

090326

UK / EU / USA
English

EVOLUTION
AQUA
INNOVATION IN WATER

nexusTM

Ti UV Upgrade Kit

Can be used on Nexus 210 & 310 models manufactured
after 2006 through to Nexus 220+ & 320+

WARNING:

**Disconnect the appliance from the supply before carrying out maintenance.
Read the maintenance instructions before opening the appliance.**

IMPORTANT SAFETY INSTRUCTIONS



ELECTRICAL SAFETY

WARNING - (UK / EU models): The supply circuit must be protected by a Residual Current Device (RCD/RCCB) with a tripping current ≤ 30 mA. Provide a means of disconnection with ≥ 3 mm contact separation on all poles.

WARNING - (USA models): Risk of electric shock. Connect only to a branch circuit protected by a GFCI. If you cannot verify GFCI protection, contact a qualified electrician.

- This unit must be earthed (Class I) when an earth conductor is supplied.
- Do not use extension cords to connect the unit; provide a correctly located outlet of the correct rating.
- Never fit a fuse larger than [3 A] on the power lead.
- Disconnect power before installation, servicing, or putting hands into water.
- Do not submerge the unit in its entirety. Ensure the IP rating (IP44) is suitable for the intended installation location.

UV-C RADIATION SAFETY

WARNING - UV-C radiation. Avoid exposure of eyes and skin.

- Do not operate the UV-C emitter when it is removed from the appliance enclosure.
- Unintended use or damage to the housing may result in escape of dangerous UV-C radiation. Never look directly at an illuminated UV lamp.
- Ensure all supplied covers are fitted before energising. If the quartz sleeve is cracked, switch off and replace immediately.
- User servicing: Follow the instructions for cleaning (method and frequency) and for lamp/sleeve replacement, including PPE (e.g., gloves, eye protection). Dispose of UV-C lamps according to local requirements.



MAINTENANCE & SERVICE

WARNING - Disconnect from the supply and allow components to cool before maintenance.

- Inspect seals and the quartz sleeve regularly; replace if damaged.
- Follow the cleaning schedule and lamp replacement interval specified. Use only manufacturer-approved parts.
- If the supply cord is damaged, it must be replaced by the manufacturer, its service agent, or similarly qualified persons to avoid a hazard.



SAVE THESE INSTRUCTIONS

EPA Est. No. 100154-GBR-1

IMPORTANT SAFETY INSTRUCTIONS



INSTALLATION & USE

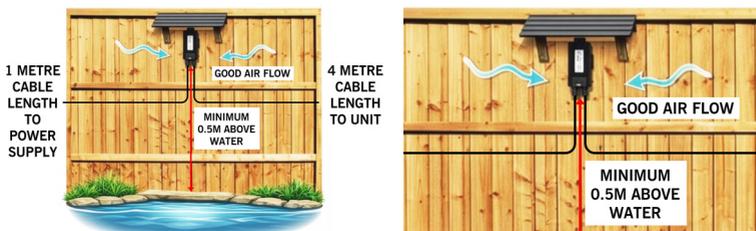
- This product is intended for use only in pond and ornamental water treatment systems. Do not use for any other purpose.
- **DO NOT** operate the UV-C lamp without water flowing through the filter system. Operating the unit without water flow may cause overheating and damage to the equipment.
- **UV-C RADIATION HAZARD.** Never operate the unit if the lamp or quartz sleeve is damaged or exposed. Avoid direct exposure of eyes or skin to UV-C radiation.
- Protect the system from frost and freezing conditions. Where freezing may occur, ensure pipework and equipment are adequately insulated or drained as required.
- Install the UV-C ballast in a sheltered, well-ventilated location, protected from direct sunlight and operating within the stated ambient temperature range.
- The ballast must be installed in a dry location and protected from continuous splashing, heavy rain, or standing water.
- Maximum operating pressure: 0.3 bar (**do not exceed**).
- This appliance is not intended for use by children. Children should be supervised to ensure that they do not play with the appliance. Cleaning and user maintenance must not be carried out by children without supervision.

