily identify the information in a later step.

This step remains useful for eliminating a number of memory channels from the import process. For example if your file contains more channels than are allowed by the radio. You could eliminate multiple channels here rather than later in the import process.

Click Next to continue.

### 21.3 Import - Step 2

# Import Step 2 of 4: Identify the delimiters (separators) used in your file.

Import Step 2 of 4	
	racter that separates file being imported. I <sup>™</sup> T(eat consecutive delimiter as one Text Quelifier (None)
Column 1           "147.0200" "0.6000","+",",",","H","127.3","12           "147.0400","0.6000","+",",","H","127.3","12           "147.1000","0.6000","+",",","H","127.3","12           "147.1000","0.6000","+",",","H","127.3","12           "147.1400","0.6000","+",",","H","127.3","12           "147.200","0.6000","+",",","H","127.3","12           "147.200","0.6000","+",",","H","127.3","12           "147.200","0.6000","+",",","H","177.3","17           "147.200","0.6000","+",",",","H","175.3","17           "147.2800","0.6000","+",",",","H","175.3","17           "147.2800","0.6000","+",",",","H","175.3","17	73","Aptch"," The selected 73","MHRwd"," character is the 73","MHRwd"," same as the one 73","Bhtpd"," that appears here 93","PDX
< Back Ne	at > Cancel Help

The data in the file to be imported is separated by tabs, semicolons, commas, space or other non-text characters. Select from the list at the top of the screen or enter the one you used.

Once you select the correct delimiter, the data will properly separate into columns.

Select field d Delimiters			ate the d	ata into			
C Tab	C Serrico	lon @	Comma	T T (eat	consecutive	delimiter as	one
C Space	-		WC LOCK	Text (	Qualifier (No	ne) 🔻	
Column 1	Column 2	Column 3	Column 4	Column	5 Column 6	Column 7	Co
"147.0200"	"0.6000"				"H"	*127.3*	1
"147.0400"	"0.6000"				"H"	"127.3"	-1
"147.1000"	"0.6000"				"H"	"127.3"	<b>71</b>
"147.1200"	"0.6000"	****	8.000		<b>"H</b> "	"127.3"	"t:
"147,1400"	"0.6000"	** <b>+</b> **	*		"H"	127.31	10
"147,2400"	"0.6000"				"H"	"127.3"	1
"147.2800"	"0.6000"	"a"			"H"	"179.9"	11
< .		P					1.5

Examine the data to be sure that it is ready for the Programmer to process. Look at the data in the window. Select the proper Text Qualifier if you have single or double quotes within a data field. With quotes present, the import process will handle all the data incorrectly resulting in a blank file. Once selected, the quotes are removed and the data appears as shown.

	THE ROOM OF C	te quotet	i from th	e data.	
in G	Comma	Treat	consecutive	delimiter as	one
	Zauna	Text Q	ualfier 🔛	Ŧ	
Column 3	Column 4	Column 5	Column 6	Column 7	Colu
+			Н	127.3	127
+			н	127.3	127
+					127
+					127
+					127
+			н	127,3	127
+			н	179.9	179 🖻
					2
	Column 3	Column 3 Column 4 • • • • • •	Non Column 3 Column 4 Column 5 Column 3 Column 4 Column 5 * * * * *	Non Column 4 Column 5 Column 6 Column 3 Column 4 Column 5 Column 6 + H + H + H + H + H + H + H + H	Text Qualifier         Column 7           Column 3         Column 4         Column 5         Column 7           +         H         127.3           +         H         127.3

Click Next to continue.

