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# FLASH CHILLER - TAYFUN V30 OPERATION AND SERVICE MANUAL



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## **1. INSPECTION**

Each shipment should be carefully checked against the bill of lading or packing slip. The shipping receipt should not be signed until all items listed on the bill of lading have been accounted for.

Check carefully for concealed damage. Any shortage or damages should be reported to the delivering carrier.

Damaged material becomes the delivering carrier's responsibility, and should not be returned to the manufacturer unless prior approval is given to do so.

**Warning: This equipment contains a refrigerant which may harm the public health and environment by destroying ozone in the upper atmosphere. Venting or release of certain refrigerants to the atmosphere is illegal. Refrigerant recovery devices must be used when servicing this unit. Consult your local codes for requirements.**

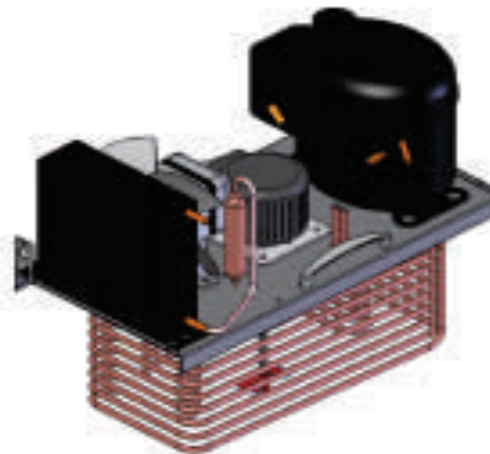
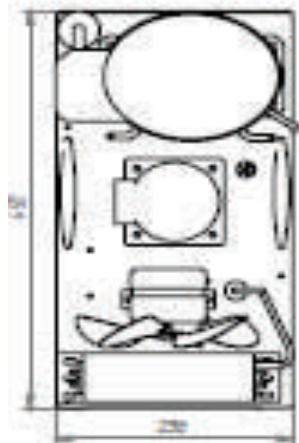
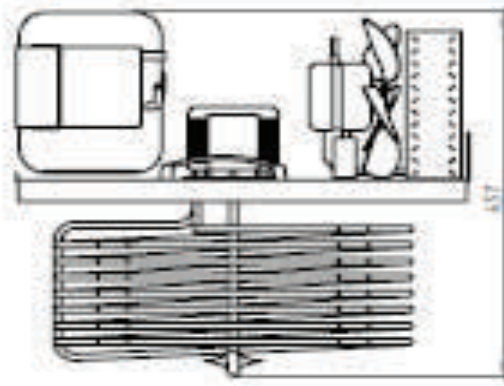
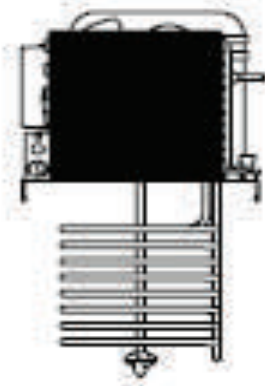
**Warning: Do not service this unit before disconnecting all power supplies.**

## **2. INSTALLATION REQUIREMENTS:**

- **Dedicated power line , 115v, 60Hz, 15 Amp**
- **Recommended ambient temperature range 60F-90F**
- **Adequate air circulation which means that:**
  - **air condenser cannot be covered by anything including any filters**
  - **at least 12” of clearance must be allowed around the entire unit**

### 3. SPECIFICATION

Name	Unit	TAYFUN V30
Part Number		V30-1/4
Capacity, (evap 20F)	BTU/hr	1900
Ice Bank Capacity	BTU/hr	2500
Ice bank	Lbs	19
Product lines	coils	2
Dedicated Circuit	Amp	15
Voltage	Volt/Hz	115/60
Compressor Power	H/P	1/4hp
Thermostat	Type	Ranco (Manual)
Pump Type	Name	Saber sk20
Refrigerant	Type	R134a
Refrigerant amount	Lbs	0.2646
Dimensions	Width, in	10.6
	Depth, in	21
	Height, in	22
Weight	Lbs	77



## 4. PARTS LIST

DESCRIPTION/ MODEL	TYFUN V30
Compressor	Techumseh AEZ 4430Y
Start capacitor	189-315mF/160V
Start relay	966-A-041-183
Thermo overload relay	T0797-MS649
Condenser	LuVe STVF14221
Condenser fan	EBM M4Q045 BD 03-04
Fan size	Ø200mm
Pitch	28°
Pump	SABER SK20
Lamp	C-35UL (green)
Thermostat	RANCO K-50

## **5. ICE BANK CHILLER SET-UP**

Once the survey of the location has been completed to determine the positioning of the ice bank chiller and the connecting draft beer/beverage dispensing stations (refer to the specifications sheet to be certain that the trunk line will be within the recommended distance), make the necessary provisions to place the unit and provide for the electrical services.

