



K&K Systems, inc.
Traffic Safety Products Manufacturer



RRFB

RECTANGULAR RAPID FLASH BEACON

OPERATING MANUAL

Model# ECO-RRFB



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THANK YOU FOR YOUR BUSINESS!

To Our Valued Customer,

K&K Systems, Inc. is excited that you have purchased our product.

Our company has been serving the traffic industry since 1997. Since that time we have risen to become a leader in the traffic industry. We offer a complete line of traffic safety products that include message boards, arrow boards, radar speed monitors, solar school zone flashers, solar 24-hour flashers and many other quality products that serve our industry today.

At K&K Systems, Inc., we strive to improve the quality of our products. We are dedicated to the concept that our customers are our most valuable resource. We strive to serve our customers as we would want to be served.

Tim Keith,
President



MANUFACTURER'S WARRANTY

1. The manufacturer warrants that all products manufactured by K&K Systems, Inc. will be free from defects in material and workmanship for a period of one (1) year from date of shipment, subject to the conditions and restrictions contained herein.
2. This warranty does not apply to a product that has not been installed or maintained in accordance with the manufacturer's instructions, has been subjected to damage in an accident, abused or neglected during operation, repaired or modified by persons other than manufacturer, its employees or authorized agents, or failed to have normal maintenance.
3. The buyer expressly agrees that the buyer's sole remedy and the manufacturer's sole responsibility, in respect to a warranty claim, is exclusively limited to repair or replacement at the manufacturer's option, of product or a portion thereof found by the manufacturer to be defective. The manufacturer is not responsible for labor or other expended charges by buyer including transportation charges, and shall not be liable for any incidental or consequential damages connected with repair of a product deemed to be defective or with installation or replacement of repaired product. Further, the manufacturer disclaims any liability for any incidental or consequential damages, including lost or duplicated time or expense accruing for any reason, to the owner or user or any products sold by the manufacturer, whether claim is made in contract or in tort or under any theory of warranty, negligence or otherwise.
4. The manufacturer reserves the right to make changes in its products from time to time, without incurring any obligation to incorporate such improvements in any products previously sold or in service.
5. The terms and conditions of the warranty cannot be altered without the written consent of the manufacturer.
6. The foregoing warranty is exclusive and in lieu of all other express, statutory and implied warranties **INCLUDING THOSE OF MERCHANTABILITY AND FITNESS FOR ANY PARTICULAR PURPOSE**. There are no warranties which extend beyond the language in the previous six (6) paragraphs.

If you have any further questions, please feel free to call us at our toll-free number, 888-414-3003, email info@k-systems.com or look us upon the internet at www.k-systems.com.



INTRODUCTION

RRFB

RECTANGULAR RAPID FLASH BEACON

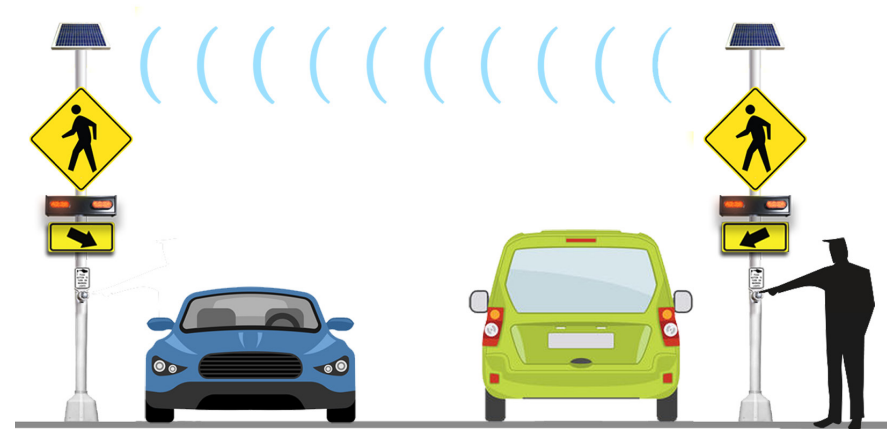
K&K Systems' Rectangular Rapid Flash Beacon (RRFB) is a device using LED flashing beacons in combination with pedestrian warning signs, to provide a high-visibility strobe-like warning to drivers when pedestrians use a crosswalk. In general, RRFBs are a visual cue that pedestrians may begin crossing the roadway at any time. They are always accompanied by crosswalk markings and signs. Crosswalk RRFBs operate by wireless push button activation. When a pedestrian pushes the button to cross the street, the sign is activated and begins to flash to warn drivers of the crossing pedestrians. The flashing pattern can be activated with pushbuttons or automated (e.g., video or infrared) pedestrian detection.



BASIC OPERATION

RRFB/CROSS WALK

CrossTalk for pedestrian street crossings where people need to cross safely. Pedestrians simply press the button to activate the CrossTalk device located inside the control cabinet. The CrossTalk wirelessly activates the sign alert LEDs on both sides for the programmed amount of time.



WHAT IS THE CROSSTALK

The CrossTalk is an Advanced, Solar-Powered Lighting Controller. CrossTalk controllers are used for a variety of traffic & safety applications including cross-walk / pedestrian systems, speed/radar systems and more. CrossTalk applications can be setup quickly and provide more functionality and flexibility than traditional "wired" systems.



The CrossTalk device is a rugged, integrated unit which provides a built-in solar controller with Maximum Power-Point Tracking (MPPT), battery management with low-voltage disconnect (LVD), short-range wireless (900MHz), multi-function programmable lighting control, support for up to (4) beacons, auto-dimming, and a scheduler all in one compact enclosure.



DESCRIPTION OF CROSSTALK CROSS WALK CONTROLS

Net/Mode Setting
Flash pattern setting
(50/50, 90/10, wig-wag, etc.)

Status Light
The status light
flashes in sequence with
the first output to indicate
the flasher is active and
flashing rate.

