

ISKRAEMECO MT 382

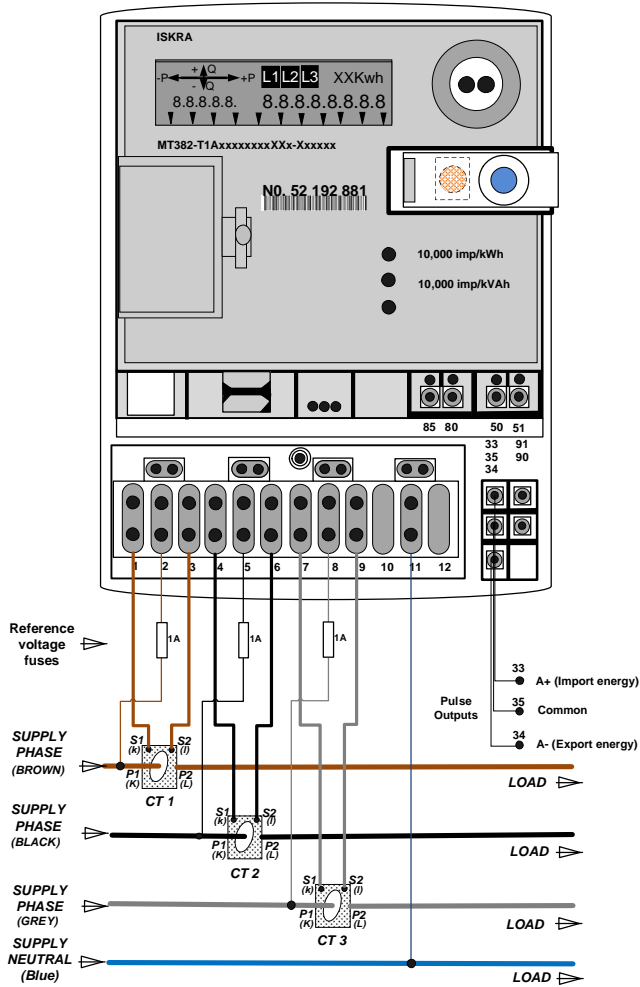
5A CT METER INSTALLATION

Meter Installation:

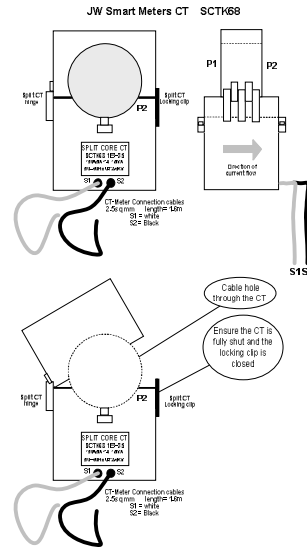
DANGER !

- Note that this work should be only carried out by suitably qualified and trained personnel.
- The meter circuit should be isolated while making changes to the wiring.

Connections to CT version of ISKRAEMECO MT 382 Meter



SAMPLE INSTALLATION USING JW SMART METERS SPLIT CORE CT



**Note that in the case of equipment that generates energy, the “supply” side is usually connected to the generator and the “load” side to the mains. For an “export” meter the same applies.
If in doubt: ASK for advice.**

ISKRAEMECO MT 382

5A CT METER INSTALLATION

Installation Checks:

Supply Voltages:

- Check the L1, L2, L3, indicators on the meter display – these should all be on.
- Missing indicators show a phase voltage missing. Check supply and reference voltage fuses.
- Flashing indicators show incorrect phase rotation – two pairs of phase voltage cables must be swapped, e.g. exchange the L1 (both in & out cables) with the L2 (both in & out cables).

Other significant indicators on the display:-

- REG – On when the meter is registered on the mobile network for remote reading
- SQ – Only valid when REG on – Signal quality – On = OK – Flashing/off = Insufficient signal
- P+ on the 4 quadrant indicator – indicates kWh being measured in the forward direction (P- = reverse)
- Q+ on the 4 quadrant indicator – indicates kvarh being measured in the forward direction (Q- = reverse)
- L1, L2, L3 – Phase voltage present – flashing indicates incorrect phase rotation

Currents and Energy Direction:- How to check each phase separately **IF IN DOUBT: ASK**

- To perform this test a load must be drawing current from the supply so that the meter is operating.
- Isolate 2 phases (normally by removing the relevant voltage reference fuses). Isolate and short out the remaining 2 CTs **CAUTION: Always ensure that CTs are shorted or dangerous voltages can be present on CT cables**
- Only keep the CT on the phase circuit to be checked. You are now working with one phase voltage only – check that the P arrow indicators on the meter display show P+
- If there is no arrow and energy flow (Kw) is not present, either the installation is not under load OR the CT being checked is not installed onto the relevant phase cable.
- Once checked, isolate this phase and CT and repeat this test for the other phases checking for P+.
- If P- is showing instead of P+ the CT is the wrong way around the supply cable. P1 should be on the supply side (or direction of current flow side) of the cable. OR S1 and S2 are connected the wrong way on the meter terminals.
- Finally, re-connect all supplies and check all CTs are correctly terminated. As a final check display the reverse (export) reading on the meter by accessing the additional displays using the blue button as shown above. Make a note of the reading then check a few minutes (or hours) later – the value should not increase.
- Note that some loads result in energy flow in two directions – e.g. a grid connected wind turbine will draw a small current for its control circuitry in the reverse direction when not generating.

