



CD - 306


CD Transport/Processor

96kHz/24bit D/A Converter

OPERATING MANUAL

NOTE:

Before installing your new CD-306 CD Transport/processor, please read this manual carefully, as it will inform you of the specifications, sample rate conversion, proper installation and operation procedures. Also included in this manual are guidelines on how to properly care for your new player. Thank you for buying a Cary Audio Design CD-305 Transport/processor!

, HDCD[®], High Definition Compatible Digital[®] and Pacific Microsonics[™] are either registered trademarks or trademarks of Pacific Microsonics, Inc. in the United States and/or other countries.

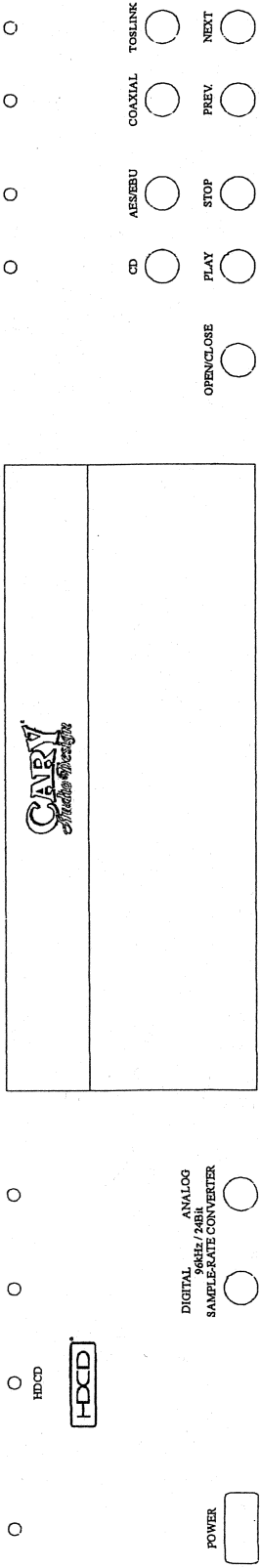
HDCD system manufactured under license from Pacific Microsonics, Inc.

This product is covered by one or more of the following:

<u>Country</u>	<u>Patent No.</u>
United States	5,479,168 5,638,074 5,640,161 5,808,574 5,838,274 5,854,600 5,864,311 5,872,531
Australia	669114

Other patents pending.

CD 306 96kHz / 24Bit HDCD PLAYER



CLASSI LASER PRODUCT

Complies with FDA radiation emission limits, 21CFR Subchapter J

This device complies with part 15 of the FCC Rules. Operation is subject to the following conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

CARY
Audio Design
CARY AUDIO DESIGN, INC.,
CD 306 HDCD PLAYER

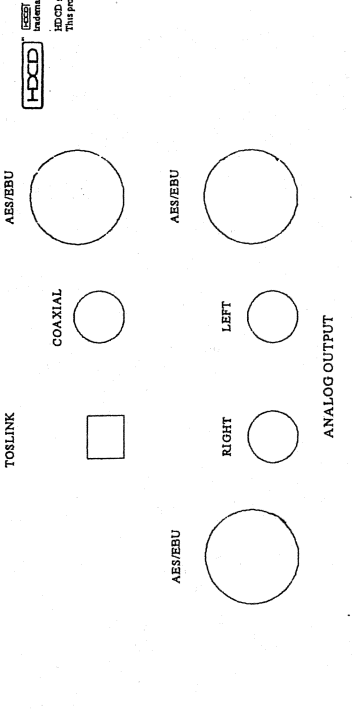
Assembled in Hong Kong

CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN

WARNING: TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS PRODUCT TO RAIN OR MOISTURE. SERVICE PERSONNEL ONLY.

