


Engineer: Chris Samios	Date: 2/26/04	 JPS Communications 5800 Departure Drive, Raleigh, NC 27616			
Drawn: Bruce Page	Date: 2/26/04				
Approved: Chris Samios	Date: 2/26/04	Title: ACU RADIO APPLICATION NOTES			
Issued/ Revised	Date: 9/2/04	Size: A	Dwg. #: 5961-271130-APP	Rev: B1	Sheet: 1 Of 1

APPLIES TO: Motorola MTS-1000 Portable
Motorola MTS-2000 Portable
Motorola XTS-3000 Portable
Motorola XTS-5000 Portable
Motorola HT-1000 Portable
EF Johnson 5100 Portable

RADIO MODIFICATIONS: None required

RADIO PROGRAMMING: Not required

RADIO CONTROLS:

1. Adjust the Volume Control until the yellow "SIGNAL" indicator on the associated DSP Module flashes with receive audio. Should be about in the mid-range (12 o'clock) position.

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 5961-291130	(5961-271130 + 5961-261002-00)
ACU-T Interface Cable	JPS P/N 5961-281130	(5961-271130 + 5961-281013-00)
TRP-1000 Shelf Interface Cable	JPS P/N 5961-271130	
RF Connector Type		

DSP-1 JUMPERS:

JP1	Low Impedance *
JP2	Balanced *

DSP PROGRAMMING:

RX Level	4	-4dBm	
TX Level	7	4dBm	
Squelch Type	VOX*		
COR Polarity	Active Low*		
High Frequency Equalizer	6	3.5dB boost	
RX Audio Delay	2*	100 ms*	
TX Audio Delay (Radio Type)	0*	No Delay*	(See notes)
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		

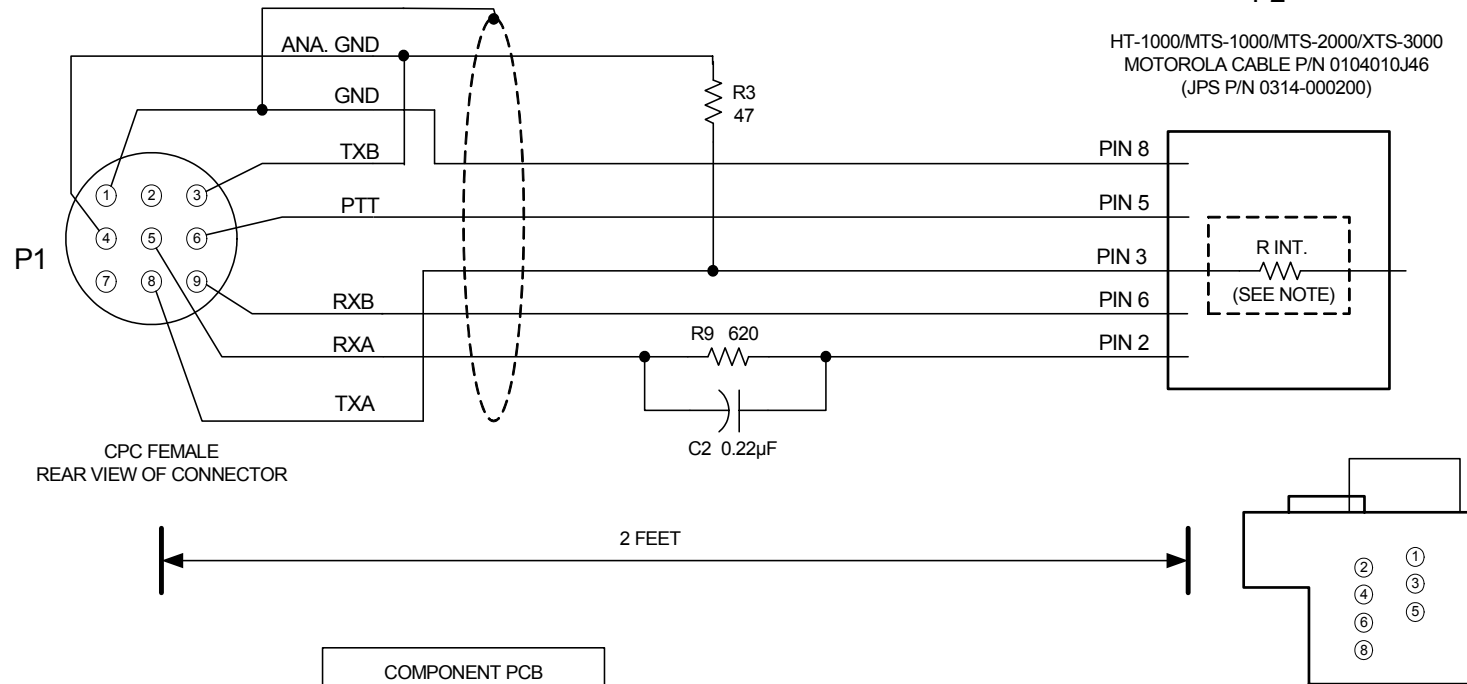
(* Indicates Default Value)

