

Install & Operation Guide



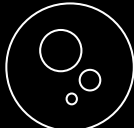
chilled



ambient



Hot

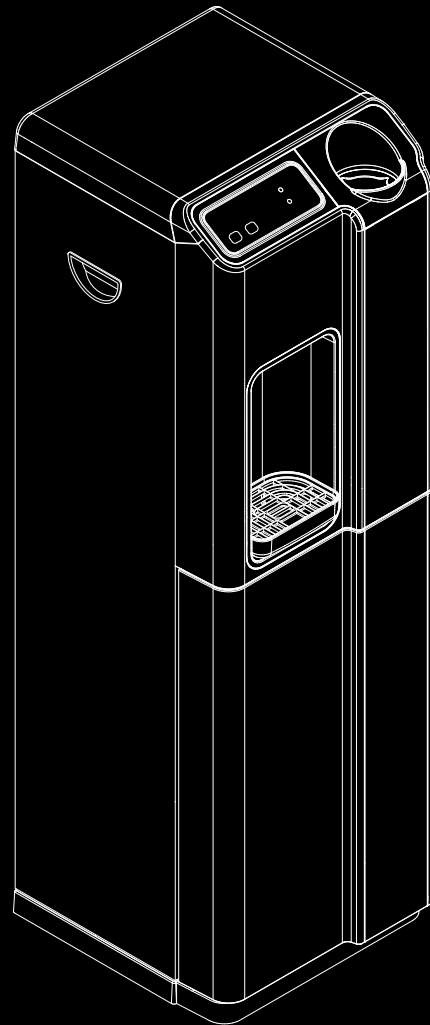


sparkling

Cold & Ambient (DC728 & DC798)
Cold & Sparkling (DC798S)
Cold & Hot (DC728H, DC798H & DC798HA)

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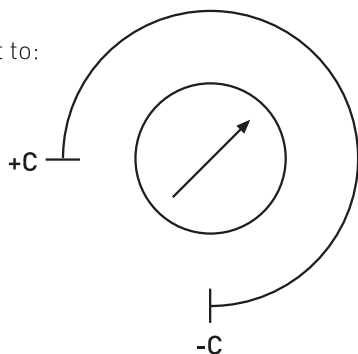
Controls

Cold & Sparkling Models

Electrical On/Off switch - At upper rear of machine. Switches on Cooling Operation.

Cold Thermostat - At rear of machine. On Classic models and inside the machine, next to the Chill Tank, on DC Models.

Factory set to:



NB: Turn clockwise to decrease water temperature

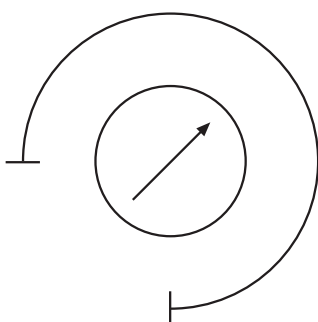
Sparkling Button	Push to dispense sparkling water
Cold Button	Push to dispense cold water
Green LED (Top)	Colours to show Cooling Operation is switched on
Yellow LED (Bottom)	Colours to show when compressor is operating

Cold & Ambient Models

Electrical On/Off switch - At upper rear of machine. Switches on Cooling Operation.

Cold Thermostat - At rear of machine. On Classic models and inside the machine, next to the Chill Tank, on DC Models.

Factory set to:



NB: Turn clockwise to decrease water temperature

Ambient Button	Push to dispense ambient water
Cold Button	Push to dispense cold water
Green LED (Top)	Colours to show Cooling Operation is switched on
Yellow LED (Bottom)	Colours to show when compressor is operating

Hot & Cold Machines:

Hot Button	Push simultaneously with the key button to dispense hot water
Cold Button	Push to dispense cold water
Electrical On/Off Switches	At upper rear of machine Cold - Switches on Cooling Operation Hot - Switches on Heating Operation
10A Fuse	At upper rear of machine
Green LED (Top)	Colours to show Cooling Operation is switched on
Yellow LED (Middle)	Shows when heating mode is switched on
Red LED (Bottom)	Colours to show when main heater is operating (i.e. Off when water is at temperature)
Hot Tank Overheat Reset Button	On sensor on side of Hot Tank (Press to operate if required. Ensure electrical power is disconnected before doing so).

DC798

Installation and Operational Guide

IMPORTANT - the guide must be read before attempting to connect the machine.

Introduction

Congratulations on your wise choice of water cooler. Your Borg & Overström water cooler will provide you with a continuous supply of water 24 hours a day. To ensure that his product will always perform as it truly should, the user should initially read this manual thoroughly and follow all the instructions before operation of the unit commences.

Installation

The water connection to the Borg & Overström water cooler is via a 1/4" supply. The connection can either be made utilising the bulk head connector found at the rear of the machine or by connecting an in-line straight connector direct to the pipe inside the rear of the machine. It is advisable that in any case an in-line isolation tap should be installed on the supply just behind the machine in case of emergency.

Operation Method

1. Having connected the water supply to the rear of the machine, the water supply should be turned on and you will hear the header tank and ice bank starting to fill. Once this has stopped filling, the machine can be connected to the mains supply and switched on. The switch at the rear of the machine then needs to be turned on before operation can commence.

NB. If your water cooler has a hot water facility please allow time for the hot tank to fill up before turning on. To draw water into the hot tank, the hot tap must be held open until water starts to dispense.

2. Both LEDs on the display panel should now be showing. After initial chilling operation has been completed the chilling lens will go off, which is the bottom of the two lenses showing.

Machine Positioning

1. It is important that at least 10cm is left between the back of the machine and the surface against which it is placed. This is to ensure that the machine does not in any way overheat.

2. The machine must be kept away from any direct sunlight.

3. It is important that the machine is connected to an RCD connected supply making doubly sure that the voltage supply is compatible with the machine.



