



Installation and Operation Manual

CWP-Series[™]

Models: UVG CWP30, UVG CWP55



ATTENTION: Please read this manual carefully and follow the instructions.
Installation shall be carried out only by authorised technicians.

Contents

1. Important Information	3
2. Introduction	4
3. Safety Information	5
4. Receiving Your Cwp-Series	6
5. Installation Requirements	7
6. Installation	8
7. Water Filter Replacement Procedure	12
8. UV Lamp Replacement Procedure	13
9. Quartz Sleeve & O-Ring Servicing Procedure	14
10. Warranty Information	15

1. Important Information

Prior to installing and using the CWP-Series take time to familiarise yourself with all sections of this installation and operation manual. UV-Guard Service Australia Pty Ltd holds no responsibility for installation errors being made as a result of failure to thoroughly read and understand this manual

If after reading this manual you have concerns or questions, contact the UV-Guard team.

2. Introduction

Thank you for purchasing this UV-Guard Complete Water Purification system – the CWP-Series. The CWP-Series purifies water to allow it to be safely consumed or used throughout your home or commercial facility. This complete water treatment system combines filtration, adsorption and UV disinfection – three processes proven to remove sediment, improve taste, clarity & odour, and inactivate bacteria and pathogens in your water.

An effective rainwater treatment system – transforming your collected tank water to safe drinking water. Can also be used for bore water and town water treatment.

The CWP-Series utilises components that need replacing to maintain optimum water treatment performance.

1. Sediment Pleated Washable Filter

This filter acts as the first barrier and prevents dirt from passing to the next treatment stage. When this filter becomes blocked, you will notice a drop in water pressure. It will need to be removed and washed, or replaced when this occurs. The speed at which this filter requires maintenance depends on the quality of water being treated. It is recommended that a first flush diverter is installed to prolong the life of the filter. On average, these filters need to be replaced twice per year.

2. Silver Impregnated Carbon Block Filter

Dissolved material that cause taste, colour and odour problems attach to the carbon materials in this filter. As such, they do not have an infinite capacity. When you begin to notice a colour, taste or odour change, replace this filter. Additionally, if there is a loss in water pressure, this filter may also need to be replaced. On average, these filters need to be replaced twice per year.

3. UV Lamp

The UV Lamp needs replacing after 365 days. The UV controller counts down from this number of days and provides a warning when the UV Lamp end of life is nearing. After 365 days the UV Lamp will still be on, but it will not be emitting the required UV radiation for recommended disinfection. The UV Controller will also alarm should the UV Lamp fail.

4. Quartz Sleeve and O-Ring

The Quartz Sleeve ensures that water does not reach the UV Lamp. Water flows around the Quartz Sleeve and as such, it can become dirty over time. A dirty Quartz Sleeve results in the UV Lamp being unable to disinfect the water. It is recommended that the Quartz Sleeve is inspected regularly after installation. If it is dirty, it needs to be cleaned. If it is not dirty, the inspection frequencies can be extended. For example, check 2 weeks after install, if not dirty, check 4 weeks later, if not dirty, check 8 weeks later. Continue with this method until a Quartz Cleaning frequency is established.

Quartz Sleeves need to be replaced every 2 years. However, if they are dirty to the point where cleaning is not effective, they also need to be replaced. We recommend replacing the O-Ring seal each time the Quartz Sleeve is removed to prevent O-Ring seal failure.

3. Safety Information

Read this information carefully. It contains important information on how to maintain and operate the CWP-Series safely.

Human exposure to UVC light is extremely dangerous. Never turn power on if the UV Lamp is not installed and secured within the UV Reactor. Ensure that the view port double lens is always installed within the UV Reactor.

All components of the CWP-Series must be properly assembled prior to connecting the device to power. If a fault occurs or if the device is damaged in any way during operation, power must be disconnected immediately. When the UV Lamp needs to be replaced or the protective Quartz Sleeve cleaned, power must be disconnected before disassembling the components required to access these parts.



