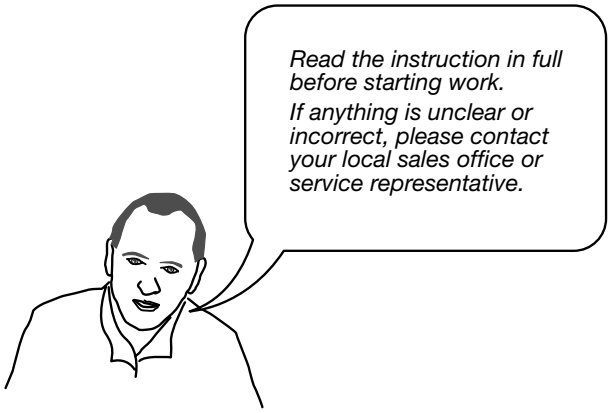
Instruction

Installation of Machine wireless board

Washers and Dryers with Compass Pro, Washers and Barrier washers with Clarus Vibe & Ironers with Vibe interface

Kit No. 988807401



438907725/EN
2025.02.11

1 Safety Precautions for Machine wireless board

Note!

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

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.

- 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 constructed so that it can operate in at least one EU Member State and thereby complies with Article 10 (2). The product complies with Article 10 (10) as it has no restrictions on putting into service in any EU Member State.
- This equipment is equipped with WiFi that operates in the frequency band of 2.4 GHz with a maximum power less than 20 dBm in that band.
- This equipment is equipped with BLE that operates in the frequency band of 2.4 GHz with a maximum power less than 10 dBm in that band.

- เครื่องโทรคมนาคมและอุปกรณ์นี้มีความสอดคล้องตามมาตรฐานหรือข้อกำหนดทางเทคนิคของ กสทช.
- 当該機器には電波法に基づく、技術基準適合証明等を受けた特定無線設 備を装着している。

1.1 Additional Safety Precautions for Machine wireless board

- The WiFi frequency band consists of 13 channels from 2412MHz to 2472MHz with 5MHz separation; channels are used according to country regulations.
- The WiFi modulation/transmission techniques are: 802.11b → CCK, DSSS; 802.11 g/n → OFDM.
- The BLE modulation/transmission techniques are: GFSK.
- For Peru, the maximum WiFi transmitter power is 16.5dBm with an antenna gain of 3.4/3.5dB for a maximum radiated power of 20dBm, and the maximum BLE transmitter power is 0dBm with an antenna gain of 3.4/3.5dB for a maximum radiated power of 3.5dBm.
- Wireless communication standards are Wifi: 802.11 b/g/n; BLE.

2 Dimension drawing

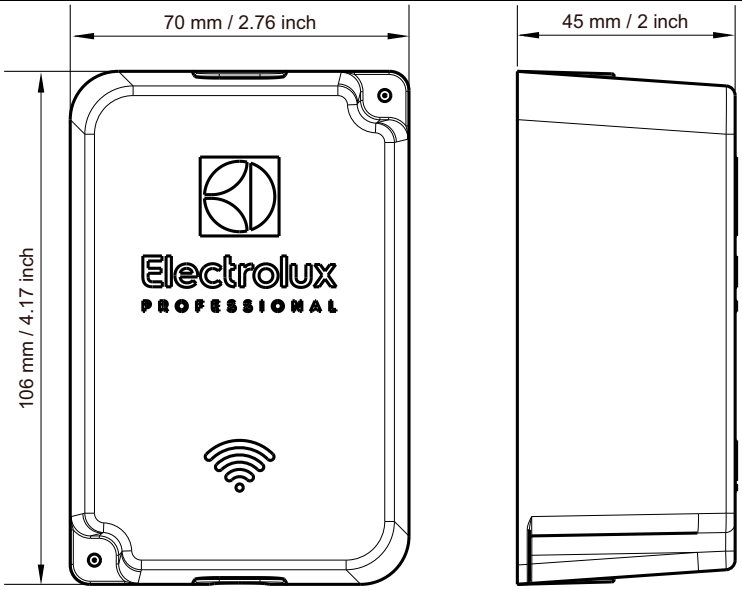


fig.X03631

3 Contents of the kit

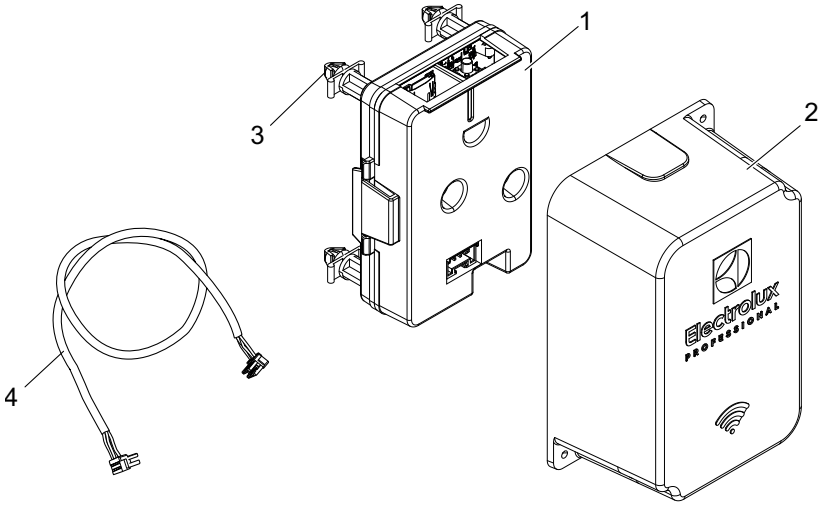


fig.X02830A

1	432689401	Machine Wireless Board x 1
2	490624901	Machine Wireless Board cover x 1
3	471796002	Circuit support x 4
4	413327505	Harness RS232 Fuse IOT x 1

