Troubleshooting for Installers

Manual

wallbox

Measurements

L1-N

- When the agent asks you for L1-N measurement, the photo should show the **value** on the multimeter and **where** you are measuring, and it should be clear, for example:

The multimeter must be in **AC =** V~

If you have difficulty taking the photo, we recommend making a video

L1-N

V⎓

Important: to do the following measurements **(CP-PE)**, the Multimeter must be in **DC =** measuring the voltage. Please see picture below:

Measurements

CP-PE in the charger

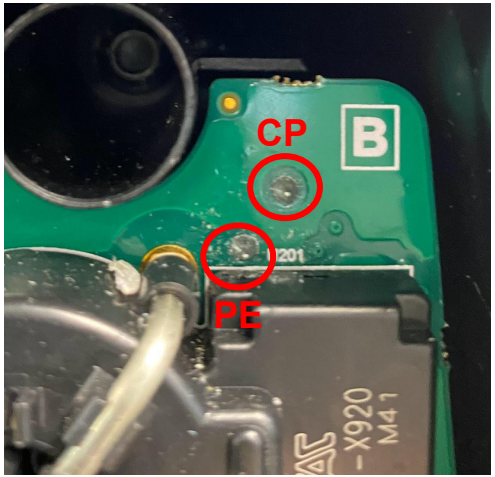
1

2

You can measure this values in two ways:

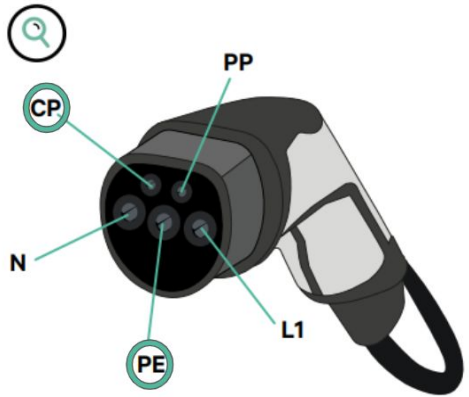
1. Inserting the pins of the multimeter in the Earth Input + on the welding point of CP

2. Measuring with the multimeter on the two welding points CP and Earth



CP-PE in the EV gun

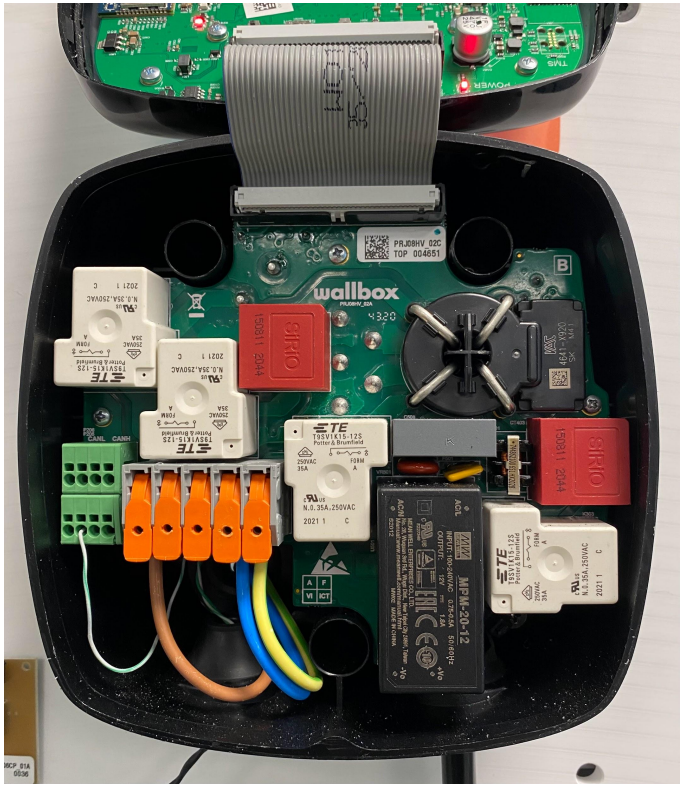
Following the pictures, the technician should insert the pins in CP-PE and make a photo showing where the pins are inserted and showing the value on the multimeter. (If you have difficulty taking the photo, we recommend making a video).



