SWAY COMMAND® TOW
CONTROL SYSTEM
OWNER'S MANUAL

LIPPERT COMPONENTS

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### **AWARNING**

The use of the LCI Sway Command® with 2014, 2015, 2016, 2017 or 2018 GM trucks equipped with an integrated trailer brake control module (ITBCM), could cause reduced braking effectiveness, induce loss of brake control and increase the risk of injury when towing a trailer.

When the LCI Sway Command® is functioning on a trailer, the subject GM truck will display "Service Trailer Brake System" in the vehicle message center, the ITBCM will become disabled and the electric trailer brakes will not function until the ignition has been turned off and back on to clear the code.

Do not use the LCI Sway Command® with 2014, 2015, 2016, 2017 or 2018 GM trucks equipped with an ITBCM while towing a trailer.

#### **System Components**



**Sway Command ™ Controller** 



Sway Command® Light Pod



**Sway Command® Main Harness** 



**Sway Command® Light Pod Harness** 

#### Introduction

The Sway Command® Tow Control system is a self-contained trailer stability control module that detects undesirable trailer movement from external sensors and mitigates it by adaptively applying a variable braking voltage to the left and right trailer electric brakes.

The Sway Command® Tow Control system uses sensors to detect excessive trailer sway. The system activates automatically and applies voltage proportional to the amount of sway detected to the electric trailer brakes. This dampens the sway and slows the trailer down. When excessive sway is detected, the light pod will blink red and the tow vehicle operator may feel the trailer brakes activate until the sway is dampened.

#### Causes of Sway

- 1. When the Tongue weight is less than 10% of the trailer's weight, it has a natural tendency to sway.
- 2. Improper weight distribution hitch adjustments.
- **3.** Crosswinds.
- **4.** A transfer truck passing from the rear of the trailer.
- **5.** Descending inclines.
- **6.** Towing speeds.
- **7.** Tow vehicle not properly matched for the trailer.
- **8.** Improper loading, overloading and poor weight distribution on the trailer.
- **9.** Incorrect tire inflation.

## **A** CAUTION

Always inflate tires per manufacturer's specifications. In addition to causing sway, improper tire inflation may cause premature tire wear, poor handling, reduced fuel economy, or blowouts. Check tire inflation weekly when the tire is cold before operation.

#### **Prior to Operation**

## **AWARNING**

## Failure to follow the guidelines below may result in death, serious personal injury, or property damage.

- 1. Sway Command® must be installed as detailed in the Sway Command® Installation section. Sway Command® will not operate correctly if improperly installed.
- 2. Trailer brakes must be adjusted per OEM specifications to ensure proper trailer braking. The tow operator must ensure trailer brakes are properly adjusted. Sway Command® may not operate properly with improperly adjusted brakes. Discuss brake adjustments with the trailer OEM.
- Trailer brakes must be burnished to ensure proper trailer braking. New electric brakes may contain a coating to prevent rust during shipping. An unburnished brake will reduce trailer braking capacity. The tow vehicle operator must ensure trailer brakes are properly burnished to ensure brakes are effective in slowing the tow vehicle. Sway Command® may not operate properly with improperly burnished brakes. Discuss brake burnishing with the trailer OEM.
- **4.** Improperly adjusted tire pressure can reduce braking effectiveness and can be a source of sway. Tire pressure must be adjusted to OEM recommended pressure.
- 5. Tires must have useful tread life left to ensure proper braking. Tire tread below useful life could skid during braking. The tow operator must ensure tires have useful tread left.
- 6. Improperly loaded trailers can be a source of sway. At higher speeds, if the trailer naturally sways, the tongue weight and/or trailer weight distribution must be adjusted. Sway Command® could activate frequently in this situation causing excessive brake wear. Ensure proper hitch tongue weights are observed for the trailer.
- 7. The tow operator must ensure Sway Command® is operational by observing the Sway Command® Light Pod status. Ensure the light pod is illuminated green. See Sway Command® Status light for status other than green.
- **8.** The operator should operate the tow vehicle safely as driving and weather conditions allow. Sway Command® relies on braking and tire grip to mitigate sway, and overall effectiveness of the system may be reduced or impaired in slippery/icy driving conditions.

#### **Sway Command Controller Operation**

- 1. When Sway Command® detects excessive sway, the light pod will blink red and the tow operator may feel the trailer brakes activate until the sway is dampened.
- 2. Sway Command® will wake up if it senses external brake activations. During wake up, Sway Command® performs self-checks and alternately flashes the light pod lights green and red.

