



INSTRUCTIONS

J06720

2021-05-28



LED LIGHT AND PROGRAMMER BOX

GENERAL

Kit Numbers

68000287, 68000288, 68000276

Models

Police Touring models 2014 and Later

Installation Requirements

Separate purchase of Forward Lighting Power Harness (69202610) is required.

Use the PATTERN SELECT CONTROL PROGRAMMER (PART NUMBER: 68000276) to program the flash pattern.

Customer supplied wire maybe necessary depending on chosen location.

To use Original Equipment (OE) connectors on stand alone light additional purchases of the follow items are required:

FLHTP Models

- 72169-07 Terminal - [1A] terminal 13
- 73191-96 Terminal - [299A] terminal 2

FLHP Models

- 72511-07BK Housing - [325A] connector housing
- 72169-07 Terminal - [325A] terminal 2
- 72168-07 Terminal - [146A] terminal 6

Additional Requirements

Customers who want to enable takedown lighting must purchase the following kits and follow the installation instructions in the kits:

- 70255-02B
- 71718-02

Used With LED Kits

This kit can be used with the following kits and harness.

- 68000279 (Forward Lighting Splice Hub) - Required if installing with the four following lights.
- 68000274 (Red Side Marker)
- 68000275 (Blue Side Marker)
- 68000289, 68000289A (Red Par 36)
- 68000290, 68000290A (Blue Par 36)

Kit Contents

68000287

See Figure 12 and Table 4

68000288

See Figure 13 and Table 5

PREPARE

1. **NOTE**
See the service manual of the year and model vehicle that the service is being performed on for the following steps.

Remove main fuse.

2. **FLHTP:** Remove outer fairing.

SPLICE HUB AND POWER INPUT HARNESS

INSTALL

1. Connect power/input harness.
 - a. Remove top caddy. See service manual.
 - b. Remove negative (-) battery terminal bolt.
 - c. Install ring terminal of 69202610 onto negative (-) battery terminal bolt.
 - d. Install negative (-) battery terminal bolt. Tighten.
Torque: 6.8–7.9 N·m (60–70 **in-lbs**)
 - e. Remove left side cover. See service manual.
 - f. Route red wire with blade terminal under left frame rail.
 - g. If installing 68000289, 68000289A or 68000290, 68000290A, remove flasher and install blade terminal in cavity 86 of pursuit relay socket [69B].
 - h. If not installing 68000289, 68000289A or 68000290, 68000290A, keep flasher in place and splice into wire in cavity 86.
 - i. Install left side cover. See service manual.
 - j. Install top caddy. See service manual.



2. If installing Takedown Mode switch:
 - a. Route two white wires through main harness caddy and continue up through right hand controls.
 - b. Splice two white wires from power/input harness to wire from auxiliary ON/OFF switch.
 - c. Secure wires between main harness caddy and auxiliary ON/OFF switch.
 - d. Make sure wires do not pull tight when handlebars are turned fully to left or right fork stops.
3. Install splice hub.
 - a. Position splice hub on top of top Electronic Control Module (ECM) caddy.

