



5330

**COMPACT
DISC PLAYER**

**INSTRUCTIONS
FOR INSTALLATION
AND OPERATION**

**IMPORTANT INFORMATION REQUIRED BY FEDERAL COMMUNICATIONS COMMISSION
CONCERNING RADIO FREQUENCY INTERFERENCE**

THIS EQUIPMENT GENERATES AND USES RADIO FREQUENCY ENERGY AND IF NOT INSTALLED AND USED PROPERLY, THAT IS, IN STRICT ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS, MAY CAUSE INTERFERENCE TO RADIO AND TELEVISION RECEPTION. IT HAS BEEN TYPE TESTED AND FOUND TO COMPLY WITH THE LIMITS FOR A CLASS B COMPUTING DEVICE IN ACCORDANCE WITH THE SPECIFICATIONS IN SUBPART J OF PART 15 OF FCC RULES, WHICH ARE DESIGNED TO PROVIDE REASONABLE PROTECTION AGAINST SUCH INTERFERENCE IN A RESIDENTIAL INSTALLATION. HOWEVER, THERE IS NO GUARANTEE THAT INTERFERENCE WILL NOT OCCUR IN A PARTICULAR INSTALLATION. IF THIS EQUIPMENT DOES CAUSE INTERFERENCE TO RADIO OR TELEVISION RECEPTION, WHICH CAN BE DETERMINED BY TURNING THE EQUIPMENT OFF AND ON, THE USER IS ENCOURAGED TO TRY TO CORRECT THE INTERFERENCE BY ONE OR MORE OF THE FOLLOWING MEASURES:

1. REORIENT THE RECEIVING ANTENNA
2. RELOCATE THE EQUIPMENT WITH RESPECT TO THE RECEIVER
3. MOVE THE EQUIPMENT AWAY FROM THE RECEIVER
4. PLUG THE EQUIPMENT INTO A DIFFERENT OUTLET SO THAT THE EQUIPMENT AND RECEIVER ARE ON DIFFERENT BRANCH CIRCUITS

IF NECESSARY, THE USER SHOULD CONSULT THE DEALER OR AN EXPERIENCED RADIO/TELEVISION TECHNICIAN FOR ADDITIONAL SUGGESTIONS. THE USER MAY FIND THE FOLLOWING BOOKLET PREPARED BY THE FEDERAL COMMUNICATIONS COMMISSION HELPFUL:

"HOW TO IDENTIFY AND RESOLVE RADIO-TV INTERFERENCE PROBLEMS".

THIS BOOKLET IS AVAILABLE FROM THE U.S. GOVERNMENT PRINTING OFFICE,

WASHINGTON, DC 20402,

STOCK NO. 004-000-00345-4.

U.K. ONLY: 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.

CAUTION: THIS DIGITAL AUDIO DISC PLAYER EMPLOYS A LASER SYSTEM. TO USE THIS MODEL PROPERLY, READ THE OWNER'S MANUAL CAREFULLY AND KEEP IT FOR FURTHER REFERENCE. IN CASE OF ANY TROUBLE WITH THIS UNIT, PLEASE CONTACT AN AUTHORIZED NAD SERVICE STATION.

CAUTION: THIS DIGITAL AUDIO DISC PLAYER CONTAINS A LASER SYSTEM AND IS CLASSIFIED AS A CLASS 1 LASER PRODUCT TO USE THIS MODEL PROPERLY, READ THE OWNER'S MANUAL CAREFULLY AND KEEP IT FOR FURTHER REFERENCE. IN CASE OF ANY TROUBLE WITH THIS UNIT, PLEASE CONTACT AN AUTHORIZED NAD SERVICE STATION. DO NOT TRY TO OPEN THE ENCLOSURE TO PREVENT BEING EXPOSED DIRECTLY TO THE LASER BEAM.

RADIO INTERFERENCE REGULATIONS: THIS APPARATUS HAS BEEN PRODUCED TO COMPLY WITH "DIRECTIVE NO. 776/889/EEC."

WARNING: TO PREVENT FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

RECORD THE MODEL NUMBER AND SERIAL NUMBER OF THIS CD PLAYER BELOW. THE NUMBERS ARE ON THE REAR PANEL.

