

DENON

CASSETTE DECKS

DR-M44HX/M34HR
DR-M24HX
DR-M12HR/M10HR
DR-M07/DRW-750



**THE FIRST NAME
IN DIGITAL AUDIO**

STEREO CASSETTE TAPE DECK
DR-M44HX

Trans DENON Dec



parent Sound, Transparent Technology, ks Bring You to Digital Quality Sources.

DENON's basic approach to the development of cassette decks has always been simply to be faithful to the original sound and to reproduce it. This approach is fostered by DENON's traditional technical background as a manufacturer of musical software as well as hardware. The basic requirements to achieve this goal of unfettered transparency on a cassette deck are stable tape transport and effective and precise magnetic conversion, supported by superior head and circuit design. A truly sophisticated cassette deck with high standards in sound quality can be created only when such demands are met.

DENON's long experience and know-how in building technically outstanding cassette decks is faithfully devoted to reproducing the sources of those sounds, very transparently.



DENON Cassette Deck Technology...

...BORN OF PROFESSIONAL BROADCASTING KNOW-HOW. Stable Tape Transport Mechanisms and SF Combination Heads Deliver Superior Recording Capabilities.

As a leading manufacturer of tape recorders for broadcasting and recording studios, DENON has applied its expertise to recording marked advances in basic cassette performance. The DR-M series of stereo cassette decks features the latest developments in tape transport, computer servo control, recording/playback heads, and amplification design, to bring about overall improvement in cassette audio fidelity.

Computer-Controlled Silent Mechanism

Using the latest in microprocessor technology, all drive operations are computer-controlled. DENON's Silent Mechanism has eliminated impact-producing solenoids. Instead, every operational mode is gently and quietly shifted by a computer-controlled CAM and motor, thus guaranteeing smooth and stable operation always.

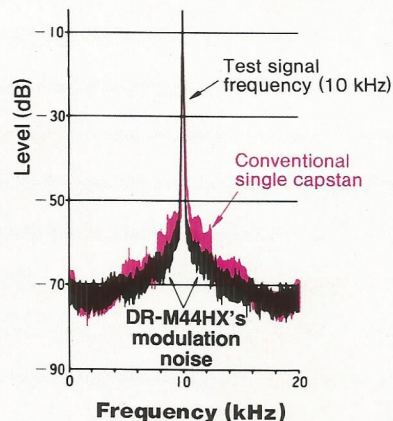
Dual Capstan Drive

For stable tape-to-head contact, especially in a 3-head system, tape tension must be carefully monitored and controlled to maintain uniformity. For this reason, DENON has adopted a dual capstan drive system which provides a closed-loop effect, isolating the portion of the tape that is centered on the heads. DENON's experience in professional tape recorders has given birth to extremely accurate tape transport so that superior sound reproduction can be delivered with far less modulation noise.

Non-Slip Reel Drive

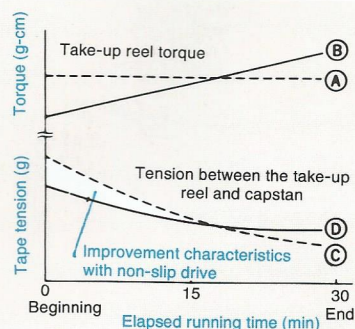
To further ensure uniform tape tension during playback, a non-slip drive system has been adopted

Modulation Noise Comparison



by DENON to take the place of the conventional friction-clutch mechanism. With a special low-cogging reel motor, stable operation guarantees further reduced wow and flutter, fewer dropouts, and improved phase characteristics that are resistant to changes in temperature or humidity.

Regulation of take-up reel tension using non-slip drive



- A — Take-up torque using conventional slip-type drive
- B — Take-up torque using DENON's non-slip drive
- C — Take-up tension using conventional slip-type drive
- D — Take-up tension using DENON's non-slip drive

3-Head System with SF Combination Head

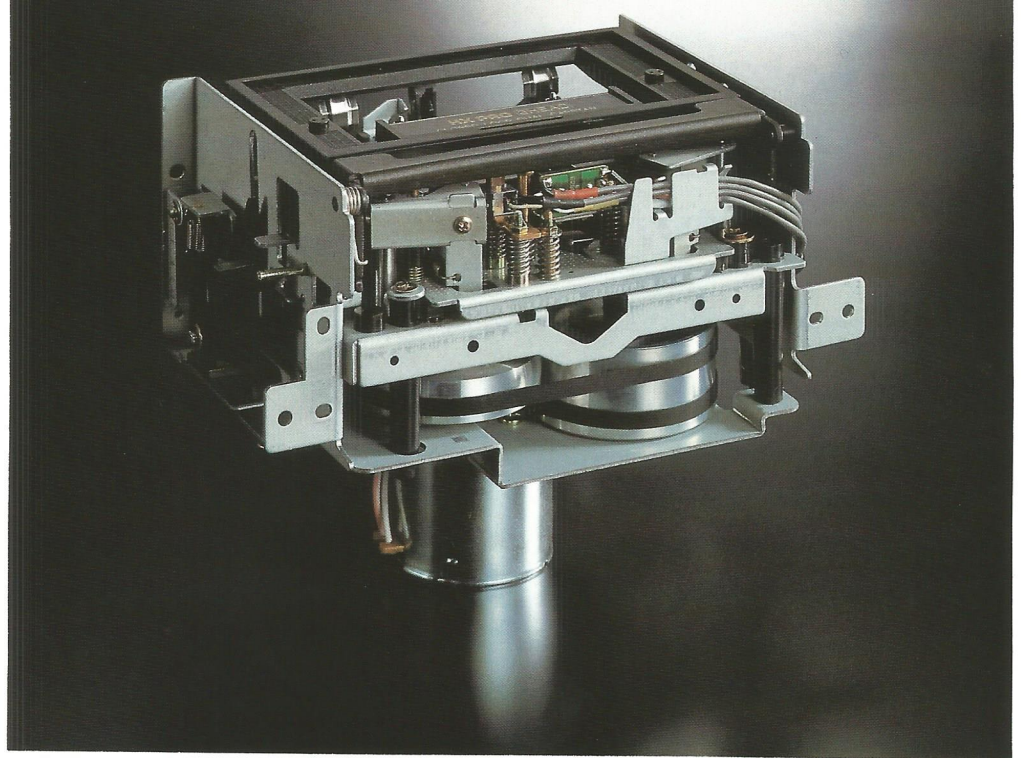
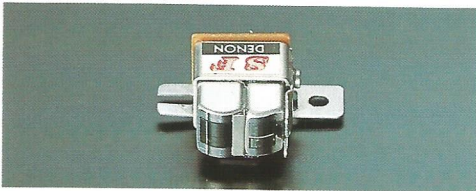
For optimum recording and playback performance, head gaps, core materials, and windings should all be different. DENON's SF Combination Head consists of separate recording and playback heads. Today's wide variety of high-grade tapes, including metal formulations, can be fully utilized, thanks to dynamic head room with minimal loss at high frequencies.



