

# ***FreightCar***<sup>®</sup> ***America***

VersaFlood IA™  
*Aggregate Car*  
*Operating Instructions*

# VersaFlood IA™ – Safety Precautions

1. All maintenance, repair, or adjustments must be made on shop or repair track where car will not be moved. Protective eye and ear wear should be used when doors are operated.
2. Carefully follow the instructions which are located on stencils at the sides of the car.
3. **ALWAYS - STAND CLEAR AND ASSURE OTHERS ARE CLEAR WHILE DOORS ARE BEING OPERATED**
4. Do not operate the doors unless the car has completely stopped moving.
5. When operating the doors, the operator must keep well away from the doors and mechanical door components. The operator must also have an assistant on each side of the car to ensure that everyone stands clear of the car doors.
6. If the car does not operate electrically or manually, **DO NOT** attempt to force the mechanism in any way.
7. Do not make any repairs, alterations, replacements or adjustments to any part of the door system without first fully releasing the air pressure in the system. To release air pressure, first close auxiliary train line end cock valves to cut off air source and then slowly open the drain valve. CAUTION: The internal check valve will not allow all air in the system to exhaust through the auxiliary trainline . This residual air pressure will be released by slowly disconnecting the air hose fittings. Always use caution when first applying air to the cars. The control valves can be actuated with as little as 10-15 psi of residual air pressure and the retained residual air may be enough to even open the doors. If the control valves are inadvertently actuated to open by pressing the manual button and there is a minimum amount of residual air pressure, the doors will open as soon as air is applied.
8. Do not load or ship car unless the door mechanism is locked over center and the secondary lock hook is in the locked position. The over center indicator located on sides of car will align with the indicator stripes when the mechanism is locked.
9. **When welding on any part of the car, the ALL-IN-ONE Touch Pad must not be struck with the welding arc, as the high current will destroy the diodes in the control valves. It is recommended that both ALL-IN-ONE Touch Pads be disconnected and the wire ends insulated before welding on the car.**

# VersaFlood IA™

## Door Operating Features – Side View

### ALL-IN-ONE Touch Pad - Opening

- “A” Button Opens – “A” Hopper Doors
- “B” Button Opens – “B” Hopper Doors
- “C” Button Opens – “C” Hopper Doors
- “ALL” Button Opens – ALL Hopper Doors



