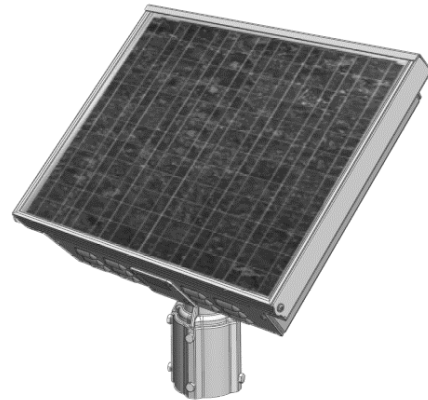**For the R920-E/F, R820-E/F, R829-E/F, and R247-E/F flashing beacons**

E-Series

F-Series

84775_QSG_TRA_E-F-Series_RevH

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2

carmanah®
we put solar to work

1.1   Safety Precautions

ELECTRICAL SHOCK HAZARD. DO NOT LET THE BATTERY TERMINALS COME INTO CONTACT WITH ANY EXPOSED METAL.

Product can have sharp edges. Accidental movement of hinged components can cause injury.

Batteries are shipped fully charged. Use extreme caution when handling the batteries as they can generate hazardous short-circuit currents. Remove all jewelry (bracelets, metal-strap watches, etc.) before handling the batteries.

Solar panels produce DC electricity when exposed to light and can therefore produce an electrical shock or burn. To render solar panels inoperative, remove them from sunlight or fully cover their front surface with an opaque material.

Before lifting any heavy or bulky equipment, ensure the load is secured so moving parts do not shift, and that it can be lifted as far as needed without back strain or loss of grip. Installation may require more than one person.

Ensure the equipment is not powered during installation and wiring of the system. Recheck all completed wiring for proper polarity prior to energizing the system.

Perform all installation, wiring, grounding and maintenance in conformance with local building and electrical codes. Adherence to the National Electrical Code (NEC) is mandatory to comply with any certification markings. Non-adherence to code may void the warranty.

Changes or modifications to Carmanah equipment not expressly approved by Carmanah could void both the user's authority to operate the equipment and the warranty.

Ensure the installation location has an unobstructed view of the sun's path. Obstructions such as trees or buildings could significantly reduce the amount of sunlight on the solar panel. Shade analysis is highly recommended to understand how shadows will change according to the time of year. Contact Carmanah for a detailed examination and solar simulations for your site.

This quick start guide is not a replacement for the complete product user manual.

Visit support.carmanah.com to download the complete product user manual.

2.1   Tools and Materials Required

The following tools and materials may be required to mount your Carmanah flashing beacon depending on the E/F Series model and configuration:
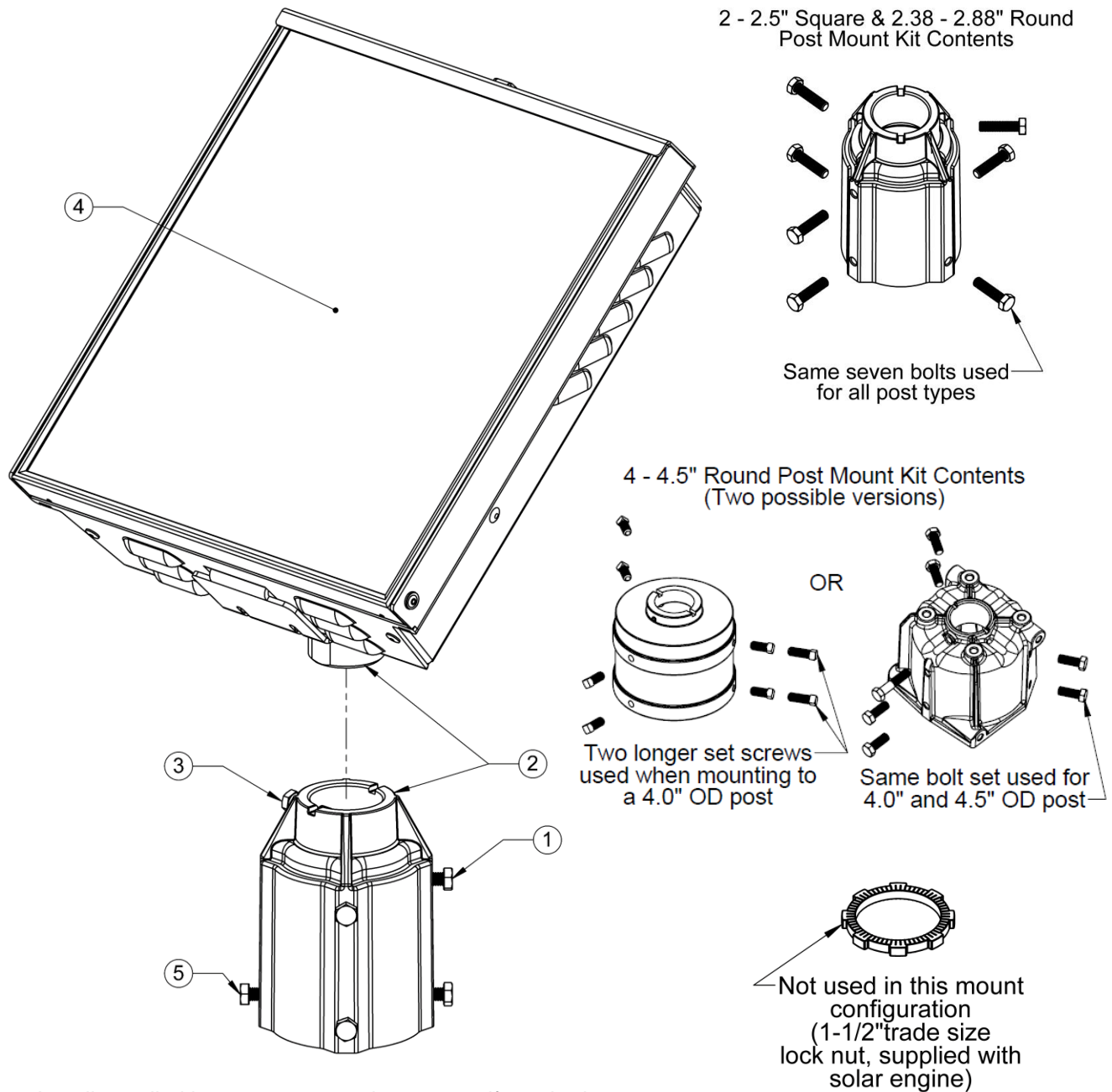
a. Imperial socket set	h. Drill and drill bits
b. Crescent wrench	i. Fine-tip felt marker
c. Tap set	j. Multi-bit screwdriver
d. Imperial Allen-Wrench set	k. Pelco Roger-Wrench (Optional)
e. Fish tape	l. Hook spanner wrench, 1-1/2" trade size (configurations 4.2 & 4.3)
f. Level	m. Ladder or lift device
g. Compass or pre-determined equatorial direction	n. Lithium grease
	o. Electrical Multi-meter (Optional)

3.1 Commissioning

After installing and programming the E/F Series flashing beacon system, the following commissioning verification checklist helps ensure that everything is working as it should be and that your system is ready to serve the public for many years of reliable and sustained operation.

☐ EMS settings are correct.

☐ No LED fault message on the EMS.

☐ For single or triple fixture systems, ensure the flash pattern is set for 0.5U or, 0.5A3

☐ Fixtures flash properly: use "TEST" at the EMS user interface to check functionality of LEDs.

☐ Fixtures are secured and pointed in the correct direction toward oncoming traffic lanes.

☐ For school zone systems, retrieved calendar is confirmed to be accurate and calendar setting is set to "on" if applicable.

☐ Solar panel pointed South (or as per specific instructions provided by Carmanah).

☐ Override box (if equipped) correctly activates or deactivates the flashing (depending on model input setting).

☐ The solar panel is properly latched, and the solar engine body is secured tightly and unable to spin.

☐ No debris covering the photosensor window on top of the solar engine.

☐ Vents are clear, and screens are intact.

☐ Sealing gaskets on door are intact.

☐ Solar panel is producing voltage in sunlight (use EMS "Solar" user interface menu item).

☐ System has clear sky access and no removal of obstructions is required.

☐ Note the possibility for nearby foliage to eventually shade the solar panel at a different time of year. If so, set a reminder to inspect later.

☐ Battery voltage is healthy (use either a voltmeter or EMS "Battery" user interface menu item).

☐ Verify both fuses are intact so that the system doesn't just run off a single battery (use multimeter to confirm fuse continuity or disconnect each fuse individually and confirm the other fuse still allows EMS to operate).

☐ Yellow fuse holders are tightly sealed to prevent water ingress.

