Before operating this set, please read these instructions completely.
We thank you for selecting the Model RS-M234X Technics Cassette Tape Deck for your recording and playback enjoyment.

To obtain the maximum benefit of the many features of this deck, please read these operating instructions completely.

**FEATURES**
- Built-in dbx NR Circuit Reduces Tape Hiss by 30 dB or more
- Built-in Dolby B and Dolby C NR Systems
- Convenient Soft Touch Controls
- Rewind Auto-Play
- Single-Touch Recording
- Cue and Review
- Timer-Assisted Record/Playback
- Auto Tape Selector (Metal/CrO₂/Normal)
- Metal Compatible MX Head
- Mic/Line Auto Input Selector
- 3 Color Wide-Range FL Meters with Peak-Hold
- Rec Mute
- Built-in dbx Disc Decoder
- Oil Damped Soft Loading and Unloading

---

**WARNING:**
To prevent fire or shock hazard, do not expose this appliance to rain or moisture.

---

The serial number of this product may be found on the back cover of the unit. You should note the serial number of this unit in the space provided and retain this book as a permanent record of your purchase to aid identification in the event of theft.

Model no. ____________________________________________
Serial no. ____________________________________________

---

**Product Service**
Should your Panasonic product require service, refer to the Directory of Authorized Servicenters, or to your franchised Panasonic dealer, for assistance. Do not send the product to the executive, or regional sales offices. They are not equipped to make repairs.
OPERATION NOTES

1. Horizontal Placement
   For best performance, place this unit in a horizontal position.

2. Location
   Performance may be adversely affected by extremely hot
   (above 35°C. (100°F.)) or extremely cold (below 5°C. (40°F.))
   locations, direct sunshine, or excessive vibration.
   A "click" noise may be heard when the Power Switch is
   turned on or off. To avoid this, be sure to set the volume
   control of the amplifier to the minimum position.

3. Power Source
   This unit features a DC operated motor which makes it
   possible to operate on 50 Hz or 60 Hz AC power frequency
   without any conversion. The voltage source should be within
   ±10% of the unit's rated voltage. Variations in excess of
   ±15% of rated voltage may cause uneven performance, or
   possible damage to the unit.

4. Cleaning The Head Assembly
   One of the most important factors in the determination of
   good tape deck performance is regular cleaning of the Head
   Assembly. Refer to "MAINTENANCE" on page 12 and be
   sure to always keep the heads surfaces clean.

5. CASSETTE INSERTION AND REMOVAL
   • Follow the numbered order.

   1. power push on
   2. Press to open the Cassette
      Holder.
   3. Insert cassette tape.

   The Tape Indicator corresponding to the type of tape used lights
   after closing the Cassette Holder. (Refer to "AUTO TAPE
   SELECTOR FUNCTION" on page 4.)

   Notes:
   • Be sure the open part of the cassette faces downward. If it is
   upside down, the Cassette Holder can't be closed.
   • Be sure to close the Cassette Holder gently.
   • This deck does not allow the tape to be ejected when it has
     been set to the recording or playback mode.
ABOUT CASSETTE TAPE

The cassette tape used in this unit is the universal type used throughout the world.

Notes:
1. Do not pull the tape out of the cassette opening.
2. If the tape is loose in the cassette, the tape may become wound onto the Pinch Roller and result in breakage or damage. If the tape is loose, use a pencil as a drive shaft to rotate the reel in the proper direction.
3. Avoid storing cassette tapes in places where the temperature and/or the humidity is high.
4. If the tape is very tightly wound/or unevenly wound, wind and rewind it in the fast forward and rewind modes before use.
5. Use only high quality tapes up to the length of C-90. Do not use C-120 or C-180 tapes with this unit because these tapes can easily become broken or stretched if not used with extreme care and may get tangled with the Capstan and Pinch Roller.
6. Since dirt on the Heads, Capstan or Pinch Roller can cause tape malfunctions, these parts must be kept clean, as instructed in "MAINTENANCE" on page 12.

Accidental-Erase Prevention
Tape cassettes have special plastic tabs, one for side one and one for side two, which, if removed, prevent accidental erasure of recorded material. These tabs can be pushed out with a screwdriver or similar tool. If they are not in the cassette, the recording cannot be made. If, for any reason, it is later desired to make a recording on a cassette from which the tabs have been removed, it is possible to do so by simply covering the holes where the tabs were with cellophane tape, and then record in the usual way.