NOTES: If the radio is trunked, set TX Audio Delay to 4 (800 ms).

Rev	ECO	Date
B		

PURCHASED PART

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



COMPONENT PCB (JPS P/N 5961-271000)	
R3	JPS P/N 1820-470000
R9	JPS P/N 1820-621000
C2	JPS P/N 0327-226500
JU1	
JU2	
JU5	

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

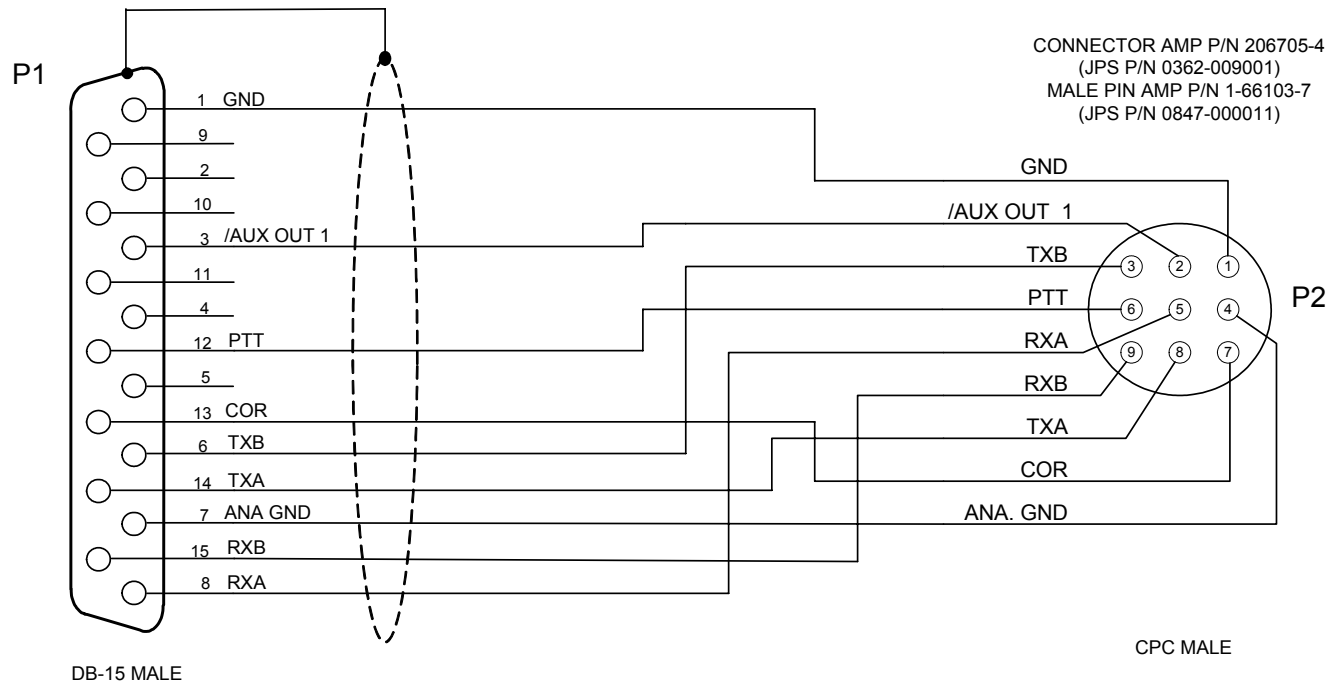
THE VALUE OF THE INTERNAL RESISTOR MAY BE 1.5 K OHMS OR 2.2 K OHMS.

