

# Technical Bulletin

Bulletin No: PRO-03-31

Effective Date: 10/1/90

Cancels: NA

Page: 1 of 2

## Subject: **TP-2 TRACTOR PROTECTION VALVE OBSOLESCENCE AND CHANGEOVER**

Effective immediately, the TP-2 Tractor Protection valve will no longer be available for service replacement, either as new or remanufactured exchange. Because of this obsolescence, when replacement of the TP-2 is required it will be necessary to change over to a currently produced valve. Mark catalog page 03-M-1.

### **BACKGROUND**

The TP-2 is the oldest of the tractor protection valves offered by Bendix and has been in production for well over 30 years. Unlike the TP-3, 4 & 5, all of the control functions required of the tractor protection system are contained within the TP-2 valve itself. Because of this, the TP-2 does not require the use of a specific dash control as do the more current tractor protection valves. A variety of dash controls can and have been used with the TP-2. The TP-2 requires three separate air connections to the tractor air system and they are; the control, tractor service, and tractor emergency. Because of the three air connections it requires, the TP-2 is often referred to as a "three line" system. Current tractor protection valves and systems split the line closure and automatic functions between the dash control and the tractor protection valve and thereby eliminate the need for the third line. The PP-7 must be used with these newer tractor protection valves.

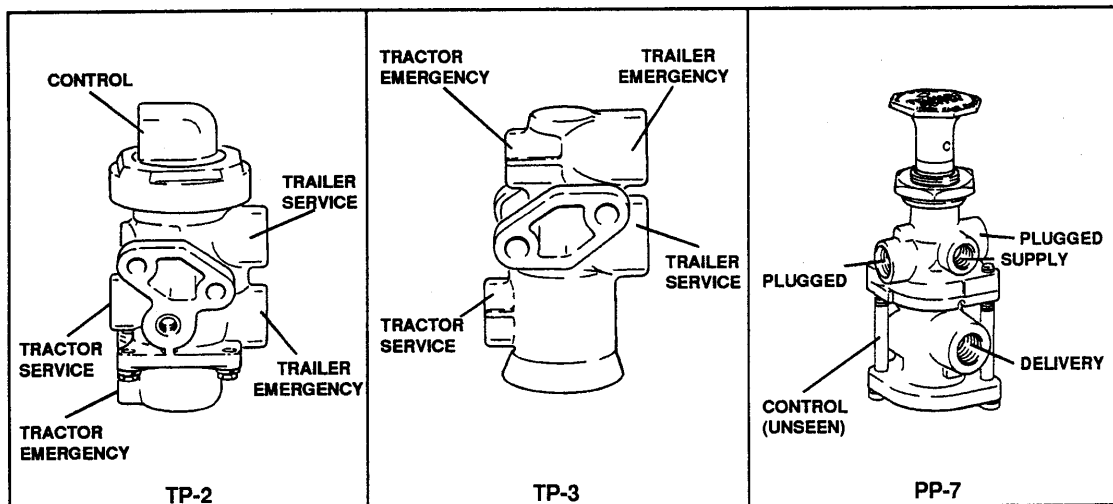


FIGURE 1

### **CHANGEOVER**

Because of the functions contained in the TP-2, it will be necessary in most cases to replace both the TP-2 and its dash control. The changeover to a TP-3 and PP-7 is the most universally correct and most easily accomplished. TP-2 valves installed on both pre and post FMVSS 121 vehicles (pre-1975 & post 1975) can be replaced using the TP-3 and PP-7 combination with a moderate amount of re-piping. It should be noted that by following the changeover instructions presented, the resulting tractor protection system will be brought up to FMVSS 121 standards with respect to the interlocking of tractor parking and tractor protection.



Refer to the illustrations and schematics during the changeover steps that follow. Note the ports or air connection points on the TP-2, TP-3 and PP-7 are all identified with either a cast-in or stamped designation. The actual port identification is used in the following changeover procedure. For example, the words "tractor service" are stamped or cast into the valve housing adjacent to the air connection on the TP-2 and TP-3.

