

Danco HC660

Danco HC660 HydroClean Toilet Fill Valve Repair Kit Instruction Manual

1. PRODUCT OVERVIEW

The Danco HC660 HydroClean Toilet Fill Valve Repair Kit is designed to address common toilet water loss issues, such as miscalibration and leaks. This valve features a built-in mini-valve for precise water level adjustment, ensuring efficient refilling and water conservation. It also incorporates cleaning jets to maintain tank hygiene and a leak detection system to alert users to potential problems. The HC660 is adjustable in height and designed for tool-free installation in most standard toilets.



Figure 1: Danco HC660 HydroClean Toilet Fill Valve Repair Kit

2. KEY FEATURES

- **Water-Saving Mini-Valve:** Adjusts tank refill water level to conserve water.
- **Leak Detection:** Sounds an audible alert when a leak is detected.
- **Cleaning Jets:** Strong jets stir up debris in the toilet tank to keep it cleaner with every flush.
- **Easy Adjustments:** Features a Float Lock to shut off water inside the tank for repairs and an adjustable height from 11 inches to 13.8 inches.
- **Tool-Free Installation:** Smart Nut design facilitates easy installation in most standard toilets without

the need for tools.

- **Full Flush Efficiency:** Calibrates your toilet for optimal flush performance.



*Water savings up to 30% - based on findings from an independent study conducted by Veritec Consulting Inc. on the installation and calibration of fill valves in residential 3.5 gal toilets.

Figure 2: Diagram illustrating the key features of the Danco HC660 HydroClean Fill Valve.

3. SAFETY INFORMATION

- Always turn off the water supply to the toilet before beginning any repair or installation.
- Wear appropriate personal protective equipment, such as gloves, if desired.
- Ensure the toilet tank is empty of water before removing old components to prevent spills.
- Do not overtighten plastic nuts, as this can cause damage. Hand-tightening is generally sufficient.

4. PACKAGE CONTENTS

The Danco HC660 HydroClean Toilet Fill Valve Repair Kit includes the following components:

- Danco HC660 HydroClean Toilet Fill Valve
- Refill Tube (long)
- Refill Tube (short)
- Smart Nut (pre-installed on valve)
- Installation Instructions



Figure 3: Components included in the Danco HC660 HydroClean Toilet Fill Valve Repair Kit.

5. INSTALLATION INSTRUCTIONS

Follow these steps to install your Danco HC660 HydroClean Toilet Fill Valve.

5.1. Diagnose the Problem (Optional)

If your toilet is running constantly, you can determine if the fill valve or flapper is the cause:

1. Remove the toilet tank lid.
2. Observe the water level. If water is overflowing into the drain pipe, the fill valve is likely the issue.
3. To check the flapper, gently press down on it. If the running sound stops, the flapper may be leaking.
4. Alternatively, turn off the water supply to the toilet. If the running sound stops and the water level holds, the fill valve is the problem. If the water level continues to drop, the flapper is leaking.

5.2. Prepare for Installation

1. Turn off the water supply to the toilet by rotating the shut-off valve located near the base of the toilet.
2. Flush the toilet to drain most of the water from the tank.
3. Use a sponge or paper towels to remove any remaining water from the bottom of the tank.

5.3. Remove the Old Fill Valve

1. Disconnect the water supply line from the bottom of the old fill valve.
2. Unscrew the large plastic nut holding the old fill valve in place from underneath the toilet tank. Pliers may be needed for older, tighter nuts.
3. Carefully lift the old fill valve out of the tank.

5.4. Install the New Fill Valve

1. Remove the Smart Nut from the new Danco HC660 fill valve.
2. Insert the new fill valve into the hole at the bottom of the toilet tank.
3. From underneath the tank, thread the Smart Nut onto the fill valve. Hand-tighten the nut securely. No tools are typically required for this step.
4. Reconnect the water supply line to the bottom of the new fill valve. Hand-tighten until snug.

