

IMPORTANT INFORMATION

FLASHING SIGN SYSTEMS



Your guide to connect and
configure your
Collaborating Detection System.

**No Internet Connection
Required!**

Before proceeding: Make sure the power connection terminal inside the box has been inserted properly and the power has been applied to the system before continuing on in this guide to connect.

NOTE: Once power is applied, 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.

(System Initiation)

Connect to the System's Wi-fi

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

1. Locate and select TrafficCalm_Setup_XXXXX from the list of available wi-fi networks.
2. Enter security key / password:
Tr@ffiCalm (case-sensitive)

Select: **OK or CONNECT**

Select: **OK or Connect**

Example panes shown are
Windows-Based PC
and
ANDROID Device

TC Connect is also compatible with Apple devices. (not shown)

PC Procedure

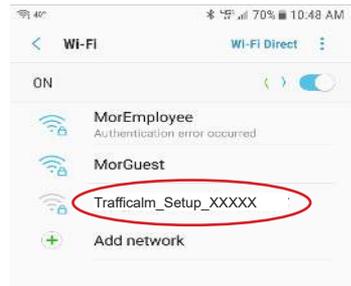


1

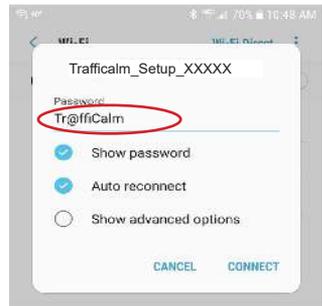


2

Mobile Procedure



1



2

(System Initiation)

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 websites, 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

Screen 1 Login

Easy enough, if you know the secret word- Tr@ffiCalm

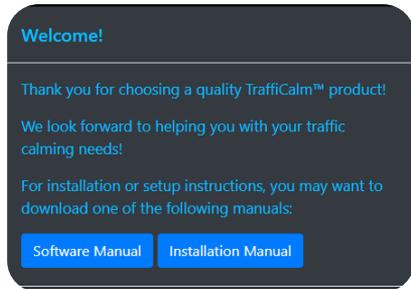
Later we'll discuss overwriting the password. If you forget it, there is a reset option. See, easy enough.



Screen 2 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.

By the way, it's a pop up. But not the annoying kind that crashes on Windows 98. Everything crashes on Windows 98.



Screen 3 Welcome

After closing the download window, the welcome message is displayed. From here, select an option from the menu at top right. **Setup** is where you're headed.



(Menu)

The configuration system's menu has many options as follows:

Setup: starts the setup wizard

Status: displays pertinent information about the controller and all the connected collaborators

Diagnostics: displays the communication performance between the controller and all connected collaborators, and amongst themselves

Report: facilitates the download and management of the controller's data logs

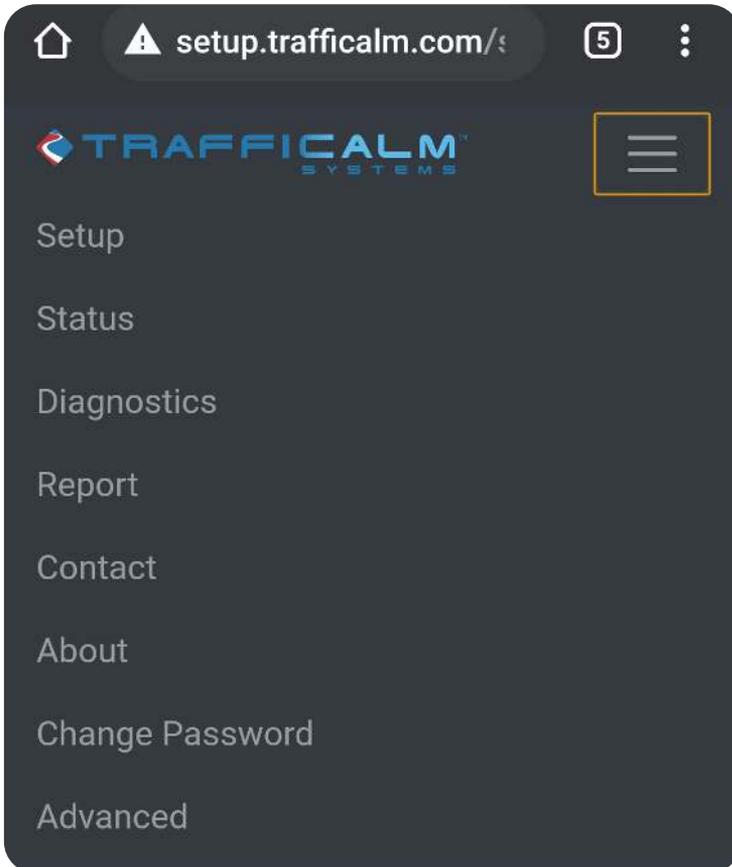
Contact: Provides support info for your reference

