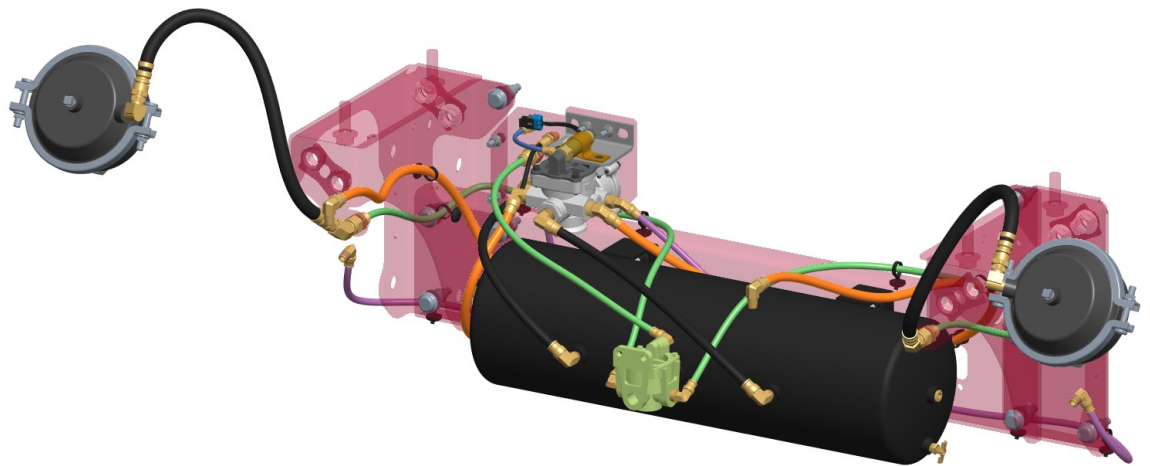


# **LINK** Auxiliary Suspensions

# INSTALLATION INSTRUCTIONS PARTS LIST

INTEGRATED AIR CONTROL KITS  
(13501023 AND 13501024)



Link Mfg. Ltd.  
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**QUESTIONS?  
CALL CUSTOMER  
SERVICE  
1-800-222-6283**

These **INTEGRATED AIR CONTROL KITS**, are used for Link 8K, 10K, and 13.5K Self-Steer Model Suspensions.

80003570  
Mar 07, 2018

**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 Integrated Air Kit. 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 Integrated Air Kit 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

<b>⚠ WARNING</b>	<b>WARNING</b> indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.
<b>⚠ CAUTION</b>	<b>CAUTION</b> indicates a potentially hazardous situation which, if not avoided, could result in minor or moderate injury.
<b>NOTICE</b>	<b>NOTICE</b> indicates a potentially hazardous situation which, if not avoided, may result in property damage
<b>NOTE:</b>	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** The installer must verify the axle is configured properly for the Integrated air kit being added.

**4.2** No alterations of any Link 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 ⚠ WARNING

It is the responsibility of the installer to ensure that compliance with FMVSS 121 is maintained by the braking system.

### 4.5 ⚠ CAUTION

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

**NOTES:**

- 1) Considerations should be made to route all wiring and airline in protected locations away from any moving parts.
- 2) Cable ties or other fastening devices may be required to secure airline, wire and/or fittings to truck/suspension.
- 3) Apply Permatex #807 or comparable anaerobic pipe thread sealant to fill three exterior pipe threads on brass fittings and tighten 1-½ revolutions beyond hand tight.

**NOTICE** This kit is for a self-steer suspension in which the driver wants the lift axle to be up when ignition is off. This is the factory installed default. Please contact Link Customer Service if other options are needed.

**PLUMBING INSTRUCTIONS**

- A. Connect the pressure protection valve directly to the air supply tank on the truck using either the 3/8 NPT or 1/2 NPT reducer and the 1/4 NPT nipple fitting (all provided). Install the provided connector into the output port of the pressure protection valve.

