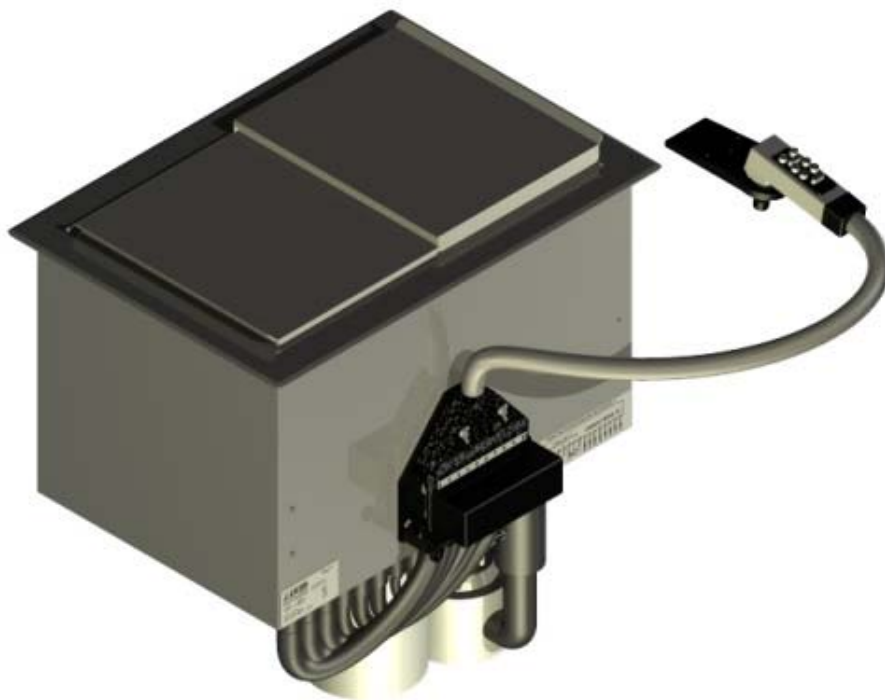


***LANCER*** | SOFT DRINK SYSTEMS

# Dropin 1522 Bargun

With Flexicarb 230V / 50Hz

## Installation, Operation & Service Manual



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# Table of contents

<b>1.</b>	<b>Introduction</b> .....	<b>4</b>
<b>2.</b>	<b>The Company</b> .....	<b>4</b>
<b>3.</b>	<b>Our Products</b> .....	<b>4</b>
<b>4.</b>	<b>Product Details</b> .....	<b>5</b>
4.1	Product Features .....	5
4.2	Specifications.....	5
4.3	Models .....	6
4.4	Options.....	6
<b>5.</b>	<b>Safety Information</b> .....	<b>7</b>
5.1	Safety Instructions .....	7
5.2	Recognise Safety Alert Symbols.....	7
5.3	Operating .....	7
5.4	Service & Maintenance .....	7
5.5	Carbon Dioxide (CO2).....	8
<b>6.</b>	<b>Installation</b> .....	<b>8</b>
6.1	Receiving .....	8
6.2	Unpacking.....	8
6.3	Selecting a Location .....	8
6.4	Assembling the FlexiCarb. ....	9
6.5	Installation.....	10
6.6	Connecting Water and Syrups .....	12
6.7	Connecting to CO2 supply .....	13
6.8	Plumbing the CO2 exhaust vent .....	13
6.9	Electrical Connection.....	13
<b>7.</b>	<b>Commissioning</b> .....	<b>14</b>
<b>8.</b>	<b>Scheduled Maintenance</b> .....	<b>14</b>
8.1.	Daily .....	14
8.2.	Quarterly .....	14
<b>9.</b>	<b>Electrical Circuit Diagram</b> .....	<b>15</b>
<b>10.</b>	<b>Assembly Diagrams &amp; Parts List</b> .....	<b>16</b>
10.1.	Parts List.....	16
10.2.	Parts List.....	18
10.3.	Flexicarb Backflow Assy.....	19
10.4.	Flexicarb Pump Assy.....	20
10.5.	Flexicarb Carbonator Assy .....	21
10.6.	Flexicarb Junction Box .....	23
<b>11.</b>	<b>Certificate of Warranty</b> .....	<b>24</b>
<b>12.</b>	<b>Manufacturer's Checklist</b> .....	<b>25</b>

# 1. Introduction

Thank you for purchasing this quality Lancer product. All Lancer products are constructed using the highest quality materials and components. They are designed to the highest possible standards, therefore offering our customers endless hours of optimum performance.

# 2. The Company

Hoshizaki Lancer is a wholly owned subsidiary of Lancer Corporation, a world leader in the supply of Beverage Dispensing Equipment based in San Antonio, Texas. Lancer has manufacturing bases and distribution networks in 97 countries. Lancer is in turn ultimately owned by Hoshizaki Electric Co Ltd of Nagoya, Japan. Hoshizaki is a global leader in food service equipment.

Hoshizaki Lancer's Australian head office and manufacturing base is located in Adelaide (SA), with branch offices and warehousing facilities in Sydney (NSW), Melbourne (VIC), Brisbane (QLD), Perth (WA) and Auckland (New Zealand).

# 3. Our Products

Lancer specialises in the design, engineering, manufacture, and marketing of beverage dispensing equipment in two core categories:

## **Soft Drink Equipment**

Mechanically cooled and ice cooled soft drink dispensers, frozen beverage dispensers, dispensing valves, carbonators and an extensive line of beverage dispensing parts and accessories.

