

Engineer: Bruce Page	Date: 8/29/03	 JPS Communications 5800 Departure Drive, Raleigh, NC 27616			
Drawn: Bruce Page	Date: 8/29/03				
Approved: CTS/JAC	Date: 10/3/03	Title: ACU RADIO APPLICATION NOTES			
Issued/ Revised	Date: 3/24/04	Size: A	Dwg. #: 5961-271222-APP	Rev: A	Sheet: 1 Of 2

APPLIES TO: Motorola CDM1250 Mobile Radio
Motorola CDM1550 Mobile Radio

RADIO MODIFICATIONS: None required.

RADIO PROGRAMMING:

1. This radio requires programming for proper ACU to radio interconnection. Accessory pin 4 must be programmed to enable hard COR. The function selection "CSQ Detect (Output)" should be programmed. Accessory pin 3 should be left at the default function selection of "External Mic PTT (Input)".
2. The programmable function button P3 should be programmed for High/Low Transmit Power selection (default).

RADIO CONTROLS:

1. The Transmit Power setting is indicated by an "H" or "L" in the top row of the LCD screen. Toggle to "L" if necessary by pressing and holding the front panel function button P3.
2. The Volume Control setting has no effect on the level of receive audio 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 5961-291222	(5961-271222 + 5961-261002-00)
ACU-T Interface Cable	JPS P/N 5961-281222	(5961-271222 + 5961-281013-00)
TRP-1000 Shelf Interface Cable	JPS P/N 5961-271222	
Radio RF Connector Type	Mini-UHF	

DSP PROGRAMMING:

RX Level	5	-8dBm
TX Level	6*	0dBm*
Squelch Type	COR	
COR Polarity	Active Low*	
High Frequency Equalizer	5	2dB Boost
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:

The radio's accessory connector is a 20 pin Molex, and the correct accessory connector kit (Motorola P/N HLN9457A, JPS P/N 0314-000203) contains a 16 pin Molex which can only be installed in one position (centered).

