ELSA-E

Electronic Shelf Labeling System

Ultra-thin · Full graphic
Autonomous system · Environmentally friendly

RELIABLE CELLULAR-LIKE TECHNOLOGY
Unique tree network for optimal coverage without interference from existing Wi-Fi networks

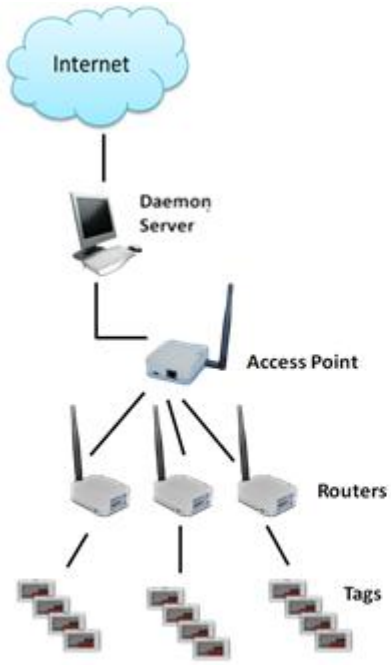
EASY PLUG-AND-PLAY SYSTEM
Self-networking system enables easy infrastructure setup

EXCEPTIONAL READABILITY
High resolution e-paper display for 180° viewing

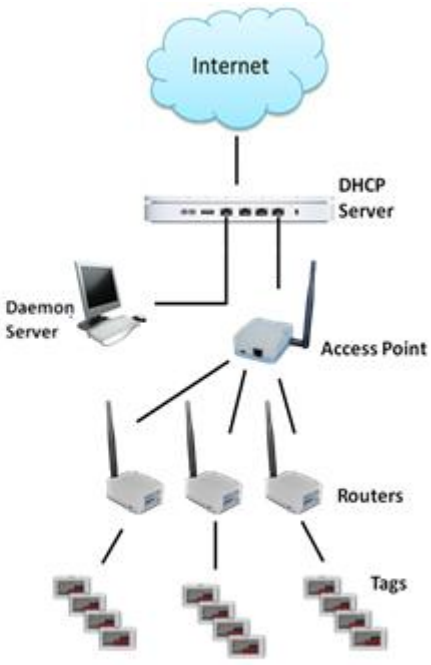
LONG BATTERY LIFE & FAST UPDATES
Unique wireless protocol tuned to optimize the power consumption and network efficiency

ANTI-JAMMIMG FROM Wi-Fi
13,500 graphic tags are fully updated per hour

INTELLIGENT SYSTEM
Acknowledges updates; battery level and signal strength notifications



FIXED IP CONFIGURATION



DYNAMIC IP (DHCP) CONFIGURATION

M2COMM

Technical Specification

MODEL NAME: EF27-S2	
INFRASTRUCTURE	
SIZE (W x H x T) mm	83 x 42 x 9.5
WEIGHT, g	39
ANTENNA	EMBEDDED
NETWORK	
INTERFACE	WIRELESS
FREQUENCY	SUB-GHz ISM
OPERATION MODE	SELF-NETWORKING (AUTOMATIC CONNECTION BUILT-UP AND RECOVERY)
ENCRYPTION	AES 128-bit
TRANSMISSION RANGE	100 METERS (LINE OF SIGHT)
OPERATING CONDITIONS	
OPERATING TEMP/HUMIDITY	0 ~ 40°C / 35 ~ 55% (non-condensed)
STORAGE TEMP/HUMIDITY	0 ~ 40°C / 35 ~ 80% (non-condensed)
POWER	2 x CR2450
APPLICATIONS	Retail, Smart Display
Display	
RESOLUTION	296 x 152
DPI	125 pixel

Device Setup:

Access Point Setting

The Access Point has a wired connection to the base station (computer) and communicates wirelessly with the Router(s) via the M2COMM proprietary protocol.

Please refer to below procedure to setup your Access Point.

Status Indicators and Assembly:

LED status functions:

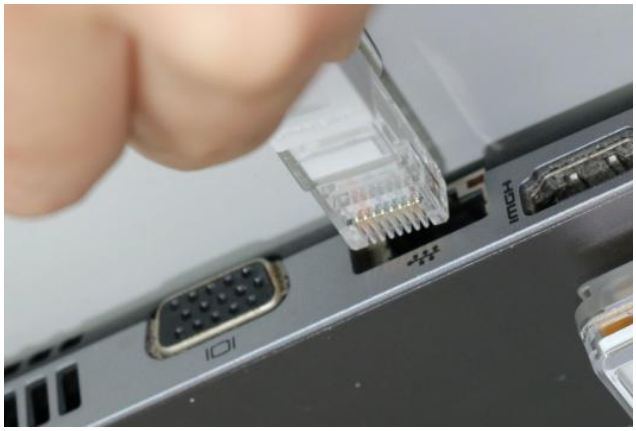
Red –Power-on self-test error

Green –Power on indicator

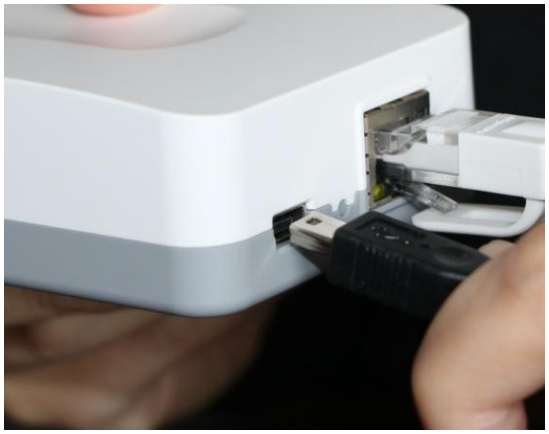
Blue –Network connection, shall flash slowly during boot-up and stay on while connection is built up successfully.

Access Point - Network Port:
GREEN network activity indicator—turns on when a cable connects the port to another Gigabit Ethernet port
YELLOW activity indicator—Flashes to indicate network activity over that port

Attach included Antenna



Plug one end of the supplied Cat 5E cable into the Access Point, the other end should be plugged into your computer.



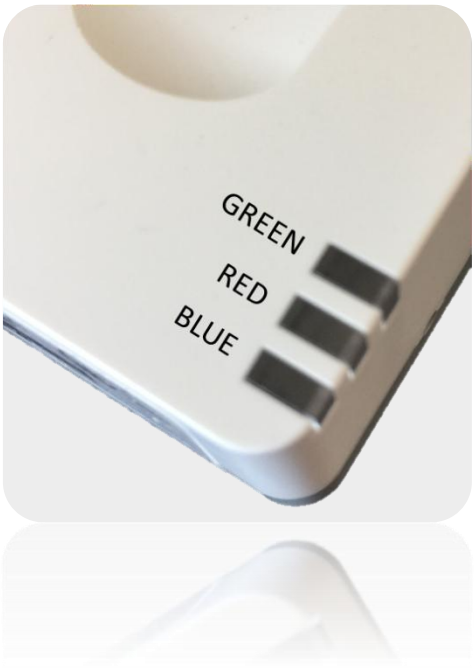
Connect the supplied AC power adaptor as shown.
Use only the adapter that came with your Access Point

Router Setting

The Router(s) operate wirelessly, via the M2COMM proprietary protocol, with the Access Point and aisle light.

Please refer to below procedure to setup the Router.

Status Indicators and Assembly:



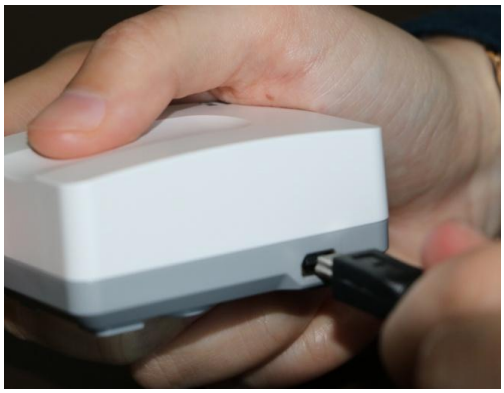
LED status functions:

Red –Power-on self-test error

Green –Power on indicator

Blue –Network connection, shall flash slowly during boot-up and stay on while connection is built up successfully.