Charging Light
Solar controller status
indicator shows when the
battery is being charged:
Green = Charged
Red = Charging

Solar Port
Solar connection port

Battery Light
Battery status light
for safe accurate
connections:
Green = Good
connection
Red = Reverse-polarity

LED Outputs 1,2,3,4
Load: 12V LED/DC
flasher outputs/
switches (x4).
Maximum load
50W per output.

Ethernet RS-232
Communication
Port / Laptop
Connection

Switch Attachment
Sensor connection port.
Connect any sensor for use
in conjunction with sign
alerts.
Sensor options:
• Push Button
• Moisture Sensor
• Water Level Sensor
• Motion Sensor
• Overspeed Sensor

In 1 / In 2
Digital input range 5-24V DC
for radar, advance warning,
and more

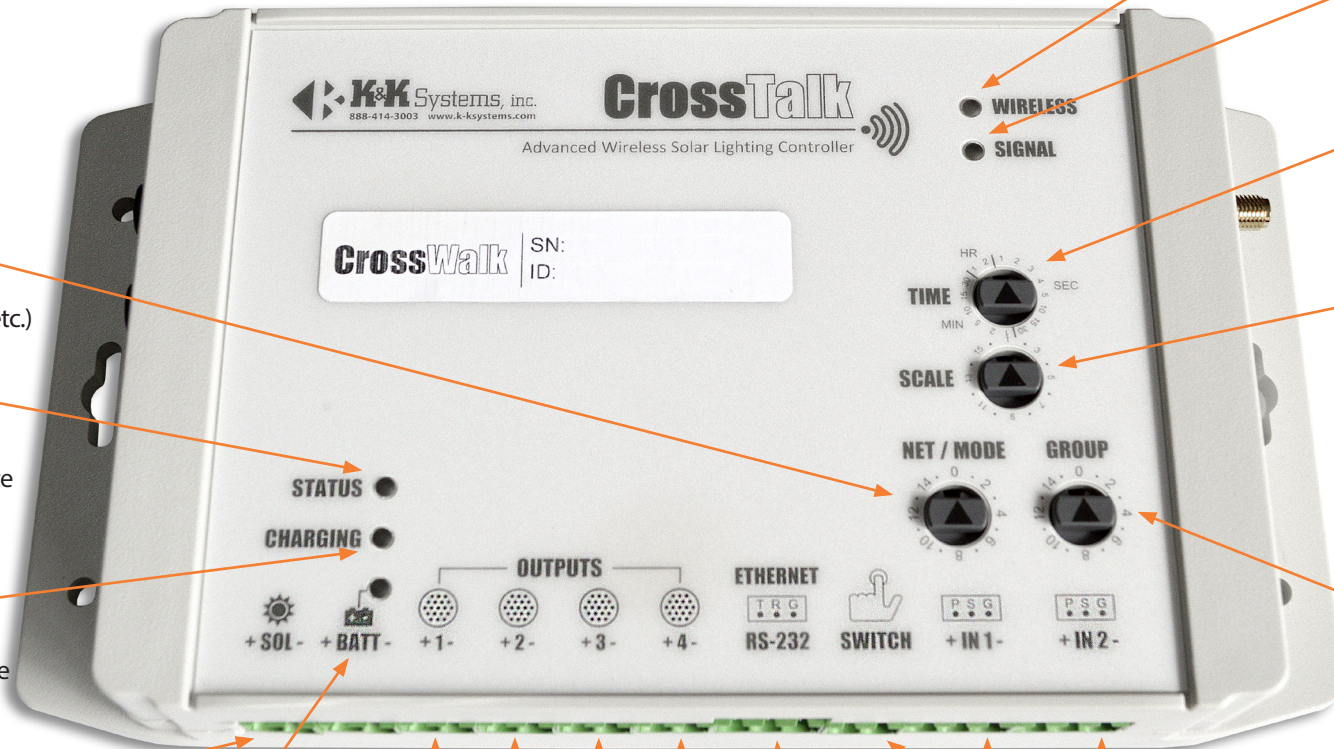
Group Setting
All devices with the
same GROUP setting can
communicate with each
other.

Scale Setting
Used as a multiplier in
combination with the time
setting.
(Example: With
Time set to 10 SEC and Scale
set to 6. The beacon will stay
on for 60 seconds (10 SEC x 6))

