User Manual

FX925RF-ING

NFC Android Validator

Hardware Versions:

FX925RF-ING-VPDC-GEN,0101
FX925RF-ING-VWDC-GEN,0101
FX925RF-ING-VPDC-GEN,1101
FX925RF-ING-VWDC-GEN,1101
FX925RF-ING-VPDC-PRE,0101
FX925RF-ING-VWDC-PRE,0101

Table of content

1 Copyright

2 Trademarks

FAMOCO SAS
59 avenue Victor Hugo, 75116 Paris – FRANCE
contact@famoco.com
www.famoco.com

3 Warnings and safety notices

Please read all the safety notices before using this device. Do not use the device near fuel or chemicals or in any prescribed area such as service stations and refineries. Do not transport or store flammable gas, liquid, or explosives in the same compartment of your vehicle as your device and accessories.

4 Limitation of liability

Famoco shall not be liable for any loss of profits or indirect, special, incidental, or consequential damages resulting from or arising out of or in connection with using this product, whether or not Famoco had been advised, knew, or should have known the possibility of such damages.

5 About this manual

Congratulations on becoming the owner of a Famoco FX925R validator. This user manual is specially designed to detail the device’s main functions and features.

Please read this manual before using the device to ensure safe and correct use.

- Descriptions are based on the device's default settings.
- Images and screenshots may differ in appearance from the actual product.
- Content may differ from the final product, or from software provided by service providers or carriers, and is subject to change without prior notice.
- Available features and additional services may vary by device, software, or service provider.
- Applications and their functions may vary by country, region, or hardware specifications. Famoco is not liable for performance issues caused by applications from any provider other than Famoco.
- Famoco is not liable for performance issues or incompatibilities caused by edited registry settings or modified operating system software. Attempting to customize the operating system may cause the device or applications to work improperly.

6 Device layout

7 Package Content and accessories

Note:

- The items supplied with the device and any available accessories may vary depending on the region or service provider.
- The supplied items are designed only for this device and may not be compatible with other devices.
- Appearances and specifications are subject to change without prior notice.
- Third-party accessories may not be compatible with this device and may damage it, please contact your sales representative before using any accessories not validated by Famoco

7.1 Product Delivery

Famoco FX925RF-ING is provided to you not fully assembled, you will need to access the internal parts of your device for a proper installation. Thus, whether for the Pole or the Wall configuration of the product, it is provided in two parts - a front and back casings - that will need to be assembled at the final product destination. Refer to section 8 of this manual for installation guidance.

7.2 Power Supply

Product is not provided with a power supply, refer to this guide on for the current input required by this product. Not respecting the specified values may damage the product. Contact your sales representative if you need help qualifying a power supply for this product.

8 Getting started

8.1 Product Content

All Famoco FX925R validators are made of two parts:

- A Back Casing (Wall or Pole) consisting of a system of attachment, a power control card and USB ports.
- A Front Casing which contains the Human Machine interface (screen, barcode scanner, NFC module)

8.2 How to install FX925R validators

8.2.1 Electrical installation

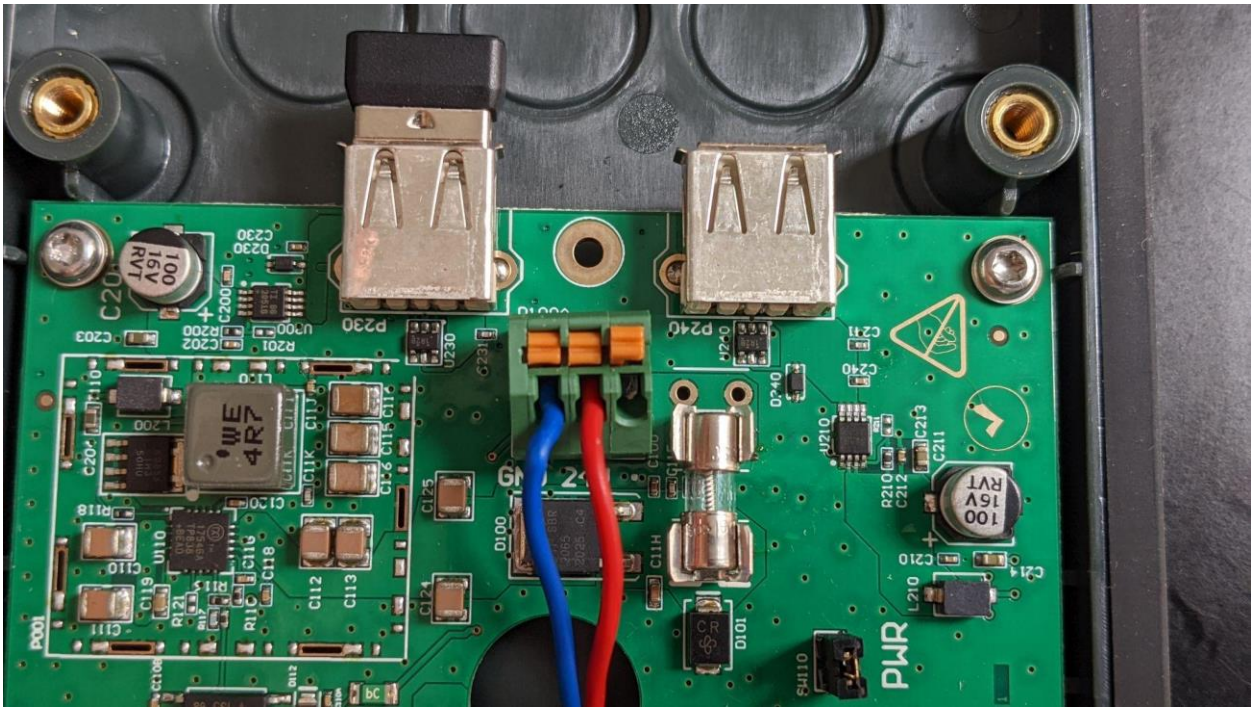
Warning: Make sure that the power supply is switched off during the entire installation, setting up, disassembly or any other maintenance operation on the device may damage the device and cause harm to anyone operating on it.

8.2.1.1 Power supply

All FX925R validators must be powered with voltages of 12 or 24 VDC, protected against undervoltage and overvoltage. In no case shall the voltage supplied be less than 9 VDC or more than 36 VDC.

The power supply wiring consists of 2 rigid-wire conductors. The cross-section and length will depend on the location of the Validator in relation to the energy source distance.

A full 25W power is the theoretical maximum peak power consumption of FX925R validators in its most complete configuration. The real consumption (average/maximum) may be lower depending on the Validator's configuration, but in any case, it will never exceed 25Wh.



The recommended cross-section for a copper wire cable depending on its length (understood as the round trip of the conductor between the Validator and the power source).

Input voltage of 12V DC:

12V DC	Copper section mm2 (25 W/h, I=2,08)			
Cable length (m) (both ways)	minimum (PT 5%)	maximum (PT 2.5%)	Rigid wire's cross-section	AWG equivalence
1	0.06	0.12	0.5 mm2	AWG 20
2	0.12	0.24	0.5 mm2	AWG 20
5	0.30	0.59	0.5 mm2	AWG 20
10	0.59	1.18	1 mm2	AWG 17
15	0.89	1.77	1.5 mm2	AWG 16
20	1.18	2.36	2 mm2	The validator terminal block accepts up to 1.5mm2 of cross-section cable. A section of 1.5mm2 (AWG 15) can be used, under the installer's responsibility and after confirming the maximum power of the configuration to be deployed.
25	1.48	2.95	3 mm2	
30	1.77	3.54	3.5 mm2	

