



INSTRUCTION MANUAL

SLI0049

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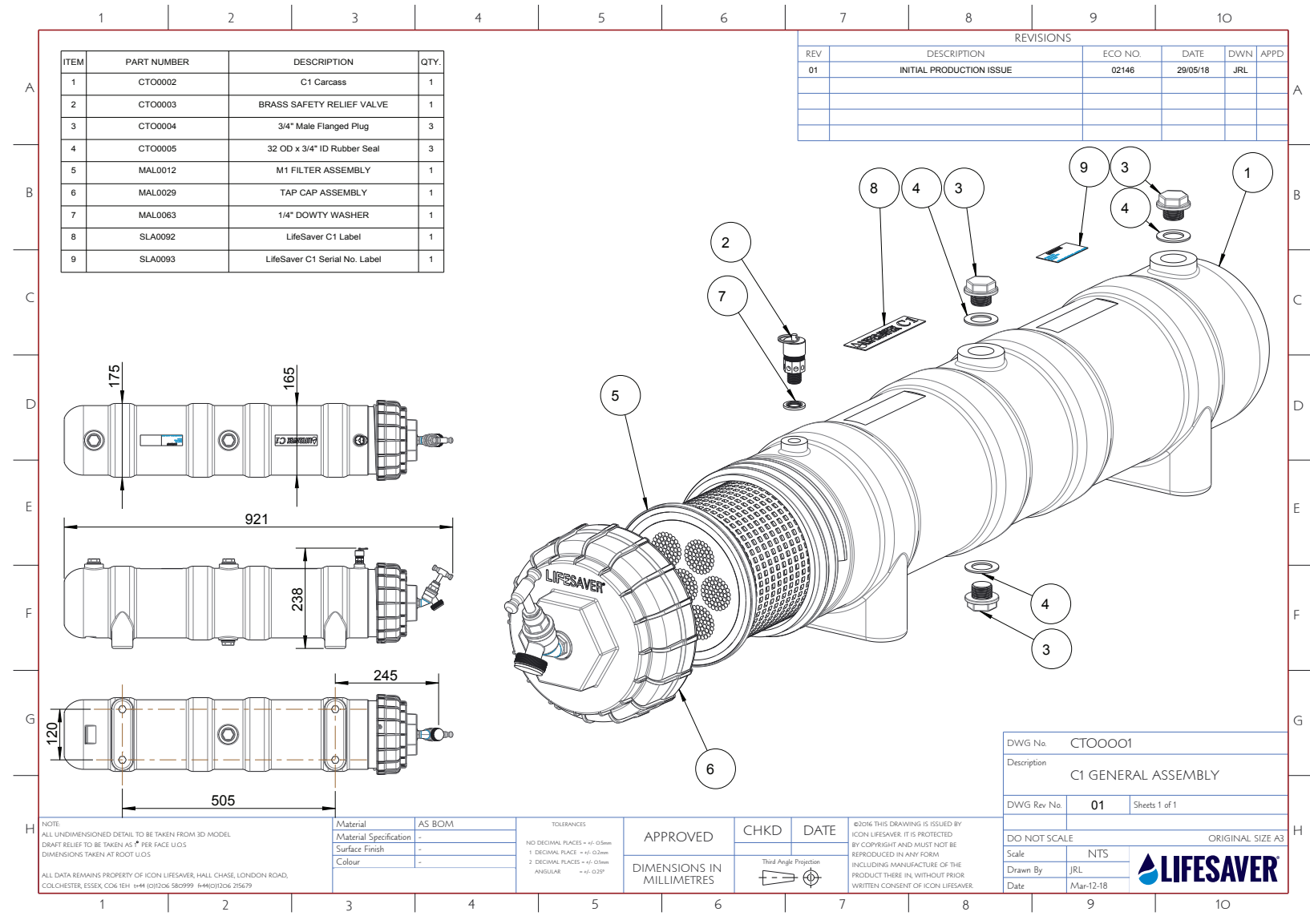
HEALTH AND SAFETY WARNINGS

