



# CORE DUAL RATE SWAY BAR SYSTEM

PART# 72-2050DRS

- Thank you for purchasing your new G2 CORE DRS (Dual Rate Sway bar). This system allows the operator to selectively engage or disengage a pair of different rate torsion bars that allows the vehicle to have greater articulation for off-highway use.
- The G2 CORE Dual Rate Sway Bar is an upgrade sway bar for your 2007 to 2018 Jeep JK that features both a primary and a secondary sway bar control. In the normally engaged position, the sway bar provides maximum stability for on road handling. When disengaged, the primary torsion is bypassed, and a secondary, lighter spring rate torsion bar is used to allow maximum articulation for off-highway use.
- It is not recommended to drive the vehicle on the roads, highways, or speeds in excess of 15mph with the sway bar disengaged. Vehicle dynamics and handling will be greatly altered when using the secondary stage sway bar.
- Although stiffer than the secondary stage sway bar, the sway control of the primary stage will not be the same as the factory sway bar. Care should be taken to familiarize yourself with the handling characteristics of your vehicle with your new G2 DRS system installed. The vehicles handling characteristics can be fine tuned by using one of the three optional sway bar link mounting locations on the ends of the forged arms. The closer to the center of the sway bar, the stiffer the anti-sway effect will be.
- The DRS can be safely activated and deactivated while the vehicle is moving at speeds bellow 15mph Vehicles do not always sit perfectly flat or level so you may need to begin moving before the primary sway bar fully engages or disengages. Be sure the DRS primary torsion has reengaged before driving on the street or highway. **CAUTION: THE DRS IS MANUALLY ACTIVATED AND WILL NOT AUTOMATICALLY RE-ENGAGE DUE TO A VEHICLES SPEED.**

**Read entire instruction manual before attempting G2 CORE Dual Rate Sway Bar System installation.**





## INTRODUCTION:

- Read entire instruction manual before attempting G2 air compressor installation.
- DRS sway bar requires a compressed air source to operate. It is recommended to use G2 Air Compressor kit (70-AC1 Sold Separately) or other compressed air source in conjunction with this kit.
- Make sure the activation switch is in the off position and system is re-engaged before any street driving is attempted.
- Vehicle must be on level ground to disengage or re-engage DRS system
- Professional installation recommended.

## BILL OF MATERIALS:

PART#	DESCRIPTION	QTY.
NA-271	RED THREAD LOCKER (NOT SHOWN)	1
700-19-001	5MM TUBING (NOT SHOWN)	20'
700-20-001	SOLENOID	1
700-21-001	1/8" MNPT PUSH CONNECT FITTING: 5MM TUBE	1
700-22-001	SWITCH BASE	1
700-22-005	ROCKER SWITCH	1
720-01-001	PNEUMATIC SWAYBAR DISCONNECT (DRS)	1
720-22-001	WIRING HARNESS (NOT SHOWN)	1