Time Setting
Determines the length
of time in either seconds,
minutes or hours

Signal Light
Indicates the strength
of wireless signal during
communication

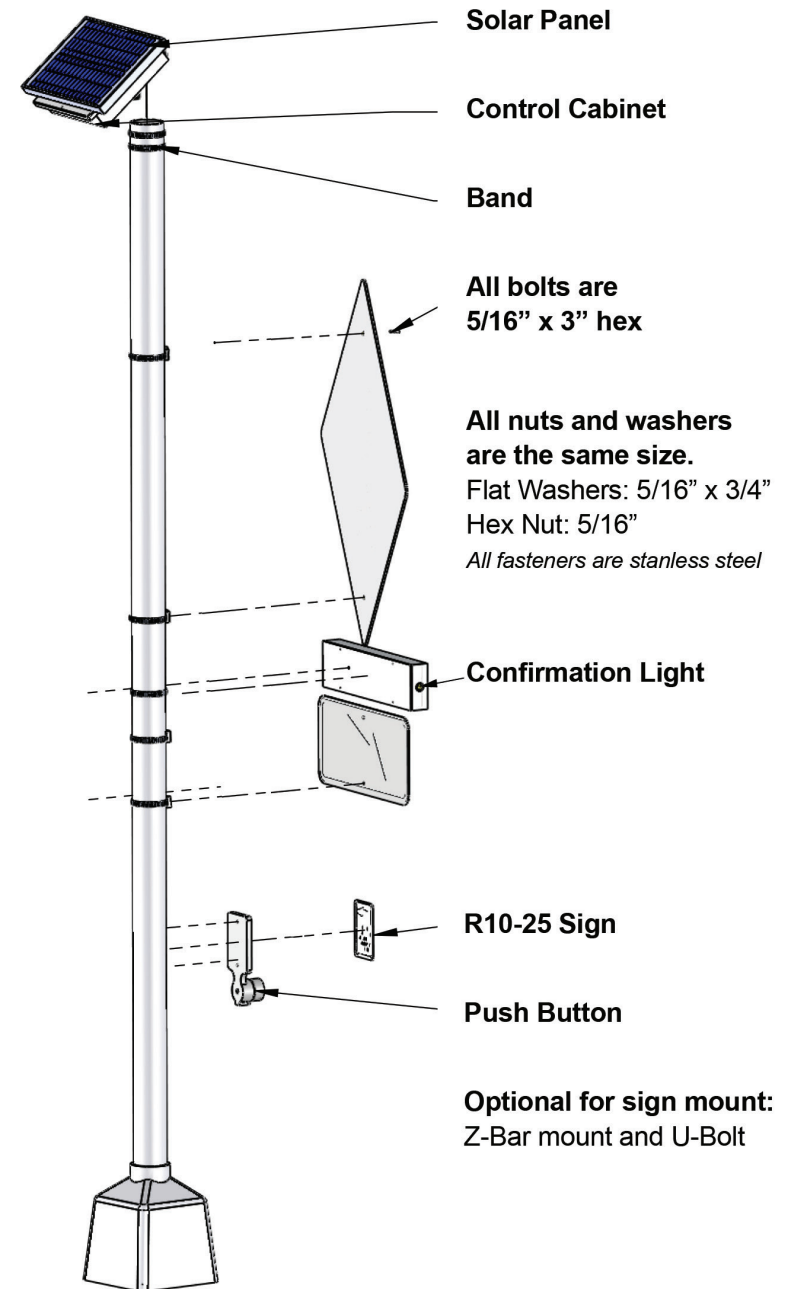
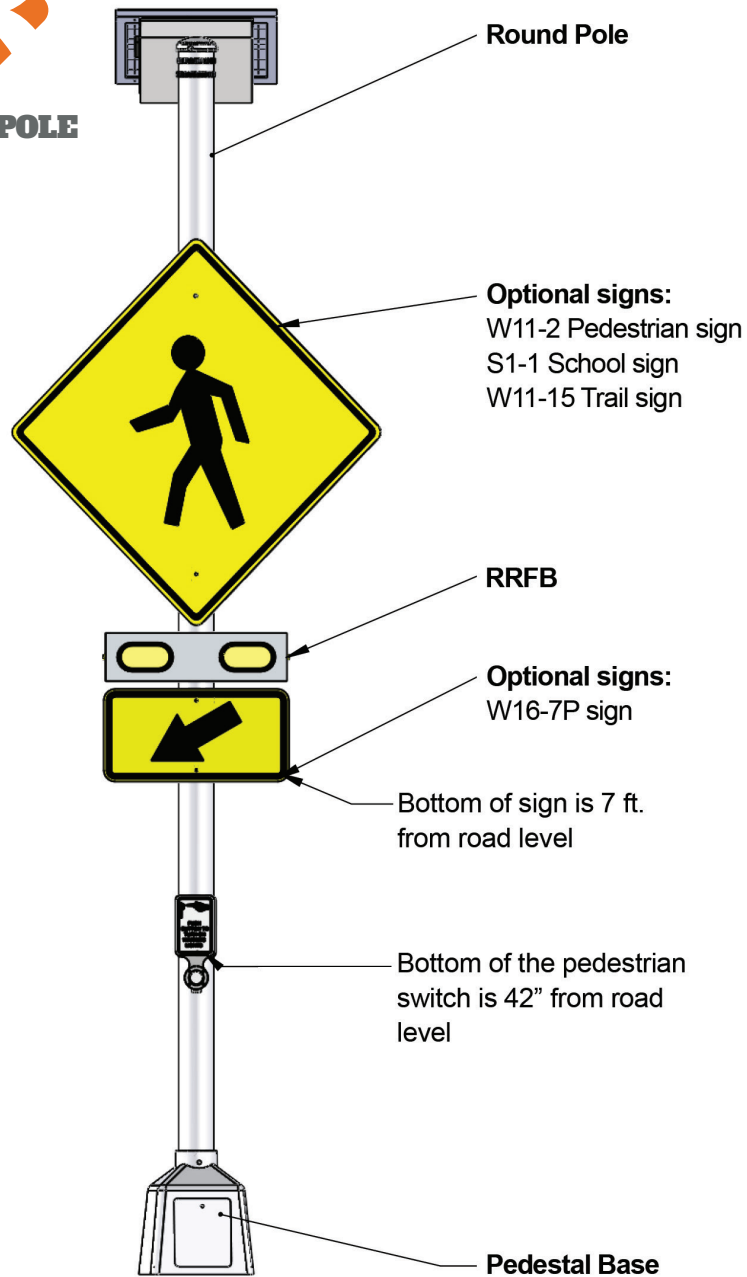
Wireless Light
When lit, indicates that a
wireless device is connected



