

de Ralph w4XE 12/2006

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This is the best place to tap into the radio for remote base use. There is a 13 pin 0.1 header and an opening next to where the power cable comes out to bring out a remote base interface cable. Using a 13 pin 0.1 header connector you can plug right into the radio!

System Board J905

5 Sw A+	+13.8VDC
11 VOL-SQL HI	1 VPP Discriminator Audio (no mute, no filtering)
4? MIC HI	Transmitter audio input
12 Mike Lo	Transmitter audio input ground
7 PTT*	Ground for transmit
10 Audio Mute*	0V no sig, +5VDC on PL detected CG channels or +5 VDC on carrier only channels
9 SW SPKR HI	
8 CG DISABLE*	Floats 5 VDC, pull to ground to disable PL requirement
3 SPKR HI	
13 RELAY*	
1&2 GND	

On the audio board there are a couple of signals that may be of interest to you as well.

J703-1	GND
J703-2	CAS - this is the typical GE Carrier operated Switch signal. With no signals it rest at ground potential. With any signal regardless of PL or not it will go to 4.8 to 5.0 VDC.
J703-6	RXAUDIO If you need an audio source that is muted, 300 Hz High pass filtered to remove users PL tone and de-emphasized Then this is the signal. It's hot 10 Vpp, so you'll most likely need to attenuate it with a 10 K pot before sending to a repeater controller. This signal is BEFORE the volume pot control, so is a constant level.
J703-7	VOL-SQ HI 1 VPP Discriminator Audio (no mute, no filtering)
J703-13	RXMUTE* 0V no sig, +5VDC on PL detected CG channels or +5 VDC on carrier only channels

The standard MIKE Jack below has all of the signal required for repeater controller interfacing. However the pin 3 SPKR HI is a 3 watt level. It also varies with the front panel volume control. Discriminator audio at VOL-SQ HI J905-11 or the RXAUDIO J703 pin 6 above is a better choice for audio recovery.

Control Board J725 MIKE CONN 10 pin mike jack dual row 5x2 0.1" header

1 gnd	<----- GND
2 5V A+ SW	
3 SPKR HI (3w too hot!)	
4 MIC HI	<-----MIKE HI
5 MIC LO	<-----MIKE LO
6 CGDIS*	<----- CG DISABLE Ground to disable
7 AUDIOMUTE*	<----- ? probably 0v no sig, +5VDC on PL detected channels or +5 VDC on carrier only channels
8 BUF KYPD SERIAL	
9 BUF DISP SERIAL	
10 PTT*	<----- PTT*

Remote control of the memory channel:

In some instances you want the external repeater controller to have some control over the memory selection of the radio. In this way it is frequency agile by bumping up through the memory channels of the radio. This give you up to 16 channels to select from so that your remote base radio can be used to link into a lot of repeaters around town. It is somewhat clunky in that you are playing a game of russian roulette as you aren't sure of which channel you are on except by the traffic on that channel. In radios like the GE Phoenix SX, the radio resets to memory channel 1 if power is lost. That was a nice way to at least start at a known place. By adding a remotely controlled

GE MVS REM BASE TAP POINTS V2

12V power relay to the phoenix, you could remotely remove power and when power is restored, the radio is at channel 1. Unfortunately this doesn't work for the MVS. When power is restored, the radio remembers which channel it was on and returns to that channel after bootup. However, in one way this is a desirable feature. If using a GE Phoenix SX, if you mostly wanted it on a single dedicated link freq, you have always put that frequency in Bank A or Bank B channel 1. Otherwise if power is lost, the link radio won't be on the proper frequency. With the MVS, you would not have to do this.

The MVS does support being able to remotely bump the memory channel up by one. The pulse will have a minimum width and maximum width. Too short and it won't recognize the pulse, too long and it will in effect bump the radio up by more than one channel.

Try this location: CNTL BD J726-4 CHNUP/ADD or J726 CNTL BOARD (cable between the two)