



PREDATOR MODEL (DWS-POE-F4)

**DWS-POE-F4
PREDATOR / OBLITERATOR
INSTALLATION GUIDE & USER'S MANUAL**



O-SO PURE



Your O-SO PURE Disinfection System is actually two systems in one. The first stage filter utilizes a revolutionary NEW dual-micron, Polypropylene (spun-cotton) sediment filter. This filter is designed to reduce sand, silt, and rust, while greatly extending the life of the second filter ($\frac{1}{2}$ micron carbon block). The outer portion of this filter is a 50 micron, while the inner rap is rated at 5 microns, the second stage filter reduces organics, pesticides, chlorine, chloramines, debris, and cleanses the water while reducing cysts and protozoa such as *cryptosporidium* and *giardia lamblia* organisms. With the self-cleaning system, the water flows through the sumps around the filters and out via the ball valves located at the bottom of the filter sumps. The daily flush cycle will automatically wash away sediment and debris which can shorten the life of the filters.

BEFORE YOU BEGIN:

The main components to identify include:

The **DWS-POE (Predator)**, with the following components in its box:

- Quartz sleeve and UV lamp (both shipped in separate cardboard tubes).
- Installation Kit (a plastic bag containing parts & instructions required for installation).
- 2) 10-foot lengths of $\frac{3}{8}$ " blue polypro tubing.
- 24V gray transformer box (for use w bypass solenoid)

The **DWS-DPU (Obliterator)**, with the following components in its box:

- The DPU $\frac{3}{4}$ " copper subassembly.
- $\frac{3}{4}$ " copper 'cane' part of bypass subassembly.
- The $\frac{3}{4}$ " copper bypass assembly w 24VAC solenoid attached and pieces for between both units.
- The compressed air input subassembly.
- Installation Kit (a plastic bag containing parts required for installation).

Your O-SO PURE system requires adequate water pressure. The unit is designed to operate within a pressure range of 40 PSI to a maximum of 75 PSI.

CAUTION: If the water pressure exceeds 75PSI, then a pressure regulator must be used.

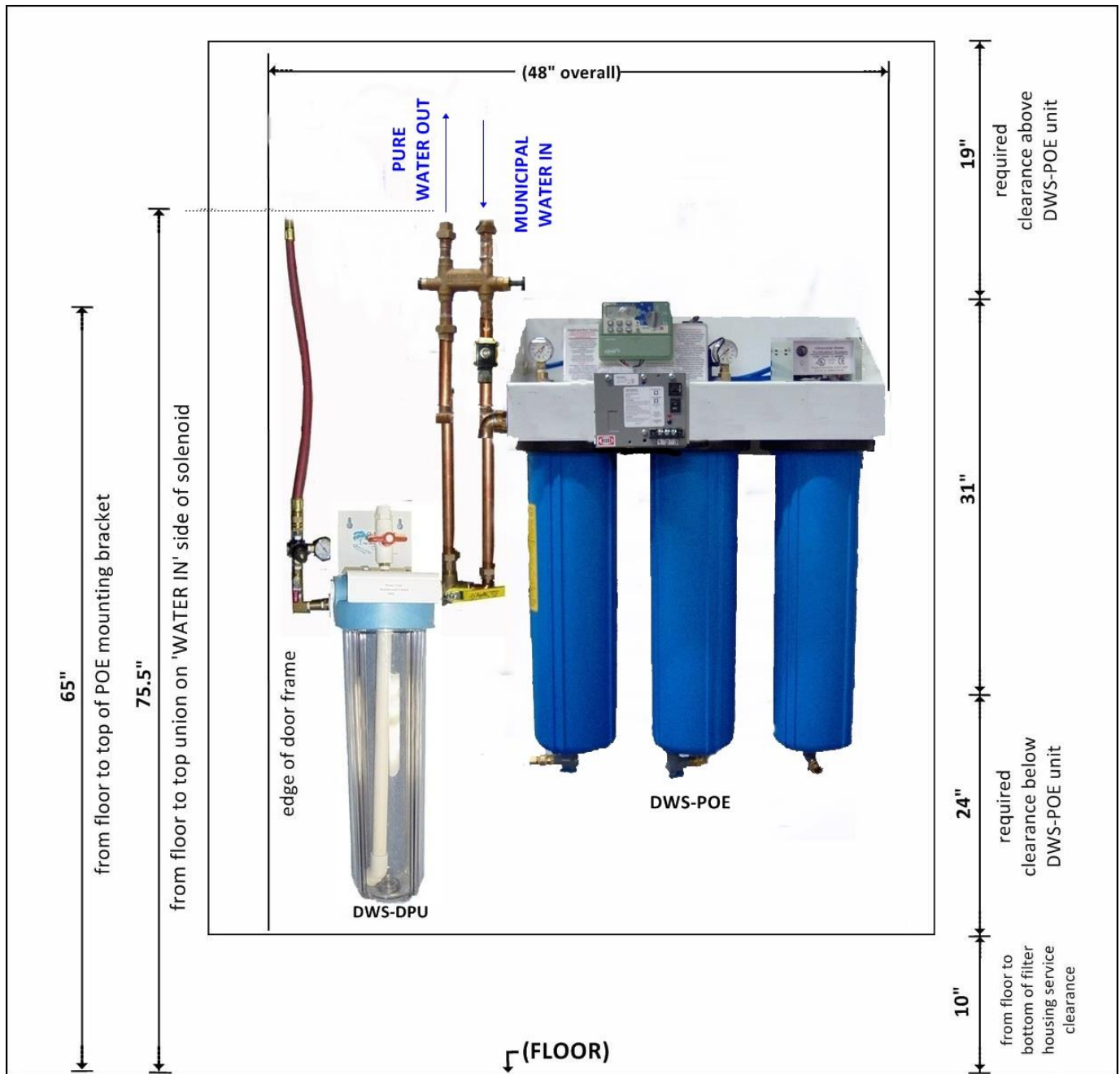
CAUTION: Do not install a pump on outlet side of system as damage to the quartz sleeve may occur. If pump is required, install it on inlet side of system and verify with the system's pressure gauges that it does not exceed 75PSI. Higher pressures may damage equipment.

