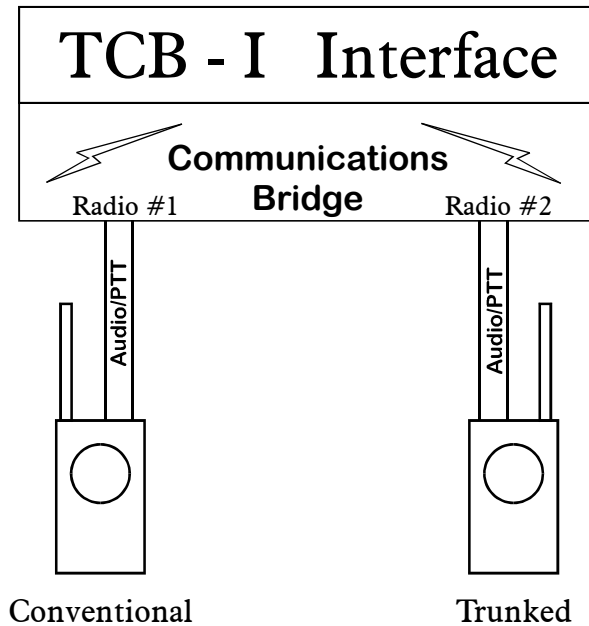


# TCB - I Application Interface Example

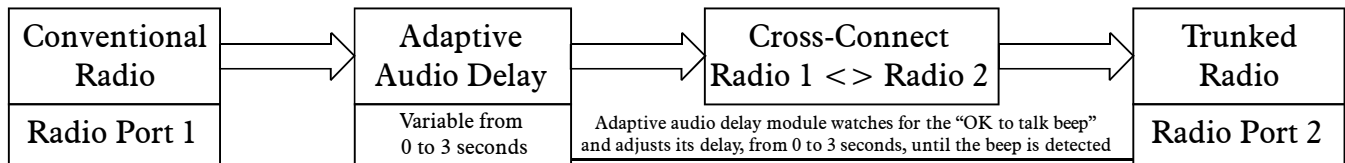
## Conventional Radio to Trunked Radio



A common application in today's communications is the need to cross-connect a conventional radio to a trunked radio. Existing systems simply connect the audio output from one radio to the audio input on the other, and vice-versa. This method of cross-connection works OK with conventional to conventional when key-up delay times are minimal. But when a trunked radio is linked to, channel access times become an issue. If not dealt with, the first couple of seconds of talk is lost as the trunked radio looks for a channel.

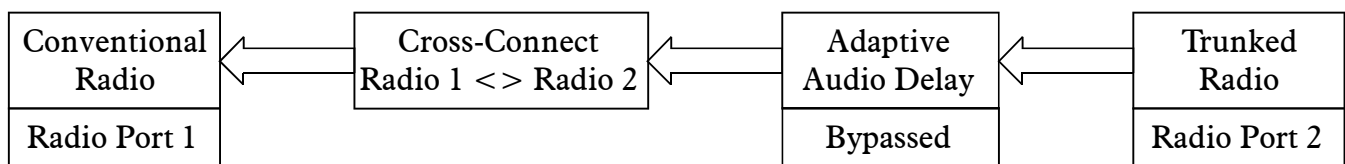
The TCB-I fixes this common key-up problem with its built-in, user adjustable digital audio delay.

### Conventional radio's receiver causes transmit on the Trunked radio



Conventional Radio receiver goes active. This causes an immediate transmitter key signal sent to the Trunked Radio. The TCB-I is storing the Conventional radio's audio until the trunked radio gets a channel (From 0 to 3 seconds of digital storage). The Trunked radio finally gets a channel to communicate on and goes into transmit. The Conventional radio's audio is delivered to the Trunked radio, without any information loss.

### Trunked radio's receiver causes transmit on the Conventional radio



Trunked radio receiver goes active. This causes an immediate transmitter key signal sent to the Conventional radio. Because the digital audio delay is bypassed, the Trunked radio's audio is immediately routed to the Conventional radio's transmitter without any information loss.

**Conclusion: TCB - I solves the Conventional to Trunked radio dilemma**

# TCB - I Programming Steps

## Conventional Radio to Trunked Radio

For this example the following assumptions will be made.

- 1) Port 1 will be connected to the conventional radio
- 2) Port 2 will be connected to the trunked radio

Port 1:

Radio Personality:            Spectra

Port 2:

Radio Personality:            HT/MTX

### Configuration steps:

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

2) Set-up Port 1

- Select Port 1 for initial set-up (Press adjuster to enter the selection)
- Dial the adjuster until you see the prompt "Rcl Radio" and select "Spectra" (Press adjuster to enter the selection)
- Dial the adjuster until you see "Edit Radio" (Press adjuster to enter the selection)
- Select the option "Radio Type" (Press adjuster to enter the selection)
- - Set the radio as a "Conventional" radio option (Press adjuster to enter the selection)
- Dial the adjuster until you see the prompt "Up one level" (Press adjuster to enter the selection)
- Do this again until you are at the Main menu (Displays Port 1 Set-up, Port 2 Set-up, System Set-up)

2) Set-up Port 2

- Select Port 2 for initial set-up (Press adjuster to enter the selection)
- Dial the adjuster until you see the prompt "Rcl Radio" and select "HT/MTX" (Press adjuster to enter the selection)
- Dial the adjuster until you see "Edit Radio" (Press adjuster to enter the selection)
- Select the option "Radio Type" (Press adjuster to enter the selection)
- - Set the radio as a "Trunked" radio option (Press adjuster to enter the selection)
- Press and hold the adjuster until the LCD prompt you to release the Adjuster

3) Mode B switch defaults to connecting the two radio ports together

- Toggle the Mode B front panel switch in the 'B' position

Your TCB-I is now configured for Conventional to Trunked operation. The TCB-I will automatically enable the "Adaptive Digital Audio Delay" between the Conventional and the Trunked radio. The above set-up has been stored into the TCB's non-volatile memory. When the unit is powered off to on, this examples setting will be recalled. No other action on your part is needed for correct operation.



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