TRO.Y / 2 Programming Guide

201559 TRO.Y / 2 IP Gateway 302296 TRO.Y Off-line Site File Editor



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TRO.Y / 2 and integration connections use the following protocols and standards;

EIA/TIA-561
TIA/EIA-568B
ANSI/TIA/EIA-232-F-1997
ANSI/TIA/EIA-485-A-1998
IEEE 802.3at/bt
RFC 854 Telnet
IETF HTTP 1.1 RFC 9112
ITU-T X.274|ISO/IEC 10736:1995 TLS 1.3
Matter 1.1 Connectivity Standards Alliance

Zigbee 3.0 Thread 1.3 BLE 5.4 Synergy 2.0 API RTS SDN 2.0 DHCP IPv4 RFC 2131

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Introduction

This is a reference guide for the commissioning of a TRO.Y / 2 system. TRO.Y / 2 is the central gateway and controller for any Screen Innovations shade, screen or drapery products.

Note: If your project contains any Zigbee or RTS motors, you must use a compatible wireless bridge such as the SI HELEN, J4M35, Link ProZ, or TaHoma Switch. When using a Link ProZ TaHoma, or TaHoma switch you must complete your configuration using the TaHoma app in combination with your TaHoma/LinkPro Z.Before binding any RTS products to a TaHoma or LinkPro Z, all RTS products must be fully commissioned. Up and Down end limits, any "my" positions, and group hand controls (Situo remotes, DecoFlex switches, etc.) must be fully configured before working with TRO.Y / 2.

Before starting the setup process, unbox the TRO.Y 2 unit and connect the PoE switch or PoE injector. Verify the status LED light is solid red.

Getting started with TRO.Y / 2

- 1. Discover TRO.Y / 2 on the network (Pages 5-6)
- 2. Scan QR code on this page or goto https://support.screeninnovations.com/accessories/troy/and download the latest TRO.Y / 2 firmware (Pages 14-15)
- 3. Using one of the four 485 ports Connect TRO.Y / 2 to your 485 network (Janus, or other PDU or other 485 data hubs) and/or connect your wireless bridge (Helen, J4M35, Link ProZ, TaHoma, or TaHoma Switch) (Pages 23-27)
- 4. Discover and configure Devices (Pages 30-39)
- 5. Connect any 3rd party control system(s) (Pages 19-22)
- 6. Save Site file and integration report (pages 43-46) and enjoy your new shade or screen system

General Off-line Procedure Overview

- 1. Scan the QR code or go to TROY support page / Resource section to download the latest version of the TRO.Y site file editor.
- 2. Click on the TRO.Y site file editor.
- 3. Configure settings for integration/devices.
- 4. Save site file and integration report.

Note: Throughout this guide, the green dot next to any topic means that the settings/features are also available in the off-line editor.

TRO.Y2 is 100% backwards compatible with TRO.Y. TRO.Y2 adds a couple of new features that was not available when the original TRO.Y was manufactured. This includes a real-time clock and adding 12v DC power on the High-speed serial port (now labeled HELEN). The last TRO.Y firmware is version 2.17 which is available on the SI website. TRO.Y2 ships with an initial firmware version 2.17. If you are using a TRO.Y and would like to move forward using the latest TRO.Y2 firmware, then you must first perform a boot-loader operation which can be found on page 47.



Note: In this document we highlight the sections which only apply for future firmware releases on TRO.Y2 with this highlighted box

TRO.Y / 2 Discovery Procedures

Using a standard web browser, connect to TRO.Y / 2 Use one of the following methods to determine TRO.Y / 2's IP address:

- without DHCP server

The default IP address is 169.254.169.254

- with DHCP server

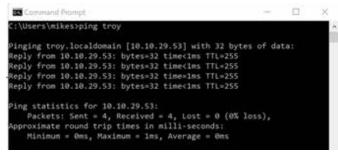
If your project contains a DHCP server, the fastest way to discover TRO.Y / 2 is using a standard "ping" comand.

Note: All TRO.Y / 2 MAC addresses start with "70:B3:D5" and can be found on the bottom label

TRO.Y / 2 will not respond to any static pings or arp commands unless the security bypass has been activated by pressing the reset button once, and the status LED indicator is flashing.



- Windows Command Prompt (ping troy) Using the windows search command, type in "CMD", then click to open the command prompt, next type "ping troy" to see the current DHCP IP address.



- Windows Command Prompt (arp -a) Using the windows search command, type in "CMD", then click to open the command prompt, next type "arp -a" to see the list of mac addresses.

```
Command Prompt
C:\Users\ryan>arp -a
Interface: 10.10.28.123 --- 0x3
 Internet Address
                         Physical Address
                                                 Type
 10.10.0.1
                         e0-63-da-8b-23-05
                                                 dynamic
 10.10.25.27
10.10.25.51
                         54-27-1e-b3-9c-67
                                                 dynamic
                         98-9e-63-37-6e-9a
                                                 dynamic
 10.10.25.56
                         3c-2a-f4-9a-db-17
                                                 dynamic
 10.10.28.131
                         70-b3-d5-cf-b1-64
                                                 dynamic
                             e-ь3-37-6d-3a
                                                 dynamic
 10.10.28.194
                         ec-71-db-0f-47-89
                                                 dynamic
                         10-7b-ef-c7-2a-9f
                                                 dvnamic
  10.10.28.205
```

- Apple Terminal

On your MAC open Terminal by clicking the use the "arp -a" command to find the TRO.Y / 2 MAC address

```
Sechco -- bash -- 86×28
                                                                            ast login: Thu Apr 13 11:44:07 on ttys000
                                                                           The default interactive shell is now zsh.
Launchpad icon in the Dock, and type Terminal in the search field, then click Terminal, you can now use the "arp –a" command to find the TRO.Y/2
                                                                             (239.255.250) at 1:0:5e:7f:ff:fa on en0 ifscope permanent [ethernet]
```

- Using universal plug-and-play with Windows

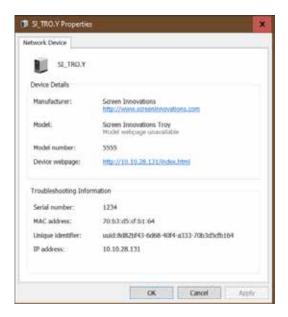
Open the file explorer and click on the network icon. SI_TRO.Y is listed in "Other Devices" in network devices.

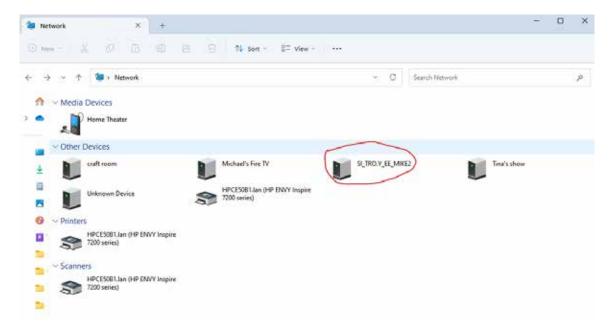
- Double-click the TRO.Y / 2 icon to bring up the web browser,

OR

- Right-click the TRO.Y / 2 icon to bring up the TRO.Y / 2 properties including the IP address

The Home menu has all five selections:





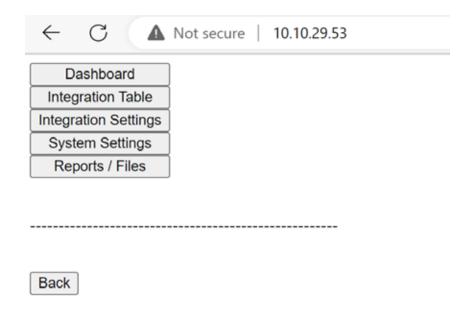
If you cannot see TRO.Y / 2 in your other devices then go to page 49 - 51 for any additional information on how to turn on UP&P for your computer.

Web Browser Interface Etiquette

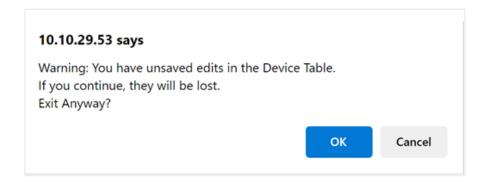
As with any web browser interface, refrain from using the standard back, forward or refresh buttons as you can lose data that has not yet been saved or sent to TRO.Y / 2.

Pro-tip: You can auto-hide your address bar by going into your web browser settings to help avoid this situation.

The refresh button is ok, but you can lose data that has not been saved or sent to TRO.Y / 2 on the current page.



Inside the TRO.Y / 2 Interface you can use this back button, but if you have any unsaved or accepted edits, these also may be lost, so a pop-up message will appear with this warning. The refresh button is ok, but you can lose data that has not been saved or sent to TRO.Y / 2 on the current page.



TRO.Y / 2 Home Menu

The TRO.Y / 2 Home menu contains 5 sub-menus:

- **Dashboard** This menu provides system information and diagnostic features. The Wireless, Telnet server and client and device status. You can also restrict any further set up configuration menu access by creating a Password that must be entered to pass this menu.
- Integration Table This selection provides access to the Device table, Group table, Super Group table and Telnet Client table.
- Integration Settings This selection provides access to the Events, Scene, Telnet server, Telnet Client, Serial Control, Wireless Bridge, and System Integration ID configuration settings.
- **System Settings** This selection provides access to the user interface password, system name, network configuration, System Time, location, firmware loading, and system restart. You can also view the current firmware, UI version. and the MAC address.
- Reports/Files This selection provides access to creating/loading site files, Integration reports
 and site backups.

TRO.Y / 2 Data storage

While designing a SI shade/screen system, you will create data stored across multiple devices such as motors, keypads, and gateway devices including the web browser that you are using to configure or build site file for TRO.Y / 2. During the commissioning, you may experience slight delays depending on which device(s) TRO.Y / 2 is communicating with.

