

C2 FIREWALL MANUAL



CULLIGAN C2 MANUAL

Congratulations on your choice of the **Culligan C2 Water Treatment System**. The **Culligan C2 Water Treatment System** model dispenses cold, and hot. Every **Culligan C2 Water Treatment System** includes:



High Performance Multi-Stage Filtration



Bio-Cote Anti-Microbial Protection



Firewall Advanced Purification

The **Culligan C2 Water Treatment System** provides exceptional quality and great tasting water with every use.

INTRODUCTION

Carefully read and follow all instructions to ensure proper and efficient operation of your **Water Purification System**. Contact **Culligan** or an **Authorized Culligan Dealer** if you have any questions.

Culligan and **Authorized Culligan Dealers** employ trained service personnel who are experienced in the installation, function and repair of **Culligan** equipment. This publication is written for use by these qualified individuals. **Culligan** encourages users to learn about products, however, we believe that product knowledge and service is best obtained by consulting **Culligan** or an **Authorized Culligan Dealer**.

Culligan Water Purification Systems should be combined with selected water treatment components to create a system specifically tailored for each application by trained and qualified personnel.

Products manufactured and marketed by **Culligan** and its affiliates are protected by patents.

Culligan reserves the right to change the specifications referred to in this Literature at any time, without prior notice. Changes or modifications not expressly approved by **Culligan** could void the warranty and user's authority to operate the equipment.

Culligan technical manuals cover voltages of both 120v and 220v for all our markets. Please ensure that you carefully read the information in this manual and for any parts specific to any market, refer to your technical agreement or specific part listing.

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SAFETY ALERT SYMBOLS

Read and follow all safety information carefully. The signal words used in this manual are selected as shown below and based on an assessment of the degree of potential injury or damage (severe or minor) and the occurrence of injury (definitely occurs or has the potential to occur) when the warning is ignored:

 **DANGER!**

Indicates a situation which, when not avoided, results in death or severe injury.

 **WARNING!**

Indicates a situation which, when not avoided, has the potential to result in death or severe injury; and/or severe property damage.


 **CAUTION!**


Indicates a situation which, when not avoided, results or has the potential to result in minor injury; and/or minor property damage.

SAFETY PRECAUTIONS


Basic safety precautions should be followed, including the following:


Ensure all local laws and codes including health and safety guidelines are met when installing **Culligan** Equipment. Only qualified service technicians should attempt installation and service of **Culligan** Equipment. Always read the entire operating instructions before using the appliance and save these instructions for future use.


 **DANGER!** **ELECTRICAL SHOCK HAZARD.** *Always use a dedicated and properly earthed outlet. Unit should be protected by residual current device (RCD) having a rated residual operating current not exceeding 30mA. Use only Culligan supplied power cord. Never use extension cords or power strips to connect unit. Do not use if the power supply cord is damaged. Always unplug from power supply prior to servicing.*


 **WARNING!** **AUTHORIZED USE ONLY.** *This appliance is to be used for its intended purpose as described in this manual, and untrained individuals who use this manual assume the risk of any resulting property damage or personal injury. This appliance can be used by children aged from 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved.*

 **WARNING!** **SUPERVISE CHILDREN.** *Keep appliance and cord out of reach of children under the age of 8 years. Children under the age of 8 years must not use or play with the appliance.*


 **WARNING!** **DO NOT OPERATE IF DAMAGED.** *Unplug for safety. Contact or authorized dealer for repair, service, and installation to avoid hazards.*

 **WARNING!** **HOT WATER.** *Unit produces Hot Water in excess of 87°C (188°F). Water above 52°C (125°F) can cause severe burns or scalding. Keep unauthorized people and children away from the unit to avoid accidental dispensing of hot water.*

 **DANGER!** *This product can cause death or severe injury if incorrectly operated, installed or maintained. The installation, maintenance, sanitizing and any repair must be performed by qualified persons trained by Culligan International or their approved distributors only. Do not remove any panel or cover to protect against electrical shock and exposure to UV radiation.*

 **WARNING! AUTHORISED USE ONLY.** *This appliance is to be used for its intended purpose as described in this manual, and untrained individuals who use this manual assume the risk of any resulting property damage or personal injury. This appliance can be used by children aged from 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved. **Children shall not play with the appliance. Cleaning and user maintenance shall not be made by children without supervision. This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.***


Children should be supervised to ensure that they do not play with the appliance


 **WARNING! UV-C EMITTER (UV LAMP).** *This appliance contains a UV-C emitter (UV Lamp). UV-C radiation may, even in little doses, cause harm to the eyes and skin. Unintended use or damage to the housing may result in the escape of dangerous UV-C radiation.*


Never operate the UV-C emitter if damaged or removed from enclosure. Do not touch or look directly into the faucet. Appliances that are obviously damaged must not be operated. Replacement of the UV-C emitter can not be conducted by the user, please contact Culligan for assistance or help finding an Authorized Service Representative.

Read the maintenance instructions before opening the appliance

Appliance must be disconnected from the supply before replacing the UV-C emitter.

 **WARNING! UV-C EMITTER (UV LAMP).**
Do not operate the UV-C emitter when it is removed from the appliance enclosure


 **WARNING! USAGE.** *This appliance is intended to be used in household and similar applications such as: staff kitchen areas in shops, offices and other working environments; farm houses and by clients in hotels, motels and other residential type environments; bed and breakfast type environments; catering and similar non-retail applications.*

 **WARNING! REFRIGERANT.** *Caution with cooling fluid: Do not damage the cooling circuit, Culligan machines use both R134a and R600a (market dependent) as cooling gas. R600a is a flammable gas, precaution is required, and only qualified and certified personnel should empty, replace or fill the machines with R134a and R600a refrigerant gases.*


Ensure always the proper management and transportation of the machine to avoid damaging the refrigerant fluid and causing a dangerous leak.

Discarded appliance should be isolated from fire sources and cannot be burned.


Please transfer the appliance to qualified professional recycling companies for processing to avoid damages to the environment or other hazards.


 **WARNING! VENTILATION.** *Keep ventilation openings, in the appliance enclosure or in the built-in structure, clear of obstruction.*

 **WARNING! REFRIGERANT.** *Do not damage the refrigerant circuit.*


 **WARNING! STORAGE.** *Do not use electrical appliances inside the food storage compartments of the appliance, unless they are of the type recommended by the manufacturer.*


Do not store explosive substances such as aerosol cans with a flammable propellant in this appliance.

 **WARNING! CONNECT TO POTABLE WATER SUPPLY.** *This system is to be used for water only and is not intended for use where water is microbiologically unsafe or with water of unknown quality without adequate disinfection. System is designed for the supplemental bactericidal treatment of public drinking water, or other drinking water, which has been tested and deemed acceptable for human consumption by the water provider. The system is designed to reduce normally occurring non-pathogenic or nuisance microorganisms only. System is not intended for treatment of contaminated water.*


 **WARNING! TIP HAZARD.** *Dispenser could tip or fall causing serious injury. Always install unit on a firm, flat, and level surface and secure the **Culligan C2 Water Treatment System** to the base cabinet with the screw provided to lock the components together. Secure unit to cabinet, wall, or floor if needed. Never place heavy items on top of unit and never climb, stand, or hang on unit or storage cabinet to prevent injury and damage.*


 **WARNING! UNIT IS HEAVY. TWO PERSON LIFT REQUIRED.** *Transport unit empty and always use material handling equipment or two people with proper lifting technique to reduce injury risk.*

 **WARNING! STORE AND TRANSPORT UNIT EMPTY. ALWAYS SANITIZE BEFORE USE.** *The unit must be completely drained and sealed before storing to avoid stagnation and reduce microbiological contamination (potential bacterial growth). Sanitize before use to eliminate any potential microbiological contaminants*

 **CAUTION! INDOOR USE ONLY.** *Intended for household use only. Never expose to direct sunlight, heat sources, or ambient air temperature above 30°C (86°F) or below 2°C (35°F). Install indoors and keep unit away from excessive humidity. Never expose to freezing temperatures. Ensure there is adequate clearance around the unit (50mm minimum) to allow refrigeration system condenser to dissipate heat. Warmer environments require more clearance around the unit.*

Installs where the ambient temperature exceeds 25°C (77°F), require a minimum of 100mm clearance for proper heat dissipation and efficient operation.

 **CAUTION! USE A WATER PRESSURE REGULATOR.** *Culligan will not be responsible for injury or damage caused by excessive water pressure. Input or feed pressure must be 2.5 to 3Bar. Be aware of any potential pressure surges caused by building/municipal pumping stations. Water block devices and external leak detectors are strongly recommended. Locate the unit as close to the water supply and the electrical connections as possible to minimize risk.*

 **CAUTION! USE PROPER SUPPLY LINES AND FEED WITH POTABLE AMBIENT WATER ONLY.** *Feed water over 25°C (77°F) may damage the treatment components. Always use supply lines with adequate pressure rating and UV resistance. Close water supply valve and contact service representative if a leak is noticed.*

Contact Culligan for assistance or help finding an Authorized Service Representative.

CULLIGAN C2 FEATURES AND BENEFITS

Ambient, Cold and Hot Water

Cold and Hot Selections, which can be changed to Ambient and Cold settings to meet a wide range of customer demands.

High Volume Storage and Water Capacity

Free standing model has 4 Litres of Cold Water Capacity and 1.5 litres of Hot Water.
Mini model has 2 Litres of Cold Water Capacity and 1.5 litres of Hot Water.

BioCote® Anti-Microbial Protection

Certain plastic, silicon, and painted surfaces surrounding the dispensing areas and drip tray are infused with an exclusive additive called BioCote®. BioCote® provides an effective barrier against microbes like bacteria and mould, which may cause odours or staining.



Large Dispense Area with Recessed Faucet

230mm dispense height with BioCote® recessed faucet to protect from cross-contamination.

Child Safeguard

Culligan C2 Water Treatment Systems requires Hot Water selection followed by main dispense for Hot Water, and defaults back to cold selection after 3 seconds of inactivity to prevent accidental dispensing of hot water.

Energy Saving Sleep Mode

Energy Saving Sleep Mode can be programmed to turn off heater after 3 hours of inactivity.

Firewall™

Firewall is proprietary technology that places the UV lamp at the point of dispense. This point of dispense purification keeps the dispense nozzle free from external contamination as well as purifying the water, making the freshest water possible.



CULLIGAN C2 CERTIFICATIONS

Culligan Water Treatment Systems have been tested, approved, and certified by the world’s top standards bodies such as NSF and ANSI. These organizations set and regulate national standards. We believe that performance testing and certifications validate **Culligan** as a world-leader in water treatment systems.

Culligan C2 Water Treatment System Certifications Include



This system is certified by IAPMO R&T according to NSF/ANSI 42, NSF/ANSI 53*, NSF/ANSI 55 Class A, NSF/ANSI P231, US EPA Guide Standard and Protocol for Testing Microbiological Water Purifiers for the reduction of the contaminants on the Performance Data Sheet, NSF/ANSI 372 for lead free compliance.



See the performance data sheet for specific reduction claims. System claims vary depending on filters used within the system. *when using Culligan 1 Micron CBC Filter (FT-0065 or FT-0034).



UL399 – Certified Drinking Water Cooler

Intertek Labs (ETL) Certified the **Culligan C2 Water Treatment System** to ANSI/UL 399 Standard for Drinking Water Coolers.



BPA Free - **Culligan** tests for BPA and declares that all of its products are Bisphenol-A FREE and contain no harmful BPA plastics.



Culligan is certified to ISO 9001:2008 – Quality Management Systems (certified by Intertek). ISO 9001 is the internationally accepted standard for well managed organizations that have adopted the key quality management principles to its operations to bring consistent quality products and a culture of continuous improvement.

MODEL/PART DESIGNATIONS

| BRAND NAME | DESCRIPTION | MODEL – PART NUMBER |
|----------------------------------|--|------------------------|
| <i>Culligan C2</i> Free Standing | <i>Culligan C2 Free Standing</i> - Cold and Hot F-2FW-FS-HC & F-2FX-FS-HC | WL 2FW FS WL 2FX FS |
| | <i>Culligan C2 Free Standing</i> - Cold and Ambient F-2FW-FS-CA & F-2FX-FS-CA | |
| | <i>Culligan C2 Free Standing</i> – Cold F-2FW-FS-C & F-2FX-FS-C | |
| <i>Culligan C2</i> Mini | <i>Culligan C2 Mini</i> - Cold and Hot F-2FW-M-HC & F-2FX-M-HC | WL 2FW M WL 2FX M |
| | <i>Culligan C2 Mini</i> - Cold and Ambient F-2FW-M-CA & F-2FX-M-CA | |
| | <i>Culligan C2 Mini</i> - Cold F-2FW-M-C & F-2FX-M-C | |
| <i>Culligan C2</i> Tall | <i>Culligan C2 Tall</i> - Cold and Hot F-2FX- FT-HC | WL 2FX FT |
| | <i>Culligan C2 Tall</i> - Cold and Ambient F-2FX- FT-CA | |

SPECIFICATIONS

| ITEM | <i>Culligan C2</i> Mini | <i>Culligan C2</i> Free Standing |
|------------------------------------|---|---|
| Power Supply | 220V/50Hz or 120V/60Hz | |
| Water Connection | ¼" Quick Connect | |
| Cold Water Temperature | Cold Water Temperature – Factory Set Point 5°C (41°F) | |
| Cold Tank Size | Mini - 2 Litres Free standing – 4 Litres | |
| Hot Water Temperature | 87°C (187°F) | |
| Hot Tank Size | 1.5 litres | |
| Hot Water Manual Reset Overheat | 105°C (221°F) | |
| Recommended Incoming Feed Pressure | 2.5Bar – 3Bar – Use Pressure Regulator | |
| Maximum Service Pressure | 3Bar – Use Pressure Regulator | |
| Rated Service Flow Out | 1.89 Litres per Minute – Firewall Purification | |
| Environmental Temperature | 2°- 25°C (35°- 77°F) | |
| Climate Class | 220V available in both Class T and N | |
| UV Lamp | 15 Watts | 15 Watts |
| Heater | 500 W | |
| Refrigerant Gas | 220v = R600a 20g 120v = R134a 1.52oz | 220v = R600a 20g 120v = R134a 1.34oz |

SHIPPING SPECIFICATIONS

| ITEM | <i>Culligan C2 Mini</i> | <i>Culligan C2 Free Standing</i> | <i>Culligan C2 Tal</i> |
|--------------------|--|---|---|
| Width/Depth/Height | 34cm x 37cm x 45cm 13.5" x 14.5" x 17.75" | 34cm x 41cm x 104cm 13.5" x 14.5 x 41" | 34cm x 41cm x 118cm 13.5" x 14.5 x 46" |
| Weight (dry) | 26.3 kg (58 pounds) | 30 kg (66 pounds) | 32kg (70 pounds) |

ELECTRICAL SPECIFICATIONS

| 220V-TT and ES | TT | ES |
|---------------------------------|----------------------------|----------------------------|
| COMPONENT | POWER (approximate) | POWER (approximate) |
| Heater | 500 Watts | 800 Watts |
| Compressor | 100 Watts | 100 Watts |
| UV Lamp System | 15 Watts | 15 Watts |
| <i>Culligan C2 TOTAL</i> | 640 Watts | 930 Watts |

| 120V-TT | TT |
|---------------------------------|------------------------------|
| COMPONENT | Current (approximate) |
| Heater | 4.2 Amps |
| Compressor | 1.4 Amps |
| UV Lamp System | 0.3 Amps |
| <i>Culligan C2 TOTAL</i> | 5.9 Amps |

OPERATING INSTRUCTIONS



The above picture shows front LCD display and control panel for the **Culligan C2**.

For Cold Water: Press Cold Water Select Button followed by the Dispensing Button (within 3 seconds).



For Ambient Water: Press Ambient Water Select Button followed by the Dispensing Button (within 3 seconds).

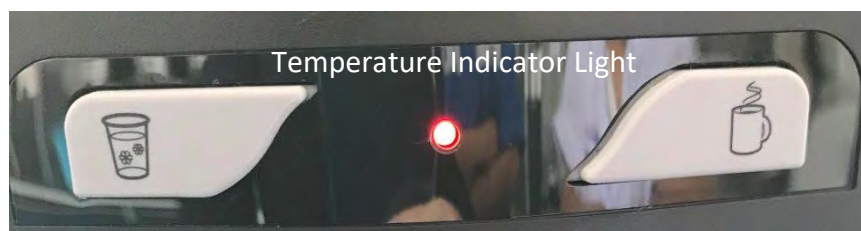


For Hot Water: Press Hot Water Select Button followed by the Dispensing Button (within 3 seconds).




NOTE: Default selection mode is Cold Water. Selection will return to default after 3 seconds of inactivity.

NOTE: Selection indication light will turn Red when the Hot Water Select button is pressed, and will switch back to the default green within 3 seconds after dispensing the hot water.



SERVICE REQUIREMENTS

 **WARNING!** *Read and understand the contents of this manual before attempting to service Culligan C2 Water Treatment System. Failure to follow the instructions in this manual could result in death, serious personal injury, or severe property damage. Only trained and qualified technicians should attempt to install, maintain, or service Culligan Equipment.*

1. Visually inspect all electrical and water connections for signs of wear or damage.


 **DANGER!** *HIGH VOLTAGE ELECTRICAL HAZARD. Unplug before inspection and service.*

2. **Culligan** recommends changing the UV Lamp every 6 months.

