

|                          |                  |                                                                                                                                                            |                                   |                  |                                |
|--------------------------|------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------|------------------|--------------------------------|
| Engineer:<br>Jack Curtis | Date:<br>4/22/04 | <br><b>JPS Communications</b><br>5800 Departure Drive, Raleigh, NC 27616 |                                   |                  |                                |
| Drawn:<br>Jack Curtis    | Date:<br>4/22/04 |                                                                                                                                                            |                                   |                  |                                |
| Approved:<br>CTS         | Date:<br>4/22/04 | Title:<br>ACU RADIO APPLICATION NOTES                                                                                                                      |                                   |                  |                                |
| Issued/<br>Revised       | Date:<br>4/22/04 | Size:<br>A                                                                                                                                                 | Dwg. #:<br><b>5961-271180-APP</b> | Rev:<br><b>A</b> | Sheet:<br>1            Of    1 |

**APPLIES TO:**                      Motorola Saber P1750A Base Station Radio  
Motorola Saber P1755A Base Station Radio

**RADIO MODIFICATIONS:**    None required.

**RADIO PROGRAMMING:**

1.        Base station radios should normally be programmed for low transmit power.

**RADIO CONTROLS:**

1.        Adjust the Volume Control until the yellow “SIGNAL” indicator on the associated DSP Module flashes with receive audio.

**CABLING:**

Standard ACU-1000 and ACU-T Interface cables are made up of a 2 foot TRP Radio Tray Interface cable and the appropriate 13-foot Extension cable.

|                                |                     |                                |
|--------------------------------|---------------------|--------------------------------|
| ACU-1000 Interface Cable       | JPS P/N 5961-291180 | (5961-271180 + 5961-261002-00) |
| ACU-T Interface Cable          | JPS P/N 5961-281180 | (5961-271180 + 5961-281013-00) |
| TRP-1000 Shelf Interface Cable | JPS P/N 5961-271180 |                                |
| Radio RF Connector Type        |                     |                                |

**DSP PROGRAMMING:**            (See Notes)

|                             |             |           |
|-----------------------------|-------------|-----------|
| RX Level                    | 3*          | 0dBm*     |
| TX Level                    | 6*          | 0dBm*     |
| Squelch Type                | VOX*        |           |
| COR Polarity                | Active Low* |           |
| High Frequency Equalizer    | 4*          | Flat*     |
| RX Audio Delay              | 2*          | 100 ms*   |
| TX Audio Delay (Radio Type) | 0*          | No Delay* |
| Noise Reduction Value       | 0*          | Off*      |
| VOX/VMR Threshold           | 1*          | Med1*     |
| VOX/VMR Hang Time           | 3*          | 775 ms*   |
| COR Inhibit After PTT       | 1*          | 100 ms*   |
| All Others                  | As needed   |           |

