



LIVE AIR 3 SMART

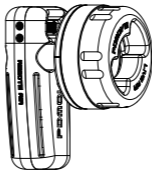
(PDL-AFX-S / PDL-AFX-RA-S)

Product User Manual

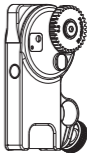
Welcome To Use LIVE AIR 3 SMART



Bluetooth Controller
(PDL-TC-AFX)



Large handwheel device
(REMOTE AIR RIG)



Motor Smart Mini (LIDAR MOTOR)
(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.

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Product List



①

Bluetooth Controller
(PDL-TC-AFX)



②

Large Handwheel Device
(REMOTE AIR RIG)



③

Motor Smart Mini
(PD-BTMP-S)



④

Fixed Fixture



⑤

LIR2477 Battery



⑥

LIR2477
Battery Charger



⑦

LI-42B Battery



⑧

LI-42B
Battery Charger



⑨

Hot Shoe Clamp



⑩

10MM&5MM Pipe



⑪

Lens Gear Ring

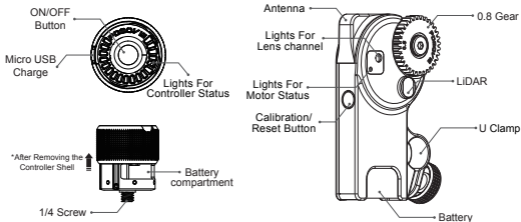


⑫

Micro USB
Charging Cable

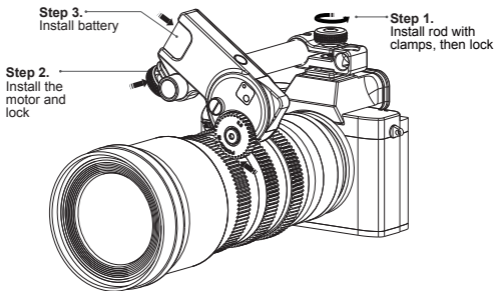
Number	Name	PDL-AFX-S	PDL-AFX-RA-S
1	Controller (PDL-TC-AFX)	1	1
2	Large handwheel device	-	1
3	Motor Smart Mini (PD-BTMP-N)	1	1
4	Fixed Fixture	1	1
5	LIR2477Battery	2	2
6	LIR2477Battery Charger	1	1
7	LI-42BBattery	2	2
8	LI-42BBattery Charger	1	1
9	Hot Shoe Clamp	1	1
10	10MM & 5MM Pipe	1	1
11	Lens Gear Ring	1	1
12	Micro USB Charging Cable	1	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.)





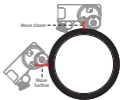
1. When installing, it is recommended to place the LIDAR as close to the lens axis as possible for optimal results



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.**

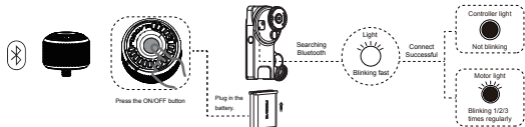
***If the lens being used does not have a 0.8mod focus gear, an additional focus ring needs to be installed. After installation, the motor gear and focus ring gear need to be tightened to enable the motor to drive the lens properly.**

2. Turn On The Bluetooth Controller And Motor

Press the ON/OFF button on the Bluetooth controller for three seconds until the indicator light powers on. The motor will turn on automatically when the battery is inserted.

3. Bluetooth Connection

The controller and motor are paired at the factory. Turn on the controller and the motor at the same time, and the Bluetooth will be paired automatically (if the indicator lights at both ends continue to flash rapidly, it means pairing is in progress). After successful pairing, the controller indicator light is always on, and the motor indicator light shows the flashing frequency corresponding to the current speed gear of the motor. (if pairing with other controllers /motors: the Bluetooth of the controller and the motor needs to be reset, see Table 3-4 and Table 2-6)

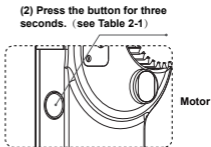
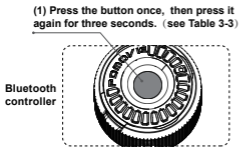


