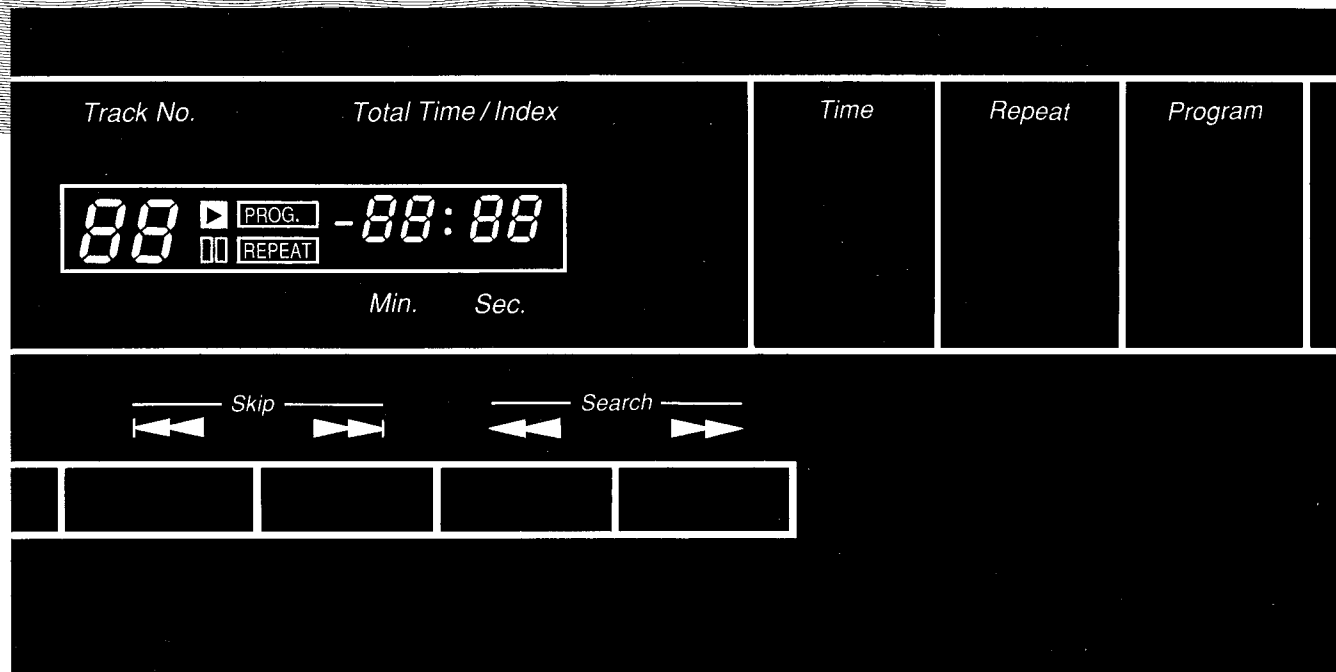


HD7400

HD7300



Compact Disc Player Instruction Manual
Lecteur de disques compacts Manuel d'utilisation
Compact Disc-Spieler – Bedienungsanleitung
Manuale d'istruzioni del riproduttore di dischi compatti
CD-spelare – Bruksanvisning
Handleiding Compact Disc Speler
Manual de instrucciones Reprodutor de discos compactos

harman/kardon

Rear Panel Safety Precautions



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.

1. Read instructions — all safety and operation instructions should be read before using the Compact Disc player.
2. Retain instructions for future reference.
3. Heed warnings — all warnings on the Compact Disc player and in its operations instructions should be adhered to.
4. Follow all instructions.
5. Water and moisture — do not use the Compact Disc player around water, for example near a swimming pool, sink or in a wet basement.
6. Ventilation — The Compact Disc player should be situated so that its location or position does not interfere with its proper ventilation.
7. Heat — The Compact Disc player should be situated away from heat sources such as radiators, fireplaces, stoves, electric popcorn poppers or other appliances that produce heat. Also avoid prolonged contact with direct sunlight and extremely low temperatures.
8. Power sources — Always use the correct AC voltage, connect the power cord to a domestic mains outlet. Never connect the unit to an outlet supplying a higher voltage. This may create a fire hazard.

