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PMD-901V

User Guide   English

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Introduction

Thanks for choosing the Marantz Pro PMD-901V. Please see this guide's *Features* chapter to learn about PMD-901V's features, and then refer to the *Operation* chapter to start using PMD-901V.

Important: Before using PMD-901V for the first time, charge it fully. See *Operation > Charging* to learn how to do this.

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For the latest information about this product (system requirements, compatibility information, etc.) and product registration, visit:

marantzpro.com

Features

1. **Camera Lens:** Keep this lens clean and free from dirt, grease, or other obstructions.

2. **Laser Pointer:** Press and hold the **OK** button for 2 seconds to turn this laser pointer on/off. Do not look directly into this light.

3. **Light Sensor:** Keep this sensor clean and free from dirt, grease, or other obstructions.

4. **Flashlight / Strobe Light:** Press and hold the **Light** (👤) button for 2 seconds to turn the **flashlight** on/off.

   Press and hold the **Photo** (📷) button for 2 seconds to turn the **strobe light** on/off.

5. **Infrared Lights:** Press the **Light** (👤) button to turn the **infrared lights** on/off. Use them in low-light environments (night vision). You can set these lights to activate automatically based on the light sensor's reading (see *Settings* to learn more about this).

6. **Speakers:** PMD-901V's audio signal comes out of these pinhole-sized speakers.

7. **Body Clamp:** Attach the included body clamp to PMD-901V here, and use it to secure PMD-901V to your clothes, belt, etc.

8. **Display:** This display shows the image captured by the lens and/or other status information. See the *Operation > Display* section for an overview of what information is shown here.

9. **Play/Pause (▶❚❚):** While playing video, press this button to **rewind**. Press it additional times to increase the rewind speed. While not recording, press this button to play/view the last-recorded file. While playing audio, press this button to return to the start of the file. While browsing through options in the display, press this button to move **up**/**left** one option.

10. **OK:** Press this to confirm a selection shown in PMD-901V's display.

    Press and hold this button for 2 seconds to turn the **laser pointer** on/off.

    Press this button once while not recording and then enter your password to browse and play any of the video, photo, or audio files in PMD-901V's memory (see *Settings* to learn how to set and enter your password).

11. **M:** Press this button to access PMD-901V's **Settings** menu (see *Settings* to learn more about this). While playing video, press and hold this button to **fast-forward**. Press it additional times to increase the fast-forward speed. While browsing through options in the display, press this button to move **down**/**right** one option.

12. **Power** (⏻)**:** Press and hold this button for 2 seconds to power PMD-901V on/off. When you power it on, you will hear a "beep," the display will light up, and PMD-901V will start video recording. (This auto-record feature was added for convenience as PMD-901V will be most commonly used for continuous and immediate video recording. To stop video recording, press the **Video** (□■) button.)

While browsing through PMD-901V's menus in the display, press this button to return to the previous menu.

13. **Star** (★)**:** Press this button to mark a file as "important."

14. **Audio** (🎤)**:** Press this button to start/stop recording audio. (If PMD-901V is powered off, you can press and hold this button for 2 seconds to start audio recording immediately.)

15. **Photo** (📷)**:** Press this button to take a photo.

Press and hold this button for 2 seconds to turn the **strobe light** on/off.

16. **Video** (□■)**:** Press this button to start/stop video recording. (If PMD-901V is powered off, you can press and hold this button for 2 seconds to start video recording immediately.)

17. **Light ( ):** Press this button to turn the **infrared lights** (night vision) on/off.

   Press and hold this button for 2 seconds to turn the **flashlight** on/off.

18. **USB Port:** Use a standard mini-USB cable to connect this port to a USB port on your computer. This connection will charge and power PMD-901V, which will act as a mass-storage device. You can then transfer PMD-901V's files to your computer.

   Alternatively, connect it to the included USB power adapter, or use the charging base.

