

fact sheet

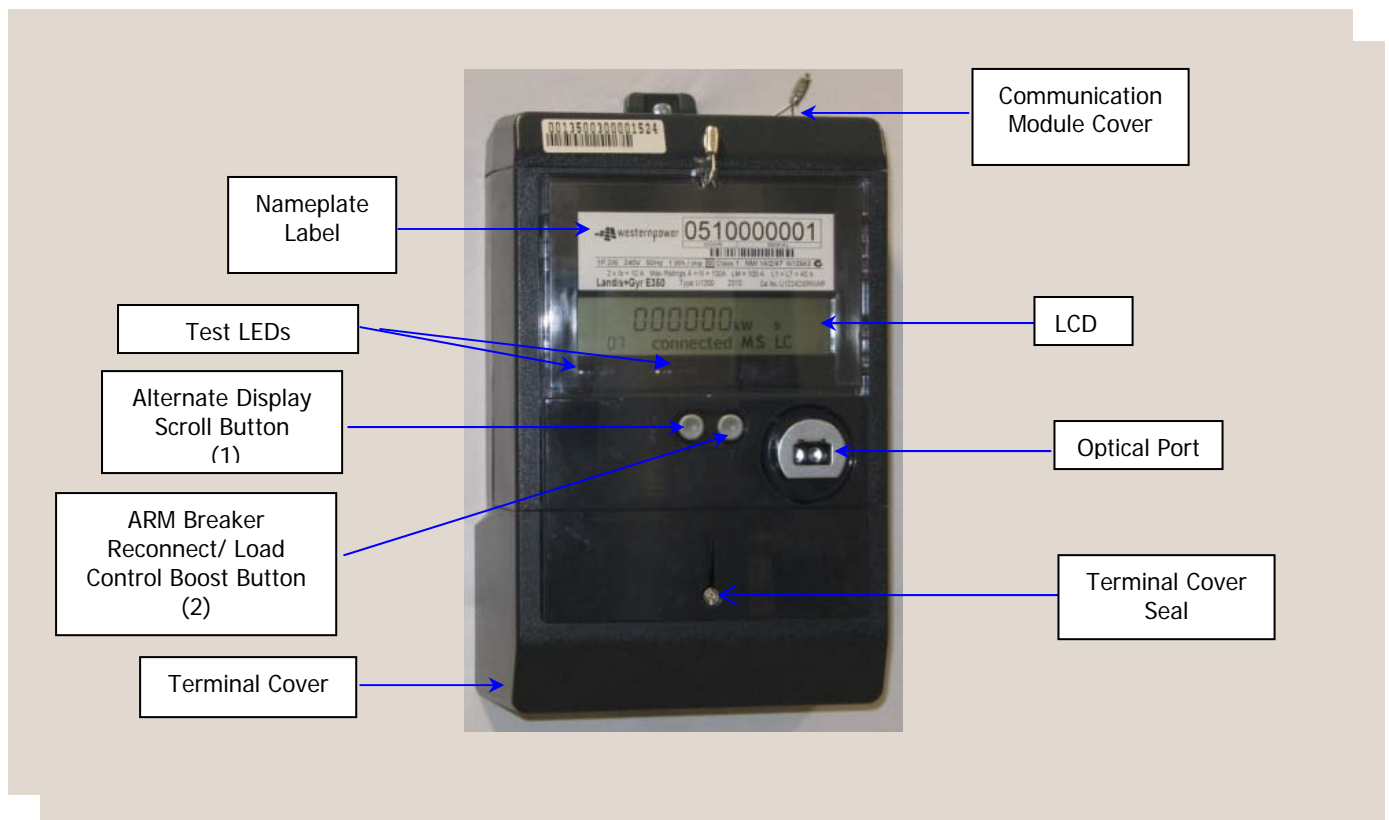
The U1200 electronic meter is Western Power's trial meter as part of a trial of the use of smart meters, also known as advanced metering infrastructure (AMI). It is a single-phase meter for direct metering installations with a capacity of up to 100 amperes.

This smart meter is capable of two-way communication between the meter and Western Power. The smart meter will also provide improved accuracy of meter readings, early detection of power quality issues, remote disconnection of power and improved monitoring of power outages to assist maintenance crews in reducing restoration times.

The first four digits of the serial number for this type of meter start with **0510xxxxxx**.

This meter has a liquid crystal display (LCD) to show the electricity consumption that is being recorded. It is also capable of storing interval data (load profile) that can be downloaded.

