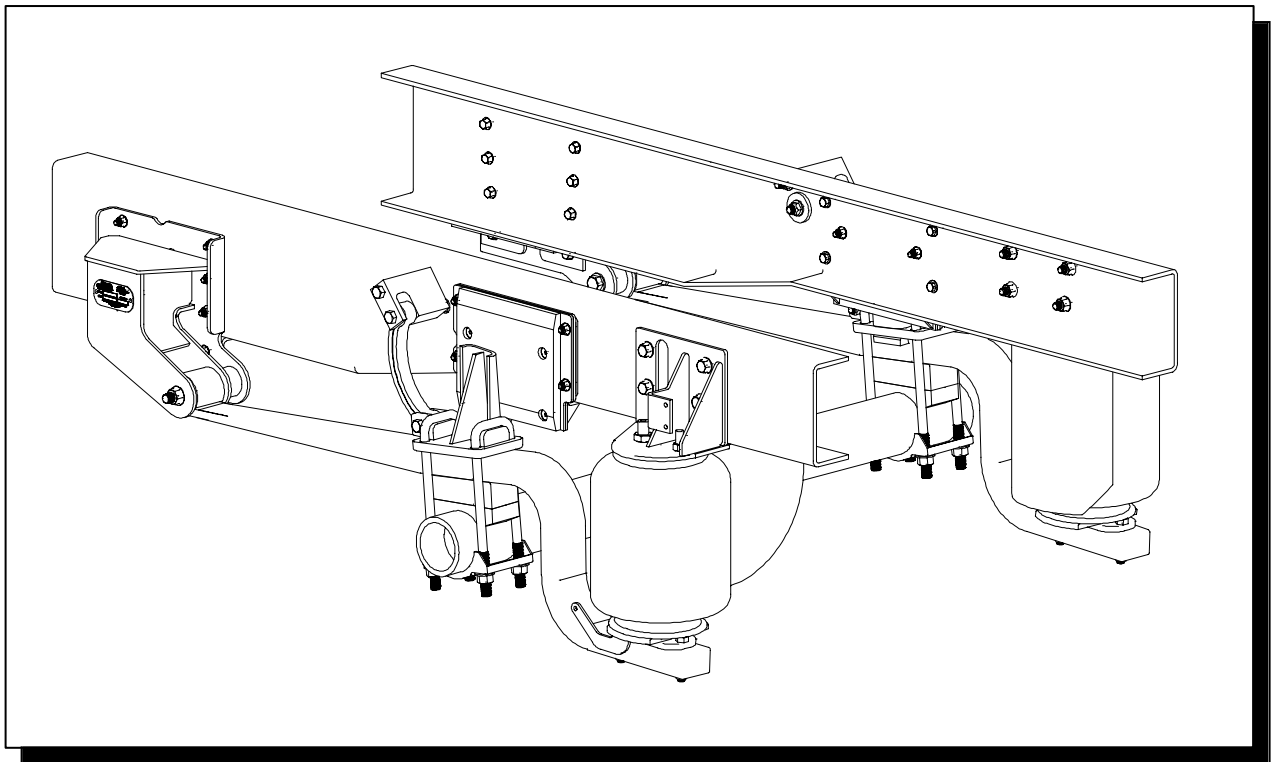


REYCOGRANNING® SUSPENSIONS

AIRGLIDE® DRIVE AXLE AIR SUSPENSION



RD855C OWNERS MANUAL

Table of Contents

Introduction	3
Suspension Description.....	3
Air Control System Description	3
Controls.....	5
Power ON/OFF Switch.....	5
Exhaust/Inflate Switch	5
Gauges, Lights, Buzzers.....	5
Specific Control Panels	5
Operation	6
Maintenance Schedule	7
Maintenance Record.....	8
Torque Specifications	9
Trouble Shooting.....	10
Drive Axle Suspension System, General.....	10
Air Control System.....	11
Parts List	12
General Notes	12
Fastener/Fitting Abbreviations.....	12
Typical Wiring Diagrams.....	14
Suspension	14
-4 System 9930 Height Control Valve System with kneeler valves.....	16
-5 System 9932 Height Control Valve System w/o kneeler valves.....	19
-QR System K709308 Quick Recovery Air System	22
5703 Warning Light/Buzzer Kit.....	25
9905 “Ping” Tank Kit.....	26
Height Control Valve Kit	27
Replacement Instructions and Warranty	28

Introduction

Congratulations on your purchase of a ReycoGranning® Suspensions *AIRGLIDE*® drive axle air suspension system. Founded in 1948 by one of the pioneers of air suspensions, ReycoGranning® Suspensions supplies drive and tag axle air suspension systems to a variety of original equipment manufactures as well as to the aftermarket industry. The R-Series, trade named *AIRGLIDE*®, are utilized by OEM customers in applications such as recreational vehicles, shuttle bus, trailer, chassis builders, Type I and III ambulances and class 3 through 8 truck applications. This product line now exceeds 25 models that cover all major chassis utilized in the above applications.

Suspension Description

A ReycoGranning® Suspensions *AIRGLIDE*® drive axle air suspension system is a replacement rear suspensions system that consists of an air control system, air springs, trailing arm beams, brackets, and mounting hardware. In general, the air suspension works by maintaining a constant ride height by adjusting the amount air pressure in the air springs. This allows the vehicle to remain level, regardless of loading. By varying the amount of air pressure in the springs, a comfortable ride is maintained whether lightly or heavily loaded. This is the major difference between an air suspension and a conventional steel spring suspension. The steel spring suspension is usually designed for heavily loaded condition and thus yields a harsh ride in lightly loaded conditions. In addition, the steel spring suspension does not maintain a constant ride height under varying load conditions.

By maintaining a constant ride height, the horizontal center of gravity, steering geometry, and even the headlights remain level. The benefits of an air ride are:

1. Driver/passenger comfort,
2. Protection of cargo, chassis and body components,
3. Reduced stress fatigue to chassis frame rails.
4. Greater stability and control.

A unique feature to the ReycoGranning® Suspensions *AIRGLIDE*® drive axle air suspension system is the wear towers and wear blocks. These time proven components prevent unwanted side to side lateral motion without the use of costly and complex track rods.

Air Control System

A primary subsystem of a ReycoGranning® Suspensions *AIRGLIDE*® drive axle air suspension system is the air control system. Depending on the actual system used, the air control system will provide the ability to automatically control the amount of air pressure in the air springs, thus automatically control the suspension ride height.

The major components of an automatic air control system consist of an air compressor, reservoir tank, height control valve, and air spring. The operation of the system is simple. The compressor supplies air to the tank, which maintains the air pressure between 95 - 125 psi. Air from the tank is supplied to the height control valve. The height control valve supplies air to or depletes air from the air spring via a mechanical linkage based on axle loading. The pressure changes in the air spring but the height remains the same, thereby giving the optimum ride regardless of load.

A system with a single height control valve supplies both air springs simultaneously while a dual height control valve system supplies each air spring separately. The dual system increases the sensitivity of side-to-side distributions of axle loading. A schematic of each system can be found in the Air Control System Parts List section. See Air Control System - Control Panels and Operation sections.

Located on the bottom of the air tank assembly, is a heated moisture ejector valve. This valve automatically releases accumulated water whenever the air tank pressure drops 15 psi or more. To help eliminate any ice build up, the valve is also heated. However, in some applications, a drop of 15 psi or more in the air tank is not seen regularly. Therefore, a pull cable is provided to manually release accumulated water. The

Introduction

pull cable is usually found near the fuel filler, however, please check with your vehicle's manufacturer for the exact location.

Regardless of the vehicle application, this pull cable should be operated at least once a day to prevent water from damaging the air system.

Optional "kneeler" or exhaust valve(s) may be plumbed between the air springs and the height control valve(s). When power is applied to these valves, they shut off air supply from the height control valve to the air springs and exhaust air from the air springs. As long as power is supplied to the "kneeler" valve, usually through the "exhaust" position of the "inflate/exhaust" switch, the air springs will remain deflated. With the air springs deflated, the rear end of the vehicle will remain lowered, or "kneeled", with the chassis resting on positive jounce stops. Removing power to the "kneeler" valve allows air to flow from the height control valve to the air springs and shuts off exhaust from the air spring, thus inflating the air springs. The rear end of the vehicle is automatically raised to the proper ride height. Systems with dual height control valves require two "kneeler" valves, one between each air spring and height control valve, if the exhaust option is equipped.

To further improve the ride of an air suspension, ReycoGranning® Suspensions offers a dual ping tank kit. One ping tank is added to each side between the air spring and the height control valve, or "kneeler" dump valve if installed. These 200 cubic inch ping

tanks effectively increase the volume of the air spring, without having to utilize a larger air spring. The spring rate of a system is directly proportional to the volume of the air spring. The larger the air spring volume, the lower the spring rate; thus the better the ride. However, the amount of air flowing between the air spring and ping tank can limit the effective air volume of the system. Therefore, adding larger and larger ping tanks may not result in significant changes in the suspension spring rate. ReycoGranning® Suspensions's ping tank kits have been designed to provide the ideal increase in volume and proper airflow.

A side effect in adding ping tanks is possible increase in air spring inflation times. With a ping tank system installed, the larger volume of air, which improves the spring rate, must be refilled each time the system is "kneeled". ReycoGranning® Suspensions's ping tank kits have been designed to minimize this effect, while improving the ride.

Finally, optional warning light sensors or air pressure gauges may be plumbed to either the air reservoir tank or to the air springs. These warning devices will indicate possible problems with the air suspension system prior to operation. Gauges that are plumbed to the reservoir tank will read between 95 and 125 psi, as described above. Any air gauge that is plumbed directly to the air spring will show fluctuations depending on axle loading and vehicle operation.

Controls

Descriptions of the typical controls are found below. Note: some original equipment manufactures (OEM) will use controls integrated into the instrument panel. While the appearance may differ, the operation and description are consistent with below.

Power ON/OFF Switch

This master switch turns the power off and on to the compressor and other electrical components of the drive axle suspension. To activate the compressor and other electrical components, move the switch to "ON".

The vehicle ignition switch may need to be turned on to activate this switch.

Exhaust/Inflate Switch

If the system is equipped with an optional "kneeler" exhaust valve(s), the control panel will have an Exhaust/Inflate switch. Moving the switch to "Exhaust" position exhausts all air from the air springs.

While the switch is in the "Exhaust" position, the air springs will remain deflated.

Exhausting air from the air springs may be required to: assist in maintenance and lower the rear of the vehicle to assist in loading.

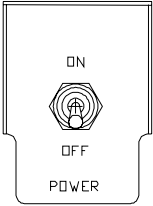
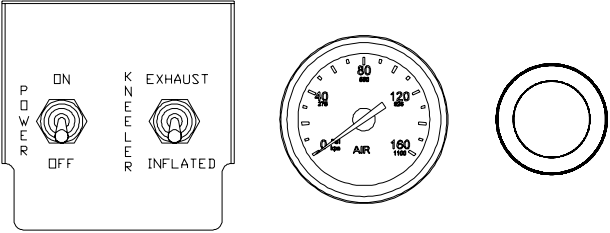
Caution: Only operate the exhaust feature while the vehicle is parked. Never exhaust the system while the vehicle is in motion.

