Oplink Security

TripleShield

Hardware

User Manual

Oplink Communications, Inc.

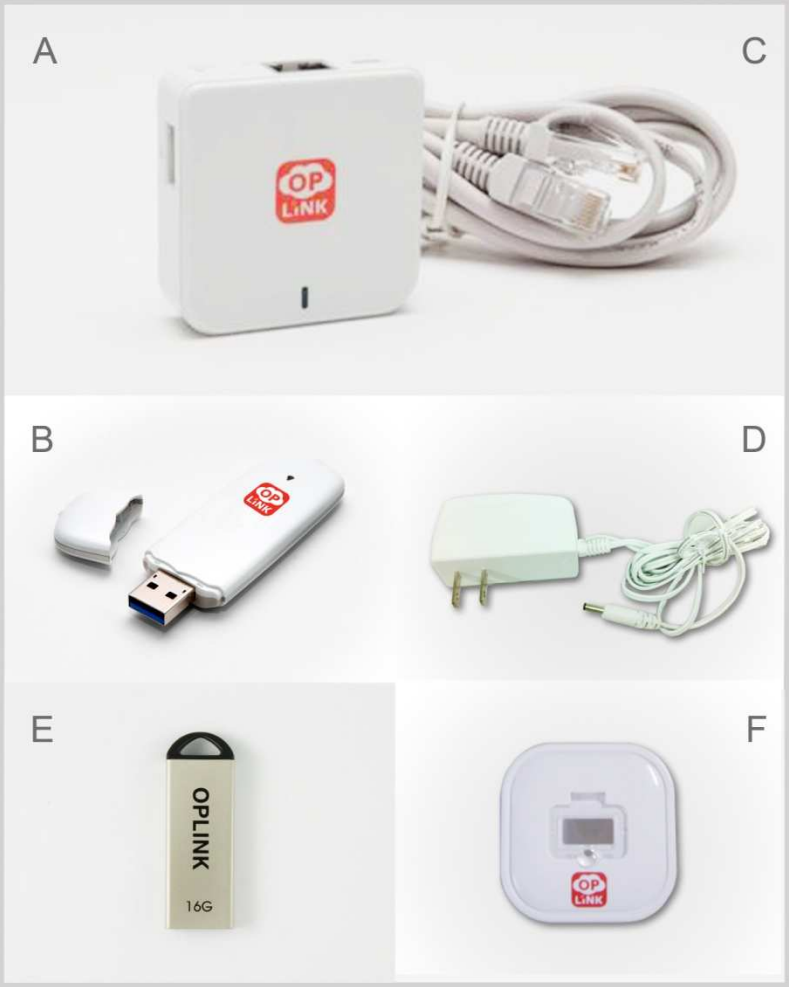
Contents

mi Security At A Glance

Item	Product Name	Function
	**OPU (Oplink Processing Unit)**	Provide wireless access and control function of mi Security system
	**Dongle**	Transmit sensor data and control signal
	**IP Camera**	Surveillance camera with built-in microphone
	**Motion Sensor**	Detects and alerts user of movement within the vicinity

	**Door/Window Sensor**	Use on doors, windows, etc.
	**Siren**	Siren integrated with Smart wireless security technology
	**Remote Control with Panic Button**	Arm/Disarm system and emergency hotline
	**4-port USB Hub**	Additional USB ports to connect devices to OPU
	**16G Flash Drive**	Extra data storage for video recordings

