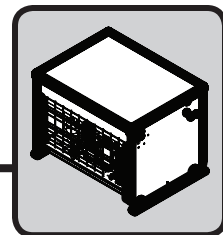
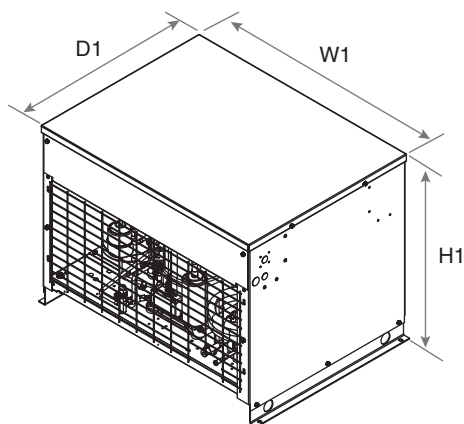


# Horizon Elite™ Ice Machine Installation Instructions for Remote Condensing Unit

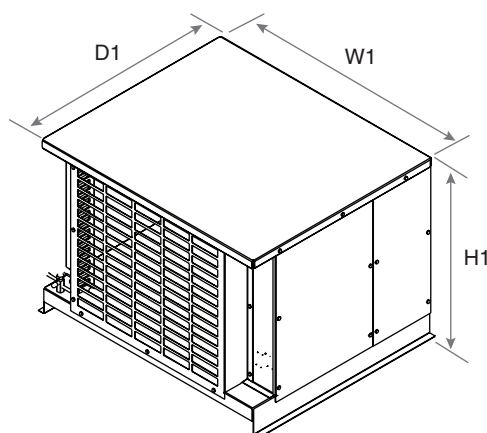
HCD/HMD/HCF/HMF1010R \_\_  
HCD/HMD/HCF/HMF1410R \_\_



1010/1410 single phase (Tecumseh)  
1010 three phase (Tecumseh)



1410 three phase (Larkin)



	Horizon Elite 1010 series	Horizon Elite 1410 series
<b>W1 Width</b>	36.25" (91.4 cm) – all models	36.25" (90.1 cm) – single phase (Tecumseh) 37.75" (95.9 cm) – three phase (Larkin)
<b>D1 Depth</b>	25.50" (64.8 cm) – all models	25.50" (64.8 cm) – single phase (Tecumseh) 28.25" (71.6 cm) – three phase (Larkin)
<b>H1 Height</b>	26.10" (66.3 cm) – all models	26.10" (66.3 cm) – single phase 19.75" (50.2 cm) – three phase (Larkin)
Electrical	single phase – 208-230/60/1 three phase – 208-230/60/3	single phase – 208-230/60/1 (Tecumseh) three phase – 208-230/60/3 (Larkin)
Operating power	single phase – 2.4 kW three phase – 2.2 kW	single phase – 4.2 kW (Tecumseh) three phase – 3.0 kW (Larkin)
Minimum circuit ampacity	single phase – 10.7 A three phase – 9.9 A	single phase – 19.3 A (Tecumseh) three phase – 15 A (Larkin)
Maximum overcurrent protection	single phase – 15 A three phase – 15 A	single phase – 30 A (Tecumseh) three phase – 15 A (Larkin)
Outdoor condensing unit operating limits (air temperature)	min -20 F (-29 C) max 120 F (49 C)	min -20 F (-29 C) max 120 F (49 C)
Maximum refrigerant line run length	100' (30.5 m)	100' (30.5 m)
Maximum line rise above evaporator	35' (10.7 m)	35' (10.7 m)
Evaporator mounting above condenser	15' (4.6 m)	15' (4.6 m)
Maximum refrigeration line drop without oil trap	15' (4.6 m)	15' (4.6 m)
Refrigerant charge	12.5 lb required at installation	12.5 lb – single phase (Tecumseh) 8.5 lb – three phase (Larkin) required at installation
Approximate ship weight	260 lb (118 kg)	270 lb (122 kg) – single phase (Tecumseh) 230 lb (104 kg) – three phase (Larkin)
Approximate net weight	250 lb (114 kg)	260 lb (118 kg) – single phase (Tecumseh) 210 lb (95 kg) – three phase (Larkin)

