PATLITE Global Network

EUROPEAN HQ (GERMANY)

CHINA

KOREA
TATSUNO
GLOBAL HQ (JAPAN)
SANDA

TAIWAN

U.S.A.

MEXICO

ITALY
FRANCE
SPAIN

THAILAND
SINGAPORE
INDONESIA

- 🔴 Head Office
- 🟡 Factory
- 🟢 Sales Office
- 🔵 Representative Office
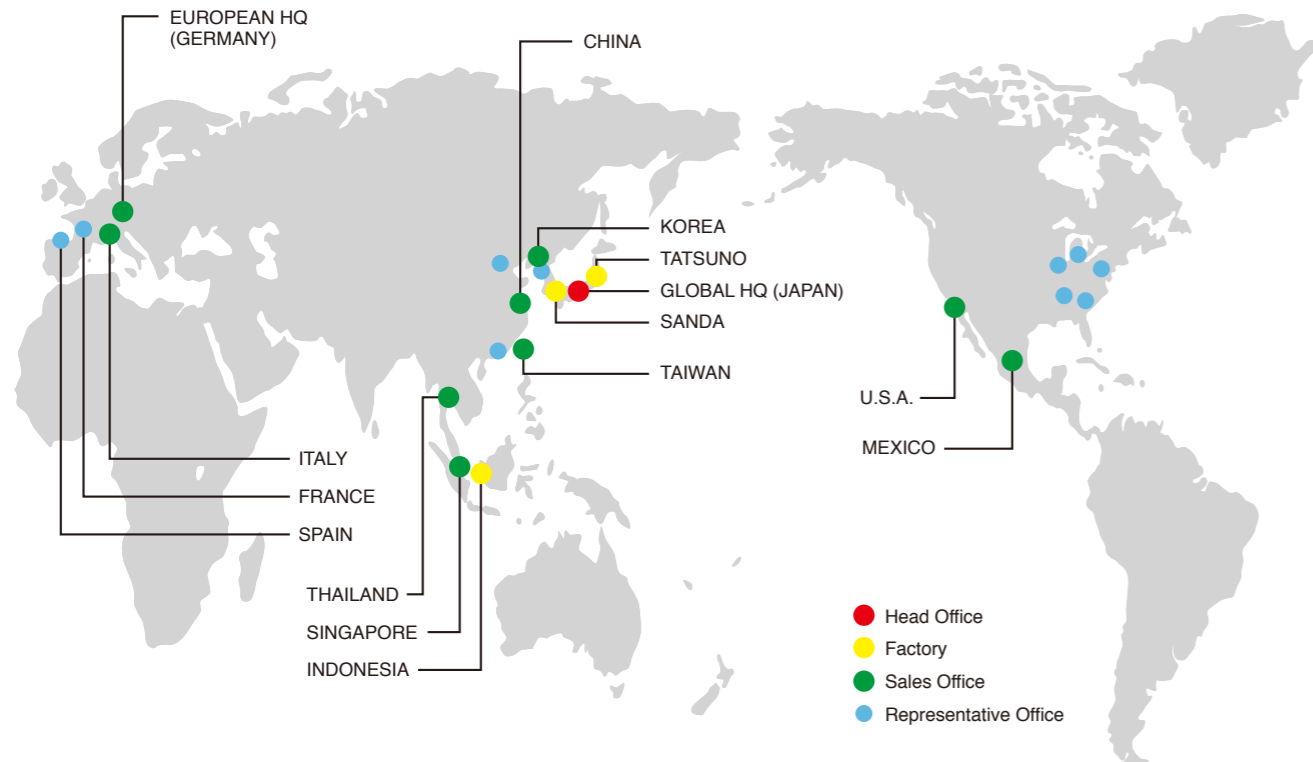
PATLITE Corporation
4-1-3, Kyutaromachi, Chuo-ku, Osaka 541-0056 Japan
International Sales Division
TEL.+81-6-7711-8953 FAX.+81-6-7711-8961 E-mail: overseas@patlite.co.jp

