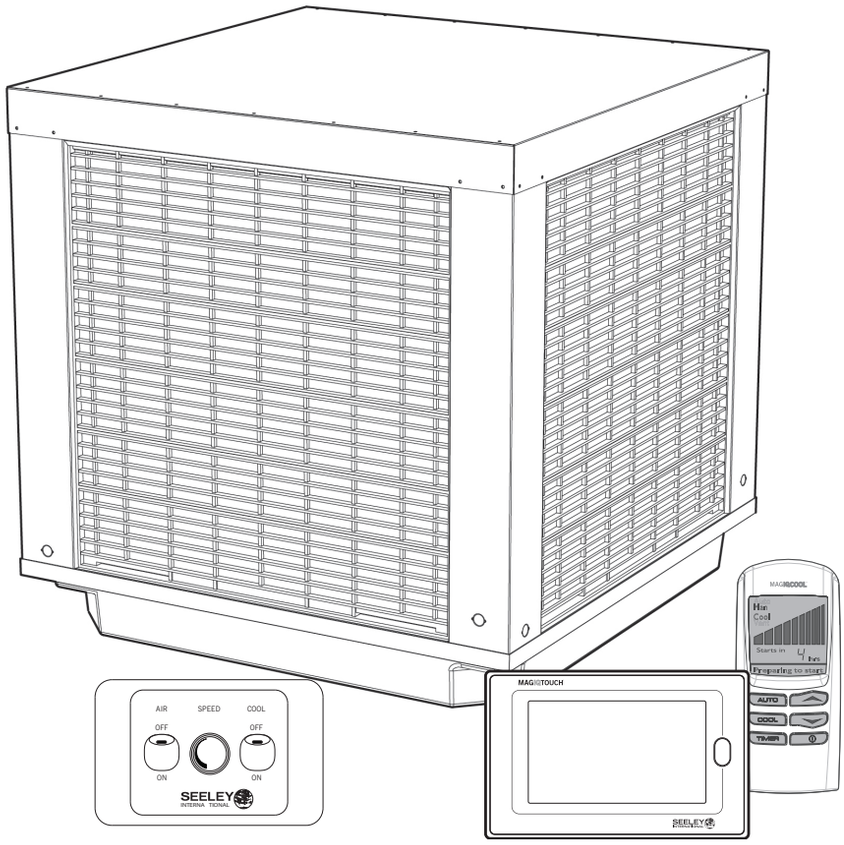
SEELEY INTERNATIONAL

# INSTALLATION MANUAL

## RPCQi OR Evaporative Coolers




Braemar™ By SEELEY INTERNATIONAL

**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.**

# IMPORTANT SAFETY INSTRUCTIONS

## READ AND SAVE THESE INSTRUCTIONS FOR FUTURE REFERENCE.

Means for all pole disconnection must be incorporated in the fixed wiring in accordance with the wiring rules.

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.

**The following specifications for the cooler water supply are required:**
**Min Water Pressure:** 100kPa (15psi)
**Max Water Pressure:** 800kPa (115psi)

New hose sets supplied with the appliance are to be used and old hose-sets should not be re-used.

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

a) Installation work and electrical wiring must be done by qualified person(s) in accordance with all applicable codes and standards, including fire-rated construction.

b) When cutting or drilling into wall or ceiling, do not damage electrical wiring and other hidden utilities.

c) Ducted fans must always be vented to the outdoors

d) Do not use this fan with any solid-state speed control device.

**FOR AUSTRALIAN BUSHFIRE ZONES:**

**WARNING:** This cooler is **NOT APPROVED** for installation in any bushfire zoned area/property (BAL-12.5 to Bal-FZ.

### EMPLOYER AND EMPLOYEE RESPONSIBILITIES

The installation and maintenance of evaporative coolers at height has the potential to create Occupational Health and Safety issues for those involved. Installers are advised to ensure they are familiar with the relevant State and Federal legislation, such as Acts, Regulations, approved Codes of Practice and Australian Standards, which offer practical guidance on these health and safety issues. Compliance with these regulations will require appropriate work practices, equipment, training and qualifications of workers.

Seeley International provides the following information as a guide to contractors and employees to assist in minimising risk whilst working at height.

### 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 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 get rid of the risk?

**SOME POINTS TO CONSIDER**

- What is the best and safest access to the roof and working areas?
- If a worker is alone, who knows they are there and if they get into difficulty, how can they summon help? (Call someone on the ground? Mobile phone? Etc.)
- What condition is the roof in? Should the trusses, underside or surface be checked?
- Does the worker have appropriate foot wear? (Flat sole jogger type is advisable.)
- Are all power cables / extension leads safe and appropriately rated?
- Are all ladders, tools and equipment suitable in good condition?
- Where ladders are to be used, is there a firm, stable base for them to stand on? Can they be tied or secured in some way at the top? Is the top of the ladder clear of electricity supply cables?
- Is there a roof anchor to attach a harness and lanyard to? If so, instruction should be issued for the use of an approved harness or only suitably trained people used.
- Are all tools and materials being used, prevented from slipping and falling onto a person at ground level? Is the area below the work area suitably protected to prevent persons walking in this area?
- Does the work schedule take into account weather conditions, allowing for work to be suspended in high winds, thunder storms/lightning or other types of weather giving wet, slippery surfaces?
- Is there an on-going safety check system of harnesses, ropes, ladders and access/lifting equipment and where they exist on roofs, anchor points before the commencement of work?
- Is there a system which prevents employees from working on roofs if they are unwell or under the influence of drugs or alcohol?
- Are there any special conditions to consider i.e. excessive roof pitch, limited ground area, fragile roof, electrical power lines?

**OTHER IMPORTANT REQUIREMENTS**

- Never force parts to fit because all parts are designed to fit together easily without undue force.
- Never drill holes in the tank of the cooler.
- Check the proposed cooler location, to ensure that it is structurally capable of supporting the weight of the cooler, or provide an adequate alternate load bearing structure.
- Units are designed to be connected to ductwork.

Ensure the installation complies with all local and national regulations with regards to electrical, plumbing and bushfire construction requirements.

## PREPARING TO INSTALL THE COOLER

### COOLER LOCATION

Check the proposed cooler location to ensure it is structurally capable of supporting the weight of the cooler. If the roof is structurally inadequate, provide an alternate load bearing structure.

