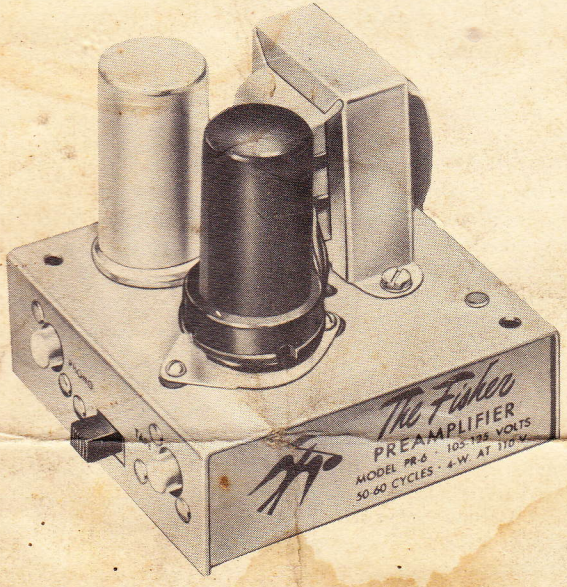
THE FISHER

High Quality
PREAMPLIFIER

INSTALLATION, OPERATING
AND SERVICE INSTRUCTIONS



MODEL PR-6

PRICE: $1.00

FISHER RADIO CORPORATION · NEW YORK

N-501-122

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High Quality Preamplifier

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GENERAL INFORMATION

THE FISHER Preamplifier Model PR-6 is designed to provide the voltage gain and equalization necessary to operate any magnetic cartridge or tape playback head with a standard radio receiver or audio amplifier. It can also be used as a preamplifier for low-level microphones. A twin-triode tube, type 6SC7, is employed as a two-stage amplifier. A novel form of feedback produces the necessary low frequency equalization when used as a phonograph or tape preamplifier. Special shock mounts are incorporated for the 6SC7 tube to reduce the possibility of microphonics. Provision is made in the circuit for simple removal of the low frequency equalization where it is to be used as a microphone preamplifier. Direct current for the plate supply is obtained from a selenium rectifier.

Standard phonograph receptacles are used for input connections. An 18-inch shielded cable fitted with a standard phonograph plug is supplied for output connection. There is a six-foot AC power cord.

SPECIFICATIONS

OVERALL DIMENSIONS: 3¾" x 3⅝" x 3⅝" high.

WEIGHT: 1½ pounds.

FINISH: Cadmium plated, laquered.

POWER RATING: 105-125 volts AC 50-60 cycles, 4 watts at 117 volts.

TUBE: Type 6SC7.

RECTIFIER: Selenium type.

FREQUENCY RESPONSE: Uniform within 2 db from 30 to 20,000 cycles on phonograph, tape and microphone.

GAIN, PHONOGRAPH: 10 millivolts (.01 volts) input to produce 1 volt output, a voltage gain of 100.

GAIN, TAPE: 5 millivolts (.005 volts) input to produce 1 volt output, a voltage gain of 200.

GAIN, MICROPHONE: 1 millivolt (.001 volts) input to produce 1 volt output, a voltage gain of 1,000.

HUM AND NOISE LEVEL: At least 60 db below 1 volt output on phonograph and tape and at least 70 db below 1 volt on microphone.

EQUALIZATION: Low frequency turn-over at 500 cycles (RIAA) for any magnetic cartridge, or 1600 cycles for tape head playback. High frequency equalized for particular cartridge to be used.

OUTPUT IMPEDANCE: Output cable can be any length up to 50 feet. Operates into any amplifier with input impedance of 100,000 ohms or higher.

INSTALLATION

As a Phonograph or Tape Preamplifier: Wherever possible the preamplifier should be mounted on the radio receiver or amplifier chassis. Machine or self-tapping screws can be used through the two corner mounting holes in the preamplifier. Where the preamplifier cannot be thus mounted it can be placed in the receiver cabinet, using two wood screws (R.H., 1/8" x 1 5/8".) Connections are as follows:

1. Before connecting THE FISHER PR-6 Preamplifier, remove all components previously employed in the amplifier or receiver to compensate for phonograph cartridge response. Low frequency equalization is provided in THE FISHER PR-6 to compensate for constant amplitude recording.

