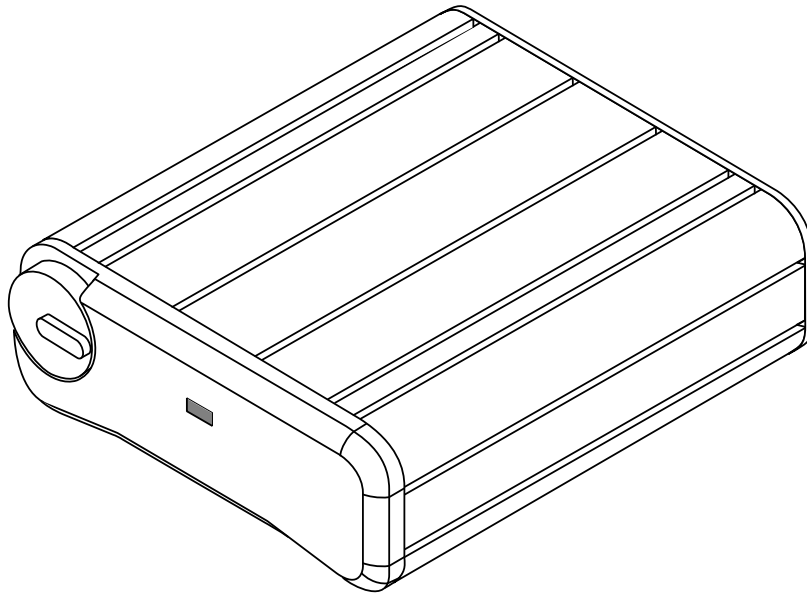


IFB-325
Portable User Station
Talent Electronics
User Manual



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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	PART NUMBER	DESCRIPTION
1	90107488000	IFB325 Assembly
1	93507488000	Operation Manual
1	38109675	Certificate of Conformity
1	38110387	Warranty

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Introduction and Description

Description and Specifications

General

The IFB325 is a portable user station for use with RTS[®] 2-wire intercom systems. The IFB325 is a listen-only IFB belt pack that can be used to listen to only one intercom channel.

Features

- Powered externally, via the intercom system power supply on channel 1
- Power ON indicator LED
- Headset / earset jack set for 150Ω operation
- Internal jumper selection of intercom channel 1 or channel 2 (default to channel 2)

Connections and Controls

The IFB325 has the following connections and controls:

- Intercom/program volume control
- Headset connector that accepts 1/4" monaural phone plug
- Channel connector that accepts and XLR type 3-pin connector for intercom line and power input

Specifications

GENERAL

Channel Supplied Power Requirements

32 VDC nominal (standard RTS line), 50 to 80 mA

Environmental Requirements

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

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

Dimensions

3.25" (82.6mm) H x 3.5" (88mm) W x 1.8" (45.7mm) D

Weight

1.0 pound (0.45kg)

Interface Requirements

Earset

150 to 600Ω headphones

RTS Intercom Channel

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

Input Impedance: 200Ω ±5%

Noise Contribution

less than -60dB on the line

Headphone Amplifier

Voltage Gain

27 ±3dB from the line

Maximum Output

165mW into 150Ω

Frequency Response

250Hz to 8kHz +1/-4dB

Connector Pin Configurations

Headset Connector

Type: 1/4" Monaural Plug

Sleeve: Headset audio low

Tip: Headset audio high

Intercom Channel Connectors

Type: XLR-3F

Pin 1 Common

Pin 2 Intercom Channel 1 (audio and +32 VDC input)

Pin 3 Intercom Channel 2 (audio)