☐ RRFB light bar flashing starts with left module first if applicable.

☐ Remote systems are turning on and off correctly via wireless control if applicable.

☐ For RRFB systems, verify the indicator LEDs on the ends of light bars can be seen by pedestrians across the street.

4.1 Solar Engine Mounting – Round Post

2 - 2.5" Square & 2.38 - 2.88" Round Post Mount Kit Contents

Same seven bolts used for all post types

4 - 4.5" Round Post Mount Kit Contents (Two possible versions)

OR

Two longer set screws used when mounting to a 4.0" OD post

Same bolt set used for 4.0" and 4.5" OD post

Not used in this mount configuration (1-1/2"trade size lock nut, supplied with solar engine)

1. Install supplied longer set screws into mount, if required.
2. Thread mount onto solar engine and tighten.
3. Tighten set screw or clamp bolt at top of mount.
4. Install on post and orient solar engine to face South (for Northern Hemisphere locations).
5. Tighten set screws or bolts onto post.

4.2   Solar Engine Mounting – Square Post
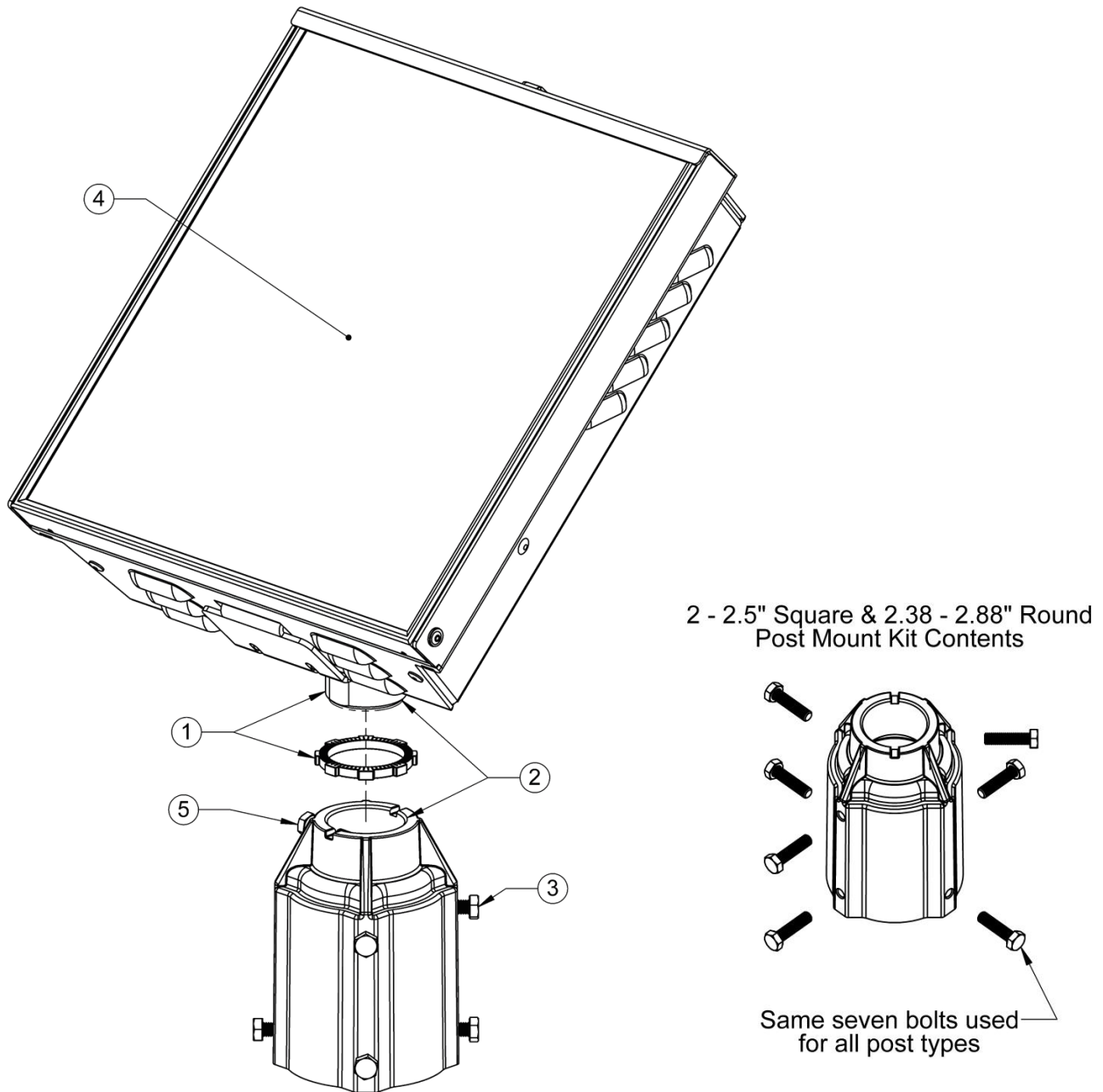
2 - 2.5" Square & 2.38 - 2.88" Round
Post Mount Kit Contents

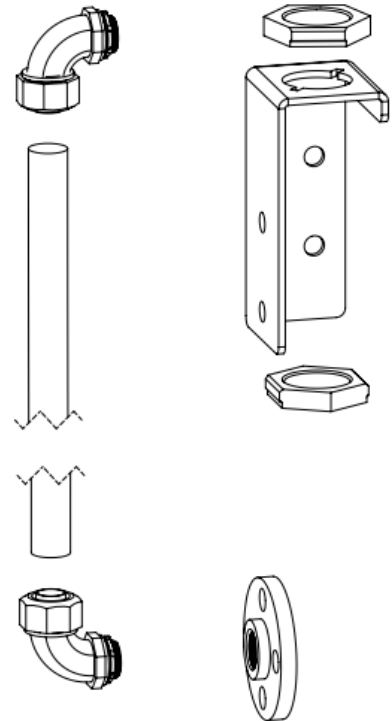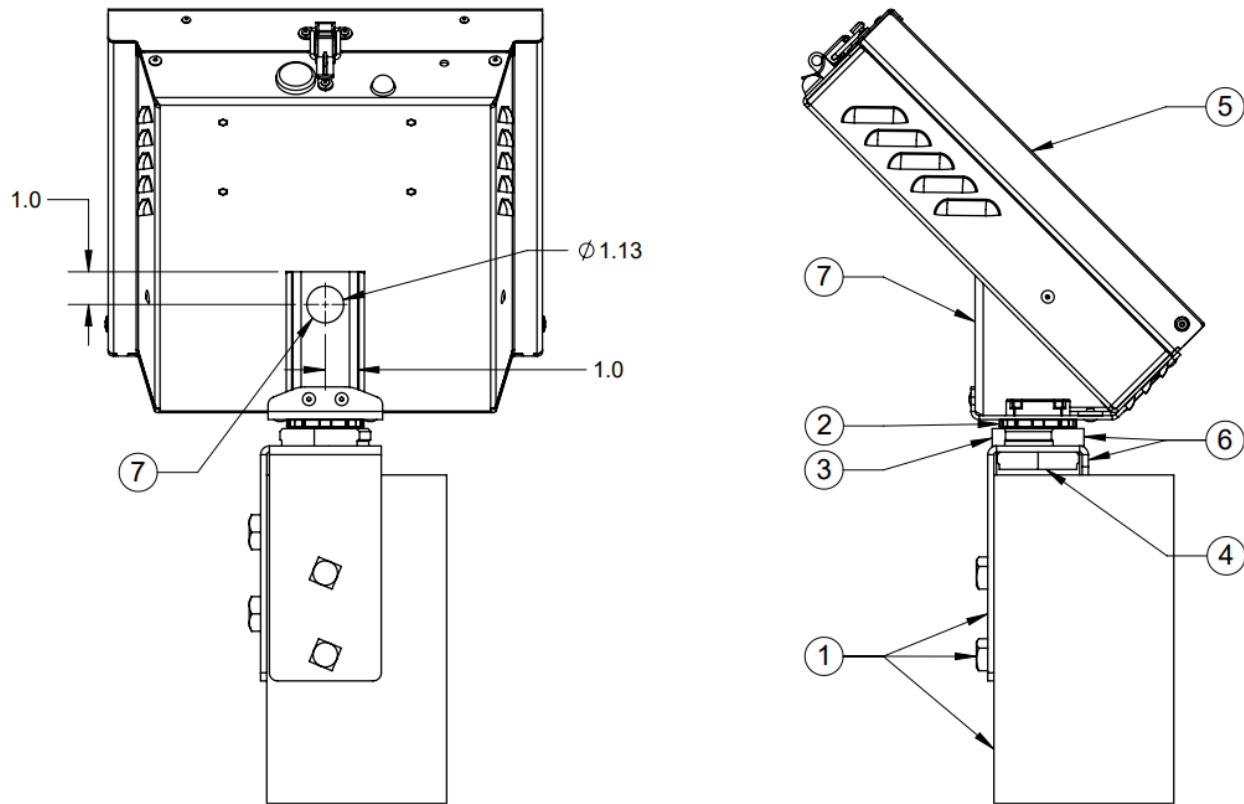Same seven bolts used
for all post types