Measurements

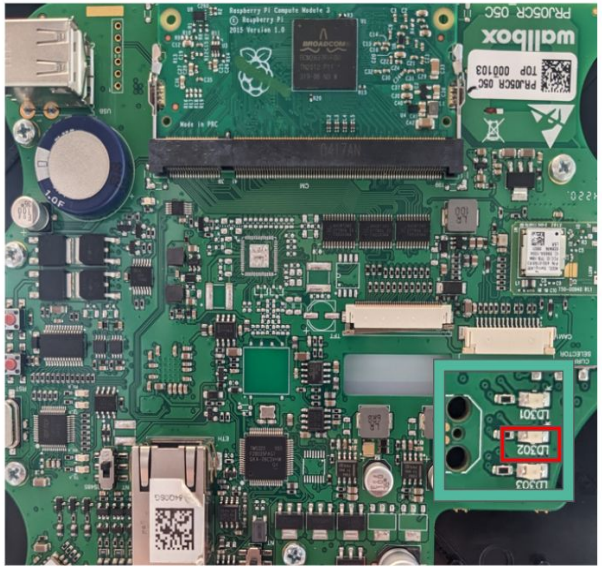
Cover & Body

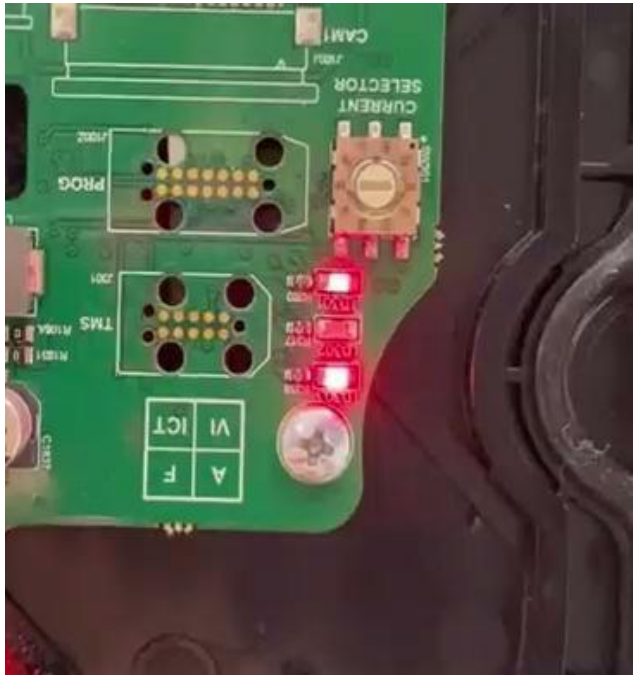
When the agent asks you for photos of the cover and body, they should be with the charger open and clear, for example:



Internal LEDs video when the charger is in Error

Copper SB





Please click on the image above to see VIDEO example in Copper SB

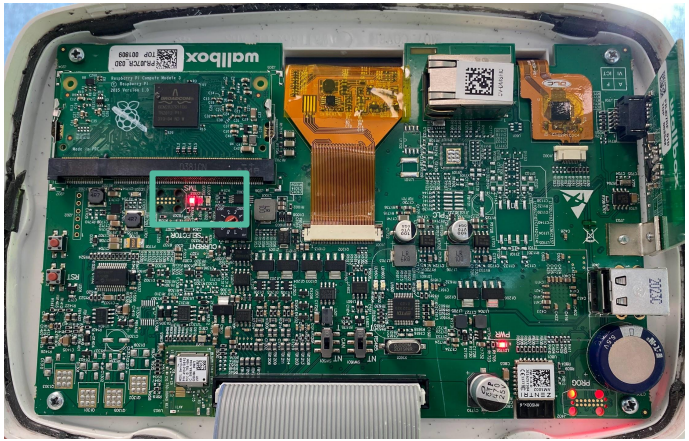
The charger have three small internal LEDs in the cover.

