

# TS-SR-50/NR

## Stainless Steel

## LED Road Stud

### General Description

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

The TS-SR-50/NR is typically used in crosswalk applications, but it also can be used to mark school zones and rail-road crossings, lane control for bridges, tunnels and parking structures, 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
- Low maintenance, 100% waterproof
- High mechanical resistance: up to 160 tons, suitable for regular traffic areas of heavy vehicles
- High power LEDs (1W) with internal lens - used for maximum brightness
- Outstanding visibility during the day and at night
- Many LED color options for all types of applications
- Suitable for applications in crosswalks, school zones, bridges, tunnels, parking structures
- Only .16" (4mm) above road surface
- Easy replacement: base (fixed in the pavement), main body (removable)
- Polycarbonate window protects LEDs
- Optional: use different LED colors on each side

### Specifications

#### Versions

- TS-SR-50-NR: Non-Rotatable Version (Standard)
- TS-SR-50: Rotatable Version

#### Modes of Operation

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

#### LED Configuration

- Uni-directional or bi-directional

#### Electrical Features

- Power Supply: 24V DC
- Maximum Current Consumption: 280 mA



- Power Cable: Wire 1 (+) | Wire 2 (-)
- Operation Temperature: -13°F to +185°F (-25°C to +85°C)
- Cable Type: 2 x 1.5mm

#### Optical Features

- LED Quantity: 2 or 4 LEDs (Uni-directional), 2+2 LEDs (Bi-directional)
- LED Type: High power (1W)
- LED Colors: Cool/Warm White, Red, Amber, Green, Blue
- LED Viewing Angle: 16°

#### Mechanical Features

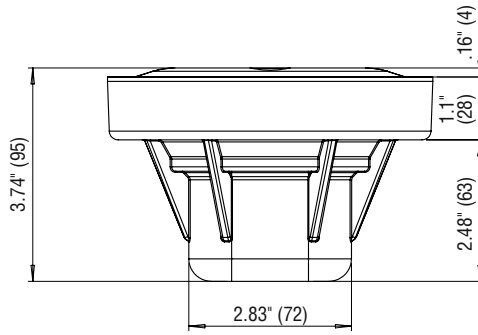
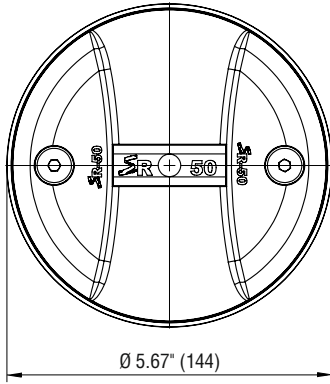
- Top Material: Hard stainless steel league with good corrosion resistance and polycarbonate window
- Bottom Material: Aluminum
- Mechanical Resistance: up to 160 tons
- Weight: 4.85 lb. (2.2 kg)
- Rising from Surface: .16" (4mm)
- Dimensions: Ø5.67" (144mm) x 3.74" (95mm)

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+1.916.394.9884 Worldwide

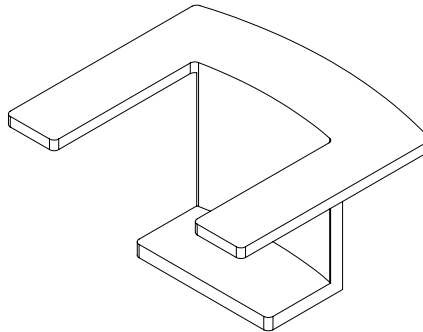
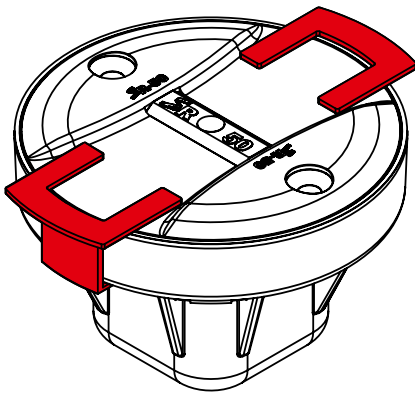
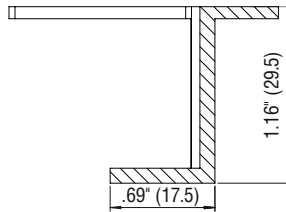
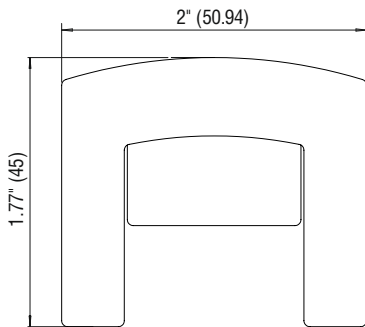
xwalk.com  
sales@xwalk.com

