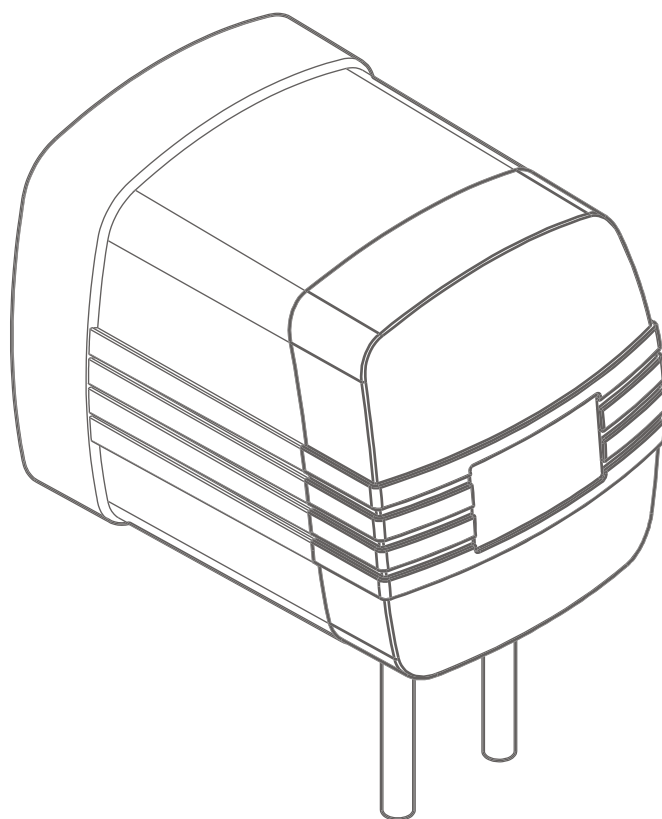




INSTALLATION MANUAL



HALO[®] DOSER[™] PH DOSING MODULE

WARNING

FOR YOUR SAFETY - This product must be installed in accordance with AS/NZ 3000 - 2018 and any other local applicable regulations. Before installing this product, read and follow all warning notices and instructions that accompany this product. Failure to follow warning notices and instructions may result in property damage, personal injury, or death. Improper installation and/or operation may void the warranty.

Improper installation and/or operation can create unwanted electrical hazard which can cause serious injury, property damage, or death.

**For AU**

For full warranty terms and conditions and to register your warranty, visit www.astralpool.com.au/warranty or www.astralpool.com.nz/warranty and complete your details. Or scan the QR code to go directly to the registration page.

Record your equipment details here for quick reference:

Model No. : _____

Serial No. : _____

**For NZ**

EQUIPMENT INFORMATION RECORD

DATE OF INSTALLATION _____
INSTALLER INFORMATION _____
SERIAL NUMBER _____

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Section 1. Important Safety Instructions

READ AND FOLLOW ALL INSTRUCTIONS

When installing and using this electrical equipment, basic safety precautions should always be followed, including the following:

⚠ WARNING

The Halo Doser has an IP23 rating, meaning it is suitable for installation outdoors. For safe operation the Halo Doser must be installed in the correct orientation, with the cable leaving from the bottom of the device. AstralPool strongly recommends that installation be performed by a registered pool builder, electrician or other suitably qualified person.

⚠ CAUTION

When mixing acid or other chemicals with water, ALWAYS ADD THE ACID OR CHEMICALS TO WATER. NEVER ADD WATER TO THE ACID OR CHEMICALS.

