



Installation Instructions

1 1/2" and 2" Angle Dual Check Backflow Preventers/Device

712 Series

Model Number Explanation

SPACE 1, 2, & 3

Basic dual check valve model number:
712 = Angle valve

SPACE 4

(-) Standard
C = With 1" FNPT tap in cap
F = With 1 1/2" FNPT Tap in cap
G = With 2" FNPT Tap in cap

SPACE 5

Dual check valve size:
7 = 2"

SPACE 6

Inlet connection type:
D - Meter flange

SPACE 7

Outlet connection type:
E = Female iron pipe integral

SPACE 8

Blank

SPACE 9

Meter flange size

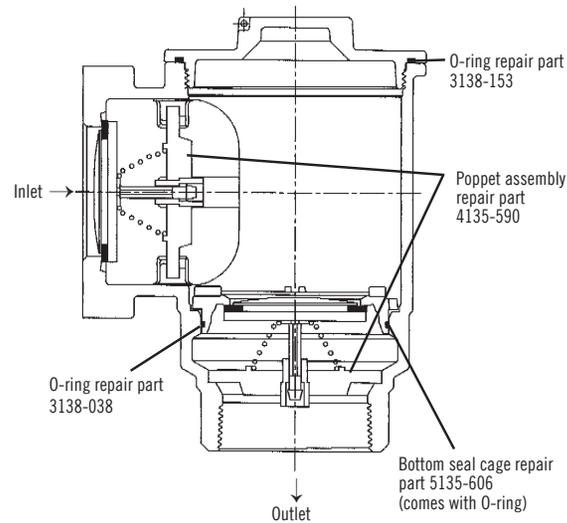
METER SIZE	FLANGE SIZE	METER DESIGNATION
1 1/2	1 1/2"	6
2	2"	7

SPACE 10

Sizes for outlet connections

1 1/2" = 6
2" = 7

COMPONENTS and REPAIR PARTS



HOW TO ORDER Not all sizes or combinations available - contact factory.

UNIT REQUIRED (Example):

- Angle style valve
- Inlet - Meter flange
- No test valve
- Outlet - FNPT integral 2"
- Valve size 2"

Order Model 712-7DE 77

SPACE 1, 2, & 3	SPACE 4	SPACE 5	SPACE 6	SPACE 7	SPACE 8	SPACE 9	SPACE 10
712	-	7	D	E		7	7

INSTALLATION INSTRUCTIONS

- The device can be installed in any position.
- The device shall be installed in an accessible location to facilitate the removal for servicing and testing.
- Service lines should be thoroughly flushed before installing the device. Excessive pipe sealant or Teflon tape may foul checks. A suitable strainer should be installed upstream of the device.
- DO NOT use Vaseline®, plumber's grease, or any other petroleum based product on any seals or O-rings.
- Insure that device is installed in proper flow direction. Refer to flow direction arrow on body.
- Do not over-tighten O-ring cap seal or across body cylinder to avoid distortion.
- Any sweat fittings must be completed before installing device.
- A pressure relief valve or expansion tank is recommended downstream of device if thermal expansion conditions are possible.
- Use only on cold water services. Protect from freezing.
- Refer to pressure and temperature ratings on device.

(Field Inspection and Test procedures on opposite side)

WARNING: It is unlawful in CALIFORNIA & VERMONT (effective 1/1/2010); MARYLAND (effective 1/1/2012); LOUISIANA (effective 1/1/2013) and the UNITED STATES OF AMERICA (effective 1/4/2014) to use any product in the installation or repair of any public water system or any plumbing in a facility or system that provides water for human consumption if the wetted surface area of the product has a weighted average lead content greater than 0.25%. This prohibition does not extend to service saddles used in California, Louisiana or under USA Public Law 111-380.