Traffic Safety Corp., 2708 47th Ave.  
Sacramento, CA, 95822, USA

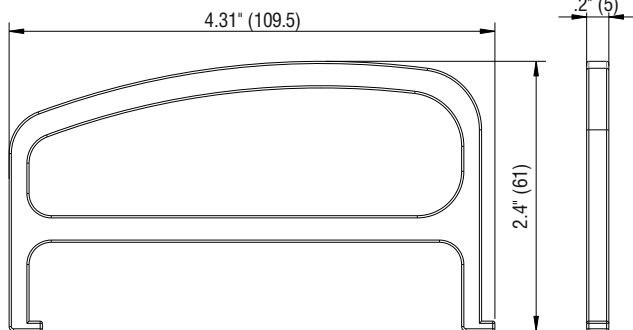
**Dimensions (mm)**



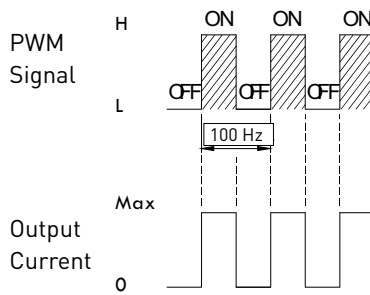
**Installation Accessory (mm)**



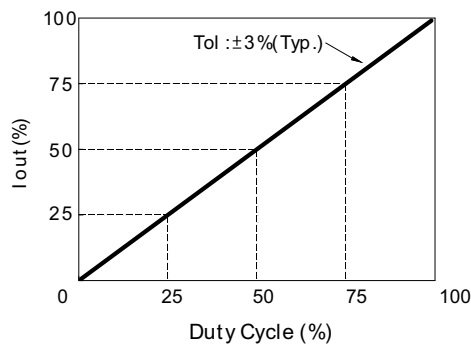
**Rotation Accessory (mm)**



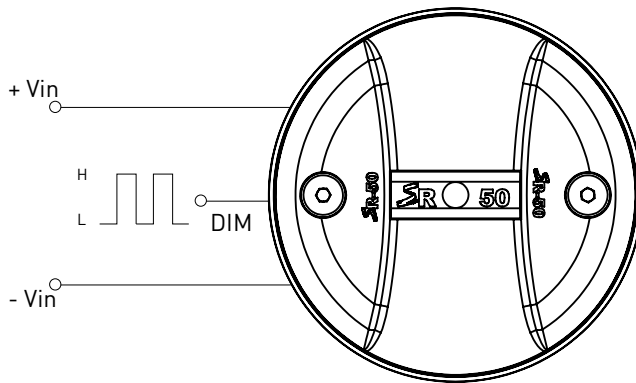
# PWM Dimming Control



During PWM dimming operation, the output current will change to PWM style



## STANDARD APPLICATION

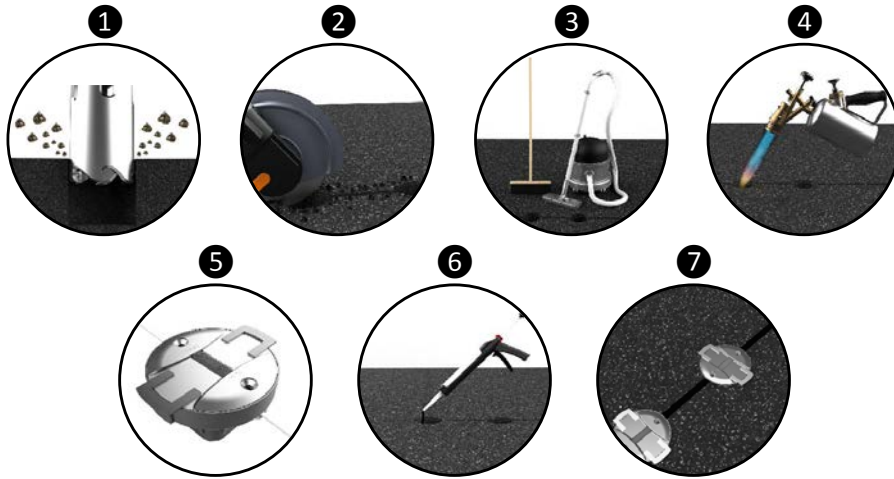


<b>PWM DIMMING &amp; ON/OFF CONTROL</b>	REMOTE ON/OFF	Leave open if not use Power ON with dimming: DIM ~ H >2.5 ~ 6VDC or open circuit Power OFF : DIM ~ H < 0.8VDC or short to -Vin
	PWM FREQUENCY	100Hz
	QUIESCENT INPUT CURRENT IN SHUTDOWN MODE(max.)	1mA at PWM dimming OFF and 24VDC input

### 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 glue.
- 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 glue drying time. This accessory will be removed at the end of the installation.
- 6** Pour  $\pm 5.5$  lb. ( $\pm 2.5$  kg) of SikaFlow-648 glue in the hole and insert the stud checking that the LEDs are facing the correct direction. Remove any excess glue.  
Alternative Glues: FAPLISA F-3976, FAPLISA F-3096R, TRIFLEX CRYL R 238
- 7** The glue drying time may change depending on weather conditions.  
After the glue has dried, the top part of the installation accessory should be broken and removed.  
Consult the glue data sheet for more information.

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

# TS-SR-50/NR Cable Layout

