Wireless Data Acquisition System WD PRO Receiver

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

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 custome

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.

M WARNING

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

This symbol indicates, "Fautinjury or property damage." This symbol indicates. "Failure to follow the instructions may lead to The following symbols classify and describe the content of associated message:

his symbol identifies 'Prohibited" operations that should never be carried out.

0

This symbol identifies "Mandatory" instructions that should always be carried out.

 \triangle general "Caution" related

■ Safety Precautions

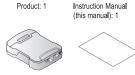
⚠ WARNING
©Do not use this product in the vicinity of implanted cardiac pacemakers and other medical equipment, as this product's radio waves may affect the performance of these devices. ODo not use or install the product in locations where liquids such as water is present, oil will splatter, or locations that are humid or dusty. Failure to follow these instructions could result in fire, electric shock or product failure. ODo not disassemble any part other than that which can be detached from the product. OTo 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. On 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. (S) Do not modify or disassemble this product. Failure to follow these instructions could result in fire or electric shock. (S) Do not use this product when there is condensation. Failure to follow these instructions could result in fire or electric shock. (D) Do not use 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.

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. \bigcirc To clean this product, wipe with a soft cloth dampened with water. (Do not wipe with cleaners containing thinners, benzine, gasoline, or oil.) ① 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.

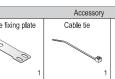
manual, follow all general safety guidelines. In the unlikely event that there is an abnormal situation such as smoke or odors emitting from the product, immediately cut the power supplied to the product. Continued use of the product in this condition could result in fire or electric shock.

2 Package Contents



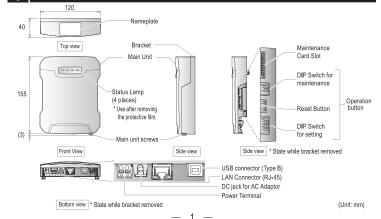








3 | Part Names and Dimensions



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

* (-I) option refers to software specifications

5 Mounting Methods

 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.

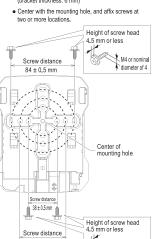
Remove the main unit screws from the product. Note:

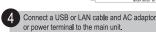
Be careful not to drop the mounting screws

2 Slide the main unit up and detach from the

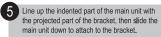
3 Use screws to secure the bracket to the mounting surface.

Note: . Screws to affix the bracket are not included. Please provide your own,





→ 6 Wiring Method



Note: • When attaching the main unit to the bracket, take care not to pinch the cable.

- Confirm the left and right sides of the
- Slide the main unit until it clicks

Recommended Torque 1.4 N • m (bracket thickness: 6 mm) **5** Projected part (Main unit side) 60 ± 0.5 mm

6 Use the main unit screws to secure the main unit to the bracket.

- Note: . Use the main unit screws to securely attach the main
- . Do not tighten the main unit screws more than necessary. Failure to follow these instructions could
- . Be careful not to drop the mounting screws

6 Wiring Method

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

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

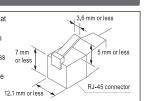
↑ CAUTION • Input power from either the power terminal or the AC adaptor. (Power input is not required when using a PoE power supply with the USB or LAN cable.)

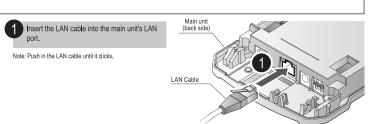
6.1 LAN Cable Wiring Method

⚠ CAUTION 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

 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.

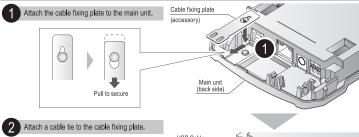
When the LAN cable is connected, do not also connect a USB cable.





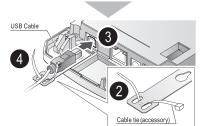
6.2 USB Cable Wiring Method

ACAUTION Use the supplied cable tie. Use a USB cable 3 m or shorter. When the USB connector is connected, LAN communication is not 10.5 mm or less ossible. Only connect the cables that will be used. USB 2.0 connects For the USB cable connector that connects to the main unit, select one (Type B male) that satisfies the shape and dimensions shown in the figure to the right.



