

VM-180M

DSLR/VIDEO  
MICROPHONE



POLSKEN™

PRODUCT  
MANUAL



## THANK YOU FOR CHOOSING POLSEN.

The Polsen VM-180M DSLR-Video microphone is a durable and sturdy directional condenser microphone that is designed to deliver professional-sounding audio to a DSLR, video camera, or audio recorder. It is ideal for professionals recording in the field or a studio, but it will also enhance home video recordings.

Unlike omnidirectional microphones built into most cameras and recorders, the VM-180M's cardioid polar pattern and shotgun design optimize the microphone to focus on the subject while rejecting off-axis sound. When selecting the VM-180M's supercardioid polar pattern, greater clarity and focus can be achieved when recording voices or dialog. Other features like adjustable gain sensitivity and a low-cut filter further ensure clear and natural sound with minimal background noise or rumble.

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The VM-180M features a mic input jack for attaching a second microphone or mobile device. When attaching a second microphone, each device is split to the left and right channel. This feature provides a wealth of recording options including adding a lavalier mic for close-up recording of a subject while the VM-180M records ambient sound. Another option is adding a second shotgun mic to simulate stereo sound when recording an interview or conversation. A smartphone or portable MP3 player can be attached to provide background music to the recording, or to record both ends of a phone conversation. Attaching headphones via the headphone jack on the VM-180M provides real-time monitoring of the recording.

The VM-180M includes an integrated shock mount to minimize vibrations from the camera or motion noise from a boom pole. The shoe-mount adapter fits any shoe-mount attachment, and the 1/4"-20 threaded socket fits most boom poles. The compact and lightweight design assures that the VM-180M will never weigh down your rig or extend out into the picture frame. It runs on a single AA battery (included) and includes foam windscreen for added protection against vocal plosives and wind noise.



Among the benefits you'll enjoy:

- Shotgun design
- Compact and lightweight
- Cardioid and supercardioid polar patterns
- Adjustable gain sensitivity
- Low-cut filter
- Input jack for connecting a second microphone or device
- Shoe mount adapter with 1/4"-20 threaded socket
- 3.5 mm audio connection
- Headphone jack for real-time monitoring
- Integrated shock mount
- Approximately 100 hours of battery life



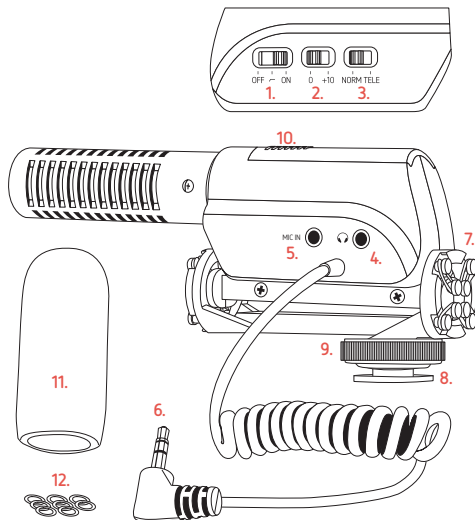
## PRECAUTIONS

- Please read and follow these instructions, and refer to this manual in case of questions. Keep this manual in a safe place.
- Keep this product away from water and any flammable gases or liquids.
- Do not attempt to disassemble or repair the equipment yourself.
- Handle this product with care.
- Clean the product with a soft dry cloth.
- Before use, make sure that this product is intact and that there are no missing parts.
- All photos are for illustrative purposes only.
- Do not leave the batteries in this product for long periods of non-use. Batteries can leak and damage the microphone.



## OVERVIEW

1. Power ON/LOW-CUT (↶) Filter button
2. Gain (0 dB, +10 dB) button
3. Polar Pattern selector
4. Mic input jack
5. Headphone jack
6. 3.5 mm mini jack connector
7. Shock mount
8. Mounting foot with 1/4"-20 threaded socket
9. Locking wheel
10. Battery compartment
11. Foam windscreen
12. Replacement suspenders (8)



## INSTALLING THE BATTERY

The VM-180M operates on one AA battery (included.) To install the battery, do the following:

1. Remove the battery compartment cover by pressing down on the ridges and sliding the cover toward the back of the microphone.
2. Insert the battery with the orientation indicated by the diagram inside the compartment.
3. Replace the battery compartment cover.



# MOUNTING THE VM-180M

## Shoe Mount

The VM-180M mounts onto a DSLR or video camera with the shoe-mount adapter under the shock mount. To attach the VM-180M to the shoe mount of a DSLR camera, do the following:

1. Loosen the locking wheel by turning it counterclockwise.
2. Securely hold the microphone and the camera.
3. Gently slide the microphone's mounting foot into the camera's shoe mount so that it is fully seated.
4. Tighten the locking wheel by turning it clockwise until the microphone is held securely in place.