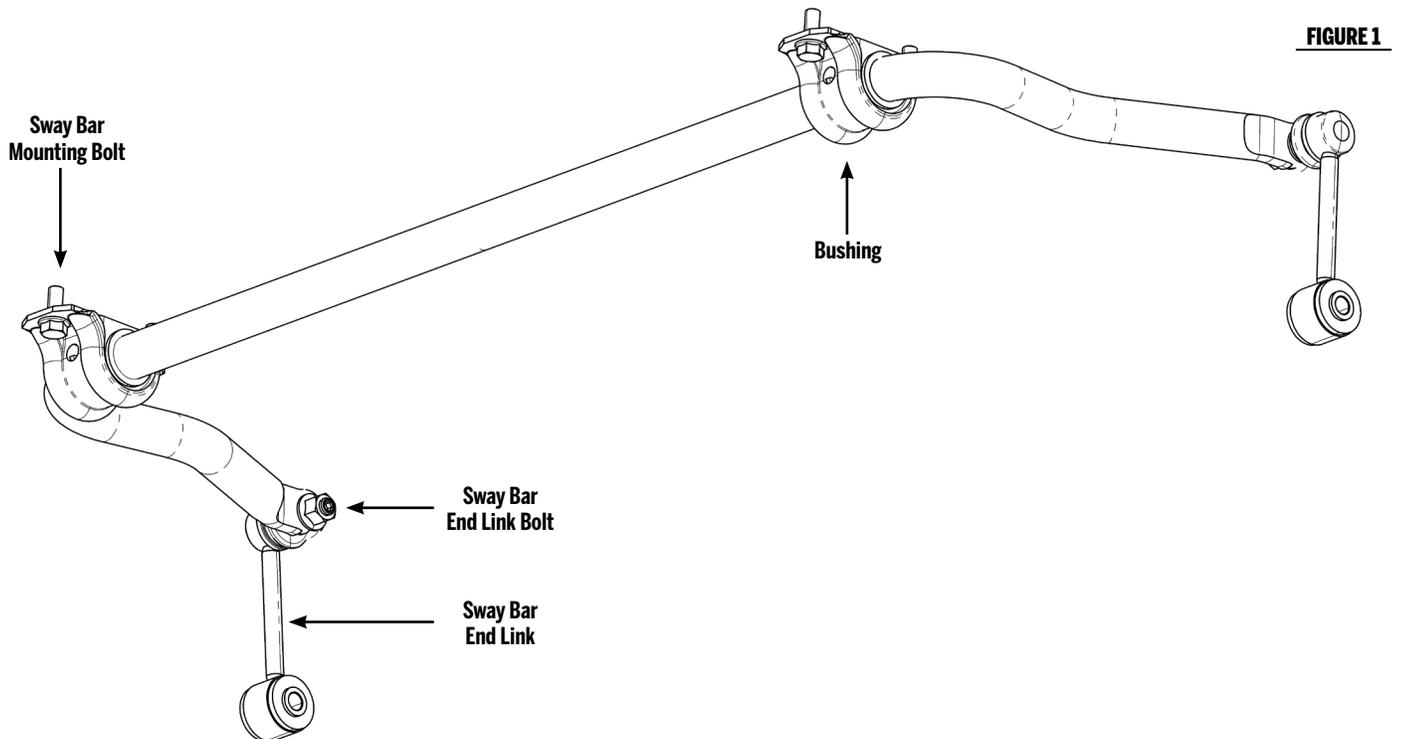
## REQUIRED TOOLS:

- Basic mechanics' hand tools
- Safety Glasses
- Razor Knife
- Soldering Iron (Optional)
- Thread Sealant (Teflon Tape)
- Electrical Tape
- Wire Crimper

## OE SWAY BAR REMOVAL:

NOTE: IT IS NOT NECESSARY TO JACK UP OR LIFT THE VEHICLE FOR INSTALLATION OF THIS KIT.

1. Ensure that your work space is of adequate size and the work surface is level. Place the vehicle in park. Place blocks both in front of and behind the front wheels.
2. Unbolt and remove the existing sway bar end links from the vehicle. If applicable, save the hardware for re-installation. **(Figure 1)**
3. Remove the (4) OE bolts securing the OE sway bar mounts to the frame rails and remove the sway bar from the vehicle. Save the OE hardware for re-installation. Remove and save the OE sway bar bushings and bushing mounts for re-installation. **(Figure 1)**



## DRS INSTALLATION:

1. Install the previously removed OE sway bar bushings and mounts on the DRS shafts (**Figure 2**)
2. Position the DRS unit against the frame rails and align mounting holes in DRS unit, shim (s) (if necessary), OE sway bar mounts, and OE sway bar frame mount holes. Apply red thread locker to the OE bolts and secure the DRS unit to the frame. Torque the OE hardware to manufacturer's specifications. (**Figure 3**)

NOTE: THE SUPPLIED 1/8" SHIMS ARE SUPPLIED TO ENSURE THE OE MOUNT AND BUSHINGS SIT FLAT ON THE DRS UNIT CROSSMEMBER WITH OUT THE SHAFTS BEING PLACED IN A BIND. INSTALL SHIMS AS NECESSARY.

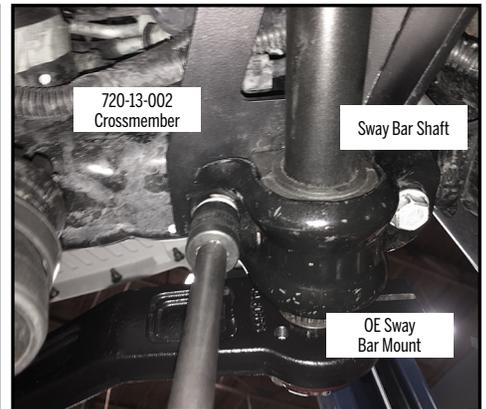
3. Install the existing sway bar end links to the DRS unit connecting arm and the front axle mount using the previously removed existing hardware. Torque the existing hardware according to manufacturer's specifications. (**Figure 4**)

NOTE: THE DRS UNIT CONNECTING ARM HAS MULTIPLE MOUNTING LOCATIONS TO ALLOW FOR FINE TUNING OF THE VEHICLE'S HANDLING CHARACTERISTICS. MOUNTING THE SWAY BAR END LINKS IN THE HOLES CLOSER TO THE TORSION BAR INCREASES THE ANTI-ROLL EFFECTIVENESS OF THE SWAY BAR.

