



**Poseidon NZ**



World Class Water Purifiers

## **PORTABLE WATER COOLER WITH INTEGRATED WATER PURIFICATION/STERILISATION SYSTEM**



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## **1.0 OPERATIONS & IDENTIFICATION OF THE PORTABLE WATER COOLER**

### **1.1 IDENTIFICATION OF PARTS SCHEDULE**

<b>PART No.</b>	<b>IDENTIFICATION</b>
<b>1</b>	<b>Outer Casing</b>
<b>2</b>	<b>Water Tank Level Indicator</b>
<b>3</b>	<b>Compressor Compartment Air Ventilation Louvers (side)</b>
<b>4</b>	<b>Drinking Water Dispersal Tap</b>
<b>5</b>	<b>Hand Sanitizer Compartment</b>
<b>6</b>	<b>Water Tank Inlet Filling Point</b>
<b>7</b>	<b>Compressor Compartment Air Ventilation Louvers (rear)</b>
<b>8</b>	<b>Electrical Lead Compartment</b>
<b>9</b>	<b>Electrical AC Lead with RDC Protector</b>
<b>10</b>	<b>Electrical DC Lead</b>

## 1.2 IDENTIFICATION OF PARTS

1. Outer Casing – Hi-Vis Orange – Hi-Impact Resistant Rotational Moulded Plastic



2. Water Tank Level Indicator

4. Drinking Water Tap

3. Air Ventilation Louvers for Compressor compartment (side)

5. Hand Sanitizer Dispenser

6. Water Tank Inlet Filling Point

- 7. Air Ventilation Louvers for Compressor compartment (rear)



- 8. Electrical Lead Compartment

- 9. Electrical AC Lead with RCD Protector

- 10. Electrical DC Lead

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## **2.0 OPERATIONS**

### **2.1 ENVIRONMENT OF USE**

2.1.1 The Portable Drinking Water Cooler is designed to operate in exposed environmental conditions.

### **2.2 PLACEMENT OF FIT OF THE COOLER**

2.2.1 The Portable Drinking Water Cooler is designed to be fitted to the exterior of a vehicle, or placed in the rear compartment area.

### **2.3 FILLING POINT**

2.3.1 Filling of the Cooler is via the front located bottom right Filling Point – this utilizes a common Nylex type snap on hose fitting.

**NOTE: Filling the unit with a Food Quality non-toxic hose should be ensured.**

### **2.4 WATER LEVEL INDICATOR**

2.4.1 The Cooler has a User Water Level Indicator Tube, which gives a visual reference to the capacity of the Water Holding Tank.

### **2.5 FILLING AUTOMATIC SHUT-OFF**

2.5.1 When filling the unit from a domestic water supply, the water will automatically turn off, via the Ballcock Device fitted inside the Water Tank, once the 20ltr Water Tank is full.

**2.6 VOLTAGE FOR OPERATIONS OF THE COOLER**

2.6.1 Operations of the Cooler are via either 220VAC or 12VDC via electrical leads provided with the Cooler.



## 2.7 AUTO SENSING VOLTAGE SUPPLY

- 2.7.1 Automatic voltage sensing systems will automatically switch from 220VAC to 12VDC upon the disconnection of the 220VAC Electrical lead, which is fitted with an RCD Protection Device.

## 2.8 AIR VENTILATION OF THE COMPRESSOR

- 2.8.1 When used either on the back of a flatbed truck or in the rear compartment of a vehicle, care should be taken to ensure an adequate supply of circulated air can access the Air Ventilation Louvers for the Coolers Compressor compartment. Do not place these hard up against the side of a cab which will restrict airflow.

### **3.0 FILTER OVERVIEW**

#### **3.1 FILTER LIFE**

3.1.1 The Drinking Water Cooler utilizes a sophisticated Filtration/Sterilisation system, entailing the use of a 3 stage filtration process.

3.1.2 Based on use of a typical domestic treated water supply, the Filters should last approximately 30,000 – 60,000 litres

#### **3.2 FILTRATION PROCESS**

3.2.1 Filtration process is as follows:

Stage One: 1-3 Micron Depth Filter

Stage Two: Iodine Rinse Filter

Stage Three: Carbon Rinse Filter

#### **3.3 INDEPENDENT TESTS**

3.3.1 See later in this manual for Independent Tests of the Filtration system, with appropriate cautions noted.

#### **3.4 IODINE DESCRIPTION**

3.4.1 The Iodine content in the water will continue to kill Bacteria, Viruses and Cysts, post the Filtration process. This will assist in keeping the Water Tank hygienic and clean, and offer a greater level of protection of the water for personal use.

## **4.0 TAP OPERATION**

### **4.1 ACCESS OF WATER VIA THE TAP**

4.1.1 Water dispersal is via the User Tap - a pressurised system – when the tap is depressed, water will flow from the outlet Tap freely.

