



**TOTAL CONTROL**

**TRF-ZW10  
OWNER'S MANUAL**

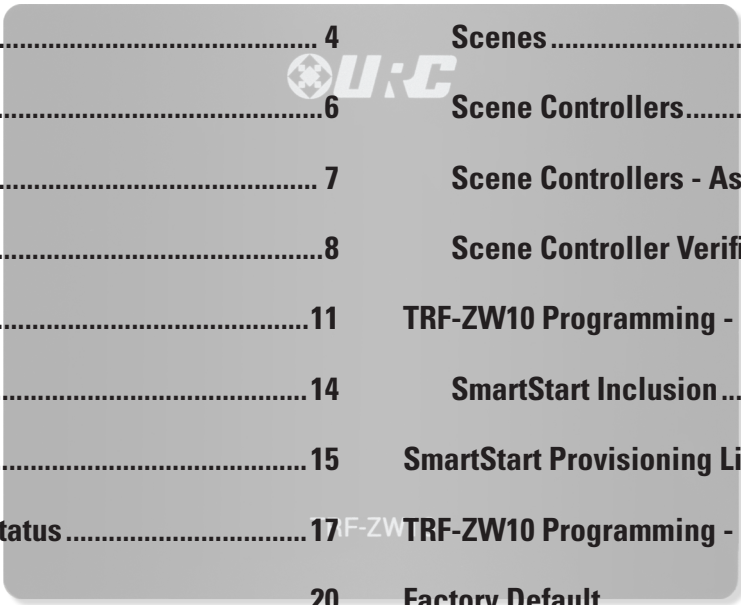


**TRF-ZW10  
OWNER'S MANUAL**



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## Overview

The TRF-ZW10 is URC's latest Z-Wave Plus™ gateway that allows for integration of supported 3rd party Z-Wave™ lights, door locks, and other compatible devices.

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

**Non-Battery** operated Z-Wave Plus™ devices act as Z-Wave repeaters and can help extend the discovery/communication range of the TRF-ZW10.

This gateway can **only be configured using URC software**.

For additional hardware information on the TRF-ZW10, please refer to the device's **Owner's Manual**.



## URC Compatibility

The TRF-ZW10 is compatible with the following URC software platforms:

- **Accelerator 3** (Expressway or Total Control Experience)

## Requirements

- A **compatible URC system** must already be in place and operational prior to integrating with the TRF-ZW10.
- Assure that all Z-Wave **devices are excluded** and fully operational prior to including with the TRF-ZW10.
- The TRF-ZW10 **MUST** be connected to the network via an **ethernet** connection.
- It is strongly recommended that the TRF-ZW10 be configured with a static IP address by using a **DHCP/MAC reservation**.

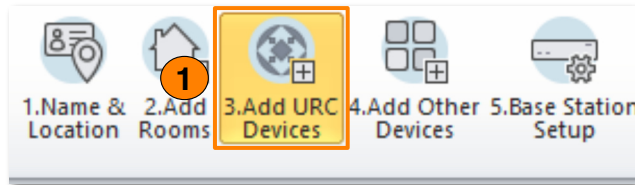
Z-Wave functionality	Documentation terminology	Example
Inclusion	Add	The process of adding a node to the Z-Wave network.
Exclusion	Remove	The process of removing a node from the Z-Wave network.
Replication	Copy	The process of copying network information from one controller to another.

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## Adding the TRF-ZW10 to a Project

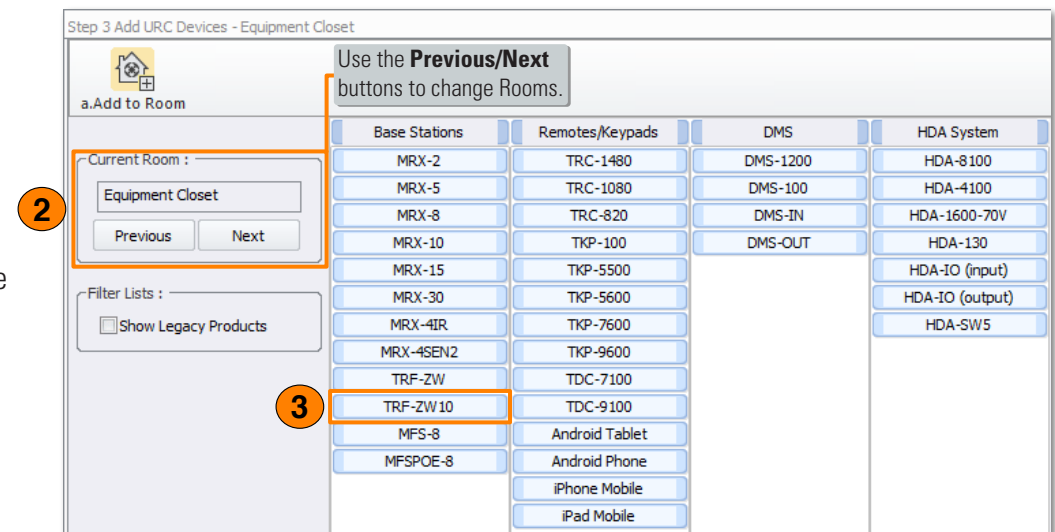
The TRF-ZW10 can be added to any new or existing project. Perform the following steps from within the Accelerator 3 software:

1. Select **Step 3: Add URC Devices**.



2. View the **Current Room** (i.e. Equipment Closet) and assure that it is the zone where the TRF-ZW10 physically exists in the system.
3. Beneath the **Base Stations** column, locate and **select the TRF-ZW10**. This device can be selected by performing one of the following:

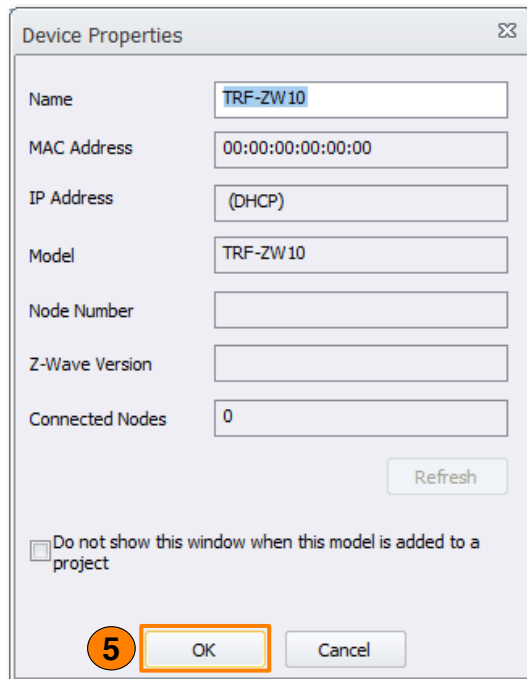
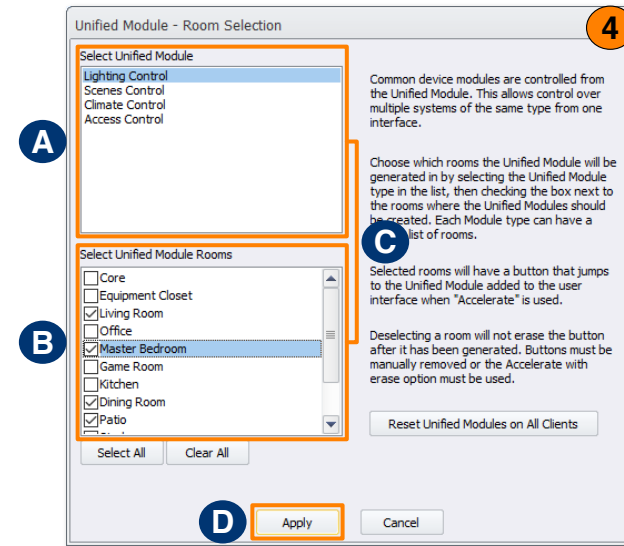
- Perform a **double-click** on the model name.
- Perform a **single-click** and then select **Add to Room**.
- Perform a **single-click** and then **drag-n-drop** this model name onto the system's Project Tree.



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4. Configure the **Unified Module - Room Selection**, Z-Wave offers Unified Lighting, Climate, Access, and Scene Control module. Perform the to configure:

- A. Select Unified Module:** Click on either Lighting Control, Scenes Control, Climate Control, or Access Control
- B. Select Unified Module Rooms:** Check the boxes of the Rooms/Zones that need access to the module type selected on the previous step.
- C. Repeat steps A and B** for each module type required in the system.
- D. Select Apply.**

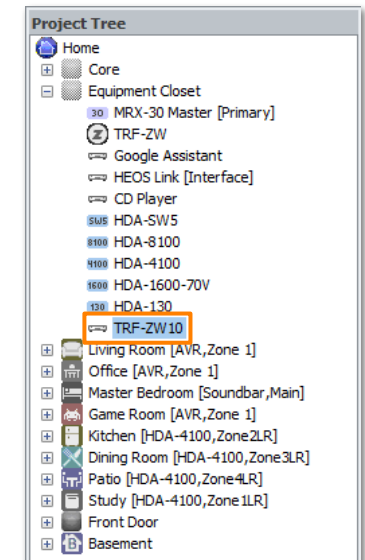


5. The **Device Properties** displays, this window contains no actual values until the device has been discovered on the network.

For instructions on how to **discover** the TRF-ZW10, please refer to [page 4](#).

Click **OK**.

The **TRF-ZW10 has been successfully added** to the system and can be viewed on the **Project Tree**.



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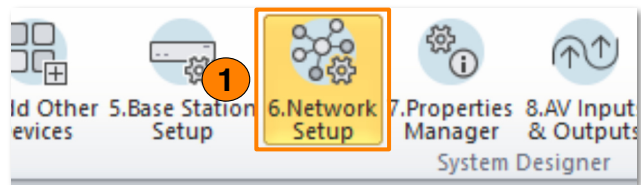
## Network Discovery

Anytime a new URC device has been added to the Project Tree, it must be **defined on the local network** within **Step 6: Network Setup**.

For consistent and stable network communication, it is recommended that the TRF-ZW10 be configured to a **DHCP/MAC reservation** in the system's local router.

Perform the following:

1. Select **Step 6: Network Setup**.



2. Select the **URC Device** sub-step.

3. Locate and select the **TRF-ZW10** from the list displayed on the left.

Step 6 Network Settings: URC Devices

a. LAN & Wifi    **b. URC Device**    c. Non URC Device

Room	Device	Mac Address	IP Address	Type	Refresh	Discovered:TRF-ZW10	Mac Address	IP Address	Description
Equipment...	MRX-30 Master	00:1F:B8:3B:01:DF	192.168.25.156	DHCP	Assign				
Equipment...	TRF-ZW	94:4A:0C:14:26:19	192.168.3.43						
Equipment...	HDA-SW5	00:00:00:00:00:00			Set Device Network Option				
Equipment...	HDA-8100	00:00:00:00:00:00		DHCP					
Equipment...	HDA-4100	00:1F:B8:43:00:1F	192.168.25.105	DHCP					
Equipment...	HDA-1600-70V	00:1F:B8:42:00:16	192.168.25.191	DHCP					
Equipment...	HDA-130	00:00:00:00:00:00		DHCP					
Equipment...	<b>TRF-ZW10</b>	<b>00:00:00:00:00:00</b>		<b>DHCP</b>					
Living Room	MRX-2	00:00:00:00:00:00		DHCP					
Living Room	TRC-1480	00:00:00:00:00:00		DHCP					

- Click on **Refresh**.

This scans the local network for an available **TRF-ZW10** and populates the results on the right-hand side of the screen.

- Select the **TRF-ZW10** from the results list at the right, verify that this is the correct device by matching the discovered MAC address with the one physically marked on the device.
- Click on **Assign**.

The **IP address** and **MAC address** of the device are applied to the device list found on the left side of the screen indicating that the device has been successfully discovered.

Step 6 Network Settings: URC Devices

a.LAN & Wifi   
 **b.URC Device**   
 c.Non URC Device

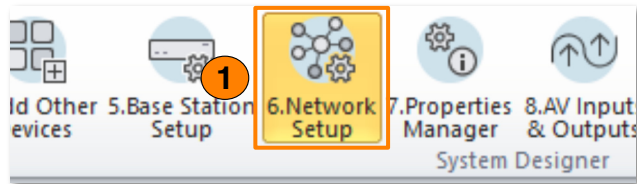
Room	Device	Mac Address	IP Address	Type		Discovered:TRF-ZW 10	Mac Address	IP Address	Description
Equipment...	MRX-30 Master	00:1F:B8:3B:01:DF	192.168.25.156	DHCP	Refresh	TRF-ZW 10	00:1F:B8:49:00:04	192.168.25.108	TRF-ZW 10
Equipment...	TRF-ZW	94:4A:0C:14:26:19	192.168.3.43		Assign				
Equipment...	HDA-SW5	00:00:00:00:00:00			Set Device Network Option				
Equipment...	HDA-8100	00:00:00:00:00:00		DHCP					
Equipment...	HDA-4100	00:1F:B8:43:00:1F	192.168.25.105	DHCP					
Equipment...	HDA-1600-70V	00:1F:B8:42:00:16	192.168.25.191	DHCP					
Equipment...	HDA-130	00:00:00:00:00:00		DHCP					
Equipment...	TRF-ZW 10	00:1F:B8:49:00:04	192.168.25.108	DHCP					
Living Room	MRX-2	00:00:00:00:00:00		DHCP					
Living Room	TRC-1480	00:00:00:00:00:00		DHCP					

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## Upgrading the Firmware

Firmware upgrades are applied when downloading the Total Control configuration to the system. However, this process can be performed manually by following these steps after the **TRF-ZW10 has been discovered**:

1. Select **Step 6: Network Setup**.

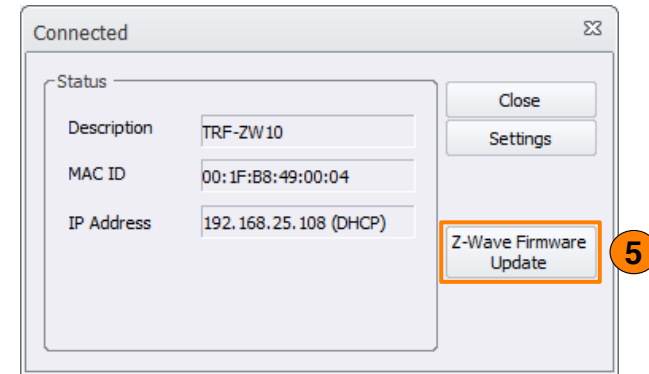


2. Select the **URC Device** sub-step.
3. Locate and select the **TRF-ZW10** from the list displayed on the left.
4. Select **Set Device Network Options**.

Step 6 Network Settings: URC Devices

a.LAN & Wifi **b.URC Device** c.Non URC Device

Room	Device	Mac Address	IP Address	Type	Refresh	Discovered:TRF-ZW 10	Mac Address	IP Address	Description
Equipment...	MRX-30 Master	00:1F:B8:3B:01:DF	192.168.25.156	DHCP	Assign	TRF-ZW 10	00:1F:B8:49:00:04	192.168.25.108	TRF-ZW 10
Equipment...	TRF-ZW	94:4A:0C:14:26:19	192.168.3.43						
Equipment...	HDA-SW5	00:00:00:00:00:00			Set Device Network Option				
Equipment...	HDA-8100	00:00:00:00:00:00		DHCP					
Equipment...	HDA-4100	00:1F:B8:43:00:1F	192.168.25.105	DHCP					
Equipment...	HDA-1600-70V	00:1F:B8:42:00:16	192.168.25.191	DHCP					
Equipment...	HDA-130	00:00:00:00:00:00		DHCP					
Equipment...	<b>TRF-ZW 10</b>	<b>00:1F:B8:49:00:04</b>	<b>192.168.25.108</b>	<b>DHCP</b>					
Living Room	MRX-2	00:00:00:00:00:00		DHCP					
Living Room	TRC-1480	00:00:00:00:00:00		DHCP					



5. Click on **Z-Wave Firmware Update**.

A window with a **status bar** is displayed on the screen, do not interrupt this procedure and **do not disconnect power** from the **TRF-ZW10**.