Attach included Antenna



Connect the included AC power adaptor as shown.
Use only the adapter that came with your Router

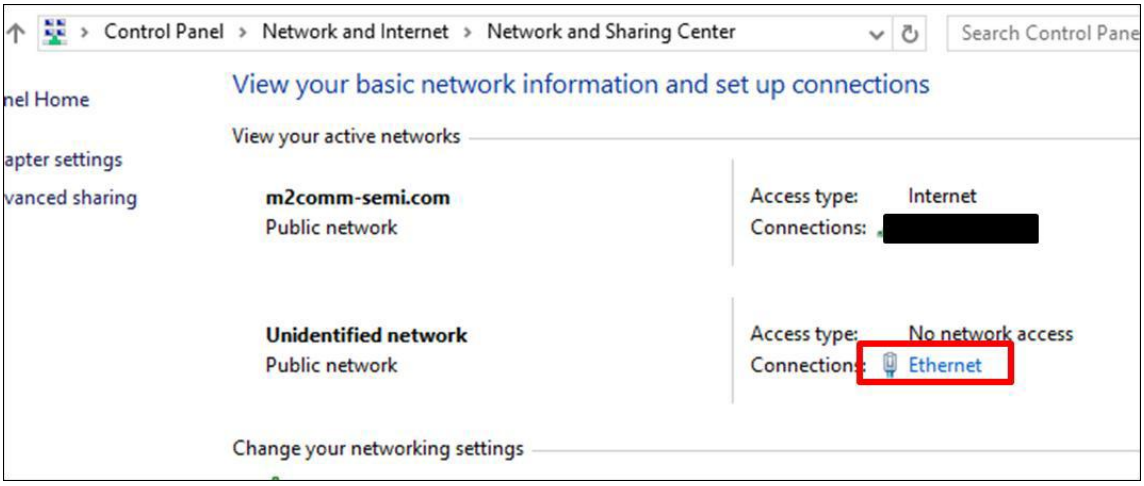
ELSA-E Demo System IP setting:

The ELSA-E demo system is designed to use either a static IP address for a single Access Point or a dynamic IP address when multiple Access Points are installed.

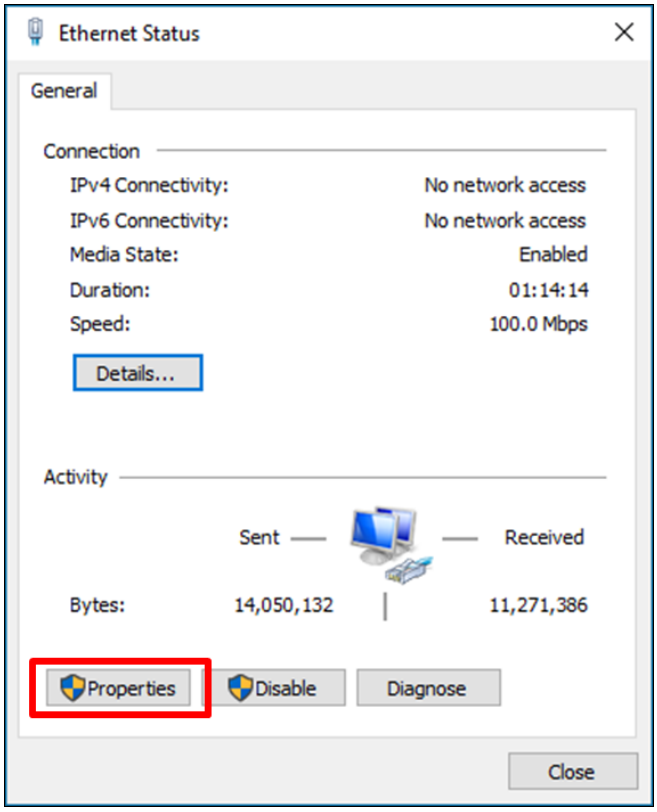
IP Address Configuration (Static IP):

Ensure that your Access Point is connected to your computer.

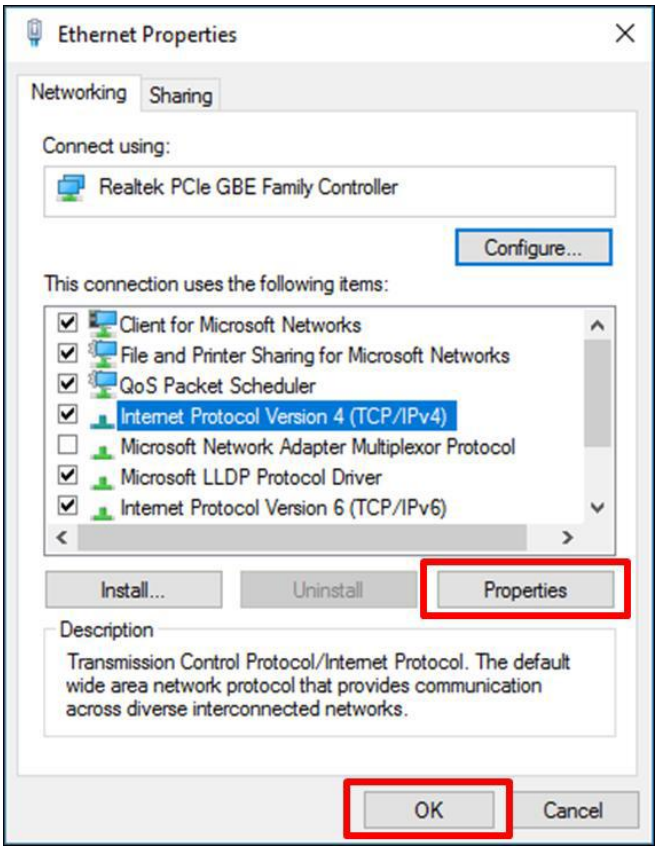
The Access Point comes pre-configured with a default IP Address (192.168.2.1). It's necessary to modify the IP Address of the Ethernet port on your computer that is cabled to the M2COMM Access Point so that they can communicate with one another.



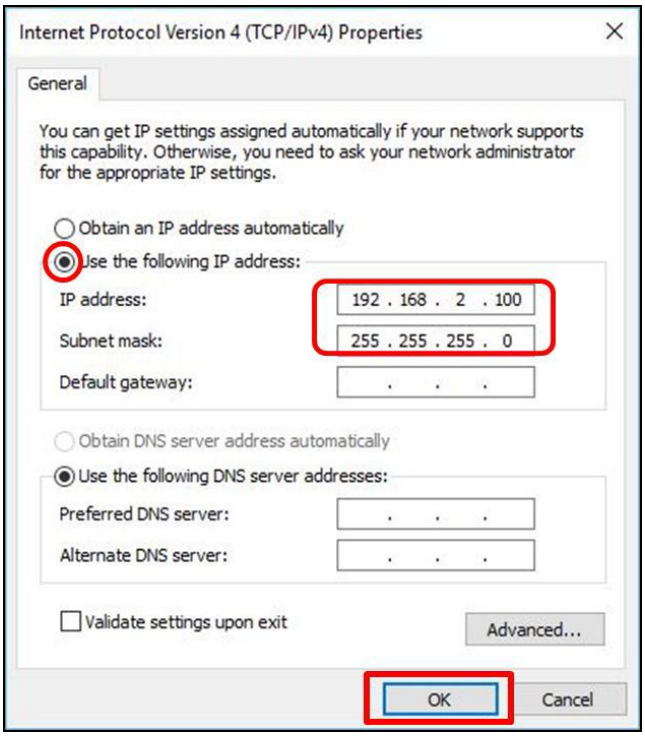
Using your computer mouse, click on Ethernet



Select Properties



Select Internet Protocol Version 4 (TCP/IPv4), and select Properties



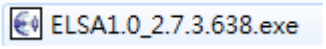
Check Use the following IP address and enter information shown above. Select OK to apply new settings

IP Address Configuration (Dynamic IP):

For installations that contain multiple Access Points an external TCP/IP Ethernet hub is required. And please contact M2COMM for further details.

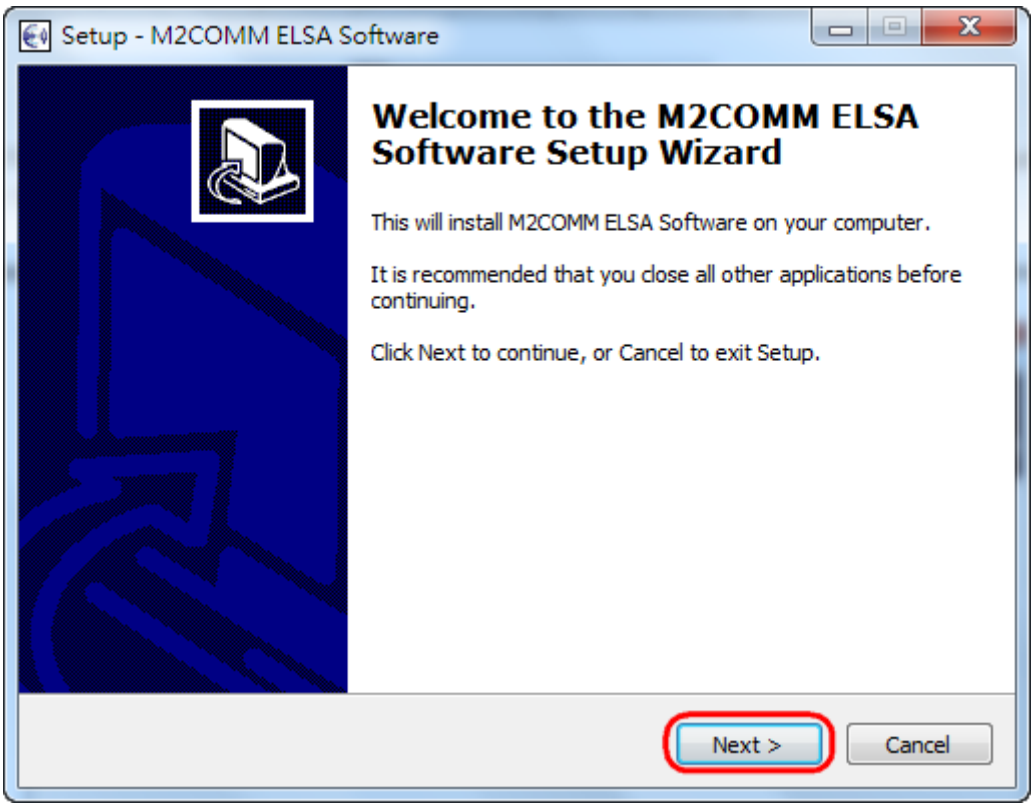
M2COMM ELSA-E Demo Installation:

Software Installation:
Put below two executable files into the same folder on your computer. And double-click the "**ELSA1.0_2.x.x.xxxx.exe**" file to begin the installation.

