


Engineer: Bruce Page	Date: 8/29/03	<div style="text-align: center;">  JPS Communications 5800 Departure Drive, Raleigh, NC 27616 </div>			
Drawn: Bruce Page	Date: 8/29/03				
Approved: CTS/JAC	Date: 3-6-06	Title: ACU RADIO APPLICATION NOTES			
Issued/ Revised	Date: 7-28-06	Size: A	Dwg. #: 5961-271222-APP	Rev: C	Sheet: 1 Of 2

APPLIES TO:

Motorola CDM750 Mobile Radio
Motorola CDM1250 Mobile Radio
Motorola CDM1550 Mobile Radio
Motorola PRO3100 Mobile Radio
Motorola PRO5100 Mobile Radio
Motorola PRO7100 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. This option is found under Radio Configuration – Accessory Pins Tab. Pin # 4 function selection "PL & CSQ Detect/Talkgroup Detect (Output)" with Active Level set High and Debounce Enable Box checked.
2. The "External Mic PTT (Input)" for Pin #3 is the factory default and is required with the Active Level set Low and Debounce Enable Box checked.
3. For proper PL & DPL function the selection Box "Hook (HUB) Defeat PL" must be unchecked. This option is found under Radio Configuration – Basic Tab.
4. If continuous radio operation after power cycle is required the Ignition Sense lead will require connection and the radio programming option will need to be set. This option is found under Radio Configuration – Accessory Configuration – Ignition Sense Type – On / Off & Ignition. Using these setting the radio will return to previous condition following a power cycle.
5. Mobile radios should normally be programmed for low transmit power.

RADIO CONTROLS:

1. 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-1 JUMPERS:

JP1	Low Impedance *
JP2	Balanced *

DSP PROGRAMMING:

RX Level	5	-8dBm
TX Level	6*	0dBm*
Squelch Type	COR	
COR Polarity	Active High	
High Frequency Equalizer	6	+3.5dB 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*

