Engineer: Chris Samios	Date: 5/13/02	Raytheon JPS Communications 5800 Departure Drive, Raleigh, NC 27616			
Drawn: Jack Curtis	Date: 5/13/02				
Approved: CTS	Date: 5/30/02	Title: ACU RADIO APPLICATION NOTES			
Issued/ Revised	Date: 3/8/04	Size: A	Dwg. #: **5961-271174-APP**	Rev: **A**	Sheet: 1 Of 3

APPLIES TO:

Kenwood TK-680 VHF Mobile Radio
Kenwood TK-780 VHF Mobile Radio
Kenwood TK-880 UHF Mobile Radio
Kenwood TK-980 800 MHz Mobile Radio
Kenwood TK-980 900 MHz Mobile Radio

RADIO MODIFICATIONS:

The radio must have Kenwood Accessory Cable KCT-19 installed, as follows:

1. Remove the top cover.
2. Disconnect the internal speaker from connector CN6.
3. Connect the KCT-19 Accessory Cable as shown in Figure 1.
4. Route the accessory cable through the cable slot (underneath the DC power cable) making sure that the strain relief is inside the chassis.
5. Replace the top cover.
6. Remove the bottom cover.
7. Remove the zero Ohm jumper R94 and reinstall as R24, as shown in Figure 2.
8. Replace the bottom cover.

RADIO PROGRAMMING:

1. Mobile radios should normally be programmed for low transmit power.
2. Using KPG49D programming software, go to COM 2 port programming under radio options. Change the input to AUX HOOK/PTT.

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 long TRP Radio Tray Interface cable and the appropriate 13-foot extension cable.

ACU-1000 Interface Cable	JPS P/N 5961-291174	(5961-271174 + 5961-261002-00)
ACU-T Interface Cable	JPS P/N 5961-281174	(5961-271174 + 5961-281013-00)
TRP-1000 Shelf Interface Cable	JPS P/N 5961-271174	
RF Connector Type	PL-259	

DSP JUMPERS:

JP1	Hi Impedance
JP2	Unbalanced

DSP PROGRAMMING:

RX Level	3*	0 dBm*
TX Level	6*	0 dBm*
Squelch Type	COR	
COR Polarity	Active Low*	
High Frequency Equalizer	4*	Flat*
RX Audio Delay Time	2*	100 ms*
TX Audio Delay	0*	No Delay*
(was "Radio Type")		
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)

