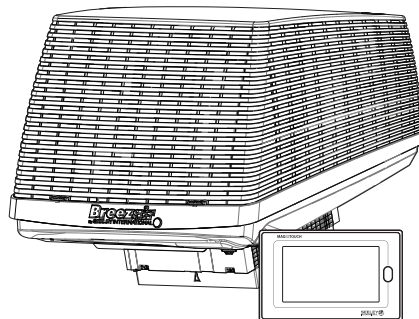
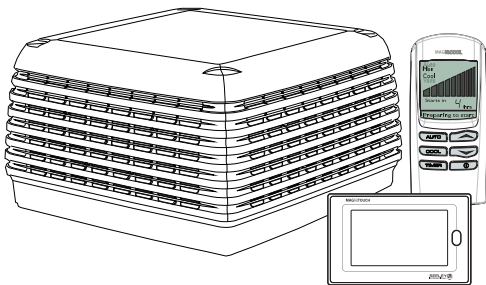
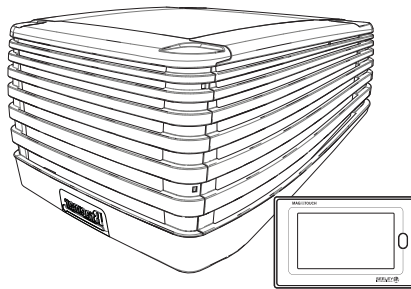
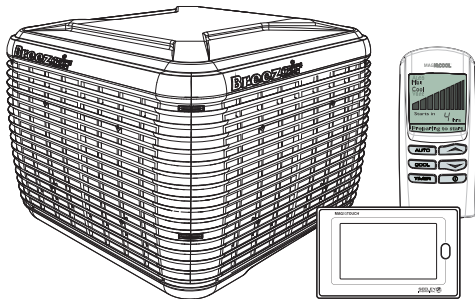




SERVICE GUIDE

MagIQtouch & MagIQcool Controller compatible
Breezair, Braemar & Coolair models 2023/2024



coolair
By SEELEY INTERNATIONAL

Braemar
By SEELEY INTERNATIONAL

Breezair
By SEELEY INTERNATIONAL



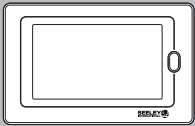
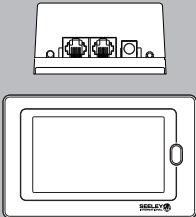
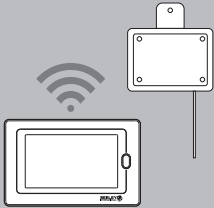
TABLE OF CONTENTS

MAGIQTOUCH/MAGIQCOOL CONTROLLER OPTIONS	1
COOLER FAULT CODES	
Cooler Electronics Box	2
BREEZAIR EXQ / EZQ / EXS EVAPORATIVE COOLER	
Quick Reference Guide	3
Cooler Electronics	4
Configuration of Drain Valve with Shorting Plug	4
EXQ/EXS Diagnostic Fault Codes	5
LED#1 Hall Effect Sensors	5
LED#2 Motor Thermal Overload	5
LED#3 Fan Speed	6
LED#4 Mains Power	6
EXQ/EXS Diagnostic Led	7
Salinity LED	7
Fan Motor Testing	8
Fan Motor Removal - Large Cabinet	8
Fan Motor Removal - Small Cabinet	9
Fan Motor Re-Assembly	11
Refitting the Pad Frames	12
BRAEMAR LCQ / LCS / BMQ & CPQ	
BREEZAIR EVAPORATIVE COOLER TBQ & TBS	
Quick Reference Guide	13
Cooler Electronics	14
Configuration of Drain Valve with Shorting Plug	14
LCQ/LCS/TBQ/TBS/BMQ/CPQ Diagnostic Fault Codes	15
Salinity LED	16
BRAEMAR LCQI / LPQI	
BREEZAIR EVAPORATIVE COOLER XTR / TBQI / TBSI	17
Cooler Electronics	17
Motor Start-Up Procedure	17
Voltage Monitoring	17
Configuration of Drain Valve with Shorting Plug	17
Diagnostics Fault Codes	18
Component Compatibility with other Seeley Coolers	19
Salinity LED	19
Motor Replacement for Coolers	20
Quick Reference Guide	22
Removing Pad Frames	22
Cleaning the Water Spreaders	22
Refitting the Pad Frames	23
BREEZAIR XTR	24
Opening the Cabinet	24
Removing the Cabinet	24
Changing Chillcel Pads	25
Front Chillcel Pad	26
Rear Chillcel Pad	26
Side Chillcel Pads	26
Inner Chillcel Pads	27
Removing the Drain Valve	27
Float Valve Assembly	28
Setting the Water Level	29
Cleaning the Water Distributor	30
Conditioning the Water Distributor	31
Cooler Electronic Module	32
Cooler Flashing Requirements	33
MAGIQTOUCH CONTROL	35
MagIQtouch Controller	35
Communication Cable	35
Settings Menu	35
General Menu	36
Managing Faults	37
Fault Categories	38
Service Menu	38
Service Operating Screen	38
Controller or System Reset	39
Managing the MagIQtouch Controller	40
Connecting a Pre-Used Controller	40
Connecting a New Controller to an Existing System	40
Changing from MagIQtouch to MagIQcool Controller	40
Changing from MagIQcool to MagIQtouch Controller	40
MAGIQTOUCH WIFI CONTROL	41
Location	41
Installation - Cooler	41
Wi-Fi Module Illuminating LED's	41
Wall Control Configuration	41
Wi-Fi Signal Strength	42
Trouble Shooting	43

TABLE OF CONTENTS cont

MAGIQTOUCH RF CONTROL	
Wireless RF Signal Range	44
Pairing Additional Wireless Controller	44
Check if 2x RF Controllers have been Installed	45
Battery Replacement	46
Wireless Connection Maintenance	46
Check/Modify Wireless Configuration	46
Reset/Remove this Controller from the System	46
Wireless Receiver Replaced	46
MAGIQCOOL CONTROL	
MagIQcool Controller Functions	48
Entering Parameter Mode	48
Accessing Fault Logs	49
SWITCH PLATE CONTROL	
Controller Functions	49
BMS M1 INDUSTRIAL CONTROL	
BMS M1 Inputs	50
BMS M1 Outputs	50
BMS MS1 INDUSTRIAL CONTROL	
Primary Mode	51
Secondary Mode	51
BMS MS1 Inputs	51
BMS MS1 Outputs	51
Primary Installation	51
Secondary Installation	51
PRE-WET FUNCTION	
For Coolers with Water Management System Fitted	52
WATER COMPONENT TESTING	
Water Salinity Probe Testing	53
SETTING THE WATER LEVEL	54
SEASONAL MAINTENANCE PROCEDURES AND CHECKS	
Maintenance Schedule Servicing	55
Seasonal Maintenance	55
Definitions	55
External Inspections	55
Pad Frame Assemblies	55
Water Distribution System	56
Fan Motor	56
Electrical	56
Cleaning	56
Controls & Operation	56
Check your Local Regulations:	56
Braemar/Coolair Models	57
Breezair Models	57
Braemar LPQI Models	57
Breezair XTR Models	57
TECHNICAL BULLETINS	
A01/12 Seeley Service Memo	59
A12/14 Breezair EXS Pad Configuration	60
Icon Control Box Fan Speed LED Behaviour	61
A02/09 Circuit Protection for Icon	62
A13/08 Icon Electrical Power Supply Requirements	63
A16/08 Water Distribution Hose Connections	64
A06/07 FEAC Water Supply Requirements	65
A09/18 Coolers Installed In Bushfire Prone Areas	66
CPMD Minimum Speed Setting on Pre-MagIQtouch Wall Control	68
Appliance Service Check – Breezair Feature MagIQtouch Controller	70
A01/16 Data/Comms and 240 Volt Cable Routing	71
A14/17 Braemar LPQI Replacing Brivis Contours	72
A01/18 LPQI O'ring/Nylon Washer	73
A12/07 Service on Screen on Initial Start-Up Of FEAC's	74
TECHNICAL BULLETIN	74
MAGIQTOUCH SYSTEM TROUBLESHOOTING GUIDE	75
FREQUENTLY ASKED QUESTIONS	77
CW-H DIAGNOSTIC FAULT CODES	
Operating and Fault Code Diagnosis	79
Fault History	79
CW-H Troubleshooting Guide	80

MAGIQTOUCH/MAGIQCOOL CONTROLLER OPTIONS

Wall Controller	Compatible Evaporative Coolers	Max Cable lengths from Wall controller to first cooler	Notes
 MagiQtouch Switch Plate Controller	BMQ CPQ EXQ,EXS EZQ LCQ/LCS LCQI LPQI TBQ/TBS TBQI/TBSI	100m MAX. 20m cable supplied ex factory.	For more information please refer to "SWITCH PLATE CON- TROL" on page 49
 MagiQcool Controller	BMQ CPQ EXQ,EXS EZQ LCQ/LCS LCQI LPQI TBQ/TBS TBQI/TBSI	100m MAX. 20m cable supplied ex factory.	For more information please refer to "MAGIQCOOL CONTROL" on page 48
 MagiQtouch Controller (hardwired)	BMQ CPQ EXQ,EXS EZQ LCQ/LCS LCQI LPQI TBQ/TBS TBQI/TBSI	40m MAX. 20m cable supplied ex factory.	For more information please refer to "MAGIQ- TOUCH CONTROL" on page 35
 MagiQtouch WI-Fi	BMQ CPQ EXQ,EXS EZQ LCQ/LCS LCQI LPQI TBQ/TBS TBQI/TBSI	30m MAX. including WIFI Module & wall controller combined. 10m & 20m cables supplied ex factory.	WI-Fi Smart App Control- ler only compatible with MagiQtouch Hardwired. For more information please refer to "MAGIQ- TOUCH WIFI CONTROL" on page 41
 MagiQtouch Wireless Smart Controller	BMQ CPQ EXQ,EXS EZQ LCQ/LCS LCQI LPQI TBQ/TBS TBQI/TBSI	20m Cable MAX. to Wireless Smart Receiver. 20m cable supplied ex factory. 30m MAX. from Receiver to Wireless wall controller depending on environment.	For more information please refer to "MAGIQ- TOUCH RF CONTROL" on page 44

COOLER FAULT CODES

COOLER ELECTRONICS BOX

There are two LED indicators on the main printed control board assembly (located in the control box).

- Tri-Colour LED (upper LED) is used as an operational and fault indicator.
NOTE: Tri-colour LED double flashing Green (every 2 seconds) = Normal Operation
- Red LED (lower LED) is used to indicate the condition of water salinity and configuration of the water management system.



Where both LED's are indicating (ie: Upper LED = GREEN 2 flashes and Lower LED = RED 4 flashes), the Diagnostic system is advising that the cooler is in "Normal Operation" and that the salinity management setting for the cooler is set to "Bleed Tray - No Drain Valve" operation.

DIAGNOSTIC (TRI-COLOUR) LED

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 seconds	Normal Operation
Red	1 Flash	Fault Code #1 Communication Failure
	2 Flashes	*Fault Code #2 Failure to detect water at Low level probes within 20 mins.
	3 Flashes	*Fault Code #3 Failure to detect water at High level probes within 20 mins.
	4 Flashes	*Fault Code #4 Failure to clear probes during drain within 20 mins.
	5 Flashes	*Fault Code #5 Damaged or Dirty Water Probes.
	6 Flashes	*Fault Code #6 Water not leaving High level probe.
	7 Flashes	*Fault Code #7 Motor Fault
	8 Flashes	*Fault Code #8 Low Voltage (Warm Start)
	9 Flashes	Fault Code #9 Incorrect Supply Frequency.
	10 Flashes	(Chlorinator Fault - Reserved for CW-H)
	11 Flashes	(Smart Card Error - Reserved for CW-H)
	12 Flashes	(Motor Failed - Reserved for ENV)
	13 Flashes	(Not in use)
	14 Flashes	(Water Cycle too long - Reserved for CW-P)
	15 Flashes	(Pressure out of Range - Reserved for CW-P)

WATER MGMT / SALINITY (RED) LED

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	Bleed Tray - No Drain Valve.
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




For more information on Diagnostic and Water Management/Salinity Codes, please refer to "EXQ/EXS DIAGNOSTIC LED" on page 7 "LCQ/LCS/TBQ/TBS/BMQ/CPQ DIAGNOSTIC FAULT CODES" on page 15 and 16 "LCQI/LPQI/XTR/TBQI/TBSI DIAGNOSTIC FAULT CODES" on page 18 and 19. "CW-H DIAGNOSTICS FAULT CODES" on page 78.

Note: CW-P and ENV model cooler information is not included in this manual.

BREEZAIR EXQ / EZQ / EXS

EVAPORATIVE COOLER

QUICK REFERENCE GUIDE

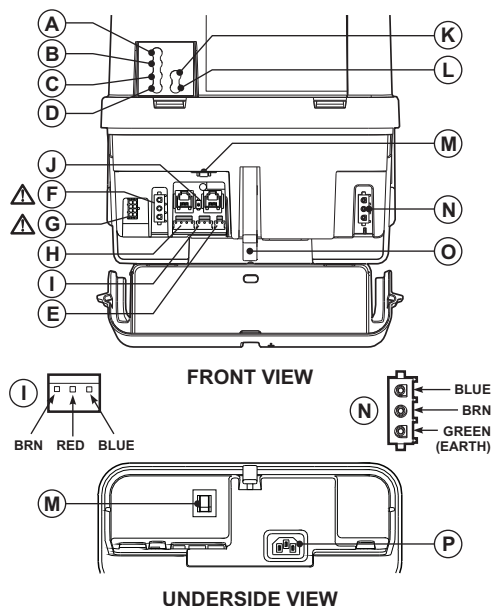
Component	EXQ	EZQ	EXS	Part No.	Watts	Total Max Amps	Motor Resistance
Fan Motor (Inverter)	130		140	095929	500W	3.8	Each winding should be approximately equal to the others (+/-10ohm) 15-24ohms   
	150		160	095936	550W	3.8	
	170		180	095943	750W	5.8	
				095943	750W	5.6	
	190		200	095950	1100W	7.3	
	210		220	095967	1500W	9.0	
		215		095967	1500W	9.0	

Component	EXQ / EZQ / EXS	Part No.	Voltage	Ohms
Tornado	✓	095806	240Vac	122 + -6
Drain valve	Optional	105345	24Vac	
Solenoid valve	Optional	834320	24Vac	40 + -10%
Cooler Electronics Box	✓	116815		
Water Management Probe	✓	833811		

BREEZAIR EXQ / EZQ / EXS EVAPORATIVE COOLER cont

COOLER ELECTRONICS

Note! The EXQ/EZQ/EXS cooler electronics box is fully backwards compatible with 2004/05 product (with the inclusion of a new wall control and communications cable). It is not compatible with 2003/04 EXD and EZD Icon product.



ILL1833-A

Legend

- A - Hall Effect LED
- B - Thermal Overload LED
- C - Fan Speed LED
- D - Power LED
- E - Inlet Solenoid
- F - Motor Power
- G - Motor Overtemp Sensor Lead
- H - Water Probes
- I - Drain Valve
- J - Wall Control
- K - Tri-colour Diagnostic LED
- L - Water Manager Status LED
- M - Circuit Breaker (pre-2021)
- N - Pump
- O - Mains Power Isolation Switch
- P - Mains Power Connector

CONFIGURATION OF DRAIN VALVE WITH SHORTING PLUG

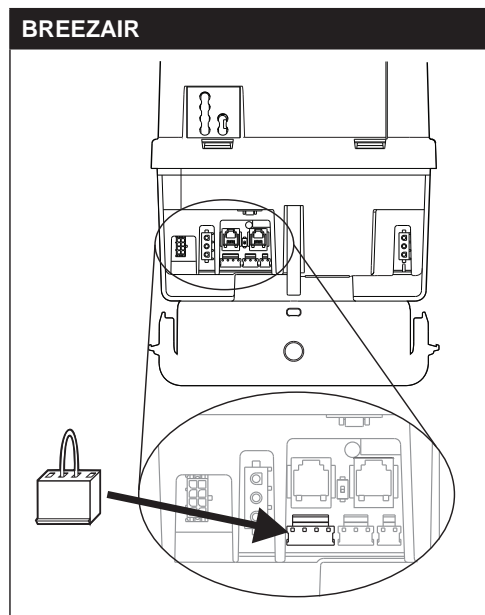
Note! This procedure is not backward compatible for 2001 CPMD's and is only an aid to installation.

A shorting plug should be fitted to the cooler electronics box of coolers that do not have a drain valve installed (i.e. those with bleed tray).

The shorting plug must be inserted before power is applied to the cooler electronics. At power on the electronics recognises the water probes are not connected and automatically operates as "NO DRAIN CONTROL".

Note! This will override what has been set in the MagIQtouch controller SETTINGS menu.

If the shorting plug is removed whilst power is on, the change will not be noticed by the cooler electronics until the next power on, when parameters will be automatically changed.



ILL1362-B

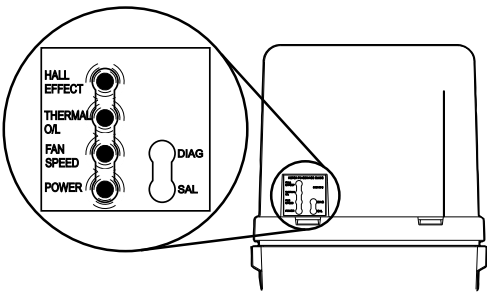
BREEZAIR EXQ / EZQ / EXS

EVAPORATIVE COOLER cont

EXQ/EXS DIAGNOSTIC FAULT CODES

Breezair EXQ/EZQ/EXS coolers incorporates a Seeley electronically commutated Direct Drive Motor.

Diagnostic fault codes can be viewed on the cooler electronics box.



ILL1651-A

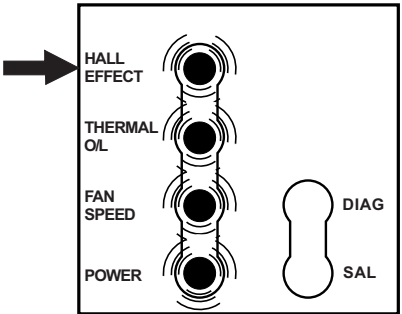
LED	Indicates
Hall Effect	ON = Normal operation. OFF = One or more Hall effects sensors in motor not detected.
Thermal O/L	ON = Normal Operation. OFF = Thermal Overload in motor tripped. (Caution! Motor in overload may re-start without warning.)
Fan Speed	ON = Normal Operation. OFF or Flashing = Motor 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.

Note! To accurately diagnose faults in the EXQ/EZQ/EXS product, we recommend that Service Technicians use a MagIQtouch compatible controller and a short test lead at the cooler. This way the functions of the cooler, as well as the diagnostic LED's can be immediately observed in relation to the commands issued by the controller.

IMPORTANT SAFETY NOTE!

When any side panels are removed, always test evaporative coolers with the pump disconnected or in ventilation mode, as wet roof surfaces can create a safety hazard. Also care must be taken when working in close proximity to moving parts.

LED#1 HALL EFFECT SENSORS

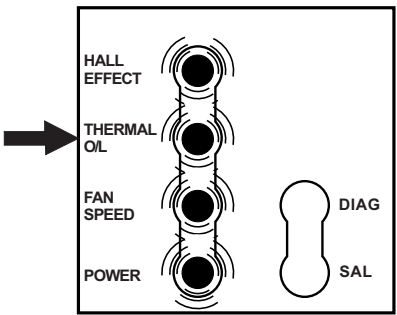


ILL1853-A

(Glowes GREEN in normal operation)
“ON” when all 3 Hall effect sensors are providing signals to the control board. If any sensor stops transmitting a signal, the GREEN LED will go out (indicating a faulty motor).

LED	Indicates
ON	Normal Operation
OFF	One or more Hall effects sensors in motor not detected

LED#2 MOTOR THERMAL OVERLOAD



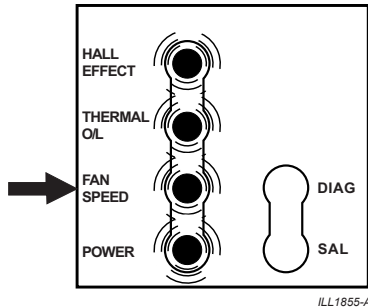
ILL1854-A

(Glowes GREEN in normal operation)
“ON” when thermal overload in motor is closed and “OFF” when thermal overload is open circuit.

LED	Indicates
ON	Normal Operation
OFF	Thermal Overload in motor tripped. (CAUTION! Motor in overload mode may re-start without warning.)

Note! If motor does not spin for more than 30 secs, the Thermal O/L LED will turn “OFF”.

BREEZAIR EXQ / EZQ / EXS
EVAPORATIVE COOLER cont
LED#3 FAN SPEED



(Glow GREEN in normal operation)

Will go "OFF" if motor rotates less than 30% of set speed, or does not turn for 30 seconds.

- Low Voltage power supply can effect the fan speed and cause the fan to shut down.
- Check voltage power supply is within specifications of 230V + or - 10%. (207 - 253V).
- Shorting between phase windings in the motor.
- Worn bearings causing motor to seize.
- Refer also to Technical Bulletin A13/08 shown on page "TECHNICAL BULLETIN: A13/08 ICON Electrical Power Supply requirements" on page 63.

LED	Indicates
ON	Normal Operation within 30% of setting.
OFF	The Fan Speed LED will extinguish if the motor rotates less than 30% of set speed*, and the motor will stop within approximately 30 seconds at speed 10 (longer at lower speeds), or if the fan remains stationary for 30 seconds after it was supposed to start. The Fan Speed LED will extinguish & Thermal O/L & Hall Effect LED will go out.

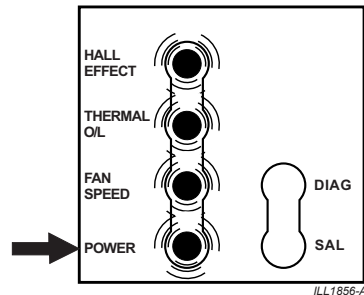
Will continually flash if the motor spins between 20 - 30% faster than set speed.

- Curve of fan blades installed backwards (motor may have recently been changed)
- Weather Damper jammed or not opening fully.
- Squashed ductwork, registers not open, under-sized ductwork or dropper restriction.
- Large extraction fans causing negative back-pressure.
- High Voltage power supply can effect the fan speed and cause the fan to shut down.
- Insufficient exhaust openings
- Check voltage power supply is within specifications of 230V + or - 10%. (207 - 253V)
- Refer also to Technical Bulletin A13/08 shown on page "TECHNICAL BULLETIN: A13/08 ICON Electrical Power Supply requirements" on page 63.

LED	Indicates
ON	Normal Operation.
OFF	If motor rotates 20% faster than set speed* this LED will continually flash, and the motor will stop within approximately 30 seconds (sooner at higher speeds). If the speed increases to 30% above the set speed* the LED will continue to flash and the motor will stop immediately. The Fan Speed LED will continue to flash & Thermal O/L & Hall Effect LED will go out.

** 'SET SPEED' – Is the fan/motor speed as selected by the operator or by the thermostat in the MagIQtouch Controller. Each motor speed has a specified value of input power assigned to it (factory set). Regardless of installation conditions the input power to the motor is held constant at that specific value. Data from sensors in the motor is converted to RPM in the electronic module. The speed at each of the 10 settings is allowed to vary +/- 20%. As soon as the motor RPM moves outside those limits (for any of the above listed causes) a fault mode is initiated and the LED behaves as stated above.*

LED#4 MAINS POWER



(Glow GREEN in normal operation)"ON" whenever power applied to the motor drive circuit from the controller. Will illuminate whenever the controller asks the Fan to operate. **Note:** If the POWER LED is ON but no other motor LED's, check the Motor Sensor cable is plugged in correctly. If it is, the motor is faulty.

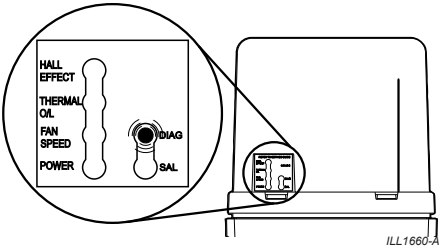
LED	Indicates
ON	Normal Operation, Controller "ON"
OFF	Controller "OFF"

BREEZAIR EXQ / EZQ / EXS

EVAPORATIVE COOLER cont

EXQ/EXS DIAGNOSTIC LED

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.**

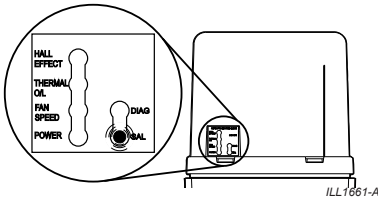


Colour	Flash	Indicates
No glow		No power or a failure has occurred. (Check power supply to cooler including isolating switch, circuit breaker and plug and socket connection in the roof space)
Green	Every 2 seconds	Normal Operation
Red	1 Flash	Fault Code #1 Communication Failure
	2 Flashes	*Fault Code #2 Failure to detect water at probes within 20 mins.
	4 Flashes	*Fault Code #4 Failure to clear probes during drain within 20 mins.
	8 Flashes	Fault Code #8 Supply Voltage error
	9 Flashes	Fault Code #9 Incorrect Supply Frequency.

Refer to section “**LCQ/LCS/TBQ/TBS/BMQ/CPQ DIAGNOSTIC FAULT CODES**” on page 15 and 17 for more detail on troubleshooting these fault codes.

SALINITY LED

The bottom LED is red only and displays salinity setting information for evaporative coolers installed. Parameters are set by MagIQtouch or MagIQcool wall controllers. Refer to MagIQtouch Controller - “COOLER MENU” on page 36 or “MAGIQCOOL Controller - ENTERING PARAMETER MODE” on page 48.



Salinity LED Indication for evaporative coolers fitted with drain valves.

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	Bleed Tray - No Drain Valve.
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 mode Indication for evaporative coolers fitted with bleed trays and shorting links only. NB: This is not a fault indication.

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

BREEZAIR EXQ / EZQ / EXS EVAPORATIVE COOLER cont

FAN MOTOR TESTING

Remove 3 Pin motor plug. Using a multi meter, measure the resistance of the 3 separate windings in the configuration below.



15-24 ohms



15-24 ohms



15-24 ohms

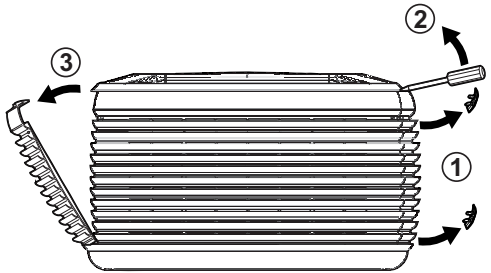
ILL1842-A

Note! All 3 separate windings must measure approximately equal values. Significantly differing values indicate a faulty motor.

FAN MOTOR REMOVAL - LARGE CABINET

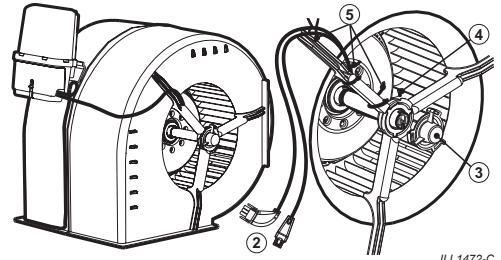
Important! Always isolate the water and electricity supply to the cooler before performing motor maintenance work on coolers.

