

ROI Cabmate®
Cab Suspension

LINK®

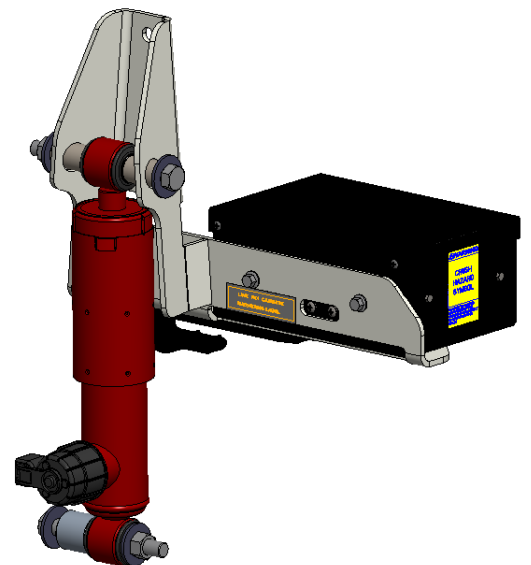
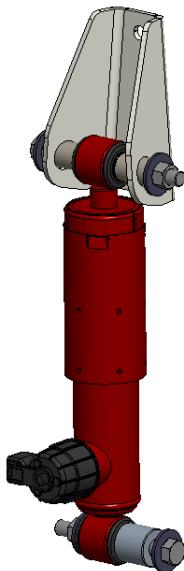
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SERVICE
1-800-222-6283**

INSTALLATION INSTRUCTIONS

Cab Suspension
FREIGHTLINER CASCADIA
SLEEPER CABS
MODEL YEAR 2019 & NEWER

LINK PART NO.
26302010



IMPORTANT: IT IS IMPORTANT THAT THE ENTIRE INSTALLATION INSTRUCTIONS BE READ THOROUGHLY BEFORE PROCEEDING WITH SUSPENSION INSTALLATION.






1. INTRODUCTION

Thank you for choosing a Link ROI CabMate Suspension. We want to help you get the best results from this suspension and to operate it safely. This manual contains information to introduce you to the Link ROI CabMate Suspension and to assist you with its installation. This manual is intended solely for use with this product.

All information in this manual is based on the latest information available at the time of printing. Link Manufacturing reserves the right to change its products or manuals at any time without notice.

Damaged components should be returned to Link with a pre-arranged Returned Materials Authorization (RMA) number through the Customer Service Department. The damaged component may then be replaced if in compliance with warranty conditions.

2. SAFETY SYMBOLS, TORQUE SYMBOL, and NOTES

| | |
|--|---|
|  | DANGER indicates a hazardous situation which if not avoided, will result in death or serious injury. |
|  | WARNING indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury. |
|  | CAUTION indicates a potentially hazardous situation which, if not avoided, could result in minor or moderate injury. |
|  | NOTICE indicates a potentially hazardous situation which, if not avoided, may result in property damage. |
|  | TORQUE indicates named fasteners are to be tightened to a specified torque value. |
| NOTE: | A Note provides information or suggestions that help you correctly perform a task. |

3. SAFE WORKING PRACTICES:

3.1 CAUTION

When handling parts, wear appropriate gloves, eyeglasses, ear protection, and other safety equipment.

3.2 CAUTION

Practice safe lifting procedures. Consider size, shape, and weight of assemblies. Obtain help or the assistance of a crane when lifting heavy assemblies. Make certain the path of travel is clear.

4. INSTALLATION GUIDELINES

4.1 In order for this CabMate suspension to operate properly, it must operate in the parameters specified by Link.

4.2 No alterations of any Link CabMate suspension component is permitted without proper authorization from qualified Link personnel.

4.3 No welding of any suspension components is permitted except when specified by Link.

4.4 CAUTION

The vehicle manufacturer should be consulted before any modifications are made to the frame of the vehicle. Cutting or altering the frame in certain areas may affect the manufacturer's warranty.

4.5 CAUTION

Proper tightening of fasteners is important to the performance and safety of the suspension. Follow all torque specifications throughout the instructions.

4.6 NOTICE

Link Manufacturing is not responsible for optional configurations or third party equipment that restrict the installation of the ROI CabMate.

2022 Model Year Updates

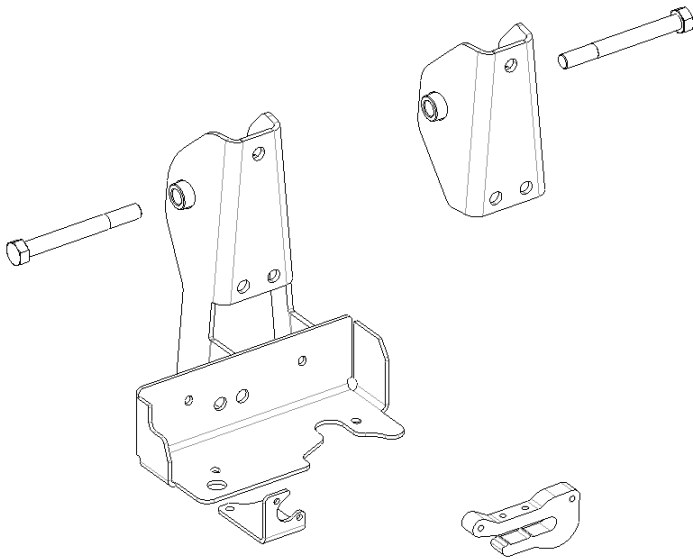
Starting in the 2022 model year, the cab mount brackets were lowered 50mm. See images comparing the two variations. Cab brackets, upper shock bolts, height sensor brackets, and pivot ball clamps are supplied for both variations. All other kit components are the same. See component layout below. **Determine which style brackets are required before proceeding with the install.**



