



Traffic Safety Corporation  
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## TS-SR-50 Rotatable, Stainless Steel LED Road Stud

### General Description

Our TS-SR-50 stainless steel road stud features a durable, low maintenance design with outstanding visibility during the day and at night.

The TS-SR-50 is typically used in crosswalk applications, but it also can be used to mark school zones and rail-road crossings, lane control for bridges and tunnels, wrong way warning, and toll booth or toll way lead-on applications.

All In-Roadway Warning Lighting System components are available from TSC. A typical installation would include a set of road studs, a control system, one or more activation devices such as a pedestrian push button station, and flashing LED crossing signs.

### Features

- Robust construction, suitable for harsh conditions.
- Snowplow resistant.
- Ability to rotate after installation.
- Only .16" (4mm) above road surface.
- Highbright LEDs (1W) with internal lens - used for maximum brightness.
- Specially developed heat sink to increase LED lifetime.
- Outstanding visibility during the day and at night.
- Suitable for applications in crosswalks, school zones, bridges and tunnels.
- Low maintenance, 100% waterproof.
- Easy replacement: base (fixed in the pavement), main body (removable).
- Polycarbonate window protects LEDs.
- Optional: use different LED colors on each side.

### Specifications

#### Modes of Operation:

- Always On (other modes of operation like flashing or sequential are available with external controller)

#### LED Configuration:

- Unidirectional or bidirectional



*Rotate after installation*

#### Electrical:

- Power Supply: 24V DC
- Current Consumption: 200 mA
- Power Cable: Wire 1 (+), Wire 2 (-), Wire 3 (PWM)
- Working Temperature: -13°F to +185°F (-25°C to +85°C)

#### Optical:

- LED Number:  
2 or 4 LEDs (Unidirectional)  
2 + 2 LEDs (Bidirectional)
- LED Type: High power (1W)
- LED Colors: White, Red, Yellow, Green, Blue
- Viewing Angle: 16°

#### Mechanical:

- Main Body: Stainless Steel League
- Base: Aluminium
- Mechanical Resistance: 160 tons
- Weight: 4.85 lb. (2.2 kg)
- Protection Index: IP68, IK10
- Dimensions: 5.67" (144mm) diameter x 3.74" (95mm) height

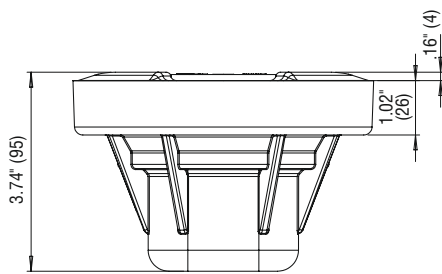
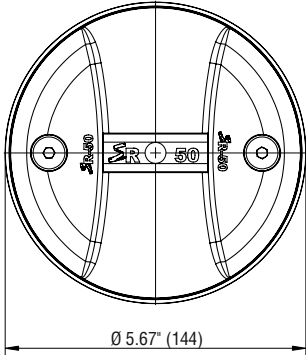
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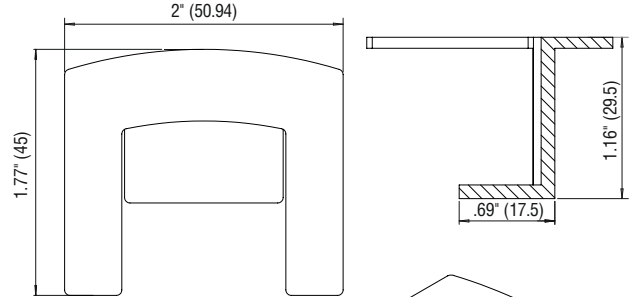
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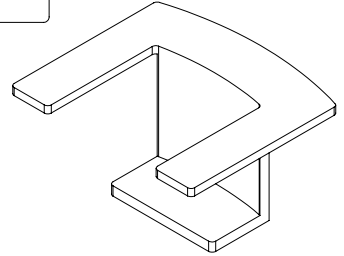
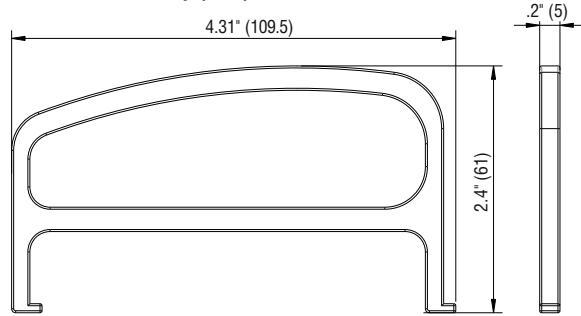
## Dimensions (mm)