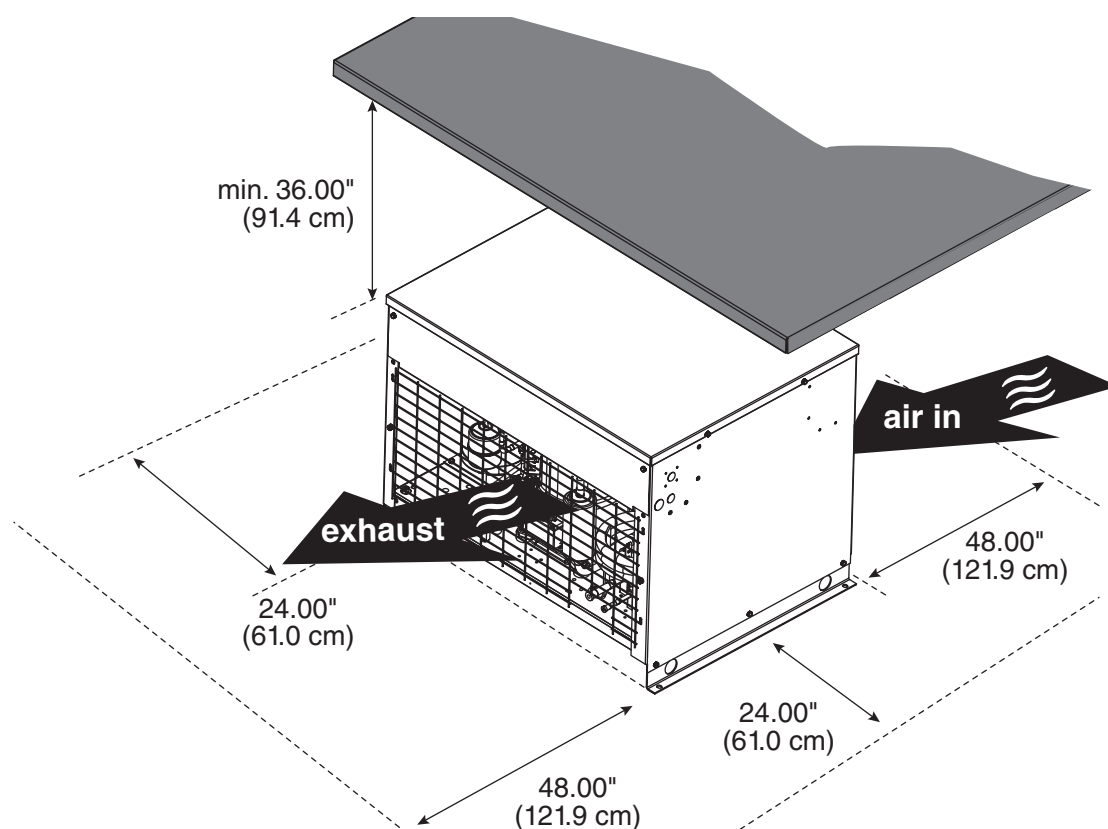
# Prior to installation, carefully unpack and inspect the contents of your condensing unit!

## Site preparation

To ensure proper performance, ease of service and warranty coverage, it is critical that you follow the requirements detailed in this manual. If you cannot meet these requirements or have questions, call our technical service group at 877.612.5086 for installation support.