Assemble OPU Station And Connect To Router 1



Contents

A. OPU

B. Dongle

C. Ethernet Cable

D. Power Adapter

E. 16G Flash Drive

F. USB Hub

Overview Features

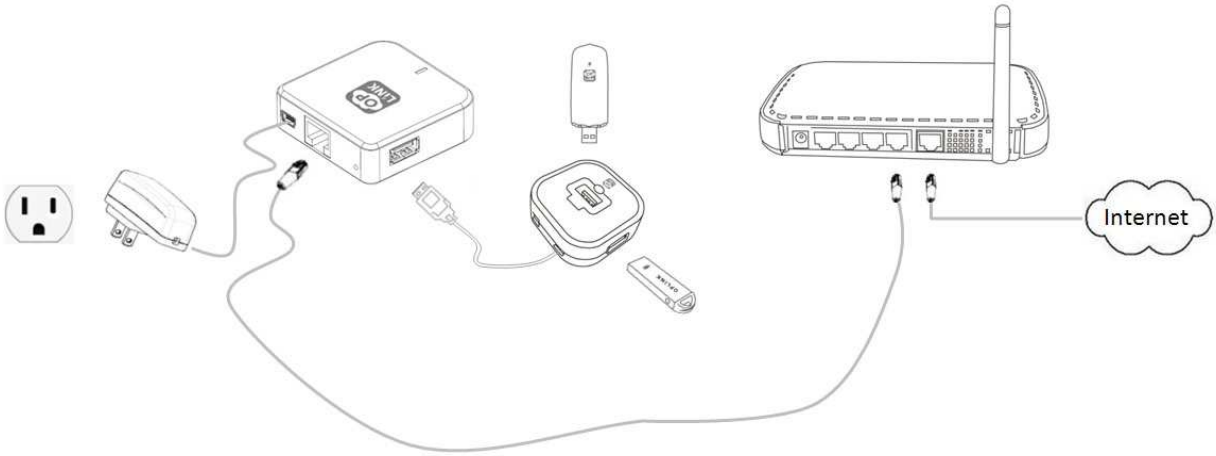
- Smart setup wizard
- Bridge the communication for all Oplink smart devices
- Provide wireless access and control function of mi Security system
- OPU allows for system recovery
- Transmit sensor data and control signal
- Support Oplink cloud server

Wireless Features

- Support IEEE 802.11 b/g/n standards
- Wired and Wireless Network

Support

- Security Support: WPA2-PSK encryption



OPU and Dongle Installation with USB Hub and Flash Drive

a. Plug the Dongle and the Flash Drive into the Hub.

   Note: The Flash Drive does not support hot swapping nor hot plugging. The OPU must be powered down before adding or removing the Flash Drive to or from the Hub.

b. Plug the Hub into the OPU.

c. Connect the OPU to the home router using the provided Ethernet cable.

d. Plug power adapter to the OPU and an outlet.

e. Enable DHCP setup (see Appendix B for DHCP setting of router).

Most routers have their DHCP setting set to "Enabled" by default.

Set Up And Power Up IP Camera 2

Contents

A. Camera

B. Bracket

C. Power Adapter

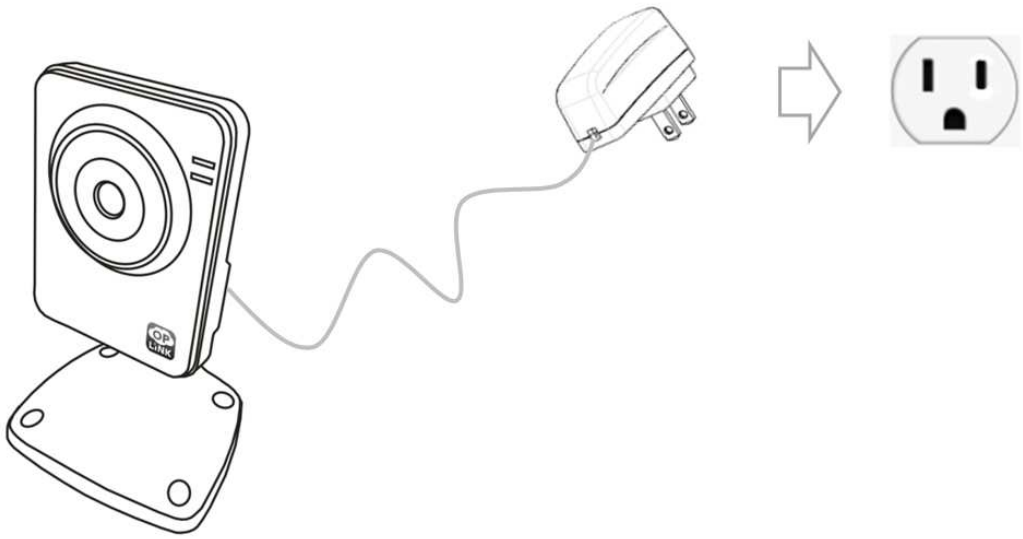
D. Mounting Screws And Dry Wall Anchors

Overview Features

- Smart setup wizard
- High quality video
- Built-in antenna and microphone
- Support Oplink cloud server
- Day/night vision
- Records automatically when alarms are triggered
- Remote monitoring from smartphone or tablet

Wireless Features

- Supports IEEE 802.11 b/g/n standards
- Wired and Wireless Network Support
- Security Support: WPA2-PSK encryption



Camera Installation

Set Up the Camera

a. Place the camera within range of a power outlet and connect power cord to the outlet.

b. Connect power adapter to the camera.

