

Installation Guide and Users Manual

Traffic Guardian speed awareness sign

SV12

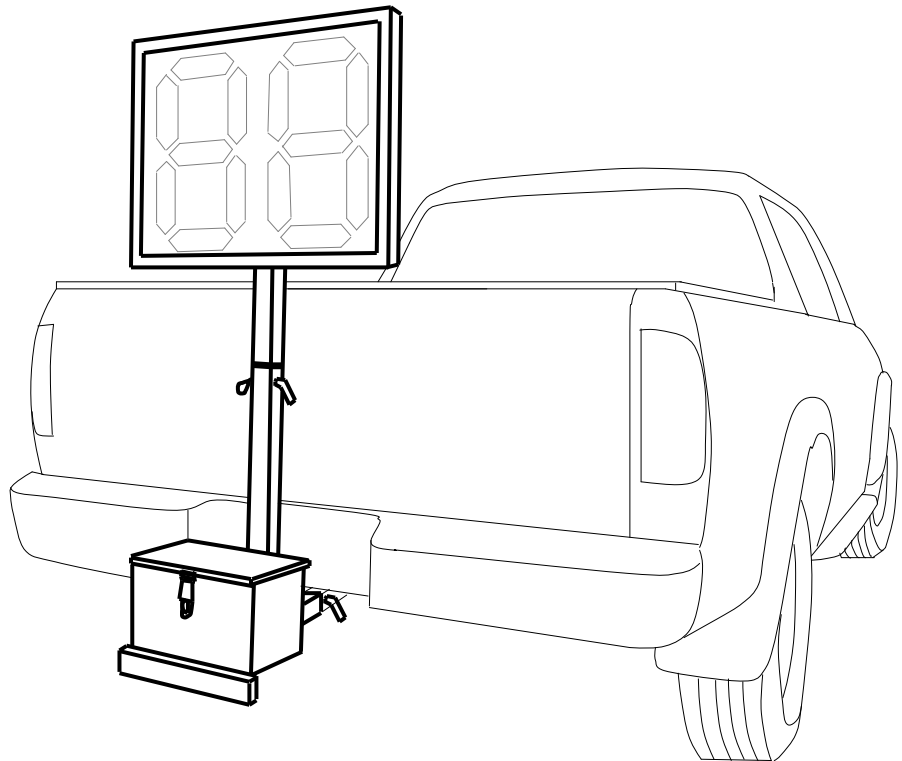
SV12S

SV18

SV18S

Options:

Battery power



If you have any questions or experience any difficulty operating your SR Products product, contact SR Products Inc. directly.

All warranty information is located at our offices; therefore it is important that you contact us, not your retailer. SR Products, signs are thoroughly tested and inspected prior to shipment, and most issues can be resolved with a phone call. However mishaps do occur, so be sure to fill out and return the warranty card, as any product return is subject to verification of proper return authorization. Information and authorization number may be obtained by writing or calling our offices.

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1. Safety Information

We provide important safety information and warnings to assist you understanding and avoiding potential harm to yourself and possible damage to the equipment. Although we have included many potential hazards you may encounter when setting up, maintaining and using the equipment, we cannot predict all of the possible hazards that could be encountered and our safety information should not be considered all inclusive and not be a substitute for your good judgment and experience.

Please read and observe all safety information and instructions within this manual prior to using this equipment

Safety messages provide information regarding potential hazards that can cause personal injury to you and others, and are shown in this manual where applicable in the form described below:



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

CAUTION indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury and/or property damage.

