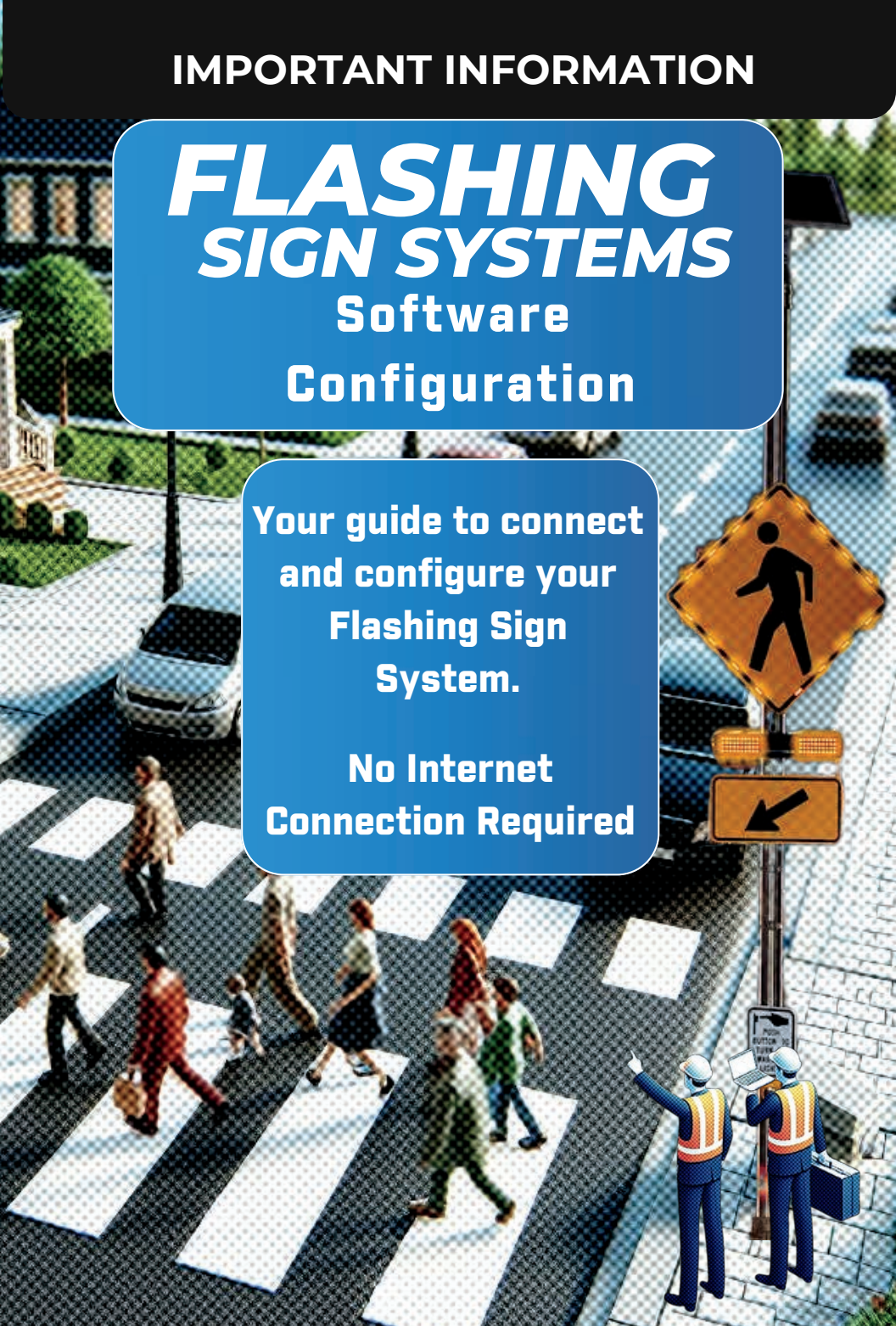
IMPORTANT INFORMATION

FLASHING SIGN SYSTEMS

Software Configuration

Your guide to connect and configure your Flashing Sign System.

No Internet Connection Required



Applies to units running firmware V4 029-05300-0000 Rev E.1

Required!

THIS GUIDE APPLIES TO UNITS WITH OR WITHOUT TC-REMOTE CONNECTIVITY If your system was supplied with a TC-Remote Modem, see the section at the end of this manual for its use and operation.

LOCAL SETUP IS REQUIRED FOR MODEM EQUIPPED SYSTEMS

NOTE:

Once power is applied to the controller, TC Connect will be active for 2 hours. Should additional time be needed or if future changes need to be made - reset power by carefully removing the POWER CONNECTION TERMINAL. After 20 seconds re-insert. Refer to your Flashing Sign Installation Manual for connection details.

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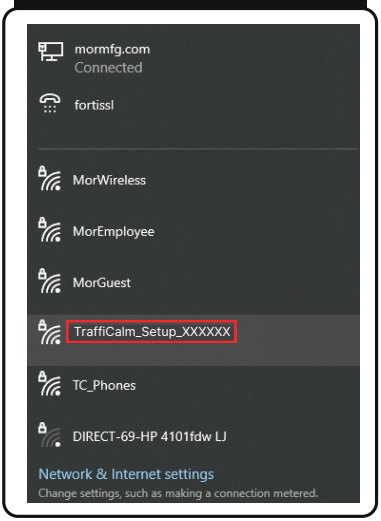
Connect to the System's Wi-fi

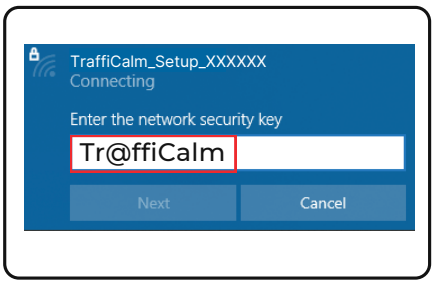
Open to view your Wireless Network Connections on your browser-enabled device.

- Locate and select **TraffiCalm_Setup_xxxxxx** from the list of available wi-fi networks.

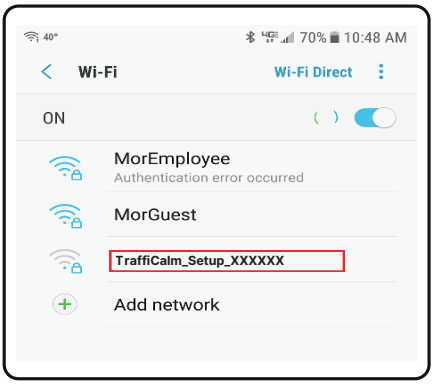
- Enter security key / password:
  Tr@ffiCalm (Case-sensitive)
- Select: OK or CONNECT

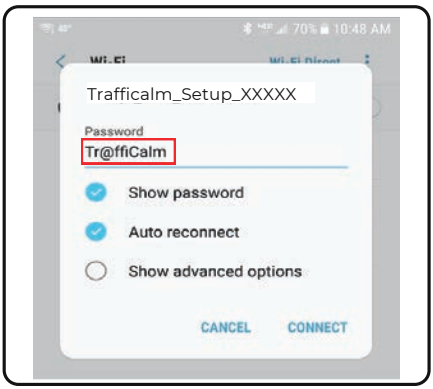
PC Procedure





Mobile Procedure





Example panes shown are Windows-Based PC and ANDROID Device
TC Connect is also compatible with Apple devices. (not shown)

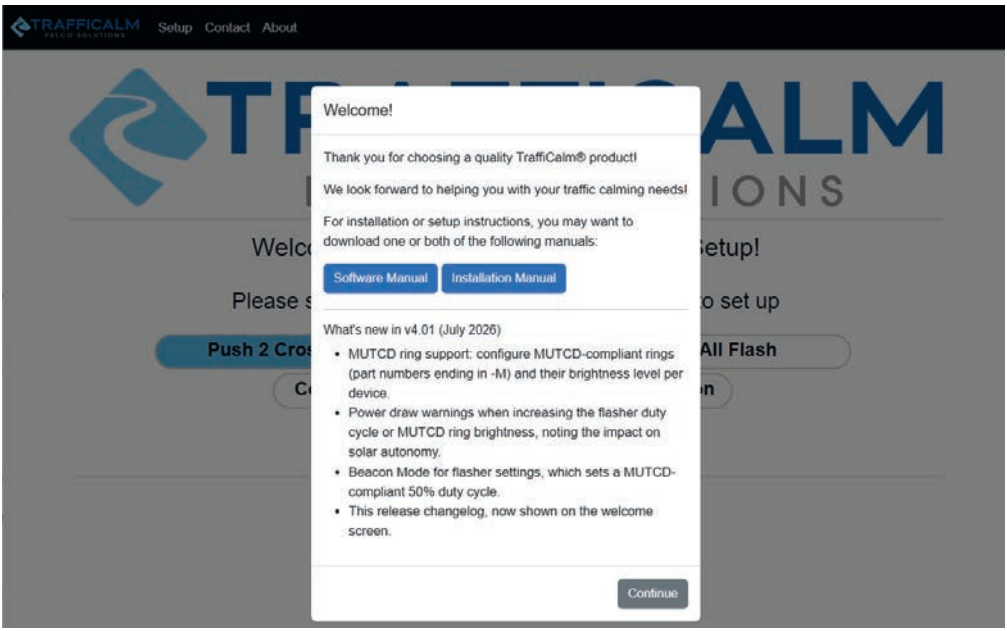
You've now connected to the device's wi-fi. Note that the system does not have Internet connection, so your device will likely not be able to connect to web- sites, email, or perform other web-required functions. No Internet connection is required to configure the system. Open your web browser of choice (Chrome, Safari, Edge, etc...) and navigate to:

setup.trafficalm.com

Downloadables

After you get logged in, you'll be given the option to download the software manual (this booklet), the installation manual (the other booklet), or to just continue.

