

1

SETUP

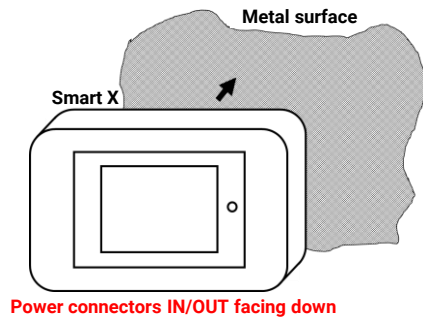
The **Smart X** is a new generation meter compatible with all electrical configurations (CAT III 300 V) that enables to **identify the consumption of each type of equipment in a building** by measuring a single point of the network.

Magnetic, you can fix it on any metal surface (fig. A) or on a DIN rail thanks to the adapters provided (fig. B).

For optimum accuracy, connect the Smart X to the the closest low voltage modular three-phase circuit breaker (fig. F). If no circuit breaker is accessible, you can alternatively power it directly from a power outlet.

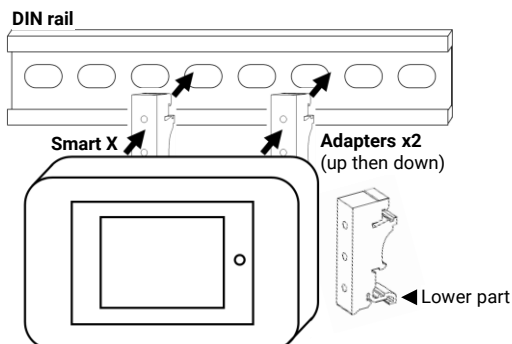
⚠ In this case, the voltages of the unmeasured phases will be estimated.

Fig. A



Power connectors IN/OUT facing down

Fig. B



Power connectors IN/OUT facing down

Top view (Measurement)

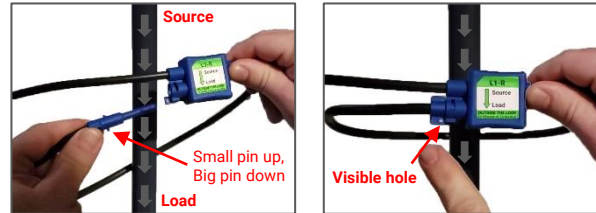
Bottom view (Power)



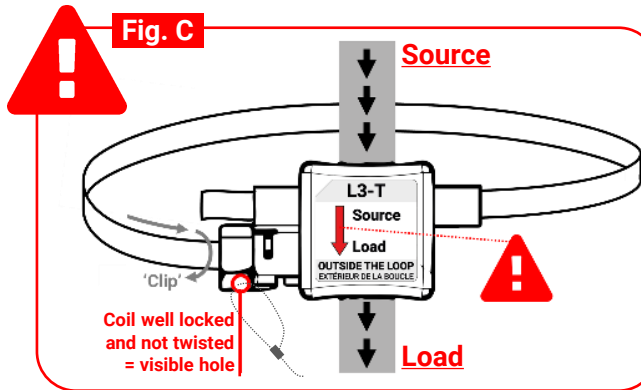
2

MEASUREMENT

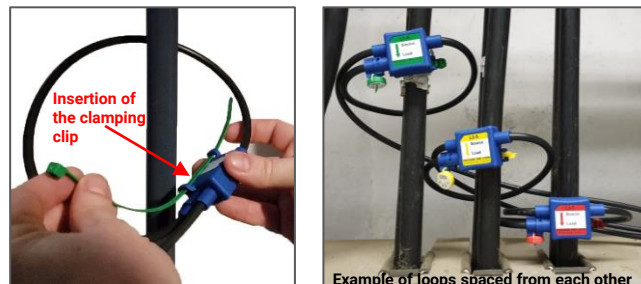
For each phase of the installation to be measured (eg: main incoomer, specific circuit), **encircle all the insulated conductors* thanks to the openable coils (fig. C-D), by imperatively respecting the direction of the sensors (colored arrow outside the loop, pointing from the source to the measured load) and the order of the phases.**



⚠ To ensure a valid measurement, the sensor loops must encircle only the conductor(s) to be measured and not be intertwined. Each coil must be correctly locked (visible hole) and not twisted (fig. C).