About: Shows device information

Change Password: facilitates a user password to be set

Advanced: Offers several advanced options and features not typically required for normal use

Note that the menu is selectable from any screen in the utility, and is always opened by pressing the three bar icon at top right (not to be confused with the three ellipsis icon at top-top right found in most mobile browsers).



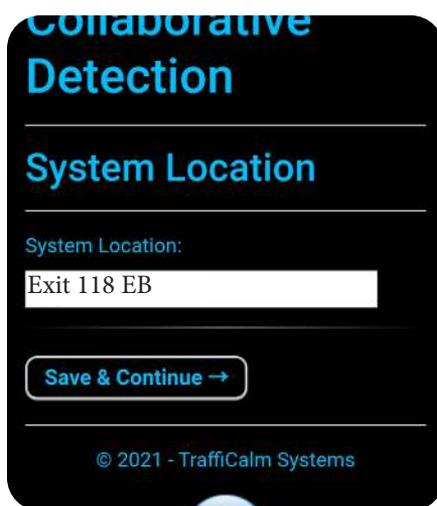
System Location

The first option is to identify the system by giving it a name. Typically, this will be the system's location, like "MLK Jr and Pike" or "Exit 118 EB".

It's up to you, so go wild. Or, maybe it's up to your manager so behave.

This name will now identify they wi-fi network, and be part of the downloaded data log file name.

Unique naming is especially important if you are deploying multiple systems.



Press **save and continue** to advance to the next window.
We will not be noting this again

Activation Type

Two options here-
Input Operated

Any switched input except a TrafficCalm™ Radar. Non-latching, contact closures work best.

Radar Operated

Select this one if you have a TrafficCalm™ radar attached to your controller.

Note that you can set up a mix of input, radar, and non-activated collaborators with the controller. This setting is the selection for the system's controller.



Brightness Settings

In most scenarios the default values here are sufficient to satisfy expected operation. However, it may be necessary to adjust the brightness given two variables:

- Offensive illumination to neighboring businesses or homes
- Battery performance

In either instance, reducing the brightness both and night will generally improve acceptance or runtime (depending on what you're after)

Brightness Settings

Maximum Brightness Level In Daylight:

%

Recommended: 100%

Minimum Brightness Level At Night:

%

Recommended: 10%

Automatic Brightness Adjustment:

This controls how the system will automatically adjust to lighting conditions. Standard is the default setting. Aggressive may provide a brighter output, but could impact system uptime if ideal lighting conditions are not met.

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[Save & Continue →](#)

Flasher Settings

The first note is VERY important. Any variation to the standard settings will result in non-compliant flash output. That's fine, just know that it is what it is.

Minimum Speed- if a radar is utilized, this is the detected speed at which the system starts flashing.

Flash Rate- Flashes per minute, 60 flashes means the signs flash for 0.5 seconds, then are off for 0.5 seconds.

Flash Pattern- Default is Standard, others are very attention grabbing

Flasher Output- Controls the relationship of the two outputs

Flash Hold Time- How long the system flashes after detection.

