**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 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* |
| 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:**

271130-APP.DOC

| Rev | ECO | Date |
|-----|-----|------|
| A | | |

# PURCHASED PART

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

**P2**

HT-1000/MTS-1000/MTS-2000/XTS-3000
MOTOROLA CABLE P/N 0104010J46
(JPS P/N 0314-000200)

ANA. GND

GND

TXB — PIN 8

R3
47

PTT — PIN 5

**P1**

PIN 3

R INT.
1.5k

RXB — PIN 6

RXA — PIN 2

R9   620

TXA

C2  0.22µF

CPC FEMALE
REAR VIEW OF CONNECTOR

2 FEET
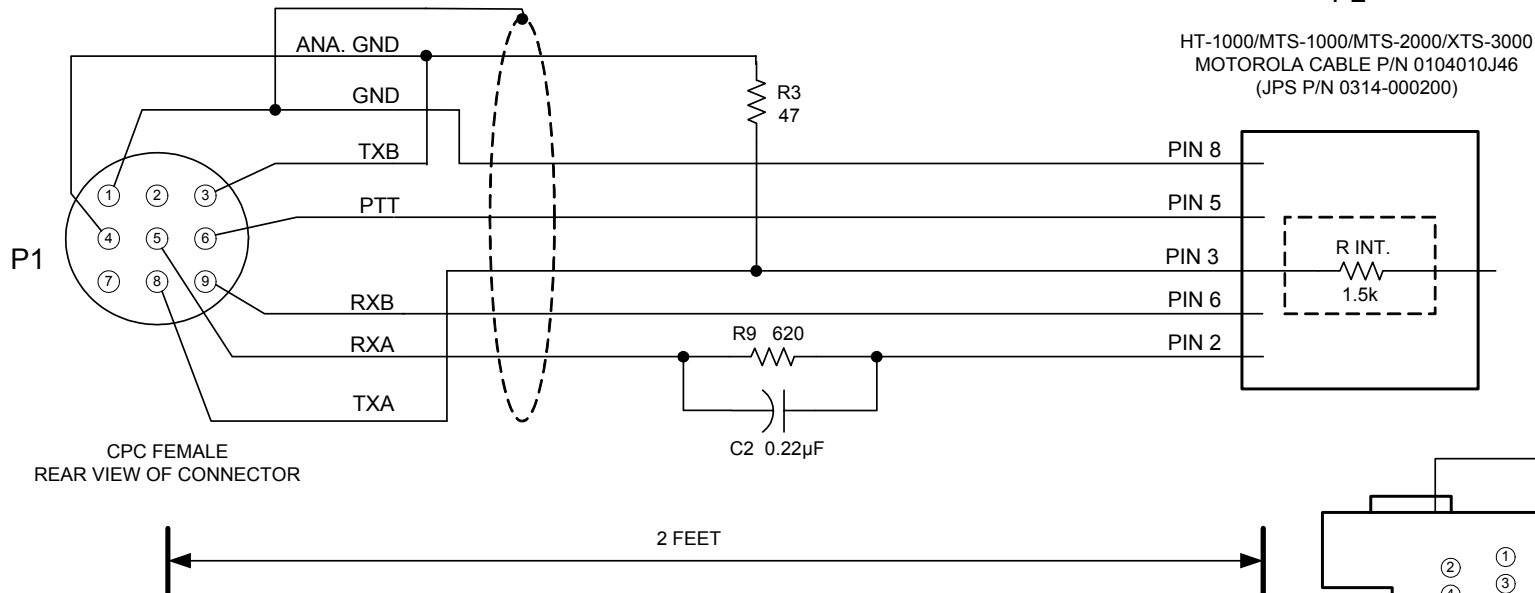
COMPONENT PCB
(JPS P/N 5961-271000)

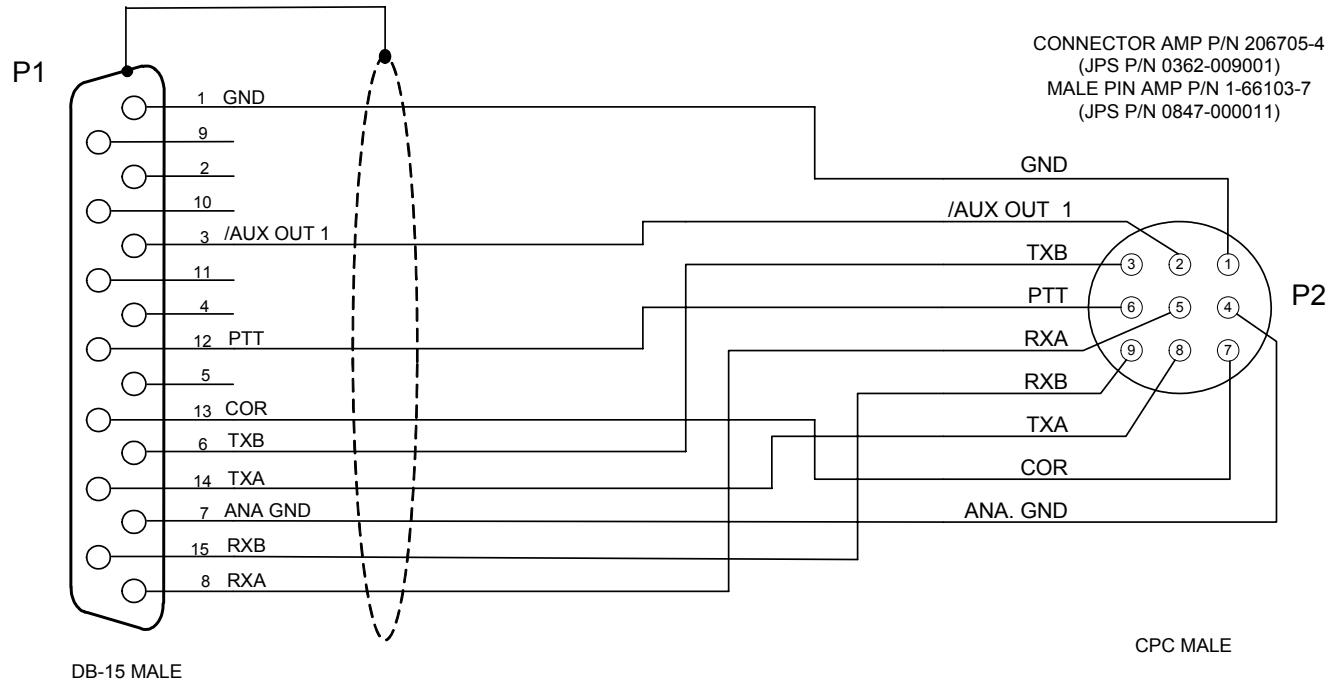| R3 | JPS P/N 1820-470000 |
|----|---------------------|
| R9 | JPS P/N 1820-621000 |
| C2 | JPS P/N 0327-226500 |
| JU1 | |
| JU2 | |
| JU5 | |

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

