

Installation, Maintenance, and Repair Manual

Series 007DCDA

Double Check Detector Assembly

007M1DCDA 2"

007DCDA 2"

007DCDA 2½" & 3"

⚠ WARNING



Read this Manual **BEFORE** using this equipment. Failure to read and follow all safety and use information can result in death, serious personal injury, property damage, or damage to the equipment. Keep this Manual for future reference.



⚠ WARNING

Local building or plumbing codes may require modifications to the information provided. You are required to consult the local building and plumbing codes prior to installation. If the information provided here is not consistent with local building or plumbing codes, the local codes should be followed. This product must be installed by a licensed contractor in accordance with local codes and ordinances.

⚠ WARNING

Need for Periodic Inspection/Maintenance: This product must be tested periodically in compliance with local codes, but at least once per year or more as service conditions warrant. All products must be retested once maintenance has been performed. Corrosive water conditions and/or unauthorized adjustments or repair could render the product ineffective for the service intended. Regular checking and cleaning of the product's internal and external components helps assure maximum life and proper product function.

⚠ WARNING

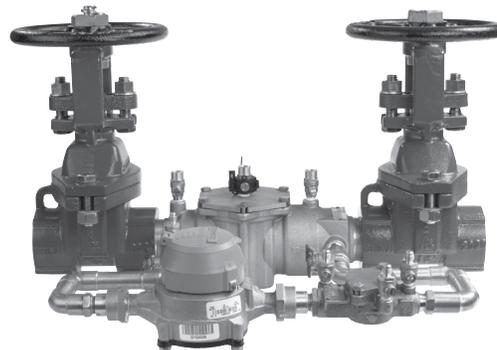
Freeze sensor solely provides alerts about a possible freeze event and cannot prevent a freeze event from occurring. User action is required to prevent freeze conditions from causing product and/or property damage.

Testing

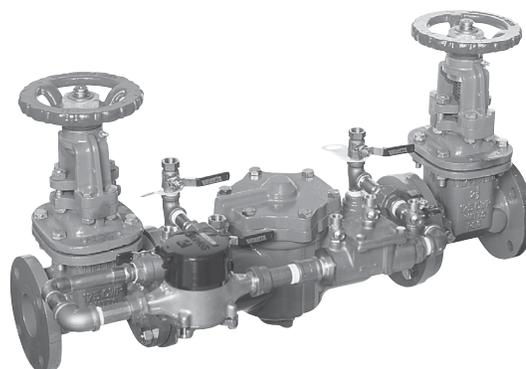
For field testing procedure, refer to Watts installation sheets IS-TK-DL, IS-TK-9A, IS-TK-99E, and IS-TK-99D at watts.com.

For other repair kits and service parts, refer to the Backflow Prevention Products Repair Kits & Service Parts price list PL-RP-BPD at watts.com.

For technical assistance, contact your local Watts representative.



007M1DCDA-OSY with Freeze Sensor



007DCDA

Series 007DCDA Double Check Detector Assembly is specifically designed to protect against possible backpressure and backsiphonage conditions for non-health hazard application in accordance with Local Governing Water Utility Code. This assembly is primarily used on potable drinking water systems where Local Governing Code mandates protection from non-potable quality water being pumped or siphoned back into the potable water system.

Series 007M1DCDA specifically includes a freeze sensor to signal building/irrigation management systems when temperature hits the freeze thresholds.

NOTICE

An add-on connection kit is required to activate the freeze sensor. Without the connection kit, the sensor is a passive component that does not communicate with any other device. (The kit can also be used to retrofit existing installations. For ordering details, see "Add-on Sensor Connection Kit.") BMS/IMS only.

NOTICE

Use of freeze sensor does not replace the need to comply with all required instructions, codes, and regulations related to installation, operation, and maintenance of the backflow preventer.

Watts is not responsible for data transmission failures or the failure of alerts due to connectivity issues, power outages, or improper installation.

Installation Guidelines

Annual inspection of all water system safety and valves is required. Regular inspection, testing, and cleaning assures maximum life and proper product function.

Series 007DCDA can be installed in either a horizontal or vertical-up orientation for service on commercial potable water or fire sprinkler systems. Before installing the unit, the supply pipe lines must be thoroughly flushed to remove foreign material that may cause unnecessary check fouling. The backflow assembly must be installed with the arrow on the valve body pointing in the direction of flow for proper operation.