INSTALL

FLHP Models

1. Connect and route wiring. Refer to Wiring.
2. See Figure 1. Locate center support screws on windshield.

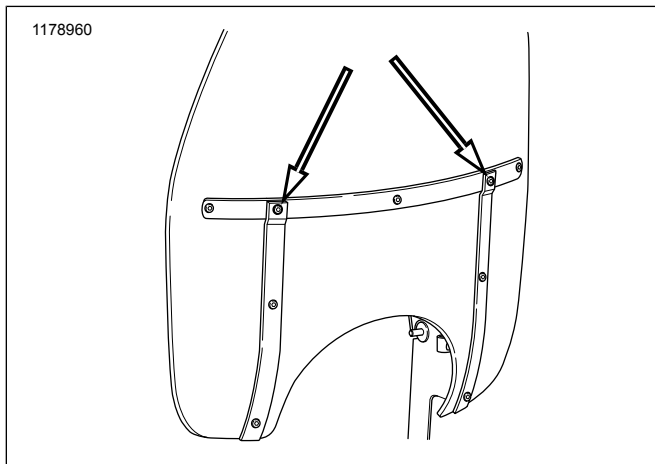


Figure 1. Center Screws

3. See Figure 2. Remove screw (2) and acorn nut (1) and discard.

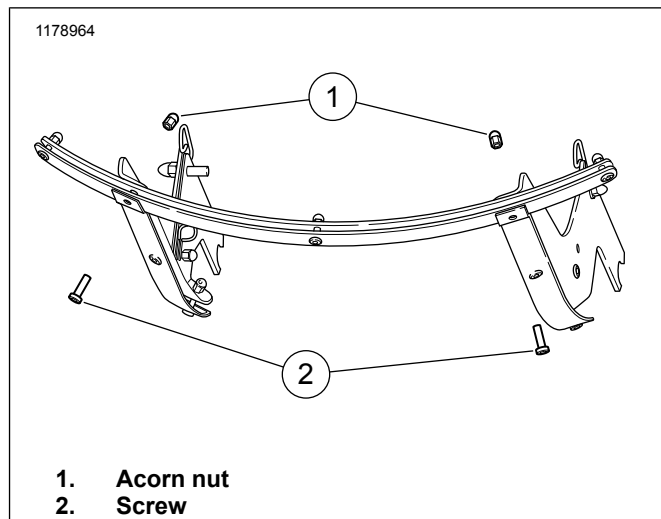


Figure 2. Screw Removal (Shield Removed for Clarity)

4. See Figure 3. Align light (5) with center hardware support openings (6).
5. Install the **new** screw (4) and **new** flat washer (3) in the front side of the windshield's center hardware support openings.
6. Install the **new** lockwasher (2) and **new** acorn nut (1). Tighten.

Torque: 2.3–2.8 N·m (20–25 in-lbs)

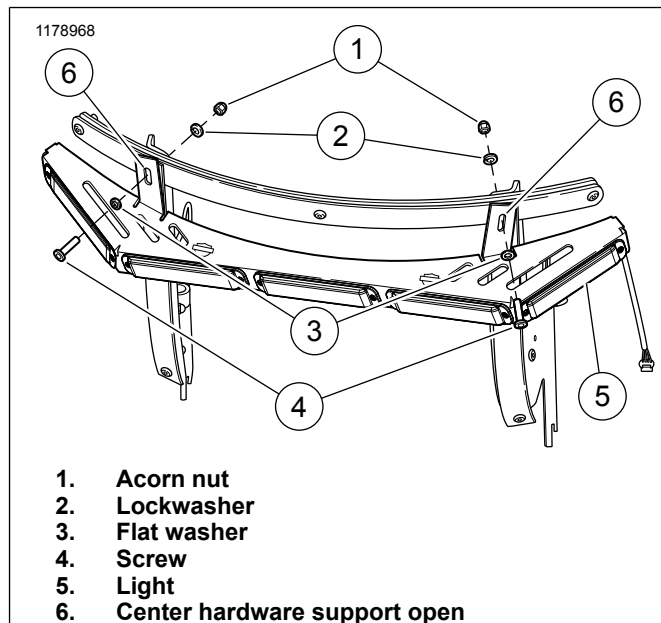


Figure 3. Attaching Hardware (Shield Removed for Clarity)

FLHTP Models

1. Connect and route wiring. Refer to Wiring.
2. See Figure 13. Locate brackets (2) and screws (3).
3. See Figure 4. Place light on a working area with thumb wheels (2) down and bracket holes (1) up.

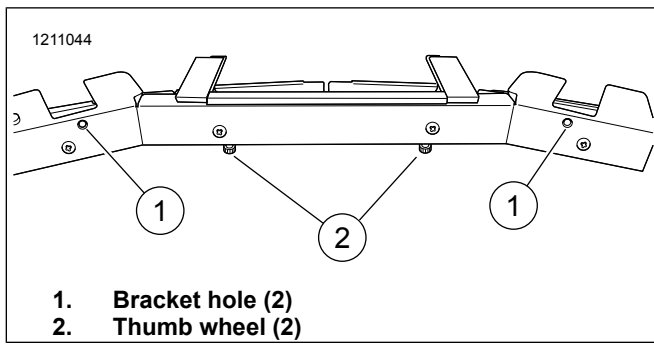


Figure 4. Bracket Mounting Holes

4. See Figure 5. Position mounting bracket (1) into opening with angle of bracket facing up.

NOTE

When positioning mounting bracket **Do Not** pinch wiring.