Best Practice: Before leaving your unfinished commissioning process, make sure to commit the data to TRO.Y / 2 and other devices, and consider making a site backup. In other words, leaving the browser before saving to TRO.Y / 2 and or saving a site file can cause you to lose your data which is currently being stored in the web browser.

Dashboard

Password	
Enter Password: No Password Set	
Set System Time	
Set Time & Date mm/dd/yyyy:	Refresh
System Status	
System States	
Telnet Server Connection:	Interface Disabled
Helen Wireless Bridge Connection:	Interface Disabled
LinkPro Wireless Bridge Connection:	Interface Disabled
	Interface Disabled
Telnet Client Connection:	
Telnet Client Connection: RS485 Devices Offline: Refresh	Interface Disabled
Telnet Client Connection: RS485 Devices Offline:	Interface Disabled
Telnet Client Connection: RS485 Devices Offline: Refresh	Interface Disabled
Telnet Client Connection: RS485 Devices Offline:	Interface Disabled
Telnet Client Connection: RS485 Devices Offline: Refresh Documentation The manual for TRO.Y and other	Interface Disabled
Telnet Client Connection: RS485 Devices Offline: Refresh Documentation	Interface Disabled
Telnet Client Connection: RS485 Devices Offline: Refresh Documentation The manual for TRO.Y and other documentation at be found at	Interface Disabled
Telnet Client Connection: RS485 Devices Offline: Refresh Documentation The manual for TRO.Y and other documentation at be found at	Interface Disabled
Telnet Client Connection: RS485 Devices Offline: Refresh Documentation The manual for TRO.Y and other documentation can be found at Screen Innovations.	Interface Disabled
Telnet Client Connection: RS485 Devices Offline: Refresh Documentation The manual for TRO.Y and other documentation at be found at	Interface Disabled
Telnet Client Connection: RS485 Devices Offline: Refresh Documentation The manual for TRO.Y and other documentation can be found at Screen Innovations.	Interface Disabled

Dashboard

- Using a browser and navigate to the TRO.Y / 2 IP address found using one of the previous methods listed on pg. 5 - 6
- If this is the 1st time, you are accessing TRO.Y / 2, no password has been created yet. See the "User Interface Password" option on pg. 13 to setup a password (Must restart system to apply password). If a password has already been created, enter it here to navigate past this page
- If you have forgotten the password, press the reset button on TRO.Y / 2 to bypass the security for 5 minutes. The status LED will flash during this time.





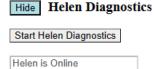
You can click on the "Set Time & Date" button to set the current PC Browser Time. More options for Time are available inside the "System Setting" section.

Clicking on the Hypertext link will take you to the location for the TRO.Y / 2 manual and this Programming manual.

Clicking on the Show "485 Diagnostics" or the Show "Helen Diagnostics" will provide a table of device(s) and the ability to test them

Set Time & Date | mm/dd/yyyy --:-- Refresh System Status Interface Disabled Telnet Server Connection: Helen Wireless Bridge Connection: Interface Disabled LinkPro Wireless Bridge Connection: Interface Disabled Telnet Client Connection: Interface Disabled RS485 Devices Offline: Refresh Documentation The manual for TRO.Y and other documentation can be found at Screen Innovations. Show RS485 Diagnostics Show Helen Diagnostics

Clicking on the Show Helen Diagnostic will provide a table of devices, the addresses and SILQ for each Zigbee node.



NOTE: This Menu will only appear if you have a Helen connected to the Helen port also available inside the system setting menu.

Password

Set System Time

Enter Password: No Password Set

On/OffLine	Int ID	Label	Native ID	Zigbee ID	Device Type	Power	Parent	SILQ
X	001004	BAD CABLE	4CC206FFFE8031DE		motor	?	?	?
X	001002	GOOD CABLE	4CC206FFFE803485		motor	?	?	?
+	n/a	Helen Coordinator	385CFBFFFEE35425	0000	coord	DC	n/a	n/a
+	001003	KITCHEN	90FD9FFFFEA5F31C	DA6B	motor	AC	0000	95

Connection Status Types

- **Telnet Server Connection** – shows the current connection or configuration status



- Helen Wireless Bridge Connection shows the current connection or configuration and authentication status
- LinkProZ/TaHoma Wireless Bridge
 Connection shows the current connection or configuration and authentication status

Dashboard

System Status

Telnet Server Connection: Interface Disabled
Helen Wireless Bridge Connection: Interface Disabled
LinkPro Wireless Bridge Connection: Interface Disabled
Telnet Client Connection: Interface Disabled
RS485 Devices Offline: 0

- Telnet Client Connection shows the current connection or configuration status
- 485 Devices Off-line shows all the currently configured 485 devices that are currently off-line
- Refresh Click this button to update the connection status

Connection status types

No Network Connection	Check Ethernet connection, IP and subnet address(es)
Good Connection	Current connection is good
Interface Disabled	Disabled in the Integration Settings Menu
Invalid	Connection is ok, but settings are not authenticated or are not at the currently set IP address(es) in the integration Settings menu
Checking	Performing 485 Discovery

System Settings System Settings User Interface Password: Submit System Info Firmware Version: 2.17 Compiled: Oct 31 2022, 12:32:34 UI Version: 0.0.012x1z Network Settings System Name: SI_TRO.Y_SUP_DAN MAC Address: AAAAAAAAAAA04 DHCP Enable/Disable: Disabled > Static IP Address: 10.10.100.40 Subnet Mask: 255.255.0.0 Gateway IP Address: 10.10.0.1 Submit Note: IP settings will not be be stored until the submit button is clicked. IP Settings will not take effect until after a Tro.Y system restart. Show System Time Settings **System Restart**

Restart

User Interface Password

If it is desired to restrict access to the configuration set pages you must enter a password in the box below and click on Submit.

Note: SI support does not have a way to unlock or change this password. If the password is lost, you can use the Security Bypass button to allow 5 minutes to correct/modify the Password or factory reset the unit

System Settings	
Set User Interface Password:	Submit

System Info

This displays the current Firmware version and compile date as well as the User Interface

- Create a Network TRO.Y / 2 System Name
- MAC Address and spoof address version

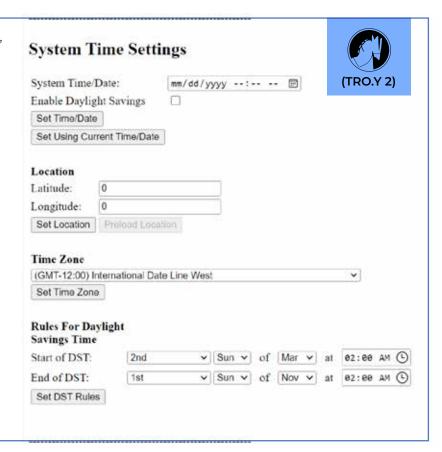
Network Settings

- Enable and disable DHCP support (Note, a system restart is needed for any logical IP adjustments)
- Static IP, Subnet and gateway settings

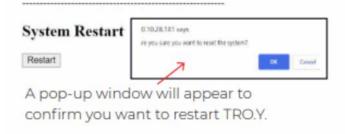


System Time Settings

System Time Settings allow system time, date and location to be entered for use with events and scenes



System Reset, will perform a warm re-boot of gateway(s)



TRO.Y / 2 Firmware Update

Allow you to update TRO.Y / 2 system firmware with download progress bar.

Note You must press the reset button on the front of TRO.Y / 2 before you can submit firmware.

Note you must restart TRO.Y / 2 after any firmware update

Firmw	are Upda	te
		firmware can be found at <u>Screen Innovations</u> .
1. Press the sy	estem reset button or	the TRO.Y device momentarily to enable firmware download. The red LED should be flashing
2. Select the f	îrmware file from ye	our local drive for download to the TRO.Y device and click "Submit".
3. After down	load you must reset	or power cycle the TRO.Y device for the new firmware to take effect.
(TRO.Y firms	ware files have the fi	de extension, ".troy")
Choose File	No file chosen	Sibne
Download St	atus: Ready	

Initiating TRO.Y / 2 Firmware Update

Start by pressing the "Reset" button on the front of the TRO.Y unit, then select the "Choose File" button, navigate to the recently downloaded TRO.Y / 2 firmware file that has been saved on your PC. Then click the Submit button when ready to upload.

Firmware was uploaded successfully, if you see the message as shown to the right in the Results box

The most recent version of TRO.Y farmware can be found at Screen Innovations.

1. Press the system reset button on the TRO.Y device momentarily so enable farmware download. The red LED should be flashing.

2. Select the farmware file from your local drive for download to the TRO.Y device and click "Submit".

3. After download you must reset or power cycle the TRO.Y device for the new farmware to take effect.

(TRO.Y firmware files have the file extension. ".troy")

Choose File Troy_FW-V3_7.troy Submit

["result": "good", "hebize": "840024", "che
chaun": "ABBETDOO"}

Firmware Update

The most recent version of TRO.Y farmware can be found at Screen Innovations.

1. Press the system reset button on the TRO Y device momentarily to enable firmware download. The red LED should be flashing

2. Select the firmware file from your local drive for download to the TRO Y device and click "Submit".

3. After download you must reset or power cycle the TRO.Y device for the new firmware to take effect

(TRO Y firmware files have the file extension, ".troy")

("result":"fmil","msg":"Not in Security Evokus Mode")

Choose File Troy_FW-V3_7 troy

Firmware was **not** uploaded successfully, if you see the message as shown to the right in the Results box

You must press the "Security Bypass" button on TRO.Y / 2 and have the status LED flashing in order to upload the file successfully.

Note 1: On TRO.Y, if you have attempted to load a newer firmware greater than 2.17 you will need to refer to page 47 for details on how to complete the upload process.

Note 2: Firmware after 2.17, is compatible with TRO.Y, however TRO.Y does not have a real time clock, and does not provide the voltage for a Helen connected to a Control port. Features that require a real-time clock will not function correctly on TRO.Y. Contact SI Sales if your customer requires features from a real-time clock for information on how to upgrade to TRO.Y 2.