19. **HDMI Port:** Use a standard mini-HDMI cable to connect this port to a HDMI port on an HD TV or monitor. You can then view or play files directly from PMD-901V's memory.

   Next to this port is a recessed **Reset** button. If PMD-901V "freezes," press this button (using a pen, paper clip, etc.) to power-cycle it, returning it to normal operation.

20. **AV Port:** Use a 3/32" (2.5 mm) cable to connect this port to an external mini camera (720 x 576, 25 fps). The camera's video and audio signals will then be sent into PMD-901V through this port.

21. **Headphone Port:** Connect standard 1/8" (3.5 mm) TS (mono) headphones to this output to listen to the sound of your files directly on PMD-901V. (Using headphones does not disable PMD-901V's built-in speakers.)

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Operation

To power PMD-901V on/off, press and hold the **Power** (⏻) button for 2 seconds. When you power it on, you will hear a "beep," the display will turn on, and PMD-901V will start video recording.

While PMD-901V is recording, a light next to the **Light** (💡) button will be flashing red. While not recording, the light will be lit green.

Note: This auto-record feature was added for convenience as PMD-901V will be most commonly used for continuous and immediate video recording. To stop video recording, simply press the **Video** (🎥) button.

Charging

When PMD-901V's battery life is low, the **battery** (🔋) icon will flash in the display, and you will hear an alert tone. When this happens, charge PMD-901V.

While PMD-901V is charging, a light next to the **Power** (⏻) button will be lit blue. This light will turn off after it is fully charged.

Important: Before using PMD-901V for the first time, charge it fully.

Note: It takes approximately 4 hours to charge PMD-901V fully while not being used.

To charge PMD-901V, use either of the following methods:

Method A:

Use a standard mini-USB cable to connect PMD-901's **USB port** to one of the following:

- a USB port on your computer (powered on)
- the included USB power adapter (connected to a power outlet)
- the included car charger (connected to the cigarette lighter of a car, while running)
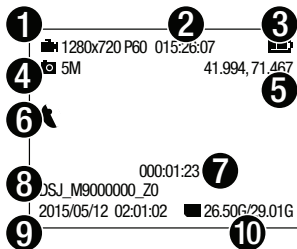
Method B:

Attach PMD-901V to the charging base (make sure PMD-901V's display is facing the same direction as the charging base's USB port). Use a standard mini-USB cable to connect the charging base to one of the following:

- a USB port on your computer (powered on)
- the included USB power adapter (connected to a power outlet)
- the included car charger (connected to the cigarette lighter of a car, while running)

Alternatively, use a power adapter (5 V, 1 A, center-positive, 2.5 mm barrel diameter, not included) to connect the charging base to a power outlet.

If PMD-901 is in CarDV Mode, when you remove PMD-901V from the charging base, it will power off automatically. See *Settings* to learn more about this.

Display

1. **Video Status/Resolution:** This icon will be gray while not recording, flashing red while recording, or solid red if Pre-Record is on (see **Video > Pre-Record** to learn more about this).

   During normal operation, this icon will be a camera. While in CarDV Mode, the icon will be a car, indicating that PMD-901V is operating as a dashboard camera. See **Video > CarDV Mode** to learn more about this.

   The current resolution will appear next to the icon:

2304 x 1296 (at 30 fps, 16:9)	1280 x 720 (at 60 fps, 16:9)
1920 x 1080 (at 30 fps, 16:9)	848 x 480 (at 30 fps, 16:9)
1440 x 1080 (at 30 fps, 16:9)	848 x 480 (at 60 fps, 16:9)
1280 x 720 (at 30 fps, 16:9)	720 x 480 (at 30 fps; 4:3)

2. **Available Recording Time:** This indicates how much video recording time is left, formatted as **hours:minutes:seconds**.

3. **Available Battery Life:** This battery icon will indicate the amount of remaining battery life. This icon will become a power cord when it is being charged and powered on.

