

IFB-104

INTERFACE

INSTRUCTION MANUAL

Matrix Plus 3 System Operational Manual
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Part Number 810268 Rev. A

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OPERATION

DESCRIPTION

The IFB-104 provides an easy way to connect Matrix stations to on-air talent using IFB (Interruptible Foldback).

The interface provides an audio-balanced program input to a Matrix frame and sends IFB outputs to on-air talent. Both the input and output are transformer isolated.

The IFB-104 back panel has enough connectors to accommodate as many as four Matrix frames and four on-air talents. Each of the four pairs represents a Matrix frame port. Although each pair can have separate inputs and outputs, each of the four pairs do not have to be used together. Input for each output can come from any source and one input can be used for all four outputs. In addition, the inputs do not have to be IFB-related, but can contain other program material.

The front panel has only one indicator. This indicator lights up when power is connected to the IFB-104. Power is only necessary if the talent receivers require it.

- *The IFB-104 is used primarily to connect a director to on-air talent.*

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INSTALLATION

To install the IFB-104:

- *Simple connections can connect on-air talent receivers to Matrix stations.*
1. Connect the female XLR-3 connectors (J101, J201, J301, and/or J401) to the program feed(s).
 2. Connect the RJ-45 connectors (J102, J202, J302, and/or J402) to a Matrix frame.
 3. Configure the Matrix port through PGM-WIN, which has declared the IFB-104 as a direct 4-wire port connection.
 4. Connect the XLR-3 male (J103, J203, J303, and/or J403) to an on-air talent receiver.
 5. Move the slide switch to WET if the on-air talent receiver requires power and to DRY if it doesn't require power. Use the WET setting with a Clear-Com talent receiver.
 6. Connect power to the appropriate connector on the left of the back panel.

Following is an illustration of how one station can be connected to an on-air talent receiver that requires power using the IFB-104.