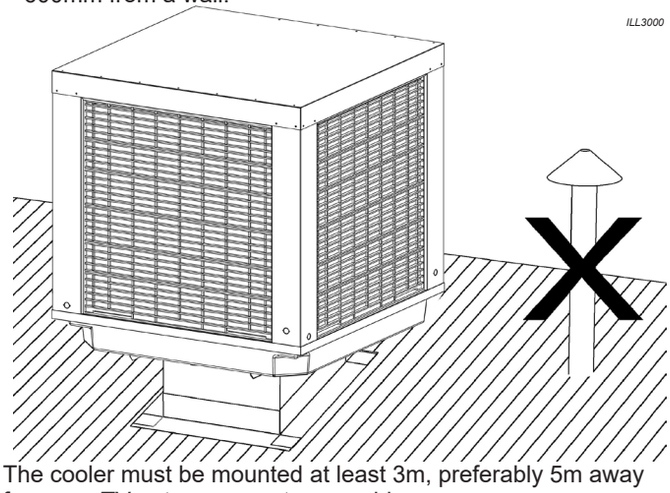
The ideal location for the cooler is in a central position on the roof (away from sleeping areas and where people spend most of their time) so that the duct runs are of approximately the same length. Carefully consider neighbouring residences and noise levels when locating the cooler, if necessary talk to the customer and the neighbour before carrying out the installation.

Always locate the cooler where it will receive adequate fresh air and not in a recess where it may be starved for air or where the air is polluted.

**Ensure location is a minimum of:**

- 3m from a solid fuel heater flue,
- 1.5m from a gas flue,
- 5m from a sewer vent, and
- 600mm from a wall.

ILL3000



The cooler must be mounted at least 3m, preferably 5m away from any TV antenna or antenna cables.

Make sure the cooler is not between the antenna and the transmission tower that is providing the television signal to the home.

Allow adequate access to and around the cooler for maintenance. Provision must be made for access to electricity, water supplies and drains.

## ACCESS FOR SERVICING AND MAINTENANCE

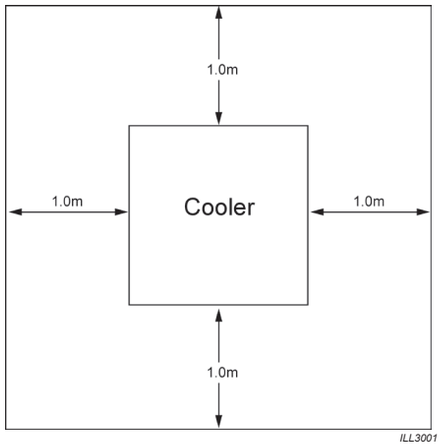
The cooler should be installed in a position that allows adequate access for installation, future maintenance and servicing activities. This should comply with installation guidelines and any local, State and National regulations.

Consider the following for the installation location:-

- Which has clear access to and around the cooler
- Which is clear of fixtures in line with below clearances
- Which is clear of fall edges (> 3m away)
- Which is structurally capable of supporting the weight of the cooler and service technicians

Required clearances around the cooler for future maintenance and servicing are shown adjacent.

## MOUNTING THE COOLER



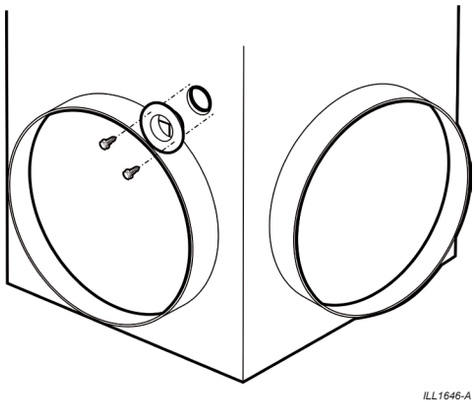

ILL3001

**Extra service or warranty charges may apply for the cost of any equipment or additional labour involved in accessing the cooler if these guidelines are not met.**

**Note!** Do you need to discuss the installation of items like safety anchor points with the customer

## PREPARING THE DROPPER (IF REQUIRED)

Cut a 50mm diameter cable exit hole in the dropper then fit and screw the cable grommet into position.



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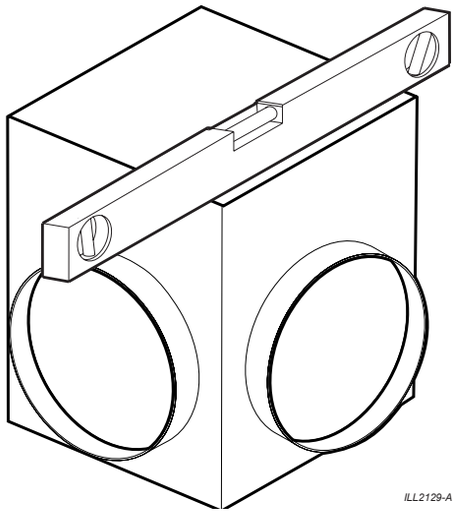
### LEVELLING THE DROPPER

Ensure the top of the dropper is level and square in all directions (use a spirit level). This helps with levelling the cooler.



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## CONVEYING THE COOLER TO THE ROOF

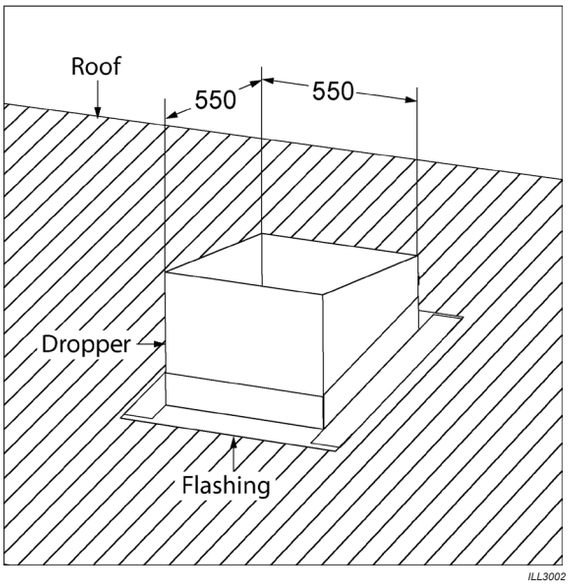
**IMPORTANT**

Installation must be in accordance with Municipal Building Regulations, Relevant Electrical Wiring Regulations, and any other relevant Codes and Regulations.

All installation work to be carried out by Authorized Persons only.

**Down Discharge Models**

These units have been designed to be directly mounted on top of a suitably sized and strengthened metal duct. Fixing is by means of self drilling screws or rivets through the steel mount on the bottom of unit to metal duct.