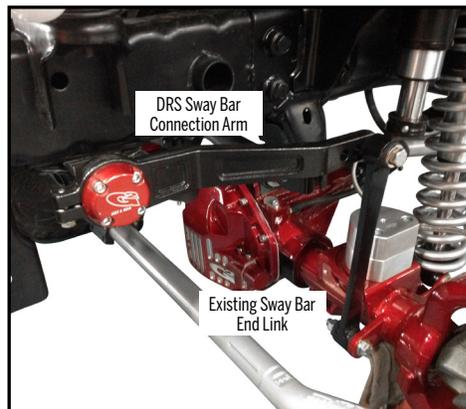
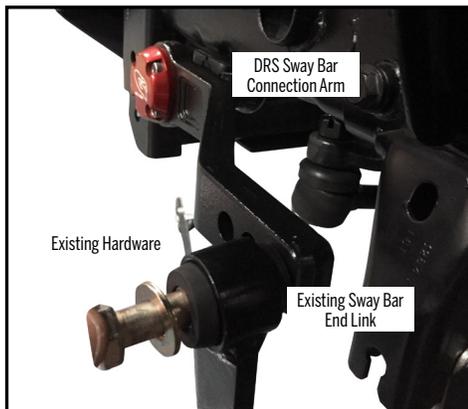
**FIGURE 2: OEM Bushing and Mounts**



**FIGURE 3: OEM Bushing and Mounting Install**



**FIGURE 4: Sway Bar End Link Install**



## SOLENOID INSTALLATION:

NOTE: IT IS RECOMMENDED TO USE G2 AIR COMPRESSOR KIT (70-AC1 SOLD SEPARATELY) OR OTHER COMPRESSED AIR SOURCE IN CONJUNCTION WITH THIS KIT. THE DRS SYSTEM REQUIRES A MINIMUM OF 40PSI TO OPERATE.

1. If using a G2 Air Compressor, remove the 1/8" NPT plug from the air compressor manifold.
2. Apply thread sealant or Teflon tape to both threaded ends of 1/8" NPT male nipple. **(Figure 5)**
3. Thread one end of the 1/8" NPT male nipple into the solenoid (700-20-001) and the other into the manifold of air compressor. Tighten connections approximately 1.5 – 3 turns past finger tight. **(Figure 5)**
4. Install the 1/8" NPT push-to-connect fitting (700-21-001) into the solenoid (700- 20-001). Tighten connections approximately 1.5 – 3 turns past finger tight. **(Figure 5)**

**IMPORTANT! DO NOT OVER TIGHTEN CONNECTIONS.**

**FIGURE 5: Solenoid Install**



## AIR LINE ROUTING:

1. Route the supplied 5MM nylon tubing from the G2 solenoid on the air compressor to the G2 the pneumatic sway bar disconnect unit.

NOTE: WHEN ROUTING THE AIR LINES FROM THE AIR COMPRESSOR TO THE PNEUMATIC SWAY BAR DISCONNECT UNIT, AVOID CONTACT WITH SHARP EDGES, MOVING PARTS, HOT EXHAUST PARTS OR ANYTHING THAT CAN CAUSE DAMAGE OR WEAR. DO NOT KINK THE NYLON TUBING WHEN PLUMBING AROUND CORNERS.

NOTE: USE ONLY THE NECESSARY LENGTH OF TUBING TO REACH PNEUMATIC SWAY BAR DISCONNECT UNIT. EXCESS TUBING LENGTH INCREASES THE VOLUME OF AIR THE COMPRESSOR MUST FILL WHEN ACTIVATING THE PNEUMATIC SWAY BAR DISCONNECT UNIT.

1. Using a sharp razor knife, cut the nylon tubing making sure to leave a clean cut. Make sure there are no burrs or snags that could damage the seals in the air push-to-connect fittings.
2. Insert the nylon tubing into the push-to-connect fittings. Apply pressure to properly seat the nylon tubing. To remove, depress the outer ring of fitting, push tubing in and then pullout to release tubing.
3. Using the supplied zip ties, secure the nylon tubing.