- LifeSaver® technology removes microbiological contamination from all water sources guaranteeing a minimum 99.9999% bacteria, 99.99% virus and 99.99% cyst removal as a minimum. Chemical contaminations must use further removal technology to deem water safe as a long term drinking supply. This can be in the form of carbon treatment or ion exchange resins as pre-filters. Water sources with questionable chemical contamination should be tested before being used as a long term supply.
- The LifeSaver C1 uses pressurisation as part of the filtration process. **DO NOT ATTEMPT TO OPEN ANY OF THE CAPS OR PORTS WITHOUT ISOLATING THE FEED SUPPLY AND RELEASING THE PRESSURE FIRST.**
Use the pressure relief valve ring pull (located on the top front most port). To release pressure pull the ring pull vertically up, wait for the rush of air and/or water to stop before removing any parts of the C1.
- **NEVER OPERATE THE C1 WITH THE PRESSURE RELIEF VALVE DISCONNECTED, ISOLATED OR REMOVED.**

SITING OF THE C1

- The LifeSaver C1 should be sited in shade away from direct sunlight whenever possible. This will inhibit bacterial growth, protect the plastics and keep water at a more palatable temperature.
- Do not allow items to be placed on top of the C1 tank, or fixed to it, it is not a load bearing object.
- The C1 should be used when in horizontal orientation only. Ensure the tank is level.
- Always ensure the C1 has been secured in position before filling and using.
- The feet are fitted with M10 fastening nuts. Use suitable length M10 bolts to fix through the substrate and into the C1 feet. Use 4 fixings in all circumstances.

Figure 1 - C1 tank diagram



C1 INSTALLATION

The C1 comes pre-assembled and pressure tested from the factory. All that is required to start using the product is connection to a source of water at pressure. Connections into and out of the C1 are made by 3/4" BSP/NPT ports on the top of the main body.

The water supply can be from any feasible source, but a minimum delivery pressure of 0.2 bar and maximum pressure of 1.5 bar is required. Using a harvesting or accumulator tank at height to feed the C1 is advised. The following chart shows the pressures produced at a given height and relative flow rates to expect.

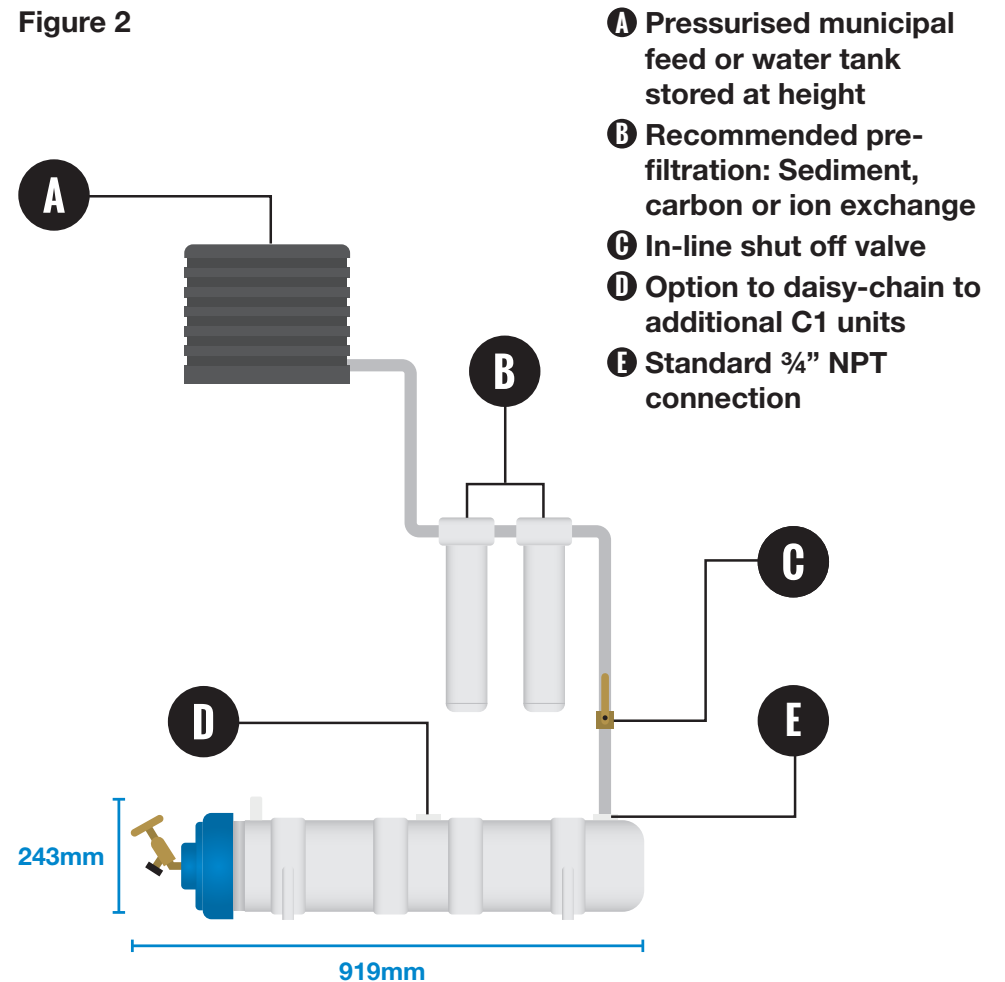
Feed Tank Height (Metres)	Pressure Equivalent (Psi / Bar)	Projected Flow Rate (l/min)
2	2.85 / 0.2	5
3	4.3 / 0.3	5.5
4	5.7 / 0.4	6
5	7.1 / 0.5	6.5