In addition, oxygen-free copper coils are used in the heads for higher conductivity, resulting in increased sound clarity.

And for improved phase characteristics, both heads are precision aligned so that parallel accuracy is within 1/20th of one degree.

SF Combination Head



Dolby B and C Noise Reduction

The hiss noises commonly inherent in tape recordings are effectively controlled by the Dolby B and C noise reduction systems. Dolby B and C noise reduction can also be used concurrently with the Dolby HX Pro system.

adjustments. This feature enables you to match your recordings to the performance requirements of different brands and formulations of tape, or to your own individual taste.

Dolby HX Professional Head Room Extension (Dolby HX Pro)

When recording audio signals which contain high-frequency components, these components influence the bias and decrease the high recording frequencies. (If the amount of bias is great, high frequencies are decreased, while on the other hand, if the amount of bias is small, high frequencies are increased, resulting in a corresponding increase in distortion.)

The Dolby HX Pro system responds to any peaks or dips in the audio signal and to high or low frequencies to regulate the oscillation of the bias level added to the recording head, thus providing a stable, effective bias to the audio signals being recorded. When an audio signal contains a large number of high-frequency components, the bias is held to a low value and deterioration of high frequencies is avoided, whereas for low frequencies, the bias is added at a fixed rate. Bias is thus added at the optimum rate for both high and low frequencies.

The Dolby HX Pro system automatically adjusts itself not only for normal, CrO₂, and metal position tapes but also for right and left channels independently. Since the system is automatically engaged during the recording process only, the audiophile can enjoy the full benefits of any tape without worrying about proper adjustment of switches and encoding/decoding controls.

Computer Tuning for Optimum Tape Performance (DR-M44HX)

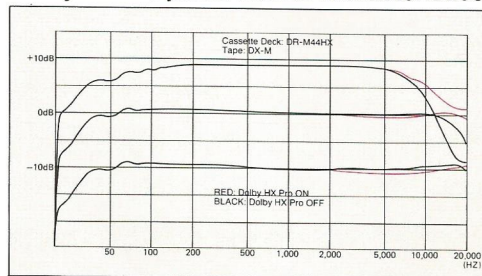
The built-in computer selects the optimum recording parameter setting in a matter of seconds. Flatter frequency response for uncompromised performance is ensured from any kind of tape on the market.



Optimal Power Supply for Improved Amplifier Performance

Separate power supplies for the audio circuitry and the logic and mechanical sections are employed for marked improvements in dynamic performance, eliminating any possibility of mutual interference. And for quieter operation with a minimum of clipping distortion, specially-designed low-noise recording and playback amplifiers feature differential input push-pull circuitry. Other improvements include the elimination of capacitors between the playback head and the first amplifier stage, along with DC amp construction to the final output stage. And finally, a newly-developed transformer and push-pull configuration in the bias circuit affords greater stability for a reduction in bias waveform distortion and erasure noise. Only DENON gives such thorough consideration to circuitry that may be more apparent to the ear than to the eye!

Dolby HX Pro performance characteristics



Manual Bias Adjustment

The DR-M34HR, DR-M24HX, DR-M12HR, DR-M10HR, DR-M07, and DRW-750 are equipped with a manual bias fine adjustment control instead of a computer-controlled bias adjustment function. Although a standard level bias is assured at the center stop position for each type of tape, it can be fine-adjusted manually to increase or decrease bias ad-

Three Heads Coupled with Direct Drive Dual Capstans Deliver Unsurpassed Musical Quality.

DR-M44HX



DENON's DR-M44HX represents the culmination of several decades of magnetic recording expertise. As a leading manufacturer of multi-track recorders for the studio, DENON has applied this experience to making a clear improvement in basic cassette performance. DENON's latest combination of tape transport, computer servo control, amplification, head design and Dolby HX Pro may just change the way you hear music from cassette.

The DR-M44HX includes all these professional class features...

- DENON's Computer-Controlled Silent Mechanism for More Precise Tape Transport
- Dual Capstan Drive for Greater Tape Running Accuracy and Stability
- Non-Slip Reel Drive for Stable, Uniform Tape Tension
- The Dolby HX Professional Head Room Extension (Dolby HX Pro)
- The MPX Filter Switch

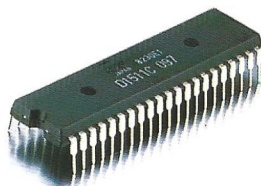
Plus All These Other Features...

