BRF22 USER GUIDE

RECTANGULAR RAPID FLASHING BEACON

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1 INTRODUCTION

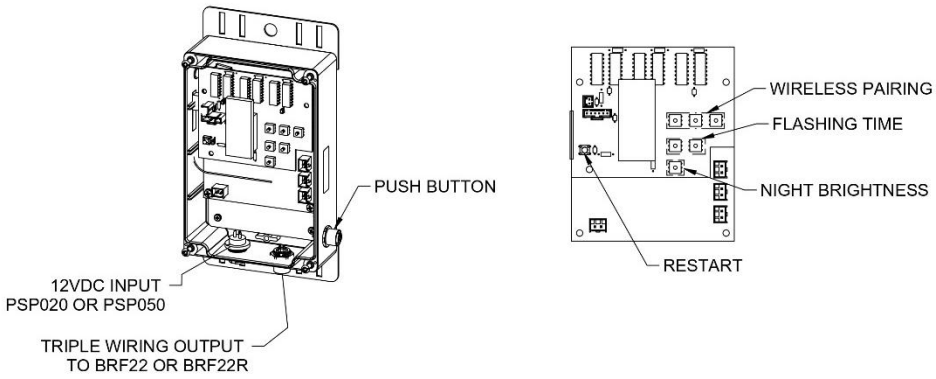
Rectangular Rapid Flashing Beacons (RRFBs) provide an effective method for securing pedestrian crossings.

2 OPERATING SETTINGS

The controller allows configuration of the beacon operation.

Access the settings by removing the controller cover. A set of rotary switches is available with the functions illustrated below.

The restart button initiates an initialization sequence that demonstrates the active settings.



2.1 RF ADDRESS

Set the group address using three selectors with values from 0 to F.

Pairing occurs at controller power-up. Any controller within communication range will be grouped.

2.2 FLASHING TIME

Adjust the flashing time in seconds: 10s steps with the left selector and 1s steps with the right.

Values from 00 to 05 all result in a minimum time of 5 seconds.

The chart below offers recommended values based on crossing distance and the population served.

Verification after installation is **recommended** to ensure effectiveness.

Crossing Distance		Walker Speed			
		0.8	0.9	1.3	m/s
m	ft	2.9	3.2	4.7	km/h
3	10	9	8	7	
6	20	13	12	10	
9	30	16	15	12	
12	40	20	18	14	
15	50	24	22	17	
18	60	28	25	19	
21	70	31	28	21	
24	80	35	32	23	
27	90	39	35	26	
30	100	43	38	28	
		2.6	3.0	4.3	ft/s
		1.8	2.0	2.9	mi/h

2.3 NIGHT BRIGHTNESS

Adjust the display brightness to a fraction of the daytime level. Ten levels are available, as below.

Selection	Brightness
0	1%
1	2%
2	3%
3	5%
4	8%
5	13%
6	22%
7	36%
8	60%
9	100%

2.4 START-UP, RESTART

The controller reads settings when powered on.

After any adjustments, press the restart button to apply settings.

The bar will display a confirmation sequence:

1. Both lights briefly turn on, then the left light flashes the number of 10s intervals for the crossing time at full brightness.
2. Both lights briefly turn on, then the right light flashes the number of 1s intervals for the crossing time at full brightness.
3. Both lights turn on at night brightness level.

WARNING

The lights are dazzling at full brightness.
View them from the side or partially shield them with your hand, especially in a workshop setting.

Example

To set the crossing time to 30 seconds and night brightness to the minimum 1%:

- Set "10s" to 3 and "1s" to 0
- Set "Night" selection to 0
- Press the restart button
- Both lamps light up and the left one flashes 3 times then turns off
- Both lamps light up and the right one remains off
- Both lamps light up once more at night brightness

2.5 REMOTE CONFIGURATION

Instead of accessing the controller directly, it can be configured remotely (within radio range) using the following:

