

# **CONVERSION MANUAL**

MobileMAX Assembly Instructions For Kit 075594



(MobileMAX English)

**Original English Instructions** 

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WARNING: Failure to install and commission the product in compliance with these instructions, or failure to do the job properly and competently, may void the customer's warranty. Further, it could expose the Installer and/or the Retailer to serious liability.

# SAFETY

#### WARNING - TO REDUCE THE RISK OF FIRE, ELECTRIC SHOCK OR INJURY TO OTHER PERSONS, OBSERVE THE FOLLOWING:

- 1. Use this unit only in the manner intended by the manufacturer. If you have questions, contact the manufacturer.
- 2. Before servicing or cleaning the unit, switch power off at service panel and lock the service disconnecting means to prevent power from being switched on accidentally. When the service disconnecting means cannot be locked, securely fasten a prominent warning device, such as a tag to the service panel.
- Installation work and electrical wiring must be done by qualified person(s) in accordance with all applicable codes and standards, including fire-rated construction.
- 4. When cutting or drilling into walls or ceilings, do not damage electrical wiring and other hidden utilities.
- 5. Ducted fans must always be vented to the outdoors.
- 6. Do not use this fan with any solid-state speed control device.
- 7. If the supply cord is damaged, it must be replaced by the Manufacturer, its Service Agent or similarly qualified persons in order to avoid a hazard.

#### INSTALLER AND MAINTENANCE CONTRACTORS – RISK ASSESSMENT

A risk assessment of all hazardous tasks is required under legislation. A risk assessment is an essential element that should be conducted before the commencement of work, to identify and eliminate the risk of falls or to minimise these risks by implementing control measures. There is no need for this to be a complicated process, it is just is a matter of looking at the job to be done and considering what action(s) are necessary so the person doing the job does not injure themselves.

This should be considered in terms of:

- · What are the chances of an incident happening?
- What could the possible consequence be?
- What can you do to reduce, or better still, completely eliminate the risk?

#### Some points to consider:

- If a worker is alone, who knows they are there and if they get into difficulty, how can they summon help? (Mobile phone? etc.).
- · Does the worker have appropriate foot wear?
- Are all power cables / extension leads safe and appropriately rated?
- Are all tools and equipment in a suitable and good condition?

#### **Other Important Requirements**

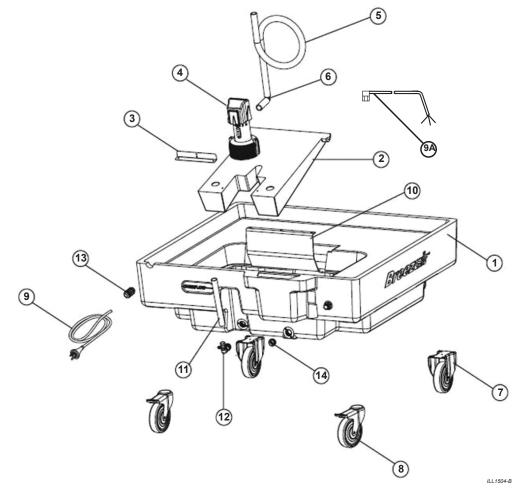
- Never force parts to fit because all parts are designed to fit together easily without undue force.
- Ensure the installation complies with all local and national regulations with regards to electrical and plumbing requirements.

