

INSTALLATION INSTRUCTIONS

Hybrid Receiver

GEN-RECEIVER



1 BEFORE INSTALLATION

Warning Failure to follow the instructions provided and improper handling may cause death or serious injury.	Do not touch the unit base or power terminals of the product with a wet hand. (Also, if the product is wet after rain, do not touch it.) It may cause electric shock.
	Never attempt to disassemble or repair the product. It may cause fire or damage to the devices.
	[Handling of Batteries] Fire, explosion and severe burn hazard. Do not recharge, short circuit, crush, disassemble, heat above 100°C, incinerate, or expose contents to water. Do not solder directly to the cell.
Caution Failure to follow the instructions provided and improper handling may cause injury and/or property damage.	Do not pour water over the product. The water may enter and may cause damage to the devices.
	Clean and check the product periodically for safe use. If any problem is found, do not attempt to use the product as it is and inform your installer.
	If you do not use the product for a long period of time, remove the battery. Keep it in a cool, dark area.
	Dispose batteries according to local regulations.

This symbol indicates prohibition. The specific prohibited action is provided in and/or around the figure.

This symbol requires an action or gives an instruction.

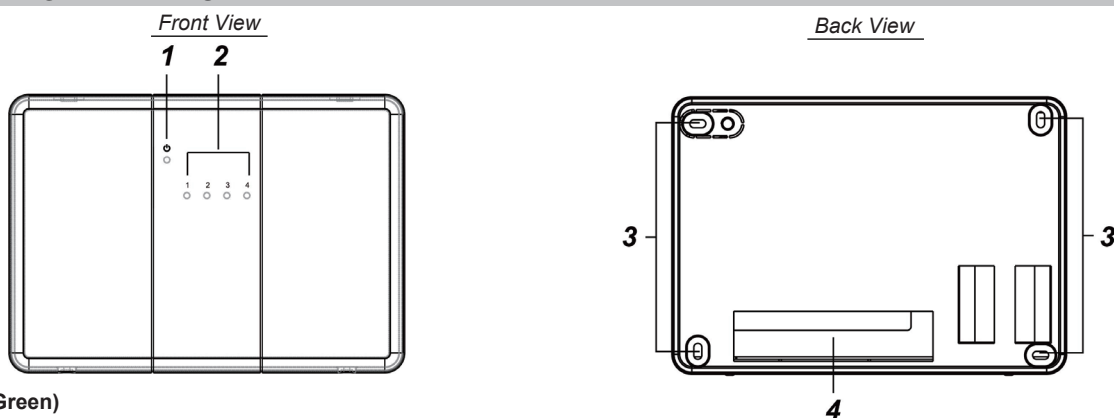
The GEN-RECEIVER Hybrid Receiver is designed to receive signals from learned-in wireless sensors, and activate the corresponding Alarm/Trouble outputs based on function switch settings.

With four channels available, each channel includes both alarm and trouble outputs and can learn up to 10 wireless devices. This allows a maximum total of 40 wireless devices for the GEN-RECEIVER.

Whenever any of the learned-in devices of a specific channel is triggered or experiences fault, the corresponding channel's Alarm/Trouble output will be activated.

If using the repeater to retransmit signals from devices to GEN-RECEIVER, both the repeater and the devices need to be learned into GEN-RECEIVER, but they don't need to be in the same channel. A repeater that is learned into any of the 4 channels of GEN-RECEIVER can process signals of all 4 channels' devices as long as the devices are paired with the repeater.

2 IDENTIFYING THE PARTS



1. Power LED (Green)

- On: On AC power.
- Flashes once every second: AC Power failure.
- Flashes once every two seconds : Low Battery.
- Quick Flash: Battery Missing/Battery Switch OFF.