### 21.4 Import - Step 3

Import Step 3 of 4: Identify the data to the Programmer

The Programmer will make an attempt to identify the information in your file. In this step of the process, you can make corrections to the assignments the Programmer has made and identify other columns that you want imported.

	column he ect the co	iaderto s Iumn nar		ie dropđ	own list.				÷
To skip a column during import set header to "ingore".									
Ingore	Ingore	Incore	Ingore	Incore	Ingore	Ingore	Ingore	Ingore	1.4
147.0200	0.6000	+			н	127.3	127.3	Salem	_
147,0400	0,6000	+			H	127.3	127.3	Aptch	
	0.6000	+			н	127.3	127.3	HdRvr	
147,1000					н	1 2 2 2 2			
147,1000		+			-	127.3	127.3	MtHood	
	0.6000	:			н	127.3	127.3	Brahpr	
147.1200	0.6000								
147.1200 147.1400	0.6000 0.6000 0.6000	+			н	127.3	127.3	Brahpr	2

For the columns to be imported, select the header of the column (the little grey box just above the column) then select the proper identifier from the drop down list at the top of the screen

Select	a colu	mnT	hen se	ect a	header	for t	hat colu	mn	
Click on a	colur <i>i</i> n he	ader to s	elect.			Cal	umn 1		
Then sek	ec, the co	lumn nar	ne from th	he drood	wn list.	_	018		
	Incore								
To skip '2 column during import set header to "ingore". Channel Number								<u></u>	
							ceive Freq		
<u> </u>							insmit Freq		
	Ingore	Ingore	Ingore	Ingore	Ingore		set Freque		-
147.0200	0.6000	+			н	127.3		Salem	_
147.0400	0.6000	+			н	127.3		Atptch	
147.1000	0.6000	+			н	127.3	127.3		
147.1200	0.6000	+			H	127.3	127.3	MtHood	
147.1400	0.6000	+			H	127.3	127,3	Brahor	
147.2400	0.6000	+			H	127.3	127.3	Vnovr	
147,2800	0.6000	+			н	179.9	179.9	PDX	~
3				2.					2
								_	

You need to identify only those columns to be imported.

Click re-	vi se M			lentified	1	~	mn 10		
They se	or she to	-	Igno			1.			
To elsin a		dutin - Im	and as the	eackarte !	· ···				-
TO SKIP a	i solum - e	anne an	pon sec m	eact in	ngoic				
Recei	Offs	Offs	Ton	Ignore	Тх	CTC	Ingore	Name	
147.0200	0.6000	+			H	127.3	127.3	Salem	-
147.0400	0.6000	+			H	127.3	127.3	Atptch	
147,1000	0.6000	+			H	127.3	127.3	HdRyr	
147.1200	0.6000				H	127.3	127.3	MtHood	
	0.6000	+			H	127.3	127.3	Brahpr	
147,1400	0.6000	+			н	127.3	127.3	Vnevr	
147,1400		+			H	179.9	179.9	PDX	
	0.6000								5
147,2400	0.6000								

Click Next to continue.

### 21.5 Import - Step 4

# Import Step 4 of 4: Limit the channels that are imported by the Programmer

Again, you can make adjustments to the data to be imported without having to edit the original file. Select all or any part of the list by checking the box at the left of the screen.

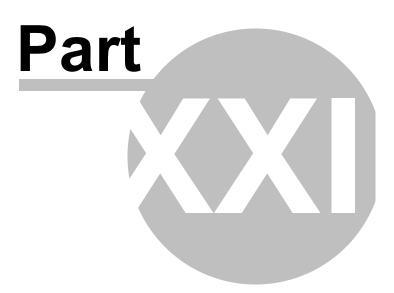
Starting radio me	mory 0		I∕ Öven	wite existing ch	annels		
Available Chan Total Chan Channels Seler	nels: 900	An unche selection imported	is not	Sele Desel			
Receits frequen	cy Offset Fre	quency Offi	set Direction	Tone Mode	Ignore	Tx F	~
147.0200	0.6000	+				н	=
147.0400	0.6000		Those	checked		н	
147.1000	0.6000	-	are im			н	
V 147.1200		+	are in	ponteu		н	
147.1400	0.6000	•				н.,	_
147 2400	0.000					H	Y
s .	<b>r</b> )					2	

Since the data can be imported into an existing file, use the boxes at the top of the screen to place the data in the file where you want it to appear.

• Starting radio memory - Insert the channels into the file somewhere other

than at the beginning (i.e., At the end of a list that has the last channel of 21. Enter 22 in this box to begin with the next memory channel of that file).

