RIGblaster DXpro

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Introduction

We understand you have a choice when buying Amateur Radio products and we would like to take a moment to thank you for choosing West Mountain Radio. The RIGblaster DXpro is the culmination of decades of experience designing Amateur Radio computer interfaces. Great effort has gone into the design to ensure you have the most up-to-date and capable interface you have ever owned.

The DXpro's advanced features give you the flexibility to operate your ham radio station in ways which were previously impossible with a traditional interface. There are many aspects to configuring and operating the DXpro, so please take time to read this manual which will help you understand the full range of capabilities. Especially read section on installation before hooking up your transceiver or computer.

Overview of DXpro Features

Audio

The DXpro has two internal sound cards named "DXpro Main/Sub/TX" and "DXpro Mic/Sub". These can be used in a number of ways depending on the front panel switches.

Reception of dual channel audio from a transceiver with Main/Sub receivers is possible: Main Receiver audio will be on the left stereo channel and Sub Receiver audio will be on the right stereo channel. These signals will appear on the "DXpro Main/Sub/TX" sound card recording channel.

Reception of dual channel audio on both sound cards: Main Receiver audio will be on both channels of "DXpro Main/Sub/TX" and Sub Receiver audio will be on "DXpro Mic/Sub".

The transceiver's microphone audio can be intercepted by "DXpro Mic/Sub" for recording voice keying files.

The "DXpro Main/Sub/TX" sound card is also used for transmission (playback channel). There is no playback channel associated with the "DXpro Mic/Sub" sound card.

Virtual Serial Ports

The DXpro provides two virtual serial ports to the host computer.

DXpro CAT/CI-V is a dedicated serial port for rig control. All serial signals are available for use and externalized on the CAT (RS232) DB9 connector and CAT (TTL) connector. Optionally the TTL output can be inverted if necessary.

DXpro Control is used for PTT (RTS), CW/FSK keying (DTR), various input signals, and for programming the DXpro.

Footswitch / Keypad Port

This RCA phono jack can be used for a conventional footswitch or analog keypad. You can program this jack so that multiple taps on a footswitch (up to three) will trigger serial input signals on the DXpro Control Port. These can be monitored by suitable software and an action performed such as playing back a voice keying wave file.

Optionally a four button analog keypad can be attached to trigger the serial input signals. A readymade analog keypad product is available from West Mountain Radio.

Sequencer Support

The DXpro has two ports for sequencer interfacing. The SEQ-TRIG port is an output and can be used to start a sequencer's timing loop.

The SEQ-END port is an input and would be connected to the output of a sequencer to signal to the DXpro that transmit is now safe.

During this time PTT/CW/FSK is suppressed on the DXpro. Logic levels for the sequencer ports can be programmed either active high or active low.

Squelch (COS) Support

There is a dedicated squelch input which can be used for advanced applications such as EchoLink or for repeater announcements.

Optional ClearSpeech® Module

Internally, a header is provided to install a CLRmod DSP audio processor. This can be used in a similar way to our CLRspkr and CLRdsp products. A good use for this would be to reduce received HF noise when operating remotely using the DXpro. The CLRmod DSP filter level, tone, & volume controls can be changed via software

RTTY FSK & CW Keying

The DXpro has outputs for real CW keying and FSK RTTY. In addition there is a "right-channel audio to FSK" circuit which allows some digital mode software (such as FLdigi) to produce true FSK.

In a similar fashion, true keyed CW can be output from audio based Morse Code software.

12v Output

A switchable +12v DC output is provided which can be used (remotely if needed) to turn a small station accessory on or off.

USB Pass-through Port

For your convenience we've added a USB type-A jack on the DXpro which can be used just like a normal computer USB port.

Requirements

Although the DXpro appears to successfully work on Windows XP we would recommend that for best results to use Windows 10 on a recent computer with at least 4GB RAM. The DXpro also works on Linux and Mac-OS.

Contents

- RIGblaster DXpro
- Microphone Cable – works with any 8 pin microphone jack (Foster round-metal or 'RJ-45'). Radios with a 4 pin or 6 pin microphone jack will require a different cable
- 2 - 12VDC Powerpole Cable
- Instant Setup Connectors (ISCs)
- 1/8" audio cable, 6 ft
- USB type A to type B Cable
- Wire jumpers and shunt jumpers
- DVD of RIGblaster Soundcard Collection

Installation

Windows, Mac OS, Linux

Before connecting your DXpro to the PC, download and run the latest driver installation software and firmware updates from the website: www.westmountainradio.com . In the gray menu bar, click Support>Downloads

Firmware Updating

From time to time there may be newer firmware for the DXpro. Current firmware versions and instructions on performing the update can be found at the link above.

Selecting the ISC

Before you can hook up your transceiver you will need to install jumpers or one of the ready-made jumper blocks (ISCs) provided with the DXpro. This will configure the DXpro to use the same microphone pinout as your transceiver and microphone.

The ISCs supplied cover many types of transceivers but you may use the discrete white wire and blue shunt jumpers if your transceiver does not fall in this category. Refer to the chart below for some common transceivers and appropriate ISC.

For a more exhaustive list we have a web resource which can be accessed here:
http://www.westmountainradio.com/isc-finder.php

ISCs supplied with the RIGblaster DXPro

A) YAESU ROUND METAL
B) YAESU 8-PIN ROUND METAL - ISOLATED
C) YAESU RJ45 MODULAR
D) KENWOOD ROUND METAL

E) KENWOOD RJ45 MODULAR
F) ICOM ROUND METAL
G) ICOM RJ45 MODULAR

| Radio Model	ISC
Yaesu FT-817 / FT-818/ FT-857 / FT-450 / FT-897/ FT-891/ FT-991	C
Yaesu FT-847 / FT-950 / FT-990 / FT-1000 / FT-DX1200 / FT-DX3000 / FT-DX5000 / FT-DX9000 / FT-DX101	B
Yaesu FT-736 / FT-747 / FT-757 / FT-767 / FT-840	A
Kenwood TS-440 / TS-450 / TS-570 / TS-590 / TS-850 / TS-870 / TS-950 / TS-990 / TS-2000	D
Kenwood TS-480 / TM-V71A	E
Icom IC-718 / IC-746 / IC-756 / IC-765 / IC-820 / IC-910 / IC-7200 / IC-7300 / IC-7400 / IC-7410 / IC-7600 / IC-7610 / IC-7700 / IC-7800 / IC-9100 / IC-9700	F
Icom IC-703 / IC-706 / IC-7000 / IC-7100	G
Elecraft K2 / K3 / K3S / K4	D
FLEX 1500	C
FLEX 3000 / 5000 / 6000 / 6500	B
Alinco DX-SR8	D
Hilberling PT-8000A	D

Installing the ISC

The DXpro is shipped without the metal top cover screwed on to facilitate first-time installation of the ISC.

