

RTSTM

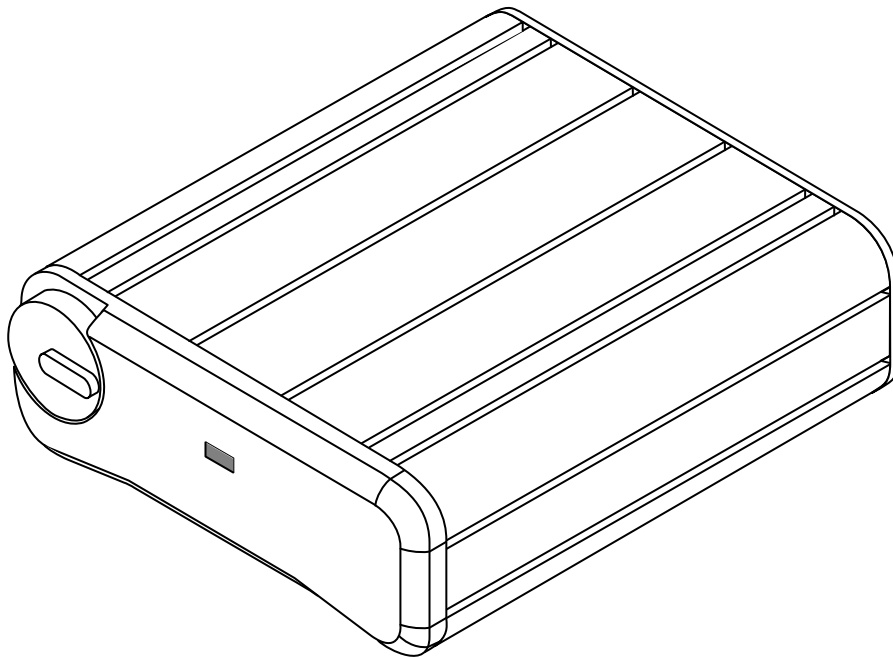
Two Wire Intercom Series
innovating the future of communications

IFB-325

Portable User Station

Talent Electronics

User Manual



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UNPACKING AND INSPECTION

Immediately upon receipt of the equipment, inspect the shipping container and the contents carefully for any discrepancies or damage. Should there be any, notify the freight company and the dealer at once.

CUSTOMER SUPPORT

Technical questions should be directed to:

Customer Service Department
RTS/Telex Communication Inc.
12000 Portland Avenue South.
Burnsville, MN 55337 U.S.A.
Telephone: (800) 392-3497
Fax: (800) 323-0498
Factory Service: (800) 553-5992

Return Shipping Instructions

Customer Service Department
Telex Communications, Inc. (Lincoln, Nebraska)
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, and 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 products 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 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

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Introduction and Description

Description and Specifications

General

the IFB-325 is a portable user station for use with RTS 2-wire intercom systems. The IFB-325 is a listen-only IFB belt pack that can be used to listen to only one intercom channel.

Features

Features of the IFB-325 include:

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

Connections and Controls

The IFB-325 has the following connections and controls:

- Intercom/program volume control
- Headset connector that accepts 1/4" monaural phone plug
- Channel connector that accepts an XLR type 3-pin connector for intercom line an 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" (88.mm)W x 1.8" (45.7mm) D

Weight

1.0 pounds (0.45kg)