To inflate the air springs, place the switch in the "Inflate" position.

Gauges, Lights, Buzzers

As an option, the Air Pressure Warning Light/Buzzer kit may be installed. The gage will indicate air tank pressure. If air pressure falls below 20 psi, a warning light and buzzer will activate. Do not operate the vehicle in this condition. The buzzer/light will go off once 40 psi air pressure is reached.

Specific Control Panels

	<p>The 5016 Control Panel Assembly, with Power ON/OFF only. Included with the 9932 Air Control Kit.</p>
	<p>The 4982 Control Panel Assembly, with Power ON/OFF and "Kneeler" Dump Valve Switches. Also shown is the 1069 Air Pressure Gauge (0-160 psi) and the 5401 Alarm Light/Buzzer.</p> <p>The 4982 Control Panel Assembly is included with the 9930 Air Control Kit. The 1069 Gauge and 5401 Light/Buzzer are included in the optional 5703 Warning Kit. Note: In STS unit's switch may have different appearance, but function remains unchanged. Air pressure sensing may also be performed by and OEM installed interface (control panel).</p>

Operation

Operation of the ReycoGranning® Suspensions *AIRGLIDE*® drive axle suspension utilizing an automatic height control system is reached through various control panels. Depending upon options included with the suspension system, the control panel should be operated as follows:

Before operating the vehicle:

- Switch the power to "ON", if "OFF".
- Make sure the Exhaust/Inflate switch is in the "Inflate" position, if the suspension is so equipped.
- If equipped, check that the Low Pressure Warning Light and Buzzer is off.

The vehicle is ready for operation.

To exhaust the system, if the suspension is equipped with an exhaust option:

- Make sure the vehicle is parked.
- Move the Exhaust/Inflate switch to the "Exhaust" position.
- When exhausted, switch the power to "OFF" (if desired).

Although the air suspension master power switch can be left "ON", ReycoGranning® Suspensions recommends turning the system off while the vehicle is parked for an extended period, if the suspension system is not switched through the vehicle ignition switch. This will avoid running down the battery.

Maintenance Schedule

General Maintenance	Service to be Performed	Mileage in Thousands								
		3	12	24	36	48	60	72	84	96
Spring Beam Pivot Connection	Check nut torque	X								
	Inspect for worn bushings		X	X	X	X	X	X	X	X ¹
	Inspect for signs of looseness due to worn parts		X	X	X	X	X	X	X	X ¹
Axle Connection	Check "U"-bolt nut torque	X	X	X	X	X	X	X	X	X ¹
Shock Absorbers ²	Inspect for signs of fluid leak, broken eye ends, loose fasteners, or worn bushings	X	X	X	X	X	X	X	X	X ¹
Air Springs	Inspect for proper clearance (1" minimum all around).	X								
	Check mount nut torque	X								
	Inspect for signs of chafing or wear	X	X	X	X	X	X	X	X	X ¹
	Check for air line fitting torque	X								
	Inspect for air leaks using soapy water solution	X								
Height Control Valve Linkage	Inspect for signs of bending, binding, or slippage	X	X	X	X	X	X	X	X	X ¹
Air Fittings and Air Lines	Inspect for air leaks using soapy water solution	X								
	Inspect for signs of chafing, cracking, or wear	X	X	X	X	X	X	X	X	X ¹
Wheels ³	Check lugnut torques ⁴	X	X	X	X	X	X	X	X	X ¹
Rebound Straps	Check nut torque	X	X	X	X	X	X	X	X	X ¹
	Inspect for signs of chafing or wear.	X	X	X	X	X	X	X	X	X ¹
	Inspect for signs of possible interference	X								
Wear Block	Inspect for foreign material between the wear block and wear tower causing premature wear.	X	X	X	X	X	X	X	X	X ¹
Air Compressor	Check air compressor compartment or enclosure for proper air flow and venting.	X	X	X	X	X	X	X	X	X ¹

¹ Continue to perform specified maintenance every 12,000 miles.

² Shock absorbers are not a component part of the ReycoGranning® Suspensions suspension system. Please see your vehicle's owners manual for instructions on the maintenance of shock absorber items.

³ See your vehicle's owners manual for instructions regarding the maintenance of wheels and tires.

⁴ Wheel lug nuts must be retightened to proper torque specifications as per the vehicle or chassis manufacturer's Owner Guide.

Torque Specifications

Most threaded fasteners are covered by specifications that define required mechanical properties, such as tensile strength, yield strength, proof load, and hardness. These specifications are carefully considered in initial selection of fasteners for a given application.

To assure continued satisfactory vehicle performance, replacement fasteners used should be of the correct strength, as well as the correct nominal diameter, thread pitch, length, and finish.

Most original equipment fasteners are identified with markings or numbers indicating the strength of the fastener. These markings are described in Figures 1 and 2. Attention to these markings is important in assuring that the proper replacement fasteners are used.

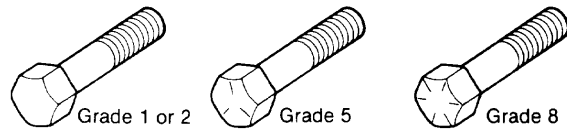


Figure 1: Grade Markings on Bolts



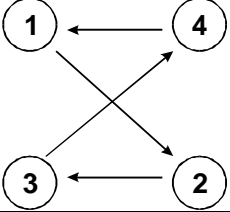
Grade	Lock Nut Grade B	Lock Nut Grade C, G
Identification	 3 Dots	 6 Dots

Figure 2: Grade Markings on Lock Nuts

Applications	Nut Size	Torque Specification (Cleaned and Lubricated)	Torque Sequence (if required)
Spring Beam Pivot Connection	OEM	180 ft.-lb.	N/A
Spring Hanger (to Frame)	7/16-14 Grade 8	50 ft.-lb.	N/A
Rebound Strap Upper Mount	1/2-20 Grade G	90 ft.-lb.	N/A
Rebound Strap Lower Mount	1/2-20 Grade C	90 ft.-lb.	N/A
Upper Air Spring Pad Mount (to Frame)	1/2-13 Grade G	90 ft.-lb.	N/A
Air Spring Upper Mount	3/4-16 Grade 5 1/2-13 Grade 5	35 ft.-lb. 35 ft.-lb.	N/A
Lower Air Spring Mount (to Pad)	1/2-13 Grade C	35 ft.-lb.	N/A
Lower Air Spring Assembly Mount (to Beam)	1/2-20 Grade C	90 ft.-lb.	N/A
Backing Plate (to Frame)	3/18-16 Grade G	35 ft.-lb.	N/A
Wear Pad	3/8-24 Grade F	10 ft.-lb.	N/A
"U"-Bolt Nuts	5/8-18 Grade C	Step torque to: 50 ft.-lb. 75 ft.-lb. 109 ft.-lb. follow sequence for each step.	
Wheels (Refer to Vehicle Owners Manual)	See Vehicle Owners Manual	See Vehicle Owners Manual	See Vehicle Owners Manual

Trouble Shooting

Drive Axle Suspension System--General

Symptoms	Possible Causes	Remedies
Excessive vehicle roll or lateral movement (side to side movement).	Loose or worn spring beam pivot connection(s). Worn out spring beam pivot bushing(s). Axle "U"-bolts loose. Worn or failed wear blocks.	Tighten (see previous torque chart) or replace as required. Replace as required. Tighten (see previous torque chart) or replace. Adjust gap or replace.
Hard ride or axle bottoming out.	Air suspension not turned on. Incorrect ride height. Vehicle overloaded. Defective height control valve(s). Height control linkage disconnected or damaged. Improper rebound strap/rebound strap location.	Turn on air suspension. Adjust to current ride height. Reduce drive axle load.. Replace height control valves as required. Reattach or replace as required. Replace with correct rebound strap. Note: Do not relocate rebound strap without prior authorization from ReycoGranning® Suspensions Air Suspensions.
Tire hop or poor handling	Loose or worn shock absorbers. Driveline retarder (if equipped) oversized or improperly set.	Shock absorbers are not a component part of the Reyco/Granning Suspensions suspension system. See your vehicle's owners manual for instructions regarding the maintenance of the shock absorbers. Check driveline retarder documentation or with the vehicle manufacturer for proper sizing or setting of the retarder. ReycoGranning® Suspensions does not supply a driveline retarder.
Prematurely worn front tires	Incorrect ride height.	Adjust to current ride height.

Trouble Shooting

Air Control System

Symptoms	Possible Causes	Remedies
Air compressor runs excessively	<p>Air leak.</p> <p>Internal air leak in height control valve.</p> <p>Moisture ejector valve stuck open.</p> <p>Check valve installed incorrectly.</p> <p>Dump valve(s), or “kneeler(s)”, leaking.</p> <p>Height Control Valve stuck in the exhaust position.</p>	<p>Inspect all air lines, fittings, and air springs with a soapy water solution. Repair, retighten, or replace as required. Note: Plastic air lines must be cut square. See Air Control System Parts List (General Notes) for additional notes.</p> <p>Insert exhaust tube into a cup of water and examine for bubbles. This will show evidence of both inlet and exhaust valve leaks. Replace components.</p> <p>Check and replace if necessary.</p> <p>Arrow should point away from the air compressor head. Correct if necessary.</p> <p>Check and replace if necessary.</p> <p>Locate obstruction and remove or relocate interference.</p>
Air compressor will not start	<p>Inline fuse burnt or circuit breaker tripped.</p> <p>Air compressor motor burnt out.</p> <p>Disconnected or broken wire.</p> <p>Ignition switch and/or suspension power switch not on.</p>	<p>Replace or reset.</p> <p>Inspect and replace as required.</p> <p>Inspect and correct or replace if necessary.</p> <p>Turn on ignition switch and/or suspension switch.</p>

Part Lists

Part Lists

General Notes

1. Air line tubing should be 1/4" D.O.T. plastic air line tubing.
2. The tubing ends must be cut straight and insert the full depth into the fittings otherwise leaks will result. Check all connections for air leaks.
3. Protective air line loom is recommended.
4. All air line fittings to be brass air brake compatible--Parker NTA® or equivalent.
5. Fastener/Fitting Abbreviations:

Bolts/Screws

FHB	(Hex) Flange Head Bolt
HHB	Hex Head Bolt
SFCS	Socket Flat Countersunk Head Cap Screw
SHCS	Socket Head Cap Screw

Plating

PH	Phosphorous and Oil
PL	Plain
ZN	Zinc (or ZP)

