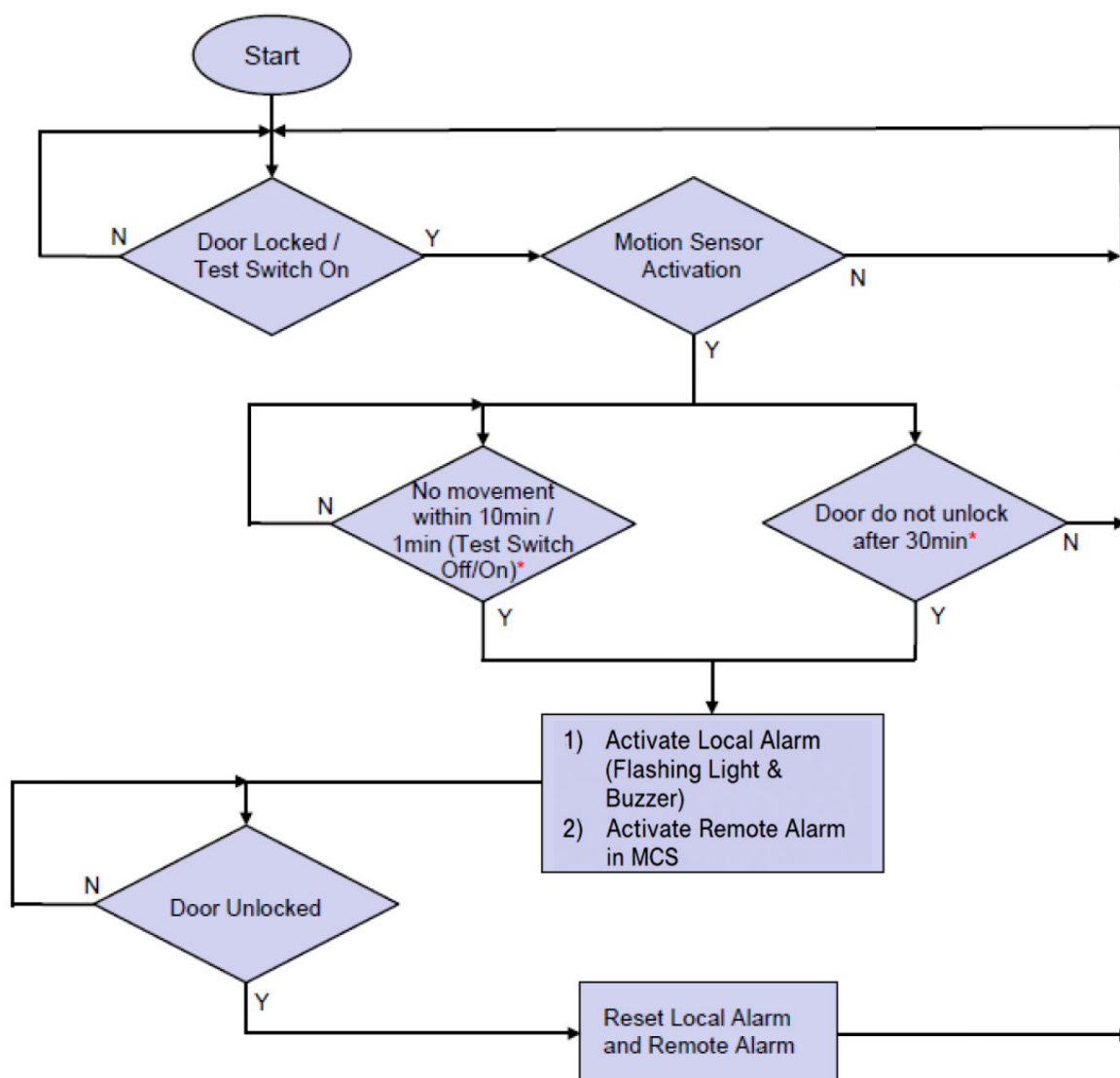