1

### 1.1 Condenser Unit Clearances

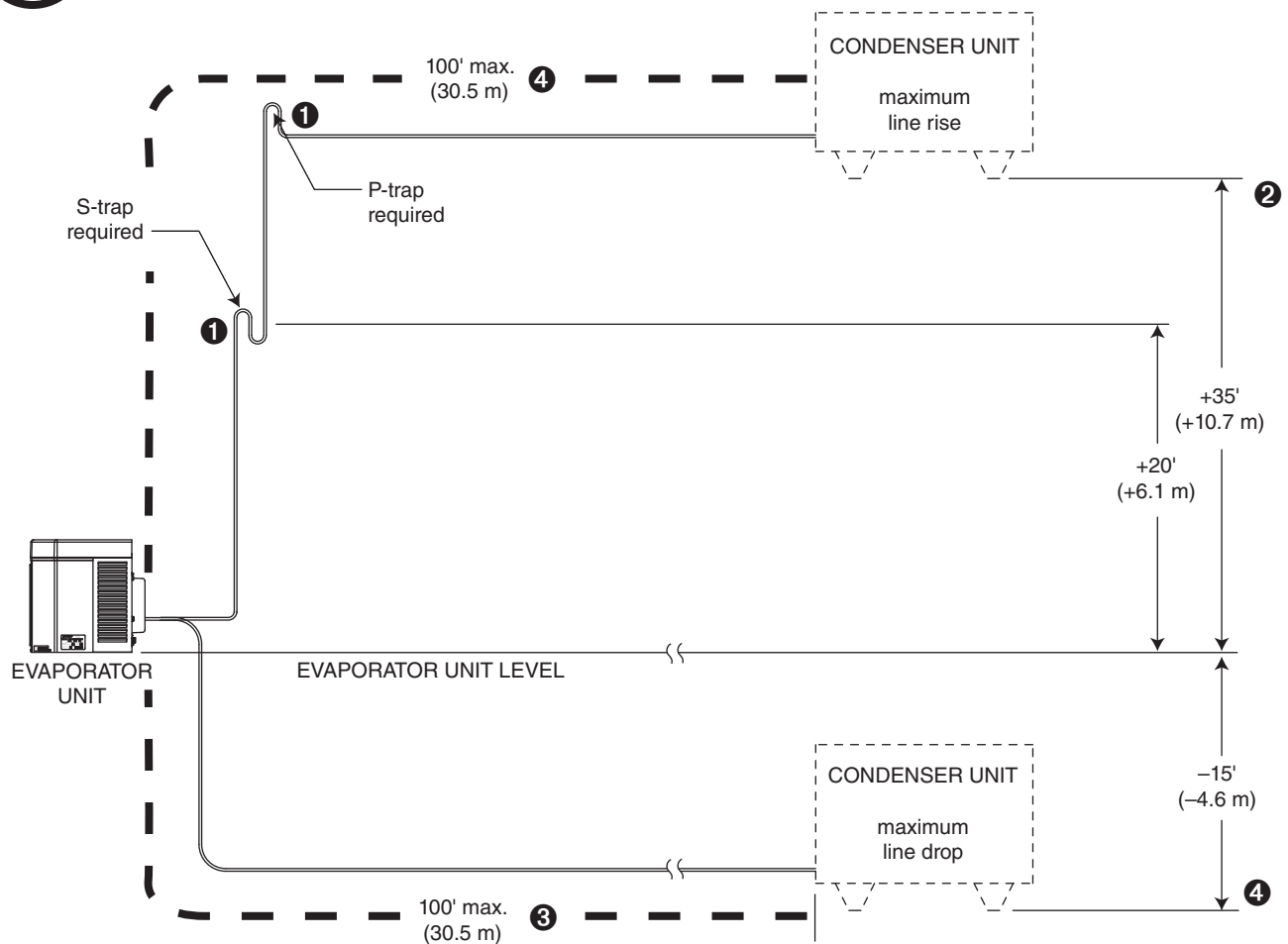


- Position condenser unit as shown.

Required clearances:

- Minimum 48" (121.9 cm) front and back
- Minimum 24" (61.0 cm) left and right
- Minimum 36" (91.4 cm) above