Q. Should I update my TRO.Y firmware to a version greater than 2.17?

A: As long as your system is working properly, the general answer is No.
Unless, the system is not working properly or you have been instructed to update the firmware, then you may proceed.

Q. Will updating firmware beyond version 2.17 damage my TRO.Y?

A: No.

Bug fixes and general file structure maintenance as well as access to new features such as Scenes which can be triggered by other devices can be beneficial.

Integration Settings

Integration Settings
Events Manage Events (TRO.Y 2)
Scenes Manage Scenes
Show Telnet/JSON Server Settings
Show Telnet Client (Lutron) Settings
Show Wireless Bridge Settings
Warning: Changing the System Integration ID may disable existing third party integrations.
System Integration ID: 555555555FB Restore to Default

Event Management

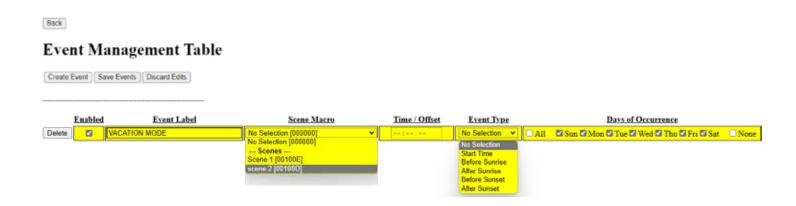


Events are a control command(s) that trigger (or start) a user scene at a designated time or occurrence.

Scenes must be crated before setting up an event

Create, Save and discard events

To create an event, click create event, type a label, select a scene and the time or occurrence of the trigger



Scene Management

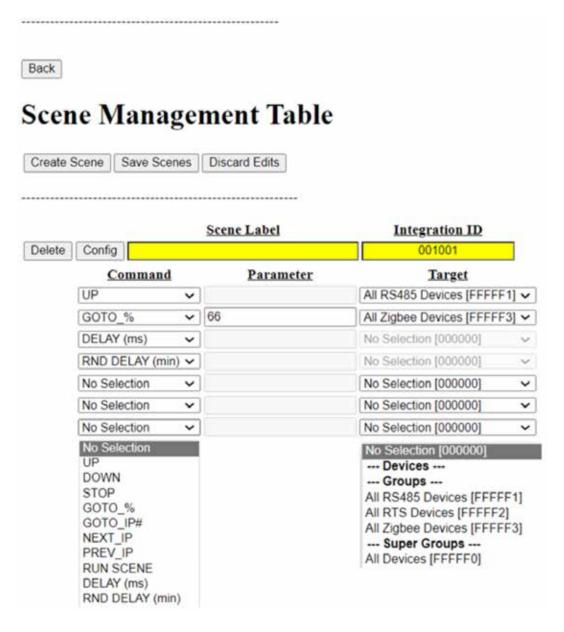


Scenes are command(s) that are triggered from events or 3rd party controls and send selected commands to designated target(s)

To create a scene, click create scene, type a scene label and Integration ID, or use auto generated ID from TRO.Y / 2

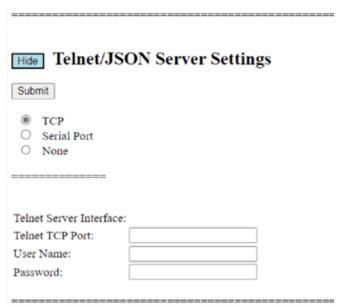
Click on the "Show Config" button to open the drop-down menu for up to eight commands, select from the drop-down list of commands, enter any relevant parameters and select any available targets including any delay(s) required.

If you need more than 8 commands, a scene can also call another scene, for a virtually unlimited amount of commands

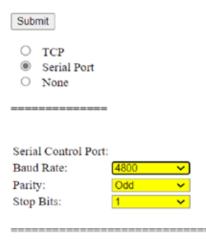


Telnet Server Settings

- The Telnet Server Settings are used for third party control systems
- Click "Enable" to start Telnet Server Session
- Select Telnet port (default is 23)
- Select User Name and Password
- Click "Submit" when configuration is complete



Hide Telnet/JSON Server Settings

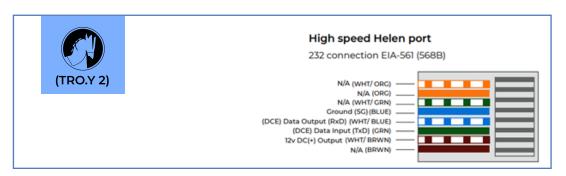


Note: Use the server settings to connect to J4M35. See page 27.

Default TRO.Y / 2 Serial Settings

Baud Rate - 4800-56K Control bit – 8

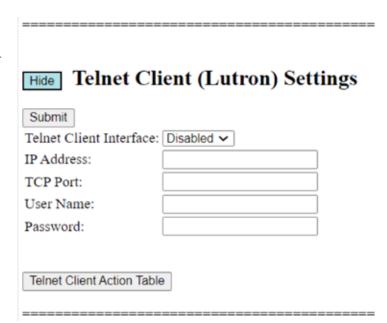
Parity –None Stop Bits - 1



Note: Serial port data output (WHT/BLUE) is the transmit (TX) from (TRO.Y / 2 DCE) on pin 5 Serial port data input (GRN) is the receive (RX) to (TRO.Y / 2 DCE) on pin 6

Telnet Client

- The Telnet Client Settings are typically used for third party keypads
- Click "Enable" to start Telnet Client session
- Select IP address and TCP port
- Set User Name and Password
- Click "Submit" when your configuration is complete
- Once your Telnet sessions are configured, use the "Restart" button to Reboot TRO.Y/2



Telnet Client Action Table

Use this function to capture 3rd party control commands and create Phantom button presses/triggers.

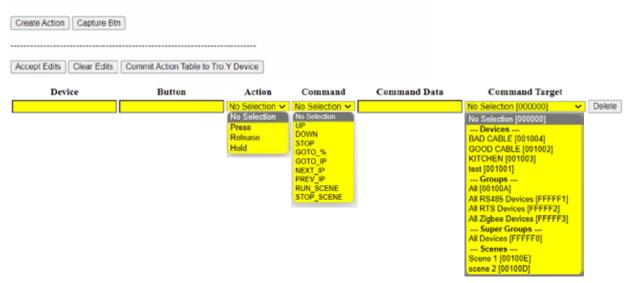
Once connected to 3rd party system using the network/serial connection from the Client settings page, then create or capture commands by clicking on the capture button, then push the corresponding 3rd party control button(s) required for your system.

Select which action (Press, Hold or Release), any command associated with this action, and command data and any available target to send command(s) to.

Telnet Client Table

- Clicking the "Telnet Client Action Table" button, will bring you to the Telnet Client Table.
- In this table, you can create, actions, capture buttons, edit, and delete actions.

Telnet Client Action Table



- Click the "Create Action" button to create a new action map manually or click "Capture" to capture one button at a time from the Telnet server (15 seconds pairing per command). This must be enabled and configured in integration settings and the server must be connected and online.
- Enter Device ID (third party controller or repeater).
- Enter Button ID (button/ID)
- Select button action (press, hold, release).
- Select desired command and any command data required. See page 24 for command list.
- Select the target for this action.
- Targets can include motors, Zigbee Edge Routers, groups and super groups.
- Click "Commit Action Table to TRO.Y / 2 Device" button to send action map to TRO.Y / 2.
- Click "Back" to return to the Integration Settings" section.

HTTP Commands

Caution should be used when sending any HTTP Get commands to TRO.Y / 2, any incorrect ASCII character(s) could cause damage to your system site file and operation of TRO.Y / 2. Before sending any HTTP commands ensure you have made a site file backup in case you need to reload your site file.

We support three commands for any motor, UP, DOWN, and STOP.

The following string format can be used to send these commands to TRO.Y / 2

http://###.###.###/troy.cgi?cmd=70&str1=XXXXXX&str2=\$\$\$\$

Where; ###.###.### is a valid 32-bit IPv4 address that is sent from the same logical segment or can be forwarded to the same logical segment as TRO.Y/2. Each octet can be expressed in a valid 8-bit number and can be truncated within the octet. Class C example; "192.168.0.100", Class A example "10.10.0.100"

Where; XXXXXX is a valid 16-bit node ID that is sent on one of TRO.Y / 2 485-bus lines. This node ID is expressed into a 6-character alpha numeric value. Some addresses are reserved for broadcast or other bus features. Example1; "1001003", Example2; "1A0113"

Where; \$\$\$\$ is a valid ASCII character that is used by TRO.Y / 2 which determines the correct JSON command to be sent to the target destination on the 485-bus line(s). Valid commands are "up", "down", "stop"

Example UP command; "http://192.168.1.149/troy.cgi?cmd=70&str1=001003&str2=up"

Example STOP command; "http://l92.168.1.149/troy.cgi?cmd=70&str1=001003&str2=stop"

Example DOWN command; "http://192.168.1.149/troy.cgi?cmd=70&str1=001003&str2=down"

System Integration ID

System Integration ID	
Warning: Changing the System Inte	gration ID may disable existing third party integrations.
System Integration ID: 748026559463	Restore to Default
	ne third party integrations. For example, Crestron Home Inchronize their autogenerating code.
Pro tip: When using with Crestron h	nome, make sure to copy the system integration ID and/or
	y event that TRO.Y needs to be replaced. Load the current tement unit in order to reestablish your connection to Cre-

Wireless Bridge Settings - Link ProZ / TaHoma / TaHoma switch

Hide Wireless Bridge Settings

Note: This screen will only appear if you have a HELEN connected to the Helen port

Submit

- O Helen Bridge
- Link Pro / Tahoma Bridge
- None

	a Bridge Configuration
ICP/IP	Configuration
Bridge IP Address:	0.0.0.0
Bridge TCP Port:	44100