Touch Pad Ground Plate  
Aluminum ground plate around  
Touch Pad assembly

ALL-IN-ONE  
Touch Pad



“A” Pocket  
Hopper Doors

Door Lock  
Indicator

“C” Pocket  
Hopper Doors

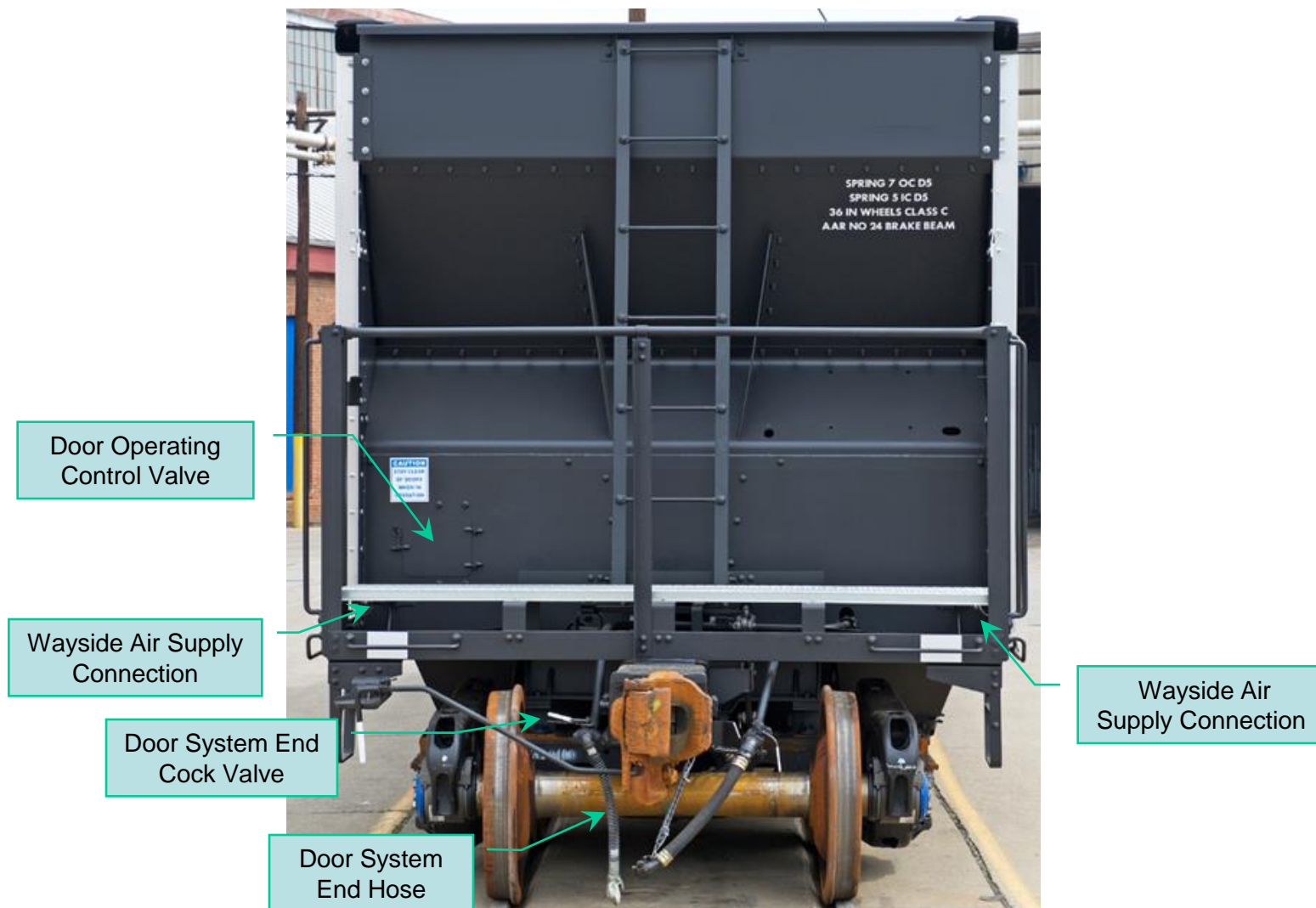
Door Lock  
Indicator

“B” Pocket  
Hopper Doors

Patent Pending

# VersaFlood IA™

## Door Operating Features – “A” End View



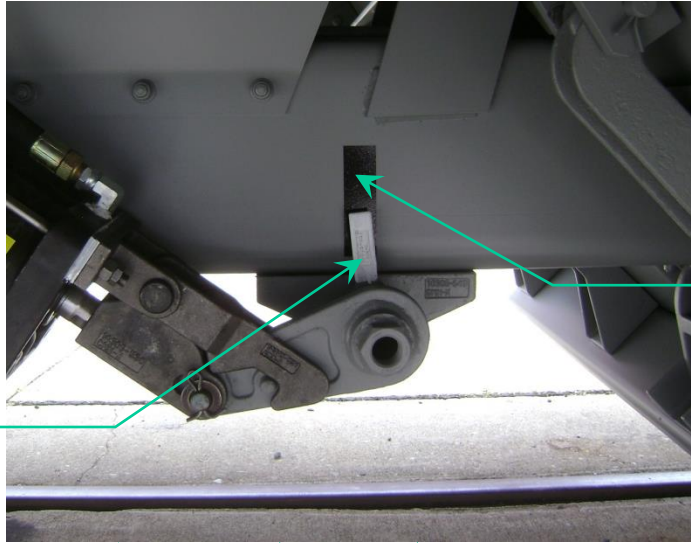
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# VersaFlood IA™

## Door Operating Instructions – Door Lock Indicator

### **IMPORTANT!**

Door Lock Indicator at Each Set of Doors Shows When **“Each Set of Doors”** Are **Closed** and In The **“Locked”** Position!



Door Lock Indicator

Door Lock Indicator at **“Each Set of Doors”** Must Be Within **“Stripe”** on Center Sill To Ensure **“ALL”** Hopper Doors are **Closed** and In the **“Locked”** Position!



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# VersaFlood IA™

## Door Operating Instructions

### **IMPORTANT!**

Read Safety Precautions in this document and adhere to all onsite Safety Regulations!

### **Door System Requirements**

1. Constant Air Supply of 90 psi or greater.
2. Electrical Supply of 24-27 Volt DC with a constant minimum amperage of 3 amps.

### **Door Operating Procedure (Touch Pad - Activation)**

1. If Using **Wayside Air Supply** Connect Supply Hose to **Wayside Fitting** then Proceed to **Step 5**. If using Trainline Air **Close** Door System Drain Valve.
2. -
3. **Connect** Air Supply to Door System End Hose.
4. **Open** Door System End Cock Valve.