1. Remove pad frames.



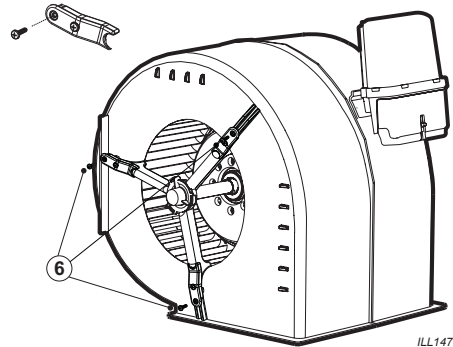
ILL187-K

2. Unplug motor cables (2) from Terminal Box.
3. Remove Dust Cap (rotate anti-clockwise).
4. Remove screw from Shaft end.
5. Cut cable ties & undo twist tie holding cables to scroll.

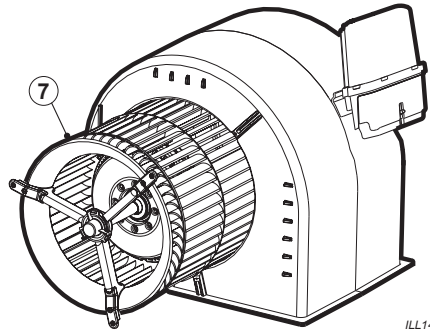


ILL1472-C

6. Remove outer screws from Scroll Brackets.
7. Remove fan assembly from Scroll.



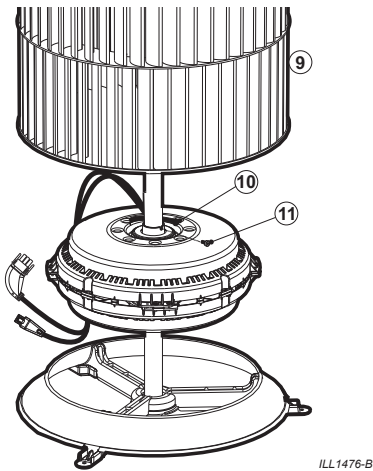
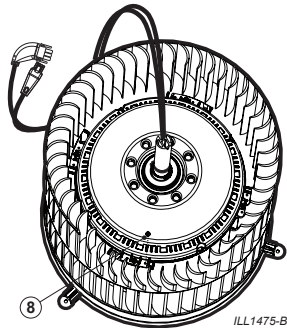
ILL1473-C



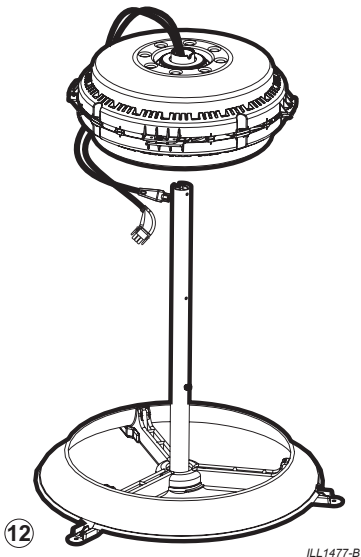
ILL1474-C

8. Remove screw holding motor to fan.
9. Rotate Motor clockwise to disengage from fan. Remove fan from motor / scroll centre assembly.
10. Cut cable tie holding cables to shaft
11. Remove screw holding shaft to motor.

BREEZAIR EXQ / EZQ / EXS
EVAPORATIVE COOLER cont



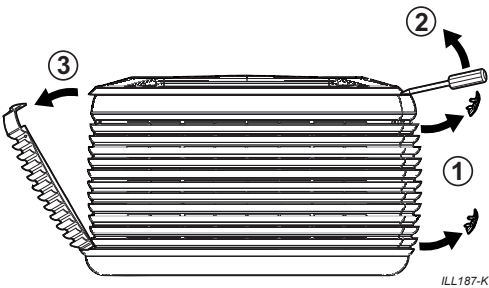
12. Remove motor from shaft / scroll centre assembly.



EXQ130 & EXS140 COOLERS ONLY
FAN MOTOR REMOVAL - SMALL CABINET
Important! Always isolate the water and electricity supply to the cooler before performing motor maintenance work on coolers.

The Fan/Motor assembly in small cabinet EXQ/EXS coolers is removed via the air outlet located at the bottom of the scroll assembly. This requires the scroll assembly to be disconnected from the tank. Remove the cooler lid to provide the best access. For safety reasons, we recommend to remove the cooler's scroll assembly from the roof before performing the motor change-over. This would require 2 persons.

1. Remove pad frames.

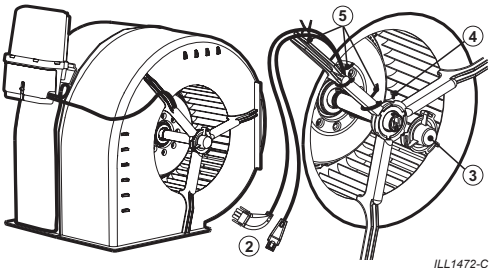


2. Unplug motor cables (2) from Terminal Box

3. Remove Dust Cap (rotate anti-clockwise)

4. Remove screw from Shaft end).

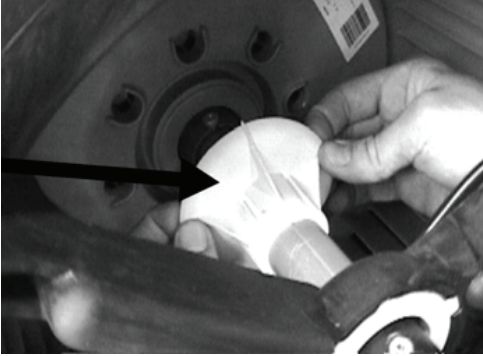
5. Cut cable ties & undo twist tie holding cables to scroll.



6. Remove 8 screws securing the coolers' lid to the corner posts and scroll. Remove the lid from the cooler.

BREEZAIR EXQ / EZQ / EXS EVAPORATIVE COOLER cont

7. Pull back seals and remove screws from shaft adaptor and motor hubs.



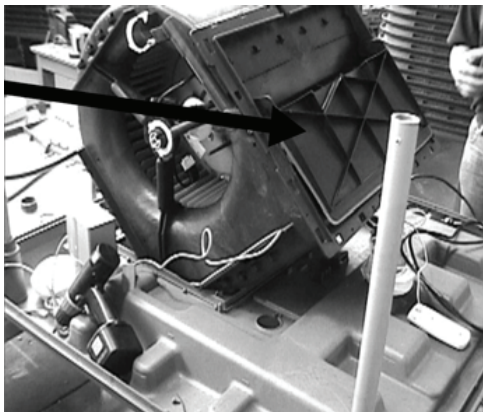
ILL1844-A

8. Remove scroll to tank joining screws (8 places).



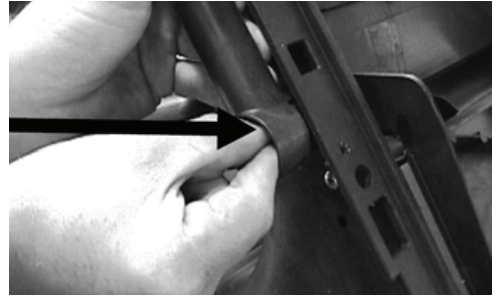
ILL1845-A

9. Lift & rotate scroll assy to expose the weatherseal flap.



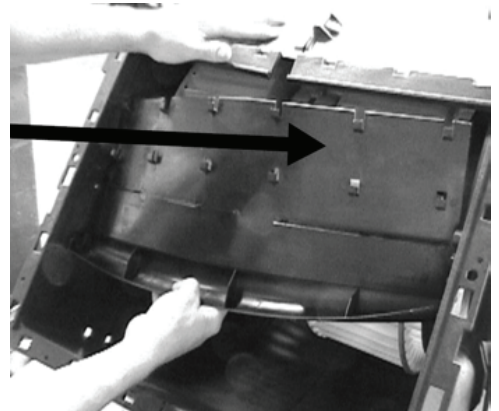
ILL1846-A

10. Disengage weatherseal arm clips & remove arm. Disengage the opposite side taking care not to crack or break the clips. Remove the weatherseal.



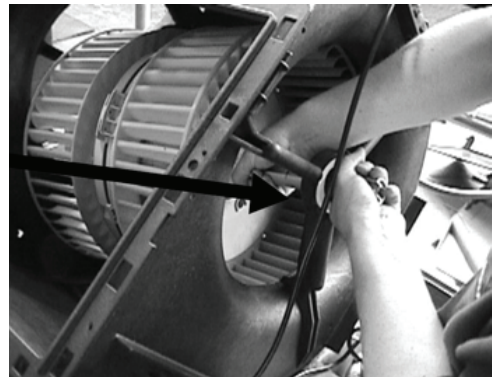
ILL1847-A

11. Remove screws holding cutoff plate (2 places). Remove the cutoff plate.



ILL1848-A

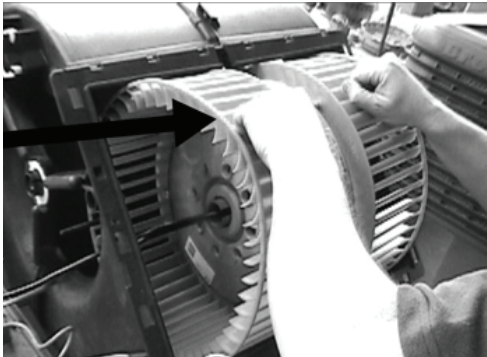
12. From the non-motor lead side of the scroll, remove the shaft adaptor and pull the motor shaft from the fan.



ILL1849-A

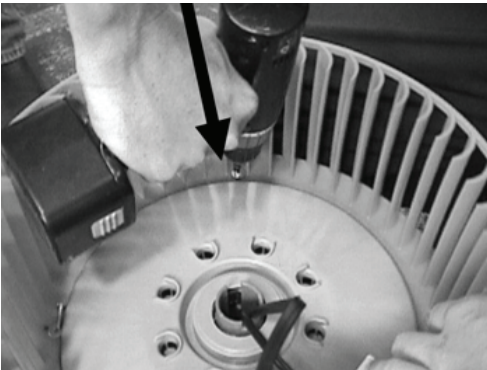
BREEZAIR EXQ / EZQ / EXS
EVAPORATIVE COOLER cont

13. Remove the motor fan assembly from the air outlet opening.



ILL1850-A

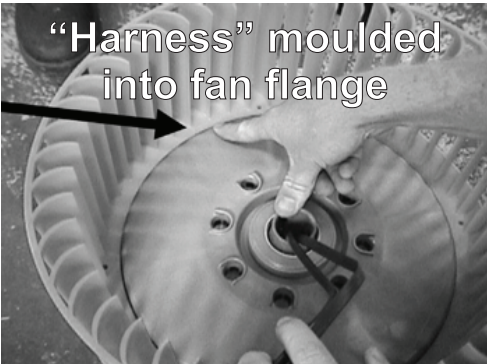
14. Remove 4 screws holding the fan to the motor body (both sides).



ILL1851-A

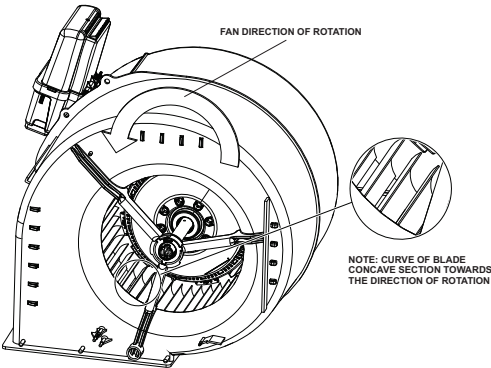
Fan Motor Re-Assembly

The word "Harness" is moulded onto the flange of one fan half. Make sure this half is used on the cable harness side of the replacement motor.



ILL1852-A

- Locate the motor & fan assembly in scroll. Note below for correct fan orientation in scroll.
- Refit motor shaft to scroll and motor/fan assembly. Ensure Shaft Adaptor and Seals are refitted during this operation. Care must be taken not to damage the wiring loom.
- The remainder of the re-assembly is a reversal of the dis-assembly procedure.
- **Note!** Ensure all cut cable ties are replaced.
- Ensure the fan can rotate freely and is clear of obstructions before re-assembly.
- Cooler must be fully function checked on completion.
- Make sure all cables are tied back into their original positions, well away from any water sources to prevent moisture ingress.



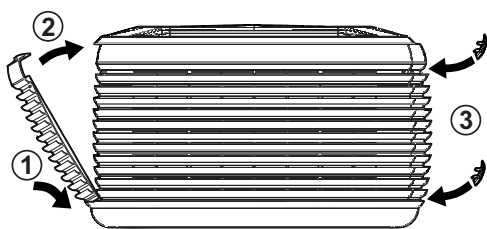
ILL2127-A

BREEZAIR EXQ / EZQ / EXS EVAPORATIVE COOLER cont

REFITTING THE PAD FRAMES

Refit the pad frames by locating the bottom edge in the tank groove, then push the top in under the lid.

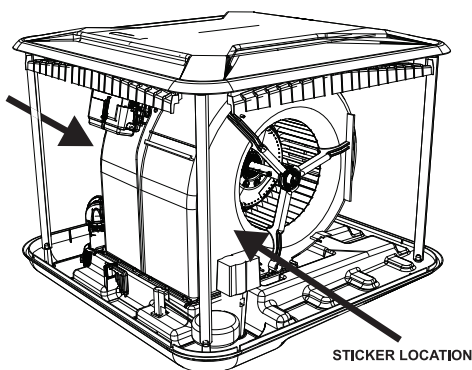
Refit the corner clips after replacing the pad frame(s).



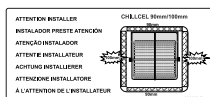
ILL1600-A

When re-fitting pads, ensure that they are fitted in their original positions. EXQ210, EZQ215 and all EXS model coolers have pads that vary from the standard 90mm thickness. While removing the pad frames, take note of the location each belongs to.

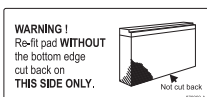
Check for stickers indicating correct locations for thick or cut edge pads.



STICKER LOCATION



100mm PAD LOCATION STICKER



CUT EDGE LOCATION STICKER

ILL1894-A

Stickers adhered to the fan scroll indicate the correct position.

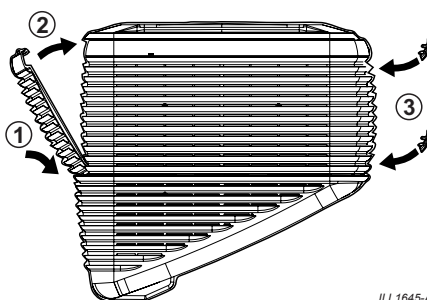
If fitted incorrectly they may cause problems:

- Thicker pads may catch on internal components causing damage.
- Thicker pads may impede the correct operation of the float valve.
- Incorrect positioning of pads may cause a drop in cooler performance.
- Incorrect fitment may allow water to bypass the pad and be carried over into the air stream and ducting.
- Water bypass may cause damage to internal electronic components.

EXTRA NOTES FOR EZQ MODEL ONLY

Before fitting the 4 main pad frames, make sure the 3 lower pads are refitted into their respective positions in the base of the cooler.

To refit the pad frame, locate the bottom edge in the tank groove, then push the top in under the lid. The frame should clip into the cooler with a firm push of the hand at the two points where the screwdriver was used. Remember to insert the corner clips after replacing the pad frame(s).



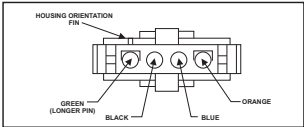
ILL1645-A

BRAEMAR LCQ /LCS / BMQ & CPQ

BREEZAIR EVAPORATIVE COOLER TBQ & TBS

QUICK REFERENCE GUIDE

Component	LCQ TBQ	LCS TBS	BMQ	CPQ	Part No.	Watts	Total Max Amps	Cap	Motor Resistance		
									Start/Com	Run/Com	Start/Run
Fan Motor (Variable induction)	250	280	500	450	095684	340W	2.9	25uf	15.3	17.7	32.5
	350	380	750	700	095691	430W	3.6	25uf	10.5	13.9	23.8
	450	480	900	850	095707	600W	4.6	25uf	11.0	8.2	18.5
			1150	1100	861579	750W	4.9	25uf	10.0	5.0	
	550	580			095714	950W	5.6	30uf	5.9	4.5	9.8



ILL1864-A

Component	LCQ TBQ	LCS TBS	BMQ	CPQ	Part No.	Voltage	Ohms
Tornado	✓		✓	✓	095806	240Vac	122 ±6
Drain valve	✓		Option	Option	105345	24Vac	
Solenoid valve	✓		Option	Option	834320	24Vac	40 ±10%
Cooler Electronics Box	✓		✓	✓	116891		
Water Management Probe	✓		Option	Option	833699		

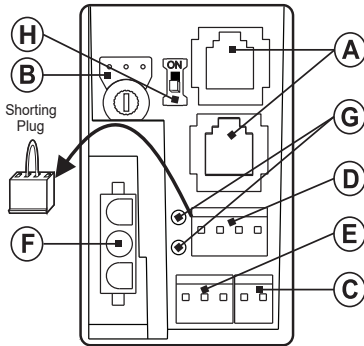
Seeley International Pty Ltd has a policy of continuous product development, therefore reserves the right to make changes to these specifications without notice. Whilst every care has been taken to ensure data accuracy compiled in the document, Seeley International Pty Ltd ACN 23 054 687 035 does not assume liability for any errors and or omissions.

BRAEMAR LCQ /LCS / BMQ & CPQ BREEZAIR EVAPORATIVE COOLER TBQ & TBS cont.

COOLER ELECTRONICS

The Red LED (right-hand LED) is used to indicate the condition of water salinity and configuration of the water management system. Tri-Colour LED (left-hand LED) is used as an operational and fault indicator.

Note! Tri-colour LED double flashing Green (every 2 seconds) = Normal Operation



ILL1062-I

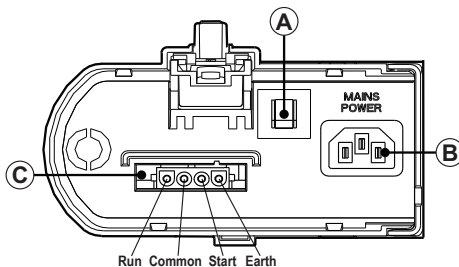
LEGEND

- | | |
|----------------------|----------------------------------|
| A - Controller Cable | E - Drain Valve |
| B - Speed Adjustment | F - Pump |
| C - Inlet Solenoid | G - Operation & Fault code LED's |
| D - Water Sensor | H - Dipswitch |

Ensure that plug connection orientation is correct.

Note! Controller cable (A) used in MagIQtouch compatible products is different to previous models and is NOT interchangeable.

CAUTION! It is possible to insert plugs up-side-down or to mis-align the connections. Care must be taken to ensure correct orientation and alignment.



ILL1412-B

LEGEND

- | | |
|---------------------|-------------------------|
| A - Circuit Breaker | C - Motor (240Vac) |
| B - Mains Connector | (Seelectric Motor Only) |

CONFIGURATION OF DRAIN VALVE WITH SHORTING PLUG

Note! This procedure is not backward compatible for 2001 CPMD's and is only an aid to installation.

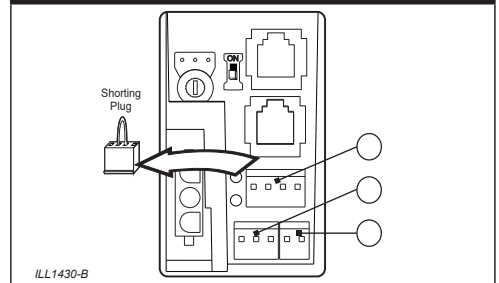
A shorting plug should be fitted to the cooler electronics box of coolers that do not have a drain valve installed (i.e. those with bleed tray).

The shorting plug must be inserted before power is applied to the cooler electronics. At power on the electronics recognises the water probes are not connected and automatically operates as "NO DRAIN CONTROL".

Note! This will override what has been set in the MagIQtouch Controller SETTINGS menu.

If the shorting plug is removed whilst power is on, the change will not be noticed by the cooler electronics until the next power on, when parameters will be automatically changed.

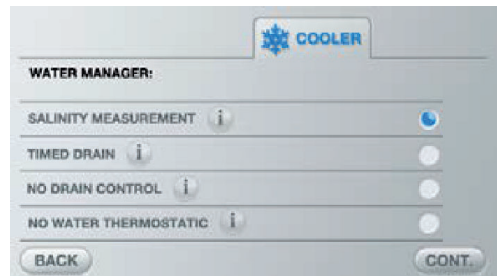
BRAEMAR



ILL1430-B

If an existing LCQ/TBQ/LCS/TBS cooler requires the drain and solenoid valve to be removed, and you are not certain it will accept the shorting plug, the water management parameter can be set manually using the MagIQtouch Controller.

Go to the SETTINGS menu, and under the COOLER heading is the option "Water Manager".

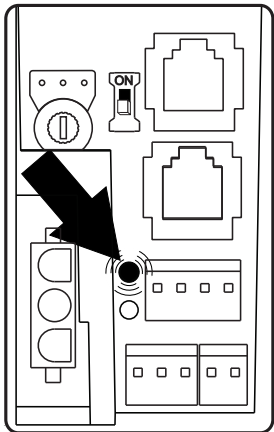


ILL1858-A

**BRAEMAR LCQ /LCS / BMQ & CPQ
BREEZAIR EVAPORATIVE COOLER TBQ & TBS cont.**

**LCQ/LCS/TBQ/TBS/BMQ/CPQ
DIAGNOSTIC FAULT CODES**

Fault codes can be viewed on the controller or on the cooler electronics box (tri-colour LED flashes).The upper tri-colour LED indicator will double flash GREEN continuously to indicate normal operation. It will flash RED to indicate a fault. The number of flashes indicates the error code.



ILL1014-J

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	2 Flashes	Normal Operation.
Red	1 Flash	Fault Code #1 Communication Failure
	2 Flashes	Fault Code #2 Failure to detect water at probes within 20 minutes.
	4 Flashes	Fault Code #4 Failure to clear probes during drain within 20 minutes.
	8 Flashes	Fault Code #8 Supply Voltage error
	9 Flashes	Fault Code #9 Incorrect Supply Frequency (Hz)

FAULT CODE 01 (1 Red Flash)

Communication Failure

- Ensure the wall control cable is fitted correctly.
- Check that 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/Coolair coolers the water level should be set to 5mm below the float valve base.
- Ensure probe plug is properly connected.
- Plug connections at electronic module upside down or misaligned.
- 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.

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.

BRAEMAR LCQ /LCS / BMQ & CPQ

BREEZAIR EVAPORATIVE COOLER TBQ & TBS cont.

FAULT CODE 08

Power has been interrupted to the cooler electronics momentarily for less than 5 seconds

Note! Not indicated on the controller or cooler electronic box. However, fault will be logged in the fault history Log. (Caused by short duration power outages).

- Isolator switch on cooler electronic box may have been turned OFF and back ON in less than five (5) seconds. Be sure to wait at least 6 seconds between power OFF and power ON.
- Check that mains power connection to the cooler electronics is secure.
- Check integrity of mains power supply. I.e. Active, Neutral and Earth terminations are in good condition and not loose.

If power interruption is LESS THAN 5 seconds: the cooler will turn OFF. With a Breezair remote control the cooler will restart operation the next time the remote transmits a signal (approximately 2 to 10 minutes between transmissions). Wall Controls will restart immediately power resumes.

If the power interruption is GREATER THAN 5 seconds: With a Breezair remote control the cooler will restart operation the next time the Remote transmits a signal (approximately 2 to 10 minutes between transmissions). Wall controls will require manual restarting.

FAULT CODE 09 (9 Red Flashes)

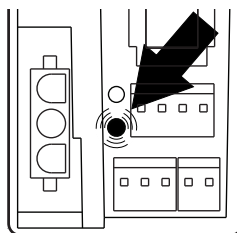
Incorrect supply frequency (Hz)

This fault will only be seen when the mains power supply frequency deviates from normal frequency by more than 8%. Mains power supply frequency should be 50Hz. If the frequency deviates outside preset limits of 46 - 54Hz then this fault will be indicated.

- Petrol generators are the most likely cause of this type of fault. This typically will not occur on mains power supplies.
- When dealing with Solar powered systems it is important to note the inverter used needs to be a true sine wave inverter.

SALINITY LED

The Red LED (right-hand LED) is used to indicate the condition of water salinity and configuration of the water management system. Parameters are set by MagIQtouch or MagIQcool wall controllers. Refer to page "MANAGING FAULTS" on page 37 or "MAGIQCOOL Controller - ENTERING PARAMETER MODE" on page 48.



ILL1429-C

Salinity LED Indication for evaporative coolers fitted with drain valves.

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	Bleed Tray - No Drain Valve.
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 (refer page 17).

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

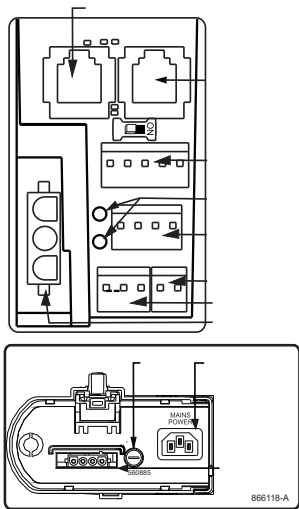
BRAEMAR LCQI / LPQI

BREEZAIR EVAPORATIVE COOLER XTR / TBQI / TBSI

COOLER ELECTRONICS

The Red LED (bottom LED) is used to indicate the condition of water salinity and configuration of the water management system. Tri-Colour LED (top LED) is used as an operational and fault indicator.

Note! Tri-colour LED double flashing Green (every 2 seconds) = Normal Operation



ILL2119-B

Ensure that plug connection orientation is correct.

Note! Controller cable used in MagIQtouch compatible products use RJ12 6P6C plugs. This is different to previous models which used RJ11 4P4C plugs.

MOTOR START-UP PROCEDURE

- Delayed start-up, 20 seconds
- Ramping PWM.

Note! Motor will not re-start within 20 seconds of receiving a stop command from the cooler controller.

VOLTAGE MONITORING

Cooler fan speed is restricted as supply voltage drops. At a level deemed to be too low, the cooler will display Fault Code 8 and shut down the fan. If correct voltage is re-instated, the cooler will resume full operation.

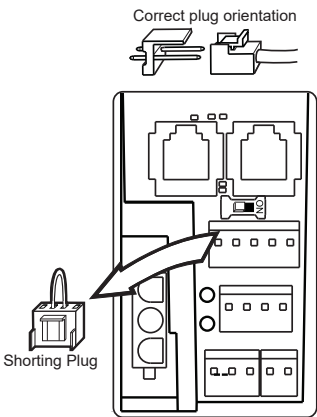
CONFIGURATION OF DRAIN VALVE WITH SHORTING PLUG

(Not applicable to XTR Models)

A shorting plug should be fitted to the cooler electronics box of coolers that do not have a drain valve installed (i.e. those with bleed tray).

The shorting plug must be inserted before power is applied to the cooler electronics. At power on the electronics recognises the water probes are not connected and automatically operates as “NO DRAIN CONTROL”.

Note! This will override what have been set in the MagIQtouch Controller SETTINGS menu.