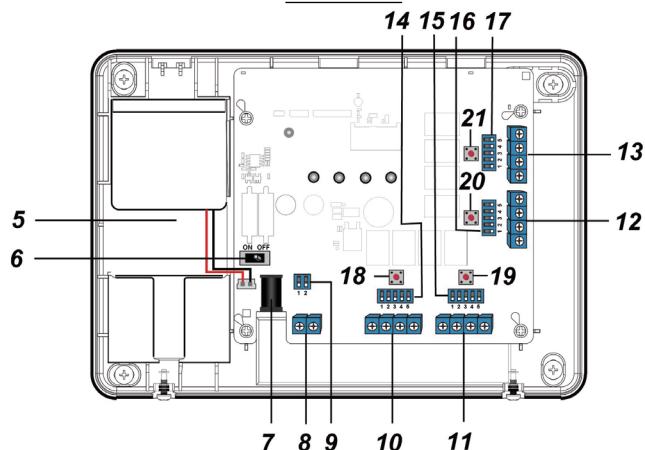
2. Channel 1~4 LED (Red)

- The corresponding Channel LED will light up when any of the learned-in devices of the channel experiences fault.
 - Device Low Battery: One flash per second.
 - Device Tamper Open: Two flashes per second.
 - Device Supervision failure: Three flashes per second.
 - Device AC Fail: Four flashes per second. (For Repeater Only)
- The corresponding Channel LED will also light up when the channel is in learning mode.
 - Learning Mode: Quick Flash.
- All Channel LEDs will light up in Test Mode.
 - Test Mode: All channel LEDs flash once every 2 seconds.

3. Mounting Holes

4. Wiring Hole

Inside View



5. Rechargeable Battery Pack

6. Battery Switch

7. DC Jack

- 12 VDC 1 A switching power connection.

8. Reset Input (for All Channels)

- When the Reset Input closes, GEN-RECEIVER will restore the Alarm outputs & Trouble outputs of all channels. All device errors are reset.
- If the Reset Input's closed condition persists, GEN-RECEIVER will bypass all alarm and trouble signals from learned-in devices of all channels.



9. Dip Switch Set 0 (for All Channels)

- DIP Switch Set 0 is used to enable/disable low battery and supervision failure as trouble output, and to put the GEN-RECEIVER into Test Mode. Refer to "4 FUNCTION SWITCH BLOCK" section for details.



10. Alarm output & Trouble output (Channel 1)

11. Alarm output & Trouble output (Channel 2)

12. Alarm output & Trouble output (Channel 3)

13. Alarm output & Trouble output (Channel 4)

- **Alarm output (Channel 1/2/3/4)** will activate once GEN-RECEIVER receives alarm signal from the learned-in sensors of the corresponding Channel.
 - Based on DIP Switch 1-2/2-2/3-2/4-2 setting, the corresponding alarm relay output can form a Normally Closed (N.C.) or Normally Open (N.O.) loop with the connected device.
 - Based on DIP Switch 1-3/2-3/3-3/4-3 setting, the corresponding alarm relay output will activate in Latch or Pulse.

Please refer to "4 FUNCTION SWITCH BLOCK" section for more information.

- **Trouble output (Channel 1/2/3/4)** will activate once GEN-RECEIVER receives trouble signal from the learned-in sensors of the corresponding Channel.

- Based on DIP Switch 1-4/2-4/3-4/4-4 setting, the corresponding trouble relay output can form a Normally Closed (N.C.) or Normally Open (N.O.) loop with the connected device.
- Based on DIP Switch 1-5/2-5/3-5/4-5 setting, the corresponding trouble relay output will activate in Latch or Pulse.

- The trouble signals include:

- Low Battery
(DIP Switch 0-1 must be set to ON to enable low battery as Trouble output.)
- Supervision Failure over 24 hours
(DIP Switch 0-1 must be set to ON to enable Supervision function.)
- Tamper Open
Tamper is always included as trouble output.

Please refer to "4 FUNCTION SWITCH BLOCK" section for more information.

14. Dip Switch Set 1 (for Channel 1)

15. Dip Switch Set 2 (for Channel 2)

16. Dip Switch Set 2 (for Channel 3)

17. Dip Switch Set 2 (for Channel 4)

- Dip Switch Sets 1/2/3/4 are used to program Alarm output & Trouble output Channel 1/2/3/4 settings respectively.
- Dip Switch Sets 1/2/3/4 can also be used to put Channel 1/2/3/4 into learning mode respectively. Refer to "4 FUNCTION SWITCH BLOCK" section for details.

