


Engineer: Jack Curtis	Date: 7/01/05	 <b>JPS Communications</b> 5800 Departure Drive, Raleigh, NC 27616			
Drawn: Bruce Page	Date: 7/01//05				
Approved: Chris Samios	Date: 7/06/05	Title: ACU RADIO APPLICATION NOTES			
Issued/ Revised	Date: 7/06/05	Size: A	Dwg. #: 5961-271296-APP	Rev: A	Sheet: 1 Of 1

**APPLIES TO:** Kenwood KRK-7DB Dual Band Mobile Radio (ACC Connector)

**RADIO MODIFICATIONS:** None required.

**RADIO PROGRAMMING:** For radio programming use KPG-44D software and KPG-43 programming cable. After interface to radio is established the following is required programming for proper interface function. Select **Edit**, **Optional Features** then select the tab **Optional Features 1**. Place selection mark in option **Ext PTT w/QT/DQT**. Place a selection mark in the option **Ext PTT w/ Squelch Tail Eliminator**. Select **Close**. Select **Edit**, **Function Port** then select the tab **Input**, from the list select the programmable field to the right of **Head 1 AI 1** and from pull down list select **Ext PTT**. Select **Close**.  
Select **Edit**, **Function Port** then select the tab **Output**, from the list select the programmable field to the right of **Head 1 AO 1** and from pull down list select **TOR**. Select **Close** and **Write**.

As an option for exclusive ACU interfacing: Select **Edit**, **Optional Features** then select the tab **Optional Features 1**. Select and set **Minimum Volume** to 16. This will prevent the volume being reduced below level required for interface function.

**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 5961-291296	(5961-271296 + 5961-261002-00)
ACU-T Cable	JPS P/N 5961-281296	(5961-271296 + 5961-281013-00)
TRP-1000 Shelf Interface Cable	JPS P/N 5961-271296	
RF Connector Type	PL259	

**DSP JUMPERS:**

JP1	Low Impedance *
JP2	Balanced *

**DSP PROGRAMMING:**

RX Level	3*	0dBm*
TX Level	6*	0dBm*
Squelch Type	COR	
COR Polarity	Active Low	
High Frequency Equalizer	4*	Flat*
RX Audio Delay	0	20 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	

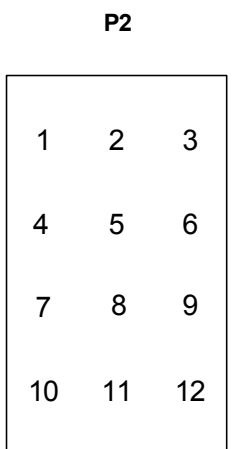
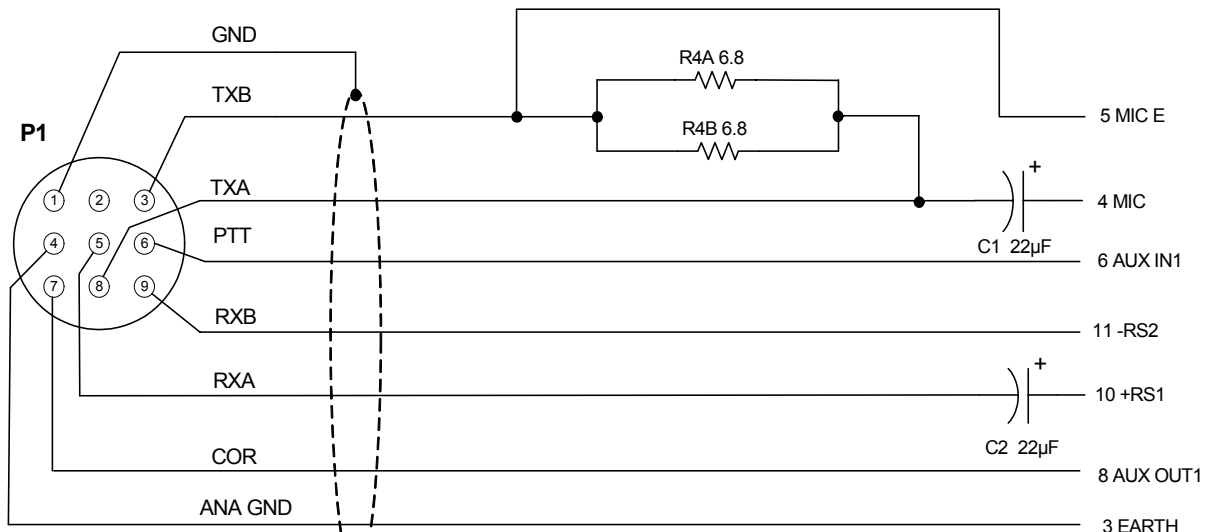
(\* Indicates Default Value)