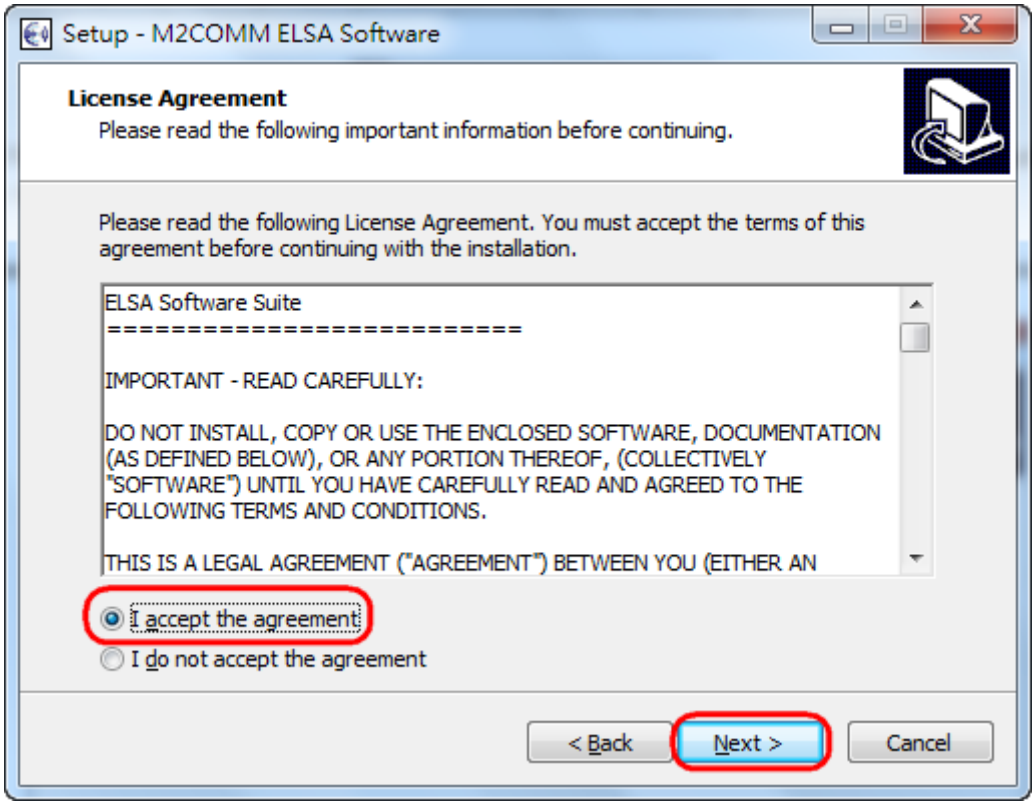


You may be asked for permission to allow the program to make changes to your computer; you must agree to this to enable installation to start.

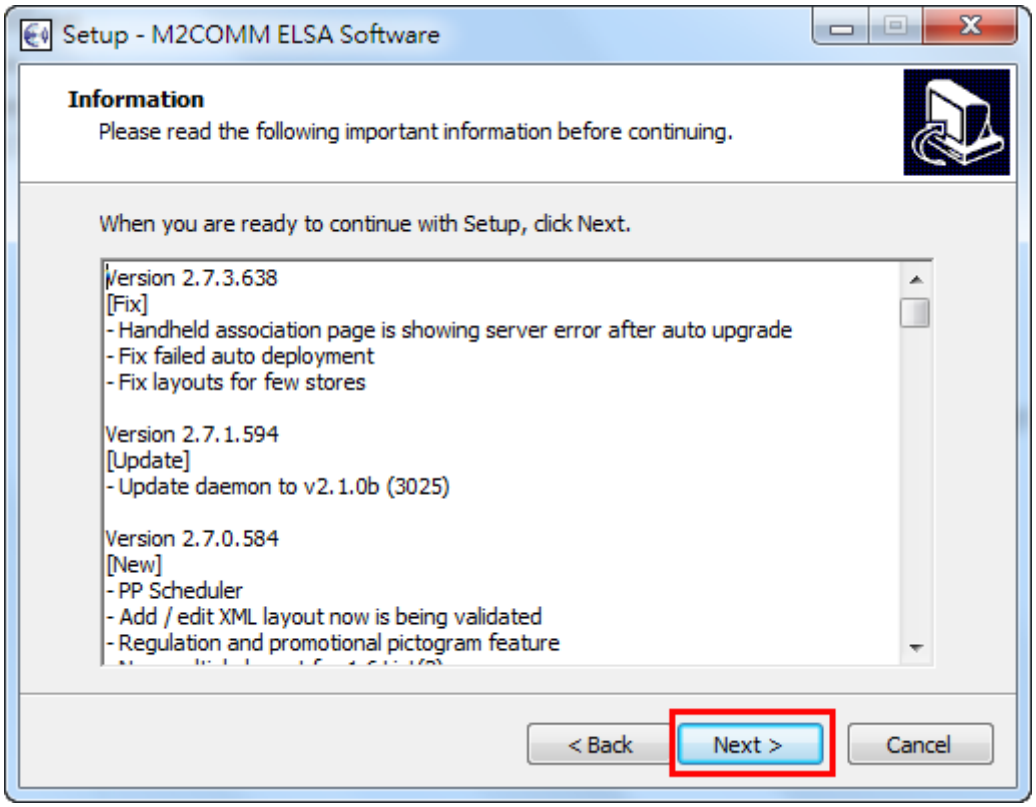
Follow the on-screen instructions to finish the installation process.