## **Beer Equipment**

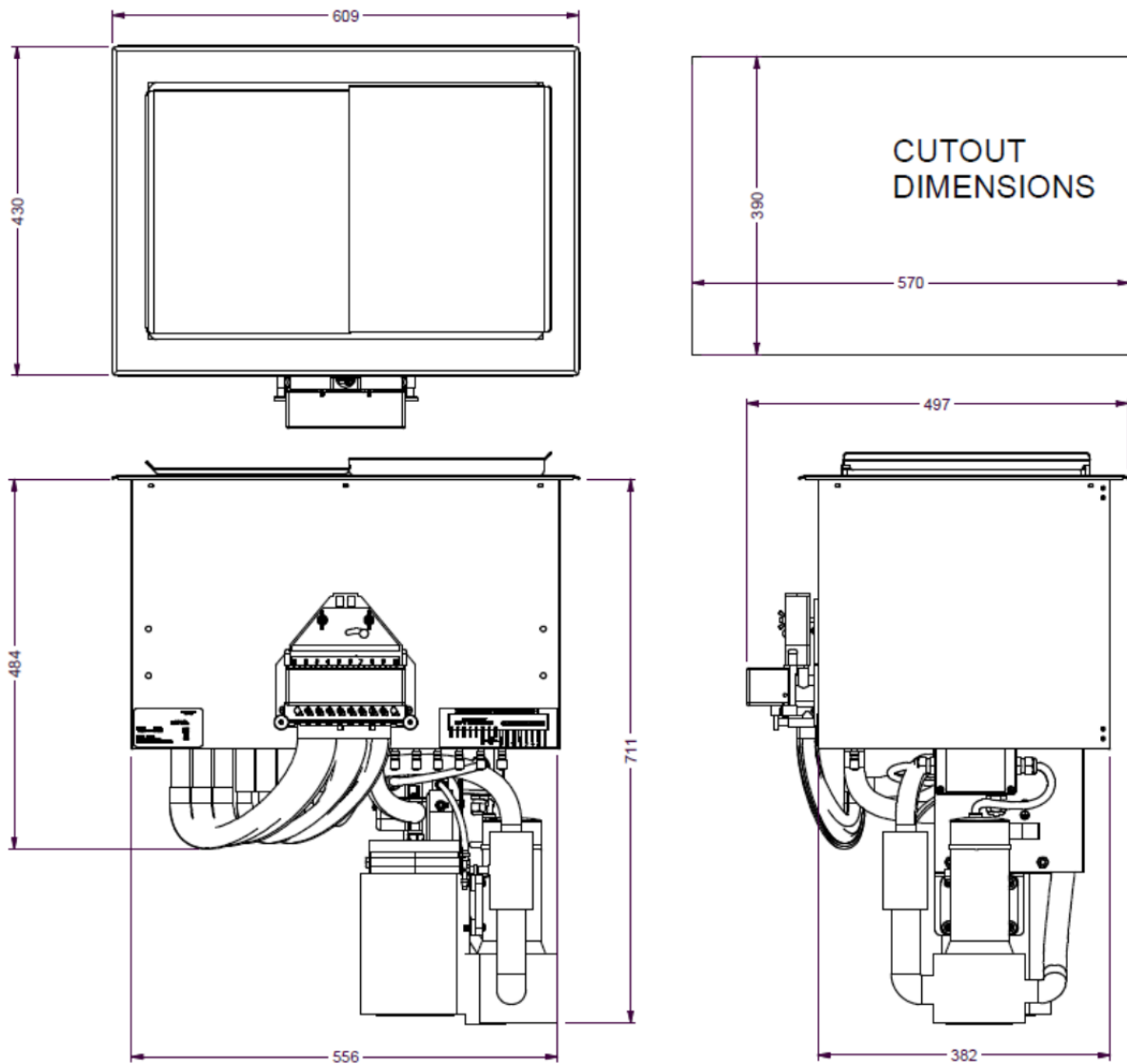
Hoshizaki Lancer manufactures and markets beer dispensing and chilling equipment, and related accessories. Products include founts, chillers, Chillerplates, drip trays, taps, handles, beer line cleaning equipment and an extensive line of beverage dispensing parts and accessories.

## 4. Product Details

### 4.1 Product Features

The Hoshizaki Lancer Dropin Bargun series is an Australian designed and manufactured ice cooled post mix dispensing system with integrated mounts for up to 2 bar guns plus a single carbonator designed for smaller installations and limited access areas. It is specifically designed to replace mechanically cooled dispensing equipment in hotels, pubs and other hospitality venues. The bin, pump, water lines and carbonator tank are fully insulated to maintain drink quality. The unique design allows the use of standard bar guns and easy drop-through installation. The Hoshizaki Lancer FlexiCarb is AS5034 compliant.

### 4.2 Specifications



**Dimensions**

Width	609 mm
Depth	454 mm
Height	710 mm (484 mm Drop In Only)
Cut-out	570mm x 390 mm

**Weight**

Shipping	64.5 kg
Empty	49.6 kg
Operating	76.6 kg

**Ice Capacity** 27 kg

**Product Coils** 6 Syrup + Soda + Water

**Voltage** 230 Volts

**Frequency** 50 Hz

**Max Current Draw** 0.5 Amps

**Ambient Temperature** 2 - 40°C

**Max Water Inlet Pressure** 380 kPa

**CO2 Gas Pressure** 520 kPa – with chilled water inlet (recommended)

**Carbonator Capacity** 1 litre nominal

**Construction** Wetted materials: stainless steel, PE, nylon, Santoprene, EPDM.

**Drink Capacity** 55 ml (1.8 oz) /second continuous soda flow @ 520 kPa CO2 pressure.

NOTE: Hoshizaki Lancer reserves the right to continuous improvement. Always check the specification plaque that is attached to your device for the latest product information.

**4.3 Models**

DropIn 1522 BG1 single bar gun dispenser.

DropIn 1522 BG2 dual bar gun dispenser.

**4.4 Options**

- High capacity Turbo Carbonator

## 5. Safety Information


### 5.1 Safety Instructions


For your personal safety, and that of others working around you please read, understand, and follow thoroughly all safety instructions included in this manual.

- Review all applicable OSH (Occupational Safety & Health) regulations.
- Review all applicable Beverage Dispensing Gas Standards
- Install the unit securely and leak check connections.
- Do not allow any unauthorised modifications to the machine.


### 5.2 Recognise Safety Alert Symbols


The safety alert symbol precedes **Warning** and **Caution** notes throughout this manual. To prevent personal injury or damage to the machine these alerts must be strictly adhered to.

	<b>Warning</b>	Alerts to a potentially hazardous situation that if not avoided <b>CAN</b> result in death, serious injury.
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	<b>Caution</b>	Alerts to a potentially hazardous situation that if not avoided <b>MAY</b> result in injury or equipment damage.
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### 5.3 Operating

	<b>Warning</b>	Do not remove, defeat or modify the CO2 relief valve.
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	<b>Caution</b>	This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety. Children should be supervised to ensure that they do not play with the appliance.
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### 5.4 Service & Maintenance

	<b>Caution</b>	Installation of all dispensers and service work should only be performed by fully trained & certified Electrical, Plumbing, & Gas Technicians.
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**Warning**

Carbonator contains CO<sub>2</sub> gas and water under pressure. Depressurise before performing any work on the system.

**Warning**

**ALL WIRING AND PLUMBING MUST CONFORM TO LOCAL AND NATIONAL CODES.**

**Warning**

**THE DROP IN MUST BE ISOLATED FROM ELECTRICAL SUPPLY BEFORE COMMENCING ANY SERVICE OR MAINTENANCE WORK.**

## 5.5 Carbon Dioxide (CO<sub>2</sub>)

**Warning**

The Drop In uses a CO<sub>2</sub> (Carbon Dioxide) supply. CO<sub>2</sub> is a heavier than air, colourless, non-combustible gas with a faintly pungent odour.

Personnel exposed to high concentrations of CO<sub>2</sub> gas will experience tremors, which are followed rapidly by loss of consciousness and suffocation.