Some helpful considerations may include:

- Choosing plants that can withstand splash out of pool water containing chlorine and/or salt and other water purification chemicals.
- All metal components used in and around a pool should be of a high grade, quality stainless steel.
- Careful selection of masonry products. The porosity and hardness of natural stones varies greatly. Therefore we recommend you consult with your builder or stone contractor on the best choice for stone materials around your pool or spa.
- Sealing all masonry products. Professionals in the stone industry specify that even natural stone, especially when used outdoors, be sealed to prevent weathering, staining, and premature degradation. Consult with your stone or deck contractor for the proper sealer for the masonry products you have selected to use around your pool or spa.
- For the optimal results, sealers should be reapplied on a regular basis. Reapply the protective sealer on a schedule per the manufacturer's instructions.
- Use of chemicals other than those recommended may be hazardous. Follow the chemical manufacturers instructions.



SAVE THESE INSTRUCTIONS

Section 2. System Overview

The Halo Doser is designed to work in conjunction with a Halo Chlorinator and can be controlled through the Halo Chlorinators main touchscreen or through the Halo ChlorGo App.

Only one Halo Doser can be connected to a Halo Chlorinator.

The Halo Doser is not designed to work in a “stand alone” mode and cannot be controlled unless it is connected to a Halo Chlorinator.

For further information, refer to the Halo Chlorinator Instruction Manual.

Kit Contents

Before starting, check that you have the correct parts as shown in Figure 1. If any parts are missing or incorrect, please call your local distributor or technical support at 1300 186 875 for assistance.

