



# **zioxi Rechargeable powerHub**

## **User Guide**

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## Warning and Safety Instructions

### Technical Safety

- Maintenance and repairs should only be carried out by a suitable qualified, competent and manufacturer approved person in accordance with local and national safety regulations. Repairs and other work by unqualified persons could be dangerous and the manufacturer will not be held liable.
- Before use, check the appliance for visible signs of damage. Do not attempt to use a damaged appliance.
- Use only the supplied mains lead with the correct IEC connector to connect the appliance to the mains electricity supply.
- Never open the casing of the appliance. Tampering with electrical connections or components and mechanical parts is highly dangerous to the user and can cause operational faults.
- While the appliance is under guarantee, repairs should only be undertaken by a service technician authorized by the manufacturer, otherwise the guarantee will be invalidated.
- During any maintenance and repair work the appliance must be disconnected from the mains supply, the on / off switch should be turned off and the power conversion module switched off.

### Correct Use

- The appliance is designed for use with lower power mobile computing devices
- Always use the appliance on a clear and level surface
- Do not place heavy objects on the appliance
- Do not sit on the appliance
- Avoid the spillage of liquids on the appliance
- Do not insert any object into any opening
- Store the appliance in it's upright position, with lockable castors locked
- Always re-charge the appliance in a ventilated space
- Avoid exposing the appliance to high temperatures and significant impact forces
- If the appliance is being left unused for a long period of time, turn the appliance off

### Disposal and Caring for the environment

- The transport and protective packing has been selected from materials which are environmentally friendly for disposal and can normally be re-cycled.
- The appliance contains materials eg. batteries, which if disposed of incorrectly, could be potentially hazardous to human health and to the environment. Please dispose of the appliance at your local waste collection / recycling centre or contact your dealer for advice.

## Overview

The **zioxi** range of Rechargeable powerHubs provide a mobile, rechargeable mains and/or USB power source for use in any setting where fixed mains power sockets are not available. The powerHubs contain rechargeable batteries in 3 different capacity variants. As a guide, powerHubs with 100Ah battery capacities (codes containing R100) have approximately 1000Wh of output capacity when the batteries are new.

The powerHubs are designed with a simple Timed On button which when pressed turns the power on for a set period of time – this time is factory set at 60 minutes but can be re-programmed to any time period. However leaving the powerHub on & providing mains power to the power sockets even when the sockets are not in use will drain the batteries, so is to be avoided. The Timed On feature is therefore designed to prevent inadvertent & unnecessary depletion of the batteries. Recharging the batteries is typically an overnight exercise.

**zioxi** Rechargeable powerHubs delivered from April 2017 onwards are fitted with a microprocessor control system which includes the capability of remote web based monitoring and control using **zioxi** onView. The onView web app provides the ability to remotely view current powerHub status (such as battery charge levels), change settings, send commands, receive alerts and review usage. Using **zioxi** onView requires the powerHub's WiFi connection to be configured to one or more WAPs using the powerHub's Admin function and also requires user provisioning and licencing to be arranged via the **zioxi** team. The use of onView is described separately in the onView Guides (available from the onView web site Support pages once logged in).

powerHub Controls Diagram



### Starting Up the powerHub

The powerHub is delivered turned off. The switch for turning on the powerHub system is discretely hidden under the top.



Toggle this switch to the on position so the powerHub screen comes on. This on / off switch can be used to turn off the powerHub at any point (eg. during holiday periods) and may be useful if the powerHub needs to be “re-booted”.

Initially the screen will display the zioxi logo, followed by the Re-start screen (which includes product code & version information).



The powerHub will then revert to the Standby screen.

