APPLIES TO: Motorola Spectra Mobile (Spk/Mic Connectors)
Motorola XTL-5000 Mobile (Spk/Mic Connectors)

RADIO MODIFICATIONS: None required

RADIO PROGRAMMING:

1.   Mobile radios should normally be programmed for low transmit power.

2.   It is essential that Microphone Off-Hook disable function be turned off to allow the radio to transmit and receive PL tones. Under the Conventional Configuration, set "Hub Defeats PL" to Disable (No check mark in the feature selection block).

RADIO CONTROLS:

1.   Adjust the Volume Control until the yellow "SIGNAL" indicator on the associated DSP Module flashes with receive audio. This is approximately level 9 to level 11.

CABLING:

Standard ACU-1000 and ACU-T Interface cables are made up of a 2 foot long TRP Radio Tray Interface cable and the appropriate 13-foot extension cable.

ACU-1000 Interface Cable	JPS P/N 5961-291237	(5961-271237 + 5961-261002-00)
ACU-T Interface Cable	JPS P/N 5961-281237	(5961-271237 + 5961-281013-00)
TRP-1000 Shelf Interface Cable	JPS P/N 5961-271237	
RF Connector Type	Mini UHF	

DSP PROGRAMMING:

RX Level	3*	(0dBm)*
TX Level	6*	(0dBm)*
Squelch Type	VOX*	(See note below)
COR Polarity	Active Low*	
High Frequency Equalizer	6	(3.5dB Boost)*
RX Audio Delay Time	2*	(100mS)*
TX Audio Delay (Radio Type)	0*	(No Delay)* (See note below)
Noise Reduction Value	0*	(Off)*
VOX/VMR Threshold	1*	(Med1)*
VOX/VMR Hang Time	3*	(775mS)*
COR Inhibit After PTT	1* (See note below)	(100mS)* (See note below)
All Others	As needed	

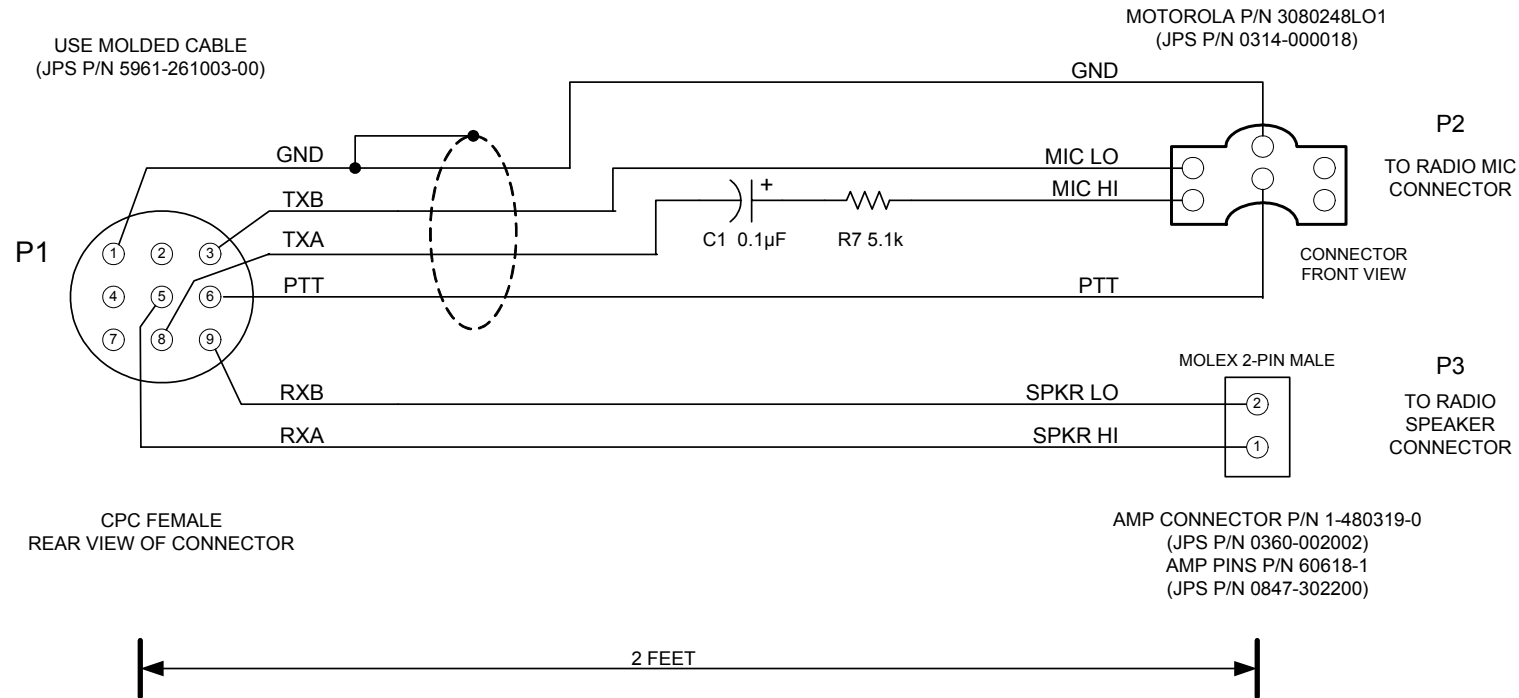(* Indicates Default Value)