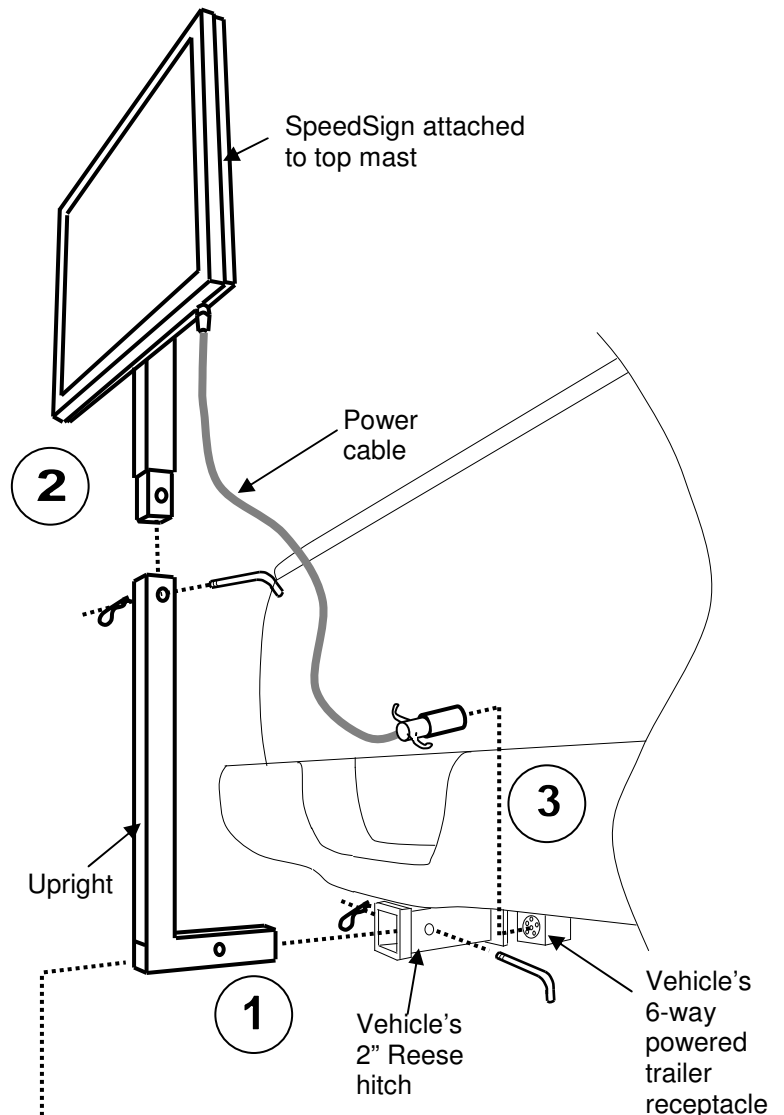
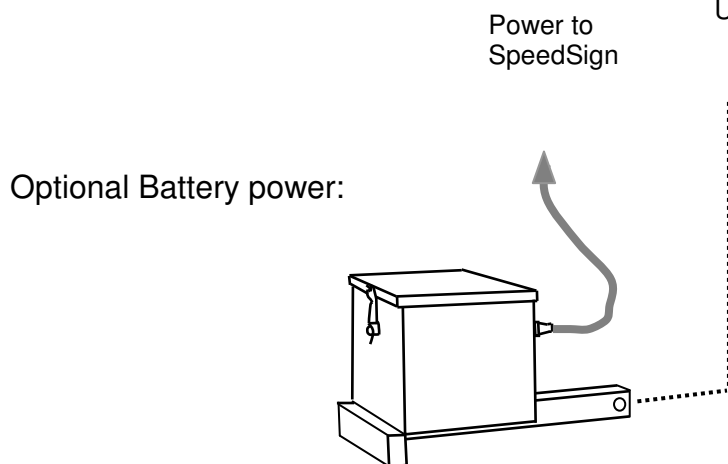
2. Hitch Mount Assembly

The SpeedSign is supplied attached to the top mast.

The steps to deploy the SpeedSign are:

1. Insert the Upright into the 2" Reese hitch, and secure with the pin and retainer.
2. Insert SpeedSign top mast into upright and secure with the pin and retainer.
3. Connect the Power cable to the SpeedSign and your 6-way trailer power and lights receptacle.

When power is connected, make sure the SpeedSign performs the power up sequence as described in the Testing section.



CAUTION

Avoid heavy lifting and potential back damage!
Always separate battery box and top mast/sign assembly from upright when storing.

The battery power box slides into the upright as shown.
The Reese pin captures both the upright and battery box.



WARNING

Burn or acid injury could result from exploding batteries. Only use the supplied charger, and Keep battery box open when charging the battery. Only charge when temperature is between -4 degF to 122 deg F (-20 to 50 degC).

3. Power up and Test the Speed Sign

Connect the power cable to your trailer plug power. The ON/OFF power switch is located on the bottom right side of the display.

On power up the display should show 88, and a number which represents the source voltage. For S models that have the SLOW DOWN text, this will also be displayed on power up. Check that all characters display properly (i.e. all LED's are working).

Move your hand towards the display (at least 5 mph at about 4 feet away) the display should show 5 or more (the faster you move your hand, the higher the speed) the default units are MPH.

