

trio accessible

user manual

Welcome

The Trio shows energy use for electricity and gas smart meters and will have been configured to work with the meters you have installed, electricity, gas or both.

This user manual goes through the set-up process and provides more information on how the display works.

Speech

The display reads out the contents of each screen. Speech can be interrupted at any time by pressing the middle LED button on top of the display. Once speech has finished, press the button to hear it again.

Speech can be turned on and off by long pressing the top middle button.

Speech volume and repeat options can be adjusted in the Talking options screen (Menu > Settings > Talking options)

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Getting connected


Power supply

The display will turn on automatically when plugged into the mains. The display must remain connected to the power supply in order to work.

The power supply is made exclusively for the Trio display and must not be used with other devices.

Built-in rechargeable battery

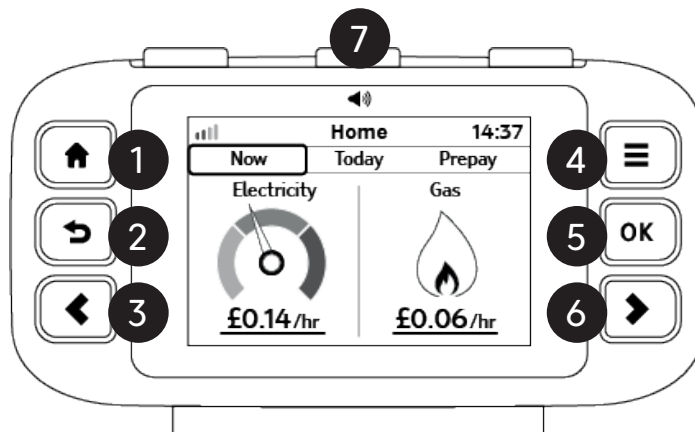
The display is fitted with a rechargeable battery. It has a battery tab which must be removed. If it has not been removed by the installer, take the display off the stand and pull out the tab.

When operating on battery power, the banner bar will show a battery symbol (). The battery is designed to maintain connection with the smart meter during power outages, it is not designed for regular, prolonged use.

Smart meter connection

The display will take around 5 minutes to establish a connection to the smart meter, during this time the screen will say "Connecting to smart meter". Once successfully connected, it may take up to an hour for gas data to come through.




Overview





Buttons

The Accessible display has seven buttons, three on the left, three on the right and one on the top.

Three buttons on the left (from top to bottom):

- (1)  Home button - Press to return to the Home screen.
- (2)  Back button - Press to return to the previous screen.
- (3)  Left arrow button - Press to navigate to the previous item on the screen.

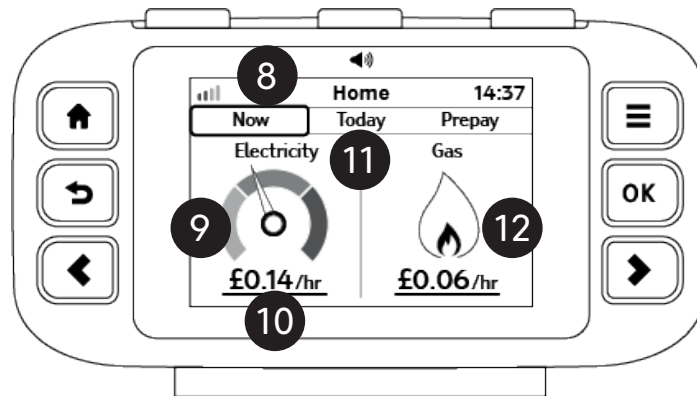
Three buttons on the right (from top to bottom):

- (4)  Menu button - Press to go to the menu.
- (5) **OK** Okay button - Press to select an item or to change what is shown on the Display (e.g. switch between cost or kilowatts).
- (6)  Right arrow button - Press to navigate to next item on the screen.

Three LEDs on top of the device

- (7) The three LEDs show your electricity usage (Green on the left for low, amber in the middle for medium, and red on the right for high.). The LEDs will not light if display is connected to a gas meter only.

The middle LED is also a button to interrupt or repeat the speech. A long press will turn the speech on or off.



Screen

All information on the screen will be read out when selected:

- (8) The banner bar at the top of the screen shows the smart meter signal strength.
- (9) The left of the screen shows the current energy usage on a dial.
- (10) The rate of consumption is shown in cost per hour or kilowatts.
- (11) Underneath the banner on the home screen there are three tabs, use the left and right buttons to move between Now, Today and Prepay*.
- (12) The right of the screen displays a flame which indicates the rate of gas consumption (typically over the last 30 minutes).

*Please note: Prepayment tab is only visible to prepay meters.

Understanding energy

What is a kilowatt hour?

Electricity and gas usage is measured in kilowatt hours (kWh).

A kilowatt (kW) is the rate at which energy is being consumed. If a washing machine uses 3 kilowatts and the cycle lasts for 1 hour it will use 3 kilowatt hours of electricity.

Less is more

If you check the display at bedtime when all devices around the home have been turned off you will see the households baseload.

If the display is showing 200 Watts at bedtime every night for a year, it will contribute around £260 to your annual bill. A households background load is around 40% of the total bill*.

**Source: <https://www.ofgem.gov.uk/gas/retail-market/monitoring-data-and-statistics/typical-domestic-consumption-values>*

How can I use less?

Look for appliances and devices around the home that can be switched off such as a games console, sound systems or a bedside clock in the spare room. Experiment with switching devices off and see what affect it has on electricity usage.

Other ways to save energy include:

- Filling the kettle with only the water you need
- Using a cooler cycle when washing clothes
- Turning your heating down by 1°C

According to the Energy Saving Trust these changes could save you £75 per year*.

What is normal?

A typical medium sized house will use approximately 3100 kilowatt hours of electricity per year*, or approximately 5p per hour.

A medium sized house will use approximately 3100 kW hours of electricity per year*

Electricity usage is split into 3 categories low, medium and high which is indicated on the display as green, amber and red.

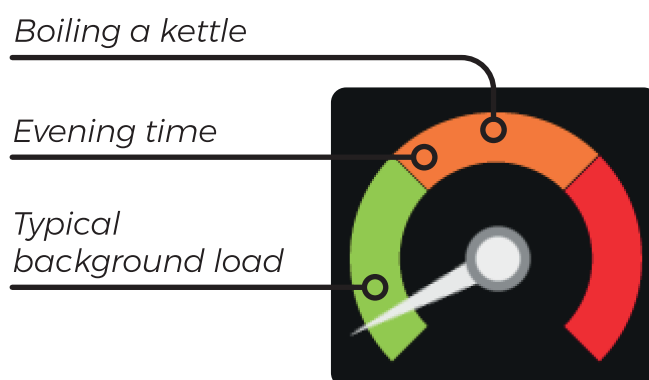
Devices that require lots of energy for a short time, like a kettle, will push energy consumption into the red zone. As soon as the kettle stops boiling your consumption will drop back down to green or amber.