PATLITE (U.S.A.) Corporation
20130 S. Western Ave. Torrance, CA 90501, U.S.A.
TEL.+1-310-328-3222 FAX.+1-310-328-2676 E-mail: sales@patlite.com

PATLITE (SINGAPORE) PTE LTD
No.2 Leng Kee Road, #05-01 Thye Hong Centre, Singapore 159086
TEL.+65-6226-1111 FAX.+65-6324-1411 E-mail: sales@patlite.com.sg

PATLITE (CHINA) Corporation
Room 1102-1103, No.55, Lane 777, Guangzhong Road (West), ZhabeiDistrict, Shanghai, China 200072
TEL.+86-21-6630-8969 FAX.+86-21-6630-8938 E-mail: sales@patlite.cn

PATLITE Europe GmbH
Am Soeldnermoos 8, D-85399 Hallbergmoos, Germany
TEL.+49 -811-9981-9770-0 FAX.+49-811-9981-9770-90 E-mail: info@patlite.eu

PATLITE KOREA CO., LTD.
A-2603, Daesung D-POLIS, 606, Seobusaet-gil, Geumcheon-gu, Seoul, 08504, Korea
TEL.+82-2-523-6636 FAX.+82-2-861-9919 E-mail: sales@patlite.co.kr

PATLITE TAIWAN CO., LTD.
2F-1, No.215, Sec. 2, Chengde Rd., Datong Dist., Taipei City 10364, Taiwan (R.O.C.)
TEL.+886-2-2555-1611 FAX.+886-2-2555-1621 E-mail: info@patlite.tw

PATLITE (THAILAND) CO., LTD.
Olympia Thai Tower, 15th Floor 444 Ratchadapisek Road Samsennok, Huay Kwang Bangkok 10310, Thailand
TEL.+66-2-541-5431 FAX.+66-2-541-5429 E-mail: sales_150716@patlite.co.th

PATLITE MEXICO S.A. de C.V.
Plaza de La Paz No. 102, int. 712 Guanajuato Puerto Interior, Silao, Gto, C.P.36275, Mexico
TEL.+52-472-748-9124 E-mail: ventas@patlite.com.mx

www.patlite.com

⚠ CAUTION

To ensure correct use of these products, read the "Instruction Manual" prior to use. Failure to follow all safeguards can result in fire, electric shock, or other accidents.Specifications are subject to change without notice.

| O-AI05 | EN | 1911 B |

New

Smarter Remote Monitoring and Control
Gather and analyze more data in real-time to make smarter, data-driven decisions

Effective Local Status Indication

Reliable visual and audible signals
with a built-in counting feature

Visualize More Data Points

Equipped with 8 contact inputs enabling acquisition
of up to 255 data codes

Acquire Additional Levels of Information

Features a serial communication interface
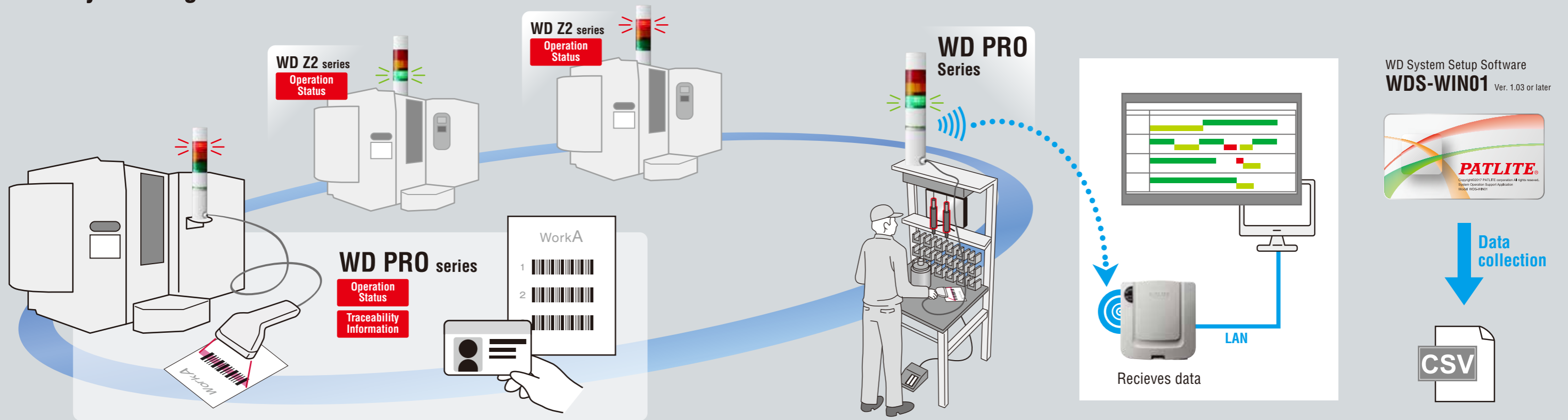to attach devices, such as a barcode reader

