Kiwi Temperature Box

Quick Start Guide

Ver.2.1

LoRa Temperature Sensors & Gateway Package

Kiwi IOT Solution Ready

Cold Rooms | Chillers | Dry Storage | Warehouse | Refrigerated Transport | Pharmaceutical

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Quick-Start-Guide (QSG) for KiwiBox Cloud services

Thank you for purchasing the KiwiBox- Temperature gateway / sensors package, this Quick Start Guide will show you the basics of installing the KiwiBox devices at your application environment.

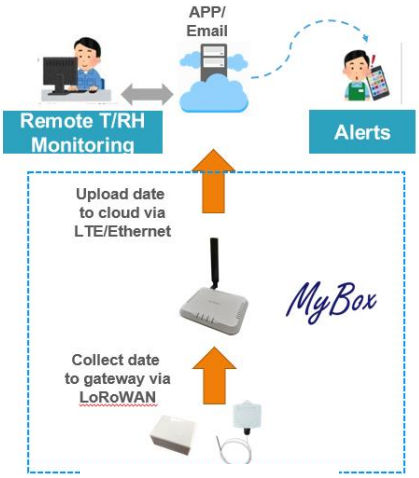
1) Packing List:

- TLG8402V1 Gateway x 1 (or optional TLG3901V2 x 1)
- USB Cable x 1
- LoRa Antenna * 1
- Power adaptor 100 ~ 240 Vac, 5 Volts / 2.5 Amps x 1
- 603 temperature sensor (with 2 screws) x 10 (default package, quantity 10~20 by option)
- 604V2 temperature sensor (optional item)

		
8402V1 Gateway	USB charging cable * 1	LoRa Antenna * 1
		
Power adaptor	[optional] 603 temperature sensor (with 2 screws)	[optional]604V2 temperature sensor
		
[optional accessory] LAS-603 fixed iron plates		

2) System Requirements

- Microsoft Windows 10, Mac OS X, or Linux or smartphone
- Web Browser: Google Chrome
- Smartphone: iOS: 10.0 or later; Android OS: 4.3



MyBox Network Diagram

3) Network Topology Requirements

- Network cable which can link to internet. (DHCP-enabled network)
- SMART-Phone can access to 3G/4G network. (Optional)
  - If Gateway equipped "LTE module", you also can install gateway through 3G/4G network connecting to internet to finish gateway's configuration.

4) Hardware Introduction

- **TLG8402V1 Gateway** - TLG8402V1 is an 1CH LoRa gateway that adopt LoRaWAN® network solution for receiving data on specified frequency and SF. LoRaWAN® is a standard protocol , a Low Power Wide Area Network (LPWAN), it uses ISM band and Internet of Things (IoT) applications.

- **LAS-603 temperature sensor** - LAS- 603 temperature sensor is designed for refrigerator wireless temperature monitoring. We may use this device to track ambient changes in temperature. With LoRaWAN wireless module, this temperature sensor status will be sent to the network server via gateway.

- **LAS-604V2 temperature sensor** - LAS-604V2 is a temperature sensor that utilizes LoRaWAN to periodically report temperature. The temperature measurement is through PT100 probe.

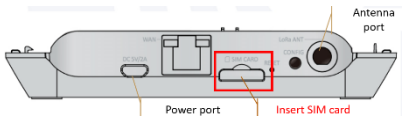
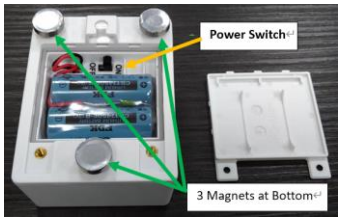
5) Guideline before Your Installation

Before installing the KiwiBox, please make sure how your gateway access to network? We provide two options to set-up your gateway:

A. Connect via Network cable (Ethernet cable to WAN) _ If you have network cable can link to internet, please follows chapter -6 to install gateway & sensors step-by-step.

B. Connect via SIM card's 3G/4G network (LTE mode)- If you have smartphone and SIM card can use in Gateway to link to internet, please follows chapter -7 to install gateway & sensors step-by-step.