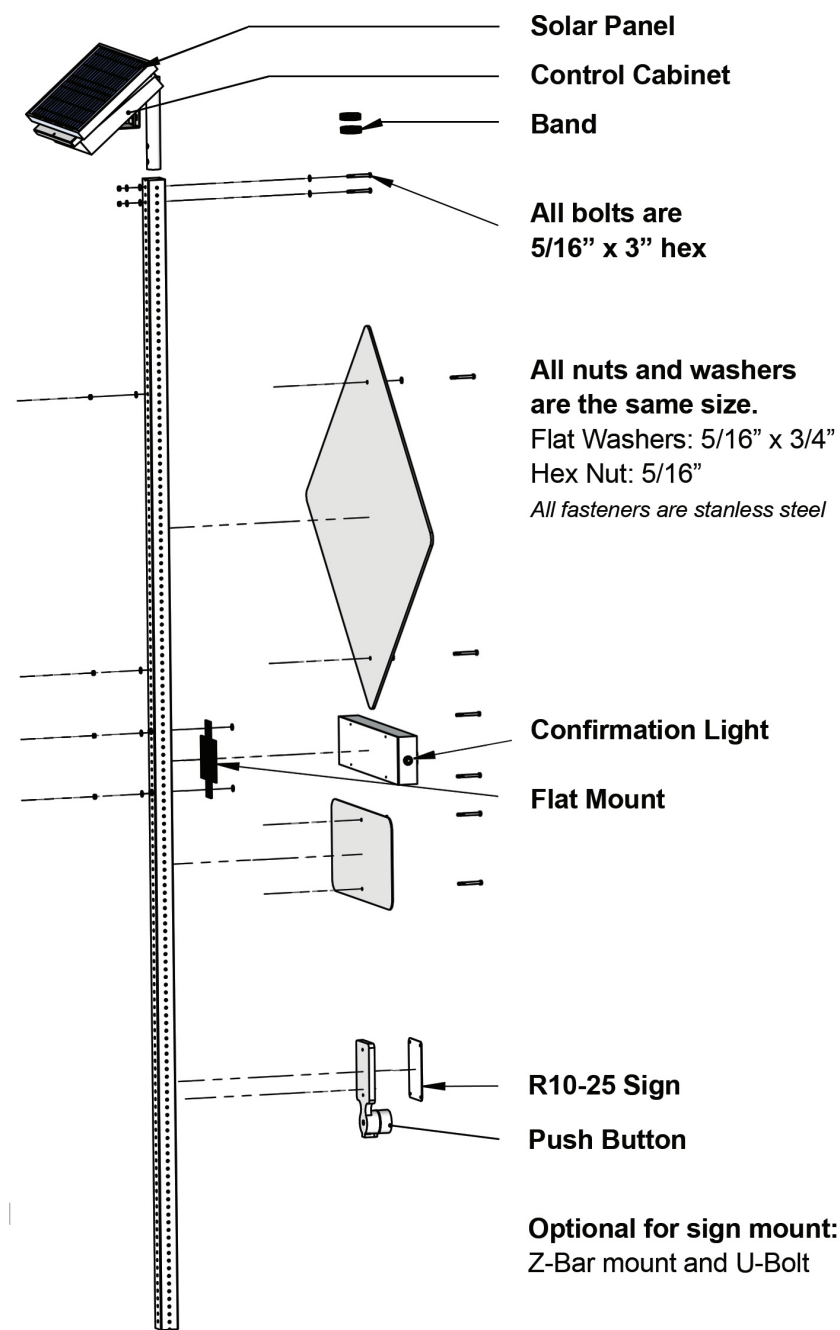
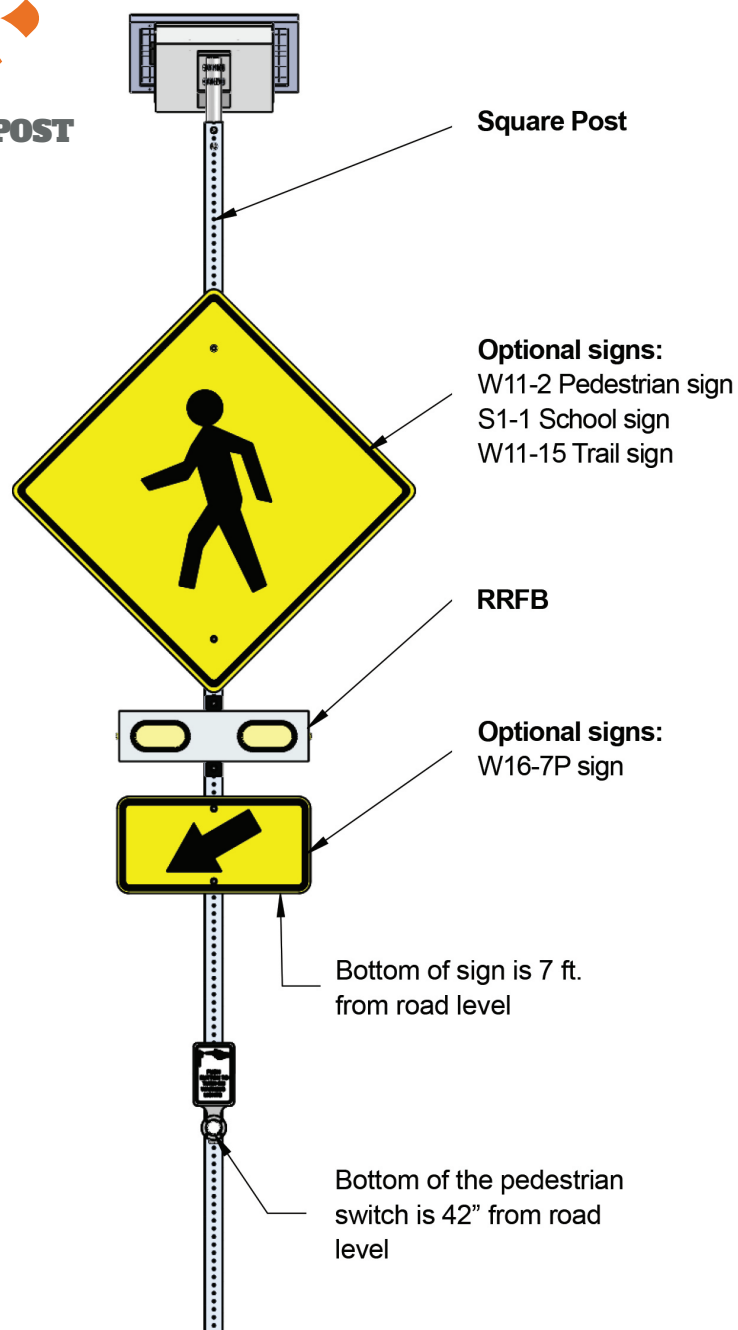