## SWITCH INSTALLATION:

1. Mount the rocker switch in a location easily accessible by the driver, where the switch cannot be accidentally bumped or engaged.
2. Rocker switches can be panel mounted in a **0.83" x 1.44"** rectangle cutout or in a suitable switch panel. If mounting multiple switches, such as those supplied with G2 locking differentials or other kits, do so at this time. **(Figure 6)**
3. Install the rocker switch into the cutout or suitable switch panel by pressing it in to lock into position. **(Figure 7)**

## WIRING HARNESS INSTALLATION:

**IMPORTANT!: BE SURE THE NEGATIVE BATTERY CABLE IS DISCONNECTED FROM THE BATTERY BEFORE STARTING WIRING. AVOID WIRE CONTACT WITH SHARP EDGES, MOVING PARTS, EXHAUST, ANYTHING THAT CAN CAUSE DAMAGE OR WEAR.**

**NOTE: IF USING THE G2 AIR COMPRESSOR, USE THE WIRING HARNESS, WIRING DIAGRAM, AND INSTRUCTIONS SUPPLIED IN THE AIR COMPRESSOR KIT.**

1. Connect the red/yellow striped wire to a suitable positive (+) 12volt DC fused power source using the supplied terminal end if needed. If splicing into an existing wire, be sure to properly solder and insulate the connection. It is preferred to connect the fused red/ yellow striped wire to a circuit that is only live when either the ignition key is in the ON or ACC position. **(Figures 8 and 9)**
2. Connect the blue/white striped switch light wire to the vehicles dashboard illumination, dimmer circuit or headlamp circuit using the supplied terminal end if necessary. If splicing into an existing wire, be sure to properly solder and insulate the connection. **(Figures 8 and 9)**
3. Determine a suitable location for the black ground wire, such as the vehicle's frame, body, or connect directly to the negative (-) battery terminal. Use the provided electrical connector if needed. Be sure to properly crimp or solder and insulate connection. **(Figure 9)**

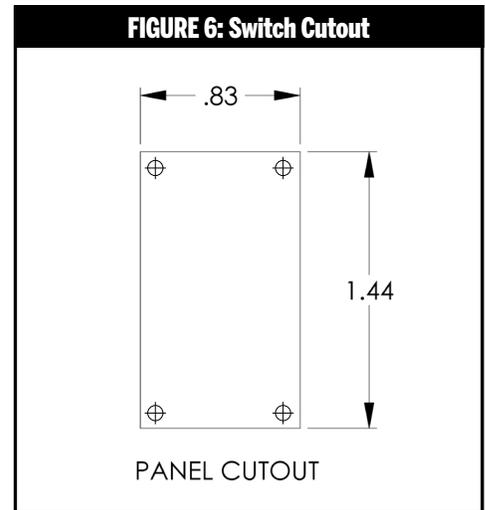
## SYSTEM TEST:

**NOTE: BEFORE TESTING THE SYSTEM, DOUBLE-CHECK THAT ALL PUSH-TO-CONNECT FITTINGS, SYSTEM CONNECTIONS, HARDWARE, AIR LINES, AND WIRING ARE PROPERLY SECURED, FULLY CONNECTED AND TIGHT.**

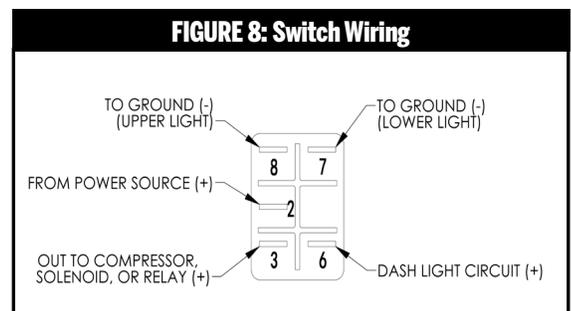
1. Reconnect the negative battery cable to the negative battery terminal.
2. Turn the vehicle ignition to ON or ACC and engage the G2 air compressor switch or other compressed air source. The G2 air compressor will automatically shut off once the system builds full pressure.
3. Test the pneumatic sway bar disconnect system at this time. When the DRS switch is engaged, the solenoid will open, allowing air to pressurize the DRS unit, disconnecting the primary sway bar. Disengaging the switch will vent the DRS unit, releasing air pressure and re-engaging the primary sway bar.