Enter IP and port for LinkProZ, TaHoma, TaHoma switch default port is 44100



Screenshot from TaHoma app

Wireless Bridge Settings - Helen



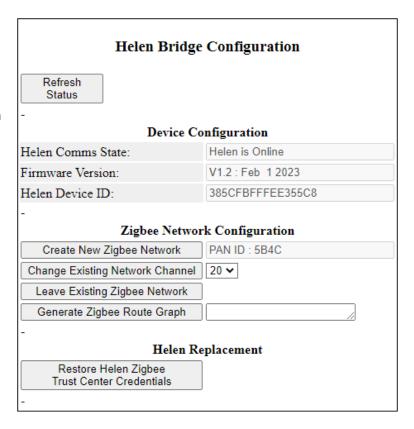
Hide Wireless Bridge Settings

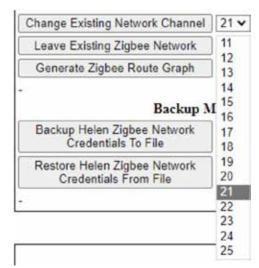
Helen Bridge
 Link Pro / Tahoma Bridge
 None

- Connect Helen to the Helen Port, click on Show Wireless Bridge Settings, and click on Helen Bridge, then click on Submit.
 Restart TRO.Y 2 and make sure the Left LED on the Helen port is solid green.
- The refresh button only updates the Helen configuration data.
- When Helen is ready to configure you will see the Helen is Online in the Helen Comm State and or the Dashboard
- This will also show the current Helen Firmware version and Device ID

- Zigbee Network Configuration

- Click on the Create New Zigbee Network to create a new wireless network. The Zigbee Network ID or PAN ID will be displayed to the right of the button.
- To change the ZigBee Network Channel, click on the dropdown list of valid Zigbee channels and select the channel you would like to move the network to then click the "Change Existing Network Channel" button to apply settings (change usually takes 10-15s).





To leave the current Zigbee Network click on the leave existing Zigbee network button.

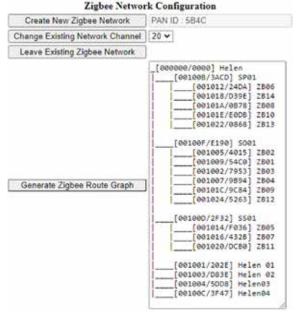
NOTE: You should not leave the network if you have any devices paired to the network and or you do not want to start over with a new Network.

Wireless Bridge Settings - Helen (continued)



Generate Zigbee Routing Graph. This will generate all the Zigbee nodes that have been paired with the Helen, and the corresponding Router (or parent) relationship.

NOTE: Please follow all the Zigbee networking rules found in the SI Zigbee Design guide.



The Helen of TRO.Y 2 (or Zigbee Coordinator) will always be shown at the top, and each Zigbee node will be listed as a child under the coordinator. In most cases, another Helen (Mesh Router) or other Mesh Router will be listed under the coordinator, and then each Zigbee end-point node will be listed as a child under each respective Mesh router.

Use the three lines at the bottom right corner to expand the HTML window for larger system.

A CSV file will also automatically be generated and can be downloaded from TRO.Y 2 to open within a worksheet program such as Excel.

Use the Restore Helen file in order to quickly bring back up a Zigbee network with a new Helen of TRO.Y 2 or Zigbee coordinator.

Helen Bridge	Configuration
Refresh Status	
Device Co	nfiguration
Helen Comms State:	Helen is Online
Firmware Version:	V1.2 : Feb 1 2023
Helen Device ID:	385CFBFFFEE355C8
Zigbee Networ	k Configuration
Create New Zigbee Network	PAN ID: 5B4C
Change Existing Network Channel	20 🗸
Leave Existing Zigbee Network	
Generate Zigbee Route Graph	
-	
Helen Re	placement
Restore Helen Zigbee Trust Center Credentials	
-	

Helen Firmw	are Update
The most recent version of Helen firm Screen Innovations.	nware can be found at
(Helen firmware files have the file ex	tension, ".gbl")
Choose File No file chosen	Submit

Helen Firmware Update

To update Helen firmware please push the reset button on TRO.Y / 2 and then click on the choose file and browse to a valid /gbl file which can be found on the Screen Innovations Helen support website.

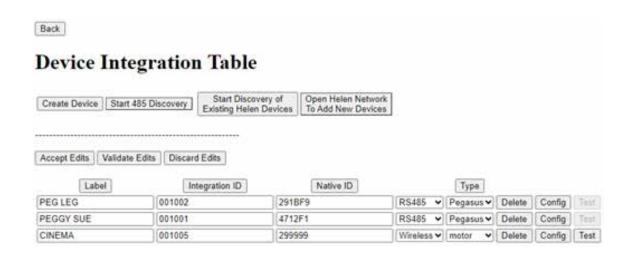


	Helen Firi	mware Update
Screen Inn		
	e No file chosen	Submit
	Status:	
Download		
Download -	-	

Adding Zigbee Motors to TRO.Y with Helen

add a label and click on config to adjust any settings.

- Navigate to the Integration table Dashboard Integration Table Integration Settings System Settings Click on the Device Table button Reports / Files Click on the Open Helen Network button to add new Zigbee devices **Aggregate Integration Table** The button will open the Zigbee network and turn Yellow Device Table | Group Table | Super Group Table Go to your Zigbee device and set it into the Commit Integration Table join Zigbee mode Label Integration ID Entry Type For Somfy Zigbee motors hold the PEGLEG 001002 Pegasus Transceiver Config PEGGY SUE 001001 Pegasus Transceiver Config program button on the head until the CINEMA 001005 Wireless Motor Config Test motorjogs. The LED will flash amber for a All RS485 Devices FFFFF1 RS485 Group Test All RTS (Deprecated) FFFFF2 Wireless Group Test few seconds and will auto populate in the All Zigbee Devices FFFFF3 Wireless Group Test Device integration table. You can use the All Devices FFFFF0 Super Group test button to verify the motor and then
- NOTE: If you are moving a project from one Zigbee Coordinator to Helen, you MUST FIRST remove the motor from the other APP before moving it to Helen.



When done adding all motors, click on the Close Helen network , click on Accept Edits, go back to the Integration Table and Commit the Integration Table to finish

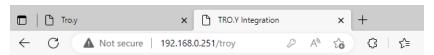
Integrating with Bond Bridge Pro (BBP)



To integrate with the wireless bridge BBP, open the Telnet server settings in TRO.Y 2 Integration settings menu, Click TCP, and enter Port 23 and the user name and password you want to use.

Hide Telnet/JSON Server Settings							
Submit							
TCPSerial PortNone							
Telnet Server Interface:							
Telnet TCP Port:	23						
User Name:	Mike						
Password:	Mike						

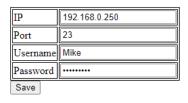
In your web browser enter the IP address of your BBP forward slash troy and click on enable. Enter your TRO.Y2 IP address, port number 23 and the user name and password you used in the Telnet server settings above, click save, and power cycle your BBP.



TRO.Y Integration

- · Please enter the IP address, port, username, and password for your TRO.Y system.
- You may find the IP address by searching for "troy" in your router's DHCP table.
- Port number is usually 23, but may be changed in the Troy's settings page.
- You may change settings without re-entering the password if it has not changed.
- · Be sure to select "Enabled" before pressing "Save".

Status: reset ● Enabled ○ Disabled



To verify that TRO.Y2 and BBP are connected, go to the TRO.Y Dashboard menu and verify that the Telnet Server connection shows a Good Connection.

System Status

Telnet Server Connection:	Good Connection		
Helen Wireless Bridge Connection:	Good Connection		
LinkPro Wireless Bridge Connection:	Interface Disabled		
Telnet Client Connection:	Interface Disabled		
RS485 Devices Offline:	0		
Refresh			

Integration Table

Aggregate Integration Table



Integration Table

- The Aggregate Integrate table contains all of the devices in your system including motors, keypads, groups, and RTS receivers.
- Some devices in this table can be configured while others may only be shown for information puposes.
- The data in this table is only stored in your web browser, in order to save this data to TRO.Y / 2 you must click "Commit Integration Table" button,
- The "Test" button can be used Test, verify and identify motors, groups and accessories.
- Click on the "Config" button to enter the Configuration menu for that device.
- When you commit this table, the data is sent and stored in TRO.Y / 2; the table status indicator will turn green, indicating the data in your browser and the data stored in TRO.Y / 2 are in sync.

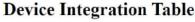
Back **Device Integration Table** Create Device Start 485 Discovery Start Helen Discovery Close Helen Network Accept Edits | Validate Edits | Discard Edits Label Integration ID Native ID Type 4CC206FFFE2021E2 Mike 40mm AC Zig 001003 Wireless ♥ motor ▼ Delete Config Test AC Zig 001001 4CC206FFFE305005 ▼ Delete Config Test Wireless V

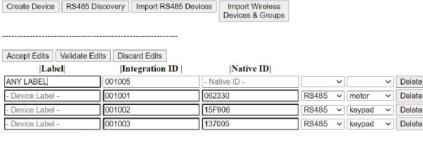
In the Device Integration Table, you can create and/or discover 485 and ZigBee Motors and Accessories when connected to a 485 Bus or ZigBee Coordinator. When you are done adding devices you can accept them (Send to Aggregate Table), validate them (run Design check), or erase them.

Use the Start Helen Discovery to list any currently connected Zigbee device. Use the Open Helen Network to start the Zigbee pairing process. (Now enable the join Zigbee network process on your device.

Any motors found can be configured now and limits adjusted or set by clicking on the config button to the right of each discovered motor. You can also test the motor by clicking on the test button which will cause the motor to "wink".

