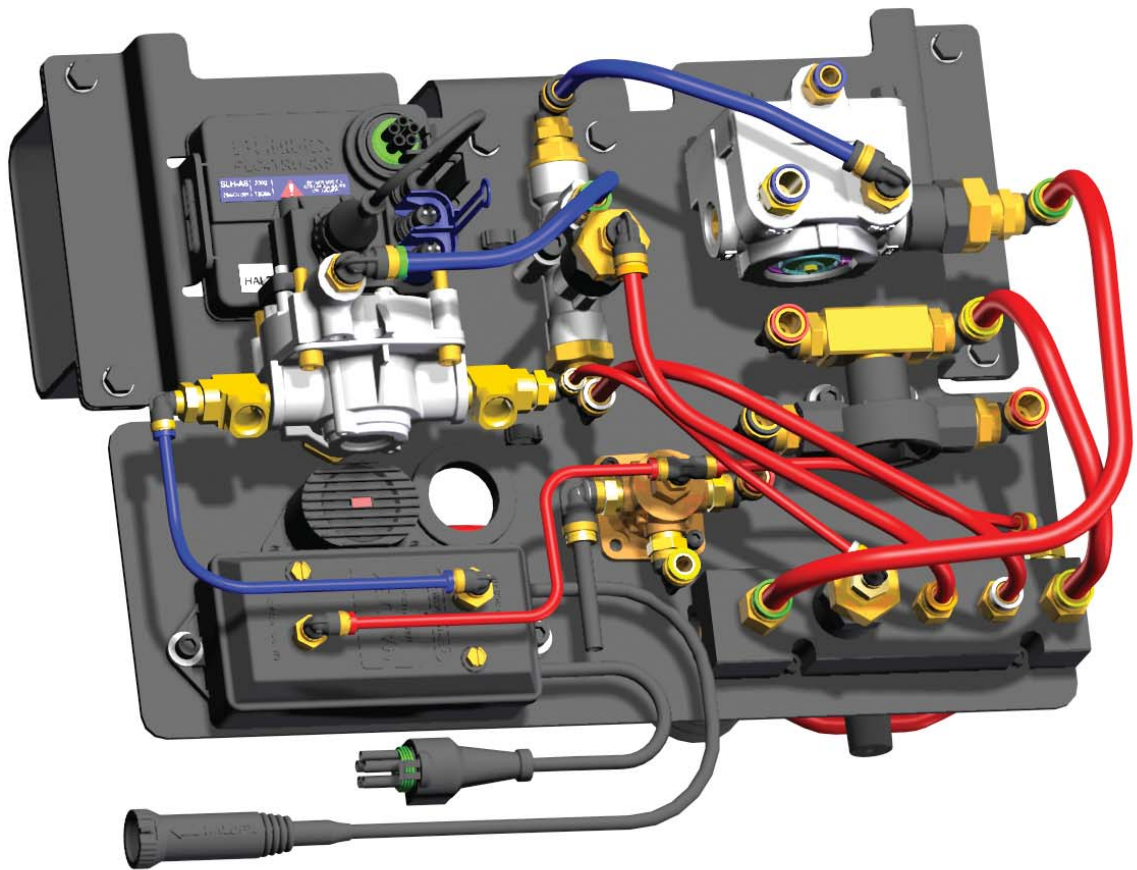


**“Patent Pending”**



**Installation Instructions  
Dolly Module System (DMS-SA)  
with Brake Monitoring System (BMS-1)  
For Single Axle Dollies**



### ***IMPORTANT NOTICE***

This installation manual describes the correct installation procedure for the Haldex Dolly Module System with Brake Monitoring System (BMS-1).

The information contained in this installation manual was current at the time of printing and is subject to change without notice or liability.

#### ***Safety First !***

You must follow your Company Safety Procedure when you install this equipment. Be sure you understand all procedures and instruction before you begin.

Installing the Haldex Dolly Module System is not complex, but care must be taken during the installation to ensure the Haldex Dolly Module System has been installed correctly.

### ***IMPORTANT NOTICE***

The data listed herein is correct to the best of Haldex's knowledge and belief, having been compiled from reliable and official sources of information. However, **HALDEX CAN NOT ASSUME ANY RESPONSIBILITY** for possible error or misapplication of the product. Final determination of the suitability of the products for the use contemplated by the Buyer is the sole responsibility of the Buyer. Haldex shall have no responsibility in connection with this suitability.

### ***IMPORTANT NOTICE***

The description and specifications contained in this Troubleshooting Guide are current at the time of printing. Haldex Brake Products Corp. reserves the right to discontinue or modify its models and/or procedure and to change specifications at any time without notice.

