



RADARSIGN OPERATION MANUAL



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CUSTOMER RESOURCE CENTER

Access Radarsign's software downloads, manuals, troubleshooting/repair/upgrade information, forms, product sheets, spec sheets, and more through the Customer Resource Center on our website.

<https://www.radarsign.com/customer-resource-center/> Password: **safety**



For additional assistance please call **678-965-4814** and ask for technical support or email: customerservice@radarsign.com



Certified Quality System
ISO 9001:2015



MUTCD Compliant
Radar Speed Signs



Proudly Engineered &
Manufactured in the USA

©2005-2024 Radarsign, LLC All Rights Reserved
Radarsign, LLC reserves the right to change the specifications without notice.
Contact our sales department for special applications and configurations.

Thank you for your purchase of this Radarsign™ product.

The Radarsign series of driver feedback signs comply with Part 15 of the United States Federal Communication Commission (FCC) rules as shipped from the factory.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference.
- (2) This device must accept any interference received, including interference that may cause undesired operation.

NOTE: The grantee is not responsible for any changes or modifications not expressly approved by the party responsible for compliance. Such modifications could void the user's authority to operate the equipment.

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

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

The Radarsign™ device must not be opened or modified with the exception of the connection of the solar panel or AC power connections. ANY CHANGES OR MODIFICATIONS NOT EXPRESSLY APPROVED BY RADARSIGN, LLC MAY VOID THE USERS AUTHORITY TO OPERATE THE EQUIPMENT UNDER FCC RULES.

PASSWORD NOTIFICATION CARD

DO NOT LOSE THIS CARD! The passwords on your card are UNIQUE TO YOUR SIGN.

Below is an example of the password notification card that was included in the packaging of your sign. It lists the passwords for your Radarsign Wi-Fi and any optional features purchased.

radarsign
MAKING ROADS SAFER

DO NOT LOSE THIS CARD!

These are the passwords assigned to your sign.

INSTALLERS
Please provide this card & manuals that were shipped with the sign to the owner.

Scan this QR code to connect via Wi-Fi to your sign.

Once connected to your sign, scan this QR code to unlock the accessories purchased with your sign. (Data is Streetsmart)

Scan this QR code for installation and operation manuals.

Sign Serial #: #####
Wi-Fi PW: #####

Data: #####
W strobe: #####
R/B strobe: #####
Adv Scheduler: #####

QF0042 Password Card v21.02

Sign serial number and the Wi-Fi password assigned to this sign

Passwords assigned to each accessory purchased for your sign

Data | Streetsmart Software
W strobe | White strobe
R/B strobe | Red/blue strobe
ADV Scheduler | Advanced Scheduler

SAFETY WARNINGS

Warning indicates a potentially hazardous situation which if not avoided will result in death or serious injury, and/or property damage.

ELECTRICAL SAFETY

To reduce the risk associated with electric shock resulting from contacting high voltage AC:

Turn power OFF before connecting wiring from our AC powered radar signs to the AC source.

To reduce the risk of electric shock related injury resulting from hazardous AC voltage:

Portions of this equipment derive power from sources that have high voltage levels. These must be serviced by qualified personnel who have previous training or certification to safely work on high voltage equipment. Consult a qualified electrician.

BATTERY SAFETY

Battery acid may cause skin irritation and eye injury. To reduce the risk of burns or other acid related injury resulting from handling lead-acid batteries:

Wear gloves, goggles, and an apron when handling batteries.

Beware of cracked battery cases.

Handle batteries with care.

Batteries may produce explosive gas under some conditions. This gas may be ignited by a spark or flame as you work near the battery. To reduce this risk of explosion:

Disconnect the battery.

Work in a well-ventilated area.

Avoid the use of devices that create sparks or use open flames.

Use appropriate personal safety clothing and equipment.

To reduce the risk of burns or other acid-related injury resulting from exploding batteries:

Always use the recommended charging systems with this product.

To reduce the risk associated with contamination of water supplies resulting from improper disposal of batteries containing lead and acid:

Please dispose of batteries in accordance with all local government laws and regulations.

An accidental short circuit may instantly heat conductive jewelry, tools, and surrounding objects to skin-searing temperatures. To reduce this risk when working around batteries:

Keep tools, jewelry and other conductive objects away from the battery terminals.

RADAR SAFETY

This product uses devices that radiate RF energy in the course of normal operation. Radar RF energy can be harmful to the eyes. To reduce exposure to the risk of RF energy:

Do not stare into the radar antenna.

Keep a minimum safe distance of 8 inches (20 cm) from the display face.

PERSONAL SAFETY

To reduce the risk of impact hazards resulting from falls, accident with passing vehicle, and/or from use of unstable equipment:

Use appropriate work zone traffic control procedures, methods and equipment.

Strain or back injury may result from lifting equipment improperly. To reduce the risk of strain or back injury:

Use proper lifting techniques and have adequate help when lifting.

To avoid the possibility of injury due to falling or unstable equipment:

Be certain the radar speed sign is mounted to an appropriately rated pole or equivalent mounting surface.

Use appropriately rated mounting hardware.

WI-FI SETUP

IMPORTANT: To configure your sign you will first need to connect to the **Radarsign** Wi-Fi. No internet is required to connect to the sign. Either scan the QR codes on the **DO NOT LOSE** card included with your sign or manually set up per the instructions below.

- Using a Windows laptop or tablet, Android tablet or smartphone, or iPhone or iPad, disconnect from any physical connection you have to any network. Remaining on your network will interfere with your attempt to connect to the radar speed sign with a Wi-Fi connection.
- Make sure your wireless adapter is ON.
- Connect power to your radar speed sign.
- Upon applying power to the radar speed sign, the radar speed sign BOOT sequence below will be displayed
IMPORTANT NOTE: Wait for the test to complete and for the Blue Blinky™ light in the center of sign to flash before looking for wireless network.