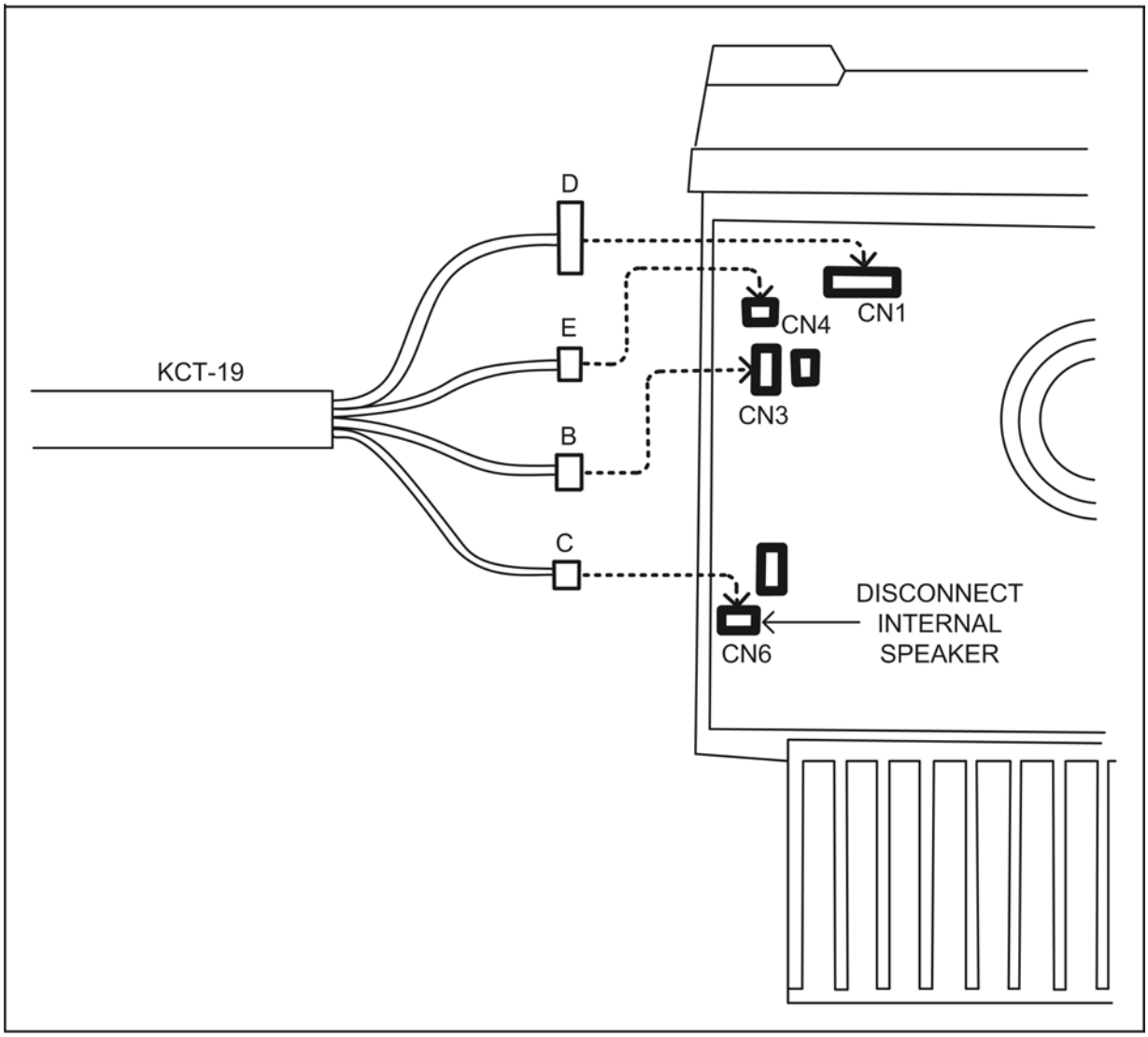


FIGURE 1. KCT-19 ACCESSORY CABLE

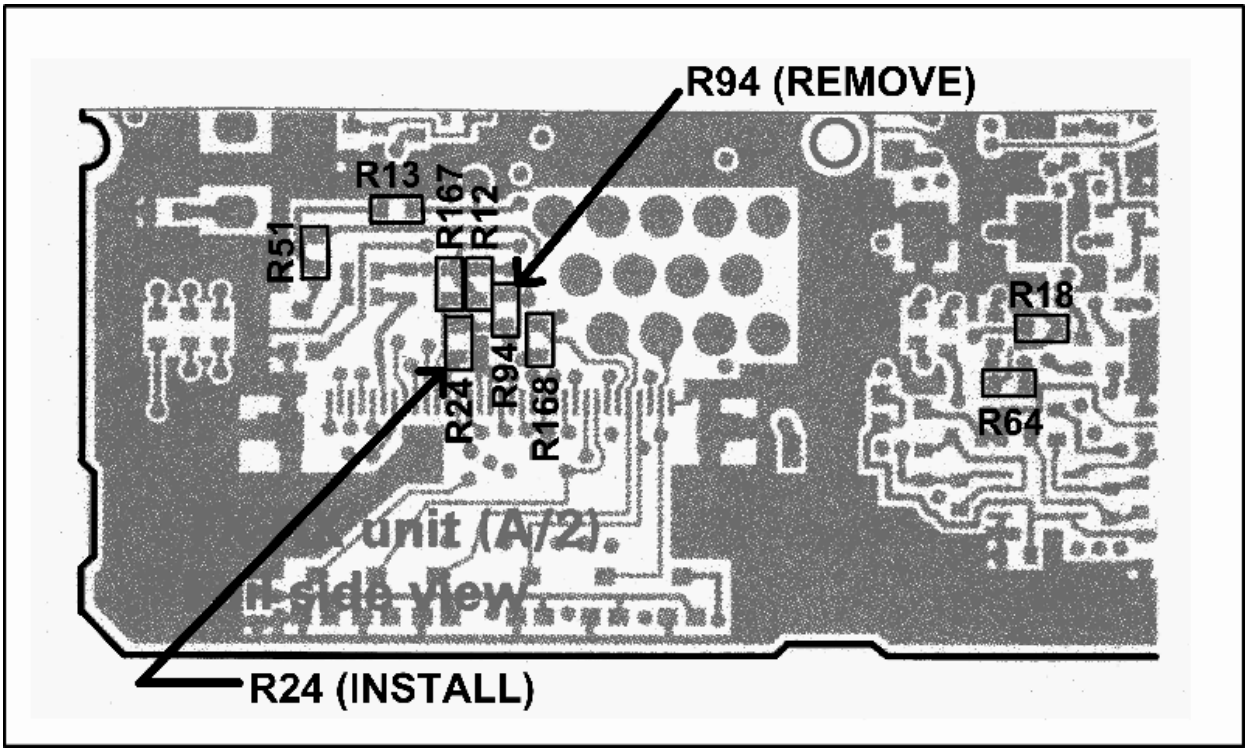


FIGURE 2. COMPONENT LOCATIONS

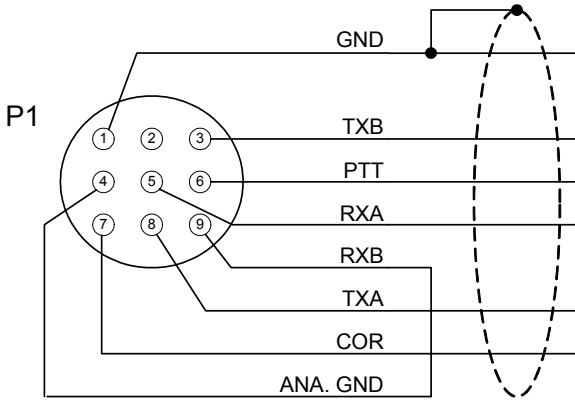
NOTES:

Rev	ECO	Date
A		

PURCHASED PART

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

P1



GND
TXB
PTT
RXA
RXB
TXA
COR
ANA. GND

P2