 **WARNING!** *ULTRAVIOLET RADIATION. Protect your skin and eyes against ultraviolet rays. Never look directly at an operating UV light. Disconnect before removing UV Lamp.*

 **CAUTION!** *UV LAMPS ARE HAZARDOUS. Lamps are considered Hazardous Waste and must be disposed of accordingly. Refer to Product MSDS sheet for details.*

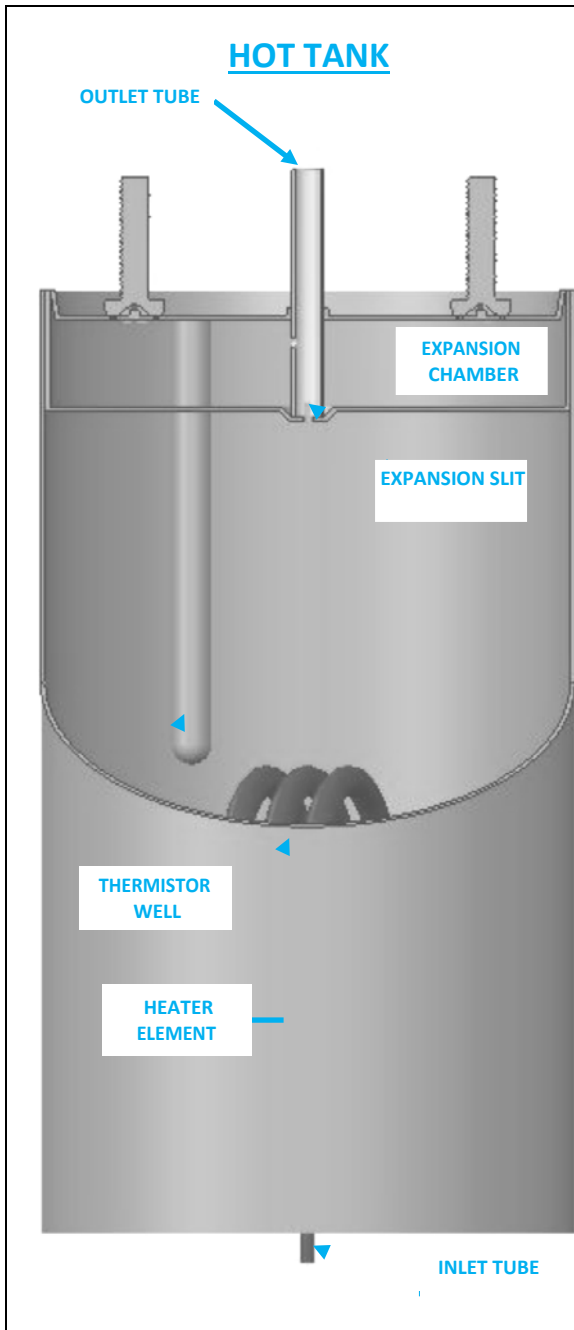
3. Clean the Spiral Quartz Sleeve that surrounds the UV Lamp with a non-abrasive cloth, descaling solution, or ultrasonic bath if needed when changing UV Lamps.

 **CAUTION!** *UV SYSTEM IS FRAGILE. Never handle the UV lamp or Quartz Sleeve with bare hands. UV Lamp and quartz sleeve must be free of oils and contaminants to ensure proper operation. Use a soft non-abrasive cloth to clean.*

4. Sanitize the Cold Tank per instructions in the pre-delivery procedures.
5. Clean and sanitize external surfaces of the unit. Sanitizing chemicals that are compatible with ABS plastic and will not damage or degrade the product surfaces.
6. Remove and clean the Faucet. Replace as needed.

 **WARNING!** *SANITIZER MAY CONTAIN HAZARDOUS CHEMICALS. Use of proper personal protective equipment such as rubber gloves and eye protection is required.*

HOT TANK PRINCIPLES OF OPERATION



All **Culligan** Hot Tanks have a built-in Vent or Expansion Chamber in the top of the tank except for C1000GF units.

The Vent Chamber allows for expansion of the water when it is heated.

The chambers are separated by a welded-in tank baffle.

Water always flows into the bottom of the tank and out the top to the faucet.

The hot tank outlet tube has a restrictor in its base. This ensures the reservoir is always full by allowing more water in than out.

There is a small hole in the side of the tank outlet tube that allows air and water to pass into the vent chamber as it is heated.

Water in the vent chamber is suctioned back through the outlet tube vent hole when water is dispensed.

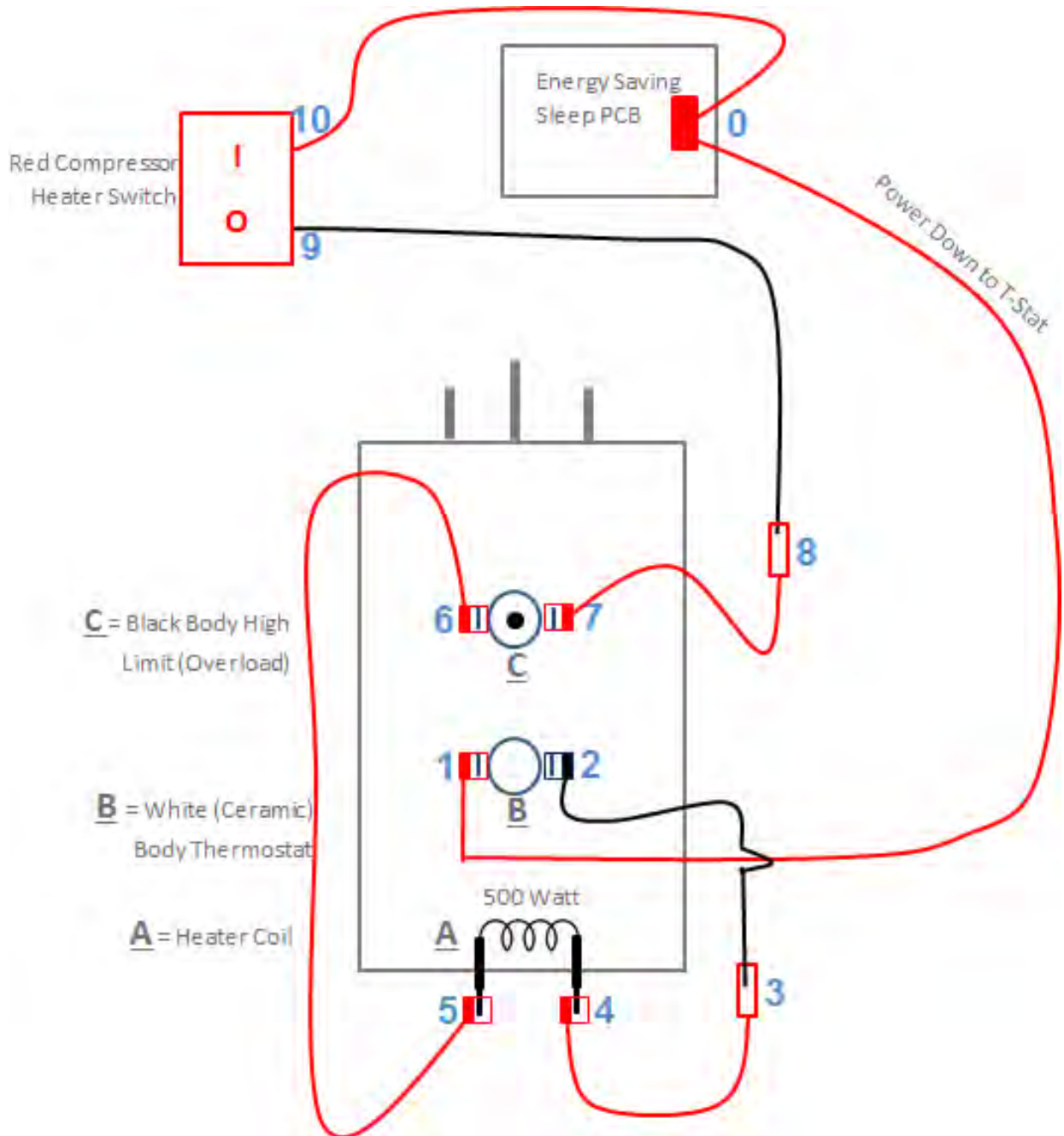
Expansion of water as it is heated in the reservoir will push the water out the faucet when the outlet tube vent hole becomes plugged with debris or scale.

The small Outlet Vent Hole is susceptible to scale build up and is a key indicator that descaling is required.




It is critical to descale the hot tank through the vent line and outlet line on a regular basis to prevent this problem.

Descaling through the inlet and/or outlet lines only will not clean the vent chamber and outlet vent hole properly.

HEATER CIRCUIT – HOT TANK WIRING



RESETTING THE HOT TANK OVERHEAT OR HIGH LIMIT SAFETY

| | |
|----|---|
| | |
| 1. | <p>Red Compressor/Heater Switch must be in the <i>O=OFF</i> position</p>  |
| 2. | <p>Unplug the Power Cord from rear of Culligan C2 Water Treatment System.</p> |
| 3. | <p>Free Standing Model: Remove the <u>Lower Front Panel</u> by removing the Phillips Head Screws underneath the Lower Front Panel.</p> <p>Mini Model: Remove the <u>Side Panel</u> by removing Phillips Head Screws from Side Panel.</p> |
| 4. | <p>Locate the Protective Metal Box on the rear of the hot tank. As you look through the condenser coils on the rear of the unit, you will see the hot tank located on the right-hand side.</p>  |
| 5. | <p>From the front of the Water Treatment System, reach up behind the hot tank and take hold of the protective metal box covering the thermostat and overheat on the hot tank.</p> <p>There are nuts that secure the Protective Metal Box to the Hot Tank, are loose enough to allow you to remove the Protective Metal Box.</p> <p>If the nuts on the metal box are too tight, loosen the nuts securing the Hot Tank to the upper base of the Culligan C2 Water Treatment System unit and lower the Hot Tank so you can remove the Protective Metal Box.</p>  |

| | |
|-----|---|
| 6. | <p><i>For demonstrative purposes, photos below have lowered the hot tank from the unit.</i></p> <p>Press the reset button</p> <div data-bbox="267 365 592 760" data-label="Image"> </div> <div data-bbox="1027 289 1414 800" data-label="Image"> </div> |
| 7. | <p>Reattach the Protective Metal Box by depressing the top flap of the Protective Metal Box so it snaps back into its original position on the Hot Tank.</p> |
| 8. | <p>Replace the Lower Front Panel.</p> |
| 9. | <p>Plug in the Power Cord.</p> |
| 10. | <p>Turn on the Red Compressor/Heater Switch <i>I=ON</i> position</p> <p>The Hot and Cold tanks must be filled with water BEFORE turning on the Red Heater and Compressor Switch.</p> <div data-bbox="1263 1575 1406 1751" data-label="Image"> </div> |
| 11. | <p>Verify the cooler is fully operational before installing it at the customers' site.</p> |

HOT TANK DESCALING INSTRUCTIONS

The Hot Tank requires removal of mineral deposits (descaling) on a regular basis. Typically descaling should take place every 6 to 12 months to preserve the long-term health of your unit.

Use non-toxic cleaner such as ScaleKleen, DEZCAL or Citric Acid Solution to remove mineral deposits as directed by the manufacturer depending upon filtration and local water conditions.

Descaling is an important process that removes calcium deposits, or scale, that can build up inside a tank over time. Calcium and scale is non-toxic but if left unattended will hinder your unit's performance.

 **WARNING! PERSONAL PROTECTIVE EQUIPMENT REQUIRED.** Always ensure proper ventilation and use rubber or nitrile gloves and eye protection when using chemicals. Refer to Material Safety Data Sheet for specific requirements of each product.

 **CAUTION! STAINLESS STEEL TANK DESCALING.**


The Hot Tank is made from stainless steel. Ensure descaling solution is compatible with stainless and always flush the unit completely. Dispose in an environmentally safe manner.

Materials Needed:

- Personal Protective Equipment. Rubber or Nitrile Safety Gloves and Protective Eyewear
- Phillips Screwdriver
- Temperature Gauge
- Water Pitcher or Container to collect water from the faucet
- 20 Litre container or drain basin
- Citric Acid Based Cleaner
- ¼" Plastic Tubing, at least 1m in length, and assorted ¼" quick connect fittings
- Empty Cartridge

1. Put descaler solution as per directions into the empty cartridge.
2. Connect descaling cartridge to the inlet water supply and connect to inlet bulkhead fitting on the back of the **Culligan C2 Water Treatment System**. Turn on Water Supply.
3. Select Hot Water and depress the Main Dispensing Button on the Front Control Panel until descaling solution (cloudy water) comes out of the faucet. Container and drain basin will be required to catch water from the faucet.
4. Turn off water supply and remove the empty cartridge from inlet water supply. Reconnect water supply to inlet fitting.
5. Allow descaling solution to remain in the Hot Tank for 15 minutes (length of time may vary depending on water conditions).

6. Place a pitcher, catch basin or other container under the faucet of the ***Culligan C2 Water Treatment System***.
7. Flush the Hot Tank until water runs clear.
8. Once clear Water dispenses from the faucet the Hot Tank has been descaled. Always ensure the ***Culligan C2 Water Treatment System*** is performing to the customer's satisfaction.

 **WARNING! HOT WATER.** *The Culligan C2 Water Treatment System produces Hot Water up to 87°C (189°F). Water above 52°C (125°F) can cause severe burns or scalding. Hot water should be dispensed carefully into insulated container to avoid injury.*

 **WARNING! REINSTALL ALL PANELS AND COVERS.** *Always reinstall all Panels, Protective covers, and fasteners after servicing equipment. Failure to do so could result in severe personal injury and will void the certifications and warranty of the equipment.*

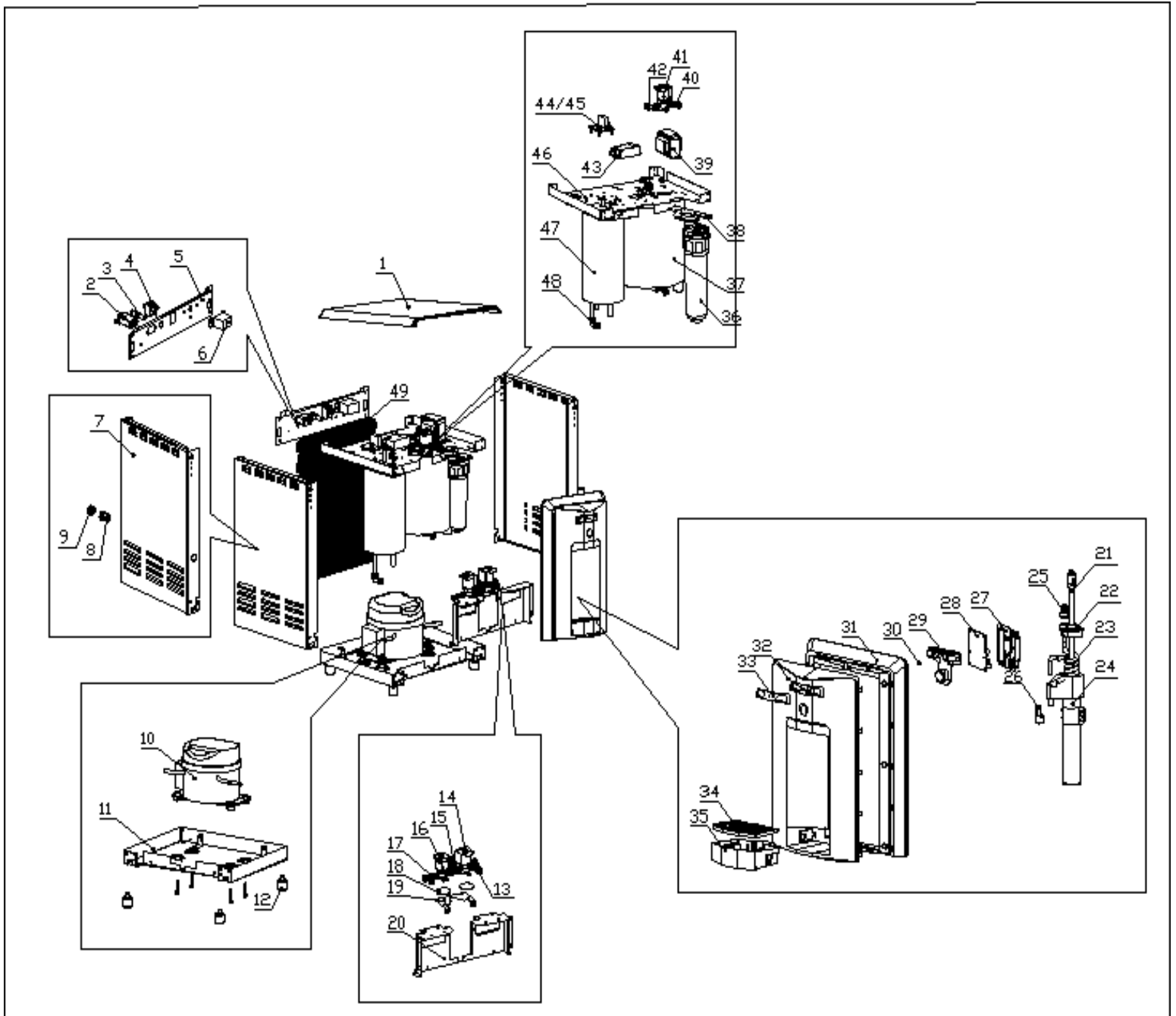
RECOMMENDED SPARES HOLDING

WLI recommends that you order spare parts and consumables at the same time as you order machines to minimise delivery costs. The list below contains the minimum parts WLI recommends that you keep per 10 machines. These recommendations are based upon the servicing and maintenance guidelines, water conditions and use mean more stock may be required.