Locate the ISC header on the circuit board. It is 2 rows of 14 pins designated P1. The orientation is pin 1 on the left-hand side if the unit's front panel controls are facing you.

Place the correct ISC for your transceiver over the pins and push firmly down. All pins should be covered by the black plastic header block. Be careful not to miss a row or column of pins.

Refer to the image if necessary.

Once the ISC has been installed you may carefully attach the metal top cover and the sheet metal case screws can be inserted. As these screws will cut the thread in the screw holes, a little force may be needed the first time you do this.
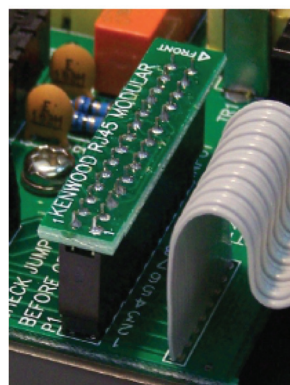
Cabling

Basic Hook-up Instructions

Transceivers with an 8 pin round metal mic jack:

1. Take the microphone cable supplied with the DXpro and screw it to the microphone jack on your transceiver.
2. The other end of the microphone cable is an RJ-45 style modular connector. This plugs into the rear microphone jack (MIC) on the DXpro.
3. Use the supplied stereo audio cable (3.5mm to 3.5mm) from the external speaker jack on your transceiver to the LINE IN jack on the rear panel of the DXpro.
4. Connect your transceiver's microphone to the front panel microphone jack on the DXpro.

Transceivers with an RJ-45 modular style mic jack:

1. Take the microphone cable supplied with the DXpro and screw it to the front of the DXpro.
2. The other end of the microphone is an RJ-45 style modular connector. This plugs into the microphone jack on your transceiver.
3. Use the supplied stereo audio cable (3.5mm to 3.5mm) from the external speaker jack on your transceiver to the LINE IN jack on the rear panel of the DXpro.
4. Connect your transceiver's microphone to the rear panel microphone jack (MIC) on the DXpro.

Powering the DXpro

The DXpro has two different methods for power. A USB connection to the PC is recommended, but if you prefer you can also use the supplied 12VDC Powerpole® cable. Powering the DXpro from 12VDC means you can operate an attached microphone without the need for the computer to be turned on. If planning to use the switched 12VDC output, then the 12VDC Powerpole® cable must be plugged in and connected to a suitable DC power supply.

Optional Cables

If you purchased any optional cables with your DXpro these can now be connected.

CAT cable: This will connect to either the CAT (RS232) or CAT (TTL) jacks on the rear panel of the DXpro and the appropriate CAT jack on your transceiver. Depending on your transceiver model this could be either an RS232, 3.5mm, or DIN connector.

Top device (front panel) labels:

- PTT LED - Illuminate in transmit mode
- KEY LED - blinks while keyed transmit mode
- USB LED - flash when DXpro Main/Sub/TX soundcard in use
- TX 3-position switch
- SW2 AUD
- SW1 AUD
- VOX Delay
- RX Level
- TX Level
- SQ LED
- SEQ-E LED
- SEQ-S LED
- Footswitch LED (V-STA)
- Microphone input for 8 pin round mic (Mic output with RJ45 connector radio)

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Bottom device (rear panel) labels:

- SEQ END - expects time-completed signal from sequencer
- MIC - for RJ-45 type microphone
- SEQ TRIG - provides trigger signal to sequencer
- FOOT SW - optional for foot switch or 4 key keypad
- LINE IN
- SPKR OUT
- SQ - optional to connect rig SQUELCH outptut
- Audio OUT
- CW Out
- CAT (TTL) - TTL Level CAT control
- FSK OUT - provides FSK RTTY signal
- CAT (RS232) - CAT control with RS-232
- PC USB - type B DXpro to PC
- EXT USB - type A as a pass-through
- 12VDC IN
- 12VDC OUT

Fixed-level RX audio cable: This will take the place of the supplied stereo audio cable (steps 3 above) and will usually connect from a transceiver's accessory jack to LINE IN on the rear panel of the DXpro.

Fixed-level RX audio & RTTY FSK: This will take the place of the supplied stereo audio cable (steps 3 above) and will connect from a transceiver's accessory jack to LINE IN and FSK OUT on the rear panel of the DXpro. N.B. The FSK part of the cable will be labeled 'FSK' or have a yellow band.

CW cable: Connect the 3.5mm plug to the CW OUT jack on the rear panel of the DXpro and use the 6.35mm (1/4") adapter if necessary to connect to the straight-key jack of your transceiver.

A complete list of optional cables available for your transceiver can be found on our web site at: http://www.westmountainradio.com/cableFinder.php

Operation

Controls & Indicators

Refer to the DXpro diagram on the previous page.

Front Panel (from left to right)

Microphone jack: Used for your transceiver's microphone, or to connect the microphone cable to if using an RJ-45 style transceiver.

Footswitch LED (V-STA): This multi-color LED will illuminate when a footswitch is used with the DXpro. If using multiple footswitch taps, or a keypad style footswitch the LED will change color depending on the number of taps or button pressed. By default the DXpro is configured for press and hold only.

SEQ-S LED: This LED will illuminate if the DXpro is configured to use a sequencer. It indicates that the SEQ-START signal is present on the rear panel SEQ-START jack.

SEQ-E LED: This LED will illuminate when a returning signal from the sequencer is detected. Until this occurs transmit outputs are inhibited.

SQ LED: This LED will illuminate when a squelch signal (COS) from the transceiver is present at the SQ jack on the rear panel. This signal is tied to serial DSR on the Control COM port and can be used with EchoLink in Sysop mode.

TX LEVEL: This control attenuates the output transmit signal. It will not attenuate microphone audio when using an attached microphone. Use this control to regulate your transceiver's output power when transmitting digital audio

RX LEVEL: This control attenuates the input receive signal. Use this control to "lighten" or "darken" your software's waterfall.

VOX Delay: When the DXpro is configured for "VOX" operation it controls the amount of time before the transceiver switches back to receive.

For many digital signals the control can be fully counter-clockwise (shortest delay time) but should relay chatter be heard, e.g. on Hellschreiber, increasing the control clockwise will prevent this.

The rule is to use as little VOX delay as possible to ensure you have a good TX/RX turn-around time. This is important for ARQ modes such as ARDOP, VARA, WinMOR, & Packet Radio.

SW1 AUD (mic/sub) two position switch. When the switch is in the mic (up) position then audio from an attached microphone is diverted to the "DXpro Mic/Sub" sound card recording channel (mono).

When the switch is in the sub position (down) then audio from a sub receiver output (if connected) will be present on the "DXpro Mic/Sub" sound card recording channel.

SW2 AUD (sub/main / main) two position switch. When the switch is in the sub/main (up) position and a transceiver with Main/Sub Receive audio is connected, Main Receive audio will be present on the left recording channel, and Sub Receiver audio present on the right recording channel on the "DXpro Main/Sub/TX" sound card.

