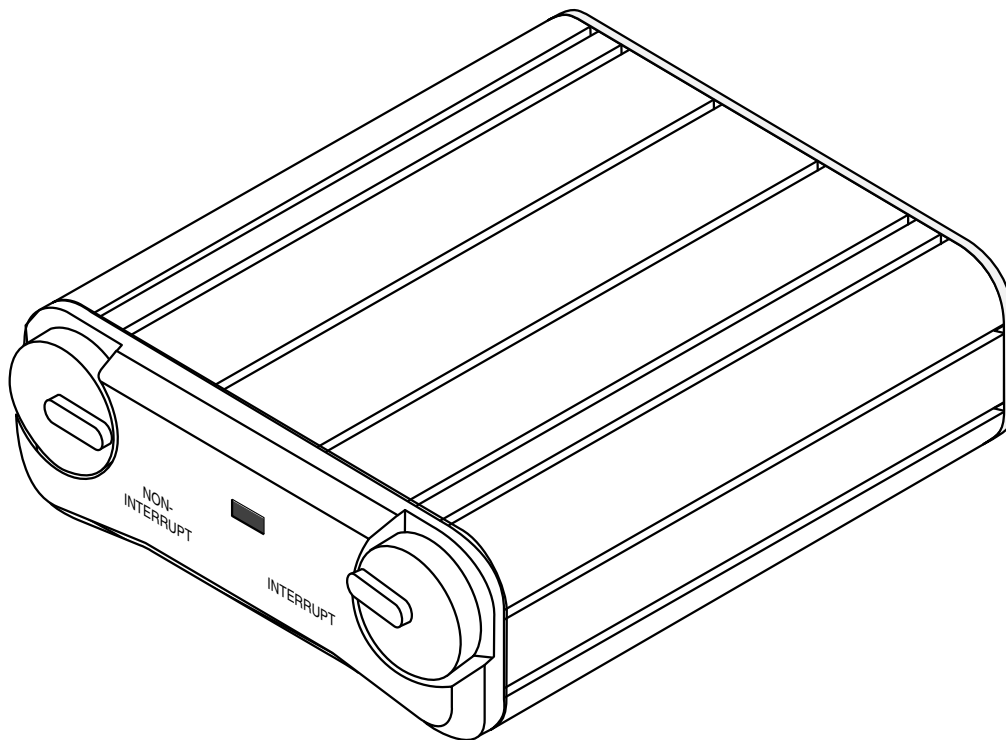


*Model 4030*  
*Two-Channel Listening Station*  
*User Manual*



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## WARRANTY NOTICE

See the enclosed warranty card for further details.

## CUSTOMER SUPPORT

Technical questions should be directed to:

Customer Service Department  
RTS/Telex Communications, Inc.  
12000 Portland Avenue South  
Burnsville, MN 55337 USA  
Telephone: 800-392-3497  
Fax: 800-323-0498

## RETURN SHIPPING INSTRUCTIONS

Customer Service Department  
Telex Communications, Inc. (Lincoln, NE)  
Telephone: 402-467-5321  
Fax: 402-467-3279  
Factory Service: 800-553-5992

Please include a note in the box which supplies the company name, address, phone number, a person to contact regarding the repair, the type and quantity of equipment, a description of the problem and the serial number(s).

## SHIPPING TO THE MANUFACTURER

All shipments of product should be made via UPS Ground, prepaid (you may request from Factory Service a different shipment method). Any shipment upgrades will be paid by the customer. The equipment should be shipped in the original packing carton. If the original carton is not available, use any suitable container that is rigid and of adequate size. If a substitute container is used, the equipment should be wrapped in paper and surrounded with at least four (4) inches of excelsior or similar shock-absorbing material. All shipments must be sent to the following address and must include the Proof of Purchase for warranty repair. Upon completion of any repair the equipment will be returned via United Parcel Service or specified shipper, collect.