Washers

FW	(Unhardened) Flat Washer
HFW	Hardened Flat Washer
SLW	Spring Lock Washer

Fittings

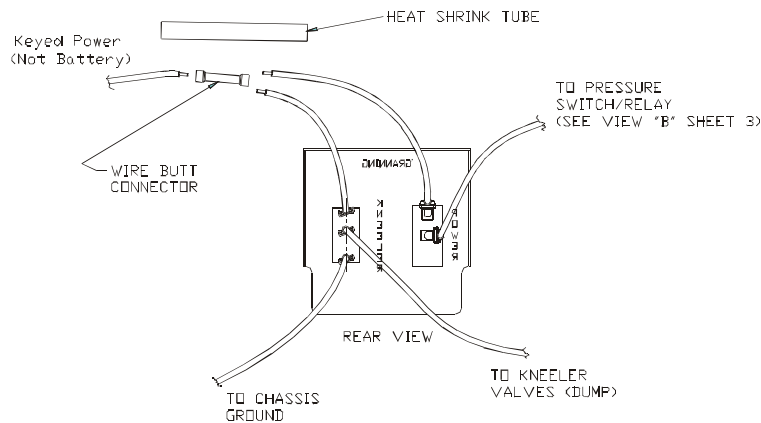
T	Tubing, Air Line (O.D.)
MPT	Male Pipe Thread
FPT	Female Pipe Thread

Nuts

FN	(Hex) Flange Nut
JN	(Hex) Jam Nut
LFN	(Hex) Locking Flange Nut
LN	(Hex) Lock Nut
N	(Hex) Nut

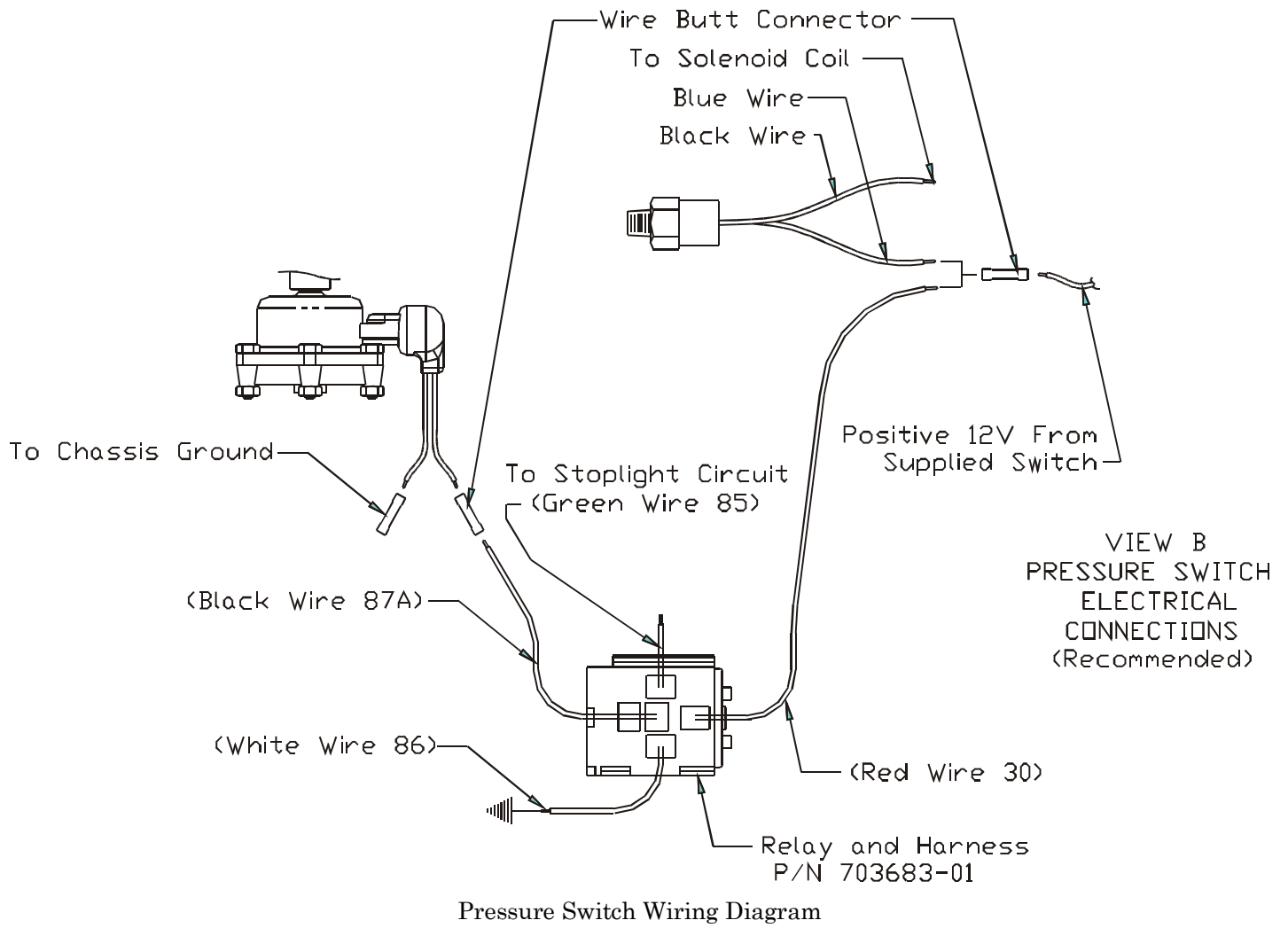
Typical Electrical Diagrams

See Air Control Kit for complete electrical wiring diagrams.



Typical Control Panel Wiring Diagram
(4982 Control Panel Shown)

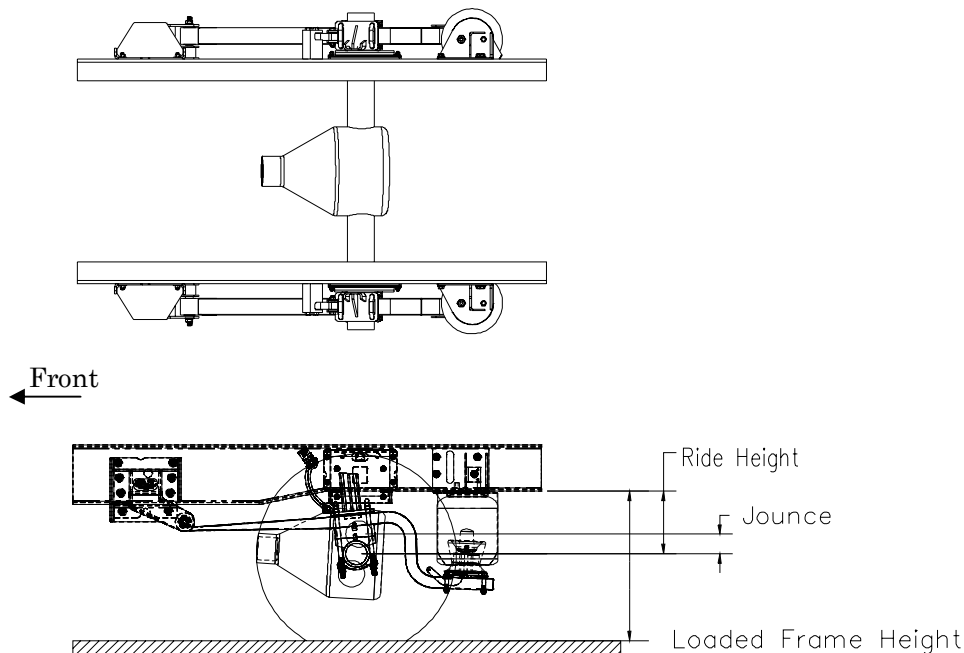
Part Lists



Part Lists

Suspension

Item	Part No.	Description	Item	Part No.	Description
1	702339-01	Asy, Hanger, LH	23	308	LFN ½-13, Gr. G, ZN
2	702339-02	Asy, Hanger, RH	24	181	FHB ½-13 x 1.50, Gr. 8
3	702352-01	Asy, Wear Pad Bracket	25	113	HHB ½-20 x 2.75, Gr. 8
4	702355-01	Asy, Upper Air Spring Mount, LH	26	4368	Sleeve, Rebound Strap (1.06)
5	702355-02	Asy, Upper Air Spring Mount, RH	27	89422302	LN ½-20, Gr. C
6	702371-01	Asy, Wedge	28	5559	HHB ½-13 x 4.50, Gr., ZN
7	5445	Asy, Spring Beam	29	8219758	JN ¾-16, Gr. 5, ZP
8	702349-01	Asy, Wear Tower, LH	30	8120378	N, ½-13, Gr. 5, ZP
9	702349-02	Asy, Wear Tower, RH	31	298	SFCS 3/8-24 x 2.00 Gr.8
10	702360-01	Asy, Lower Air Spring Mount, LH	32	4356	SFCS 3/8-24 x 1.5 Gr. 8 PH
11	702360-02	Asy, Lower Air Spring Mount, RH	33	304	LFN 3/8-24, Gr. F, Zinc
12	5553	Air Spring	34	89422299	LN 7/16-14 UNC, Gr. 8
13	6586	U- Bolt	35	702797-01	FHB 7/16-14 x 1.25, Gr.8, ZP
14	89422850	HFW 5/8 .656x1.312x.095 PLorZN	36	8455030	HHB ½-20 x 2.75, Gr.8
15	89429288	HHN 5/8-18 GR ASTM A194-2H	37	5061	Rebound Strap (8.25)
16	702365-01	Wear Pad	38	702605-01	LFN 3/8-16, Gr.G, ZN
17	162	HHB 5/8-18 x 6.50, Gr. 8	39	100270-P1	Asy, Heat Shield
18	4599	LFN 5/8-18, Gr. G, PH	40	263	HFW 3/8 .406 x .812 x .065 ZN
19	702366-01	Asy, Reb. Strap Mount, Inner	41	2617	Plate, Serial No.
20	702362-01	Rebound Strap Mount	42	188	Pop Rivet 1/8" Dia. X .525" Long
21	118	FW ½ .531 x 1.062 x .095	43	8120389	FW 7/16 .500 x 1.250 x .083 ZP
22	89421974	HHB 1/2-13 x 5.75, GR 8, ZN	44	708580-01	Heat Shield, Flexible