NOTE FOR CUSTOMERS OTHER THAN CANADA
This Compact Disc player is 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, set the selector to the correct voltage with a screwdriver before connecting the power cord to a mains outlet.
9. Power cord protection — Power supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords at plugs, convenience receptacles and the point at which the cord exits from the Compact Disc player. Also never pull or stretch the cord.
10. Cleaning — Do not use volatile solvents such as alcohol, gasoline, benzine etc. to clean the Compact Disc player cabinet. Use only a clean dry cloth. If you must use a wet cloth, wet only the cloth lightly with water.
11. Object and liquid entry — Care should be taken so that objects (including excessive dust) do not fall into the unit, and that liquids are not spilled into the inside of the Compact Disc player.

- 12.** Abnormal smells — If an abnormal smell or smoke is detected, immediately turn the Compact Disc player power OFF and pull out the power cord. Contact your dealer or nearest Harman Kardon Service station.
- 13.** Damage requiring service — The Compact Disc player should be serviced by qualified service personnel when:
- A. The power supply cord or the plug have been damaged; or
 - B. Objects have fallen, or liquid has been spilled into the Compact Disc player; or
 - C. The Compact Disc player has been exposed to rain; or
 - D. The Compact Disc player does not appear to operate normally in performance; or
 - E. The Compact Disc player has been dropped or the cabinet damaged.
- 14.** Servicing — The user should not attempt to service the Compact Disc player beyond those means described in this manual. All other servicing should be referred to qualified service personnel.

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.

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 green-and-yellow must be connected to the terminal in the plug which is marked by the letter E or by the safety earth symbol ⏏ or coloured green or green-and-yellow.

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.

CLASS 1 LASER PRODUCT

Product complies with DHHS rules CFR subchapter J part 1040:10 at date of manufacture.

DANGER — invisible laser radiation when opened and interlock failed or defeated. Avoid direct exposure to the beam.

CAUTION — use of all controls, adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.



Do Not Remove the Cabinet

This unit uses an invisible laser pickup to detect the signals recorded on the compact disc. The unit has been designed so that the laser rays will not radiate outside. To avoid laser exposure in case the safety interlocks are defeated or out of action, do not remove the cabinet.

Be Careful of the Laser Pickup

Although you cannot see it from the outside, a laser pickup is located under the disc tray and a precision lens is built-in it. Since the laser pickup, including the lens element, is especially sensitive to dust, keep the disc tray closed when not in use. Also do not put your hand inside the unit.

This apparatus has been produced to comply with directive No. 76/889/EEC (CISPR 14)

HD7400/HD7300 Front Panel Description

Thank you for choosing Harman Kardon.

You now own a superb piece of high fidelity equipment. Used properly, you are about to begin thousands of hours of digital Compact Disc enjoyment.

While you are probably no beginner when it comes to high fidelity components, we nevertheless ask you to read and carefully follow the instructions in this manual to insure a successful partnership between you and your new Harman Kardon Compact Disc Player.

Actual hook-up instructions begin on page 8.

1. Power

Depress the **Power (1)** switch to turn ON the HD7400/HD7300.

2. Compact Disc Tray

Compact Discs (CD's) are set onto the drawer with the lettering side up. (See instructions for handling CD's on page 9). The tray should be closed by pressing the **Open/Close (3)** button.

It will also close when the ► key is pressed. Optionally, it can also be closed by pressing it gently back towards the chassis of the CD player.

3. Open/Close

Once a CD is loaded into the Compact Disc Tray, pressing the **Open/Close (3)** button shuts the drawer and activates the **Multi Display (4)**.

Pressing the **Open/Close** button when the tray is shut, 1) stops playback, 2) opens the tray, 3) cancels all memorized programs.