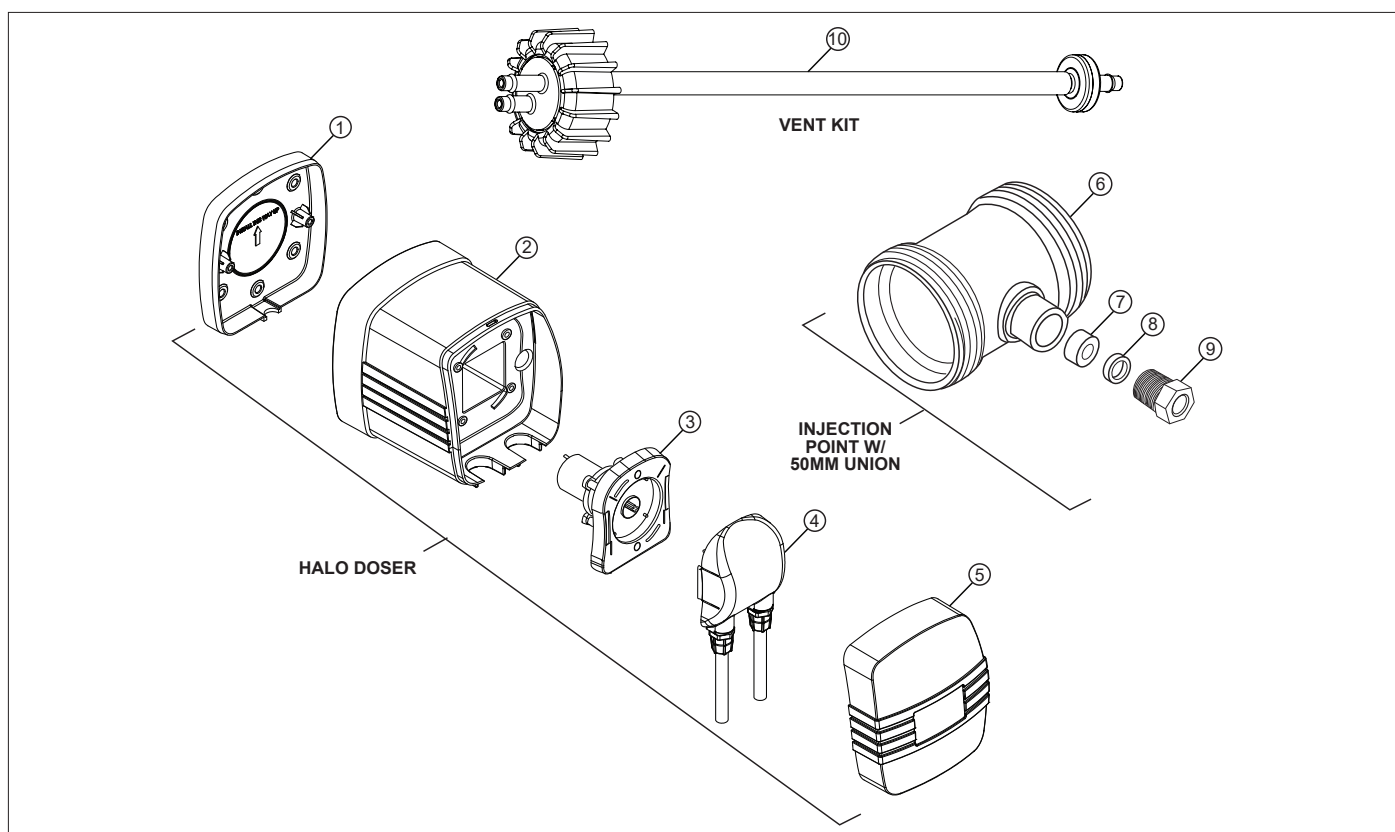


Figure 1. Halo Doser and doser mounting kit

ITEM NO.	DESCRIPTION	QUANTITY
1	Halo Doser Back Plate	1
2	Halo Doser Main Body	1
3	Halo Doser Pump Body and Head	1
4	Halo Doser Pump Head	1
5	Halo Doser Tinted Visor and Label	1
6	Injection T Piece	1
7	Gland Ring	1
8	Gland Washer	1
9	Gland Nut	1
10	Vent Kit	1

The vent kit is supplied with 4 meters of clear tube which needs to be cut to the required length to suit the installation. It also has a short piece of white rigid tubing used to go into the acid drum.

Two lids are supplied with the kit to suit either a 15 ltr or a 5 ltr container. (See also “Installing the Vent Kit” section.)

