

# INSTRUCTION MANUAL Direct Draw Keg Refrigerators



Please read the user's manual before you use this product. If you request unnecessary services, you may waste money. Thus, fix simple troubles by yourself which you have found.



#### Keg beer coolers Installation, use and maintenance instructions

# **Content:**

1.Preface	2
2.Use of the equipment	5
3.Technical features	5
4.Operation	5
5.Control unit	6
6.Handling	6
7.Installation procedure	7
8.Connecting to the main power supply	7
9Maintenance instructions	8
Cleaning	8
Cleaning the refrigerator surface	8
Cleaning the inside of the refrigerator	9
Cleaning the condenser	9
10.Troubleshooting	9
11.Technical service	9

Operating Instruction	.10
Technical Parameters	.15
Drilling ports for CO2 Lines	.16
Official Approval And Rules	.22



## 1 Preface

Please read instructions before using this appliance.

# IMPORTANT SAFETY INSTRUCTION

- ▲ To reduce the risk of fire, electric shock, or injury to persons when using your product, basic safety precautions should be followed, including the following.
- ▲ This appliance must be properly installed and located in accordance with the Installation Instruction before it is used.
- ▲ Before the appliance is plugged in, ensure that the rated voltage corresponds to the voltage of the electrical system in your home. The power plug should have its own independent socket. Using adapters may cause overheating or burning.
- ▲ This appliance can be used by children aged from 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved.
- ▲ Children shall not play with the appliance.
- ▲ Cleaning and user maintenance shall not be made by children without supervision.
- ▲ If the supply cord is damaged, it must be replaced by the manufacturer or its service agent or a similarly qualified person in order to avoid a hazard.
- ▲ Connect to properly grounded outlets only. Avoid the use of extension cords. Do not run cord under carpeting, runners or the like. Arrange cord away from traffic area and where it will not create a tripping hazard.
- Always unplug appliance when not in use and before cleaning, adjusting or maintaining this machine. To disconnect appliance, turn switch off and remove plug from power source.

- ▲ Do not disconnect by pulling on the cord. Always disconnect by grasping and pulling on the plug top.
- ▲ Do not pull out the cord or touch the power plug with wet hands. Clean water or dust from the power plug and insert it with the ends of the pins securely connected.
- ▲ Do not use outdoors.
- ▲ Do not splash water on the appliance. It may cause a malfunction or electric shock.
- ▲ Do not disassemble, repair or alter the appliance. It may cause fire or abnormal operations, which may lead to injury.
- ▲ After your fridge-freezer is in operation, do not touch the cold surfaces in the freezer compartment, particularly when hands are damp or wet. Skin may adhere to these extremely cold surfaces.
- ▲ Never place glass products in the freezer because they may be broken when their inner contents are frozen.
- ▲ The refrigerant and insulation blowing gas used in the appliance require special disposal procedures. When disposal, please consult with service agent or a similarly qualified person.
- ▲ Do not store explosive substances such as aerosol cans with a flammable propellant in this appliance.
- ▲ WARNING: Keep clear of obstruction all ventilation openings in the appliance enclosure or in the structure for building-in.
- ▲ WARNING: Do not use mechanical devices or other means to accelerate the defrosting process, other than those recommended by the manufacturer.
- ▲ WARNING: Do not damage the refrigerant circuit.
- ▲ WARNING: Do not use electrical appliances inside the food storage compartments of the appliance, unless they are of the type recommended by the manufacturer.





Warning: Risk of fire / flammable materials CAUTION: RISK OF FIRE AND EXPLOSION WITH FLAMMABLE REFRIGERANT R290 .

- ▲ If you need the electronic version instruction manual, please ask the manufacturer or its service agent .
- ▲ Max. Load of shelf is 88 LBS.

This instruction manual provides all the necessary information regarding:

- ▲ use of the refrigerator
- ▲ technical specifications
- ▲ installation and handling
- ▲ operator procedures and instructions
- ▲ maintenance operation

The manual is to be considered an integral part of the refrigerator and should be stored in a safe place for father consult to permit a good working life of the refrigerator.

The appliance is intended for commercial use only.

Component parts shall be replaced with like components and that servicing shall be done by factory authorized service personnel.

