



RS-422 WITH P-MODEL REMOTES

INTRODUCTION

The MDS XX50-series digital remote transceivers (such as the 2350, 4350, etc) are capable of operating with an RS-422 interface. This application is commonly used where an RTU/PLC is located farther from the radio than the standard RS-232 interface can support, and where the RTU/PLC direct interface is RS-422.

IMPLEMENTING THE APPLICATION

As shipped, the XX50-series remote transceivers do not include RS-422 interface hardware. These radios use digital interface boards to distribute power and data within the enclosure and provide connection points for external interfaces. The following components are required from MDS:

QUANTITY	PART
1	RS-422/RS-232 converter module, MDS PN 01-2358A01
8	Protection diodes (CR17-CR24), MDS PN 13-1035A06
1	Interface connector (J10), MDS PN 73-1194A07

NOTE: The XX55 compact P-Model does not accommodate this conversion to RS-422.

To fit the radio with the RS-422 interface, perform the following steps:

1. Disconnect the power and battery connector (if applicable) from the interface board. Remove the interface board from the enclosure, noting the locations of the various connectors.
2. Install CR17-CR24 on the 03-1467 interface board. Component locations are shown in Appendix F of the MDS 2310 and 4310 manuals.
3. Install J10 on the interface board.
4. Disconnect the data connector (the DB-25 with a ribbon cable) from the transceiver. Install the RS-422/232 converter module between the radio and the ribbon-cable connector. The male (RS-232) end of the converter module plugs into the radio and gets power from it.

5. Connect the RS-422 circuit (RTU or PLC) to the interface board as shown in Appendix F of the MDS 2310 or 4310 manual. Most RS-422 signals are balanced (two wires are used for RTS, CTS, TXD and RXD). For the balanced signals, the connections are labeled A and B (ie, RTS-A, RTS-B, CTS-A, CTS-B, etc). The A-side connections are on J1, and the B-side connections are on J10.
6. Reinstall the interface board in the enclosure and reconnect the connectors removed in step 1. Connect primary power and the backup battery (if applicable) to the interface board and test the system.

For more information, contact MDS Technical Services at techsupport@microwavedata.com, or by phone at +1-585-241-5510.
