# TASCAM

## PRODUCT OVERVIEW

TASCAM's DA-40 is a feature rich DAT recorder, bringing together deep recording and playback capabilities, plus a wealth of control functions. Controlling the DA-40 is easy through the clearly marked buttons on the front panel. The large jog and shuttle wheel makes locating cues easy. Two locate points offers a simple way to cue up to a point, or can be used for loop playback. Single play and support for program names help keep track of which program is cued up, and prevent the next track from playing in live applications.

- 3-U Rack Mount Design
- Analog Unbalanced RCA I/O
- Analog Balanced XLR I/O with Output Attenuation
- AES/EBU (XLR) Digital I/O
- SPDIF (Coaxial) Digital I/O
- Headphone Output w/ Level Control
- Supports Track Names in DAT Subcode

## 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 guality. Track names are supported in tapes, just as they are in MiniDisc. 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-40 continues the proud tradition of excellence in studio and production DAT recorders.

#### **Personal and Project Studios - Production Studio**

The ability to name tracks with the DA-40 greatly helps keep track of multiple mixes of the same tune. When you are playing back the various versions of the mix, you can label them "Radio Mix", "Kareoke Mix", or whatever you want. When it comes time to come back to the DAT, you'll know exactly which mix is which whether you've got the J-card for the DAT or not.

With the DA-40, you'll never have to worry about copy limitations holding you back in making your own music. The DA-40 offers complete control over the SCMS status bits.

#### **Radio Broadcast - Show Control - Live Production**

For broadcast and show control applications, the DA-40 offers a parallel I/O on the back panel for custom remote control. With single play, you can be sure that the DA-40 will play the cue you need, and stop at the next one. You don't need to watch the deck to make sure the next track doesn't start playing, nor do you need to worry about cueing up the next track. It all happens automatically. The DA-40 can record and play back DAT tapes in long play, or standard modes. This extended compatibility offers functionality as a high quality recorder/player, as well as an excellent logger.



- Two Memory Locate Points
- Single Play and Loop Play Functions
- Margin Counter with Reset Function
- Large Jog/Shuttle Wheel
- Selectable SCMS Status

- Parallel Control I/O for Custom Remotes & Tallies
- Optional Wired Remote (RC-D45)

## SPECIFICATIONS

Performance Specifications:		
Tape Speed:	SP - 8.15mm/s; LP - 4.075mm/s	
Recording Time (120 DAT):	SP - 120 minutes; LP - 240 minutes	
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:	>92dB Playback (SP)	
Total Harmonic Distortion:	<0.005% Playback (SP)	
Wow and Flutter:	Unmeasurable (<0.001%)	
Channel Separation:	>90dB (1kHz @ Full Scale)	
Input RCA:	-10dBV, 50kOhm	
	+6dBV Maximum (2Vrms)	
Input XLR:	+4dBu, 10kOhm (-16dB Full Scale)	
	+20dBV Maximum	
Output RCA:	-10dBV, <1kOhm	
	+6dBV Maximum (2Vrms)	
Output XLR:	+4dBu, 100 Ohm (-16dB Full Scale)	
	+20dBu Maximum	
AES/EBU I/O:	XLR-type, IEC60958 Type I or Type II	
SPDIF Coaxial I/O:	RCA pin, IEC60958 Type I or Type II	
Headphone Output:	2x50mW into 32 Ohms	
Control Ports:	1/8" mini plug accepts RC-D45 remote	
	DB15 Parallel I/O	
General Specifications:		
Power Requirements:	120V AC, 60Hz (USA/Canada Model)	
	230V AC, 50Hz (UK/Europe Model)	
	240V AC, 50Hz (Australia Model)	
Power Consumption:	21W	
Dimensions:	482 x 150.5 x 364 mm	
	19" x 5.9" x 14.3"	
Weight:	8Kg, 17.6 lbs.	
Optional Accessories:	Wired Remote (RC-D45)	

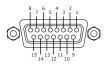
- The DA-40 is available at: -

## **TASCAM**®

## CONTROL I/O

Pin	Function
1	STOP in
2	PLAY in
3	FFWD in
4	REW in
5	PAUSE in
6	REC PLAY in
7	SERIAL in
8	GND
9	PLAY tally out
10	FFWD tally out
11	REW tally out
12	STOP tally out
13	REC PLAY tally out
14	PAUSE tally out
15	TAPE END tally out

Control I/O Legend



#### Control I/O Notes:

All command controls are labeled "in" on the chart at left. Commands are active when brought to ground for 30 msec or more.

Tally signals are open collector, with a maximum 15V, 80mA.

SERIAL in (7) offers an access to RS-232 type communication standards.