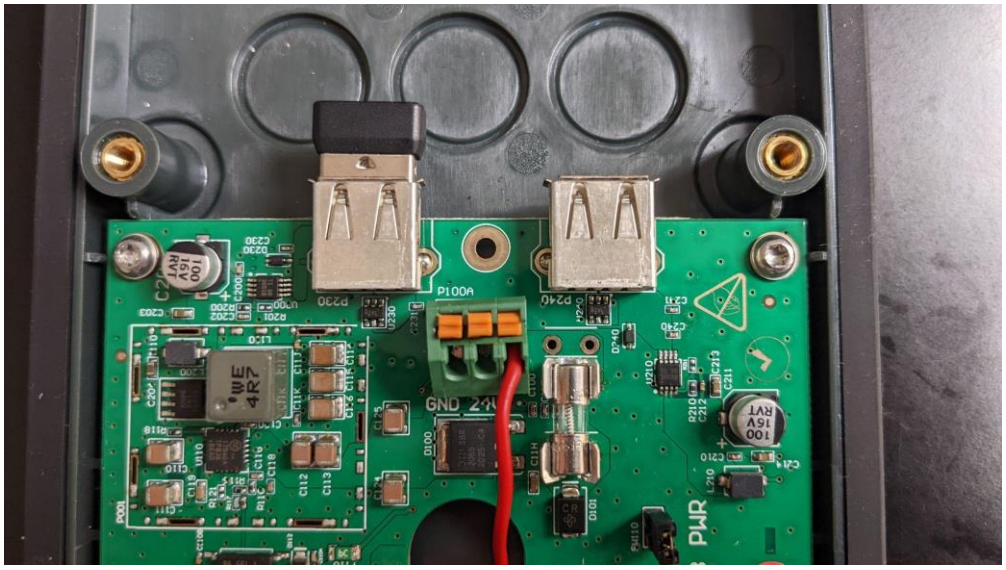
Input voltage of 24V DC:

24V DC	Copper section mm2 (25 W/h, I=1,042,08)			
Cable length (m) (both ways)	minimum (PT 5%)	maximum (PT 2.5%)	Rigid wire's cross-section	AWG equivalence
1	0.01	0.03	0.5 mm2	AWG 20
2	0.03	0.06	0.5 mm2	AWG 20
5	0.07	0.15	0.5 mm2	AWG 20
10	0.15	0.30	0.5 mm2	AWG 20
15	0.22	0.44	0.5 mm2	AWG 20
20	0.30	0.59	0.75 mm2	AWG 18
25	0.37	0.74	0.75 mm2	AWG 18
30	0.44	0.89	1 mm2	AWG 18

8.2.1.2 Ignition Input

The third pin of the power supply connector is made to accept an ignition input signal, which must be 12 or 24VDC. If your final installation uses this feature and is capable of providing an ignition signal please use this connector.

This connection is not needed for the product to operate nominally, if you do not need or use this feature, please let this connector free.



8.2.2 How to install a Back Casing - Wall Configuration

8.2.2.1 Tools of the installer

8.2.2.1.1 Tools list

The installer should be equipped with the following tools:

Designation	Quantity
Drill	1
Electric screwdriver (optional)	1
Torx screwdriver TT20, shaft length 80 mm	1 per installer

8.2.2.1.2 List of supplies

Designation	Comment	Quantity
Drill between 5 and 8 mm, depending on type of anchorage desired	Drilling for fixing screws	1

Electric cable	Power cables, section and length depending on the voltage and the location of the power plug (*)	2

(*) refer to chapter "Electrical recommendations"

8.2.2.2 Prerequisite installation

8.2.2.2.1 Installation surface

To ensure proper installation and sealing at the rear of the unit, the installation surface must be straight and level. A seal is still provided to compensate for roughness and surface defects.

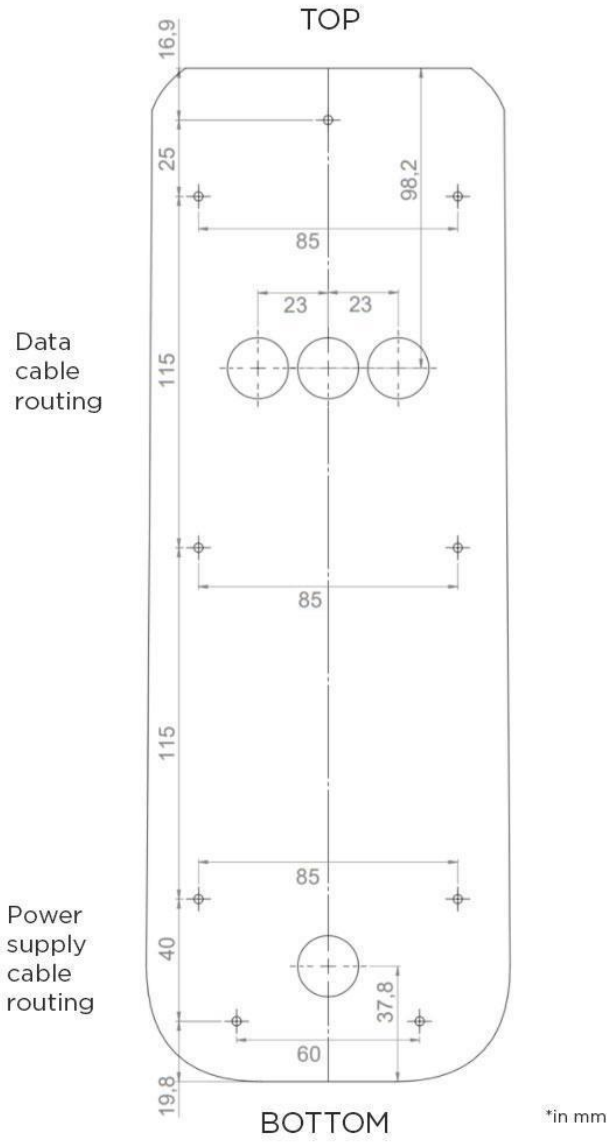
8.2.2.2.2 Electrical recommendations

Please refer to section 8.2.1 Electrical recommendations.

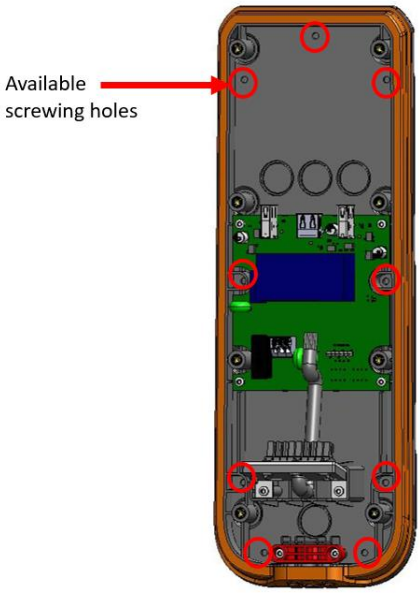
8.2.2.2.3 Drilling & fixing jig

Place the appliance at the desired floor height, taking care to check the specific height instructions according to the different use cases.

Drilling template is as follows:

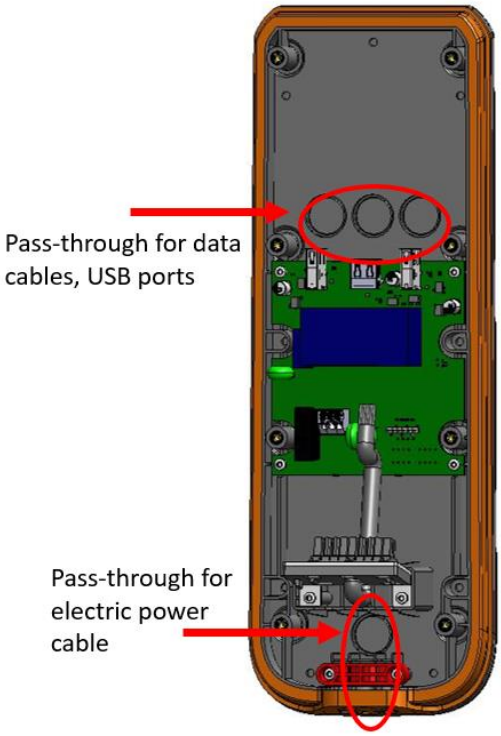


1. To ensure the tightness of the device, the breakable openings are available both for fixing and for the passage of cables. Identify and break only those that will be required for fixation among those available.