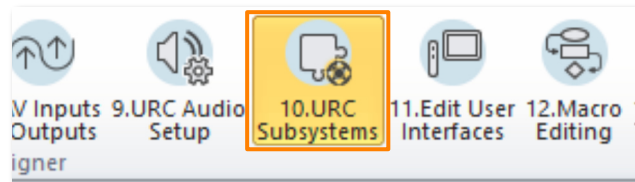


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## Navigating the TRF-ZW10 Sub-step

This section of the document provides information of the interface found in the **TRF-ZW10** sub-step of **Accelerator 3**.

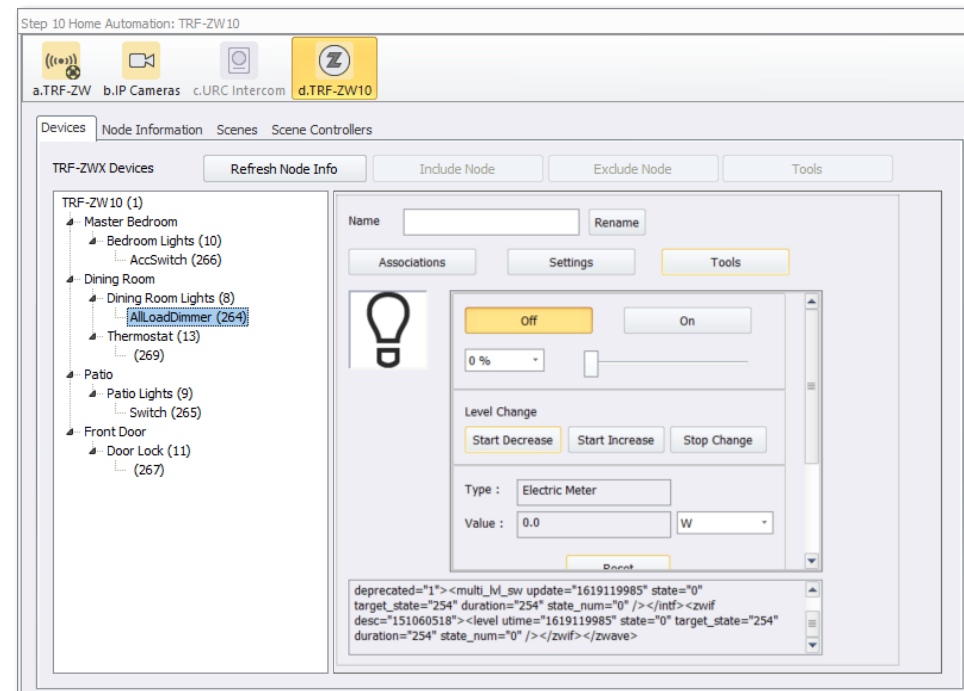
In order to view this sub-step, click on **Step 10: URC Subsystems**.



This sub-step includes four (4) sub-sections:

- **Devices:** Use this section to Include/Exclude devices, test device functionally, create associations, and configure device specific settings.
- **Node Information:** This section provides detailed information about a selected Z-Wave device (node) such as manufacturer, association groups, command classes, and much more.
- **Scenes:** Use this section to create **Z-Wave based events**, such as Welcome Home, that can be triggered from any custom macro and/or automated event.
- **Scene Controllers:** Use this section only when a Z-Wave device has been included, and it has scene controller functionality.

Scene Controllers allow a programmer to **assign Z-Wave Scenes to Z-Wave Scene Controllers that are included in the system.**



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## Devices

This section is used to include/exclude Z-Wave devices, configure device settings, test functionality/feedback, and more.

The **Devices** tab is the default landing location when the **TRF-ZW10** sub-step has been selected.

Below are descriptions of each available button:

- TRF-ZW10 Devices:** This list contains all of the Z-Wave devices that have been included with the TRF-ZW10 gateway.

Devices can display here in three (3) different colors, each color indicating a specific status condition:

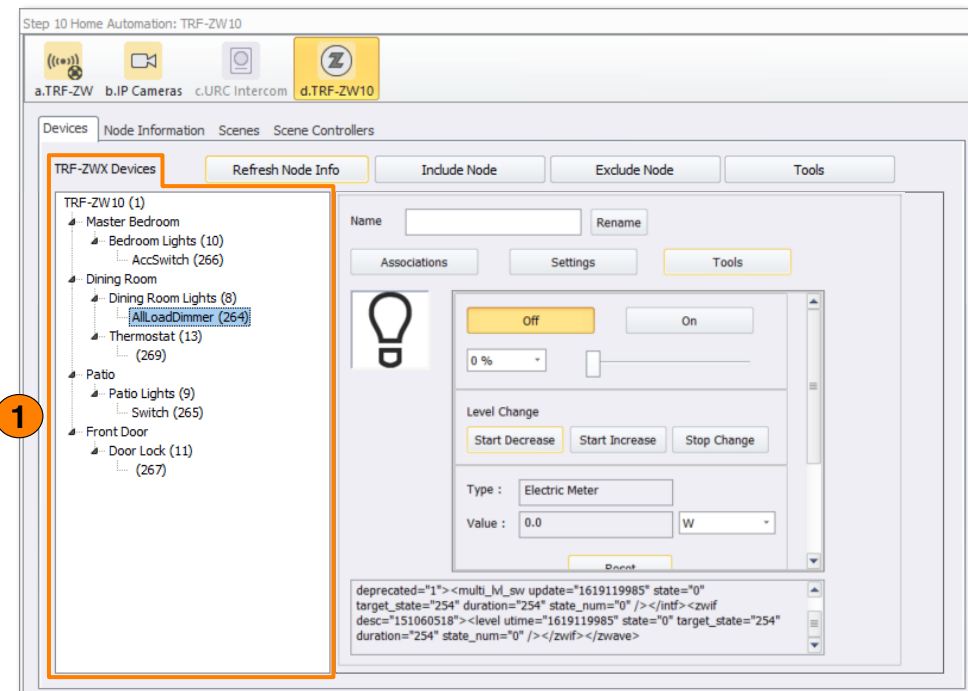
- **Black:** Connection status is **normal**.
- **Red:** Z-Wave device is **offline**.
- **Gray:** The Z-Wave device exists on the list but does not exist within the TRF-ZW10 gateway.

Z-Wave devices are displayed on this list with a **Node ID** and an **End Point ID**:

- **Node ID:** Example - **Dining Room Lights (8)** - Represents the value the TRF-ZW10 has assigned to the device.

This value is used when configuring associations, scenes, device events, and troubleshooting.

- **End Point ID:** Example - **AllLoadDimmer (264)** - Represents the node's end point. Nodes can have multiple end points. This value can be used when troubleshooting.



2. **Refresh Node Info:** Click on an available **Z-Wave device** (i.e. AllLoadDimmer) then click on this button.

Once pressed, this **TRF-ZW10 refreshes the Z-Wave device's information** and status.

3. **Include Node:** Select a **TRF-ZW10** located on the **TRF-ZW10 Devices** list and then select this button.

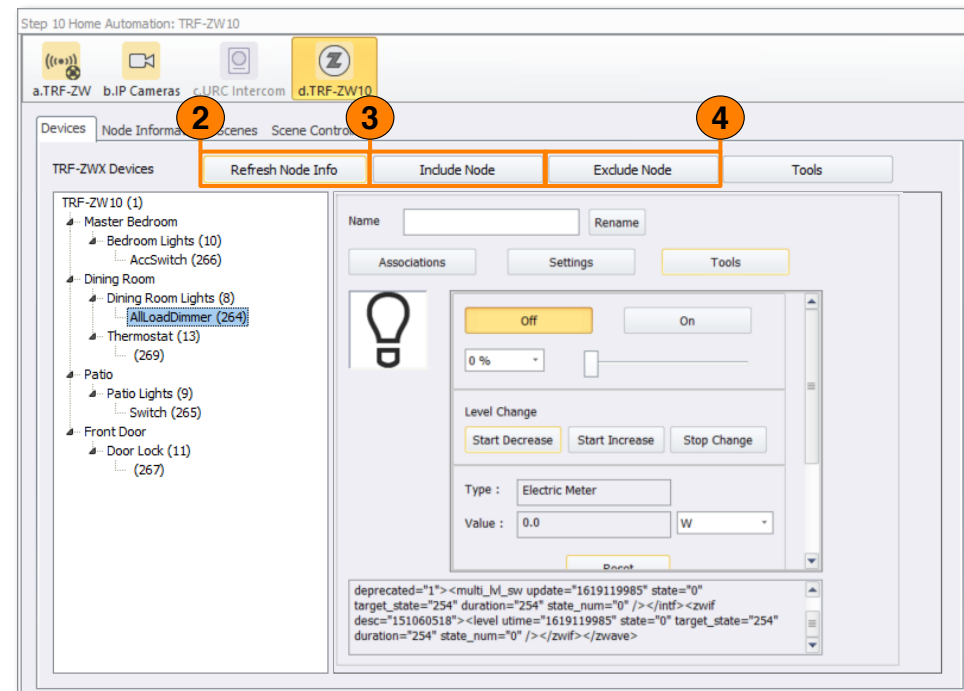
Once pressed, the Accelerator 3 software prompts the programmer to begin the **process of including a Z-Wave device**.

For more details on how to **include Z-Wave devices** with the TRF-ZW10, please refer to [page 30](#).

4. **Exclude Node:** Select a **TRF-ZW10** located on the **TRF-ZW10 Devices** list and then select this button.

Once pressed, the Accelerator 3 software prompts the programmer to begin the **process of excluding a Z-Wave device**.

For more details on how to **exclude Z-Wave devices** with the TRF-ZW10, please refer to [page 38](#).



5. **Tools:** Select a **TRF-ZW10** located on the **TRF-ZW10 Devices** list and then select this button.

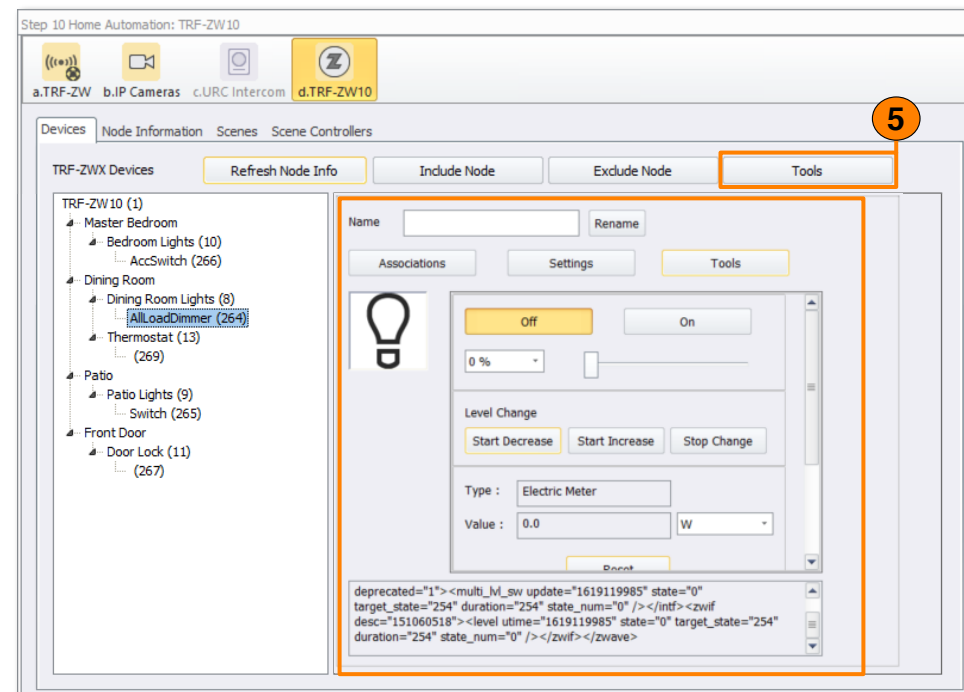
Once pressed, the software displays the **Gateway Tools** window.

For more information on the options available within the Gateway Tools window, refer to [page 14](#).

6. **Z-Wave Device Contextual Tools:** The contents of this window vary depending on the **type of Z-Wave device selected** from the **TRF-ZW10 Devices List**.

This area can contain:

- **Control Elements:** Buttons that **directly control** the selected **Z-Wave device** such as “power on” when selecting a light switch.
- **Status Elements:** Areas of text that provide **information based on the condition of a Z-Wave device** such as the current temperature when selecting a thermostat.



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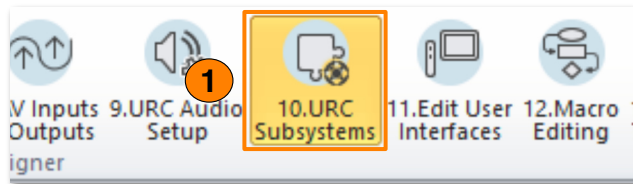
## Devices - Working with Z-Wave

The **Devices** tab can be used to **test and further configure** included Z-Wave devices.

When an included Z-Wave device has been selected from the **TRF-ZW10 Device** list, the **Z-Wave Contextual Tools** display the status and control buttons supported by that device.

To view the status and controls of a Z-Wave device, perform the following:

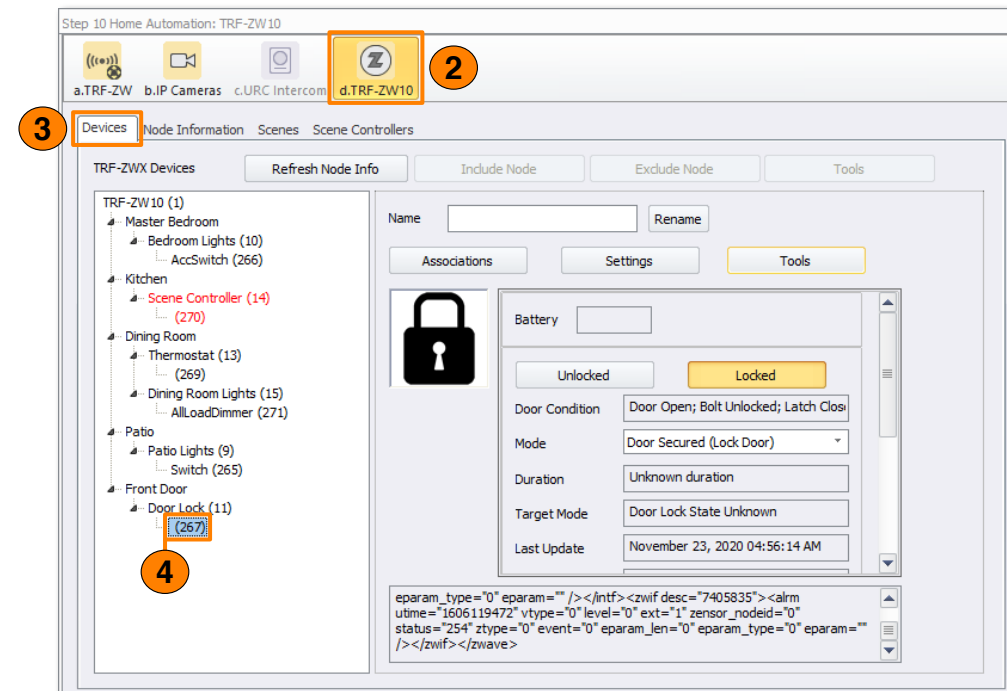
1. Select **Step 10: URC Subsystems**.