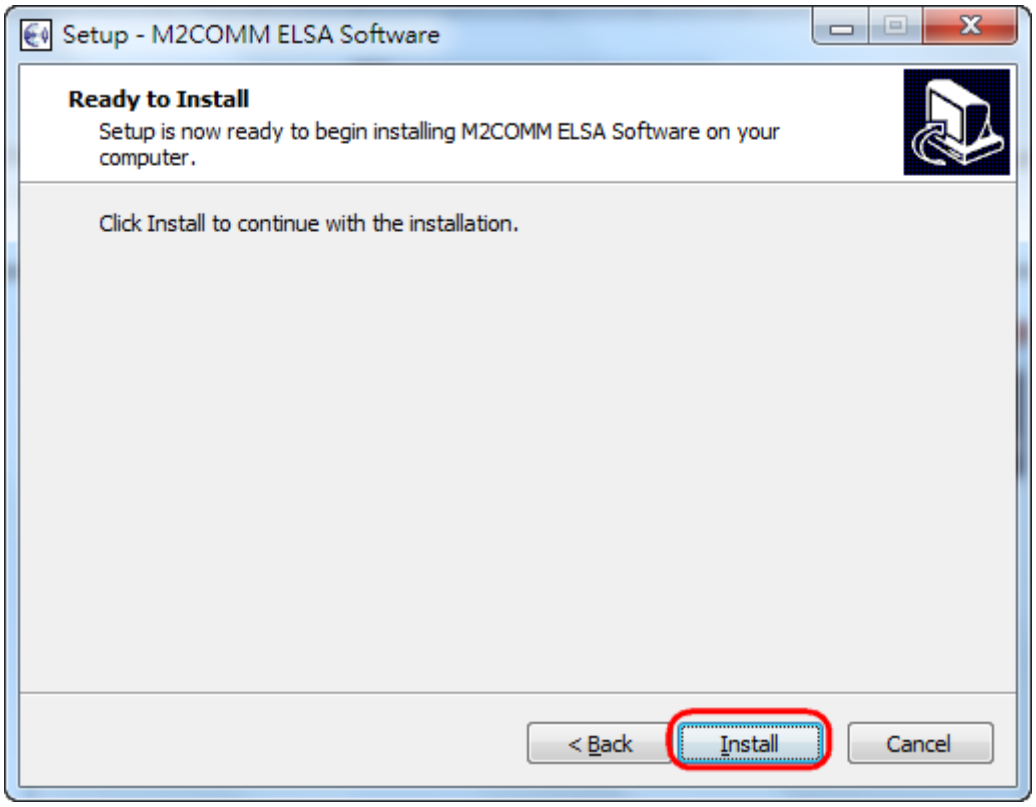
Click ***Next>*** to continue



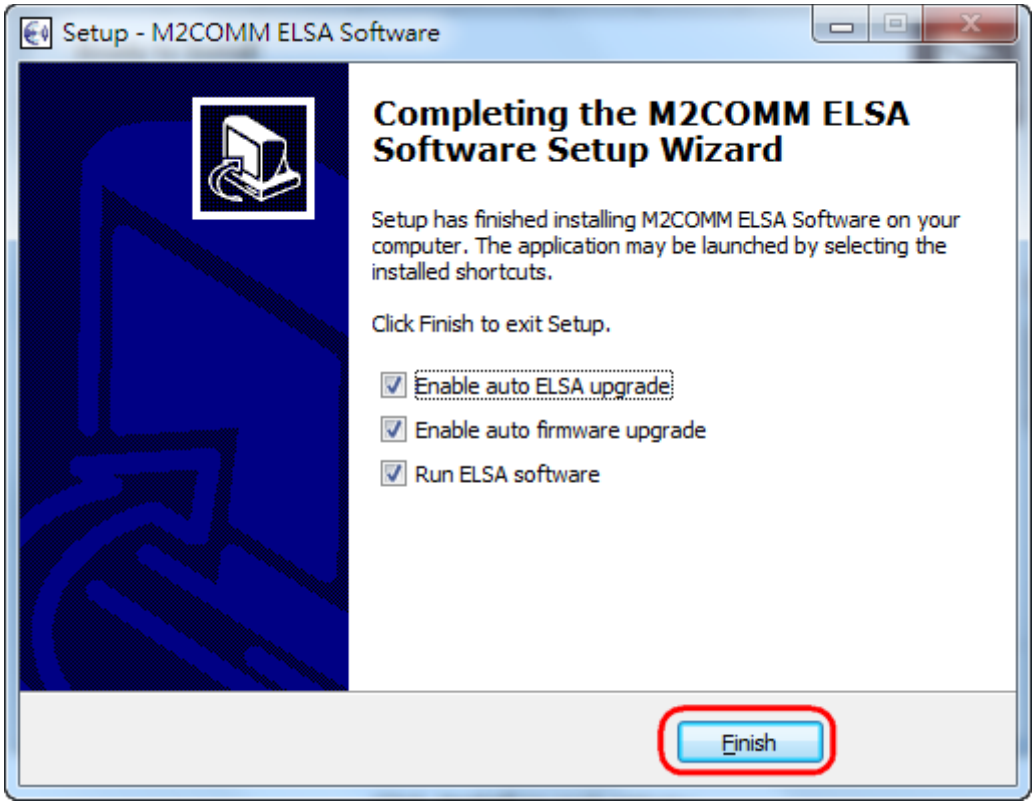
Select **Accept**, and Click **Next**> to continue



Click **Next** to continue

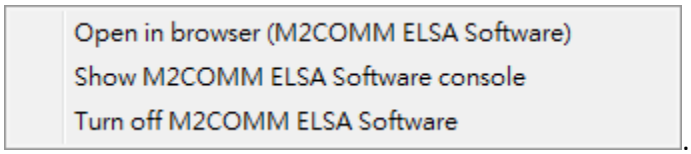


Click ***Install*** to start



Click ***Finish*** to complete the installation

The ELSA-E Demo system has now been installed and executed on your computer. The icon will be hidden inside the toolbar, and you should now be able to locate this icon on your computer screen, by right click.



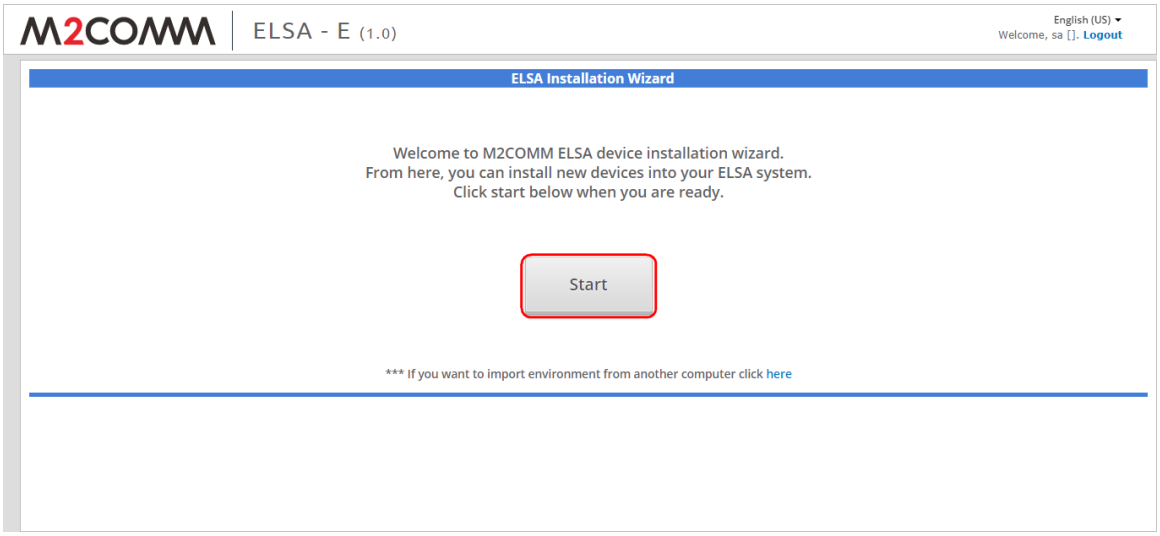
And you can also launch the ELSA software by double click the icon on desktop.

Setting Up the ELSA-E 2.7'' ESL

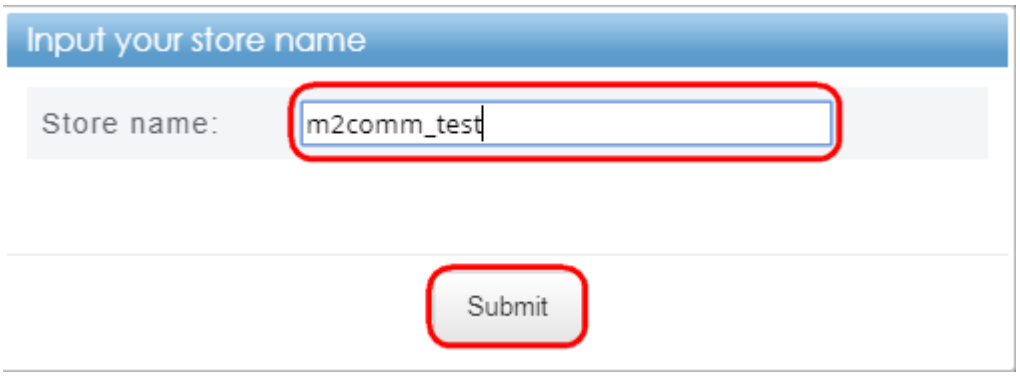
Ensure that the Access Point is connected to your computer that the Router(s) and 2.7'' ESL are installed throughout your premises and are powered on.

- **Install the AP**

Input "***sa***" for user name and "***passw0rd***" for password, to access the ELSA web.



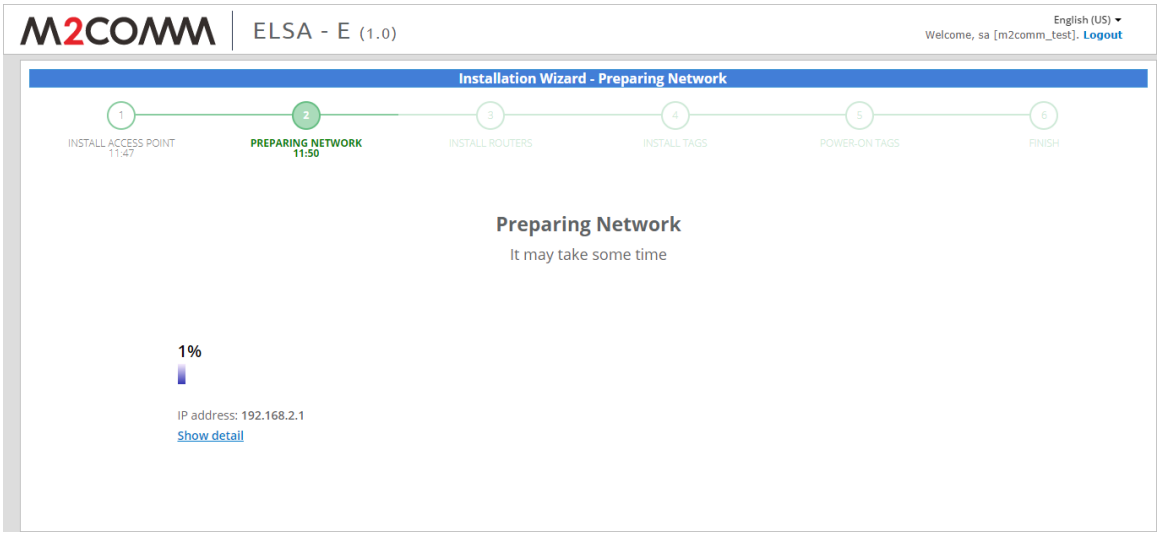
Press "***Start***" to initial the ELSA system installation process.