## 1.2 Condenser installation specifications

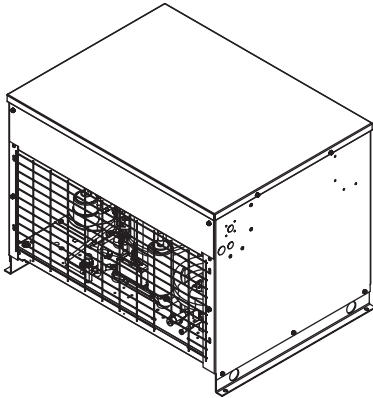


### Site layout:

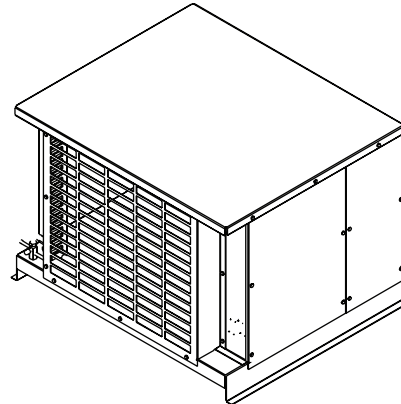
- Outdoor ambient temperature range: -20 F to 120 F (-29 C to 49 C)
- Installation with condenser unit elevations above 20' (6.1 m) require an S-trap at the midpoint of the rise and a P-trap at the top of the rise **1**
- Maximum line rise must not exceed 35' (10.7 m) **2**
- Maximum line set length must not exceed 100' (30.5 m) **3**
- Maximum line drop must not exceed 15' (4.6 m) **4**

## 2.1 Install condensing unit

1010/1410 single phase  
1010 three phase



1410 three phase (Larkin)



- Level unit
- Securely attach base of unit using holes found in base plate
- Required rack system capacity at 0 F (-18 C) evaporator (EPR supplied by installer).  
1010N: 7,700 Btu/hr (1940 kcal/hr)  
1410N: 10,000 Btu/hr (2519 kcal/hr)

## 2.2 Electrical requirements

Horizon Remote Single-Phase 208-230/60/1)

	Min Circuit Ampacity	Max Overcurrent Protection (MOP)
Horizon Remote Single Phase (208-230/60/1)		
1010	10.7A	15A
1410	19.3A	30A
Horizon Remote 3 Phase (208-230/60/1)		
1010 (Tecumseh)	9.94A	15A
1410 (Larkin)	15A	15A

- Refer to wiring schematic located in condenser unit electrical box



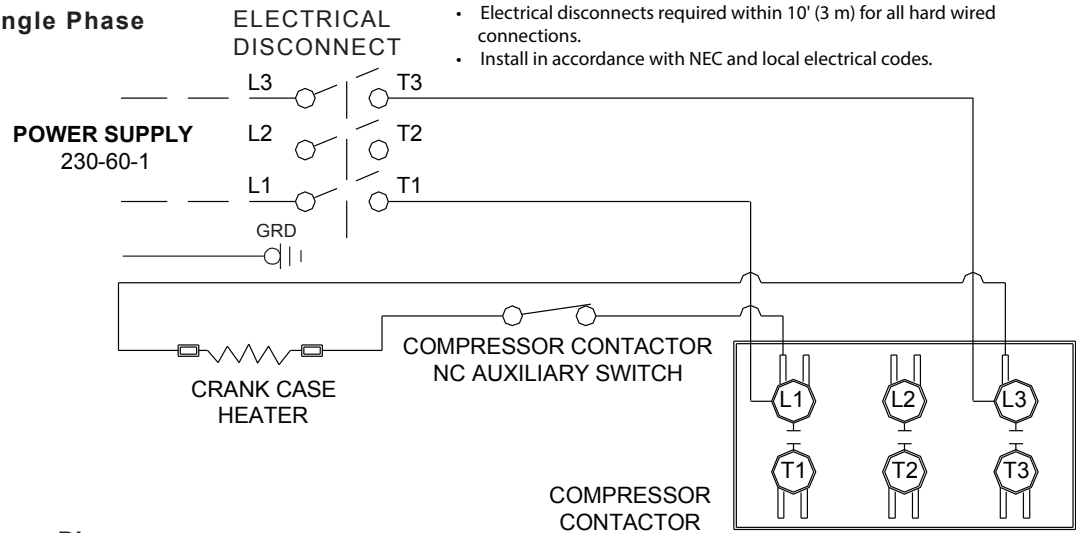
### CAUTION

- Electrical disconnects required within 10' (3 m) for all hard wired connections
- Install in accordance with NEC and local electrical codes