4. **Megapixels:** This is the current resolution for photos:

32M (7600 x 4275 16:9)	10M (4384 x 2466 16:9)
21M (6144 x 3456 16:9)	8M (3456 x 1944 16:9)
16M (5336 x 3000 16:9)	5M (3008 x 1688 16:9)
12M (4608 x 2592 16:9)	

5. **Current GPS Position:** These coordinates indicate the current GPS position. These will be shown only when GPS is active.

6. **GPS Active:** When the GPS is active, a satellite dish icon will appear. This icon will not be shown if GPS is inactive.

7. **Elapsed Recording Time:** This indicates how much video recording time has passed, formatted as **hours:minutes:seconds**.

8. **Camera ID:** This is the camera's identification number.

9. **Current Date/Time:** This is the current date and time, formatted as **year**/**month**/**day hours:minutes:seconds**.

10. **Available Memory:** These numbers indicate the amount of used and available memory in gigabytes (GB).

Video

To start/stop video recording, press the **Video** (📹) button. While PMD-901V is recording, a light next to the **Light** (💡) button will be flashing red.

Tip: If PMD-901V is powered off, press and hold the **Video** (📹) button for 2 seconds. PMD-901V will power on and start video recording immediately.

To switch the video resolution between WVGA and HD, press and hold the **Audio** (🎤) button for 2 seconds. This will switch between **1280 x 720** (**30 fps, 16:9**) and **848 x 480** (**30 fps, 16:9**).

Tip: You can select additional video resolutions in the **Settings** menu (see *Settings* to learn more).

To adjust the zoom distance, press and hold the **Play/Pause** (▶❙❙) button or **M** button for more than 1 second.

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To play/view the last-recorded file, press the **Play/Pause** (▶❙❙) button while you are *not* recording.

To browse and play another video file in PMD-901V's memory, press the **OK** button once while not anything, and then enter your password (see *Settings* to learn how to set and enter your password).

In the menu that appears:

- to select the previous file or item, press the **Play/Pause** (▶❙❙) button

- to select the next file or item, press the **M** button

- to confirm your selection, press the **OK** button

- to return to the previous menu, press the **Power** (⏻) button

To fast-forward or rewind during video playback, press the **M** button to fast-forward or press the **Play/Pause** (▶❙❙) button to rewind. Press the button additional times to increase the speed (**2X**, **4X**, **8X**, **16X**, **32X**, **64X**).

PMD-901V can also "tag" your videos with the current GPS coordinates. The satellite dish (🛰) icon on the left side of the display indicates whether its GPS is active (**green**) or inactive (**red**). When active, the coordinates will be shown in the upper-right corner of the display and "tagged" to your video.

CarDV Mode

CarDV Mode lets you use PMD-901V easily as a dashboard camera in your car.

When CarDV Mode is on, PMD-901V will power on automatically (and start recording video) when you connect it to its charging base when it is connected to a power source (e.g., a USB port or cigarette lighter in your car). In the upper-left corner of the display, the video resolution icon will be a car rather than a camera.

PMD-901V will power off as normally does when you disconnect it from the charging base or when you disconnect the charging base from its power source (e.g., when you stop the car).

You can activate CarDV Mode in the Settings menu. See *Settings* to learn how to do this.

CarDV Mode also lets you activate **Loop Record**. When Loop Record is on, PMD-901V will overwrite the oldest video file with the most current video file once its memory is full. This lets you use PMD-901V continuously and transfer files from it as desired (as opposed to after each time the memory is full).

You can activate Loop Record in the Settings menu. See *Settings* to learn how to do this.

Pre-Record

Even while PMD-901V is not actively recording, its buffer will record video as long as it is powered on. If the pre-record feature is on, any video you record will also include the video from the buffer. **In other words**, once you press the **Video (🎥)** button to start recording, PMD-901V will include some of the footage that it captured **before** you pressed the **Video (🎥)** button.

