

 Traffic Safety Corporation

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# TS-SR-T24 Tunnel Guidance LED Road Stud

## **General Description**

Our TS-SR-T24 tunnel guidance road stud features a durable, low maintenance design with outstanding visibility during the day and at night.

### Features

- Road stud specially developed for tunnels.
- Robust construction.
- Outstanding visibility during the day and at night.
- Connect multiple road studs in series circuit.
- Low maintenance, 100% waterproof.
- Easy replacement.
- Low power consumption.
- Up to .62 mile (1 km) visibility distance due to high intensity LEDs.
- Many LED color options available for a wide variety of applications.

### Specifications

#### **Modes of Operation:**

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

#### **LED Configuration:**

- · Unidirectional or bidirectional
- Unidirectional or bidirectional with 2 parallel lines on top
- Unidirectional or bidirectional with arrow on top

#### **Electrical:**

Power Supply	24V DC 230V AC		
Current Consumption	Unidirectional: 40 mA	Unidirectional: 10 mA AC 1	
	Bidirectional: 80 mA	Bidirectional: 20 mA AC 1	
	Light on Top: 40 mA	Light on Top: 10 mA AC <sup>1</sup>	
Power Cable	Brown Wire (+) Blue Wire (–)	Brown Wire (Line)	
		Blue Wire (Neutral)	
		Yellow/Green (Earth)	
Working Temperature	-13°F to +185°F (-25°C to +85°C)		

1 10mA AC must be added to total power consumption

#### **Optical:**

- LED Number:
  - 12 LEDs (unidirectional)
  - 24 LEDs (bidirectional)
  - 9 LEDs (arrow on top)
  - 10 LEDs (parallel lines on top)





Side 1







- Side 2
- LED Type: 5mm
- LED Colors: White, Warm White, Red, Yellow, Green, Blue
- Viewing Angle: 30° or 45°

#### Mechanical:

- Material: Anodized and Lacquered Aluminum
- LED polycarbonate lens protection
- Weight: 1.2 lb. (.55 kg)
- Protection Index: IP68, IK10
- Dimensions: 3.46" (88mm) length x 3.94" (100mm) width x 1.26" (32mm) height

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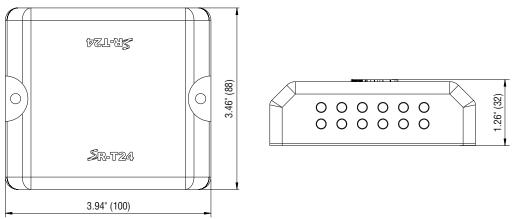
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TS-SR-T24 Tunnel Guidance LED Road Stud

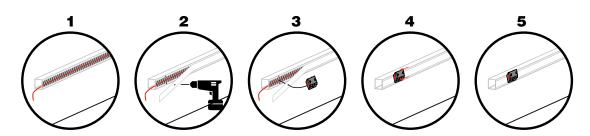
#### Dimensions (mm)



#### **Installation Procedure**



Personal protective equipment must be worn during installation process.



TS-SR-T24 rail installation example in trunking

- **1** Install the trunking in the wall and pass the power cable inside.
- 2 With a drill, make a hole to pass the cable and two holes for the fixing screws.
- **3** Pass the TS-SR-T24 cable to the hole and connect it to the power cable.
- 4 Hold in place the TS-SR-T24 with two screws M4 x 25 or M4 x 20.
- **5** Power the stud to check that everything is operational.

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

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## TS-SR-T24 Tunnel Guidance LED Road Stud