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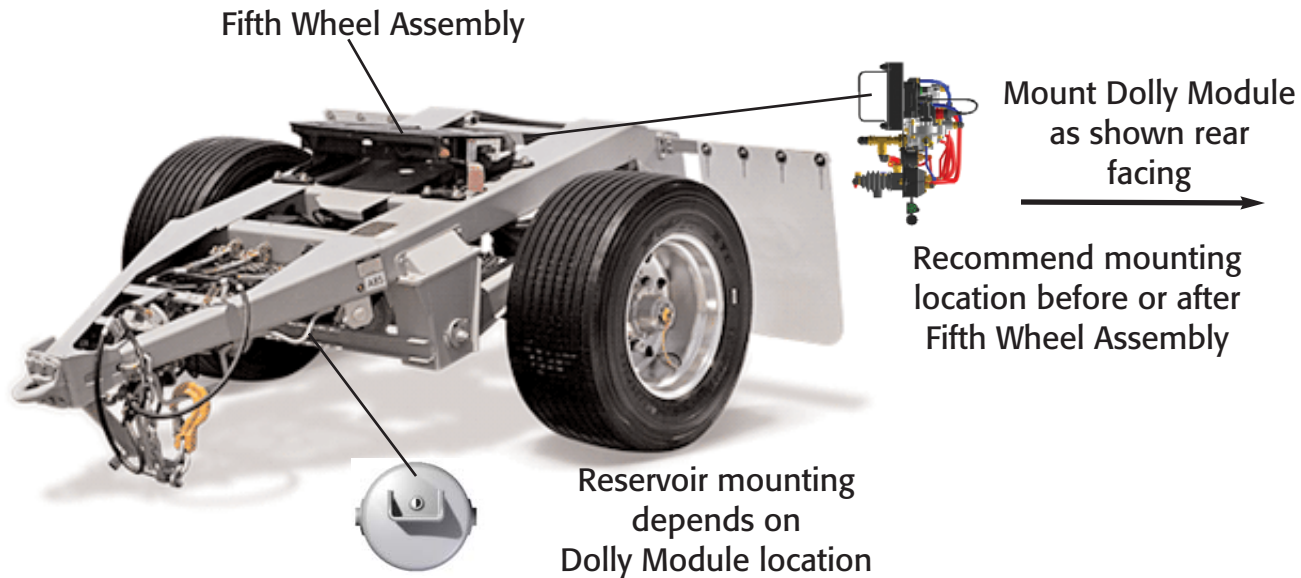


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Note: If you have any questions on this product or any of these Innovative Products offered by Haldex, please contact your local distributor for complete details. Technical Service or Troubleshooting help can be obtained by calling Haldex and asking for the Technical Support Line at (800) 643-2374 Press "2".



# Dolly Module System Assembly



## Technical Information: Dolly Module System with Brake Monitoring System (BMS-1)

C-Channel Dimensions: Approx: Height 5-1/4" x Width 3"  
Approx: Height 7-3/4" x Width 3"

Service/Control Air Line (In) - 3/8" Tubing (Blue)  
Service/Control Air Line (Out) - 1/2" Tubing (Blue)  
Emergency/Supply Air Line (In) - 1/2" Tubing (Red)  
Emergency/Supply Air Line (Out) - 1/2" Tubing (Red)

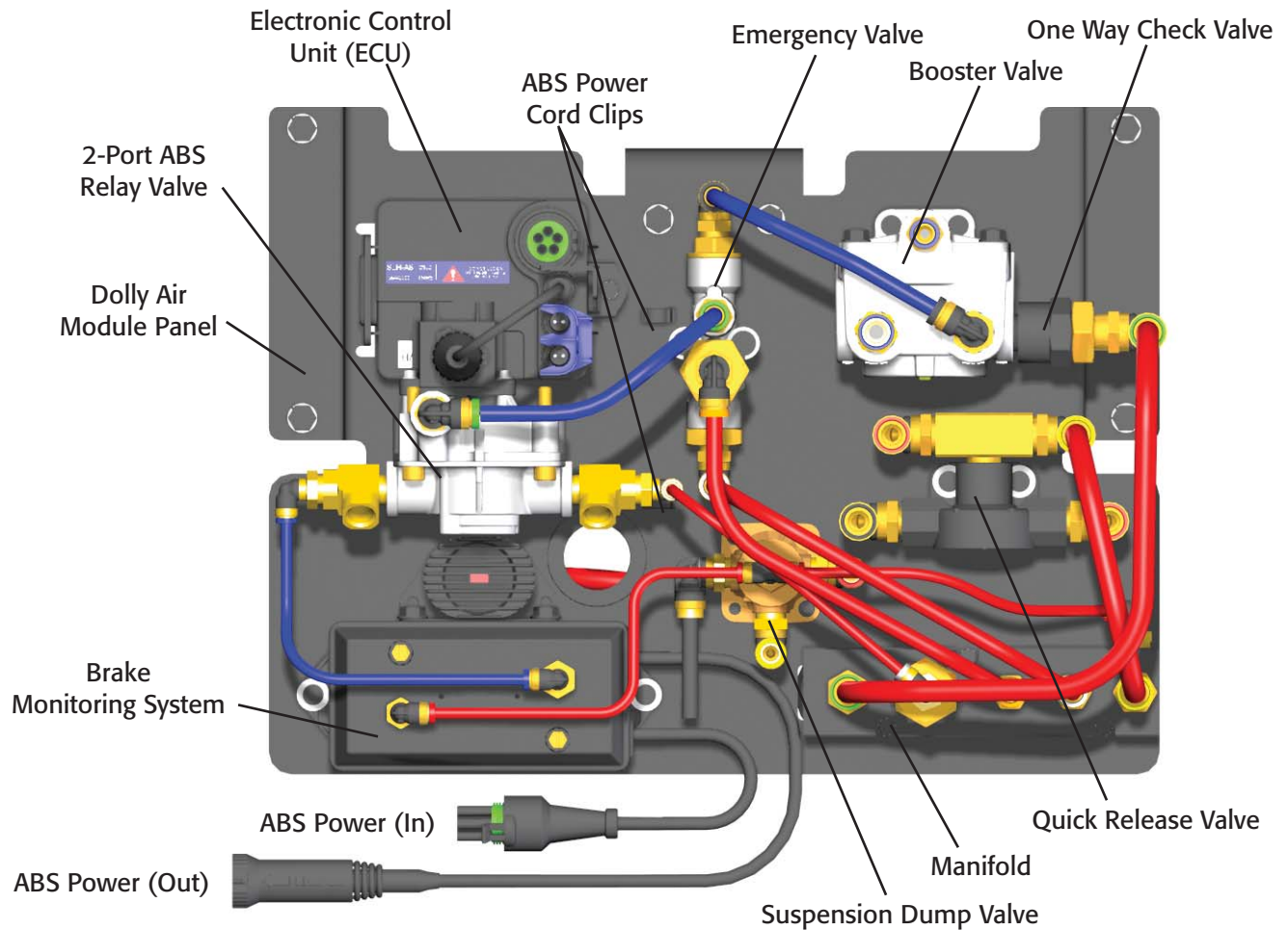
Push/Pull Valve: Supply Line - 3/8" Tubing (Red)  
Reservoir Line - 3/8" Tubing (Blue)  
Delivery Line - 3/8" Tubing (Black)