## Installation Accessory (mm)



## Rotation Accessory (mm)



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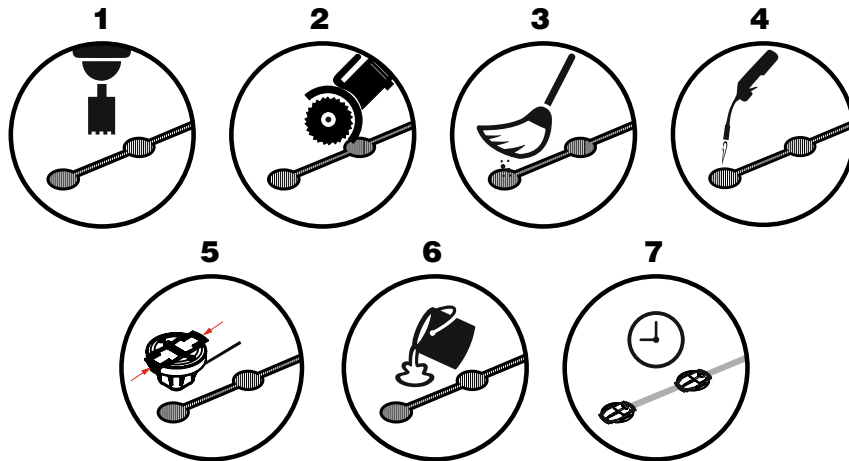
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**TS-SR-50**  
**Rotatable, Stainless Steel**  
**LED Road Stud**

**Installation Procedure**



Personal protective equipment must be worn during installation process.



- 1** After deciding the location where the stud will be installed, drill a hole having a diameter between 5.9"-6.1" (151-155mm) and 3.94" (100mm) deep.
- 2** Using a disk cutter, open a connection between the holes with .59" (15mm) width and 2.36" (60mm) depth.
- 3** Brush any debris or dust from the hole resulting from drilling.
- 4** Dry the hole with a blowtorch to remove any moisture that may compromise the adhesion and effectiveness of the grout.
- 5** Attach the installation accessory to each road stud that will be installed. The accessory will help to align and keep the road stud in place during the grout drying time. This accessory will be removed at the end of the installation.
- 6** Pour  $\pm 5.5$  lb. ( $\pm 2.5$  kg) of ULTRAFLOW 4000/8 grout in the hole and insert the stud checking that the LEDs are facing the correct direction. Remove any excess grout.
- 7** The grout drying time may change depending on weather conditions.

After the grout has dried, the top part of the installation accessory should be broken and removed.

Consult the grout data sheet for more information.

**Changing or not completing the described installation process can result in suspension of warranty.**

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## TS-SR-50 Rotatable, Stainless Steel LED Road Stud

### Unidirectional 2 POWER LEDS

#### Models

TS-SR-50-U2W-1G  
 TS-SR-50-U2R-1G  
 TS-SR-50-U2Y-1G  
 TS-SR-50-U2B-1G  
 TS-SR-50-U2G-1G

Hardwired Road Stud / 3mt Cable Inc. / 2 LED / Snowplow Resist. / 1 Cable Gland  
 "  
 "  
 "  
 "

**Color**  
 White  
 Red  
 Yellow  
 Blue  
 Green



### Unidirectional 4 POWER LEDS

#### Models

TS-SR-50-U4WW-1G  
 TS-SR-50-U4RR-1G  
 TS-SR-50-U4YY-1G  
 TS-SR-50-U4BB-1G  
 TS-SR-50-U4GG-1G

Hardwired Road Stud / 3mt Cable Inc. / 4 LED / Snowplow Resist. / 1 Cable Gland  
 "  
 "  
 "  
 "

**Color**  
 White / White  
 Red / Red  
 Yellow / Yellow  
 Blue / Blue  
 Green / Green



### Bidirectional 2+2 POWER LEDS

#### Models

TS-SR-50-B4WW-1G  
 TS-SR-50-B4RR-1G  
 TS-SR-50-B4YY-1G  
 TS-SR-50-B4BB-1G  
 TS-SR-50-B4GG-1G

Hardwired Road Stud / 3mt Cable Inc. / 4 LED / Snowplow Resist. / 1 Cable Gland  
 "  
 "  
 "  
 "

**Color**  
 White / White  
 Red / Red  
 Yellow / Yellow  
 Blue / Blue  
 Green / Green

OBS.:

Cable standard (included): 0.75mm<sup>2</sup> wire section

**Different cable layouts and length should be requested upon order!**

Standard mode: Always ON. For flashing or sequential mode, a microcontroller is required.

Cable Gland:

TS-SR-XX-XXX(X)-2G

2 Cable Glands

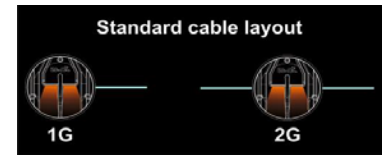
Color e.g.:

TS-SR-XX-XXWR-XX

Side 1 - White / Side 2 - Red

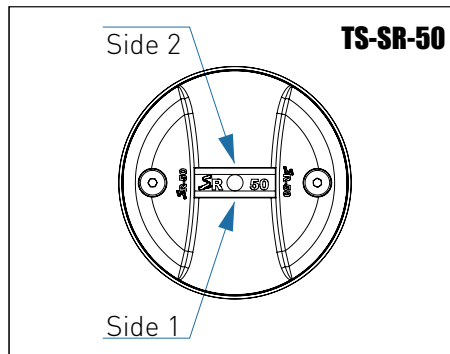
Color combinations:

**WR, WY, WB, WG, RY, RB, RG, YB, YG, BG**



### LED Configuration

One road stud with two or more LED colors



**Visit our web site: [www.xwalk.com](http://www.xwalk.com)**

# TS-SR-50 Cable Layout