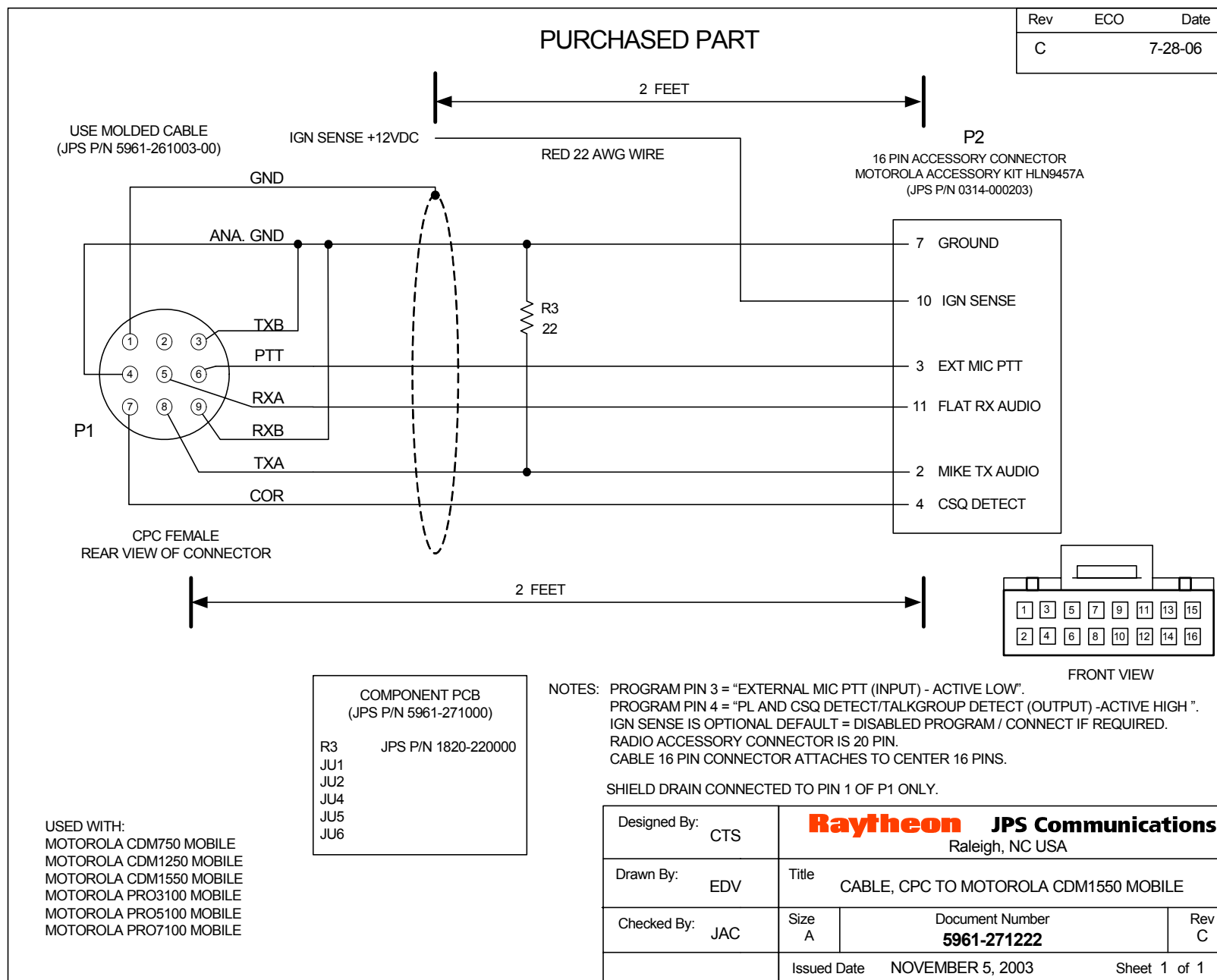
All Others As needed

(* Indicates Default Value)

NOTES:

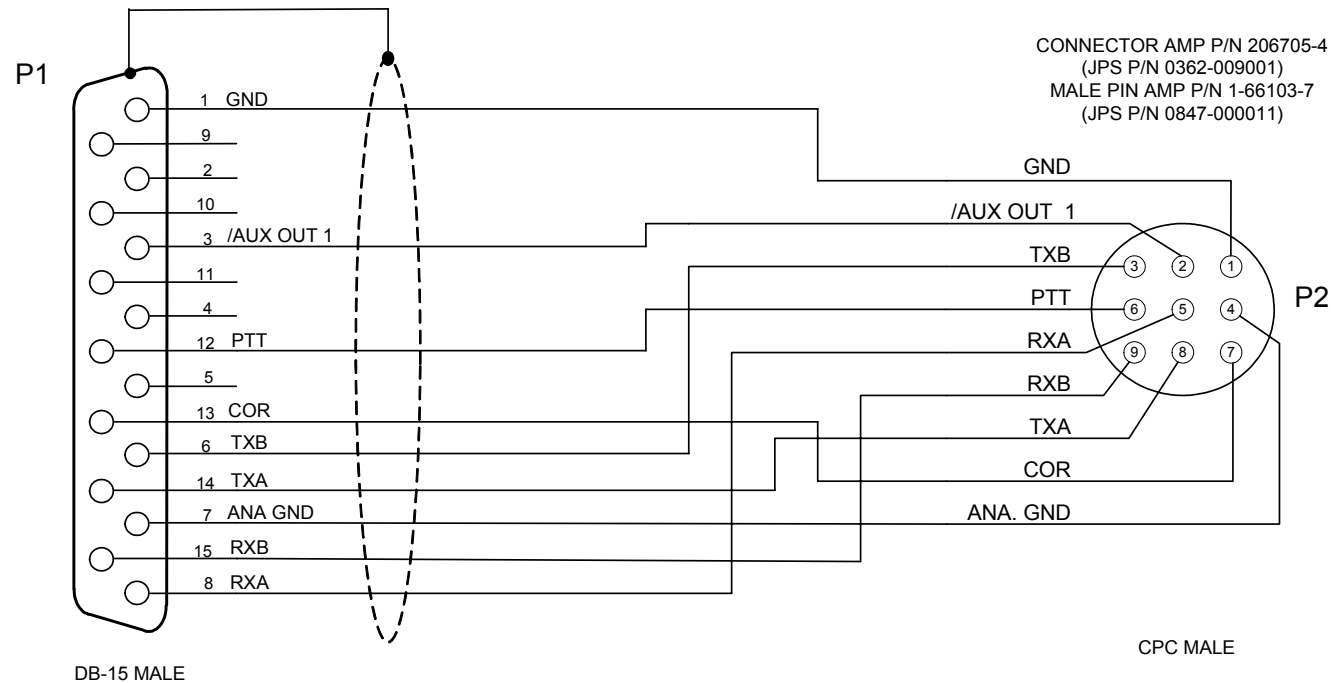
The radio's accessory connector is a 20 pin Molex, and the correct accessory connector kit (Motorola P/N HLN9457A, JPS P/N 0314-000203) contains a 16 pin Molex which can only be installed in one position (centered).