Air Tank: Supply Line - 5/8" Tubing (Black)

Air Bags: Supply Line - 3/8" Tubing (Red)

Leveling Valve: Supply Line - 3/8" Tubing (Green)  
Delivery Line - 3/8" Tubing (Black)

# Dolly Module System (Components - Front)



Technical Information: Dolly Module System with Brake Monitoring System (BMS-1)

Dolly ABS Module System: Height 15" x Length 20"

Weight: 37 lbs.

Configuration:

2-Port ABS Relay Valve - 2S/1M Single Axle

Mounting C-Channel Dimension: Height 5-1/4" x Width 3"

Option: C-Channel Dimension: Height 7-3/4" x Width 3"

Fittings: PTC (Push-To-Connect) Valves and Components

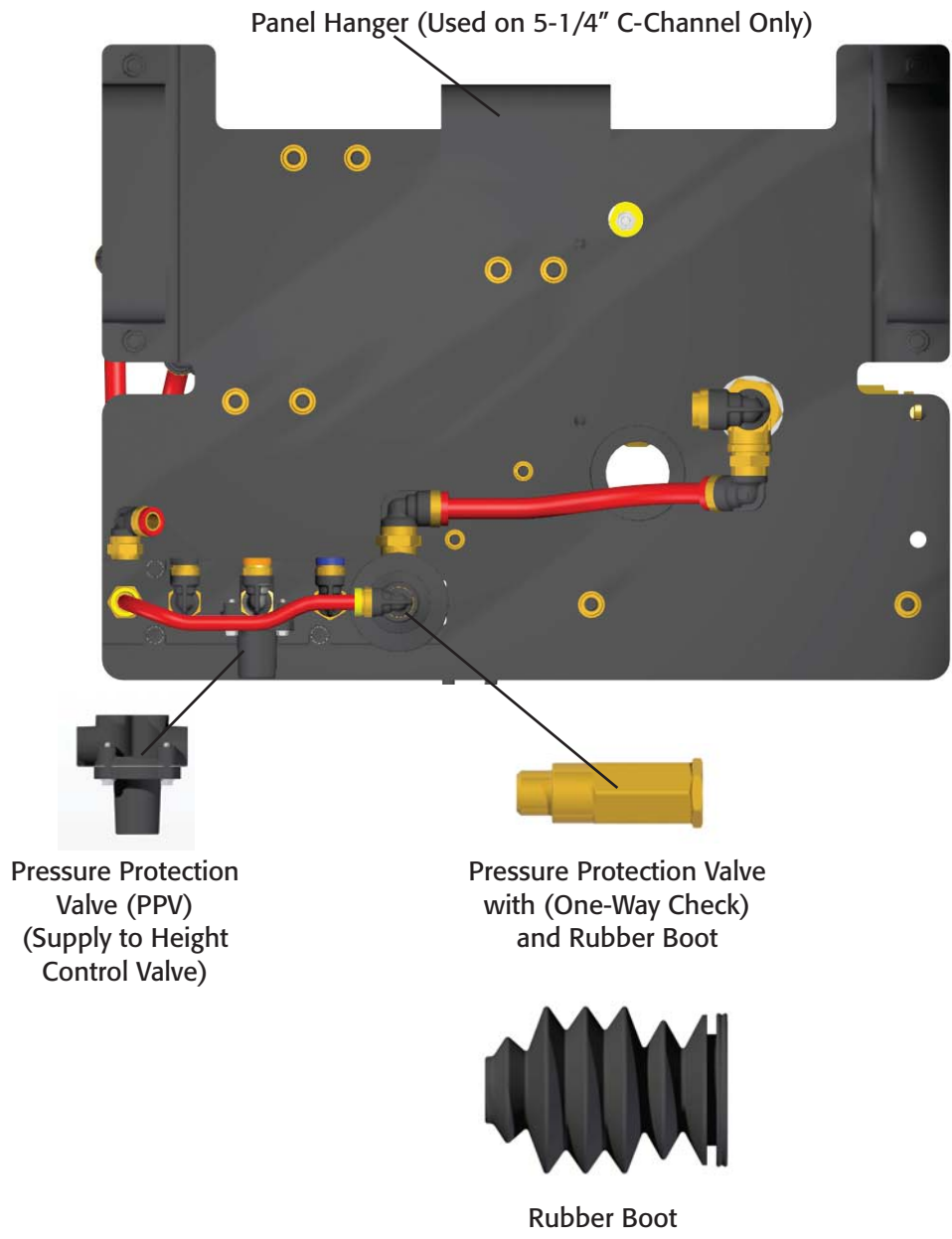
Panel Fasteners: Threaded Nuts 1/4-20 UNC, and 5/16-18 UNC