2. High frequency equalization is provided by connecting a suitable load resistance (R-1) across the cartridge. This value varies with the particular make of cartridge used, as follows:

   a. Pickering: 2500 ohms.

   b. GE: 6800 ohms (already inserted).

   c. Other: Consult the cartridge manufacturer. Request the correct value and type of load required for RIAA high-frequency equalization.

   To add the necessary load to the PR-6, release the bottom cover by removing the self-tapping screw located at its center. Unsolder R-1, the 6800-ohm resistor now connected across the terminals of J-2, the PHONO input jack. Replace R-1 with the correct load for your cartridge, and replace the bottom cover.

3. The phonograph cartridge output lead should be connected to the input receptacle on the preamplifier labeled PHONO.
4. An output lead should be connected from the tape playback head to the input receptacle on the preamplifier labeled TAPE.
5. Selection of either TAPE or PHONO playback is made by throwing the switch located between the two INPUT jacks to the appropriate position.
6. The shielded output lead should be plugged into the phonograph receptacle on the receiver or amplifier chassis.
7. The power plug should be connected to an outlet on the chassis, if available, or to the normal wall outlet. In the latter case provision should be made for disconnection of the preamplifier from the power main when not in use.

As a Microphone Preamplifier: The preamplifier can be used to raise the output of a low-level microphone sufficiently to operate into an amplifier. Before making any connections it is necessary first to remove the tape equalization network from the preamplifier. This is accomplished as follows:

1. Remove the bottom cover of the preamplifier by unscrewing the self-tapping sheet metal screw located at its center.
2. Using a pair of cutting pliers remove the jumper (painted red) located on the large terminal strip.
3. If the resulting gain is too high, omit step 2 and short out C6.

Connections are as follows:

1. The microphone output connects to the TAPE input receptacle on the preamplifier. Set switch to TAPE.
2. Connect the preamplifier output lead to the amplifier input.
3. The power plug should be connected to an outlet on the chassis, where provided, or to the normal wall outlet. In the latter case, provision should be made for disconnection of the preamplifier from the power main when not in use.

PARTS DESCRIPTION LIST

Symbol	DESCRIPTION	Part No.
C-1, C-5	Capacitor, Paper Tubular: .047 mfd; 200V	C68P473M2
C-2	Capacitor, Paper Tubular: 2700 mmfd; 10%; 200V	C68P272K2
C-3	Capacitor Paper Tubular: 4700 mmfd; 200V	C68P472F2
C-4a,b,c	Capacitor, Electrolytic: Triple Section; Section a and b 15 mfd each; 150V: Section c 30 mfd; 150V	C-515-122
C-6	Capacitor, Ceramic: 1000 mmfd; 10%; 500V	CC26GP102K5
J-1, J-2	Jack, Phono: Single Female Contact	J-1030
P-1	Plug, Phono: Single Male Contact	P-1031
P-2	Cord, Line	W-515-120
R-1	Resistor, Composition: 6800 ohms, 10%; 1/2W	RC20BF682K
R-2, R-5	Resistor, Composition: 22 megohms, 10%; 1/2W	RC20BF226K
R-3	Resistor, Composition: 68,000 ohms, 10%; 1/2W	RC20BF683K
R-4	Resistor, Composition: 120,000 ohms, 10%; 1/2W	RC20BF124K
R-6	Resistor, Composition: 100,000 ohms, 10%; 1/2W	RC20BF104K
R-7, R-8	Resistor, Composition: 22,000 ohms, 10%; 1/2W	RC20BF223K
S-1	Switch, DPDT	S-505-117
SR-1	Rectifier, Selenium	SR3180
T-1	Transformer, Power	T-515-118
V-1	Tube 6SC7	V6SC7