Sanitisation & Cleaning

1. To commence sanitisation, simply isolate the water supply and remove the filter cartridge.
2. Having removed the filter cartridge you now connect the dosing cartridge supplied by Azure with 125ml of sanitisation fluid inside.
3. Now simply hold on the cold and ambient water button until the sanitisation until the sanitisation fluid has been flushed through the system.
4. The last stage is to fully clean the external casing with Azure sanitisation wipes. When this has been completed your sanitisation is complete.

If you have any question regarding sanitisation please do not hesitate to ring Azure Head Office on 0845 4 50 30 90.

Sanitisation Guide

Direct Chill Water Coolers

Turn off incoming mains water, briefly press dispense button(s) to release internal water pressure from the machine and remove filter. If possible temporarily shut off inlet to any hot tank as sanitisation of a hot tank in continuous use is unnecessary.

Add 100 ml of a proprietary sanitisation fluid to a clean and empty service filter cartridge/dosing device and connect into machine. Always ensure to use a reputable branded sanitisation fluid for effective action.

Please note: We recommend using a 3% Hydrogen Peroxide concentration base sanitising fluid of reputable manufacture to the appropriate dilution ratios as supplied with the product or typically 1:30 max. (Stronger concentrations will require larger dilution rates).

Please remember that most sanitisation fluids (including ozone) contain an active caustic/alkaline agent. Always use responsibly and with care remembering that due to its alkaline nature unnecessary concentrated/prolonged contact with any materials, including metals, can cause damage. Always rinse all contact surfaces after use with clean water.

Turn on incoming water, allow service cartridge/doser to fill and then draw off at least 1 litre of water for the machine to ingest the solution. Leave solution for 10 minutes inside machine for sanitisation to take effect. During this time thoroughly clean the machine externally. For this we recommend the use of proprietary disposable sanitisation wipes. Pay particular attention to the dispense faucet and the push button controls. Remember to include the drip tray. If a Waste Overflow System is fitted, this may benefit from flushing through with a small amount of dilute sanitisation fluid. Optionally you may replace the dispense faucet and/or descale it.

After a satisfactory period of time, flush the machine with at least 10 litres of clean water to clear any trace of the sanitisation fluid. Optionally use test strips to check.

Turn off water and remove the service filter/doser and fit a new filter of reputable quality and suited to the site conditions. We recommend pre-flushing the new filter to reduce any risk of any loose media in the filter entering the solenoid valves and possibly causing a malfunction. Retain the service cartridge/doser for reuse.

Turn on incoming water supply and carefully ensure the thorough sanitising of the outside of the machine is completed. Reconnect power and reset any service/filter life monitors accordingly. Ensure any hot tank inlet is reconnected and the tank is purged of air before switching heater on again.

ALWAYS ENSURE ANY RESIDUAL AIR HAS BEEN PURGED FROM BOTH COLD AND HOT SYSTEMS AND ALL IS OPERATIONAL BEFORE LEAVING.

Descaling Guide

Reservoir Model

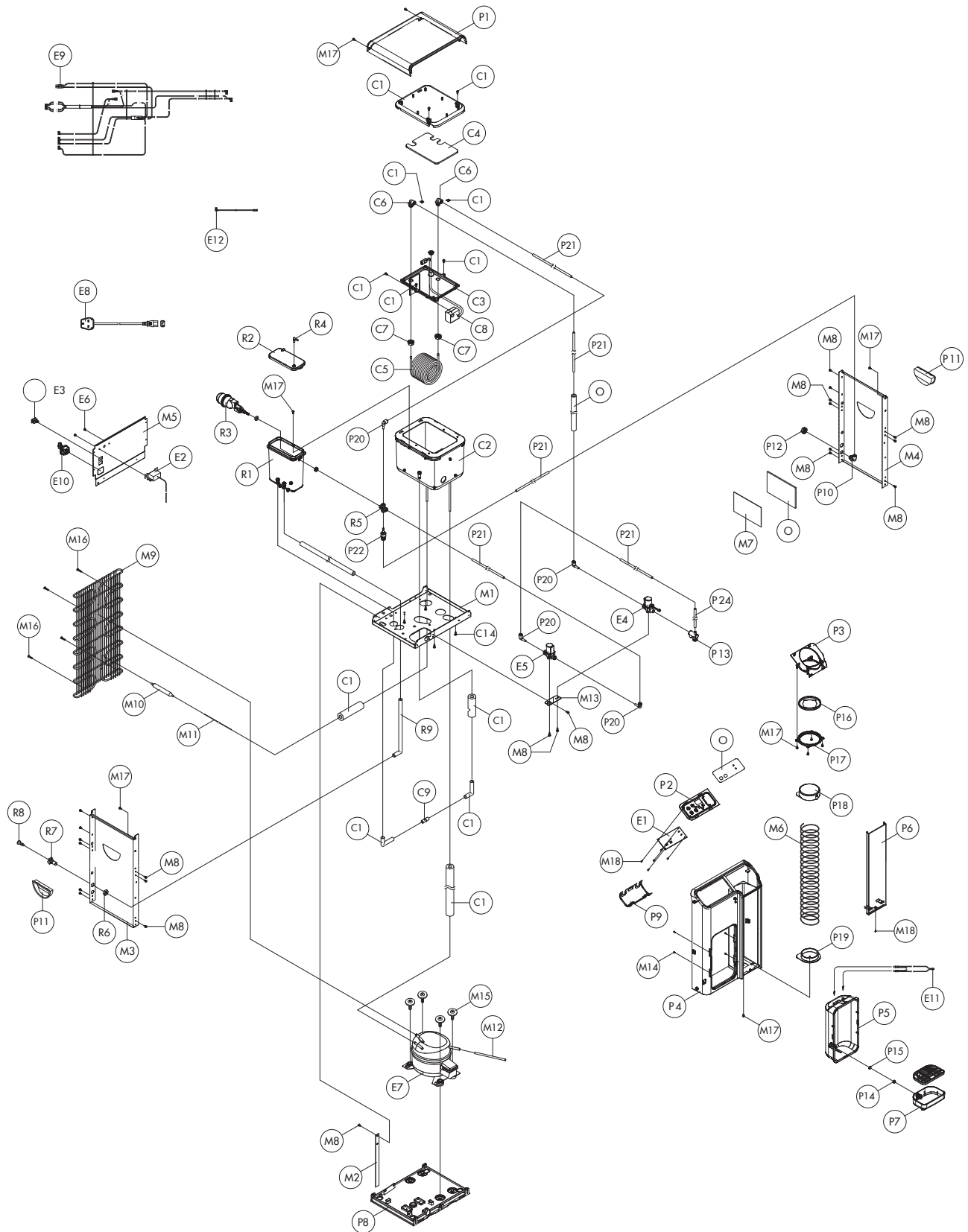
Scale deposits will occur whenever water is heated. Higher deposits will occur with harder water and higher temperatures. Although scale deposits can be reduced through using softened water this is not necessarily desirable due to the adverse effect on taste. Therefore, it is important that descaling is carried out regularly to maintain the high efficiency of operation of your appliance.

