

**RECTANGULAR
RAPID
FLASHING
BEACONS
(RRFB)**



RRFB-01, RRFB-03 - Solar Powered Single Rectangular Rapid Flashing Beacon



Standard System:

- MADE IN CANADA
- Harsh Weather Condition Performance
- MUTCD Compliant
- Universal Mounting System
- Pedestrian Activation via Push Button
- Low Profile Light Bar w/ Side Light
- Onboard Configuration and Programming
- Per to Peer Multi Unit Networking
- 5 Year Limited Warranty
- 1 Year Full Replacement Warranty (Battery)

System Options:

- System Component Colors (Black, Yellow, Green or Custom)
- RA4 Sign Sizes & Retro-Reflectivity
- ID21 Sign Sizes & Retro-Reflectivity

Upgrade Options:

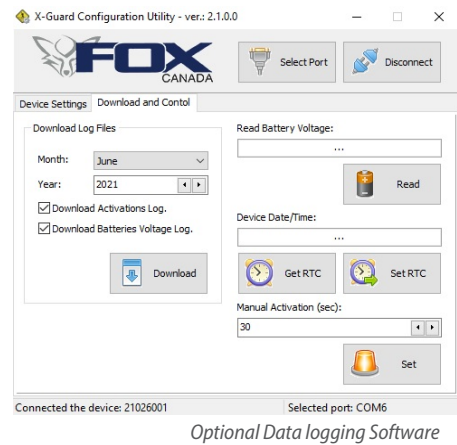
- Cold Weather Deep Cycle, 12V, 18AHR Battery
- Cold Weather Deep Cycle, 12V, 36AHR Battery
- 60W Solar Panel
- Pedestrian Activated Push Button Frame
- Pedestrian Activated Electronic Push Button
- Audible Pedestrian Alert
- Wireless Data Logging (Impressions, Battery Voltage, Events)
- Tamper Resistant Mounting Hardware
- Anti-Graffiti Overlamine
- Installation (existing structure)
- Installation (new structure)



**This product is produced in an ISO 9001:2015 Certified Canadian Facility

Smart Solutions

| STANDARD SYSTEM SPECIFICATIONS | |
|--------------------------------|--|
| SUBSTRATE: | 2mm 5052-H38 Aluminum Substrate |
| REFLECTIVE FILM: | ASTM D4956 Type XI Reflective Film with Overlay |
| MUTCD COMPLIANCE: | MUTCD Section 2A.08 Compliant |
| PRIMARY LIGHTS: | 3" x 7" SAE Class 1 - J595 |
| SECONDARY LIGHTS: | 3/4" SAE P3 - FMVSS 108 DOT Compliant |
| SOLAR PANEL: | High Output, 25W, 18.9V, 1.59 AMP - CE and TUV Certified |
| BATTERY: | SLA AGM Battery, 12V, 18AHR - UL Recognized |
| FLASH PATTERN: | MUTCD and Other |
| PROTECTIVE ENCLOSURE: | NEMA and IP Rated |
| COMMUNICATION: | FCC and IC Compliant |
| FASTENERS: | Stainless Steel |
| RUN SEQUENCE: | Factory Set to MUTCD Standard |
| SYSTEM WARRANTY: | 5 Year Limited Warranty |
| BATTERY WARRANTY: | 1 Year |



Optional Data logging Software

RRFB-02, RRFB-04 - Solar Powered Dual Rectangular Rapid Flashing Beacon



Standard System:

- MADE IN CANADA
- Harsh Weather Condition Performance
- MUTCD Compliant
- Universal Mounting System
- Pedestrian Activation via Push Button
- Low Profile Light Bar w/ Side Light
- Onboard Configuration and Programming
- Peer to Peer Multi Unit Networking
- 5 Year Limited Warranty
- 1 Year Full Replacement Warranty (Battery)

System Options:

- System Component Colors (Black, Yellow, Green or Custom)
- RA4 Sign Sizes & Retro-Reflectivity
- ID21 Sign Sizes & Retro-Reflectivity

Upgrade Options:

- Cold Weather Deep Cycle, 12V, 18AHR Battery
- Cold Weather Deep Cycle, 12V, 36AHR Battery
- 60W Solar Panel
- Pedestrian Activated Push Button Frame
- Pedestrian Activated Electronic Push Button
- Audible Pedestrian Alert
- Wireless Data Logging (Impressions, Battery Voltage, Events)
- Tamper Resistant Mounting Hardware
- Anti-Graffiti Overlaminates
- Installation (existing structure)
- Installation (new structure)