Input the store name, and press ***Submit***

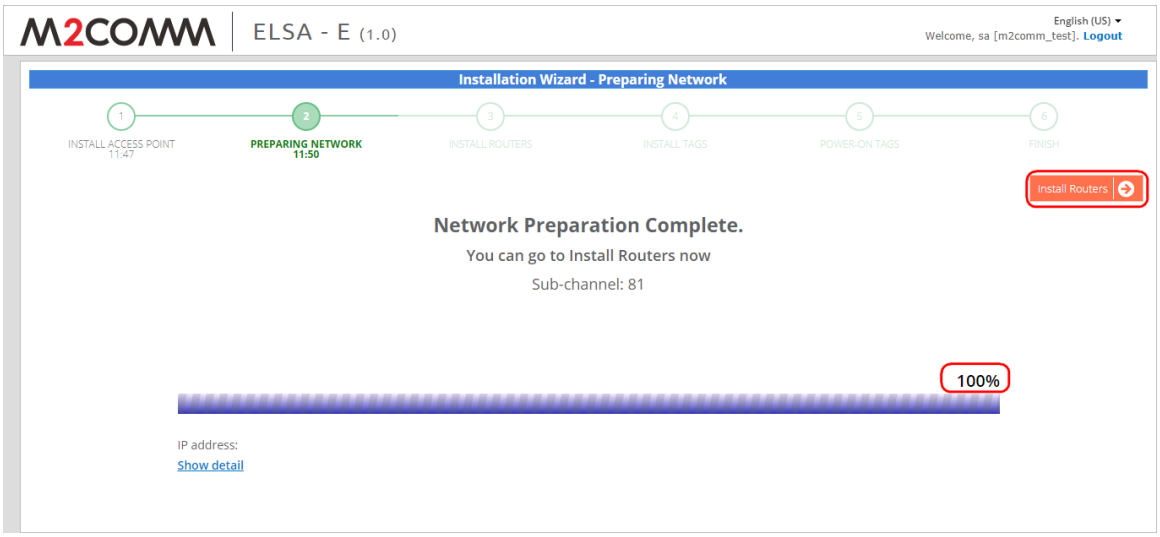
ELSA system will find the connected AP, and press ***"Yes"*** to confirm

- **Preparing the Network**



ELSA system will start to find the available wireless channel to use, and the whole process will take 1 hour.

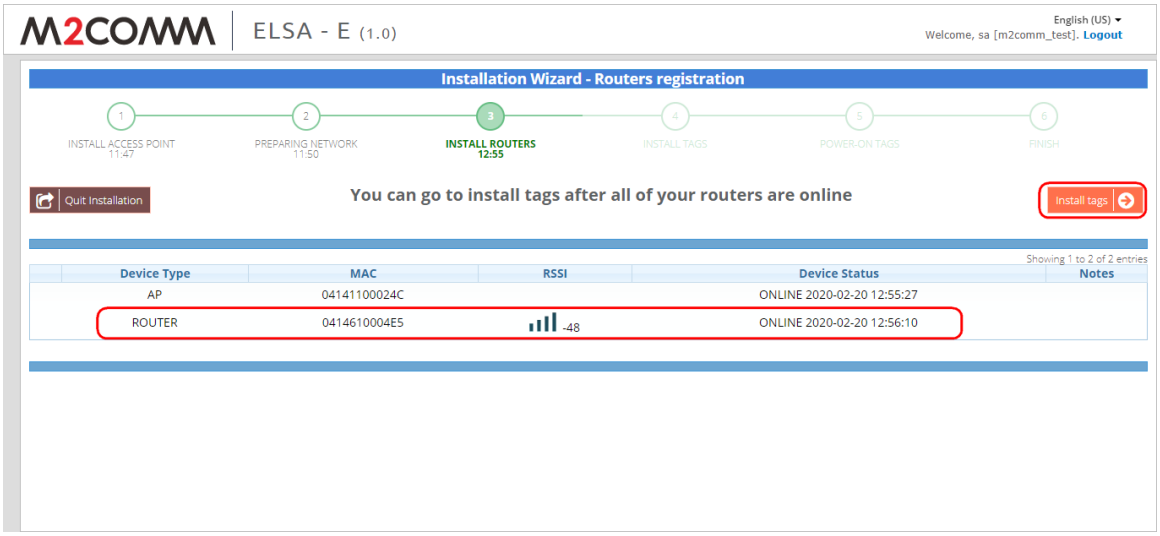
Press "Show detail" for more information.



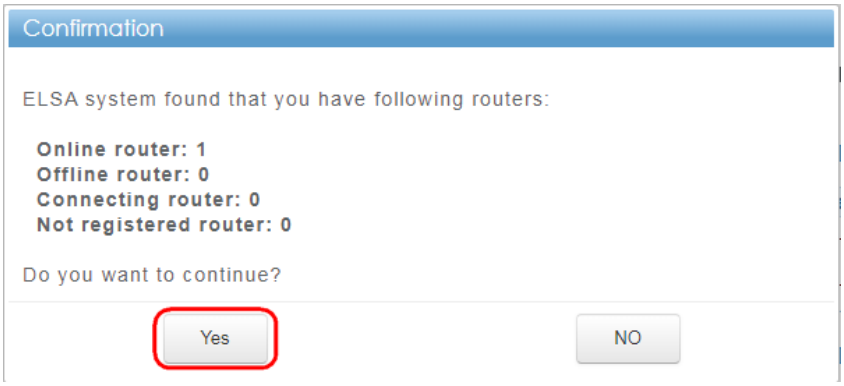
Press "***Install Routers***" for next step, when the progress bar reaches to 100%

- **Install Router**

Power on the Router

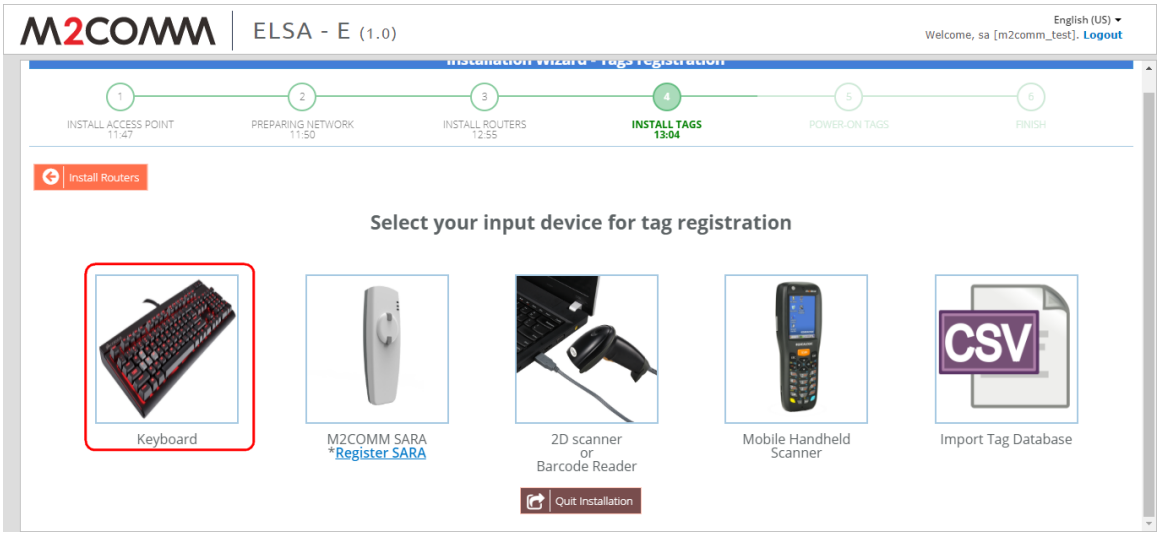


After the ELSA system install the Router automatically, press "***Install tags***"