4 Recycling instruction for packaging

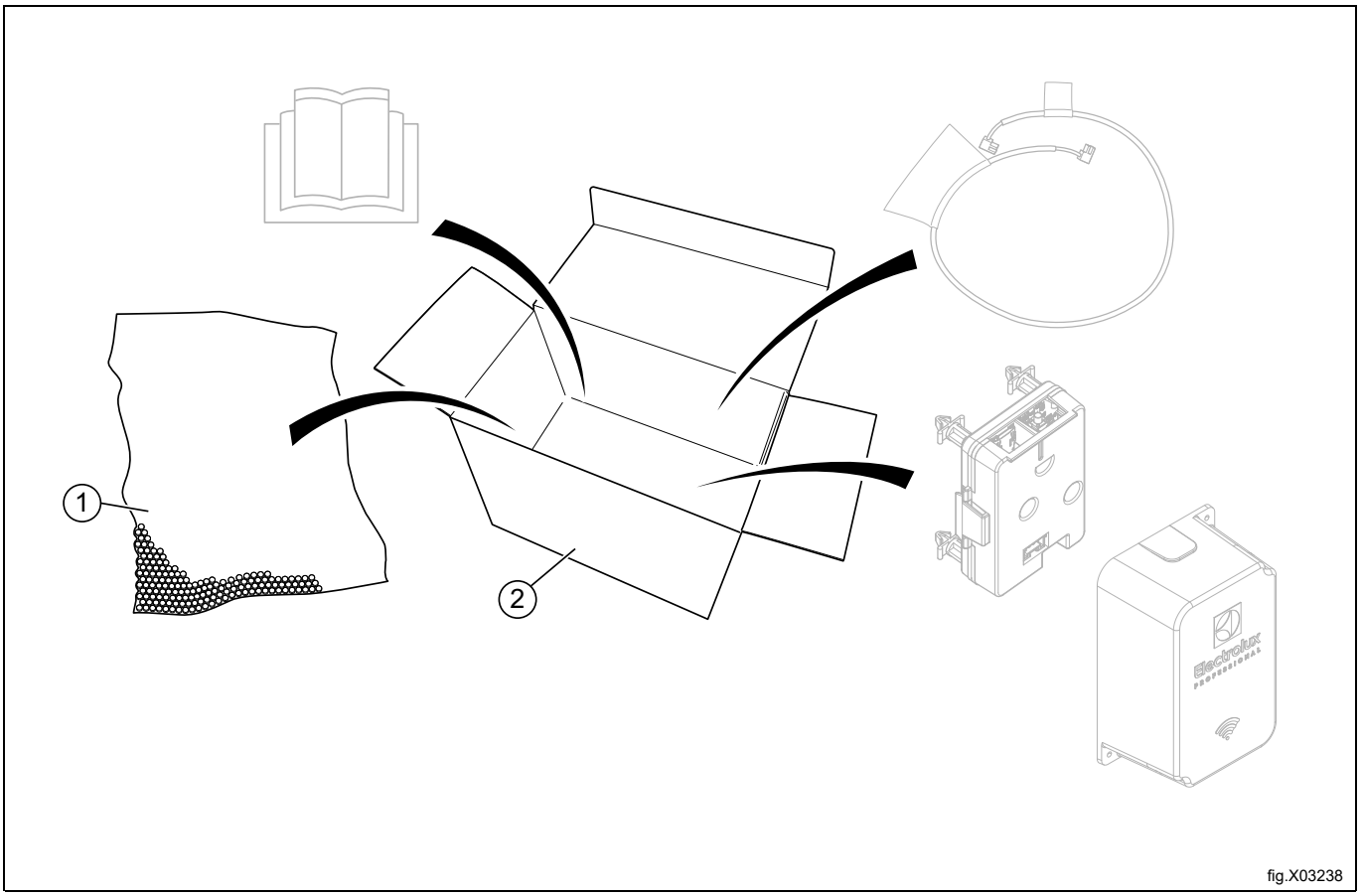


fig.X03238

Fig.	Description	Code	Type
1	Bubble foil	PE-LD	Low density polyethylene
2	Cardboard packaging	PAP 20	Corrugated card board

5 Connection of the Machine wireless board

May only be carried out by qualified personnel.

Follow the instructions carefully in order for a correct and safe installation and interconnection of the equipment.

5.1 Network overview

To be able to use Electrolux Professional provided Connectivity and Management Software Tools, ELS network should be established.

The Machine wireless board is a part of ELS Network, it should be installed on each machine with Compass Pro/Clarus Vibe control system or Vibe interface and it shall be connected to the CPU RS232 port via a quick connection port behind or on top of the machine.

The Site wireless board is designed to be connected to PoE (Power over Ethernet according to IEEE 802.3at) port on the ethernet router otherwise a power supply (D) connected via USB type C with output 5V DC / 8A Max. is required to be connected to the Site wireless board if there is no power supply over ethernet cable.

Network details:

- Machine wireless board on each machine (B)
- Site wireless board (C)
- Power supply, output: USB type C 5 VDC / 8A Max. (option) (D)
- Router with PoE (Power over Ethernet according to IEEE 802.3at (E)
- Web application (G)