4. Receiving Your CWP-Series

When receiving your CWP-Series box, ensure that all components have been supplied. If you are missing a component, or if something is broken upon delivery, contact UV-Guard within 48 hours.

Refer to the below box contents table:

Component	Qty
Pre-Assembled CWP-Series	1
Pleated Washable Filter	1 - Pre-installed in filter housing 1
Silver Impregnated Carbon Block Filter	1 - Pre-installed in filter housing 2
UV Controller	1 - Packaged within cover
UV Lamp	1 - Packaged within cover
Quartz Sleeve	1 - Packaged within cover
Quartz Sleeve O-Ring	1 - Packaged within cover
Sealing Nut Gasket	1 - Packaged within cover
End Cap Screws	3 - Packaged within cover
Cover Keys	2 - Packaged within cover
Filter Housing Wrench	1 - Within box

5. Installation Requirements

- Choose a location with a structurally appropriate mounting position such as a wall or frame.
- Ensure there is 700mm of free space above the top of the cover to ensure that the UV Lamp and Quartz Sleeve can be maintained easily.
- Allow a 150mm length below the filter housings to ensure that the cartridge filters can be removed and installed during servicing.
- To make servicing easier, it is recommended to install an isolation valve on the pipework prior to the CWP-Series.
- Supply water pressure must be between 300 and 700 kPa. If pressure is greater than this, a pressure limiting valve must be installed.
- Water temperature must not exceed 50°C.
- A Standard 240V 10A GPO is required to be within 1.5m of the UV Controller. Power Extension cords can be used if required.
- The appropriate National Plumbing and Drainage Code (AS/NZS 3500) laws must be adhered to.
- Ensure the water supply flow rate does not exceed the rated maximum of the CWP-Series to ensure sufficient UV disinfection.
- Use supports on inlet and outlet pipes to ensure there is no damaging strain on the CWP-Series inlet and outlet connections.
- The pipework connected to the outlet of the UV Reactor to the next 90 degree elbow must be made from Schedule 80 PVC, Polyethylene or metal. The UV light will degrade standard PVC pipe over time.
- If the CWP-Series is left on with no flow, the water will begin to get warm. We recommend installing a **Thermal Relief Valve PN 32250-SS** to the outlet of the UV Reactor. This will release water and allow fresh water to cool the system down.

6. Installation

1. Refer to **Section 5 – Installation Requirements** to ensure that installation position has the required maintenance space above and below the system (700mm above cover, 150mm below filter housings).
2. The CWP-Series has four key holes for mounting. Obtain wall fixings such as screws and anchors according to the wall type and key holes. Please note, only two key holes are requiring for mounting – either the two outer or two inner key holes.
3. Mark up the installation wall.
4. Drill the holes and install the anchors.
5. Position the CWP-Series and secure with fixing screws.
6. Ensure that the water supply is isolated. It is recommended to install an isolation valve prior to the inlet of the system.
7. Connect plumbing to the inlet and outlet of the CWP-Series. The inlet is a female 1" BSP fitting, the outlet is a male 1" BSP fitting on the UV System. Use thread tape to ensure that there are no leaks.
8. The pipework connected to the outlet of the UV Reactor to the next 90 degree elbow must be made from Schedule 80 PVC, Polyethylene or metal. The UV light will degrade standard PVC pipe over time.
9. Open the cover of the CWP-Series.
10. The controller is located within a box. Remove the controller and install it onto the two support brackets using the provided screws and nuts.
11. Unscrew the black Sealing Nut attached to the end of the UV Reactor.
12. Locate the Quartz Sleeve O-Ring and apply a small amount of silicon-based O-Ring grease. Insert the O-Ring inside the sealing nut so that it is seated in the designated groove.



13. Only handle the Quartz Sleeve with clean powder free nitrile gloves, cotton gloves or a rag or tissue.

Wipe the Quartz Sleeve with an alcohol wipe or similar to remove any dirt and finger marks.