Models TC-400, TC-500, and TC-1000 Boot Messages		
	88	Display segment test
	SLOW DOWN	Display Test (TC-1000 only)
	.	Blinking Decimal Point Password Reset Period (see password reset section, pg. 8)
Sn	xxxxxx	Serial number assigned to the sign. TC-400 starts with 30xxxx ; TC-500S starts with 10xxxx ; TC-1000S starts with 20xxxx)
Ch	xxxxxx	Sign firmware checksum
	x.xx	Sign firmware version number
Model TC-600 Boot Messages		
Boot	...X	where 'x' is the number of times the sign has been rebooted without completely finishing the boot procedure (used to reset wi-fi password)
Ver	x.xx	Sign firmware version number
	.	Blinking Decimal Point Password Reset Period (see password reset section, pg. 8)
cksm	xxxx	Sign firmware checksum
SD	OK	SD Card test passed
EE	OK	eeprom test passed
Model TC-800 and TC-1100 Scrolling Messages		
Model	TC-###	Radarsign model number
Serial	xxxxxx	Serial number assigned to the sign. TC-800S starts with 50xxxx TC-1100S starts with 60xxxx
Batt V	13.xx	Battery voltage (in Volts): Minimum operation 10 Volts, full charge 13.9 volts
Batt A	1.xx	Battery current (in Amps): 0 if not charging, up to 3.5 Amps if greatly depleted, and getting full charge from solar panel on sunny day
Solar V	18.xx	Solar panel voltage (in Volts): 17 to 19 volts is a good reading
Solar A	1.xx	Solar panel current (in Amps): 0 if not charging, up to 3.5 Amps

- With your smart phone, tablet, or laptop, find the Radarsign Wi-Fi network, RS-xxxxxx (the 'x' sequence is the 6 digit serial number of your sign), and connect.
- You will be prompted for a password. Enter the password listed on the **DO NOT LOSE CARD** included with your radar speed sign to connect to the network. If you do not see the network RS-xxxxxx (the 'x' sequence is the 6 digit serial number of your sign), power down the radar speed sign for 10 seconds, and then reconnect the power.
- On some devices you will get a warning that this network does not have an internet connection. No internet is required to connect to the radar sign. If asked if you wish to stay connected to the network, say yes. You have successfully connected to your radar sign!
- Once connected, open your web browser.
- In the address box at the top of your browser, enter the following url: **10.0.0.1**
The connection will bring up the primary configuration page for your radar speed sign.



WI-FI SETUP

When you connect to the radar speed sign, the HOME page will open.

Please note: The Display Configuration and Advanced Functions settings available will vary depending on the your sign model and the sign options you purchased.

Model TC-400

Sign Status
Battery: 13.924 V | -0.048 A
01-17-2024
18:20:54

Get Radar Data Refresh Change Password

General Settings
 Blinky Enabled
 Radar Enabled
 MPH KPH

Display Configuration

Display Enabled:

Speed Limit: 25 ?
Minimum Display Speed: 20 ?
Maximum Display Speed: 45 ?

Over Maximum Behavior: Dashes Blank

Alert 1	Alert 2
Alert 1 Speed: 30 ?	Alert 2 Speed: 35 ?
Display Behavior: <input type="radio"/> On Steady <input type="radio"/> Flash Fast <input checked="" type="radio"/> Flash Slow <input type="radio"/> Flash MUTCD	Display Behavior: <input type="radio"/> On Steady <input checked="" type="radio"/> Flash Fast <input type="radio"/> Flash Slow <input type="radio"/> Flash MUTCD
Display Content: <input checked="" type="checkbox"/> Vehicle Speed <input type="checkbox"/> Dashes	Display Content: <input type="checkbox"/> Vehicle Speed <input checked="" type="checkbox"/> Dashes
Accessories: <input checked="" type="checkbox"/> Strobes <input type="radio"/> Strobe Red <input type="radio"/> Strobe Blue <input checked="" type="radio"/> Strobe Red/Blue <input type="radio"/> Camera Flash <input type="radio"/> Strobe White	Accessories: <input checked="" type="checkbox"/> Strobes <input type="radio"/> Strobe Red <input type="radio"/> Strobe Blue <input type="radio"/> Strobe Red/Blue <input type="radio"/> Camera Flash <input checked="" type="radio"/> Strobe White

Advanced Functions
[Unlock Advanced Scheduler](#)
 Timer 1 08:15 AM - 10:15AM()
 Timer 2 08:15 AM - 10:15AM()
 Timer 3 08:15 AM - 10:15AM()
 Timer 4 08:15 AM - 10:15AM()
 Possum Switch Enabled
[Display Settings](#)
[Diagnostics](#)
[Set Defaults](#)

Set Config

Model TC-600, TC-800, and TC-1100

Sign Status
Battery: 13.592 V | 0.004 A
Solar: 13.62 V | 0.113 A
01-17-2024
12:33:49

Get Radar Data Refresh Change Password

General Settings
 Blinky Enabled
 Radar Enabled
 MPH KPH

Display Configuration

Display Enabled:

Speed Limit: 25 ?
Minimum Display Speed: 20 ?
Maximum Display Speed: 45 ?

Over Maximum Behavior: Dashes Blank

Alert 1	Alert 2
Alert 1 Speed: 30 ?	Alert 2 Speed: 35 ?
Display Behavior: <input type="radio"/> On Steady <input type="radio"/> Flash Fast <input checked="" type="radio"/> Flash Slow <input type="radio"/> Flash MUTCD	Display Behavior: <input type="radio"/> On Steady <input checked="" type="radio"/> Flash Fast <input type="radio"/> Flash Slow <input type="radio"/> Flash MUTCD
Display Content: <input checked="" type="checkbox"/> Vehicle Speed <input type="checkbox"/> SlowDown <input type="checkbox"/> TooFast	Display Content: <input type="checkbox"/> Vehicle Speed <input checked="" type="checkbox"/> SlowDown <input checked="" type="checkbox"/> TooFast
Accessories: <input checked="" type="checkbox"/> Strobes <input type="radio"/> Strobe Red <input type="radio"/> Strobe Blue <input checked="" type="radio"/> Strobe Red/Blue <input type="radio"/> Camera Flash <input type="radio"/> Strobe White	Accessories: <input checked="" type="checkbox"/> Strobes <input type="radio"/> Strobe Red <input type="radio"/> Strobe Blue <input type="radio"/> Strobe Red/Blue <input type="radio"/> Camera Flash <input type="radio"/> Strobe White

