

Engineer: Bruce Page	Date: 12/2/05	 JPS Communications 5800 Departure Drive, Raleigh, NC 27616			
Drawn: Bruce Page	Date: 12/2/05				
Approved: Chris Samios	Date: 12-5-05	Title: ACU RADIO APPLICATION NOTES			
Issued/ Revised	Date: 12-6-05	Size: A	Dwg. #: 5961-271306-APP	Rev: A	Sheet: 1 Of 2

APPLIES TO:

Vertex VX-4100 Series Mobile Radios
Vertex VX-4200 Series Mobile Radios

RADIO MODIFICATIONS: None required.

RADIO PROGRAMMING:

Radio programming is required using Vertex CE59WIN and interface cable VPL-1. Under **Common** / **Miscellaneous** / **External PTT** set to **Enable**.

RADIO CONTROLS:

The volume control will not change DSP input RX level. It will provide volume control for radio speaker only.

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 5961-291306	(5961-271306 + 5961-261002-00)
ACU-T Cable	JPS P/N 5961-281306	(5961-271306 + 5961-281013-00)
TRP-1000 Shelf Interface Cable	JPS P/N 5961-271306	
RF Connector Type	PL259	

DSP JUMPERS:

JP1	Low Impedance *
JP2	Balanced *

DSP PROGRAMMING:

RX Level	8	-20dBm
TX Level	6*	0dBm*
Squelch Type	VOX*	
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	4	800 ms
All Others	As needed	

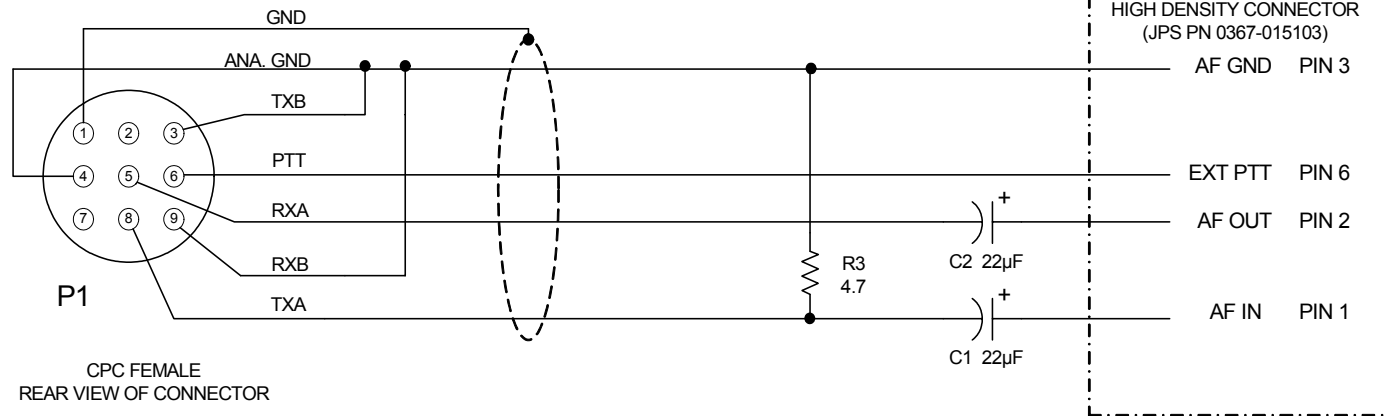
(* Indicates Default Value)

NOTES:

PURCHASED PART

Rev	ECO	Date
A		12-6-05

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



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

FOR DETAILED CABLE ASSEMBLY INSTRUCTIONS SEE
5961-271001-CBL.

