TASCAM®

CD-RW700 Technical Documentation

PRODUCT OVERVIEW

TASCAM's CD-RW700 CD-Recorder was designed to provide the maximum feature set, while still providing good value. The CD-RW mechanism is manufactured by TEAC, and is one of the most reliable and robust systems available. Digital and analog connections are available for the best transfer methods, and a wireless remote provides total control over the unit. For the best value on the market, get the CD-RW700.

- 2-U Rack Mount Design
- Uses Professional CD-R and CD-RW discs
- Analog Unbalanced RCA I/O
- 24 bit A/D and D/A Converters
- SPDIF Digital Coax and Optical I/O



- Built-in RAM Buffer for Precise ID Marks
- Digital Gain Adjustment Function
- User Selectable Digital Fade In/Fade Out
- Headphone Output w/ Level Control
- Wireless Remote Included (RC-RW700)

APPLICATIONS

The CD-RW700 is an incredibly powerful machine for its price, taking advantage of our CD-RW technology developed specifically for the pro audio industry.

Personal Studio - Project Studio

In personal and budget oriented studios, many users end up accepting limitations of consumer gear and wasting a lot of time figuring out how to get around those limitations. With the CD-RW700, you can put your focus back on production, because this recorder has your solutions.

The CD-RW700 breaks away from traditional development of a pro-audio piece. Rather than try to figure out how to add a button or some rack ears to get more money out of a consumer CD-RW machine, we started with our top of the line CD-RW2000 and kept the functions you need most.

For starters, a RAM buffer is built in for accurate sync starts and auto ID modes. Further, adjustable parameters on the auto ID logic allow you to adjust your threshold for the auto ID level, so the machine will identify the breaks between tracks, but not add extra ones in soft passages. A digital gain adjustment and digital fade in/out capabilities are also built-in for boosting low recordings, or adding a smoother fade in/out to a song. Audio quality was a top priority with the CD-RW700; you'll find 24 bit A/D and D/A converters for the smoothest sound available.

Saving the best for last: you do not need to track down consumer CD-R media to use this machine. The ability to use regular CD-R and CD-RW media will save you a great deal of time and money.

DJs - Live Sound Applications - Show Control

In applications where the CD-Recorder is going to get a lot of regular use, you can take comfort in the fact that the mechanism in the CD-RW700 is a TEAC data drive, not a flimsy plastic tray. The TEAC CD technology is among the best in the world in reliability, performance and durability. Plus, the drive searches incredibly fast so you don't have to wait to find your cue points.

The CD-RW700 is also great for live and show control systems, since the same mechanism can serve as a reliable CD-Recorder for assembling sound cues for a show or presentation, then act as a lightning fast CD player that can be controlled through infrared controllers for automated presentations.

SPECIFICATIONS

Performance Specifications:

Recording Media: CD-R, CD-RW, CD-RDA, CD-RWDA

Recording Resolution: 16 bit
Recording Sample Rate: 44.1kHz
Sample Rate Conversion From: 32kHz-48kHz

Frequency Response: 20Hz-20kHz ±0.5dB (Rec ±1dB)

Signal to Noise Ratio: >98dB Playback >92dB Recording

Total Harmonic Distortion: <0.004% Playback <0.005% Recording
Wow and Flutter: Unmeasurable (<0.001%)
Channel Separation: >90dB Playback (1kHz)

>80dB Rec (1kHz)
Input RCA: -10dBV, 33kOhm (-16dB Full Scale)
+6dBV Maximum

Output RCA: -10dBV, 800 Ohm (-16dB Full Scale) +6dBV Maximum

SPDIF Coaxial I/O: RCA pin, IEC60958 Type II SPDIF Optical I/O: TOSLINK, EC60958 Type II

General:

Power Requirements: 120/230V AC, 60Hz (General Export) 120V AC, 60Hz (USA/Canada Model)

230V AC, 50Hz (UK/Europe Model) 240V AC, 50Hz (Australia Model)

27W

Power Consumption: Applicable Electromagnetic Environment:

Environment: E4

Dimensions: 483 x 98 x 317.5 mm

The CD-RW700 is available at:

19" x 3 7/8" x 12 1/2'
Weight: 6.3Kg, 13.9 lbs.