The frequency of descaling depends on the hardness of the water and the intensity of usage in each case. At least every 12 months is highly recommended. Although it is primarily the Hot Tank (Water Heater) that requires descaling, it is also necessary to sometimes carry out some in the cold tank.

Please note: Descaling is to remove the inevitable build up of limescale and should not be confused with sanitisation, which is a different procedure for maintaining the necessary hygiene standards for drinking water.

1. Switch off the power and water supply. Drain off water, including Hot Tank. It may be beneficial at this stage to flush through the hot tank with clean water to remove as much loose scale as possible if the tank appears particularly scaled up.
2. Carefully fill a suitable pouring jug with approx 2 ½ litres of hot water and add the correct amount of descaler relevant to the enclosed instructions for safe and effective use.
3. Remove the Top Cover from the appliance (and the lid covering the cold tank on later models). Carefully remove the Float Valve and Baffle Plate from the Cold Tank.
4. Slowly pour the descaling solution into the Cold Tank. This will drain directly into the Hot Tank. Continue to add the solution until it also just begins to fill the Cold Tank too. Leave the solution to react with the limescale as directed.
5. Should limescale be present in Cold Tank, carefully treat the areas concerned using the same solution. Also, treat any removed parts such as the Float Valve, after checking the directions for use for compatibility. Similarly, if the outlet dispense valves need treatment, dispense a little solution to draw it into the dispense valves. Examine the small black rubber water stop seal on the Float Valve for any damage or wear and replace if necessary. **DO NOT ROTATE THE SEAL IF IT IS NOT BEING REPLACED AS THIS COULD AFFECT ITS WATER SEAL SEATING AND ALLOW SEEPAGE.**
6. After an appropriate time, carefully scrub any surface scale to remove it taking care not to damage the part. If scrubbing of the inside of the dispense valves is required, remove the Front Panel of the appliance and carefully dismantle the dispense valves by unscrewing the ring under the lever and then drawing the lever mechanism upwards out of the body. **N.B. Before removing the dispense valves, drain off any remaining solution in the cold tank.**
7. Reassemble any removed parts as necessary and flush appliance through thoroughly with mains water as directed (Carry out sanitisation procedure at this point if desired).
8. Finally, allow appliance to refill, check for any leaks and switch on power supply.