Watts recommends the installation of this device downstream of a water meter and/or main line isolation shutoff valves using techniques that comply with the latest edition of the Uniform Plumbing Code. Consult Local Governing Code for proper installation and agency code requirements.

⚠ CAUTION

Strainer Installations. The installation of a strainer upstream on Series 007DCDA is recommended to prevent the check modules from unnecessary fouling when used on commercial potable water systems. Do not install a strainer when the backflow preventer is called upon for emergency deluge or used on a fire sprinkler system and/or individual sprinkler feed.

⚠ CAUTION

Fire Protection System Installations. The National Fire Protection Agency (NFPA) Guidelines require a confirming flow test to be conducted whenever a main line valve such as the shutoff valves or a backflow assembly are in operation. A certified backflow tester must conduct this test. The trim valves located on the detector meter bypass line (if equipped) should be fully closed during the confirming flow test of the main line backflow assembly. Once the testing is completed, the trim valves must be returned to a fully open position.

⚠ CAUTION

Flange Connections. Inspect and retighten all flange gasket bolts on the backflow assembly during installation. Flange gasket bolts may have loosened due to storage, transport, and/or static system hydro-testing.

Indoor Installations

For indoor installation, the backflow preventer assembly must be accessible to facilitate testing, main line valve servicing, and/or removal of the detector meter bypass line. Do not install the assembly in a concealed location.

Outdoor Installations

For outdoor installations, care must be taken to ensure the assembly is not subjected to periods of freezing conditions. Freezing conditions may damage the device and leave it non-operational. If the installation is in an area subject to freezing conditions, the use of an insulated and/or heated enclosure such as the WattsBox may be required.

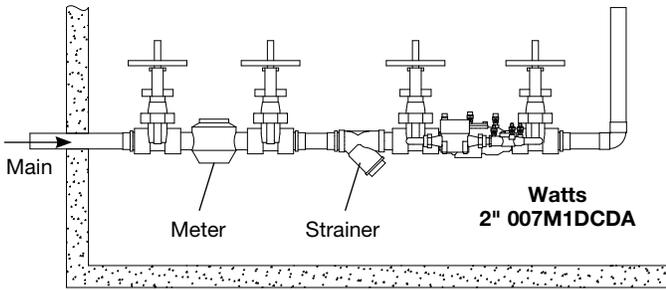
Below Ground Installations

Series 007DCDA is not recommend for below ground (burial) installations. The most satisfactory installation is above ground; the device should be installed in this manner whenever possible. If below ground installation is required, the use of a valve box to shield the assembly from contact with soil organics and provide adequate drainage in the event of rainfall is recommended. Consult the Local Governing Code for proper below ground installation and agency code requirements.

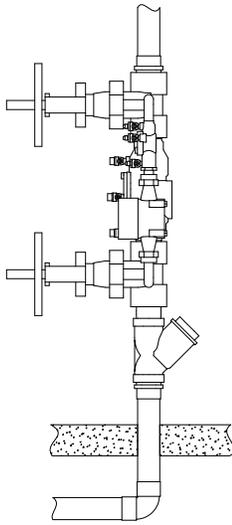
Parallel Installations

Two or more Series 007DCDA assemblies may be piped in parallel (where approved by Local Governing Code) to serve a larger supply pipe main. This type of installation is employed whenever it is vital to maintain a continuous supply of water, where interruptions for testing and servicing would be unacceptable. Parallel installations also provide an advantage to increase capacity where needed beyond that provided by a single assembly and permit testing or servicing of an individual assembly without shutting down the complete line. For two valve installations, the total capacity should equal or exceed the total requirement of the system.

