

|                           |                  |                                                                                                                                                            |                                   |           |                  |
|---------------------------|------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------|-----------|------------------|
| Engineer:<br>Chris Samios | Date:<br>4/1/04  | <br><b>JPS Communications</b><br>5800 Departure Drive, Raleigh, NC 27616 |                                   |           |                  |
| Drawn:<br>Bruce Page      | Date:<br>4/1/04  |                                                                                                                                                            |                                   |           |                  |
| Approved:<br>Chris Samios | Date:<br>4/1/04  | Title:<br>ACU RADIO APPLICATION NOTES                                                                                                                      |                                   |           |                  |
| Issued/<br>Revised        | Date:<br>4/14/04 | Size:<br>A                                                                                                                                                 | Dwg. #:<br><b>5961-291270-APP</b> | Rev:<br>A | Sheet:<br>1 Of 2 |

**APPLIES TO:** Motorola/Nextel Model i30SX, i35S, i80S, i205, i305, i530, i730, and i733  
Iden Cellphones (Direct Connection)

**RADIO MODIFICATIONS:** None required.

**RADIO PROGRAMMING:** None required.

**RADIO CONTROLS:**

1. Turn the handset volume to maximum as indicated on the indicator bar.

**CABLING:**

|                                       |                        |
|---------------------------------------|------------------------|
| ACU-1000 Interface Top Level Assembly | JPS P/N 5961-291270    |
| ACU-1000 Interface Cable              | JPS P/N 5961-291269-00 |
| ACU-1000 Extension Cable              | JPS P/N 5961-291266-00 |
| ACU-T Interface Top Level Assembly    | JPS P/N                |
| ACU-T Interface Cable                 | JPS P/N                |
| ACU-T Extension Cable                 | JPS P/N                |

**DSP PROGRAMMING:**

|                             |             |           |
|-----------------------------|-------------|-----------|
| RX Level                    | 5           | -8dBm*    |
| 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) | 4           | 800 ms    |
| 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:** (The Falcon family of handsets includes Motorola/Nextel models i205, i305 AND i730.)

**Falcon handsets configured for Static/Fixed Nextel Group Connect communications:**

This configuration allows a Nextel interface to be used exclusively for Group Connect communications.

From the handset's Main Menu, select the following:

- 1) Settings
- 2) DC/GC Options
- 3) One-touch DC
- 4) Assigned Number

- 5) Enter a valid Talkgroup number preceded by the # symbol.

**Falcon handsets configured for Static/Fixed Nextel Direct Connect communications:**

This configuration allows a Nextel interface to be used exclusively for initiating Direct Connect communications. For example, this could be used as a dedicated talk path to an EOC dispatcher or another radio interoperability device.

From the handset's Main Menu, select the following:

- 1) Settings
- 2) DC/GC Option
- 3) One-touch DC
- 4) Assigned Number
- 5) Enter a Direct Connect number