1.   Obtain lock nut included with solar engine. Fully tighten against bottom of solar engine.

2.   Thread solar engine fully onto mount.

3.   Install mount onto square post and tighten bolts onto post.

4.   Loosen less than one turn until solar engine faces South (for Northern Hemisphere locations).

5.   Tighten top bolt on mount.

4.3   Solar Engine Mounting – Wood Post
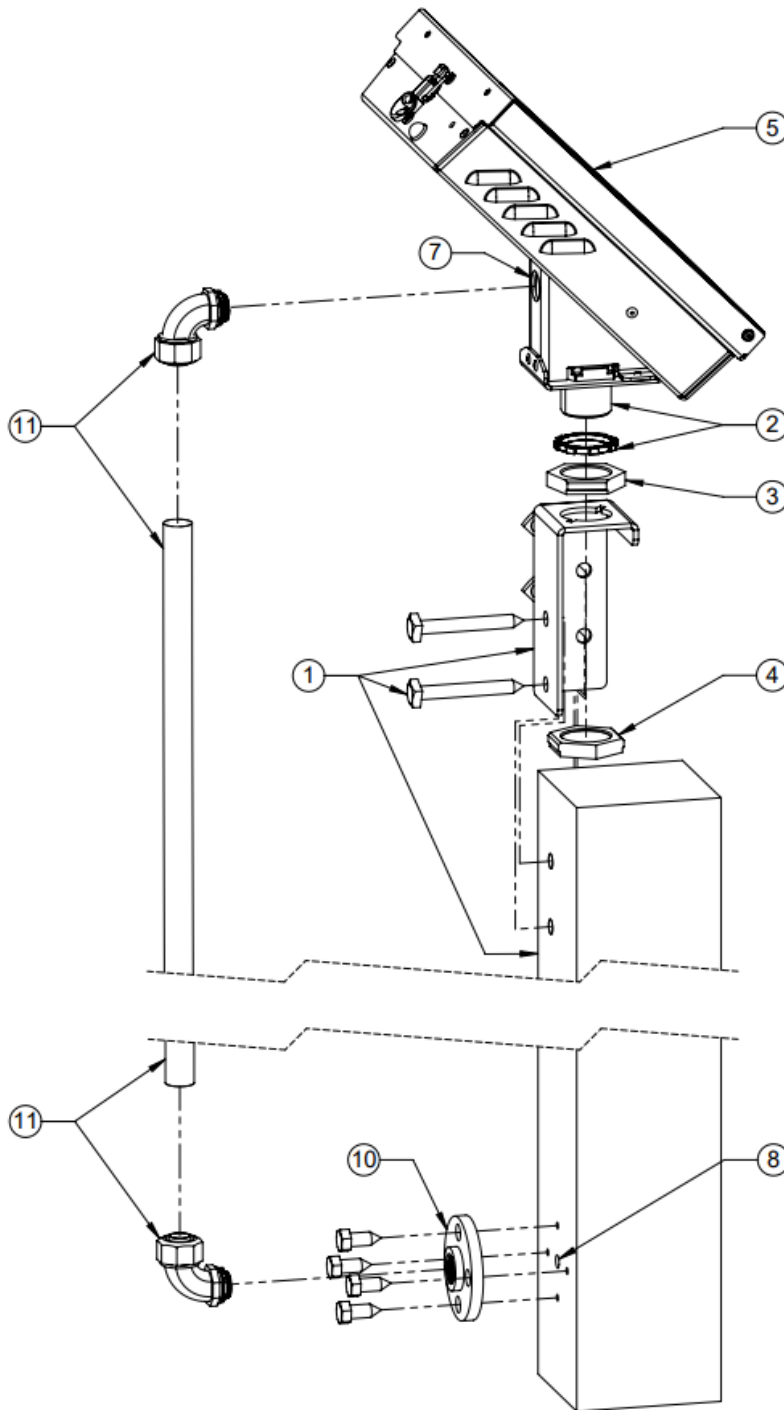

Direct Mount E/F Wood Post
Mount Kit Contents

1. Install mount onto top of post using four suitable fasteners (not supplied).

2. Obtain lock nut included with solar engine. Fully tighten against bottom of solar engine.

3. Thread hex nut onto bottom of solar engine.

4. Insert other hex nut between top of post and hole in mount.

5. Fully thread solar engine onto nut under mount. Loosen less than one turn until solar engine faces South (for Northern Hemisphere locations).

6. Tighten upper nut down against mount.

7. Drill a 1-1/8" hole in the back of the solar engine as shown.

8. Determine mounting location for beacon, RRFB or LED enhanced sign. Drill cable hole through pole in suitable location.

9. Mount beacon, RRFB or LED enhanced sign on pole (not shown).

10. Install conduit flange on back of pole using suitable fasteners (not supplied).

11. Route beacon, RRFB or LED enhanced sign cable and install/tighten conduit and fittings.
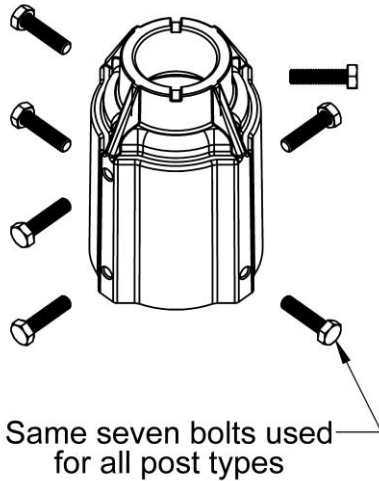
4.4   Solar Engine Mounting – Side of Post

Side of Pole Mount Kit Contents
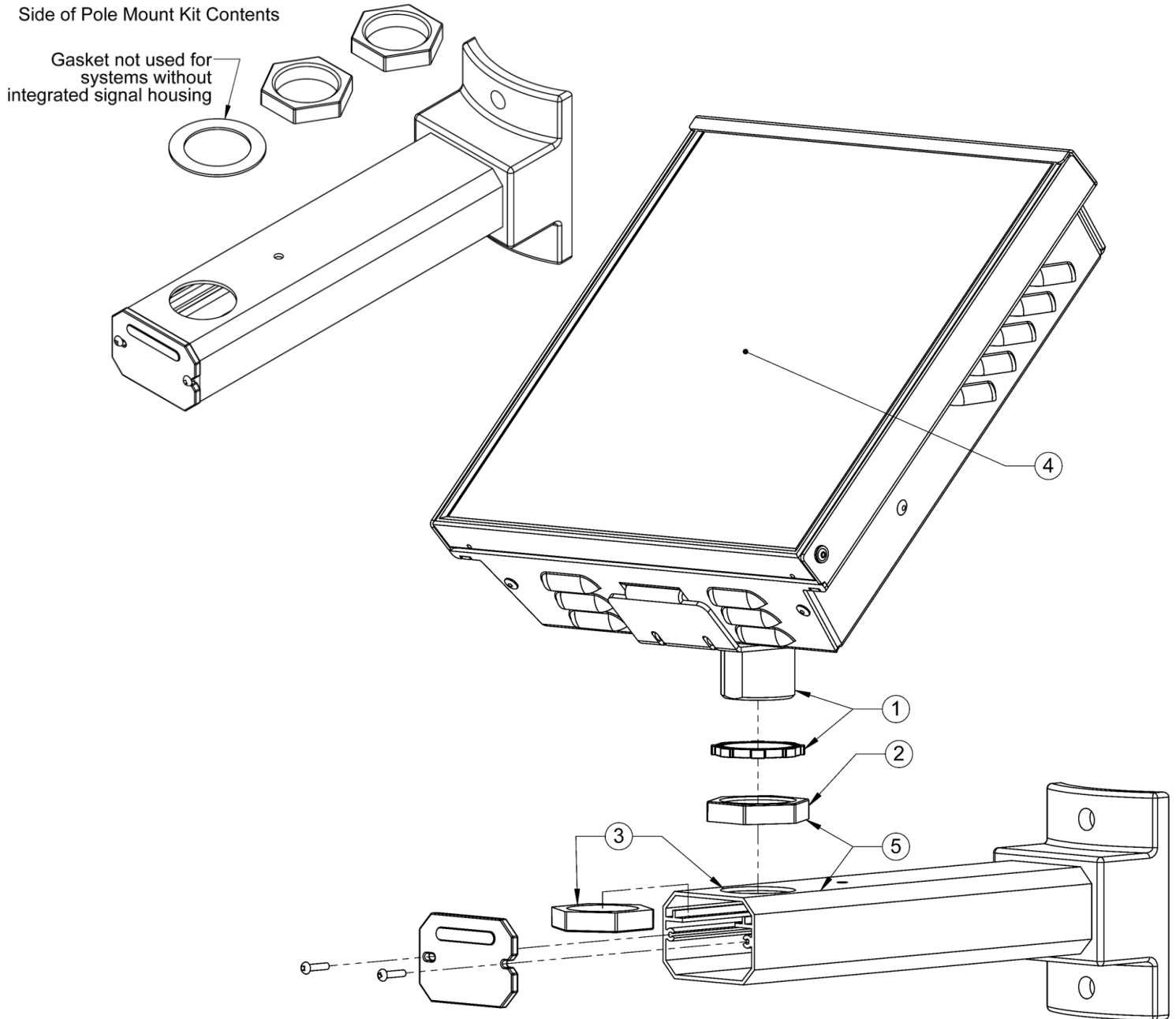
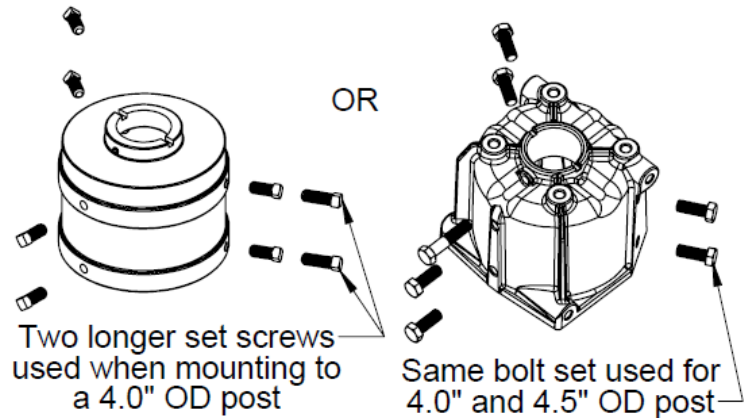Gasket not used for systems without integrated signal housing