- **Waterlogic** technical manuals cover voltages of both 120v and 220v for all our markets. Please ensure that you carefully read the information in this manual and for any parts specific to any market, refer to your technical agreement or specific part listing.

| Recommended Spare Part | Amount per 10 machines |
|--|------------------------|
| 1-micron 10" Inline CBC Filter cartridge | 10 |
| 1-micron 10" GAC Inline Filter cartridge | 10 |
| 20 Micron Sediment Filter cartridge | 10 |
| 15w UV Lamp | 10 |
| Quartz Spiral for Firewall | 10 |
| Solenoid Valve 1000mm (recommend replacing Solenoid Cushion at same time) | 2 |
| Solenoid Cushion | 2 |
| Hot Water Faucet | 2 |
| Main PCB | 4 |
| Silicon Button Key Mat | 5 |
| Drip Tray Grill | 4 |
| Drip Tray | 4 |
| UV 15W 220V/50Hz Electronic Ballast | 2 |
| Hot Tank 87°C (187°F) | 2 |






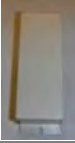





CULLIGAN C2 MINI DRAWING AND PARTS LIST



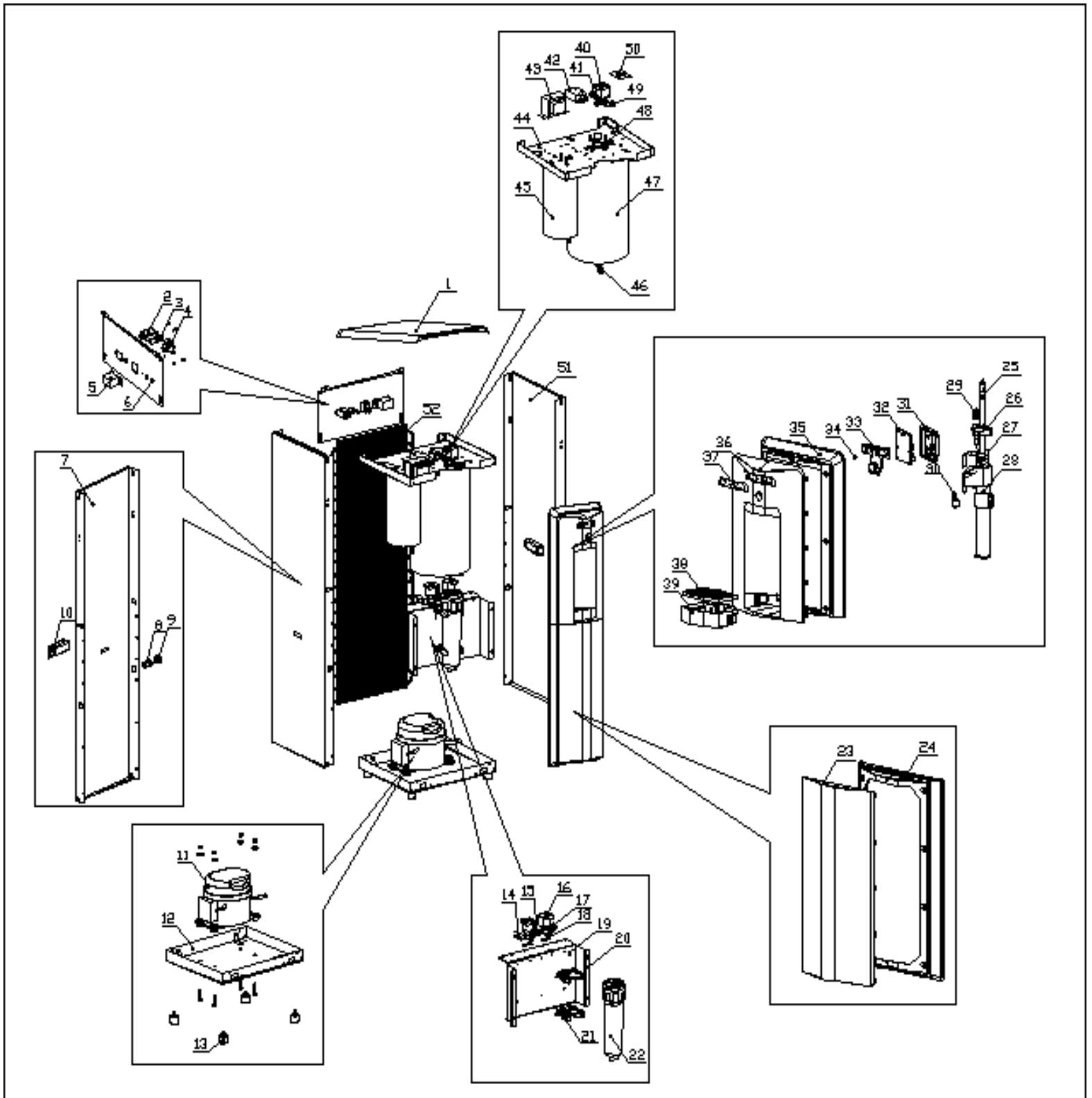
| No | Description | Picture |
|----|--|--|
| 1 | Top Cover - black |  |
| 2 | EMI Filter FN9233-10-06 (FW2 Europe) |  |
| 3 | Fuse Holder & Fuse 220V/10A with only one wire |  |
| 4 | Power Switch(Red)-No back lights |  |
| 5 | WL2000 Mini Back Panel - black texture |  |
| 6 | Cold Thermostat K50B |  |
| 7 | WL2000 Mini Side Panel - black texture MINI ONLY |  |
| 8 | JG Bulkhead Connector Union 1/4" * 1/4"(PI1208S) |  |
| 9 | Plastic Cap for 1/4" Bulkhead Fitting |  |
| 10 | R600A Compressor |  |
| 11 | C2 Mini Down Base |  |
| 12 | Unit Control Rubber Feet of C2 |  |
| 13 | JG Equal Tee Connector 1/4" (PI0208S) |  |

| | | |
|----|---|---|
| 14 | Solenoid Valve DC24V 500mm Mini |  |
| 18 | Cushion for solenoid valve |  |
| 19 | C2 Mini Firewall Solenoid Valve Fixing Bracket |  |
| 20 | Culligan C2 Mini - Filter Bracket |  |
| 21 | 15W UV Lamp (WL FW Brand) with 80mm wire + connector |  |
| 22 | C2 Firewall UV Lamp Fixing Rubber |  |
| 23 | Faucet UV -Spiral Quartz |  |
| 24 | C2 Firewall Mark IV Stainless Assy (No internal components) |  |
| 25 | JG 3/8" x 1/4" Reducing Fitting(PI211208S) |  |
| 26 | C2 Firewall hot water faucet |  |
| 27 | C2 Firewall PCB Cover |  |
| 28 | C2 Firewall Display PCB |  |
| 29 | Culligan C2 H&C Silicone Button |  |
| 30 | Culligan C2 Light pipe for LED |  |

| | | |
|----|--|---|
| 31 | Culligan C2 Front Upper Trim - Silver painted |  |
| 32 | FW2 FL Front Upper Panel - Black |  |
| 33 | Culligan C2 H&C UI Label |  |
| 34 | Culligan C2 Drip Tray Grill - black |  |
| 35 | Culligan C2 Drip Tray Body - black with WL logo |  |
| 36 | 10" GAC Inline Filter Assembly for Production |  |
| 37 | Cold Tank Assbly (2L, No UV holder, No sub-tank) |  |
| 38 | Culligan C2 Mini - Inline Filter Bracket |  |
| 39 | Power Transformer 230V -1A |  |
| 40 | JG Equal Elbow Connector 1/4" (PI0308S) |  |
| 43 | 15W 220v/50Hz Electronic Ballast |  |
| 44 | C2 Firewall UV Relay PCB(Universal H&C,C&A,CO) |  |
| 45 | Plastic PCB Support |  |














| | | |
|-----------|--|--|
| 46 | Culligan C2 Mini - Upper Shelf |  |
| 47 | 1.5Liter 220V/500W Hot tank for low cost unit |  |
| 49 | Wire Condenser |  |
| Not Shown | 1-micron 10" Inline CBC Filter for CTO, CYST + Lead Reduction (Carbon Block) |  |
| Not Shown | 20 Micron Sediment Filter |  |
| Not Shown | CDS Sensor Wire – 2FW |  |
| Not Shown | Thermostat and Overheat Metal Cover |  |
| Not Shown | Overheat with Manual Reset - 105°C (221° F) |  |
| Not Shown | Hot Tank Thermostat - 87°C (187°F) |  |
| Not Shown | Firewall UV Female Wire & Connector |  |
| Not Shown | CDS Fixing Rubber (Silicon) |  |
| Not Shown | Spiral Rubber Buffer |  |

CULLIGAN C2 FREE STANDING DRAWING AND PARTS LIST





| NO | Description | Image |
|----|--|---|
| 1 | Culligan C2 Top Cover - black |  |
| 2 | EMI Filter FN9233-10-06 (FW2 Europe) |  |
| 3 | Fuse Holder & Fuse 220V/10A with only one wire |  |
| 4 | Power Switch(Red)-No back lights |  |
| 5 | Cold Thermostat K50B |  |
| 6 | C2 FS Back Panel - black texture |  |
| 7 | C2 FS Side Panel with Handle Hole - Black |  |
| 8 | JG Bulkhead Connector Union 1/4" * 1/4"(PI1208S) |  |
| 9 | Plastic Cap for 1/4" Bulkhead Fitting |  |
| 10 | Plastic Handle Black |  |
| 11 | R600A Compressor |  |
| 12 | C2 Down Base |  |
| 13 | Unit Control Rubber Feet of C2 |  |

| | | |
|----|---|--|
| 14 | JG Reducing Elbow Connector 5/16" * 1/4" (PI211008S) | |
| 15 | Solenoid Valve DC24V 1000mm | |
| 16 | JG Equal Tee Connector 1/4" (PI0208S) | |
| 19 | Cushion for solenoid valve | |
| 20 | C2 Filter Bracket | |
| 21 | 2,8" Filter Clip | |
| 22 | 10" GAC Inline Filter Assembly for Production | |
| 23 | Culligan C2 Front Down Insert Panel - black | |
| 24 | Culligan C2 Front Down Trim - Silver painted | |
| 25 | 15W UV Lamp (WL FW Brand) with 80mm wire + connector | |
| 26 | C2 Firewall UV Lamp Fixing Rubber | |
| 27 | Faucet UV -Spiral Quartz | |
| 28 | C2 Firewall Mark IV Stainless Assy (No internal components) | |

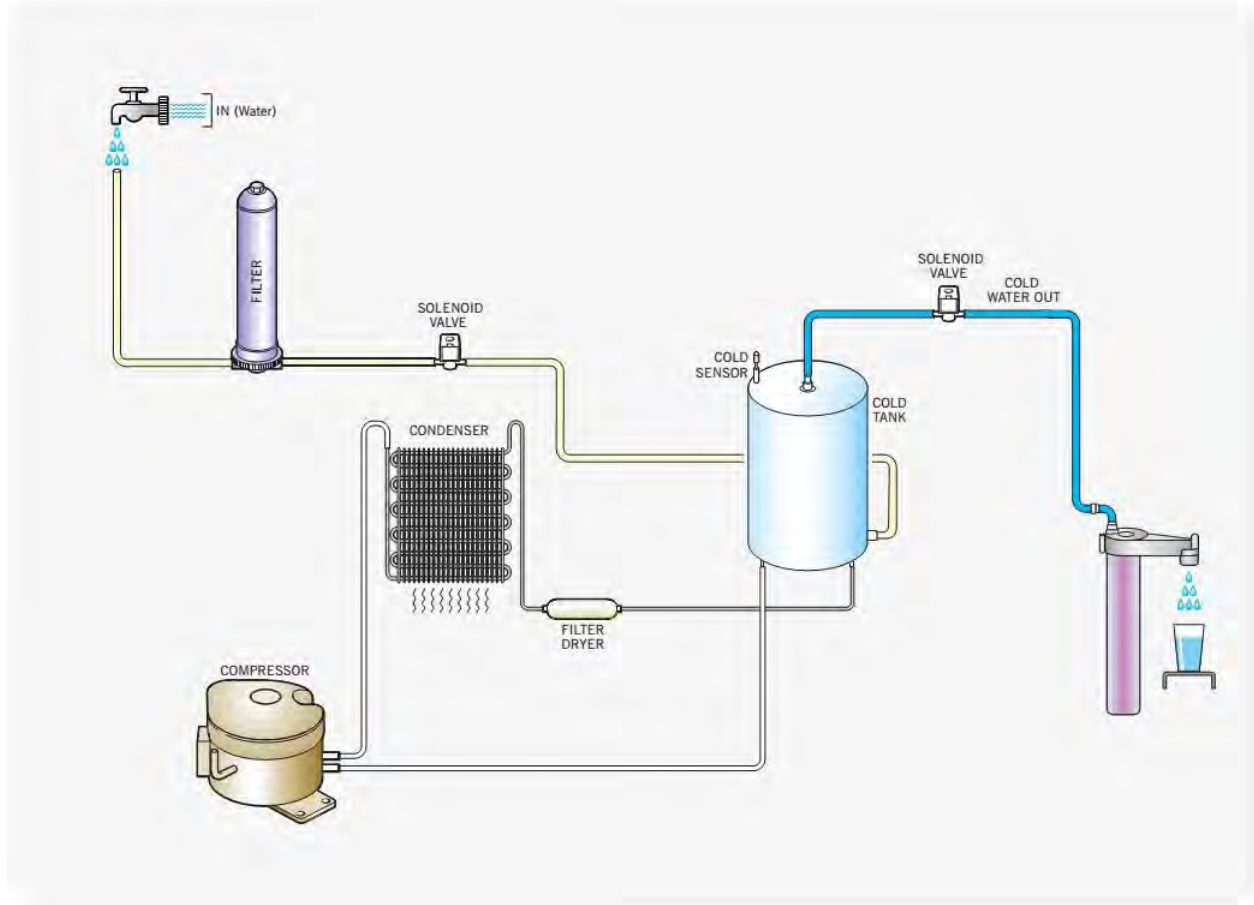
| | | |
|----|--|---|
| 29 | JG 3/8" x 1/4" Reducing Fitting(PI211208S) |  |
| 30 | C2 Firewall hot water faucet |  |
| 31 | C2 Firewall PCB Cover |  |
| 32 | C2 Firewall Display PCB(Universal H&C,C&A,CO) Vout(2.5V) |  |
| 33 | Culligan C2 H&C Silicone Button |  |
| 34 | Culligan C2 Light pipe for LED |  |
| 35 | Culligan C2 Front Upper Trim - Silver painted |  |
| 36 | FW2 FL Front Upper Panel - Black |  |
| 37 | Culligan C2 H&C UI Label |  |
| 38 | Culligan C2 Drip Tray Grill - black |  |
| 39 | Culligan C2 Drip Tray Body - black with WL logo |  |
| 40 | Solenoid Valve DC24V 500mm Mini |  |
| 42 | 15W 220v/50Hz Electronic Ballast |  |

| | | |
|-----------|--|--|
| 43 | Power Transformer 230V -1A Leak Detection C2 (UV) | |
| 44 | C2 FS upper front Shelf (Universal to ST- 8136)-FW | |
| 45 | 1.5Liter 220V/500W Hot tank | |
| 47 | Cold Tank Assembly (4Liters, No UV holder, No sub-tank) | |
| 50 | C2 Firewall UV Relay PCB(Universal H&C,C&A,CO) | |
| 51 | C2 FS Side Panel with Handle Hole - Black | |
| 52 | Wire Condenser | |
| Not Shown | 1-micron 10" Inline CBC Filter for CTO, CYST + Lead Reduction (Carbon Block) | |
| Not Shown | 20 Micron Sediment Filter | |
| Not Shown | CDS Sensor Wire – 2FW | |
| Not Shown | Thermostat and Overheat Metal Cover | |
| Not Shown | Overheat with Manual Reset - 105°C (221° F) | |
| Not Shown | Hot Tank Thermostat - 87°C (187°F) | |

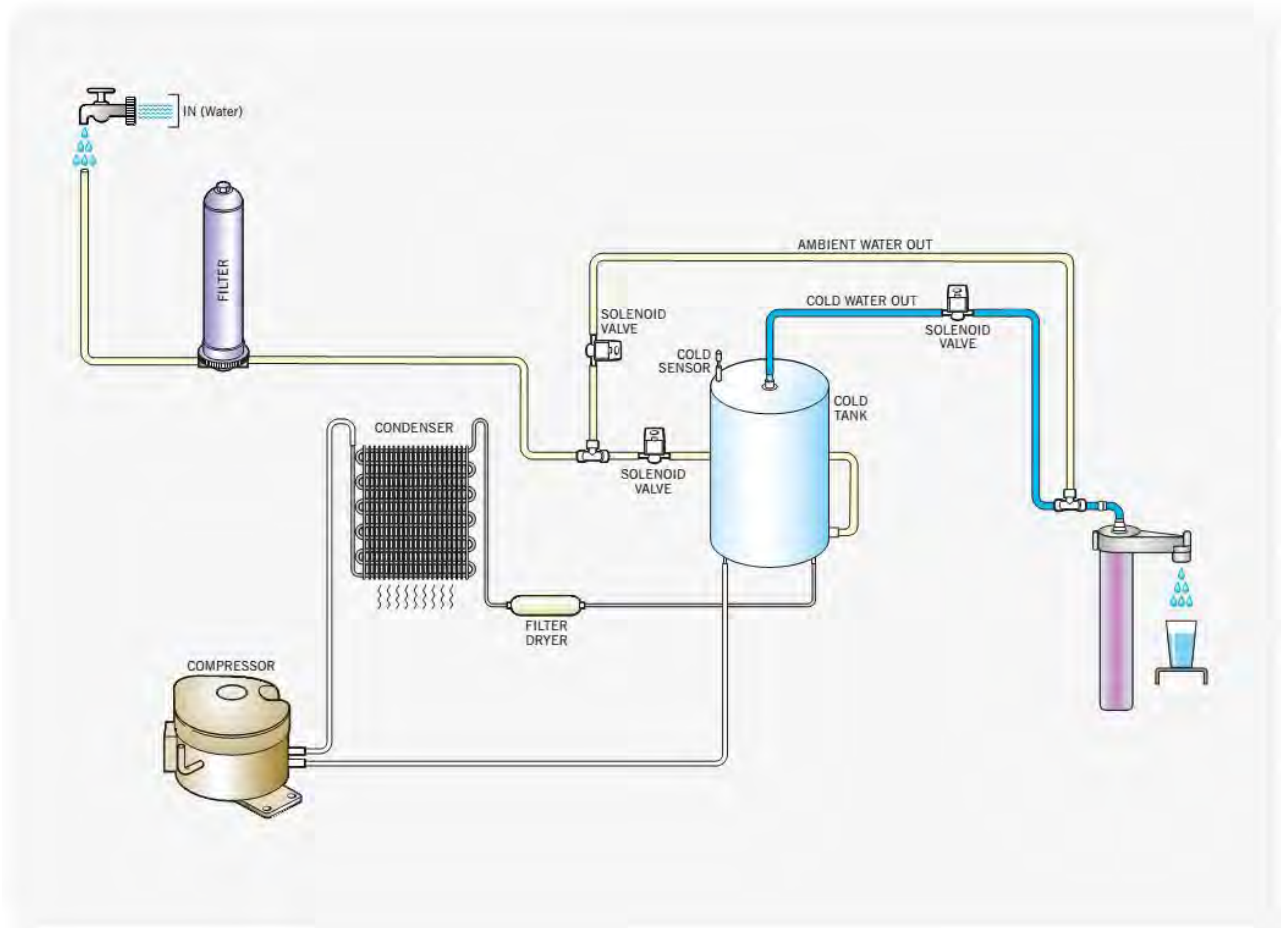
| | | | |
|-------------------------|--|---|--|
| <p>Not Shown</p> | <p>Firewall UV Female Wire & Connector</p> |  | |
| <p>Not Shown</p> | <p>CDS Fixing Rubber (Silicon)</p> |  | |
| <p>Not Shown</p> | <p>Spiral Rubber Buffer</p> |  | |
| <p>Not Shown</p> | <p>Wire Connector between Hot Tank and Thermostat</p> |  | |
| <p>Not Shown</p> | <p>Wire Harness Set</p> |  | |
| <p>Not Shown</p> | <p>Power Cord EU 220V – 1840 mm</p> |  | |