Mounting the Camera (Optional)

Note: The camera can also be placed on a table using the bracket provided. We recommend you placing the camera on a countertop giving it a clear line of sight. Infrared night vision makes it easy to monitor at night.

Step 1: Install camera attachment base

a. At the desired camera mounting location, secure the camera attachment base to the wall using the provided screws.

b. Make use of the provided screw anchors if necessary.

Step 2: Mount the camera

a. Screw camera onto attachment base.

b. Secure camera using attachment base nut.

Step 3: Complete the camera's mount

a. Make sure the camera is firmly fixed on the wall.

b. Adjust the camera to the preferred position.

Place Sensors And Power Up Siren..... 3

a.) Install the Door/Window Sensor

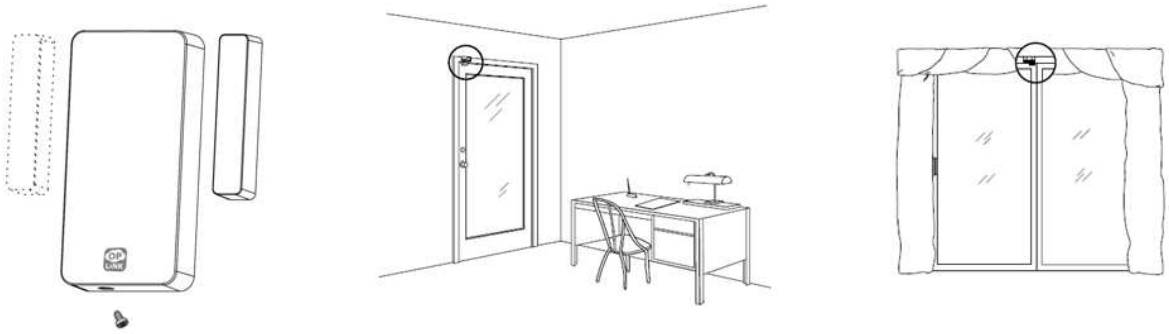
Contents

A. **Sensor Kit (2 contacts, 1 large unit and 1 small unit)**
B. **Batteries**
C. **Double-sided Tape**

DWM1300 Overview Features

(for Home Package I)

- Smart setup wizard
- Wireless security technology
- Support Oplink cloud server
- Apply to doors, windows, etc.
- Send off instant intrusion alerts
- Easy to install, no wiring required
- Auto add-on to any Oplink security system
- Batteries included



Sensor DWM1300 Installation

To install the sensors:

1. Install the batteries.
2. Attach the double-sided tape onto the backs of the units.
3. Door/Window:
    a. On your door:
        i. After selecting a location on the door, preferably on the edge of the door away from the hinges, the large unit of the sensor should be placed on the immovable frame of the door.
        ii. Place the small unit on the movable door with the small arrows on each unit aligned and not exceeding the recommended width of a pencil or a quarter of an inch between the sensors for best performance.
    b. On your window:
        i. After selecting a location on the window, the large unit of the sensor should be placed on the immovable window frame.
        ii. Place the small unit on the movable window with the small arrows on each unit aligned and not exceeding the recommended width of a pencil or a quarter of an inch between the sensors for best performance.
4. When you open and close the doors and windows, the two parts should separate when opened and then come back together when closed.

Note: If your door or window does not allow you to properly place the large unit of the sensor on the frame, it is acceptable to place the smaller unit of the sensor on the frame to make the placing easier. This is an acceptable approach to sensor placement, although it should only be used when necessary.