Improve Work Efficiency

Features 2-way wireless communication
to remotely trigger tower light signals

www.patlite.com

The WD Pro adds a myriad of additional features to any existing WD Series network.

WD Z2 series
Operation Status

WD Z2 series
Operation Status

WD Z2 series
Operation Status

WD PRO series
Operation Status
Traceability Information

Work A
1
2

WD PRO Series

WD System Setup Software
WDS-WIN01 Ver. 1.03 or later

PATLITE

Data collection

LAN

Recieves data

CSV

Wireless Data Acquisition System
WD PRO series

WD PRO Transmitter
WDT-6LR-Z2-PRO

Contact Input -
Serial Communication Base Unit
WDB-D80S-PRO

WD PRO Transmitter
WDT-6LR-Z2-PRO

Compatible base unit **WD PRO** series	
Current consumption **MAX 110mA** (Total value of transmitter and base unit)	
Radio wave reaching distance without obstacles **20m** *3	

*To be installed on the WDB-D80S-PRO base unit. (not compatible with the LR6 body unit)

Contact Input -
Serial Communication Base Unit
WDB-D80S-PRO

Input **Serial base unit**
Transmitter **Transmitter for WD PRO**

Wireless Data Acquisition System
WD-Z2 series

Transmitter		Receiving machine

Transmitter for LR6/LR5   *Not compatible with WD PRO Series

Transmitter for the LR6 signal light
WDT-6LR-Z2

Compatible signal light model **LR6** series *1
Current consumption **MAX 55mA**
Radio wave reaching distance without obstacles **20m** *3

Transmitter for the LR5 signal light
WDT-5LR-Z2

Compatible signal light model **LR5** series *1
Current consumption **MAX 55mA**
Radio wave reaching distance without obstacles **20m** *3

Receiver **WDR-LE-Z2**

Recommended number of connected transmitters **20 Max. 30** *2
Connection method **LAN/USB**
Current consumption **typ.65mA**
Multiple receivers can operate at the same time. *4

*1: There are some restrictions on compatible signal lights, so please contact Patlite for details.   *2: Due to the properties of radio waves, this number may differ according to the location of the receiver, the communication environment, and the communication frequency.   *3: This is a reference value. The actual value may differ due to the properties of radio waves.   *4: Multiple receivers cannot operate at the same time if a USB connection is used. (Contact Patlite for details.)

More Data Means Smarter Decision-Making

The WD PRO Series features 2-way wireless communication for better plant-wide visibility while enabling you to gather more data points for better predictive maintenance, quicker problem resolution, and OEE improvement.

Understand the cause of equipment shutdown

[8 points of contact input]

Up to 765 data codes can be acquired to identify exact cause and timing of equipment malfunctions.

External input by PLC contact, switch, etc.