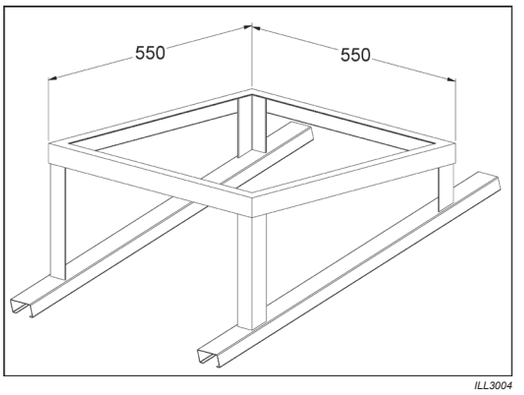



ILL3002

**Side & Top Discharge Models**

These units are required to be mounted onto a level platform and must be strong enough to support the unit under operating and prevailing conditions.

Inside these units will be a flexible connector kit intended to be fitted on site to allow better alignment to duct work.




ILL3004

Lifting and installing the cooler is made easier by removing the pad frames first. They can be replaced at the very end of the installation procedure.

Do not slide the cooler, lift and carry it. It is recommended that at least 2 people carry the cooler whenever it needs to be moved. Do not drop the cooler. Always handle with care.

**Important!** For lifting or pulling purposes when using ropes or slings, always apply the ropes around fan housing. Never tie them to any or all of the 4 corner pillars.

**WARNING!** Take care that the ends of ladders, etc. don't penetrate into the opening of the cooler,

**CAUTION!** Never try to raise the cooler to the roof alone.

## ELECTRICAL REQUIREMENTS

It is required that all units be connected to the mains supply through an independent circuit, suitably protected by fuse or circuit breaker. Ensure that the power supply is sufficient for the rating indicated on the serial plate. Wire the unit in accordance with all state and local regulations.

NOTE

An all pole disconnection switch must be incorporated in the fixed wiring in the accordance with the wiring rules.

## INSTALLING THE MAINS POWER CABLE

The power cable, included with your cooler will have boot lace ends ready for connection to the mains power supply.

Means for all pole disconnection must be incorporated in the fixed wiring in accordance with the wiring rules.

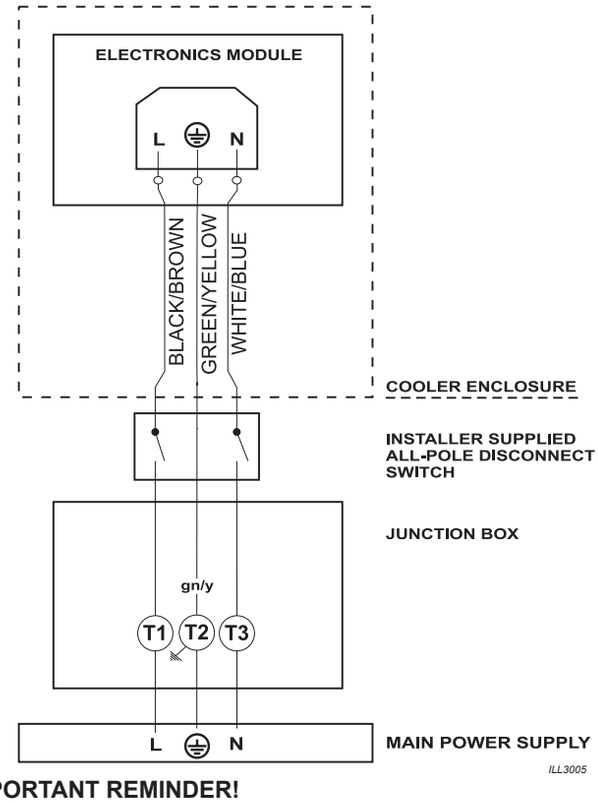
**Field Wiring**

Pass the power cable through the conduit gland located on corner of unit.

Terminate the power cable in a junction box installed nearby. Refer to the field wiring diagram below. The fixed wiring must be fitted with an all pole disconnection switch that breaks the active and neutral in accordance with local wiring rules. We recommend the junction box be located and installed on the dropper.

**WARNING!** Do not let the cable, the cable ends, or the control box get wet.

**FIELD WIRING DIAGRAM**




ILL3005

**IMPORTANT REMINDER!**

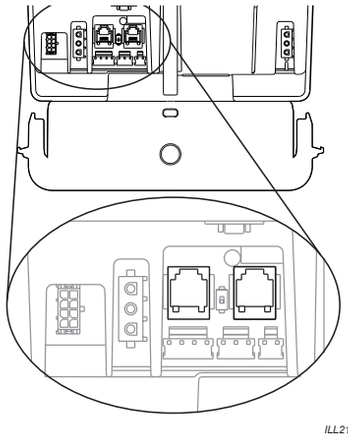
Do not route extra-low voltage data/communication and low voltage supply mains cables without first consulting your local wiring standards. Routing data/communication cables and supply mains cables in close proximity can present an electrical hazard and can be detrimental to the performance of the product, resulting in intermittent communication errors, locking up of screens, displays dropping out and inconsistent erratic operation.

## INSTALLING THE CONTROLLER CABLE

**Seeley International recommends:**

- Not routing data/communication and supply mains voltage cables in the same conduit.
- Not cable tying or taping data/communication and supply mains voltage cables together.
- A minimum separation distance, as specified by your local wiring standards, between data/communication and supply mains cables. In Australia, this minimum separation distance is 50mm .

Connect one end of the control cable (with ferrite suppressor) to the cooler electronics box. The wall control cable can be fitted to either of the RJ ports



ILL2149-A

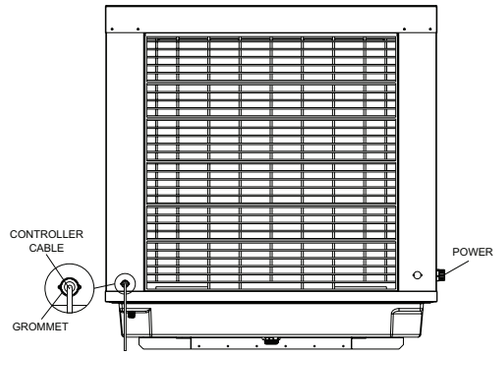
**Down Discharge Units**

A hole is provided in the side of the blower housing for control cable entry. The control cable can be passed through this hole and wired to the control box. On installation pass the cables through the hole into the dropper and then into the roof cavity

**Side & Top Discharge**

Using knockout located on the corner pillar on the opposite side to the mains connection

Feed looped end of the controller cable through the supplied grommet then fit the grommet into hole left after knock out was removed.