- To discover 485 motors, keypads, and Back RTS receivers, click on the 485 Discovery button.
- To discover wireless devices, click on the "Import Wireless Devices and Groups" button (TaHoma only).
- You can create any motor, keypad. RTS device by clicking on the "Create Device" button.
- When you are done adding devices, you can accept them (Send to Aggregate Table), validate them (Run Design Check), or erase them.
- To create a device, click on "Create Device" button
- Optionally, a label can be made to help identify this device in a large system.
- Integration IDs are auto generated, and can be edited.
- If known, the Native IDs may be entered in the Native ID field.
- Select 485 or Wireless Communications for created device.
- 🕽 Select the type of device to create (Motor, Keypad, RTS receiver, Zigbee Functional Edge Router)
- 🔵 When you are done adding devices you can accept them (Send to Aggregate Table), validate them(run Design check), or erase them.





motor

on/off keypad

Moab Router

RTS Rcvr

485 Device Discovery

- Clicking on the 485 Discovery button will bring you to the Device Discovery menu.

Device Integration Table Create Device Stop 485 Discovery Accept Edits | Validate Edits | Discard Edits Type LV01 001006 07ACC4 ▼ Delete Config Test 00100A 8017E5 → Delete Config MB01 RS485 V Moab KP01 FEFFF RS485 keypad 385CFBFFFEE3543E Helen 01 001001 Helen 02 385CFBFFFEE403A8 ZB01 001009 4CC206FFFE303CF0 001005 4CC206FFFE303CAD Wireless v motor

To begin Device Discovery click the "Start 485 Discovery"
 button, any 485 devices connected to one or more of the 485
 BUS OUT ports on TRO.Y / 2 will populate. The Discovery will continue until you pause or leave the screen.



- Devices that have already been populated to the Device integration table will still appear in this list but the import and config buttons will be greyed out.
- Newly discovered 485 Devices that will have an Import button that you can press to bring it to the device table.
- When finished click on the "Pause" button to stop the current discovery (clicking the Back button also pauses the discovery).
- Click on the "Discard Edit" button to discard changes to the table of devices.
- Clicking on the "Accept Edits" button will save all discovered devices to the Browser.
- Clicking on the "Import Discovered Devices" button will send all discovered devices to the Device Integration Table.
- When finished, click the "Back" button to return to Device Integration Table. Here you can Commit All changes to the Device Table to save in TRO.Y/2.
- To import Zigbee or RTS motors, click on "Import Wireless Devices and Groups" button (depending on size of Zigbee network, this import can take up to 2 min.s to fully load).
- When you are done creating or importing devices you can accept them (Send to Aggregate Table) or validate them (run Design check), or erase them.

Device Configuration

- Clicking on a "Config" button will bring up the Device Configuration page.
 - Clicking on the "Test" button will send a momentary up / down movement to the motor or group
 - Zigbee and RTS motors need to be configured in the TaHoma app before they are listed in this Aggregation Integration Table.



485 Motor Configuration

- Clicking on the motor "Config" button will bring you to the Device Configuration menu.
 - 485 motor confirguration has 4 menus, properties, limits, presets, groups.
 - Motor movement controls allow you to adjust the motor (@=stop).
 - Click "Refresh" button to see current position.

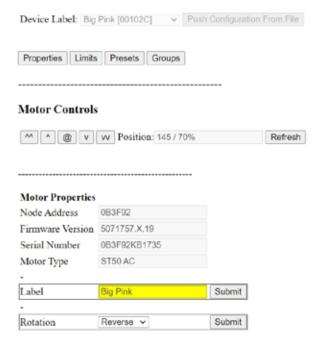


RS485 Motor Configuration

Back



- Enter the properties menu by clicking the "Properties" RS485 Motor Configuration button.
- In the properties the Node Id, firmware (if available), serial number and motor type are displayed.
- 📄 The label, motor rotation, and speeds can be adjusted (if available).
 - Clicking the "Submit" button sends any changes to the motor.
 - Click on another menu button or if you are done, click the "Back" button to take you back to the Aggregate Integration Table.

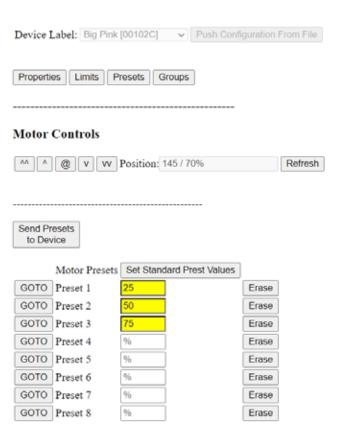


- Enter the limits menu by clicking the "Limits" button.
- Upper and lower limits can be adjusted and the current positions are reported in the motor limit fields
- Factory reset of the motor can be performed. This will erase everything in the motor.
- Click on the "Adjust" buttons to begin adjusting upper or lower limits.
- The Setting controls located at the bottom of this menu, will allow you to adjust the motor to the desired position.
- If ready to change the upper or lower limit to the current position, click the corresponding "Set" button to send the new limit to the motor, or click "Quit" button to exit limit setting.
- Click "Back" or another menu button.
- Enter the presets menu by clicking the "Presets" button
 - Clicking the "Go To" button, will send the motor to any saved position
- Create up to 8 presets by entering % values or using the up or down arrows
- Clicking the set standard pre-set values will add three equally spaced presets in the table.
 - Clicking "Send Presets to Device" button will send all presets to the motor.
- Click back or another menu button.



RS485 Motor Configuration

Back



- Enter the groups menu by clicking the "Groups" button
- To add groups to this motor simply click on the dropdown list
- Each motor can store up to 8 groups
- Click back or another menu button
- Groups must be created in the Groups menu first before you can select them want for the motors
- Click send groups to Device when finished
- Click back or another menu button

Group Motor Configuration



Update From De		Can Upd	or openie comes				
Device In Group	Remove Device	Add Device	Labe	ı	Integration ID	Native ID	Device Status
-			ZB0:		001009	4CC206FFFE303CF0	Online
-			ZB02	!	001005	4CC206FFFE303CAD	Online
-			ZB03	1	001002	4CC206FFFE303CA6	Online
-			ZB0-	,	001007	4CC206FFFE303CB2	Online
-			ZB05	;	001014	4CC206FFFE303CEF	Online
-			ZB06	;	001012	4CC206FFFE303EB6	Online
-			ZB0	'	001016	4CC206FFFE303C26	Online
-			ZB08	3	00101A	4CC206FFFE303C40	Online
-			ZB09)	00101C	4CC206FFFE3039DF	Online
-			ZB10)	00101E	4CC206FFFE30469A	Online
-			ZB11		001020	4CC206FFFE303CB3	Online
-			ZB12	!	001024	4CC206FFFE302D1E	Online
-			ZB13		001022	4CC206FFFE303CB1	Online
-			ZB14		001018	4CC206FFFE303CF7	Online

485 Keypad Configuration

- Clicking on the keypad "Config" button will bring you to the Device Configuration menu.
- When the keypad config page loads, any current configuration of the buttons are automatically loaded into each slot
- To configure the 485 keypad, select the buttons you would like to program.
- Up to 8 buttons can be configured.
- **Aggregate Integration Table** Device Table | Group Table | Super Group Table | Teinet Client Table Commit Integration Table | Clear Integration Table Label Integration ID Entry Type 001007 RS485 RTS Receiver Config 001006 RS485 Keypad Config 001005 R\$485 Keypad Config 001004 RS485 Keyped Config 001003 RS485 Keypad Config Config Wink 001002 RS485 Motor RS485 Motor 001001 Config Wink
- Special attention should be made on the number & position of buttons on the keypad you are programming to determine which button slot you need to configure.
- Even if your keypad only has a single button, you can still program all 8 positions for use with the dry contact closures on the back of your keypad.
- 485 keypads are available in 2 types:



Standard programmable



Preset selection

Configuring For A Standard Programmable Keypad

- Select which button you would like to configure.
- Each button can be programmed with a different command for a "Press", "Hold", "Release", or "Sequence" (and to different Targets as needed).
- "Press" sends the command to the target on the leading edge of the press.
- "Hold" sends the command to the target once the button has been held for at least 0.2 seconds
- "Release" sends the command to the target on the trailing edge of the release
- Continue this process for all the buttons you would like to configure
- After completing your configuration for the keypad, click the "Submit Configuration to Keypad" button to send all changes to the keypad (only buttons with changes are sent)

Back

RS485 Keypad Configuration



Target Designation Mode

Configure as "Target Designation" Keypad:	
Initialize Buttons for "Target Designation"	Init Target Designation

Button #1

Button Action	Command	Command Data	
Action 2	MOVE UP	•	•
Action 1 & 3	STOP	•	•
Action 4	MOVE DOWN	•	,
	Sequence 🗹		
Command Target	No Selection [000000]	~	

Keypad - Command List

- MOVE UP Sends target to upper limit
- MOVE DOWN Sends target to the lower limit
- STOP Sends target the stop movement command
- MOVE TO PRESET # Sends target to IP # specified in the command data field
- MOVE TO NEXT HIGHER PRESET Sends target to next IP#
- MOVE TO NEXT LOWER PRESET Sends target to previous IP#
- MOVE TO % Sends target to a specified % in the command data field
- DESIGNATE TARGET Specifies which motor or group the command is sent to



Configuring For A Preset Selection Keypad

- Click on the configure as Target destination keypad check box.
- In this mode you must select your target destination(Preset) for buttons 1-5.
- Valid target destinations are motors, groups or super groups.
- Next to each button (1-5) is a Red LED which indicates the currently selected target (Preset).
- The default for buttons 6-8 are the STOP, DOWN and UP for the selected target (Preset).
- These defaults can be changed to any valid command.



- When you have completed your configuration for the keypad, click the "Submit configuration to keypad" button to send all changes to the keypad (only buttons with changes are sent).

