

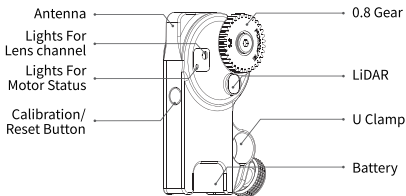


MOTOR SMART MINI

(PD-BTMP-S)

Product User Manual

Welcome To Use MOTOR SMART MINI



MOTOR SMART MINI
(PD-BTMP-S)

Notice For Use

- Before using the product, please read the instructions carefully or watch the tutorial videos to learn how to use the products properly. If there are any direct or indirect adverse effects due to operational errors, PDMOVIE will not assume any responsibility.
- Please do not dismantle, repair or refit the internal structure of the product without authorization. If the product is damaged due to the above improper operation, PDMOVIE has the right to refuse product service.
- If you need technical support or if the product has any problems, Please contact us.

E-mail: pd@pdmovie.com

Website: www.pdmovie.com

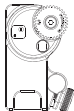
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Product List



①

**Motor Smart
Mini
(PD-BTMP-S)**



②

**Hot Shoe
Clamp**



③

**LI-42BX2
Battery**



④

**LI-42BX2
Battery Charger**



⑤

10CM Pipe



⑥

Lens Gear Ring



⑦

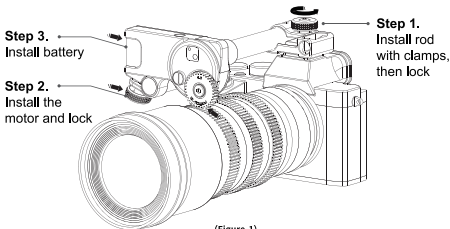
**Micro USB
Charging Cable**

Number	Name	MOTORSMArt MINI
1	Motor Smart Mini	1
2	Hot Shoe Clamp	1
3	LI-42BX2 Battery	2
4	LI-42BX2 Battery Charger	1
5	10CM Pipe(15mm DIA)	1
6	Lens Gear Ring	1
7	Micro USB Charging Cable	1

Instructions for Use

1. Install Motor

Install the motor on the rod and make sure the motor gear matches with the lens gear. (If it install on DSLR Camera lens, please use the camera hot shoe clamp.)



(Figure-1)



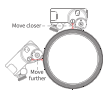
1. When installing, it is recommended to place the LiDAR as close to the lens axis as possible for optimal results



2. The installation position of the LiDAR can be chosen based on the emphasis of the composition of the scene



3. The field of view of the LiDAR is 28 degrees, so when using it, be careful not to obstruct it



4. When the front end of the lens is wide, the position of the LiDAR should be adjusted appropriately to avoid obstruction.

*Autofocus is compatible with most regular cinema lenses on the market, but not currently compatible with infinite focus lenses or macro lenses with non-linear progressive zoom.

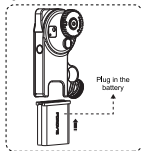
*If the lens being used does not have a 0.8mod focus gear, an additional focus ring needs to be installed. After installation, the motor gear and focus ring gear need to be tightened to enable the motor to drive the lens properly.

2. Turn On the motor and install the battery

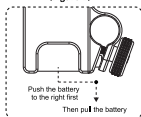
1. The motor automatically powers on after inserting the battery (The device automatically powers off when the battery is removed).

2. Unless encountering uncontrollable factors such as battery damage or significantly reduced battery life, it is not recommended to frequently replace the battery.

3. To replace the battery of the motor, please push the battery to the right side first, then pull it out. (Refer to the direction indicated by the arrow icon on the motor.) If the battery is difficult to take out due to slipperiness, please use the BATTERY STICKER to help remove the battery.



(Figure-2)



(Figure-3)

3. Calibration

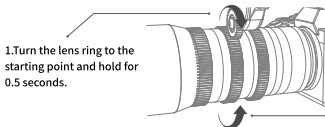
– Automatic: Press and hold the button on the bottom of the motor for three seconds until the motor rotates.

– Manually calibration:

A. When the motor gear and the lens gear are completely connected, turn on the motor and turn the lens to the starting point and hold for 0.5 seconds.