14. Carefully insert the open end of Quartz Sleeve into the Sealing Nut and through the O-Ring until the end of the Quartz Sleeve meets the internal stop inside the sealing nut.



15. Insert the domed end of the quartz thimble through the sealing nipple on the UV Reactor.

Slide the Quartz Sleeve into the UV Reactor and it will centre itself in the spring support.



16. Do not use thread tape on the sealing nipple.

Hold the Sealing Nut and screw it onto sealing nipple.

Continue to screw the sealing nut carefully until it begins to compress the O-Ring. Turn an additional $\frac{1}{2}$ to $\frac{3}{4}$ turn so it is firmly hand tight.

Do not overtighten and do not use mechanical equipment to tighten – hand tight is sufficient.



17. Look through the open end of the sealing nut and check the O-Ring is compressed. A torch can be used to assist.

Do not install the UV lamp yet.

18. Use the Filter Wrench to ensure each filter housing is tight.

Do not overtighten.



19. Apply maximum water pressure and wait a few minutes to check the O-Ring seal. If leaks occur, turn the sealing nut in clockwise direction to increase the O-Ring compression.

20. Locate the UV lamp and remove it from the protective packaging.

Only handle the UV Lamp with clean powder free nitrile gloves, cotton gloves or a rag or tissue.

Wipe UV lamp with an alcohol wipe or similar to remove any dirt and finger marks that can detrimentally impact UV lamp performance.



21. Insert the UV Lamp into the Quartz Sleeve through the open end of the sealing nut.

Take care not to drop the UV Lamp into the Quartz Sleeve as this may result in breakages



22. Take the UV Lamp Lead connected to the UV Controller and plug the 4 pin Lamp Connector onto the end of the UV Lamp.

Ensure that the UV Lamp is securely connected to the 4 pin Lamp Connector.



- 23.** Line up the three holes on the end of the Sealing Nut with those on the lamp lead End Cap.

Locate the M3 screws and pass them through the lamp lead End Cap holes. Begin to slowly screw them into the holes on the end of the Sealing Nut.

Be careful not to damage the threads on the screws.

Do not overtighten.



- 24.** Screw the earth wire the earth screw within the cover.



- 25. Do not connect the Power Cable to power yet.**

Feed the non-power plug end of the Power Cable through the hole on the underside of the cover.

Plug this into the UV Controller.



- 26.** Close the cover and use the keys to lock it.

- 27.** Allow water to flow through the system for 2 minutes to remove any air or installation impurities.

- 28.** Connect the UV Controller to power. Allow 2 minutes for the UV Lamp to reach full intensity before consuming the treated water.

7. Water Filter Replacement Procedure

The following Water Filters need to be maintained to ensure optimum treated water quality.

1. Sediment Pleated Washable Filter

This filter acts as the first barrier and prevents dirt from passing to the next treatment stage. When this filter becomes blocked, you will notice a drop in water pressure. It will need to be removed and washed, or replaced when this occurs. The speed at which this filter requires maintenance depends on the quality of water being treated. It is recommended that a first flush divertor is installed to prolong the life of the filter. On average, these filters need to be replaced twice per year.

2. Silver Impregnated Carbon Block Filter

Dissolved material that cause taste, colour and odour problems attach to the carbon materials in this filter. As such, they do not have an infinite capacity. When you begin to notice a colour, taste or odour change, replace this filter. Additionally, if there is a loss in water pressure, this filter may also need to be replaced. On average, these filters need to be replaced twice per year.

