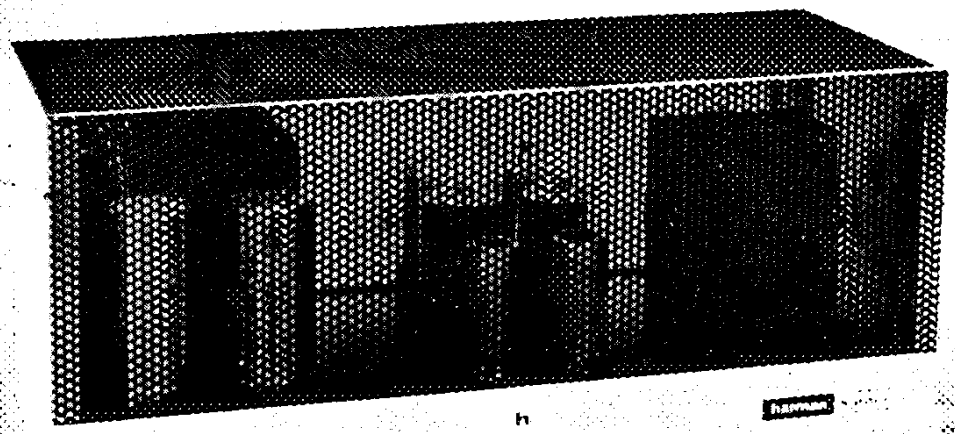
harman kardon



MODEL HK-250

INSTRUCTION MANUAL

It is essential you read this instruction booklet carefully before installing your high fidelity system. You have invested in an extremely fine electronic instrument into which many excellent engineering developments have been incorporated, and each is important for the proper operation of your system. This booklet has been written in simple non-technical language and if you will take time to read it first before doing anything else, you will find it simple to obtain optimum performance from your Harman-Kardon Model HK-250 Stereophonic Power Amplifier.

Be sure to keep this booklet available at all times. It contains indispensable technical and service information.

This is the Harman-Kardon Stereo Symbol. It is your assurance of superb stereo performance.

UNPACKING

g the HK250, inspect it carefully for signs of transit damage. cted to many inspections and tests prior to final packing, and l be in perfect condition. If damage is visible, notify your e unit was shipped to you, notify the transportation company

tents of the carton thoroughly and inspect the folds of the fore discarding it. Your package should contain the following

) Stereophonic Power Amplifier.
ooklet
rd
mplate.

WARRANTY POLICY

o completely fill in your warranty card and mail it to the fac- to protect your rights under warranty. The warranty cards or reference and should you require information on the use of it, or repair service, we will be able to immediately identify uickly.

ecessary to receive factory authorization before returning a air either to the factory or to an authorized station. Repairs n an Express Prepaid basis. A letter describing the exact diffi- sed with the unit.

WARRANTY

ch Model HK250 to be free from defects in material and normal use and service, and in accordance with the condi- set forth, for a period of 1 year from date of delivery to the and agree to replace or repair any part or parts, with the hich are under the manufacturer's 90 day warranty, returned ear, with transportation prepaid and which our examination satisfaction to have been thus defective. This warranty does or, nor is it applicable to any instrument which shall have ered in any way so as in our judgment to affect its stability or has been subject to neglect, misuse, abuse, negligence or has had the serial number altered, effaced, or removed. arranty apply to any instrument which has been connected ccordance with instructions furnished by us.

s expressly in lieu of all other warranties, express or implied, igations or liability on our part, and we neither assume nor sentative or other person to assume for us any other liability he sale of this instrument.

USIN MODEL HK250 AS A STEREOPHONIC POWER AMPLIFIER

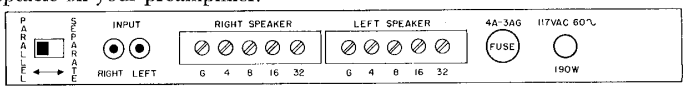
INSTALLATION PROCEDURE

Ventilation:

The unit is well ventilated in itself, but sufficient space must be allowed around it to permit proper air flow. Install the amplifier in a manner to allow for unrestricted circulation. Do not place objects on the cage or in the immediate vicinity of the instrument. Reducing the air flow will result in sharply reduced component and tube life.