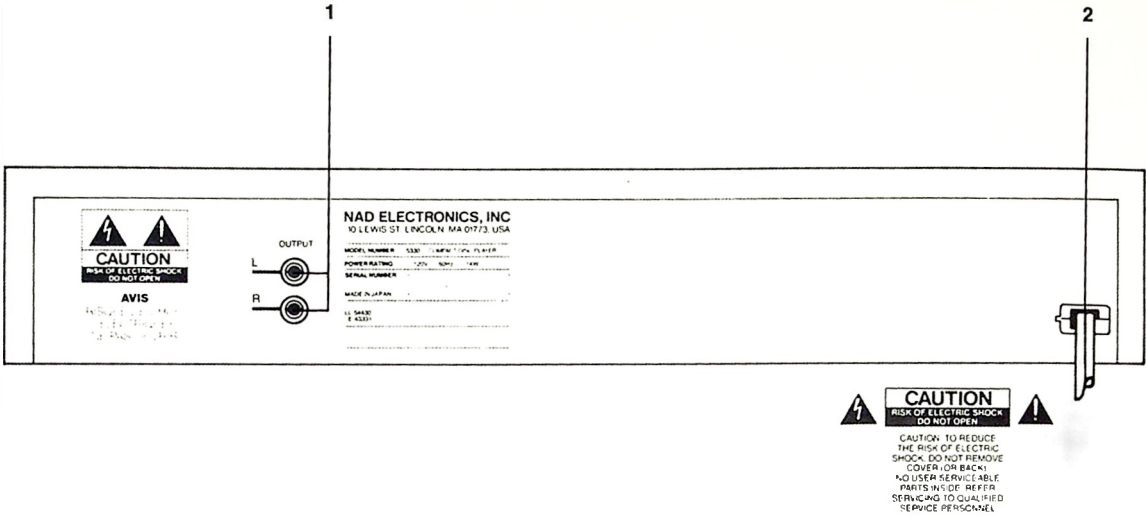
MODEL NO. _____

SERIAL NO. _____

KEEP THESE NUMBERS FOR FUTURE USE.

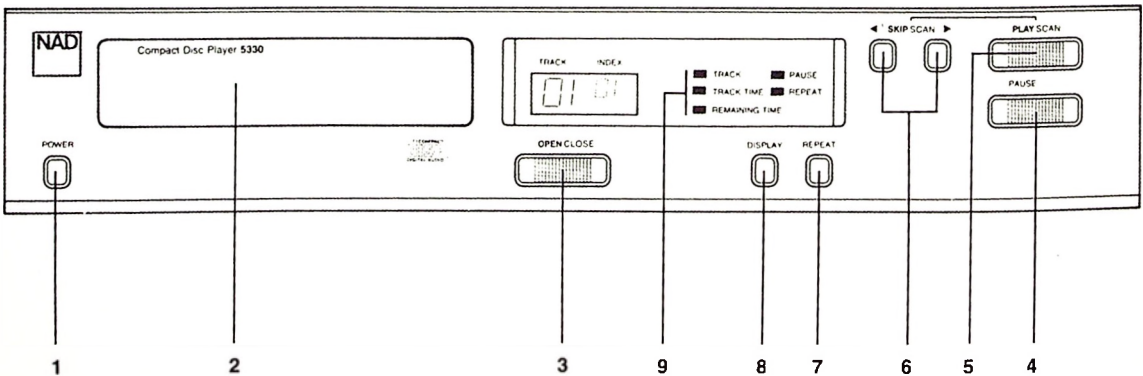
REAR PANEL


1. Output jacks.
2. AC line cord.




FRONT PANEL

- | | |
|-----------------|----------------------|
| 1. Power. | 8. Display selector. |
| 2. Disc drawer. | 9. Display. |
| 3. Open/Close. | Track |
| 4. Pause. | Track Time |
| 5. Play. | Remaining Time |
| 6. Skip/Scan. | Pause |
| 7. Repeat. | Repeat |



 The lightning flash with arrowhead, within an equilateral triangle, is intended to alert the user of 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 of the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

INSTALLATION

Transport screws. To prevent shipping damage, the tracking mechanism is fastened in place by two screws and a locking clutch. These are located on the bottom panel. After unpacking the player, use a screwdriver to loosen the transport screws. Turn the screws counterclockwise (left) five or six full turns, until they turn freely. (The screws are captive; they will not fall out of their holes.) Then turn the Transport Lock a counterclockwise, until it stops at the "free" position.

When you re-pack the player for shipment in the future, be sure to turn the Transport Lock fully clockwise to the "locked" position, and fully tighten the two transport screws, to prevent possible damage to the laser tracking mechanism.

Install the Compact Disc player on a level, vibration-free surface. (Severe vibration, or operation in a tilted position, may cause the player to mis-track.) The player may be stacked with other stereo components, as long as there is adequate ventilation around it.

If the player is placed in close proximity to an AM, FM, or TV tuner, the operation of its digital circuits could produce noise that would interfere with reception of weak broadcast signals. If this occurs, increase the distance between the player and the radio or TV receiver.

REAR PANEL CONNECTIONS

1. OUTPUT JACKS

Plug one end of a stereo cable into the Left (upper) and Right (lower) output jacks. Connect the other end of the cable to the CD, DAD, AUXiliary, or any other line-level input jacks on your stereo amplifier (such as an unused TAPE input). Do NOT connect to the amplifier's PHONO jacks.