#### The A-weighted emission sound pressure level is below 70 dB(A)

### The manufacturer cannot be held liable in the following cases:

- improper installation (not in accordance with the guidelines indicated herein)
- misuse of the refrigerator
- power supply defects
- improper or inadequate maintenance
- unauthorised modification or tampering
- use of non-original spare parts
- partial or total failure to comply with the instructions

All electrical equipment can be hazardous to health. Current standards and legal requirements must be complied with during the installation and use of any equipment.



#### 2. Use of the equipment

The refrigerator are for preserving fresh perishable foodstuffs, with an in-built refrigerated unit. Do not utilise the equipment to store medical supplies. Climate class of the equipments is 4 or 5. The optimum operational ambient temperatures are between  $+50^{\circ}$ F to  $+110^{\circ}$ F The possible application are: keg beer.

#### **3 Technical features**

The refrigerator is a ventilated system, the evaporator is in a separate insulated box on the top. All the materials used in the manufacture of this unit are guaranteed to be suitable for use with foodstuffs. The gases used in produces is R290 ...The refrigerating circuit are in compliance with the current normative.

#### 4. Operation

The gas in the refrigerating circuit is in the first time compressed, liquefied and then evaporated in the ventilated evaporator, situated on the top of the container.

This cycle involves the absorption of heath from the air in the refrigerator compartment and the reason is cooled. The heat produced is then dissipated to the outside environment by a condenser unit located on the top of the refrigerator.



#### 5. Control unit

The refrigerator is command from a "digital control unit" and a "main switch pilot light" in the top panel of the refrigerator.

The "main switch pilot light" is for turning on the power supply.

The red pilot light comes on to indicate that the unit is connected to the main electricity and to start work.

The red pilot light comes off to indicate that the unit is disconnected and don't work. The "digital control unit" is for the regulation of all parameters to provide the correct working of the refrigerator. Please consult all parameters in the attachment manual of the "digital control unit".

This manual is part of the instruction manual and is very important in case of service.

Applied refrigerant belong to non-flammable refrigerant.

#### 6. Handling

The refrigerator arrive in PET film and packed in cardboard box on a wood pallet.

avoid posing a hazard to persons or property. Never place a refrigerator with an in-built refrigerated unit on its side or turn it upside



down as this may damage or impair operation of the refrigerated unit. We can not held liable for any damage or defects arising directly or indirectly from improper handling of the equipment or non-compliance with the safeguards illustrated above.



#### 7. Installation procedure

▲ Place the refrigerator in the coolest and best ventilated part of the room. Don't install the refrigerator in the near of heat and direct sunlight sources.

▲ Remove the straps securing the cardboard packing Remove the cardboard. Covering Remove the PET protection film

▲ Clean the refrigerator with mild detergent and then dry it with a soft cloth.

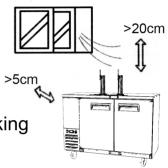
#### 8.Connecting to the main power supply

This operation must be carried out by professionally and qualified persons.

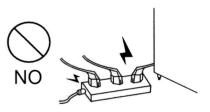
The refrigerator are supplied complete with a power supply cable for the connection to the main power supply. A thermomagnetic circuit breaker (not supplied) must be installed between the mains power point and the power supply cable of the refrigerator.

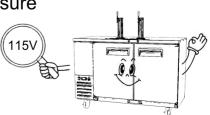
#### Before proceeding make sure that:

▲ the mains voltage corresponds to the voltage on the refrigerator 110V-120V/60Hz/1Ph; to ensure proper operation it is essential for the power supply voltage to come within a range of +/- 6% of the unit's rated voltage











- ▲ the electric system to which the refrigerator is sized to cater for the rated electric output of the buffet unit being installed
- ▲ the electronic system to which the refrigerator is connected is made in compliance with current standard requirements
- ▲ the electric connections and the installation of the thermomagnetic circuit breaker have been done by qualified person.

#### **Connecting steps:**

- ▲ Install a thermomagnetic circuit breaker suited to the rated output of the unit being installed
- Connect the refrigerator unit to the thermomagnetic circuit breaker outlet
- ▲ Check that the refrigerator is in order as demonstrated by the pilot light incorporated in the main switch coming on

#### 9. Maintenance instructions

The smooth operation and life of the equipment are mainly determined by correct and regular maintenance

#### **Cleaning:**

Regular cleaning of the refrigerator unit is strongly recommended each month. Please follow the instructions below.



Disconnect the refrigerator power supply cable from the mains prior to carrying out any type of cleaning operation.

