

TYPE WDR-L(E)-Z2-PRO(-L) Instruction Manual

Notice to Customer

Thank for your purchasing our PATLITE products.
 • This product requires installation and wiring work. Request the installation and wiring be performed by a professional contractor.
 • Prior to installation, read this manual thoroughly before using this product to ensure correct use.
 • Re-read this manual before conducting maintenance, inspections, repairs, and so on.
 • If there are any questions concerning this product, refer to the contact information at the end of this document and contact your nearest PATLITE Sales Representative.
 • For instructions on how to use this product, download the Instruction Manual from our website.

Home Page Address www.patlite.com

To the Contractor

• This installation manual is written for the professional who will perform the installation and wiring.
 • Return this manual to the customer.

1 Before you begin

About Safety Symbols

• To prevent injuries to the user and other personnel, as well as to prevent damage to assets, note the following.
 • The following symbols classify warnings and cautions, and describe the level of harm and damage that will occur when the corresponding instructions are ignored.

WARNING This symbol indicates, "Failure to follow the instructions may lead to death or serious injury."

CAUTION This symbol indicates, "Failure to follow the instructions may lead to injury or property damage."

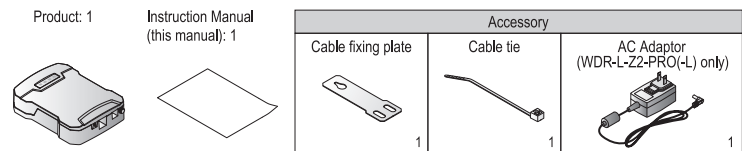
The following symbols classify and describe the content of associated messages.
 • This symbol identifies "Prohibited" operations that should never be carried out.
 • This symbol identifies "Mandatory" instructions that should always be carried out.
 • This symbol identifies general "Caution" related information.

Safety Precautions

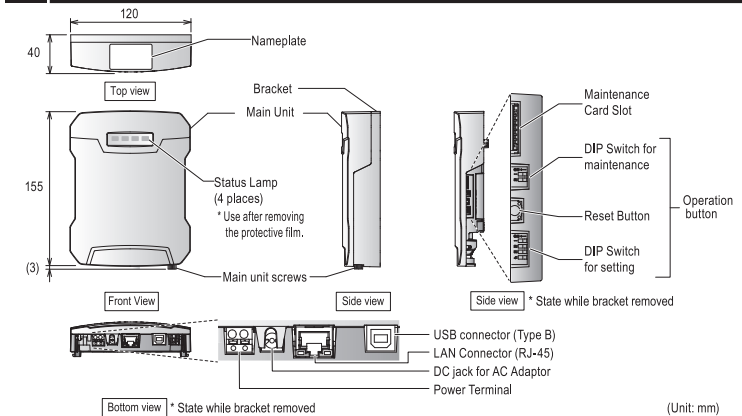
WARNING Do not use this product in the vicinity of implanted cardiac pacemakers and other medical equipment, as this product's radio waves may affect the performance of these devices.
 Do not use or install the product in locations where liquids such as water is present, oil will splatter, or locations that are humid or dusty. Failure to follow these instructions could result in fire, electric shock or product failure. Do not disassemble any part other than that which can be detached from the product. To prevent accidents, do not use this product other than for its intended purpose and do not run operations or maintenance other than those described in this manual. Do not use this product where high reliability is required and where human life is involved, such as medical equipment, atomic energy equipment and machinery, aviation and aerospace, transportation, and control of other equipment. If this product is used for these applications, we cannot be held responsible in the event of injury or property damage. Do not modify or disassemble this product. Failure to follow these instructions could result in fire or electric shock. Do not use this product when there is condensation. Failure to follow these instructions could result in fire or electric shock. Do not allow liquids on the product, and do not allow it to have contact with metallic objects. Failure to follow these instructions could result in fire or electric shock. Request the installation and wiring be performed by a professional contractor if construction work is involved. Failure to follow this instruction could result in fire, electric shock or falls. Turn off the power before performing any electric wiring or product installation. Failure to follow this instruction could result in electric shock or fire.
 In places such as aircraft and hospitals, turn off this product where usage of wireless devices is prohibited and where its radio waves affect surrounding equipment. We cannot foresee all circumstances concerning the handling and dangers associated with this product. Therefore, not every possible danger is indicated in this instruction manual. To prevent accidents when operating or maintaining the product, in addition to the safety guidelines identified in the instructions of this manual, follow all general safety guidelines. In the unlikely event that there is an abnormal situation such as smoke or odors emitting from the product, immediately cut the power supplied to the product. Continued use of the product in this condition could result in fire or electric shock.

