

CLASSÉ AUDIO

CDT-88

CD TRANSPORT

CDT-88

OWNER'S MANUAL

CLASSÉ DESIGN PHILOSOPHY

1. REPEATED LISTENING DESIGN SESSIONS:

Fine tuning the sound by exchanging and mixing different parts (transistors, capacitors, wiring, PCB boards etc.), and adjusting many specific operating voltages within proper engineering ranges, has allowed us to produce an overall sonic recipe giving the most natural harmonic realism of music typical of instruments in a live performance.

2. UPGRADABLE SINGLE CIRCUIT DESIGNS:

All Classé products share exactly the same circuit design philosophy. This means all amplifiers and all high level circuits benefit from the same design goals. Similar circuits are then tailored to different power levels etc. Differences between less expensive models and more expensive models are parts quality and compliment, power supply extravagance and the amount of filtering etc., as well as features and packaging.

This means that for years Classé has been constantly sonically fine tuning and technically upgrading this circuit design and its application, thus reaching a very high level of natural musical enjoyment as well as excellent reliability which benefits all models.

3. EXTREME LONG LIFE IN REAL WORLD CONDITIONS:

Choosing the best attainable quality parts and materials combined with the advantages of the two above-mentioned areas provides Classé owners with years of proven trouble-free reliability and musical enjoyment.

CDT-88
OWNER'S MANUAL

TABLE OF CONTENTS

UNPACKING & SET-UP.....	4
A.C. LINE POWER.....	5
REAR PANEL CONNECTIONS AND FUNCTIONS	6
DISPLAY, FUNCTIONS AND OPERATIONS.....	7
TECHNICAL DESCRIPTION.....	13
SPECIFICATIONS.....	15
WARRANTY.....	16
WARRANTY REGISTRATION.....	18

UNPACKING & SET-UP

1. UNPACKING AND ACCESORIES:

The Classé CDT-88 has been carefully wrapped in heavy gauge plastic, packed in semi-rigid foam and contained in a special box. To remove the unit, open and spread the top flaps of the box. By its sides, lift the CDT-88 out along with its attached foam packing. Remove each foam side by pulling them straight out. Remove the plastic wrap and inspect the unit for any concealed damage. Report any concealed damage to your dealer promptly.

Apart from this owner's manual, please ensure the following is also included:

- 1) Detachable A.C. power cord.
- 2) Remote control handset (along with allen key and two (2) type "AAA" batteries).

Please report any missing parts to your dealer promptly.

2. SETUP:

The CDT-88 transport must be operated on a horizontal platform (see specifications for details) such as a table or, preferably, specialized audio furniture to extract the best performance. Like fine turntables and interconnect cables, the final location of the CDT-88 should be free of any hum-inducing magnetic fields, such as those caused by power amplifiers, AC line filters and other regulation devices. Such locations can introduce noise into an audio system, which inevitably degrades sound quality. Ideally, a few feet should separate the CDT-88 from the power amplifier. As well, keep low-level interconnect cables away from the power amp and separate from A.C. power cords.

The CDT-88 generates negligible amounts of heat. Therefore, air space around the CDT-88 for ventilation need not be a concern.

Important! Check the Serial Number sticker on the back of the unit for the correct operating voltage. Regardless of the voltage, the fuse rating should be a 3/8 AMP SLO-BLO type.

A.C. LINE POWER

The CDT-88 has no ON/OFF switch. Its low power consumption and improved sonics from always being ON led to the use of a STANDBY switch only. While thoroughly musical shortly after turn-on, the CDT-88 will exhibit "sonic growth" for the first 300 hours of use.

For optimum sonic performance, you should consider use of the optional CLASSÉ REFERENCE A.C. LINE CORD. Consult your dealer regarding this accessory.

CAUTION: "FLOATING THE GROUND" OR DEFEATING THE GROUND ON A 3-PRONG LINE CORD MAY CREATE A SHOCK HAZARD. CONNECT ALL INTERCONNECT CABLES BETWEEN THE ELECTRONICS BEFORE CONNECTING THE A.C. LINE CORDS TO THE WALL OUTLETS. THIS WILL REDUCE THE POTENTIAL SHOCK HAZARD. IN ADDITION, PLEASE READ THE WARRANTY SECTION OF THIS OWNER'S MANUAL.

