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# SPECIFICATIONS

Product Name: Wireless Data Acquisition System  
Transmitter

Model: WDT-5LR-Z2 WDT-6LR-Z2

**PATLITE Corporation**

## 1. Model

Contents	
<p><b>WDT-□LR-Z2</b></p>	Z2   Zigbee2007Pro 2.4GHz type
	5   φ 50
	6   φ 60
	T   Transmitter
	WD   Product Name: Wireless Data Acquisition System Series

## 2. General Specifications

Item	Contents	
	WDT-5LR-Z2	WDT-6LR-Z2
Connected model	LR5 Series Signal Tower Body unit top attachment	LR6 Series Signal Tower Body unit top attachment
Rated Voltage	24V DC	
Operating Voltage Range	19.0V DC~26.4V DC	
Rated Current Consumption	Max.55mA	
Operating Ambient Temperature	-10°C~+50°C	
Operating Ambient Humidity	85%RH or less, no condensation	
Storage Ambient Temperature	-20°C ~ +60°C	
Storage Ambient Humidity	85%RH or less, no condensation	
Mounting Location	Indoor Only	
Mounting Method	Upright	
Protection Rating	IP 65 (IEC 60529), NEMA TYPE 4X,13	
Environmental Conditions	Based on LR5 Series Signal Tower	Based on LR6 Series Signal Tower
Insulation Resistance	More than 5MΩ at 500VDC between live part and non-current carrying metallic part	
Withstand Voltage	500VAC applied for 1min between live part and non-current carrying metallic part without breaking insulation	
Mass	74g±10g	85g±10g
Outer Dimensions	Refer to the Outer Dimension Drawing	

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### 3. Performance Specifications

#### 3.1. Wireless Specifications

Item	Contents	
	WDT-5LR-Z2	WDT-6LR-Z2
Telecommunication Protocols	IEEE 802.15.4 (Wireless Communications)	
Communication Frequency	2405MHz - 2480MHz(16 channel)	
Communication system	Direct Sequence Spread Spectrum (DS-SS)	
Communication protocols	ZigBee2007 Conformity(original Profile Implementation)	
Transmitter Output	No more than 3mW (Depending on Antenna Access Point)	
Communication distance	Approximately 30 m from source (reference value) ※1	
Conformity Standards	RoHS(EN 50581) EMC(EN55032 , EN55024) , EN 60950-1 FCC Part15 SubpartB UL508 , CAN/CSA-C22.2 No.13-14	
Usable regions※2	Japan, USA, Europe, Korea, Taiwan, Thailand, China, Mexico, Philippines, Indonesia, Vietnam, Brazil, Canada, Malaysia, Singapore	
External Contact Input	Control signal input	
Number of Contacts	6 points (red, amber, green, blue, white, buzzer)	
Input Reaction Time	100 ms or longer	
Display Unit	Indicator for monitoring the status	
Operation Unit	DIP switches	
Remarks	※1 The radio transmission is dependent upon the environment and installed location. ※2 Please do not use any regions nor countries other than admitted regions and countries. Failure to do so may come into conflict with the law.	

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## 4. Function Specifications

Item	Description
Signal Tower Transmission Information	It is possible to select from 2 types of Immediate transmission mode and Request transmission mode.
Immediate transmission mode	Send immediately after the status of the signal tower changes.
Request transmission mode	Send only after receiving a signal tower status request from the host PC.
Select Signal Tower Information Format	It is possible to select from 2 types of Extended Format and standard Format.
Extended Format	Sets up six types of signal tower information.
Standard Format	Sets up five types of signal tower information. (Format compatible with WDT-5E-Z2 and WDT-6M-Z2.)