**NOTICE** Make sure direction of flow for the system matches flow indicator on the pressure protection valve.

- B. Mount the control panel/box to the truck exterior in the desired location for driver convenience, making sure air controls are easily accessible. (Some states may allow in-cab mounting of the air control box.)
- C. Connect to the signal line of the truck's air brake system using the provided tee fitting.
- D. Route all airline to the bulkhead plate of your suspension using the plumbing schematics in **FIG. 1 & 2**.
- E. Secure any loose components to the truck.

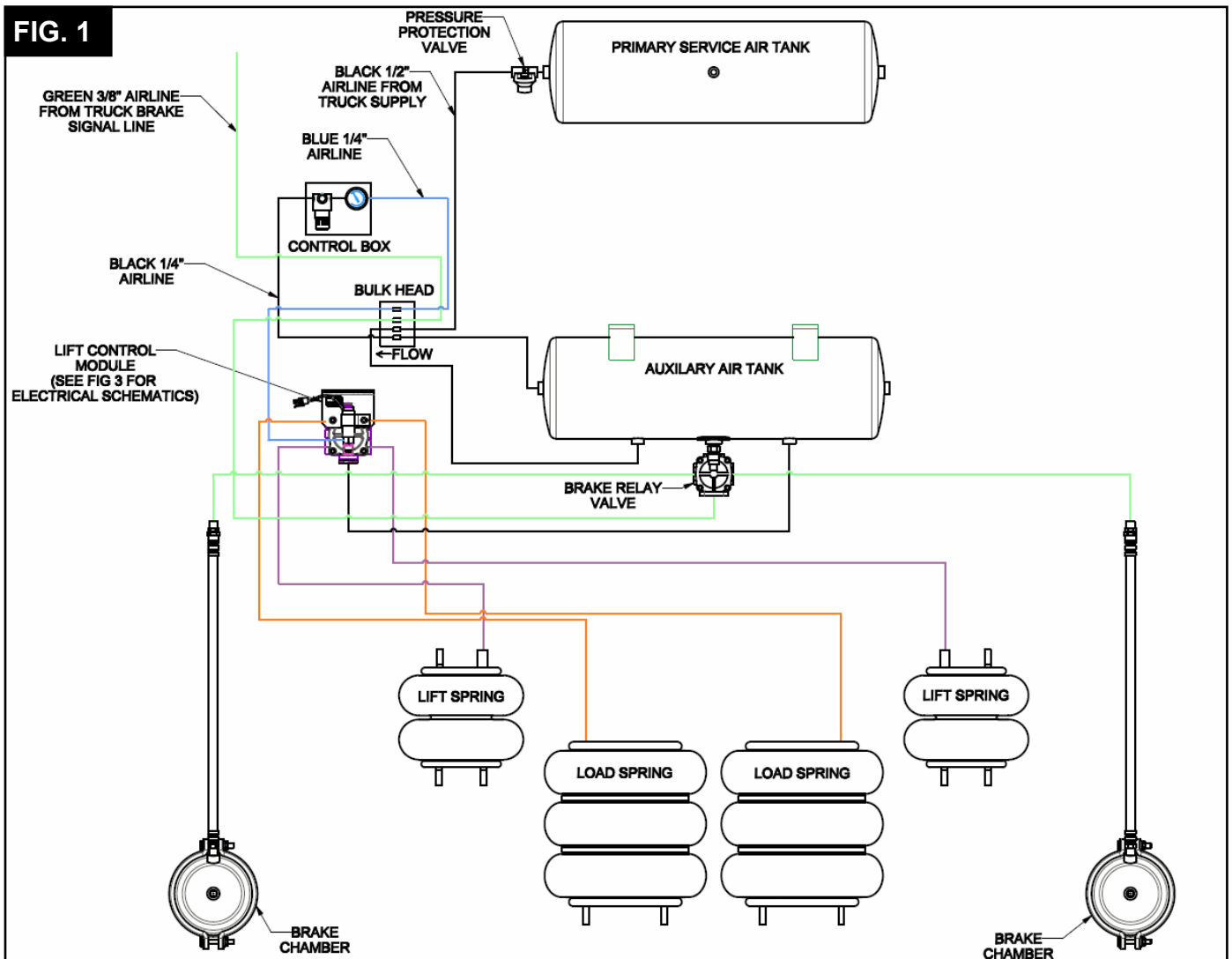
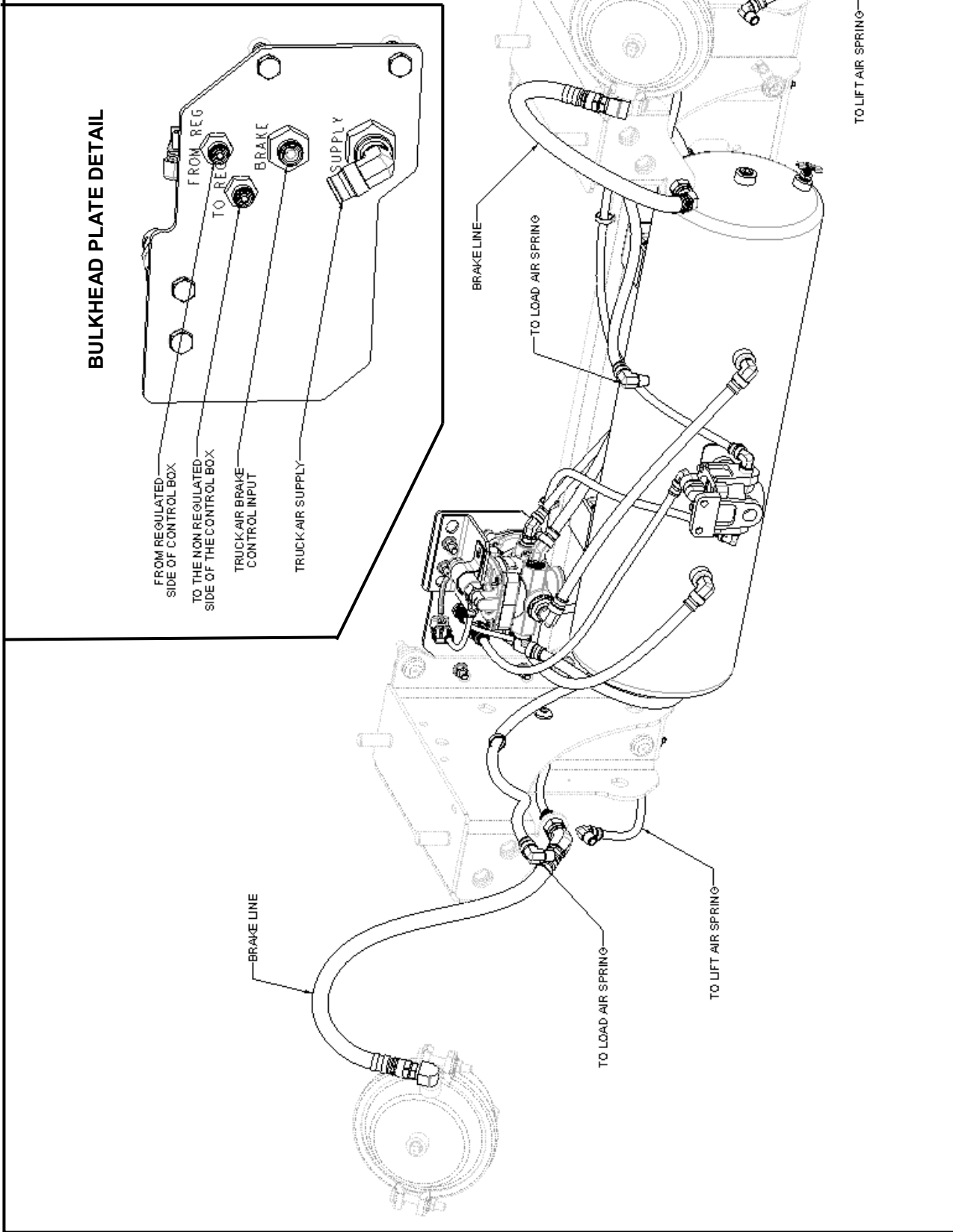
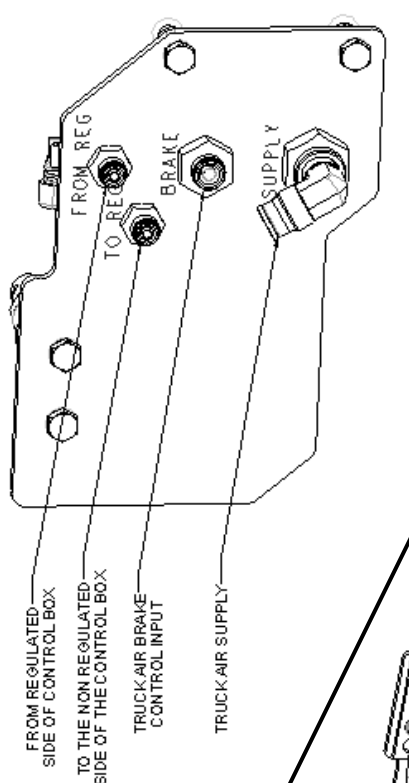