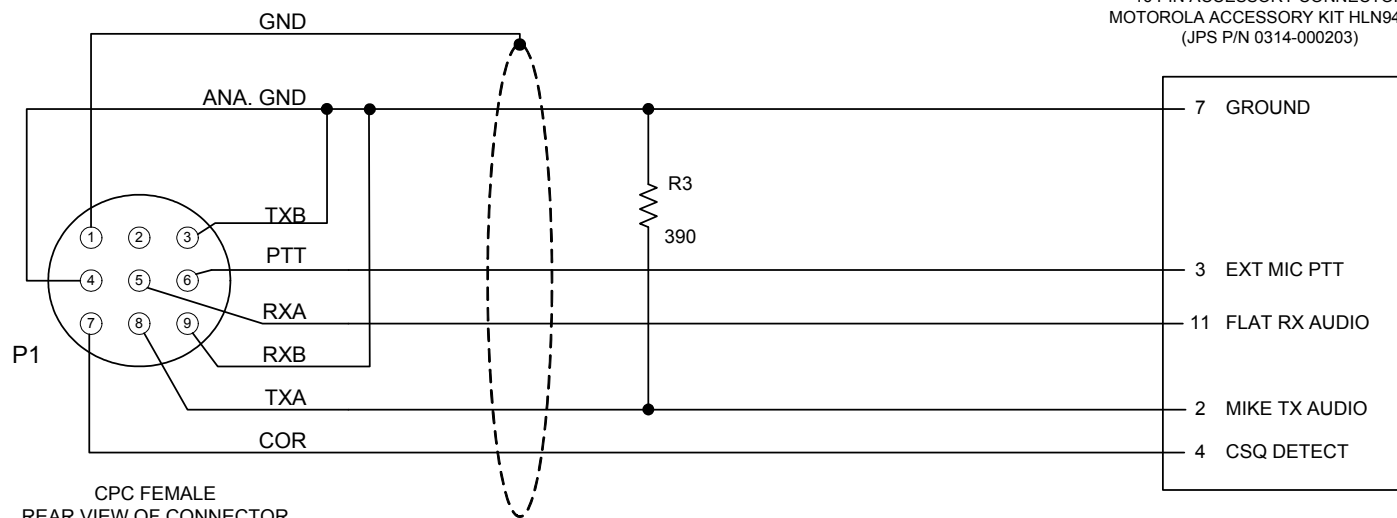
271222-APP.doc

Rev	ECO	Date
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PURCHASED PART

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



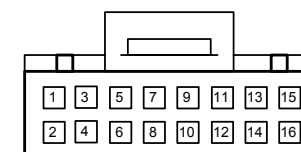
CPC FEMALE
REAR VIEW OF CONNECTOR

2 FEET

NOTES: PROGRAM PIN 3 = "EXTERNAL MIC PTT (INPUT)".
PROGRAM PIN 4 = "CSQ DETECT (OUTPUT)".

RADIO ACCESSORY CONNECTOR IS 20 PIN.
CABLE 16 PIN CONNECTOR ATTACHES TO CENTER 16 PINS.

SHIELD DRAIN CONNECTED TO PIN 1 OF P1 ONLY.



FRONT VIEW

COMPONENT PCB
(JPS P/N 5961-271000)

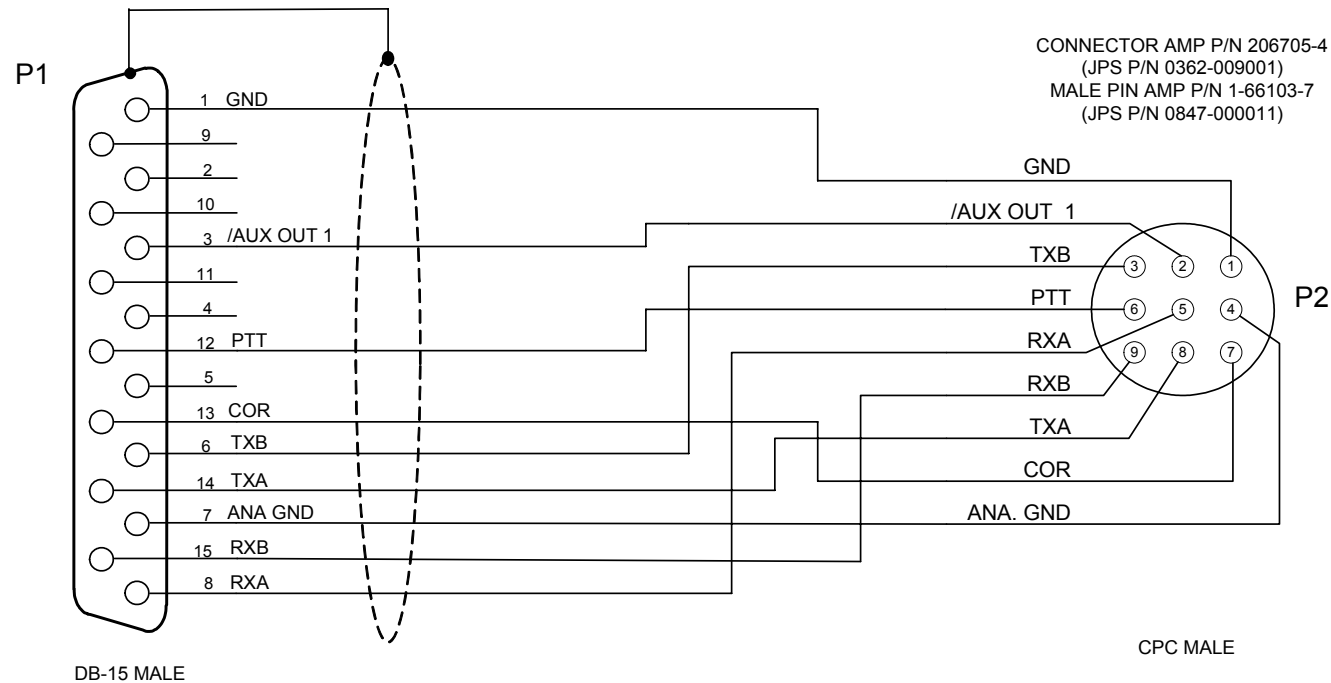
R3 JPS P/N 1820-391000
JU1
JU2
JU4
JU5
JU6