# **KIT CONTENTS**

# MOBILEMAX CONVERSION KIT

Contents

ltem	Part No.	Description	QTY
1	638607	Mobile Tank	1
2	638591	Float for Mobile Tank Pump	1
Not Shown	638737	Grille Kit	1
3	628950	Pump Bracket	1
4	095806	Tornado Pump	1
5	814841	Pump Hose 19mm (1.5m length)	1
6	MIS001	Pump Elbow	1
7	855035	Castor Wheel fixed (fitted to tank)	2
8	855042	Castor Wheel swivel (fitted to tank)	2
9	803913	Mains Lead 6.0m	1
9A	858937	Power Lead IEC, bootlace x 1m	1
10	823812	Filling Baffle	1
11	MIS143/853963	Water Level Sight Tube and Backing Sticker	1
12	630854	Sight Tube Elbow	1
13	608266	Water Inlet Brass Fitting 1/2"	1
14	630878	Drain Cap	1
Not Shown	862873	Communications Lead 1.5m	1
Not Shown	PB814	Enclosure Junction Box	1
Not Shown	GH-229	Terminal Strip (3 positions)	1
Not Shown	631196	Cable Glands 16mm for Enclosure	2
Not Shown	PZ364	Cable Gland 20mm for Switch Panel Control	1
Not Shown	823614	Cord Hook Cleats	2
Not Shown	various	Brackets, Screws, Rivets, Cable Ties and Fasteners for Conversion Assembly	-
Not Shown	various	Brass and Poly plumbing fittings for water inlet and pump plumbing	-
Not Shown	837697	Conversion Instruction Booklet	1



#### PACKING LIST

This kit contains the following components:

- a 100 litre tank with wheels fitted,
- a floating platform for the pump, with pump bracket fitted.
- a replacement hose assembly
- cord storage hooks, cord restraint glands and fasteners,
- · a grille outlet and a grille frame and fasteners
- pop rivets and fasteners.
- cable ties.
- 1/2" brass nipple and lock nut.
- Mains lead 3 pin 13 amp x 6m (fit plug to suit location)
- Power lead IEC, bootlace x 1m (CPMD to Enclosure Junction Box)
- Communications Lead 6 Pin 1.5m (CPMD to Switch Plate Control)
- Cable Gland 20mm to seal the 1.5m communications lead hole drilled in the cooler
- Enclosure, Cable Glands 16mm, Terminal Strip and mounting screws for connection of field wiring mains power to an IEC plugged cable to fit into the CPMD.
- Drilling and cutout Template

Unpack the kit to ensure it contains the above components.

#### Additional items required to assemble the kit include;

- an electric drill,
- an electric jig saw or alternatively a narrow bladed hand saw,
- a sharp knife,
- a philips head screwdriver,
- a pop-rivet gun,
- sandpaper,
- a tape measure, ruler and marker pen.
- a vacuum cleaner,
- a bucket of soapy water and clean loth,
- masking or packing tape,
- 20mm (3/4") spade drill bit
- 25mm (1") spade drill bit
- 16mm (5/8") spade drill bit (Australia, South Africa and Europe)
- 3mm (1/8") drill bit
- 5mm (3/16") drill bit
- Teflon tape or approved sealing compound.
- scissors or a sharp blade knife,

#### **MODIFYING THE COOLER**

The cooler requires some modification prior to fitting to the MobileMAX Tank.

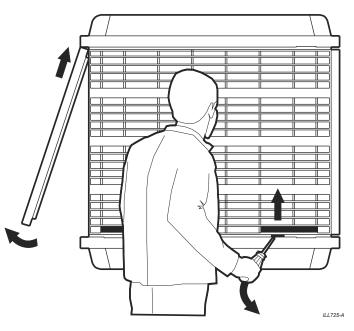
Some components will be removed and set aside for later fitment to the MobileMAX Tank while others will be discarded.

#### **REMOVAL INSTRUCTIONS**

WARNING: ELECTRICAL WORK MUST ALWAYS BE CARRIED OUT BY A QUALIFIED ELECTRICAL WORKER

**Ensure that the cooler cannot be turned on** whilst work is being carried out.

**Remove all pads** (side panels) from cooler and put them safely aside allowing access to the inside of the cooler.



Remove packaged components located in the fan area and set aside for later use.

# **Remove the float valve** by undoing the threaded in-line connector.

Set the float assembly aside for later use. Remove the plastic washer and "O"ring from inline connector.

Discard the plastic inline connector only.

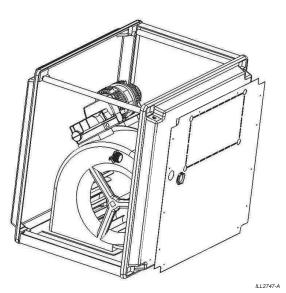
**Remove the section of hose** from the pump to the 4 way distributor and discard.