AUTO TAPE SELECTOR FUNCTION

The auto tape selector automatically selects the type of tape as soon as a tape is loaded. It also sets the bias and equalization at the same time.

Detection holes of various tapes

Tapes permitting automatic setting of bias and equalization

<table>
<thead>
<tr>
<th>Type of tape</th>
<th>Tape indicator</th>
<th>Equalization</th>
<th>Bias</th>
</tr>
</thead>
<tbody>
<tr>
<td>Normal tape</td>
<td>Normal</td>
<td>120 μS</td>
<td>Low</td>
</tr>
<tr>
<td>CrO₂ type tape [with holes (A)]</td>
<td>CrO₂</td>
<td>70 μS</td>
<td>High</td>
</tr>
<tr>
<td>Metal tape [with holes (A) and (B)]</td>
<td>Metal</td>
<td>70 μS</td>
<td>Metal</td>
</tr>
</tbody>
</table>

1. "Metal" lights when no tape has been inserted.
2. Do not record sound onto Metal tapes which are not provided with holes (B) (since this will result in a recording with high distortion).
3. Playback is perfectly normal even if there are no holes (B). (Equalization is 70 μS, the same as for a CrO₂ type tape. In this case, the "CrO₂" tape indicator lights.)
4. Do not use ferri-chrome (Fe-Cr) tapes with this unit.

<table>
<thead>
<tr>
<th>Tape Indicator</th>
<th>Brand</th>
<th>Tape Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Normal</td>
<td>AMPEX GRAND MASTER</td>
<td>C-60, C-90</td>
</tr>
<tr>
<td></td>
<td>BASF PROFESSIONAL</td>
<td>C-60, C-90</td>
</tr>
<tr>
<td></td>
<td>FUJI FX</td>
<td>C-60, C-90</td>
</tr>
<tr>
<td></td>
<td>MAXELL UD</td>
<td>C-60, C-90</td>
</tr>
<tr>
<td></td>
<td>MAXELL UDII</td>
<td>C-60, C-90</td>
</tr>
<tr>
<td></td>
<td>SCOTCH MASTER</td>
<td>C-60, C-90</td>
</tr>
<tr>
<td></td>
<td>SONY UHF</td>
<td>C-60, C-90</td>
</tr>
<tr>
<td></td>
<td>TDK AD</td>
<td>C-60, C-90</td>
</tr>
<tr>
<td>CrO₂</td>
<td>AMPEX GRAND MASTER II</td>
<td>C-60</td>
</tr>
<tr>
<td></td>
<td>BASF PROFESSIONAL II</td>
<td>C-60</td>
</tr>
<tr>
<td></td>
<td>FUJI FX II</td>
<td>C-60</td>
</tr>
<tr>
<td></td>
<td>MAXELL UDII</td>
<td>C-60</td>
</tr>
<tr>
<td></td>
<td>SCOTCH MASTER II</td>
<td>C-60</td>
</tr>
<tr>
<td></td>
<td>TDK SA</td>
<td>C-46, C-60</td>
</tr>
<tr>
<td>Metal</td>
<td>FUJI METAL</td>
<td>C-46, C-60, C-90</td>
</tr>
<tr>
<td></td>
<td>MAXELL MX</td>
<td>C-46, C-60, C-90</td>
</tr>
<tr>
<td></td>
<td>SCOTCH METAFINE</td>
<td>C-46, C-60, C-90</td>
</tr>
<tr>
<td></td>
<td>SONY METALLIC</td>
<td>C-46, C-60, C-90</td>
</tr>
<tr>
<td></td>
<td>TDK MA</td>
<td>C-46, C-60, C-90</td>
</tr>
</tbody>
</table>

Note that there may be a difference in sensitivity of 2 or 3 dB, depending on the type of tape.
OPERATION NOTE

This deck does not allow the tape to be ejected when the power is switched off during recording or playback mode.

In this case, press the Stop Button then press the Eject Button again.
PLAYBACK - Follow the numbered order.

1 Refer to "CASSETTE INSERTION AND REMOVAL" on page 3.

2 C [Dolby NR] B out tape dbx/disc Noise Reduction

Refer to "Noise Reduction Systems" on page 10-11.

3

4 Adjust to desired listening levels.

Stereo Amplifier

5 tape counter

Counter reset

4

FAST FORWARD AND REWIND - Follow the numbered order.

1 ff/cue 2 stop 1 rew/rev 2 stop

Caution: Do not press the Eject Button during fast forward or rewind operations since this will cause the Cassette Holder to open.