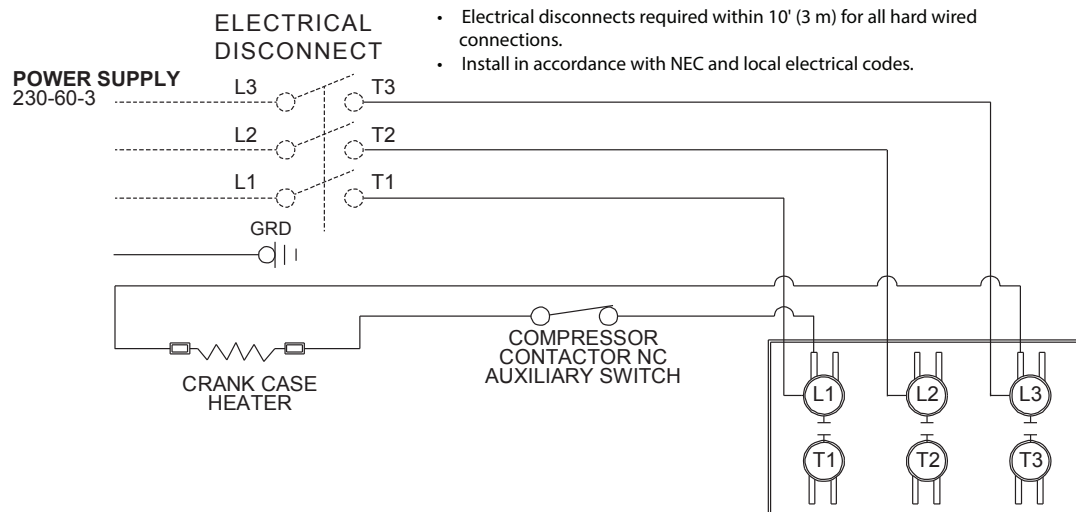
## 2.3

### Electrical connections at contactor

#### Single Phase



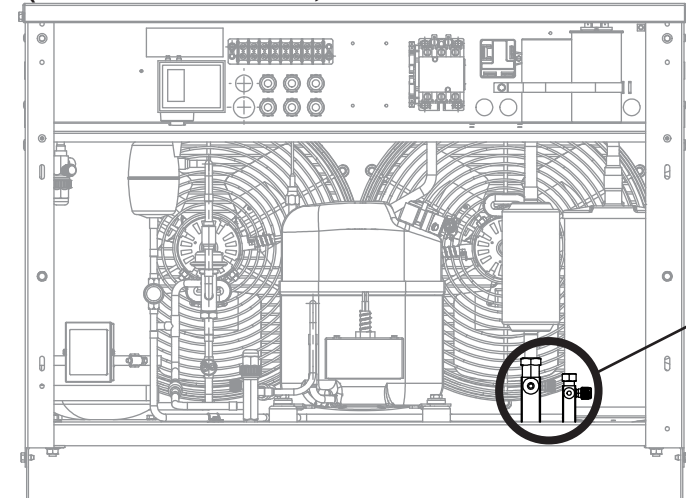
#### Three Phase



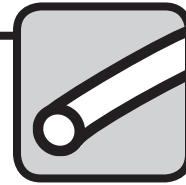
## 2.4

### Condensing unit refrigeration line-set connection point

(Tecumseh unit shown, but location is same for all units)



**1010/1410:**  
5/8" suction  
3/8" liquid



### 3.1 Refrigeration line installation: 5/8" suction / 3/8" liquid line (1010, 1410)



#### CAUTION

- The installer of the refrigeration line set must be USA Government Environmental Protection Agency (EPA) certified in proper refrigeration handling and service procedures
- A qualified person must perform all roof or wall penetration
- Do not form unwanted traps in refrigeration lines. A service loop is not considered an oil trap.
- Never coil excess refrigeration tubing
- The compressor oil rapidly absorbs moisture. Minimize the exposure of the refrigeration system by not releasing the condenser unit or evaporator unit holding charge until all line connections are finished and the system is ready for evacuation.