#### **Cleaning the refrigerator surface:**

Clean the refrigerator with mild detergent

and then dry it with a soft cloth.

Do not use abrasive detergents!







#### Cleaning the inside of the refrigerator:

Clean the inside area min. each month with a detergent suitable for use with foodstuffs.

#### **Cleaning the condenser**:

For an efficient operation of the refrigerator it is advisable to clean the condenser regularly approx. every 4 months with a dry brush or vacuum cleaner.

#### **10 Troubleshooting**

Refrigerator stops working (light off):

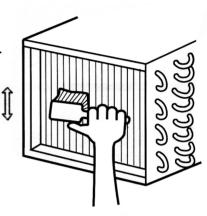
- $\cancel{k}$  Power supply failure
- ▲ Remedies:
  - $\cancel{k}$  Check that the plug is inserted properly in the socket
  - $\boldsymbol{\measuredangle}$  Check that the switch on/off
  - $\cancel{k}$  Check that the mains voltage powers the plug

Refrigerator temperature go up:

- $\cancel{a}$  Unit to near to a heat source
- $\Rightarrow$  Condenser dirty or close
- ▲ Remedies:
  - $\precsim$  Move the counter or the heat source further away
  - $\cancel{a}$  Clean the condenser

#### **11 Technical service**

For technical service please contact the dealer technical department and give him the serial number, and the date of buy.



#### **Operating Instruction**

- 1. New upright air-cooling refrigerator should be opened and ventilate it before it is in use. After that, users should use warm water clean its inside.
- 2. After connecting the power supply, press the "POWER" switch on the controller keyboard (Green Indicator Light ON), the fridge will come to work. The microcomputer controller, installed in the controller keyboard, could automatically adjust the temperature ranges. This intelligent digital controller works as: if the temperature increases and reaches set point plus differential the compressor is started and then turned off when the temperature reaches the set point value again.
- 3. Microcomputer Controller Operation Instruction:
- Microcomputer panel sketch map, meanings of running indicator light and LED showing.
- SET To display target set point, in programming mode it selects a parameter or confirm an operation.

To start a manual defrost.

△ In programming mode it browses the parameter codes or increases the displayed value .

 $\bigtriangledown_{Aux}$  In programming mode it browses the parameter codes or decreases the displayed value .

✓+A To lock or unlock the keyboard
 SET+✓To enter in programming mode
 SET+ATo return to room temperature display .

LED	MODE	SIGNIFICATO
*	On	Compressor enabled
17X	Flashing	Anti short cycle delay enabled (AC parameter)
	On	Defrost in progress
4,4,4	Flashing	Dripping in progress
5	On	Fans output enabled
7	Flashing	Fans delay after defrost
Ĉ	On	Measurement unit
	Flashing	Programming mode
°F	On	Measurement unit
	Flashing	Programming mode

(Mod. XR06CX)







6. How to see the point .

Push and immediately release the SET key, the set point will be showed; Push and immediately release the SET key or wait about 5s to return to normal visualisation.

7. How to change the setpoint .

Push the SET key for more than 2 seconds to change the Set point value; The value of the set point will be displayed and the "°C" or "°F" LED starts blinking;

To change the Set value push the rightarrow or rightarrow arrows.

To memorise the new set point value push the SET key again or wait 10s.

- How to start a manual defrost .
  Push the DEF <sup>(\*)</sup> key for more than 2 seconds and a manual defrost will start .
- 9. How to change a parameter value

To change the parameter's value operate as follows:

Enter the Programming mode by pressing the  $SET + \heartsuit$  keys for 3s

("°C" or "°F" LED starts blinking).

Select the required parameter. Press the "SET" key to display its value

Use  $\land$  or  $\checkmark_{AUX}$  to change its value.

Press "SET" to store the new value and move to the following parameter.

To exit: Press  $SET + \triangle$  or wait 15s without pressing a key.

NOTE: the set value is stored even when the procedure is exited by waiting the time-out to expire.



10. To lock the keyboard .

Keep pressed for more than 3s the rightarrow rightarrow keys.

The "OF" message will be displayed and the keyboard will be locked.

If a key is pressed more than 3s the "OF" message will be displayed.

11. To unlock the keyboard .

Keep pressed together for more than 3s the  $\bigtriangledown$ + $\bigtriangleup$  keys till the "on" message will be displayed .