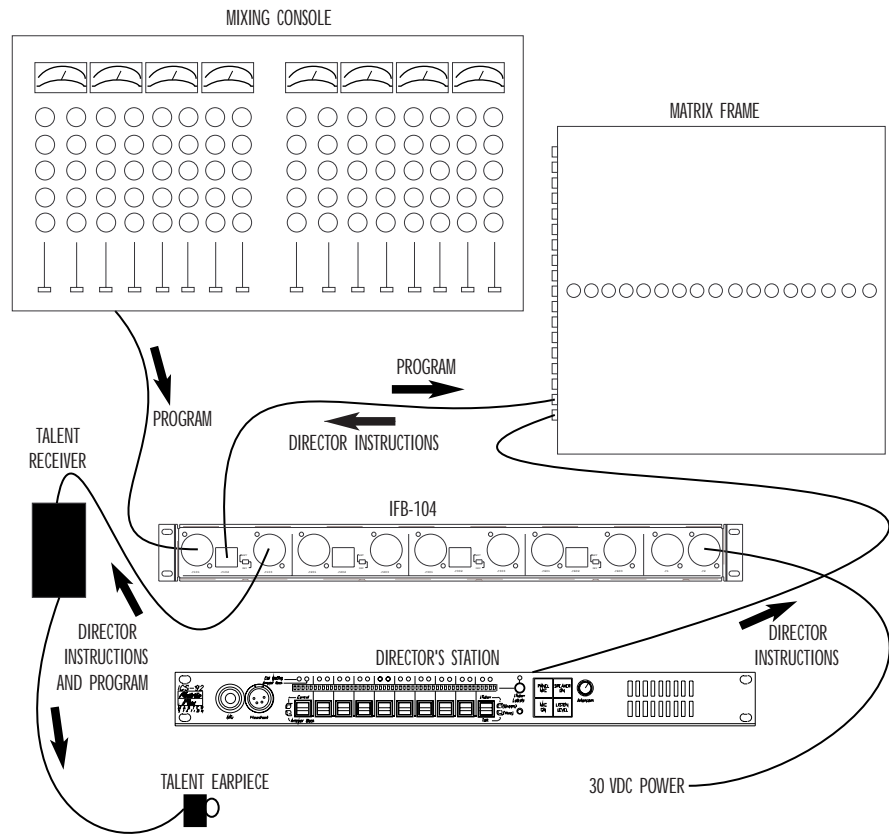


Figure 1: IFB-104 Connections

3 MAINTENANCE

BILL OF MATERIALS

IFB-104 MAIN PCB

MISCELLANEOUS

Device	Description	Part#	Designator
Connector	R/A 3 PIN MALE XLR	210156	J2 J103 J203 J303 J403
Connector	R/A 3 PIN FEMALE XLR	210157	J1 J101 J201 J301 J401
Connector	RJ-45 RT ANG SHLD	210335	J102 J202 J302 J402
LED	GREEN R/A PC MOUNT LED	390022	
LED	2.7K OHM 1/4 Carbon Film 5%	410040	R1
Switch	DPDT SLIDE SWTCH	510124	S101 S201 S301 S401
Transformer	600CT/600CT	560018	T101 T102 T201 T202 T301T302 T401 T402

