

TOASTCAM Z-WAVE GUIDE

GENERAL Z-WAVE INFORMATION	3
Z-Wave Plus Type	3
Support Z-Wave Command Classes	3
Control Z-Wave Command Classes	3
Supported Association Groups	4
Basic command handling	4
Interoperability	4
Z-Wave Configuration	5
INSTALL APP & USE	6
Install	6
Use	6
Engineering UI	8
GLOSSARY	9

GENERAL Z-WAVE INFORMATION

Z-Wave Plus Type

Device Type: Central Controller

Role Type Central Static Controller

Support Z-Wave Command Classes

COMMAND_CLASS_ZWAVEPLUS_INFO_V2

COMMAND_CLASS_VERSION_V2

COMMAND_CLASS_ASSOCIATION_GRP_INFO_V2

COMMAND_CLASS_ASSOCIATION_V2

COMMAND_CLASS_MANUFACTURER_SPECIFIC_V2

COMMAND_CLASS_SECURITY

COMMAND_CLASS_SECURITY_2

COMMAND_CLASS_CRC_16_ENCAP

COMMAND_CLASS_DEVICE_RESET_LOCALLY

COMMAND_CLASS_APPLICATION_STATUS

COMMAND_CLASS_CONTROLLER_REPLICATION

COMMAND_CLASS_INCLUSION_CONTROLLER

Control Z-Wave Command Classes

COMMAND_CLASS_BASIC

COMMAND_CLASS_SECURITY

COMMAND_CLASS_SECURITY_2

COMMAND_CLASS_CRC_16_ENCAP

COMMAND_CLASS_ASSOCIATION_V2

COMMAND_CLASS_WAKE_UP_V2

COMMAND_CLASS_SWITCH_BINARY_V2

COMMAND_CLASS_SENSOR_BINARY_V2

COMMAND_CLASS_SENSOR_MULTILEVEL_V4

COMMAND_CLASS_BATTERY

COMMAND_CLASS_SENSOR_ALARM

COMMAND_CLASS_VERSION_V2

COMMAND_CLASS_ZWAVEPLUS_INFO_V2

Supported Association Groups

GROUP ID: 1 – Lifeline MAX NODES IN GROUP: 1

Maximum number of devices that can be added to the group: 10 All devices are associated with the lifeline group (group id 1) at the inclusion and no action is performed for the user at that time.

Basic command handling

This equipment can control a device which supports Basic Command class by sending BASIC OFF[0x00] and ON[0xFF] from the GUI. This equipment can receive Basic Command from a device, but it does nothing and just returns ack.

Interoperability

- This product can be included and operated in any Z-Wave network with other Z-Wave certified devices from other manufacturers and/or other applications. All non-battery operated nodes within the network will act as repeaters regardless of vendor to increase reliability of the network.
- This product is a security enabled Z-Wave product that is able to use encrypted Z-Wave messages to communicate to other security enabled Z-Wave products.
- S2 Security Supported Command classes

Z-Wave Configuration

1. Association:

All added device will assign to group 1 and group 2 and group 3 automatically.

2. Association group:

- Support 1 association group.
- Grouping identifier: 1, Lifeline.
- Maximum number of devices that can be added to the group: 1.
- When reset, Device Reset Locally Command Class will send to Lifeline node id.

3. Device Detection:

Added device will detect automatically, users can control it and watch information(alarm, battery, meter, etc.) via GUI.

4. Mesh Network:

Added devices will show on device list. All non-battery powered nodes can act as repeaters regardless of manufacturers.

5. Basic Command:

Basic command is useful in a scene.

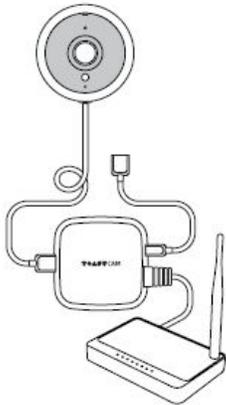
6. Replication:

Controller can transmit protocol replication data automatically.

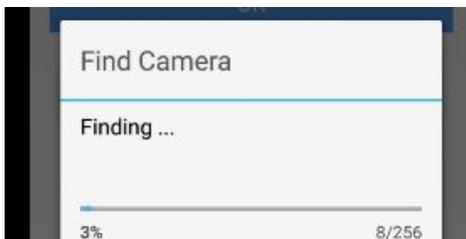
INSTALL APP & USE

Install

1. Download the **ToastIoT** app from the iOS App Store and Play Store.
2. Power on camera via network box which includes Z-Wave module and connect router with the ethernet cable.