Model Years 2019-2021

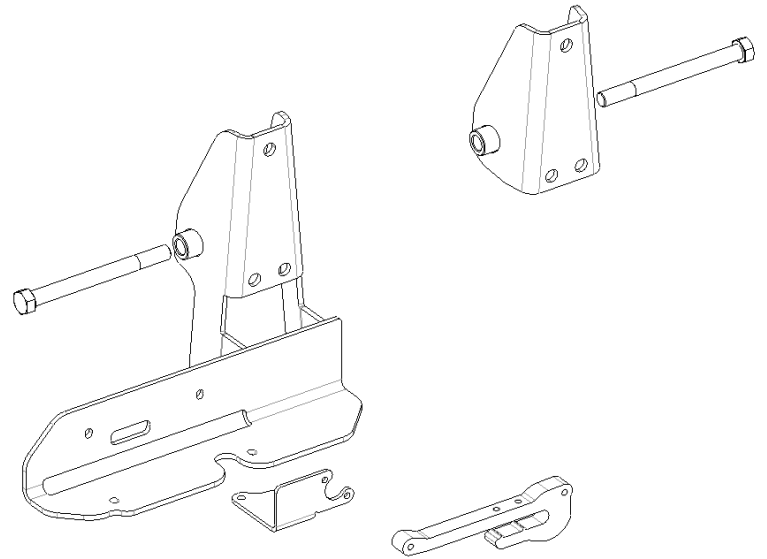


Model Years 2022 and Newer



2019—2021 Kit Components

Note shorter brackets and bolts



2022 and Newer Kit Components

Note longer brackets and bolts

5. PREP VEHICLE FOR ROI CABMATE INSTALLATION (PRE-INSTALL STEPS)

WARNING

To prevent injury from compressed air and unintended cab motion, do not connect the cab suspension to the air source until the cab suspension is completely assembled and you have read and understood the owners manual.

Tools Required

- Pliers
- Airline cutting tool
- Metric Socket Set
- Metric Wrench Set
- Standard Socket Set
- Standard Wrench Set
- Torque Wrench
- Hex Key: 3mm

5.1

Measure the air spring height between the air spring mounting surfaces. Verify this dimension is approximately 6.5". Do not proceed with the installation if the dimension is off by more than 0.5". Record the actual measurement. When the installation is complete, the distance will be measured again to verify the air spring height has not changed (**FIG.1**).

5.2

Jack up the cab between the driver's side frame rail and rear of cab.

5.3

Disconnect airlines from the air springs and the height control valve.

5.4

Verify the cab is fully supported.

5.5

Mount the height control sensor bracket to the control box using the (2) 1/4 X 5/8 flange head bolts provided (**FIG.2**).

 **TORQUE** 1/4" fasteners to 4-5 FT-LBS.

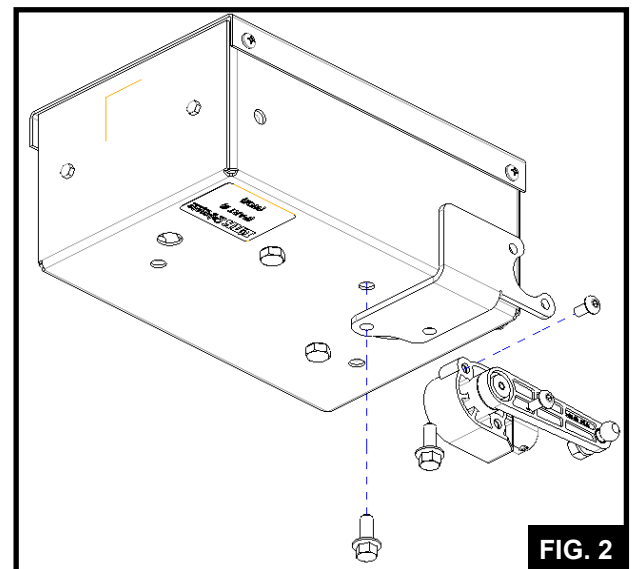
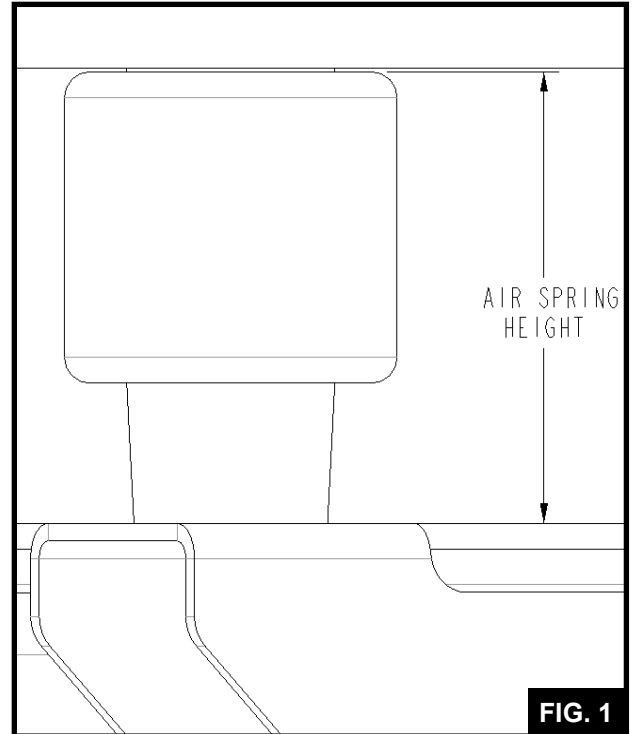
5.6

Mount the height control sensor to the bracket on the control box using the (2) M5 X10mm button head screws provided (**FIG.2**).

 **TORQUE** M5 fasteners to 4-5 FT-LBS

5.7

Verify the vehicle is off and remove the key to prevent others from starting the vehicle.



6. REMOVE EXISTING CAB SUSPENSION

⚠ WARNING

Failure to have rear of the cab fully supported will cause motion of the rear of the cab, which may result in operator injury. See section 5 for instructions on supporting the rear of the cab.

6.1

Starting on the passenger side of the vehicle, remove the nut and washer from the lower shock mount. These parts are not reused and may be discarded (**FIG.3**).

6.2

Remove the nut, bolt, and washers on the upper shock mount. These parts are not reused and may be discarded (**FIG.3**).

6.3

Remove the shock. This part is not reused and may be discarded (**FIG.3**).

6.4

Remove the (3) bolts on the upper shock mount. Discard the bracket but retain the bolts as they will be reused for the new shock mount (**FIG.4**).

Note: The upper bolt hole is threaded, the lower two holes use hex nuts.

6.5

Remove the lower shock mount hardware. These parts are not reused and may be discarded (**FIG.5**).

6.6

Repeat steps 6.1 through 6.5 on the driver side of the vehicle

6.7

Remove the height control valve. It is not reused and may be discarded.