LED301
LED302
LED303

When the charger is in Error, the LED302 (the middle LED) will blink and we need a video of **at least** 45 seconds / 1 minute of this LED blinking, to be able to read the error code. For example:

What are the internal LEDs?

In Pulsar MAX and Pulsar PRO the name of the LEDs it's: LED400 , LED401 and LED402



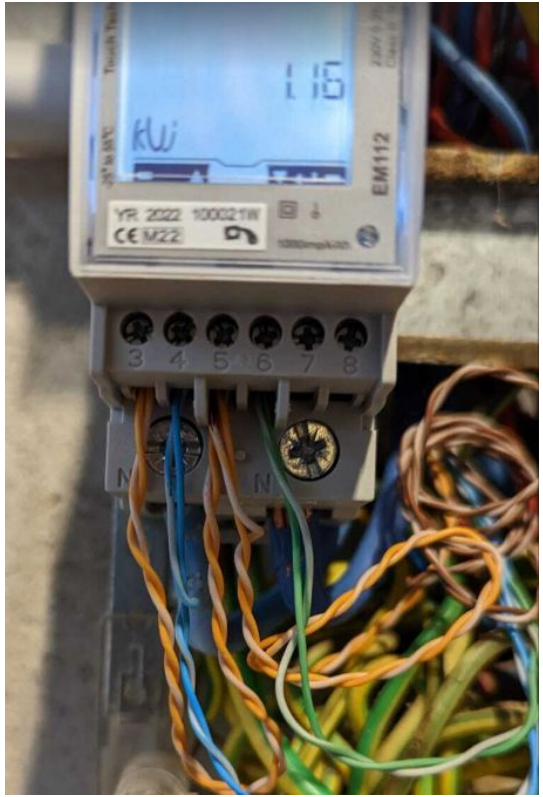
Commander 2 and Commander 2S

Pulsar Plus

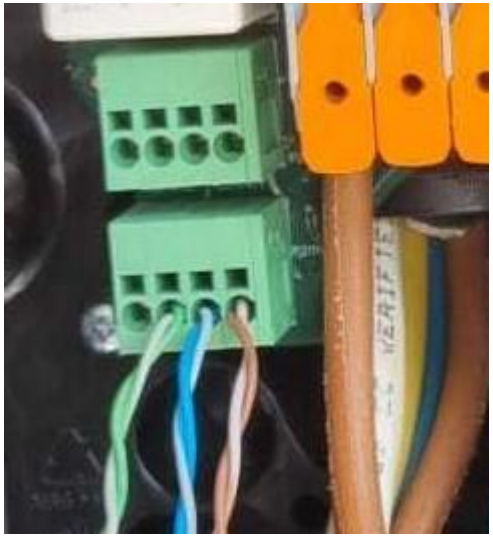
Measurements

Cables in the Carlo Gavazzi

Always ensure that there's only ONE cable per hole, never twisted, please see the examples:



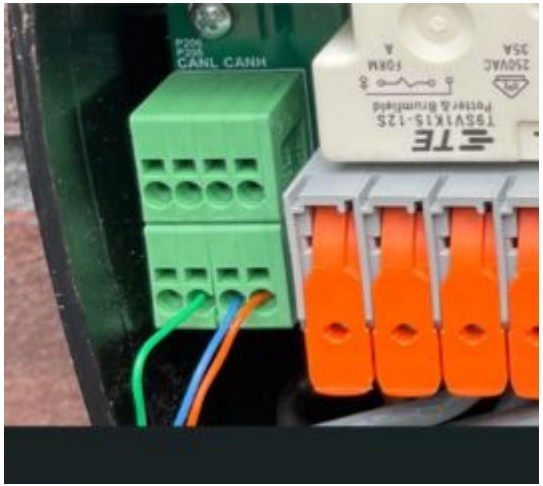
WRONG WIRING
(doble cable twisted)



Measurements

Cables in the Carlo Gavazzi

CORRECT WIRING
(one cable per hole)



How to measure the Resistances?