HDCD

CLASSI HDCD High Definition Compatible Digital and Pacific Microsonics are either registered trademarks or trademarks of Pacific Microsonics, Inc. in the United States and/or other countries.
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Australia 66914
Other patents pending



Operating the CD-306 CD Transport/Processor is a simple procedure, since each unit is designed for long term stability in virtually any home operating situation. However, if the unit is operated outside the parameters outlined in this owner's manual, damage may result. Please read this manual carefully before putting your new Cary Audio Design CD-306 in operation. The following definitions are applicable to this manual. Please follow these definitions carefully.

WARNING
HAZARD PRESENTS PERSONAL INJURY OR DEATH
Caution
EQUIPMENT DAMAGE MAY OCCUR BUT NOT PERSONAL INJURY
Note
Proper performance of the CD PLAYER cannot be ensured if disregarded

1.1 Specifications

The following section describes the CD-306 CD Transport/Processor basic specifications. Specifications are subject to improvement without notice or obligation.

CD Mechanism	Philips CDM12
Master Clock Jitter	Below measurable levels
Digital Filter	Pacific Microsonics PMD-100 with HDCD decoding Burr Brown DF1704 (96kHz)
Digital / Analog Converters	(8) Burr Brown PCM1704u
Analog Filter	3 rd Order Bessel
Analog Outputs	Balanced XLR , Single – Ended RCA
Digital Outputs	AES/EBU, Coaxial, Toslink
Digital Input	AES/EBU, Coaxial, Toslink
Digital Input Sample Rate	32kHz, 44.1kHz, 48kHz, 88.2kHz and 96kHz Accepts 16, 20 or 24 bits
Frequency Range	2 Hz - 40 kHz
Amplitude Linearity.....	0.1 dB (20Hz - 20kHz)
Phase Linearity.....	3°(20 Hz - 20 kHz)
Dynamic Range.....	120dB (1kHz)
Signal-to-Noise Ratio.....	122dB (1kHz)
Channel Separation.....	109dB (1kHz)
Total Harmonic Distortion.....	0.0008% (1kHz)
Audio Output Level.....	Single-Ended 3.0Vrms Balanced XLR 6.0Vrms
Power Input	Reconfigured at factory 100-120/200-240 Vac, 50-60 Hz
Power Consumption	35 Watts

INSTALLATION

This section describes the unpacking and installation procedures for the CD-306 CD.

WARNING

MAKE NO ATTEMPT TO PUT THE CD-306 PLAYER IN SERVICE WITHOUT THE TOP COVER REMOVED. CONTACT WITH HIGH VOLTAGE INSIDE THE CD-306 PLAYER CAN BE FATAL !!!!!

2.1 Unpacking

All shipping containers have been specifically designed to protect their contents and special care has been taken to prevent damage under normal shipping conditions. Mishandling should be evident upon inspection of the shipping container. If CD 306 player mechanism or other damage is found after unpacking and visual inspection, take care not to destroy the evidence so that the shipping agent may inspect the damage. If necessary, document the damage with photographs and contact the shipping company immediately.

Carefully remove your CD-306 CD Transport/Processor from its packing carton, and examine it closely for signs of shipping damage. It is recommended to save all original packing cartons to protect your CD 306 from damage should you wish to store it or ship it for after-sales service.

2.2 Placement

In general, the location of your new CD-306 is not critical. However, certain precautions must be taken to ensure optimum performance. Avoid extremely hot locations such as near radiators or other heating units. Keep the top of the CD-306 clear of books, paper or other equipment to protect against overheating!! DO NOT place your CD-306 in a completely closed-in bookcase, as overheating will damage the CD Player! Do not stack the CD 306 on top of a power amplifier. Allow 8 to 10 inches above the unit for proper ventilation.

2.3 Power Requirement

The CD-306CD Transport/Processor is designed to operate from AC mains current. The design voltage is either 100-120V /or 200-240Volts AC, 50-60 Hz.

