

INSTALLATION INSTRUCTIONS

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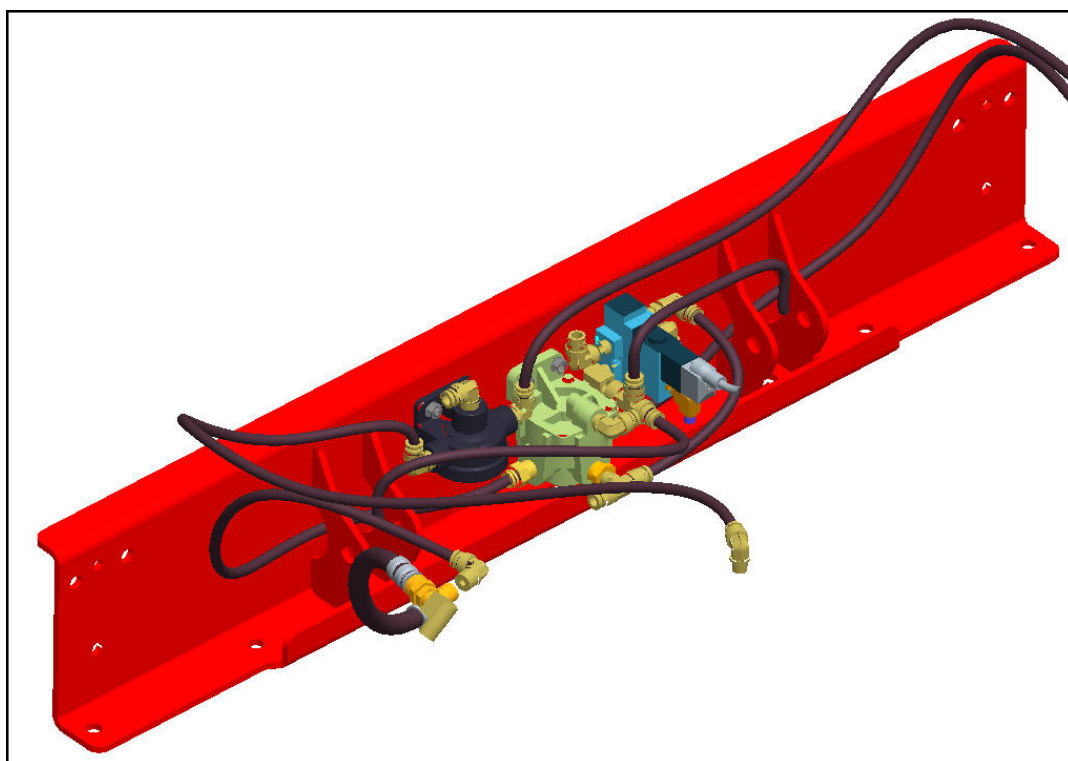
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CALL CUSTOMER
SERVICE
1-800-222-6283**



Liftable Suspensions

INSTALLATION INSTRUCTIONS PARTS LIST

AIR CONTROL KIT (800A0168 OR 800A0169)



The **AIR CONTROL KIT** is used for Link Duralift II 20K Suspension.

1. INTRODUCTION




Thank you for choosing a Link Duralift II liftable suspension. We want to help you to get the best results from the suspension and to operate it safely. This manual contains information to introduce you to the Link Duralift II liftable suspension Integrated Air Kit and to assist you with its installation and maintenance. The 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. Contact Link at (800) 222-6283 for information on recent changes to products.

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

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

2. SAFETY SYMBOLS

	This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.
 WARNING	WARNING indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.
 CAUTION	CAUTION indicates a potentially hazardous situation which, if not avoided, could result in minor or moderate injury.
CAUTION	CAUTION used without the safety alert symbol indicates a potentially hazardous situation which, if not avoided, may result in property damage.