#### WARNING

- This unit contains an R404A holding charge

1. Make and connect line set run from the condensing unit to the evaporator unit with all specifications found in the installation specifications section. Do not overheat shut off valves on the condenser unit or evaporator unit.

**Note:** Insulate entire suction line (not the liquid line) including shut off valves to prevent condensation.

2. Leak check field joints via the evaporator unit service valves.
3. Evacuate line set via the evaporator unit service valves.

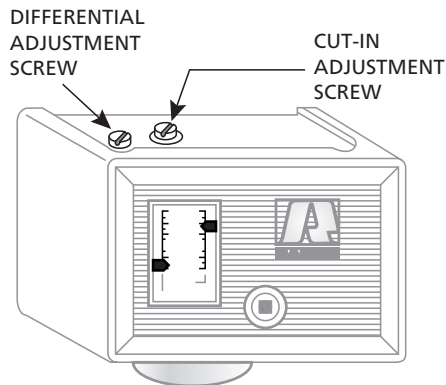
R404A Ice Machine Charge Specifications		
Line Run	Total Charge 1010/1410 single phase, 1010 three phase (Tecumseh)	Total Charge 1410R three phase (Larkin)
0 - 100' (0 - 30.5 m)	12.5 lb (5.7 kg)	8.5 lb (3.9 kg)
100' + (30.5 m+)	not recommended – consult factory	

Note: Condensing unit shipped with 0.5 lb R404A charge.

5. Open the liquid line service valve and suction line service valve on the evaporator unit and condenser unit.
6. Open the liquid line valve on the receiver, then the suction line valve on the compressor unit.
7. Liquid charge unit through liquid line shut off valve on the evaporator unit or receiver valve on the condensing unit.
8. Isolate the refrigerant tank from high pressure side on the system.
9. Turn on power to condensing unit and evaporator unit.
10. Complete system charge through low pressure side.



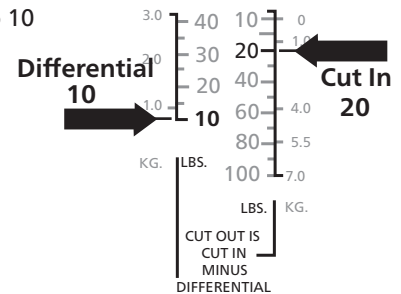
## 4.1 Set low-pressure switch - if applicable



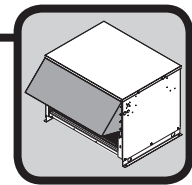
- 1) Adjust the top LEFT screw until the pointer is set to 10 (the differential).
- 2) Adjust the top RIGHT screw until the pointer is set to 20 (the cut-in).

