



PENTEK® MODELS UVS-110, UV-110, UV-120, UVBB-120
UV WATER SYSTEMS INSTRUCTION MANUAL



MODELS

Model	Part # (120v/60Hz)	Part # (220v/50Hz)
UVS-110	163003	163004
UV-110	163005	163006
UV-120	163007	163008
UVBB-120	163009	163010

APPLICATION

Ultraviolet Water Disinfection

SPECIFICATIONS

Models:	UVS-110	UV-110	UV-120	UVBB-120
Maximum Operating Pressure	65 psi	65 psi	65 psi	65 psi
Temperature Range	40-100°F (4.4-37.8°C)	40-100°F (4.4-37.8°C)	40-100°F (4.4-37.8°C)	40-100°F (4.4-37.8°C)
Flow Rate @ 60 psi (4.1 bar)	1 gpm (3.8 Lpm)	2 gpm (7.6 Lpm)	8 gpm (30 Lpm)	15 gpm (56 Lpm)
Voltage (Domestic)	120v/60Hz	120v/60Hz	120v/60Hz	120v/60Hz
Voltage (Int'l)	220v/50Hz	220v/50Hz	220v/50Hz	220v/50Hz

CBU Cartridge

The UVS-110 and the UV-110 are supplied with a carbon block filter cartridge which reduces sediment, bad taste and odor.

GENERAL PRECAUTIONS

⚠ WARNING: Always disconnect the UV from the power source. Follow the procedures provided in this manual. Improper handling can result in death or serious injury.

⚠ WARNING: Do not look directly at the UV lamp. This can cause retina/eye damage.

⚠ WARNING: Do not touch the UV bulb. Any fingerprints or dirt will reduce the efficiency of the bulb and may cause it to explode.

⚠ WARNING: Observe caution when inserting quartz sleeve to prevent breakage and cracking, which may result in injury and damage to unit.

NOTE: When handling the UV bulb hold only the plastic-covered ends of the bulb. If the bulb has been touched, remove bulb and clean with alcohol before reinserting.

CAUTION: If water pressure exceeds 65 psi, a pressure regulator, set at less than 65 psi, must be installed before the Ultraviolet system.

CAUTION: Install on cold water lines only.

CAUTION: Do not install where system is exposed to direct sunlight.

CAUTION: Do not use wicking or sealing agents for fitting connections. Plumbers tape is recommended.

CAUTION: This system must be protected from freezing which can cause cracking of the filter housing and water leakage.

CAUTION: Because of the product's limited service life, and to prevent costly repairs or possible water damage, we strongly recommend that the bottom of all opaque housings be replaced every ten years. If the bottom of your housing has been in use for more than this period, it should be replaced immediately. Date the bottom of any new or replacement housing to indicate the next recommended replacement date.

NOTE: Filter cartridge life varies depending on filter type, usage and water conditions.

For the UVS-110 and UV-110

Allow a minimum of 12 inches clearance under the filter for changing the cartridge, and above the system to allow the UV bulb to be changed.

For the UV-120 and UVBB-120

Allow a minimum of 20 inches clearance under the filter for changing the cartridge, and above the system to allow the UV bulb to be changed.

CARTRIDGE REPLACEMENT

(for UVS-110 and UV-110 only)

Your cartridge should be replaced when there is a noticeable drop in water flow at the faucet or tap, and/or when unpleasant odors return (approximately every 6-9 months).

1. Turn off water supply to the system.
2. Open faucet to relieve water pressure to the housing.
3. Unscrew housing from cap. If housing sticks or is difficult to open use an Pentek spanner wrench.
4. Remove used cartridge from housing, remove plastic sleeve and discard cartridge.
5. Remove O-ring from groove below the threads of the housing and wipe groove and O-ring clean. Lubricate O-ring with silicone grease. Place O-ring back into the groove. With two fingers wipe or press O-ring down into the groove.

Note: This step is important to ensure a proper filter seal. Make sure that the O-ring is seated level in the groove.

6. Insert a new cartridge into the sump making sure that it slips down over the sump standpipe.
7. Remove gasket from cartridge end and slide plastic sleeve into center of cartridge then replace gasket on top of cartridge.
8. Screw the sump onto the cap and hand-tighten. Do not over-tighten. Make sure that the cap slips over the cap standpipe.
9. Turn on the water supply to allow the unit to slowly fill with water.
10. Check for leaks before leaving installation.
11. Each time that you use water from your unit for drinking or cooking purposes, it is recommended that you run (flush) the tap for at least 10 seconds prior to using water. This is particularly important if the water tap is not used daily.