## Mic Boom Pole

The mounting foot adapter of the VM-180M comes with a threaded 1/4"-20 socket for attaching to a boom pole. To attach the microphone to a boom pole, do the following:

1. Position the microphone so that the threaded post at the end of the boom pole is aligned with the threaded socket of the VM-180M.
2. Screw the boom pole into the threaded socket until the microphone is secure.



## Making the audio connection

The VM-180M must be connected to the audio input jack of your camera or audio recorder to record sound.

1. Make sure the power button of the VM-180M is in the ON or LOW-CUT(⤵) position.
2. Connect the VM-180M by plugging the 3.5 mm mini plug into the mic input of your camera or recorder.
3. If using a boom pole, you will need an extension cable (sold separately).



## RECORDING WITH THE VM-180M

Once the VM-180M is securely attached and connected to the camera or recorder, follow these steps to begin recording.

**Pro Tip:** Before recording a complete take, it is always advisable to do a test recording and listen to the playback. This will assure that the settings selected on the VM-180M will result in optimal recording quality.

### Turning on the power and selecting a filter

1. Turn on the VM-180M microphone by moving the power button to the ON or LOW-CUT (↶) position.
2. At the ON position, the VM-180M will record with a flat response.
3. Selecting the LOW-CUT filter (↶) will roll off low-end frequencies.

The low cut (↶) filter minimizes rumble, room noise, or machine sound from the camera or recorder.



## Using the Gain Button

The VM-180M offers two settings to determine the microphone's sensitivity.

1. If the recording level is too low, select the +10 dB position.
2. If normal audio provides a sufficient recording level, leave the button set to 0 dB.

## Selecting a Polar Pattern

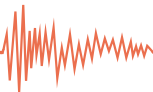
The VM-180M has two options for polar patterns.

1. NORM (normal) setting designates a cardioid polar pattern.

This is ideal for recording voices, dialog, and even acoustic instruments. It focuses on the sound directly in front of the microphone while rejecting off-axis sound.

2. TELE selects a supercardioid polar pattern.

This setting is best for recording dialog from a slightly longer distance. If recording voices or dialog at approximately 10 - 12 feet, the supercardioid pattern will add more isolation, clarity, and focus while rejecting off-axis sound.



## Setting the level on the Camera or Recorder

You may have to set the input level on your camera or recorder. Some DSLR cameras, camcorders, and audio recorders allow the user to access the recording level via the device's menus. If you are setting the level manually, set the level so that the meter reads slightly below maximum level at the loudest points ("peaks") of your test audio. Consult the manual of your camera or recorder for more information.

## Adding a Second Microphone or Device

To add a second microphone or portable device to the VM-180M, do the following:

1. Attach a microphone or a device like a smartphone or MP3 player with a 3.5 mm mini-plug to the MIC input jack on the side of the VM-180M.

When attaching a microphone or device, the audio from each will be recorded to discreet channels on a DSLR or recorder.



Here are some tips for adding a second microphone or device:

- Adding a second shotgun microphone (like a second VM-180M), lets you simulate a stereo recording by isolating each voice on a separate channel. This is ideal for recording dialog.
- By connecting a lavalier microphone, the subject will sound close up while the VM-180M records ambient sound, providing the recording with a sense of space or distance.
- Adding background music to a recording can be achieved by connecting a mobile music player such as an MP3 player that will send music to the left channel while the VM-180M records the voice or dialog to the right channel.
- By connecting a smartphone, both sides of a phone conversation can be recorded.
- There are many more applications. Be creative!



## Monitoring

To monitor a recording do the following:

1. Plug headphones into the 3.5 mm headphone jack on the side of the VM-180M.

**Note:** There is no volume control for the headphone output. Low headphone volume does not indicate a low recording level. It is always advisable to do a test recording and listen to the playback before recording a take.

2. Monitoring can also be achieved by listening via the headphone output of your portable audio recorder.

**Note:** If the portable recorder has a monitoring control, make sure it is enabled.

## Using the Windscreen

The VM-180M should always be operated with the attached foam windscreen. It minimizes vocal plosives and breath noise during up-close microphone placement and will also eliminate the noise from gentle breezes. When recording in windy conditions, the foam windscreen can be replaced by a fur wind cover (not included.)



## Replacing the Shock Mount Suspenders

The integrated shock mount isolates the microphone from your camera or boom pole. This prevents the microphone from picking up disruptive noise such as vibrations from the camera or boom pole.