INSTALLATION & LOCATION

Mounting the UVC ballast:

- **DO NOT** mount the ballast directly onto the Nexus unit.
- Install the ballast in a sheltered, well-ventilated position to prevent overheating and allow adequate airflow around the unit.
- Avoid installing the ballast in confined or enclosed spaces where heat may accumulate.
- Mount the ballast at least 0.5 m (1.6 ft) above potential water sources. Never place the ballast on the ground where it may sit in standing water.
- Ensure the ballast is protected from direct sunlight and heavy rain, for example beneath a roof, awning, or similar cover. An ideal installation location is on a fence panel or wall within the garden, where the ballast is elevated, sheltered, and airflow around the unit is unrestricted.

Example of recommended installation:



SAVE THESE INSTRUCTIONS

EPA Est. No. 100154-GBR-1

NEXUS TI UV UPGRADE KIT

The Nexus Ti UV Upgrade Kit allows existing Nexus owners to add our built-in Titanium-Enhanced UV to older Nexus models, delivering crystal-clear, healthy pond water without the need for extra pipework.

Designed for a simple installation, the kit includes all components required to upgrade your filter, giving you the performance and efficiency of the latest NexusTi system with fewer components, simpler plumbing, and reduced maintenance.

Please read this instruction manual carefully and in full before attempting to install the Nexus Ti UV Upgrade Kit.

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WHAT'S IN THE BOX?

Your NexusTi comes complete with the following items:



UV mounting unit

2 x 55W UVC for Nexus 320 /
2 x 36W UVC for Nexus 220



Qty x 2 Titanium shrouds &
Qty x 4 - M5 Nyloc nuts
and washers



Jig for shrouds

Qty x 1



O-Ring gasket
(For overflow pipe)

Qty x 1



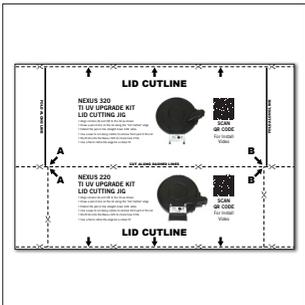
Holiday kit

Qty x 1



Mounting cable clips

Qty x 5



Paper jig for lid cutting
220 / 320 "Auto-Ready" lids



Mounting bracket fixings
Qty x 4 - Black PVC Screw Caps
Qty x 2 - 3.5 x 13mm for sides
Qty x 2 - 3.5 x 25mm for the top



Light block-out PVC cover
and fixings kit

PREPARATION



WARNING: The slots on the stainless steel exit grill can be very sharp. Take care when working near the exit grill. Use appropriate safety gloves to prevent any cuts during installation of the Ti shrouds.



UVC BALLASTS

Before installing the upgrade kit please consider where you can locate the two UVC ballasts so they can be connected up correctly. Check the cable lengths and ensure the UVC ballasts are mounted in a sheltered, well-ventilated location ensuring protection from direct sunlight and not exceeding the stated ambient range. Ensure the ballast is kept in a dry area and not exposed to continuous splashing, heavy rain or standing water.

PREPARING YOUR NEXUS

To help with the installation of the upgrade kit on existing Nexus filters you should:

- Clean the exit grill if debris is blocking the slots
- Lower the water level in your Nexus to the bottom of the exit grill. This helps with installation and also if any washers or screws are dropped. See photo below:



TIP:

GRAVITY-FED: Push the cleaning pipe into the centre of the Eazy, wait until the water level in the outer chamber has dropped to the bottom of the exit grill, close the ball / slide valve on your outlet pipeline and turn the pump off.

PUMP-FED: For pump-fed models use the outer chamber maintenance valve to drain the outer chamber or drop a submersible pump connected to flexi-pipe into the outlet section. Do not remove the stand pipe in the outlet.

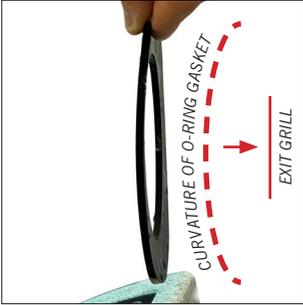


INSTALLING THE NEXUS TI UV UPGRADE KIT

Scan the QR code to watch the installation video and follow the steps on the following pages.



INSTALLING THE NEXUS TI UV UPGRADE KIT



Take the O-Ring gasket over the overflow pipe. Ensure the curvature of the gasket faces inwards towards the exit grill.



Fit the O-Ring gasket over the elbow and push it firmly against the exit grill until flat.



The O-Ring gasket will look like this when fitted.