The meter is programmable for time-of-use (TOU) metering, and is capable of bi-directional (import - export) measurement and recording of energy.



1. Test 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 authorised Western Power personnel download the data from the meter using an optical probe cable connected to a handheld unit (HHU).

3. LCD

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

4. Nameplate Label

Gives the basic technical information about the meter and its serial number. Each meter is assigned a unique individual serial number, and the first four digits are the meter code followed by a six digit serial number.

5. Terminal Cover Seal

The meters are sealed on the main cover at the manufacturing plant. This seal prevents unauthorised personnel from accessing the internal components of the meter.

6. Alternate Display 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.

7. ARM Breaker Reconnect/ Load Control Boost Button

This is used to control or reconnect the meter after disconnection of supply. It is also used as a load control boost button for overriding or connecting controlled loads such as hot water systems.

8. Terminal Cover

It protects the live meter terminals and screws from unauthorised access and safety of customer and personnel.

9. Communication Module Cover

It protects the communication module of the meter, and provides easy access for technician during maintenance.

This comes with a default program suitable for A1 and SM1 tariffs. The terms import and export are defined from the customer's point of view. Therefore, import means delivered by the network to the customer, and export means received by the network from the customer. As such;

A. Standard All Time (A1)/ Smart Power (SM1) Tariff Meter for Uni-directional (Import) Measurement

- The meter is programmed with normal display suitable for both A1 and SM1 tariffs.
- The LCD display registers scroll automatically every 6 seconds. If you wish to skip the current display, you simply press the left hand grey button (1) to skip to next display. For each press of the button, the display scrolls/ moves to the next one.
- For A1 tariff, simply read the LCD display reading on channel "07". The SM1 requires you to read channels "10, 20, 30 and 40".
- The display sequence and corresponding information are listed below;

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Channel/ Display ID	Channel	Meter Display
04	Time	hh:mm
05	Date	dd:mm.yy
07	kWh Import Total	000000
10	kWh Import Total Current Rate A	000000
20	kWh Import Total Current Rate C	000000
30	kWh Import Total Current Rate B	000000
40	kWh Import Total Current Rate D	000000
88	Test Display	\$888888

B. Standard All Time (A1)/ Smart Power (SM1) Tariff Meter for Bi-directional (Import/ Export) Measurement

- The meter is programmed with normal display suitable for both import and export measurement on A1 and SM1 tariffs.
- The exported energy from the network is referred to as kWh delivered (**Customers Import**), and the imported energy to the network is referred to as kWh received (**Customers Export**).
- This can be used for customers with embedded generation such as solar or photovoltaic (PV) panels.
- The LCD display registers scroll automatically every 6 seconds. If you wish to skip the current display, you simply press the left hand grey button (1) to skip to next display. For each press of the button, the display scrolls/ moves to the next one.
- The customers import registers/ channels are programmed and displayed on the *normal display mode*, whilst the customers export registers/ channels are programmed and displayed on the *alternate display mode*.

For A1 tariff:

- Simply read the LCD display reading on channel “**07**”, which is your Total kWh Import on *normal display mode*, and in order to read the Total kWh export, press the left hand grey button (1) on the meter and hold for two seconds until “**Alt 1**” is displayed on the LCD display, which is the *alternate 1 display mode*. Once the “**Alt 1**” is displayed, the meter will start to scroll through the different export channels automatically pausing briefly for approximately six seconds on each one so that you can read the display. Record the reading on channel “**47**”, which is your Total kWh Export.

For SM1 tariff:

- The SM1 requires you to read channels “**10, 20, 30 and 40**” from the *normal display mode*. In order to read the Total kWh export registers/ channels, press the left hand grey button (1) on the meter and hold for two seconds until “**Alt 1**” is displayed on the LCD display, which is the *alternate 1 display mode*. Once the “**Alt 1**” is displayed, the meter will start to scroll through the different customer export channels automatically pausing briefly for approximately six seconds on each display so that you can read the display readings. SM1 customer export registers are channels “**50, 60, 70 and 80**”.
- The display sequence and corresponding information are listed below;

Channel/ Display ID	Channel	Meter Display
47	kWh Export Total	000000
50	kWh Export Total Current Rate A	000000
60	kWh Export Total Current Rate C	000000
70	kWh Export Total Current Rate B	000000
80	kWh Export Total Current Rate D	000000