USE KENWOOD SQUARE PLUG
P/N E09-1571-05
USE CRIMP TERMINALS
P/N E23-0613-05

GND PIN 6
TXB PIN 2
PTT PIN 8
RXA PIN 12
R7 47k
TXA PIN 5
COR PIN 11

CPC FEMALE
REAR VIEW OF CONNECTOR

2 FEET

COMPONENT PCB
(JPS P/N 5961-271000)

R7	JPS P/N 1820-473000
JU1	
JU4	
JU6	

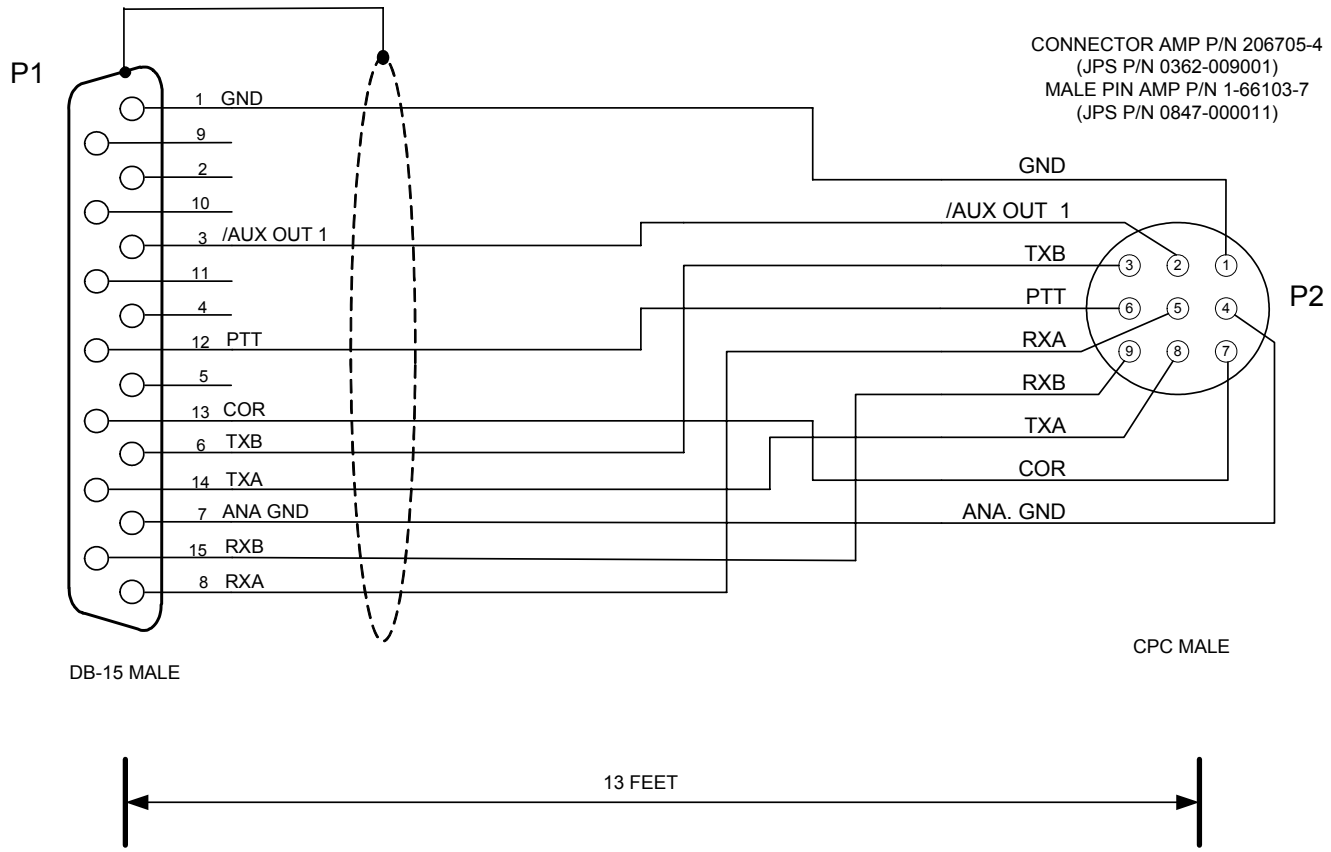
NOTE: SHIELD DRAIN CONNECTED TO PIN 1 OF P1 ONLY.