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Smart Solutions

| STANDARD SYSTEM SPECIFICATIONS | |
|--------------------------------|--|
| SUBSTRATE: | 2mm 5052-H38 Aluminum Substrate |
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| PRIMARY LIGHTS: | 3" x 7" SAE Class 1 - J595 |
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| SOLAR PANEL: | High Output, 25W, 18.9V, 1.59 AMP - CE and TUV Certified |
| BATTERY: | SLA AGM Battery, 12V, 18AHR - UL Recognized |
| FLASH PATTERN: | MUTCD and Other |
| PROTECTIVE ENCLOSURE: | NEMA and IP Rated |
| COMMUNICATION: | FCC and IC Compliant |
| FASTENERS: | Stainless Steel |
| RUN SEQUENCE: | Factory Set to MUTCD Standard |
| SYSTEM WARRANTY: | 5 Year Limited Warranty |
| BATTERY WARRANTY: | 1 Year |



Optional Data logging Software



DATA SHEET

Programmable School Zone RRFB: **9400 Series**

SZ-9407-P, SZ-9407-S (20W)

Dual-Sided RRFB



Conforms to FHWA Memorandum IA-21

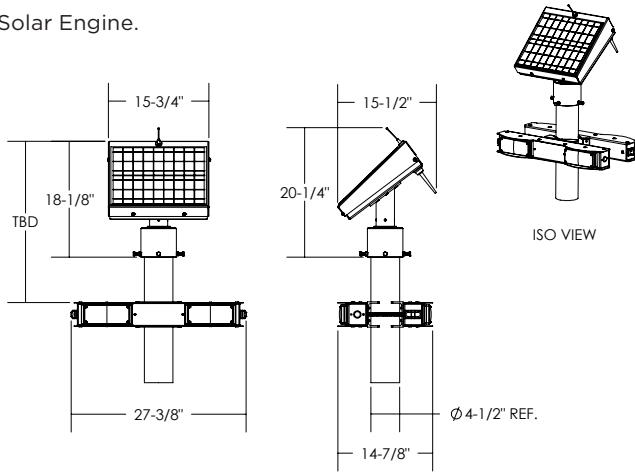
JSFT Programmable Beacons can be installed anywhere with cellular reception* or in places without, via direct connection. A preset flash schedule can be created using the web-based JSF Tech Beacon App and sent to the beacons wirelessly online, or with a laptop and USB with our offline scheduler. Beacons can also be activated using a cellular-enabled mobile device. The programming can store multiple years and varying schedules, and diagnostic information can be accessed from cellular Primary Beacons.

Each Programmable Beacon set consists of two beacon types: Primary and Secondary. The Primaries store the programmed flash schedule and, if cellular-enabled, contain modems. The Secondaries receive daily on/off signals from the Primaries. Any number of Secondary beacons can be linked to a Primary beacon within range. When a Primary receives an activation command, it relays this command to all Secondary beacons within range in the series.

Programmable School Zone
Rectangular Rapid Flashing Beacon
Dual-Sided : **9400 Series**

SZ-9407 (20W)

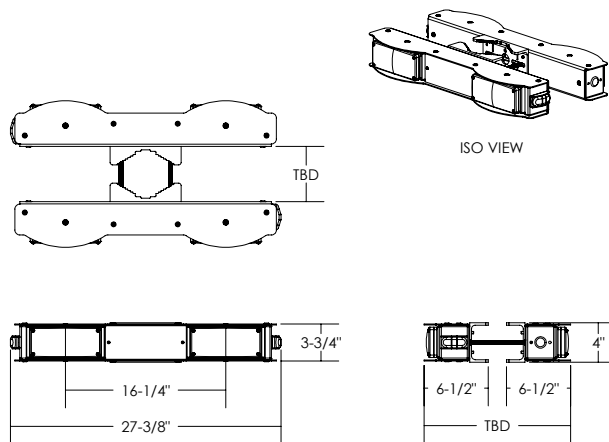
Solar Engine.



Dimensions are in Inches $\pm 1/16''$

SZ-9407 20W SPEC SHEET

4 LED - Double sided (3" x 7" LEDs).



Dimensions are in Inches $\pm 1/16''$

9407 SPEC

*JSF Technologies is not responsible for interruptions or lack of communication quality with cellular carriers, nor are we responsible for termination of carrier services in a given area.