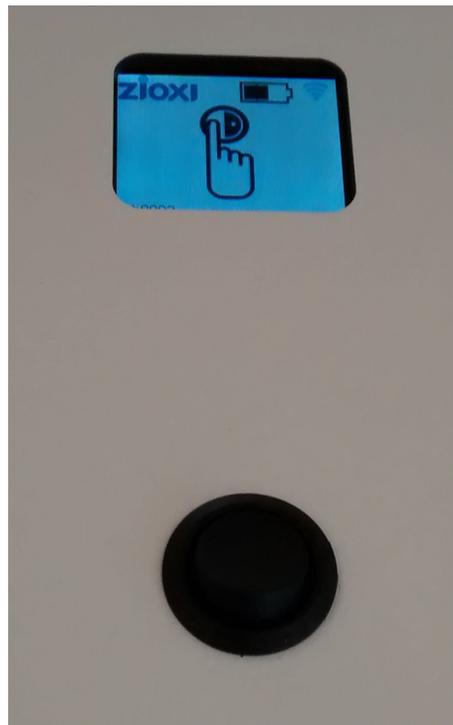
The screen header displays the battery charge level and the WiFi connection status alongside the zioxi logo. In the bottom left of the screen, the powerHub serial number will be displayed (or a Device Name if this has been entered using onView).

The Standby screen will go off once the Display on Time has expired.

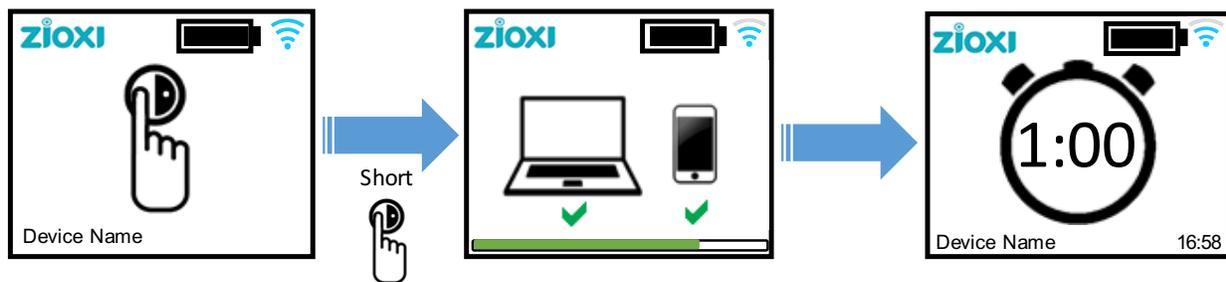
### Timed On

The powerHub is designed to be turned on for a set period of time only to prevent battery drain.

Pressing and releasing the black Timed On button (on the powerHub top) will turn on power to the powerHub sockets for the Timed On period and then automatically turn off. The powerHub can simply be re-started by pressing and releasing the button again. The Timed On period is factory set to 60 minutes but this time can be changed using the onView web application.



The display will show the following sequence of screens. If the display is off initially, it will first show the zioxi logo screen.



The laptop & smartphone screen indicates the powerHub is designed to provide top up power

for mobile devices. It is not intended for use with high power devices such as hoovers, kettles and heaters - if devices of this nature are connected then the safety systems within the powerHub will kick in and power will turn off. An alarm may sound warning the user(s) that too much power is being requested from the powerHub. This condition can also arise if too many medium power devices (eg. high end laptops) are plugged into the powerHub at the same time. In this case, removing the last device to be plugged in may reduce the power load to an acceptable level.

The Timed On screen displays the number of hours and minutes remaining. The timer can be increased back up to the maximum of the Timed On period by pressing the button again whilst the powerHub is in Timed On mode.

Pressing & holding down the black button for more than 3 seconds will turn off the timer and return the powerHub to the Standby screen.

### powerHub Battery State of Charge

The state of charge of the rechargeable batteries within the powerHub is displayed in the header bar on most screens.



Once the battery gauge symbol changes from Black to Amber it is advisable to recharge the powerHub at the next convenient opportunity. Once the battery gauge changes to a single Red bar then the powerHub should be re-charged immediately.



If the powerHub is left for a further period of time without re-charging then to protect it's batteries it will automatically turn off power to the powerHub sockets, display a red warning

triangle for 5 seconds, before turning off the screen. The powerHub can be woken from this state by pressing the black button.