### **4.2 CLEANING OF TAP**

4.2.1 Frequent cleaning of the Water dispersal Tap should be undertaken by Users to ensure a clean bacteria free supply of water.

## **5.0 ELECTRICAL INSPECTIONS OF POWER LEADS**

### **5.1 COMPLIANCE**

- 5.1.1 NOTE: Regular inspection of the Electrical Leads for Fit For Purpose must be undertaken by an Approved person – in some cases Electrical Lead Approval Tags may be required to be replaced every 3 – 4 months – it is the Hirers responsibility to ensure compliance of the unit with all aspects of Electrical requirements.

## **6.0 RECOMMENDATIONS FOR POWER USE**

### **6.1 OVERNIGHT CHILLING OF WATER VIA 220VAC**

6.1.1 It is recommended that the unit be plugged in to a 220VAC overnight – this will allow for the water to be chilled to the temperature set and ready for immediate use during the following day.

### **6.2 BATTERY PRE-CAUTIONS**

6.2.1 This process will minimise the Voltage draw on the vehicles battery, ensuring adequate battery voltage for the vehicles starting process.

### **6.3 OPERATIONS OF THE COOLER WITHOUT 220VAC ACCESS**

6.3.1 If a 220VAC is not available for the overnight chilling, the unit can be operated from the vehicles 12VDC battery, which is suggested to be used whilst the vehicle is on route to its destination – it is recommended that the vehicle should run for at least one hour during this process to ensure adequate starting voltage for the vehicles battery.

## **7.0 OPERATIONS OF THE COOLER**

### **7.1 FILLING THE DRINKING WATER COOLER**

7.1.1 Fill the Drinking Water Cooler, via connecting a hose with a standard Nylex type Garden Hose connector, to the Inlet Hose connection of the Cooler, located at the bottom right hand corner of the Water Cooler casing.

### **7.2 DETERMINING THE WATER LEVEL**

7.2.1 Using the User Visual Water Level Tube located on the right hand side of the Cooler to determine the Water level (looking at the unit).

### **7.3 FILLING AUTO SHUT OFF**

7.3.1 Water flow will automatically stop via the Ball Cock device located within the tank when the Water Holding Tank is full.

### **7.4 DISCONNECTION OF THE FILLING HOSE**

7.4.1 Disconnect the filling hose from the Water Inlet connection on the Portable Water Cooler via the Nylex snap fitting.

### **7.5 CONNECTION OF THE AC ELECTRICAL LEAD**

7.5.1 Connect the 220VAC (where possible) to an approved mains supply power connection.

### **7.6 WATER TEMPERATURE SETTING**

7.6.1 The Portable Water Cooler has been factory pre-set to chill the water to approximately 8 degrees C.

## 7.7 WATER CHILLING TIME VIA AC CONNECTION

7.7.1 Via the 220VAC connection, the unit will take approximately 1.5 – 2 hours to chill the water to 8 Degrees C.

## 7.8 TEMPERATURE AUTO SHUT OFF POWER

7.8.1 Upon reaching approximately 8 Degrees C, the Cooler will automatically switch off and power draw will cease.

7.8.2 Connect the 12VDC lead via the simple connector supplied to allow for Cooler operation throughout the day from the vehicles battery.

## 7.9 WATER DISPERSAL VIA THE TAP

7.9.1 Water dispersal is obtained via the User Tap – pulling the lever fully down on the Tap will allow water to flow via the pressurised water system.

## 7.10 HAND SANITIZER

7.10.1 A Hand Sanitizer compartment is provided on the left hand side of the unit for User to clean hands prior to touching the Drinking Water Tap.

## 7.11 WATER SOURCES SUITABLE TO THE COOLER

7.11.1 The Drinking Water Tank can be filled from water sources other than a treated domestic water supply – the Cooler can be filled from a Challenged Water supply, but not recommended as the filters may require replacement sooner.

## 7.12 LOW WATER LEVEL SENSOR

7.12.1 The Cooler has a Low Water Level sensor – upon the Cooler running low on water, a shut off sensor will turn the Compressor off, to stop Compressor damage.

## **8.0 OPERATIONAL SPECIFICATIONS**

- Robust Hi-Vis – Hi-Impact resistant rotational moulded construction
- Designed to offer chilled hydration for remote field workers of teams of 3 – 10 people
- Filter Treatment capability: up to 30,000 – 60,000 litres between simple cartridge change
- Weight: 40 kg dry
- Voltage 12VDC – 220VAC, auto voltage sensing
- Filters Depth Filters  
Iodine Patented Filters  
Activated Carbon Filters
- Capacity 20ltrs
- Water Temperature Approx. 8 Degrees C (User setting capable)
- Dimensions: 73cm high x 43cm Wide x 50cm Deep
- Power Consumption: approx. 5 amps per hour
- Run Time at Temp. approximately 15 minutes once every 90 minutes
- Run times per 8 hr day approximately 5  
Total Power 25 - 40amps dependent upon environmental conditions