5. Loosely install screw (2).

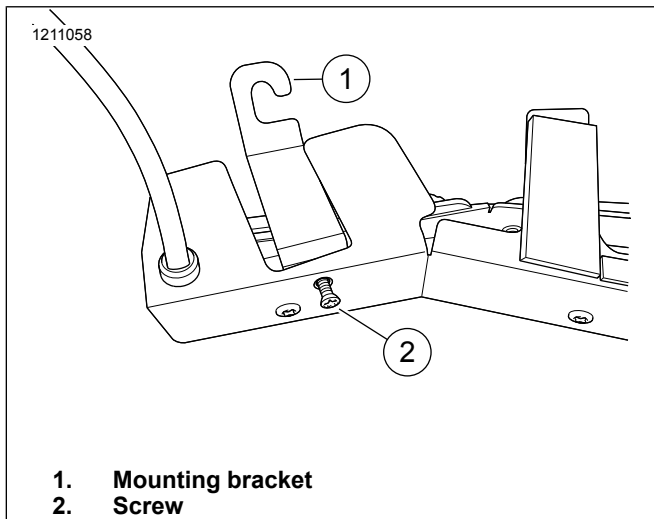


Figure 5. Bracket and Screw

6. See Figure 6. Verify the vent switch (2) is in the open position.
7. Position the light over the vent (3) with the thumb wheels (1) facing up.
8. Align the left and right mounting brackets over the threaded insert (4).

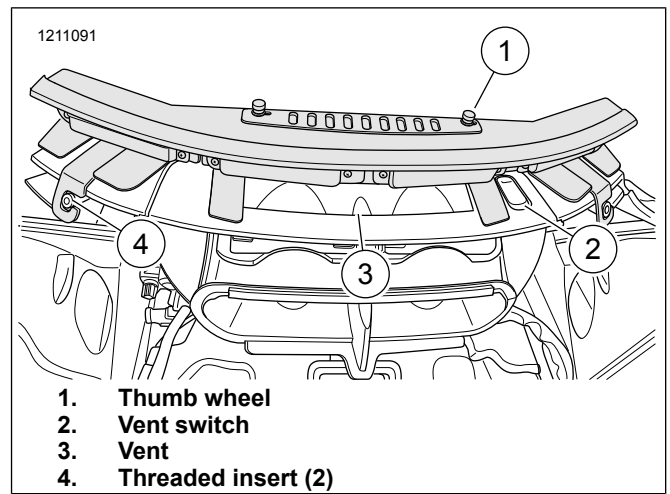


Figure 6. Light Placement

9. See Figure 7. Verify mounting brackets (2) are fully seated around the threaded insert (1).

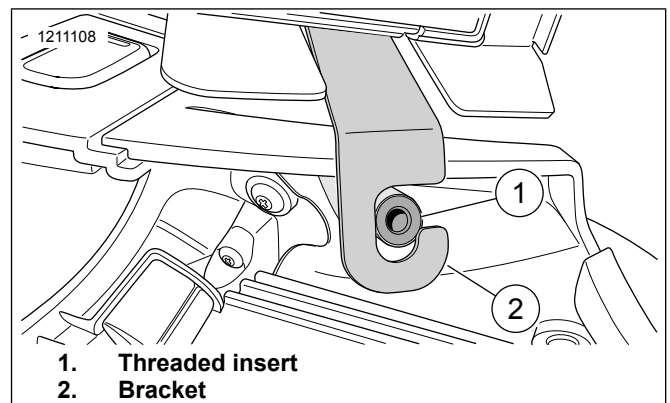


Figure 7. Bracket and Threaded Insert (Left Shown, Right Similar)

10. See Figure 13. Verify all wire routings are in place and held properly with the cable strap (6).
11. Install the outer fairing and windshield. See the service manual.
12. See Figure 4. Tighten mounting bracket screw (2) to secure light to windshield.

Vent Operation

The vent operation is now controlled by loosening the thumb wheel and sliding the vent cover to the right or left.

1. To open vent.
 - a. Loosen thumb wheel.
 - b. Slide vent cover to the right.
 - c. Tighten thumb wheel.
2. To close vent.
 - a. Loosen thumb wheel.

- b. Slide vent cover to the left.
- c. Tighten thumb wheel.

Programming Light

NOTE

Light must be programmed before wired to vehicle.

When programming light, it is helpful to understand functions of various wires included in kit. See Table 1 for list of these wires, which are universal for 68000287 and 68000288.

Table 1. Wire for Programming

Wire	Location	Quantity	Function
Red	JAE Connector	1	Light Power
Black	JAE Connector	1	Light Power
Blue	Light	2	Pattern Select
Green	Light	4/5 (per model)	Color Select
Yellow	JAE Connector	1	Not Used
Orange	JAE Connector	1	Not Used*

* This wire is used to enable Takedown Lighting in the wiring process, but it is **not** used in the programming process.