Mounting Fasteners: 3/8"-16 UNC X 1-1/4" Long Hex Bolt

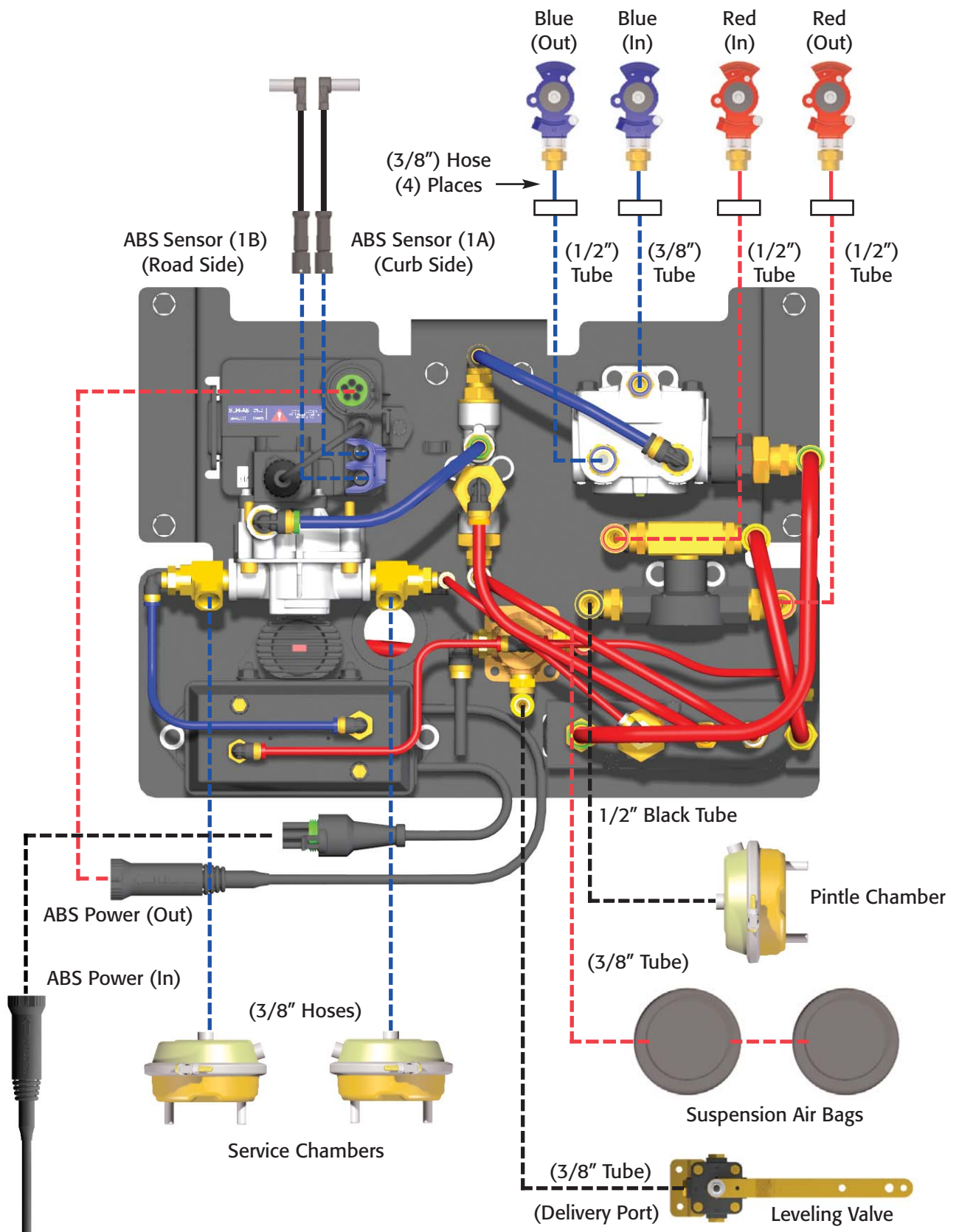
Nylon Tubing (DOT): 1/4", 3/8", and 1/2" installed (5/8" tubing provided by Installer)

