harman/kardon hk340

OWNER'S MANUAL

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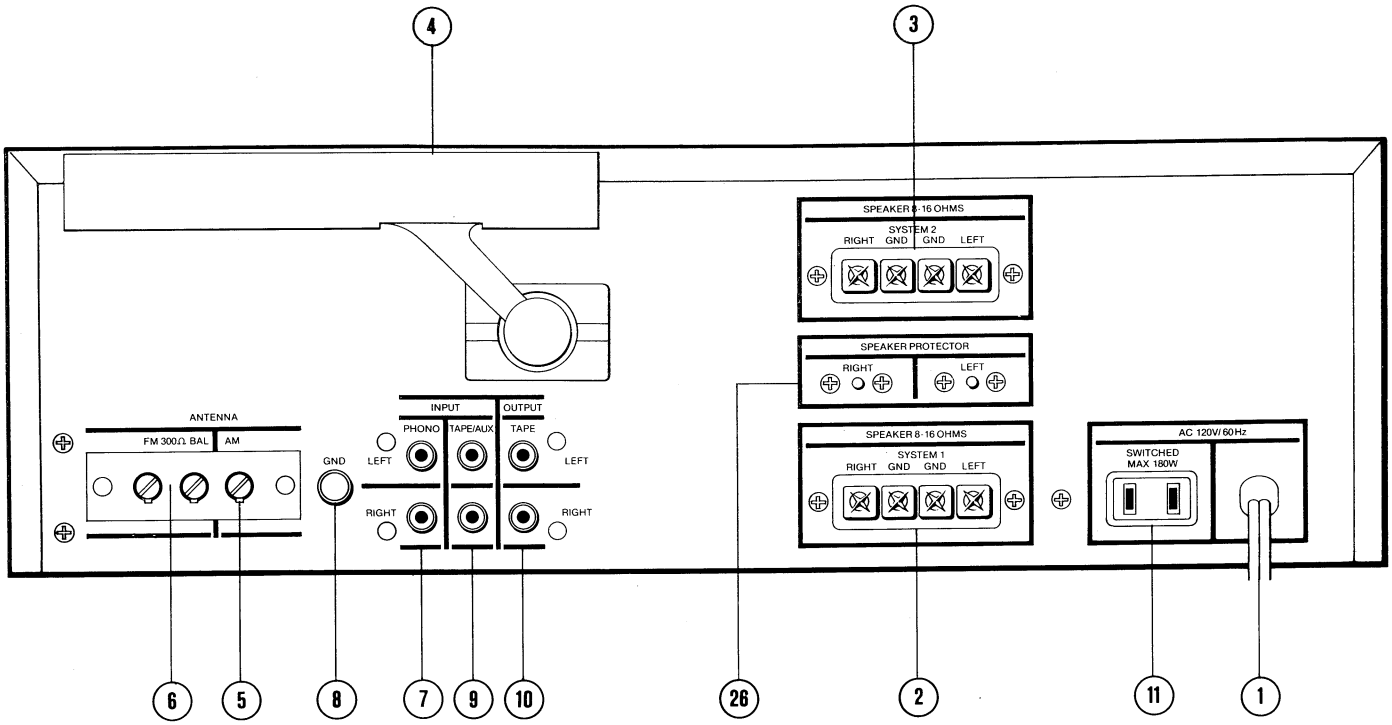
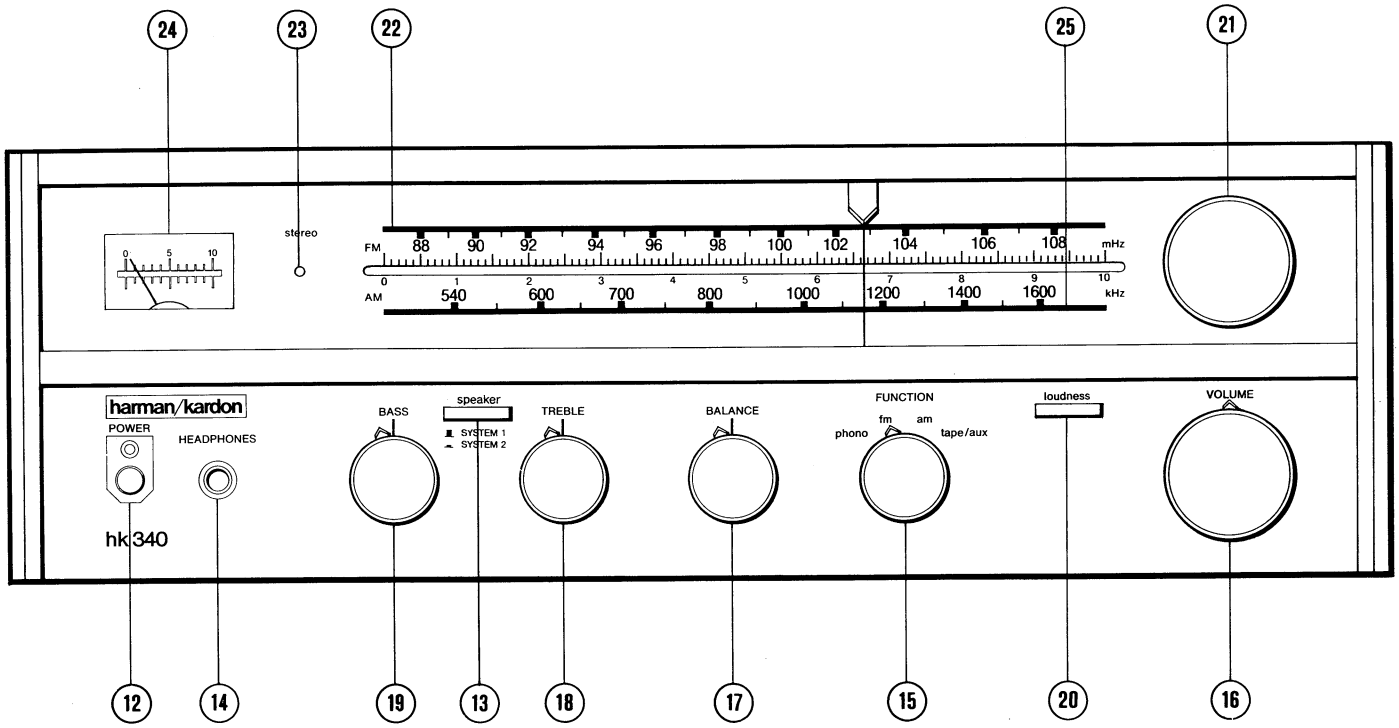
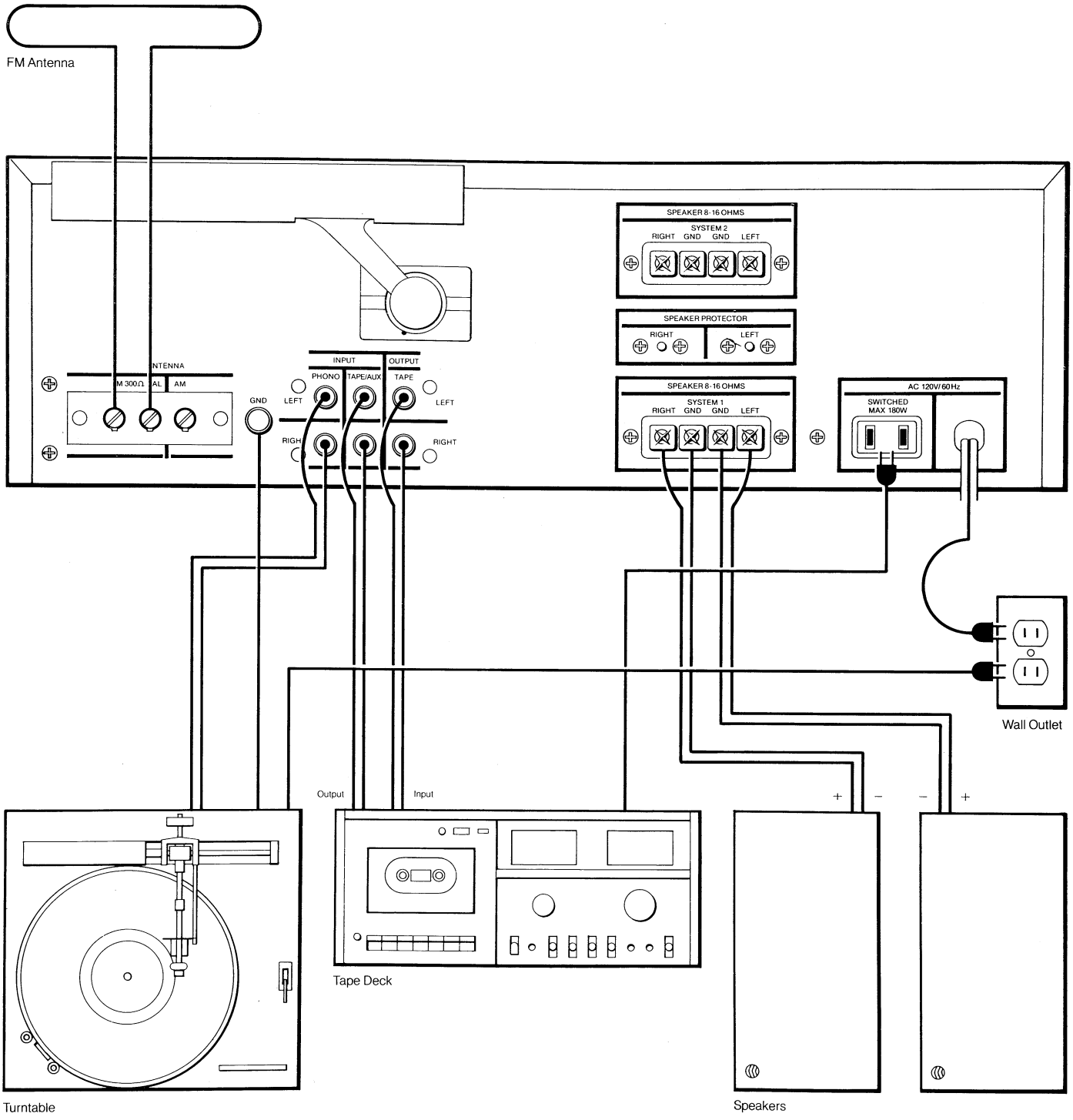