During the evening energy consumption is typically higher and will often show as amber, this is because devices such as ovens, TVs and heating will be running at the same time.

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If you have electric heating or storage heaters your consumption will often be in the red when the heating is on.

The diagram below shows approximately where the needle will point on your display.



*Source: <https://www.ofgem.gov.uk/gas/retail-market/monitoring-data-and-statistics/typical-domestic-consumption-values>

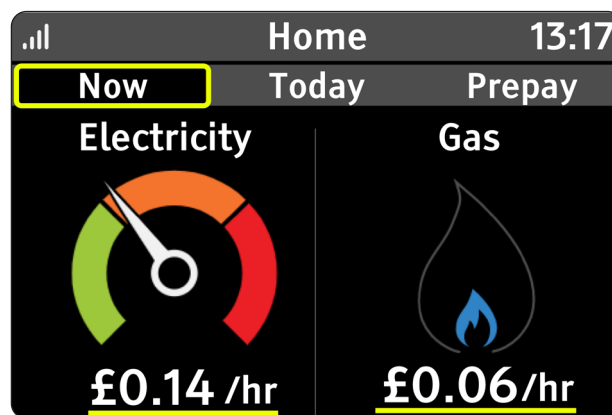
Home Screen

Overview

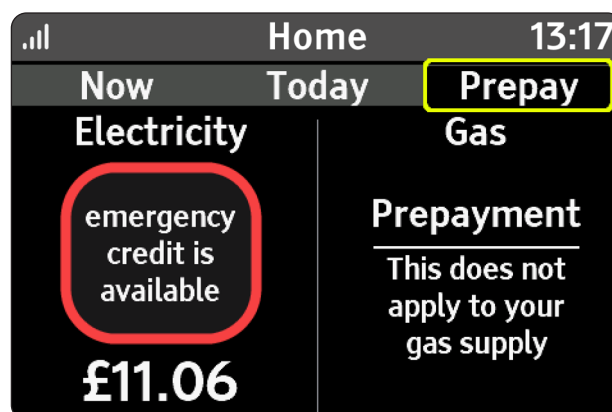
The display starts on the Home screen on the Now tab.

The Home screen has tabs at the top: Now, Today and Prepay. The Prepay tab will only display for prepayment meters.

Use the left and right arrow buttons to navigate between the tabs.



If your meter is in prepayment mode, the Home screen will show a third tab called Prepay.




You can return to the Home screen at anytime by pressing the home button. After 5 minutes of inactivity the display will always return to the Home Screen.

Banner bar

The banner bar at the top shows the signal strength of the smart meter, the battery status of the display (if running on batteries), and alerts you to connectivity problems (⚠).

If using an Accessible display the speaker icon will be shown when speech has been turned off.



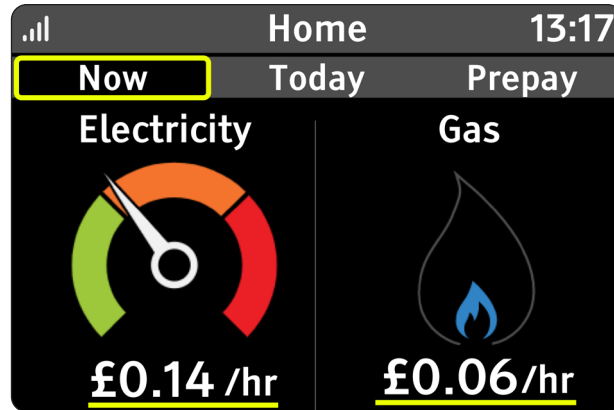
The battery symbol  displays when the device is running on battery power. (Home screen only).



If the system encounters a problem the alert symbol ⚠ will display, the bar will change to red and (if using an Accessible display), will alert with speech also.



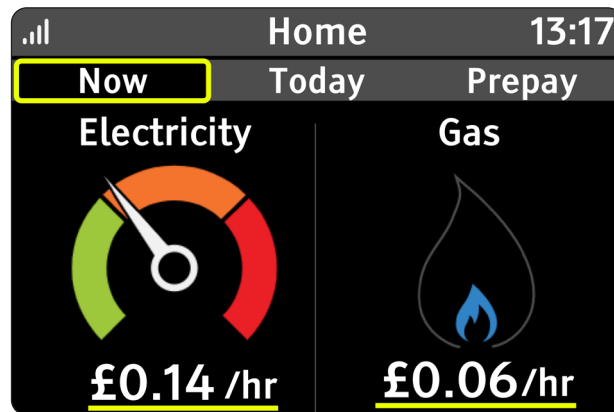
Now screen



The Now screen shows Electricity consumption on the left and Gas consumption on the right, one or both will be shown depending on what fuel types are available.

When using the Accessible display, press the top-middle LED to read the current screen.

Electricity



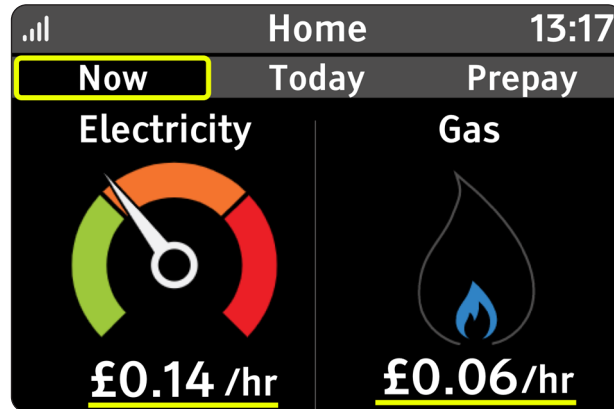
The Electricity section has a speedometer which shows live energy usage with the current cost per hour (£/hr) or kilowatts (kW) underneath. Press the OK button to switch between cost and kilowatts.

The dial is divided into 3 segments; green, amber and red which correspond to low, medium and high usage. When the needle changes between the different segments the lights on top of the display will match the corresponding colour. When speech is turned on, the display will audibly indicate the usage level and read out consumption for both gas and electricity (if both are available).

The display will not speak more than once per minute.

When your screen is off, such as overnight, the displays audio will also be temporarily turned off.