When the switch is in the main (down) position then Main Receiver audio will be present on both the left and right recording channels. This is the position to use when connected to a transceiver which only has a single receiver.

TX three position switch: This switch decides which method of PTT (transmit) to use; RTS, OFF, or VOX.

When the switch is in the com (up) position then the DXpro will trigger the transceiver when the RTS serial signal is activated by your digital mode, or voice keying software.

When the switch is in the off (middle) position then the DXpro will not permit transmission (TX inhibit).

When the switch is in the down (vox) position then the DXpro will put the transceiver into transmit when it detects audio of a sufficient volume to trigger its internal VOX detector.

PTT LED: This LED will illuminate when the DXpro is in transmit mode.

KEY LED: This LED will blink when the DXpro is doing a keyed transmit mode such as CW or FSK RTTY. It will illuminate when the TX switch is in the VOX position and audio is detected.

USB LED: This LED will flash when the "DXpro Main/Sub/TX" sound card is in use by a program. If this sound card has been selected in Windows as the default sound card it will constantly flash. It does not indicate an error condition. Recommend not setting the "DXpro Main/Sub/TX" sound card the default sound card in Windows.

Rear Panel (viewed from left to right)

12VDC IN: Use this jack to optionally power the DXpro. If not used, then the DXpro will be powered from the PC via the USB connection.

12VDC OUT: This jack is a software switchable 12VDC output (up to 250mA). If you plan to use this output then the 12VDC PowerPole® cable must be plugged in and connected to a suitable DC power supply.

EXT USB: A convenient pass-through USB type A port. You may use this USB port in the same way as a PC USB port.

PC USB: A type B USB port which must be connected to your computer for the DXpro to function.

CAT (RS232): Use this port for transceivers with RS232 level CAT. A regular straight-through 9pin serial cable is used for most transceivers except some older models such as the Yaesu FT-847 which requires null-modem wiring.

CAT (TTL): Use this port for transceivers with TTL level CAT such as Icom CI-V, Yaesu TTL (e.g. FT-817/857/897), and various older Kenwood transceivers. The polarity of the TTL signal may be inverted by the DXpro configuration software to suit these older Kenwood models.

FSK OUT: Use this jack to provide an FSK RTTY signal to your transceiver's FSK SHIFT input. Wired Tip=FSK, Sleeve=GND. Operating FSK RTTY also requires a PTT signal and this will normally be supplied via the microphone cable. Configure RTTY software to use serial DTR for FSK keying and serial RTS for PTT.

CW OUT: Connect this jack to your transceiver's straight-key CW input jack using our optional CW cable kit or your own cable. Wired Tip=CW, Sleeve=GND. Operating keyed Morse Code does not normally require a PTT signal so configure Morse Code software to use serial DTR for keying and suppress the RTS signal (or temporarily disconnect the microphone cable). Ensure your transceiver's 'break-in' is turned on.

AUDIO OUT: Direct connection to the playback channel of "DXpro Main/Sub/TX". Use this jack with mini-headphones or a powered computer speaker for monitoring transmitted signals (if required).

SPKR OUT: This jack is in parallel with LINE IN. It can be used for an external speaker if driving LINE IN from the transceiver's speaker jack. If you are using

a fixed-level audio cable to drive LINE IN leave it disconnected.

LINE IN: Receive audio from your transceiver should be connected here. You can use the supplied stereo audio cable to hook up from the transceiver's external speaker connection or an optional fixed-level audio cable from an accessory jack. The jack is 3 pole so use of a stereo cable is recommended even with a transceiver with a mono output jack. This prevents the ring being grounded.

SQ: Optionally connect your transceiver's SQUELCH output here.

FOOT SW: This port may be used for a traditional foot switch or a 4 key keypad.

SEQ TRIG: This port provides a trigger signal to an attached sequencer. Transmit is inhibited on the DXpro until a signal is detected on the SEQ END port.

SEQ END: This port expects the time-completed signal from the sequencer.

MIC: This jack will be used either for an RJ-45 type microphone or connection to your transceiver's 8-pin metal round microphone jack depending on which type of transceiver is being used.

Verifying The DXpro Installation

The DXpro, when connected to the computer, will provide two virtual COM ports and two sound cards. Open up Windows Device Manager to verify you can see the COM ports and the audio devices.
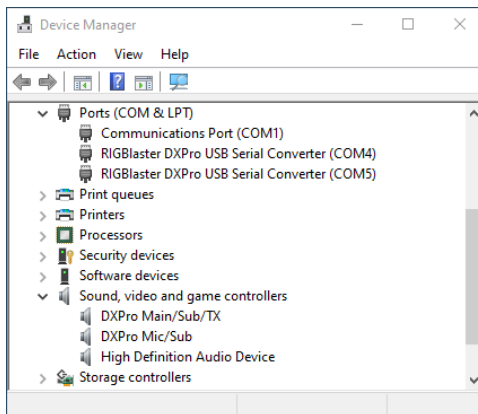
If you followed the earlier instruction to install the West Mountain Radio Device Diagnostic software you will have a notification area icon (red antenna) like this:
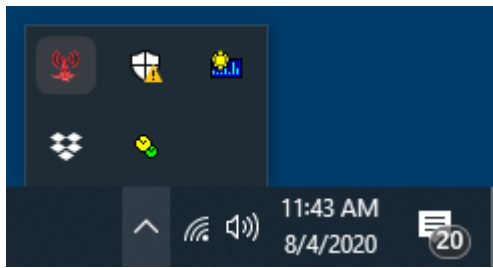
Click the left mouse button on the icon and the WMR Device Diagnostic window will appear:

In the example above, the DXpro CAT/CI-V port has been assigned COM4, and the DXpro Control port COM5.

Your particular COM port numbers may be different and this does not indicate error.

The COM port number associated with the CAT/CI-V port will be used in your software for CAT control. The COM port number associated with the Control port will be used in your software for PTT and optionally CW/FSK control.

Configuring the DXpro

Setting the Windows Volume Levels

Before using the DXpro, Windows volume settings should be checked and adjusted if necessary.

Remember there are two sound cards in the DXpro and each should be adjusted.

A simple way to do this is to use Windows Sound Control Panel. To quickly navigate there hold down the Windows key on your keyboard and tap the letter R. This will bring up a Run box.
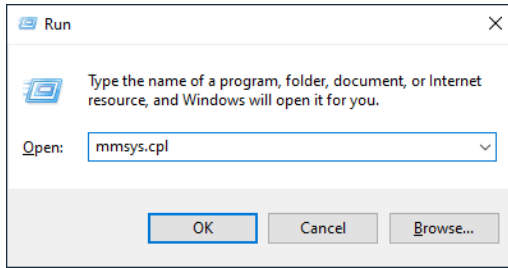
Type in mmsys.cpl and press the enter key.