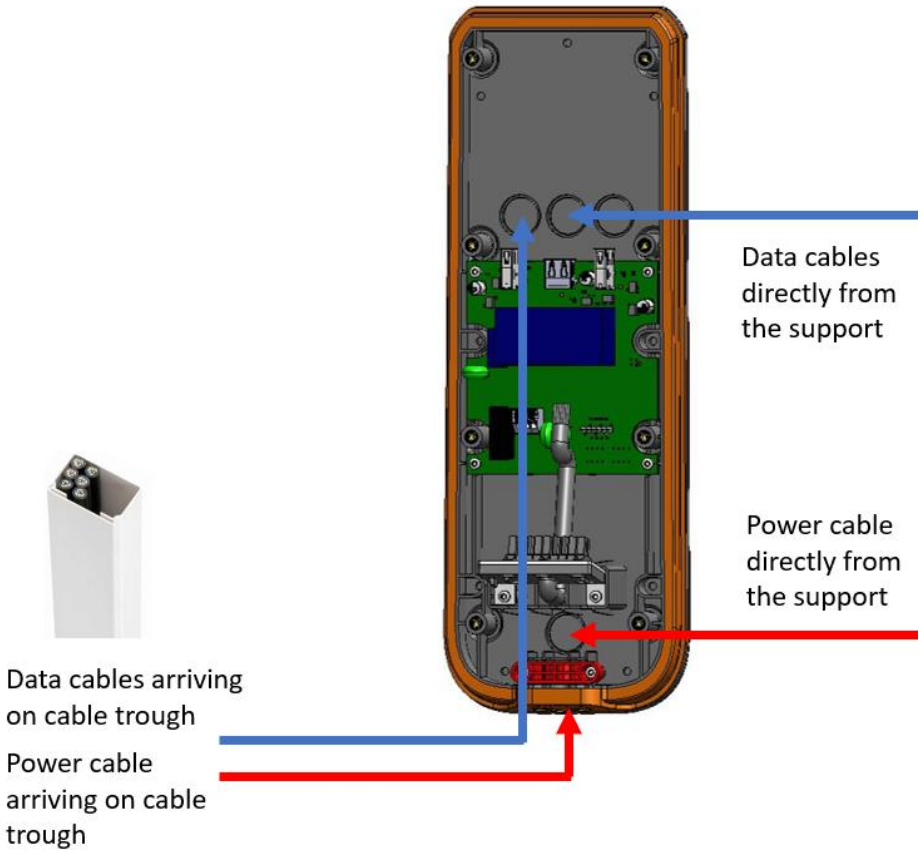


2. Use the drilling template, or directly mark the surface, to identify the position of the different holes to make to fix the support. Use a drill and dowels adapted to the type of materials (full, hollow ...).
3. Breakable openings are available for the passage of cables. Identify and break only those that will be required to connect the device among those available.

NOTE: Only drill and make openings according to these instructions and following the drilling templates.provided by Famoco. Creating openings in the product at other location may result in a nonfunctional product as the cable routing may conflict with other peripherals as well as void the IP protection of the device.



Cables can be routed directly from the rear of the unit, in the case of a hollow wall, or through the bottom of the cable gland. In both cases, the breakable or pierceable openings are available.



8.2.2.3 Assembly & electric installation

8.2.2.3.1 Mounting preparation

In detail, the back of the validator in wall mounting consists of:

- A back casing
- Two seals
- A central room, housing the power supply electronics

The validator support installation uses the following elements:

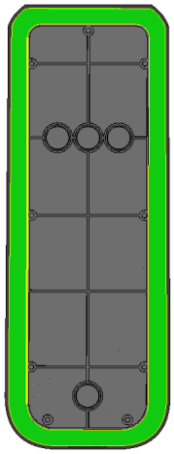
- 2-star screws for fixing the lower caliper (the red part at the bottom of the device on the previous picture)
- 8 Torx screws T20, for assembly of the centerpiece on the back casing

The back can be delivered partially assembled, at the request of the customer, or in separate pieces. Follow the steps described below depending on the initial state of assembly.

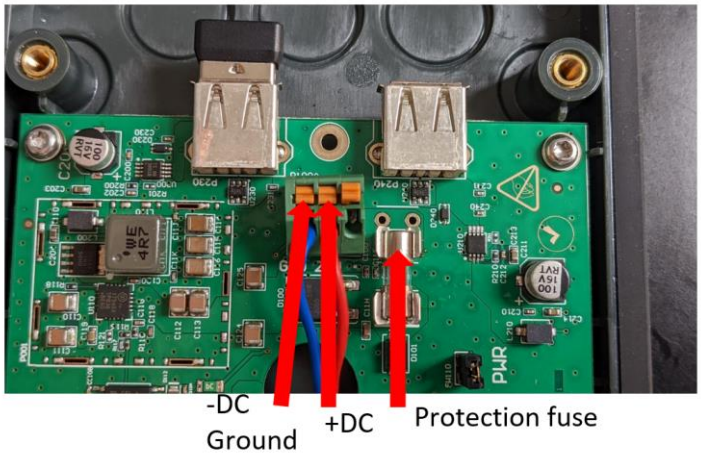
8.2.2.3.2 Preparation of the back casing

1. Once the fixing holes and cable ducts have been identified and opened on the rear face, proceed to pass the cables and fix the back casing against the surface. The back casing

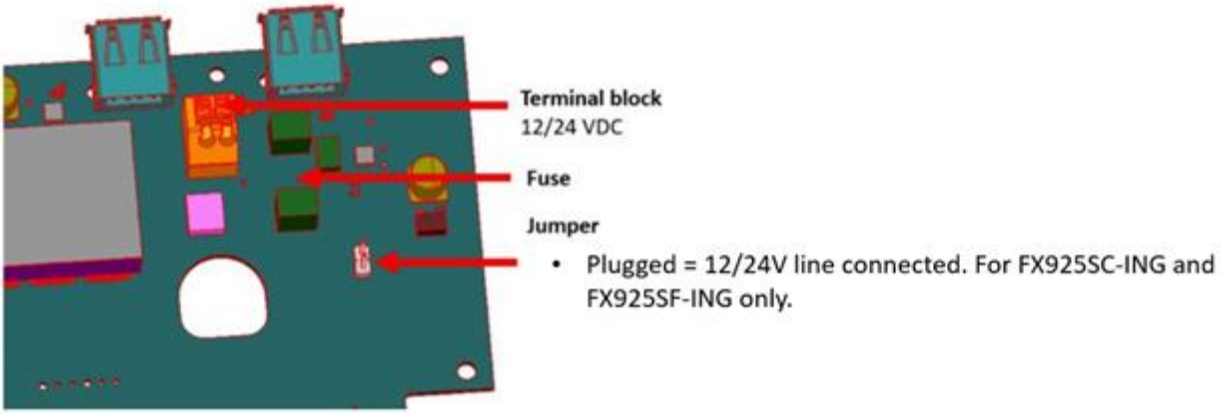
is supplied with a seal which makes it possible to seal in the event of irregularities on the surface, make sure to place it during the installation.



2. The rear phase has two USB-A female connectors, to connect external devices (dongles or USB cables). If necessary, install the elements on the USB sockets and connect the data cables, if necessary.
   These devices will be powered and connected to the central Android system once the front casing is placed and the entire validator closed. Please note that the available USB interface is type 2.0, and the current delivered by each port is limited to 500mA.
3. ***Before making the electrical connection, make sure that the power supply is switched off during the entire intervention.***
   a. Strip the power supply wires. Crimp (if needed) the wires.
   b. On the terminal block, connect the VDC wires, respecting the marking on the electronic board (“+” or “24V” marking for the positive wire and “-” or “GND” marking for the ground wire). The terminal block secures the wire by a simple press: push the orange buttons to insert the end of the wire. Nominal working voltage is 12 VDC or 24 VDC.



c. The jumper available allows activating the 12/24 VDC power line in the front casing, for both FX925RC-ING and FX925RF-ING, the jumper must be plugged.



d. In the case of cables passing through protruding grommets, use the lower bracket to tighten and secure the cables against possible tearing.

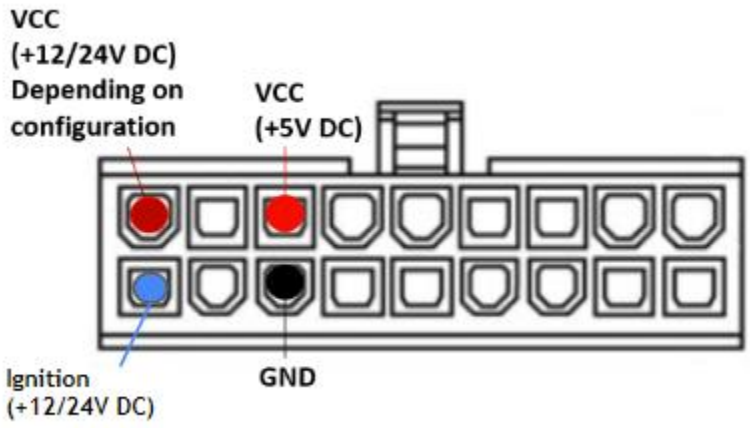
4. Before closing the unit, make sure that the seal on the contour of the back casing is correctly fitted. In any way the two ferrite beads installed on cables in the Back Casing must be removed. Please ensure there are installed before to close the Back Casing Wall

5. For the installation of the intermediate part and the closing of the rear face, use the 8 screws supplied and the Torx screwdriver TT20, with rod length of 80 mm minimum to go to the bottom of the barrel, in order to screw and close the wall mount.
6. The result is as follows. The whole assembly remains secure and access to the electronic card remains hidden, thus avoiding any manipulation by maintenance personnel that could result in an accident by electrocution.