Follow the below steps:

1. Turn water off, isolate system and relieve pressure by opening a downstream tap.
2. Press the pressure relief buttons located at the top of each filter housing to remove pressure from the system.
3. Use the Filter Housing Wrench to slowly unscrew each Filter Housing. Remove the old Water Filters and dispose of them sustainably.
4. Clean the inside of the grey Filter Housings using warm soapy water but ensure they are rinsed thoroughly prior to re-installing them. Check the Filter Housing O-Ring seals and replace if they are damaged.
5. Use a silicon based lubricant to lubricate the O-Rings before placing them back into their designated positions.
6. Locate new Water Filters and place them into the blue Filter Housings so that the spigot at the bottom of the Filter Housings is inside each Water Filter.
7. Hold the blue Filter Housings upright and screw back into position. Rotate slowly to ensure that the threads are not damaged. Tighten with the Filter Housing Wrench.
8. Open a downstream tap and turn water supply on. Flush the system for 2 minutes.
9. Close the downstream tap and check the Filter Housings for leaks.

8. UV Lamp Replacement Procedure

The UV Lamp needs replacing after 365 days. The UV controller counts down from this number of days and provides a warning when the UV Lamp end of life is nearing. After 365 days the UV Lamp will still be on, but it will not be emitting the required UV radiation for recommended disinfection. The UV Controller will also alarm should the UV Lamp fail.

1. Disconnect the UV Controller from power.
2. Turn water off and isolate system.
3. Allow the UV system to cool for 5-10 minutes so that the UV Lamp has time to cool down.
4. Open the cover with the keys provided.
5. Unscrew the three screws from the Sealing Nut End Cap.
6. Slowly lift the UV Lamp out of the UV Reactor, disconnect it from the 4 pin Lamp Connector and dispose of it according to your location's regulations.
7. Locate the new UV lamp and remove it from the protective packaging. Only handle the UV Lamp with clean powder free nitrile gloves, cotton gloves or a rag or tissue. Wipe UV lamp with an alcohol wipe or similar to remove any dirt and finger marks that can detrimentally impact UV lamp performance.
8. Insert the UV Lamp into the Quartz Sleeve through the open end of the sealing nut. Take care not to drop the UV Lamp into the Quartz Sleeve as this may result in breakages.
9. Place the black gasket over the UV Lamp ready for it to be compressed against the sealing nut.
10. Take the UV Lamp Lead connected to the UV Controller and plug the 4 pin Lamp Connector onto the end of the UV Lamp. Ensure that the UV Lamp is securely connected to the 4 pin Lamp Connector.
11. Fit the black End Cap over the Sealing Nut. The Gasket should be between the end of the Sealing Nut and the End Cap.
12. Line up the three holes on the end of the Sealing Nut with those on the lamp lead End Cap. Locate the M3 screws and pass them through the lamp lead End Cap holes. Begin to slowly screw them into the holes on the end of the Sealing Nut. Be careful not to damage the threads on the screws. Do not overtighten.
13. Connect the UV Controller to power. The RED LED will be on due to the lamp timer needing to be reset. Do this by holding the silver button down for 15 seconds. The lamp timer will then reset to 365 days and the GREEN LED will be on.
14. Close and lock the cover.
15. Allow water to flow through the system for 2 minutes before consuming.

9. Quartz Sleeve & O-Ring Servicing Procedure

The Quartz Sleeve ensures that water does not reach the UV Lamp. Water flows around the Quartz Sleeve and as such, it can become dirty over time. A dirty Quartz Sleeve results in the UV Lamp being unable to disinfect the water. It is recommended that the Quartz Sleeve is inspected regularly after installation. If it is dirty, it needs to be cleaned. If it is not dirty, the inspection frequencies can be extended. For example, check 2 weeks after install, if not dirty, check 4 weeks later, if not dirty, check 8 weeks later. Continue with this method until a Quartz Cleaning frequency is established.

Quartz Sleeves need to be replaced every 2 years. However, if they are dirty to the point where cleaning is not effective, they also need to be replaced. We recommend replacing the O-Ring seal each time the Quartz Sleeve is removed to prevent O-Ring seal failure.

