

PROFESSIONAL

Model PMD101 User Guide

Portable Cassette Recorder

marantz®

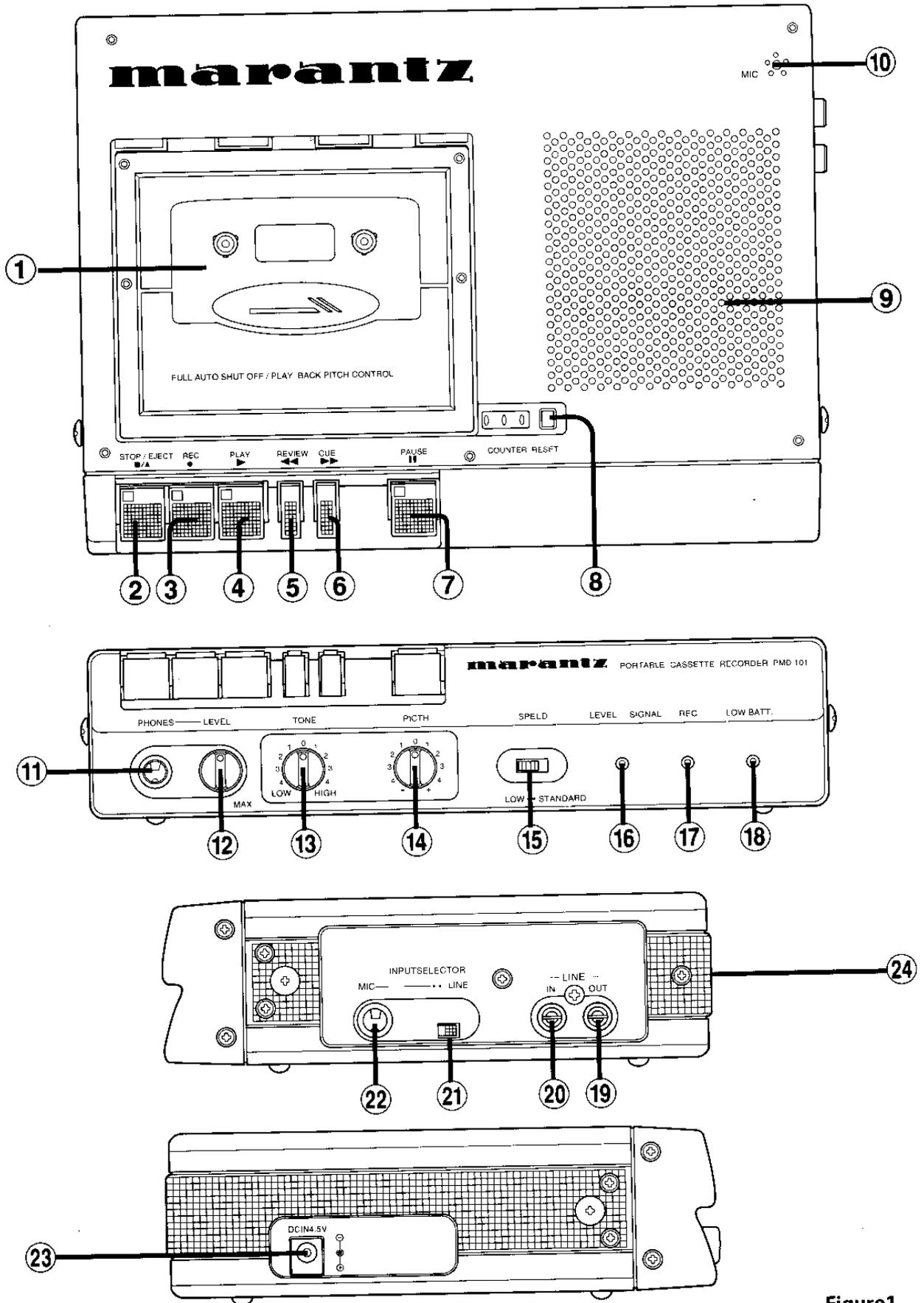


Figure 1

WARNING

TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK,
DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

FOREWORD

To obtain maximum performance and enjoyment from your Portable Cassette Recorder, please study these instructions carefully. Installing and operating your unit is not complicated, but the flexibility provided by its numerous operating features merit your becoming familiar with its controls and connections. Our recommended procedure will assure you of securing the superb performance for which your Cassette Recorder was designed.