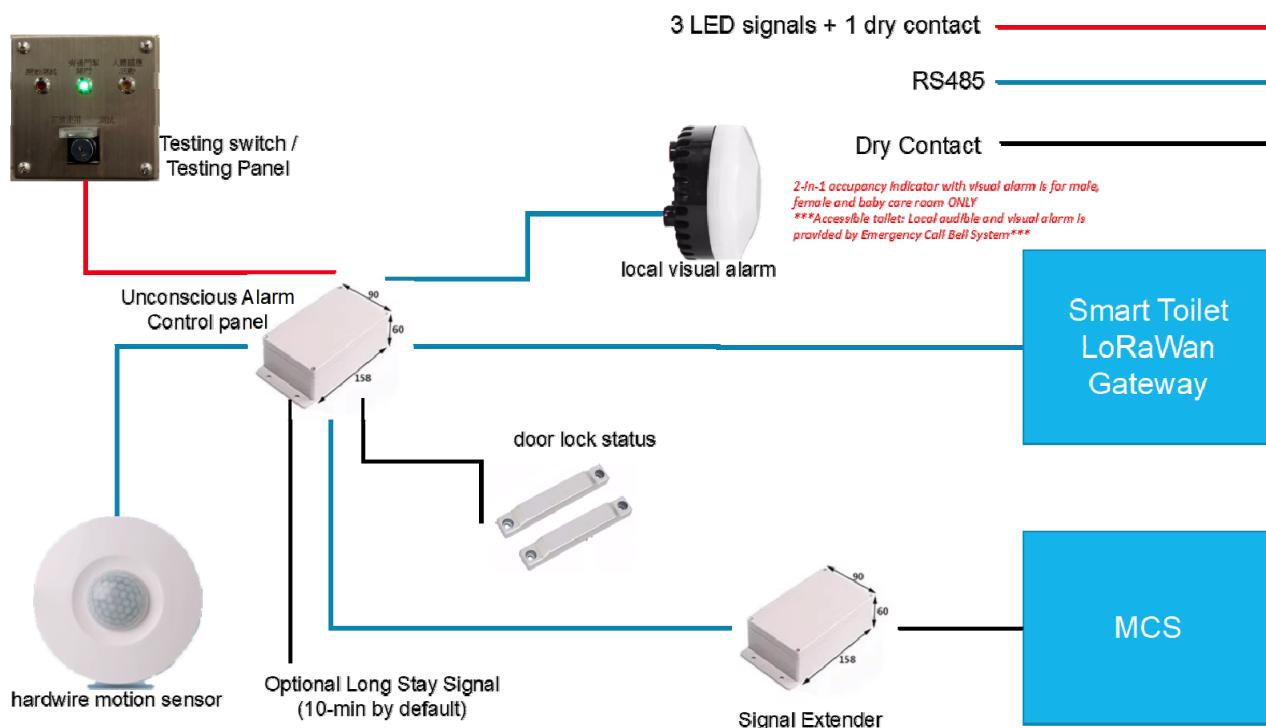