FIG. 2



**BULKHEAD PLATE DETAIL**



BRAKE LINE

BRAKE LINE

TO LOAD AIR SPRING

TO LOAD AIR SPRING

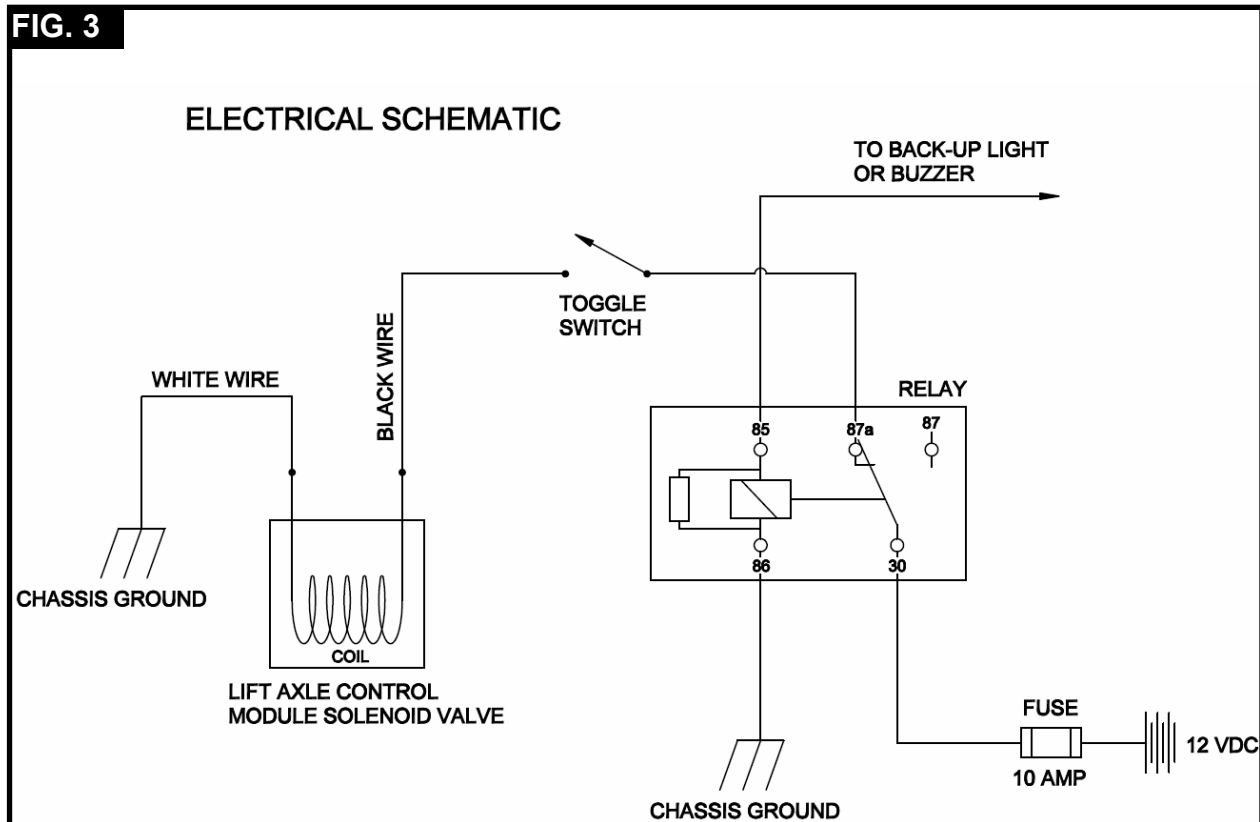
TO LIFT AIR SPRING

TO LIFT AIR SPRING