Advanced Functions
[Unlock Advanced Scheduler](#)
 Timer 1 08:15 AM - 10:15AM()
 Timer 2 08:15 AM - 10:15AM()
 Timer 3 08:15 AM - 10:15AM()
 Timer 4 08:15 AM - 10:15AM()
 Possum Switch Enabled
[Display Settings](#)
[Diagnostics](#)
[Set Defaults](#)

Set Config

BASIC SIGN SETUP

To set up your sign for the first time, you do not need to leave the HOME page.

When initially configuring the sign, the HOME page configuration will display the factory settings of the radar speed sign: Speed Limit: 25 MPH, Minimum Display Speed: 5 MPH , and Maximum Display Speed: 99 MPH.

IMPORTANT NOTE: The factory settings of the radar speed sign will need to be adjusted for your specific installation.
RECOMMENDED SETTINGS: Minimum Display Speed: 5 MPH below the posted speed limit; Maximum Display Speed: no more than 20 MPH above the posted speed limit.

SIGN STATUS

- **Battery voltage:** If battery charge is 13.9+V, battery is charged 100%. If voltage is less than 10V, the display will shut off to allow the batteries a chance to recharge.
- **Solar amperage:** If you have a solar sign the solar amperage level will be very small if batteries are charged at 100%. Batteries need to be recharged if solar amperage level is between 1 to 3 Amps.
- Date and Time

ACTION BUTTONS

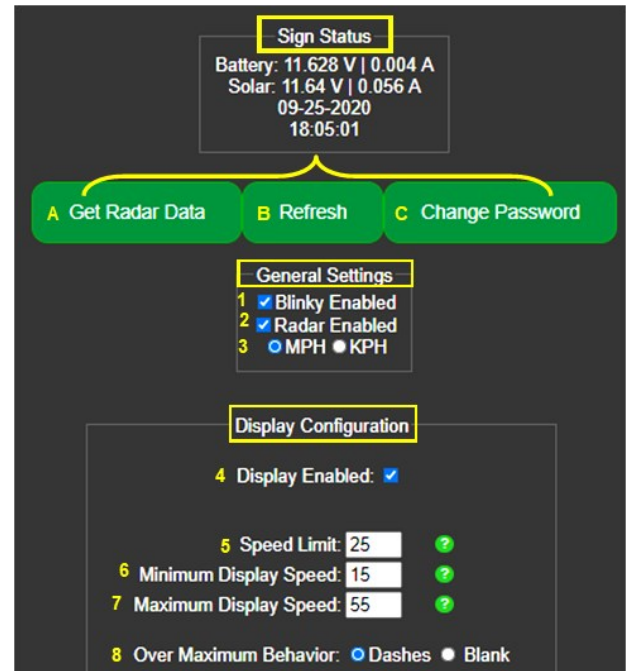
- GET RADAR DATA – Used to download data from the radar speed sign. (If you have not purchased a Streetsmart license for this sign, this option does not apply.)
- REFRESH - Refreshes the sign status values on the page.
- CHANGE PASSWORD - Allows you to re-set the Wi-Fi password to something other than the default.

GENERAL SETTINGS

- BLUE BLINKY™ ENABLED – Turns the single blue LED in the center of the display on or off. The Blue Blinky™ indicates that the radar is scanning. It is recommended you keep it enabled.
- RADAR ENABLED – This should **always** be checked so the sign can detect vehicles.
- MPH / KPH SETTINGS – Select the setting for your country standard.

DISPLAY CONFIGURATION

- DISPLAY ENABLED – Turns the display on or off. UNCHECK if you wish to collect traffic statistics in stealth mode to get a baseline of how fast the speeds are on the road in question.
- SPEED LIMIT – Enter the speed limit of the road where the sign is installed. The speed limit is only used to qualify a speeder vs. a non-speeder and has no effect on the display.
- MINIMUM DISPLAY SPEED – Set the speed to the lowest level you would like the radar sign display to activate. *(Guidance: Most customers select a speed matching or 5 per hour below the posted speed limit. Setting this number too low will result in draining the sign battery more quickly, and will simply annoy drivers who are not speeding). If there is no approaching traffic, the display will be blank.*
- MAXIMUM DISPLAY SPEED – Set for the highest speed you wish the sign display to remain active, usually no more than 20 mph higher than the speed limit. This is used to ensure drivers do not try to ‘race’ up the sign to unsafe speeds. Above this speed the Over Maximum Behavior is active.
- OVER MAX BEHAVIOR – Indicates the sign alert display when a vehicle is travelling faster than the Maximum Display Speed selection. Choose either Dashes, or Blank (sign goes dark).



ALERT SETUP

NOTE: The alert settings and advanced functions available will vary depending on the your sign model and the sign options you purchased.

ALERT 1

- ALERT 1 SPEED: At this speed the Alert 1 display settings will activate.
- DISPLAY BEHAVIOR: Indicates the flash rate behavior of the display. MUTCD flash: 55-60 fpm; Slow flash: approx. 100 fpm; Fast flash: approx. 140 fpm
- DISPLAY CONTENT: Choose from the options available for your sign model. If you select multiple choices, they will alternate.
- ACCESSORIES: If you have purchased a sign with strobes, select a display from the options listed on your menu (*Selection varies by model and options purchased*).