USED WITH:
VERTEX VX-4200 SERIES MOBILE
VERTEX VX-4100 SERIES MOBILE

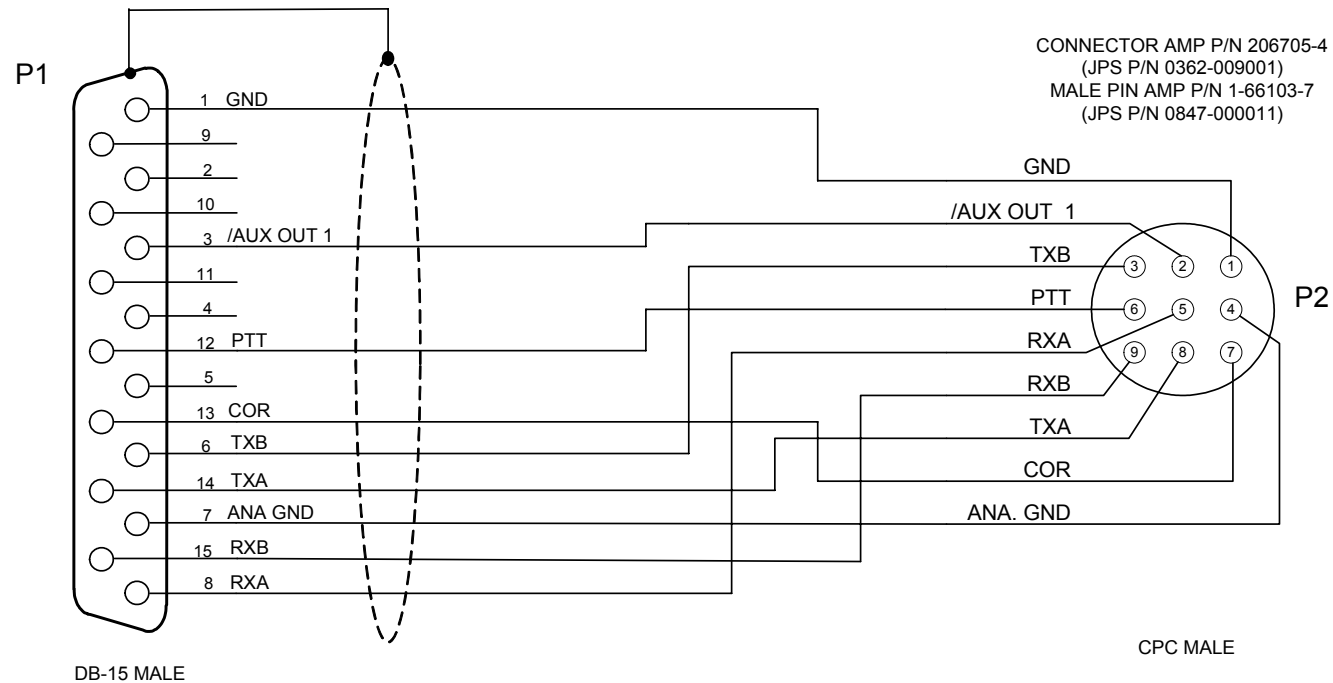
COMPONENT PCB
(JPS P/N 5961-271000)

C1 JPS P/N 0321-220250
C2 JPS P/N 0321-220250
R3 JPS P/N 1820-047000
JU2
JU5
JU6

Designed By:	RBP	Raytheon JPS Communications Raleigh, NC USA		
Drawn By:	RBP	Title CABLE, CPC TO VERTEX-4200 SERIES MOBILE		
Checked By:	CTS	Size A	Document Number 5961-271306	Rev A
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PURCHASED PART

Rev	ECO	Date
A		



- 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).

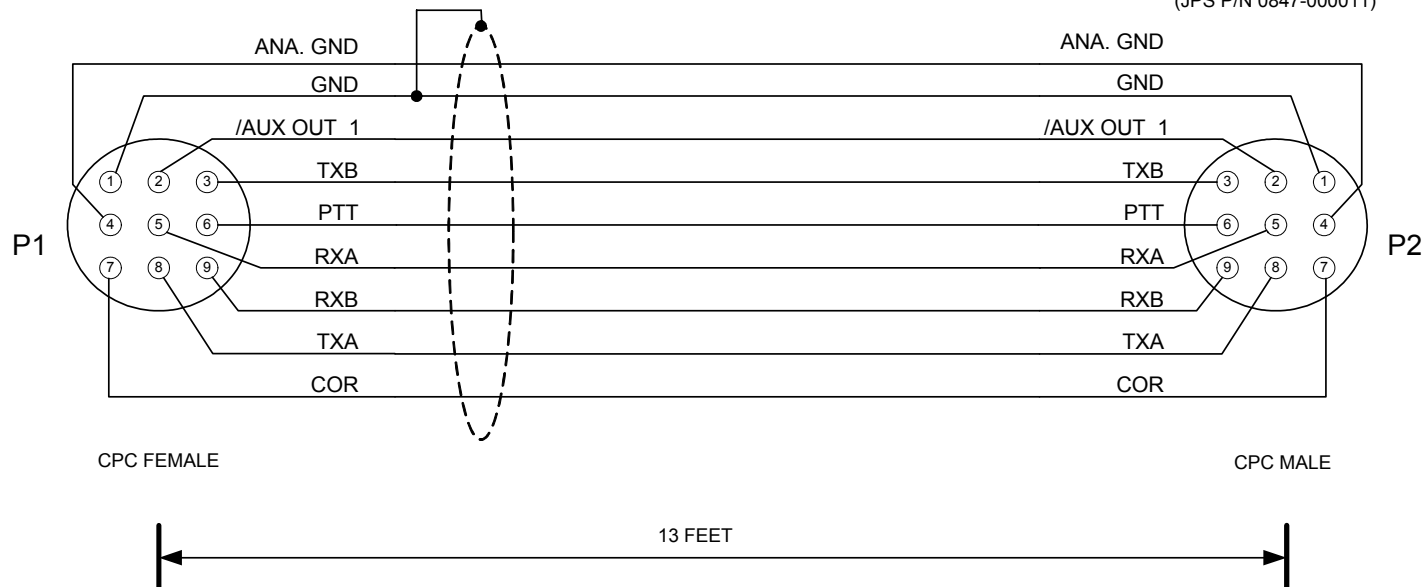
Designed By: JAC	Raytheon JPS Communications		
Drawn By: JAC	Title CABLE, ACU-1000 RADIO EXTENSION - 13 FT		
Checked By: RBP	Size A	Document Number 5961-261002-00	Rev A
Issued Date JANUARY 5, 2004		Sheet <u>1</u> of <u>1</u>	

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
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