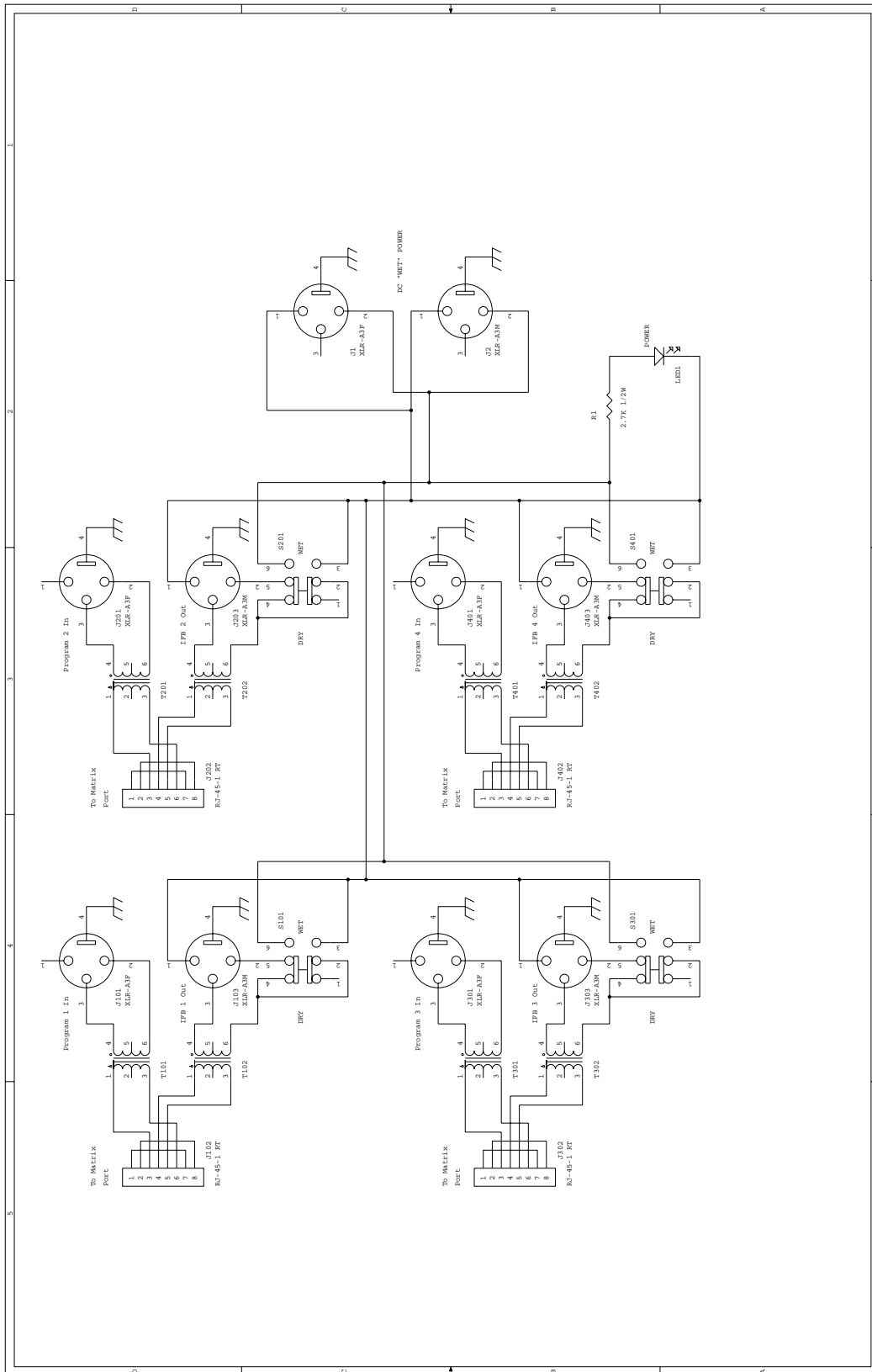


Figure 2: IFB-104 Schematic

4 SPECIFICATIONS

0 dBv is referenced to 0.775 V RMS

Front Panel Indicators

Power LED 1

Rear Panel Connectors

Program Input Three-pin XLR female (4)
To Matrix RJ-45 (4)
Talent Three-pin XLR male (4)
DC Power Three-pin XLR male; three-pin XLR female

Program Input

Type Transformer isolated
Impedance 600 ohms bridging
Level 0 dBv

Headphone Talent Receiver Outputs

Impedance 600 ohms, transformer balanced
Power 1 mW into 600 ohms

Line Input (2-Pair Listen from Matrix)

Type Transformer balanced
Impedance 600k ohms
Level 0 dBv nominal
Frequency Response 100 Hz to 15 kHz, +/- 2 dB

Line Output (2-Pair Talk to Matrix)

Type Transformer balanced
Impedance 600 ohms
Level 0 dBv nominal
Frequency Response 100 Hz to 15 kHz, +/- 2 dB

Temperature

Operating 0° to 50° C (32° to 125° F)
Storage 0° to 70° C (32° to 150° F)

Humidity

Operation and Storage 20% to 90%, non-conducting

Package Dimensions

Height	1.75 in. (4.45 cm), (1 RU, EIA rack)
Width	19.0 in. (48.25 cm)
Depth	2 in. (5.1 cm)
Weight	1.80 lbs. (.82 kgs)

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CLEAR-COM LIMITED WARRANTY

The Clear-Com warranty does not cover any defect, malfunction, or failure caused beyond the control of Clear-Com, including unreasonable or negligent operation, abuse, accident, failure to follow instructions in the manual, defective or improperly associated equipment, attempts at modification and repair not authorized by Clear-Com, and shipping damage. Products with their serial numbers removed or defaced are not covered by this warranty.

- *Return Authorization
Numbers are required for
all returns.*

This warranty is the sole and exclusive express warranty given with respect to Clear-Com products. It is the responsibility of the user to determine before purchase that this product is suitable for the user's intended purpose.

Any and all implied warranties, including the implied warranty of merchantability are limited to the duration of this express limited warranty. Neither Clear-Com nor the dealer who sells Clear-Com products is liable for incidental or consequential damages of any kind.

For your own records fill in the information below:

Model No. _____ Serial No. _____
Date Purchased _____
Purchased from (dealer) _____
Address _____
City _____ State _____ ZIP _____

FACTORY SERVICE

Do not return any equipment to the factory without first obtaining a Return Authorization Number.

- *Warranty and non-warranty repairs are available. Contact the factory.*

All equipment returned for repair must be accompanied by documentation stating the return address, telephone number, date of purchase, and a description of the problem.

Send equipment to be repaired to:

**Customer Service Department
Clear-Com Intercom Systems
4065 Hollis Street
Emeryville, CA 94608-3505
Telephone: (510) 496-6666
Fax: (510) 496-6610
Web site: www.clearcom.com**

WARRANTY REPAIR

If in warranty, no charge will be made for the repairs. Equipment being returned for warranty repair must be sent prepaid and will be returned prepaid.

NON-WARRANTY REPAIR

Equipment that is not under warranty must be sent prepaid to Clear-Com. If requested, an estimate of repair costs will be issued prior to service. Once repair is approved and repair of equipment is completed, the equipment will be shipped freight collect from the factory.