If the state of charge of the batteries is allowed to reduce still further, the powerHub will automatically go into a deep sleep mode. To recover the powerHub from this mode it will need to be turned off and back on using the on / off switch underneath the top (even if it has been plugged into a mains supply for charging).

The state of charge of each powerHub can be viewed remotely using onView.

If a powerHub is going to be left idle for a significant period of time (eg. through a holiday period) then it is advisable to ensure the powerHub is fully charged before it is left. Rechargeable batteries will naturally lose their charge when left inactive. It is also advisable to either turn the power off (using the on / off switch under the top) or remotely send the powerHub to sleep using the onView Sleep command.

### Re-charging a powerHub

To recharge a powerHub simply plug it into a mains supply using the IEC (kettle) lead supplied. The IEC connector plugs in under the base of the powerHub. The position is indicated by 2 holes in the base plate. When the mains lead is not in use it must not be plugged into one of the powerHub's main sockets and IEC connector in the base at the same time.



The powerHub can be re-charged by either wheeling the powerHub to a convenient socket or temporarily running an extension lead to the powerHub. It is advisable to recharge powerHubs in locations with some ventilation. Always re-lock the 2 locking castors after re-locating the powerHub.

Once the powerHub is connected to mains, the screen will change to display it's charging mode and the length of time on charge in that mode.



The charging mode will automatically change between the 3 modes as each phase of charging is completed. The length of time required for a full charge from a fully depleted battery will vary depending on the powerHub capacity but will typically be 12 to 16 hours. **zioxi** onView can also be used to remotely monitor the Charging status.

Once the powerHub has entered Trickle charge mode it is almost fully re-charged so can be used if required.

The powerHub sockets can be used whilst the powerHub is connected to the mains supply and the powerHub will continue to charge it's batteries.

The life of the powerHub rechargeable batteries is dependent on a number of factors. If a powerHub is recharged everytime when it reaches Amber on the battery gauge then typically after 500 recharge cycles the batteries will operate to 80% of their original capacity (this is the optimal re-charging approach). The batteries can be replaced as a chargeable return to factory (or approved zioxi agent) service.

### Moving a powerHub

**zioxi** powerHubs are designed with castors to enable them to be moved around & located anywhere inside a building. Before moving a powerHub ensure that both locking castors are unlocked first, and then re-engaged once the powerHub is re-located.

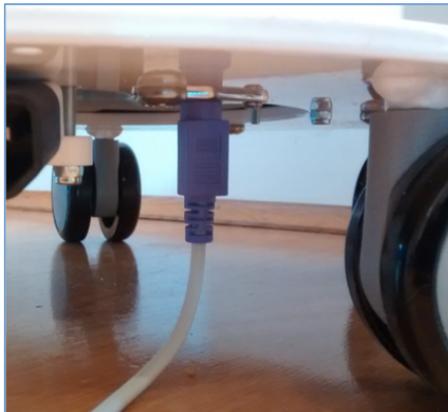


powerHubs are heavy items so care needs to be taken when moving them around, especially when encountering door stops and ridges. They are designed for storage in a vertical orientation. If there is a need for storage in a horizontal orientation eg. for transport purposes, then a powerHub should be stored with the mains connector under the base ring in the lowest position (ie underneath).

### Admin mode

To establish a Wifi connection between a powerHub and one or more Wifi Access Points (WAPs) it is necessary to go into the powerHub Admin mode.

The Admin mode login screen is triggered when a PS/2 keyboard is plugged into the keyboard connector in the base of a powerHub and any key is pressed.



The keyboard connector is hidden away on the underside of the base adjacent to the mains power connector. It may be necessary to tip the powerHub on it's side to easily access this connector – please get assistance in order to do this. Please note a true PS/2 keyboard is currently required. A USB to PS/2 adapter will not usually work. If you can't get hold of a PS/2 keyboard then please get in touch and we will be happy to help. Please do not wheel the powerHub around with the keyboard plugged in.

Once a PS/2 keyboard is connected, the display will present an Admin login screen. The default login code is 000000. This code should be changed to a code of your choosing once you are in Admin mode. This local Admin passcode can also be changed using onView.