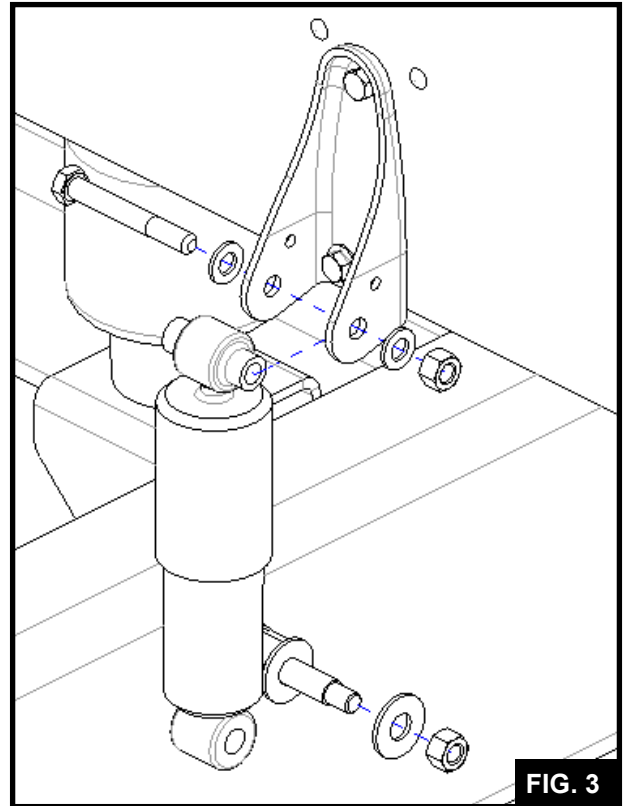


FIG. 3

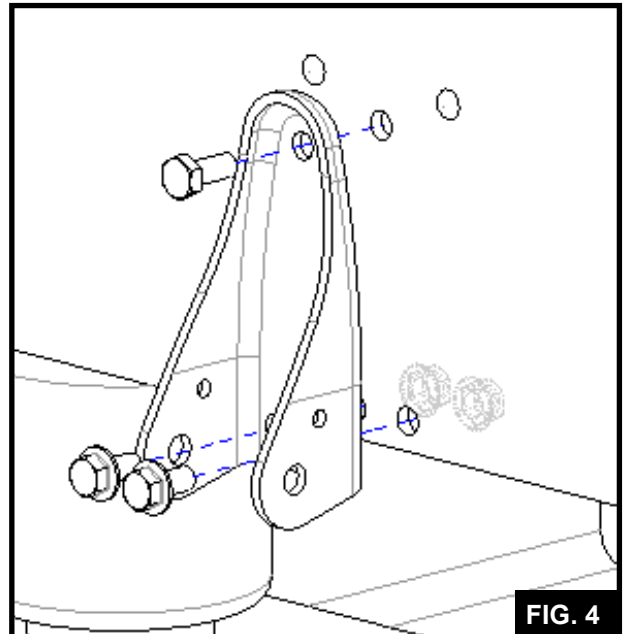


FIG. 4

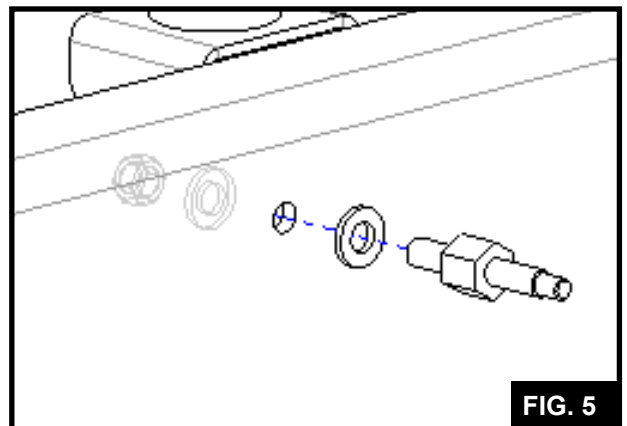


FIG. 5

7. INSTALL NEW CAB SUSPENSION COMPONENTS

7.1

Attach the passenger side upper shock mount using the (3) original fasteners removed in step 6.4 (**FIG.6**).

TORQUE M10 fasteners to cab per vehicle manufacturer guidelines.

7.2

Mount the control box to the upper shock mount bracket. Use the (4) 1/4 X 5/8 flange head bolts provided (**FIG.7**).

TORQUE 1/4" fasteners to 4-5 FT-LBS.

7.3

Mount the shock to the upper shock bracket. Use the (1) 1/2 X 4 1/2 bolt, (1) 1/2 lock nut, and (2) washers provided (**FIG.8**).

TORQUE 1/2" fasteners to 60-70 FT-LBS.

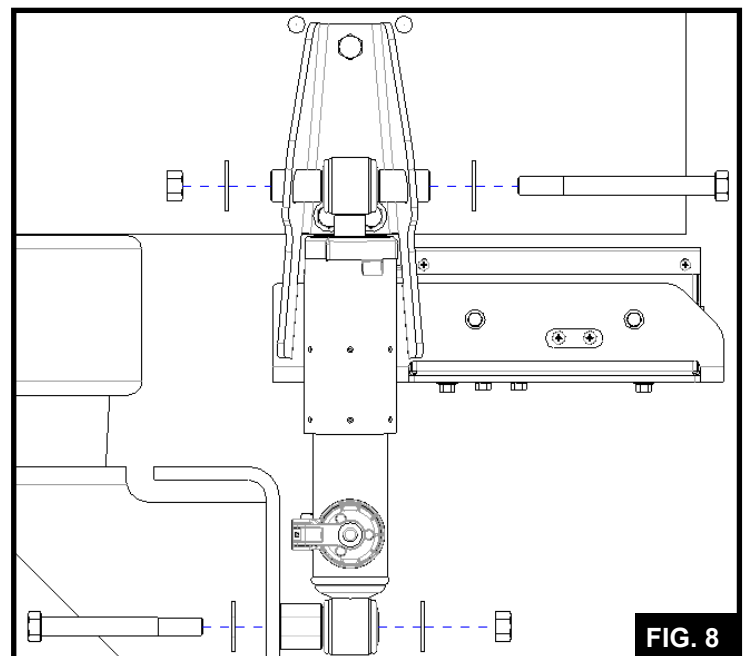
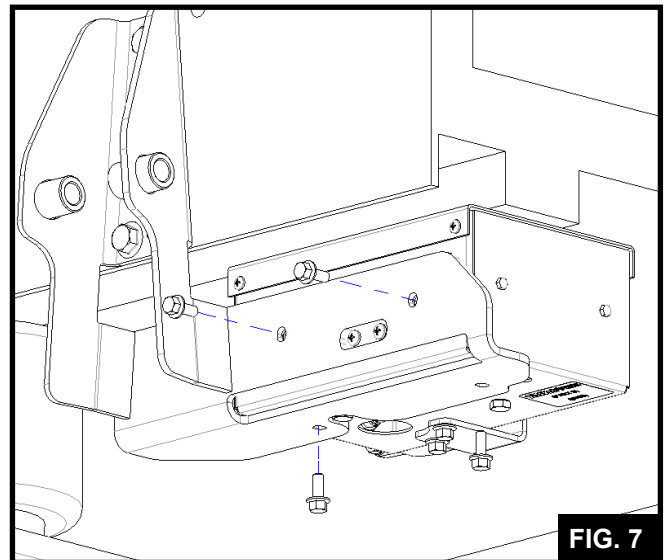
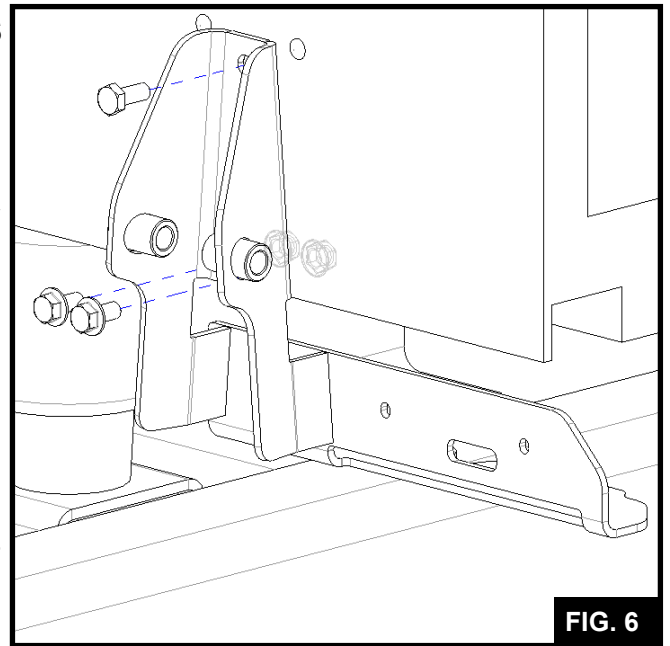
7.4