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### [Handling Precaution]

#### ◆About handling this product

- This product (including software) is shipped only after undergoing strict quality controls and inspections. However, should you encounter any issues, please contact your PATLITE sales representative.
- This product (including software) is developed, designed and manufactured for general usage, such as office use, personal use, standard industry, and other related systems. Do not use, either directly or indirectly, in applications where a high level of safety is required, such as medical equipment or where human life is involved. We shall not be held liable for any damages or losses, nor be held responsible for any claims by a third party, as a result of using this product.
- The suitability of this product in the system, with other machines and equipment, shall be tested and confirmed by the customer. We assume no responsibility regarding this. Design safety into the system to cope with misoperation, misuse, going offline, and other unforeseen operation of this product.
- We bear no responsibility for damages, lost opportunities, lost profits, compensation for accidents, or other costs including but not limited to personnel, construction, transportation, and shipping costs, related to using this product. We bear no responsibility for defects in other products, regardless of the other product's connection to this product (such as a communication line), or for the cost of repairing damages, losses, defects, or recovering lost data related to using the other products, including but not limited to personnel, construction, transportation, and shipping costs.
- To improve the functionality in the software for this product, we will update the software at our own discretion. We bear no responsibility for the results of software updates, such as damages, lost opportunities, lost profits, compensation for accidents, or other costs including but not limited to personnel, construction, transportation, and shipping costs, related to using this product. We bear no responsibility for defects in other products, regardless of the other product's connection to this product (such as a communication line), or for the cost of repairing damages, losses, defects, or recovering lost data related to using other products, including but not limited to personnel, construction, transportation, and shipping costs.
- Note the following statements regarding the software for this product, which require prior written consent from PATLITE:
  - \* Do not duplicate the software for this product.
  - \* Do not alter, combine, reverse-engineer, decompile, or disassemble the software for this product.
  - \* Do not license, rent, or resell the software for this product to a third party.
  - \* Do not store the software of this product on a network so it can be transmitted to a third party.
  - \* Do not remove the copyright notice or other trademark and company rights attached to the software for this product.

#### ◆Things you should always do for your safety

- Do not disassemble or modify the product. Failure to do so may lead to product malfunction or cause fire or electrocution.
- Avoid spilling liquids (such as water or chemicals) into this product. Avoid dropping foreign metallic objects (such as copper wire) into this product. Failure to follow these instructions could result in electric shock or equipment damage.
- Do not drop or hit this product. Failure to follow these instructions could result in electric shock or equipment damage.
- Do not apply too much force to switches and buttons on this product. Failure to follow this instruction could result in

#### ◆Installation

- Turn off the power when wiring, inspecting, or repairing this product. Failure to follow this instruction could result in equipment damage.
- Do not install in locations near fire, or environments with high temperature and humidity. Do not install this product where corrosive or flammable gas is present.
- Do not install on an unstable surface. Failure to follow these instructions could result in injury or equipment damage.
- This product is rated for indoor use only. Please install and use this product indoors only.
- Avoid the following locations for installation of this product.
  - \* Places exposed to direct sunlight.
  - \* Places near fire or environments with high temperatures and humidity.
  - \* Environments where temperature changes are severe, and where there is condensation.
  - \* Environments with poor breathability and ventilation.
  - \* Places where external vibrations are directly transmitted to this product.
  - \* Environments where corrosive gas is present.
  - \* Locations exposed to salty sea air.
  - \* Locations near strong magnetic fields.
  - \* Environments where there is dust, iron powder, and so on.
  - \* Environments where chemicals and oil mist are present.

#### ◆About maintenance

- Do not clean this product with volatile chemicals such as benzene or thinners, or with chemical wiping cloths as it could damage the product.
- Please clean this product with a soft, dry cloth.
- If the dry cloth is unable to clean off any dirt and grime, wipe the product firmly with a slightly water-moistened cloth.

