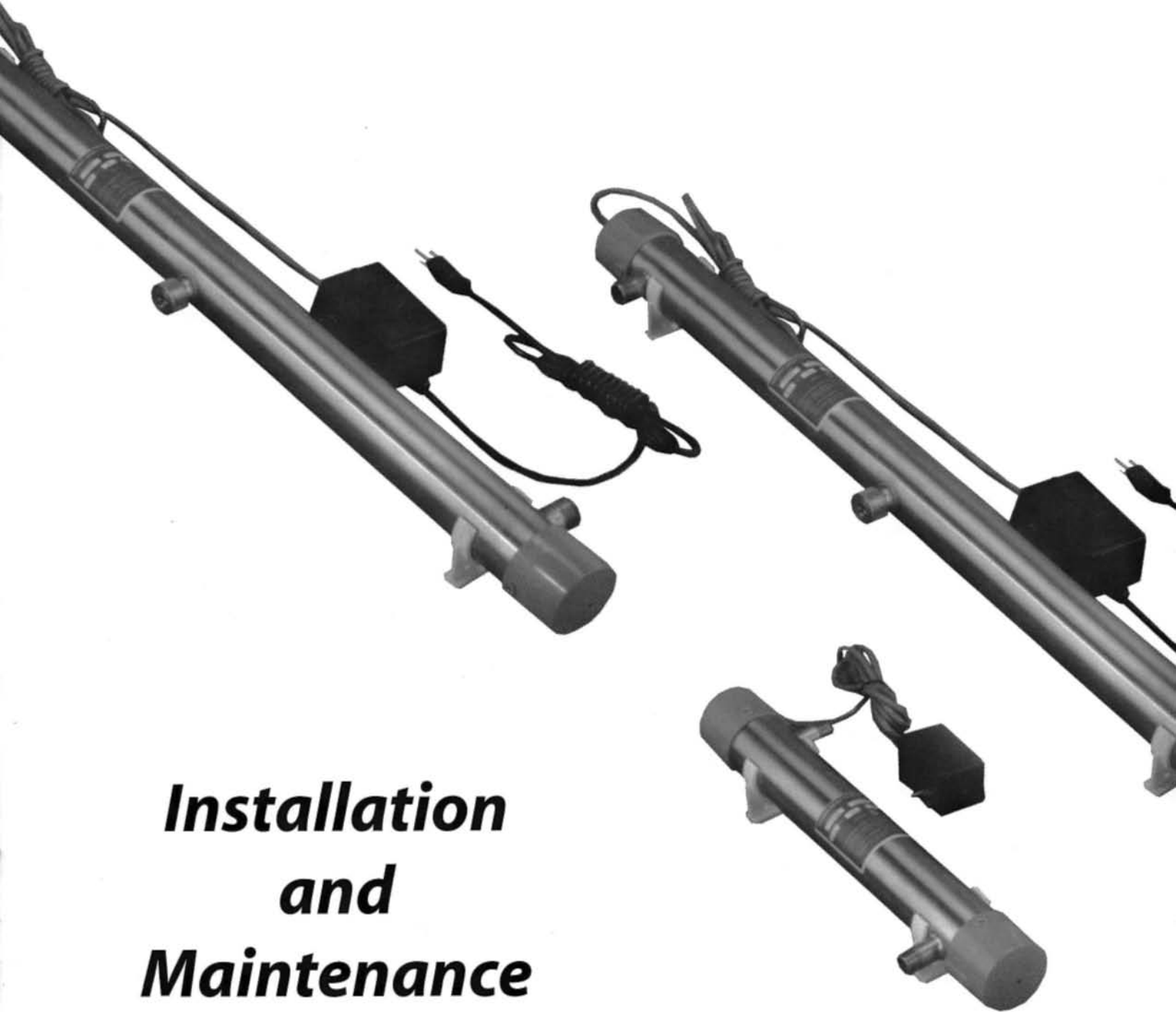


UV-250

UV-700

UV-1200

FLUID PURIFIERS



Installation and Maintenance Manual

Hand Crafted in Canada by:

Wyckomar Inc.

www.wyckomaruv.com



INTRODUCTION

UV Water Purification the Wyckomar Way

Wyckomar UV Sterilizers utilize the proven principle of ultraviolet radiation to eliminate or reduce unacceptable levels of micro-organisms in water and other liquids. Ultraviolet energy destroys bacteria, viruses, fungi, spores, algae and other such contaminants which are pathogenic to humans, other animals and plants. Ultraviolet sterilization is a natural, non-chemical, environmentally safe technique which adds nothing to, and removes nothing from (such as trace minerals) the water.