1. Wayside  
Air Supply  
Connection

1. Wayside  
Air Supply  
Connection

4. Door System  
End Cock Valve

3. Door System  
End Hose

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## Door Operating Instructions - Continued

### **IMPORTANT!**

Read Safety Precautions in this document and adhere to all onsite Safety Regulations!

#### ALL-IN-ONE Touch Pad - Opening

“A” Button Opens – “A” Hopper Doors

“B” Button Opens – “B” Hopper Doors

“C” Button Opens – “C” Hopper Doors

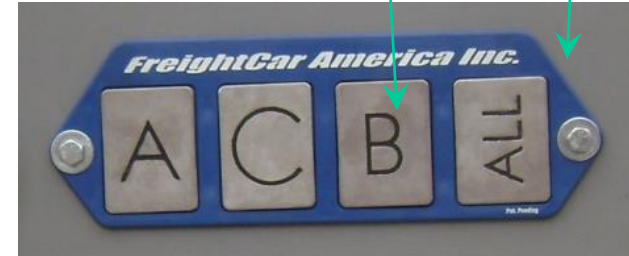
“ALL” Button Opens – ALL Hopper Doors

Apply 24 Volt **Negative (-)** Lead to Car Body

Touch 24 Volt **Positive (+)** Lead to “**B**” Touch Pad Button for a **Minimum of 2 seconds**

### **Door Operating Procedure** **(Touch Pad - Activation)**

5. **Apply 24 Volt Negative (-)** Power Supply Lead to Car Body.
6. **Open** – (For Example) To Open “**B**” Pocket Hopper Doors Touch 24 Volt **Positive (+)** Power Supply Lead to “**B**” Touch Pad Button for a **Minimum of 2 seconds**.
7. Only “**B**” Pocket Hopper Doors Will Open. At this time another set of doors can be opened, or after unloading “**B**” Hopper Doors can be closed. **Remove** Power Supply Connections.



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## Door Operating Instructions - Continued

### **IMPORTANT!**

Read Safety Precautions in this document and adhere to all onsite Safety Regulations!

#### ALL-IN-ONE Touch Pad - Closing

“A” Button Closes – “A” Hopper Doors

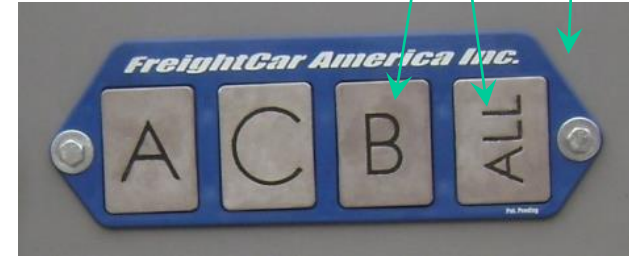
“B” Button Closes – “B” Hopper Doors

“C” Button Closes – “C” Hopper Doors

“ALL” Button Closes – ALL Hopper Doors

Apply 24 Volt **Positive (+)** Lead to Car Body

Touch 24 Volt **Negative (-)** Lead to “**B**” or “**ALL**” Touch Pad Button for a **Minimum of 2** seconds



### **Door Operating Procedure** **(Touch Pad - Activation)**

- 9. Reverse Polarity** – Apply 24 Volt **Positive (+)** Power Lead To Car Body.
- 10. Close** – To Close “**B**” Pocket Hopper Doors Touch 24 Volt **Negative (-)** Power Supply Lead to “**B**” or “**ALL**” Touch Pad Button for a **Minimum of 2** Seconds.
- 11. “B” Pocket Hopper Doors Will Close. Remove Power Supply Connections and Check Door Lock Indicator.**
- 12. Ready** – Another Set of Hopper Doors is Ready to be Opened.



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## Door Operating Instructions - Continued

### **IMPORTANT!**

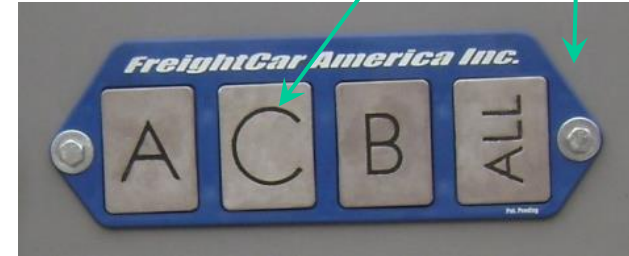
Read Safety Precautions in this document and adhere to all onsite Safety Regulations!