Included: Rubber Service Brake Hose Clamp Assembly

Note: See L31250 Manual for Brake Monitoring System (BMS-1) Information

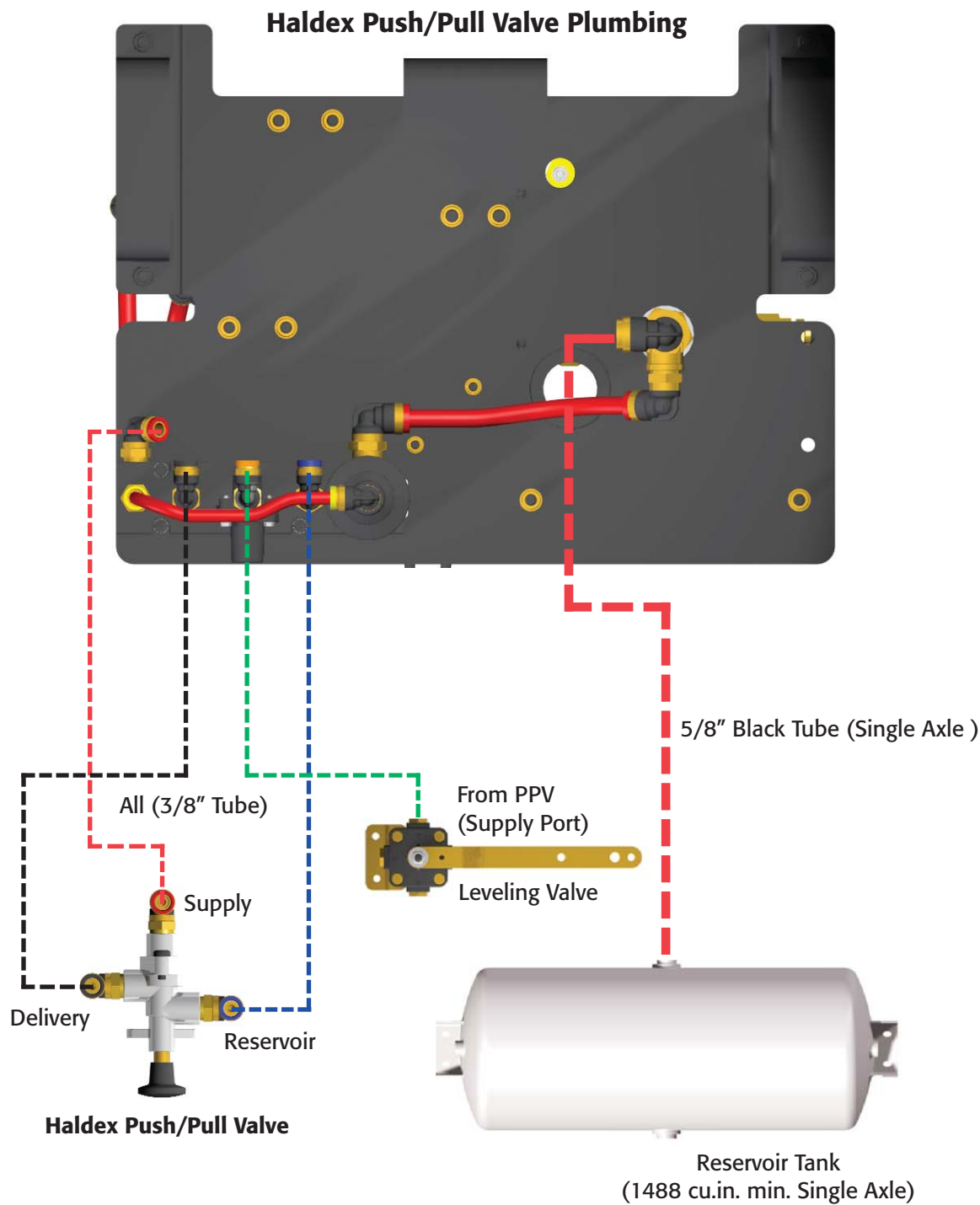


# Dolly Module System (Front Side)





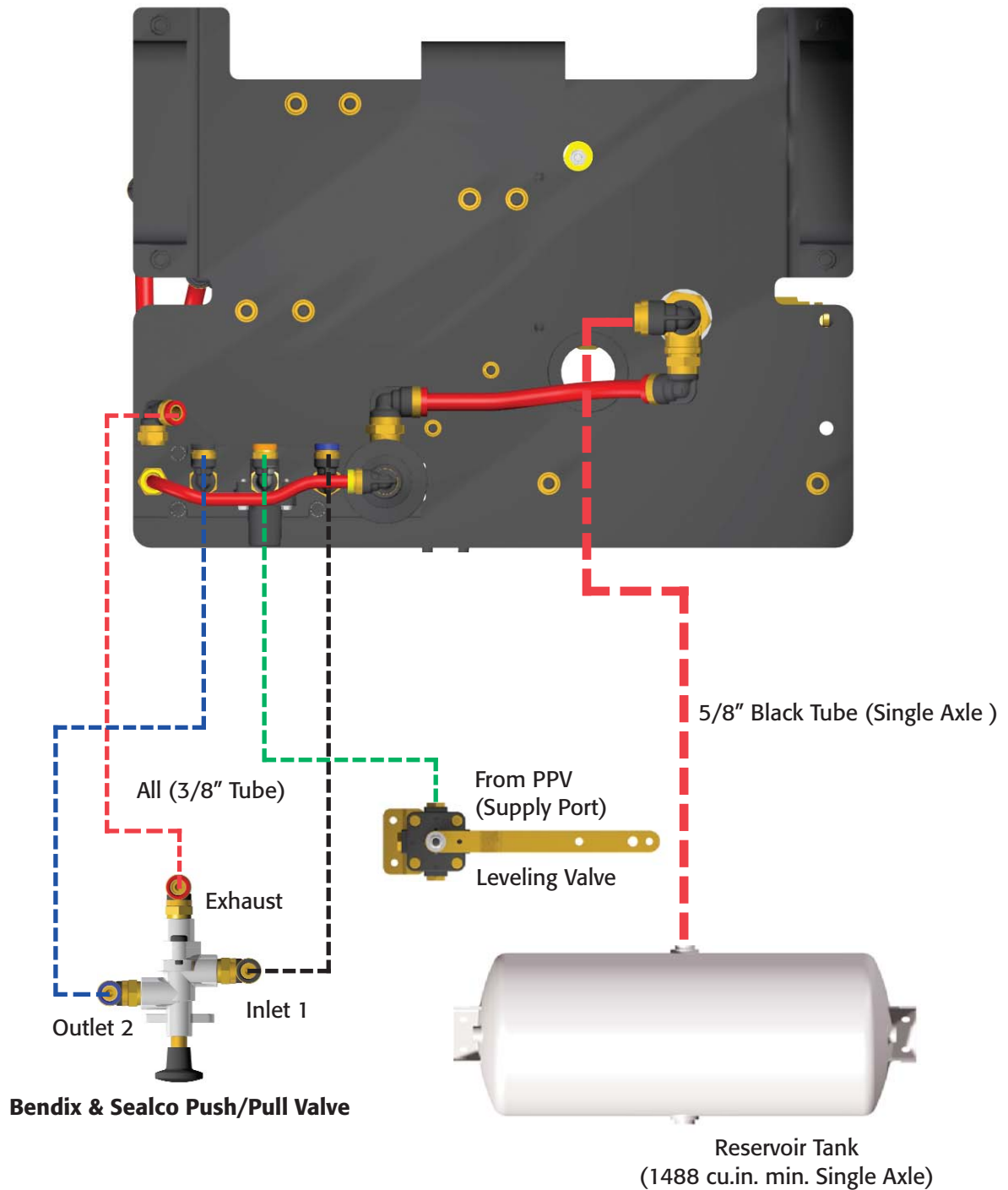
# Dolly Module System (Rear Side)