For quick identification of the many controls, connections, and adjustments on your unit, all references to them in this manual are printed in **BOLDFACE** type.

PURCHASER'S RECORD

MODEL NO. _____
(Located on Front of Unit)

SERIAL NO. _____
(Located on Rear of Unit)

Cost _____ Date _____

This information becomes your permanent record of a valuable purchase. It should be filled in promptly then kept in a safe place along with your purchase receipt to be referred to as necessary for insurance purposes or when corresponding with Marantz.

IMPORTANT

WHEN SEEKING WARRANTY SERVICE, IT IS THE RESPONSIBILITY OF THE CONSUMER TO ESTABLISH PROOF AND DATE OF PURCHASE. (YOUR PURCHASE RECEIPT OR INVOICE IS ADEQUATE FOR SUCH PROOF.)

QUICK REFERENCE INDEX

The drawings in Figure 1 provide a reference number for each of the panel features. These numbers reference a descriptive paragraph about the feature and may be located in the **PANEL FEATURES** section.

Before operating your new unit, take a few moments to acquaint yourself with some of the features and terminology you will encounter in this book.

PANEL FEATURES

① CASSETTE COMPARTMENT

② STOP/EJECT BUTTON

The **STOP/EJECT** button serves a dual purpose. To stop the tape in any mode, depress the button lightly. To open the cassette compartment lid, release the button and depress again firmly.

③ RECORD BUTTON (REC)

Press this button together with the **PLAY** button to begin recording.

④ PLAY BUTTON

When depressed, the **PLAY** button engages the playback circuitry for flawless reproduction of previously recorded tapes.

⑤ REWIND/REVIEW BUTTON (REW/REVIEW)

Depress this button to rapidly rewind a tape. If depressed during playback, the tape will rewind until the button is released, at which point tape play resumes automatically.

⑥ FAST FORWARD/CUE BUTTON (FF/CUE)

Depress this button for rapid advancement to any desired point on the tape. If depressed during playback, the tape will advance until the button is released, at which point tape play resumes automatically.

⑦ PAUSE BUTTON

To stop a tape in play or record modes, without disengaging the heads.

⑧ TAPE COUNTER/RESET BUTTON

Used for easy reference and indexing. To return the numbers to "000" depress the **RESET** button.

⑨ SPEAKER

⑩ ECM

Stands for a built-in Electret Condenser Microphone. Use this microphone with the **INPUT SELECTOR** set to **MIC**.

⑪ PHONE JACK

Accepts headphones (optional) utilizing a standard stereo or mono phone plug.

⑫ LEVEL CONTROL

The **LEVEL** control regulates the sound volume heard through the speaker or headphone.

13 TONE CONTROL

Used to adjust the sound quality heard through the speaker or headphones. When the knob is turned counterclockwise, the high frequency sound is decreased. When the knob is turned clockwise, the high frequency sound is increased.

14 PITCH CONTROL

When the **PITCH** control knob is at the "0" position, it is set at normal speed. Turn it in the "+" direction to increase the tape speed. Turn it in the "-" direction to decrease the tape speed.

15 TAPE SPEED SELECTOR

STANDARD : The tape travels at normal speed: 1-7/8 ips (4.75cm/sec).

LOW : The tape travels at half speed: 15/16 ips (2.38 cm/sec).

16 SIGNAL INDICATOR

The indicator will light up according to the level of the signal being played or input for recording.

17 REC INDICATOR

When your unit is recording, this indicator will light up red.

18 LOW BATTERY INDICATOR

When the batteries are exhausted, this indicator lights. When the battery condition is satisfactory, this indicator remains off.

19 LINE OUTPUT

Should be connected to the input of your amplifier.