The ideal set-up is to mount the ice bank chiller on a proper equipment stand that is easily accessible for routine maintenance and service.

NOTE: Do not place the ice bank chiller in the walk-in cooler, as the cold ambient temperature will reduce the cooling performance of the unit.

NOTE: A minimum of twelve inches of clearance should be allowed around the entire unit for proper performance. Additional clearance should be considered for optimal performance and serviceability.

## **6. WATER FILLING**

The water bath capacity is 4.8 Gal.

**NOTE: Fill the bath with water only, no glycol should be added. Distilled water should be used.**

Fill the bath with water by removing the black plug on the deck lid and placing a funnel in the fill hole. Pour in the water until all evaporator coils are covered. After water circulation start-up add additional water if required to reach the recommended level in the bath.

**NOTE: Always inspect the bath for any debris as such might damage the pump.**

## **7. SYSTEM START-UP**

It is a good practice to operate the ice bank unit until sufficient amount of ice builds around the evaporator coils before running beer trough to the dispensing tap. This enables the water circuit to be checked for leaks.

Run the beer product trough the ice bank.

Check the system for leaks.

Thoroughly insulate all line joints in the trunk line and dispensing taps.

## **8. MAINTENANCE**

- 1) Inspect the unit every 3 month to ensure that the water level is maintained to the fill level.
- 2) If the level is low, add the proper volume of water to maintain the recommended level in the bath.
- 3) Check and clean the condenser using a metal brush every week, and using an air compressor or a vacuum cleaner every six months. Please check our instructions below.

**Note: If the unit is installed under the bar or in a high traffic area, cleaning with a compressor or a vacuum is required every three month.**

- 4) Check for proper air flow through the unit ensuring enough clearance around it is allowed. There must be no obstructions in front of the air flow vents especially any sort of filters in front of the condenser unless approved by UBC.
- 5) Check the condition and effectiveness of the trunk line insulation.
- 6) During beer line cleaning the unit must be turned off to prevent freezing of the cleaning solution in the lines.

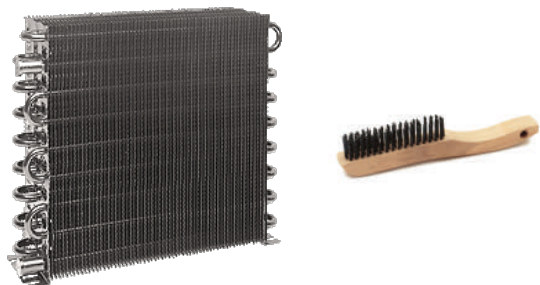
## **9. AIR-COOLED CONDENSER CLEANING**

EXTRA glycol chillers are equipped with special tubeless heat exchangers, manufactured with an innovative technology. This ensures the maximum capacity with the smallest size. The condenser is prone to accumulate dirt and airborne dust that may reduce or block the air flow. To guarantee the cooling effectiveness and to prevent damage to other electrical components, the condenser must be cleaned regularly.

### **9.1 WEEKLY CLEANING**

Step 1: Disconnect the power.

Step 2: Clean the condenser with a metal brush, available at any Home Depot, Lowe's or any other hardware store.



For best results the condenser should be cleaned top-down (see the picture above).

Step 3: A finish soft brush or vacuum cleaning is recommended.

Step 4: Connect the power.

### **9.2 SEMI-ANNUAL or QUARTERLY CLEANING**

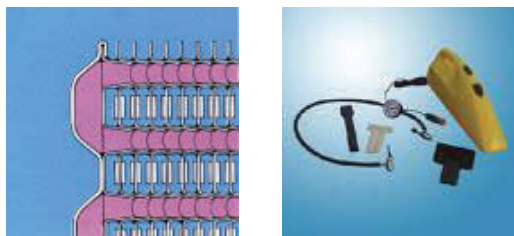
The weekly condenser cleaning can only guarantee surface cleaning. Using a metal brush it is impossible to reach and clean funnel and between-funnel space. Only air blowing or deep vacuum cleaning can ensure this. To achieve continuing top performance and high efficiency, establish a semi-annual cleaning routine for the unit. Please follow the instructions as described below.