4-7. Multi Display

The HD7400/HD7300's fluorescent **Multi Display (4)** provides information about track numbers (songs on the CD), time and programming.

When a CD is loaded into the player, **Track No. (5)** displays the total number of songs on the Compact Disc. During playback, **Track No.** indicates the number of the track currently being played. It is also used to display tracks selected for programming (see page 9) and for displaying special index numbers found on some CD's.

The **Operation display (6)** indicates play/pause status and whether programming or repeat functions are in use.

DISPLAY FUNCTION WHEN LIT

	PLAY — normal playback
	PAUSE — playback temporarily stopped
	PROGRAM — memory playback of a programmed sequence.
	REPEAT — Disc will repeat playback from the beginning.
	PROGRAM REPEAT — Program or individual selection will repeat when both indicators are lit.

The digital **Total Time/Index (7)** display has four different functions: 1) When the CD player's loading tray is closed, the total recording time in minutes and seconds is displayed. This is particularly useful information when making recordings from a CD. 2) When a CD is playing, the display will "count" the individual track elapsed time. 3) During programming the time display disappears and the same space is used to display program sequence numbers. 4) When searching for an index number, the time display also disappears and index numbers are displayed.

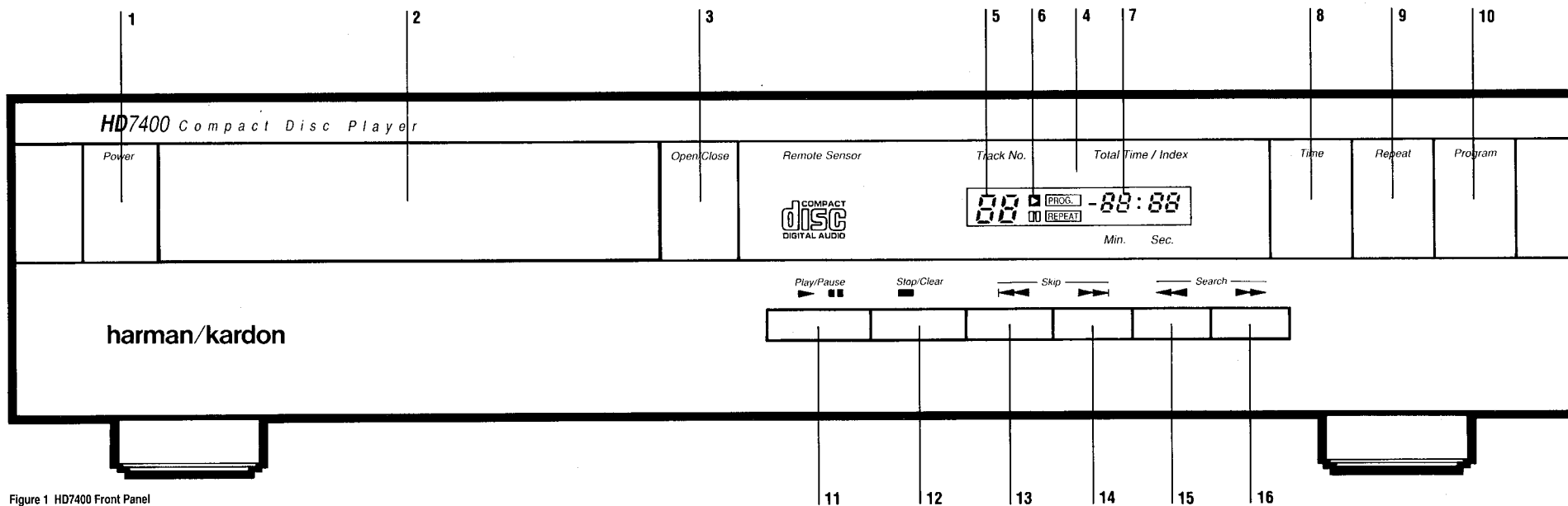


Figure 1 HD7400 Front Panel

English

8. Time

This button allows you to switch from one display mode to another during play. While a CD is playing, the digital display normally shows *individual track elapsed time*. Press **Time (8)** once to show track number and index number. Press **Time** again to return to *individual track elapsed time*.