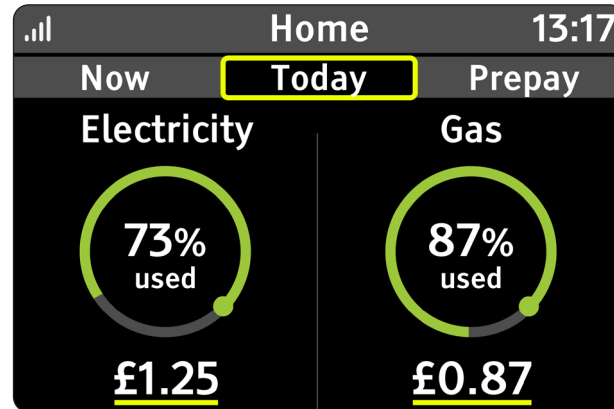
Gas



As your home uses gas the flame size will increase, a small flame indicates low usage while a large flame indicates high usage.

Unlike the electricity dial which changes almost immediately, the gas flame updates every 30 minutes.

Today screen



The Today screen shows the total electricity and gas used so far today in cost or kilowatt hours, you can switch between them by pressing **OK**.

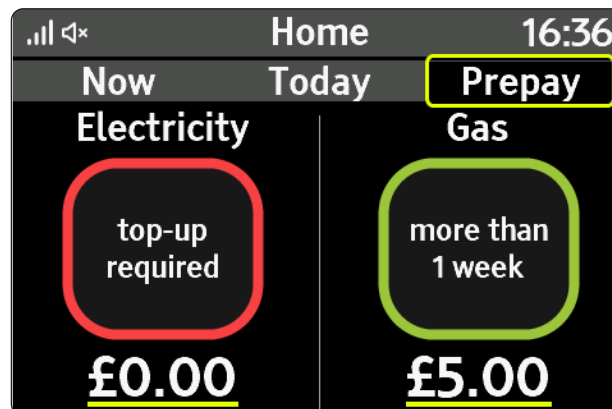
If you have set a budget, the screen will display the percentage of the budget that has been used.

The circle indicates the budget status, these are:

- Green - when less than 90% of budget has been spent
- Amber - When greater than 90% but less than 100% has been spent
- Red - when the budget has been exceeded

Prepay screen

The Prepay screen is only shown if a meter is in prepayment mode.



The prepay screen can show information for both electricity and gas meters.

Balances are displayed for fuels in prepayment mode, along with how many days the balance is predicted to last before running out.

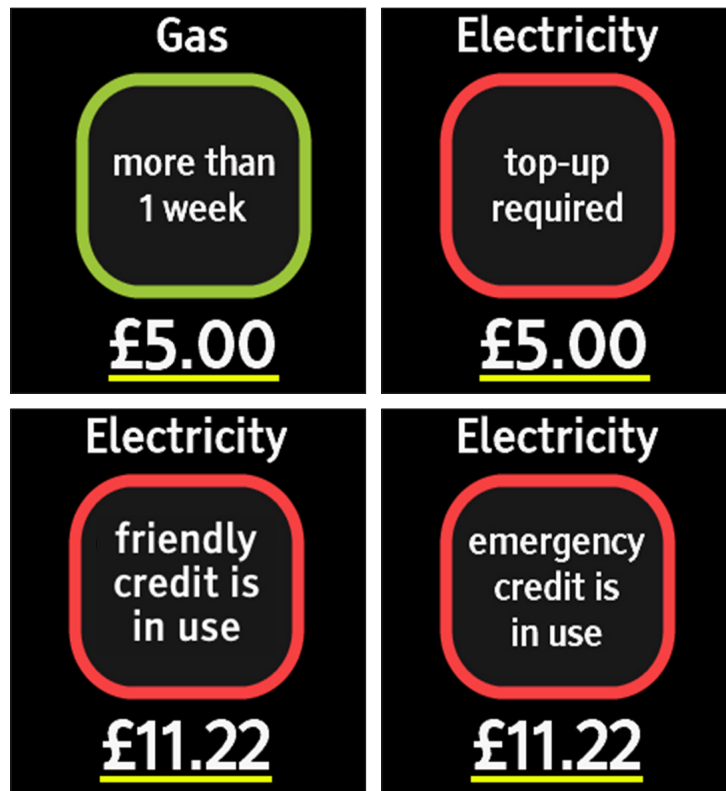
The ring surrounding the text changes colour to indicate how many days balance remain:

- Green - more than 3 days remaining
- Amber - less than 3 but more than 1
- Red - less than one day remaining, text within the ring changes to 'top-up required'

After initial set-up it takes at least 5 days for the Trio to learn normal usage patterns to predict how long the balance will last.

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You can check the status of emergency or friendly credit on the Prepay tab.

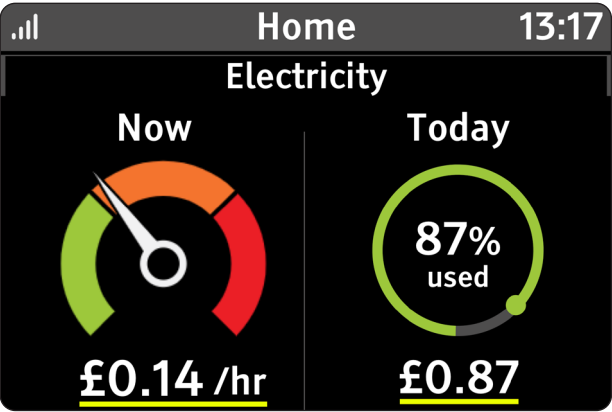


If a minimum top-up amount (also known as debt to clear) has been set by the meter, then a toggle function is available to show either 'minimum top-up' or 'emergency credit remaining'. To select either value press the **OK** button.

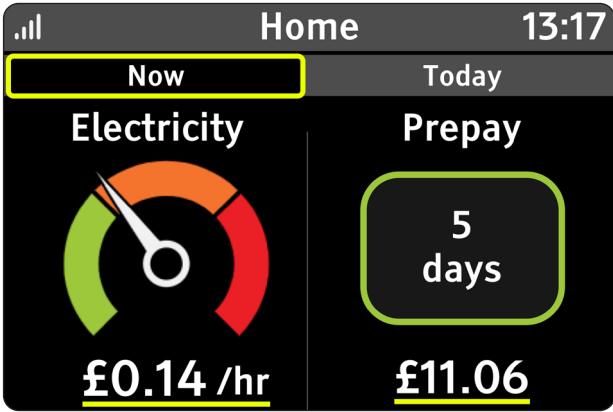
The Trio can display notifications when the prepayment balance is low, to turn these on go Press the menu button, then navigate to the Low credit alert under the Prepay menu.

Single fuel mode

For households with only one meter paired to the display the Home screen will show different information.