The 3-Head Improvement with SF Combination Head

Since recording and playback are two completely different operations, it stands to reason that different heads should be used since head gaps must be different for optimum performance. Furthermore, separate recording and playback heads allow the user to monitor tape playback during recording sessions to ensure the best possible results. Just like DENON's finest studio recorders, the DR-M44HX also features separate recording and playback heads in the form of DENON's SF combination head. It's the best way to get the finest performance from the cassette format.

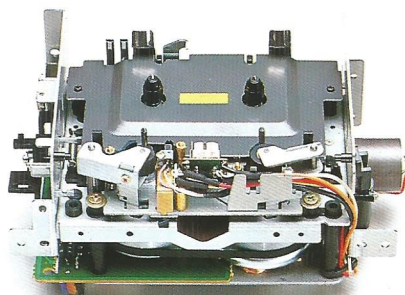
Computer Servo Control

Using state-of-the-art microprocessor technology, all drive operations are under computer control for a number of running performance benefits.



Direct Drive Capstan Motor with FG Servo Control

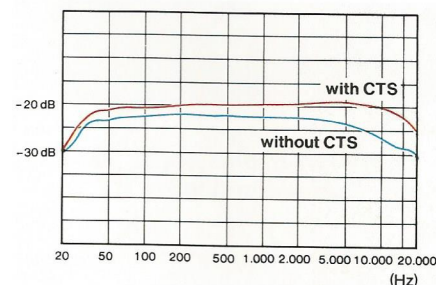
For extremely precise capstan rotation, the DR-M44HX employs a high-torque DD motor with DENON's own flat-coil design. Since no brushes are used, durability is enhanced and switching noise is minimized. Connected to the flywheel is a highly responsive speed detection system that employs a Frequency Generator (FG) servo circuit with a circular "sample and hold" configuration for exceptionally good rotational stability and a minimum of wow and flutter.



Computer Tuning for Optimal Tape Performance

Because tape oxide formulations vary from brand to brand, the bias and sensitivity levels required for optimum recording performance are not always the same. Even among different formulations by the same manufacturer, these variables render proper settings difficult to achieve for flat and extended frequency response. While many decks have tape position switches, they only provide arbitrary settings for these variables.

Perfectly precise "tuning" for each tape requires time-consuming manual adjustment, should the deck be equipped with the variable controls. To save the user all this trouble, DENON has developed a Computer Tuning Circuit that works in only seconds by recording test tones on the tape and automatically setting the ideal variables from over 100,000 possible combinations stored in a memory circuit. The result is flatter frequency response over an extended range from every recording made. The dynamic range in the mid to high frequencies is widened to take full advantage of the benefits of Dolby C noise reduction. DENON's Computer Tuning takes the guesswork out of producing great-sounding recordings on any quality tape.



Integrated Meter Display

The Integrated Meter Display is a high-level data center logically arranged for at-a-glance verification of the deck's current operation status. Recording levels are easily read from the bright FL meters with 1.5-second peak hold readout which are finely graduated around the 0 dB level. A special recording reference indicator below the meters displays the upper limit of the suggested recording level range for each tape position. Dolby B, C, and tape position indicator lamps are also under the level meters for convenient viewing. Also, flashing indicators clearly display the Computer Tuning and pause modes for overall improvement in operating ease. Included in the display section is a linear tape counter that provides accurate readouts of current tape location indices. When used with the memory stop function, preselected locations are found quickly and easily.

Audio 6/86 (W. Germany) "Top class 0000"
 HiFi Choice 85/86 (UK) "Best Buy"
 New HiFi Sound 2/86 (UK)

"There's little to match DENON's DR-M44HX"
 HiFi & elektronik No 1 '87 (Denmark)
 "The cassette-deck of the year"



DR-M44HX

With side panels for U.S.A., Canada

Three Heads, Dual Capstans, and Remote Control: The Ultimate in Relaxed Listening Pleasure.



Optional wood side panels are available

DR-M34HR



The DENON DR-M34HR tape deck boasts a Dual Capstan 3-Head system for ever stable tape transport and a Constant Current Drive Circuit (CCDC) for the highest possible performance from the recording amp. These elegant features enable truly high-quality recording and playback of digital sources such as CD. And the DR-M34HR's convenient wireless remote control unit makes this tape deck a real delight to operate as well as to listen to.

Dual Capstan Drive for Ideal Tape Transport

For stable tape-to-head contact, the tape tension must be perfectly constant. DENON's Dual Capstan Drive system provides a closed-loop effect which isolates the portion of the tape that is centered on the head. Both flywheel and capstan have been finished to micron-order accuracy to deliver the best possible performance in every respect. The audible result is superior sound reproduction with significantly reduced modulation noise.

Computer-Controlled Silent Mechanism

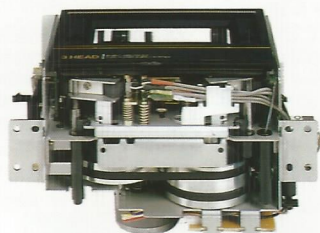
All mechanical functions are controlled by CAM- and encoder-operated servo circuits, assuring smooth and silent operation. In the event of a power outage, the pinch rollers are also safely moved to the STOP position to prevent damage to the tape.

Non-slip Reel Drive for Stabilized Tape Tension

DENON's non-slip reel drive guarantees that take-up torque is always even and unaffected by fluctuations in temperature or humidity. The use of conventional friction-clutch mechanisms has been abandoned altogether.

Low Cogging DC Reel Motor

A special DC reel drive motor has been incorporated in the DR-M34HR because of its extremely low cogging characteristics for maximum precision in the running of the tape.



3-Head System with SF Combination Head

DENON's SF Combination Head consists of separate recording and playback heads, each of which has been designed for extremely wide and flat frequency response. The recording head is equipped with a super-permalloy core for high magnetic flux saturation which fully utilizes the dynamic headroom capability of any tape, including those with advanced metal formulations. The playback head utilizes an improved high-density ferrite core which minimizes high-frequency loss. Oxygen-free copper coils are also used in the heads for higher conductivity which deliver increased sound quality. And both heads are precision aligned so that parallel accuracy comes within 1/20th of one degree.