Long Stay Alarm System in Smart Toilet

This system is implemented to realize the following monitoring flow.



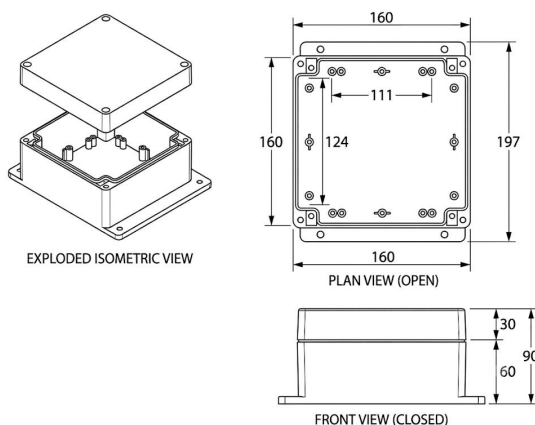
System Configuration



Equipment Specification - Long Stay Alarm Control panel (with control logic)

The Long Stay alarm Control Panel is the brain of the Long Stay System. It consists of a MCU where the control logic, including duration of testing mode and normal mode of the Long Stay System is processed locally for fast response. It also synchronize the results and communicate to the gateway, such that the real time status can be sent to personnel needed.

TECHNICAL SPECIFICATION DIAGRAM: ENCLOSURE MODEL 160



Parameter	Specification
Dimension	197 x 160 x 90 mm
Power	12V DC / 1A
Protection	IP65

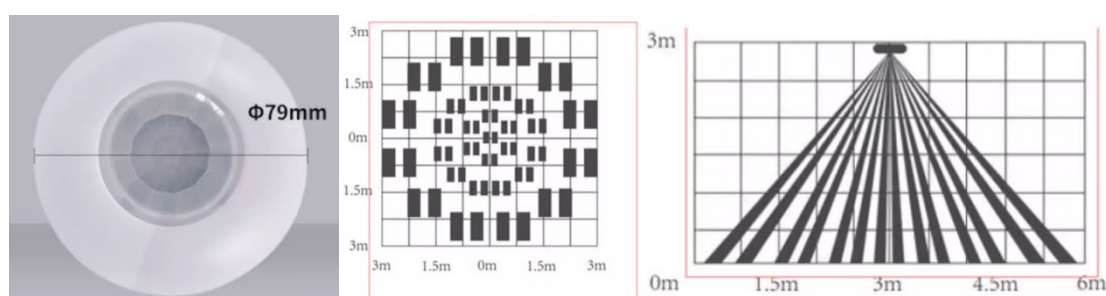
Equipment Specification - Door Lock Sensor

We provide door lock sensor with different sizes. Please refer to dimension and installation.



Parameter	Specification
Contact Signal	Normally Open (NO) / Normally Closed (NC)
Power Supply	Passive
Power (Used as Switch)	12 V
Load power	Normally Closed: 10 W, Normally Open: 3 W
Maximum current	0.5 A
Operating Temperature	-30 to 60°C
Colour & Surface	Electroplating Grey
Weight	1g per piece

Equipment Specification - Hardwired Motion Sensor



Dimension	Φ79 x 26 mm
Voltage	12V DC
Detecton Dameter	6m (height = 3m)
Detection Angle	+/- 45°
Installation height	2 - 6 m
Protocol	RS485
Operation Condition	-10 - 50 °C, < 95% RH non-condensing
Operation Current	< 20 mA



Equipment Specification - Testing Switch / Testing Panel



Parameter	Specification
Dimension	100 x 100 x 50 mm
Protection	IP40
Material	SUS304
Operation Condition	0°C - 40°C

Equipment Specification (Option 1) - 2-in-1 Occupancy Indicator



Parameter	Specification
Dimension	Φ75 x 49 mm
Sound	3W sound, MP3
Visual	RED (Alert) / YELLOW (Occupied) / GREEN (Available) Rapid flash / Strobe / always on / off
Weight	110 g
Protection	IP65
Protocol	RS485
Operation Condition	0°C - 50°C



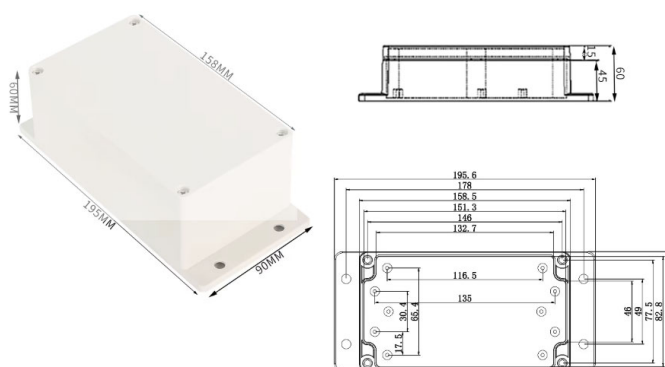
Equipment Specification (Option 2) - visual alarm



Parameter	Specification
Dimension	Φ75 x 49 mm
Sound	3W sound, MP3
Visual	RED - Rapid flash / Strobe / always on / off
Weight	110 g
Protection	IP65
Protocol	RS485
Operation Condition	0°C - 50°C

Equipment Specification - Signal Extender

This module extends the distance of the dry contact signal, such that the receiving system can be further apart to the toilet.



Parameter	Specification
Dimension	195 x 90 x 60 mm
Power	12V DC / 1A
Protection	IP65



Installation

Installation can be done only by the professional construction personnel or authorized engineering representative. Please use the professionally qualified installation tools to guarantee the safety of the construction personnel. Installation position must be far away from the fire source, strong electric field, magnetic field etc., otherwise damage will be resulted. ChinoINT reserves the interpretation of installation.

