

## Customer Interface Unit (CIU)



Model: **DL-CIU-V1.0**

User Manual

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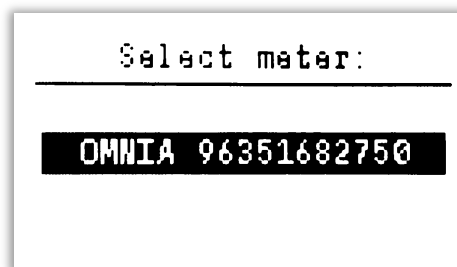
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## Introduction

The Customer Interface Unit (CIU) is used to monitor the amount of electricity used and the number of credits remaining. It is also used to upload new units by entering a token received when buying electricity. The CIU communicates to the electricity meter installed.

## Pairing the CIU to the Electricity Meter

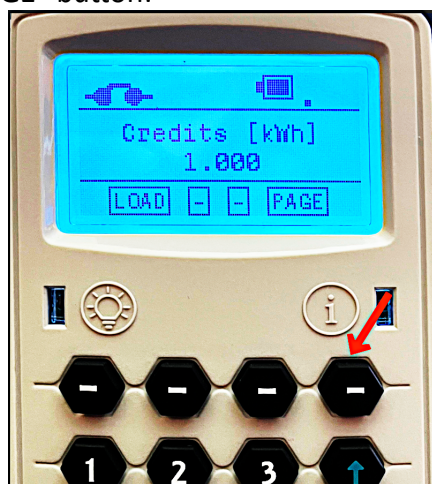
1. Ensure that the CIU has a functional battery installed / connected to USB power.
2. Press any key to power on the CIU if not powered on already.
3. A list of found electricity meters will show up on the screen as below:



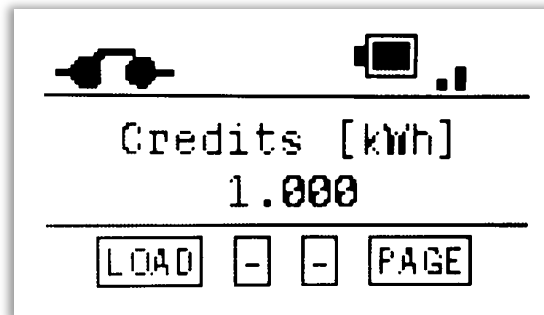
4. Use the  and  buttons to select your electricity meter.
5. Press the  button to connect to the electricity meter. The CIU will now automatically connect to this meter when it is started up the next time.

## Viewing Usage and Credits Remaining

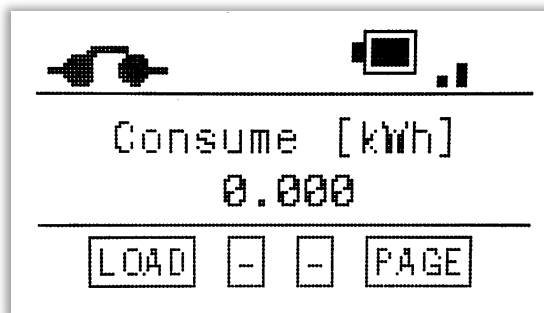
1. Ensure that the CIU has a functional battery installed / connected to USB power.
2. Press any key to power on the CIU if not powered on already.
3. The main dashboard will now be shown. To page through the readings, press the button below the "PAGE" button:



4. The CIU displays the following readings:



*Credits remaining*







*Power consumed in total since meter installation*



*Meter serial number*

## Icons Description

	Meter breaker is closed – power is supplied to the house / unit.
	Meter breaker is open – this usually happens when all credits are depleted.
	Battery capacity indication.
	Signal strength indication, 4 bars is very good signal and 1 bar is poor signal.



## Uploading New Credits

1. Ensure that the CIU has a functional battery installed / connected to USB power.
2. Press any key to power on the CIU if not powered on already.
3. Press the button underneath the “LOAD” button:



4. This will open the following screen:



5. Enter the token received when credits were purchased. The  and  keys can be used to navigate the input and to delete any incorrect entries by pressing the button below the “DEL” button. To clear the whole screen, press the button below the “CLR” button. To cancel the process, click on the button below the “CANCEL” button.
6. When finished entering the token, press the button below the “OK” button.
7. The CIU will display the response from the electricity meter.

## Power Modes

If the CIU is powered on battery only, it will go to sleep in about 1 minute of inactivity. When plugged into USB power, it will stay powered on.

## Replacing the Battery

To replace the battery, unclip the battery compartment plastic plate clip on the bottom of the CIU and replace with a 9V 6LR61 battery:



Close the plastic plate and reclip the clip after replacing the battery.

## Technical Specifications

### CIU

Wireless specifications	<b>Bluetooth Low Energy (BLE)</b>	
	Frequency Range	<b>2.402 Ghz – 2.480 Ghz</b>
	Max Power	<b>3 dBm</b>
	Channel spacing	<b>2 MHz</b>
	Modulation	<b>GFSK</b>
	Receiver sensitivity	<b>-96.5 dBm</b>
Power supply	<b>5V / 9V --- (DC)</b>	
Power draw (max)	<b>0.6 W</b>	
Battery	<b>9V 6LR61</b>	
Dimensions	<b>148 mm (L) x 74 mm (W) x 37 mm (H)</b>	

## Gateway (GW)

Wireless specifications	<b>Bluetooth Low Energy (BLE)</b>	
	Frequency Range	<b>2.402 Ghz – 2.480 Ghz</b>
	Max Power	<b>3 dBm</b>
	Channel spacing	<b>2 MHz</b>
	Modulation	<b>GFSK</b>
	Receiver sensitivity	<b>-96.5 dBm</b>
Power supply	<b>4.2V ——— (DC)</b>	
Power draw	<b>&lt; 400mA</b>	
Precautions	<b>All exposed contacts are live and dangerous, do not touch!</b>	