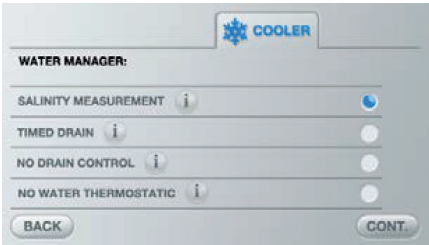


ILL2131-B

If the shorting plug is removed whilst power is on, the change will not be noticed by the cooler electronics until the next power on, when parameters will be automatically changed.

If an existing cooler requires the drain and solenoid valve to be removed, and you are not certain it will accept the shorting plug, the water management parameter can be set manually using the MagIQtouch Controller.

Go to the SETTINGS menu, and under the COOLER heading is the option “Water Manager”.

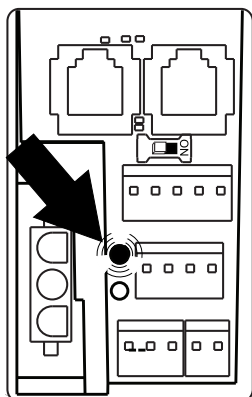


ILL1858-A

BRAEMAR LCQI / LPQI BREEZAIR EVAPORATIVE COOLER XTR / TBQI / TBSI cont.

LCQI/LPQI/XTR/TBQI/TBSI DIAGNOSTIC FAULT CODES

Fault codes can be viewed on the controller or on the cooler electronics box (tri-colour LED flashes). The upper tri-colour LED indicator will double flash GREEN continuously to indicate normal operation. It will flash RED to indicate a fault. The number of flashes indicates the error code.



ILL2120-B

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	2 Flashes	Normal Operation.
Red	1 Flash	Fault Code #1 Communication Failure
	2 Flashes	Fault Code #2 Failure to detect water at probes within 20 minutes.
	4 Flashes	Fault Code #4 Failure to clear probes during drain within 20 minutes.
	7 Flashes	Fault Code #7 Motor Error
	8 Flashes	Fault Code #8 Supply Voltage error

FAULT CODE 01 (1 Red Flash)

Communication Failure

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

FAULT CODE 02 (2 Red Flashes)

Failure to detect water at probes within 20 minutes

NEW: After 10 mins of failing to detect water, the Drain Valve will cycle and attempt another closing routine.

- Ensure the 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 is set too low. Refer "SETTING THE WATER LEVEL - XTR" on page 29.
- Ensure the probe plug is properly connected.
- Plug connections at electronic module upside down or misaligned.
- Water is too pure for the probes to sense.
- 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.

FAULT CODE 04 (4 Red Flashes)

Failure to clear probes during drain within 20 minutes

NEW: After 10 mins of continuing to detect water, the Drain Valve will cycle and attempt another opening routine.

- 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.

BRAEMAR LCQI / LPQI
BREEZAIR EVAPORATIVE COOLER XTR / TBQI / TBSI cont.

FAULT CODE 07 (7 Red Flashes)

Motor error

WARNING: Motor/Fan could re-start without warning as the controller attempts to re-start the motor within 30 seconds of initially failing this Fault Code.

- Ensure the motor power cable is fitted correctly to the control electronics.
- Ensure the motor communication cable is fitted correctly to the control electronics
-

FAULT CODE 08 (8 Red Flashes)

Supply Voltage error

WARNING: Motor/Fan could re-start without warning as the cooler will re-start should the voltage return to normal.

- Fan shuts down when supply voltage drops below 93V.

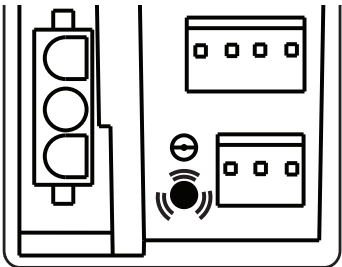
COMPONENT COMPATIBILITY WITH OTHER SEELEY COOLERS

Note! Drain Valves, Water Management Probes and Solenoids used in EXQ/LCQ/TBQ/BMQ/CPQ products are different to those used in the XTR/LCQI/TBQI/TBSI/LPQI models and are NOT interchangeable.

Refer to the table shown on page 22 for correct part numbers for LCQI/LPQI Spares items.

SALINITY LED

The Red LED (right-hand LED) is used to indicate the condition of water salinity and configuration of the water management system. Parameters are set by MagIQtouch or MagIQcool wall controllers. Refer to page "MANAGING FAULTS" on page 37 or "MAGIQCOOL Controller - ENTERING PARAMETER MODE" on page 48 of this service manual.



ILL2130-A

Salinity LED Indication for evaporative coolers fitted with drain valves.

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	Bleed Tray - No Drain Valve.
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

BRAEMAR LCQI / LPQI BREEZAIR EVAPORATIVE COOLER XTR / TBQI / TBSI cont.

MOTOR REPLACEMENT FOR COOLERS

Step 1 Isolate power

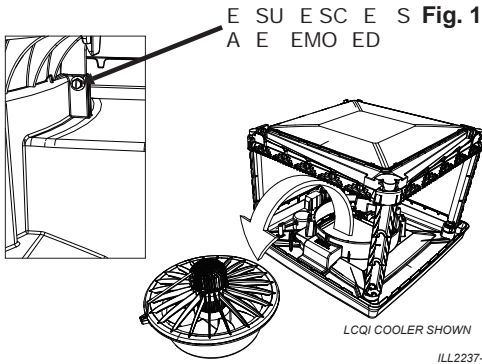
Isolate the cooler mains power supply at the site's electrical switchboard.

Step 2 Removing the control box

Place the on/off switch mechanism on the electronics module to the "O" (off) position. Remove the screw securing the electronics module to the tank and remove the electronics module. Unplug the two motor leads from the electronics module.

Step 3 Removing the venturi assembly

If required, remove the two screws securing the venturi assembly either side of the tank (Fig. 1). Remove the venturi assembly from the tank (Fig. 1).



Step 4 Remove the motor cable tether

Snip the cable tie holding the cables to the motor cable tether and remove the screws securing the motor cable tether to the motor end casing and the venturi. Remove the ferrite clamp attached across both motor cables.

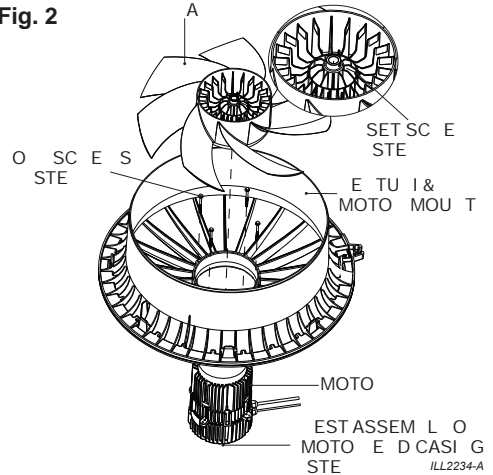
Step 5 Remove the fan

Turn the venturi assembly over, so that the assembly is resting on the top of the motor. Using a hex driver unfasten the set screw holding the fan to the motor shaft and remove the fan (Fig. 2).

Step 6 Removing the motor

Unscrew the four screws holding the venturi & motor mount to the motor, and remove the venturi & motor mount (Fig. 2).

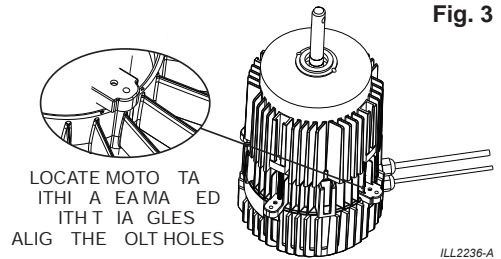
Fig. 2



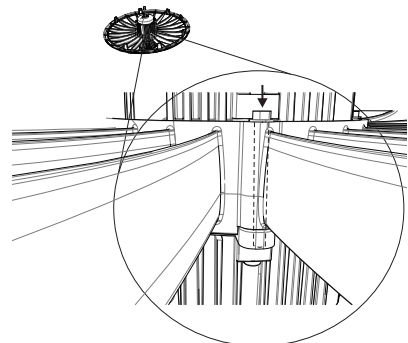
Step 7 Replacing the motor

Remove the motor and reassemble the venturi and motor mount to the new motor. Locate the motor tab within the triangle indicators on the motor mount and align the bolt holes (Fig. 3).

Fig. 3



Replace the four screws to secure the motor to the motor mount and venturi assembly.



ILL2595-A

BRAEMAR LCQI / LPQI

BREEZAIR EVAPORATIVE COOLER XTR / TBQI / TBSI cont.

Step 8 Refitting the fan

Locate the set screw on the fan to the dimple on the motor shaft. The flat on the motor shaft can be used as a visual indicator during alignment as this is directly opposite the dimple location.

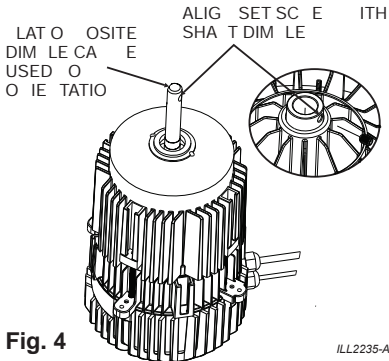


Fig. 4

ILL2235-A

Step 9 Refitting the motor cable tether

Turn the venturi assembly over and replace the motor cable tether, securing it with the two screws. Attach the clip-on ferrite across both motor cables then cable-tie the cables to the motor cable tether.

Step 10 Cooler assembly

Refit the venturi assembly into the tank. The venturi will only sit correctly in one orientation in the tank. The long ribs on the side of the venturi must align with the slots on the tank (Fig. 5).

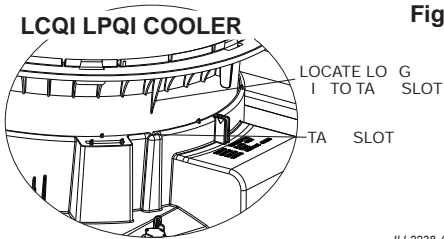
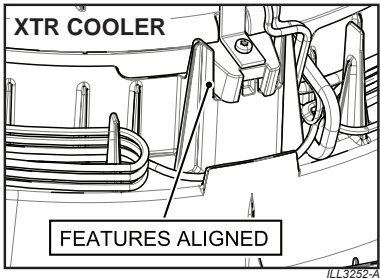


Fig. 5

ILL2238-A

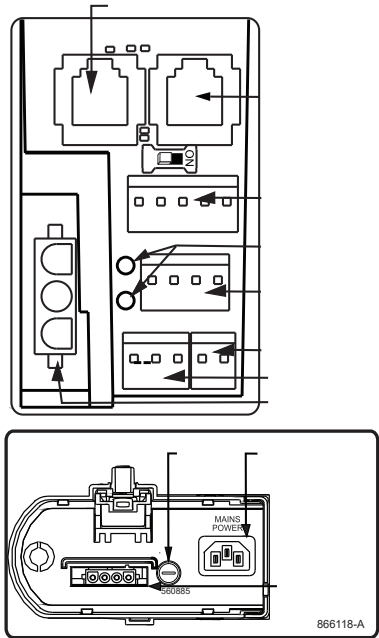


ILL3252-A

Step 11 Motor to control box connection

Plug the replacement motor leads into the electronics module (Fig. 6). Refit the electronics module to the tank, replace screw to secure. Turn the cooler's electronic module to the "I" (on) position.

Fig. 6



ILL2119-B

Step 12 Reconnecting mains power

Reinstate mains power supply to cooler at the site's electrical switchboard.

Step 13 Test the cooler

Test the cooler for correct operation at the wall control.

BRAEMAR LCQI / LPQI BREEZAIR EVAPORATIVE COOLER XTR / TBQI / TBSI cont.

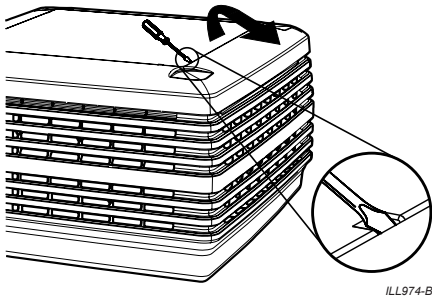
QUICK REFERENCE GUIDE

Component	Part No.	Watts	Total Max Amps
Fan Motor (Inverter) LCQI/LPQI	116952	340W	2.2
	116969	430W	3.5
	116976	600W	4.5
	116983	950W	6.3
Fan Motor (Inverter) XTR	120959	340W	2.2
	120966	430W	3.5
	120973	600W	4.5
	120980	950W	6.3

Component	Part No.	Voltage	Ohms
Tornado LCQI	095806	240Vac	122 ±6
Tornado LPQI	114798	240Vac	122 ±6
Tornado XTR	114804	240Vac	122 ±6
Drain valve LCQI/LPQI	116389	12VDC	
Drain valve XTR	120935	12VDC	
Solenoid valve	865607	12VDC	19.2±10%
Cooler Electronics Box LCQI/LPQI	117423		
Cooler Electronics Box XTR	117332		
Solenoid Cable	865614		
Water Management Probe	865621		

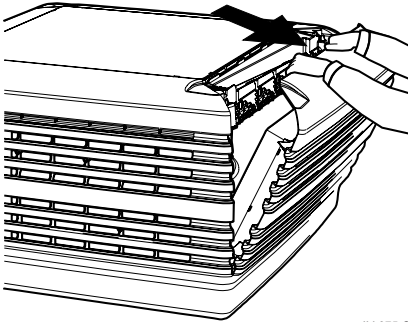
REMOVING PAD FRAMES - LCQI

Insert a flat screw driver tip into the slot as shown and lever until disengagement occurs.



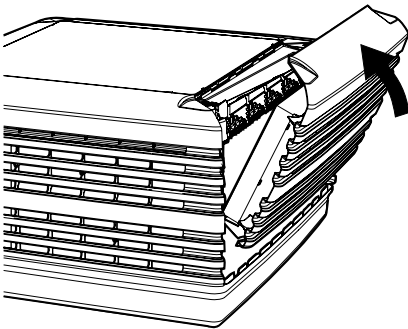
ILL974-B

Take hold of the pad frame and pull it towards you until the internal side clips disengage.



ILL975-C

Pivot the pad frame outwards and lift up. Take care not to damage the pad.



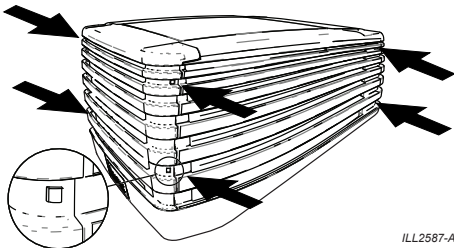
ILL976-D

EXTRA NOTES FOR LPQI MODEL ONLY

CLEANING THE WATER SPREADERS FOR THE BRAEMAR LPQI EVAPORATIVE COOLER

The spreader section of the water distribution system will need occasional maintenance and cleaning, depending on the frequency of use, water quality and associated calcification or solids build-up.

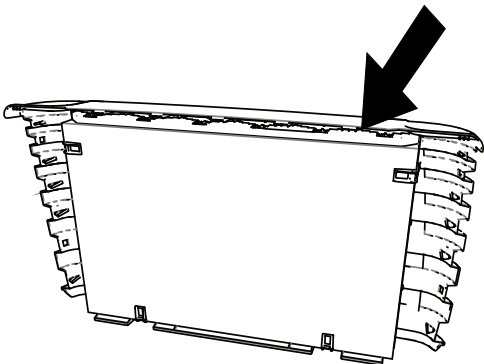
To access the water spreaders, remove the pad frames from the cooler to expose them.



ILL2587-A

**BRAEMAR LCQI / LPQI
EVAPORATIVE COOLER cont**

Release the pad frame clips and unclip the top of the pad frame from the lid - same as for other Braemar / Coolair coolers. The water distribution spreaders are located at lid height. Ensure the diamond shaped patterns are clear of any debris or build-up and that water flows freely through all the channels.

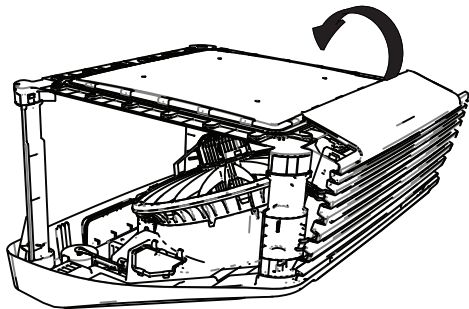


ILL2588-A

**REFITTING THE PAD FRAMES FOR THE
BRAEMAR LPQI EVAPORATIVE COOLER**

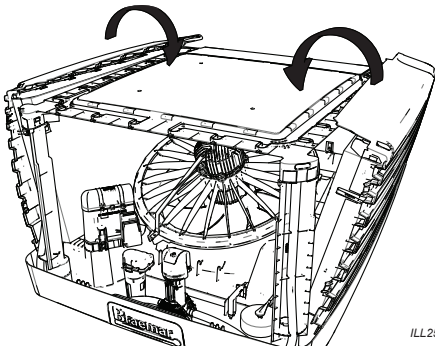
We believe that the order in which pad frames are removed and refitted is important to avoid breaking them. The pad frames are designed to overlap and interlock and so must be assembled in a specific order.

Assemble the rear pad frame first by locating the bottom edge inside the lip of the tank and rotating it forwards. Ensure the retainment lugs along the top of the padframe are fitted securely into the lid.



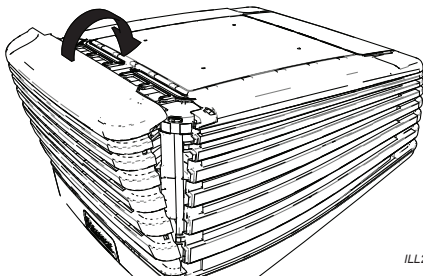
ILL2578-A

Once the rear pad frame is assembled, the 2 side pad frames can be fitted in the same way. Ensure the clips between the rear and the side panels are fully engaged.



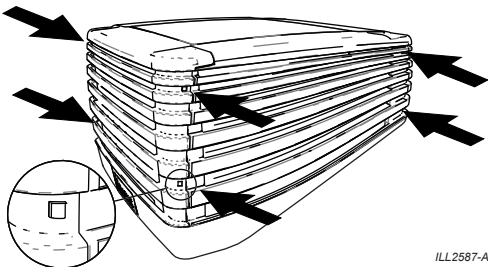
ILL2579-A

Assemble the front pad frame.



ILL2580-A

Where each of the padframes overlap there are 2 clips. Ensure all the clips are fully engaged.

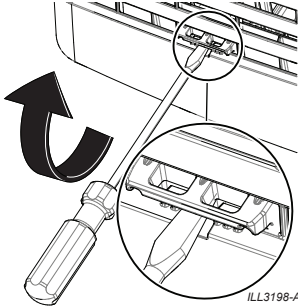


ILL2587-A

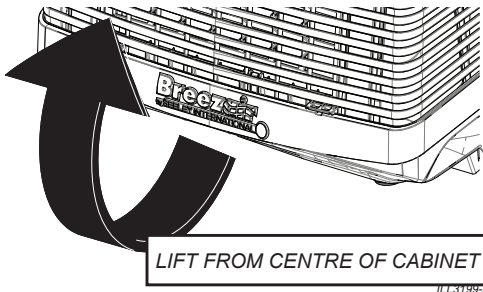
BREEZAIR XTR

OPENING THE CABINET - XTR

Unclip the cabinet from the tank at the two front latches using a 10mm flat head screwdriver. Rotate the clips upwards.



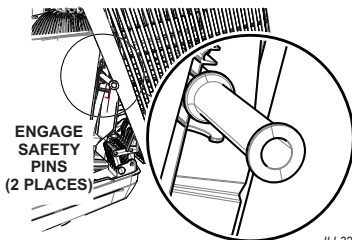
Lift up from the **centre** of the cabinet, adjacent to the badge. Lift the front edge of the cabinet upwards.



CAUTION: Avoid letting the cabinet fall backwards to the ground under its own weight, if necessary, rotate it over to ground level by hand.

Open the cabinet sufficiently enough to engage the 2 safety pins on either side of the cabinet.

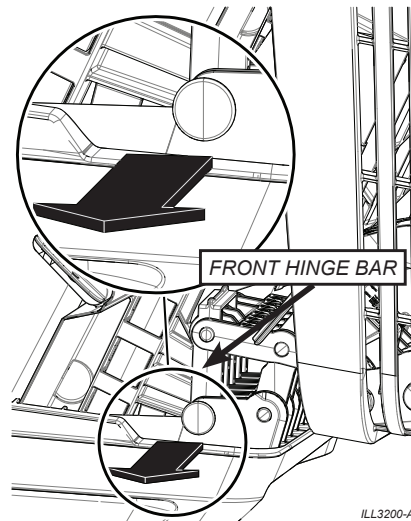
Engage the 2 safety pins on either side of the cabinet. Let the cabinet rest against the pins.



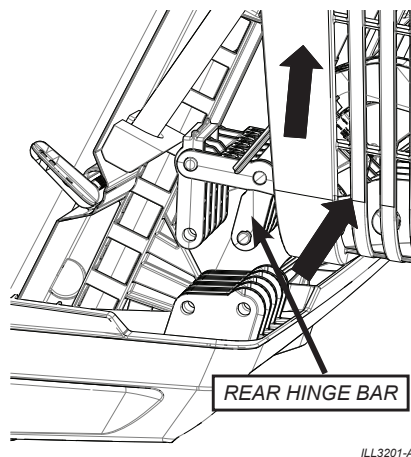
To close the cabinet, follow the above procedure in reverse order. **Ensure that the clips are engaged after closing.**

REMOVING THE CABINET - XTR

It is recommended that 2 people undertake this activity to assist the alignment of the cabinet during the hinge removal process. Go to one of the hinges connecting the cabinet to the tank and retract the hinge locking pin, then rotate the front hinge bar away from the tank. Store the hinge locking pin in a safe location.



Then wiggle the rear hinge bar across to totally disassemble the hinge from tank.



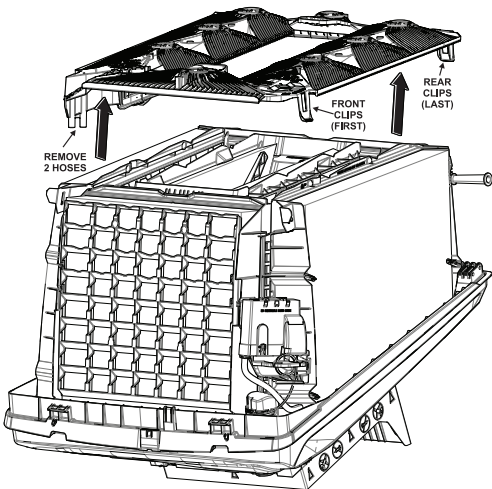
Disconnect the other hinge in the same way and move the cabinet away from the tank.

BREEZAIR XTR

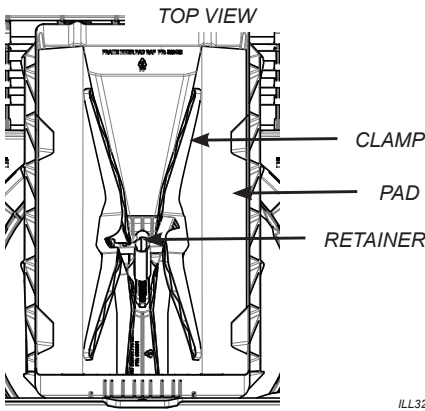
CHANGING CHILLCEL PADS

All chillcel pads can be exchanged without the need to completely remove the cabinet from the cooler, however the inner chillcel pads are accessed by removing the water distributor tray.

Disconnect the 2 pump hoses from the watering system tray. Unclip the front clips of the watering system. Then unclip the 2 rear clips of the watering system and lift up and away from the cooler. Place in a safe and clean location upside down.



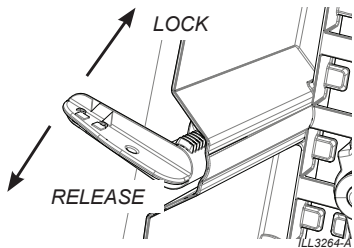
ILL3201-A



ILL3279-A

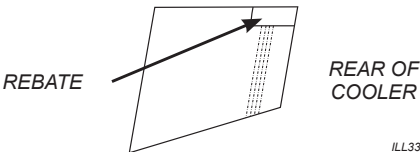
Twist the retainer anti-clockwise to release and lift out of the assembly, releasing tension to the clamps. Remove the clamps to access the inner chillcel pads.

The side pads are secured into the frames with rotating clips. To open the clip to release the pad, rotate it in an anti-clockwise direction and pull out to remove. To lock the clip, push it back in and rotate it in a clockwise direction.



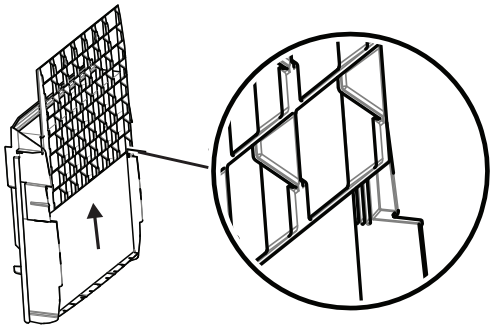
ILL3264-A

NOTE: The XTR Side Chillcel Pads have small rebates cut into them. These rebates should be positioned facing outwards, towards the rear and side edges of the cooler.



ILL3331-A

The front and rear pads require the louvre frames to be removed by sliding the louvre frame up and out of the slots in the sides of the chillcel frame assembly.

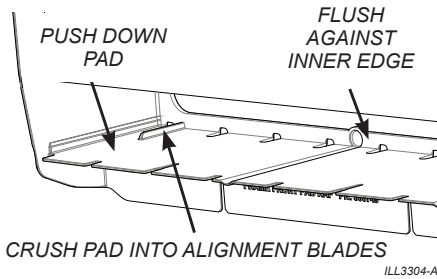


ILL3295-A

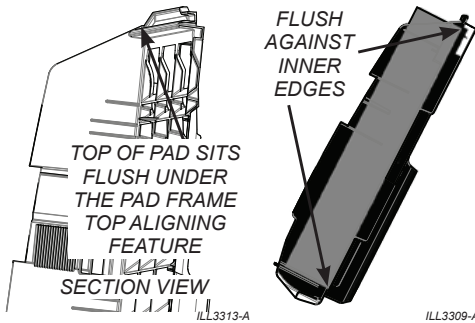
IMPORTANT! When inserting new chillcel pads into the frames, the chillcel pad should crush into the alignment blades found along the bottom edges of the frames and locate flush up against the inner walls of the frame. This ensures correct alignment of the pad in the frame and avoids gaps between the water distribution system and the chillcel pad. A gap between the distributor and the chillcel pad can cause water tracking into the airflow.