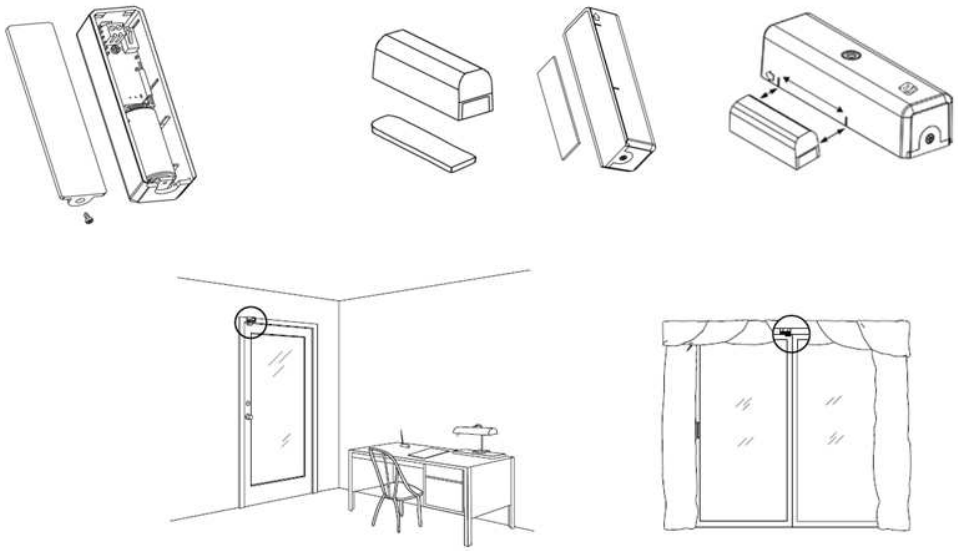
Warning:

Do not dispose of electrical appliances as unsorted municipal waste. Use separate collection facilities. Contact your local government for information regarding the collection systems available.

DWM1301 Overview Features

(For Home Package II, IV and Business Package I)

- Smart setup wizard
- Wireless security technology
- Support Oplink cloud server
- Apply to doors, windows, etc.
- Send off instant intrusion alerts
- Easy to install, no wiring required
- Auto add-on to any Oplink security system
- Battery included



Sensor DWM1301 Installation

To install the sensors:

1. Install the battery.
2. Attach the double-sided tape onto the backs of the units.
3. Door/Window
    a. On your door:
        i. After selecting a location on the door, preferably on the edge of the door away from the hinges, the large unit of the sensor should be placed on the immovable frame of the door.
        ii. Place the small unit on the movable door with the small unit aligned near the top half of the large unit and not exceeding the recommended width of a pencil or a quarter of an inch between the sensors for best performance.
    b. On your window:
        i. After selecting a location on the window, the large unit of the sensor should be placed on the immovable window frame.

ii. Place the small unit on the movable window with the small unit aligned near the top half of the large unit and not exceeding the recommended width of a pencil or a quarter of an inch between the sensors for best performance.

4. When you open and close the doors and windows, the two parts should separate when opened and then come back together when closed.

Note: If your door or window does not allow you to properly place the large unit of the sensor on the frame, it is acceptable to place the smaller unit of the sensor on the frame to make the placing easier. This is an acceptable approach to sensor placement, although it should only be used when necessary.

Warning:

Do not dispose of electrical appliances as unsorted municipal waste. Use separate collection facilities. Contact your local government for information regarding the collection systems available.

b.) Motion Sensor

Contents

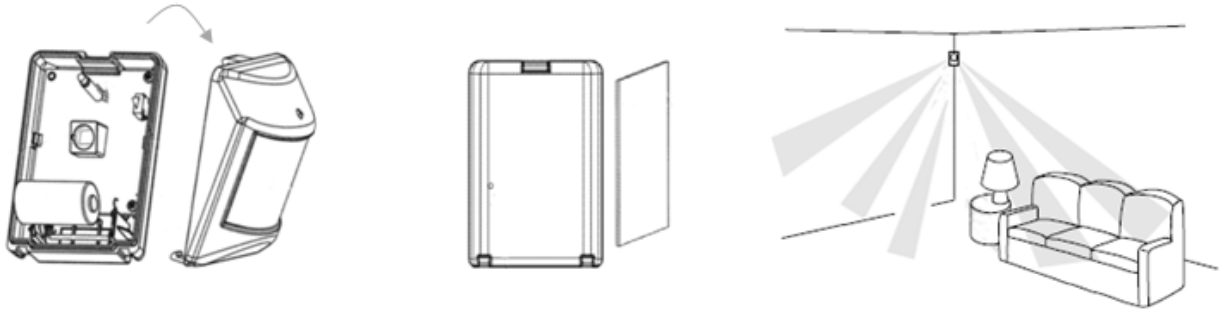
A. Motion Sensor

B. Battery

C. Double-sided Tape

Overview Features

- Smart setup wizard
- Wireless security technology
- Support Oplink cloud server
- Detects motion up to 120-degree, 10-40 feet
- Passive Infrared, Pet immune
- Battery included



