

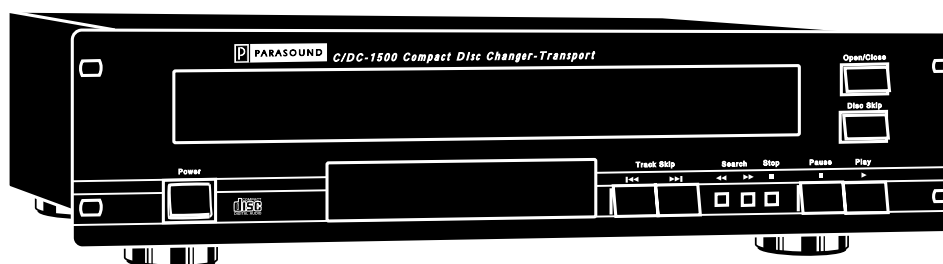


PARASOUND

C/DC-1500 Compact Disc Changer-Transport

Thank you for your purchase of this Parasound component. It is among the finest compact disc changers available. Its advanced 4th-generation digital technology and sophisticated analog circuits bring digital music to life. A hybrid 1 bit/18 bit D-A converter, 8x oversampling, independent power supply regulation and premium parts assure natural reproduction at any listening level. Its unique digital output options offer the ultimate flexibility for CD transport operation with an external D-A converter in the future, so your C/DC-1500 will never be out of date.

The C/DC-1500 has numerous convenience features which may not be obvious unless you take the time to learn about them. Please take a few moments now to read these instructions completely before you proceed. Whenever you are in doubt, refer to this instruction manual.



Unpacking and Placement

Save your carton and the packing inserts for future safe transport in case you move or your unit ever requires shipping for repair. Note, the white printed carton is not itself strong enough for safe shipping, so you absolutely must place it into an additional outer "overcarton" before shipment.

The AC cord, remote control, and audio cable are packed separately in the carton. This is a specially selected audiophile grade cord and is the only cord we recommend for use with your C/DC-1500. Please don't lose it. Before you proceed, find the serial number which is located on the rear panel of your unit and record it here for future reference or in case of casualty loss or theft: _____

Your C/DC-1500 should be placed on a level and sturdy surface, out of direct sunlight. It should be in a well-ventilated area, away from heating ducts or radiators. The area must be free of dust or excessive humidity.

The location should be stable and isolated from speakers or foot steps to minimize vibrations that could interfere with the sensitive optical laser, this could cause the error correction circuits to operate excessively for other than defects in the CDs themselves. The unit should not be placed near any component which generates a strong magnetic field, such as a power amplifier. Do not place your C/DC-1500 directly on top of an amplifier that may generate excessive heat.

Do not place your CD changer nearby your radio or TV tuner since digital circuitry uses very high frequency signals which could cause interference with clear broadcast reception; radiations from the

A Note on Moisture Condensation and Dew

If your C/DC-1500 is brought directly from a cold location to a warm room or if it is placed in a very damp room, moisture may condense on the laser lens within the unit. If this occurs, the changer will not operate. Remove the disc and leave the changer in a warm, dry place for about an hour so the moisture can evaporate.

Connecting Your C/DC-1500

Before making any connections, turn off the power to your power amplifier. This will avoid an accidental “blast” of sound which could damage your speakers.

Use the cables supplied between the ANALOG LINE OUT jacks on your C/DC-1500 and any high level input jacks on your preamplifier, amplifier or receiver marked CD, AUX or TAPE PLAY. Connect the RIGHT and LEFT channels according to their markings on both units. Make certain that all your connections are secure and that there is no tension on the cables which could cause them to pull loose in the future.

You may connect the output of your C/DC-1500 directly to a power amplifier which has input level controls, however you may require the additional gain of a preamplifier to reach adequate listening levels.

You may prefer to try premium audio interconnect cables which are available from your Parasound dealer. The benefits of these are debated among audio hobbyists, and we cannot guarantee you will always hear an audible improvement to justify their cost.

Once the inputs have been connected, plug the AC cord into any convenient outlet or into an outlet on the rear panel of your preamplifier or receiver. Try to run the AC cord in a perpendicular direction to the audio cables to minimize hum.

External Remote Control Connector

Your C/DC-1500 accepts the input of any popular infrared repeater system to facilitate remote control operation from another room or when your changer is installed within a closed cabinet. This connector is a popular 3.5 mm mini jack and its center conductor is +, the outer is -. For further details contact your Parasound dealer or custom installer.