- 6 -
When the Fast Forward/Cue Button (or Rewind/Review Button) is pushed during playback, the playback sound can be monitored through the speaker when the tape is either rewound or fast forwarded.

Note:
Reduce the volume level of the stereo amplifier, before performing the "cue" or "review" operation. If the volume is too high, the tweeters in the speaker system may be damaged.

**REWIND AUTO PLAYBACK**

To again playback tape after recording or playback, push the Play Button and the Rewind/Review Button at the same time. The tape will be rewound to its beginning and playback will automatically begin.

---

**Record-Muting Button**

This is a function that comes in handy for cutting out commercials or narration when you are recording programs off the air and also for eliminating the noise heard when the stylus descends onto the record when you are recording material from phonograph records.

*While the Record-Muting Button is being pressed during recording, the tape continues to run but no sound is recorded on the tape. This means it's possible to create unrecorded blanks. During this operation the FL Meter does not indicate anything.*

**Pause**

The Pause Button can be used to temporarily stop the tape movement during recording or playback. To resume tape movement once again, press the Pause Button.

Note:
The pause function does not work when the unit is set to the fast forward or rewind mode.

**Monitoring**

To listen to the recording as it is being made, simply plug a set of stereo headphones (8Ω-600Ω) into the Headphones Jack. You may also listen to the program as it is being recorded if your receiver or amplifier is equipped with a Tape-Monitor Switch.

Note:
In the same way as for playback, an amplifier can be used for monitoring.

**Automatic-Stop System (Full Auto Stop System)**

This unit has a Full Automatic-Stop System. When the tape comes to its end during recording, playback, fast forward or rewind, the tape-transport mechanism automatically releases and places the unit into the stop mode. Because the mechanism automatically stops when the tape comes to its end, both the operating parts and the tape itself are protected. This unit is free from problems such as Pinch Roller deformation resulting from leaving the unit in the play condition (without pressing the Stop Button) for a long period of time.

**Auto input**

*When a microphone is connected to the Microphone Jack, recording can be made through the microphone.*

*Recording can be made from other sound sources (from Line Inputs) if the microphone is disconnected from the Microphone Jack.*

Note:
When only one microphone is connected at the left or right, the line input at the connected side is cut off. When recording with one microphone, the line inputs at both sides are cut off once the balance control is slid to the side (left or right) at which the microphone has been connected.
1 Refer to "CASSETTE INSERTION AND REMOVAL" on page 3.

2 C Dolby NR B out tape dbx disc Noise Reduction

Refer to "Noise Reduction System" on page 10–11.

3 pause

4 illuminated
rec

5 balance left center right

6 Recording Level Setting

<table>
<thead>
<tr>
<th>Input level</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
</tr>
</tbody>
</table>

- When using a Normal Tape or CrO2 Tape

-40 PEAK 12°:8°:4°:0° 30° 4°:8°:10° + dB

- dbx in

- Dolby NR B, C in, NR out

- When using a Metal Tape

-40 PEAK 12°:8°:4°:0° 30° 4°:8°:10° + dB

- dbx in

- Dolby NR B, C in, NR out

Adjust the controls so that the fluorescent Level Meter lights as far as the level indicated in the table below when the input signals are strongest.

<table>
<thead>
<tr>
<th>Noise Reduction (NR)</th>
<th>Normal Tape Chrome Tape</th>
<th>Metal Tape</th>
</tr>
</thead>
<tbody>
<tr>
<td>dbx</td>
<td>+6 dB (+8)</td>
<td>+8 dB (+12)</td>
</tr>
<tr>
<td>Dolby NR B, C in, NR out</td>
<td>+4 dB (+6)</td>
<td>+6 dB (+8)</td>
</tr>
</tbody>
</table>

The level meter may light momentarily as far as the level indicated in parentheses ( ) without causing any complications in the setting.

7 Press to release the pause mode and recording begins.

8 stop

5 counter reset

3 0 0 0 tape counter

Notes:

- Be sure to use a cassette which has the two plastic tabs intact. If these tabs have been removed, a recording cannot be made. (Refer to "Accidental-Erase Prevention" on page 4.)

- Some audio material is copyrighted, and recordings of such material must be limited to personal use and enjoyment.
Recording with a Timer (Timer recording of FM broadcasts)

1. Proceed with steps 1 through 4 of "RECORDING" on page 8.

2. Select desired radio station.

3. Set the timer to the desired time, the power to the amplifier, tuner and tape deck will then be turned off.

5. This completes the preparations for timer recording. At the desired time, the power will be turned on and the timer recording will begin.