B. Then turn the lens ring to the end and hold for 0.5 seconds.

C. Finally, turn the lens ring slightly to the middle, Calibrate done.



(Figure-4)

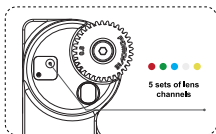
2. Turn the lens ring to the ending point and hold for 0.5 seconds, then turn the lens ring slightly toward the center.

• For more command settings, see Table 1 and Table 2

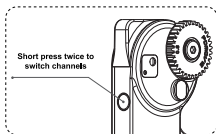
Autofocus setup Steps

1.Things to know before AF setup

- 1 Please print the focus card on regular A3 or A4 paper and paste it on a non-reflective wall.
- 2 Perform automatic focusing lens calibration under normal indoor lighting conditions, do not do it outdoors.
- 3 Start the motor, do not start the controller(If a controller is available), and install the motor correctly according to the installation precautions.
- 4 Select the channel color for saving the lens autofocus data. Double-click the motor button to cycle through 5 channels (red, yellow, green, blue, white). labels stickers can be used to record which lens corresponds to each channel.
- 5 During AF setup, keep the camera and focus card on the same horizontal line.
- 6 During the AF setup process, make sure there are no other objects between the motor and the Focus Card to avoid errors caused by interference with the motor's scanning.



(Figure-5)



(Figure-6)

- *1.After switching to a new lens channel, it is necessary to recalibrate the settings.
- *2. Once a channel with recorded lens data is switched to, it can be used immediately.

2.Start AF setup

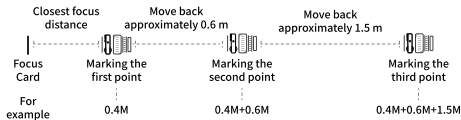
- 1.Long press the motor button for three seconds to automatically calibrate the lens stroke. Make sure the lens stroke calibration is complete.
- 2.Short press the motor button a time then long press for three seconds to enter autofocus setup mode.

1.Manually rotate the lens to the approximate position of the closest focus point on the lens, and move the camera back and forth until the focus card in the camera frame is in focus and accurate. Short press the motor button to mark the first point. At this point, the lens channel indicator light will blinking fast. You can move the camera only after the indicator light stops flashing rapidly and the motor emits a beep sound.

2. Move the camera approximately 0.6 meters backwards and manually adjust the lens focus ring to accurately focus the focus card in the camera frame. Short press the motor button to mark the second AF point. At this point, the lens channel indicator light will be blinking fast again. You can move the camera only after the indicator light stops flashing rapidly and the motor emits a beep sound.

3. Move the camera approximately 1.5 meters backwards and manually adjust the lens focus ring to accurately focus the focus card in the camera frame. Short press the motor button again, when the indicator light stops blinking fast and the motor emits a beep sound. Means complete the autofocus setup. At this point, the lens channel indicator light will stay on continuously, and the motor will enter autofocus mode.

► Mark the distance reference



Test the autofocus by checking the accuracy of the focus from 4 meters to the closest focus distance. If it is accurate, the AF setup is complete. If it is not accurate, check if there are any errors in the AF setup steps and try again according to the steps.

LiDAR's effective scanning distance is 4 meters and scanning angle is 28°. If the range is exceeded, the motor enters a low-power mode and automatically moves the depth of field focus to a position about 5 meters away on the lens. If no object is detected within 5 seconds, the motor adjusts the depth of field focus to a position approximately 30 meters away on the lens and maintains it. When an object re-enters the scanning range, the motor immediately resumes normal autofocus mode from the low-power mode.

The lens data will be saved in the color channel that performs the calibration action. After the motor restarts, simply set it to the corresponding color channel and automatically/manually calibrate the lens stroke to extract the AF data for the lens. This will initiate the autofocus mode without the need for setup again. Changing the camera will not affect the Af data of the lens.

When the motor is in autofocus mode, Short pressing the motor button can pause the autofocus, and short pressing it again can restart the autofocus.