SPECIFICATIONS

SYSTEM OVERVIEW

| | |
|--------------------------|---|
| Certification | CE and UL certified electrical components, NEMA TS 2-2003 certified, SAE J595 (class 1) & SAE J578 certified LEDs |
| Compliance | FHWA MUTCD compliant |
| Operation | FCC EMC Class A verified |
| Flash pattern | Programmable schedule and Mobile device activation |
| Operating temperature | MUTCD RRFB Pulsing Pattern (as per IA-21) |
| Controller input voltage | -40°F to +165°F (-40°C to +74°C) |
| Solar panel | 12 V DC |
| Battery storage | 20 W nominal 12 V, CE and TUV certified AGM 12 V, 18 Ah, UL certified, field replaceable, Optional cold weather battery upgrade |
| Alternate power | AC-compatible |
| Diagnostics | includes "Battery Tender® 800" Reporting on battery levels, activations, beacon state, GPS location, etc. |

POWER MANAGEMENT

| | |
|------------------|---|
| Rated usage | 120 mins of activation per day (average) or more |
| Charged capacity | Minimum of 30 days at rated usage (without charging) |
| Auto brightness | Auto brightness for nighttime conditions (no daytime dimming) |
| Self monitoring | Visual notification of sub-optimal operation |

LED MODULE

| | |
|----------------------|---|
| Standard | SAE J595 (Class 1) & SAE J578 certified |
| Size | Approx - 3" x 7" |
| Horizontal LED pivot | 20° off center |
| LED color | Amber |
| Tell-tale LED | Amber, approx - 1" x 2" and options include one, two, or none per light bar |

COMMUNICATION: INTER-BEACON

| | |
|-------------------|--|
| Between beacons | ISM spread spectrum radio, 902-928 MHz |
| Range | Up to 0.5 miles (800 m) with line of sight |
| Network addresses | 16 unique addresses to avoid interference between multiple locations |
| Compatibility | All SZ family beacons |

COMMUNICATION: PRIMARY BEACONS (-P)

| | |
|---|--|
| Incoming commands | Cellular communication* or via direct USB connection |
| GPS | GPS, GNSS and GLONASS compatibility and Time synchronization |
| <i>A primary beacon receives and stores preset schedules from the JSF Tech Beacon App and receives instant activation messages from authorized users.</i> | |

COMMUNICATION: SECONDARY BEACONS (-S)

| | |
|---|---|
| Incoming commands | Relies on the primary beacon's commands |
| <i>A secondary beacon relies on its primary beacon for all activation commands.</i> | |

PHYSICAL DESIGN

| | |
|------------------------|---|
| Design | Three piece system: light bars and solar engine |
| Color | Black, green or yellow Custom colors also available |
| Signal head | 6061-T6 powder coated aluminum |
| Solar engine | 6061-T6 powder coated aluminum |
| Weight | Approx - 43 lbs. (19 kg) |
| Available mounting for | Round pole: 2" - 8" Square post: 4", 6", 4"x 6" Side mounting Telespar & U-Channel: 2" |

WARRANTY

5-year Limited Warranty for defects in workmanship and materials (excludes batteries and vandalism)

CONTACT

2891 BoxSprings Link NW | Medicine Hat, AB T1C 0H3
Bus: (403) 548-8147, Fax: (403) 548-8159

www.foxcanada.net





SELF-CONTAINED 20 WATT SOLAR ENGINE

| | |
|---|---|
| Solar Panel | Solar Cell - Monocrystalline Silicon Rated Power (Pmp) 20 Watts Rated Voltage (Vmp) 18 VDC Rated Current (Imp) 1.1 A Certifications: CE and TUV certified |
| Solar Angle | 44° (Standard) |
| Standard Battery Bank | AGM 12V, 18 Ah - UL Recognized, field replaceable |
| Cold Weather Battery Bank Option | AGM 12V, 16 Ah - UL Recognized, field replaceable |
| Solar Engine Housing Material | A5052 Sheet Aluminum (Enclosure) 6061-T6 Aluminum (Mount) |
| Solar Engine Dimensions | 15.75" x 13.25" x 4.5" (40 x 33.7 x 11.5cm)* |

POWER MANAGEMENT

| | |
|--------------------------------------|--|
| Rated Usage | 300 cycles per day, 25 second activation |
| Charged Capacity | Up to 30 days at rated usage |
| Automatic Light Control (ALC) | Various stages of brightness for different solar conditions and battery levels |

SYSTEM PROTECTION

| | |
|--------------------------------|--|
| Low Voltage Disconnect | 9.5 VDC |
| Over Current Protection | 1.8 Amp PTC auto-reset fuse |
| Self Monitoring | Visual notification of sub-optimal operation |

DUAL RRF LIGHT BAR

| | |
|-------------------------------|---|
| Standard Followed | ITE VTCSH-STD 2005 |
| RRFB Housing Material | A5052 Sheet Aluminum (Lightbar) 6061-T6 Aluminum (Mount) |
| LED Size | 3" x 7" (76.2 x 177.8mm)* x two per lightbar |
| Tell Tale LED Size | 1" x 2" (25.5 x 51mm)* |
| Housing Dimensions | 24" x 3.0625" x 3.75" (61cm x 7.75cm x 9.5cm)* |
| Std. LED Color Options | Amber or Red (custom colors available) |
| RRFB Mount | Universal Jaw Mount Telespar Jaw Mount Side Mount Bracket |

