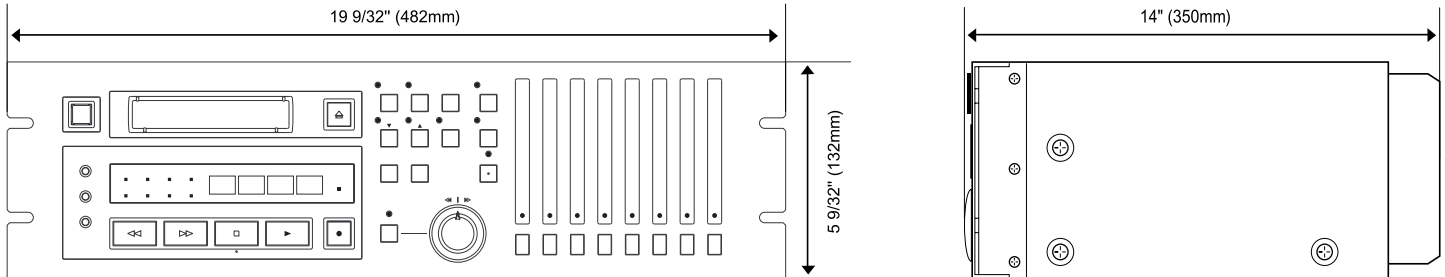


DA-38

PRELIMINARY



The Modular Digital Multitrack Designed With the Musician In Mind

You've been thirsting for digital recording capabilities — but the price has been out of reach, or other formats haven't had the features or reliability you need. Until now. TASCAM's exciting new DA-38 8-track modular digital multitrack (MDM) ushers in an entirely new era of high-quality, maximum value, feature-packed digital recording — all at a price that's right.

The DA-38 is an 8-track modular digital recorder that utilizes the same preferred Hi-8mm format that has captured the hearts and imagination of post-production professionals the world over. The Hi-8mm format gives you 1 hour and 48 minutes of recording time on a standard 120 Hi-8 videocassette tape and up to 116 minutes with many of the newer audio cassettes specifically designed for Hi-8 MDM recorders. Unlike other digital formats, the freedom to record both live performances or orchestral compositions without restrictive time constraints is just one of many reasons you'll want this new recorder.

Combining a rugged transport, ergonomic design and a feature set specifically designed for musicians, the DA-38 also offers a full complement of optional accessories that will let you get more out of (and into) your recordings. Things like remote controllers, MIDI Machine Control (MMC) interfaces, and digital interfaces for communication with other digital equipment. The DA-38 digital multitrack system has the ability to grow in step with your needs and your aspirations.

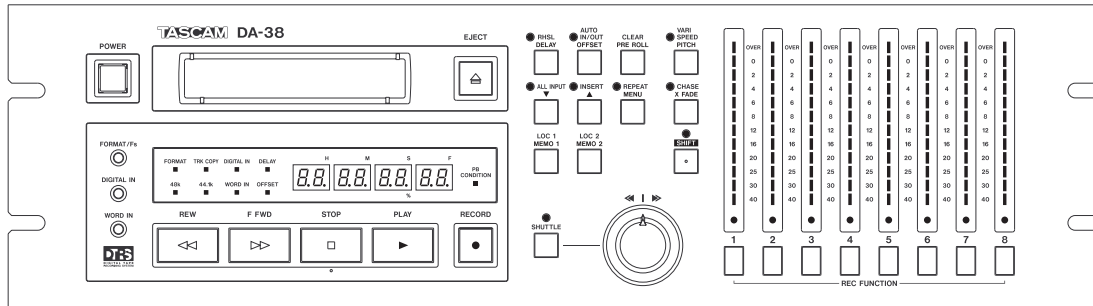
CD-Quality Digital Masters and Full DA-88 Compatibility

The sonic quality of the DA-38 will blow you away! The great sound that earned TASCAM's DA-88 the coveted Emmy Award is now yours with the DA-38. Delivering a 20Hz ~ 20kHz frequency response and a dynamic range that exceeds 92dB, the DA-38 embraces the sonic excellence you've come to expect from TASCAM. With 18-bit, 64 times oversampling Delta-Sigma A/D converters and 20-bit, 8 times oversampling Delta-Sigma D/A converters, the DA-38 leverages next-generation technology in A/D and D/A design and components.

