

|                           |                   |                                                                                                                                                                                                           |                                   |                  |                                |
|---------------------------|-------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------|------------------|--------------------------------|
| Engineer:<br>Jack Curtis  | Date:<br>7/01/05  | <div style="text-align: center;">  <br/> <b>JPS Communications</b> <br/> 5800 Departure Drive, Raleigh, NC 27616 </div> |                                   |                  |                                |
| Drawn:<br>Bruce Page      | Date:<br>7/01//05 |                                                                                                                                                                                                           |                                   |                  |                                |
| Approved:<br>Chris Samios | Date:<br>7/06/05  | Title:<br>ACU RADIO APPLICATION NOTES                                                                                                                                                                     |                                   |                  |                                |
| Issued/<br>Revised        | Date:<br>7/06/05  | Size:<br>A                                                                                                                                                                                                | Dwg. #:<br><b>5961-271295-APP</b> | Rev:<br><b>A</b> | Sheet:<br>1            Of    1 |

**APPLIES TO:** Kenwood KRK-7DB Dual Band Mobile Radio (SPK / MIC)

**RADIO MODIFICATIONS:** None required.

**RADIO PROGRAMMING:** None required.

**RADIO CONTROLS:** Adjust the Volume Control until the yellow "SIGNAL" indicator on the associated DSP Module flashes with received 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 5961-291295 | (5961-271295 + 5961-261002-00) |
| ACU-T Cable                    | JPS P/N 5961-281295 | (5961-271295 + 5961-281013-00) |
| TRP-1000 Shelf Interface Cable | JPS P/N 5961-271295 |                                |
| RF Connector Type (2 required) | PL259               |                                |

**DSP JUMPERS:**

|     |                 |
|-----|-----------------|
| JP1 | Low Impedance * |
| JP2 | Balanced *      |

**DSP PROGRAMMING:**

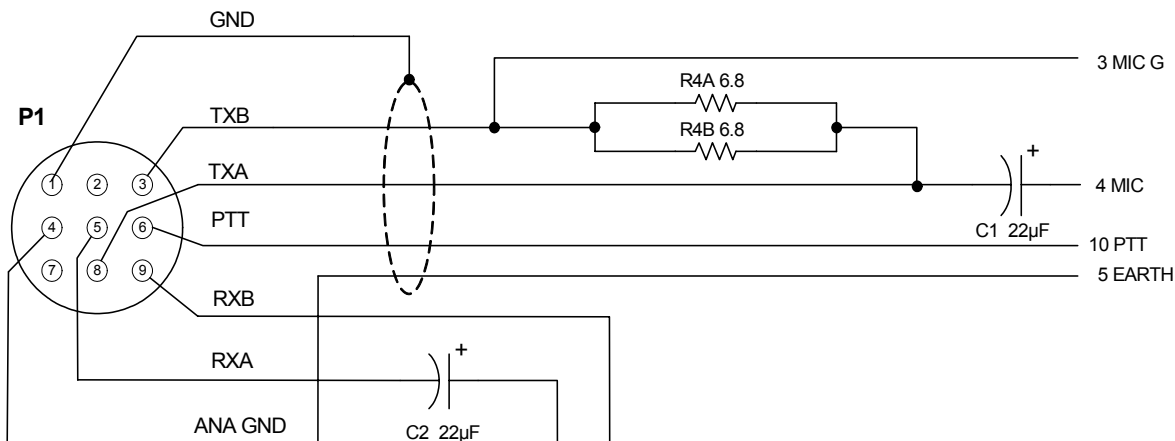
|                             |             |           |
|-----------------------------|-------------|-----------|
| RX Level                    | 3*          | 0dBm*     |
| TX Level                    | 6*          | 0dBm*     |
| Squelch Type                | VOX*        |           |
| COR Polarity                | 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)

USE MOLDED CABLE  
(JPS P/N 5961-261003-00)