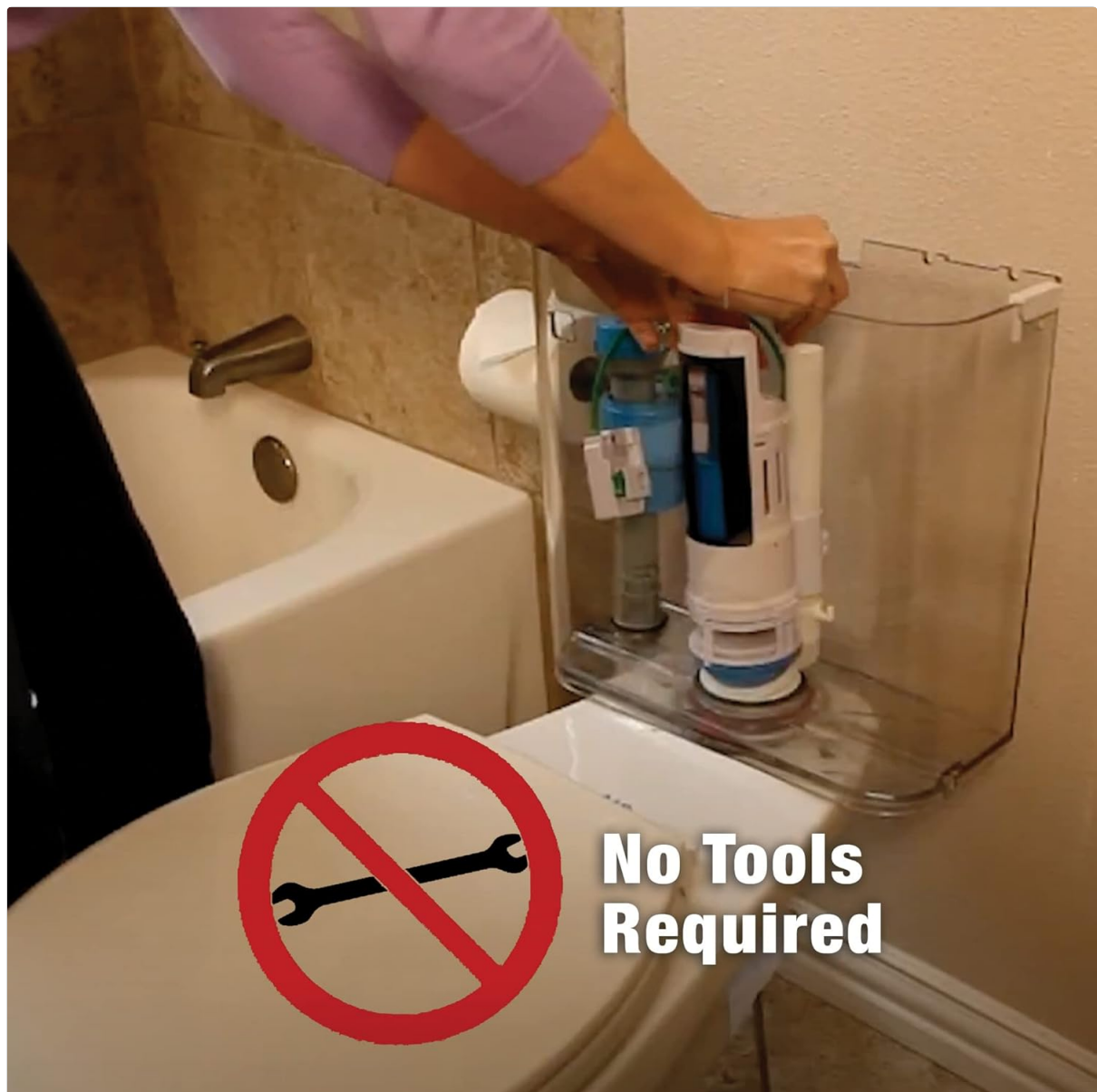


Figure 4: The Danco HC660 fill valve is designed for tool-free installation.

5.5. Connect Refill Tube

1. Attach the longer refill tube to the small port on the side of the fill valve.
2. Route the other end of the refill tube to the overflow pipe in the center of the tank. If the tube is too long, trim it with scissors to ensure it sits properly without kinking.
3. Secure the end of the refill tube to the overflow pipe using the provided clip, or insert it directly into the pipe if the clip is removed.

5.6. Restore Water Supply and Test

1. Slowly turn the water supply back on.
2. Allow the tank to fill. Check for any leaks around the connections.
3. Flush the toilet several times to ensure proper operation and that the valve shuts off correctly.

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Video 1: HydroClean Features and Installation Overview. This video provides a visual guide to the features and benefits of the HydroClean valve, including a brief demonstration of its operation.

6. OPERATING INSTRUCTIONS

6.1. Adjusting Water Level

The Danco HC660 allows for easy adjustment of the water level in the tank:

1. Locate the adjustment screw on the top of the fill valve.
2. Turn the screw clockwise to lower the water level or counter-clockwise to raise it.
3. Flush the toilet after each adjustment to check the new water level and ensure the valve shuts off properly.
4. The fill valve's height can also be adjusted from 11 inches to 13.8 inches by pressing a release mechanism at the base of the unit and sliding the tower up or down.