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 A |
| | Issued Date   NOVEMBER 17, 2003 | | Sheet 1 of 1 |

PURCHASED PART

| Rev | ECO | Date |
|-----|-----|------|
| A | | |

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

P1

| Pin | Signal |
|-----|--------|
| 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 |

DB-15 MALE

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

P2

(pins: 3 2 1 / 6 5 4 / 9 8 7)

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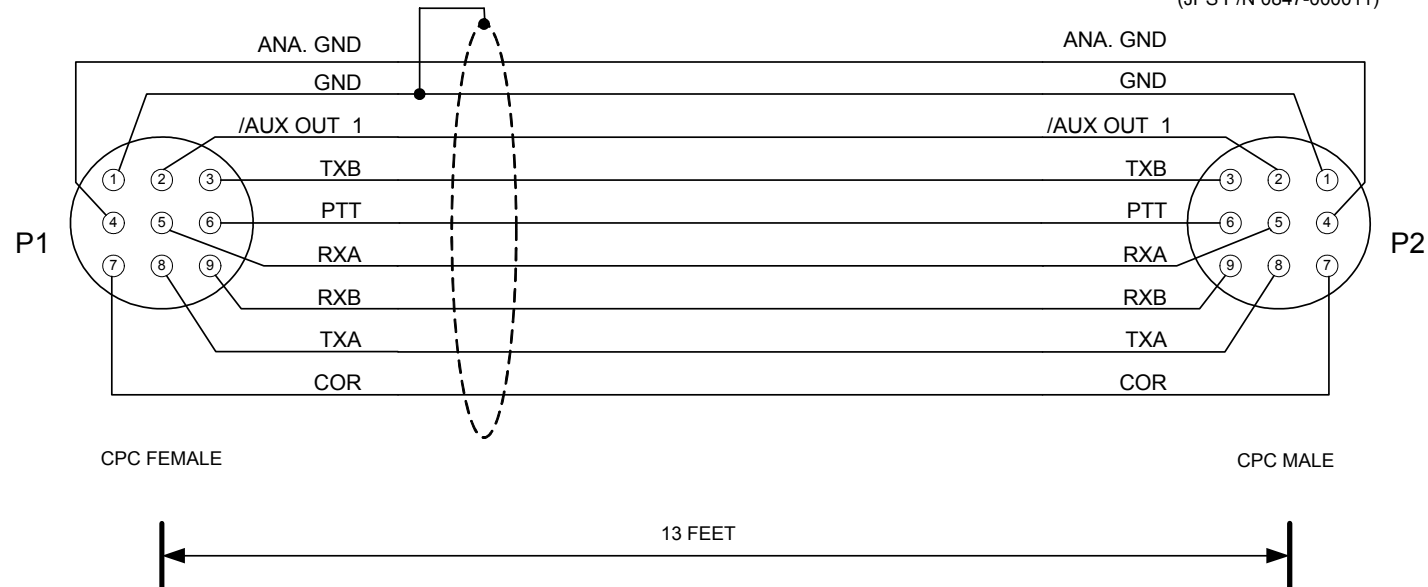   REV, VENDOR CODE AND DATE (MM/YY).

| 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)



| P1 | | P2 |
|---|---|---|
| ANA. GND | | ANA. GND |
| GND | | GND |
| /AUX OUT 1 | | /AUX OUT 1 |
| TXB | | TXB |
| PTT | | PTT |
| RXA | | RXA |
| RXB | | RXB |
| TXA | | TXA |
| COR | | COR |

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_ |