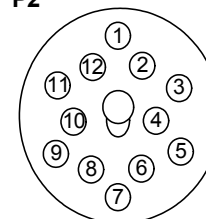
## PURCHASED PART

| Rev | ECO | Date   |
|-----|-----|--------|
| A   |     | 7-6-05 |



CPC FEMALE  
REAR VIEW OF CONNECTOR

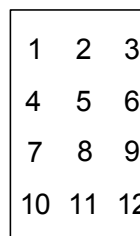
P2 FRONT VIEW



TAKEN FROM KENWOOD  
MICROPHONE CABLE E30-3313-08  
12 PIN MIC CONNECTOR  
(JPS P/N 0314-331308)

WIRE VIEW

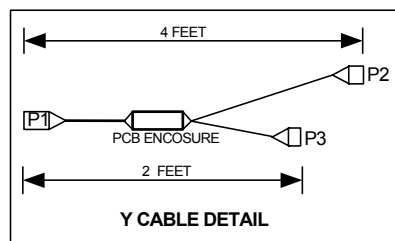
P3



CRIMP TERMINALS  
KENWOOD E23-0613-05  
(JPS P/N 0847-000012)

ACC 12 PIN CONNECTOR  
KENWOOD E59-0404-05  
(JPS P/N 0314-040405)

NOTE: USE SHIELDED CABLE FOR P1 TO P2 AND P1 TO P3.  
SHIELD DRAINS CONNECTED TO PIN 1 OF P1 ONLY.



Y CABLE DETAIL

COMPONENT PCB  
(JPS P/N 5961-271000)

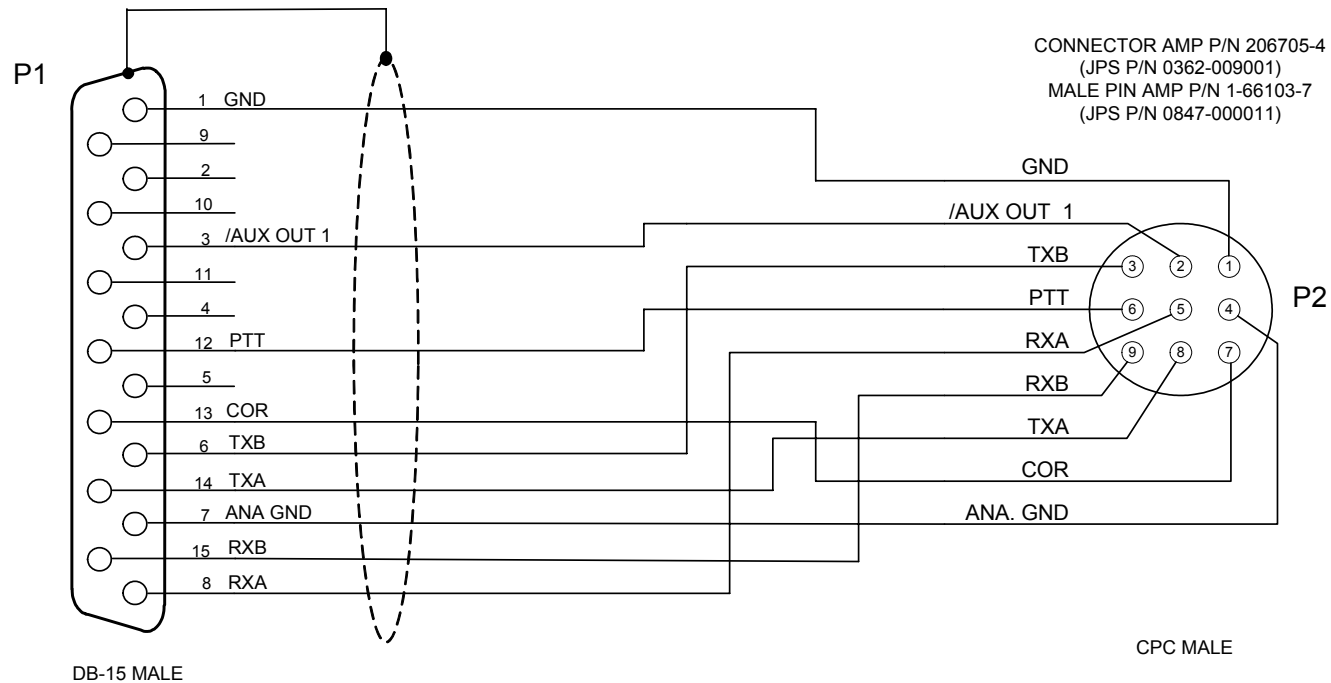
C1 JPS P/N 0321-220250  
C2 JPS P/N 0321-220250  
R4A JPS P/N 1820-068000  
R4B JPS P/N 1820-068000  
JU2