STROBES

- Strobe Red - Quickly flashes the Red LEDS three times
- Strobe Blue - Quickly flashes the Blue LEDS three times
- Strobe Red/Blue - Quickly flashes the Red LEDS three times, then the Blue LEDS three times
- Camera Flash - Flashes the White LEDS once
- Strobe White - Quickly flashes the White LEDS three times

The screenshot shows a configuration screen for two alerts. Alert 1 is set to a speed of 35, and Alert 2 is set to 45. Both alerts have 'Flash Slow' selected for display behavior. Alert 1 has 'Vehicle Speed', 'SlowDown', and 'TooFast' selected for display content. Alert 2 has 'SlowDown' and 'TooFast' selected. Both have 'Strobes' selected for accessories, with 'Strobe White' selected for Alert 1 and 'Strobe Red/Blue' selected for Alert 2. Below the alert settings is an 'Advanced Functions' section with links for 'Unlock Advanced Scheduler', 'Display Settings', 'Diagnostics', and 'Set Defaults'. The 'Unlock Advanced Scheduler' section lists four timers and a 'Possum Switch Enabled' option. A green 'Set Config' button is at the bottom.

Alert 1	Alert 2
Alert 1 Speed: 35	Alert 2 Speed: 45
Display Behavior: <ul style="list-style-type: none"><input type="radio"/> On Steady<input type="radio"/> Flash Fast<input checked="" type="radio"/> Flash Slow<input type="radio"/> Flash MUTCD	Display Behavior: <ul style="list-style-type: none"><input type="radio"/> On Steady<input checked="" type="radio"/> Flash Fast<input type="radio"/> Flash Slow<input type="radio"/> Flash MUTCD
Display Content: <ul style="list-style-type: none"><input checked="" type="checkbox"/> Vehicle Speed<input type="checkbox"/> SlowDown<input type="checkbox"/> TooFast	Display Content: <ul style="list-style-type: none"><input type="checkbox"/> Vehicle Speed<input checked="" type="checkbox"/> SlowDown<input checked="" type="checkbox"/> TooFast
Accessories: <ul style="list-style-type: none"><input checked="" type="checkbox"/> Strobes<ul style="list-style-type: none"><input type="radio"/> Strobe Red<input type="radio"/> Strobe Blue<input type="radio"/> Strobe Red/Blue<input type="radio"/> Camera Flash<input checked="" type="radio"/> Strobe White	Accessories: <ul style="list-style-type: none"><input checked="" type="checkbox"/> Strobes<ul style="list-style-type: none"><input type="radio"/> Strobe Red<input type="radio"/> Strobe Blue<input checked="" type="radio"/> Strobe Red/Blue<input type="radio"/> Camera Flash<input type="radio"/> Strobe White

Advanced Functions

[Unlock Advanced Scheduler](#)

- Timer 1** 08:15 AM - 10:15AM(Mon Tues Wed)
- Timer 2** 08:15 AM - 10:15AM(Sun Mon Tues Wed Thurs Fri Sat)
- Timer 3** 08:15 AM - 10:15AM()
- Timer 4** 08:15 AM - 10:15AM()
- Possum Switch Enabled

[Display Settings](#)
[Diagnostics](#)
[Set Defaults](#)

Set Config

ALERT 2

Alert 2 - Same options as Alert 1; Alert 2 speed **MUST be higher** than Alert 1 speed.

Once all settings have been entered, tap the Set Config button to send the new settings to the radar speed sign.

ADVANCED FUNCTIONS

- 1) **ADVANCED SCHEDULER:** If the Advanced Scheduler option is purchased, the Timer options will not display.

If you purchased the Advanced Scheduler option, please refer to the **Advanced Scheduler Operating Instructions** which can be downloaded from our Customer Resource Center.

<https://www.radarsign.com/customer-resource-center/>

Password: safety



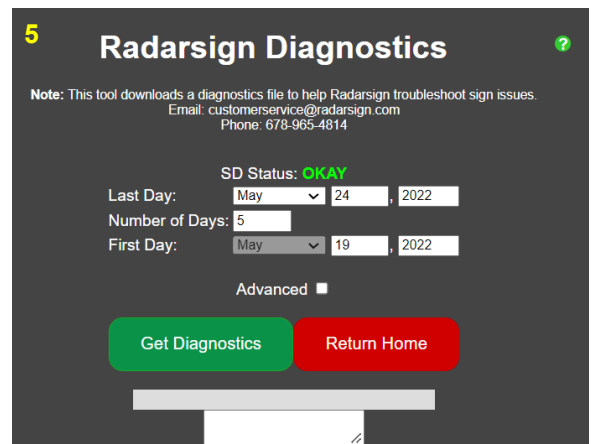
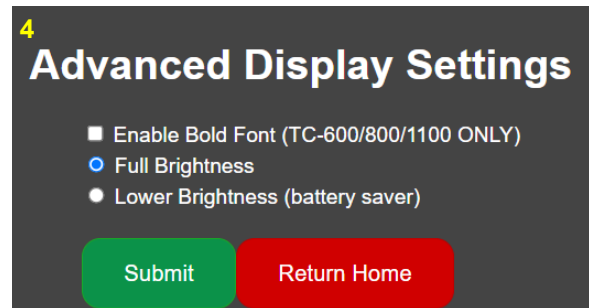
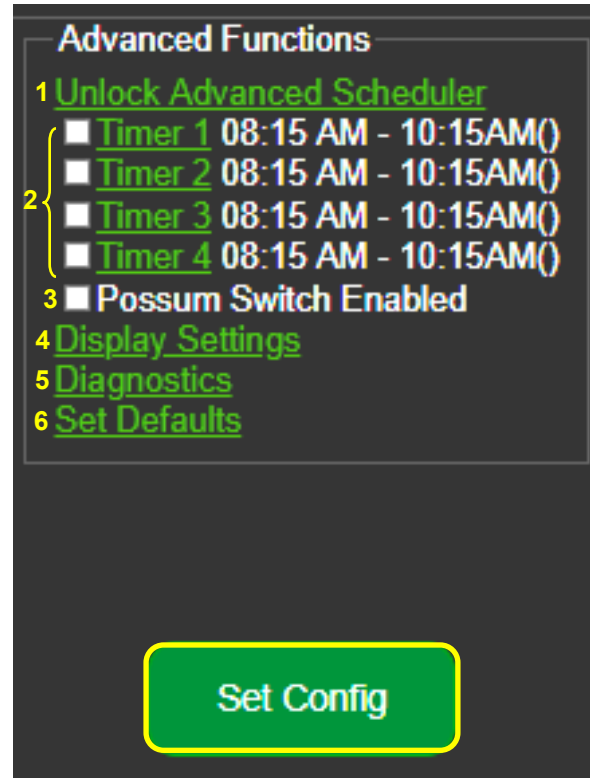
SCAN ME