8.2.2.4 End of installation test

Once the Back Casing is installed, you can test the electrical connection and the correct power supply of the unit by checking, with a multimeter, the following test points

- VCC +5V DC must be lowered and stabilized in 5V DC
- VCC +12V/24V: must be 12V or 24V for both FX925RC-ING and FX92RF-ING, depending on the voltage available locally



8.2.3 How to install a Back Casing Pole

8.2.3.1 Product Content

FX925R validator is composed of the following pieces:

- A back casing, consisting of a system to attach to the pole and a DC power board.
- A front casing, which contains all the electronics and intelligence of the device.

8.2.3.2 Tools of the installer

8.2.3.2.1 Tools list

The installer should be equipped with the following tools:

Designation	Quantity
Drill	1
Electric screwdriver (optional)	1
Pipe wrench 8 mm	1
Torx screwdriver TT20 head, shank length 80 mm	1

8.2.3.2.2 List of supplies

Designation	Commentaries	Quantity
5.5 mm drill bit	Drilling for the anti-rotation screw	1
Drill bit between 12 and 16 mm	Central hole drilling	1
Tapered reamer, diameter of 20	Central hole drilling	1, optional
Electrical cables	2 rigid-conductor power cables, cross-section and length depending on the vehicle layout (*). Cross-section must be under 1.5 mm	
Cable pass	Rubber grommet, outer diameter according to the drilled hole (*)	1 per unit
(optional) Cable crimps	Only needed if the installed cable is a flexible one, according to the chosen cable cross-section (*). The section of the crimp must be under 1.5 mm	2 per unit

(*) refer to the chapter “Electrical recommendations.”

8.2.3.3 Prerequisite installation

8.2.3.3.1 Pole topology

The pole on which FX925R validator is installed must be straight and vertical, with a cross-section diameter between 30 and 40 mm.

The device is designed to be installed in a vertical position, right-side-up.

8.2.3.3.2 Electrical recommendations

Please refer to section 8.2.1 Electrical recommendations.

Warning: The wire cross-section and total cable diameter will determine the type of cable pass to be used and the actual drilling diameter on the bar.

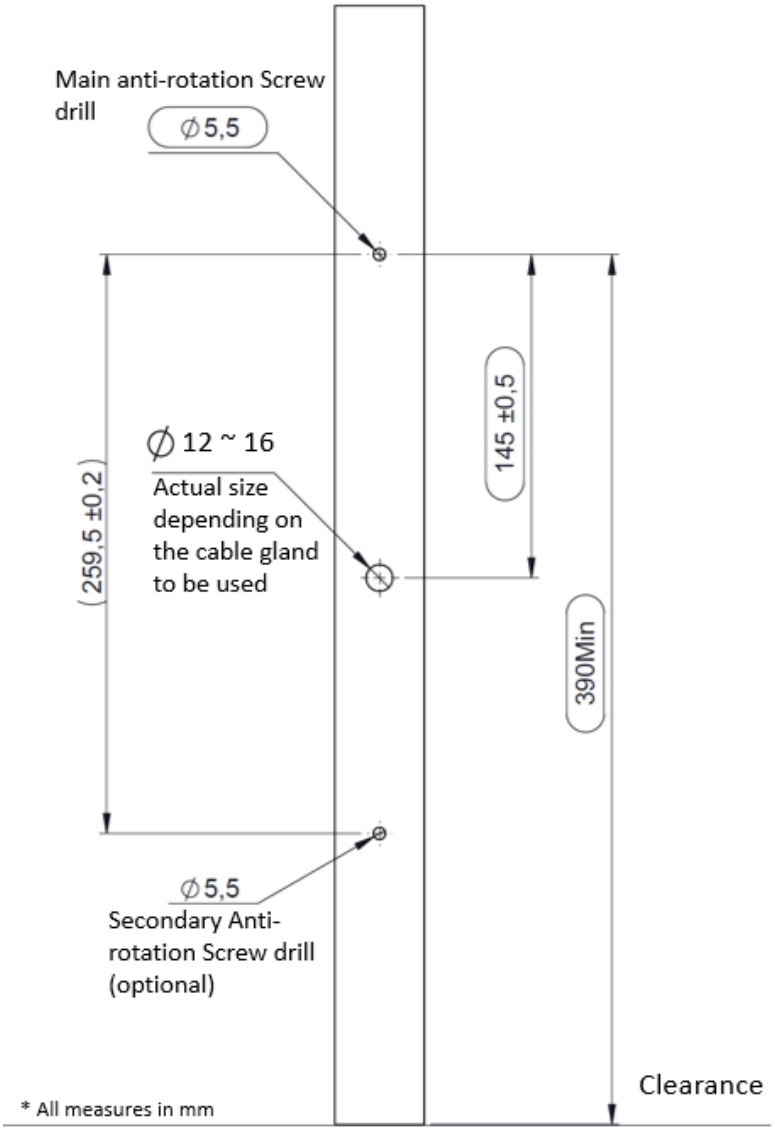
8.2.3.3.3 Removal of the existing system

If the pole is already equipped with existing equipment, first remove it. If both devices are to be used at the same time, make sure that a lower clearance of at least 8 cm is respected, as detailed on the drilling template.

8.2.3.3.4 Standard drilling template

Place the unit at the desired height from the floor. Take care to check the specific height instructions for each use case.

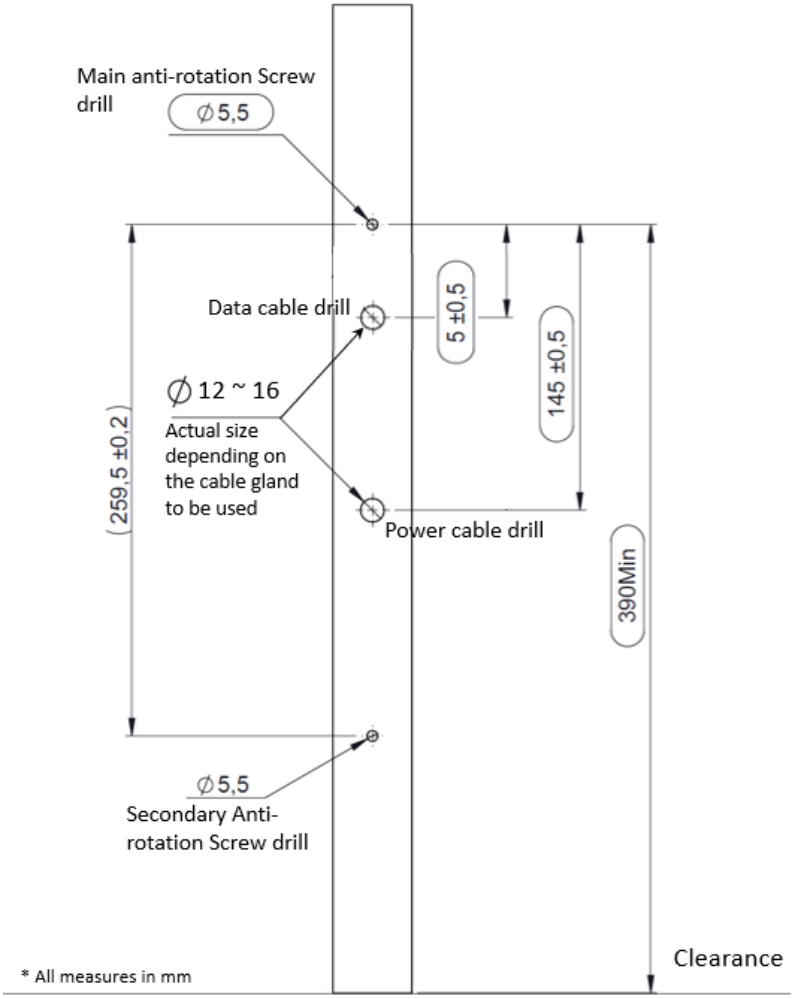
The standard drilling template is as follows:



1. Use the drilling template to identify the position and the different holes to be drilled on the pole to fix the support.
2. Use a 5.5mm (+/- 0,1mm) drill bit to make the holes at the extremities. Only one is mandatory. This hole will be used for the anti-rotation screw.
3. Use a drill and, if necessary, a tapered reamer to make the central hole. This hole will be used for the power cable. The minimum recommended diameter for easy cable routing is 12mm; maximum recommended to avoid the pole weakening is 16mm.
4. In this central hole, pass the power cable through and then protect it with a rubber gland, adapted to the drilled diameter.