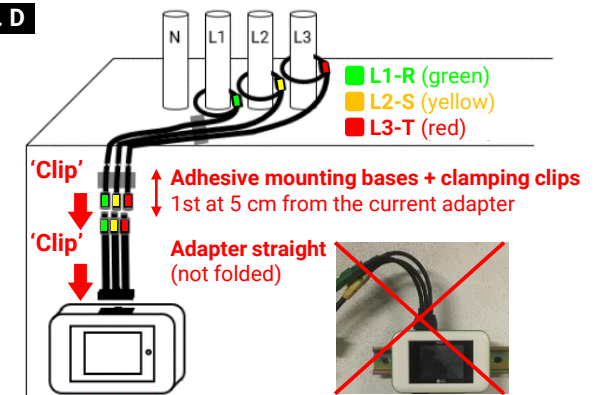
The loops must be spaced from each other, fixing them using the supplied clamping clips (green, yellow, red) to position on the "ears" of the sensor.



Then connect the **current adapter** to the Smart X then **connect each coil to the adapter** (respect color matching) while holding the plastic part of the connector until you hear the connection 'clip' (without forcing). **The adapter must remain straight** (not folded).

Install the adhesive bases provided along the cables in order to strengthen the installation and not put too much strain on the connections (fig. D, 1st at 5 cm max from the current adapter).

Fig. D



Once the measurement validated (see installation certificate), seal the sensors using the provided seals.



Notes:

- * Otherwise, it is possible to measure a part of these conductors (same number of conductors measured for each phase). Indicate it imperatively in the installation certificate.
- If the electrical panel supplies a capacitor bank or has downstream power generation units, it is necessary to measure each of these points independently. Contact Smart Impulse
- To disconnect a sensor from the current adapter, press the locking clip and pull while holding the coloured plastic part of the connector on the adapter side.
- To disconnect the current adapter from the Smart X (off mode), press the locking clip using insulated flat screwdriver.

Depending on your installation (network wiring fig.E):

> For optimum accuracy, first connect the **3-phase lead** to the Smart X then insert the magnetic connectors **on the screws downstream the closest low voltage modular circuit breaker, while respecting the positioning of the neutral and the order of the phases.**

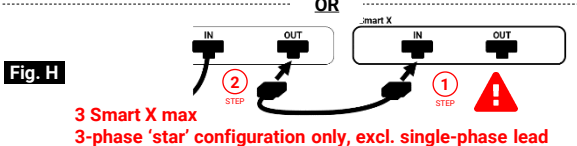
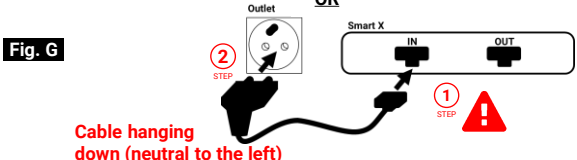
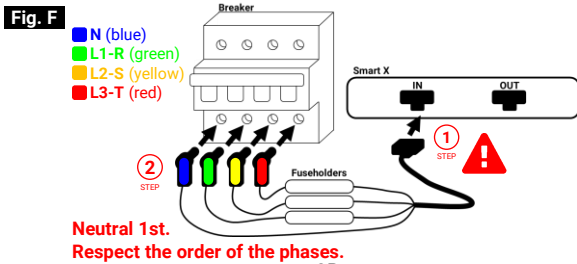
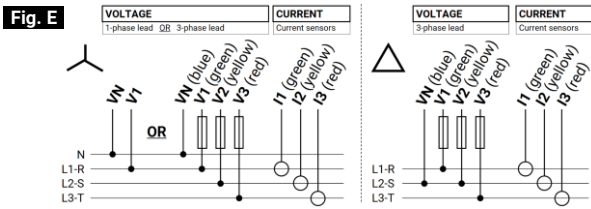
(fig. F, **max voltage 435 V_{RMS} neutral first**).

> OR, for a measurement without opening the electrical panel, first connect the **single-phase lead** to the Smart X then plug it into an outlet of the measured network (fig. G).

