



HIU BILLING

USER GUIDE

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Data Sheet & Installation Guide



NOTE: *The installation of this device must only be undertaken by a suitably trained and qualified electrician; all local safety standards must be observed. All work must satisfy Building/IEE Wiring regulations in force at the time. We recommend that this work be passed by an approved NICEIC member.*

Before use, please read these instructions carefully.

These instructions provide information on the installation, operation and programming of the unit. Please keep this booklet safe for future reference.

Technical Specifications

Operating Voltage:	220-240 Vac
Maximum Permissible Switched Load:	240 Vac 6A Resistive
Rated Impulse Voltage Withstand:	1kV
Insulation Properties:	Pollution Degree 2 in accordance with IEC 664
Operating Ambient Temperature Range:	0 to 40°C
Approvals:	EN 60950-1, EN 301 489-7, EN 301 511
Dimensions:	116 x 176 x 51 mm

Fixing

The meter is intended to be used within an indoor environment only and must be positioned away from sources of water, excess heat and humidity. The meter should be fitted onto a level firm wall, meter board or cabinet.

All connections are made through the unit's back plate which contains a terminal rail.

The unit should be located where a good mobile phone signal is available.

Below is a schematic of a typical 'MBus' installation. This arrangement may not be appropriate to every installation situation. Please check actual wiring arrangements with the appropriate responsible person for your installation.

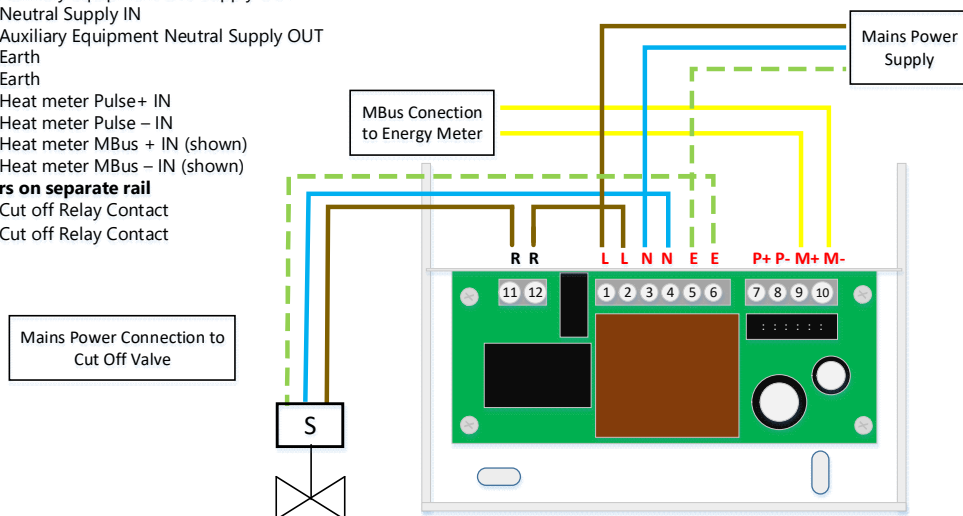
Terminal Connections

The unit has the following terminal connections available;

- | | | |
|----|----|--|
| 1 | L | Live Supply IN |
| 2 | L | Auxiliary Equipment Live Supply OUT |
| 3 | N | Neutral Supply IN |
| 4 | N | Auxiliary Equipment Neutral Supply OUT |
| 5 | E | Earth |
| 6 | E | Earth |
| 7 | P+ | Heat meter Pulse+ IN |
| 8 | P- | Heat meter Pulse - IN |
| 9 | M+ | Heat meter MBus + IN (shown) |
| 10 | M- | Heat meter MBus - IN (shown) |

Connectors on separate rail

- | | | |
|----|---|-----------------------|
| 11 | R | Cut off Relay Contact |
| 12 | R | Cut off Relay Contact |



Cabling Requirements

Mains power supply.

Live, Neutral and Earth connections from a secure supply fused at not greater than 6A.

Supply to the system zero credit cut off valve.

- A relay contact, rated at 6A is available on the terminal rail.
- On zero credit the connection is open.
- When in commissioning mode for the first time the tariff is set to zero so the contact will be closed. When the unit is taken out of commissioning mode and credit is available, the contact is closed.
- A live supply can be wired to these terminals for the systems zero credit cut off valve.

Connection to the energy meter MBus card or Pulse output

A two core connection using a cat5e cable or similar with stranded cores not solid cores. The connections are not polarity sensitive for MBus.

Terminals

- Terminals allow the connection of up to 2.5mm² solid copper conductor or multi-strand cable.
- Ensure terminals are fully tightened.
- Appropriate strain relief shall be used to prevent stress on the conductors and terminals within the equipment.

Security

On completion of all the connections fix the top cover to the back plate, cover screw with security label and power up the unit.

Unit Set-up

When supplied, installed and powered-up it will be in 'commissioning mode'. This allows 5 kWh of energy to pass through the system before the internal relay opens.

This allows for the testing of the internal heating system and set-up prior to going live. Whilst in commissioning mode, if the 5kWh has been used but more energy throughput is needed, this can be extended by contacting us on the number below.

For remote commissioning and testing the units, the unit's IP and property address need to be noted and advised to Thermalee as below.

Commissioning the Units

Prior to commissioning Thermalee need to be advised what settings are to be loaded to the unit. Settings available are listed below.

After about 5mins following initial power-up, the antenna icon in the top right-hand corner of the display will stop flashing, now press key '5' (twice). This will display an IP code number such as "10.248.32.987" **this number needs to be noted.**

Both the IP code number and the **actual property address** need to be advised to us for remote commissioning and set-up.

Set-up can be undertaken during normal office hours, Monday to Friday, **01543 396300** **excluding 1.00pm to 2.00pm.**

If already provided the correctly addressed pre-printed 'payment ID card' needs to be left with the property the unit has been installed in.

Commissioning Settings Available

- Unit rate: amount per kWh in pence i.e. 11.54p/kWh
- Standing Charge: amount per day in pence up to 999p/day.
- Emergency Credit Level: default £5, change to required value up to £127, if no emergency credit is allowed this will be £0.
- Emergency Credit availability level: default £2, amount by which 'credit' has to be at or below before Emergency Credit (if allowed) can be loaded and used.
- Friendly Hrs: default 8pm to 8am, enter hour in the pm for start of the non-disconnect period to the hour in the am for the end of the period. Covers all day Christmas Day, Boxing Day and New Year's Day. Please advise if not required
- CO₂ factor for the energy supplied. Required so user information displayed is correct.
- Initial Credit, value off any existing unit can be entered or 'start-up' credit can entered.
- Opening kWh : on 'pulse' systems, you can enter the current heat meter reading
- £ or € currency selection, please advise if not UK £.
- 'Prepayment' mode or 'Billing' mode.

Disposal of Old Electrical Appliances



For electrical products sold within the European Community. At the end of this products useful life, it should not be disposed of with household waste. Please recycle where facilities exist. Check with your local authority or retailer for recycling advice in your local area.



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