2.4 Connections

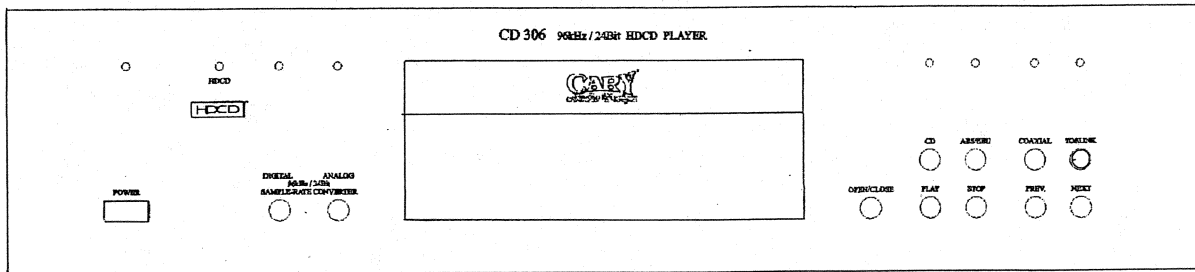
Digital Outputs : The outputs sent a digital signal and should only be connected to the appropriate digital signal input of an accompanying component.

Analog Outputs : These are for connection to the CD or AUX input jacks of an accompanying preamplifier.

Digital Inputs: These are for connection to the CD, CD-R, DAT, MD,MP-3 and DVD players' digital output jack.

OPERATION

Signal output connection is made via the output jacks on the rear panel of the CD-306. The analog or digital output interconnect cables should go to the input connections on the accompanying preamplifier or Digital to Analog processor. The choice of high quality interconnect cable is important and we recommend them highly. Your audio dealer will have the proper cables in stock for this purpose.



3.1 Operation

Your new CD-306 CD Transport/Processor is ready for operation after interconnect cables have been installed.

3.2 Power On and Stand-By Mode

When your CD-306 is connected to the power supply, the unit will switch to the Stand-By mode automatically. This is a convenient feature for users to turn the power on with the remote control.

3.3 Front of player

POWER BUTTON: switches the power ON and OFF.

DIGITAL SAMPLE-RATE CONVERTER BUTTON: by selecting "on" the output data is 96kHz/24bit. Selecting "off" output data in 44kHz/16bit or matching input data-rate.

ANALOG SAMPLE-RATE CONVERTER BUTTON: For selection of internal D/A sample rate. The output data of the "ON" setting is 96kHz/24bit and the data rate of the "OFF" setting is the matching the input data.

REMOTE SENSOR: Receives the signals from the remote control.

DISPLAY: Gives information on the functioning of the player.

PLAY BUTTON: Starting play. Interrupting. Resuming play

STOP BUTTON: Stopping play.

PREV. and NEXT BUTTON: Selecting another track during play.
Selecting a track to start play with.

OPEN / CLOSE BUTTON: Opening and closing the CD compartment. The compartment also closes when the front is pressed briefly.

CD BUTTON, AES/EBU BUTTON, COAXIAL BUTTON, TOSLINK BUTTON:
This switches the digital input selections.

3.4 Remote Control

1 - 0 DIGIT KEYS :

- Selecting another track during play.
- Selecting a track to start play with
- Selecting tracks when compiling a program

PROGRAM : Presets tracks to be played by keying in track nos.

DELETE : Clears a program.

CLEAN: Clears the last track no. during programming.

REPEAT: Repeating play.

TIME : Displays the remaining time of a track or it displays the total remaining time of a disc.



Starting play.

Playing a program.



Selecting another track during play.

Selecting a track to start play with.

Selecting tracks when compiling a program.



Stopping play.



Fast search for a passage



Interrupting play.

Resuming play.



Muting sound.

Resuming sound.

Open/Close

Opening and closing the CD compartment.



Switching the power on and off.

CD, AES/EBU, COAXIAL, TOSLINK

Digital input selecting.

DIGITAL

Digital sample rates output select.

Internal D/A sample rates selection.

3.5 LED Indicators

POWER LED

LED above the power button illuminates when the player is switched off (stand-by mode).