BREEZAIR XTR

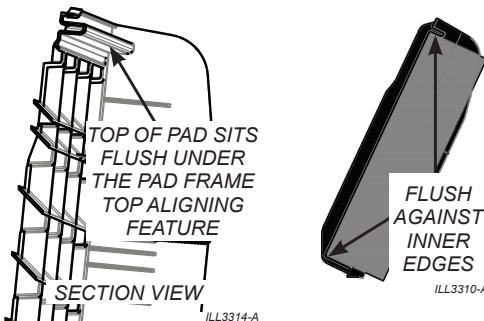
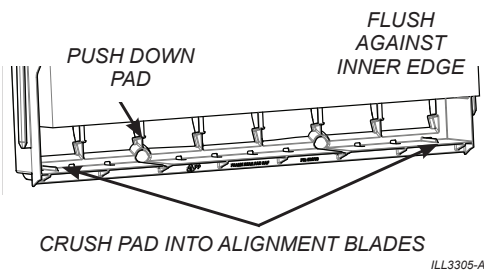
FRONT CHILLCEL PAD



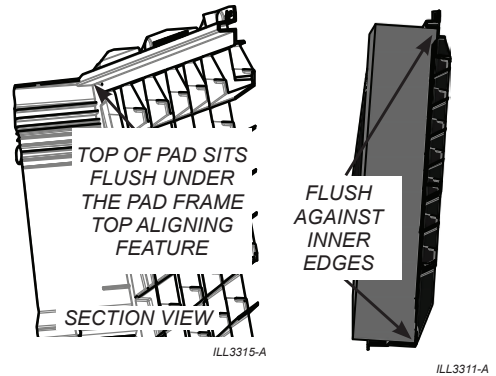
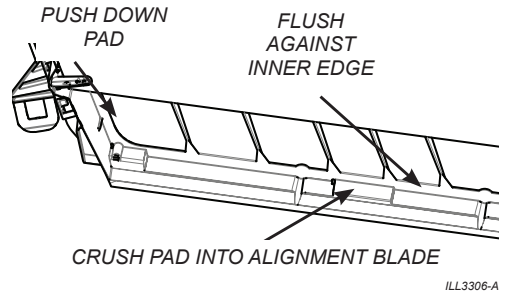
The chillcel pad top edge must be located under the pad frame top aligning ledge feature.



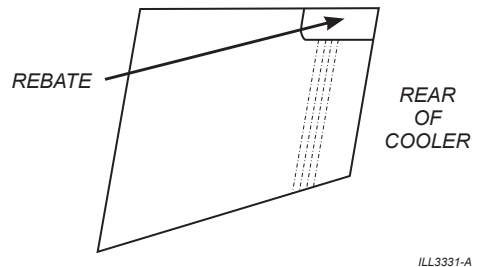
REAR CHILLCEL PAD



SIDE CHILLCEL PADS



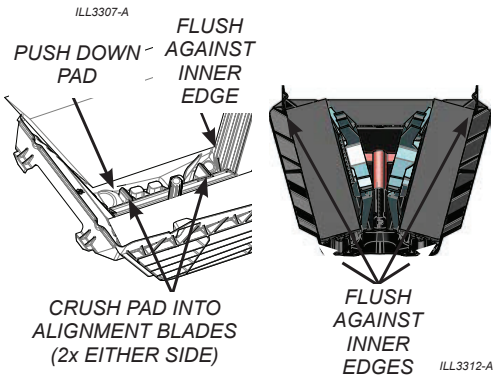
NOTE: The XTR Side Chillcel Pads have small rebates cut into them. These rebates should be positioned facing outwards, towards the rear and side edges of the cooler.



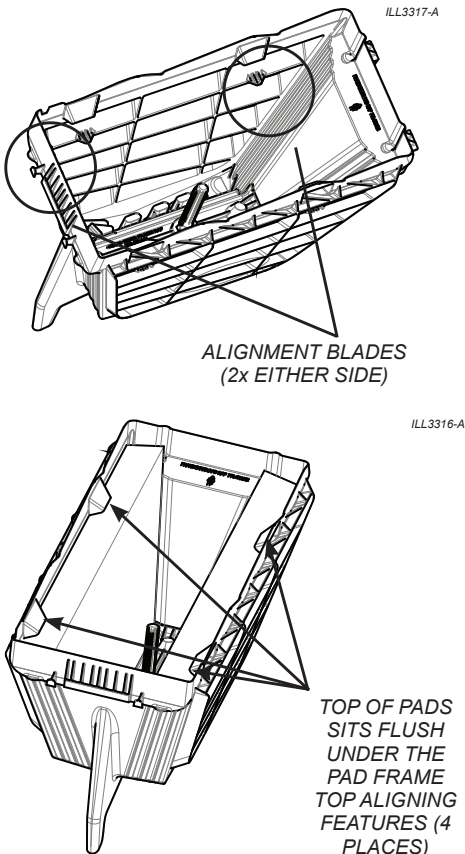
BREEZAIR XTR

INNER CHILLCEL PADS

NOTE: The inner chillcel pads are accessed by removing the water distributor tray. Alignment blades are found at the base.

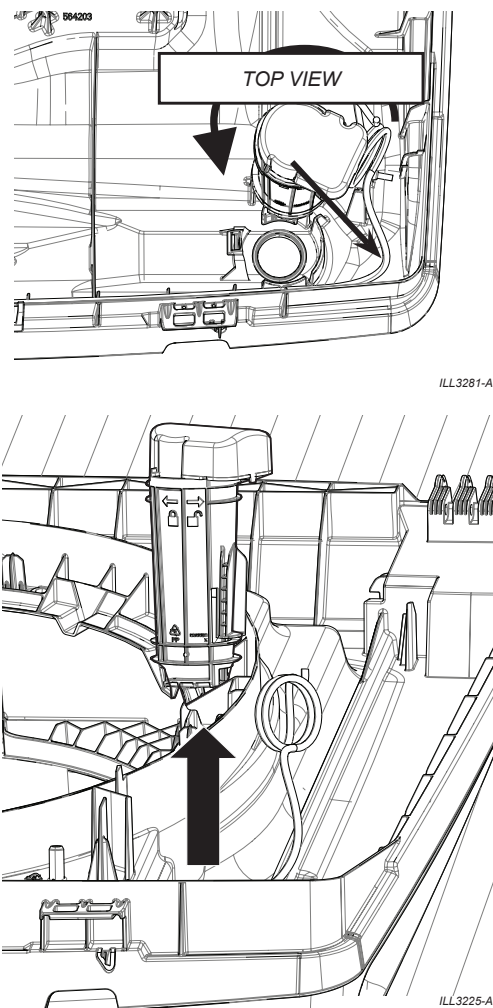


Alignment blades are also found along the side walls of the frame in 4 places.



REMOVING THE DRAIN VALVE - XTR

Remove the drain valve from the cooler by rotating anti-clockwise and then lifting.

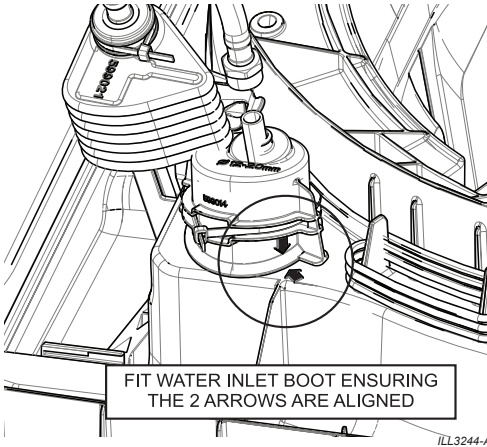


Un-plug the drain valve assembly from the cooler control box.

BREEZAIR XTR

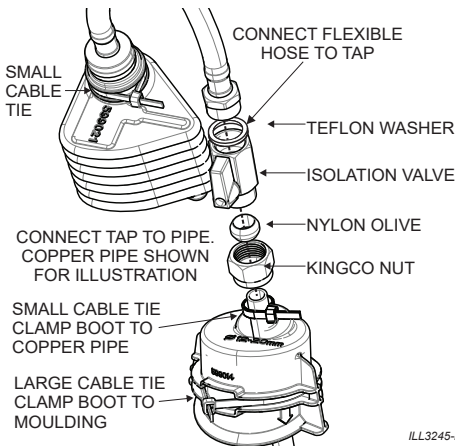
FLOAT VALVE ASSEMBLY - XTR

Fit the water inlet boot over the inlet pipe onto the tank. Align the arrow on the water inlet boot to the arrow on the tank to ensure correct alignment.

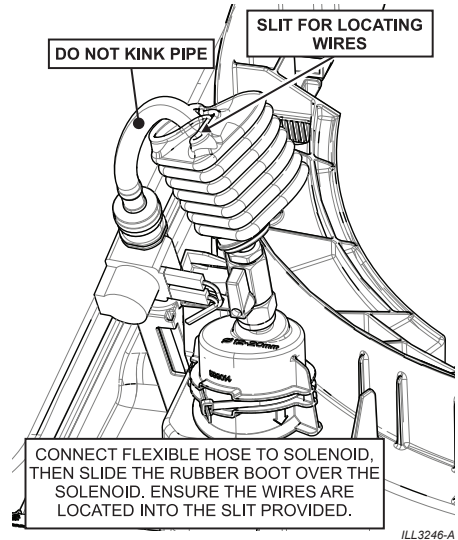


Important! Flush the water pipes to remove any swarf before final fitting. Swarf can lodge in the solenoid and float valve preventing correct function.

Connect the supplied isolation valve to the flexible hose from the float valve. Then connect the isolation valve to the inlet pipe. A 1/2" BSP nut and olive fitting has been supplied to connect to the 1/2" copper pipe. The cooler will accept pipe diameters up to 20mm. Another fitting (not supplied) will be required to connect 1/2" BSP thread on isolation valve to inlet pipes other than 1/2".

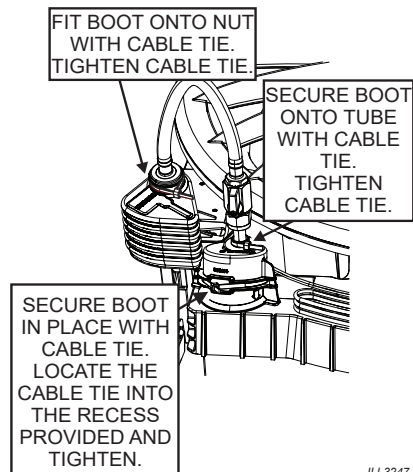


Ensure that the handle of the isolation valve is positioned where it can be easily operated. The connection of the flexible hose to the solenoid may need to be loosened and rotated to achieve this. Ensure that the 180 degree bend in the flexible hose is not too sharp, it needs to be as large as possible to avoid kinks. Once correctly positioned, retighten the flexible hose to the solenoid valve.



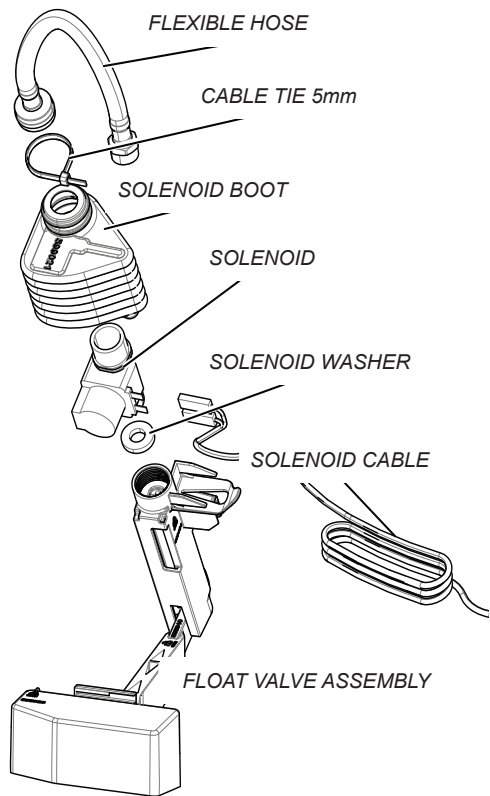
Turn the mains water supply on to confirm that the water connections are sealed.

With the inlet pipe correctly connected, cable tie the rubber boots into final position in 3 places.



BREEZAIR XTR

The cooler is supplied with a solenoid pre-fitted to the float valve. The exploded view below outlines the solenoid fitment should the solenoid need to be replaced.



ILL3248-A

SETTING THE WATER LEVEL - XTR

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.



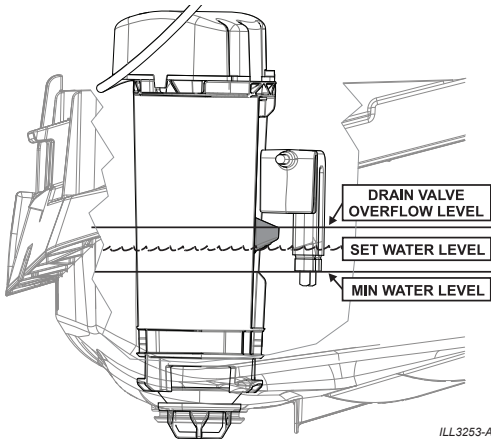
ILL1614-B

Turn on the mains water supply to the cooler.
Turn the cooler on at the controller.
Select "COOL" and set fan speed to Speed 1.



ILL3294-A

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 as per the following diagram. The water level needs to be set evenly between the bottom of the salinity probes and the drain valve "overflow" level.



ILL3253-A

Important! The water level dimension to set will vary depending on the house roof angle.

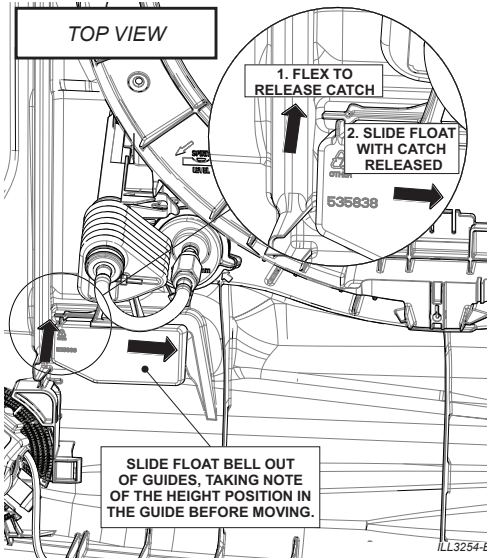
WARNING! If not set correctly, water could overflow continuously from the drain valve.

Important! The cooler will not function if the water level does not contact the salinity probes.

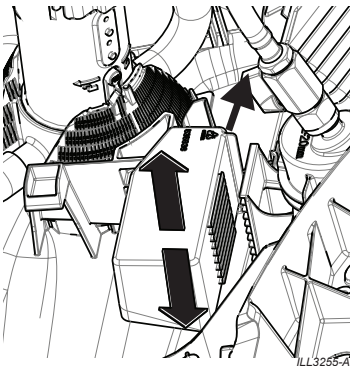
The float level is set in the factory at its lowest level and is expected that it will need to be adjusted higher.

BREEZAIR XTR

To adjust the float level, release the catch on the arm and then slide the float “bell” across until it stops as per diagram.



Being careful not to let any air be released from the float “bell”, slowly slide the float “bell” from the arm. Raise or lower the float “bell” into the correct height position and then re-install it back onto the slotted guides on the float arm. Slide the float “bell” back to the home position until the release catch engages again.



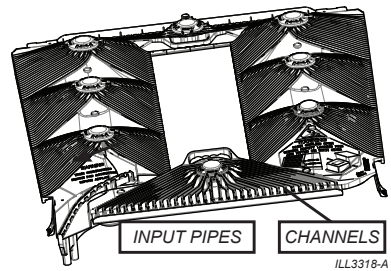
Important! If air is released from the float “bell”, reposition it on the arm where expected and then drain the water from the tank. Once drained, refill the tank without touching the float “bell” to confirm the correct water level. Once the water level is correct, isolate the electronics module and reconnect the pump plug.

CLEANING THE WATER DISTRIBUTOR

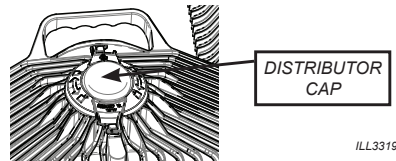
Should dry spots on chillcel pads become apparent whilst the cooler is running in “Cool” mode, the watering system may need cleaning. Debris could collect in the pump strainer or water distributor channels and internal tubes disrupting the water flow. This could be caused by items like small pieces of chillcel paper, leaves, feathers, dirt, build up of salty residue etc.

To access the watering system, open the cabinet.

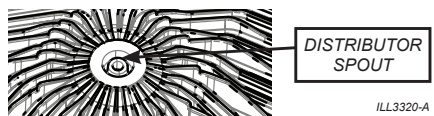
1. Check the strainer surrounding the pump for visible debris.
2. Check the exposed channels on the water distributor tray for visible debris.



3. Check under the distributor caps for any debris that may have lodged in the spouts or under the caps. Twist the distributor caps to release and check for visible debris under all of them.



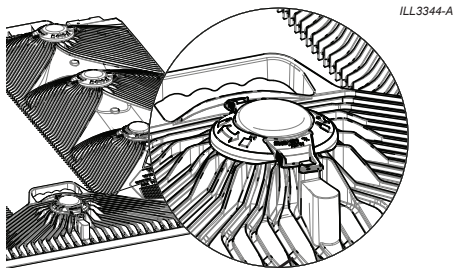
4. Backflush the internal tubes by removing the water distributor tray. Remove the water input hoses and unclip the tray from the cooler. Stand on its edge. Place the end of a hose over the spout found under the furthest distributor cap (refer ILL3318-A, above), slowly and carefully turn on the hose at gentle pressure, this will backwash all the internal tubes. **DO NOT USE MAXIMUM TAP PRESSURE!**



BREEZAIR XTR

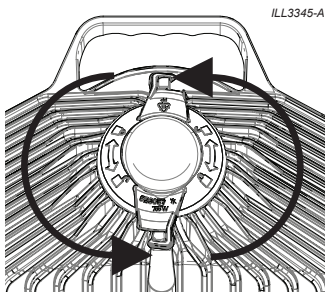
CONDITIONING THE WATER DISTRIBUTOR

As part of commissioning on initial start-up in cool mode, you must confirm that water runs down all channels of the watering system.

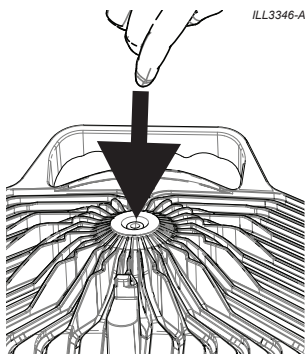


CHANNELS SURROUNDING DISTRIBUTOR CAPS

If water flow does not flow down all channels, rotate the cap anti-clockwise and remove whilst the pump is running.



Check and clear any debris (if present) from the distributor channels and orifice beneath the caps. All channels and orifices must be clear for water to be able to track down all the channels. Remove air-locks by blocking the water spout with your finger momentarily and then releasing, clearing any air locks in the watering system.

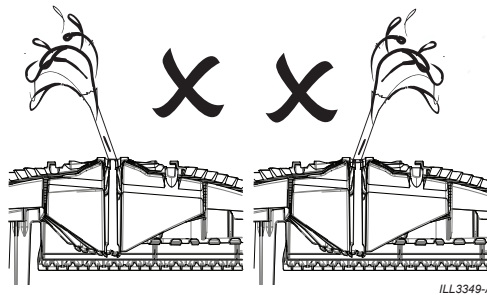
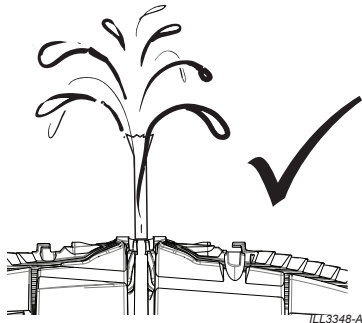


Re-install the cap into the locked position and confirm that water is flowing down all channels.

Note: New plastic can repel and prevent water travel, even down an incline. Removing caps and encouraging initial flow will promote water travel down all channels. To ensure correct future operation, it is recommended to run the new cooler in cool for at least 6 hours at start up to condition the watering system.

Make sure the water exiting the distributor spout squirts straight up vertically and is not tipped over towards the centre or the sides of the cooler.

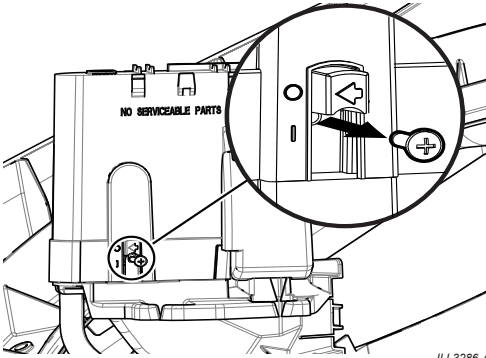
SECTION VIEWS FROM FRONT



BREEZAIR XTR

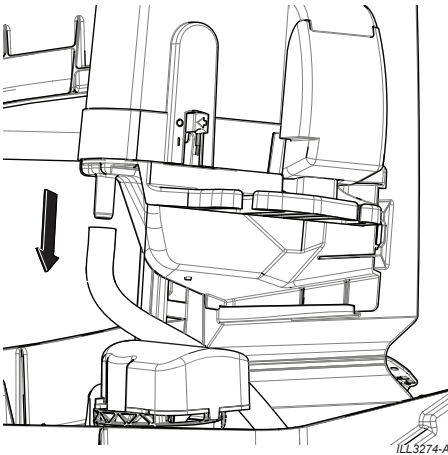
COOLER ELECTRONIC MODULE - XTR

Disconnect the electronics module from the mount bracket by removing the screw under the switch. The isolation switch cannot be activated with this screw removed.



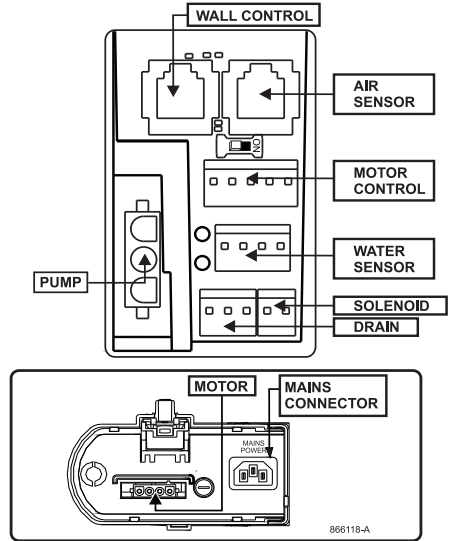
ILL3286-A

The cooling hose must be fitted to the connector (pictured) as the electronics module has no internal cooling fan.



ILL3274-A

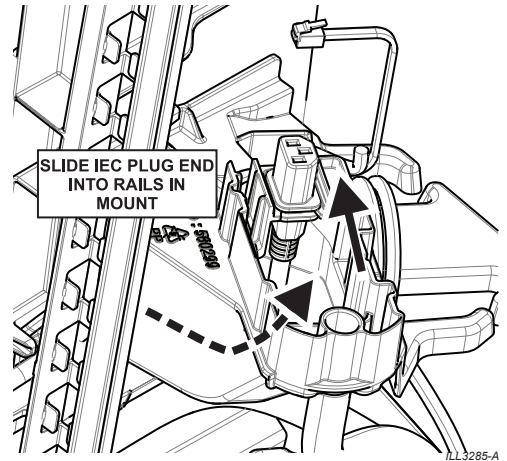
Lift the flexible rubber splash cover and remove the pump, water sensor, air sensor, solenoid and motor cables from the plugs in the electronics module.



REPLACEABLE FUSE LINK: SLOW-BLOW, 12A, 250A

ILL3275-A

Ensure the motor leads are all disconnected and pull them back through the electronics module mounting assembly.



ILL3285-A

BREEZAIR XTR

COOLER FLASHING REQUIREMENTS

The cooler has been designed to mount low to the roof to enhance its visual appearance. Flashing needs to be made no larger than following recommended diagrams to ensure suitable fitment.

Important! If flashing does exceed recommended sizes, it will prevent the cooler tank from fitting to the supplied dropper.

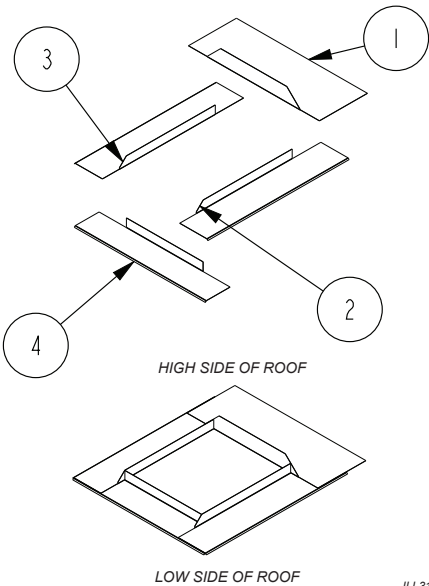
Use the expanding rivets including in the Roof Drain Kit to attach flashing to the cooler plastic dropper. Use 4 rivets per side.

Seeley International provides an optional flashing kit designed to suit metal, galvabond roofs.

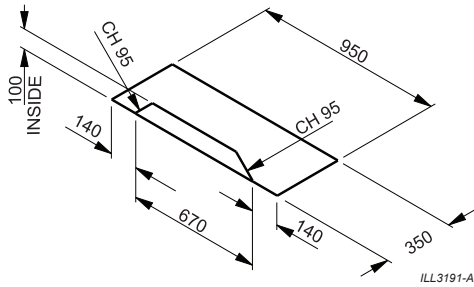
To order, use Part Number 113500.

For tiled or other roof surfaces, the installer must provide suitable flashing.

Item	Description	Qty
1	FLASHING ITEM 1 TOP XTR	1
2	FLASHING ITEM 2 SIDE XTR	1
3	FLASHING ITEM 3 SIDE XTR	1
4	FLASHING ITEM 4 BOTTOM XTR	1

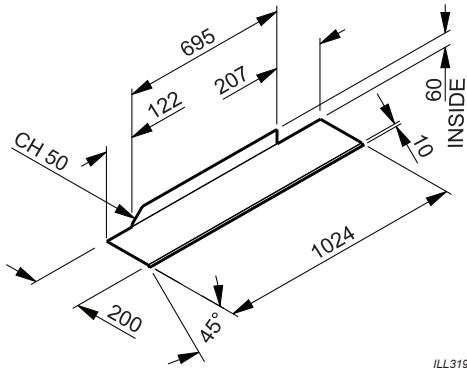


ILL3190-A



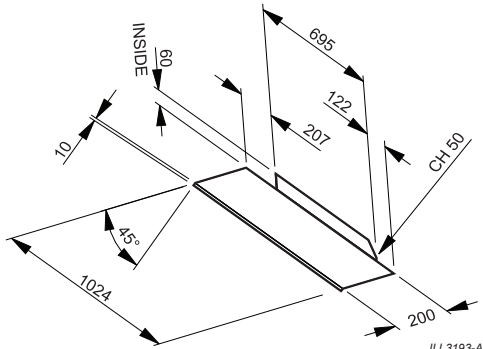
ILL3191-A

FLASHING ITEM 1 TOP XTR



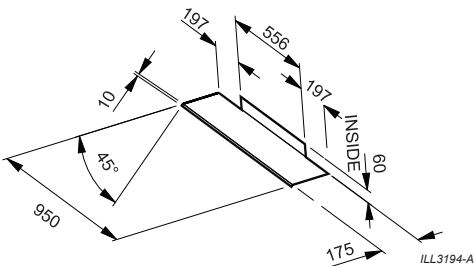
ILL3192-A

FLASHING ITEM 2 SIDE XTR



ILL3193-A

FLASHING ITEM 3 SIDE XTR



ILL3194-A

FLASHING ITEM 4 BOTTOM XTR

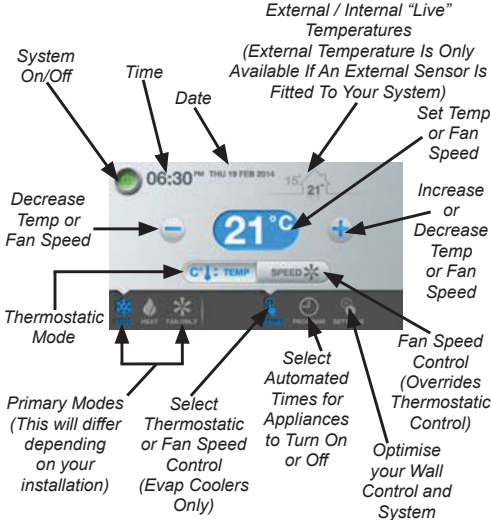
BREEZAIR XTR

COOLER FLASHING REQUIREMENTS

- Scuff the dropper surface and use silicone sealant between the roof, plastic dropper and the flashing, and also covering the rivet and TEK screw heads. Apply silicone sealant over the areas where the flashing pieces overlap.
IMPORTANT: Use the extra TEK screws supplied in the XTR Roof Drain Kit for securing the flashing to the plastic dropper. Use the TEK screws provided in the Flashing Kit to secure the flashing to the roof surface.
- Secure the low side flashing piece to the dropper and roof surface first, then assemble the drain side and pump side flashings to the dropper and roof surface.
- Continue to assemble the drain side flashing to the dropper, use silicone sealant between the roof, flashing and the plastic dropper and also covering the rivet and TEK screw heads. Secure the flashing to the roof using TEK screws (or fasteners provided by the installer). Apply silicone sealant over the areas where the flashing pieces overlap.
- Assemble the pump side flashing to the dropper, using the same method as described above.
- Assemble the rear flashing piece to the dropper, ensuring that the outer edge is tucked under the roofing sheet to drain water down away from join.
- Use silicone sealant between the roof, plastic dropper and the flashing and also covering the rivet and TEK screw heads. Apply silicone sealant over the areas where the flashing pieces overlap.