If a CO<sub>2</sub> gas leak is suspected, immediately ventilate the contaminated area before attempting to repair the leak.

# 6. Installation

## 6.1 Receiving

Each unit is completely tested under operating conditions and thoroughly inspected before shipment. At time of shipment, the carrier accepts the unit and any claim for damage(s) must be made with the carrier. Upon receiving units from the delivering carrier, carefully inspect shipping crate for visible indication(s) of damage. If damage exists, have carrier note damage on bill of landing and file a claim with the carrier.

## 6.2 Unpacking


Carefully unpack the Drop In and remove the Flexicarb, drain hose assembly and other contents from the ice well. Inspect unit for concealed damage and if evident, notify delivering carrier and file a claim against the carrier.

## 6.3 Selecting a Location

**Warning**

**Drop Ins with FlexiCarbs are intended for indoor operation only; do not operate outside unless suitably protected by a weatherproof enclosure.**



	<b>Caution</b>	The Drop In is not suitable for use in subfreezing temperatures. To prevent damage to the water supply line, turn off and drain unit when air temperature is below 0°C.
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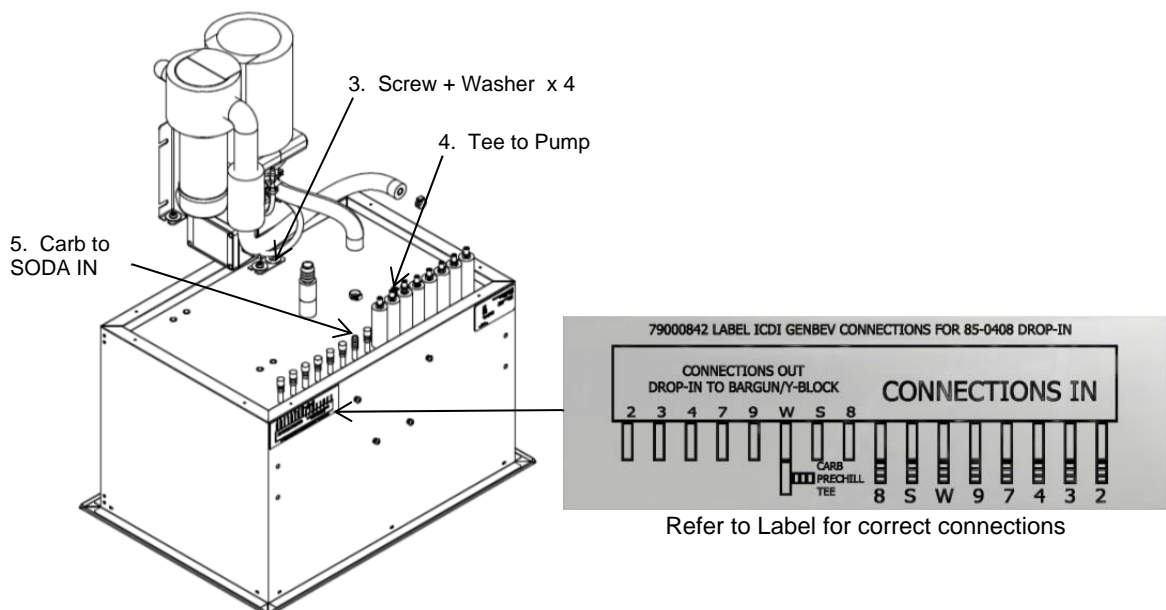
	<b>Warning</b>	Installation should only be performed by a qualified and competent technician.
---	----------------	--

1. The counter must be strong enough to support 80kg with a 570mm x 390mm cut out in it.
2. A 3-pin, Earthed 230V / 10 Amp GPO; potable water supply, regulated CO2 supply and drainage must be accessible.
3. For best performance the unit should be mounted away from potential heat sources such as heaters, under-counter refrigeration, dish washers, etc.

## 6.4 Assembling the FlexiCarb.

The preferred method of mounting the FlexiCarb to the Drop In is provided as an integral solution. Mounting holes and hardware are provided on the underside of the Drop-In.

1. Ensure there is sufficient clearance (> 710mm) under the counter for the Flexicarb to be mounted to the drop in.
2. Set the Drop In upside down on the floor or counter to access the underside.
3. Mount the Flexicarb as shown with the screws and washers provided.
4. Locate the Tee fitting on the DropIn and connect the pump inlet as shown. Trim the tube to suit the installation but make sure to leave excess (>75mm) insulation to insure adequate coverage of the tube connection and prevent condensation.
5. Locate the Soda Inlet to the Drop In and connect carbonator outlet to it. Repeat Step 4 above trimming the tube but keeping a generous excess of insulation to work over the connection when finished.



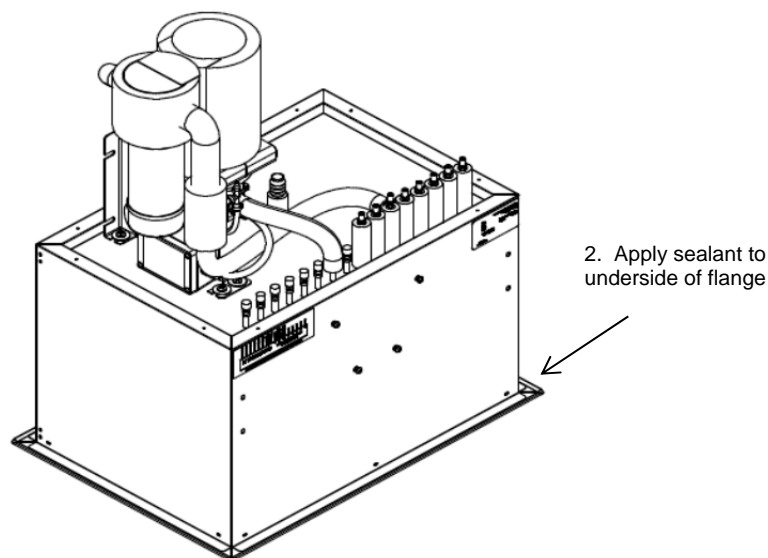
If for any reason it is not practical to mount the Flexicarb to the Drop In then:

1. Install the Drop In FIRST. See section 6.5 below.
2. Choose a location as near as possible to the Drop In for the best drink quality.
3. The Flexicarb MUST be mounted in the vertical position for the level sensing device to work properly.
4. Use any of the mounting holes provided to secure the carbonator in place. We suggest using 6mm diameter or larger screws.
5. Insulate all lines to and from the Drop In.

