TS60-RRFB
LED Rectangular Rapid Flashing Beacons

General Description

The TS60-RRFB LED Rectangular Rapid Flashing Beacon System is designed to improve pedestrian safety at uncontrolled intersections and mid-block crosswalks by providing highly visible warnings to approaching drivers. Installed on both sides of the crosswalk beneath pedestrian crossing signage, the system uses flashing, high-intensity LED beacons to clearly alert motorists when pedestrians are present or preparing to cross.

Studies have shown that Rectangular Rapid Flashing Beacons (RRFBs) significantly increase driver yielding behavior at pedestrian crossings. The system offers flexible activation methods, including manual push-button operation or passive sensor-based devices such as photo-sensor bollards, providing intuitive operation and reliable performance in a wide range of pedestrian crossing environments.

System Components

- RRFB LED Rectangular Beacon (single- or double-sided)
- System Controller: AC-powered, or solar-powered (with integrated battery system and solar panel)
- Activation devices: push-buttons, push-button stations or sensor bollards

Applications

- Uncontrolled pedestrian crossings and mid-block crosswalks
- School zones and school-area crossings
- Private applications, including parking facilities, industrial sites, educational campuses, and commercial properties

Benefits

- Improves driver yielding compliance at pedestrian crossings
- High-visibility LED system with T-Beam™ optical technology
- Energy-efficient design for both AC- and solar-powered configurations
- Rugged enclosure with EPDM sealing for harsh outdoor environments
- Quick and simple installation, maintenance, and troubleshooting

Features

- Designed in accordance with MUTCD guidelines
- Compatible with both AC-powered and solar-powered systems
- Wireless communication range of up to 1,500 ft between system units
- Self-contained unit compatible with third-party DC-output controllers
- Supports single- or double-sided installations, including back-to-back configurations
- High visibility in both daytime and nighttime conditions
- Automatic nighttime dimming to reduce glare
- Confirmation LED synchronized with the flash pattern of the adjacent front-facing RRFB beacon
- Supports push-button or sensor-based activation
- Operating temperature range: -4°F to +149°F (-20°C to +65°C)

Ordering Codes

RRFB Configuration	System Controller Power
TS-60S: Single-sided RRFB with (1) pedestrian confirmation light	**AC:** 100-277 VAC
TS-60D: Double-sided (back-to-back) RRFBs with (1) pedestrian confirmation light	**S:** Solar 12 VDC

System Components

SKU	Name	Description
TS-RRFB-S	RRFB Single	RRFB flasher, 12-24 VDC, with confirmation light for single-sided configuration.
TS-RRFB-D	RRFB Double	RRFB flasher, 12-24 VDC, with confirmation light for double-sided configuration.
SC-TS60-AC	AC Controller	TS60 RRFB system controller, AC-powered, input: 120-277 VAC, output: 12 VDC. Includes AC-DC power supply, antenna, wireless communication board, lockable polycarbonate enclosure, and pole mounting hardware.
SC-TS60-S	Solar Controller	TS60 RRFB system controller, solar-powered, input: 12 VDC solar, output: 12 VDC. Includes 50 W solar panel, 12 V 30 Ah LiFePO4 battery, antenna, wireless communication board, lockable PC/PBT enclosure, and pole mounting hardware.

Activation Devices

SKU	Name	Options
AC-4EVRBDSP	4EVR Push-Button with Stainless Steel Button (frame and sign not included)	**B:** Black Body Color **Y:** Yellow Body Color **BR:** Braille on Sign Plate
AC-4EVRBDSPFS	4EVR Push-Button Station with Stainless Steel Button (frame and sign included)	
TS-Bollard	Pedestrian Detection Photo-Sensor Bollards	

MUTCD Section 2A.07 / 2A.08 Compliant with push-button activation.
RRFBs should not be configured to flash 24/7.

+1.888.446.9255 USA
+1.916.394.9884 Worldwide
xwalk.com
sales@trafficsafetycorp.com
Traffic Safety Corp., 2708 47th Ave.
Sacramento, CA, 95822, USA

TS60-RRFB Specifications

This section describes the specifications for a single RRFB LED Rectangular Beacon module used in both single- and double-sided system configurations.

The TS60-RRFB LED Rectangular Beacon is a compact, high-visibility signaling unit designed for reliable performance in pedestrian safety applications. The enclosure integrates mechanical, optical, and electrical components into a rugged housing optimized for simplified installation and long-term field reliability.

Housing – Mechanical & Electrical Specifications

- Compact design with optimized layout for installation, inspection, and maintenance access
- Aluminum alloy housing with black powder-coated finish for excellent corrosion resistance in outdoor and roadside environments
- Operating voltage: 12–24 VDC
- Low power consumption: ≈8 W
- Dimensions: 24" × 4.5" × 4" (610 × 114 × 102 mm)
- Weight: 7.5 lb (3.4 kg)
- Rugged, weather-resistant construction with EPDM gasket sealing for protection against moisture, dust, UV exposure, and extreme temperatures

LED Optical System

- High-intensity LED technology with T-Beam™ Collimator for clear, highly visible warning and confirmation indication
- UV-stabilized Lexan lens with Clear Vision Optics™ for enhanced visibility and long-term durability
- Compliant with the U.S. Department of Transportation's Interim Approval IA-21 for MUTCD
- Compliant with SAE J595 high-performance warning light standards
- IP69K-rated sealed design with T-Seal™ technology for protection in harsh outdoor environments
- Supports alternating and simultaneous flash patterns (WW+S)
- Typical LED service life up to 100,000 hours

System Controller Architecture

The TS60-RRFB Controller Unit controls system operation, providing precise timing, synchronization, and reliable activation across all RRFB configurations. The system uses integrated wireless radio communication, enabling synchronized operation between system components.