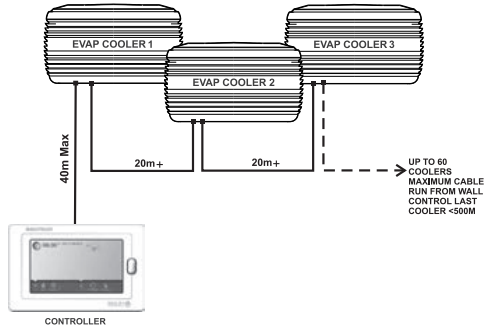
MAGIQTOUCH CONTROL

MAGIQTOUCH CONTROLLER



The MagiQtouch Controller can be linked via the extra RJ port on the CPMD or DD control box (inside the cooler) to provide effective control for multiple cooler installations using a single controller.

Multi Evaporative Coolers (Dual RJ Socket)



COMMUNICATION CABLE

- Cable type**
26AWG 7/0.16, 6 core flat communication cable with 6P/6C RJ12 plug connections (not backwards compatible with previous models)

SETTINGS MENU



The SETTINGS menu in the MagiQtouch replaces the parameters menu used in the past controllers.

Some settings are protected by an access code to prevent customers changing important parameters

THE ACCESS CODE IS 7378.



MAGIQTOUCH CONTROL cont

The SETTINGS menu contains a GENERAL menu relating to the Controller and the system as a whole, COOLER and HEATER menus depending on what has been installed, and a SERVICE menu containing component details and diagnostic information.

Note! The controller will only display the menus and menu items that are relevant to the installed system.

Navigate through the menus by tapping the heading tabs at the top of the screen.



ILL1623-C

GENERAL MENU

Time and Date

Set or adjust time and date.

Language

Set language (more languages coming soon).

°C / °F (temperature unit)

Select the unit to be used for the system temperature.

Child Access Lock

Restrict access to any system change by applying a pin code.

Standby Screen Brightness

Adjust screen brightness when controller goes into sleep mode.

Status information Display

For troubleshooting & diagnostics.

Air Sensor Selection (when Air Sensor is fitted)

Select Air Sensor to override sensor in wall controller.

Software Revision

Display MagiQtouch controller software revision. (Software revision 21R0415 and higher are compatible with TQ heaters and Invertair Add on coolers).

Shut Down Timer

When activated, the function will automatically switch off the running appliance after the time duration specified.

Auto Restart

Automatically restarts after power failure in the last mode it was running in.

Temperature Calibration

Apply an offset to the temperature sensor as required.

Install Add On Cooler

Option to add a fixed speed or Braemar Invertair add on cooler when a heater is used in the system.

System Configuration

View or modify components installed within the system. For more information see "MANAGING COMPONENTS" section.

System Reset

Reset either the controller only or the whole system (including controller and all coolers/heaters/components) connected within the system.

COOLER MENU

The COOLER menus include settings or information related to the specific Seeley International cooling products installed within the system.



ILL1838-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 night period.

Humidity Control (when Air sensor is connected)

Set desired humidity levels.

MAGIQTOUCH CONTROL cont

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

Select the preferred water management method:

- Salinity Measurement - replaces water when Salinity level reaches set point.
- Timed Drain - drains Tank every 65 minutes (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.

Weather Seal Open Speed

The cooler fan will turn on at the specified weather seal 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.

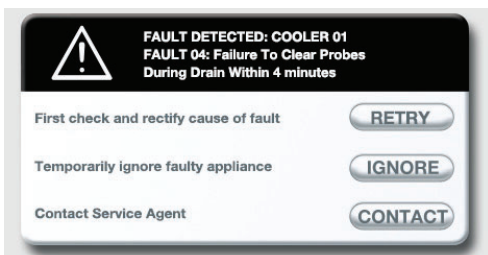
Autoclean

Select the preferred cleaning interval (50 / 100 / 200 hrs). 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. This feature is only available on selected Breezair products.

MANAGING FAULTS

When a component in the system experiences a fault, the controller will be notified and a fault screen will appear. The operator can try again by selecting "RETRY".

IMPORTANT!!! "IGNORE" is only applicable to multiple appliance systems where a faulty appliance can be ignored to allow others to continue to operate until the faulty appliance can be rectified.



ILL1863-A

If a fault remains in the system, a small fault icon will be displayed at the right hand side of the lower taskbar.



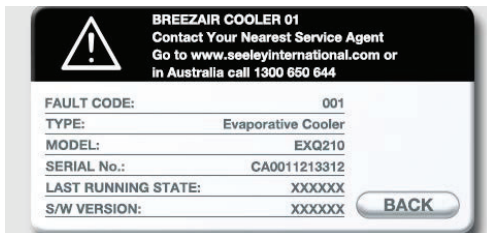
ILL1642-B

By pressing this icon, the operator can access information about all current faults



ILL1643-B

MAGIQTOUCH CONTROL cont



ILL1644-B

The wall controller retains the last 10 known fault codes in its history.

FAULT CATEGORIES

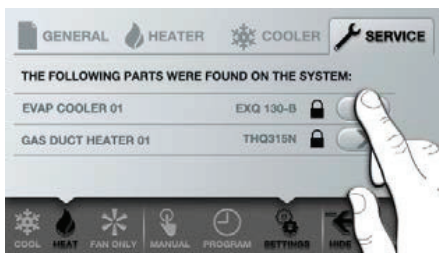
1. **Auto Reset Fault** - a minor fault not communicated to operator but recorded in fault history.
2. **Running Fault** - allows component to operate, with reduced functionality. If fault resolved, fault icon no longer displayed in lower taskbar.
3. **Service Fault** - a serious fault which will cause component to shut down but may be resolved by user.

SERVICE MENU

The SERVICE menu contains information and functions for competent service personnel.

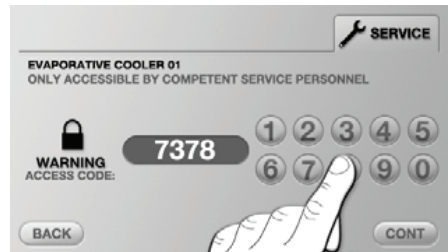
Each cooler installed within the system is listed under the SERVICE menu.

A fault symbol appears next to the component name when a fault exists.



ILL1624-B

Access to each cooler is locked with a service pin code. **The pin code is 7378.**



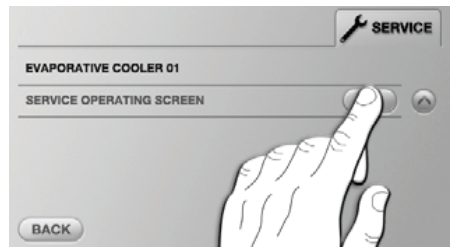
ILL1625-A

Once the pin code is entered you will have access to component specific information.

- About Appliance
- Fault Log (last 10 faults recorded)
- Running History
- Last Known Operating Condition
- Service Operating Screen

SERVICE OPERATING SCREEN

The 'Service Operating Screen' for each component installed in the system. This screen can be used as a testing/troubleshooting tool.



ILL1627-A

The 'Service Operating Screen' for evaporative coolers allows the service agent to:

- Turn the cooler ON or OFF
- Test the fan speeds
- Turn the pump, solenoid or drain valve ON or OFF



ILL1628-C

MAGIQTOUCH CONTROL cont

Component	Status	Resulting Action
Pump	ON	Tornado pump active, water pumping over pads
	OFF	Pump off
Solenoid	ON	Solenoid open (water filling tank)
	OFF	Solenoid closed
Drain	ON	Drain closed (energised)
	OFF	Drain open

For multi-cooler installations, all other coolers except the cooler being displayed will continue to operate as they were at the time of entering the 'Service Operating Screen'. Other coolers of the same type can be accessed from the 'Service Operating Screen' quickly, by using the scroll left/right buttons.

Important! When a new cooler is selected, the previously displayed cooler will return to the operation state that was occurring at the time of entering the 'Service Operating Screen'.

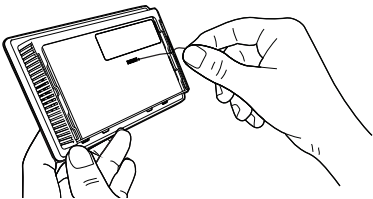


ILL1629-C

CONTROLLER OR SYSTEM RESET

It is possible to reset the whole system (including all connected components) or the controller only.

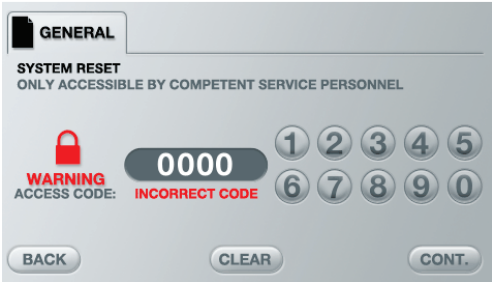
Use a pin or paperclip to press and hold the reset button located at the back of the controller. Make sure the controller is connected to the cooler and the power supply to the cooler is turned on.



ILL1596-C

This will cause the following screens to appear: Some settings are protected by an access code to prevent customers changing important parameters.

THE ACCESS CODE IS 7378.



ILL2126-A

Note! Resetting the whole system will mean that every component connected to the wall control will be given the factory default address. After resetting a whole system it will be necessary to go through the 'System Installation Wizard' again from the start.



ILL1632-A

MAGIQTOUCH CONTROL cont

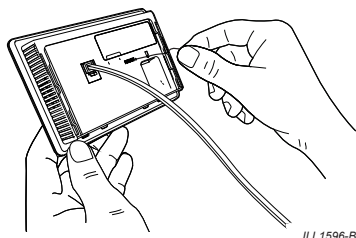
MANAGING THE MAGIQTOUCH CONTROLLER

CONNECTING A PRE-USED CONTROLLER

System Configuration is stored in the controller memory chip and CANNOT be transferred from one controller to another

Important! Any pre-used controller must be reset before it is connected to another existing system.

Once the controller has been reset, the installation process is the same as if it were new.



CONNECTING A NEW CONTROLLER TO AN EXISTING SYSTEM

System configuration information is stored on the controller memory chip and cannot be transferred from one controller to another. If a new controller is connected to an existing system it will first need to scan the system to see what is there.

Connect the controller to the system. Ensure all components are powered. The installation process is the same as if it were new.

CHANGING FROM MAGIQTOUCH TO MAGIQCOOL CONTROLLER

The operating systems are different between the MagiQtouch controller and the MagiQcool controller. If changing from a MagiQtouch controller to a MagiQcool controller the operating system must be reset back to factory settings in order for the MagiQcool controller to communicate correctly with the cooler.

With the MagiQtouch controller still connected, select the "GENERAL" tab, "SETTINGS" menu and then select "SYSTEM RESET". Select "RESET WHOLE SYSTEM" and accept all prompts. When the reset is complete, unplug the MagiQtouch controller and install the MagiQcool controller.

Note: A MagiQcool controller will only operate a single cooler.

CHANGING FROM MAGIQCOOL TO MAGIQTOUCH CONTROLLER

Unplug the MagiQcool controller and install the MagiQtouch controller. Controller will show "POWER UP" screen.

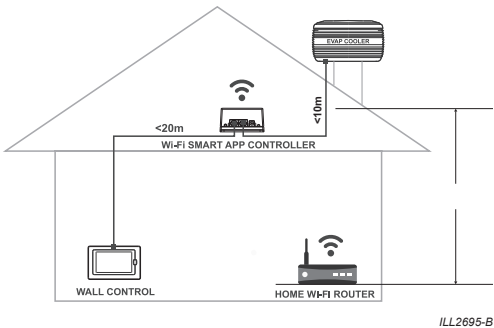
Select "ALL NEW SYSTEM" and select the prompts as required.

MAGIQTOUCH WIFI CONTROL

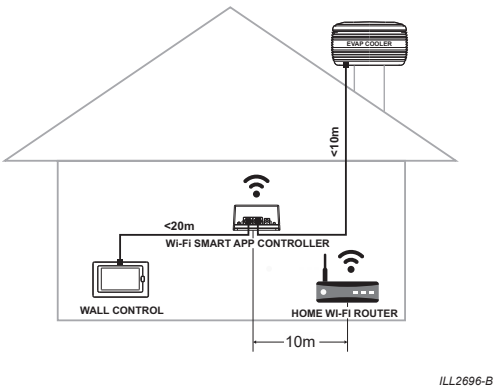
LOCATION

It is recommended the MagIQtouch WI-FI Smart Controller is placed within 10m of the customer home router to maximise optimum performance. Secure the MagIQtouch WI-FI smart controller with the screw pack provided. The MagIQtouch WI-FI smart controller is intended to be installed indoors only.

INSTALLATION - COOLER

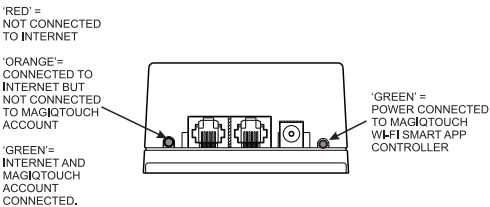


If the signal is weak or cannot be reached inside the roof space, place the smart app controller closer to the home Wi-Fi router location.



If you have any concerns about signal strength from the Home router place the smart app controller as close as practical to the home Wi-Fi router location.

WI-FI MODULE ILLUMINATING LED'S

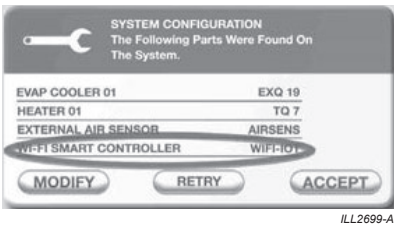


WALL CONTROL CONFIGURATION

STEP 1: Wall Controller configuration

If this is a new installation go through the MagIQtouch wall controller installation wizard. If adding MagIQtouch WI-FI Smart controller as an upgrade go to step 2 below.

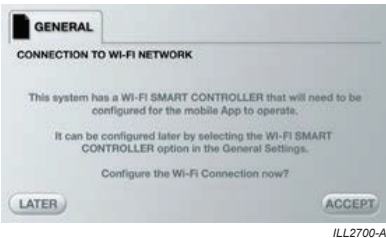
When the MagIQtouch wall controller detects the MagIQtouch WI-FI Smart Controller (WI-FI IOT Device) the screen should display the following;



If 'WI-FI IOT DEVICE' is not displayed as above check the following;

- Check mains power to MagIQtouch WI-FI Smart Controller – Green light illuminated on left side.
- Communications cable are fitted correctly.
- MagIQtouch wall controller is connected to WI-FI controller.
- Press 'Retry'.

When the MagIQtouch Installation Wizard is complete the wall controller will ask to connect to a WI-FI network.



At this stage the customer should download the MagIQtouch WI-FI Smart app from Google play or Apple App store.

MAGIQTOUCH WIFI CONTROL cont

WI-FI SIGNAL STRENGTH

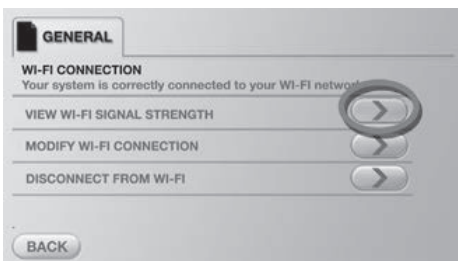
To gain the optimum performance of your installation it is recommended to check your WI-FI signal strength. This can be done as follows;



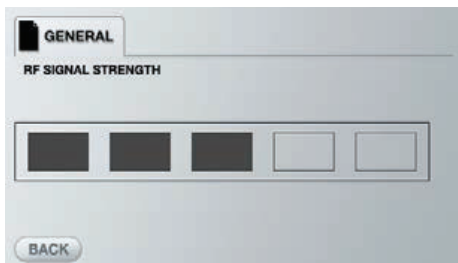
ILL2758-A



ILL2759-A



ILL2760-A



ILL2761-B

Ensure the signal strength has a minimum of 3x solid bars as shown above. If your signal strength is below 3x solid bars reduce the distance between your home router and MagiQtouch WI-FI Smart controller.

When the setup is complete the MagiQtouch wall controller will display the following,



ILL2727-A

If internet connection is lost or account details are not entered the wall controller will display the following,



ILL2728-A

MAGIQTOUCH WIFI CONTROL cont

TROUBLE SHOOTING

Symptom	Cause	Action
My Wi-Fi network is not displayed on the wall controller when I try to connect.	Out of range / poor WI-FI signal	Make sure the WI-FI Module is within range of WI-FI router
		Make sure the Router is switched on
The wall controller cannot connect to the Wi-Fi network.	Bandwidth	The MagIQtouch WI-FI Smart solution is compatible with Wi-Fi 2.4GHz only. Check that the WI-FI Home router has 2.4GHz band enabled
	Credentials not entered correctly	Make sure the network password has been entered correctly on the wall controller. If the password has upper and lowercase characters they must be entered accordingly.
		If the MagIQtouch account password has been forgotten, the customer must go to the mobile App and reset the password. The new details must be entered on the wall control.
Everything was working before but now the wall controller is showing (No Internet!)	No internet connection or account details have changed	Check the WI-FI Home Router has internet connection.
		Check the WI-FI Home Router hasn't been moved too far away from the MagIQtouch Wi-Fi module.
		Go to the 'MagIQtouch Smart App' section in SETTINGS on the Wall Control and try re-entering the details
Changes made on the Mobile App are not reflected on the wall controller	Internet connection	Confirm 'Wi-Fi' is displayed on wall control Home screen
	Wall controller not communicating to WI-FI Module	Unplug the wall control for 3 minutes and reconnect it.

MAGIQTOUCH RF CONTROL

WIRELESS RF SIGNAL RANGE

It is recommended to check the RF range of the wireless smart controller during commissioning to know the best positions / environments to maintain normal operation of the system & controller.

To check signal strength or range of the wireless smart controller it can be accessed as follows;

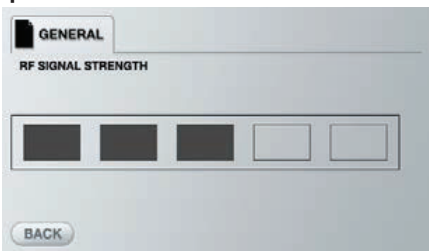
Step 1



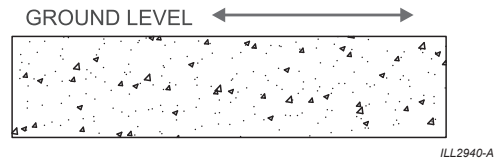
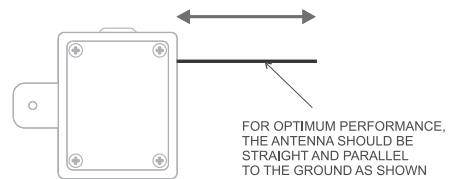
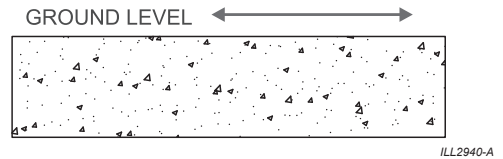
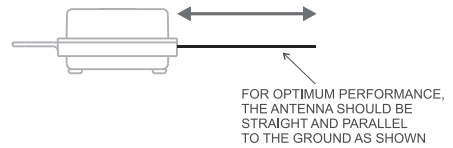
Step 2



Step 3



Ensure the Antenna is positioned or bent to be horizontal to ground level as best possible.



PAIRING ADDITIONAL WIRELESS CONTROLLER

The wireless receiver can communicate with 2x Wireless Smart Controllers within the system. During normal operation whichever wall controller is used last will take control of the system.

To pair an additional Wireless Smart Controller commence with the following steps.

Step 1

Fit the 4x AA batteries supplied with the Wireless Smart controller.

Step 2

Cycle the power to the installation. This will make the Wireless receiver discoverable for a maximum of **8 minutes** to the Wireless smart controller.

Step 3

Select 'Additional Controller' to pair the second Wireless controller.

MAGIQTOUCH RF CONTROL cont



ILL2859-A



ILL2860-A



ILL2861-A

The additional wireless smart controller is now ready to use.

Check if 2x RF Controllers have been installed.

Step 1



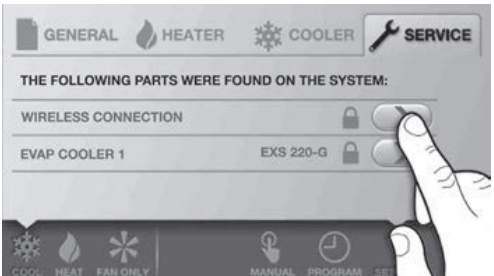
ILL1613-D

Step 2



ILL1623-D

Step 3



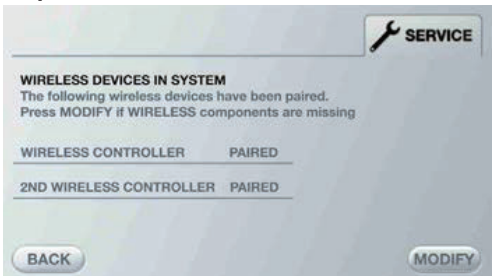
ILL2862-A

Step 4



ILL2863-B

Step 5

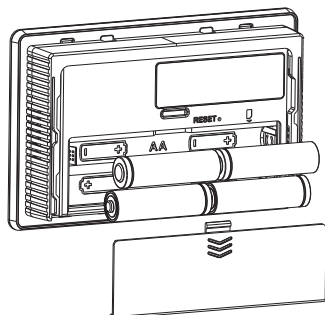


ILL3049-A

MAGIQTOUCH RF CONTROL cont

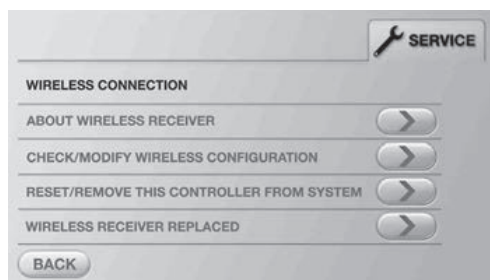
BATTERY REPLACEMENT

Always use good quality Alkaline or lithium AA batteries. Do not use rechargeable batteries.



ILL2856-A

WIRELESS CONNECTION MAINTENANCE



ILL2863-A

ABOUT WIRELESS RECEIVER

Detailed RF signal strength (RSSI) and battery voltage (mV) information is displayed here.

CHECK/MODIFY WIRELESS CONFIGURATION

All known Wireless smart devices connected to the system will be shown. If devices are missing the wireless receiver can re-scan for wireless devices from this configuration screen to maintain the system.

RESET/REMOVE THIS CONTROLLER FROM THE SYSTEM

This option will safely remove a Wireless Smart controller from the system.

WIRELESS RECEIVER REPLACED

In the unlikely event the wireless receiver has to be replaced in the system, this option will load system configuration stored in the wireless smart controller to the new wireless receiver.

MAGIQTOUCH RF CONTROL cont

Symptom	Cause	Action
The MagIQtouch Wireless Smart Controller has no display	Batteries not fitted	Remove battery cover and fit 4x AA batteries
	Batteries not fitted correctly	Ensure batteries are orientated as shown inside battery cavity
	Batteries are low	Replace 4x AA batteries
	Controller in sleep mode	Press the Home button to the right of the screen
The MagIQtouch Wireless Smart Controller states 'This Controller has lost Communication!'	Wireless Smart Controller out of range	Check RF signal in 'SETTINGS'. Move controller closer to Wireless receiver.
	Appliance connected to Wireless receiver is switched off	Check power to the installation.
	Batteries in controller are low	Replace 4x AA batteries
The MagIQtouch Wireless wall controller will not pair	Installation has been powered up for longer than 8 minutes after 'Pair' is pressed on controller	Cycle the power to the installation to initiate the 8 minute 'discovery mode' on the wireless receiver and press 'PAIR' on wireless smart controller
	The Wireless receiver is not connected	Ensure the Wireless is connected and installed correctly in the installation circuit
	2x MagIQtouch Wireless controllers are already paired	Remove 1x Wireless controller from 'SERVICE' screen. Only a maximum of 2x wireless Smart controllers can be paired
	20m communications cable supplied with kit is broken or damaged	Replace cable
	Wireless Smart Controller out of range to Wireless receiver	Move wireless receiver and Wireless Smart controller closer together.
The Installation wizard states 'No appliances found'	The wireless smart controller has been paired but the installation has been started after the initial 4 minutes of cycling the power	Cycle the power to the installation and press 'RETRY' on the wireless controller
The screen on the Wireless Smart Controller goes blank after a while	The Smart controller conserves the battery life by putting the controller in a sleep mode	Press Home Button
The screen on the wireless Smart controller goes blank but the system still operates	The Smart controller conserves the battery life by putting the controller in a sleep mode	To check the status of the system press the 'HOME' button to the right of the Wireless smart controller to see the current running condition of the system
The additional Wireless Smart Controller does not allow me to adjust anything	The additional Wireless controller will display the operating condition of system	Press 'ACTIVATE' on wireless Smart Controller
Not achieving set temperature	The temperature is sensed at the controller. Check the location of the controller.	<ul style="list-style-type: none"> • Avoid direct sunlight exposure • Avoid sitting wall control near heat sources such as stoves and televisions. • Do not locate in direct airflow of the duct outlets. • Do not locate in strong drafts or in dead spots such as cupboards or drawers.

MAGIQCOOL CONTROL

The MagIQcool controller is an mid entry level controller designed to control a single Evaporative cooler.