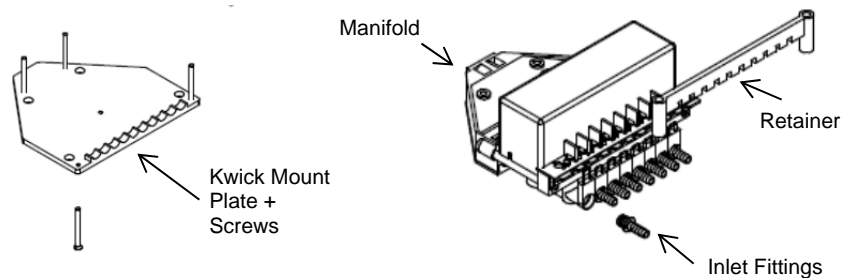
## 6.5 Installation

1. Prepare the counter as previously discussed.
2. Apply a sealing compound liberally to the underside of the top flange on the Drop In.

**NOTE: IT IS A REGULATORY REQUIREMENT TO SEAL THE FLANGE TO THE TOP OF THE COUNTER.**

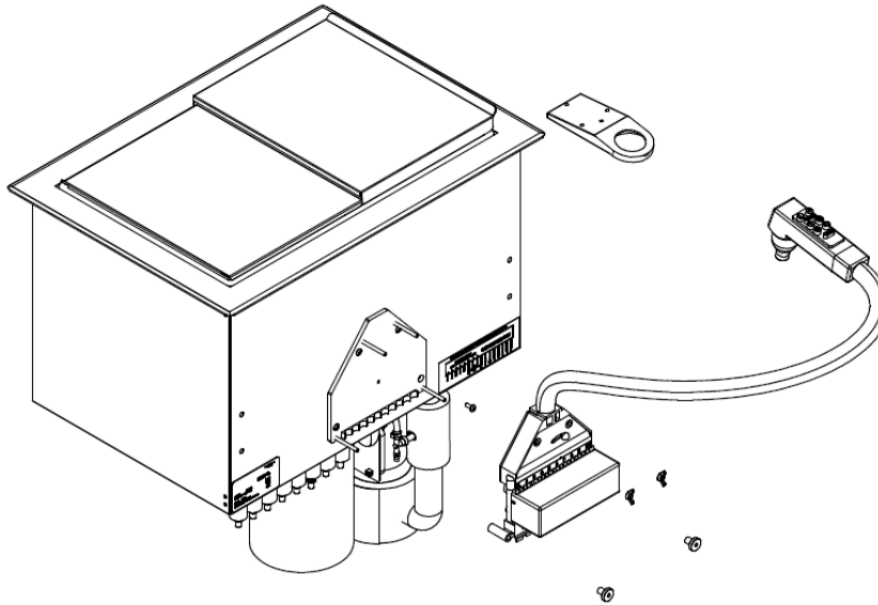


3. Set the Drop In in place. The Bargun mounting holes must be facing the operator's side.
4. Insert Screws into the Bargun Kwick Mount plate as shown.

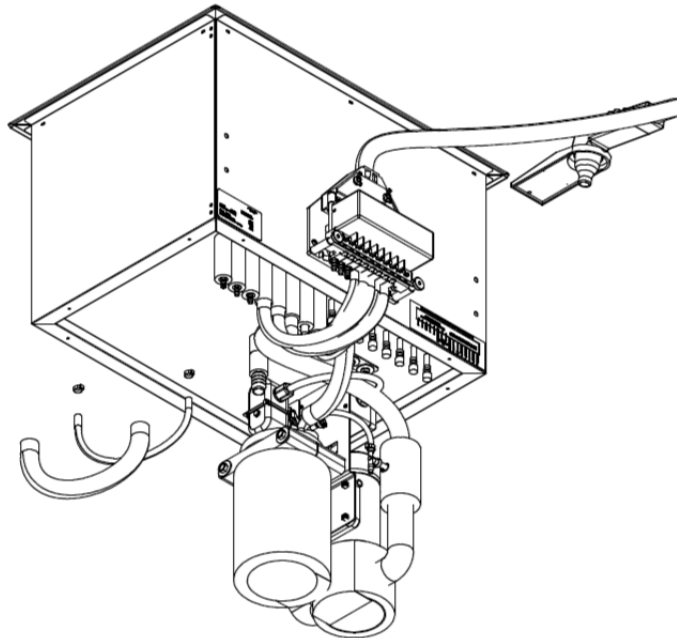


5. Insert the manifold retainer and inlet fittings as shown.

6. Mount the plate to the dropin with the screws provided.



7. Mount the Bar Gun holster and attach the gun to the plate with the wing nuts and thumbscrews provided.
8. Connect the dropin to the bargun with insulated tubing jumpers with clamps as shown below. Follow the connection label on the face of the drop in. The Insolex should be approximately 50mm longer than the jumper to assure good coverage after connection. A table on the following page has recommended lengths.



9. Attach the drain tube to the bottom of the Drop In and connect it to a suitable drain. Wrap the drain nipple to prevent condensation.

## Recommended Jumper Lengths

PART NUMBER	DESCRIPTION
79221203	CLAMP STEPLESS S/S 118
JUMPER 2	TUBE LDP 6MM U/V BLACK X 320MM
JUMPER 3	TUBE LDP 6MM U/V BLACK X 320MM
JUMPER 4	TUBE LDP 6MM U/V BLACK X 320MM
JUMPER 5	TUBE LDP 6MM U/V BLACK X 270MM
JUMPER 6	TUBE LDP 6MM U/V BLACK X 270MM
JUMPER 7	TUBE LDP 6MM U/V BLACK X 380MM
JUMPER 8	TUBE LDP 6MM U/V BLACK X 270MM
JUMPER 9	TUBE LDP 6MM U/V BLACK X 400MM
INSOLEX J2	INSOLEX 10MM ID X 9MM W X 370MM
INSOLEX J3	INSOLEX 10MM ID X 9MM W X 370MM
INSOLEX J4	INSOLEX 10MM ID X 9MM W X 370MM
INSOLEX J5	INSOLEX 10MM ID X 9MM W X 320MM
INSOLEX J6	INSOLEX 10MM ID X 9MM W X 320MM
INSOLEX J7	INSOLEX 10MM ID X 9MM W X 420MM
INSOLEX J8	INSOLEX 10MM ID X 9MM W X 320MM
INSOLEX J9	INSOLEX 10MM ID X 9MM W X 450MM

## 6.6 Connecting Water and Syrups

- Using appropriate tubing and fittings connect a 10mm water supply line from the Drop In WATER IN to a filtered, regulated water supply. Installation in accordance with AS/NZS 3500.1 and AS/NZS 3500.2.
- Turn on water supply, check for leaks and adjust water regulator to 380 kPa.
- Open the carbonator relief valve until water flows from CO2 exhaust tube; then close the relief valve.
- Connect the syrups to the Drop In according to the connection diagram on the front of the Drop In.

**Warning**

The water inlet has to be supplied through a water tap that is installed in accordance with plumbing rules and regulations.

**Caution**

Maximum water supply pressure to be 380 kpa.