6) **Hardware Installation (by Ethernet)**

	Getting Start		Graphic illustration
Step-1, Deploy Gateway	1.1 Before starting to use gateway, the power and Ethernet (RJ45 to network) and antenna need to be connected well.	1.1	
	1.2 USB cable connect to power adapter and plug the adapter in the wall outlet. (power light should turn green)	1.2	
Step-2 Deploy 603/ 604V2 sensors	(optional) Turn on temperature sensors – “LAS-603”. 2.1 Remove the bottom cover, and turn on the power.	2.1	
	2.2 Cover back the bottom cover. Lock two screws.	2.2	
	2.3 Methods to fix LAS-603. 1) By backside 3 magnets of LAS-603 mounting on magnetic surface. 2) By hook (remove 3 magnets) 3) Use accessory – fixed iron plate for non-magnetic surface.	2.2	 
	(optional) Turn on temperature sensors – “LAS-604V2”. 2.3 Open LAS-604V2’s cover, holding and pressing two places in red circle.	2.3	 

2.4 Open the bottom cover.

2.4

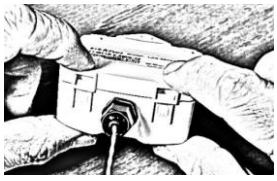
2.5 Plug-in battery connector into slot with correct direction. (connector rib needs to align joint groove)

* attention: DO NOT use metal tool to contact the connector.

2.5

2.6 Cover back the bottom cover.

2.6



2.7 Methods to fix LAS-604V2

- Use double-side tape or hook to fix LAS-604V2 and its cable, put the temperature probe near the monitoring position.

2.7 Place the sensor at temperature-monitoring position as you need or refer to Kiwi's suggestion on chapter-9)Sensor position suggestion.

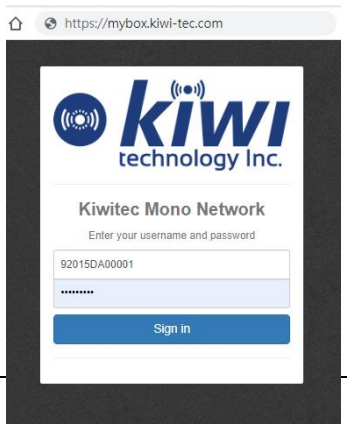
2.7

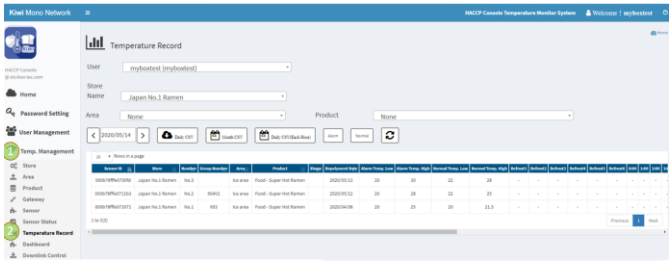
*Attention: Please **DO NOT** put LAS-604V2 device inside the Refrigerator & Freezer.

3.1 Open the google browser-Chrome on computer and login to KiwiBox Cloud Server-https://myBox.kiwi-tec.com/.

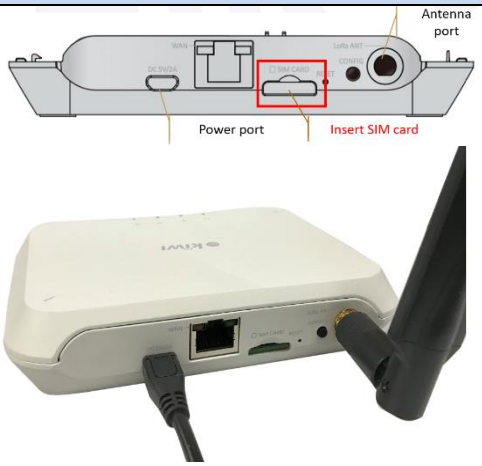
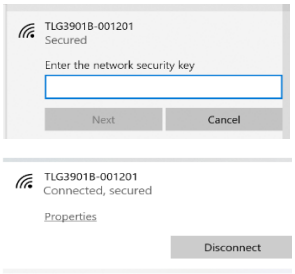
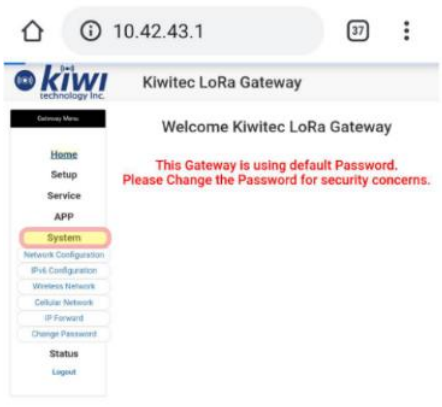
- Please input default username & password= Kiwibox serial number which showed on label of KiwiBox packing box.
- For example, if your KiwiBox S/N is 92015DA00001, please