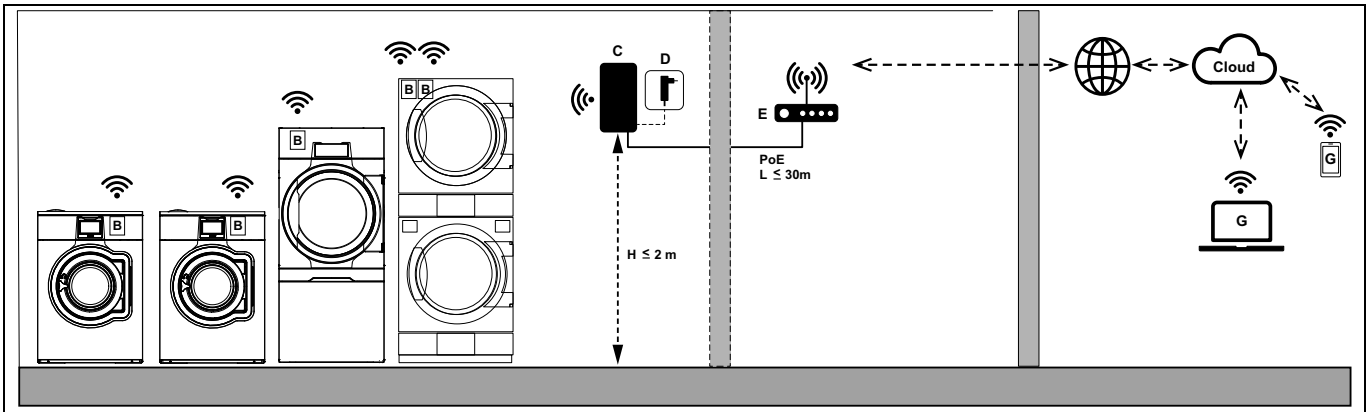


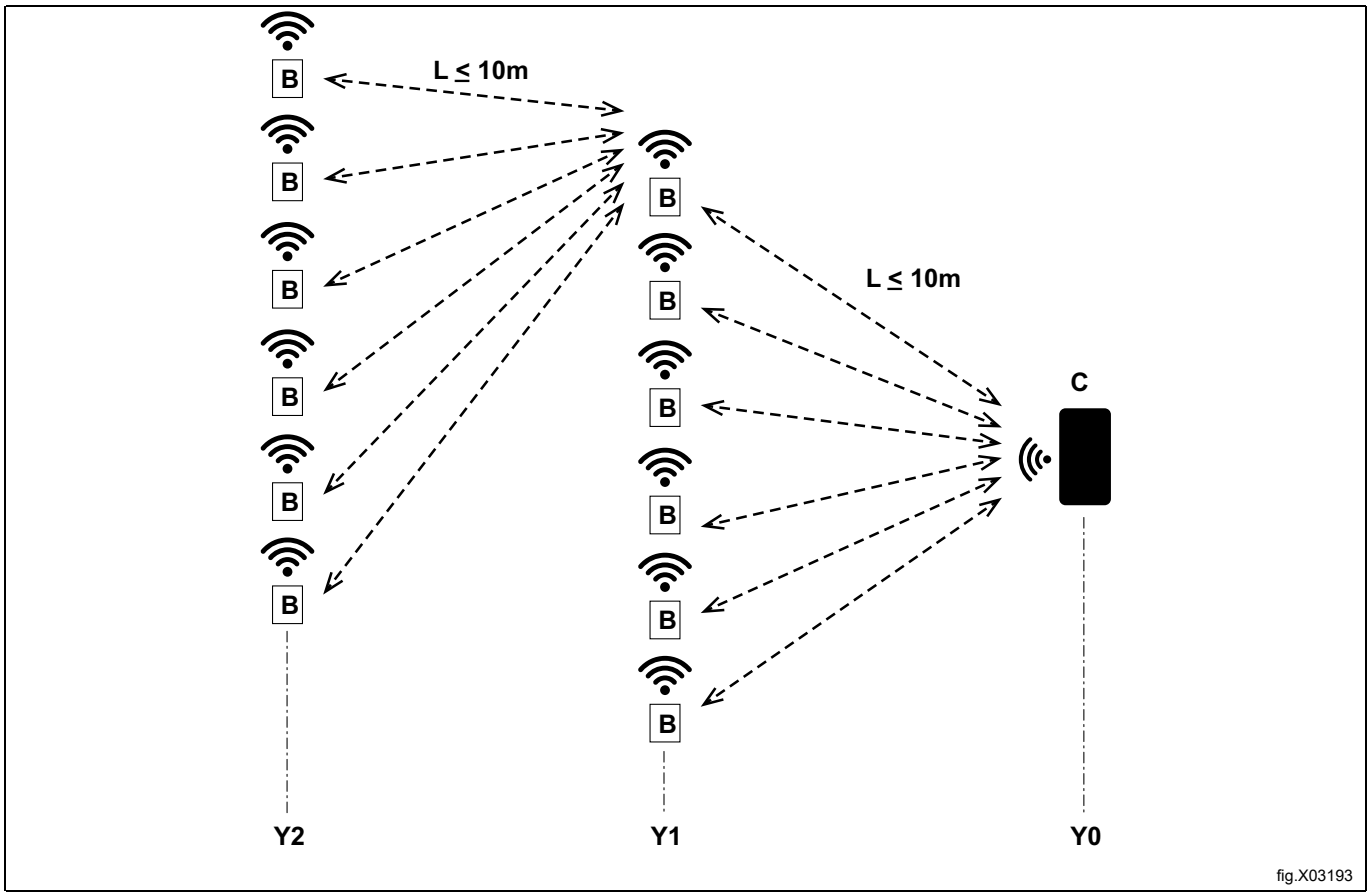
fig.X02831A

Warning

The Site wireless board is possibly at risk of damage while connecting to the PoE: please make sure the Router with PoE is switched OFF when connecting or disconnecting the ethernet cable to the Site wireless board.

WIFI-MESH

- Fixed root (C)
- Max. 16 layers (Y0–Y16)
- Max. 6 children per node (B)
- Max. 20 nodes (B) per root (C)



5.2 System requirements

- Min. requirements for commercial router:
  - Alt. 1: A router with PoE (Power over Ethernet according to IEEE 802.3at).
  - Alt. 2: A router without PoE and a Power supply (output: USB type C 5 VDC / 2A Min.–8A Max.).
- Min. requirements for internet connection with indication of port used:
  - Internet connection for Cloud connection. Min. 1 Mbps (higher than 5 Mbps is recommended) for upload and 10Mbps for download speed
  - Network Firewall

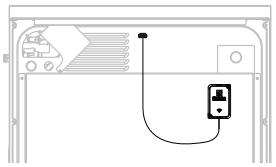
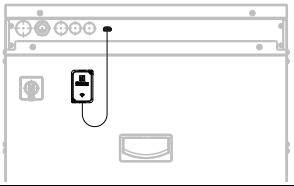
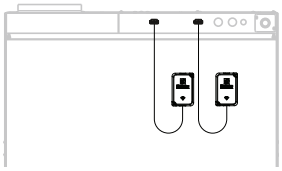
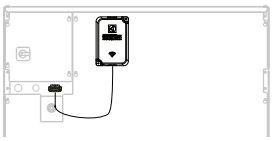
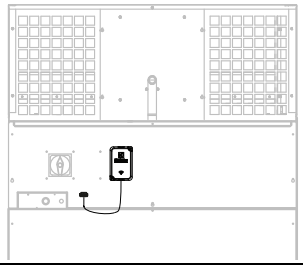
    The Internet connection used by the "Site wireless board" must be allowed outbound traffic on port
    - 8883 (MQTTS, tcp): `mqtt.eprlc.com`, `*.azure-devices.net`
    - 443 (HTTPS, tcp): `ipapi.co`, `portal.eprlc.com`, `*.azure-devices.net`, `api.iot.epr-apps.com`, `*.blob.core.windows.net`
    - 123 (NTP, udp): `pool.ntp.org`

    These ports used to send the data to the cloud. Be sure to properly setup your Network Firewall or protection system in your network if necessary
  - DCHP enabled (not possible to set IP address manually at this point)
- Network cables:
  - Standard Ethernet cables, type UTP, CAT 6 or CAT 5, both ends terminated with RJ45 connectors. (Patch cable and its length must NOT exceed 30 meters) (obtained locally).