12. Alarm signalling .

Mess.	Cause	Outputs				
"P1"	Room probe failure	Compressor output according to "Cy" e "Cn"				
"P2"	Evaporator probe failure	Defrost end is timed				
"HA"	Maximum temperature alarm	Outputs unchanged				
"LA"	Minimum temperature alarm	Outputs unchanged				
"EA"	External alarm	Outputs unchanged				
"CA"	Serious external alarm	All outputs OFF				
"dA"	Door Open	Compressor and fans restarts				

Our products have been modified precisely before leaving factory, so to avoid damaging compressor unit or other malfunctions, users mustn' t modify the microcomputer parameters privately.



## CAREL: PJEZ\* Display and functions:



During normal operation, the controller displays the value of the probe set using parameter/4(=1 ambient probe, default,=2 second probe, =3 third probe). In addition, the display has LEDs that indicate the activation of the control functions(see Table 1), while the 3 buttons can be used to activate/deactivate some of the functions (see table 2).

LEDs and associated functions

Tab.1

		normal operation						
icon function		ON OFF		blink	start up			
$\bigcirc$	Compressor	on	off	request	ON			
S	fan	on	off	request	ON			
<u> </u>	defrost	on	off	request	ON			
AUX	aux	output on	output off	-	ON			
Å	alarm	all	no alarm	-	ON			
$\bigcirc$	clock	RTC fitted and enabled,at least 1 time band set	RTC not fitted or disabled,not even 1 time band set	_	ON if RTC fitted			

Table of functions activated by the buttons Tab.2

		normal opera				
button		pressing the button alone	button alone pressed together		up	
			pressed together start/	-		
<u></u>	down defrost	more than 3s: start/stop defrost	stop continuous cycle	together	for 1s display firmware vers.	
set e	set mute	-1s: display/set the set point -more than 3s: access paramete setting menu(enter password 22 -mute audible alarm (buzzer)		start parameter reset procedure	code for 1s RESET current EZY set	



### Setting the set point(desired temperature)

- press SET for 1s the set value will start flashing after a few moments;

- increase or decrease the value using UP or DOWN;

- press SET to confirm the new value.

#### Switching the device ON/OFF

Press UP for more than 3s. the control and defrost algorithms are now disabled and the instrument displays the message "OFF" alternating with the temperature read by the set probe.

#### Manual defrost

Press for DOWN more than 3s (the defrost starts only the temperature c onditions are valid).

#### Continuous cycle

Press UP and DOWN together for more than 3s.

Table of alarms

Alam	buzzer and	LED	Description	Parametri
code	alarm relay			coninvolti
EO	active	ON	probe 1 error=control	-
E1	inactive	ON	probe 2 error=defrost	[d0=0/1]
dr	active	ON	open door alarm	[A4=6][+A7]
LO	active	ON	low temperature alarm	[AL][Ad]
HI	active	ON	high temperature alarm	[Ah][Ad]
EE	inactive	ON	unit parameter error	-
EF	inactive	ON	operating parameter error	-
Ed	inactive	ON	defrost ended by timeout	[dP][dt][d4][A8]
dF	inactive	ON	defrost running	[d6=0]



## **Technical Parameters**

Model code	Power source (V)	Rating frequency(Hz)	Input power (w)	Rated current(A)	Temperature range $({}^{\circ F})$	Refrigerant	<b>Amount</b> (oz)	Dimension (in)	Volume (cu.ft)
BERKC23	115	60	260	2.3	+33~+45	R290	2.8	23×29.5×39.3	7.09
BERKC58	115	60	260	2.3	+33~+45	R290	4.2	57.8×28.1×42.2	17.3
BERKC68	115	60	260	2.3	+33~+45	R290	4.2	68×28.1×42.2	21.5
BERKC90	115	60	320	2.8	+33~+45	R290	4.2	89.3×28.1×42.2	30.1

NOTES : If the technical data has any changes, we will not notify you any longer.