You can activate Pre-Record in the Settings menu. See *Settings* to learn how to do this.

The length of video stored in the buffer depends on the video resolution:

Resolution	Buffer Length
2304 x 1296 (at 30 fps, 16:9)	18 seconds
1920 x 1080 (at 30 fps, 16:9)	27 seconds
1440 x 1080 (at 30 fps, 16:9)	27 seconds
1280 x 720 (at 30 fps, 16:9)	27 seconds
1280 x 720 (at 60 fps, 16:9)	47 seconds
848 x 480 (at 30 fps, 16:9)	42 seconds
848 x 480 (at 60 fps, 16:9)	68 seconds
720 x 480 (at 30 fps; 4:3)	85 seconds

Audio

To start/stop audio recording, press the **Audio** (🎙) button.

To play/view the last-recorded file, press the **Play/Pause** (▶II) button while you are *not* recording.

To browse and play another audio file in PMD-901V's memory, press the **OK** button once while not recording anything, and then enter your password (see *Settings* to learn how to set and enter your password).

In the menu that appears:

- to select the previous file or item, press the **Play/Pause** (▶II) button

- to select the next file or item, press the **M** button

- to confirm your selection, press the **OK** button

- to return to the previous menu, press the **Power** (⏻) button

Photo

To take a photo, press the **Photo** (📷) button.

Tip: You can take a photo while also video recording.

To browse and view photo file in PMD-901V's memory, press the **OK** button once while not recording anything, and then enter your password (see *Settings* to learn how to set and enter your password).

In the menu that appears:

- to select the previous file or item, press the **Play**/**Pause** (▶❙❙) button

- to select the next file or item, press the **M** button

- to confirm your selection, press the **OK** button

- to return to the previous menu, press the **Power** (⏻) button

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Lights

To turn the laser pointer on/off, press and hold the **OK** button for 2 seconds.

To turn the strobe light on/off, press and hold the **Photo** (◻) button for 2 seconds.

To turn the infrared lights (**night vision**) **on/off,** press the **Light** (💡) button. When on, PMD-901V can record video in a dark environment.

Tip: You can set these lights to activate automatically based on the light sensor's reading. See *Settings* to learn how to do this.

To turn the flashlight on/off, press and hold the **Light** (💡) button for 2 seconds.

To turn the display on/off, press the **Power** (⏻) button. PMD-901V will still operate normally while its display is off as long as it remains powered on.

Note: If you do not press any buttons for 30 seconds, the display will turn off automatically. You change the amount of time in the **Settings** menu (see *Settings* to learn more). To conserve battery life, we recommend turning the display off if you are not using it.

Memory

When PMD-901V's memory is full, **Card Full** will appear in the display, and you will hear an alert tone. When this happens, make more space available in its memory. PMD-901V cannot record when its memory is full.

Tip: When CarDV Mode is on, you can use the Loop Record feature to set PMD-901V to automatically overwrite the oldest video file with the most current video file once its memory is full. This lets you use PMD-901V continuously and transfer files from it as desired (as opposed to after each time the memory is full). See *Settings* to learn how to do this.

To transfer files from PMD-901V:

1. Use a standard mini-USB cable to connect PMD-901V's **USB port** to your computer (powered on).

2. Your computer will recognize PMD-901V as a mass-storage device (**Removable Disk**), similar to a USB drive or SD card. Enter your password (see *Settings* to learn how to set and enter your password).

3. Open **Removable Disk** to view its contents. To access the recorded files, open **FILE** and then **100RECOR**. On the root level of PMD-901V, there is a TXT file named **OPERATIONDIARY**, which is an automatically generated list of dates and times when PMD-901V was powered on or off and when recording was started or stopped.

4. Click and drag the files from PMD-901V onto your computer's hard disk. We recommend deleting the files from PMD-901V after moving them to make more space available in its memory.

Settings

The **Settings** menu lets you configure many of PMD-901V's features.