Place the metal spacer bushing between the frame and the shock. Use the (1) 1/2 X 4 1/2 bolt, (1) 1/2 lock nut, and (2) washers provided to mount the shock to the frame (**FIG.8**).

TORQUE 1/2" fasteners to 60-70 FT-LBS.

7.5

Repeat steps 7.1, 7.3, and 7.4 on the driver side.



8. INSTALL NEW CAB SUSPENSION ELECTRICAL AND AIRLINE COMPONENTS

8.1

Place the pivot ball mount clamp on the top flange of the frame rail below the height control sensor. Do not tighten the bolts (FIG.9).

8.2

Connect the height control linkage between the pivot ball and the height control sensor (FIG.10).

8.3

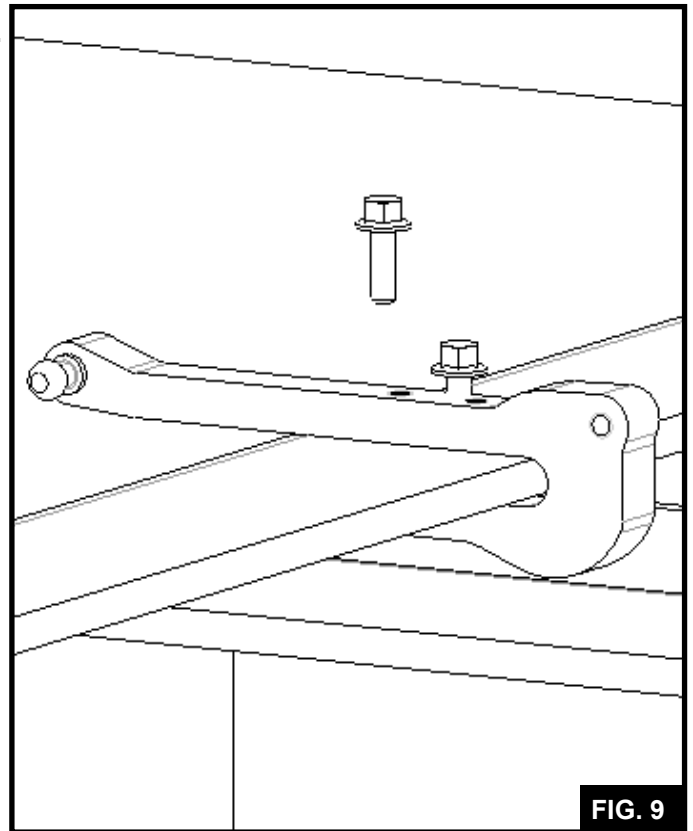
Position the linkage mount such that the linkage is vertical when viewed from the lateral and longitudinal directions. Tighten the two bolts that have been pre-assembled to the mount to secure the position (FIG.9 and 10).

TORQUE 1/4" fasteners to 4-5 FT-LBS (48-60 IN-LBS).

NOTE: Steps 8.4-8.8 will use the parts from the integration kit detailed below on page 11.

8.4

Use the provided airline and airline fittings to connect the vehicle air supply and air spring to the control box (FIG. 11).

