

# SmartLok Gateway

User's Manual



Model # SL-GW-1

# SmartLok Gateway(SL-GW-1)

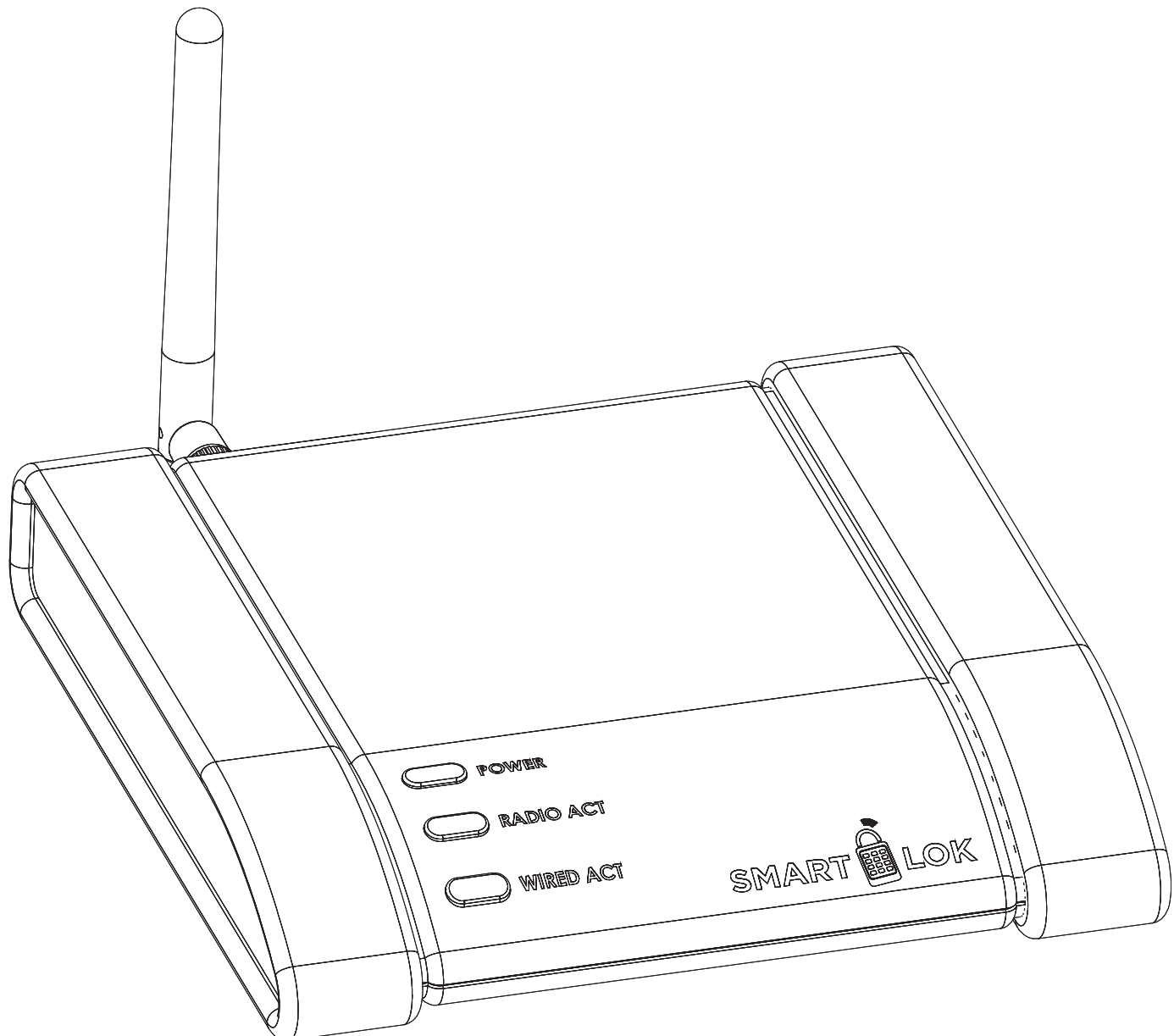
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The SmartLok Gateway is an externally powered device that contains a 2.4GHz 802.15.4 compliant radio that acts as the Zigbee coordinator in the SmartLok network. In short, it bridges the wireless network to the SmartLok software.