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 WARNING

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

4.2 Considerations should be made to route all wiring and airline in protective locations away from any moving parts.

4.3 Cable ties or other fastening devices may be required to secure airline, wire and/or fittings to truck/suspension.

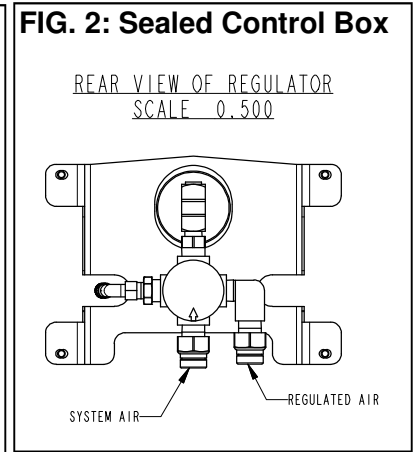
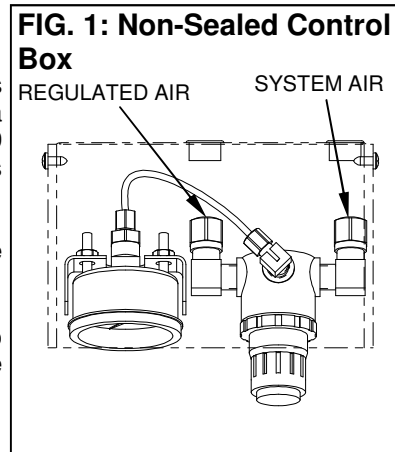
4.4 Apply Permatex #807 or comparable anaerobic pipe thread sealant to fill three exterior pipe threads on brass fittings and tighten 1-½ revolutions beyond hand tight.

5. KIT DETAILS

5.1 Two air control boxes are available for this application. Kit 800A0168 is equipped with a non-sealed control box, while kit 800A0169 includes a sealed air control box. See parts list on **Pages 5 & 6** for details.

5.2 See **Figures 1 & 2** for air line routings to the respective control box.

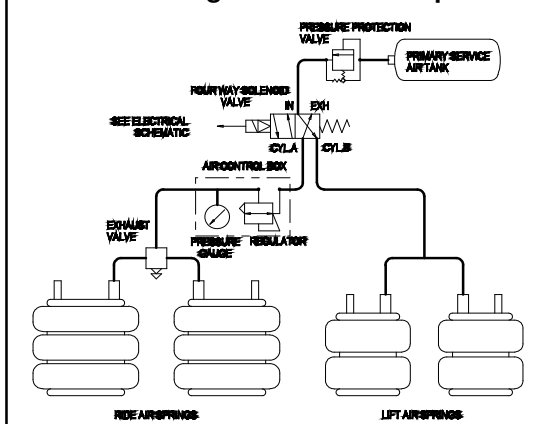
5.3 The control system can be configured two ways. Use the appropriate instructions for the option you chose.



OPTION 1: DEFAULT AXLE UP. Kit will be installed on a steerable suspension in which the driver wants the lift axle to be up when ignition is off. This is the default.

OPTION 2: DEFAULT AXLE DOWN. Kit will be installed on a steerable suspension in which the driver wants the lift axle to be down when ignition is off.

FIG. 3: Plumbing Schematic for Option 1



6. PLUMBING INSTRUCTIONS FOR OPTION 1

- 6.1 Connect pressure protection valve directly to the air supply tank on the truck. **IMPORTANT:** Make sure direction of flow for the system matches flow indicator on the pressure protection valve.
- 6.2 Loosely mount the Air Control Box Assembly to the truck exterior in desired location for driver convenience, making sure air controls are easily accessible. (Some states may allow in cab mounting of the air control box.)
- 6.3 Route all airline to your suspension using plumbing schematic in **Figure 3**. **NOTE:** See **Fig. 1** for use with 1350-1011 Air Control Box, and **Fig. 2** for use with 800A0051 Sealed Air Control Box.
- 6.4 Connect brake control valve to the trucks air brake system.
- 6.5 Secure control box and any loose components to the truck.