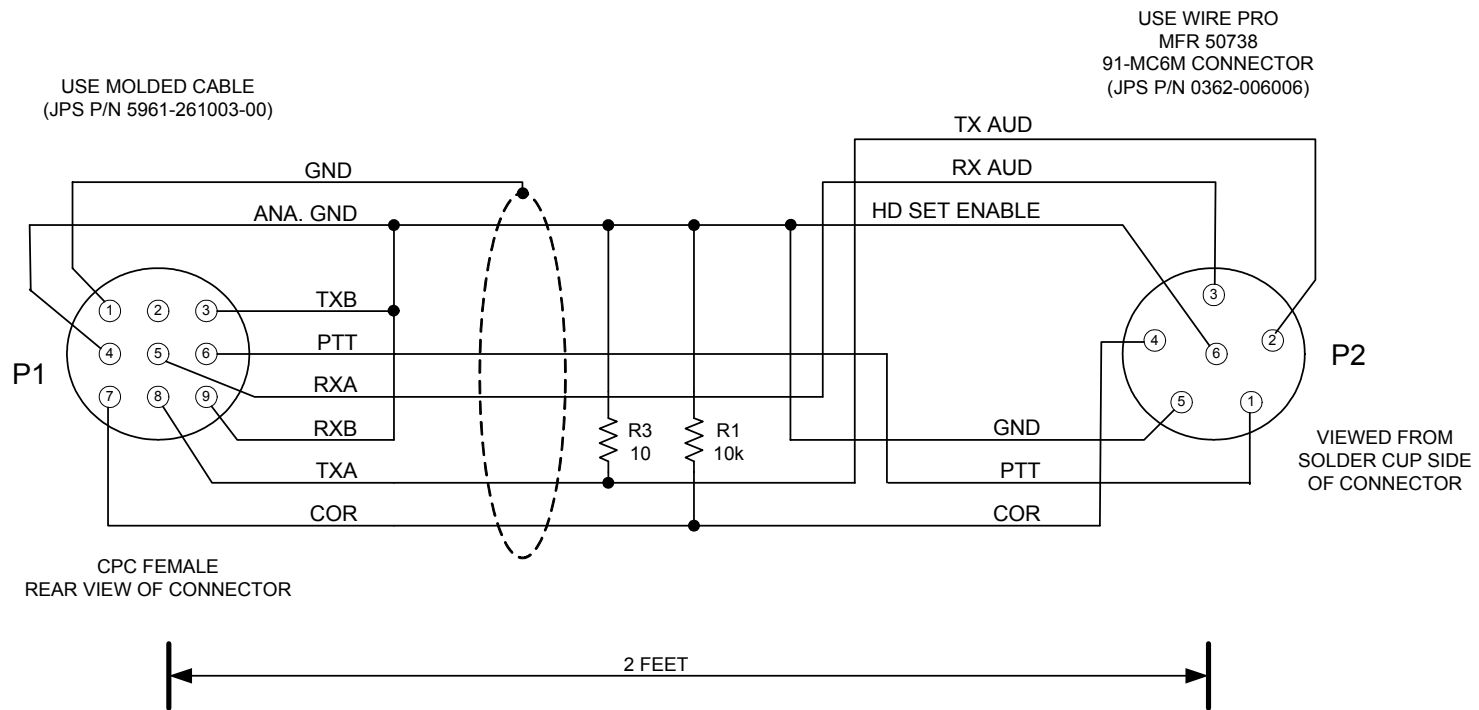
(\* Indicates Default Value)

**NOTES:**

Raytheon JPS Communications has not developed specific settings for this model of radio. Use the generic DSP Setup Procedure to optimize the default values.

PURCHASED PART

| Rev | ECO | Date |
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USED WITH:  
MOTOROLA SABER BASE STATION P1750A  
MOTOROLA SABER BASE STATION P1755A