The SmartLok Gateway communicates with the SmartLok software over a wired RS-485 serial interface. The Gateway receives and stores the list of devices that are allowed on its network, and manages the messages to and from the wireless network. It contains a form C relay in which an external alarm can be plugged in to sound off during alert conditions.

## Specifications

- 12V Power Supply
- Operational Temperature: -20°C to 35°C
- Frequency: 2405-2480MHz



# SmartLok Gateway Installation

## 1. Power

To power the Gateway on, simply plug the provided external power supply into an AC outlet, and plug the barrel connector into the Gateway's power port. To power the Gateway off, simply remove the barrel connector.

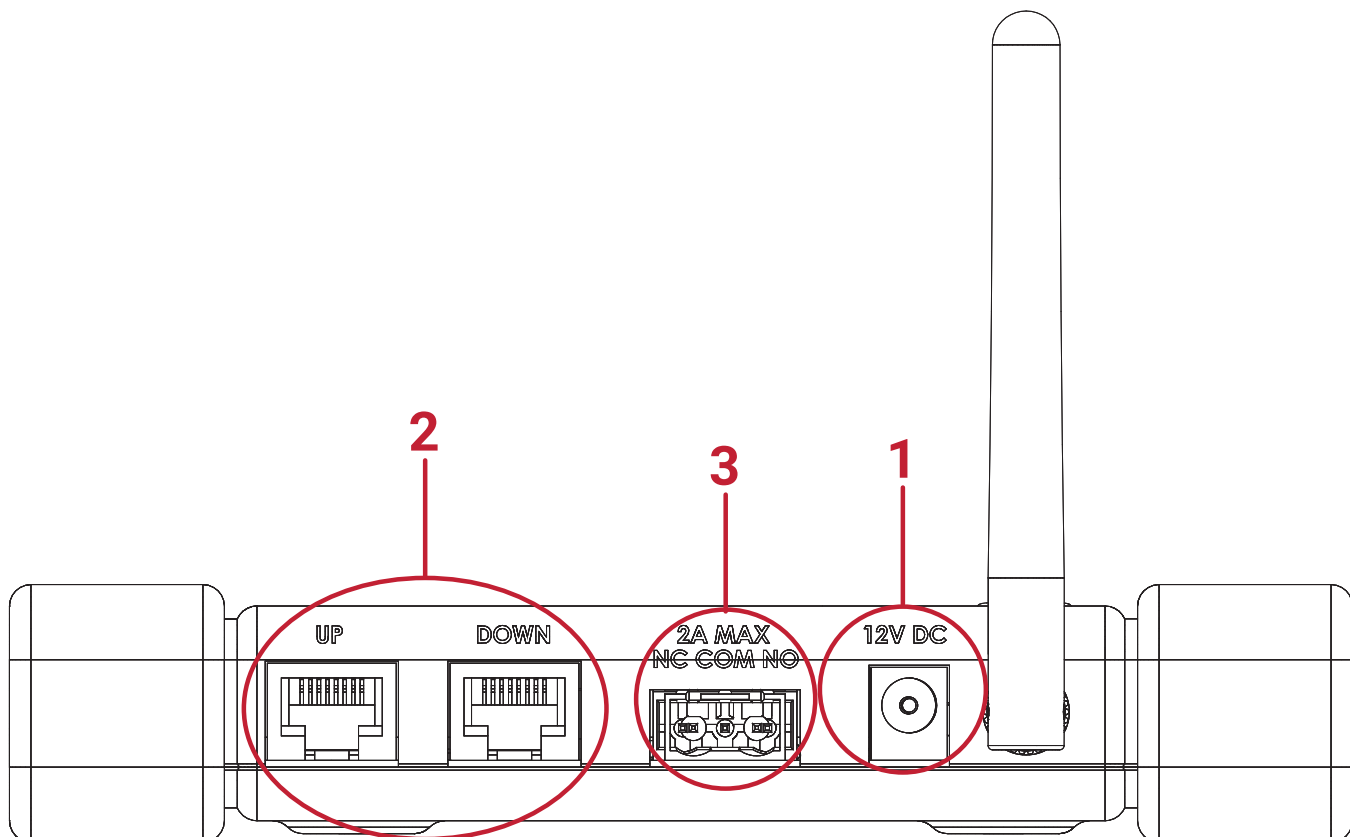
## 2. Serial Communications

The SmartLok Gateway communicates with the SmartLok Software over a wired RS-485 link. A standard CAT5 ethernet cable is required for this connection. Simply plug one end of the CAT5 cable into the USB adapter in the Raspberry Pi, and the other end into the Gateway's Upstream port.

