

Engineer: Chris Samios	Date: 9/10/02	 JPS Communications 5800 Departure Drive, Raleigh, NC 27616			
Drawn: Jack Curtis	Date: 9/10/02				
Approved: CTS	Date: 9/10/02	Title: ACU RADIO APPLICATION NOTES			
Issued/ Revised	Date: 3/11/04	Size: A	Dwg. #: 5961-271161-APP	Rev: A	Sheet: 1 Of 2

APPLIES TO: Kenwood TK-690 VHF Mobile Radio
Kenwood TK-790 VHF Mobile Radio
Kenwood TK-890 UHF Mobile Radio

RADIO MODIFICATIONS:

1. Remove the top cover.
2. Add zero Ohm jumper resistors as needed to the locations for R640 and R641 as shown on Figure 1. (Both jumpers need to be present.) This changes Pin 13 on the accessory connector from Data Input to Mic Audio Input.
3. Replace the top cover of the radio.

RADIO PROGRAMMING:

1. Mobile radios should normally be programmed for low transmit power.
2. Using KPG44 programming software, go to the Function Port programming (under Edit). Change Deck input P1 to EXT PTT. Change Deck output P1 to COR.

NOTE: To attach programming cable; 1.) start screw, 2.) press connector in until it latches, 3.) tighten screw.

To detach programming cable; 1.) loosen screw completely, 2.) TURN connector until it unlatches.

RADIO CONTROLS:

1. The radio Volume Control does not have any effect on the level to the ACU-1000.

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 5961-291161	(5961-271161 + 5961-261002-00)
ACU-T Interface Cable	JPS P/N 5961-281161	(5961-271161 + 5961-281013-00)
TRP-1000 Shelf Interface Cable	JPS P/N 5961-271161	
RF Adaptor Type	PL259	

DSP JUMPERS:

JP1	Hi Impedance
JP2	Unbalanced

DSP PROGRAMMING:

RX Level	8	-20dBm
TX Level	4	-8dBm
Squelch Type	COR	
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:

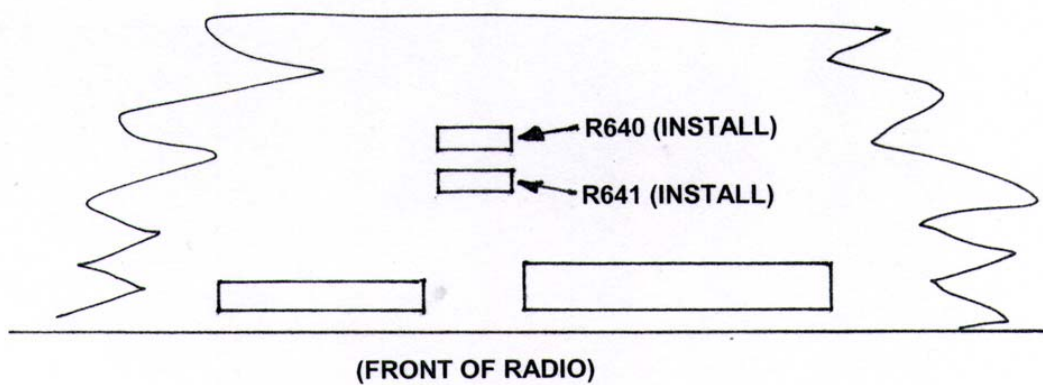
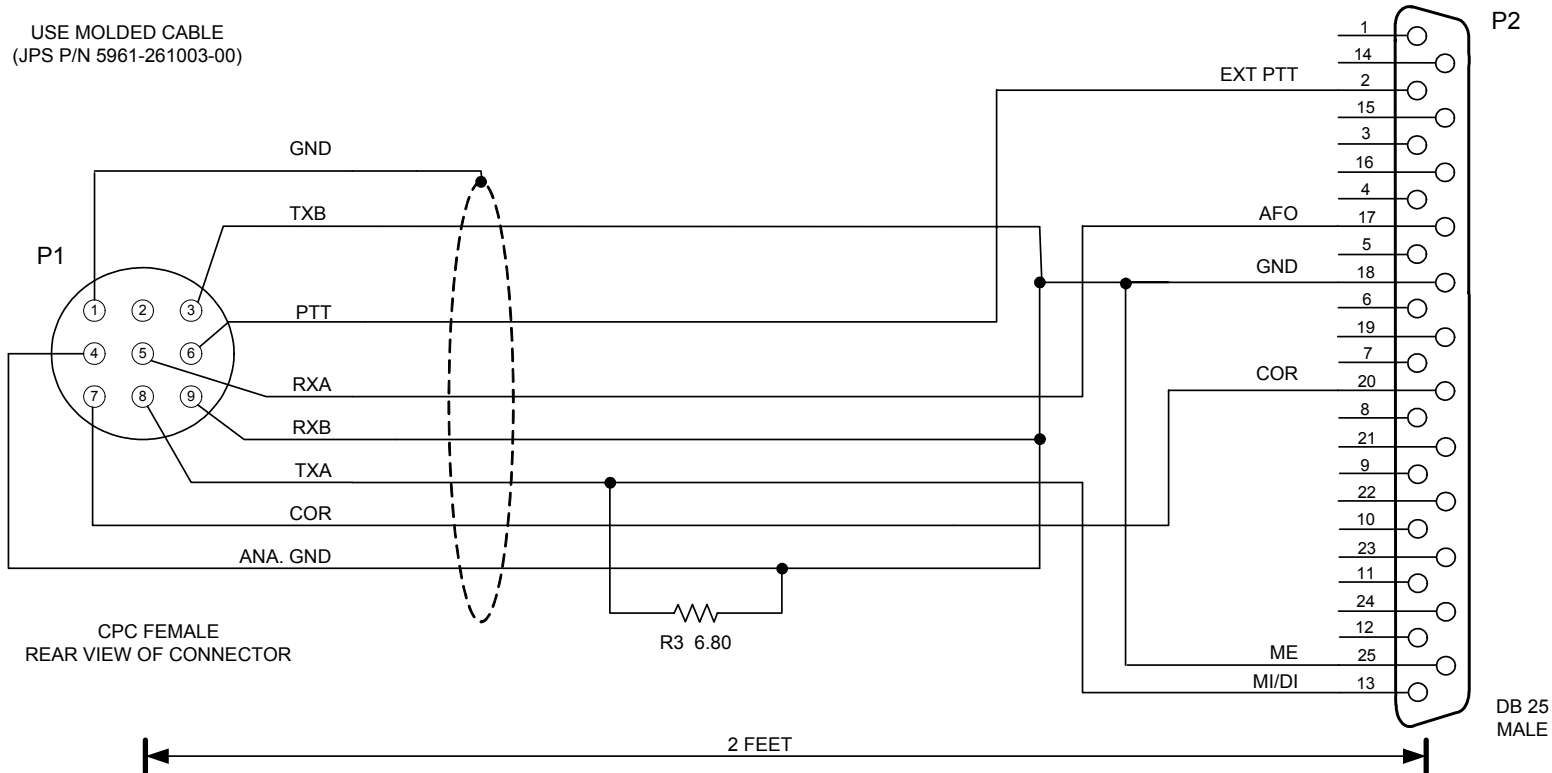