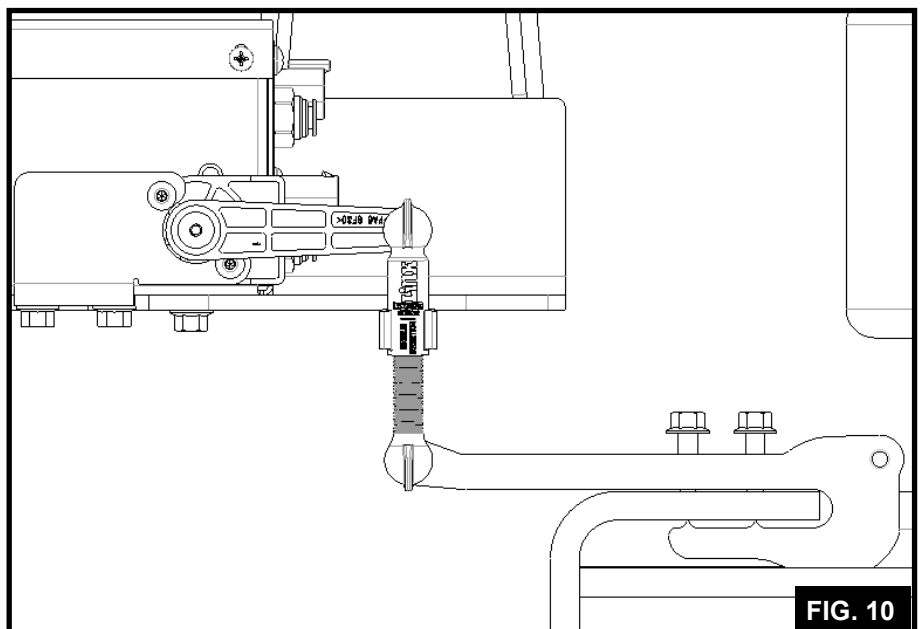


WARNING

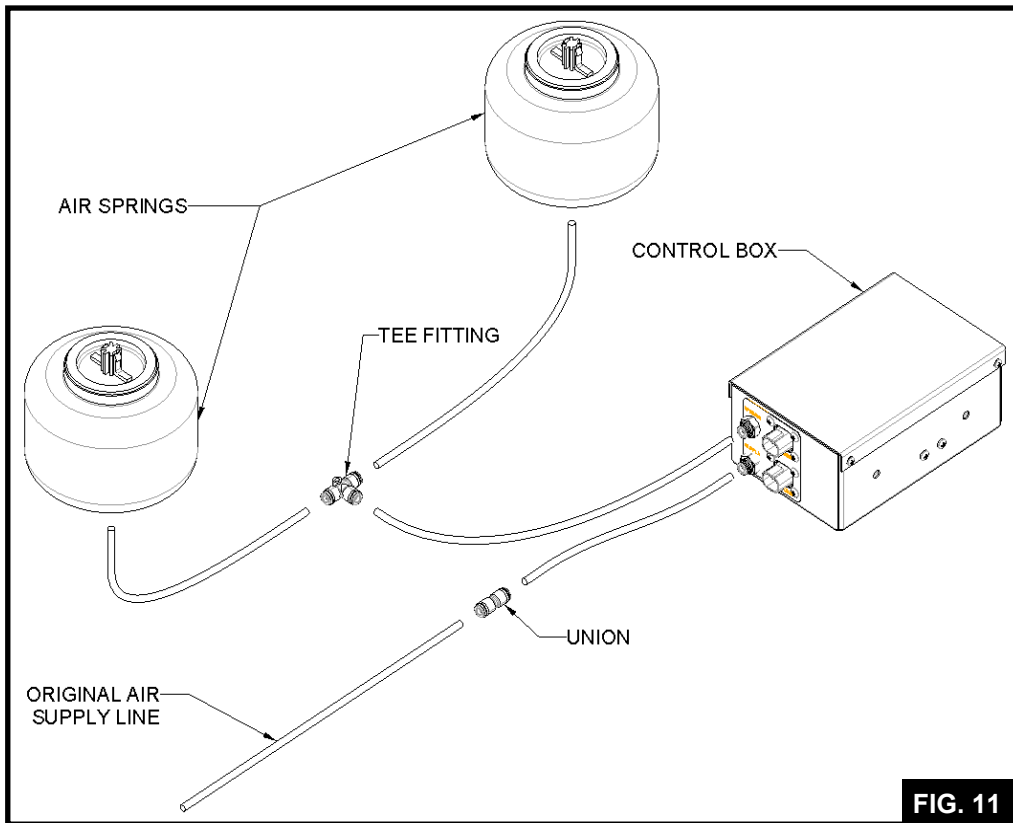
Connecting airlines to the vehicle supply and connecting to vehicle power may cause the cab air springs to inflate, resulting in cab movement. To prevent injury, ensure cab is blocked up and no operators are in the path of cab motion.

8.5

Connect the shock extension harness into the 'SHOCKS' plug on the control box. Route one end of the harness to each shock absorber and connect. Ensure there is appropriate slack in the harness to account for the vertical suspension travel. Loop excess harness length and secure (FIG. 12).



8. INSTALL NEW CAB SUSPENSION ELECTRICAL AND AIRLINE COMPONENTS (CONT.)



8.6

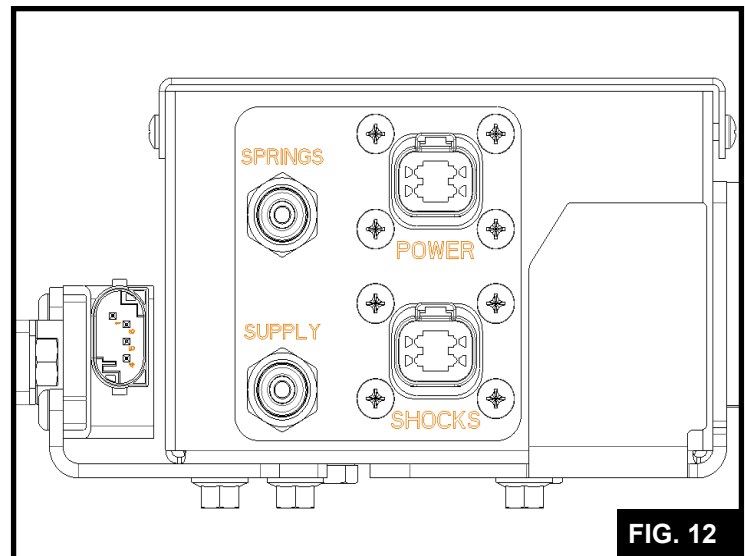
Run the main power harness from the 'POWER' connector of the control box (**FIG. 12**) into the cab. Route the harness through the dash and to the tie-in location. Loop and strap any excess harness. Strip the wires at the ends of the extension harness. Crimp to the mating color wire in the Integration kit (**FIG. 13**).