9. Repeat

The HD7400/HD7300 can continuously repeat an entire Compact Disc, or a sequence of from 1 to 36 programmed selections. Instructions for using **Repeat (9)** are on page 10.

10. Program

This button is used to program from 1 to 36 selections, in any order. Instructions for using **Program (10)** are on page 9.

11-16. Transport Controls

These logic-controlled push buttons are similar to those on a cassette deck. They include **Play/Pause** (11), **Stop/Clear** (12), **Skip** (backward) (13) to the beginning of a song, **Skip** (forward) (14) to the next song, **Search** (manual high speed reverse) (15) and **Search** (manual fast forward) (16).

Their functions are explained further in the **HD7400/HD7300 Operation** section of this manual.

HD7400 Remote Control Functions

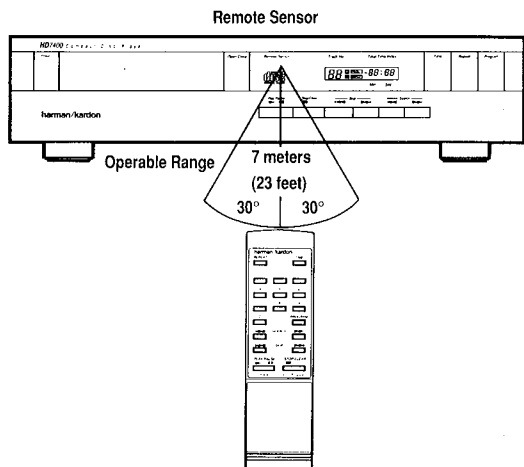
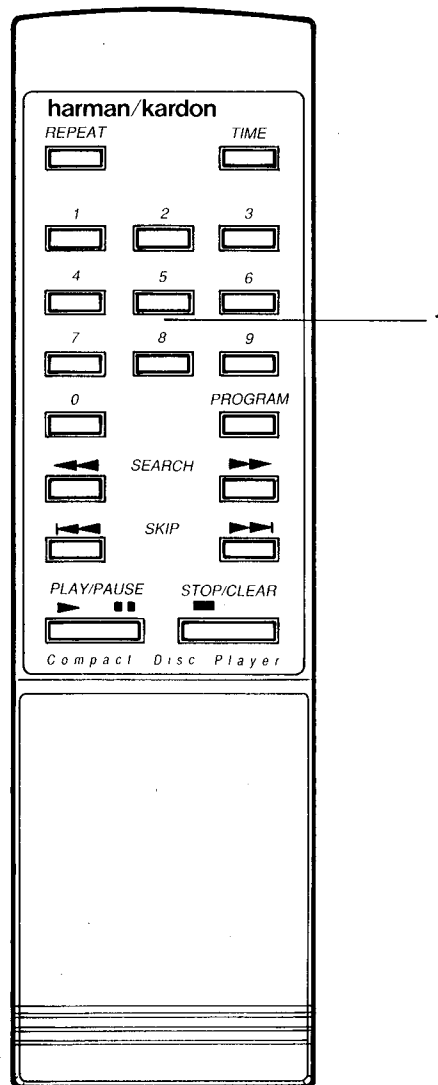


Figure 2



The HD7400 remote control duplicates all functions found on the front panel *except* Power, Open/Close.

In addition, the remote includes a 10-key input pad (1) to facilitate programming and track access.

The remote control operates within a 30-degree angle of the HD7400.

Two batteries (included) must be loaded into the remote before it will operate. See instructions and further information on remote operation on page 10 of this manual.