How the Wyckomar Water Purifier Unit Works

Untreated water enters the lower portion of the sterilization chamber and flows through the unit in an upward circular path. The spiraling movement assures the maximum irradiation of the fluid and prevents larger particles from blocking the treatment of micro-organisms. The sterilization chamber contains the ultraviolet light-producing lamp. IN operation, the lamp emits a bluish glow, which is visible in the view port window on the side of the UV700 unit. The UV250 unit does not contain a viewport window, operation of this unit may be confirmed by the illumination of a green LED indicator lamp. So long as the appropriate indicators are glowing, the unit is functioning properly. Should the glow not appear, the ultraviolet lamp needs to be replaced. Your Wyckomar fluid sterilizer will function automatically to produce high quality, safe drinking fluids to the maximum of it's design capacity. It will provide many years of service when factory recommended installation, operation and maintenance procedures are followed.

Installation

Where to install your purifier unit

- Wyckomar sterilizers are designed to be installed either in the main water supply line (at point-of-entry), or at point-of-use. In most plumbing installations, the unit works equally well in either location. However, in some installations, especially where plumbing is old, the water may become re-contaminated while travelling through the pipes between the sterilizer and the faucet. In such cases, installing the sterilizer as close to the faucet as possible is highly recommended.
- Wyckomar sterilizers are designed to be installed vertically and work best when mounted in this position. However, in cases of space problems, the can also be installed horizontally.
- The manufacturer strongly recommends that only prefiltered water should enter the sterilizer. Prefilters remove suspended particles from the water, which might otherwise reduce the effectiveness of the UV lamp or damage the unit. Prefilters are inexpensive and will in themselves greatly enhance your water quality. They are available from your dealer.
- A minimum of 36inch clearance at one end of your sterilizer unit will allow most maintenance procedures to be accomplished without removing the sterilization chamber from it's amounting bracket.
- If a water softener or other treatment device is installed or planned fore, your sterilizer should be located closest to the faucet.

- Install your Wyckomar sterilizer indoors in a protected area where the temperature does not fall below 4degrees Celsius (40 degrees Fahrenheit) and the humidity level is low (to prevent condensation on the sterilization chamber). The unit functions ideally in a temperature range from 9 degrees C to 29 degrees C.
- A grounded electrical outlet is required.
- Use Teflon tape liberally on all pipe connections which thread into plastic. **DO NOT USE ANY OTHER SEALANTS!**

Warning – do not allow heat near plastic threads or fittings

Installation Procedure

- Note the direction of water flow in the supply line to which the unit is being connected.
- Refer to the appropriate plumbing diagram and check to see that you have all the necessary fittings.
- Shut off the main water supply valve.
- Fasten unit too the wall using screws provided.
- Install new plumbing as per diagram. If you are installing a flow control or Prefilters, make sure the arrows on them point in the same direction as the water flow.
- When new plumbing has been installed, a seal should be attached to the closed by-pass valve. This seal should not be broken unless water is required during emergency or shutdown periods.
- Plug power into an appropriate power source outlet (power source voltage may vary depending on geographic location).
- Open main valve to water source.
- Open valve ion either side of sterilizer (by-pass valve should remain closed). You should hear a sudden rush of water entering the unit at this time. Turn on any faucet that will start the flow of water through the unit.

Your Wyckomar water sterilizer is now in service.