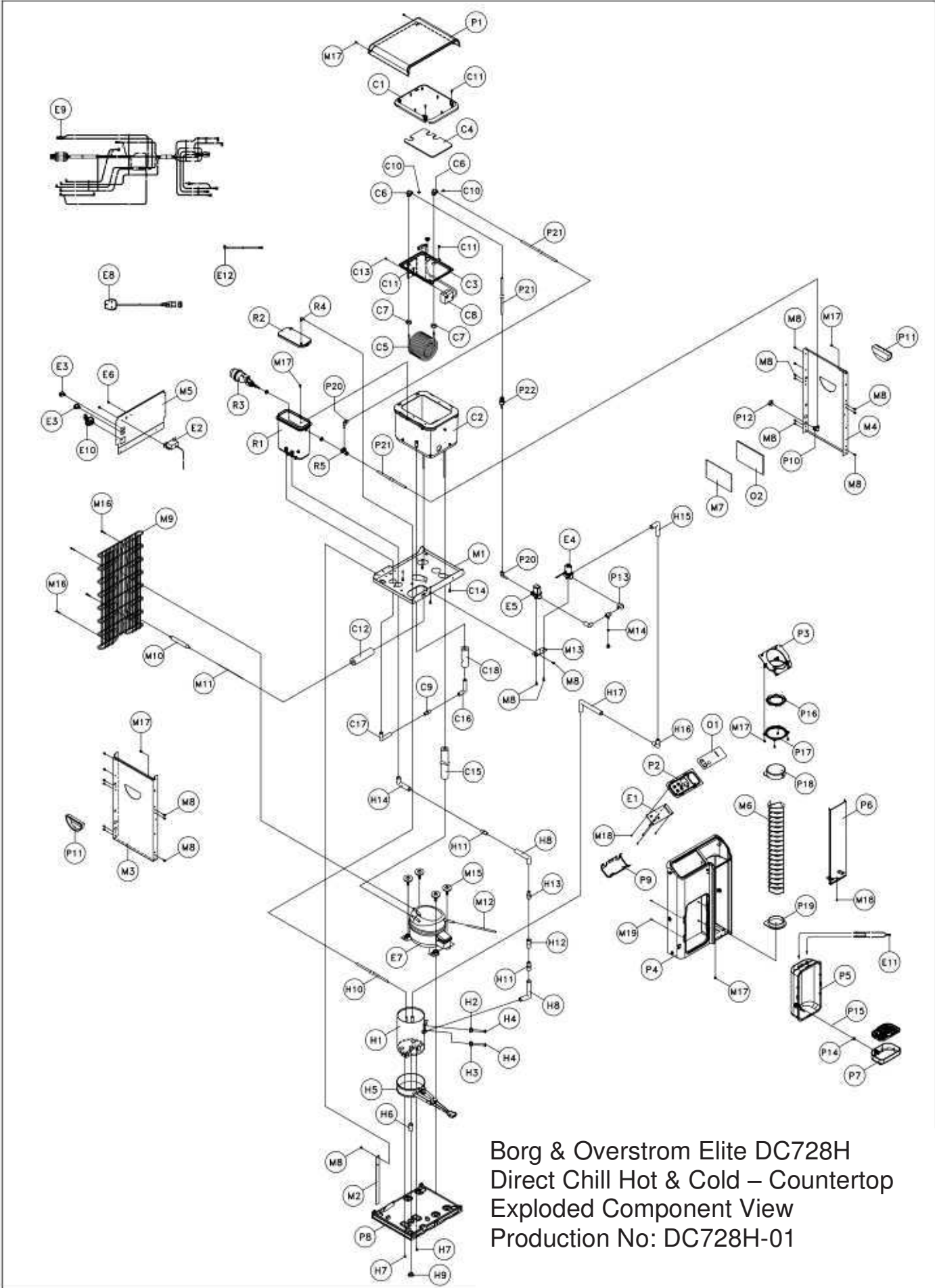
borg & overström



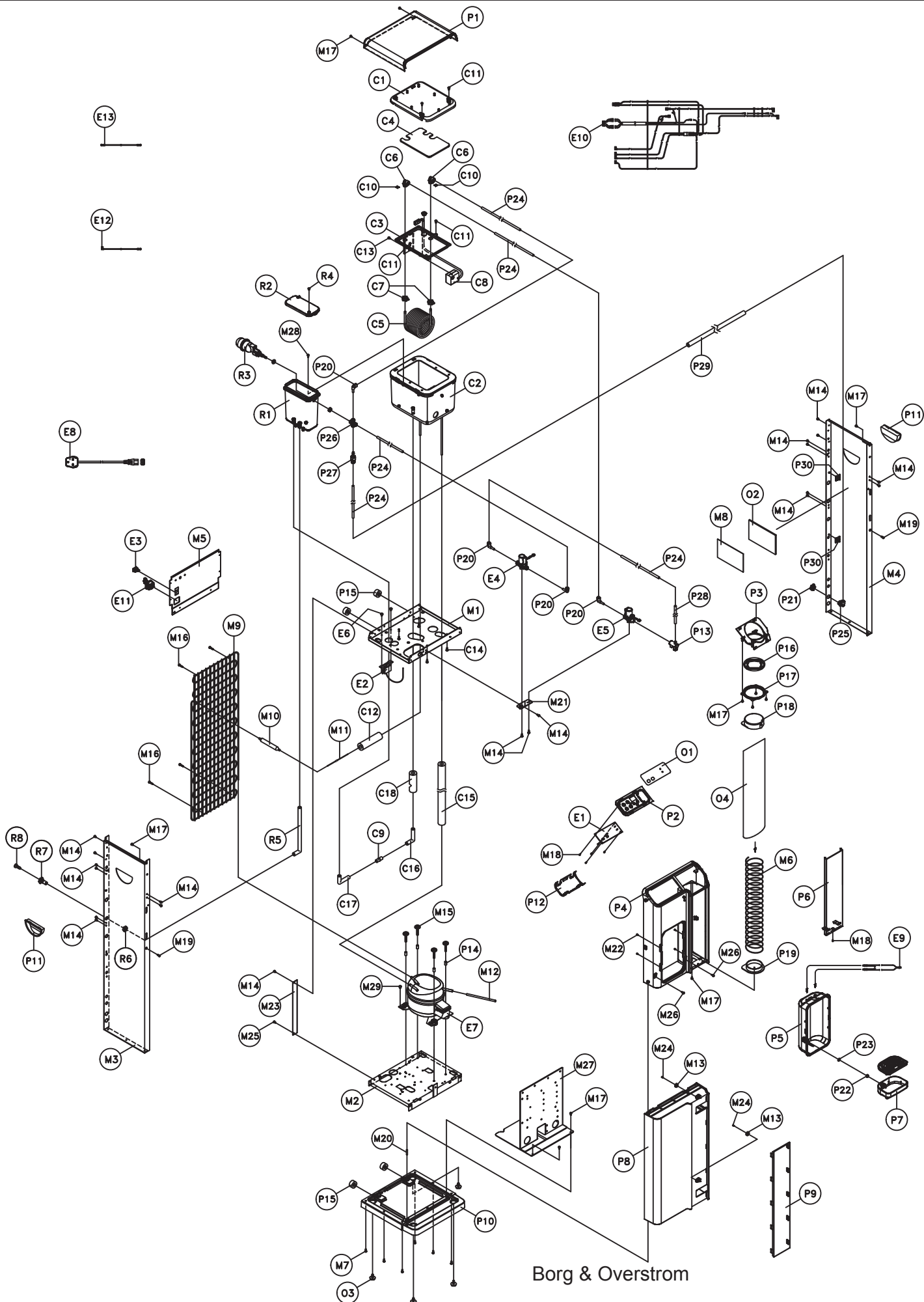
Exploded Diagram - b3

Direct Chill, countertop,
chilled & ambient

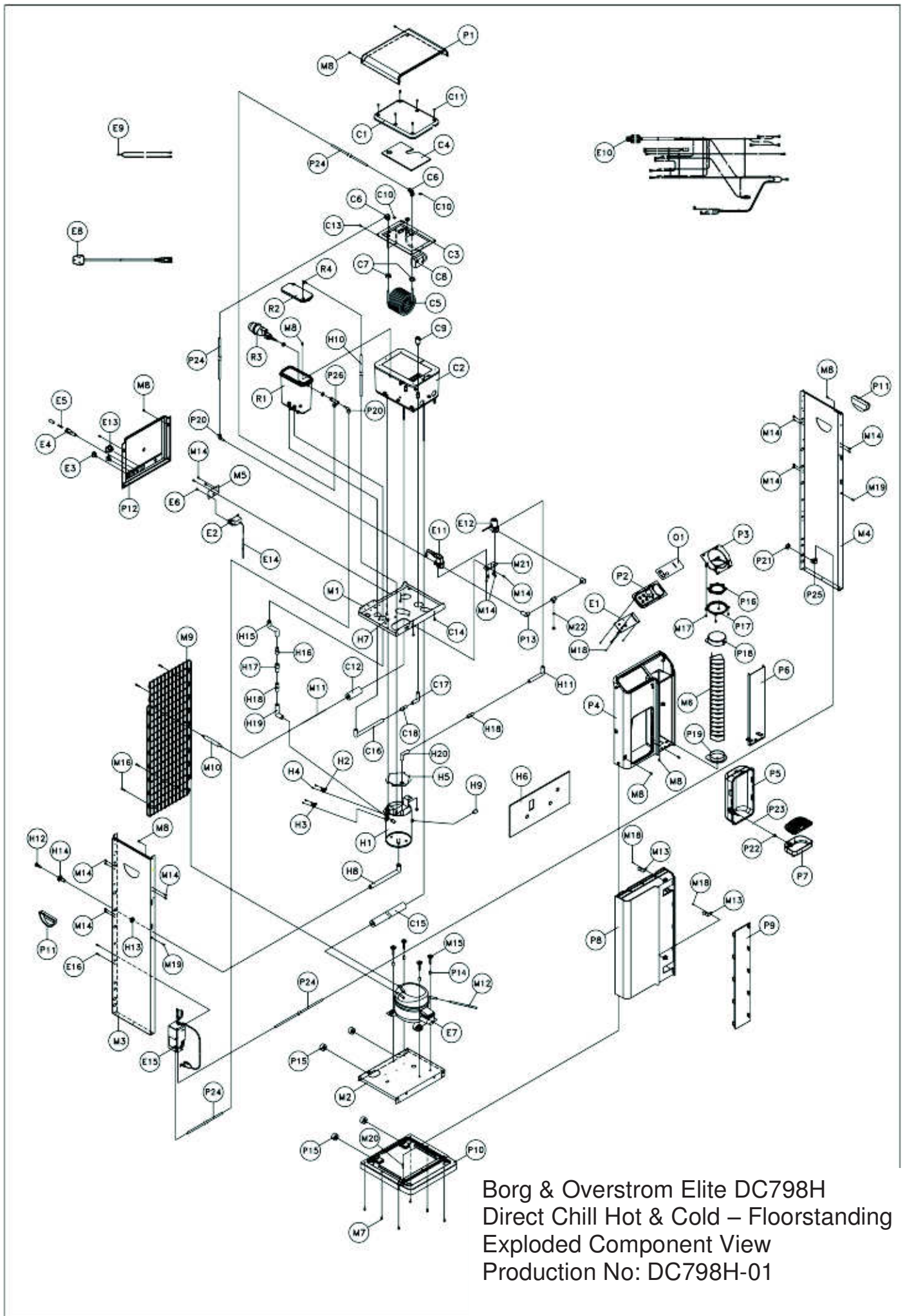
