



BVL Power Pack
Service & Specification Manual
Manufactured by BVL Controls Ltd



BVL POWER PACK
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AIR COOLED

ECO-033	1/3 HP	R134a	120 VAC
ECO-050	1/2 HP	R134a	120 VAC
BVL-056	1/2 HP	R134a	120 VAC
CMC-033	1/3HP	R134a	120 VAC
CMC-050	1/2 HP	R134a	120 VAC.
CWA-3	1/3 HP	FR22	120 VAC
CWA-2	1/2 HP	FR22	120 VAC
CWA-34	3/4 HP	FR22	208/230 VAC

WATER COOLED

CWW-3	1/3 HP	FR22	120 VAC
CWW-2	1/2 HP	FR22	120 VAC
CWW-34	3/4 HP	FR22	208/230 VAC

FLASH CHILLING UNIT

IB-025	1/4 HP	R134a	120 VAC
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DESCRIPTION

COOLING DISTANCE

ECO-033	UP TO 60' of cooling line
ECO-050	UP TO 75' of cooling line
BVL-056	Depend on pump used
CMC-030	UP TO 90' of cooling line
CMC-050	UP TO 125' of cooling line
CWA-3 / CWW-3	UP TO 125' of cooling line
CWA-2 / CWW-2	UP TO 250' of cooling line
CWA-34 / CWW-34	UP TO 350' of cooling line
IB-025 (FLASH CHILLING UNIT)	2 OR 3 COILS of 40' (20 pound of ice)



DESCRIPTION

Current draw per unit:

	ECO-033	ECO-050	BVL-056	CMC-030	CMC-050	CWA-3 (CWW-3)	CWA-2 (CWW-2)	CWA-34 (CWW-34)	IB-025
Voltage AC	120	120	120	120	120	120	120	208/230	120
Running	7.95Amp.	9.3Amp.	11Amp.	7.5Amp.	9.3Amp.	7.1Amp. (6.1Amp.)	8Amp. (8.8Amp.)	5.3Amp. (5.5Amp.)	6.3Amp.
Refrigerant	R134a	R134a	R134a	R134a	R134a	R-22	R-22	R-22	R134a
Charge	11 oz.	16 oz.	15 oz.	8 oz.	16 oz.	17 oz. (10oz.)	21oz. (15oz.)	36 oz. (16 oz.)	9.5 oz.
Tank Capacity	3 gal.	3 gal.	8 gal.	3gal.	3 gal.	12 gal.	12 gal.	12 gal.	8 gal.
Foam insulation	1"	1"	1"	1"	1"	1"	1"	1"	1"
Weight	65 lbs.	70 lbs.	95lbs.	97 lbs.	105 lbs.	106 lbs.	113 lbs.	134 lbs.	80 lbs.
Pressure	18 (low) 150 (high)	18 (low) 150 (high)	18 (low) 150 (high)	18 (low) 150 (high)	18 (low) 150 (high)	43 (low) 210 (high)	43 (low) 210 (high)	43 (low) 210 (high)	18 (low) 150 (high)
Pump (Gravity Fed)	50 GPH (Vertical)	50 GPH (Vertical)	none	50 GPH (Pressure)	50 GPH (Pressure)	80 GPH (Gear)	80 GPH (Gear)	80 GPH (Gear)	50 GPH (Vertical)
Dimensions (inches)*	H: 14.0 W: 24.5 D: 24.5	H: 14.0 W: 24.5 D: 24.5	H: 15.0 W: 29.0 D: 17.0	H: 13.0 W: 27.5 D: 17.0	H: 13.0 W: 27.5 D: 17.0	H: 28.5 W: 16.75 D: 26.5	H: 28.5 W: 16.75 D: 26.5	H: 29.5 W: 16.75 D: 26.5	H: 13.0 W: 23.5 D: 22.0

**Dimensions include pump and motor.*



PRODUCT WARRANTY

BVL Controls warrants this product for one (1) full year including parts and labor when unit is returned to our factory (freight is not part of the warranty) or parts only when repair has to be done at another location. Parts (under warranty) will be charged to your account and will be credited upon receipt of the defective part.

In Canada:

BVL Controls Ltd
661 De la Sabliere
Bois-Des-Filion, Quebec, Canada
J6Z 4T2

Phone: 1-866-BVL-CONTROLS (285-2668)

Direct Line: (450) 965-0502

In U.S.A:

Call we will refer you to the closest representative.