USED WITH:
MOTOROLA HT-1000 PORTABLE
MOTOROLA MTS-1000 PORTABLE
MOTOROLA MTS-2000 PORTABLE
MOTOROLA XTS-3000 PORTABLE
MOTOROLA XTS-5000 PORTABLE
EF JOHNSON 5100 PORTABLE

Designed By: CTS	Raytheon JPS Communications Raleigh, NC USA		
Drawn By: EDV	Title CABLE, CPC TO MOTOROLA HT-1000		
Checked By: JAC	Size A	Document Number 5961-271130	Rev B
	Issued Date	NOVEMBER 17, 2003	Sheet <u>1</u> of <u>1</u>

PURCHASED PART

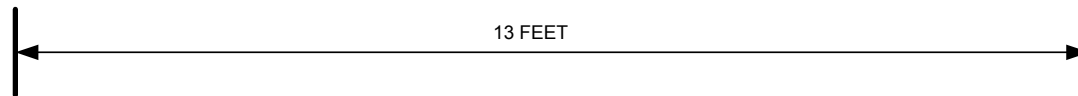
Rev	ECO	Date
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CONNECTOR AMP P/N 206705-4
 (JPS P/N 0362-009001)
 MALE PIN AMP P/N 1-66103-7
 (JPS P/N 0847-000011)

DB-15 MALE

CPC MALE



- 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).

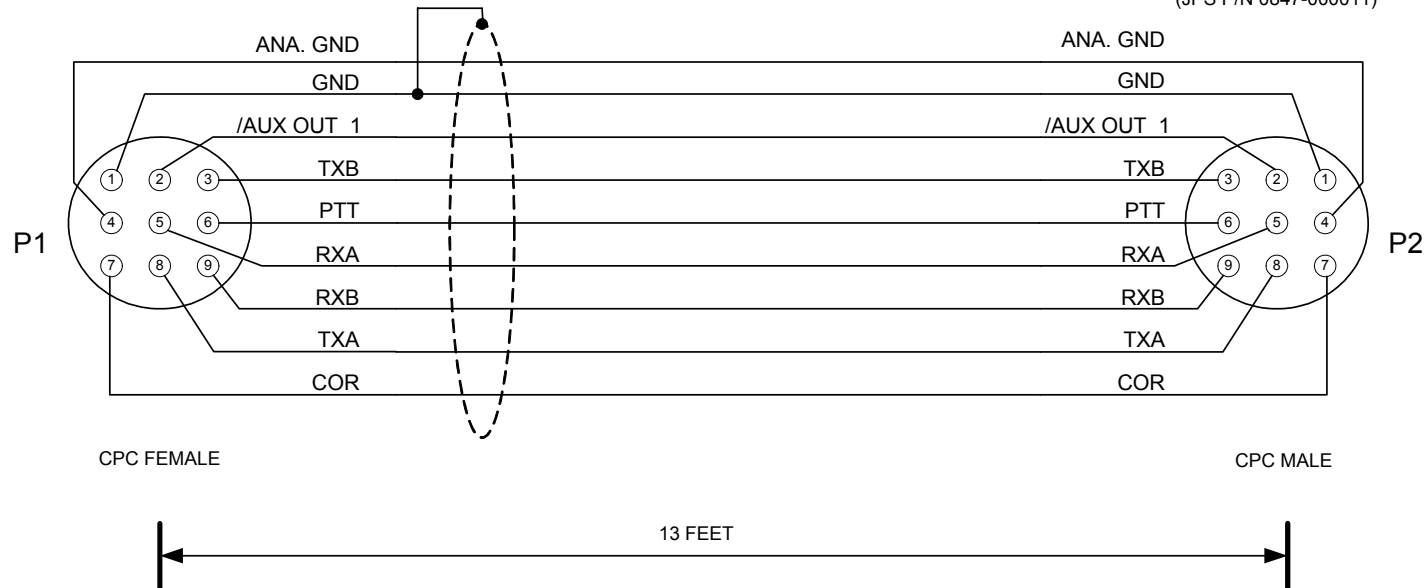
Designed By:	JAC	Raytheon JPS Communications	
Drawn By:	JAC	Title CABLE, ACU-1000 RADIO EXTENSION - 13 FT	
Checked By:	RBP	Size A	Document Number 5961-261002-00
		Issued Date	JANUARY 5, 2004
		Sheet <u>1</u> of <u>1</u>	

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>