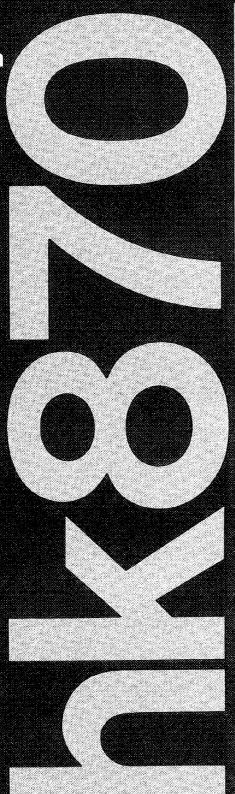
harman/kardon STEREO POWER AMPLIFIER



owner's manual mode d'emploi Bedienungsanleitung manuale di istruzioni Bruksanvisning gebruiksaanwijzing

harman kardon nk 870

Congratulations on your choice of the Harman Kardon hk870 Stereo Power Amplifier.

The Harman Kardon hk870 Power Amplifier has been designed to provide a high performance/cost ratio and all of the sonic benefits assured by Harman Kardon's design philosophy.

Much emphasis has been placed on minimizing the effects of the construction on the hk870's sound quality. High grade capacitors with extremely low loss are used in the power supply and amplifier circuitry. All wires are carefully routed so as to reduce pick-up and crosstalk. Critical grounding points are connected to the chassis by copper thread-cutting screws to guarantee very low resistance.

In order to obtain the best performance from the hk870, please be sure to read this owner's manual and use the hk870 only in accordance with its instructions.



CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.



The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

WARNING: TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

#### FOR CUSTOMERS IN THE UK

Your unit is supplied with the flex which will have either two or three wires, so the following items should be observed to guarantee safety:

#### THREE CORE FLEX

WARNING: THIS APPARATUS MUST BE EARTHED. IMPORTANT. The wires in this mains lead are coloured in accordance with the following code:

Green-and-yellow: Earth
Blue: Neutral
Brown: Live

As the colours of the wires in the mains lead of this apparatus may not correspond with the coloured markings identifying the terminals in your plug proceed as follows:

The wire which is coloured blue must be connected to the terminal which is marked with the letter N or coloured black.

The wire which is coloured brown must be connected to the terminal which is marked with the letter L or coloured red.

#### TWO CORE FLEX

IMPORTANT. The wires in this mains lead are coloured in accordance with the following code:

Blue : Neutral Brown : Live

As the colours of the wires in the mains lead of this apparatus may not correspond with the coloured markings identifying the terminals in your plug proceed as follows:

The wire which is coloured blue must be connected to the terminal which is marked with the letter N or coloured black.

The wire which is coloured brown must be connected to the terminal which is marked with the letter L or coloured red.

## FOR CUSTOMERS IN CANADA

The AC plug is a polarized plug, so the following item should be taken into consideration:

**CAUTION:** TO PREVENT ELECTRIC SHOCK, DO NOT USE THIS (POLARIZED) PLUG WITH AN EXTENSION CORD, RECEPTACLE OR OTHER OUTLET UNLESS THE BLADES CAN BE FULLY INSERTED TO PREVENT BLADE EXPOSURE.

# **FEATURES**

# ■ HCC (High Instantaneous Current Capability) of 60 Amperes.

This enables the hk870 to maintain an undistorted output signal when driving low impedance or reactive loads.

#### **■**Ultrawide Bandwidth

The bandwidth of the hk870 is exceptionally wide and is independent of negative feedback. This improves transient accuracy and phase linearity.

# ■ Low Negative Feedback

This unit has been designed to have low distortion and wide bandwidth without high negative feedback. This further improves its dynamic accuracy.

# **■**Discrete Component Circuitry

In order to achieve the above goals, all discrete electronic circuitry has been employed. All available integrated circuits could not provide this high level of performance.

# **SPECIFICATIONS**

Power Output, RMS (both channels driven into @ less than 0.06% THD

: 100 watts per channel

8 ohms, 20 - 20,000Hz)

HCC (high instantaneous current capability)

: 60A

Power Bandwidth (at half

: 10Hz to 70,000Hz

rated output into 8 ohms)

Frequency Response

: 0.1Hz to 170,000Hz

(+0, -3dB)

Signal-to-Noise Ratio

(IHF-A WTD)

: 98dB

Input Sensitivity/Impedance: 1V/22k ohms

Power Supply

: AC 220/240V, 50/60Hz General model

USA and Canadian models: AC 120V, 60Hz

Power Consumption

: 390W General model

USA and Canadian models: 550W (600VA)

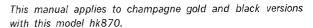
Dimensions (W  $\times$  H  $\times$  D) (with legs, terminals)

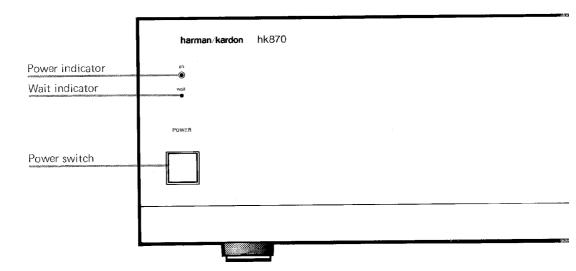
: 443 x 135 x 386 mm

(17-7/16"x5-1/4"x14-3/8")

Weight

: 12.3kg (27lbs.)





### General Instructions

## Always Use the Correct AC Voltage

Always connect the power cord to a domestic mains outlet. Never connect the unit to an outlet supplying a higher voltage, such as for large air conditioner. This may create a fire hazard.