MAGIQCOOL CONTROLLER FUNCTIONS

AUTO - Auto or Manual Mode

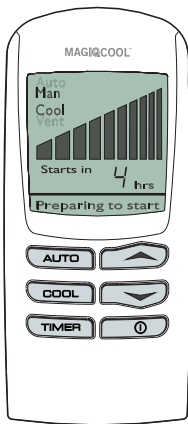
COOL - Pump ON/OFF

TIMER - Set Cooler ON/OFF timer

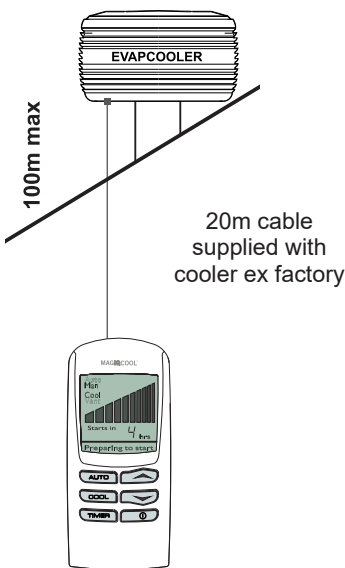
FAN UP - Increase Fan Speed

FAN DOWN - Decrease Fan Speed

ON/OFF - Cooler ON/OFF



ILL3043-A



ILL3045-A

MAGIQCOOL CONTROLLER - ENTERING PARAMETER MODE

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 the thermostat is "OFF", push and hold down **AUTO** for at least three (3) seconds and then press **UP** while still pressing **AUTO**.
2. When parameter mode has been entered, screen will display "A1" and "Param". Pressing **UP** or **DOWN** buttons will scroll through parameters "A1" to "AA" (Refer to table for factory settings).
3. To view parameter number set in wall control press **AUTO** momentarily. Figure "A#" on screen will change to number set, and "Param" will change to "value".
4. To alter "value" of selected parameter press **UP** or **DOWN**. Numbers will change to show different values the parameter can be set to.
5. To store the value, press **AUTO**. Screen will go blank momentarily as wall control stores parameter change, and returns screen to "A#" and "Param".
6. To exit parameter mode or escape from an alteration without storing a change press **OFF** button instead of **AUTO** button. Remember, once step 5 has been carried out, new parameter change is permanent until again altered.
7. 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.









Parameters		
No.	Description	Value
A1	Water Salinity Control Method Selector	
	Water Manager (measure & control salinity)	0*
	Timed Drain	1
	Non Drain Valve salinity control (bleed etc)	2
	No Water, thermostatic vent, Auto temp control	3

MAGIQCOOL CONTROL cont

A2	Weather Seal Opening Speed	
	Whenever the fan is turned ON, Fan will run 10 seconds at the higher of:	05
	Fan Speed as requested by the Wall Control	
	Weather Seal Opening Speed set at A2 (Default = fan speed 5)	
A3	Pre-wet Enable	
	No pre-wet	0
	Pre-wet	1*
A4	Wall Control Backlight Disable	
	Backlight 'OFF'	0*
	Backlight 'ON'	1
A5	Conductivity Set Point	
	Normal - 4275 µS/cm	0*
	Low - 2305 µS/cm	1
A6	Tank (reservoir) Drain Delay	
	Drain 3 hours after COOL off	1
	Drain 12 hours after COOL off	2
	Drain 3 days after COOL off	3*
A7	Auto Re-start after Power Failure	
	Requires manual re-start when power OFF	0
	Auto restart	1*
A8	Temperature Units	
	Display °C	0*
	Display °F	1
A9	Speed Table pointer	
	Default axial	0
	Default DD	1
	Default Belt drive	2
AA	Motor Speed Ramp	
	No ramp (DD default)	
	Small ramp	
	Large ramp	
AB	Damper Delay	
	DELAY	OFF
	OFF	0
	30 secs	30 secs
	60 secs	60 secs
	3 mins	3 mins
* = Default Value		

MAGIQCOOL CONTROLLER - ACCESSING FAULT LOGS

The controller will store the last 10 known fault codes, to access the fault code logs do the following;

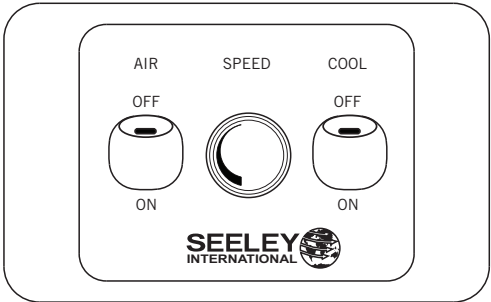
1. While the thermostat is "OFF" push and hold down  for at least three (3) seconds and then press  while still pressing .
2. When parameter mode has been entered, screen will display "F1" and "Param". Pressing  or  buttons will scroll through Fault history location "F1" to "FA". F1 being the most recent, F2 being the second most recent and so on.
3. To view a Fault code, select the fault location (I.E F1 – FA) and press .
- For example to see the third most recent recorded fault, highlight 'F3' and then press . The number displayed will indicate the fault code. (Refer to page 2 for Fault code descriptions).
4. To exit and view other fault locations, press  and cycle through as per step 2.

SWITCH PLATE CONTROL

The MagIQtouch Switch Plate Controller is a simple to use control that can be used to control an individual MagIQtouch compatible cooler

SWITCH CONTROLLER FUNCTIONS

- COOL - Pump ON/OFF
- FAN - Fan ON/OFF
- FAN SPEED - Potentiometer

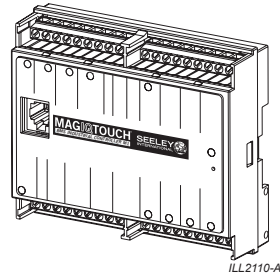


ILL2141-A

BMS M1 INDUSTRIAL CONTROL

The MagIQtouch BMS industrial controller is a 24Vdc (SELV) circuit that offers various inputs and outputs to achieve different functions of the cooler as well as status feedback. 1 x BMS M1 module is required per cooler on the system.

A dedicated 10Vdc is available from the BMS M1 when the 24Vdc input is applied that can be used to active cooler functions.



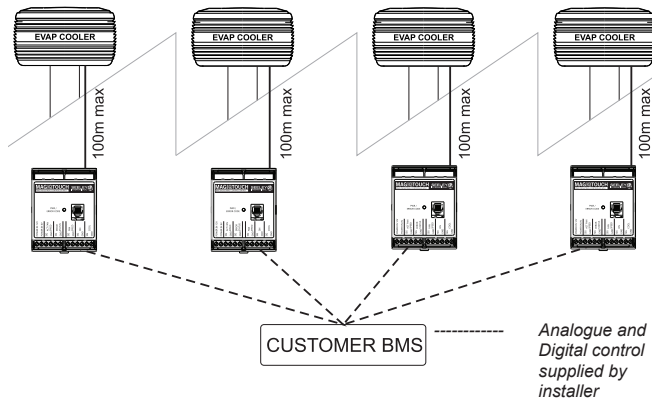
ILL2110-A

BMS M1 INPUTS

NAME	LABEL	FUNCTION	LOW	HIGH	INPUT TYPE
POWER IN 24V POWER OUT 0V	PWR IN 24V	Power supply to operate Interface. 24Vdc per Primary Interface.	-	-	24Vdc
UNIT ON/OFF	ON	Activate Cooler – Cooler will operate according to other inputs.	Unit off	Unit on	DIGITAL 6 - 32Vdc
OPERATION MODE	COOL	Cool or Vent.	Fan only mode	Cool mode	DIGITAL 6 - 32Vdc
MANUAL DRAIN	DRAIN	Manual Drain On.	Normal operation	Force drain	DIGITAL 6 - 32Vdc
EMERGENCY AUXILIARY INPUT	EMERG AUX	BMS with Emergency shutdown to take control in the event of shut eg.: fire.	Disable operation	Enable operation	DIGITAL 6 - 32Vdc
FAN SPEED	FAN SPEED	Set Fan speed from 1 - 10.	0Vdc = Fan speed 0	10Vdc = Fan speed 10	ANALOGUE 0 - 10Vdc

BMS M1 OUTPUTS

NAME	LABEL	FUNCTION	LOW	HIGH	OUTPUT TYPE
POWER OUT 10V	PWR OUT 24Vdc	Option for installer to use 10V. User can use power supply for inputs and outputs.	-	-	10Vdc
ERROR STATUS	ERROR STATUS	LED ON to highlight error found.	Contact open - no error	Contact closed - error	RELAY CONTACT
ERROR CODE (LED)	ERROR CODE	LED will flash in sequence to the type of error found.	-	-	FLASHING LED
DRAIN STATUS	DRAIN STATUS	Monitor status of Drain.	Contact open - drain closed	Contact closed - drain open	RELAY CONTACT
ACTUAL FAN SPEED	ACT FAN SPD	Monitor actual fan speed in operation.	0Vdc = Fan speed 0	10Vdc = Fan speed 10	ANALOGUE 0 - 10Vdc



ILL2217-B

BMS MS1 INDUSTRIAL CONTROL

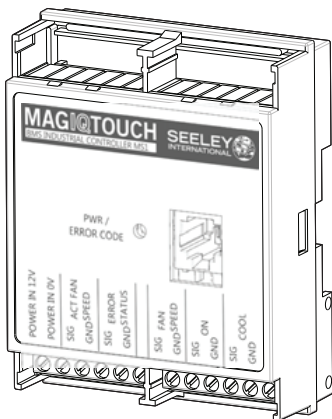
The MagIQtouch BMS MS1 controller can operate 1 x or multiple coolers in the same installation. This controller can be used with and without the MagIQtouch Wall controller depending on system requirements. Mode is set with a switch on the PCBA. A 12VDC input is only required when operating Actual Fan Speed Output.

PRIMARY MODE

In Primary Mode 1 x BMS MS1 controller is required to operate 1 x cooler.

SECONDARY MODE

In Secondary Mode, the BMS MS1 controller will allow the BMS to take control of the cooler operation in place of the MagIQtouch wall controller when required.



ILL2244-A

BMS MS1 INPUTS

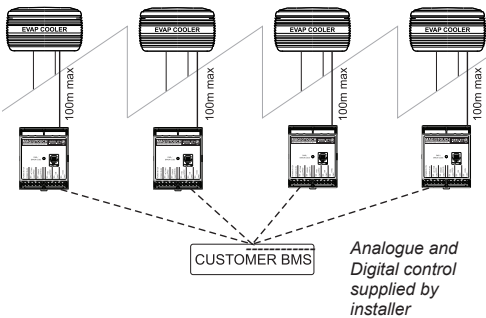
NAME	LABEL	FUNCTION	LOW	HIGH	INPUT TYPE
UNIT ON/OFF	ON	Primary Mode: Turn Cooler On or Off	Cooler Off	Cooler On	DIGITAL 10Vdc
		Secondary Mode: Switch operation control between WC and BMS	MagIQtouch control	BMS control	
FAN SPEED	FAN SPEED	Set Fan speed from 1 - 10.	0 Fan speed	10 Fan speed	ANALOGUE 0 - 10Vdc
OPERATION MODE	COOL	Cool or Vent.	Fan only mode	Cool mode	DIGITAL 10Vdc

BMS MS1 OUTPUTS

NAME	LABEL	FUNCTION	LOW	HIGH	OUTPUT TYPE
ACTUAL FAN SPEED OUTPUT	ACT FAN SPD	Monitor actual fan speed in operation.	0V = Fan Speed 0 10V = Fan Speed 10	-	ANALOGUE 0 - 10Vdc
ERROR SIGNAL	ERROR SIGNAL	Alert system error found. Signal will output pulse sequence related to error code.	0V* = Error 10V* = No Error	-	DIGITAL 0 - 10Vdc

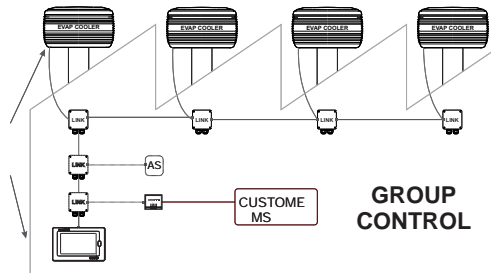
*If 12VDC input is not applied, the error signal output will still operate as an "open collector transistor" output. Output pulled to ground =Error, Output floating = No Error.

PRIMARY INSTALLATION



ILL2217-B

SECONDARY INSTALLATION



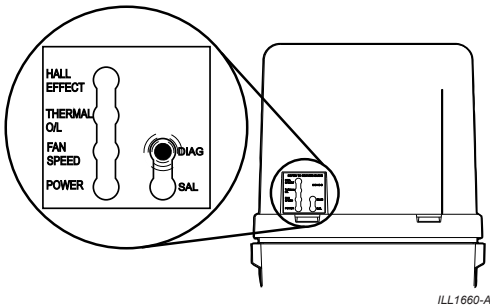
ILL2218-A

PREWET FUNCTION

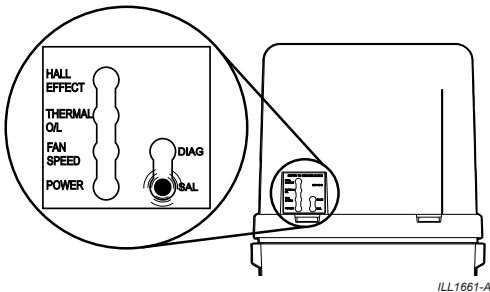
FOR COOLERS WITH WATER MANAGEMENT SYSTEM FITTED

The following is a description of the Prewet function that occurs when COOL is selected for the first time by the MagIQtouch Controller. This ensures the pads are wet before the fan (blower) starts.

1. Drain Valve Closes.
2. 9 seconds after drain valve closes the inlet solenoid valve energises allowing water to enter tank.
3. The cooler electronics will now wait up to 20 minutes for water to reach the probes. If the water level has not reached the probes in that time then a fault code (02) is initiated (tri-coloured LED will flash red twice) and the cooler will shut-down.

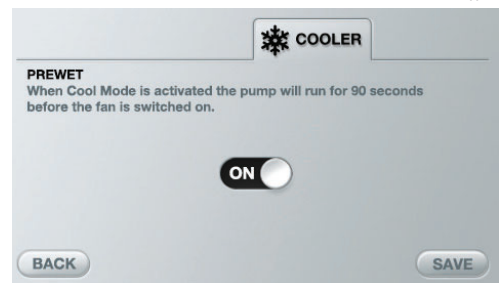


When the probes recognise water, the RED LED (Right Hand LED on the cooler electronics Box or "SAL" LED on the ICON Control Box) will start to flash.



4. 30 seconds after water reaches the probes, the pump starts.
5. From the time the pump starts, the Prewet function continues for 2 minutes. At the end of this time, the fan (blower) starts at the speed indicated on the wall control display.
6. If COOL is turned OFF at controller, the cooler will not commence Prewet function again unless the pump has run for less than 2 minutes in the previous 10 minutes of fan (blower) operation.

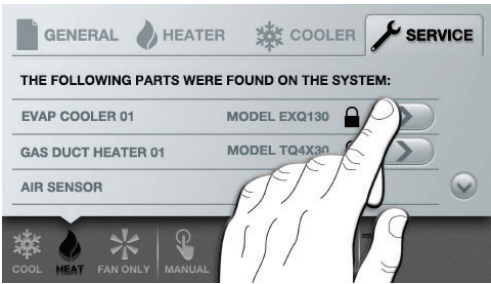
The Prewet function is set to occur by default. However it can be turned off in the SETTINGS menu.



WATER COMPONENT TESTING

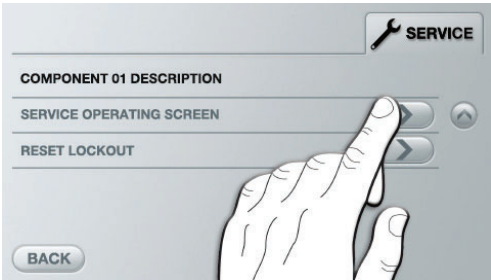
To test water components using the touch controller, use the Service Operating Screen which can be accessed from the SERVICE menu in SETTINGS.

After entering the Service pin code (7378), select the evaporative cooler from the displayed list.



ILL1824-A

Scroll down and select the “Service Operating Screen” feature.



ILL1825-A

This will open a screen which allows direct control of the fan and all water components for testing and troubleshooting purposes.



ILL1826-A

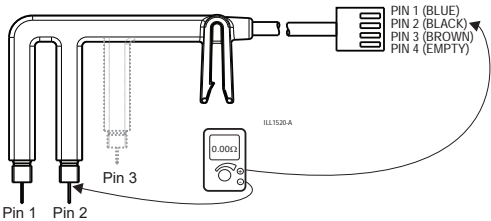
WATER SALINITY PROBE TESTING

The pump, solenoid and drain valve can be operated tested from the Service Operating Screen. Each component has a corresponding ON/OFF slide button located under the “Water Management” heading.

Component	Status	Resulting Action
Pump	ON	Tornado pump active, water pumping over pads
	OFF	Pump off
Solenoid	ON	Solenoid open (water filling tank)
	OFF	Solenoid closed
Drain	ON	Drain closed (energised)
	OFF	Drain open

Note! It is recommended that each component be operated one at a time to avoid problems. Care should also be taken to observe the water level in the tank to avoid overflow or running dry.

WATER SALINITY PROBE TESTING



ILL1520-B

- Clean the metal probes
 - Set the multimeter to ohms mode
 - Pin 1 - Blue wire = approx. 0 (zero) ohms
 - Pin 2 - Black wire = approx. 0 (zero) ohms
 - * Pin 3 - Brown wire = approx 0 (zero) ohms (3 prong probes only)
- # A reading of 5 ohms or greater indicates faulty probes.
- * The brown wire (Pin 3) is not connected on 2 prong probes.

If the probe continues to fault, check between the contacts to ensure there are no short circuits.

SETTING THE WATER LEVEL

To set the float level, ensure the drain is energised/closed by setting it to "ON".

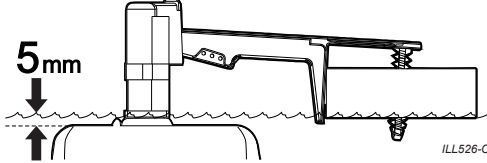
Set solenoid to "ON" (open) and allow tank (reservoir) to fill with water.



ILL1827-A

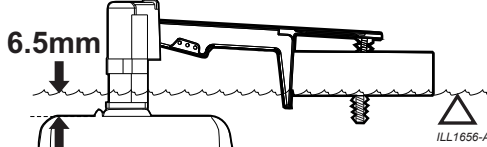
The float valve will eventually stop the water from entering the cooler. Wait for this to happen and check the water level.

EXQ/EXS Model



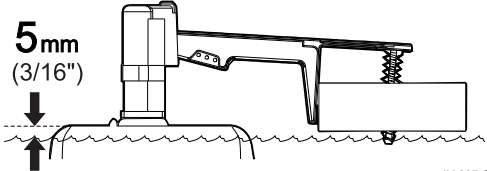
ILL526-C

EZQ Model



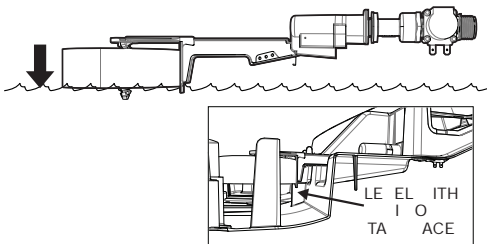
ILL1656-A

LCQ/CPQ/BMQ Model



ILL997-C

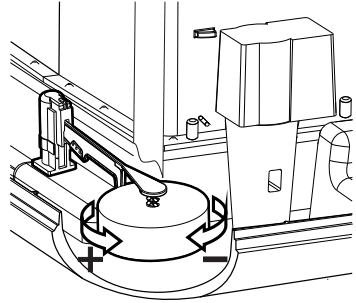
LPQI Model



ILL2589-A

If the level is too high rotate the float clockwise. Drain some water from the tank and allow it to refill to the new set point. If too low rotate the float in an anti-clockwise direction.

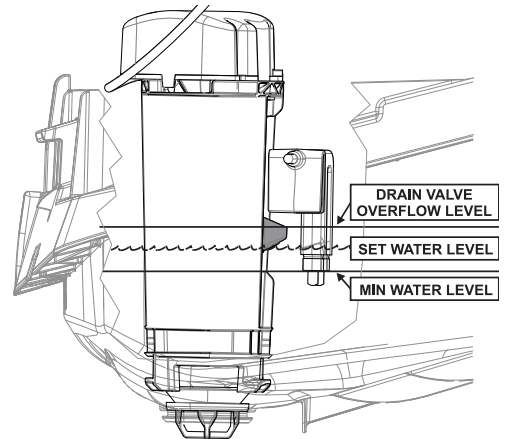
It is advisable to check the water level again after the float valve seal has "bedded in".



ILL1370-B

Once the water level is correct, isolate the control box and reconnect the pump plug.

XTR Model



ILL3253-A

The water level needs to be set evenly between the bottom of the salinity probes and the drain valve "overflow" level.

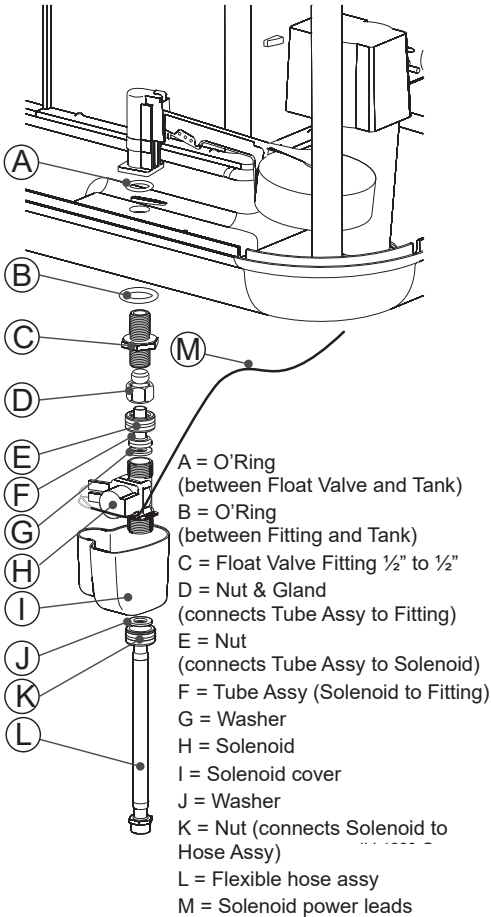
Important! The water level dimension to set will vary depending on the house roof angle.

WARNING! If not set correctly, water could overflow continuously from the drain valve.

Important! The cooler will not function if the water level does not contact the salinity probes.

WATER INLET

EXQ/EXS Model



SEASONAL MAINTENANCE PROCEDURES AND CHECKS

Regular servicing of an evaporative cooler is essential in maintaining proper performance and reliability. There are numbers of areas that need to be routinely checked. It is important to note that all evaporative coolers have some consumable items such as filter pads, fan belts, water pumps and bearings etc., which deteriorate under normal operating conditions, and therefore require periodic replacement.

The frequency of service is largely dependent on the conditions under which the cooler is operated. External factors, such as air and water quality, can affect the serviceable life of the cooler and its components. Similarly, the amount and type of use can also have a significant impact. The guidelines listed below are intended to provide help in formulating a proper service regime. Local, and in some cases individual factors should be taken into account when deciding on the frequency of visits.

MAINTENANCE SCHEDULE SERVICING

Maintenance Schedule servicing is essential to ensure the cooler operates efficiently for many years.

We require that the following components and the operation thereof, be checked after the first year, then every 2 years as Maintenance Schedule servicing.

- Water distribution spreader trays.
- Pump.
- Drain valve.
- Solenoid and associated filter / fittings.
- Fan motor operation.
- Float valve.
- Salinity probes etc

Maintenance Schedule servicing should be performed before the summer season. It is important to note that all evaporative coolers have components that may need periodic replacement (eg. filter pads, hoses, o-rings etc).

Note! Failure to carry out the Maintenance Schedule services will affect your warranty coverage.

Note! Maintenance Schedule servicing may be required more frequently in adverse environmental situations or where the appliance is installed in non-domestic applications. Please consult with the installer or service personnel to determine if more frequent servicing is required.

SEASONAL MAINTENANCE PROCEDURES AND CHECKS cont

SEASONAL MAINTENANCE

Seasonal Maintenance is only required if you have a cooler fitted with a bleed system. If your cooler is fitted with a drain valve, no Seasonal Maintenance is required.

Seasonal Maintenance services must be performed before and after the summer season.

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

DEFINITIONS

Clean - To wash and/or remove all dirt, grit or debris.

Replace - To remove the existing item and replace with a specified genuine replacement part.

Check/Inspect - To visually inspect the item for correct operation, fitment and functionality.

Adjust - To test and make adjustment or alterations as required to meet set appliance specifications.

EXTERNAL INSPECTIONS

- Inspect external components, including pad frames, tank and lid assemblies for any damage or deterioration.
- Inspect dropper duct, flashing, support frames and roof cladding etc for any signs of corrosion.
- Inspect and test water supply stopcock for correct operation and leakage.
- Inspect and test electrical isolation switches (GPO's, Circuit Breakers and fuses in meter box) for correct condition and operation.

PAD FRAME ASSEMBLIES

- Remove all pad frame assemblies.
- Inspect pad media
- Inspect pad-retaining components (pins, clips, wire mesh etc) for damage or corrosion and ensure they are correctly and securely fitted.

Chillcel is generally stable and should not require repositioning. These pads may also be gently hosed to remove loose material, however the Chillcel is fragile and care must be taken when handling or hosing to prevent damage. Visually inspect the flutes of the Chillcel for signs of deterioration or restriction. Replace pads as necessary.

WATER DISTRIBUTION SYSTEM

- Inspect and clean water pump strainer basket.
- Inspect all water spreaders for correct installation and security.
- Inspect all water distribution tubes and joints for security and leaks.
- Inspect and test water pump operation.
- Inspect and test float valve operation – Check and adjust water level as required
- Inspect and test drain operation
- Ensure there are no water leaks either internal or external from the cooler.
- Remove and clean all water spreaders.
- For XTR Water Distributor, check and clean the channels, clean under caps.

FAN MOTOR

- Inspect fan motor and mounts for damage or corrosion.
- Inspect fan blades for damage.
- Test fan shaft and motor bearings for correct smooth operation.

ELECTRICAL

- Inspect electrical connections within main terminal box.
- Inspect all electrical cables for damage and security.
- Inspect and test electrical isolation switch located on main control box.
- Check and record mains voltage.

CLEANING

- Drain and flush water reservoir.
- Thoroughly clean all internal and external surfaces removing dirt and mineral build-up.
- Clean blower wheel, blower wheel/fan and blades
- Clean water probe sense points
- Remove clean and check solenoid inlet filter.