- Change log added for updates in software



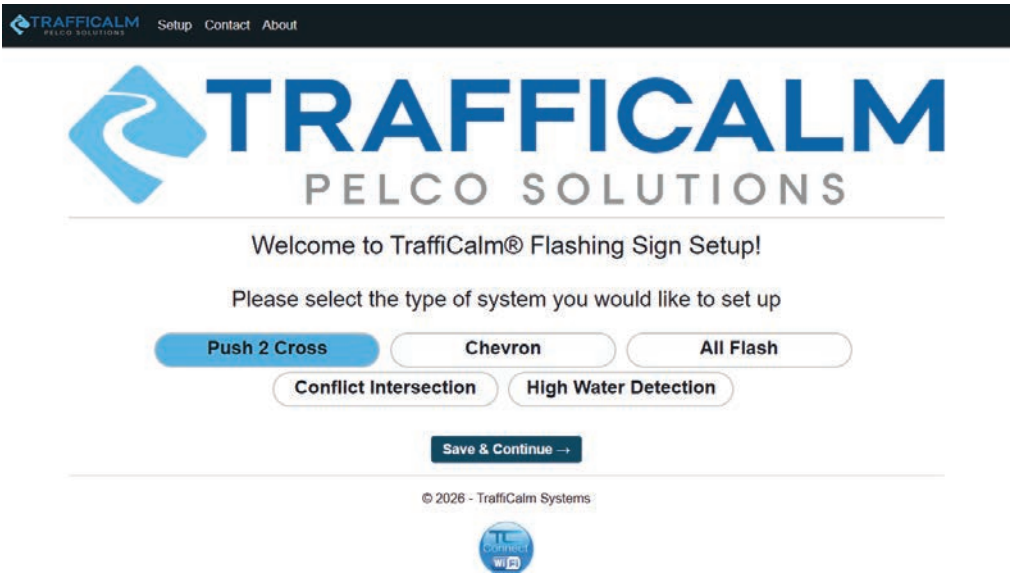
System Selection

If you don't know what system type you'll be utilizing, consult the designer or engineer of the project.

Note: Depending on your selection, the setup utility will adapt accordingly. Jump to the following pages to proceed:

Select system option from the following choices:

- **Push 2 Cross (Pg 6)**
  for push-button activated applications (ex. pedestrian crossing)
- **Chevron (Pg 8)**
  for sequencing curve warning applications
- **All Flash (Pg 13)**
  for all other applications
- **Conflict Intersections (Pg 16)**
  Where detections in one direction of traffic affect mobility in an intersecting direction of traffic
- **High Water (Pg 19)**
  Where a water sensor or probe activates flashing signs.



**NOTE for systems not utilizing Collaborators, Radio Communication, or remotely connected devices, set the system up as an ALL FLASH System.*

NOTE: if you are not utilizing a Collaborator in your PUSH 2 CROSS system, use the ALL FLASH Setup!

Login

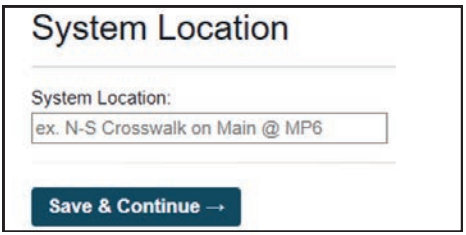
With the system type selected, you will need to log in to ensure security
Enter login password:

Tr@ffiCalm (case-sensitive)
Select: **login**



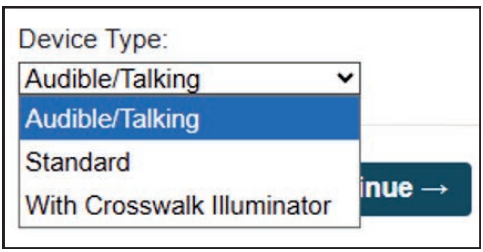
P2C.1 - System Location

Assign and Alias Name to the device to identify it in TC-Remote (if equipped with modem)



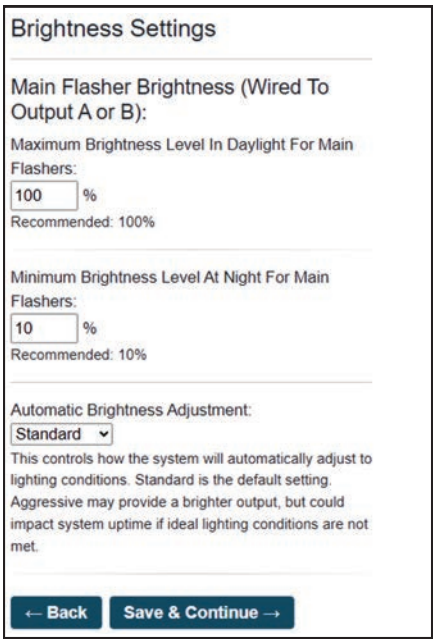
P2C.2 - Operating Mode

Three options are given- a standard push button, or audible/talking type button, or where a crosswalk illuminator will be used.

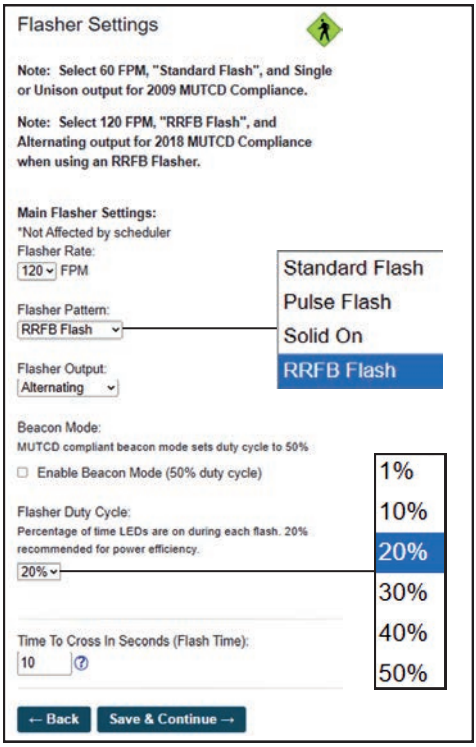


P2C.3 - Brightness Settings

The system will automatically adjust its brightness output based on sensed ambient light. These settings allow you to tweak the automatic adjustment behavior.



P2C.4- **Flasher Settings**



Flasher Rate
120 flashes per minute is default. Only changeable if “enable beacon mode” is selected and setup is ran again.

Flasher Pattern
Changes how the flash pattern is displayed

Beacon Mode
Changes the Duty rate to 50% and enables the flash rate to change

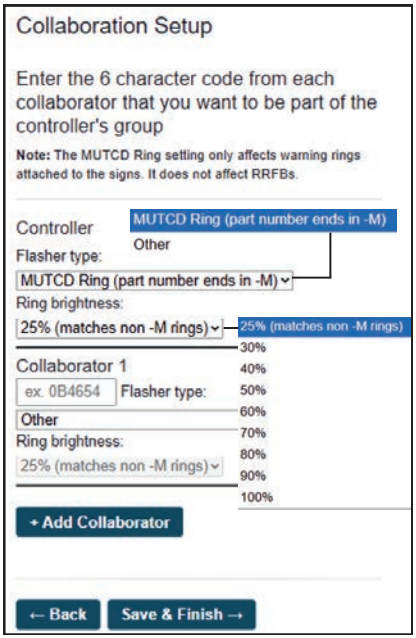
Flasher Duty Cycle
Time the LEDs are on during a flash. Default is 20%

Time to Cross in Seconds
Amount of time the system will continue to flash for after the button is pressed

P2C.5 - **Collaboration Setup**

Adding Collaborators

Add Collaborators to the Push 2 Cross group by typing in the 6 digit identifier found on the product label Add as many connected Collaborators as are installed on the cross walk, do not include the controller or signs connected to other controllers