> If a Smart X is already installed on the same electrical network, you can connect to it via the **'bridge' lead** (fig. H, **3-phase 'star' configuration only, excluding power supply with a single-phase lead, 3 Smart X max**).

The screen of the Smart X lights up.

⚠ Connect first the lead to the 'IN' port of the Smart X, then to the network. 'OUT' port is strictly dedicated to sharing power supply between Smart X via the 'bridge' lead.

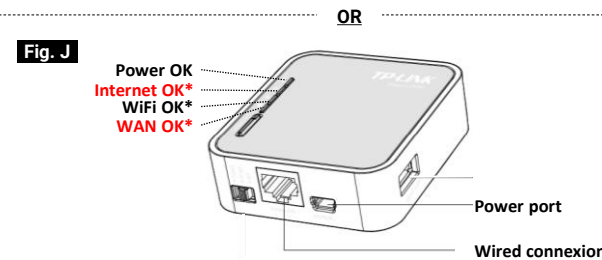
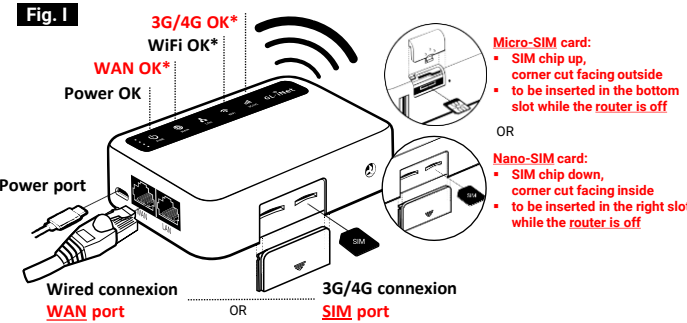


> For a wired communication, connect the Smart Router to the local network (**WAN port**). Before the installation, please provide an Ethernet cable and check with your IT department for outgoing connection authorisation to our server :

- ICMP protocol to 8.8.8.8 (ping), DNS
- TCP protocol to 178.33.106.9 port 443* (HTTPS - TLS 1.2)
- *Port 80 (HTTP) for Smart X delivered by Smart Impulse before September 2024.
- UDP protocol to time.google.com port 123 (NTP)

> For 3G/4G communication using your own subscription (otherwise, the SIM card is already installed), insert the SIM card in the slot provided. If 3G/4G coverage is insufficient (< -100 dBm), it is possible to move the 3G/4G receiver. Contact Smart Impulse.

Then, plug in the Smart Router close to the Smart X installed (fig. I or J according to the equipment provided. A power outlet is necessary). After 2 minutes, the Smart X in the same electrical room pair automatically to the Smart Router (Wi-Fi).



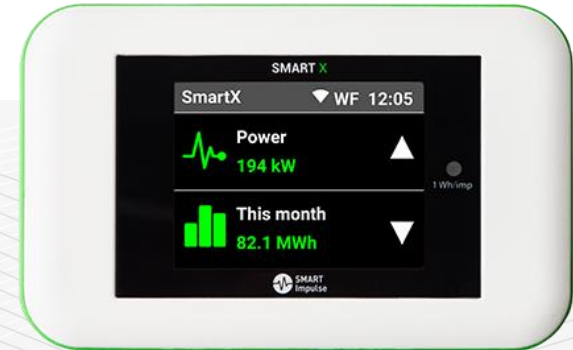
*Solid: connected, **Blinking**: connected + data transfer in progress

✓ INSTALLATION VALIDATION

Once the installation is completed, please fill in the installation certificate in order to **validate the compliance and correct operation of the installation and send it within 24 hours to support@smart-impulse.com imperatively with the requested photographs. The installation will only be validated upon receipt of these documents.** Thank you!



SMART X®
Quick Start Guide



Full user manual and video tutorial
<http://doc.smart-impulse.com>



Help Desk
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support@smart-impulse.com

ENGLISH V4.7

Smart X – Made in France by Smart Impulse – 157 bd Macdonald – 75019 PARIS - FRANCE
Contains Transmitter Module - FCC ID: 2AC7Z-ESPWR00M02D - IC: 21098-ESPWR00M02D