Figure 3

HD7400/HD7300 Set-Up

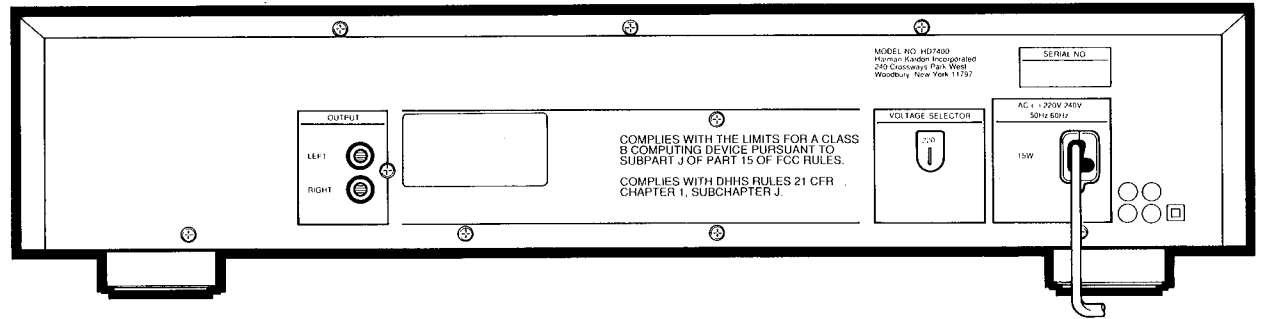


Figure 4

Packing and Paperwork

Save all packing material from your new Harman Kardon Compact Disc player. While the box is quite large and may be a nuisance to store, it is essential for shipping if you move or should the unit ever need repair.

Also be sure to fill out the customer profile card and save your sales receipt in a safe place. It is necessary to establish the date on which your warranty begins, and as proof of ownership in the event of something drastic such as fire or theft.

Placement

The HD7400/HD7300 is fully shielded and may be placed on top of or under other stereo components, provided that its 1 cm "feet" provide sufficient clearance for the cooling needs of the component below.

While it is designed to be vibration resistant, excessive shocks or placement too close to large speakers can cause "stuttering" or "skipping". When choosing a place for your new CD player, take the same precautions you would with a turntable.

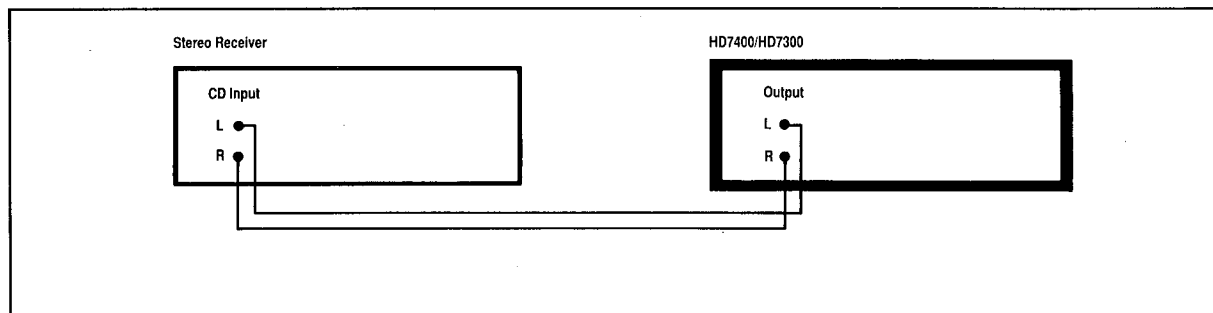


Figure 5

Hook-Up

The HD7400/HD7300's left and right outputs are connected to the CD PLAYER inputs of your preamplifier, integrated amplifier or receiver using the hook-up cables provided.

If your preamplifier/receiver/etc. does not have inputs specifically marked CD, use the set of input sockets marked AUX, or any other line level inputs which are not currently being used for another component. NEVER connect your new CD player to PHONO inputs.

1. Make sure that power to both the HD7400/HD7300 and your pre-amp/integrated amp/receiver is turned OFF.
2. Connect the hook-up cables provided from the HD7400/HD7300's OUTPUT sockets to the appropriate INPUT on your pre-amp/receiver/etc.