CAUTION: Prevent the UV water system from extreme heat exposure (125F max.).

CAUTION: O-So Pure recommends that only PLASTIC fittings be used for connecting the plumbing line to the inlet/outlet ports of the system. Use of any metal male fittings inside of plastic female -threaded sump heads *voids the warranty*.

CAUTION: Do not over-tighten fittings connected to inlet/outlet ports of DWS-POE system.

CAUTION: Do not install clear or translucent tubing on the outlet side of system.



REQUIRED SERVICE CLEARANCES



INSTALLATION PROCEDURES

We recommend a professional plumber install this system. Please **READ ALL DIRECTIONS THOROUGHLY AND REVIEW ALL PHOTOS BEFORE INSTALLING**. This system is designed to filter a large volume of water for approximately one year between filter cartridge changes. The DWS-POE should be mounted near the entry of the water main inside of the building or near a drain in a NO-FREEZE area. If mounted outside in an ENCLOSED BOX, be sure that the temperature will not reach freezing or below. Allow sufficient space **below** the unit (**approx. 24"**) so that the filter sumps can be screwed on and off easily. It's important to ensure that there is **at least 19"** of clearance **above** the UV chamber for annual replacement of the UV bulb,.

MOUNT THE DWS-POE

- Before installing units and copper bypass, please see all measurements noted in the 'REQUIRED SERVICE CLEARANCES' diagram on the previous page.
- First find the POE mounting template inside of the Install Documentation folder, and noting all the required service clearances for BOTH units, choose the location for wall-mounting the DWS-POE unit. Mark and drill the three mounting holes.

NOTE- For ease during mounting, you can reduce the weight of the system by removing the sumps and filters prior to installing the mounting bracket. **DO NOT INSTALL QUARTZ SLEEVE UNTIL UNIT HAS BEEN MOUNTED TO WALL.** Also, **DO NOT mount the DWS-DPU unit until instructed to do so.** Once unit has been mounted, reinstall filters and filter sumps onto unit.

INSTALLING QUARTZ SLEEVE

CAUTION: QUARTZ SLEEVE IS VERY FRAGILE! For safety, wear protective gloves provided in the POE Installation Kit when handling quartz sleeve. Do **not** touch quartz sleeve or UV lamp with bare hands. Fingerprints on either part may reduce the effectiveness of the light.

- Remove far right-hand sump from UV sump head.
- Wearing provided gloves, remove quartz sleeve from packing tube. (The plastic white quartz sleeve adapter should already be attached to the quartz sleeve itself, and located on the sleeve approx. where it needs to be after sleeve is installed).
- Place a small amount of silicone-based O-ring lubricant on the outside of the open end of the quartz sleeve that will engage the O-ring inside UV sump head.
- To avoid breakage, make sure that the quartz sleeve goes in straight by pushing it with a slight twisting motion as you insert it. (You will feel it engage the O-ring inside of the UV sump head when it is all the way in.)
- Once installed, reattach the UV sump to the sump head. (Set the elbow ball valve on bottom of UV sump in '**OFF**' position).

INSTALLING UV LAMP & UV CONTROL BOX

- Remove UV control box and mounting screws from packaging and set aside.
- Remove UV lamp from packing tube, and inspect it for any damage. **DO NOT INSTALL A DAMAGED UV LAMP.**



NOTE- Hold UV lamp by ceramic ends ONLY, being sure not to touch the glass.

- Connect UV lamp into four-pin socket that is connected to the bottom of the UV control box by a short cable that allows for correct insertion depth.
- Carefully insert the UV control box with UV lamp through the mounting bracket into the quartz sleeve, making sure that the cable does not twist or curl.
- Once installed, mount the UV control box on top of the mounting bracket using the four screws and one lock washer provided (for grounding purposes).
- Plug the UV control box into an electrical outlet only after the rest of system install is complete.

INSTALLING COPPER BYPASS SUBASSEMBLY

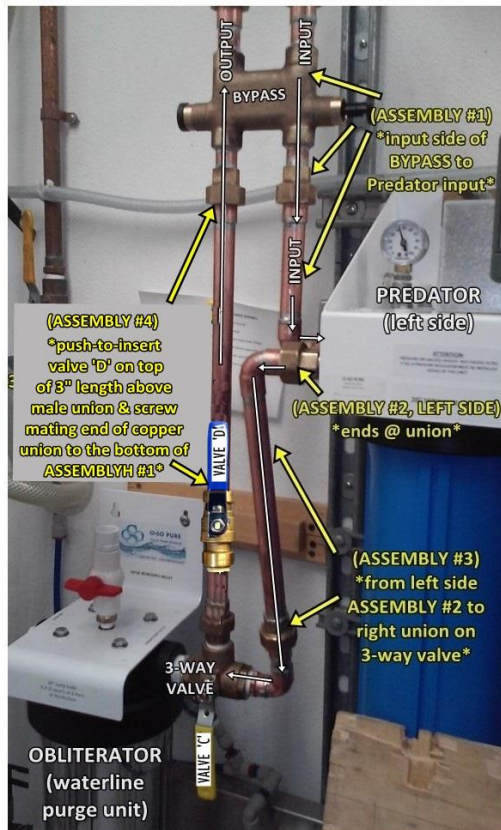
*First install copper BYPASS ASSEMBLY #2 to the output or right side of the Predator as shown in picture at right below.