ILL3006

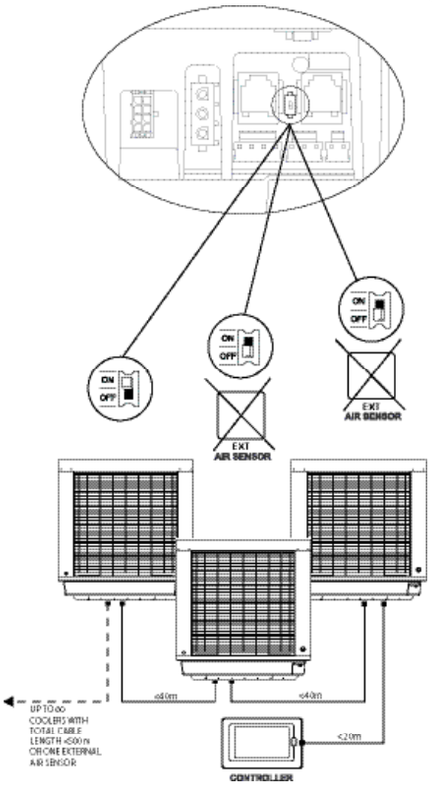
**Note!** It is important to route the control and power cables out through included grommets / conduit.

**Note!** The maximum length for the wall control cable to travel alongside the power cable is 10m**.**

**WARNING!** Do not let the cable, the cable ends, or the control box get wet.

## MULTIPLE COOLER INSTALLATIONS WITH EXTERNAL AIR SENSOR

Cooler electronics fitted with External Air Sensors or have a spare RJ connector can be installed as follows;




ILL3012

Ensure all cooler electronics dipswitches are set to 'OFF' except for the last cooler in series. The last cooler dipswitch should be switched to 'ON' to ensure communication reliability.

Only 1 x External Air Sensor will operate in a multi-cooler installation. If multiple External Air Sensors are fitted disconnect the External Air Sensor plug from each of the cooler electronics' except for the last cooler in the series.

## WATER REQUIREMENTS

Installation of the cooler water supply must conform to local plumbing rules, regulations and standards.

**The following specifications for the cooler water supply are required:**

| | |
|---|---|
| **Water Connection** | ½″ BSP |
| **Min Water Pressure** | 100kPa (15psi) |
| **Max Water Pressure** | 800kPa (115psi) |
| **Min Water Flow** | 8 liters/min (2.1 gallons/min) |
| **Max Water Temperature** | 40°C (104°F) |

**Important!** If the water pressure exceeds maximum specification then a pressure reducing valve is required and must be supplied and fitted by the installer.

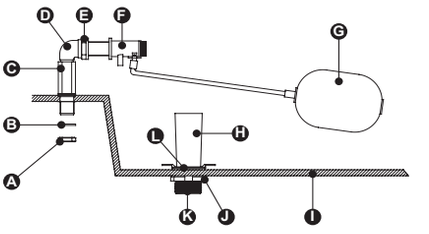
### WATER SUPPLY:

Mains connection is made to the float valve fitted in the reservoir. The float valve must be set to maintain the reservoir water level about 30 mm below the overflow level.

The mains water supply should be fitted with a ball valve and connection to the unit from the stopcock be made with the appropriate copper pipe and fittings.

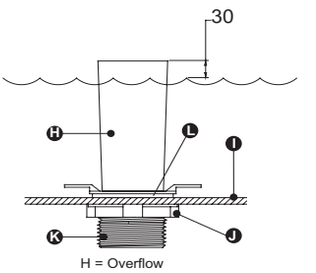
NOTE:

Flush the mains supply before connection to the unit to remove any foreign matter which may foul the valve seat. Remember to use a Pipe Cutter to cut copper pipe.




A = Brass Nut
B = Washer
C = Brass Adaptor
D = Plastic Elbow
E = Plastic Nut
F = Valve
G = Float
H = Overflow
I = Tank
J = Plastic Nut
K = Threaded Bush
L = O Ring (between H & K)

ILL3007



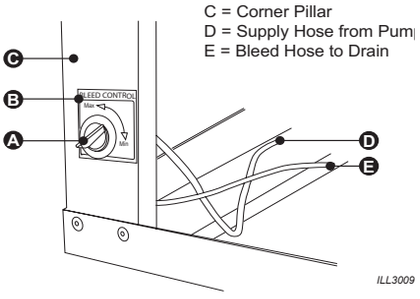

H = Overflow
I = Tank
J = Plastic Nut
K = Threaded Bush
L = O Ring (Between H & K)

ILL3008

### BLEED CONTROL

To reduce the accumulation of salts and minerals in the cooler when running for long periods it is essential to bleed a certain amount of water. Increased flow of make up water reduces the salt content. The bleed rate will vary with the water supply quality, but should initially be set to the minimum recommended bleed rates as set out in below. If your water supply is of poor quality, higher bleed off rates are necessary to ensure reasonable pad life and cooler performance. Place the hose from the bleed tap into the overflow pipe. Connect suitable pipe work to bottom of the overflow bush so that water drains directly to waste. Drain plumbing must be in accordance with local regulations.

A = Bleed Tap
B = Min/Max Label
C = Corner Pillar
D = Supply Hose from Pum
E = Bleed Hose to Drain




ILL3009

The bleed control tap is located externally on a corner pillar. Adjustment to the bleed rate is made by turning the black/red tap control to the desired setting. Check the bleed rate by running into a graduated container for a set time, say 10 minutes.

NOTE.

Ensure tube is not pinched when replacing pads.

### RECOMMENDED BLEED RATES

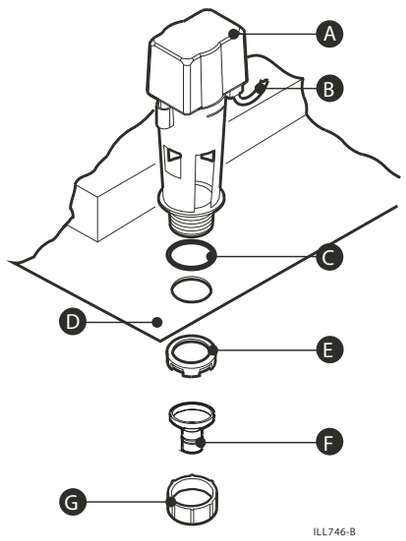
| Model | L per 10min | L per hr |
|---|---|---|
| **RPCQi75 OR** | 1.2 | 7 |
| **RPCQi150 OR** | 1.6 | 10 |

## INSTALLING THE DRAIN VALVE (OPTIONAL)

Water drained from the cooler must be carried away to a suitable discharge point in accordance with local regulations.

**Important!** Never drain water from the cooler directly on to the roof.

An optional Water Manager Kit, Part # 073392, can be supplied with the cooler or at a later date if required. The water manager, which is fully automatic, is controlled by the cooler control electronics combined with your Braemar wall control. The system is designed to ensure that the water is always fresh, maintains your cooler in good condition and ensures optimum cooling performance.