All cables between equipment are not provided.

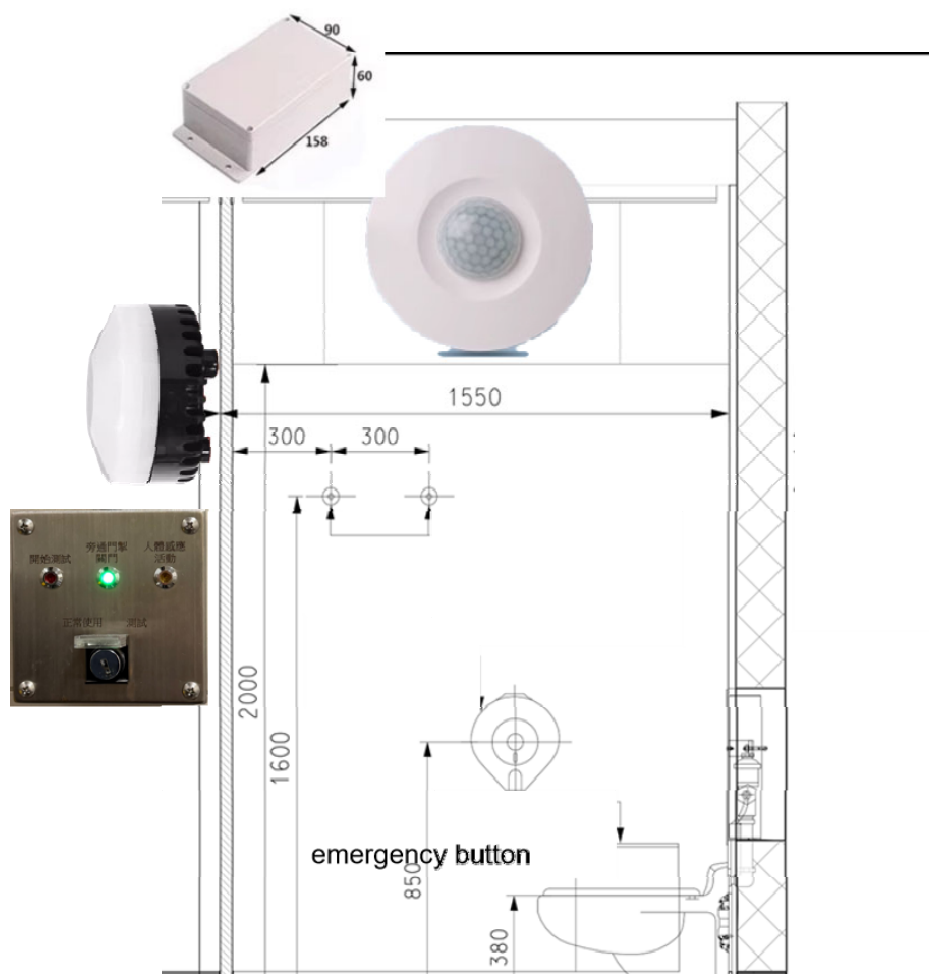
Common Layout

All final installation locations are subject to onsite situation, installation team and client. Listed below are for some common layouts. They are only for reference.