ROUND POLE

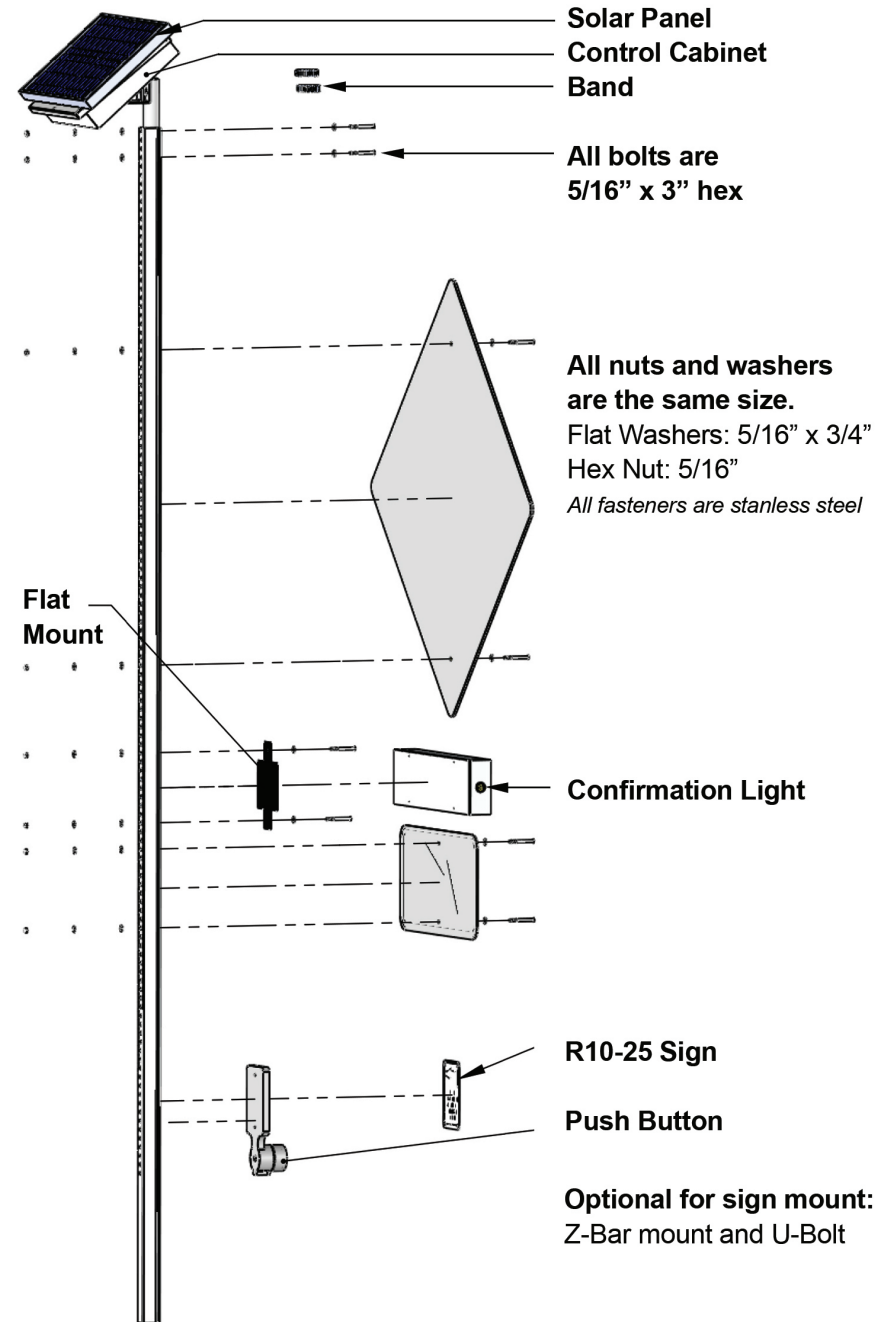
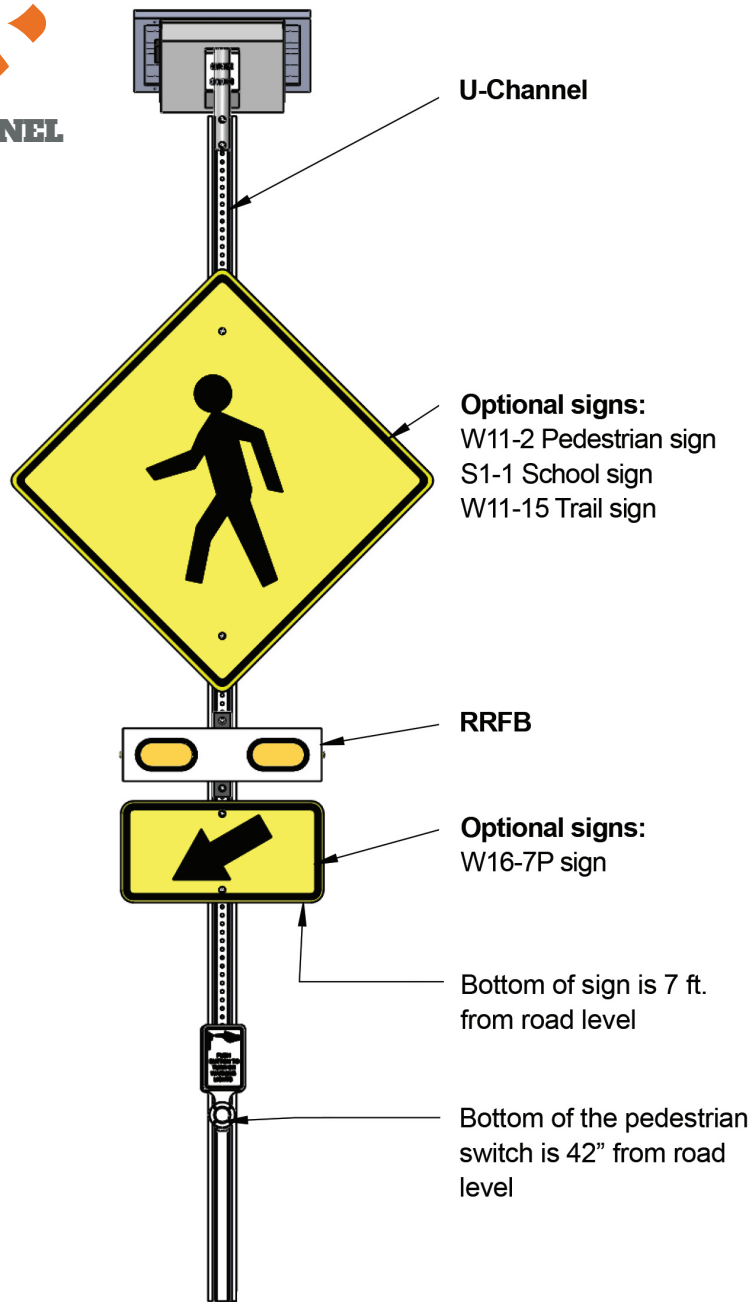
MOUNTING



