WIRELESS SCOPE NODE
LASER SENSOR

M-SN2DL Series
User's Manual

Thank you for purchasing the ELECOM M-SN2DL Series wireless laser mouse.
This manual describes the operating instructions and safety precautions for using the M-SN2DL Series. Ensure that you have read this manual before using the product. After reading this manual, store it somewhere safe for future reference.
* Except in certain cases, the M-SN2DL Series is referred to as "this product" in this manual.

Safety Precautions

■ **Meaning of symbols**

⚠WARNING	Failure to observe precautions may result in serious personal injury or death due to fire, electric shock, or other causes.
⚠CAUTION	Failure to observe precautions may result in personal injury due to electric shock or other causes, and may damage other equipment.

- Prohibited action
- Mandatory action
- Situation that needs attention
- Notes and reference information
- Information that is handy to know

Observe these precautions carefully to avoid personal injury, damage, fire, and other problems.

⚠WARNING

- If a foreign object (water, metal chip, etc.) enters the product, immediately stop using the product and disconnect the receiver unit from the PC, and remove the battery from the mouse.
  If you continue to use the product under these conditions, it may cause a fire or electric shock.
- If an abnormality is found with this product (emission of heat, smoke or abnormal smell from the product), immediately stop using the product, shutdown the PC, and after thoroughly checking that heat from the product will not cause burns, disconnect the receiver unit from the PC, and remove the battery from the mouse.
  After doing this, contact the retailer from whom you purchased the product.
- Do not drop or hit this product.
  If this product is damaged, immediately stop using the product and disconnect the receiver unit from the PC, and remove the battery from the mouse.
  If you continue to use the product in a damaged condition, it may cause a fire or electric shock.
- Do not attempt to disassemble, modify or repair this product by yourself, as this may cause a fire, electric shock or product damage.
- Do not put this product in fire, as the product may burst, resulting in a fire or injury.
- Do not connect or disconnect the receiver unit with a wet hand, modify the receiver unit or bend it forcibly, as this may cause a fire or electric shock.

⚠CAUTION

- Do not place this product in any of the following environments:
  - In a car exposed to sunlight, a place exposed to direct sunlight, or a place that becomes hot (around a heater, etc.)
  - In a moist place or a place where condensation may occur
  - In an uneven place or a place exposed to vibration
  - In a place where a magnetic field is generated (near a magnet, etc.)
  - In a dusty place
- This product does not have a waterproof structure. Use and store this product in a place where the product body will not be splashed with water or other liquid.
  Rain, water mist, juice, coffee, steam or sweat may also cause product damage.

When you no longer need to use this product and the battery, be sure to dispose of it in accordance with the local ordinances and laws of your area.

■ **Batteries**

⚠CAUTION

- Use AAA alkaline batteries, AAA manganese batteries, or AAA nickel hydride batteries with this product.
- If this product will be unused for a long period of time, remove the battery to avoid battery leakage and failure.

■ **Cleaning the Mouse**

If the product body becomes dirty, wipe it with a soft, dry cloth.

Use of a volatile liquid (paint thinner, benzene, alcohol, etc.) may affect the material quality and colour of the product.

Cautions for Wireless Equipment

This product is wireless equipment using the entire range of the 2.4 GHz band and it is possible to avoid the band of mobile object identification systems. DS-SS is used for the radio wave method. The interference distance is 10 m. 2.4DS1
The 2.4 GHz band is also used by medical equipment, Bluetooth, and wireless LAN equipment conforming to the IEEE802.11b/11g standard.
- Before using this product, check that there are no other "radio stations"* operating nearby.
- If electromagnetic interference occurs between this product and other "radio stations", move this product to another location or stop using this product.

* Other "radio stations" refer to industrial, scientific and medical devices using the 2.4 GHz band like this product, other radio stations of this type, licensed radio station premises for mobile object identification system that is used in factory production lines, certain non-licensed low power radio stations and amateur radio stations.

⚠WARNING

- Do not use this product with a device that may have a serious function or influence. There are rare cases where an external radio wave at the same frequency or the radio wave emitted from a mobile phone causes this product to malfunction, slow down, or fail to operate.
- Do not use this product in a hospital or other locations where the use of radio waves is prohibited. The radio waves of this product may affect electronic and medical devices (e.g. pacemaker).
- The use of a wireless mouse in an aircraft is prohibited by aviation law because doing so may interfere with flight safety. Turn off the power of the mouse body before boarding an aircraft and do not use it in the aircraft.

* ELECOM is not liable for any accident or social damages incurred by the failure of this product.

Cautions for Laser Mouse

Though this product complies with the IEC60825-1 Class 1 laser safety standard to ensure safety, pay special attention to the following before use.

