

QB3 display Z-Wave documentation

This device is a security enabled Z-Wave Plus™ product that is able to use encrypted Z-Wave Plus messages to communicate to other security enabled Z-Wave Plus products.

In order to access the Z-Wave™ webpage, please make sure the device is connected to Wi-Fi. Local access should be enabled in the Internet-tab of the Settings app.

The IP-address of the device is listed in the Internet-tab of the Settings app. Use a web browser (on a device connected to the same LAN as the QB3 display) to browse to the IP-address of the QB3 display.

The following web page should show up in your browser:



- On the 'Control' tab, devices will become visible, once added to this device's Z-Wave network
- On the 'Network functionality' tab, Z-Wave network information and functionality is available.
- The 'Documentation' tab provides instructions on how to use this webpage.

Inclusion (Add)

To include a device into the existing network, go to the 'Network functionality' tab and press the 'Include' button. This will open up the 'Include Device' popup.

Press the 'Start' button to start the inclusion process. Next press the inclusion button (or use another way to start the learn mode) on the joining node.

Security S2

If the joining node support Security S2, a dialog will popup asking which security keys to grant to the joining node. Please select the keys you want to grant and press 'Accept'.

If the joining node has requested client-side authentication, a checkbox to allow this will be present above the security keys. If you allow client-side authentication, a dialog will show with the first 10 digits of the inclusion public key. These first 10 digits should be entered on the joining node.

Alternatively, when not using client-side authentication. If one (or multiple) security keys have been granted, which require the node to be authenticated, a device will popup asking the user to input the first 5 digits of the Device Specific Key (DSK) of the joining node. Enter the first 5 digits of the DSK and click the 'Accept' button.

Interview

Please note that the inclusion process can take a long time (up to 60 seconds), due to the fact that the node is interviewed for its capabilities.

When the inclusion process is complete, a dialog will popup showing the device information. You can (optionally) enter a device name. Click the 'Save' button to store the new device name.

Exclusion (Remove)

To exclude a device from the network, go to the 'Network functionality' tab and press the 'Exclude' button. This will open up the 'Exclude Device' popup.

Press the 'Start' button to start the exclusion process. Next press the exclusion button (or use another way to start the learn mode) on the to-be-excluded node.

When the exclusion process has completed successfully, the dialog will show which node has been excluded. Press the 'Close' button to close the dialog.

Learn Mode

To start learn mode, go to the 'Network functionality' tab and press either the 'Classic' or 'NWI' button, under the 'Learn Mode' header. This will open up a learn mode popup.

Press the 'Start' button to start the learn mode. The dialog will show this device's DSK, which can be used to include the device securely into an existing Z-Wave network. Enter the first 5 digits of the DSK on the including node.

Learn mode can be used to add this device into another Z-Wave network. It can also be used to receive network information from another controller

When learn mode has completed, the dialog will be updated to show the status. Press the 'Close' button to close the dialog.

Replication (Copy)

Controller replication (Copy) is achieved through Inclusion and Learn Mode

The main controller has to start the inclusion (add mode). The second controller, that shall receive the updated network information, has to activate the learn mode.

Reset to factory defaults

The Z-Wave functionality of the device can be reset to factory defaults by using the 'Factory Reset' button on the 'Network functionality' tab. Pressing this button will open the Factory Reset dialog.

If you press the 'Reset' button in the dialog, all Z-Wave functionality will be reset to factory defaults. All information about included devices will be lost. A new HomeID will be generated following a successful factory reset. Please use this procedure only when the network primary controller is missing or otherwise inoperable.

Supported functionality

Please see the below table to check which functionality is supported at which security level. The table header contains three states in which different functionality is available: 'Not added', 'Non-secure added' and 'Securely added'.

The 'Not added' state is active when the device is in learn mode and is waiting to join another network. After the device has joined a network, the state changes to either 'Non-secure added' or 'Securely added'. If learn mode is disabled without joining a new network, the state is reverted to the previous state.