1. Obtain lock nut included with solar engine. Fully tighten against bottom of solar engine.

2. Thread hex nut onto bottom of solar engine.

3. Insert other hex nut into channel in side of post mount so it lines up with hole in top of mount.

4. Thread solar engine all the way onto nut in channel. Loosen less than one turn until solar engine faces South (for Northern Hemisphere locations).

5. Tighten top hex nut down against mount.

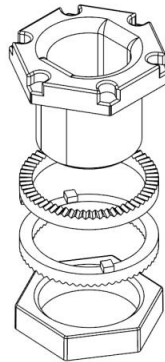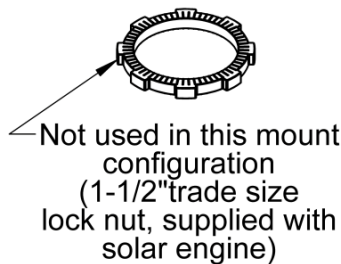## 4.5 Integrated Solar Engine with Signal Head – Round / Square Post

**2 - 2.5" Square & 2.38 - 2.88" Round Post Mount Kit Contents**

Same seven bolts used for all post types

4 - 4.5" Round Post Mount Kit Contents (Two possible versions)

OR

Two longer set screws used when mounting to a 4.0" OD post

Same bolt set used for 4.0" and 4.5" OD post

Not used in this mount configuration (1-1/2"trade size lock nut, supplied with solar engine)
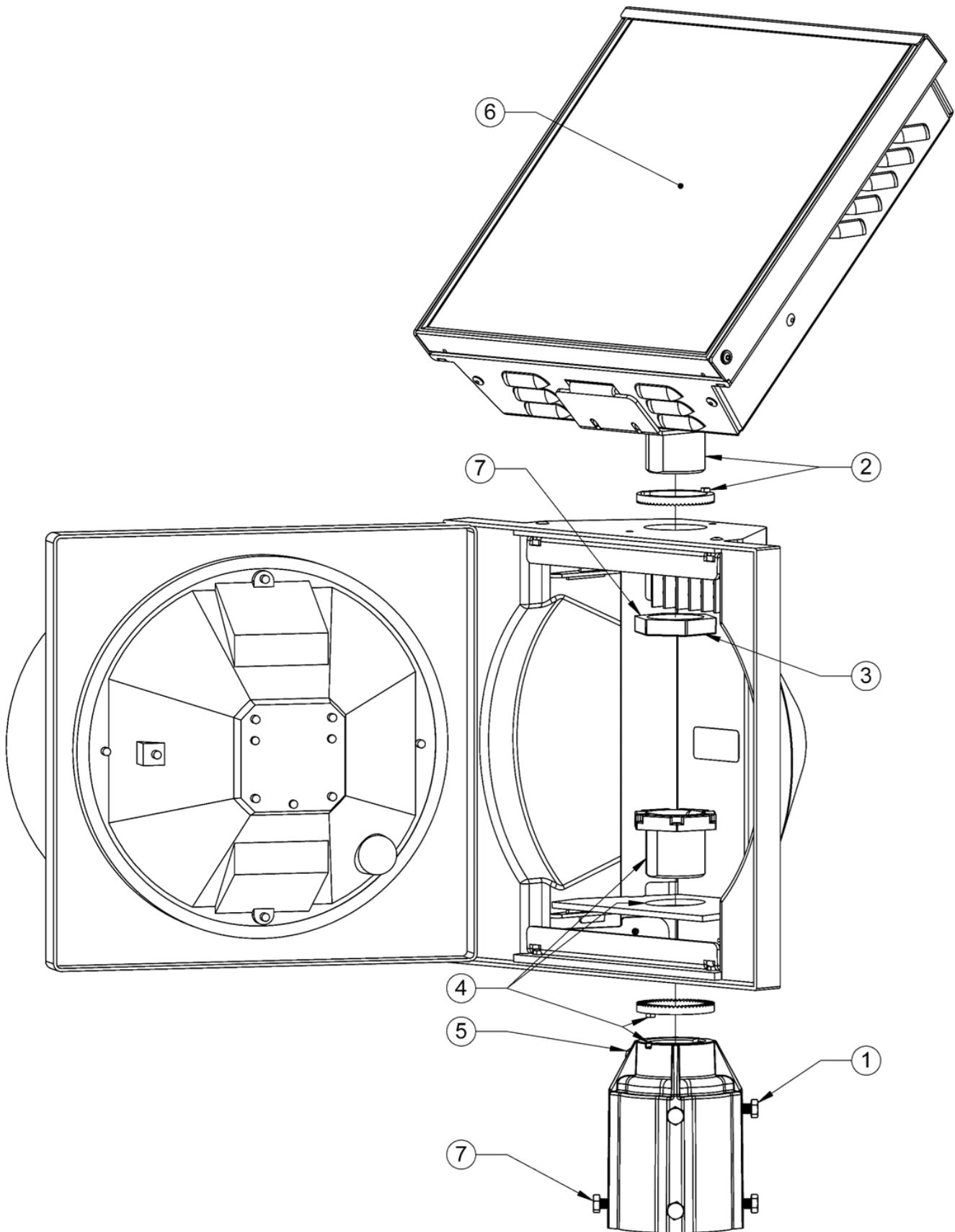
Hardware Provided with Signal Housing

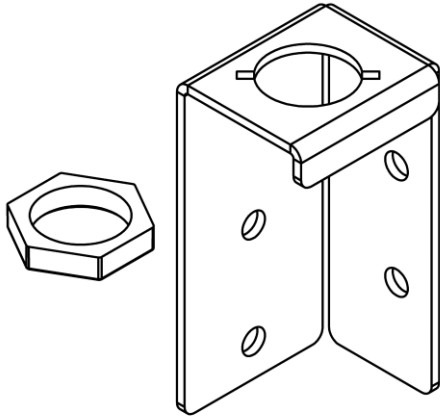**Load Spreader Plate (12" signal housings only)**
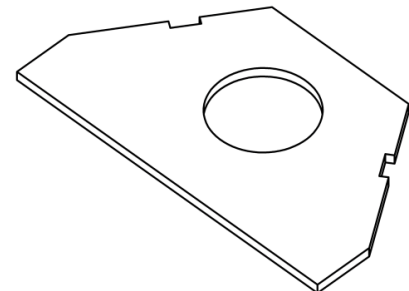
1. Install supplied longer set screws into mount, if required (4.0" OD posts only; see mount contents above).
2. Align serrated lock ring so that tabs fit into slots in bottom of solar engine.
3. Obtain signal housing with reinforcement bracket(s). Install solar engine through top signal housing hole and into hex nut.
4. Install nipple through load spreader plate (12" signal housings only), bottom signal housing hole, serrated lock ring, and tighten onto mount after aligning lock ring tabs with mount slots.
5. Tighten screw/bolt at top of mount.
6. Install on post, adjust the rotation of the signal head if required and adjust the rotation of the solar engine to face South (for Northern Hemisphere locations).
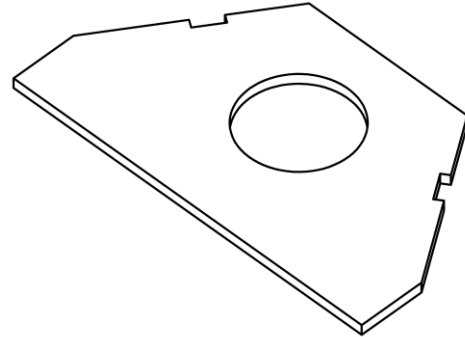7. Tighten mount screws onto post, then tighten hex nut.