Notice the tabs at the top of the window. Select Playback (if not already selected) and double click on the Speakers DXpro Main/Sub/TX entry.
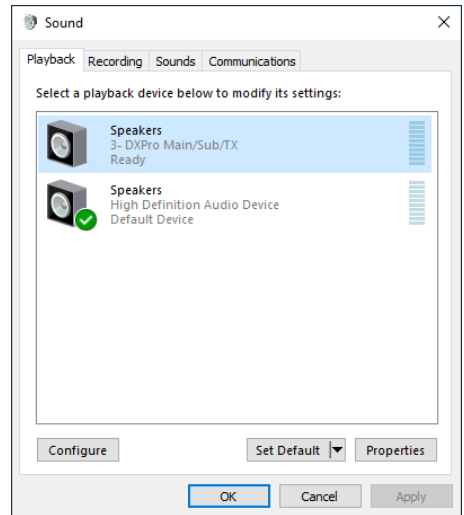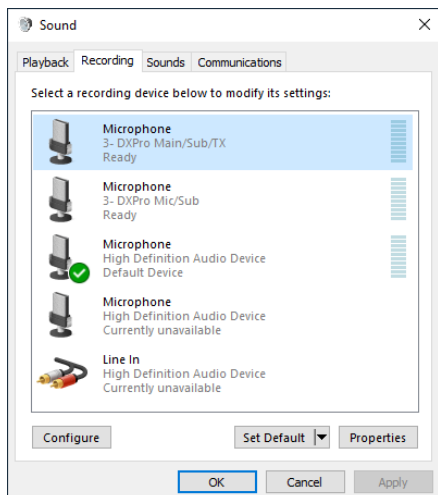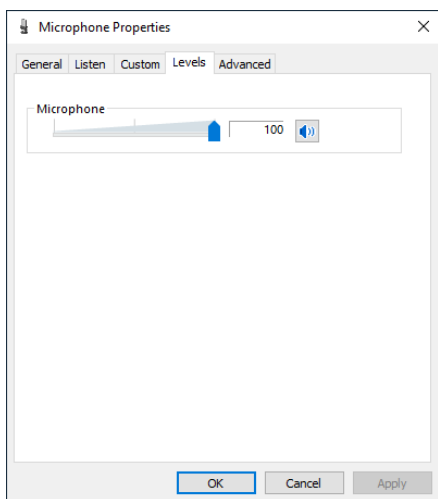
Select the Levels tab and adjust the Speaker level to approximately 75%. If you find this provides too strong a signal to your transceiver you may lower it to any value. Note the Microphone volume shown here is not the recording level. It should be set to 0 and muted to prevent audio feedback. Click on OK.
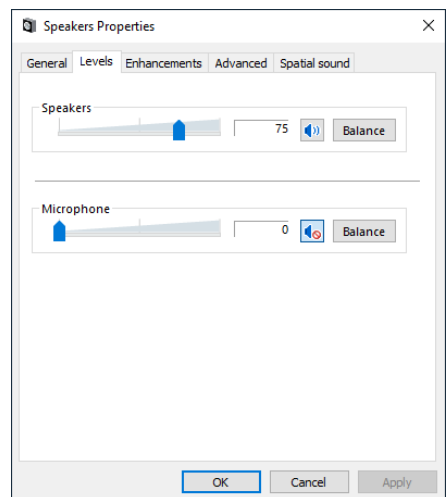
Select the Recording tab in the Sound Control Panel (see to the right).

Double click on the Microphone DXpro Main/Sub/TX entry (see below).

Select the Levels tab and adjust the Microphone level to 100% and click on OK.

Do the same for the Microphone DXpro Mic/Sub entry. Keep in mind that after a Windows update from Microsoft these values may get reset to defaults. If experiencing audio issues, the Sound Control Panel is the first place to check.

Using the DXpro Settings Program

Many of the DXpro functions can be configured via software. The software program to do this is installed when you install the WMR Diagnostic program.

DXpro Settings can be launched by double-clicking (left mouse button) on the DXpro Control Port shown in the WMR Diagnostic program.
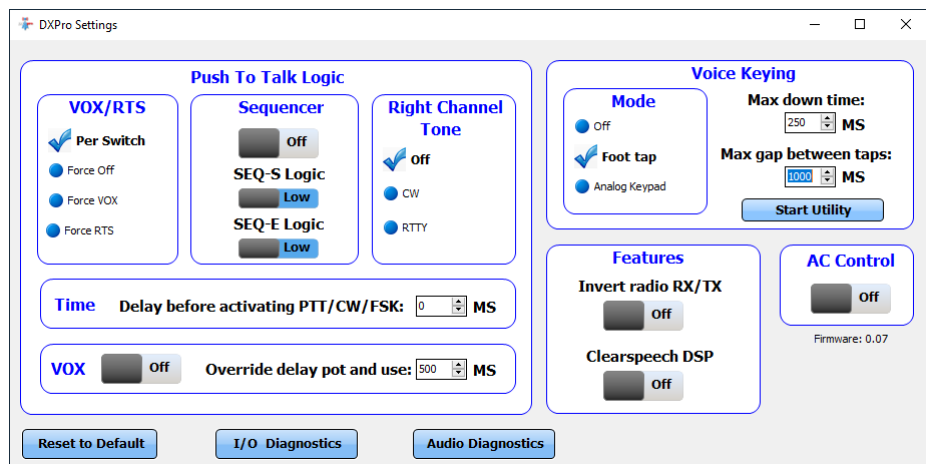
The DXpro Settings program requires exclusive use of the DXpro Control Port. If this is currently in use by your digital mode software you will need to exit your software before double clicking on the DXpro Control Port.

Description of Settings

Push To Talk Logic:

VOX/RTS: This setting has four options: Per Switch, Force Off, Force VOX, and Force RTS. It will override the front panel PTT switch even when set to the TX inhibit position, and would normally only be used when operating remotely. Per Switch is the default.

Sequencer: This setting enables the sequencer ports. The logic may be changed to high or low depending on the requirements of your sequencer. If needed you may test this function without a sequencer by using a loopback cable between the SEQ TRIG and SEQ END ports on the rear panel.

Right Channel Tone:

This option is for programs such as FLdigi (which can output a pseudo-FSK signal on the sound card right channel) and for CW software which does not have a serial keyed output.

There are three options: Off, CW, and RTTY. For normal digital mode operation (e.g. FT-8, PSK31, etc) this must be set to Off. When set to RTTY ensure the DXpro Main/Sub/TX sound card playback volume level is at least 75% or the unit may fail to produce FSK.

Time

If required, you can add a delay in mS before the DXpro will transmit. Default value is 0mS.

VOX

This control when enabled will override the VOX Delay control knob on the front panel of the DXpro. This option would normally only be used remotely if needed.

Voice Keying

Mode: There are three options Off, Foot tap, and Analog Keypad. When set to Off, the footswitch jack behaves like a normal footswitch input i.e. hold down to transmit.

When set to Foot tap, in addition to hold/transmit; single, double, and triple taps will toggle serial input signals. This is used for voice keying software to select which message to play.