Step 1: Disconnect the power.

Step 2: Clean the condenser with a metal brush

Step 3: Clean the condenser thoroughly using a pressurized air flow (portable air compressor) or a vacuum cleaner. Check condenser cleanness using a flashlight.

Condenser must be cleaned until apparent condenser cleanness is achieved.



Step 4: Connect the power and turn on the unit



## 10. ICE BANK TROUBLESHOOTING

PROBLEM	POSSIBLE FAULT	POSSIBLE CAUSE	SOLUTION
No Product	Product frozen in coil	Ice bank too large? Beer coils/ lines are frozen in the ice?  If beer lines are not frozen in the ice  Has customer been cleaning lines	Change thermostat setting from 7 (MAX) to 6 or 5 depending on the ambient temperature  Check if the thermostat probe is in place, in the plastic holder attached to evaporator coils  Test/replace thermostat  Check the keg, fob detector and trunk line  Clean beer lines
Water bath overflows, water on the Icebank unit or on the floor near the unit	Beer leakage from fittings connecting trunk line to the product lines in the Icebank unit	Products lines from the trunk line or from the unit are not properly connected  Defective JG fittings	Immediately notify a service technician. If water gets into the condensing unit it might cause a short circuit and permanently damage the unit  Check the product fittings
Product consistently too warm, fobbing	No ice bank or water bath is too warm	Has the Icebank unit been running for at least 6-10 hrs?  Is thermostat set at 7(MAX)  Is ambient temperature above 90°F?  Water level is too low  Fuse blown or no electrical supply  Refrigeration system failed	Depending on the ambient temperature it takes from 6-10 hours to form an ice bank.  Turn thermostat knob to 7 (MAX)  Ambient temperature cannot be above 90°F for the system to run properly.  Refill the bath with water so it covers all of the coils  Check fuse, plug, RCCB switch and mains switch  Check if the condenser is free of dirt and dust or any obstacles that might affect air circulation –refer to refrigeration troubleshooting  Check if the base unit is plugged into a dedicated 15 Amp power circuit –refer to refrigeration troubleshooting

# 10.1 REFRIGERATION TROUBLESHOOTING

PROBLEM	CAUSE	SOLUTION
Compressor does not start, no signal appears on the thermostat's front panel	No proper power supply	<ol style="list-style-type: none"> <li>1. Check the power (voltage) in receptacle</li> <li>2. Turn off the start switch or the disconnect switch</li> <li>3. Using a multimeter check the power in the thermostat (contacts 6-7)</li> <li>4. Improper or loose wiring. Check against wiring diagram and wire properly</li> </ol>
	Thermal protector is not working properly	Replace the unit
Compressor does not start, thermostat reads bath temperature, no hum, but the fan motor is running	Improper or loose contact in the thermostat or wrong thermostat setting	Check contacts 8-9 on the thermostat
	Start capacitor or start relay malfunction	First check and replace the start relay and then the start capacitor
	Compressor motor has a ground fault (also known as a short circuit to ground)	Replace the unit
Compressor does not start, thermostat reads temperature, hum	Thermostat not functioning properly	Check and replace thermostat
	Inadequately Low voltage to compressor usually caused by poor quality or non dedicated power line	Measure voltage across common and run terminals on the compressor (shown on the compressor). Voltage must not drop below 90% of rated voltage. Turn off the system until proper voltage is restored.
Compressor starts and runs but no temperature reading is displayed	Probe failure or loose wiring	<ol style="list-style-type: none"> <li>1. Check probe wiring</li> <li>2. Replace probe</li> </ol>
Compressor starts and runs, stops in less than 1 min.	Inadequate Low voltage to compressor usually caused by poor quality or non dedicated power line	Measure voltage across common and run terminals on the compressor (shown on the compressor). Voltage must not drop below 90% of rated voltage. Turn off the system until proper voltage is restored.
	Start relay not working properly usually caused by overheating of the compressor due to poor air circulation through the air condenser or inadequate low voltage in the power line	Replace the start relay
	Improper or loose wiring	Check against the wiring diagram and wire properly
	Discharge pressure too high	Replace the unit.
	Internal mechanical trouble in the compressor usually caused by overheating of the compressor due to poor air circulation through the air condenser or inadequate low voltage in the power line	Replace the unit