If using a pumped or municipal water source that is not controlled (and not first routing through an accumulator tank), it is recommended to add a pressure limiting valve before the C1. This will negate any water hammer surges from damaging the system. Limiting the delivery pressure below 1.5 bar will stop the safety relief valve running constantly, a potentially dangerous scenario.

IT IS ADVISED IN ALL SCENARIOS THAT A PROPRIETARY SEDIMENT PRE-FILTER IS USED. LifeSaver can advise and supply the best type of pre-filtration to use for your set-up. Please ask your sales representative or email info@iconlifesaver.com for details.

ALL INSTALLATIONS MUST INCLUDE AN IN-LINE SHUT OFF (ON/OFF) VALVE IN THE FEED PIPEWORK. (See connection schematic right).

Figure 2



PRIMING THE FILTER BEFORE USE

Priming is an essential step that should ideally be performed within 3 years of purchasing your LifeSaver product. The filter membranes are infused with glycerine during the manufacturing process to keep them hydrated up until the filter is primed. During priming you are flushing water through the filters, which removes the glycerine. Glycerine is a natural food source and whilst the presence of glycerine is not harmful you should not drink the water used for priming (it will taste sweet). Flushing all the glycerine away is imperative to mitigate the risk of bacteria growing in the system and prematurely blocking the filter. Therefore **DO NOT SKIP THE FULL PRIMING PROCESS.**

- Once your 3/4" BSP/NPT connection is made to either of the top ports of the C1, turn the in-line shut off valve on to allow flow of source water to the C1.
- Pull the ring pull on the top of the brass safety relief valve, keep this pulled open until all air is bled from the system and water starts to pass from the valve. Once water is present release the ring pull to close the valve.
- Allow the filter to sit for 15 minutes to soak up water.
- Check the entire system for any signs of leaks whilst waiting.
- After 15 minutes open the brass tap on the front of the C1. Purified water should start to flow.
- Allow the first approx. 100 litres of water (20 minutes @ 5l/min) to flow freely from the tap to drain.
- Shut off the tap. The C1 is now primed and ready to use.
- It is recommended you start using the C1 straight away after priming so do not prime until the unit is ready to be used.

GENERAL USE

Using the C1 from day to day once connected to a reliable source of water is as simple as turning the tap on. If the water supply becomes interrupted and the C1 does run dry for a period, shut off the in-line supply valve and close the tap. Ensuring all inlets and outlets are closed will seal the filter and keep it hydrated due to water condensing around the C1 internally. It is likely the system will need to be bled of air when the source is reinstated. Follow the first two priming steps to get the system back up and running.

NEVER LET A FILTER DRY OUT. Whether disconnected for maintenance, or disassembled for cleaning, the filter must never dry out once primed. If the filter is to be removed for cleaning or maintenance, never allow it to sit for more than 1 hour outside of a submerged state. This will risk membranes drying out and ceasing to function.

USE OF MULTIPLE UNITS

Multiple C1's can be joined together by daisy-chaining them to a common source. This means the safe drinking water production can be significantly increased at a single installation point. To do this simply add a link pipe between the C1 units as per Figure 3 (right). Again use pipe and fittings to suit the 3/4" BSP/NPT fittings. Include an in-line shut off valve between units. Alternatively use a T into the source pipework to split it out to multiple units.