2. Locate and select the **TRF-ZW10 sub-step**.
3. Click on **Devices** tab.
4. View the **TRF-ZW10 Device List** and **select a Z-Wave device** (i.e. Door Lock).

Select the **End Point ID** value, for example **(267)**, to display the control and status elements of the Z-Wave device.

This displays the **control** and **status** elements within the **Z-Wave Contextual Tools** area.



Now that the **Control** and **Status** options are available, this page describes all of the available selections:

1. **Rename:** Enter a new custom name for the Z-Wave device, this affects the name of the Endpoint ID display name.
2. **Control & Status Area:** This section presents control options (if applicable) of the Z-Wave device.

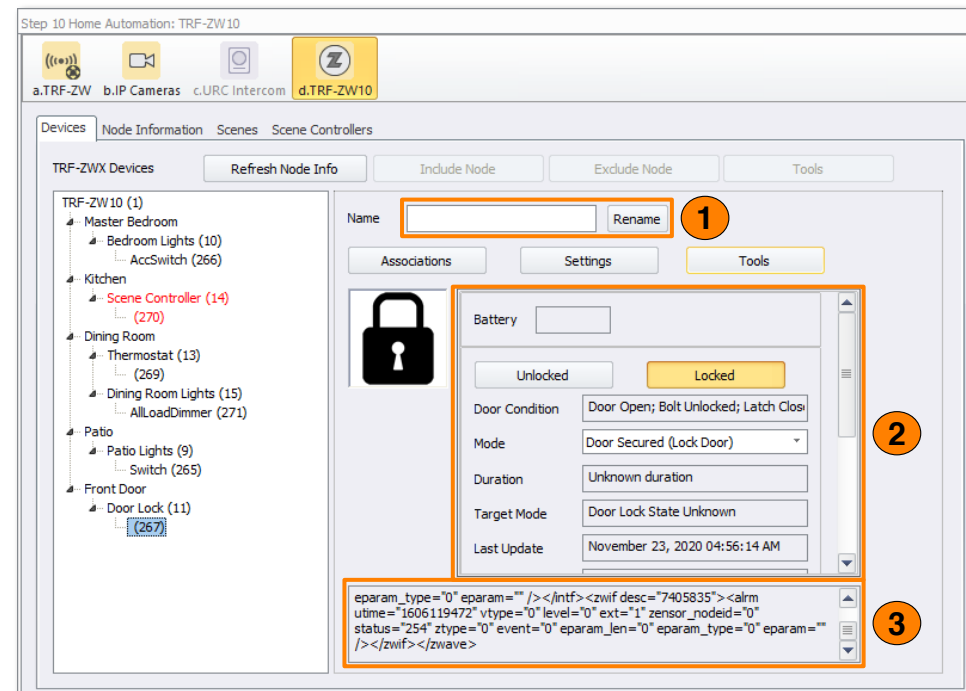
**Control options vary depending on the type of included device,** such as unlock/lock commands for a Z-Wave door lock.

Press these control buttons to directly control the selected Z-Wave device from within the Accelerator 3 software.

The Status of the device can also be viewed here. The available status conditions depend on the type of Z-Wave device that has been selected.

Lighting Dimmers present brightness and power feedback, Lighting Switches provide power status, Door Locks display lock starts and more. Different types of Z-Wave devices provide different options.

3. **Communication Feedback:** Displays information that is being relayed from the TRF-ZW10 to the connected Z-Wave device.



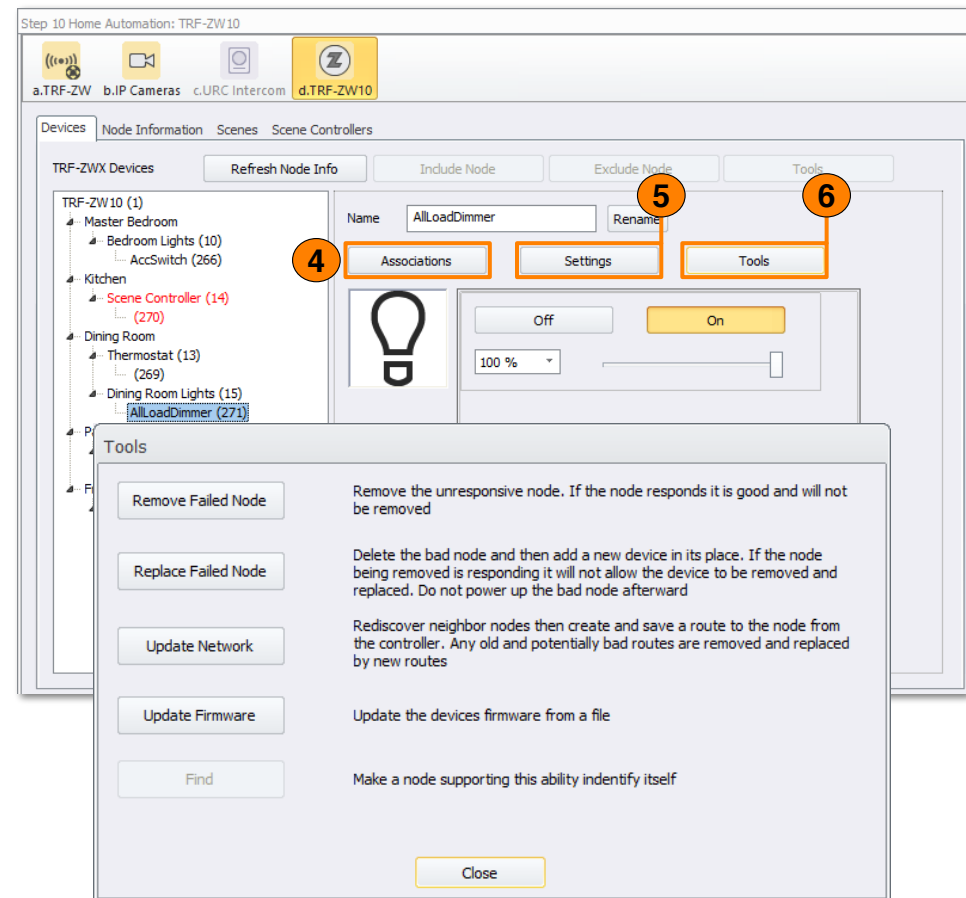
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4. **Associations:** Allow programmers to configure two or more Z-Wave device to work in conjunction with each other such as an area that requires three-way lighting.
5. **Settings:** Allows the programmer to configure device specific parameters such as Delayed Off, Basic Set Value, and more. The owner's manual or supporting resources of the included Z-Wave device may be required.
6. **Tools:** Displays options that allow the programmer to troubleshoot or provide maintenance over a specified Z-Wave device:

- **Remove Failed Node:** If the node is unresponsive and cannot be excluded, select this option to exclude the failed node from the TRF-ZW10 Device List.
- **Replace Failed Node:** Select to exclude an unresponsive node and replace it with another device.
- **Update Network:** Select to have the TRF-ZW10 rediscover devices and update communication routes from the gateway to the Z-Wave device.
- **Update Firmware:** Before selecting this button, assure that the firmware update file has been retrieved from the manufacturer.

Click on this button to update the selected device's firmware.

- **Find:** If supported by the device, this button makes a form of physical identification (for example blinking lights) to assist in locating the device.

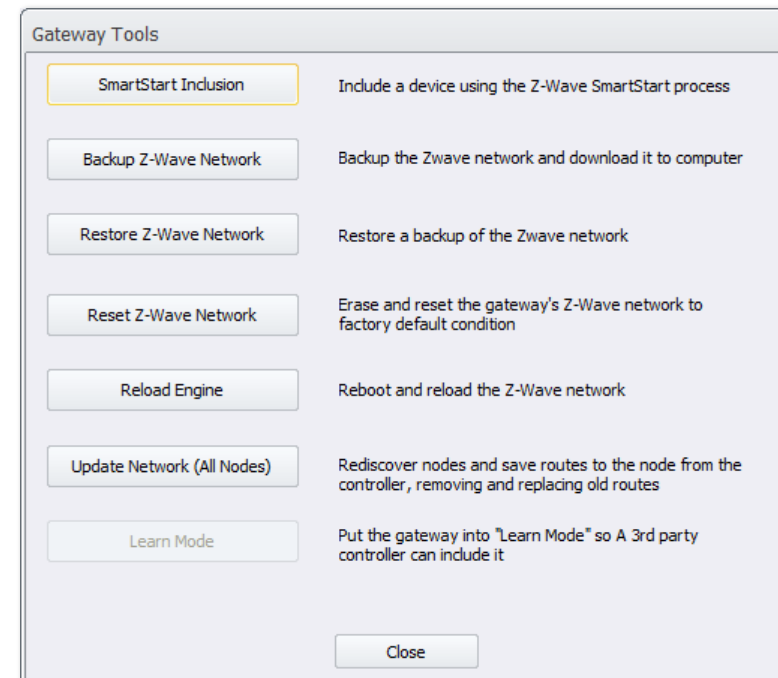
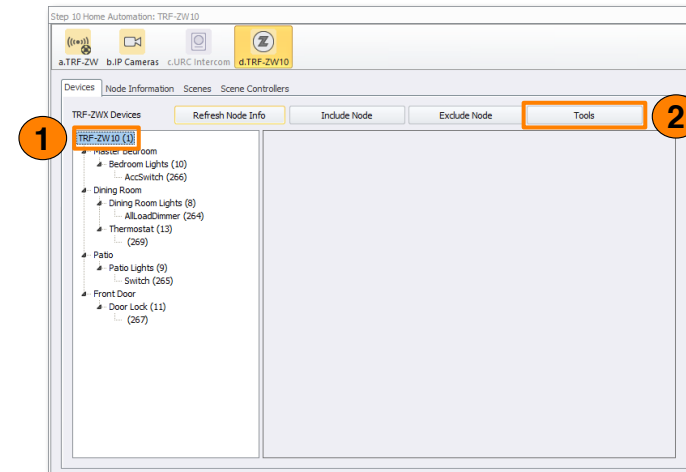


### Gateway Tools

The Gateway Tools window contains various advanced options that can be used when troubleshooting the TRF-ZW10's installation.

Perform the following steps from the **TRF-ZW10 sub-step** of **Step 10: URC Subsystems** with the **Devices** tab opened:

1. Select the **TRF-ZW10** text found in the **Z-Wave Device** list.
2. Click on the **Tools** button.
3. The **Gateway Tools** window is displayed.





### Devices - Gateway Tools Options

Below are descriptions of the available options found in this window:

- **SmartStart Inclusion:** Allows the programmer to include **SmartStart supported Z-Wave devices**.

Make note of the device's full **DSK information** as it is required. [40 digit number]

- **Backup Z-Wave Network:** Allows the programmer to create a backup (.bak) of the current TRF-ZW10 configuration.

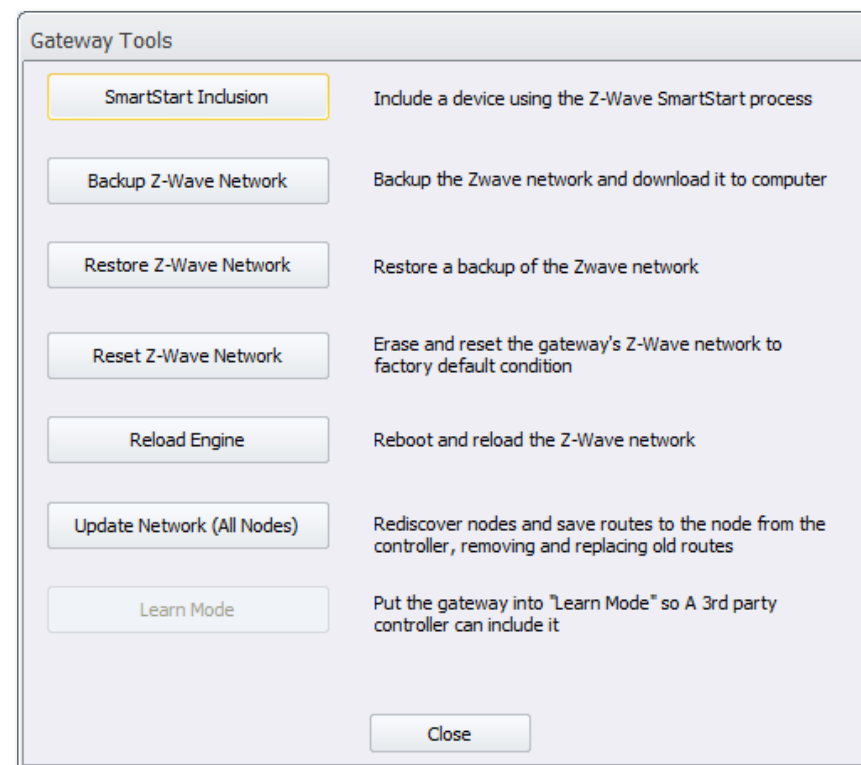
This file can be stored within any folder of the local PC.

- **Restore Z-Wave Network:** Allows the programmer to restore the current TRF-ZW10 with a backup file (.bak).

The backup file must be stored on the local PC.

- **Reset Z-Wave Network:** When selected, this permanently **erases all of the information store on the TRF-ZW10** and restores it to its **factory setting**. This cannot be reversed.

- **Reload Engine:** When selected, this option "power cycles" the Z-Wave network. No programming information is lost.



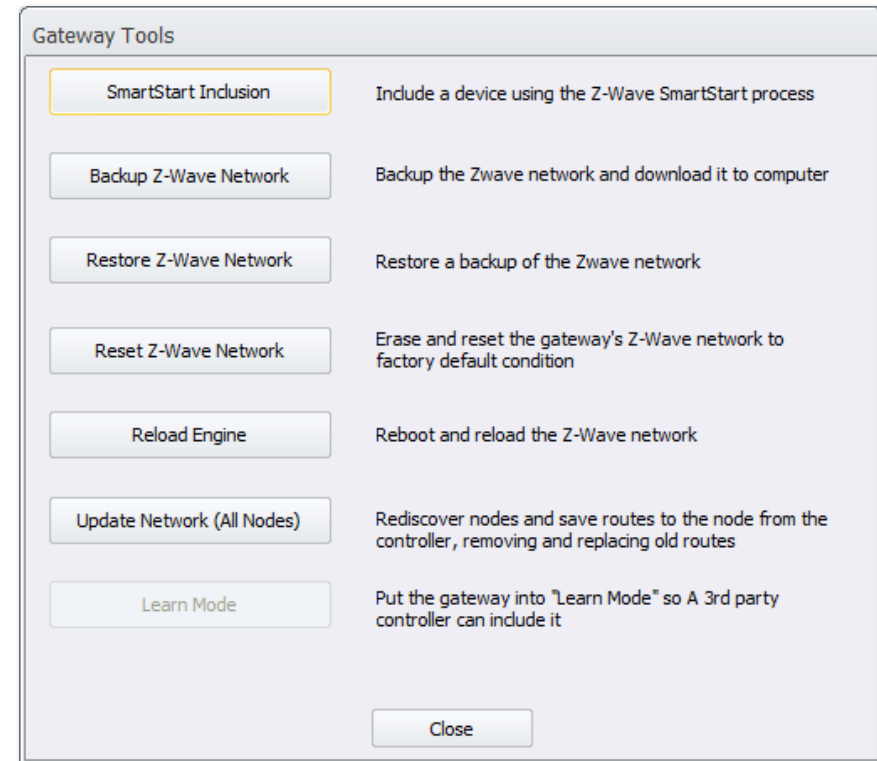
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- **Update Network (All Nodes):** When selected, this rediscovers all available nodes and saves communication routes, removing any old routes, to rebuild the Z-Wave network.

