**FLUIDMASTER® 400A Fill Valve Installation Instructions**

**WARNING:**
Do not do in tank repair. Toilets are pressurized and may explode. Use only Fluidmaster parts when installing or repairing. Fluidmaster will not be responsible or liable for use of non-Fluidmaster parts.

**Limited Five Year Warranty**
Fluidmaster Inc. will provide, subject to the "Exclusions" set forth below, all replacement parts free of charge, necessary to correct immediately any non-conformance to Fluidmaster standards, as set forth in the written instructions accompanying the product, and if non-Fluidmaster Inc. parts are used in installation.

**Preparing the Fill Valve for Installation**

1. **Place Shank Washer onto threaded shank of fill valve. Flat side up.**
2. **Attach water supply coupling nut to fill valve. Turn coupling nut clockwise by hand until tight.**
3. **Adjust height of fill valve by holding lower shank with right hand and top of valve with left hand. Twist the lower shank counter-clockwise to increase valve height and clockwise to decrease valve height.**
4. **Adjust flush valve to face center of tank. Press down on shank from inside tank while tightening locknut.**
5. **Attach one end of refill tube to refill clip. Place clip on right side of overflow pipe. Attach other end of tube to refill valve with a slight arch (See diagram to the right).**

**Adjusting Tank Water Level**

With water turned on, set float cup to desired level, by turning water level adjustment screw. When adjusting float cup, flush tank first. Then make adjustment while tank is filling.

**Installing New Fill Valve**

Place fill valve in tank. Make sure lid will sit on top of tank without touching valve. Align fill valve nipple to face center of tank. Press down on shank from inside tank while tightening locknut. Hand-tighten only. DO NOT OVER TIGHTEN. Over tightening may crack the fill valve or tank causing leaking. Make sure the float cup does not touch the tank walls or tank lever and flush valve.

**Removing Valve Cap Assembly, Flushing Out Debris, Replacing Seal, & Replacing Valve Cap Assembly**

1. **Remove old fill valve.**
2. **Remove tank lid. Use pencil to mark water level of tank.**
3. **Remove water supply line coupling nut. Remove locknut from bottom.**
4. **Correct set up of refill tube and refill clip to overflow pipe.**

**Troubleshooting**

- **IF FILL VALVE DOES NOT TURN ON, WILL NOT TURN OFF, OR WILL NOT REFILL THE TANK AFTER THE FLUSH**
  - Remove top cap and check for debris. If you find debris, or flow is weak, inspect lower section of fill valve for partial blockage. Partial blockage may be at shut off valve or in water supply line (See REMOVING THE VALVE CAP ASSEMBLY & FLUSHING OUT DEBRIS). If fill valve has been in use for some time and/or float cup does not drop when flushing tank, replace seal with a genuine Fluidmaster 242 seal (See “B REPLACING SEAL”).

- **IF FILL VALVE TURNS ON AND OFF BY ITSELF**
  - This indicates the tank is losing water. The fill valve is refilling lost water. Clean flapper and drain seat. If weak, continue, change flapper or flush valve. Install Fluidmaster 502, 507AR, 540AR or 555C kit.

- **IF WATER LEVEL IN BOWL IS TOO LOW**
  - Make sure the refill tube is supplying water down overflow pipe.
  - Water level in tank may be too low. Raise water level to 1/2” below top of overflow pipe (See “ADJUSTING TANK WATER LEVEL”). You may have to lengthen the fill valve in order to increase the water level in tank (See “PREPARING THE FILL VALVE FOR INSTALLATION”).
  - Flapper may be closing too soon. Give flapper chain approximately 1/2” slack.

- **IF WATER LEVEL IN BOWL IS TOO HIGH**
  - The critical level mark, identified by C.L. on fill valve, MUST be positioned “C.L.” above top of overflow pipe. This is a requirement of the Universal Plumbing Code.

**Code Compliance**

1. **1. THE TOP OF OVERFLOW PIPE (A) must be minimum of 1” below TANK LEVER HOLE (B).**
2. **2. WATER LEVEL (C) is set below top of Overflow pipe.** (Fluidmaster recommends 1 1/2”).
3. **3. THE CRITICAL LEVEL MARK (C.L. Mark (D) identified by C.L. on fill valve must be positioned 1” above top of overflow pipe. This is a requirement of the Universal Plumbing Code.**

**Tools Needed**

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**Parts in this Kit:**

1. Fill Valve
2. Shank Washer
3. Locknut
4. Refill Tube
5. Refill Clip

**Tools Needed**

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**Materials Needed**

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**Parts Needed**

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**Declarations of Conformity**

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**Specifications**

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**Warranty**

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**FLUIDMASTER® Preparing the Fill Valve for Installation**

- Put the fill valve into the tank, but do not fully install yet. Top of fill valve MUST be set 3” above overflow pipe. This will automatically place CRITICAL LEVEL MARK / C.L. Mark, 1” above the top of overflow pipe. Remove fill valve from tank to adjust height.

- Attach fill valve to overflow by holding lower shank with right hand and top of valve with left hand. Twist the lower shank counter-clockwise to increase valve height and clockwise to decrease valve height. You should hear several “clicks.”

- Fluidmaster Click Seal® connector is recommended: A perfect seal every time without over tightening.

- Place valve in tank and check height again. THE CRITICAL LEVEL MARK, identified by C.L. on fill valve, MUST be positioned 1” above top of overflow pipe. This is a requirement of the Universal Plumbing Code.

- Do not move lock ring. Twist the lower shank counter clockwise to increase valve height and clockwise to decrease valve height. You should hear several “clicks.”

- Make sure the refill tube is supplying water down overflow pipe. Flapper may be closing too soon. Give flapper chain approximately 1/2” slack.

- **Position fill valve in tank, but do not fully install yet. Top of fill valve MUST be set 3” above overflow pipe. This will automatically place CRITICAL LEVEL MARK / C.L. Mark, 1” above the top of overflow pipe. Remove fill valve from tank to adjust height.**

- Adjust height of fill valve by holding lower shank with right hand and top of valve with left hand. Twist the lower shank counter-clockwise to increase valve height and clockwise to decrease valve height. You should hear several “clicks.”

- Fluidmaster Click Seal® connector is recommended: A perfect seal every time without over tightening.

- Place valve in tank and check height again. THE CRITICAL LEVEL MARK, identified by C.L. on fill valve, MUST be positioned 1” above top of overflow pipe. This is a requirement of the Universal Plumbing Code.

- Do not move lock ring. Twist the lower shank counter clockwise to increase valve height and clockwise to decrease valve height. You should hear several “clicks.”

- Make sure the refill tube is supplying water down overflow pipe. Flapper may be closing too soon. Give flapper chain approximately 1/2” slack.