Section 3. Installation

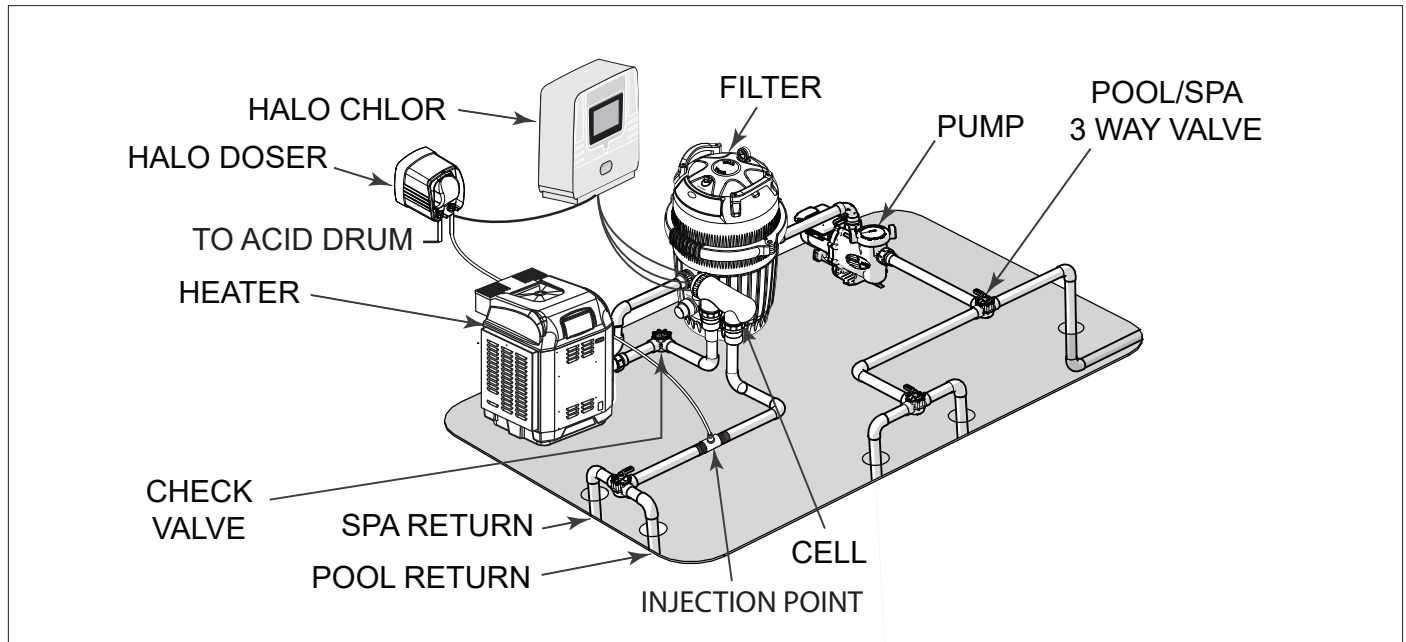


Figure 2. Typical Installation Diagram

3.1 Plumbing and Mounting

The cable connecting the Halo Doser to the Halo Chlorinator is 1 m long, so the doser needs to be located within 1 m of the chlorinator. See Figure 2.

The acid injection point (where the acid goes into the pool water) must be mounted into the pipework, after the chlorine cell and all other equipment. Ideally the chamber should be mounted as far away as possible, downstream from the chlorinator cell.

If probes are being fitted, then ideally the probe mounting should be mounted as far away as possible, upstream from the chlorinator cell.

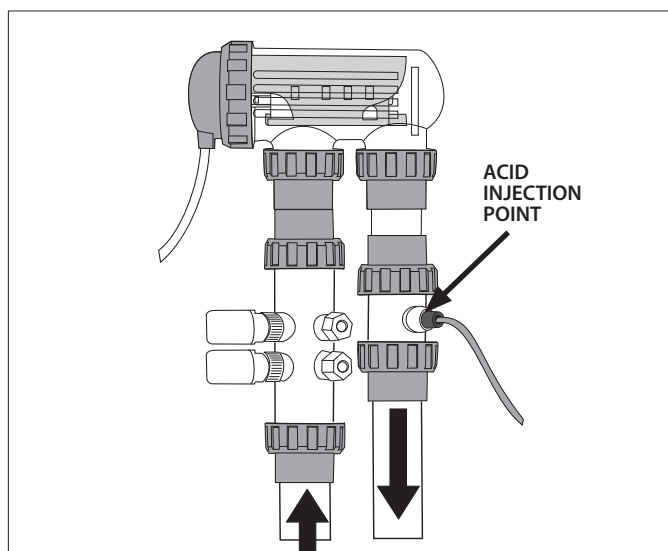


Figure 3. Chlorinator Cell and Doser Installation

The Halo Doser should be located within 2 meters of the acid injection point.

There are 6 separate mounting holes in the back plate which gives a number of different options for screw positions. Once a suitable position has been found, mount the back plate to the wall using the two (2) mounting screws (and masonry plugs if required).

Unclip the tinted visor from the doser assembly by gently pulling it outwards at its base. Pull enough of the dosing pump cable out of the pump enclosure to reach the Halo Chlorinator and then push the pump enclosure onto the wall mounting bracket (the cable exits the doser assembly at the bottom – take care not to pinch it!). Secure the doser assembly to the mounting bracket using the two (2) mounting screws. See Figure 4.

