

**Datron
Guardian Series Mobile to 223 Series
Adapter Panels**

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1.0 General

This application is intended to show how to assemble a cable and set up the hardware of different 223 Series Adaptor Panels (TRA223, DSP223, and IP223) to the Datron Guardian mobile radio. Only control of a dedicated channel is supported.

2.0 Interconnect Cable Assembly

A cable assembly is required to interconnect the DB-25 output of the various 223 Series Adaptor Panels to the DB-25 pin out of the Datron Guardian mobile.

Use the following chart to make this interconnect cable assembly.

TABLE 1. Interconnect Cable Assembly Pin Out

| 223 Series DB-25 Pin | Datron Guardian DB-25 Pin | Signal |
|-------------------------|------------------------------|--------|
| 25 | 11 | MIC + |
| 14 | 9 & 14 | PTT |
| 24 | 22 | RX + |
| 12 | 8 | RX - |
| 7 | 7&18 | DGND |

3.0 223 Series Adaptor Panels

3.1 TRA223 Setup

The TRA-223 requires the optional TO-23 Balanced Transformer option (P/N 0118024) be installed only on the radio RX path (T3).

3.1.1 TRA-223 Dip Switch Settings

Set the front panel dip switch for the following settings:

NOTE: Refer to the TRA-223 manual for further instructions.

TABLE 2. Front Panel Dip Switch - TRA-223

| Switch | Setting | Signal |
|--------|----------------|--|
| 1 | As appropriate | 2-Wire = On 4-Wire = Off |
| 2 | As appropriate | 4-Wire = On 2-Wire = Off |
| 3 | As appropriate | Full-Duplex = On Half-Duplex = Off |
| 4 | Off | Squelch |
| 5 | On | Radio Rx Level On = Speaker Off = High impedance |
| 6 | On | Radio Tx Level On = Low Level Off = High Level |
| 7 | On | Ground on PTT relay common |
| 8 | Off | Ground on Monitor relay common |

3.2 DSP-223 Setup

No software programming is required.

3.2.1 DSP-223 Jumper Settings

To set the **DSP-223 Jumpers**, do the following:

1. Set to the **A position**:
 - J12, J14, J15, J22, J23, and J26.
2. Set to **B position**:
 - J13, J24, J25, and J27
3. Solder close **JP2**.
4. For selecting **2- or 4-wire** operation.
 - J19, J20, and J21.

REFERENCE: For more information, see the DSP-223 Technical Manual (P/N 803274), DSP to Console Line Connection section. This document is available for download at www.telex.com/Downloads/.

3.3 IP-223 Setup

Set the IP-223 jumpers as shown in Table 3.

3.3.1 IP-223 Jumper Settings

TABLE 3. IP-223 Jumper Settings

| Line 1 | Jumper Setting | Line 2 |
|-------------|---------------------------------|---------------|
| J33, J34 | B = 4-wire | J5, J6 |
| J16, J21 | B = Balanced | J19, J20 |
| J14 | B = 8 Ohm Speaker | J24 |
| J3, J9, J11 | A = Single Ended | J25, J28, J29 |
| J13 | A = Low | J27 |
| J17, J22 | B = 600 Ohms | J10, J15 |
| R377 | Solder bridge the pads together | R381 |

| Revision History | | |
|---|---|-------------|
| Document Title: Datron Guardian Series Mobile to 223 Series Adapter Panels | | |
| Document Number: AN-DISPATCH-015 | | |
| Revision | Change Description | Date |
| A | Update brand, format and new document number. | 01-OCT-2009 |

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