Black cable

Error code table

Signal tower Information 3 points × External contact input 8 points ➡ **765 factor data can be acquired**

*When using 3 segment signal tower

① Red
② amber
③ Green

Decimal number	Contact input (ON - ● OFF - ○)							
	①	②	③	④	⑤	⑥	⑦	⑧
1	●	○	○	○	○	○	○	○
2	○	●	○	○	○	○	○	○
3	●	●	○	○	○	○	○	○
253	●	○	●	●	●	●	●	●
254	○	●	●	●	●	●	●	●
255	●	●	●	●	●	●	●	●

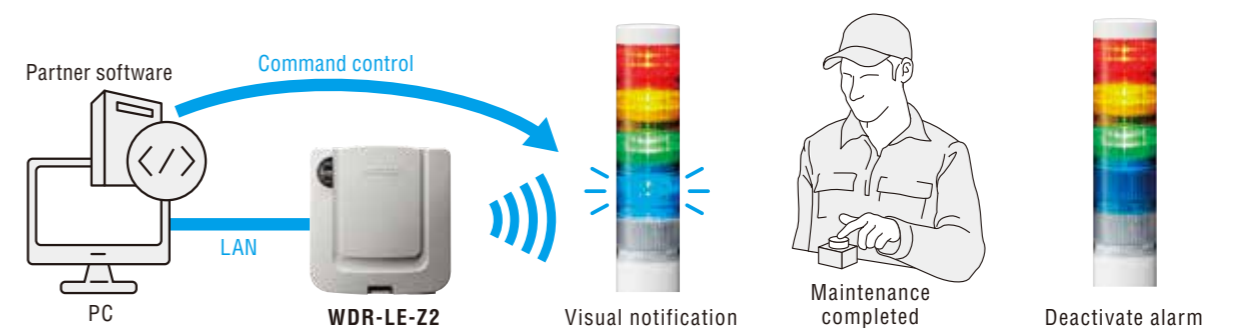Equipment operation status × Detailed information ➡ **Detailed data of equipment operation / non-operation**

### Cause-based Pareto analysis

Red

amber
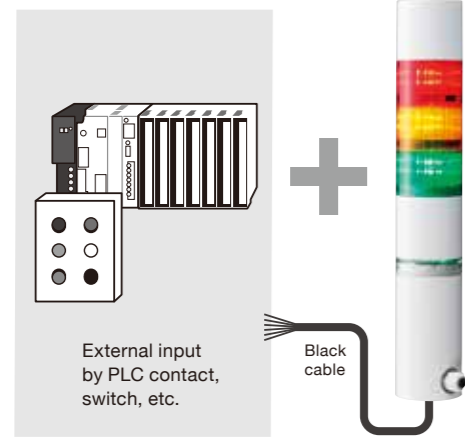
Eliminate downtime

[Remote Signaling]

Notifies remote operators instantly of equipment abnormalities, as well as the type of maintenance required.

Partner software

Command control

LAN

PC

WDR-LE-Z2

Visual notification

Maintenance completed

Deactivate alarm

| Malfunction report from host server | Wireless signal to activate visual alarm | Maintenance | Maintenance complete |

Acquire additional levels of information

[Serial Cable]

Connect a bar code reader to the WD PRO to trace employee data for greater control over products and process quality.

Serial data such as barcode or RFID

RFID

Serial cable
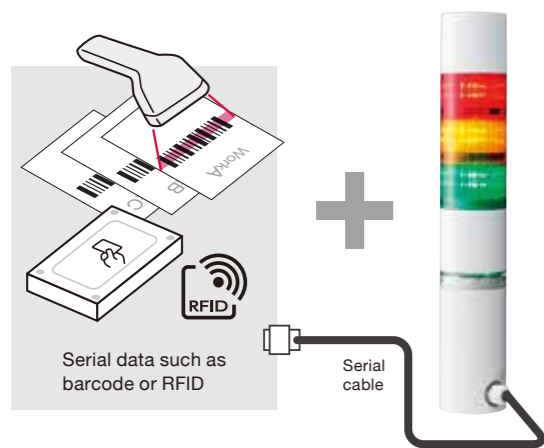
Worker ID input by barcode

■ workA
■ workB
■ workC

20XX. 00. 00	SMITH		8	9	10	11	12	13	14	15	16	17	18	19	20
Unit 01 (total)															
Unit 01 (actual)	77340	78.43%	16560	4600											
Unit 01 (earned)															
Unit 02															