Compressor starts and runs, but short cycles on thermal protector (more than 1min. but less than 5 min.)	Inadequate low voltage to compressor usually caused by poor quality or non dedicated power line	Measure voltage across common and run terminals on the compressor (shown on the compressor). Voltage must not drop below 90% of rated voltage. Turn off the system until proper voltage is restored.
	Return gas to compressor is too warm, usually caused by overheating of the compressor due to poor air circulation through the air condenser	1. Check air-cooled condenser fan. If not working, to be replaced. 2. Check and clean air-cooled condenser
	Thermal protection is not working properly, usually caused by overheating of the compressor due to poor air circulation through the air condenser	Replace the unit's thermal protection sensor. Check if the condenser is clean – this means you can see through the condenser with a flash light
	Compressor's discharge or suction pressure is too high	Replace the unit
	Compressor motor has windings shorted, usually caused by overheating of the compressor due to poor air circulation through the air condenser or Inadequate low voltage to compressor usually caused by poor quality or non dedicated power line	Replace the unit
Unit runs OK, but run cycle is shorter than normal	Wrong thermostat settings, such as: 1. Temperature differential lower than 2F	Refer to Thermostat settings, such as: 1. Check and reset C1 (sensor differential)
	Thermostat not working properly	Replace the thermostat
	Probe not reading correctly	Replace the probe
	Glycol pump not working properly	Check and replace the pump
Unit operates long cycles or continuously	Wrong thermostat settings, such as: 1. SET POINT value is very low	Refer to thermostat settings, such as: 1. Check and/or reset SET POINT
	Refrigerated glycol has excessive load or poor insulation, or the system is inadequate to handle load	Check operating conditions and prevent heat leakage where possible. Ambient temperature must not exceed 100F.
	Return gas to compressor is too warm, usually caused by dirty condenser or faulty fan motor	1. Check air-cooled condenser fan. If not working or slow, to be replaced. 2. Check and clean air-cooled condenser
	Thermostat malfunction	Check thermostat settings and/or replace thermostat
	Probe is not reading correctly	Replace the probe
	Glycol pump is not working properly	Check and replace the pump
	Low glycol level in the bath	Check glycol level in the bath. Evaporator coils must be covered with glycol (fill level)
	Freon leakage	Replace the unit
Unit rattles or vibrates during operation	Loose parts or mountings, tubing rattle, compressor vibration	1. Place the unit an even surface 2. Identify sound or vibration source Screws to be tighten to avoid vibration

## **11. LIMITED PRODUCT WARRANTY**

UBC Group warrants that its products will be free from defects in material and workmanship, under normal use, regular service and preventative maintenance for 1 year from the date of sale. The warranty period for compressors is 3 years from the date of sale.

If a product is deemed defective by UBC GROUP within 90 days of the day of purchase or installation UBC GROUP, at its discretion, will either repair or authorize the repair of the product or replace the product.

After 90 days and up to 1 year from the date of sale UBC GROUP will either provide replacement parts to repair the product or repair the product at its service facility (subject to UBC's approval). Purchaser will be responsible for shipping the product to UBC GROUP for repair.

UBC GROUP's determination of defects is final.

Compressor's warranty is 3 years from the date of sale. It covers parts only and is valid if the product is used under normal conditions, with regular service and preventative maintenance.

UBC Group will be responsible for labor charges to repair or replace defective units only if the installation and warranty claim procedures have been followed as specified in the warranty claim instructions in the following pages.

UBC Group will only be responsible for labor charges as per the warranty repair guidelines.

UBC GROUP's warranty only covers the Product if it had operated under approved usage conditions outlined in the User or Operation Manual.

The customer is responsible for inspecting the units when received for damage caused during shipping and is responsible for reporting damages, non-cooling units or units with non-working components to UBC Group immediately.

UBC Group is not responsible for units with physical damage or water damage caused by negligence of the purchasing party.

UBC Group keeps all key components and complete units in its warehouses as replacements for parts or units deemed defective. Defective parts or units must be returned to one of UBC Group's warehouses at owner expense. UBC Group will ship replacements using standard ground shipping only. If expedited or overnight shipping is desired the owner will incur the charges.

