ASSAULT-RR Shock Installation

***WARNING*: When installing your Airshocks, it is best to pressurize each Airspring to 20psi (minimum) before installing. If the Airspring becomes deflated anytime after installation, DO NOT lift the Vehicle's chassis by hand or mechanically, this may cause the Airspring's piston or endcap to become unseated. Simply add air pressure to the deflated Airspring(s) to raise the chassis, and then set each Airspring to your desired pressure. Never operate any Airspring below 20 psi.**

1. Rear shock removal. Block front wheels to keep the Spyder from rolling forward. Place a floor jack on the lower frame section underneath the Spyder. Place jack as far rearward as possible to get a good lift of the rear suspension and wheel off the ground.

2. Remove the under cover of rear tail section. Remove upper and lower rear shock bolts. Remove stock rear shock from vehicle. See Photo #1.

3. The lower urethane bushing will be removed and used in the new rear ASSAULT shock. Wearing safety glasses use care when removing and installing bushing not to damage the bushing. The bushing can easily be removed using a flat blade screwdriver to push it through the shock eye. Place stock lower shock bushing into the lower eye of the ASSAULT shock.

4. The two bushings are placed in the upper shock eye of the ASSAULT shock.

5. Install ASSAULT shock into the rear of the vehicle with stock hardware and the two upper bushings provided with the ASSAULT shock. The airline fitting in the top shock eye will be on the back side of shock facing to the Right Hand (RH) side of vehicle. Torque to vehicle manufacturer's specifications. The shock will install easier with the air let out of the shock. When air is released from airspring be careful not to double roll the airspring inside of itself. Install the upper shock mount first. If you need to compress the shock to push bolt through lower mount grab the shock body and push upward. **Do not push or pull on the AIRSPRING portion of shock.** See Photo #6.

6. Mounting the air compressor. Remove small cover above the trunk area. The standard mount location for the air compressor is in the front trunk/storage area. With the trunk lid/cover open place air compressor in the center of the backside of inner trunk liner. Mark the center of the mounting hole in the clamp attached to the air compressor. Drill this location in the upper lip of trunk lid. Make sure the compressor is low mounted low enough so the trunk lid will close securely. Bolt air compressor in place using two large diameter washers on the inside of trunk and one large diameter washer on outside to trunk liner at clamp mount point. See Photo #2 & #3. Optional mount location-see Options Page # 7 and photos included on that page.

7. Mounting air compressor switch and switch bracket. The switch and bracket will mount on the (RH) side of vehicle. Remove the middle section of bodywork. The bracket mounts to existing bodywork mount location and uses existing hardware on vehicle where middle section of bodywork is mounted. See Photo #4. Optional mount location-see Options Page # 7 and photos included on that page.

8. Plumbing of airline for air compressor. **CAUTION**: When routing airlines and electrical lines take caution to keep the lines from hot areas or moving parts to avoid any line failures. Using a .500" drill bit, mark and drill the exit hole for the airline to leave the trunk area and route back to the switch. See Photo #5. Push one end of airline provided into the push-in 90* fitting on the air compressor. Make sure the end of airline is cut clean and even and pushed all of the way into the fitting to prevent any air leakage. Feed other end of airline over the top of the small coolant catch bottle and between bodywork towards center of vehicle on the (RH) side back to the switch location. Cut airline with some slack in line and enough line to mount on barb of air switch. See Photo #5. **See air line routing photos.**

9. Plumbing of airline for rear shock. **CAUTION**: When routing airlines and electrical lines take caution to keep the lines from hot areas or moving parts to avoid any line failures. Push one end of airline provided into the 90* fitting on the ASSAULT rear shock. Make sure the end of airline is cut clean and even and pushed all the way into the fitting to prevent any air leakage. The airline will route forward on the (RH) side of vehicle to the switch mount location. Run airline behind bodywork on RH side. Cut airline with some slack in line and enough line to mount on barb of air switch. See Photo #5 & #6. **See air line routing photos.**

10. Air compressor and switch electrical. To the side of the compressor drill a .375" small access hole next to the hole drilled to pass the air compressor airline and covering through the trunk liner. Feed both air compressor wires through this hole. Route the red and black wires rearward to switch and Negative (-) battery post (do not connect to battery yet). Red fused wire will run from Positive (+) post of battery to switch. When connections are made to compressor and switch attach to the remote battery leads under the seat. Positive (+) battery post first, then attach Negative (-) battery post second (Two scotch-lock connectors are included to tap wire into Negative (-) battery wire under the seat. **See wiring diagram.** Notch the cover removed in step #6 to clear airline and electrical wires and install into place. See Photo #7. **CAUTION**: When routing airlines and electrical lines take caution to keep the lines from hot areas or moving parts to avoid any line failures. Note: Any extra wire can be coiled up and tie wrapped to a secure area in vehicle.