Take a titanium shroud. Keep the pointed section face up and slide into the outlet section alongside the overflow pipe.



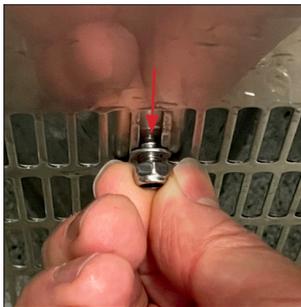
Take the plastic jig and push the male part into the slot on the top row of the exit grill nearest the wall of the Nexus.



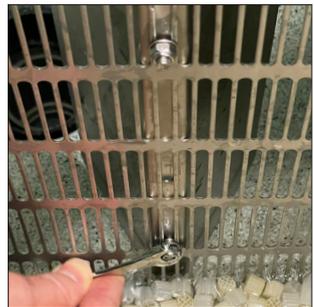
Keep this in position and push the top screw on the titanium shroud through the corresponding exit grill slot and through the hole in the jig.



The bottom screw should be directly aligned with the top screw. Drop the shroud to the bottom. Check using the jig or count thirteen slots from the edge of the exit grill.



Make sure the shroud is dropped all the way down to the bottom of the slot and fit a washer and nut onto the screws.



Tighten the nuts using a M5 spanner.

INSTALLING THE NEXUS TI UV UPGRADE KIT



Take the other titanium shroud. Keep the pointed section face up and slide down the other side of the overflow pipe.



Take the plastic jig and push the male part into the slot on the top row of the exit grill nearest the wall of the Nexus.



Keep this in position and push the top screw on the titanium shroud through the corresponding exit grill slot and through the hole in the jig.



The bottom screw should be directly aligned with the top screw. Check using the jig or count thirteen slots from the edge of the exit grill.



Make sure the shroud is dropped all the way down to the bottom of the slot and fit a washer and nut onto the screws.



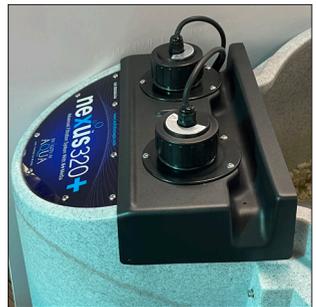
Tighten the nuts using a spanner.



Now take the UV-C unit and slide the bulbs carefully into the titanium shrouds.

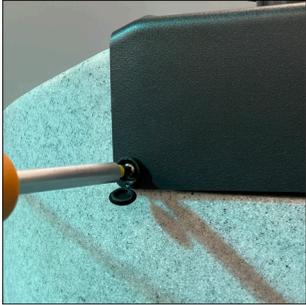


Line the top section up so the foam seal rests along the top of the exit grill.



The front of the black top cover overlaps the name plate.

INSTALLING THE NEXUS TI UV UPGRADE KIT



Use one of the small self-tapping screws, fit a black cover cap and screw through the pre-drilled hole into the Nexus.



Repeat on the other side.



Use one of the longer self-tapping screws, fit a black cover cap and screw through the pre-drilled hole into the Nexus.



Repeat on the other side.

CABLE MANAGEMENT



There are 5 self adhesive mounting cable clips provided to fix the UVC cables to the Nexus for tidiness.



Space them out and fit them to the black plastic housing and down one side of the Nexus outlet.



Push fit the clamp to secure the cables in position.

APPLYING THE LIGHT BLOCK-OUT PVC COVER

When the UV bulbs are illuminated, a small amount of indirect light may be visible through the body of the Nexus. This is perfectly safe. If you wish to block this light for aesthetic purposes, the supplied light block-out PVC cover can be fitted around the outlet section.



SCAN QR CODE
for installation
video

Scan the QR code to view the application video or follow the steps below.



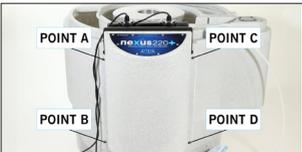
Roll out the PVC cover with the unprinted side facing you.



Attach one Dual Lock piece horizontally to each corner of the unprinted side (remove red film first).



The four (4) pieces should appear as shown once fitted.



Locate the four application points on Nexus outlet where the other four pieces of Dual Lock will be applied to.



Position one Dual Lock piece vertically at point A, 3–5mm below the bracket. Mark around it in pencil.