FIGURE 1. COMPONENT LOCATIONS

PURCHASED PART

Rev	ECO	Date
A		

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



CPC FEMALE
REAR VIEW OF CONNECTOR

DB 25
MALE

COMPONENT PCB
(JPS P/N 5961-271000)

R3 JPS P/N 1820-068000
JU1
JU2
JU4
JU5
JU6

USED WITH:
KENWOOD TK-690 MOBILE
KENWOOD TK-790 MOBILE
KENWOOD TK-890 MOBILE

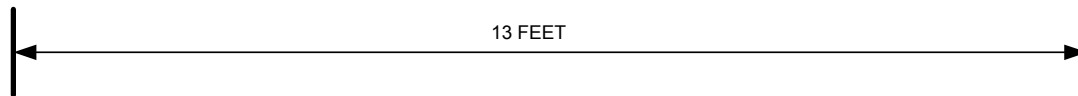
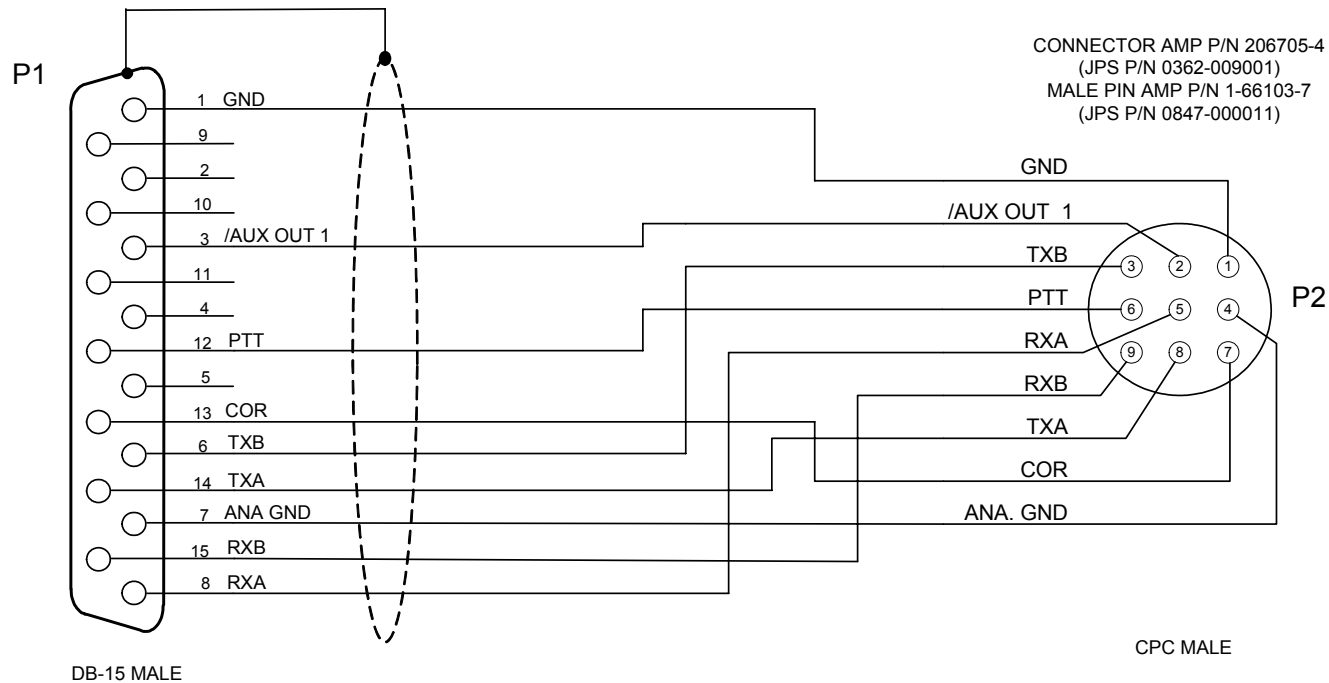
NOTES: SHIELD DRAIN CONNECTED TO PIN 1 OF P1 ONLY.