## 6.7 Connecting to CO2 supply



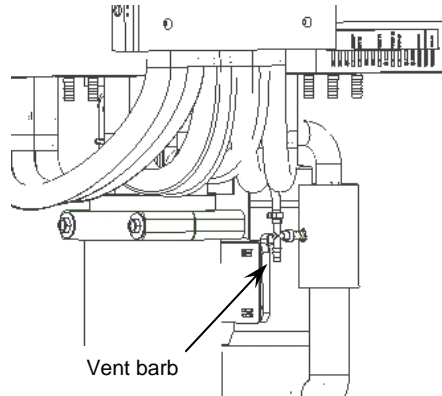
### Warning

As carbon dioxide (CO<sub>2</sub>) displaces oxygen; prevention of CO<sub>2</sub> leaks is paramount. If a leak is suspected, immediately ventilate the contaminated area, before attempting repairs.

1. Connect CO<sub>2</sub> supply line from regulator to the 6mm gas inlet on carbonator.
2. Turn on CO<sub>2</sub> Supply
3. Adjust CO<sub>2</sub> Regulator supplying Carbonator to 520 kPa for chilled inlet water.
4. Check for leaks with a mild soap solution and repair as required before continuing.

## 6.8 Plumbing the CO2 exhaust vent

A 6mm plastic barb is provided to vent any escaped CO<sub>2</sub> to a naturally ventilated area in accordance with AS 5034 gas standards.



## 6.9 Electrical Connection

1. This unit is connected to the supply via a 10 amp flexible cord fitted with a 3 pin plug.
2. Check the name plate on the machine for electrical supply requirements. Use only the power supply specified on the name plate.



### Warning

If the supply cord is damaged, it must be replaced by the manufacturer, its service agent or similarly qualified persons in order to avoid a hazard.



### Warning

To avoid possible fatal electric shock or serious injury the FlexiCarb must be electrically grounded. Electrical Connection Must Be Made In Accordance With The Appropriate Local Codes And Regulations. Use of an RCD is recommended.

## 7. Commissioning

1. Purge all dispensing lines of air by cycling through the flavours on each bar gun and check for leaks. Repair as required before proceeding.
2. Dispense soda from a valve or Bargun until the pump starts on the FlexiCarb. Close the valve and allow the FlexiCarb to cycle off to check if the FlexiCarb is operating properly.
3. Fill ice well at least 2/3 full and allow to set 10-15 minutes prior to setting the dispenser flow rates and brix ratios.



**Caution** Do not use sub-cooled ice

## 8. Scheduled Maintenance



**Warning** The Drop In exterior must not be cleaned by a water jet.

### 8.1. Daily

#### Cleaning/Sanitising

To ensure optimum drink quality and system performance at all times please follow cleaning and sanitising procedures for the dispensing valves/barguns recommended by the valve/bargun manufacturer.

#### Checking CO<sub>2</sub> Supply

Ensure that the contents gauge on the CO<sub>2</sub> Regulator reads higher than 1400kpa on the dial. If it does not, then the CO<sub>2</sub> cylinder is empty and must be changed using safe working practices.



**Warning**

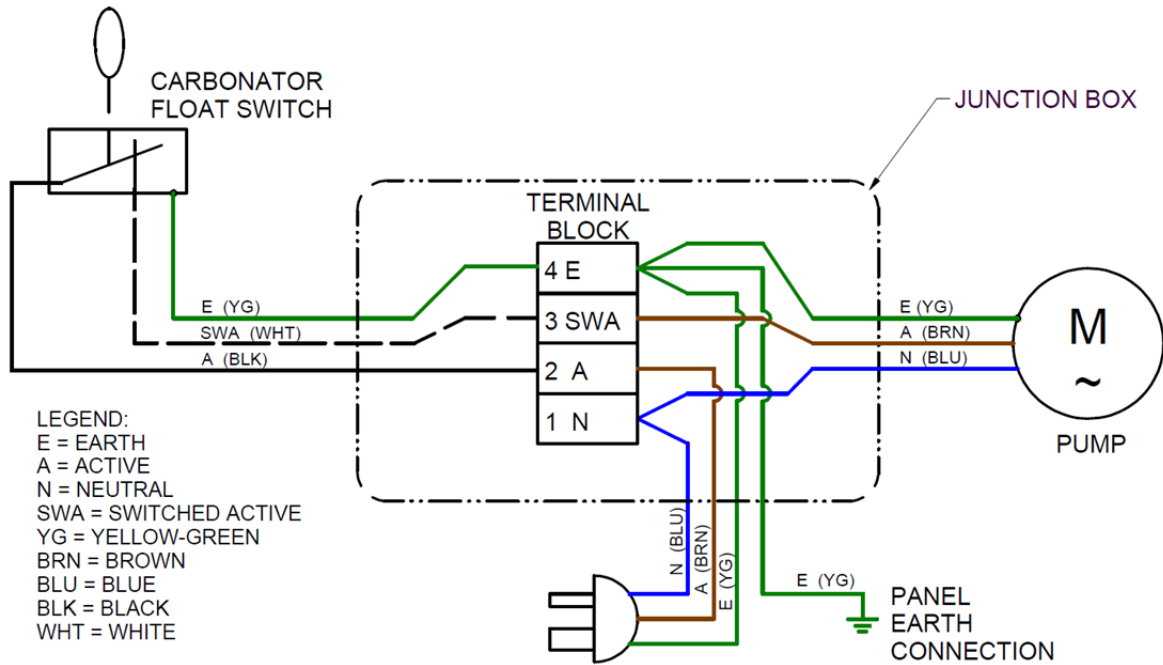
**To avoid personal injury and/or property damage, always secure the CO<sub>2</sub> cylinder with a safety chain to prevent it from falling over; and use appropriate protective equipment (as defined in Clause 3.3.2 of AS 5034) to handle cylinders. Should the valve become accidentally damaged or broken off, a CO<sub>2</sub> cylinder can cause serious personnel injury.**

### 8.2. Quarterly

The Drop In should be connected to a filtered water supply. To ensure optimum drink quality and system performance, water filters should be replaced every 3 months.