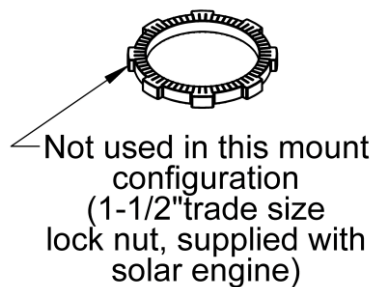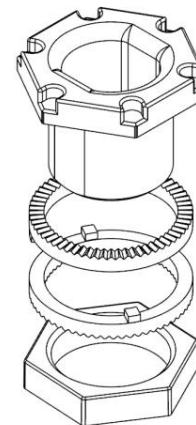## 4.6   Integrated Solar Engine with Signal Head – Square Wood Post

Integrated Signal Square Wood Post Mount Kit Contents

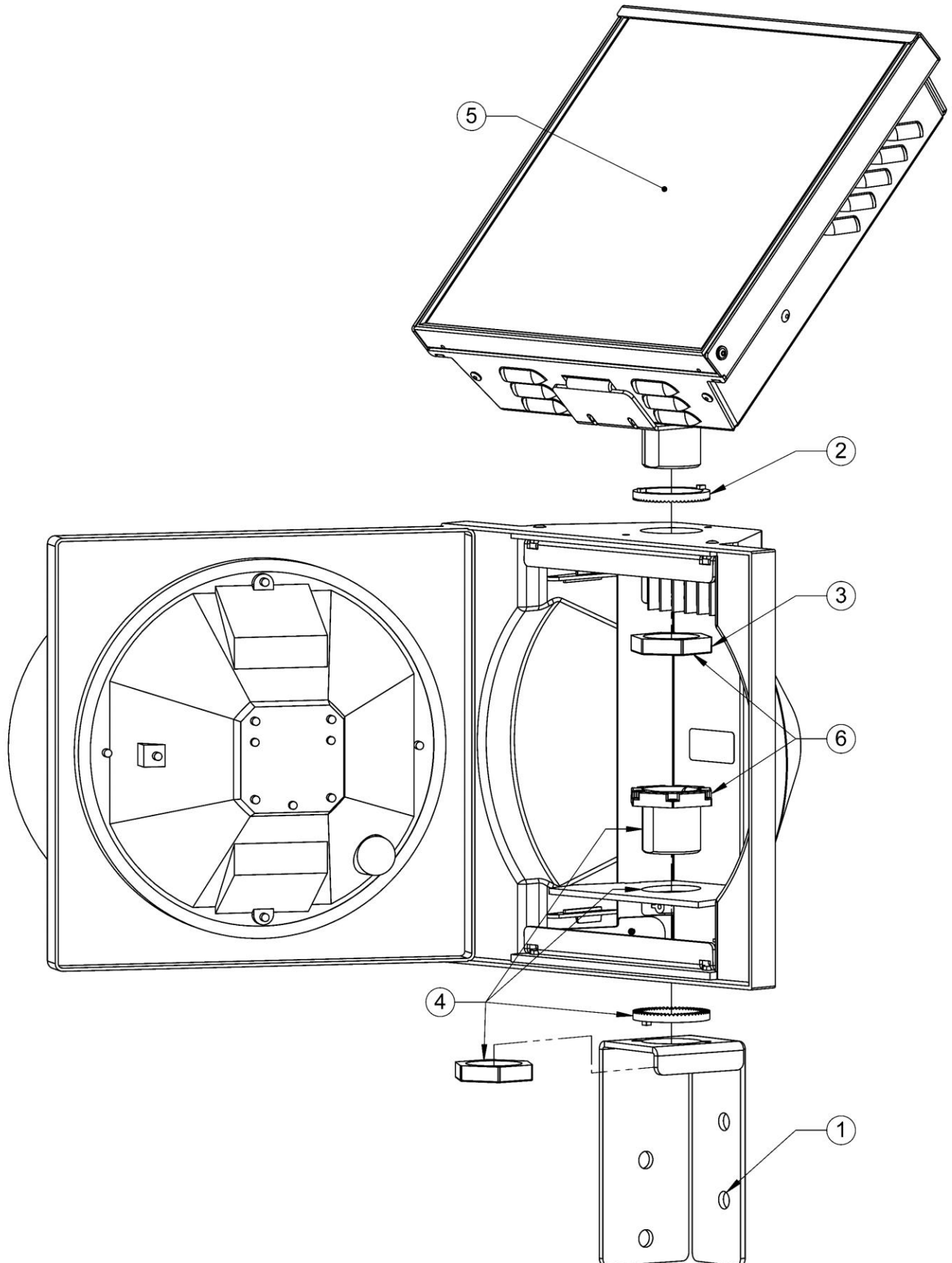### Load Spreader Plate (12" signal housings only)

Hardware Provided with Signal Housing

Not used in this mount configuration (1-1/2"trade size lock nut, supplied with solar engine)

1. Install mount onto post using suitable fasteners (not supplied).
2. Align serrated lock ring so that tabs fit into slots in bottom of solar engine.
3. Obtain signal housing with reinforcement bracket(s). Install solar engine through top signal housing hole and into hex nut.
4. Install nipple through load spreader plate (12" signal housings only), bottom signal housing hole, serrated lock ring, mount hole, and hex nut as shown.
5. Adjust direction of signal if required, and orient solar engine to face South (for Northern Hemisphere locations).
6. Tighten nipple and top hex nut.

.

4.7   Integrated Solar Engine with Signal Head – Side of Post

Side of Post Mount Kit Contents

Load Spreader Plate
(12" signal housings only)

