

TEST NO. 1**DOUBLE CHECK VALVE ASSEMBLY****TEST OBJECTIVE:**

To determine if the check valves are closed tight and measure the static PSID across the check valves.

NOTE:

If the assembly is a detector type, also conduct the entire performance test on the DC valve located in the bypass.

**USING A 3-VALVE DIFFERENTIAL
PRESSURE GAUGE TEST KIT****The First Thing That Must Be Determined is if Shut-Off
Valve No. 1 Will Close Tight:**

- a.) Close shut-off valve No. 2 slowly to prevent water hammer, then close shut-off valve No. 1.
- b.) Open test cock No. 2 and observe flow. If shut-off valve No. 1 is closed tight, the flow from test cock No. 2 will stop. If flow stops proceed to "Location of Test Equipment."

Note: If flow does not stop, shut-off No. 1 is leaking, then proceed to page 6-1.

Location of Test Equipment

For vertical installation, when testing check valve No. 1, hold the test kit and unused hoses level with test cock No. 3. When testing check valve No. 2, hold the test kit and unused hoses level with test cock No. 4. For horizontal installations, hold test kit and unused hoses level with the centerline of the DC assembly.

Test of Check Valve No. 1

1. Connect the high side hose of the test kit to test cock No. 2. Test cock No. 2 should be open.
2. Open shut-off valve No. 1 enough to re-pressurize the DC assembly and purge air from the high side of the test kit.
3. Close the high side control valve (A). The gauge needle will peg at the high end of the scale.
4. Close shut-off valve No. 1.
5. Open test cock No. 3 slowly and let water flow out.
6. Observe the needle on the test kit, and when the water stops flowing from test cock No. 3, the needle will fall to the low end of the scale.
7. If the needle holds steady at 1 PSID or above, record check valve No. 1 as "closed tight." Also, record the static PSID observed on the test kit. Note: If the needle does not hold steady at 1 PSID or above, you must record check valve No. 1 as "leaked." The DC assembly has just failed the performance test.

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Test of Check Valve No. 2

8. Close test cock No. 2.
9. Open the high side control valve (A).
10. Remove high side hose from test cock No. 2 and attach to test cock No. 3.
11. Open shut-off valve No. 1 enough to re-pressurize the DC assembly and purge air from high side of the test kit.
12. Close the high side control valve (A). The needle will peg at the high end of the scale.
13. Close shut-off valve No. 1.
14. Open test cock No. 4 slowly and let water flow out.
15. Observe the needle on the test kit when water stops flowing from test cock No. 4. The needle will fall to the low end of the scale.
16. If the needle holds steady at 1 PSID or above, record check valve No. 2 as "closed tight." Also, record the static PSID observed on the test kit. Note: If the needle does not hold steady at 1 PSID or above, you must record check valve No. 2 as "leaked." The DC assembly has just failed the performance test. If either check valve No. 1 or check valve No. 2 fails the initial performance test, you must clean and/or repair the DC assembly and conduct the final performance test.
17. Close test cock No. 3.
18. Close test cock No. 4.
19. Open shut-off valve No. 1.
20. Open shut-off valve No. 2.
21. Open all valves on the test kit.
22. Remove hose from test cock No. 3.
23. Drain the hoses and test kit to prevent freezing.
24. Dry the entire DC assembly and inspect for any leakage from the test cocks, check valve covers and shut-off valve packings. The DC assembly must be holding pressure with no leakage when you are finished testing.
25. Record on the test form that shut-off valves No. 1 and No. 2 are open. Chain and lock shut-off valves open.

(continued on next page)

TEST NO. 1**DOUBLE CHECK VALVE ASSEMBLY****Test of Check Valve No. 2****TEST OBJECTIVE:**

To determine if the check valves are closed tight and measure the static PSID across the check valves.

NOTE:

If the assembly is a detector type, also conduct the entire performance test on the DC valve located in the bypass.

26. Record the valve supervision, verify that the supervisory panel is indicating normal operation.
27. Inform the owner of the actions that you have taken and remind the owner to notify the fire department that the system is back in service.
28. Complete, sign and distribute the cross connection control device performance test form.