UV LAMP REPLACEMENT

1. Turn off all electrical power to the system by unplugging or throwing the circuit.
2. Unscrew the UV control module from the mounting bracket (4 screws) for Models UV-110, UV-120 and UVBB-120. For Model UVS-100, slide mounting bracket retainer to allow access to the UV bulb.
3. Slide the old bulb out and unplug from the control module.

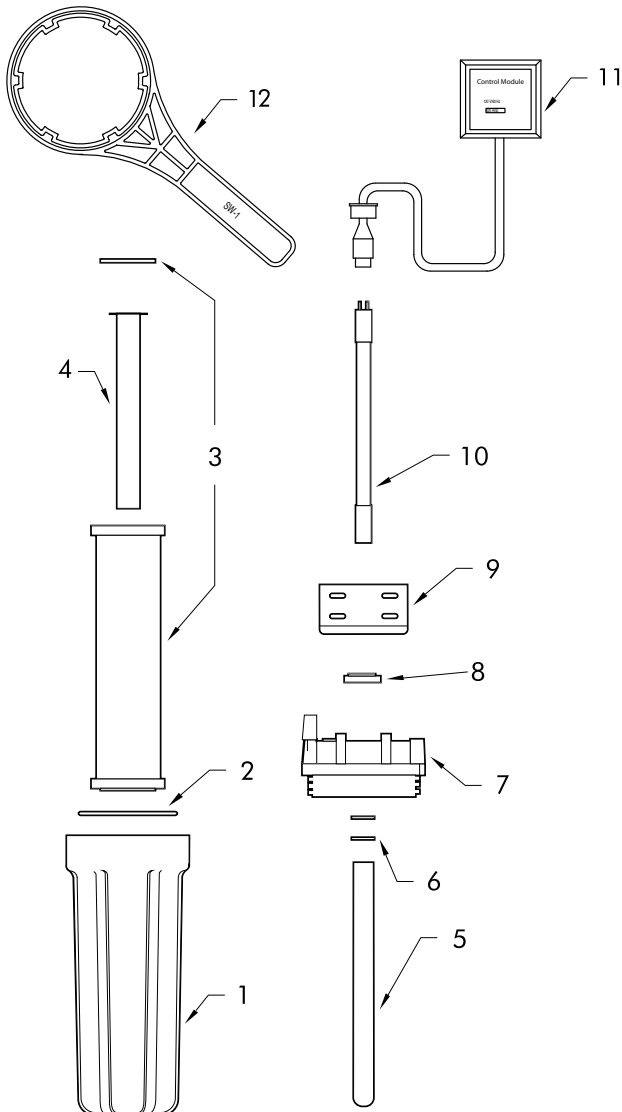
Note: Hold the UV lamp only by the plastic covered ends of the bulb.

4. Carefully discard the old UV lamp.
5. Holding the new UV lamp only by the plastic covered ends of the bulb, plug the new UV lamp into the control module or power cord. Slide the new bulb into the cartridge housing and reattach UV control module or secure mounting bracket retainer (depending on model).
6. Restore electrical power to unit.
7. Check for leaks.