*Next, install the 3-way yellow-handled valve subassembly onto the OBLITERATOR first **before** mounting on wall, then attach BYPASS ASSEMBLY piece #3 as shown in the image below. This will help you set where the OBLITERATOR gets mounted on the wall.

*BYPASS ASSEMBLY #4 has Valve 'D' already attached at the bottom side of it. Simply push-to-insert bottom side of Valve 'D' on to the short length of copper at the top of the left hand side of the 3-way yellow-handled valve subassembly, then screw upper end of BYPASS #4 to its mating union at the bottom of BYPASS ASSEMBLY #1 to the input side of the Predator unit. **Secure the unit to the wall.**

HOOKING UP THE BYPASS ASSEMBLY BETWEEN YOUR PREDATOR AND OBLITERATOR

copper subassembly pieces are labelled by ASSEMBLY #





ATTACHING THE FILTER FLUSH CYCLE DRAIN TUBING:



- If system is mounted inside a building, run one length of supplied 3/8 " blue tubing from the O-SO PURE UV water system to the drain via the universal DLA-G drain adapter provided.
- Take the red clip off of the John Guest® Inline Ball Valve and insert 3/8" tubing (located on the lower elbow on the right side of the POE mounting bracket *(see above image at right)*). Ensure that tubing is cut smoothly & evenly; when done, re-insert the red clip onto the coupling.
- Each filter sump (both filters & UV) is equipped with a shut-off valve. This valve is provided to allow the filter sumps to be drained of water before removal, greatly simplifying the filter replacement and quartz sleeve-cleaning procedures. See above image at left for the default settings.

NOTE: During normal operation, the drain valves on filter sumps 1 and 2 **MUST** be turned to the **ON** position to allow for the automatic daily filter flush cycles to occur).

SERVICE REQUIREMENTS AND RECOMMENDED INTERVALS

CLEANING: The inside of the DWS-POE system and its quartz sleeve should be cleaned each time the filters are changed. Clean all parts (except the filters and electronic parts) with soap and rinse them thoroughly with clean potable water. Dry the inside of the quartz sleeve thoroughly before re-assembling system. (**NOTE-**The presence of iron or general poor water quality will require frequent inspection and cleaning.)

O-RINGS: Lubricate each O-ring with a silicone-based O-ring lubricant to ensure a proper seal.

FILTER REPLACEMENT: Filters will normally last approximately 8 months to a year. Filter life will vary depending upon your local water conditions. A reduced flow rate or deteriorating water quality indicates that the filters must be changed.

UV LAMP REPLACEMENT: UV lamps **MUST** be changed every 12 months. While UV lamps rarely burn out, they do lose their disinfection power after 9,000 hours (or approx. 375 days) of continuous use. **Use only O-So Pure UV lamps, as they are specifically designed for the DWS-POE system to deliver high-quality drinking water.** (**NOTE-** UV lamp should remain on **AT ALL TIMES** during use because repeated starting of UV lamp shortens lamp life, and UV lamp requires a warm-up period of 1-2 minutes.



CLEANING, DISINFECTING, AND ROUTINE MAINTENANCE PROCEDURE

RECOMMENDATIONS		
Have all components on hand and ready before beginning procedure. A clean work area and equipment are essential to properly clean and/or disinfect the system (i.e. clean hands, tools, work surface and containers)		
EQUIPMENT NEEDED		
Safety glasses Rubber gloves, sanitary Wash cloth, clean and lint-free	Liquid Dish Soap Household Bleach-Unscented Only (5¼ % Sodium Hypochlorite)	Plastic Bucket 'O' Ring Lubricant, Silicone Based

CLEANING PROCEDURE

1. Disconnect system from electrical outlet.
2. Mix a mild cleaning solution of dish soap and clean potable water in a plastic bucket.
3. Close the incoming (or 'feed') water supply valve, and open a faucet or hand-piece downstream to relieve system pressure.
4. Close valves at bottom of each sump and disconnect the fittings shown in the image below:

CAUTION: Do not attempt to remove filter housing sumps until the water flow stops. This reduces pressure inside the system so that the sumps may be safely removed.



5. One at a time using the supplied 10' length of 3/8" tubing (w male quick-disconnect elbow on one end), drain water from each sump down the drain.
6. Using the spanner (or sump) wrench, remove each sump. Remove each filter as its sump is removed, and discard the old filters.

NOTE: Use sanitary rubber gloves for this procedure to avoid contaminating the cleaning solution or filters. Wear gloves whenever cleaning components or handling new filters.

7. Clean quartz sleeve carefully using vinegar to remove hardness. Do not use abrasive materials. Rinse sleeve thoroughly with clean potable water. Replace any sleeve that is damaged or will not come completely clean.
8. Remove sump 'O' rings and wash with cleaning solution. Rinse them well with clean potable water. Inspect 'O' rings for damage (i.e. nicks or scratches). Replace damaged 'O' rings.
9. Clean sumps and heads, inside and outside with washcloth and cleaning solution. Do not use abrasive materials.

CAUTION: Use care when cleaning UV head. Do not get the UV control module or connectors wet!