8.2.3.3.5 Drilling template for data cabling

In case of data cables (USB) should arrive at the rear casing, and extra drilling holes on the pole could be considered.



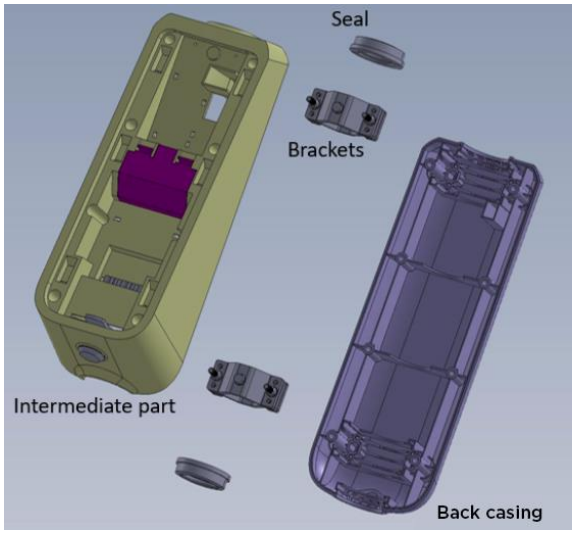
8.2.3.4 Mechanical assembly & electrical installation

Warning: For safety reasons, make sure that the power supply is turned off throughout the operation.

8.2.3.4.1 Preparation for assembly

The back casing of the Validator consists of:

- A back casing part
- An intermediate part, housing the power supply board
- Two sets of fixing brackets
- Three seals, each one composed of two halves



The installation of the validator uses the following elements:

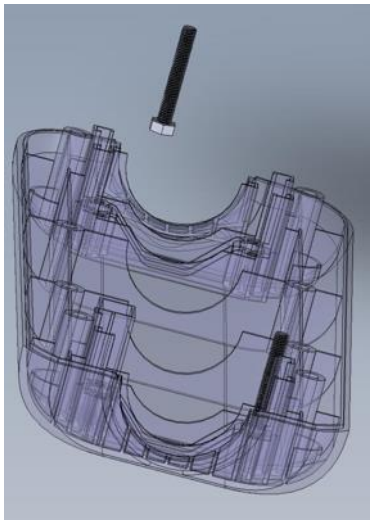
- 4 metal brackets, all identical
- 2 anti-rotation screws with washers
- screws for fixing the fixing brackets to the back casing
- 16 plastic spacers (8 spacers per pair of fixing brackets)
- 4 nuts, washers and hexagonal-head screws - 2 per pair of brackets
- 8 TT20 Torx screws, for fixing the intermediate part on the back casing part

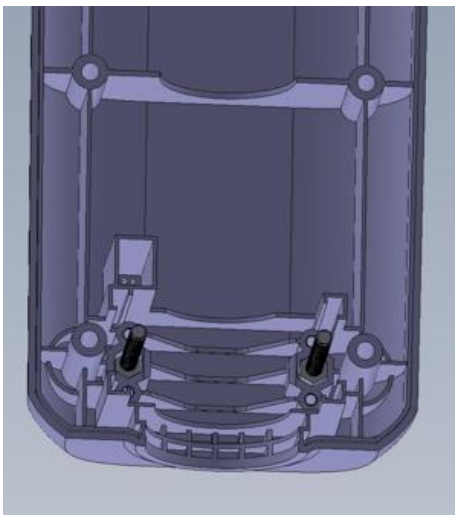
The mounting system, composed of metal brackets and plastic spacers, can adapt to all pole sizes from 30mm to 40mm in diameter.

Follow the steps described below depending on the initial state of the assembly.

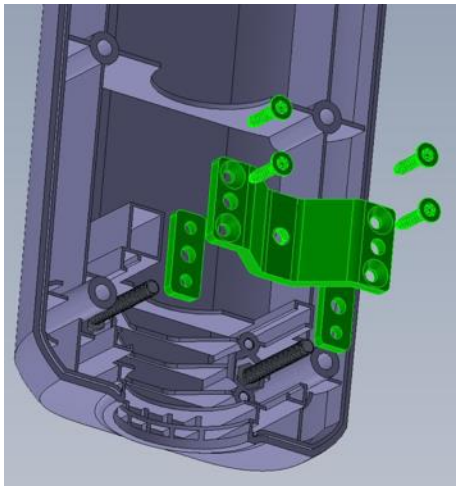
8.2.3.4.2 Preparation of the back casing

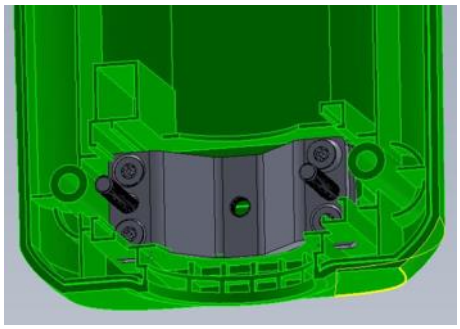
1. The hexagonal-head screws are placed in the housing provided on the back casing part.



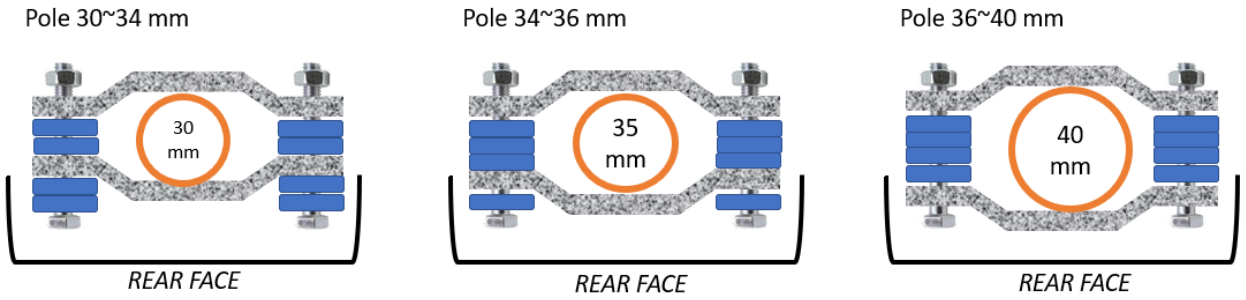


2. For a perfect centering on the pole, place the recommended number of spacers for the diameter of the pole, then fix the lower bracket with the 4 flat-headed screws, as shown:

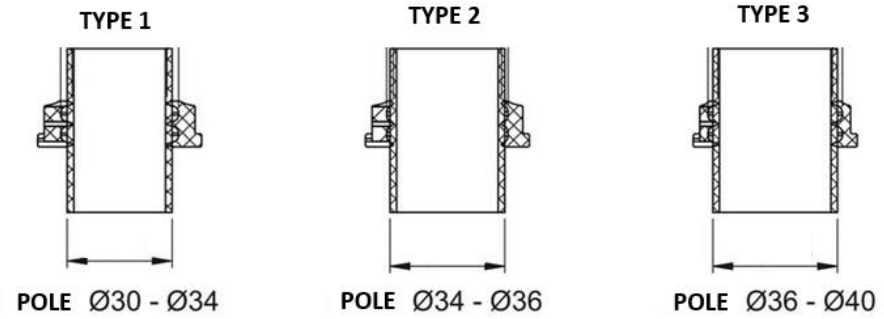




In this example, only one spacer is placed behind the bracket. This configuration is suitable for 35 mm diameter bars. It is recommended to use the spacers configuration behind/between the brackets as follows:



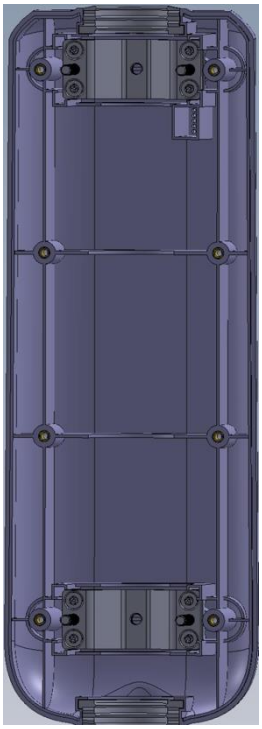
3. Apply the same process and configuration to both upper and lower brackets and place half of the upper and lower sealing rings.
   Several types of seals can be used to adapt to the different pole diameters. Choose the one that best suits you:



- Seal Type 1 can be identified by a “30 - 34” engraving
- Seal Type 2 can be identified by a “34 - 36” engraving / no text (depending on the production batch)

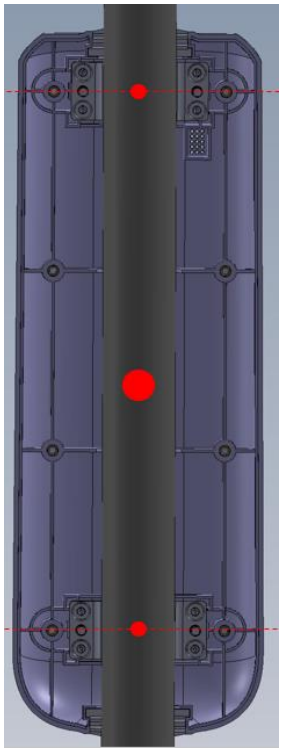
- Seal Type 3 can be identified by a “36 - 40” engraving

4. The fully assembled back casing will hold the rear seal halves and the rear brackets, as follows:

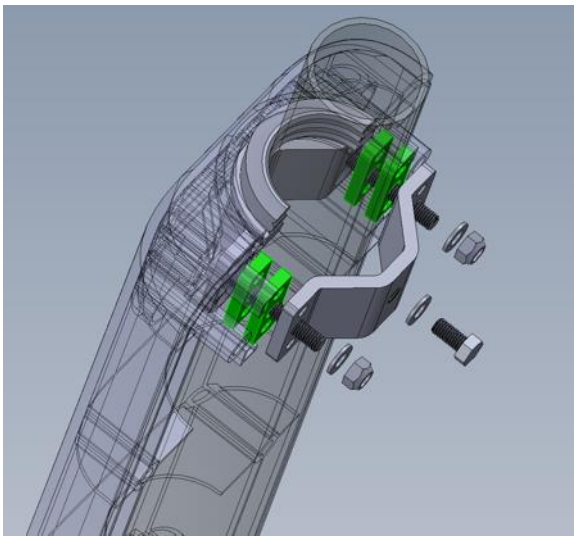


8.2.3.4.3 Mounting the back casing

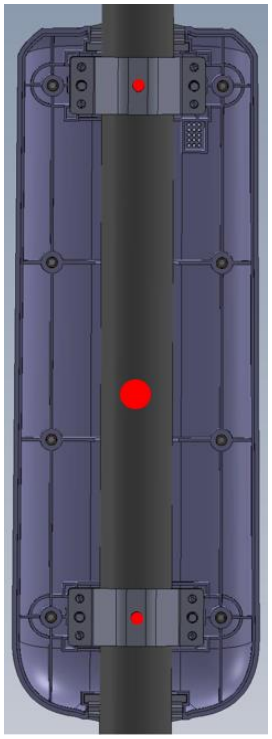
1. Place the back casing on the pole, align the holes with the mounting brackets.



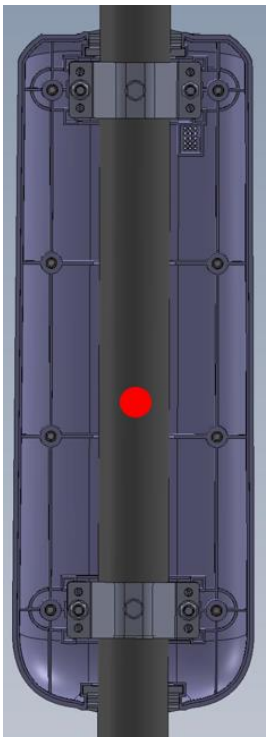
2. Stack the recommended number of spacers on the fixing screws, depending on the diameter of the pole, so that they serve as a stop against excessive tightening of the fixing bracket. Place the nuts/screws with the washers provided.



3. Place the upper brackets so that they align the hole(s) in the bar with the anti-rotation screw(s).

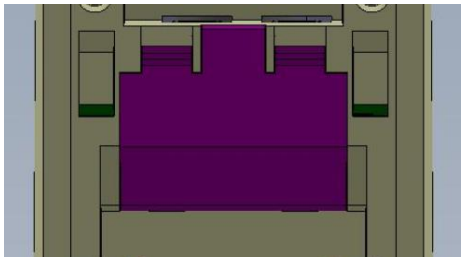


4. Tighten the self-locking nuts and the anti-rotation screw(s) using the pipe wrench. The result is:

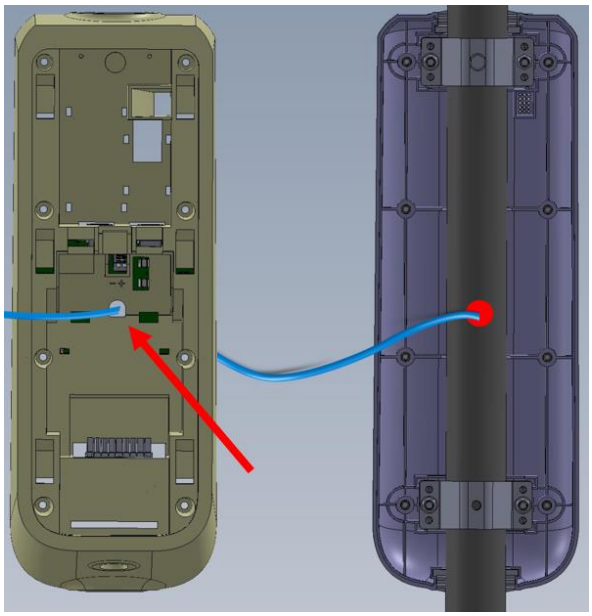


8.2.3.4.4 Intermediate part fixing

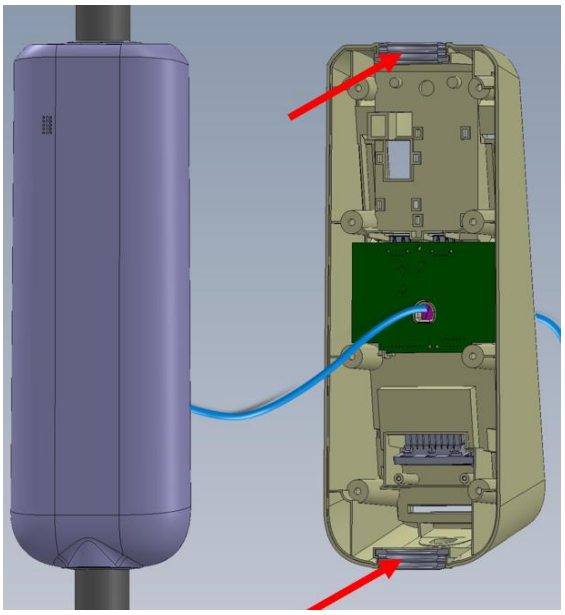
1. Remove the lid that protects the access to the accessible electric items: the terminal block, the fuse and a jumper.



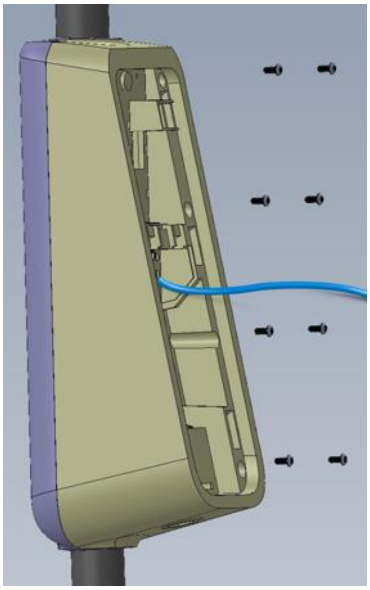
2. Pass the power cable through the opening in the center.