CULLIGAN C2 FLOW DIAGRAM

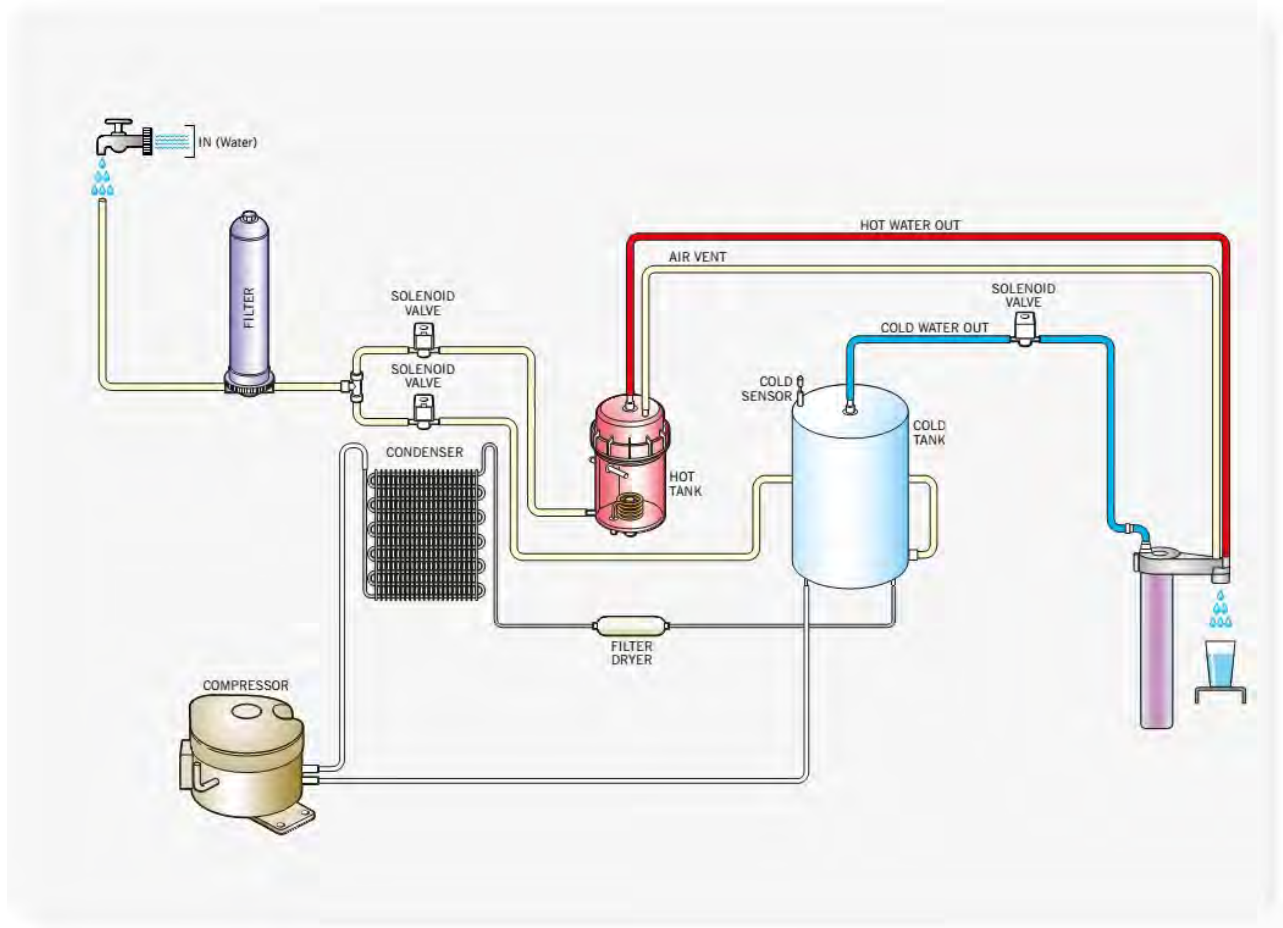
COLD ONLY



COLD AND AMBIENT



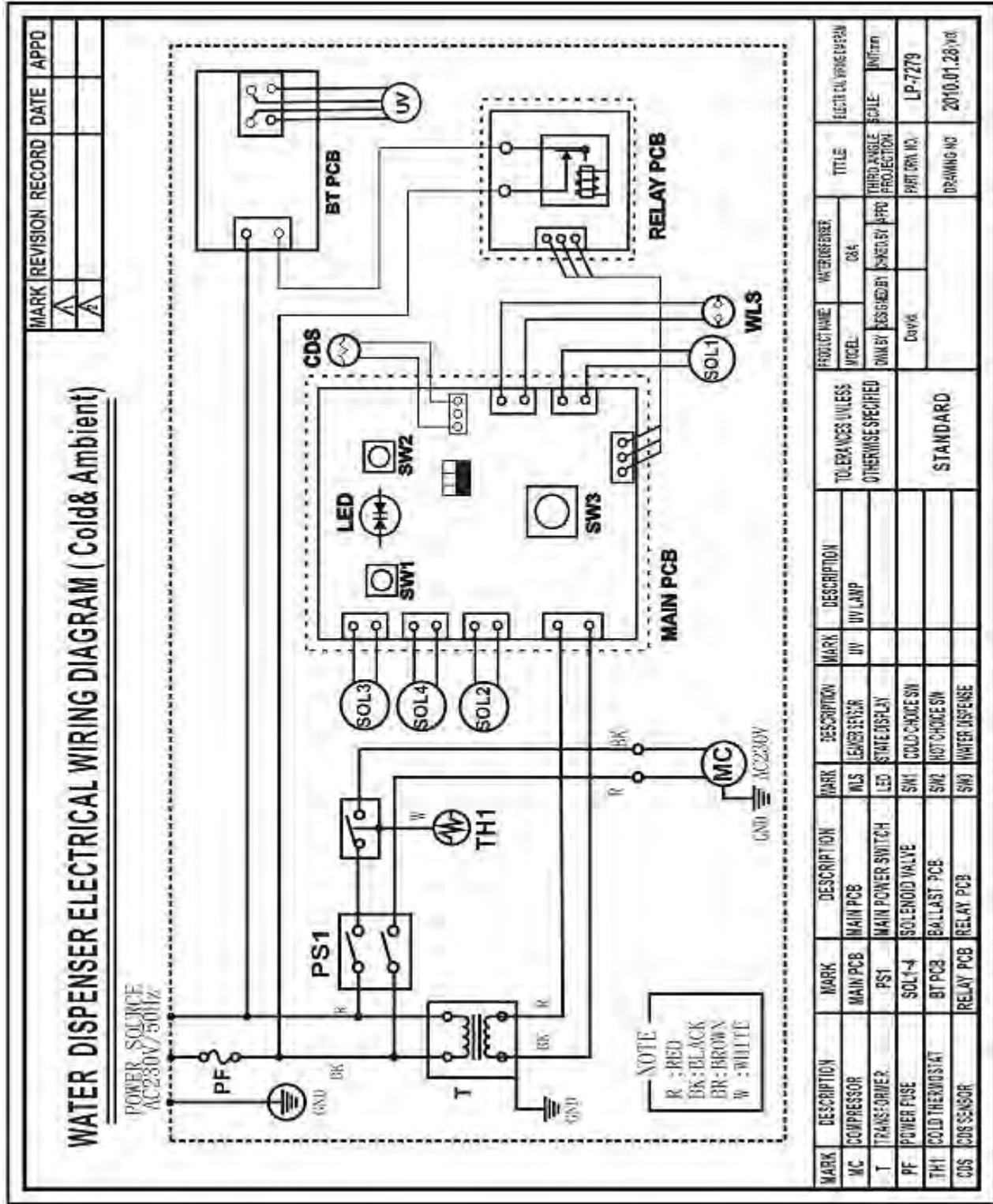
HOT AND COLD



CULLIGAN C2 ELECTRICAL DIAGRAM

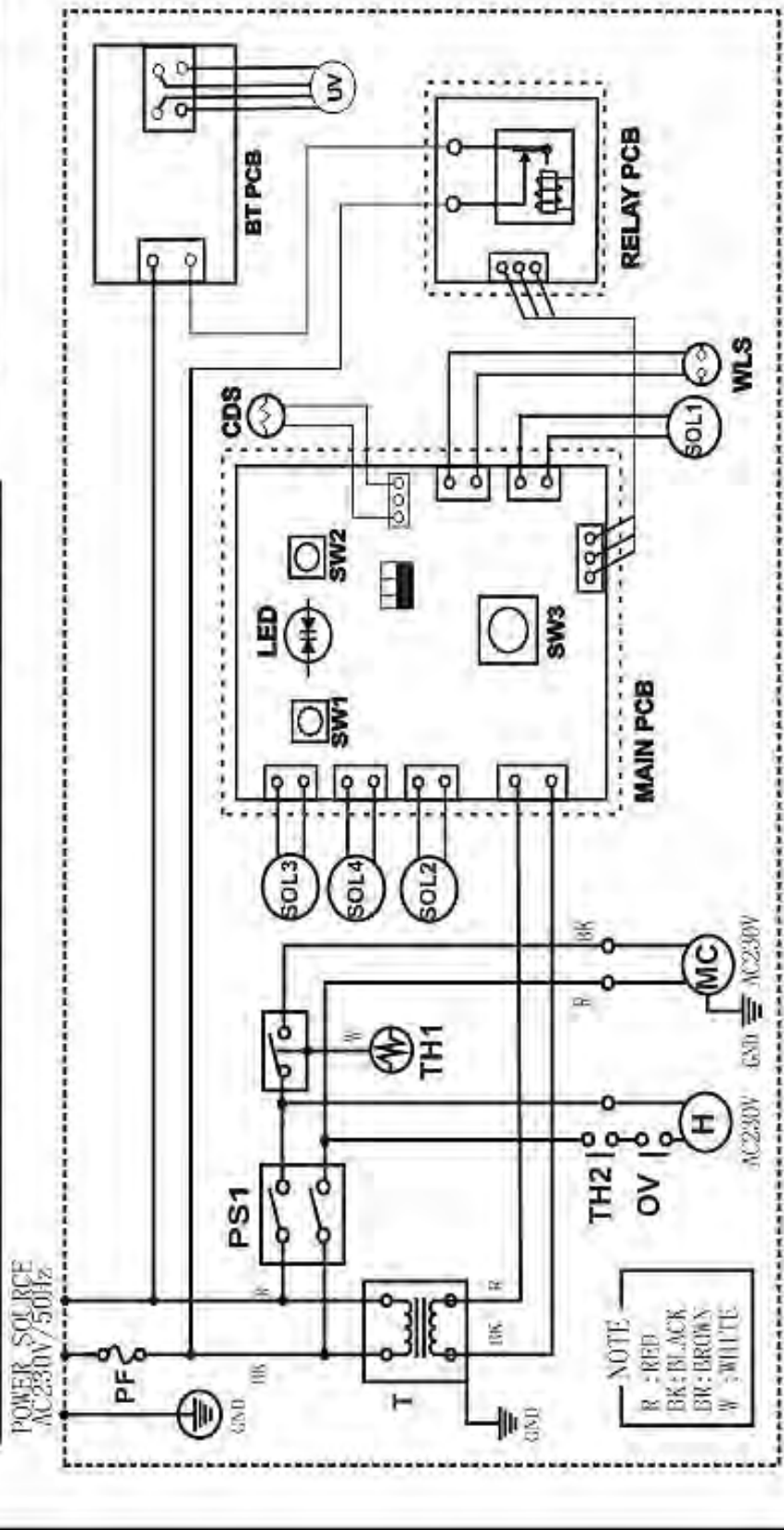
⚠ DANGER! HIGH VOLTAGE ELECTRICAL HAZARD. PCB (Printed Circuit Board) contains High Voltage. Only trained and qualified technicians should attempt live testing.

220V/50Hz



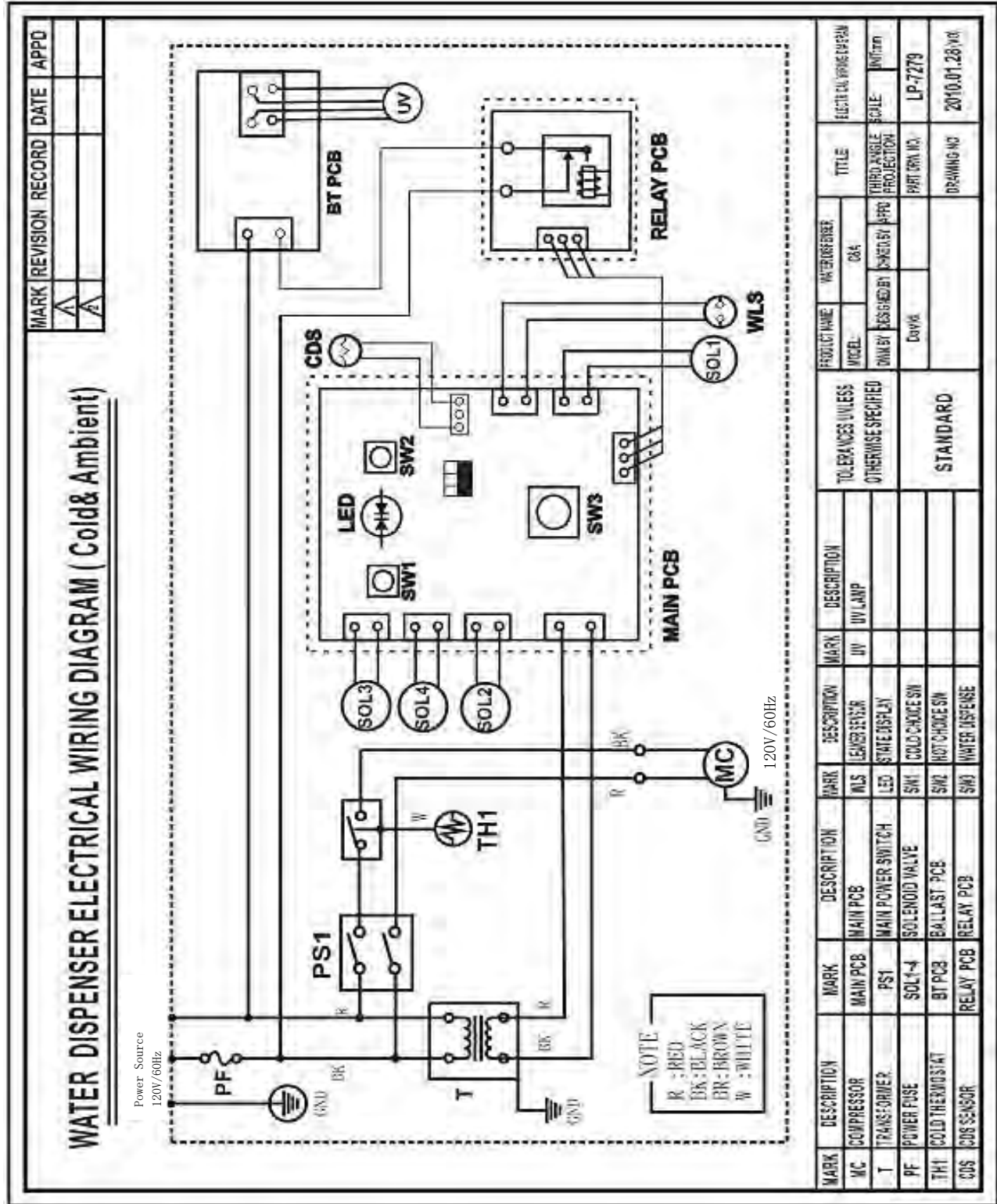
WATER DISPENSER ELECTRICAL WIRING DIAGRAM (Hot & Cold)