During hook-up, take care to match left and right component plugs with the left and right input jacks on the CD player. Common practice is to treat the *red* plug as *right* and the *grey/black/white* plug as *left*.

Power Connection

Upon completion of the CD audio connection, proceed with connection of the power cord into the appropriate outlet.

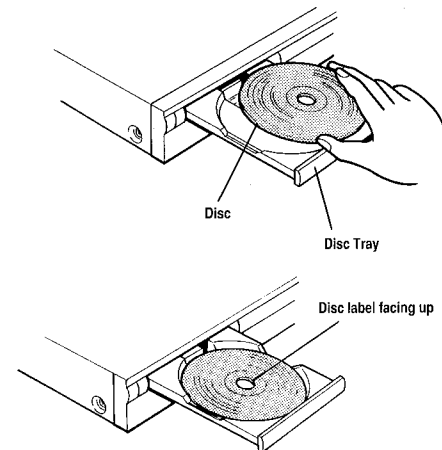


Figure 6 Loading Compact Discs

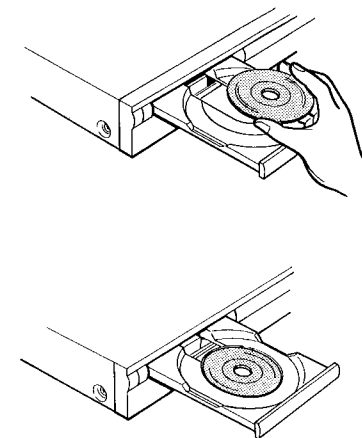


Figure 7 Loading 8 cm (3") Compact Discs

NOTE: Discs of the 8 cm (3") size and 12 cm (5") size cannot be used together on the same disc tray.

Care and Handling of Compact Discs

With care, a CD will last forever. However, dust, scratches or warps on the Compact Disc may lead to noise or playback problems.

Hold the Compact Disc only by the outer edge, supporting it at the center hole with your index finger if necessary. Be careful not to touch the unprinted side of the disc. Never glue any labels or stickers to either side of the disc.

If a CD does become dirty, clean it with a silicone cloth such as those used for cleaning camera lenses, or with a commercially available Compact Disc cleaning kit. NEVER use volatile chemical substances such as denatured alcohol, record cleaners intended for analog phonograph discs or antistatic fluids.

Always return a CD to its plastic case after it is played and avoid storing the case in a location which is subject to direct sunlight, high humidity or high temperatures.

Playing a Compact Disc

Because of the extreme dynamic range made possible by digital recording, a sudden high volume may result if you attempt to adjust your volume control by "background noise level", the way you might with records or cassette tapes. To avoid damage to speakers or headphones, maintain a conservative volume level until you are familiar with the sonic performance of Compact Discs.

1. Turn on the HD7400/HD7300 with the **Power** switch.
2. Press the **Open/Close** button and load the Compact Disc with the printed surface facing up.
If you are loading a 8 cm (3 inch) diameter compact disc, place it in the recessed area in the center of the disc tray (Figure 7).
3. Press the **Open/Close** button again or gently press the front of the disc tray.

The final program number and total playback time will be displayed.

4. Press **▶ ■■** (**Play/Pause**) on either the remote control or the HD7400/HD7300 front panel.
 - To stop play, press the **■** button.
 - To momentarily pause during play, press the **▶ ■■** button. The **■** indicator will light. Pressing **▶ ■■** again will resume play.
 - You can also stop play by pressing the **Open/Close** button.
 - Actually, it is not necessary to close the CD disc tray before play. When **▶ ■■** is pressed (Step 4), the tray automatically retracts and play begins.

Skipping Back and Forth Quickly During Play

1. While a CD is playing, press the **▶▶▶** or **◀◀◀** (**Skip**) buttons repeatedly until the desired track number appears in the **Track No.** display. Pressing the **◀◀◀** (**Skip**) once returns to the beginning of the track currently playing.
 - The player will instantly skip to the beginning of the displayed track and playback will start within a few seconds.