NOTE: This unit may be supplied with a voltage selector enabling selection between 220V and 240V on the rear panel. If the selector is not set to the local voltage of the area where you use this unit, select the correct voltage using a screwdriver before connecting the power cord to a mains outlet.

## Handle the Power Cord Gently

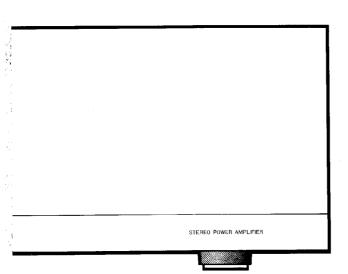
- •Do not disconnect the plug from the AC outlet by pulling the cord; always pull the plug itself. Pulling the cord may damage it.
- •If you do not intend to use your unit for any considerable length of time, disconnect the plug from the AC outlet.
- •Do not place furniture or other heavy objects on the cord, and try to avoid dropping heavy objects upon it. Also do not make a knot in the power cord. Not only may the cord be damaged, it can also cause a short circuit with a consequent fire hazard.

#### Place of Installation

Place a unit on a firm and level surface. Avoid installing your unit under the following conditions:

- ▶Moist or humid places.
- ▶Places exposed to direct sunlight or close to heating equipment.
- ▶Extremely cold locations.
- ▶Places subject to excessive vibration or dust.
- ▶Poorly ventilated places.

Do not obstruct the ventilation slots on the top surface of the unit by placing objects over them. Otherwise, the temperature inside the unit may rise, possibly affecting its long term reliability.



## Do Not Open the Cabinet

To prevent shock hazard, do not tamper with internal components for inspection or maintenance. Harman Kardon does not quarantee against performance degradation resulting from any modification.

If water, a hairpin or wire accidentally enters the unit, immediately extract the plug from the AC outlet to prevent shock and consult an authorized Harman Kardon service station. If you use the unit under this condition, it may cause a fire or shock hazard.

# In Case of Moving the Unit

Before moving the unit, be sure to pull out the power cord from the AC outlet and disconnect the interconnection cords with other units.

#### Cleaning

If the unit gets dirty, wipe it with a soft dry cloth. If necessary, wipe it with a soft cloth dampened with mild soapy water and then with a dry cloth.

Never use benzine, thinner, alcohol or other volatile agent, and avoid spraying an insecticide near the unit.

# Protection Circuit

When the power switch is turned on, the "wait" indicator illuminates for about 8 seconds. No sound will be heard during this time. This is the normal operation of the "turn-on muting protection circuit" which protects the speaker systems from turn-on transients. After about 8 seconds, the "wait" indicator will turn off and the amplifier will operate. It is suggested that the preamplifier volume control be set to a low level during the turn-on period. It is also advisable to turn on all other high fidelity components in the system before turning on the power amplifier.

When a short circuit or a load of less than 2 ohms is placed across the speaker terminals for more than 4 milliseconds (4/1000 of a second), the protection circuit will activate and amplifier will be muted for about 8 seconds. The muting will turn off and the amplifier will begin operating again after 8 seconds.

When the temperature of the internal heatsink rises too high, the protection circuit will activate and the amplifier will be muted. When the unit cools off, the amplifier will automatically become operational. However, unlike the turn-on and short circuit protection, the temperature protection may not restore operation in only 8 seconds because of the time required for the unit to cool off.

While you are connecting your power amplifier to the rest of your high fidelity system, please unplug the power cords of not only the power amplifier but all the components from the AC outlet.

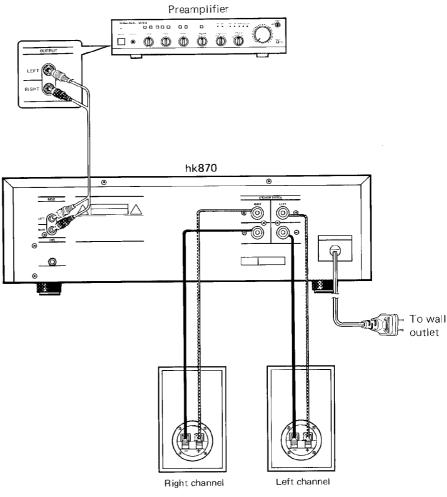
# Connecting Preamplifier

In order to obtain the best sound quality from the hk870, it is recommended that high quality connection wires be used. Their quality can have a large effect on the quality of the total system.

Connect the plugs from the output terminals of the preamplifier to the left and right channel INPUT terminals correctly. Push the plugs in all the way. Poorly seated plugs tends to cause hum, noise or intermittent operation which may damage the speakers.

**NOTE:** Do not interwind the preamplifier connection wires with the power cord. It may degrade the sound quality.

Do not turn on the hk870 before turning on the preamplifier, and always turn off the hk870 before turning off the preamplifier. The speakers or power amplifier may be damaged by the turn-off transients created by some preamplifiers.



Speaker system

# Connecting Speakers

CAUTION: The rated impedance of the speakers to be connected should be in the range of  $4\Omega$  to  $16\Omega.$ 

Connect the speaker wires carefully to the SPEAKER terminals so as not to mistake the left and the right channels or reverse the speaker polarities (+ and -).

Use sufficiently thick wire (16 gauge minimum) with low electric resistance. It is recommended that color-coded wires be used for easy determination of polarities. Speaker wires should be as short as possible, and the left and the right channel wires should have the same length.

# Connect as follows:

- Remove about 3/4 inch (20 mm) of insulation from the end of each wire and twist the strands of each conductor.
- After making sure of the correct channel and polarity, loosen the SPEAKER terminal knob and insert the conductor directly into the recess at the upper-left of the terminal. Then tighten the terminal knob, and the end of speaker wire is automatically wound around the terminal.