To enter the Settings menu:

1. Press the **M** button. You will be prompted to enter a password.
2. Enter the password by using the following commands:
   - Press the **Play/Pause** (▶‖) button to change the character to the previous letter or number.
   - Press the **M** button to change the character to the next letter or number.
   - Press **OK** to move to the next character.

   Important: The default password is **000000**.
3. After selecting the last character, press **OK** to enter the Settings menu.

To navigate the Settings menu:

- Press the **M** button to select the next setting or option.
- Press the **Play/Pause** (▶‖) button to select the previous setting or option.
- Press **OK** to move to confirm your selection or enter the submenu.
- Press the **Power** (⏻) button to return to the previous menu without changing anything.

Below is a list of the available settings and options. The **bold** items are the default options.

Setting	Description	Options
Resolution	The image resolution for video.	2304 x 1296 (at 30 fps, 16:9) 1920 x 1080 (at 30 fps, 16:9) 1440 x 1080 (at 30 fps, 16:9) 1280 x 720 (at 30 fps, 16:9) **1280 x 720 (at 60 fps, 16:9)** 848 x 480 (at 30 fps, 16:9) 848 x 480 (at 60 fps, 16:9) 720 x 480 (at 30 fps; 4:3)
Megapixels	The image resolution for photos.	32M (7600 x 4275 16:9) 21M (6144 x 3456 16:9) 16M (5336 x 3000 16:9) 12M (4608 x 2592 16:9) 10M (4384 x 2466 16:9) 8M (3456 x 1944 16:9) **5M (3008 x 1688 16:9)**

Burst	The number of images captured when you take a photo.	**Off**, 2, 3, 5, 10, 15, 20
Self Timer	The amount of time the camera waits to take a photo after you press the **Photo** (■) button.	**Off**, 5 sec., 10 sec.
Continuous Shooting	When on, pressing the **Photo** (■) button will activate continuous shooting during which the camera will automatically take a photo at regular intervals. Pressing the **Photo** (■) button again will stop shooting. When off, this feature will be disabled.	**Off**, 5 sec., 10 sec.
Quality	The quality of the image for video and photo files.	**S. Fine**, Fine, Normal
Pre-Record	When on, any video you record will include some of the time that elapsed before you pressed the **Video** (□) button (stored in the camera's buffer; see *Video > Pre-Record* to learn more). When off, any video you record will include only video and audio from the point after you pressed the **Video** (□) button.	**Off**, On

Delay Record	The amount of time the camera waits to **stop** recording video after you press the **Video** (📹) button.	**Off**, 5 sec., 1 min., 10 min.
CarDV Mode	When on, PMD-901V will power on automatically (and start recording video) when you start charging it with the charging base. PMD-901V will power off as it normally does when you disconnect it from the charging base or when you disconnect the charging base from its power source (e.g., stop the car). See *Video > CarDV Mode* to learn more.	**Off**, On
Loop Record	When on, PMD-901V will overwrite the oldest video file with the most current video file once its memory is full. See *Video > CarDV Mode* to learn more. You can select this setting only when **CarDV Mode** is **On**.	**Off**, On

Split Time	While recording video, the camera will automatically split its recording into files of this length.	5 min., 10 min., **15 min.**, 30 min., 45 min.
Slideshow	When on, viewing photo files will start a slideshow where each photo will be shown for approximately 5 seconds. When off, this feature will be disabled.	**Off**, On
Infrared	When set to **Manual**, you will need to press the **Light** (💡) button to turn the infrared lights on/off. When set to **Auto**, these lights will activate automatically based on the light sensor's reading.	**Manual**, Auto
Record Warning	When on, you will hear a voice confirmation when you start recording. When off, this confirmation is disabled.	Off, **On**
GPS	The global positioning system function.	**Off**, On