**NOTE: THE PNEUMATIC SWAY BAR DISCONNECT UNIT SWAY BAR WILL NOT DISENGAGE WHEN LOADED. THE VEHICLE MUST BE ON FLAT GROUND TO DISENGAGE AND RE-ENGAGE.**

4. With all systems activated, check fittings and connections for air leaks. Spraying a mixture of soap and water on the air connections will aid in indicating a leak. Re-tighten fittings as necessary.



Switch covers shown are for representation only. Actual parts may differ in appearance.

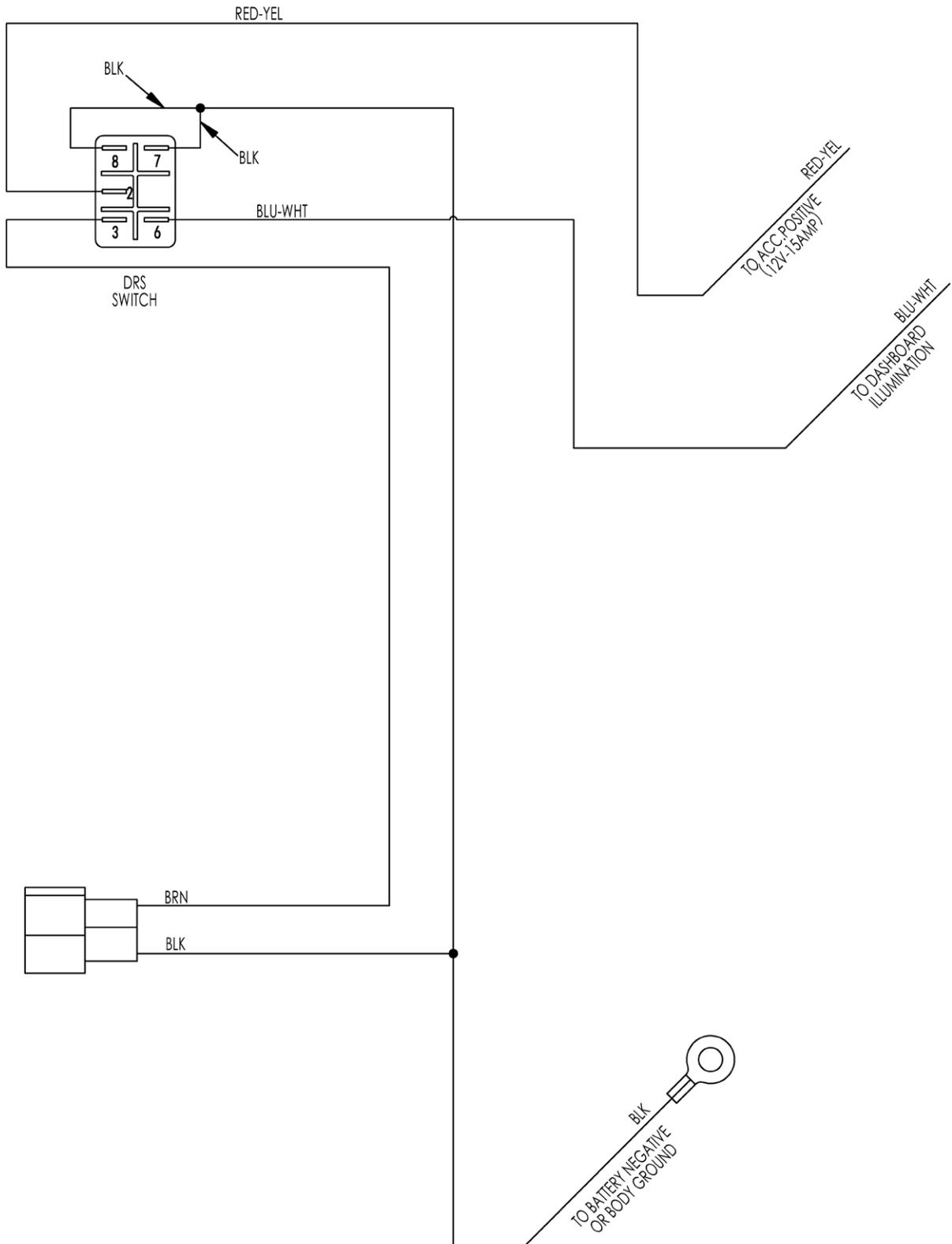




## TROUBLESHOOTING:

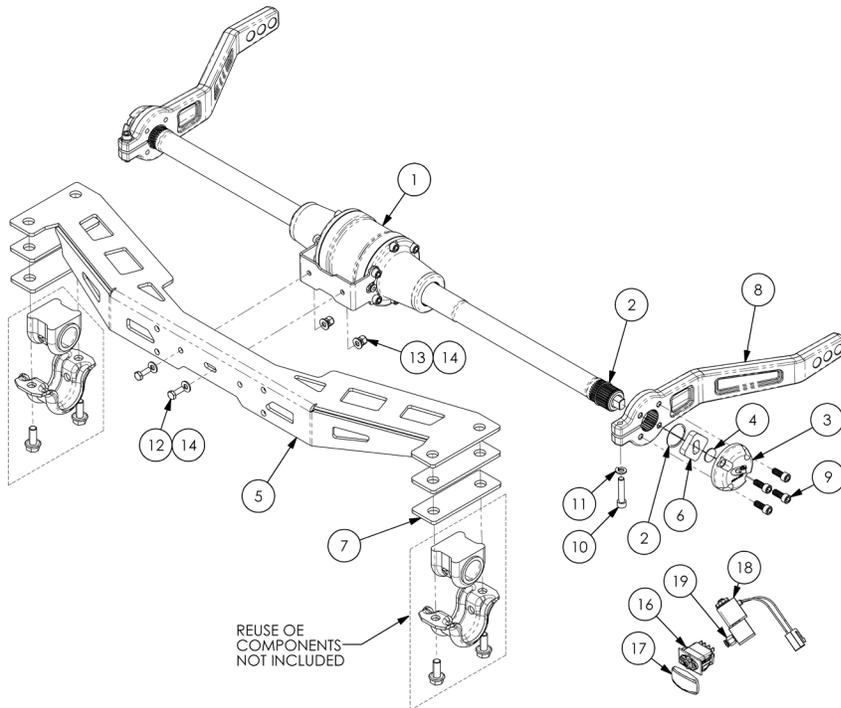
CONDITION	POSSIBLE CAUSE / SOLUTION
<b>DRS System Will Not Disengage</b>	<ul style="list-style-type: none"> <li>No air to DRS unit. Check air source, switch, and solenoid functions</li> <li>Not enough air pressure (40 psi is required)</li> <li>Internal components are bound-up or preloaded. Check for proper shim height at bushings. Move to level ground and gently rock vehicle</li> </ul>
<b>DRS System Will Not Re-engage</b>	<ul style="list-style-type: none"> <li>Internal locking dog teeth not aligned. Move to level ground and gently rock vehicle.</li> <li>Verify solenoid vents air from DRS unit when switch is in the OFF position</li> </ul>
