COLOR KEY

- SUPPLY
- SECONDARY
- PRIMARY
- PARK/EMERGENCY
- ABS ELECTRICAL
- TRAILER CONTROL
- TRAILER SUPPLY

WORKBOOK

MERITOR WABCO Air Brake Systems

SECONDARY

472  500  30.  0
MADE  IN  GERMANY
001  20/98

COLOR KEY
SUPPLY
SECONDARY
PRIMARY
PARK/EMERGENCY
ABS ELECTRICAL
TRAILER CONTROL
TRAILER SUPPLY

PRIOR TO MARCH 1, 1998 FMVSS-121 REGULATIONS INVERSION VALVE AND QUICK RELEASE VALVE (INCLUDES ANTI-COMPOUNDING)

AFTER MARCH 1, 1998 FMVSS-121 REGULATIONS NEW INVERSION VALVE AND QUICK RELEASE VALVE (INCLUDES ANTI-COMPOUNDING)

FROM PARK VALVE INSET (A) OPTION PRIOR TO MARCH 1, 1998 FMVSS-121 REGULATIONS INVERSION VALVE AND QUICK RELEASE VALVE (INCLUDES ANTI-COMPOUNDING)

AFTER MARCH 1, 1998 FMVSS-121 REGULATIONS NEW INVERSION VALVE AND QUICK RELEASE VALVE (INCLUDES ANTI-COMPOUNDING)

PRIOR TO MARCH 1, 1998 FMVSS-121 REGULATIONS INVERSION VALVE AND QUICK RELEASE VALVE (INCLUDES ANTI-COMPOUNDING)

AFTER MARCH 1, 1998 FMVSS-121 REGULATIONS NEW INVERSION VALVE AND QUICK RELEASE VALVE (INCLUDES ANTI-COMPOUNDING)

SECONDARY CONTROL TO SERVICE RELAY FROM PARK VALVE INSET (B) OPTION

SIDE VIEW INSET (A) OR (B)

SECONDARY

SUPPLY (WET TANK)
Introduction

The purpose of an air brake system on heavy duty vehicles is to convert air pressure to mechanical energy to activate the foundation brakes. Federal Motor Vehicle Safety Standard 121 dictates how this is to be done for over-the-road vehicles.

The purpose of this book is to help you construct Meritor WABCO Truck and Tractor air systems. It will also help you identify air system components and understand how they relate to FMVSS-121.

NOTE: The systems described in this workbook are generic air brake systems.

Included in this book are:

**Truck Systems**
- Air Supply
- Secondary Service
- Primary Service
- Parking
- Anti-Compounding
- Emergency (Prior to 3/1/98)
- Emergency (After 3/1/98)

**Tractor/Trailer Systems**
- Tractor Parking & Trailer Air Supply
- Trailer Control

For additional information, call ArvinMeritor’s Customer Service Center at 800-535-5560.

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Air Brake System Color Key

<table>
<thead>
<tr>
<th>COLOR KEY</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supply</td>
<td>Supply</td>
</tr>
<tr>
<td>Secondary</td>
<td>Secondary Service</td>
</tr>
<tr>
<td>Primary</td>
<td>Primary Service</td>
</tr>
<tr>
<td>Park/Emergency</td>
<td>Parking &amp; Trailer Air Supply</td>
</tr>
<tr>
<td>ABS Electrical</td>
<td>Trailer Control</td>
</tr>
<tr>
<td>TRAILER CONTROL</td>
<td>TRAILER SUPPLY</td>
</tr>
</tbody>
</table>
Truck
Air Supply System

Compressor

Air Dryer

Supply Tank

Pressure Relief Valve

Automatic/Manual Drain Valve

Low Pressure Switch

Governor
Secondary Service System

Pressure Control Check Valve

Secondary Service Tank

Manual Drain Valve

Air Gauge

Dual Foot Control Valve

Quick Release Valve

ABS Modulator Valve

Service Chambers

Manual Slack Adjusters

Automatic Slack Adjusters
Truck
Primary Service System
One-Way Check Valve

Primary Service Tank

Manual Drain Valve

Air Gauge

Dual Foot Control Valve

Service Relay Valve

ABS Modulator Valve

Spring Brakes

Manual Slack Adjusters

Automatic Slack Adjusters

Two-Way Check Valve

Stoplight Switch
Quick Release With Two-Way Check Valve

- Inlet A
- Check Valve Disc
- Inlet B
- Delivery

Deliver

- Inlet or Control 1
- Inlet or Control 2
- Delivery
Inversion Valve (Prior to March 1, 1998)
Meritor WABCO Production Part Number 9718990010
Meritor WABCO Service Part Number RKN28030

New Inversion Valve (Used After March 1, 1998)
Meritor WABCO Production Part Number 9718990020
Meritor WABCO Service Part Number RKN28032
Truck
Emergency System Complete (Prior to March 1, 1998)

MERITOR WABCO
Truck
Anti-Compounding/Emergency System

PRIMARY
SECONDARY
SUPPLY (WET TANK)
Truck
Anti-Compounding/Emergency System

Inversion Relay Valve With Anti-Compounding

One-Way Check Valve
Tractor Parking and Trailer Air Supply System

Module Dash Control (Yellow Diamond Knob & Red Octagon Knob)

Quick Release With Two-Way Check Valve

(2 Line) Tractor Protection Valve

(3 Line) Tractor Protection Valve

(Trailer Supply) Gladhand
Tractor
Trailer Control System

Hand Control Valve

(2) Two-Way Check Valves

Stoplight Switch
Tractor
Air System Complete