CAUTION Do not install this product near other electrical appliances. If you install this product near a facsimile, personal computer, television, microwave oven, or equipment using a motor, this product may not operate properly. Do not use or store this product in the following locations. Failure to follow this instruction could result in a malfunction or equipment damage.
 • Environments with poor breathability and ventilation.
 • Near equipment that generate strong electrical or strong magnetic fields.
 • Places exposed to direct sunlight.
 • Locations subject to shock and vibration.
 • Near heating appliances.
 • Environments where there is dust, iron powder, and so on.
 • Places near fire or environments with high temperatures and humidity.
 • Locations where the product may experience a drop.
 • Locations exposed to salty sea air.
 Do not use this product near chemicals. This product could melt or become deformed if any chemicals adhere to it. To clean this product, wipe with a soft cloth dampened with water. (Do not wipe with cleaners containing thinners, benzene, gasoline, or oil.) Due to the nature of radio waves, communication can be disabled even over insignificant distances as a result of noise or other environmental factors. To prevent static electricity, discharge the static electrical charge in your body before starting work. (You can discharge static electricity by touching your hand on grounded metal objects.) Use only the specified replacement parts listed in this manual.

2 Package Contents



3 Part Names and Dimensions



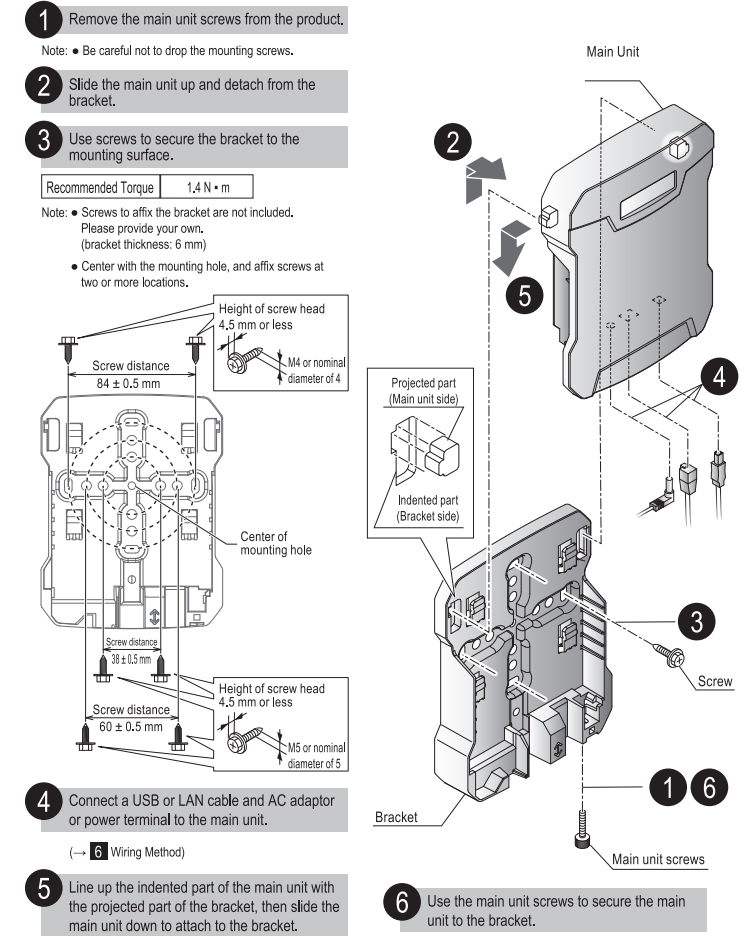
4 Model Number Configuration

WDR-L-Z2-PRO(-L): WD PRO Receiver, AC adaptor included
 WDR-LE-Z2-PRO(-L): WD PRO Receiver, AC adaptor not included
 * (-L) option refers to software specifications.