- Overwrite existing channels Tells the process to replace data it finds in the existing file or to skip that data and write in the next available channel. For example:
- Unchecked If you import into a file with memories in channel numbers 1-10, 12, 15 and 16 the process would write the imported channels in order to 11, 13, 14, then 17 on to the end of the imported list.
- Checked If you import to a file with memories in channel numbers 1-10, 12, 15 and 16 the process would write the imported channels in order beginning at channel 1 and continue in order to the end of the imported list. The existing channel data of the file would be lost in the process as it is replaced with that of the imported file.
- Finish Click to compete the process. The resulting file in this example would look like this:



### 22 Export

The programmer can export, "convert", the data of a radio programming file to a flat file for use in other programs. This will create the file that you need is someone asks you for a "csv" or Excel file.

You control two parts of export

What is exported from the file

Where the exported file is saved on your hard drive.

#### What is exported from the file

The file created through export contains the data on the screen that is open when the process is begun.

If a radio has Right Memories and Left Memories, it will export the data of the Right Memories when you are viewing that screen when the process is begun and the data from the Left memories if you are viewing that screen.

Each export should be directed to a separate file. If you use the same filename, you will replace the data from the first export with that of the next.

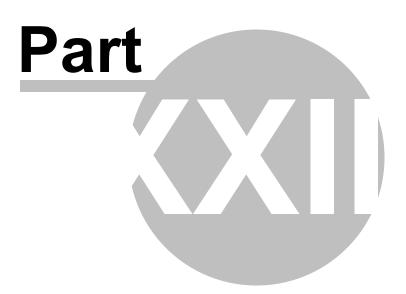
#### Where the exported file is saved on your hard drive

Select the section of the file to be exported.

Click File | Export

A Save dialog box opens. You have complete control of the filename and location of the file on your hard drive in the options in that Save dialog box.

Pay close attention to the filename and directory designation of the resulting file. You want to be able to find it easily later.



### 23 Troubleshooting

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Technical support is available from *RT Systems* at the times and number shown in the *Contacting RT Systems* of this help.

As issues are addressed by Techsupport personnel, the issue and the result are often detailed on the FAQ page of www.rtsystemsinc.com Check there for additional information that might pertain to the exact issue you're seeing with your radio.

Detailed here are several of the more common problems that you may want to check before you contact technical support.

### "The data from the radio will overwrite this file. Continue?"

This message will be raised by the programmer when you select Communications | Get data from radio with a file open that is not a new (default) file into which no entries have been made.

This message is warning you that you will replace any information you have entered with whatever is in the radio. The "whatever" could be all blank channels.

Answer "yes" if you want to lose all the information that appears on the screen. Answer "no" if you don't want to lose several hours of work spent creating the file on the screen. To prevent loss of information, first do File | New to open a new (default) file. Then while looking at that file, do Communications | Get data from radio and complete that process. Your file will drop to the background and be protected from during this part of the process.

Once you complete Communications | Get data from radio, return to your file a) select the tab at the top of the page; or b) select File | Open and open the file from the list presented (if you closed it some time during the process.)

### Program cannot find cable

Communication Error	X
Please check that the RT Systems cable is	securely in the USB Port.
	ОК

This message can appear when you are attempting to get data from the radio or send data to the radio. There can be several causes. The most common are:

The cable is not attached to the computer or you have the wrong programming cable attached. The cable for this radio is pictured in the *Computer to radio cabling* section of this help.

The communications process was accessed too quickly after the cable was attached. It can take some computers a minute or more to recognize the cable properly. Give the computer a little more time and try again.

The problem may lie in the electronics of the cable. If this is the first time you have attempted this process, contact RT Systems for assistance. This can be corrected easily in just a few minutes with the computer and an Internet connection. *Note: This can be corrected using a machine that has an Internet connection that you don't plan to use for the programming software. The software for the radio does not have to be installed to complete the correction.* 

HotSync, the program for the Palm Pilot, is running on this computer. Hotsync immediately takes control of an available comport. Since the RT Systems programming cable establishes a comport, Hotsync takes control before you have a chance to use it. Look for the icon, red and blue arrows chasing each other, in the tray at the right of the task bar. If found, right click and exit. That program will load again when you re-boot your computer. You will need to disable this software any time you program your radio.