4
3
SPEAKER 8-16 OHMS
SYSTEM 2
RIGHT GND GND LEFT
SPEAKER PROTECTOR
RIGHT
LEFT
SPEAKER 8-16 OHMS
SYSTEM 1
RIGHT GND GND LEFT
AC 120V/60Hz
SWITCHED
MAX 180W
ANTENNA
FM 300Ω BAL AM
GND
INPUT
PHONO TAPE/AUX
OUTPUT
TAPE
LEFT
RIGHT
LEFT
RIGHT
6
5
8
7
9
10
26
2
11
1


24
23
22
25
21
stereo
FM 88 90 92 94 96 98 100 102 104 106 108 mHz
AM 540 600 700 800 1000 1200 1400 1600 kHz
harman/kardon
POWER
HEADPHONES
hk340
BASS
speaker
SYSTEM 1
SYSTEM 2
TREBLE
BALANCE
FUNCTION
phono fm am tape/aux
loudness
VOLUME
12
14
19
13
18
17
15
20
16


FM Antenna
SPEAKER 8-16 OHMS
SYSTEM 2
RIGHT GND GND LEFT
SPEAKER PROTECTOR
RIGHT
LEFT
SPEAKER 8-16 OHMS
SYSTEM 1
RIGHT GND GND LEFT
AC 120V/60Hz
SWITCHED
MAX 180W
INPUT
PHONO TAPE/AUX
OUTPUT
TAPE
GND
LEFT
RIGHT
Wall Outlet
Output
Input
Tape Deck
Turntable
Speakers

OWNER'S MANUAL hk340

To ensure continuing high performance, read this manual carefully before you connect and operate your hk340 receiver.

Warning: Do not mistake the ferrite loopstick AM antenna for a handle. Its bracket cannot support the unit.

CONNECTIONS

For the moment, leave the power cord (1) of the hk340 unconnected. Put the unit on the shelf or table where it will be installed. Leave enough working space so you can make connections easily.

All receivers require adequate ventilation. The hk340 should not be installed on a cushion or rug, and a minimum of two inches' clearance should be provided above and behind.

Connecting Speakers

Use two-conductor stranded wire to connect your speakers to the receiver. Eighteen gauge lamp cord (zip cord) is satisfactory, but a heavier gauge (16 or 14 gauge) is preferable, especially for distances over 25 feet.

Cut two segments of wire long enough to reach each speaker. Separate the conductors at each end of the wire segments for a length of two or three inches. Then carefully remove about one-quarter inch of insulation from each free end. Twist the strands of each conductor so they are smooth and tight with no loose strands.