Flasher Type
If using a MUTCD ring (LED in each corner), select MUTCD Ring, Select other for all others (RRFBs, Beacons ,Legacy rings)

Ring Brightness
Change if LEDs appear to dim

This concludes Push 2 Cross Setup

Introduction to Chevron System Setup

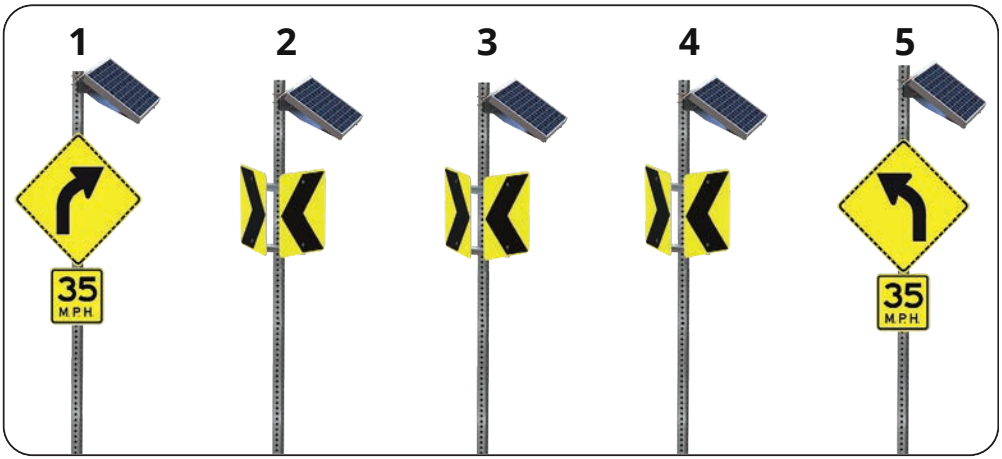
TraffiCalm Flashing Sign System tech is a revolutionary advancement in roadside signage. Given its flexibility, a particularly suitable application is Sequential Chevrons (or advanced curve warning)

These systems can prove complex in their nature, but the TC Connect Setup Wizard makes setup easy

The diagram below displays the most complex application of Sequential Chevrons- radar activation in dual directions

In relation to the setup wizard, each unit will be identified as follows:

- **Unit 1** (Warning Sign): Controller with Radar detector (PN: M75-SA300-RDR0) activates a single warning sign and all chevrons on the left side
- **Units 2, 3, and 4** (Chevrons): Collaborator (PN: M75-SA300-CLBX) repeats sequential activation of either chevron (right and left)
- **Unit 5** (Warning Sign): Collaborator (PN: M75-SA300-CLBX) with Radar detector activates a single warning sign and all chevrons on right side



Notes

The Controller does not need to be in position 1, but it does need to be in the position where a Radar detector is located (1 or 5 in the above example)

When installing, Chevrons sequencing AWAY from the controller must be connected into Flasher A. Chevrons sequencing TOWARD the controller must be connected into Flasher B. Confusion on this point will result in the appearance of sequence malfunction

NOTE: If using radar, connect it before powering on the Controller. Otherwise, the speed options may not appear during setup.

Login

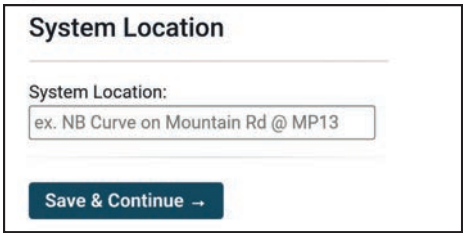
With the system type selected, you will need to log in to ensure security
Enter login password:

Tr@ffiCalm (case-sensitive)
Select: **login**



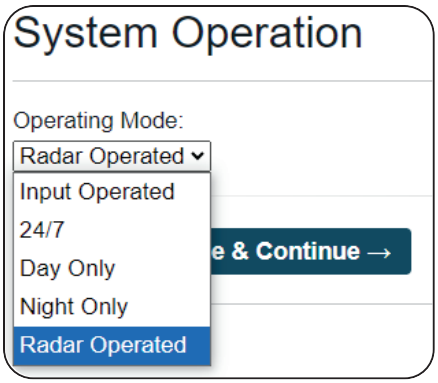
Chevron.1 - **System Location**

Assign and Alias Name to the device to identify it in TC-Remote (if equipped with modem)



Chevron.2 - **System Operation**

Select what activates the flashing or sequencing of the signs flashers.

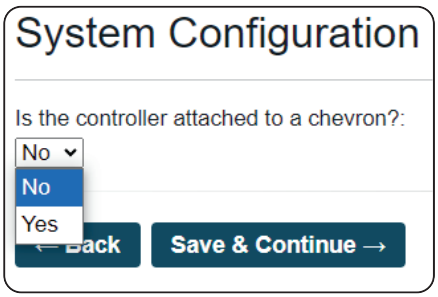


Chevron.3 - **Controller Function**

Select whether the Controller is connected to a Chevron or not

Yes • The Controller is connected to a Chevron

No • The Controller is connected to warning sign or no sign



Chevron.4- **Brightness Settings**

Warning Brightness

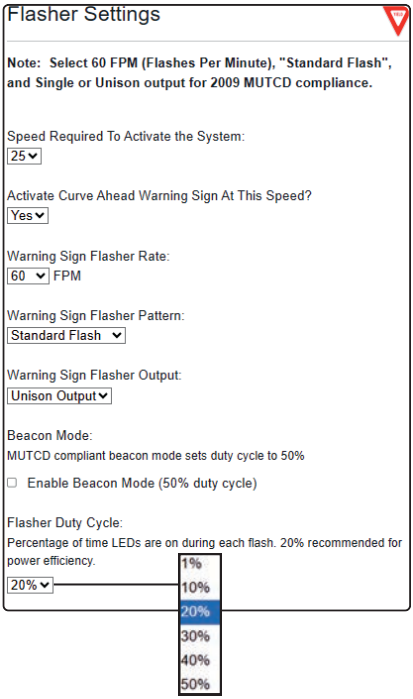
Note that brightness settings directly correlate to battery performance. Optimal settings are suggested

Chevron Brightness

Note that brightness settings directly correlate to battery performance. Optimal settings are suggested



Chevron.5- **Flasher Settings**



Warning Sign Setup

Speed Required To Activate System
Set to the lowest detection speed required to activate

Activate Curve Ahead Warning
Toggles warning sign activation

Warning Sign Flasher Rate
60 FPM is considered MUTCD com- pliant, all others are non-compliant

Warning Sign Flasher Pattern
Standard Flash is considered MUTCD compliant, all others are non-compliant

Warning Sign Flasher Output
Selects Flasher Output Channel (A or B)

Beacon Mode
Changes the Duty rate to 50% and enables the flash rate to change

Flasher Duty Cycle
Time the LEDs are on during a flash. Default is 20%

Chevron.5 - **Flasher Settings** (Cont'd)

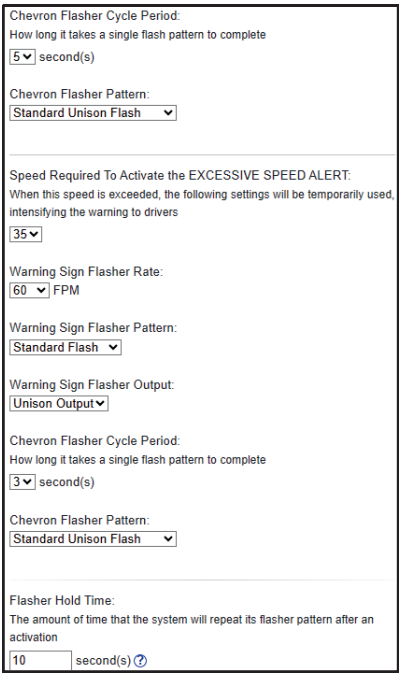
Chevron Sign Setup

Chevron Flasher Cycle Period
Set how long the sequence will take to complete. Set low for a fast sequence, set high for a slow sequence (dictated by expected road speed)

Chevron Flasher Pattern
Toggles flash settings. Unison flash is considered MUTCD compliant. Set to Sequencing for sequencing function

Excessive Speed Escalation
When this speed is exceeded, the warning sign temporarily uses the secondary flash rate, pattern, and output configured below.

Flasher Hold Time
Dictates how long the system will continue flashing after last radar detection.



