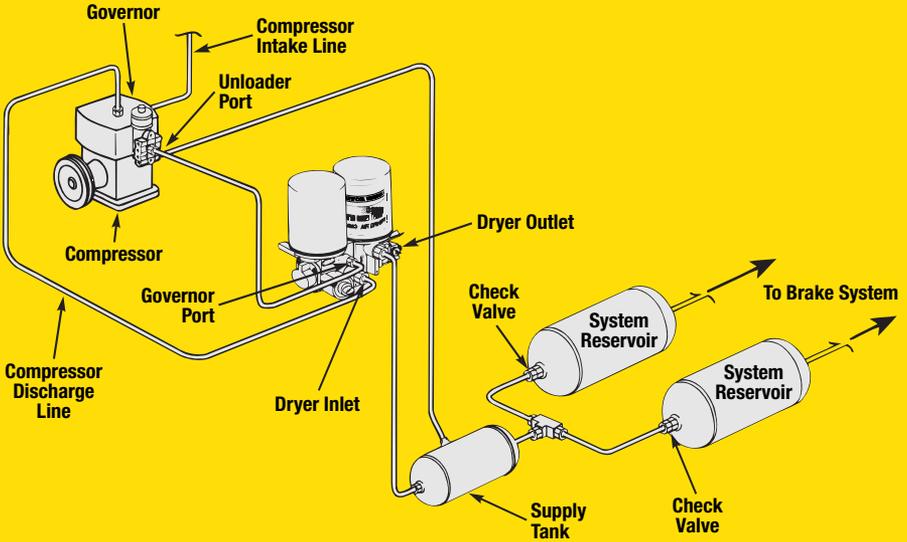


# MERITOR WABCO

## System Saver TWIN Cartridge Air Dryers



### DATE CODE INFORMATION

Date Code  
 First 2 Digits = Build Week  
 Last 2 Digits = Build Year

WABCO XXXX  
 1696  
 XXX XXX XXX X

Part Number      Manufacturing Location Code

### DESICCANT CARTRIDGE

R950011

### ORIFICE KIT

ORIFICE

R955067 (0.8 mm Orifice)  
 R955050 (1.0 mm Orifice)  
 R955049 (1.3 mm Orifice)

### LEFT PISTON

R955041 (SEALS AND SPRINGS),  
 R955042 (HARD PARTS)

### SOLENOID AND ARMATURE ASSEMBLY

R955058 (Solenoid/Mtg. Sleeve - 12 volt)  
 R955045 (Solenoid/Mtg. Sleeve - 24 volt)  
 R955046 (All other solenoid parts)

### LEFT PISTON COVER

R955051

### RIGHT PISTON COVER

R955054

### HEATER

12 VOLT - R950015  
 24 VOLT - R950016

### CHARGING VALVE

R955053

### OUTLET CHECK VALVE

R955048

### RIGHT PISTON

R955043 (SEALS AND SPRINGS)  
 R955044 (HARD PARTS)

### PURGE VALVE

R955047

### PRESSURE RELIEF VALVE

Use for dryer build dates of 1096 or earlier. Date codes from 1196 have an integral pressure relief valve at the back of the dryer.

S2206-D-1226

CONDITION	POSSIBLE CAUSE	SOLUTION
Dryer leaks from purge valve during compressor loaded cycle. The leak may cause excessive compressor cycling or prevent the system from building air pressure.	Purge valve frozen open (cold weather operation).  Debris under purge valve seat, such as particles from fittings or air inlet line. Purge valve washer installed upside-down. Wrong air line connected to dryer port 4 (unloader port). Purge valve snap ring not fully seated in groove.	Check heater. Repair/replace if necessary. Make sure governor to dryer port 4 line is free of water/oil. Remove and inspect purge valve and clean water/oil from top of piston. Disassemble and clean purge valve. Remove cartridge and clean dryer sump area.  Ensure lip on aluminum washer faces down, away from dryer. Verify correct air line installation and correct as needed. Seat snap ring fully into groove.
Slight leak from purge valve. After several hours, the supply tank may be empty.	Outlet check valve not seating or regeneration valve not shutting off regeneration airflow.	Remove, inspect, and clean outlet check valve and regeneration valve diaphragm. Replace if worn or damaged.