| MARK | REVISION RECORD | DATE | APPD |
|------|-----------------|------|------|
| Δ | | | |
| Δ | | | |



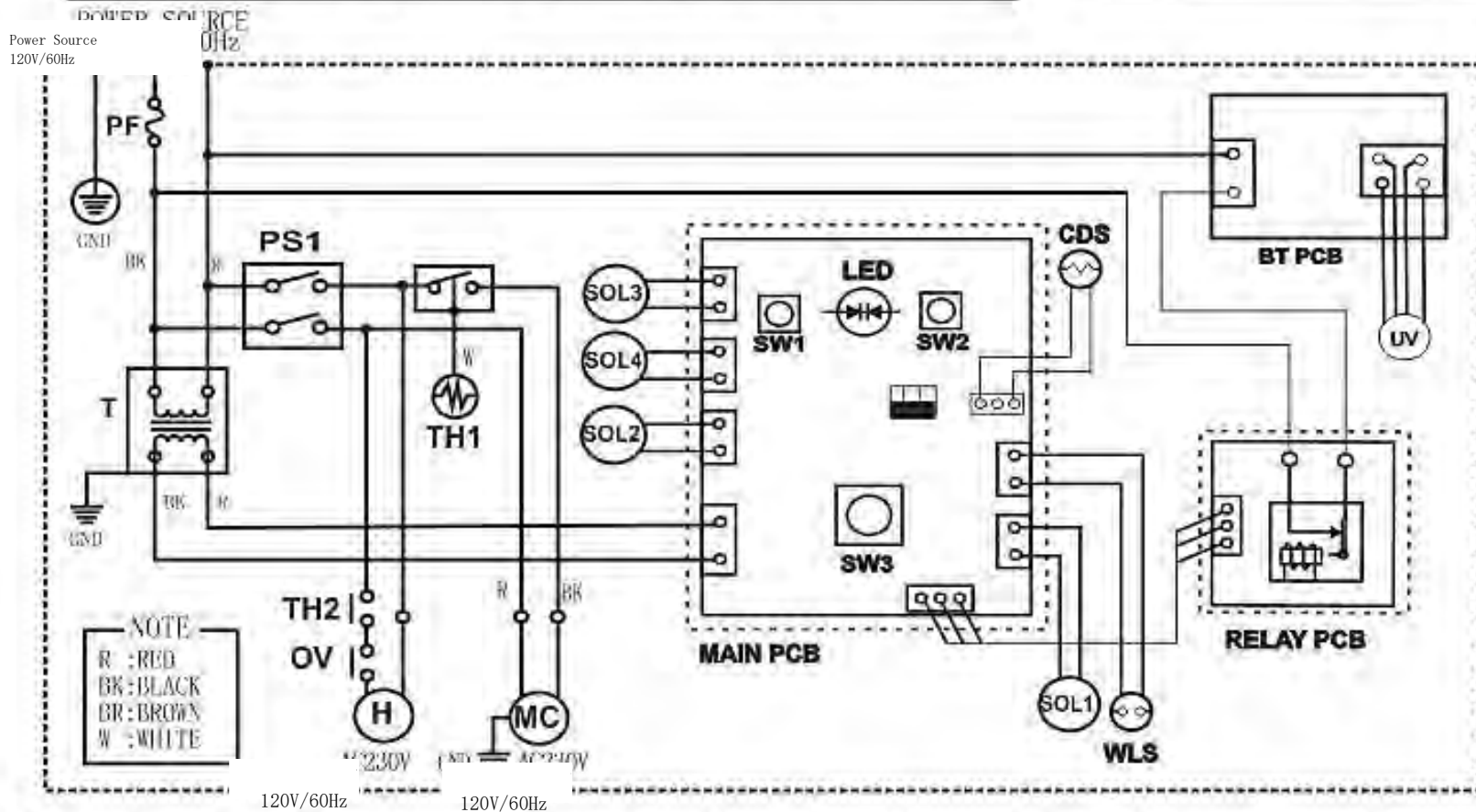
| MARK | DESCRIPTION | MARK | DESCRIPTION | MARK | DESCRIPTION | MARK | DESCRIPTION | MARK | DESCRIPTION | TOLERANCES UNLESS OTHERWISE SPECIFIED | PRODUCT NAME | MODEL | DESIGNED BY | DATE | SCALE | UNIT |
|------|-----------------|-----------|-------------------|------|----------------|------|---------------------|------|-------------|---------------------------------------|--------------|-------|-------------|------------|-------|------|
| H | HEATER | MAIN PCB | HEATER SENSOR | UVS | UV Lamp SENSOR | | | | | | DAVID | N/C | DAVID | 2010.04.28 | 1:1 | mm |
| MC | COMPRESSOR | PS1 | MAIN POWER SWITCH | LED | STATE DISPLAY | UV | UV Lamp | | | | | | | | | |
| T | TRANSFORMER | SOL1-4 | SOLENOID VALVE | SW1 | COLD CHOICE SW | TH2 | HOT THERMOSTAT | | | | | | | | | |
| PF | POWER FUSE | BT | BALLAST | SW2 | HOT CHOICE SW | CV | OVERLOAD THERMOSTAT | | | | | | | | | |
| TH1 | COLD THERMOSTAT | RELAY PCB | RELAY PCB | SW3 | WATER DISPENSE | | | | | STANDARD | | | | | | |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |

120V/60Hz



WATER DISPENSER ELECTRICAL WIRING DIAGRAM (Hot & Cold)

| MARK | REVISION RECORD | DATE | APPD |
|------|-----------------|------|------|
| ▲ | | | |
| ▲ | | | |



| MARK | DESCRIPTION | MARK | DESCRIPTION | MARK | DESCRIPTION | MARK | DESCRIPTION | TOLERANCES UNLESS OTHERWISE SPECIFIED | PRODUCT NAME: WATER DISPENSER | | | | TITLE | ELECTRICAL WIRING DIAGRAM | |
|--------|-----------------|-----------|-------------------|------|----------------|------|---------------------|---------------------------------------|-------------------------------|-------------|------|------------------------|----------------|---------------------------|--|
| MODEL: | H&C | SCALE: | UNIT:mm | | | | | | | | | | | | |
| H | HEATER | MAIN PCB | MAIN PCB | WLS | LEAKER SENSOR | UVS | UV Lamp SENSOR | STANDARD | DESIGNED BY | DESIGNED BY | APPD | THIRD ANGLE PROJECTION | SCALE | UNIT:mm | |
| MC | COMPRESSOR | PS1 | MAIN POWER SWITCH | LED | STATE DISPLAY | UV | UV Lamp | | David | | | PART ORG. NO. | LP-7278 | | |
| T | TRANSFORMER | SOL1-4 | SOLENOID VALVE | SW1 | COLD CHOICE SW | TH2 | HOT THERMOSTAT | | | | | DRAWING NO. | 2010.01.28 (V) | | |
| PF | POWER FUSE | BT | BALLAST | SW2 | HOT CHOICE SW | OV | OVERLOAD THERMOSTAT | | | | | | | | |
| TH1 | COLD THERMOSTAT | RELAY PCB | RELAY PCB | SW3 | WATER DISPENSE | | | | | | | | | | |

PRE-DELIVERY PROCEDURES

⚠️ DANGER! ELECTRICAL SHOCK HAZARD.

Only qualified personnel who have read and understand this entire manual should attempt to install, or service this unit, failure to do so could result in death or serious injury. DO NOT plug into an electrical supply until specifically instructed.

⚠️ WARNING! ALWAYS SANITIZE BEFORE USE.

Sanitize before use to eliminate any potential microbiological contaminates.

Materials Needed:

- Personal Protective Equipment. Rubber or Nitrile Safety Gloves and Protective Eyewear
- Phillips Screwdriver. Temperature Gauge.
- Water Pitcher or Container to collect water from the faucet
- 3 Litre container or drain basin
- Aquadosa Sanitizer – Or equivalent (3% Hydrogen Peroxide)
- 1/4”O.D. Plastic Tubing, at least 1.5m in length, and assorted 1/4” quick connect fittings.
- Test Strips for measuring sanitizer levels
- TDS Meter (Optional)

1. Unpack the ***Culligan C2 Water Treatment Systems*** and check exterior for damage.

Sanitizing

Sanitize Aquadosa or other approved sanitizing cleaner throughout the cold and or ambient circuits. Follow all instructions on the sanitizer and flush with fresh water through the faucet until odour and taste is acceptable.

⚠️ WARNING! USE PROPER PERSONAL PROTECTIVE EQUIPMENT

Always ensure proper ventilation and use proper personal protective equipment such as gloves and eye protection when using chemicals. Refer to Material Safety Data Sheet for specific requirements of each chemical product. Take all necessary precautions to prevent sanitizer from contacting eyes, clothing, and any other surfaces in could damage (carpets).

2. We recommend using Aquadosa sanitizer, 25ml dose is enough to sanitize the machine. See manufactures instructions for any other sanitizing solution used. Measure and insert 25ml Aquadosa into the Sanitizing Cartridge. Always ensure sanitizer is compatible with stainless steel and acetyl plastic.
3. Connect sanitizing cartridge to inlet water supply and connect to inlet bulkhead fitting on back of unit. Turn on water supply.
4. Connect power to ***Culligan C2 Water Treatment System***. DO NOT TURN ON RED COMPRESSOR & HEATER SWITCH AT THIS TIME. O=OFF



Fill the Cold Circuit with Sanitizer

- Depress the Main Dispensing Button on the Front Control Panel until cold water/sanitizing solution comes out the faucet. **NOTE:** Container and drain basin will be required to catch the water from the faucet.

⚠ WARNING! Use Personal Protective Equipment. Gloves and Eye Protection Required. The first 5 to 10 Litres of water will contain concentrated sanitizer. Use extreme care!

- Turn off water supply and remove Sanitizing Cartridge from inlet water supply. Reconnect water supply to Inlet Bulkhead Fitting.

Flush Filters

⚠ CAUTION! FILTER FLUSH REQUIRED.

Filters need to be configured and specified to do the job given the local water conditions, usage, maintenance schedule, and placement restrictions.

In order for our filters to perform as represented and to provide the best quality water possible, it is essential that filters be replaced periodically. The frequency of filter changes depends upon your water quality and your water usage. For example, if there is a lot of sediment and/or particles in your water, then you will have to change your filters more frequently than a location with little to no sediment. Be sure to replace your filters whenever you notice a decline in the performance, whether it is a drop in flow rate and/or pressure or an unusual taste in the water.

- Flush filter thoroughly (at least 10 Litres) with fresh water to clear carbon fines. Test outlet water with TDS (Total Dissolved Solids) Meter to determine exact flushing volume required. See instructions on filter or manufacturers recommendations for more specific requirements.
- Once flushed, install the filters. Following the flow direction on the filter.

NOTE: to limit Microbial Growth, filters must be flushed upon installation and not prior.

- Connect **Culligan C2 Water Treatment System** to power.

⚠ CAUTION! NEVER TURN ON HEATER BEFORE FILLING HOT TANK.

Red Heater & Compressor Switch must be in the O=OFF position while the hot tank is empty. Damage could occur within one minute and the overheat (high limit) will require manual reset if heater is turned on with an empty hot tank.
O=OFF



Flushing the Sanitizer from the Machine

10. Place a pitcher, catch basin, or other container under the faucet of the **Culligan C2 Water Treatment System**. Dispense at least 5 litres of ambient water and test with a test strip to ensure 0 parts per million of sanitizer is left in the ambient circuit.
11. Once ambient is clear, flush the cold tank. Run at least 10 Litres of water through the faucet by dispensing cold water to dilute and remove the sanitizer from the cold circuit. You can use test strips to evaluate the water and ensure 0 parts per million of sanitizer is left in the circuit.
12. Once the sanitizer odour/taste has been flushed out of the cold and or ambient side of the machine the sanitization process for the cold and or ambient circuits are now complete.

Fill the Hot Tank

13. Press the Hot Water Select Button, followed by the main dispensing button to fill the hot tank. Water will dispense from the faucet once the hot tank is full. Flush until water is clear.

 **WARNING! HOT CIRCUIT IS NOT SANITIZED AND IS NOT REQUIRED.**

Water in the hot circuit is not sanitary until the temperature exceeds 77°C (171°F) for at least 5 minutes.

UV System Functional Test

 **WARNING! ULTRAVIOLET RADIATION.** Protect your skin and eyes against ultraviolet rays.

Never look directly at an operating UV light. Disconnect wiring before removing.

14. Remove UV Firewall Lamp from Firewall housing. Remove Top Cover from Firewall housing. Carefully remove Quartz Sleeve Spiral from Firewall Housing and inspect for cracks or other damage. Reinsert Quartz Sleeve Spiral, replace Top Cover of Housing. Inspect UV lamp and reinsert into Housing.
15. Press dispensing button and check for blue glow from top of Firewall Housing and at Faucet dispensing area to ensure UV lamp is operational.
Note: *UV Lamp Sensor is temperature sensitive. During extended periods of use, especially when filling or draining the unit, when water is not being dispensed UV lamp sensor can overheat initiating a UV fault. If this occurs turn off unit for 5 minutes and allow sensor to cool before resuming operation*
16. Disconnect UV lamp to test UV lamp sensor operation. Unit should alarm and green indication LED on front of unit should flash.
17. Disconnect power to **Culligan C2 Water Treatment System**.
18. Reconnect UV lamp.

19. Connect power to **Culligan C2 Water Treatment System**.

Compressor Test


20. Red Heater & Compressor to be in the on position *I=ON*. Always ensure tanks are full of water before turning on the heater or the overheat (high limit) will open and require manual reset. If the wire condenser at back of the unit is warm, the refrigerant system is working. *I=ON*



21. Once the **Culligan C2 Water Treatment System** reaches its target temperature, the compressor will shut off. Draw a glass of cold water and verify it has chilled to proper temperature.

Heater Test

22. Always ensure tanks are full of water before turning on the heater or the overheat (High Limit) will open and require manual reset. It will take the heater approximately 10 minutes to heat the water from ambient 24°C (75°F) to the factory set point of 87°C (187°F). Dispense a cup of hot water to ensure the temperature/odour/taste is acceptable.

 **WARNING! HOT WATER CAN BURN OR SCALD.** *The Culligan C2 Water Treatment System produces Hot Water up to 87°C (187°F). Water above 52°C (125°F) can cause severe burns or scalding. Hot water should be dispensed carefully into insulated container to avoid injury.*

CULLIGAN C2 MINI DRAINING INSTRUCTIONS

Draining Notes

Drain the *Culligan C2 Water Treatment System* for transportation.

⚠ WARNING! STORE UNIT EMPTY. ALWAYS SANITIZE BEFORE REUSE.

The unit must be completely drained and sealed before storing to avoid stagnation and reduce microbial growth).

Prior to draining the Hot Tank, turn off the Red Heater and Compressor Power Switch (*O=OFF*), and dispense 2 Litres (½ gallon) of hot water from the machine. As hot water is dispensed from the faucet of the *Culligan C2 Water Treatment System*, colder water will be introduced into the Hot Tank. Since the Red Heater and Compressor Power Switch is turned off, the Heater will not energize and heat the incoming tap water. Following this precaution prevents exposing personnel and equipment (drains, catch basin, etc.) to scalding hot water.



Disable Cold and Hot Tanks

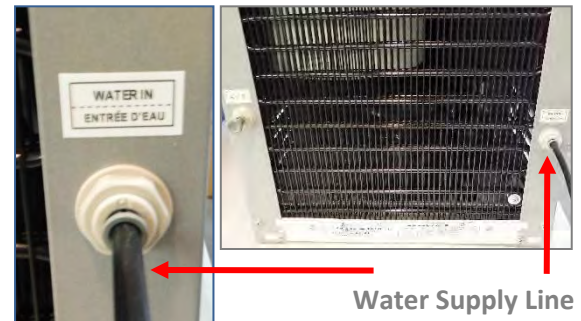
1. Turn off the Red Heater and Compressor Power Switch (*O=OFF*) to disable the Heater and Compressor.
2. Dispense 2 Litres (½ gallon) of water through the Hot Tank to cool the water temperature in the Hot Tank and avoid burns.



⚠ WARNING! HOT WATER. *The Culligan C2 Water Treatment System produces Hot Water up to 87°C (187°F). Water above 52°C (125°F) can cause severe burns or scalding. Hot water should be dispensed carefully into insulated container to avoid injury.*

Turn off Water Supply and Bleed Water Pressure

3. Isolate the *Culligan C2 Water Treatment System* from feed water by turning off the supply.
4. Dispense cold still water to relieve any pressure built up in the system.
5. Remove the water supply line from the inlet line bulkhead fitting at back of the *Culligan C2 Water Treatment System*.
6. Depress Cold Water Dispense Button until all Cold Water has drained from the *Culligan C2 Water Treatment System*.
7. Depress Hot Water Dispense Button until all Hot Water has drained from the *WL2FL Water Treatment Machine*.



CULLIGAN C2 FREE STANDING DRAINING INSTRUCTIONS

Draining Notes

Drain the *Culligan C2 Water Treatment System* for transportation.

⚠ WARNING! STORE UNIT EMPTY. ALWAYS SANITIZE BEFORE REUSE.

The unit must be completely drained and sealed before storing to avoid stagnation and reduce microbial growth).

Prior to draining the Hot Tank, turn off the Red Heater and Compressor Power Switch (*O=OFF*), and dispense 2 Litres (½ Gallons) of hot water from the machine. As hot water is dispensed from the faucet of the *Culligan C2 Water Treatment System* colder water will be introduced into the hot tank. Since the Red Heater and Compressor Power Switch is turned off, the heater will not energize and heat the incoming tap water. Following this precaution prevents exposing personnel and equipment (drains, catch basin, etc.) to scalding hot water.



Disable Cold and Hot Tanks

8. Turn off the Red Heater and Compressor Power Switch (*O=OFF*) to disable the heater and compressor.
9. Dispense 2 Litres (1 gallon) of water through the hot tank to cool the water temperature in the hot tank and avoid burns.



⚠ WARNING! HOT WATER. *The Culligan C2 Water Treatment System produces Hot Water up to 84°C (187°F). Water above 52°C (125°F) can cause severe burns or scalding. Hot water should be dispensed carefully into insulated container to avoid injury.*

Turn off Water Supply and Bleed Water Pressure

10. Isolate the *Culligan C2 Water Treatment System* from incoming feed water by turning off the supply.
11. Dispense cold still water to relieve any pressure built up in the system.
12. Insert approx. 3 inches of blue tubing into the Line Bulkhead fitting at back of the *Culligan C2 Water Treatment System* to allow water to drain.
13. Depress Cold Water Dispense Button until all Cold Water has drained from the *WL2FL Water Treatment System*.
14. Depress Hot Water Dispense Button until all Hot Water has drained from the *Culligan C2 Water Treatment System*.



Bulkhead Fitting

INSTALLATION PROCEDURES

Safety and Installation Guidelines

Ensure all Local Laws and Codes including health and safety guidelines are met when installing Equipment. Only qualified service technicians should attempt installation and service of Equipment.

⚠️ WARNING! ELECTRICAL SHOCK HAZARD. Always unplug (isolate from power supply) to prevent electrical shock except where electrical tests are specified.

⚠️ WARNING! IMPROPER SUPPLY OR CONNECTION CAN RESULT IN RISK OF SHOCK. Connect to a 13 amp 220/240V 50Hz properly grounded outlet (GFI is recommended). Ensure polarity is correct and always use a 3-prong outlet. Consult a qualified electrician if you have any questions.

⚠️ WARNING! ONLY USE A Culligan SUPPLIED POWER CORD. Locate system within 1 meter of power supply. Never use an extension cord or adapter. Do not use a damaged power cord or plug. Keep power cord out of heavy traffic areas and away from heat sources. Do not, under any circumstances, remove ground prong or alter the power cord. Never pull the power plug from the outlet with a wet hand or allow the plug to get wet. Failure to use the supplied power cord will void UL Certification and Warranty.

⚠️ CAUTION! INDOOR USE ONLY. Never expose to direct sunlight, heat sources, or ambient air temperature above 37°C (100°F) or below 2°C (35°F). Install indoors and keep unit away from excessive humidity. Never expose to freezing temperatures. Ensure there is adequate clearance around the unit to allow refrigeration system condenser to dissipate heat. Warmer environments require more clearance around the unit. Minimum clearance around all surfaces of the machine is 50mm. Installs where the ambient temperature exceeds 27°C (80°F), require a minimum of 100mm clearance for proper heat dissipation and efficient operation.