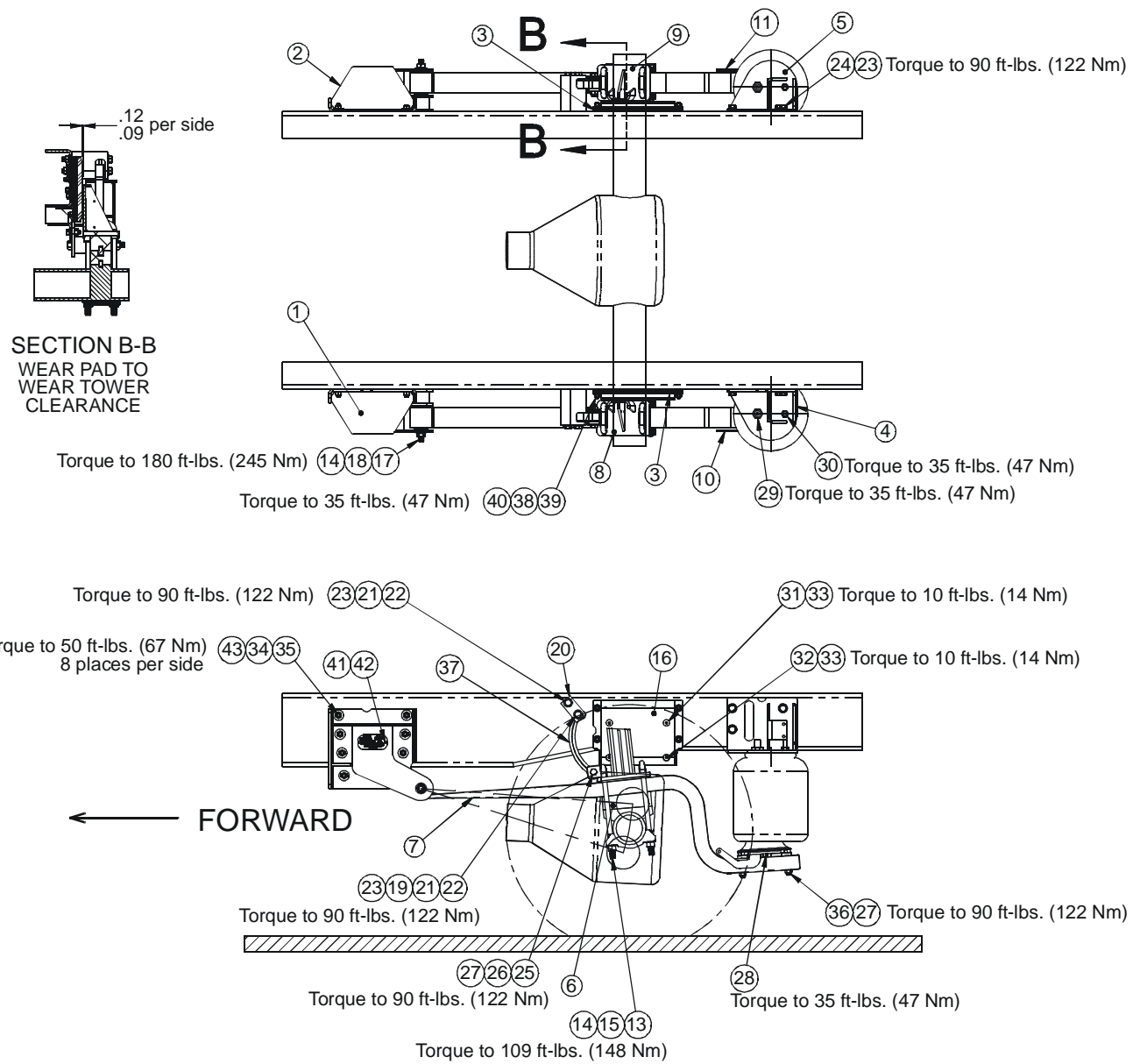
Note: The ride height is for the completed vehicle with body and components. See table below for correct vehicle dimensions.

Chassis	ReycoGranning® Suspensions Suspension Model	Loaded Frame Height*	Ride Height	Jounce Travel	Rebound Travel
2001 Chevrolet Silverado 3500 Cab Chassis and 2001 GMC Sierra 3500 Cab Chassis	RD855C	23.81"	9.51"	3.00"	3.00"

* Loaded frame height is measured from the ground (flat and level) to the bottom of the vehicle frame at the rear of vehicle, behind the axle as shown (unstretched frame).

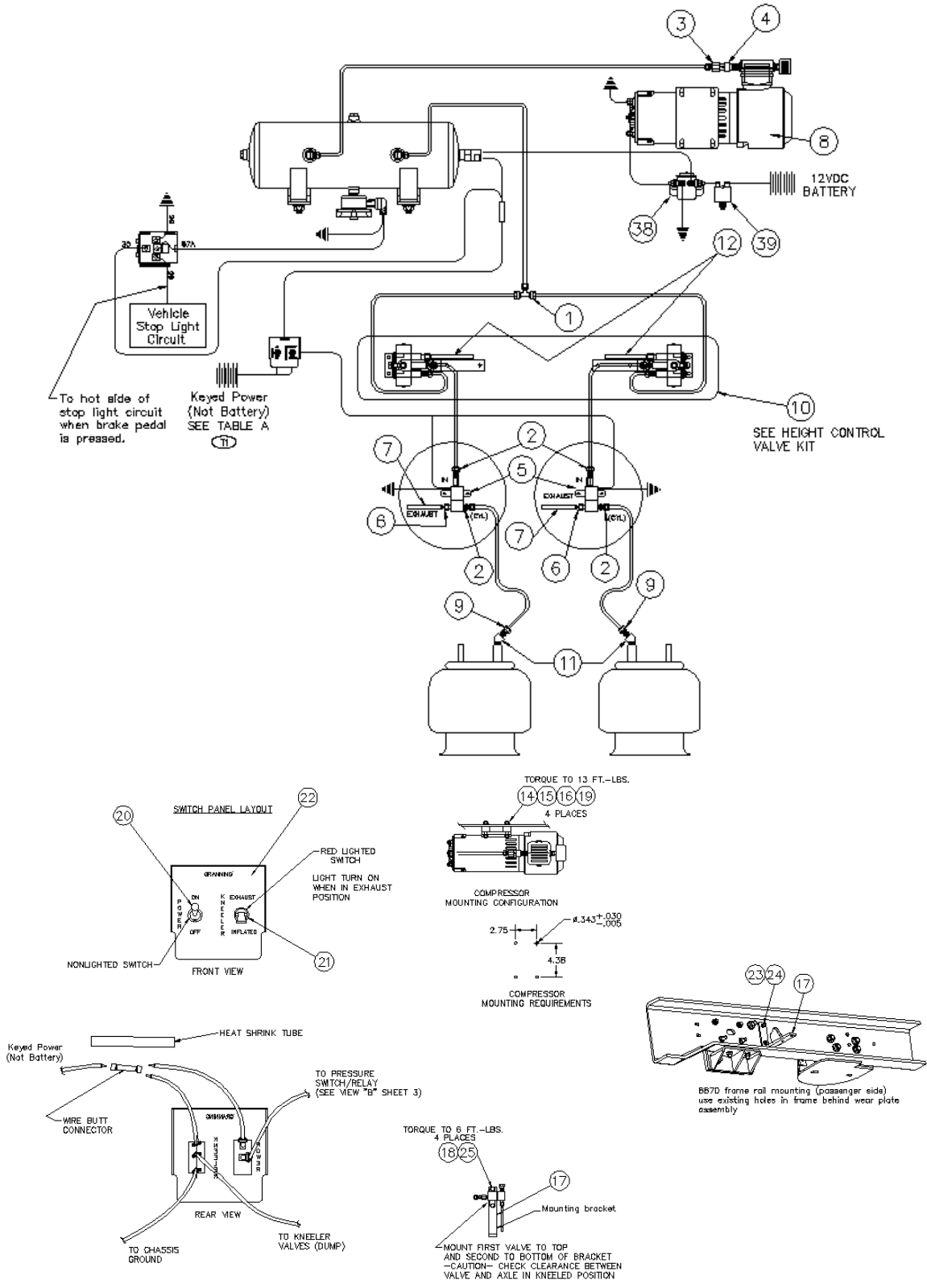
Part Lists

Suspension



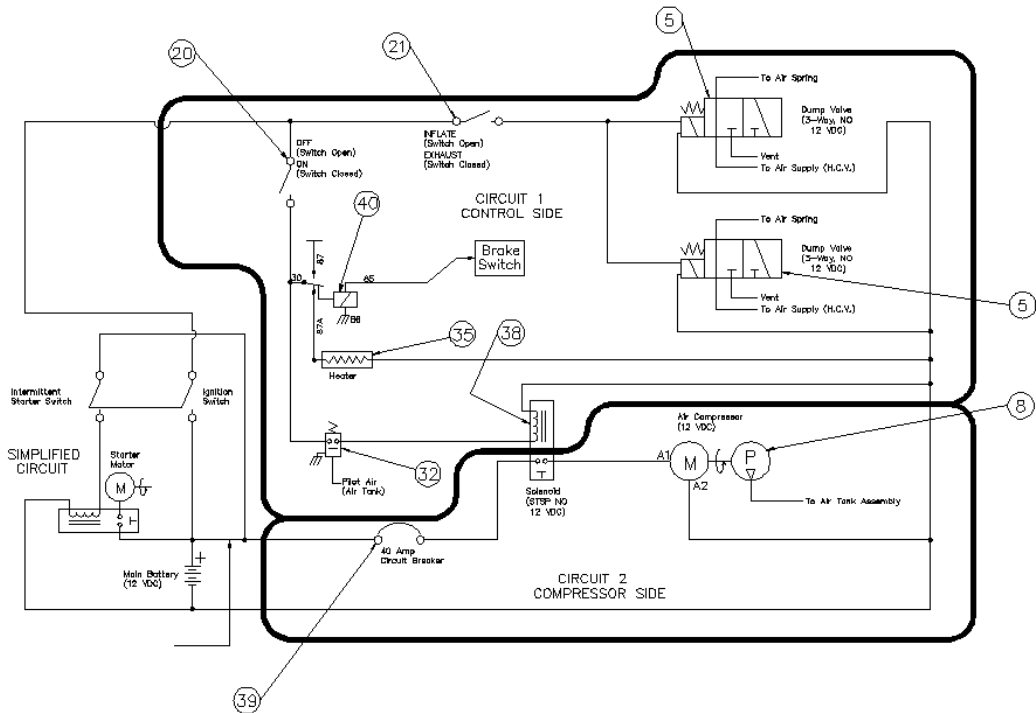
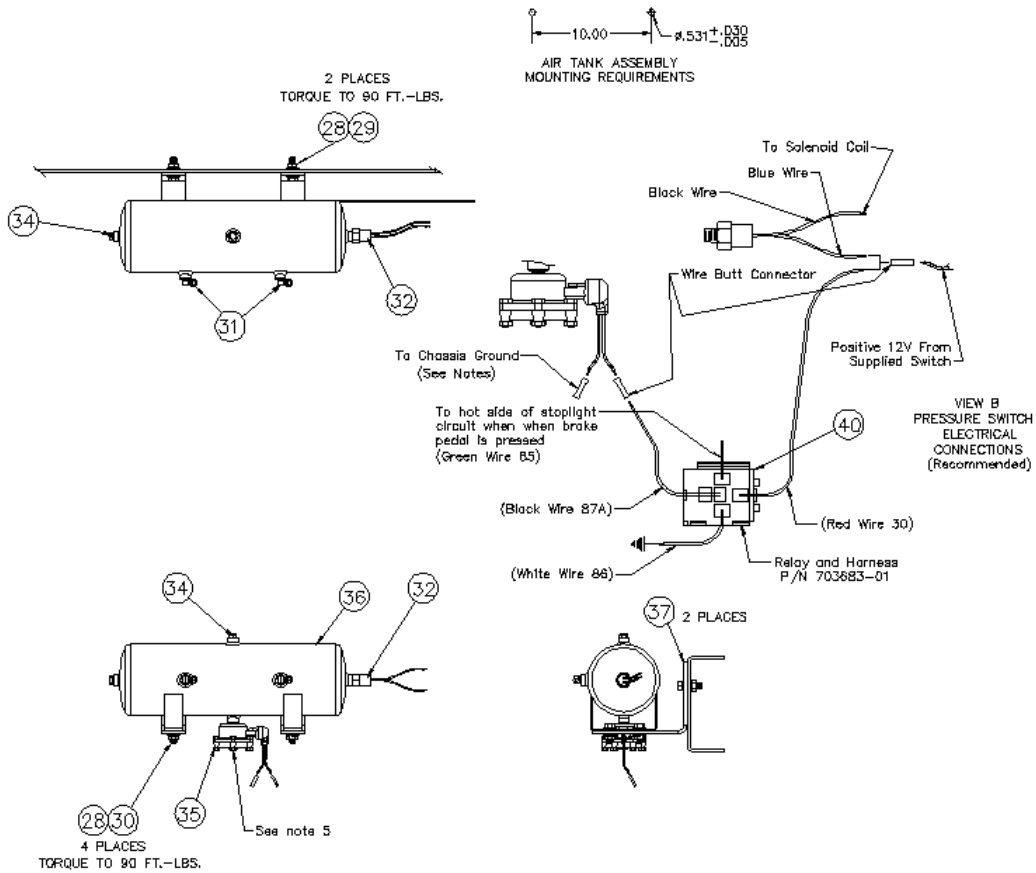
Part Lists