### Interference from other cables attached

The Programmer is designed to find the cable to be used by this radio for programming. This process is done through special identifying numbers programmed into the electronics of the USB connector.

The process looks at each USB device attached. Other items attached, especially other programming cables, may cause the programmer to wrongly identify the cable it

must use for a specific radio.

Two different errors can occur in this configuration. Either the programmer will report that the cable is not attached to the USB port or the Communications process will not respond since the data being transferred from the radio (you did press all the right buttons) is traveling along a cable other than that the programmer is connected to.

### Interference from other applications

Your radio is not the only device you attach to your computer for programming or data interchange. I-Pads, I-Pods, Palm Pilots and other PDA devices, printers, cameras and others all install programs for their use. Unfortunately, many of these programs run constantly looking to be used any time a cable is attached.

These programs take control of the cable even if it is not for their device. This renders the cable useless for its intended purpose.

You may not even be aware that these programs are running. You may have sold the device months ago; but unless you took steps to permanently disable the software for it, the problem remains. These programs run start whenever the computer is started or brought back from hibernation then run in the background with little indication that they are there.

Begin checking by hovering over each icon at the lower right of your screen. Those in the taskbar. A name will appear as you pass over each. You may recognize the one that needs to be disabled. Usually an option to Exit or Close will be available from a right click menu. Don't worry about exiting something you might need. The application will begin again when you restart your computer.

After addressing a program, check in the programmer. You should be able to click OK on the Communications | Get Data from screen and have the process continue instead of raising the error message.

Tech support at RT Systems will be glad to help you with this; but we are limited given this is an issue specific to the applications running on your machine. You are welcome to contact us for help with this issue.

### **Defective Cable**

Cables from RT Systems are 100% tested prior to packaging. Even with this level of control, occasionally a cable fails in the field. Contact RT Systems tech support if to determine if the cable is at fault and a replacement is needed.

A replacement can be initiated when you send a copy of your receipt as proof of purchase and the issue has been diagnosed with a tech support representative at RT Systems. In this case, a replacement will be sent immediately with a prepaid label for return of the defective item. The replacement will be sent to the address on the receipt.

If the receipt is not available, return the original cable for replacement. A replacement cable will be sent immediately when the defective item is received at our location.

### **USB Driver Installation**

On some systems running Windows 2000 or early versions of XP, the drivers for the cable will need to be installed manually. This is a normal thing in the USB world and is easily done.

We are *RT Systems* will be happy to help you through this process.

With the USB cable detached from the computer, start the New Hardware Wizard from the indication for the device in the Device Manager.

The drivers have been installed on your machine in the following directory.

C:\Program Files\Common Files\RT SystemsV4\RTDrivers\USBComDrivers\Drivers

Run the New Hardware Wizard twice. The first time use ftdibus.ini in that directory. The second time use ftdiport.ini in that same directory.

Then attach the cable again. Check in Device Manager to be sure it is now listed under Ports (Com and Lpt) with a comport designation assigned.

### **Modified Radio**



This error is raised when you attempt to send a file to a radio that is modified before the programmer is given that information.

If your radio has been modified, you must complete Communications | Get data from radio into a new file before you attempt to write data to the radio. When the Get data from radio process is used, even if the radio is not yet programmed, the Programmer gets the data it needs to know that the radio is modified.

When you use Communications | Get data from for the sake of establishing communications, you need to save the file ONLY if you want to save the memory data that is currently in the radio. The Programmer already has what it needs. The option to save is available should you want to save the pre-programmed data.

### Cabling to properly address the radio

#### The Version 4 RT Systems Programmers work only with the • RT Systems' USB cables OR

• Original RT Systems' serial cable with the <u>RTS-03 USB</u> to

serial adapter.

#### No other USB cable will be recognized by the programmer.

*RT Systems'* programmers address over 50 different radios. Of those, some program through the speaker jack, some through the mic jack, some through the data jack and some through the CAT port. These ports must be addressed by the correct cable for communications to be successful.