INSTRUCTABLE TO STRUCT STRU	1	Unidirectional 12 LEDS Models TS-SR-T24-U12W TS-SR-T24-U12R TS-SR-T24-U12Y TS-SR-T24-U12B TS-SR-T24-U12G Bidirectional 12+12 LEDS Models TS-SR-T24-B24WW TS-SR-T24-B24WW TS-SR-T24-B24RR TS-SR-T24-B24PR	Description Hardwired Stud / 1mt Cable Included / 12 LEDs / 24Vdc " " " " " " " " " " " " " " " " " " "	Color White Red Yellow Blue Green Color White / White Red / Red Yellow / Yellow Blue / Blue		
Bidirectional 12+12 LEDS with 1 Arrow on TOP ModelsDescriptionColorTS-SR-T24-B24WW-AW TS-SR-T24-B24WY-AY TS-SR-T24-B24WY-AS TS-SR-T24-B24WY-AS TS-SR-T24-B24WY-AS TS-SR-T24-B24WG-AG**Bidirectional 12+12 LEDS with 2 Lines on TOP Models**Blue / Blue Green / GreenBidirectional 12+12 LEDS with 2 Lines on TOP Models***TS-SR-T24-B24WW-LW TS-SR-T24-SXXX(X)/(XX)/(2X)/23WV TS-SR-T24-SXXX(X)/(XX)/(2X)/23WV TS-SR-T24-XXXX(X)/(XX)/23WV TS-SR-T24-XXXX(X)/(XX)/23WV TS-SR-T24-XXXX(X)/(XX)/23WV TS-SR-T24-XXXX(X)/(XX)/23WV TS-SR-T24-XXXX(X)/(XX)/23WV TS-SR-T24-XXXX(X)/(XX)/23WV TS-SR-T24-XXXX(X)/(XX)/23WV TS-SR-T24-XXXX(X)/(XX)/23WV TS-SR-T24-XXXX(X)/(XX)/23WV 		TS-SR-T24-B24BB TS-SR-T24-B24GG				
ModelsDescriptionColorTS-SR-T24-B24WW-AW TS-SR-T24-B24YY-AP TS-SR-T24-B24YY-AP TS-SR-T24-B24YY-AP 		15 511 121 22100				
TS-SR-T24-B24WW-AW TS-SR-T24-B24RR-AR TS-SR-T24-B24RR-AR TS-SR-T24-B24RR-AR TS-SR-T24-B24RR-AR TS-SR-T24-B24BB-AB TS-SR-T24-B24BB-AB TS-SR-T24-B24GG-AGHardwired Stud / 1mt Cable Included / 24 LEDs / 1 Arrow on TOP / 24Vdc " " " " Blue / Blue Blue / Blue "						
TS-SR-T24-B24RR-AR"Red / RedTS-SR-T24-B24BB-AB""TS-SR-T24-B24BB-AB"TS-SR-T24-B24GG-AG"Bidirectional 12+12 LEDS with 2 Lines on TOPDescriptionModelsDescriptionTS-SR-T24-B24WW-LWHardwired Stud / 1mt Cable Included / 24 LEDs / 2 Lines on TOP / 24VdcWhite / WhiteTS-SR-T24-B24WW-LWHardwired Stud / 1mt Cable Included / 24 LEDs / 2 Lines on TOP / 24VdcWhite / WhiteTS-SR-T24-B24WW-LWHardwired Stud / 1mt Cable Included / 24 LEDs / 2 Lines on TOP / 24VdcWhite / White / WhiteTS-SR-T24-B24WW-LWHardwired Stud / 1mt Cable Included / 24 LEDs / 2 Lines on TOP / 24VdcWhite / White / WhiteTS-SR-T24-B24WW-LWHardwired Stud / 1mt Cable Included / 24 LEDs / 2 Lines on TOP / 24VdcWhite / White			1			
TS-SR-T24-B24YY-AY"Yellow / YellowTS-SR-T24-B24BB-AB"Blue / BlueTS-SR-T24-B24BB-AB"Blue / BlueTS-SR-T24-B24BG-AG"ColorModelsDescriptionColorTS-SR-T24-B24WW-LWHardwired Stud / 1mt Cable Included / 24 LEDs / 2 Lines on TOP / 24VdcWhite / WhiteTS-SR-T24-B24RV-LWHardwired Stud / 1mt Cable Included / 24 LEDs / 2 Lines on TOP / 24VdcWhite / WhiteTS-SR-T24-B24RV-LWHardwired Stud / 1mt Cable Included / 24 LEDs / 2 Lines on TOP / 24VdcWhite / WhiteTS-SR-T24-B24RP-LR""TS-SR-T24-B24RP-LB""TS-SR-T24-B24BB-LB""TS-SR-T24-B24BG-LG""Blue / BlueGreen / GreenOBS.:Cable standard (included): 0.75mm² wire section Standard mode: Always ON. For flashing or sequential mode, a microcontroller is required.Power supply option:TS-SR-T24-XXXX(X)-(XX)/12VTS-SR-T24-XXXX(X)-(XX)/12V12V Version 12V VersionProtection index:TS-SR-T24-XXXWRSide 1 - White / Side 2 - Red			Hardwired Stud / Imt Cable Included / 24 LEDS / I Arrow on TOP / 24 vdc			