5.3 Installing the Machine wireless board

5.3.1 Positioning overview

Dryers

TD6–6	TD6–7	PD9C, TD6–10	TD6–14, TD6–20
			
TD6–17S, DE-635S, D735S TD6–24S, DE-650S, D750S	TD6–16, DE-635, D735 TD6–30, DE-667, D767 TD6–37, DE-683, D783	TD6–45, DE-6100, D7110 TD6–60, DE-6135, D7145	
			

Washers

On washers the position shall be as the figure. There are two possible positions, A and B.

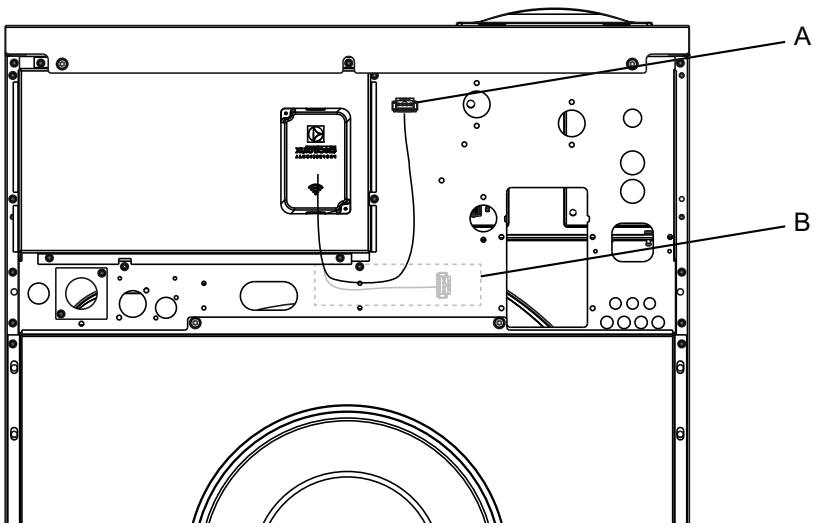
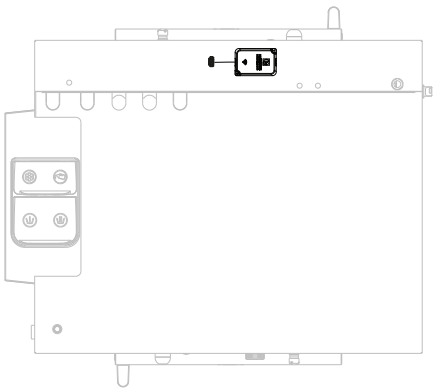
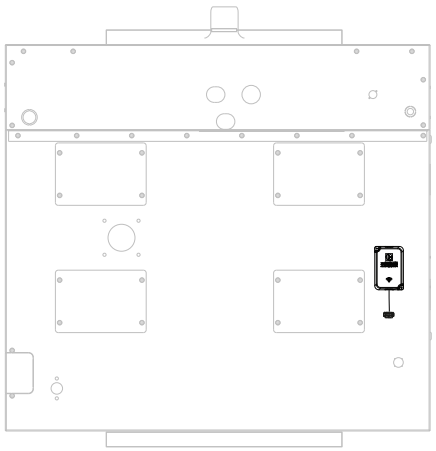
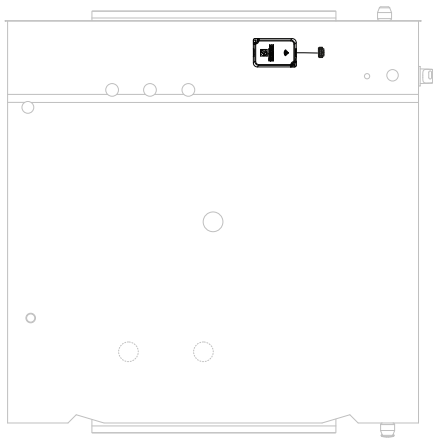