20 LINE INPUT

Should be connected to the tape output jacks of your audio source.

21 INPUT SELECTOR

Used to select an input source: either mic (ECM or 1/4") or line.

22 MICROPHONE JACKS

Will accept any low impedance microphone (optional) utilizing a 1/4" phone plug.

23 EXTERNAL DC POWER INPUT JACK (DC 4.5V)

This jack is provided to operate your portable cassette recorder from an external 4.5 volt DC power source (optional).

24 BATTERY COMPARTMENT

Accepts three "D" size batteries or the Marantz Rechargeable Battery Pack (RB430).

POWER SOURCES

Your Cassette Recorder may be operated using any of four power sources:

BATTERY OPERATION (BATTERIES NOT INCLUDED)

- Open the Battery Compartment cover by depressing the finger grip and pulling out (See Figure 3 on Page 12).
- Install three "D" size batteries.

IMPORTANT:

Each battery should be installed observing the correct polarity as shown in Figure 3 on page 12.

- Close the battery compartment cover.

NOTE:

When the **LOW** battery indicator lights with the power supplied, replace all the batteries.

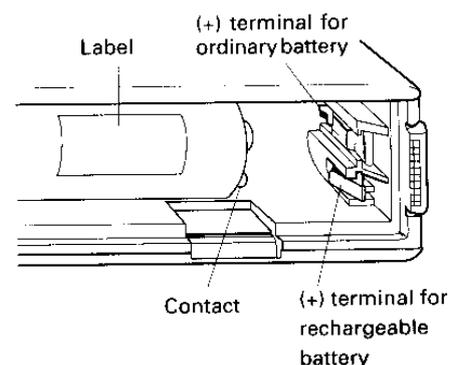


Figure 2

RECHARGEABLE BATTERY PACK

The RB430 (Optional) can be recharged again and again, thereby eliminating the need for frequent battery replacement.

RECHARGEABLE BATTERY PACK INSTALLATION

Open the battery compartment cover, then install the battery pack by pressing the flat negative (-) side of the pack against the spring and positioning the positive (+) side of the pack against the charging terminal of the recorder. Make sure that the label side of the battery pack is facing up.

CHARGING THE BATTERY PACK

The battery pack can be charged by connecting the AC adaptor. (There is no need to operate the recorder at this time.)

AC POWER

The DA-36 AC adaptor (Optional) makes it possible to operate the recorder on AC power.

Insert the AC adaptor's output plug into the 4.5V DC jack in the recorder, and the AC plug into an AC outlet.

NOTE:

The RB430 Battery Pack is automatically recharged, and the batteries disconnected, when the power cord is connected to the AC receptacle.

CAUTION:

When not using the recorder, unplug the AC adaptor from the wall outlet and the DC jack on the recorder.

CAUTION FOR RECHARGEABLE BATTERY

It takes approximately 16 to 24 hours to recharge the RB430 Battery Pack. Charging for a longer period of time will overcharge the RB430, and will shorten the life of your battery pack.

The battery can be destroyed if shorting, so be careful to avoid short circuits.

OPERATION DURING CHARGING

It is advisable not to operate the unit during charging as it could cause problems with the AC adaptor.

CAUTION UPON USING THE AC ADAPTOR

If the AC adaptor is detached from the AC outlet but is still plugged into the PMD101, the unit cannot operate even if power is supplied from another source (batteries for example).

AC ADAPTOR

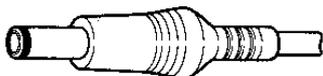
Marantz recommends the use of the DA-36 AC adaptor (optional) to operate this unit.

If any DC adaptor other than the DA-36 is used, be sure that the voltage, amperage, and polarity of the adaptor are the same as that of the DA-36.

Otherwise, damage to your PMD101 may result.

- Rating : DC 4.5V 700mA

- Polarity:



POWER FROM AN EXTERNAL DC SOURCE

This unit can also be operated with an external DC power source of 4.5 V and 700 mA. A "DC to DC" converter must be used to operate the unit with DC power sources other than 4.5 volts, such as a 12 volt automobile battery. Marantz Professional Products offers the CA221 car adaptor for this purpose. Contact Marantz or your nearest Marantz retailer for more information.