10. Rinse sumps and heads with clean potable water.



DISINFECTION PROCEDURE

CAUTION: WEAR SAFETY GLASSES AND SANITARY RUBBER GLOVES WHILE PERFORMING THIS PROCEDURE.

CAUTION: EXCESSIVE CONCENTRATIONS OF BLEACH WILL DAMAGE PLASTIC AND RUBBER COMPONENTS.

Rinse all parts that contact bleach thoroughly with clean potable water.

CAUTION: Read the 'WARNINGS' on the bleach container before using.

CAUTION: Handle sanitizing solution carefully. Avoid contact with unprotected areas.

1. Disconnect system from electrical outlet.
2. Mix sanitizing solution. Mix 1 cup of household bleach and 1 cup of clean, potable water in the bucket. Mix solution well.

CAUTION: Use care when sanitizing UV head. Do not get the UV control module or connectors wet.

CAUTION: TIGHTEN SUMPS BY HAND ONLY. Do not use tools as they will over-tighten and may damage sump.

Take care not to cut or pinch 'O' rings or gaskets. Use the spanner (or sump) wrench for removal only.

3. Add sanitizing solution into the system: Add 2 cups of sanitizing solution to the sump that contains the UV lamp.
4. Slowly open the feed water supply valve.
5. Open all downstream faucets or hand-pieces. Keep all faucets or hand-pieces open until a chlorine smell is detected at each one, then close that faucet or hand-piece.

NOTE: Water lines downstream from UV housing must be disinfected to destroy any bacteria that might remain in the pipes.

6. Verify disinfection solution has reached every water outlet downstream of UV system. **Solution must remain in the system for at least four hours.**
7. Open outlet valve and let water flow for 5 minutes to flush disinfection solution from waterlines.

ROUTINE MAINTENANCE

FILTER REPLACEMENT PROCEDURE

1. Perform CLEANING PROCEDURE, steps 1-8.
2. Install the filters into the appropriate sump (the sediment filter into the far left-hand sump, and the carbon filter into the center sump).

CAUTION: Be sure sump with metal liner is installed onto UV head.

3. Replace each sump as each filter is installed.
4. Plug system into electrical outlet. Turn on water supply and check for leaks. Flush system for several minutes to remove carbon fines.

UV LAMP REPLACEMENT PROCEDURE

1. Disconnect system from electrical outlet.
2. Shut off feed water supply valve and open downstream faucet or hand-piece to relieve system pressure.

CAUTION: Do not attempt to remove sumps until water flow stops. This reduces pressure inside the System so sumps may be safely removed.

3. Remove sump from UV head and set aside.

CAUTION: Do not touch quartz sleeve or UV lamp with bare hands. Fingerprints will reduce the effectiveness of the light.

WARNING: DO NOT ATTEMPT TO REMOVE QUARTZ SLEEVE. Damage to the system and personal injury may occur if the sleeve is removed incorrectly. Contact your dealer or O-So Pure if quartz sleeve is broken or needs replacement. (Part # is **DWS-QSBB**.)



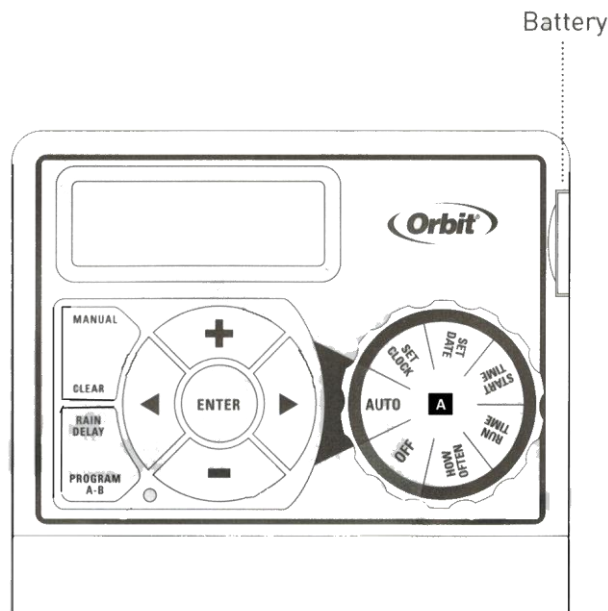
4. Clean quartz sleeve carefully using vinegar to remove hardness. Do not use abrasive materials. Rinse sleeve thoroughly with clean potable water. Replace any sleeve that is damaged or that will not come completely clean.
5. Gain access to UV Lamp. Remove UV Control Module from the system's mounting bracket by removing 4 mounting screws.
6. Remove UV lamp from system being careful not to break UV lamp or dislodge quartz sleeve. Remove UV control module with UV lamp by lifting the control module straight up from mounting bracket. The four-pin socket is attached to the UV control module by a short cable that allows for correct insertion depth. Grasp UV lamp and four-pin socket firmly and separate lamp from connector.

NOTE: The inside of the quartz sleeve must be completely dry before installing the replacement UV lamp. Hold replacement UV lamp by the ceramic ends only. Do not touch the glass. Clean glass with isopropyl alcohol if necessary.

7. Install the replacement UV lamp by reversing steps 5 and 6 of this procedure.

ORBIT TIMER INSTRUCTIONS

NOTE: THE TIME ZONE IS PRE-SET TO THE UNIT'S DESTINATION BEFORE THE DWS-POE UNIT LEAVES THE FACTORY. THE THREE DAILY DEFAULT FACTORY PRESET FLUSH TIMES ARE 9 AM, 12 PM, AND 4PM, MONDAY-FRIDAY.