SQUARE POST MOUNTING



U-CHANNEL MOUNTING





MODEL ECO-RRFB SPECIFICATIONS

(Meets MUTCD & ITE Standards)

Solar Panel	Maximum Power	(P max)	20W
	Voltage at Pmax	(V mp)	17.3 V
	Current at Pmax	(IMP)	1.16 A
	Short-Circuit Current	(Isc)	1.29 A
	Open-Circuit Voltage	(Voc)	21.6 V
Control Cabinet	7.5" x 11.25" x 4"	aluminum	located below solar panel
Battery	(1) AGM	18 amp	included
Push Button	2" Button with momentary switches rated at 36VDC		
	5" x 7" Button fixture with crossing sign inserted		
Optional	Additional RRFB with mounting hardware		
	Pole with mounting hardware		
	Pedestrian Sign		
	Left Down Arrow Sign		
	Right Down Arrow Sign		
RRFB	Lighting Meets J595 for Class 1		

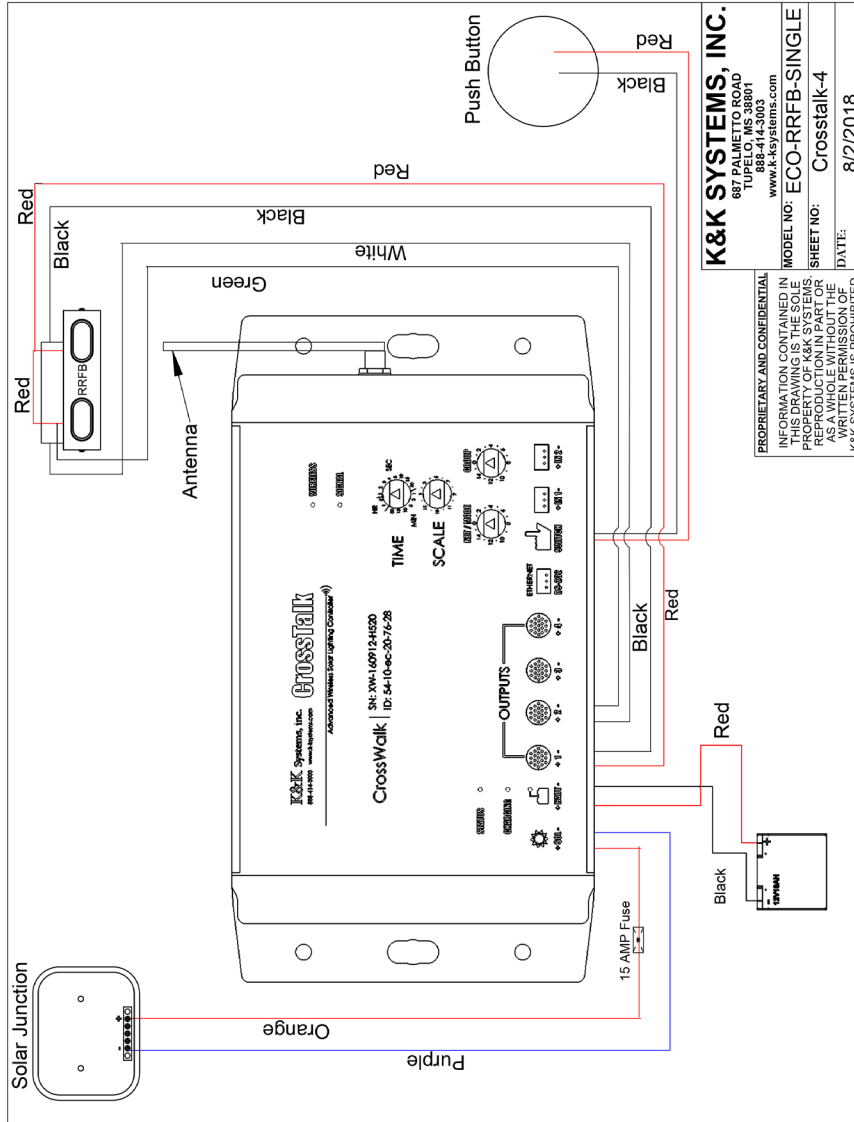


RRFB PARTS LIST

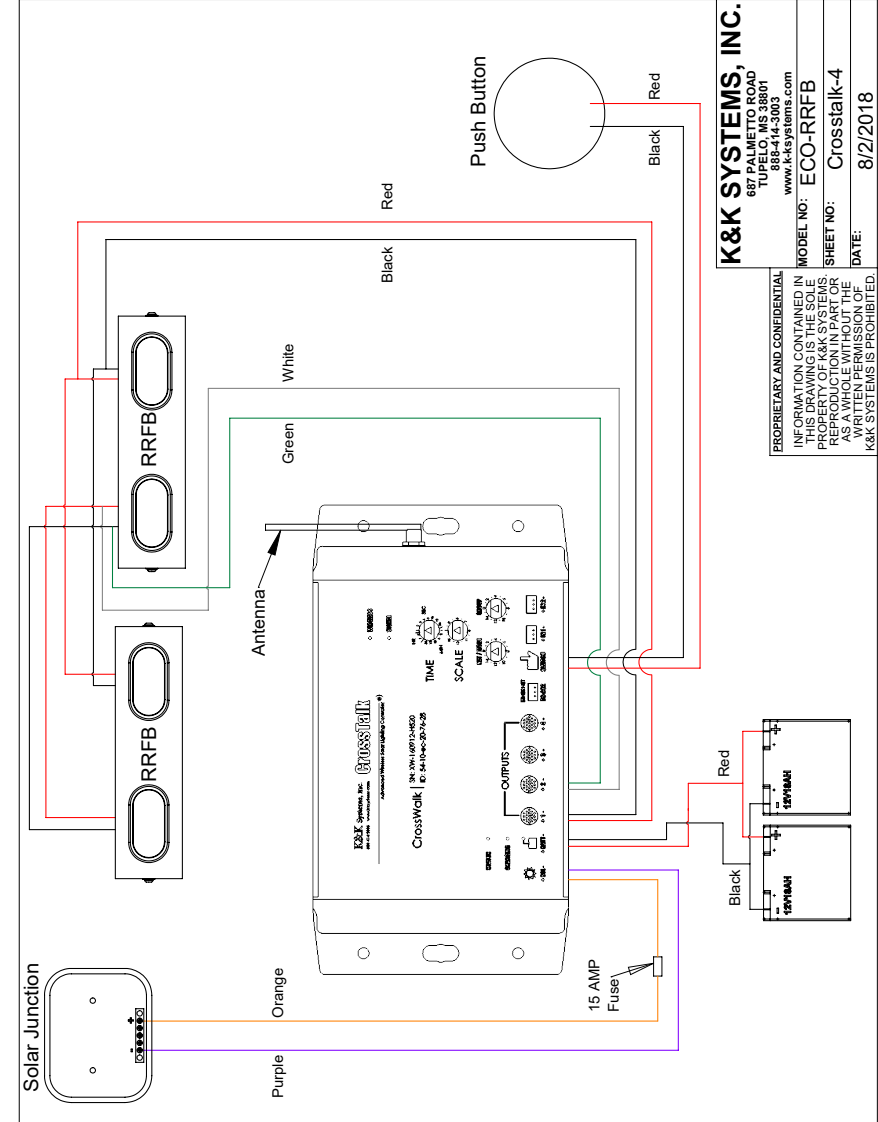
PART NUMBER	DESCRIPTION
ADD-RRFB	RRFB(Rectangular Rapid Flashing Beacon)
PB	Push Button
R10-25	Push Button Sign
CrossTalk-CW-4	Crosstalk 4-Radio - wireless; 900 mhz radio (Appr. 1500 feet range)
ECO1-110704	Eco-Cabinet
BAT-12-18A	18 amp AGM Battery
DS-A1-20	20 Watt Solar Panel
OPTIONS	
W11-2	Pedestrian Sign-size per state regulations
S1-1 School	Sign-size per state regulations
W11-15 Trail	Sign-size per state regulations
W16-7P	Left/Right Down Arrow Sign
DS-A1-30	30 Watt Solar Panel
DS-A1-40	40 Watt Solar Panel
CCTR-12 4-1/2"	Spun Aluminum Pole Kit with Base
CCTUC-12 12'3lb	U Channel Post Kit
CCTS-12-2	2" x 12' Galvanized Square Post Kit



WIRING DIAGRAM CROSSTALK-4 SINGLE LIGHT (One Battery)




WIRING DIAGRAM CROSSTALK-4 DUAL LIGHT (Two Batteries)





TROUBLESHOOTING GUIDE

Please call 888-414-3003 for Tech Support if this guide does not solve your issue.