- 2) **TIMERS:** Standard timers are used to change the operation of the sign for a portion of the day. See *Standard Timers on pg.11 for instructions on how to set the timers.*
- 3) **POSSUM SWITCH™:** In the event of a forceful attack, the sign can simulate inactivity or “play dead” for a duration of 30 minutes. This feature helps protect the sign from malicious tampering or damage. If this feature is enabled, the sign will disable all outward signs of activity (alert display, Blue Blinky™, etc.) after detecting an impact equivalent to hitting the sign with a baseball bat. The display will remain disabled for 30 minutes, and then reboot itself. You can manually reboot the sign sooner, if desired.
- 4) **DISPLAY SETTINGS:** Allows selection of advanced LED display settings.

Choose from:

- BOLD font (*TC-600, TC-800, TC-1100 only*)
- Full brightness
- Lower Brightness

- 5) **DIAGNOSTICS:** This tool downloads a diagnostic file to help Radarsign Customer Support troubleshoot sign issues.
DO NOT RUN Diagnostics unless directed to by Radarsign Customer Support.
- 6) **SET DEFAULTS:** Sets sign to baseline sign settings.

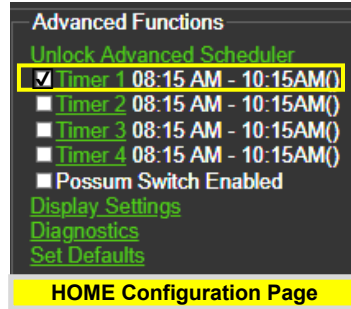


STANDARD TIMERS

The activation menu of timer settings is located on the bottom of the HOME configuration screen under Advanced Functions. (See pg. 7 for Home page screen).

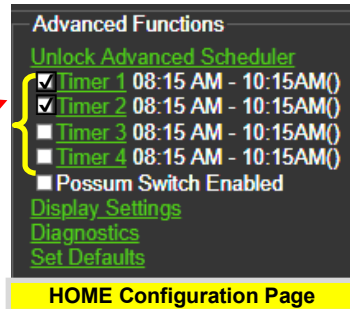
Timers are used to change the operation of the sign for a portion of the day, for instance, a morning or afternoon school zone setting.

Keep in mind that for all periods of the day NOT accounted for by the TIMER settings, the sign will revert to the original settings on your HOME Configuration screen.



Selecting a timer will take you to Timer Settings.

1. Select Timer 1 to set up your first setting of the day.
2. Select which days of the week for this setting to be active.
3. Select the Start Time of this setting, including AM or PM.
4. Select the Stop Time of this setting, including AM or PM.
5. Enter the Speed settings, the Alert display behavior, and the Display Content desired for this time period.
6. If output relays were purchased with your sign, enter the Relay options desired for this time period.
7. Be sure to save the settings by clicking the Set Config button. This refreshes the screen to allow additional timers to be set. You will need to save EACH Timer setting as you go by clicking Set Config button.
8. Once the Timer settings are completed, click Return HOME button. This will take you back to the HOME configuration screen. You must check the box of each timer to activate each Timer setting. Four different settings may be used each day of the week PLUS the standard setting, for a total of 5.



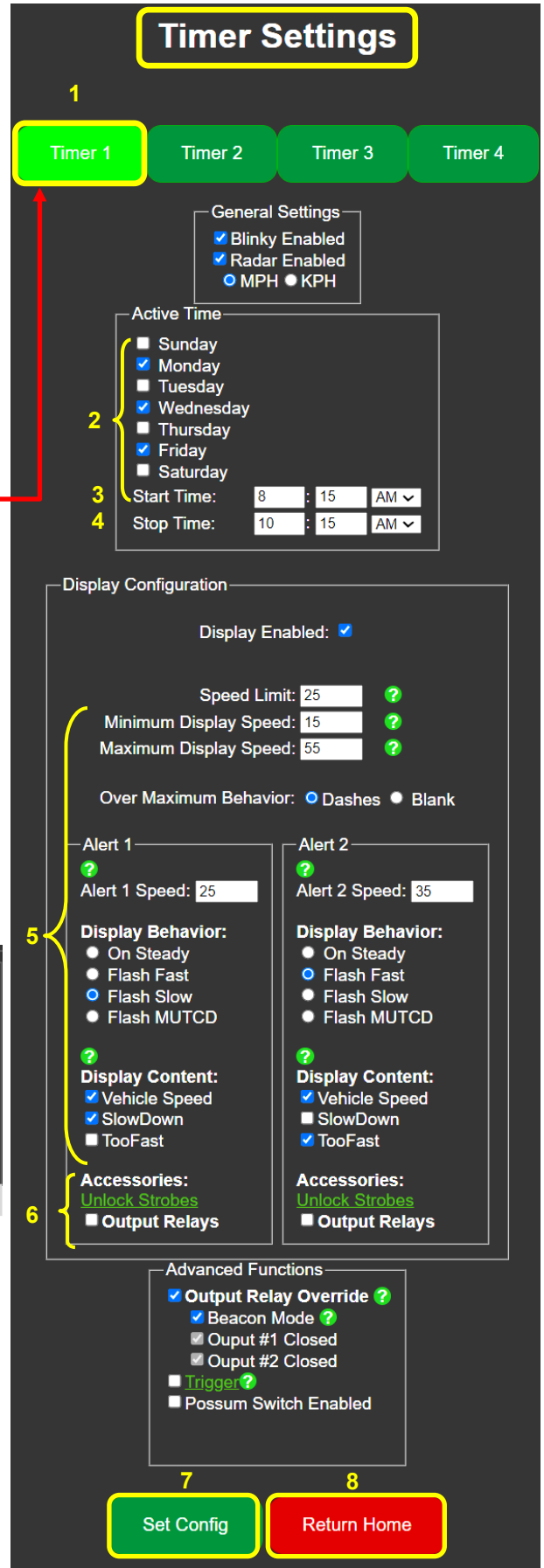
COLLECTING AND DOWNLOADING DATA

If you purchased the Streetsmart option, please refer to the Streetsmart Operation Manual for data collection and reporting instructions which can be downloaded from our Customer Resource Center.



