


Engineer: Jack Curtis	Date: 8/7/03	 JPS Communications 5800 Departure Drive, Raleigh, NC 27616			
Drawn: Jack Curtis	Date: 8/7/03				
Approved: CTS	Date: 8/7/03	Title: ACU RADIO APPLICATION NOTES			
Issued/ Revised	Date: 3/24/04	Size: A	Dwg. #: 5961-271245-APP	Rev: A	Sheet: 1 Of 2

APPLIES TO: Motorola XTS/MTP Vehicular Adapter

RADIO MODIFICATIONS:

1. No hardware modifications required.
2. Pin 3 must be jumpered to pin 6 on the External Speaker connector (J1). This causes the adapter to disable the local speaker in the handheld radio and instead route the receive audio to pin 11 of the accessory connector (J5).
3. +12 VDC must be applied to the Ignition Sense input (pin 3) of the supply connector (J2).
4. If a palm microphone or microphone/control unit is supplied with the Vehicular Adapter, it must be disconnected from the RJ-45 mic connector (J4) when operating with the ACU-1000 or ACU-T. If the mic is connected, the receive audio is routed to the local speaker after an external PTT is applied by the ACU-1000 or ACU-T.

RADIO PROGRAMMING: None required.

RADIO CONTROLS:

1. The Volume Control on the Vehicular Adapter itself must be set to maximum (fully clockwise).
2. The Volume Control on the handheld radio in the Vehicular Adapter has no effect on the receive audio output to the associated DSP-1 module.
3. In the event that receive audio is routed to the handheld radio speaker rather than to the ACU-1000, this can be reset by turning the power to the radio off and back on.

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 5961-291245	(5961-271245 + 5961-261002-00)
ACU-T Interface Cable	JPS P/N 5961-281245	(5961-271245 + 5961-281013-00)
TRP-1000 Shelf Interface Cable	JPS P/N 5961-271245	
Radio RF Connector Type	Mini-UHF	

DSP PROGRAMMING:

RX Level	8	-20dBm*
TX Level	6*	0dBm*
Squelch Type	VOX*	
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	

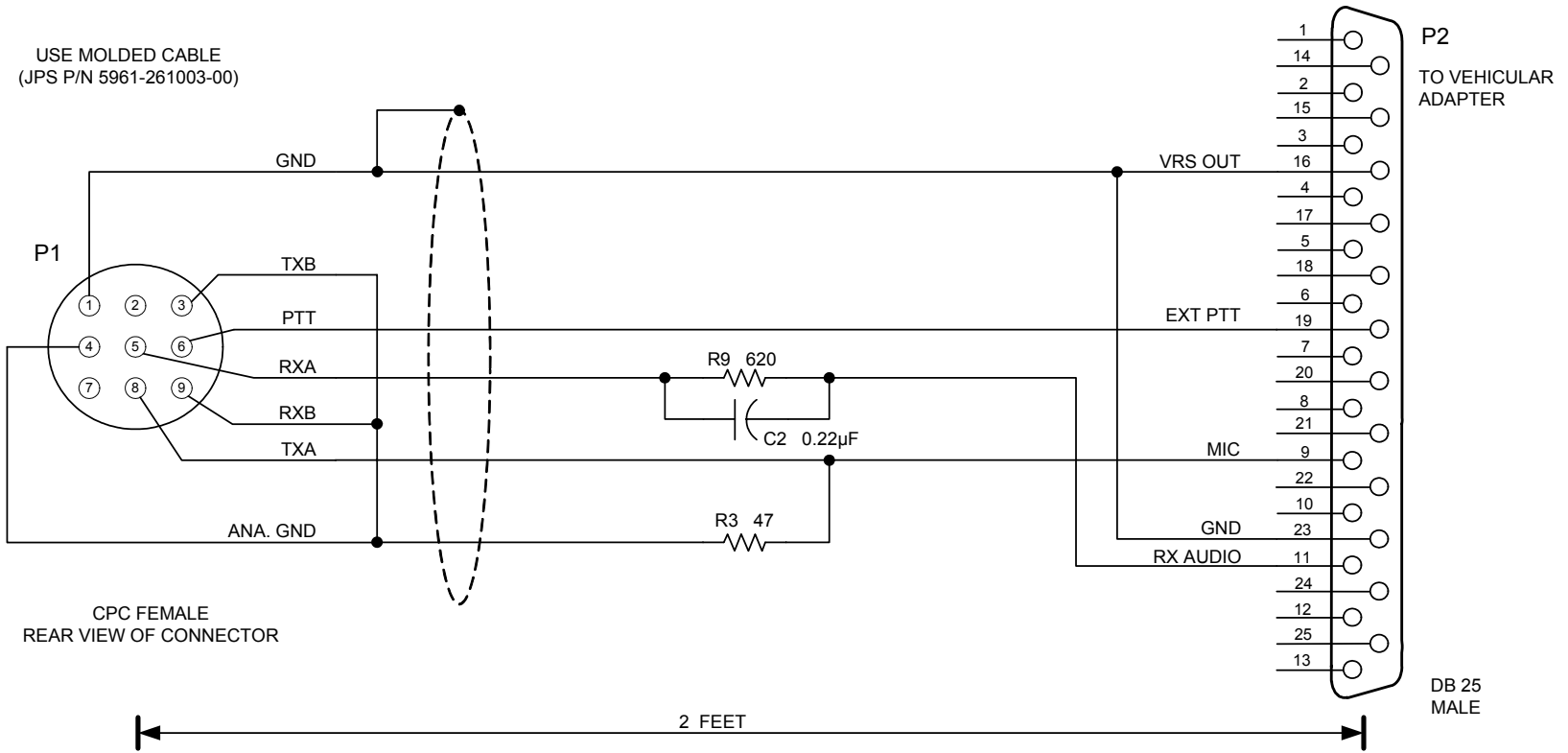
(* Indicates Default Value)