Max down time & Max gap between taps

When set to Analog Keypad, a four button keypad can be used instead. Allows fine tuning of the footswitch timing. Clicking on Start Utility will bring up the West Mountain Radio Voice Keyer software.

Footswitch "E.I.S." Scheme

Tap-Type	V-STA LED	PTT	Serial Input Signal
Hold down	Flashing Red	Active	None
Single tap (Morse 'E')	Solid Green	Inactive	DSR
Double tap (Morse "I")	Solid Amber	Inactive	CTS
Triple tap (Morse "S")	Solid Red	Inactive	RI

Features

Invert radio RX/TX allows you to change the polarity of the CAT (TTL) port to suit older Kenwood CAT radios.

ClearSpeech DSP will turn on the CLRmod processor (if fitted) and provide access to the ClearSpeech Control program.

AC Control

This option will enable or disable the 12VDC accessory output. If planning to use the switched 12VDC output then the 12VDC Powerpole® cable must be plugged in and connected to a suitable DC power supply. A 12VDC to 110VAC relay product is available from West Mountain Radio.

Buttons

• Start Utility will launch the DXpro Voice Keying program.

• Reset to Default will restore factory default values.

• I/O Diagnostics will launch the I/O Diagnostic program.

• Audio Diagnostics will launch the Audio Diagnostic program.

• ClearSpeech will launch the CLRmod Control program (if fitted).

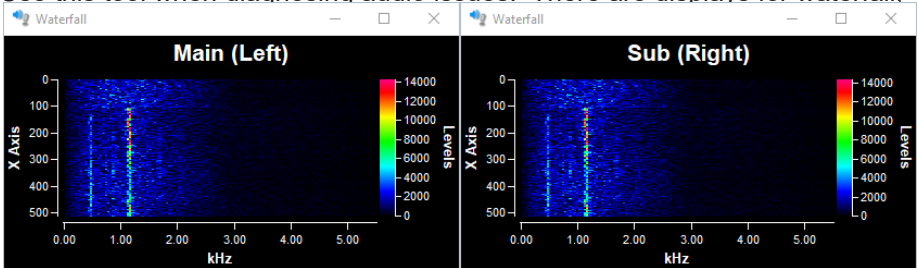• A Save button will appear if you make any changes.

I/O Diagnostics Program

This window displays all the control signals used in the DXpro. This can be used for advanced troubleshooting.
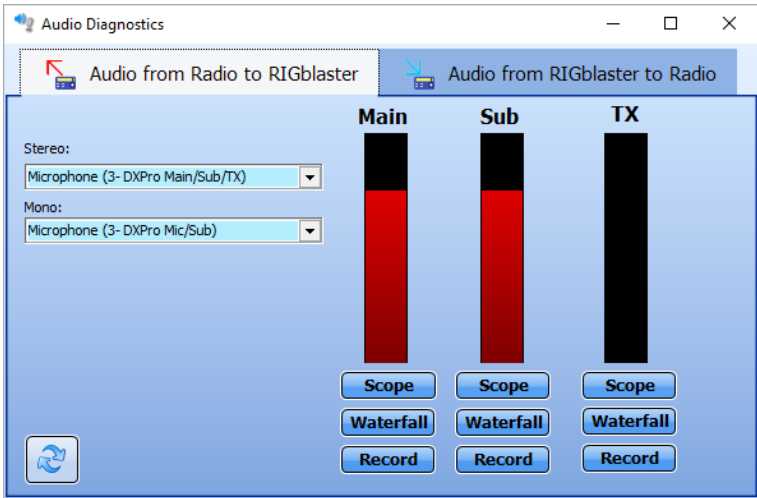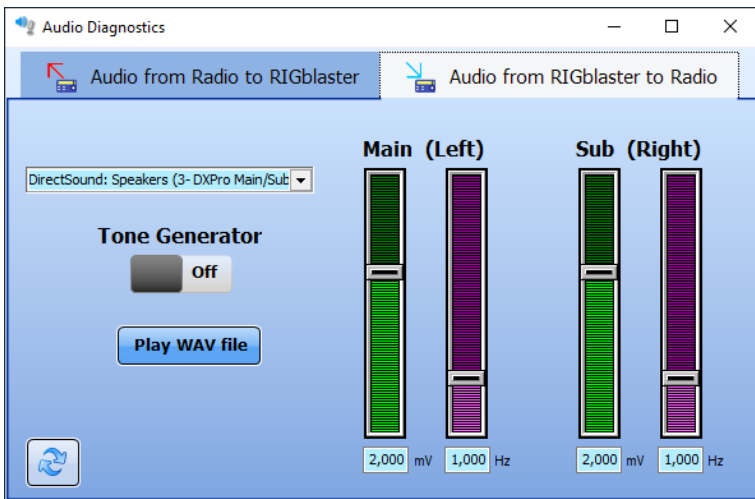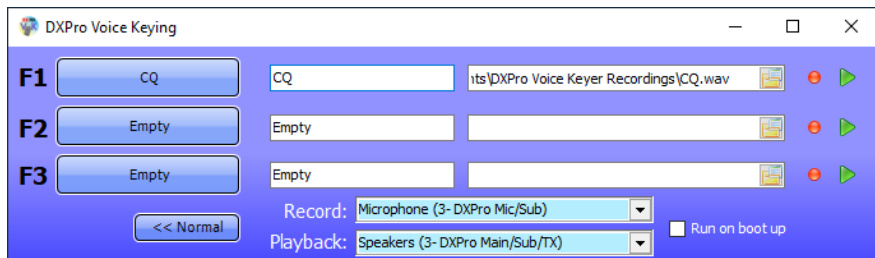
Audio Diagnostics Program

Use this tool when diagnosing audio issues. There are displays for waterfall,

scope, and a recording feature.

Also included is a tone generator.

DXpro Voice Keying Program

The voice keying program is used for simple voice recording and keying.