One nut not used for integrated
round signal systems

Hardware Provided with
Signal Housing

Not used in this mount
configuration
(1-1/2"trade size
lock nut, supplied with
solar engine)
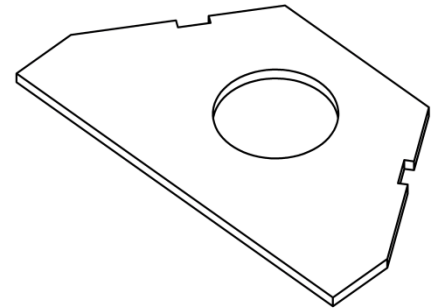
1. Align serrated lock ring so that tabs fit into slots in bottom of solar engine.
2. Obtain signal housing with reinforcement bracket(s). Install solar engine through top signal housing hole and into hex nut.
3. Install nipple with set screw through load spreader plate (12" signal housings only), bottom signal housing hole, gasket, mount hole, and hex nut as shown.
4. Adjust direction of the signal if required, and orient solar engine to face South (for Northern Hemisphere locations).
5. Tighten nipple and top hex nut.
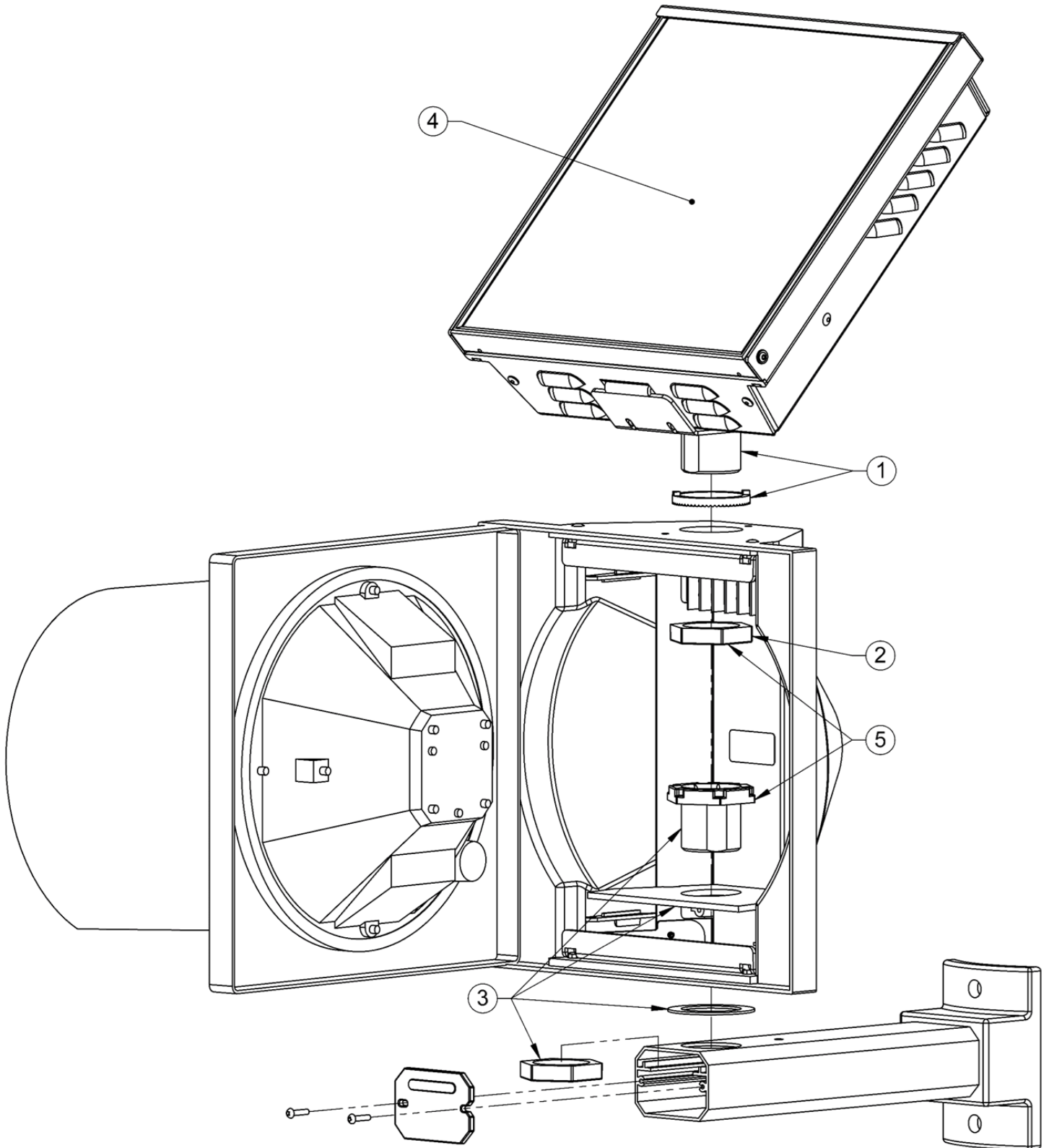
4.8 RRFB Light Bar Installation (R920-E/F)

1. Feed light bar cable(s) through post, creating a drip loop.

2. Mount light bar universal bracket(s). Bolts and banding not supplied.
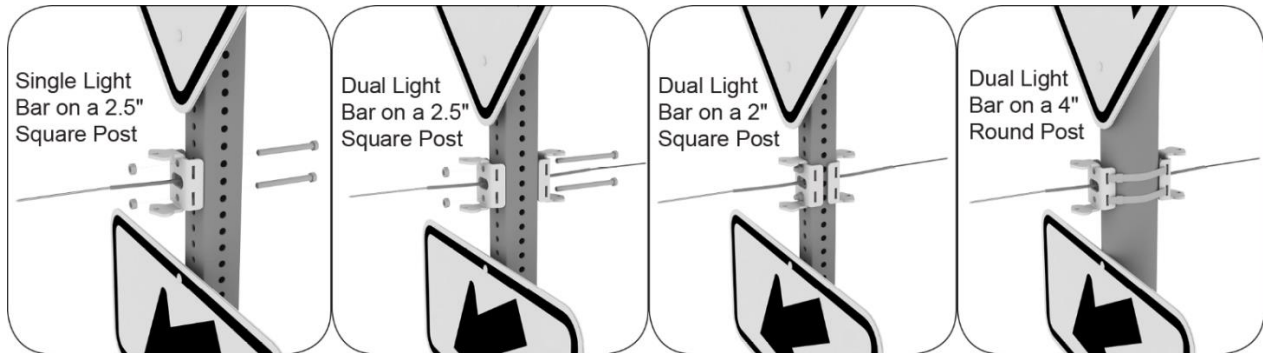
3. Mount light bar(s) onto universal bracket(s) through slots in back. Bolt light bar to universal bracket as shown. Install two anti-vandal rotation locking screws. Tighten mounting nuts. Secure cable using supplied cable ties as shown.
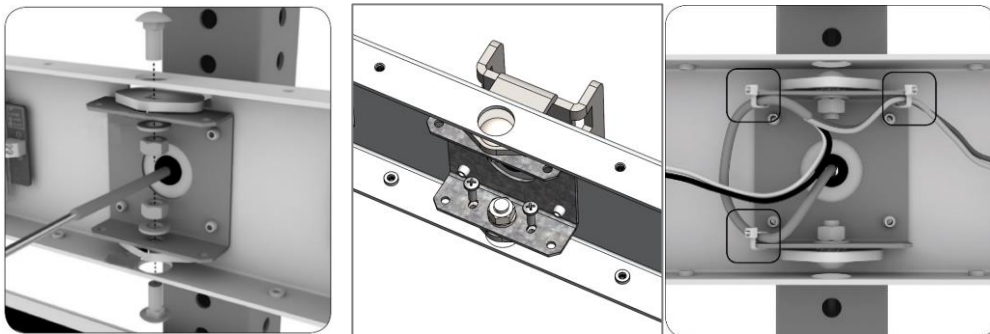
4. Align light bar as required. Push light bar wires into light bar connectors, following color scheme indicated on unit. **For FHWA compliance, mount light bar so black and white wires are on the left side.** Slide on light bar cover and secure with four screws provided. If the pedestrian confirmation light is not required in one direction, use the supplied opaque label to cover the indicator light. See Section 4.9 if you have the optional light bar backplates before installing the light bar cover.
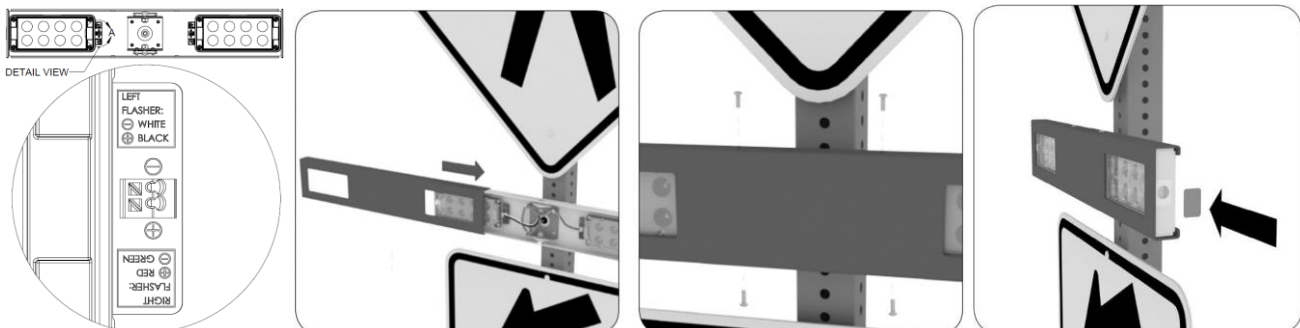
4.9   RRFB Light Bar Backplates (R920-E/F)

1. With the light bar already installed and wired, install the backplate over and behind the light bar with the flanges facing forward.

2. Install light bar cover and align screw holes.

3. Slide back plate flanges forward over light bar cover.

4. Align and install four screws several turns, then tighten all four.

5.1   Pushbutton Installation (R920-E/F & R820-E/F Beacons)

> **NOTE**   If the E or F Series is wired for a pushbutton but one is not required (such as an advance RRFB), insulate the ends and secure the wires.

> **NOTE**   The pushbutton can be connected in either polarity.