NOTES:

271245-APP.doc

PURCHASED PART

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CPC FEMALE
REAR VIEW OF CONNECTOR

COMPONENT PCB
(JPS P/N 5961-271000)

C2	JPS P/N 0327-226500
R3	JPS P/N 1820-470000
R9	JPS P/N 1820-621000
JU1	
JU2	
JU5	
JU6	

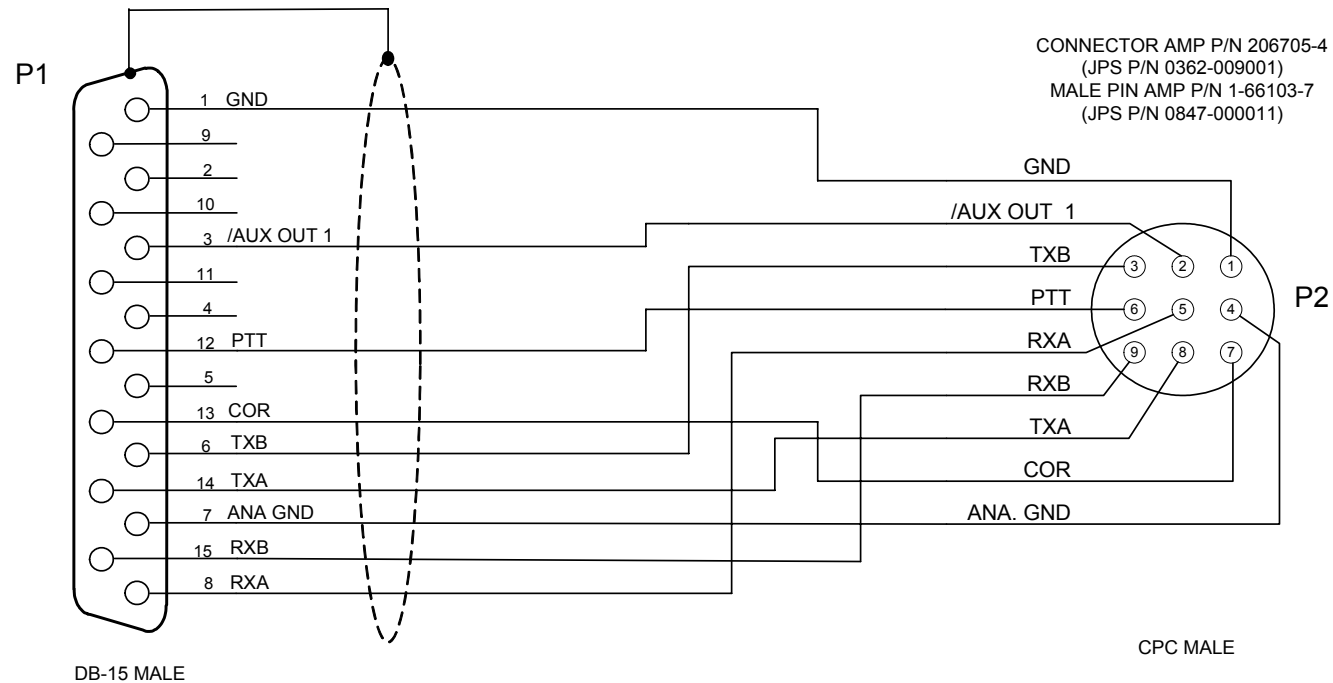
NOTE: SHIELD DRAIN CONNECTED TO PIN 1 OF P1 ONLY.

