Engineer: Jack Curtis	Date: 4/22/04	Raytheon JPS Communications 5800 Departure Drive, Raleigh, NC 27616			
Drawn: Jack Curtis	Date: 4/22/04				
Approved: CTS	Date: 4/22/04	Title: ACU RADIO APPLICATION NOTES			
Issued/ Revised	Date: 7/26/05	Size: A	Dwg. #: **5961-271212-APP**	Rev: **C**	Sheet: 1 Of 2

APPLIES TO: Motorola Spectra Consolette Radio

RADIO MODIFICATIONS:

Audio Interface Board DIP switch settings require change from factory default.
Switch S101-6 = ON position and switch S101-8 = ON position.

RADIO PROGRAMMING: Console radios should normally be programmed for low transmit power.

RADIO CONTROL: None required.

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 5961-291212	(5961-271212 + 5961-261002-00)
ACU-T Interface Cable	JPS P/N 5961-281212	(5961-271212 + 5961-281013-00)
TRP-1000 Shelf Interface Cable	JPS P/N 5961-271212	
Radio RF Connector Type	N-Type Female	

DSP JUMPERS:

JP1	Low Impedance *
JP2	Balanced *

DSP PROGRAMMING: (See Notes)

RX Level	3*	0dBm*	
TX Level	6*	0dBm*	(See notes)
Squelch Type	COR		(See notes)
COR Polarity	Active Low*		
High Frequency Equalizer	6	3.5 dB Boost	
RX Audio Delay	0	20 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:

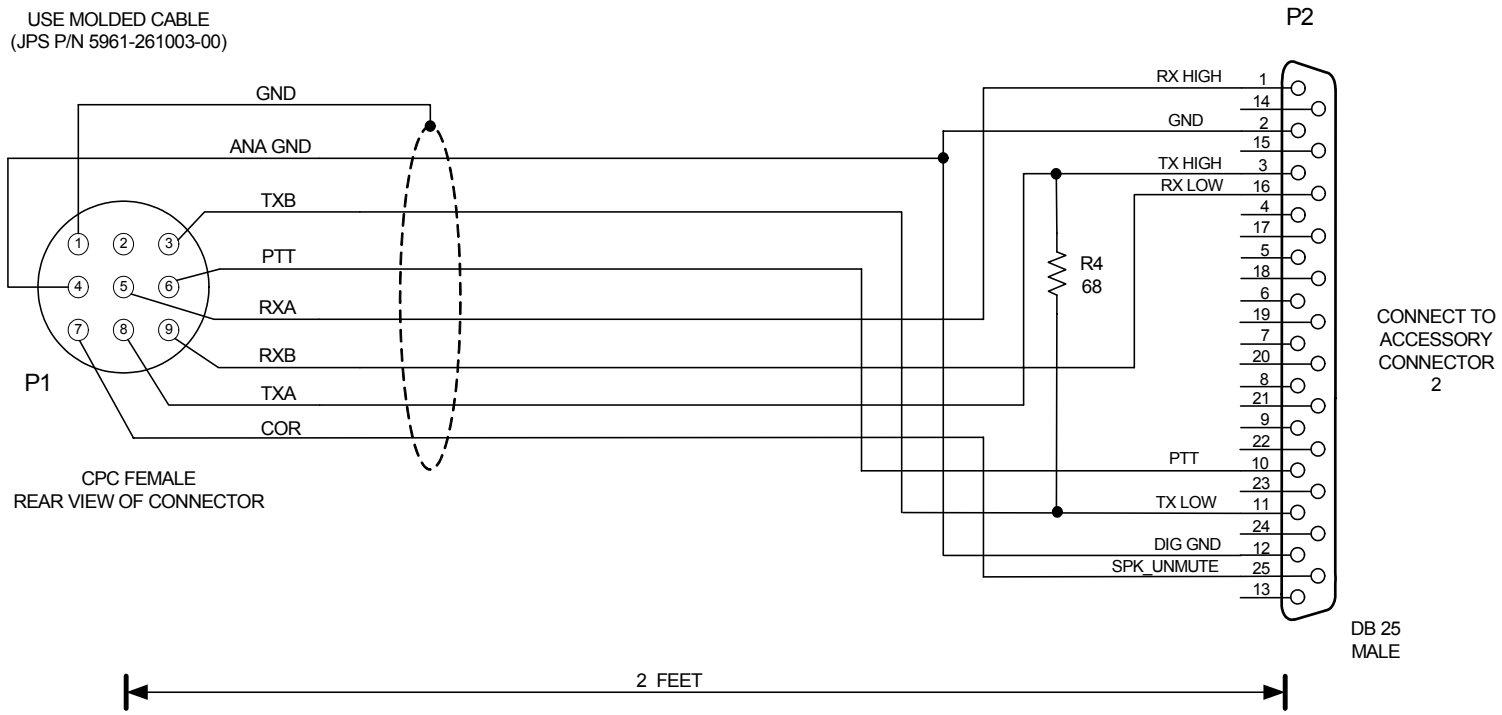
These Application Notes apply only to 5961-271212 Rev C Interface Cables.
To determine a cable's revision; examine the identification label attached to the cable. The revision letter follows the cable part number. If no revision letter is listed the Rev level will be initial release or Rev A. The revision letters of cable schematic diagrams always match the revision letter of the corresponding cable. If your stock of cables includes earlier revision cables and you need information beyond what is listed please contact Raytheon JPS Communications at (919) 790-1011 and ask for Technical Support.