TO SET FILTER FLUSH START TIMES:

- **STEP A:** Turn rotary dial (A) to 'START TIME'. The cursor will blink at start time 1 on the display.
- **STEP B:** Press the (+ Plus or – Negative) key to advance to desired start time. Press 'ENTER', then the cursor advances to start time 2.
- If more than one start time is required, repeat STEP B for up to 4 start times per day.
- To review start times, press the ► button. To clear a start time, press 'CLEAR'. To change start times, repeat **STEPS A and B**.



TO SET FILTER FLUSH DURATION TIMES:

NOTE: STATION 1= Filter Sump #1 **STATION 2=** Filter Sump #2

- **STEP A:** Turn rotary dial **(A)** to **'RUN TIME'**. The display will show **STATION 1** in the upper left-hand corner.
- **STEP B:** To select filter flush duration for **STATION 1** press the **(+)** or **(-)** key to advance to desired duration for 1-99 minutes. The default filter flush duration time is 3 minutes for each filter sump (STATION).
- **STEP C:** Press **'ENTER'**, and now the display will show **STATION 2** in the upper left-hand corner. Repeat Step B for Station 2.
- To review your filter- flush duration times, press the **▶** button. To clear a duration time, press **'CLEAR'**. To modify a duration time, repeat **STEPS A** and **B**.

TO SET THE DAYS FOR FILTER FLUSHING:

- Turn rotary dial to **'HOW OFTEN'** for selecting days of the week you wish the filters to get flushed, Use the **◀** and **▶** buttons to move between selections, and press **'ENTER'** for each day you want to select. Any or all days of week may be selected.
- Once filter-flushing times have been programmed, turn rotary dial to **'AUTO'** and programming is now complete.

ORBIT TIMER MAINTENANCE

Battery Replacement

The Orbit Timer uses a CR2032 Lithium battery in order to maintain the timer’s programming, should there be a case of AC power loss. This battery should be replaced once every year to avoid loss of programming. **Note that the battery alone will NOT operate the filter-flushing feature; the black power transformer must be plugged in to an AC line voltage source.**

BATTERY WARNING: DO NOT DAMAGE BATTERY, RISK OF FIRE, EXPLOSION OR ELECTRIC SHOCK. REPLACE BATTERY WITH O-SO PURE SUPPLIED SERVICE PARTS ONLY. DISPOSE OF USED BATTERY PROPERLY.

TIMER/TIMER SOLENOID VALVE TROUBLESHOOTING

SYMPTOM	POSSIBLE CAUSE	SOLUTION
valve(s) not operating	debris in valve(s)	clean valve(s)
timer LCD screen not lit	dead CR2032 Lithium battery	replace CR2032 Lithium battery
flashing battery symbol	low CR2032 Lithium battery	replace CR2032 Lithium battery



DWS-POE TROUBLE SHOOTING INSTRUCTIONS

IF THE UV LAMP FAILS TO ILLUMINATE

- Check to see when the original (or replacement) lamp was purchased.
- Turn off ALL electrical power to the system by unplugging the power cord. Remove the UV control module using a “Phillips” screwdriver.
- Slide the old lamp out from the TOP and unplug from the UV lamp power cord. **HOLD THE UV LAMP ONLY BY THE CERAMIC ENDS AND USE THE COTTON GLOVES.** Carefully discard the old lamp.
- Take the new UV lamp (using the cotton gloves) and hold on to the ceramic ends; plug it into the lamp power cord. Slide the new UV lamp into the filter housing and reattach the UV control module.
- Restore the electrical power, if the UV lamp fails to illuminate, call O-SO PURE. Check for any possible leaks.

IF THERE IS A WATER LEAK:

- Shut off the water supply to the unit and unplug the power cord.
- Check the status of the filter sumps; inspect both the sump and the sump caps.
- Check to make sure the “O” rings are placed within the groove of the filter sumps. Be sure to lubricate the “O” ring with silicone grease or with glycerin.
- Check fittings (either brass or quick-connect) and all clamps, notice if any are damp. Most fittings can be tightened with pliers.
- If the leak is coming from inside the UV sump, completely disconnect unit and ship back for repairs. (DO NOT RETURN THE FILTERS).

IF NO WATER IS GETTING TO THE UNIT:

- Check to make sure that the 24VAC solenoid valve is being powered by the 24VAC transformer box. The solenoid valve is normally closed, so the transformer box needs to be turned on in order for water to get past the solenoid valve. The DIN on top of the solenoid has a red LED light that glows when coil is being powered.

IF THERE IS LOW PRESSURE:

- Check the two (2) pressure gauges located on the top of the metal bracket. The first pressure gauge (left side facing the system) reflects the incoming water pressure. If this gauge reads below 25 PSI, call your municipal water company regarding extremely low water pressure. The DWSPOE requires a minimum of 40 PSI to operate properly. Now check the second pressure gauge (right side when facing the system), if there is a pressure differential of MORE THAN 20-25 PSI, either the filters are clogged up or the waterlines are plugged. Under normal circumstances and when the filters are fairly new, the pressure differential between the two gauges should not exceed approx **4-6 PSI.**

IF THERE IS A MAJOR PRESSURE DIFFERENCE BETWEEN THE 2 GAUGES-USE

THE FOLLOWING DIRECTIONS:

- Check the installation or replacement dates-(if dates reflect more than 8 months, order new filters).
- Shut off water supply to the unit and unplug the power cord.
- Check the number of flushes to the unit. It is possible that the flush times may need to be increased to a maximum of **FOUR (4)** flushes per day instead of preset three (3) flushes.
- Check the small 50 micron screen filter, on the bottom of the first sump, if plugged with dirt unscrew the clear lid and clean out the metal screen, then check the filter inside the first sump. If filters are plugged, call to order replacement filters.