fig.X02856

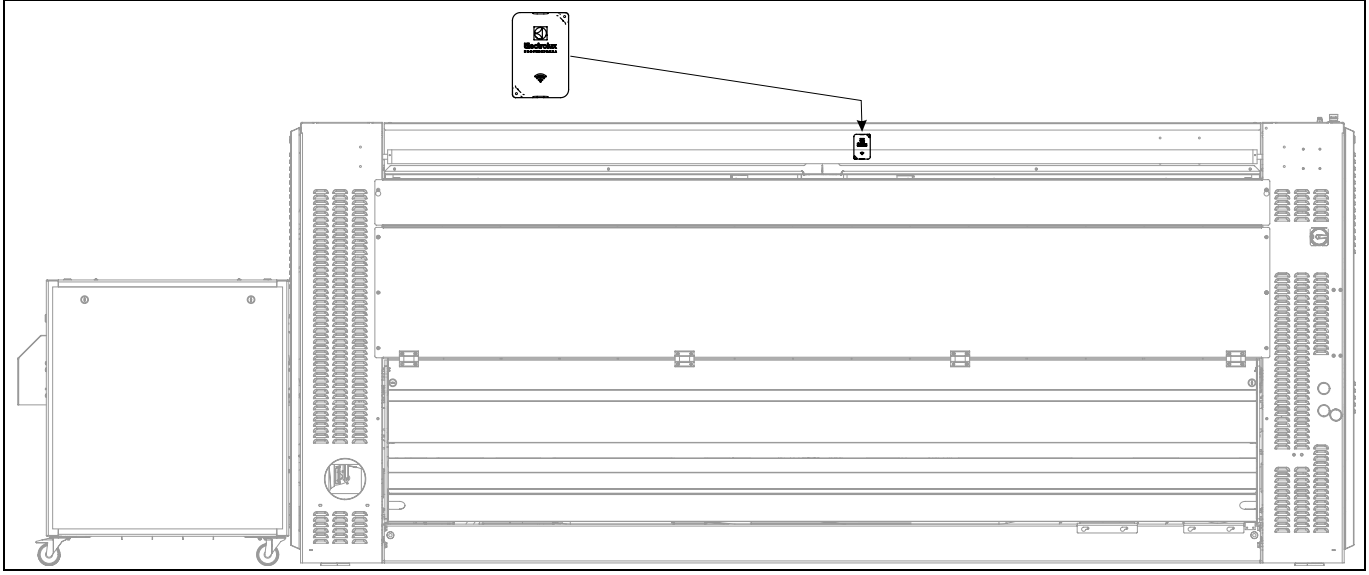
Barrier washers

For the following models the Machine wireless board shall be positioned on top of the machine as illustrated:

WB6-20, WB6-27, WB6-35	WB6-70, WB6-90, WB6-110	WHB5500H, WH5500H
		

Ironers

For the IV648xx range the Machine wireless board shall be positioned as illustrated:

IV648xx FFS


5.3.2 Procedure

5.3.2.1 Washers, Barrier washers & Dryers

The same Machine wireless board kit can be installed on different machine models. The following figures shows TD6–7 model as an example but the procedure is the same for all machine models covered by this kit.

Disconnect the power to the machine.

- A pattern with 4 holes (X) is prepared under the sticker which is fastened at the machine. This will be used to snap on the circuit supports (3) and then the Machine wireless board (1).
- A quick connection (Y) is prepared to be connected with the harness (4) from the machine to the Machine wireless board (1).

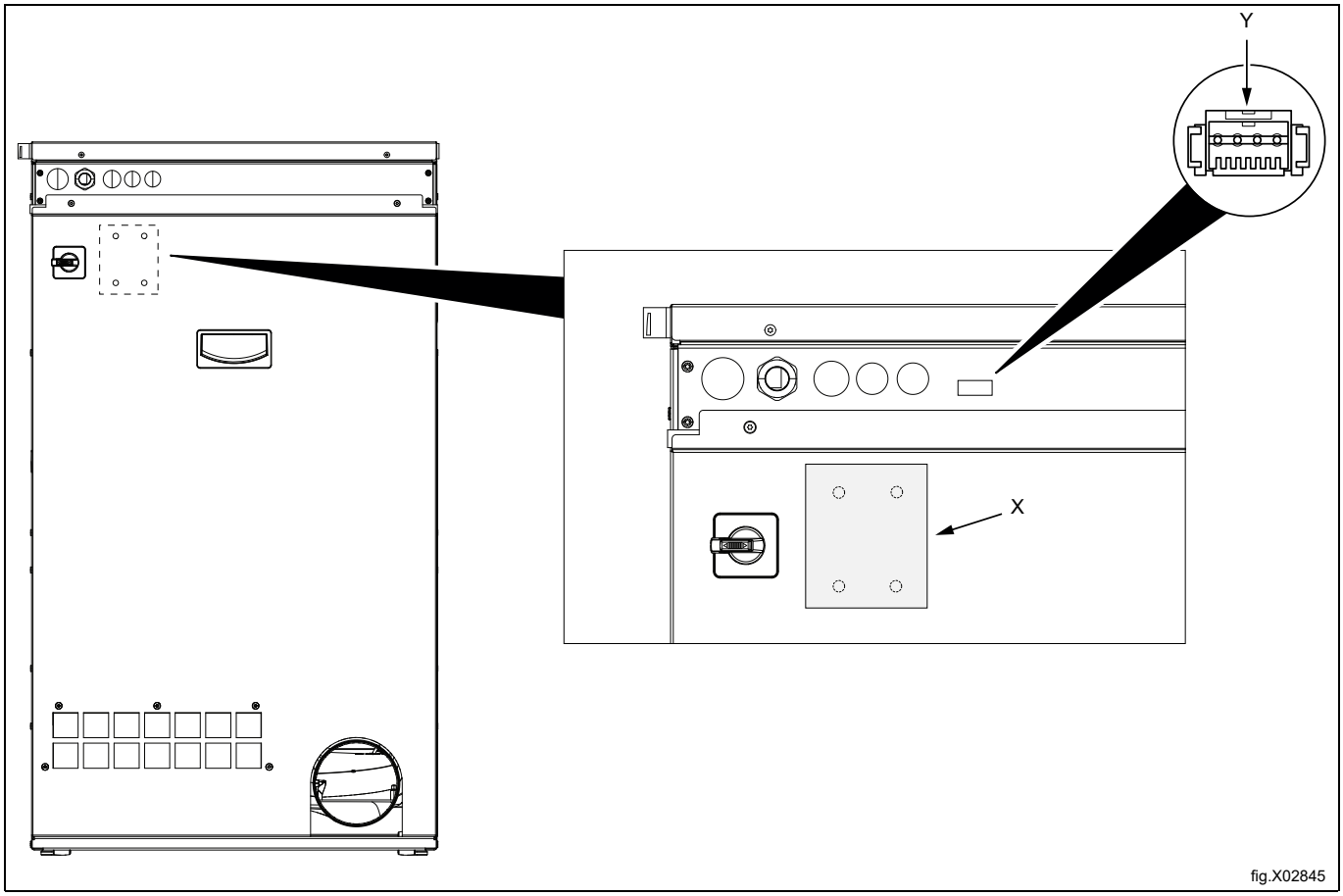


fig.X02845

Find where the hole pattern (X) is located under the sticker and make the holes through the sticker.