# Dolly Module System (Rear Side)

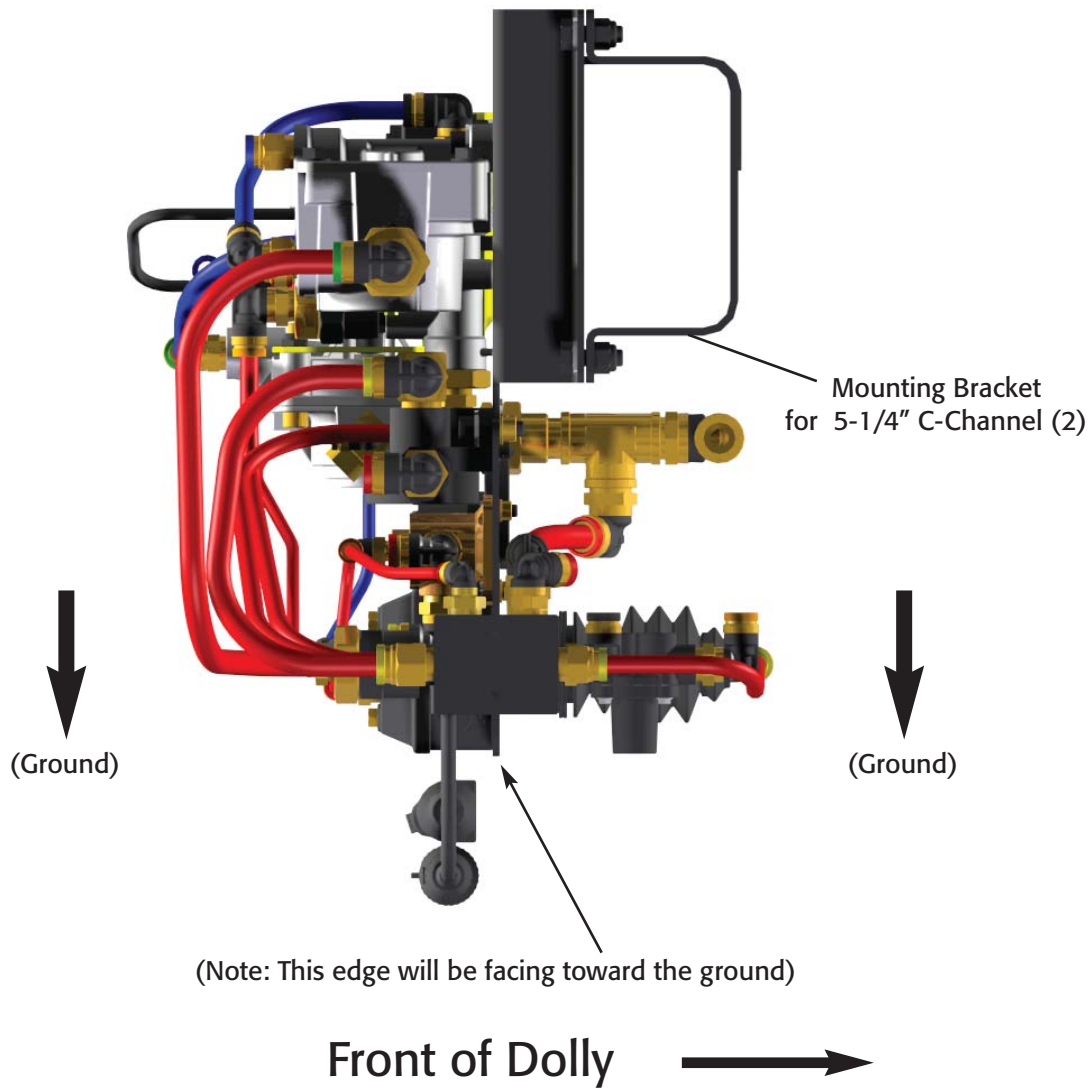


## Bendix & Sealco Push/Pull Valve Plumbing





## Dolly Module System C-Channel Mounting



# Dolly Module System

## 5-1/4" - 7-3/4" Mounting Brackets



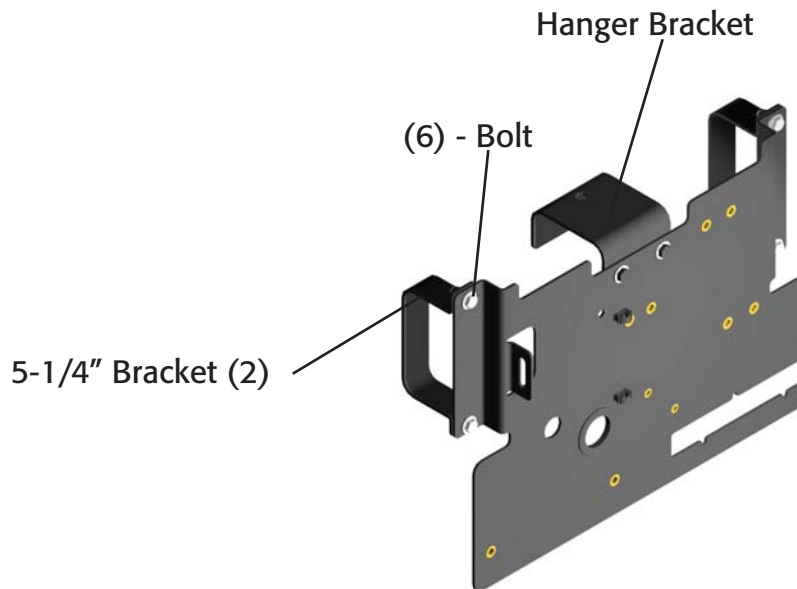
### 5-1/4" Channel Bracket

3/8-16 UNC X 1-1/4" Long Hex Bolt (Grade 5) - 28 - 32 ft. lbs.