11. Install tail section under cover removed in step #2. With vehicle still supported by the jack, fill the rear shock with air until it tops out. Lower and remove jack from underneath vehicle.

12. **When using this suspension kit you must follow the guidelines for proper air pressures for usage to ensure rider safety. Misuse of the system or poor set-up by the rider may result in injury to rider and damage to sled. Proper set-up helps with safe riding.**

13. **IMPORTANT: IT IS NOT RECOMMENDED USE HIGH PRESSURE SPRAY OR HIGH PRESSURE CLEANING EQUIPMENT ON THE AIRSPRINGS OR THE ASSAULT AIRSHOCKS-DAMAGE MAY OCCUR.**

Can-Am Spyder Ride
Set-up Card

7/15/2009

Below are examples of a 200# rider's initial set up with and without a 140# passenger.

Note: *It is recommended that riders always start out with firmer than desired ride settings, as riders familiarize themselves with the system they then hone into their personal preferences.*

(1) The rider filled the Air shock until the suspension just topped out then he used the switch to bleed just enough air out for the rear foot peg to sag about .500" without the rider or 1.50" with rider seated. This should be a good starting position and the rider can tune to personal preference from here.

(2) Again, the rider filled the Air shock until the suspension just topped out then he checked the foot peg height with the rider and passenger seated and found the Sag amount to be approximately 1.50" which is a good starting setting for most rider weights.

		Topped Out Rear Foot Peg Height **without Rider**	Foot Peg Sag amount from extended **without riders**	*Foot Peg Height **with rider**	Foot Peg Sag amount from fully extended **with riders**
(1)	**200#** rider	15.750"	.500"	14.250"	1.50"
(2)	**340#** (200# rider with 140# passenger)	15.750"	0"	14.250"	1.50"

Note: *It is the riders responsibility to ensure there is sufficient air pressure in the system to protect the rider, passenger and bike from severe bottoming of the suspension in all conditions!*

It is recommended that riders always start out with firmer than desired ride settings then as riders familiarize themselves with the system they hone into their personal preferences