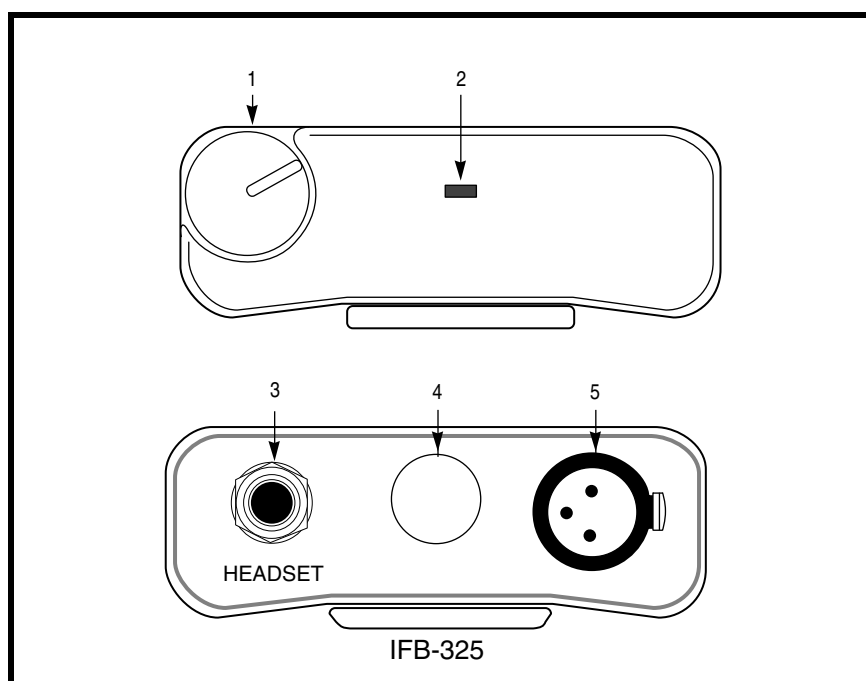
External Connections and Controls

FIGURE 1. IFB325 Connections and Controls

NOTE: The numbers refer to the callouts in Figure 1.

1. Volume Control: Use this control to adjust the headset/earset listen level.
2. ON LED indicator: This LED glows green when the belt pack is connected to a functioning intercom channel.
3. Headset Connector: This connector accepts a wide-response headset/earset, such as the RTS[®] Model 2233 or Model 2234, with a 1/4" monaural phone plug.
4. Hole Plug: This hole is for future use.
5. Intercom Channel Connectors: The IFB325 intercom channel is connected via a 3-pin female connector. The IFB325 is powered from the intercom system power supply and will turn ON with the intercom system.

Internal Jumper

The channel termination is set for operation on intercom channel 2, which is compatible with other RTS equipment. If IFB operation is required on intercom channel 1, an internal jumper must be changed as described in Table 1.

To gain access to the jumper, disconnect all power and line connections. Remove two screws from the top of weach side and two screws from the bottom of each side. The jumper location is shown in Figure 2.

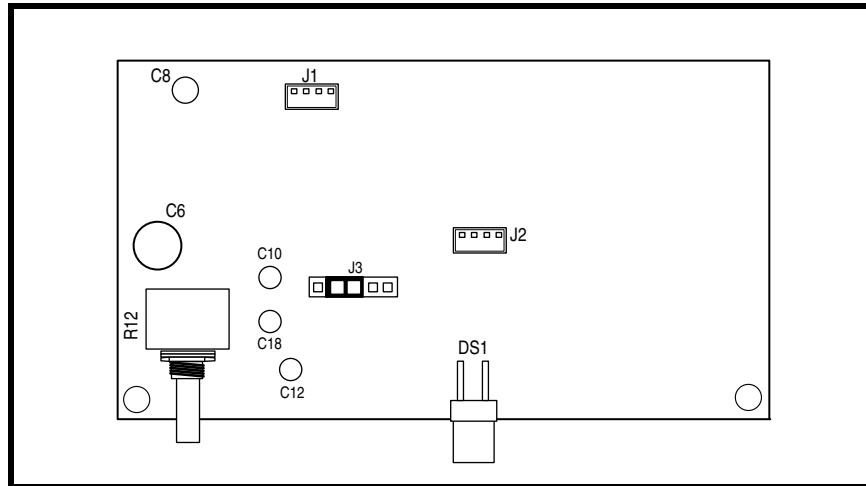


FIGURE 2. Internal Jumper

TABLE 1. Internal Jumper

Jumper Number	Jumper Function	Default Setting
J3	IFB Channel Selections	
	Pin 4&5 shorted: Channel 1 IFB	Pins 2 & 3 shorted
	Pin 2&3 shorted: Channel 2 IFB	(channel 2)

Replacement Parts

Where to Obtain Parts

Part may be ordered directly from Telex, at :

Telex/RTS Systems
12000 Portland Ave South
Burnsville, MN 55337 USA
Telephone: (800) 392-3497
Fax: (800) 323-0498

Item No.	Description	Part No.
12	Washer, Lock, Split, #6	50086001
13	Valox	1303001000
14	Loctite Superbonder	BE753
15	Label, Serial	3101001700
16	Case, 4030-M	90607374013
17	PC Board, IFB4030-M	90307477033L
18	Screw Locking Agent	59857000

Mechanical Parts

Final Assembly

Refer to Figure 3 on page 10 for Item No. location

Item No.	Description	Part No.
1	Case	90607374008
2	Top Plate	90707374008
3	Connector Plate Assembly	90207477001
4	PC Board, IFB325	90307477001L
5	Knot, Nylon Body	9160563601
6	Boot, Knob	9160563602
7	Screw, 4-40x 0.25LG, Flat Head	800124001
8	Belt Clip	9110760000
9	Screw, 4-40 x 0.25LG, Pan Head	51845-038
10	Hole Plug, Black	4501261700
11	Screw, 6-32X. 1875	51845073

Connector Plate Assembly

Refer to Figure 4 on page 11 for Item No. location.