EXT PTT AND COR MUST BE PROGRAMMED
PER APPLICATION NOTES 5961-271161-APP.

Designed By: DD	Raytheon JPS Communications Raleigh, NC USA		
Drawn By: EDV	Title CABLE, CPC TO KENWOOD TK-690/790/890		
Checked By: JAC	Size A	Document Number 5961-271161	Rev A
Issued Date		NOVEMBER 5, 2003	Sheet 1 of 1

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).

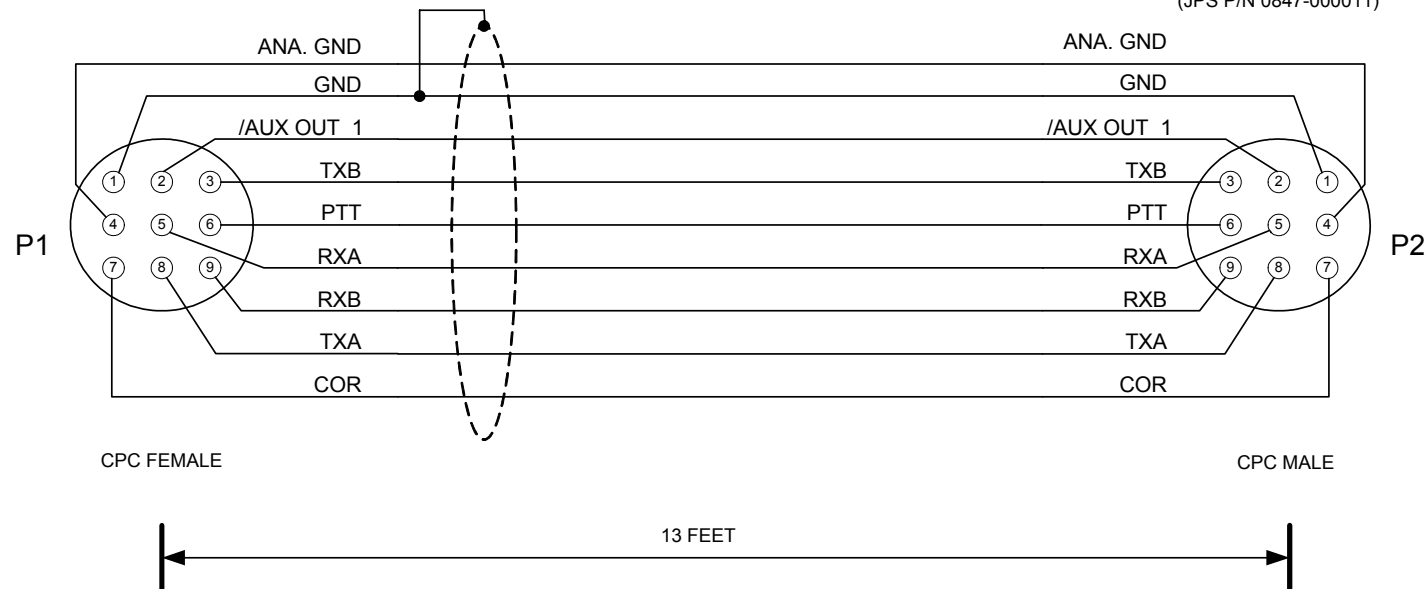
Designed By: JAC	Raytheon JPS Communications		
Drawn By: JAC	Title CABLE, ACU-1000 RADIO EXTENSION - 13 FT		
Checked By: RBP	Size A	Document Number 5961-261002-00	Rev A
Issued Date JANUARY 5, 2004		Sheet <u>1</u> of <u>1</u>	

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