Equipment operation data by WD

Item number input by barcode

Production planning

Monitor multiple facilities remotely and in real-time

[Supported areas (as of November 2019) | WD-Z2 : 41 countries / WD PRO : USA, China, EU, Korea, Taiwan, Thailand, Indonesia, Mexico and Japan]

Utilize compatible software to monitor multiple factories located across the globe.

IoT SOLUTION

Factory A (USA)

Factory B (Germany)
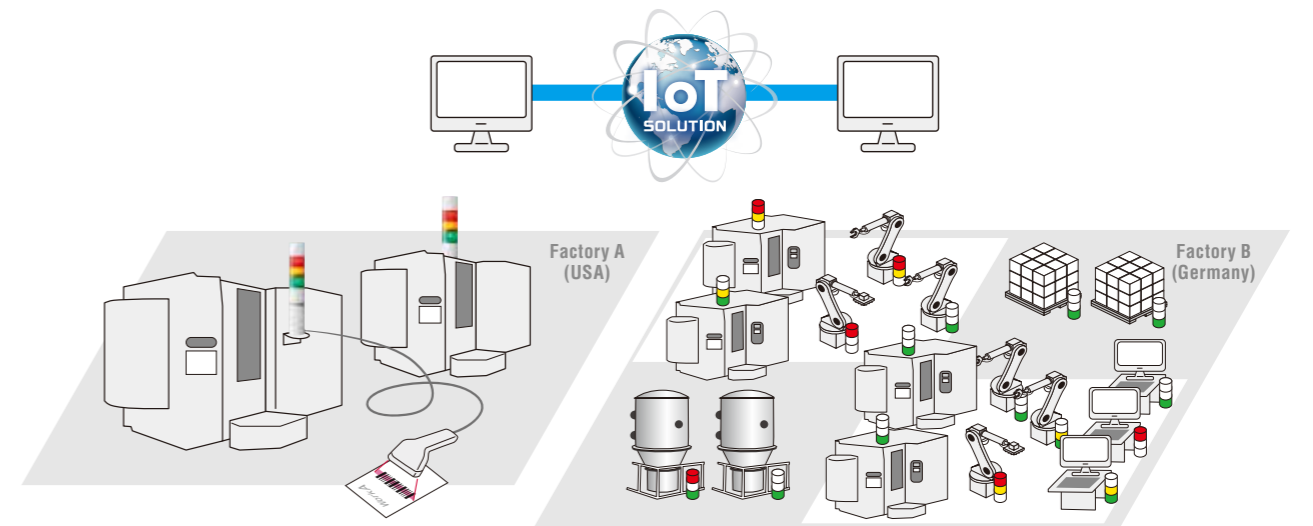
WD PRO System Configuration