The DA-38 provides you with the two industry-standard sampling rates (44.1kHz and 48kHz) ensuring you full compatibility with other digital equipment. You never have to worry about sample rate conversion and are assured the most faithful sound reproduction. Even better, DA-38 tapes are fully compatible and interchangeable with DA-88 MDMs, and any combination of recorders can be linked together to provide a lightning fast digital recording system totaling 16 machines and 128 tracks. So you can start with 8 tracks today, and add 8 tracks or more tomorrow. You'll never outgrow your DA-38 MDM recording system.

Functionality that Musicians Expect

The saying, "The right tool for the job" has never meant more to the musician than it does with the DA-38. Fact is, TASCAM design engineers have painstakingly designed and assembled the DA-38's features to provide an unprecedented level of operational ease for the personal or project studio music environment. For example, the DA-38's Digital Track Copy function enables you to perform assembly composite edits that provide tremendous creative freedom. Imagine recording three separate "takes" of a guitar solo on three different tracks and then "asse-



Front Panel-DA-38

mbling” them into one unified “best-of” performance onto a fourth track. With the DA-38, this capability is a reality. The Digital Track Copy function can be used within a single unit or between two units. Even more amazing is how easy you can do this with the DA-38’s simplified menu-driven interface.

Another innovative design feature is the DA-38’s built-in Electronic Patchbay. This intuitive function gives you the freedom to easily route any input to any track — right from the front panel. No need to mess with patch cables or the rear panel! Perhaps you’ve had your eye on a great sounding mic preamp (such as TASCAM’s MA-8!) to help you get the best sounding vocal tracks possible. By using the DA-38’s Electronic Patchbay, you can permanently leave the mic pre amp connected, let’s say, to input #1 and still have the freedom to route that input signal to any track you want!

Another musician oriented feature built into the DA-38 is Track Advance and Delay. This lets you slide individual tracks in order to obtain the right “feel” for your music. Want the drums to lay back a bit? Delay those tracks to your liking. Want the drums to “push” the feel of the song? Go ahead and advance them. Range for track advance/delay is -200 ~ 7200 samples.

You’ll even find a handy test tone generator built into the DA-38. With this feature, you can calibrate the meters of your mixer to make certain that they align with those on the DA-38. By taking advantage of this feature, you can ensure that your signals levels are the same both at the board and the recorder. Since the tone is referenced to A-440, you might even opt to use it as a tuning reference! This is one more feature you won’t find on any other MDM.

The MIDI Musician’s Digital Multitrack

MIDI provides a phenomenal level of control and flexibility for today’s creative musician — and the DA-38 is right at the cutting edge of this technology. If you run a sizable MIDI system and want to integrate your live or “virtual” MIDI tracks into your production environment, look no further! By adding the optional

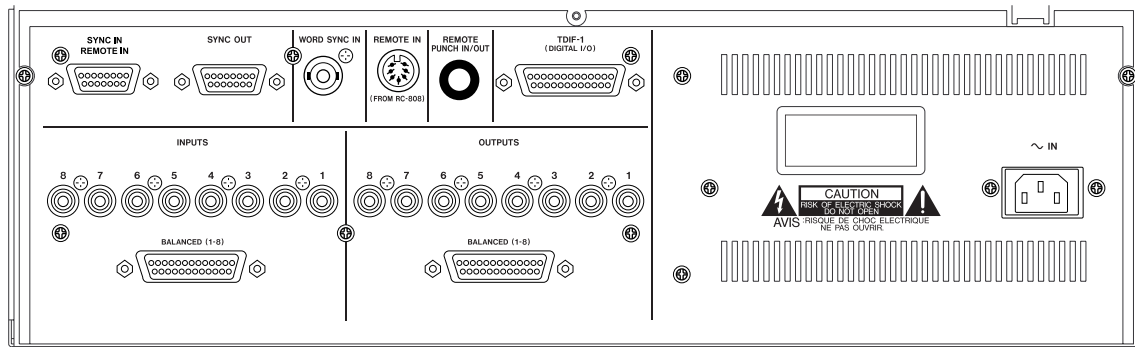
MMC-38 MIDI Machine Control interface to the DA-38, you get the best of both worlds — digital recording for your vocals, guitar, etc. and virtual MIDI tracks for keyboards, samplers and percussion modules — all fully synchronized. The MMC-38 takes the absolute time (ABS) from the DA-38 and outputs it at the SMPTE frame rate of your choice — either straight SMPTE or MIDI Timecode (MTC). No matter what your MIDI interface/patchbay needs to see, the MMC-38 covers all the bases.