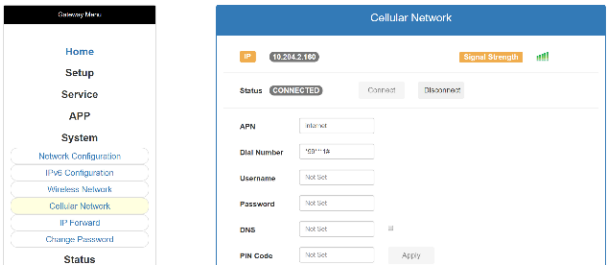
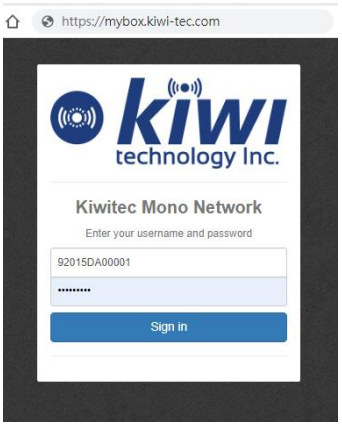
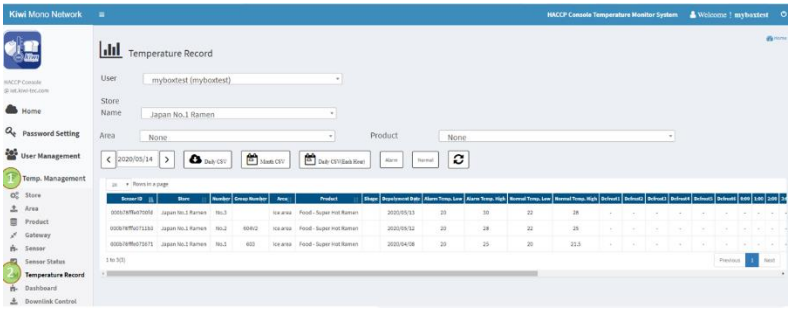
3.1



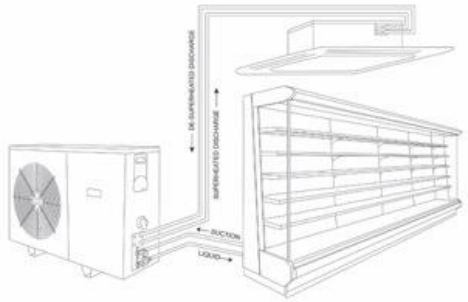
	input 92015DA00001 /92015DA00001. (you can change your password after log-in server)		
Step-3 Start to monitor	3.2 Start to monitor. ➢ Click “Temp. Management”, then click “Temperature Record”, you can enter the monitor screen. * The default setting: the temperature data will be transmitted to cloud server at a top of the hour, like 1:00 p.m.), please wait to next top of the hour.	3.2	

7) Hardware Installation (by LTE network)

	Getting Start		Graphic illustration
Step-1, Deploy Gateway & login	[Method-2] Setting by LTE module. 1.1 Insert nano-sim card to sim card slot at back side of TLG8402 gateway. 1.2 the power and antenna need to be connected well. 1.3 USB cable connect to power adapter and plug the adapter in the wall outlet. (power light should turn green) * attention: please follow the SIM card direction icon to insert SIM card.	1.1	
	1.4 On your smartphone, turn-on the WiFi to connect to Gateway WiFi spot. ➢ Search SSID with TLGxxxx (model name) – prefix ; the model name is also printed on with back side label. ➢ Link to the SSID and input password. ■ If Gateway is TLG8402V1, the default password is "tlg8402ap". ■ If Gateway is TLG3901V2, the default password is "tlg3901b".	1.2	 
	1.5 On your smartphone, to open the google browser- Chrome, then login to Kiwi KiwiBox setting website: http://10.42.43.1/ (in computer display mode). ➢ Input default login name/password (admin/admin) ➢ Select “System”, then enter “Cellular Network” setting screen.	1.5	 

	1.6 Setup Cellular Network ➢ Input APN, Dial Number, Username and Password according to operator's setting. ➢ If SIM is protected by PIN, also input PIN Code.	1.6 
Step-2 Deploy 603/ 604V2 sensors	Same with step-2 of chapter-6)Hardware Installation (by Ethernet) to deploy sensors.	2.1
Step-3 Start to monitor	Same with step-3 of chapter-6)Hardware Installation (by Ethernet). 3.1 Open the google browser-Chrome on computer and login to Kiwi KiwiBox Cloud Server-https://KiwiBox.kiwi-tec.com/. ➢ Please input default username & password= KiwiBox S/N which showed on label of KiwiBox packing box. ➢ For example, if your KiwiBox S/N is 92015DA00001, please input 92015DA00001 /92015DA00001.	3   