<b>Air Compressor Won't Turn ON</b>	<ul style="list-style-type: none"> <li>Check fuse. Replace if blown</li> <li>Confirm system power</li> <li>Compressor switch wired incorrectly or is faulty. See wire diagram</li> <li>Check pressure switch for continuity. Switch should be normally closed</li> <li>Crossed wires at bulkhead wiring harness connector. See wire diagram</li> </ul>
<b>Air Compressor Won't Turn OFF or is slow to build pressure</b>	<ul style="list-style-type: none"> <li>Air system isn't building pressure. Check for air leaks.</li> <li>Excessive system volume (i.e. additional air tank installed)</li> <li>Confirm there is adequate voltage to compressor (12VDC)</li> <li>Worn air compressor piston rings</li> </ul>
<b>Blows Fuses When Switch is OFF</b>	<ul style="list-style-type: none"> <li>Electrical short in wire harness</li> <li>Crossed wires at bulkhead wiring harness connector. See wire diagram</li> </ul>
<b>Blow Fuses When Switch is ON / Running</b>	<ul style="list-style-type: none"> <li>Fuse not rated high enough for air compressor</li> <li>Crossed wires at bulkhead wiring harness connector</li> <li>Short in wiring harness</li> <li>Excessive air usage / amp draw</li> </ul>
<b>Constantly Cycles On and Off</b>	<ul style="list-style-type: none"> <li>Check for air leak in system</li> <li>Worn compressor piston rings</li> </ul>
<b>Excessive Noise</b>	<ul style="list-style-type: none"> <li>Inspect for loose mount bolts or hardware</li> <li>Worn compressor</li> </ul>