1. For round poles, cut holes to size and tap as required. Deburr the hole that the pushbutton wiring will pass through.

2. Feed the pushbutton cable through the pole, creating a drip loop.

5.2   Polara iNX and iDX Audible Pushbutton Kit Installation

| NOTE | This section applies to both the iNX and iDX (touchless) audible pushbuttons. |

The Polara iNX/iDX series supersedes the XAV audible pushbutton and integrates the controller inside the pushbutton assembly. The iNX/iDX pushbutton kit includes a pushbutton harness (available in 16ft, 36ft or 75ft lengths), the iNX/iDX audible pushbutton assembly, and the R10-25 pedestrian pushbutton sign.

| NOTE | The Digital Output on the EMS must be set to ALL when used with the iNX/iDX pushbuttons on standard systems. |

| NOTE | For systems with no installed LED fixtures, the Digital Output must be set to "nLED." This function requires the EMS to have firmware version 1.1.5.0 or newer. See Firmware Version in Section 6.1 in the complete user manual for instructions on how to check the EMS firmware version. |

The E and F Series are fully prewired and will come with the necessary harness terminated to the Carmanah EMS. If you are retrofitting this button into an existing system you will need to follow the retrofit guide at support.carmanah.com

iNX/iDX Terminal	Wire Color	EMS Terminal	Function
GND	Black	BAT-	Battery Negative
PWR	Red	BAT+	Provides +12V power to pushbutton
BUTTON (Non-Polarized)	Orange	PBS+	Triggers EMS to activate beacons
	Brown	PBS-	Triggers EMS to activate beacons
LIGHTS (Non-Polarized)	Blue/Black	BAT-	Battery Negative
	Yellow	EXT2	Provides confirmation signal that beacons are flashing to iNX/iDX, triggering audible message

| NOTE | Onsite configuration of the pushbutton can be done via the iNX/iDX Android and iOS app. Refer to the Polara iNX/iDX user manual for details. |

Ensure that the "wireless sync" feature is disabled. Go to *Wireless Sync* from the app homepage.

Ensure that the flash pattern in the Polara app corresponds to the beacon flash pattern. The default is set to "rapid flash," suitable for RRFBs. In the settings menu, under *LED Flash Behavior*, select the *Play Predefined Pattern* option and choose the appropriate option based on the EMS flash pattern (see reference table below):

EMS Flash pattern	iNX/iDX flash pattern
rFb, rFb1, rFb2, 0.1u, 0.25u, 0.1uF, 0.1AF	Rapid Flash
0.5u, 0.5A, 0.5A3	Simple On/Off
stdY	Solid LED On

5.3 Campbell Guardian Audible Pushbutton Kit Installation

The Campbell Guardian audible pushbutton kit includes a pushbutton harness (16ft, 36ft or 75ft) prewired to the G Series EMS (as shown below), along with the Guardian audible pushbutton, and an associated sign. Please consult Campbell's installation documentation for more information.

NOTE	The Digital Output on the EMS must be set to ALL when used with the Guardian pushbutton on standard systems.
NOTE	For systems with no installed LED fixtures, the Digital Output must be set to nLED. This function requires the EMS to have firmware version 1.1.5.0 or newer. See Firmware Version in Section 6.1 in the complete user manual for instructions on how to check the EMS firmware version. Contact Carmanah for instructions if adding an audible pushbutton to an older system.

The E and F Series are fully prewired and will come with the necessary harness terminated to the Carmanah EMS. If you are retrofitting this button into an existing system please contact Carmanah for assistance.
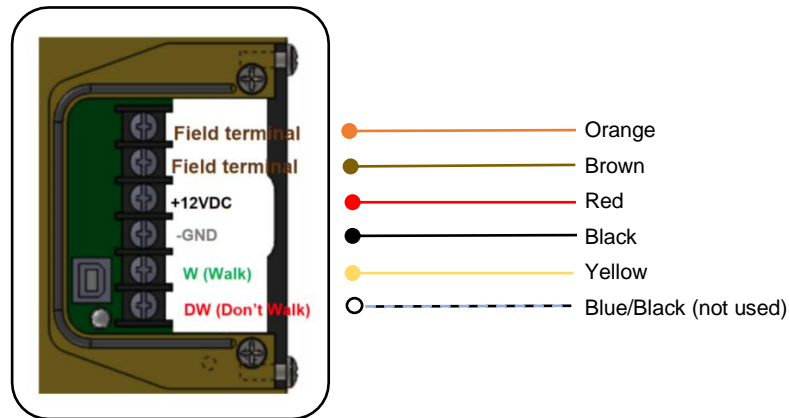
Campbell Terminal	Wire Color	EMS Terminal	Function
Field terminal	Orange	PBS+	1 of 2 push button inputs to EMS from Guardian
Field terminal	Brown	PBS-	2 of 2 push button inputs to EMS from Guardian
+12VDC	Red	BAT+	Positive side of 12-volt power supply for Guardian
-GND	Black	BAT-	Negative side of 12-volt power supply for Guardian
W (Walk)	Yellow	EXT2	Guardian sense line for triggering recorded message when fixture flashing is detected
Not Used	Blue/Black		Not Used, apply tape to wire end or trim at jacket exit
DW (Don't Walk)			Not used
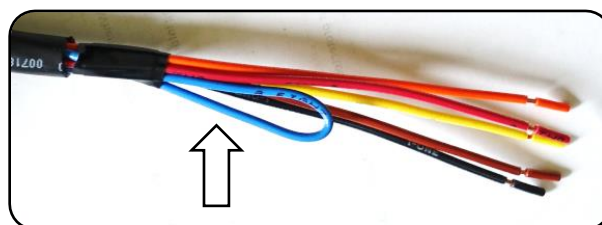
6.1 Battery Installation

Once the solar engine is secured and the beacons and other devices are in place, the batteries can be installed.

1. Open the solar engine and install the batteries, connecting each battery using the correct polarity. Secure batteries with battery strap; note proper routing.

2. Batteries must be installed with the terminals facing outward (E Series, left image below) or upwards (F Series, right image below).
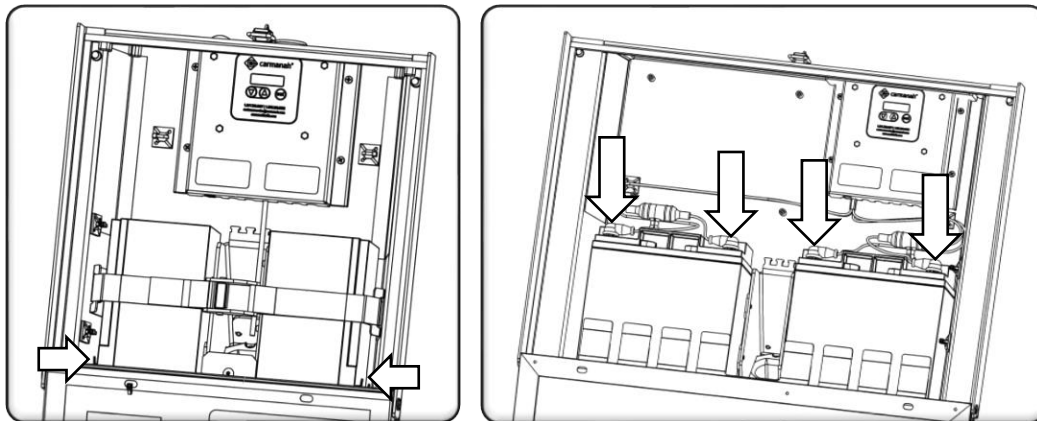
3. The system will power up once the batteries are connected. If it is part of a radio-connected group, all members of the group will now be able to communicate with each other.

7.1 EMS Programming and Testing

The E/F Series' Energy Management System (EMS) has several programming functions and settings. These are accessed through the On-Board User Interface (OBUI). Specific products will use a subset of the complete OBUI settings, which will be covered in this manual's sections specific to each product.

7.2 EMS On-Board User Interface Operation

The EMS OBUI has three buttons to navigate and change settings and activate functions as required. The Up arrow, Down arrow and SET button are used to scroll through menus, access and change settings, and accept new settings.

> ⚠ **CAUTION**
>
> **For RRFBs and crosswalk beacons, use the input type ⅁ႱℲ⌐ (button) only. All other options are non-compliant and not to be used.**

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we put solar to work
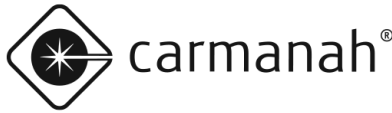
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Website: carmanah.com

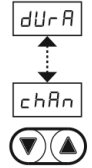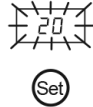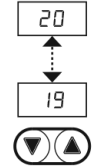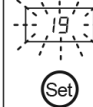| Use Arrow buttons to scroll through the menu.	Press and hold the Set button to edit a setting. Display will blink when ready to edit.	Use Arrow buttons to adjust the setting (press and hold to adjust quickly).	Press and hold the Set button to accept new setting. Display will flash 3 times.	Ensure the solar panel is facing the equator (pointing south if you are in the northern hemisphere).
dUrA ↕ chAn ▼▲	20 ⚡ Set	20 ↕ 19 ▼▲ Set	19 ⚡ Set	

ALERT!