On an installation as illustrated you need to only bleed the C1 furthest from the source feed when initially commissioning the set-up.

Do not have any excessive run of pipe between C1 units or height of pipe as this will cause air locks between the two vessels.

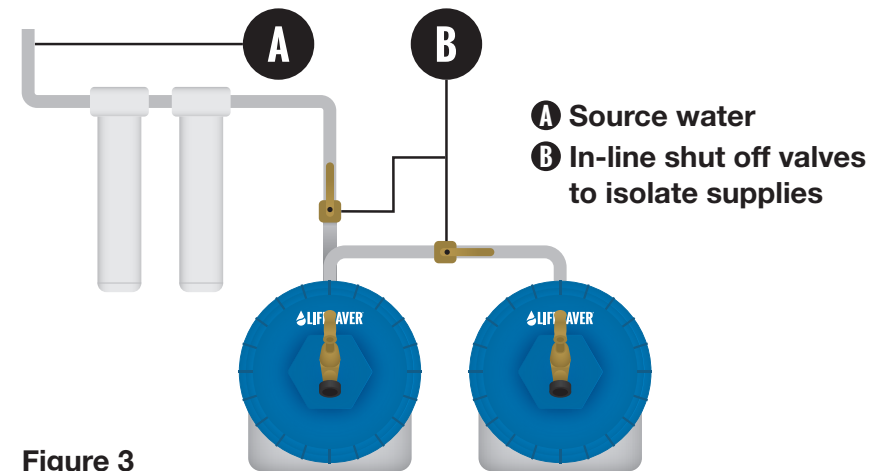


Figure 3

REMOVAL/REPLACEMENT AND CLEANING THE FILTER

LifeSaver's patented Ultrafiltration filters come pre-installed and should only be removed for replacement or for periodic cleaning. To remove the filter first isolate the water supply to the system. Use the pressure relief valve ring pull (located on the top front most port). To release pressure pull the ring pull vertically up, wait for the rush of air and/or water to stop. Drain the C1 by removing the lower drain plug. Once drained reinsert the drain plug and re-tighten. Follow these steps to remove the filter:

- Position the supplied 'tap cap' spanner over the top of the tap and onto the cap nut.
- Turn anti-clockwise to release the cap. Fully unscrew the cap and set aside.
- Withdraw the filter using cleaned or gloved hands to pry behind the sealing flange and pull the filter horizontally out.

To replace the filter reverse these steps taking care to keep the face of the new filter clean. Use an alcohol wipe or sterilising spray to ensure the filter face has not been contaminated.

Cleaning the filter:

- Supplied with the C1 is a filter flush cap for use when cleaning the filter. This must be fitted over the filter face to protect the clean side of the filter from contamination. Fit as soon as the tap cap has been removed. Ensure it is fitted tightly creating a seal over the face and around the sealing flange.
- Soak the filter in a bath of tepid clean water for up to an hour. **DO NOT ALLOW THE FILTER TO DRY OUT.** During soaking agitate the filter periodically to remove any algae or residue.
- Finally stand the filter on end (face side up) and hose down from top to bottom.
- Leave the filter to stand and drain **IN THE SHADE** for a maximum of an hour.
- Re-fit the filter and remove the flush cap. Use an alcohol wipe or sterilising spray to ensure the filter face has not been contaminated.
- Refill the system and bleed off any air.
- The C1 is now ready to be used again.

MICROBIOLOGICAL FILTRATION EFFICACY

Exceeds a suitable adaption of NSF P231 testing as per the EPA Guidelines for microbiological purifiers:

Bacteria retention	>99.9999% (Log 6)
Virus retention	>99.99% (Log 4)
Cyst reduction	>99.99% (Log 4)

DISCLAIMER

The information and data contained in this document are based on our general experience and are believed to be correct. They are given in good faith and are intended to provide a guideline for the selection and use of our products. Since the conditions under which our product may be used are beyond our control, this information does not imply any guarantee of final product performance and we cannot accept any liability with respect to the use of our products. The quality of our products is guaranteed under our conditions of sale. Existing industrial property rights must be observed.

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All details given on and in this instruction manual are believed to be correct at the time of going to press. We reserve the right to make improvements and/or modifications to the equipment herein.

CONTACT US

If you have any questions about the use of the LifeSaver C1 or if you wish to purchase any additional parts, please contact us.

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