TS-SR-T24-B24BB-AB TS-SR-T24-B24GG-AG"Blue / Blue Green / GreenBidirectional 12+12 LEDS with 2 Lines on TOP ModelsDescriptionColorTS-SR-T24-B24WW-LW TS-SR-T24-B24RR-LR TS-SR-T24-B24RR-LR TS-SR-T24-B24RB-LB TS-SR-T24-B24BB-LB TS-SR-T24-B24GG-LGDescriptionColorOBS.:Cable standard (included): 0.75mm² wire section Standard mode: Always ON. For flashing or sequential mode, a microcontroller is required.Blue / Blue Green / GreenPower supply option:TS-SR-T24-XXXX(X)-(XX)/230V TS-SR-T24-XXXX(X)-(XX)/12V TS-SR-T24-XXXX(X)-(XX)/12V Side 1 - White / Side 2 - RedSide 1 - White / Side 2 - Red			u .			
TS-SR-T24-B24GG-AG"Green / GreenBidirectional 12+12 LEDS with 2 Lines on TOP ModelsDescriptionColorTS-SR-T24-B24WW-LW TS-SR-T24-B24WR-LRHardwired Stud / 1mt Cable Included / 24 LEDs / 2 Lines on TOP / 24VdcWhite / White Red / Red "OBS.:Cable standard (included): 0.75mm² wire section Standard mode: Always ON. For flashing or sequential mode, a microcontroller is required.SecriptionPower supply option:TS-SR-T24-XXXX(X)-(XX)/230V TS-SR-T24-XXXX(X)-(XX)/L230V Version Lenses Version (IP68 / IK10)Ref. Example (Color):TS-SR-T24-XXXWRSide 1 - White / Side 2 - Red			u .			
ModelsDescriptionColorTS-SR-T24-B24WW-LW TS-SR-T24-B24RR-LR TS-SR-T24-B24RR-LR TS-SR-T24-B24RPLBHardwired Stud / 1mt Cable Included / 24 LEDs / 2 Lines on TOP / 24VdcWhite / White Red / Red Yellow / Yellow Blue / Blue TS-SR-T24-B24BB-LB TS-SR-T24-B24GG-LGOBS.:Cable standard (included): 0.75mm² wire section Standard mode: Always ON. For flashing or sequential mode, a microcontroller is required.Power supply option:TS-SR-T24-XXXX(x)-(XX)/230V TS-SR-T24-XXXX(x)-(XX)/12V230V Version 12V Version TS-SR-T24-XXXX(x)-(XX)/12VProtection index:TS-SR-T24-XXXX(x)-(XX)/12V TS-SR-T24-XXXX(x)-(XX)/12VLenses Version (IP68 / IK10)Ref. Example (Color):TS-SR-T24-XXXWRSide 1 - White / Side 2 - Red			u			
ModelsDescriptionColorTS-SR-T24-B24WW-LW TS-SR-T24-B24RR-LR TS-SR-T24-B24RR-LR TS-SR-T24-B24RPLBHardwired Stud / 1mt Cable Included / 24 LEDs / 2 Lines on TOP / 24VdcWhite / White Red / Red Yellow / Yellow Blue / Blue TS-SR-T24-B24BB-LB TS-SR-T24-B24GG-LGOBS.:Cable standard (included): 0.75mm² wire section Standard mode: Always ON. For flashing or sequential mode, a microcontroller is required.Power supply option:TS-SR-T24-XXXX(x)-(XX)/230V TS-SR-T24-XXXX(x)-(XX)/12V230V Version 12V Version TS-SR-T24-XXXX(x)-(XX)/12VProtection index:TS-SR-T24-XXXX(x)-(XX)/12V TS-SR-T24-XXXX(x)-(XX)/12VLenses Version (IP68 / IK10)Ref. Example (Color):TS-SR-T24-XXXWRSide 1 - White / Side 2 - Red		Bidiractional 12+12 LEDS with 2 Lines on TOD				
TS-SR-T24-B24WW-LW TS-SR-T24-B24RR-LR TS-SR-T24-B24RR-LR TS-SR-T24-B24YY-LY TS-SR-T24-B24BB-LB TS-SR-T24-B24GG-LGHardwired Stud / 1mt Cable Included / 24 LEDs / 2 Lines on TOP / 24VdcWhite / White Red / Red Yellow / Yellow Blue / Blue Green / GreenOBS.:Cable standard (included): 0.75mm² wire section Standard mode: Always ON. For flashing or sequential mode, a microcontroller is required.Power supply option:TS-SR-T24-XXX(X)-(XX)/230V TS-SR-T24-XXX(X)-(XX)/12V230V Version 12V Version TS-SR-T24-XXX(X)-(XX)/12VProtection index:TS-SR-T24-XXXX(X)-(XX)/LLenses Version (IP68 / IK10)Ref. Example (Color):TS-SR-T24-XXXWRSide 1 - White / Side 2 - Red				Color		
TS-SR-T24-B24RR-LR"Red / RedTS-SR-T24-B24YY-LY""TS-SR-T24-B24BB-LB"TS-SR-T24-B24GG-LG"OBS.:Cable standard (included): 0.75mm² wire section Standard mode: Always ON. For flashing or sequential mode, a microcontroller is required.Power supply option:TS-SR-T24-XXXX(X)-(XX)/230VTS-SR-T24-XXXX(X)-(XX)/12V230V Version TS-SR-T24-XXXX(X)-(XX)/12VProtection index:TS-SR-T24-XXXX(X)-(XX)/12VRef. Example (Color):TS-SR-T24-XXXWRSide 1 - White / Side 2 - Red						
