

FAIRCHILD DOUBLE AMPLIFIER CARDS

MODEL 692AD - 692AD/TXI

INTEGRA II SERIES

1B692AD/268

**INSTRUCTION MANUAL**



FAIRCHILD SOUND EQUIPMENT CORPORATION, 10-40 45th Avenue, Long Island City, N.Y. 11101, 212 784-6163

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FAIRCHILD MODEL 692AD AMPLIFIER CARD

*dual*

DESCRIPTION

The MODEL 692AD is designed to provide amplification for microphone signals as well as boosting of signals up to levels of +18dbm. This card can be used in stereo circuits or cascading (one amplifier feeding the other).

The two sections of the card are completely isolated, providing maximum flexibility for the system designer. The advantages of the "package" are compactness of design, excellent performance and economics.

PERFORMANCE SPECIFICATIONS

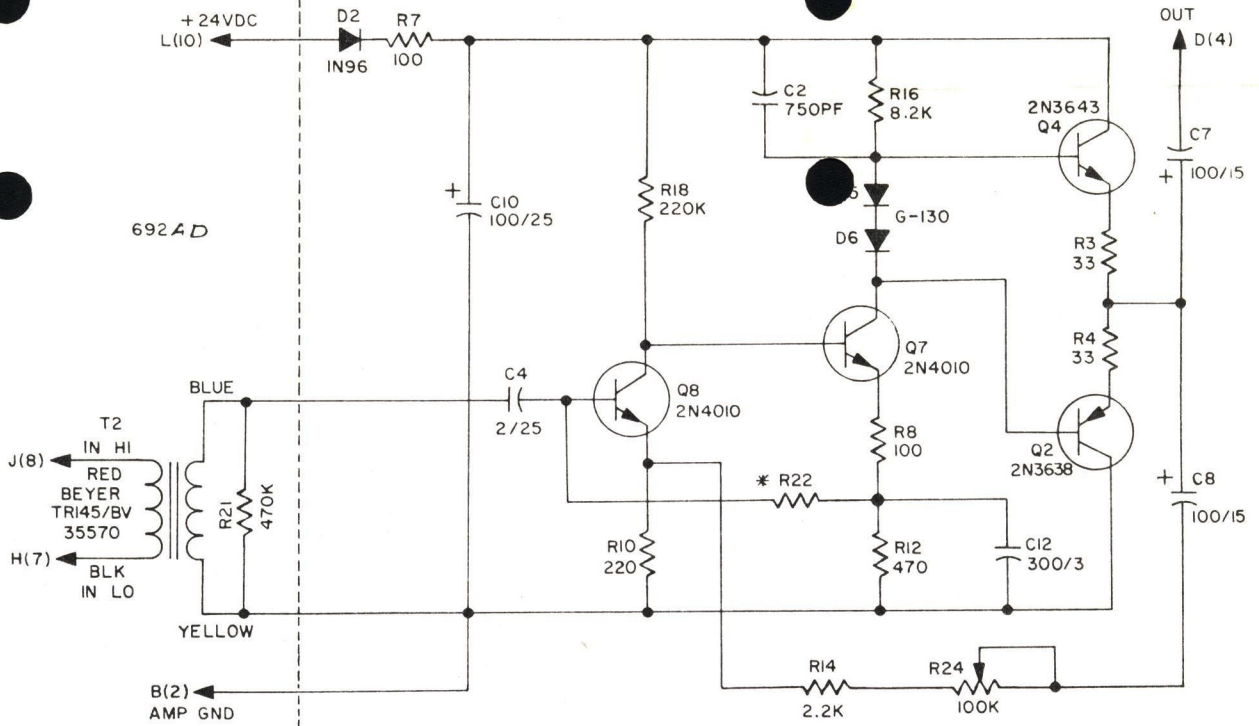
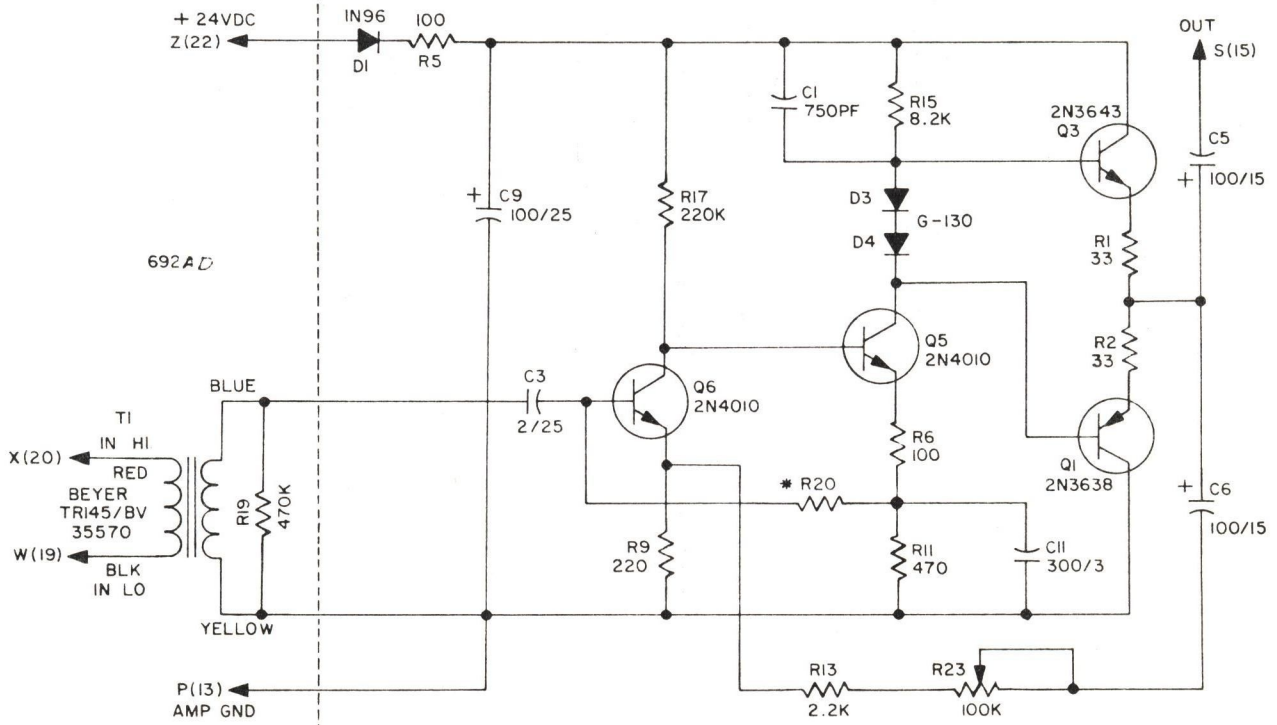
GAIN .....	Without transformer from 22 to 51 db, continuously variable With input transformer, 36 to 66 db
FREQUENCY RESPONSE.....	From 20 to 20K, $\pm$ .5 db
DISTORTION (THD) .....	At +17.5 dbm out .35%
NOISE w/MAX. GAIN .....	Without transformer 128 db input noise with open input With transformer, primary shorted, 139 db input noise
POWER REQUIREMENTS .....	24V DC at 6 ma maximum
INPUT IMPEDANCE .....	Without transformer greater than 100K With transformer 200 ohms
OUTPUT IMPEDANCE .....	15 ohms (recommended load impedance 150 ohms up, inductive or non-inductive)
MAX. POWER HANDLING CAPABILITIES .....	+18 dbm