Playback with a Timer

1. Proceed with steps 1 through 4 of "PLAYBACK" on page 6.

2. Fast forward or rewind the tape to locate the start of the program for playback.

5. This completes the preparations for timer playback. At the desired time, the power will be turned on and the timer playback will begin.

4. Set the timer to the desired time, the power to the amplifier tuner and tape deck will then be turned off.

If the power is switched off during timer recording or playback, the Capstan and Pinch Roller will remain in contact and if left like this, the Pinch Roller may become deformed. Therefore, always set the timer so that the timer time is longer than the tape running time.
What is a noise reduction system?
When tapes are played back, the hiss which is inherent to the
tapes is rather irritating but this noise can be greatly reduced by
recording and playing back the tape through a noise reduction
system.
This unit is provided with three such systems (dbx, Dolby NR
Type B and Dolby NR Type C) and so the preferred system can
be used in line with the stereo equipment being used as well as
the tape and recording source.

dbx Noise Reduction
Features
1. Reduced noise over the whole audible frequency range (more
    than about "30 dB" reduction).
2. The signal is compressed at a high recording level for
    recording to enable recording with minimal distortion and a
    wide dynamic range.
3. The linear logarithmic compression and expansion do not
    make the sound quality undergo change with level mis-
    matching.

Principle of basic operation
The dbx NR system works to expand the dynamic range by
compressing (encoding) the signals and then expanding (decod-
ing) them. As shown in the figure, the input signal level is halved
during recording onto the tape. During playback the halved level is
doubled to restore the original signal. The figure shows that
high signals are greatly expanded (from "+10 dB" to "+20 dB")
while low signals are given a low expansion ("-40 dB" to "-80
dB"). This results in a great improvement in the dynamic range
and simultaneously in a great reduction in tape hiss.

"disc" position for "dbx encoded discs"
This unit comes with a "dbx" disc position on the Noise
Reduction Select Button for playing "dbx encoded discs".

Playing "dbx encoded discs"
Operate in the following sequence:
1. Set the input selector on the stereo amplifier to the "tape"
    position and the record selector to the "phono" position. If the
    amplifier is capable of tape monitor selection, set the tape
    monitor switch to the "tape" position and the input selector to
    the "phono" position.
2. Set the unit to the stop mode and then set the Noise
    Reduction Select Button to the "dbx" disc position.
    Disconnect the microphone if one has been connected to the
    unit.
3. Start operating the turntable.
4. Adjust the unit's Input Level Controls so that the Fluorescent
    level meter illumination indicates around "0 dB".
5. Adjust the volume using the control on the stereo amplifier.

Note:
* Do not set the Noise Reduction Select Button to the
  "dbx" disc position during tape playback since the
  sound will then no longer be heard.

Some open-reel type dbx encoded tapes are now available from
music stores. These tapes can be played back just like the dbx
encoded discs by setting the Noise Reduction Select Button to
the "disc" position.

Recording "dbx encoded discs" onto tape
1. Set the Noise Reduction Select Button to the "dbx" disc
    position.
2. Adjust the recording level, following the "Recording Level
    Setting" instructions on page 8.
3. Start the recording.
The sound of the disc is recorded on the tape still in encoded
(compressed) form. The decoded (expanded) sound can,
however, be monitored (through both the speakers connected
to the amplifier and headphones connected to the unit). When
playing back a tape which has been recorded in this way, set
the Noise Reduction Select Button to the "dbx" tape posi-
tion.
* Unlike ordinary records, "dbx encoded discs" have their
  sound dbx encoded (compressed) when it is cut into the
  sound grooves. This means that for replay, the sound must
  be returned to its original form through a decoder (expander).
  As a result, the noise level is reduced and the dynamic
  range is increased for a higher record play quality.
Dolby Noise Reduction
This unit includes the Dolby Noise Reduction System, which reduces tape noise by a remarkable degree. Briefly, the system works as follows: At low sound levels (where tape noise is most noticeable), the high-frequency portion of the sound is recorded at a higher level. Tape noise is not amplified. During playback, the level of only that portion of the signal which was increased at the time of the recording, as well as tape noise, is reduced by a like amount. This causes the signal to be heard at a normal level, and the tape noise to be reduced significantly. The B Type Dolby Noise Reduction effectively reduces noise in the high frequency range. The reduction of high range noise is about 10 dB. It cuts tape hiss and expands the dynamic range. The C Type Dolby Noise Reduction effectively reduces noise from mid-range. The reduction of mid-range and high range noise is about 20 dB. The C Type Dolby Noise Reduction comes with an anti-saturation network. By passing the signals through these circuits, the tape saturation level is improved [by about 3.5 dB with tape saturation characteristics (MOL) at 10 kHz] and high frequency distortion is reduced. Therefore compared with the B Type, the C Type Dolby Noise Reduction makes recording with a better S/N ratio. Dolby Noise Reduction System will reduce tape hiss but will not reduce the noise in sound source.