# 9. Electrical Circuit Diagram

## FlexiCarb

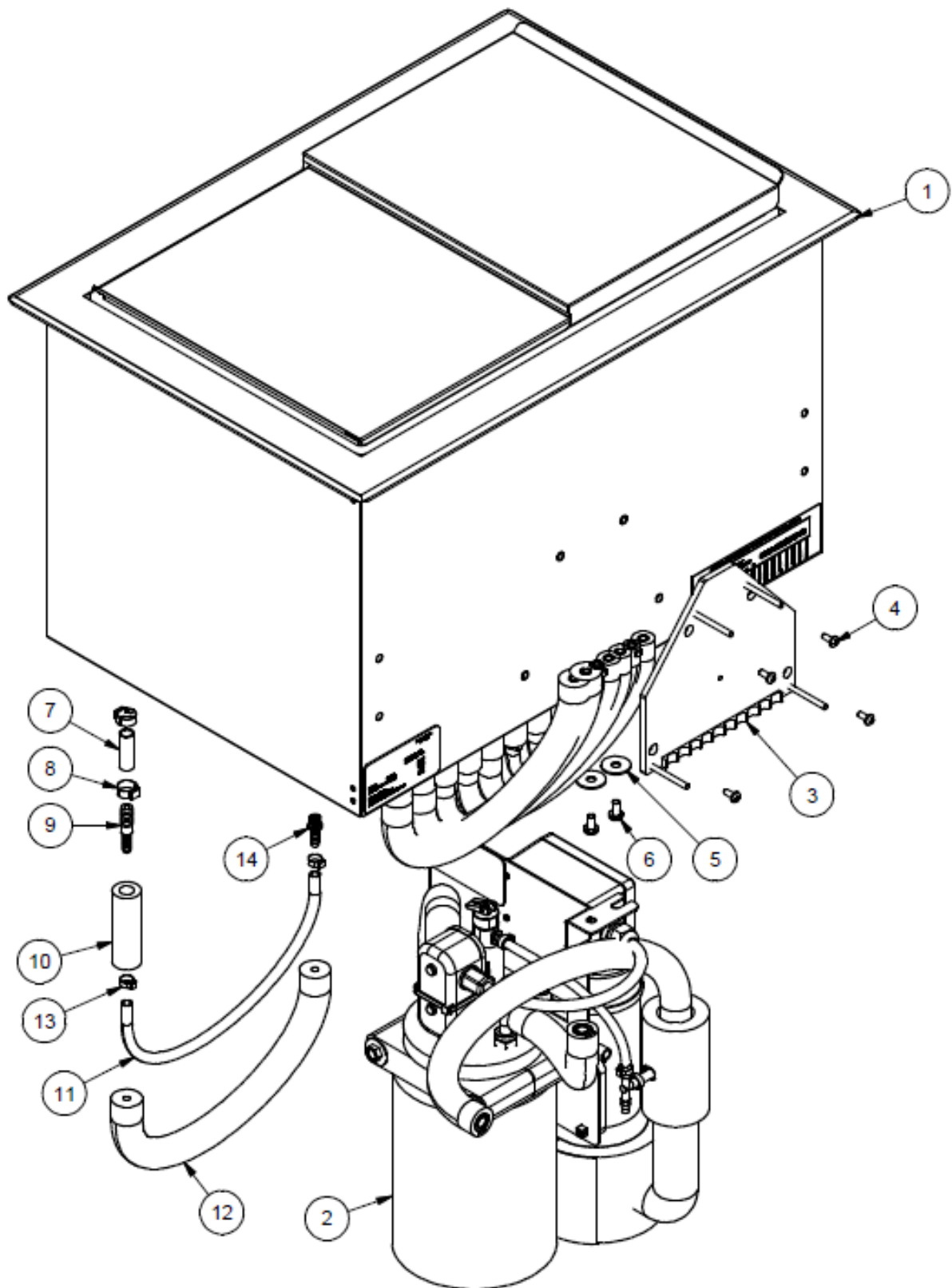


# 10. Assembly Diagrams & Parts Lists

## 10.1. Parts List

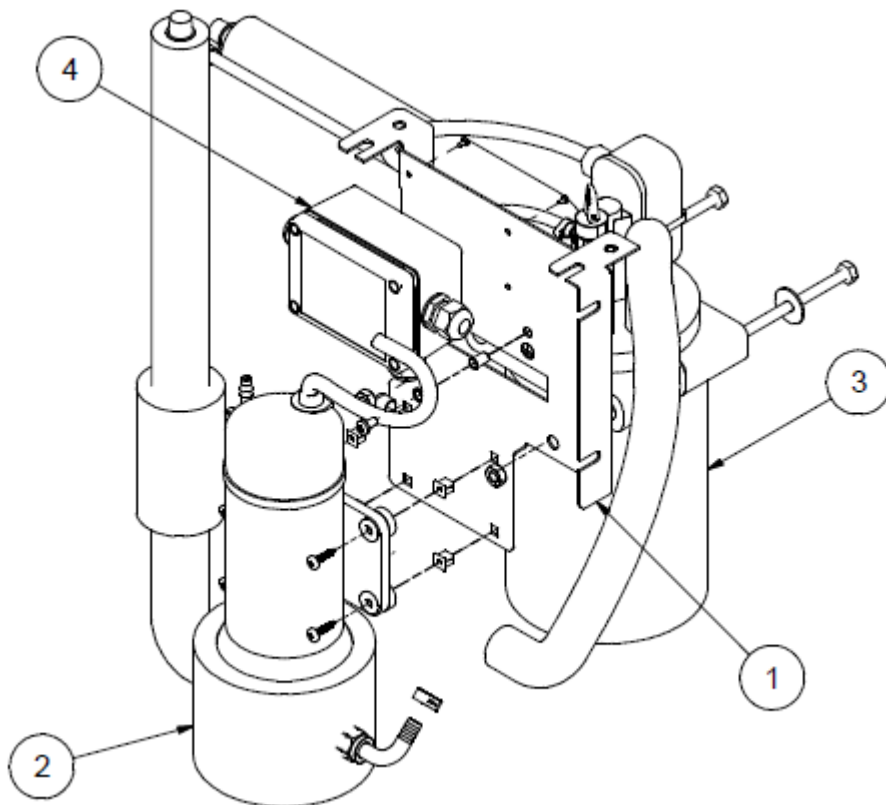
Ref	Part No	Description
1	18000041	DROP IN 15 X 22 8 COIL GENERIC
2	23000028	FLEXICARB 1L
3	15000121	KWICK MOUNT KIT FLOW REG WBAR
4	79000402	SCREW 3/16 BSW X 1/2 PH PHP S/S
5	79000440	WASHER FLAT 10D X 5/16 ID S/S
6	79000422	SCREW S/S 1/4BSW X 1/2" PAN PHILLIPS HEAD
7	81000072	TUBE LDP 10MM U/V BLACK X 35MM LG
8	79120854	CLAMP STEPLESS S/S 157 10MM
9	79000342	SPLICE REDUCING 10/6MM S/S
	79000042	TEE S/S 10/10/6 BARB
10	81000010	INSOLEX 12MM ID X 13MM W X 75MM LG
11	81000080	TUBE LDP 6MM U/V BLACK
12	81000009	INSOLEX 10MM ID X 9MM W
13	79221203	CLAMP STEPLESS S/S 118
14	15000111	INPUT FITTING STRAIGHT WUNDERBAR
	15000138	ORING INLET / INTERCON WUNDERBAR