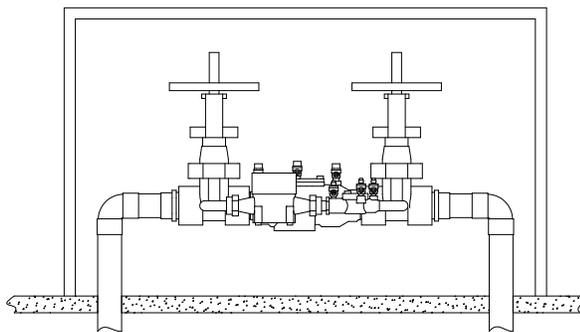
Horizontal Installation



Vertical-Up Installation

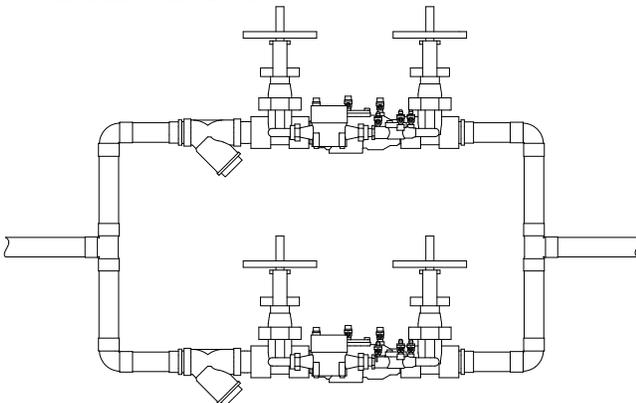


Outdoor Installation



WattsBox Insulated Enclosures
For more information, download ES-WB.

Parallel Installation



Servicing Check Valves

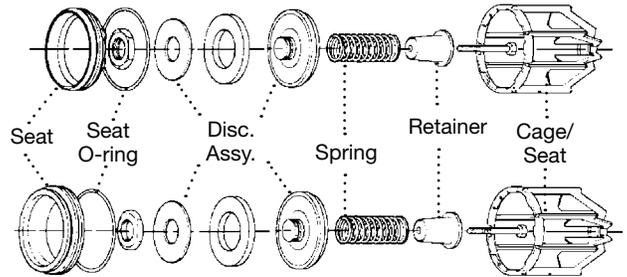
1. Remove the cover bolts and cover.
2. Remove the retainer from the body bore. The check valve modules can now be removed from the valve by hand or with a screwdriver.
3. The check seats are attached to the cage with a bayonet type locking arrangement. Holding the cage in one hand, push the seat inward and rotate counterclockwise against the cage. The seat, spring cage, and spring and disc assembly are now individual components.
4. The disc assembly can now be cleaned and reassembled or, depending on its condition, discarded or replaced with a new assembly from the repair kit. O-rings should be cleaned or replaced as necessary. (For more information, refer to repair parts price list PL-RP-BPD.)
5. Reassemble the check valve modules. Check modules are installed in the valve body with the seats facing the valve inlet. The modules must be securely in place before the retainer is replaced.

NOTICE

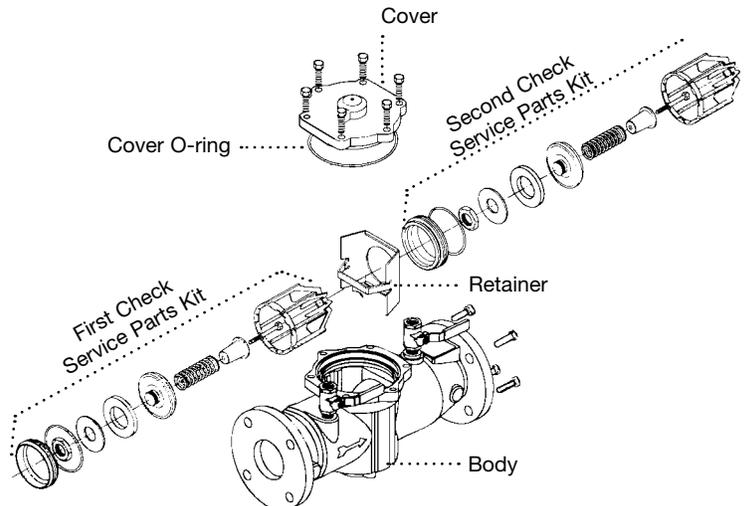
No special tools required to service the assembly series.