**NOTE:** The Sway Command® light pod will be green if no issues are detected. If an issue is detected, the Light Pod will blink green once, followed by a number of red flashes. See troubleshooting for a description of the various blink codes.

3. Sway Command® will enter a low power mode after 10 minutes when it senses no tow vehicle brake activations or movement. The Sway Command® light pod will turn off when it powers down.

#### **Light Codes and Troubleshooting**

Light Flash	Why?	What Should Be Done?
Off	Unit is not powered and not	Unit is in low power. Activate tow vehicle brake to wake unit.
Oil	active.	Unit is not connected to DC 12V power supply. Verify wiring.
Green, Red, Repeat	Wake up self-checks in progress.	After a few seconds, the unit will complete self-checks, and set the lights Green if unit is ready, or a flashing code if an issue is found.
Green Solid	Unit is awake and monitoring for sway.	Every 5 seconds, there will be a brief time the Green LED turns off for a fraction of a second. This indicates unit is functional.
Red Blink ( $\frac{1}{2}$ second on, $\frac{1}{2}$ second off, repeats)	Sway Command® detected sway event and is activating brakes.	After sway subsides, light will return to green.
Groon 2 Pod	A short to 12 volt detected.	Verify the break away switch is not activated.
Green, 2 Red		Verify blue brake wire not shorted to 12 volt.
Green, 3 Red	Not connected to trailer brakes.	Verify the blue brake wire is connected to the trailer brakes.
Green, 4 Red	A short to ground detected.	Verify the blue brake wire is not shorted to ground or trailer frame.
Green, 5 Red	Low voltage detected.	Verify tow vehicle and tow battery are at 12 volts.
Red Solid	Unit is not functional.	Disconnect harness, wait 10 seconds.
Red Fast Blink (100ms on, 100ms off, repeats)		Connect harness. If light becomes solid red, unplug unit and contact service department.

**NOTE:** In the event a tow vehicle brake controller detects a fault after Sway Command® detects a sway event, manually activate the tow vehicle brake controller a few times to clear the fault.

#### **Sway Command Compatible Tow Vehicle Brake Control Modules**

The tow vehicle brake control module (BCM) applies brakes to the trailer when the tow operator presses on the tow vehicle brake pedal or activates a manual switch on the tow vehicle BCM. A tow vehicle BCM may be OEM factory installed or an aftermarket install.

**NOTE:** LCI attempts to provide compatibility with aftermarket BCMs and integrated trailer brake control modules (ITBCMs) but is unable to anticipate design changes by other manufacturers. LCI is continually testing BCMs and ITBCMs and advises you to visit <a href="lci1.com/sway">lci1.com/sway</a> for a complete and updated list as the website listing is periodically revised as further testing is completed and approved.