(1) Never observe the laser beam by using an optical measure such as a microscope or magnifier or view the laser with the naked eye for a long period of time. Doing so may have an adverse effect on the eye. (Some laser beams cannot be seen with the naked eye.)
(2) Never aim the rear surface of the mouse at a person's eyes, as this is very dangerous.
(3) The laser sensor may not work on glass or mirrored surfaces.
(4) Do not use this product for any application other than as a PC mouse.
(5) If this product is subjected to temperatures beyond its specifications, turn off the PC, and do not use the product until the temperature returns to the operable range.
(6) If this product is not operating normally, turn off the PC.

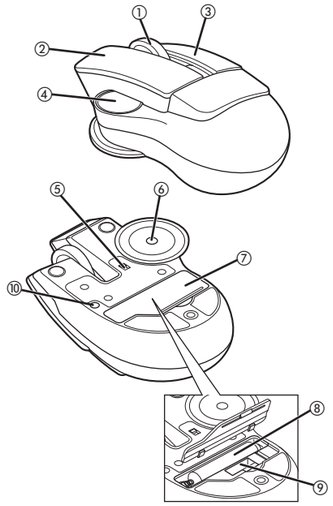
CLASS 1
LASER PRODUCT

Package Contents

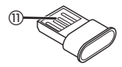
This product's packaging contains the items listed below. Before using the product, check that all items are present. We make every effort to ensure that all products are packaged correctly. However, in the event that an item is missing or damaged, contact the retailer from whom you purchased the product.
- Mouse x1
- Receiver unit x1
- AAA alkaline battery x1
- User's Manual x1

Part Names

■ **Mouse**



■ **Receiver unit**



①Wheel
Scrolls back and forth to operate the PC.

②Right button
Used for right-click operation.

③Left button
Used for left-click operation

④Remaining battery level indicator lamp
Indicates when to replace the batteries.
* When a battery has been inserted, if there are sufficient remaining battery levels, it will illuminate in red for a certain period of time. Flashes continuously when battery level gets low.

⑤Power switch
Used to turn the mouse body on and off

⑥Laser sensor
When the mouse body is moved, this sensor detects mouse movement.
* Avoid looking directly at the light of the sensor as doing so may cause eye damage.

⑦Battery cover
This cover is removed to install batteries.

⑧Battery housing
Batteries are inserted here.

⑨Receiver unit housing
Used to store the receiver unit.

⑩Maintenance switch
For factory use only.

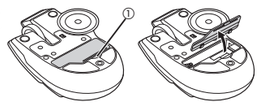
⑪USB connector (Male)
Connected to a PC USB port.

Preparation before Use

Installing·Replacing the Battery

Before using this product, install one AAA battery in the mouse body.

1 Remove the battery cover.
Press part ① firmly to remove the cover easily.



2 Insert the battery.

- **Make sure that the polarity is correct.**

3 Install the battery cover.

Click cover into place

Turning On and Off the Mouse

■ **Turning on the mouse**
When using this product, turn the mouse body power on.
Slide the power switch to the ON position.
The remaining battery level indicator lamp is illuminated in red for a certain period.
* Flashes continuously when battery level gets low.

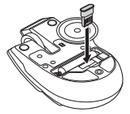
■ **Turning off the mouse**
When not using this product, turn the mouse body off to save battery power.
Slide the power switch to the OFF position

Inserting and Taking Out the Receiver Unit

■ **Inserting the receiver unit**

1 Remove the battery cover.

2 Place the receiver unit into the receiver unit housing.



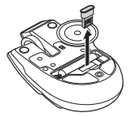
3 Install the battery cover.

Click cover into place

■ **Taking out the receiver unit**

1 Remove the battery cover.

2 Take the receiver unit out of the receiver unit housing.

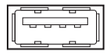


3 Install the battery cover.

When using Windows®

Step1 Check USB ports

Check the USB port on your computer.



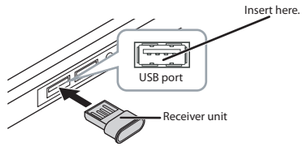
USB port

- **Any USB port may be used.**
- **This product can be connected to a USB hub. However, it may not work depending on the power supply capability of the USB hub.**

Step2 Installing the Receiver Unit

1 Activate the PC.
- If Windows® prompts you to choose an account (a user name) when it starts up, be sure to log on using an administrator account.
- Wait until Windows® has started up completely.