***1. The recommended control distance of the controller within 100 meters, although the actual control distance can be affected by environmental factors.**

***2. In an environment with strong signal interference, The motor and controller may lose connection. We recommend to shorten the operating distance until the controller and the motor are connected again.**

4. Calibration

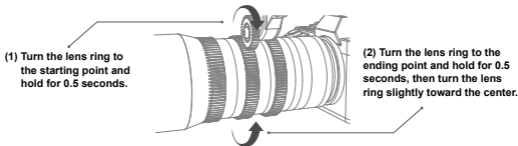
- (1) Press the ON/OFF button of the Bluetooth controller once, then press it again and hold until the motor rotates.
- (2) Press and hold the button on the bottom of the motor for three seconds until the motor rotates.



(3) Manually calibration:

- 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.
- Then turn the lens ring to the end and hold for 0.5 seconds.
- Finally, turn the lens ring slightly to the middle, Calibrate done.

(It is recommend that you use manual calibration when using a lens with out hard stop)



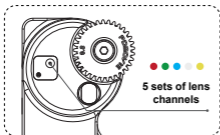
***After completing steps 1 to 4, you can use the controller to drive the motor. For more command settings, see Table 2 and Table 3.**

Autofocus setup Steps

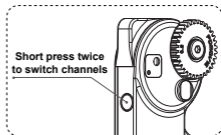
1. Things to know before AF setup

- 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, 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.



***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.**

Start AF setup

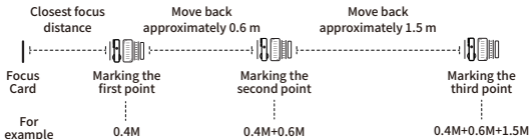
1. Long press the motor button for three seconds to automatically calibrate the lens stroke. Make sure the lens stroke calibration is complete.
2. Short press the motor button a time then long press for three seconds to enter autofocus setup mode.

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 be 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.

*After controller and the motor connecting, rotate the controller to the closest focus limit of the lens before the motor enters automatic focus mode. If the controller moves away from the closest focus limit, the motor will automatically switch to manual control mode.

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

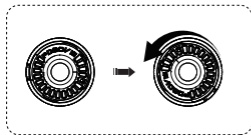
Number of press on the buttons	Function
①  Long press for 3 seconds	AUTO CALIBRATION
②  Short press a times	EMERGENCY STOP AUTO CALIBRATION
③  Short press 4 times	RESTORE THE LENS STROKE WHEN POWER OFF / REMOVE THE LENS STROKE
④  Short press 5 times	SWITCH MOTOR SPEED (FAST-MEDIUM-SLOW) PULSE FREQUENCY (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.	

Auto/Manual mode switch

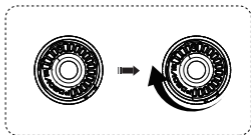
Switch Control Mode

*With the controller and motor connected, rotate the controller to the nearest focus position and pause for 5 seconds. The motor will then enter automatic focus mode;

*Rotate the controller back a certain angle (more than 10 degrees), pause for Over one second, and then return to manual focus control mode.









1. While in the connected state, the controller rotates to the closest focus position, and the motor will enter the automatic focus mode.



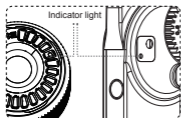
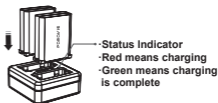
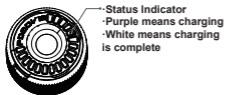
2. The controller rotates slightly to the other side beyond a range of 10 degrees for over 1 second and then returns to manual focus control mode.

Table 3 Bluetooth Controller Instruction of Button

Number of press on the buttons	Function
①  Long press for 3 seconds	ON/OFF
②  Short press a times	A-B FOCUS LIMITS
③  Short press a times and then long press for 3 seconds	AUTO CALIBRATION
④  Short press 3 times and then long press for 3 seconds	BLUETOOTH PAIRING
⑤  Short press 7 times	MOTOR DIRECTION
⑥  Short press 4 times and then long press for 3 seconds	MODE FOCUS ← → ZOOM
② Press once to set point A, press the second to set point B, press the third time to start the automatic operation of point AB, press the fourth time to cancel the automatic operation Run, cancel point AB. (*The speed of automatic operation increases or decreases linearly according to the rotation angle of the knob)	

Charging Instructions

- Use the micro usb cable, plug it into the charging port of the controller, and connect to a 5V USB charger for charging.
- The motor battery can be charged using a 5V USB charger with a 1-to-4 charging device.



