



Custom Dynamics® Dynamic A/W Engine Guard LEDs Installation Instructions

We thank you for purchasing the Custom Dynamics® Dynamic A/W Engine Guard LEDs. Our products utilize the latest technology and high quality components to ensure you the most reliable service. We offer one of the best warranty programs in the industry and we back our products with excellent customer support, if you have questions before or during installation of this product please call Custom Dynamics® at 1(800) 382-1388.

Part Numbers: CD-CB-AW-BCM-B
CD-CB-AW-BCM-C

Package Contents:

- Dynamic A/W Engine Guard LEDs (pair)
- BCM Adapter Harness (2)
- 9" Black Wire Tie Wrap (10)
- 6" Chrome Wire Tie Wrap (10)
- Foam Mounting Pad (4)
- Hex Key Wrench (1)



Fitment: 2014-2024 Harley-Davidson® Ultra Limited (FLHTK), 2014-2023 Street Glide (FLHX), 2015-2023 Road Glide (FLTRX), 2019-2022 Electra Glide Standard (FLHT), 2014-2019 Electra Glide Ultra Classic (FLHTCU), 2015-2016 Ultra Classic Lo (FLHTCUL) & CVO™ Road Glide Ultra (FLTRUSE), 2016-2019 Road Glide Ultra (FLTRU), 2015-2018 Ultra Limited Lo (FLHTKL), 2014-2021 CVO™ Limited (FLHTKSE), 2020-2024 Road Glide Limited (FLTRK), 2022-2023 CVO™ Road Glide Limited (FLTRKSE), 2014-2020 Street Glide Special (FLHXS), Street Glide CVO™ (FLHXSE), 2015-2020 Road Glide Special (FLTRXS) and CVO™ Road Glide (FLTRXSE).

Batwing Fairing Instructions Page 1

Road Glide Fairing Instructions Page 4



ATTENTION

Please read all Information below before Installation

Warning: Disconnect negative battery cable from battery; refer to owner's manual. Failure to do so may result in electrical shock, injury, or fire. Secure negative battery cable away from positive side of battery and all other positive voltage sources on vehicle.

Safety First: Always wear appropriate safety gear including safety glasses when performing any electrical work. It is highly recommended that safety glasses be worn throughout this installation process. Be sure vehicle is on level surface, secure and cool.

Important: This product is designed and intended for use as auxiliary lighting only. It is NOT intended to replace any original equipment lighting installed on the vehicle and should not be used for that purpose. This product must be wired so that it does not interfere with any original equipment lighting.

Warning: Drilling the engine guard and running the wires internally in the engine guard is NOT recommended as it weakens the integrity of the engine guard.

Batwing Installation:

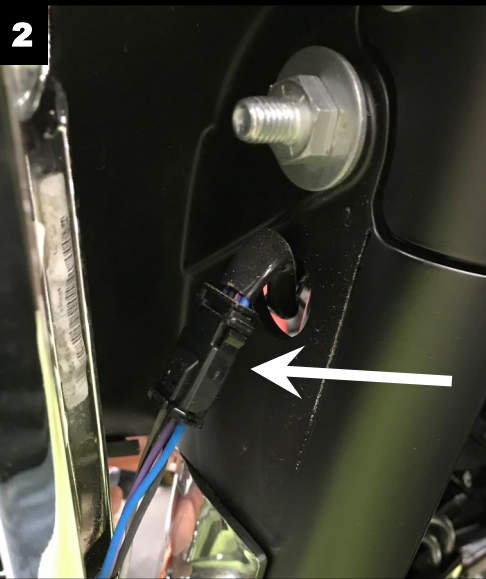
1. Remove the 1/2" nuts that secure the turn signal assembly to the fork shown in **Picture 1**. Pull assembly away from the fork to reveal the black wiring connector as shown in **Picture 2**.



2. Unplug the connector by pushing in on the tab located on the male side of the connection as shown in **Picture 3**. Push the tab and pull apart both sides at the same time. Remove the turn signal assembly from the bike completely.