5 Mounting Methods

WARNING Before any work is done, disconnect the power. Affix the product to the bracket before supplying power to the product.

CAUTION The following requirements are necessary for the mounting location.
 • Minimal vibration • Sufficient strength • Flat
 When installing the product in a wall, install with the wiring side down to prevent dust and other intrusions.



6 Wiring Method

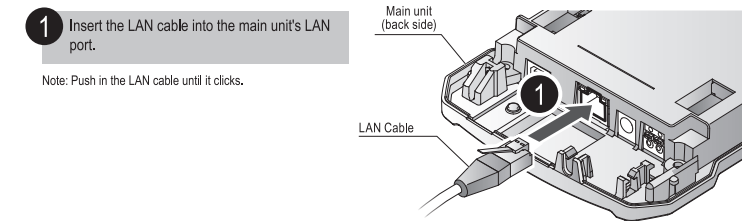
This product does not include the USB cable, LAN cable, and lead wires. Please provide your own.

WARNING Without power supplied to the LAN cable, AC adaptor, or lead wires, affix the product to the bracket before supplying power to the product.

CAUTION Input power from either the power terminal or the AC adaptor. (Power input is not required when using a PoE power supply with the USB or LAN cable.)

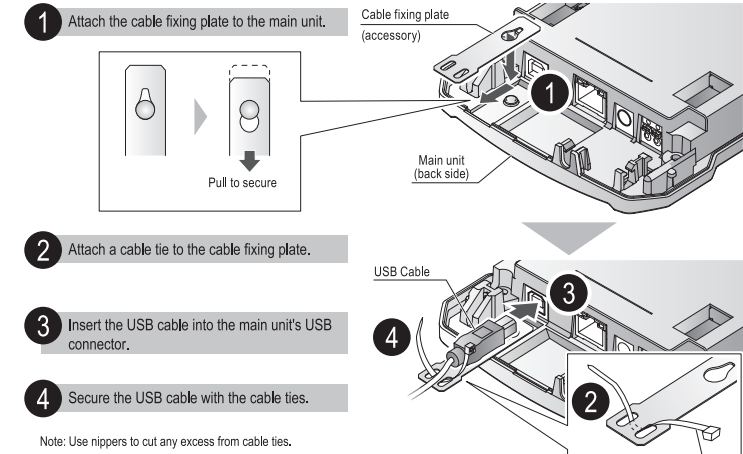
6.1 LAN Cable Wiring Method

CAUTION Make sure the PoE network is indoors, and that none of the LAN cable is run outdoors. Failure to follow this instruction could result in equipment damage due to transient voltage from lightning. The LAN cable should be rated for Category 5e or higher (Category 6 or higher recommended). (You can use either straight cable or cross cable.)
 For the LAN cable RJ-45 connector that connects to the main unit, select one that satisfies the shape and dimensions shown in the figure to the right.
 When the LAN cable is connected, do not also connect a USB cable.



6.2 USB Cable Wiring Method

CAUTION
 1 Use the supplied cable tie.
 2 Use a USB cable 3 m or shorter.
 3 When the USB connector is connected, LAN communication is not possible. Only connect the cables that will be used.
 4 For the USB cable connector that connects to the main unit, select one that satisfies the shape and dimensions shown in the figure to the right.