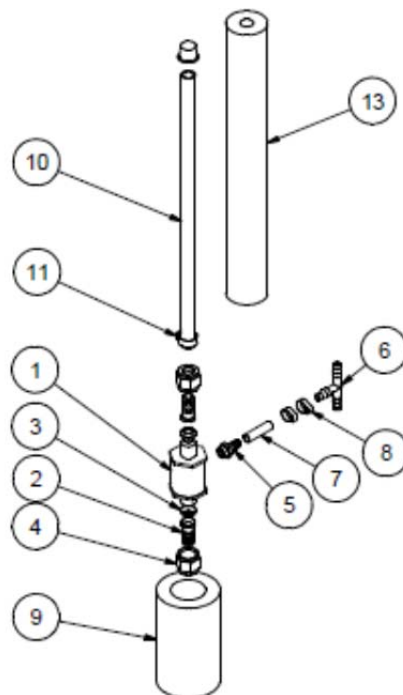
**10.2. Parts list**

Ref	Description
1	PANEL MOUNTING FLEXICARB 1L
2	FLEXICARB 1 LITRE – PUMP ASSY
3	FLEXICARB 1 LITRE – CARBONATOR ASSY
4	FLEXICARB 1 LITRE – JBOX NON-ILL



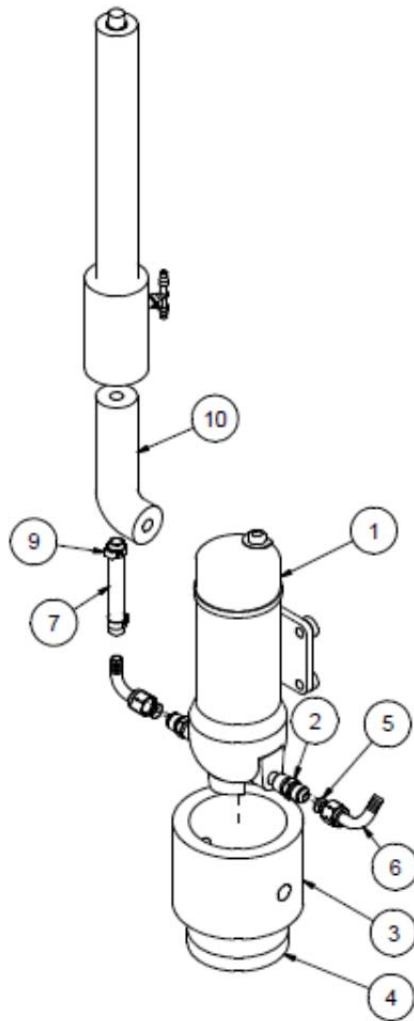
**10.3. Flexicarb Backflow Assy**

Ref	HL Part No	Description
1	79000683	BFV WATTS 9DB (AUS COMPLIANT)
2	79117818	TAIL S/S 10MM BARB 3/8 NUT
3	79158134	SEAL NYLON 3/8 FLARE
4	79000206	NUT SWIVEL 3/8 FL CHROME
5	66000031	DIRECTOR BR 1/8NPT X 6MM BARB
6	79121506	TEE NYLON 6/6/6MM BARB T14
7	81000161	TUBE LDP 6MM U/V BLACK
8	79221203	CLAMP STEPLESS S/S 118
9	81000018	INSOLEX 32 ID X 13 W
10	81000072	TUBE LDP 10MM U/V BLACK
11	79120854	CLAMP STEPLESS S/S 157 10MM
12	79000107	CAP BLANKING PLASTIC 1/2
13	81000010	INSOLEX 12 ID X 13W