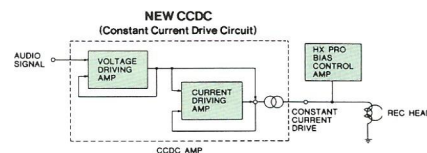
Recording Amplifier with Constant Current Drive Circuit (CCDC)

The CCDC principle is employed in the recording amplifier of the DR-M34HR. Under this principle, the drive current to the recording head is kept constant regardless of impedance changes from varying frequencies, eliminating the need for a high impedance resistor between the recording head and the amplifier's output. Dynamic range is thus significantly improved and distortion dramati-

cally reduced.

Furthermore, the CCDC separates the equalizer and head drive amplifiers into two dedicated ICs, thus providing minimum transmission loss in the high frequency range thanks to improved amplifier margins.

As there are also no coupling capacitors between the head and the amplifier output, there is no possibility of sound coloration.



Dolby HX Professional Head Room Extension (Dolby HX Pro)

Manual Bias and REC Level Adjustment Controls

The DR-M34HR is equipped with a recording level adjustment control to aid recording with manual bias adjustment. Because the optimum levels for recording and playback vary with each tape, manual adjustments in the bias and recording levels enable the best possible recording quality.

MPX Filter Switch

The MPX filter screens out interference from the FM pilot tone signal (19 kHz) for stable recording from an FM tuner.

Versatile Infrared Remote Control

The ergonomically designed infrared remote control allows convenient armchair access to the basic operations on the DR-M34HR. PLAY, REC, FF, REW, STOP, and REC PAUSE/MUTE. Even greater remote control over the audio system can be obtained when the DR-M34HR is configured with DENON's DRA-1025R, DRA-825R, DRA-625, or DRA-425 receiver.

Dual Power Supply

Fill Your Listening Space with Beautiful Sound from Three Heads and Dual Capstans.

DR-M24HX



DENON's DR-M24HX cassette deck features state-of-the-art circuit design with microprocessor control plus 3 heads and dual capstans to satisfy the exacting demands of high-quality digital or analog recording and playback. These features effectively eliminate level fluctuations, signal dropouts, and modulation distortions resulting from factors such as uneven tape tension.

The DR-M24HX is an improved model based on higher-end models with important features such as DENON's CCDC (Constant Current Drive Circuit) which delivers significantly improved recording quality.

The DR-M24HX is Endowed with Professional Features at an Affordable Price:

- A 3-Head System with SF Combination Heads
- DENON's Computer-Controlled Silent Mechanism for More Precise Tape Transport
- Dual Capstan Drive for Greater Tape Transport Accuracy and Stability
- Non-Slip Reel Drive for Uniform Tape Tension
- Dolby HX Professional Head Room Extension (Dolby HX Pro)
- Dual Power Supply

Computer-Controlled "Silent Mechanism"

CAM- and encoder-operated servo circuits control all mechanical functions not only for smooth and silent operation but also for safe movement of the pinch rollers to the STOP position in the event of a power outage.

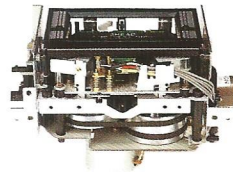
Dual Capstan Drive

The dual capstan feature, found also on the higher-end DR-M44HX, is designed to ensure uniform tape tension for stable tape-to-head contact. Superior sound reproduction with an absolute minimum of modulation noise is therefore possible on the more affordable DR-M24HX deck as well.

Plus Many Important Additional Features...

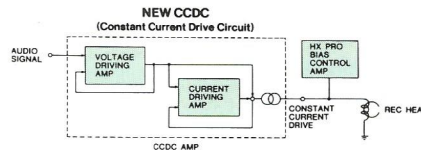
Low Cogging DC Reel Motor

A special DC reel motor allows more precise running of the tape because of its extremely low "cogging" characteristics, resulting in improved drop-out, wow/flutter, and phasing.



The Recording Amplifier equipped with New CCDC (Constant Current Drive Circuit)

The CCDC (Constant Current Drive Circuit) principle is used in the DR-M24HX recording amplifier. The recording head is driven at ideal conditions. The drive current is kept constant regardless of impedance change at varying frequencies. There is no need for a



high impedance resistor between the output of the amplifier and the recording head. A dramatic improvement in dynamic range (10 dB over previous models) and significant reduction in distortion have been achieved. Furthermore, the new CCDC separates the equalizer and head drive amplifiers into two dedicated ICs, thus providing minimum transmission loss in high frequency range thanks to improved amplifier margins. As there are no coupling capacitors either, between the head and the amplifier output, there is no chance for sound coloration.

Manual Bias Adjustment Control

A bias adjustment knob is provided on the front panel for greater control over recording characteristics. The center stop position provides the standard recording bias level, and by simply turning the knob to the right or left, plus or minus variations in the bias can be achieved during the recording session to suit the listener's individual tastes in sound.

REC Level Adjustment Control

The DR-M24HX is equipped with recording level adjustment, to aid recording along with manual bias adjustment. The optimum levels for recording and playback vary with the differences in sensitivity of each tape, and by using the manual bias adjustment and record level adjustment controls each time, the best possible recordings can be achieved.

MPX Filter Switch

The MPX Filter, when switched on, allows stable recording results from an FM tuner by screening out interference from the FM pilot tone signal (19 kHz).



