



## Operation Instructions

### Smart Snake A/C Drain Cleaner Safety

Always wear leather gloves and goggles.

If drain cleaning chemicals, bacteria or toxins are present be sure to wear rubber or latex gloves under leather gloves & face shield to prevent splashing to the face or eyes.

Do not wear loose clothing or jewelry.

Keep your hair away from moving parts.

Use only a cordless variable speed drill.

Do not exceed 60 RPMS

**DO NOT USE THE PVC-75 IN 3/4" FLEXIBLE DRAIN TUBING** - Flexible drain tubing is not consistently round, especially when it is bent to change direction. The cutting ball will get stuck in the smaller diameters of the tubing.

**The BLK-50** is recommended for flexible tubing and larger PVC piping. However, it may not pass through some 90 degree elbows.

**The BLK-50** may not pass through areas where tubing is extremely bent or kinked. **DO NOT FORCE** or allow the cutting tip to stop (jamb) turning. This can cause kinking of the flexible shaft or damage to the cutting tip.

### Loading & Removing Flexible Shaft

The flexible shaft should be installed by laying out the flexible shaft out on the floor. (Do not try to load from a tangled coil; it will not feed correctly into the housing.) Then push the flexible shaft into the housing while rotating the housing in the counter clockwise direction. Once the flexible shaft has been started into the housing, the rotation of the housing can be stopped and the rest of the flexible shaft can be pushed into the housing by hand, until the cutting tip reaches the housing.

To remove, slowly pull the flexible shaft out of the housing, the shaft should come completely out of the housing. If it does not, do not force it. Open the housing and untangle the flexible shaft so it will come out.

### Operation

Always use good quality wet vacuum to remove debris loosened by the Smart Snake.

Install the Smart Snake arbor into chuck of cordless drill.

The Smart Snake operates the best running in the counterclockwise rotation, however operating the Smart Snake clockwise, will sometimes overcome a difficult obstruction, but will increase the chance of tangling the flexible shaft inside of the housing. Keep the Smart Snake operating in counterclockwise rotation whenever possible

Do not allow the cutting tip to stop (jamb) turning while the drill is rotating. This can cause kinking of the flexible shaft or damage to the cutting ball.

When using the Smartsnake to clear a vertical drain line, **BE CAREFUL THE FLEXIBLE SHAFT CAN COME COMPLETELY OUT OF THE HOUSING FALLING INTO THE VERTICAL DRAIN LINE.**

### **Smart Snake from drain outlet toward air handler**

A good quality wet vacuum should be used to clear the A/C drain line from outside to toward the air handler, using the drain adapter. The drain adapter will allow the wet vacuum to be operating while using the Smart Snake.



### **Drain Adapter**

Install the drain adapter ("D" connection) to the drain line. It can be used on 3/4" or 1" drain line. (It can also be designed in the field, to connect to a different line size.)

Attach wet vacuum to "V" connection on drain adapter.

By hand, push the cutting tip into the top of the drain adapter. ("S" connection)  
Once the cutting ball is started into the drain adapter, place the slotted 3/4" PVC cap around flexible shaft and push down onto the short piece of 3/4" PVC pipe.

Turn on wet vacuum and then with gloved hands, start pushing the flexible shaft while being rotated with the cordless drill, into the A/C drain.

**Starting from the air handler first** may cause the broken up debris to back up in the drain line that has not been already been cleared.

Once the outside drain has been cleared, Remove the drain adapter and connect the wet vacuum directly to A/C drain.

### **Smart Snake from air handler**

Locate a good spot to insert Smart Snake into the A/C drain line leaving the air handler. (Cut the drain line if necessary.)

Then proceed with gloved hand to push the Smart Snake cutting ball into the A/C drain line from the air handler to the outside, with wet vacuum is running.

### **Opening Housing**

It will be necessary to open the housing for cleaning or should the flexible shaft get tangled up. With small pocket screwdriver, raise the tabs on both sides over the locking pins and separate both halves. The housings halves will snap back together.

### **Care**

Clean any debris from the flexible shaft and housing as needed. (Dirty and/or greasy flexible shaft and/or housing will cause flexible shaft to slip in the housing).

Inspect the Smart Snake for any conditions which may be unsafe.

Do not use the Smart Snake until unsafe conditions have been corrected.

Inspect your Smart Snake prior to each use to prevent injury.

**BE SURE TO SEE ALL THE TUTORIAL  
VIDEOS AT:**

**[www.smartsnakes.com](http://www.smartsnakes.com)**



## The Solution to Clogged Air Conditioning Drain Lines in Multi Story Apartments and Condos

Clogged drain lines are a common occurrence, especially in high humidity areas like Florida. It's not unusual that over 80% of all A/C calls in Florida were A/C drain related.

These clogs can shut off your A/C, create minor leaks, major leaks, water damage and even worse, mold.

Many older multi story apartments and condominiums use a common air conditioning drain riser, where several air handler drains connects to the same "common" drain line.

These clogs are usually cleared with pressure or a wet vacuum. However, depending where the clog is located, a vacuum or pressure will only clear the path of least resistance. Usually the drains that are not clogged, leaving the clogged drain, at best partially cleared, and will clog again in a short period of time.

What's even worse, is living on the ground floor of the "common" drain line, if the A/C drain line to the ground floor unit clogs downstream of the air handler, the A/C condensate water backs up into the ground floor unit air handler drain pan. The drain pan switch in the ground floor A/C unit will shut off.

However, the A/C unit(s) above the ground floor unit will continue to run, fill and overflow the ground floor unit's drain pan. **THERE IS NOTHING TO SHUT OFF THE A/C's IN THE UNITS ABOVE.**

The units above will continue to run and drain into the overflowing ground floor unit drain pan, until someone discovers the air handler is leaking, saturating the flooring, carpet, furniture, etc. (Or ceiling for ceiling mounted air handlers)

The Smart Snake was designed to clear the clog and walls of multi story "common" A/C drain lines. The 20' flexible shaft with its unique clearing tip can pass through PVC 90's and can reach from floor to floor. Reducing the chance of leaks and reducing callbacks.