Motion Sensor Installation

Set up and wall-mount the motion sensor

Step 1: Insert Battery

a. Lift top tab on cover to release and remove cover.

b. Insert the battery noting the polarity (CR123A), and replace the cover onto the sensor.

Step 2: Install Motion Sensor

a. Place the motion sensor appropriately to ensure maximum coverage of a monitored area. The motion sensor monitors any movement up to 35 feet and should not be placed higher than 7 feet from the floor.

b. Use double-sided tape to mount on the wall at the desired location.

c. Make sure the motion sensor is placed at an angle with the least amount of obstruction for best coverage.

Do not aim the detector at a staircase which a pet has access to.

Do not mount the detector near furniture or objects higher than 4 feet tall which a pet may climb onto (such as a couch within 6 feet of the detector).

c.) Siren

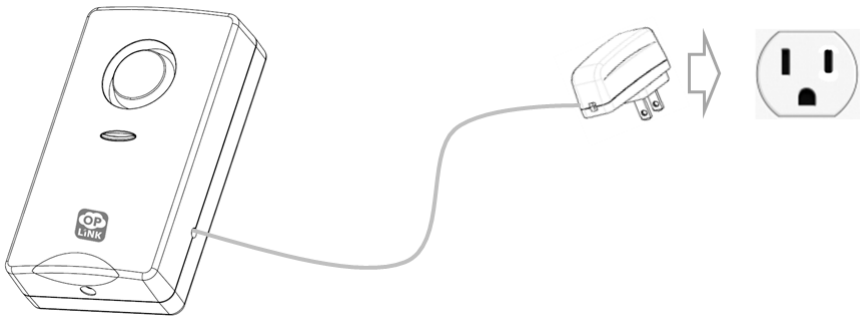
Contents

A. Wireless Siren With Power Adapter

B. Mounting Screws And Dry Wall Anchors

Overview Features

- Smart setup wizard
- Wireless security technology
- Support Oplink cloud server
- Alarm for 60 seconds upon receiving SIREN ON order, stops immediately upon receiving SIREN OFF order



Siren Installation

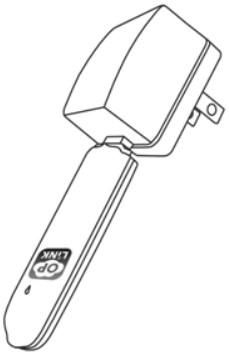
Set up and wall-mount the Wireless Siren

Step 1: Use double-sided tape or screws to mount at desired locations.

Step 2: Connect siren to nearest power outlet.

Step 3: Place the siren within effective range of the OPU.

d.) Sensor Range Extender



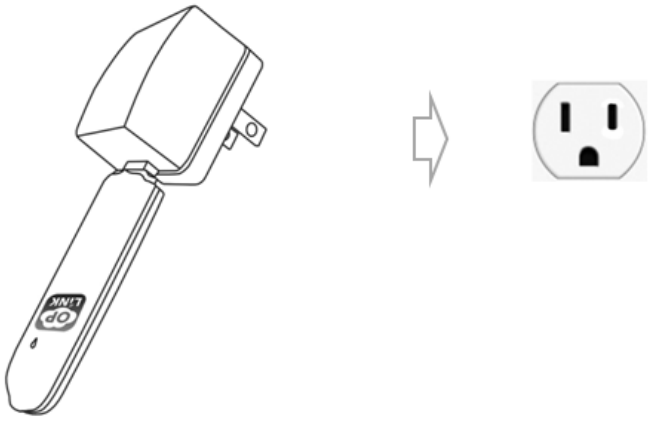
Contents

A. Sensor Range Extender

B. Power Adapter

Overview Features

- Smart setup wizard
- Wireless security technology
- Support Oplink cloud server
- Transfer legal 433MHz signal



Installation of Sensor Range Extender

Adding the Sensor Range Extender (Optional)

Step 1: Plug the sensor range extender into the adaptor

Step 2: Plug the combination into a power outlet

Step 3: Place the sensor range extender between OPU and sensors. Adjust the distance to make sure it bridges up the wireless devices so that they would seamlessly roam across to the OPU.