Time Zone	Use this to offset the time for a specific time zone. (See *Date*/*Time* later in this section.) This setting does not account for Daylight Saving Time.	-12 to **+0** to +12
Language	The language of the text in PMD-901V's interface.	**English**, Russian (Язык: Русский), Polish (Jezyk polski)
Screen Saver	The amount of time PMD-901V can be idle (no button presses) before deactivating the display to conserve power (PMD-901V will still be powered on).	Off, 30 sec., **1 min.**, 3 min. 5 min.
LCD Brightness	The brightness of PMD-901V's display.	Low, **High**
Auto Power Off	The amount of time PMD-901V can be idle (no button presses) before powering off.	**Off**, 30 sec., 1 min., 3 min., 5 min.

LED Light	When on, the LEDs at the top of PMD-901V will indicate its current status. The left LED will be green when powered on and flash red while recording. The right LED will be blue while charging. When off, the LEDs will always be off.	Off, **On**
Key Tone	When on, PMD-901V will play a tone ("beep") each time you press a button. When off, the tone will be disabled.	Off, **On**
Volume	The volume of PMD-901V's speakers. This affects the loudness of video playback, audio playback, the key tone, record warning, and any other sounds played by PMD-901V. This does not affect the volume of the recorded video or audio files themselves.	0–**12**
ID Setting	The identification/serial numbers of the specific PMD-901V device (**Device SN**) and its user (**Person SN**).	By default, the Device SN is **00000**, and the Person SN is **000000**.

Change Password	Use these fields to change the password to enter the Settings menu. Enter the old password in the **Old Password** field, enter the new password in the **New Password** field, and then enter it again in the **Password confirmation** field. After selecting the last character, press **OK** to confirm the password change.	By default, the password is **000000**.
Date/Time	The current date and time that will be shown in the display and that will be associated with the video, audio, and photo files.	**Year/Month/Day Hour:Minute**
Default Setting	Use this to return PMD-901V to its original settings. This does not erase the memory.	**O** (Yes), **X** (No)
Firmware	The current firmware version.	

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Technical Specifications

Specifications are subject to change without notice.

Camera	Sensor	32 megapixels Normal and night-vision modes
	Video Resolutions	2304 x 1296 (at 30 fps, 16:9) 1920 x 1080 (at 30 fps, 16:9) 1440 x 1080 (at 30 fps, 16:9) 1280 x 720 (at 30 or 60 fps, 16:9) 848 x 480 (at 30 or 60 fps, 16:9) 720 x 480 (at 30 fps; 4:3)
	Photo Resolutions	32M (7600 x 4275 16:9) 21M (6144 x 3456 16:9) 16M (5336 x 3000 16:9) 12M (4608 x 2592 16:9) 10M (4384 x 2466 16:9) 8M (3456 x 1944 16:9) 5M (3008 x 1688 16:9)
	Lens	140° wide-angle

Memory	32 GB, internal memory Approximately 10 hours of video recording
File Types	Video: MP4 Audio: WAV Photo: JPG
Display	2" (51 mm) TFT-LCD HD clear color screen
Positioning System	GPS
Connections	Mini-USB port HDMI 1.3 port (1080p) 3/32" (2.5 mm) AV in port (NTSC) 1/8" (3.5 mm) TS mono headphone output
Waterproof	IP-67 (submersible up to 30 min. at 3.3 ft. / 1 m)
Power	Internal lithium-ion battery Approximately 3 hours to charge fully when off Approximately 8.5 hours to charge fully when on Approximately 10 hours of continuous recording time (varies with use) Charges via charging base (included) or via USB (computer or USB power adapter, not included)

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Dimensions (width x depth x height)	PMD-901V	2.36" x 1.22" x 3.70"
		60 mm x 31 mm x 94 mm
	Charging base	2.83" x 3.74" x 1.57"
		72 mm x 95 mm x 40 mm
Weight	PMD-901V (with clip)	0.40 lbs.
		0.180 kg
	Charging base	0.17 lbs.
		0.079 kg

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