Manually Searching with Audible Cueing

1. While a CD is playing, press the **▶▶** or **◀◀** (**Search**) buttons until you locate the musical passage you wish to hear.
 - The sound will remain audible though speeded up, and the volume is automatically reduced.
 - To switch to rapid, inaudible search while in Manual Search, first press **▶ ■■**, then **◀◀** or **▶▶**.

Beginning Play Part Way Through a Disc

If you wish, you may begin play at the start of any track on a CD.

1. After a CD has been loaded, press the **▶▶▶** (**Skip Forward**) button repeatedly until the **Track No.** display shows the track desired.
2. Press **▶ ■■** to begin play from that track onward to the end of the CD.

Programming a Sequence of Track Selections

The HD7400/HD7300 will memorize a sequence of up to 36 track selections and then play them back in the order they were programmed. This may be 36 different songs, or a combination with individual songs repeated several times as part of the sequence.

1. After you have loaded a Compact Disc into the HD7400/HD7300, press the **Open/Close** button but do NOT press any transport control buttons (such as **▶**, **▶▶**, etc.). Select the first track to be programmed by entering its number on the remote control 10-key pad (HD7400 only), or by repeatedly pressing **▶▶▶** on the front panel. The track number will appear in the **Track No.** display.
2. Press **Program** once. The **PROG** indicator will light and "P:01" will appear on the **Track No.** display. The track number selected is now entered as Program 1.
3. Select the next track to be programmed using the remote 10-key pad (HD7400 only) or **◀◀◀ ▶▶▶** (**Skip**) keys on the front panel.
4. Press **Program** again. "P:02" will appear on the **Track No.** display. This track is entered as Program 2.
5. Repeat steps 3 & 4 until up to 36 tracks have been programmed.

6. Press **▶ ■■**. Playback will begin.
 - If you change your mind during programming, or enter the wrong track(s), you can clear the programming sequence by pressing either **■ (Stop/Clear)** or **Open/Close** button.
 - During playback of a programmed sequence, you can use the SKIP and SEARCH functions without cancelling the program. However, SKIP will only skip over tracks registered in the memory.
 - To stop playback of a programmed sequence during play, press **Open/Close** once or **■ (Stop/Clear)** twice. Playback will stop and all memorized track numbers will be cancelled. The **PROG.** light will turn off.
 - After the sequence has been played, the HD7400/HD7300 will stop.

Selecting a Single Track for Playback

1. After you have loaded a Compact Disc into the HD7400/HD7300, select the track to be programmed by entering its number on the remote control 10-key pad (HD7400 only), or by repeatedly pressing **▶■** on the front panel.
2. Press **Program** once. "P:01" will appear on the **Track No.** display.
3. Press **▶ ■■**.
 - After the song has been played, the HD7400/HD7300 will stop.

Repeating an Entire CD or Programming Sequence

1. During play, press the **Repeat** button.
 - The **REPEAT** indicator will light and the CD or programming sequence will be continuously repeated.
 - To cancel REPEAT press the **Repeat** button again. The **REPEAT** indicator will turn off and play will continue normally to the end of the disc or programming sequence.
 - Both SKIP and SEARCH functions *can* be used during this type of repeat mode.

Repeating a Single Song

1. When the desired track number appears in the **Track No.** display, (either during play or while stopped) press the **Program** button.
2. Press **Repeat**.
- 2A. Press **▶ ■■** if the HD7400/HD7300 was stopped during steps 1 and 2.
 - The **REPEAT** and **PROG.** indicators will light and the track will be continuously repeated.
 - To cancel REPEAT press the **Repeat** button again. The **REPEAT** indicator will turn off and play will continue normally to the end of the disc.
 - While SEARCH functions will function in this mode, SKIP functions *will NOT* during individual track repeat mode.

Cleaning

When cleaning your HD7400/HD7300 avoid the direct use of dusting sprays, abrasive cleaners or caustics (such as dilute ammonia window cleaning solutions). Use only a mild soap and water solution, applied to a soft cloth, rather than sprayed directly onto the component.