Appendix A

Specifications

➘ OPU

Model : OPU1120

Dimensions: 56 mm x 56 mm x 17.3 mm

Operating Temperature: 32° F to 113° F (0° C to 40° C)

Frequency: 2.4-2.4835 GHz

Transmit Speed: 150Mbps (Max)

Channel: 13

TX Power: 14dbm, 15dbm(Max)

Storage Temperature: -40° F to 158° F (-40° C to 70° C)

Network Protocols: DHCP, Auto IP Address

Network Interface: One 10/100Mbps LAN/WAN Interchangeable Port, IEEE 802.3 / IEEE 802.3u

Wireless interface: IEEE 802.11 b/g/n, WPA2-PSK

Power Adapter: 5V 1A

➘ Dongle

Model: DGL1130

Dimensions: 83 mm x 27 mm x 9.3 mm

Operating Temperature: 32° F to 113° F (0° C to 45° C)

Power Rating: DC5V, 50mA

Frequency: 433.92MHz

Transceiver Mode: Half-duplex

Modulate Type: ASK

Sensitivity: -110dbm

Support hot swapping

➘ USB Hub

Model: HUB1112

Dimensions: 50mm x 50 mm x 22 mm

Weight: 36g

Capacity : 4 USB ports

Communication Standard: USB 2.0

Performance Support: 480Mbps high speed

Operating Voltage: 4.5-5.5VDC

System: Windows/Mac OS

➘ Flash Drive

Model: UST1100

Dimensions: 34.6 mm x 12.2 mm x 4.5 mm

Weight: 4.6g

Capacity: 16G

Communication Standard: USB 2.0

Performance: Read:20MB/sec above

Write: 4.5MB/sec above

Operating Voltage: 4.5-5.5VDC

System: Windows/Mac OS

Operating Temperature: 32° F to 113° F (0° C to 45° C)

Storage Temperature: -4° F to 158° F (-20° C to 70° C)

➘ Camera

Model: IPC1200

Dimensions: 73(L) x 26(W) x 95mm(H)

Operating Temperature: 32° F to 113° F (0° C to 45° C)

Video compression: MJPEG

Image resolution: 640 x 480

Storage Temperature: 5° F to 140° F (-15° C to 60° C)

Network Protocols: DHCP, Auto IP Address

Network Interface: 1 Ethernet 10/100BaseT (RJ45) LAN

connection

Wireless interface: EEE 802.11 b/g/n, WPA2-PSK

Power Adapter: 5V,1A

➘ Door/Window Sensor

Model: DWM1300

Operating Temperature : 32° F to 113° F (0° C to 45° C)

Frequency: 433.80MHz – 434.1-MHz

Modulation: ASK

Transmit Power: > -51dBm(Manufacture's test condition)

Detection Type: Magnetic separation trigger function

Magnet Sensor Gap Activated: ~11mm (Reference)

Power source: 1.5V*2pcs"AAA" Lithium and Iron Disulfide battery

Standby Current: <10uA (@3.3VDC)

Operating Current: <18mA (@3.3VDC)

Battery Low Level Indicator: 2.2V-2.4V

Low Battery Alarm Mode: Low battery alarms only when another sensor alarm is triggered

Unpick Detection: Tamper switch wireless alarm

Model: DWM1301

Operating Temperature: 32° F to 113° F (0° C to 45° C)

Frequency: 433.92MHz +/-150KHz

Modulation: ASK

Transmit Power: >= -16dBm(Manufacture's test condition)

Detection Type: Magnetic separation trigger function

Magnet Sensor Gap Activated: ~25mm (Reference)

Power source: CR123A 3V

Standby Current: <3uA

Operating Current: <=15mA

Battery Low Level Indicator: 2.1 V-2.35V

Low Battery Alarm Mode: Low battery alarms only when another sensor alarm is triggered