ISKRAEMECO MT 382

5A CT METER INSTALLATION

Meter LEDS:

Once powered up and in operation you can check the operation by observing the LEDs on the front of the meter:

LED operation:

OFF = No voltage to meter

ON = Voltage OK No current flowing through the meter

BLINKING = Energy registered by meter (proportional to load being measured)

MT382D and MT382T

Communications Check – if the following is correct the meter will read remotely...

Triangular indicators showing at the bottom of the display (ignore other indicators) -

REG On – Meter registered with mobile network

SQ On = Good Signal – flashing indicates insufficient signal

Press the Blue Button repeatedly until the following displays are seen –

U.20.0 must show a Signal Quality of **13 or more**.

U.20.1 must show **2063** indicating meter logged on for remote readings, error codes are as follows

Inactive SIM or unable to log on - display will cycle through 2050-2051-2055-3078-3074

No SIM, wrongly fitted SIM, faulty SIM or damaged SIM holder – 2306 then 3330

SIM Card Installation:

Danger Electricity !

Removing the meter cover exposes live terminals, isolate the supply. This work should be carried out by qualified personnel.

Take Care – the SIM card holder is fragile.

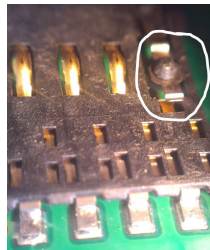
The SIM is under the terminal cover at the bottom of the meter, which is secured by two screws. The SIM card is near the centre.

Slide the metal part of the SIM card holder up towards the inside of the meter.



Hinge the SIM card holder upwards slightly. The SIM card slots **INSIDE** the raised holder with the gold contacts downward and the notched corner at the bottom right.

Lay the holder flat again and slide down the metal lip to hold the card in place.



If this procedure is not followed the switch mechanism in the SIM holder will be damaged and a new meter must be purchased.

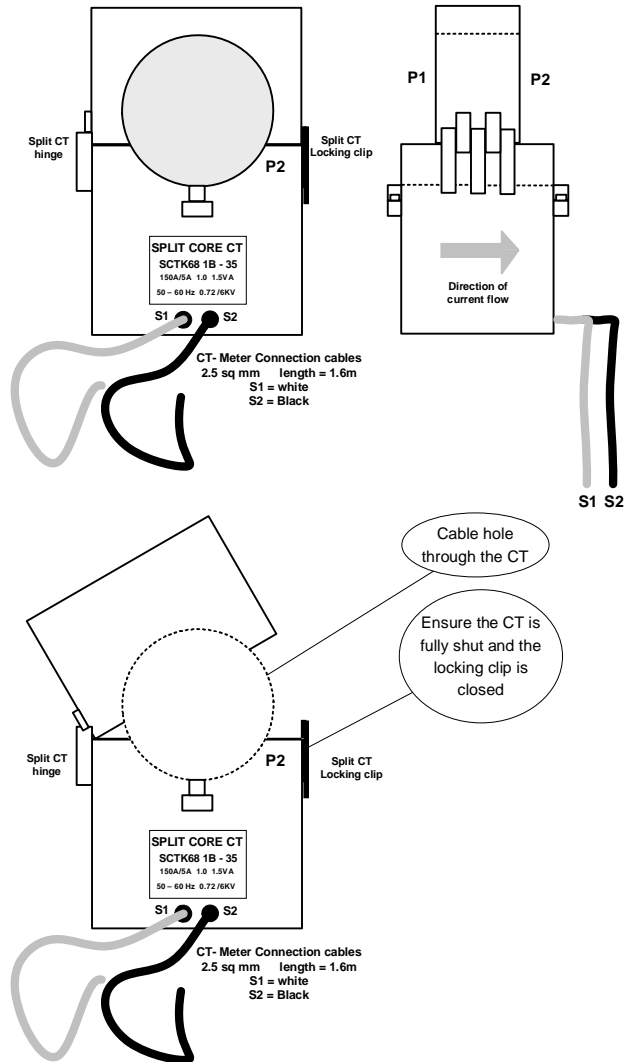
Note:When the meter power is restored check communications, the meter may take up to two minutes to connect to the network or sometimes up to 5 minutes with a multi-network SIM.

ISKRAEMECO MT 382

5A CT METER INSTALLATION

CT Installation Details:

JW Smart Meters CT SCKT68



Instructions for installation:

Note: The system should not be energised whilst installing

- Check the meter CT ratio setting corresponds to the CTs supplied.
- Ensure all CTs are the same current ratio (e.g. all 100/5A).
- Open clip and fit the CT around the cable to be monitored. Follow the arrow on the side of the CT for installation direction.
- Ensure all CTs are installed the same way.
- **Ensure the CT is fully closed and the clip is secure.**
- Make the 'S1' (white) & 'S2' (black) connections to the meter.
- Ensure that the relevant CT is terminated for each relevant phase (i.e. L1 phase = CT1 etc).
- Ensure all connections are tight and energise the meter.
- Carry out the tests as described above.