The VM-180M comes with replacement suspenders for the integrated shock mount. To replace the suspenders, do the following:

1. With a long, thin object (like the end of a paperclip or a pin) place the replacement suspender over the center hook attached to the microphone mount.
2. Using the pin or paperclip, stretch the suspender to the outer hook of the shock mount, and place it around the hook.
3. Repeat this process to replace any of the eight suspenders utilized in the shock mount assembly.





## SPECIFICATIONS

**PATTERN** Cardioid (NORM) / Supercardioid (TELE)

**FREQUENCY RANGE** 20 Hz - 20 kHz

**SENSITIVITY - CARDIOID** -46 dB (0 dB = 1V/Pa @ 1 kHz) **SUPERCARDIOID** -36 dB (0 dB = 1V/Pa @ 1 kHz)

**LOW CUT FILTER** -5 dB @ 300 Hz

**OUTPUT IMPEDANCE** 1.5K  $\Omega$  at high level 600  $\Omega$  at low level

**POWER REQUIREMENT** 1 AA battery

**BATTERY LIFE** 100 hours (normal use)

**OUTPUT CONNECTOR** 3.5 mm mini plug

**MIC INPUT** 3.5 mm mini plug

**CABLE LENGTH** 3' (0.9 m)

**OUTER CASE** ABS construction

**DIMENSIONS (WITH SHOCK MOUNT) (L x W x H)** 5.7" x 1.25" x 2.6" (14.4 x 3.2 x 6.7 cm)

**WEIGHT (WITH BATTERY)** 0.25 lbs (113.4 g)



## TROUBLESHOOTING

Problem	Solution
No sound was recorded	<p>Make sure that a fresh AA battery is installed and correctly oriented in the battery compartment.</p> <p>Make sure the power switch on the microphone is set to the ON position.</p> <p>Make sure the 3.5 mm mini plug is connected to the correct audio input / mic in jack on the device to which you are recording.</p>
The sound is distorted	<p>Make sure the 3.5 mm mini plug is fully plugged into the mic input jack of your camera or recorder.</p> <p>Make sure the gain sensitivity switch is set to 0 dB.</p> <p>If your camera or device has an input control, decrease the mic gain (audio input level) on your camera until the meter reads below peak level at the loudest point of the audio.</p> <p>Reposition the VM-180M further away from the sound source. (See: "Pro Tip" under <i>Recording with the VM-180M</i>)</p>



Problem	Solution
The recording level is too low	<p>Make sure the gain sensitivity switch is set to +10 dB.</p> <p>If your camera or device has an input control, increase the mic gain (audio input level) on your camera until the meter reads slightly below peak level at the loudest point of the audio.</p> <p>Reposition the VM-180M closer to the sound source. (See: "Pro Tip" under <i>Recording with the VM-180M</i>)</p>
The microphone is stuck in the camera's shoe mount	<p>Make sure the locking wheel is fully loosened.</p> <p><b>Important:</b> the microphone should easily mount and dismount. Do not apply force by trying to pull the VM-180M off the camera. You could damage the microphone and the camera.</p>



## ONE-YEAR LIMITED WARRANTY

This Polsen product is warranted to the original purchaser to be free from defects in materials and workmanship under normal consumer use for a period of one (1) year from the original purchase date or thirty (30) days after replacement, whichever occurs later. The warranty provider's responsibility with respect to this limited warranty shall be limited solely to repair or replacement, at the provider's discretion, of any product that fails during normal use of this product in its intended manner and in its intended environment. Inoperability of the product or part(s) shall be determined by the warranty provider. If the product has been discontinued, the warranty provider reserves the right to replace it with a model of equivalent quality and function.

This warranty does not cover damage or defect caused by misuse, neglect, accident, alteration, abuse, improper installation or maintenance. EXCEPT AS PROVIDED HEREIN, THE WARRANTY PROVIDER MAKES NEITHER ANY EXPRESS WARRANTIES NOR ANY IMPLIED WARRANTIES, INCLUDING BUT NOT LIMITED TO ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. This warranty provides you with specific legal rights, and you may also have additional rights that vary from state to state.

To obtain warranty coverage, contact the Polsen Customer Service Department to obtain a return merchandise authorization ("RMA") number, and return the defective product to Polsen along with the RMA number and proof of purchase. Shipment of the defective product is at the purchaser's own risk and expense.

For more information or to arrange service, visit [www.polsenaudio.com](http://www.polsenaudio.com) or call Customer Service at 212-594-2353.

Product warranty provided by the Gradus Group.

[www.gradusgroup.com](http://www.gradusgroup.com)

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