-4 System 9930 Height Control Valve System with kneeler valves



Part Lists

-4 System 9930 Height Control Valve System with kneeler valves



Part Lists

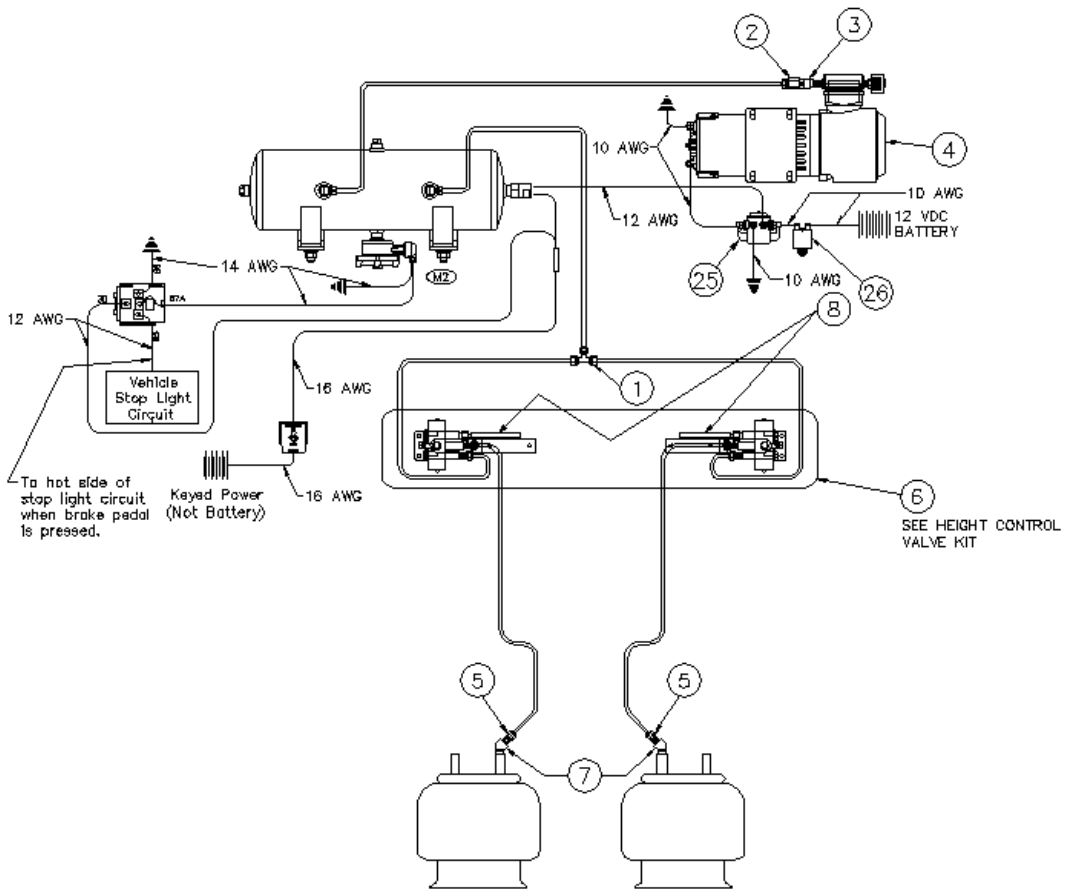
-4 System 9930 Height Control Valve System with kneeler valves

Item #	Part #	Description	Item #	Part #	Description
1	702603-01	UNION TEE 1/4T X 1/4T X 1/4T	22	5008	CONTROL PANEL-POWER/KNLR (RD)
2	0416	CONNECTOR - 1/4T X 1/8MPT	23	100702-P1	HHB 1/4-20 X 1 GR 8 ZN
3	0599	CONNECTOR - 1/4T X 1/4FPT	24	100703-P1	LN 1/4-20 STOVER GRC PLATED
4	4017	CHECK VALVE (R-SER COMPRESSOR)	25	700726-01	HWHMS 10-32x1.00 STEEL ZN
5	707413-01	VALVE, KNEELER 12VDC 3-WAY	28	308	LFN 1/2-13 GR G ZINC
6	6115	MALE CON. (3/16HBx1/8MPT)	29	307	FHB 1/2-13 X 1 1/2 GR 8 ZINC
7	701799-01	CV TUBING 3/16IDx1/4ODx3.00	30	309	FHB 1/2-13 X 1.25 GR 8 ZINC
8	5188	COMPRESSOR - 1/3 HP 12VDC	31	702600-01	ELBOW 90 1/4T X 1/4MPT
9	0428	CONNECTOR - 1/4T X 1/4MPT	32	8892	PRESSURE SWITCH
10	K709031	KIT, HCV, RD975D-AB, -4, -5	33	708262-01	Split Convuluted sleeving 3/8"
11	0437	ELBOW 45-ST 1/4MPTx1/4FPT	34	0141	PLUG- 1/4" PT SQUARE HEAD
12	8722	3/16 ID X 1/4 OD X 12" CV TUBE	35	704916-01	HEATED AUTO DRAIN VLV, BRK ACT
14	5392	VIBRATION ISOLATOR	36	8614	TANK, AIR RESEVOIR
15	8120214	SLW 5/16 .328x.586x.088 ZP	37	8625	BRACKET, AIR TANK MOUNT
16	8120393	FW 5/16 .344x.688x.065 ZP	38	8706	SOLENOID, COLE HERSEE #24059
17	8870	FRAME BRKT. KNEELER VALVE	39	8721	CIRCUIT BREAKER 40 AMP (SEALED)
18	89411893	LN 10-32 GR 5 CP	40	703683-01	WIRING HARNESS W/ RELAY
19	89429048	N 5/16-18 GR 8 ZP	--	D705274	Drawing, Air Kit Asy
20	4981	SWITCH-TOGGLE 12 VOLT/35 AMP	--	D9930	DWG, AIR CNTL KIT
21	5157	SWITCH-TOGGLE (RED LIGHT)			

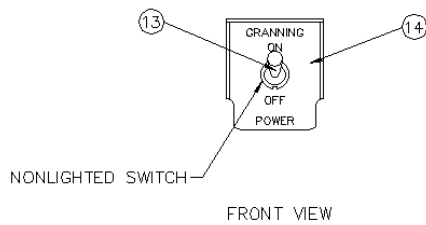
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2. The tubing ends must be cut straight and insert the full depth into the fittings otherwise leaks will result. Check all connections for air leaks.
3. Protective airline loom is recommended.

Part Lists

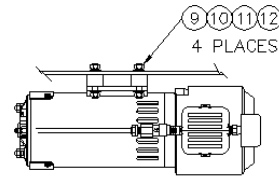
-5 System 9932 Height Control Valve System w/o kneeler valves



SWITCH PANEL LAYOUT

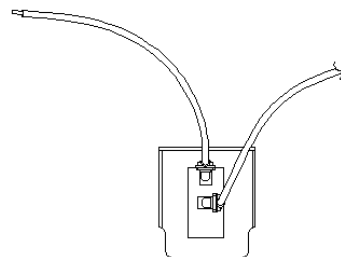


TORQUE TO 13 FT.-LBS.

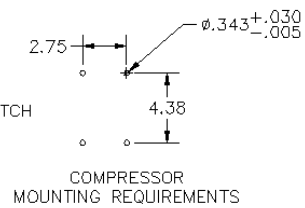


COMPRESSOR MOUNTING CONFIGURATION

Keyed Power (Not Battery)