Lamp cord usually provides a "code" that differentiates the two conductors. A conductor may be coded by a rib, sharp corner, or indentations molded along the length of the insulation. In some cases, a thin colored thread is molded inside the insulation of one conductor. In others, one conductor is darker than the other, or the insulation of each conductor is of a different color.

Connect the bare ends of one segment of lamp cord to your right speaker as follows: Connect the coded conductor to the speaker's positive ("+") terminal, and the uncoded conductor to negative ("−"). (The "+" and "−" markings are in general use, although some speakers use other labeling systems such as "1" and "2", "A" and "B", and so on.) Find the appropriate row of speaker connectors on the receiver marked SPEAKER 8-16 OHMS, SYSTEM 1 (2). Push in on the red plastic head of the connector marked RIGHT to reveal an opening beneath. Insert the bare end of the coded conductor into the opening. Release the connector. The conductor should now be locked firmly into place. Insert the uncoded conductor into the adjacent black connector marked GND.

Repeat the procedure for the left speaker, taking care to observe the coding of the conductors as described for the right speaker. If the code is followed as described, your speakers will be connected "in phase", which is important for solid bass and precise lateral location of the sound source. To connect a second pair of speakers, repeat the procedure for the right and left speakers of the second pair, using the receiver terminals marked SYSTEM 2 (3).

Connecting AM Antennas

The ferrite loopstick AM antenna (4) on the rear of the hk340 can be rotated to improve the reception of distant stations. AM reception over extremely long distances can be obtained with an external "long wire" antenna, which can be connected to the AM ANTENNA terminal (5).

Connecting FM Antennas

A T-shaped (dipole) FM antenna is supplied with the receiver. However, reception will be greatly improved if the receiver is connected to an outdoor FM antenna system. If you live in a fringe reception area, or if your house is situated among obstructions (such as mountains or tall buildings), you may need a powerful, directional FM antenna.

If no outdoor antenna is available, connect the lugs of the dipole (supplied with the unit) to the FM 300Ω BAL terminals (6). The dipole can then be tacked or taped to a wall or the back of a shelf.

Connecting Your Turntable

The PHONO inputs (7) have been designed to operate with a high-quality magnetic phono cartridge. Do not use a ceramic phono cartridge. Turntables are supplied with their own signal cables. Consult the turntable owner's manual and determine which cable is for the left channel and which for the right. Insert the plugs of the signal cables into the jacks on the receiver marked PHONO, LEFT and RIGHT. If the turntable has a separate ground wire, connect it to the knurled lug on the receiver marked GND (8).

Tape Deck Connections

To connect a tape deck, first connect the line outputs of the tape deck to the left and right TAPE/AUX IN jacks (9) of the receiver. Then connect the left and right TAPE OUT jacks (10) of the hk340 to the line inputs of the tape deck.

Auxiliary Input Connection

The TAPE/AUX inputs (9) provide for playback with a tape deck. If a tape deck is not used, a special tuner for long wave, marine, aircraft, citizen's band, or the audio output of a television set are among the components that can be connected to the TAPE/AUX inputs.

AC Convenience Outlet

The AC outlet (11) on the rear panel provides connection for a turntable, tape deck, or other equipment drawing as much as 200 watts of current. The outlet is marked SWITCHED and is "live" only when the receiver is switched on.

Power Connection

If you have completed all the connections you wish to make, you are now ready to place the receiver in its permanent position and plug its power line cord (1) into an AC outlet.

OPERATION

Power

The POWER switch (12) is located on the left side of the front panel, and is "on" in the depressed position.

Speaker Selection and Headphones

The SPEAKER switch (13) selects the pair of speakers to be played, out for SYSTEM 1 and in for SYSTEM 2.

The front panel HEADPHONES jack (14) accepts headphones for personal listening. The output to the speakers is automatically cut out when headphones are connected.

Selecting Function

Use the FUNCTION control (15) to select the desired program source.

To Play Records

Set the FUNCTION control (15) to PHONO, activate your turntable, and advance the VOLUME control (16) clockwise to a comfortable level.

If you hear hum at average listening levels, turn the POWER switch (12) off and check to see that PHONO (7) and GND (8) connections are secure.

Tone Controls

To increase the loudness, turn the VOLUME control (16) clockwise. The BALANCE control (17) shifts the sound to one speaker or the other.