Questions? Email: info@CustomDynamics.com or Call us at: 1 (800) 382-1388 M-TH 8:30AM-5:30PM / FR 9:30AM-5:30PM EST

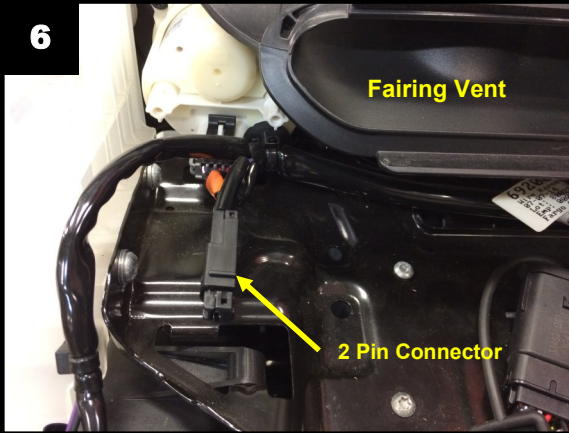
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3. Repeat steps 1 and 2 on the opposing side turn signal assembly.
4. Remove the 3 top T27 Torx Bolts from the outer fairing as shown in **Picture 4**. Remove the windshield and store it in a safe place for reinstallation later.
5. Reinstall the center T27 Torx Bolt only that was removed in Step 4. Lightly tighten the center bolt to secure the fairing while you remove the remaining 4 inner fairing bolts.
6. Remove the 2 T27 Torx bolts from the left and the right side of the inner fairing as shown in **Picture 5**. Save the bolts for reinstallation.
7. While standing in front of the bike and holding the fairing, remove the center outer fairing T27 Torx bolt and pull the fairing slightly away from the bike.
8. With the fairing slightly pulled away from the bike, disconnect the connector from the headlamp. Lay the fairing on a protected flat surface to prevent damage.
9. Using one of the BCM Adapter harnesses, Identify the Black male and female 4 pin JAE connectors with the Blue wire running between them. Plug the Black male JAE connector, with the Blue wire, into the female connector of the turn signal main wiring harness.
10. Push the Black female 4 pin JAE connector, with the Blue wire of the BCM Adapter harness through the hole in the front fork going out to the turn signal bracket.
11. Plug the Black 4 pin female JAE connector, with the Blue wire from the BCM Adapter harness into the turn signal harness, then reinstall the turn signal bracket onto the front fork and secure with the original nuts. Repeat for the other side.
12. Connect the White 2 pin female connector of the left side BCM Adapter Harness into the White male 2 pin connector of the right side BCM Adapter Harness.
13. Locate the Black 2 pin fairing Power and Accessory connector to the lower left (looking at the fairing) of the fairing vent. See **Photo 6**.
14. Remove the Black connector plug from the 2 pin fairing Power and Accessory connector on the motorcycle by pushing the center tab in and pulling the plug out. Save the plug for reinstallation later. See **Photo 7**.
15. Plug the White male 2 pin connector of the Left BCM Adapter Harnesses into the fairing Black 2 pin fairing Power and Accessory connector, ensure that it snaps in.
16. Install the Black plug removed in the step 14 into the White female 2 pin connector
17. Using the provided wire ties, secure the Dynamic A/W Engine Guard LEDS wiring harnesses to prevent the wires from being damaged during fairing installation.
18. Determine your desired mounting location. Using the provided Foam Mounting Pads, remove backing and apply the Foam Mounting Pads to the front and back of the engine guard at the mounting location as shown in **Photo 8**.