Unpick Detection: Tamper switch wireless alarm

➘ Motion Sensor

Model: PIR1301

Operating Temperature: 14° F to 122° F (-10° C to 50° C)

Frequency: 433.92 MHz +/- 150KHz

Transmit Power: >= -16dBm(Manufacture's test condition)

Modulation: ASK

Power Source: CR123A 3V

Standby Current: <25uA

PIR Trigger Current: <=15mA

Power Consumption: 1 year (Triggered twice a day)

Battery Low Level Indicator: 2.1 V-2.35V

Low Battery Alarm Mode: Low battery alarms only when sensor alarm is triggered

PIR Trigger Alarm: Once Motion Sensor alarms, it will start to count 3 minutes, and start over again if any movement is detected within this period. The next alarm will be triggered only when no movement is detected within the 3 minutes.

Unpick Detection: Tamper switch wireless alarm

➘ Siren

Model: SRN1300

Operating Temperature: 32° F to 113° F (0° C to 40° C)

Device Type: Wireless Indoor Siren

RF Receiver Frequency: 433.92 MHz +/- 0.125MHz

Sensitivity: -110dbm

Modulation: ASK

Power Source: Main Power-AC Adaptor (American Standard);
Backup Battery-Alkaline battery “AAA”size * 3pcs

Standby Mode Current: ≤12mA(average) @4.5V

Alarm Mode Current: <=300mA@4.5V

Alarm Sound Level: >=110dB(@30cm on desktop 4.5V Power

➘ Remote Control

Model: RMC 1300

Power: A23, 12V Battery

Power Consumption: >1year (Triggered twice a day)

Button: "ARM", ARM ON mode

"OFF", ARM OFF mode

"Hotline", Panic Button

Operating Environment: 32° F to 113° F (0° C to 40° C)

Storage Temperature: -4° F to 159 ° F (-20° C to 65° C)

RF Frequency: 433.92 MHz +/- 0.13MHz

Modulation: ASK

Transmit Power: -55dBm+/-4dBm

Appendix B

DHCP (Dynamic Host Configuration Protocol) **setting of router**

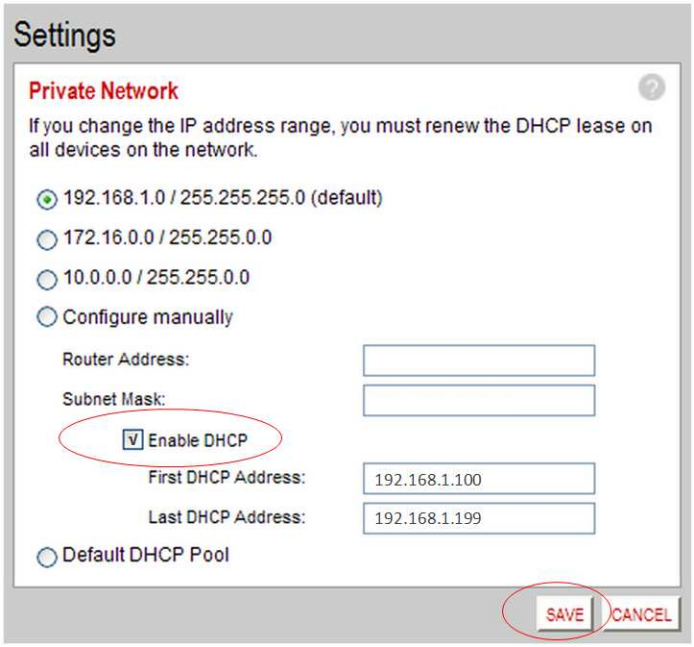


Fig.1 DHCP Setting of Router (Example of Router: 2wire 2701HG-B)

(1) Open a browser and enter your IP address, such as"192.168.X.X". You can find this address on the back of the router.

(2) Log in to your router's account. Check your user manual or documentation if you do not know the log-in credentials.

(3) Make sure you are in the Setup category, select 'Enable DHCP' and enter the address range (from "192.168.1.100" to "192.168.1.199").

FCC Statement

1. Warning: Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.
NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

2. 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.

3. Shielded cables must be used with this unit to ensure compliance with the Class B FCC limits.