Interface Requirements

Earset

150 to 600Ω headphones

RTS Intercom Channel

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

Input Impedance: 200Ω ±5%

Noise Contribution

less than -60 dB on the line

Headphone Amplifier

Voltage Gain

27 ±3dB from the line

Maximum Output

165mW into 150Ω

Frequency Response

250 Hz to 8 kHz +1/-4dB

Connector Pin Configurations

Headset Connector

Type: 1/4" Monaural Plug

Sleeve: Headset audio low

Tip: Headset audio high

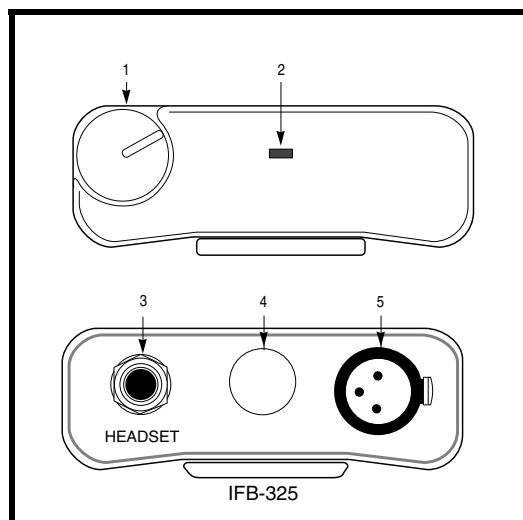
Intercom Channel Connectors

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. IFB-325 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 indicator: This LED glows green when the belt pack is connected to an intercom channel that is functioning.
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 IFB-325 intercom channel is connected via a 3-pin female connector. The IFB-325 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 two, which is compatible with other RTS equipment. If IFB operation is required on the intercom channel one, 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 each side and two screws from the bottom of each side. The jumper location is shown in Figure 2.

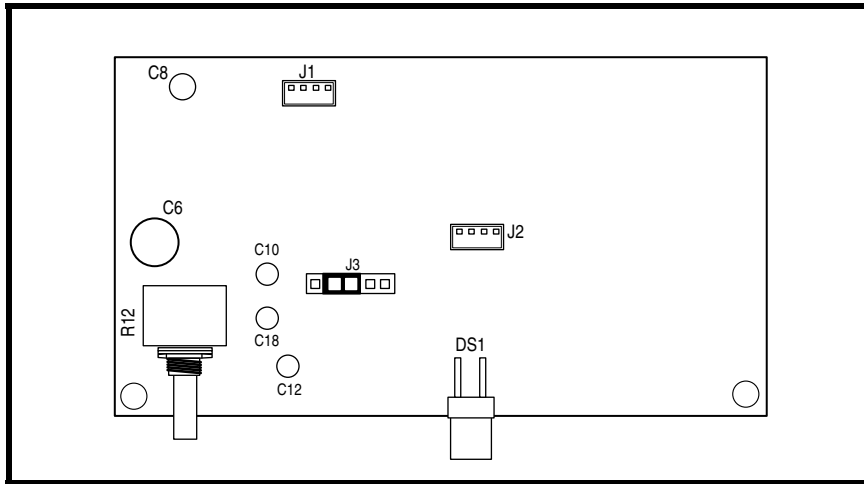


FIGURE 2. Internal Jumper

JUMPER NUMBER	JUMPER FUNCTION	DEFAULT SETTING
J3	IFB Channel Select Pin 4&5 shorted: Channel one IFB Pin 2&3 shorted: Channel two IFB	Pins 2 & 3 shorted (Channel 2)

TABLE 1. Internal Jumper

Replacement Parts

Where to Obtain Parts

Parts may be obtained directly from Telex at:

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

Mechanical Parts

Final Assembly (Refer to Figure X for Item No. location)		
Item No.	Description	Part No.
1	Case, IFB-325	90607374-008
2	Top Plate	90707374-008
3	Not Used	
4	Circuit Board Assembly	90307477-001
5	Knot, Nylon Body	9160563-601
6	Boot, Knob	9160563-602
7	Screw, 4-40 x 0.25, Flat Head	800124-001
8	Belt Clip	91107600-00
9	Screw, 4-40 x 0.25, Pan Head	51845-038
10	Hole Plug	4501-2617-00
11	Screw, 4-40 x 0.1875, Pan Head	51845-073
12	Washer, Lock, Split, #4	50086-001
13	Valox	1303-0010-00

Final Assembly (Refer to Figure X for Item No. location)		
Item No.	Description	Part No.
14	Loctite Superbonder	BF 753
15	Label, Serial	3101001700
16	Not Used	
17	Not Used	
18	Screw Locking Agent	59857-000

Connector Plate Assembly (Refer to figure X for Item No. locations)		
Item No.	Description	Part No.
1	Not Used	
2	Jack, Phono, 1/4"	2013001200
3	Connector, XLR-3F	40055-10
4	Connector, 4-pin	59958-004
5	Contact, Connector	59958-200
6 thru 9	Not Used	
10	Connector Plate	90807374-007
11	Screw Locking Agent	59857-000