PHOTO #1

PHOTO #2

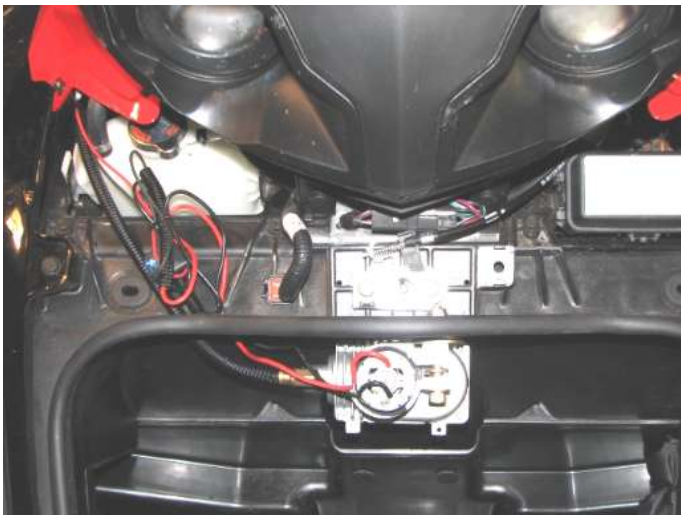


PHOTO #3

PHOTO #4

PHOTO #5

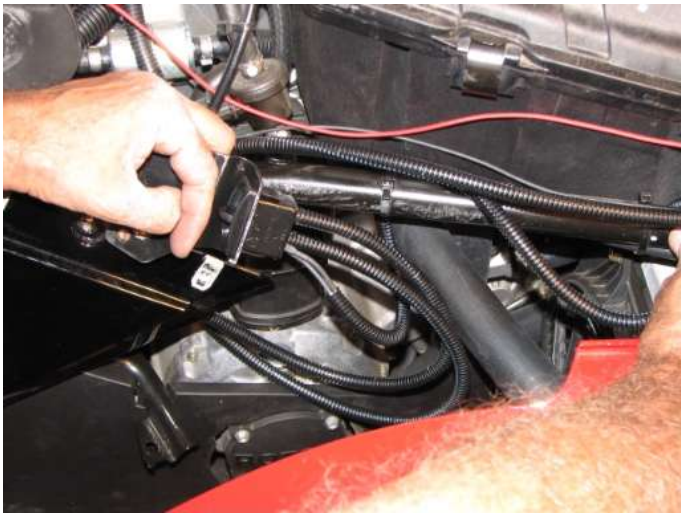


PHOTO #6

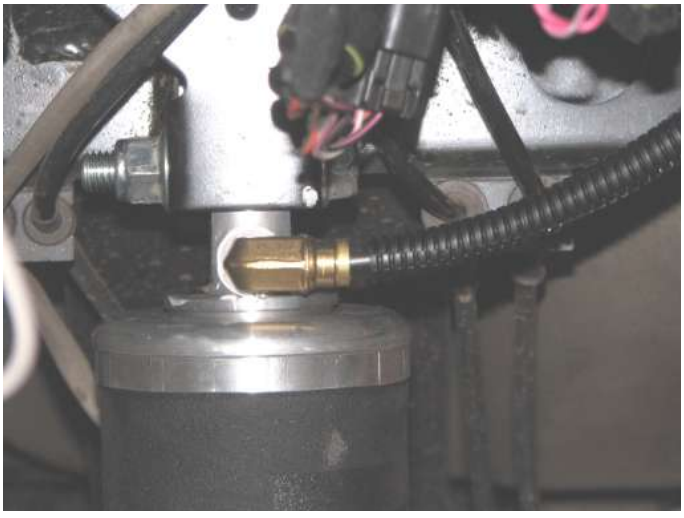
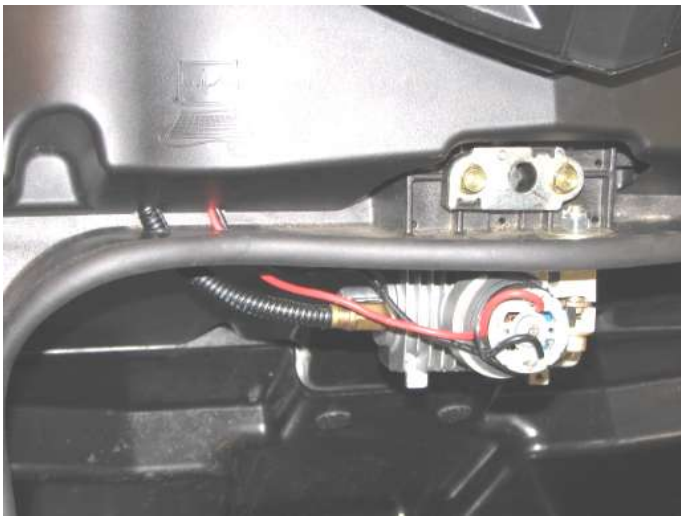


PHOTO #7



OPTIONS PAGE

1. Optional air compressor mounting location. This location mounts to the (LH) side of vehicle as shown in photo. One hole will need to be drilled in the webbing of an existing mount on the frame tube. **CAUTION**: When routing airlines and electrical lines take caution to keep the lines from hot areas or moving parts to avoid any line failures.

2. Optional switch mounting location. See Photo. **CAUTION**: When routing airlines and electrical lines take caution to keep the lines from hot areas or moving parts to avoid any line failures. An optional gauge kit for reading air pressure is available.

Airwave Electrical Battery - 12 Volt DC Systems
Instruction 07/30/07

NOTE: Along with general hand tools and supplies the following procedures, components, tools, supplies and knowledge are required to accomplish this installation:

1. Scotchloks are provided for joint connections (while soldered joints are preferred).
2. Leads have intentionally been left long and installer has the option of customs fitting lead lengths to the sled or to coil up extra lead and tie wrap them into small coil that can be used on other lengthier applications in the future. Tuck and tie wrap coils into secure areas.
3. Ohm/Volt meter and Circuit Tester and the basic skills to use them.
4. Soldering gun, solder and flux (when using soldered joints).