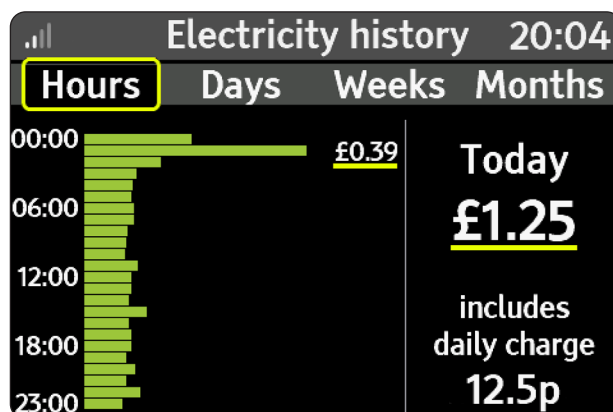


Home screen for credit customers with single fuel



Home screen for prepay customers with single fuel

Usage history screens



Usage history can be found in Menu > Usage history.

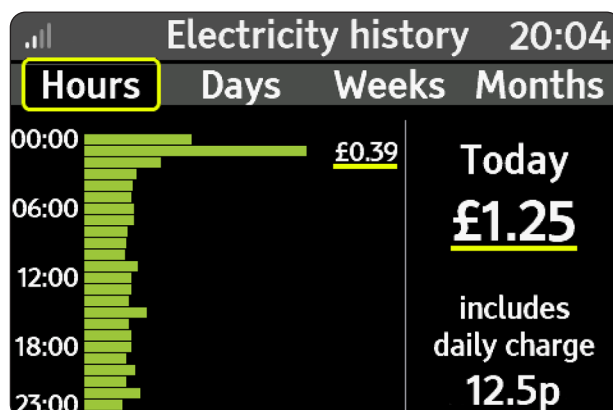
Usage history is split into 4 tabs: Hours, Days, Weeks and Months.

The information is displayed on graphs in either £ or kW, you can switch between these on all screens by pressing **OK**.

Hours tab

The Hours tab has twenty-four bars, one for each hour showing usage for today in £. It is the only tab which does not include daily standing charges on the graph.

The total cost for today includes daily standing charge (if applicable). This means at midnight the total may be greater than £0.00 even if no electricity has been used.

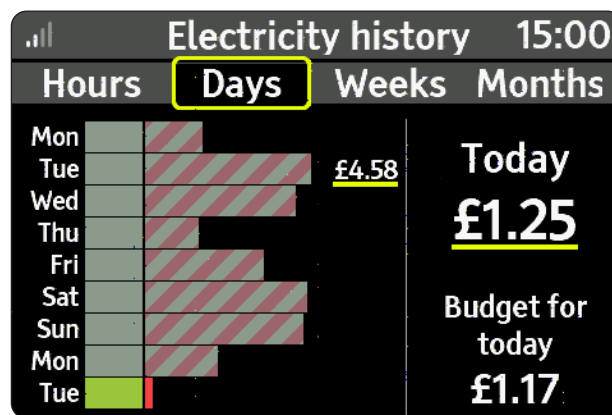


Days tab

The Days tab has nine bars showing usage so far for today and totals for the eight previous days.

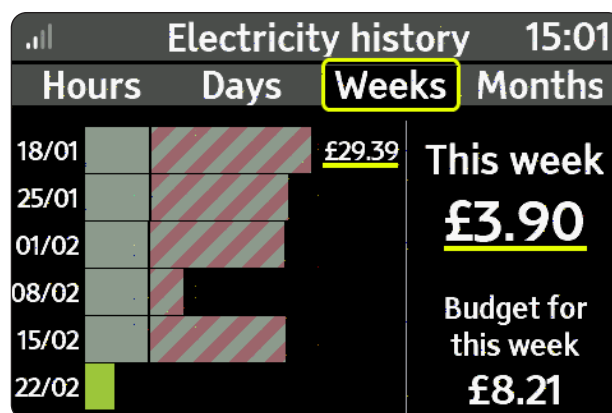
Unlike the Hours tab, daily standing charges are included in the bars (if applicable).

If budgets have been set and the screen is in £ the graph will show red hashes if the daily budget has been exceeded.



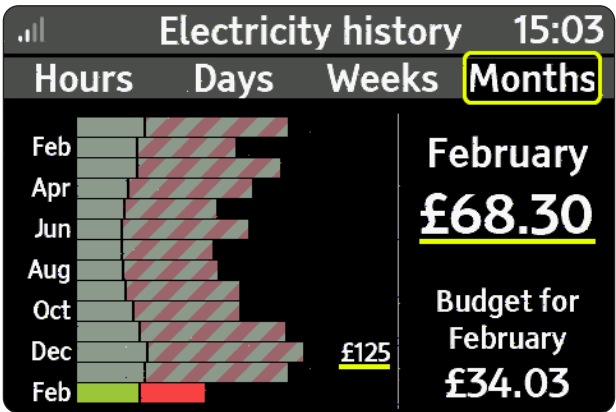
Weeks tab

The Weeks tab has six bars showing usage so far this week and total usage for the previous 5 weeks. Standing charges are included in the graph (if applicable).



Months tab

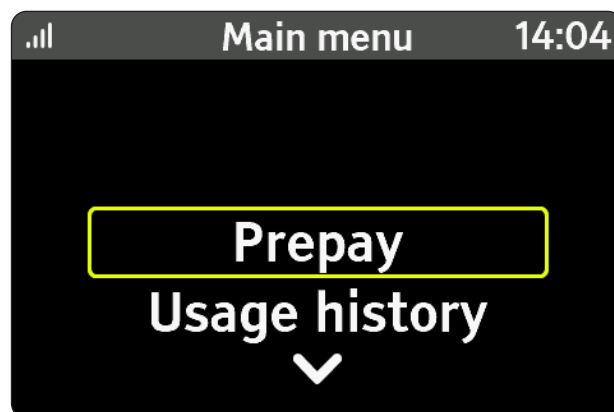
The Months tab has fourteen bars showing usage so far this month and total usage for the previous months. Standing charges are included in the graph (if applicable).



Menu

Overview

Access the Main menu at any time by pressing the menu button (≡). Use the arrow buttons (◀ ▶) to scroll and press **OK** to select. To leave the menu, press the back button (↶)



Prepay (Prepayment meters only)

The Prepay option is only displayed if the meter is in prepayment mode. It allows you to top-up, activate emergency credit (if available), view top-up history and change the low credit alert setting.

System status

System status can be reached from the main menu (Menu > System status).

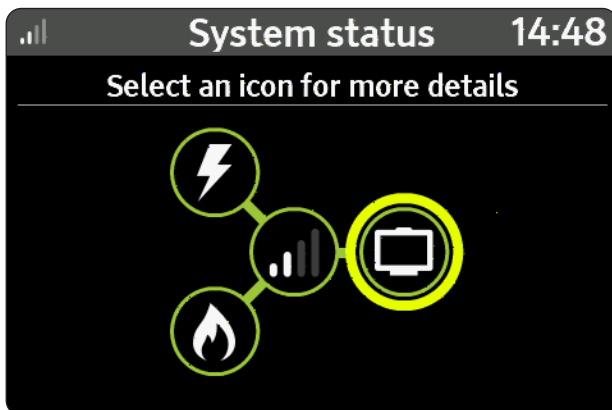
The System screen shows the status of the meter network and connection to WiFi and the cloud (if fitted with a WiFi module).