The BASS and TREBLE controls affect the frequency balance of the program material. Their neutral positions are at 12 o'clock. Turning the TREBLE control (18) clockwise increases the high frequencies. The BASS control (19) has the same effect on the low frequencies.

When the LOUDNESS switch (20) is depressed, very high and very low frequencies are boosted at low settings of the VOLUME control. This compensates for the ear's relative insensitivity to extreme frequencies at low volume levels. The switch has little effect at VOLUME settings beyond 12 o'clock.

FM Tuning

Turn the FUNCTION CONTROL (15) of the hk340 to FM. Rotate the tuning knob (21) to tune in a station on the FM dial scale (22), calibrated from 88 to 108 megahertz. The red LED (23) labeled STEREO will glow when you are receiving a broadcast in stereo.

The tuning meter (24) indicates the relative strength of the incoming broadcast signal, the highest reading usually indicating the best reception.

AM Tuning

Set the FUNCTION control (15) to AM and tune according to the AM dial scale (25), calibrated from 540 to 1600 kilohertz. The tuning meter (24) indicates the best reception.

Auxiliary Source

You can listen to the auxiliary source that you have connected by setting the FUNCTION control (15) to TAPE/AUX.

To Play Back Tapes

If you have connected a tape deck to the TAPE/AUX inputs, set the FUNCTION control (15) to TAPE/AUX to play back tapes.

To Record Tapes

The TAPE OUT jacks allow you to record program material from any source selected by the FUNCTION control. The VOLUME and BALANCE controls, and the various tone controls do not affect the signal at the TAPE OUT jacks. Hence you can change the settings of these controls without altering a tape recording in progress.

Speaker Protection

Circuit breakers on the hk340 protect your speakers from short circuits and other conditions of excessive current. If one of your speakers stops producing sound, turn the receiver off and check the speaker connections. Make sure that no wire strands touch the wrong terminal. Locate the SPEAKER PROTECTOR pushbutton (26) for that channel. Press the button in firmly and release immediately.

Maintaining Appearance

Clean the metal panel with mild, diluted detergent applied with a soft cloth or cotton swab. Never use a strong abrasive cleaner.

Remove dust or smudges from the acrylic front window with diluted glass cleaner applied with a soft cloth. Do not use a strong solvent-type cleaner or ammonia.

The hk340 is a high-quality precision instrument. If the instructions in this manual are followed thoughtfully, the receiver should provide many years of musical pleasure.

Specifications

POWER OUTPUT	20 WATTS MIN RMS PER CHANNEL, BOTH CHANNELS DRIVEN INTO 8 OHMS FROM 20Hz TO 20kHz AT LESS THAN 0.1% THD
DIN 45500 (8 ohms)	24.5 watts
Power bandwidth	22Hz to 100kHz at less than 0.2% THD into 8 ohms, both channels driven simultaneously, at 10 watts RMS per channel
Total harmonic distortion	0.08% 1kHz at rated output
Intermodulation distortion	0.1% at rated output
Frequency response	Below 3Hz to 100kHz −3.0dB
Damping factor	>30 at 8 ohms
Hum and noise: Phono	−85dB 'A' weighted, IHF
Aux	−95dB 'A' weighted, IHF
Residual	−95dB 'A' weighted, IHF
Slew rate	50V/μsec
Square wave rise time	3.5μsec at 20kHz
Square wave tilt	<5% at 20Hz
Overall negative feedback	30dB
Phono sensitivity	2.5mV
Phono overload	>80mV
Phono equalization	±1.0dB
Phono input impedance	47k ohms
High level sensitivity	160mV
Usable FM sensitivity (mono)	2.5μV
50dB quieting (mono)	3.5μV
50dB quieting (stereo)	39.5μV
FM noise	−65dB
Capture ratio	2.0dB
Alternate channel selectivity	−60dB
IF rejection	−90dB
AM rejection	−50dB
Stereo separation	38dB at 1kHz
FM distortion (mono)	0.2% at 1kHz, 100% modulation
FM distortion (stereo)	0.35% at 1kHz, 100% modulation
FM frequency response	20Hz to 15kHz ±1.0dB
AM sensitivity	300μV/meter
AM selectivity	−40dB
Alternate channel selectivity	−35dB
Image rejection	−50dB at 1kHz
IF rejection	−45dB at 1kHz
Dimensions	404Wx125Hx311D mm
	15¾Wx5Hx12¼D in
Weight	8.6 kg
	19 lbs