**All warranty claims MUST be submitted directly to UBC Group:**

**Email:** [warranty@beer-co.us](mailto:warranty@beer-co.us)

**Fax:** 1 (866) 659-8904 US, 1 (905) 629-2577 Can.

**Phone:** 1 (888) 808-9286 US East, 1 (866) 995-9965 Can.

**All repairs must be first authorized by UBC GROUP. Under no circumstances shall UBC reimburse unauthorized repairs. Furthermore, unauthorized repairs in some cases may void the warranty.**

**CUSTOMER’S RESPONSIBILITIES:**

- A) To verify the product’s installation date for warranty purposes
- B) To pay for normal operational maintenance, adjustments and cleaning as per the UBC maintenance policy
- C) To pay for repair caused by improper installation and modifications made without UBC Group’s written approval
- D) To pay for damage resulting from electrical supply, water supply or drainage, flood, storm or other acts of God
- E) To pay for premium labor rates, holidays, overtime, etc., unreasonable travel time, flat rate service call charge, mileage or miscellaneous tools and material charges not listed on payment schedule and additional labor charges resulting from inaccessibility of the refrigerator or freezer.

**UBC GROUP IS NOT RESPONSIBLE FOR ECONOMIC LOSS OR SPECIAL, INDIRECT, OR CONSEQUENTIAL DAMAGES INCLUDING, WITHOUT LIMITATION, LOSSES OR DAMAGES ARISING FROM FOOD OR PRODUCT SPOILAGE CLAIMS AS A RESULT OF REFRIGERATION FAILURE.**

**12. RETURN GOODS POLICY**

No merchandise may be returned without prior authorization by UBC Group.

Packages without a UBC return goods number on them will not be accepted.

“Authorization for return” is for inspection purposes only. It is the sole discretion of UBC as to whether or not a credit/refund will be allowed.

All returns must be sent prepaid. COD’s will be refused.

All returns must include a legible copy of the UBC original invoice.

Used, altered or any non resalable items cannot be returned.

**Special order or close-out** items cannot be returned.

Items discontinued by UBC or its suppliers, or items shipped to the customer over 12 months prior cannot be returned, unless under warranty.

UBC reserves the right to levy a 20% restocking fee for any merchandise accepted.

A \$10.00 minimum shall apply for each return.

# 13. WARRANTY CLAIM FORM

Service invoice  
Number (if attached) \_\_\_\_\_

Return authorization number \_\_\_\_\_

See Instructions for completing enclosed

**\*COMPLAINT:**

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Symptoms and summary of diagnosis made are required. List hours and explanation for each repair made. Give exact location of any leaks.

Service Performed and parts replaced	Hours

⇒ **If the problem cannot be fixed and the unit must be replaced please call UBC to obtain an authorization number prior to sending the unit for warranty claim. Make sure to write that number on the top of this form.**

**See WARRANTY SERVICE GUIDE**

(Submit in U.S. Dollars only)

<b>LABOR</b>		<b>Labor Rate per hour</b> _____	<b>U.S.\$</b> _____
<b>CHARGES</b>	<b>Total hours</b> _____ *	<b>Amount of refrigerant used</b> _____ *	<b>U.S.\$</b> _____
	<b>Type of Refrigerant used</b> _____	<b>Price per Lb.</b> _____	<b>U.S.\$</b> _____
		<b>TAX (if applicable)</b>	<b>U.S.\$</b> _____
		<b>Total U.S. \$</b> _____	

## **13.1 INSTRUCTIONS FOR COMPLETING FORM:**

- All starred (\*) fields must be filled out completely
- All parts replaced must be listed in the claim form
- Must be submitted in legible form (print)
- All claims MUST be submitted directly to UBC Group:

**Email:** [warranty@beer-co.us](mailto:warranty@beer-co.us)

**Fax:** 1 (866) 659-8904 US East, 1 (905) 629-2577 Can.

**Phone:** 1 (888) 808-9286 US East, 1 (866) 995-9965 Can.

## **14. WARRANTY SERVICE GUIDE:**

When submitting a bill for warranty work, the hours submitted must be within the guidelines listed below and a prior authorization from UBC Group is required .

The time spent on the job should be multiplied by the straight time labor rate to determine the charge. UBC Group reserves the right to pay no more than the average commercial hourly rates within the particular territory or region of the country. To prevent delays in processing claims, a complete explanation of the diagnosis and repair is required. UBC Group realizes that diagnostic and repair times may vary depending on the problem and model.

