

## HVAC NeverClog™ Suction Installation Manual

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## About NeverClog™

### 1. Purpose of the HVAC NeverClog™ System

The HVAC NeverClog™ system was developed to eliminate costly and inconvenient air handler shutdowns due to clogged condensate drain lines. The culprit: *Zooglea*, a bacterial biofilm that

thrives in warm, moist drain lines. As it grows, it forms a slimy, gooey substance that blocks water flow, triggering float switches and causing system shutdowns.

When clogs occur:

- Float switch halts system operation
- Drain pan must be vacuumed out
- The drain line must be fully cleared
- Partial clearing leads to repeated clogs and failure

## 2. How NeverClog™ Works

NeverClog™ maintains clean drain lines through daily, automated suction technology that runs every 24 hours.

- Suction occur every 24 hours
- Clears stagnant water buildup
- Disrupts Zooglea formation
- Maintains free-flowing lines
- Prevents emergency service calls
- Blocks bugs, lizards, frogs, mice, ants, debris and other artifacts from making their way into your home via the HVAC system.

## 3. Understanding Voltage Before Installation

The NeverClog™ system is voltage-specific. Models include:

- 110V AC
- 220V AC
- (12/24VDC version in development)

### How to Confirm System Voltage:

- **110V:** Single-pole breaker
- **220V:** Double-pole breaker
- Confirm with:
  - Multimeter
  - Hot stick
  - Labeling at panel or disconnect

## 4. Safety Requirements

**Always prioritize safety.**

### Power Off:

- Disconnect power at main panel and unit disconnect

#### **Test Before You Touch:**

- Confirm zero voltage with multimeter and hot stick

#### **Protective Gear:**

- Safety glasses
- Insulated gloves

#### **Tools & Environment:**

- Eye protection
- PVC Cutter

## **5. Smart Life App and Automation Integration**

The Smart Life App, available on iOS and Android, uses Tuya Wi-Fi protocol for device automation. With Smart Life:

- You can program "scenes" triggered by sensor events
- Automate NeverClog™ Suction bursts using timers and switch control

## **6. Smart Switch / Tuya Integration**

The included smart switch supports 90–250VAC input, ideal for both 110V and 220V systems. When wired and powered:

- An indicator light signals the compressor is powered
- The switch is integrated into Smart Life for full automation

## **7. Suction Overview**

Suction activation:

#### **Voltage Options:**

- 12VDC / 24VDC / 120VAC / 220VAC

#### **How It Works:**

- Waterproof Smart switch triggers signal to Suction Device

## **8. Suction System Components**

**Switch on Suction Device to ALWAYS REMAIN IN THE ON POSITION**

# Installation Manual

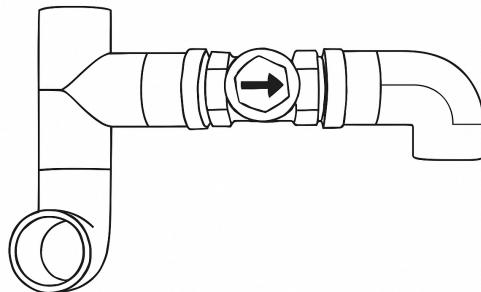
## 1. Installation Overview

This section details proper installation of the HVAC NeverClog™ system, including suction device mounting, electrical integration, valve assembly, smart app configuration, and automated scheduling.

## 2. Safety Precautions (Installer Focused)

- Disconnect and confirm no live power
- Match unit voltage (110V/220V)

## 3. Part 1: Suction Installation



- Locate the exterior drain line for your AC unit.
- Take the provided NeverClog™ suction valve manifold (shown above) and install onto the drain line of the home making sure that the arrow on the brass valve is to the right of the drain line with the arrow tip facing to the right. (The condensation will drain to the right out of the 90 elbow facing downward once connected)
- The elbow if needed can be added (in the box) or straight T end should be now connected to the end of the drain line against the structure of the home. If there is an elbow on the end remove it if needed and slip the T / elbow section over the existing drain line. OR use a provided  $\frac{3}{4}$ " nipple placed into the T and then place into the elbow from the existing drain line. Either will work depending existing drain line is position

outside your home. See pictures of different hook ups on our [website](#) if you have any questions.

- Locate GFCI outlets that are nearby to plug the NeverClog™ device into.
- Plug the device into the outlet.
- The brass valve hex head MUST FACE UP and the direction of the arrow must face pointed end to the right. The elbow to the right should be facing away from the home (This is where the natural condensation will drain from your home).
- The Suction hose end will plug into the upward facing elbow furthest away from the wall of the home on the manifold. There is a nipple in the elbow that it attaches to. Firmly push the hose end onto the nipple. Once you are connected you are ready to do a trial test to make sure you have connected everything correctly.
- Turn the NeverClog™ on and then trigger the on button of the smart plug to turn the system on. Then place your hand on the bottom of the elbow to the right of the arrow on the open elbow and make sure you feel NO SUCTION. If you have no suction you have hooked the NeverClog™ up correctly.
- Turn the device off with the smart device plug. LEAVE THE NeverClog™ in the ON position on the suction unit.
- You are now ready to mount the device to the wall mount.

- **Feel free to also email us or call us if you need further assistance.**

## 4. Part 2: Wall Mount

- The wall mount has 3 screw holes. All 3 are required for the wall mount to support the NeverClog™ device correctly. Please use the appropriate hardware per the substrate you are mounting into. (wood screws for wood & tapcons for brick and or concrete).

Make sure the device is oriented correctly and that you have placed it so that the NeverClog™ will be 2-6" from the ground.

- After anchoring the mount into the wall, place the Neverclog™ on to the wall mount by the ears sticking out on the left and right side of the exhaust side of the machine.
- You are now ready to program the device to your phone using the Smart Life App

## 5. Part 3: Smart Life App Configuration

### Product Specs:

- 90–250VAC input, 15A max, 2.4GHz Wi-Fi
- ABS casing, (88x38x22mm) correct size to come

### Checklist:

- Mobile device on 2.4GHz WiFi

- Know router Name / Password
- Disable MAC filtering

### Setup Steps:

1. Download Smart Life App
2. Register/log in
3. Power device (enter pairing mode or hold reset for 5 sec)
4. Add device > Select "Switch (WiFi)"
5. Enter WiFi credentials
6. Name device (e.g., John Jacobs 1234 NeverClog AC1)

### Troubleshooting:

- Reset switch if not pairing
- Ensure device is in WiFi range
- Disable MAC filtering

## 6. Part 4: Automation Scheduling

1. Tap Schedule > Add Schedule
2. Set ON time (e.g., 8:00 AM) & repeat days
3. Set Switch 1 > ON > Confirm
4. Go to Inch: Set **7 seconds**, enable inching mode
5. Test ON/OFF button; watch for timed shutoff
6. Save and exit

## 7. System Testing and Final Steps

- Manually activate system
- Confirm suction burst and discharge
- Confirm app control
- Register your unit online under NeverClog™ warranty
- The suction head MUST remain in the ON position to work correctly

## 8. Technical Specifications

Feature	Value
Operating Voltage	120 VAC 60 Hz
Suction	Every 24 hours
Duration	60 Seconds
Timer Interval	12–24 hr programmable

Temp Range 32–140°F (0–60°C)

## 9. **Warranty & Support**

**Warranty:** 5 years (NeverClog™ device) **Covers:** Manufacturing defects in workmanship or materials. 1 Year on the automation dongle with waterproof IP68 connection.

**Support Contact:**

-  239-677-7250
-  [support@neverclog.com](mailto:support@neverclog.com)