Be sure to use the correct cabling to address the radio being programmed. Check the User's Manual for the radio if you are not sure where the port is on the radio that is specified in the programmer. The cables for this particular radio are pictured in the *Radio to Computer Cabling* section of this help.

<u>Specific to the FT-857/D and FT-897D</u>: The cable used for programming is the USB-62 cable with the 8-pin mini din plug. This plug is attached to the CAT jack on the back of the radio. Forcing this connector into the data port will ruin the plug and could damage the radio. There have been cases where the power pin and the PTT were connected (since you never know which pin will go which way when you force them out of place) causing several hundred dollars in damage. Check to be sure you are connecting the cable to the matching jack before forcing the pins into the holes.

At the time of this writing (2009), none of the Yaesu VHF/UHF mobile radios used the USB-62 cable with its 8-pin plug. We have seen this tried. It will not work. The mobile radios that program through the data jack require a 6-pin mini din connection on the

cable. Check the cabling specified in the help for the radio that you're programming to be sure that you're using the right one to address the radio.

### Icom specific issue for Clone mode

Other than the lcom IC-R10, at the time of this writing, lcom radios are NOT put into CLONE mode for programming. CLONE mode is used only when you transfer data from one radio to another.

The process for programming the radio from the computer is simple. When the instructions say to "Turn the radio on", do just that, press the power button to turn it on. If pressing a key is needed as a part of this step, it will be included with the instructions on the Get data from screen.

# Yaesu Radio does not go into Clone mode after initial menu selection

Many Yaesu radios, handheld and mobiles, access Clone mode from a startup menu. When you turn the radio on holding the specified key, you are in that menu with several options of radio functions. Clone is only one of these options.

Once the Clone option is found in that menu, another key on the radio is pressed to activate that mode. You know the options has been activated when the radio cycles off and back on. Only then is it in Clone mode and ready to program.

If the radio does not cycle off and back on when that next button is pressed, one of the following may address the issue:

The keys on the face of the radio are locked. Turn the radio off and back on in normal mode to check for the Lock symbol on the screen. Unlock the keys and try again.

You have pressed the designated key too long or not long enough. Try again until you get the feel for the process.

# Yaesu Radio does not change to Tx or Clone Out when button is pressed

Many Yaesu radios have a key sequence that starts Clone mode without having to select that option from a startup menu: the radio simply comes on in Clone mode.

With CLONE displayed on the face of the radio, a button is pressed to begin communications.

If the radio comes on displaying CLONE; but then is unresponsive when the button is pressed to begin (i.e., the screen does not change from Clone) check these two common causes:

First, be sure you are using the correct cabling for the radio being programmed. If an adapter was included with the kit, use it.

Check that the keys are not locked. To check, turn the radio off. Turn it back on in normal mode and check for the Lock symbol on the screen. Unlock the keys from the face of the radio and try again.

### Windows Version Compatibility

The Version 4 Programmer is designed to work with Windows XP, VISTA (32 or 64 bit) or Windows 7 (32 or 64 bit).

*RT Systems* no longer supports use of the programmers on Windows 98, Windows 98SE, Windows 2000, or Windows ME.

Note: If you plan to use an older computer for programming your radio, you may experience problems with the program resulting from files that are missing from the operating system. These files would have been delivered through normal Windows updates to the operating system.

If the machine has been out of service for several years, set it up with an Internet connection and Automatic Updates activated. Let it sit for several days while it finds what it needs.

Once the updates are installed, you will have no other problems related to the operating system relative to the programmer.

### NACK/ACK Error

RTIOv4	×
Communication error. Invalid character 'FFFFFFFF' should Try again.	have been NACK/ACK.
	ОК

As ugly as this error appears. it actually is only a generic message saying the Communication process failed. Try again after reading the hints here.

Do NOT turn the radio off. It may display Error. It is not terrible unhappy and is still in Clone Mode.

Cancel all Communications screens that are open in the programmer.

Open a new file (File | Open form the menu at the top of the screen).

Select Communications | Get data from radio. Doing Get Data from often gets the process going.

Skip the steps for putting the radio into Clone mode. It is already there.