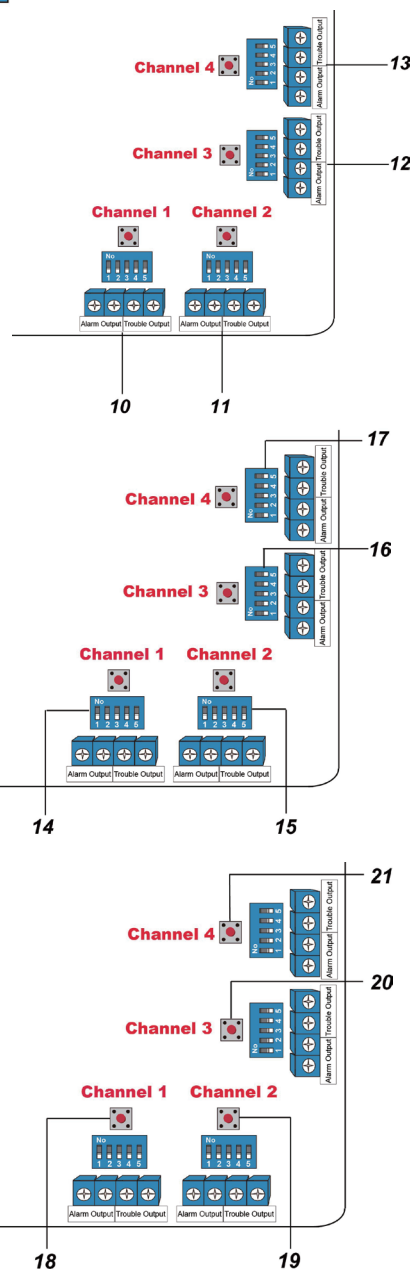
18. Clear Tact Switch 1 (for Channel 1)

19. Clear Tact Switch 2 (for Channel 2)

20. Clear Tact Switch 3 (for Channel 3)

21. Clear Tact Switch 4 (for Channel 4)

- Clear Tact Switches 1/2/3/4 are used to delete all devices of the corresponding channel. Refer to "8 Clear Device" section for details.



3 POWER SUPPLY

Power Adapter Application:

- Power on the Hybrid Receiver by connecting 12 VDC 1 A Power adapter.
- The green power LED will turn on when the Hybrid Receiver is on AC power. When there is AC power failure, the power LED will flash once every second.

Rechargeable Battery:

- A Rechargeable Battery Pack is installed inside GEN-RECEIVER to serve as backup in case of power failure.
- During normal operation, the AC power adapter is used to supply power to GEN-RECEIVER and at the same time recharge the battery.
- If the battery switch is **OFF**, the battery will not be charged when AC power is connected and nor will it serve as a backup power source when AC power is missing. You need to switch the battery to **ON** for it to be charged when AC power is connected and serve as backup power when AC power is missing.
- When the battery is low, the green power LED will flash once every two seconds.
- When the battery is missing, or battery switch is off, battery disconnected, or there is battery failure, the power LED will flash quickly.
- Recharge the battery for more than 72 hours before use.
- Charge the battery for at least 72 hours within one month of losing power. Turn off the battery switch if the device will not be used for one month or more.

4 FUNCTION SWITCH BLOCK

Dip Switch Set 0 (for All Channels)

Dip Switch Set 0 is used to enable/disable low battery and supervision failure as trouble output, and to put the GEN-RECEIVER into Test Mode for all channels.

Dip Switch Set 0 (Channel 1-4)	Function	Position
Dip Switch 0-1	Trouble Output (Supervision failure & Low Battery & AC Fail for Repeater)	ON: Enable
		OFF: Disable
Dip Switch 0-2	Test Mode	ON: In Test Mode
		OFF: In Normal Mode

- **Dip Switch 0-1** is used to enable/disable Supervision failure and low battery as trouble output.
 - ◆ When supervision failure and low battery are enabled as trouble output by setting Dip Switch 0-1 to ON, any lack (over 24 hours) of device response or low battery status will activate corresponding channel trouble output.
 - ◆ When Dip Switch 0-1 is set to OFF, any device supervision failure or low battery status will **NOT** activate corresponding channel trouble output, **but corresponding channel LED will still light up to indicate fault.**
- **Dip Switch 0-2** is used to enter/exit Test mode.
 - ◆ Set the Dip Switch 0-2 to ON to enter Test mode.
 - ◆ In Test Mode, all Channel LEDs will flash every 2 seconds. The GEN-RECEIVER will beep for 2 seconds after receiving signal from any learned-in device.