## **AWARNING**

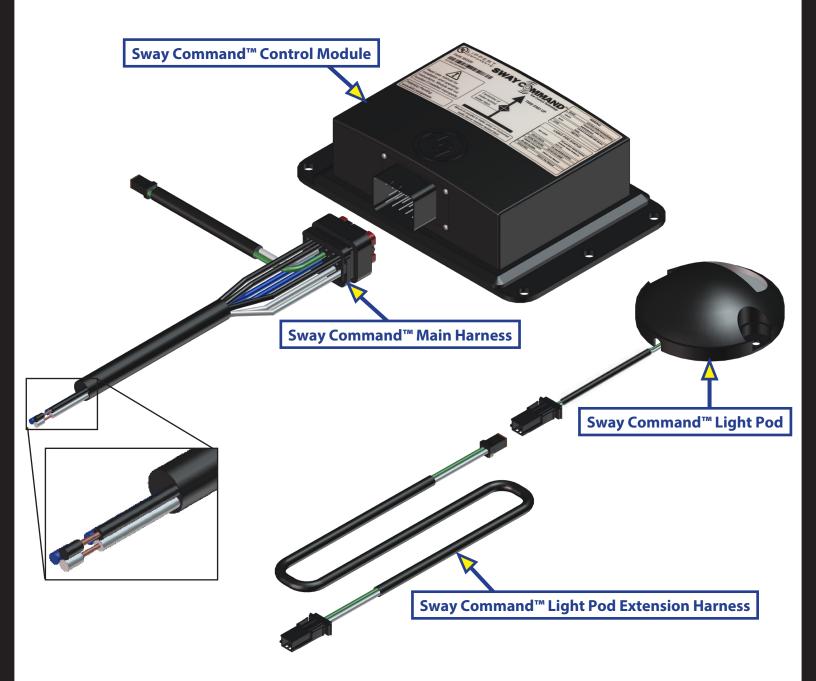
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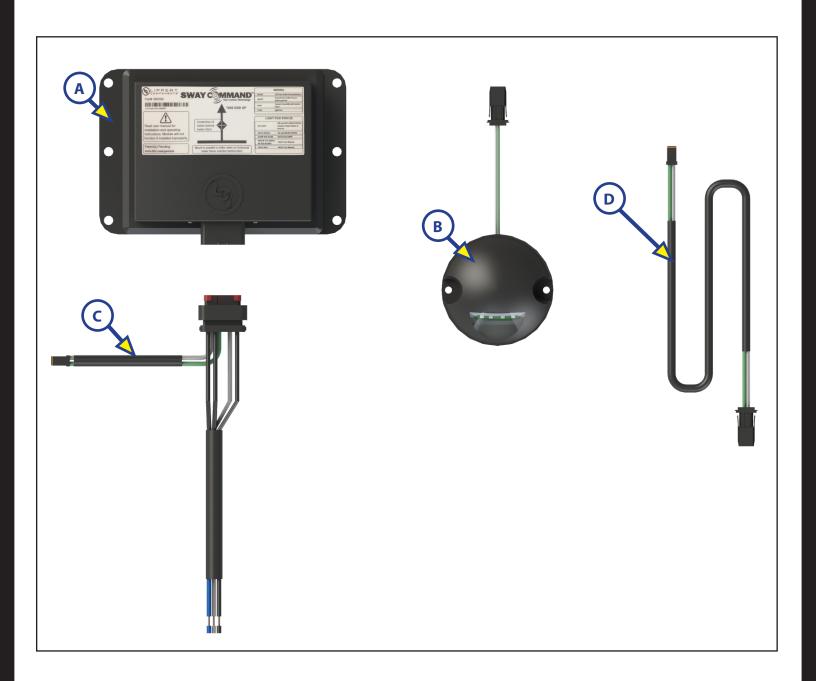


## SWAY COMMAND™ NON- PREPPED UNIT ASSEMBLY





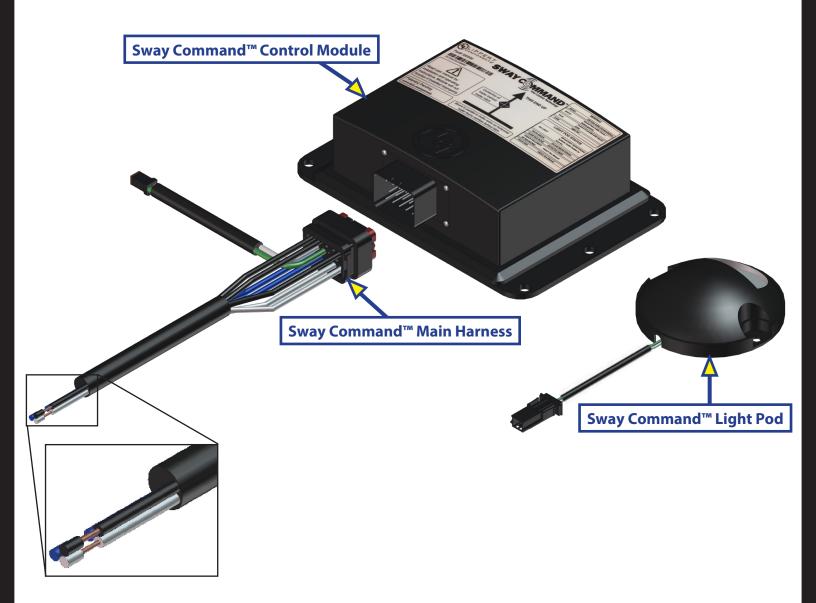
## **SWAY COMMAND™ NON- PREPPED UNIT COMPONENTS**



Sway Command™ Non- Prepped Unit Kit #422301 (includes one of each component listed below)				
Callout	Part #	Description		
А	380596	Sway Command™ Module		
В	380597	Sway Command™ Light Pod		
С	389951	Sway Command™ Main Harness		
D	390066	Sway Command™ Light Pod Extension Harness		



## **SWAY COMMAND™ PREPPED UNIT KIT ASSEMBLY**





## **SWAY COMMAND™ PREPPED UNIT KIT COMPONENTS**



Sway Command® Prepped Unit Parts Kit (includes one each of A, B, and C) - #405150				
Callout	Part #	Description		
Α	380596	Sway Command™ Module		
В	380597	Sway Command™ Light Pod		
С	389951	Sway Command™ Main Harness		



# LIPPERT COMPONENTS

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