REAR PANEL CONNECTIONS AND FUNCTIONS

Connecting the CDT-88 to your audio system requires a digital interface cable between the CDT-88 and your digital processor, and the supplied AC power cord. Each is described in detail below. Refer to Fig. 1 on page 11 for visual aid.

The CDT-88 is equipped with three types of high-quality digital output interfaces:

1. ST OPTICAL DATA OUTPUT CONNECTOR:

This is a high quality digital output for optical ST standards. To use this output, you need an ST Glass interface cable and an optical ST input on your digital processor. Consult your dealer regarding the optimum cable for your system.

2. BALANCED (AES/EBU) DATA OUTPUT CONNECTOR:

This is a high quality digital output built around an XLR connector. To use this output, you require a balanced cable and an AES/EBU input connector on your digital processor. Consult your dealer regarding an optimum quality cable for your system.

3. COAXIAL DATA OUTPUT CONNECTOR:

This is the popular S/PDIF digital output for electrical S/PDIF standards. It requires a coaxial interconnect cable and a digital coaxial input on your digital processor. Again, contact your dealer regarding a high quality digital cable for your system.

A NOTE ABOUT THE CONNECTING CABLES:

The overall performance of the CD transport will vary dramatically with the quality and type of cables chosen. Selection of the highest quality digital output cables combined with proper output interconnects is recommended for maximum performance of the Classé CDT-88.

AC LINE INPUT

In addition to the three digital outputs, the remaining connection on the rear panel of the CDT-88 is the AC input connector. Connect the supplied AC power cord to this input. As the CAUTION section on the previous page indicates, it is always a wise PRECAUTION to connect all interconnect cables before attaching the AC power cords.

DISPLAY, FUNCTIONS AND OPERATIONS

1. FUNCTIONS:

The front panel of the CDT-88 has six buttons that perform all the basic necessary functions. The remote control contains all the basic functions found on the front panel (except the LOAD button) as well as all advanced programming features.

Using Figure 1 on page 11, the front panel controls are (from left to right):

LOAD: Press this button once to open the disk tray. Pressing it again will close the tray.

STOP: Stops playing the disk, and also clears all programs in memory.

PREVIOUS (◀): Pressed once during playback, the CDT-88 will start playing the previous track.

Pressing it sequentially will cause the CDT-88 to go back one track each time it is pressed. This button is also used to select tracks to play and program into memory.

PLAY/PAUSE: Press this button to start playback. Pressing it again will pause the music until it is pressed once more.

NEXT (▶): Each time this button is pressed, the CDT-88 will advance one track i.e. press it twice to advance two tracks, three for three tracks, etc. If pressed during playback, the CDT-88 resumes playing from the desired track. If pressed while stopped, the CDT-88 will await further commands.

STANDBY: This is the "power switch" of the CDT-88. Press it to turn the CDT-88 on and off.

In addition to all the above functions, the remote handset of the CDT-88 contains the following additional functions (see Fig.2 on page 12):

NUMERIC KEYPAD (digits 0 through 9): This is a convenient alternative to the PREVIOUS and NEXT buttons. Pressing the desired track number on the numeric keypad is usually faster than the PREVIOUS and NEXT buttons. For example, if you just inserted a disk and wish to play track 8, pressing 8 followed by PLAY is easier than pressing the NEXT button eight times, and then PLAY.

REPEAT: Repeats the whole disk, the programmed tracks or just the single track being heard.

SCAN: Plays the first ten seconds of each track.

SHUFFLE: Plays all tracks on a disk in random order.

STORE: Stores selected tracks into memory for playback.

FORWARD (») AND REVERSE («) SEARCH: The CDT-88 employs a convenient 2-speed search. These buttons allow you to quickly search through the disk in both directions. Press and hold down the desired SEARCH button. The time counter will approximately double in speed, and the track heard will be reduced in volume. Once the desired point is reached, release the SEARCH button. Playback will resume.

If the SEARCH button is held for more than 4 seconds, the CDT-88 goes into a high-speed search mode, and the time counter advances very rapidly. During high-speed search, the volume is completely muted.