UVS-110

REPLACEMENT PARTS

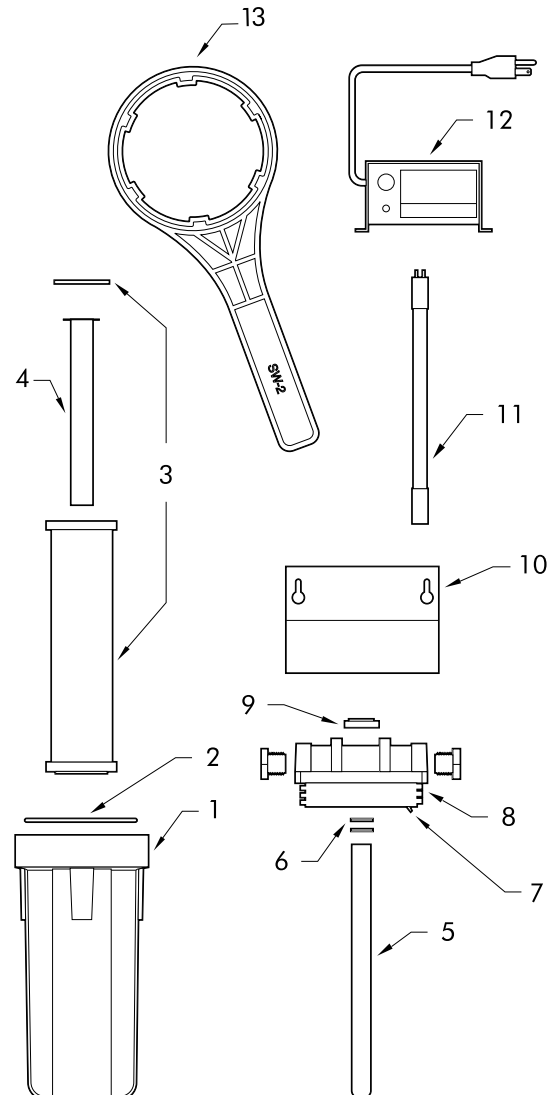
Part Description	Part #
1. 10" Slim Line™ Housing	153017
2. O-ring	143026
3. CBU-10	155271-03
4. Plastic Sleeve	163518
5. Quartz Sleeve	163504
6. O-rings for Quartz Sleeve	163538
7. 1/2" Black Cap w/o pr	SPECIAL ORDER
8. Spacer Bushing	163517
9. Mounting Bracket	SPECIAL ORDER
10. UV Lamp	163503
11. Control Module (120v/60Hz)	163501 - for use with UVS-110-1
Control Module (120v/60Hz)	163502 - for use with UVS-110-2
12. SW-1 Wrench	150539



UV-110

REPLACEMENT PARTS

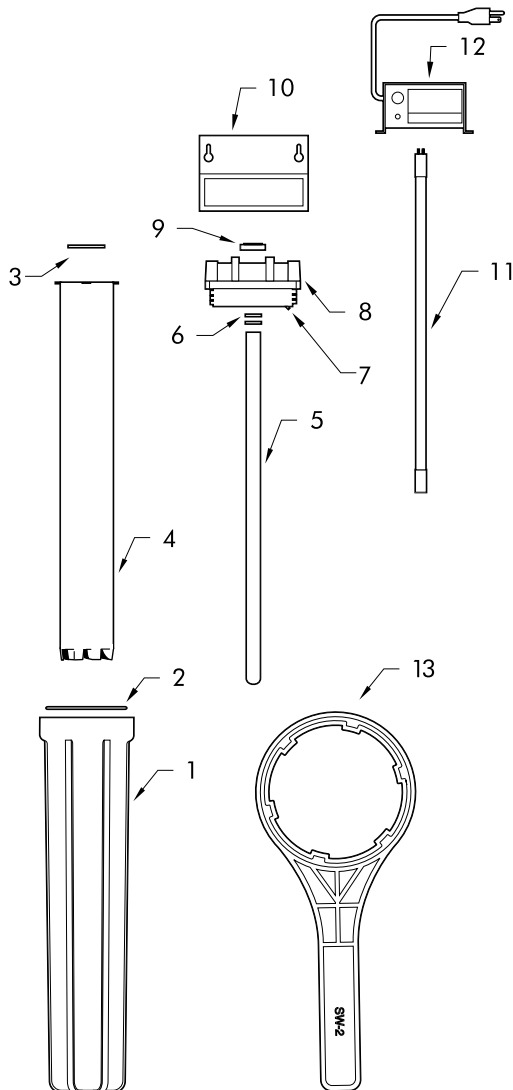
Part Description	Part #
1. 10" Housing	153001
2. O-ring	143011
3. CBU-10	155271-03
4. Plastic Sleeve	163518
5. Quartz Sleeve	163509
6. O-rings for Quartz Sleeve	163516
7. Plunger Rod w/Retainer	163519
8. 1/2" Black Cap w/o pr	SPECIAL ORDER
9. Spacer Bushing	163517
10. Mounting Bracket	SPECIAL ORDER
11. UV Lamp	163508
12. Control Module (120v/60Hz)	163506 - for use with UVS-110-1
Control Module (120v/60Hz)	163507 - for use with UVS-110-2
13. SW-1 Wrench	150295