3. Place the remaining halves of the seals on the top and bottom of the intermediate part.



4. Use the 8 screws provided with the TT20 Torx-type screwdriver, with a minimum shank length of 80mm to go to the bottom of the clearance hole, to screw and fix the intermediate part on the rear casing.

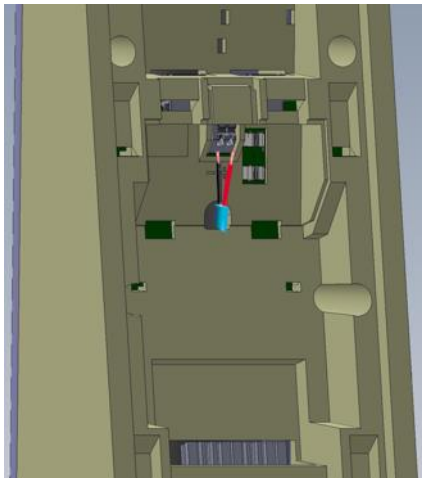


5. Once both parts are fixed, let the power cable hang slightly while waiting for the wire connection.

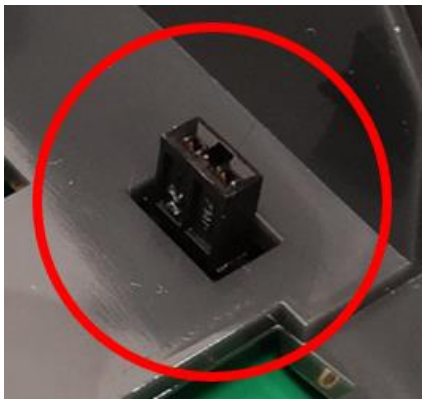
8.2.3.4.5 Electrical connection

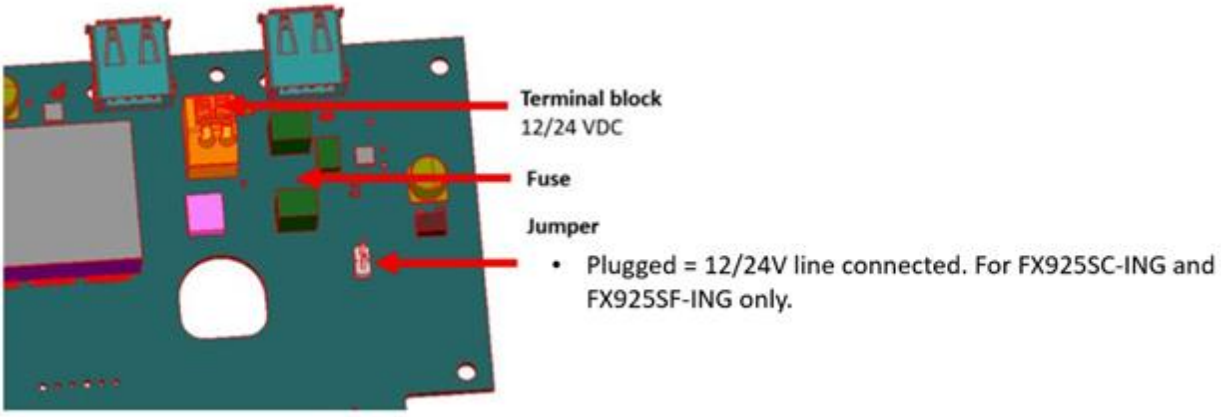
For safety reasons, make sure that the power supply is turned off throughout the operation.

1. Strip the two power wires. Crimp the end of the wires (only if necessary).
2. On the terminal block, connect the "+" and "-" wires, **respecting the polarity** marked on the plastic. The terminal block secures the wire via pressure. Press the orange button to insert the end of the wire.

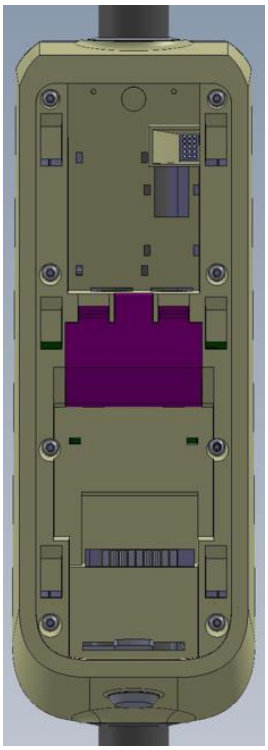


3. Ensure the jumper is on the right configuration: for both FX925RC-ING and FX925RF-ING, the jumper must be plugged.





Finally, replace the lid, as shown in the image below, to hide the wiring and protect the access to the terminal block and fuse.



8.2.3.4.6 Ignition Input

The third pin of the power supply connector is made to accept an ignition input signal, which must be 12 or 24VDC. If your final installation uses this feature and is capable of providing an ignition signal, please use this connector by following the same instruction set in the previous section for the power cables.

This connection is not needed for the product to operate nominally, if you do not need or use this feature, please let this connector free.

8.2.3.5 External Peripherals & data cabling

8.2.3.5.1 External peripherals

The back casing provides 2 female USB type A connectors for external peripherals and dongles. These peripherals will operate together with the front casing, once the FX925R validator is assembled.

Please note the USB standard is USB 2.0. Therefore, the maximum power supply available per connector is 500 mA.

8.2.3.6 End of installation test

Please refer to section 8.2.2.4 End of installation test.

8.2.4 How to install the front casing

The installation of the front casing for wall and pole is the same, and it is done by fitting and then sliding it down.

Close

Open

Finally, the lock placed at the bottom of the casing makes it possible to secure the unit.

8.2.5 Troubleshooting & Maintenance

8.2.5.1 Troubleshooting

Refer to the table below to identify and resolve the problem.

Problem	Solution
No voltage + 5V DC detected in the central connector	1. Check that the DC power input is at the terminal block 2. Check that the cable ends are inserted into the terminal block. 3. Check the condition of the fuse under the terminal block casing
The recommendation on the number of spacers on the brackets does not match the actual topology of the bar	Some tolerances have been identified, in some rare cases. The installer can change the number of spacers as long as it: - Respects the centering of the device on the pole. - Avoids over-tightening the brackets to avoid a deformation of the supports and a possible twisting of the plastic parts.
The fuse seems to be blown	If a continuity test confirms the observation, the fuse can be removed with pliers or an equivalent tool. The fuse is 5x15 mm in size, with 3A protection for a standard 12/24 V DC power supply.
No 12/24 voltage on the central connector (Molex)	Check if the jumper is well plugged on the power boardfor both FX925RC-ING and FX925RF-ING

If the problem persists, contact the Famoco support team: support@famoco.com

8.3 How to clean plastic surfaces

Here are a few extra tips to help keep you healthy and connected using your Famoco devices:

- Famoco devices without a protective case or screen protector: Spray an alcohol-based (70% isopropyl) directly on a soft lint-free cloth and wipe down your Famoco device while

it is powered down and unplugged. Avoid getting moisture in the charging port, and do not use spray cleaners on the device.

- For surface stains, use a sponge and soapy water to clean the area, then rinse it with clean water with a microfiber cloth.
- To remove grease or plastic stains, gently rub the stains with isopropyl alcohol and a microfiber cloth. Do not use abrasive cleaners.

8.4 How to store FX925RF-ING

Store the terminal in its original packaging, at a temperature between -10°C and 55°C, and a humidity level between 5% and 95% without condensation.

8.5 How to switch the device ON or OFF

The product starts automatically as soon as it is powered on.

8.6 Home screen and synchronization

Once your device is switched on it will start synchronizing.

If there are no applications installed on it yet, the device will be locked on a screen as shown below

Figure: No applications installed screen

Connection

To set up your device you need connectivity. The Internet connection can be done via cellular data (when you insert a SIM in the device), via Wi-Fi (when connecting the device via a wireless connection), or via USB using the ports in the device.

If there is a connection, one of the following screens will appear (depending on the synchronization status):

Just a moment screen

Obtaining device information screen

If the synchronization is in progress, please wait until it is complete.

If the synchronization is complete but no applications have been installed, or if the synchronization has been aborted, please contact your customer support.

8.7 How to read a smartcard

To read an NFC card, bring the card near the NFC pictogram (i.e. a hand holding a card) on the front casing, below the scan engine.

