

How to read your meter

EM5100 Three-Phase Meter

For Meter Code 0450

The EM5100 is Western Power's advanced electronic accumulation meter for residential properties with a three-phase installation (up to 125 amperes) and has the following features:

- LCD for easy viewing of the recorded electricity consumption
- Programmable for both all time and time of use (TOU) tariffs
- Programmable for bi-directional energy measurement
- Capable of storing interval data
- Used on sites requiring further technical requirements than the standard EM3330 series meter

1. Power LEDs (WH and VARh)

The light (LED) will pulse (on & off) when electricity is being used, and these pulses get faster as electricity consumption increases.

2. Optical Port

This is the meter's infrared (IR) device, where the authorised Western Power personnel download the data from the meter using an optical probe cable connected to a handheld unit (HHU).

3. Register Display (LCD)

This is the display which shows the total electricity consumed and generated, and for the smart power tariff, it will also display the electricity consumed of the different tariff rates. The meter is also programmed to display the time and date.



4. Serial Number

Each meter is assigned with a unique individual serial number. The first four digits are the meter code followed by a six digit serial number.

5. Terminal Cover Seal

The terminal cover is sealed by Western Power authorised personnel after the meter is installed and wired to the supply from the network. This seal prevents unauthorised personnel from accessing the meter terminal connections.

8. Boost Button

This is used to manually operate the load control relay switch, i.e. to boost the hot water system circuit.

7. Scroll Button

This button is used to scroll the register displays in the sequence that they have been programmed in the meter. Each press of the scroll button will show the next register display.

6. Alternate Display Button

This button is used to display or move to "Normal Display", "Alternate 1 Display" and "Alternate 2 Display".

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This meter comes with a default program suitable for A1 and SM1 tariffs. To prevent confusion caused by meter manufacturer programs referring to import and export from the distribution network's perspective, Western Power has ceased the use of the import/export terminology.

Therefore, consumed/consumption means delivered by the network to the customer, and generated/generation means received by the network from the customer. As such;

A. Meters programmed for consumption only – all time (A1) and/or time of use smart power (SM1)

- The register readings for this meter scroll automatically.
- The reading may also be viewed by scrolling through the display selection using the scroll button.
- For each press of the button, the display scrolls/moves to the next one.
- The display sequence and corresponding information are listed below;

Description	Channel	Rate	Meter Display
Display Test	888		
Time	004		
Date	005		
Total Kwh Consumed	007		
Kwh Consumed Rate A (Peak)	010	A	
Kwh Consumed Rate C (Off Peak)	020	C	
Kwh Consumed Rate B (Weekday Shoulder)	030	B	
Kwh Consumed Rate D (Weekend Shoulder)	040	D	

B. Meters programmed for consumption and generation for renewable energy systems – all time (A1) and/or time of use smart power (SM1)

- The kWh consumed is energy taken from the network by the customer, and the kWh generated is the energy received by the network from the customer.
- The value for the WA net feed-in tariff is Channel 107 – total kWh generated.
- The readings for SM1 tariff may be viewed by scrolling through the display selection using the scroll button.
- The kWh consumed registers are displayed on the normal display, whilst the kWh generated registers are to be accessed on the alternate 1 (ALT 1) display;
 1. For the normal display (default display), press the “scroll button” to move from the current display to the next one.
 2. In order to access/read the kWh generated registers, press the “alternate display” button once until “ALT 1” is displayed on the LCD.
 3. To view the generation reading, press the “scroll button” to move from the current display to the next one.
 4. To return to the “Normal Display”, press the “Alternate Display” button twice or until normal display appears.
- The display sequence and corresponding information are listed below;

Description	Channel	Rate	Meter Display
Display Test	888		
Total Kwh Generated	107		
Kwh Generated Rate A (Peak)	110	A	
Kwh Generated Rate C (Off Peak)	120	C	
Kwh Generated Rate B (Weekday Shoulder)	130	B	
Kwh Generated Rate D (Weekend Shoulder)	140	D	

C. Alternate Display 2: This holds technical information for Metering Technicians.