Factory Service Department  
Telex Communications, Inc.  
8601 East Cornhusker Hwy.  
Lincoln, NE 68507 U.S.A.  
Attn: Service

This package should include the following:

Qty	Description	Part Number
1	IFB4030 Assembly or IFB4030-M	90107489000  90107488001
1	Operation Manual	93507489000
1	User Instructions, 4030-M	90507489001
1	Warranty	38110387
1	Certificate of Conformity	38109675

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# *Description and Specifications*

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## *Description*

### **General**

The Model 4030 is a portable user station for use with RTS/Telex two-wire or 4010 IFB intercom systems. The Model 4030 is a listen-only IFB belt pack that can be used to listen to one or two intercom or program channels.

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## *Features*

- Powered externally, via the intercom system power supply on channel one.
- Power ON indicator
- Headset/Earset jack set for a wide range of operations.
- Monaural phone jack for intercom channel one.

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## Specifications

### **Power Requirements**

32 VDC nominal (standard RTS line), 150mA maximum

### **Environmental Requirements**

Storage: -20°C to 80°C, 0% - 95% humidity, non-condensing

Operating: 0°C to 50°C, 0% - 95% humidity, non-condensing

Dimensions:

Physical: 3.65" (92.77mm) L x 3.75" (95.3mm) W x 1.5" (38mm) D

Weight: 10.8 oz. (303g)

### **Interface Requirements**

Earset/Headphone compatibility

Accepts 50 to 600 ohm earsets or headphones

Audio input requirements

Input Level: 2V p-p (0dBu) nominal

Input Impedance: 200 ohms  $\pm 5\%$

Noise Contribution

Less than -60dB nominal

### **Headphone Amplifier**

Voltage Gain

27 $\pm$ 3dB from intercom channel to earset

Maximum Output

65 mW into 150 ohms

Frequency Response

250Hz to 8kHz +1/-4dB

### **Connector Pin Configuration**

Headset Connectors

Type: 1/4" Monaural Plug

Tip: Headset Audio High

Sleeve: Headset Audio Low

Type: 1/4" Stereo Plug

Tip: Headset Channel 1 Audio High

Ring: Headset Channel 2 Audio High

Sleeve: Headset Audio Low

Audio/Power Connector

Type: XLR-3F

Pin 1 Common

Pin 2 Channel 1 audio and power input

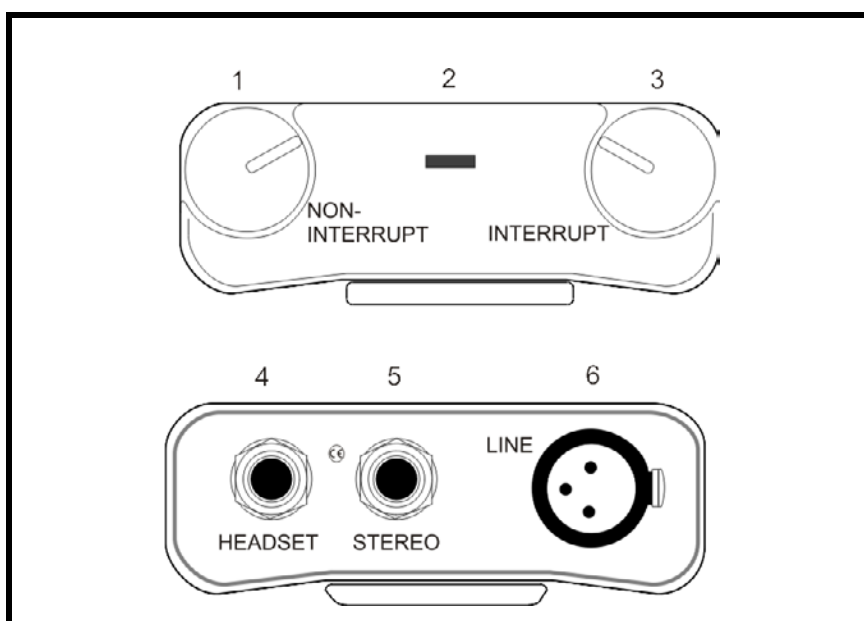
Pin 3 Channel 2 audio

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*External Connections & Controls*