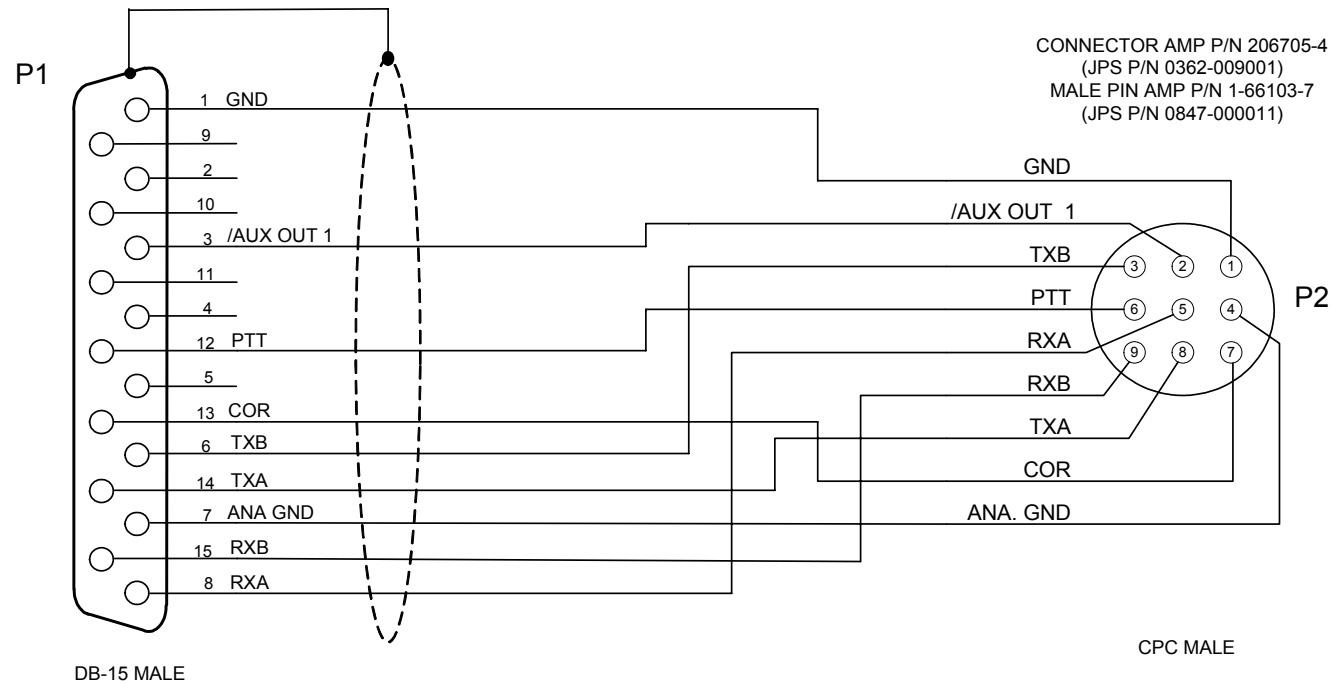
| COMPONENT PCB<br>(JPS P/N 5961-271000) |                     |
|----------------------------------------|---------------------|
| R1                                     | JPS P/N 1820-103000 |
| R3                                     | JPS P/N 1820-100000 |
| JU1                                    |                     |
| JU2                                    |                     |
| JU4                                    |                     |
| JU5                                    |                     |
| JU6                                    |                     |

NOTE: SHIELD DRAIN CONNECTED TO PIN 1 OF P1 ONLY.

|              |     |                                                       |                                       |                            |
|--------------|-----|-------------------------------------------------------|---------------------------------------|----------------------------|
| Designed By: | CTS | <b>Raytheon JPS Communications</b><br>Raleigh, NC USA |                                       |                            |
| Drawn By:    | EDV | Title CABLE, CPC TO MOTOROLA SABER BASE STATION       |                                       |                            |
| Checked By:  | JAC | Size A                                                | Document Number<br><b>5961-271180</b> | Rev A                      |
|              |     | Issued Date                                           | NOVEMBER 17, 2003                     | Sheet <u>1</u> of <u>1</u> |

# PURCHASED PART

| Rev | ECO | Date |
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- NOTES: 1) USE BELDEN 9934 SHIELDED CABLE.  
2) CONNECT SHIELD DRAIN TO SHELL OF P1 ONLY.  
3) CONNECTORS P1 AND P2 MUST BE MOLDED TO THE CABLE.  
4) CABLE MUST BE LABELED WITH THE RAYTHEON/JPS P/N AND REV, VENDOR CODE AND DATE (MM/YY).