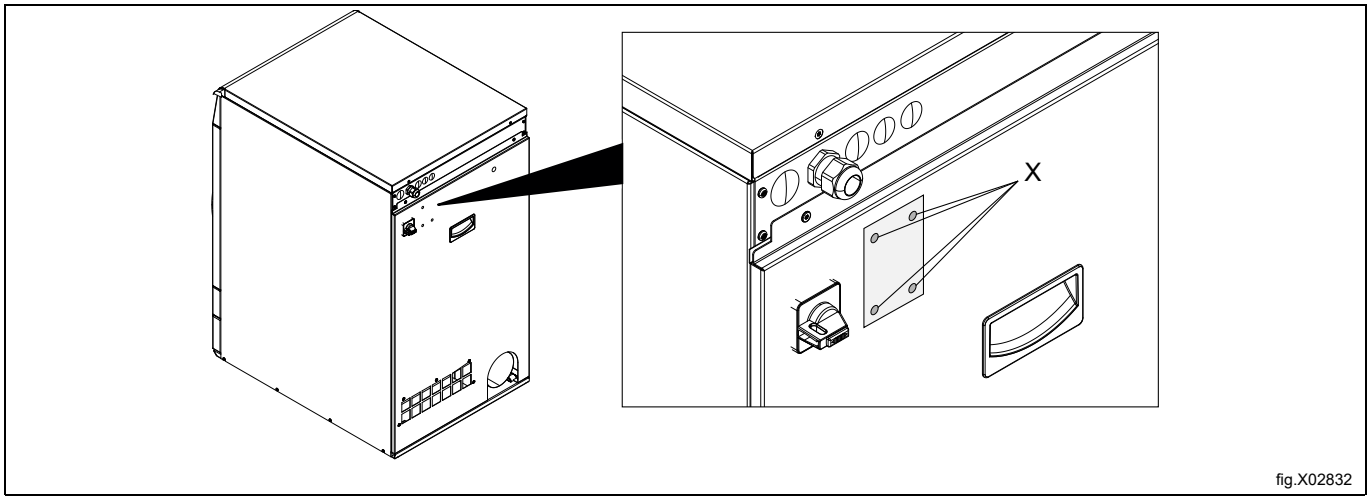


fig.X02832

Remove the cover (2) from the Machine wireless board with the circuit supports (1 & 3). Squeeze on the top and bottom of the cover and then pull it out.

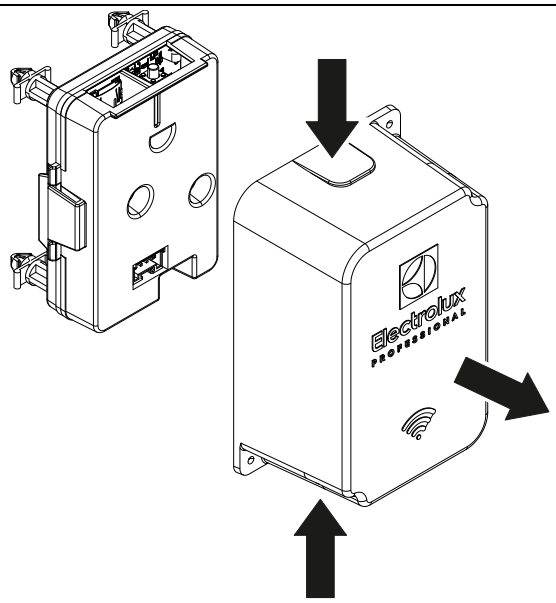


fig.X02846A

Snap on the Machine wireless board with the circuit supports (1 & 3) on the machine.

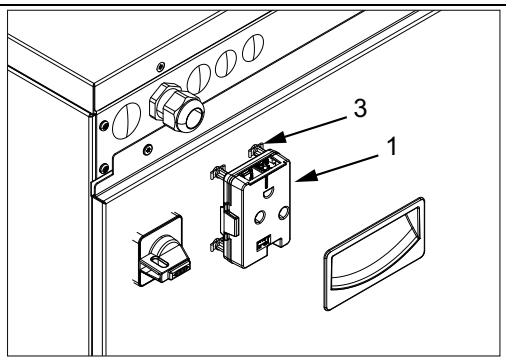


fig.X02834A

Connect the harness (4) to the quick connection (Y) on the machine and the other end to the Machine wireless board at position (Z).

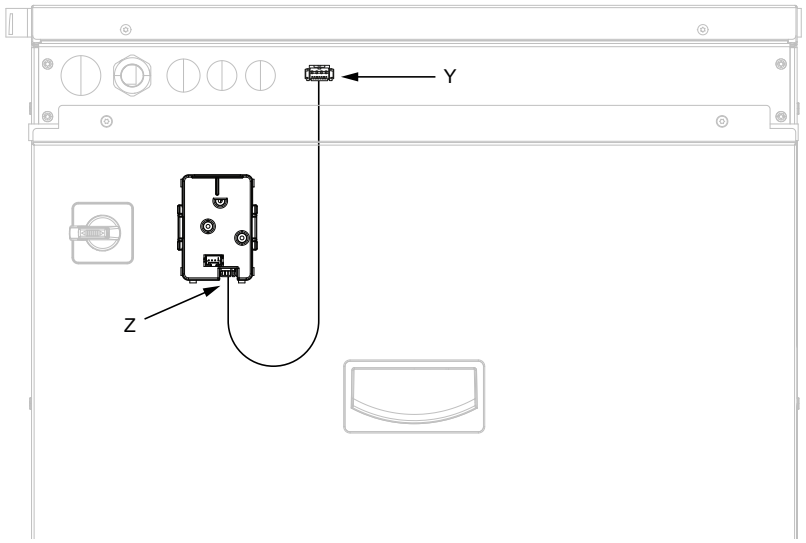


fig.X02841

Mount the cover (2) on the Machine wireless board. Press until you hear a “click”.

Note!

Arrange the harness in a loose bend according to the illustration. The “left-over” of the harness that is hanging down shall be rolled and put inside of the cover.