TS-SR-T24-B24YY-LY"Yellow / YellowTS-SR-T24-B24BB-LB""Blue / BlueTS-SR-T24-B24GG-LG""Green / GreenOBS.:Cable standard (included): 0.75mm² wire section Standard mode: Always ON. For flashing or sequential mode, a microcontroller is required.Green / GreenPower supply option:TS-SR-T24-XXXX(X)-(XX)/230V230V Version 12V Version TS-SR-T24-XXXX(X)-(XX)/12V12V Version 12V VersionProtection index:TS-SR-T24-XXXX(X)-(XX)/LLenses Version (IP68 / IK10)Ref. Example (Color):TS-SR-T24-XXXWRSide 1 - White / Side 2 - Red						
IS-SR-124-B24BB-LB       "       Blue / Blue         TS-SR-T24-B24GG-LG       "       Green / Green         OBS.:       Cable standard (included): 0.75mm² wire section Standard mode: Always ON. For flashing or sequential mode, a microcontroller is required.       Standard mode: Always ON. For flashing or sequential mode, a microcontroller is required.         Power supply option:       TS-SR-T24-XXXX(X)-(XX)/230V       230V Version 12V Version         Protection index:       TS-SR-T24-XXXX(X)-(XX)/12V       12V Version         Ref. Example (Color):       TS-SR-T24-XXXWR       Side 1 - White / Side 2 - Red			"	Yellow / Yellow		
OBS.:       Cable standard (included): 0.75mm² wire section Standard mode: Always ON. For flashing or sequential mode, a microcontroller is required.         Power supply option:       TS-SR-T24-XXX(X)-(XX)/230V       230V Version TS-SR-T24-XXX(X)-(XX)/12V         Protection index:       TS-SR-T24-XXX(X)-(XX)/L       Lenses Version (IP68 / IK10)         Ref. Example (Color):       TS-SR-T24-XXXWR       Side 1 - White / Side 2 - Red		TS-SR-T24-B24BB-LB	u u	Blue / Blue		
Standard mode: Always ON. For flashing or sequential mode, a microcontroller is required.         Power supply option:       TS-SR-T24-XXX(X)-(XX)/230V       230V Version         TS-SR-T24-XXX(X)-(XX)/12V       12V Version         Protection index:       TS-SR-T24-XXX(X)-(XX)/L         Ref. Example (Color):       TS-SR-T24-XXXWR    Side 1 - White / Side 2 - Red		TS-SR-T24-B24GG-LG	"	Green / Green		
Standard mode: Always ON. For flashing or sequential mode, a microcontroller is required.         Power supply option:       TS-SR-T24-XXX(X)-(XX)/230V       230V Version         TS-SR-T24-XXX(X)-(XX)/12V       12V Version         Protection index:       TS-SR-T24-XXX(X)-(XX)/L       Lenses Version (IP68 / IK10)         Ref. Example (Color):       TS-SR-T24-XXXWR       Side 1 - White / Side 2 - Red	OBS.:	Cable standard (included): 0.75mm <sup>2</sup> wire section				
TS-SR-T24-XXXX(X)-(XX)/12V       12V Version         Protection index:       TS-SR-T24-XXXX(X)-(XX)/L         Lenses Version (IP68 / IK10)         Ref. Example (Color):       TS-SR-T24-XXXWR         Side 1 - White / Side 2 - Red						
TS-SR-T24-XXXX(X)-(XX)/12V       12V Version         Protection index:       TS-SR-T24-XXXX(X)-(XX)/L         Lenses Version (IP68 / IK10)         Ref. Example (Color):       TS-SR-T24-XXXWR         Side 1 - White / Side 2 - Red	Power supply option:	TS-SR-T24-XXXX(X)-(XX)/2.	30V 230V Version			
Ref. Example (Color):       TS-SR-T24-XXXWR       Side 1 - White / Side 2 - Red						
	Protection index:	TS-SR-T24-XXXX(X)-(XX)/L	Lenses Version (IP68 / IK10)			
	Ref. Example (Color):	TS-SR-T24-XXXWR	Side 1 - White / Side 2 - Red			
			WR, WY, WB, WG, RY, RB, RG, YB, YG, BG			

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