LEd → SHrt, oPEn

LEd: LED beacon fault alert. Only appears if there is a problem with the LED beacon(s) Use the tESt function to clear the alert
SHrt: LED beacon is shorted
oPEn: LED beacon has an open circuit

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bAtt → good, chAr, Lo, bAd → 12.58

bAtt: Battery status and voltage
good: Battery is charged (>12.6V)
chAr: Battery requires charging (12.6 - 11.7V)
Lo: Battery has very low voltage (11.69 - 10.50V)
bAd: Battery needs replacing (<10.50V)
12.58: Battery voltage

SoLr → nItE, dAY → 16.55

SoLr: Ambient brightness sensor status
nItE: Sensor is not detecting light (nighttime)
dAY: Sensor is detecting light (daytime)
16.55: Solar panel voltage

FLAS ▼▲ Set → 0.5A

FLAS: Flash pattern
rfb, rfb1, rfb2, 0.1U, 0.25U, 0.5U, 0.5A, 0.5A3, 0.1UF, 0.1AF ...
See latest manual for up-to-date flash pattern descriptions

InPt ▼▲ Set → bttn, no, nc, d2d

InPt: Input type
bttn: Momentary push button
no: Normally open switch
nc: Normally closed switch (24/7)
d2d: Dusk to dawn

---

dUrA ▼▲ Set → 20

dUrA: Duration of the flashing
20: Duration in seconds from 5 to 3600

IntY ▼▲ Set → 100

IntY: Output current
100: Output in mA, from 20 to 1400

---

nItE ▼▲ Set → 30

nItE: Nighttime dimming
30: Percentage of daytime level, from 10 to 100%

AAA ▼▲ Set → on, oFF → 10

AAA: Ambient auto-adjust
on: Ambient auto-adjust is enabled
oFF: Ambient auto-adjust is disabled
10: Ambient auto-adjust dim level

ALC ▼▲ Set → on, oFF → 10

ALC: Automatic light control
on: Automatic light control is on
oFF: Automatic light control is off
10: Automatic light control level

---

tEmP ▼▲ Set → rEd, YEL, oFF

tEMP: Temperature correction of beacon
rEd: Red beacon
YEL: Yellow beacon
oFF: Off used for light bar

---

cAL ▼▲ Set → on, oFF

cAL: Internal calendar
on: Calendar is enabled
oFF: Calendar is disabled

---

rF ▼▲ Set → on, oFF

rF: Radio
on: Radio is enabled
oFF: Radio is disabled

---

chAn ▼▲ Set → 5

chAn: Radio channel for synchronized systems
5: Selected channel from 1 to 14 (default is 5)

---

rAdo → dEt, ndEt

rAdo: Radio detection status
dEt: Radio is detected
ndEt: Radio is not detected

---

outP ▼▲ Set → ALL, nitE, nLEd

outP: Digital output
ALL: Digital output enabled when flashing
nitE: Digital output enabled when flashing at night
nLEd: Digital output enabled during activation when there is no LED load

---

inPS → oPEn, cLoS, Shrt

inPS: Push button input status
oPEn: No button press detected
cLoS: Button press was detected
Shrt: Short detected in button or harness

Act → 0

Act: Activation count
0: Average daily activations over last 90 days

---

tESt ▼▲ Set → YES, no

tESt: Test the system and clear any fault warnings
YES: Activates the LED beacon
no: Skips the test, does not clear any warnings

---

bISt ▼▲ Set → YES, no

bISt: Built in system test
YES: Activates the built-in system test
no: Skips the built-in system test

---

uEr → 0.0.0.0

vEr: Firmware version number
0.0.0.0: The firmware version number

82573RevC

EMS On-Board User Interface Settings Overview

Menu Items	User-adjustable	Broadcast to other systems?	Setting Description
LED Fault	NO	NO	Not normally visible, only appears when the EMS detects an LED fault.
Battery Status	NO	NO	Reports battery voltage and status.
Solar Status	NO	NO	Reports solar panel voltage and status.
Flash Pattern	YES	NO	Indicates the flash pattern currently set.
Input Type	YES	NO	Indicates input mode, NC for 24/7 operation, bttn for momentary button input, and NO for calendar setting.
Flashing Duration	YES	YES	For crosswalks, reports the time duration for a flash pattern.
Intensity (LED Driver Current)	YES	NO	Indicates the intensity (in milli-amps) the LED modules are set to use. Higher numbers mean brighter lights.
Night Dimming	YES	YES	Indicates what fraction of the daytime intensity the LEDs are set to at night.
Ambient Auto-Adjust	YES	YES	If enabled, automatically dims LEDs on overcast days up to 50% to prevent glare for drivers.
Automatic Light Control (ALC)	YES	NO	If enabled, automatically dims LEDs in response to unexpected solar deficiency to preserve battery life.
LED Temperature	YES	NO	If enabled, adjusts LED power output to account for the effects of environmental temperature variations.
Internal Calendar	YES	NO	Allows LED loads to be set to turn on and off according to a time schedule programmed using Carmanah calendar programming software.
Radio Enable	YES	NO	Turns the radio on or off.
Radio Channel	YES	NO	Allows channels to be changed to overcome radio interference issues on a per unit basis.
Radio Detection Status	NO	NO	Confirms whether a radio module has been detected by the system controller (EMS).
Digital Output	YES	NO	Used for relay control. Can be adjusted to allow external loads to be switched on at any time, or only at night.
Pushbutton Input Status	NO	NO	Detects the status of the pushbutton input and whether there are any faults found.
LED Fixture Test	YES	NO	Allows the LED loads to exhibit a test flash sequence.
Built-In Self-Test	YES	NO	Allows the system to run a number of self-tests and can be used for troubleshooting purposes.
Firmware Version	NO	NO	Displays the firmware version programmed on the system controller (EMS).

8.1 Troubleshooting

Symptom	Possible Cause and What to Check
The EMS does not activate or display any information.	• Check if battery voltage is above 12V. Charge or replace batteries if low. • Check both battery fuses. • Ensure solar panel is clean, clear of debris, and not shaded by buildings or vegetation to allow proper battery charging.
LEDs won't flash when pushbutton on the same post is pressed.	• Check that button is functioning and is providing the typical feedback. If the button has an LED or audio feedback, ensure that these are operating. • Check the wiring to the button for continuity. • Check the wiring to the LED fixtures for continuity and ensures the wires are not pinched anywhere along their length. Check that the wiring polarity (positive / negative) is correct on the LED fixtures. • Check the battery voltage, either through the OBUI or with a voltmeter (see item above). Test the system using the "Test" function. If the LEDs flash using the OBUI functions, then the problem is in the button or wiring to the button.
LEDs on same post flash, but other systems in the wireless group won't flash.	• Ensure that all the units are set to the same radio channel using the OBUI. See the EMS Programming and Testing section of this manual. • Ensure that the units are not too far apart (ideal 500 ft maximum, 1,000 ft. unobstructed line of sight). • Check for barriers or obstructions between systems such as buildings or billboards.
LED fixture on same post does not flash.	• Ensure that the wire colors and polarities are correct. Check that the electrical connections are secure.
The LEDs are dim when flashing.	• Check the OBUI for ALC status and battery voltage. • Ensure that the solar panel is clean, clear of debris, and is not shaded by buildings or vegetation. • If the solar panel is covered or shaded, this will prevent proper battery charging and may drive the system to automatic light control mode (ALC). • Check for debris covering the ambient light sensor on top of the solar engine and confirm the photosensor is correctly detecting day and night. • A flashlight can be shone into the photosensor to simulate day, and the photosensor can be covered to simulate night. • Confirm the intensity is set correctly to a value that has been confirmed to be sustainable using a solar simulation. • Check the Ambient Auto-Adjust (AAA) setting on the OBUI. • Turn off the AAA to see if this corrects the dim LEDs.
The LEDs appear too bright when flashing	• The intensity setting on the user interface can be turned down to a more suitable brightness level. • Verify all fixtures are working. If a fixture stops working, the current that would normally flow through it is redirected into the remaining fixtures, which increases their brightness.
Fixtures flash when no button is pressed	• Ensure that all units in a group are set to the correct radio channel using the OBUI while also ensuring that nearby systems at a different location are using a different channel.
LED Open Fault is showing on User Interface	• The EMS is looking for the other fixture in the alternate pattern and declares an "LED Open" fault when it doesn't find one. Set flash pattern to unison.

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