WARNINGS:

The outer sleeve of the AC adaptor and DC to DC converter plug must be positive (+), and the inner sleeve must be negative (-).

It is very important that any AC adaptor and DC to DC converter used with this unit must conform to these specifications, or serious damage to your unit may result.

OPERATING INSTRUCTIONS

Tape Type

The PMD101 is designed to provide optimum performance with high quality chrome tapes (sometimes called CrO₂, Type II, or High-position tape). Marantz recommends the use of these chrome tapes in C-90 (90 minute) or C-60 (60 minute) lengths. Longer tapes (C-100, C-120) may be too thin to maintain sound quality during heavy use.

RECORDING CONNECTIONS

You may record the signal input through the microphone or Line input jack by setting the **INPUT SELECTOR** switch to "MIC" or "LINE" respectively.

For microphone recording, connect the individual microphone to the MIC jack of your cassette recorder.

The line input jack is used to record line level signals from an external source such as a receiver or another tape recorder. Connect an audio cable (with a phono plug termination) to the **LINE IN** jack of your cassette recorder, and the other end of the cable (terminated with an appropriate plug) to the output jack of the external source.

Electric guitars, keyboards, and other instruments have higher output levels than most microphones. Using these devices through the 1/4" input may result in distorted recordings.

TO RECORD

1. Insert a blank cassette of CrO₂ type tape.
2. Push the **REC** button and the **PLAY** button together.

Your Cassette Recorder is now in the record mode. The recording level is automatically set to the optimum level.

SOURCE MONITORING

You will be able to monitor the source being recorded by simply turning up the **LEVEL** control. Monitoring may be accomplished through the use of a headphone.

LONG PLAY

When the **SPEED** selector is set to **LOW**, the tape speed is halved and the recording time doubles.

NOTE:

Do not change the SPEED selector setting during recording.

TO PROTECT VALUABLE RECORDINGS

You can prevent your valuable recordings from being erased by removing the safety tabs on your cassette tape.

Use a small screwdriver to breakout one or both safety tabs. (Figure 4 on Page 12 shows how to remove the side "A" safety tab.)

The recording capability of either side of a cassette can be restored by covering the appropriate opening where the tab was removed with cellophane tape. (Figure 5 on Page 12 shows cellophane tape applied to side "A" safety tab opening.)

TO PLAYBACK

1. Insert a pre-recorded cassette, or playback a tape just recorded—rewind the tape to the beginning.
2. Depress the **PLAY** button.
3. Adjust the **LEVEL** control for a comfortable listening level.

NOTE:

For playback through an optional headphone, simply plug your headphone into the 1/4" headphone jack on the front panel. The built-in speaker will shut off automatically.

REWIND

To rewind a tape, depress the **REW/REVIEW** button. The tape will rewind to the beginning. To stop at other desired points, depress the **STOP/EJECT** button.

REVIEW

Partially depressing the **REW/REVIEW** button during playback operation permits you to monitor information on the tape as it rewinds. When fully depressed, no sound will be heard. When the desired portion of the tape is reached, release the button to automatically resume tape play.

FAST FORWARD

To rapidly advance the tape in a forward direction, depress the **FF/CUE** button. When the desired point is reached, depress the **STOP/EJECT** button.

CUE

Partially depressing the **FF/CUE** button during playback operation permits you to monitor information on the tape as it is rapidly advanced. When fully depressed, no sound will be heard. When the desired portion of the tape is reached, release the button to automatically resume tape play.

PAUSE

Depress the **PAUSE** button to momentarily stop the tape in the record or playback modes. Depress the button a second time to resume tape motion.

The pause feature provides for the convenient editing of material while recording or playing back individual short segments of tape.

CAUTION:

The FF and REW buttons will not lock if no battery or AC power is supplied. This is not an indication of trouble with the unit.