Refer to Table 1. There are two sets of blue and green wires used to select flash pattern and color, respectively. This is due to individual light heads being connected in two separate configurations to allow for **phased** flash patterns.

NOTE

Two "phased" lights are programmed to be inversely synchronized. Therefore, their flash patterns will be 180 degrees out of phase.

See Figure 8. for a visual representation of these light head configurations, which differ for 68000287 (1) and 68000288 (2).

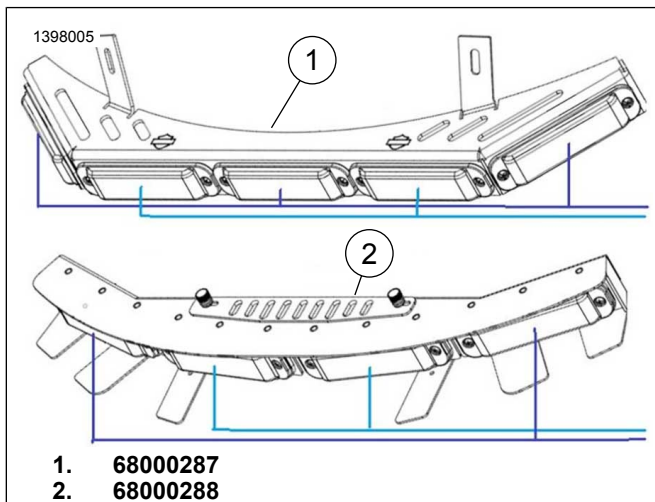


Figure 8. Light Head Configurations

CONNECT

1. Route cable up engine guard to main harness caddy, secure to guard and frame.

2. Continue routing cable through main harness caddy to splice hub (2).
3. Install JAE connector to splice hub (2).

Color Programming

Light can be programmed to display 7 different color combinations, as shown in Table 2. This must be done manually using the **green** wires.

1. See Figure 9. Connect 12V power source to light array (requires dealer supplied wire).
 - a. Connect RED terminal on JAE connector to positive.
 - b. Connect BLACK terminal on JAE connector to ground.
2. See Figure 9. Strip ends of GREEN wires on light.
3. Connect both wires to the wire with a loose end.
4. Refer to Table 2. Tap loose end of wire on negative terminal of power source in 1 second intervals until you reach desired color combination.
 - a. After 7 taps, light will restart color pattern back to 1.

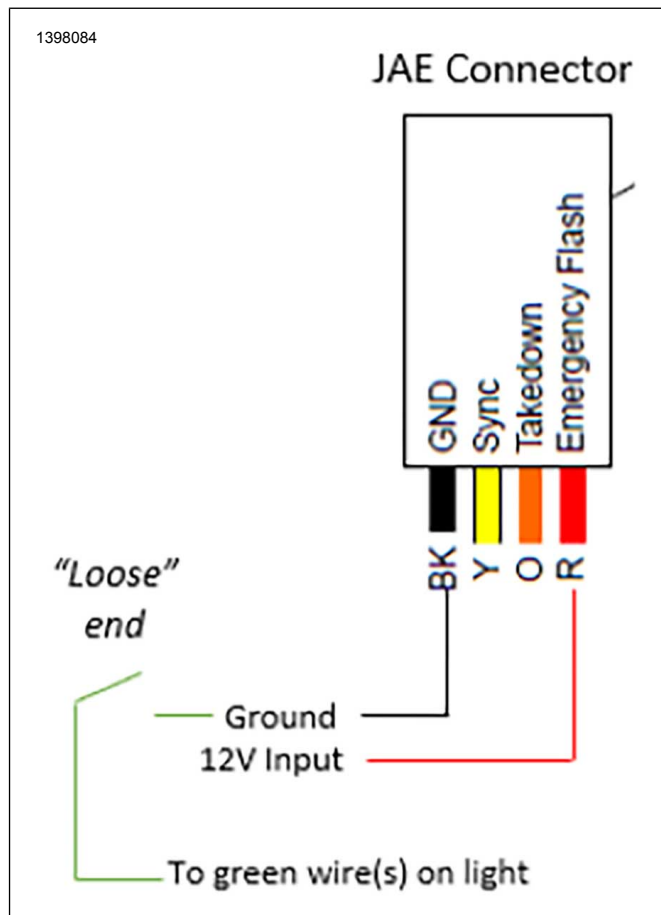


Figure 9. Color Programming Setup

Table 2. Color Combinations

Color	Wire Taps
Red	1
Blue	2
White	3
Red/Blue	4
Red/White	5
Blue/White	6
Red/White/Blue	7

Pattern Programming

Light can be programmed to display 24 different flash patterns, as shown in Table 3. This must be done with PSCP (pattern select control programmer) using the **blue** wires.

