

**Motorola  
Radius, M10, M100, M120, M130, M200,  
GM300, SM50, SM120  
and Maxtrac 100/300 Series Radios  
to TRA-223 and DSP-223 Series Adapter Panels**

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# Motorola Radius, M10, M100, M120, M130, M200, GM300, SM50, SM120 and Maxtrac 100/300 Series Radios to TRA-223 and DSP-223 Series Adapter Panels

## 1.0 General

This application note is intended to show how to assemble a cable and setup the hardware of the TRA-223 and DSP-223 for single channel control to the following Motorola mobile radios: Radius, M10, M100, M120, M130, M200, GM300, SM50, SM120 and Maxtrac 100/300.

## 2.0 Interconnect Cable Assembly

A DB-25 or 6-pin cable assembly is required to interconnect the IP-223 serial adapter panel to the RJ-45 microphone connector found on the front panel of the radio.

Follow the schematic in Figure 1 to manufacture the appropriate cable assembly.

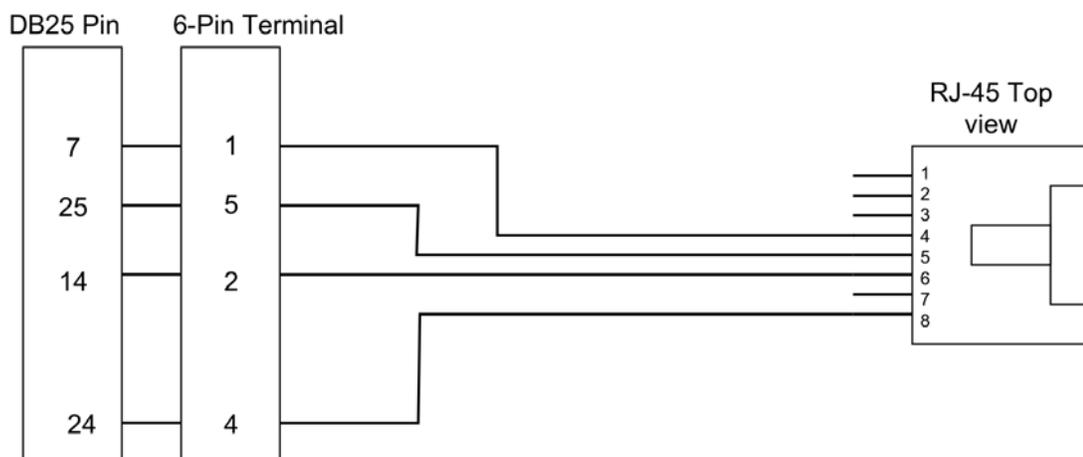


FIGURE 1. Cable Assembly Diagram

## 3.0 223 Series panels

### 3.1 TRA-223 Setup

No changes to the TRA-223 are required.

### 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 1. Front Panel Dip Switch—TRA-223

RJ-45 Pin	Setting	Signal
1	As appropriate	2-Wire = On 4-Wire = Off
2	As appropriate	4-Wire = On 2-Wire = Off
3	As appropriate	Full/Half Duplex
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:

Set the following jumpers to the “A” position:  
J12, J14, J15, J22, J23, J24, J25 and J27

Set the following jumpers to the “B” position:  
J13 and J26

Solder close JP2.

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Revision History		
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Revision	Change Description	Date
A	Update brand, format, add table, and new document number. (Reference rev B)	05-AUG-2009

**Suggestions or comments:**

Please contact technical support with suggestions or comments concerning this application note.

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