Chevron.6 - **Collaborators**

Chevron Setup

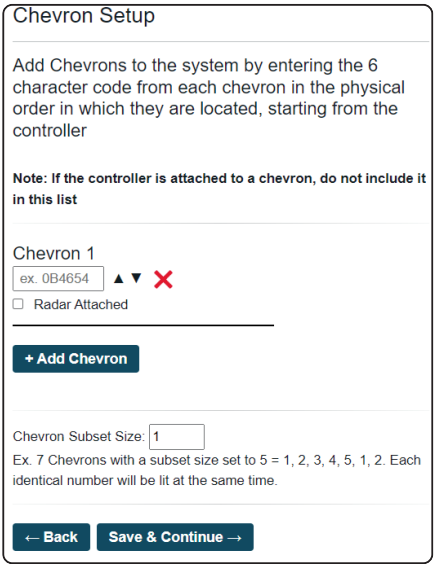
Add Collaborators to the chevron group by typing in the 6 digit identifier found on the product label

Add as many chevron connected Collaborators as are installed on the curve section, do not include the controller or signs connected to Warning signs

Chevron Subset Size

It is possible to "cap" the number of chevrons activated in sequence. Any additional signs will activate simultaneously with another sign. For example- if a group contains 8 chevrons, but the Subset Size is set to 4, units 1 and 5 will activate together, followed by 2 and 6, followed by 3 and 7, followed by 4 and 8. Long curves may benefit from this setting to maintain driver visibility.

Enter the value of the number of signs in a subset.

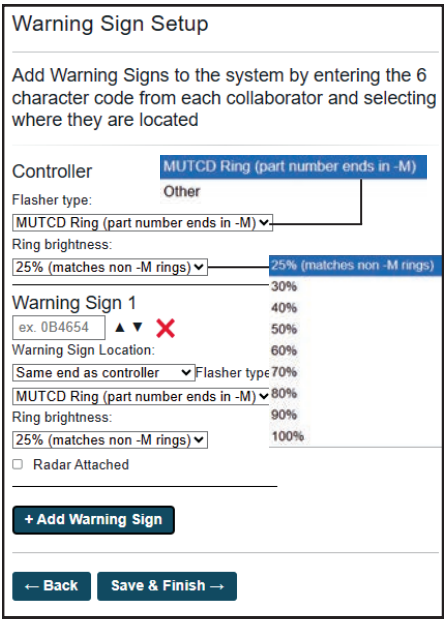


Chevron.8 - Collaborators

Warning Sign Setup
"Warning Sign" Collaborators differ from "Chevron" Collaborators in that they are connected to the warning sign typically found at the entrance to a curve

Add Collaborators to the Warning group by typing in the 6 digit identifier found on the product label

Add as many warning sign connected Collaborators as are installed on the curve section, do not include the controller or signs connected to chevron signs



Warning Sign Location
Select where the Warning Sign is in relation to the Controller

Flasher Type
If using a MUTCD ring (LED in each corner), select MUTCD Ring, Select other for all others (RRFBs, Beacons, Legacy rings)

Ring Brightness
Change if LEDs appear to dim

This concludes Chevron Setup
To learn more about TC-Remote connectivity, see page 28

NOTE: If using radar, connect it before powering on the Controller. Otherwise, the speed options may not appear during setup

Login

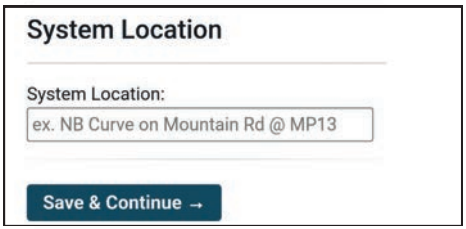
With the system type selected, you will need to log in to ensure security
Enter login password:

Tr@ffiCalm (case-sensitive)
Select: **login**



All Flash.1 - **System Location**

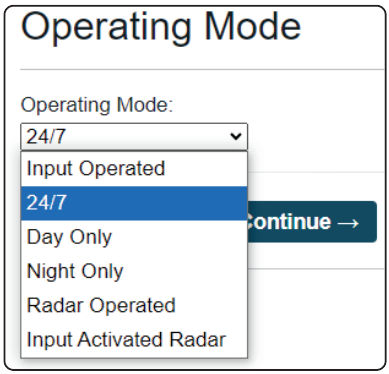
Assign and Alias Name to the device to identify it in TC-Remote (if equipped with modem)

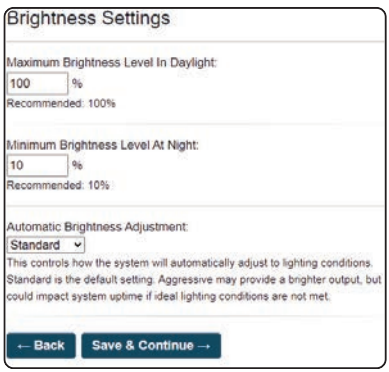


All Flash.2- **Operating Mode**

Select operating mode from the following choices:

- **Input Operated** - Only operates by device wired into Controller or Collaborator Input
- **24/7** – System operates 24/7
- **Day Only** – System operates during ambient daylight hours only.
- **Night Only** - System operates during ambient no light hours only.
- **Radar Operated** - Radar detected operation
- **Input Activated Radar** - Requires activation from both a radar and an input





All Flash.3- **Brightness Settings**

Flashing Signs automatically adjust to ambient light, however the Brightness Settings can be used to dial in day and nighttime output, and how quickly the sign responds to ambient light.

Note for US Customers: The settings below may cause your device to deviate from 2024 MUTCD compliance. Concerning settings are noted in the configuration utility window.

All Flash.4- **Flasher Settings**

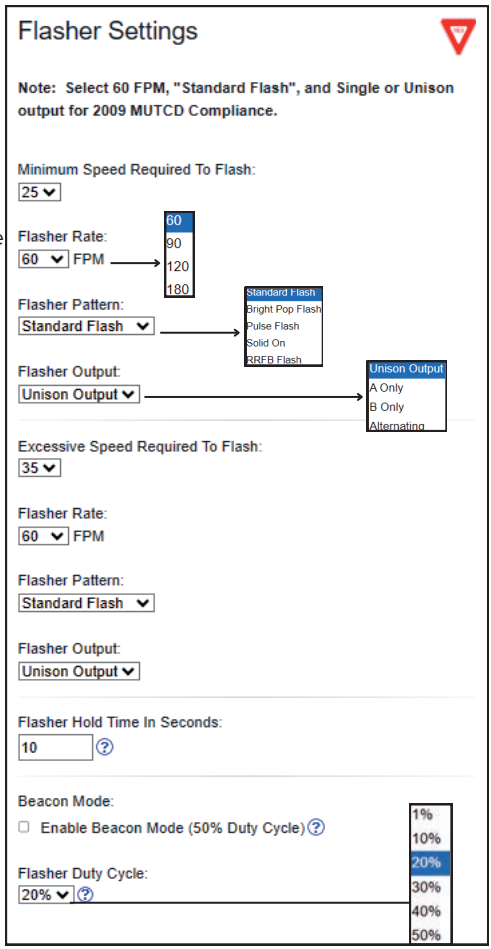
Minimum Speed Required to Flash
(Radar Activation Only)
Select the Minimum Speed (in MPH) from this pull-down menu in which the LED Flashers will begin to flash.

Flasher Rate
Select the FPM (Flashes Per Minute) rate of the LED Flasher Rings. Default setting is 60 FPM.

Flasher Pattern
Select the desired Flash Patterns.
- Standard Flash
- Bright Pop-Flash
- Pulse Flash
- Solid On (AC Only)
- RRFB Flash

Flasher Output
Refer to Installation Manual for Wiring Connections
Select the desired Flasher Output.
- **UNISON**: Activates both Flashers or Beacons simultaneously
- **A Only**: Activates Flasher or Beacon wired into Terminal A
- **B Only**: Activates Flasher or Beacon wired into Terminal B.
- **Alternating**: Alternates a flashing sequence between Flashers or Beacons wired into both Terminal A and B.

Excessive Speed Required to Flash:
(Radar Activation Only)
Select the Excessive Speed (in MPH) from this pull-down menu in which the LED Flashers will begin to flash upon detection. The LED Flashers will not activate the settings below this threshold.
The next (3) fields (Flasher Rates, Flasher Output, and Flasher Pattern) will be applied when the Excessive Speed Threshold has been detected



Flasher Hold Time:
Determines how long the flashers remain active after the speed threshold is met or exceeded

Beacon Mode
Changes the Duty rate to 50% and enables the flash rate to change

Flasher Duty Cycle
Time the LEDs are on during a flash. Default is 20%

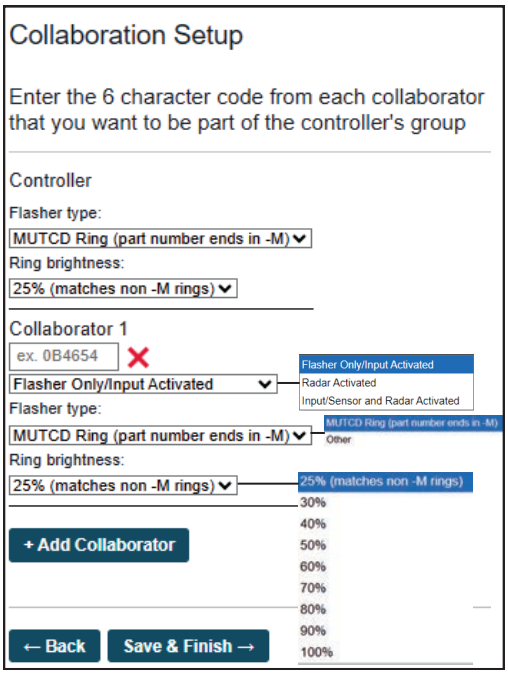
All Flash.5 -Collaboration Settings

Each Flashing Sign System consists of a single Controller and may include one or more Collaborators

Identify the collaborator ID number found on the product label and insert this number in the Collaborator Field.