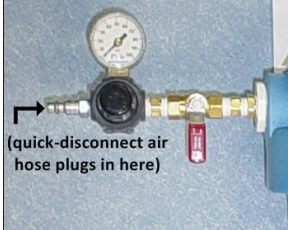
WATERLINE DISINFECTION PURGE INSTRUCTIONS

DWS-DPU VALVE IDENTIFICATION & FUNCTIONS

VALVE 'A'

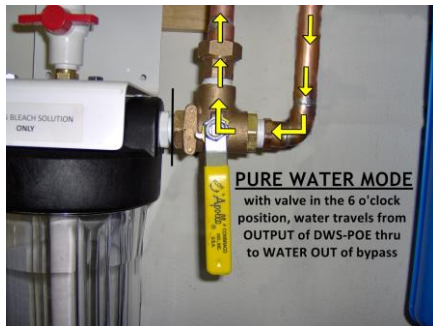
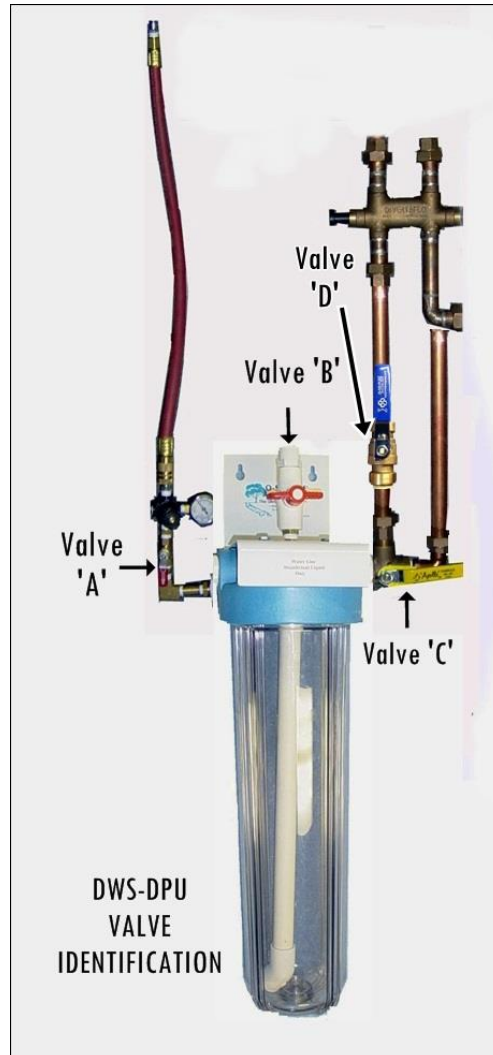
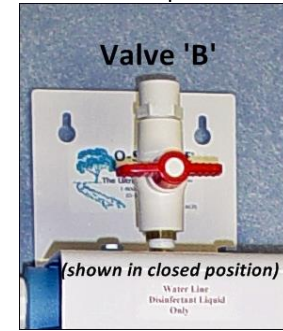
This is the open/close input valve for the practice's air compressor.

(valve shown in 'CLOSED' position)

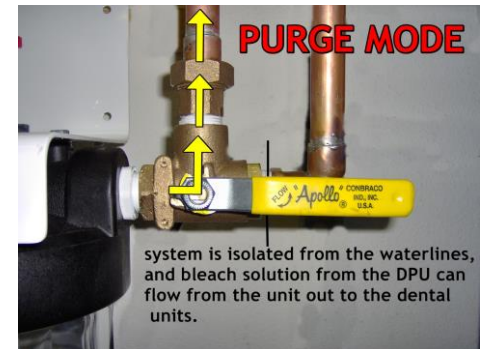


VALVE 'B'

When open, this valve is the port through which your selected waterline disinfection cleaning solution is manually poured into the 20" clear housing, using the blue funnel provided.



When in **PURE WATER MODE** (Valve 'C' is in the 6 o'clock position) pure water is being sent from the O-SO PURE system out to the dental units. In this mode, the DPU is isolated from the waterlines altogether.



When in **PURGE MODE**, (Valve 'C' is in the 3 o'clock position) the O-SO PURE system is isolated from the waterlines, and bleach solution from the DPU can flow from the unit out to the dental units.

NOTE: It is important to follow the proper order for opening/closing various valves when performing the steps in a waterline purge, so get familiar with the name of each valve associated with the Obliterator, and what it does:

- **VALVE 'A'**- Valve 'A' opens the air compressor up to the Obliterator, and any open valve beyond it. Valve 'A' is only opened when using pressurized air to purge the waterlines and Obliterator of either water or disinfectant.
- **VALVE 'B'**- Valve 'B' is the port on top of the Obliterator which is only opened for filling the Obliterator's clear housing with disinfection cleaning solution.
- **VALVE 'C'**- Valve 'C' is a yellow-handled three-way valve that determines if the waterlines are open to receiving pure water from the Predator, or open to receiving disinfectant cleaning solution from the Obliterator. See the photos on previous page for details.
- **VALVE 'D'**- Valve 'D' is a brass blue-handled Sharkbite inline ball valve that is installed between the outbound side of Valve 'C' and on the outbound side of the whole bypass. Its primary function is to prevent gravity from filling the Obliterator's clear chamber when performing a waterline purge.