If you have any problem with the power up test, check the power cord connections and if using vehicle power, make sure the 12VDC outlet is powered.

4. Settings / Program control

You can program the speed settings using the Manual Controller or with a PC/laptop.

You will initially want to set up advanced features of the sign using a computer and the SpeedSign control program as described in 4.2.

After the sign has been programmed with your global settings, section 4.1 describes manual sign control for setting the speed limits and flash warnings and enable / disable the timer function.

4.1 Manual control box:

The Manual control is located in the Document / Accessory package supplied with the SpeedSign. Connect the Data cable from the control box to the Data jack on the bottom of the SpeedSign.

Power the SpeedSign up.

This Manual control provides ready access to the following commonly used settings:

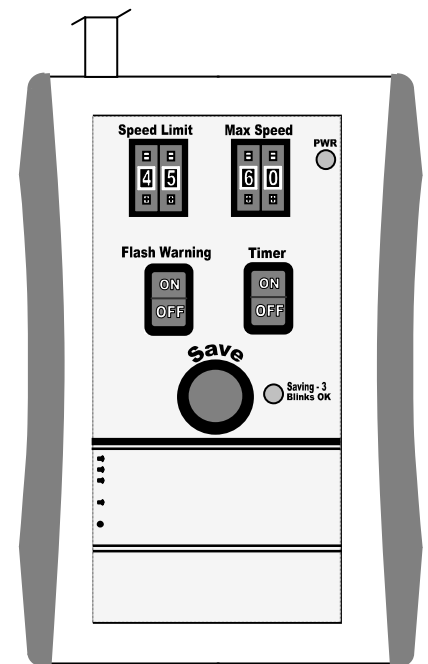
1. Speed Limit: Press the + or – buttons to select the desired speed. The limit is the speed at which the sign can flash a warning when exceeded. Typically this would be set to the posted speed limit.

2. Speed Max: Press the + or – buttons to select the desired speed. Speeds above this setting will not be displayed. NOTE: Some states require speed signs to not display speeds that are over the posted limit by a certain amount. The Speed Max setting should be used in accordance with these regulations.

3. Flash Warning: Enable or disable the flash warning. When enabled, the sign will flash when a speed exceeds the set speed limit.

(Optional) Timer: Enable or disable the timer function. When enabled the sign will turn on and off at the programmed scheduled times you set using the PC. Disabled, the sign will default to ON and function as normal.

Save: Press the Save button after changing any setting(s) to load the changes to the sign. Upon a successful save, the light to the right of the Save button will Blink 3 times. If the settings are not successfully saved the sign will function based on the settings shown on the control box.



4.2 PC control

The PC Sign control program provides full access to all the radar speed signs capabilities.

Computer requirements: Windows with XP or later operating system.

Installing the Speed Sign Control program:

Insert the SpeedSign Control CD supplied with your radar speed sign in your computer. If the CD does not “auto-launch” in a few seconds, browse to your CD drive and open (double click) the file name “SpeedSignInstallerVx.x.exe”.

The program install wizard will prompt you for installation on your computer.

We recommend you use the default settings during program installation.

Once installed, you will see the SpeedSign Control program icon on your desktop.



Sign Control

Before starting the software, you will need to connect the Speed Sign to your Windows computer:

- Locate the USB cable supplied in the Document / Accessory package, and connect between your PC or laptop and the USB jack on the bottom of the SpeedSign.
- Power the SpeedSign up. (see section 3)
- Double click the Speed sign icon to start the program.
- At the bottom left in the program window, press the “Find” button. The program will detect the SpeedSign and you will be prompt to select the Speed sign you want to set up using the “SpeedSign list” pull down list. *NOTE: With only one SpeedSign connected, there will only be one selection from the list.*

Once you have selected the SpeedSign, the program’s settings windows will populate with the current SpeedSign settings.

In General, you change the settings as needed using the up-down control, then save these settings to the SpeedSign.

Complete Instructions for using the sign control program are available from the program’s “Help” pull down menu.

5. Radar Properties

The Radar and antenna are “directional” in that only vehicles approaching the face of the sign will display a speed.

The angle between a perpendicular line from the display to the line an on-coming vehicle is traveling will affect the registered speed. This is called the cosine error and speeds will be displayed less than their actual speed by multiplying the cosine of the angle by the actual speed. The distance range of all microwave detectors depends to a large extent on the reflection properties of the measured objects and interference properties of nearby surrounding objects.