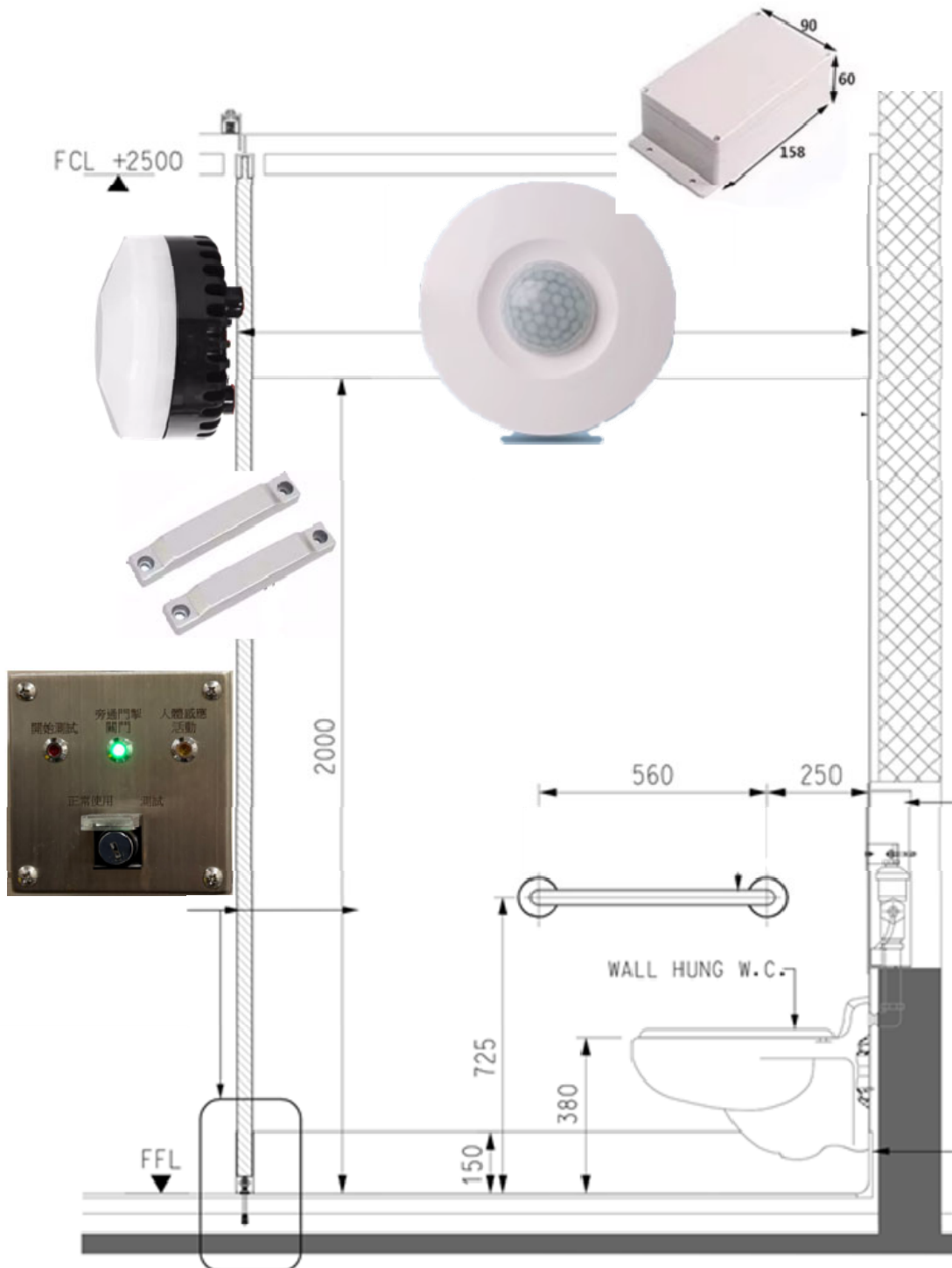
The Long Stay Alarm Control panel, and the testing switch are usually installed at location convenience to operator. This is subject to change with site requirements.

The 2-in-1 Occupancy Indicator Alarm with visual alarm is usually installed at entrance.