Click OK

Press the key as instructed to begin the process (sometimes you need to press it twice... once to return to Clone mode... then again to begin the process.)

Once Get data from is successful, attempt Send data to. In this scenario, you can skip the steps to put the radio into Clone mode since it usually remains in Clone mode after Get data from is completed.

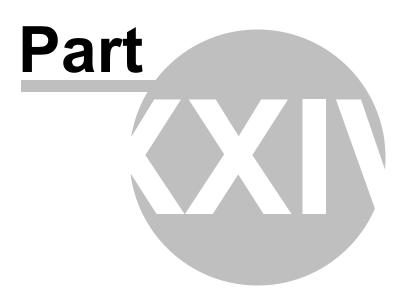
### 23.1 Get Data from Radio Required

The first time you attempt to send your file to the radio, this message may appear.



This indicates that you have not read the configuration of the radio into the programmer.

There are details that the programmer can get only from the radio. Even if the radio is not yet programmed, these "background" details are necessary for the programmer to send a file to your radio successfully.



### 24 Invalid Frequencies

This information is meant to address radio operators in the US. While many of these details are true in other countries, some are not. Band plans, allowable frequencies, and other details differ around the world; but many of the functions of the radio remain the same making this information useful to everyone.

This section is offered to help users understand why a frequency is rejected by an amateur radio. The Programmer will not allow you to enter a frequency that your particular radio cannot use.

Your radio is designed to work on all frequencies in the amateur bands. Problems arise when frequencies from commercial operations are used on this amateur equipment. This explanation is offered to help you understand where the radios differ.

### **How Radios Work**

A little here about how radios work. As for an allowable frequency, three factors are important: Reference Frequency, Reference Step and Step.

Reference Frequency - Based on its internal electronics, the radio uses a value based off the frequency you enter along with the Reference Frequency Oscillator to generate the desired frequency.

Reference Step - The difference between any two Reference Frequencies. This value is set as a part of the internal workings of the radio. It cannot be changed.

Step - The difference between two frequencies displayed on the face of the radio when the tuning knob is turned while operating in VFO mode.

Reference step and Step work in conjunction with each other allowing or prohibiting you from tuning to a given frequency.

Commercial radios have a Reference Step of 2.5 kHz.

Amateur radios are generally designed with Reference Steps of 5, 6.25, 12.5, 9 (only AM) and 8.333333 (air band only) kHz. While a few models have all these Reference Steps, many more remain with only Reference Steps of 5 and 12.5 kHz. These two are sufficient for accessing any repeater in the Amateur Bands.

While in the mathematics of things there will be frequencies in the commercial bands that match the available Reference Steps of Amateur radios, the Step of the Amateur radio will not allow you to tune to the desired frequency.

It takes both working together to achieve a valid frequency.

### Testing the validity of a frequency

The question of validity is seen with frequencies with four digits following the decimal (i.e., 154.03125 may be your local volunteer fire department frequency and while their commercial radios can do this frequency, your amateur radio cannot... and it cannot be made to do it with any software.)

Let's take 154.03125 and put it to the test.

Step 1:

The first and easiest test for the validity of a frequency is to attempt to dial to that frequency in VFO mode on the face of the radio. Remember in your attempts that it may be necessary to adjust the Step (see your Operator's Manual for details) to get to a certain frequency.

Turn on your radio.

Access VFO mode

Turn the tuning knob.

With the frequency changing by 5kHz steps, the frequency changes from 154.030 to 154.035 to 154.040 (oops... lost the 3 in the second position... let's try something else).

Change Step to 12.5 kHz (see Operator's Manual for your radio. This is generally done in the Set menu; however a shortcut key on the face of the radio may give you easier access to this menu item.)

With the frequency changing by 12.5kHz steps, the frequency changes from 154.025, to 154.0375 (hey, at least I have the fourth digit now), to 154.050... oops, missed the 154.03125 completely. Again, can't get there tuning on the face of the radio.

Try other Step values until you're satisfied that the radio just cannot be made to do that frequency.

Step 2:

Compare your frequency to this list. If you find it here, it will work. Note: "x' represents any number.