STEP 1: REMOVE WATER FROM ATTACHED PLUMBING USING COMPRESSED AIR

1. **Close Valve 'D'** (horizontal position).
2. **Turn Valve 'C' to PURGE MODE** (horizontal position) to open up the Obliterator to the dental waterlines.
3. **Close Valve 'B'** (horizontal position).
4. If not already in place, connect supplied red air hose to input of Valve 'A'. **Open Valve 'A'** (horizontal position), and turn the air compressor on.
5. Go out to the handpiece furthest away from the Obliterator and open it up.
6. **Open Valve 'D'** (vertical position). Air compressor should now be forcing the water out of the waterlines.
7. Use the air pressure from the compressor (40 lbs.) to purge all water from the waterlines, starting by opening the hand-piece, valve or faucet furthest away from the Obliterator. Do this with every hand-piece, valve or faucet, working your way back to the Obliterator. Once all the water in the connected plumbing has been evacuated, **close Valve 'A'** (vertical position).

STEP 2: FILL ATTACHED PLUMBING WITH DENTAL DISINFECTANT

1. **Screw the threaded black funnel into the liquid fill port at the top of Valve 'B' and open it (vertical position)**. Fill the Obliterator's clear sump with 1-1/2 gallons (6 liters) of the disinfection liquid (follow the disinfection liquid's manufacturer instructions for proper dilution ratio of fluid), then **close Valve 'B'** (horizontal position).
2. **Turn the air compressor back on and re-open Valve 'A'** (horizontal position). Now the aim is to fill the now-vacant waterlines with disinfectant cleaning solution all the way out to each handpiece. Much like before, open up the farthest hand-piece, valve, or faucet away to the Obliterator and allow the disinfection liquid to flow. Once the disinfection fluid appears, close that hand-piece, valve or faucet and move on to the next closest one to the Obliterator, repeating this process until there is solution all the way out to every hand-piece, valve or faucet.
3. *Once waterlines are full of fluid, first close Valve 'D'* (horizontal position), then **close Valve 'A'**. Now the waterlines should be full of fluid and under pressure.
4. Disconnect the red air hose and open Valve 'A' just to relieve the pressure inside the Obliterator's clear chamber.
5. *You should **immediately** unscrew the DPU's filter housing and thoroughly rinse out, wipe away & clean any remaining disinfectant from the bottom of the clear housing and then dry with paper towel. **Not performing this step may cause your Obliterator's filter housing to become compromised prematurely because of the active ingredients in some waterline disinfectant fluids!***
6. Follow the manufacturer of your chosen disinfectant fluid's recommendations for how long the contact time should be for the disinfectant fluid to remain in the waterlines before flushing out.

STEP 3: REMOVE DISINFECTANT FROM ATTACHED PLUMBING USING COMPRESSED AIR

1. **Open Valve 'A'**, making sure the air compressor is already turned on.
2. **Open Valve 'D'**.
3. Use the air pressure from the compressor (40 lbs.) to purge all disinfectant from the waterlines, starting by opening the hand-piece, valve or faucet furthest away from the Obliterator. Do this with every hand-piece, valve or faucet, working your way back to the Obliterator. All connected plumbing should be free of disinfectant now. When finished, **close Valve 'A'** (vertical position) and **leave Valve 'D'** open.
4. **Turn Valve 'C' to PURE WATER MODE** (vertical or 6 o'clock position). Now the cleaned waterlines are open to the Preda



Calculating the Amount of Disinfectant Required

Compute the volume of attached plumbing

- **OUR PRACTICE** – For the type of plumbing indicated in the PLUMBING column, measure and enter values in the OUR PRACTICE column of the following table. Consult with your plumber or other person familiar with the plumbing layout in your practice. Remember to include vertical measurements for plumbing entering the floor or overhead spaces. Note that the plumbing to be included is only that which extends from the Dominator to the point(s) of water delivery (e.g. faucet, handpieces if Dominator is directly connected to operatories).
- **GALLONS** – Divide the value in the OUR PRACTICE column by the corresponding value in the CONSTANT column and record the result in the GALLONS column.
- **OTHER DEVICES** – Total the volume of other water devices through which the disinfectant solution will pass and record in the GALLONS column. This will normally be 0.

DISINFECTANT VOLUME TABLE (Table 1)

PLUMBING	OUR PRACTICE	CONSTANT	GALLONS
Length of 1" plumbing (feet)		25	
Length of ¾" plumbing (feet)		45	
Length of ½" plumbing (feet)		100	
Length of ⅜" plumbing (feet)		175	
Length of ¼" plumbing (feet)		400	
# of Predator filter housings	1	1.5	1.5
OTHER DEVICES			
TOTAL (of GALLONS)			

Verify the active ingredient concentration of the disinfectant

The purpose of this calculation is to correct for different formulations of disinfectants containing different levels of active ingredient.

- **CONCENTRATION** – Read the label of your disinfectant. Enter the sodium hypochlorite concentration level (%) in the CONCENTRATION column.
- **CORRECTION FACTOR** – Divide the value in the CONSTANT column by the value in the CONCENTRATION column and record in the CORRECTION FACTOR



CORRECTION FACTOR TABLE (Table 2)

DISINFECTANT	CONCENTRATION	CONSTANT	CORRECTION FACTOR
Bleach	5.25%	5.25%	1
Bleach	6.25%	5.25%	0.84
		5.25%	
Example: generic bleach	3.5%	5.25%	1.5

Compute the volume of disinfectant to be used

This calculation brings together the other calculations from this section to arrive at a final volume of disinfectant to use.