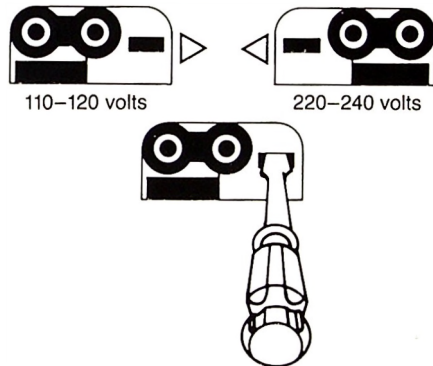
2. AC LINE CORD

Connect this power cord to an AC mains wall outlet or to an AC convenience outlet at the rear of your amplifier.

European units only: The AC power cord is detachable. The mating socket on the CD player contains three pins; one of them is hidden behind a movable cover that functions as a line-voltage selector.

For operation on 110–120 volts, the cover should be moved to the right (as seen from the rear of the unit), so that the left-hand pins are exposed for use. For operation on 220–240 volts, the cover should be moved to the left so that the right-hand pins are exposed for use. (See diagram.)

Normally this line-voltage selector will have been correctly pre-set for the country where the unit is purchased. Check it before plugging in the AC power cord. If necessary, re-set it to match the AC power line voltage in your area. Insert the blade of a screwdriver or the tip of a ball-point pen into the horizontal slot in the cover, and slide it to the right (for 120V) or to the left (for 230V).



PLAYING COMPACT DISCS

1. Switch on the Power.
2. Press the OPEN/CLOSE button to open the disc drawer.
3. Place the disc in the drawer, within the recessed circular area. The transparent playing surface must face down, and the label must face up.
4. Press PLAY. The drawer will close automatically, the laser will cue to the beginning of track 1, and it will play the disc from beginning to end.
5. If you wish to commence play at a different track, rather than track 1, wait for the TRACK No. display to stop flashing, and then press the SKIP Forward (▶) button to advance to the desired track. You can do this either before or after pressing PLAY.
6. At the end of play, or when you wish to stop, press the OPEN/CLOSE button. Play will stop, the laser will automatically re-set to the beginning of the disc, and the drawer will open.
7. If you want to stop play without ejecting the disc, press PAUSE. This will stop the playback while keeping the laser at its current position. To resume playback at the point where you stopped, press PLAY.

FRONT PANEL CONTROLS

1. POWER

Press this button to switch on the power to the disc player. Press again and release to switch the power off.

2. DISC DRAWER

To play a disc, place it within the circular recess in the drawer, with the transparent playing surface facing down. The label must face UP.

3. OPEN/CLOSE

Press this button to open the disc drawer, and press it again to close the drawer. If this button is pressed while a disc is being played, the playback will stop, the laser will re-set to the beginning of the disc, and the drawer will open.

When the disc drawer closes, the laser automatically scans a "table of contents" track located at the beginning of each disc, containing coded information about the disc's playing time and the starting point of each track. The TRACK No. display blinks off and on while this contents track is read. When the blinking stops, the player is ready for use.

If you accidentally place a disc in the drawer upside down, the laser will be unable to find the contents track. The TRACK No. display will blink for a few seconds; then the digits will be replaced by dashes.

4. PAUSE

Press this button to stop playback, keeping the laser at its current position on the disc.

To resume playback at the exact point where it stopped, press PLAY. If you don't want to resume play at the same point, you may use the Forward/Back buttons to cue the laser to a different starting point before pressing PLAY.

5. PLAYSCAN

Press this button to play a disc, or to resume play after PAUSE.

6. SKIP/SCAN

The Forward (▶) and Back (◀) buttons produce a SKIP function when pressed alone and a SCAN function when pressed together with PLAY.

SKIP. If the Forward or Back button is pressed by itself, the laser jumps forward or back to the beginning of successive numbered tracks on the disc. If the player is already in the PLAY mode, tapping the Back (◀) button will cause the laser to jump back to the beginning of the current track and play it again. Pressing the Forward (▶) button will jump the laser to the beginning of the next track and resume play there. The track number blinks on and off in the display while the laser is hunting for the beginning of the track.

SCAN. If you depress the PLAY button and also press the Forward or Back button, the laser will scan through the music approximately ten times faster than normal playing speed. The music will be heard in fragmentary form at reduced volume as the player scans through it. Use this "audible scan" mode to cue the player precisely to the spot where you want to commence play. The TRACK No. display automatically switches into the TRACK TIME mode during this scan, to assist in cueing to a desired location within a track.

7. REPEAT

This button engages an endless-repeat mode in which the entire disc is played from beginning to end, over and over again, until the Repeat mode is cancelled by pressing the REPEAT button again.