2. DISPLAY INFORMATION AND VARIOUS MODES OF OPERATION:

To insert a disk, press LOAD to open the CD tray. Gently place the disk with the label side up on the tray, and press LOAD again. The tray will close, and several seconds later the display will indicate the total number of tracks on the disk with the total playing time. If the disk has not been properly inserted, or is inserted upside down, the message NO DISC will appear on the display. Disks with bad scratches, pinholes, or other severe manufacturing defects might also not be useable.

Once the display confirms the number of tracks and playing time, the CDT-88 is in STOP mode. At this point, you can carry out several different playback modes. Each is described in detail below.

Playback from the beginning or from a selected track

To play an entire disk from the beginning, press PLAY. The CDT-88 will start playing in a few seconds, and will play the entire disk. To play from a desired track onwards, select the desired track using the NEXT (➤) and/or PREVIOUS (◀) buttons, or with the numeric keypad on the remote control.

Then press PLAY. The disk will play from that point on until the end of the disk. While playing, the display will show each track currently playing along with the elapsed time from the beginning of that track. Once the disk is over, the CDT-88 will return to STOP mode.

Playback of only selected tracks

You can program the CDT-88 to play any combination of tracks on a disk, up to a maximum of 20. Using the NEXT (➤) and PREVIOUS (◀) buttons, or the numeric keypad, find the first desired track on the display. Then press the STORE button. Repeat this procedure until all desired tracks have been stored. As each track is being stored, the display indicates the total playing time of all tracks

currently programmed. Press PLAY. Playback will commence from the first programmed track, and all programmed tracks will play in the order they were stored. Please note that:

- If you try to program more than 20 tracks, the display will indicate FULL, and no more tracks will be entered into memory.
- Each track can only be programmed once.
- During programmed playback, the numeric keypad is disabled; use NEXT and PREVIOUS to change tracks.
- The programmed tracks don't have to be in ascending numerical order; i.e. you can program track 2 to play after track 6.
- If you programmed a track by accident, simply go to that track once more and press STORE again. That track will be deleted from memory.
- To clear all the tracks programmed in memory, press the STOP button twice if the CDT-88 is already playing, or once if it is not. If you intend on changing the disk, simply opening the disk tray automatically erases all programmed tracks from memory.

Playback using REPEAT

Pressing the REPEAT button sequentially toggles between three different functions: Repeating the entire disk, repeating the track currently being played or indicated on the display, or not repeating at all. In each case, the display indicates which mode is selected (REPEAT, REPEAT 1, or a nothing at all). Once the desired mode of repeat is chosen, press PLAY.

The REPEAT feature can also be used with tracks programmed in memory in the same way as above.

Playback using SHUFFLE

Also known as Random Play, pressing the SHUFFLE button instructs the CDT-88 to play all tracks in a random order. Once all tracks have been played, the CDT-88 will return to STOP mode. While in SHUFFLE play, the display will indicate SHUFFLE. After pressing SHUFFLE, you do not need to press PLAY.

The SHUFFLE feature can be used in conjunction with the REPEAT button to provide endless hours of randomly selected, uninterrupted music.

Playback using SCAN

This is a handy feature that lets you "preview" the contents of a disk. By pressing SCAN, the CDT-88 will automatically play the first 10 seconds of each track on the disk. Once you've found a track you like, pressing SCAN again will disable the SCAN feature and play the entire track currently being heard.

3. ERROR REPORTING:

The CDT-88 will report any erroneous operation via an "ERR" message on the display. For example, trying to program a disk while it is playing, or trying to play or program a track number non-existent on a disk (i.e. track 12 on a disk with 10 tracks) will trigger the error message. The "FULL" error message only appears when the user attempts to store more than twenty tracks into memory.