Repeat at point B, butting the Dual Lock to the base of the outlet. Mark around it in pencil.



Repeat the process on the opposite side, applying two Dual Lock pads at point C and D and marking them.



Lightly sand the four marked areas with medium-grit sandpaper. Use a lint-free cloth to wipe away any dust.



Open the Surface Prep Cleaner wipe and apply to each of the four areas. Allow to dry for 60 seconds.



Wearing gloves, open Primer wipe and apply to the four application areas. *NOTE: the formula dries quickly.*



Remove red film and attach four Dual Lock pieces vertically to the marked areas. Press firmly across tape.



Wait 48 hours, then attach the PVC cover.

CONNECTING UV TO ELECTRICAL SUPPLY

ELECTRICAL INSTALLATIONS MUST BE DONE BY A QUALIFIED ELECTRICIAN

The power supply must meet the specifications on the product. The cores in the supply cable are coloured in accordance with the following code:

UK / EU: Brown = Live. Blue = Neutral. Earth = Green/Yellow

USA: Black = Live. White = Neutral. Green = Earth



The UVC on a EUROPEAN and USA model is fitted with a plug. Not applicable for UK models.

Do not use the cable to lift the UVC as this may cause damage.

WARNING - A Residual Current Device (RCD), also known as the Residual Current Circuit Breaker (RCCB), with a tripping current not exceeding 30mA must be installed in the supply circuit. A means of disconnection from the supply having a contact separation of at least 3mm in all poles must be incorporated in the wiring.



Caution: Use in the area of the garden pond only if the installation complies with the relevant wiring regulations. Please consult a qualified electrician.

Caution: Always disconnect all pond appliances from the mains supply before putting your hands into the water.

All electrical installations and wiring must be adequately protected to prevent any damage.

Enough electrical cable is supplied with the UVC to connect to the mains electric. This unit must be connected to permanent wiring. A switch with 3mm contact separation must be provided in the fixed wiring to provide disconnection from the electricity supply.

WARNING - Never look directly at an illuminated UV bulb.

PLEASE NOTE: The UVC incorporates a safety switch interlock to avoid UV exposure. This means the UV bulb will only illuminate once the bulk head collar has been screwed onto the filter.



EUROPEAN / USA MODELS EPA Est. No. 100154-GBR-1

For EUROPEAN and USA models the UVC is fitted with a plug. Please follow electrical installation guidance applicable for your specific country before installing the UVC.

GROUNDING INSTRUCTIONS - This appliance must be grounded. In the event of a malfunction or breakdown, grounding will reduce the risk of electric shock by providing a path of least resistance for electric current. This appliance is equipped with a cord having an appliance-grounding conductor and a grounding plug. The plug must be plugged into an appropriate outlet that is installed and grounded in accordance with all local codes and ordinances.

WARNING - Improper connection of the appliance-grounding conductor can result in a risk of electric shock. Check with a qualified electrician or service representative if you are in doubt whether the appliance is properly grounded. Do not modify the plug provided with the appliance; if it will not fit the outlet, have a proper outlet installed by a qualified technician.

CLEANING THE UV QUARTZ SLEEVE



WARNING: NEVER LOOK DIRECTLY AT AN ILLUMINATED UV BULB

It is good practice to clean the UV quartz sleeve as and when required.

- Drain water out of the NexusTi
- Turn off the power supply to the pump and the UVC.
- Unscrew the UVC collar and carefully pull out the UV bulb unit. Do not touch the UV bulb. Store this safely.
- Carefully ease out the quartz sleeve and slide it out of the filter. This may be tight.
- Clean with a damp cloth, and dry it. If damaged, purchase a replacement sleeve from an EA stockist.
- Check that the orange o-ring is still in place.
- Check the black o-ring is in the groove of the quartz sleeve.
- Re-fit the quartz sleeve.
- Re-fit the bulb unit.
- Tighten up the black collar.
- Turn the power supply to the UVC and pump back on.

REPLACING THE UV BULB



WARNING: NEVER LOOK DIRECTLY AT AN ILLUMINATED UV BULB

Replace the UV bulb when needed or once a year for optimum performance.