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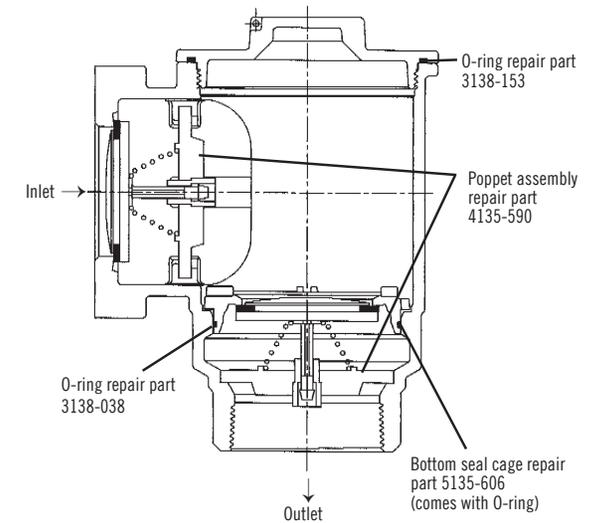
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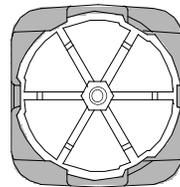
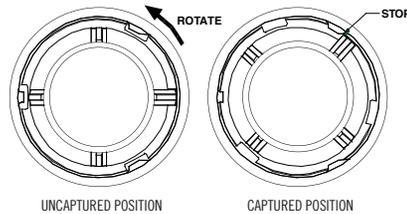
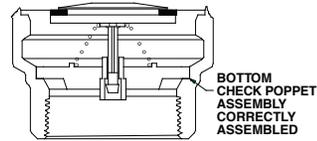
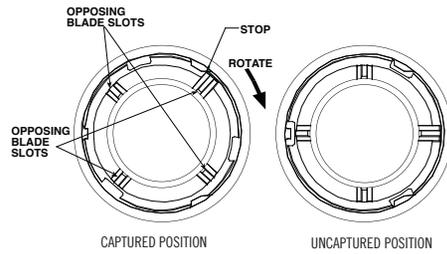
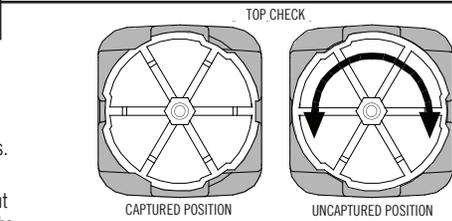
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FIELD INSPECTION AND TEST PROCEDURE

A. DISASSEMBLY

1. Remove the device cap.
2. Remove the top poppet assembly by rotating either direction until the tabs disengage, using care not to damage device or components. **See Diagram A.**
3. Remove the bottom seal cage by rotating the cage using two straight blade screwdrivers in the opposing blade slots. Rotate the cage in the opposite direction from the stop until tabs and slots line up. **See Diagram B.** Once tabs and slots line up, remove bottom seal cage being careful not to damage the sealing surface. Then lift out poppet assembly.
4. Visually inspect seals, sealing surfaces, etc. for debris or damage.



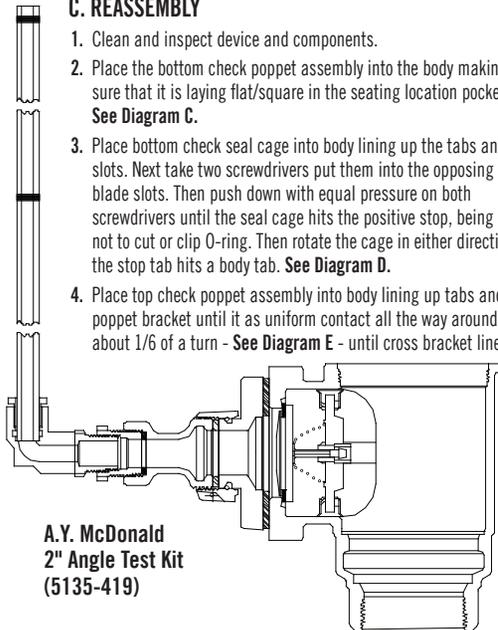
5. Reassemble device cap. Do not overtighten.

B. TESTING

1. Place poppet assembly into body lining up tabs and slots. Press in the poppet bracket until it has uniform contact all the way around. Rotate the poppet bracket about 1/6 of a turn - **See Diagram E** - until cross bracket lines up with body interlocks.
2. Add water to test kit level to upper red line - 42 inches (1.5 psig).
3. Observe water level for up to 5 minutes. Water level should not fall below lower red line - 28 inches (1.0 psig).
4. If water column falls below 28 inches the poppet assembly should be cleaned and re-tested or replaced.
5. Remove the top poppet assembly by rotating either direction until the tabs disengage, using care not to damage device or components. **See Diagram A.**
6. Repeat steps B1 - B5 for the other poppet assembly, as both poppet assemblies are identical.

C. REASSEMBLY

1. Clean and inspect device and components.
2. Place the bottom check poppet assembly into the body making sure that it is laying flat/square in the seating location pocket. **See Diagram C.**
3. Place bottom check seal cage into body lining up the tabs and slots. Next take two screwdrivers put them into the opposing blade slots. Then push down with equal pressure on both screwdrivers until the seal cage hits the positive stop, being careful not to cut or clip O-ring. Then rotate the cage in either direction until the stop tab hits a body tab. **See Diagram D.**
4. Place top check poppet assembly into body lining up tabs and slots. Press in the poppet bracket until it as uniform contact all the way around. Rotate the poppet bracket about 1/6 of a turn - **See Diagram E** - until cross bracket lines up with body interlocks.

