

Technical Support Application Note

(TSAN016SLC50XT96)

Dataradio COR Ltd. Technical Service

U.S.A. 1-800-992-7774 International 1-507-833-8819

Product: T-96SR™

Application: Wiring/cable interface for Allen Bradley SLC 5/OX to Dataradio T-96SR™ wireless modem

Set-up: Setup is reviewed in body of text

Model SLC 5/0x PLC Configuration

Driver: DF1 Half-duplex Master

Baud: 9600 bps

Parity: None

Stop Bits: 1

Node Address: 1 (dependent on application)

Protocol Control

Control Line: Half-duplex w/o continuous carrier

Error Detection: CRC

Polling Mode: Msg don't allow remotes to initiate

Duplicate Packet Detect: Disabled

Reply Message Timeout (x 20 ms): 1
(dependent on application)

ACK Timeout (x 20 ms): 50

RTS Off Delay (x 20 ms): 3

RTS Send Delay (x 20 ms): 8

Message Retries: 3

Pre Transmit Delay: 0

Note: All timings are application dependent.

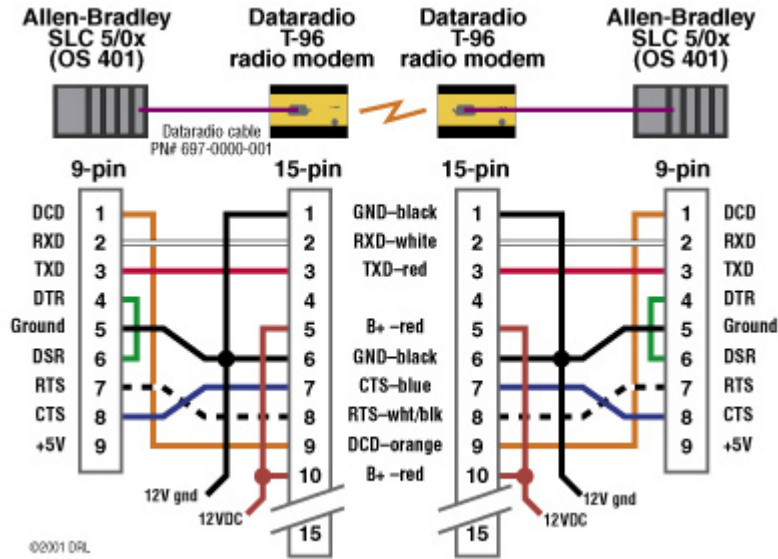
Figure 1
PLC Channel Configuration

The screenshot shows the 'Channel Configuration' dialog box with the following settings:

- General tab selected.
- Driver: DF1 Half Duplex Master
- Baud: 9600
- Parity: NONE
- Stop Bits: 1
- Node Address: 1 (decimal)
- Protocol Control section:
 - Control Line: Half Duplex w/o Continuous Carrier
 - Error Detection: CRC
 - Polling Mode: Msg. Don't allow Slaves to Initiat
 - Duplicate Packet Detect
 - ACK Timeout (x20 ms): 50
 - RTS Off Delay (x20 ms): 3
 - RTS Send Delay (x20 ms): 8
 - Message Retries: 3
 - Reply Msg. Timeout (x20 ms): 1
 - Pre Transmit Delay (x1 ms): 0

Figure 2

Interface Cable Pinout



T-96SR™ Configuration

Configuration Parameters are set using the T-96 Field Programming Software’s Edit/Setup Modem/Radio/Frequencies Parameters Screens. Refer to Figures 3, 4 & 5 for T-96SR™ configuration.

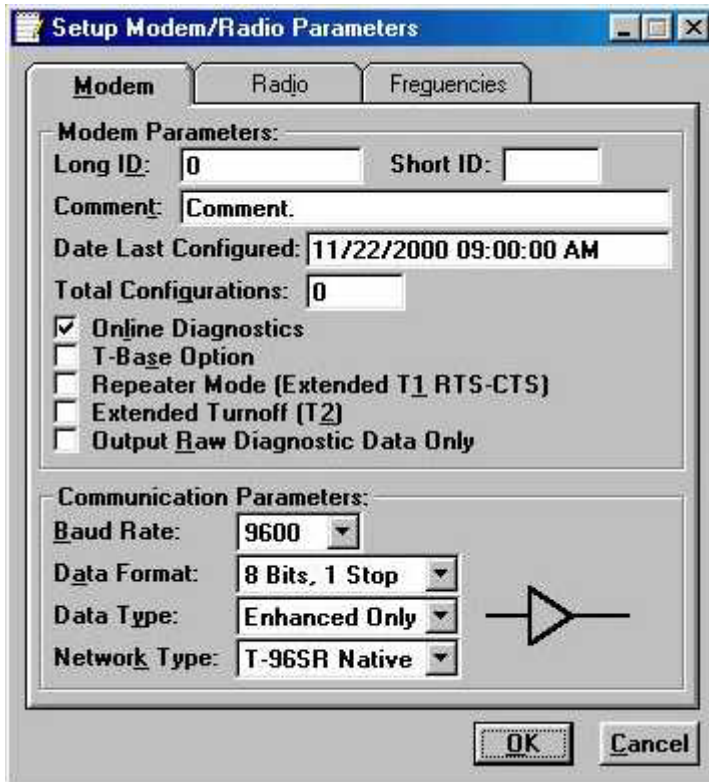


Figure 3
Setup Modem Parameters

Long ID, Short ID: Factory Set/user programmable if desired. See manual for information.
Comment: Add comments as needed.
Online Diagnostics: Active
T-Base Option: Disabled
Extended Turnoff (T2): Disabled
Output Raw Diagnostics Data Only: Disabled
Baud Rate: 9600 bps (application dependent)
Data Format: 8 bits, 1 stop
Data Type: Enhanced
Network Type: T-96SR Native (unless fit into an older system)