Noise Reduction Select Buttons
- **dbx** tape: Used for dbx NR recording and for replaying dbx recorded tapes.
- **dbx** disc: Used for playing dbx encoded discs on a turn table and for recording such discs.
- **Dolby NR** B: When recording with the Type B Dolby Noise Reduction System and for playing back such tapes.
- **Dolby NR** C: When recording with the Type C Dolby Noise Reduction System and for playing back such tapes.
- out: For ordinary recording and playback.

**Note:**
Noise Reduction Select Button must be set to the same position during playback as for recording.

Fluorescent meter display and function
- The meter scale is designed for easy use with possible indication ranging from "-40 dB" to "+18 dB".
- Three colors are used for the actual indication: white up to "0 dB", orange from "0 dB" to "+8 dB" and red for more than "+8 dB".
- The meter indicates the music signal peaks. The meter responds sensitively to pulsive sound such as that from percussion instruments. It has a peak hold function (auto reset type) which holds the peak level on the meter for about 2 seconds. This makes it easy to read out momentary peak levels.
- The red bar lights when the Noise Reduction Select Button is set to "dbx".

**Balance Control**
When the Fluorescent Level Meters lights to indicate a difference in input level between the left and right channels, a proper balance can be achieved with this control. The right channel level is reduced when the control is slid toward "left" and the left channel level is similarly reduced when it is slid toward "right". Normally, the control is set to the center click position. This control does not function during playback.
ERASING

1. Refer to "CASSETTE INSERTION AND REMOVAL" on page 3.

2. Set to the minimum position "0" input level.

3. C Dolby NR B out tape [box] disc
   Noise Reduction

4. rec-

5. stop

MAINTENANCE

Cleaning the Head Section
The Head Assembly, Pinch Roller and the Capstan are in constant contact with the moving tape. Dirt or residue from the tape on these parts will decrease the sound quality. They should be cleaned with a Cotton Swab after every 10 hours of use, as described below: If these parts are extremely dirty, dip the Cotton Swab or cloth in a little alcohol or head cleaner in order to make cleaning easier.

1. Press to open the Cassette Holder.

2. Remove the Cassette Lid.

3. Erase Head
   REC/PB Head
   Capstan
   Pinch Roller
   Cotton Swab

4. When replacing Cassette Lid, observe caution with lid clips. See below.

5. Replace the Cassette Lid.

Notes:
- Don't allow magnetic materials, such as a screwdriver or a magnet, near the Head Assembly.
- When cleaning, be careful not to bend the Tape Guides.
- Don't attempt to clean the cabinet with alcohol, benzine or thinner, because it may damage the finish.
- If the cabinet is dirty, clean it with a soft cloth dampened with a soap-and-water solution.
- Handle the Cassette Lid (removed to facilitate cleaning of the Heads) with care because it might break if dropped.
IN CASE OF DIFFICULTY

If operation of this unit does not seem normal, check the following points before requesting service. If the trouble cannot be determined and corrected in this way, contact the dealer from whom the unit was purchased, or an authorized Servicenter.

1. After the tape cassette is inserted, the tape does not move when the Play Button is pushed.
   • Is the Power Cord correctly connected?
   • Is the Power Switch pushed in to the “on” position?
2. Although the tape moves, no sound is heard.
   • Is the tape blank?
   • Are the connections to the amplifier and speakers correct?
   • Are connection cords from this unit to the amplifier correctly connected?
   • Is the volume control of the connected amplifier set to the correct position?
   • Is the monitor switch of the connected amplifier set to the correct position?
   • Is the Noise Reduction Select Button set to “fbx” disc position?
3. Sound is distorted.
   • Is the recording level too high?
   • Is the input impedance of the connected amplifier appropriate?
   • Are you using a “Metal tape” without the Tape Detection Holes? (Refer to “AUTO TAPE SELECTOR FUNCTION” on page 4.)
4. The Recording Indicator does not illuminate when the Record Button is pressed.
   • Is the tape cassette inserted correctly?
   • Have the recording-prevention tabs of the cassette been removed?
5. Playback sound is hoarse or vibrates. Recorded sound is not clear.
   • Are the head surfaces dirty?
   • Is foreign material adhered to the Pinch Roller and/or the Capstan?
   • Are you using a “Metal tape” without the Tape Detection Holes? (Refer to “AUTO TAPE SELECTOR FUNCTION” on page 4.)
   • Are you using a Fe-Cr tape?
6. Recording can be made by microphone, but not from any other connected sound source.
   • Is a microphone connected to the Microphone Jack?
7. Sound is louder through the left or right channel.
   • Is the Balance Control set properly for recording?

