

*Daytona*

BY

**CSC**  
*TRIKES*

**1999 - Current**

**FLHT Series Harley-Davidson**

**ELECTRIC REVERSE  
Installation Instructions**

**REVISED 11 - 2020**

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## Warnings and considerations:

1. **Disclaimer** - These instructions assume a level of understanding of motorcycle repair and maintenance beyond that of a “beginner” and/or “novice” and California Sidecar cannot be liable for an installer’s failure to understand or follow these instructions as written. Likewise, California Sidecar cannot be responsible if any of the steps are omitted or shortcuts are taken, or parts other than those supplied by California Sidecar, are used in installing this trike kit.
2. **“WARNINGS”** are all printed in bold type and capitalized. They mean to use extreme care in a given step so as not to damage the part, motorcycle, and/or yourself.
3. **Always** wear safety glasses when using hand and/or power tools.
4. When working in and around the fuel system, **always** work in a well-ventilated area, free from sparks and open flames.
5. All directional references to the “right side” and the “left side” are as if you were seated on the motorcycle.
6. All directional references to “forward” mean to the front of the motorcycle while “back” means the rear of the motorcycle unless otherwise stated.
7. Please consult the appropriate Service Manual for your motorcycle if further detail is necessary.

## **INSTALL REVERSE AND ALL ITS PARTS DURING INSTALLATION AND BEFORE THE BODY IS INSTALLED.**

### **Assembly:**

- 1. Once 28 MM and 50 MM belts are tensioned and all clamping bolts are tightened. Tension Reverse belt.**
- 2. Sonic Tension Meter specs:**
  - MASS 004.7**
  - WIDTH 021.0**
  - SPAN 0176**
- 3. Reverse Belt Tension:**
  - SINGLE SPAN TENSION: 49-55 lbs.**

### **1999 – 2013 MODELS:**

- 1. Using two-sided tape install Reverse module on the intermediate mount with the wire connectors pointing up and forward.**
- 2. Install Reverse button: Using a 15/32 inch drill bit. Drill thru the inner fairing opposite of the odometer trip reset button.**
- 3. Ensure the rubber washer is on the Reverse button, then insert the wire thru fairing and install nut and tighten.**
- 4. Plug both harnesses into the Reverse module.**
- 5. Route the single blue wire and white wire to the Reverse motor.**
- 6. Route the long wire harness up under the seat and fuel tank into the head light area.**
- 7. Connect the harness to Reverse button.**
- 8. Using a sealed butt connector or solder joint, connect the brown wire to the tan neutral wire at neutral light.**

**9. Locate the yellow/green wire (fuel pump) just behind the fuel tank. Using a sealed butt connector or solder joint, connect to the green wire.**

**NOTE: If installing Reverse on a carbureted bike. Connect the green wire to either the orange/white accessory wire or the blue tail light wire at the fender plug.**

**10. Locate the red/yellow wire (brake light) under the seat at the fender plug. Using a sealed butt connector or solder joint, connect to the red/yellow wire.**

**11. Connect the red wire to the orange/white wire (accessory) at the fender plug.**

**12. Install the black negative cable and white wire to the lower long mounting bolt on the Reverse motor. Route the negative cable to the battery.**

**13. Install terminal boot onto red positive cable.**

**14. Connect the red positive cable to the stud on the Reverse motor solenoid.**

**15. Route the positive cable under the battery box to the motorcycle starter solenoid stud.**

**16. Using provided cable tie, secure the positive cable to the Reverse motor.**

**17. In the left handlebar harness. Locate yellow/black horn wire and cut. Using sealed butt connectors. Connect yellow wire to the button side and black wire to the harness side.**