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指定 公差 General Tolerance	角度公差 ±[°] Angular tolerance ±[°]				寸法公差 ±[mm] Dimensional tolerance ±[mm]					図番 Drawing No. WDT-6LR-Z2-W18		ページ Page 6 / 7	
	短辺 長さ Length of short side	~	~	~100	6	30	120	300	1000	改訂 Rev.	年月日 Date	改訂履歴 Revisions	
	精 f	1	0.5	0.3	0.1	精 f	0.05	0.1	0.2				
	中 m	1	0.5	0.3	0.1	中 m	0.1	0.3	0.5	0.7	1		
粗 v	3	1.5	1	0.5	粗 c	0.3	0.5	1	1.2	2			

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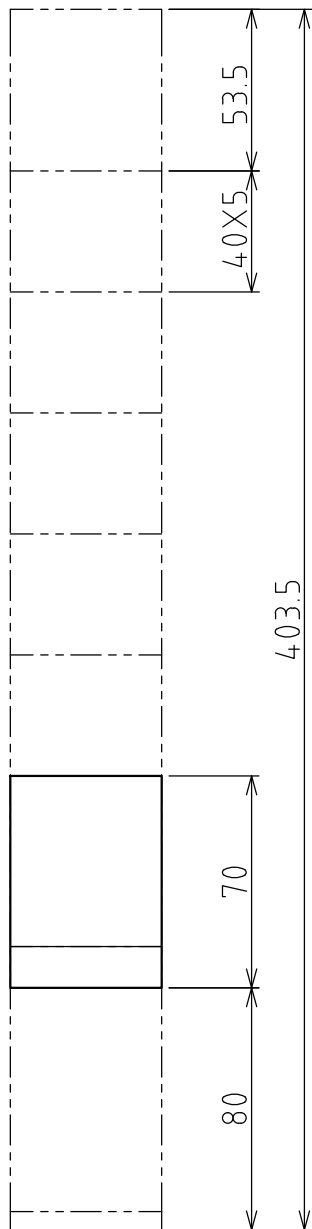
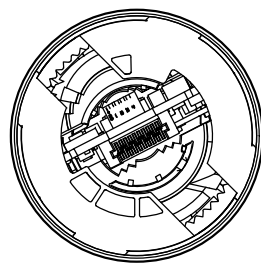
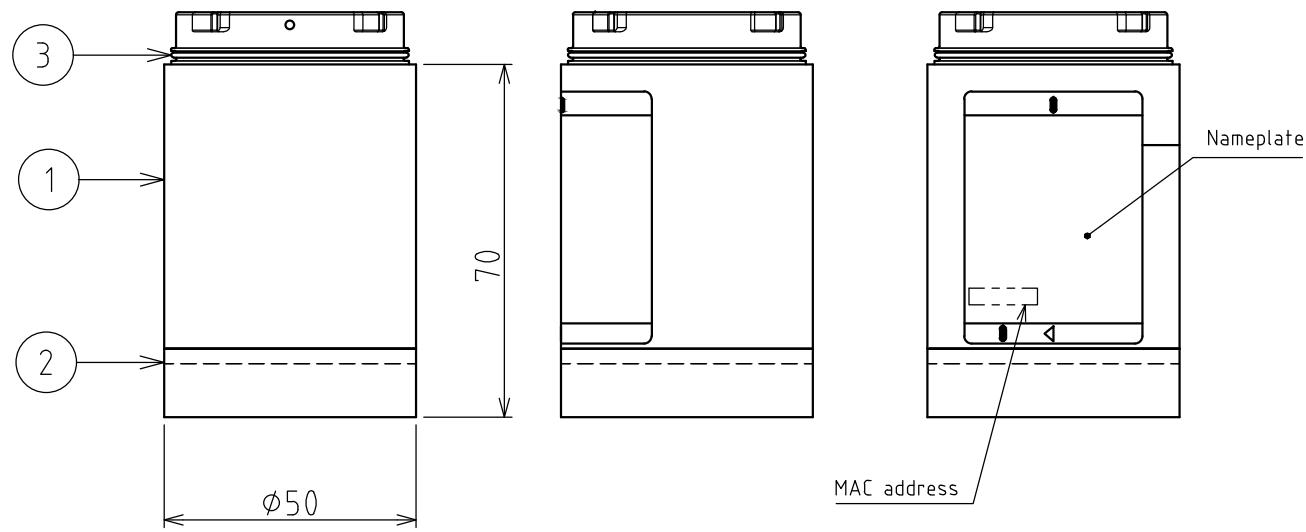
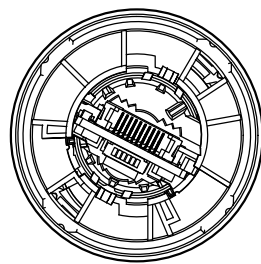
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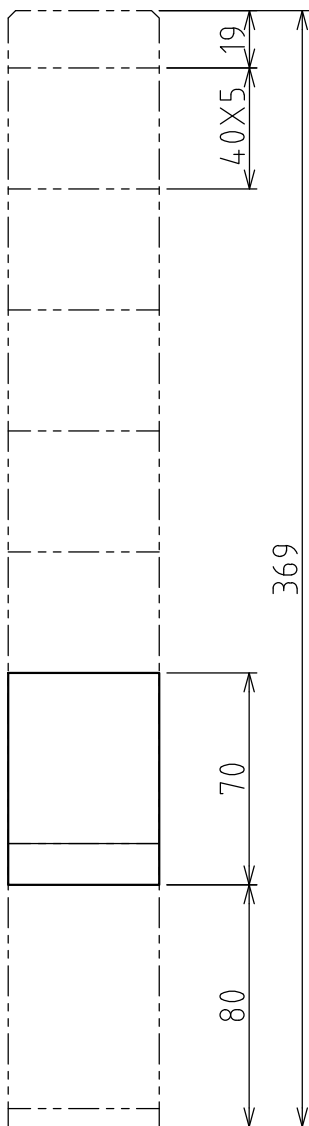
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Installation for  
LR5 Model of Direct Mount/Cable  
with Flashing/Buzzer