This can assist with communication issues if a Z-Wave device is **physically removed from its original location** and set elsewhere in the system.

Depending on the **total number of devices** in the **Z-Wave network**, the update process can take **several minutes** to complete.

- **Learn Mode:** Places the TRF-ZW10 into “learn mode” so a 3rd party controller can include it. After Learn Mode is activated, the TRF's **Learn Mode DSK** will be advertised in the **application log**. Enter it on the including controller side.
- **Controller Replication:** Controller Replication is the process of **updating network information from a primary controller to secondary controllers**, such as the **node list** and **routing information**. These steps are usually not required **unless you have a multiple controllers** on the network.
  1. Start **Add Mode** on the **primary controller**.
  2. Start **Learn Mode** on the **secondary controller**.
  3. All **Z-Wave network relevant information** will be updated for the **secondary controller**.



### Devices - Controlling, Testing, & Viewing Status

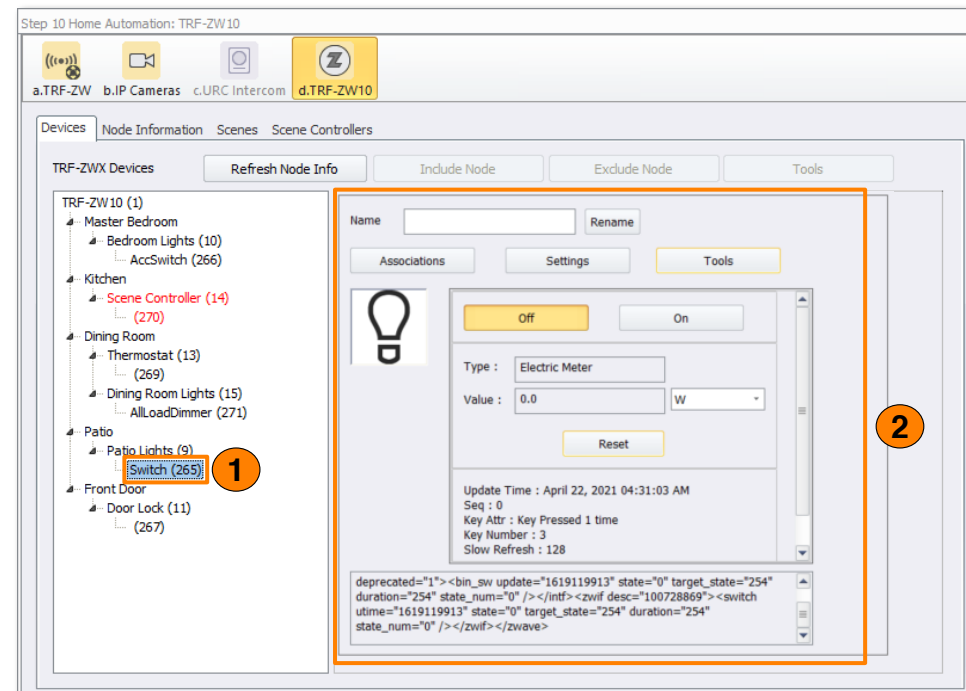
Once a Z-Wave device has been included, it can be controlled from within the Accelerator software on the **local network**.

Devices connected to the TRF-ZW10 gateway display on the TRF-ZW Devices List and can be selected to reveal status and control options.

Certain devices, such as sensors, only offer status which provides information on a device's attributes.

Perform the following steps from within the **Devices tab of the TRF-ZW10 sub-step** to view the status and control elements of any included Z-Wave device:

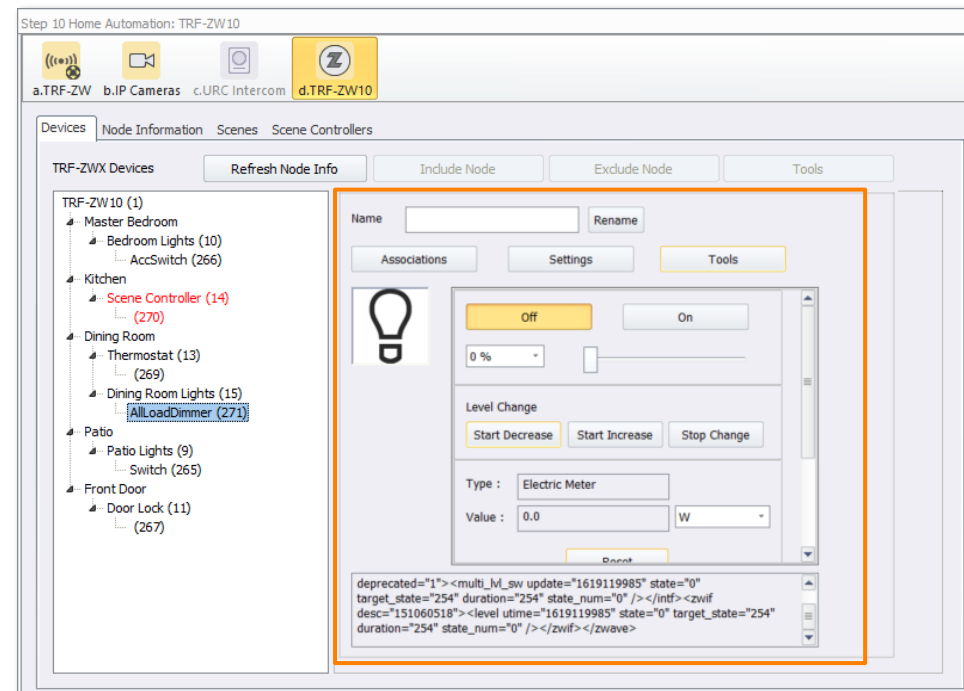
1. View the **TRF-ZW10 Devices List** and **select a device**, assure that the end point ID is selected (i.e. Switch (265)).
2. Once selected, the **Control and Status area displays compatible options of the Z-Wave device**.
  - **Z-Wave Device - Lighting Switch:** These types of devices provide control options to turn the light switch On or Off. Additionally, the software highlights the button that the device is current set to (the example on the right is currently on).



- **Z-Wave Device - Lighting Dimmer:** These types of devices provide control options to turn the light on or off.

Additionally, a **slider is provided to adjust the brightness** of the device. The drop-down menu can also be used to set the device to a specified percentage.

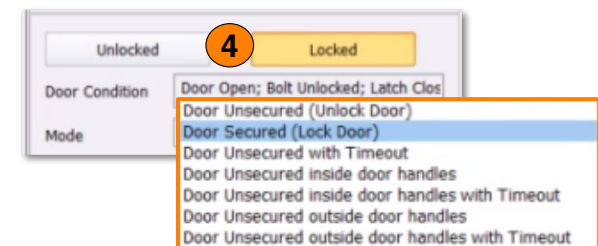
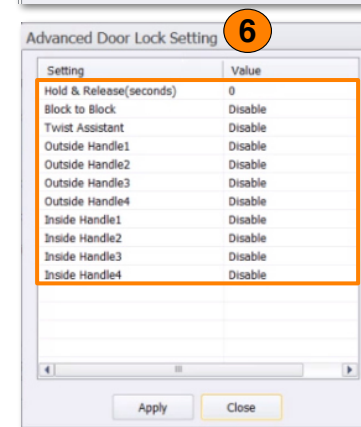
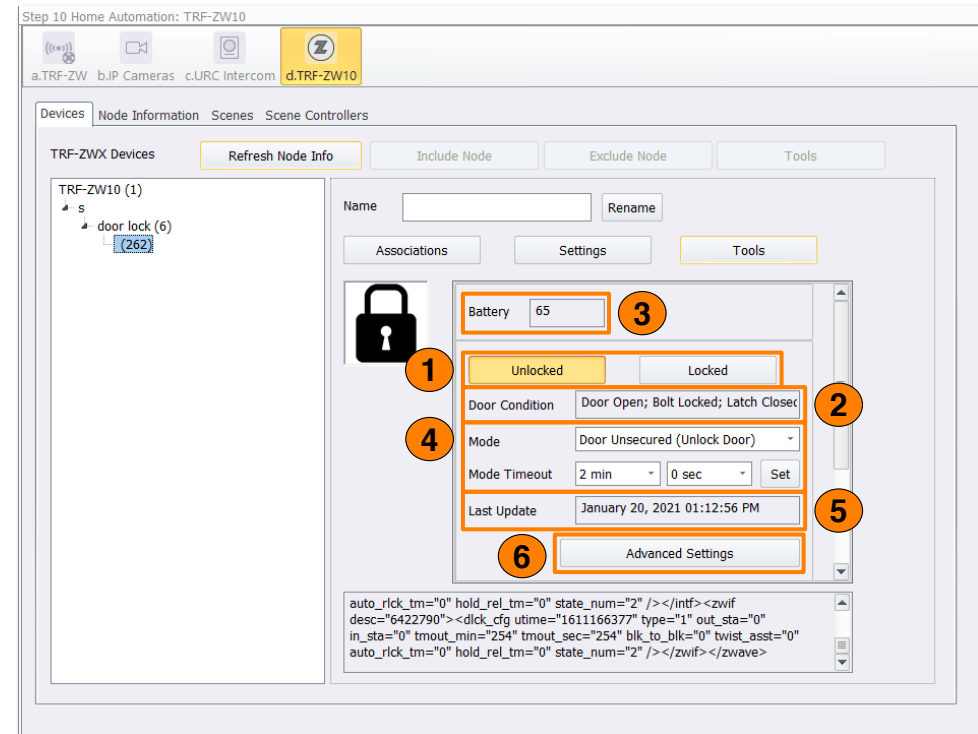
Feedback is provided by viewing the position of the brightness slider and by viewing which button is highlighted (on / off).



- **Z-Wave Device - Door Lock:** These types of devices provide control options for locking and unlocking doors.

Several areas provide control and feedback for testing an individual lock:

1. **Test Buttons** - Two buttons are available to test the device's Lock and Unlock control.
2. **Door Condition** - Current state of the device.
3. **Battery** - Remaining battery power of the device.
4. **Mode** - Several modes are available for testing device features. Mode Timeout is used when selecting a timeout Mode.
5. **Last Update** - Time stamp of the most recent connection to the device.
6. **Advanced Settings** - Allows for further configuration of the device by enabling or disabling advanced lock features.



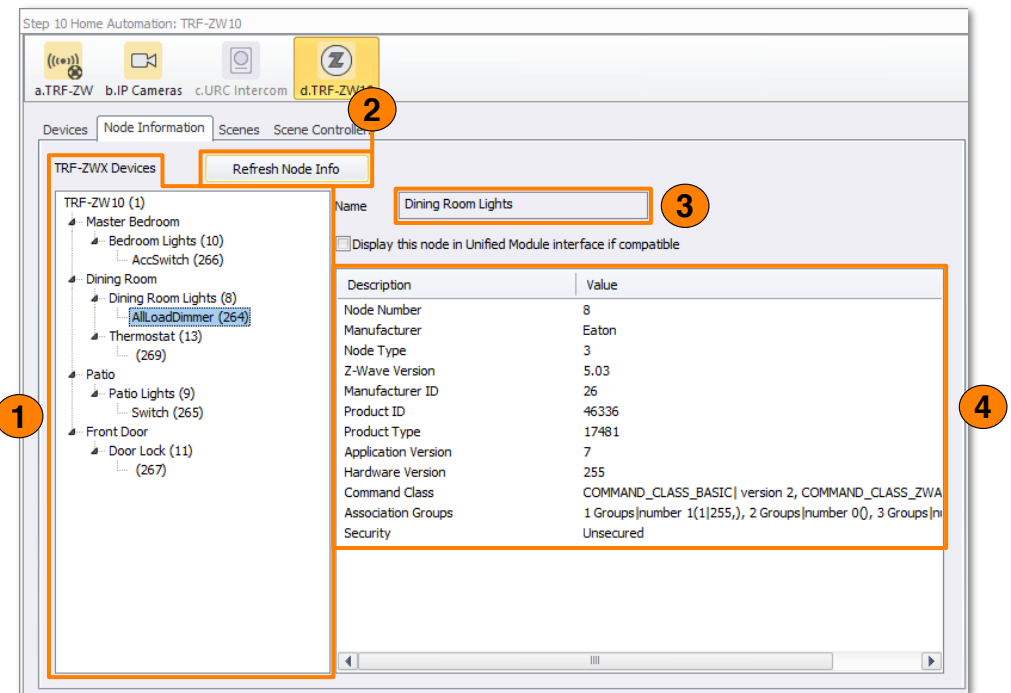
# TOTAL CONTROL

## Node Information

This section allows the programmer to view information about included Z-Wave devices. Below are descriptions of the available options:

1. **TRF-ZW10 Devices List:** This list contains all of the Z-Wave devices that have been included with the TRF-ZW10 gateway.
2. **Refresh Node Info:** This button re-polls the node information for all current Z-Wave devices included on the TRF-ZW10.
3. **Name:** Displays the currently select Z-Wave device name.
4. **Unified Module Check Box:** Click on this box if the selected Z-Wave device needs to display on a Unified Module if it is compatible.
5. **Node Information Screen:** This window displays specific information as it pertains to the selected Z-Wave device. Below is a list of the information available in this box:

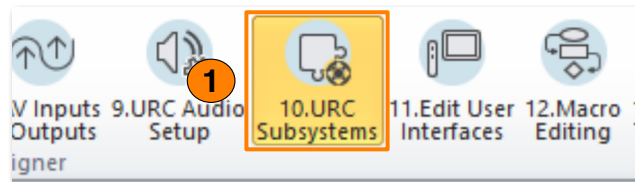
- Node Number
- Manufacturer
- Node Type
- Z-Wave Version
- Manufacturer ID
- Product ID
- Product Type
- Application Version
- Hardware Version
- Command Class
- Association Groups
- Security



### Node Information - Viewing the Node Information

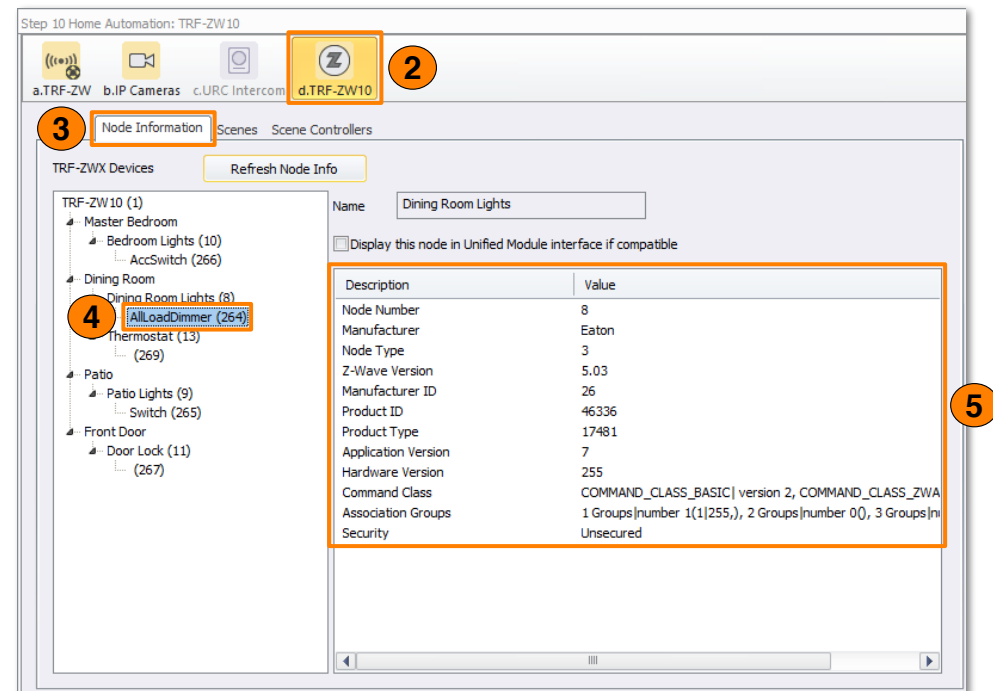
This section provides instructions on how to select a Z-Wave device and view its **node information**.