7. ELECTRICAL INSTRUCTIONS FOR OPTION 1

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

- 7.1 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.
- 7.2 Make all wiring connections to fuse, relay, and truck as shown in **Figure 4**, crimping Push-On Connectors to wires and mounting them in the supplied relay base. **NOTE:** Make sure the 12 VDC source is switched (turns off with the key)
- 7.3 Make connections to the toggle switch from terminal 87a on the relay, and the blue wire from the solenoid valve.
- 7.4 Attach the brown wire from the solenoid valve to a reliable grounding point on the truck. Attachment to the truck frame is **NOT** sufficient for a trouble-free ground. **NOTE:** The yellow wire with a green stripe is not used.
- 7.5 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).
- 7.6 When all electrical connections have been made, reconnect the battery, pressurize the system and tighten any fittings that are leaking.

FIG. 4: Wiring Schematic for Option 1

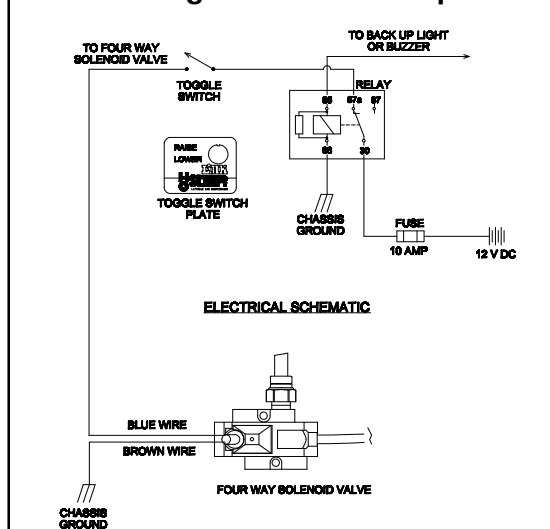
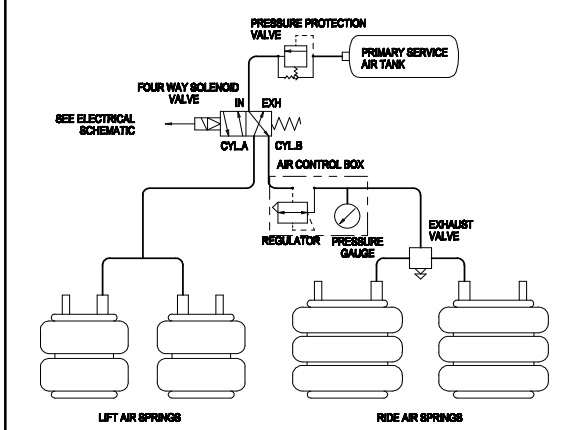


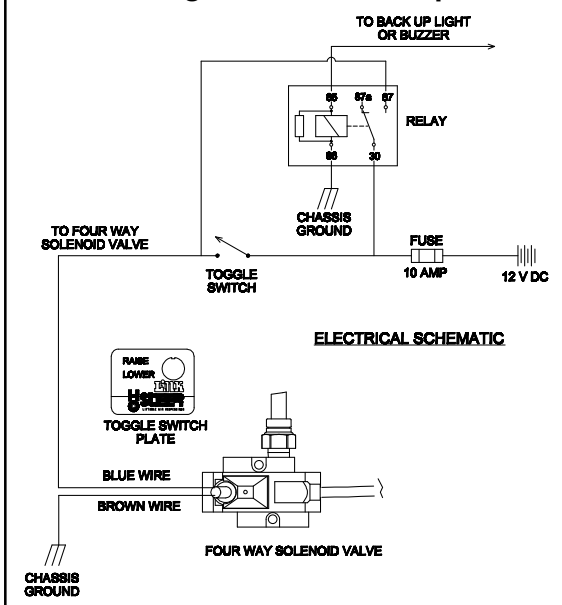
FIG. 5: Plumbing Schematic for Option 2



8. PLUMBING INSTRUCTIONS FOR OPTION 2

- 8.1 Connect pressure protection valve directly to the air supply tank on the truck. **IMPORTANT:** Make sure direction of flow for the system matches flow indicator on the pressure protection valve.
- 8.2 Loosely mount the Air Control Box Assembly to the truck exterior in desired location for driver convenience, making sure air controls are easily accessible. Some states may allow in cab mounting of the air control box.)
- 8.3 Route all airline to your suspension using plumbing schematic in **Figures 5**. **NOTE:** See **Fig. 1** for use with 1350-1011 Air Control Box, and **Fig. 2** for use with 800A0051 Sealed Air Control Box.
- 8.4 Connect brake control valve to the trucks air brake system.
- 8.5 Secure control box and any loose components to the truck.