The TXA-TXB signals on this Rev C interface cable contain R4 a 68 ohm resistor. This provides an optimized TX level to the radio with the DSP module programmed to its default setting of 6 (0dBm). The previous Rev of the interface cable (without this resistor) will typically require a TX level setting of 2 (–16dBm).

Earlier interface cable revisions (prior to Rev C) will not have the speaker unmute wired to the COR input and therefore will not be capable of the DSP setting of Squelch Type COR. Instead the default setting of VOX will be required for proper function with these earlier revision cables.

Rev	ECO	Date
C		7-26-05

PURCHASED PART



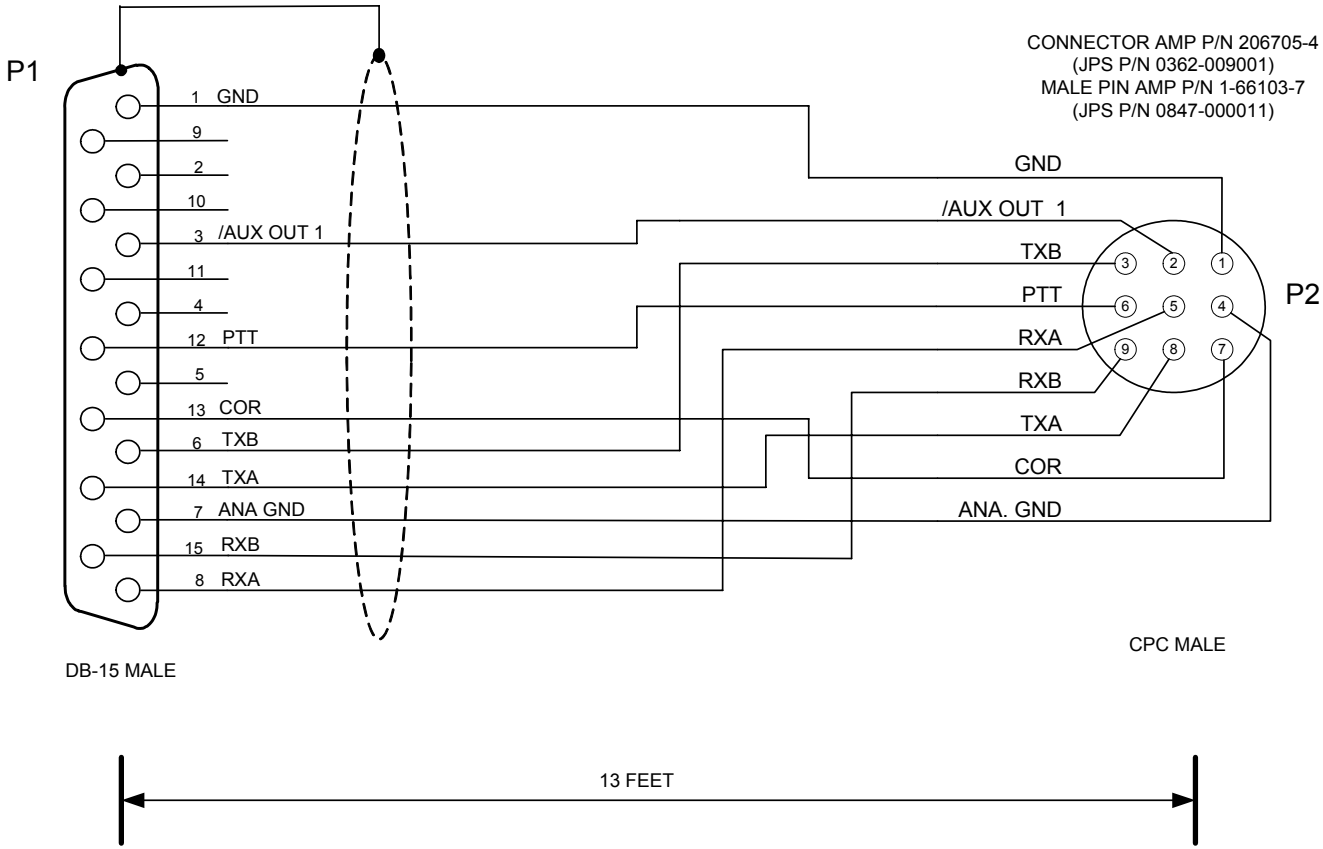
NOTE: SHIELD DRAIN CONNECTED TO PIN 1 OF P1 ONLY.
FOR R4 USE JPS PN 1820-680000.