8.7

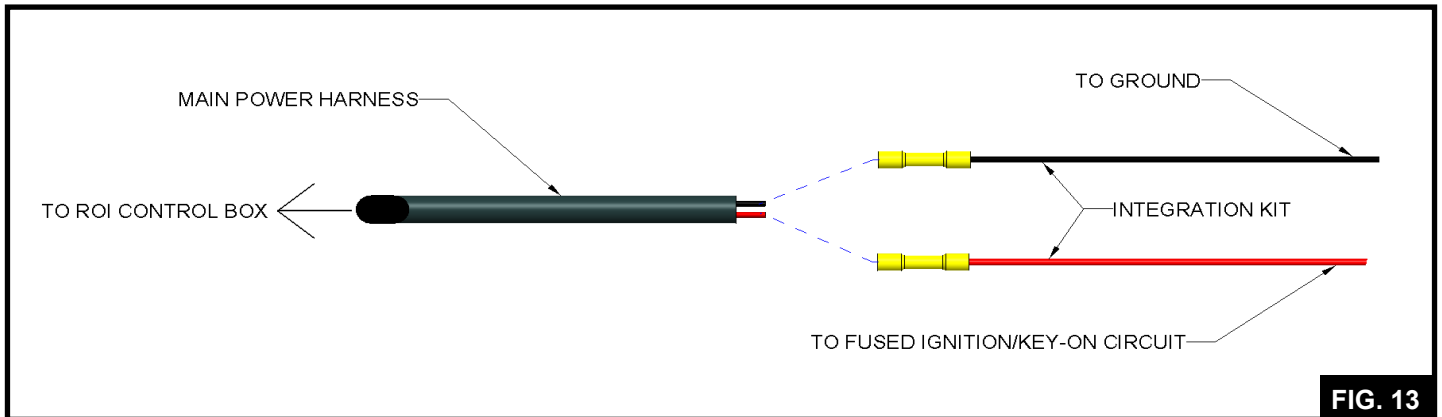
See the following page for possible tie-in locations. Verify the vehicle key is in the off position. Insert the red wire into the tie-in location in an available ignition/key-on circuit and fuse at 10 amps using the fuse provided. If there are no open circuits, an existing circuit may need to be spliced. Be sure the overall circuit rating is appropriate and fused to handle both loads. Fuse each branch independently, using the 10 amp fuse provided and an inline fuse holder (not provided) for the ROI CabMate branch. Fuse the other branch per the equipment manufacturer's instructions.

8.8

Insert the black wire into the tie-in location in an available ground location.



8. INSTALL NEW CAB SUSPENSION ELECTRICAL AND AIRLINE COMPONENTS (CONT.)



NOTICE

The information provided here is for reference only and was populated based on successful installations of the ROI CabMate. An appropriate tie-in location on your vehicle will need to be determined, which may be different than what is provided here. Link Manufacturing does not accept responsibility for failures caused due to inappropriate connection to vehicle electrical circuits.

Possible Vehicle Connection locations for the Freightliner Cascadia model are as follows:

Ignition Tie-in:

- Option 1: Back of the Fuse panel, connector J6, Pin F3. Fused at F74.
- Option 2: Ignition splice pack located behind passenger side dash panel. Fused at F44.

Ground Tie-in:

- Option 1: Back of the Fuse panel, connector J6, Pin A11.
- Option 2: Ground splice pack located behind passenger side dash panel.

All tie-in options listed above mate with the terminals on the provided ignition and ground wires.

9. VERIFICATION OF INSTALLATION

9.1

Verify the position sensor arm is above horizontal indicating that the suspension is below design height. At design height the sensor arm should be horizontal and perpendicular to the linkage. You may need to lower the jack(s) supporting the cab to achieve this (**FIG.14**).

9.2

Turn on the vehicle and allow the air tanks to fill. The cab air springs should now fill to design height.

9.3

Measure the air spring height as shown in **Figure 1** and verify it measures the same as recorded in step 5.1. If the height is not correct, shut the vehicle off, adjust the linkage length accordingly, then restart the vehicle and repeat this step.

9.4

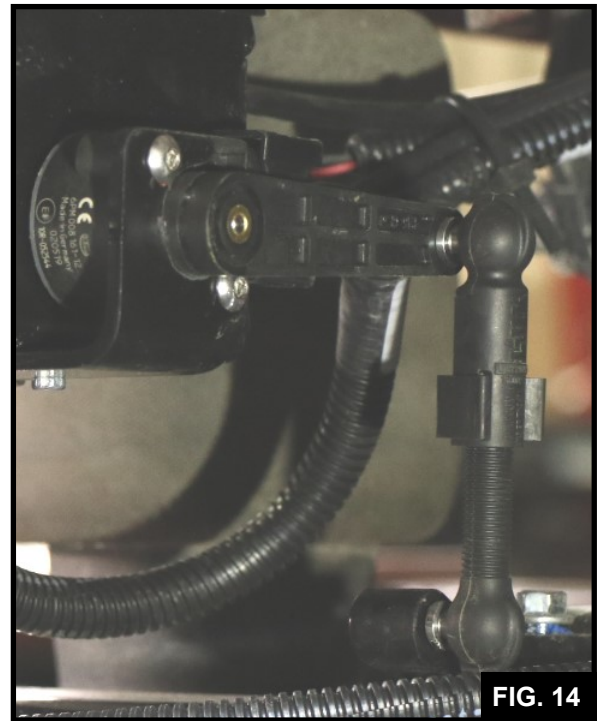
Verify the LED on the controller is flashing steadily, which indicates no faults. If the LED is not flashing steadily, see the Owner's Manual for troubleshooting information (**FIG.15**).