<https://www.radarsign.com/customer-resource-center/>

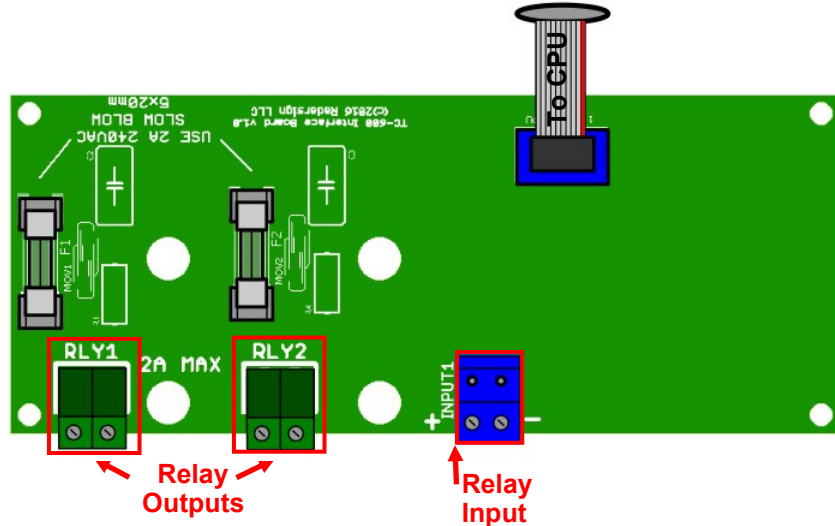
Password: safety



APPENDIX A | RELAY SWITCH OPTION

OVERVIEW

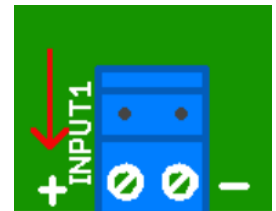
The interface board on the TC-600, TC-800 and TC-1100 allows users to connect the radar speed sign to external devices. The interface board has two relay outputs (connectors shown in green) and one input (*connector shown in blue*). The **relay outputs** can be used to power or trigger external devices. The **input trigger** can be used to change the sign's display configuration based on the presence or absence of an external signal.



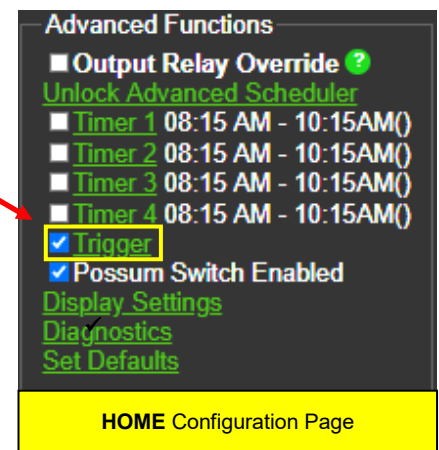
INPUT TRIGGER

The interface board has an input which will change the radar speed sign's configuration based on external input. The input is universal and can be triggered by applying any voltage from 12 VDC – 120 VAC across the input screw terminals. The input trigger latches on for two seconds, which allows flashing beacon lamps to be used to trigger an input event. As long as the input sees a voltage above 12V at least once every two seconds, the trigger will remain active.

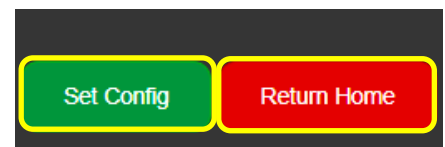
When using the input trigger with DC sources, polarity is important so ensure the positive wire leads to the screw terminal marked with a (+). When using the input trigger with an AC device, polarity does not matter.



- To use the trigger input, first set up the trigger configuration by clicking the Trigger link at the bottom of the HOME configuration screen.
- This link leads to a configuration page nearly identical to the HOME configuration page. Set the trigger configuration as desired.



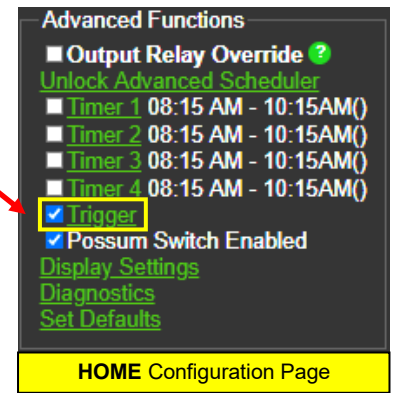
- Click the Set Config.
- Click the Return Home to return to the HOME configuration page.



APPENDIX A | RELAY SWITCH OPTION

- On the HOME configuration page ensure the Trigger box is checked.
- Click Set Config.

The settings shown on the Trigger Settings screen will now take effect whenever a trigger event is detected (*whenever >12V is detected on the trigger input*).



OUTPUT RELAYS

The output relays provide a relay closure. The on board solid state relay can be used with both AC and DC systems, up to 120 VAC @ 2A. Output relays can be used independently of each other, or together in beacon mode.