DR-24HX

Optional wood side panels are available

Now Enjoy Total System Operability

The Built-in Dolby HX Pro Headroom Extension System



DR-M12HR

Optional wood side panels are available

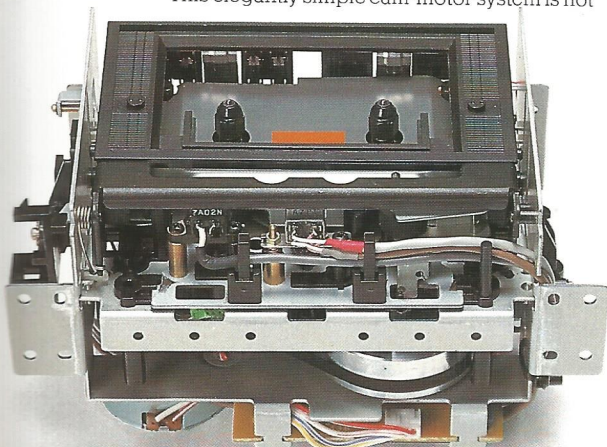
DR-M12HR DR-M10HR



The DR-M12HR/DR-M10HR cassette decks offer many of the superior features found in DENON's upper-range models, such as a 3-motor Computer-Controlled Silent Mechanism, advanced Dolby HX Pro circuitry, and a Dual Power Supply design. An added significant advantage is the provision for wired remote control when either of these decks is connected to one of DENON's new receivers. The receiver's wireless remote commander can operate not only the functions of the receiver but now also those of the deck. The outstanding performance of these new cassette decks from DENON is ideally suited to the increasingly stringent requirements of the digital audio age.

Computer-Controlled Silent Mechanism

This elegantly simple cam-motor system is not



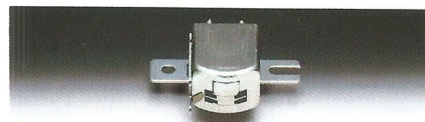
only much quieter than conventional plunger or lever-driven systems but is also far more reliable. A special computer and encoder control circuit check the timing of tape and mechanism engagement to ensure smooth, even tape transport at all times. The computer also controls the display circuit, synchronizes the audio circuit with the timing of the tape transport mechanism, and activates the button-operated controls.

Non-Slip Reel Drive

The Non-Slip Reel Drive in these DENON decks is the same as that found in the higher-end models. This mechanism minimizes wow and flutter for improved phase characteristics and fewer dropouts. And a special low-cogging motor ensures greater tape transport precision. Unlike conventional slip drive systems, the take-up torque is always kept at its optimum level, unaffected by changes in temperature or humidity.

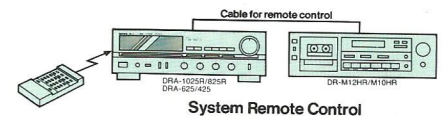
DENON's SF Recording/ Playback Head

The hyperbolic shape of the large recording/playback head effectively prevents irregular "contour effect" frequency responses in the low range. The result is true high-fidelity reproduction of musical sound.



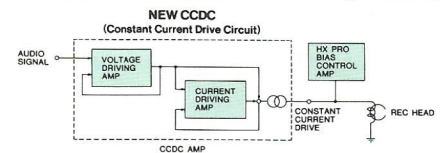
Wired Remote Control System

System-wide remote control is possible when the DR-M12HR or DR-M10HR deck is connected to one of DENON's new receivers. A simple cable with a miniature phone plug makes the easy, straightforward connection to the REMOTE IN jack on the deck's rear panel. The receiver's infrared remote control commander can then be used to operate the important functions of the deck: PLAY, STOP, FF, REW, REC, and REC PAUSE/MUTE.



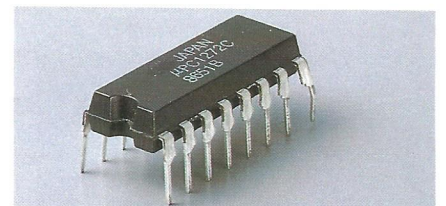
Dual-Channel Recording Amplifier with DENON's New CCDC (Constant Current Drive Circuit)-(DR-M12HR)

The DR-M12HR deck contains a one-chip LSI whose highly integrated circuit has been specifically designed for demanding cassette deck applications. Included now in this LSI is the same Constant Current Drive Circuit (CCDC) that powers the higher-end DR-M24HX deck. The CCDC eliminates any output resistance along the critical audio signal path from recording amp to the head, resulting in perfectly stable current flow into the recording head; the impedance changes due to



varying frequencies are ideally compensated to improve recording quality. The dynamic range is thus improved by 10 dB, distortion is significantly reduced, and the elimination of the conventional capacitor between the recording amp and the head has solved the problem of sound coloration.

Also included in this LSI is a circuit controlling the deck's dual-channel recording capabilities. Here, the performance characteristics of both channels are perfectly matched, guaranteeing unfettered recording operation.



From a Single DENON Remote Control Produces the Cleanest Digital-Level Recording Anywhere.

Coloration-Free Recording/ Playback Amplifier (DR-M10HR)

There is no coupling capacitor between the head and recording/playback amplifier, so the head performs without any sound coloration, and the performance characteristics of the heads can be appreciated to the greatest extent. This efficient method enables realization of recording and playback of the utmost sound transparency.