- See Figure 10. Connect 12V power source to PSCP.
 - Connect ground wire to GDN terminal of INPUT terminals of the PSCP.
 - Connect positive wire to PWR terminal of INPUT terminals of the PSCP.
- See Figure 10. Connect light to OUTPUT terminals of PSCP (requires dealer supplied wire).
 - Connect RED terminal on JAE connector to PWR terminal of OUTPUT terminals of PSCP.
 - Connect BLACK terminal on JAE connector to GND terminal of OUTPUT terminals of PSCP.
 - For Phased:** Strip ends of BLUE wires on light and connect one blue wire to P.SEL terminal of OUTPUT terminals of PSCP. Continue to step 3.
 - For Non-Phased:** Strip ends of BLUE wires on light and connect both blue wires to P.SEL terminal of OUTPUT terminals of PSCP. Continue to step 3.
- Refer to Table 3. Rotate PATTERN SELECT/RESET knob clockwise to select pattern number desired.
 - Phased:** Designated Ph1 to one blue wire and Ph2 to other blue wire. Continue to step 4.
 - Non-Phased:** Continue to step 4.
- Press START button.
 - PSCP will increment patterns until it gets to desired pattern. Light will remain on for a few seconds to display programmed pattern.

- Phased:** Disconnect current blue wire and connect other blue wire to P.SEL terminal. Repeat steps 3 and 4.
 - Non-Phased:** Continue to step 5.
- Once desired pattern is programmed, disconnect light array from PSCP.
 - Cut off exposed ends of blue wires.
 - Tuck blue and green wires into light.