HDCD LED

LED above the HDCD logo illuminates automatically when HDCD signal is detected from a disc.

CD, AES/EBU, COAXIAL, TOSLINK LED

LED above the button illuminates when the digital input function is selecting on.

3.6 Display

PROGRAM :

Lights up when a program is being played.

Blinks when compiling a program.

TRACK: Indicates

- What track is being played;

- The total number of tracks on the CD or in a program.

TRACK TIME:

Indicates the elapsed playing time of the track being played.

REMAINING TIME:

Indicates the remaining time of the CD or a track being played. A ' - ' sign is shown in front the time.

REPEAT:

Lights up when you repeat a CD or program. Selection of repeating 'One' or 'All' is possible by pressing the 'REPEAT' button on the remote.

DISPLAY MESSAGES:

NO DISC Lights up when there is no CD in the CD compartment

OPEN Lights up when opening the CD compartment.








CLOSE Lights up when closing the CD compartment.

AES 00:00 Lights up when AES/EBU digital signal is input.

COA 00:00 Light up when COAXIAL digital signal is input.



TOS 00:00 Light up when TOSLINK digital signal is input.

3.7 Normal Playback



- Press POWER or  on the remote.
- Open the CD Compartment by pressing OPEN/CLOSE.
- OPEN lights up.
- Insert an audio CD, printing side up and close the compartment.
- CLOSE lights up, the number of tracks and the playing time of the CD are shown on the display.
- Press the PLAY or  on the remote to start play.
- The number indicator shows how many tracks on the CD; when a track has been played, its number disappears.
- The track being played blinks and its elapsed playing time is shown.
- Play will stop after the last track.
- Press POWER or  on the remote to switch the player off.
- You can interrupt playback by pressing PLAY or  on the remote.
- You can restart play by pressing PLAY or  or  on the remote.
- You can stop playback by pressing STOP, OPEN/CLOSE or  on the remote.

3.8 Selecting Another Track During Play (1-10)

Key in the desired number

The music stops and a moment later the selected track begins to play. You can also select the number by pressing   (less than 0.5seconds).

3.9 Searching For a Passage During Play (on the remote)

- Press  to search backwards to the beginning.
 - Press  to search forwards to the end.
- The searching speed is determined by how long a key is pressed:
- The first 2 seconds fairly slowly, with sound;
 - Then at the maximum speed, with no sound.

3.10 Starting with a Particular Track (1-0)

- Key in the desired number
- Play starts from the selected track automatically.

You can also select the number by pressing   (less than 0.5 seconds).

3.11 Repeating Play (repeat)

REPEATING A TRACK:

- Press REPEAT before or during playback.
- REPEAT ONE Lights up; the track will be repeated continuously.
- REPEAT ALL Lights up; the disc will be repeated continuously.
- Press REPEAT until the indicator goes off to stop the track being repeated.

3.12 Programming

- Press PROGRAM once on the remote; PROGRAM indicator on the display will blink indicating the program mode is now entered.
- Key in track nos. in sequence to be played.
- Press either CLEAN or DELETE to edit input or cancel the program.
- When programming completed, press PLAY or ► on the remote to start playing the programmed tracks.

3.13 Break- In Period

The micro-components, capacitors and output transformers take approximately 100 hours of music playing to fully settle in for peak performance. The CD-306 will seem OK sounding right out of the box. However, after the first couple of hours you will notice increased depth and tighter bass. This break-in period contradicts engineering theory, but is true with most HIGH PERFORMANCE audio components.

<p style="text-align: center;">WARNING MAKE SURE PLAYER IS UNPLUGGED FROM AC MAINS BEFORE SERVICING</p>
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SERVICE AND CARE

4.1 CD-306 Care and Cleaning

The housing and front of the CD-306 may be cleaned with a soft cloth and windex or a window cleaner. The frequency of cleaning will be governed by how many hours the CD-306 is operated and by operating environment cleanliness. Do not use benzene, harsh or abrasive chemicals to clean the front as they may remove or damage the labels.