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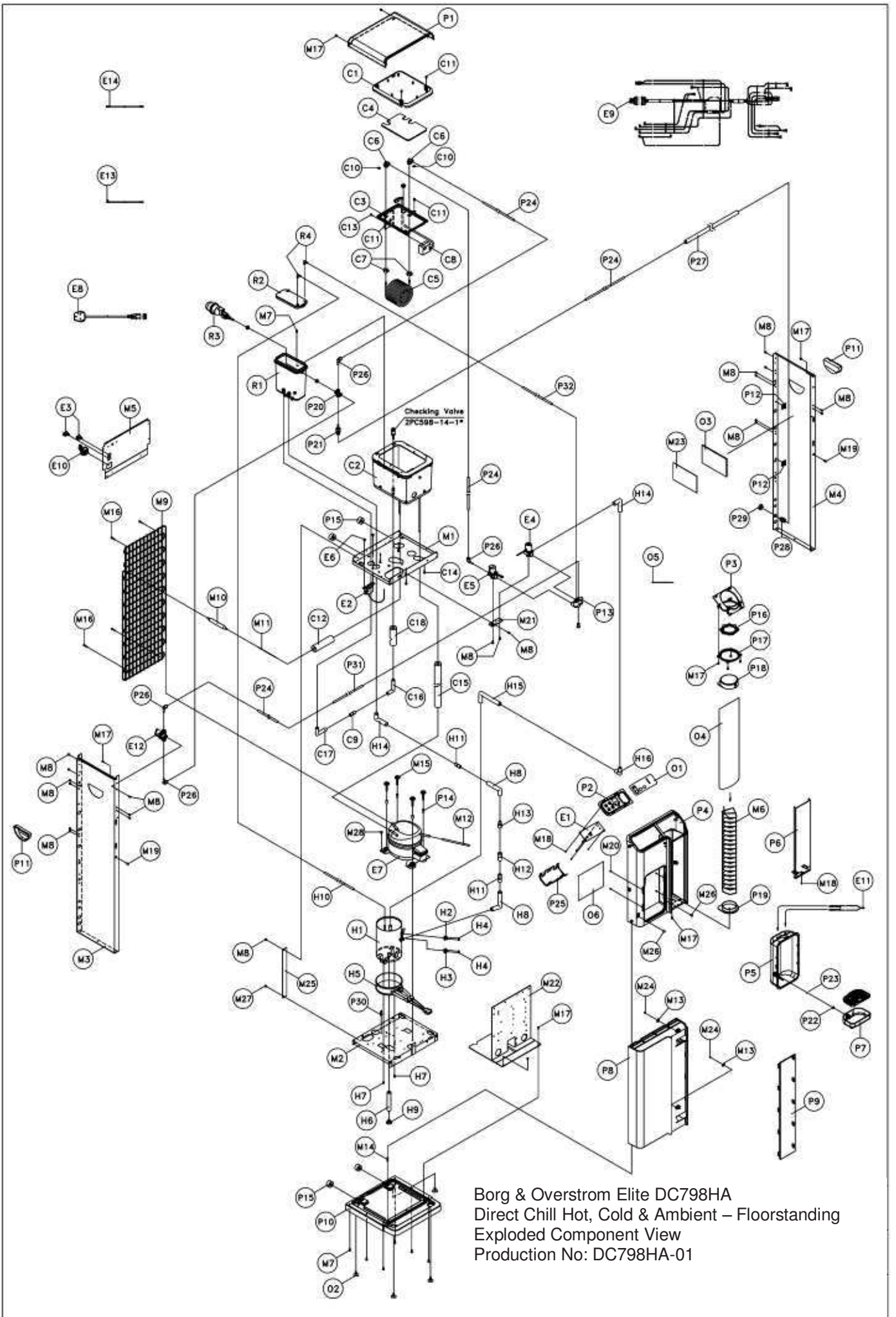
Borg & Overstrom Elite DC728H
 Direct Chill Hot & Cold – Countertop
 Exploded Component View
 Production No: DC728H-01