Note: Select 60 FPM, "Standard Flash", and Single or Unison output for 2009 MUTCD Compliance.

Minimum Speed Required To Trigger Radars:

Flasher Rate:

FPM

Flasher Pattern:

Flasher Output:

Flasher Hold Time In Seconds:

?

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[Save & Continue →](#)

Collaboration Setup

The whole idea of this product family (collaborative detection) is to increase the confidence of a detection by requiring multiple radars to detect the same target. By way of a simple (and patented) comparison between detection speeds, duration, and several other factors we can add much more confidence to the final result- flashing signs.

The first step will be to add the collaborators, identify what type of activation each device receives, and which “group” each device is in.

Radar activated devices have a TrafficCalm™ radar attached. All other input types can be activated off a push buttons, or other discrete inputs. Finally, select Flasher Only.

Devices added to the collaborative group work together. Note: multiple detecting devices can be added to this group, BUT only two detections (within the systems parameters) are required to result in flashing.

Devices in the Non-Collaborative Group do not contribute to the collaborative group. They can, however, be radar or input activated and WILL result in flashing of all signs in the system without the need for a second (collaborating) detection. This group adds complication, for sure, but provides a greater level of flexibility in the system setup.

Hit the See Example Pictorial button for graphical representation of typical setups.



Group Settings

This screen provides control over two things- radar parameters and the time allowed for collaboration.

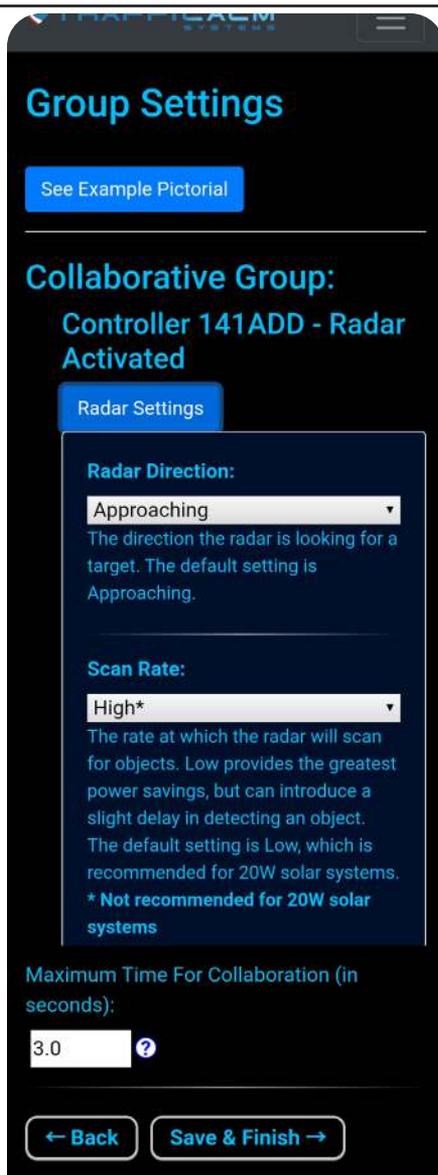
Each radar in the system can be configured individually, and you are given 6 radar settings- Direction, Scan Rate, Confidence Level (not shown), Signal Amplification (not shown), Threshold (not shown), and Correction Angle (not shown, helps correct detected speed discrepancies between radars aimed differently). Each setting's function is detailed on screen.

The maximum time for collaboration (in seconds) setting dictates how long the system will look for 2 detections. If this is set for too short of a duration the system will not activate flashing. If it is too long, false detections may cause flashing errantly.

Save and finish is the final step in the setup wizard. The wizard will show progress as it configures each device in the system. A successful setup will result in a final pop up noting as such. However...

Warning messages will provide feedback on what, if anything, didn't send properly.

Most typically, an incorrectly entered Collaborator ID will cause a flag. You'll have to go back through the setup and assess for errors.



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 TrafficCalm™ support team.