Installation for  
LR5 Model of Direct Mount/Cable

Installation Reference Drawing

3	O-ring	1	Silicon Rubber
2	Indicator	1	PC Clear
1	Case	1	PC Off-white
番号 No.	部品名 Part Name	数量 Qty.	記事 Remarks
機種 Model	WDT-5LR-Z2	特注No. S.P.No.	-
		図名 Name	Outer Dimension Drawing
品目コード Part No.		尺度 Scale	三角法 3rd Angle P.
		単位 Unit	mm
		株式会社 PATLITE Corporation	

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Ver.2.0

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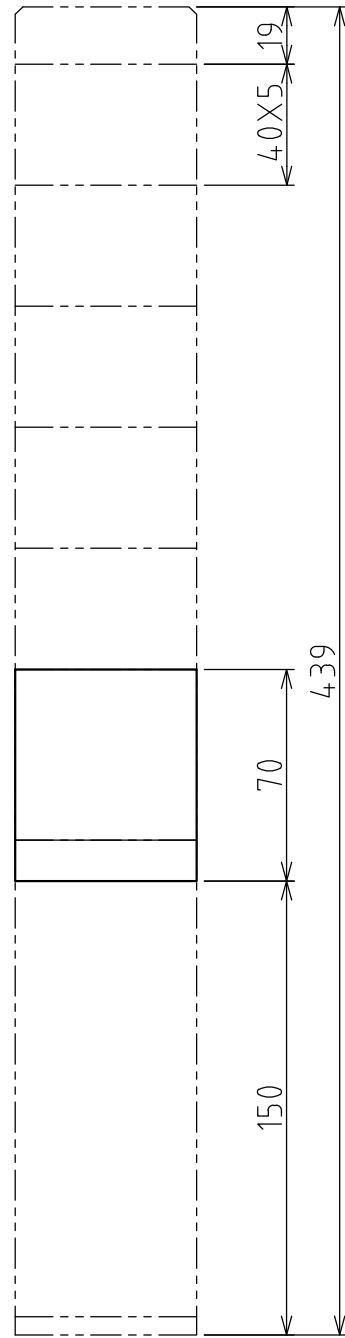
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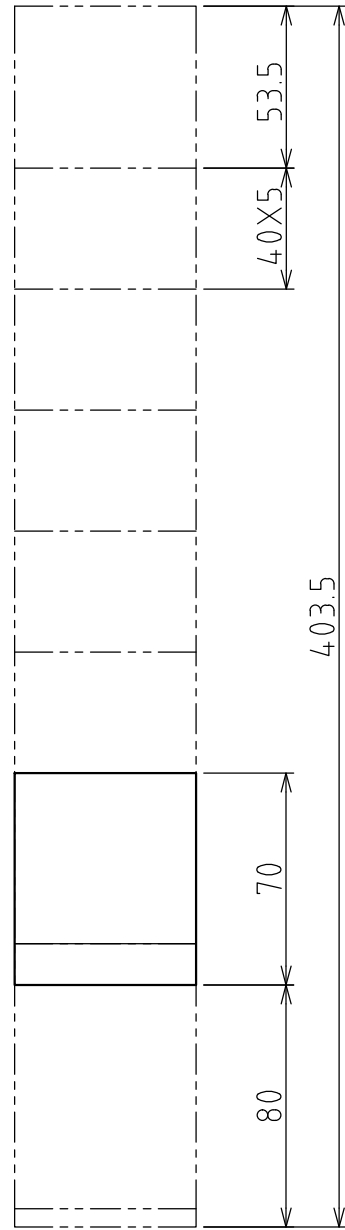
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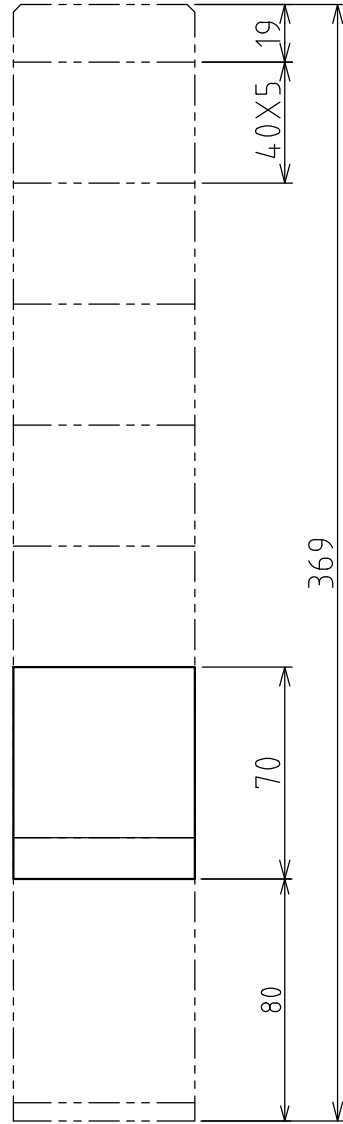
指定 外公差 General Tolerance	角度公差 ±[°] Angular tolerance ±[°]					寸法公差 ±[mm] Dimensional tolerance ±[mm]					図番 Drawing No. WDT-6LR-Z2-W18			ページ Page 7 / 7	
	短辺 長さ Length of short side	~10	~50	~100	~100	精 f	6	30	120	300	1000	改訂 Rev.	年月日 Date	改訂履歴 Revisions	
	精 f	1	0.5	0.3	0.1	中 m	0.1	0.3	0.5	0.7	1				
	粗 v	3	1.5	1	0.5	粗 c	0.3	0.5	1	1.2	2	△			



Installation for  
LR6 Model of Direct Mount/Cable  
with Flashing/Buzzer  
with M2(Rated Voltage:100-240V AC)