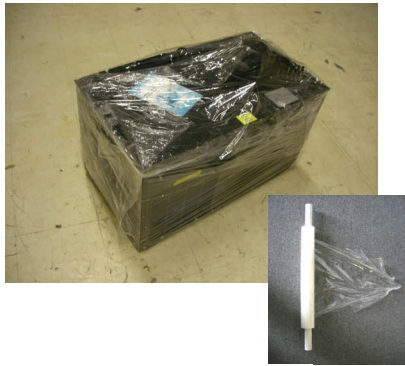
### **Labor time guidelines:**

Travel time	1 hour
Diagnosis (check and determine the probable cause of the problem; allowed only once)	1 hour
Part replacement (thermostat, pump & motor, start relay, fan & motor, etc.)	1/2 hour
Refrigeration (detect a Freon leak, fix and refill Freon)	1 hours
Compressor replacement	3 hours
Unit replacement	2 hours

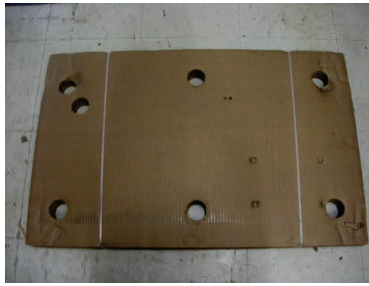
# 15. WARRANTY RETURN PACKING INSTRUCTION

- All returns must be authorized by UBC prior to shipping.
- UBC will provide with a ship to address once return is authorized
- A warranty claim form must be completed and faxed to UBC.
- Warranty units must be shipped on a pallet and freight only
- If you don't have the original packaging contact UBC to obtain one
- Units sent without proper packaging will not be processed for warranty claims

1. Wrap the entire unit with shrink wrap



2. Place the bottom pad on an even surface



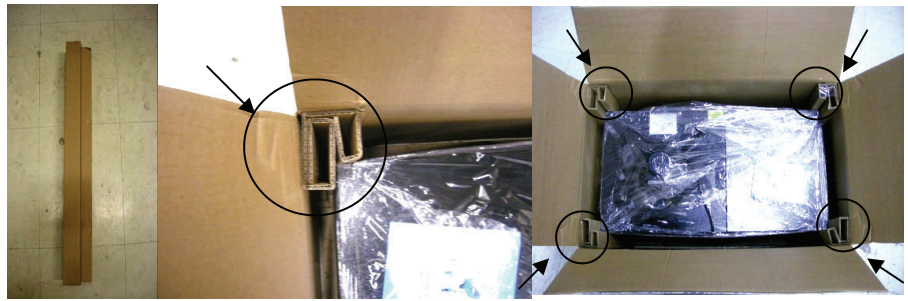
3. Place the unit on the bottom pad making sure it is centered



4. Place the box on top of the bottom pad



5. Place the cardboard packing corners inside the box in all 4 corners of the box



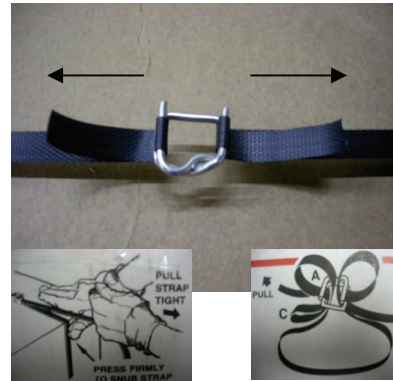


# Packing Instructions (continued)

6. close and seal the box with packaging tape



7. Fasten the box with 2 straps, one on each side as shown below. If you don't have the original straps and use a custom strap with buckles make sure to tighten securely. You may also use tape as long as the box is properly secured to the bottom pad.



8. Place the box on a pallet making sure it is centered. If shipping with other boxes make sure the box is entirely on the pallet



9. Secure the box to the pallet using straps, buckles or fasteners and strap guards. Make sure to fasten the strapping tightly to guaranty the box will not fall from the pallet during shipping. You may also use shrink wrap as long as the box is properly secured to the pallet.



4. Attach shipping labels and a "non stackable" label



\* The unit must always remain in its upright position, especially during shipping.

\* Do not flip the unit or box on the sides or its top!