FIG. 6: Wiring Schematic for Option 2



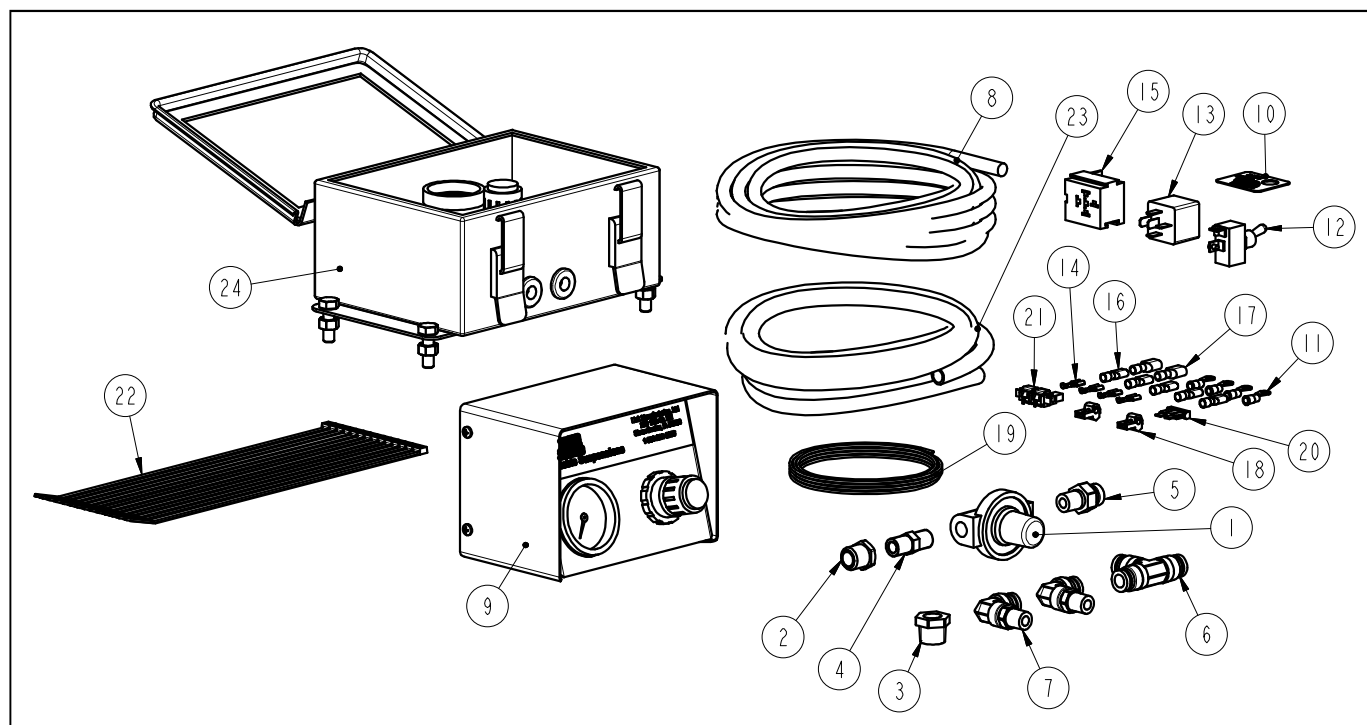
9. ELECTRICAL INSTRUCTIONS FOR OPTION 2

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

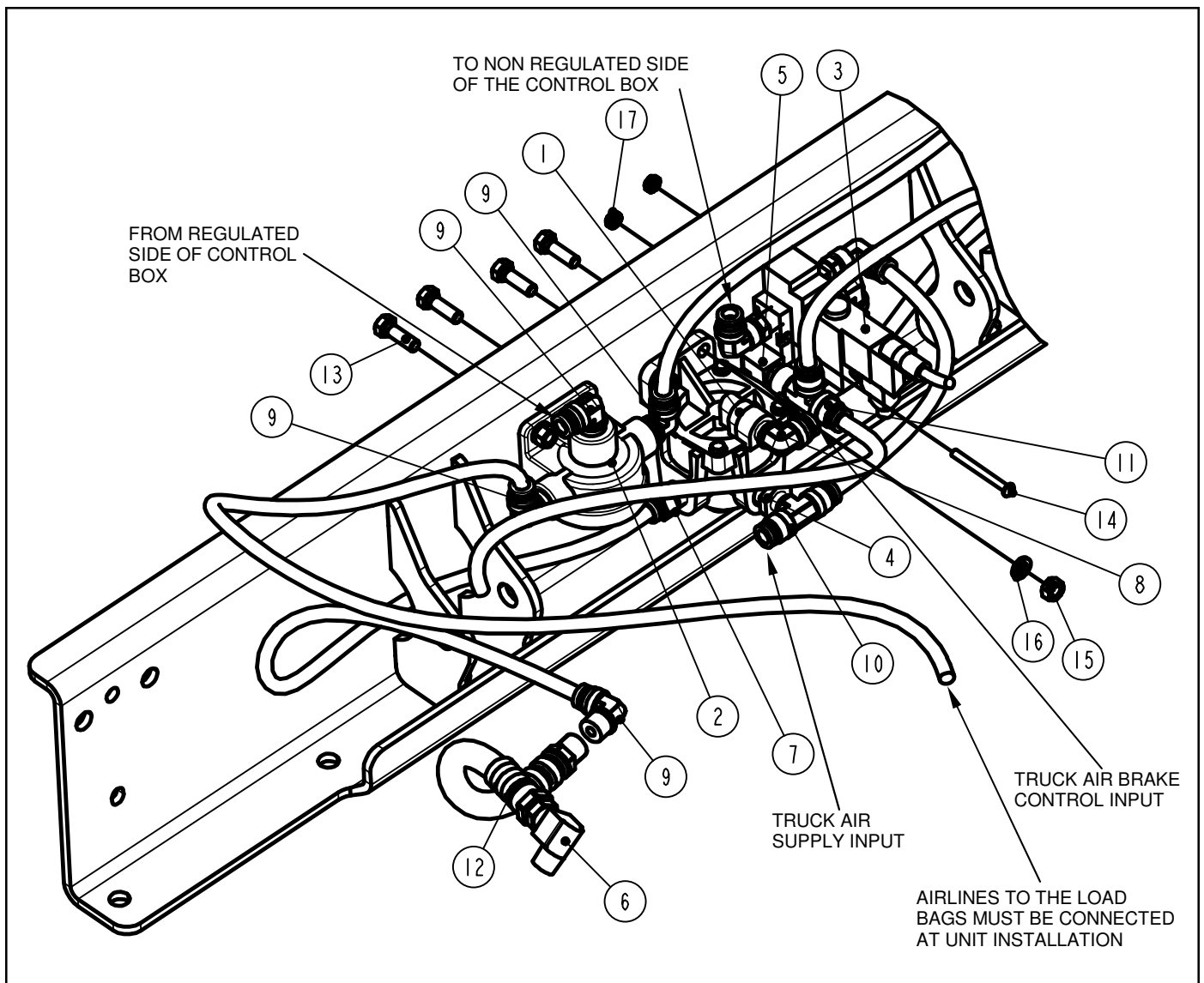
- 9.1 Mount the relay base to the truck in a protected location. **NOTE:** If there is an open slot in the truck's relay panel and you wish to wire your relay through this panel you will not need the supplied relay base.
- 9.2 Make all wiring connections to fuse, relay, and truck as shown in **Figure 6**, crimping Push-On Connectors to wires and mounting them in the supplied relay base. **NOTE:** Make sure the 12 VDC source is switched (turns off with the key)
- 9.3 Make connections to the toggle switch from terminal 87, and terminal 30 on the relay. Also connect the blue wire from the solenoid valve to the toggle switch. **IMPORTANT:** Make sure that the toggle switch is wired so that the lift axle is down when the switch is off.
- 9.4. Attach the brown wire from the solenoid valve to a reliable grounding point on the truck. Attachment to the truck frame is **NOT** sufficient for a trouble-free ground. **NOTE:** The yellow wire with a green stripe is not used.
- 9.5 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).
- 9.6 When all electrical connections have been made, reconnect the battery, pressurize the system and tighten any fittings that are leaking.