**NOTE:** The description numbers correspond with the callouts in Figure 1.

1. Channel 1 Volume Control - use this control to adjust the headset/earset listen level for channel 1.
2. ON LED Indicator - this LED glows green when the beltpack is connected to a functioning intercom channel.
3. Channel 2 Volume Control - use this control to adjust the headset/earset listen level for channel 2.



**FIGURE 1.** Model 4030 Connections and Controls

4. Mono Headset Connector - This connector accepts a wide-response headset/earset, such as the RTS/Telex Model 2233 or Model 2234, with a 1/4" monaural phone plug.
5. Stereo Headset Connector - This connector accepts a wide-response headset/earset, such as the RTS/Telex Model 2233 or Model 2234, with a 1/4" stereo phone plug.
6. Intercom Channel Connectors - The Model 4030 intercom channel is connected via a 3-pin female connector. The Model 4030 is powered from the intercom system power supply and will turn ON with the intercom system.





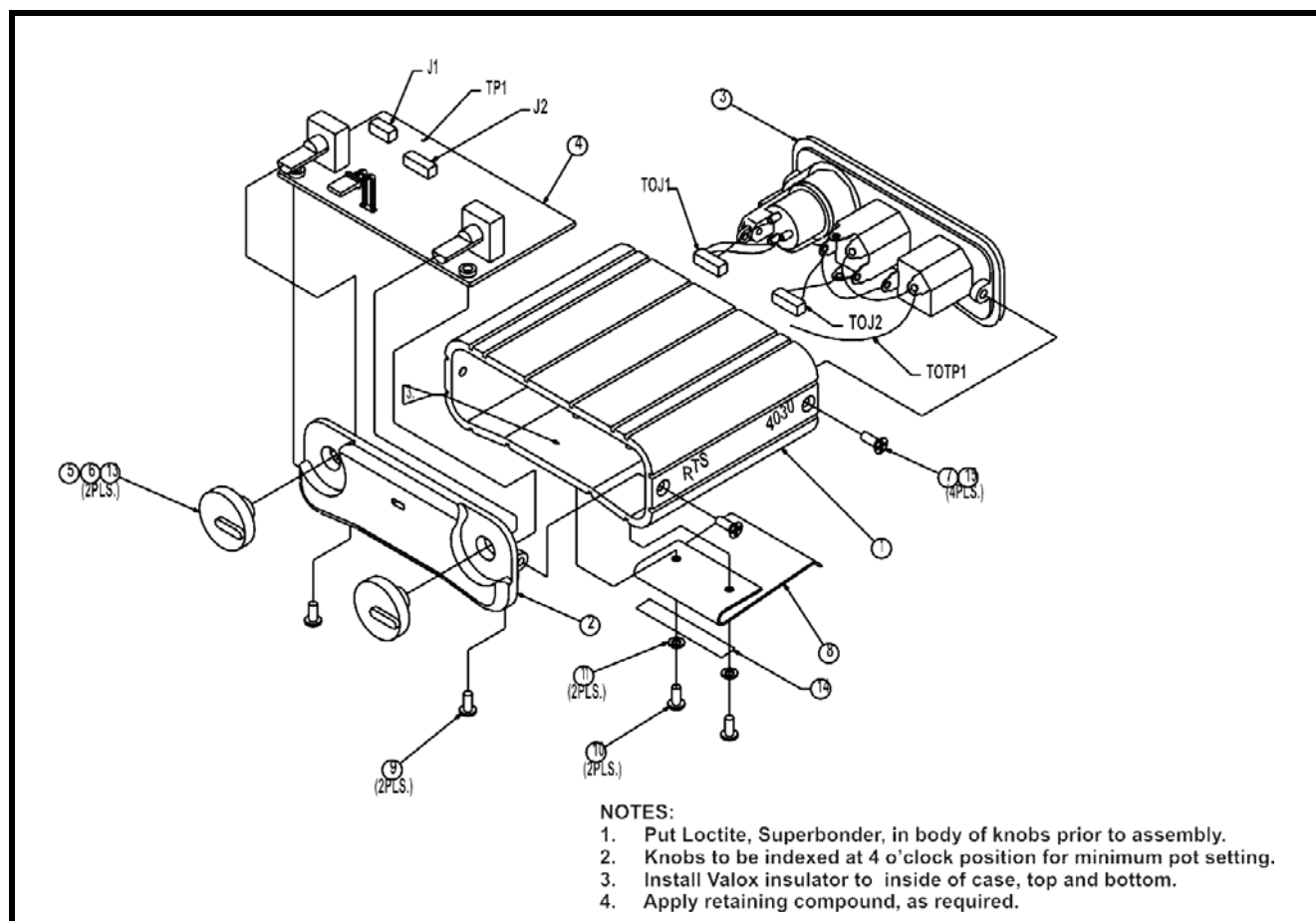
## *Parts Documentation and Schematic*

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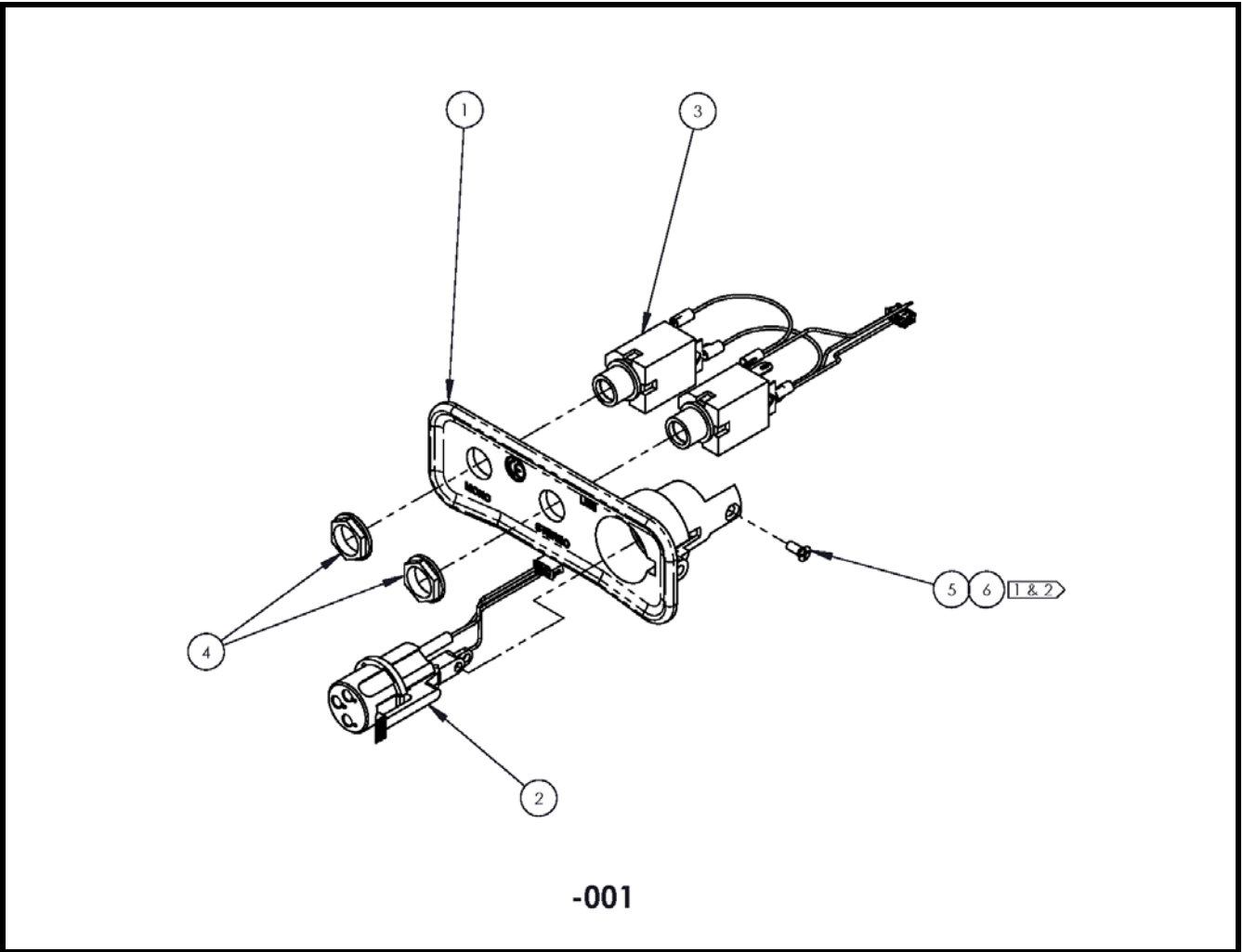
Parts may be obtained directly from Telex Communications, Inc., at:

Telex Communications, Inc.  
12000 Portland Ave South  
Burnsville, MN 55337 USA  
Telephone: (800) 392-3497  
Fax: (800) 323-0498



**FIGURE 2.** Final Assembly, Model 4030

Item	Description	Part No.
1	Case, 4030	90607374009
2	Top Plate, 4030	90707489002
3	Connector Plate Assembly	90207489001
4	PC Board, 4030	90307477002L
5	Knob, Nylon Body	9160563601
6	Knob Boot	9160563602
7	Screw, 4-40X .25LG, Flat Head Gray	800124001
8	Beltclip	91107600000
9	Screw, 4-40X .25LG, Pan Head	51845038
10	Screw, 6-32X .1875LG, Pan Head	51845073
11	Washer-lock, split, #6	50086001
12	Valox	1303001000
13	Loctite, Superbonder	BE753
14	Label, Serial	3101001700
15	Screw Locking Agent	59857000



**FIGURE 3.** Connector Plate Assembly, Model 4030

Item	Description	Part No.
1	Connector Plate, Gray	90807374008
2	Connector Assembly, IFB 3-Pin Female Line	25027477000
3	Connector Assembly, IFB Phono/Stereo	25027477002
4	Nut and Washer Part of 1/4" Jack	N/A
5	Screw, Part of 40055 Connector	N/A
6	Screw Locking Agent	59857000

NOTES:

1. MANUFACTURING TO STAMP SAME REV ON BOARD THAT APPEARS ON DRAWING.
2. REFERENCE SCHEMATIC DIAGRAM 9027477
3. PARTS LIST FILED SEPARATELY.
4. MANUFACTURING TO STAMP APPROPRIATE DASH NO. PER ASSEMBLY DRAW BUILD.

5. HEIGHT OF C5, C27, C5 FROM TOP OF BOARD CAN NOT EXCEED .875.
6. JUMPERS FOR -003 ONLY (S-FLS)
7. THIS ASSEMBLY IS TO BE CONSTRUCTED USING ROHS COMPLIANT COMPONENTS, SOLDER, AND PRECEDESSES PER TELEX SP00007002

NOTE 4. PLACE JUMPERS IN THE FOLLOWING POSITIONS:  
 90307477000 - J3 SHORTING ACROSS PINS 1&2  
 90307477001 - J3 SHORTING ACROSS PINS 2&3  
 90307477002 - J3 SHORTING ACROSS PINS 2&3  
 90307477003 - NO JUMPER