**FIGURE 9: Wiring Diagram**



## ADDITIONAL COMPONENT BREAKDOWN:

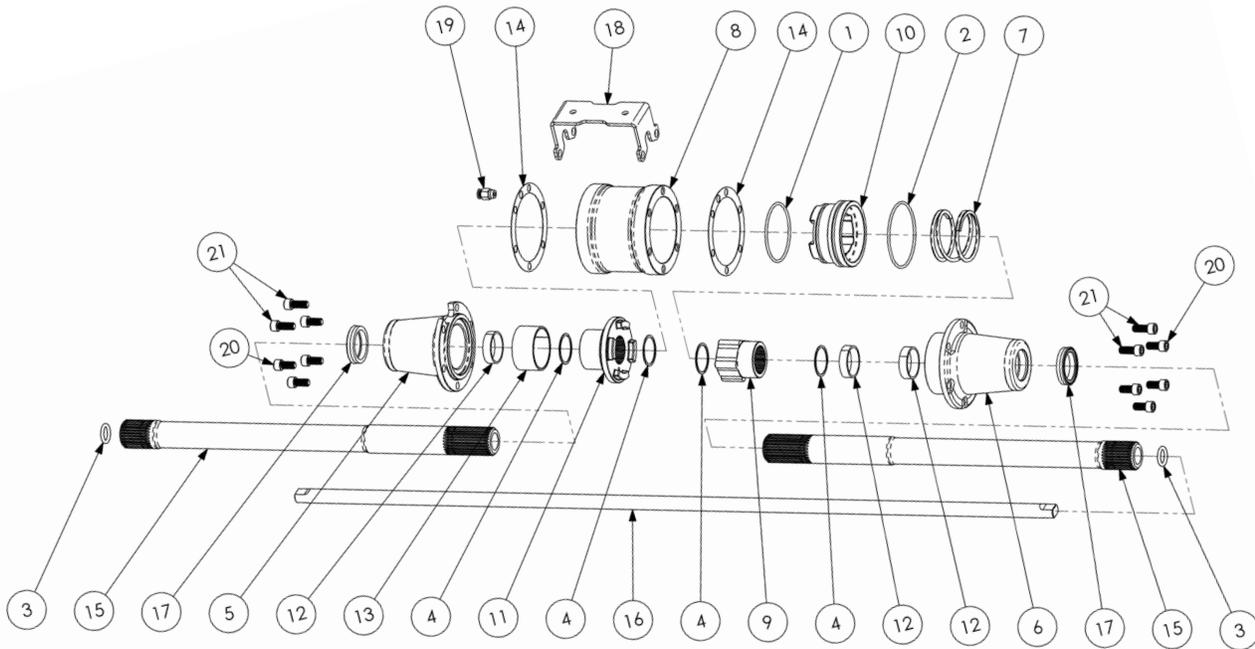
BOM#	PART#	DESCRIPTION	QTY.
1	720-01-001	PNUMATIC SWAYBAR DISCONNECT	1
2	720-03-001	SPIRAL RETAINING RING	4
3	720-04-003	SECOND STAGE SWAY BAR CAP	2
4	720-04-004	SECOND STAGE SWAY BUMPER (IF EQUIPPED)	2
5	720-13-002	DISCONNECT CROSSMEMBER	1
6	720-13-003	SECOND STAGE SWAY BAR DOG	2
7	720-13-004	SHIM	4
8	720-14-002	SWAY BAR CONNECTING ARM	2
9	70-0310751403	5/16-18 X 3/4 SHCS 18-8 SS	8
10	70-0311501403	SHCS, 5/16-18 X 1.50	2
11	73-03100836	5/16 SPLIT LOCK WASHER	2
12	70-0250751800	1/4-20 X .75 HEX BOLT, GRD 8	2
13	72-050100812	1/4-20 NYLOCK NUT	2
14	73-02500834	1/4 FLAT WASHER	4
15	700-19-001	5MM TUBING (NOT SHOWN)	1
16	700-22-001	V-SERIES CONTURA V, HOUSING	1
17	700-22-005	V SERIES, CONTURA V, ACTUATOR, SWAY BAR	1
18	700-20-001	AIR SOLENOID	1
19	700-21-001	MALE CONNECTOR 5MM TUBE X 1/8 MNPT PUSH CONNECT	1
20	720-22-001	WIRING HARNESS (NOT SHOWN)	1
21	NA-271	RED THREAD LOCKER (NOT SHOWN)	1



For Technical Support/Warranty Information please contact us at 310-900-2687 or info@g2axle.com