USED WITH:
MOTOROLA XTS/MTP VEHICULAR ADAPTER

Designed By:	JAC	Raytheon JPS Communications Raleigh, NC USA		
Drawn By:	EDV	Title CABLE, CPC TO MOTOROLA VEHICLE ADAPTER		
Checked By:	CTS	Size A	Document Number 5961-271245	Rev A
		Issued Date	NOVEMBER 7, 2003	Sheet 1 of 1

PURCHASED PART

Rev	ECO	Date
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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).

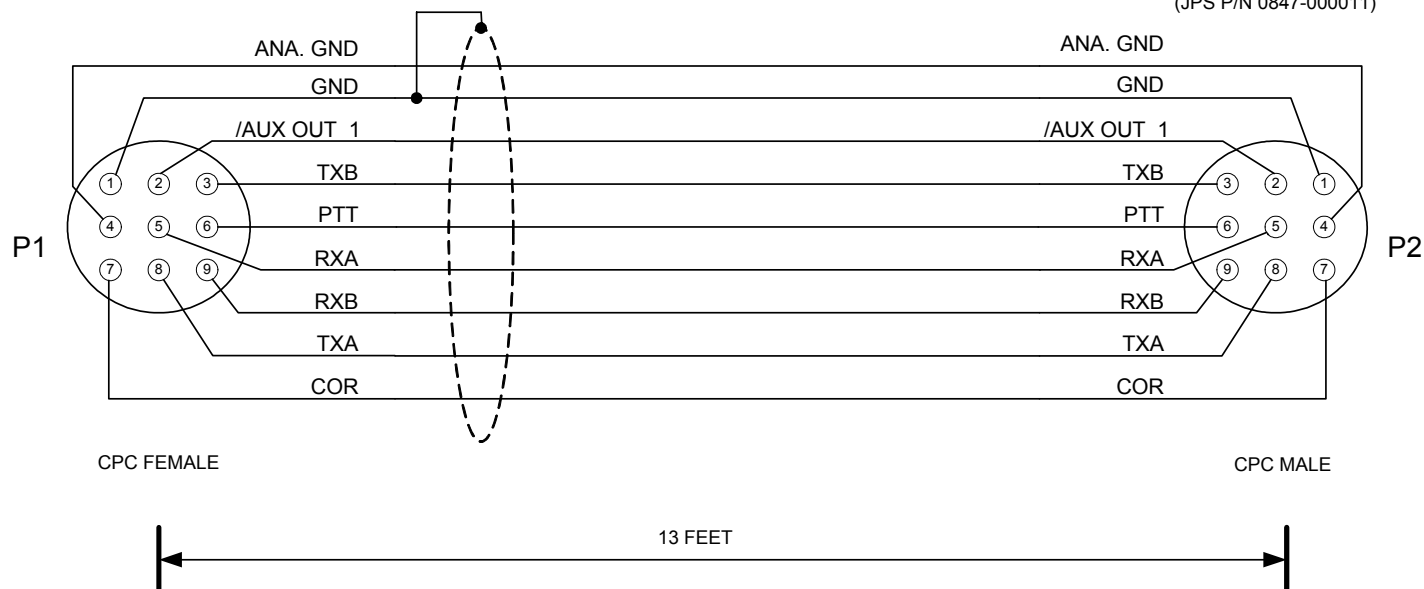
Designed By: JAC	Raytheon JPS Communications		
Drawn By: JAC	Title CABLE, ACU-1000 RADIO EXTENSION - 13 FT		
Checked By: RBP	Size A	Document Number 5961-261002-00	Rev A
Issued Date JANUARY 5, 2004		Sheet <u>1</u> of <u>1</u>	

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		
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>	