The 'Securely added' state is active when this device has started it's own network, is alone in the network or has been added to another secure network. This column consists of two sub-columns; Non-Secure depicts the normal (unsecure) NIF. Secure depicts the Security Commands Supported Report.

For the 'Secure' column, please take into account that this device will only support the functionality at the highest security level it has in common with the node requesting the data.

Command class	Version	Not added	Non-secure added	Securely added / own network	
				Non-Secure	Secure
Application Status	1	X	X	X	
Association	3	X			X
Association Group Info	3	X			X
CRC16	1	X	X	X	
Device Reset Locally	1	X			X
Firmware Update	5				X
Inclusion Controller	1	X	X	X	
Indicator	3	X			X
Manufacturer Specific	2	X			X
Multi Channel Association	4	X			X
Multi Command	1	X	X	X	
Network Management Basic	2				X
Network Management Inclusion	3				X

Network Management Installation Maintenance	2				X
Network Management Proxy	2				X
Power Level	1	X			X
Security	1	X	X	X	
Security 2	1	X	X	X	
Supervision	1	X	X	X	
Time	1	X	X	X	
Transport Service	2	X	X	X	
Version	3	X			X
Z-Wave Plus Info	2	X	X	X	

Basic Command Class

Basic Command Class is not supported by the device. The device will ignore Basic commands.

Association Command Class

This device supports one association group (number 1) for Lifeline. This group supports only 1 node. The Device Reset Locally Notification is sent to this node.

Firmware Update Command Class

This device supports Firmware Update. It is technically possible to update the Z-Wave controller firmware, provided that special firmware images are used and the device is included securely. In order to avoid a non-working device, this is strongly discouraged.

Controlled functionality

Basic Command Class

This device can control other Z-Wave devices with the Basic Command class. Go to the 'Control' tab and press the 'Basic' button to open the Basic dialog. In this dialog you can choose to send either a Basic Get (using the 'Get' button) or a Basic Set (using the 'Set' button).

Firmware Update Command Class

This device can Firmware Update other nodes. This is not possible using this user interface, but only using the touchscreen UI.

Firmware Update is only supported for the Quby Energy Meter Reader (PN: 6500-1400-6000 and 2000-0000-15-00 variants).

A notification will appear on the touchscreen UI, in case a firmware update is available for a device.

Meter Table Config Command Class

This device can control other Z-Wave devices with the Meter Table Config Command class. Go to the 'Control' tab and press the 'Meter Table Config' button to open the 'Set Meter Point Administration Number' dialog.

In this dialog you can enter an Administration Number. Press Save to set the Administration Number to the node.

Meter Table Monitor Command Class

This device can control other Z-Wave devices with the Meter Table Monitor Command class. Go to the 'Control' tab and press the 'Meter Table Monitor' button to open the Meter Table Monitor dialog.

In this dialog you can choose to request the Meter Status (using Meter Status or Meter Table Status Date buttons), supported Meter Status (Meter Status Supported button), Meter Table ID (Meter Table ID button), Meter Point Adm. Number (Meter Point Adm. Number button), Meter Table Capabilities (Meter Table Capability button) and Meter Table Data (Meter Table Current Data and Meter Table Historical Data buttons).

Meter Table Push Configuration Command Class

This device can control other Z-Wave devices with the Meter Table Push Configuration Command class. Go to the 'Control' tab and press the 'Meter Table Push' button to open the Meter Table Push Configuration dialog.

In this dialog you can choose to request the Meter Table Push Configuration (using the Get button) or set the Meter Table Push Configuration (using the Set button).

Time Parameters

This device can control other Z-Wave devices with the Time Parameters Command class. Go to the 'Control' tab and press the 'Time Parameters' button to open the Time Parameters dialog.

In this dialog you can choose to send either a Time Parameters Get (using the 'Get' button) or a Time Parameters Set (using the 'Set' button). Pressing the Set button will set the current UTC time to the node.

Documentation related to devices from multiple manufacturers

This product can be operated in any Z-Wave network with other Z-Wave certified devices from other manufacturers. All non-battery operated nodes within the network will act as repeaters regardless of vendor to increase reliability of the network.