**Unscrew the screws** securing the pump to the tank and set the screws aside.

**Place the pump to one side** (still plugged into the CPMD control box).

To avoid damaging the pump during later modifications, temporarily fasten the pump under lid of the cooler, using the large cable tie supplied.

**Clear an area** in front of the cooler's outlet in preparation for rolling the cooler onto its outlet face. Ensure nothing else is lying loose in the bottom of the cooler and carefully roll the cooler over onto its outlet panel side.



**Clean the bottom and edges of the tank** with soapy water and dry with a clean cloth.

**Drilling Template.** The drilling template will be used for modifying the cooler's tank.

Trim the template around the external edges and cut out the 40mm round drain hole.

Position the template on the cooler base using the drain hole as a guide, once the template is in place and square with cooler base, use the drain lock nut to attach template to cooler.

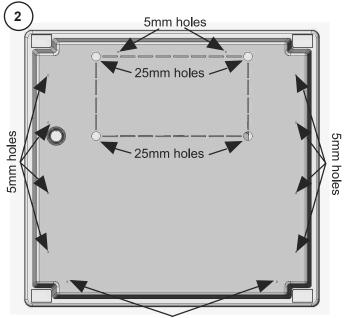


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**Use packing tape** along the edges of the template to ensure the template does not move during marking.

#### MODIFICATIONS TO THE COOLER

Using a marker pen, trace around the cutout location and place a dot in the 5mm (3/16") holes located around the edge of template. (Fig. 2)



5mm holes

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Remove the template from cooler base.

Using a 5mm (3/16") bit, drill through the cooler base using template marks as a guide (refer Fig. 3).

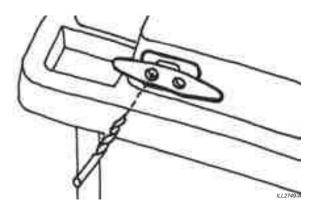
Using a 25mm (1") spade bit, drill through 4 marked circles at the corners of the cutout section. (refer Fig. 3).

With an electric jig saw (or alternatively a narrow bladed hand saw) **saw along the dotted lines** between the 25mm (1") holes (refer Fig. 3), removing the cutout for the access hole.

**Clean up the edges** of the hole by scraping with a sharp edged knife followed by a light sand with sandpaper.

Fasten two cord storage hooks to the rear of the lid panel using 4 screws supplied.

Measure in 50mm (2") from each handhold recess of the lid panel and using the cord storage hooks as guides, drill 3mm (1/8") fastening holes for the screws.

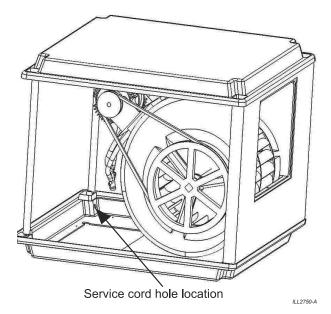


Roll the cooler carefully back onto its base.



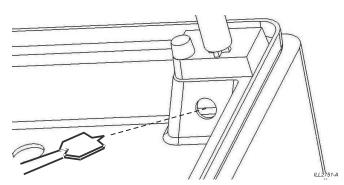
#### SERVICE CORD FITMENT

The service cord requires a hole for entry into the cooler.



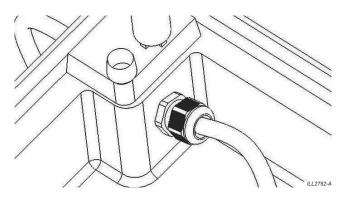
For Australian, European or South African coolers use a 16mm drill bit to drill through the side of the rear left hand recess.

For American coolers use a 20mm (3/4") drill bit to drill through the side of the rear left hand recess.



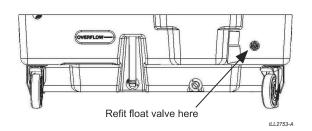
**Fit the appropriate cable gland** supplied in the kit. Pass the service cord through the holes in the tank and through cable gland allowing enough cord to reach the CPMD control box.