There are options to assign recorded wave files and names to the function keys F1, F2, and F3. In addition these also correspond with footswitch taps and will play back the associated wave file depending on the number of taps detected (or analog keypad button presses).
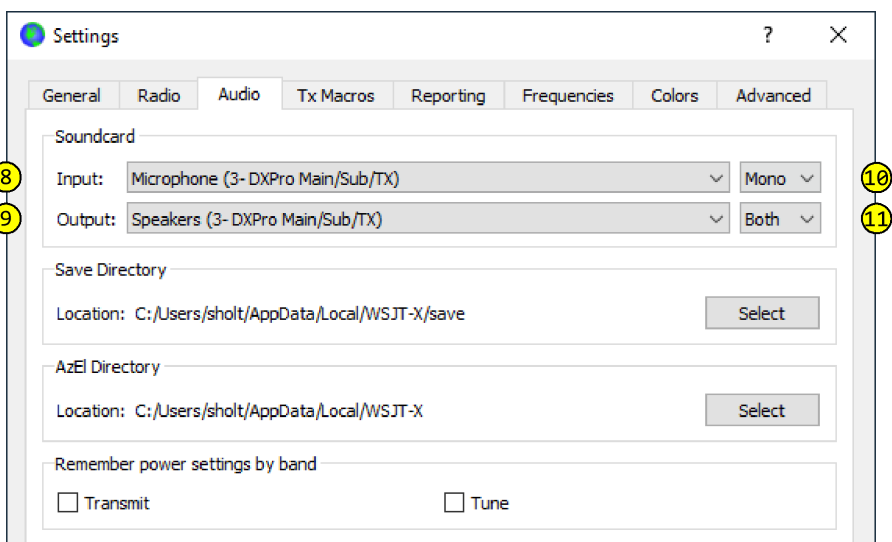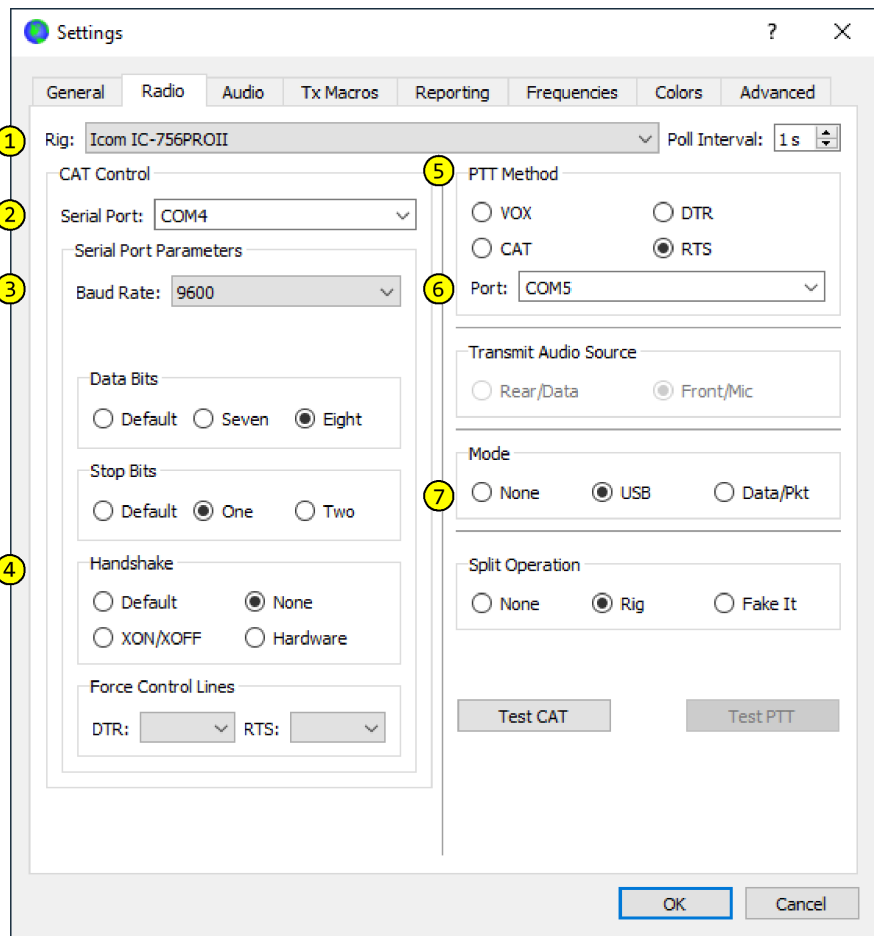
Before recording ensure SW1 is in the mic position. Controls for recording and playback are provided.

Software Configuration

The DXPro can be used with any modern digital mode program or logger. There are usually three things which need to be configured with any program for it to work successfully.

- CAT Control
- PTT Method
- Selection of Sound Card

The following example is based on the WSJT-X program but applies equally to many other digital program. Refer to the images on the following page:

Settings

Tabs: General | **Radio** | Audio | Tx Macros | Reporting | Frequencies | Colors | Advanced

① Rig: Icom IC-756PROII   Poll Interval: 1 s

CAT Control

② Serial Port: COM4

Serial Port Parameters

③ Baud Rate: 9600

Data Bits
- ○ Default
- ○ Seven
- ● Eight

Stop Bits
- ○ Default
- ● One
- ○ Two

④ **Handshake**
- ○ Default
- ● None
- ○ XON/XOFF
- ○ Hardware

Force Control Lines

DTR: [ ]   RTS: [ ]

⑤ **PTT Method**
- ○ VOX
- ○ DTR
- ○ CAT
- ● RTS

⑥ Port: COM5

Transmit Audio Source
- ○ Rear/Data
- ○ Front/Mic

⑦ **Mode**
- ○ None
- ● USB
- ○ Data/Pkt

Split Operation
- ○ None
- ● Rig
- ○ Fake It

[Test CAT]   [Test PTT]

[OK]   [Cancel]

Settings

Tabs: General | Radio | **Audio** | Tx Macros | Reporting | Frequencies | Colors | Advanced

Soundcard

⑧ Input: Microphone (3- DXPro Main/Sub/TX)   Mono ⑩

⑨ Output: Speakers (3- DXPro Main/Sub/TX)   Both ⑪

Save Directory

Location: C:/Users/sholt/AppData/Local/WSJT-X/save   [Select]

AzEl Directory

Location: C:/Users/sholt/AppData/Local/WSJT-X   [Select]

Remember power settings by band
- ☐ Transmit
- ☐ Tune

WSJT-X Example

1. Select your transceiver make & model. If you do not have a CAT connection then select none.

2. Select the DXPro CAT COM port number.

3. Ensure this value matches the CAT or CI-V rate of your radio. Check your radio's menu settings to be sure!

4. Does your radio require flow control?
    Hint: Most Icom transceivers DO NOT, modern Kenwood transceivers DO, and most Yaesu transceivers can be configured EITHER way.