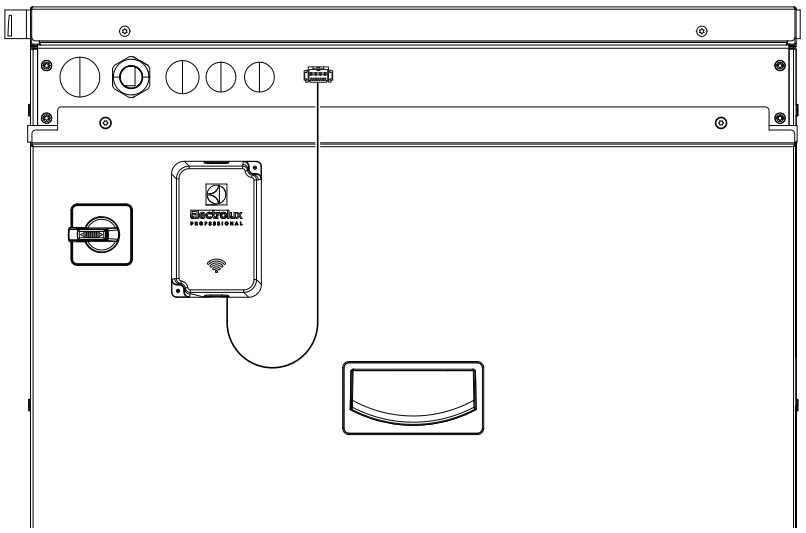


fig.X02842

Connect the power to the machine.

When the machine wireless board and the site wireless board have been installed, follow the attached INOM and the videos (scan on the QR code) to complete the provisioning.

5.3.2.2 Ironers

The same Machine wireless board kit can be installed on different machine models. The following figures shows IV648xx model as an example but the procedure is the same for all machine models covered by this kit.

Disconnect the power to the machine.

Remove the caps (1 & 2) present on the machine and set them aside.

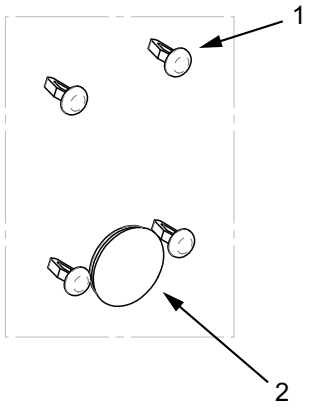


fig.X03400

Pull the connector out from the machine about 5 cm.

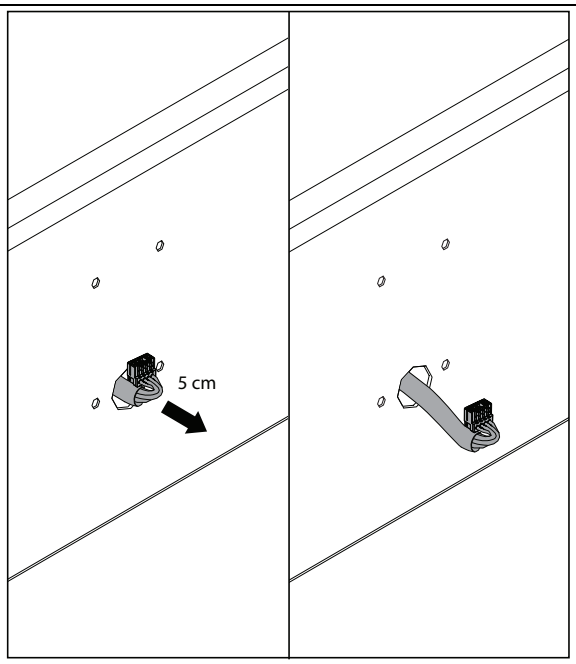


fig.X03426

Connect the harness to the Machine wireless board at position (present of keyed connection).

Note!
The harness (4) included in the kit 988807401 is not used for the IV648xx range.

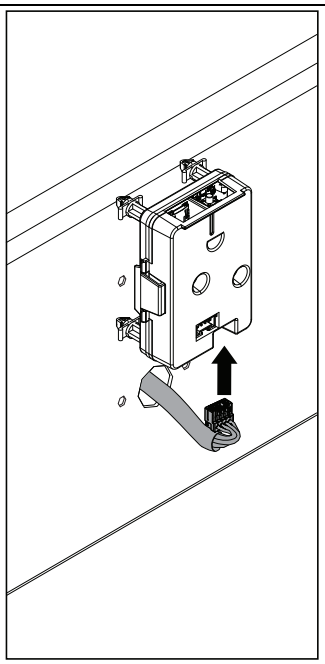


fig.X03426A

Snap on the Machine wireless board with the circuit supports (1 & 3) on the machine.
Mount the cover (2) on the Machine wireless board. Press until you hear a “click”.

