APPLIES TO: Motorola/Nextel Model i50SX, i55SR, i58SX, i60C, i85S, i88S, i90C and i95CL
Iden Cellphones (Cradle Connection)

RADIO MODIFICATIONS: None required.

RADIO PROGRAMMING: None required.

RADIO CONTROLS:

1.   Turn the handset volume to 3/4 of maximum level as displayed on the indicator bar.

CABLING:

ACU-1000 Interface Top Level Assembly   JPS P/N 5961-291243
ACU-1000 Interface Cable   JPS P/N 5961-291242-00
Nextel Hands-Free Kit with Cradle   JPS P/N 5961-291244

ACU-T Interface Top Level Assembly   JPS P/N 5961-281243
ACU-T Interface Cable   JPS P/N 5961-281242-00
Nextel Hands-Free Kit with Cradle   JPS P/N 5961-291244

DSP PROGRAMMING:

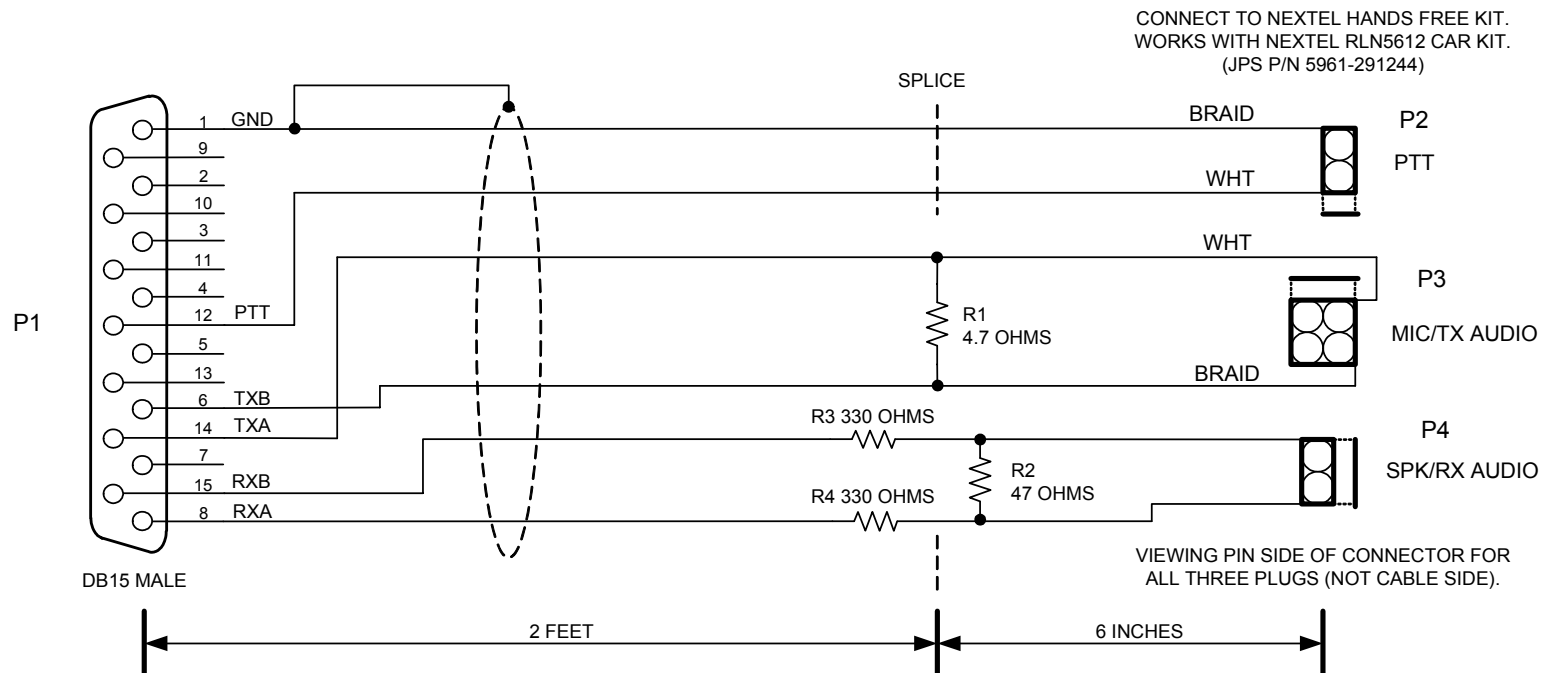|		
RX Level	4	-4dBm
TX Level	6*	0dBm*
Squelch Type	VOX*	
COR Polarity	Active Low*	
High Frequency Equalizer	6	3.5dB Boost
RX Audio Delay	2*	100 ms*
TX Audio Delay (Radio Type)	4	800ms
Noise Reduction Value	0*	Off*
VOX/VMR Threshold	1*	Med1*
VOX/VMR Hang Time	3*	775 ms*
COR Inhibit After PTT	1*	100 ms*
All Others	As needed	

(* Indicates Default Value)

NOTES: **This handset cannot be left to operate unattended.**

1.   The handset will revert to telephone mode after a time-out period of inactivity, and the operator will be needed to return the handset to Iden mode with the appropriate talk group selected.