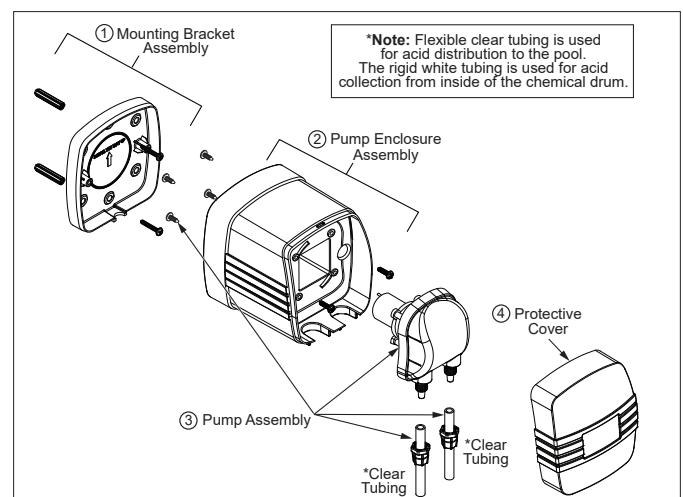


Figure 4. Halo Doser Installation

3.2 Installing the Vent Kit

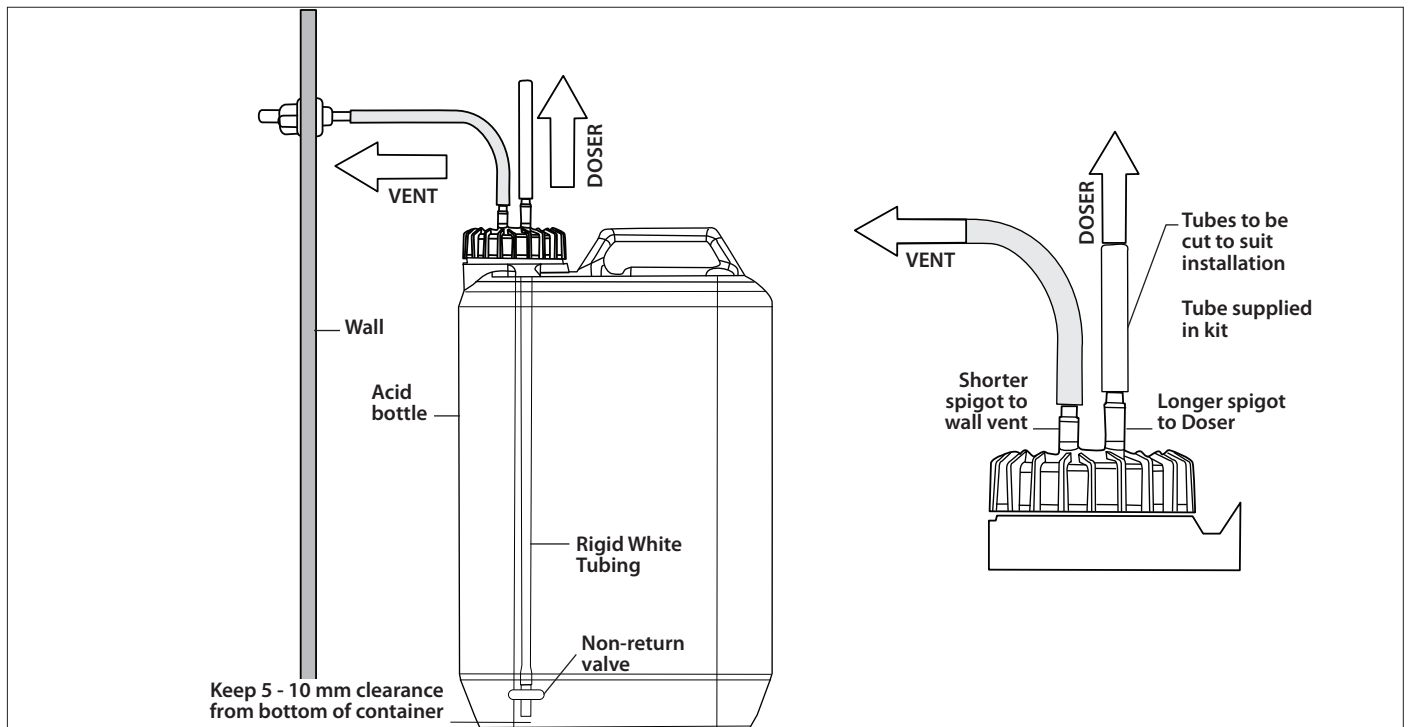


Figure 5. Vent Kit Installation Diagram

As supplied, the white tube is designed to suit a 5 ltr and 15 ltr containers. The tube may need to be cut to suit other drum sizes being used. Firstly insert the non return valve into the rigid white tube, with the arrow point up. (when fitted correctly you should be able to blow through the valve into the tube). Now place the tube into the drum, with the valve at the bottom (as shown in Figure 6) and then lift the tube by roughly 10mm, then cut the tube level with the rim of the container, this will allow space for the acid to be sucked into the tube. Now fit the correct size lid to suit your drum. See Figure 5.

The tube from the acid drum must be connected to the left-hand barb of the dosing pump and the tube to the injection point is connected to the right-hand barb. To connect the Halo Doser to the