USED WITH:  
KENWOOD DUAL RADIO SINGLE CONTROL HEAD KRK-7DB MOBILE

|                     |                                                        |                                       |          |
|---------------------|--------------------------------------------------------|---------------------------------------|----------|
| Designed By:<br>RBP | <b>Raytheon JPS Communications</b>                     |                                       |          |
| Drawn By:<br>RBP    | Title<br>CABLE, CPC TO KENWOOD KRK-7DB (SPEAKER / MIC) |                                       |          |
| Checked By:<br>CTS  | Size<br>A                                              | Document Number<br><b>5961-271295</b> | Rev<br>A |
|                     | Issued Date<br>JULY 6, 2005                            |                                       |          |
|                     | Sheet <u>1</u> of <u>1</u>                             |                                       |          |

# PURCHASED PART

| Rev | ECO | Date |
|-----|-----|------|
| A   |     |      |



- 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).

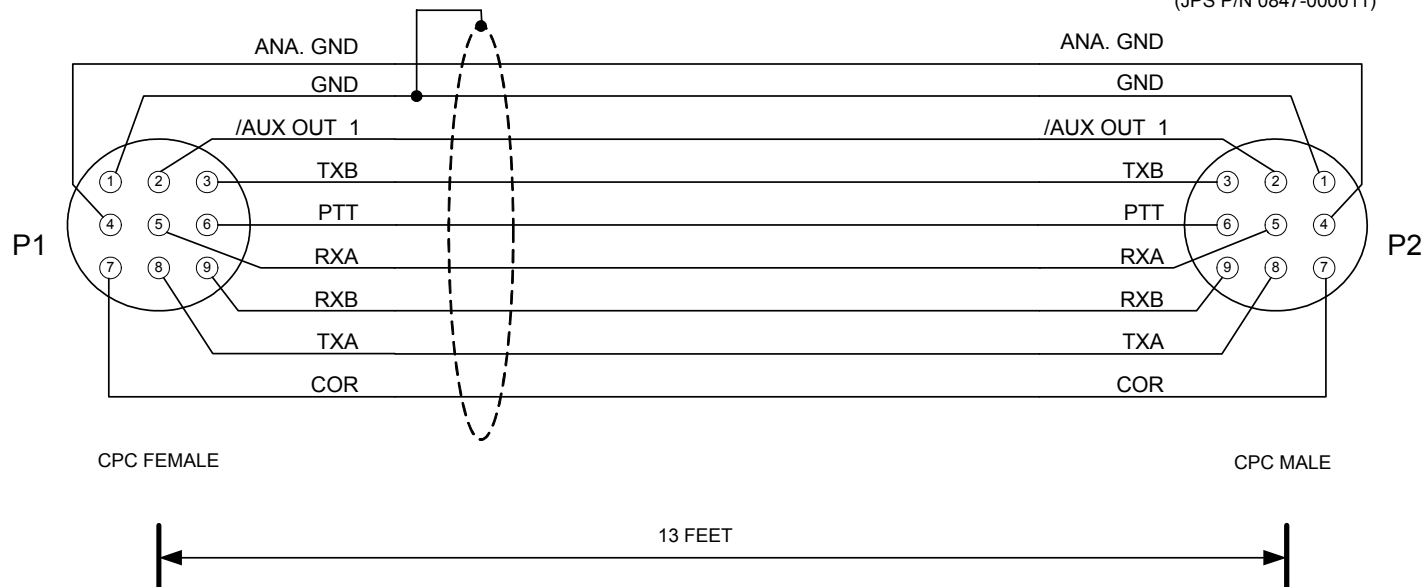
|                                |                                                  |                                          |          |
|--------------------------------|--------------------------------------------------|------------------------------------------|----------|
| Designed By:<br>JAC            | <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>               |          |

| Rev | ECO | Date |
|-----|-----|------|
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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>               |          |