Replacement Parts

Circuit Board Assembly (Refer to Figure X)			Circuit Board Assembly (Refer to Figure X)		
Ref No.	Description	Part No.	Ref No.	Description	Part No.
	Support Bracket	64106-003	R12	Potentiometer, 10k Ω , 10%, 0.05W	54131-005
C1, C2	Capacitor, CM, SM, 0.22 μ F, 50V	102880-237	R13	Resistor, SM, 10 Ω , 5%, 1/8W	102513-100
C3	Capacitor, CM, SM, 0.33 μ F, 50V	102880-239	R14, R15	Resistor, SM, 47k Ω , 5% 1/8W	102513-473
C4	Capacitor, CM, SM, 0.1 μ F, 50V	102882-351	R16	Resistor, SM, 10 Ω , 5%, 1/8W	102513-100
C5	Capacitor, EL, 2200 μ F, 16V	102884-412	R17	Resistor, SM, 150k Ω , 5%, 1/8W	102513-154
C6	Capacitor, EL, 100 μ F, 25V	51821-626	R18	Resistor, SM, 10 Ω , 5%, 1/8W	102513-100
C7	Capacitor, CM, SM, 0.01 μ F, 50V	102881-339	R19, R20	Not Used	
C8	Capacitor, EL, 47 μ F, 25V	51821-625	R21	Resistor, SM, 7.5k Ω , 5%, 1/8W	102513-752
C9	Capacitor, CM, SM, 0.01 μ F, 50V	102881-339	R22	Not Used	
C10	Capacitor, EL, SM, 1 μ F, 50V	102884-606	R23	Resistor, SM 0 Ω , 5%, 1/8W	102513-000
C11	Not Used		R24, R25	Not Used	
C12	Capacitor, EL, SM, 0.1 μ F, 50V	102884-600	R26 - R29	Resistor, SM, 10 Ω , 5%, 1/8W	102513-100
C13	Capacitor, CM, SM, 0.1 μ F, 50V	102882-351	R30 - R33	Not Used	
C14	Not Used		R34	Resistor, SM, 1k Ω , 5%, 1/8W	102513-102
C15	Capacitor, EL, 2200 μ F, 25V	517004-036	R35	Resistor, SM 75k Ω , 1%, 1/8W	102404-384
C17	Capacitor, CM, SM, 220 pF, 50V	102879-208	TP1	Connector, Test Point Terminal	20170014-00
C18	Capacitor, EL, SM, 4.7 μ F, 25V	102884-410	U1	IC, SM, Dual Op Amp, LM833	16030833-SM1
C19	Not Used		U2	IC SM, LP Audio Amp, MC34119	16030146-SM1
C20, C21	Capacitor, CM, SM, 0.1 μ F, 50V	102881-351	U3	Not Used	
C22 - C24	Not Used		U4	IC, Voltage Regulator, 12V, 78L12	54680-412
C25	Capacitor, EL, 2200 μ F, 16V	102884-412			
D1 - D4	Diode, SM, Switching, 914/4148	58711-100			
DS1	LED, Rectangular, Green	58685-101			
J1, J2	Connector, St Locking, 0.059, M-4	59958-104			
J3	Connector, St Header, 0.100, M-5	590089-005			
PEM1	Nut, Self Clinching, 4-40	59832-002			
PEM2	Nut, Self Clinching, 4-40	59832-002			
Q1, Q2	Transistor, SM, SI NPN, MMBTA13	54749-000			
R1, R2	Resistor, SM, 22.1k Ω , 1%, 1/8W	102404-333			
R3-R6	Not Used				
R7	Resistor, SM, 10k Ω , 1%, 1/8W	102404-300			
R8	Resistor, SM 10k Ω , 5%, 1/8 Ω	102513-103			
R9	Resistor, SM, 10k Ω , 1%, 1/8W	102404-300			
R10	Resistor, SM, 4.7k Ω , 5%, 1/8W	102513-472			
R11	Not Used				