acid tubes, slide a lock nut onto each tube as shown and push the tube onto the barb. Slide the lock nut up the tube and hand tighten it onto the pump. See Figure 6.

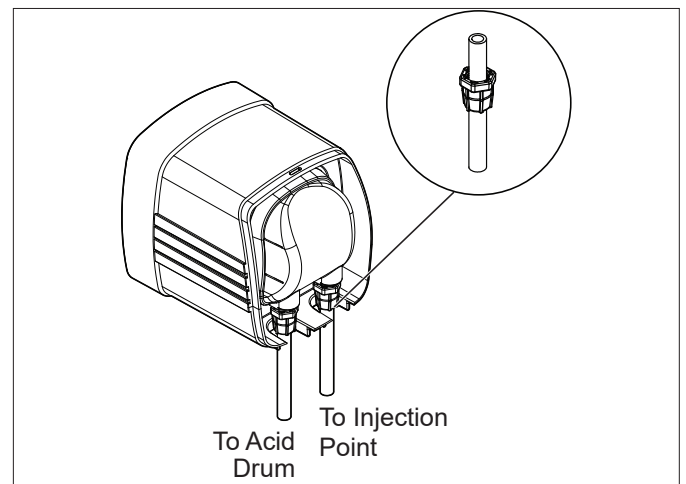


Figure 6. Halo Doser Tubing Connections

To avoid potential corrosion issues, the acid drum shouldn't be placed underneath any equipment. See Figure 7.

If the Halo Doser is installed in an enclosure or shed, the acid drum should ideally be stored out side of the enclosure or shed. The vent kit supplied will help reduce fumes within the shed, but storing acid drum in a secured location outside is best.

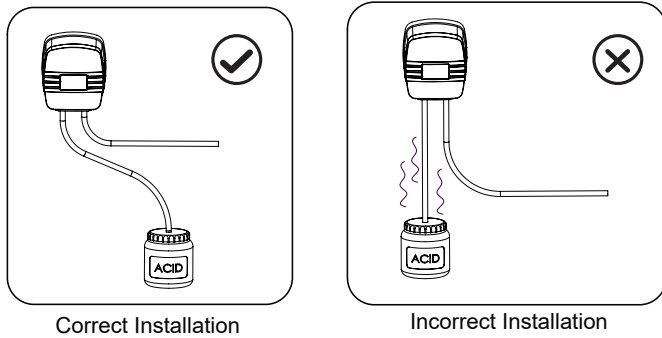


Figure 7. Chemical Placement

With the clip of the Halo Doser cable plug facing away from the wall, plug the dosing pump cable into the “pH dose” connector on the base of the chlorinator (right hand side of the chlorinator base). See Figure 8. To keep the wiring tidy, excess cable can then be pushed back into the base of the doser pump enclosure.