4.2 Factory Service

Careful consideration has been given to the design of your CD-306 HDCD CD Transport/Processor to keep maintenance problems to a minimum. Any service problems should be referred to our Customer Service Department phone number (919)481-4494. DO NOT return the CD-306 to the factory without a return authorization number (RMA) from the Customer Service Department.

Cary Audio Design, Inc. will assume no responsibility if the shipping company refuses to pay damage due to your improper packing or lack of insurance should the unit be lost or damaged in shipment. Please retain and always use the original shipping carton for the CD 306 in the event that you move or after service is needed.

WARNINGS

MAKE NO ATTEMPT TO PUT THE CD-306 IN SERVICE WITH THE BOTTOM PLATE REMOVED. CONTACT WITH POWER SUPPLY SECTION FOUND IN THE UNIT CAN BE FATAL!! COMPLETELY REMOVE AC POWER PLUG FROM THE WALL BEFORE SERVICING OF THE PLAYER.

CAUTIONS

NEVER REMOVE / INSERT PLUG WHEN UNIT IS ON OR THE AC POWER SWITCH IS IN THE ON POSISTION.

!!PLEASE OBSERVE THE SAFERTY DIRECTIONS IN THIS MANUAL!!

UNITED STATES LIMITED WARRANTY

Cary Audio Design, Inc. warrants to the original United States purchaser for use in the United States, that this product shall be free from defects in material (except tubes and AF output transistors) or workmanship for:

Digital Products: One (1) year from original date of purchase.

During the warranty period, Cary Audio Design, Inc. or an authorized Cary Audio Design, Inc. service facility will provide free of charge both parts and labor necessary to correct defects in material or workmanship.

To obtain such warranty service, the original purchaser must:

- (1) Complete and send in the warranty Registration Card within 30 days of purchase date.
- (2) Notify Cary Audio Design, Inc. as soon as possible after the discovery of a possible defect:
 - (a) The model number and serial number;
 - (b) The identity of the seller and the approximate date of purchase;
 - (c) A detailed description of the problem, including details on the electrical connection in the associated equipment and the list of such equipment.
- (3) Deliver the product to Cary Audio Design, Inc. or the nearest authorized service facility, or ship the same in its original container or equivalent, fully insured and the shipping charges prepaid.

Correct maintenance, repair and use are important to obtain optimum performance from this product. Therefore, carefully read the Operating Manual. This warranty does not apply to any defect that Cary Audio Design, Inc. in its sole discretion determines is due to:

- (1) Improper maintenance or repair, including the installation of parts or accessories that does not conform to the quality and the specifications of the original parts.
- (2) Misuse, abuse, neglect or improper installation.
- (3) Accidental or incidental damage.

WARRANTY DISCLAIMER

Except for the express warranties stated herein, Cary Audio Design, Inc. disclaims all other warranties including, without limitation, all implied warranties of merchantability and fitness for a particular purpose.

EXCLUSIVE REMEDY

Notwithstanding the foregoing, the purchaser's exclusive remedy for any breach of warranty, express or implied, is limited to the repair or replacement of the defective unit or the refund of the purchase price, at the option of Cary Audio Design, Inc. Under no circumstances is Cary Audio Design, Inc. liable for incidental or consequential damages. Any implied warranties imposed by law terminate one (1) year from the date of purchase.

EXPORT PURCHASERS

Cary Audio Design, Inc. warrants its merchandise to purchasers in the United States solely for use within the United States. It provides no other warranties. If you are a non-US purchaser, consult with your dealer or local distributor to determine your local warranty status.

The foregoing constitutes Cary Audio Design, Inc.'s entire obligation with respect to this product, and the original purchaser and any user or owner shall have no other claim for incidental or consequential damages. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation and exclusion may not apply to you.

This warranty gives legal rights and you may have other rights, which vary, from state to state.



CARY AUDIO DESIGN INC.

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