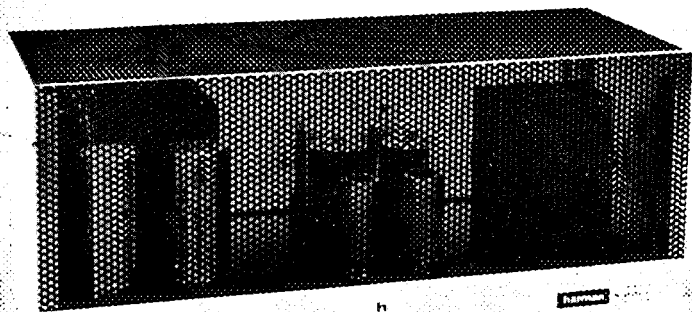


harman kardon



MODEL HK-250

STEREOPHONIC POWER AMPLIFIER

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

After unpacking the HK250, inspect it carefully for signs of transit damage. The unit was subjected to many inspections and tests prior to final packing, and it, therefore, should be in perfect condition. If damage is visible, notify your dealer at once. If the unit was shipped to you, notify the transportation company without delay.

Check the contents of the carton thoroughly and inspect the folds of the packing material before discarding it. Your package should contain the following items:

- 1 Model HK250 Stereophonic Power Amplifier.
- 1 Instruction Booklet
- 1 Warranty Card
- 1 Mounting Template.

WARRANTY POLICY

We urge you to completely fill in your warranty card and mail it to the factory without delay to protect your rights under warranty. The warranty cards are carefully filed for reference and should you require information on the use of this high fidelity unit, or repair service, we will be able to immediately identify your set and reply quickly.

NOTE: It is necessary to receive factory authorization before returning a set for warranty repair either to the factory or to an authorized station. Repairs are to be returned on an Express Prepaid basis. A letter describing the exact difficulty must be enclosed with the unit.

WARRANTY

We warrant each Model HK250 to be free from defects in material and workmanship under normal use and service, and in accordance with the conditions herein below set forth, for a period of 1 year from date of delivery to the original purchaser, and agree to replace or repair any part or parts, with the exception of tubes which are under the manufacturer's 90 day warranty, returned to us within said 1 year, with transportation prepaid and which our examination shall disclose to our satisfaction to have been thus defective. This warranty does not include free labor, nor is it applicable to any instrument which shall have been repaired or altered in any way so as in our judgment to affect its stability or reliability nor which has been subject to neglect, misuse, abuse, negligence or accident nor which has had the serial number altered, effaced, or removed. Neither shall this warranty apply to any instrument which has been connected otherwise than in accordance with instructions furnished by us.

This warranty is expressly in lieu of all other warranties, express or implied, and of all other obligations or liability on our part, and we neither assume nor authorize any representative or other person to assume for us any other liability in connection with the sale of this instrument.

USIN MODEL HK250 AS A STEREOPHONIC

POWER AMPLIFIER

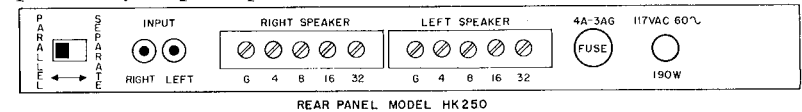
INSTALLATION PROCEDURE

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.



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.

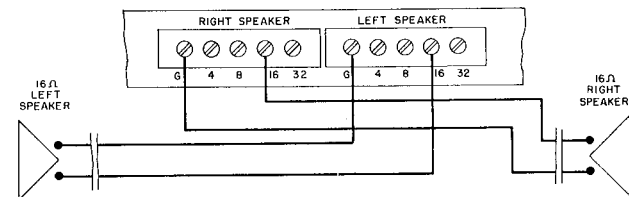


Diagram A

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.

Connecting Your Speaker:

Strap the two 32 ohm speaker terminals together. Connect your speaker to the G and 32 ohm terminals if your speaker has a nominal impedance of 16 ohms. If you are using an 8 ohm speaker, strap the 16 ohm terminals together and connect your speaker leads to G and 16. NOTE: The PARALLEL-SEPARATE switch located on the rear panel must remain in the PARALLEL position for this method of operation.

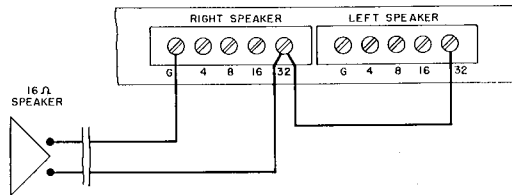


Diagram B

Connecting The Model HK250 To Your Monaural Preamplifier:

Connect a shielded lead between either the LEFT or RIGHT INPUT on the HK250 and the Audio Output on your preamplifier.

ADJUSTMENTS

Output Tube Balance Controls:

Individual OUTPUT BALANCE controls for LEFT and RIGHT channels are located on the top of the chassis between the output tubes. These controls are preset at the factory for minimum distortion and should not be readjusted unless the output tubes are changed.