Borg & Overstrom
 Elite DC798-02
 Exploded Component View



Borg & Overstrom Elite DC798H
 Direct Chill Hot & Cold – Floorstanding
 Exploded Component View
 Production No: DC798H-01



Borg & Overstrom Elite DC798HA
 Direct Chill Hot, Cold & Ambient – Floorstanding
 Exploded Component View
 Production No: DC798HA-01

Recommended Spares for Borg & Overstrom Elite DC Models

Product Code	Part Description	Elite DC						Recommended	
		Quantity in each model						Van Stock - Level 1	Depot Stock - Level 2
		DC728-02	DC798-02	DC728H-01	DC798H-01	DC798HA-01	DC798S-03		
120917	Front Panel 798 - Silver	P4 (1no)	P4 (1no)	P4 (1no)	P4 (1no)	P4 (1no)	P4 (1no)		*
120919	Door Panel 798 - Silver		P8 (1no)		P8 (1no)	P8 (1no)	P8 (1no)		*
120923	Control Button Panel - Graphite	P2 (1no)	P2 (1no)	P2 (1no)	P2 (1no)	P2 (1no)	P2 (1no)		
120929	Door Infill Panel - Dark Graphite	1	P9 (1no)		P9 (1no)	P9 (1no)	P9 (1no)		*
120932	Cup Surround Panel - Dark Graphite	P5 (1no)			P5 (1no)	P5 (1no)	P5 (1no)		*
121255	Side Panel 628/728-Left	M3 (1no)		M3 (1no)					*
121256	Side Panel 628/728-Right	M4 (1no)		M4 (1no)					*
121955	Side Panel 698/798-Left		M3 (1no)		M3 (1no)	M3 (1no)	M3 (1no)		*
121956	Side Panel 698/798-Right		M4 (1no)		M4 (1no)	M4 (1no)	M4 (1no)		*
131423	Countertop Hot Tank Drain Bung/Tank Inlet Bung				H9 (1no)	H9 (1no)		*	
131571	Float Valve Seal	Part of R3 (1no)	Part of R3 (1no)	Part of R3 (1no)	Part of R3 (1no)	Part of R3 (1no)		*	
131572	Drip Tray Bung	P15 (1no)	P15 (1no)	P23 (1no)	P23 (1no)	P23 (1no)	P23 (1no)	*	
131573	Drip Tray O-Ring	P14 (1no)	P14 (1no)	P22 (1no)	P22 (1no)	P22 (1no)	P22 (1no)	*	
133515	Faucet	P13 (1no)	P13 (1no)						*
133517	Faucet			P13 (1no)	P13 (1no)	P13 (1no)			*
133518	Faucet						P13 (1no)		*
154531	Hot Tank Drain Pipe (35mm)			H6 (1no)				*	
166873	Hot Tank - only (c/w Bottom Mounting Bkt)			H1 (1no)	H1 (1no)	H1 (1no)			*
171211	PCB Cold/Sparkling 798	E1 (1no)	E1 (1no)				E1 (1no)	*	
171212	PCB Hot 798			E1 (1no)	E1 (1no)			*	
171213	PCB Hot, Cold & Ambient					E1 (1no)		*	
172167	DC Rectifier Set						(2no)	*	
172175	798/728 Blue LED Light	E12 (1no)	E12 (1no)	E12 (1no)	E12 (1no)	E12 (1no)	E15 (1no)	*	
172231	Start Relay	Part of E7 (1no)	Part of E7 (1no)	Part of E7 (1no)	Part of E7 (1no)	Part of E7 (1no)	Part of E7 (1no)	*	
172232	Overheat Relay	Part of E7 (1no)	Part of E7 (1no)	Part of E7 (1no)	Part of E7 (1no)	Part of E7 (1no)	Part of E7 (1no)	*	
172311	Hot Tank Heater Element - 220V			H5 (1no)	H5 (1no)	H5 (1no)		*	
173245	Solenoid Valve 818/DC Elite	E5 (1no)	E5 (1no)			E12 (1no)	E13 (1no)	*	
173247	Solenoid Valve CW/DC - Cold			E4 (1no)	E4 (1no)	E4 (1no)		*	
173249	Solenoid Valve DC - Cold	E4 (1no)	E4 (1no)	E5 (1no)	E5 (1no)	E5 (1no)		*	
173255	105C Hot Tank Temperature Sensor - Manual Reset			H2 (1no)	H2 (1no)	H2 (1no)		*	
173259	90C Hot Tank Temperature Sensor - Auto Reset			H3 (1no)	H3 (1no)	H3 (1no)		*	
173264	Cold Thermostat 818/DC798 Models	E2 (1no)	E2 (1no)	E2 (1no)	E2 (1no)	E2 (1no)	E2 (1no)	*	
173272	Level Control Module						(1no)	*	
174310	DC Tank Circulation Pump Set	C8 (1no)	C8 (1no)	C8 (1no)	C8 (1no)	C8 (1no)	C8 (1no)	*	
174323	10A/250V Fuse	Part of E10 (1no)	Part of E10 (1no)	Part of E10 (1no)	Part of E10 (1no)	Part of E10 (1no)	Part of E10 (1no)	*	
181134	4.0 x 12 BZP PHD S/T Screw	12no	12no	12no	12no	12no	12no	*	
184531	Adjustable Foot - For standing only		O3 (4no)		O3 (4no)	O2 (4no)	O3 (4no)	*	
184543	Cup Retaining Ring 798/728	P16 (1no)	P16 (1no)	P16 (1no)	P16 (1no)	P16 (1no)	P16 (1no)		*
184545	Cup Dispenser Spring	M6 (1no)	M6 (1no)	M6 (1no)	M6 (1no)	M6 (1no)	M6 (1no)		*
184622	Door Magnetic Catch (inc. Screw) - Floorstanding Models			M13 (2no)		M13 (2no)	M13 (2no)	*	
191151	Elite (798) Cold & Ambient Control Panel Label - B&O	O1 (1no)	O1 (1no)						*
191152	Elite (798) Hot & Cold Control Panel Label - B&O			O1 (1no)	O1 (1no)			*	
191153	Elite (798) Cold & Sparkling Control Panel Label - B&O						O1 (1no)	*	
191155	Elite (798) Cold, Hot & Ambient Control Panel Label - B&O						O1 (1no)	*	