Back

Keypad Sequence

- A button can also be confirgured as a sequence
- Sent commands change each time the button is pressed
- The sequence setting will cycle through up to three commands:

Press (action 2)

Hold (action 1 & 3)

Release (action 4)

for each time you press the button (leading edge) it will sequence through actions 1-4

- Valid targets can be:
 - any Motors
 - Zigbee Edge Routers
 - any Groups
 - any Super Groups





RS485 Keypad Configuration



Target Designation Mode

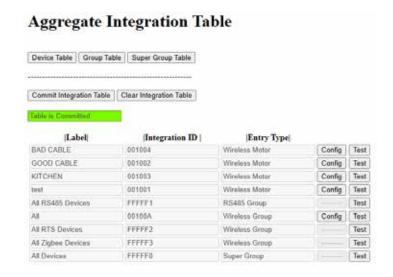


Button #1



RTS Receiver Configuration

- After you have discovered a connected RTS Receiver.
- Clicking on the RTS Receiver "Config" button will bring you to the Device Configuration menu.
- To configure the RTS receiver, select the channels you would like to program.
- Groups must be created in the Aggregate Integration table before they are available here.
- Devices, groups, super groups are all available as targets in the drop-down list.
- SI supports 4 channels per receiver.
 - When you are done, click the "Send to Device" button to update configuration in the receiver.
- Click back when finished.





RS485 RTS Receiver Configuration

Select Target Addresses To Which This RTS Receiver Will Send Commands.



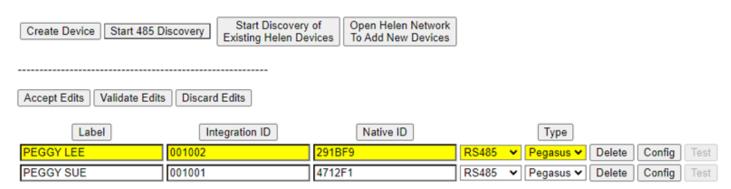


Pegasus Transceiver Configuration

Once you have discovered a connected Pegasus click on the config button

Back

Device Integration Table



You will enter the Pegasus Transceiver Configuration menu

Back

Pegasus Transceiver Configuration

Device Label:	PEGGY SUE [001001]	Push Configuration From File	
Native ID:	4712F1		
FACTORY RES	ity Mode: Legacy V		
RF REMOTE T	GPIO & MISC FUNC	CTIONS RF MOTOR TABLE	RF MOTOR GROUP TABLE

- Use this table to learn Legacy (Somfy /Olibra RF) remotes, keypads, & sensors)
- Verify that the RF compatibility mode is set to Legacy
- Click the Learn button which will start flashing the Learn LED on this Pegasus
- Press the program button on the desired remote Refresh Table Send Target(s) to Device
- If the remote sends a valid RF program command, then the Learn LED will stop flashing and the Remote ID will appear in the corresponding row
- Now select the remote target for this learned remote
- When you have completed learning all the remotes and selecting your remote targets click on the Send Target to Device button to complete the process.

- Device Label: PEGGY SUE [001001] Push Configuration From File Native ID: 4712F1 FACTORY RESET RF Compatibility Mode: Legacy RF REMOTE TABLE GPIO & MISC FUNCTIONS RF MOTOR TABLE RF MOTOR GROUP TABLE
- REMOTE TABLE

Learn/Pair RF Remotes to Pegasus Channels.

Configure Pegasus RX Channels.

	Remote Target		Remote ID		
Remote 0	No Selection [000000]	~	000000	Learn	Forget
Remote 1	No Selection [000000]	~	000000	Learn	Forget
Remote 2	No Selection [000000]	~	000000	Learn	Forget
Remote 3	No Selection [000000]	•	000000	Learn	Forget
Remote 4	No Selection [000000]	~	000000	Learn	Forget
Remote 5	No Selection [000000]	~	000000	Learn	Forget
Remote 6	No Selection [000000]	~	000000	Learn	Forget
Remote 7	No Selection [000000]	~	000000	Learn	Forget
Remote 8	No Selection [000000]	~	000000	Learn	Forget
Remote 9	No Selection [000000]	~	000000	Learn	Forget
Remote A	No Selection [000000]	~	000000	Learn	Forget
Remote B	No Selection [000000]	~	000000	Learn	Forget
Remote C	No Selection [000000]	~	000000	Learn	Forget
Remote D	No Selection [000000]	~	000000	Learn	Forget
Remote E	No Selection [000000]	~	000000	Learn	Forget
Remote F	No Selection [000000]	~	000000	Learn	Forget

- If you no longer want this remote in your system, you can click the forget button to erase the remote
- NOTE: Somfy & Olibra remotes, keypads, and sensors use the "Legacy" compatibility mode, while Pico remotes use the "Compatibility" mode Click on the drop-down list to change between legacy and compatibility modes (See next page)
- NOTE: Most remotes, keypads and sensors have a programming button on the back, but some units the case may need to be removed and or a paper clip is needed to access through a pin hole.

- Use this table to learn Legacy (Pico RF remotes, keypads, & sensors)
- Verify that the RF compatibility mode is set to Compatible
- Click the Learn button which will start flashing the Learn LED on this Pegasus
- Hold any button on the Pico remote for 7 seconds
- If the remote sends a valid RF commands, then the Learn LED will stop flashing and the Remote ID will appear in the corresponding row
- Now click on the config button to configure what the button(s) will trigger (see next page for details)
- If you no longer want this remote in your system, you can click the forget button to erase the remote

Device Label: Native ID:	PEGGY SUE [001001] 4712F1	Push Configuration From File	
FACTORY RE			
RF Compatibil	TABLE GPIO & MISC FUNC	TIONS RF MOTOR TABLE	RF MOTOR GROUP TABLE

REMOTE TABLE

Learn/Pair RF Remotes to Pegasus Channels.

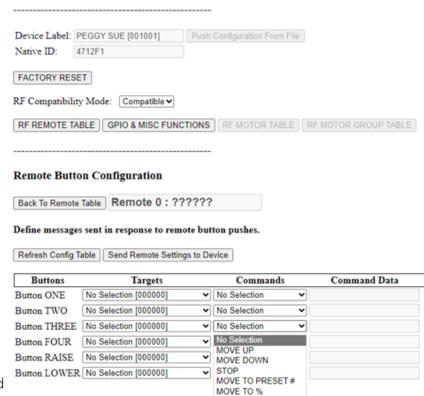
Configure Pegasus RX Channels.

	Make C of Ren		Remote ID			
Remote 0	N/A	~	000000	Learn	Forget	Config
Remote 1	N/A	~	000000	Learn	Forget	Config
Remote 2	N/A	~	000000	Learn	Forget	Config
Remote 3	N/A	~	000000	Learn	Forget	Config
Remote 4	N/A	~	000000	Learn	Forget	Config
Remote 5	N/A	~	000000	Learn	Forget	Config
Remote 6	N/A	~	000000	Learn	Forget	Config
Remote 7	N/A	~	000000	Learn	Forget	Config
Remote 8	N/A	~	000000	Learn	Forget	Config
Remote 9	N/A	~	000000	Learn	Forget	Config
Remote A	N/A	~	000000	Learn	Forget	Config
Remote B	N/A	~	000000	Learn	Forget	Config
Remote C	N/A	~	000000	Learn	Forget	Config
Remote D	N/A	~	000000	Learn	Forget	Config
Remote E	N/A	~	000000	Learn	Forget	Config
Remote F	N/A	~	000000	Learn	Forget	Config

- NOTE: If you would like to use more than one Pico remote and every target and command are the same, you can use the Clone feature to speed up the configuration. Just select the remote you want to clone the features and send to the device
- NOTE: Pico remotes, keypads, and sensors use the "Compatibility" compatibility mode, while Somfy & Olibra remotes use the "Legacy" mode Click on the drop-down list to change between legacy and compatibility modes (See previous page)
- NOTE: If you are having issues learning a Pico, use the top button (button #1) and ensure you are holding the button down for at least 7 seconds.

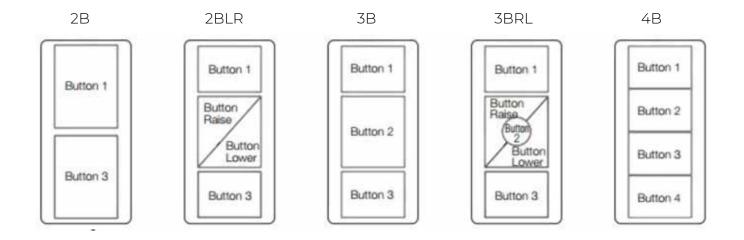
NOTE; If nothing is programmed within 60 seconds, the Learn feature will time-out.

- Select Targets for what the desired button actions are sent to (Devices, Groups, or Scenes)
- Select the command action associated to the desired button
- Some commands require data such as the IP # or % to move motor to
- When complete with your configuration click the send remote settings to device
- If you would like to start your configuration over, click the refresh table to deselect any current selections or command data entered in the table



RUN SCENE ABORT SCENE

 NOTE: Not all Pico remotes have all available buttons to program please see types and button numbers below to help match for your remote you want to learn



NOTE: If nothing is programmed within 60 seconds, the Learn feature will time-out.

RF MOTOR TABLE

Pair Pegasus TX RF Channels with RF Motors.

Put the motor in program mode and then press the "RF Pair" button.

Type a label for the motor in the table field.