Table 1 Motor Automatic Focus Setting












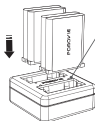
Number of press on the buttons	Function
①  Long press for 3 seconds	Automatic calibration of lens stroke
②  Short press a times and then long press for 3 seconds	AF Setting Calibration mode
③  Short press to mark the first point ----- Short press to mark the second point ----- Short press to mark the third point	Marking can only be done after in-focus with a reference object in AF setting mode
④  Short press a time after AF setup	Pause/Resume autofocus
⑤  Short press twice	Switch lens channel
③ After completing the three AF setup steps. Test the autofocus by checking the accuracy of the focus from 4 meters to the closest focus distance. If it is accurate, the AF setup is complete. If it is not accurate, check if there are any errors in the AF setup steps and try again according to the steps.	

Table 2 Motor Button Command

Number of press on the buttons	Function
①  Long press for 3 seconds	AUTO calibration
②  Short press a times	Emergency stop auto calibration
③  Short press 4 times	restore the lens stroke when power off / remove the lens stroke
④  Short press 5 times	Switch Motor Speed(Fast•Medium•Slow) Pulse Frequency (3/2/1 Times))
⑤  Short press 7 times	switch motor rotate direction
⑥  Short press 3 times and then long press for 3 seconds	Bluetooth pairing
③ To clear the calibrated travel distance, there is no need to restart the motor. Simply press the button 4 times briefly to delete the travel distance. To restore the travel distance after power failure, such as when the motor battery is replaced and restarted, simply press the button 4 times briefly to restore the previously calibrated travel distance.	
④ When the motor speed is switched, the motor indicator will cycle to display the corresponding flashing frequency. Fast = 3 flashes; medium = 2 flashes; slow = 1 flash.	

Charging Instructions

- The motor battery can be charged using a 5V USB charger with a 1-to-4 charging device.



• **Status Indicator**
Red means charging
Green means charging
is complete

The color of the indicator light		Residual electricity
WHITE		100% - 75%
GREEN		75% - 50%
YELLOW		50% - 25%
RED		25% - 0%

REMOTE AIR APP

1.APP download

- Users can use APP to connect and control up to 6 Bluetooth motors.
- Search for PDMOVIE or REMOTE AIR in the Apple App Store to download.
- Log in to the official website www.pdmovie.com with your mobile phone, and enter the APP download page of support to download and install the APP.
(APP currently only supports IOS system)

2.Connect

1. Turn on the bluetooth of the mobile phone and open the APP

2. Enter the Bluetooth selection interface

3. Insert the battery into the motor to turn on the motor

4. Select the motor you want to connect and rename it

5. Select the product category for Bluetooth connectivity as MOTOR MINI, then click connect

6. Click the "Continue" sign to enter the main interface of the app

7. Long press the AUTO sign to automatically calibrate the lens

8. Tap the "-" sign to select the motor that you want to control in this channel

9. Slide the control bar to check whether the motor is working properly

- Before connecting the motor to the app, please ensure that Bluetooth is enabled on your phone, make sure the controller is turned off, and ensure that the app is not running in the background. Refer to the above diagram for the specific connection steps.
- If you need to connect multiple Bluetooth motors, repeat steps 3 ~ 5. Step 7 can also be replaced with manual calibration of the lens travel or by long-pressing the motor button for 3 seconds to initiate calibration.
- For more information about APP, please enter the APP SET interface and select HELP to view more detailed tutorials.

Notice

1. Emergency stop calibration: The motor skips teeth during the automatic calibration process, resulting in the phenomenon of non-stop rotation. Just click the motor button to terminate the automatic calibration immediately;
2. When the motor is not calibrated, it cannot be used. When the damping of individual lenses is too heavy or not smooth, and the motor cannot complete the automatic calibration, the manual calibration lens travel function can be used
3. The PD-BTMP-S Bluetooth motor supports adjusting the three-speed response speed. Short press the motor button 5 times to switch the three-speed response speed cyclically. The speed gears are slow, medium, and fast. After switching the motor speed, the motor indicator will cycle to display the corresponding flashing frequency. Fast = 3 flashes; medium = 2 flashes; slow = 1 flash.
4. Regarding battery maintenance: When the product is not used for a long time, it is recommended to check the power of the device every other month to ensure that the battery has sufficient power; when the device is in a low or no power state for a long time, the battery capacity will become smaller. If the battery is swollen, do not continue to use the battery to avoid the battery being stuck in the battery compartment and difficult to remove.
5. It is recommended to reserve one empty lens channel for manual control.



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