Dip Switch Sets 1/2/3/4 (for Channel 1/2/3/4)

Dip Switch Sets 1/2/3/4 are used to program Alarm output & Trouble output of Channel 1/2/3/4 settings respectively.

Dip Switch Sets 1/2/3/4 can also be used to put Channel 1/2/3/4 in to learning mode respectively.



Dip Switch Set 1 (Channel 1)	Dip Switch Set 2 (Channel 2)	Dip Switch Set 3 (Channel 3)	Dip Switch Set 4 (Channel 4)	Function	Position
Dip Switch 1-1	Dip Switch 2-1	Dip Switch 3-1	Dip Switch 4-1	Learning Device	ON: Learning Mode
					OFF: Normal Mode
Dip Switch 1-2	Dip Switch 2-2	Dip Switch 3-2	Dip Switch 4-2	Alarm Relay N.C./N.O.	ON: Normally Closed
					OFF: Normally Open
Dip Switch 1-3	Dip Switch 2-3	Dip Switch 3-3	Dip Switch 4-3	Alarm Relay Operation	ON: Latch
					OFF: Pulse
Dip Switch 1-4	Dip Switch 2-4	Dip Switch 3-4	Dip Switch 4-4	Trouble Relay N.C./N.O.	ON: Normally Closed
					OFF: Normally Open
Dip Switch 1-5	Dip Switch 2-5	Dip Switch 3-5	Dip Switch 4-5	Trouble Replay Operation	ON: Latch
					OFF: Pulse

- **Dip Switch 1-1/2-1/3-1/4-1** is used to enter or exit learning mode for the corresponding channel.
 - ◆ Set the Dip Switch to ON to enter learning mode. The corresponding channel LED will flash quickly. Please refer to **“5 LEARN IN DEVICES”** section below to find more information.
- **Dip Switch 1-2/2-2/3-2/4-2** is used to program Normally Open/Normally Closed for corresponding Alarm Relay Output.
 - ◆ When the Dip Switch is set to “OFF” position (Normally Open), the loop is closed when alarm signal is received from the corresponding channel.
 - ◆ When the Dip Switch is set to “ON” position (Normally Closed), the loop is opened when alarm signal is received from the corresponding channel.
- **Dip Switch 1-3/2-3/3-3/4-3** is used to program Output Type (Latch or Pulse) for corresponding Alarm Relay.
 - ◆ **LATCH** — Once the corresponding alarm relay output activates, it will continue to activate until the Reset Input is closed.
 - ◆ **PULSE** — Any alarm relay output activation will result in a **3-second pulse**.

Alarm examples are as below.

Alarm Relay Output
Door Contact (DC): <ul style="list-style-type: none">• Door Open → Output activate
Remote Control (RC): <ul style="list-style-type: none">• Arm/Panic/Home button pressed → Output activate
PIR Sensor (PIR): <ul style="list-style-type: none">• Motion detected → Output activate

- **Dip Switch 1-4/2-4/3-4/4-4** is used to program Normally Open/Normally Closed for corresponding Trouble Relay Output.
 - ◆ When the Dip Switch is set to “OFF” position (Normally Open), the loop is closed when trouble signal is received from the corresponding channel.
 - ◆ When the Dip Switch is set to “ON” position (Normally Closed), the loop is opened when trouble signal is received from the corresponding channel.
- **Dip Switch 1-5/2-5/3-5/4-5** is used to program Output Type (Latch or Pulse) for corresponding Trouble Relay.
 - ◆ **LATCH** – Once the corresponding trouble relay output activates, it will continue to activate until the Reset Input is closed.
 - ◆ **PULSE** – Any trouble relay output activation will result in a **3-second pulse**.

Trouble examples are as below.

Trouble Relay Output
Low Battery: <ul style="list-style-type: none">• Device Battery Voltage Low → Output activate
Supervision Failure: <ul style="list-style-type: none">• Device supervision fails for 24 hours → Output activate (DIP Switch 0-1 must be set to ON to enable low battery and supervision failure as trouble output.)
Tamper Open: <ul style="list-style-type: none">• Device tamper triggered → Output activate Tamper is always included as trouble output.