- Drain water out of the NexusTi
- Turn off the power supply to the pump and the UVC.
- Unscrew the UVC collar and carefully pull out the UV bulb unit.
- Hold the UV bulb with a dry cloth and carefully pull the plastic transit clip.
- Carefully pull out the UV bulb from the 4 pin socket.
- Replace the UV bulb with a new 36W PL-L UV bulb (220 models) or 55W PL-L UV bulb (320 models), available from EA stockists.
- You do not need to re-fit the plastic transit clip, but its advisable to do this.
- Check the black o-ring is in the groove of the quartz sleeve.
- Slide the UV bulb back in.
- Tighten up the black collar.
- Turn the power supply to the UVC and pump back on.

FITTING EXISTING NEXUS LIDS

Brand new NexusTi Lids can be purchased from Evolution Aqua stockists.

If you already own a lid and it is the black “Auto Kit Ready” version, you will need to cut away the front section of the lid so that it fits around the UV mounting bracket.

A paper cutting jig is supplied to help you accurately position the cut.

Select the correct jig (220 or 320) from the A3 paper template provided and cut it out before positioning it on the lid.



SCAN QR CODE
for installation
video

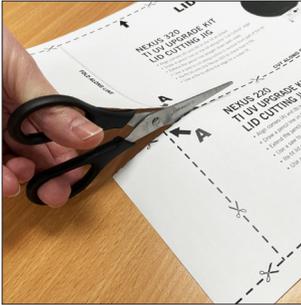
NEXUS 220 MODELS - Align the paper jig as shown below...



NEXUS 320 MODELS - Align the paper jig as shown below...



FITTING EXISTING NEXUS LIDS



Cut out the jigs from the printed paper template.



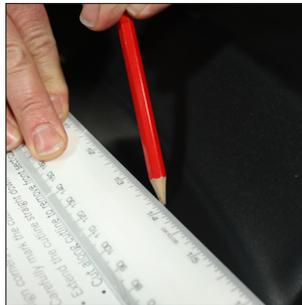
On 220 lids: Line up parts A and B to the corresponding points as shown above.



On 320 lids: Line up parts A and B to the corresponding points as shown above.



Apply some tape to secure the jig in position.



Use a straight edge to draw a pencil line on the lid along the edge of the paper jig labelled "Lid Cutline".



Continue the pencil lines down each side of the lid.



Use a saw to cut through the lid to remove the front part.



Fit the lid onto your Nexus to check how it fits.



Use a file to refine the edge for a closer fit.

We advise using the NEXUS LID BUNGEE CORD FASTENING KIT to fully secure your lid. This can be purchased from your nearest stockist or online at evolutionaqua.com.

LONGER PERIOD OF TIME BETWEEN CLEANING - “HOLIDAY MODE”

Regular cleaning of the Eazy is essential to maintain your pond at its best. Build up of detritus in any pond filter can harbour pathogens, and other pollutants which may harm your fish.

At times, you may want to leave your filter for longer than you would normally want between cleaning, perhaps if you go on holiday. In these instances, your NexusTi incorporates a manual by-pass, which will prevent the biological stage from emptying, and therefore potentially starving your pump of water, should your Eazy become full of debris.

In this situation we advise that you make sure your pond is filled to its highest water level, particularly if you don't have an automatic top-up fitted. We also recommend turning the pump power down to reduce the flow passing through the NexusTi.



Turn the power off on both UVs



Unscrew either the left or right collar on the UV



Carefully pull out the quartz sleeve and bulb and store safely



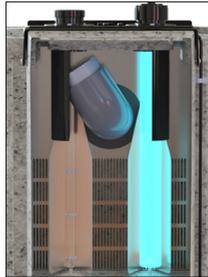
Take the insert and collar that make up the “Holiday Kit”



Fit the “Holiday Kit” and screw the collar hand tight



Rotate the by-pass pipe 40 degrees towards the side with no UV bulb



The by-pass pipe will hit the plastic shield when it comes to a stop



Turn on the power to the UV that is fitted



WARNING: DISCONNECT POWER BEFORE REMOVING UV BULBS



WARNING: NEVER LOOK DIRECTLY AT AN ILLUMINATED UV BULB

HOW TO GET THE BEST FROM YOUR NEXUS FILTER

Using conventional methods, maturing a biological filter can take some time. To speed up this process we recommend using Evolution Aqua's award winning **PUREPOND** products.