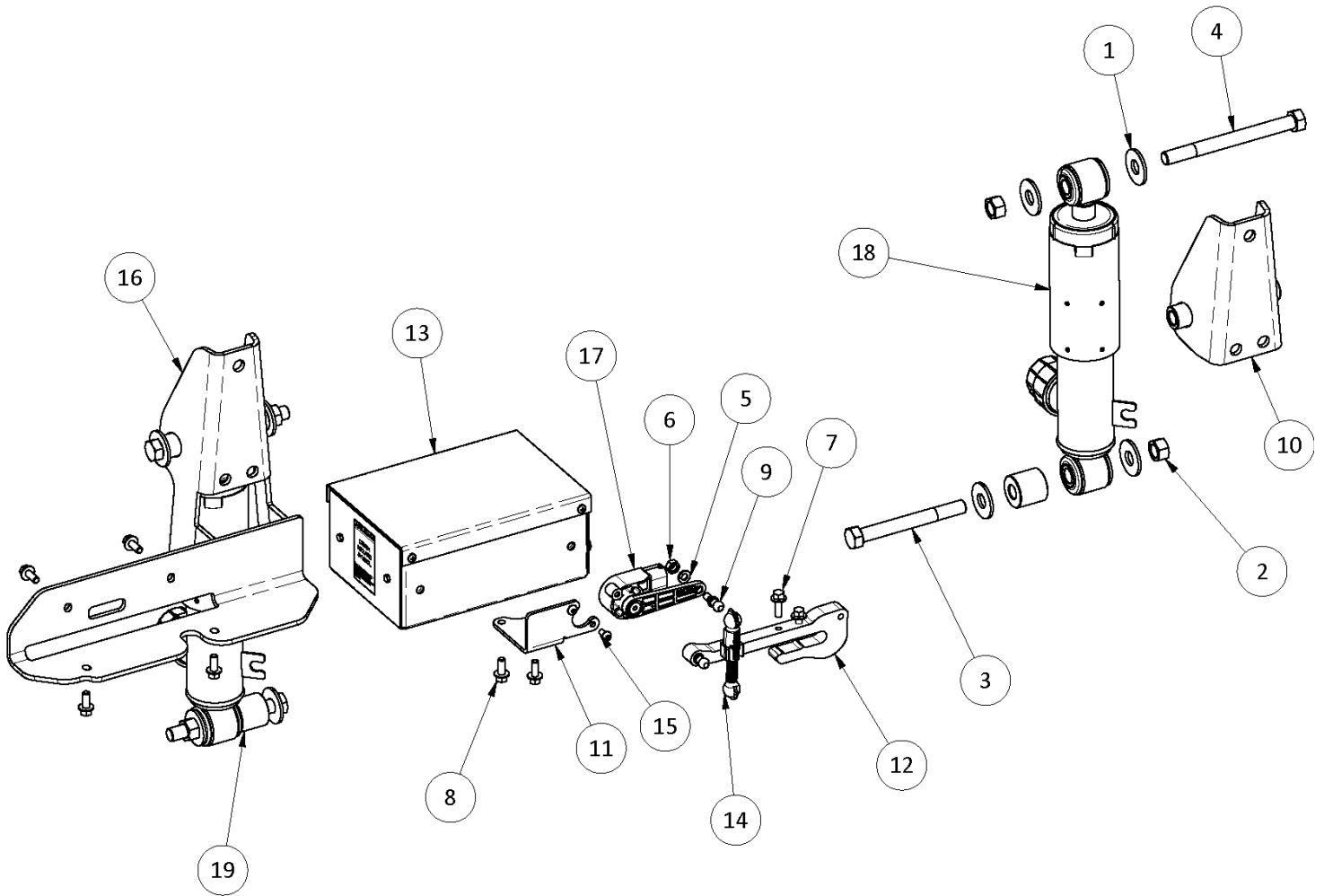
9.5

Check airline connections for air leaks and ensure all wire harnesses and airline is routed and secured appropriately.

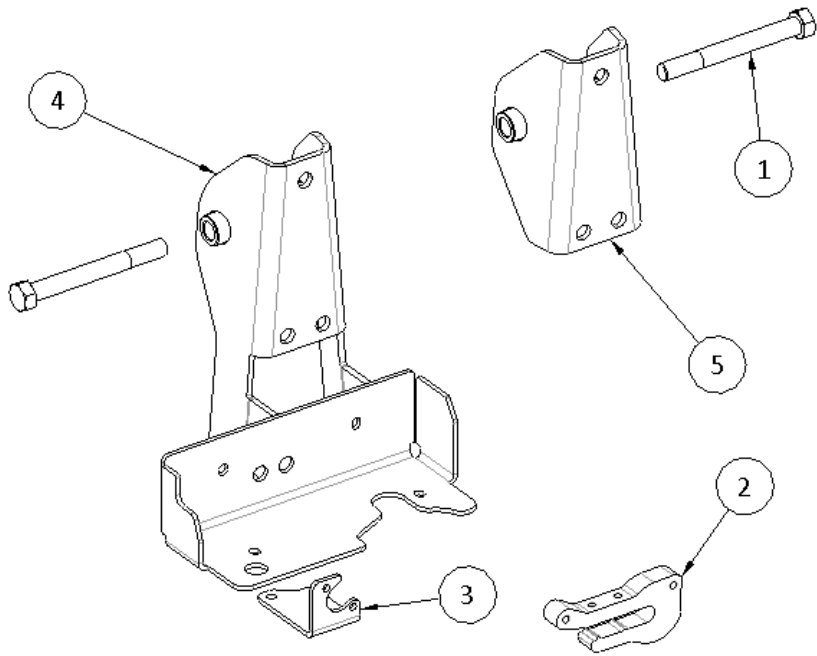
9.6

Your ROI CabMate installation is now complete. We hope you enjoy the ride. Please visit www.ROICabmate.com for more information or contact us at info@linkmfg.com if there is anything we can help you with.