I. **Wiring the Air-gauge**

A. It is the owner's option as to where they want the Air-gauge (and Air-switch). Whether mounting on the bars, fascia or hood it will be necessary to find a constant 12 volt lead and a ground lead near that area (leads for back handlebar controls or instrument work well). They must be constant power and can not be affected by switch operation (such as Hi/Lo beam).

B. Mount the Air-gauge and complete the wiring to it at this time using the Scotchloks to tap in.

II. **Locate the 12volt DC power output.**

A. Determine where the best access to the 12 volt power supply will be on your sled. The power output can be taken directly from the battery or can be taken from auxiliary power leads if available.

B. With motor on/off switches in the on position, use a volt meter to identify which is the +12 volts DC battery terminal or +12 volt Lead you will use to access power. The Ground terminal/lead will register 0 volts. Use masking tape to mark each lead accordingly.

III. **Tapping the Airwave into the sleds wire harness.**

A. See the attached wiring sketch for 12 volt Battery System. Attach the 10 amp fused lead to the +12 volts DC battery or auxiliary power lead. Use a Ring/Eye terminal, Scotchlok or soldered joint.

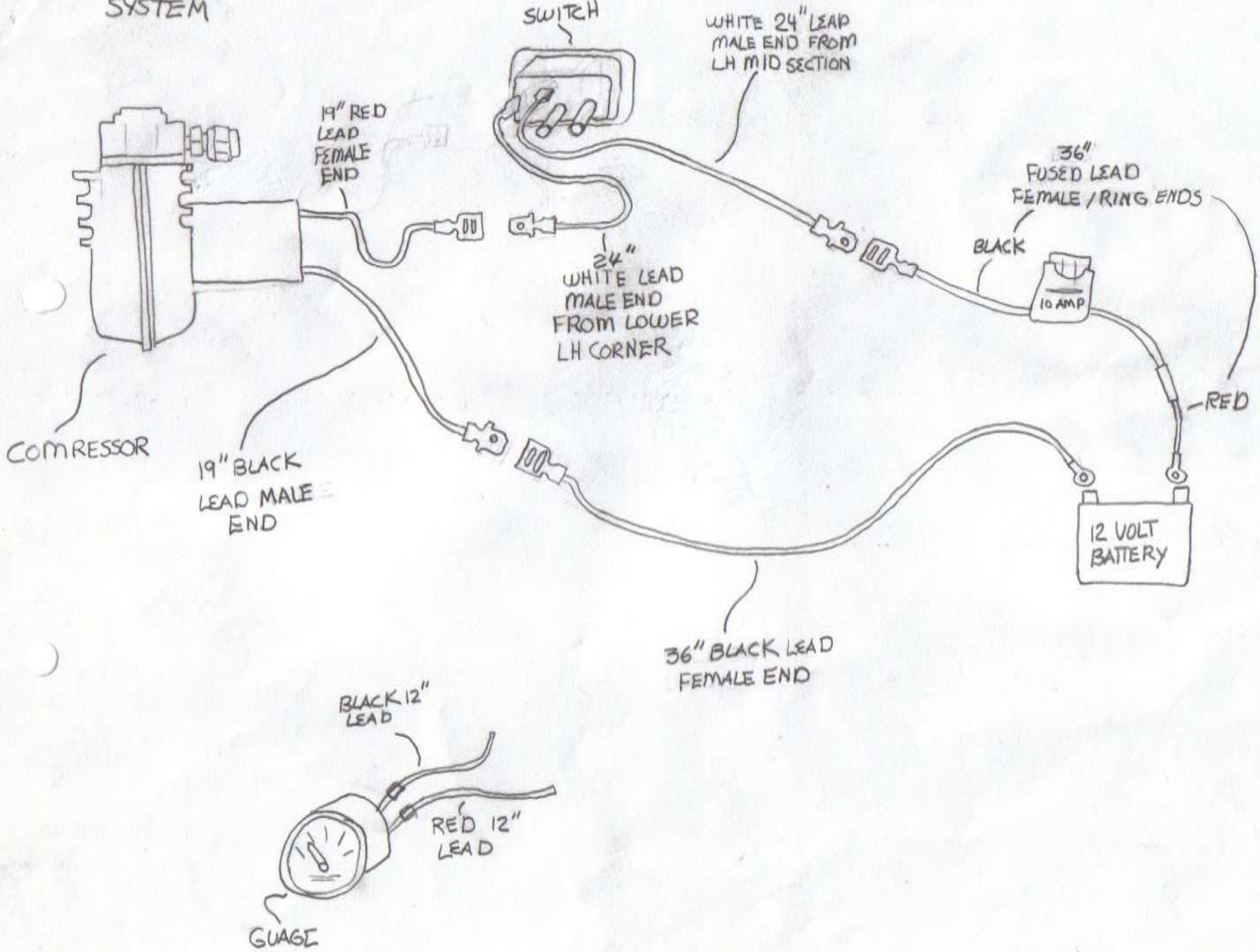
B. Repeat procedure attaching the black Ground Lead from the Air-compressor to the battery ground terminal or auxiliary ground lead.