NOTES: For trunked radios:

1.   COR Inhibit After PTT time may need to be increased to prevent "ping-pong" effect. If this does not resolve the problem, Squelch Type may need to be changed to VMR.

2.   TX Audio Delay may need to be added to allow time for channel acquisition. (If first syllables are lost, add more delay.)

271237-APP.DOC

PURCHASED PART

Rev	ECO	Date
A		

MOTOROLA P/N 3080248LO1
(JPS P/N 0314-000018)

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

GND

P2

GND

MIC LO

TO RADIO MIC
CONNECTOR

TXB

MIC HI

TXA

C1 0.1µF   R7 5.1k

P1

PTT

CONNECTOR
FRONT VIEW

① ② ③

④ ⑤ ⑥

⑦ ⑧ ⑨

PTT

MOLEX 2-PIN MALE

P3

RXB

SPKR LO

②

TO RADIO
SPEAKER
CONNECTOR

RXA

SPKR HI

①

CPC FEMALE
REAR VIEW OF CONNECTOR

AMP CONNECTOR P/N 1-480319-0
(JPS P/N 0360-002002)
AMP PINS P/N 60618-1
(JPS P/N 0847-302200)

2 FEET

COMPONENT PCB
(JPS P/N 5961-271000)

C1   JPS P/N 0327-104101
R7   JPS P/N 1820-512000
JU4

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

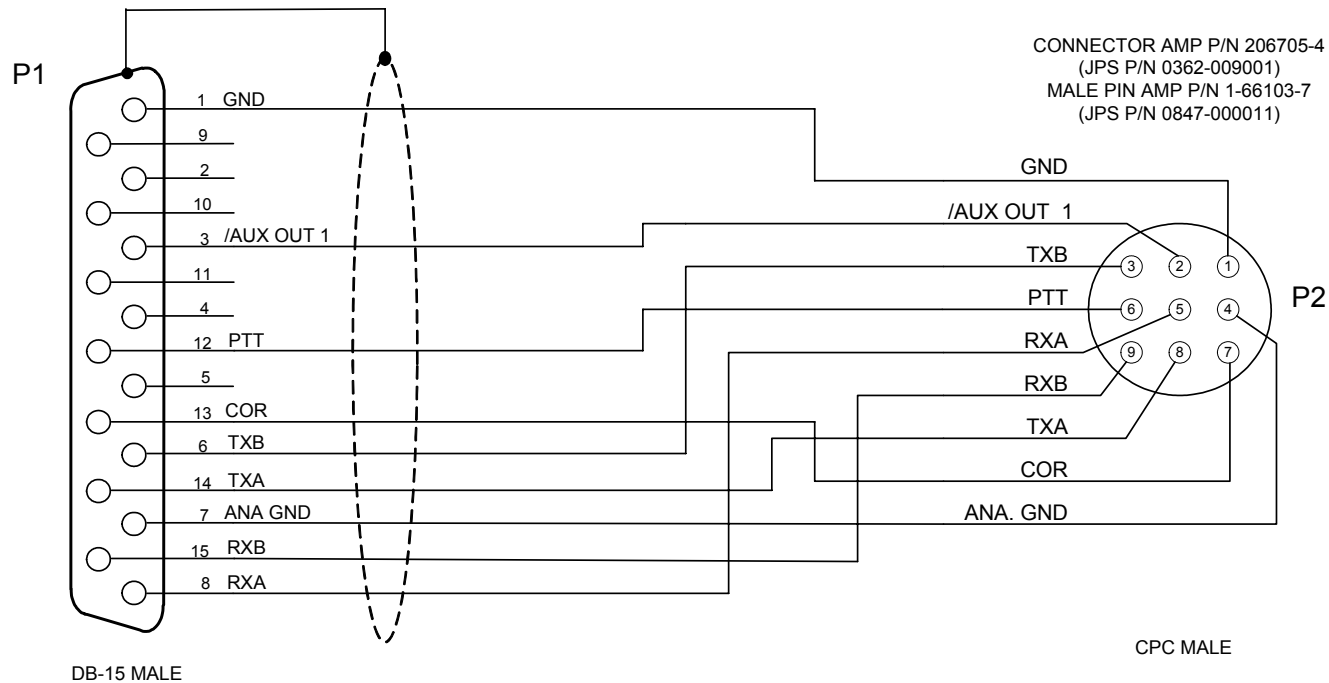| Designed By: JAC	**Raytheon** **JPS Communications**		
	Raleigh, NC USA		
Drawn By: EDV	Title CABLE, CPC TO MOTOROLA SPECTRA MIC/SPK		
Checked By: CTS	Size A	Document Number 5961-271237	Rev A
	Issued Date NOVEMBER 15, 2003		Sheet 1 of 1