271222-APP Rev C.doc



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).

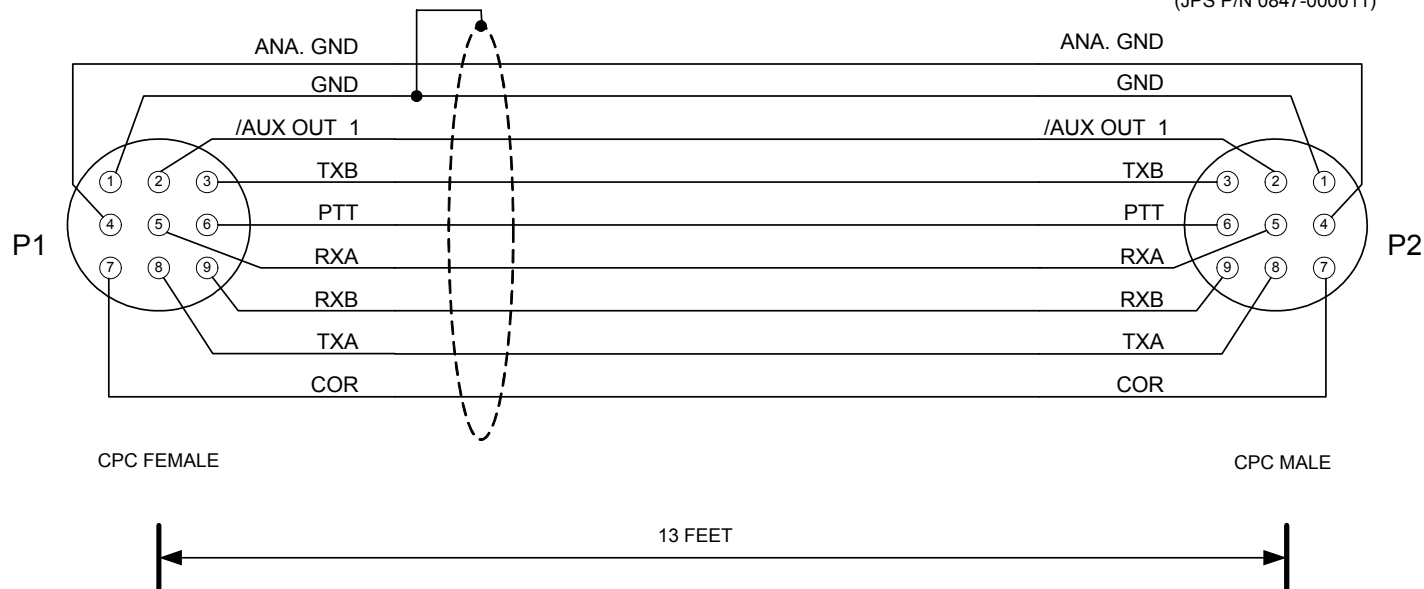
Designed By: JAC	Raytheon JPS Communications		
Drawn By: JAC	Title CABLE, ACU-1000 RADIO EXTENSION - 13 FT		
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Rev	ECO	Date
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PURCHASED PART

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: JAC	Raytheon JPS Communications Raleigh, NC USA		
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