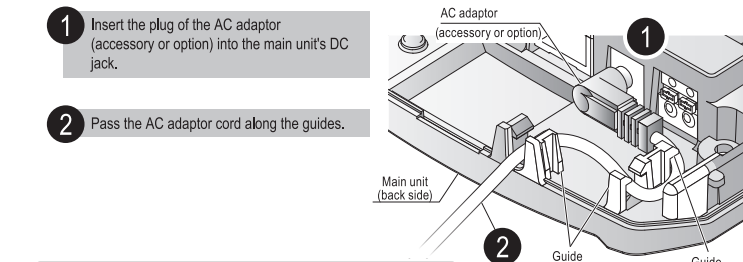


6.3 Power Supply Wiring Method

There are two different power supplies for this product: AC adaptor and power terminal.

6.3.1 When Using AC Adaptor Power Supply

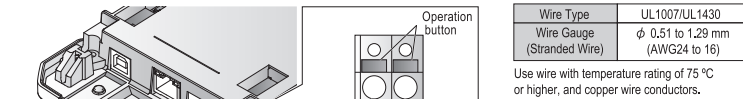
CAUTION You can only use the supplied AC adaptor or ADP-001 (option) in the main unit's DC jack.



6.3.2 When Using Power Terminal Power Supply

WARNING Be careful you insert the lead wires in the correct slots. Failure to follow this instruction could result in short-circuit and fire. After connecting the lead wires, confirm none of the live parts are exposed. If the live parts are exposed, a short circuit between the lead wires could result in burnout or fire. Do not use a power supply greater than 100 W. Failure to follow this instruction could result in fire or electric shock. This product is intended to be supplied by a Listed Power Unit marked "Class 2" and rated from 24 Vdc, less than 4A.

Power Terminal Pin Arrangement

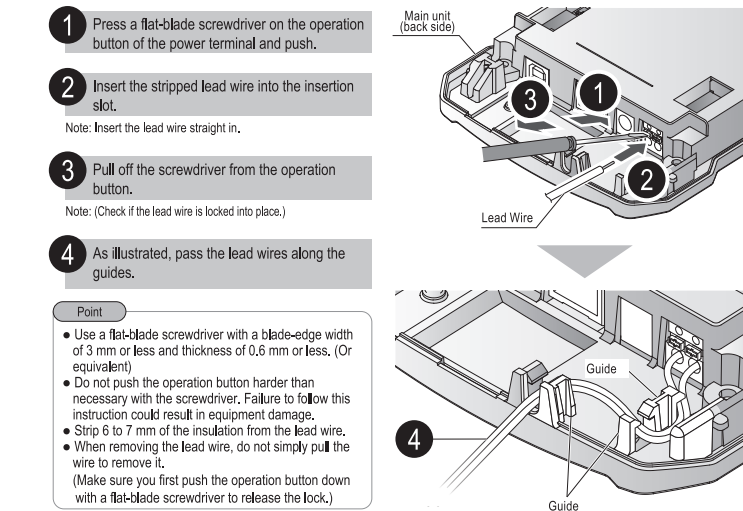


Recommended lead wire specifications

| | |
|----------------------------|---------------------------------|
| Wire Type | UL1007/UL1430 |
| Wire Gauge (Stranded Wire) | φ 0.51 to 1.29 mm (AWG24 to 16) |

Use wire with temperature rating of 75 °C or higher, and copper wire conductors.