USED WITH:
MOTOROLA SPECTRA MOBILE (MIC/SPK CONNECTORS)
MOTOROLA XTL-5000 MOBILE (MIC/SPK CONNECTORS)

PURCHASED PART

Rev	ECO	Date
A		

P1

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

1 GND
9
2
10
3 /AUX OUT 1
11
4
12 PTT
5
13 COR
6 TXB
14 TXA
7 ANA GND
15 RXB
8 RXA

GND
/AUX OUT 1
TXB
PTT
RXA
RXB
TXA
COR
ANA. GND

P2

DB-15 MALE

CPC MALE

13 FEET

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
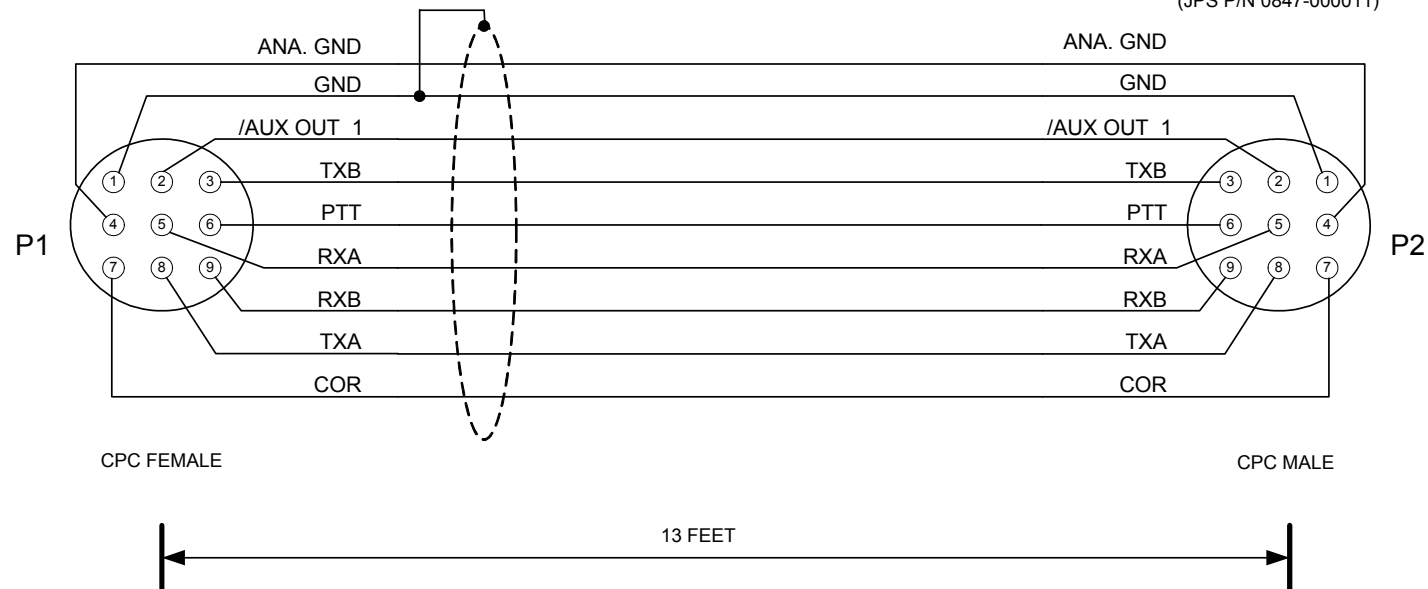REV, VENDOR CODE AND DATE (MM/YY).

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)

ANA. GND	ANA. GND
GND	GND
/AUX OUT 1	/AUX OUT 1
TXB	TXB
PTT	PTT
RXA	RXA
RXB	RXB
TXA	TXA
COR	COR

P1

P2

CPC FEMALE

CPC MALE

13 FEET

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_