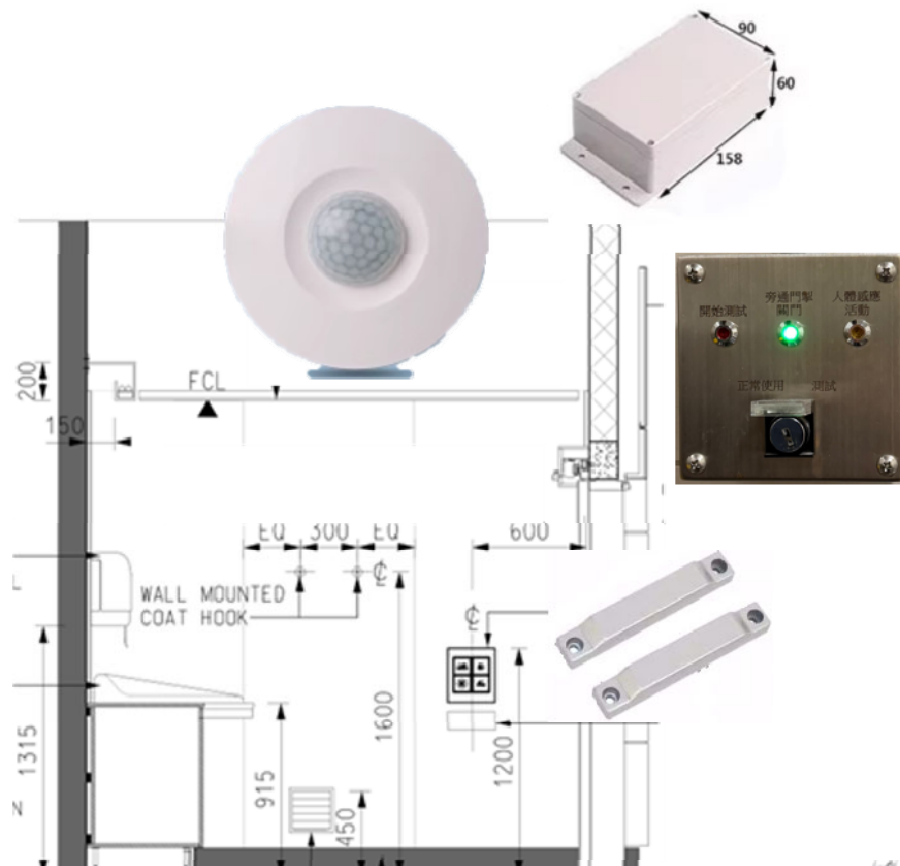
Male / Female Toilet Cubicle



Accessible Toilet



Baby Care Room



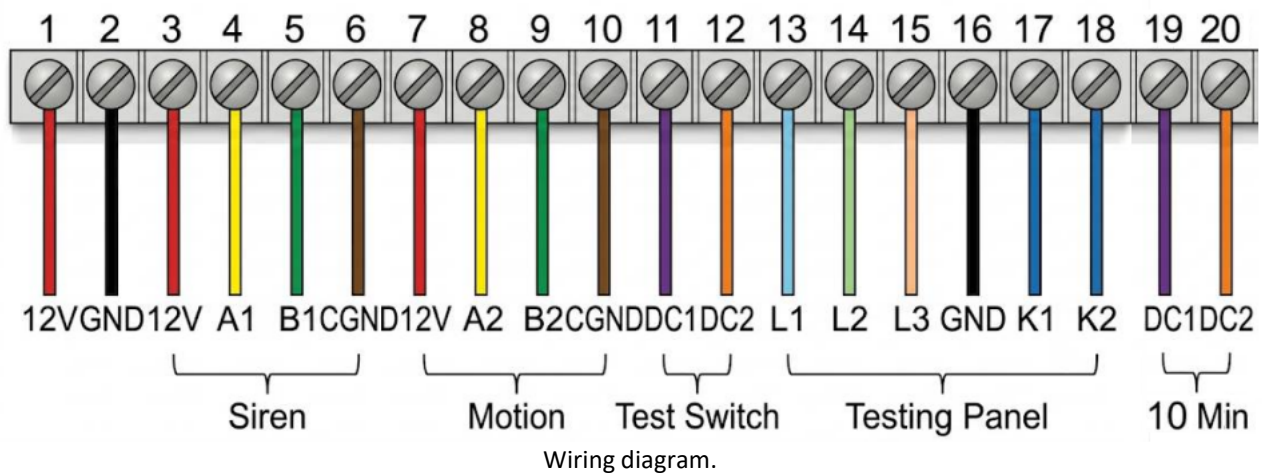
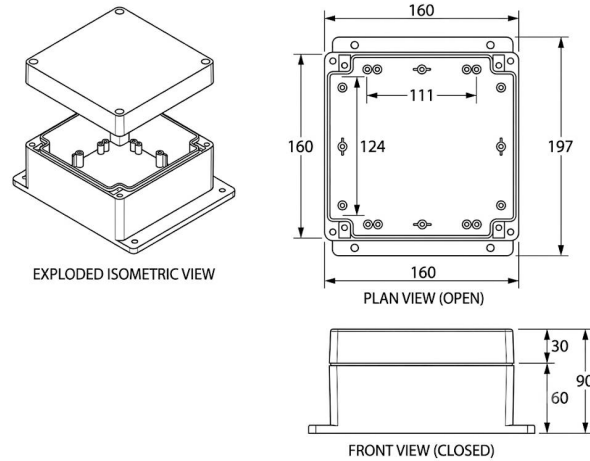
2-in-1 Occupancy Indicator with visual alarm & Visual Alarm Installation