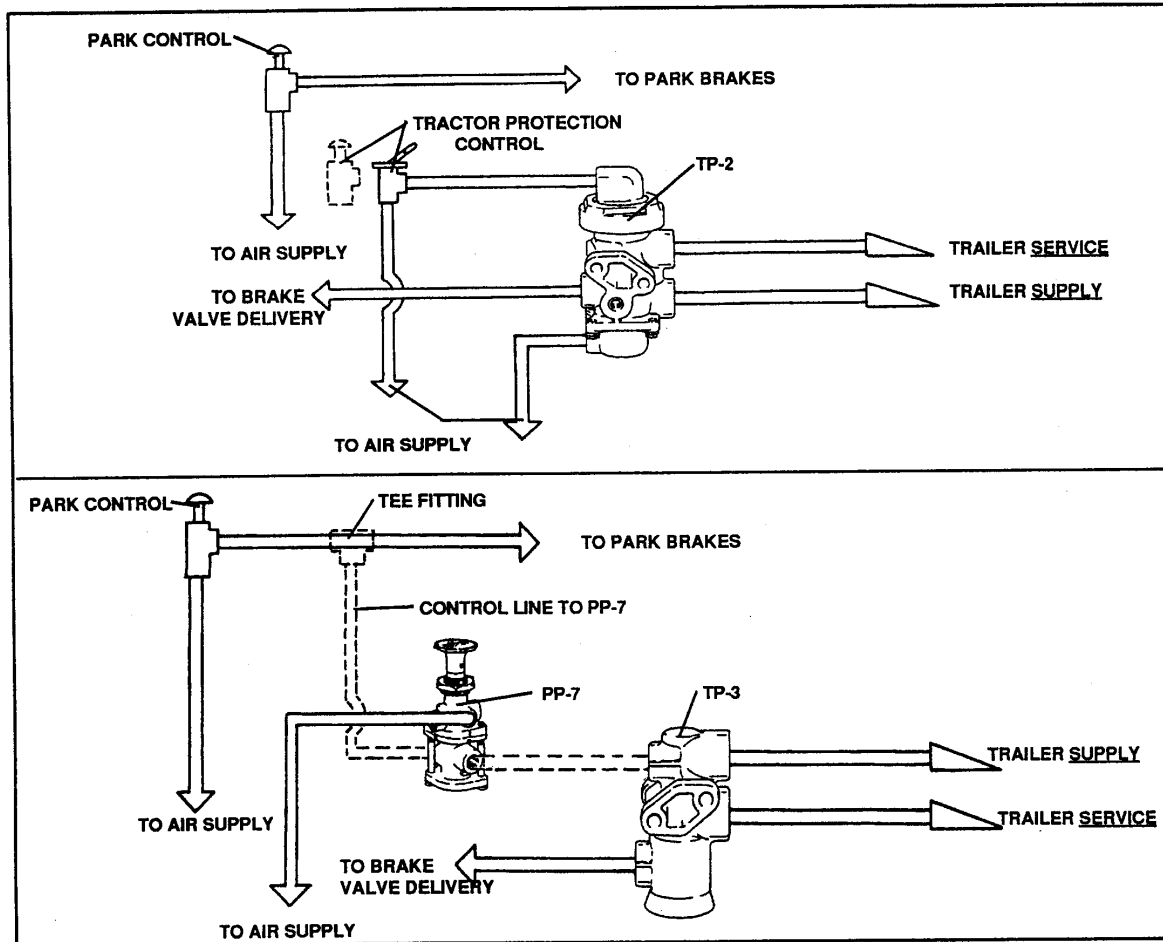


FIGURE 2

1. Before purchasing the TP-3 and PP-7, determine whether a PP-7 is used to control the TP-2. If the existing dash valve IS a PP-7 then a replacement is not required.
2. Remove the supply and delivery lines (items 1 & 2) from the tractor protection, dash control valve (item 4) and discard both lines. If the dash valve is NOT a PP-7 remove it also.
3. If the existing dash control was not a PP-7, install the PP-7 control valve now. Note: A 15/16" diameter hole in the dash is required to install the PP-7.
4. Locate the park control valve and install a "tee" in the DELIVERY line going to the parking brakes. Install an air line between the "tee" and the 1/8" p.t. control port (marked "con") on the PP-7.
5. Remove the air line connected to the "tractor emergency" port of the TP-2 and connect this line to the 1/8" p.t. supply port (marked "sup") on the PP-7 dash control.
6. Remove the air line or fitting that is installed in the "tractor service" port of the TP-2 and install it in the "tractor service" port of the TP-3.
7. Remove the TP-2 from the vehicle with the service and supply hoses and glad hands still attached. Install the TP-3 on the vehicle using the same mounting hardware and mounting holes that were formerly occupied by the TP-2.
8. Remove the service hose and glad hand assembly from the "trailer service" port of the TP-2 and install it in the "trailer service" port of the TP-3.
9. Remove the supply hose and glad hand assembly from the "trailer emergency" port of the TP-2 and install it in the "trailer emergency" port of the TP-3.
10. Install a length of 3/8" tubing between the delivery port (marked "del") on the PP-7 and the "tractor emergency" port of the TP-3. This completes the changeover.
11. Before placing the vehicle in service the tractor protection system should be tested for function and leakage. Refer to Bendix service data manuals SD-03-52 and SD-03-62 which cover the function and leakage testing of the TP-3 and PP-7, respectively.