Refresh Table

	TX RF ID Code	Label	Integration ID	Native ID					
RF Motor 0	??????				RF Pair	RF Test	Save	Edit	Delete
RF Motor 1	??????				RF Pair	RF Test	Save	Edit	Delete
RF Motor 2	??????				RF Pair	RF Test	Save	Edit	Delete
RF Motor 3	??????				RF Pair	RF Test	Save	Edit	Delete
RF Motor 4	??????				RF Pair	RF Test	Save	Edit	Delete
RF Motor 5	??????				RF Pair	RF Test	Save	Edit	Delete
RF Motor 6	??????				RF Pair	RF Test	Save	Edit	Delete
RF Motor 7	??????				RF Pair	RF Test	Save	Edit	Delete
RF Motor 8	??????				RF Pair	RF Test	Save	Edit	Delete
RF Motor 9	??????				RF Pair	RF Test	Save	Edit	Delete
RF Motor A	??????				RF Pair	RF Test	Save	Edit	Delete
RF Motor B	??????				RF Pair	RF Test	Save	Edit	Delete
RF Motor C	??????				RF Pair	RF Test	Save	Edit	Delete
RF Motor D	??????				RF Pair	RF Test	Save	Edit	Delete
RF Motor E	??????				RF Pair	RF Test	Save	Edit	Delete
RF Motor F	??????				RF Pair	RF Test	Save	Edit	Delete

- This menu will allow you to program up to 16 motor channels. You can program as many motors as possible to each channel but all motors on that channel will perform the same commands when functions are sent to that channel.
- To program motors, use the factory remote and hold the up and down buttons or hold the program button typically found on the motor head until the motor jogs once. In many RTS motors they have an amber LED that will start to flash
- Once the motor is in the pair mode click on the RF pair button for the channel you would like to use for this motor. If successful, the motor will jog to confirm
- To test the motor channel, click on the RF test button and the motor should jog. You can type in a label and click on the save button to store in Pegasus
- If you want to remove the motor form Pegasus, then click on the delete button and confirm you want to delete the motor

RF MOTOR GROUP TABLE

Pair Pegasus TX RF Channels with Groups of One or More RF Motors.

Select RS485 Group Addresses Which Will Trigger RF Transmissions.

Note: Hardware GPIO Triggers will send UP/DOWN/STOP commands to RF Group Channel F.

Refresh Table Save Tx Table

TX RF Channel	TX RF ID Code	RS485 Group				
RF Group 0		No Selection [000000] ▼ □ Delay	Program	RF Test	Save	Config
RF Group 1		No Selection [000000] ✔ □ Delay	Program	RF Test	Save	Config
RF Group 2		No Selection [000000] ✔ □ Delay	Program	RF Test	Save	Config
RF Group 3		No Selection [000000] ✔ □ Delay	Program	RF Test	Save	Config
RF Group 4		No Selection [000000] ✔ □ Delay	Program	RF Test	Save	Config
RF Group 5		No Selection [000000] ✔ □ Delay	Program	RF Test	Save	Config
RF Group 6		No Selection [000000] ▼ □ Delay	Program	RF Test	Save	Config
RF Group 7		No Selection [000000] ▼ □ Delay	Program	RF Test	Save	Config
RF Group 8		No Selection [000000] ▼ □ Delay	Program	RF Test	Save	Config
RF Group 9		No Selection [000000] ▼ □ Delay	Program	RF Test	Save	Config
RF Group A		No Selection [000000] ▼ □ Delay	Program	RF Test	Save	Config
RF Group B		No Selection [000000] ▼ □ Delay	Program	RF Test	Save	Config
RF Group C		No Selection [000000] ▼ □ Delay	Program	RF Test	Save	Config
RF Group D		No Selection [000000] ▼ □ Delay	Program	RF Test	Save	Config
RF Group E		No Selection [000000] ▼ □ Delay	Program	RF Test	Save	Config
RF Group F		No Selection [000000] ▼ □ Delay	Program	RF Test	Save	Config

- This menu will allow you to program up to 16 motor group channels. You can program as many motors as possible to each Group Channel but all motors on that Group channel will perform the same commands when functions are sent to that channel.
- To program motors groups, use the factory remote and hold the up and down buttons or hold the program button typically found on the motor head until the motor jogs once. In many RTS motors they have an amber LED that will start to flash
- Once the motor is in the pair mode click on the program button for the RF group you would like to add to this motor. If successful, the motor will jog to confirm
- To test the motor group channel, click on the RF test button and the motor group should jog. Select the 485 group you want to use to trigger the RF group. Add any delay as needed and click on the save button to store in Pegasus
- We have also incorporated a quick way to add groups to motors using the config button.

RF MOTOR GROUP CONFIG

Add/Remove RF Motors To/From The RS485 Group.

The Pair/Unpair buttons act as a toggle. Without feedback the current state of the motor cannot be displayed. The "Test RF Channel" button can be used to determine whether a motor has been paired to the group channel.

Back to TX Group Table

TX RF Group	TX RF ID Code	RS485 Group	
RF Group 0		No Selection [000000]	Test RF Channel

Motor Channel	Label	Integration ID	Member of Group (for Documentation Only)	ı
RF Motor 0		001004		Pair / Unpair
RF Motor 1				Pair / Unpair
RF Motor 2				Pair / Unpair
RF Motor 3				Pair / Unpair
RF Motor 4				Pair / Unpair
RF Motor 5				Pair / Unpair
RF Motor 6				Pair / Unpair
RF Motor 7				Pair / Unpair
RF Motor 8				Pair / Unpair
RF Motor 9				Pair / Unpair
RF Motor A				Pair / Unpair
RF Motor B				Pair / Unpair
RF Motor C				Pair / Unpair
RF Motor D				Pair / Unpair
RF Motor E				Pair / Unpair
RF Motor F				Pair / Unpair

- This table will show all 16 motor channels that have been already programmed (paired) with Pegasus. You can now just click the pair/unpair button to every motor that you want to be part of this RF motor group.
- You DO NOT need to put the motor into a programming or pairing mode for these groups
- The Test RF group can confirm that a motor was added to this group
- The member of the group check box is only for documentation purposes only.

Pegasus Transceiver Configuration - GPI/O

GPIO Functions

Define messages sent in response to GPIO Inputs.

Refresh GPIO Table Send GPIO Settings to Device

Inputs	Targets		Commands		Command Data
CC Plus / 12V (low) / IR / UP	No Selection [000000]	~	No Selection	~	
CC Minus / 12V (high) / IR / Down	No Selection [000000]	~	No Selection	~	
CC Plus and Minus / IR / STOP	No Selection [000000]	~	No Selection	~	
0V-10V Control	No Selection [000000]	~			

RF Weather Sensor

Select target address to which sensor commands will be sent.

Pair the sensor to the Pegasus device (Learn) or Unpair the sensor (Forget).

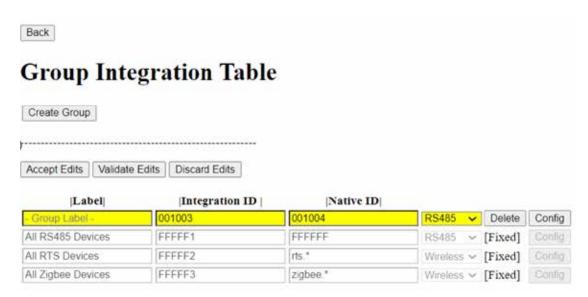
Refresh Table Send Target to Device

Sensor Target		Sensor RF ID	
Sensor No Selection [000000]	~	000000	Learn Forget

- This menu will allow you to program the GPI/O inputs on Pegasus to one or more targets.
- Select which commands you would like to send for your selected input and any command data such as IP # or %
- A Sub GHz sensor can be learned into the Pegasus using the learn button. The Learn LED will
 start to flash on Pegasus, and you can click on the program button
 of the sensor. The Learn LED light will stop flashing once the sensor is paired
- Select the Sensor Target from the drop-down list of devices on your system
- When complete click on the Send GPIO Setting to device

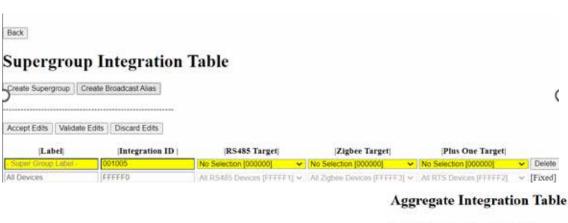
NOTE; If nothing is programmed within 60 seconds, the Learn feature will time-out.

Groups

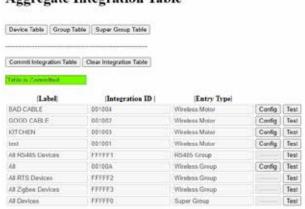


- Clicking on the "Group Table" button will bring you to the Group Integration Table
- In this table, you can create, edit, import and delete groups
- Click on the "Create Group" button to create a new group.
- Optionally you can name your new group and you can adjust the integration ID if needed.
- Select the communication type for this group.
- Clicking on the "Import Wireless Devices and Groups" button will import wireless groups to this table.
- When you are done adding groups, you can accept them (Send to Aggregate Table) or validate them (run Design check), or erase them.
- Click Back to return to the Aggregate Integration Table.

Super Groups



- Clicking on the "Super Group" table button, will bring you to the Super Group Integration Table.
- In this table, you can create, edit and delete super groups and broadcast aliases.
- Click on the "Create Super Group" button to create a new super group.
- Optionally you can name your new super group and adjust the integration ID if needed.
- Select any 485, Zigbee, or a +1 target.
- Targets can include motors, Zigbee Edge Routers and groups.
- the Aggregate Table) or validate them (run Design check), or erase them.
- Click "Back" to return to the Aggregate Integration Table or click "Broadcast Alias" button to create a new Broadcast capture.



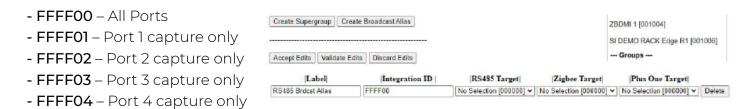


No Selection (000000)



Broadcast Alias

- Broadcast Alias are used with 485 devices that are normally sending broadcast addressed commands (FFFFF) and allow you to target specific 485, Zigbee, RTS devices or groups.
- Optionally you can name your new Broadcast Alias and adjust the integration ID if needed.
- Select any 485, Zigbee, or a +1 target.
- Targets can include motors, Zigbee Edge Routers, groups and super groups.
- Integration IDs enable specific port configuration to allow mulitple broadcasts in the same system.



- When you are done adding Broadcast Alias you can accept them (Send to the Aggregate Table) or validate them (run De sign check), or erase them.
- Click Back to return to the Aggregate Integration Table.