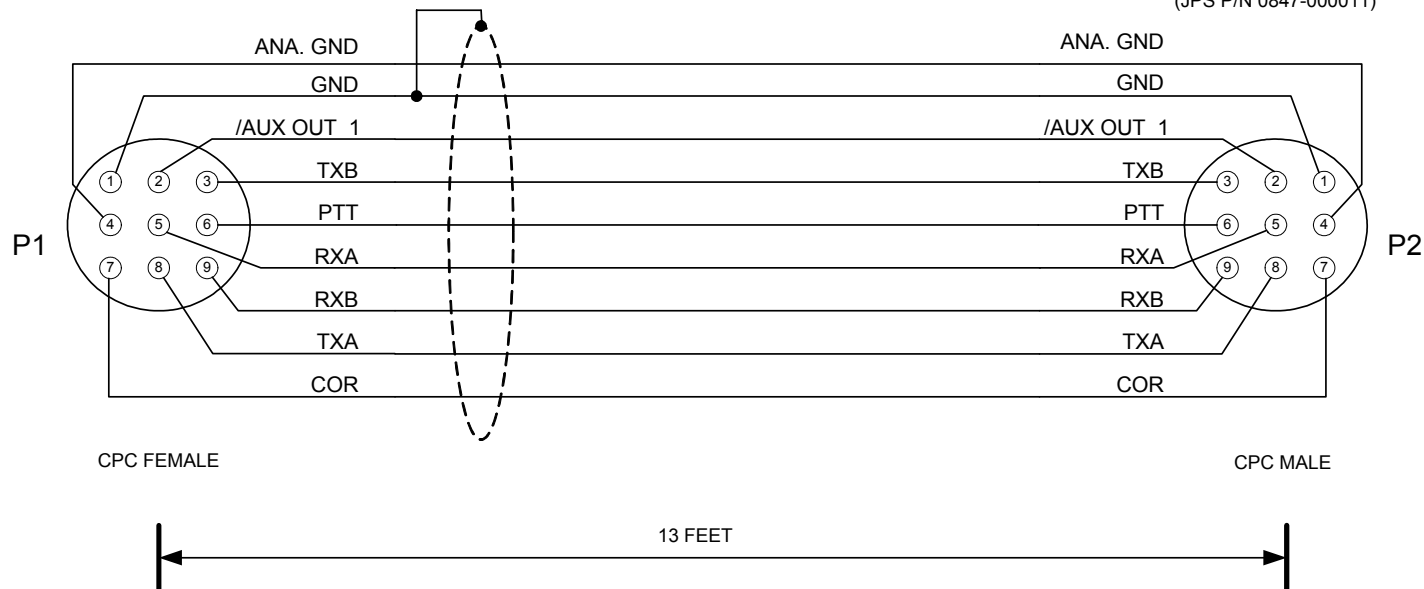
|                                |                                                  |                                          |          |
|--------------------------------|--------------------------------------------------|------------------------------------------|----------|
| Designed By:<br>JAC            | <b>Raytheon JPS Communications</b>               |                                          |          |
| Drawn By:<br>JAC               | Title<br>CABLE, ACU-1000 RADIO EXTENSION - 13 FT |                                          |          |
| Checked By:<br>RBP             | Size<br>A                                        | Document Number<br><b>5961-261002-00</b> | Rev<br>A |
| Issued Date<br>JANUARY 5, 2004 |                                                  | Sheet <u>1</u> of <u>1</u>               |          |

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## PURCHASED PART

CONNECTOR AMP P/N 206708-1  
(JPS P/N 0362-005003)  
FEMALE PIN AMP P/N 1-66105-8  
(JPS P/N 0362-005002)

CONNECTOR AMP P/N 206705-4  
(JPS P/N 0362-009001)  
MALE PIN AMP P/N 1-66103-7  
(JPS P/N 0847-000011)



- NOTES: 1) USE BELDEN 9934 SHIELDED CABLE.  
2) CONNECT SHIELD DRAIN TO PIN 1 OF P1 ONLY.  
3) CONNECTORS P1 AND P2 MUST BE MOLDED TO THE CABLE.  
4) CABLE MUST BE LABELED WITH THE RAYTHEON/JPS P/N AND REV, VENDOR CODE AND DATE (MM/YY).

|                                |                                                       |                                          |          |
|--------------------------------|-------------------------------------------------------|------------------------------------------|----------|
| Designed By:<br>JAC            | <b>Raytheon JPS Communications</b><br>Raleigh, NC USA |                                          |          |
| Drawn By:<br>JAC               | Title<br>CABLE, ACU-T RADIO EXTENSION - 13 FT         |                                          |          |
| Checked By:<br>RBP             | Size<br>A                                             | Document Number<br><b>5961-281013-00</b> | Rev<br>A |
| Issued Date<br>JANUARY 5, 2004 |                                                       | Sheet <u>1</u> of <u>1</u>               |          |