Power Terminal Wiring Method



7 Specifications

| Model | WDR-L-Z2-PRO(-L) | WDR-LE-Z2-PRO(-L) |
|-------------------------------------|--|-------------------|
| Rated Voltage | 24 VDC (power terminal input, DC jack input), 48 VDC (PoE), 5 VDC (USB bus power) | — |
| AC Adaptor accessory | 100 - 240 VAC 50/60Hz | — |
| Operating Voltage Range | 21.6 to 26.4 VDC (power terminal input, DC jack input), 43 to 57 VDC (PoE), 4.75 to 5.25 VDC (USB bus power) | — |
| AC Adaptor accessory | 90 - 264 VAC | — |
| Rated Current Consumption | Standard: 100 mA (at 24 VDC) 70 mA (PoE: at 48 VDC) 300 mA (USB: at 5 VDC) Maximum: 150 mA (at 24 VDC) 100 mA (PoE: at 48 VDC) 500 mA (USB: at 5 VDC) | — |
| Rated Power Consumption | Standard: 3.0 W (AC Adaptor accessory, at 100 VAC) Maximum: 4.5 W (AC Adaptor accessory, at 100 VAC) | — |
| Power Supply Input | Power terminal (screwless terminal block), DC jack for AC adaptor, USB Type B (USB bus power compatible), LAN connector (IEEE802.3af Class0 compliant) | — |
| Operating Ambient Temperature | Main Unit: -10 °C to 40 °C AC Adaptor accessory: 0 °C to 40 °C | — |
| Ambient Operating Humidity | 85% RH or less, no condensation, no freezing | — |
| Storage Ambient Temperature | Main Unit: -20 °C to 60 °C AC Adaptor accessory: -10 °C to 70 °C | — |
| Storage Ambient Humidity | 85% RH or less, no condensation, no freezing | — |
| Mounting Location / Mounting Method | Indoor / Horizontal installation Wall mounting Ceiling mounting | — |
| Protection Rating | IP20 | — |
| Mass | 300 g ± 10% (except AC Adaptor accessory) | — |
| Status Lamp | Status display LED x 4 | — |
| Operation button | Setting dip switch x 1, maintenance dip switch x 1, reset switch x 1 | — |
| Transmitter Options | WDT-4LR-Z2, WDT-5LR-Z2, WDT-6LR-Z2, WDT-6LR-Z2-PRO, WDT-5E-Z2, WDT-6M-Z2 (mixed use possible) | — |

For Customers in U.S.A.
 • FCC notation requirement
 This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:
 (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

FCC CAUTION
 Note: Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.
 This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules.
 These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment.
 The equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications.
 Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.
 (Responsible party in U.S.A.) PATLITE U.S.A. Corporation, 20130 S. Western Ave. Torrance, CA90501, U.S.A.

For Customers in Europe
 • EU Declaration of Conformity

This product conforms to EN standards and shows the CE Marking.
 This product has been tested and found to comply with the limits for a Class A device, pursuant to EMC DIRECTIVE. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment.
 This product must not be used in residential areas.
 We PATLITE Corporation, 4-1-3, Kyutoromachi, Chuo-ku, Osaka-shi, Osaka 541-0056 JAPAN declare under our sole responsibility that the product described below is in compliance with the following directives.
 - Product Name: Wireless Data Acquisition System WD PRO Receiver
 - Company Logo: **PATLITE**
 - Communication Frequency: 2405 to 2480 MHz (16 channels)
 - Transmission Output: Maximum 3 mW or less (at the antenna feed point)
 - Directive: Electromagnetic Compatibility Directive(EMC): 2014/30/EU
 - RoHS Directive: 2011/65/EU
 - Radio Equipment Directive: 2014/53/EU
 - Low Voltage Directive (LVD): 2014/35/EU
 Visit our homepage at www.patlite.com/ce/wd_07539.html to download "EU Declaration of Conformity".

WDR-LE-Z2-PRO(-L) ONLY

For Customers in Singapore

Complies with IMDA Standards DA106138

For Customers in Canada
Canada, Innovation, Science and Economic Development Canada (ISED) Notices
 This device contains licence-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's licence-exempt RSSI(s). Operation is subject to the following two conditions:
 (1) This device may not cause interference.
 (2) This device must accept any interference, including interference that may cause undesired operation of the device.

Radio Frequency (RF) Exposure Information
 The radiated output power of the Wireless Device is below the Innovation, Science and Economic Development Canada (ISED) radio frequency exposure limits. The Wireless Device should be used in such a manner such that the potential for human contact during normal operation is minimized.
 This device has also been evaluated and shown compliant with the ISED RF Exposure limits under mobile exposure conditions. (antennas are greater than 20cm from a person's body).

For Customers in Thailand

This telecommunication equipment conforms to the technical standards or requirements of NBTC.

For Customers in Taiwan

◆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，指依電信法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。

PATLITE Corporation (GZ)

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