

Rechargeable Laser Presenter Air Mouse

PM001FL User Manual Patent:M324249

Brief

The Rechargeable Laser Presenter Air Mouse PM001FL is a multiple-axes hand-held pointing device for computer. It is able to transform the space movement of the human hand in the air into an accurate displacement of the screen pointer. Its movement detection technology relies on a multi-axes motion detector encapsulated in the device that analyze the rotation of the wrist or elbow. In conclusion, this is the perfect device to control the accurate movement of a screen pointer in an intuitive way.

Limiting within 10 meters communication range, users can control the mouse pointer in the air shown in the screen in freely roaming once they push the start button. Besides, the device is also equipped with eight multimedia buttons whose function can be user-defined according to his usual practice just like a remote controller (Driver together). In addition, the device acts as a normal wireless mouse when it is put on the flat desk surface. Moreover, a rechargeable battery through USB port assures its power autonomy.

! While Presenter is used at first, you should charge battery to be full (about 4 hours, the charge LED changed from Red color to Green color), then you also have to make the positioning process at first usage after battery charged fully (refer to user manual on Special Operations section of page 5 for positioning procedure.)

Package



Specification PM001FL

Product Name	Rechargeable laser presenter air mouse
Motion Detector	Gyro
Sensor Resolution	Gyro 0.15°/s
PN Code/Channel	64/36 sets
Wireless Communication Range	about 30 m
Transmit power	1~4dBm
Laser pen power	<1mW
wavelength	650nm
Modulation	DSSS
Transmission Frequency	CH01:2406MHz, CH02:2434MHz, CH03:2466MHz
Receiver Interface/Battery	USB Port
Charge Pattern	USB Port
Battery Life	Rechargeable battery fully, presenter about 8 working days under 3 hours operations each days
Power consumption	151.8mW
Operation Voltage	Laser presenter 3.6V / Dongle 5V
Operation Current	Laser presenter 28mA / Dongle 37mA
Human-Oriented Interface	Battery status LED indicator
Mechanical Size	45(W) x 29(H) x 130 (L)mm
Weight	65g
OS Requirement	· Windows 7 · Windows® XP · Mac OS X · PS3 · Windows Vista™ USB Port · Linux · XBOX

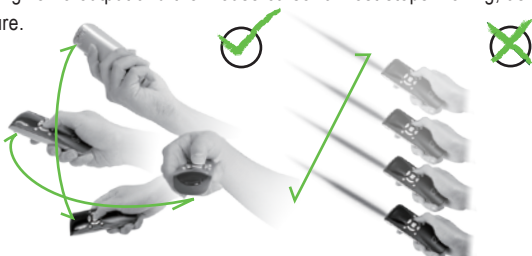
Install (Figure Description)



Operations

In the air

The pointing apparatus is able to control the laser presenter cursor corresponding to the arbitrary planar of the human hand. It detects the movement of the wrist or elbow, as shown in the Left Figure. If there is only a linear motion in the air, the rotation sensor of the mouse will give no output and the mouse cursor almost stops moving, as shown in the Right Figure.



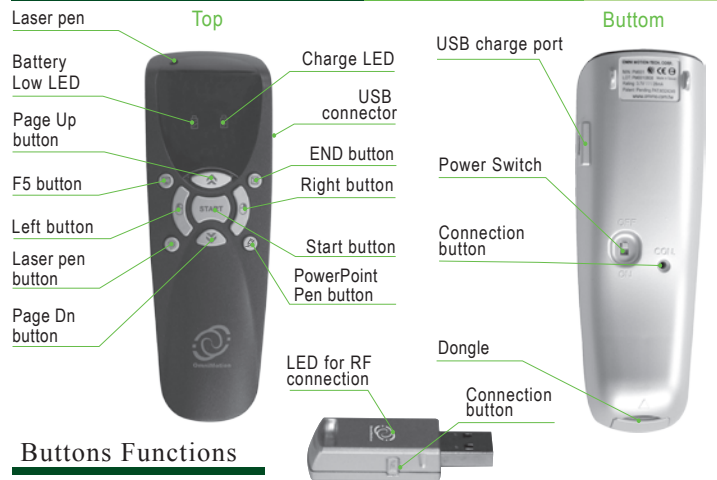
Note: It is normal that the cursor of laser presenter will jump sometimes, because the shaking of the hand will accumulate the input