Since the MMC-38 responds to incoming MMC control messages, you can use your computer/sequencer to act as a “command central” for a fully integrated tape/MIDI environment. For example, ask your sequencer to locate to measure #76 and begin playback and something amazing happens. You’ll watch the DA-38 advance or rewind as needed to the corresponding ABS position and then automatically commence playback — with your MIDI system locked right on! Want to loop between measures 9 and 17? No problem. Your sequencer will tell the DA-38 what to do, and your entire system will function as one. You can arm and disarm any track you wish, automate punch in/out, and the recorder will automatically stop at the song’s end. MIDI integration has never been easier thanks to the DA-38 and the MMC-38.

All Functions Easily Accessible From the Front Panel

The DA-38’s operating system is a breeze to navigate. With a clearly defined combination of SHIFT and MENU functions, you’ll have the recorder configured to your needs in moments. Chances are you won’t need to break the crease on your owner’s manual to get you going.

If you’re using multiple DA-38s, the MACHINE ID number is simply defined from the front panel. Similarly, you can capture, trim and locate positions on tape with ease. Finding the test tone oscillator or defining pre-roll are all right there under the MENU key. To make things even easier, all SHIFT parameters are coded in blue. The DA-38’s intuitive design won’t slow you down. It’s the perfect machine for musicians.



Rear Panel-DA-38

The DA-38 supports independent pre-roll parameters for both LOCATE and PUNCH IN. Perhaps you're comfortable with a 5 second LOCATE pre-roll time, but want a longer pre-roll for the PUNCH IN so that you can get better acclimated to the song's tempo and feel. With the DA-38, you can easily accomplish this.

A SHUTTLE MONITOR function enables you to mute audio while repositioning tape. This handy function is great during the tracking process when you or other musicians are wearing headphones. The days of high-pitched program material screaming through the phones every time you shuttle are over! Hey! Speaking of shuttle — keep in mind that only TASCAM MDMs give you true shuttle capability. The precision rotary SHUTTLE knob controls tape speed depending upon how far you turn the control. In fact, only TASCAM's SHUTTLE control allows you to advance or rewind the tape at your own pace; from 1/4 speed to eight times the normal playback rate. You won't find this feature on others!

As Simple to Operate As An Analog Tape Recorder

Perhaps the best thing about the DA-38 is the fact that you already know how to use it. Unlike some other formats and many hard disk systems, the DA-38's transport controls are just as simple to use as any analog tape deck. The PLAY, RECORD, FF, REW and STOP buttons are right where you expect them to be — and they work just as easily. Recording with the DA-38 is as simple as inserting a Hi-8mm tape, feeding signal to one or more of the eight tracks, setting proper levels with the 12-segment LED peak reading displays and pressing PLAY and RECORD.

Superior Format and Superior Transport

The DA-38 employs the latest tape and transport technology to provide users with the best, most robust system on the market. Hi-8mm tape is a metal particle format that provides higher density recording which means better, more secure recordings.

This newer tape technology solves many shortcomings of the S-VHS format where tape exposure, speed and tracking problems invariably sacrifice reliability and sound quality. In fact, that's why the Hi-8mm format is the preferred format among post-production professionals worldwide.