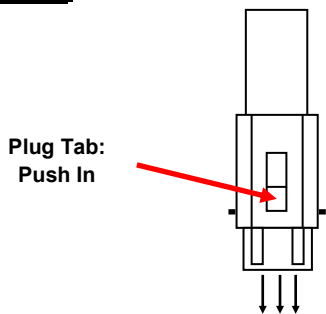
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2 Pin Connector Plug



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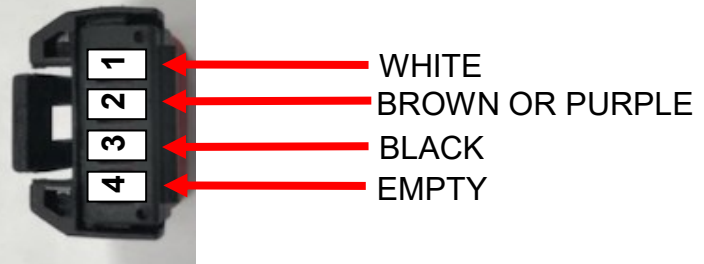
Installation:

19. Disassemble the Dynamic A/W Engine Guard LEDs and mount to the engine guard. Place the back side of the housing on the engine guard covering the foam installed in Step 16. Using the supplied hardware, secure the front housing to the back housing. **NOTE:** The wiring harness must lay in the notch of the front Dynamic A/W Engine Guard LED housing to prevent it from being pinched or damaged during installation.
20. Route the wiring harness from each Dynamic A/W Engine Guard LEDs to the BCM Adapter Harnesses in the fairing
21. Install the provided JAE connectors onto the pre-pinned wires from each Dynamic A/W Engine Guard by pushing the pins into the connector ports according to **Photo 9** (locking tab oriented at top of JAE connector). Pins should snap in place and not pull back out of connector when installed correctly. Connect to the corresponding (Left or Right) BCM Adapter Harness male JAE connector.

Port 1 = White Port 2 = Brown or Purple

Port 3 = Black Port 4 = Empty

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22. Using the provided wire ties, secure the Dynamic A/W Engine Guard harness to prevent damage to the wiring harness.
23. Reinstall the fairing and windshield in the reverse order that it was removed. **NOTE: THE 4 INNER FAIRING BOLTS ARE TWO DIFFERENT LENGTHS!** The 2 longer bolts go in the top holes and the 2 shorter bolts go in the bottom holes of the inner fairing.
24. Reconnect the negative battery cable to the battery and reinstall the seat.
25. Perform a BCM sync by turning the ignition on, turn the 4 way hazards on, turn the ignition off. Allow the 4 way hazards to run for 3-4 minutes. Turn the ignition on. Turn the 4 way hazards off. Turn the ignition off.
26. Test operation of all lighting in all modes before riding.

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Road Glide® Installation:

1. Remove the 4 windshield fasteners, **Picture 10**. Lift the windshield up to remove. Store the windshield in a safe place to prevent damage.



2. Once the windshield fasteners and windshield are removed, you will need to remove the vent. The vent is secured to the fairing by clips. Position yourself in the front of the motorcycle and lift straight up on the vent to release. Refer to **Photo 11**.



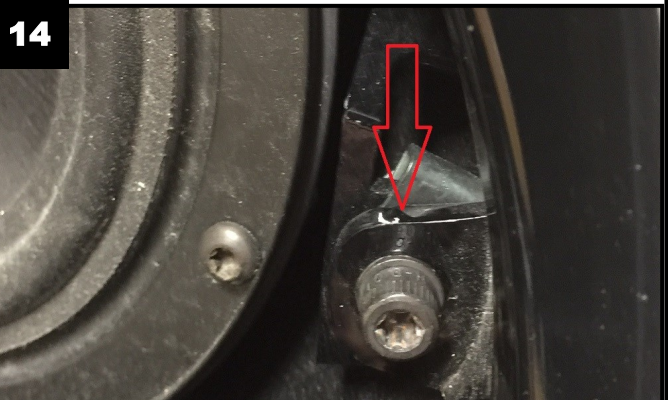
3. Locate both the left and right 3 pin turn signal connectors. Press down on the releasing tab of the JAE connector to disconnect. Refer to **Photo 12**.