Tighten the cable gland, locking the cord.



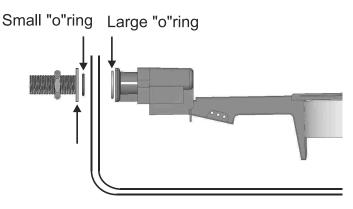
#### **ASSEMBLY OF TANK KIT COMPONENTS**

The float valve, removed earlier, is to be refitted to the MobileMAX tank.



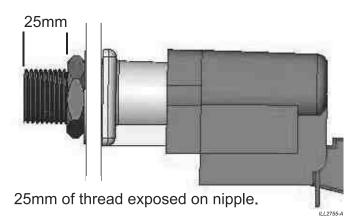
Using approved tape/sealing compound on thread of brass nipple supplied in the MobileMAX Tank kit, **fit the float valve**, ensuring correct orientation of "O"rings and washer.

#### BE SURE THE FLOAT REMAINS HORIZONTAL.



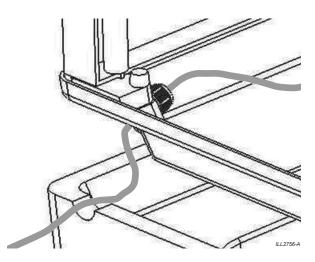
Washer from original inline connector.

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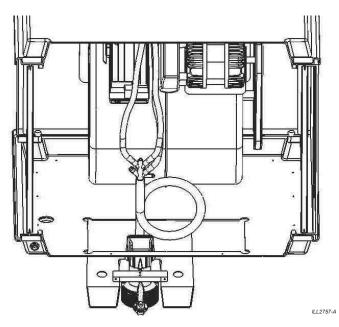
#### ASSEMBLY OF COOLER TO TANK

Lift the cooler onto the MobileMAX tank in the correct orientation with the rectangular cutout opening in the cooler aligned with the moulded opening in the tank and with the service cord located in the recess at the edge of the tank.

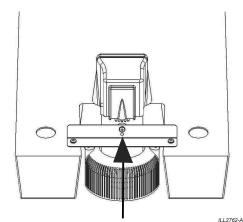


Cut the cable tie temporarily securing the pump (as instructed on Pg 5).

Using the new extension hose from the kit, connect the short elbow end to the pump and the other end to the 4 way connector, ensuring there is a loop in the hose.



Secure the 4 way connector to the scroll using one of the screws which was previously used to secure the pump to the tank. This will require drilling an appropriate 3mm (1/8") hole in the scroll for the screw if using hand screwdriver. If using a cordless or power driver, a pilot hole may be required. Attach the pump to the mount bracket on the floating platform using 1 x 20mm philips head screw. The pump outlet is facing the air outlet panel.



# ENSURE THE FLOATING PLATFORM LOCATES IN PIVOT POINTS IN TANK.

Using the pre-drilled rivet holes in the cooler as a guide (Refer Fig. 2, Page 6), **drill down and through the tank** (12 places) with the 5mm drill.

Rivet the cooler to the tank with the rivets supplied.

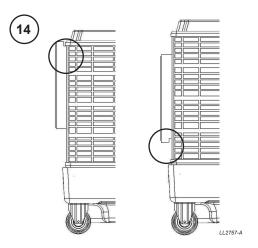
**Clean out** any loose drilling material from inside the cooler and tank with the vacuum cleaner.



#### FRONT GRILLE ASSEMBLY

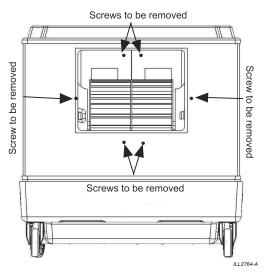
The front grille assembly is made up of a grille and a grille frame. The grille frame is designed to be used in one orientation in lower model coolers and inverted for fitment to taller model coolers.

Position the grille frame to suit your model of cooler.