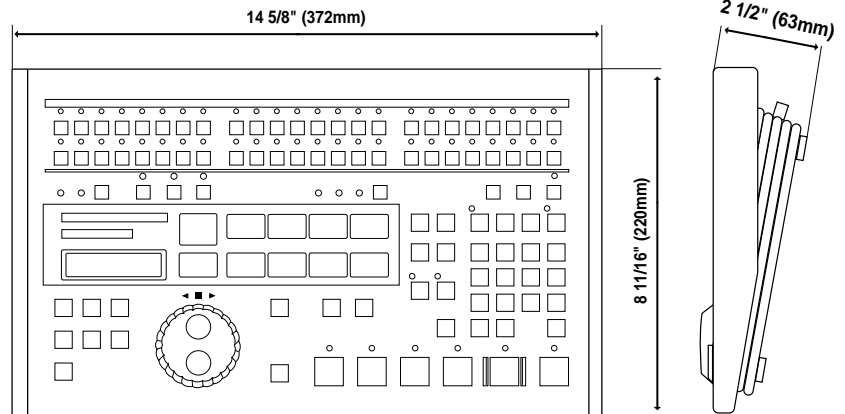
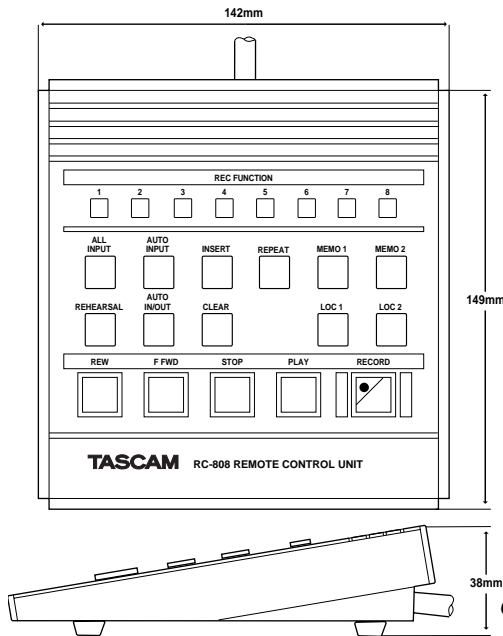
The DA-38 uses a highly accurate and reliable, rapid response transport mechanism that is unmatched by the competition. Built to endure the constant Stop-Start-Stop-Start environment of the recording studio, the transport features direct drive, brushless motors. Plus, the DA-38 uses TASCAM's exclusive write after read, 4-head system of data reading/writing. This interleaving design yields significantly more read area on tape. This ensures better data integrity and provides superior dropout protection.

The Most Advanced Tape-to-Head System

Only the Hi-8mm format, featured on TASCAM MDMs, provides the safety and security of Auto Track Finding (ATF) technology. This system embeds timing information into the tape's subcode area during the helical scan. There's no analog control track, like you'll find on other systems, that will fail due to tape stretching or fraying. With ATF, you are assured of perfect tape interchangeability between any DA-38 or DA-88.

Precise Editing — Seamless Punch In/Out

Because the DA-38's transport is so precise, you can define tighter punch in/out points than previously available in the analog domain. The DA-38's variable digital crossfade technology (variable from 10ms ~ 90ms) promotes seamless punches under a variety of conditions. If live ambient crowd noise is part of your recording, a longer crossfade time of, say 90ms, will preserve the recording's character by making the transition from existing to new program material longer and therefore, less noticeable. Crowd noise won't get choked off. Similarly, cymbal crashes and other long duration sounds retain their natural decay. For tight punches, a 10ms crossfade time will meet your



Optional Remote Control Unit-RC-848

Optional Remote Control Unit-RC-808

needs. The actual punch can be accomplished manually from the front panel, with a footswitch, or easily automated from the front panel. With the DA-38's Auto-Punch capability, capturing your IN and OUT points is a simple matter of enabling the REHEARSAL function, rolling tape, and then pressing RECORD and PLAY at the desired points. You can rehearse as much as you need, and when you're ready to give it your best shot, press AUTO IN/OUT and go for it! As mentioned earlier, the DA-38 even has pre-roll values that are independent of the LOCATE pre-roll parameters.

Auto Locate Function to Easily Mark Specific Tape Positions

If you need to loop a certain musical passage, or want to mark a certain position on the tape, use the DA-38's MEMO and LOCATE functions. As tape plays, simply hold SHIFT while pressing MEMO 1 or MEMO 2 to capture the desired point. Press LOC 1 or LOC 2 to physically position the tape to these points. If you wish to trim the address of these locate points, press SHIFT to enter EDIT Mode, and while the EDIT LED is lit, use the ▲ Increment or ▼ Decrement keys to modify the values. When you press REPEAT, the DA-38 will loop between defined LOCATE positions.

Optional Equipment and Accessories Complete the Modular System

The DA-38 is well-supported with optional accessories that enable you to get more from your investment, make some operations quicker and easier, and communicate with other digital equipment.

The RC-808 Basic Transport Controller

The RC-808 lets you control all basic functions of the DA-38 from across the room — including transport, record, two-point autolocator, monitor switching, track arming and punch in/out controls. The RC-808 is ideal when you're both the engineer and the performer.

RC-848 Comprehensive Remote Controller

The RC-848 coordinates the simultaneous operation of up to six DA-38s from one space-saving, high-tech control station. With one RC-848 you can drive an entire rack full of DA-38s, maintaining complete transport and track control in perfect synchronization. The RC-848 controls all transport functions including shuttle, provides 99 locate points, adds frame-accurate jog capability and dual LED tape counters that detail tape position and an alternate locate point. It can also address track advance and delay, locate pre-roll time and numerous other parameters.