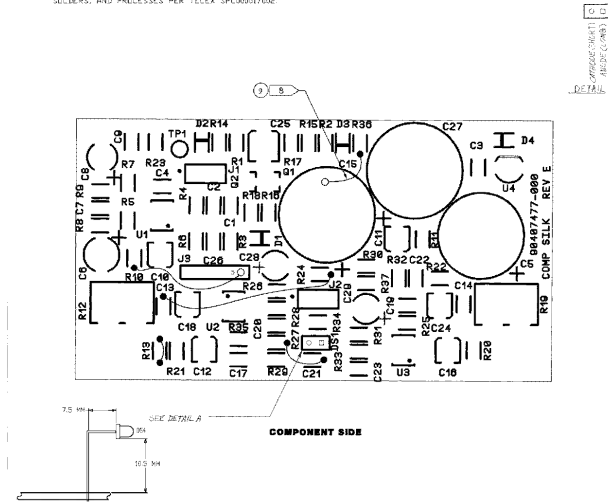
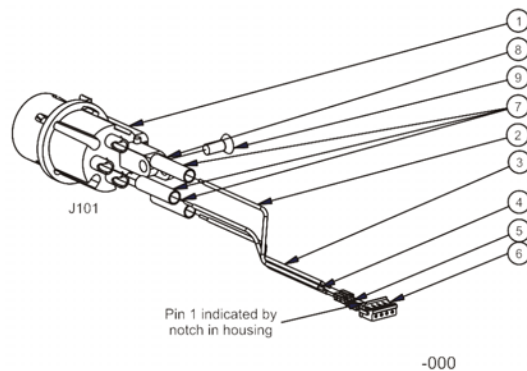


FIGURE 4. PC Board Assembly, Model 4030

Qty	Ref Des	Part Number	Description
1	C8	51821625	47UF, Cap Al Elect SMT 25V
1	C6	51821626	100UF, Cap Al Elect SMT 25V
1	R12	54131005	10K,POT
1	U4	54680412	LM78L12
2	Q1,Q2	54749000	MMBTA13
4	D1,D2,D3,D4	58711100	DIODE 1N4148
2	PEM1,PEM2	59832002	Nut, Self Clinching 4-40
2	J1,J2	59958104	Connector, ST Locking, 0.059, M-4
3	R7,R8,R9	102404300	10.0K Ohm, Res 1206 1%
2	R1,R2	102404333	22.1K Ohm, Res 1206 1%
1	R35	102404384	75.0K Ohm, Res 1206 1%
2	R23,R24	102513000	0 Ohm, Res 1206
7	R13,R16,R18,R26,R27,R28,R29	102513100	10 Ohm, Res 1206 5%
1	R34	102513102	1.0k Ohm, Res 1206 5%
1	R17	102513154	150k Ohm, Res 1206 5%
1	R10	102513472	4.7k Ohm, Res 1206 5%
2	R14,R15	102513473	47k Ohm, Res 1206 5%

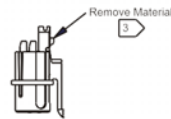
1	R21	102513752	7.5K Ohm, Res 1206 5%
1	C17	102879208	220PF, Cap 0805 X7R 50V
2	C1,C2	102880237	0.22UF, Cap 0805 X7R 50V
1	C3	102880239	0.33UF, Cap 0805 X7R 25V
2	C7,C9	102880339	0.01UF, Cap 1206 X7R 50V
4	C4,C13,C20,C21	102881351	0.1UF, Cap 1206 X7R 50V
1	C18	102884510	4.7UF, Cap Al Elect SMT 35V
1	C25	102884512	10UF, Cap Al Elect SMT 35V
1	C12	102884600	0.1UF, Cap Al Elect SMT 50V
1	C10	102884606	1.0UF, Cap Al Elect SMT 50V
1	J3	590089005	Connector, ST Locking, 0.100, M-5
1	U2	760374	Low Power Audio Amp MC34119D
1	U1	16030833SM	LM833
1	TP1	2017001400	Connector, Test Point
1		90407477000	Raw PCB
1		2515001500	Jumper
1		64106003	Support Bracket
1	C5	517002081	2200UF, Cap 16V
2	C15,C27	517002116	2200UF, Cap 25V



