



PLC Select System ABS for Trailers

Tandem / Tri-Axle Trailers

2S/1M Trailer System (2 Sensor / 1 Modulator Valve)



Haldex Brake Products

10930 North Pomona Ave
Kansas City, Missouri 64153

Phone: 816-891-2470
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(www.haldex.com)

(See Website www.haldex.com for additional
ABS Product Technical Information)

ABS Valves



6-Port ABS Relay Valve

Applications:
2S/1M System
(Tandem Axle)
(Tri-Axle)

Service Brake Delivery Port - (6)

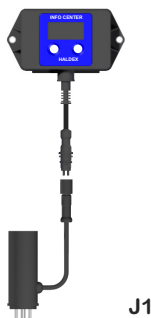
Installation/Service Manual "L30041"
Note: Plug (2) Delivery Ports on Tandem Axle

"For Technical and Engineering Support
United States - 1-800-643-2374
Canada - 1-519-826-7723"

PC Diagnostic
Interface



PLC Info Center
Interface



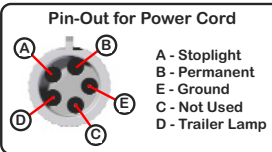
J1708 PLC Adapter

ABS ECU
(Electronic Control Unit)



6-Port ABS Relay Valve

Note: Apply Dielectric Grease to
all Electrical Components.



ABS Power Cable - "IN"

Sensor (S1A)
(Top-CurbSide)

Sensor (S1B)
(Bottom-RoadSide)

Diagnostic Tools



PC Diagnostic



J1708 PLC Adapter

PLC Info Center



Blink Codes

7-Way Diagnostic
Interface
Connector



ABS Cables



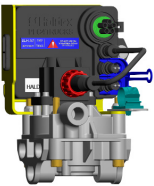
Trailer ABS Power Cable



Sensor
Extension Cable

"See Haldex Trailer ABS Service
Components Catalog L20243 for additional
information on Haldex ABS Products"

Haldex Supplied Items



6-Port ABS Relay Valve
(Service Brake)

Note: When an ABS Relay Valve is used,
a Spring Brake Control Valve is required
such as a Haldex - Trailer Brake Control
Valve (TBCV) or a Haldex - RT4 Valve.

Optional Supplier Section



ABS Lamp



90° Degree Sensor



Trailer Brake Control Valve
(TBCV)



Sensor Block
Clip



3-Way Clip



Sensor Cable Hose Clip



Sensor Extension
Retainer Clip



Tie Strap

Optional Installation Aids

System Plumbing

Legend:

Service/Control Line (Solid Blue)
Emergency/Supply Line (Dashed Red)
Sensor Line (Dashed Green)

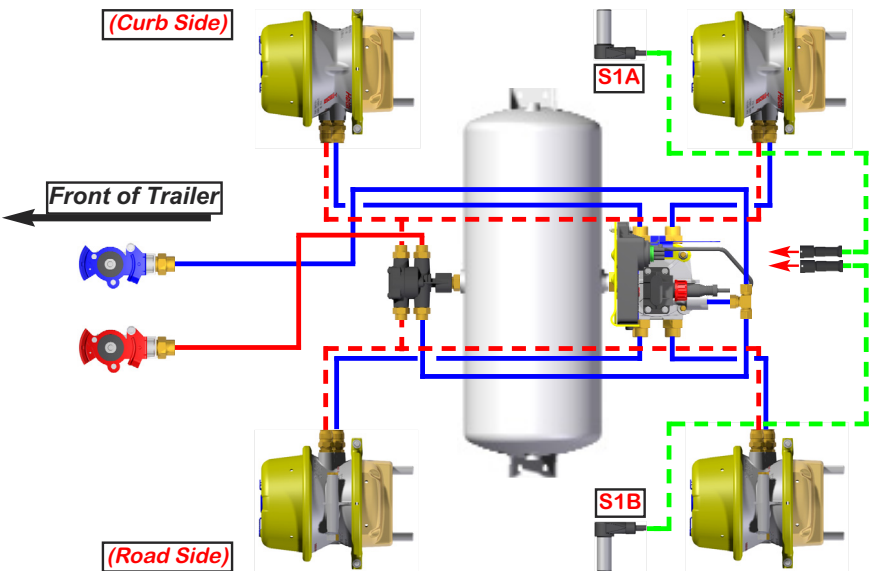
2S/1M System
6-Port ABS Relay Valve w/ECU
and (TBCV)

Trailer Configuration:
Air Suspension - Sense Rear Axle
Spring Suspension - Sense Front Axle

AIR BRAKE COMPONENTS AND SYSTEM SCHEMATIC ARE DESIGNED
TO ALLOW COMPLIANCE WITH FMVSS 121.

THIS SCHEMATIC IS FOR INFORMATION PURPOSE ONLY. IT IS THE
VEHICLE MANUFACTURERS ULTIMATE RESPONSIBILITY TO CERTIFY
THEIR SYSTEM MEETS ALL APPLICABLE REGULATIONS.

PIPE NIPPLES USED TO MOUNT BRAKE VALVES MUST BE HEAVY
WALL TYPE PER SAE J514.



Diagnostics

Recommended Production Testing:

Caution: Do Not use battery charger to power up ABS

On Line (Chassis) ABS Check
This step will ensure the ABS system (less power cable and warning lamp)
is functioning properly.

Test Equipment: 12VDC power source, ABS power cable with ABS light
connected, PLC Info Center and Info Center test cable and/or Haldex PC
Diagnostics.

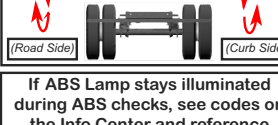
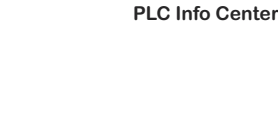
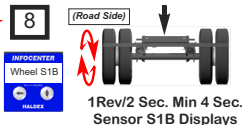
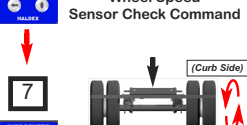
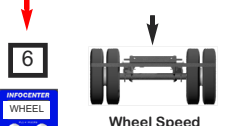
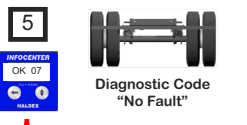
Procedure for 2S/1M:

1. Connect test power cable to power lead.
2. Charge the Emergency and Service air systems.
3. Apply ABS Permanent power source.
4. ABS valve should "blow-down" a brief shot of exhaust air.
5. ABS test light should flash "ON" for about 3 seconds and then go out.
6. If using the Info Center press the right button to display "WHEEL".
7. Rotate the front sensed "Curb" side wheel (1 Rev/2 Sec) 4 seconds
minimum: test equipment should display S1A Sensor.
8. Rotate the front sensed "Road" side wheel (1 Rev/2 Sec) 4 seconds
minimum: test equipment should display S1B Sensor.

Recommended Production Testing:

Test Equipment 12VDC power source, PLC Info Center or PC Diagnostic

1. Charge the Emergency and Service air systems.
2. Apply ABS Permanent Power source to 7-way receptacle.
3. ABS valve should "blow-down" a brief shot of exhaust air.
4. ABS light should flash "ON" then "OFF".
5. PLC Info Center or PC Diagnostic should display "OK 07".
(Optional 7-Way Diagnostic interface connector cable is available)



If ABS Lamp stays illuminated
during ABS checks, see codes on
the Info Center and reference
"Diagnostics"
Section of Manual
(Reference Manual L30041)