2.   When multiple talk groups are active, the handset will revert to the last active talk group and the operator will need to verify or select the desired talk group.

3.   The handset models covered in these Application Notes will not pass DTMF, and therefore require an operator to manually complete all ACU-1000 or ACU-T interconnections.

PURCHASED PART

Rev	ECO	Date
A		

CONNECT TO NEXTEL HANDS FREE KIT.
WORKS WITH NEXTEL RLN5612 CAR KIT.
(JPS P/N 5961-291244)

SPLICE

BRAID — P2 — PTT
WHT
WHT — P3 — MIC/TX AUDIO
R1 4.7 OHMS
BRAID
R3 330 OHMS — P4 — SPK/RX AUDIO
R2 47 OHMS
R4 330 OHMS

P1

DB15 MALE

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

VIEWING PIN SIDE OF CONNECTOR FOR
ALL THREE PLUGS (NOT CABLE SIDE).

2 FEET   6 INCHES

NOTES:
PLACE ALL COMPONENTS AND SPLICES INSIDE PLASTIC ENCLOSURE (JPS P/N 5961-271600).

FOR R1 USE JPS P/N 1820-047000.
FOR R2 USE JPS P/N 1820-470000.
FOR R3 AND R4 USE JPS P/N 1820-331000.

NOTES: USE SHIELDED CABLE. CONNECT SHIELD DRAIN TO SHELL OF P1 ONLY.

REMOVE PLUGS AND 6 INCHES OF CABLE FROM CAR KIT'S SPEAKER, PTT
SWITCH AND MIC. (PURCHASED FROM NEXTEL.) CUT EACH CABLE LEAVING A
6 INCH PIGTAIL WITH CONNECTOR, THEN SPLICE THE PIGTAILS INTO THE CABLE.

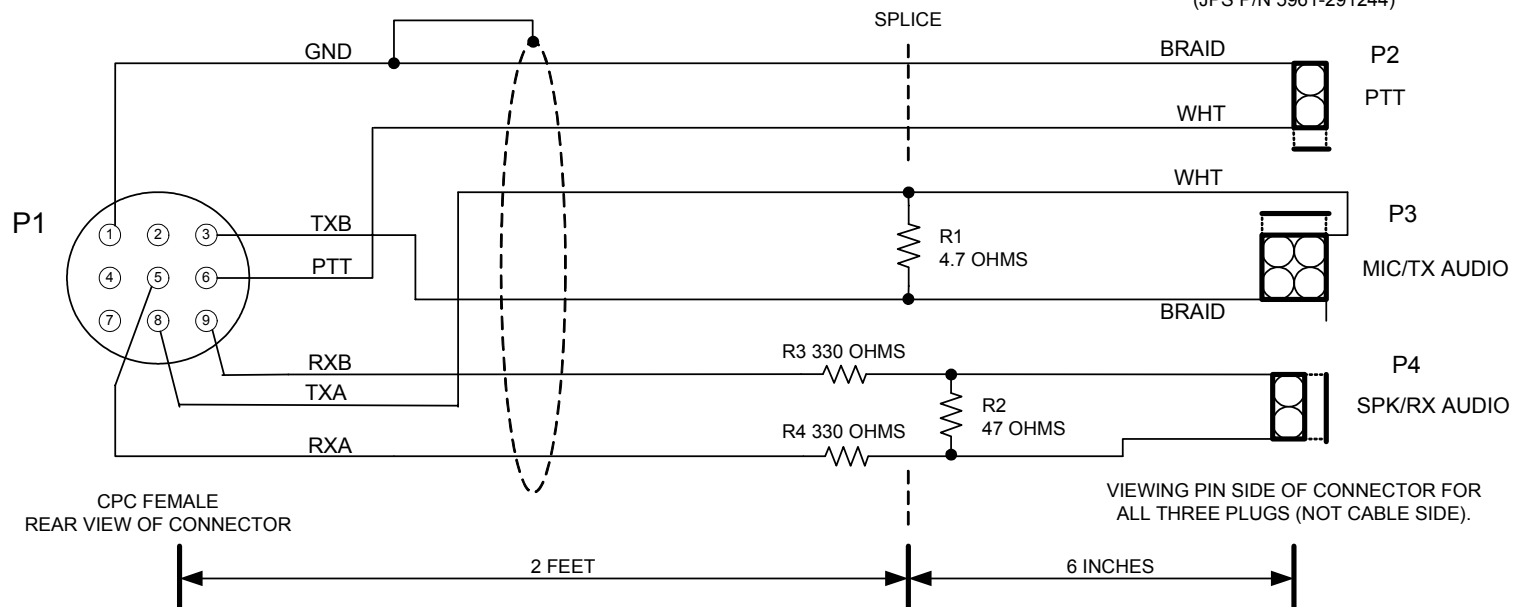LABEL ALL CONNECTORS WITH P(NUMBER) AND FUNCTION (i.e. PTT, MIC, SPK).