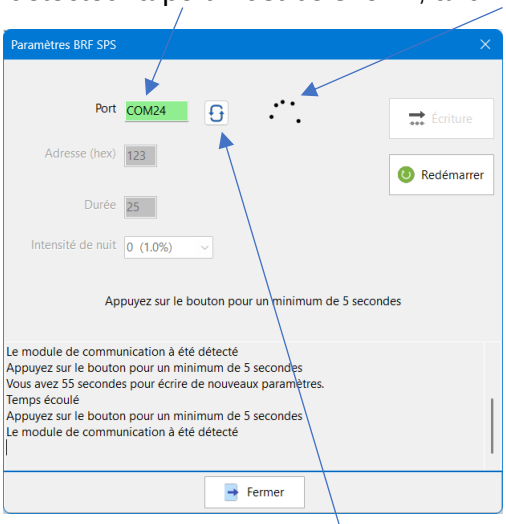
- PC Laptop
- Application: 'ParamBRFSPS.exe'
- BRFSPS Communication Module

The application is available on our website: Downloads | Signel Services. No installation is required.

The communication module is available for purchase from Signel Services.

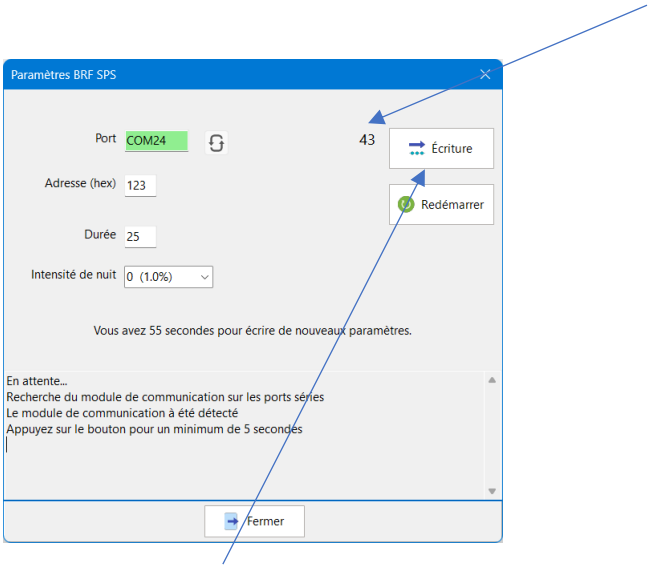
2.5.1 Configuration procedure

- Connect the BRFSPS module to a USB port on the computer
- Launch 'ParamBRFSPS.exe'
- Ensure the module is detected: a port must be shown, and rotation should be active.



- If not, verify the USB connection and click the refresh button
- At this point, the application waits for a **single BRF button** to be pressed for at least 5 seconds.
- The BRF enters configuration mode for one minute, and its settings automatically appear in the application.

By default, these are from the rotary switches unless previously configured remotely. You have 55 seconds to change settings and write them to the BRF. A countdown is displayed.



- After changing settings, press the write button before the countdown ends; otherwise, the buttons become inactive.
- Observe the start-up sequence on the lights – it should match the new configuration (as described in section 2.4).
- You can replay the sequence by pressing the restart button. This triggers a restart for all BRFs with the same address.
  Note: this button works only once per configuration.
- Repeat this process for all BRF controllers, one by one, even if they belong to the same crossing.

3 SOLAR POWER SUPPLY

The solar power system requires a battery and a power regulator.

Upon delivery of a new device, the connection is intentionally left disconnected to prevent standby power consumption by the regulator.

Also, batteries self-discharge whether in use or not. Long-term storage may require recharging.

Before leaving the workshop:

- Verify the connection is made
- Check the output terminal voltage – it must exceed 12.5V.
- If voltage is insufficient, recharge the battery.

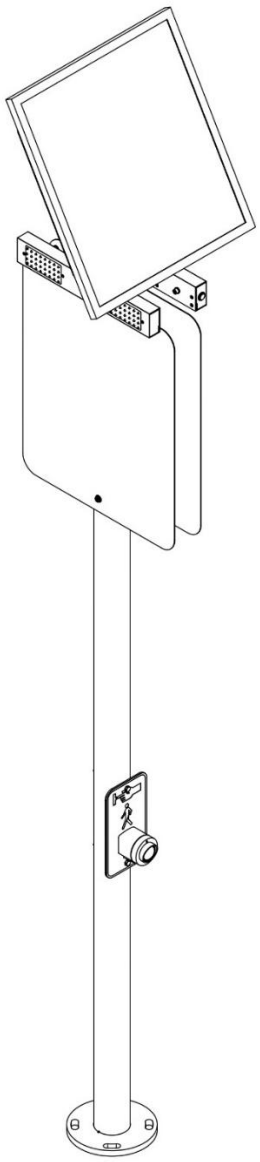
⚠ The settings confirmation sequence will not run if voltage is below 12.5V – this prevents false activations during intermittent power issues.