Dolby HX Pro Headroom Extension System

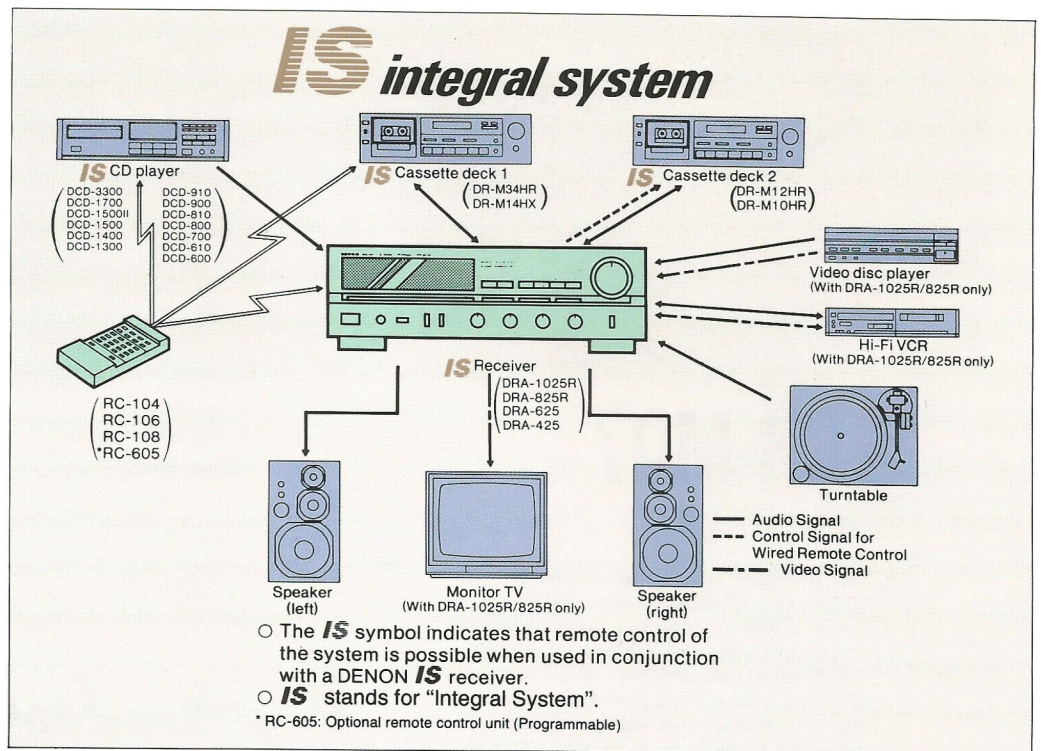
In addition to the popular Dolby B/C Noise Reduction system, the advanced Dolby HX Pro Headroom Extension system is also provided. Dolby HX Pro extends the high-frequency saturation level of the tape during recording, enabling high-level recording with clear, energetic high-frequency signals. Since this function regulates the bias levels during recording on normal, CrO₂, or metal tapes — with or without Dolby B/C noise reduction — a tape recorded on the DR-M12HR or DR-M10HR can be played back on any other deck with improved results.

Dual Power Supply and DC Amplifier Configuration

Large filtering capacitors in the dual power supply section serve to minimize voltage fluctuations in the power supply irrespective of the current drawn. The ample current supply eliminates clipping distortion at transient signal peaks. In addition, each amplification stage is in a DC configuration for clearer, more dynamic sound reproduction.

Many Other Useful Features

- Easy-to-Read Displays**
Ease of operation is greatly enhanced by easy-to-read displays which indicate the recording/playback peak levels, tape count, type of tape used, etc. All information is displayed simultaneously for instant reading of the current operating mode. (LED Display for the DR-M10HR and Large Fluorescent Display for the DR-M12HR)
- One-Touch REC/PAUSE Function**
The one-touch REC/PAUSE function readies the deck for recording with a single touch of the REC button, enabling speedy recording level adjustment during recording standby.
- Music Search System**
Simultaneously pressing the PLAY and FF buttons will commence playback at the beginning of the next selection, pressing PLAY and REW commences playback at the beginning of the present selection.
- Tape Bias Adjustment Control**
- MPX Filter Switch (DR-M12HR)**
- Dolby B and C Noise Reduction**



DRA-1025R



DRA-825R



DRA-625



DRA-425



DR-M10HR

Optional wood side panels are available

Full-Logic Control Cassette Deck Combines Easy Operation with High Sound Quality.

WHAT HiFi? 3/87 (UK)
 "Excellent sound quality and value for money"
 HiFi News & Record Review 3/87 "Outstanding model"
 Audio 4/87 (W. Germany)
 "000 sound is first rate even with a chrome"

HiFi Choice 8/87 (UK) "Best Buy"
 New HiFi Sound 11/87 (UK)
 "Selected in the chosen few supplement issue"
 WHAT HiFi? 1988 Awards (UK)
 "Highly Commended in the category of Best Cassette Deck under £300"



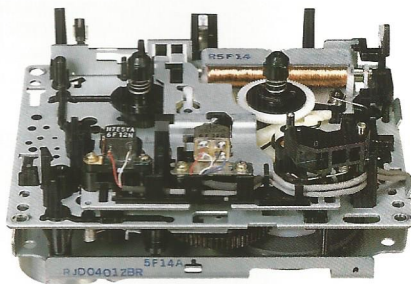
DR-M07



The transport mechanism of the DR-M07 features a built-in microprocessor for Full-Logic Control, ensuring solid reliability and superior ease of operation. Extra careful attention has also been given to details affecting sound quality as exemplified by sophisticated circuit design and durable, well-built parts. Even at its very affordable price, the DR-M07 sacrificed none of the famous transparent sound quality that is DENON's greatest hallmark.

Full-Logic Control Transport

The tape transport section is a vital component in cassette deck design. The built-in microprocessor and full-logic control of the DR-M07 offer an ideal solution. The control keys are laid out according to the principles of human engineering and respond to the slightest touch for smooth, easy operation.



- **Mechanism Design without Lead Wires**

All plungers are mounted directly to the transport mechanism board, thus eliminating the need for wires. This arrangement simplifies construction and enhances reliability.

- **Forced Eject**

Pressing the Eject button from any tape travel mode opens the cassette compartment for quick removal of the tape. Of course, the logic control automatically stops tape travel to prevent any damage.

- **One-Touch REC Standby**

A single touch of the REC button puts the deck into the recording-pause mode for speedy level setting and recording start.