Power Requirements:

Plug the AC line cord (117 volts, 50 or 60 cycles) into the convenience AC receptacle on your preamplifier.



REAR PANEL MODEL HK250

Connecting Your Speakers:

Your two speakers should be matched if possible to obtain optimum results and should be placed approximately 8 to 15 feet apart against one wall of your listening room. Corner placement is also quite acceptable. Facing the speakers straight out or slanting them slightly will depend on your room size, acoustic effect and where you will be seated for listening. It may be necessary to experiment with speaker placement until best results are obtained.

Use any type wire to connect your speakers. Lamp cord is excellent and may be easily dressed around the molding for an inconspicuous and neat installation.

Normal Stereo Speaker Arrangement:

Connect one lead from the left speaker to the 16 ohm terminal on the LEFT SPEAKER OUTPUT STRIP and the other lead to the G terminal on the same strip. Now connect one of the leads from the right speaker to the 16 ohm terminal on the RIGHT SPEAKER OUTPUT STRIP and the other lead to the G terminal on the same strip. (See Diagram A) The output terminals used should be those marked with the same impedance as the speakers. The illustration is for 16 ohm speakers. If you are using 8 ohm speakers connect to the 8 ohm SPEAKER output terminals rather than to the 16 ohm terminals. NOTE: For this method of operation the PARALLEL-SEPARATE switch must remain in the SEPARATE position.

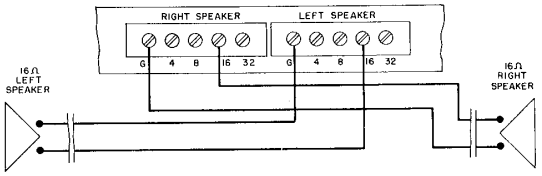


Diagram A

Connecting the HK250 To Your Stereo Preamplifiers:

Connect two shielded leads, one to the LEFT and one to the RIGHT INPUTS on the HK250. Now connect the other ends of these leads to the Audio Outputs on your stereo preamplifier.

ODEL HK250 AS A MONAURAL 50 WATT POWER AMPLIFIER

Speaker:

wo 32 ohm speaker terminals together. Connect your speaker to m terminals if your speaker has a nominal impedance of 16 ohms. an 8 ohm speaker, strap the 16 ohm terminals together and con- ker leads to G and 16. NOTE: The PARALLEL-SEPARATE on the rear panel must remain in the PARALLEL position for operation.

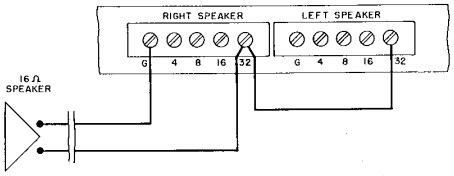


Diagram B

Model HK250 To Your Monaural Preamplifier:

shielded lead between either the LEFT or RIGHT INPUT on the Audio Output on your preamplifier.

ADJUSTMENTS

lance Controls:

OUTPUT BALANCE controls for LEFT and RIGHT channels the top of the chassis between the output tubes. These controls he factory for minimum distortion and should not be readjusted ut tubes are changed.

set the LEFT and RIGHT OUTPUT BALANCE control for in your speaker system. If the hum level is inaudible, set the exact mid-position. For critical adjustment the control should be ermodulation distortion meter for minimum IM.

Noise:

gh fidelity installation, hum may be caused by the interconnection anger, tuner and amplifier, as a result of the cables and different od way to eliminate this problem is to first disconnect everything rs from the amplifier, and listen for hum. If the hum persists, make djustments described above. Try reversing the amplifier power g in the record player. If hum appears, try reversing the record plug, and try connecting a wire from the record player chassis r chassis. In this way, connect the tuner, tape deck and other de-

hum may be picked up by defective interconnecting cables, and by g cables running too close to power cables.