Item No.	Description	Part No.
1	Connector Plate, Gray	90807374008
2	Connector Assembly, IFB 3-Pin Female Line	25027477000
3	Connector Assembly, IFB Phone/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

PC Board Assembly

Refer to Figure 5 on page 12 for Item No. location.

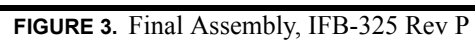
NOTE: Part number 90307477001 is for the board without the LEDs. To order the board with the LEDs, use part number 90307477001L.

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,D 3,D4	58711100	DIODE 1N4148
2	PEM1,P EM2	59832002	Nut, Self Clinching 4-40
2	J1,J2	59958104	Connector, ST Locking, 0.059, M-4
3	R7,R8,R 9	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,R2 6,R27,R 28, 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

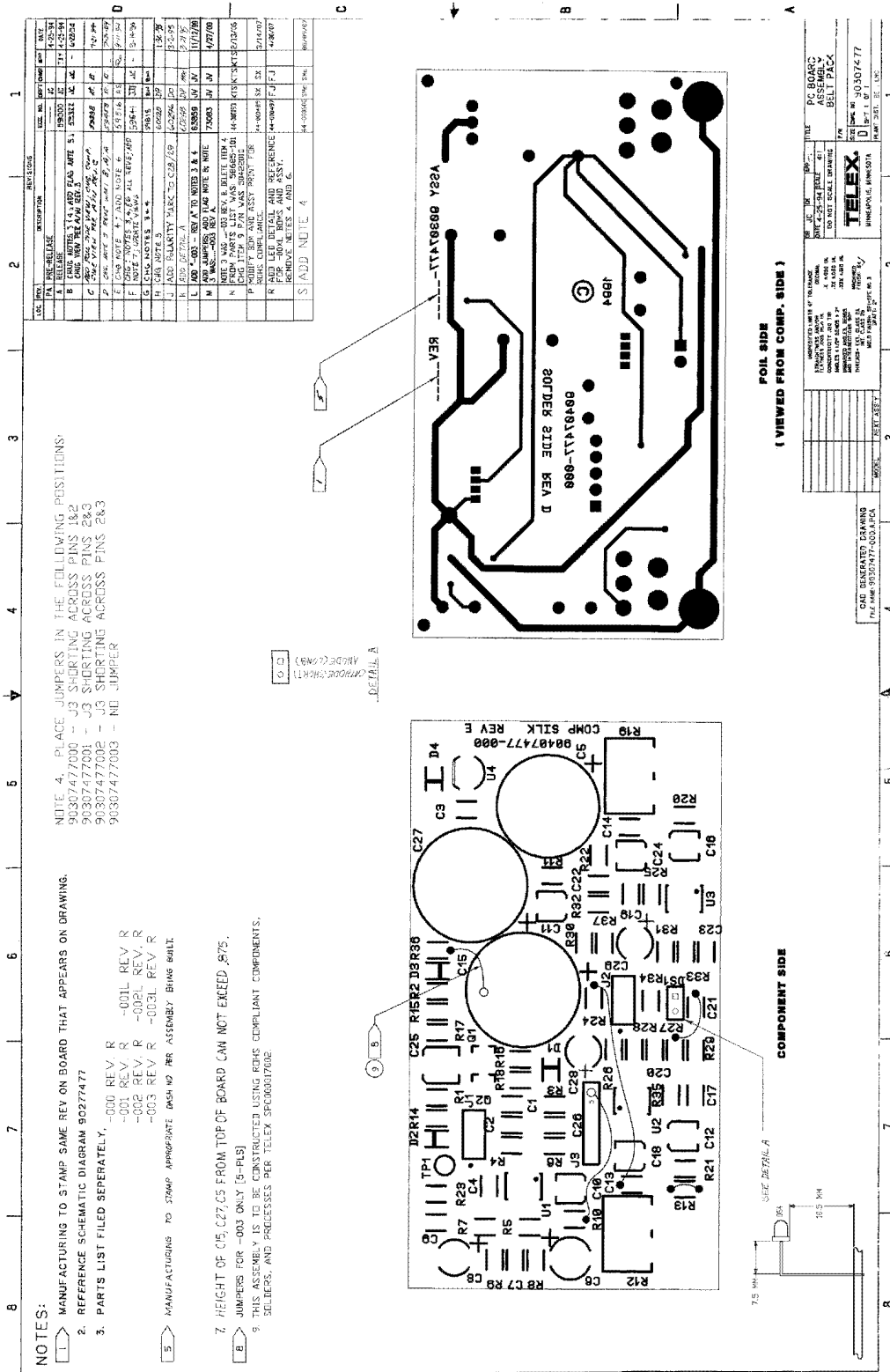
2	C1,C2	102880237	0.22UF, Cap 0805 X7R 50V
1	C3	102880239	0.33UF, Cap 0805 X7R 25V
2	C7,C9	102880339	0.01UF, Cap 1206 X7R 50V
4	C4,C13, C20,C21	102881351	0.1UF, Cap 1206 X7R 50V
1	C18	102884510	4.7UF, Cap Al Elect SMT 35V
1	C25	102884512	10UF, Cap Al Elect SMT 35V
1	C12	102884600	0.1UF, Cap Al Elect 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	16030833S M	LM833
1	TP1	2017001400	Connector, Test Point
1		9040747700 0	Raw PCB
1		2515001500	Jumper
1		64106003	Support Bracket
1	C5	517002081	2200UF, Cap 16V
2	C15,C27	517002116	2200UF, Cap 25V