⚠️ CAUTION! USE A WATER PRESSURE REGULATOR. Culligan will not be responsible for injury or damage caused by excessive water pressure. Operating pressure must be 2.5 to 3Bar. Be aware of any potential pressure surges caused by building/municipal pumping stations.

⚠️ CAUTION! USE UV STABILIZED SUPPLY LINES. Feed the unit with a potable ambient or cold water supply only. Feed water over 37°C (100°F) can damage the treatment components. Water block devices and external leak detectors are strongly recommended. Locate the unit as close to the water supply and the electrical connections as possible.

⚠️ WARNING! STORE AND TRANSPORT UNIT EMPTY. ALWAYS SANITIZE BEFORE USE. The unit must be completely drained and sealed before storing to avoid stagnation and reduce microbiological contamination (potential bacterial growth). Sanitize before use to eliminate any potential microbiological contaminants

Pre-delivery and sanitization procedures as prescribed in this manual must be performed before installing the **Culligan C2 Water Treatment Systems**.

Always install indoors and place the **Culligan C2 Water Treatment System** on a firm, flat and stable surface.

1. Attach the water supply line to the 1/4" feed water inlet bulkhead fitting on the back of the unit. requires the use of a water pressure regulator. Water feed pressure must be between 2.7-4bar. Turn on the water supply and check for leaks.



2. Check to ensure that the Red Compressor & Heater switch is the O=OFF position.

NOTE: Switch has internal LED that illuminates when placed in I=ON position.

3. Connect the power cord to the back of the **Culligan C2 Water Treatment System** and to a 220/240 Volt supply.
4. Fill the Cold Tank. Hold a container under the dispensing faucet, press and hold the main dispensing button until a continuous flow of water is obtained. Once a continuous flow is obtained, release the dispensing button. Cold Tank is now full.
5. Fill the Hot Tank. Hold a container under the dispensing faucet. Press the Hot Select Button followed by the main dispensing button until a continuous flow of water is obtained. Once a continuous flow is obtained, release the main dispensing button. Hot tank is now full.

⚠ CAUTION! NEVER TURN ON HEATER BEFORE FILLING HOTTANK.

Red Compressor/Heater Switch must be in the O=OFF position while the hot tank is empty. Damage could occur within one minute and the overheat (high limit) will require manual reset if heater is turned on with an empty hot tank.



6. Verify that the UV lamp operates as expected.

⚠ WARNING! ULTRAVIOLET RADIATION. *Protect your skin and eyes against ultraviolet rays. Never look directly at an operating UV light. Always disconnect before removal.*

7. Move the **Culligan C2 Water Treatment System** into its final operating position. Be sure that a minimum of 50mm clearance is maintained around both the sides and the back of the unit. This is important to allow proper airflow and heat exchange of refrigerationsystem.
8. Level unit using the adjustable feet to level if necessary. Never install onincline.



9. Turn the Red Compressor & Heater Power Switch to I=ON position.
10. When the unit has reached its Hot Temp Set Point, the heater will cycle off. When the unit has reached its Cold Temp Set Point Temperature, the compressor will cycle off.

11. Once the unit is at the target temperature(s), sample the water to ensure water meets expectations and additional rinsing or adjustment is not required.

12. Check the **Culligan C2 Water Treatment System** for any leaks. External Leak Protection is always recommended.

AUSTRALIAN INSTALLATION GUIDE

Installation in accordance with AS/NZS 3500.1 and AS/NZS 3500.2. Culligan units must be installed according to the local guidelines. Culligan units should only be connected to a potable drinking water supply. Culligan units should not be connected to water supplies of unknown bacterial quality or those not already fit for human consumption. Culligan International strongly recommends the use of an anti-flood device.

Installation Instructions and parts required

1. K001 Install kit as below, (1 x 63058/103988 – brass tee, 1 x 54011/104115 ball valve, 1 x 52028/104177 dual check valve)



2. Serialised Unit
3. Diamond Flow Filter and Head

Options to above PLV

RMC PVDC50 dual check valve – 350 kpa PLV code 52010 / 100665

Accessories

1. JG ¼ sf x 3/8 stem elbow x 2 (for filter head) 60157 / 100963
2. JG ¼ sf x ¾ npt tap adaptor 60175 / 104065
3. Waterblock 50000 / 101084
4. JG ¼ sf x ¼ sf isolating valve 60127 / 100932
5. JG ¼ tube (black only) x 5 meters 60800 / 104105 roll
6. JG ¼ locking clips x 5 60124 / 104162

Any installation that requires us to run water \geq 5M to our unit, must be using AUSPEX or a Watermark equivalent product for all tubing runs. For our compliance the product we use to run the water from the source to our unit must be Watermarked.

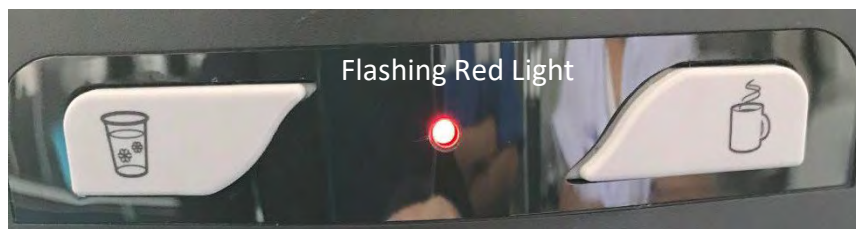
After hours sales/service – 1300 88 14 14

FAULT CODE TROUBLESHOOTING INDEX

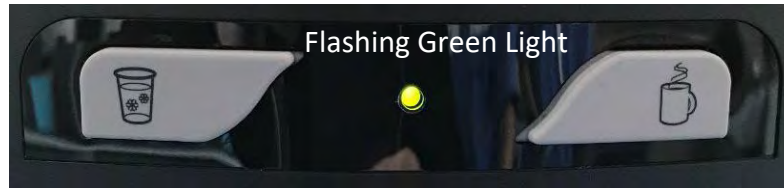
1. Continuous Red Flashing Light and Continuous Audible Alarms
2. Green Flashing Light and 15 Second Audible Alarms
3. No LED Light

1. FAULT CODE: Continuous Red Flashing Light and Continuous Audible Alarms indicate that the Leak Detector has sensed water in the Leak Tray and will shut down inlet solenoid.

| Possible Reason | Solution |
|---|--|
| <p>Water is present in the Bottom Tray, causing the leak detection to trigger.</p> <p><i>*Leak Detection is on the Mini Model only.</i></p> | <p>Remove the Top Cover and Front Panel. Tip the unit slightly to drain, dry Bottom Tray completely.</p> |
| <p>Leak in Culligan C2 Water Treatment System Mini</p> | <p>Water is in the bottom of the Culligan C2 Water Treatment System. Clear Leak Detection Tray to ensure inside of unit is dry.</p> <p>Check for source of leak and fix as necessary.</p> |



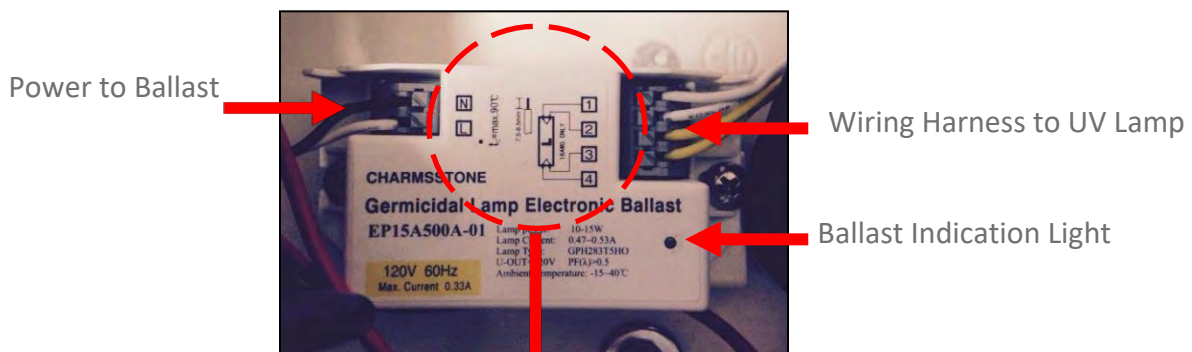
2. FAULT CODE: Green Flashing Light and 15 second Audible Alarms –Indicates the Firewall UV system is not detecting adequate dose of UV to ensure safe water.



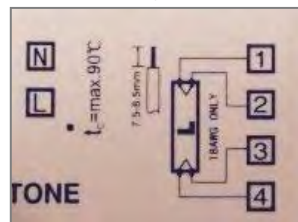
***The Cold Solenoid will shut down and no cold water will dispense. Hot water will still dispense.**

| Possible Reason | Solution |
|--|--|
| <p>Firewall UV System does not have adequate dose of UV.</p> | <p>Check UV System</p> <ol style="list-style-type: none"> 1. If Ballast Indication Light is Green – the system should be operational. Ensure UV lamp is on. Replace Lamp. If lamp is replaced and problem persists, replace UV Sensor. 2. If Ballast Indication Light is Red, change UV Lamp. 3. If Ballast Indication Light is not lit – check power to Ballast. If power is going to Ballast – replace Ballast. |

Remove Cover to locate Ballast



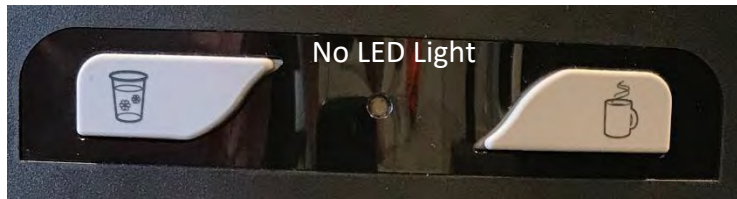
N = Black Wire
L = White Wire (Live)



1 = White Wire
2 = White Wire
3 = Yellow Wire
4 = Yellow Wire

3. **FAULT CODE: No LED Light**

| Possible Reason | Solution |
|------------------|---|
| Power Problem | Check for power disruption. |
| LED Light is out | Check that the PCB LED is operational – replace PCB as necessary. |



POWER TROUBLESHOOTING INDEX

1. Red Heater & Compressor Power Switch won't light and the Red LED on the Front won't light
2. Red Heater & Compressor Power Switch is lit but the red LED on the Front is not lit
3. Compressor Runs but does Not Chill
4. Compressor is Not Running

1. Red Heater and Compressor Power Switch won't light and the Red LED on the Front won't light

| Possible Reason | Solution |
|--|---|
| Circuit Breaker | Check the Circuit Breaker |
| Fuse is Blown | Replace Fuse |
| Defective / Loose Power Cord | Check that Power Cord is properly plugged in. If it is properly plugged in, use a different power cord to verify. |
| Failed Socket - Power Line Noise Filter, ElectroMagnetic Interference filter (EMI) | Replace Socket - Power Line Noise Filter, ElectroMagnetic Interference filter (EMI) |
| Defective Red Heater & Compressor Switch | Replace Red Heater & Compressor Switch |




2. Red Heater & Compressor Power Switch is lit but the Red LED on the Front is not lit

| Possible Reason | Solution |
|--|--|
| Bad Transformer | Replace Transformer |
| Black Power Connector to the PCB is not properly connected | Properly connect. |
| Bad Front PCB | Replace Front PCB |
| Defective Red Heater & Compressor Switch | Replace Red Heater & Compressor Switch |

3. Compressor Runs But Does Not Chill

| Possible Reason | Solution |
|---------------------------------|---|
| Condenser is dirty | Clean the condensing coil of any obstructions or dust. |
| Reduction of airflow into unit. | Make sure unit is not under minimum ventilation requirements (2 to 4 inches). |
| Compressor is running very hot. | Low or lost refrigerant. Mini should be 20 grams Free standing should be 22 grams Refrigerant recharge as necessary. |

4. Compressor is Not Running

| Possible Reason | Solution |
|---|---|
| <p>Red Heater & Compressor Switch button on unit is in the off position</p> | <p>Turn Red Heater & Compressor Switch on. <i>I = ON</i></p>  |
| <p>Compressor Starting Circuit</p> | <p>Turn Red Heater & Compressor Switch off. <i>O = OFF</i>.</p> <p>Remove the compressor cap on side of the compressor;</p> <p>Disconnect the black and red terminal connectors;</p> <p>Inspect the starter and overheat relay for any defects.</p> <p>Replace components(s) as needed.</p> <p>Turn Red Heater & Compressor Switch on <i>I = ON</i> and retest compressor operation.</p>   |

DISPENSE TROUBLESHOOTING INDEX

1. Irregular / Intermittent Dispensing from One Side
 2. Hot Water Intermittently Forced Out Through the Faucet, or a Dual Stream Out of the Faucet
 3. Dispensing won't stop when not holding the Dispensing Button
 4. Steady Drip out of Faucet
 5. Hot Water or Steam coming out of both the Faucet and the Vent Hole
 6. Hot Water coming out of Faucet Vent Hole
 7. Restricted Flow of Hot Water
 8. Hot Water Drip out of Faucet
 9. Dispenses Hot and Cold Water at the same time
 10. No cold water available
 11. Water does not dispense from unit
 12. No Water is Dispensing from One Side – Cold or Hot
 13. Cold Water dispenses from Faucet and Vent Outlet Simultaneously
 14. Small amount of water periodically dispenses from faucet automatically
 15. Dispense Buttons Stick
 16. Water Stream is at an Angle
 17. Run-On - Water continues to dispense out of faucet after releasing the dispense button
- *Also includes related instruction for Hot Tank Descaling*

1. Irregular / Intermittent Dispensing from One Side

| Possible Reason | Solution |
|--|--|
| Too much water pressure. Recommend 2.5 to 3 bar for the <i>Culligan C2 Water Treatment System</i> to operate properly. | <p>The correct input water pressure is critical to the performance of the unit to allow solenoids to open.</p> <p>Check water pressure at the inlet bulkhead with a water pressure gauge.</p> <p>Additional method of verification is to turn off water to unit and press the dispense button. Does the solenoid open without water pressure to the unit? Listen for solenoid to activate, not button “click”.</p> <p>Adjust water pressure to 2.5-3bar.</p> |
| Loose or bad connection on the Front Dispensing PCGB or Solenoid Connector | Check that they are connected properly and tightened. |
| Solenoid | <p>If both the Water Pressure and PCB have been ruled out, then it is the Solenoid.</p> <p>Replace Solenoid.</p> |
| Dispensing button is broken on PCB | Check PCB for loose or damaged button. Replace PCB as necessary. |

2. Hot Water Intermittently Forced Out Through the Faucet, or a Dual Stream Out of the Faucet

| Possible Reason | Solution |
|--|---|
| Mineral deposits on the expansion slot inside the hot tank vent chamber which blocks the normal path of water to expand. | <p>Descale Hot Tank</p> <p><u>See Hot Tank Descaling Instructions that are included further below in this Troubleshooting Section.</u></p> |

3. Dispensing Won't Stop When Not Holding the Dispensing Button

| Possible Reason | Solution |
|--|--|
| Too much water pressure. Recommend 2.5 to 3 bar for the <i>Culligan C2 Water Treatment System</i> to operate properly. | <p>The correct input water pressure is critical to the performance of the unit to allow solenoids to open.</p> <p>Check water pressure at the inlet bulkhead with a water pressure gauge.</p> <p>Additional method of verification is to turn off water to unit and press the dispense button. Does the solenoid open without water pressure to the unit? Listen for solenoid to activate, not button "click".</p> <p>Adjust water pressure to 2.5-3bar.</p> |
| Bad Display PCB | Replace Main PCB Part Number: EN-6126-A |
| Debris in the Solenoid | Inspect Solenoid for debris and clean out as needed. |
| Dispensing Button Stuck | Dirt or Foreign material is filling the gap around the push-buttons. Inspect the push buttons and clean surrounding area. Inspect faucet assembly inside the unit and clean as necessary. |

4. Steady Drip Out of Faucet

| Possible Reason | Solution |
|--------------------|--|
| Debris in Solenoid | Inspect Solenoid for debris and clean out as needed. |

5. Hot Water or Steam Coming out of both the Faucet and Vent Hole

| Possible Reason | Solution |
|---|--|
| Improper tubing attachment from the Hot Tank to Faucet or vice versa. | Check that the tubing is connected from Hot Tank Outlets to correct Faucet attachments. Connect tubing to outlets as needed. |

6. Hot Water Coming out of Faucet Vent Hole

| Possible Reason | Solution |
|--|--|
| <p>Too much water pressure. Recommend 2.5 to 3 bar for the <i>Culligan C2 Water Treatment System</i> to operate properly.</p> | <p>The correct input water pressure is critical to the performance of the unit to allow solenoids to open.</p> <p>Check water pressure at the inlet bulkhead with a water pressure gauge.</p> <p>Additional method of verification is to turn off water to unit and press the dispense button. Does the solenoid open without water pressure to the unit? Listen for solenoid to activate, not button “click”.</p> <p>Adjust water pressure to 2.5-3bar.</p> |
| <p>Improper tubing attachment from the tank to faucet or vice versa.</p> | <p>Verify tubing is connected properly from tank outlets to correct faucet attachments.</p> |
| <p>Hot Tank outlet hole is scaled over.</p> | <p>Inspect and Descale Tank as needed.</p> <p><u>See Hot Tank Descaling Instructions that are included further below in this Troubleshooting Section.</u></p> <p>See instructional video on the Partner Area of the culligan.com.au website for more information.</p> |
| <p>Expansion chamber is not sealed properly.</p> | <p>Replace the Hot Tank.</p> |

7. Restricted Flow of Hot Water

| Possible Reason | Solution |
|--|---|
| Partially closed water supply valve to the unit. | Open water supply valve. |
| Hot Tank outlet hole is scaled over. | <p>Descale Tank.</p> <p><u>See Hot Tank Descaling Instructions that are included further below in this Troubleshooting Section.</u></p> <p>See instructional video on the Partner Area of the Culligan.com.au website for more information. See instructional video on the Partner Area of the Culligan.com.au website for more information.</p> |
| Tubing is creased or has a “kink” in it. | Inspect and replace tubing as necessary. |
| Faucet nipple screen mesh has obstruction(s) | Unscrew faucet nipple from faucet and remove any obstruction(s) from screen mesh. |
| Exhausted Filter | Replace the Filter |
| Solenoid connection to the Display PCB | <p>Turn power off; unplug the <i>Culligan C2 Water Treatment System</i> and visually inspect solenoid connections into the Display PCB. Verify the soldering points on connections are secure into the board.</p> <p>Remove the PCB to inspect the front of the board.</p> |
| Solenoid Valve is Malfunctioning | Inspect valve components for proper function. Replace as necessary. |