Digital Connections

Your C/DC-1500 is equipped with an RCA jack for 75 Ω coaxial connection to an external D-A converter. You must use a digital cable which will minimize data reflections within the cable. A standard audio interconnect cable will not produce optimum results. We recommend the Parasound Data Bridge digital cable for this purpose.

Advanced Digital Adapter Module (ADAM)

An optional Advanced Digital Adapter Module (ADAM) is available from your Parasound dealer or custom installer. The ADAM features both an AT&T standard glass fiber ST module and an AES/EBU standard 3 pin XLR connector. Either of these will provide superior sound if your D-A converter is equipped to accept them. The advantage of the AT&T glass fiber optic connection is that it electrically isolates your changer-transport from the rest of your system, potentially improving overall signal to noise ratio. The AES/EBU output offers a balanced digital output with a separate ground.

It's very easy to install the ADAM yourself. First, insure that the C/DC-1500 is unplugged before attempting to install the ADAM. Remove the two phillips head screws at either side of the cover plate near the left side of the rear panel on your C/DC-1500. The ADAM is attached to a plate which replaces the one you just removed.

There is a small 4 pin connector socket on the top of the main printed circuit board, just inside the exposed opening of your C/DC-1500's rear panel. Attach the connector on the wire coming from the ADAM to this connector; there is only one direction you can fit the plug onto the socket. Make sure it is firmly connected, but if there is resistance, don't force it! Try the other direction first, so you don't break the connector or damage the circuit board. Secure the ADAM with the two screws. Your C/DC-1500 is now a highly sophisticated CD Transport.

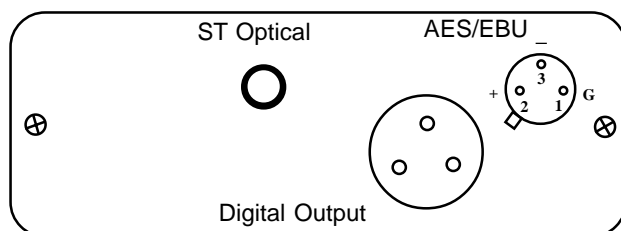


Figure 1: ADAM-Advanced Digital Adapter Module

Front Panel Functions

Power Switch

Use this to turn your changer on and off. This control is not duplicated on its remote control handset.

Open/Close

Press once to open the carousel drawer; press again to close. You can change up to two discs while the currently selected disc is playing. Never interfere with the carousel drawer while it's opening or closing, or try to force it with your hand.


Play

Press PLAY to listen to the disc whose number is shown in the display panel. You can press this button while the disc loading tray is open and it will automatically close the tray and start normal play. If your changer is in PAUSE, pressing the PLAY button again will resume play.

Pause

Press PAUSE to temporarily interrupt play of the disc shown in the display panel. Press again to resume play.

Track Skip

These buttons skip to the preceding or next track each time they are pressed. If you are listening to a track, pressing the  button once will return play to the beginning of that same track.

Disc Skip

This button selects the next disc for play and rotates the carousel each time it is pressed whether the carousel drawer is open or closed. Use this button to load discs in the STOP or PLAY mode.

Search

This is an audible fast review or fast forward cue to assist you in finding a specific segment within a given track.

Stop

This stops the disc and disengages the laser operation. Once you've pressed STOP, when you press PLAY again, the changer will start current track again a few seconds after the changer "reads" the disc.

Operating Your C/DC-1500

Loading Discs

To load discs, press the OPEN/CLOSE button. Next, load the disc(s) in the carousel label side up. Advance the carousel with the DISC SKIP button to load up to 5 discs. The carousel is exposed so you can change two discs without interrupting the disc currently in play. If you press the DISC SKIP button while doing this, the disc in play will stop playing and the carousel will rotate to the next disc tray.

CAUTION: Be patient while loading discs. Don't try to load discs before the carousel drawer has fully opened or try to close it before you are certain the discs are properly seated. If your C/DC-1500 tries to close the carousel drawer with discs only partially in place, it may ruin a disc. Do not try to play a warped disc; it may interfere with the carousel's operation.

Starting Disc Play

After loading, press the DISC NUMBER on the remote or DISC SKIP on the front panel to select the disc you want to play. Next, press PLAY and the selected disc will start playing on TRACK 1. After initial turn-on, the unit will start playing TRACK 1 on DISC 1 unless otherwise selected.