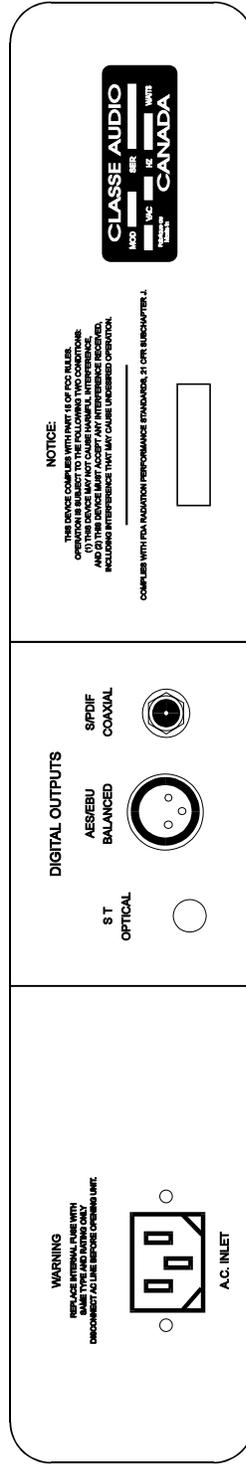
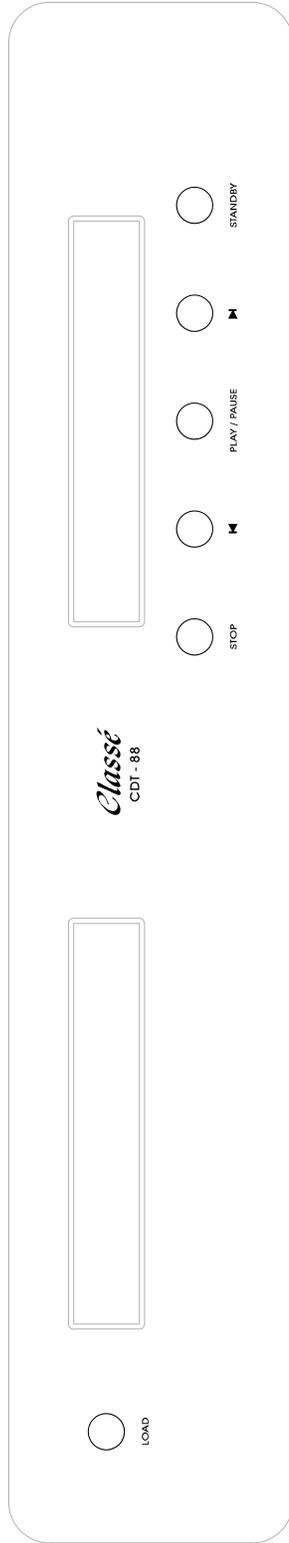


Fig 1. CDT-88 front and rear views

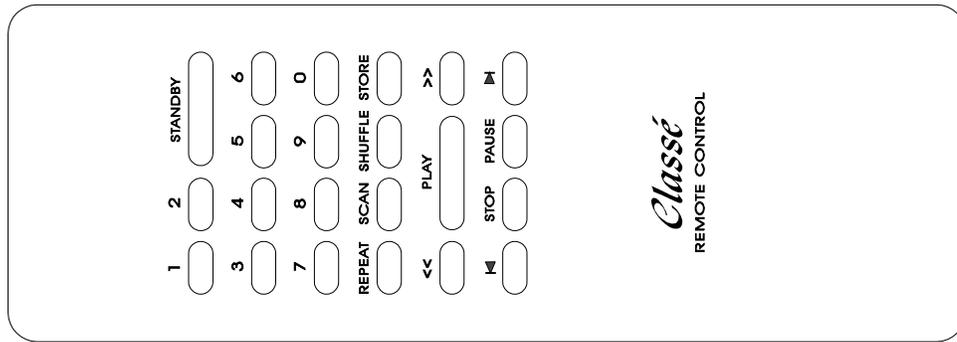
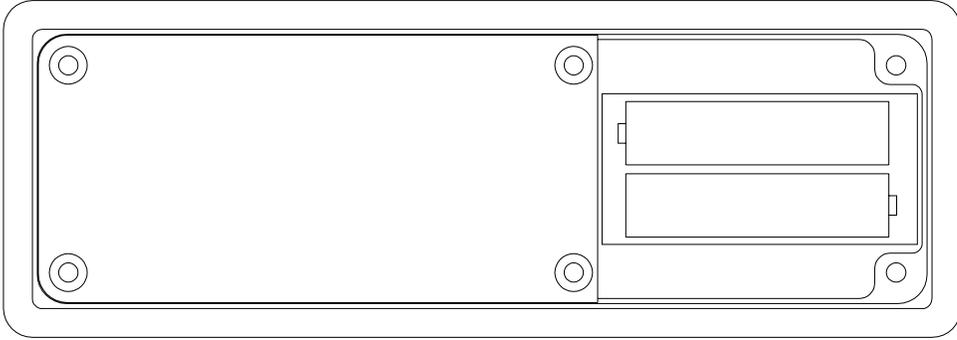
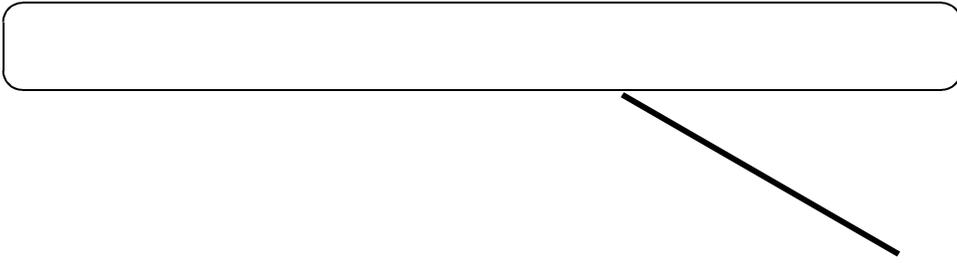