UV-120

REPLACEMENT PARTS

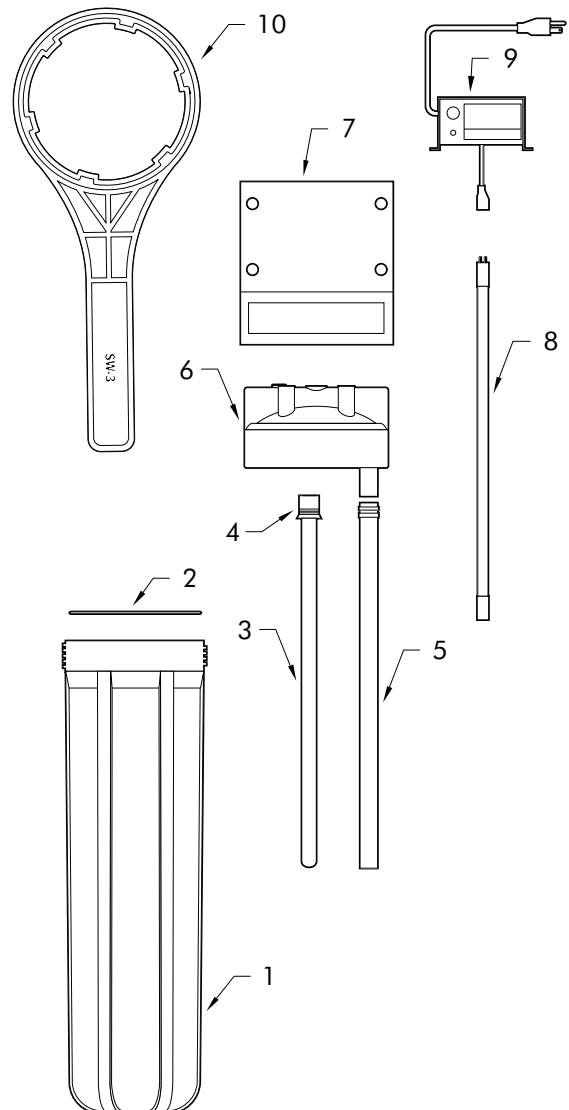
Part Description	Part #
1. 20" Housing	153013
2. O-ring	143011
3. Gasket for Insert Sleeve	163515
4. Stainless Steel Insert Sleeve	163514
5. Quartz Sleeve	163513
6. O-rings for Quartz Sleeve	163516
7. Plunger Rod w/Retainer	163519
8. 3/4" Black Cap w/o pr	SPECIAL ORDER
9. Spacer Bushing	163517
10. Mounting Bracket	SPECIAL ORDER
11. UV Lamp	163512
12. Control Module (120v/60Hz)	163510 - for use with UV-120-1
Control Module (220v/50Hz)	163511 - for use with UV-120-2
13. SW-2 Wrench	150295



UVBB-120

REPLACEMENT PARTS

Part Description	Part #
1. 20" BB Housing w/SS sleeve	SPECIAL ORDER
2. O-ring	143273
3. Quartz Sleeve	163548
4. Plastic Holder w/O-rings	163543
5. Plastic Tube	163545
6. 1½" Black Cap w/o pr	153541
7. Mounting Bracket	SPECIAL ORDER
8. UV Lamp	163512
9. Control Module (120v/60Hz)	163542 - for use with UVBB-120-1
Control Module (220v/50Hz)	163547 - for use with UVBB-120-2
10. SW-3 Wrench	150296



MAINTENANCE

The quartz sleeve should be cleaned with warm soap and water every three months.

UV bulb should be replaced every 9-12 months. The bulb does not normally burn out, however the efficiency of the bulb decreases after one year.

Contact your local water treatment professional for replacement cartridge and bulb pricing or call 1-800-645-0267 for a dealer near you.

Leaks

At inlet/outlet connections:

- Use Plumber tape.

Between cap and housing:

- Make sure that the O-ring is clean, lubricated and properly seated.
- Hand-tighten the housing.
- Check cartridge length. If cartridge is too long, replace with proper length cartridge.

At UV quartz sleeve:

- Turn off all electrical power to the unit by unplugging or throwing the circuit.
- Remove UV lamp and unscrew housing (See UV lamp replacement).
- Check quartz sleeve for cracks, leaks and loose fittings.
- Check that O-rings between quartz sleeve and cap are secure and have not been cut or damaged.
- If the sleeve is broken replace with a new quartz sleeve and new O-rings.



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