- 1. xxx.xx500 Generally only 5 or 0 allowed in the third position with all 0s after that. A few exceptions are shown below.
- 2. xxx.x12500 Allowable for four digits after the decimal. The first digit after the decimal can be any from 0 to 9.
- 3. xxx.x375 Allowable for four digits after the decimal. The first digit after the decimal can be any from 0 to 9.
- 4. xxx.x625 Allowable for four digits after the decimal. The first digit after the decimal can be any from 0 to 9.
- 5. xxx.x875 Allowable for four digits after the decimal. The first digit after the decimal can be any from 0 to 9.

Comparing 154.03125:

There is a 1 in the third position after the decimal. By Rule 1, this is not allowed for an amateur radio.

The frequency does not fit into any of the others that allow 4 digits after the decimal.

Step 3: Do the math.

Allowable frequencies (in Hz) must be evenly divisible by 5000 or 12500 or 6250 Hz.

Convert your frequency to Hz:

 $154.03125 \times 1,000,000 = 154031250$ 

Divide that number by 5000

154031250 / 5000 = 30806.25

154031250 / 12500 = 12322.5

154031250 / 6250 = 24645

The 6250 Hz division was successful. There is a possibility that this frequency can be used by an amateur radio.

As discussed earlier, both the Reference Step and the Step of the radio are used to determine a valid frequency. Models vary. While this frequency passed

the validity test for certain amateur radios, that in no way implies that it will work on your particular radio.

For this particular frequency to work in your particular radio, it is necessary that the radio have a 6.25 kHz step available in the Step option of the Set menu.



### 25 Hardware Error Troubleshooting

"Well of course the information in the radio and the file do not match. I just made changes to the file and I want the different information in the radio!!"

This is a common first reaction to this error. However, that is not the file information involved in this error. There are several causes for this error. They include incorrect key strokes on the radio, interference on the computer by another application or device, a faulty cable or the presence of a radio that has been modified for out of band use.

Communication Error	×
The information in the radio Click OK for more informat Click Cancel to cancel and t	
	OK Cancel

Below are various steps offered as corrections. At the end of each section try again to transfer data to the radio again.

### **Try this First**

The error most likely indicates that "behind the scenes" information about the radio does not match that of a factory radio. This is most common when a radio has been modified for our of band transmission.

- 1. Create a new file (press Ctrl M on the keyboard or select File | New from the menu at the top of the screen). This protects the file that you are trying to send to the radio.
- 2. Select Communications | Get data from Radio from the menu at the top of the screen.
- When this is completed successfully, return to your file (click to tab at the top of the screen that displays the filename or select File | Open to reopen your file.)

4. Select Communications | Send data to Radio. Be careful to follow these steps shown on this screen. Generally, they are different from the Get Data from radio steps.

### Radio Issues

#### "Error" is displayed on the radio.

"Behind the scenes" information about the radio does not match that of a factory radio. This is most common when a radio has been modified.

- 1. Create a new file (Ctrl M or File|New)
- 2. Execute Communications | Get data from Radio. This is the only way this "behind the scenes" information can be obtained for your radio.
- 3. When this is completed successfully, return to your file.
- 4. Execute Communications | Send data to Radio begin careful to follow these steps since they are different from the Get Data from radio steps.

# The radio does not change when "OK" clicked on the screen in the programmer (never indicates receive).

There is no communication between the radio and the computer. Check through the Cable issues to be sure you are using the right cable and that it is connected properly to the radio and to the computer.

#### The radio never goes to CLONE.

On many radios you hold buttons during power on to access a startup menu. Once you select the clone option of the menu (the radio is *NOT YET IN CLONE MODE*). You press a key to accept the CLONE option. When you press the button to access the startup menu option, the radio does not change.

- The keys on the radio may be locked. Turn the radio off then back on in normal mode to check for a lock symbol on the screen. If the keys are locked, unlock them. Once unlocked, power off the radio and begin the Communications process again.
- 2. The key specified is "touchy" and responds if it is touched just the right way.

This has been the case on several of the mobile radios. Try again with a shorter or longer touch on the button. When you get that touch just right, the radio will respond.

