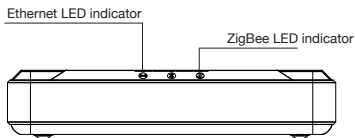# SEG-X1 ZigBee/Ethernet Gateway

Quick Start Guide

1   Introduction

The SEG-X1 Smart Gateway acts as a central platform for your smart home system. It allows you to add ZigBee devices into the system and to be controlled by the mobile app, while at the same time provide more stable connection through Ethernet.

This guide will provide you with an overview of the product and help you get through the initial setup.
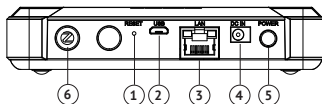
2   Get to know your device

Ethernet LED indicator

ZigBee LED indicator

Ethernet LED indicator

The Ethernet LED status gives the following information of the gateway:

LED Status	What it means
LED flashes slowly	No internet connection
LED flashes rapidly	Connected to internet
No LED light	Gateway error

ZigBee LED indicator

The ZigBee LED status gives the following information of the gateway:

LED Status	What it means
Steady light	Permit Joining.
Flash twice	New device added successfully

1. Reset Button

• **Restart gateway.** Press the reset button to restart the gateway.

• **Reset gateway.** Press and hold the reset button for 10 seconds until the ZigBee LED indicator start flashing to restore the gateway to default factory setting. (All data stored in the gateway will be removed).

2. Micro USB

• **Debugging.** For developer only.

3. Ethernet Port

4. 5V DC in

5. Power Button

• **Turn on/off the gateway.** Press the power button to turn on/off the gateway.

6. "Z" Button

• **Permit joining.** Press and hold the "Z" button for about two seconds until

the ZigBee LED turns solid. Press the "Z" button again to exit.

• **Reset ZigBee network.** Press both the "Z" button and the reset button together to reset the ZigBee network (ZigBee LED indicator flashes five times, all the ZigBee devices' information stored in the gateway will be removed).

3 Get Started

3.1 Use your mobile phone to control the SEG-X1 Gateway

1. Plug in the power adapter to power on the gateway.
2. Insert the Ethernet cable to ethernet port to get the gateway to connect to the internet (If you need to manually configure the gateway, please refer to Section 4: FAQ, question 2).
3. Download the mobile App from Google play or Appstore.
4. Follow the "First setup wizard" in the app to register an account (You can also tap the "Sign Up" button in the bottom right of the login interface later).
5. Use the account registered to login.
6. Tap the "+" button in the top left of the mobile app to add the gateway.
7. Follow the on-screen instructions to add the gateway.

3.2 Adding new devices to the SEG-X1 Gateway

Press and hold the "Z" button for about two seconds until the blue LED light light up steady to set your SEG-X1 Gateway to Permit joining. You can also use the mobile App to do so:

For Android: Tap the device bar to enter the gateway interface, then tap the tool bar icon ▦ at the top left corner, tap "Setting" and select "Add New Devices".

For iOS: Tap the device bar to enter the gateway interface, then tap the tool

bar icon (▦) at the top left corner, and then select "Add New Devices".

The gateway will allow ZigBee devices to join its ZigBee network within 60 seconds. You can press the "Z" button again once or tap "Cancel" in the mobile app to exit.

3.3 For future update

For Android: Tap the device bar to enter the gateway interface, then tap the tool bar icon (▦) at the top left corner, tap "Setting" and select "About" to check and download the latest gateway version (if any).

For iOS: Tap the device bar to enter the gateway interface, then tap the tool bar icon (▦) at the top left corner, select "About" to check and download the latest gateway version (if any).

4 FAQ

1. How can I clear the network information on the gateway?

A1: Press the power button to power off the gateway. After that press and hold the Bluetooth button and "Z" button together, and then press the power button to power up the gateway, release the bluetooth button and the "Z" button after 3 seconds when the gateway is turned on to clear the network information (Network LED indicator will start flashing slowly).

2. How to manually configure the gateway?

Press the power button to power off the gateway. After that press and hold the Bluetooth button and "Z" button together, and then press the power button to power up the gateway, release the bluetooth button and the "Z" button after 2 seconds when the gateway is turned on to set it to manual set up mode. Then follow the steps in section 3, to continue set up the gateway.

5 **Technical Specifications**

Hardware Specifications

CPU	• MIPS, 200MHz
Flash ROM	• 2M
Data Interface	• Micro USB port
SPI Flash	• 16MB
Ethernet	• 100M bps • Auto MDIX
RF Characteristics	• Operating frequency: 2.4 GHz • Internal PCB Antenna • Range outdoor/indoor: 100m/30m
Power Supply	• 5V DC • Rated power consumption: 1W
LEDs	• Power, ZigBee, Ethernet, Bluetooth
Dimensions	• 91.5(W) x 133 (L) x 28.2(H) mm
Mounting Type	• Power adapter • Plug Type: US, EU, UK, AU

Software Specifications

WAN Connectivity	• IP Addressing: DHCP, Static IP • Data Porting: TCP/IP, TCP, UDP • Security Modes: SSL
ZigBee	• Home Automation Profile
Downlink commands	• Data format: JSON • Gateway Operation Command • HAN Control Command
Uplink Messages	• Data format: JSON • Home Area Network Information
Security	**Authentication** • Password protection on mobile apps • Server/Gateway interface authentication **ZigBee Security** • Preconfigured Link Key • CARICOM Implicit Certificate • Certificate-Based Key Exchange (CBKE) • Elliptic Curve Cryptography (ECC)

6 Safety Handling

> **WARNING:** Failure to follow these safety notices could result in fire, electric shock, other injuries, or damage to the gateway and other property. Read all the safety notices below before using the gateway.

- Avoid high humidity or extreme temperatures.
- Avoid long exposure to direct sunlight or strong ultraviolet light.
- Do not drop or expose the unit to intense vibration.
- Do not disassemble or try to repair the unit on your own.
- Do not expose the unit or its accessories to flammable liquids, gases or other explosives.