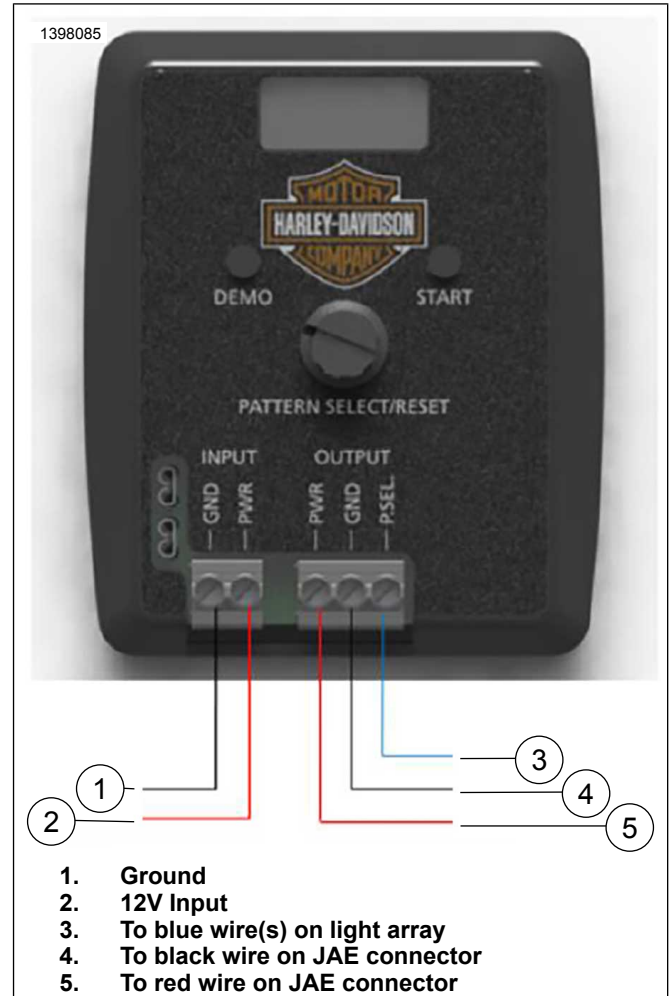


Figure 10. Pattern Programming Setup

FLASH PATTERN CODES

Table 3. Flash Pattern Codes

Flash Pattern	Frequency	Phase	PSCP Code
Applies to ALL 7 color combinations			
Single Flash	75 FPM	Phase 1	1
		Phase 2	2
	120FPM	Phase 1	3
		Phase 2	4
	375 FPM	Phase 1	5
		Phase 2	6
Double Flash	75 FPM	Phase 1	7
		Phase 2	8
	120 FPM	Phase 1	9
		Phase 2	10
Triple Flash	75 FPM	Phase 1	11
		Phase 2	12
Quad Flash	75 FPM	Phase 1	13
		Phase 2	14
	150 FPM	Phase 1	15
		Phase 2	16
Applies to 1 to 3 color combinations ONLY			
CA 13 Single Flash	75 FPM	Phase 1	17
		Phase 2	
CA 13 Double Flash	75 FPM	Phase 1	18
		Phase 2	
NFPA Quad Flash	75 FPM	Phase 1	19
		Phase 2	
ModuFlash	n/a	Phase 1	20
		Phase 2	
2 Double, 2 Quad Flash	n/a	Phase 1	21
		Phase 2	
4 Single, 2 Triple Flash	n/a	Phase 1	22
		Phase 2	
Autorun	n/a	Phase 1	23
		Phase 2	
Steady Burn (Enable for Kits 68000289A and 68000290A ONLY)	n/a / (75FPM)	Phase 1	24
		Phase 2	

PSCP TIPS

Utilize the following tips when programming a light with the PSCP:

- To display currently programmed flash pattern, press **DEMO** button. This will simply turn light array on for a few seconds.
- Press down on **PATTERN SELECT/RESET** knob to reset pattern number indicator to 0.

NOTE

This **does not** reset light array flash pattern or color.

- To reset light flash pattern, select pattern number 24 and select **START**.

NOTE

At this time, color **cannot** be reset using this method.

Wiring

NOTE

- Light must be programmed before wired to vehicle.
- See *Electronic Diagnosis Manual of year and model of vehicle the light array is being installed on for detail connector location and connector breakdown.*

Enable Takedown Lighting

- Install kits 70255-02B or 71718-02. Follow the installation instructions in kits.
- Locate JAE connector (5) terminal 2 (W) wire.
- Splice switch (P/N 71718-02) (7) to takedown (W) wire (6).

NOTE

All wire lengths may vary for vehicle to vehicle depending on wire routing and location of modules.

- Power input side of switch will splice along with emergency flash splice (9).

Without Takedown Lighting

- Locate JAE connector (5) terminal 2 (W) wire.
- Heat shrink tube (8) over the unused white wire. **DO NOT** splice to emergency flash splice (9).