USED WITH:
MOTOROLA CDM1250 MOBILE
MOTOROLA CDM1550 MOBILE

Designed By:	CTS	Raytheon JPS Communications Raleigh, NC USA		
Drawn By:	EDV	Title CABLE, CPC TO MOTOROLA CDM1550 MOBILE		
Checked By:	JAC	Size A	Document Number 5961-271222	Rev A
		Issued Date	NOVEMBER 5, 2003	Sheet 1 of 1

PURCHASED PART

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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).

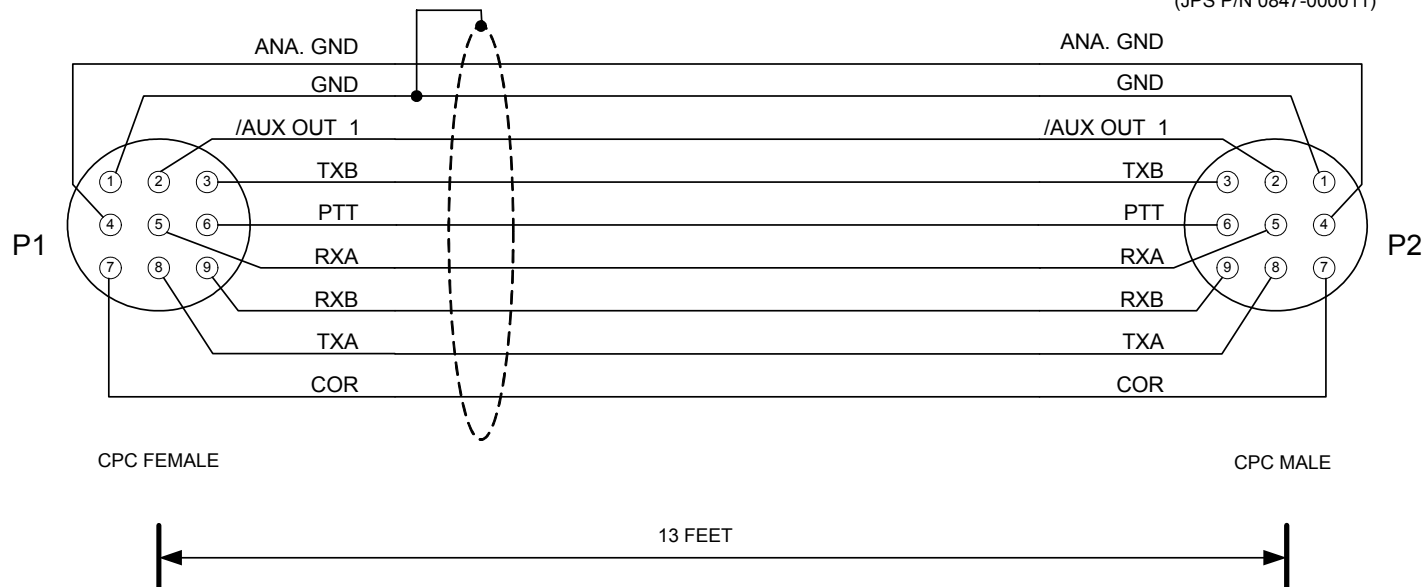
Designed By: JAC	Raytheon JPS Communications		
Drawn By: JAC	Title CABLE, ACU-1000 RADIO EXTENSION - 13 FT		
Checked By: RBP	Size A	Document Number 5961-261002-00	Rev A
Issued Date JANUARY 5, 2004		Sheet <u>1</u> of <u>1</u>	

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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: 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>	