2 Insert the receiver unit into the USB port of the PC



- **Carefully check the orientation of the connector and the place where you will connect the receiver unit.**
- **If you feel strong resistance when inserting the receiver unit, check that the shape and orientation of the connector is correct. Using excessive force may damage the connector and cause injury.**
- **Do not touch the USB connector terminals.**

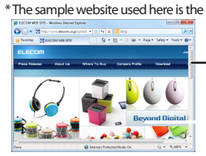
3 The mouse driver is installed automatically.

Step3 Checking wheel operation

Check that the mouse scrolls up and down correctly in Windows® Internet Explorer.

1 From the [Start] menu, select [All Programs], and then [Internet Explorer].
Internet Explorer will launch.

2 Display your favourite web site in Internet Explorer and change the size of the window so that the vertical scrollbar appears.
* The sample website used here is the ELECOM homepage.



3 Scroll the wheel back and forth.

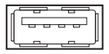
The mouse is operating normally if the screen moves up and down as you scroll the wheel.

- **In applications that do not support scrolling, the screen will not move when you scroll the wheel.**

When using Mac OS X®

Step1 Check USB ports

Check the USB port on your computer.



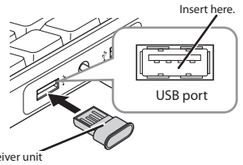
- **Any USB port may be used.**
- **This product can be connected to a USB hub. However, it may not work depending on the power supply capability of the USB hub.**

Step2 Installing the Receiver Unit

1 Activate the Macintosh.

- Wait until Mac OS X has started up completely.

2 Insert the receiver unit into a USB port on your Macintosh.



- **Carefully check the orientation of the connector and the place where you will connect the receiver unit.**
- **If you feel strong resistance when inserting the receiver unit, check that the shape and orientation of the connector is correct. Using excessive force may damage the connector and cause injury.**
- **Do not touch the USB connector terminals.**

3 The mouse driver is installed automatically.

Step3 Checking wheel operation

Check that the vertical and horizontal scrolling functions are working correctly in Safari.

1 Click the Safari icon in the Dock.

Safari will launch.

If Safari is not in the Dock, double-click the Safari icon in the Applications folder.

2 Display your favourite web site in Safari and change the size of the window so that the vertical and horizontal scrollbars appear.

* The sample website used here is the ELECOM homepage.

3 Scroll the wheel back and forth.

The mouse is operating normally if the screen moves up and down as you scroll the wheel.

- **In applications that do not support scrolling, the screen will not move when you scroll the wheel.**

Troubleshooting

When the product appears to be malfunctioning

■ **When the mouse pointer on the screen does not move, or moves unstably, when the mouse is moved**

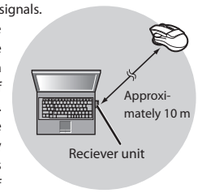
➔It is possible that the reflectivity of the surface on which this product is being used is not suitable for an laser mouse.

➔When using this product on a metallic surface such as a steel desk, radio wave outreach may be shortened. In such cases, move the receiver unit closer to the mouse until mouse operation stabilises.

➔It is possible that the receiver unit is not connected correctly to the USB port. Disconnect the receiver unit from the USB port and reconnect it.

➔The receiver unit and the mouse body are too far apart or there is a possibility that the receiver unit is facing in a direction from which it cannot receive radio signals.

Adjust the position of the receiver unit. The operable range of this product is the area within a circle with a radius of 10 m from the receiver unit. Depending on the usage environment, the mouse may not operate even when it is within approximately 10 m of the receiver unit. In such cases, move the mouse closer to the receiver unit until operation stabilises.



➔Interference may occur if multiple units of this product are used together or if this product is used with other wireless devices. In this case, change the channel of other wireless devices.
(Multiple units of this product have an automatic channel avoidance function.)

➔Operation becomes unstable when battery power is low. See "Installing·Replacing the Battery" on the reverse of this sheet, and replace the batteries as soon as possible.

- The alkaline batteries supplied with this product are for checking product operation. These batteries may discharge and drain during storing and shipping.

* When not using the mouse, turn it off to save battery power.

➔Check that the remaining battery level indicator lamp is on.
When the mouse is turned on, the remaining battery level indicator lamp is illuminated in red for a certain period.
If the lamp does not turn on, it is possible that the battery is flat.
When the battery is low, the lamp flashes continuously.

➔Check that the power switch is correctly in the ON position.
If the power switch is not slid all the way to the correct ON position, the mouse may not turn on.

➔It is possible that the standard Windows mouse driver did not install correctly and that this product is detected as an unknown device by Windows®. This product is usually detected as a USB human interface device. If it is detected as an unknown device, see "Removing an unknown device," and after removing the device from Device Manager, repeat "Step 2 - Installing the Receiver Unit" on the front of this sheet.