Shown below is the dimension and screw holes for the 2-in-1 Occupancy Indicator with 3 colours and visual alarm. This allows easy recognition of different status, such empty / occupied / help needed. Wall-mount screw holes can be found at the bottom of the equipment. Magnetic version is also available for easy installation.



Long Stay Alarm Control panel Installation

Shown below is the dimension and wall-mount screw hole location diagram.

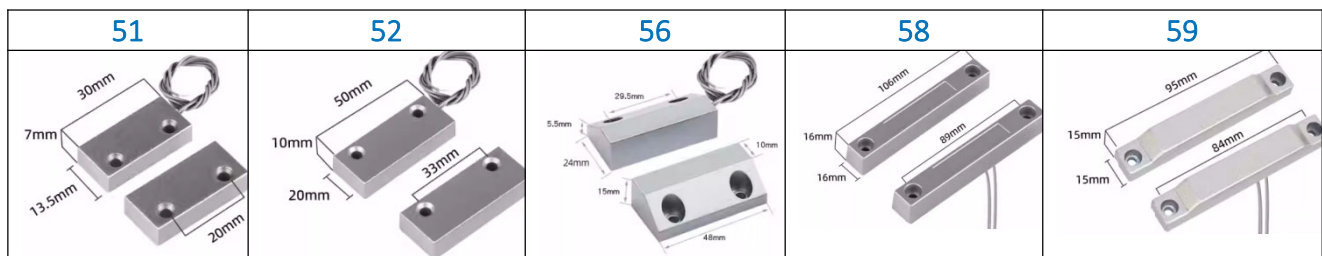


Door Lock Sensor Installation

Note: Door Lock Sensor is dry contact signal.

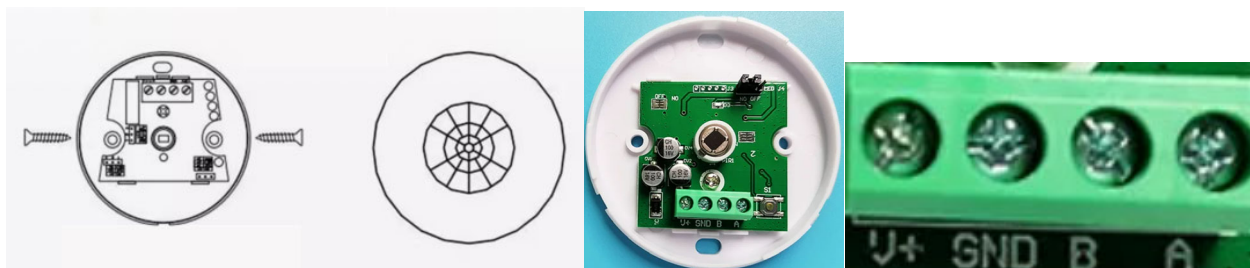
Please read the precautions before installation:

- Installation can be done only by the professional construction personnel or authorized engineering representative
- Please use the professionally qualified installation tools to guarantee the safety of the construction personnel
- Installation position must be far away from the fire source, strong electric field, magnetic field etc., otherwise damage will be resulted
- ChinoINT reserves the interpretation of installation

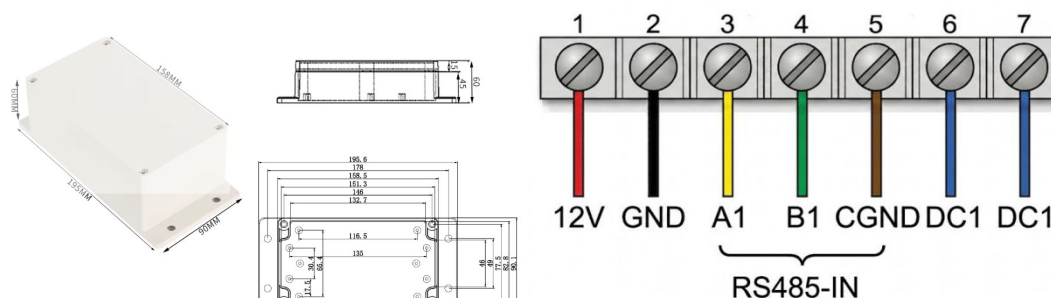


Hardwired Motion Sensor Installation

Shown below is the wall-mount screw hole location diagram. The housing is designed for direct screw mount. No bracket needed. No other accessories provided.