Laser Presenter and Dongle (RF receiver) setup

1. Plug in the Dongle to the USB port of the PC, then wait about 30~60 seconds for the first time.
2. Turn on the Power Switch on the back of the laser presenter.
3. Hold the START button to run the mouse cursor control by Gyro sensor in the air, or push function buttons to test RF communication (if this step is workable, you should skip Step 4 and Step 5)
4. Push and then release CONNECTION button (Con.) of the Dongle, and the RED LED of the Dongle glimmers.
5. When the red led of the Dongle is flashing, use a pencil to push and then release

CONNECTION button under the back of the laser presenter until the Dongle RED LED is OFF and the GREEN LED is ON. Then again test the function as described in (03), if the mouse still can not work, please repeat step (04) and (05) again.

Functions



Buttons Functions

1. Hold the **START** button to run the mouse cursor control in the air.
 2. The **Page Up** button is the function of keyboard's Page Up.
 3. The **Page Dn** button is the function of keyboard's Page Down.
 4. The **Left** button is the function of mouse left button.
 5. The **Right** button is the function of mouse right button.
 6. The **F5** button is the function of keyboard's F5.
 7. Press the **Close** button to close the last-layer window.
 8. Hold the **Laser pen** button to turn on Laser pen.
 9. To switch of mouse cursor and PowerPoint pen function by push and then release the **Pen** button. It is only allowed to use on PowerPoint of Microsoft Office.
- Note 1 : The function of PowerPoint Pen is enabled by push and release **Pen** button, and it is disabled by push and release **Close** button.
- Note 2 : The function of PowerPoint Pen is also the print function (Ctrl-P) under windows, it can be disabled by push and release **Close** button.

Special Operations

1. Drift and Positioning

When the user holds the **START** button and the cursor starts drifting (slowly moving while the mouse is at rest), the positioning operation should be performed.

Positioning procedure: Put the laser presenter at rest on the table, and hold the **START** button, then push and release the **F5** button for 5 seconds. After releasing both buttons, you can test the cursor of laser presenter freely in order to check whether the positioning stops. If the cursor of laser presenter still drifts, you should repetitively process the procedure suggested above till the positioning stops finally.

2. Switch between DISCONTINUOUS or CONTINUOUS mode for cursor control

The laser presenter can be set either to a DISCONTINUOUS mode or a CONTINUOUS mode. Under DISCONTINUOUS mode, the user needs to hold the **START** button of the laser presenter to control the cursor. Using the CONTINUOUS mode however, the user does not need to hold the **START** button for controlling the cursor.

In the air, the laser presenter allows to work under DISCONTINUOUS mode or under CONTINUOUS mode.

Switching between both modes: Quickly click **START** button twice, all red LEDs under the buttons will start to shine for three seconds. After that LEDs will continuously flash to indicate that laser presenter is operated in CONTINUOUS mode. Simply click **START** button once, and then laser presenter will switch to DISCONTINUOUS mode immediately. When operating in DISCONTINUOUS mode, all red LEDs will shine continuously, but not flash any more. (NOTE : The laser presenter will consume more power when operating under CONTINUOUS mode. In order to obtain a longer operation time, we strongly suggest to turn the POWER SWITCH off or change to a DISCONTINUOUS mode when the laser presenter is no longer used for a span).

3. Rechargeable battery charge

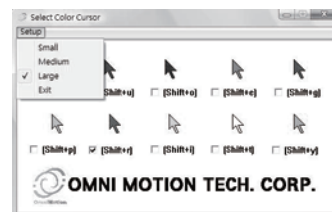
When the rechargeable battery voltage is low, the battery-low LED shines, and the user can connect the USB port of the laser presenter and PC via USB cable to charge the rechargeable battery, meanwhile, user should turn off the POWER SWITCH of laser presenter, but the computer cannot enter sleep. During charging, the charge LED will

show a red color, the charge LED changes to a green color after the rechargeable battery is full.