1. To do the following measurements, please **turn off the power fully**, on both, meter and Wallbox.

2. Turn the multimeter to **Resistance (Ohm)**

3. Switch **RS485** must be on **T** and **leave** the bridge on the meter

4. **Where's D+ and D- on the meter?**

   EM112: 4 and 5
   EM340: 8 and 9
   EM330: 11 and 12
   N1CT: 20 and 21
   TEMCO: RS495 + and -

Measurements

With Cables:

On the charger side will be harder for the technician to measure with the cables. Please proceed with the others measurements.

1. Measure on D- and D+ with cables on the meter side (should be 60 Ohms)

Measurements

Resistance on the charger

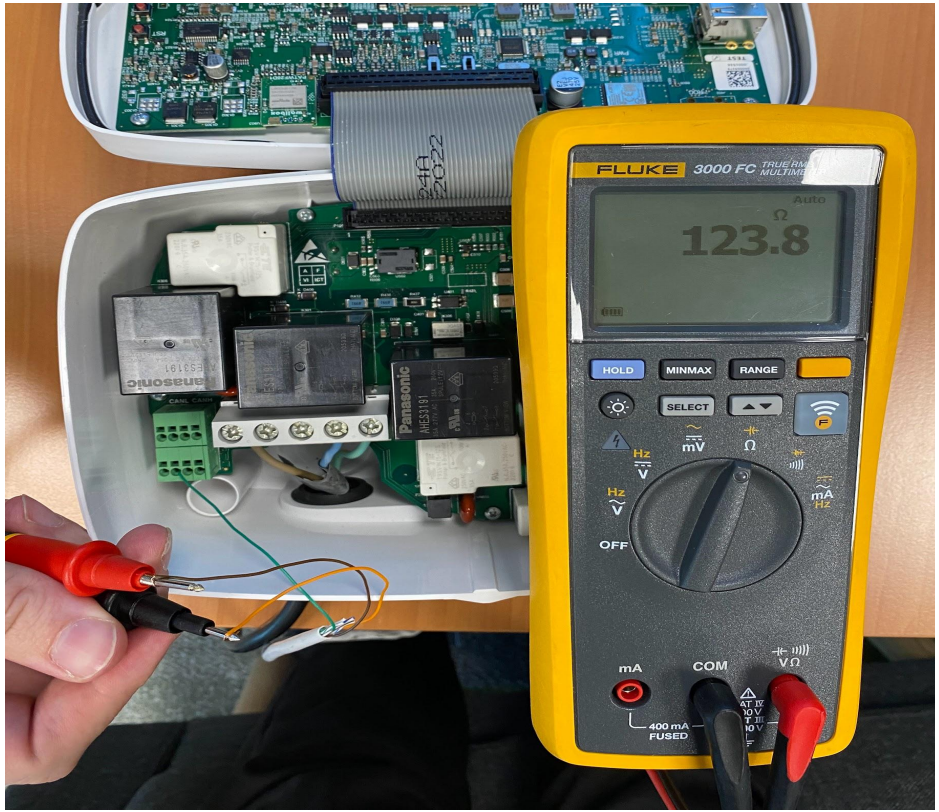
To measure the resistance on the charger, remove the cables from D+ D- on the meter and measure following the picture:

Must be 120 Ohms

If the result is **∞ (infinite)** or **kΩ (kiloOhm)**, the charger or the cable is failing

Measurements

Resistance on the meter



To measure the resistance on the meter, reconnect the cables to the meter and remove them from D+ D- on the charger and measure according to the picture:

Must be 120 Ohms

If the result is **∞ (infinite)** or **kΩ (kiloOhm)**, the meter or the cable is failing

Cable Failure

How to know if the STP cable is failing?

Taking the previous measurements, if on BOTH sides (meter and charger) the result is ∞ (infinite) or kΩ (kilo Ohm), **the STP cable is faulty** and must be changed by the technician.

Measurements

Without Cables:

1. Measure on D- and D+ (8 and 9) without cables on the meter side (should be 120 Ohms). **Keep the bridge in the meter**

1. Measure on D- and D+ without cables on the charger side (should be 120 Ohms)

Measurements

How to charge with the EV Tester?

To do a charge simulation with the EV Tester you must put in **C**

Thank you!

For any doubts please don’t hesitate to contact your Installer Manager

wallbox™