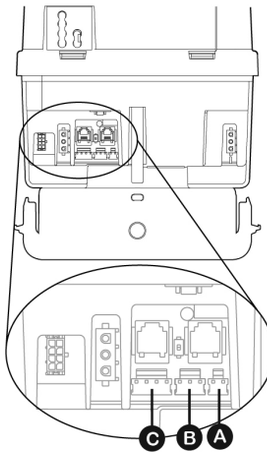

A = Drain Valve
B = Power Lead (plugs into control box)
C = O-Ring
D = Tank
E = Nut

*ILL3010*

Make sure the “O”-ring (C) is fitted before placing the drain valve into the hole. Screw the nut (E) up tightly by hand underneath to locate the drain valve. Locate the drain adaptor (F) up against the bottom of the drain valve thread and secure with the second, larger nut (G). Make sure that you use the correct drain adaptor. Make sure the drain water discharge flows freely away from the cooler.

**Important!** Do not over-tighten plastic fittings.

Remove Shorting pins then connect the drain valve cable to the cooler electronics box.




A = Connect Inlet Solenoid plug here

B = Connect Drain Valve plug here

C = Remove shorting plug and fit the Water Probe plug here

*ILL2150-A*

## CONNECTING THE MAGIQTOUCH/ MAGIQCOOL CONTROLLER OR SWITCH PLATE

Refer to the installation manual provided with the wall controller for instructions on installing the controller. Coolers are supplied with a 20m (66’) control cable. Longer cable lengths are available from Seeley.

**Important!** The maximum cable length allowed from the MagIQtouch controller to the first cooler is 25 metres (82’). For any additional coolers added into the system with a link module the maximum allowed length is 40 metres (131’). Therefore, failure of the product or components to operate correctly due to modification to supplied cables, or the use of non-approved cables will NOT be accepted under the Manufacturer’s Warranty.

We have this cable available through our sales order office and spare parts outlets in the following lengths:

| Part No. | Length | Details |
|---|---|---|
| **833880** | 20m | MagIQtouch Controller Cable (No Ferrite) |
| **823553** | 20m | MagIQtouch Controller Cable (With Ferrite) |
| **862873** | 1.5m | MagIQtouch Controller Cable (No Ferrite) |
| **861265** | 3m | MagIQtouch Controller Cable (No Ferrite) |
| **864396** | 30m | MagIQtouch Controller Cable (With Ferrite) |
| **864402** | 40m | MagIQtouch Controller Cable (With Ferrite) |

### MAGIQCOOL WALL CONTROL DISPLAYS “SERVICE”

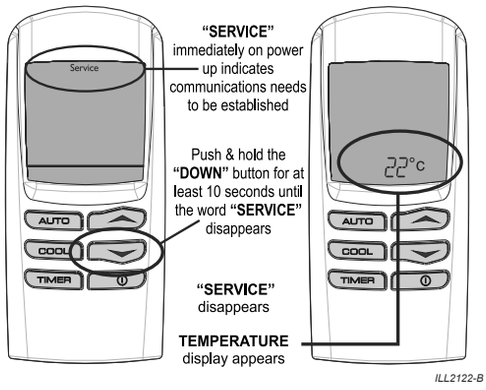
If on initial Installation of a Cooler, or after the wall control has been changed, the word “SERVICE” appears on the MagIQcool Wall control screen and the unit does not respond to the pushing of any buttons even though the backlighting responds.

This is easily rectified and means that communication needs to be established between the Wall control and the electronic controller inside the Cooler.

To establish communications simply push and hold the “DOWN” button until the word “SERVICE” disappears from the screen and the temperature appears. This may take up to 10 seconds. Once communications has been established the unit can be operated.

**IMPORTANT**

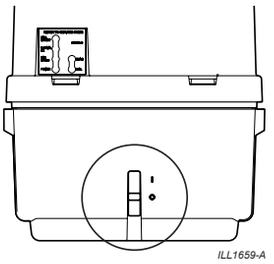
Do not press up when in service mode. Unit will not start




*ILL2122-B*

## COMMISSIONING THE COOLER

Once the controller is connected, power up the cooler using the ON/OFF switch on the cooler electronics box.



ILL1659-A

**IMPORTANT NOTES:**

- The cooler electronics box is a non-serviceable part. Do not open or attempt to repair any components.
- The cooler electronics box cover will only open and close with the ON / OFF switch in the “OFF” position. Do not try to force the cover open with the switch in the “ON” position.
- Always turn “OFF” mains power to the cooler before checking connections or touching wiring and components connected to the cooler electronics box.
- Take care to position the cables into the cover slots when closing, so that they do not become caught or pinched.

### DIAGNOSTIC LED

Look at the front of the cooler electronics box where 2 LEDs are situated on the right hand side. The top LED glows green or red acting as a diagnostic indicator. If the top LED is double flashing green, everything is OK, this is normal operation.

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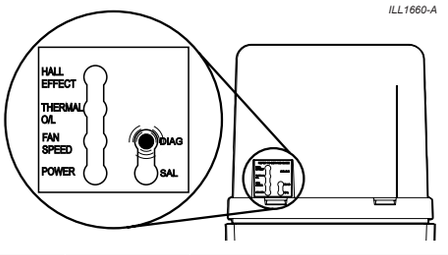
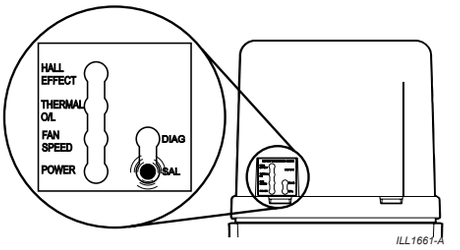



| Colour | Flash | Indicates |
|---|---|---|
| **No glow** | | No power or a failure has occurred. (Check power supply to cooler including isolating switch, circuit breaker and plug and socket connection in the roof space.) |
| **Green** | Every 2 sec | Normal Operation. |
| **Red** | 1 Flash | Fault Code #1<br>Communication Failure. |
| | 2 Flash | Fault Code #2<br>Failure to Detect Water at Probes. |
| | 4 Flash | Fault Code #4<br>Failure to Clear Probes during drain. |

### SALINITY LED

The bottom LED is red only and displays salinity setting information.