If there are no issues with the system the status will be green.

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When an issue has been detected with any connection in the system, the status colour will change from green with black fill, to red outline with white fill.

The banner bar will also change to red on all screens to alert users to a problem.



Use the left and right arrow buttons and the OK button to select an icon to find out more details.

The icons show the following:

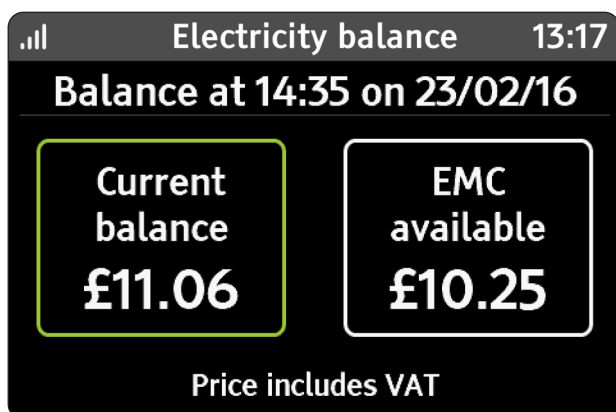
-  Status of the electricity meter (where fitted)
-  Status of the gas meter (where fitted)
-  Signal status between the display and the smart meter(s)
-  Display (always green)

Meter balance

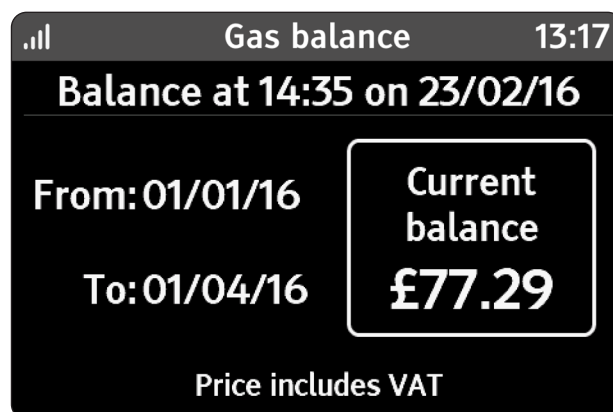
The Meter balance screen can be reached from the main menu (Menu > Meter balance).

When the meters are in credit billing mode, the Meter balance screen shows the current balance of energy used for electricity and gas since the last period.

When the meters are in prepayment billing mode, the prepayment balance is shown plus any emergency credit balance.



Meter balance for prepayment



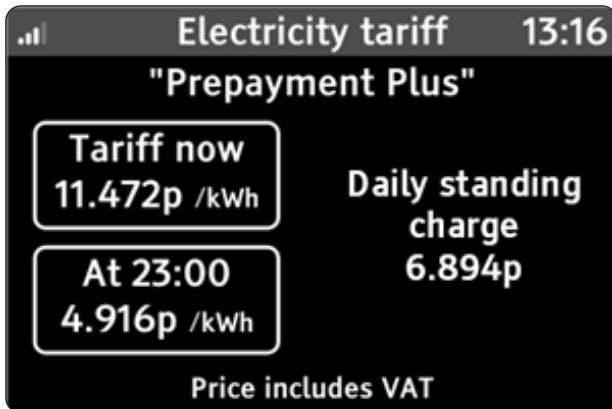
Meter balance for credit billing

The current balance box changes to::

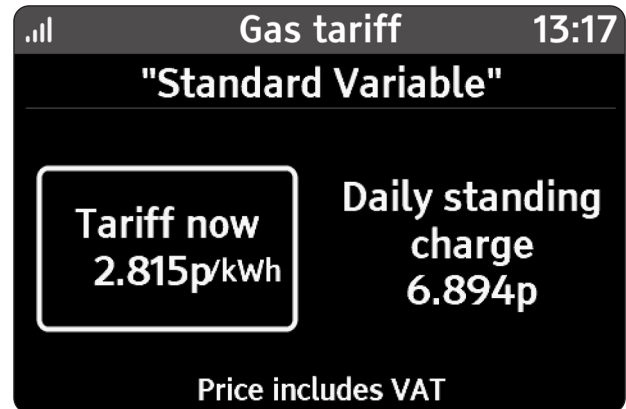
- Green - more than 3 days remaining
- Amber - less than 3 but more than 1 day remaining
- Red - less than one day remaining.

Tariffs

The Tariffs screens show current and next electricity and gas prices along with any other daily standing charges that may apply.



Example tariff with variable charges



Example of single rate tariff

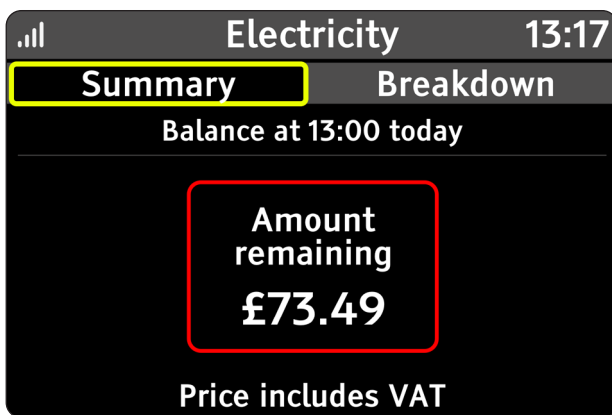
The screen shows the current chargeable unit of electricity or gas with daily charges that may apply, excluding any discounts. For variable tariffs, the current and upcoming rates are shown.

Money owed (prepayment meters only)

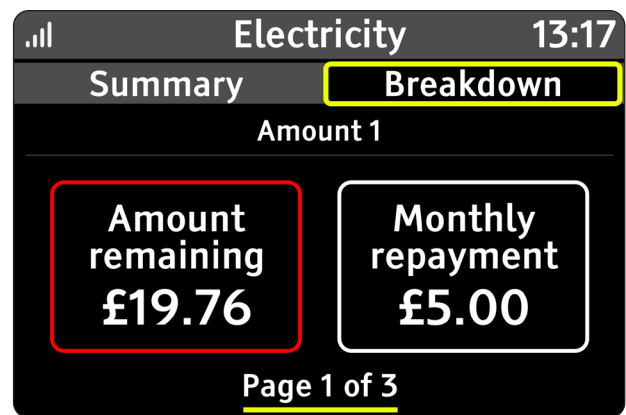
The Money owed screen can be reached from the main menu (Menu > Money owed).

When there is money owed it will be shown with a breakdown of the charges and payment rate.