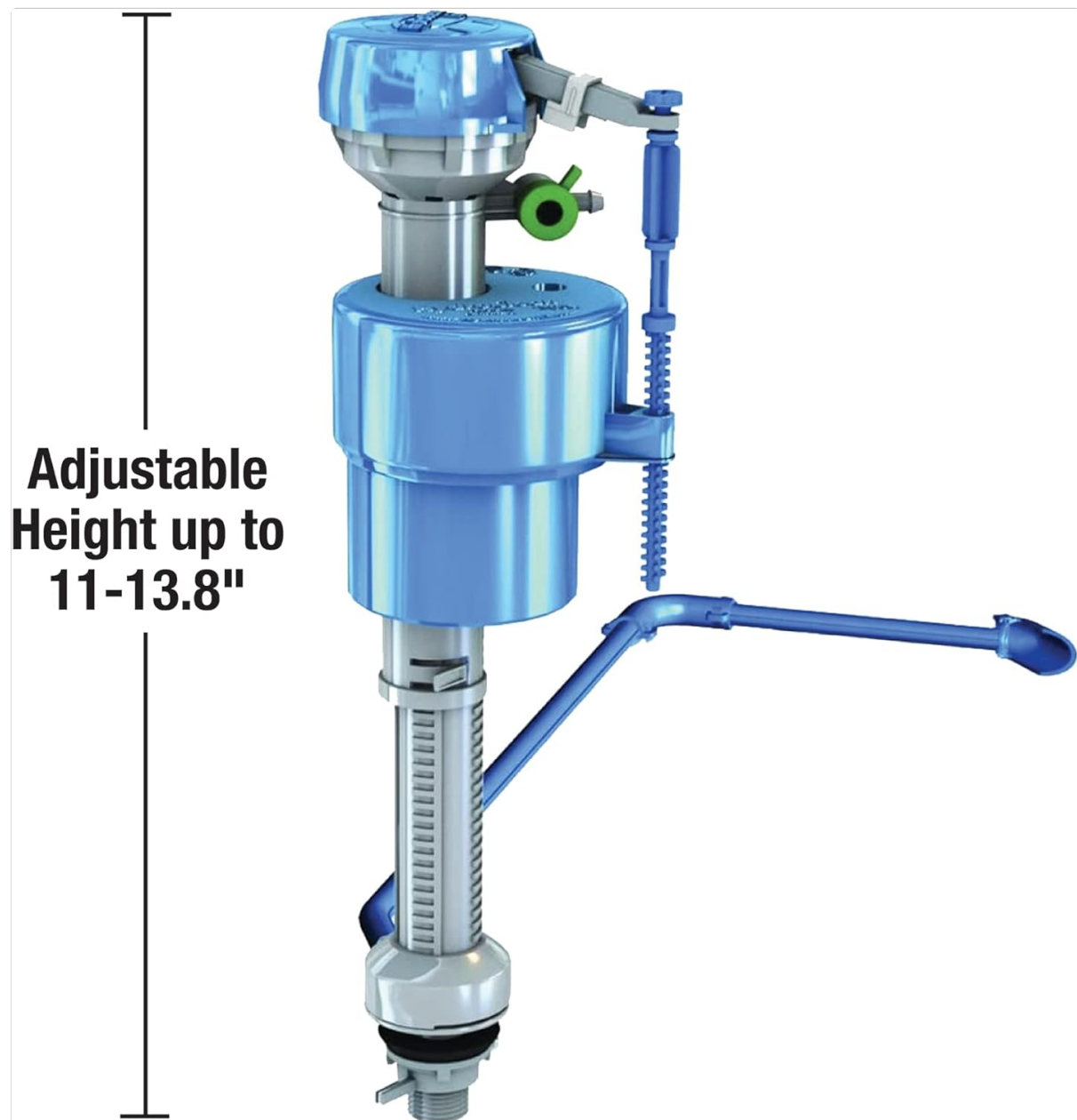


Figure 5: The Danco HC660 fill valve features adjustable height for compatibility with various toilet tanks.

6.2. Leak Detection Feature

The HydroClean valve is designed to emit an audible alert if a leak is detected, even a silent flapper leak. This feature helps prevent water waste by notifying you of issues between flushes.



Figure 6: The HydroClean valve in a toilet tank, showing the cleaning jets in action and illustrating its leak detection capability.

7. MAINTENANCE

The Danco HC660 HydroClean fill valve is designed for low maintenance. Its integrated cleaning jets help prevent sediment and slime buildup in the tank, which can prolong the life of the flapper and other components. No specific routine maintenance is typically required beyond ensuring the refill tube remains properly positioned and the valve operates silently when the tank is full.

8. TROUBLESHOOTING

- **Toilet Runs Constantly:** If the toilet continues to run after installation, first check the water level adjustment (Section 6.1). Ensure the water level is not too high, causing it to overflow into the drain

pipe. If the water level is correct and the toilet still runs, the leak detection feature should alert you. Inspect the flapper for proper sealing.

- **Slow Tank Fill:** Ensure the water supply valve is fully open. Check the water supply line for any kinks or obstructions.
- **Water Not Shutting Off:** Adjust the water level using the screw on top of the fill valve (Section 6.1). If the issue persists, the height of the fill valve tower may need adjustment.
- **Leaks at Connections:** Turn off the water supply and gently tighten any leaking connections by hand. Do not overtighten.

9. SPECIFICATIONS

- **Material:** Plastic
- **Brand:** Danco
- **Model Number:** HC660
- **Product Dimensions:** 10.5 x 3 x 3 inches
- **Item Weight:** 12.3 ounces
- **Adjustable Height:** 11 inches to 13.8 inches
- **Inlet Connection Size:** 0.75 Inches
- **Outlet Connection Size:** 0.75 Inches
- **UPC:** 188670000015

10. WARRANTY AND SUPPORT

The Danco HC660 HydroClean Toilet Fill Valve comes with a Limited 1 Year Warranty. For warranty claims or technical support, please refer to the contact information provided on the product packaging or visit the official Danco website.