

Note: Installation is easiest before pole is mounted in the field.

Tools Required:

- Fish tape
- Pen or tape for marking
- Tape measure
- 7/16" Wrenches / sockets for solar engine bracket and lightbar bracket
- 1/2" Wrenches / sockets for lightbar mount to pole (unless using banding)
- 5/32" Allen key for lightbar front cover
- 3/16" Allen key for solar engine lid
- 1/4" Allen key for solar engine mount
- 5/64" Flat head screwdriver for adjustment dials
- Drilling tools (depending on pole type used)

Installation Steps

- 1) Measure, mark, and drill wire holes for push button and lightbar(s). Drilling is not necessary for perforated square post. See table for recommended hole position and pole lengths.

TIP: Consider orientation of lightbar(s), push button, and solar engine (must face south) when marking wire holes.

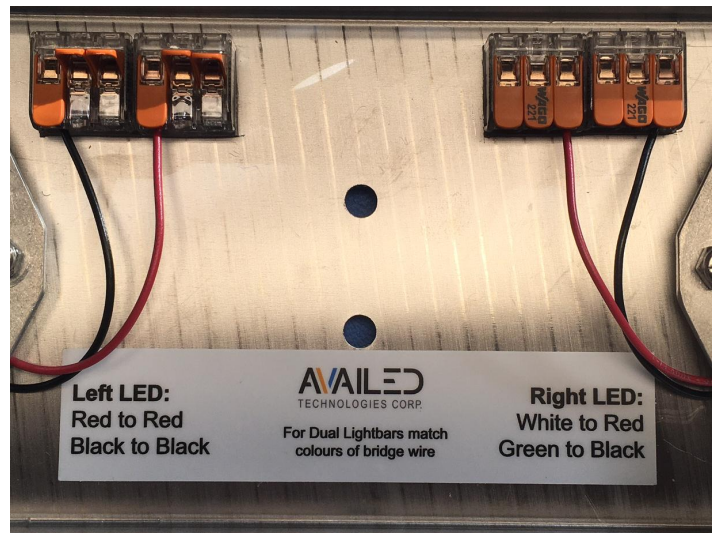
- 2) Insert fish tape into wire holes and feed to top of pole. Pull four conductor lightbar wire and two conductor push button wire from solar engine through wire holes.
- 3) Position solar engine on pole top, then tighten mounting bracket set screw to 20 ft-lbf and jam nut to 40 ft-lbf.
- 4) Dual lightbar only: feed bridge wire for second lightbar.
- 5) Feed lightbar wire and bridge wire (if used) through lightbar bracket(s) and bolt or band to pole.
- 6) Attach lightbar(s) to bracket(s) with lightbar fasteners.
- 7) Connect wires from solar engine as follows:
LEFT LED: Red to Red (+ve), Black to Black (-ve)
RIGHT LED: White to Red (+ve), Green to Black (-ve)
- 8) Dual lightbar only: Connect bridge wire for second lightbar by matching red, black, white, and green wires.

Lightbar Hole Position / Pole Length

Sign	Lightbar to ground	Minimum Pole Length
30" W11-2 or W11-15 with 24"x12" W16-7 Arrow	8' 4"	12'
36" W11-2 or W11-15 with 30"x18" W16-7 Arrow	8' 10"	13' 6"
30" S1-1 with 24"x12" W16-7 Arrow	8' 4"	11'
36" S1-1 with 30"x18" W16-7 Arrow	8' 10"	11' 4"
60X75 cm RA-5 (lightbar mounted above sign)	290cm (9'6")	10' (305cm)