8. DISPLAY SELECTOR

The display provides information about disc playback status and about the laser's position on the disc. The TRACK, INDEX, and TIME displays are controlled by

"sub-code" on the disc.) The DISPLAY button cycles the digital readout through three displays, as follows:

Track	Shows the Track number and Index number of the selection being played.
Track Time	Shows the elapsed time (in minutes and seconds) since the beginning of the current track.
Remain. Time	Shows the total playing time remaining on the disc.

When the OPEN/CLOSE button is pressed, the display reverts to showing Track number. In the SCAN mode the display shows the elapsed time. PAUSE and REPEAT indicators illuminate when the player is in the Pause or Repeat mode respectively. When the display is showing Track number and a disc is being played, a small dot below the Index Number blinks off and on to confirm that the player is running.

Track Number. Each disc is segmented into numbered tracks when the record is made. Typically each numbered track corresponds to a different song, symphonic movement, etc.

Index Number. Each track may, at the record maker's option, be sub-divided into sections identified by an index number. If a track does not have indexed sections, the display will indicate 01 throughout. Unlike track numbers, which normally correspond to breaks in the continuity of the music, index numbers may be encoded inaudibly in the disc to identify portions of a track without causing any interruption or gap in the sound. Thus the index numbers may identify the verses of a song, or the various portions of a symphonic movement (for example the entrance of the main theme, secondary theme, exposition, variations, restatement of main theme, coda).

MAINTENANCE

At periodic intervals, open the disc drawer and wipe with a damp cloth to remove any loose dust.

HANDLING COMPACT DISCS

Handle Compact Discs with care. The playback of a disc will not be impaired by small dust particles, a few light fingerprints, or slight scratches. But large scratches, or a thick layer of oily fingerprints, can prevent the player from tracking the disc. (Incidentally, although the tracking laser "plays" the disc through its clear side, the actual data surface is embedded directly beneath the label, protected only by a very thin coating of lacquer. So a scratch that cuts through the label may damage the disc more than a similar scratch on the transparent "playing" surface. Thus you should treat *both* surfaces of the disc with care.)

Severe scratches or fingerprints may cause the player to mis-track (skipping ahead, or repeating the same passage). Less severe damage may produce very brief bursts of high-frequency noise. The tracking and error-correction circuits of this NAD CD player are unusually sophisticated, providing secure tracking of flawed discs that are unplayable on some other players. Nevertheless, the discs should not be abused or handled carelessly.

For best results, grasp the disc only by its edges. Another safe method is to put a finger in the center hole, using the thumb at the edge to hold the disc steady.

Soiled discs may be cleaned by wiping with a soft cloth, dry or moistened with water. Do NOT use conventional LP record-cleaning products (cleaning solutions, sprays, treated cloths, or anti-static preparations), nor any kind of chemical solvent (alcohol, benzene, et al). A severely soiled disc may be washed in a warm-water spray, possibly with a small

amount of a mild kitchen detergent added, and then wiped dry with a clean, soft towel.

When cleaning the disc, use only RADIAL strokes (from center to edge). Never use a circular wiping motion like that used for cleaning ordinary LP records, because in wiping the disc there is a risk of scratching it. A radial scratch will do the least harm because it affects only a small portion of each circular data track, which can be fully compensated for by the player's error-correction circuits. But a circular scratch that follows a data track may damage such a long continuous segment of data that it cannot be corrected.

Each disc should be kept in its protective storage case when not in use. To open the standard Philips-type plastic CD case, grasp the top and bottom of the case with the fingers and thumb of the left hand; then grasp the left and right edges of the case with the fingers and thumb of the right hand, and pull the case open with the right thumb. The disc is held in place within the case by an expansion hub in its center hole. To remove the disc, press the hub with a finger to release the disc, then lift it out by gripping its edges between the fingers and thumb. To replace the disc in the

case, simply align its center hole with the hub and press the disc onto the hub.

ABOUT THE LASER

The Compact Disc player uses a solid-state semiconductor diode laser, mounted on a tracking servo mechanism, to play the disc. The laser illuminates the track of microscopic pits representing the digital data bits, while photodiodes detect the reflected illumination from the disc and convert it into an electronic signal which is then decoded to recover the musical waveform in each stereo channel.

You cannot see the laser operating, because it operates at wavelength of 7800 Angstroms, which is in the infrared and thus invisible to the human eye.

The Compact Disc player is completely safe for children to use. The laser operates at very low power and is concealed within the player mechanism. Even when the player is disassembled, the laser remains sealed within an optical system that causes its light to focus only 1 millimeter from the lens and then diverge rapidly, reducing its intensity to negligible levels.

NAD ELECTRONICS

BOSTON/LONDON

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