1. Select **Step 10: URC Subsystems**.



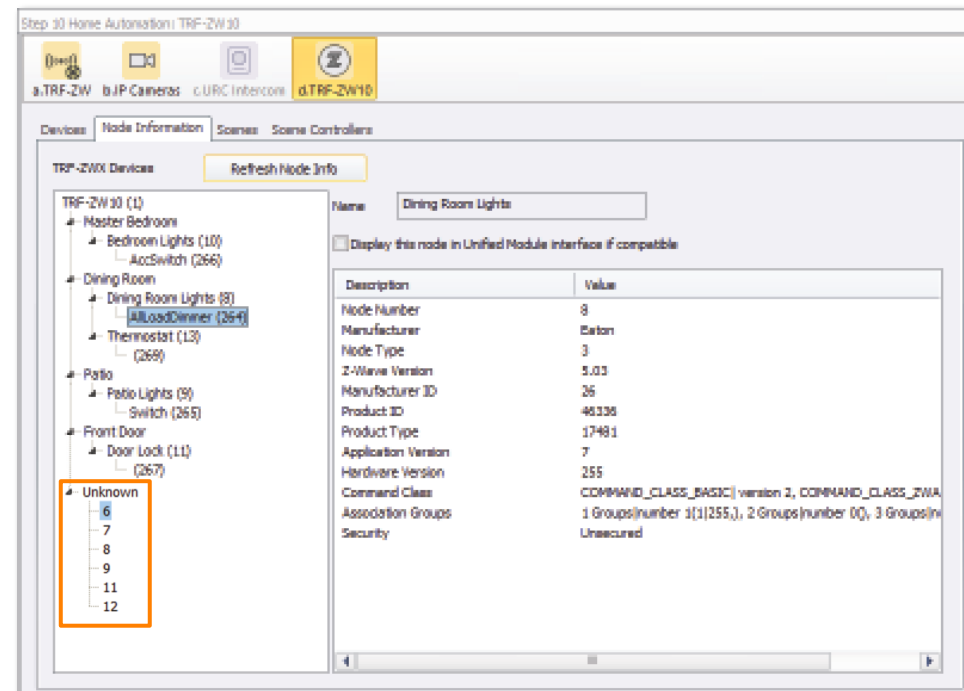
2. Locate and select the **TRF-ZW10 sub-step**.
3. Click on **Node Information**.
4. View the **TRF-ZW10 Device List** and **select a Z-Wave device** (i.e. AllLoadDimmer).
5. The **Node Information** window displays the **Z-Wave device data**.

If the Z-Wave device data does not load, press the **Refresh Node Info** button.



### Unknown Devices

Unknown devices connected to a gateway will appear at the bottom of the **TRF-ZW Devices** list. A device is unknown when there is no model or location information associated with it. An unknown device can either be recovered or excluded from the gateway.

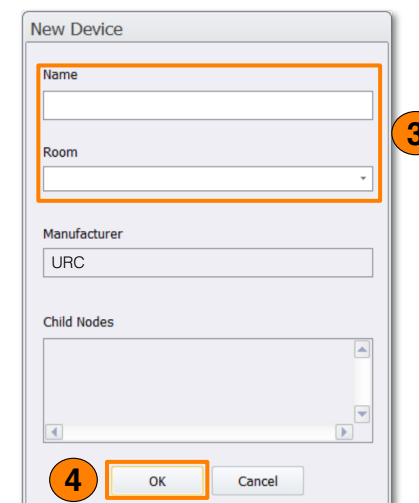
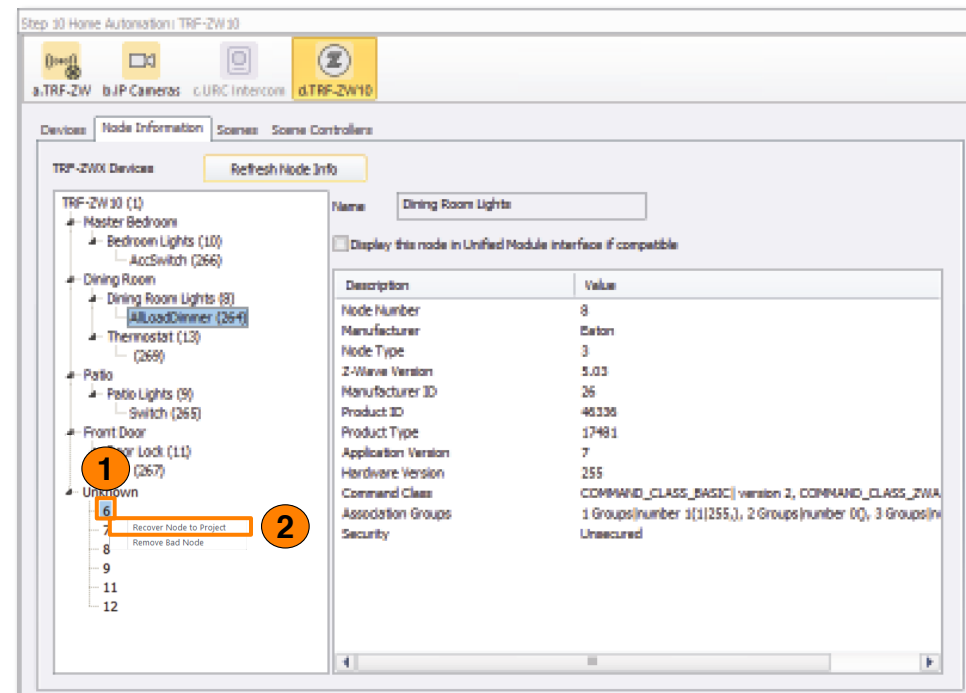




### Recovering an Unknown Device

It is possible to recover an unknown device by correcting the missing associations. Perform the following:

1. Select an **unknown device** from the list and **right-click**.
2. On the context menu, select **Recover Node to Project**.
3. On the **New Device** window, enter a **name** and select a **room** for the device to be associated with.
4. Select **OK** when finished to complete the recovery process.

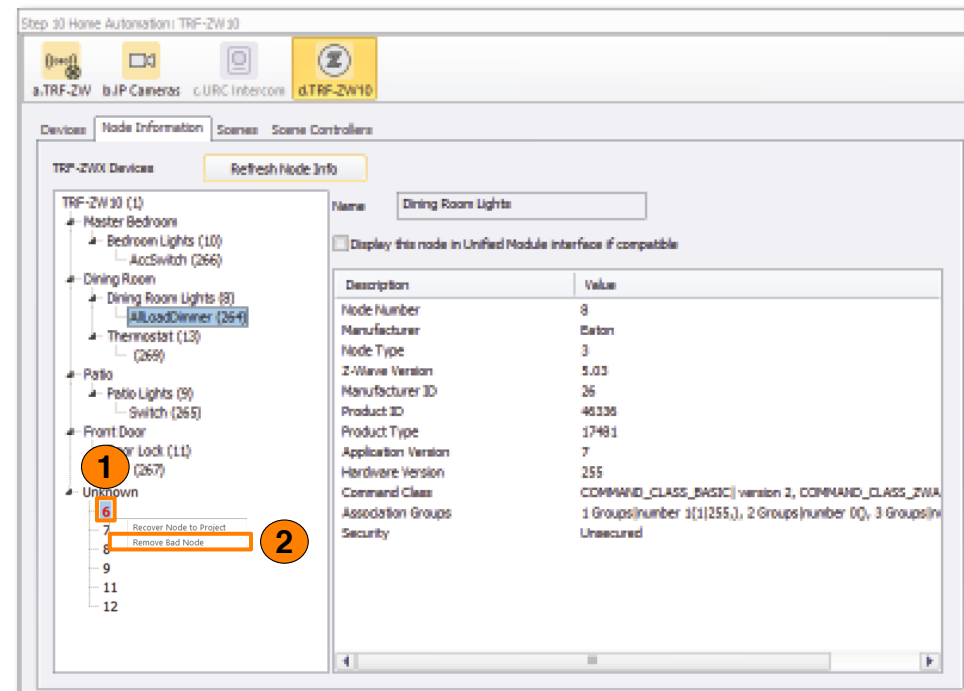


### Removing an Unknown Device

In order to exclude an unknown device it must first be red. Devices turn red once they go offline.

After ensuring the device is offline, perform the following:

1. Select an **red unknown device** from the list and **right-click**.
2. On the context menu, select **Remove Bad Node**.
3. The node is excluded from the **TRF-ZW Devices** list.



# TOTAL CONTROL

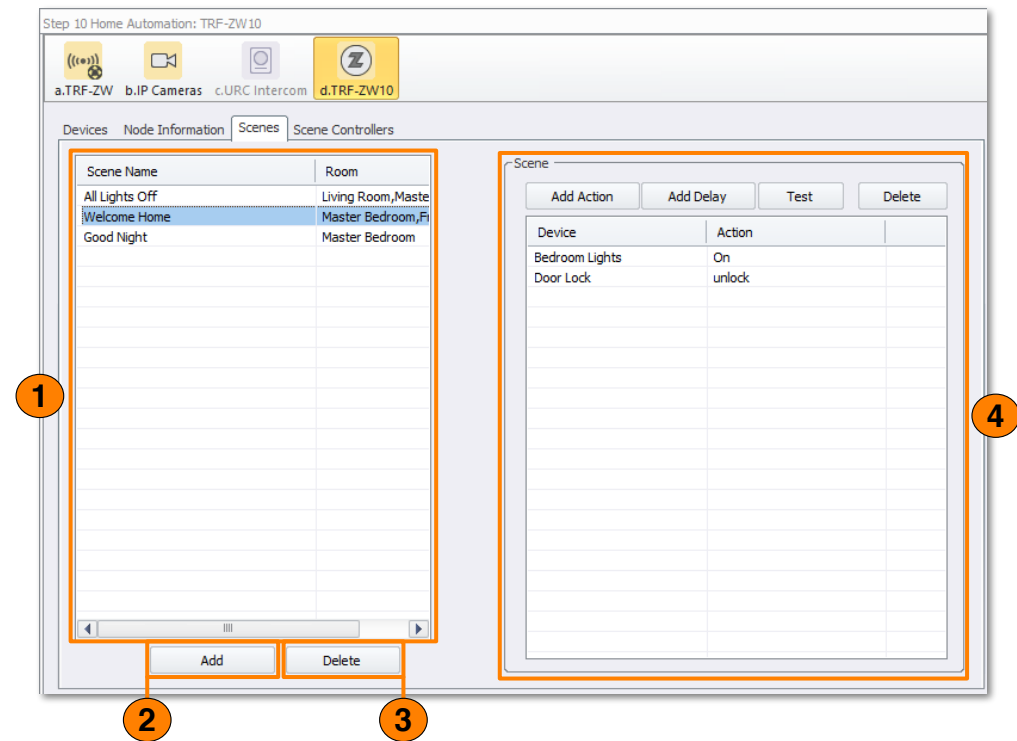
## Scenes

This section of the document describes the available options in the **Scenes** section.

1. **Available Scenes:** This list displays the names of all Scenes programmed on the TRF-ZW10.
2. **Add Scene:** Select this button to begin the process of creating a Scene.
3. **Delete Scene:** Select an available Scene and click this button to permanently remove it. This action cannot be reversed.
4. **Scene Programming Window:** This screen is where each individual Z-Wave Scene can be programmed. Below are descriptions of the Scene Tools available at the top of the window:
  - **Add Action:** Displays the **Action** window where the programmer has access to every included Z-Wave device.

This window allows the programmer to **add single Z-Wave commands to the selected Scene.**

- **Add Delay:** Select this button to display the Delay window which allows the programmer to enter a delay and customize the hours, minutes, and seconds of that delay step.
- **Test:** Select to test the selected Scene.
- **Delete:** Click on this button to permanently remove the selected Scene, this process cannot be reversed.



# TOTAL CONTROL

## Scene Controllers

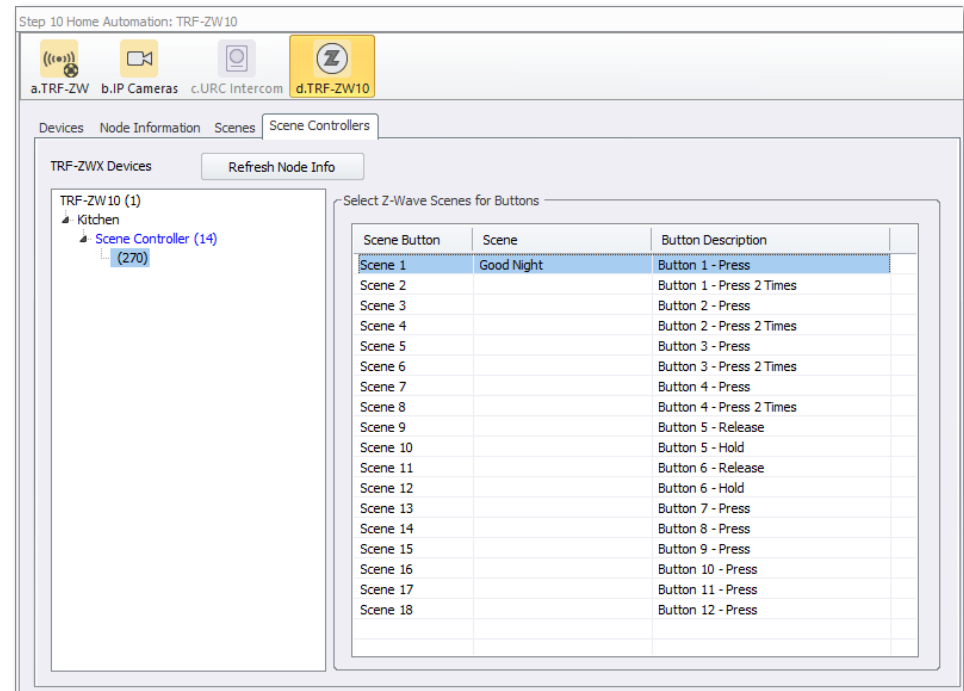
This section provides information about programming a Z-Wave Scene Controller. A Scene Controller is a device that can manually trigger Z-Wave Scenes.

Scenes are assigned to available buttons on a compatible Scene Controller. The amount of buttons available varies.

Below are the available options viewed on the Scene Controller section:

1. **TRF-ZW10 Devices List:** Displays all Scene Controllers that have been included to the TRF-ZW10.
2. **Refresh Node:** Select to re-poll (refresh) the node information of the selected Scene Controller.
3. **Z-Wave Scenes for Buttons:** This window is where Z-Wave Scenes are assigned to buttons on the selected Scene Controller.

All available buttons are displayed here with descriptions on how the buttons can be pressed.