PURE+FILTERSTARTGel - Live, concentrated bacteria culture for use in new pond filters. The gel based solution will stick to the filter media, allowing the nitrifying bacteria it contains to rapidly colonise your filter. Simply coat the **K+Media** and **K1 Micro** with the gel once the **NexusTi** has been installed.



Available in 1 litre for ponds up to 10,000 litres and 2.5 litre for ponds up to 25,000 litres.

PUREPOND - Live bacteria and enzymes delivered in gel-like balls to maintain crystal clear, healthy water by converting ammonia and nitrite and cleaning up organic waste. Simply add the balls into the biological chamber of the **NexusTi** for maximum effectiveness.



Available in 500ml for ponds up to 10,000 litres, 1 litre for ponds up to 20,000 litres and 2.5 litre for ponds up to 40,000 litres.

PUREPOND DUO PACK - Two products in one pack to boost water quality and to digest sludge in ponds. The pack contains one **PUREPONDBOMB** and one **PURESLUDGE BOMB** that can be simply dropped into biological chamber of the **NexusTi** or straight into the pond, as and when needed.



Use products on their own or together in ponds up to 20,000 litres.

TOP TIPS

For optimum biological performance:

- Maintain a pond pH of 7 or higher.
- Maintain a pond Nitrate reading of 50mg/l or less.
- Always dechlorinate your mains water. Use an Evolution Aqua Dechlorinator for removal of harmful chlorine when topping up with mains water.
- Feed your fish Evolution Aqua's own food range which has been designed to create less fish waste.

NEXUS AUTOMATIC CLEANING UPGRADE

You can also upgrade the **NexusTi** to benefit from a fully automated cleaning cycle. Physically turning ball valves and manually switching pumps on and off will now be a thing of the past thanks to the easy to install **Nexus Automatic System**. Scan the QR code to learn more.



TROUBLESHOOTING

Which Nexus models are compatible with the retrofit kit?

Everything post 2006

Will the UV kill the bacteria in the Media?

The chamber is not in direct contact with the MBBR section of the Nexus filter. This means unlikely to have any contact issues and reduction in bacterial performance. Also the K+ Media is manufactured from HDPE which is UV resistant and it carries a huge protected surface area that the UV will not penetrate even if in direct contact.

K+ media has both protected and unprotected surface areas, the protected being within the media core itself and this, by nature of its shape and size, ensures the biofilm and bacteria contained within it remain stable. Of course, this protected surface area will not be reached by the UVC as the key component of our media is HDPE which is UV resistant.

Will the UV rays break down the filter house plastic/structure?

One of the reasons we chose to use the return chamber is that this is where the water velocity slows down and therefore improves contact time and related efficiency. Also, this is where the water is the cleanest in the filtration process so the UVT is at its highest levels for enhanced effectiveness.

UV impact to any plastic is greatly reduced when passed through water, its ability to penetrate the plastic in the return chamber is reduced further than that of a normal UV body as the column of water is at its largest diameter.