When multiple Gateways are required in a system, another CAT5 cable is required. Simply plug one end of the cable into the first Gateway's Downstream port, and the other end into the second Gateway's Upstream port. Additional Gateways can be added in this manner. Just remember, the Upstream port of any Gateway should lead towards the Raspberry Pi, and the Downstream port of any Gateway should lead to the last Gateway in the chain. RS-485 communications require a termination at the end of the link, and the Gateways use this concept to automatically sense the last one in the chain, and configures itself accordingly.

## 3. Alarm Relay

A form C relay capable of 24VDC and 2A is provided to drive an external alarm (light, siren, etc.). A removable terminal block plug is provided for easy installation. Simply strip the ends of the wires, insert them into either the Normally Open (NO) or Normally Closed (NC) and Common ports, and tighten the screws. When done, insert the terminal block into the mating connector on the Gateway.



# SmartLok Gateway Mounting

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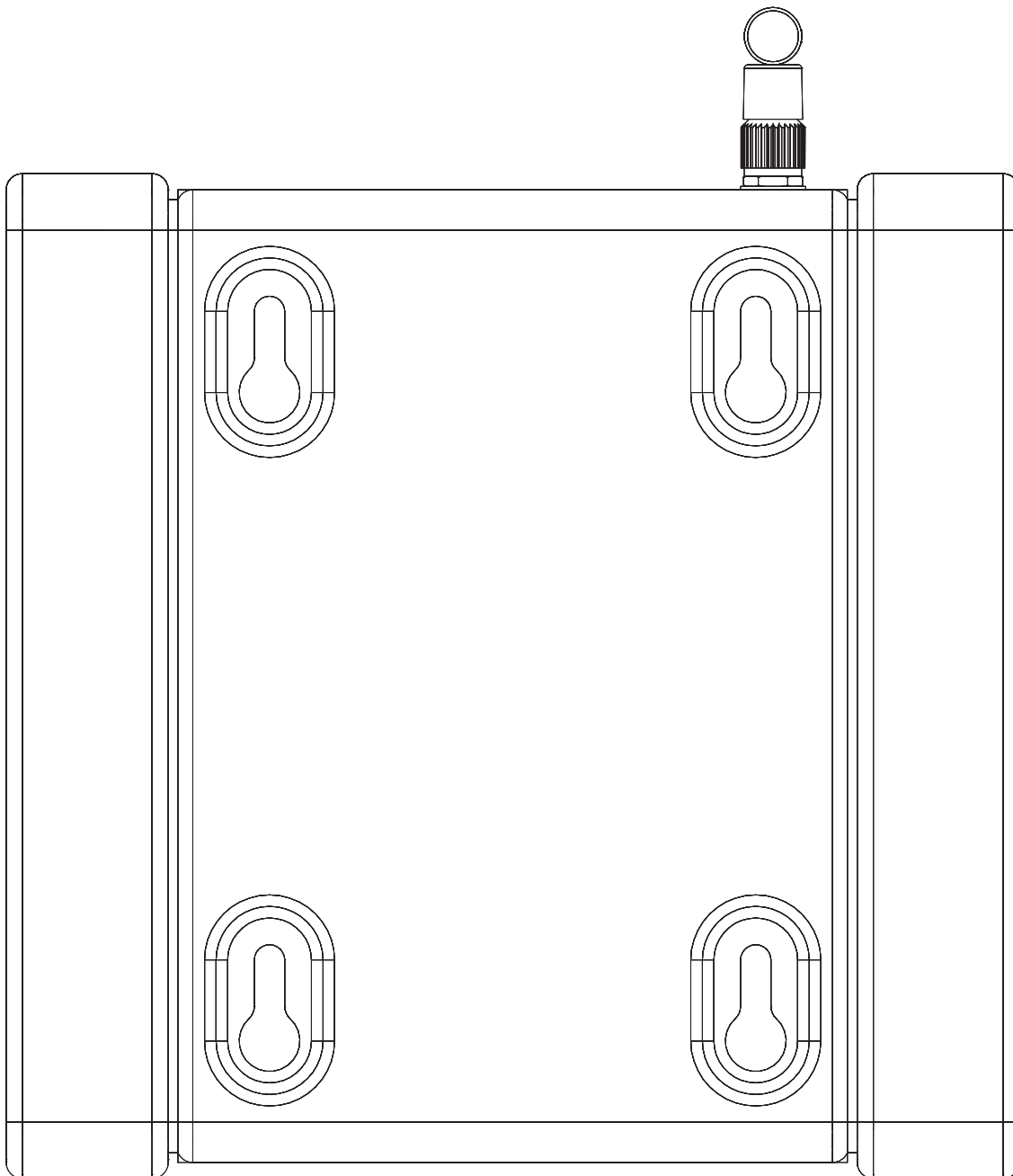
There are two recommended methods to mount the Gateway:

## Table Top

One approved method to mount the Gateway is to simply place it on a table top. Its rubberized tracks will keep it from sliding around on most surfaces. Adjust the antenna with a 90 degree bend so that it points vertically.

## Wall Mount

Another method to mount the Gateway is to place it on a wall. Use the template that is provided with the Gateway for drill hole locations. There are four key hole slots in the base of the unit that allow it to slide over the four screw heads. Once the Gateway is in its final position, adjust the antenna so that it is straight and pointing vertically.



# SmartLok Gateway Operation

- 1. Connect the SmartLok Gateway to the Raspberry Pi via the RS485 adapter .
- 2. Login to the SmartLok Management Console
- 3. Navigate to the “Gateways” page.

STATUS	CONNECTIONS	GATEWAYS	USERS	LOCKS
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- 4. In the table, click the white boxes and enter the SmartLok Gateway’s Name, Address, and Connection ID then click the plus sign.

STATUS	CONNECTIONS	GATEWAYS	USERS	LOCKS
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ID ▲	Name	Address	Connection ID	Actions
(new)	<input type="text" value="New gateway name"/>	<input type="text" value="1234567890123456"/>	<input type="text" value="First port on USB"/>	
1	Gateway 1	1E025R753126F231	1	
2	Gateway 2	2G235454E295895F	2	

- 5. To remove a Gateway, click the X symbol to the right of the Gateway you want to remove. The system will ask you for a confirmation

STATUS	CONNECTIONS	GATEWAYS	USERS	LOCKS
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ID ▲	Name	Address	Connection ID	Actions
(new)	<input type="text" value="New gateway name"/>	<input type="text" value="1234567890123456"/>	<input type="text" value="First port on USB"/>	
1	<input type="text" value="Gateway 1"/>	1E025R753126F231	1	
2	Gateway 2	2G235454E295895F	2	

- 6. To change a Gateway’s details, click one of the fields that has the pencil icon next to it. The field is now editable. To accept the changes, hit Enter or click the check icon next to the field. To cancel the changes, hit Escape or click the X icon next to the field

**FCC Statement:**

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.

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.

Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

**IC statement:**

This device complies with Industry Canada licence-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes :

- (1) l'appareil ne doit pas produire de brouillage, et
- (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

**IC Radiation Exposure Statement:**

This equipment complies with Canada radiation exposure limits set forth for uncontrolled environments.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

Déclaration d'IC sur l'exposition aux radiations:

Cet équipement est conforme aux limites d'exposition aux radiations définies par le Canada pour des environnements non contrôlés. Cet émetteur ne doit pas être installé au même endroit ni utilisé avec une autre antenne ou un autre émetteur.

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