Special Groups

- Valid special Groups (Broadcast capture, for use with 0-10v, Keypads, and Fontus)
- FFFFF (Basic 485 broadcast to other 485 devices within the logical segment before TRO.Y / 2)
- FFFFO (All Motors, 485, RTS, Zigbee)
- FFFF1 (485 Motors only)
- FFFFF2 (RTS Motors only)
- FFFF3 (Zigbee Motors only)
- FFFF00 All Ports
- FFFF01 Port 1 capture only
- FFFF02 Port 2 capture only
- FFFF03 Port 3 capture only
- FFFF04 Port 4 capture only

Report Files

Load Site File [Warning: Loading a site file will overwrite ALL settings [Querying the wireless bridge may take up to two minutes	in the Troy Device.]
The Tro.y device may be restarted by this process.] Do not close or refresh your browser until the process is	s.]
Choose File No file chosen	
Match Devices/Groups	
Exit Site File Load Mode Warning: Exit will prevent any to	further devices being configured from the site file.
Integration Report & Backup	
Create Report/Site Backup Cancel	

Reports

- Clicking on the "Report" button will take you to the Integration Report menu.
- In this menu you can create, delete, save and load site files and integration reports.
- These reports use .csv file format which can be used in most spreadsheets.
- These reports contain all system settings, device and group lists for documenting your project.
- Once you have clicked on the "Create Report/ Site Backup" button, the process to make the file will begin and depending on the size of your system can take 1-2 minutes.
 A progress bar is located below the button, which provides status of the creation/backup.

-Integration Report and Site Back Up

Load Site File

[Warning: Loading a site file will overwrite ALL settings in the Troy Device.]
[Querying the wireless bridge may take up to two minutes.]
[Don't forget to commit the Integration Table when changes are complete.]
[The Tro.y device may be restarted by this process.]
[Do not close or refresh your browser until the process is complete.]

Choose File No file chosen
Apply to RS485 Devices Only: \Box
Clear Site File Load

Integration Report & Backup

Create Report/Site Backup	Cancel	

Loading Site Files

Note: Loading a Site File into TRO.Y / 2 will overwrite all settings

- Querying wireless bridges may take up to 2 min.s to complete.
- Ensure to commit the integration table when all data has been loaded.
- TRO.Y / 2 may be required to reboot during this loading process.
- Most important, do not close the browser window untill this loading process is complete.
- You can select to only apply updates to 485 devices which is useful when swapping a single 485 motor, as an example.
- Click on the Choose File button and if desired select the Apply to 485 devices only.
- Navigate to your site backup file and click "Open."
- You will be notified in the status bar that the load is in progress and you will have a pop-up window in your browser indicating that TRO.Y / 2 must be restarted to begin the phase of Site file load, click OK to continue or "Cancel" to stop.
- The browser will now indicate that TRO.Y / 2 is now starting.
- The first task is for TRO.Y / 2 to communicate to the wireless bridge and you may see a pop-up warning in your browser from TRO.Y / 2 indicating that the number of wireless devices or groups in the site file not match the number that is configured in the wireless bridge.

Note: In order for proper system control you will need to remedy this, mismatch from the wireless bridge configuration.

- Click "Okay" on the pop-up to Continue.

Loading Site Files (cont.)

- Now you must match the live devices, and groups with the devices and groups in your site file.
- Click on the dropdown box for each device/group to select which device/group you would like to pair with.
- When finished, click on the "Commit Matches" button.
- Continue until the status bar indicates that the site load is complete

Matching Wireless Devices/Groups To Site File

Commit Matches

[Match each of these live wireless devices to a device in the site file.]

Match Devices		
Site File Device	Live Device Label	Live Device Native ID
No Selection [000000] ✔	ZBDMI 1	zigbee.61858/1
No Selection [000000] ✔	RTS LV 1	rts.16735181
No Selection [000000] ✔	Demo Rack ZLV 2	zigbee.42268/1
No Selection [000000] ~	ZIGBEE (Demo Veil)	zigbee.46497/1
No Selection [000000] ✔	SI DEMO RACK Edge R1	zigbee.17428/1#1

[Match each of these live wireless groups to a group in the site file.]

Match Groups		
Site File Group	Live Group Label	Live Group Native ID
No Selection [000000]	✓ Zigbee test group	zigbee.63082#20

- Now go to the Aggregate table, confirm that all of your devices and configurations have been loaded.

TROY 2 Bootloader Fix Information

Steps below to perform Boot Loader Fix for TROY unit to allow new TROY Firmware to be loaded.

- Download and Unzip the Boot Loader Fix file "xxxxxxxxx.troy" and the TROY 2 firmware file "Troy_FW_xxxx.zip" from the Screen Innovations website. **URL for BootLoader Needed** a. Firmware URL - https://support.screeninnovations.com/accessories/troy/
- 2. Press the Security Bypass button on the TROY unit to allow for the Firmware Upload and Update process to begin.
- 3. In the "System Settings" page of the TROY User interface, click on the "Choose File" button in the "Firmware Update" section. Next in the dialogue box, navigate to the Boot Loader Fix file "xxxxxxxxx.troy" to upload to the TROY unit. Click on the "Submit" button when ready.

Firmware Update

The most recent version of TRO.Y firmware can be found at Screen Innovations.

- Press the system reset button momentarily to enable firmware download. The red led should be flashing.
- Select the firmware file from your local drive for download to the TRO.Y device and click "Submit".
- 3. After download you must reset or power cycle the TRO.Y device for the new firmware to take effect.

(TRO.Y firmware files have the file extension, ".troy")



4. After the Firmware download has been completed you will need to Power-cycle the TROY unit. Upon reboot you will see the message below for the Bootloader Update.

Bootloader Update V1.1

The led on the Troy device will flash when the update process is complete.

5. Wait until the Firmware update is complete and then again Power-cycle the TROY unit. You will now be able to return to the TROY interface to perform the TROY firmware Up load from earlier Step .2, here simply follow Steps 2,3,4 to complete the next firmware upload.

Programming Troubleshooting

What if I don't have DHCP server?

Refer pages 4 & 5 for alternative methods and setting a static IP address.

When updating a firmware, keep receiving a Failed message

Ensure you have pressed the Reset button one time and the status LED is flashing red.

No TRO.Y / 2 LEDs are on

Check the PoE switch or PoE injector to see if it has proper power connections.

Some of the 485 ports LEDs are green and some are amber. What does this mean?

All four 485 ports are bus outputs. If the LED is amber, it means there is no device(s) connected to your CAT 5e. If the LED is green, it means there are atleast 1 device connected to your CAT5e.

I can't enable the high-speed server port and the Telnet server at the same time

This is correct, these are mutually exclusive. You can only use 1 or the other.

I have enabled my LinkProZ or TaHoma in the wireless bridge settings and entered the correct IP address and TCP port, however I cannot control any Zigbee or RTS motor.

Ensure you have enabled or refreshed a third party integration in the TaHoma app.

I have connected an RTS receiver to TRO.Y / 2 and the red LED of the receiver is on and I have programmed up to 4 channels in the TRO.Y / 2 device table, however I cannot control anything with my RTS device.

Ensure you have programmed the RTS receiver with the appropriate RTS channels, before connecting to TRO.Y / 2. A properly programmed RTS receiver will flash Red when initially connected to TRO.Y / 2 but then turn off.

How Can I determine which port a device is connected?

In the dashboard menu, show 485 diagnostic and then click on "Start Diagnostic"

Test

Hide RS485 Diagnostics									
Stop 485 Diagnostics									
Number of RS485 Devices Found:									
P	ort 1			Port 2		1	Port 3		Port 4
1	2		0		0				
							1		
Native ID	Int ID	Label	Type	Discovery	Status	Port			
FEFFFF	001011	KP01	keypad	Found	?	2			
8017E5	00100A	MB01	Moab	Found	Online	2			

Online 1

07ACC4 | 001006 | LV01 | motor | Found

Windows Advanced Sharing Settings

All of these options can be found in the "Advanced Sharing Settings" section of Windows (Directory Structure Below).

Control Panel\Network and Internet\Network and Sharing Center\Advanced sharing settings

Change sharing options for different network profiles
Windows creates a separate network profile for each network you use. You can choose specific options for each profile.
Private (current profile)
Network discovery
When network discovery is on, this computer can see other network computers and devices and is visible to other network computers.
Turn on network discovery
Turn on automatic setup of network connected devices.
○ Turn off network discovery
File and printer sharing
When file and printer sharing is on, files and printers that you have shared from this computer can be accessed by people on the network.
Turn on file and printer sharing
 Turn off file and printer sharing

Windows Advanced Sharing Settings (continued)

Change sharing options for different network profiles
Windows creates a separate network profile for each network you use. You can choose specific options for each profile.
Private (current profile)
Guest or Public —
Network discovery
When network discovery is on, this computer can see other network computers and devices and is visible to other network computers.
Turn on network discovery
O Turn off network discovery
File and printer sharing
When file and printer sharing is on, files and printers that you have shared from this computer can be accessed by people on the network.
Turn on file and printer sharing
○ Turn off file and printer sharing
Change sharing options for different network profiles
Windows creates a separate network profile for each network you use. You can choose specific options for each profile.
Private (current profile)
Guest or Public —
All Networks
Public folder sharing
When Public folder sharing is on, people on the network, including homegroup members, can access files in the Public folders.
• Turn on sharing so anyone with network access can read and write files in the Public folders
 Turn off Public folder sharing (people logged on to this computer can still access these folders)

Firmware version used in this document

- TRO.Y 2.17
- TRO.Y 2 2.17 / 3.7
- TRO.Y Offline site editor version 3.0
- BBP 3.12.6beta
- HELEN 1.2
- Decoflex (485) -5.53
- Decoflex (485 Group) -5.27
- TaHoma / Link ProZ -2023.1.4
- Moab 2.1
- Sidekick 3.10.2
- Pegasus 0.1
- SI App 2.33.1
- TaHoma North America App 1.7.4(348)
- Set&Go App (141)



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