Diagrams

DRAWING NUMBER	TITLE
9010-7488-000	Figure 3 Final Assembly, IFB325
9020-7477-001	Figure 4 Connector Plate Assembly, IFB325
9030-7477-001	Figure 5 PC Board Assembly, IFB325
9027-7477-001	Figure 6, Figure 7, and Figure 8 Schematic, IFB325
25027477	Figure 9 Connector Assemblies, IFB-325



Time : 09:02:19 AM



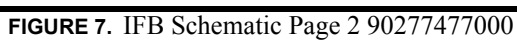
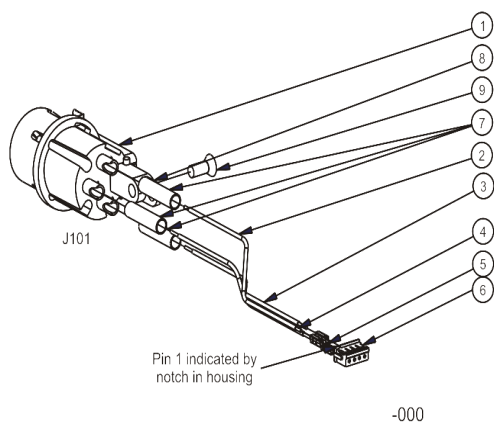


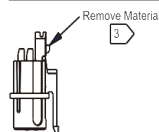
FIGURE 8. IFB Schematic Page 3 90277477000



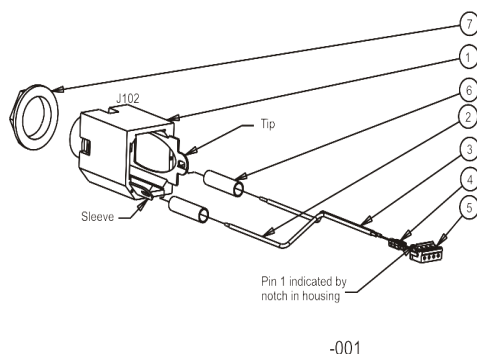
Notes: Unless otherwise specified:

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
Black		J101	Pin1	J1	Pin1
Red		J101	Pin2	J1	Pin2
Blue		J101	Pin3	J1	Pin3
Heat Shrink	40	P101	Pin1	-	-
Heat Shrink	40	P101	Pin2	-	-
Heat Shrink	40	P101	Pin3	-	-



3-pin Female

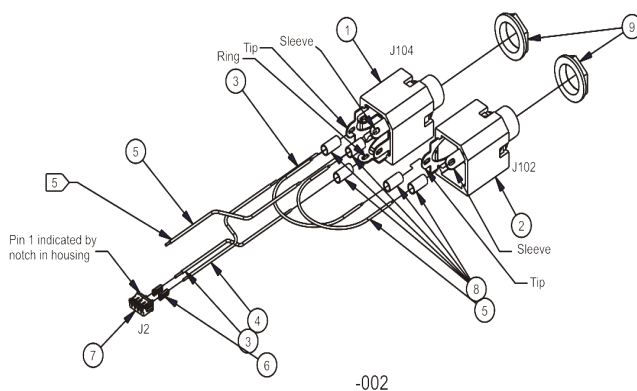


Notes: Unless otherwise specified:

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
Black		J101	Pin1	J2	Pin1
Red		J101	Pin2	J2	Pin2
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
Red	5"	J104	Ring	J2	Pin 2
Blue	5"	J104	Tip	J2	Pin 4
Black	5"	J104	Sleeve	-	-
Red	5"	J104	Tip	J102	Tip
Black	5"	J104	Sleeve	J102	Sleeve
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 9. Connector Assemblies, IFB325