3. Connect your iPhone or Android phone to the same router with WiFi.
4. Fill out Server information in MORE > SETTINGS.
 - ❖ To find camera ip address. "Find Camera" button to find ip address of existing cameras, or you can get it from router admin page.



- ❖ Type "toast" to Set Username and "toastcam" to Set Password, and press OK

Use

1. Inclusion (Add)

Pressing the "ADD NEW DEVICE" button will let camera into inclusion mode 30 seconds. User can now trigger the device's node information frame to add to the camera's z-wave network.

With Z-Wave Security 2, user needs to accept or modify the security class settings. It is recommended that the user not change the security class settings.

Additionally for Security 2 Class 1 and 2 devices, the user needs to key in the 1st 5 digits of the DSK.

- ❖ The On Behalf button is specifically to control the flow for IOB, such that Z-Ware will know which client will receive the following notifications when the process is started with the Inclusion Controller and the device to be included or replaced.

2. Exclusion (Remove)

Pressing the "REMOVE DEVICE" button will let camera into exclusion mode 30 seconds. User can now trigger the device's node information frame to remove device from any z-wave network.

3. Remove/Replace Failed Node

When an added node is judged as inactive node (three times operation fail or 24hours got no response), fresh the device page and press button will show Remove/Replace dialog, It pops up a list of devices belonging to failed nodes for removal or replacement. As with most network operations, it can be aborted. For Replace Failed Node on Security 2 devices, additional pop ups similar to Add Node will appear.

4. Update Network

This rediscovers and updates the devices in the network.

5. Set Learn Mode(Initiate)

This performs the Z-Wave Set Learn Mode network operation. This can only be performed when Z-Ware is not in a network and will typically make Z-Ware an Inclusion or Secondary Controller, in which case, some of its facilities will not be available. To complete an S2 inclusion, the DSK may need to be entered on the including Controller.

Note that this function may let camera works as "secondary controller" or "inclusion controller" in another existing network, just start inclusion mode or controller shift on another controller, then start camera learn mode, after inclusion, camera will replicate node information from another controller.

Since our design is based on "primary controller", we recommend that you just use our camera as "primary controller".

6. Reset

This is the Z-Wave Set Default network operation and it pops up a confirmation prompt.

If this controller is the primary controller for your network, resetting it will result in the nodes in your network being orphaned and it will be necessary after the reset to exclude and re-include all of the nodes in the network. If this controller is being used as a secondary controller in the network, use this procedure to reset this controller only in the event that the network primary controller is missing or otherwise inoperable.

Engineering UI

The Engineering UI is the most flexible UI, enabling all Z-Wave features.

Type IP address in PC browser in same network, you can access to engineering mode with same id and password. The more you can control and watch status of current Z-Wave network.

GLOSSARY

Term / Definition.

Association Association connects two devices, allowing communication between them without controller interaction.

Command A command is a message sent to a node in the Z-Wave network.

Command Class A command class is a group of similarly functioning commands.

Copy The replication process used to exchange information between controllers/devices on the same network.

Operations Operations are commands given to a node in the Z-Wave network. Operations are also called Commands.

Group Groups are created with multiple nodes; they are often created with similar devices. The group can be controlled or accept commands instead of the individual node.

Network Wide Inclusion (NWI) NWI relays inclusion data for a device through one or more routing nodes in the Z-Wave Network.

Node Nodes are devices added to the Z-Wave network.

Pairing Pairing is adding a node to the Z-Wave network. Pairing is also called Adding and Inclusion.

Secure Association Association used for secure devices – for example, door locks and garage door openers.

Static Update Controller (SUC) A static update controller is a secondary controller that manages all updates and request of the Z-Wave network.

Source Device The source device generates a message/event and sends it out to a group or specific device (node).

SUC ID Server (SIS) A SIS is the primary Z-Wave controller in the network.

Target Device The target device receives the message/event from the source device (node).

Unpairing Unpairing is removing a node from the Z-Wave network. Unpairing is also called Removing and Exclusion.