MAINTENANCE AND REPAIRS

Fuse:

In the event of a potentially damaging failure of tubes or components, the Model HK250 is protected by a 4 ampere, type 3AG fuse, located on the rear of the unit. If this fuse is blown, it should be replaced only with one of the same rating. Replacing with a fuse of higher rating will not protect the amplifier, and may result in severe damage, which will not be covered by the factory warranty.

Routine Maintenance:

Due to the conservative design and high quality components of the Model HK250, no routine maintenance other than yearly tube checking is advised. Occasional resetting of the output balance adjustments, following the procedure described above, will keep the unit operating at peak efficiency. These adjustments should certainly be made after any tube replacement.

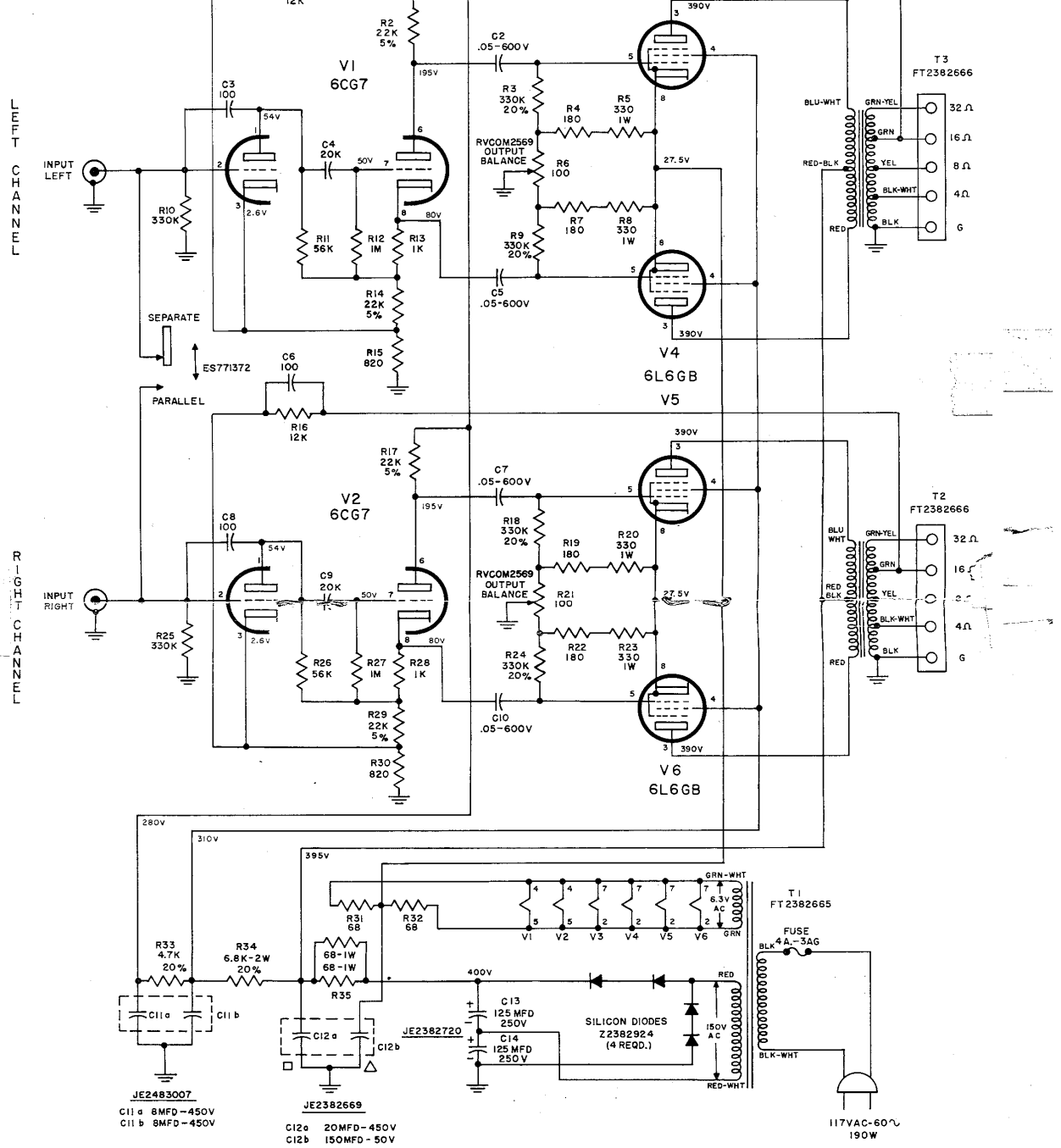
Repair:

Only the most qualified service technician should be employed, as special equipment and training is required to properly service a high fidelity amplifier. This manual contains information of great value to the repairman, and should be kept available.