POWER PACK INFORMATION
(Please fill this form before contacting technical support)

Unit Information

Model Number	
Serial Number	
Production Date	
Compressor Number	
Installation Date	
Installed by (Company)	

Thermostat Information

SetPoint (SP-[30])	
Anti-Short Delay (ASd-[2])	
Differential (dIF-[3])	
Sensor Failure (SF-[0])	



OPERATION

ALL MODELS

1. Connection:
 - a. Connect one line from isolated trunk line to pump outlet;
 - b. Connect second circulation line to the inlet of the tub.
2. Filling unit with glycol
 - a. Remove top deck / cover from the unit;
 - b. Fill the bath with 25/75 glycol and water solution up to 1" from the bath top; (except IB-025 water only)
 - c. Replace top deck / cover unit;
 - d. Make sure all re-circulation lines are properly connected and turn the pump motor on.
 - e. Liquid level will drop until circulation lines are full;
 - f. Refill with water approximately 1" from cover.
 - g. Temperature will slowly drop to 30°F. on thermostat/outlet gauge;



MAINTENANCE

Keep liquid level constant in glycol reservoir. Glycol should be changed every one (1) years except in very hot areas where it should be changed every six (6) month.

1. Check liquid monthly
 - a. If level is low, fill with water;
 - b. If ice builds up, remove one gallon of water and replace with glycol.
2. Keep condensing unit free of foreign matter and clean every six (6) months.



TROUBLESHOOTING

PROBLEM	CAUSE	SOLUTION(S)
1-Excessive foam	A- Warm walk-in cooler B- Check applied pressure to barrel C- Check equipment D- Warm product lines	A- Adjust cooler temperature to 34° to 36°F B- Adjust setting on regulator for proper pressure C- Check the physical equipment from keg to faucet D- Refer to 5
2- Compressor does not start (no hum), but the fan motor runs.	A- Compressor relay or capacitor malfunction B- Inadequate voltage C- Compressor failure	A- Replace compressor relay, overload or capacitor B- Measure voltage across common and run terminal on compressor. Voltage must not drop below 90% of rated voltage. C- Replace compressor
3- Compressor starts and continues to run until freeze up and will not cut off.	A- Thermostat control failure B- Freon Leak	A- Replace thermostat B- Repair leak and recharge
4- Compressor does not run but hums.	A- Inadequate voltage B- Starting relay malfunction C- Compressor malfunction	A- Measure voltage across common and run terminal on compressor. Voltage must not drop below 90% of rated voltage. B- Replace starting relay. <i>(Be sure to use correct relay. Failure to do so will cause compressor failure.)</i> C- Replace compressor



TROUBLESHOOTING

5- Warm beer	A- Defective pump. (Check motor also)	A- Check returns line in reservoir for liquid flow. Replace pump.
	B- Defective motor. (Check pump also)	B- Replace motor.
	C- Refrigeration unit is not running.	C- Refer to 2
	D- Conduit lines located in overheated area.	D- Remove from any hot water pipes or kitchen area with stove or glass washer.
	E- Conduit lines flooded in PVC chase.	E- Remove lines from PVC, thoroughly dry PVC and repair/replace conduit as needed.
	F- Un-insulated or poorly insulated lines.	F- All lines should be fully insulated from cooler to dispenser, including glycol lines from power pack into cooler.
	G- Thermostat.	G- Adjust temperature to colder setting.
	H- Condenser fan motor not working.	H- Replace condenser fan motor.
	I- Freon leak.	I- Repair leak and recharge.
	J- Dirty condenser.	J- Clean the condenser.
	K- Condensation in conduit isolation. (May be caused from cleaning lines)	K- Check trunk housing in areas for dropping or low spots. Split insulation approximately 5" and separate. Allow any water to drain, and then air dry. Close and seal trunk housing.
	L- Warm walk in cooler	L- Refer to 1



Electronic Temperature Control with Display

Changing temperature units

As unit come with different thermostat.

To change settings, refer you to thermostat sheet supply with each unit.

Function Ranges and Settings

Display	Function	Factory Setting
SP	Setpoint	30
dIF	Differential	3
ASd	Anti-short Cycle Delay	2
OFS	Temperature Offset	To be adjust
SF	Sensor Failure Operation	0



Checkout

Before applying power, make sure installation and wiring connections are according to job specifications. After necessary adjustments and electrical connections have been made, put the system in operation and observe the control for at least three (3) complete cycles before leaving the installation.

Troubleshooting

If the control system does not function properly, verify that the unit is wired, configured and set properly. If the problem persists, use the following procedures to determine the cause of the problem:

- Check for proper supply voltage to thermostat.

WARNING: Risk of Electrical Shock.

High voltage may be present at electrical terminals and other exposed internal metal surfaces. Avoid contact with all metal surfaces on control when cover is removed.