Diagrams

Drawing Number	Title
9010-7488-000	Figure X Final Assembly, IFB-325
9020-7477-001	Figure X Connector Plate Assembly, IFB-325
9030-7477-001	Figure X PC Board Assembly, IFB-325
9027-7477-001	Figure X Schematic, IFB-325

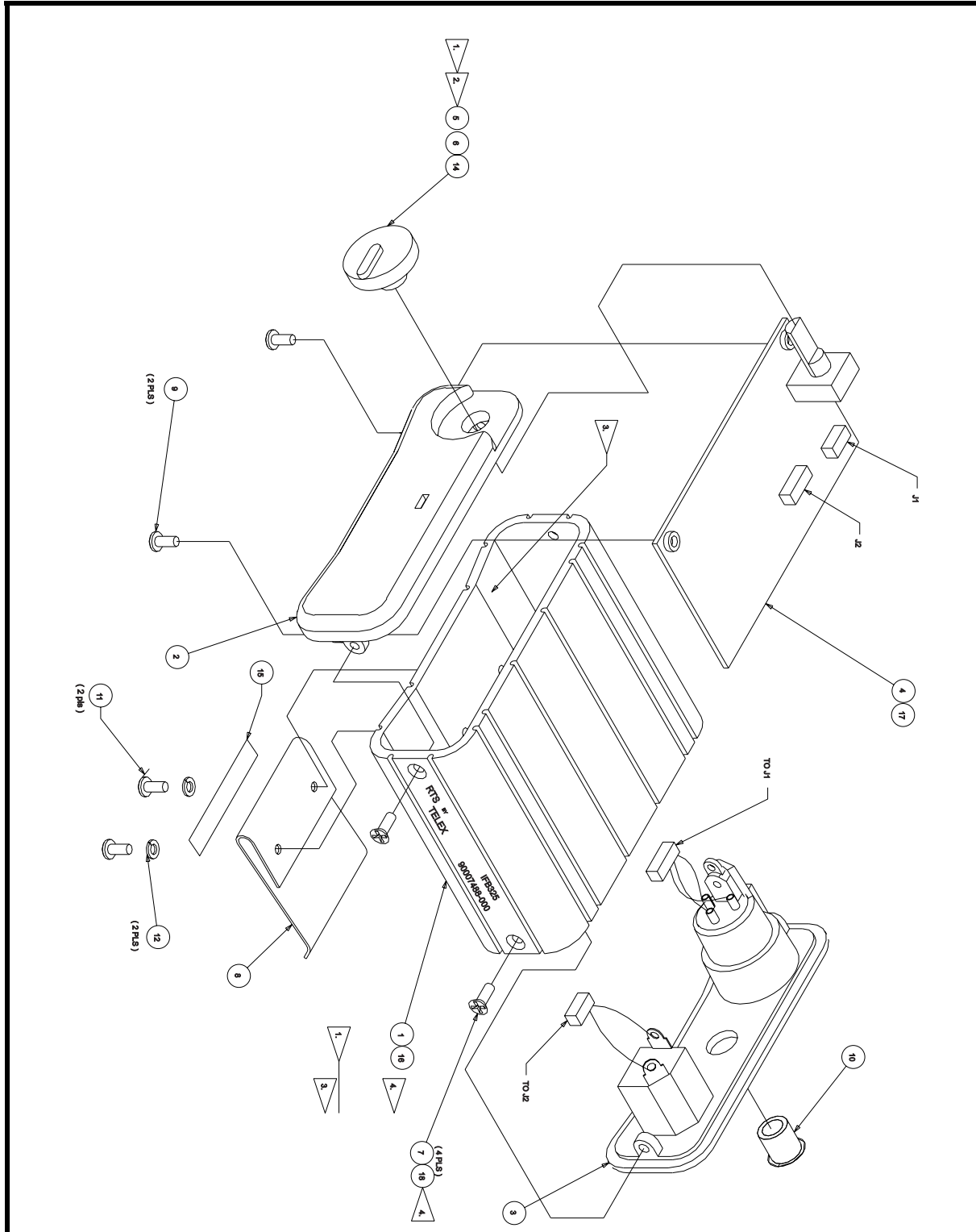


FIGURE 3. Final Assembly, IFB-325
9010-7488-000, Rev F

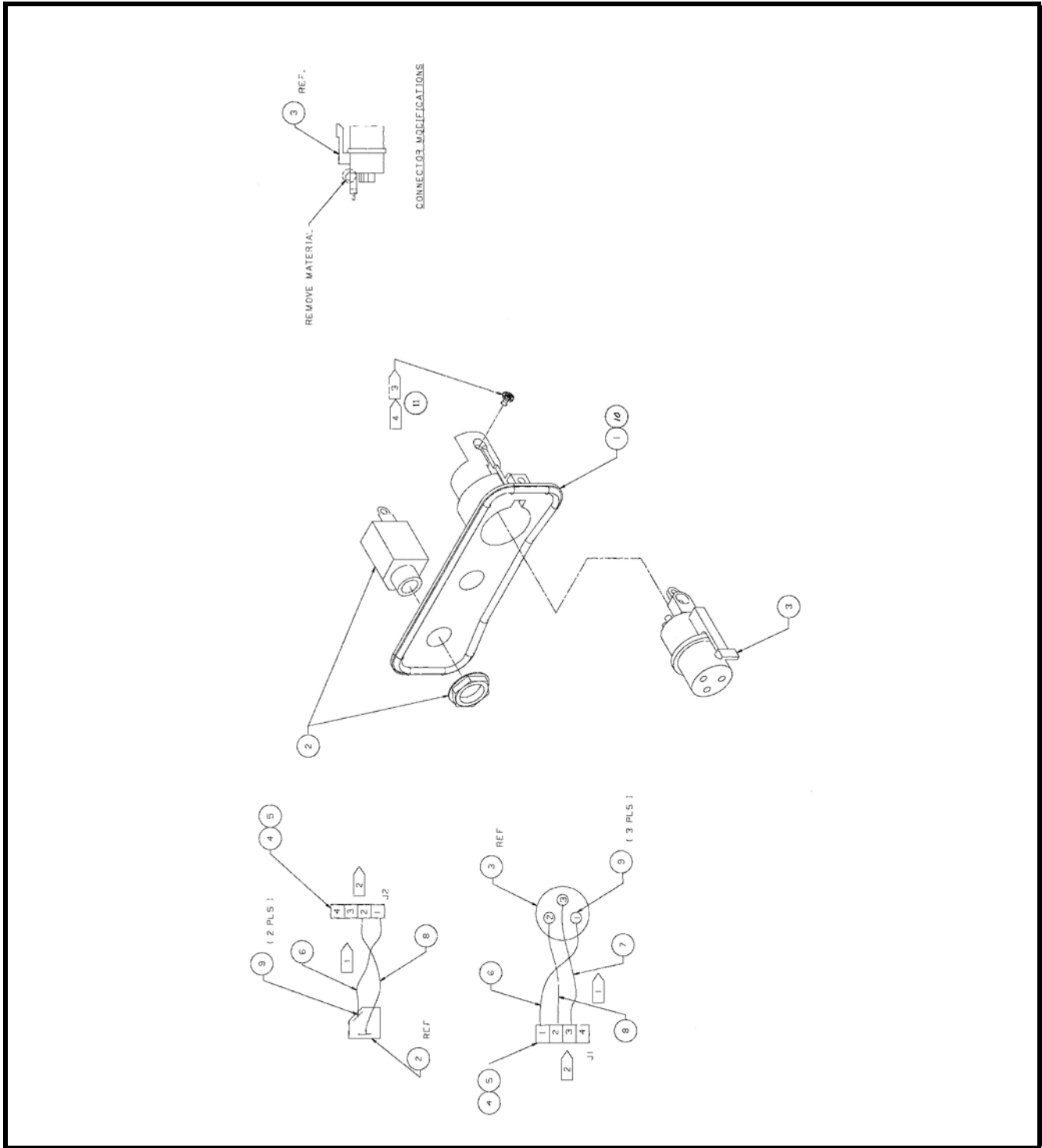


FIGURE 4. Connector Plate Assembly, IFB-325