**18. Ensure that all wires and miscellaneous components are secured to the frame with cable ties.**

## **2014 Models:**

- 1. Install Reverse module on the intermediate mount with the wire connectors pointing up and forward fastening with provided allen bolt and nuts.**
- 2. Install Reverse button: Using a 15/32 inch drill bit. Drill thru the inner fairing to the left of the radio screen.**
- 3. Ensure the rubber washer is on the Reverse button, then insert the wire thru fairing and install nut and tighten.**
- 4. Plug both harnesses into the Reverse module.**
- 5. Route the single blue wire and white wire to the Reverse motor.**
- 6. Remove the fuel tank, and the wire harness cover.**
- 7. Route the long wire harness up under the seat and fuel tank into the head light area.**
- 8. Connect the harness to Reverse button.**
- 9. Connect the Red wire to the Red/Yellow wire (accessory) at the fender plug.**
- 10. Connect the Red/Yellow wire to the Blue/Red wire (Brake) at the fender plug.**
- 11. Locate the White Neutral Wire on the transmissions neutral switch; also located in the BCM, connect to the brown wire with a sealed butt connector or solder joint.**
- 12. Locate the Red/Brown wire (fuel pump) just behind the fuel tank. Using a sealed butt connector or solder joint, connect to the green wire.**
- 13. At the horn. Locate Red/Purple horn wire and cut. Using sealed butt connectors. Connect yellow wire to the button side and black wire to the harness/horn side.**
- 14. Install the black negative cable and white wire to the lower long mounting bolt on the Reverse motor. Route the negative cable to the battery or frame.**
- 15. Install terminal boot onto red positive cable.**

- 16. Connect the red positive cable to the stud on the Reverse motor solenoid.**
- 17. Route the positive cable under the battery box to the motorcycle starter solenoid stud or battery.**
- 18. Using provided cable tie, secure the positive cable to the Reverse motor.**
- 19. Ensure that all wires and miscellaneous components are secured to the frame with cable ties.**

### **Operating the Electric Reverse:**

- 1. With the Trike in neutral. Start the engine. Reverse mode will not engage if the trike is not in neutral or the engine is not running.**
- 2. Depress the Reverse button and the blue LED will light up. This indicates that Reverse mode is engaged.**
- 3. Press the horn button and the trike will then back up as long as the horn button is held down.**
- 4. If the brakes are applied the reverse will pause until the brakes are no longer being used.**

**From all of us at California Sidecar.  
Enjoy the ride!**

# CSC REVERSE CONTROLLER LOGIC

**Pin NO.      Color      Function**  
**Small**  
**Connector**

1	<b>blue</b>	Output to starter solenoid	Sends 12V to reverse motor when all conditions are met.
2	<b>white</b>	Ground	Main ground for control box
3	<b>none</b>		
4	<b>red</b>	Keyed 12V	Main power input to run control box. Draws ? amps

**Large**  
**Connector**

1	<b>yellow</b>	Input: From horn button	Looks for 12V to start reverse motor. This is the button that is pushed when the rider wants to start moving in reverse.
2	<b>black</b>	Output: To horn	Outputs 12V to horn when reverse is not activated. This makes the horn work normally when the reverse is not being used.
3	<b>green</b>	Input: Engine run	Input 12V to box only when engine is running. Typical connection is to fuel pump power. Should we look at tack output or oil pressure light?
4	<b>brown</b>	Input: From neutral switch.	Looks for 0V when in neutral and 2-12V when in gear. This makes sure the motorcycle is not in gear while also in reverse. The reverse could be damaged if the motorcycle was trying to move forward while reverse was engaged.
5	<b>red/yellow</b>	Input: From brake switch	Looks for 12v when brake is depressed. This pauses the reverse until the brake is released. It avoids running the reverse while the brake pedal is depressed potentially damaging the reverse.
6	<b>orange</b>	pushbutton power to LED	When Reverse is activated 3-4 volts is supplied to light the LED
7	<b>grey</b>	pushbutton ground	Ground for the LED, and for the button
8	<b>purple</b>	pushbutton reverse enable	if you jump purple to grey just for a second, this will activate the Reverse