5. PTT Method. Because we must use the DXPro to control the transmit function this must be set to RTS.

6. Select the DXPro Control COM port number.

7. Ensure you have USB selected here because we are using the transceiver's microphone jack for TX modulation.

8. This is your receive audio device and usually you'd choose the DXPro Main/Sub/TX sound card.

9. This is your transmit audio device. This should always be set to DXPro Main/Sub/TX.

10. You can select either the left or right audio channel, or mono if both channels have the same audio presented to them.
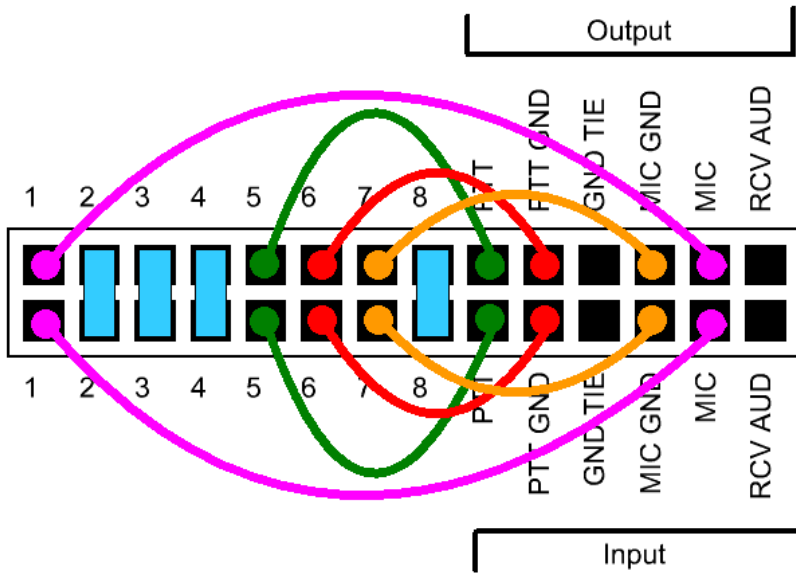
11. Choose Both Left.

ISC & Jumper Wiring

Pattern #1: Kenwood, Alinco, Elecraft & SGC with 8 pin round-metal mic jack

ISC labeled "Kenwood 8 Pin Round Metal"
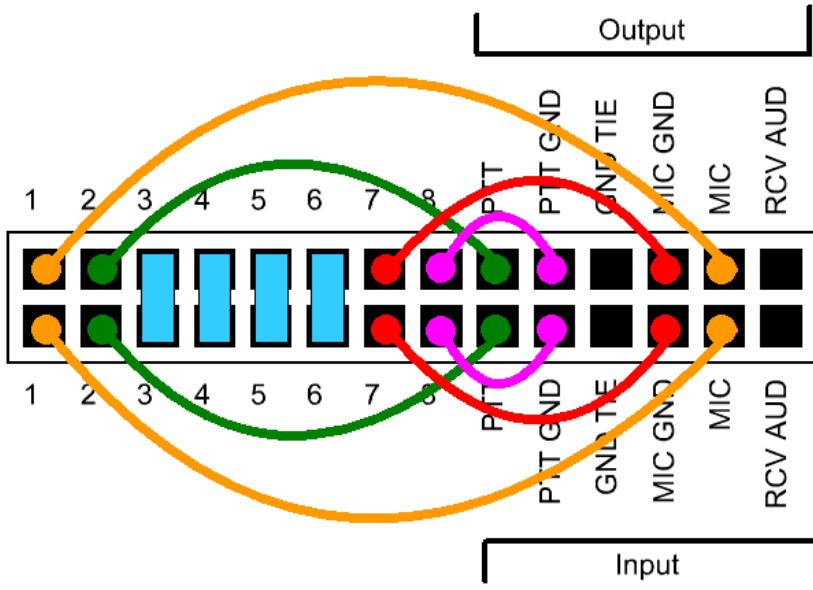
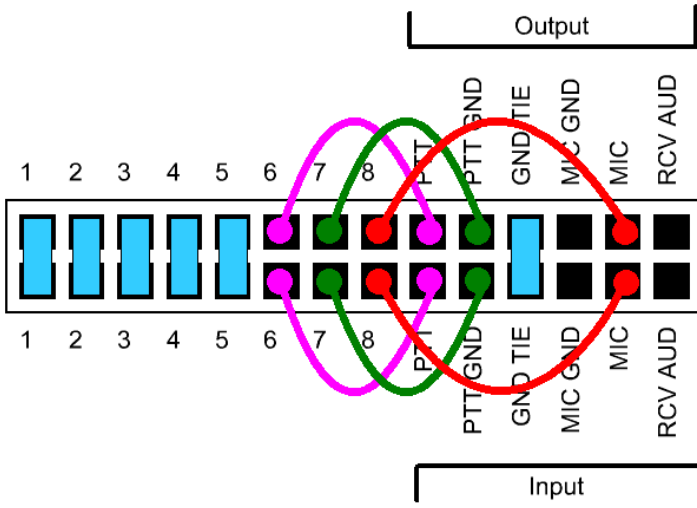Pattern #2: Icom with 8 pin round-metal mic jack

ISC labeled "Icom 8 Pin Round Metal"

Pattern #3: Older Yaesu Radios with 8 pin round-metal mic jack

ISC labeled "Yaesu 8 Pin Round Metal"

(This jumpering is for older Yaesu radios with microphones that have common PTT & audio ground and older hand mics, desk mics, desk, and Heil mics)

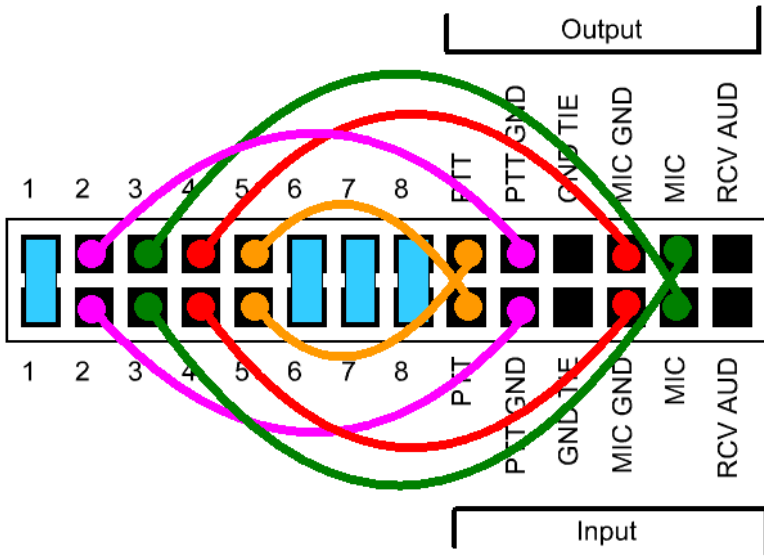Pattern #4: Newer Yaesu Radios with 8 pin round-metal mic jack

ISC labeled "Yaesu 8 Pin Round – Isolated". Use this for FT-950, FT-2000, FTDX-3K,5K,9K