## ELECTRICAL INSTRUCTIONS

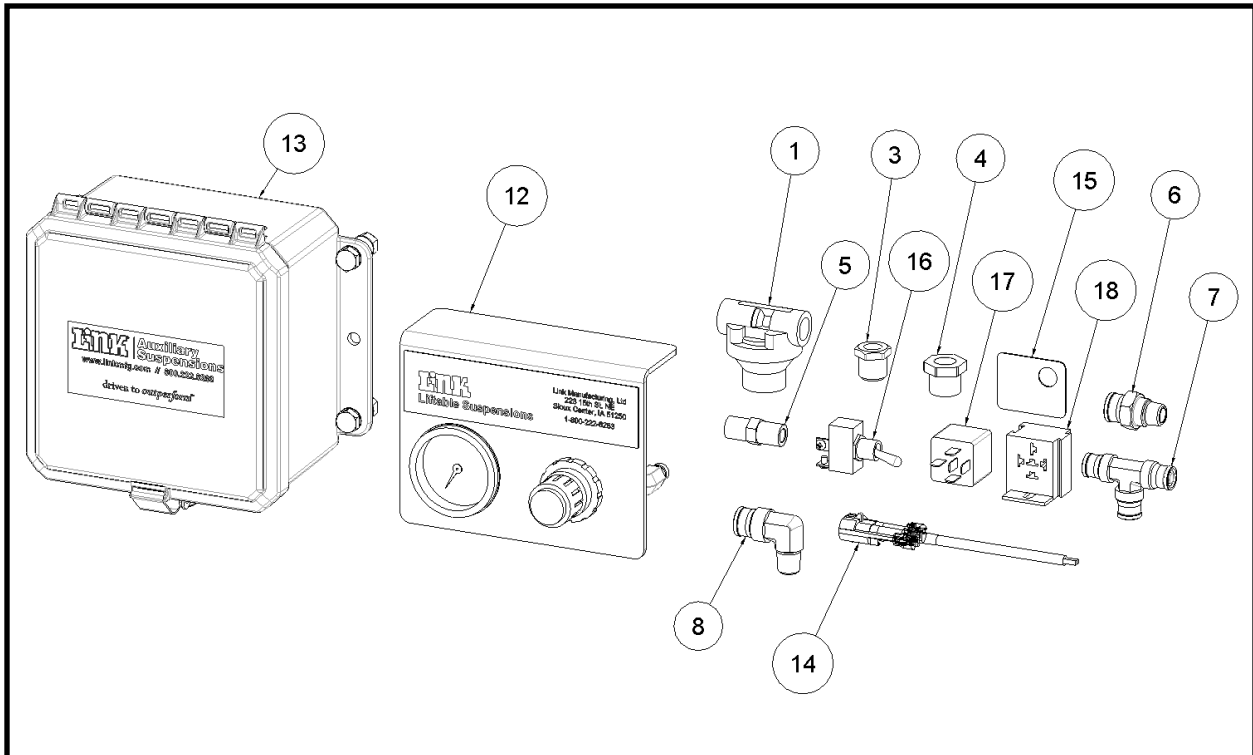
**⚠ CAUTION** Always disconnect the battery while working with the vehicle's electrical system.