If the unit is brought into a warm room after it has been in a very cold location (freezing temperature), it may not operate properly when first connected. This is due to condensation on internal parts of the unit. This effect will disappear, if it is allowed to stand for 30 minutes or so in a warm room before being used.
### SPECIFICATIONS

<table>
<thead>
<tr>
<th>Specification</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Track System</td>
<td>4-track 2-channel stereo recording and playback</td>
</tr>
<tr>
<td>Tape Speed</td>
<td>4.8 cm/s (1½ ips)</td>
</tr>
<tr>
<td>Wow and Flutter</td>
<td>0.045% (WRMS)</td>
</tr>
<tr>
<td>Frequency Response:</td>
<td>Metal tape: 20~19,000 Hz</td>
</tr>
<tr>
<td></td>
<td>50~17,000 Hz ± 3 dB</td>
</tr>
<tr>
<td></td>
<td>CrO₂ tape: 20~18,000 Hz</td>
</tr>
<tr>
<td></td>
<td>50~16,000 Hz ± 3 dB</td>
</tr>
<tr>
<td></td>
<td>Normal tape: 20~17,000 Hz</td>
</tr>
<tr>
<td></td>
<td>50~15,000 Hz ± 3 dB</td>
</tr>
<tr>
<td>Dynamic Range</td>
<td>110 dB (at 1 kHz) with dbx in</td>
</tr>
<tr>
<td>Max. Input Level Improvement:</td>
<td>10 dB or more improved with dbx in (at 1 kHz)</td>
</tr>
<tr>
<td>Signal-to-Noise Ratio:</td>
<td>dbx in: 92 dB</td>
</tr>
<tr>
<td></td>
<td>Dolby C NR in; 75 dB (CCIR)</td>
</tr>
<tr>
<td></td>
<td>Dolby B NR in; 67 dB (CCIR)</td>
</tr>
<tr>
<td></td>
<td>NR out; 57 dB</td>
</tr>
<tr>
<td></td>
<td>(Signal level = max. input level A weighted CrO₂ type tape)</td>
</tr>
<tr>
<td>Fast Forward and Rewind Time:</td>
<td>Approx 90 seconds with C-60 cassette tape</td>
</tr>
<tr>
<td>Inputs:</td>
<td>MIC: sensitivity 0.25 mV, applicable</td>
</tr>
<tr>
<td></td>
<td>microphone impedance 400Ω~10 kΩ</td>
</tr>
<tr>
<td></td>
<td>LINE: sensitivity 60 mV, input impedance 47 kΩ or more</td>
</tr>
<tr>
<td>Outputs:</td>
<td>LINE: output level 400 mV, output impedance 1.5 kΩ or less</td>
</tr>
<tr>
<td></td>
<td>HEADPHONES: output level 80 mV (at 8Ω) applicable</td>
</tr>
<tr>
<td></td>
<td>headphone impedance 8Ω~600Ω</td>
</tr>
<tr>
<td>Bias Frequency</td>
<td>80 kHz</td>
</tr>
<tr>
<td>Heads:</td>
<td>2-head system</td>
</tr>
<tr>
<td>Motor:</td>
<td>1-MX head for rec/playback</td>
</tr>
<tr>
<td>Power Requirements:</td>
<td>1-double-gap ferrite head for erasure</td>
</tr>
<tr>
<td></td>
<td>1-motor system</td>
</tr>
<tr>
<td>Power Consumption:</td>
<td>AC; 120 V, 50-60 Hz</td>
</tr>
<tr>
<td>Dimensions (W×H×D):</td>
<td>18 W</td>
</tr>
<tr>
<td>Weight:</td>
<td>43 cm × 10.9 cm × 23.5 cm (16½” × 4½” × 9¼”)</td>
</tr>
<tr>
<td></td>
<td>4.4 kg (9 lbs 11 oz.)</td>
</tr>
</tbody>
</table>

Design and Specifications are subject to change without notice.

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