USED WITH:
MOTOROLA SPECTRA CONSOLETTE

Designed By: CTS	Raytheon JPS Communications Raleigh, NC USA		
Drawn By: EDV	Title: CABLE, CPC TO MOTOROLA SPECTRA CONSOLETTE		
Checked By: JAC	Size: A	Document Number: **5961-271212**	Rev: C
	Issued Date: NOVEMBER 18, 2003		Sheet 1 of 1

Rev	ECO	Date
A		

PURCHASED PART



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).

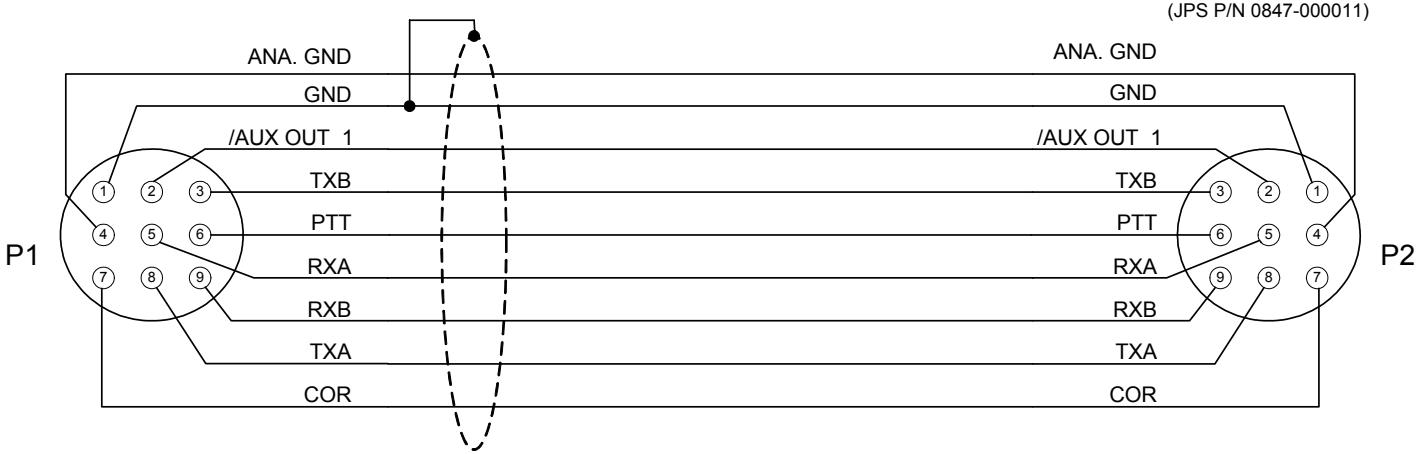
Designed By: JAC	Raytheon JPS Communications		
Drawn By: JAC	Title: CABLE, ACU-1000 RADIO EXTENSION - 13 FT		
Checked By: RBP	Size: A	Document Number: **5961-261002-00**	Rev: A
	Issued Date: JANUARY 5, 2004		Sheet 1 of 1

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)



CPC FEMALE

CPC MALE

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 1 of 1