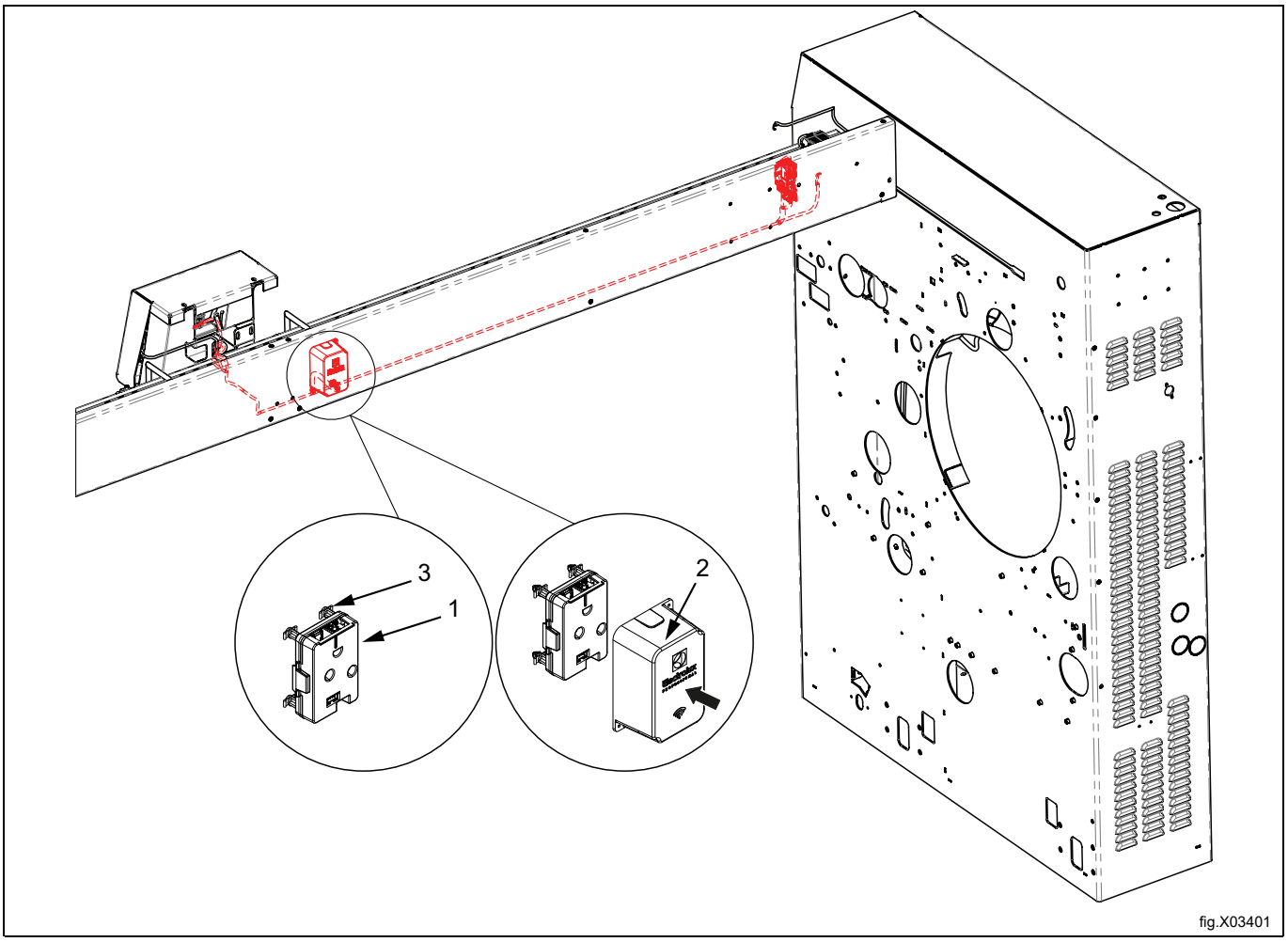


fig.X03401

Connect the power to the machine.

When the machine wireless board and the site wireless board have been installed, follow the attached INOM and the videos (scan on the QR code) to complete the provisioning.

6 Button & LEDs for Machine wireless board

A short press (< 1.5s) on the button is toggling the BLE on/off.

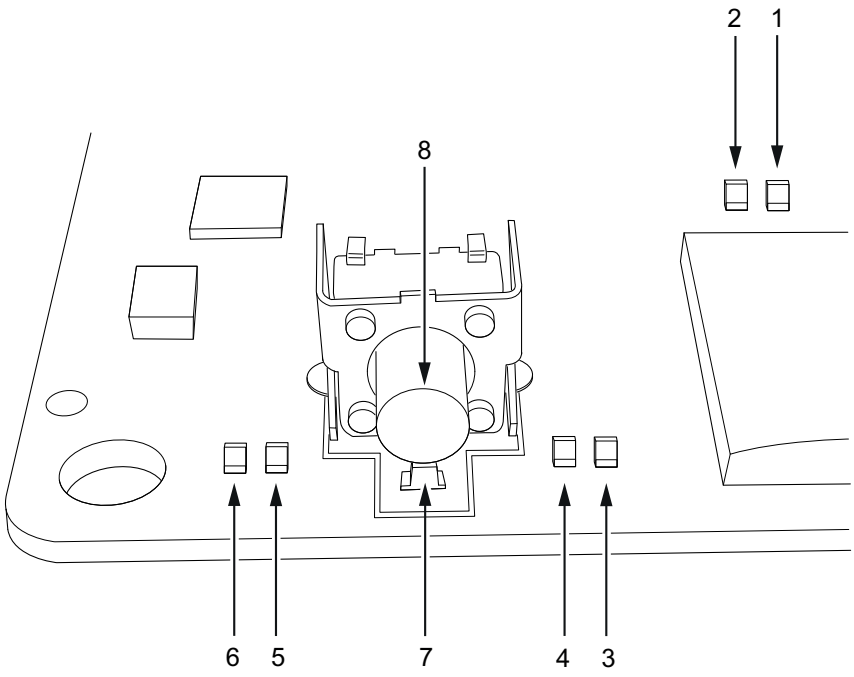


fig.X03252

1	DL1: Yellow color / communication
2	DL2: Red color / communication
3	DL3: Green color / OTA
4	DL4: Green color / Mesh WiFi
5	DL5: Green color / Cloud (Server)
6	DL6: Green color / BLE (Bluetooth Low Energy)
7	DL7: Green color / Power
8	Button

Description for LED

Note!

Period time is 1 second for all LED's which is blinking.

DL1 and DL2 indicates communication on RS232 to the appliance.

DL1 indicates transmission to the control system.

DL2 indicates reception from the control system.

DL3 / OTA: Over The Air firmware update (Remote update of the wireless boards).

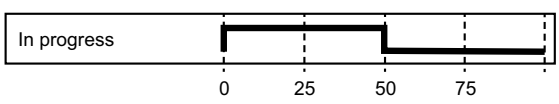


fig.X03251B

DL4 / Mesh WiFi:

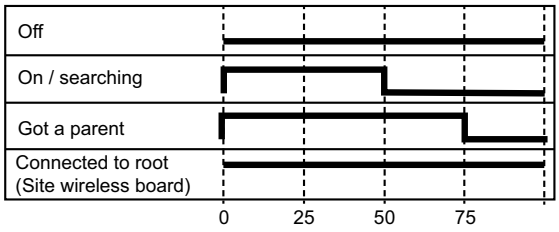


fig.X03251C

DL5 / Cloud (Server)

- Off: Not connected to Cloud
- On: Cloud connections work properly

DL6 / BLE:

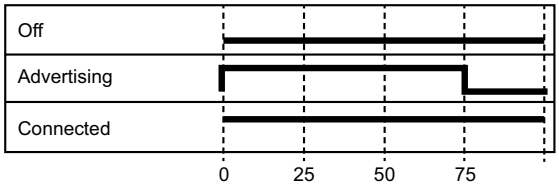


fig.X03251D

DL7 / Power

- Off: Board is not powered (or broken)
- On: Board is powered

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