4. Remove the 3/16" socket Allen head bolts from the outside of each turn signal housing. Refer to **Photo 13**.

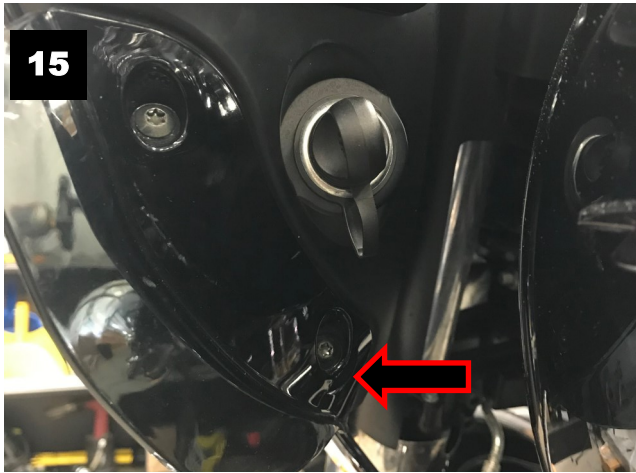


5. Remove both left and right speaker grilles on the inner fairing.
6. Once the speaker grilles are removed, Locate and remove the T-27 torx bolts in each corner of the speaker housing. Refer to **Photo 14**.



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7. Locate and remove the lower T-25 screw on each side of the inner fairing. Refer to **Photo 15**.



8. Remove the outer fairing and set to side.
9. Using one of the BCM Adapter harnesses, identify the Black male and female 4 pin JAE connectors with the Blue wire running between them. Plug the Black male JAE connector, with the Blue wire, into the female connector of the turn signal main wiring harness.
10. Leave the Black female 4 pin JAE connector, with the Blue wire, of the BCM Adapter harness disconnected until the fairing is reinstalled. Repeat for the other side.
11. Connect the White 2 pin female connector of the left side BCM Adapter Harness into the White male 2 pin connector of the right side BCM Adapter Harness.



12. Locate the 2 pin Black fairing Power and Accessory connector in the upper left of the fairing. See **Photo 16**.
13. Remove the connector plug from the Black 2 pin fairing connector by pushing the center tab in and pulling the plug out. Save the plug for reinstallation later.

14. Plug the Left White 2 Pin Connector on the Left BCM Adapter Harness into the fairing Black 2 pin fairing P/A connector. Then install the plug removed in the previous step into the right side BCM Adapter Harness White Female 2 pin connector.
15. Secure the Dynamic A/W Engine Guard LEDS wiring harnesses with the provided wire ties to prevent the wires from being damaged..
16. Determine your desired mounting location. Using the provided Foam Mounting Pads, remove backing and apply the Foam Mounting Pads to the front and back of the engine guard at the mounting location as shown in Photo 8 on page 3.
17. Disassemble the Dynamic A/W Engine Guard LEDS and mount to the engine guard. Place the back side of the housing on the engine guard covering the foam installed in Step 16. Using the supplied hardware, secure the front housing to the back housing. **NOTE:** The wiring harness must lay in the notch of the front Dynamic A/W Engine Guard LED housing to prevent it from being pinched or damaged during installation.
18. Route the wiring harness from each Dynamic A/W Engine Guard LEDS to the BCM Adapter Harnesses in the fairing
19. Install the provided JAE connectors onto the pre-pinned wires from each Dynamic A/W Engine Guard by pushing the pins into the connector ports according to **Photo 9** on page 3 (locking tab oriented at top of JAE connector). Pins should snap in place and not pull back out of connector when installed correctly. Connect to the corresponding (Left or Right) BCM Adapter Harness male JAE connector.
20. Using the provided wire ties, secure the Dynamic A/W Engine Guard harness to prevent damage to the wiring harness.
21. Reinstall the fairing and windshield in the reverse order that it was removed
22. Reconnect the negative battery cable to the battery and reinstall the seat.
23. Perform a BCM sync by turning the ignition on, turn the 4 way hazards on, turn the ignition off. Allow the 4 way hazards to run for 3-4 minutes. Turn the ignition on. Turn the 4 way hazards off. Turn the ignition off.
24. Test operation of all lighting in all modes before riding.