3/8" Flat Washer (6)

3/8" Lock Washer (6)

3/8" Nut (6)



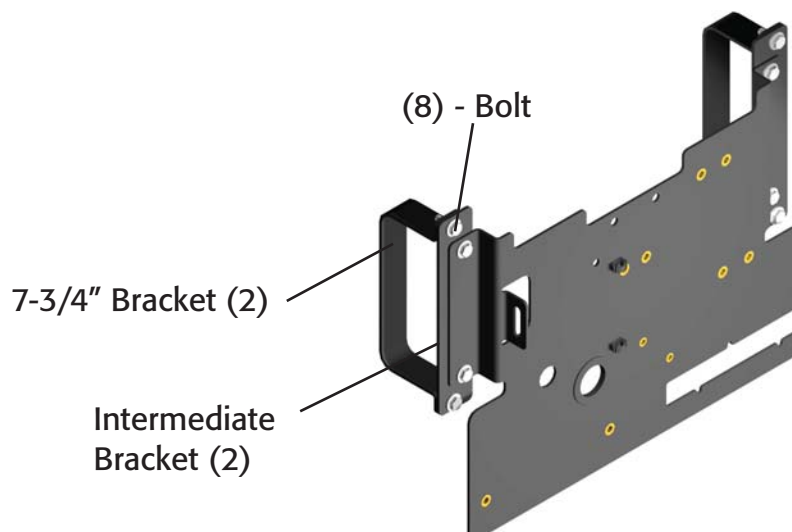
### 7-3/4" Channel Bracket

3/8-16 UNC X 1.25" Long Hex Bolt (Grade 5) - 28 - 32 ft. lbs.

3/8" Flat Washer (8)

3/8" Lock Washer (8)

3/8" Nut (8)