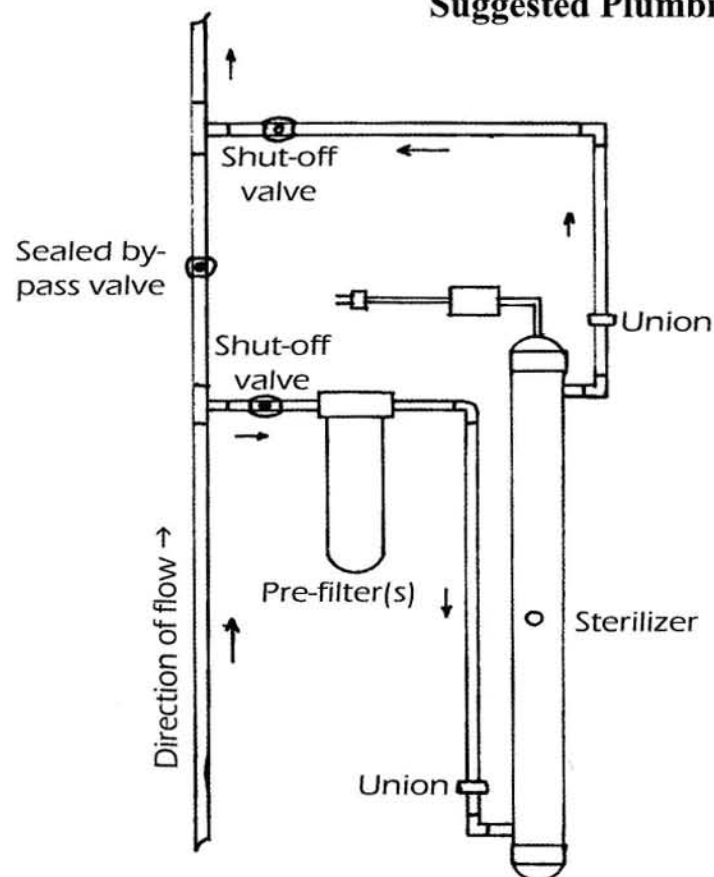
NOTE – Installation of water sterilizer will interrupt the electrical grounding continuity of a plumbing system. For directions on restoring the electrical grounding continuity, consult your local electrical inspector.

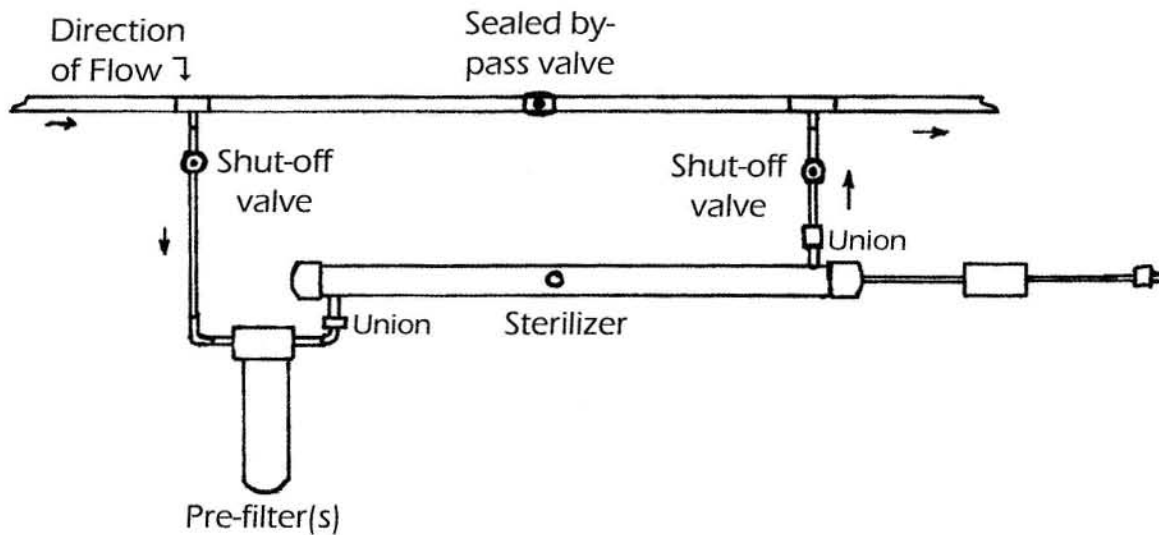
Important

After installation of your UV unit the system must be disinfected beyond the UV unit itself. The following steps must be taken to accomplish this important task:

- Turn off the water supply to the UV unit and the by-pass valve closed, turn on the UV unit.
- Remove the filter bowls from the filter housing head and remove the filter cartridges.
- Fill the filter bowls one-half full with chlorine bleach and screw the bowls back onto the filter housing head..
- Turn on the water supply.
- Turn on every faucet in the water system and run the water until the smell of chlorine is evident. At this time, shut off the faucet(s) and let the system sit idle for 15 minutes.
- While the UV lamp remains on, open all faucets in the water system to flush out the chlorine.
- When all chlorine is flushed from the system, and while the UV lamp remains on, shut off the water supply, and re-install the filter cartridges in the filter housings.
- Turn on water supply.
- Test the water supply for contaminants if desired.