#### Track Names

The DA-40 fully supports program titles, allowing each track to have its own name. This information is stored in the tape's subcode, and does not affect the audio quality or cause conflicts with other machines. The name can be spelled out with upper and lower case letters, numbers, and some basic punctuation.

#### **Two Memo Locate Points**

**HELPFUL FUNCTIONS** 

When working on mixes, or even running live shows, a pair of memo points comes in handy. These are separate locate points that can be used for cueing the tape to a particular location, or they can be used for looping a part for rehearsal or critical listening passes.

#### **Single Play**

If you are using the DA-40 in a live production, the single play function allows you to play the DAT one track at a time. The DA-40 will automatically stop at the next track ID, ready for the next cue.

#### **Margin Counter**

This is one of those features you typically never think about until you don't have it. The margin counter is very useful when performing transfers. You can walk away from the unit, and know if the level ever peaked out, or if the recording could have been made louder.

#### Drum Time (Head Time) Counter

For maintenance purposes, it helps to know if it is time to clean the heads. Maintenance records can be kept just like taking the odometer reading on car.

#### Selectable Reference Level, Attenuation on Outputs

Most professional gear operates with -20dB as the 0dB analog reference level, and most semi-pro gear operates at -16dB reference level. The DA-45HR offers the ability to properly match your system to the gear you are working with. There are also attenuation pots on the balanced outputs for fine adjustment of these levels.

### ARCHITECT'S SPECIFICATIONS

The DAT recorder shall be able to record and play back audio DAT tapes at the standard 16 bit, 44.1kHz and 48kHz modes, as well as long play modes of 32kHz, 12 bit.

The recorded SCMS code status shall be selectable in a menu. Available options shall include Prohibit, One Generation, and Free. Other menus shall provide customization of the Auto ID parameters, controlling the threshold and times required for triggering an auto ID writing.

The DAT recorder shall offer advanced tape subcode data writing and retrieval, including the ability to read and write program titles, program IDs, and markers for skip program and end of program.

Advanced cueing controls shall include single play, two memory location points, and looping between memory ID points. Analog audio inputs and outputs shall be provided on balanced XLRs and unbalanced RCA connections. The XLR outputs shall offer attenuation adjustment potentiometers. Digital audio inputs and output shall be provided on AES/EBU format on XLR connectors, and in SPDIF format on coaxial connectors.

The DAT recorder shall be controllable from a TASCAM RC-D45 remote control, and shall offer a Parallel I/O port for further remote control and tally functions.

The DAT recorder shall be able to mount in a standard 19" rack mount, taking three spaces in height. Dimensions shall be  $19" \times 5.5" \times 14.5"$  (W x H x D).

Metric measurements: 482x140.5x368mm

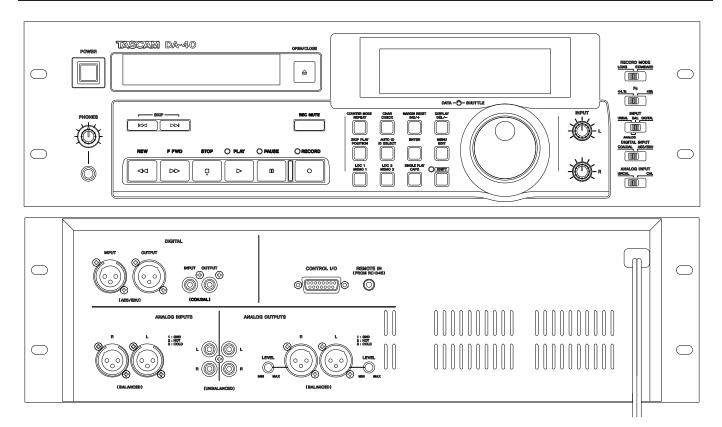
#### The DAT Recorder shall be a TASCAM DA-40.

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

# **TASCAM**<sub>®</sub>

## DA-40 Technical Documentation

## FRONT AND BACK PANELS



## **OPTIONAL REMOTE**

CAPE CAECK FORTON ID SELECT ANTO D
ABC  DEF  GHI  CONTREE  REGER    1  2  3  HOOM  REGER  REGER    JLKL  8400  POR  OWNER  REGER  REGER    JVL  900  POR  OWNER  REGER  REGER    STU  VWX  12.0  REGER  REGER  REGER    0
BRUP  HERED 1  HERED 2  HERED 2    HERED 2  DOT  HERED 2  HERED 2    HERED 2  DOT  DOT  DOT    HERED 2  DOT  DOT  DOT
TASCAM RC-048 REMOTE CONTROL UNIT