8. Hot Water Drip out of Faucet


| Possible Reason | Solution |
|--|--|
| <p>Small Outlet Vent Hole susceptible to scale build up.</p> | <p>Descale Tank.</p> <p><u>See Hot Tank Descaling Instructions that are included further below in this Troubleshooting Section.</u></p> <p>See instructional video on the Partner Area of the Culligan.com.au website for more information.</p> |
| <p>The diagram shows a cross-section of a hot water tank. At the top, there is an expansion chamber separated from the main tank by a baffle. An outlet tube extends from the expansion chamber down into the main tank. A thermistor well is located near the heater element at the bottom. An inlet tube is at the very bottom. Labels include: HOT TANK, OUTLET TUBE, EXPANSION CHAMBER, EXPANSION SLIT, THERMISTOR WELL, HEATER ELEMENT, and INLET TUBE.</p> | <p>All Culligan Hot Tanks have a built in Vent or Expansion Chamber in the top of the tank except for WL1000(GF) units.</p> <p>The Vent Chamber allows for expansion of the water when it is heated.</p> <p>The chambers are separated by a welded-in tank baffle.</p> <p>Water always flows into the bottom of the Hot Tank and out the top to the Faucet.</p> <p>The Hot Tank Outlet Tube has a Restrictor in its base. This ensures the reservoir is always full by allowing more water in than out.</p> <p>There is a small hole in the side of the Hot Tank Outlet Tube that allows air and water to pass into the Vent Chamber as it is heated.</p> <p>Water in the Vent Chamber is suctioned back through the Outlet Tube vent hole when water is dispensed.</p> <p>Expansion of water as it is heated in the Reservoir will push the water out the faucet when the outlet tube vent hole becomes plugged with debris or scale.</p> <p>The small Outlet Vent Hole is susceptible to scale build up and is a key indicator that descaling is required.</p> <p>It is critical to descale the Hot Tank through the vent line and outlet line on a regular basis to prevent this problem.</p> <p>Descaling through the inlet and/or outlet lines only will not clean the vent chamber and outlet vent hole properly.</p> |

9. Dispenses Hot and Cold Water at the same time


| Possible Reason | Solution |
|---|--|
| <p>Too much water pressure. Recommend 2.5 to 3bar for the <i>Culligan C2 Water Treatment System</i> to operate properly.</p> | <p>The correct input water pressure is critical to the performance of the unit to allow solenoids to open.</p> <p>Check water pressure at the inlet bulkhead with a water pressure gauge.</p> <p>Additional method of verification is to turn off water to unit and press the dispense button. Does the solenoid open without water pressure to the unit? Listen for solenoid to activate, not button “click”.</p> <p>Adjust water pressure to 2.5-3bar.</p> |
| <p>Hot or Cold solenoid is stuck open.</p> | <p>Remove Top Cover.</p> <p>Check Hot Solenoid: Dispense cold water and visually inspect tubing for water flow from both tanks.</p> <p>Check Cold Solenoid: Disconnect Elbow from outlet of Cold Solenoid. Select hot water and dispense (quickly releasing Dispensing Button to avoid much water coming out of Cold Solenoid.</p> <p>Replace Solenoid as necessary.</p> |

10. No Cold Water Available

| Possible Reason | Solution |
|---|--|
| <p>Too much water pressure. Recommend 2.5 to 3bar for the <i>Culligan C2 Water Treatment System</i> to operate properly.</p> | <p>The correct input water pressure is critical to the performance of the unit to allow solenoids to open.</p> <p>Check water pressure at the inlet bulkhead with a water pressure gauge.</p> <p>Additional method of verification is to turn off water to unit and press the dispense button. Does the solenoid open without water pressure to the unit? Listen for solenoid to activate, not button “click”.</p> <p>Adjust water pressure to 2.5-3bar.</p> |

| | | |
|--|--|---|
| Closed Water Supply Valve | Open the Water Supply Valve | |
| Cold Water Solenoid Valve malfunction | Inspect the valve components for proper functionality. | |
| Red Heater & Compressor Switch on unit is off. | <p>If water is dispensing at room temperature:</p> <p>Turn Red Heater & Compressor Switch on. <i>I = ON</i></p> |  |
| Loose connection(s) on the Display PCB | Turn power off; unplug the Culligan C2 Water Treatment System and visually inspect solenoid connections into the Display PCB. Verify the soldering points on connections are secure into the board. | |
| Exhausted Filter | Remove the PCB to inspect the front of the board. Replace filters as needed. | |
| Water Pressure is too high | <p>Ensure input water pressure is between 2.5-3bar; Install pressure reducer or regulator.</p> <p><i>The correct input water pressure is critical to the performance of the unit to allow solenoids to open.</i></p> | |

11. Water does not dispense from Unit

| Possible Reason | Solution |
|---|--|
| <p>Too much water pressure. Recommend 2.5 to 3 bar for the Culligan C2 Water Treatment System to operate properly.</p> | <p>The correct input water pressure is critical to the performance of the unit to allow solenoids to open.</p> <p>Check water pressure at the inlet bulkhead with a water pressure gauge.</p> <p>Additional method of verification is to turn off water to unit and press the dispense button. Does the solenoid open without water pressure to the unit? Listen for solenoid to activate, not button “click”.</p> <p>Adjust water pressure to 2.5-3bar.</p> |
| <p>Closed water supply valve</p> | <p>Open the water supply valve.</p> |
| <p>The unit is not properly plugged into electrical outlet</p> | <p>Check electrical outlet connection, or for blown circuit breaker.</p> |
| <p>Red Heater & Compressor Switch button on unit is in the off position</p> | <p>Turn Red Heater & Compressor Switch on. <i>I = ON</i></p>  |
| <p>10 Amp Fuse Blown</p> | <p>Replace the 10 Amp Fuse as needed.</p> |
| <p>Water is present in the Bottom Tray, causing the Leak Detection to trigger</p> | <p>Remove the Top Cover and Front Panel. Tip the unit slightly to drain, dry Bottom Tray completely.</p> |
| <p>Hot and Cold Solenoid connections into the Display PCB are loose.</p> | <p>Turn power off; unplug the Culligan C2 Water Treatment System and visually inspect Solenoid connections into the Display PCB. Verify the soldering points on connections are secure into the board.</p> |
| <p>Exhausted Filter</p> | <p>Remove the PCB to inspect the front of the board. Replace filters as needed.</p> |

12. No Water is Dispensing from One Side – Cold or Hot

| Possible Reason | Solution |
|--|--|
| <p>Too much water pressure.</p> <p>Recommend 2.5 to 3bar for the <i>Culligan C2 Water Treatment System</i> to operate properly.</p> | <p>Verify water pressure at the Inlet Bulkhead with a Pressure Regulator.</p> <p>Additional method of verification is to turn off water to unit and press the Dispense Button. Does the Solenoid open without water pressure to the unit? Listen for solenoid to activate, not the Dispense Button “click”.</p> <p>Adjust water pressure to 2.5-3bar. <i>The correct input water pressure is critical to the performance of the unit to allow solenoids to open.</i></p> |
| PCB | <p>Switch the hot and cold wires on PCB (red and blue connections).</p> <p>If water now dispenses from the opposite side, this is an indication that there is a PCB problem.</p> <p>Replace PCB</p> |
| Solenoid | <p>If both the Water Pressure and PCB have been ruled out, then it is the Solenoid.</p> <p>Replace Solenoid.</p> |
| See <u>“Green Flashing Light” Fault Code Section of this Manual</u> | Indicates the Firewall UV system is not detecting adequate dose of UV to ensure safe water. |

13. Cold Water Dispenses from Faucet and Vent Outlet Simultaneously

| Possible Reason | Solution |
|---|---|
| Improper tubing attachment from the Cold Tank to Faucet or vice versa | Verify tubing is connected properly from Cold Tank Outlets to correct Faucet attachments. |
| Scale has formed inside Cold Tank outlet tube. | Remove Cold Water Outlet Tube from Cold Tank to Faucet. Pour some scale remover into Cold Tank. |
| Expansion chamber in Cold Tank is not sealed properly. | Replace Cold Tank. |


14. Small Amount of Water Periodically Dispenses from Faucet Automatically

| Possible Reason | Solution |
|---|--|
| <p>Too much water pressure. Recommend 2.5 to 3 bar for the Culligan C2 Water Treatment System to operate properly.</p> | <p>The correct input water pressure is critical to the performance of the unit to allow solenoids to open.</p> <p>Check water pressure at the inlet bulkhead with a water pressure gauge.</p> <p>Additional method of verification is to turn off water to unit and press the dispense button. Does the solenoid open without water pressure to the unit? Listen for solenoid to activate, not button “click”.</p> <p>Adjust water pressure to 2.5-3bar.</p> |
| <p>Cold or Hot Water solenoid valve malfunction</p> | <p>Inspect valve components for proper function. Replace as necessary.</p> |
| <p>Obstruction in solenoid housing is preventing proper sealing of component.</p> | <p>Pre-determine whether water being dispensed is hot or cold.</p> <p>Isolate the water supply; push the DISPENSE button to release the line pressure, and remove the coil affixed to the solenoid stem.</p> <p>Remove the stem from the solenoid housing and allow water from the tank to flush out the contaminant(s).</p> |

15. Dispense Buttons Stick

| Possible Reason | Solution |
|---|--|
| <p>Dirt or Foreign material is filling the gap around the Dispense Buttons.</p> | <p>Inspect the Dispense Buttons and clean surrounding area. Inspect Faucet Assembly inside the Culligan C2 Water Treatment System and clean as necessary.</p> |

16. Water Streams at an Angle

| | Solution |
|---|--|
|  | <p>Rotate the Bung (Blue Silicone) and the JG fittings a few degrees.</p> |
| <p>Water Feed Pressure</p> | <p>Verify the Incoming Feed with a Pressure Regulator. Should be 2.5-3bar, Use Pressure Regulator</p> <p><i>The correct input water pressure is critical to the performance of the unit to allow solenoids to open.</i></p> |
| <p>Outgoing Flow Rate</p> | <p>Verify the outgoing Flow Rate. Should be 1.89 Litres per minute (0.5 gallons per minute) - Firewall Purification.</p> <p>Dispense water for one minute – should measure 1.89 Litres (0.5 gallons) per minute</p> <p>Change Flow Restrictor if needed.</p> |

17. Run On – Water continues to dispense out of faucet after releasing the dispense button

Reason

“Run On” or “Carry On” is present in all Culligan pressure fed units without outlet solenoids.

“Run On” is defined as the amount of water that continues to dispense out of the faucet after releasing the dispense button.

Run On exists because the tanks pressurize as water is being dispensed. Every Culligan tank has an outlet restrictor to ensure the tanks remain full of water and water is controlled as it is released to the faucet. The inlet solenoid controls flow into the tanks. The tanks will “depressurize” once the dispense button is released the inlet solenoid closes. A small amount of water will “Run On” through the faucet as the tank depressurizes to atmospheric conditions.

Typical “Run On” is 2-3 seconds.

“Run On” can be reduced by installing a pressure limiting device.

The amount of inlet or supply pressure directly impacts the amount of “Run On” as quantified below.

Culligan Lab Testing of Run On

| Pressure Static Bar | Pressure Dynamic Bar | Time 4 Litres | Flow Rate l/min | Run On Seconds |
|------------------------|-------------------------|------------------|--------------------|-------------------|
| 4.6 | 2.7 | 61 | 2.9508197 | 3 |
| 3.4 | 2 | 72 | 2.5 | 2.5 |
| 2.2 | 1.3 | 92 | 1.956217 | 2 |

Pressure measured at inlet line to unit. Static with unit closed. Dynamic with unit dispensing cold water.

No filters were installed in unit.


HOT TANK DESCALING INSTRUCTIONS

The Hot Tank requires removal of mineral deposits (descaling) on a regular basis. Typically descaling should take place every 6 to 12 months to preserve the long-term health of your unit.

Use non-toxic cleaner such as ScaleKleen, DEZCAL or Citric Acid Descale Solution to remove mineral deposits as directed by the manufacturer depending upon filtration and local water conditions.

Descaling is an important process that removes calcium deposits, or scale, that can build up inside a tank over time. Calcium and scale is non-toxic but left unattended will hinder your unit's performance.

 **WARNING!** *PERSONAL PROTECTIVE EQUIPMENT REQUIRED.* Always ensure proper ventilation and use rubber or nitrile gloves and eye protection when using chemicals. Refer to Material Safety Data Sheet for specific requirements of each product.

 **CAUTION!** *STAINLESS STEEL TANK DESCALING.* The Hot Tank is made from stainless steel. Ensure descaling solution is compatible with stainless and always flush the unit completely. Dispose in an environmentally safe manner.


Materials Needed:


- Personal Protective Equipment. Rubber or Nitrile Safety Gloves and Protective Eyewear
 - Phillips Screwdriver
 - Temperature Gauge
 - Water Pitcher or Container to collect water from the faucet
 - 20 Litre container or drain basin
 - Citric Acid Based Cleaner
 - ¼" Plastic Tubing, at least 1m in length, and assorted ¼" quick connect fittings
 - Empty Cartridge
9. Put descaler as per directions into the descaling cartridge.
 10. Connect descaling cartridge to the inlet water supply and connect to inlet bulkhead fitting on the back of the **Culligan C2 Water Treatment System**. Turn on Water Supply.
 11. Select Hot Water and depress the Main Dispensing Button on the Front Control Panel until descaling solution (slightly cloudy coloured water) comes out of the faucet. Container and drain basin will be required to catch water from the faucet.
 12. Turn off water supply and remove descaling cartridge from inlet water supply. Reconnect water supply to inlet fitting.
 13. Allow descaling solution to remain in the Hot Tank for a minimum of 15 minutes (length of time may vary depending on water conditions).

14. Place a pitcher, catch basin or other container under the faucet of the **Culligan C2 Water Treatment System**.

15. Flush the Hot Tank until water runs clear.

16. Once clear Water dispenses from the faucet the Hot Tank has been descaled. Always ensure the **Culligan C2 Water Treatment System** is performing to the customer's satisfaction.


 **WARNING! HOT WATER.** *The Culligan C2 Water Treatment System produces Hot Water up to 87°C (187°F). Water above 52°C (125°F) can cause severe burns or scalding. Hot water should be dispensed carefully into insulated container to avoid injury.*

 **CAUTION! MUST REPLACE HOT TANK 3-5 YEARS DEPENDING ON USAGE.** *The Hot Tank and its controls must be replaced a minimum of every three to five years to ensure efficient and dependable operation.*

 **WARNING! REINSTALL ALL PANELS AND COVERS.** *Always reinstall all Panels, Protective covers, and fasteners after servicing equipment. Failure to do so could result in severe personal injury and will void the certifications and warranty of the equipment.*

COLD WATER TROUBLESHOOTING INDEX

1. Cold Water is not Cold 5°± -3°C (41°± 5°F)

| Possible Reason | Solution |
|--|--|
| No power or refrigeration elements | <p>Check that the Red Heater & Compressor switch is on.</p> <p>Turn Red Heater & Compressor Switch on. <i>I = ON</i></p>  |
| <p>Tank has run out of cold water.</p> <p><i>Cold tank capacity is 4 Litres (1 Gallon) for Free standing and 2 Litres (½ Gallon) for Mini.</i></p> | <p>Wait for Cold Tank to chill water to temperature prior to dispensing more cold water.</p> <p>Greater capacity Culligan Water Treatment Systems are available.</p> |
| Cold Water Thermostat | Check continuity of Thermostat with multimeter. Replace Thermostat as required. |
| Refrigerant has run out | Run Compressor for at least ten minutes. If Condenser is not warm, then refill the refrigerant. |
| Compressor problem | If Compressor is not running, repair or replacement is needed. |

Note: The Culligan Firewall reduces 6-log of waterborne bacteria, 5-log of viruses, and 4-log of parasites potentially found in the drinking water. A small amount (about 50ml) of water remains in the Firewall device after dispensing. This water does not remain permanently chilled, and will eventually become room temperature after several hours. To ensure the next glass of water dispensed is adequately chilled, Culligan recommends dispensing 100ml or more cup of water after long periods of inactivity. The first 50ml will be near room temperature, and the remaining 100+ml will be very cold. The mixture of these two temperatures will provide for an adequately refreshing, cold drink.

HOT WATER TROUBLESHOOTING INDEX

1. Hot Water is not Hot 86°± -1.5°C (187°± 5°F)

Also includes related instructions for:

- *Disabling Energy Star Sleep Mode*
- *Resetting the Hot Tank Overheat or High Safety Limit*
- *Programming “Changing Hot Water Mode to Ambient Water Mode”*


The Hot Temperature set point is 85°C (185°F) and is controlled by a thermostat on the side of the Hot Tank.

There is a resettable overheat or high limit safety above the thermostat on the side of the Hot Tank that will trip to prevent damage to the unit if the tank is dry heated (turned on without water in it).

The **Culligan C2 Water Treatment System** is programmable to make Cold / Ambient water – refer to Disabling Sleep Mode instructions included further below in this Troubleshooting Section.



The **Culligan C2 Water Treatment System** does NOT have Extra Hot capability and the maximum hot temperature is 87°C (189°F).