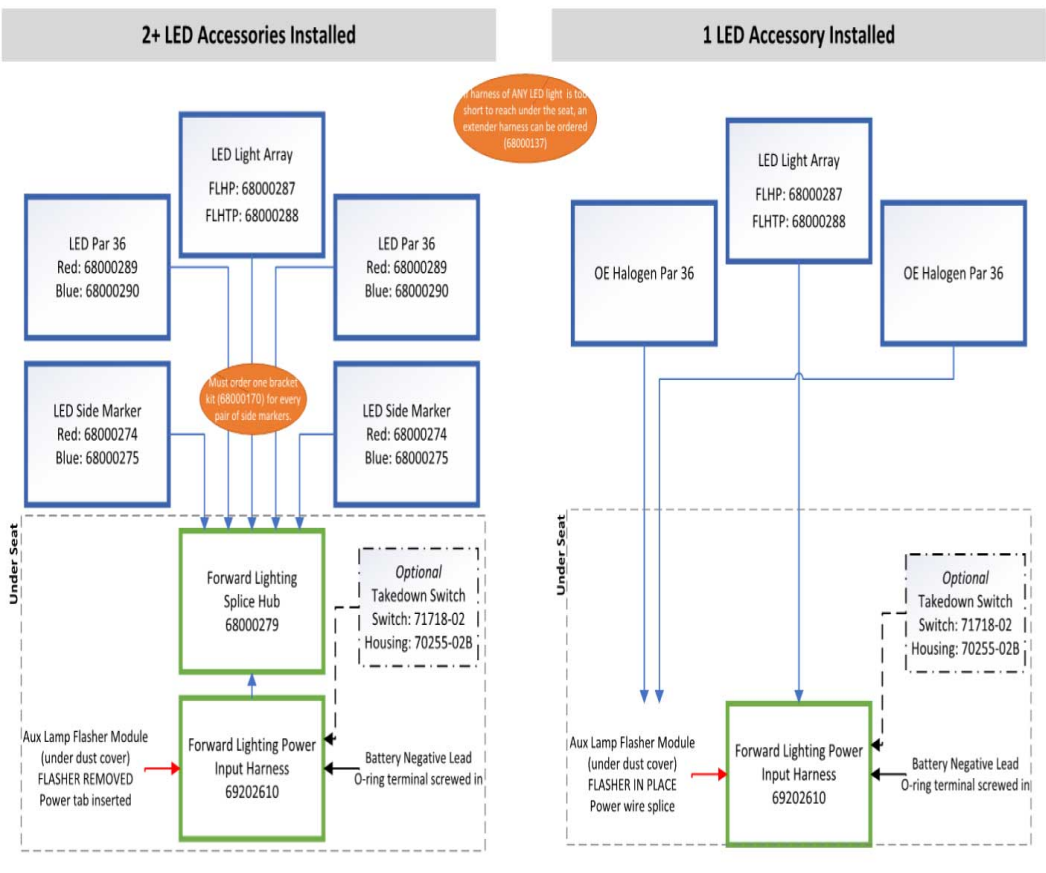


Figure 11. Forward LED Lighting Options

COMPLETE

Install main fuse. See service manual.

1.

NOTE

See the service manual of the year and model vehicle that the service is being performed on for the following steps.

SERVICE PARTS

68000287 Kit

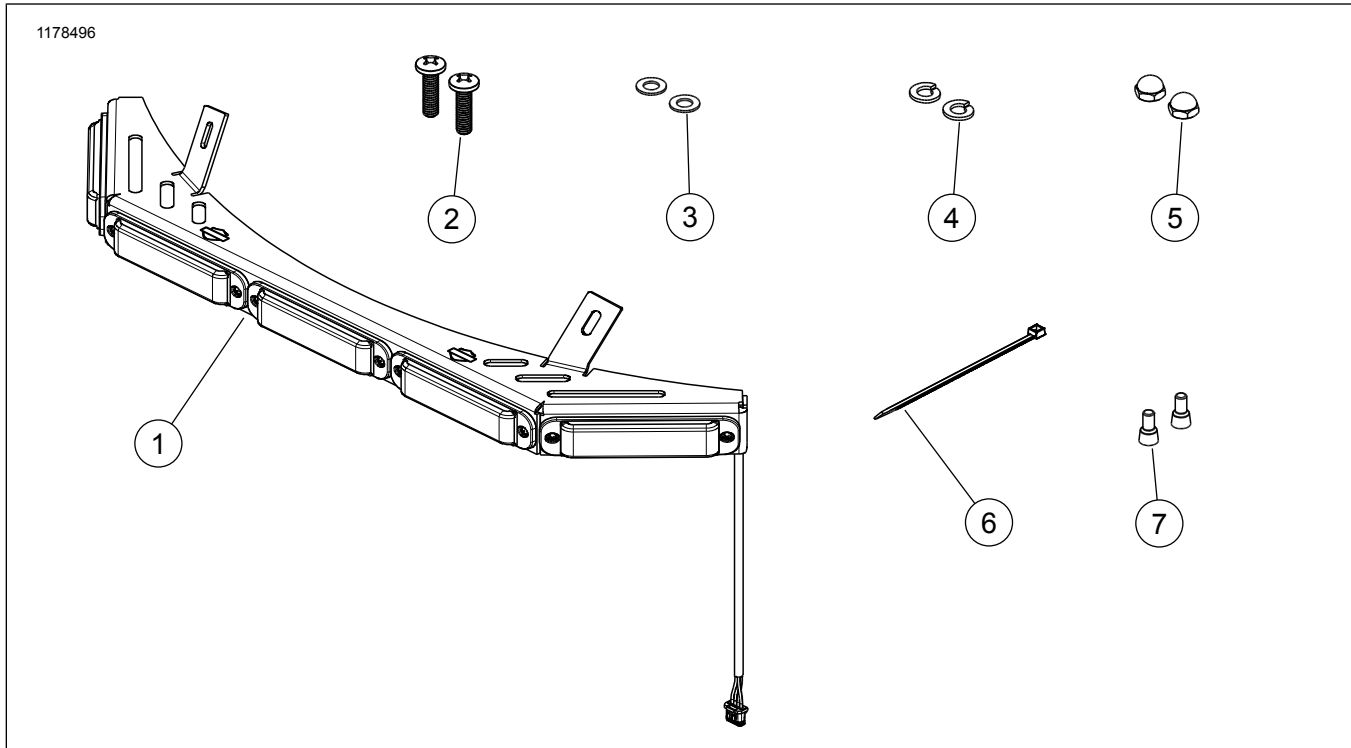


Figure 12. Service Parts - Light Kit (P/N)

Table 4. Service Parts - Light Kit (P/N 68000287)