WD System Setup Software
WDS-WIN01 Ver. 1.03 or later

Receiver
WDR-LE-Z2

Buzzer Unit
LR6-BW

LED Unit
LR6-E-R
LR6-E-Y
LR6-E-G

WD PRO Transmitter
WDT-6LR-Z2-PRO

Contact Input -
Serial Communication Base Unit
WDB-D80S-PRO

LAN

PC

Wiring example *4

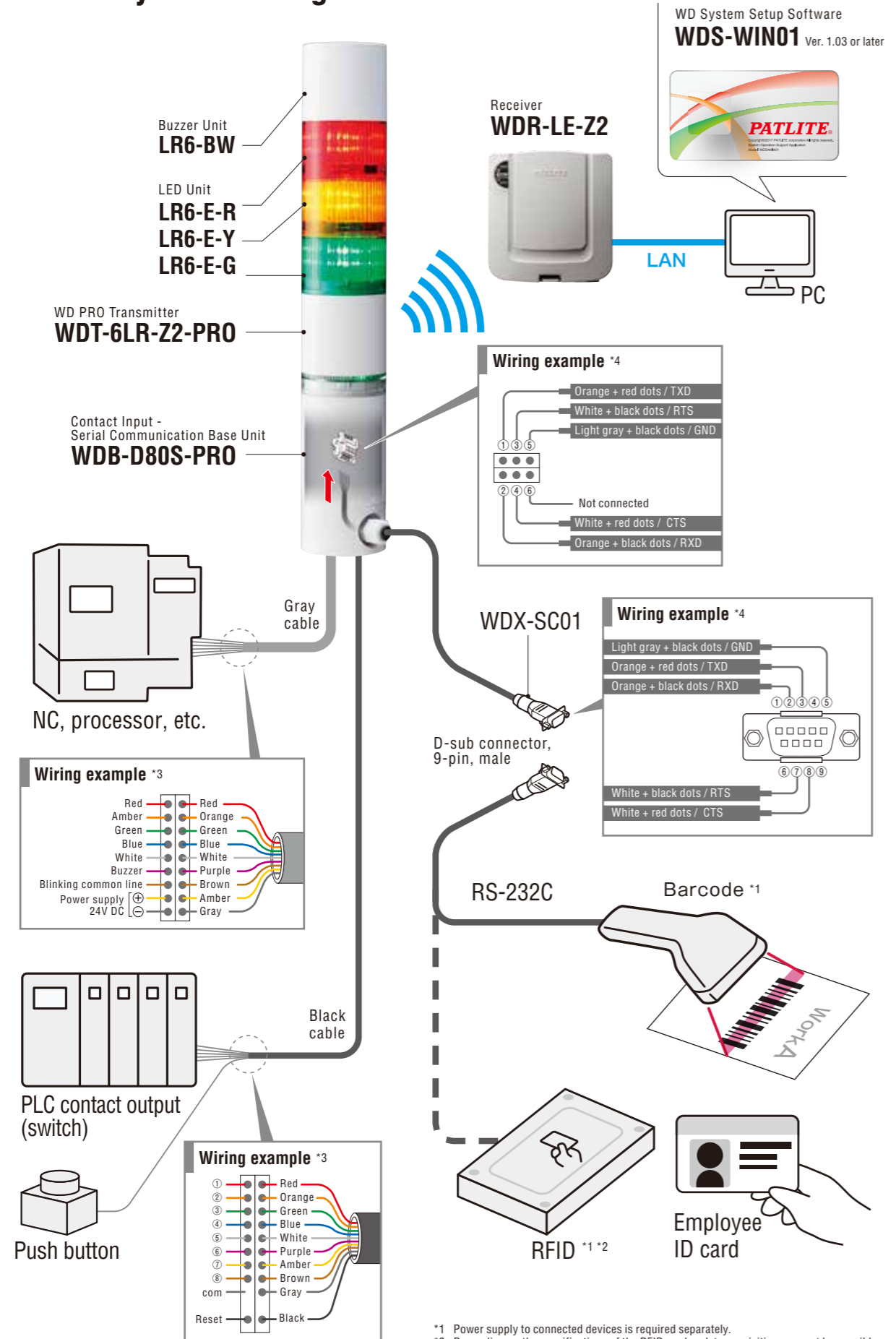- Orange + red dots / TXD
- White + black dots / RTS
- Light gray + black dots / GND
- ① ③ ⑤
- ② ④ ⑥
- Not connected
- White + red dots / CTS
- Orange + black dots / RXD

Gray cable

WDX-SC01

Wiring example *4

- Light gray + black dots / GND
- Orange + red dots / TXD
- Orange + black dots / RXD
- ① ② ③ ④ ⑤
- ⑥ ⑦ ⑧ ⑨
- White + black dots / RTS
- White + red dots / CTS

NC, processor, etc.