IV. **Wiring the Air-Switch.**

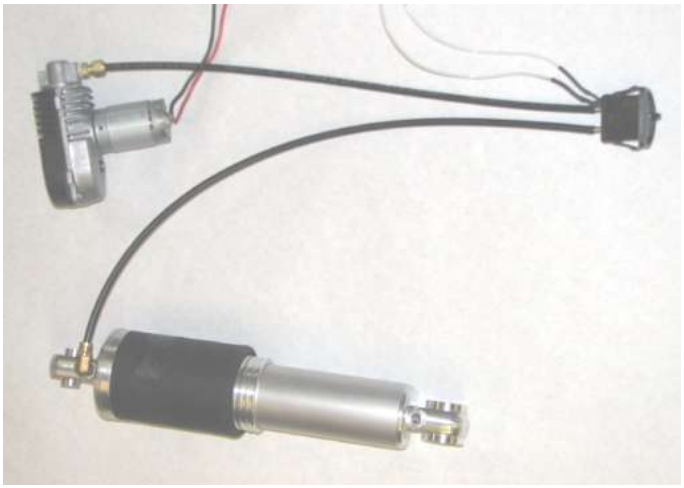
A. After selecting a suitable location, mount the Airwave Switch. Refer to the attached wiring sketch for the 12 volt Battery System and plug the switch into the system.

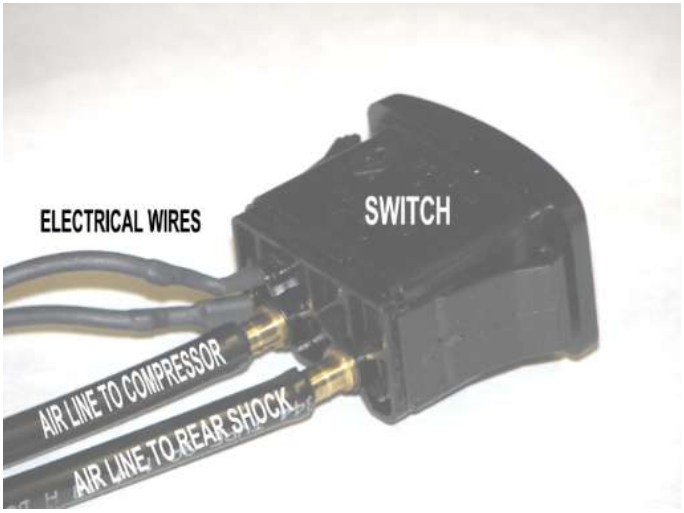
B. With all the air lines connected, fire up the sled and while revving the sled to just below engagement push the Air-switch and check if the Air-gauge needle is vibrating which indicates the compressor is functioning.

NOTE: Step one is for the optional air gauge kit.


SYSTEM
SWITCH
WHITE 24" LEAD
MALE END FROM
LH MID SECTION
19" RED
LEAD
FEMALE
END
36"
FUSED LEAD
FEMALE / RING ENDS
BLACK
10 AMP
24"
WHITE LEAD
MALE END
FROM LOWER
LH CORNER
RED
COMRESSOR
19" BLACK
LEAD MALE
END
12 VOLT
BATTERY
36" BLACK LEAD
FEMALE END
BLACK 12"
LEAD
RED 12"
LEAD
GUAGE

AIR LINE ROUTING





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