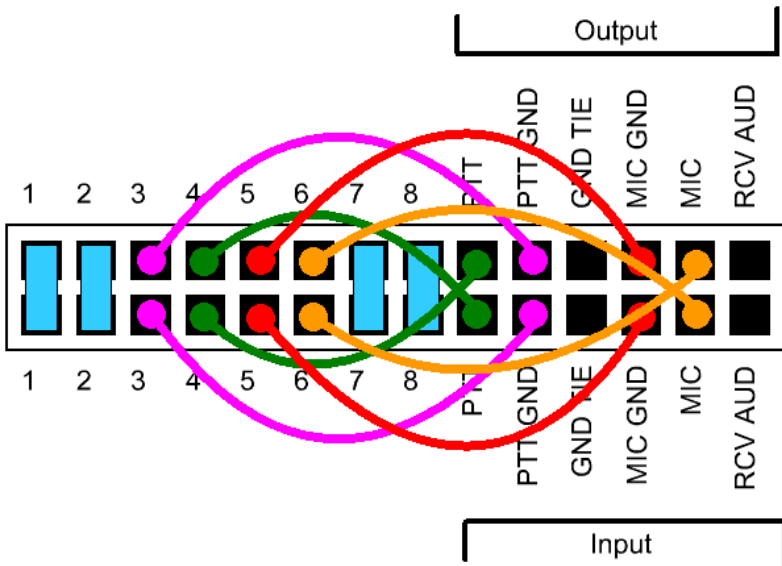*(This ISC also used for Flex 6000 series, Ten Tec Omni VII & Orion II)*
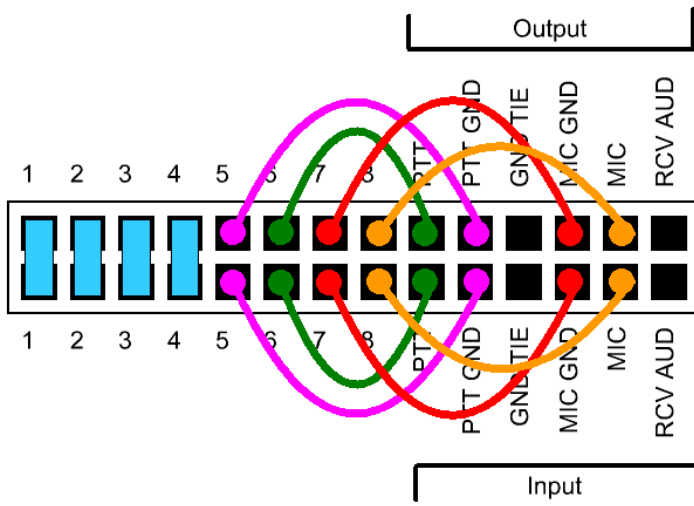
Pattern #5: Icom & Alinco Radios with RJ-45 modular mic jacks

ISC labeled "Icom RJ-45 Modular"

Pattern #6: Kenwoods with RJ45 mic jacks & most, but not all Kenwood FM rigs
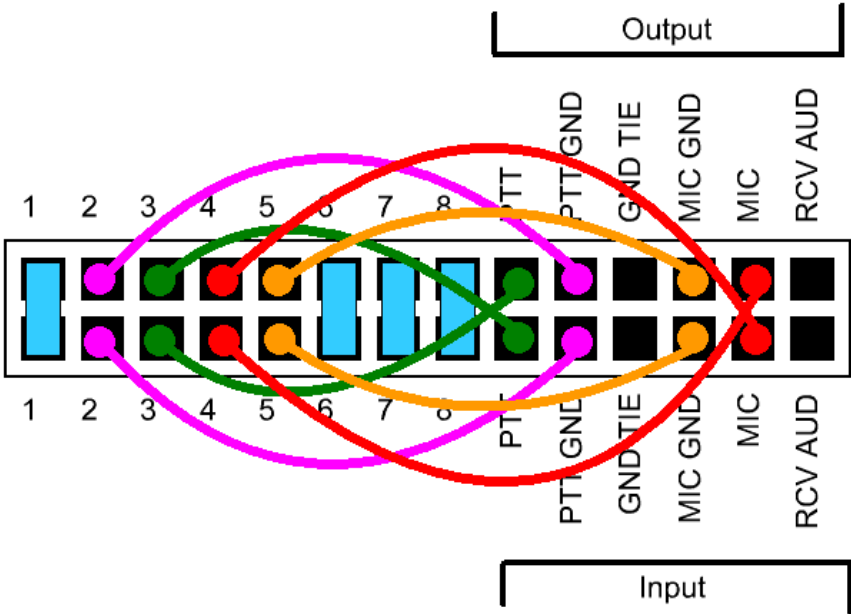
ISC labeled "Kenwood RJ-45 Modular"

Pattern #7: Yaesu Radios with RJ45 mic jacks

ISC labeled "Yaesu RJ-45 Modular"

Use This ISC For FT-817, FT-857, FT-897 & FT-450.

Accessories		
DXkey Remote	Sku# 581421-1819	$19.95
DXpro AC Control Kit	Sku# 58142-1820	$65.95
CLRmodule Clearspeech DSP Noise Reduction Processor	Sku# 58413-1763	$99.95

Digital Mode	Software	Frequencies
PSK31	Fldigi, Airlink Express, DM-780, Digipan, MixW, MultiPSK, TruTTY, WinWarbler et al.	3.580 MHz (usb) 7.035 MHz (usb) 10.140 MHz (usb) 14.070 MHz (usb) 18.100 MHz (usb) 21.070 MHz (usb) 28.120 MHz (usb))
Analog SSTV	MMSSTV, MultiPSK, MixW	7.171Mhz (lsb) 14.230Mhz (usb)
Digital SSTV	EasyPal	3.713MHz (lsb) 7.173MHz (lsb) 14.233MHz (usb)
RTTY	MMTTY, TruTTY,DM780, FLdigi, MultiPSK et al	14.080-14.090MHz
JT-65	WSJT, JT65-HF, MultiPSK	1.838MHz (usb) 3.576MHz (usb) 7.039MHz (usb) 14.076MHz (usb) 21.076MHz (usb) 28.076MHz (usb)
Feld Hell	FLdigi, MultiPSK, MixW, DM780	14.063 MHz (usb) 14.073 MHz(usb)
Olivia	FLdigi, MixW, MultiPSK, DM780	14.074MHz (usb) 14.1065MHz (usb)
Digital Voice	Free DV	14.236 MHz (usb)
HF Packet Radio	Sound Modem, AGWPE, MultiPSK, MixW	14.1018 MHz (usb)
VHF APRS	Sound Modem, AGWPE, MultiPSK, MixW	144.390 MHz (fm)
FT8	WSJT-X	1.840MHz (usb) 3.573MHz (usb) 7.074MHz (usb) 10.136MHz (usb) 14.074MHz (usb) 18.100MHz (usb) 21.074MHz (usb) 24.915MHz (usb) 28.074MHz (usb) 50.313MHz (usb)

RIGblaster DXpro Warranty

RIGblaster DXpro is warranted against failure due to defects in workmanship or materials for one year after the date of purchase from West Mountain Radio. Warranty does not cover damage caused by abuse, accident, misuse, improper or abnormal usage, failure to follow instructions, improper installation, alteration, lightning, or other incidence of excessive voltage or current. If failure occurs within this period, return the *RIGblaster DXpro* or accessory to West Mountain Radio at your shipping expense. The device or accessory will be repaired or replaced, at our option, without charge, and returned to you at our shipping expense. Repaired or replaced items are warranted for the remainder of the original warranty period. You will be charged for repair or replacement of the *RIGblaster DXpro* or accessory made after the expiration of the warranty period.

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