PROBLEM	STEP 1	STEP 2	STEP 3	STEP 4	STEP 5
No Power	<ul style="list-style-type: none"> Check Battery Light on CrossTalk is on 	If light is off: <ul style="list-style-type: none"> Check battery voltage is a minimum of 12V. Check for correct polarity of battery wires to CrossTalk 	If batteries are good: <ul style="list-style-type: none"> Check internal 10 amp blade fuse. (See pages 22-23 for access to fuse.) 	If fuse is good: <ul style="list-style-type: none"> Inspect CrossTalk for signs of electrical damage 	If problem persists: <ul style="list-style-type: none"> Please call us
Not Charging	<ul style="list-style-type: none"> Recharge batteries to test 	<ul style="list-style-type: none"> Check Charging Light is illuminated. <p>Solid or flashing is OK.</p>	If light is off: <ul style="list-style-type: none"> Make sure the solar panel is: <ul style="list-style-type: none"> - clean - facing south - in full sun 	<ul style="list-style-type: none"> While the solar wires are unplugged from CrossTalk, check voltage of solar wires (minimum of 15V on a sunny day.) 	If low or no voltage: <ul style="list-style-type: none"> Follow the wires to the panel and check for damage. Ensure wires are connected with correct polarity
Not Flashing	<ul style="list-style-type: none"> Check batteries for output of 12V 	<ul style="list-style-type: none"> Ensure CrossTalk is set to the proper setting for desired flash pattern 	<ul style="list-style-type: none"> Check Status Light for flashing when push button is activated. 	<ul style="list-style-type: none"> Check inputs for push button Ensure wires are secure in ports 	<ul style="list-style-type: none"> Check LEDs for 12V output when activated