It typically takes 10 minutes for the 500W to heat the 1.5 litre (0.4 Gallon) of room temperature (ambient) water to the 85°C (185°F) set point.

| Possible Reason | Solution |
|--|---|
| No Power | Check that the Red Heater & Compressor switch is on. Turn Red Heater & Compressor Switch on. <i>I = ON</i>  |
| Is unit in Energy Star Sleep Mode? | If no water has been dispensed for 3 or more hours, unit goes into sleep mode. Dispense hot water, wait 5 minutes, check temperature. If unit still does not heat proceed to “No power to Heater elements” below. |
| Hot Tank Overheat Tripped <i>Overheat is a safety feature to ensure the tank does not overheat.</i> | Overheat will “click” when pushed. The overheat is automatically reset when pressed. <u>See Resetting the Hot Tank Overheat or High Limit Safety Instructions that are included further below in this Troubleshooting Section</u> |

| | |
|---|---|
| <p>Thermostat or overheat “open” on Hot Tank</p> | <p>Turn Power off. Check OHM’s resistance across terminals on each Thermostat and Overheat separately.</p> <p>Good components will indicate a closed circuit (continuity) or zero OHM’s on the meter.</p> <p>Replace components as necessary.</p> |
| <p>Loose or improperly connected wire(s) to the Heating Element / Hot Tank.</p> | <p>Visually inspect wire leads going to the hot tank; confirm proper connections to the heating elements.</p> <p>Hot tank life is 3-5 years, depending on usage.</p> |
| <p>Heating Coil Not Heating</p> | <p>Turn Power off; Drain hot tank; Use multi-meter to check Heater Element for continuity up to 96.8Ω – 115.2Ω resistance.</p> <p>Hot Tank must be empty if you are checking for continuity.</p> <p>Replace Hot Tank as necessary.</p> |
| <p>Improper Jumper Settings</p> | <p>The unit has been changed to a cold/ambient setting (JP9 has been moved from Pin 1 and Pin 2).</p> <p>Verify that Jumper Pins are located properly for Hot Water Option.</p> |

RESETTING THE HOT TANK OVERHEAT OR HIGH LIMIT SAFETY

| | |
|----|--|
| | |
| 1. | <p>Red Compressor/Heater Switch must be in the <i>O=OFF</i> position</p>  |
| 2. | <p>Unplug the Power Cord from rear of <i>Culligan C2 Water Treatment System</i>.</p> |
| 3. | <p>Free standing Model: Remove the <u>Lower Front Panel</u> by removing the Phillips Head Screws underneath the Lower Front Panel.</p> <p>Mini Model: Remove the <u>Side Panel</u> by removing Phillips Head Screws from Side Panel.</p> |
| 4. | <p>Locate the Protective Metal Box on the rear of the Hot Tank. Looking through the condenser coils on the rear of the unit, you will see the Hot Tank located on the right-hand side.</p> |
| 5. | <p>From the front of the Water Treatment System, reach up behind the hot tank and take hold of the protective metal box covering the thermostat and overheat on the hot tank.</p> <p>There are nuts that secure the Protective Metal Box to the Hot Tank, are loose enough to allow you to remove the Protective Metal Box.</p> <p>If the nuts on the metal box are too tight, loosen the nuts securing the Hot Tank to the upper base of the <i>Culligan C2 Water Treatment System</i> unit and lower the Hot Tank so you can remove the Protective Metal Box.</p>  |

| | |
|------------|---|
| <p>6.</p> | <p><i>For demonstrative purposes, photos below have lowered the hot tank from the unit.</i></p> <p>Press the reset button</p>   |
| <p>7.</p> | <p>Reattach the Protective Metal Box by depressing the top flap of the Protective Metal Box so it snaps back into its original position on the Hot Tank.</p>  |
| <p>8.</p> | <p>Replace the Lower Front Panel.</p> |
| <p>9.</p> | <p>Plug in the Power Cord.</p> |
| <p>10.</p> | <p>Turn on the Red Compressor/Heater Switch <i>I=ON</i> position</p> <p>The Hot and Cold tanks must be filled with water BEFORE turning on the Red Heater and Compressor Switch.</p>  |
| <p>11.</p> | <p>Verify the cooler is fully operational before installing it at the customers' site.</p> |

CONTACTLESS – PEDALS

Safety

Culligan technical manuals cover voltages of both 120v and 220v for all markets where Culligan operates. Please ensure that you carefully read the information in this manual and for any parts specific to any market, refer to your technical agreement or specific part listing. The below is not a step by step working practice and only trained members of staff are to follow these instructions.

Caution! Please ensure the retrofit of Culligan foot pedal systems are only carried out by trained and experienced

technicians. The Culligan foot pedal system retrofit is NOT to be carried out by ANYONE who is not experienced or trained on Culligan systems.

Warning! Take extreme caution when working with electricity, safe isolation processes MUST be followed before carrying out any retrofit work.

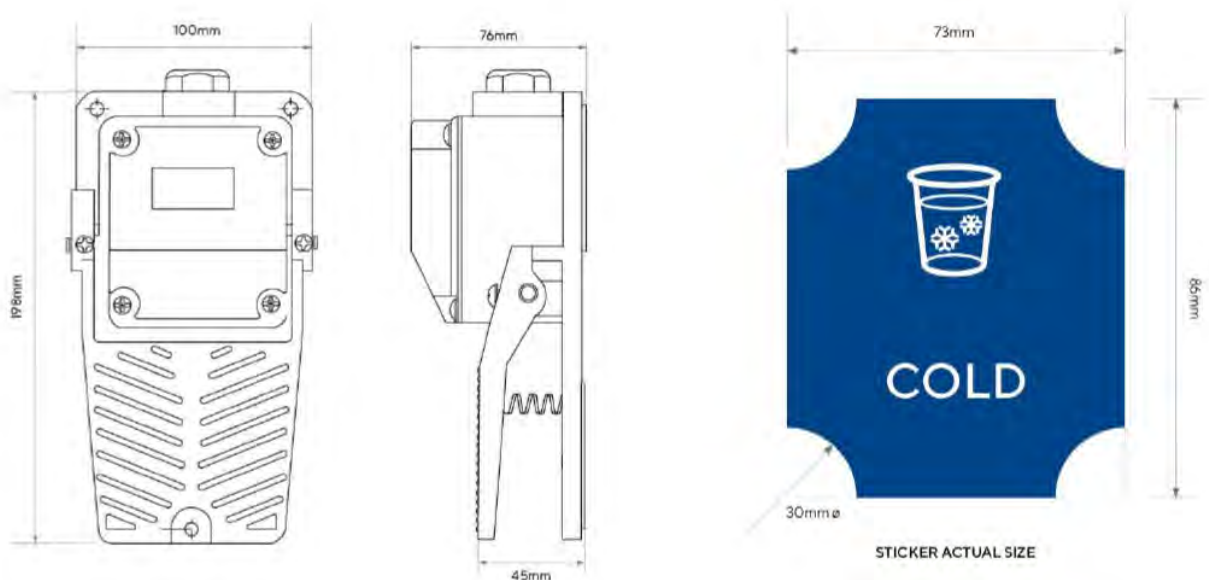
Do not operate if damaged! If the machine or supply cord is damaged, it must be replaced by the manufacturer, its service agent or similarly qualified persons in order to avoid a hazard.

What is the Culligan Foot Pedal System?

Culligan has produced a hands-free solution to help our end customers achieve the highest hygiene standard in the workplace. Our foot pedals fit most of our dispensers (including Table Tops) providing access to the same great quality water.

Each pedal operates a water type from cold, sparkling, ambient to hot. Please note that there is not an “extra hot” pedal. These pedals can be stickered with the water type for easy user selection (labels provided). For the WL7 one pedal toggles between water types and the other dispenses.

Culligan Foot Pedal Specification



Installation

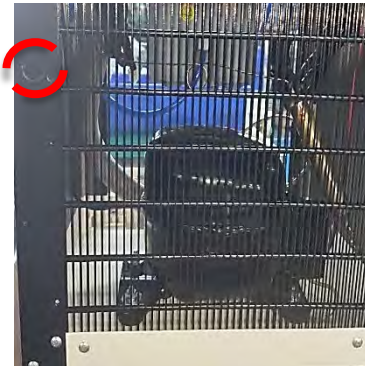
It is advised to turn off the water supply to the machine and disconnect the water supply during these steps to make it easier to manoeuvre the machine. If you have enough working space around you, this step is not necessary.

Safely isolate the Culligan C2 from the main power supply. To do this, remove the power plug from the mains socket and unplug the other side of the power harness from the back of the machine. Place the power lead in a safe position away from any water or trip hazard locations – It is recommended to place in your tool bag.

For Mini Models only: Using appropriate personal protective equipment, drill 17mm hole into the back of the machine as per below location. Take extreme caution while doing this task.



For Free Standing models only: Carefully knock through the knockout hole for the pedal wire harness to go through. It may be necessary to enlarge the knockout hole using a 17mm drill bit for the grommet to fit appropriately.



Fit the rubber grommet into the hole that has either been drilled for mini models or knocked out for free standing models. The grommet is used to protect the harness as it goes through the machine.

If required, remove existing UI PCB and replace with the new pedal kit PCB (Ensure the correct PCB kit number is used for your market). Place the appropriate labels on the pedals to ensure the correct pedal matches with the correct water option. Place the pedals either side of the machine and carefully feed the foot pedal harnesses through the grommet. Connect the pedal harness to the correct water option at the PCB. It is recommended that the pedals are located in such a way that they do not pose any trip hazard or safety risk and the location of the pedals is cornered off by hazard tape.



CONTACTLESS – INFRA-RED

Safety

Culligan technical manuals cover voltages of both 120v and 220v for all markets where Culligan operates. Please ensure that you carefully read the information in this manual and for any parts specific to any market, refer to your technical agreement or specific part listing. The below is not a step by step working practice and only trained members of staff are to follow these instructions.

Caution! Please ensure the retrofit of Culligan foot pedal systems are only carried out by trained and experienced

technicians. The Culligan foot pedal system retrofit is NOT to be carried out by ANYONE who is not experienced or trained on Culligan systems.

Warning! Take extreme caution when working with electricity, safe isolation processes MUST be followed before carrying out any retrofit work.

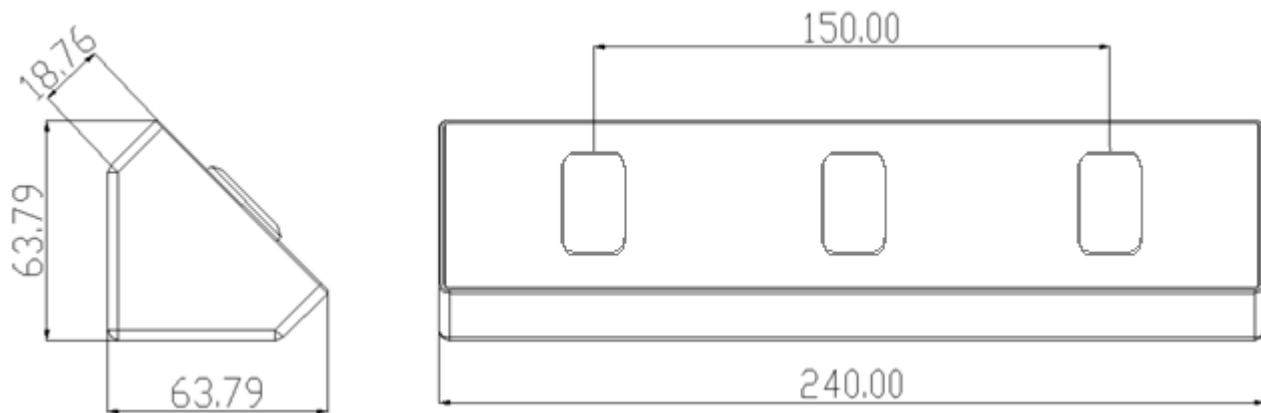
Do not operate if damaged! If the machine or supply cord is damaged, it must be replaced by the manufacturer, its service agent or similarly qualified persons in order to avoid a hazard.

What is the Culligan IR System?

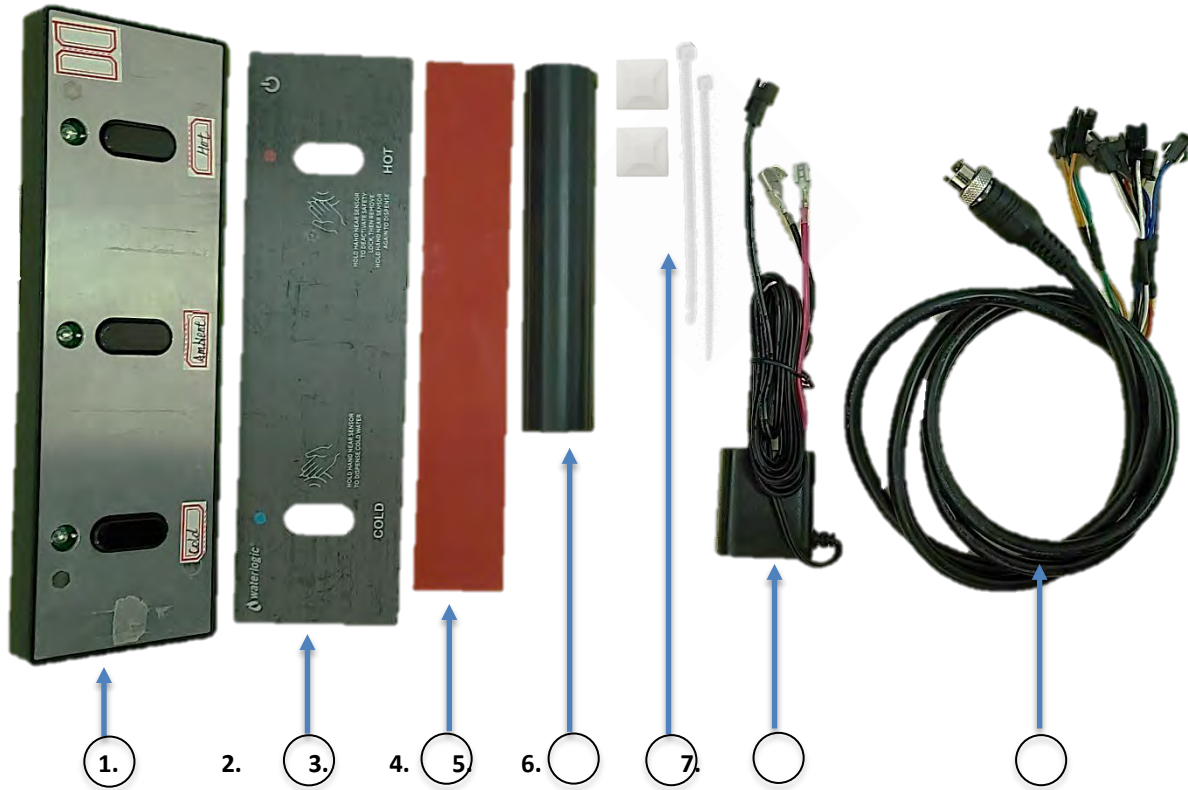
Culligan has produced a hands-free solution to help our end customers achieve the highest hygiene standard in the workplace. Our IR module fit most of our dispensers (including Table Tops) providing access to the same great quality water.

The IR module operates all water types from cold, sparkling, ambient to hot. PCBs will need to be replaced in order for the IR module to work with our machines.

Culligan IR Module Specification



What is included in the IR Module Kit?



| Item Number | QTY | Description |
|-------------|-----|----------------------------------|
| 1. | 1 | IR Module |
| 2. | 1 | UI Label |
| 3. | 1 | Double sided tape for attachment |
| 4. | 1 | IR Module wire trunking 150mm |
| 5. | 2 | Cable tie with mount |
| 6. | 1 | Power adaptor |
| 7. | 1 | Signal/power cable for IR module |

Installation

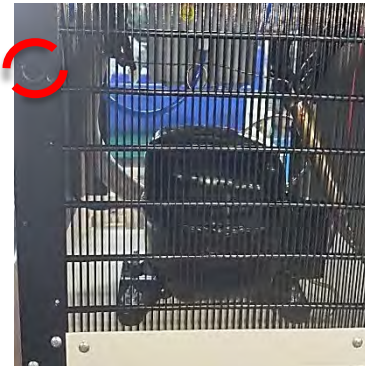
It is advised to turn off the water supply to the machine and disconnect the water supply during these steps to make it easier to manoeuvre the machine. If you have enough working space around you, this step is not necessary.

Safely isolate the Culligan C2 from the main power supply. To do this, remove the power plug from the mains socket and unplug the other side of the power harness from the back of the machine. Place the power lead in a safe position away from any water or trip hazard locations – It is recommended to place in your tool bag.

For Mini Models only: Using appropriate personal protective equipment, drill 17mm hole into the back of the machine as per below location. Take extreme caution while doing this task.



For Free Standing models only: Carefully knock through the knockout hole for the pedal wire harness to go through. It may be necessary to enlarge the knockout hole using a 17mm drill bit for the grommet to fit appropriately.



Fit the rubber grommet into the hole that has either been drilled for mini models or knocked out for free standing models. The grommet is used to protect the harness as it goes through the machine.

For newer freestanding and mini models, the cut out and grommet has already been pre installed for you and there is no need to follow the above steps.

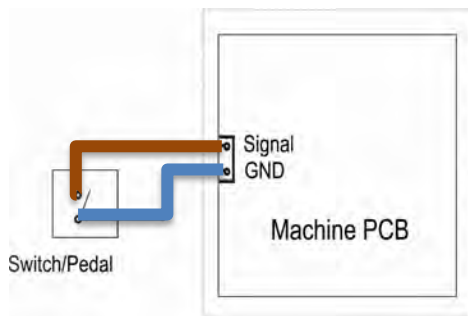
Install the UI PCB and IR Module

If required, remove existing UI PCB and replace with the contactless PCB kit. Please ensure the correct UI PCB is fitted to the correct water options version of the machine you are carrying out the contactless retrofit to.

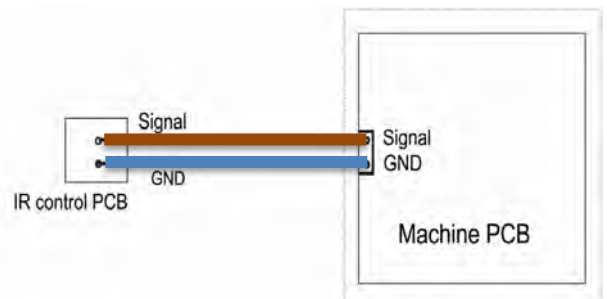


IR Module PCB connection

Pedal PCB Connections



IR Module PCB Connections



Ensure the correct IR module water options is used in the correct machine, for example, Hot and Cold IR module is used with a Hot and Cold model. When connecting the IR module to the PCB, ensure Hot is connected to Hot and Cold is connected to Cold.

It is also important to make sure the signal and ground wires are connected the correct way. Due to the pedal system not requiring correct polarity, ensure signal and ground are connected correctly for the IR module.

Helpful tip: If the IR module does not operate, the signal and ground may be the wrong way around, by switching the signal and ground around the other way may solve the issue.