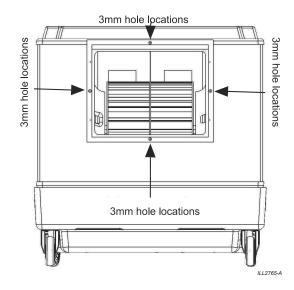


Note the orientation of the notch in the frame of the grille. For small cabinet coolers (EA90) the notch locates under the edge of the lid (Fig. 14 LHS) and for a large cabinet cooler (EA120) the notch is located at the bottom of the frame. (Fig. 14 RHS)

All coolers will require the removal of the screws from around the opening of the panel outlet as they will get in the way of the frame.



Remove these fasteners and put aside. For those coolers that had previously been used with an integral flexible duct, trim the flexible duct right back as far as it can be trimmed with the sharp knife. Remove the grille from the grille frame assembly and set aside. Position grille frame over the air outlet, using grille frame as guide, drill 3mm (1/8") holes through cooler side.



Conduct a test fitment of the grille to the grille frame to check alignment and squareness.

Secure the grille frame to the cooler with the screws supplied with the grille frame assembly.

Attach grille to grille frame using screws supplied.

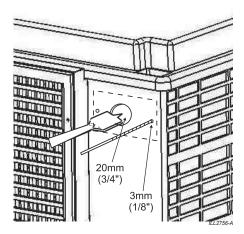
#### MOUNTING THE CONTROLS

The MaglQtouch Switch Plate control that came with cooler needs to be mounted to the upper right of the grille. **NOTE:** All work involving the wiring of the controls and service cord will need to be carried out by a qualified electrician or service technician.



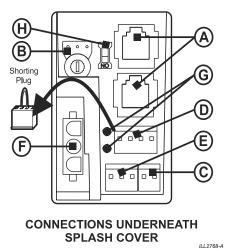
Using the backing plate of the controls as a template, drill 3mm (1/8") fastening holes in the front panel.

Ensure the plate is square to the cooler lid. Using the  $20\text{mm} (3/4^{\circ})$  spade bit, drill a cable access hole in the front panel, in a place where it will be covered by the control panel once fitted.

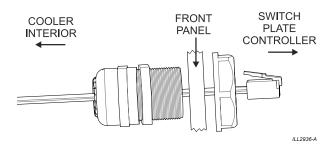


#### WIRING THE COOLER CONTROLS

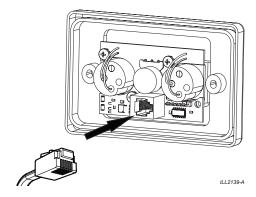
Plug the 1.5m communications cable supplied in the MobileMAX Tank kit into the CPMD control box which is inside the cooler. Lift the rubber splash cover on the CPMD Control Box and plug in the communications cable to the top "A" socket in the CPMD Control Box.



Fasten the cable gland supplied in the MobileMAX Tank kit into the 20mm (3/4") hole drilled into the panel. (Note the orientation of the gland in the diagram below).



Pass the 1.5m communications cable out through the cable access hole/gland in the front panel from inside the cooler and connect the wiring to the switch plate.



Mount the backing plate using the screws provided. Tighten the cable gland around the communications cable to prevent moisture ingress to the controller PCBA. Fasten the Switch Plate to the backing plate using the screws provided. Coil any excess communications cable and tie above the waterline using cable ties supplied in the MobileMAX Tank kit.

#### WIRING THE MAINS POWER

A small junction box and terminal strip is provided in the MobileMAX Tank kit to make the connection between the external 6.0m mains lead and the cable with the IEC plug that plugs into the CPMD control box.

Mount the junction box on the scroll of the cooler, in close proximity to the CPMD control box.



Drill 2 holes to suit the 16mm glands provided in the MobileMAX Tank kit and fit the glands.

Pass the bare end of the external 6.0m mains lead through the gland to enter the enclosure.

Mount the terminal strip inside the enclosure using at least 1 screw.

Wire the 3 leads to one side of the terminal strip.