USED WITH:
MOTOROLA/NEXTEL i50SX CELLPHONE
MOTOROLA/NEXTEL i55SR CELLPHONE
MOTOROLA/NEXTEL i58SX CELLPHONE
MOTOROLA/NEXTEL i60C CELLPHONE
MOTOROLA/NEXTEL i85S CELLPHONE
MOTOROLA/NEXTEL i88S CELLPHONE
MOTOROLA/NEXTEL i90C CELLPHONE
MOTOROLA/NEXTEL i90CL CELLPHONE

THE TOP ASSEMBLY P/N BELOW INCLUDES BOTH HANDS-FREE KIT AND CABLE:
JPS P/N 5961-291243 (ALL MODELS).

Designed By: CTS	**Raytheon** JPS Communications Raleigh, NC USA		
Drawn By: EDV	Title CABLE, ACU-1000 TO NEXTEL i90 CELLPHONE		
Checked By: JAC	Size A	Document Number 5961-291242-00	Rev F3
	Issued Date NOVEMBER 8, 2003		Sheet 1 of 1

Rev	ECO	Date
A		

PURCHASED PART

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

CONNECT TO NEXTEL HANDS FREE KIT.
WORKS WITH NEXTEL RLN5612 CAR KIT.
(JPS P/N 5961-291244)

SPLICE

GND

BRAID

P2

WHT

PTT

WHT

P3

R1
4.7 OHMS

P1

TXB

PTT

BRAID

MIC/TX AUDIO

①②③
④⑤⑥
⑦⑧⑨

RXB
TXA

R3 330 OHMS

P4

RXA

R4 330 OHMS

R2
47 OHMS

SPK/RX AUDIO

CPC FEMALE
REAR VIEW OF CONNECTOR

VIEWING PIN SIDE OF CONNECTOR FOR
ALL THREE PLUGS (NOT CABLE SIDE).

← 2 FEET → ← 6 INCHES →

NOTES:
PLACE ALL COMPONENTS AND SPLICES INSIDE PLASTIC ENCLOSURE (JPS P/N 5961-271600).

FOR R1 USE JPS P/N 1820-047000.
FOR R2 USE JPS P/N 1820-470000.
FOR R3 AND R4 USE JPS P/N 1820-331000.

USED WITH:
MOTOROLA/NEXTEL i50SX CELLPHONE
MOTOROLA/NEXTEL i55SR CELLPHONE
MOTOROLA/NEXTEL i58SX CELLPHONE
MOTOROLA/NEXTEL i60C CELLPHONE
MOTOROLA/NEXTEL i85S CELLPHONE
MOTOROLA/NEXTEL i88S CELLPHONE
MOTOROLA/NEXTEL i90C CELLPHONE
MOTOROLA/NEXTEL i90CL CELLPHONE

THE TOP ASSEMBLY P/N BELOW INCLUDES BOTH HANDS-FREE KIT AND CABLE:
JPS P/N 5961-281243 (ALL MODELS).

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

REMOVE PLUGS AND 6 INCHES OF CABLE FROM CAR KIT'S SPEAKER, PTT
SWITCH AND MIC. (PURCHASED FROM NEXTEL.) CUT EACH CABLE LEAVING A
6 INCH PIGTAIL WITH CONNECTOR, THEN SPLICE THE PIGTAILS INTO THE CABLE.

LABEL ALL CONNECTORS WITH P(NUMBER) AND FUNCTION (i.e. PTT, MIC, SPK).

Designed By: CTS	**Raytheon JPS Communications** Raleigh, NC USA		
Drawn By: EDV	Title CABLE, ACU-T TO NEXTEL i90 CELLPHONE		
Checked By: JAC	Size A	Document Number **5961-281242-00**	Rev F3
	Issued Date NOVEMBER 8, 2003		Sheet _1_ of _1_