## **Drilling Ports For CO2 Lines**

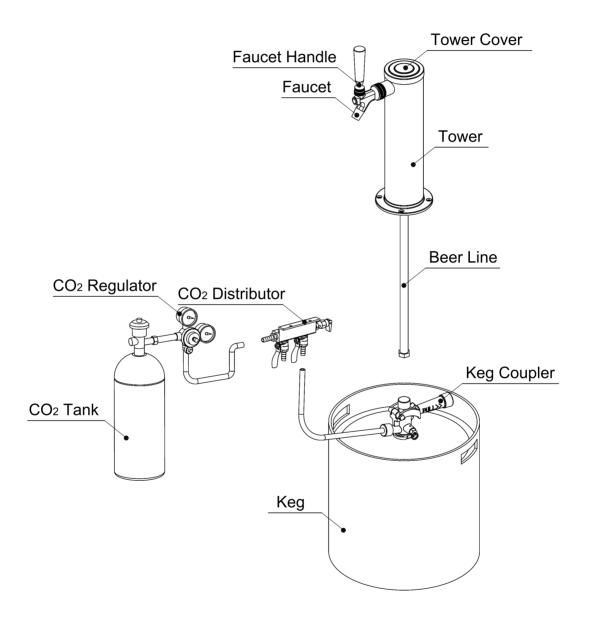


To avoid damaging refrigeration components and wiring, please drill holes for CO2 lines only in the shadow areas.



\*Air distributor is only on multiple keg units, each keg is conneted to a valve on the air distributor.

Single keg is connected directly to the regulator.

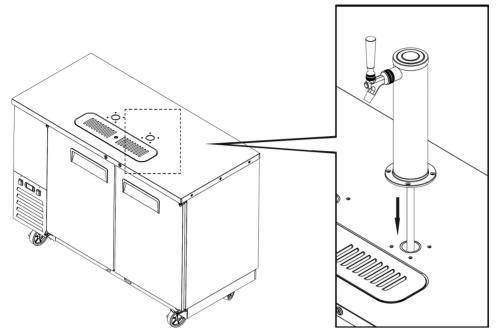


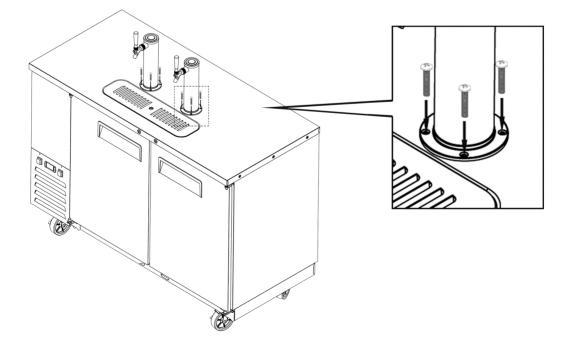
## NOTE

The keg,keg coupler,CO<sub>2</sub> regulator,CO<sub>2</sub> tank,kegcoupler to CO<sub>2</sub> distributor line, and CO<sub>2</sub> distributor to CO<sub>2</sub> regulator line,are not included with your keg refrigerator. These items can be obtained from your beverage distributor.The beer tower with <u>fa</u>ucet,faucet handle,tower beer line,and CO<sub>2</sub> distributor are included.



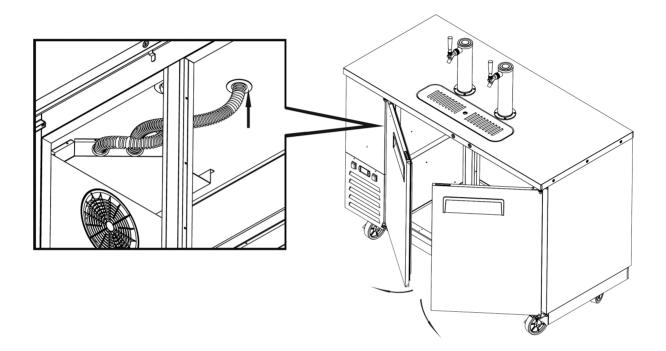
1.Position tower gasket so that the drain line and screw holes align properly with the top surface of the unit.Feed the tower's beer line through the unit's beer line hole.

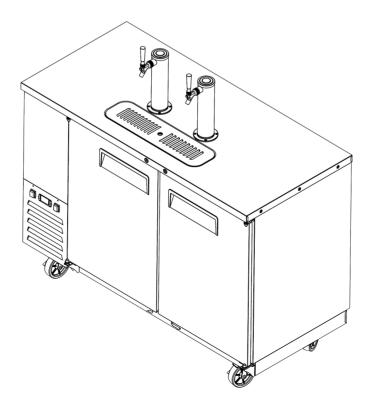






 $\mathbf{3}.$  Insert the end of the cold air hose into the air baffle , insert the other end of the cold air hose into the tower.