➔If you have installed drivers and settings utilities produced by the original manufacturer for a previous mouse, uninstall them first. This product may not operate correctly if a driver made by another company is installed. See the instruction manual that was supplied with your previous mouse for uninstall instructions.

➔It is possible that the driver is conflicting with another driver such as that for a laptop touch pad. To use this product correctly, you must delete the touch pad driver. However, if you delete this driver, you may not be able to use the touch pad or touch pad functions. Contact the PC manufacturer for more details.

■ **The wheel moves, but the mouse cursor does not**

➔In certain applications that do not support the scrolling function, the mouse cursor will not move when you move the wheel.

Removing an unknown device

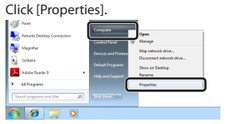
If the standard Windows mouse driver did not install correctly and this product is detected as an unknown device, remove the unknown device from Device Manager, and then repeat "Step 2 - Installing the Receiver Unit" on the front of this sheet.

- **If there are multiple unknown devices, before removing a device, check that it is actually this product. Disconnect the receiver unit and check which unknown device disappears. The device that disappears is this product.**
- **If the unknown device does not disappear even after you have deleted the driver following the instructions below, it is possible that there is something wrong with the PC. Contact the PC manufacturer.**

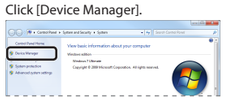
With the receiver unit connected to the PC, follow the procedure below to remove the unknown device.
* Be sure to log on using an administrator account when Windows starts up.
* Screen display may differ depending on operating system, but the procedure remains the same.

1 Display Device Manager.

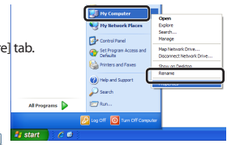
- **Windows® 7 and Windows Vista®**
  1. From the [Start] menu, right-click [Computer].
  2. Click [Properties].



  3. Click [Device Manager].

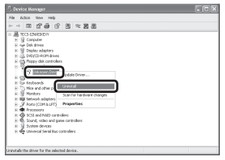


- **Windows® XP**
  1. From the [Start] menu, right-click [My Computer].
  2. Click [Properties].
  3. Click the [Hardware] tab.



  4. Click [Device Manager]

2 The Device Manager window appears. Right-click the unknown device, and click [Uninstall].



3 Click [OK].

4 Disconnect the receiver unit and restart the PC

5 Repeat the procedure from "Step 2 - Installing the Receiver Unit" on the front of this sheet.

Basic specifications

Product name	Wireless Laser Mouse
Article No.	M-SN2DL Series
OS	Windows 7, Windows Vista (up to SP2), Windows XP (SP2 to SP3) Mac OS X (10.5 to 10.5.8, 10.6 to 10.6.4)
Resolution (dpi)	1600
Interface	USB
Radio frequency	2.4 GHz bandwidth
Radio wave method	DSSS modulation
Radio wave outreach	Non-magnetic substance (e.g. wooden desk): Approx. 10 m Magnetic substance (e.g. metal desk): Approx. 3 m * Test values in the ELECOM environment
Mouse body dimensions	75(W) x 110 (D) x 38 (H) mm
Receiver unit dimensions	16 (W) x 19 (D) x 8 (H) mm
Operating temperature/ humidity	5 to 40°C, 90% RH max. (no condensation)
Storing temperature/ humidity	-10 to 60°C, 90% RH max. (no condensation)
Batteries	AAA alkaline battery, AAA manganese battery, AAA nickel hydride battery
Operating time	Measure of the operating time when an AAA alkaline battery is used Continuous operating time: Approx. 71 hours Continuous standby time: Approx. 95 days Estimated serviceable time: Approx. 32 days (when the PC is operated for eight hours a day and 25% of the PC operation is assigned to mouse operation)

당해 무선설비는 운용 중 전파혼신 가능성이 있음 .
B 급 기기 (가정용 정보통신기기)
이 기기는 가정용으로 전자파적합등록을 한 기기로서
주거지역에서는 물론 모든 지역에서 사용할 수 있습니다 .

廢電池請回收

低功率電波輻射性電機管理辦法
第十二條
經型式認證合格之低功率射頻電機，非經許可，公司、商號或使用者均不得擅自變更頻率、加大功率或變更原設計之特性及功能。
第十四條
低功率射頻電機之使用不得影響飛航安全及干擾合法通信；
經發現有干擾現象時，應立即停用，並改善至無干擾時方得繼續使用。
前項合法通信，指依電信規定作業之無線電通信。
低功率射頻電機須忍受合法通信或工業、科學及醫療用電波輻射性電機設備之干擾。

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Wireless Laser Mouse
M-SN2DL Series User's manual
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ELECOM Co., Ltd.

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