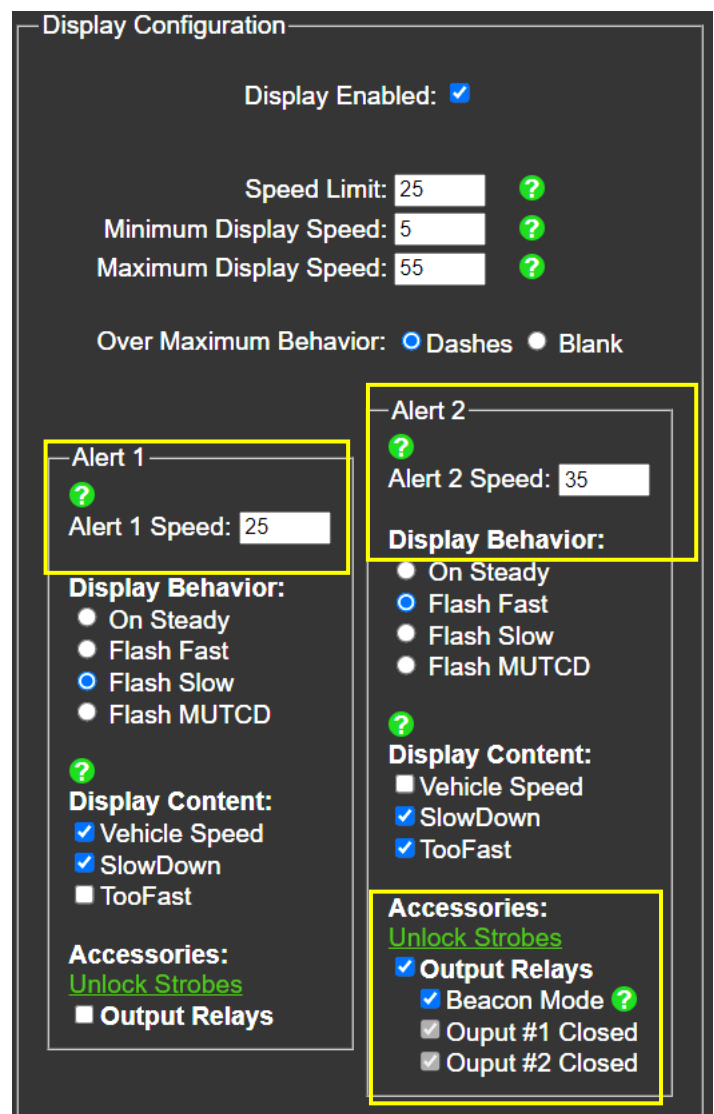
In beacon mode, the two output relays will alternate at 1 Hz (each relay closed for 0.5 seconds, then opened for 0.5 seconds). This mode is intended to be used in conjunction with school zone beacon lamps.

SPEED ACTIVATED RELAYS

Output relays can be configured to activate at a given speed using the alert settings in the HOME configuration screen.

In the example shown, Output #1 will close whenever the sign detects a car traveling over 25 MPH but less than 35 MPH. Output #1 will remain closed until the car accelerates to over 35 MPH, decelerates to less than 25 MPH, or moves out of radar range.

If the car travels over 35 MPH, the Alert 2 settings take over. As shown in the image, beacon mode is enabled for Alert 2, so the relays will start alternating.



APPENDIX A | RELAY SWITCH OPTION

TIMER ACTIVATED RELAYS

Relays can also be configured to close at a certain time using the Timer features.

On the Timer configuration screen, there is an Output Relay Override option. Enabling these options forces the relay output(s) on for the entire duration of the timer.

In the example shown, the relays would be in alternating beacon mode every Monday, Wednesday, and Friday, from 8:15 AM to 9:15 AM.

During any other time, the standard configuration will be active.

The screenshot shows the 'Timer Configuration Page' with a dark background. At the top, a yellow header reads 'Timer Configuration Page'. Below it, a section titled 'Active Time' contains a list of days with checkboxes: Sunday (unchecked), Monday (checked), Tuesday (unchecked), Wednesday (checked), Thursday (unchecked), Friday (checked), and Saturday (unchecked). Below the days are two time selection fields: 'Start Time: 8 : 15 AM' and 'Stop Time: 9 : 15 AM'. A second section, 'Output Relay Override', is highlighted with a yellow border and contains a green question mark icon, a checked 'Output Relays' checkbox, and three sub-options: 'Beacon Mode' (checked), 'Output #1 On' (checked), and 'Output #2 On' (checked).

Once the timer is configured as desired, ensure the timer is enabled by checking the Timer 1 box at the bottom of the HOME configuration screen.

The screenshot shows the 'HOME Configuration Page' with a dark background. A yellow header reads 'HOME Configuration Page'. Below it, a section titled 'Advanced' contains a list of options: 'Output Relay Override' (unchecked with a green question mark icon), 'Timer 1 08:15 AM - 09:15AM(Mon Wed Fri)' (checked and highlighted with a yellow border), 'Timer 2 08:15 AM - 10:15AM(Mon)' (unchecked), 'Timer 3 08:15 AM - 10:15AM(Mon)' (unchecked), and 'Timer 4 08:15 AM - 10:15AM(Mon)' (unchecked). A red arrow points from the text above to the 'Timer 1' option.

APPENDIX A | RELAY SWITCH OPTION

HYPER-ALERTS™

Hyper-Alerts™ can be configured to activate at a given speed using the alert settings in the **HOME** configuration screen.

In the example shown, **Beacon Mode** is enabled for Alert 2. If a car is traveling over 35 MPH, the Alert 2 settings take over and the Hyper-Alerts™ will activate.

Display Configuration

Display Enabled:

Speed Limit: 25 ?

Minimum Display Speed: 5 ?

Maximum Display Speed: 55 ?