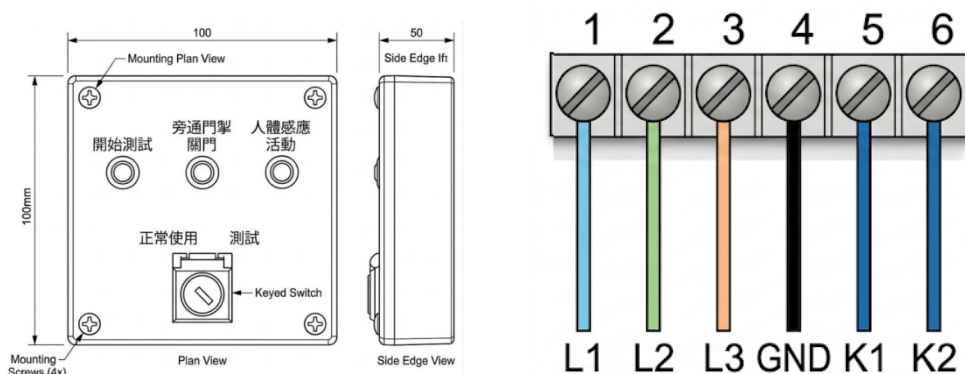


Signal Extender Installation



Testing Switch / Testing Panel Installation

LEDs are 3.3V signal while the switch is dry contact signal.



Cable Recommendation

Cable size	Approx. AWG	Max one-way distance at 12 V, 1 A	Max one-way distance at 3.3V, 1 A
0.5 mm ²	20 AWG	~16 m	~3 m
0.75 mm ²	18 AWG	~25 m	~5 m
1.0 mm ²	17 AWG	~33 m	~6.5 m
1.5 mm ²	15 AWG	~50 m	~10 m
2.5 mm ²	13 AWG	~80 m	~16 m
4.0 mm ²	11 AWG	~130 m	~26 m
6.0 mm ²	9 AWG	~195 m	~39 m

For RS485 cable, please deploy with RS-485-compliant twisted-pair cable.

For Dry Contact signals, RJ45 cable enable a general length of 30m. Better cable size and AWG allows longer length deployment.

All cables between equipment are not provided. These are provided for reference only. The actual distance depends on on-site situation and workmanship.



Warning

Assumes no liability for any damage resulting from the use of this product. CHINOTECH INTERNATIONAL LIMITED reserves the right to change this data sheet at any time without notice. The information furnished by ChinoINT is believed to be accurate and reliable. However, no responsibility is assumed by ChinoINT for its use, not for any infringements of patents or other rights of third parties resulting from its use.

Product Warranty and Customer Support

ChinoINT warrants all products free from defects in material and workmanship for a period of one year from the date of shipping. During the warranty period, we will, at our position, either repair or replace any product that proves to be defective. To report any defect, please inquiry sales@chinoint.com

Unauthorized opening and improper repairs on the device may result in substantial damage to equipment or endanger the user. The product described in this documentation may be operated only by personnel qualified. Qualified personnel are those who, based on their training and experience, are capable of identifying risks and avoiding potential hazards when working with these products. Always disconnect the power plug before you open the device.

Please have the model, serial number and a detailed problem description available when you call. If the problem concerns a particular reading, please have all meter readings available.

This warranty does not apply to defects resulting from unauthorized modification, misuse. If you install or exchange system expansion and damage your device, the warranty becomes void.

Product Warranty and Customer Support

We have reviewed the contents of this publication to ensure consistency with the hardware and software described. Since variance cannot be precluded entirely, we cannot guarantee full consistency. However, the information in this publication is reviewed regularly and any necessary corrections are included in subsequent editions.