Selecting Specific Discs and Tracks

To select a specific track on any disc, press DISC NUMBER on the remote or DISC SKIP on the front panel to select the disc you want to play. Next, select the desired track with the TRACK NUMBER or the TRACK SKIP buttons on the remote control or front panel. Finally, start play by pressing PLAY.

Display Panel

Your C/DC-1500 comes equipped with a display panel to show the disc and track in play and elapsed time. The display panel will also indicate the status of the C/DC-1500's special functions such as REPEAT, MEMORY, INTRO SEARCH, SHUFFLE, and the MUSIC CALENDAR. The following drawing illustrates all the functions within the display panel.

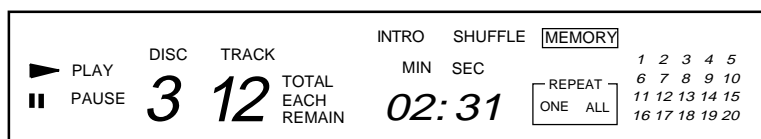


Figure 2: Functions of the C/DC-1500 Display Panel

Music Calendar

The music calendar on the display panel provides a quick visual status of the number of tracks on a disc, the current track being played, and how many tracks are left to play. For example, if you are listening to TRACK 3 on DISC 4 that has a total of 12 tracks, the display panel will show the disc number and track number with time elapsed. The music calendar will display the total number of tracks left to play on the disc (up to 20 discs). The tracks that have already been played will disappear from the calendar, and the track being played will flash.



Figure 3: Display Panel in Normal Play Mode with Music Calendar

Remote Control Functions

The remote control handset duplicates all front panel functions except power on/off, but contains several additional functions described below. It uses 2 AA batteries (included).

Disc Number and Disc Select

These buttons allow direct access or sequential to the disc you want to hear. To play a specific disc and track, press the desired DISC NUMBER, TRACK NUMBER, and then PLAY. If you press DISC NUMBER and PLAY only, the disc will automatically start on TRACK 1 of the selected disc. You can use the DISC SELECT button to advance to the next disc in the carousel and it will start on TRACK 1. If you press DISC SELECT, TRACK NUMBER, and then PLAY, the selected track in the next disc will be played.

Programming Your C/DC-1500

You can program your C/DC-1500 to play any sequence of tracks you want. All programming must be performed in the STOP mode. To program your C/DC-1500, first press the DISC NUMBER, TRACK NUMBER, and then MEMORY. The MEMORY indicator in the display panel will light to show that the C/DC-1500 is ready to play the programmed tracks. The first programmed track will be displayed as P-01, the second track will be displayed as P-02, and so on. When you press the PLAY button, the tracks will be played in programmed order. A maximum of 32 tracks may be programmed if you try to exceed the maximum, the display panel will read FULL.

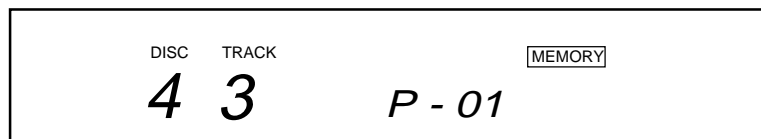


Figure 4: Display Panel in the Program Mode

Checking the Program

Each time you press the CHECK button, the track number and its program position will appear in the display.

Overwriting Tracks in the Program

You can write over programmed tracks by pressing the DISC NUMBER, TRACK NUMBER, and MEMORY while the programmed track to be overwritten (e.g. P-01) is in the display panel.

Adding Tracks to the Program

You can add tracks to the program, by first pressing STOP, then pressing DISC NUMBER, TRACK NUMBER, and MEMORY.

Clearing the Program

If you press the CLEAR button, the entire program will be cancelled from and the illuminated MEMORY indicator will go out. When you press the STOP or PAUSE button any time during programmed play, the program will still be retained. If you turn off the C/DC-1500 during programmed play, the memory will be cleared.

Shuffle Play

When you press the SHUFFLE button on the remote, the C/DC-1500 will play all your discs in a completely random order. To start random play, press the SHUFFLE and PLAY buttons on the remote. You can clear shuffle play by pressing STOP or turning the unit off. You can also play programmed tracks in random order with the SHUFFLE function.