ILL1661-A

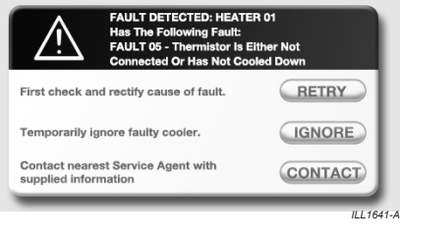
| Sal Flash | Indicates |
|---|---|
| **OFF** | Not Applicable |
| **1 Flash** | WaterMiser® salinity is below the set point. |
| **2 Flash** | WaterMiser® salinity is above the set point. |
| **3 Flash** | The Salinity Control Method is set for Timed Drain |
| **4 Flash** | The Salinity Control Method is set for Continuous Bleed. (Bleed Funnel used).. |
| **5 Flash** | Thermostatic Control (no Water) operation set. |
| **Continuously on (When probes immersed in water)** | Water not detected. The probes are immersed in water but are open circuit, or measured salinity is less than 20µs/cm (the water has very little salt content). |
| **Continuously on - (No water in tank)** | WaterMiser® / Drain Valve option is active |

Salinity LED Indication for evaporative coolers fitted with bleed trays and shorting links only.

| Sal Flash | Controller Salinity Setting |
|---|---|
| **5 Flash** | Salinity Control set |
| **5 Flash** | Timed Drain |
| **4 Flash** | The Salinity Control method is set for continuous bleed (bleed tray used) |
| **5 Flash** | Thermostatic Control No Water (no water) operation |

### MAGIQTOUCH CONTROLLER INFORMATION

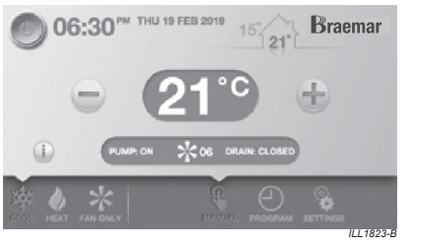
Diagnosis and cooler operating information can also be viewed from the MagIQtouch Controller. Faults are displayed on the screen as they occur.




ILL1641-A

Current cooler operation information can be temporarily displayed on the “Status Information Display” option in the GENERAL SETTINGS menu.

When this option is turned on, a temporary information display window becomes accessible on all MANUAL and PROGRAM screens.




ILL1823-B

## FAULT CODES

**Fault Code 01 (1 Red Flash) = Communication Failure.**

- Ensure wall control cable is fitted correctly.
- Check the wall control cable is in good condition.

**Fault Code 02 (2 Red Flashes) = Failure to detect water at probes within 20 minutes.**

- Ensure water pressure is sufficient to fill and maintain the tank to specified level within 20 minutes.
- In areas of hard or polluted water, blockage of the strainer/ filter in the water inlet solenoid valve may restrict water flow.
- Water level set too low. For Braemar coolers the water level should be set to 5mm below the float valve base.
- Ensure probe plug is properly connected (If drain kit is fitted).
- Plug connections at electronic module are upside down or misaligned. (If drain kit is fitted)
- Water too pure for the probes to sense water is present.
- Pressure build up in pipes can lock up the solenoid valve when a non-return isolation valve is used in the water supply line. It is recommended to use a ball valve, i.e. NOT a non-return type of shut off valve.
- Check drain valve is closing and not cycling due to debris being caught under drain valve washer. (If drain kit is fitted)

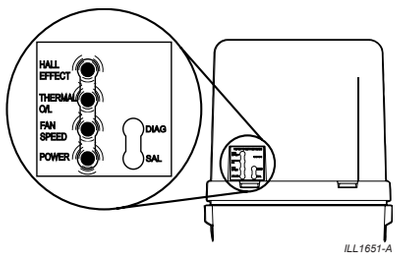
**Fault Code 04 (4 Red Flashes) = Failure to clear probes during drain within 20 minutes .**

- Check the drain valve opens and water drains from the tank, with nothing obstructing the outflow of water. (e.g. drain hose kinked)
- Excessive drain hose lengths or bends cause air locking and won't allow water to drain.
- Build up of foreign material in drain hose not allowing water to drain away correctly.
- Screws used to fix drain hoses to drain adaptors restricting water from draining from tank.
- Drain valve has failed to open when drain was initiated.
- Inlet water solenoid not shutting off water when the drain is open.
- Water will only flow one way through the inlet water solenoid valve. Therefore, it must be installed correctly. Directional arrow must be pointing towards the float valve assembly. If not, water will not shut off. (Directional arrow can be found on the bottom of the solenoid valve body).
- Debris interfering with water sensor probes.
- Probes not clipped onto mounting brackets correctly.
- Check cooler is level and water drains quickly.

## TESTING THE DIRECT DRIVE MOTOR

This RPCQi cooler incorporates a Seeley electronically commutated Direct Drive motor. No setup is required for this motor as it automatically adjusts to provide optimum output for each installation.

Turn the cooler on at the MagIQtouch Controller, in "FAN ONLY" mode. Look at the front of the cooler electronics box where 4 LEDs are situated on the left hand side. LEDs 1 - 4 should be on (glowing green).




ILL1651-A

| LED | Indicates |
|---|---|
| **Hall Effect** | ON = Normal operation.<br>OFF = One or more Hall effects sensors in motor not detected. |
| **Thermal O/L** | ON = Normal Operation.<br>OFF = Thermal Overload in motor tripped.<br>(**Caution!** Motor in overload may re-start without warning). |
| **Fan Speed** | ON = Normal Operation.<br>OFF or Flashing = Motor is not rotating within 30% of its set speed. |
| **Power** | Mains power is applied to the motor when the fan ON button of the controller has been pressed. |

## CHANGING THE WATER MANAGEMENT METHOD FOR THE MAGIQCOOL CONTROL

For models where WaterMiser probes and drain valve are fitted, the drain frequency is typically managed by salinity control. If you do wish to change from salinity control to regular operation of the drain valve every 65 mins, follow these programming steps.

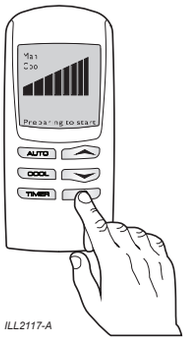
To enter Parameter mode, the following process must be carried out within 4 minutes of power being applied to the cooler. If unsure of time since the last power "ON", remove power to the cooler (Isolator Switch or Circuit Breaker) for a minimum of 6 seconds so the mode can be entered.

1. While wall control is OFF, push and hold AUTO and ▼ buttons for minimum three (3) seconds. The screen will then display "A1" - (Water Salinity Control Method) and "Param".
2. Press AUTO to enter the "value" screen.
3. To alter the "value" of selected parameter, press ▲ or ▼. Numbers will change to show different values the parameter can be set to.
   **WaterMiser = 0**
   **Timed Drain = 1 (every 65 mins)**
   **Non-Drain Valve salinity control (bleed etc.) = 2**
4. To store the value, press AUTO. Screen will go blank momentarily as wall control stores parameter change, and returns screen to "Param" screen.
5. To exit parameter mode or escape from an alteration without storing a change press ⏻ button instead of AUTO button. **Note!** Once step 4 has been carried out, new parameter change is permanent until again altered.
6. If no buttons are pushed on wall control, after 3 minutes screen will reset to "OFF" state. Procedure to enter parameter mode must be re-initiated.