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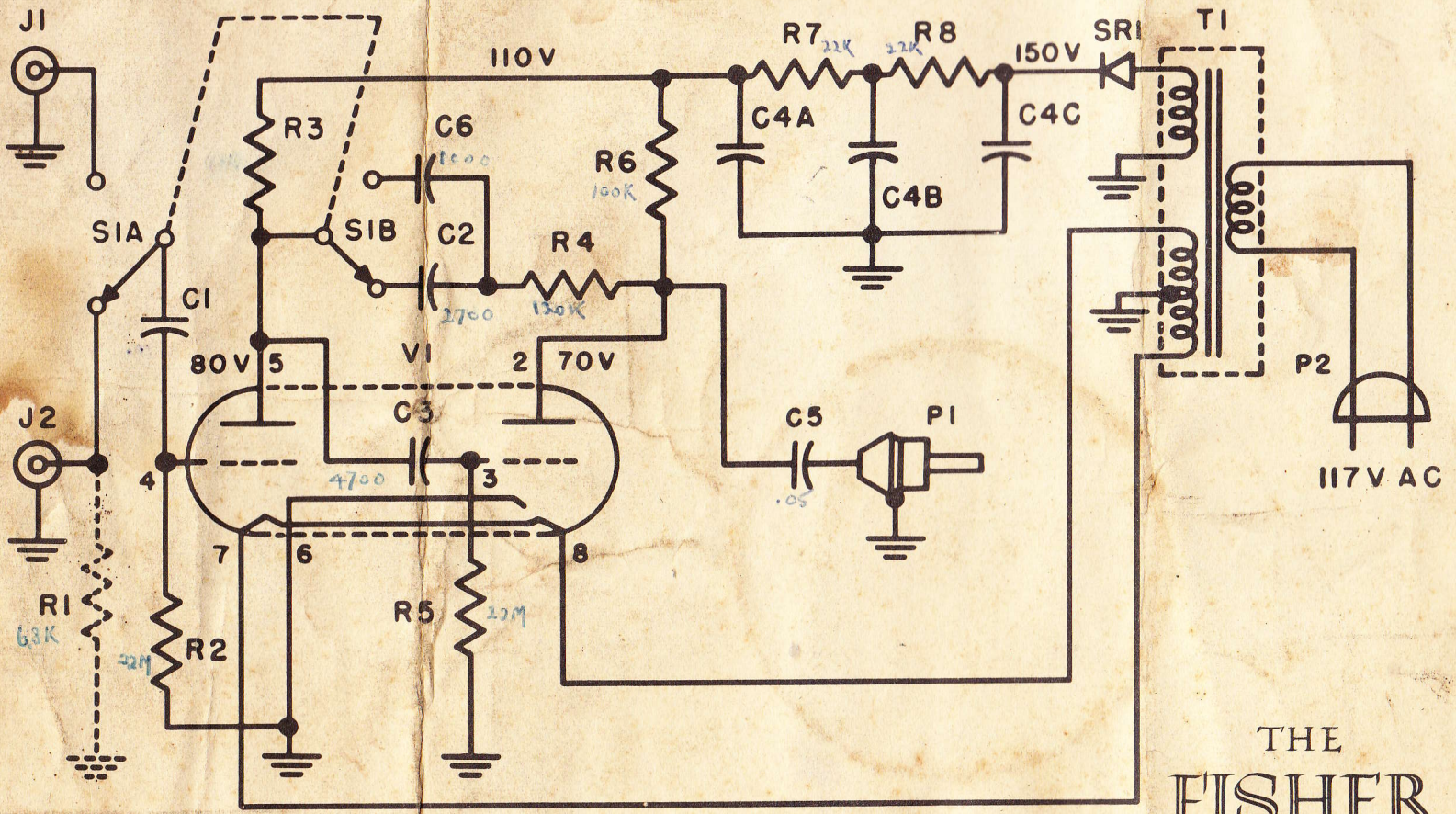

NOTES: S1 SHOWN IN PHONO POSITION
R1 VARIES ACCORDING TO CARTRIDGE USED. SEE TEXT.

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