Fig 2. Remote control unit

TECHNICAL DESCRIPTON

The Classé CDT-88 compact disk transport is high quality digital transport utilizing the latest innovations in digital audio reproduction. The philosophy behind the CDT-88 is advanced technology for extracting the maximum musical performance, but also embraces the time proven idea of simplicity, in accordance with the saying "simpler is better."

No effort has been spared in the development of the CDT-88. The chassis is of exceptionally thick gauge metal, and has been designed to resist vibration through solid construction and proper isolation from sources of vibration. The half-inch thick faceplate is a tribute to its construction and aesthetics.

Inside, main power is provided by a custom high-current 27VA toroidal transformer. The power supply of the CDT-88 is generously oversized to assure that regardless how much current is drawn, the circuitry will remain unaffected by any fluctuations. Numerous power supplies are used, to assure the elimination of interference caused by fluctuations often induced by heavy current draw on shared supplies. The CDT-88 inherently has a low power consumption, but micro-information is easily contaminated when traditional power supplies clip due to their inadequate output. This is the general idea behind the high current, stable supply that powers the CDT-88.

The disk transport itself is the latest Philips CDM12.4 with the L1210 Loader assembly. This mechanism employs a newly-developed linear tracking laser pickup which is faster, quieter, and longer lasting than the well received CDM9 Pro mechanism. The isolated suspension system of the CDM12.4's optical circuitry and disk motor is completely separate from the disk tray, eliminating micro-vibrations caused by sudden atmospheric pressure changes around the front panel. The CDM12.4 is of broadcast quality, and its outstanding construction using highly efficient, long life motors assures excellent long-term reliability. In addition, this transport is designed not to require periodic calibration, assuring that long-term alignment will always be right on specification.

Jitter, also known as errors in the time domain, is the prime factor in performance degradation, and Classé has addressed this problem from every perspective. One aspect is the outstanding power supply described above; another is the exceptional reclocking circuitry. Using a 16.9344 MHz crystal oscillator to generate the digital outputs, the final jitter measured at the outputs is typically so low it can barely be detected. The crystal oscillator itself is designed to generate a spectacularly low jitter of

approximately 2 picoseconds! Standard outputs are an AES/EBU balanced on an XLR 3-pin Neutrik connector, a Hewlett-Packard optical ST output and an S/PDIF coaxial connector using a heavy-duty gold-plated RCA jack.

A final technical highlight of the CDT-88 is the custom remote handset. It features an exceptionally wide transmission angle to the IR receiver on the CDT-88, and is engineered to last an extremely long time.

CLASSE' CDT-88
COMPACT DISK TRANSPORT

SPECIFICATIONS:

Wow and Flutter	Below measurement level
Jitter	Below measurement level
Digital outputs:	Balanced on XLR-3 connector
AES/EBU	110 ohms \pm 5%
Impedance	3.0 Vpp typ. with 110 ohm load
Level	7 ns typ.
Tr = Tf	
SPDIF	Single ended on RCA connector
Impedance	75 ohms \pm 5%
Level	1.15 Vpp typ. with 75 ohm load
Tr = Tf	8 ns, typ.
Glass - ST	HP HFBR-1414
Power	60 uw into 62 um fiber
Laser, semi-conductor	GaAIAs, 0.5 mw, continuous, 790 nm
Sampling rate	852.8 KHz
Disc rotational velocity	200-500 rpm (constant linear velocity)
Quantization	16 bits, linear
Error correction	CTRC principle
POWER REQUIREMENTS:	
Europe/UK	180-260 VAC, 50 Hz, 27 Watts typ.
Canada/USA/Japan	90-130 VAC, 60 Hz, 27 Watts typ.
WEIGHT AND DIMENSIONS:	
Dimensions: Gross:	22"x 19 1/2" x 10 1/2"
Net:	19" x 13 3/4" x 4" (W x D x H)
Weight: Gross:	18 lbs.
Net:	14 lbs.
Operating temperature	0°C to + 40°C
Storage temperature	-20°C to + 60°C
Operating position	Horizontal, up to \pm 5° inclination in any direction.

CLASSÉ CDT-88 LIMITED FACTORY WARRANTY (North America only)

IMPORTANT: WARRANTY REGISTRATION, AND A COPY OF THE "AUTHORIZED DEALER BILL OF SALE", MUST BE RECEIVED AT THE CLASSÉ FACTORY (address below) WITHIN TWENTY (20) DAYS OF PURCHASE BY THE FIRST RETAIL PURCHASER IN ORDER TO VALIDATE THIS WARRANTY.

Classé Audio Inc. warrants the electronic circuitry of the CDT-88 to be free from defects in materials and workmanship for a period of FIVE YEARS from the date of first retail purchase, (remote handset and batteries not covered by this warranty) provided that any claim in virtue of this warranty be made in writing within such period.

The transport mechanism itself contained in the CDT-88, and the remote handset, are excluded from the five year warranty, and are covered by a ONE YEAR warranty from the date of first retail purchase. (no warranty on batteries).

The balance of all warranties stated above remain transferable to a second owner, provided all conditions stated herein are met in validating the original owner's warranty. Second owner's warranty must adhere to these conditions and continues from first owner's purchase date.

In the event of failure of this processor, Classé Audio Inc. will repair, recalibrate, or at its discretion, replace the unit in accordance with this warranty providing that all the conditions contained in this warranty are met.

In order to initiate service of any kind, it is necessary to OBTAIN PRIOR FACTORY AUTHORIZATION, AND SHIP THE UNIT PREPAID TO THE CLASSÉ FACTORY. For units coming from outside Canada, contact the factory for our forwarding address. Units shipped directly to our Canadian address from outside the country will be stopped at the border, causing extensive delays or return of the unit to the sender.

The warranty shall be void and of no effect in the event of any of the following:

1. Operation not in accordance with this manual;
2. Accident, abuse, tampering, or unauthorized modification, as determined by Classé Audio Inc.;
3. Removal, defacing, or falsifying the serial number plate;

4. Shipping without the complete factory packaging;
5. Transfer or sale of this processor by the original owner;
6. Non-compliance with any of the other conditions hereof.

CLASSÉ AUDIO INC. SHALL NOT BE LIABLE FOR ANY SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES ARISING FROM OR RELATING TO THE SET-UP, OPERATION, FAILURE, TROUBLESHOOTING, OR REPAIR OF THE CDT-88 AND/OR ANY OTHER EQUIPMENT USED THEREWITH.

THIS WARRANTY, ALL CLAIMS MADE IN VIRTUE HEREOF, AND ALL ISSUES RELATING TO ANY SUCH CLAIM SHALL BE GOVERNED BY THE LAWS OF THE PROVINCE OF QUÉBEC.

WARRANTY REGISTRATION

You must fill out and return the form below, along with a copy of the authorized dealer bill of sale, to the factory within twenty (20) days of purchase. This will allow us to provide expedient service, information regarding updates and new products, and validate the Classé warranty.

CDT-88 SERIAL NUMBER _____
PURCHASE DATE _____
AUTHORIZED DEALER _____
PURCHASER'S NAME _____
STREET ADDRESS _____
CITY _____ STATE/PROV. _____
COUNTRY _____ ZIP/POSTAL CODE _____
I BECAME AWARE OF THIS PRODUCT BY: _____
(DEALER, MAGAZINE, FRIEND, ETC.)

SEND TO: CLASSÉ AUDIO INC.
Product Registration
5070 François Cusson
Lachine, Quebec, Canada
H8T 1B3