#### ALL-IN-ONE Touch Pad - Opening

“A” Button Opens – “A” Hopper Doors  
“B” Button Opens – “B” Hopper Doors  
“C” Button Opens – “C” Hopper Doors  
“ALL” Button Opens – ALL Hopper Doors

Apply 24 Volt **Negative (-)** Lead to Car Body

Touch 24 Volt **Positive (+)** Lead to “**C**” Touch Pad Button for a **Minimum of 2 seconds**



### **Door Operating Procedure** **(Touch Pad - Activation)**

13. **Apply** 24 Volt **Negative (-)** Power Supply Lead to Car Body.
14. **Open** – (For Example) To Open “C” Pocket Hopper Doors Touch 24 Volt **Positive (+)** Power Supply Lead to “**C**” Touch Pad Button for a **Minimum of 2 seconds**.
15. Only “**C**” Pocket Hopper Doors Will Open. **Remove** Power Supply Connections.
16. **Repeat** Procedure Until Car is Empty.
17. **Check** Door Lock Indicators and Verify Indicators are Aligned with Stripes.



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## Door Operating Instructions - Continued

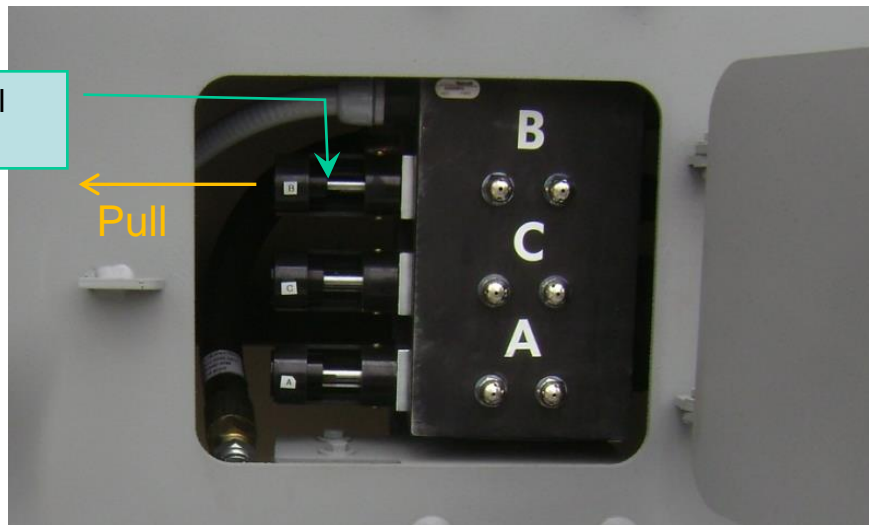
### **IMPORTANT!**

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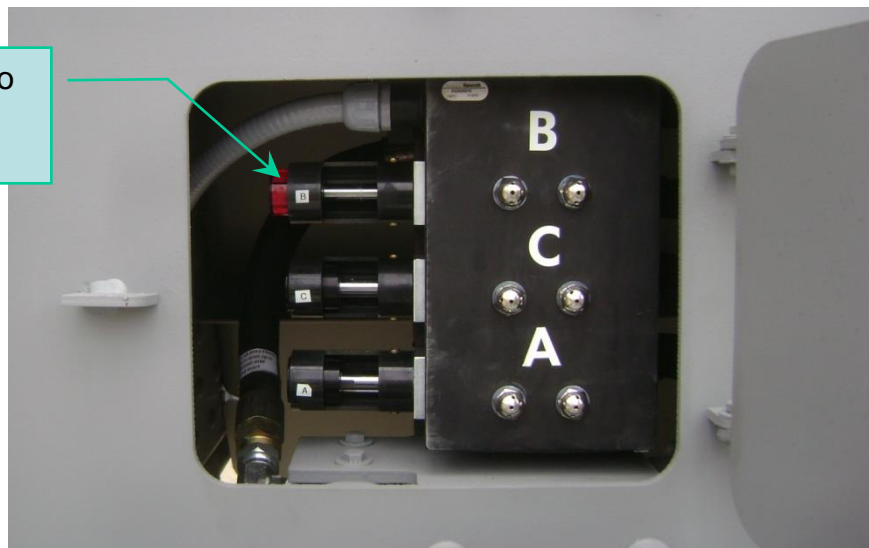
### **Door Operating Procedure (Control Valve – Activation)**

1. **Follow** – Door Operating Procedure (Touch Pad – Activation) Instructions 1 – 4.
5. **Open** – To Open “B” Hopper Doors reach in to control valve spool and firmly pull spool toward side of car. When Spool is shifted completely “Red” Indicator will be shown. “B” Hopper Doors will **Open**.