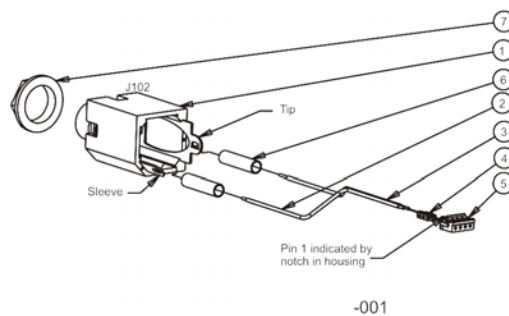
Notes: Unless otherwise specified:

1. Continuity test required on all plugs and jacks. No continuity other than shown permitted.
2. Twist wire pairs; red with black
3. Remove material for connector before wiring

25027477000						
Wire Color	Length	From	Strip Length	To	Strip Length	Strip Length
Black		J101	Pin1	J1	Pin1	.0625
Red		J101	Pin2	J1	Pin2	.0625
Blue		J101	Pin3	J1	Pin3	.0625
Heat Shrink	.40	P101	Pin1	-	-	-
Heat Shrink	.40	P101	Pin2	-	-	-
Heat Shrink	.40	P101	Pin3	-	-	-



## 3-pin Female

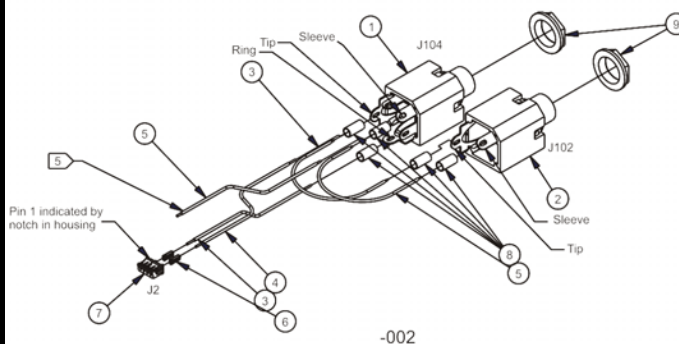


Notes: Unless otherwise specified:

1. Continuity test required on all plugs and jacks. No continuity other than shown permitted.
2. Twist wire pairs; red with black

25027477001						
Wire Color	Length	From	Strip Length	To	Strip Length	Strip Length
Black		J101	Pin1	J2	Pin1	.0625
Red		J101	Pin2	J2	Pin2	.0625
Heat Shrink		P101	Pin1	-	-	-
Heat Shrink		P101	Pin2	-	-	-

## 1/4" Phone Jack



Notes: Unless otherwise specified:

1. Continuity test required on all plugs and jacks. No continuity other than shown permitted.
2. Twist wire pairs; red with black

25027477002						
Wire Color	Length	From	Strip Length	To	Strip Length	Strip Length
Red	5"	J104	Ring	J2	Pin 2	.0625
Blue	5"	J104	Tip	J2	Pin 4	.0625
Black	5"	J104	Sleeve	J2	Pin 1	.0625
Red	5"	J104	Tip	J102	Tip	.200
Black	5"	J104	Sleeve	J102	Sleeve	.200
Heat Shrink	.40	J104	Ring	-	-	-
Heat Shrink	.40	J104	Tip	-	-	-
Heat Shrink	.40	J104	Sleeve	-	-	-
Heat Shrink	.40	J102	Tip	-	-	-
Heat Shrink	.40	J102	Sleeve	-	-	-

## Phono Stereo

FIGURE 5. Connector Assemblies