If “Advanced Settings” are not selected, the Collaborator will Copy Controller Settings as previously set in steps 5 & 6.

Select “+Add Collaborator” if more than one Collaborator is used.



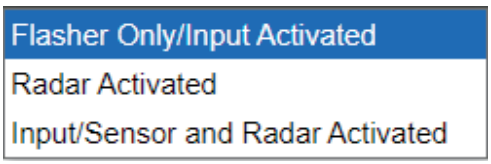
Activation Settings

Advanced Settings allow the user to apply settings independent from those of the Controller.

Flasher Only/Input Activated:
Only listens for commands given by the Controller or directly connected input, but not a radar

Radar Activated
Activates when a radar input is detected

Input/Sensor and Radar Activated
Requires activation from both a radar and an input



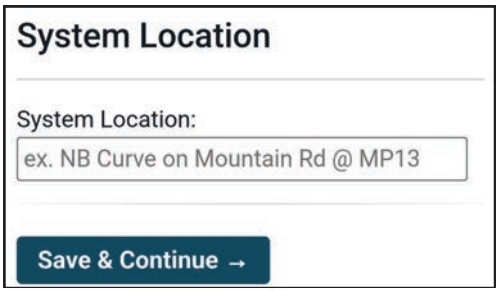
Flasher Type
If using a MUTCD ring (LED in each corner), select MUTCD Ring, Select other for all others (RRFBs, Beacons, Legacy rings)

Ring Brightness
Change if LEDs appear to dim

This concludes All Flash Setup
To configure a schedule, select scheduling from the top menu,
see page 22

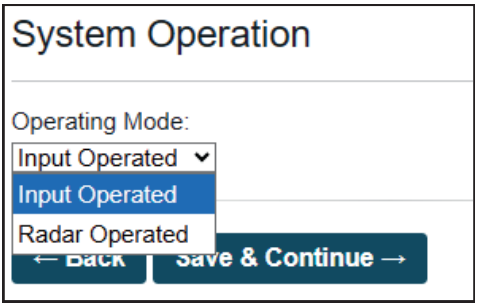
CIS.1 - System Location

Assign and Alias Name to the device to identify it in TC-Remote (if equipped with modem)



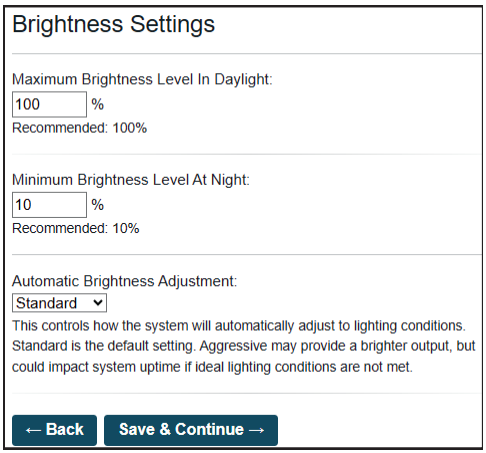
CIS.2 - System Operation

Select from inputs or radars. Examples of inputs include push buttons, environmental sensors, and height detectors



CIS.3 - Brightness Settings

Select the maximum brightness, minimum brightness, and adjustment method that best suits the installation.



CIS.4 - Flasher Settings

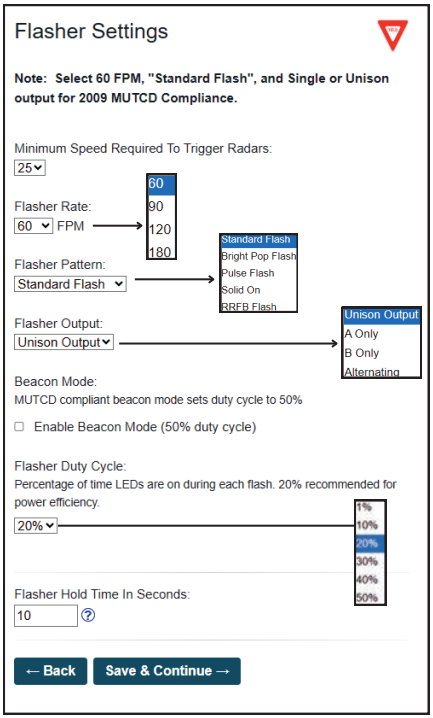
(Radar operated)
Select a minimum detected speed, flasher rate (flashes per minute), flasher pattern (boring to exciting), and which outputs to fire off with the above settings.

Flasher Pattern
Changes how the flash pattern is displayed

Beacon Mode
Changes the Duty rate to 50% and enables the flash rate to change

Flasher Duty Cycle
Time the LEDs are on during a flash. Default is 20%

Flasher Hold Time
Determines how long the system continues flashing after the final radar detection or input activation

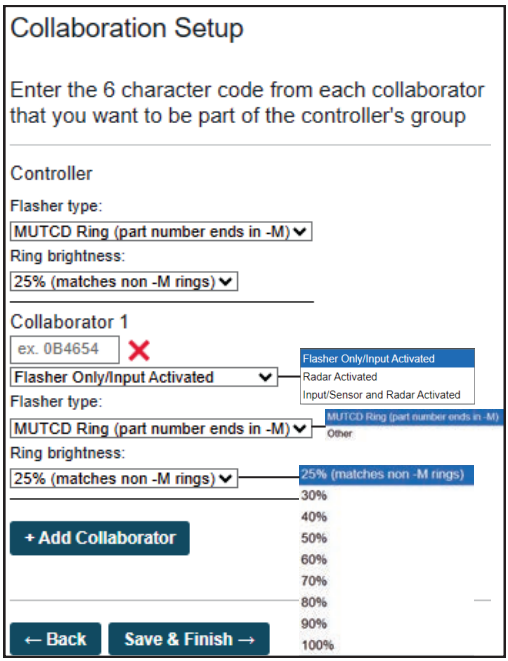


CIS.5 - Collaboration Setup

This is where the setup of the intersection begins. Each collaborator's id must be entered, along with selecting the input type used at the collaborator (ie. if a radar is attached, select radar). Finally, each collaborator must be given an alias. You get to pick the alias, just remember it. The next screen will use these names to build out the system matrix

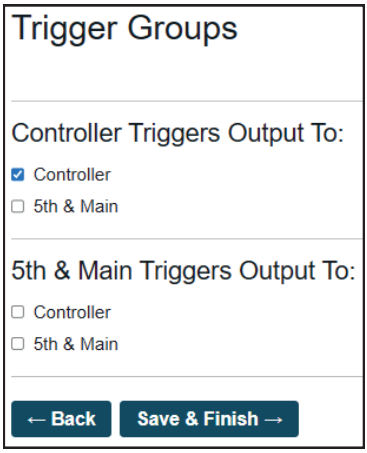
Flasher Type
If using a MUTCD ring (LED in each corner), select MUTCD Ring, Select other for all others (RRFBs, Beacons, Legacy rings)

Ring Brightness
Change if LEDs appear to dim



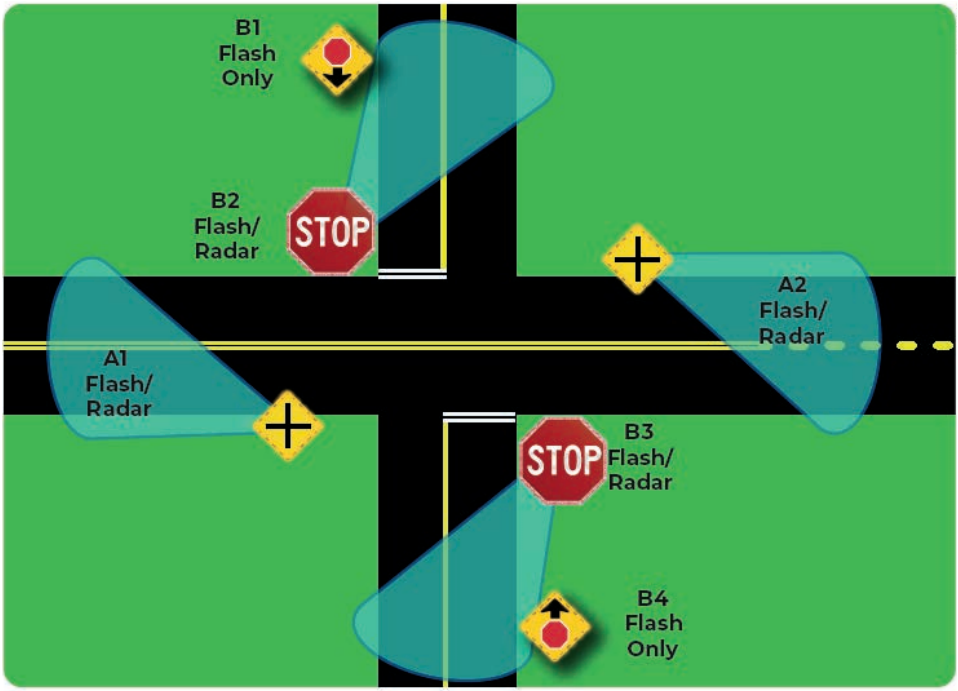
CIS.6 - Trigger Groups

This set of selections dictates which collaborator's trigger the output on other collaborators (or the controller). See the illustration depicting a conflict system.