COMMUNICATION

| | |
|--------------------------|--|
| Band of Operation | ISM Band (902-928 MHz) |
| Compliance | FCC and IC Compliant |
| Range | Up to 0.5 miles (800 m) with line of sight |
| Network Addresses | 16 unique addresses to avoid interference between multiple crosswalk locations |
| Compatibility | Can communicate with other AB units |

SYSTEM OPTIONS

| | |
|--|---|
| LED & Solar Engine Housing Colors | Yellow, Black or Green (custom colors available) |
| Mounting Options | Round Pole Collars: 2.5", 3.5", 5" and 6" Telespar Mount: 2" Square Wood Post Mount: 4" x 4", 6" x 6" Side Mount Bracket: 12", 18" and custom lengths available Custom Mounts Available |



SYSTEM OVERVIEW

| | |
|------------------------------------|--|
| Compliance | FHWA MUTCD compliant |
| Standard (Std.) Operation | Pedestrian Activated via push button or JSFT remote transmitters |
| Flash Pattern Options | RRFB Pattern (WW + S) FHWA IA-21 Approved |
| Activation Duration | Variable from 5 seconds to 4 hours |
| Std. Operating Temperature | 14°F to +165°F (-10°C to +74°C) |
| Cold Weather Upgrade Option | -40°F to +176°F (-40°C to +80°C) |
| System Voltage | 12 VDC |
| Packaged Dimensions | 24" x 18" x 18" @ 52LBS (61 x 45.7 x 45.7cm @ 24KG)* |

SIGNAL HEAD AND SOLAR ENGINE AVAILABLE WITH STANDARD COLOURS; YELLOW, BLACK, OR GREEN. CUSTOM COLOURS ARE ALWAYS AVAILABLE.



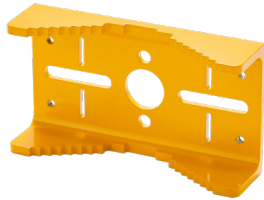
WARRANTY 5-year Limited Warranty for defects in workmanship and materials (excludes batteries and vandalism)

*All measurements and weights are approximate



AB-9407-20W

RRFB Rectangular Rapid Flashing Beacon



UNIVERSAL JAW MOUNT



TELESPAR JAW MOUNT



SIDE MOUNT BRACKET

RRFB LIGHTBAR MOUNTING



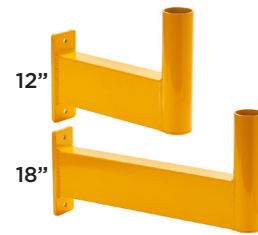
2.5" 3.5" 5" 6"

ROUND POLE MOUNT



4x4" 6x6"

WOOD SADDLE MOUNT

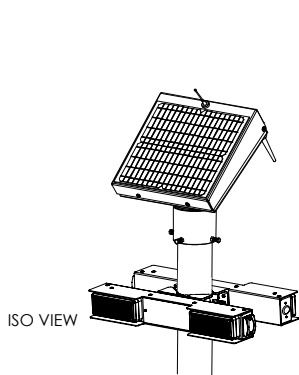


MOUNTING ARMS
(CUSTOM LENGTHS AVAILABLE)

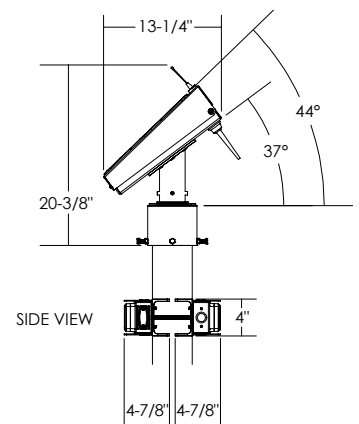
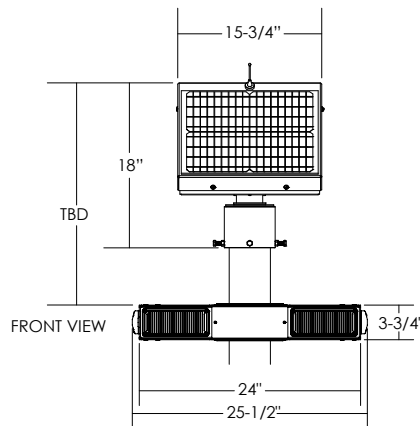


2"
TELESPAR MOUNT

SOLAR ENGINE MOUNTING OPTIONS



AB-9407-20W



SYSTEM DRAWINGS