The Summary tab shows the combined total of all money owed.



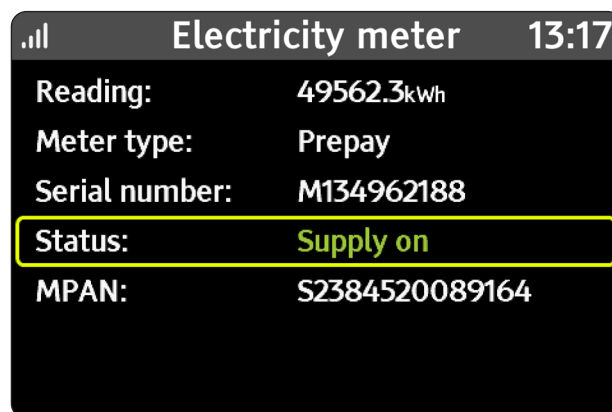
Summary tab



Detailed breakdown with recovery rate

Meters

The Meters screen can be reached from the main menu (Menu > Meters).



The screenshot shows a mobile application interface for an electricity meter. At the top, there is a status bar with a signal strength indicator, the title 'Electricity meter', and the time '13:17'. Below this, a list of meter details is displayed on a dark background with white text. The details include: Reading (49562.3kWh), Meter type (Prepay), Serial number (M134962188), Status (Supply on, highlighted with a yellow border), and MPAN (S2384520089164).

Reading:	49562.3kWh
Meter type:	Prepay
Serial number:	M134962188
Status:	Supply on
MPAN:	S2384520089164

The Meters screen shows information about your electricity or gas meter along with current meter readings.

The supply status will change to reflect the status of your meter the supply status' are Supply on, Supply ready and Supply off.

Support

The Support screen can be reached from the main menu (Menu > Support).

Contact details for your utility provider will be shown on the Support screen. This may include a telephone number and email address. It is only displayed if it has been set by the meter.

Supplier name and customer support items
will be read out character by character.

Prepay (prepayment meters only)

Enable supply

The Prepay screen can be reached from the main menu (Menu > Prepay).

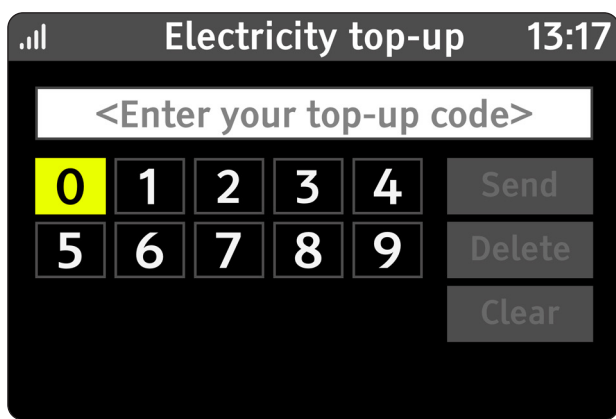
On some meters, the electricity supply can be enabled from the display without having to press a button on the meter. If your meter supports this capability it will automatically appear in the Prepay menu when the supply is ready to be enabled.



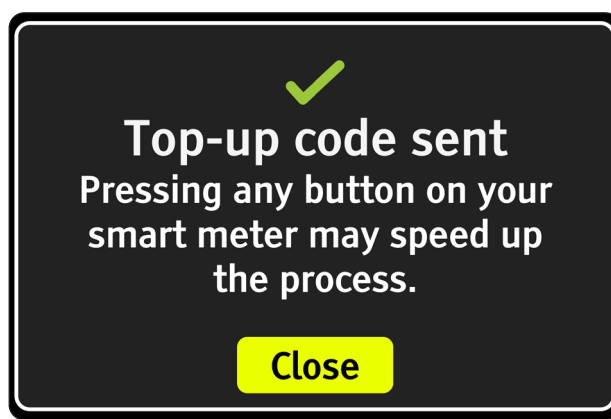
Top-up

The Top-up screen can be reached from the main menu (Menu > Prepay > Top-up) or by pressing the required fuel on the Prepayment screen.

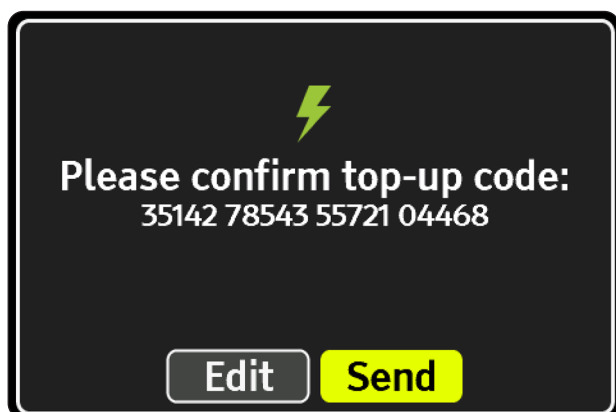
Follow the steps to enter the code, a confirmation will pop-up once it has been submitted.



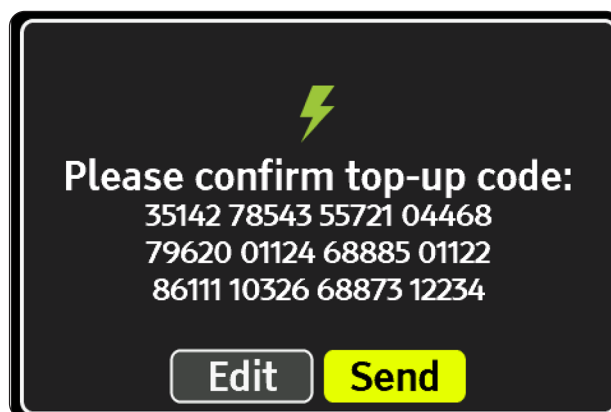
The screenshot shows the 'Electricity top-up' screen with a status bar at the top displaying signal strength, the title 'Electricity top-up', and the time '13:17'. Below the title is a text input field containing the placeholder '<Enter your top-up code>'. Underneath the input field is a numeric keypad with buttons for digits 0 through 9. The digit '0' is highlighted in yellow. To the right of the keypad are three buttons: 'Send', 'Delete', and 'Clear'.



If your code is 40 or 60 digits long, an additional screen will show the code for you to check before submitting.



This screen has a dark background and a white border. It features a green lightning bolt icon at the top. The text reads: 'Please confirm top-up code:' followed by the code '35142 78543 55721 04468'. At the bottom, there are two buttons: 'Edit' and 'Send'.



This screen has a dark background and a white border. It features a green lightning bolt icon at the top. The text reads: 'Please confirm top-up code:' followed by three lines of code: '35142 78543 55721 04468', '79620 01124 68885 01122', and '86111 10326 68873 12234'. At the bottom, there are two buttons: 'Edit' and 'Send'.