- **PLUMBING VOLUME** – Enter the value from the TOTAL line of the VOLUME TABLE above.
- **CORRECTION FACTOR** – Enter the value from the CORRECTION FACTOR column from the CORRECTION FACTOR TABLE.
- **DISINFECTANT VOLUME** – Multiply the GALLONS by the CORRECTION FACTOR and DILUTION FACTOR to arrive at the DISINFECTANT VOLUME.

DISINFECTANT VOLUME TABLE (Table 3)

DISINFECTANT	PLUMBING VOLUME (TABLE 1)	CORRECTION FACTOR (TABLE 2)	DILUTION FACTOR	DISINFECTANT VOLUME (GALLONS)
Bleach @ 5.25%		1	0.1	
Bleach @ 6.25%		0.84	0.1	
Bleach @ 3.5%		1.5	0.1	
Example: 6.25% bleach at fictitious practice	4	0.84	0.1	0.336

To convert the resulting DISINFECTANT VOLUME to ounces, multiply by 128 ounces per gallon. For our example, 0.336 gallons of disinfectant * 128 ounces / gallon = 43 ounces.

Remember that a 10:1 water-to-bleach solution (5.25% sodium hypochlorite) is the maximum concentration that you should use. If you feel you have overestimated the total volume of plumbing attached to the Predator, use a DILUTION FACTOR of less than 0.1 (e.g. 0.08) to ensure a lower concentration. Remember, **more bleach is not better**.



Super Speedfit® Fittings Make Secure Connections Simple

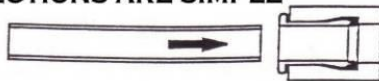
O-SO PURE

In all applications, JG Super Speedfit® fittings
Require NO tools. Tubing is simply inserted into
The fitting collet to effect a secure connection.

Whether metal or plastic tubing is used, the
Integrity of the connection is assured.

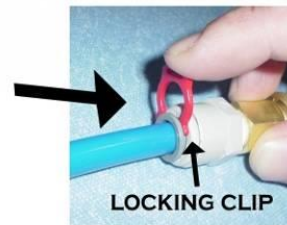
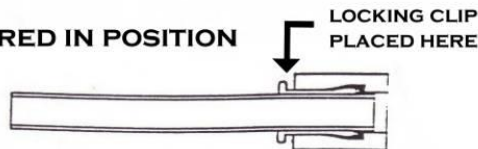
INSTRUCTIONS FOR INSTALLATION OF JOHN GUEST FITTINGS

SECURE CONNECTIONS ARE SIMPLE



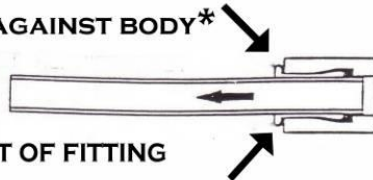
CUT THE TUBE SQUARE AND PUSH PAST
THE O-RING TO THE TUBE STOP

TUBE IS SECURED IN POSITION

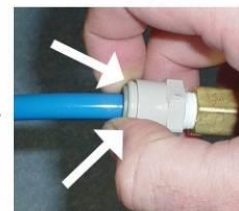


DISCONNECTION IS JUST AS EASY

PUSH COLLET AGAINST BODY*



*(SEE INSET)





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O-SO PURE 1-YEAR LIMITED WARRANTY

For the following systems: (DWS-008, DWS-DDI, DWS-POE, DWS-SADI, DWS-HERO)

O-SO PURE warrants this device to be free from defects in workmanship and material under normal usage and service from date of purchase as follows: All components are warranted for a period of (1) year, with the following exceptions:

- ❖ Filters
- ❖ UV lamp

This Warranty excludes damages that, in the opinion of O-SO PURE, have been caused by improper installation, alteration, misuse, accident or negligence. Repairs must be performed by an O-SO PURE authorized agent with parts obtained from O-SO PURE.

O-SO PURE will not warrant component parts supplied by manufacturers who provide separate warranties for their merchandise. However, O-SO PURE will contact the representative manufacturer on your behalf.

O-SO PURE reserves the right to make revisions to the design or manufacturing of this model without obligation to owners of this product.

O-SO PURE will not be liable to perform its obligations under this Warranty if such obligations result from:

1. Improper installation or unauthorized alteration.
2. Misuse or negligence.
3. Accident or excessive wear..
4. Damage or use with any products not intended for its use.
5. Exposure to the elements, including: direct sunlight, excessive heat, freezing temperatures, humidity or rainfall.
6. Are the result of (but not limited to) acts of God, labor disputes, transportation strikes, or any conditions beyond control of O-SO PURE.

If a defect in material or workmanship is discovered within the warranty period, O-SO PURE's sole obligation will be to repair or replace, at its election, the unit FREE OF CHARGE on receipt of the unit (charges pre-paid if mailed or shipped) with proof of date of purchase satisfactory to O-SO PURE at the following address:

O-SO PURE
2323 W Mescal St, Suite 204
Phoenix, AZ 85029

****IMPORTANT: It is recommended that you replace all filters once a year and the UV lamp once a year (if applicable) to insure proper treatment of drinking water. O-SO PURE will not guarantee a kill rate above 80% without properly maintaining your filters and UV lamp. Failure to change UV lamp and filters WILL void the manufacturer warranty, or if filters or UV lamps are purchased from another source other than O-SO PURE, ANY and ALL CLAIMS WILL NOT BE BACKED BY THE MANUFACTURER. Should the UV Water System fail due to use of incorrect filtration or UV lamp, O-SO PURE WILL NOT BE HELD RESPONSIBLE OR HELD LIABLE.**

DATE OF PURCHASE: _____

SERIAL NUMBER(S): _____