The system is available in two configurations: AC-powered ("AC") and solar-powered ("S"). Each configuration uses a dedicated controller optimized for its respective power source. The solar-powered configuration includes integrated energy storage to support autonomous operation.

Controller Unit Specifications

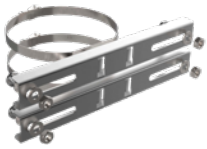
AC-powered Configuration

- Operating voltage: 120–277 VAC; 6.5 W (controller unit only)
- Uses photocell for automatic nighttime dimming
- Lockable polycarbonate enclosure: 14" × 12" × 6" (356 × 305 × 152 mm)
- Weight: 13 lb (6 kg)

Solar-powered Configuration

- Operating voltage: 12 VDC; 2 W (controller unit only)
- Uses solar panel output for automatic nighttime dimming
- Lockable PC/PBT enclosure: 19.17" × 14.64" × 7.85" (487 × 372 × 199 mm)
- Weight: 23 lb (10.5 kg)

Mounting Bracket



- Common bracket design used for both AC and solar configurations
- Supplied as part of the system
- Fits pole diameters from 2" to 12.25" OD

Solar-powered System

The solar-powered system incorporates a 12V 30Ah LiFePO4 battery with Bluetooth 5.0-enabled status monitoring, installed in the Solar Controller enclosure within a dedicated battery bracket and secured using included VELCRO® straps.

Battery

- Nominal voltage/capacity: 12.8 V, 30 Ah (≈384 Wh)
- Discharge/charge capability: up to 20A continuous discharge; fast charging supported
- Cycle life: 4000+ charge/discharge cycles

Solar Panel – 50W Photovoltaic Module (50J)

- Crystalline silicon cells with tempered glass front and EVA encapsulation for long-term durability
- Anodized aluminum frame and back sheet
- Designed for harsh outdoor environments
- Certified to IEC 61215, IEC 61730, and UL 1703
- Listed to UL 1703 and UL ORD-C1703 standards for safety
- Nominal system voltage: 12 V
- Rated power: 50 W (STC)
- Dimensions (L × W × H): 33" × 21.1" × 2" (839 × 537 × 50 mm)
- Weight: 16 lb (7.25 kg)
- Includes adjustable solar panel mounting system with adjustable orientation and tilt angle

+1.888.446.9255 USA
+1.916.394.9884 Worldwide
xwalk.com
sales@trafficsafetycorp.com
Traffic Safety Corp., 2708 47th Ave.
Sacramento, CA, 95822, USA

Activation Devices

The system supports both push-button and passive sensor-based activation methods, providing flexibility for a wide range of pedestrian crossing applications.

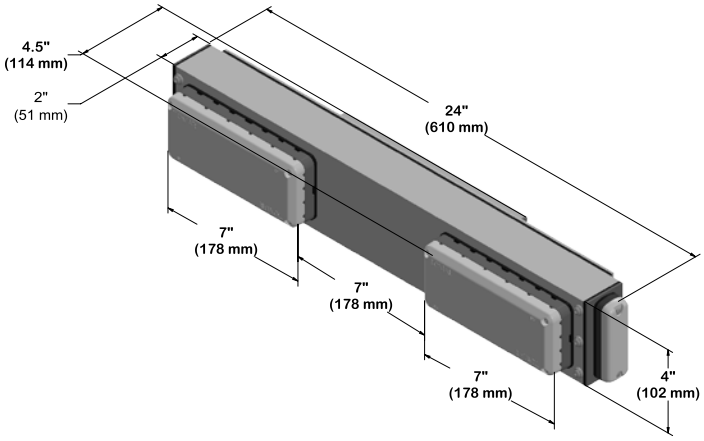
- Push-button activation using a push-button station or stand-alone stainless steel push-button
- Passive pedestrian detection using photo-sensor bollards, subject to local approval and regulatory requirements

Warranty

- RRFB System: 5-year limited warranty (per manufacturer terms)
- Solar Panel:
  + 2-year product warranty
  + 90% minimum power output over 12 years

4EVR Push-Button with Stainless Steel Button (left), 4EVR Push-Button Station with Stainless Steel Button (center), Pedestrian Detection Photo-Sensor Bollards (right)

Locking Controller Unit Cabinet



+1.888.446.9255 USA
+1.916.394.9884 Worldwide
xwalk.com
sales@trafficsafetycorp.com
Traffic Safety Corp., 2708 47th Ave.
Sacramento, CA, 95822, USA