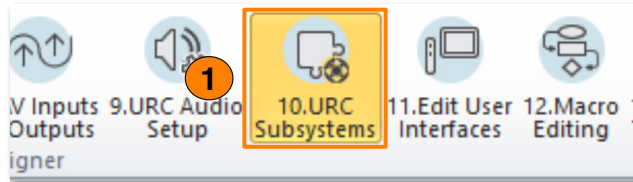


# TOTAL CONTROL

## Scene Controllers - Assigning a Scene

Perform the following steps:

1. Select **Step 10: URC Subsystems**.



2. Locate and select the **TRF-ZW10 sub-step**.

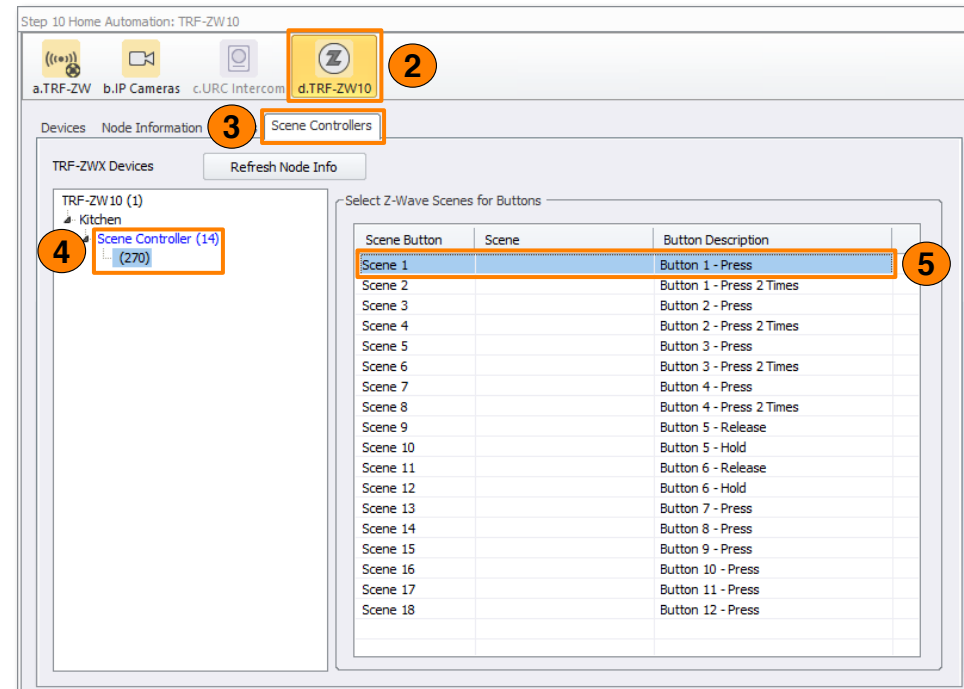
3. Click on **Scene Controllers**.

4. View the **TRF-ZW10 Device List** and **select** an **available Scene Controller** (i.e. Scene Controller).

5. Select an **available Scene Button**.

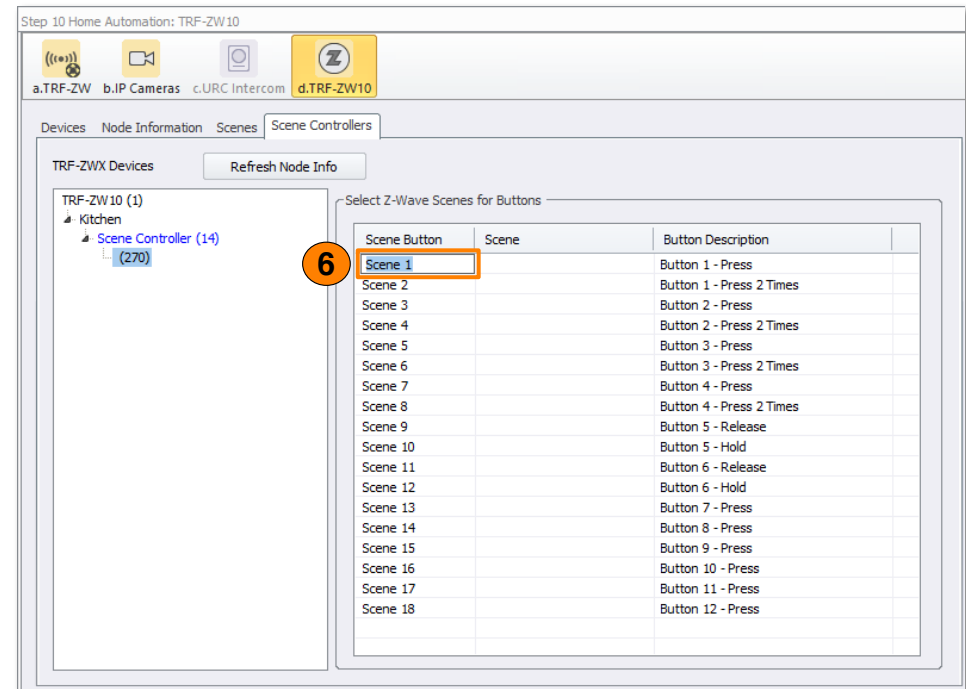
Configuring a Scene Button is broken down into three (3) sections:

- **Scene Button:** Represents the amount of buttons the specified Scene Controller has available for programming.
- **Scene:** Select this area to display a drop-down menu that contains all the Scenes configured on the TRF-ZW10.
- **Button Description:** Provides instructions on how to trigger the specified Scene Button.



- Double-click on the **Scene Button** section of the selected button, this allows the programmer to **enter a custom name**.

This name is only used as a reference to the programmer.

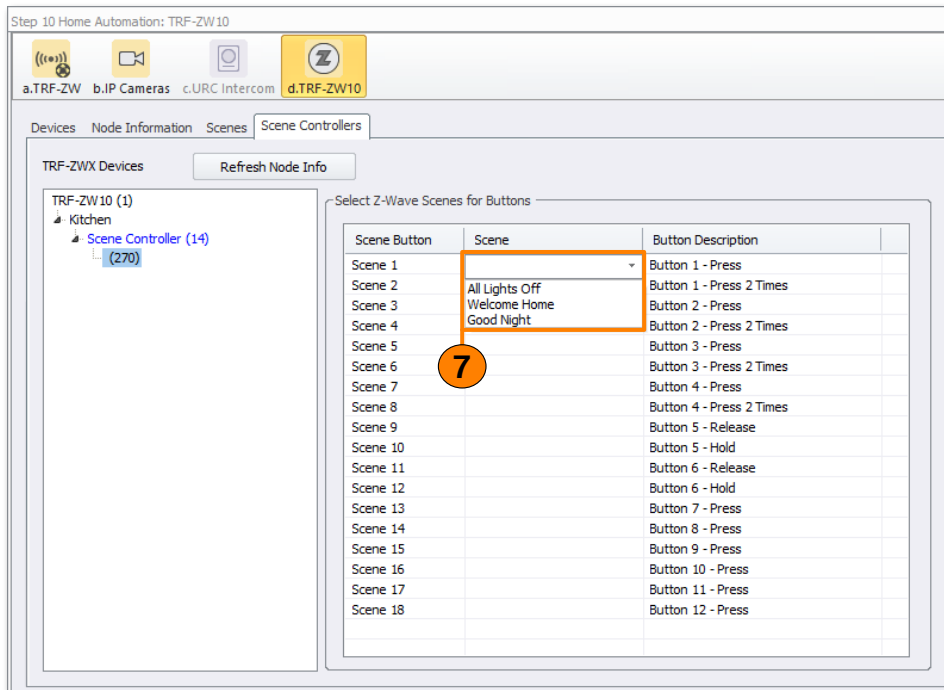


- Single-click on the Scene section of the selected button to display the **drop-down** menu. This menu contains all **configured Z-Wave scenes**.

Select an available **Scene**.

The Scene has been successfully assigned to the selected Scene Button.

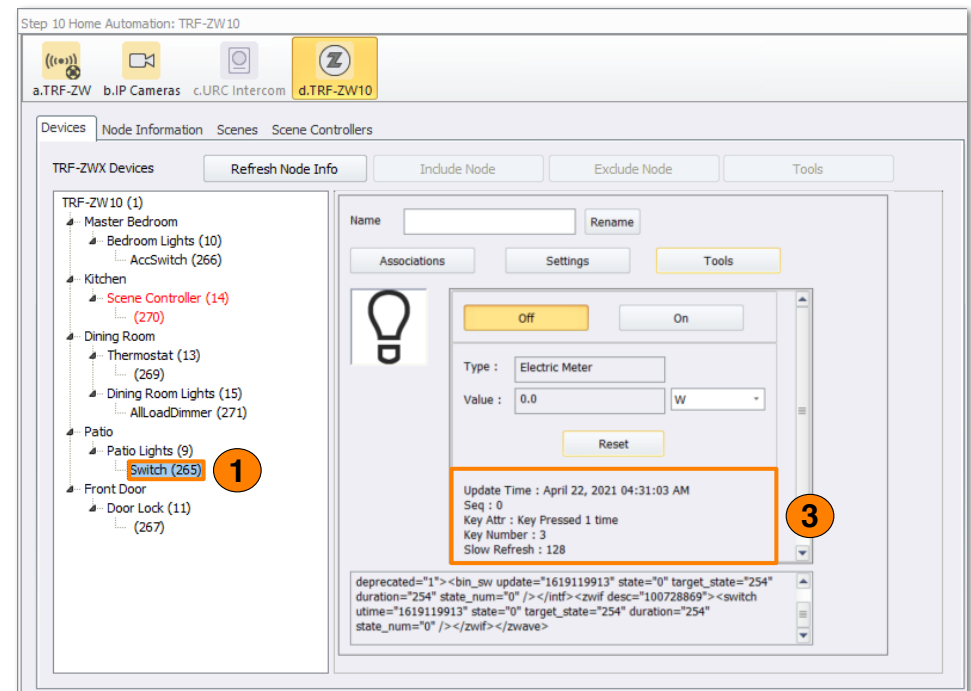
- Repeat the steps in this section for each Scene Button that is required.



### Scene Controller Verification

Physical switches are able to provide **feedback in real-time** with Accelerator. This is useful for verifying scene controllers are properly configured.

1. Select **a switch** from the **TRF-ZW Devices** list.
2. Press the **physical button** on the **selected switch** to trigger a scene.
3. After a few seconds, **scene feedback** will be displayed on the **device page** in Accelerator.



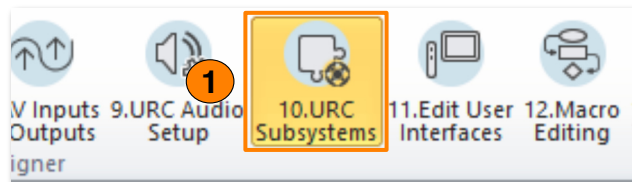
### TRF-ZW10 Programming - Including Devices

Including a device on the TRF-ZW10 enables the gateway and Total Control the ability to control and view the status of that device.

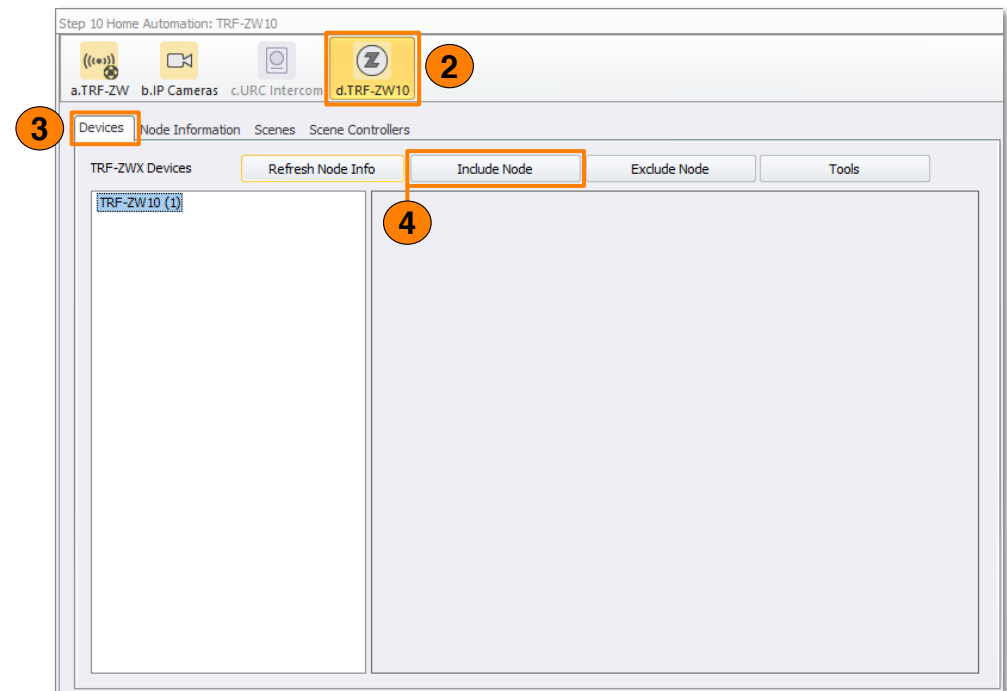
Prior to including a Z-Wave device, assure that the device has not been included to another gateway and that the device has been properly installed (if applicable). If the Z-Wave device **inclusion fails, try to exclude the device first** (instructions on [page 38](#)) and then attempt to include the device.

Perform the following steps to include a Z-Wave device:

1. Select **Step 10: URC Subsystems**.

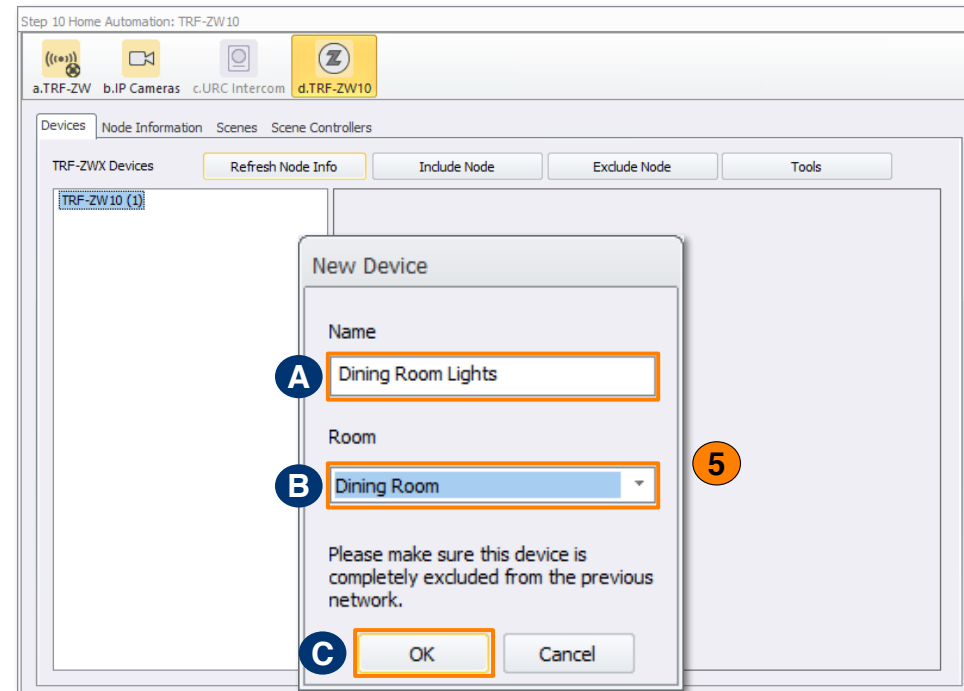


2. Select the **TRF-ZW10** sub-step.
3. Click on the **Devices** tab.
4. Select **Include Node**.



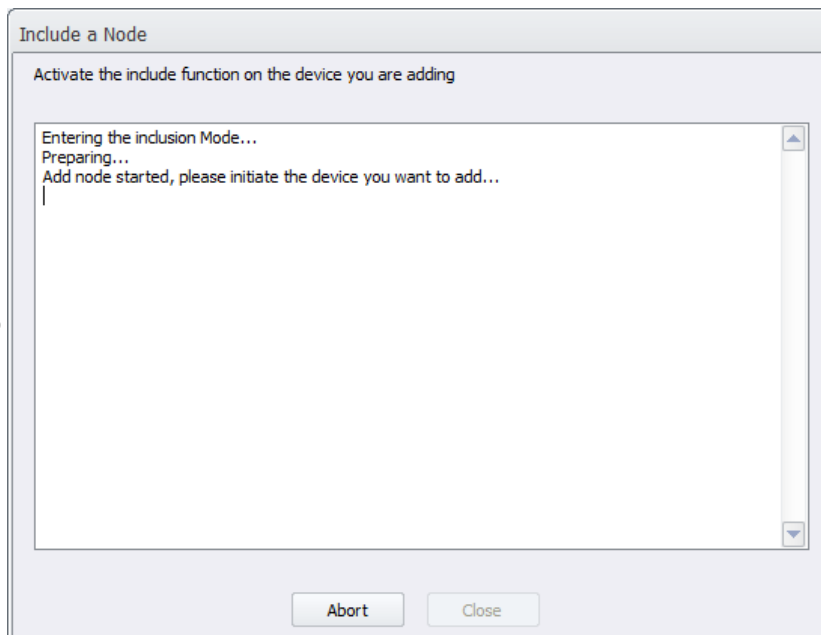


5. The **New Device** window displays, perform the following:
  - A. **Name:** Enter a custom label (Dining Room Lights) for the Z-Wave device, this name is displayed on the user interface.
  - B. **Room:** Use the available drop-down menu to select an available room (i.e. Dining Room) in the Total Control system. This Z-Wave device is available for control within the interface of the selected room.
  - C. **Select OK.**



