

Emergency Credit – Prepayment Mode

In the event the tenant/user is unable to purchase new cards and once the normal credit level falls below £/€1, pressing the red button will provide the user with £/€3 credit. An 'E' will appear on the display indicating emergency credit has been invoked. The tenant/user will be able to use all of the £/€3 until the meter will disconnect the supply. When the supply is disconnected, the meter will show **dt 3.00E** indicating that the £/€3+ of credit will need to be added prior to the meter reconnecting the supply. Please see example below:

Display on meter	Cr 0.50	Cr 3.50E	Cr 2.90 / dt C 0.10E	Dt 3.00E	Cr 2.00
Action/Meaning	£/€ 0.50 in credit	Display after button	£/€ 0.60 used (£/€0.10 of EC used)	All EC used	Add £/€5 of new credit

Installation and Connection

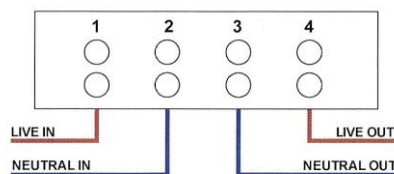
NOTE: The installation of this device must only be undertaken by a suitably trained and qualified electrician; all local safety standards must be observed. All work must satisfy Building/IEE Wiring regulations in force at the time. Work must be passed by an approved NICEIC member.

Fixing - The meter is intended to be used within an indoor environment and must be positioned away from sources of water, excess heat and humidity. If installing outside, the meter must be fitted within a weatherproof meter cabinet or similar IP rated box.

Mounting points are provided as shown on the fitting template provided. Follow the template instructions for screw positions. Initially, the meter should be hung from the top bracket using a suitable round head screw such that the head fits snugly under the hanging point. Once hung, the meter should be screwed to the wall securely using the two fixing points located under the meter terminal cover.

Wiring

The meter must be protected against overcurrent. This is normally as part of the building installation (Service fuse to BS1361) or equivalent; maximum current through the meter must not exceed 100Amps. The meter is wired using the connections found under the grey terminal cover as shown here on the right.



Product Support

Our contact details for further support or service are as follows:

Westwood Meters & Timers Ltd

Torre Station Yard ♦ Newton Road ♦ Torquay ♦ Devon ♦ TQ2 5DD

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RFID CARD PREPAYMENT METER/TIMER – MODEL: EMA1.z+MP21.Z1 OPERATING INSTRUCTIONS

Before use please read these instructions carefully

Thank you for purchasing this card operated meter/timer. These instructions are intended to provide information on the installation, operation and programming of the meter. Please keep for future reference.

This meter is designed to be used for the control of electricity supply in secondary metered sites such as holiday and landlord accommodation. The meter is fully approved to the European metering standard MID (Measuring Instruments Directive), the meter is therefore tested and approved as accurate for billing purposes. The meter may also be used as a time controller.

Basic Features

The meter is designed to work with either pre-charged disposable or re-chargeable cards, depending upon the level of infrastructure. Pre-charged cards have a single value, and can be used only once after which they are of no further use. After a rechargeable card is used it can be returned to Westwood Meters & Timers Ltd for re-charging. Unless you have your own recharging station, in which case you can recharge the cards yourself.

The meter is programmed by using a programming card in conjunction with the red and blue buttons at the top of the meter. The programming function allows the energy prices and standing charge to be set, whilst a debt collection facility enables a pre-set amount to be collected daily. The total amount for collection is programmed and the meter will reduce this each day by collecting monies from the remaining credit balance.

Additional card types are available to support a variety of functions including new tenancy and servicing. Please contact us for further information.

An electronic display indicates the amount of credit remaining on the meter. The display is also used when programming energy prices, and other meter settings. The grey push button next to the display allows the tenant/user to cycle through a set of displays showing usage totals, charges, etc.

A timer mode allows the meter to be used to control appliances or services. The time period is set via the Programming mode (see over page) and is activated using a charged value card.

The consumption of energy can be seen using the red LED light below the display. The light flashes 1000 times for every 1kWh of energy used.

User Display Operation

Normal Operating Display

The meter's default display shows the amount of credit or debt remaining to the user. For example: **Cr 3.50** means a credit of £3.50 or €3.50 is remaining. When all credit has been used the word **OFF** is shown on the screen and the supply is disconnected.

When a value card is introduced to and accepted by the meter, the card's value is added to the meter's credit, and the display momentarily shows **CARD NN** where **NN** is the card value, before returning to show the remaining credit or debt.