## SETTING THE WATER LEVEL

Isolate power to the cooler electronics and disconnect the pump, making sure the plug is kept away from any water. Turn the power back on.

ILL1663-A

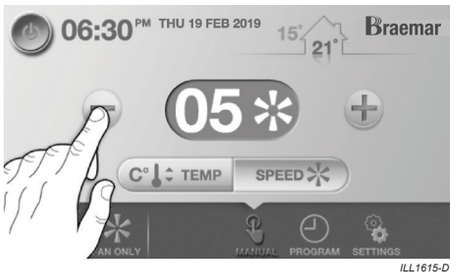


ILL2117-A

Turn on the mains water supply to the cooler.

Turn the cooler on at the controller, in “COOL” mode.

Adjust set temperature slider / fan speed buttons to be close to current room temperature so that fan speed remains low or manual speed 1.

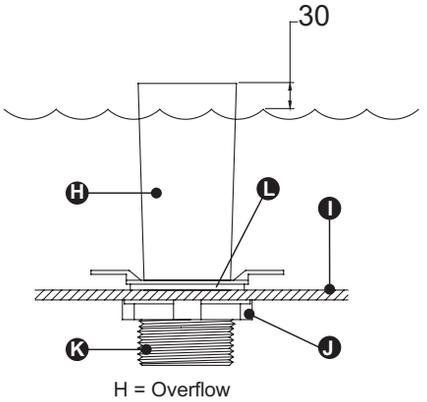


ILL1615-D

ILL2118-A

Allow the tank (reservoir) 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.

The float valve must be set to maintain the reservoir water level about 30 mm below the overflow level. Adjust float by bending arm to set height.



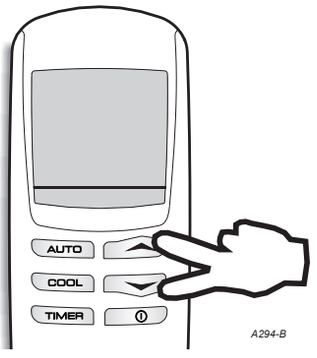

H = Overflow
I = Tank
J = Plastic Nut
K = Threaded Bush
L = O Ring (Between H & K)

ILL3008

## TESTING THE DRAIN VALVE

With the wall control in “OFF” mode, press and hold the ⌃ and ⌄ buttons together for 1 second on the MagIQcool controller, “dr” is displayed and the drain valve will open.

Select the “SETTINGS” mode on the MagIQtouch Controller and select the “COOLER” sub-heading. Select the “MANUAL DRAIN” option to operate and test the drain valve.



A294-B

## REFITTING THE PAD FRAMES

To refit the pad to the unit push the top of the pad in first lining up the pads with the retention strip of the corner pillars. Once pads are lined up push in the bottom of the pad until the pad clicks into the lower retention strip.

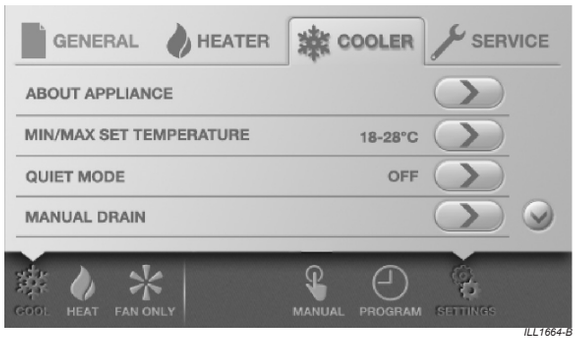
## TESTING THE PUMP

Test the pump by turning the cooler on at the MagIQtouch controller, in “COOL” mode. Check that water is evenly distributed to all pads.

**Note!** If the cooler has not been on before it will run a “Pre-Wet” routine where the pump will operate to saturate the pads. This cycle takes 2 minutes, then the fan will start automatically.

## ADJUSTING COOLER SETTINGS

Within the SETTINGS menu of the MagIQtouch Controller is the COOLER sub-heading. Here various settings of the cooler can be adjusted.



ILL1664-B

**About Appliance**
Displays information such as model number, serial number and software version for all coolers connected to the controller.

**Min/Max Set Temperature**
Defines the maximum and minimum temperature values.

**Night Quiet Mode**
Restricts fan speed to a specified level during a specified period.

**Manual Drain**
Turns cooler off and drains the tank.

**Pad Flush**
Turns cooler off and runs pump for a specified amount of time.

**Drain And Dry**
Cooler will drain and fan will run for 1 hour every day at a specified time.

**Water Manager (If drain kit is fitted)**
Select the preferred water management method:

- Salinity Measurement - replaces water when Salinity level reaches set point.
- Timed Drain - drains Tank After 8 tank fill cycles or every 1-2 hours (system dependant).
- No Drain Control - salinity control external to electronics eg. continuous bleed.
- No Water Thermostatic - allows Thermostatic control in VENT mode. No water present. Cooling performance is limited.

**Weatherseal Open Speed**
The cooler fan will turn on at the specified Weatherseal opening speed for the first 10 seconds each time it starts up. It will then return to the set fan speed.

**Prewet**
When COOL mode is activated, the pump will run for 90 seconds before the fan is switched on.

**Salinity Level**
Sets the salinity level at which the tank will drain in “SALINITY MEASUREMENT” mode.

**Tank Drain Delay**
Sets the time delay before the drain valve opens after the pump in the cooler is turned off.

**AutoClean**
Select the preferred cleaning interval (50 / 100 / 200 hours). At 8.00am after the selected running hours has been reached, the cooler will drain the tank, fill with fresh water and operate the pump for 5 minutes. When complete, drains the tank and returns to previous operation mode.

It is required that all units be connected to the mains supply through an independent circuit, suitably protected by fuse or circuit breaker. Ensure that the power supply is sufficient for the rating indicated on the serial plate. Wire the unit in accordance with all state and local regulations.

NOTE

An all pole disconnection switch must be incorporated in the fixed wiring in the accordance with the wiring rules.

## COMMISSIONING COMPLETION CHECKLIST

### COOLER

□ SECURE - The cooler is secure and level on the dropper using all fixings supplied.

□ SEALED - The dropper and all penetrations are correctly flashed and sealed.

### PLUMBING

□ FLUSHED - The water pipes were flushed of any foreign materials before connection to cooler was made.