3. The wrong cable is being used. This is true for several of the hand held radios that use the 4-pin plug. If you attempt this process with a stereo plug, the radio will not respond when you attempt the cloning process.

### The radio never went into send (TX) mode (Get data from radio process).

Now that the radio is in Clone mode, one more button press is required to start the data transfer (Get data from) or to make the radio ready to receive the data (Send data to).

- 1. The wrong cable is being used. This is true for several of the hand held radios that use the 4-pin plug. If you attempt this process with a stereo plug, the radio will not respond when you attempt to access the Clone option of the startup menu.
- 2. The keys on the radio are locked. Turn the radio off then back on in normal mode to check for a lock symbol on the screen. Once the keys have been unlocked, power off the radio and begin the Communications process again

### Radio is not on at the time of data transfer.

This can get the process "out of sync". Cancel the Communications screen on the computer. Then access that screen again and start over with turning the radio on in Clone mode. Be sure the battery is charged on your handheld radio or that you are connected to external power to prevent an unexpected shutdown during this process.

### General Issue

### Followed the Steps Incorrectly or executed the wrong process.

Get data from the radio:

- 1. Go to "Communications" in the top menu.
- 2. Click "Get Data from Radio".
- 3. Read and follow each step. (Remember, the keystrokes are different for each

radio. They are detailed for a particular radio on the Get Data from radio screen. The trick is to follow each step... one at a time.)

Send data to the radio:

- 1. Go to "Communications" in the top menu.
- 2. Click "Send Data to Radio".
- 3. Read and follow each step. (Remember, the keystrokes are different for each radio. They are even different for this process than they were for the Get Data from Radio process. They are detailed for a particular radio on the Get send data to radio screen. The trick is to follow each step... one at a time.)

### Cable Issues

#### Check that you are using the correct cable for this radio.

Many radios have jacks that will accommodate the programming cable from a different radio. Although the cable fits in the jack, the radio does not accept programming through the wrong jack.

You can see the cables for each radio by clicking on Programming Cable Chart

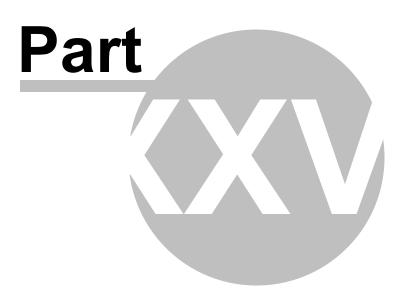
#### Check that the cable is securely in the USB Port.

Be sure it has not pulled loose (this is easy to do with a USB). Also, the cable should be plugged into a USB port on the computer rather than on a USB hub.

#### Check that the cable is plugged into the radio securely.

On cables with 6- or 8-pin round din plugs, you may want to check that the pins are not bent in such a way that they are making a bad connection. Unplug the cable from the radio and check by looking at the pins in the plug.

On cables with 4, 6, or 8 pin modular plugs that address the mic jack, push the cable toward the connector to be sure the modular plug is plugged into the mic jack completely. There can be a good bit of play between the mic jack and the plug. Hold the cable securely until the process is complete.



### 26 Contact Us

### *RT Systems, Inc.* 510 Compton Street, Suite 105 Broomfield, CO 80020

Technical support	303-586-6510
Fax	770-216-1836
Technical Support Hours	Monday through Friday 10:30AM until 6:00 PM (Eastern Time) 9:30AM until 5:00 PM (Central Time) 8:30AM until 4:00 PM (Mountain Time) 7:30AM until 3:00 PM (Pacific Time) Other times by appointment. Call or e-mail to make arrangements.
Web Page	www.rtsystemsinc.com Program updates Answers to frequently asked questions can be reviewed under FAQs on our site.
E-mail	techsupport@rtsystemsinc.com Should you choose to send a message via e-mail, be sure to include at the very least the following details: • The radio with which you use the Programmer • The version number of the Programming software

(found in the Programmer under Help | About)

Based on the information given, we will respond as quickly as possible.

Be sure that rtsystemsinc.com is set as an acceptable address for your e-mail program. Or watch for your response in your spam or junk mail folder.

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