Reach in here to pull control valve spool



Spool Displaying Red to show Valve is in the “Open” Position



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## Door Operating Instructions - Continued

### **IMPORTANT!**

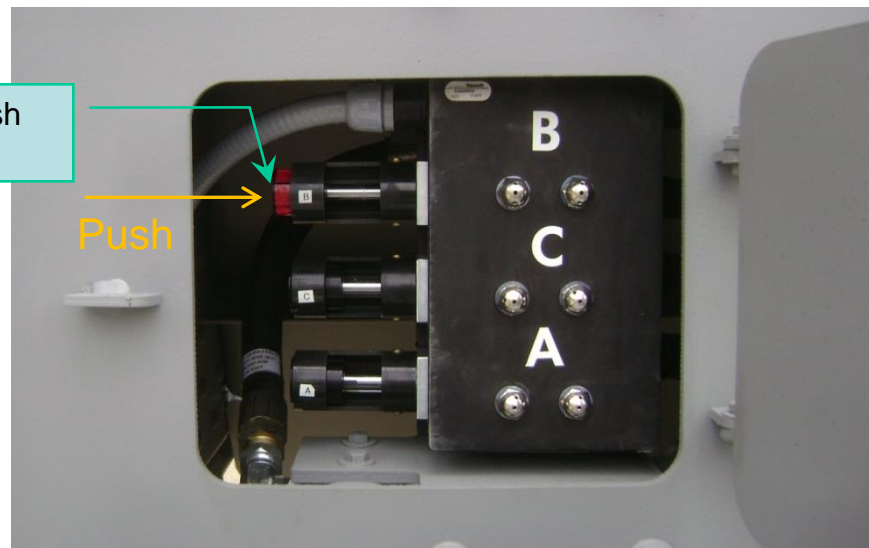
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### **Door Operating Procedure** **(Control Valve – Activation)**

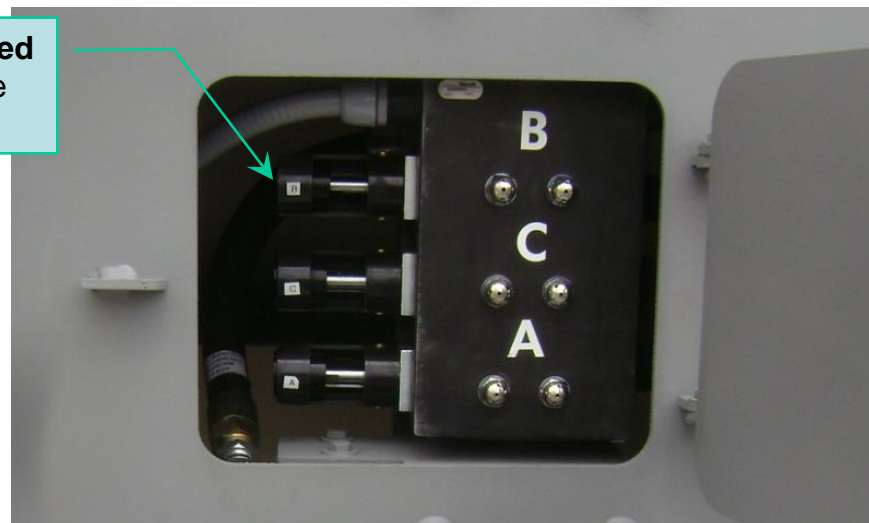
- 6. Close** – To Close “B” Hopper Doors reach in to control valve spool and firmly push spool toward center of car. When Spool is shifted completely “Red” Indicator will **Not** be shown. “B” Hopper Doors will **Close**.
- 7. Repeat** – Steps 5 & 6 to Open and Close Pockets “C” and “A”.
- 8. Check** Door Lock Indicators are aligned with Stripe