CONDITION	POSSIBLE CAUSE	SOLUTION
Regeneration cycle too long (more than 30 seconds), accompanied by loss of pressure in the supply tank.	Outlet check valve not seating. Regeneration valve not shutting off regeneration airflow.	Inspect and replace outlet check valve as needed. Replace regeneration valve.
Regeneration cycle too short (less than 10 seconds).	High air system demands during compressor unloaded cycle. Pressure-controlled check valve not installed in system or not working properly. One-way check valve installed in system reservoir instead of, or with, pressure-controlled check valve. Regeneration valve not working. Air governor not working properly.	Increase air system capacity or reduce air demands. Check and replace pressure-controlled check valve as needed.  Remove one-way check valve. Make sure pressure-controlled check valve is installed correctly. Remove regeneration valve and clean oil from diaphragm. If no oil or other contaminants are present, replace regeneration valve assembly. Inspect per manufacturer's instructions and repair/replace as needed.
No regeneration cycle. No airflow from purge valve after initial purge blast (dryer decompression).	Air dryer not connected to supply tank or connections reversed at dryer. Regeneration valve not working. One-way check valve installed in supply tank. Alcohol evaporator installed between dryer and supply tank.	Verify proper dryer installation per system diagram.  Replace regeneration valve. Remove one-way check valve. Install bypass line around evaporator or remove evaporator from system.
Air dryer purges too often, perhaps as frequently as every 15 seconds, accompanied by excessive cycling of the compressor.	Leak in line between governor and dryer port 4. Leak in line between supply tank and governor. Excessive air system leaks. Excessive air system demands. Outlet check valve not seating. Regeneration valve not shutting off properly. Air governor has less than 16 psi range. Leaking air compressor unloader(s).	Repair air line. Repair air line. Repair leaks. Increase air system capacity or reduce air demand. Inspect and replace outlet check valve as needed. Replace regeneration valve. Replace air governor. Inspect compressor. Repair/replace per manufacturer's instructions.
Air dryer does not purge when compressor unloads (no blast of air from purge valve).	Air line between governor and air dryer port 4 kinked or plugged. Purge valve stuck closed. Air governor not working properly. Cut-out pressure never achieved by air compressor.	Repair air line. Replace purge valve. Inspect air governor. Repair/replace per manufacturer's instructions. Check for air leaks in system and repair as needed. If no leaks in system, check compressor output. Repair/replace per manufacturer's instructions.
Air flows out of purge valve entire time compressor is unloaded.	Turbo cut-off valve not sealing.	Replace turbo cut-off valve.
Rapid "spitting" of air from purge valve in small amounts. Frequency varies with engine speed.	Holset E-Type compressor used, but non-1200E dryer installed. Compressor not completely unloading when cut-out pressure is reached.	Replace air dryer with an SS1200E air dryer. Inspect compressor. Repair/replace per manufacturer's instructions.
Air leak at turbo cut-off valve vent. Hole burned in piston.	Temperature of air coming into dryer is too high — not enough cooling takes place before dryer inlet.	Move dryer farther from compressor. Add additional compressor discharge line before air dryer. Add cooling coil or heat exchanger before air dryer. <b>NOTE: Inlet air temperature must not exceed 175°F.</b>
Air leak at turbo cut-off valve vent.	Lip seal installed upside-down on piston. Lip must face UP (towards dryer). Valve bore worn excessively.	Install lip seal correctly.  Inspect valve bore for wear. If a new turbo cut-off valve does not seal in a clean, lubricated bore, replace the air dryer.
Air dryer frozen (water collecting in base of dryer is freezing).	No electrical power to heater connector.  Low voltage to heater connector.  Heater assembly not working. Wrong voltage air dryer used; i.e., 12-volt air dryer used in a 24-volt system.	Check for a blown fuse. Repair heater circuit. <b>NOTE: There must be power to the heater connector the entire time the vehicle's ignition is "on."</b> Repair cause of low voltage, such as poor electrical ground, bad connections, corroded wire splices, etc. Replace heater assembly. Replace with correct voltage air dryer.
No air pressure build-up in system.	Air dryer not plumbed correctly (connections reversed).  Wrong air line connected to dryer port 4. Air governor not working properly. Air system leaks, such as compressor discharge line, air dryer, reservoirs, brake or suspension valves, etc. Air dryer leaks from purge valve.	Ensure compressor discharge line is plumbed to air dryer port 1, and air dryer port 21 is connected to vehicle's supply tank. Ensure dryer port 4 line is connected to the "UNL" port of the air governor. Inspect governor per manufacturer's instructions. Repair or replace as needed. Locate leak(s) and repair.  See purge valve conditions listed in this chart.
Water in tanks; often following aftermarket installation or when dryer is a replacement for a competitive brand.	Pressure-controlled check valve not installed in correct tank or not installed at all. Pressure-controlled check valve properly installed, but one-way check valve not removed.	Install pressure-controlled check valve in secondary tank.  Remove one-way check valve so that only the pressure-controlled check valve is installed between the secondary tank and supply tank.
Water, oil, or sludge in air system tanks.	Desiccant contaminated with oil. Holset E-Type compressor used, but non-1200E dryer installed.	Replace desiccant. Inspect compressor per manufacturer's instructions. Replace air dryer with an SS1200E air dryer.
Water in system tanks, everything else checks out okay.	Dryer not suitable for application.	Review application guidelines. For assistance, call Meritor Customer Support Center at 1-800-535-5560.

For more information, see Maintenance Manual No. 35  
or dial our toll-free number:

**800-535-5560**

**MERITOR WABCO**  
Vehicle Control Systems

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