Suggested Plumbing Diagrams





MAINTENANCE

ULTRAVIOLET LAMP REPLACEMENT

The ultraviolet lamp located in the sterilization chamber will operate effectively, round the clock, for approximately one year under normal conditions. The lamp will light up longer than that, but maximum UV light penetration may fall below the prescribed safety level. Therefore, annual lamp replacement is recommended regardless of apparent condition.

The manufacturer recommends that lamp replacement be performed either by your local dealer or by a Wyckomar factory trained representative.

To replace the ultraviolet lamp, follow the directions below.

TO DIS-ASSEMBLE THE UV LAMP

- Unplug the sterilizer from the electrical outlet and turn off all water supplies to the unit.
- With an Allen wrench provided, loosen the two set screws that secure the top cap to the unit housing. Remove the cap and set aside carefully.
- Remove the lamp connector located at the cord end of the lamp by gently pulling it away from the lamp.
- Carefully slide the UV lamp out of the quartz tube and discard.
- Insert the replacement lamps inside the quartz tube.
- Gently push the lamp connector against the pins at the end of the lamp.
- Make sure that all electric components are dry before replacing the top cap. Secure the cap with the set screws.
- Plug in the power cord. The lamp should be operating at this time. To confirm that your new lamp is working correctly, check with your models pilot light indicator:
 - UV700/1200 – A bluish light should be visible through the view port.
 - UV250 – The green LED indicator will light up on the ballast box.
- Open any taps necessary to allow the flow of water through the unit.

IMPORTANT! Where water turbidity is a problem, it is advisable to clean the quartz tube when replacing the lamp.

TO CLEAN THE QUARTZ TUBE

- Remove plastic caps on both ends of the UV sterilizer by loosening the set screws with the Allen key provided.
- Remove the 3 steel nuts which hold the retaining washers on either end of the sterilization chamber. REMOVE THE WASHERS.
- CAREFULLY remove the rubber washers found under the steel washers by prying gently with a small screwdriver or other suitable tool. As soon as one of the seals is loosened, apply pressure to push out the quartz tube. Remove both rubber seals.
- Wipe quartz tube dry with a soft cloth, then clean with the alcohol wipe provided.

TO RE-ASSEMBLE

- Slide a rubber seal onto one end of the quartz tube.
- Slide the tube into the sterilization chamber and secure the rubber seal.
- Slide the second rubber seal onto the other end of the quartz tube and secure it in its seat as well.

NOTE: A little soapy water may help to work the rubber seals onto each end of the new lamp.