A CIS, Illustrated

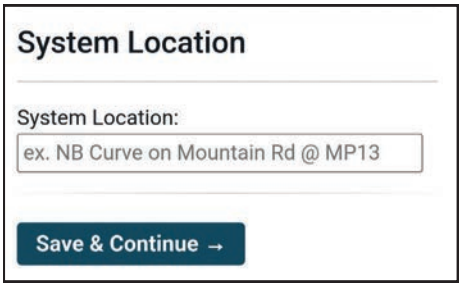
In the example below, a detection at either radar A1 or A2 will trigger flashing signage at any of the B units. Radar Detection at B2 or B3 can trigger flashing signage at B2, B3, A1, and/or A2. This accomplishes the goal of warning opposing drivers of each other's presence



This concludes CIS

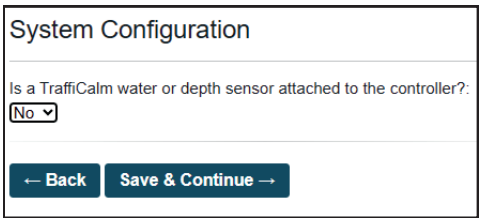
HW.1- **System Location**

Assign and Alias Name to the device to identify it in TC-Remote (if equipped with modem)



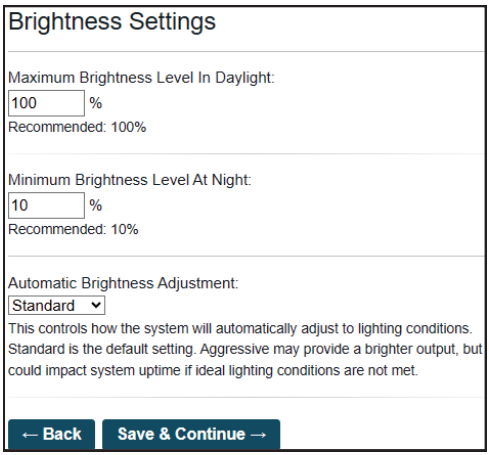
HW.2 - **Configuration**

If the sensor is connected to the Controller, select Yes. If it's connected to a Collaborator, select NO. This helps the software deliver relevant options as you work through the configuration.



HW.3 - **Brightness**

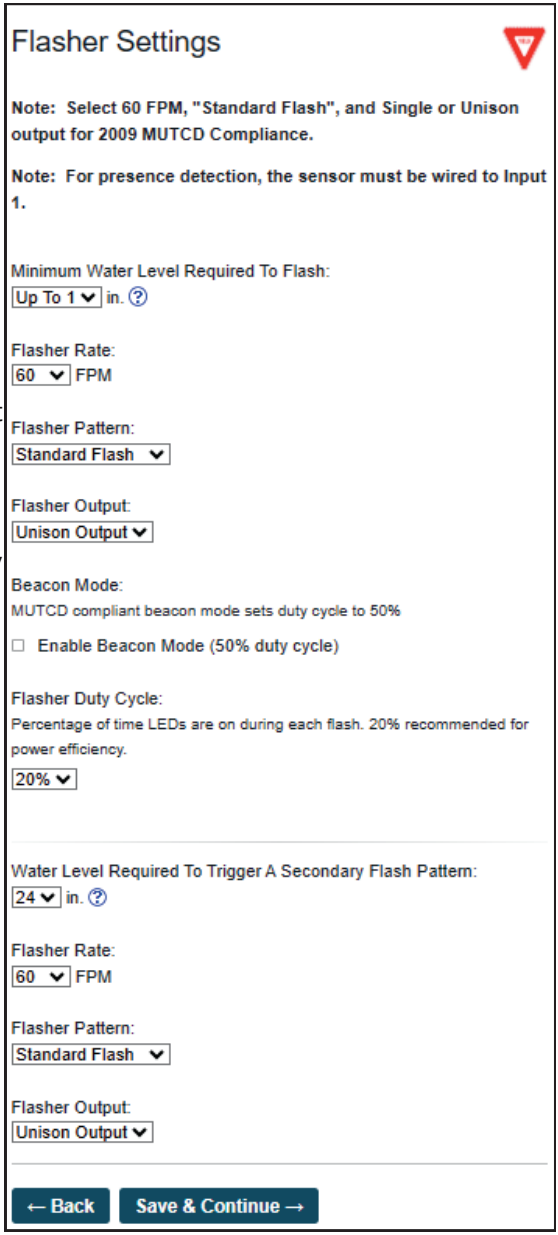
On this screen you can select the brightness settings for the flashing sign ring output.
The system will accommodate for ambient light based on solar panel voltage or a photo (light) sensing device.



HW.4 - Flash Settings

The TraffiCalm High Water Detector is a contact-closure water-presence sensor. It does not measure water depth. When water covers both sensing probes on the detector, the output contact closes and activates the configured flash pattern.
Two detectors may be installed at different elevations to provide staged warnings. The lower detector activates the primary flash pattern, while the higher detector can activate a secondary flash pattern.
To measure actual water depth and use the Water Level settings, a compatible depth sensor may be installed in place of the TraffiCalm High Water Detector.

Flasher Pattern
Changes how the flash pattern is displayed
Beacon Mode
Changes the Duty rate to 50% and enables the flash rate to change
Flasher Duty Cycle
Time the LEDs are on during a flash. Default is 20%

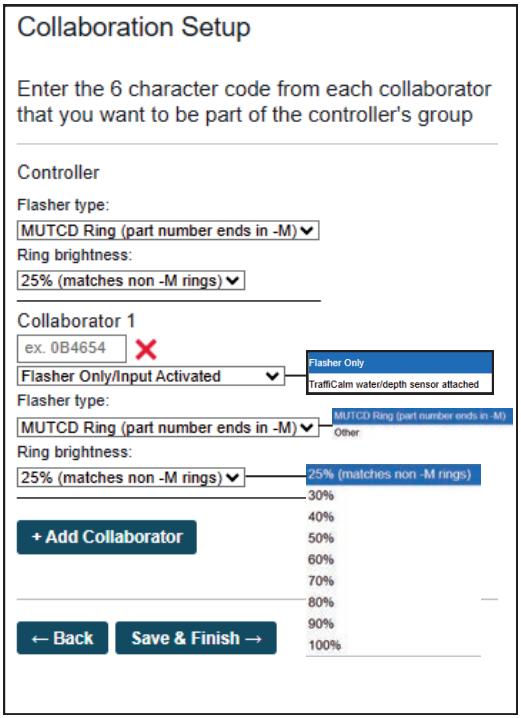


Note:For depth detection, a depth sensor must be properly installed on input 2.

HW.5 - Collaborators

Add wirelessly triggered, remote collaborators.
This is where the setup of the system begins. Each collaborator's id must be entered, along with selecting the input type used at the collaborator (Flasher only or TraffiCalm water/ depth sensor attached).