- **Full Auto Stop**

The full auto stop function terminates tape travel in any mode when the tape end is reached, preventing damage to the tape or the drive mechanism.

DENON SF Recording/Playback Head

The famous DENON SF Recording/Playback head has also been incorporated on even this most affordable cassette deck in the DENON lineup in order to preserve the superior sound quality.

Dolby B and C Noise Reduction

Even the advanced Dolby C Noise Reduction option was not sacrificed on the DR-M07. The Dolby C circuit reduces noise by as much as 20 dB. The dynamic range in the mid to high frequencies is also improved with Dolby C due to its spectral skewing circuit and anti-saturation network.

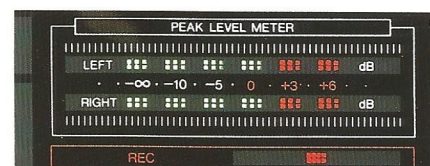
Tape Bias Adjustment Control

The DR-M07 is equipped with a bias adjustment knob on the front panel for greater flexibility to obtain the optimal bias setting for different types and brands of recording tape. The center stop position provides the standard bias levels, while turning the knob to the right or left produces plus or minus variations in the bias level to suit individual preferences.



6-Segment Peak Level Indicator

The 6-segment, 2-color LED peak indicator is easy to read at a glance and allows precise level setting for recording.



Smart and Solid, a Double Cassette Deck with DENON's Renowned Sound Quality and Dolby HX Pro.



Optional wood side panels are available

DRW-750



Though a large number of double cassette decks with auto reverse have appeared on the market, DENON's policy has been firm in developing **only one-way decks** in the interest of preserving high sound quality. Sound tends to deteriorate on double decks employing auto reverse because of increased tape transport instability and the miniaturized head.

By keeping the one-way design, DENON is able to impart to the double decks the same stable tape transport and high-quality heads that are enjoyed by DENON's single decks. And with the addition of the Dolby HX Pro system, DENON has succeeded in producing a one-way double deck that fully matches DENON's highest standards for sound quality in a deck.

Main Features

2-Speed Dubbing

Because dubbing is so indispensable on a double deck, the DRW-750 offers two dubbing speed options with one-touch operational ease. The normal speed dubbing option faithfully records the sound from the master tape without deterioration, while an additional, high-speed dubbing option is available for those who wish to copy tapes more rapidly.

2 Decks, 1 Operation

The operation of both A and B decks has been simplified to a single set of buttons instead of the more confusing approach of separate sets for each deck as is found in the conventional double deck design.

The buttons automatically operate the deck which contains the tape, or if tapes are inserted in both decks, a selection button is used to

designate whether the buttons should operate deck A or deck B.

Automatic Relay Playback

When tapes for playback are inserted in both A and B decks, the PLAY button will play back the tape in deck A first and then automatically continue to play back the tape in deck B.

Music Search (for both A and B Decks)

When the FF or REW buttons are pressed during playback, the FF button will continue playback from the beginning of the next musical number while the REW button will return playback to the beginning of the current number.

Auto Tape Selector

Deck A automatically senses the type of tape inserted, whether type I, II, or IV, and indicates the type on a fluorescent display. And because deck A also automatically sets the bias and equalizer levels, recording errors are easily eliminated. Deck B, which is designed to handle the slave tape during recording, then automatically senses the type of tape inserted and switches to its equalizer value.

Other Features

- **Easy-to-Read Fluorescent Displays**
Incorporated into easy-to-read fluorescent displays are 4-digit electronic counters for both decks, separate left- and right-channel output level indicators covering a range from -20dB to +10dB in 12 stages, and other vital operation modes.
- **DENON's SF Recording/Playback Head**
The hyperbolic shape of the large recording/playback head prevents irregular "contour effect" frequency responses in the low range. This head design delivers true high-fidelity in the reproduced musical sound.

- **Wired Remote Control System**
System-wide remote control is possible when the DRW-750 is connected to one of DENON's new receivers. A simple cable with a miniature phone plug makes the easy, straightforward connection to the REMOTE IN jack on the DRW-750's rear panel. The receiver's infrared remote controller can then be used to operate the important functions (PLAY, STOP, FF, REW, REC, and REC PAUSE/MUTE) of the DRW-750 as well.
- **Manual Bias Adjustment Control**
A bias adjustment knob is provided on the front panel for greater control over recording characteristics. The center stop position provides the standard recording bias level, while turning the knob to the right or left, plus or minus variations in the bias can be achieved during recording to suit the listener's own taste in sound.
- **Dolby B & C Noise Reduction System**
- **Dolby HX Pro Headroom Extension System**
- **Memory Stop**
- **Auto REC MUTE**