Secure the mains lead by drilling a hole in the vertical web found in the tank base and tighten 2x cable ties around the cable. Position each cable tie on either side of the web as shown. This locks the cable into position, preventing any possible damage that may be caused by directly pulling on the cable.

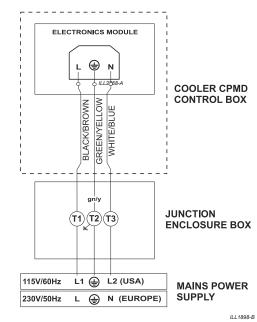


From the cooler packout kit, locate the 1.0m lead with an IEC plug at one end.

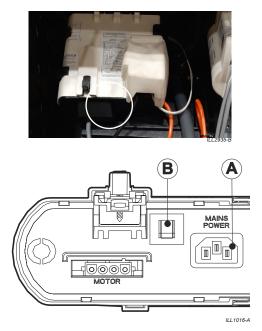
Pass the bare end up through the cable gland and wire the 3 leads to the other side of the terminal strip.

Ensure the Earth (Ground), Active (Hot) and Neutral (Common) conductors from both cables are aligned correctly onto the terminal strip.

FIELD WIRING DIAGRAM



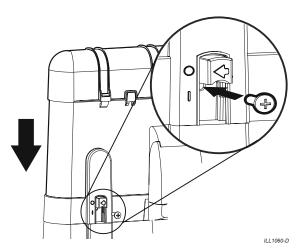
Plug the IEC Plug into the "A" socket on the underside of the CPMD Control box.



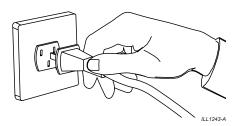
# Ensure the IEC plug is firmly located inside the socket.

Any excess wiring should be neatly stored above the scroll using the small cable tie supplied. Avoid coiling this cable!

Ensure the switch screw is fully inserted and switch the CPMD Control Box isolation switch to the "ON" position.



Plug in and turn on the mains power to the MobileMAX cooler.



## **COMMISSIONING THE COOLER**

#### FAULT CODES

The following information allows quick diagnosis at start up -

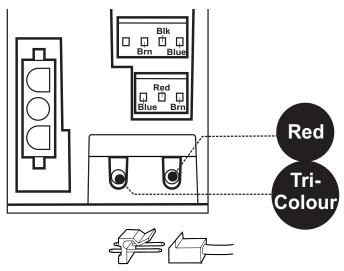
The "Tricolour LED" on the CPMD (under the rubber splash cover) acts as a general diagnostic indicator, and will function as follows:

Green double flash every 2 seconds indicates the CPMD control is running normally.

If it does not glow at all, then there is either no power to the CPMD Electronics Module (check isolating switch, circuit breaker, plug and socket connection, or a failure has occurred).

Red flashing of the left hand Tricoloured LED indicates one or more of the following fault codes are present:

- **1 Red Flash indicates Fault Code #1** Communication Failure.
- 2 Red Flashes indicates Fault Code #2 Failure to detect water at probes. (Only for coolers fitted with solenoid, probes and drain valve).
- 4 Red Flashes indicates Fault Code #4 Failure to clear probes during drain. (Only for coolers fitted with solenoid, probes and drain valve).
- 7 Red Flashes indicates Fault Code #7 Incorrect Supply Frequency.



CORRECT PLUG ORIENTATION

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# **COMMISSIONING THE COOLER**

#### **OPERATING ADJUSTMENTS**

#### Setting the Motor Current

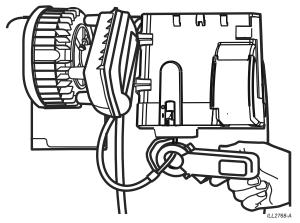
**Important!** The motor pulley and belt tension need to be adjusted to ensure that the motor is running at its rated capacity. If the current is set too low, the cooler will not perform to its optimum capacity, and the motor speed control may not work effectively. If the current is too high, the motor may cycle on its internal over-temperature safety cut-out. It is most important that the motor current is set correctly.