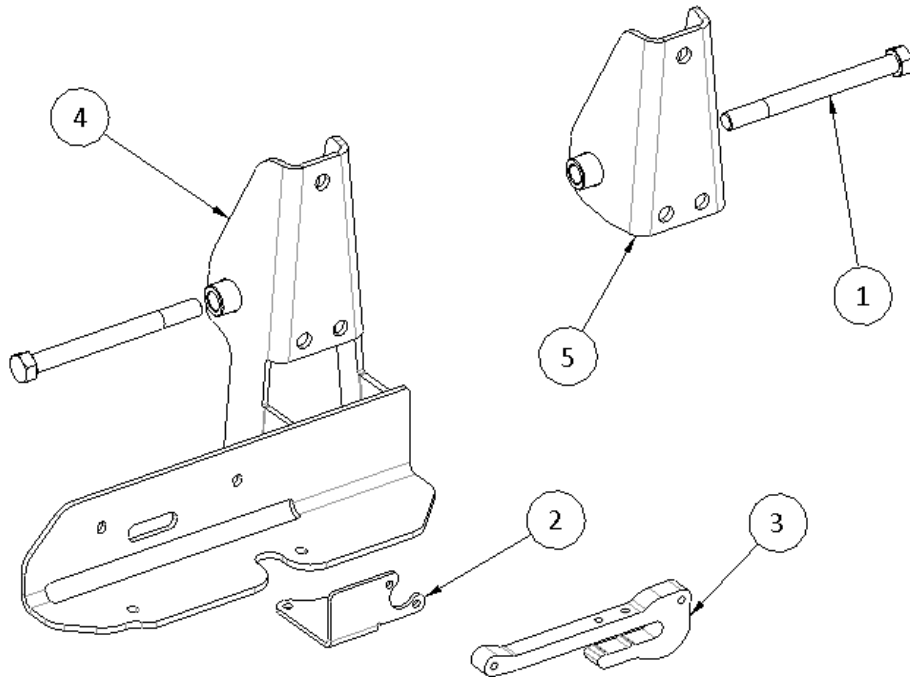




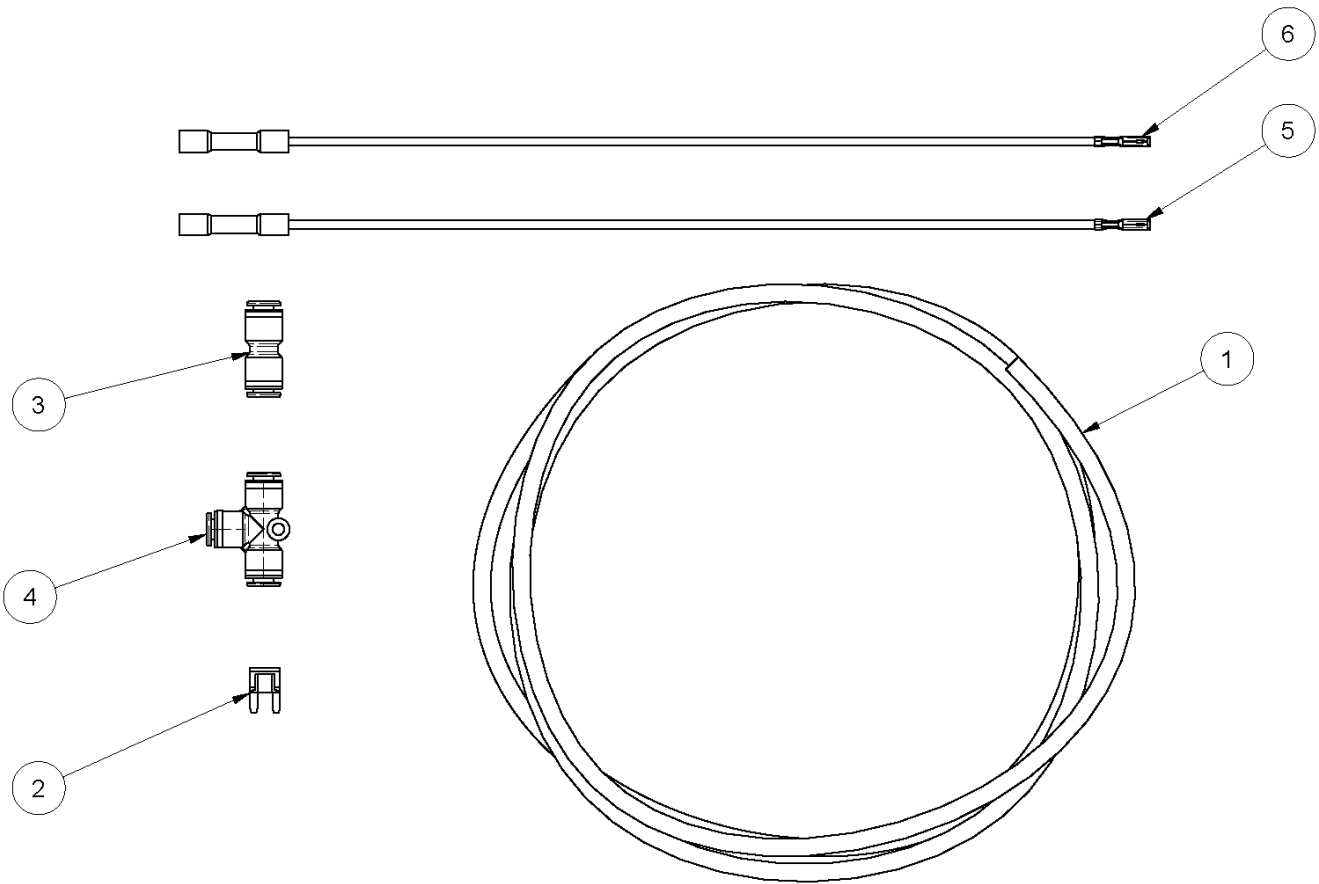
| 26302010 - ROI CABMATE KIT-FREIGHTLINER CASCADIA | | |
|--|---|-----|
| ITEM | DESCRIPTION | QTY |
| 1 | 1/2 TYPE A PLAIN WASHER | 8 |
| 2 | 1/2 UNC HEX TOP LOCK NUT (GR C) | 4 |
| 3 | 1/2 X 4 1/2 UNC HEX CAP SCR (GR 8) | 2 |
| 4 | 1/2 X 5 1/2 UNC HEX CAP SCR (GR 8) | 2 |
| 5 | 1/4 LOCK WASHER | 1 |
| 6 | 1/4 UNC HEX NUT (GR B) | 1 |
| 7 | 1/4 X 3/4 FLANGE HEAD BOLT | 2 |
| 8 | 1/4 X 5/8 FLANGE HEAD BOLT | 6 |
| 9 | BALL-PIVOT, THREADED | 2 |
| 10 | BRACKET-CAB | 1 |
| 11 | BRACKET-POSITION SENSOR | 1 |
| 12 | CLAMP-PIVOT BALL | 1 |
| 13 | ECU BOX, FL CASCADIA | 1 |
| 14 | LINKAGE-VALVE | 1 |
| 15 | M5X0.8X10 SOCKET BUTTON HD SS CAP SCREW | 2 |
| 16 | MOUNT-CAB | 1 |
| 17 | SENSOR-POSITION | 1 |
| 18 | SHOCK ABSORBER, ROI | 2 |
| 19 | SPACER | 2 |



| 2019-2021 FREIGHTLINER CASCADIA KIT COMPONENTS | | |
|--|------------------------------------|-----|
| ITEM | DESCRIPTION | QTY |
| 1 | 1/2 X 4 1/2 UNC HEX CAP SCR (GR 8) | 2 |
| 2 | CLAMP-PIVOT BALL | 1 |
| 3 | BRACKET | 1 |
| 4 | MOUNT-CAB | 1 |
| 5 | BRACKET-CAB | 1 |



| 2022+ FREIGHTLINER CASCADIA KIT COMPONENTS | | |
|--|------------------------------------|-----|
| ITEM | DESCRIPTION | QTY |
| 1 | 1/2 X 5 1/2 UNC HEX CAP SCR (GR 8) | 2 |
| 2 | BRACKET-POSITION SENSOR | 1 |
| 3 | CLAMP-PIVOT BALL | 1 |
| 4 | MOUNT-CAB | 1 |
| 5 | BRACKET-CAB | 1 |



| 26303001 - ROI INSTALLATION ACCESSORIES, FREIGHTLINER | | |
|---|---------------------------------------|-----|
| ITEM | DESCRIPTION | QTY |
| 1 | AIRLINE-NYLON, .250 O.D., BULK (FEET) | 10 |
| 2 | FUSE-MINI AUTOMOTIVE, 10 AMP | 1 |
| 3 | UNION H, 1/4 TB | 1 |
| 4 | UNION TEE, 1/4 TB | 1 |
| 5 | WIRE-NEGATIVE, FL NC/ PACCAR | 1 |
| 6 | WIRE-POSITIVE, FL NC | 1 |



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