6. The **Include a Node** window displays indicating the TRF-ZW10 gateway is in Inclusion Mode.

Locate the **Include Device to Z-Wave Network** button the physical Z-Wave device and **press it to begin the inclusion process.**



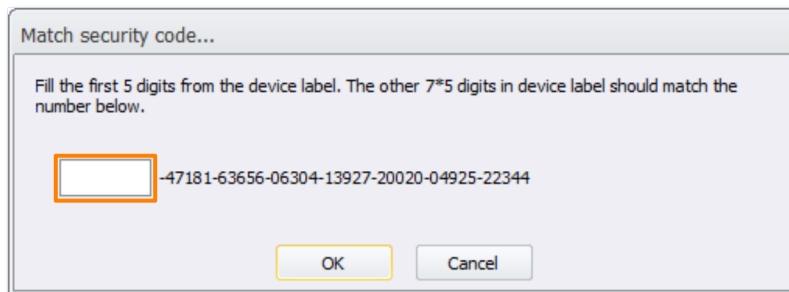
# TOTAL CONTROL

7. If supported, the **Security 2 Accept** window displays. This message only displays if the Z-Wave device supports S2 Security.

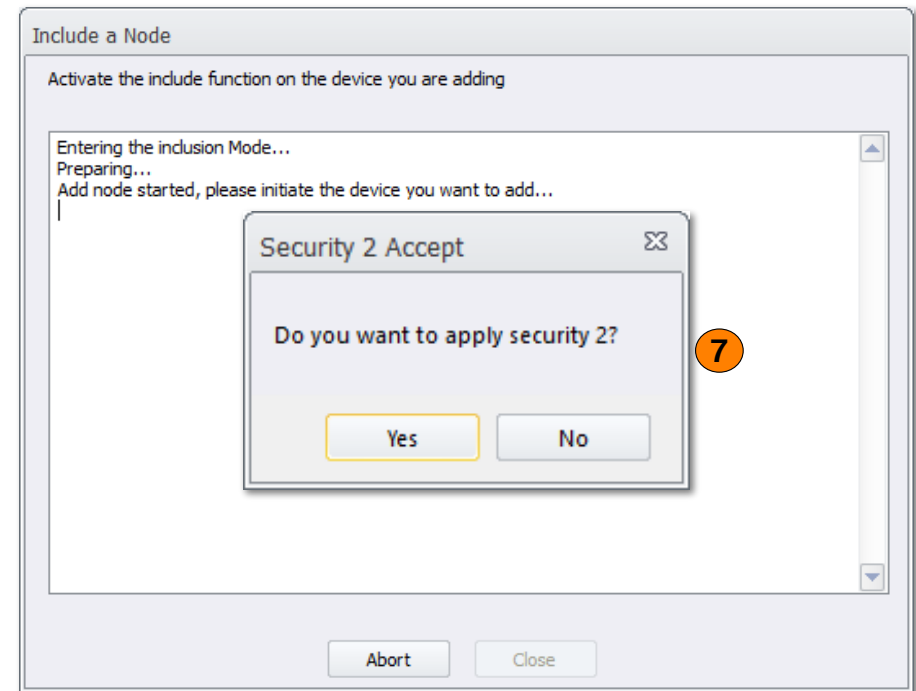
Below are the types of S2 authentications that are supported:

- **S2 Unauthenticated:** Does not require a pin code.
- **S2 Authenticated:** A pin code is required; however, if one is not provided the gateway includes the device as if it were S2 unauthenticated.
- **S2 Controlled:** Requires a pin code and if one is not provided the device does not get included.

Click **Yes** to configure the device using S2 and enter the security code in the next window that displays.

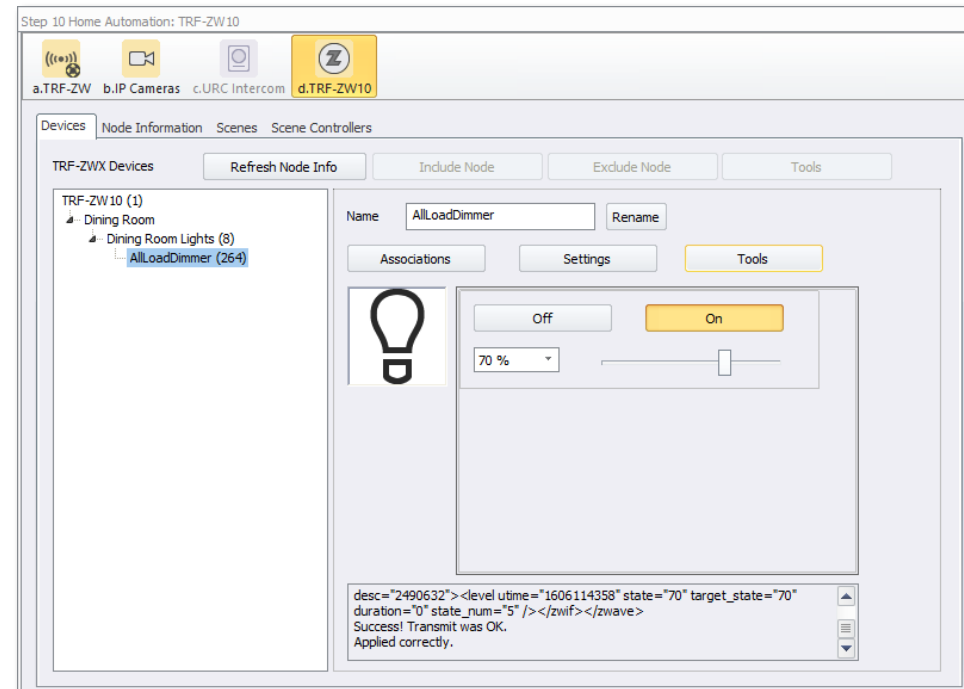
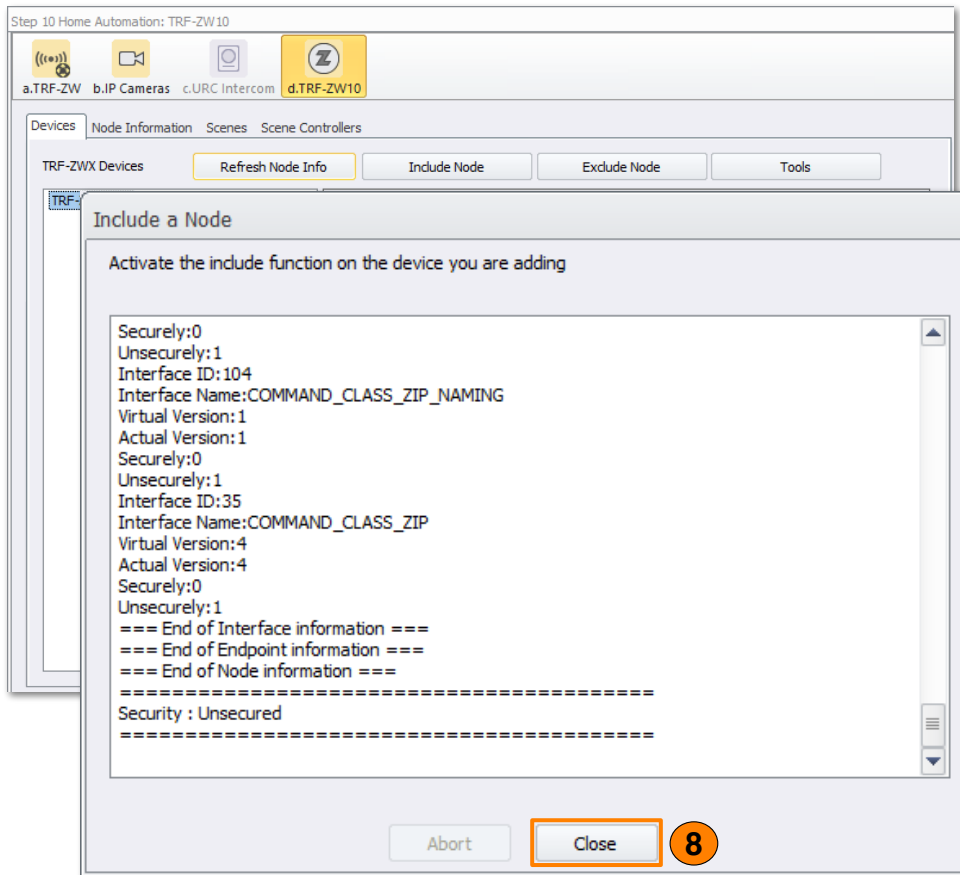


The DSK security code determines if the device is **S2 Authenticated** or **Controlled**.



The TRF-ZW10's DSK can be found on the bottom of the TRF-ZW10 and also on the bottom of the product packaging.

8. Wait till the inclusion process completes. Once done, select **Close**.
9. Repeat these steps for **each Z-Wave device** that needs to be included.



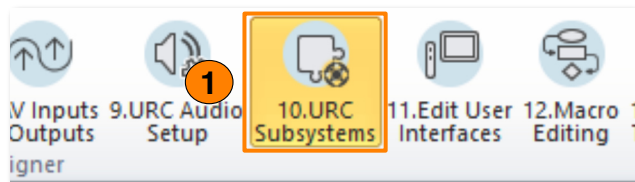
# TOTAL CONTROL

## SmartStart Inclusion

SmartStart enabled products can be added into a Z-Wave network by **entering the DSK** labeled on the product. No further action is required and the SmartStart product will be added automatically within 10 minutes of being switched on in the network's vicinity.

This requires a SmartStart compatible Z-Wave device, follow the steps below:

1. Select **Step 10: URC Subsystems**.

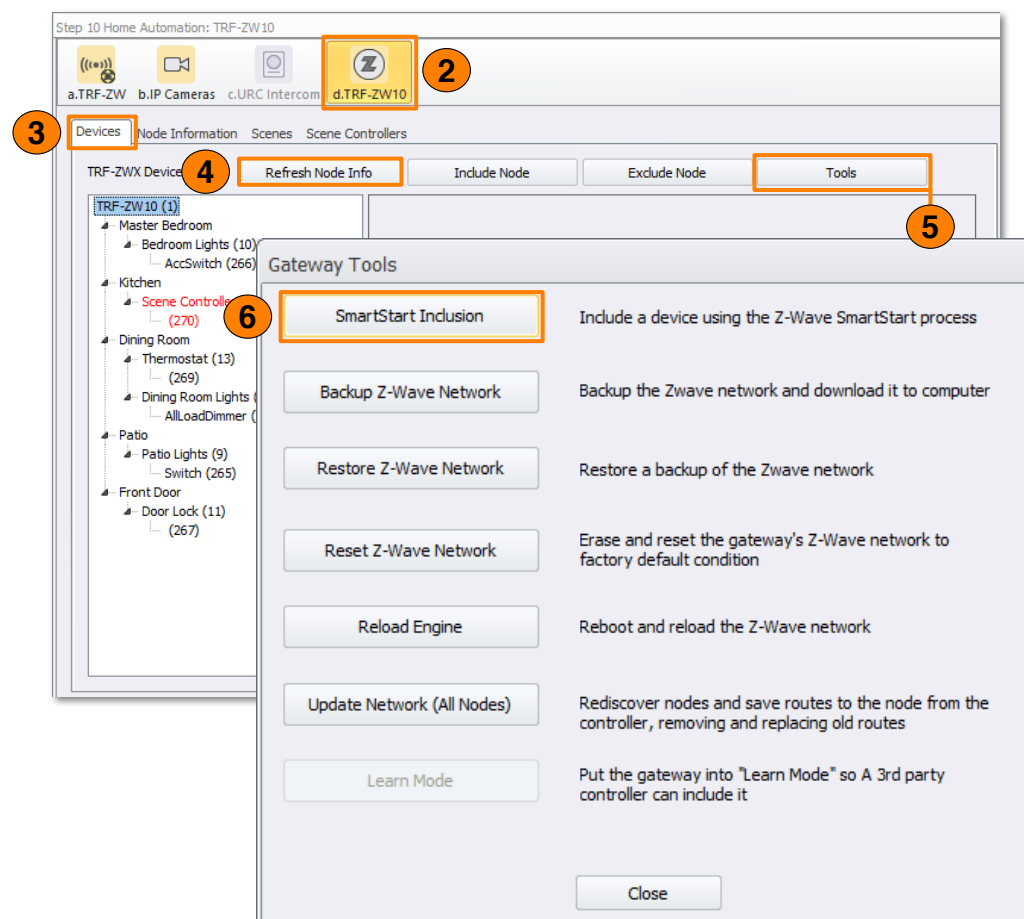


2. Select the **TRF-ZW10** sub-step.
3. Click on the **Devices** tab.
4. Click on **Refresh Node Info**. This tells Accelerator to **connect to the TRF-ZW10** and request **all available node information**.
5. Select **Tools**.

The **Gateway Tools** window is displayed.

5. Click on **SmartStart Inclusion**.
6. Select **Include New Z-Wave Device**.

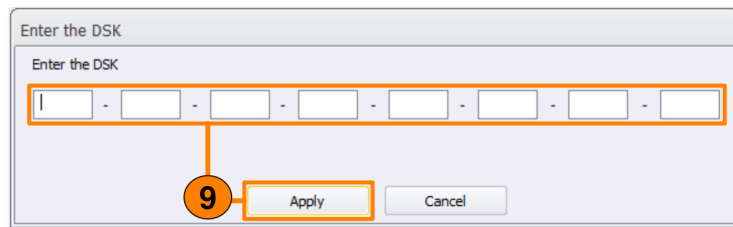
The **New Device** window is displayed.



URC software does **NOT** support the use of **QR code scanning** for SmartStart inclusion. The **full DSK** must be used.

# TOTAL CONTROL

7. Perform the following:
  - A. Provide the **SmartStart device with a custom name**, this label is how the device displays on any URC interface.
  - B. Using the available drop-down menu, **select the Room where the SmartStart device should be placed**. Generally, this is where the device is physically located.
  - C. Select **OK**.
8. The **Enter the DSK** window appears, **enter the unique DSK value** that is physically found on the SmartStart device and click **Apply**.