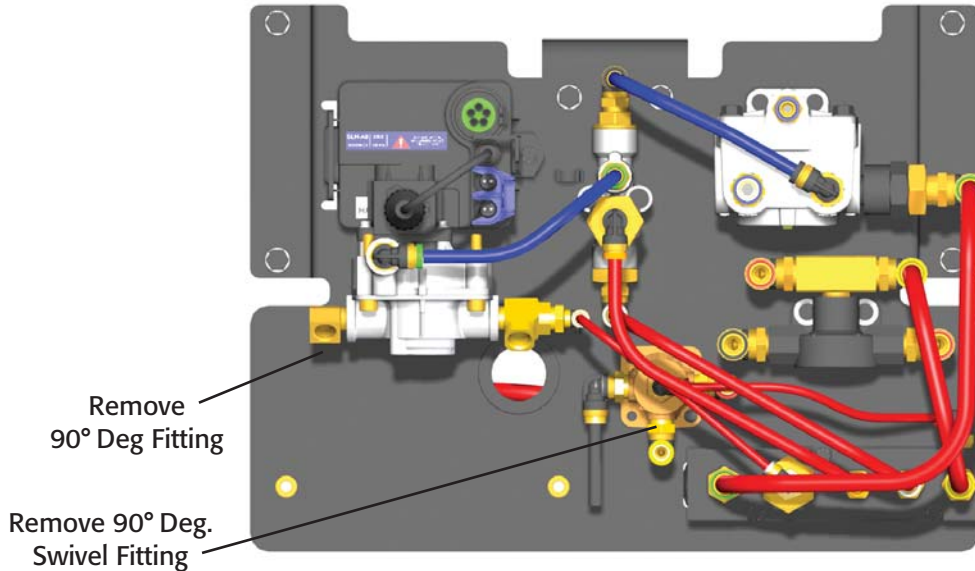




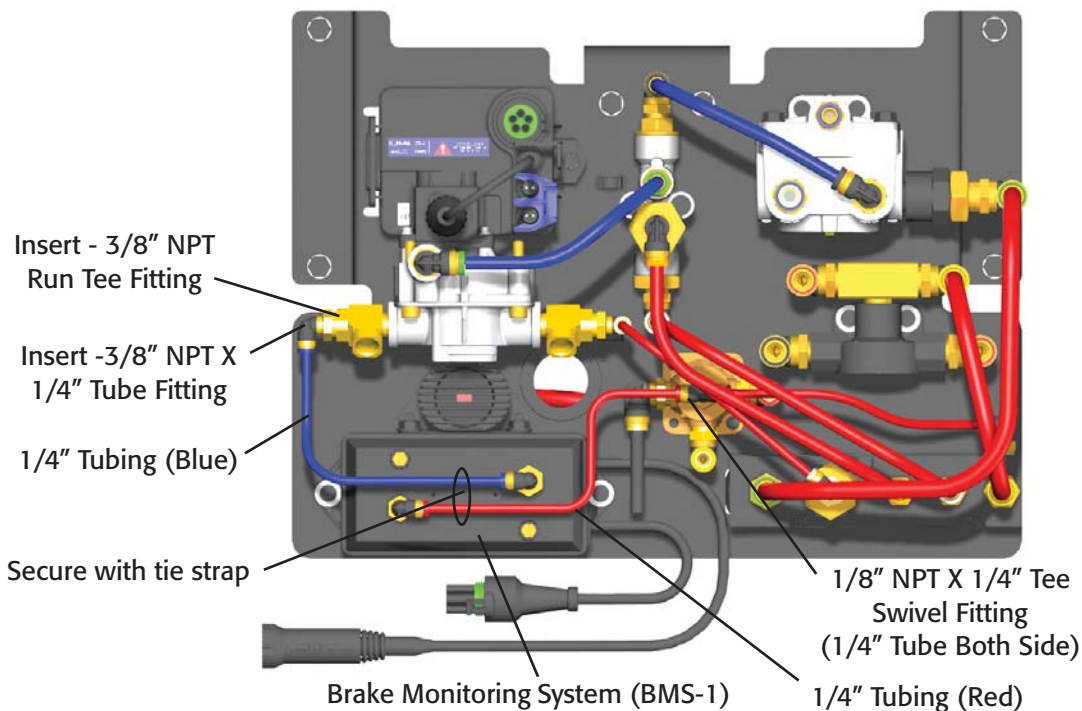
## Dolly Module System Without Brake Monitoring System (BMS-1)

To modify an existing Dolly Module System to accept an Brake Monitoring System (BMS-1) the following fittings are required 3/8" NPT Run Tee, 3/8" NPT X 1/4" Tubing 90 Deg Swivel, 1/8" NPT X 1/4" Tubing Swivel Tee, (2) - 1/4" Tubing (Red and Blue). Cut to length, then secure tubing as required with additional tie straps.

### Without Brake Monitoring System (BMS-1)



### With Brake Monitoring System (BMS-1)



# Dolly Module System

## Air System and Power Test



### Air System Test

#### Step 1: Verify Dolly Air System is functioning correctly

- Charge Emergency **(IN)** gladhand **(90 - 120 PSI)**.
  - Service Chambers should release.
  - Air Reservoir tank should fill.
  - Air bags should inflate after approx. 20 seconds.
  - Check and correct any Emergency air leaks.
- Charge Service **(IN)** gladhand **(90 - 120 PSI)**.
  - Service Chambers should apply.
  - Check and correct any Service air leaks.
  - Release Service **(IN)** gladhand pressure and brakes should release.
- Release Emergency **(IN)** gladhand pressure
  - Service Chambers should park.

#### Step 2: Verify Dolly ABS Power

- Apply 12 volts to the Blue ABS Pin #7 on the 7-Way and verify the external mounted Dolly ABS Warning Lamp goes **(ON - OFF)**. The ABS System is **(OK)**.
- If the Dolly ABS Lamp stays **(ON)** solid, an ABS fault is present. Reference the ABS Installation/Service Guide L30041.
- Turn **(OFF)** Blue ABS Power.

#### Step 3: Verify Dolly Stoplight Power

- Apply 12 volts to the Stoplight Pin # 4 on the 7-Way and verify external mounted Dolly ABS Warning Lamp goes **(ON - OFF)**. The ABS system is **(OK)**.
- If the Dolly ABS Lamp stays **(ON)** solid, an ABS fault is present. Reference the ABS Installation/Service Guide L30041.
- Turn **(OFF)** Red Stoplight Power



## Dolly Module System End of Line and PM Test

### Functional Test for Brake Monitoring System (BMS-1)

Note: All Power and Air Pressure must be removed prior to start of this test.

#### Step 1: Apply 12 volts to the Blue ABS Pin # 7 on the 7-Way.

- The Brake Monitoring System (BMS-1) alarm will sound after 15 seconds.

#### Step 2: Charge the Red (IN) Emergency Gladhand to (90 - 120 PSI).

- The Brake Monitoring System (BMS-1) alarm will shut-off.

#### Step 3: Apply 12 volts to the Red Stoplight Pin # 4 on the 7-Way.

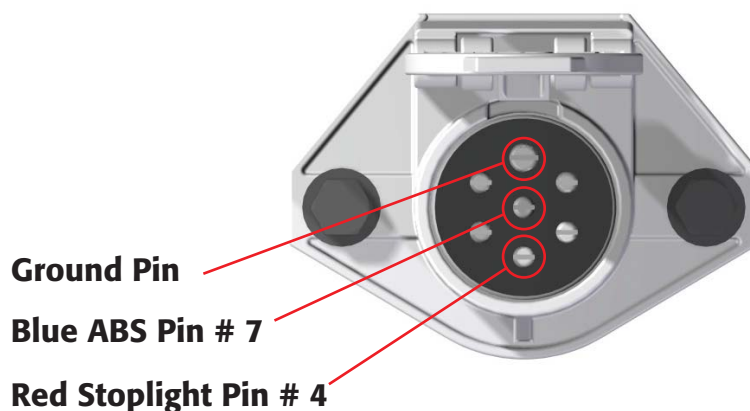
- Wait 60 seconds and the Brake Monitoring System (BMS-1) alarm will sound.

#### Step 4: Charge the Blue (IN) Service Gladhand to (90 - 120 PSI).

- The Brake Monitoring System (BMS-1) alarm will shut-off.

**Note:** If the alarm continues to sound, see L31250 Installation/Troubleshooting Guide for the Brake Monitoring System (BMS-1).

#### 7-Way Connector





**Notes:**

A series of horizontal lines for taking notes, starting below the "Notes:" label and extending across the width of the page.

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