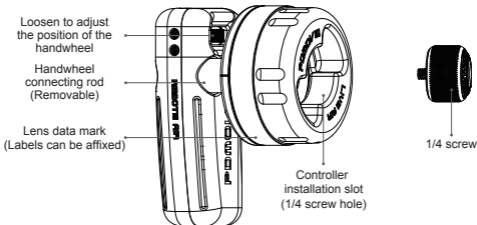
The color of the indicator light	Residual electricity
WHITE	100% - 75%
GREEN	75% - 50%
YELLOW	50% - 25%
RED	25% - 0%

Do not stack controller batteries together without any barriers when not in use, as this can easily damage the batteries.

REMOTE AIR RIG Installation note

1. Installation

First install the Bluetooth controller into the slot of the REMOTE AIR RIG large handwheel extension device (*must be inserted to the end). Then turn the controller clockwise until the controller can't rotate, the installation is complete.



2. Disassembly

First, turn the Bluetooth controller counterclockwise to the limit of the controller, and then apply a little force to continue to rotate the controller counterclockwise until the 1/4 screw of the controller is completely out of the large handwheel slot, then you can pull out the controller .

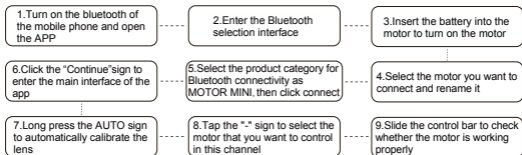
REMOTE AIR APP

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

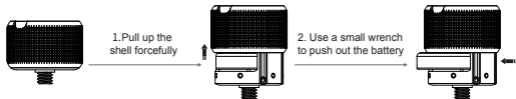
Before use the APP connect to the motor, please make sure that the controller is turned off. And make sure that the APP is not running in the background. The specific connection steps are as follows:



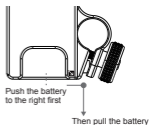
- If you need to connect multiple Bluetooth motors, repeat steps 3 ~ 5.
- Step 7: Automatic lens calibration can also replace by manual lens calibration.
- For more information about APP, please enter the APP SET interface and select HELP to view more detailed tutorials.

Bttery Replacement Instructions

For changing the controller's battery, please mount the controller on an object that has a 1/4 screw hole. Pull up the shell and make sure the shell is moved to the end. Then use a small Allen key to push out the battery.

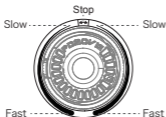


- Unless you encounter force majeure factors such as battery damage and drastically reduced battery life, it is not recommended to replace the controller battery frequently.
- When replacing the battery, Please check the electrode direction when replacing the battery to avoid incorrect installation of the battery.
- 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.



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 controller defaults to FOCUS mode. If it is switched to ZOOM mode, it will be divided equally based on the rotation of the wheel by 300 degrees, and the middle 10 degrees will be the stationary position. Turn left to move forward, turn right to move backward. The propulsion speed is linearly adjusted according to the angle of rotation.



In ZOOM mode, there are three speed control gears.



Short press the controller button for 5 times to change speed.

4. When the rotating stroke of the motor does not match the calibrated stroke, please check whether the indicator light of the Bluetooth controller is blue and the color of the current battery flashes alternately. If the above state occurs, it means that the controller has set the point A-B stroke Limit, you need to briefly press the controller button to start the A-B automatic operation, and then press it again to cancel the automatic operation and cancel the A-B point travel limit. (*A-B point command logic: click the 1st time = set point A; click the 2nd time = set point B; click the 3rd time = start the automatic running of the A-B point cycle; click the 4th time = stop the automatic operation Run and cancel the A-B point limit.)
5. 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.
6. 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.