PITCH CONTROL

The **PITCH** control ($\pm 20\%$) operates only during playback. Normal speed is indicated when the **PITCH** control is set to the center (detente) position.

CAUTION:

- At the beginning or end of a recording, popping noises are sometimes recorded on the tape. To prevent this, proceed as follows.
 1. Press the **PAUSE** button.
 2. Press the **RECORD** and **PLAY** button.
 3. Press the **PAUSE** button again to start recording.
 4. Press the **PAUSE** button to stop the tape.
 5. Press the **STOP** button to stop recording.
- When recording with batteries, using the speaker or headphones to monitor may exhaust the batteries.

Set the monitor control to zero except when necessary.
- When the batteries are exhausted, the tape moves, but recording is not possible. Refer to the battery indicator to see if your batteries need to be replaced.
- When the unit is used at low temperatures, the power consumption of the unit increases and the battery voltage decreases. In low temperatures, the battery life may be shortened.

TOTAL SHUT OFF

This built-in feature automatically disengages the transport and shuts off the unit when the end of the tape is reached in any mode of operation.

TO ERASE A TAPE

1. Insert the cassette with the side you wish to erase facing up.
2. Set the **INPUT SELECTOR** switch to "**LINE**" and remove any connection from the **LINE INPUT** jacks.
3. Simultaneously press the **REC** and **PLAY** buttons.

PROPER CARE AND MAINTENANCE

- Periodically clean the tape heads, guides and pinch roller with a soft cloth or cotton swab moistened with denatured alcohol or a commercial head cleaning solution.
Clean the heads after removing the batteries and disconnecting the AC adaptor. Head cleaning procedures are as described below.
 1. Depress the **STOP/EJECT** button to open the cassette compartment.
 2. Depress the **PLAY** button to engage the head assembly. After cleaning has been completed, depress the **STOP/EJECT** button to disengage the head assembly.
- Tape head and guides also become magnetized over a period of time, and should be demagnetized periodically using a commercial head demagnetizer.
- When cleaning the cabinet, use a soft cloth slightly dampened with a mild solution of detergent and water.
NEVER use scouring pads, scouring powders, harsh chemicals or petroleum products.
- Weak batteries can leak and cause corrosion. If the recorder will not be used for a long period of time or if it is used extensively with an AC adaptor, remove the batteries.
- Extended use of this unit in areas of extreme heat or humidity should be avoided.

MODEL PMD101 TECHNICAL SPECIFICATIONS

Tape Drive System Single Capstan Drive
Cartridge Philips type compact cassette
Track System 2-track 1-channel
Tape Speed 1-7/8 ips and 15/16 ips ($\pm 20\%$)
Heads 2 Head System
Record/Playback: Super Hard Metal Alloy
Erase: Dual Gap Metal Alloy
Motor DC Servo Motor

Frequency Response: **Standard Speed** **Long Play**
1-7/8 ips (± 3 dB) **15/16 ips (± 3 dB)**
CrO₂ Tape 40 Hz ~ 12.5 kHz 40 Hz ~ 6 kHz

Signal to Noise Ratio:
CrO₂ Tape 54 dB

Wow and Flutter (WRMS)
Standard Speed 1-7/8 ips 0.15%
Long Play 15/16 ips 0.30%

Output Level/Impedance
Line 500 mV/2 k ohms
Headphone 200 mV/8 ohms

Input Sensitivity/Impedance
Line 316 mV/47 kohms
Microphone 0.3 mV/10 kohms

General:
Power Requirements 4.5V DC, 700 mA
(DA-36 AC Adaptor Optional)
Battery Requirements 3 D Cells
(or optional RB430 Rechargeable Battery Pack)

Battery Life
With Alkaline Batteries
Playback Time 7.5 Hours
Recording Time 5.5 Hours
With RB430 Battery Pack (optional)
Playback Time 4.5 Hours
Recording Time 4.0 Hours

Unit Dimensions and Weight
Width 228 mm (9")
Height 51 mm (2")
Depth 165 mm (6.5")
Weight 1.3 kg (2.87 lbs.)

Specifications subject to change without prior notice.