1. Refer to steps 1-6 of **Section 8 - UV Lamp Replacement Procedure**.
2. It is important that the system is free from pressure.
3. Unscrew the black Sealing Nut slowly. Once it is screwed all the way, the Quartz Sleeve may push up out of the UV Reactor.
4. Remove the Quartz Sleeve from the UV Reactor and Sealing Nut.
5. If cleaning, use an alcohol-based liquid or wipe to clean any dirt from the Quartz Sleeve.
6. If replacing, locate a new Quartz Sleeve and handle with a cotton cloth or paper towel. Wipe any dirt or fingerprints from it with an alcohol based liquid or wipe.
7. Lubricate a new O-Ring using a silicon based lubricant and insert it into the Sealing Nut.
8. Slowly feed the open end of the Quartz Sleeve through the O-Ring within the Sealing Nut until the open end of the Quartz Sleeve meets the internal wall of the Sealing Nut.
9. Carefully insert the domed end of the Quartz Sleeve into the UV Reactor. As the Quartz Sleeve nears the end of the UV Reactor, it should position itself into a spring.
10. Begin to screw the Sealing Nut back on until it is hand tight. You can shine a torch into the top of the Sealing Nut to check the O-Ring compression.
11. Apply maximum water pressure and wait a few minutes to check the O-Ring seal. If leaks occur, turn the sealing nut in clockwise direction to increase the O-Ring compression.
12. Refer to steps 8-12 of **Section 8 - UV Lamp Replacement Procedure**.
13. Connect the UV Controller to power. If the UV Lamp has been replaced, the RED LED will be on due to the lamp timer needing to be reset. Do this by holding the silver button down for 15 seconds. The lamp timer will then reset to 365 days and the GREEN LED will be on.
Do not reset the lamp timer if a new UV Lamp is not being installed.
14. Close and lock the cover.
15. Allow water to flow through the system for 2 minutes before consuming.

Warranty Information

UV GUARD'S PRODUCTS AND THE AUSTRALIAN CONSUMER LAW

Our goods come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure. The benefits provided to you by this warranty are in addition to other rights and remedies available to you under the law.

NON-ELECTRICAL COMPONENTS

UV-GUARD will grant a two (2) year warranty from the date of purchase for the Filter Housings and UV Reactor. Faults regarding the material and workmanship of these components will be rectified free of charge within the warranty period. The warranty does not cover instances where the system is subjected to corrosive chemicals or materials. This warranty does not cover installations where salt water or water with chloride levels greater than 250ppm and greater than 25°C passes through the reactor. This warranty does not cover damage to threads as a result of mishandling.

ELECTRICAL COMPONENTS

UV-GUARD will grant a one (1) year warranty from the date of purchase for the Controller.

UV-GUARD will grant a one (1) year warranty from the date of purchase, if the UV Lamp fails due to faults regarding material and workmanship. UV Lamp warranty will be voided if the unit is switched on and off more than 4 times per day or if the system or UV Lamp is mishandled.

PLEASE NOTE: As soon as you detect a defect or fault, you are to immediately cease using the product and lodge a warranty claim with details of the defect to UV Guard by email to the email address stated below. Once UV Guard has assessed your claim and confirmed that the warranty applies, UV Guard will determine whether it will replace the product, repair the product, or reimburse you the amount to replace or repair the product. You must return any faulty products to UV Guard's Head Office at your own cost, unless otherwise agreed by UV Guard. All warranties provided by UV Guard will be invalidated by, and UV Guard will not be responsible to any damage or defect to the products caused in connection with: your failure to install, handle, use, maintain, operate, service, and replace the products in accordance with the relevant instructions and directions contained in this Manual, UV Guard's Terms and Conditions, any applicable law, the direction of any applicable authority (as defined in UV Guard's Terms and Conditions), or otherwise with UV Guard's instructions; the opening or breaking of the manufacturers seal, the electrical equipment (which is designed and manufactured to the specifications of the order), or any additional changes not approved by UV Guard; and the installation and/or commissioning of the products by any individual not authorised by UV Guard.



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