- A. Mount the relay base to the truck in a protected location. **NOTE:** If there is an open slot in the truck's relay panel and you wish to wire your relay through this panel you will not need the supplied relay base.
- B. Make all wiring connections to the relay as shown in **FIG. 3**, crimping push-on connectors (not provided) to wires and mounting them in the supplied relay base. **NOTE:** Make sure the 12 VDC source is switched (turns off with the key).
- C. Make connections to the toggle switch from terminal 87a on the relay, and from the black wire from the solenoid valve wire harness.
- D. Attach the white wire from the solenoid valve wire harness to a reliable grounding point on the truck. Attachment to the truck frame is **NOT** sufficient for a trouble-free ground.
- E. Mount the toggle switch and toggle switch plate to the interior of the truck in a desired location. **NOTE:** Make sure that lift axle position correlates with "Raise / Lower" position on toggle switch plate (tab on toggle switch plate may need to be removed).
- F. When all electrical connections have been made, reconnect the battery, pressurize the system and tighten any fittings that are leaking.



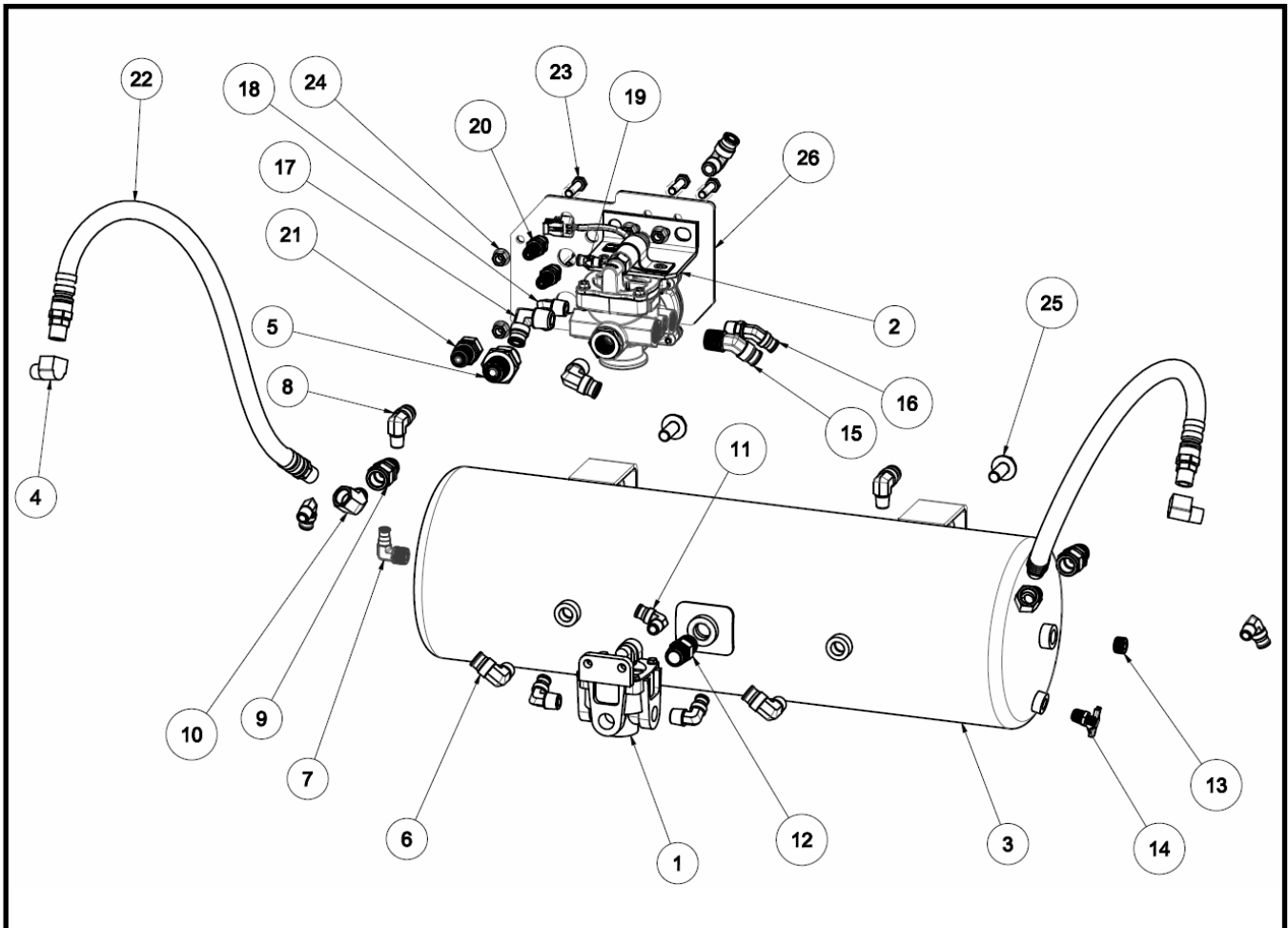
# Control and Installation Kit Parts List