Intro Search

You can preview the discs in the carousel with the intro search feature. When you press the INTRO SEARCH and PLAY buttons on the remote, each track on all the discs in the carousel will be played sequentially for up to 99 seconds. You can select the desired intro time by pressing TRACK NUMBER and then INTRO CHECK buttons. The default intro search time is 10 seconds. The intro search feature will also work in conjunction with programmed and shuffle play.

Repeat Play

You can repeat the play of one or all tracks of the loaded discs with the REPEAT button on the remote control. When you press the REPEAT button once, the display will indicate REPEAT ALL and the C/DC-1500 will continuously repeat all tracks on the loaded discs in sequential order. When you press the REPEAT button a second time, the display will indicate REPEAT ONE and the current track repeats. When you press the REPEAT button a third time, the repeat display will go out and no tracks will repeat. You can also cancel repeat play by pressing STOP or turning the unit off. The repeat feature will also work in conjunction with intro search, programmed and shuffle play.

Display Status

You can check the status of the current disc and track in play with the DISPLAY button. The display button works only while the C/DC-1500 is in play. When any track starts, the display panel will indicate the elapsed time of the track with the word EACH displayed next to the track number. Press the DISPLAY button once and the time remaining on the track with the words EACH and REMAIN displayed. Press the DISPLAY button twice, and the total time on the current disc will be displayed and the word TOTAL will be displayed. Press the DISPLAY button a third time and the time remaining on the disc and both TOTAL and REMAIN will be displayed. This feature will also work in the programming and shuffle modes.

Maintaining Your C/DC-1500

Your C/DC-1500 requires no periodic maintenance and has no user serviceable parts inside. Do not remove the top cover to avoid risk of electric shock. To keep it clean use only a soft cloth and never use any solvents or abrasives. Since dust and dirt can cause problems, never turn off the C/DC-1500 with the disc drawer open. Fingerprints may be removed with a soft cloth moistened only with a few drops of clear water. The remote control handset batteries should be removed whenever it will be unused for an extended period. Remove the battery cover annually to inspect and remove leaking batteries. Since dust and dirt can cause problems, never turn off the changer with the carousel drawer open.

In Case of Difficulty

If you believe your unit is malfunctioning, please refer again to these instructions. It's quite easy to confuse some of the programming functions until you become accustomed to them.

- Disc holder won't close when disc has been inserted:
 - discs are not placed properly in the holder
 - disc is warped
- Disc is inserted, but display does not show number of tracks and playing time:
 - disc was inserted upside down
 - disc is dirty - clean it carefully
 - disc is scratched or defective - try another disc
 - there is condensation on the laser lens - allow to warm up and dry
- Sound skips or mistracks often:
 - changer is exposed to excessive vibration - find better location
 - disc is dirty or damaged
- Program function will not operate:
 - programming was erased - reprogram the memory
- Hum:
 - a cable connection is loose - press cable plugs in tightly
 - a cable could be defective - try another cable
- One channel not operative:
 - check cable connections
 - try another source at your preamp to confirm problem is with your CD changer
- Remote control does not work:
 - batteries in remote control are weak or batteries are installed improperly
 - there is an obstruction between the remote control and changer
 - you are at too great an angle to changer for remote signal to reach it
 - there is no disc loaded in the changer
 - changer is exposed to bright light which interferes with the remote signal
 - changer is exposed to fluorescent lights that emit RF that interfere with IR transmission

If you still have difficulty after trying the above, call your Parasound Dealer or custom installer for further advice. If he cannot help you, call Parasound Technical Service between 8:00 AM and 5:00 PM PST at (415) 397-7100. We may be able to suggest some other diagnostic procedures. If we determine that the changer must be returned for factory service, we will give you specific instructions, including a specific Return Authorization number. Pack the unit carefully in both its original carton and its styrofoam protection and also an outer overcarton for adequate safety. You must mark the Return Authorization number on the outer carton only; units that arrive without evidence of adequate packing or without an outer carton or Return Authorization number will be refused. After service we will ship the unit back to you via UPS.