## ADDITIONAL COMPONENT BREAKDOWN CONTINUED:

BOM#	PART#	DESCRIPTION	QTY.
1	720-02-001	AS568A-143 O RING	1
2	720-02-002	AS568A-148 O RING	1
3	720-02-003	AS568A-208 O RING	2
4	720-03-001	SPIRAL RETAINING RING	4
5	720-04-001	DISCONNECT END CAP -AIR END	1
6	720-04-002	DISCONNECT END CAP- BLANK END	1
7	720-05-001	SPRING - COMPRESSION	1
8	720-06-001	DISCONNECT HOUSING	1
9	720-07-001	DISCONNECT HUB CLOVER	1
10	720-07-002	DISCONNECT HUB 'DYNAMIC'	1
11	720-08-001	LOCKING COLLAR 'STATIC'	1
12	720-09-001	WEAR BUSHING DU	3
13	720-09-002	STEEL BACKED DU BEARING	1
14	720-10-001	GASKET	2
15	720-11-001	JK SWAYBAR - 29 SPLINE	2
16	720-11-002	SECOND PHASE SWAY BAR ROD	1
17	720-12-001	1.25" ROD SEAL	2
18	720-13-001	DISCONNECT MOUNT BRACKET	1
19	700-21-001	MALE CONNECTOR 5MM TUBE X 1/8 MNPT PUSH CONNECT	1
20	70-0310621403	5/16-18 X 5/8 SHCS 18-8 SS	8
21	70-0310751403	5/16-18 X 3/4 SHCS 18-8 SS	4





## NOTICE TO OWNER OPERATOR, DEALER AND INSTALLER:

Vehicles that have been enhanced for off-road performance often have unique handling characteristics due to the higher center of gravity and larger tires. This vehicle may handle, react and stop differently than many passenger cars or unmodified vehicles, both on and off-road. You must drive your vehicle safely! Extreme care should always be taken to prevent vehicle rollover or loss of control, which can result in serious injury or even death. Always avoid sudden sharp turns or abrupt maneuvers and allow more time and distance for braking! G2 reminds you to fasten your seat belts at all times and reduce speed! We will gladly answer any questions concerning the design, function, maintenance and correct use of our products.

### **Please make sure your Dealer/Installer explains and delivers all warning notices, warranty forms and instruction sheets included with G2 product.**

Application listings in this catalog have been carefully fit checked for each model and year denoted. However, G2 reserves the right to update as necessary, without notice, and will not be held responsible for misprints, changes or variations made by vehicle manufacturers. Please call when in question regarding new model year, vehicles not listed by specific body or chassis styles or vehicles not originally distributed in the USA.

**Please note that certain mechanical aspects of any suspension lift product may accelerate ordinary wear of original equipment components.** Further, installation of certain G2 products may void the vehicle's factory warranty as it pertains to certain covered parts; it is the consumer's responsibility to check with their local dealer for warranty coverage before installation of the lift.

## WARRANTY AND RETURN POLICY:

G2 warrants the CORE Dual Rate Sway Bar System to be free from defects in workmanship and materials for a period of 12 months. G2's obligation under this warranty is limited to repair or replacement, at G2's option, of the defective product. Any and all costs of removal, installation, freight or incidental or consequential damages are expressly excluded from this warranty. G2 is not responsible for damages and / or warranty of other vehicle parts related or non-related to the installation of G2 product. A consumer who makes the decision to modify his vehicle with aftermarket components of any kind will assume all risk and responsibility for potential damages incurred as a result of their chosen modifications. Warranty coverage does not include consumer opinions regarding ride comfort, fitment and design. Warranty claims can be made directly with G2 or at any factory authorized G2 dealer.

**IMPORTANT! TO VALIDATE THE WARRANTY ON THIS PURCHASE PLEASE BE SURE TO MAIL IN THE WARRANTY CARD.**

## CLAIMS NOT COVERED UNDER WARRANTY-

- Parts subject to normal wear, this includes bushings, bump stops, ball joints, tie rod ends and heim joints
- Discontinued products at G2's discretion
- Bent or dented product
- Finish after 90 days
- Products with evident damage caused by abrasion or contact with other items
- Damage caused as a result of not following recommendations or requirements called out in the installation manuals
- Products used in applications other than listed in G2's catalog
- Components or accessories used in conjunction with other manufacturer's systems
- Warranty claims without "Proof of Purchase"
- G2 accepts no responsibility for any altered product, improper installation, lack of or improper maintenance, or improper use of our products

**WARRANTY REGISTRATION  
NUMBER PLACE HERE:**

\_\_\_\_\_