4 POLE MOUNTING

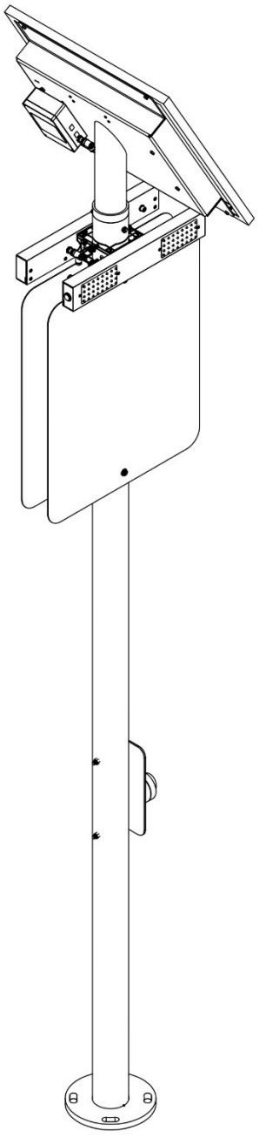
4.1 COMPONENT PLACEMENT

Recommended push button and road sign heights are shown below. The solar panel must face south for optimal performance.

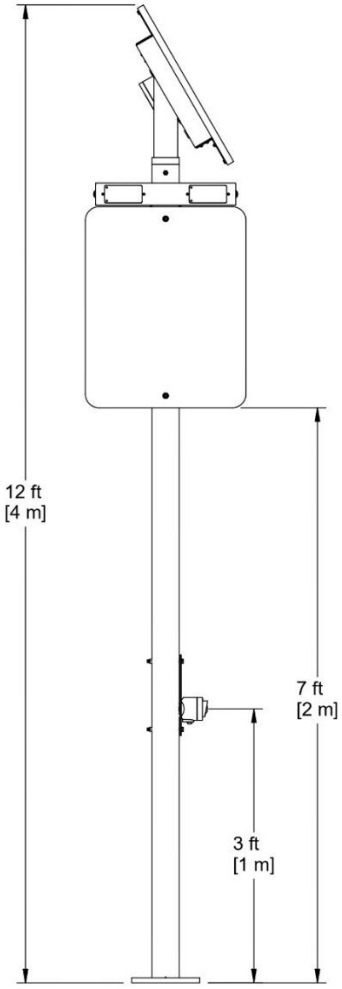
Proceed with an installation step by step, from top to bottom.