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

System Hum or Noise:

In any high fidelity installation, hum may be caused by the interconnection of a record changer, tuner and amplifier, as a result of the cables and different grounds. A good way to eliminate this problem is to first disconnect everything but the speakers from the amplifier, and listen for hum. If the hum persists, make the balance adjustments described above. Try reversing the amplifier power plug. Now plug in the record player. If hum appears, try reversing the record player power plug, and try connecting a wire from the record player chassis to the amplifier chassis. In this way, connect the tuner, tape deck and other devices in turn.

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

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.

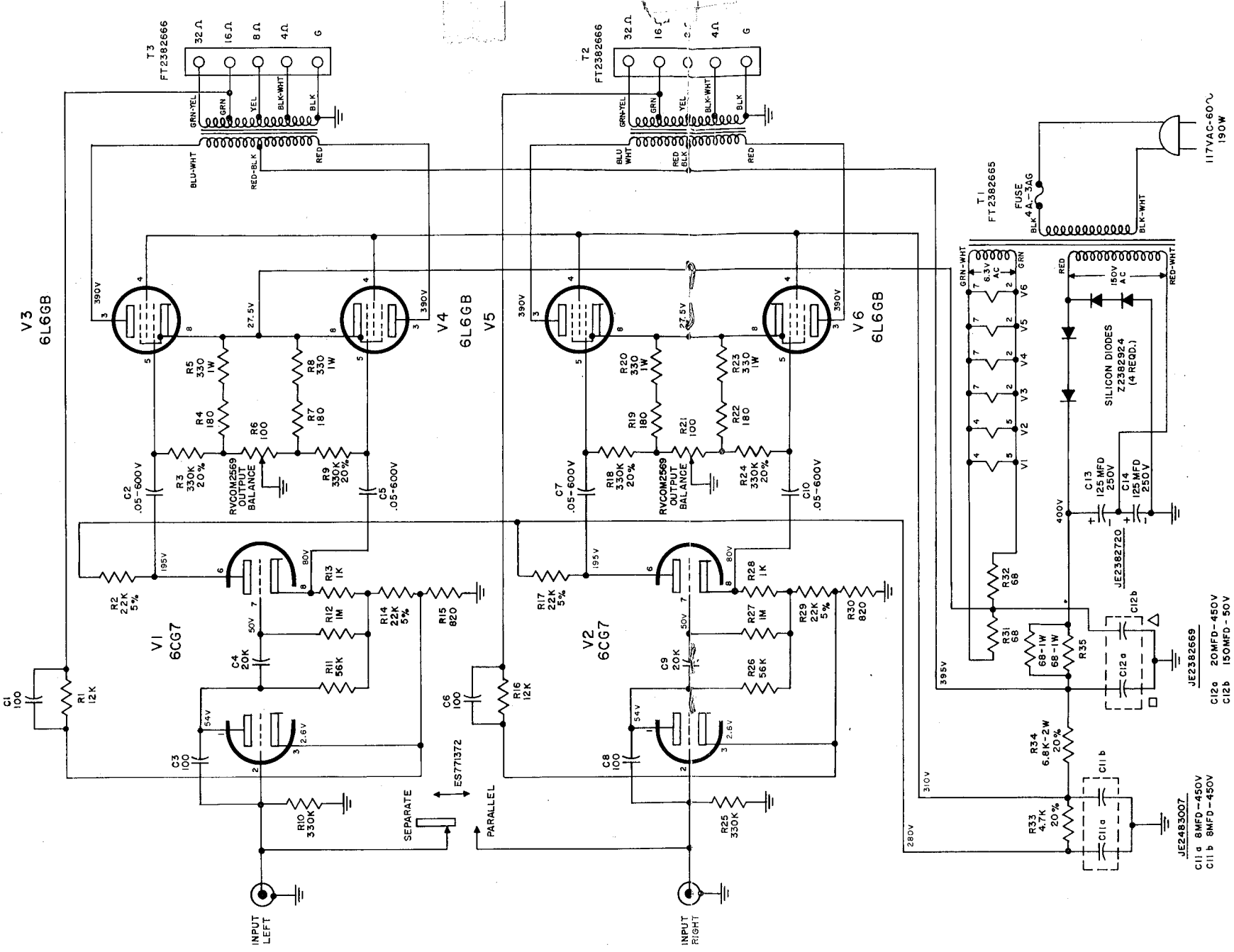
LIST OF REPLACEABLE PARTS

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

V3
6L6GB

LEFT CHANNEL

RIGHT CHANNEL



RESISTANCE CHART

TUBE	1	2	3	4	5	6	7	8	9
V1 6CG7	80K	330K	820	170	170	500K	1M	2.4K	---
V2 6CG7	80K	330K	820	170	170	500K	1M	4.4K	---
V3 6L6GB	---	---	---	---	---	---	---	---	---
V4 6L6GB	---	---	---	---	---	---	---	---	---
V5 6L6GB	---	---	---	---	---	---	---	---	---
V6 6L6GB	---	---	---	---	---	---	---	---	---

JE2483007
C11 a 8MFD-450V
C11 b 8MFD-450V

JE2382669
C12 a 20MFD-450V
C12 b 150MFD-50V

NOTE: UNLESS OTHERWISE SHOWN

ALL RESISTORS 1/2 WATT ±10%

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.