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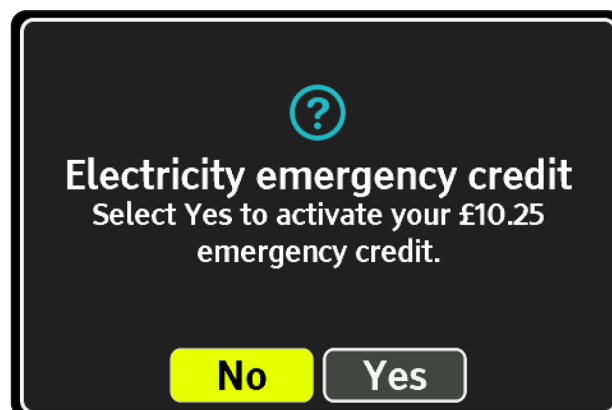
It may take up to 30 minutes for the code to be accepted, you will be notified by a pop-up and audio alert whether it is accepted or rejected.



If you have topped-up via another source, then this will not generate a top-up alert message on your Trio.

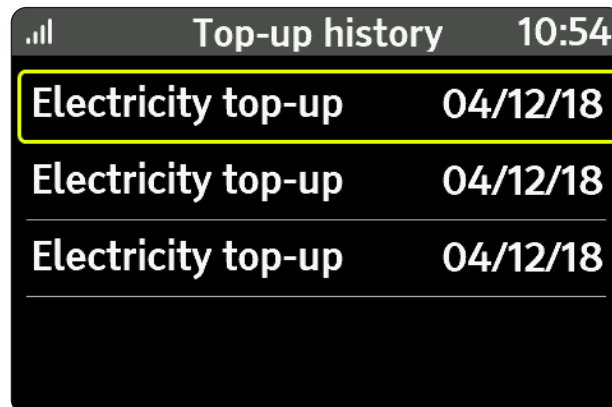
Emergency credit

If emergency credit is available it will appear in the Prepay menu or on the Prepayment screen. The amount shown below is an example only.



Top-up history

The Top-up history screen can be reached from the main menu (Menu > Prepay > Top-up history).



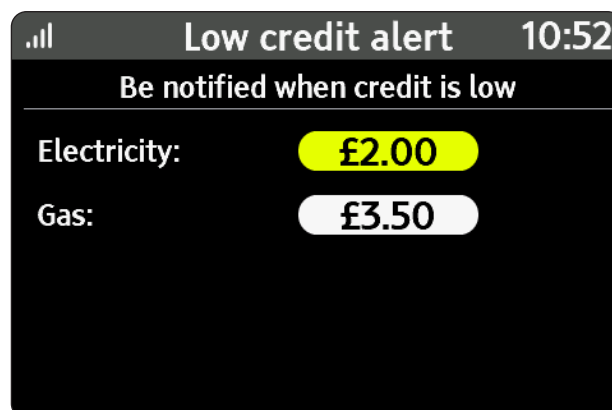
Top-up history	
Electricity top-up	04/12/18
Electricity top-up	04/12/18
Electricity top-up	04/12/18

Select a top-up to find out more details.

Not all meters support prepayment top-up history.

Low credit alert

The Low credit alert setting can be reached from the main menu (Menu > Prepay > Low credit alert).



Low credit alert	
Be notified when credit is low	
Electricity:	£2.00
Gas:	£3.50

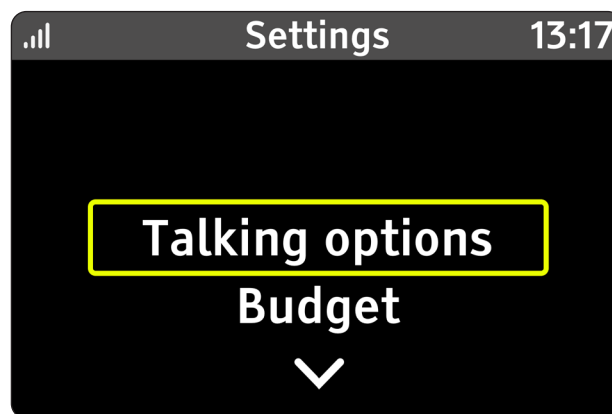
The low credit alert displays when the credit balance is low. It is set to £2.00 by default.

The amount can be changed for each fuel in prepayment mode by selecting the fuel and entering a new value.

Settings

Overview

The settings menu can be reached from the main Menu (Menu > Settings).

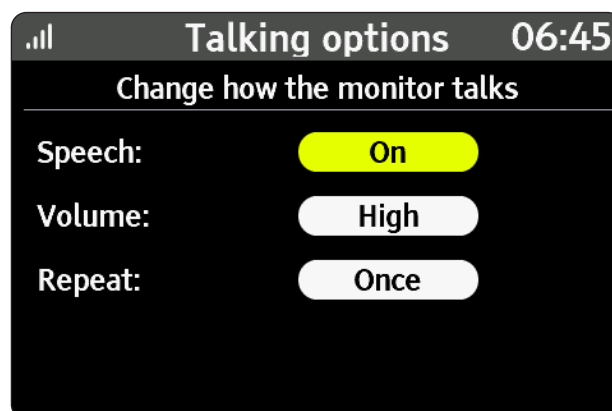


Talking options

The Talking options screens can be reached from the main Menu (Menu > Settings > Talking options).

The display reads out the contents of each screen. Speech can be interrupted at any time by pressing middle button on top of the display. If speech has finished, the button can be pressed to hear it again.

The screen has 3 options: Speech, Volume and Repeat.



Speech

Pressing OK while on the speech setting turns speech on or off. Speech can also be turned off by pressing and holding the middle button on top of the display.

Volume

Adjusts the speech volume level between Low, Medium and High. By default the volume is set to Medium.

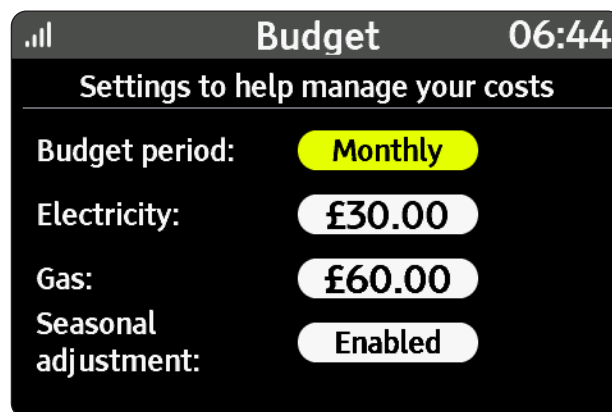
Repeat

Can be set to Always repeat, Limited repetition or Repeat once.