Status

TC Connect Version: 3.00C
Firmware Version: V3.00H HW:0
Firmware Build Date: Jan 3 2021
Mesh Net Version: V300J
System Time: Tue Jan 5 09:31:05 2021

[Update from your device's time](#)

Battery Voltage: 13.16 VDC
Solar Panel Voltage: 0.96 VDC
Flasher A Voltage: 0.00 V
Flasher B Voltage: 0.00 V
Input 1 Voltage: 9.12 V
Input 2 Voltage: 11.25 V
Temperature: +24.25C

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.

Diagnostics

Signal Strengths:

NOTE: 1-30 = Great, 31-60 = Acceptable, Over 60 = Poor

141ADD (24) <---> (24) 15C43D
141ADD (15) <---> (15) 141ADF
141ADD (18) <---> (18) 141AF0
15C43D (45) <---> (45) 141ADF
15C43D (13) <---> (12) 141AF0
141ADF (9) <---> (6) 141AF0

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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.

Activation Report

Daily Count Log:

01/04: Count: 75, Cumulative Average: 75

01/05: Count: 280, Cumulative Average: 177

Today: 00280, Total: 00355

[Download Activation Log](#)

[Download Status Log](#)

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Contact

Want to get a hold of us? Here's all the ways you can (excluding LinkedIn and Facebook, which also work).

Contact

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Sales and/or Support: 1-855-738-2722

Support: techservice@trafficalm.com

Sales: sales@trafficalm.com

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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 device's 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.

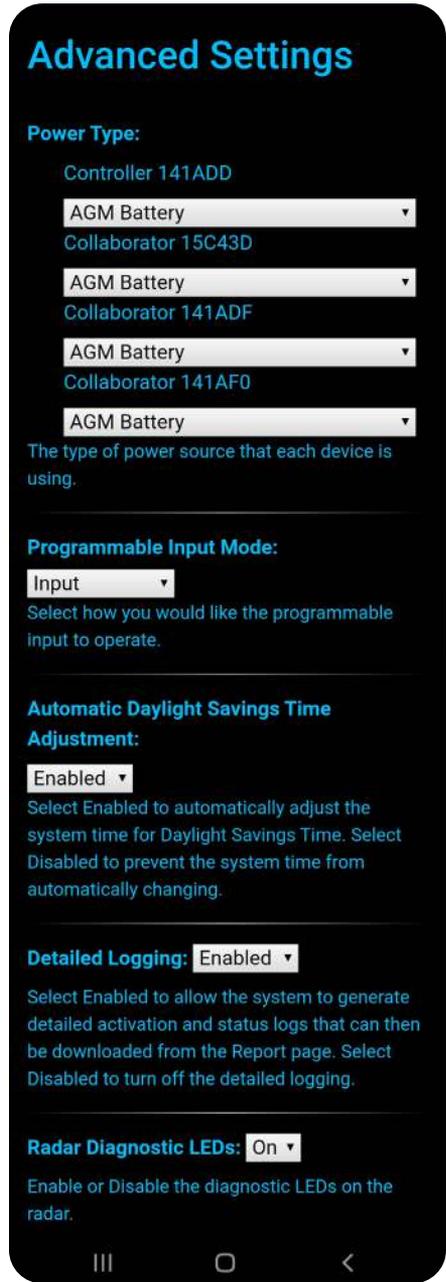
Automatic Daylight Saving Time- turn off if you're in a place that does not observe the annual DST.

Detailed Logging- toggle the storage of detections and status logs. Some places don't allow it, so this allows for total compliance.

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 retains most settings, like Collaborator IDs
Factory Reset wipes the whole thing clean
Clear Logs- resets the data logs

Change To A Collaborator (not pictured)- If the system will be upgraded with a new controller, the existing one can be converted to act like just a Collaborator. Be careful, though. Once you send this setting it's tough to set the unit back to a Controller.



That's It. Well done!



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

Revision	Reason	Owner/Date
A	Initial release for Gen 3 devices	AP 20210105
B	Expanded to a full manual	AP 20210106
C	Corrected setup instructions, pg 8	AP 20211227