PEDESTRIAN VIEW

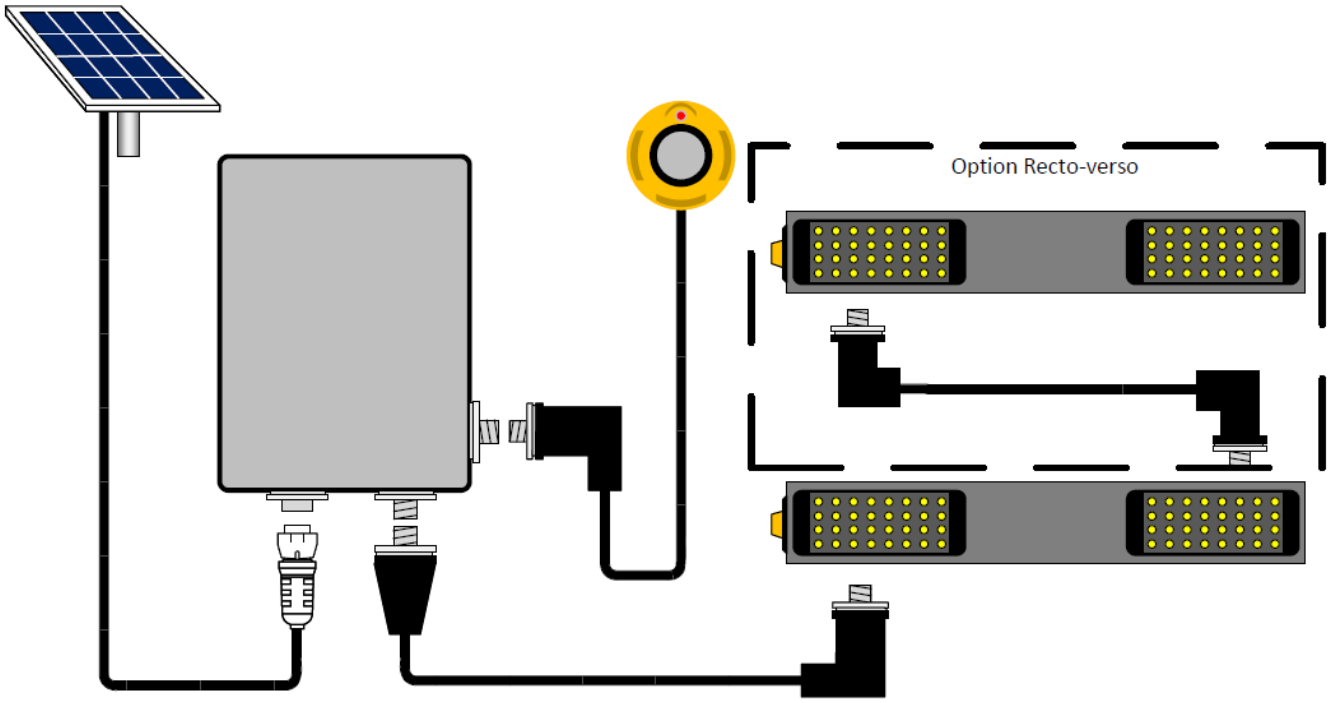


VEHICLE VIEW



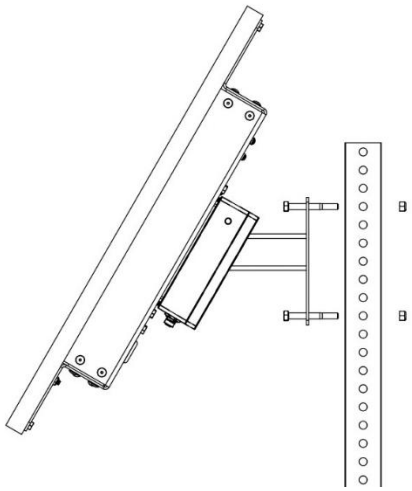
4.2 SYSTEM WIRING

- Connect the solar pack to the controller's power input.
- Connect the controller to the beacon lights. Route and secure the cable along the exterior of the pole using black zip ties.
- Connect the push button. Route the cable through the side bracket hole and into the interior of the pole.

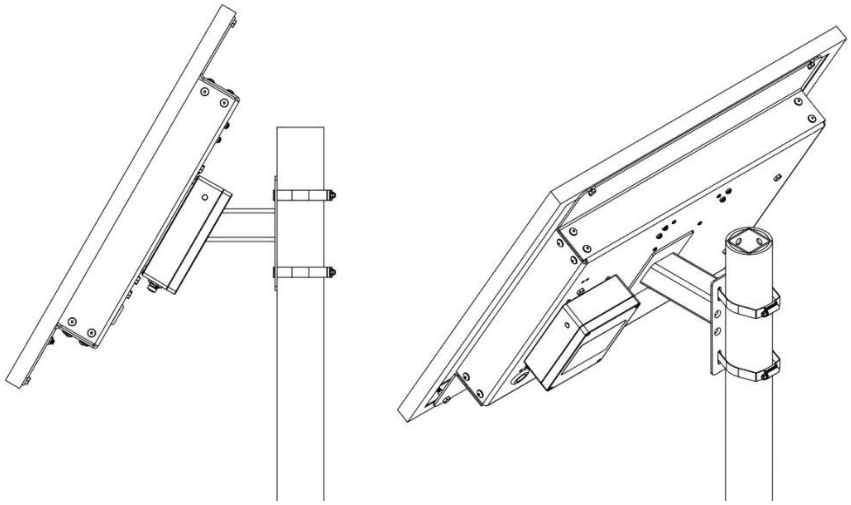


4.3 SOLAR POWER PACK

- **If installing on a square tube:**
  Use the bolts and nuts provided in the installation kit to securely fasten the power supply to the square tube. Once mounted, proceed to the wiring section.