C/DC-1500 Specifications

Frequency Response

3 Hz - 20 kHz, ± 0.2 dB

Signal to Noise Ratio

> 110 dB, IHF A

Dynamic Range

> 100 dB

Channel Separation

> 115 dB, 1 kHz

Low Level Linearity

± 1.5 dB down to -90 dB

Analog Line Output Level

2 V, ± 0.1 V Suitable load ≥ 10 k Ω

Coaxial Digital Output

75 Ω RCA, 0.5 V peak-to-peak

Total Harmonic Distortion

< 0.002%

Wow and Flutter

Unmeasurable; crystal accuracy

Interchannel Phase Shift

< 0.6° at 20 kHz

Disc Defect Tracking

up to 2000 μ M

Converter Type

1 bit - 18 bit linear hybrid, hand-trimmed

Sampling Rate

352.8 kHz, 8 x 44.1 kHz

Error Correction Method

CIRC double error correction

Dimensions and Weight

19" wide x 4 1/8" high (4 3/4" with feet) x 15 1/4" deep; 17 lb.

Power Requirements

120 V - 120 V AC 15 watts, may rewire to 220 V - 240 V

ADAM Specifications

ST Module Fiber Optic

AT&T Standard, 820 nm typical wavelength

AES/EBU Output

110 Ω XT R 5 V peak-to-peak

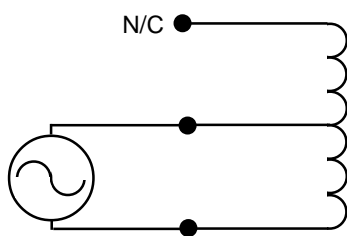
Special Features

- Hybrid 1 Bit/18 Bit Ladder DAC
- Incorporates Burr-Brown PCM-67P DAC
- 8X Oversampling
- Error Correction and De-Glitching Circuit
- High-Resolution Analog Circuitry
- FR-4 Glass Epoxy Circuit Board
- Upgradeable to ST and AES/EBU Digital Output
- Precision Resistor and Capacitors
- Premium Analog Devices Operational Amplifiers
- Heavy Damped Chassis
- Fully Programmable
- Fully Remote Controlled
- Multi-Disc Control
- Discs May be Loaded in Play Mode
- Gold-Plated Tiffany Style RCA Jacks
- Built-In Coaxial Digital Output
- Rugged Transport Mechanism
- External Remote Control Connector
- Independent Regulation for Digital and Analog Stages

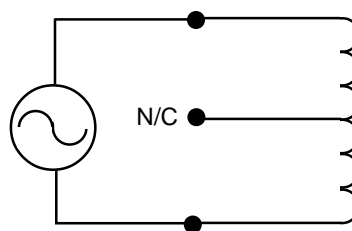
Rewiring For 220 V - 240 V Operation

Your C/DC-1500 may be rewired for operation abroad. This involves moving a jumper wire on the primary side of the power transformer. *Please refer this voltage conversion to a qualified electronics technician to avoid possible injury or damage to the C/DC-1500.*

With the C/DC-1500 wired for 120 V operation, there is a small 1/4" jumper wire labeled J003. To convert the C/DC-1500 to 230 V operation, move the jumper so the neutral of the AC is connected to the outer winding of the transformer instead of the center pin.



120 V Operation



230 V Operation

Parasound Limited Warranty (USA only)

Your Parasound C/DC-1500 is covered by a limited warranty against defects in materials and workmanship for a period of two years from date of purchase. This warranty is provided by the Parasound dealer where the unit was purchased. Warranty repair will be performed only when your purchase receipt is presented to validate your ownership, date of purchase and authorized status of the selling dealer. Defective parts will be repaired or replaced without charge by your authorized dealer's store or the location designated by your dealer that is authorized to service Parasound equipment. Additional information is available by calling or writing to the Service Manager, Parasound Products, Inc. at the address below. Charges for unauthorized service and transportation costs are not reimbursable under this warranty.

This warranty becomes void if the product has been damaged by alteration, misuse, accident or neglect. Alteration includes any removal, obscuring or defacement of its serial number. This warranty becomes void if unit has been connected or operated contrary to printed instructions. The warrantor assumes no liability for property damage or any other incidental or consequential damage whatsoever which may result from the failure of this product. Any and all warranties of merchantability and fitness implied by law are limited to the duration of this expressed warranty.

Some states do not allow limitations on how long an implied warranty lasts, so the above limitations may not apply to you. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.

This warranty gives you specific legal rights and you may also have other rights which vary state by state. The above warranty applies to residential non-commercial use only.



PARASOUND
affordable audio for the critical listener

*Parasound Products, Inc. 950 Battery Street, San Francisco, CA 94111
800-822-8802 / 415-397-7100 / FAX 415-397-0144*