□ NO EXTERNAL LEAKS - The water is connected with no leaks at fittings.

□ NO INTERNAL LEAKS - Check all internal water hoses are securely fitted to water distribution spreaders and other internal fittings.

□ SECURE - Water pipes are correctly saddled as per plumbing regulations.

□ OWNER INSTRUCTIONS - The owner has been instructed on how to isolate the water to the system in case of emergency.

### DRAIN VALVE

□ INSTALLED - The drain valve is installed correctly, as detailed in this installation manual.

□ DISCHARGE - The drain water does not discharge onto the roof surface.

□ WATER LEVEL - Water level has been set correctly, as detailed in this installation manual.

□ TESTED - Drain the tank. Check the drain fittings and pipes, making sure there are no leaks.

### POWER

□ REGULATIONS - The power supply adheres to all local and national regulations and is wired back to the distribution board on its own separate circuit.

□ CHECK CABLES - Cables have been correctly connected to the control boxes:

- □ Power supply
- □ Motor cables (x2)
- □ Control cable
- □ Drain valve
- □ Solenoid cable
- □ Pump cable
- □ Probe cable

□ OWNER INSTRUCTIONS - The owner has been instructed how they can electrically isolate the unit at the meter box in case of an emergency.

### DUCTWORK

□ NO LEAKS - All ducts are hung correctly and there are no air leaks.

□ CONTROLLER SEALED - All wall holes behind the MagIQtouch controller have been sealed.

□ QUIET - Check that the cooler runs quietly and with an even distribution of air to all outlets.

□ AIR BALANCE - The air balance for all outlets has been adjusted to the customer's satisfaction.

### FLUSHING CHILLCEL PADS

□ PADS FLUSHED - To prevent initial start-up odours from the cooling pads, it is a requirement to flush water through them and drain the tank. Operate in COOL mode, lowest speed for 5 minutes, then drain the tank. Repeat several times if necessary.

### FINAL TEST

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

### CUSTOMER HANDOVER

□ Principles of Ducted Evaporative Cooling explained.

□ How far the windows need to be opened.

□ How to turn the cooler on.

□ How to operate the MagIQtouch controller.

□ How to drain the cooler.

□ How to isolate power and water to the cooler.

□ Maintenance Schedule requirements.

□ The customer has been given the owner's manuals & warranty card.

### CLEAN-UP

□ All the installation rubbish has been removed and, if applicable, any property damage repaired. Your aim should be to have the customer not even be aware that you have been on site.

### FINAL CHECK

□ With all chillcel pads and panels in place and the unit running for a short period in cooling mode, ensure all pads have even water saturation and there are no visible water leaks.

## TROUBLE SHOOTING

| Symptom | Cause | Action |
|---|---|---|
| **Inadequate cooling** | Under-sized cooler. | Replace with larger cooler. |
| | Under-sized ducts. | Carry out cooling load design to determine correct size unit, ducting and outlets required. |
| | Clogged or dirty cooling pads. | Clean or replace pads. |
| | Dry pads or lack of water while cooler is operating. | Check water distribution system for possible obstruction in hoses. Check pump. |
| | Insufficient air discharge openings or inadequate exhaust from building, causing high humidity and discomfort. | Make sure there is adequate provision for exhausting stale air from building (open windows and doors). |
| | Excessive ambient humidity (see also item above re inadequate exhaust). | On days during summer when ambient humidity is high the cooler will not reduce the temperature as much as on drier days. There is no remedy except to shut off the pump. |
| **Noisy cooler** | Fan out of balance due to dirt. etc. | Clean the fan. |
| | Too much back pressure.<br>Tight duct bends.<br>Grilles too small. | Re-evaluate design; improve duct layout; change grille sizes. |
| **Pump fails to operate.** | Circuit breaker tripped. | Check pump for faults. Replace if necessary. |
| | Pump motor failure. | Replace pump. |
| **Fan fails to start.** | Main power circuit breaker tripped. | Check cause of overload. Reset circuit breaker. |
| | Fan motor burned out. | Replace motor. |
| | Low system voltage. | Consult with power supply authority. |
| | Check fault condition via the tri-colour LED on cooler electronics box. | Rectify fault as indicated and restart the cooler. |
| | MagIQtouch Controller failure. | Replace MagIQtouch Controller. |
| **Pump runs but no water circulation / Pump runs but pads lack water** | Insufficient water in tank. | Adjust float level. |
| | Water hoses blocked. | Check and clean out blockage. |
| | Pump strainer blocked. | Clean pump strainer. |
| | Insufficient water supply pressure | Check and confirm water supply pressure |
| | Water solenoid is installed incorrectly | Check installed in the correct water flow direction |
| **Continuous overflow of water.** | Float valve adjustment not correct. | Adjust float valve. |
| | Heavy pad deposits. | Clean or replace pads. |
| | Drain Valve failure. | Replace Drain Valve. |
| | Water solenoid is installed incorrectly | Check installed in the correct water flow direction |
| **Water entering cooler outlet.** | Loose water hose connections. | Tighten connections. |
| | Water hose broken. | Replace cracked or broken hoses. |
| | Cover not fitted on float valve. | Replace float valve. |
| | Pads not fitted correctly into pad frames. | Install pad frame correctly. |
| | Incorrect or damaged pads. | Replace with new Chillcell pads. |
| **Unpleasant odour.** | New cooler pads. | Fill tank, run pump for a short period to wash pads, drain tank, refill and repeat several times if odour persists. Odour will dissipate after a number of hours of operation. |
| | Cooler located near source of unpleasant odour. | Remove source of odour or relocate cooler. |
| | Algae in tank water. | Drain pan, clean thoroughly with strong cleansing agent, refill, change pads. |
| | Pads remain wet after shut down. | Run fan on "vent" for 10 minutes after cooling cycle to dry pads out. |
| | Heavy pad deposits. | Clean or replace pads. |
| **Air Sensor not working** | Air Sensor not plugged into the control box | Plug Air Sensor cable into the electronics control box. |
| | Air Sensor failure | Replace Air Sensor |

| Version | Date | ECN | Author | Approval |
|---|---|---|---|---|
| A | 02.08.2023 | 00583 | D.W | C.A |
| B | 22.08.2023 | 00583 | D.W | M.G |
| C | 10.10.2023 | 00798 | D.W | M.G |

**Warranty Service**
Australia: 1300 650 644
New Zealand: 0800 589 151

**Seeley International Technical Support**
Australia: 1300 650 399
New Zealand: 0800 589 152

For all other regions, contact your local distributor:
**seeleyinternational.com**

**Online Support Portal (AUS/NZ)**
Scan or Click QR Code

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.