*12 dual*

CIRCUIT DESCRIPTION

Both amplifiers on the 692AD card are identical. Each one is capable of maximum output of +18 dbm. The amplifier is Class AB, direct coupled, with minimum of 18 db of negative feedback. Output stage is complementary symmetry circuit, using silicon transistors exclusively.

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NOTE:  
 1. UNLESS OTHERWISE SPECIFIED  
 ALL RESISTORS ARE IN OHMS, 1/4 W.  
 ALL CAPACITORS ARE IN MFD.  
 \* RESISTOR VALUE TO BE SELECTED.

692AD AMP SCHEMATIC

Each amplifier is decoupled from the power supply for minimum interaction. The power supply feeding the amplifier card should have ripple not higher than .5 mv rms for best S/N ratio.

Gain of the amplifier is controlled by means of a potentiometer connected in the feedback loop, thereby reducing the distortion of the amplifier as the gain is decreased. A total of 29 db of gain control is accomplished in this manner.

Input transformers are well shielded and capable of accepting levels as high as 0 dbm without overloading. Transformers are mounted directly on the card for minimum noise pickup and minimum high frequency loss.

### INSTALLATION

The 692AD card can be used in conjunction with the 692 series remote control equipments in the 692RM rack mount, or it can be mounted separately using the 692SCH single card holder (which comes complete with card connector). Connections are made as follows:

- PIN 2 - Negative (-24V) amplifier ground LO side input
- 4 - Output
- 7 - Input - LO
- 8 - Input - HI
- 10 - +24 V
- 13 - Negative (-24V) second amplifier ground LO side
- 15 - Output (second amplifier)
- 19 - Input - LO (second amplifier)
- 20 - Input - HI (second amplifier)
- 22 - +24V (second amplifier)

Printed circuit board has provision for the two amplifiers to be connected through a single power connection. If desired, however, the two amplifiers can be separated if they are to be fed from different power supplies and maximum isolation between the two amplifiers is desired.

PRECAUTION should be observed in locating the card in the system. When input transformers are mounted on the card, the 692AD should be mounted as far as practical from any strong magnetic field source. Regardless of the shielding of the input transformers, there is a possibility of hum pickup affecting the overall performance of the amplifier in the system.

ATTACHMENTS - Schematic diagram 692AD - B96284  
Dimension Drawing 692AD

### WARRANTY & SERVICE POLICY

See standard warranty policy attached to and forming part of this manual. To validate warranty, complete and return the

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warranty registration card provided. If there is any question on this, or any other FAIRCHILD professional product, please contact the factory: FAIRCHILD SOUND EQUIPMENT CORPORATION, 10-40 45th Avenue, Long Island City, New York 11101.

When returning any FAIRCHILD professional product to the factory for any reason, include a brief statement with the unit indicating the reason for the return.