## Standard Control (13501023) or Sealed Control (13501024)



ITEM	DESCRIPTION	13501023 QTY	13501024 QTY
1	VALVE-PRESSURE PROTECTION	1	1
-	AIRLINE-NYLON, .250 O.D., BULK	30 ft	30 ft
3	BUSHING-REDUCER 3/8 M-NPT TO 1/4 F-NPT	1	1
4	BUSHING-REDUCER, 1/2 M-NPT - 1/4 F-NPT	1	1
5	HEX NIPPLE, 1/4 M-NPT	1	1
6	CONNECTOR-MALE, 1/4 NPT 1/2 TB	1	1
7	TEE-UNION, 3/8 TB	1	1
8	ELBOW-MALE, 1/4 NPT 1/2 TB	1	1
-	AIRLINE-NYLON, BLUE, 0.25 O.D., BULK	30 ft	30 ft
-	AIRLINE-NYLON, GREEN, .375 O.D., BULK	5 ft	5 ft
-	AIRLINE-NYLON, .500 O.D., BULK	20 ft	20 ft
12	AIR CONTROL ASSEMBLY	1	-
13	CONTROL BOX, SEALED	-	1
14	HARNESS-WIRE	1	1
15	PLATE-SWITCH, LIFT	1	1
16	SWITCH-TOGGLE	1	1
17	RELAY	1	1
18	RELAY BASE	1	1

# Pre-Plumbed Parts List



ITEM	DESCRIPTION	QTY	ITEM	DESCRIPTION	QTY
1	RELAY VALVE, RG-2, MIDLAND	1	14	DRAIN COCK-WING HANDLE, 1/4 NPT	1
2	LIFT AXLE CONTROL MODULE	1	15	ELBOW-MALE-45, 1/2 NPT 1/2 TB	1
3	TANK-AIR, 8 X 27	1	16	ELBOW-MALE-45, 3/8 NPT 3/8 TB	1
4	ELBOW, 90 STREET (3/8-NPT)	2	17	ELBOW-MALE, 1/2 NPT 1/2 TB	2
5	UNION-BULKHEAD-FEMALE, 3/8 NPT 1/2 TB	1	18	ELBOW-MALE, 3/8 NPT 3/8 TB	3
6	ELBOW-MALE, 3/8 NPT 1/2 TB	3	19	CONNECTOR-MALE, 1/8 NPT 1/4 TB	1
7	ELBOW-MALE, 3/8 NPT 1/4 TB	1	20	UNION-BULKHEAD, 1/4 TB	2
8	ELBOW-MALE, 1/4 NPT 1/2 TB	2	21	UNION-BULKHEAD, 3/8 TB	1
9	UNION-BULKHEAD-FEMALE, 3/8 NPT 3/8 TB	2	22	ASSEMBLY-AIR BRAKE HOSE (26 IN.)	2
10	ELBOW-STREET-45, 3/8 NPT	2	23	HEX CAP SCREW, M8 X 1.25 X 30, 8.8	4
11	MALE-ELBOW, 1/4 NPT 3/8 TB	3	24	HEX TOP LOCK FLANGE NUT, M8 X 1.25, CLASS 10	4
12	NIPPLE-HEX, 1/2 NPT	1	25	HEAVY HEX FLNG SCR M12 X 1.75 X 30 CLS 10.9	4
13	PLUG-HEX-HEAD-COUNTERSUNK, 3/8 NPT	1	26	PLATE-BULKHEAD, INT AIR	1