8) Sensor position suggestion

Getting Start		Graphic illustration
A). Refrigerator / Open multideck chiller ■ Suggested installation positions: 1. Air outlet / vents 2. The center of Refrigerator 3. Fix sensor-604V2's temperature probe on the monitoring position. Mounting sensor body on the wall next to the door of Refrigerator.	A.1	
■ Mount options: 1. Use hook fixation or paste 3M double-side type on the rear-side of LAS-604 series sensor. 2. Through the Magnets of LAS-603 to fix.	A.2	
■ Example: To put sensor on best position near air outlet. (Not inlet)		 
B). Freezer - Suggested installation positions: 1. Air outlet / vents	B.1	
C). Pharmaceutical shelves - Suggested installation position: 1. The center of shelves	C.1	 

9) Troubleshooting / Q&A

No	Question / Problem	Self-Diagnosis	Solutions
1	After KiwiBox installation, why there is no sensors in KiwiBox server?	1. Check if Gateway powered-on? 2. Check if the Ethernet cable is loose and disconnected from the network? 3. Check if sensor' battery has been installed-well and turned-on?	1. Re-Install all sensors and gateway again. 2. Contact your sales representative, or Kiwi's customer service center for technical support if you need additional assistance. 3. Please have following information ready before you call / leave message: I. Product name and serial number. II. A complete description of the problem.
2	Sensor threshold (Temperature Limit) setting	N/A	After log-in Kiwi KiwiBox server, you can easily set-up basic functions setting (store/area/product/sensor temperature threshold) on the cloud server.
3	How far can sensors transmit data to gateway?	N/A	Generally, LoRa sensors can transmit 50~100m without metal barrier between gateway and sensor. In most circumstances, one gateway can cover a large floor of a building.
4	How long do the sensors' batteries last?	N/A	Batteries are low power and can last for 5 years. (depends on use case)
5	If my gateway off-line for a short time, the sensors' temperature data will be lost?	N/A	The sensor temperature data can be kept in sensor for 10days, once gateway links to internet, the data will be transmitted and saved to Kiwi IOT cloud server.
6	How is the data protected?	N/A	AES 128 encryption.
7	What types of alerts are available?	N/A	There are both email and app messages that can be delivered to recipients based on configured temperature thresholds.
8	What's included in the solution?	N/A	1. Temperature and humidity sensor – additional sensors available for purchase. 2. Cellular or Ethernet Gateway 3. KiwiBox cloud server service and mobile application

9	"If I forgot my gateway WiFi password or setting website's password (http://10.42.43.1/)? How to enter gateway's setting website?"	N/A	Please press the reset button on the backside of gateway device. The password will be reset back to original default values.

10) Contacts: For more information please contact~

If the package is not complete, please contact KIWI Sales or Support Team at service@kiwi-tec.com, or return the package to the vendor or dealer where you purchased the product.

11) Warranty Period and Scope:

This product model has undergone a complete overhaul. Its proper functioning is guaranteed for One (1) years from the date of shipment.

- **Contact Life for Server Service:**

1. 5 years contract to use Kiwi SaaS platform.

   (first month for trial, and then next month start the service period calculation, same as AEON business case)

2. Store sensor data period, 5 years during contract ONLY.

- **Warranty Exclusions:**

1. All failure or defects that result from factors not attributable to the product (such as an unstable power source, inappropriate voltage) or by force majeure (such as a natural disaster)
2. Any repair or modification by a third party non-authorized by Kiwitec or modification by adding or substituting components and accessories that are not manufactured by Kiwitec.
3. Any damage or deterioration due to accident or mishandling.
4. The software program, data or removable storage has been damaged or lost.
5. Any liquid damage due to but not limited to any repair or modification or open chassis by a third party non-authorized by Kiwitec.
6. Any damage to third-party software or brought about by a virus, or the damage or loss of software or data occurring during repair or replacement.
7. In no circumstances shall the Seller be liable for any loss of profit, business, contracts, revenues, or for any special indirect or consequential damage of any nature whatsoever. (such as facilities or foods damaged)
8. Obvious appearance damage by workmanship.

- **Attentions:**

1. Kiwitec is not responsible for the custody or protection of the returned product or any data store in the product.
2. Kiwitec is only responsible for the repair of the hardware. The customer is responsible for backing up their data and shall take measures to protect the data before returning to the product for repair.
3. DO NOT slide LAS-603 on any material surface to avoid peeling off of coating of magnet while doing installation. (this item only for LAS-603 sensor model)