SPECIFICATIONS

		DR-M44HX	DR-M34HR	DR-M24HX
Type		4-track, 2-channel, stereo cassette deck	4-track, 2-channel, stereo cassette deck	4-track, 2-channel, stereo cassette deck
Tape selector		Auto-tape selector (I/NORMAL, II/CrO ₂ , IV/METAL)	Auto-tape selector (I/NORMAL, II/CrO ₂ , IV/METAL)	Auto-tape selector (I/NORMAL, II/CrO ₂ , IV/METAL)
Heads	Record and playback	Record ×1, playback ×1 (SF combination head)	Record ×1, playback ×1 (SF combination head)	Record ×1, playback ×1 (SF combination head)
	Erase	Double gap ferrite head ×1	Double gap ferrite head ×1	Double gap ferrite head ×1
Motors	Capstan	DC FG servo motor ×1	DC servo motor ×1	DC servo motor ×1
	Reel	5-pole DC motor ×1	DC motor ×1	DC motor ×1
	Actuator	DC motor ×1	DC motor ×1	DC motor ×1
Wow/flutter		0.035% wrms, ±0.07% wpeak	0.045% wrms, ±0.09% wpeak	0.045% wrms, ±0.09% wpeak
Fast forward time		Approx. 80 sec. (C-60)	Approx. 90 sec. (C-60)	Approx. 90 sec. (C-60)
Frequency response (Metal tape)		20 Hz–22 kHz (25 Hz–20 kHz ±3 dB)	20 Hz–22 kHz (25 Hz–20 kHz ±3 dB)	20 Hz–22 kHz (25 Hz–20 kHz ±3 dB)
Signal-to-noise ratio		More than 75 dB (Dolby C N.R. on, at 3% T.H.D., by CCIR/ARM)	More than 75 dB (Dolby C N.R. on, at 3% T.H.D., by CCIR/ARM)	More than 75 dB (Dolby C N.R. on, at 3% T.H.D., by CCIR/ARM)
Input Line (VOL MAX)		77.5 mV (50 kohms unbalanced)	80 mV (50 kohms unbalanced)	80 mV (50 kohms unbalanced)
Output Line (VOL MAX)		775 mV (10 kohms load)	775 mV (47 kohms load)	775 mV (47 kohms load)
Headphones		1.2 mW (8 ohms load) (acceptable impedance of headphones: 8 ohms–1.2 kohms)	1.2 mW (8 ohms load) (acceptable impedance of headphones: 8 ohms–1.2 kohms)	1.2 mW (8 ohms load) (acceptable impedance of headphones: 8 ohms–1.2 kohms)
Power supply		AC 120 V, 110–120 V/220–240 V, 220 V or 240 V, 50/60 Hz	AC 120 V, 110–120 V/220–240 V, 220 V or 240 V, 50/60 Hz	AC 120 V, 110–120 V/220–240 V, 220 V or 240 V, 50/60 Hz
Power consumption		25 W	18 W	18 W
Dimensions		434 (W)×115 (H)×286 (D) mm	434 (W)×133 (H)×286 (D) mm	434 (W)×115 (H)×286 (D) mm
Weight		5.8 kg	5.6 kg	4.8 kg

		DR-M12HR/M10HR	DR-M07	DRW-750
Type		4-track, 2-channel, stereo cassette deck	4-track, 2-channel, stereo cassette deck	4-track, 2-channel, stereo double cassette deck
Tape selector		Auto-tape selector (I/NORMAL, II/CrO ₂ , IV/METAL)	Manual-tape selector (I/NORMAL, II/CrO ₂ , IV/METAL)	Auto-tape selector (I/NORMAL, II/CrO ₂ , IV/METAL)
Heads	Record and playback	Record & playback ×1 (SF R/P head)	Record & playback ×1 (SF R/P head)	Record & playback ×2 (SF R/P head)
	Erase	Double gap ferrite head ×1	Double gap ferrite head ×1	Double gap ferrite head ×1
Motors	Capstan	DC servo motor ×1	DC servo motor ×1	DC servo motor ×2
	Reel	DC motor ×1	–	DC motor ×2
	Actuator	DC motor ×1	–	–
Wow/flutter		0.045% wrms, ±0.1% wpeak (DR-M12HR) 0.05% wrms, ±0.1% wpeak (DR-M10HR)	0.057% wrms	0.06% wrms, ±0.12% wpeak
Fast forward time		Approx. 100 sec. (C-60)	Approx. 95 sec. (C-60)	Approx. 110 sec. (C-60)
Frequency response (Metal tape)		20 Hz–20 kHz (25 Hz–18 kHz ±3 dB)	20 Hz–17 kHz (40 Hz–16 kHz ±3 dB)	20 Hz–19 kHz (20 Hz–18 kHz ±3 dB)
Signal-to-noise ratio		More than 73 dB (Dolby C N.R. on, at 3% T.H.D., by CCIR/ARM)	More than 73 dB (Dolby C N.R. on, at 3% T.H.D., by CCIR/ARM)	More than 74 dB (Dolby C N.R. on, at 3% T.H.D., by CCIR/ARM)
Input Line		80 mV (50 kohms unbalanced)	100 mV (50 kohms unbalanced)	80 mV (50 kohms unbalanced)
Output Line		620 mV (47 kohms load) (VOL MAX) ... (DR-M12HR only)	580 mV (47 kohms load)	775 mV (47 kohms load)
Headphones		1.2 mW (8 ohms load) (acceptable impedance of headphones: 8 ohms–1.2 kohms)	0.5 mW (8 ohms load) (acceptable impedance of headphones: 8 ohms–2 kohms)	1.5 mW (8 ohms load) (acceptable impedance of headphones: 8 ohms–1.2 kohms)
Power supply		AC 120 V, 110–120 V/220–240 V, 220 V or 240 V, 50/60 Hz	AC 120 V, 110–120 V/220–240 V, 220 V or 240 V, 50/60 Hz	AC 120 V, 110–120 V/220–240 V, 220 V or 240 V, 50/60 Hz
Power consumption		18 W (DR-M12HR) 16 W (DR-M10HR)	12 W	26 W
Dimensions		434 (W)×115 (H)×286 (D) mm	434 (W)×110 (H)×236 (D) mm	434 (W)×125 (H)×275 (D) mm
Weight		4.5 kg (DR-M12HR) 4.6 kg (DR-M10HR)	3.7 kg	4.8 kg

- Specifications are subject to change without notice.
- Dolby, **II** and the HX Pro symbols are the trademarks of Dolby Laboratories Licensing Corporation.
- Versatile Infrared Remote Control for DR-M34HR.
- Wired Remote Control for DR-M12HR, DR-M10HR and DRW-750.
- Optional wood side panels are available (DR-M34HR/M24HX/M12HR/M10HR/DRW-750).
- With side panels (DR-M44HX).

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