Insert the USB cable into the main unit's USB

2. Secure the USB cable with the cable ties. Note: Use nippers to cut any excess from cable ties



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

PYOU CAUTION 9 You can only use the supplied AC adaptor or ADP-001 (option) in the main unit's DC jack.

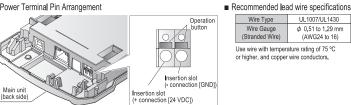
AC adapto Insert the plug of the AC adaptor (accessory or option) into the main unit's DC

Pass the AC adaptor cord along the guides.

6.3.2 When Using Power Terminal Power Supply

 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 O Do not use a power supply greater than 100 W. Failure to follow this instruction could result in fire or electric shock. his 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



■ Power Terminal Wiring Method Press a flat-blade screwdriver on the operation utton of the power terminal and push.

2 Insert the stripped lead wire into the insertion Note: Insert the lead wire straight in.

Pull off the screwdriver from the operation Note: (Check if the lead wire is locked into place,

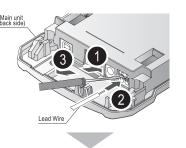
As illustrated, pass the lead wires along the



wire to remove it.

- Use a flat-blade screwdriver with a blade-edge width of 3 mm or less and thickness of 0.6 mm or less. (Or
- Do not push the operation button harder than To the past the pertain block market that necessary with the screwdriver. Failure to follow this instruction could result in equipment damage.
 Strip 6 to 7 mm of the insulation from the lead wire.
 When removing the lead wire, do not simply pull the

(Make sure you first push the operation button down



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 50 °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

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 CALITION

lote: Changes or modifications not expressly approved by the party responsible for compliance could void the user's

uthority to operate the equipment. his equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the 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.



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.

hese 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, Kyutaromachi, Chuo-ku, Osaka-shi, Osaka 541-0056 JAPAN declare under our sole responsibility that the product described below is in compliance 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: 2011/165/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-I F-72-PRO(-I) ONI Y

■For Customers in Singapore

Guide

Wire Type UL1007/UL1430

Wire Gauge φ 0.51 to 1.29 mm (Stranded Wire) (AWG24 to 16)

Use wire with temperature rating of 75 $^{\circ}\text{C}$

DA106138

Complies with

■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 RSS(s). Operation is subject to the following two conditions: This device may not cause interference.

) 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

numan 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 ▼第十四條 配列子初級電域是使用作特別會有關反主及「复日本通信」,但或先月「夏先教礼」,他立即停用,並以占主無「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 療用電波輻射性雷機設備之干擾。

微功率短距离无线电发射设备(F 类设备)

- 不得擅自改变使用场景或使用条件、扩大发射频率范围、加大发射功率(包括额外加装射频功率放大器), 不得擅自更改发射天线:
- ・小行道国史以交別大线; ・不得村其他法的无线电台(站)产生有害干扰,也不得提出免受有害干扰保护; ・应当承受辐射射频能量的工业、科学及医疗(ISM)应用设备的干扰或其他合法的无线电台(站)干扰;
- 如对其他合法的无线电台(站)产生有害干扰时,应立即停止使用,并采取措施消除干扰后方可继续使用; 在航空器内和依据法律法规、国家有关规定、标准划设的射电天文台、气象雷达站、
- 卫星地球站(含测控、测距、接收、导航站) 等军民用无线电台(站)
- 业生业地外组、自动加工、测定、按似、导规组) 等于比例无线电口、临灯、机场等的电磁环境保护及相关行业主管部门的规定; •使用微功率短距离无线电发射设备应当符合国家无线电管理有关规定

PATLITE Corporation G2J

PATLITE Corporation **Head office PATLITE (USA) Corporation www.patlite.com www.patlite.cn/
www.patlite.co.kr/
www.patlite.tw/ PATLITE (CHINA) Corporation PATLITE KOREA CO., LTD. PATLITE TAIWAN CO., LTD. PATLITE THAINAN CU., LTD.
PATLITE (THAILAND) CO., LTD.
PATLITE MEXICO S.A. de C.V.

www.patlite.com.mx/