### EXAMPLE

Cut In	Differential	Cut Out
20	-	10



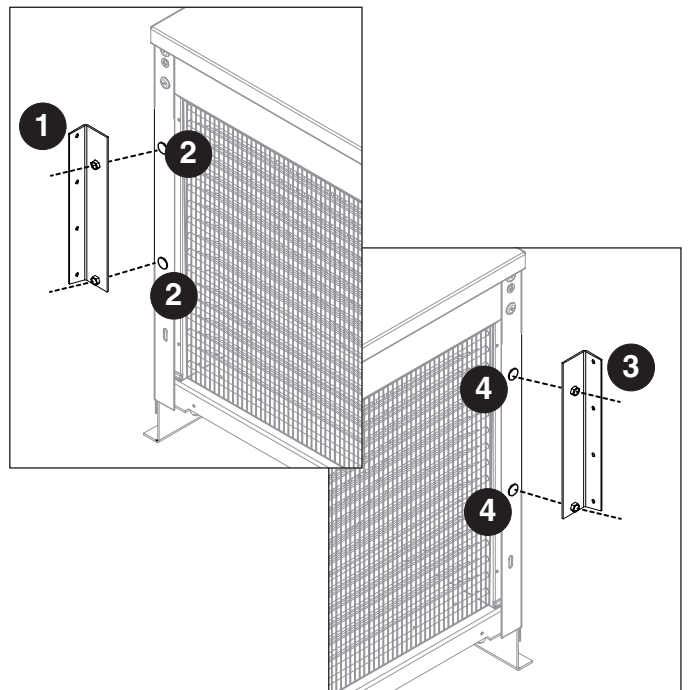
# Hail hood



## 5.1 Install hail hood (Tecumseh units only)

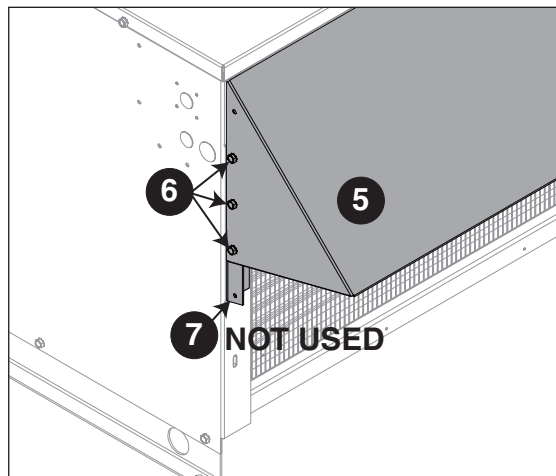
Please remove the condenser enclosure top to access the following parts:

- Left and right brackets (not interchangeable)
  - Hail hood
  - 1/4 x 20 x 1/2 hex head screw (10)
1. Locate the left bracket (1) and install using two supplied screws (2).
  2. Locate the right bracket (3) and install using two supplied screws (4).



3. Install hail hood (5) to brackets using the remaining six screws (6).

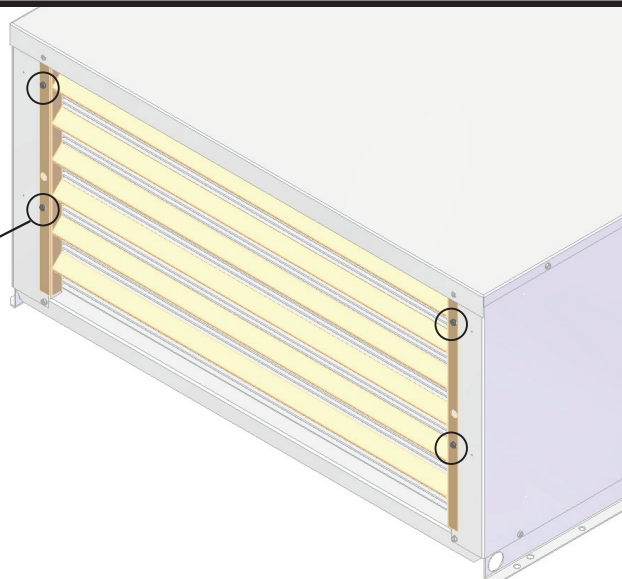
**Note:** The bottom hole in the bracket is *not* used when mounting the hail hood (7).



### 5.1 Install hail hood (Larkin units only)

1. Hail hood comes factory mounted. To remove hood for condenser cleaning, please remove the four (4) hex head screws. Reinstall after cleaning using the same four screws.

Hex Head  
Screws





**NOTICE**

**Ice machine MUST be cleaned and sanitized prior to operation!**

Consult Operation and Service Manual provided with ice machine for cleaning and sanitizing instructions.



## 6.1 Verify operation

- Turn dispenser power ON if applicable
- Check current draw of compressor to verify correct electrical operation
- Put a piece of ice on bin thermostat or hold a cup under the shuttle actuator on the bin/dispenser to verify that the evaporator unit shuts OFF; condensing unit pumps down and shuts off.
- After shut off, restart the ice machine

### Horizon Condenser Unit Compressor Amperage

#### Single Phase

Model Number	Condensing Unit	Running amps (+/- 10%)
1010R 01075365	AJA7490ZXDPN (Tecumseh)	7.4
1410R 01075373	AWA9513ZXDPN (Tecumseh)	13.7

#### Three Phase

Model Number	Condensing Unit	Running amps (+/- 10%)
1010R 01113125	AWA9490ZXTPN (Tecumseh)	6.7
1410R 01113133	LZT015M6CFIM (Larkin)	10.7





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