**Falcon handsets configured for Dynamic Nextel Direct Connect communications:**

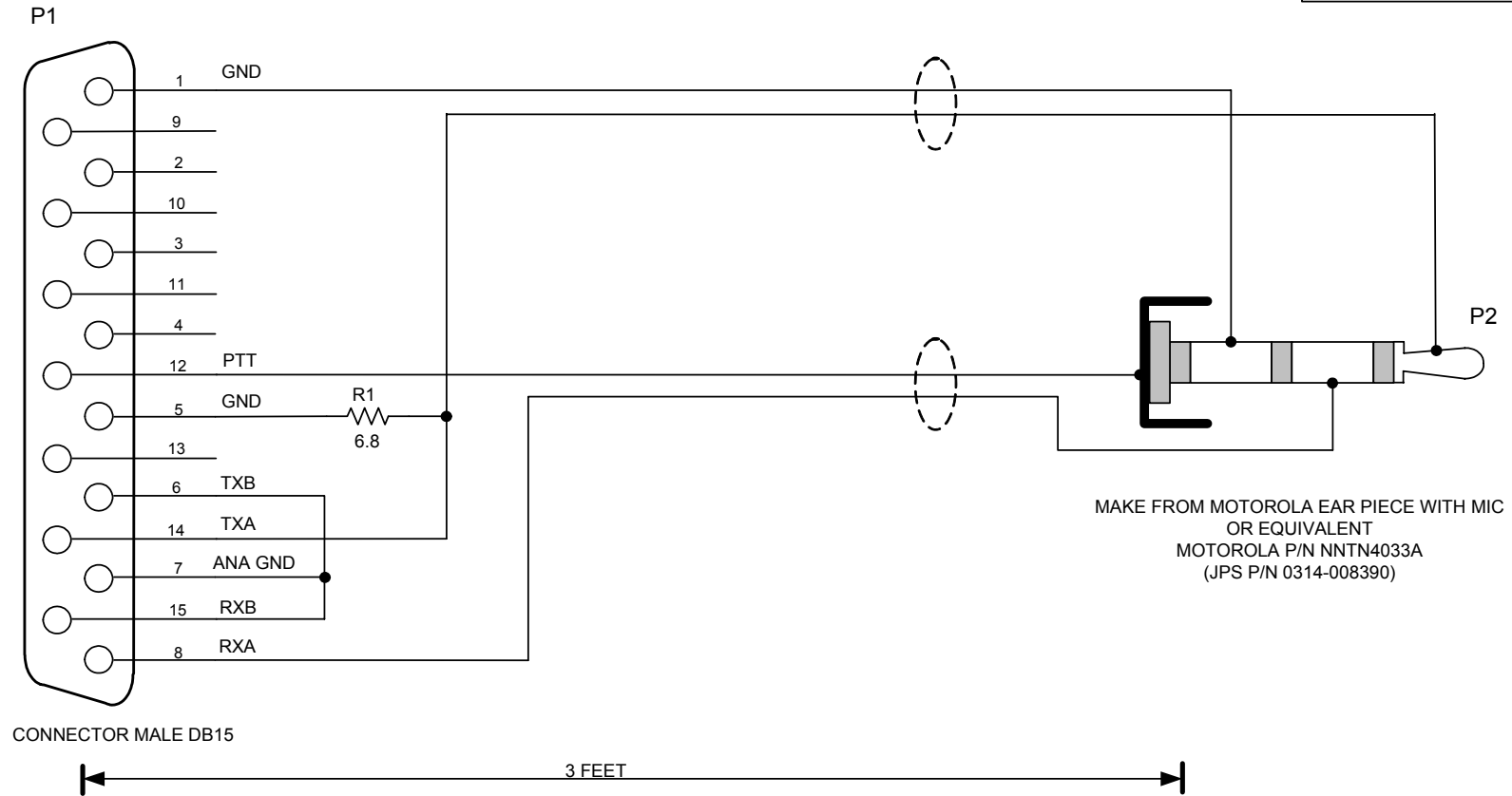
This configuration allows a Nextel handset to be used exclusively for receiving Nationwide Direct Connect calls. The DC call initiator is essentially permanently patched into the ACU-1000. It will require operator intervention to reset the handset to disconnect the Direct Connect link.

From the handset's Main Menu, select the following:

- 1) Settings
- 2) DC/GC Options
- 3) One-touch DC
- 4) Last Call

# PURCHASED PART

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THIS CABLE IS PART OF THE 5961-291270 ASSEMBLY.  
THIS CABLE WORKS WITH 5961-291266 EXTENSION CABLE.

USED WITH:  
MOTOROLA/NEXTEL MODELS i30SX, i35S, i80S, i205, i305, i530, i730, & i733.