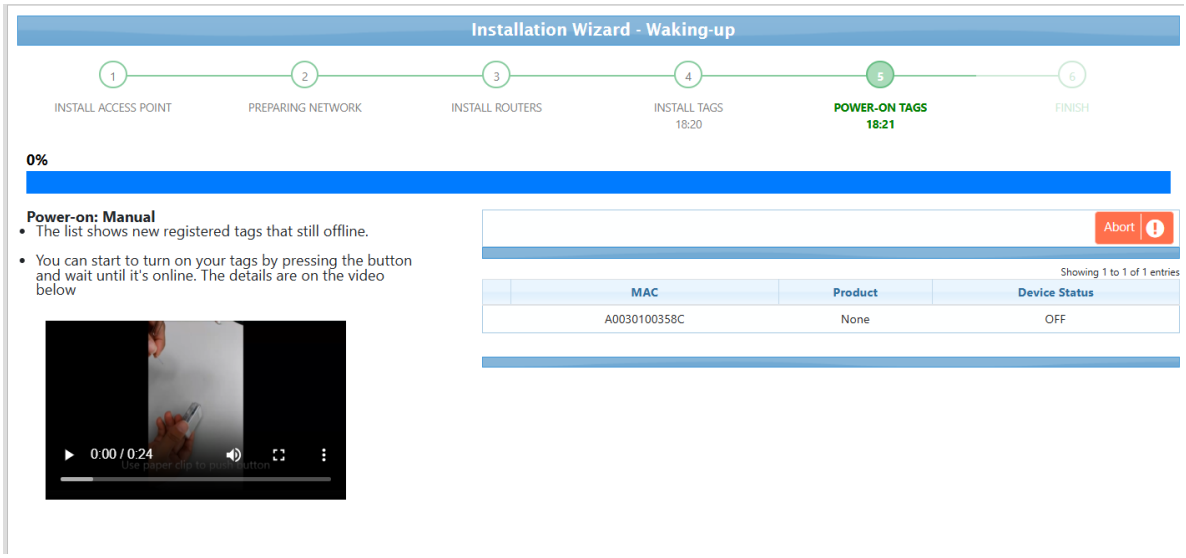


Press "***Yes***" to confirm the device status and enter to next step

- **Install Tags**

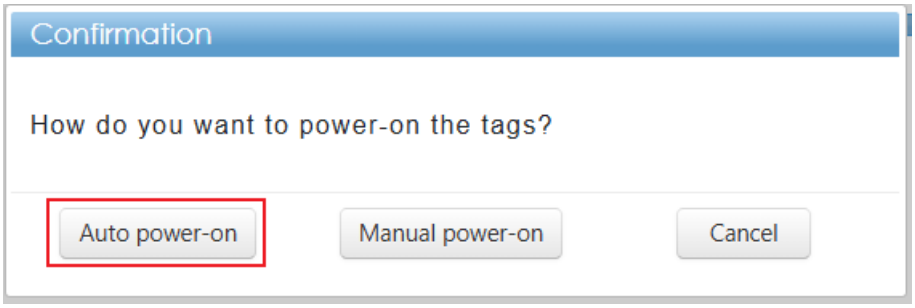


Select "***Keyboard***" to input the MAC address posted on the bottom side of the ESL



Check "***Without product***" and Press "***Power-on***"

- **Power ON Tags**

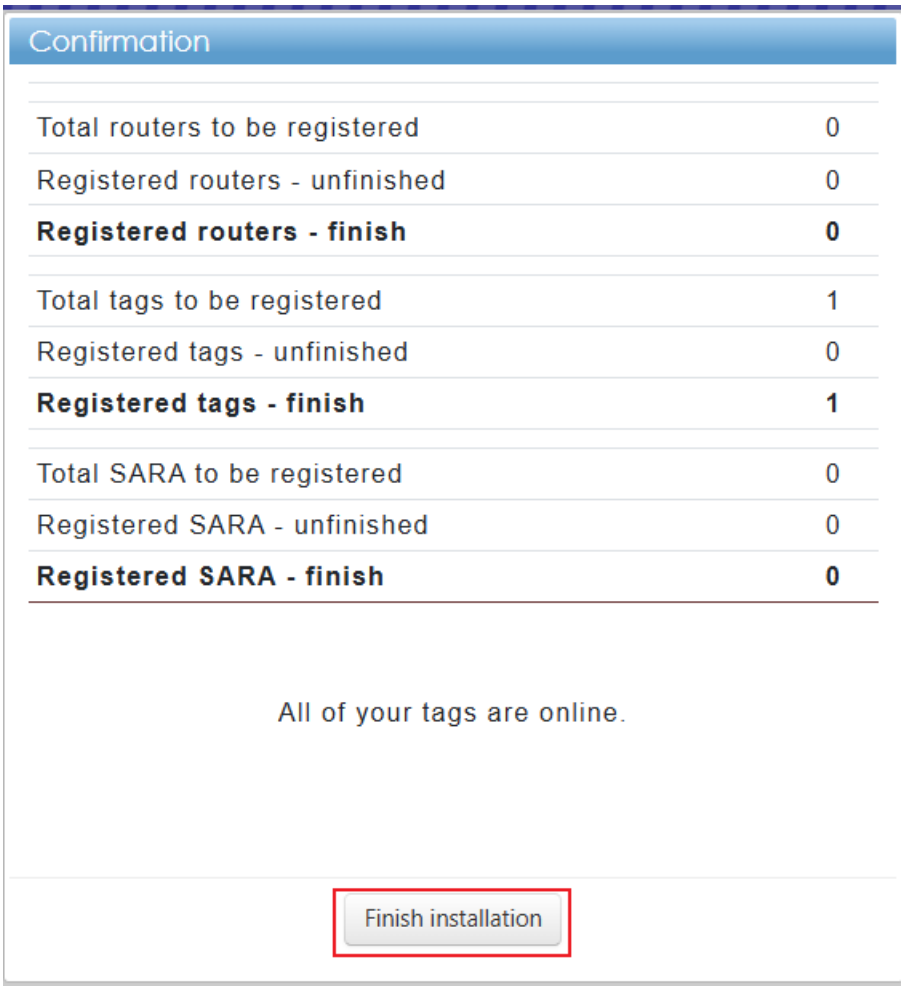


Select "***Auto power-on***"

Wait for ESL to show the "***wakeup***" page

- **Finish**

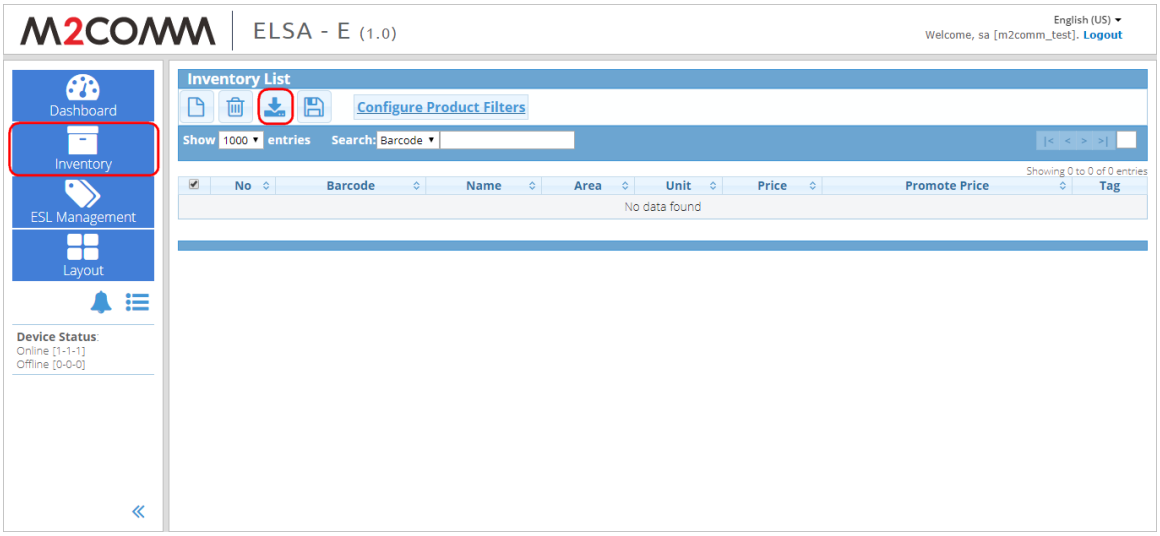
After several minutes, the ELSA web will show "***register finish***" page



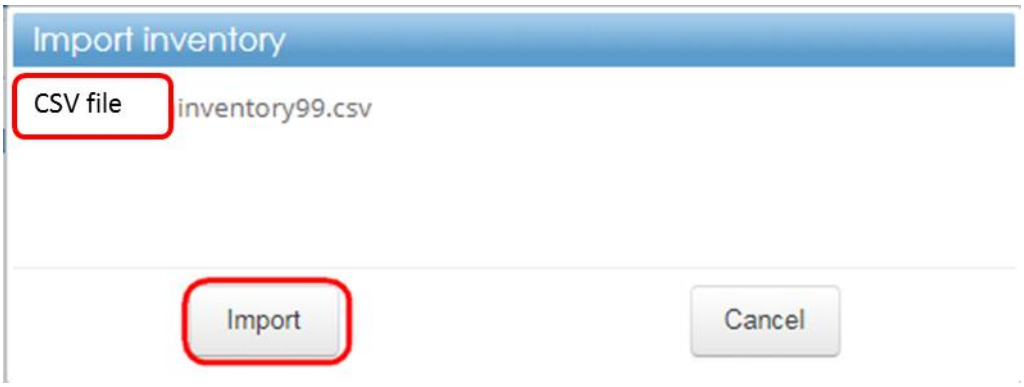
Press "***Finish***" to leave the installation wizard and back to ELSA dashboard