Factory Warranty Stations are maintained in most major cities. For the address of the nearest one, or for any other information relating to your Harman-Kardon products, write to the attention of the Customer Service Department, Harman-Kardon, Inc., 520 Main St., Westbury, N. Y. Be sure to include the model and serial number of the set in question. A short description of your complete installation is often of help in answering your questions.

LIST OF REPLACEABLE PARTS

H-K Part No.	Description	List Price
ES771372	SPD Slide Switch	.45
RVCOM2569	Balance Control 100 ohm	.80
FT2382665	Power Transformer	21.25
FT2382666	Output Transformer	18.25
JE2382669	20MFD/450V, 150MFD/50V Electrolytic	2.10
JE2382720	125MFD/250 V Electrolytic	2.00
Z2382924	Silicon Diode .5 Amp/300V	3.50



RESISTANCE CHART

TUBE	1	2	3	4	5	6	7	8	9
V1 6CG7	80K	330K	820	170	170	> 500K	1M	24K	—
V2 6CG7	80K	330K	820	170	170	> 500K	1M	24K	—
V3 6L6GB	—	170	210	3K	330K	180	170	140	—
V4 6L6GB	—	170	210	3K	330K	180	170	140	—
V5 6L6GB	—	170	210	3K	330K	180	170	140	—
V6 6L6GB	—	170	210	3K	330K	180	170	140	—

NOTE:
UNLESS OTHERWISE SHOWN
ALL RESISTORS 1/2 WATT ±10%
ALL CAPACITOR VALUES WITH DECIMAL TO BE PAPER IN MFD.
ALL CAPACITOR VALUES WITHOUT DECIMAL TO BE GENERAL PURPOSE CERAMICS 500WVDC IN MMF
ALL VOLTAGES ARE DC
ALL RESISTANCES ARE IN OHMS

S248
S2483097A

SPECIFICATIONS

Audio:

Circuits:	Two 6L6GB's self biased, tetrode connected in push-pull per channel.
Output Level Per Channel:	25 watts at less than 1% harmonic distortion. 20 watts at less than 0.5% harmonic distortion. 5 watts at less than 0.2% harmonic distortion. 20 watts at less than 2% intermodulation distortion. Harmonic distortion readings at 1000 c.p.s.; Intermodulation distortion readings at 60/6000 c.p.s.: 4:1; All at 16 ohm load--120 volts A.C.
Special Feature:	Power amplifiers may be parallel for 50 watt monaural operation by throwing special switch and strapping speaker terminals.
Peak Power Output:	50 watts per channel. 100 watts when strapped.
Output Impedance:	4, 8, 16 and 32 ohms per channel. 2, 4, 8 and 16 ohms when strapped.
Frequency Response:	± 0.5 db 15-30,000 c.p.s. at 1 watt. ± 1.0 db 20-20,000 c.p.s. at 20 watts.
Damping Factor:	8 (individual channels or when strapped).
Hum:	95 db below 20 watts.
Cross Talk:	Better than 60 db.
Sensitivity:	1.5 volts.

Overall Specifications:

Chassis Controls:	(Total 2) Output tube balance control left and right channels.
Receptacles:	2 input (May be strapped with switch on top of chassis).
Switch:	(Input) Separate/Parallel.
Fuse:	Externally Accessible.
Tube Complement:	(Total 6) 4--6L6GB, 2--6CG7, 4 Silicon Diode Rectifiers.
Dimensions:	15″ W. x 6″ H. x 7″ D.
Power Consumption:	190 watts.
Shipping Weight:	30 lbs.