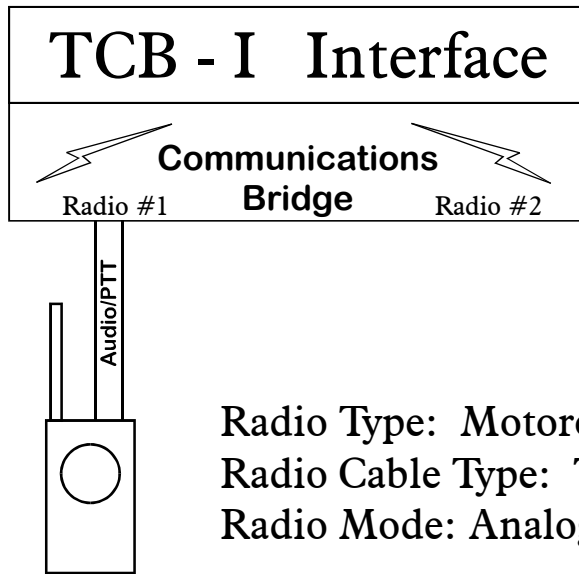


TCB - I Application Interface Example

Developing a custom radio profile



A common requirement for the TCB-I is to interface radios that are not within the units radio profile list. This application note will explain the requirements in developing a correct radio profile.

Radio Type: Motorola HT-1000 Handheld

Radio Cable Type: TC-10 (Side mounted specialized connector)

Radio Mode: Analog Conventional

Equipment Required:

RF Service monitor or Tone generator and Deviation Meter
Correct radio interface cable

Steps:

- 1) Connect your radio to Radio Port 1
 - 2) Connect the Service monitor to the radios antenna port and set required frequency
 - 3) Press and hold the Adjuster until the LCD prompts you to release the Adjuster
 - 4) Dial "Port 1Set-up" (Press adjuster to enter the selection)
 - 5) Dial "Edit Radio" (Press adjuster to enter the selection)
 - 6) The first menu option is "Radio1 Name" (Press adjuster to enter the selection)
 - Under the option, "Save Name As..."
 - Enter the name HT-1000 (Dial the name, pressing the adjuster to enter)
 - If the name is correct, select "Y" to save the name
 - 7) Dial second menu option is "Radio1 Op Mode" (Operation Mode) (Press adjuster to enter the selection)
 - (Conventional, Trunked, Duplex) Radio, Duplex Repeater, Simplex Repeater
 - Conventional Radio indicates a half duplex handheld or mobile radio
 - Trunked Radio indicates a half duplex handheld or mobile radio (Trunking radios return a tone indicating when a channel is available)
 - (If a channel is not acquired within 3 seconds, a trunk fail tone will be generated on the keying radios channel)
 - Duplex Radio indicates a full duplex radio connected (typically a link radio)
 - Duplex Repeater indicates a repeater with hang time and courtesy beeps
 - Simplex Repeater indicates a store and forward voice recorder is used
- Select the Conventional Radio to match the personality for this radio (Press adjuster to enter the selection)

TCB - I Application Interface Example

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Steps continue...

8) Dial third menu option is “Radio1 Access” (Press adjuster to enter the selection)

- VOX, COR, COR and CTCSS, On, Off are the available options

-- VOX is a voice presence detector. When voice is present, an active is indicated.

-- COR is a pin 7 on the rear DB-09 connector. A signal is required for an active in order to use this option.

-- COR and CTCSS requires activity on both pin 2 and pin 7 on the rear DB-09 connector. A signal is required on both pins for an active in order to use this option

-- ON forces an active always. OFF forces an inactive always. Use for testing only.

Select VOX for this radios access mode.

9) Dial until you select “Radio1 RX level”

- Set your volume control on your radio to a notable position. You will need to remember this setting. When connecting this radio in the future, this setting should be used.

- Generate a 1 Khz tone, deviated at 3 Khz on the radios receiver frequency. Adjust the adjuster on the TCB-I until a reading of 70% is obtained. (Press adjuster to enter the selection)

10) The last adjustment is “Radio TX level”

- Go back to step 7 and change the operating mode to “Simplex Repeater”.

- Once changed, return back to “Radio TX level” adjustment.

- Present a 1 Khz tone, deviated at 3 Khz on the receiver frequency. The Simplex Repeater mode will record this tone. After about a minute turn the tone off and set you deviation meter to receive. The radio will now transmit what it just recorded. Adjust the adjuster so the played back deviation is 3 Khz. Once the level is correct, press the adjuster to accept the TX level.

- Go back to step 7 and change the operating mode to “Conventional Radio”.

Once completed, press and hold the adjuster to save to memory. Release the adjuster when prompted to do so.

Your new radio personality is now completed. To use this personality do the following.

1) Press and hold the Adjuster until the LCD prompts you to release the Adjuster

2) Dial “Port 1 Set-up” or “Port 2 Set-up” for port set-up (Press adjuster to enter the selection)

3) Dial “Rcl Radio Type” (Press adjuster to enter the selection)

4) Select the Slot[xx] with the HT-1000 radio type. (Press adjuster to enter the selection)

5) Press and hold the Adjuster until the LCD prompts you to release the Adjuster

Your LCD display will now show the HT-1000 on the port you wanted it on.



Contact Link Communications
for more information on the
TCB-I and its family of products.