5 LEARN IN DEVICES (For Each Channel)

The GEN-RECEIVER has **4 channels**. Each channel can learn up to **10** devices, including repeater(s), making a maximum total of 40 for GEN-RECEIVER. Available devices include PIR sensor (PIR), Remote Control (RC), and Repeater (RP).

To learn devices into a Channel:

- Step 1:** Put the channel into Learning Mode by sliding the corresponding Dip Switch (1-1/2-1/3-1/4-1 for channel 1/2/3/4) to ON position.
 - ◆ The corresponding channel LED will start to flash quickly.
- Step 2:** Press test/learn Button on the device.
 - ◆ GEN-RECEIVER will sound in different ways to indicate learning status.
 - Two short beeps indicate the device is successfully learned-in.
 - A 2-second long beep indicates the device has been previously learned-in.
 - 4 beeps indicate the channel has already learned-in a maximum of 10 devices.
- Step 3:** Repeat from step 2 to learn-in additional devices.
- Step 4:** Return to Normal Mode by sliding the corresponding Dip Switch (1-1/2-1/3-1/4-1 for channel 1/2/3/4) to OFF position.
 - ◆ The corresponding channel LED will turn off.

NOTE>>

- If using the repeater to retransmit signals from devices to GEN-RECEIVER, both the repeater and the devices need to be learned into GEN-RECEIVER, but they don't need to be in the same channel.
A repeater that is learned into any of the 4 channels of GEN-RECEIVER can process signals of all 4 channels' devices as long as the devices are paired with the repeater.

6 TEST MODE (For All Channels)

After all devices have been learned-in, you can use Test mode to find a suitable location for installing.

- Step 1:** Enter Test Mode by sliding the Dip Switch 0-2 to “ON” position. All Channel LEDs will flash every 2 seconds.
- Step 2:** Hold the learned-in device to desired location. Press the test/learn button on the device.
GEN-RECEIVER will emit a 2-second beep after receiving device signal.
- Step 3:** Repeat step 2 to do more tests.
- Step 4:** Slide the Dip Switch 0-2 to “OFF” position to return to normal mode.

7 NORMAL OPERATION

- When any of alarm signals is received from the learned-in devices, the corresponding channel alarm relay will activate based on Dip Switch setting (Pulse or Latch). Pulse mode will result in a 3-second activation, while in latching mode activation remains until Reset input closes.
- When any of trouble signals is received from the learned-in devices, the corresponding channel trouble relay will activate based on Dip Switch setting (Pulse or Latch). Pulse mode will result in a 3-second activation, while in latching mode activation remains until Reset input closes. Trouble Signals include Low Battery, Supervision Failure, Tamper, and AC Fail (For Repeater Only).

NOTE>>

- DIP Switch 0-1 must be set to ON to enable low battery, supervision failure, and AC Fail (For Repeater Only) as trouble output.
- Tamper is always included as trouble output.
- The corresponding Channel LED flashes in different methods for different fault condition:
 - Low Battery : One flash per second.
 - Tamper : Two flashes per second.
 - Supervision Failure : Three flashes per second.
 - AC Fail (For Repeater Only): Four flashes per second.

NOTE>>

- **To display more than 1 status, the LED will display each code at intervals of 1 sec in the following order: Low Battery → Tamper Open → Supervision Failure → AC Fail.**
- When GEN-RECEIVER receives test code from PIR/DC, it will emit a beep and the corresponding channel LED will flash once.

8 CLEAR DEVICES (For Each Channel)

This function is used to clear all sensor learned-in memory for each channel.

Clear Tact Switches 1/2/3/4 are used to delete all devices of the corresponding channel.

- Clear Tact Switch 1 (for Channel 1)
- Clear Tact Switch 2 (for Channel 2)
- Clear Tact Switch 3 (for Channel 3)
- Clear Tact Switch 4 (for Channel 4)

Step 1: Press and hold the Tact Switch for 5 seconds.

