IC-7300/7610 WINLINK SET-UP

Introduction

The IC-7300 (and IC-7610) has a quality internal soundcard and is an excellent rig for both Winlink communications and other soundcard modes. One very useful feature is that the CAT, soundcard audio, and keying functions can all be passed via a single USB cable between the radio and the computer, greatly simplifying the overall radio control, logging and operating program integration.

Preliminaries

I assume that most 7300/7610 operators already have the radiosport apps installed on your computer and functioning properly with the 7300. I'm not the expert there. The only real prerequisites to exploiting the Winlink email app is to install Winlink Express and the current IC-7300 driver if you don't already have it installed with your FT-4/FT-8 installation. Setting aside all the EMCOM orientated form templates embedded in Winlink Express, the basic email procedure is pretty intuitive. At this point simply use a TELNET Session to connect to the Central Message Server (CMS) and exchange a couple of emails between your Winlink callsign account and your "real world" email account to verify that Express is working properly. Express has an excellent on-line help file associated to guide you through the set-up process. Email me if you run into an issue.

I recommend strongly that you download a copy of the Full Manual for the 7300. It is far more detailed than the basic user manual supplied with the radio. The following are my current IC-7300 settings.

Enter: Menu, SET and Function:		
• RF/SQL Control	• Set to 11 o'clock	This is the max RF Gain point
• Time-out Timer (CI-V)	• 5min	Pg 12-5
SPLIT		
• Quick SPLIT	• ON	
• FM SPLIT Offset (HF)	• -0.100 MHz	
• FM SPLIT Offset 50M	• -0.500 MHz	
• SPLIT LOCK	• OFF	
Tuner		
• [TUNER] Switch	• Auto	Objective is to force tuning as Winlink changes frequency. Pg 12-5
• PTT Start	• ON	
RTTY Mark Freq	• 2125	
• RTTY Shift Width	• 170	
• RTTY Keying Polarity	• Normal	
• SPEACH		No changes to FUNCTION sub menus
Enter Menu, SET and **Connectors**:		

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• ACC/USB Output Select	• AF	
• ACC/USB AF Output Level	• 41%	Winlink documentation refers to setting drive levels to achieve little or no ALC. ICOM suggests a 1/3 ALC scale reading. I'm still experimenting but currently have my 7300 set at 41%.
• ACC/USB AF Sql	• Off (Open)	
• ACC/USB AF Beep/Speech o/p	• Off	
• ACC/USB IF Output Level	• 50%	
• USB MOD Level	• 33%	
• DATA OFF MOD	• MIC, ACC	
• DATA (on) MOD(e)	• USB	Assigns the data o/p to the USB connector
• External Keypad	• Voice – Off • Keyer – Off • RTTY - Off	
CI-V		
• CI-V Output (for ANT)	• Off	
• CI-V USB Port	• Unlink from [REMOTE]	This setting assigns Winlink keying to the USB cable, leaving the CI-V port available for keying via another application.
• CI-V USB Baud Rate	• 115200	Dragon (Pactor) modems and VARA HF TNC's work most efficiently when there are three or four packets loaded into the TNC buffer. Set Data Rate as high as possible.
• CI-V USB Echo Back	• ON	
USB		
• USB Serial Function	CI-V	
USB SEND/Keying	•	
• USB SEND	• OFF	
• USB Keying (CW)	• OFF	
• USB Keying (RTTY)	• OFF	
• Inhibit Timer at USB Connection	• ON	

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If you find different settings that make your set-up more effective PLEASE send an email to
va3qt@winlink.org"

ICOM IC-7610

The following 7610 settings are taken from guidance provided by Ken W0KAH. He is operating a Winlink Express client station vice an RMS Trimode. I'm not familiar with the 7610 but my interpretation is that Ken is using Pactor as his primary Winlink mode through Accessory Port 1, and the soundcard modes through ACC 2. 7610 operators may well have a different approach.

On the 7610, Menu, Set, Connectors:
DATA1 MOD ACC, ACC MOD Level 50% for Pactor
DATA2 MOD USB, USB MOD Level 75% for other modes, may need to adjust for mode in use to keep no ALC.

Starting a Pactor Winlink session, Express insists on setting the radio to the narrowest bandwidth every time a freq is changed, thus requiring manual intervention. Express also defaults to D1 (DATA1), so to use   DATA2, you must press the Mode Icon and then DATA (long press) to cycle USB-D1, USB-D2, USB-D3 to get whichever you want.

I hope Trimode behaves better, otherwise automated operation seems impossible.

ARDOP TNC Setup:

4-USB is the 7610 USB Audio on DATA2.

Radio setup:

ARDOP Session window, Settings, Transmit Level Test, watch ALC, if there is ALC indicated, on radio - Menu, Set, Connectors, USB MOD Level 11% for no ALC on my radio.
Even with the above settings, trying to connect to an ARDOP station results in Express forcing the rig to USB-D1 at Narrowest Filter. Switching back to USB-D2 manually is cancelled when trying to connect again, so no joy.

VARA setup:
Note I have a VARA FM session running on my UHF Gateway along with Soundmodem. That said I'm using ports 8302 & 8303 instead of the defaults because the FM modem is using those.

Radio setup:
Radio - Menu, set, Connectors, USB AF/IF Output, AF Output Level 75% for 3/4 scale on
TNC VU Meter, gives 22 or more on S/N Meter during connect.

73

Ian VA3QT

Sysop RMS (Trimode) VA3QT