4. Setup for Cursor Size & Color

While Laser Presenter Air Mouse acts as presenter function in the presentation occasion, in order to achieve the most obvious indication capability of the mouse cursor. OmniMotion Technology specifically offers an application program which can switch to several different cursor sizes and colors fit to the background color of your power point file. You can download the program from the website <http://www.ommo.com.tw/> to select Download for CursorSetup program. While you run the program to option the suitable cursor size and color in Microsoft Windows, you won't need the laser pen with red point. (While Microsoft Office PowerPoint is used for your presentation, you can press the Right button of mouse to point the <Arrow Option> of <Cursor Option>, then select <View> to show cursor always display, please study the Microsoft Office PowerPoint user guide for detailed operation)



Note 1: When the Dongle is released from computer or Computer is turned off, you should also turn off laser presenter to save battery power.

Note 2:  Laser radiation do not stare into beam. Class 2 laser product.

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Caution

(P.S.The product is sold on worldwide except USA.)

End-of-life Battery Disposal Instructions. This device contains an internal, rechargeable battery (3.7V 45x20x5mm). In general, the life expectancy of such batteries is dependent upon their usage. Heavy daily use will result in a shorter battery life. Casual use will extend the battery life. If you suspect that the rechargeable battery inside your device has a low charge, try charging it. If the battery does not recharge after several attempts, it may be non-operational and should be replaced. The user should not replace this battery him/herself, instead the local agent should be contacted. Be sure to dispose of your battery in accordance with the laws and regulations in your area that specify the proper disposal of non-functioning electronic devices. If there are no such laws or regulations, please dispose of your device in a waste bin for spent electronic gear.

CAUTION : The battery used in this device may present a risk of fire or chemical burn if mistreated. Do not disassemble, expose to heat above 70°C (158°F), incinerate, or immerse in water or liquid of any kind. Do not use or charge the battery if it appears to be leaking, discolored, deformed, or in any way abnormal. Do not leave your battery discharged or unused for extended periods of time. When the battery is misused, it may explode or leak, causing burns and personal injury. If the battery leaks, use normal precaution and discard it immediately following the laws and regulations governing battery disposal in you area. Remember that a leaking battery can cause skin burns or other personal injury. Keep batteries always out of reach for children.

Hardware Product Limited Warranty

We warrants that your hardware product shall be free from defects in material and workmanship for one year, beginning from the date of purchase. Except where prohibited by applicable law, this warranty is nontransferable and is limited to the original purchaser. This warranty gives you specific legal rights, and you may also have other rights that vary under local laws.

Limits of Warranty

This warranty dose not cover problems or damage resulting from (1) accident abuse, misapplication, or any unauthorized repair, modification or disassembly; (2) improper operation or maintenance, usage not in accordance with product instructions or connection to improper voltage supply; or (3) use of consumables, such as replacement batteries, not supplied by us except where such restriction is prohibited by applicable law.

Remedies

Our entire liability and your exclusive remedy for any breach of warranty shall be, at our option, to repair or replace the hardware, provided that the hardware is returned to the point of purchase or such other place as we may direct, with a copy of the sales receipt and/or local warranty card. Shipping and handling charges may apply except where prohibited by applicable law. We may, at its option, use new or refurbished or used parts in good working condition to repair or replace any hardware product. Any replacement hardware product will be warranted for at least the remainder of the warranty period.

How to Obtain Warranty Support

Before submitting a warranty claim, we recommend you visit the support section at <http://www.ommo.com.tw/> for technical assistance. Valid warranty claims are generally processed through the point of purchase during one year after purchase. The addresses and customer service contact information for us can be found in the documentation accompanying your product.

Limitation of Liability

We shall not be liable for any special, indirect, incidental, or consequential damages whatsoever, including but not limited to loss of profits, revenue or data (whether direct or indirect) or commercial loss for breach of any express or implied warranty on your product even if we has been advised of the possibility of such damages.

Duration of Implied Warranties

Except to the extent prohibited by applicable law, any implied warranty or condition of merchantability or fitness for a particular purpose on this hardware is limited in duration to the duration of the applicable limited warranty period for your product.

No Other Warranties

No our dealer, agent, or employee is authorized to make any modification, extension, or addition to this warranty.

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