Item	Description	QTY	Part Number
1	Light	1	Not Sold Separately
2	Screw, Phillips 1/4 x 20 x 1	2	
3	Flat washer, 1/4	2	
4	Lockwasher, 1/4	2	
5	Nut, acorn 1/4 x 20	2	
6	Cable strap	1	
7	Splice connector	2	

68000288 Kit

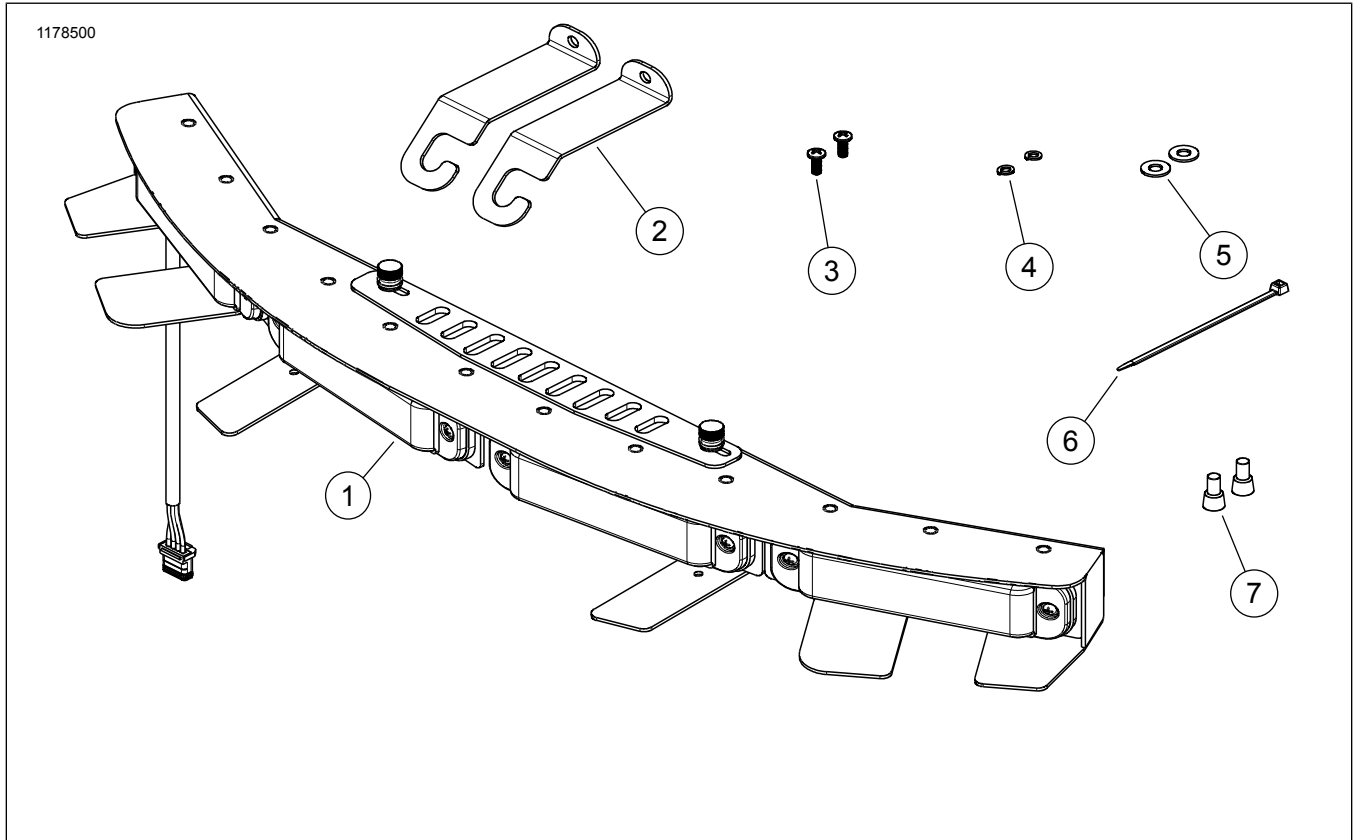


Figure 13. Service Parts - Light Kit (P/N 68000288)

Table 5. Service Parts - Light Kit (P/N 68000288)

Item	Description	QTY	Part Number
1	Light	1	Not Sold Separately
2	Mounting Bracket	2	
3	Screw, Phillips 6 x 32 x .375	2	
4	Lockwasher, #6	2	
5	Flat washer, #10	2	
6	Cable strap	1	
7	Splice connector	2	