**NOTES:**

PURCHASED PART

Rev	ECO	Date
A		7-6-05

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



WIRE VIEW

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

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

CPC FEMALE  
REAR VIEW OF CONNECTOR

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	

NOTE: USE SHIELDED CABLE. SHIELD DRAINS CONNECTED TO PIN 1 OF P1 ONLY.

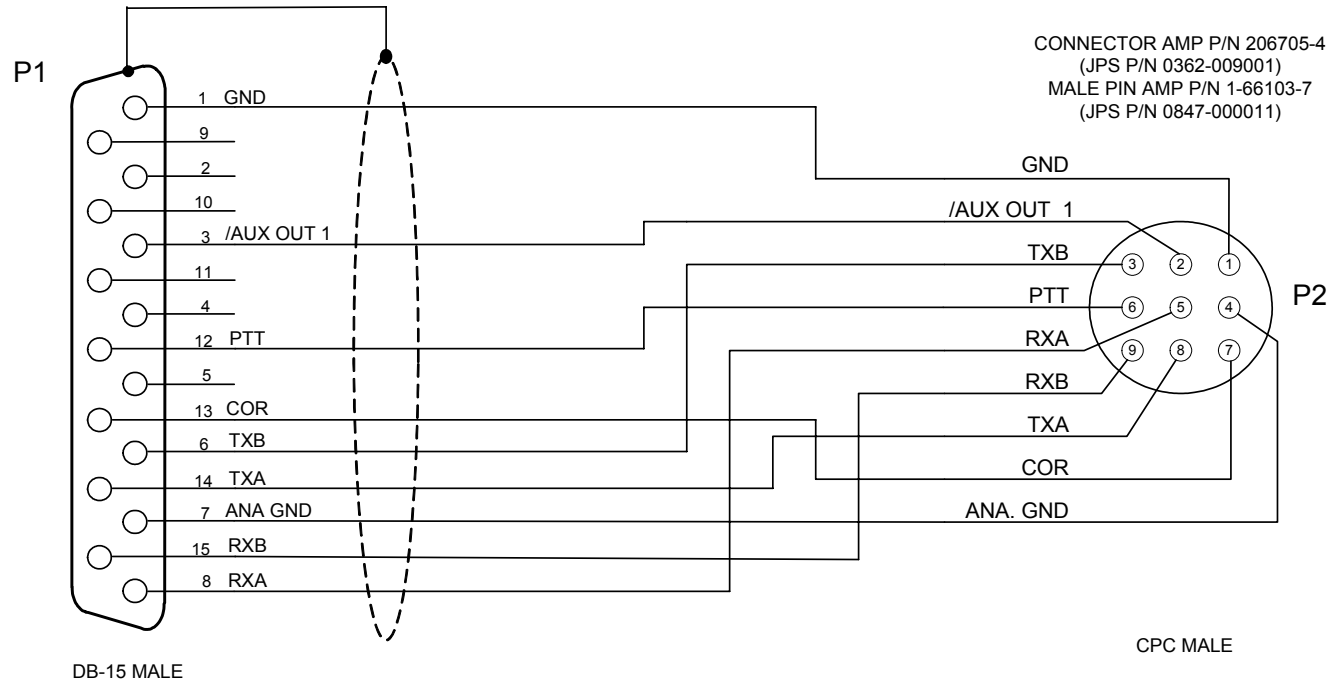
RADIO PROGRAMMING REQUIRED SEE APPLICATION NOTE FOR DETAILS.

