TASCAM®

DA-302 Technical Documentation

PRODUCT OVERVIEW

TASCAM's DA-302 is the world's only dual well DAT recorder. The DA-302 offers all the functionality of two DATs with the ability to make two masters of a single tape, copy from one DAT well to the other, or the ability to play on one DAT while recording the other. However, other functions are available that never existed before (or required lots of extra gear) like 2x DAT dubbing, extended play between both decks, and cascading of multiple DA-302s for duplication or playback. No major studio, dup house or live venue should be without a DA-302.

- 3-U Rack Mount Dual DAT Design
- Analog Unbalanced RCA In
- Independent Analog Unbalanced RCA Out
- Independent SPDIF (Coaxial) Digital I/O
- Headphone Output w/ Level Control
- 2x High Speed Dubbing Capability
- Duplicates Time Code & 24 Bit DATs (1x Dub Only)



- Simultaneous Recording Capability
- Single Play Function
- Selectable SCMS Status
- Machines Linkable for Long Play/Record Applications
- Cascade Function Allows Multiple Machine Duplication
- Wired Remote Included (RC-D302)
- Optional Balancing Kit (LA-D302)

APPLICATIONS

DAT tapes have been a standard transfer medium in the professional audio industry since the introduction of the format. DAT is the only true non-compressed digital audio format that was intended to be a target writing media. The simple flexibility and worry-free operation of DAT recorders contributed to the initial rise of the format, and continues to support it in all levels of recording.

The DAT format also supports deeper levels of recording flexibility. Multiple sample rates can be used, ranging from the long play 32kHz, to the CD standard 44.1kHz, to 48kHz for higher quality. Plus, the DAT tapes are reasonably inexpensive and offer up to 2 hours (4 hours in LP mode) of uninterrupted audio.

TASCAM is the leading manufacturer in professional DAT recorders. The DA-302 continues the proud tradition of excellence in studio and production DAT recorders.

Studios (Any Level)

When you mix down a DAT, how do you make archival or distribution copies? You can either get two DAT recorders, or you can get the DA-302. The fact that the DA-302 offers high speed dubbing also allows you to save valuable time in the production schedule.

For higher end users who are using 24 bit DAT or time code DATs, the DA-302 can also duplicate those. (The DA-302 cannot play a 24 bit DAT, but it can duplicate it directly across.)

Live Recordings - One Man Show - Logging Functions

The DA-302 offers a number of possibilities in extended play applications. If the decks are set to record in cascade from one deck to the other while in long play mode, the two DAT wells will offer 8 hours of unattended recording time. For live recordings, the regular speeds could be used for a live to 2 track mix, or a steady feed from a buss output for back-up functions.

In the one man show application, the entertainer could have background tracks playing from one well, and the other well could be recording the whole performance. Or, one DAT could be playing while the other is cued up.

SPECIFICATIONS

Performance Specifications

Tape Speed: SP - 8.15mm/s; LP - 4.075mm/s; 2x Dub - 16.3mm/s

Recording Time (120 DAT): SP - 120 minutes; LP - 240 minutes
Fast Winding Time: Approx 60 seconds (120 tape)
Recording Resolution: SP - 16 bit linear; LP - 12 bit non-linear
Recording Sample Rate: SP - 44.1kHz, 48kHz; LP - 32kHz
Frequency Response: 20Hz-20kHz ±0.5dB, SP; 20Hz-14.5kHz LP

Signal to Noise Ratio: >89dB Playback (SP)

Total Harmonic Distortion: <0.007% Playback (SP)

Wow and Flutter: Unmeasurable (<0.001%)

Common Analog In: Unbalanced RCA, -10dBV (0.3V)

Onbalancea RCA, -1008 (0.3V)
20kOhm, (-16dB full scale nominal reference)
Individual Analog Out (x2): Unbalanced RCA, -10dBV (0.3V),

Cascade Analog Output: Unbalanced RCA, -10dBV (0.3V), (1kOhm, (16dB full scale nominal reference)
Digital Coaxial I/O (x2): RCA pin, IEC60958 Type I or Type II