Display Cycle

The display cycle allows the user to look at their energy readings, prices and meter settings. It can be stepped through using the grey push button to the left hand side of the display. The example below describes the display cycle sequence.

t 00001.45 kWh	Total energy recorded by the meter since manufacture
dt C 2.50	Debt to Clear – Amount of emergency credit used, will be deducted from next payment. Only shown when emergency credit has been used.
r1 00001.45 kWh	Energy Register for Rate 1. Amount of energy used at the Rate 1 price
r2 00000.50 kWh	Energy Register for Rate 2. Amount of energy used at the Rate 2 price. NOTE: This display will only appear if the meter has been set for a 2 rate tariff where a different price is applied for part of the day e.g, night use in Economy 7 type tariffs.
r1 022.78	Price charged in pence/eurocents. The credit value will be reduced by this value each time a kWh is consumed (while Rate 1 is active)
r2 015.93	Price charged in pence/eurocents for each kWh consumed (while Rate 2 is active). See note above
st ch 25.00	Amount of standing charge being collected each day in pence/eurocents
dt ch 01.00	Debt charge. Amount being collected through debt collection each day. Value is in £/€.
dt t 015.000	Total amount of debt to be collected in £/€. Will reduce each day by the amount set in the Debt Charge register until reduced to zero.

Programming

The programming display cycle is accessed when a programming card is introduced to and accepted by the meter, whereupon a test display with all the display segments visible is shown. The A button (red) can now be used to step through the display cycle and the B button (blue) used to make changes to the displayed values. For values which can be modified, pressing the B button will increment the flashing digit, and button A will move to the next digit.

NOTE: Modified values are used by the meter when it reverts to the normal display. This occurs if neither button is pressed for 30 seconds, or the complete cycle display has been stepped through and **End** is shown.

Programming Display Cycle

The example below describes the programming display sequence.

Func 1	†*	Function setting – Selects between Prepayment Mode and Timer Mode. 1 = Prepayment Mode, 0 = Timer Mode (see Timer Mode section below)
PC 0010	†*	Program Counter – The number of times the meter has been programmed. For information only, cannot be changed
t Cr 0029	†*	Total Credit – Total amount of credit accepted by the meter in £/€. For information only, cannot be changed
CLEAR n	†*	Allows the meter to cleared e.g for next occupant. Remaining credit, debt, and emergency credit values are cleared if set to yes – setting 'y'
Run 00:10	†	Timer Mode Run Time – sets the amount of time in hours and minutes the meter will run for each £/€ of credit accepted
15:35	*	Clock Time – allows the clock time of the meter to be adjusted in 24hr clock format. NOTE: the meter does not automatically correct for daylight saving.
01.01.13	*	Date – allows the date to be set in the meter in the format dd.mm.yy
r1 00:00	*	Start time when the rate 1 price becomes active in 24hr clock time. When only using a single tariff price, set time to 00:00
r2 00:00	*	Start time when the rate 2 price becomes active. If rate 1 and rate 2 start times are the same only rate 1 pricing is active, and rate 2 is not in display cycle
Fh n	*	Friendly hours – Prevents disconnection in rate 2 period y = enabled n = disabled
r1 022.78 eg 22.78ppu	*	Rate 1 Unit Price – Price in pence/eurocents charged for each kWh consumed when Rate 1 is active. Use the Rate 1 price for single tariff pricing.
r2 015.93 eg 15.93ppu	*	Rate 2 Unit Price– Price in pence/eurocents charged for each kWh consumed when Rate 2 is active (use for Economy 7 or similar type tariffs).
st ch 25.00	*	Standing charge – amount to be collected every day as a standing charge. Set as pence/eurocents per day value
db t 015.000	*	Total debt to be collected – The meter can automatically collect an outstanding debt amount set in the meter. Enter the total to be collected in £/€
dt ch 01.00	*	Amount of debt collected each day – used in conjunction with the total debt setting. The meter automatically reduces the remaining credit by the amount set in the £/€ per day until the total debt value is reduced to zero.
r1 00001.45kWh	*	For information – Rate 1 energy register
r2 00000.50kWh	*	For information – Rate 2 energy register
t 00001.95 kWh	*	For information – total energy recorded by the meter since manufacture

* In prepayment mode programming display cycle

† In timer mode programming display cycle

Timer Mode – In timer mode the meter's default display shows the time remaining to the user. For example 00.05.35 means there is 5 minutes and 35 seconds remaining. When the timer reaches zero the word **OFF** is shown on the screen and the supply is disconnected. There is no user display cycle in timer mode.