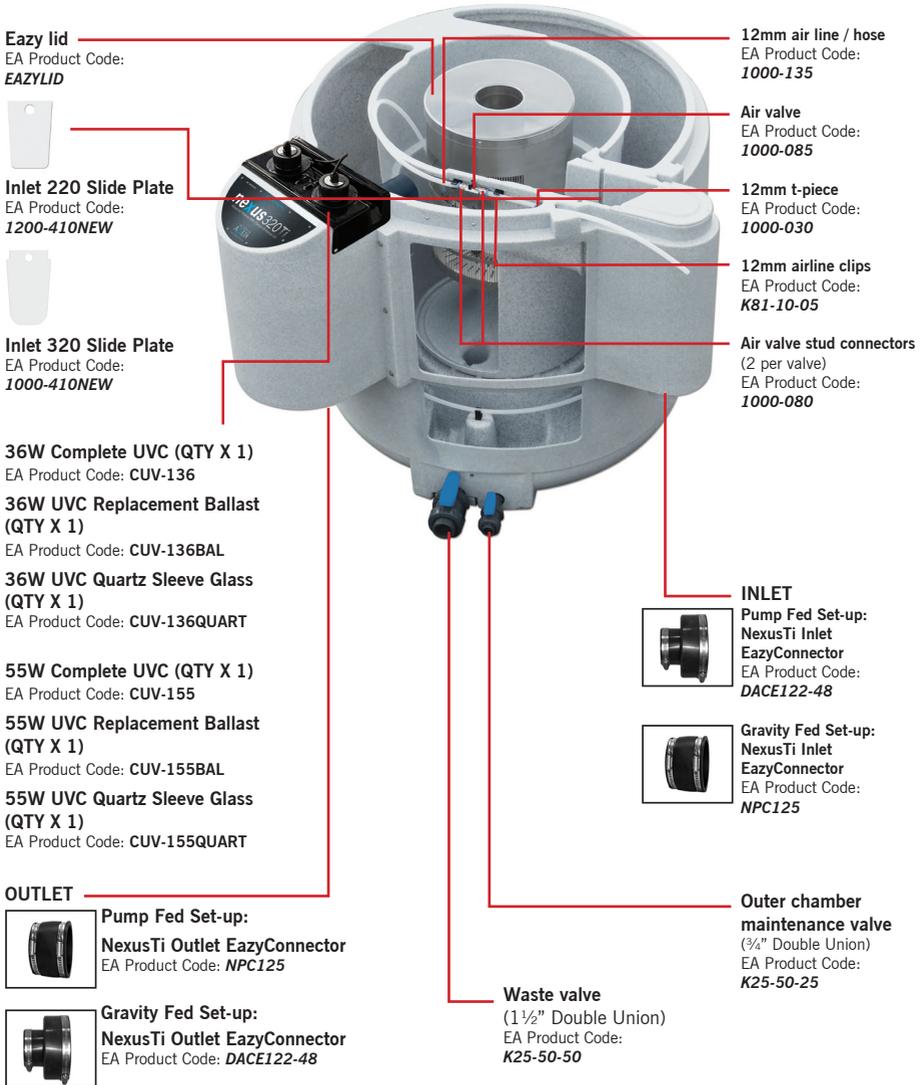
If high intensity UV was shown directly to the Nexus body material, the impact shown is normally directly related to the loss in colour from the pigments we use being bleached. This is why we add a protection sleeve to prevent this potential unsightly problem from occurring.

I have an issue with green water.

Follow the maintenance steps to be sure the UVC is working correctly.

NEXUSTi SPARE PARTS LIST

There are a number of spare parts for the Nexus220Ti / 320Ti that are readily available from Evolution Aqua dealers. See diagram below for relevant spare parts and product codes:



ADDITIONAL ITEMS:



NexusTi Cleaning Pipe
(Eazy Isolation Pipe 90mm)
EA Product Code:
5000-329



K+Media
(50 Litre)
EA Product Code:
KPLUSMEDIA50L

GUARANTEE

This product is guaranteed against defects in material and workmanship for 1 year from the date of purchase, under normal usage. The guarantee DOES NOT APPLY in case of improper use, negligence, lack of maintenance or accidental damage to the Nexus Ti UV Upgrade Kit.

If the Nexus Ti UV Upgrade Kit fails due to a manufacturing fault within this period it will be either repaired or replaced free of charge. Liability is limited to replacement of the faulty product only; no other costs will be reimbursed. This guarantee is not transferable and does not affect your statutory rights. This guarantee does not confer any rights other than those expressly set out above.

The manufacturer or supplier shall not be responsible, or held liable for any damages caused by defective components or materials of this product; or for loss incurred by interruption of service; or any consequential/incidental damages and expenses arising from the production, sale use or misuse of this product or any other consequential loss.

Any warranty claim must be accompanied by a valid, dated proof of purchase.

Evolution Aqua and its dealers shall not be held liable for any loss of fish, plants or any other livestock as a result of any failure or defect of this product.

The installation and use of your product outside of our recommendations as printed in this manual may also void the warranty.

Evolution Aqua are the award winning pond filtration manufacturer who put innovation, research and development at the top of their agenda. With a proven track record for delivering the latest technology to the aquatics and fish farming markets - we are the first choice for everyone from the general hobbyist to the serious fishkeeper. Find out more about the NexusTi and all of our other innovative products at www.evolutionaqua.com. The difference is clear.

EVOLUTION
AQUA

INNOVATION IN WATER

Evolution Aqua Ltd

Evolution House
Kellet Close
Wigan
Lancashire
United Kingdom
WN5 0LP

t: +44 (0) 1942 216554

e: info@evolutionaqua.com

w: www.evolutionaqua.com