1/8" mini plug accepts RC-D302 remote 1/8" mini plug accepts WR-7000 control cascade cables

Optional LA-D302 Specifications:

Common Analog In: Balanced XLR, +4dBu (Pin #2 Hot)

>10kOhm, (16dB full scale nominal reference)
Balanced XIR, +4dBu (Pin #2 Hot)
75 Ohms, (16dB full scale nominal reference)

+20dBu maximum output level

General Specifications:

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

120V AC, 60Hz (USA/Canada Model 230V AC, 50Hz (UK/Europe Model) 240V AC, 50Hz (Australia Model)

Power Consumption: 27W

Dimensions: 482 x 150.5 x 353 mm 19" x 6-3/32" x 13-7/8"

Veight: 7.2Kg, 15.9 lbs.

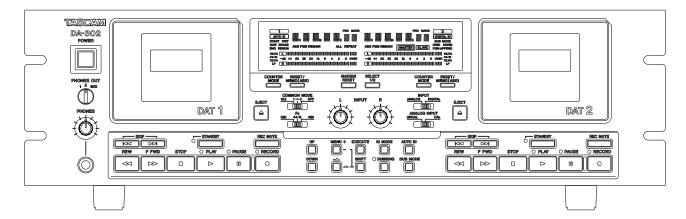
Standard Accessories: Wired Remote (RC-D302)

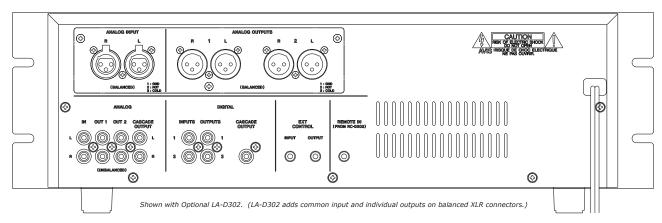
Optional Accessories: WR-7000 Cascade Cables, LA-D302 Balancing Kit

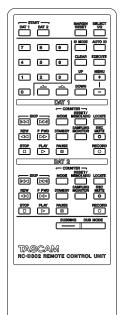
The DA-302 is available at	
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FRONT AND BACK PANELS







ARCHITECT'S SPECIFICATIONS

The DAT recorder shall be a dual well DAT recorder capable of recording and playing back standard 16 bit, 44.1kHz and 48kHz, as well as the extended time format of 12 bit, 32kHz.

The DAT recorder shall be a professional DAT recorder, with the ability to select the SCMS ID status. The available options shall include copy prohibit, 1 generation, or SCMS free.

A common analog input shall be provided on unbalanced RCA connectors. Unbalanced outputs shall be provided for each well of the deck on RCA connectors. Digital in and out ports shall be offered individually for each well of the dual well DAT recorder on coaxial ports that can alternate between SPDIF and AES/EBU signals.

The dual well DAT recorder shall accept a TASCAM LA-D302 balancing kit, offering balanced input and individual balanced outputs on XLR cables.

The dual well DAT recorder shall be controllable from a TASCAM RC-D302 wired remote control. Additional ports shall be provided for TASCAM

WR-7000 transport communication when using multiple dual well DAT recorders in a chain for duplication, recording, or extended playback.

The dual well DAT recorder shall have double speed dubbing capability for high speed replication of DAT tapes. The dual well DAT recorder shall also have the ability to duplicate time code tape subcode information. The dual well DAT recorder shall also have the ability to duplicate 24 bit DAT tapes produced on high resolution DAT recorders such as the TASCAM DA-45HR.

The dual well DAT recorder shall be able to mount in a standard 19" rack mount, taking three spaces in height. Dimensions shall be 19" x 6-3/32" x 13-7/8" (W x H x D).

Metric measurements: 482 x 150.5 x 353 mm

The dual well DAT recorder shall be a TASCAM DA-302.

NOTE: This text is available in a standard text file on TASCAM's Sound Contractor CD-ROM