Reach in here to push control valve spool

Push



Spool **Not** Displaying Red to show Valve is in the “Closed” Position



# VersaFlood IA™

## Door System Pressure Relief Procedure – Cars without Door Reservoir

### **IMPORTANT!**

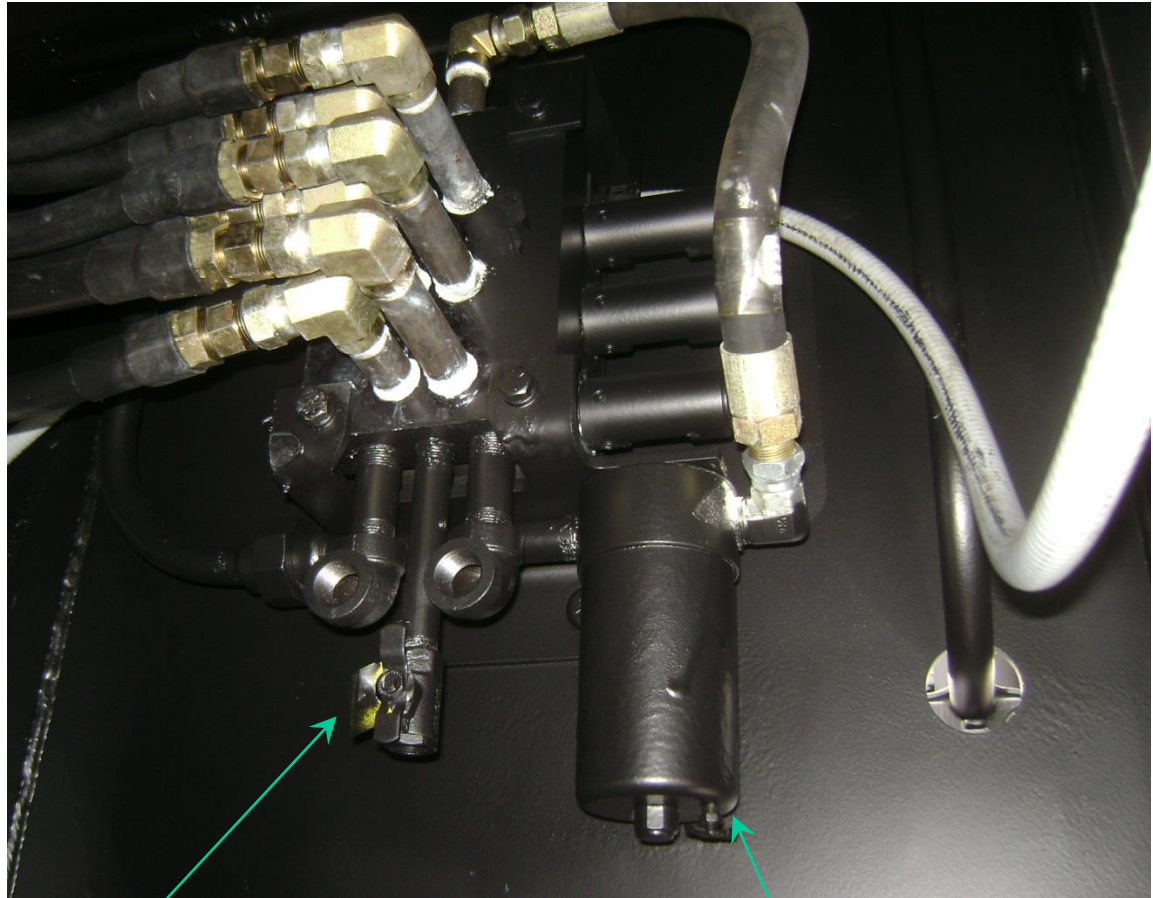
Read Safety Precautions in this document and adhere to all onsite Safety Regulations!

### **Caution!**

**Before** Troubleshooting or Working on Car – It is **Required** the **Door System Air Pressure** to be **Completely Relieved!**

### **Door System Air Pressure Relief Procedure**

1. **Remove** – Air Supply from Wayside Air Connections or Trainline Gladhand Hoses.
2. **Open** – Drain Valve Located at Bottom of Door Control Valve.
3. **Close** – Drain Valve After All Air has been Relieved from the System.



Door System Drain Valve shown in the open position. The Drain Valve must be closed to charge the system.

Filter Assembly Drain Valve

Patent Pending

## VersaFlood IA™

Door system shut off, ball valve location is at the AR corner of the car.



The ball valve located at the AL corner of the car directly above the AL side bearing must be in the open position to allow the supply air to the door valve assembly. This valve is normally in the open position and is used to stop the supply air to the door valve if there is an issue that requires air to be discontinued to a subject car without interrupting air supply to the other cars in the consist.

When the door system will not operate due to an air problem with a car, verify the ball valve is in the open position, pointing down.



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*Door Operating Instructions - Continued*

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Any Questions or Problems Call Customer Service at

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