Remote Control (HD7400 only)

When the strength of the remote control's batteries becomes weak, the operating range of the remote control is shortened. To change the batteries (or initially load the batteries provided with your new player):

1. Slide the battery compartment cover on the back of the remote in the direction of the embossed arrow and remove it.
2. Insert two AA (1.5V/R6/UM3) cells according to the + and - polarity symbols at the bottom of the battery well. Always replace both batteries at the same time.
3. Replace the cover.

Make sure that both the remote's front infrared projection "lens" and Remote Sensor on the HD7400 front panel are kept free from dirt to insure proper optical transmission and reception.

Do not use the remote control near fluorescent lamps which may shorten the operating range of the remote.

If you do not intend to use the remote regularly, but have loaded it with batteries, remove them to prevent damage from corrosion.

Once again, thank you for choosing Harman Kardon. We wish you many happy years of Compact Disc listening enjoyment.

APPENDIX I – Troubleshooting

Checking these possibilities first may save you time and effort getting your unit serviced. Your Harman Kardon dealer will also be able to answer questions and help you discover the problem.

No light from any CD player indicators.

1. Player is not plugged into wall socket.
2. Wall socket or extension cord is faulty. Check for poor connections and/or blown fuse.

Play indicator will not light and CD does not play.

1. CD may be inserted upside down.
2. Improper disc sequence has been programmed. If you program a track number that is not on the disc, it will not play.
3. Moisture may have formed on the HD7400/HD7300 laser/receptor. This sometimes occurs in damp climates, or when the player is moved from a cool to a warm spot.
Leave the CD player turned on at room temperature for 30 minutes to evaporate the dew deposit.

Play indicator lights, but no sound when PLAY is pressed.

1. Wrong SOURCE has been selected on your receiver, preamplifier or integrated amp.

Certain portions of any CD will not play.

1. The transportation locking screws were not removed from the bottom of the HD7400/HD7300.

Sound “skips” or “stutters” during playback.

1. Check the CD for scratches or fingerprints.
2. Isolate the HD7400/HD7300 from excessive vibration by placing it on a firmer surface and or farther away from your speakers.

Programming does not function correctly.

1. Make sure that you press **Program** after each track selection is made, including after the last track.
2. Check that all tracks programmed actually exist on the CD. If it only has 12 tracks, programming track 16 will cause obvious problems.
3. Take care not to press the **Stop/Clear** button while during programmed play.

The sound is continuously distorted.

1. HD7400/HD7300 has not been plugged into the correct input on you pre-amp/receiver/integrated amplifier. Check the connections.

Nothing happens when function keys are pressed.

1. Turn the HD7400/HD7300 **Power** off and then back on again.

The display shows broken characters that are neither numbers or letters.

1. Turn the HD7400/HD7300 **Power** off and then back on again.

Remote does not function correctly (HD7400 only).

1. Make sure the distance and operating angle do not exceed those described in this manual.
2. Check that the remote transmitter lens and front panel Remote Sensor window are clean.
3. Make sure that strong fluorescent lights are being used in your listening room.
4. Check that the batteries inside the remote are fresh.

HD7400/HD7300 Specifications

System:	Compact Disc Digital Audio
Signal Detection:	3-Beam Semiconductor Laser
Error Correction:	CIRC System
Sampling Frequency:	176.4kHz
Quantization:	18-bit Linear
Channels:	2 Channel Stereo
Frequency Response:	4 – 20,000Hz ± 0.2dB
THD (Total Harmonic Distortion):	0.008% (1kHz)
Dynamic Range:	96dB
Signal-to-Noise Ratio:	100dB
Channel Separation:	88dB (1kHz)
Wow-and-Flutter:	Immeasurable
Line Output Level/Load Impedance:	2.0V/10k Ohms
Power Consumption:	15 Watts
Dimensions (wxhxd):	443mm x 103mm x 330mm (17 3/8" x 4" x 13")
Weight:	5kg (11 lbs)

Feature and specification subject to change without notice.