- Always repeat - alerts are repeated every 5 minutes
- Limited repetition - alerts are repeated 5 times
- Repeat once - alert is only spoken when shown

Budget

The Budget screen can be reached from the main Menu (Menu > Settings > Budget)

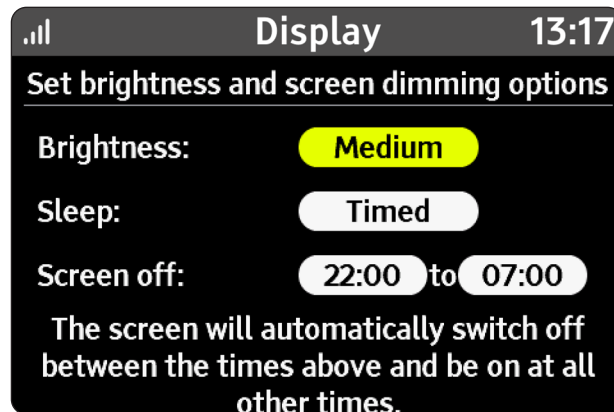


Budgets can be set for each fuel to help track energy usage.

Select the period for the budget for both fuels; either daily, weekly or monthly.

Display

The Display screen can be reached from the main Menu (Menu > Settings > Display).



Brightness

Set the brightness of the display's screen by selecting High (100%) Medium (50%) or Low (20%).

When the display is running on battery power the brightness will default to medium and the display will turn off after 1 minute of inactivity. Once the display is running on mains power again all display settings will revert back to their set values.

Sleep

This setting determines when the display's screen will switch off, there are 3 settings:

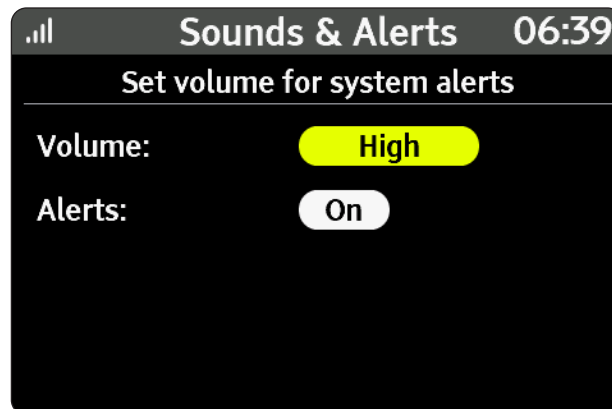
- Always - screen switches off after 1 minute of inactivity
- Never - screen is always on
- Timed - the screen off period will be shown (this is the default setting)

Screen off

The screen will turn off between the period set. When the screen is off, press any button to wake up the device.

Sounds & Alerts

The Sounds & Alerts screen can be reached from the main Menu (Menu > Settings > Sounds & Alerts).



The Sounds & Alerts screen has two options: Volumes and Alerts.

Volume

Sets the volume of all sounds and alerts. Select to change the volume level; High (100%), Medium (50%), Low (20%). This setting does not affect Talking options for the Accessible display.

Alerts

Set to On to receive audible notifications of new alerts.

If alerts are disabled, new alerts will still be displayed on the screen, but without an audible notification.

Advanced

The Sounds & Alerts screen can be reached from the main Menu (Menu > Settings > Sounds & Alerts).

The advanced features include:

Device info

Information including the serial number and software version of your Trio. You may need this information when contacting your energy provider.

This screen is not supported by speech

Usage level

The electricity on the Now home screen can be scaled to match the typical usage levels of your home. The screen has four options: Meter, Low, Medium and High.

Select from one of the following options to set the maximum reading the dial can show:

- Meter - set to meter defaults
- Low - homes with low electricity usage
- Medium - homes with average electricity usage
- High - homes with higher than average electricity usage

The dial thresholds between green to orange, and orange to red are changed as shown in the table.

Usage level setting	Green/orange threshold	Orange/red threshold	Maximum
Low	1kW	6kW	12kW
Medium	2kW	10kW	18kW
High	3kW	12kW	24kW

Reset device

The Reset device screen can be reached from the main Menu (Menu > Settings > Advanced > Reset device)

Use this screen to remove all user settings including budgets, WiFi (if fitted), alerts and historic consumption data.



The screen has three options: Reset settings, Reset data and Reset all.

Reset settings: Clears all system settings including budget, display, colour theme, sounds/alerts, WiFi, and usage levels.

Reset data: Clears all historic consumption data and totals, including user messages and alerts. This can be used if you are moving house (and leaving the Trio) and want to clear this data.

Reset all: Performs both Reset settings and Reset data.

Engineer


This screen is for installation engineer use only.

This screen is not supported by speech.

Troubleshooting

FAQs

My display isn't showing any information

If your display shows Awaiting data and the banner bar is red, or there is no  symbol in the banner bar, this could be because your display is out of range and is not able to communicate with the smart meter. Try moving your display closer to the smart meter.

If problems persist, please contact your supplier.

Display keeps repeating the same speech every few minutes

The display speech repeat setting has been set to Always or Limited. Change it to Once (Menu > Settings > Talking options > Repeat).

My display is blank or has switched itself off

The display backlight may have turned itself off to save power, press one of the buttons to switch it back on. This setting can be changed under Menu > Settings > Display.

If you unplugged the display, the display may have switched itself off to prolong the battery life. Press any button to turn it back on.

If the battery is flat reconnect the mains adaptor to recharge the battery.

Battery running time is four hours. We recommend the display is powered continuously using the power supply provided.

How do I turn off the audio or stop it talking?

To stop the display from talking, long press the top button (it is the middle LED). The display will tell you speech has been turned off.

Additionally speech can be interrupted. While the display is speaking press the top button to interrupt speech. This will not affect the device the next time it is due to speak.

How long will the battery last?

The rechargeable battery should last around four hours with the default settings. When using the battery the display will dim, and the screen will switch off when not in use.

My Display has frozen, how do I reset it?

To reset the display, unplug the lead from the back. Then press the Home button while reinserting the lead.

Status codes

Your display may show a status code when there is a problem.

Code(s)	Status	Resolution
20, 21, 22, 26	Connection problem	Display unable to communicate with the meter networks. Try moving the display closer to the smart meter(s) or contact your utility provider.
23, 24, 25	Meter network data problem	Display is connected to the meter network, but not receiving all data. If the problem persists, contact your utility provider.
28	Electricity meter problem	Display is connected to the electricity meter, but not receiving all data. If the problem persists, contact your utility provider.
29	Gas meter problem	Display is connected to the electricity meter, but not receiving all data. If the problem persists, contact your utility provider.
30	WiFi module not found	WiFi module problem. Please remove and re-insert the power supply or contact your utility provider.
40 ... 44	Cloud problem	Display is waiting for cloud data service, please wait.

www.geotogether.com
For any help or support
please contact your supplier