Before setting the motor current please ensure that:

- The CPMD Electronics Module is fitted securely, and all leads have been plugged in correctly.
- All pad frames except the one on the motor side are in place.
- 1. Run the motor at maximum speed by operating the cooler with the Switch Plate Control set to maximum fan speed, ventilation only. **WARNING!** Ensure that the pump is not running.
- 2. Continue running the motor for 10 minutes (warms up the motor) before proceeding with the current measurement. During this period carry out general system checks including airflow, etc.
- 3. Measure the motor current with the Seeley clamp meter (P/No: 118635) or suitable equivalent. Attach the clamp meter around one of the motor cables as shown below.

Compare the measured to the rated current. If the measured current is less than, or greater than the rated current, the adjustable pulley should be altered accordingly. See heading "Pulley Sheave Adjustment". The measured current should be equal to, or within half an amp below that of the motor rated current. It must never be more than the rated current.

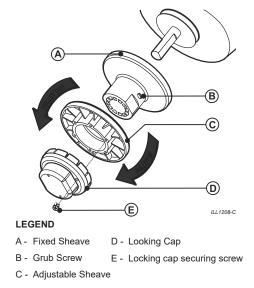
Replace all covers when adjustments are complete.



#### PULLEY SHEAVE ADJUSTMENT

Pulley adjustment is made with the cooler switched off. Never attempt this adjustment with the cooler operating. To adjust the pulley the locking cap must be removed. Remove securing screw and cap from the pulley. The adjustable sheave of the pulley is now free to be adjusted by rotating it on it's thread. Remove the drive belt. To increase the blower speed and therefore increase the amps, the two halves of the pulley must be closer together, i.e. turn the adjustable sheave clockwise.

To decrease the blower speed and therefore decrease the motor amps, the two halves of the pulley must be further apart, i.e. turn the adjustable sheave anticlockwise.

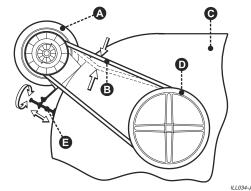


When an adjustment is made, replace the locking cap (secure with screw) and the belt then check the amps. Smaller adjustments should be made each time you approach the desired setting. See heading 'Belt Tension'.

#### **BELT TENSION**

Belt tension is important because if it is too tight you will get excessive belt and bearing wear. If it is too loose you will get belt slip with accompanying noise and loss of cooler performance. The belt tension should be adjusted so that the maximum deflection is 15mm - 20mm. (5/8 to 3/16")

There are two adjusting bolts for adjusting belt tension. These are located on the motor mounting plate. To make the adjustment, loosen off the nuts on the two adjusting bolts on the motor mounting plate and tighten or slacken the belt tension. When the adjustment is correct, tighten the locking nuts again.



## LEGEND

- A Motor
- B 15-20mm (5/8" 13/16") with moderate finger pressure
- C Blower housing
- D Pulley
- E Belt tension adjust bolts

# **COMMISSIONING THE COOLER**

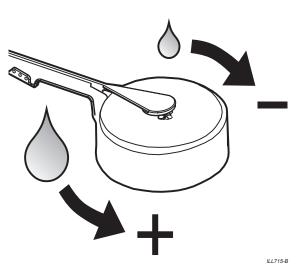
#### SETTING WATER LEVEL

#### **Direct connection to Water Supply**

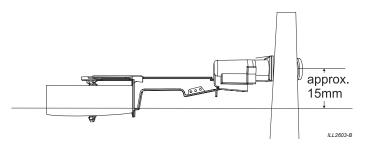
Connect a hose to the inlet fitting. Turn on the water supply.

Allow the tank to fill with water. The float valve will eventually stop the water from entering the cooler. Wait for this to happen and check the water level.

If the water level is too high rotate the float clockwise. If too low, rotate the float anti-clockwise.



Rotate the float around anti-clockwise a small amount to let more water in and observe the level. Continue the procedure until the water level remains at about 15mm below the height of the centreline of the inlet hole.