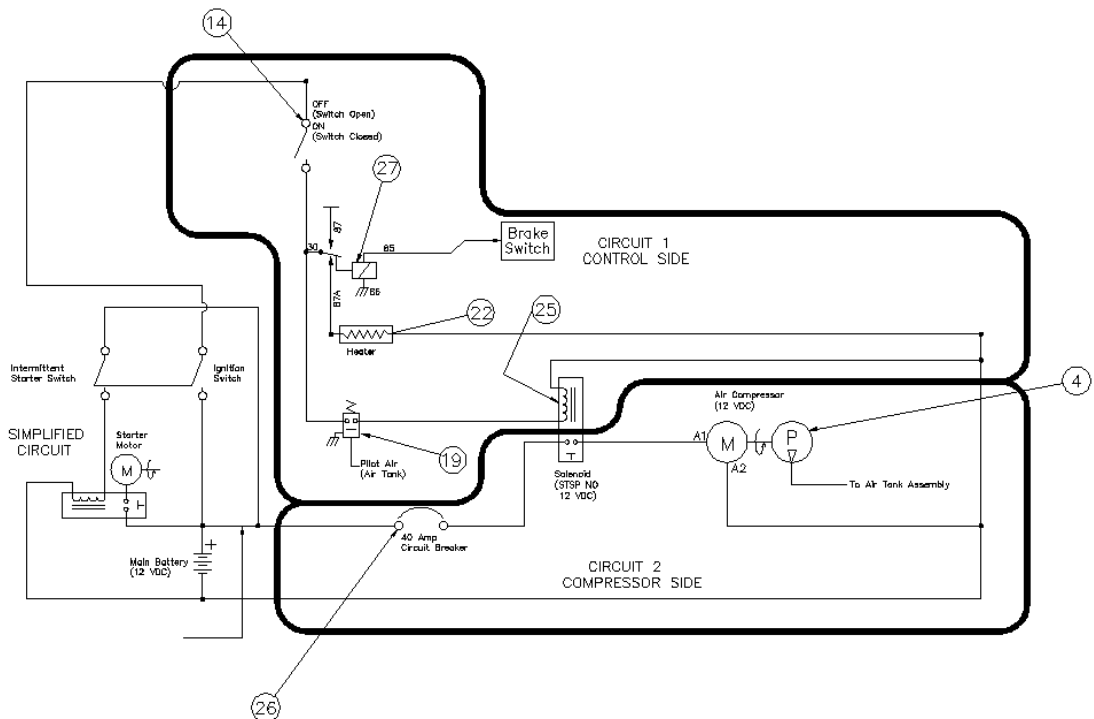
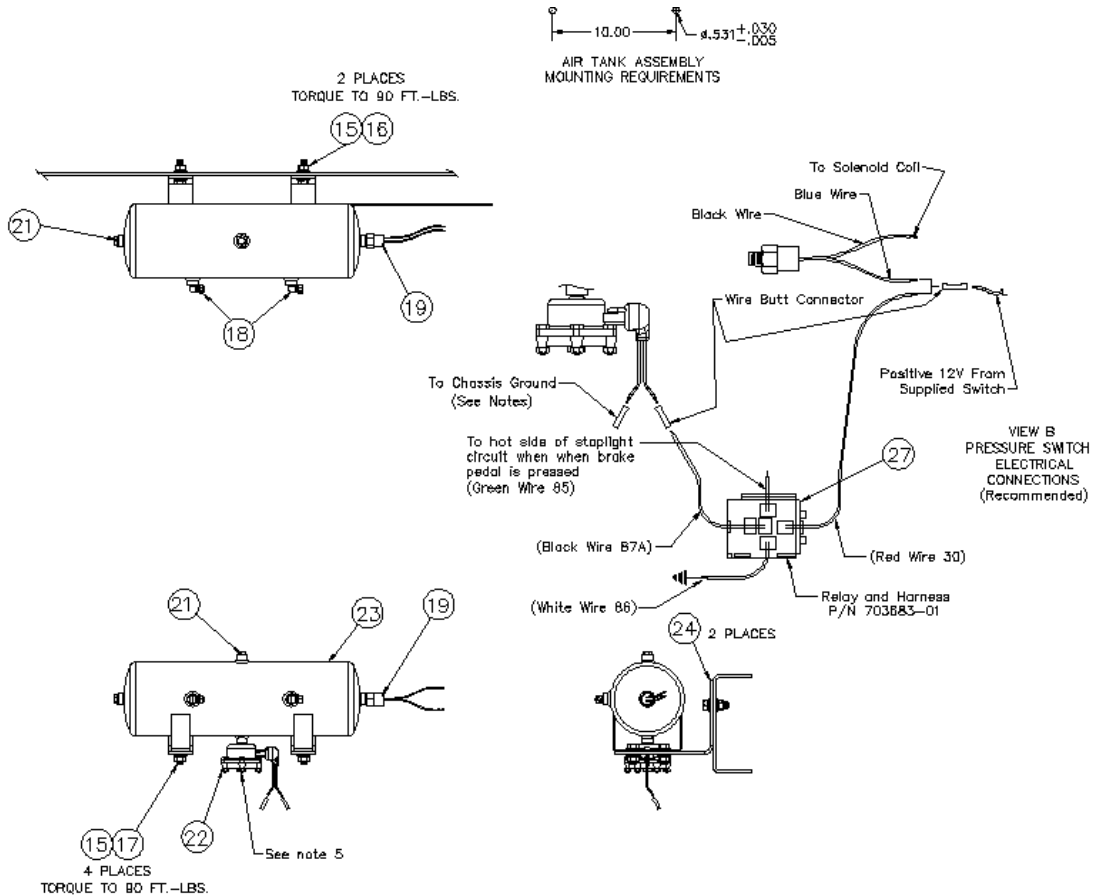


REAR VIEW



Part Lists

-5 System 9932 Height Control Valve System w/o kneeler valves



Part Lists

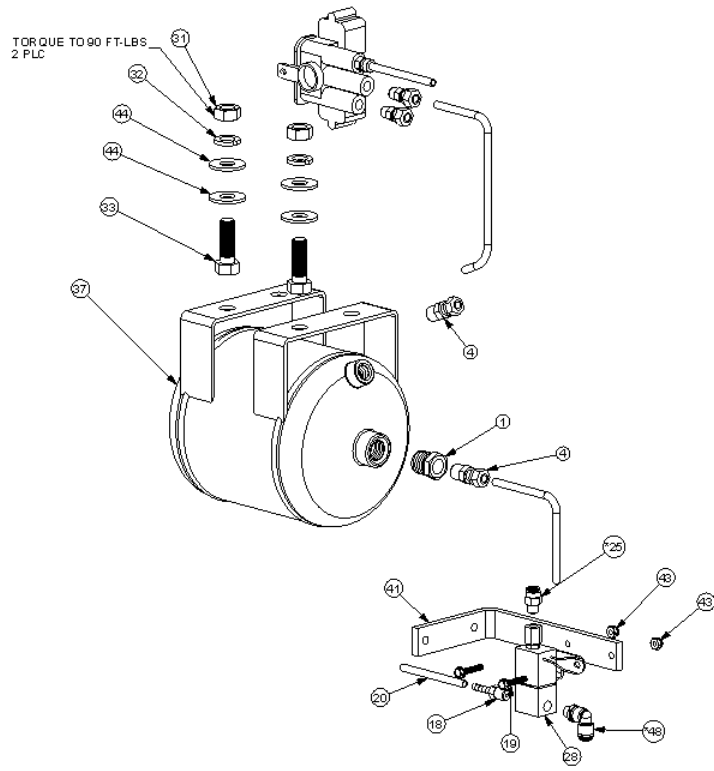
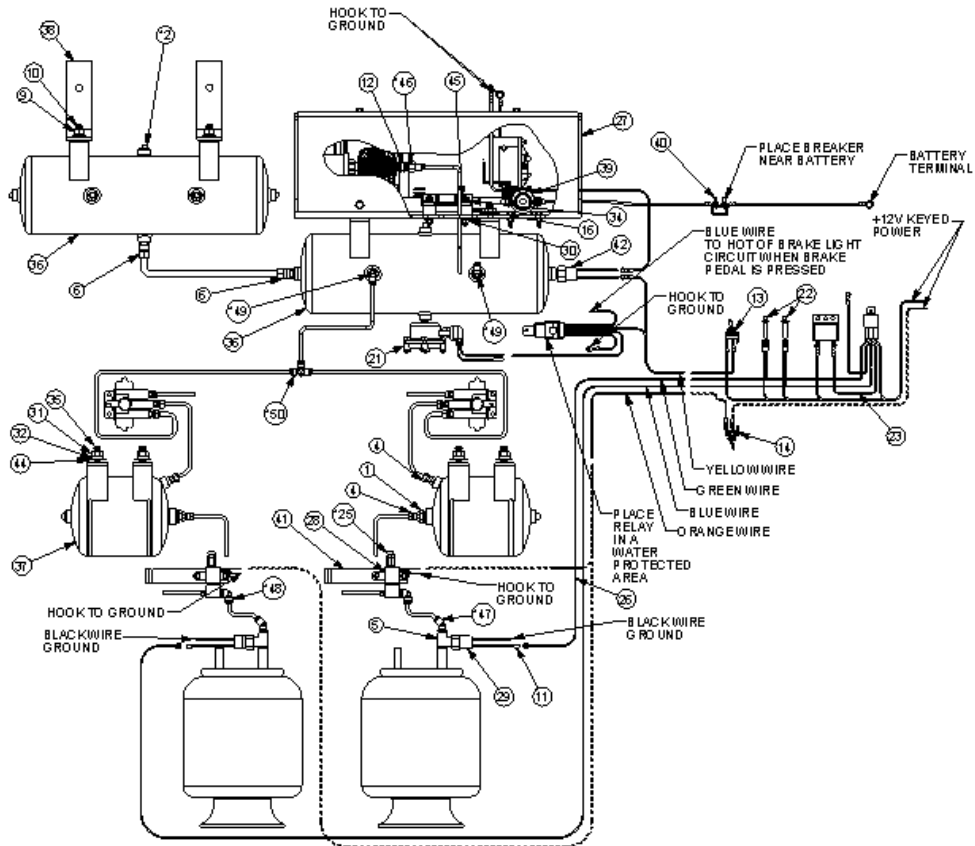
-5 System 9932 Height Control Valve System w/o kneeler valves

Item #	Part #	Description	Item #	Part #	Description
1	702603-01	UNION TEE 1/4T X 1/4T X 1/4T	16	307	FHB 1/2-13 X 1 1/2 GR 8 ZINC
2	0599	CONNECTOR - 1/4T X 1/4FPT	17	309	FHB 1/2-13 X 1.25 GR 8 ZINC
3	4017	CHECK VALVE (R-SER COMPRESSOR)	18	702600-01	ELBOW 90 1/4T X 1/4MPT
4	5188	COMPRESSOR - 1/3 HP 12VDC	19	8892	PRESSURE SWITCH
5	0428	CONNECTOR - 1/4T X 1/4MPT	20	708262-01	Split Convolute sleeving 3/8"
6	K709031	KIT, HCV, RD975D-AB, -4, -5	21	0141	PLUG- 1/4" PT SQUARE HEAD
7	0437	ELBOW 45-ST 1/4MPTx1/4FPT	22	704916-01	HEATED AUTO DRAIN VLV, BRK ACT
8	8722	3/16 ID X 1/4 OD X 12" CV TUBE	23	8614	TANK, AIR RESEVOIR
9	5392	VIBRATION ISOLATOR	24	8625	BRACKET, AIR TANK MOUNT
10	8120214	SLW 5/16 .328x.586x.088 ZP	25	8706	SOLENOID, COLE HERSEE #24059
11	8120393	FW 5/16 .344x.688x.065 ZP	26	8721	CIRCUIT BREAKER 40 AMP (SEALED)
12	89429048	N 5/16-18 GR 8 ZP	27	703683-01	WIRING HARNESS W/ RELAY
13	4981	SWITCH-TOGGLE 12 VOLT/35 AMP	--	D705274	Drawing, Air Kit Asy
14	4910	CONTROL PANEL (RD/RT/RFT)	--	D9932	DWG, AIR CNTRL-DUAL HCV
15	308	LFN 1/2-13 GR G ZINC			

1. Airline tubing should be 1/4" D.O.T. plastic airline tubing.
2. The tubing ends must be cut straight and insert the full depth into the fittings otherwise leaks will result. Check all connections for air leaks.
3. Protective airline loom is recommended.