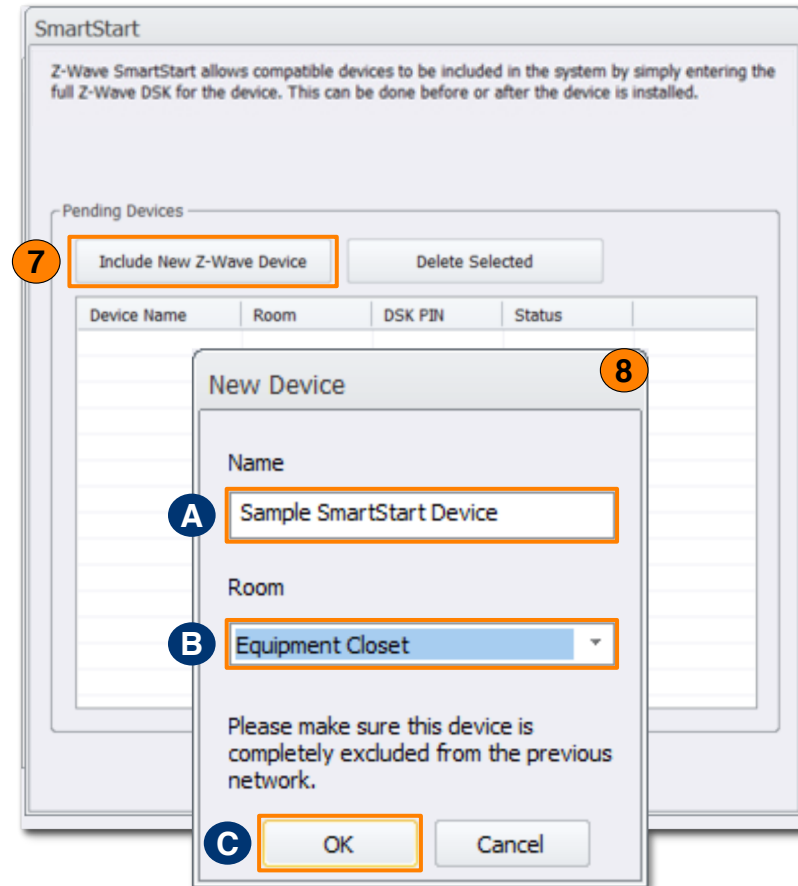


The devices have been added to the **SmartStart Provisioning List**.

After a device DSK has been entered, the device can be powered up in order to be automatically included by the TRF.



The TRF-ZW10's DSK can be found on the bottom of the TRF-ZW10 and also on the bottom of the product packaging.



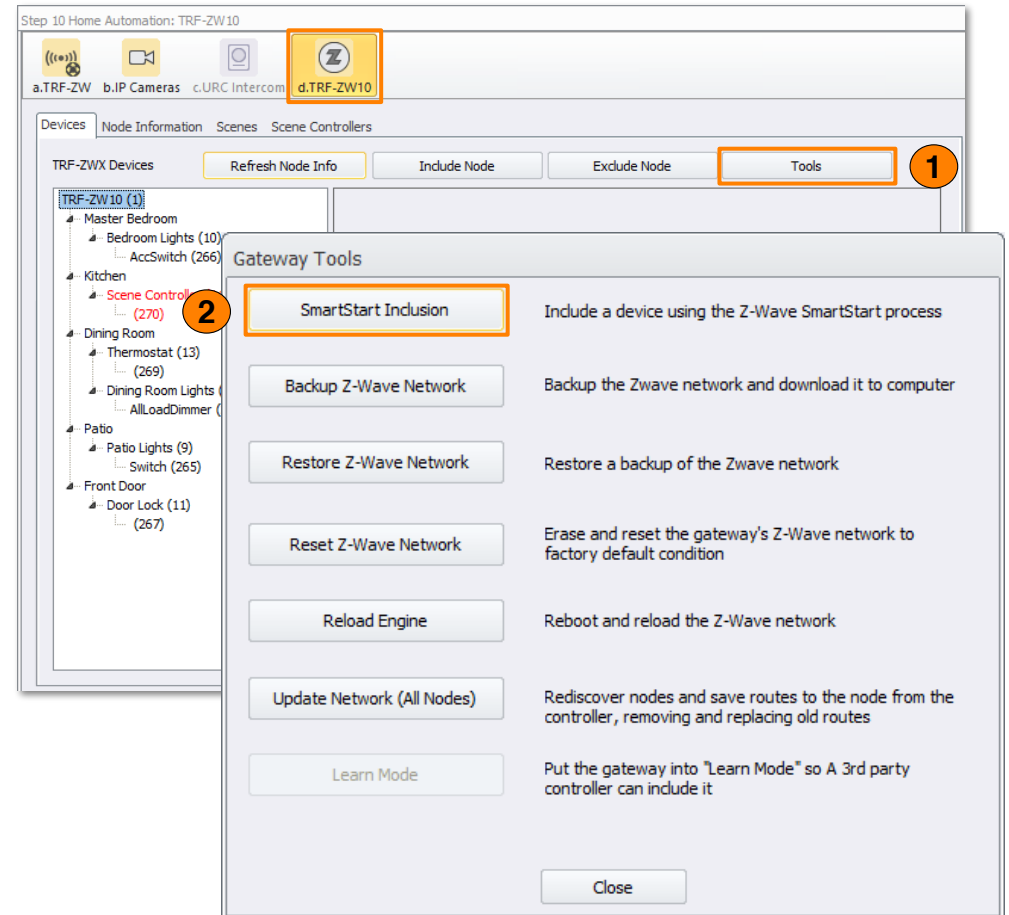
SmartStart can take **upwards of 30 minutes** to finalize including the TRF-ZW10.

### SmartStart Provisioning List

The SmartStart provisioning list **provides the status of all SmartStart devices that have been or are ready for inclusion**. When excluding a SmartStart device, one must first **remove the device from the provisioning list** or it may automatically be added back to the network.

To **access the provisioning list**, perform the following:

1. Select **Tools** from the **Devices** tab.
2. Select **SmartStart Inclusion**.





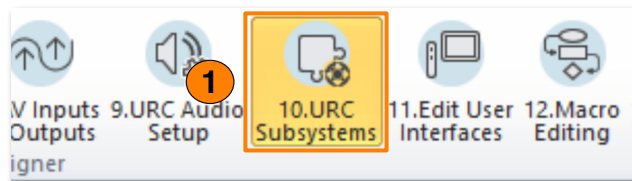
### TRF-ZW10 Programming - Excluding Devices

Excluding a device **permanently removes it from the TRF-ZW10**. Once a device has been excluded from the gateway, it needs to be re-included in order for the TRF-ZW10 to control it again.

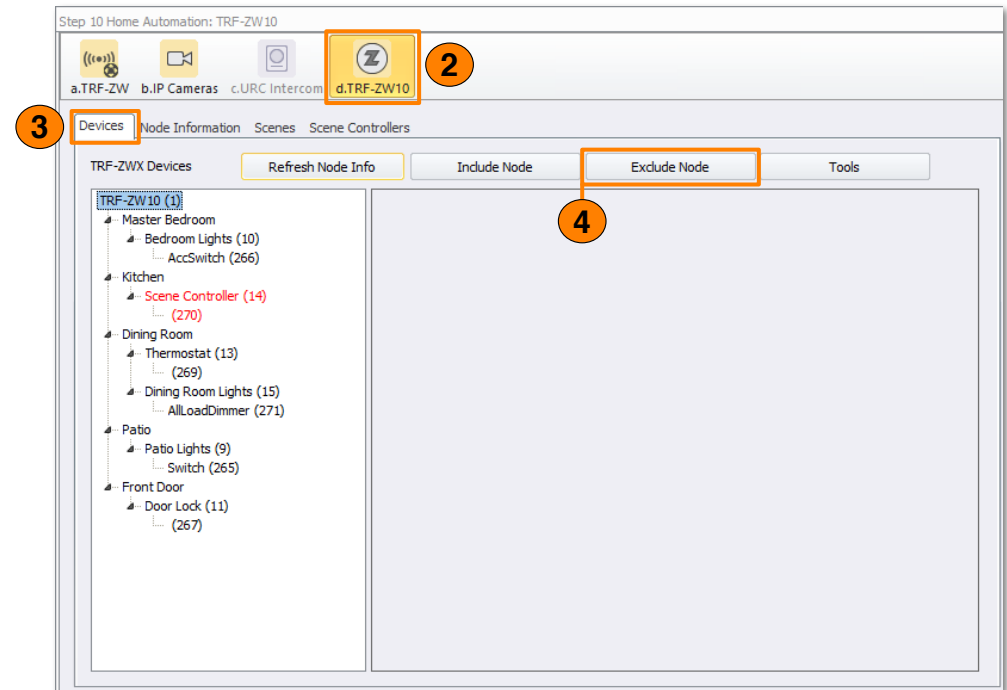
In some circumstances, the Z-Wave device must first be excluded prior to being included on the TRF-ZW10.

Perform the following steps to exclude a Z-Wave device:

1. Select **Step 10: URC Subsystems**.



2. Select the **TRF-ZW10** sub-step.
3. Click on the **Devices** tab.
4. Select **Exclude Node**.

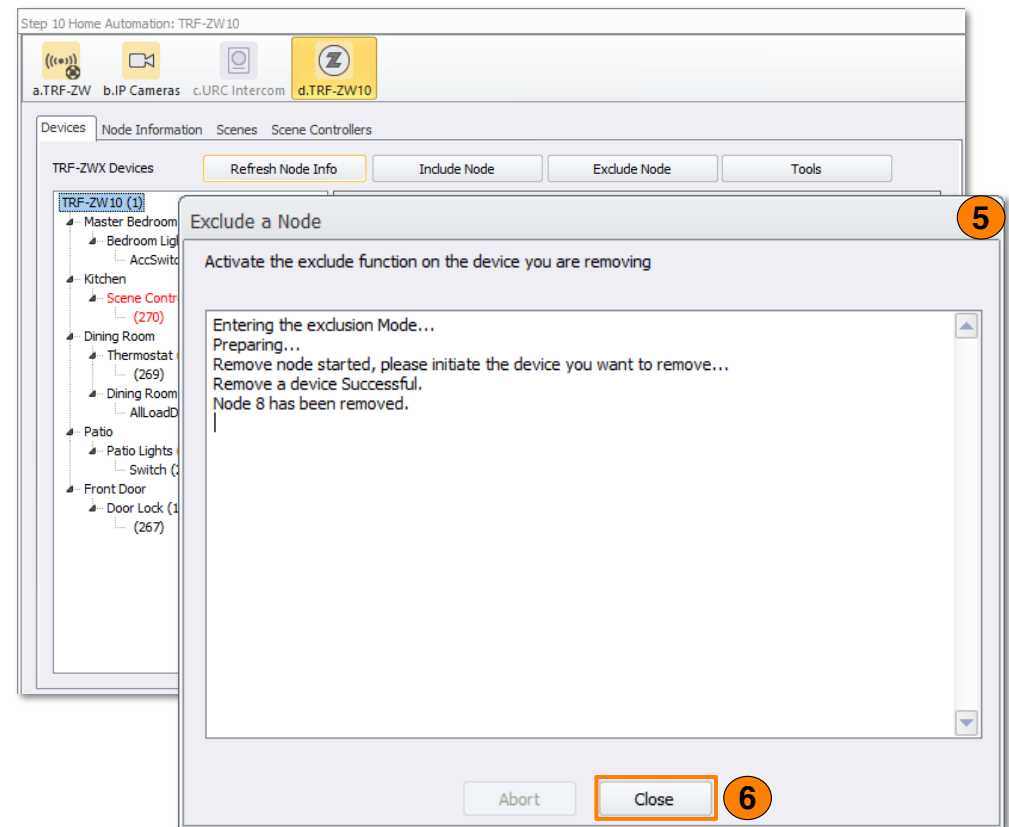


When a node needs to have its capabilities **rediscovered**, the node **must be excluded and then re-included to the network** for any **new or changed** capabilities to be recognized.



5. View the **Exclude a Node** window. This screen informs the programmer when the TRF-ZW10 has **entered Exclusion mode**.
6. Enable "**Exclude Mode**" for the device you want to exclude. **Each device has its own method entering "Exclude Mode"**, so please consult the owner's manual for each device to be excluded.

For **excluding SmartStart devices**, it is recommended to remove the node from the **Provisioning List before removing it from the network**, otherwise it may be **added back to the network automatically by SmartStart**. To remove or edit the **SmartStart Provisioning List**, refer to [page 36](#).



### **Factory Default**

Resets the memory of the TRF-ZW10 to **factory settings**. All existing programming is **erased**. The gateway **requires a download from the URC software** in order to be programmed again.

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.

To factory default the TRF-ZW10, **turn the gateway over** and locate the Reset button. Using a thin object, **press and hold the button down for fifteen (15) seconds**.

**WARNING!** Only use this button when instructed by URC's Technical Support team.



# TOTAL CONTROL

## Association Capabilities

- **Group ID:** 1
- **Group Profile Name:** Lifeline
- **Maximum Nodes:** 1

If the TRF-ZW10 is included into another device, then all the following command classes are supported at the highest security level **except for** Security 0 Command Class, Firmware Update Meta Data Command Class, and All Network Management Command Classes.

### Command Classes

#### **Supported Command Classes**

- Application Status [v1]
- Association [v3]
- Association Group Information [v3]
- CRC-16 Encapsulation [v1]
- Device Reset Locally [v1]
- Firmware Update Meta Data [v5]
- Inclusion Controller [v1]
- Indicator [v3]
- Mailbox [v1]
- Manufacture Specific [v2]
- Multi Channel Association [v4]
- Multi Command [v1]
- Network Management Basic Node [v2]
- Network Management Inclusion [v3]
- Network Management Installation and Maintenance [v2]
- Network Management Proxy [v3]
- Node Provisioning [v1]
- Power Level [v1]
- Security 0 [v1]
- Security 2 [v1]
- Supervision [v1]
- Time [v1]
- Time Parameters [v1]
- Transport Service [v2]
- Version [v3]
- Z/IP [v4]
- Z/IP Gateway [v1]
- Z/IP-ND [v1]
- Z/IP Portal [v1]
- Z/IP Naming and Location [v1]
- Z-Wave Plus™ Info [v2]

#### **Controlled Command Classes**

- Anti-Theft Unlock [v1]
- Application Status [v1]
- Association [v3]
- Association Group Information [v3]
- Basic [v2]
- Battery [v1]
- Binary Switch [v2]
- Central Scene [v3]
- CRC-16 Encapsulation [v1]
- Door Lock [v1]
- Firmware Update Meta Data [v5]
- Indicator [v3]
- Manufacture Specific [v2]
- Meter [v5]
- Multi Channel Association [v4]
- Multi Channel [v4]
- Multilevel Sensor [v11]
- Multilevel Switch [v4]
- Notification [v8]
- Security 0 [v1]
- Security 2 [v1]
- Thermostat Fan Mode [v4]
- Thermostat Fan State [v2]
- Thermostat Mode [v3]
- Thermostat Operating State [v2]
- Thermostat Setpoint [v3]
- Wake Up [v2]
- Z-Wave Plus™ Info [v2]

# TOTAL CONTROL

## **Limited Warranty Statement**

<https://www.urc-automation.com/legal/warranty-statement/>

## **End User Agreement**

The terms and conditions of the End User Agreement available at <https://www.urc-automation.com/legal/end-user-agreement/> shall apply.

## **Federal Communication Commission Interference Statement**

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

## **Warning!**

The manufacturer is not responsible for any Radio or TV interference caused by unauthorized modifications to this equipment.

Changes or modifications not expressly approved by the manufacturer could void the user's authority to operate the equipment.

## **Regulatory Information to the User**

- CE conformity Notice Products with "CE" marking comply EMC Directive 2014/30/EU issued by the commission of the European Community.
  1. EMC Directive
    - Emission
    - Immunity
    - Power
- Declaration of Conformity

"Hereby, Universal Remote Control Inc. declares that this MRX-12 is in compliance with the Essential requirements."