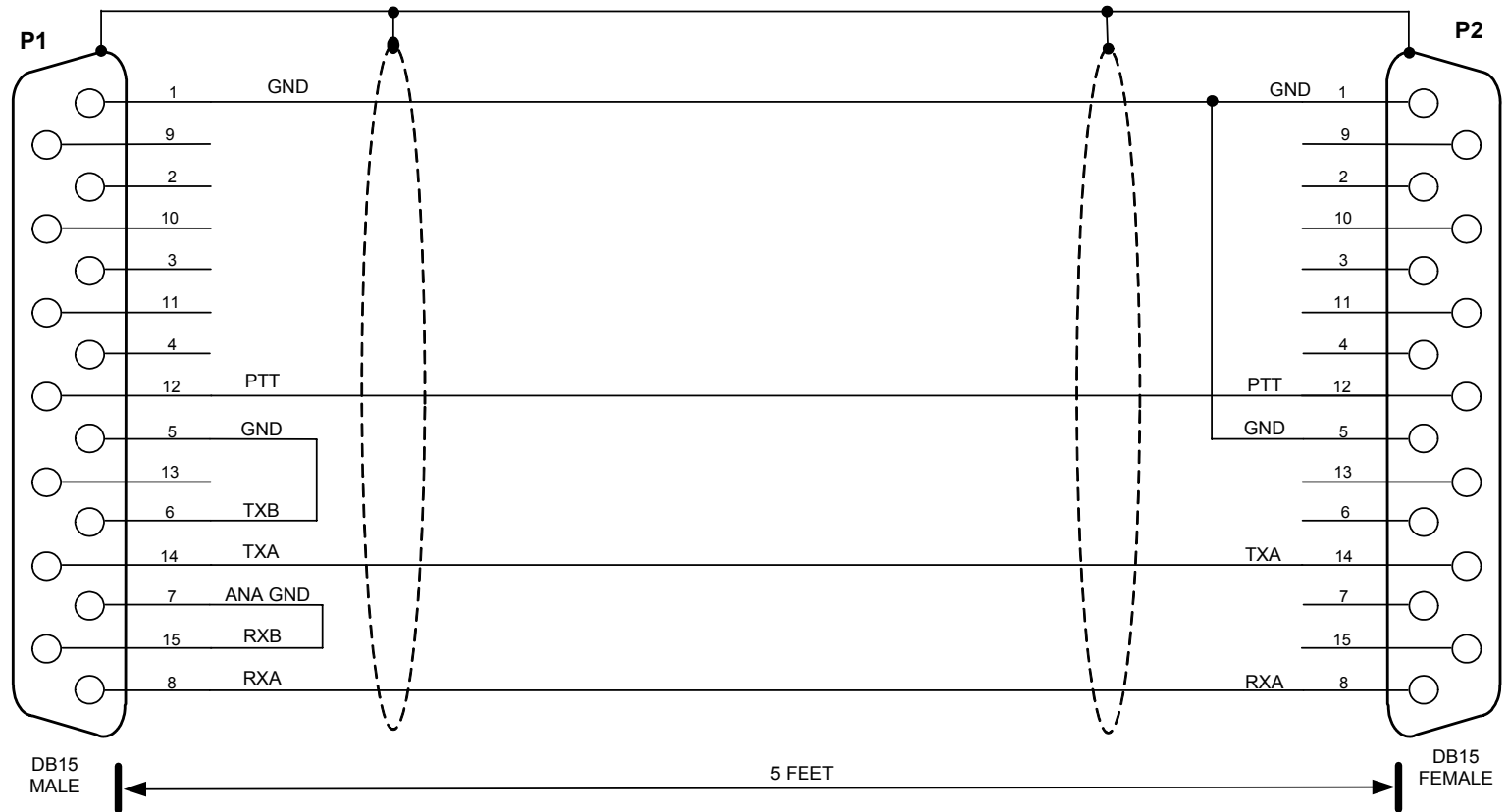
NOTES: FOR R1 USE JPS P/N 1820-068000

THE TWO CONDUCTORS ARE PAIRED IN  
SHEATHS AS SHOWN, TWO PLACES.

|              |     |                                                   |                                          |                            |
|--------------|-----|---------------------------------------------------|------------------------------------------|----------------------------|
| Designed By: | CTS | <b>Raytheon JPS Communications</b>                |                                          |                            |
| Drawn By:    | RBP | Title CABLE , ACU DIRECT INTERFACE TO NEXTEL i305 |                                          |                            |
| Checked By:  | JAC | Size A                                            | Document Number<br><b>5961-291269-00</b> | Rev<br>A1                  |
|              |     | Issued Date                                       | APRIL 1, 2004                            | Sheet <u>1</u> of <u>1</u> |

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NOTE: USE SHIELDED CABLE JPS P/N 0311-042410. CONNECT SHIELD DRAIN TO SHELL OF P1 AND SHELL OF P2. USE JACK SCREWS ON P2.

INCLUDED ON:  
 NEXTEL i90 DIRECT KIT JPS P/N 5961-291267  
 NEXTEL i305 DIRECT KIT JPS P/N 5961-291270  
 USED WITH:  
 ACU-1000 TO i90 DIRECT CABLE JPS P/N 5961-291263-00  
 ACU-1000 TO i305 DIRECT CABLE JPS P/N 5961-291269-00

|                                  |                                                                   |                                          |          |
|----------------------------------|-------------------------------------------------------------------|------------------------------------------|----------|
| Designed By:<br>Chris Samios     | <b>Raytheon JPS Communications</b>                                |                                          |          |
| Drawn By:<br>Bruce Page          | Title<br>Cable, ACU Extension to Nextel i90 Family Direct Connect |                                          |          |
| Checked By:<br>Chris Samios      | Size<br>A                                                         | Document Number<br><b>5961-291266-00</b> | Rev<br>B |
| File Name:<br>5961-291266-00.VSD | Issued Date<br>MARCH 9, 2004                                      | Sheet <u>1</u> of <u>1</u>               |          |