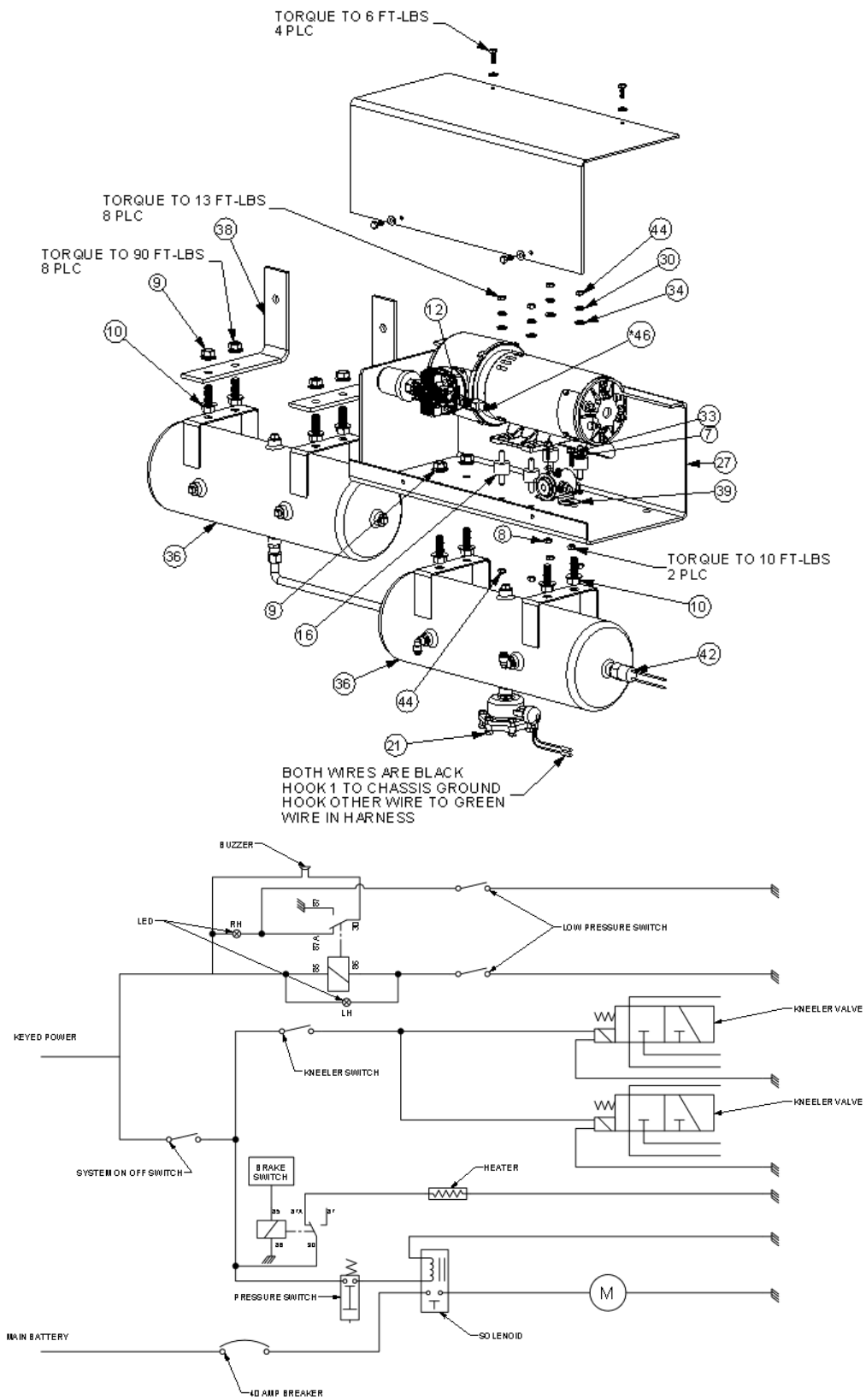
Part Lists

-QR System K709308 Quick Recovery Air System



Part Lists

-QR System K709308 Quick Recovery Air System



Part Lists

-QR System K709308 Quick Recovery Air System

ITEM	PART #	DESCRIPTION	ITEM	PART #	DESCRIPTION
1	123	REDUCER - 1/2MPT-1/4FPT	26	707121-01	WIRING HARNESS UNDER HOOD
*2	141	PIPE PLUG - 1/2NPT	27	707294	WELDMENT, COMPONENT ENCLOSURE
3	416	CONNECTOR - 1/4T X 1/8MPT	28	707413-01	VALVE, KNEELER 12VDC 3-WAY
4	428	CONNECTOR - 1/4T X 1/4MPT	29	7457	LOW PRESSURE SWITCH (5 PSI)
5	441	TEE-ST 1/4 FPT X 1/4 MPT	30	8120214	SLW 5/16"
6	627	CONNECTOR - 1/2T X 1/4MPT	31	8120371	N 1/2-20 GR 5 ZN
7	100702-P1	HHB 1/4-20 X 1, GR. 8, ZN	32	8120384	SLW 1/2 .523x.873x.135 ZN
8	100703-P1	LN 1/4-20 STOVER, GR. 8, ZN	33	8120392	FW 1/4 .281 x .625 x .065, ZN
9	308	LFN 1/2-13, GR. G ZN	34	8120393	FW 5/16 .344x.68x.065 ZN
10	309	FHB 1/2-13 x 1 1/4, GR. 8, ZN	35	8455028	HHB 1/2-20 X 1 1/2, GR.8, ZN
11	400056-P1	TERMINAL, MALE SPADE 22-18AWG	36	8614	AIR TANK - 500CI 6" DIA
12	4017	CHECK VALVE	37	8619	AIR TANK, PING 212 CI
13	4981	SWITCH, TOGGLE	38	8625	BRACKET, AIR TANK MOUNT
14	5157	TOGGLE SWITCH, RED LIGHT	39	8706	SOLENOID
15	5188	COMPRESSOR - 1/3 HP 12VDC	40	8721	CIRCUIT BREAKER, 40A SEALED
16	5392	VIBRATION ISOLATOR	41	8870	FRAME BRKT, KNEELER VALVE
17	5608	HEIGHT CONTROL VALVE	42	8892	PRESSURE SWITCH 95-115 PSI
18	6115	MALE CON.(3/16HBx1/8MPT)	43	89411893	LN 10-32 GR 5 CP
19	700726-01	HWHMS 10-32x1.00 STEEL ZN	44	89415543	FW 1/2 .531x1.25x.100 ZN
20	701799-01	CV TUBING 3/16IDx1/4ODx3.00	45	89429048	N 5/16-18 GR 8 ZN
21	704916-01	HEATED AUTO DRAIN VLV, BRK ACT	*46	KV2F07-35	FEMALE CONNECTOR, 1/4T X 1/4FPT
22	706887-01	LED, RED, 12V	*47	KV2K07-35S	45DEG MALE ELBOW, 1/4T X 1/4MPT
23	706923-01	WIRING HARNESS IN CAB	*48	KV2L07-34S	90DEG MALE ELBOW 1/4T X 1/8MPT
24	706959-01	PALNUT, 5/16"	*49	KV2L07-35S	90DEG MALE ELBOW, 1/4T X 1/4MPT
*25	707069-01	CONNECTOR, 1/4T x 1/8MPT	*50	KV2T07-00	TEE, UNION, 1/4T X 1/4T X 1/4T

* K706855 T, LIFT CONTROL FITTINGS

** K707294 KIT, COMPRESSOR ENCLOSURE

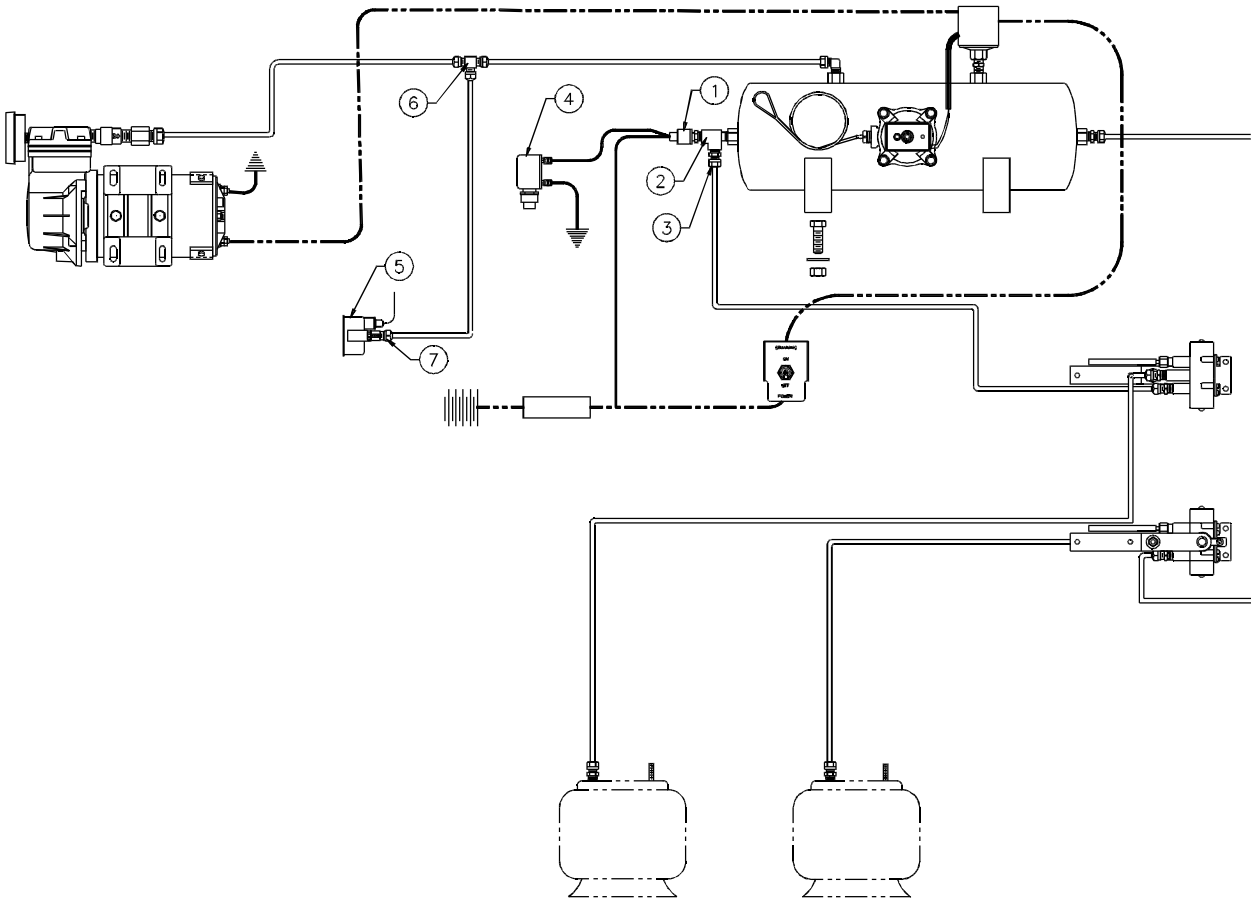
*** K706858 KIT, HCV, RD1350F-AB

1. Airline tubing should be 1/4" D.O.T. plastic airline tubing.
2. The tubing ends must be cut straight and insert the full depth into the fittings otherwise leaks will result. Check all connections for air leaks.
3. Protective airline loom is recommended.