9020-7477-001, Rev E

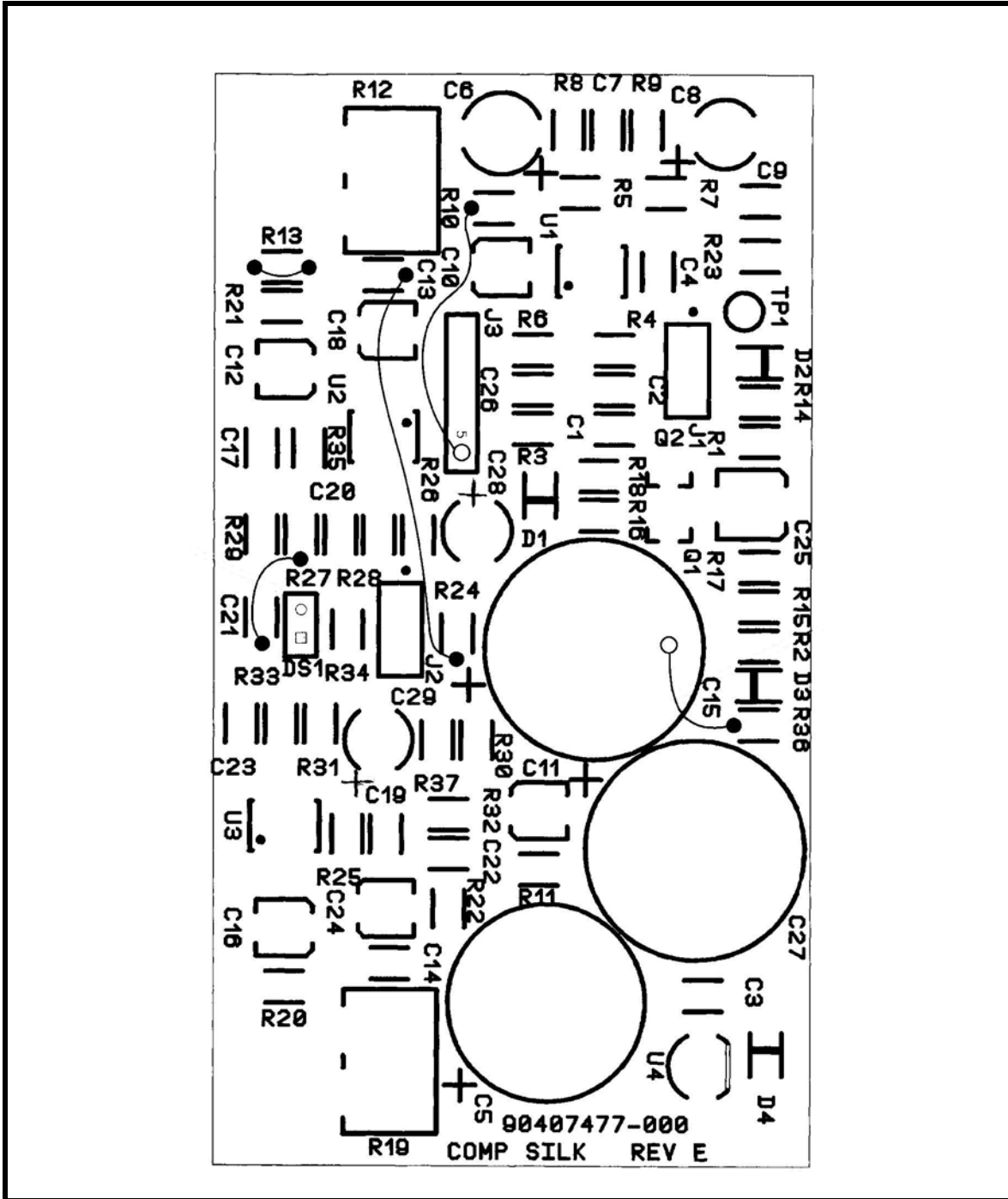
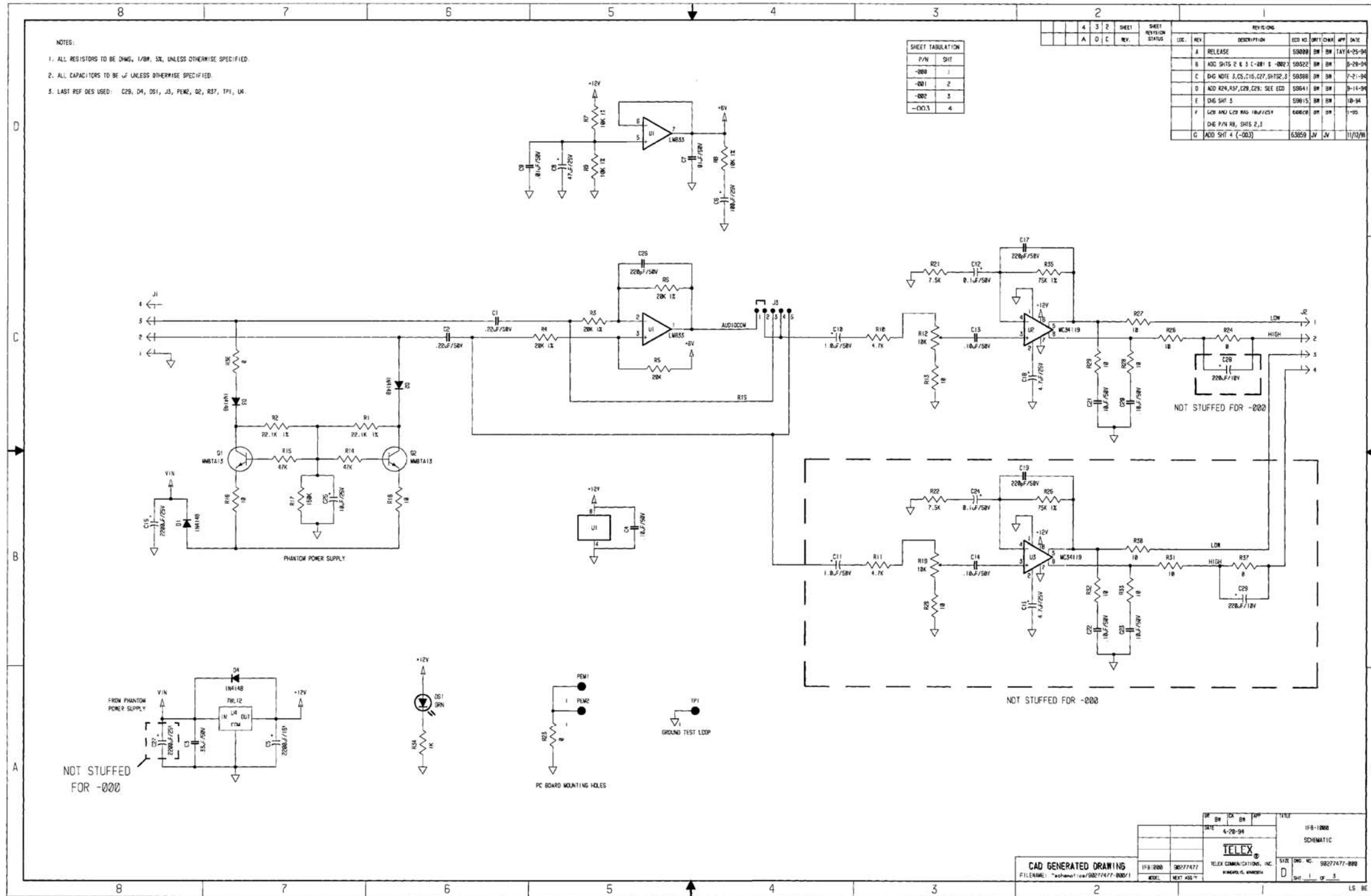
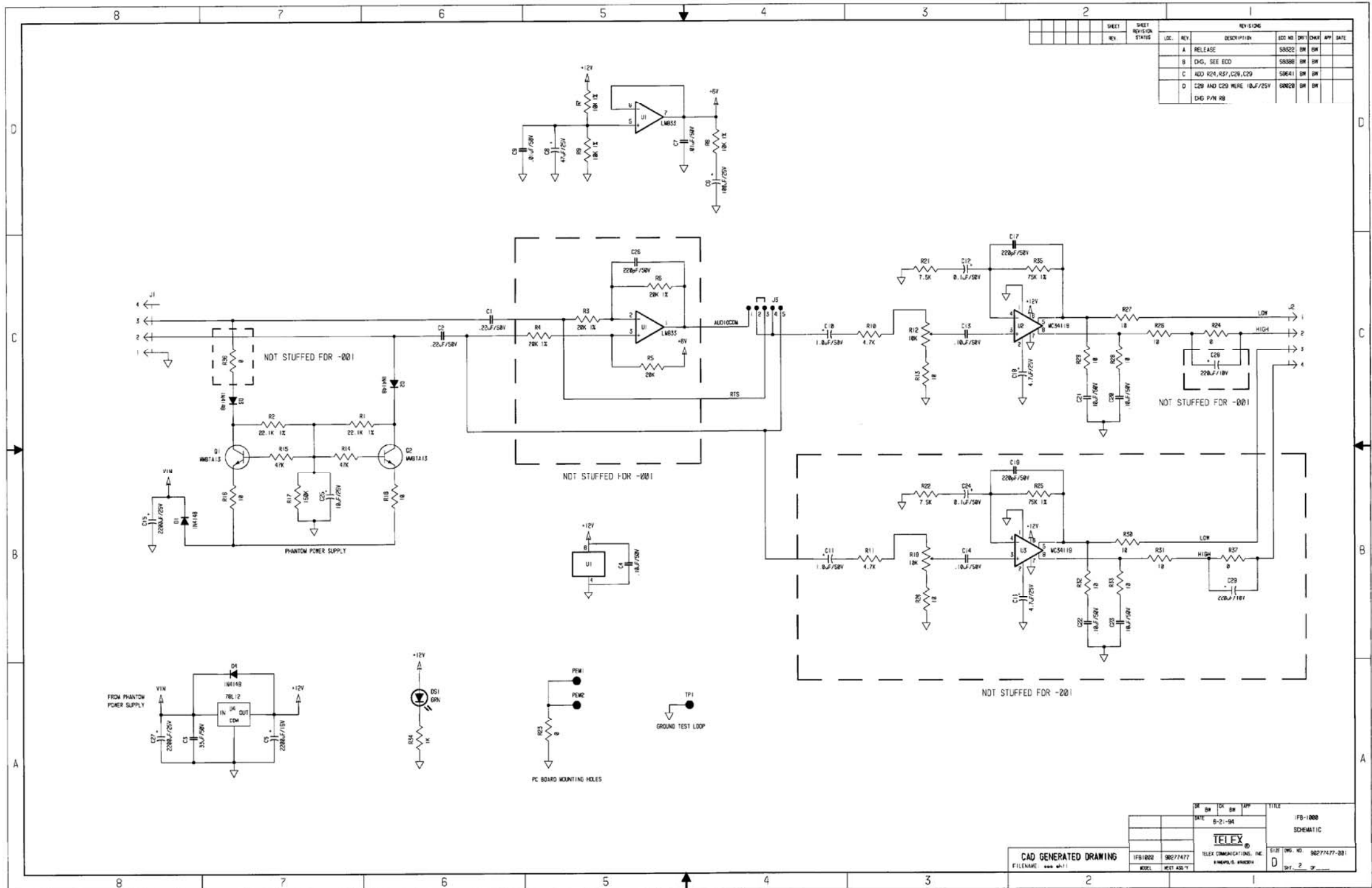


FIGURE 5. PC Board Assembly, IFB-325
9030-7477-001 Rev M





SHEET		SHEET		REVISION	
NO.	REV.	NO.	STATUS	LOC.	DATE
1		1		A	RELEASE
2		2		B	CHG. SEE ECD
3		3		C	ADD R24, R37, C29, C29
4		4		D	C29 AND C29 WERE 10µF/25V
5		5			CHG P/N RB

CAD GENERATED DRAWING		DATE	8-21-94	TITLE	1FB-1000
FILENAME	***.dwt	DR		CHK	SCHEMATIC
1FB1000	98277477	DES		APP	
MODEL	NET ASS'Y	TELECOM	TELECOMUNICATIONS, INC.	SHEET	NO. 00277477-001
					SHEET 2 OF 2