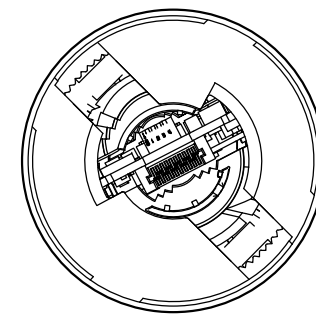
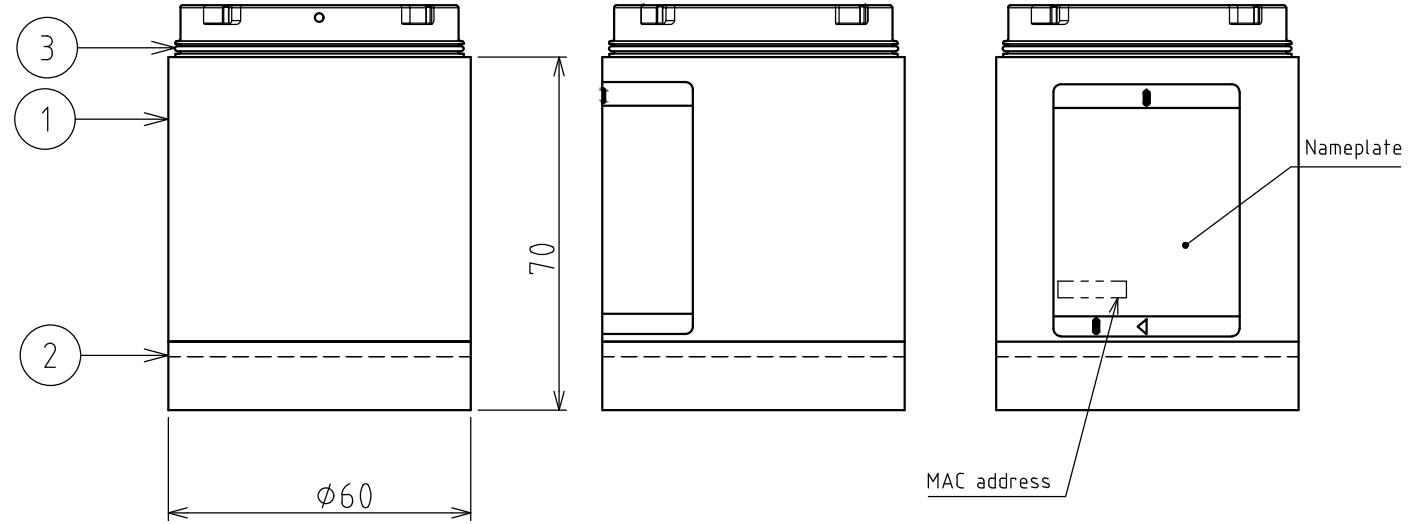
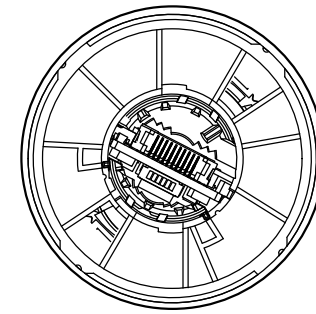


Installation for  
LR6 Model of Direct Mount/Cable  
with Flashing/Buzzer



Installation for  
LR6 Model of Direct Mount/Cable

Installation Reference Drawing



3	O-ring	1	Silicon Rubber
2	Indicator	1	PC Clear
1	Case	1	PC Off-white
番号 No.	部品名 Part Name	数量 Qty.	記事 Remarks
機種 Model	WDT-6LR-Z2	特注No. S.P.No.	-
		図名 Name	Outer Dimension Drawing
品目コード Part No.	-	尺度 Scale	三角法 3rd Angle P.
		単位 Unit	mm
		株式会社 パトライト PATLITE Corporation	

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Ver.2.0