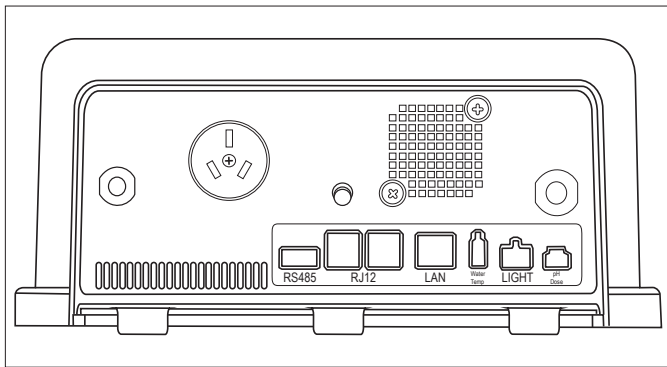


Figure 8. Halo Chlor Connections

3.3 Enabling Dosing on the Halo Chlorinator

If a pH probe is also being installed, the process of installing the pH probe will automatically enable the acid dosing pump.

Otherwise, to enable dosing on the Halo Chlorinator, follow the steps below.

1. The “Install” page is accessed via the settings icon on the Halo Chlorinator “Home” Page.

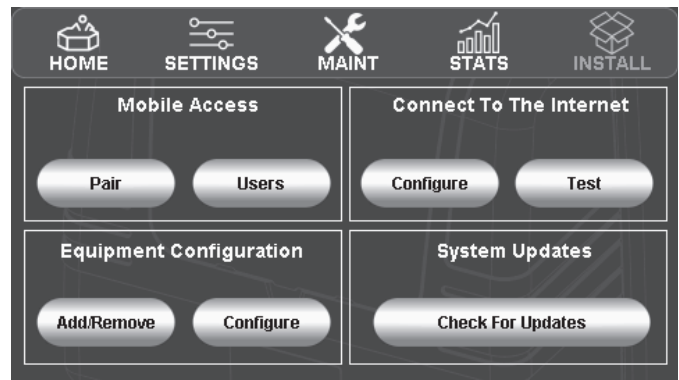


Figure 9. Halo Install Main Screen

2. Press “Configure” in the “Equipment Configuration” section as shown in Figure 9 then select “Chlorinator”.
3. Move the “Enable Acid Pump” switch to the right as shown in Figure 10 to enable dosing. Press the “Back” button twice to return to the main chlorinator screen.

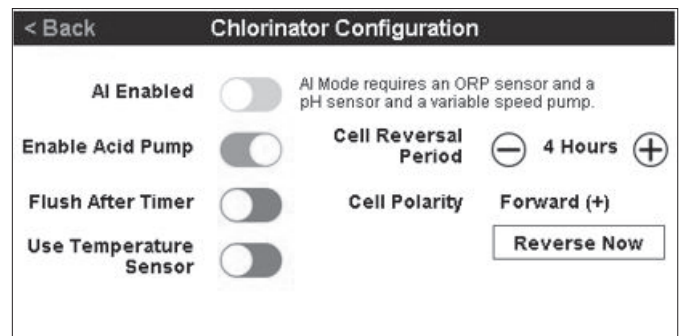


Figure 10. Halo Chlorinator Configuration Screen

Section 4. Control Using the Halo Chlorinator

4.1 Automatic Operation

For automatic operation, acid dosing is controlled through the “Settings” page of the Halo Chlorinator. Acid dosing will only occur whilst the filter pump is running.

If a pH probe is being used, then the acid dosing pump is regulated by the pH setting.

In this case, if the pH probe detects that the pH is higher than the “Set Point”, the acid dosing pump will run (every 4 to 12 minutes) to lower the pH level.

If a pH probe isn’t fitted, then the “Acid Level” slider (on the “Settings” page) is used to estimate acid requirements. Generally, level 5 is a good starting point, however it can be adjusted to increase or reduce the amount of acid dispensed. Monitor and test (using a test strip) every day or two until you find the correct setting to suit your pool needs.