Show the image on ELSA-E 2.7'' ESL

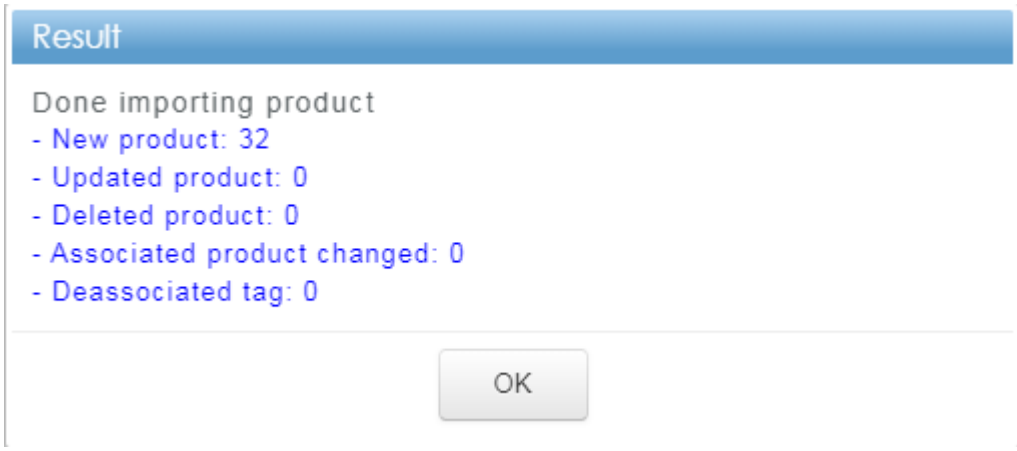
Load the CSV file to import the inventory list first.



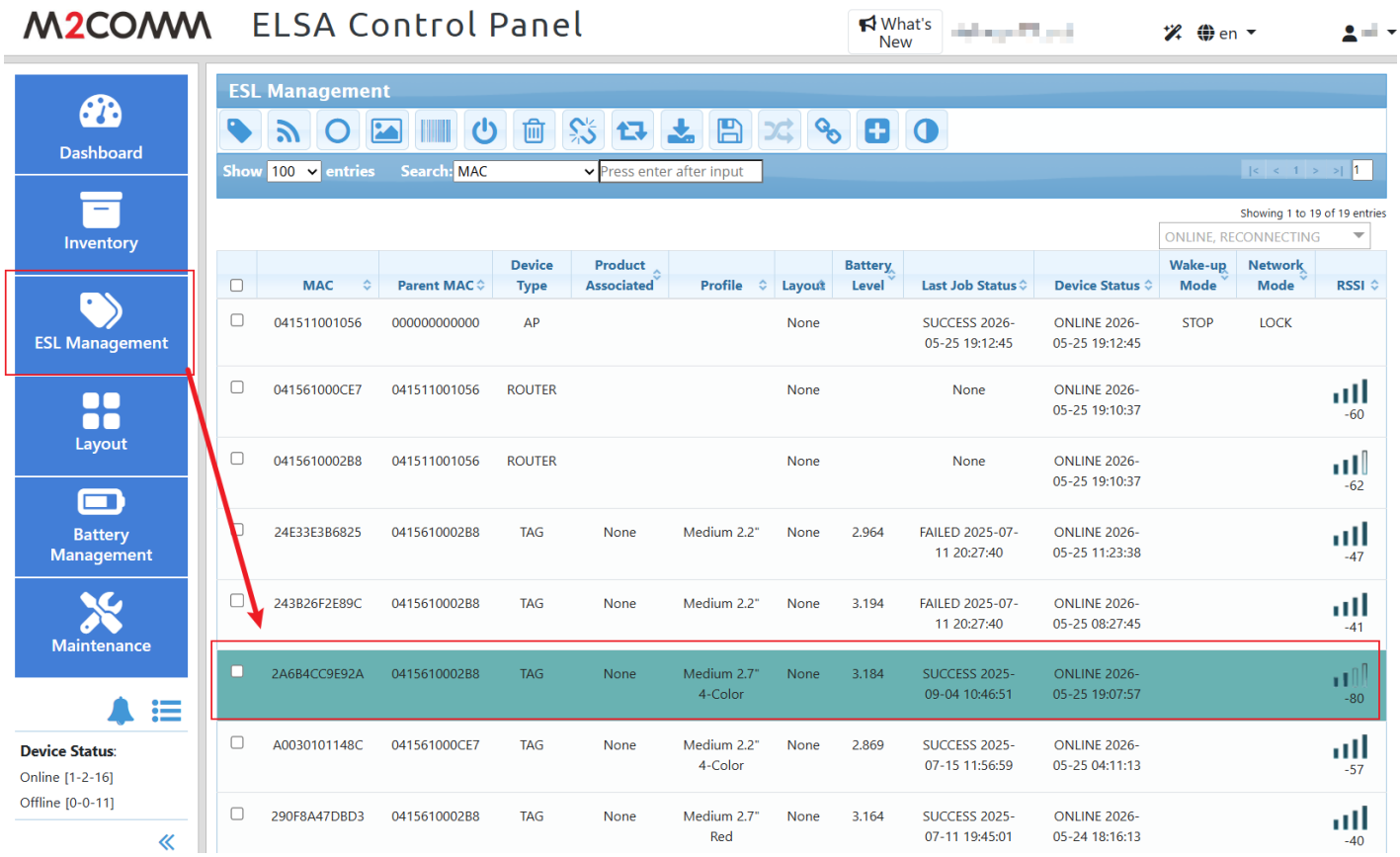
Switch to "***Inventory***" page, and press "***Import***"



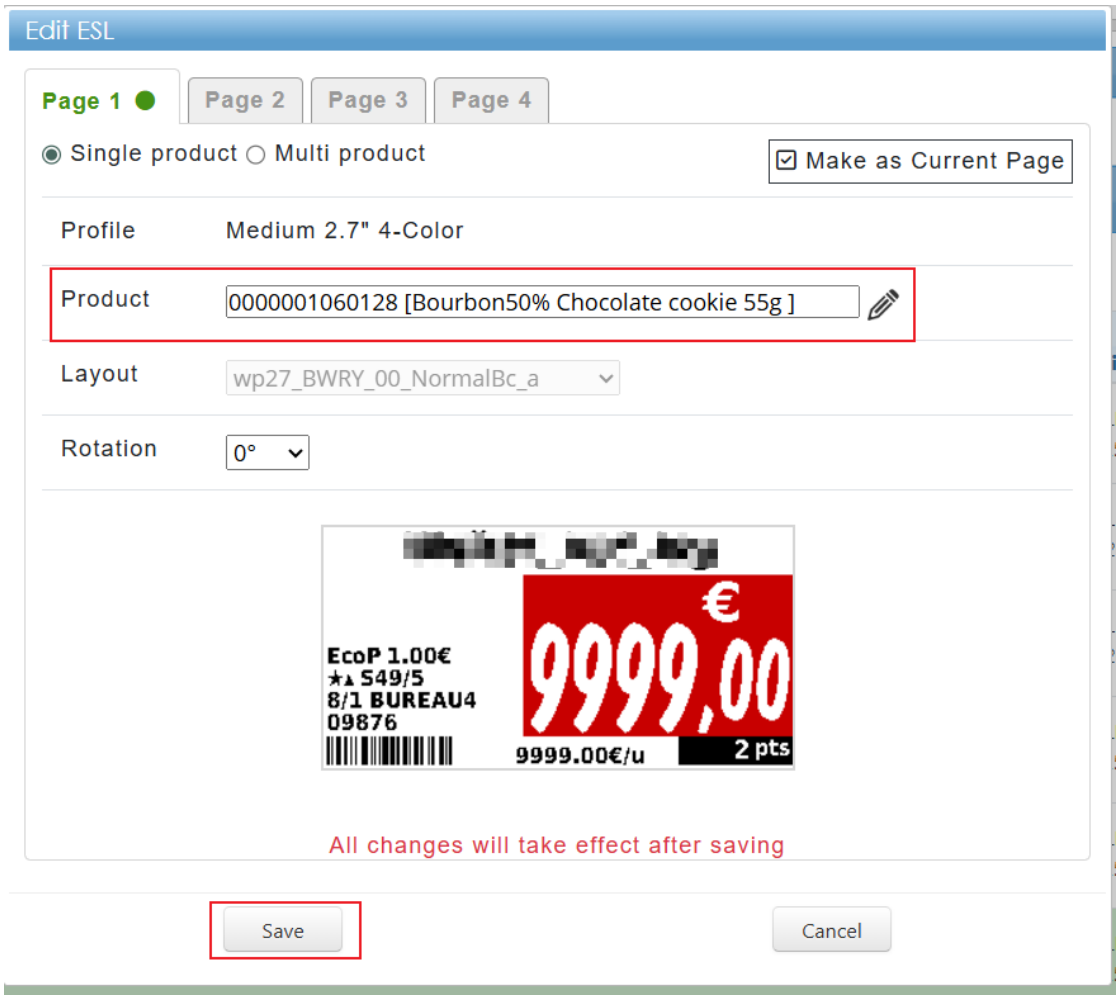
Select the CSV file, "***inventory99.csv***" and press "***Import***"