Flasher Type
If using a MUTCD ring (LED in each corner), select MUTCD Ring, Select other for all others (RRFBs, Beacons, Legacy rings)
Ring Brightness
Change if LEDs appear to dim



This concludes High Water

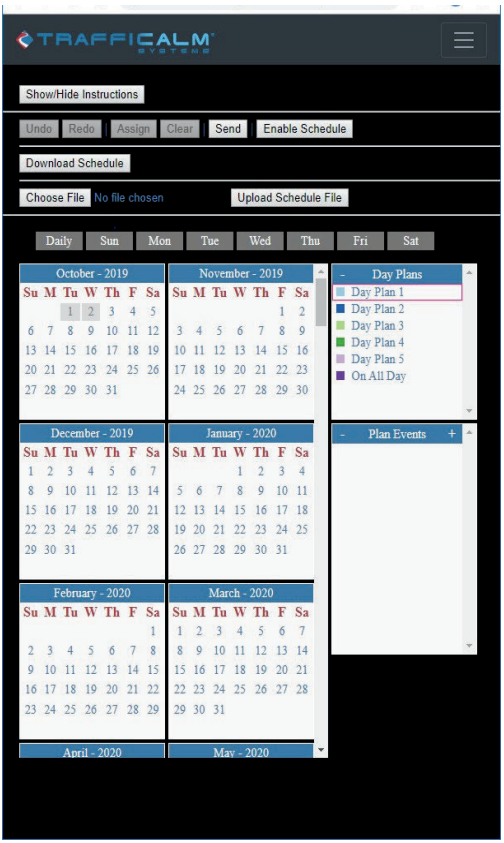
Scheduling Intro

The built in Flashing Sign Scheduler allows you to schedule OFF or ON behavior to occur throughout the day

Start by setting up events to happen on a day plan, then apply the day plan to either the daily button, the day buttons (Sun, Mon, etc.) or specific calendar days

Once completed, select to send the schedule to the Controller, then select to enable the schedule

The schedule will now activate on the Controller and all Collaborating group members



Scheduling Details

Undo- removes last action or application of a day plan
Redo- restores the last action removed using Undo.
Assign- Applies the selected Day Plan to the selected weekday button or calendar date
Clear- removes day plan from selected day button or date
Send- Sends the schedule to the group
Enable Schedule- starts the schedule operation

Daily- day plans assigned to the Daily button occur every day, repeating forever.

Sun, Mon, Tues...- day plans assigned to the Day buttons occur on that specific day, repeating forever

Calendar- day plans assigned to specific calendar dates will occur on that day ONLY, with no repetition

To apply a day plan, simply drag and drop the day plan to the desired day or date. Additionally, a range of dates may be selected; use the Assign button to apply the selected day plan to the selected dates

Note to some Apple IOS users, the drag and drop action may not function properly. In this case, use the Assign button to apply day plans to days or dates.

Download Schedule - Downloads developed schedule to phone, tablet, or PC for future use on other systems

Choose File/Upload Schedule File - Open and send a downloaded schedule to save time.

Schedule Operation

The system should already be programmed for 24/7 operation. The schedule controls when the flashers turn on and off.

Planned Events

Each operating period requires two events:
Enable Operations: Turns the flashers on using the programmed flash settings.
Standby: Turns the flashers off.

Example Weekday Schedule

Day Plan 1 — Default
12:00 AM — Standby
Apply Daily

Day Plan 2 — Monday–Friday
7:00 AM — Enable Operations
8:30 AM — Standby
2:30 PM — Enable Operations
3:30 PM — Standby

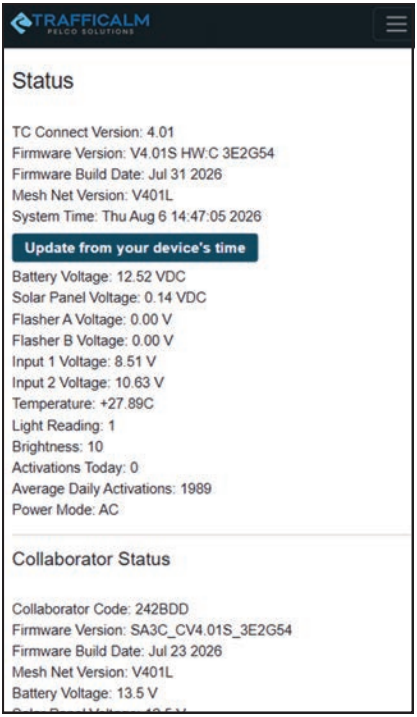
Additional Day Plans may be assigned to half days, holidays, or other special dates.

Send Schedule
Select Send Schedule after all events and assigned days have been entered.

Important: Verify the controller's date and time on the Status page. An incorrect controller clock will cause the schedule to operate at the wrong times.

Status Menu

The status screen provides sensor information from the Controller and each connected Collaborator. Typically this will be used when troubleshooting the system at the request of the TraffiCalm™ support team.



Diagnostics Menu

The diagnostic screen displays the signal strength of the radio (mesh- net) connection between each device. Again, this is typically used while troubleshooting.



Activation Report

This screen facilitates the download of an activation log and a status log. Both are exported to your device as a spreadsheet that can be opened in software like Microsoft Excel. Once a log is loaded to your device it can be emailed, shared, and otherwise distributed as much and as often as you want. The activation log displays data about when the system detected vehicles and how that amounted to (or not to) flashing sign. The status log provides system history, including charging status and power cycles. Finally, this screen features several brief reference facts.



Contact

Want to get ahold of us? Here are all the ways you can reach us



Advanced Settings

This screen offers several "advanced" features, some of which are critical to the operation of the system.

Power Type- should be selected to reflect each devices actual power supply. If in doubt, call our support department.

Programmable Input Mode-

designates what input 2 on the controller accomplishes. It can act like an input, or a reset trigger.

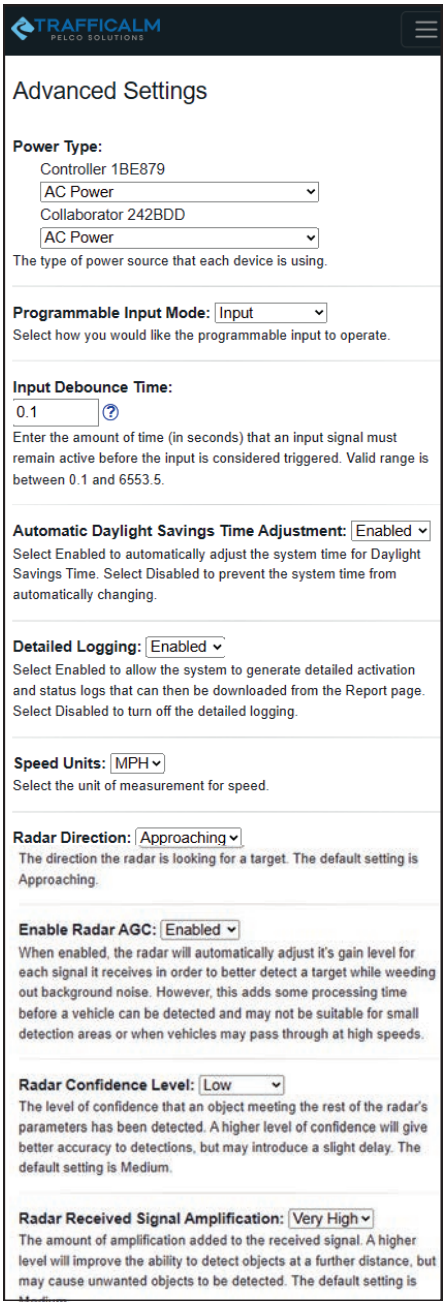
Automatic Daylight Saving Time- turn off if you're in a place that does not observe the annual DST.

Detailed Logging-
Enables or disables detailed detection and status logging as required by local policy.

Radar Diagnostic LEDs-
the radars have a green and a red LED to help with aiming and power status. But, they can be distracting under normal use. So, you can turn them off if the public demands it.

Various Resets (not pictured)-

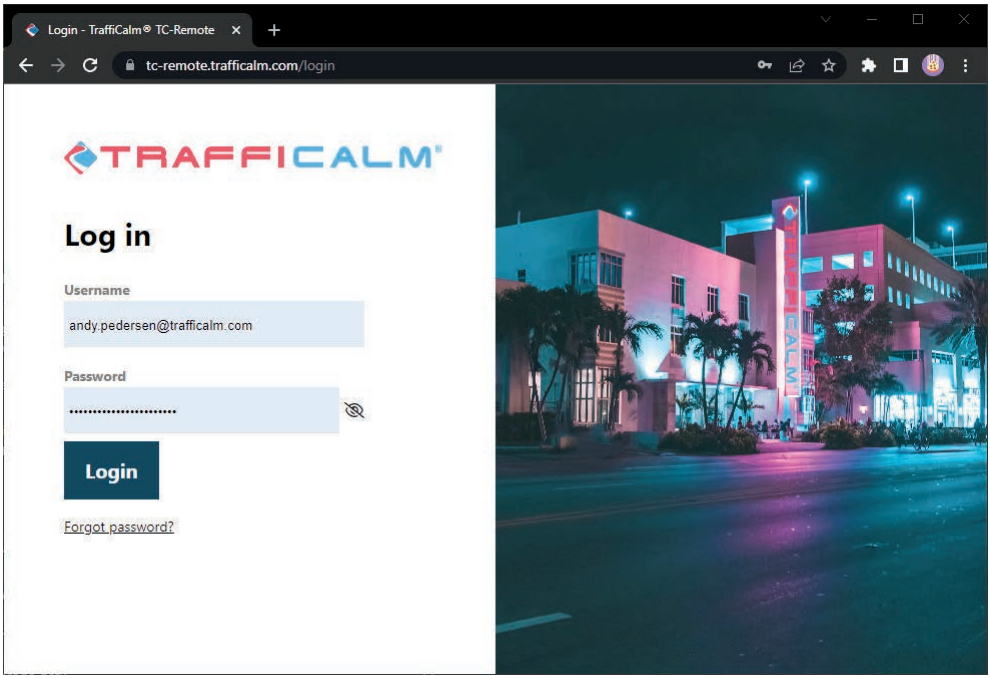
- **Soft Defaults**: Restores most settings while retaining items such as Collaborator IDs.
- **Factory Reset**: Erases all configuration settings and returns the Controller to factory defaults.
- **Clear Logs**: Erases stored activation and status logs.