N.B. Adding more acid will lower the pH level, less acid increases the pH level.

4.2 Manual Operation

The acid dosing pump can be run manually.

From the “Home” screen of the Halo Chlorinator, press the “Settings” icon  and then press the “Maint” icon to display the maintenance page. See Figure 11.

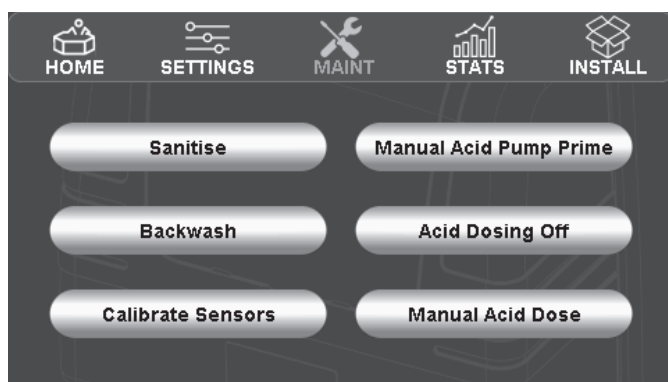


Figure 11. Halo Maintenance Screen

“Manual Acid Pump Prime” will run the acid dosing pump for 30 seconds to help prime the pump. (Repeat as necessary.)

“Acid Dosing Off” can be used to turn the acid dosing off for a period from 1 minute to 24 hours (or indefinitely).

- When adding some chemicals (e.g. pH buffer / sodium bicarbonate) it is desirable to turn the acid dosing off for up to 24 hours.
- If your drum has run out of acid it is desirable to disable acid dosing “indefinitely” until the drum is refilled. To resume acid dosing, you need to return to the “Acid Dosing Off” page to resume dosing.

“Manual Acid Dose” can be used to add a specific amount of acid to your pool (e.g. If your pool shop advises you to add X litres of acid). From this screen, you can also choose what mode the chlorinator should be in after dosing the acid. (Typically you would resume in auto mode, however if a large amount of acid was added you may choose manual mode and change to auto later.)

4.3 Operation Via the Halo ChlorGo App

The Halo ChlorGo App can be used to set the pH or acid level using the “Settings” icon.

The only manual operation that can be performed from the app however is to disable the dosing for a period or indefinitely (and to reinstate dosing that has been turned off).

Section 5. Regular Maintenance

Caution: ACID leaks can be harmful to other equipment and to users. Appropriate protective equipment should be worn when handling acid and performing any repairs

The Halo Doser should be inspected periodically to ensure that there are no leaks from any tubes.

If any leaks are detected check if the fittings can be tightened, otherwise the tubing should be replaced.

To inspect the “squeeze tube” for leaks, first remove the clear cover and then the blue cover (squeeze on the tabs on the sides of the blue cover). This will expose the internal pump mechanism. If there is a leak in the “squeeze tube”, then the blue cover/squeeze tube assembly should be replaced (Part # 1116096).

Section 6. Troubleshooting

PROBLEM	SOLUTION
The pools pH level is rising above the set level	• Check that the acid drum isn't empty. • Check that the tube going into the acid drum goes to the bottom of the drum. • Check that there are no leaks when the filter pump is running. • Check that the acid pump rotates during manual dosing. • Check that there are no leaks during manual dosing. • Manually dose acid and recheck the pH. • Check that the acid injection point isn't blocked.
The acid pump doesn't seem to rotate	• In automatic mode the pump only rotates when it senses that it needs to. Even in these circumstances it may come on for only 3 seconds every 12 minutes. • To check for rotation, use the manual dose option in the maintenance menu. (See "Manual Acid Dose" in Section 4.2).
Water returns to the chemical drum	• Check for any damage to the squeeze tube, and if the white rigid tube in the acid drum has any splitting. • Ensure non-return valve is installed in the right direction, or if faulty replace as required.

NOTES



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