USED WITH:
KENWOOD TK-680 MOBILE
KENWOOD TK-780 MOBILE
KENWOOD TK-880 MOBILE
KENWOOD TK-980 MOBILE

Designed By: CTS	Raytheon JPS Communications Raleigh, NC USA		
Drawn By: EDV	Title CABLE, CPC TO KENWOOD TK-880		
Checked By: JAC	Size A	Document Number **5961-271174**	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).

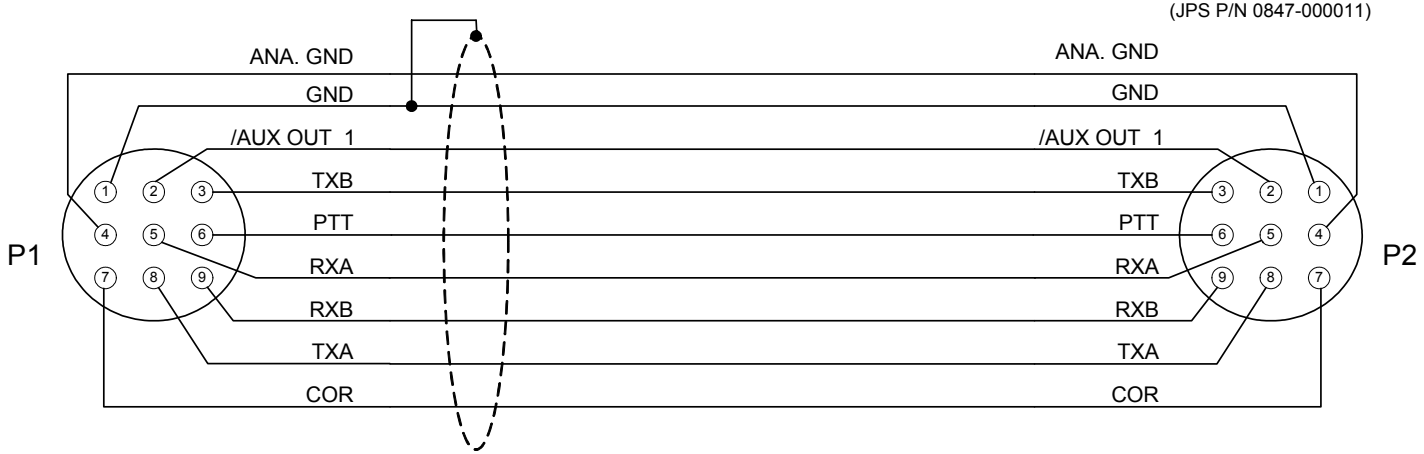
Designed By: JAC	Raytheon JPS Communications		
Drawn By: JAC	Title: CABLE, ACU-1000 RADIO EXTENSION - 13 FT		
Checked By: RBP	Size: A	Document Number: **5961-261002-00**	Rev: A
	Issued Date: JANUARY 5, 2004		Sheet 1 of 1

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
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