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

Designed By: RBP	<b>Raytheon JPS Communications</b>		
Drawn By: RBP	Title CABLE, CPC TO KENWOOD KRK-7DB (ACC CONNECTOR)		
Checked By: CTS	Size A	Document Number <b>5961-271296</b>	Rev A
Issued Date JULY 6, 2005		Sheet <u>1</u> of <u>1</u>	

# PURCHASED PART

Rev	ECO	Date
A		



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

DB-15 MALE

CPC MALE



- 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).

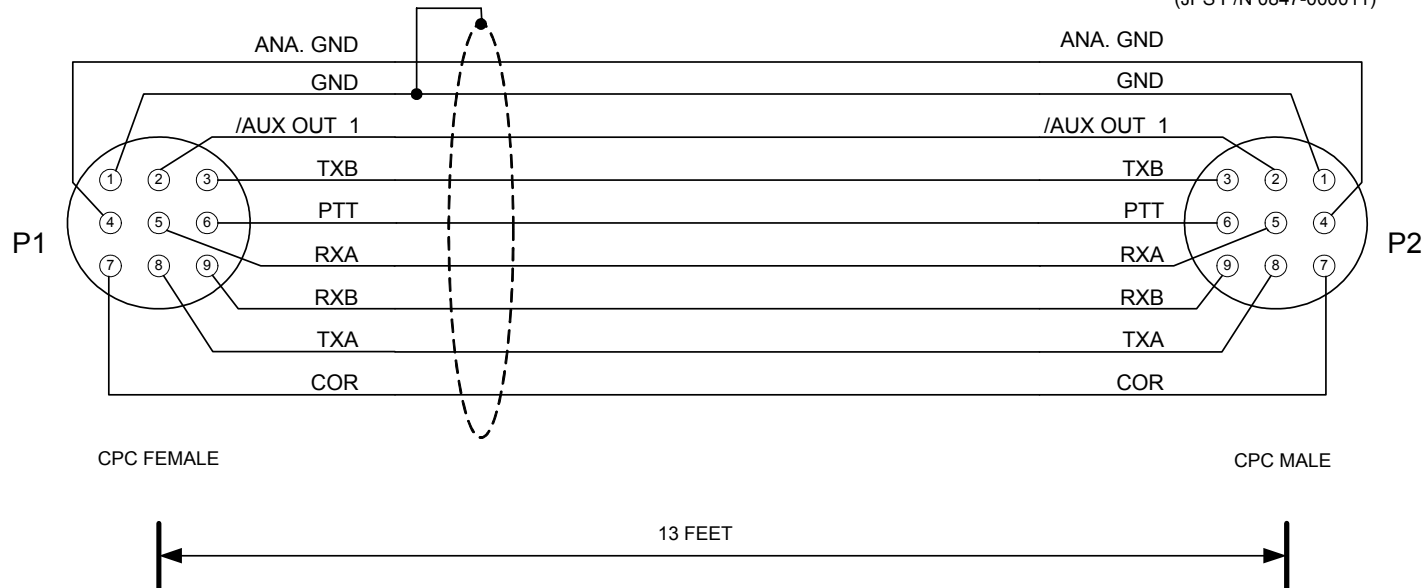
Designed By: JAC	<b>Raytheon JPS Communications</b>		
Drawn By: JAC	Title CABLE, ACU-1000 RADIO EXTENSION - 13 FT		
Checked By: RBP	Size A	Document Number <b>5961-261002-00</b>	Rev A
Issued Date JANUARY 5, 2004		Sheet <u>1</u> of <u>1</u>	

Rev	ECO	Date
A		

## 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: JAC	<b>Raytheon JPS Communications</b> Raleigh, NC USA		
Drawn By: JAC	Title CABLE, ACU-T RADIO EXTENSION - 13 FT		
Checked By: RBP	Size A	Document Number <b>5961-281013-00</b>	Rev A
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