Borg & Overstrom - Electrical Measurements

		Classic Res	Classic DC	Elite Res	Elite DC	Sport DC	
Compressor Windings	R-C	12Ω	12Ω	12Ω	12Ω	11Ω	
	S-C	34Ω	34Ω	34Ω	34Ω	22Ω	
	R-S	46Ω	46Ω	46Ω	46Ω	33Ω	
Compressor Voltage		230V	230V	230V	230V	230V	
Compressor Relay	- PTC	3-6	0Ω	0Ω	0Ω	0Ω	
	- PTC	3-5	36Ω	36Ω	36Ω	26Ω	
	- PTC	5-6	36Ω	36Ω	36Ω	26Ω	
Compressor Relay	- Klickson		1.7Ω	1.7Ω	1.7Ω	1.7Ω	
Solenoid Valve	HP Cold (New)		N/A	6.65kΩ	N/A	6.65kΩ	6.65kΩ
	HP Amb (New)		N/A	6.65kΩ	6.65kΩ	6.65kΩ	6.65kΩ
	HP Spark (New)		N/A	N/A	N/A	6.65kΩ	6.65kΩ
	HP Fill (New)	(No4)	N/A	N/A	N/A	6.65kΩ	6.65kΩ
	HP Pump (New)	(No3)	N/A	N/A	N/A	6.65kΩ	6.65kΩ
	HP Cold (Old)		N/A	4.25kΩ	N/A	4.25kΩ	4.25kΩ
	HP Amb (Old)		N/A	4.25kΩ	4.25kΩ	4.25kΩ	4.25kΩ
	HP Spark (Old)		N/A	N/A	N/A	4.25kΩ	4.25kΩ
	HP Fill (Old)	(No4)	N/A	N/A	N/A	4.25kΩ	4.25kΩ
	HP Pump (Old)	(No3)	N/A	N/A	N/A	4.25kΩ	4.25kΩ
	LP Cold		N/A	N/A	2.80kΩ	N/A	N/A
	LP Hot		N/A	N/A	2.80kΩ	N/A	N/A
	Solenoid Valve	Voltage	(All Types)	215VDC	215VDC	215VDC	215VDC
Running Wattage	Normal		85-95W	85-95W	85-95W	85-95W	100-110W
	Reduced		80-85W	80-85W	80-85W	80-85W	95-100W
	Ineffective		<80W	<80W	<80W	<80W	<95W
Heater Band	Main Element		132Ω	N/A	132Ω	132Ω	N/A
	Standby Element	(35W)	1.51kΩ	N/A	1.51kΩ	1.51kΩ	N/A
	Standby Element	(50W)	1.075kΩ	N/A	1.075kΩ	1.075kΩ	N/A
	Voltage (All)		230V	N/A	230V	230V	N/A

DIRECT CHILL MODELS ONLY
Trouble Shooting Fault Diagnosis Guide (6)
No Water Dispenses