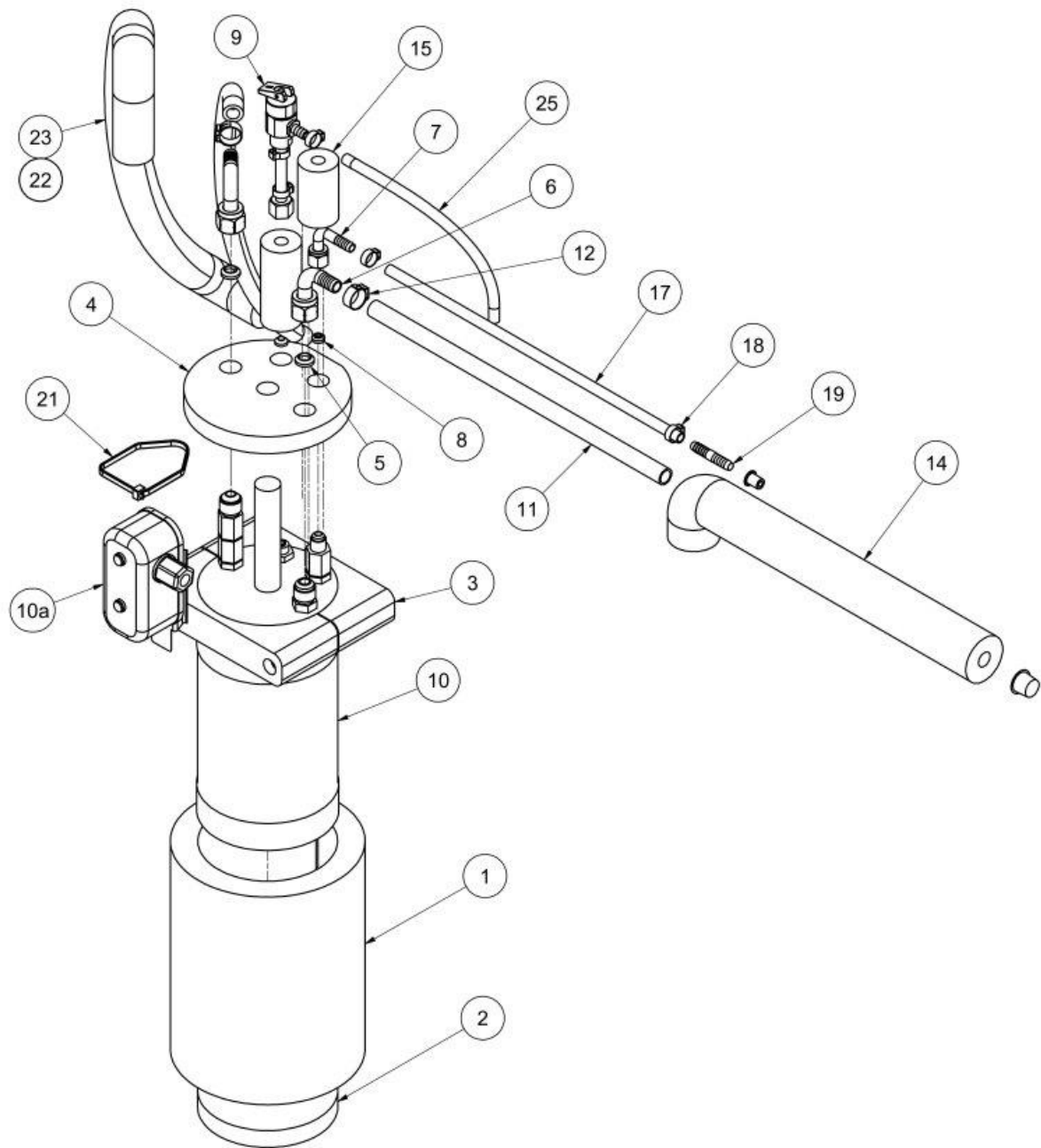
**10.4. Flexicarb Pump Assy**

Ref	HL Part No	Description
1	24000039	PUMP TRIPLEX MODEL R3811503B
	23000100	PUMP KIT FLEXICARB
2	79000338	FITTING S/S 3/8 FLARE X 3/8 NPT
3	81000502-1	INSULATION KIT FLEXICARB – PUMP WRAPPER
4	81000502-2	INSULATION KIT FLEXICARB – PUMP BOTTOM
5	79158134	SEAL NYLON 3/8 FLARE
6	79000334	ELBOW SWIVEL 10MM X 3/8 FL FEM
7	81000072	TUBE LDP 10MM U/V BLACK
9	79120854	CLAMP STEPLESS S/S 157 10MM
10	81000010	INSOLEX 12 ID X 13W



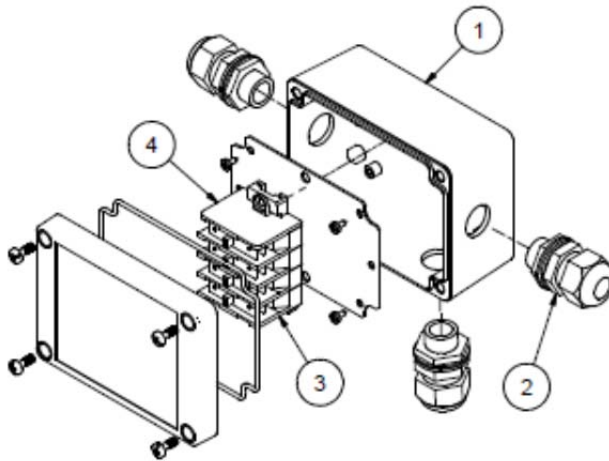
**10.5. Flexicarb Carbonator Assy**

Ref	HL Part No	Description
1	81000502-3	INSULATION KIT FLEXICARB – CARB WRAP
2	81000502-4	INSULATION KIT FLEXICARB – CARB BOTTOM
3	79000735	STAUFF CLAMP 102MM
4	81000502-5	INSULATION KIT FLEXICARB – CARB TOP
5	79158134	SEAL NYLON 3/8 FLARE
6	79000334	ELBOW SWIVEL 10MM X 3/8 FL FEM
7	79000335	ELBOW SWIVEL 6MM X ¼ FLARE FEMAL
8	79158146	SEAL NYLON 1/4 FLARE
9	08000001	CARB RELIEF ASS CHUDNOW AS5034
10	23000005	CARBONATOR 1L FLEXICARB W/SWITCH
	23000006	CARBONATOR 1L FLEXICARB NO SWITCH
10a	23000009	FLEXICARB SWITCH PACK
11	81000072	TUBE LDP 10MM U/V BLACK
12	79120854	CLAMP STEPLESS S/S 157 10MM
14	81000010	INSOLEX 12MM ID X 13MM W X 300MM LG
15	81000009	INSOLEX 10 ID X 9 W
17	81000161	TUBE LDP 6MM NAT/BLACK X 300MM
18	79221203	CLAMP STEPLESS S/S 118
19	79118227	SPLICE S/S 6MM BARB
21	79000475	CABLE TIE 360MM X 4.8MM BLACK
22	81000164	HOSE PE BRAIDED NSF 9.6 X 15MM
23	81000010	INSOLEX 12MM ID X 13MM
25	81000161	TUBE LDP 6MM NAT/BLACK



## 10.6. Flexicarb Junction Box

Ref	HL Part No	Description
1	83000309	FLEXICARB JUNCTION BOX NON ILLUM
2	83000058	GROMMET WATER TIGHT 16MM
3	83601343	TERMINAL BLOCK 6 TAB
4	83601344	END PLATE FOR TERMINAL BLOCK



# 11. Certificate of Warranty

It is the policy of Hoshizaki to provide to its current customers, warranty for all equipment supplied and installation work performed within a specified period.

## **Parts and Equipment**

Lancer provides a warranty period of twelve (12) months from the date of original invoice for all manufactured parts and the associated labour. Repair or replace of defective parts will be at the sole discretion of Lancer.

Changeover parts will be invoiced to the customer at the customers normal purchase cost and upon return of the warranty item and validation of the claim, the invoice will be credited.

## **Installations**

Lancer provides a warranty period of twelve (12) months from the date of final invoice for workmanship after the completion of any installation work, provided the parts and labour are completed by Lancer or its subcontractor.

## **Labour**

Lancer will not normally cover any labour costs associated with a warranty claim. Subject to the approval of the Divisional Sales Manager, Lancer may choose to reimburse the customer for some or all labour costs associated with a warranty claim. Any claim for labour costs must be authorized by Lancer prior to the work being undertaken.

## **Exclusions**

Lancer will not accept any liability or cost associated with any consequential losses (such as loss of syrup or beer), loss of profit or damage to property as a result of faulty product.

Warranty shall not apply:

- a) If in the opinion of Lancer, the equipment has been used in a situation the equipment has not been designed for;
- b) If in the opinion of Lancer, the equipment has been subject to abuse, negligence or accident;
- c) If connected to improper, inadequate or faulty power, water or drainage service or operated using incorrect, insufficient or contaminated lubricants, coolants, refrigerants or additives;
- d) Where the product is installed, maintained or operated otherwise than in accordance with the instructions supplied by Lancer;
- e) Where the product has been damaged by foreign objects;
- f) Where the product has been serviced, repaired, altered or moved otherwise than by Lancer or its nominees or using other than Lancer approved replacement parts.



# 12. Manufacturer's Checklist

Checked by ..... Date .....

TAG No. (P/MIX) ..... (REF) .....

- All motors and pumps secured and mounted correctly.
- All pumps run quietly and carbonator pump switched O.K.
- Carbonator and plumbing pressure tested. Check for leaks on pumps, clamps, welds, strainers, carbonator fittings and all joints.

- Clean exterior of unit including power cords.
- Check body for sharp edges.
- Carbonator relief valve fitted and correct.
- Copy checklist & file, put manual/checklist in plastic bag.
- Customer asset No.

W/O .....