SEASONAL MAINTENANCE
PROCEDURES AND CHECKS cont

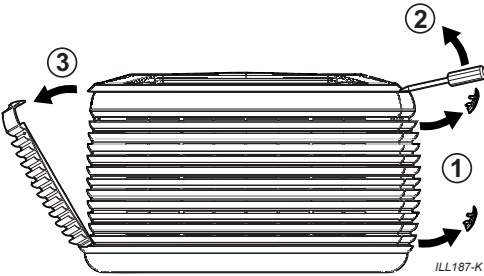
CONTROLS & OPERATION

- Inspect and test wall control or remote control in both Manual and Automatic modes.
- Test speed control and variation.
- Test thermostat operation and control.
- Check wall control or remote control display.
- Check weatherseal operation.
- Check motor “low speed” adjustment: in all variable speed belt drive and axial units LOW SPEED can be calibrated by a potentiometer located in the main control box. Motor low speed should be set approximately 600RPM (1 belt revolution per second) **Note!** This adjustment does not apply to direct drive ICON units

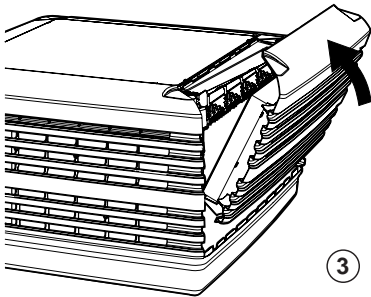
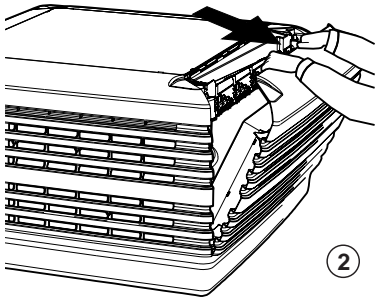
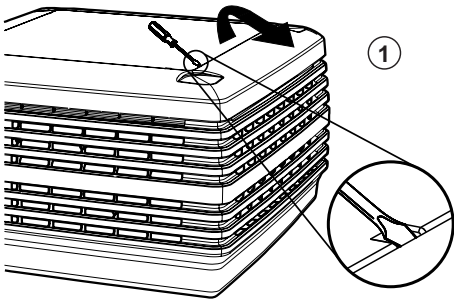
CHECK YOUR LOCAL REGULATIONS:

- In some areas and for some commercial installations local regulations have specific requirements for the maintenance of evaporative air conditioning systems.
- Generally these involve regular cleaning and maintenance at (3) monthly intervals or more frequently if necessary.

BREEZAIR MODELS



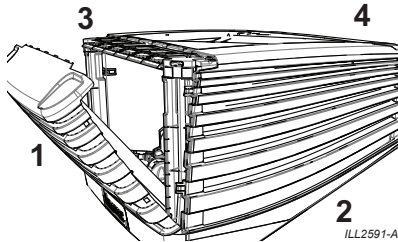
BRAEMAR/COOLAIR MODELS



SEASONAL MAINTENANCE PROCEDURES AND CHECKS cont

BRAEMAR LPQI MODELS

Depress the 4 side clips to release the front pad frame first. **Important!** Be careful not to use excessive force when pushing in the clips to avoid damaging them. Remove the front pad frame, and as for other Braemar coolers, using a screwdriver to assist. Then release the 2 side panels from rear in the same way. Finally remove the rear panel.

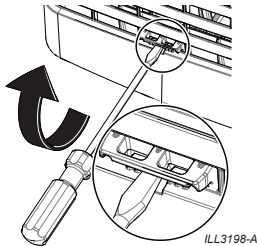


Warning - Due to the risk of over-balancing at a height, care must be taken to not “yank” or force the pad frame off the cooler.

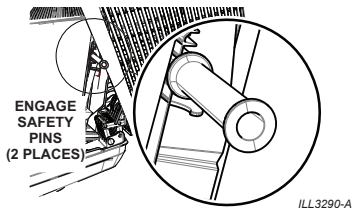
BREEZAIR XTR MODELS

Unclip the cabinet at the two front latches using a 10mm flat head screwdriver.

XTR



From under the centre badge, lift the front edge of the cabinet upwards. Engage the 2 safety pins on either side of the cabinet. Don't let the cabinet fall backwards under its own weight. Rest the cabinet against the safety pins.



To close the cabinet, follow the opening instructions in reverse order. **Ensure that the clips are engaged after closing.**

TECHNICAL BULLETINS

The following technical bulletins were published on the dates specified in the heading. However, the information contained within these technical bulletin's also can apply to newer models.

It is the policy of Seeley International to introduce continual product improvement. Accordingly, specifications may be subject to change without notice.

See the below table for clarification:

Old Model Description	New Model Description
Breezair EXH	Breezair EXQ or EXS
Breezair EZH	Breezair EZQ
Braemar LCB/TBA	Braemar LCQ/LCS Breezair TBQ/TBS
Braemar BM	Braemar BMQ
Coolair CPL	Coolair CPQ
Icon Control Box	EXQ/EZQ/EXS Cooler Electronics

A01/12	Seeley Service Memo	page 59
A12/14	Breezair EXS Pad Configuration	page 60
-	Icon Control Box Fan Speed LED Behaviour	page 61
A02/09	Circuit Protection for Icon	page 62
A13/08	Icon Electrical Power Supply Requirements	page 63
A16/08	Water Distribution Hose Connections	page 64
A06/07	FEAC Water Supply Requirements	page 65
A09/18	Coolers installed in Bushfire Prone Areas	page 66
	CPMD Min Speed Setting on pre-MagIQtouch Wall Control	page 68
	Appliance Check – Breezair Feature - MagIQtouch Controller	page 70
A01/16	Data/Comms & 240 Volt Cable Routing	page 71
A14/17	Braemar LPQI replacing Bravis Contours	page 72
A01/18	LPQI O'Ring / Nylon Washer	page 73
A12/07	“Service” displayed on Screen on initial start-up of FEAC's	page 74

TECHNICAL BULLETIN: A01/12 SEELEY SERVICE MEMO



TECHNICAL BULLETIN

Subject: Seeley Service & Spares Web Resource

Bulletin Number: A01/12

Region: Australia

Author: Technical Support 1300 650 399

Date: 8/01/2012

In September of 2011 we launched the **Seeley Service Web resource** (link below). This site contains a large library of Seeley International Service/Installation/Technical and Spare parts information. To access this information you will need to go:

www.seeleyinternational.com/service/

Brands and information covered on web site:

Breezair - Braemar Heating and Cooling - Haier - Tudor Romeo

- Latest Service Information
- Technical Bulletins
- Parts Lists
- Service Guides
- Installation Manuals
- Instruction Flyers for various Spare parts kits
- Product Specifications

Spare Parts Web Site

Seeley International officially launched it's the Spare parts web site in January 2013. The web site provides Seeley International's customers with online access to detailed spare parts information, to aid in identifying and ordering Seeley International spare parts for Braemar, Breezair, Coolair and Convair products.

This web site is available to the General Public / Spare Parts Distributors / Service Agents / Dealers and Installers, and aims to improve customer service, as well as promote the use of genuine spare parts.

The web site includes details about spare parts, spare images, descriptions, compatible models, replacement parts if obsolete, exploded diagrams and the functionality to be able to search by almost any aspect of the spare part required.

It also allows you to easily add spare parts to a "list", select a spare parts distributor near you and send them an email order with the part information and quantity. The spare parts distributor will then get in touch to discuss pricing, arrange payment and delivery of the order.

The new spare parts web site is accessible on the Seeley International web site under the "**GET SUPPORT**" menu, and under the "**SPARE PARTS**" sub menu, or at this web address:

www.seeleyinternational.com/get-support/spare-parts/

Seeley International has a policy of continuous improvement in all areas. This is one of the many product improvements and enhancements that we are making to our large range of cooling and heating products.

TECHNICAL BULLETIN: A12/14 BREEZAIR EXS PAD CONFIGURATION



TECHNICAL BULLETIN

Subject: Breezair EXS (Supercool) Pad Configuration

Bulletin Number: A1214

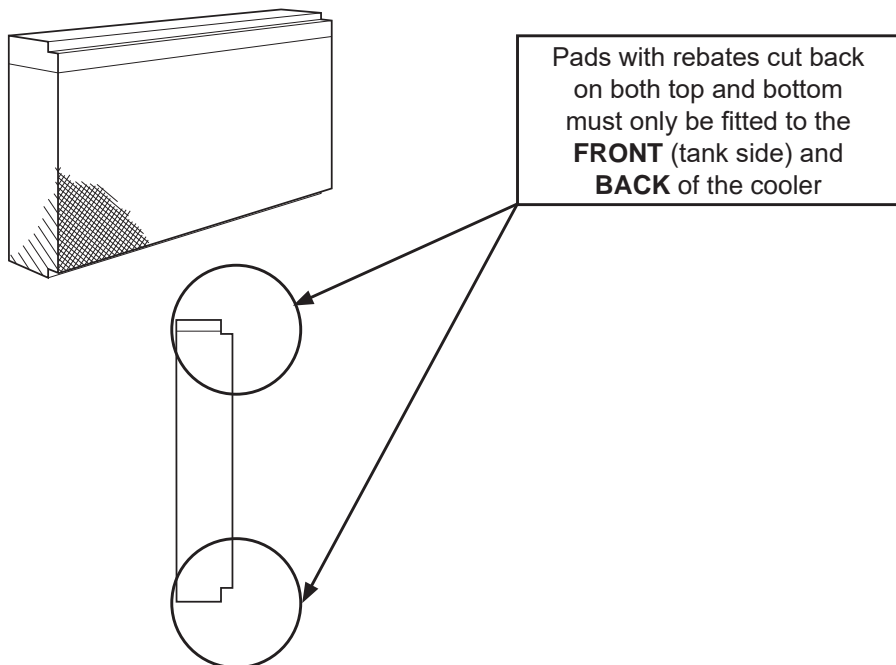
Region: Australia

Author: Technical Support 1300 650 399

Date: 14/10/2014

EXS model coolers have Chillcel pads that vary in thickness from the standard 90mm thickness, as well as rebates cut back to avoid interference along the top and bottom. When removing the pad frames during installation or servicing, take careful note of the location of each pad, and when re-fitting, ensure that they are fitted back in their original positions.

- All 4 x pads have rebates cut back on the top to avoid contact with spreaders and water hoses.
- 2 x pads have rebates cut back along the bottom to avoid interference with float valves and tank stand-offs. These pads with top and bottom rebates must always be fitted on the **FRONT** (tank side) and **BACK** of the cooler and never on the air intake sides.



Seeley International has a policy of continuous improvement in all areas. This is one of the many product improvements and enhancements that we are making to our large range of cooling and heating products.

TECHNICAL BULLETIN: ICON CONTROL BOX FAN SPEED LED BEHAVIOUR



TECHNICAL BULLETIN

Subject: Icon Control Box Fan Speed LED Behaviour

Region: Australia

Author: Technical Support 1300 650 399

Date: 12/09/2014

ICON Control Box Fan Speed LED Behaviour

To accurately diagnose Icon products, we strongly recommend that Service Technicians use a CPMD compatible Wall controller and a short test lead (Part number 862873) at the Cooler. This way all the functions of the cooler, as well as the Motor diagnostic LED's can be observed in relation to the Wall control commands.

IMPORTANT SAFETY: When any side panels are removed, always test EVAP coolers with the pump disconnected or in ventilation mode, as wet roof surfaces can create a safety hazard! Also, care must always be taken when working near or around moving parts.

The ICON fan speed LED behaves as follows:

1. It glows solid green in normal operation.
2. The Fan Speed LED will extinguish if the motor rotates less than 30% of set speed*, and the motor will stop within approximately 30 seconds at speed 10 (longer at lower speeds), or if the fan remains stationary for 30 seconds after it was supposed to start.

Fan under speed is usually associated with the following.

- Shorting between phase windings inside the motor
 - Worn bearings causing the motor to start to seize up
3. If motor rotates 20% faster than set speed* this LED will continually flash, and the motor will stop within approximately 30 seconds (sooner at higher speeds).
 4. If the speed increases to 30% above the set speed* the LED will continue to flash and the motor will stop immediately

Fan over-speed is usually associated with restricted (reduced) airflows:

- Fan installed backwards (motor may have recently been changed)
- Weather damper jammed or not opening fully
- Under-sized or squashed ductwork
- Registers (grilles, diffusers) not open
- Large extraction fans causing negative back pressure
- Voltage outside of specifications (less than 207volt or more than 253volt).

* **'set speed'** – Is the fan/motor speed as selected by the operator or by the thermostat in the Wall Control. Each motor speed has a specified value of input power assigned to it (factory set). Regardless of installation conditions the input power to the motor is held constant at that specific value. Data from sensors in the motor is converted to RPM in the electronic module. The speed at each of the 10 settings is allowed to vary +/- 20%. As soon as the motor RPM moves outside those limits (for any of the above listed causes) a fault mode is initiated and the LED behaves as stated above.

Seeley International has a policy of continuous improvement in all areas. This is one of the many product improvements and enhancements that we are making to our large range of cooling and heating products.

TECHNICAL BULLETIN: A02/09 CIRCUIT PROTECTION FOR ICON



TECHNICAL BULLETIN

Subject: Circuit Protection Icon EXH210 & EZH215

Bulletin Number: A02/09

Region: Australia

Author: Technical Support 1300 650 399

Date: 27/01/2009

ELECTRICAL CIRCUIT PROTECTION INSTALLATION REQUIREMENTS

In order to assist in preventing any unnecessary inconvenience to our Customers, Seeley International would like to comment on the circuit protection allowances that must be adhered to when installing Breezair Icon Coolers.

It is a requirement of Seeley International that all Coolers be wired a dedicated power circuit to the distribution board.

We have received field feedback on various imported brands of circuit breakers. The feedback indicates that high ambient temperature conditions can cause a de rating effect that causes premature tripping at much lower currents than their ratings indicate.

The maximum current draw for the EXH210 and EZH215 is 9.6amps.

Therefore, when selecting circuit protection devise for the EXH210 and EZH215, provisions must be made to allow for the varying thermal tolerances.

Please be aware that is a Warranty Service call reveals no fault with the Cooler charges will apply, as external Electrical and Plumbing Services are not covered by the manufacturer's warranty.

We thank you for your support in this matter.

Seeley International has a policy of continuous improvement in all areas. This is one of the many product improvements and enhancements that we are making to our large range of cooling and heating products.

TECHNICAL BULLETIN: A13/08 ICON Electrical Power Supply requirements



TECHNICAL BULLETIN

Subject: EXH EZH Icon Electrical Power Supply Requirements

Bulletin Number: A13/08

Region: Australia

Author: Technical Support 1300 650 399

Date: 09/10/2008

Power Supply Breezair EXH & EZH Icon

The Breezair EXH and EZH ICON has been designed to operate safely and reliably within the Australian Standard for electrical supply of 230 volts +/- 10%; i.e. 253 volts maximum down to 207 volts minimum, on 50Hz.

In the field, unless mains voltage falls below 207 volts the Breezair ICON coolers will function normally.

However, if it falls below 207 volts the Icon automatically slows down the fan as it cleverly avoids internal electronic damage, which can often be the case with some inferior electronics. Depending on voltage behaviour, this decreasing in fan speed can occur without being noticed by the Customer. However, over an extended period of low voltage supply it may eventually shut down the cooler even though the wall control indicates the fan is running. The customer can reset the cooler at the wall control by turning the controller off and then back on, but they may need to try a lower fan speed if low voltage is still being experienced.

Therefore, even if power fluctuations are experienced during the peak of summer, Icon Customers can keep their cooling system going by reducing fan speed (i.e. 7 or 8) at the wall control.

Explanation: The electronic motor module delivers constant power to the motor (not constant volts), therefore, compensates voltage reductions by increasing current draw to maintain constant power (Volts x Amps (current) = Watts (power)). With this in mind, the electronics has a current draw limitation of 9.5amps. If the current draw limit is exceeded, to protect itself, the electronics intuitively drops the speed back one level from speed 10 to 9 (wall control will continue to display 10). If mains voltage continues to fall the motor will shut down and restart automatically within 15 seconds. If this occurs twice within a 5 minute period, the motor will shut down until the wall control is reset. This can be confirmed if the cooler has not been reset at the wall control by viewing the Motor diagnostic LED's on the control box inside the cooler.

The Power and Fan Speed LED's will both be ON with the Hall Effect and O/L LED's both OFF.

With the above in mind, if the power supply is suspect, (i.e. areas prone to voltage fluctuations, brown outs and power outages) before calling the Service Agent, we strongly suggest the customer tries resetting their cooler at the wall control, as power supply issues are not covered under the manufacturer's warranty of the product.

Seeley International has a policy of continuous improvement in all areas. This is one of the many product improvements and enhancements that we are making to our large range of cooling and heating products.

TECHNICAL BULLETIN: A16/08 WATER DISTRIBUTION HOSE CONNECTIONS



TECHNICAL BULLETIN

Subject: Water Distribution Hose Connections

Bulletin Number: A16/08

Region: Australia

Author: Technical Support 1300 650 399

Date: 21/11/2008

IMPORTANT SAFETY: When any side panels are removed, always test EVAP coolers with the pump disconnected or in ventilation mode, as wet surfaces can create a safety hazard! Also, care must always be taken when working near or around moving parts.

INSTALLATION REMINDER

In order to avoid unnecessary inconvenience to our Customers, we ask that during commissioning of a Breezair Icon Series Evaporative cooler, the following checks are carried out:

- All water spreaders are correctly in place and secured to lid of cooler with screw.
- Check water distribution hoses are firmly fitted to spigots on the spreaders.
- Check water distribution hoses are firmly fitted to 4 way distributor from the pump.
- Ensure pads are correctly fitted into frames and washers that hold pads on pad pins are firm.
- Check level of Cooler in all directions, taking care to ensure that it does not lean backwards. If so, the unit must be levelled.
- Check all Inlet water supply connections have no leaks.
- Always fill the unit with water and initiate a drain to ensure all drain fittings and pipes have no leaks. The tank can be manually drained by pressing the remote control drain button (Horizon), or with a wall control (Harmony) in the "OFF" state, by pressing both the up and down buttons simultaneously until the letters "dr" appear on the screen.

- Check the water will fluently drain from the tank without air locking or obstructions. Also, check there are no leaks from drain hose joints.
- Drain water must not discharge onto the roof surface.
- Dropper and all roof penetrations are correctly flashed and sealed.
- As a final check, with all side panels in place and the unit running for a short period in cooling mode, ensure all 4 pads have even water saturation and there are no visible water leaks.
- The owner is instructed on how to isolate the water to the system in case of an emergency.

We thank you in advance for your co-operation in this matter

TECHNICAL BULLETIN: A06/07 FEAC WATER SUPPLY REQUIREMENTS



TECHNICAL BULLETIN

Subject: FEAC Water Supply Requirements

Bulletin Number: A06/07

Region: Australia

Author: Technical Support 1300 650 399

Date: 24/09/2007

In order to avoid unnecessary inconvenience to our Consumers, we would like to reinforce Seeley Internationals Water supply requirements outlined in our FEAC Coolers (Breezair, Braemar, Convair & Coolair) Installation Manuals.

WATER REQUIREMENTS

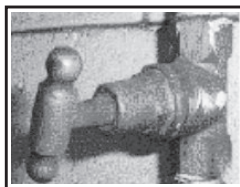
Installation of the Cooler water supply must conform to local plumbing rules, regulations and standards.

The following points and specifications for water supply must be adhered to:

- Water Connection: ½" inch BSP
- Water Supply: 800Kpa (115 psi) MAXIMUM

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

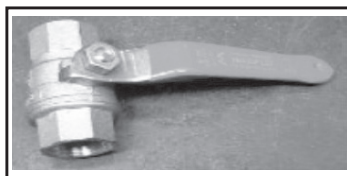
- Install a manual shut off valve in the water supply line adjacent to the Cooler subject to local plumbing regulations. It is **recommended** to use a **¼ turn ball type shut off valve**. This allows the water supply to be isolated whenever work needs to be done on the Cooler. **It is recommended to use a stopcock**, i.e. NOT a non-return type of shut off valve.
- Flush the water pipe to remove any swarf (debris) before final fitting.
- In areas subject to freezing, the water line needs a drain down facility. This is when water can be drained from the Coolers water supply pipes during the winter periods to eliminate the risk of bursting pipes caused by the expansion of frozen water.



ILL3381-A



Incorrect



ILL3382-A



Correct

Important! Consequential damages for installations that do not comply with these requirements will not be accepted by Seeley International.

TECHNICAL BULLETIN: A09/18 COOLERS INSTALLED IN BUSHFIRE PRONE AREAS



TECHNICAL BULLETIN

Subject: Coolers Installed in Bushfire Prone Areas

Bulletin Number: A09/18

Region: Australia

Author: Technical Support 1300 650 399

Date: 25/06/2018

Seeley International manufactures a range of residential rooftop evaporative coolers designed to comply with building and safety standards for Bushfire Prone Areas.

	A L					
M	AL-Low	AL-12.5	AL-19	AL-29	AL-40	AL-FZ
Breezair	Approved					
E S		Approved	Approved	A		
E Q		Approved	Approved	A		
Braemar						
LPQI		A	A	A		
LCQI		Approved	Approved	A		
LCQ		Approved	Approved	A		
MQ		Approved	Approved	A		
EA		A	A	A		
RPCQ-HFR		Approved	Approved	Approved		
Coolair						
CPQ		Approved	Approved	A		

Additional Installation Requirements approved coolers in BAL 12.5, 19 and 29 regions :

- Firewall Auto-Seal (supplied with RPCQ-HFR coolers).
- Firewall Ember Screens (supplied with RPCQ-HFR coolers).
- Non-Combustible Dropper, Flashing & Sealant to prevent gaps greater than 3mm at the roof.

A S
Kit Part Number 089195 ALL MODELS
To be used in conjunction with AS3959 compliant 550x550 square droppers.

The Firewall A -Seal is a metal isolating flap which should be installed as close as practicable to the roof lining.



Fully open when fan is operating



Half open

Seeley International has a policy of continuous improvement in all areas. This is one of the many process and product improvements that we continually make to our large range of cooling and heating products.

TECHNICAL BULLETIN:

A09/18 COOLERS INSTALLED IN BUSHFIRE PRONE AREAS



TECHNICAL BULLETIN

Subject: Coolers Installed in Bushfire Prone Areas

Bulletin Number: A09/18

Region: Australia

Author: Technical Support 1300 650 399

Date: 25/06/2018

- EXQ130, EXS140

Kit Part Number 114361 suits:

- EXS160/180/200/220, EXQ150/170/190/210

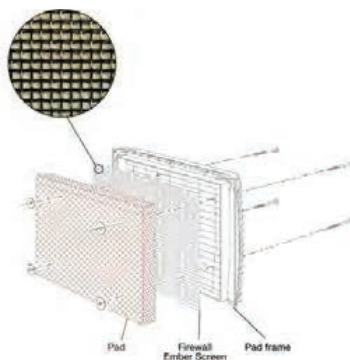
Part Number 114392 suits:

- LCQ250/350, LCQI250/350, BMQ500/750, CPQ450/700

Kit Part Number 114408 suits:

- LCQ450/550, LCQI450/550, BMQ900/1150, CPQ850/1100

Firewall Ember Screens are ___ suitable for use on LPQI and EA coolers



 C D

Coolers shall be mounted using Non-Combustible Droppers, Flashing & Sealant to prevent gaps greater than 3mm at the roof.

 G C

Both the Firewall Auto-Seal and Ember Screens have been designed to _____ any reduction in airflow whilst the cooler is operating. When both are _____ airflow reduction when the cooler is operating is only 15%.

T _____ ction in airflow when using the Firewall products should be considered when designing an evaporative cooling system – make sure that you select an appropriately sized unit to allow for airflow reduction.

In line with good practice, dealers and installers must also ensure that the duct layout and sizing ductwork, as well as the placement of the cooler, are designed for optimal per _____ mance of the cooling system.

Remember to advise purchasers and users that if Firewall Ember S _____ are installed, more regular servicing will be required in order to remove any material that may build up in the screen.

T _____ Firewall Auto-Seal and Ember S _____ with fitting instructions are available to order from Seeley International Sales.

Seeley International has a policy of continuous improvement in all areas. This is one of the many process and product improvements that we continually make to our large range of cooling and heating products.

SERVICE MEMO: CPMD MINIMUM SPEED SETTING ON PRE-MAGIQTOUCH WALL CONTROL



SERVICE MEMO

Subject: CPMD Minimum Speed Setting On Pre-MagIQtouch Wall Control

Region: Australia

Author: Technical Support 1300 650 399

Date: 28/09/2016

Service Memo NOT applicable to MagIQtouch coolers

Symptom: Motor runs on high speed “only” no matter what the wall control is set to. Adjustment of the minimum speed potentiometer on the CPMD makes no difference.

CPMD FEAC units have a hidden parameter that is not published in any literature in the wall control that if changed from its default setting of **00** affects the fan speed adjustment of the cooler.

Normal procedure to access the standard parameters is to within Four (4) minutes of mains powers being applied to the CPMD, press and hold the **AUTO** button for three seconds and then press the **DOWN** arrow. However, if during the first (4) minutes of power being applied to the CPMD, **AUTO** is held down for three seconds and then the **UP** arrow is pressed, the hidden parameter will be entered. At this point if the **DOWN** arrow is pressed the minimum speed setting will be set to **33** (maximum), meaning adjusting the fan speed on the wall control will have no effect.

If you attend a product where the symptom is the motor runs on high speed only no matter what the wall control is set to and adjustment of the minimum speed potentiometer on the CPMD makes no difference. We suggest you enter the hidden minimum speed parameter on the wall controller by isolating the power for 10 seconds and following the steps of within Four (4) minutes of power being applied to the CPMD, press **AUTO** down for three seconds and then press the **UP** arrow. Check and alter the value to **00** if applicable.

This issue is often misdiagnosed as a faulty CPMD. However, replacing the CPMD will not rectify the problem as the parameters are stored in both the CPMD **AND** Wall control. Therefore, existing parameters in the wall control will automatically upload into the new CPMD and vice versa if the wall control is replaced and issue will remain. Hence, **ALWAYS** check this parameter if you come across the symptom of no speed variation before changing any components.

SERVICE MEMO:
CPMD MINIMUM SPEED SETTING ON PRE-MAGIQTOUCH WALL
CONTROL



SERVICE MEMO



INCORRECT SETTING



CORRECT SETTING

IMPORTANT; Parameters can only be accessed within the first Four (4) minutes of power being applied to the CPMD – Changing CPMD's and Wall Controllers will transfer across any existing parameters to the remaining component.

If ever in doubt if standard parameters are correct or not, always check parameters are as per the tables in the CPMD Service Guide ICON & CPMD Products Service Guide 2013/2014

SERVICE MEMO: APPLIANCE SERVICE CHECK – Breezair Feature MagIQtouch Controller



Subject: APPLIANCE SERVICE CHECK – Breezair Feature MagIQtouch Controller

Region: Australia

Author: Technical Support 1300 650 399

Date: 02/09/2016

Please be aware that the MagIQtouch controllers have a unique **“APPLIANCE SERVICE CHECK”** feature that becomes active on the 1st Day of September each year.

The **“APPLIANCE SERVICE CHECK”** was introduced September 2015 along with the ‘Auto clean’ functions exclusive to Breezair EXS, EXQ, EZQ models only.

Note!!! This is not a warrantable fault with the appliance and is simply a prompt for the Customer to refer to their Owner’s manual for servicing requirements.

To exit the screen and resume normal operation they can simply push the **“BACK”** button.



The customer will see the **“APPLIANCE SERVICE CHECK”** screen when they push the white side button to activate the screen for the first time after this date every year. Hence, this will possibly be the first warm day after the feature activation date.