FUSE LOCATION & REPLACEMENT

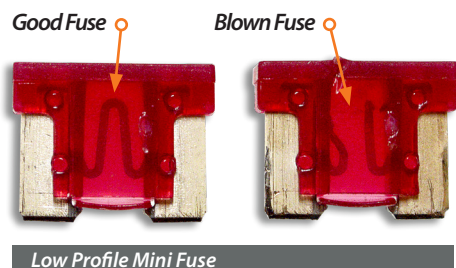
Access the CrossTalk components by removing the CrossTalk from the control box. Turn the CrossTalk onto the face to reveal 4 screws on the backside of the housing on the corners. Loosen each screw until the face cover easily separates from the back of the housing. The screws will remain in the housing.

Carefully lay the cover over as to not to break the connection of the aerial wire.

Locate the 10 amp Low Profile Mini Fuse at the bottom left of the control panel.

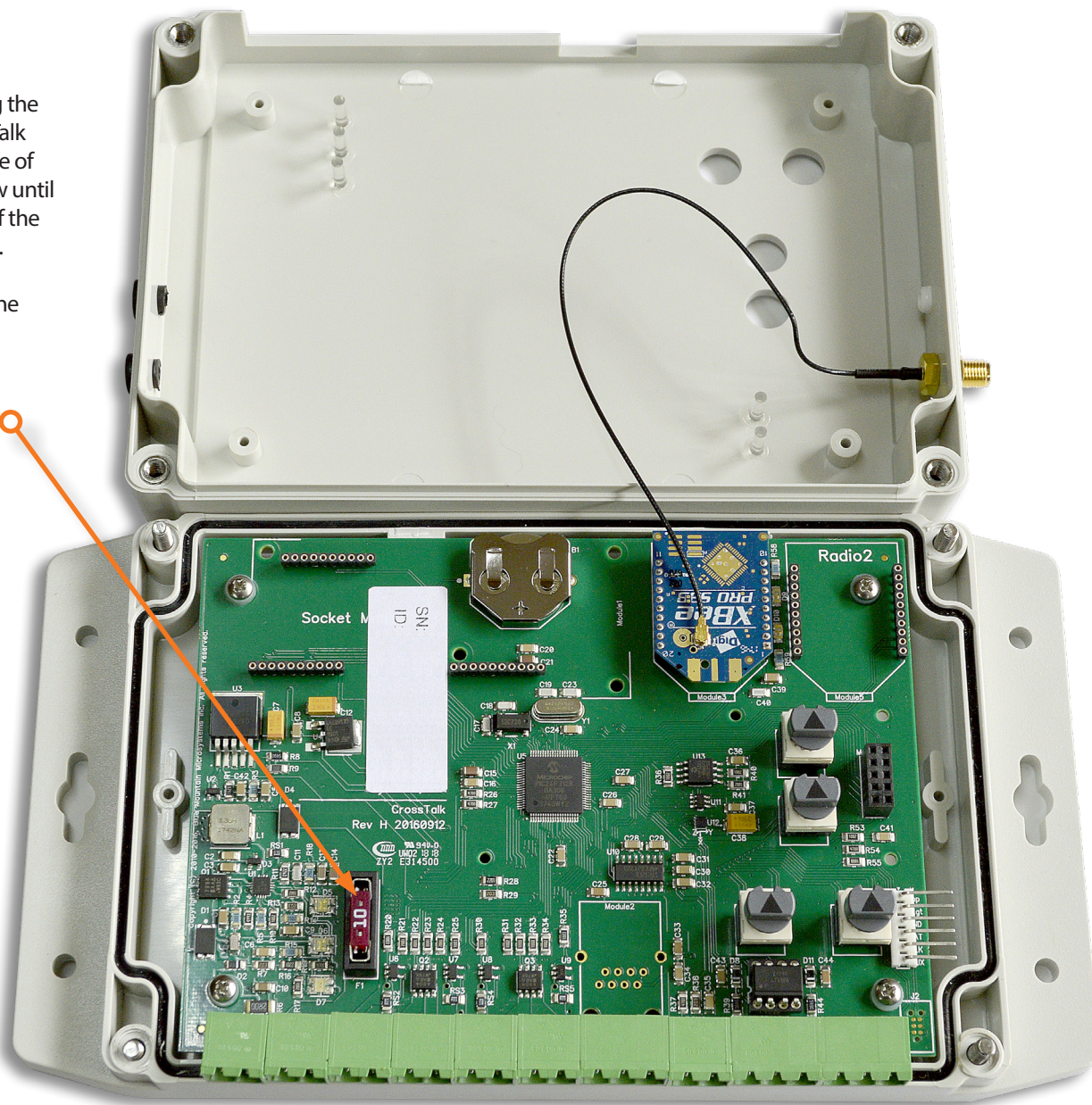
Remove the fuse by grasping with fingers and gently rocking the fuse side to side.

Inspect the fuse by looking through the translucent housing at flat wire in the center. If the wire is solid, the fuse is good. In a blown fuse, the wire will be broken.



Replace the blown fuse with a new one by inserting into the port and firmly pressing it into place.

Align the covers and twist the screws until the covers are snug. Remount the CrossTalk to control box.





K&K Systems, inc.
Traffic Safety Products Manufacturer

687 Palmetto Rd.
Tupelo, Mississippi 38801

office: 662.566.2025
fax : 662.566.7123
toll-free: 888.414.3003

email: sales@k-ksystems.com
www.k-ksystems.com