Problem/ Report	Possible Cause	Suggested Action
No Water Dispenses		
From Ambient Valve	<p>Water Supply turned off</p> <p>No Electricity/Power Supply</p> <p>“Waterblock” tripped off (and Tank empty)</p> <p>Faulty Solenoid Valve</p>	<p>Check all Taps/valves/ filters on incoming supply are fitted and are turned on.</p> <p>Check power cord connected and live and machine is switched on.</p> <p>Reset “Waterblock” (and check for any leaks)</p> <p>Check valve action. Carefully dismantle valve and clean out/part replace/complete replace as needed.</p> <p>Valve clicking but no water-Check if hole in centre of washer is clear.</p> <p>Valve not clicking-Check whether voltage is present when operated (Caution-High Voltage). If not present check wiring for continuity and /or replace PCB.</p> <p>If present, replace solenoid coil/whole valve coil/whole valve assembly complete.</p>

DIRECT CHILL MODELS ONLY
 Trouble Shooting Fault Diagnosis Guide (6) continued
No Water Dispenses

Problem/ Report	Possible Cause	Suggested Action
No Water Dispenses		
From Cold dispense valve	Firstly all as for Ambient dispense valve Chiller tank frozen - Faulty Thermostat Chiller tank Frozen-faulty air pump	Carry out checks and actions as for ambient dispense valve. Thaw out and check and replace Cold Water temperature set point. Thaw out and check and replace Air pump and or check electricity supply to pump present
From Ambient or Cold Valve	Button Not being pressed enough Faulty PCB	Press button firmly. N.B. This could be caused by a surrounding cold environment making the action stiffer Replace PCB

Problem/ Report	Possible Cause	Suggested Action
No Water Dispenses		
From Hot dispense valve	Firstly all as for Ambient dispense valve Airlock in dispense pipe work Tank very heavily scaled up	Carry out checks and actions as for ambient dispense valve. Unblock/replace Hot Water Pipe and Hot Vent Pipe (check water level showing in Hot Vent Pipe) Replace Tank

DIRECT CHILL MODELS ONLY
Trouble Shooting Fault Diagnosis Guide (7)
Water Dispenses but Not Correct Temperature

Problem/ Report	Possible Cause	Suggested Action
Water Dispenses but Not Correct Temperature		
Ambient Water too warm	Low usage and / or fed from water supply pipe in warm ducting	Advise customer
Cold water not Cold	<p>Compressor runs and switching off (cool/warm to touch) - Thermostat set too high</p> <ul style="list-style-type: none"> • Faulty Thermostat <p>Compressor runs but not Switching off (Hot to touch)</p> <ul style="list-style-type: none"> • Refrigeration problem <p>Compressor not running at all</p> <p>No elec power supply</p> <ul style="list-style-type: none"> • Compressor only hums slightly/ briefly • Relays loose • Compressor Faulty 	<p>Decrease Cold Thermostat set point</p> <p>Replace Thermostat</p> <p>Contact Azure Technical Support</p> <p>Check power cord connected and live, and machine is switched on.</p> <p>Check and replace relays</p> <p>Check and refit relays</p> <p>Contact Azure Technical Support</p>

DIRECT CHILL MODELS ONLY
Trouble Shooting Fault Diagnosis Guide (8)
Water Leaks

Problem/ Report	Possible Cause	Suggested Action
Water Leaks		
<p>Water lying on top edge of lower door panel and / or bottom of machine.</p> <p>Water lying in bottom of machine or on mid shelf</p>	Overflowing Drip Tray	Empty Drip Tray
	Leak in supply inlet pipe-work and / or filter	Locate and repair accordingly
	Leak from machine water pipework fittings	Locate and repair accordingly
	<p>Overflowing Header Tank</p> <ul style="list-style-type: none"> • Water pressure too high • Jammed Float Valve • Split Float Valve Washer 	<p>Check pressure and fit pressure reducing valve if needed</p> <p>Check and repair float valve</p> <p>Replace washer</p>

DIRECT CHILL MODELS ONLY
Trouble Shooting Fault Diagnosis Guide (9)
Miscellaneous

Problem/ Report	Possible Cause	Suggested Action
Miscellaneous		
Bleeping Noise	Level Sensor fitted and Tank full	Empty Level Sensor Tank
No LED Lights	No electricity to Machin Faulty PCB (Machine working normally otherwise)	Check power supply and reconnect as necessary (Also check out other symptoms as described separately) Replace PCB
Machine shakes on Start-Up	Compressor Starting Level Surface Uneven Surface Missing Fittings	No action needed. This is quite normal. Level up machine (Adjustable feet from early 2009) Replace missing fittings
Tripping out Electricity supply	Machine in high humidity environment Electrical circuitry faults	Discuss possible repositioning with customer Test, identify and address accordingly. (Contact Azure Technical Support for further advice)

DIRECT CHILL MODELS ONLY
Sparkling Trouble Shooting Fault Diagnosis Guide (10)
Intermittent Water Dispense/Continuous Water Dispense

Problem/ Report	Possible Cause	Suggested Action
Slow but Continuous Water Dispense		
From Ambient or Cold Water Valve	Low incoming Water pressure	Consider replumbing to alternative supply if possible Fit Booster Pump Set
Intermittent Water Dispense		
From Ambient or Cold Water Valve	Trapped air in pipe work (especially where water pressure is low or after filter change) Button Not being pressed enough Faulty PCB	Hold button on to purge air out. (This could take several minutes where pressure is low) Pre flush filters Press button firmly N.B. This could be caused by a surrounding cold environment making the action stiffer Replace PCB
From Ambient or Cold Water Valve and hammering noise	Fluctuating mains water pressure situation	Contact Azure Technical Support regarding special replacement washers available
Continuous Water Dispense		
From ambient / Cold or Hot water Valve	Button jammed on/faulty Debris blocking hole in diaphragm window	Replace PCB and or/ button Panel as needed Dismantle Valve and clean out