Part Lists

5703 Warning Light/Buzzer Kit

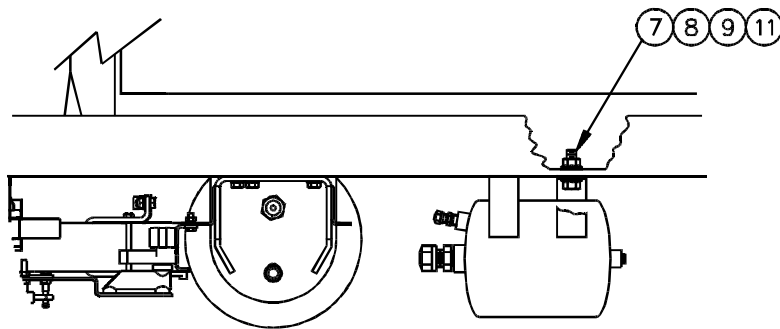
Item	Part No.	Description	Item	Part No.	Description
1	5402	Pressure Sensor, 25/40 psi	5	1069	Gage, Air Pressure 0-160 psi, Lighted
2	0441	1/4 FPT x 1/4 MPT TEE	6	702603-01	Union Tee, 1/4 T x 1/4 T x 1/4 T
3	0428	Connector, 1/4 T x 1/4 MPT	7	0131	Connector, 1/4T X 1/8 FPT Fitting
4	5401	Alarm, Dual (Light and Buzzer)			



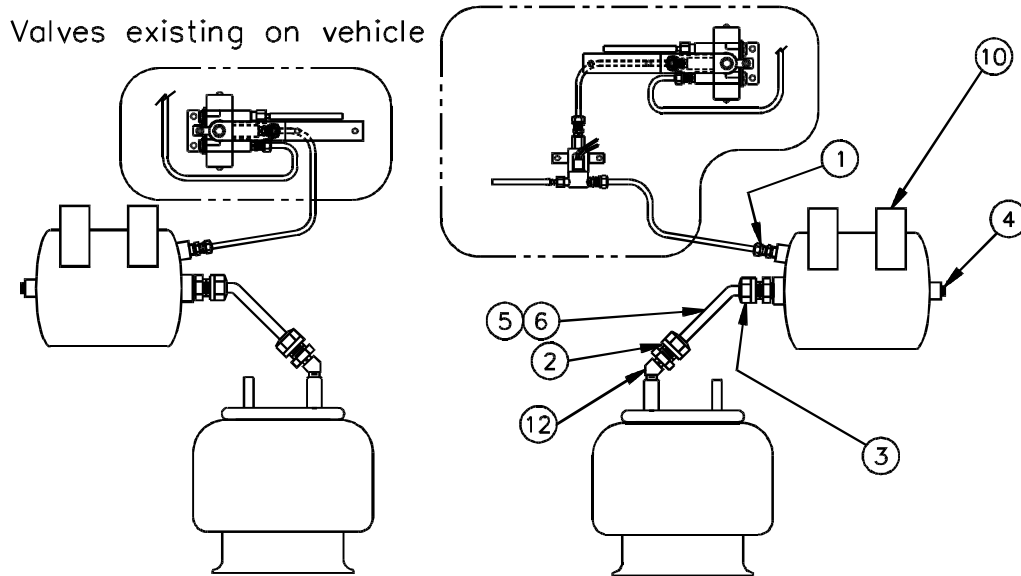
Part Lists

9905 Auxiliary "Ping" Tank Kit

Item	Part No.	Description	Item	Part No.	Description
1	0428	Connector 1/4T x 1/4MPT	7	8120371	N 1/2-20 Gr. 5 ZP
2	0627	Connector 1/2T x 1/4MPT	8	8120384	SLW 1/2 .523 x .873 x .135
3	0635	Connector 1/2T x 1/2MPT	9	8455028	HHB 1/2-20 x 1 1/2, Gr. 8
4	0636	Plug 1/4MPT Countersunk	10	8619	Tank, Air "Ping" 200 cu. in.
5	6247	Tubing 1/2 O.D.	11	89415543	FW 1/2 .531 x 1.25 x .100
6	6248	Loom, Braided Nonmetallic	12	0437	Elbow 45 deg. 1/4MPTx1/4FPT



Sample tank mounting



Installation on units without dump valves.

Installation on units with dump valves.

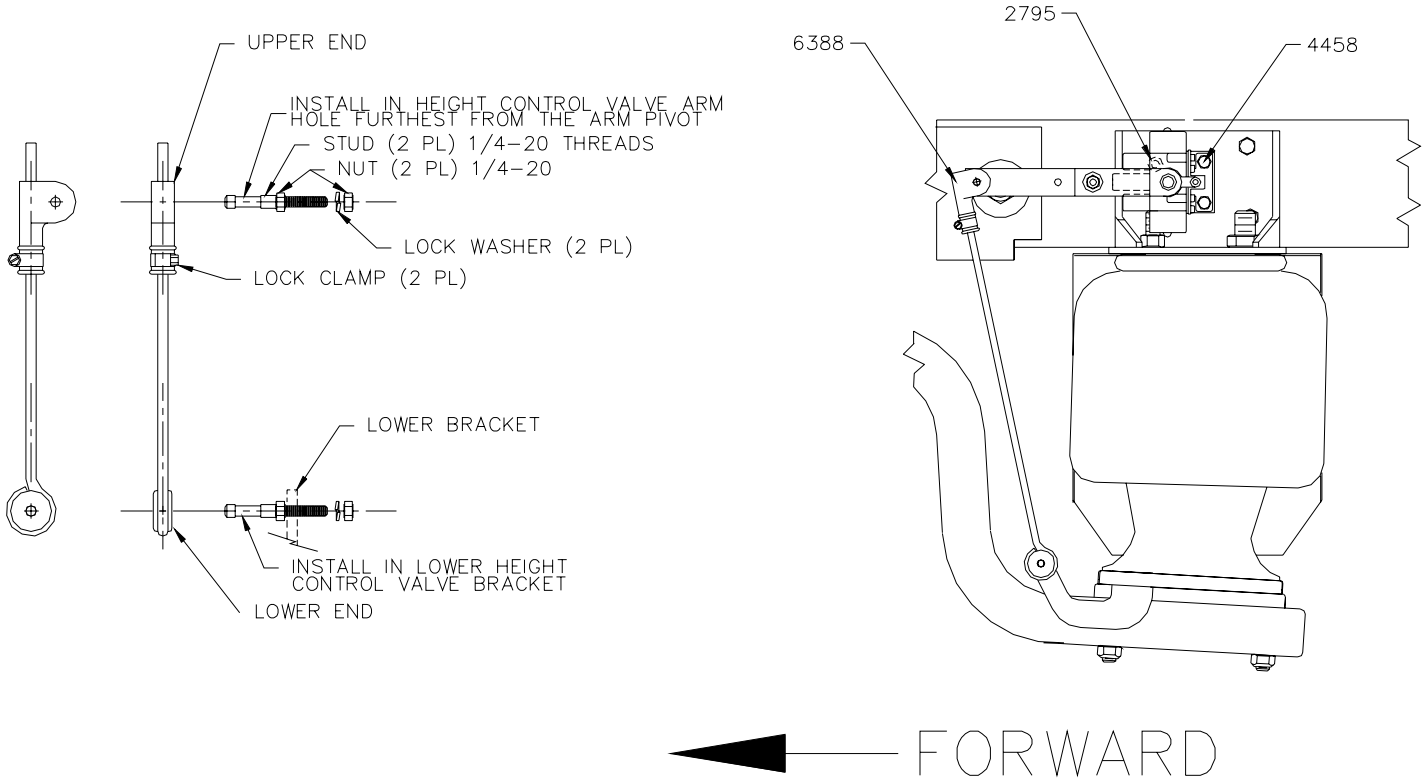
Notes:

1. For best results, the ping tank should be mounted as close to the air spring as possible.
2. If the air system contains "kneeler" dump valves, the above tank system must be inserted between the "kneeler" valve and the air spring.

Part Lists

9614 Height Control Valve Kit (RD855C)

Item	Part No.	Description	Item	Part No.	Description
1	2795	HEIGHT CONTROL VALVE	4	180020	BOLT 1/4-20 x .75 GR.5
2	6388	LINKAGE	4a	120380	WASHER-LOCK 1/4
3	4458	KIT-HEIGHT CONT. FAST.	4b	120375	NUT 1/4-20



RD855C

If height control valve adjustment is required, please follow the listed steps:

1. Secure the vehicle by blocking all wheels.
2. Determine the correct ride height of the suspension. See Suspension Parts List section for a listing of correct ride heights. Note: The ride height is measured at the center of the axle to the bottom of the frame behind the axle (see Suspension Part List drawing for exact location).
3. Loosen the lock clamp on the upper end of the linkage rod. (Nominal Rod Length: 14.13" (for RD855C) from center of mounting hole to center of mounting hole.)
4. Slide the connector up or down the linkage rod to achieve the correct ride height. The height control valve arm must be in a horizontal orientation after the system has stabilized and the correct ride height is achieved.
5. Retighten the lock clamp.

Replacement Instructions and Warranty

R-SERIES

Replacement Instructions

NOTE: Due to the nature of service to be performed it is recommended that a qualified mechanic do the work.



Limited Warranty

ReycoGranning® warrants its R-Series suspensions to be free from defects in material and workmanship under normal use and service in the U.S. and Canada.

Main Structural Components -- 24 months or 50,000 miles, whichever occurs first. Defined as: hangers, beams, clip plates and axle saddles.

Other Air Suspension Components -- 12 months or 24,000 miles, whichever occurs first - valves, fasteners, bushings, and other components not stated specifically (when provided by ReycoGranning®), and other fabricated metal components. ReycoGranning® provides no warranties on components such as axles, air springs, controls, air, compressors, brakes, shock absorbers, and hub and drum assemblies, except to the extent of any warranty provided to ReycoGranning® Suspensions by the manufacturer of such components.

Labor -- 6 months or 12,000 miles whichever comes first. Labor will be allowed on ReycoGranning® Suspensions estimated time to make repairs at a maximum rate of \$50.00 per hour.

As used herein, the term "normal use and service" means that the suspension will be installed, operated, inspected and maintained in accordance with the applicable ReycoGranning® Suspensions owner's manual, and any applicable vehicle owner's manual or instructions.

ADJUSTMENTS

The starting date for the above warranty period is the date of purchase of the suspension by the first end user. Proof of such date is the responsibility of the first end user. If the purchase date is not established to ReycoGranning® Suspensions satisfaction, the date of manufacture determined from the suspension system's serial number shall be used as the effective starting date. When adjustment is sought under this warranty, a claim should be made by contacting the distributor or manufacturer who installed the suspension, who will coordinate the fix, documentation, parts shipment, etc. directly with ReycoGranning® Suspensions.

***NOTE* ReycoGranning® Suspensions must be notified in writing using a warranty claim form promptly upon claimed defect.**

INSTALLER AND END USER RESPONSIBILITIES

The Distributor/Installer is responsible for installing the product according to ReycoGranning® Suspensions approved procedures, the installer is also responsible (either directly or through its agent/dealer) for providing a copy of ReycoGranning® Suspensions warranty and owner's manual to the end user, and for advising the end user of proper use, service and maintenance required for the product. The end user is responsible for operating, inspecting and maintaining the suspension according to the instructions in the ReycoGranning® Suspensions owner's manual and any applicable vehicle owner's manual, and for properly instructing all operators and maintenance personnel.

***NOTE* Warranty may be denied for improper installation.**

LIMITATIONS AND EXCLUSIONS

No warranty applies in the event of: use of components, parts and/or accessories not obtained from or approved by ReycoGranning® Suspensions or which do not meet ReycoGranning® Suspensions quality and performance specifications; improper installation, maintenance or repair; misuse or abuse including but not limited to overloading; or unauthorized alterations or modifications.

THE ABOVE WARRANTIES ARE SUBJECT TO THE "WARRANTY LIMITATIONS" AND "REMEDIES" SECTIONS OR REYCOGRANNING® SUSPENSIONS INVOICE TERMS AND CONDITIONS.

This policy supersedes any previous warranty statements.

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