See Page 2 for important information from the Owner’s manual in regards to Scheduled Maintenance and Seasonal Maintenance Servicing.

Seeley International has a policy of continuous improvement in all areas. This is one of the many process and product improvements that we continually make to our large range of cooling and heating products.

TECHNICAL BULLETIN: A01/16 Data/Comms and 240 Volt cable routing



TECHNICAL BULLETIN

Subject: Data/Comms and 240 Volt cable routing

Bulletin Number: A01/16

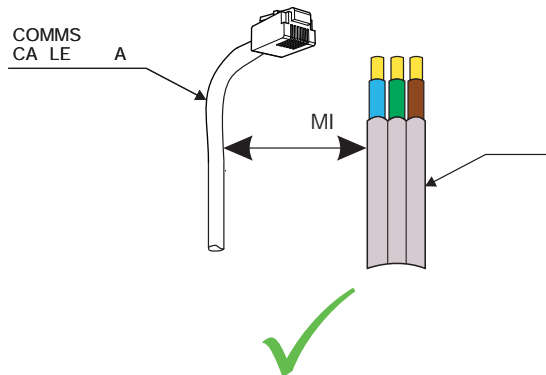
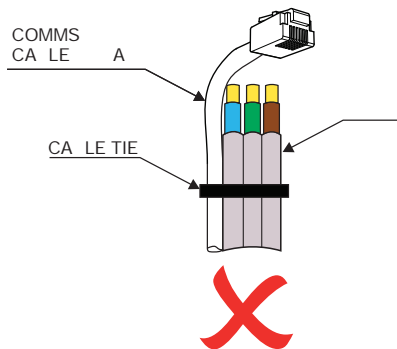
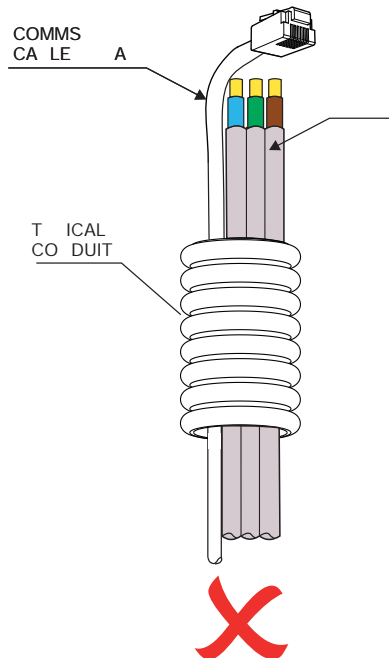
Region: Australia

Author: Technical Support 1300 650 399

Date: 17/02/2016

IMPORTANT REMINDER!!! It is a requirement of the Australian wiring Standard and Seeley International that when routing low voltage data/communication and 240 Volt cable a minimum of 50mm spacing is maintained between them.

Routing data/communication cables & 240 Volt cable together in conduit or cable tying or taping together is not acceptable by the Australian standards and will cause induced EMF interference with the MagIQtouch product resulting in intermittent communication errors, locking up of screens, displays dropping out and inconsistent erratic operation.



ILL2215-A

TECHNICAL BULLETIN: A14/17 BRAEMAR LPQI REPLACING BRIVIS CONTOURS



TECHNICAL BULLETIN

Subject: Braemar LPQI replacing Brivis Contours

Bulletin Number: A14/17

Region: Australia

Author: Technical Support 1300 650 399

Date: 09/01/2018

The Braemar Evolution LPQI can be used as a replacement for Brivis contours using an existing structurally sound dropper with relatively minor alterations.

During installations varying

the important factors to be aware of:

- LPQI dropper requires to be 22.5 degrees to the roof line – Brivis Contour can be either 23 degrees or 21 degrees
- LPQI transition dropper opening size is 565mm x 565mm, which will assist with levelling the transition to counteract various dropper angles.
- Existing droppers used on contours will have a 90 degree turned out flange that needs to be removed or flattened out
- A metal neck/extension piece fitted to dropper may be required to give clearance from roof to allow access to screw in LPQI transition to dropper (in particular tiled roofs)



Brivis Contours (1997-2001)
L10, L20, L30, L40, L50 L60
23 degree dropper angle

- Brivis Contours (1997-2001) M L10, L20, L30, L40, L50 L60
- Droppers installed at 23 degrees
- Only 1/2 degree difference to the 22.5 dropper angle required for Braemar Evolution LPQI should changeover with relative ease
- Remove old cooler from dropper
- Safely remove or flatten out 90 degree flange at top of dropper
 - Where a metal extension has been used on a plastic dropper it may be possible to turn the extension upside down
- Fit Braemar Evolution LPQI transition and check clearances
 - A metal neck/extension piece fitted to existing dropper may be required to give clearance from roof to allow access to screws for fitting LPQI transition to dropper (in particular tiled roofs)
- Level transition using spirit level
 - Suggest fixing back/rear screws first and lifting front until transition is level
 - The 565mm x 565mm opening size of transition will assist with this process
- If unable to level transition and further adjustments are required
 - Remove transition and carefully loosen flashing from dropper and realign to suit, then re-sealing making sure all flashings are secure before re-fitting the transition
- Once transition has sufficient clearance and levelled using all screws supplied
- Follow installation instructions as per LPQI installation manual.



C (Post 2001)
21 degree dropper angle



Profiler (Post 2001 – variant C)
21 degree dropper angle

- Brivis contour models since 2001
- Droppers installed at 21 degrees
- With 1 1/2 degrees difference to the 22.5 dropper angle required for Braemar Evolution may require more adjustment than earlier
- Remove old cooler from dropper
- Safely remove or flatten out 90 degree flange at top of dropper
 - Where a metal extension has been used on a plastic dropper it may be possible to turn the extension upside down
- Fit Braemar Evolution LPQI transition and check clearances
 - A metal neck/extension piece of existing dropper may be required to give clearance from roof to allow access to screws for fitting LPQI transition to dropper (in particular tiled roofs)
- Level transition using spirit level
 - Suggest fixing back/rear screws first and lifting front until transition is level
 - The 565mm x 565mm opening size of transition will assist with this process
- If unable to level transition and further adjustments are required
 - Remove transition and carefully loosen flashing from dropper and realign to suit, then re-sealing making sure all flashings are secure before re-fitting the transition
- Once transition has sufficient clearance and levelled using all screws supplied
- Follow installation instructions as per LPQI installation manual.

Seeley International has a policy of continuous improvement in all areas, therefore reserves the right to make changes to these specifications without notice. Whilst every care has been taken to ensure data accuracy compiled in the document, Seeley International does not assume liability for any errors and/or omissions.

TECHNICAL BULLETIN:
A01/18 LPQI O’Ring/Nylon Washer



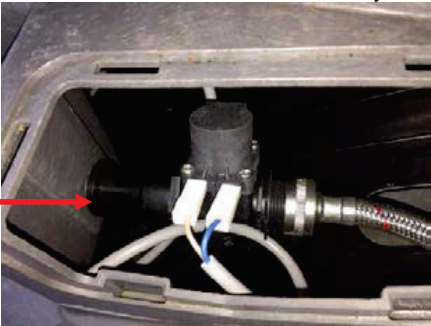
TECHNICAL BULLETIN

Subject: LPQI O’Ring / Nylon Washer
Region: Australia
Author: Technical Support 1300 650 399

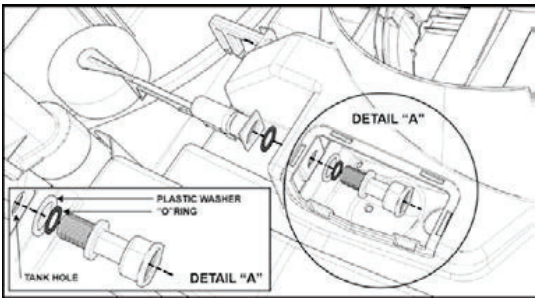
Bulletin Number: A01/18
Date: 01/03/2018

We have had reports from the field regarding water leaking from the inlet solenoid valve on the Braemar LPQI sloped tank coolers. The cause found is the nylon washer is not being fitted during installation on to the extension tube connecting the solenoid to the float valve assembly.

Supplied white nylon washer is not being fitted during installation



The washer is supplied with the unit and must be fitted as per the installation manual.



Extract from installation manual

Seeley International has a policy of continuous improvement in all areas. This is one of the many process improvements that we continually make to our large range of cooling and heating products.

TECHNICAL BULLETIN: A12/07 SERVICE ON SCREEN ON INITIAL START-UP OF FEAC's



TECHNICAL BULLETIN

Subject: "Service" displayed on Screen on initial start-up of FEAC's

Bulletin Number: A12/07

Region: Australia

Author: Technical Support 1300 650 399

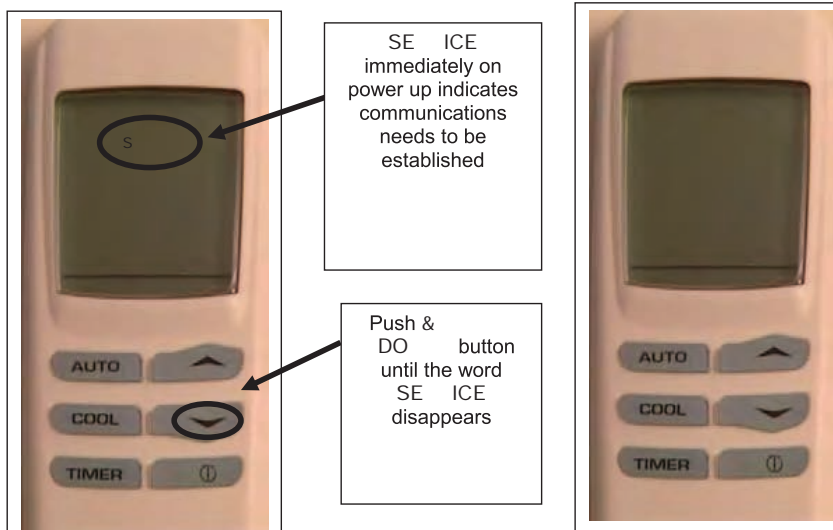
Date: Re-issue 04/10/2017

A S E C I & S T

We occasionally receive reports from the field, where on initial Installation of a Cooler, or after electronic components are changed the word SE ICE appears on the 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 DO button until the word SE ICE disappears from the screen. This may take up to 10 seconds. Once communications has been established the unit can be operated.



Seeley International has a policy of continuous improvement in all areas. This is one of the many process and product improvements that we continually make to our large range of cooling and heating products.

MAGIQTOUCH SYSTEM

TROUBLESHOOTING GUIDE

Issue	Possible Cause	What to Check	What to Do
Commencing a new installation, the MagiQtouch controller is not showing the Power Up screen.	MagiQtouch controller has already been used to control another system.	First screen displayed should be the Power Up screen with following options: "All New System" or "Existing system with new MagiQtouch controller"	Press the Reset located at the rear of the controller. Select "MagiQtouch controller Only". Start Installation.
An appliance is not detected during installation.	Incorrect wiring.	Check: 1. Cable connections are good 2. Link Module dipswitches set correctly 3. Cable lengths are as per recommendations	Modify wiring if required. Make sure all the appliances are connected and powered up.
	The appliance/control board was already installed in a previous system.		Reset Whole System (back Reset button). Power OFF/ON whole System. Start Installation.
The Primary Air Sensor has not been detected.	Incorrect wiring.	Check: 1. Cable connections are good 2. Link Module dipswitches set correctly 3. Cable lengths are as per recommendations	Modify wiring if required. Make sure all the appliances are connected and powered up.
	Wrong dipswitch setting on the Link Module	If Air Sensor plugged into Link Module connector next to dipswitch, then dipswitch should be set to ON	Ensure dipswitch is set to ON.
	The Air Sensor was already installed in a previous system.		Reset Whole System by (back Reset button). Power OFF/ON whole System. Start Installation
MagiQtouch controller displays: "More than one un-configured appliance connected."	Two or more un-configured appliances of the same type have been connected to the system at the same time.	Identify the recently connected appliances.	Disconnect all but one of these recently connected appliances. Select "Retry".
MagiQtouch controller displays a black screen. Unplugging/ Re-plugging the comm's cable does not help.	MagiQtouch controller is stuck in a mode where its capacitor prevents a proper reset. It can happen if the comm's cable is unplugged from the controller while it was in its early initialization phase.	When the comm's cable is connected to the controller, the screen flashes quickly and then stays on a black screen.	Disconnect controller and wait for 10 minutes before re-connection to discharge the capacitor.
MagiQtouch controller display is switching On/Off every 0.5 second (sometimes faster).	The power provided to the MagiQtouch controller is too low. Cable length between the controller and the first power source (Cooler, Heater, Zone Control Board) too long.	Check cable lengths: - If direct connection between controller and appliance, cable length should not be above 40m. - In any other cases, cable length between controller and the first power source should not be above 25m.	Rectify by using cable lengths specified in System Diagrams provided in the Installation manuals.
	The Link Module dipswitch is incorrectly set.	The dipswitch adds a diode to the power line. If incorrectly set, it can increase the voltage drop on the line.	Set dipswitch according to table printed on the Link Module electronics board.
MagiQtouch controller displays the temperature sensed by the controller internal sensor instead of the temperature sensed by the Primary Air Sensor.	Wrong option is selected in the "Air Sensor Selection" option in the General Settings menu. The controller will also automatically revert to the Internal Air Sensor if the Primary Air Sensor is faulty.	"Primary Air Sensor" should be selected in the "Air Sensor Selection" option.	Modify selection in "Air Sensor Selection" option.
	The Link Module dip-switch is incorrectly set.	The dipswitch adds a diode to the power line. If incorrectly set it will block power to the Air Sensor.	Set dipswitch according to table printed on the Link Module electronics board.

FREQUENTLY ASKED QUESTIONS

EVAPORATIVE COOLER

Question	Answer
How much windows should be opened?	To provide efficient cooling or ventilation the building must have sufficient exhaust openings to the outside of the building. To assist in airflow, open windows and outside doors that are farthest from the outlet vent in each room that has a vent installed. In the rooms that have vents you should provide an exhaust to the outside of the building approximately 2 times the opening area of the vent.
Which windows should be opened?	To provide efficient cooling or ventilation the building must have sufficient exhaust openings to the outside of the building. To assist in airflow, open windows and outside doors that are farthest from the outlet vent in each room that has a vent installed. In the rooms that have vents you should provide an exhaust to the outside of the building approximately 2 times the opening area of the vent.
Can we fully open up the windows?	If you open the windows too much you could reduce the cooling effect because you may also let the hot air in. Also on occasions of hot winds you may need to reduce the openings on the windward side of the house and increase the openings on the lee side to compensate. To provide efficient cooling or ventilation the building must have sufficient exhaust openings to the outside of the building. To assist in airflow, open windows and outside doors that are farthest from the outlet vent in each room that has a vent installed. In the rooms that have vents you should provide an exhaust to the outside of the building approximately 2 times the opening area of the vent.
Can we vary the amount of cooling in any one area by decreasing other areas?	Yes one of the principles of evaporative cooling allows you to do this, by the air from the outlets always taking the path of least resistance to escape the building. So with this in mind you can close the window in a room and open the internal door so the cool air can exhaust through to another area where an external opening has been provided. We recommend you experiment so you can get the best out of your cooler. But always remember the air from the outlets must be exhausted somewhere to the outside of the building in order for the unit to work effectively.
It's a very humid day/night and the cooler does not perform, as I would normally expect – why?	An evaporative cooler uses the evaporation of moist air to produce a cooling effect. So when the air is very moist and the ambient humidity of the day is high, evaporation levels will be low. Thus, the cooling effect is reduced due to the cooler not being able to evaporate sufficiently. In some situations it may prove beneficial to switch the cooler to ventilation and run the fan on a high speed.
I am getting hot air from the vents – why?	Check that the wall control is set to the cool mode and that the water supply to the unit has not been turned off. Also in days during summer when the ambient humidity is high, the cooler will not reduce the temperature as much as on drier days.
I get too much air through some grills and not enough through other grills. How can I change this?	You need to contact the company who installed the system and ask them to balance your airflow within the ductwork. This cannot be achieved by any adjustment on the cooler
Can I use the cooler to clear my home of cooking smells, smoke and unpleasant odours?	Yes you can! The best method to achieve this is to open the windows up a little more than usual and then start the cooler in ventilation mode on one of the higher fan speeds. This will exhaust the smells out of the building
Since installing my evaporative cooler I notice my water bills are slightly higher – why?	An evaporative cooler uses water that evaporates into the air stream to give the cooling effect, plus some additional water is discharged to drain and replaced with fresh water when the water quality within the cooler needs improving. Therefore all evaporative coolers will use water and the amount varies with the size of the cooler, the amount of cooling selected, and the ambient conditions.

FREQUENTLY ASKED QUESTIONS

cont

EVAPORATIVE COOLER cont

Question	Answer
There is a constant stream of water coming out of the drainpipe from my air-conditioner when it is running – why?	<p>Many of our models are fitted with a constant bleed water management system. If you have this type of system you will see a constant flow while the pump is operating. The amount will vary depending on the rate set by the installer so if you are in doubt of the setting of your bleed off you will need to contact the installer. Or if you are unaware of the installer call your local service company for a maintenance service. However, the Manufacturers warranty does not cover these types of checks or adjustments. If you have the water management or watermiser type fitted, the system is designed to monitor and control the quality of the water in the tank. Thus only draining water when the system really needs to. It does this by bleeding off water down through the drain, which is replaced with fresh water via water inlet float valve as the water level in the unit drops. The frequency at which the water manager bleeds off is determined by the quality of the water in the tank. A probe in the tank measures the water salinity (impurities) and when this rises above a set level the unit will drain some water. The frequency at which the water manager will allow water to bleed off is dependent on:</p> <ol style="list-style-type: none"> 1. The water supply quality, 2. The temperature of the day, 3. The humidity of the day, 4. The wind of the day, 5. The fan speed the unit is being run at and 6. The size of the unit.
Every now and then my cooler will drain some water. Is this ok?	<p>Yes this is normal and means your water management or watermiser system is working correctly.</p> <p>If you have the water management or watermiser type fitted the system is designed to monitor and control the quality of the water in the tank. It only drains water when the system really needs to. It does this by bleeding off water down through the drain, which is replaced with fresh water via water inlet float valve as the water level in the unit drops. The frequency at which the water manager bleeds off is determined by the quality of the water in the tank. A probe in the tank measures the water salinity (impurities) and when this rises above a set level the unit will drain some water. The frequency at which the water manager will allow water to bleed off is dependent on: 1) The water supply quality, 2) The temperature of the day, 3) The humidity of the day, 4) The wind of the day, 5) The fan speed the unit is being run at and 6) The size of the unit.</p>
What should I do if water flows from my drainpipe when the cooler is turned off?	<p>If your cooler has the "No seasonal Maintenance" feature then it will drain all the water out of the unit after a preset period of time (refer to your Owners Manual). Also after it rains you may see water dripping from the drainpipe, this is normal.</p>
What should I do if water continues to drip out of my drainpipe?	<p>Firstly this situation is not usual because after each time the cooler drains water with its water management system there will be a period of drips until the pipe clears. Also after it rains you may see water dripping from the drainpipe.</p>
I use a rain water supply to my cooler so do I need so much water being drained out with the water management system?	<p>With a constant bleed system you can reduce the flow rate and ask that you refer to your Owners Manual for information.</p> <p>With Water management or Water miser systems the controls constantly monitor the water quality so with better water quality less water will be drained away. It needs to be noted that the unit will only drain water when it needs to on this type of system which will be far less than the minimum rate on a constant bleed system.</p>

CW-H DIAGNOSTIC FAULT CODES

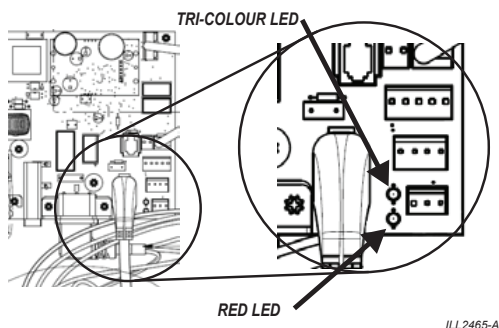
OPERATING AND FAULT CODE DIAGNOSIS

There are 2 methods for confirming the cooler operation and diagnosing faults on the cooler.

A: LED:

There are two LED indicators on the main printed control board assembly (located in the control box) - refer below.

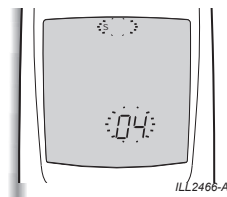
- Tri-Colour LED (upper LED) is used as an operational and fault indicator. **NOTE:** Tri-colour LED double flashing Green (every 2 seconds) = Normal Operation
- Red LED (lower LED) is used to indicate the condition of water salinity and configuration of the water management system.



TRI-COLOUR LED: This LED indicates the status of the cooler and indicates Fault Codes (if applicable)

RED COLOURED LED: This LED indicates the status of the conductivity measurement circuit and the status of the Salinity Control Method

FAULT HISTORY



If controlled by a Climate Wizard Wall Control, the wall control can be used to enter the fault code history log, detailing the recently recorded faults.

The fault code history log may be entered at any time after the cooler power has been turned ON. The fault code history log is entered via the wall control using the following method:

1. Whilst the wall control is in "OFF" state, push and hold **AUTO** and **UP** buttons simultaneously for at least one (1) second.
2. After one (1) second "F1" and the word "Param" will be displayed.
3. Pressing **AUTO** button will change "F1" to the current or last fault code number e.g., "01" and the word "Param" will change to the word "Value" this indicates the fault code number that occurred.
4. Press **AUTO** button to return to the original "F1" and "Param" display.
5. Use buttons **UP** or **DOWN** to scroll through the fault log.
6. Fault indicators - "F1 to F4" - are the last four faults that were recorded by the CPMD, and they might get repeated if the fault has re-occurred. Fault indicators - "FA to Fd" - are the last four types of faults that have occurred in this CPMD, and they will only repeat if a different type of fault has occurred since the last time this type of fault has occurred.
7. If no buttons are pushed after sixty (60) seconds the wall control will reset to the "OFF" state. The procedure to enter the fault code history log must then be re-initiated.
8. Clear fault code once you have diagnosed the fault. Whilst in fault code mode press and hold the **COOL** button for five (5) seconds.

CW-H DIAGNOSTIC FAULT CODES

CW-H COOLER ELECTRONICS BOX

There are two LED indicators on the main printed control board assembly (located in the control box).

- Tri-Colour LED (upper LED) is used as an operational and fault indicator.
NOTE: Tri-colour LED double flashing Green (every 2 seconds) = Normal Operation
- Red LED (lower LED) is used to indicate the condition of water salinity and configuration of the water management system.



Where both LED's are indicating (ie: Upper LED = GREEN 2 flashes and Lower LED = RED 3 flashes), the Diagnostic system is advising that the cooler is in "Normal Operation" and that the salinity management setting for the cooler is set to "Timed Drain".

DIAGNOSTIC (TRI-COLOUR) LED

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 seconds	Normal Operation
Red	1 Flash	Fault Code #1 Communication Failure
	2 Flashes	*Fault Code #2 Failure to detect water at Low level probes within 20 mins.
	3 Flashes	*Fault Code #3 Failure to detect water at High level probes within 20 mins.
	4 Flashes	*Fault Code #4 Failure to clear probes during drain within 20 mins.
	5 Flashes	*Fault Code #5 Damaged or Dirty Water Probes.
	6 Flashes	*Fault Code #6 Water not leaving High level probe.
	7 Flashes	*Fault Code #7 Motor Fault
	8 Flashes	*Fault Code #8 Low Voltage (Warm Start)
	9 Flashes	Fault Code #9 Incorrect Supply Frequency.
	10 Flashes	(Chlorinator Fault - Reserved for CW-H)
	11 Flashes	(Smart Card Error - Reserved for CW-H)
	12 Flashes	(Motor Failed - Reserved for ENV)
	13 Flashes	(Not in use)
	14 Flashes	(Water Cycle too long - Reserved for CW-P)
	15 Flashes	(Pressure out of Range - Reserved for CW-P)

WATER MGMT / SALINITY (RED) LED

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
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).

For more information on Diagnostic and Water Management/Salinity Codes, please refer to "EXQ/EXS DIAGNOSTIC LED" on page 7 "LCQ/LCS/TBQ/TBS/BMQ/CPQ DIAGNOSTIC FAULT CODES" on page 15 and 16 "LCQI/LPQI/XTR/TBQI/TBSI DIAGNOSTIC FAULT CODES" on page 18 and 19.

Note: CW-P and ENV model cooler information is not included in this manual.

CW-H TROUBLESHOOTING GUIDE

Tri-colour LED	Wall Control Fault Code	Fault Description	Suggested Remedy
2 Green Flash then 2 seconds off	-	NORMAL OPERATION	-
1 Red Flash then 2 seconds off	Fault Code #1	COMMUNICATION FAILURE Wall Control: No valid message for 10 seconds	Check communication cable connections. Replace Wall Control. Replace Communication Cable.
2 Red Flash then 2 seconds off	Fault Code #2	FAILURE TO DETECT WATER AT LOW PROBE No water at low probe 20 minutes after solenoid valve opening.	Check water supply on. Check solenoid valve open. Check drain valve closed. Check water management probe position relative to drain valve overflow. Clean water management probe.
3 Red Flash then 2 seconds off	Fault Code #3	FAILURE TO DETECT WATER AT HIGH PROBE No water at high probe 20 minutes after water detected at low probe.	Check solenoid valve open. Check water management probe position relative to drain valve overflow. Clean water management probe. Check water supply pressure sufficient to maintain tank capacity.
4 Red Flash then 2 seconds off	Fault Code #4	FAILURE TO CLEAR LOW PROBE DURING DRAIN Water still detected at low probe 20 minutes after drain opened.	Check drain valve open. Check drain pipework not blocked. Check solenoid valve closed. Clean water management probe.
5 Red Flash then 2 seconds off	Fault Code #5	WATER DETECTED AT HIGH PROBE BUT NOT LOW PROBE.	Clean water management probe.
6 Red Flash then 2 seconds off	Fault Code #6	FAILURE TO CLEAR HIGH PROBE. Water still detected at high probe after 4 hours running in Cool mode.	Check solenoid valve not stuck open. Check all pumps operating when required (1 minute every 9 minutes). Clean pumps. Check pump hoses not blocked. Check excessive rain not entering cooler. Clean water management probe.
7 Red Flash then 2 seconds off	Fault Code #7	MOTOR ERROR.	Check Motor Power Cable connections. Check Motor Communications Cable connections (including) built in resistor.
-	Fault Code #8	WARM START Mains input voltage is under 90Vac but not low enough to reset the PCB. Fault Code recorded when voltage returns to useable level.	Consult with Building Manager.
10 Red Flash then 2 seconds off	Fault Code #A	CHLORINATOR FAULT Initial fault is recorded and the reservoir drained. A second fault within 15 minutes shuts cooler down.	Clean Chlorinator Check flushing hose correctly attached. Replace Chlorinator.
11 Red Flash then 2 seconds off	Fault Code #B	SMART CARD ERROR The Smart Card is missing or corrupted. Cooler performance is restricted to minimum Fan Speed.	Remove and lightly clean smartcard. Replace smartcard. Replace PCBA.



Seeley International Technical Support

Australia: 1300 650 399

New Zealand: 0800 589 152

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.