

700, 700H, 701, 700A SERIES

Check Valve Instruction Manual

IM-CARD-700T
Jun, 2012

◆ *Installation*

Installation Preparation

1. Remove protective cap and packing material
2. Before installing the valve, assure the specified pressure and temperature range is sufficient and piping line is installed properly.
3. The environment of installing valve should be suitable to the operation.
4. Ensure the flow direction on the valve Body.

Connection of Taper Thread

1. Before assembly, make sure of removing dirt on male and female threads.
2. Teflon tape should be applied to male thread with 5 or 6 turns.
3. After wrapping the threads, make sure that the tape is properly fixed by pressing the tape with hands.
4. During the installation, dirt should not be contained.

Connection of Hy-Lok Tube Fitting

1. Insert prepared tubing into Hy-Lok fitting until tubing end is firmly seated on the body shoulder and make sure the nut is finger-tight.
2. Mark the nut at 9 o'clock position for identification of starting point.
3. Tighten the nut 1 1/4 turns with a wrench keeping the fitting body steady with a back-up wrench. After the nut is tightened 1 1/4 turn, the marking made at 9 o'clock position before, will now be at 12 o'clock position.

◆ *Maintenance*

⚠ CAUTION

1. Check that Valve condition is within a safe temperature range and free from a power source. In order to check, the line shall be fully depressurized before attempting any maintenance and any fluids shall be drained.
2. The Valve should be operated by an authorized person or trained personnel to insure proper valve operation.

Replacement of part components

Seat leakage is suspected, the valve will need to be removed from the line for new seats to be fitted. After removal of the valve, adopt the following procedure to remove, replace and reassemble the part components.

Leakage

1. External leakage

In case of stem leakage, after removing the valve from the line, hold the Body with spanner and tighten the End Connector. (In case of 701, 700A Series, tighten the Stop Nut.) If the leakage remains after tightening, remove the End Connector and ensure the damage of Body and End Connector. If damage, replace the damaged part component(s).

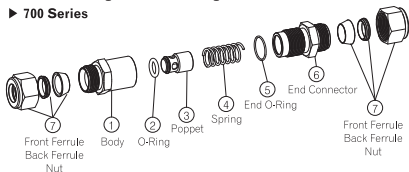
2. In-Line leakage

If the reason of leakage is O-Ring damage or remained debris on Poppet, replace the component.

Hy-Lok

General Arrangement Drawings

► 700 Series



Disassembly

1. Remove the **End Connector(6)** from the **Body(1)** by using the spanner.
2. Remove the **Spring(4)**, **Poppet(3)** from the **Body(1)**.
3. Remove the **O-Ring(2)** from the **Body(1)**.
4. Remove the **End O-Ring(5)** from the **End Connector(6)**. - Only apply to CV5, CV6 Series

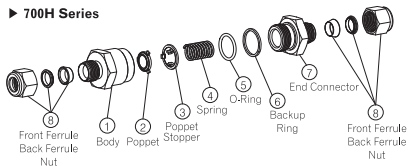
Reassembly

1. Before valve reassembly, check if any damage and corrosion in **all** part components of the valve. If the damage is considerable, replace the part component.
2. Insert the lubricated **O-Ring(2)** into the **Body(1)**.
3. Place the **End O-Ring(5)** on the **End Connector(6)**. - Only apply to CV5, CV6 Series
4. Insert the **Spring(4)**, **Poppet(3)** into the **End Connector(6)**.
5. Tighten the **End Connector(6)** into the **Body(1)** according to Torque Table.

Torque Table

Series	Spanner Size	Material	Torque (N · m)
	End Connector		End Connector
CV1	5/8" (15.8mm)	SS316	19.6
	3/4" (19.1mm)	Brass	14.7
CV2	7/8" (22.2mm)	SS316	29.4
		Brass	24.5
CV3	7/8" (22.2mm)	SS316	49.0
		Brass	39.2
CV4	1 1/8" (28.6mm)	SS316	78.4
		Brass	53.9
CV5	1 1/4" (31.8mm)	SS316	98.0
		Brass	78.4
CV6	1 3/8" (34.9mm)	SS316	117.6
	1 5/8" (41.3mm)	Brass	98.0

► 700H Series



Disassembly

1. Remove the **End Connector(7)** from the **Body(1)** by using the **Spanner**.
2. Remove the **Spring(4)**, **Poppet Stopper(3)**, **Poppet(2)** from the **Body(1)**.
3. Remove the **O-Ring(5)**, **Backup Ring(6)** from the **End Connector(7)**.

Reassembly

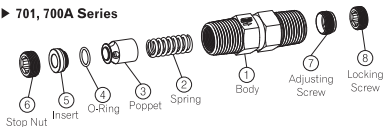
1. Before valve reassembly, check if any damage and corrosion in all part components of the valve. If the damage is considerable, replace the part component.
2. Insert the lubricated **Poppet(2)**, **Poppet Stopper(3)** into the **Body(1)** after checking to the direction and insert the **Spring(4)**.
3. Insert the **Backup Ring(6)**, lubricated **O-Ring(5)** into the **End Connector(7)**.
4. Tighten the **End Connector(7)** into the **Body(1)** according to **Torque Table**.

Torque Table

Series	Spanner Size	Material	Torque (N · m)
	End Connector		End Connector
CVH1	11/16" (17.4mm)	SS316	29.4
CVH2	1" (25.4mm) 1 1/16" (26.9mm)		49.0
CVH3	1 5/8" (41.3mm)		78.4



► 701, 700A Series



Disassembly

1. Remove the Locking Screw(8), Adjusting Screw(7) from the Body(1). (Only apply to 700A Series)
2. Remove the Stop Nut(6) from the Body(1).
3. Remove the Insert(5), Poppet(3), Spring(2) from the Body(1).
4. Remove the O-Ring(4) from the Insert(5).

Reassembly

1. Before valve reassembly, check if any damage and corrosion in all part components of the valve. If the damage is considerable, replace the part component.
2. Place the O-Ring(4) on the Insert(5).
3. Tighten the Adjusting Screw(7) and Locking Screw(8). (Only apply to 700A Series)
4. Insert the Spring(3), Poppet(3), Insert(5) into the Body(1) and tighten the Stop Nut(6) according to Torque Table.

Torque Table

Series	Hex Wrench Size	Material	Torque (N · m)
	Stop Nut		Stop Nut
CV CVA	1/4" (6.35mm)	SS316	9.8
		Brass	7.8
	1/2" (12.7mm)	SS316	19.6
		Brass	14.7

◆ Removal

⚠ CAUTION

The valve shall be depressurized with the open position before removal. And close the valve after fluids are fully drained.

1. Get permission to remove the valve.
2. For preventing the damage of the O-Ring, awfully attention is needed when remove the valve.
3. After removal, clean the valve and cap the ends with plastic covers.