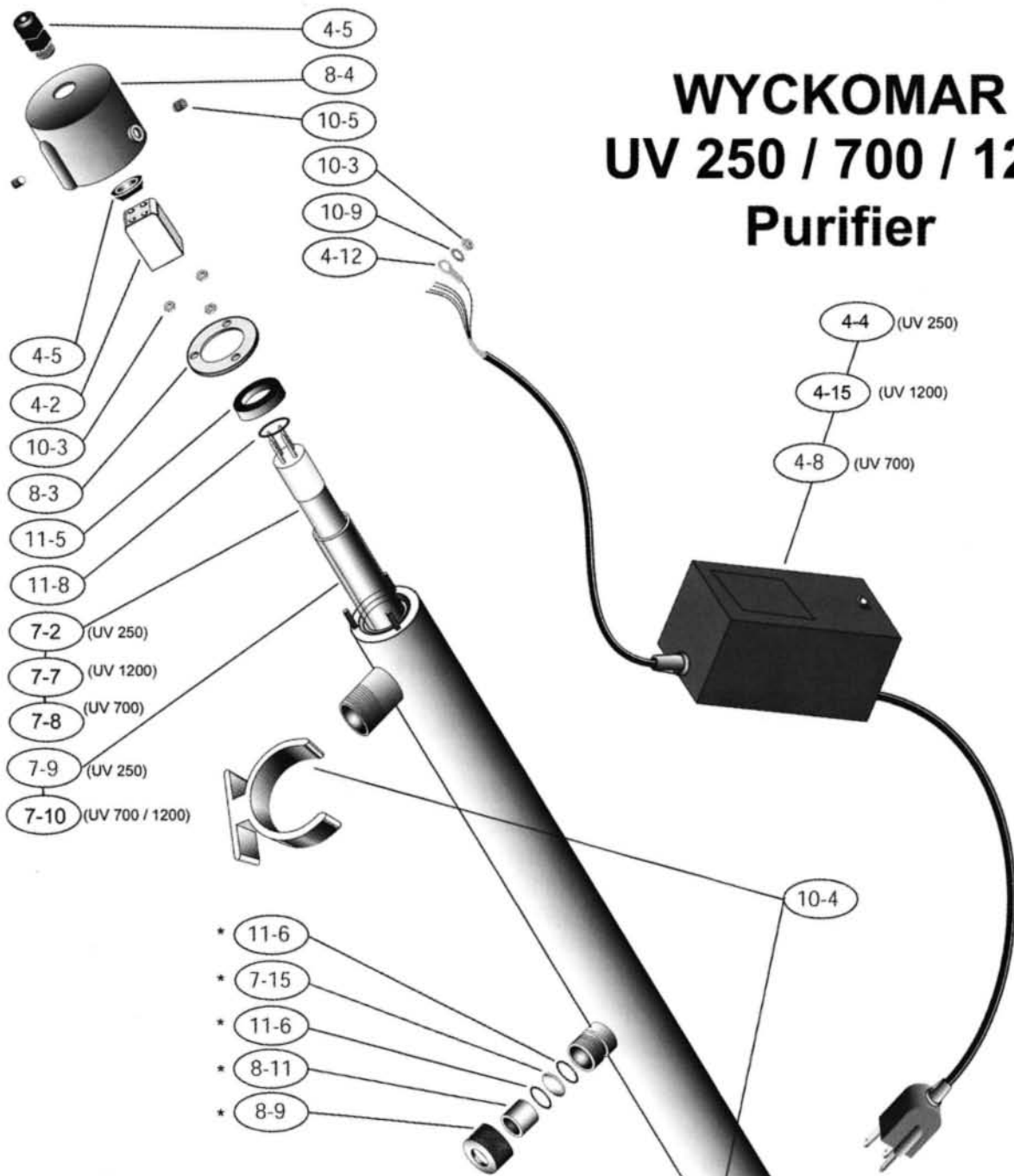
- Replace the two retaining washers and secure them with the steel nuts. Just snug nuts up for now. (Too much pressure may break the tube).

WARNING: DO NOT OVERTIGHTEN SCREWS!

- Turn the water supply on slowly and check the unit carefully for leaks. If water is leaking from around the rubber seals, tighten the retaining washer nuts until the leak stops. A 1/8 turn past this point should be tight enough.
- Insert replacement lamp into the quartz tube. Gently push the lamp connector against the pins at the end of the lamp.

COMPLETE RE-ASSEMBLY OF THE UV STERILIZER BY FOLLOWING LAMP REPLACEMENT INSTRUCTIONS FROM ARROW 7 TO 9.

WYCKOMAR UV 250 / 700 / 1200 Purifier



Legend

Part No.	Quantity	Description
4-2	1	4 pin gaynor plug/ socket
4-5	1	liquid tight strain relief
4-12	1	crimp ring terminal
4-4 / 4-15 / 4-18	1	Ballast assembly
7-2 / 7-7 / 7-8	1	single end lamp
7-9 / 7-10	1	quartz sleeve
* 7-15	1	viewport quartz disc
8-3	2	SS compression washer
8-4	2	end caps moulded blue
* 8-9	1	viewport brass compression nut
* 8-11	1	viewport inner bushing
10-3	7	#10-32 SS hex machine nut
10-4	2	clip-on feet
10-5	4	end cap set screw
10-9	1	external tooth lock washer
11-5	2	quartz sleeve seal
* 11-6	2	viewport o-ring seal
11-8	2	o-ring inside quartz sleeve

* Only for UV 700 and 1200 models