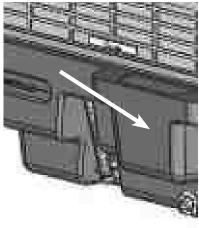


It is advisable to check the water level again after the Float Valve seal has "bedded in." After the unit has been sitting for a time with pressure on the Float Valve, drain and refill the Tank. A small amount of movement in the Float Arm can make a difference in the amount of water in the Tank.

#### CHECKING WATER LEVEL - SIGHT GLASS 100L Tank Water Supply

## The explor tenk has a "sight glass

The cooler tank has a "sight glass" water level gauge which shows the physical height of the remaining water in the tank.



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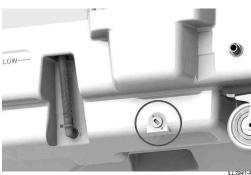
#### **TESTING THE COOLER**

Once you are satisfied that the cooler is installed and commissioned correctly, it is important to run the cooler and ensure that everything is working as it should.

Make sure there are no water leaks.

# FINAL CLEAN-UP

Drain the tank.

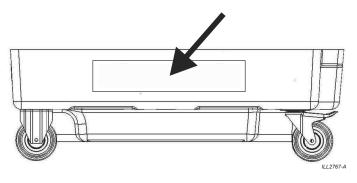


Refit the 3 pads to the cooler.

Wind the service cord around the storage anchor points on the lid.

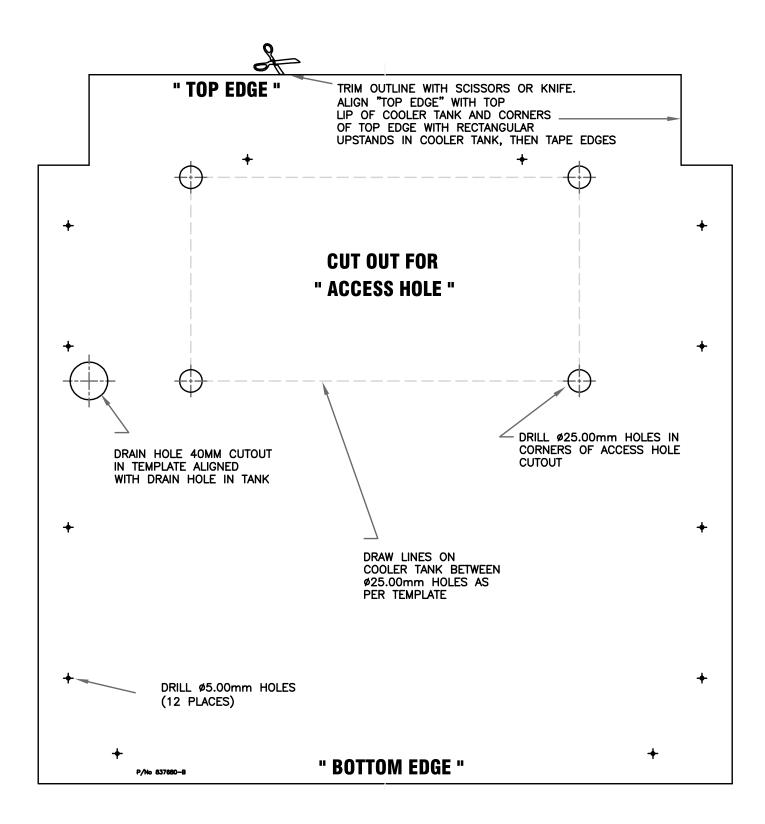
#### LABELLING THE COOLER

Attach the 3 labels in the kit to the MobileMAX tank excluding the water fill side.





#### DRILLING TEMPLATE INFORMATION





Seeley International Technical Support 1300 650 399

Seeley Spare Parts Distributors 1300 367 437

Authorised Service Agents 1300 650 644

For access to Technical/Installation/Service Information register online seeleyinternational.com/service

# **Spare Parts Information**

To identify and order spare parts for Seeley International products online go to: seeleyinternational.com/get-support/spare-parts

It is the policy of Seeley International to introduce continuous product improvement. Accordingly, specifications are subject to change without notice. Please consult with your dealer to confirm the specifications of the model selected.