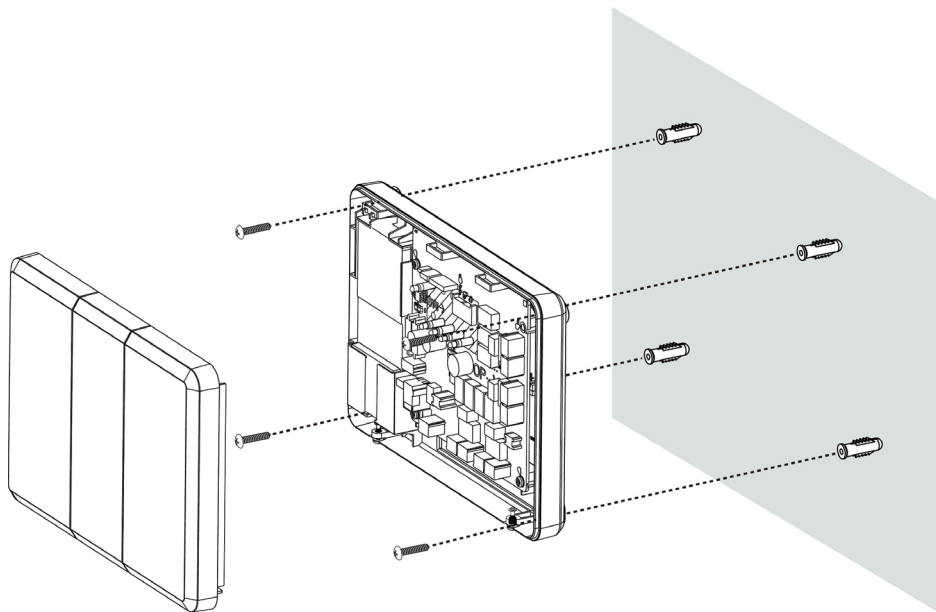
Step 2: Keep holding the Tact Switch, and then release it when you hear one long beep. The channel LED will turn on for 3 seconds.

Step 3: All devices of the corresponding channel will be deleted.

9 HOW TO MOUNT THE HYBRID RECEIVER

The Hybrid Receiver can be mounted on the wall. Follow the steps below to mount it:

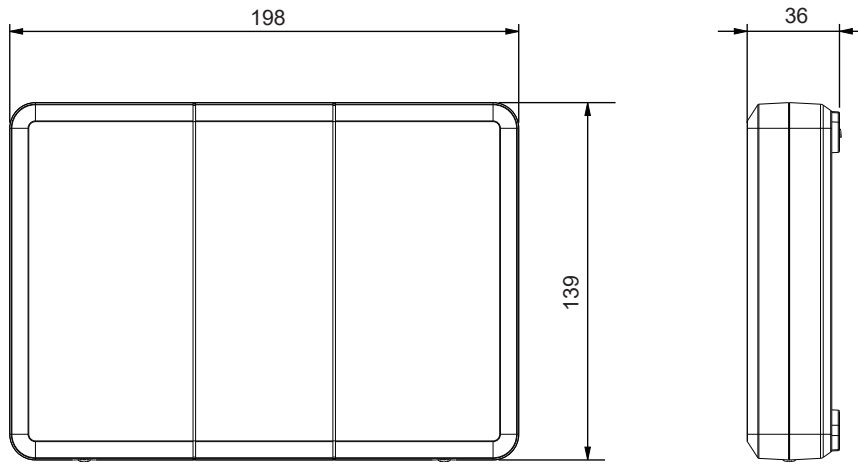
- Loosen the bottom fixing screws and remove the front cover.
- Using the holes of the Hybrid Receiver as a template, mark the drilling holes on the wall.
- Drill holes on the marked location on the wall. Insert wall plugs if required.
- Screw the base onto the mounting location.
- Re-place the front cover and tighten the bottom fixing screws.



10 SPECIFICATIONS

Model	GEN-RECEIVER
Frequency	433 MHz
Power Source	12 VDC/1 A
Power LED indicator	1 Green LED
Channel LED indicator	4 Red LEDs for 4 channels (one for each)
Battery backup	Ni-Mh 7.2 V 600 mAh
Alarm Output CH1-4	Relay dry contact out (Capacity 0.5 A 125 VAC or 1 A 30 VDC)
Trouble Output CH1-4	Relay dry contact out (Capacity 0.5 A 125 VAC or 1 A 30 VDC)
Operating Temperature	0°C to 45°C
Operating Humidity	UP to 85 % non condensing
Weight	372 g
Accessories	Screw x 4, Wall plug x 4

11 DIMENSIONS



[Unit: mm]