- **If installing on a round pole:**
  Use the provided straps to secure the power supply to the pole. Once mounted, proceed to the wiring section.

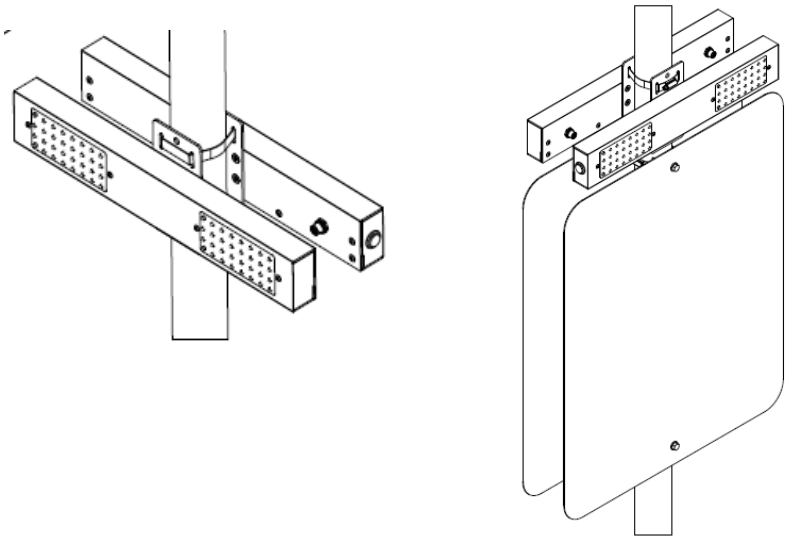


4.4 RECTANGULAR RAPID FLASHING BEACON

Install a single bar or two back-to-back bars using the provided plate and bolts.

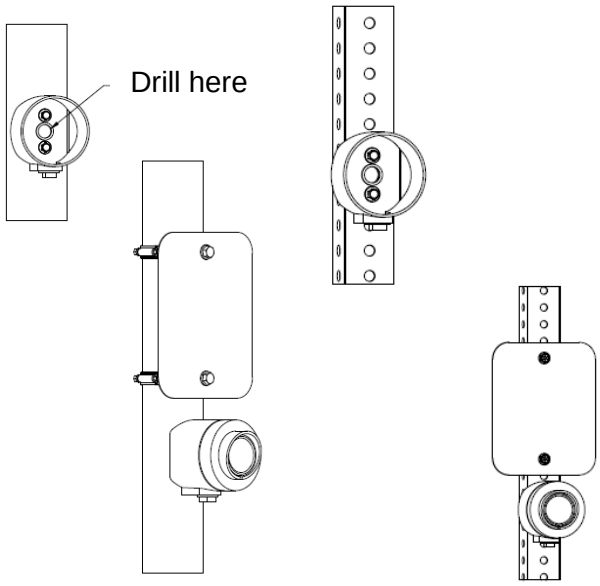
4.5 ROAD SIGN

Install one or two back-to-back road signs using the provided bolts.



4.6 PUSH BUTTON

- Choose a hole height between 1 m and 1.2 m (3.5' to 4') from ground level to center the button.
- Disassemble the button into two halves. Use the back as a drilling template.
- Attach the button base to the pole using the supplied self-drilling screws.
- Enlarge one hole to a 1/2"–3/4" diameter.
- Pull the wire to the controller through.
- Apply zinc-rich paint to exposed surfaces to prevent premature rusting.
- Attach fork terminals to the button's connection terminal block.
- Reassemble the button front onto its base.



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