Series 007DCDA, 2½" and 3"

Check Assemblies



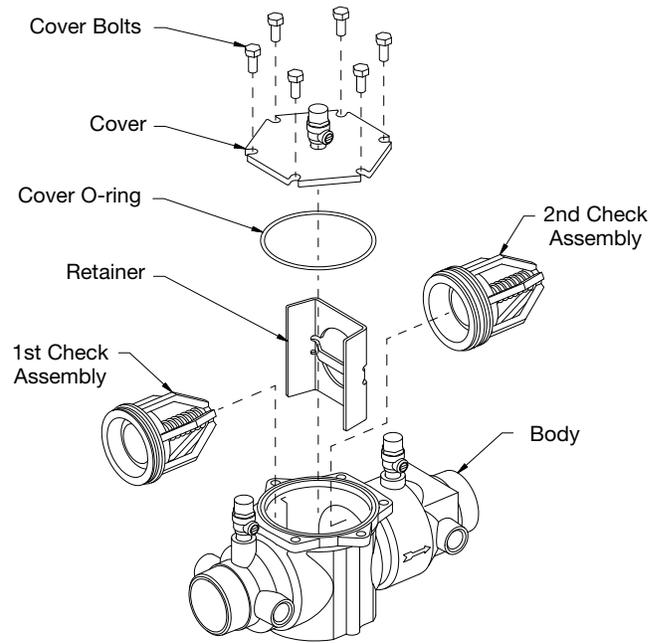
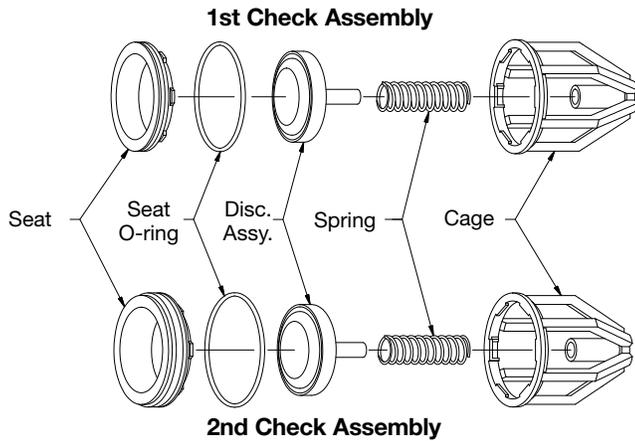
Exploded View



Series 007M1DCDA, 2"

Check Module

Exploded View



Add-on Monitoring Connection Kits

ORDERING CODE	ADD-ON/RETROFIT KIT	DESCRIPTION
88009429	FP-BF-BMS/IMS-FZ BMS/IMS Freeze Sensor Connection Kit	Includes freeze sensor in mounting clip, activation module with mounting hardware, wire nuts (2), and power adapter. Use this kit to add an indicator of the freeze threshold for PVB assemblies in a BMS/IMS configuration.

Limited Warranty: Watts Regulator Co. (the "Company") warrants each product to be free from defects in material and workmanship under normal usage for a period of one year from the date of original shipment. In the event of such defects within the warranty period, the Company will, at its option, replace or recondition the product without charge.

THE WARRANTY SET FORTH HEREIN IS GIVEN EXPRESSLY AND IS THE ONLY WARRANTY GIVEN BY THE COMPANY WITH RESPECT TO THE PRODUCT. THE COMPANY MAKES NO OTHER WARRANTIES, EXPRESS OR IMPLIED. THE COMPANY HEREBY SPECIFICALLY DISCLAIMS ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

The remedy described in the first paragraph of this warranty shall constitute the sole and exclusive remedy for breach of warranty, and the Company shall not be responsible for any incidental, special or consequential damages, including without limitation, lost profits or the cost of repairing or replacing other property which is damaged if this product does not work properly, other costs resulting from labor charges, delays, vandalism, negligence, fouling caused by foreign material, damage from adverse water conditions, chemical, or any other circumstances over which the Company has no control. This warranty shall be invalidated by any abuse, misuse, misapplication, improper installation or improper maintenance or alteration of the product.

Some States do not allow limitations on how long an implied warranty lasts, and some States do not allow the exclusion or limitation of incidental or consequential damages. Therefore the above limitations may not apply to you. This Limited Warranty gives you specific legal rights, and you may have other rights that vary from State to State. You should consult applicable state laws to determine your rights. **SO FAR AS IS CONSISTENT WITH APPLICABLE STATE LAW, ANY IMPLIED WARRANTIES THAT MAY NOT BE DISCLAIMED, INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE LIMITED IN DURATION TO ONE YEAR FROM THE DATE OF ORIGINAL SHIPMENT.**



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