Once successfully logged in, an Admin menu of options is presented. Choose the Wifi option then select the "Show available WAPs" sub-menu and follow the on screen instructions to set-up credentials on the powerHub in order it can access your chosen WAP. Credentials for up to 5 WAPs can be stored on a powerHub.

Please note that the Wifi set-up & change processes can take some time for the device to complete. Other Wifi configuration functions including Clearing Stored WAPs are available from the Wifi menu.

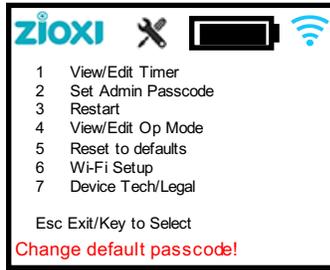
The powerHubs support the following Wifi security & encryption types:

- None, WEP, WPA, WPA2
- AES, TKIP

If required for Wifi router provisioning the powerHub MAC address can be found on a label on the powerHub (usually on the base) or can be retrieved from the Device Details Technical page within onView.

A future release will support WPA2 Enterprise. "Captive" Wifi security where a user enters credentials into a custom login screen is currently not supported.

Once a Wifi connection has been successfully established the empty Wifi symbol will change to a black Wifi symbol (depicting a local Wifi connection) then to a cyan Wifi symbol which confirms the powerHub device is connected to the zioxi cloud service. The number of WiFi bars that are coloured indicates the strength of the Wifi signal.



Once a WiFi connection has been made to the zioxi cloud service all other powerHub Admin functions can be performed using onView.

Several Admin functions are also available locally from the powerHub's main Admin menu. Select a menu option using the keyboard and follow the on screen instructions. Use the ESC key to back-up and to exit Admin. The powerHub will automatically exit Admin if inactive for 60 seconds.

### onView Web based powerHub management

onView provides a web based application which enables functions to be performed remotely from any device, anywhere. onView includes the following features:

- **view** current status information such as battery state of charge, mains charging status and location
- **change** powerHub settings such as Timed On period, Device Name, Daylight Saving Time and Admin passcode
- **send** instructions such as turn on or off, operate to an on/off timer schedule, send to sleep and reset
- **receive** email & dashboard alerts based on your own rule definitions such as battery level low and charging complete
- **review** usage history including how much the powerHub has been used, how long it was last on charge and when it was last turned on
- **update** the firmware installed on a powerHub to add product enhancements & fixes

The screenshot shows the zioxi onView dashboard with the following details:

- Navigation:** DASHBOARD, DEVICES, REPORTS, SUPPORT. User profile icon in the top right.
- Left Sidebar:**
  - 7 Devices** (with refresh icon)
  - PRODUCT** (clear filter):
    - Charging Trolley
    - Charging Trolley - Soft Start (2)
    - deskSense (1)
    - powerHub (4)
  - LOCATION**:
    - Cedar Development Centre (1)
    - Newbury Campus (1)
    - zioxi Main Building (5)
    - No Location
- Main Content Area (Devices):**
  - CHROMEBOOK 32 TROLLEY:** zioxi Showroom, icwifi, Logged Out, Unlocked.
  - LAPTOP 15 TROLLEY:** zioxi Showroom, icwifi, Logged Out, Unlocked.
  - RECHARGEABLE HUBTABLE:** zioxi Showroom, icwifi, Standby, High Charge.
  - TALL POWERHUB:** zioxi Showroom, icwifi, Standby, Full Charge.
  - ZDS0001:** Sales Office.
  - ZRH0003:** Newbury Room.
  - ZRH0010:** Innovation Lab.

In order to use onView a licence agreement needs to be completed, signed and returned to zioxi. An administrator's login for your organization will then be created from which user, location, schedule, rule and device configurations can be performed. There are separate guides for using onView in the Support area of the onView web site.