Parts Kit

800A0303 for Standard Air Control Box and 800A0304 for the Sealed Air Control Box



ITEM	PART #	PART DESCRIPTION	800A0303 QTY	800A0304 QTY
1	1301-0084	VALVE-PRESSURE PROTECTION	1	1
2	1302-2016	BUSHING-REDUCER 3/8 M-NPT TO 1/4 F-NPT	1	1
3	1302-2018	BUSHING-REDUCER, 1/2 M-NPT - 1/4 F-NPT	1	1
4	1302-2065	HEX NIPPLE, 1/4 M-NPT	1	1
5	1302-5049	CONNECTOR-MALE, 3/8 TB, 1/4 NPT	1	1
6	1302-5061	TEE-UNION, 3/8 TUBE	1	1
7	1302-5094	ELBOW-SWIV, 3/8 TB, 1/4 M-NPT	2	2
8	1303-4000	3/8 AIRLINE	65.5 FT	65.5 FT
9	1350-1011	AIR CONTROL BOX ASSEMBLY	1	-
10	1500-1318	PLATE-SWITCH, LIFT	1	1
11	1505-0055	TERMINAL-RING, #10 STUD, 14-16	4	4
12	1505-0350	SWITCH-TOGGLE	1	1
13	1505-0351	RELAY	1	1
14	1505-0353	CONNECTOR-PUSH-ON, FEMALE	4	4
15	1505-0354	RELAY BASE	1	1
16	1505-1100	CONNECTOR-SLIDE, FEMALE, 14-16	5	5
17	1505-1101	CONNECTOR-SLIDE, MALE, 14-16	2	2
18	1505-1250	T-TAP, 14-18	2	2
19	1505-1505	WIRE-PRIMARY, 14 GA. GPT (BLACK) 30 FT.	1	1
20	1505-1868	FUSE-AUTOMOTIVE, 10 AMP	1	1
21	1505-1884	HOLDER-FUSE, AUTOMOTIVE, 14-18	1	1
22	1506-0081	NYLON CABLE TIE, 11" LONG	14	14
23	15092000	0.375 CORRUGATED LOOM (120.0")	14.0 FT	14.0 FT
24	800A0051	KIT-CONTROL, AIR	-	1



ITEM	PART #	PART DESCRIPTION	800A0168 QTY	800A0169 QTY
1	1301-0508	RELAY VALVE, RG-2, MIDLAND	1	1
2	1301-0546	VALVE-QUICK RELEASE	1	1
3	13010555	VALVE-SOLENOID, 4 WAY, 12 V	1	1
4	1302-2018	BUSHING-REDUCER, 1/2M-NPT—1/4F-NPT	1	1
5	1302-2099	ELBOW, 90 STREET (1/4-NPT)	1	1
6	1302-2102	ELBOW, 90 STREET (3/8-NPT)	2	2
7	1302-5050	CONNECTOR-MALE, 3/8 TB, 3/8 NPT	2	2
8	1302-5104	ELBOW-3/8 TB, 1/4 M-NPT	1	1
9	1302-5105	ELBOW-3/8 TB, 3/8 M-NPT	5	5
10	1302-5143	TEE-BRANCH, 1/4 M-NPT, 3/8 TUBE	1	1
11	13025132	TEE-RUN, 1/4 M-NPT, 3/8 TUBE	1	1
12	13029972	ASSEMBLY-AIR BRAKE HOSE (26 IN.)	2	2
13	140B-1008	5/16 X 1 UNC HEX CAP SCR (GR 8) O&P	4	4
14	144N-0B16	10-32 X 2 ROUND HEAD MACH. SCREW	2	2
15	1470-1004	5/16 UNC HEX NUT (GR B) O&P	4	4
16	1485-1004	5/16 LOCKWASHER PIL&PHOS	4	4
17	1506-0042	10-32 KEP NUT	2	2