D-sub connector, 9-pin, male

Wiring example *3

Red	Red
Amber	Orange
Green	Green
Blue	Blue
White	White
Buzzer	Purple
Blinking common line	Brown
Power supply ⊕	Amber
24V DC ⊖	Gray

RS-232C

Barcode *1

Black cable

PLC contact output (switch)

Push button

RFID *1 *2

Employee ID card

Wiring example *3

①	Red
②	Orange
③	Green
④	Blue
⑤	White
⑥	Purple
⑦	Amber
⑧	Brown
com	Gray
Reset	Black

*1 Power supply to connected devices is required separately.
*2 Depending on the specifications of the RFID reader, data acquisition may not be possible.
*3 Please check the instruction manual for wiring instructions.
*4 For pin assignment when using a serial cable, refer to its corresponding instructions manual.

WDS-WIN01 CSV Output Sample Ver. 1.03 or later

Date Time	MAC address	user name	Red information	Amber information	Green information	WDT Surveillance intelligence	RS-232C data (ASCII code)	External input information (Decimal number)	Clear input information
2019/3/15 9:44	6CE4DAFFFE019925	machine 1	0	0	0	9		0	0
2019/3/15 9:44	6CE4DAFFFE019925	machine 1	0	0	1	9	012035 SMITH	0	0
2019/3/15 9:44	6CE4DAFFFE019925	machine 1	0	0	1	9	20190315 AANKBB 200pc	0	0
2019/3/15 9:52	6CE4DAFFFE019925	machine 1	1	0	0	9		0	0
2019/3/15 9:52	6CE4DAFFFE019925	machine 1	1	0	0	9		155	0
2019/3/15 10:15	6CE4DAFFFE019925	machine 1	0	0	1	9		0	0
2019/3/15 10:15	6CE4DAFFFE019925	machine 1	0	1	0	9		0	0
2019/3/15 10:20	6CE4DAFFFE019925	machine 1	0	1	0	9	MATERIAL SHORTAGE	0	0
2019/3/15 10:25	6CE4DAFFFE019925	machine 1	0	0	1	9		0	0
2019/3/15 11:05	6CE4DAFFFE019925	machine 1	0	1	0	9		0	0
2019/3/15 11:05	6CE4DAFFFE019925	machine 1	0	1	0	9	END	0	0
2019/3/15 11:06	6CE4DAFFFE019925	machine 1	0	0	0	9		0	0
2019/3/15 13:05	6CE4DAFFFE019925	machine 1	0	1	0	9	20190315 CCNKDD 300pc	0	0

① ② ③ ④

Data sample
① Signal Tower information (6 inputs = Red, yellow, green, blue, white, buzzer)
② External configuration information (8 inputs = Binary 0 to 255)
③ Serial data (RS-232C = ASCII code) 2·10·16 can be selected by setting.
④ Reset input information

Specifications

Model code	WD PRO Transmitter **WDT-6LR-Z2-PRO**	Contact Input - Serial Communication Base Unit **WDB-D80S-PRO**
Rated Voltage	DC 24V	
Size	Φ60	
Protection Rating	IP65	
External Contact Input	—	Signal tower inputs (red, yellow, green, blue, white, buzzer); 8 external contact inputs; 1 reset input; serial communication input
Wireless specification	2.4GHz Zigbee	—
Corresponding receiver	WDR-LE-Z2	—

Options

Serial Cable
WDX-SC01

Installation example

Buzzer Unit
LR6-BW

Upper Bracket
SZP-004W

Solid Color
LR6-E-R/Y/G/B/C

Clear Globe
LR6-E-RZ/YZ/GZ/BZ

Pole Bracket
SZ-016A

Wall mount Bracket
SZK-003W

SZ-010

SZK-001U

Pole
POLE-800A21 800mm
POLE-300A21 300mm
POLE-100A21 100mm