On the rear panel of the RC-848, you'll find EXT Ports 1, 2 and 3. Accessory (EXT 1) Port 1 enables the RC-848 to control non-RS-422 equipment such as selected VTRs. Accessory (EXT 2) 2 connects to other TASCAM equipment such as a TSR-8 open reel multitrack recorder and enables full control over transport and track arm/disarm functions. EXT 3 (RS-422) enables the RC-848 to control RS-422 equipped units such as most professional VTRs. These three ports are designated as machines 7, 8 and 9 — thus enabling the RC-848 to control a total of nine units.

Digital Interfaces for Connection with other Digital Equipment

Should you wish to interface your DA-38 digitally with a Digital Audio Workstation (DAW), the IF-88AE brings both AES/EBU and S/PDIF digital I/O capability to the DA-38. The IF-88AE provides 4 XLR connectors each for AES/EBU input and output, enabling you to transfer all 8 tracks in a single pass. S/PDIF digital I/O is accomplished with four keys labeled 1-2, 3-4, 5-6 and 7-8. Simply press the key that corresponds to the pair of tracks you wish to transfer at any given time.

The IF-88SD digital interface is the DA-38's link to the world of DASH (Digital Audio Stationary Head) recorders. Used with the PW-SD1 and PW-SD2 DASH connector cables, digital audio tracks can be easily transferred between the two formats.

The Best Value in Digital Multitrack Recording

- Total 1 hr. 48 min. of recording time on standard 120 Hi-8mm tape
- Greater than 92dB dynamic range
- Auto Track Finding (ATF) assures consistent tape handling, eliminates tape skew and provides transparent inter-changeability between Hi-8mm recorders
- Superior A/D and D/A converters that take advantage of the latest technological advances
- Simple one cable (PW-88S) interface for multiple machine lockup
- Digital Patchbay for convenient signal routing
- Digital Track Copy function for track manipulation
- Test Tone Oscillator for calibration and tuning
- Programmable track advance / delay (-200 ~ 7200 samples)
- Front panel access to all system parameters
- $\pm 6\%$ pitch control
- Auto Punch In/Out capability with Rehearsal
- Rugged Direct Drive brushless transport motors
- Super-rugged, reliable rapid response transport built to take years of constant stopping, starting and shuttling

Specifications

Recording Format	:DTRS format 4-rotary head digital recorder
Tape	:Hi8 ME or MP
Tracking system	:ATF
Erasure system	:Overwrite
Number of channels	:Eight plus subcode area
Recording time	:108 minutes with NTSC standard "120" tape :113 minutes with PAL/SCAM standard "90" tape
Fast Winding	:80 sec. (100 times play speed)
Shuttle speed	:1/4 ~ 8 times play speed
Digital I/O	:TDIF (TEAC Digital Interface Format) D-sub25 pin
Analog input	:D-sub25 pin, +4 dBm, 10 KW (balanced) :RCA, -10 dBV, 50 KW(unbalanced)
Analog output	:D-sub25 pin, +4 dBm, 75 W (balanced) :RCA, -10 dBV, 250 W (unbalanced)
Sync (Remote) input	:D-sub15pin
Sync output	:D-sub15pin
Word sync input	:BNC
Remote input	:DIN 8 pin
Remote punch I/O	:1/4" phone jack
Sampling rate	:44.1 K/ 48 kHz
Quantization	:16 bit linear
Pitch control	: $\pm 6\%$ (in 0.1% step)
Frequency response	:20Hz -20 kHz, ± 0.5 dB (Load impedance 10 KW)
Dynamic range	:Better than 92 dB
Signal to Noise ratio	:Better than 92 dB
THD	:Less than 0.008%
Crosstalk	:Better than 90 dB (at 1 kHz)
Emphasis	:50/15 ms (Playback only)
Cross fade time	: 10 ~ 90 ms (in 10 ms step)
Track delay	:-200 ~ 7200 sample
Offset	: ± 2 hours
Power consumption	:37W
Dimensions (W x H x D mm)	:482 x 143 (132 without foot) x 350 mm
Weight	:7.5 Kg

Specifications and features subject to changes without notice or obligation.



For more information about other TASCAM FAXBACK literature, call 1-800-827-2268.

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