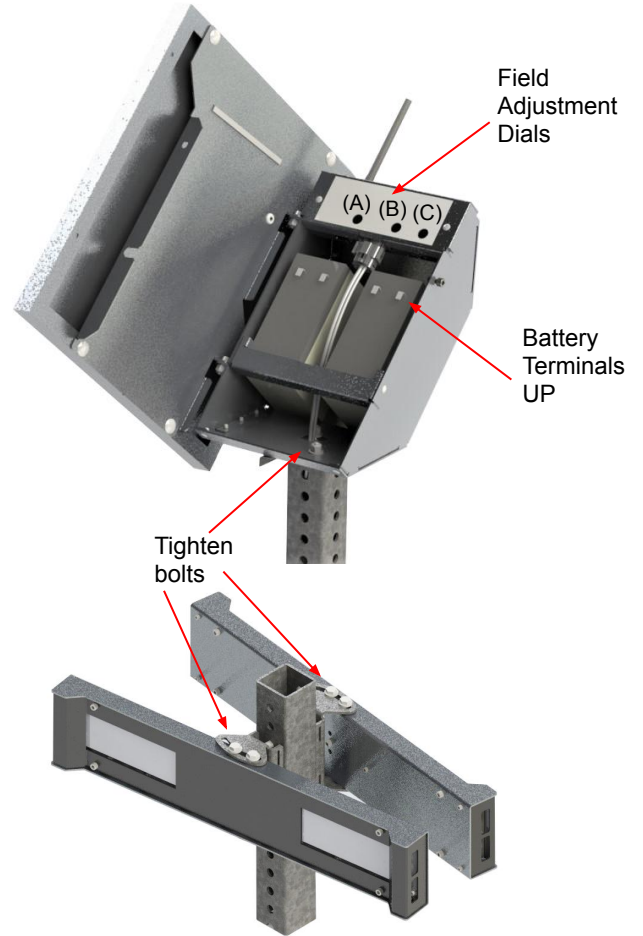
Push Button Hole Location	Approx. 42" from the ground (no higher than 48") for ADA Compliance
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Wire Position



Installation Steps (Cont.)

- 9) Aim lightbar(s) to oncoming vehicle lane and tighten lightbar bracket bolts, then attach lightbar front panel(s).
- 10) Attach confirmation light covers as needed.
- 11) Attach push button mount to pole, connect push button wire to push button terminals, then attach push button to mount.
- 12) Adjust flash duration (A), light setting (B), and channel (C) if settings other than the defaults are required (see table).
- 13) Aim solar engine to face south and tighten mounting bracket bolts.
- 14) Install batteries (**see warning below**), ensure that battery terminals are positioned at the top (closest to the controller).
- 15) Connect battery wires, matching red to red, black to black.
- 16) Connect wire harness to controller. Once connected the RRFBs will flash for the set flash duration*
- 17) Close lid and fasten solar engine lid retaining screw.
- 18) Attach antenna.



*** IMPORTANT: Connect the wire harness to the controller only after the lightbar(s), push button, and batteries are connected. Always disconnect the wire harness before disconnecting batteries, lightbars, and push button.**

Battery Warning:

The battery is shipped fully charged and can generate hazardous short circuit currents. To avoid the potential for short circuiting the terminals, ensure that the protective covers are kept on the battery terminals while handling and fully connect one wire to the battery before removing the protective cover of the other terminal. Never let the battery terminals come in contact with any metal component. Never transport the product with the batteries installed.

Field Adjustment Dials

(A) Flash Duration	(B) Light Setting	(C) Channel*
0: 18 Sec.	0: Dual LB	0: Channel 0
1: 20 Sec.	1: Single LB	1: Channel 1
2: 22 Sec.	2: Dual LB Bright Night	2: Channel 2
3: 24 Sec.	3: Single LB Bright Night	3: Channel 3
4: 26 Sec.	4: No Lightbar	4: Channel 4
5: 28 Sec.	5: n/a	5: Channel 5
6: 30 Sec.	6: n/a	6: Channel 6
7: 34 Sec.	7: n/a	7: Channel 7
8: 40 Sec.	8: n/a	8: Channel 8
9: 60 Sec.	9: n/a	9: Channel 9

Every aspect of the AV-400 RRFB has been designed to make installation as simple as possible. If you have an idea or suggestion for improvement, please let us know!

* Select other channel if another AV-400 crosswalk location is within 1 mile