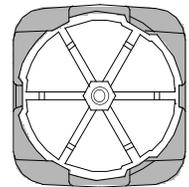
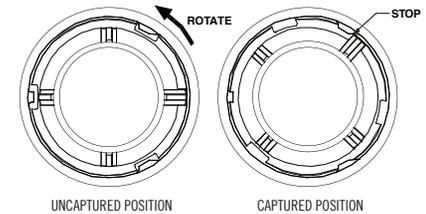
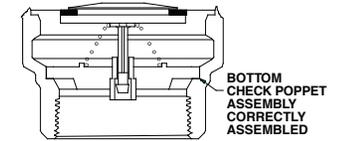
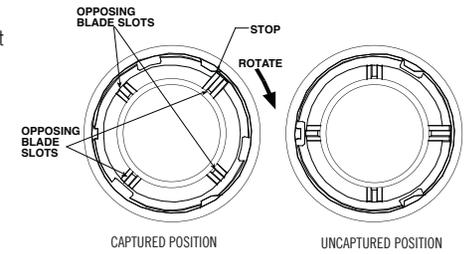
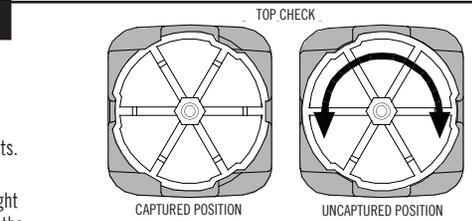


A.Y. McDonald
2" Angle Test Kit
(5135-419)

FIELD INSPECTION AND TEST PROCEDURE

A. DISASSEMBLY

1. Remove the device cap.
2. Remove the top poppet assembly by rotating either direction until the tabs disengage, using care not to damage device or components. **See Diagram A.**
3. Remove the bottom seal cage by rotating the cage using two straight blade screwdrivers in the opposing blade slots. Rotate the cage in the opposite direction from the stop until tabs and slots line up. **See Diagram B.** Once tabs and slots line up, remove bottom seal cage being careful not to damage the sealing surface. Then lift out poppet assembly.
4. Visually inspect seals, sealing surfaces, etc. for debris or damage.

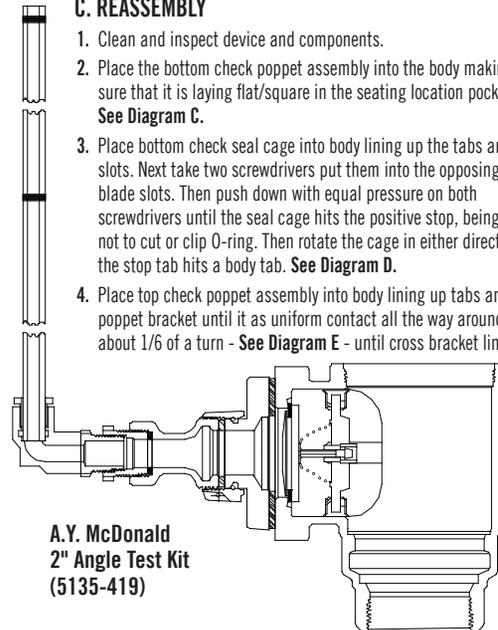


B. TESTING

1. Place poppet assembly into body lining up tabs and slots. Press in the poppet bracket until it has uniform contact all the way around. Rotate the poppet bracket about 1/6 of a turn - **See Diagram E** - until cross bracket lines up with body interlocks.
2. Add water to test kit level to upper red line - 42 inches (1.5 psig).
3. Observe water level for up to 5 minutes. Water level should not fall below lower red line - 28 inches (1.0 psig).
4. If water column falls below 28 inches the poppet assembly should be cleaned and re-tested or replaced.
5. Remove the top poppet assembly by rotating either direction until the tabs disengage, using care not to damage device or components. **See Diagram A.**
6. Repeat steps B1 - B5 for the other poppet assembly, as both poppet assemblies are identical.

C. REASSEMBLY

1. Clean and inspect device and components.
2. Place the bottom check poppet assembly into the body making sure that it is laying flat/square in the seating location pocket. **See Diagram C.**
3. Place bottom check seal cage into body lining up the tabs and slots. Next take two screwdrivers put them into the opposing blade slots. Then push down with equal pressure on both screwdrivers until the seal cage hits the positive stop, being careful not to cut or clip O-ring. Then rotate the cage in either direction until the stop tab hits a body tab. **See Diagram D.**
4. Place top check poppet assembly into body lining up tabs and slots. Press in the poppet bracket until it as uniform contact all the way around. Rotate the poppet bracket about 1/6 of a turn - **See Diagram E** - until cross bracket lines up with body interlocks.



A.Y. McDonald
2" Angle Test Kit
(5135-419)

5. Reassemble device cap. Do not overtighten.