The following properties can be expected:

- Vehicles that appear larger and flatter to the microwave beam axis provide a longer radar detection range.
- A less absorbing and scattering reflective surface results in longer range detection.
- As more objects obscure the radar measurement beam the detection zone will become shorter (diffraction scattering, foliage losses, shadow losses and so on).
- Influence by weather, rain and snow lead to absorption losses at the radar detector decreasing the effective range.

Depending upon vehicle type and reflective properties, the typical passenger car will have a detection range of 600 to 800 feet with the signs “long” range setting. For trucks, the distance range is about 50% longer due to the increased reflection area. For motorcycles, distance range is reduced by about 50%.

It is recommended that the Range be set based on the anticipated speed of the traffic. Slow speed limits (i.e under 25MPH) should have a short range setting so as not to display speeds/warnings of possible faster traffic before the imposed speed limit. Mid range setting should be used for speed limits in the 25 to 45MPH speeds, and Longer range setting should be selected when the speed limits are above 45 MPH so as to give maximum warning indication time for violators of the speed limit. Table 1 provides some reaction times vs. speed / distances information to assist in selecting the range setting based on the anticipated vehicle speeds.

TABLE 1: warning times (in Seconds) based on vehicle speed and range.

	5 MPH	10 MPH	20 MPH	30 MPH	40 MPH	50 MPH	60 MPH	70 MPH
100 FT	13.6	6.8	3.4	2.3	1.7	1.4	1.1	1.0
500 FT	68.2	34.1	17.0	11.4	8.5	6.8	5.7	4.9
1000 FT	136.4	68.2	34.1	22.7	17.0	13.6	11.4	9.7

6. Specifications for the Traffic Guardian SV Radar Speed Sign

Radar Speed Display		
	SV12x	SV18x
Display Type	2 digit, 7 Segment yellow LED	
Character height	12 inches	18 inches
Readable distance	600 feet	1,000 feet
Dimensions	21-1/8" W x 15-3/4" H x 2" D	26-1/2" W x 21-1/2" H x 2 D
Weight	14 pounds	20 pounds
Voltage	12VDC nominal (Minimum 10.0 VDC to Maximum 16.6 VDC)	
Max power	28 Watts	40 Watts
Frame material	Aluminum	
Frame finish	Heat cure Powder coat	
Lens material	1/4" thick, UV protected Impact resistant Lexan tinted for anti-glare	
Radar	K-Band dual mixer with planar antenna 12 x 24 deg	
Mounted height	50" from center of hitch	55" from center of hitch
Hitch connection	Reese , 2" square	
Power plug	Standard trailer, 6 way circular plug.	

Battery option	
Dimensions	12"W x 9"H x 8"D lockable
Weight	Battery, 13lbs / case with battery 25lbs
Battery	18Ah, SLA battery
Charger	Smart charger included, 5A max output.
Battery life	Typical: 12 hours for the SV12x and 8 hrs for the SV18x

7. Limited Two Year Warranty

The TrafficGuardian Radar Speed Sign comes with a factory two-year warranty on all parts and labor for workmanship and premature component failure. Warranty shipment costs are not pre-paid. This warranty does not include repair of physical damage from misuse or vandalism. This product is warranted to be free of manufacturing defects for a 2-year period from the original date of purchase. The warranty does not include damage to the product resulting from accident, misuse, improper installation, operation, or unauthorized repair or alteration. Opening the product case will void this warranty. If the product should become defective within the warranty period, SR Products Inc., will repair or replace it at our option, free of charge. You must fill out and return the product registration to ensure warranty coverage failure to fill out registration form may void warranty. To obtain warranty service, first contact SR Products warranty repair department, then upon approval send the unit at purchaser's cost to:

SR Products Inc., 7379 S. Suncoast Blvd. Homosassa, FL 34446

Return shipping to purchaser will be at SR Products Inc.'s, cost inside the 48 continental United States, international shipping is the sole responsibility of the purchaser.

The consumer's sole remedy shall be such repair or replacement as is expressly provided above, and we shall in no event be liable for any incidental or consequential damages arising out of the use or inability to use this product for any purpose whatsoever. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you. This warranty gives you specific rights. You may also have other rights, which vary, from state to state.

Unauthorized returns will be refused.