The device can read an NFC card at a distance under 3cm / 1.18in.

Supported cards*:

- Any ISO 14443 A/B/B' standard card
- Mifare classicTM, Mifare ULTM, Mifare PlusTM, Mifare DesFireTM
- ITSO, Calypso®, VDV KA
- CTS512B, CTM512B, ST SR Family
- Sony Felica®
- Java Card®

**software development needed to support each kind of card. For specific development support, get in touch with your sales representative.*

Passing a smartcard in front of the NFC antenna

8.8 How to read an EMVco card

To read an EMvco card, bring the card near the NFC pictogram (i.e. a hand holding a card) on the front casing, below the scan engine.

The device can read a contactless EMV card at a distance under 3cm / 1.18in.

Supported EMV kernels*:

- Visa payWave
- Mastercard Contactless
- American Express ExpressPay
- Discover DPAS
- Discover ZIP
- Interac Flash
- JCB JSpeedy
- UPI QuickPass
- ECPC CPACE
- eftpos

**additional kernels can be added upon request. Specific kernel development night be needed to support local card schemes. For specific development requests, please get in touch with your sales representative.*

Figure: Passing a EMVco media in front of the NFC antenna

8.9 How to read a 1D / 2D code

To read a barcode (either from a mobile phone screen or a paper), place the barcode in front of the scan engine of the FX925R validator.

Figure: Passing a 2D code in front of the reader

Supported codes*

1D: UPC, EAN, Code 128, Code 39, Code 93, Code 11, Matrix 2 of 5, Codabar Interleaved 2 of 5, Mis Plessey, GSI DataBar, China Postal, Korean Postal, etc.

2D: PDF417, MicroPDF417, Data Matrix, Maxicode, QR Code, MicroQR, Aztec Hanxin, etc.

**Please ensure that performances of FX925R validators are sufficient to read barcodes you choose to use under your use and installation conditions (barcode size, barcode media type, brightness of the environment ...)*

For specific development requests, please get in touch with your sales representative.

8.10 About the SIM/SAM slots

There are 3 slots in the back of the device. The first one is for the SIM card, the 2nd one for a for a second Sim Card and the 3rd is a MicroSD card. On some versions, a SAM slot may be present.

Figure: one (1) SAM slot on the Android host Famoco FX2055 series, accessible from the back of device front cover

Figure: four (4) additional SAM slots on the NFC Open/1500 reader, accessible by opening device front cover

9 Technical specifications

Processor	CPU	MTK6739WW, Quad-core, Cortex A53 (1.5GHz)
	GPU	PowerVR GE8100
OS		Famoco OS based on Android 8.1
Memory	RAM	2GB

	Mass Storage	16GB
	Expansion Slot	Micro SD up to 32GB
Display	Characteristics	5.0”, IPS FWVGA 960x480 pixels
	Touch Panel	5.0” touchscreen
Notification	LED	1 multi-color LED (red, green, blue)
Security		
	SAM slots	● 1 SAM slot on Famoco validator ● 4 SAM slot on the Ingenico Open/1500 NFC reader
NFC	Operating modes	Reader/writer
	Supported cards	● Any ISO 14443 A/B/B’ standard card ● Mifare classic™, Mifare UL™, Mifare Plus™, Mifare DesFire™ ● ITSO, Calypso®, VDV KA ● CTS512B, CTM512B, ST SR Family ● Sony Felica® ● Java Card®
Connectivity	SIM	Dual 3FF + 2FF
	2G	850/900/1800/1900 MHz
	3G	850/900/1900/2100 MHz
	4G	LTE Band: 2/4/5/7/12/13/17/38/41
	Wi-Fi	Dual band (2.4GHz and 5GHz) 802.11 a/b/g/n
	Other	4.2 BLE-ready
	GPS	Yes
Camera	Front camera	5MP FF IC
Barcode Reader	1D	UPC, EAN, Code 128, Code 39, Code 93, Code 11, Matrix 2 of 5, Codabar Interleaved 2 of 5, Mis Plessey, GSI DataBar, China Postal, Korean Postal, etc.
	2D	PDF417, MicroPDF417, Data Matrix, Maxicode, QR Code, MicroQR, Aztec Hanxin, etc.

	Performance	Read barcodes from paper, mobile phones, and tablets
Speaker, Microphone, Accelerometer		Yes
Dimensions	L x W x H	Front (AxH) 315 x 115mm/12.40 x 4.52in. Back (AxH) 340 x 115mm/13.38 x 4.52in. Depth 140mm/5.51in. (Wall-mounted) Depth 110mm/4.33in. (Pole-mounted)
Weight		3000g* **may vary depending on product versions*
Battery		Open/1500 reader internal battery
Power supply		12V or 24V DC Optional AC Adapter for mains connection for Europe
Use environment	**Operating Temperature**	-20°C to 55°C / -4°F to 131°F
	Storage Temperature	-20°C to 55°C / -4°F to 131°F
	Humidity (non-condensed)	Operating 10% to 90% Storage 5% to 95%
Additional LiPo Battery in NFC Reader	**Operating Temperature**	-0°C to 60°C / 32°F to 140°F
	Storage Temperature	-0°C to 30°C / 32°F to 86°F

10 Warranty information

The warranty does not apply to defects or errors in the product caused by:

1. Normal wear and tear, misuse, mishandling, and physical damage.
2. Exposure to water or any other liquids or solvents.
3. Any unauthorized disassembly, repair, or modification.
4. Power surges, lightning, fire, flood, or other natural events.
5. Use with unauthorized third-party products such as generic AC adapters.
6. Any other cause beyond the range of normal usage for products.

7. The customer shall have no right to reject, return, or receive a refund for any product user under the above-mentioned situations, not excluding your statutory rights under national law.

11 Safety and general information

The device contains delicate electronic circuitry, magnets, and in some cases battery systems. You should treat it with care and pay attention to the following points:

- Do not install FX925R products outdoors. All FX925R products are made for indoor installation.
- Handle the device with care. Do not drop or throw the device. Do not immerse it in any liquid.
- Leaving the device exposed to sunlight for long periods of time can degrade the performances of the device.
- Keep the device and all accessories away from children.
- In the unlikely event of battery leakage, avoid contact with eyes or skin. In the event of contact, rinse with water and consult a doctor.
- The operation of some medical electronic devices, such as hearing aids and pacemakers, may be affected by the device.
- Take care not to allow metal objects such as coins or keys to come into contact with the battery terminals.
- Do not dispose of batteries in a fire.
- Do not throw used batteries into household rubbish, return them to a recycling point.
- When the battery is thrown away, cover the terminals with insulating tape.
- Be careful not to pierce the battery with sharp objects and do not use damaged batteries.
- Do not disassemble or modify the battery.
- Stop using the battery if abnormal heat, smell, discoloration, deformation, or abnormal condition is detected during use, charge, or storage.
- Do not put the battery in your mouth.
- Only use original replacement batteries.
- Do not connect the device to non-genuine or 3rd party AC adapters.
- Do not attempt to dismantle the device or any of its accessories.
- Do not put the device into a microwave oven, dryer, or high-pressure container.
- Don’t use the device immediately after a sudden temperature change e.g., from an air-conditioned environment to high temperature and humidity outside. In such cases, there

could be condensing moisture inside the device, which can cause internal damage. Switch off and leave for 30 minutes before use.

- Do not use the device where blasting is in progress.
- Do not leave the battery discharged or disconnected for long periods; and your battery life will be reduced.
- Do not expose the device to oils or solvents.
- The information & images in this guide are valid at the time of publication of the guide. Changes to this information & images can be made without prior notice.
- For professional users in the European Union: If you wish to discard electrical and electronic equipment (EEE), please contact your dealer or supplier for further information.
- For disposal in countries outside of the European Union, this symbol is only valid in the European Union (EU). If you wish to discard this product, please contact your local authorities or dealer and ask for the correct method of disposal.

WARNING! Exposure to Radio Frequency Radiation: The radiated output power of this device is below the CE, FCC, IC, and NOM radio frequency exposure limits. However, to satisfy Radio Frequency exposure requirements, a separation distance of 25 cm (9.24) or more should be maintained between this device and persons during device operation. To ensure compliance, operations at closer than this distance is not recommended. The antenna used for this transmitter must not be co-located in conjunction with any other antenna or transmitter.


famoco