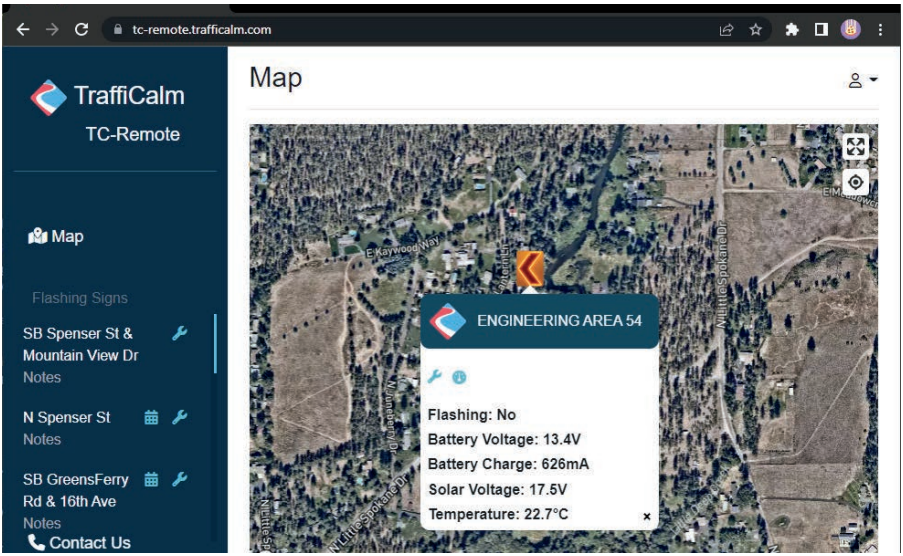
This concludes Misc. Menus

If so equipped, your TraffiCalm Intelligent Sign system may be connected to TC-Remote via a cellular modem.

With the system powered up and connected, you'll be able to access the device and its parameters from any Internet connected device in the world. To access TC-Remote, navigate to tc-remote.trafficalm.com. Upon initial login, you will be required to set a password. It can be reset if forgotten

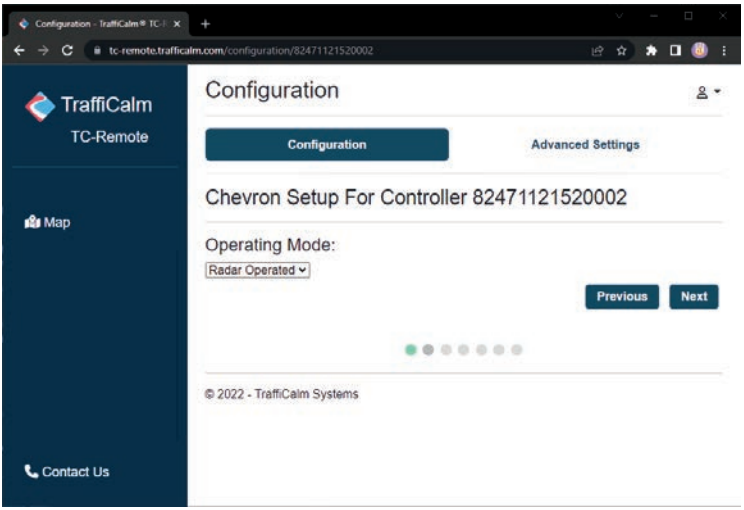


After logging in, all of your devices will be visible on both the map and left navigation panel.



Clicking on any device will expand its quick-stats view where you can see system data as well as expand setup (wrench icon) and system data (meter icon) views.

Selecting the icon in any given system will open its configuration parameters, much of this is similar to local setup.

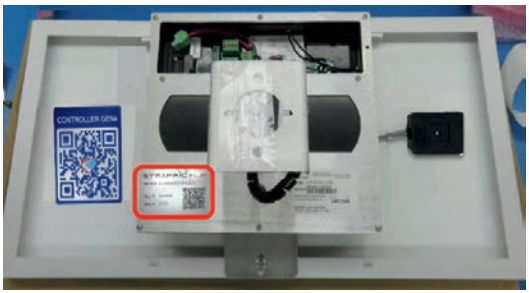


Adding a Device

After installing a new TC-Remote device, steps will need to be taken to claim ownership of the system. Select ADD A DEVICE to start the process



Your Activation Key will be located in one of two locations, depending on your controller type.



opposite the serial label

- M75-TCR0M-CTL3
- M75-TCR0M-CTLZ

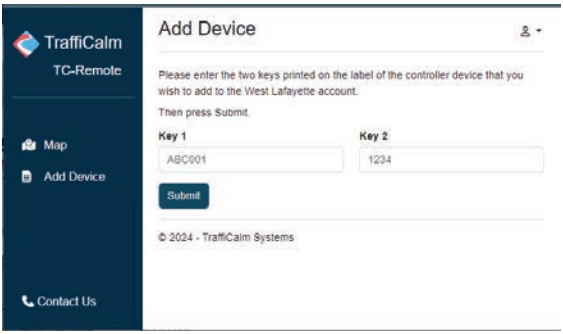


Inside of door

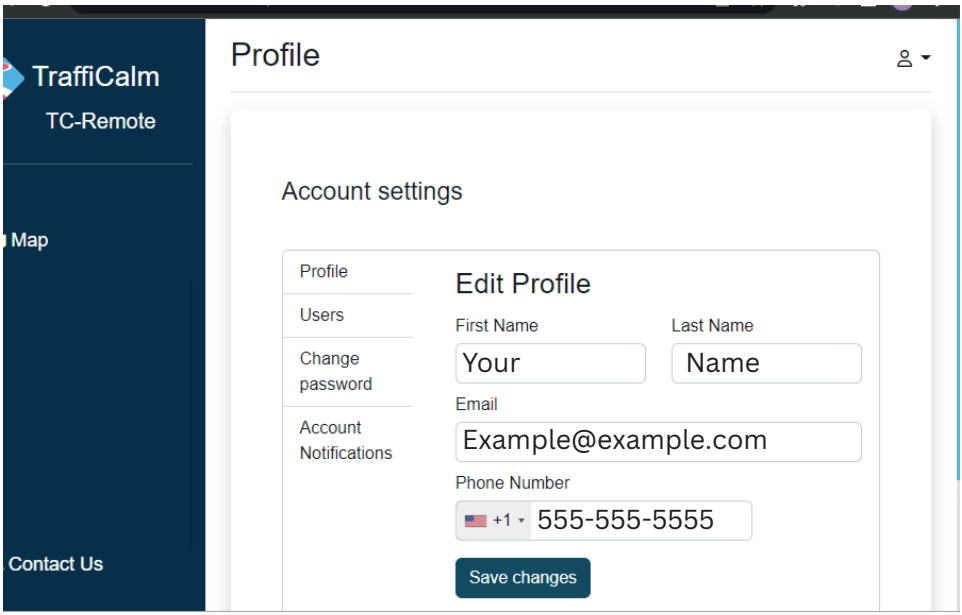
- M75-TCR00-CTLA
- M75-TCR00-CTLE
- M75-TCR00-CTLI
- M75-TCR00-CTLR
- M75-TCR00-CTLW
- M75-TCR00-CTLS



Example of Key badge



Successful entry of the correct key values will result in the unit reporting to your account. If either key value is entered incorrectly the website will warn you the operation was unsuccessful.
Clicking the Account Preferences Icon (highlighted in blue below) opens your account's settings.



This page features contact info setup, notification preference settings, and password management. If the account logged in is designated as an administrator, it is possible to invite new users via the users pane.

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For Any Further Assistance Please Call our Technical Service Department at: 855-738-2722

Revision	Reason	Owner/Date
A	Initial release for Gen 4 Devices	AP 20220921
B/C	Updated TC-Remote details/Updated Add a Device in TC-Remote	AP 20221208 AP 20240904
D	Overall Update of Manual	DS 20250610
E	MUTCD sign support & duty cycle additions	DS 20260805