Over Maximum Behavior: Dashes Blank

Alert 1

Alert 1 Speed: 25

Display Behavior:

- On Steady
- Flash Fast
- Flash Slow
- Flash MUTCD

Display Content:

- Vehicle Speed
- SlowDown
- TooFast

Accessories:

- Unlock Strobes
- Output Relays

Alert 2

Alert 2 Speed: 35

Display Behavior:

- On Steady
- Flash Fast
- Flash Slow
- Flash MUTCD

Display Content:

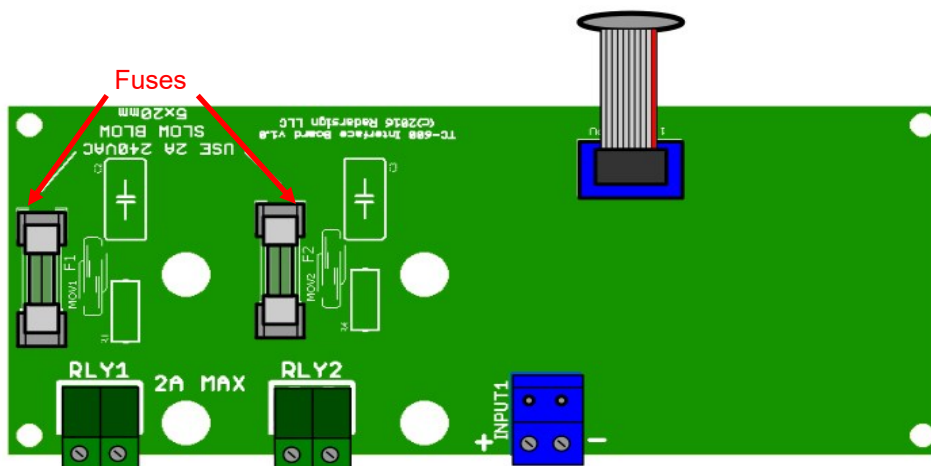
- Vehicle Speed
- SlowDown
- TooFast

Accessories:

- Unlock Strobes
- Output Relays
 - Beacon Mode ?
 - Output #1 Closed
 - Output #2 Closed

SERVICING THE INTERFACE BOARD

The only user serviceable parts on the Interface board are the output relay fuses. If a wiring short, or some other event occurs causing the fuses to blow, replace with any standard 5 x 20 mm 240 VAC (or greater), 2A, slow-blow fuse (Part number **5ST 2-R** or equivalent).





Radarsign, LLC provides the following warranty for its traffic calming systems whether sold directly by Radarsign or by an authorized Radarsign distributor.

LIMITED PRODUCT WARRANTY Radarsign, LLC (“we” or “us” or “our”) warrants that our traffic calming system (“Product”) is new and free from defects in materials and workmanship to the original purchaser (end user) (“Purchaser”) (the “Product Warranty”) for a period of two (2) years from the date of shipment (“Warranty Period”), regardless of whether such Product was purchased from us or by one of our authorized distributors. Our responsibility for defective Product is limited to repair, replacement or refund as described below in this Product Warranty statement. The above-referenced Warranty Period is inapplicable to TC-400 batteries which we warrant for a period of one (1) year.

Purchaser acknowledges this Product Warranty does not cover damage to a Product resulting from (a) accident, malicious abuse, theft, vandalism, impact with a foreign object or act of God; (b) unauthorized modification of the Product, (c) failure to comply with the site selection, installation, operation, maintenance, transportation and/or storage instructions and recommendations, as published in the Product Installation Manual made available at the Customer Resource Center* (<https://www.radarsign.com/customer-resource-center/>); (d) removal or relocation of the Product; (e) external electrical work to the Product, virus/hacker activity, and external computer errors; and (f) improper solar panel installation or improper use of battery charging equipment.

To obtain warranty service, the Purchaser must first call us for a Return Material Authorization (“RMA”) number; then return the Product to us for repair or replacement. Claims made under this Product Warranty will only be honored if we are notified of failure within the Warranty Period, Purchaser provides information reasonably requested by us, and we are permitted to verify the cause of the Product failure.

Purchaser shall prepay shipping charges for Products returned to us. We will pay for return of the Products to Purchasers located in countries in North America. Purchasers of Products from countries outside of North America shall pay all shipping charges, duties, and taxes for Products returned to us for warranty repair or replacement and return of such repaired or replaced Products to Purchaser.

The Warranty Period for replacement parts is the longer of 90 days or the remainder of the initial warranty period.

Within ninety (90) days of receipt, should the Product fail for any reason other than damage due to Purchaser negligence, acts of God or vandalism, we will bear shipping costs for depot service both to and from the repair facility for Products sold with a United States shipping address. After 90 days, the Purchaser is responsible for inbound shipping. We will pay for return shipping to the customer for the entire Warranty Period if Purchaser is located within North America.

EXCEPT FOR THE WARRANTY SET FORTH IN THIS LIMITED WARRANTY AGREEMENT, NEITHER WE NOR ANY PERSON ON OUR BEHALF HAS MADE OR MAKES ANY EXPRESS OR IMPLIED REPRESENTATION OR WARRANTY WHATSOEVER, EITHER ORAL OR WRITTEN, INCLUDING ANY WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, TITLE, NON-INFRINGEMENT OR PERFORMANCE OF GOODS OR PRODUCTS TO STANDARDS SPECIFIC IN THE COUNTRY OF IMPORT, WHETHER ARISING BY LAW, COURSE OF DEALING, COURSE OF PERFORMANCE, USAGE OF TRADE OR OTHERWISE, ALL OF WHICH ARE EXPRESSLY DISCLAIMED; WE ASSUME NO RESPONSIBILITY OR LIABILITY WHATSOEVER FOR THE PERFORMANCE OF THE PRODUCT OR THE ADEQUACY OF ANY SPECIFICATION OR DESIGN PROVIDED TO US BY OR ON BEHALF OF PURCHASERS; PURCHASER ACKNOWLEDGES THAT IT HAS NOT RELIED UPON ANY REPRESENTATION OR WARRANTY MADE BY US, OR ANY OTHER PERSON ON OUR BEHALF, EXCEPT AS EXPRESSLY PROVIDED IN THIS LIMITED WARRANTY AGREEMENT. Some states or provinces do not allow limitations on how long an implied warranty lasts, so the above limitation or exclusion may not apply to you.

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