Standard Accessories: Wireless Remote (RC-RW700)

(2) AA Batteries Rack mount screws



APPROVED MEDIA LIST

Brand	Manufacturer	Pigment	Disc Color	Use
TEAC	Mitsui Chemical	Phthalo Cyanine	Yellow Gold	OK
	Mitsui & CMC	Cyanine	Blue Silver	OK
Apogee	Mitsui Chemical	Phthalo Cyanine	Yellow Gold	OK
ННВ	Mitsui Chemical	Cyanine	Blue Silver	OK
Mitsui	Mitsui Chemical	Phthalo Cyanine	Yellow Gold	OK
Quantegy	Mitsui Chemical	Phthalo Cyanine	Yellow Gold	OK
SONY	Taiyo Yuden	Cyanine	Green Gold	OK
3M	Taiyo Yuden	Cyanine	Green Gold	ОК
Imation	Taiyo Yuden	Cyanine	Green Gold	ОК
TDK	TDK	Cyanine	Green Gold	OK
		Cyanine	Blue Silver	ОК
Ricoh	Ricoh	Phthalo Cyanine	Yellow Silver	ОК
		PC & Cyanine	Green Gold	NR
Verbatim	Mitsubishi Chemical	AZO	Blue Silver	ОК
KODAK	KODAK	Phthalo Cyanine	Yellow Gold	ОК
Pioneer	Pioneer Video	Cyanine	Green Gold	OK
DOT	Pioneer Video	Cyanine	Green Gold	OK
Maxell	Maxell	Cyanine	Green Gold	NR
		Cyanine	Blue Silver	NR
Fuji Film	Fuji Film	Cyanine	Green Gold	NR
		Cyanine	Green Silver	NR

Notes on CD-R media:

Quality and recording characteristics of media from different manufacturers will vary from brand to brand. This has to do with different manufacturing processes of both the CD-R media and the CD-R mechanism. (Some media that does not work well with one CD-R mechanism may work reasonably with another.)

In order to take the guesswork out of selecting the media, we are posting an approved list of media for use. Media from each of these manufacturers was written to and verified. The media listed as OK is preferred. The media listed as NR typically worked but had a higher error rate, so it is not recommended. Mitsui media is used as the target media reference, so you're always safe with those.

We have tested the CD-RW700 for compatability with 74 minute and 80 minute CD media, and the mechanisms will recognize and use the full legnth of the CD.

ARCHITECT'S SPECIFICATIONS

The CD mechanism shall be a CD-ReWriter design that can mount in a standard 19" rack mount form. Dimensions shall be $19" \times 3.9" \times 12.5"$ (W x H x D).

Metric measurements: 483x98x317.5mm.

The CD recorder shall record to standard CD-R and CD-RW media. Consumer media (CD-RDA and CD-RWDA) shall not be required, however the CD recorder shall be compatible with consumer media as well. The recorder shall support 74 minute and 80 minute CD lengths. Erasing capabilities associated with the CD-RW media shall include erasing an entire CD or just one track, and these functions shall be capable of use after the CD has been finalized.

A RAM buffer shall be utilized for optimized marking of track IDs on auto ID and sync start modes.

Analog audio inputs and outputs shall be provided on unbalanced RCA connections. Digital audio inputs and output shall be provided in SPDIF format on both coaxial and optical connectors.

The recorder shall be controllable from a TASCAM CD-RW700 wireless remote.

The CD Recorder shall be a TASCAM CD-RW700.

NOTE: This text is available in a standard text file on TASCAM's Sound contractor CD-ROM. Contact TASCAM for details.

SCMS/MEDIA CONTROL

The first few shipments of the CD-RW700 shipped requiring consumer CD-RDA and CD-RWDA. The original design did not call for this, it was added at the last minute due to legal considerations about the CD-R market. All units that shipped after March, 2000 do not require consumer media.

For the older units which required consumer media, the SCMS code and consumer media requirements have a deep system menu allowing these settings to be overridden. Since the legal issues have been resolved, we are releasing the information on how to reset your machine to use regular media. The instructions are as follows:

- 1) Set the CD-RW700 up so that it receives power, but is left in stand-by mode.
- 2) Press and hold STOP, PLAY and PAUSE until the display shows 700/80001.00. (It should take about 5 seconds.)
- 3) Press and hold FINALIZE until the display shows the SCMS status: SCMS=ON
- 4) Turn the Multi Jog dial to display SCMS=OFF.
- 5) Press FINALIZE.
- 6) Press STOP.

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PANELS AND REMOTE