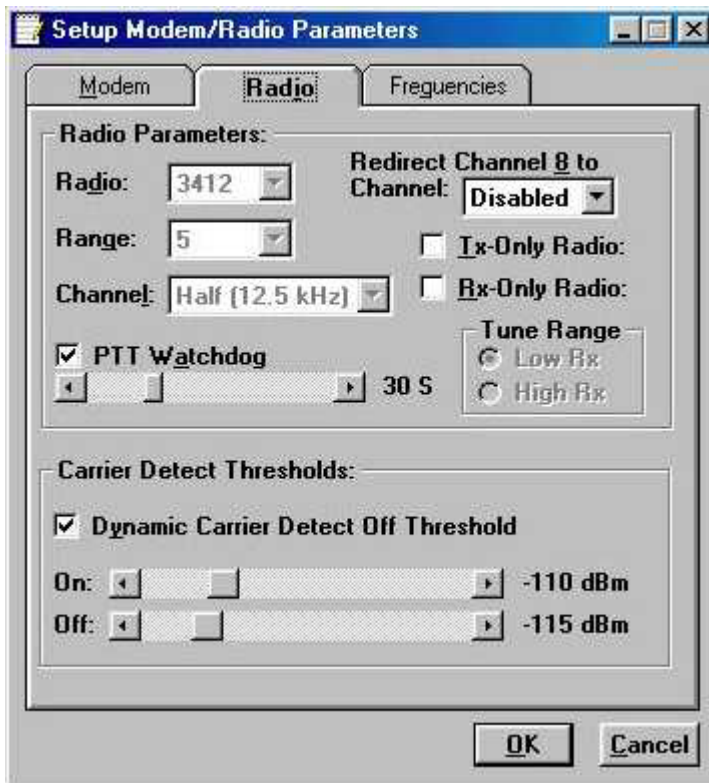


Figure 4
Setup Radio Parameters

Radio: Designates radio model
Range: Designates radio frequency range
Redirect Channel 8 to Channel: disabled
Channel: Specifies whether unit is half-or full-channel (12.5 or 25 kHz)
PTT Watchdog: Enabled
PTT Watchdog Timer: Sets max transmit time: set to 60.0 sec
Tune Range: Low Rx
Dynamic Carrier Detect Off Threshold: enabled
Carrier Detect Thresholds: On:-110 dBm, Off:-115 dBm (beginning values)

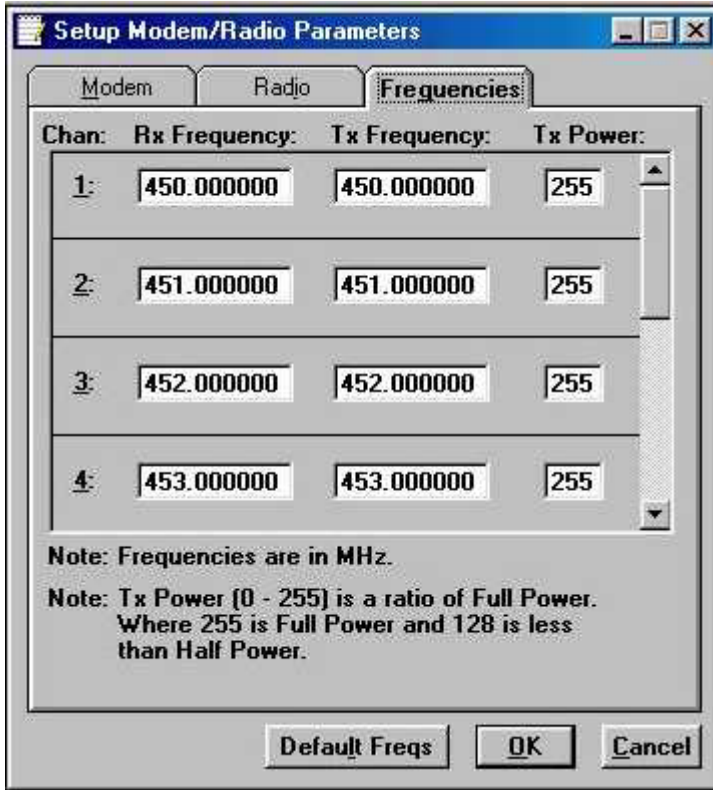


Figure 5
Setup Frequencies Parameters

Channel

Rx Frequency: Receive Frequency

Tx Frequency: Transmit Frequency (displays user frequencies)

Tx Power (non-linear): 255 is max (5W)

Note: Recommend that all 8 channels be set to the same frequencies unless channel selection control is utilized.

In all cases, refer to the T-96SR™ Technical Manual for proper set up. Factory defaults are recommended for beginning settings.