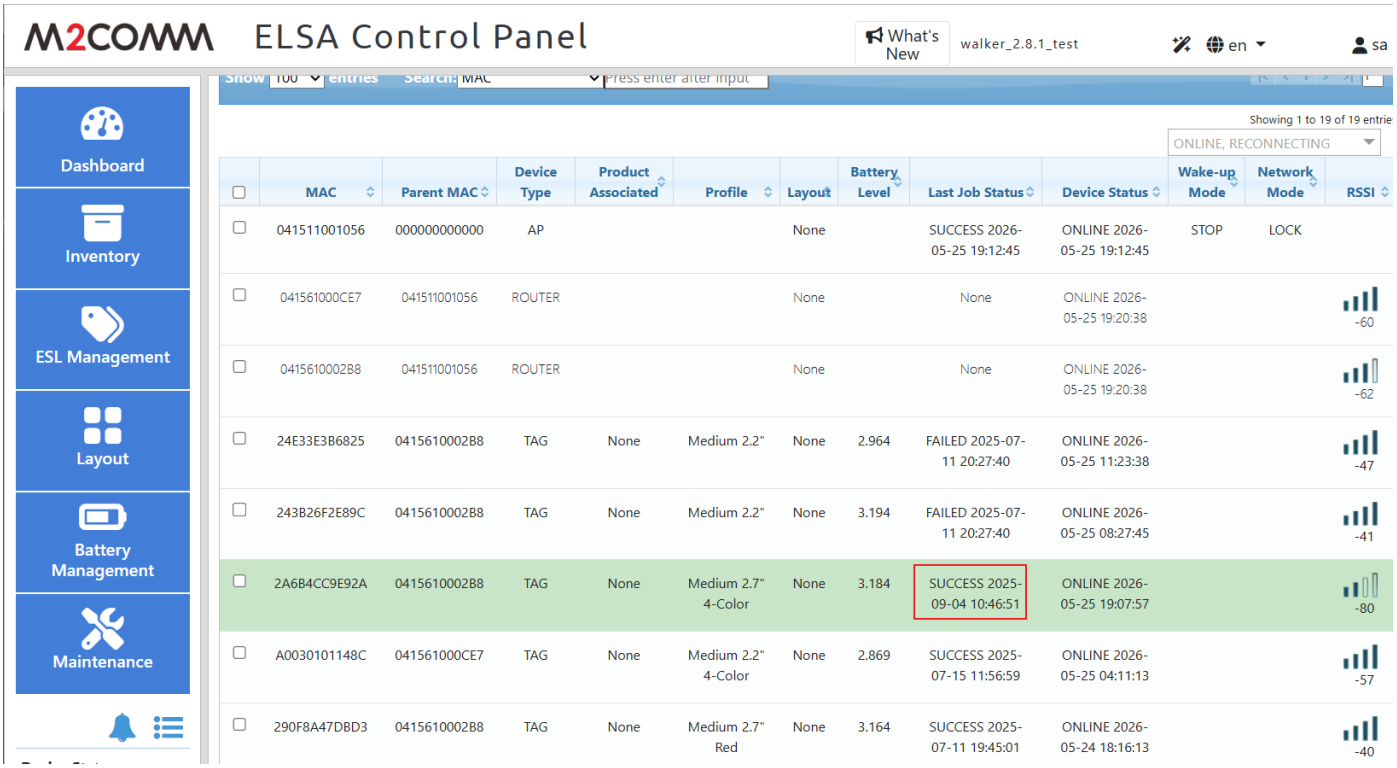
Press "***OK***" to finish the inventory importing



Switch to "***ESL Management***" page, and double click the 2.7''ESL



Select any one of the product, and press "***Save***"

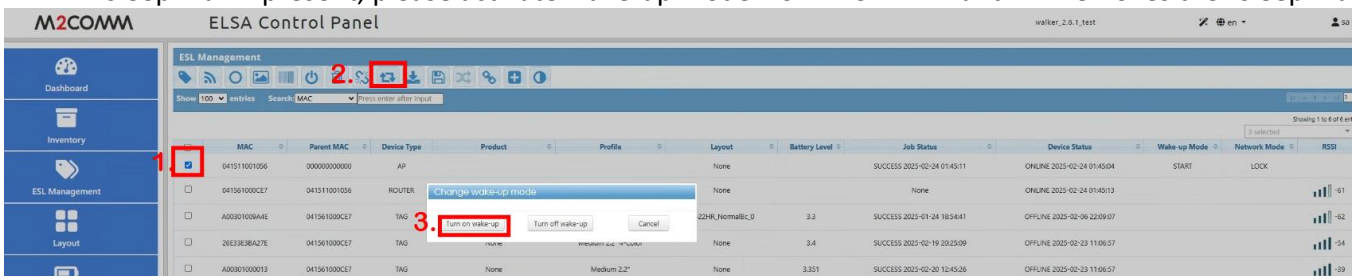


Waiting for the job status become from "***Processing***" to "***SUCCESS***"

2.7" ESL shown with image

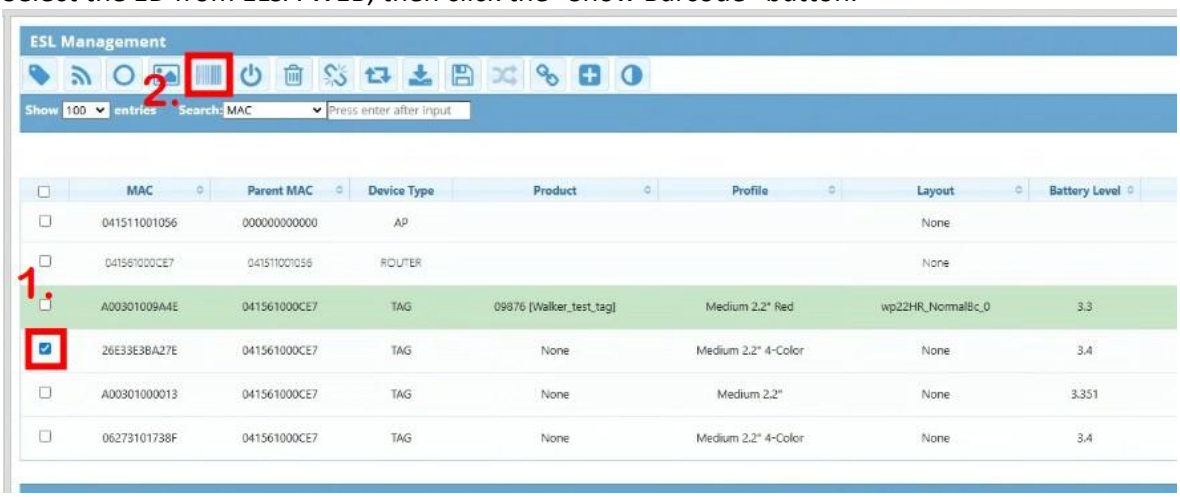
How to Display FCC ID Label(After certification, display it on the "Pairing Page")

1. **Wake Up the Tag:** Ensure the EPD is not blank or shows a "sleep mark" (red/black square in the top-left corner).
   - If “sleep mark” present, please activate wake-up mode from ELSA WEB until ED removes the "sleep mark."



Active wake-up mode from ELSA web

2. **Switch Screens:** Switch the EPD display to the "Pairing Page"
   - Select the ED from ELSA WEB, then click the "Show Barcode" button.



   - The ED will be preset to display the "Pairing Page" upon shipment.

2.7” ESL FCC ID display results

Battery Caution:

The elements of the instructional safeguard shall be as follows:

- element 1a: not available
- element 2: “Do not ingest battery, Chemical Burn Hazard” or equivalent wording
- element 3: the following or equivalent text
  [The remote control supplied with] This product contains a coin / button cell battery. If the coin / button cell battery is swallowed, it can cause severe internal burns in just 2 hours and can lead to death.
- element 4: the following or equivalent text
  Keep new and used batteries away from children
  If the battery compartment does not close securely, stop using the product and keep it away from children.
  If you think batteries might have been swallowed or placed inside any part of the body, seek immediate medical attention.

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.

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.

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 equipment should be installed and operated with a minimum distance of 20 cm between the radiator and a human body.

NCC Statement:

Technical Regulations for Low-Power Radio-Frequency Devices

Without prior approval granted by the NCC, no company, firm, or user shall alter the frequency, increase the transmitting power, or modify the original characteristics or functions of any low-power radio-frequency device that has obtained certification.

The use of low-power radio-frequency devices shall not affect flight safety nor interfere with legal communications. In the event that interference is found, the user shall immediately cease operation and shall not resume use until the interference has been eliminated. The aforementioned legal communications refer to radio communications operated in accordance with the Telecommunications Management Act. Low-power radio-frequency devices must tolerate interference from legal communications or from industrial, scientific, and medical radio-wave radiating equipment.

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