If you would like to start using onView then please contact us via [support@zioxi.co.uk](mailto:support@zioxi.co.uk) providing your contact details, organization and the serial numbers of the products you'd like to include in your licence agreement (serial numbers can be found on the powerHub screen and/or on a label attached to the product) and we will then send you a licence agreement to sign & return. If you have not purchased the product directly from us but via a reseller please include their details.

## Appendix 1 – powerHub Troubleshooting guide

Symptom	Potential causes	Possible solutions
Black or blank screen	powerHub is turned off	Turn on using the on / off switch located under the powerHub top
	Battery charge level is low	Press the Timed On button, screen will display a warning triangle, then a connect to mains power icon and then go black again. Plug the powerHub into a mains supply.
	Battery charge level is critical and powerHub is in deep sleep	To recover from this mode the powerHub will need to be switched off & back on using the on / off switch under the powerHub top. Plug the powerHub into a mains supply first & re-charge the batteries immediately.
	The powerHub has been put into Sleep mode remotely using onView	Press the Timed On button on the powerHub to wake it up
WiFi symbol stays black (or partially black) - should go blue	Intermittent WiFi connection	If the Wifi signal is weak the connection maybe intermittent and not connect long enough for the zioxi cloud connection to be made. Explore solutions for improving the signal strength. This is indicated by the number of bars that are highlighted on the web symbol and can be reviewed using the onView Device Details screen.
	Delay in achieving a connection	Sometimes the connection to the zioxi cloud takes a few minutes. If it takes longer than this, it may be worth pressing the Timed On button or turning the powerHub off & on to see if that re-establishes the connection.
WiFi connection isn't achieved	Password incorrect	Within local Admin, try re-entering the password (& if necessary Clearing Stored WAPs before doing so)
	MAC address not provisioned on the wireless router	The powerHub MAC address can be found on a label on the underside of the powerHub base or under Device Details on onView
	Security method not supported	Review the powerHub User Guide for supported security & encryption types
Wifi credentials have been lost	The powerHub can store a maximum of 5 WAPs' credentials	The powerHub stores the last 5 WAPs credentials that have been entered only. With the powerHub within range of the required WAP re-enter the WAP's credentials.

Symptom	Potential causes	Possible solutions
A red warning symbol is displayed when the Timed On button is pressed	The powerHub needs charging	Plug the powerHub into a mains socket using the supplied IEC (kettle) lead.
The power to the sockets turns off when or shortly after a device is plugged in	Too much load has been plugged into the powerHub	Unplug the last device to be plugged into one of the powerHubs sockets. The powerHub should then recover automatically from the overload condition
	The battery charge level is low	Re-charge the powerHub
The powerHub makes a beeping noise	Too much load has been plugged into the powerHub	Unplug the last device to be plugged into one of the powerHubs sockets. The powerHub should then recover automatically from the overload condition
One socket has stopped working	The socket fuse has been blown	On some country sockets (eg. UK) there is a 3.15A fuse to protect the powerHub and comply with country specific electrical safety standards. Plugging a high powered device such as a Hoover, heater or kettle into a socket is likely to blow this fuse. Replace the fuse and identify which device may have caused the issue.
powerHub capacity has reduced	The Rechargeable batteries have reduced capacity as a result of degradation with use	Once the level of charge capacity retained after a full powerHub re-charge becomes insufficient for normal use contact zioxi or your local zioxi reseller to arrange a chargeable replacement of the batteries.
Clicking noise after pressing the Timed On button	Mains charging lead is plugged into both the charging IEC connector in the base and a mains output socket	Unplug the mains lead from the powerHub output socket
An error message is displayed on the powerHub screen	Potential software issue	Try a power off & on (using the switch under the top surface) and report the issue to zioxi using support@zioxi.co.uk

<b>Symptom</b>	<b>Potential causes</b>	<b>Possible solutions</b>
The clock on the device is incorrect by 1 hour	Update the Daylight Saving Time setting	Using onView, go to Device Details Edit screen and update the Daylight Saving Time setting (On or Off)
The clock on the device is incorrect	The Time Zone is incorrectly set	Using onView, go to Device Details Edit screen and update the Time Zone setting