\*NOTE:The CO<sub>2</sub> distributor can be used to share the single CO<sub>2</sub> tank with multiple kegs.

# **1.CO**<sup>2</sup> tank placement (inside or outside of the refrigerated cabinet)

- a.Outside of cabinet-Drill a hole on the back wall of the unit,only in the areas indicated in figure;Drlling in any other place may cause damage to the unit's wiring.
- b.Inside of cabinet-Depending on the unit model and size of the equipped keg,you may be able to fit the CO<sub>2</sub> tank inside of the refrigerated cabinet;This setup requires no drilling.

#### 2.Connect CO<sub>2</sub> line to CO<sub>2</sub> regulator

- a.Ensure that the CO<sub>2</sub> regulator's shut off valve is closed.The switch's lever should be perpendicular to the CO<sub>2</sub> line when it is in the closed position.
- b.Connect one end of the CO<sub>2</sub> line to the CO<sub>2</sub> regulator' s hose barb connection, pushing the hose onto the barb connector as high as you can without damaging the hose.Secure the hose to the connector using a clamp.Place the clamp as high up as possible without it interfering with the operation of the valve.
- c.If the CO<sub>2</sub> tank has been placed out of the refrigerated cabinet,feed the hose through the hole that was previously drilled in the back of the unit.

#### **3.Connect CO2 regulator to CO2 tank**

- a.Ensure that the CO<sub>2</sub> tank is full and closed.
- b.Attach the CO<sub>2</sub> regulator to the CO<sub>2</sub> tank using the large nut that is part of the regulator.

#### 4.Connect keg coupler

- a.IMPORTANT: Ensure that the keg pull handle is closed (upper position).
- b.Install the keg coupler onto the keg's locking neck and turn clockwise to lock into place.



#### 5.Connect CO<sub>2</sub> line to keg coupler

a.Connect the open end of the CO<sub>2</sub> line to the keg coupler's hose barb connection, pushing the hose onto the barb connector as high as you can without damaging the hose.Secure the hose to the connector using a clamp.Place the clamp as high up as possible without it interfering with the operation of the valve.

#### 6.Connect beer line to keg coupler

- a.Install the rubber washer onto the beer line hex nut fitting.
- b.Remove the plastic protective cover from the keg coupler, if equipped.
- c.Connect the beer line from the tower to the keg coupler .It connects to the screw type connection on top of the coupler.

#### 7.Tap keg

a.Pull the tap handle out and away from the keg coupler and push down until it locks into position.A click noise should be heard once the handle is in its final lock position.

#### 8. Calibrating CO<sub>2</sub> regulator

- a.With the shut-off valve on the CO<sub>2</sub> regulator closed,open the valve on the CO<sub>2</sub> tank completely.
- b.Loosen the adjustment nut with a pair of pliers, allowing the adjustment screw to be turned counter-clockwise until the screw can no longer turn.
- c.Slowly turn the CO<sub>2</sub> regulator adjustment screw until the desired pressure is shown on the output pressure gauge(12 PSI is recommended setting for most situations).Other conditions, such as altitude or special beer type, may require some adjustment.On regulators designed for draft beer, turning clockwise will increase the output pressure, and turning counter-clockwise will decrease the output pressure.
- d.Open the shut-off valve on the CO<sub>2</sub> regulator, ensuring the switch below the main body should be parallel to the tubing.Gas should now flow from the regulator to the keg coupler, and you will hear the keg pressurizing.The output needle will drop momentarily while the pressure is equalizing, then it will return to the point at which you set it.



- e.The keg coupler is designed with a pressure relief valve(PRV).Pull the ring on the PRV briefly to allow gas to vent.This will permit gas to flow though the regulator and help obtain a more accurate reading on the output pressure gauge.
- f.Re-check the output pressure on the regulator and, if necessary, re-adjust using step 8.3 until the desired pressure is shown. It is always wise to follow up any adjustment to the regulator with a brief pull of the PRV ring to ensure an accurate output reading.
- 9.Position the keg in the refrigerated compartment.Ensure that no hoses are kinked or crushed.

# **OFFICIAL APPROVAL AND RULES**

CONFORMS TO UL STD.471 CERTIFIED TO CSA STD.C22.2 NO.120 CONFORMS TO NSF/ANSI STD. 7





Intertek 4003935 CONFORMS TO NSF/ANSI STD.7



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