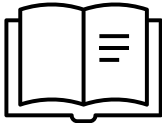
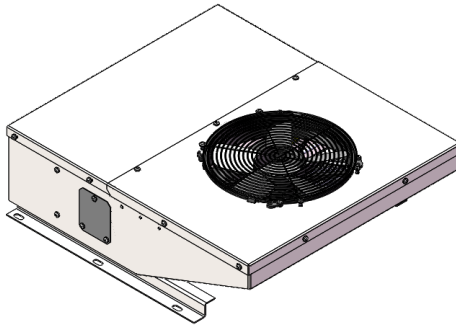




VISIONAIRE, INC.

47-7052

Rooftop HVAC System
INSTALLATION INSTRUCTIONS



NOTE:

1. *Please read instructions completely before beginning work.*

47-7052 Configurations	
VISPN	Description
47-7052-1190	12V, No Powerpack
47-7052-2190	24V, No Powerpack
47-7052-1790	12V, 19CC Powerpack
47-7052-2790	24V, 19CC Powerpack
47-7052-1390	12V, 16CC Powerpack
47-7052-2390	24V, 16CC Powerpack

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Installation Kit Bill of Materials

Additional Components: 34-7052-100			
VISPN	Quantity Per Parent	Unit of Measure	Description
12-39-1000	4.00	EACH	KAZOO TUBE FOR DRAIN HOSE
17-30-3800	12.00	FOOT	DRAIN HOSE - 3/8 PER FT
19-13-0223	1.00	EACH	POLYURETHANE, SIK 252, WHITE
34-7052-100	1.00	EACH	BEZEL ASSEMBLY
V201-0014	1.00	EACH	1/4 - 20, 3/4" LONG, KNURLED,
12-40-1222	2.00	EACH	KALORI LOUVER, Dia. 4.25", HOL
12-56-1005	1.00	EACH	MECHANICAL CONTROLLER, ACH
12-59-7000	1.00	EACH	LIGHT, LED, 12V MAP LIGHT
15-10-1022	1.00	EACH	FILTER, 12.5" X 3.50"
32-7055-003-00	1.00	EACH	BEZEL ASSEMBLY, ABS
36-7052-002	1.00	EACH	7052 BEZEL HARDWARE INSTALL KI
36-7052-003	1.00	EACH	7052 UNIT INSTALL HARDWARE KIT

Table 1: Additional Components: 34-7052-700

PART NUMBER	DESCRIPTION	LENGTH	QTY.
36-038C100MBHG5	BOLT, 3/8"-16 X 1.00" LONG, HEX HEAD, ZINC PLEATED, GRADE5	1"	4
36-038FWZP	WASHER, FLAT, 3/8", ZINC PLATE	N/A	4
36-038LWZP	WASHER, LOCK, 3/8", ZINC PLATED	N/A	4

Table 2: 36-7052-002 UNIT INSTALL HARDWARE KIT

PART NUMBER	DESCRIPTION	LENGTH	QTY.
36-0000-480	# 8 X 1/2" PTH BLK SMS	1/2"	2
36-0000-640	J CLIP - 1/4-20	N/A	1
36-010FLN55	#10-32 LOCKING NUT, WITH PLASTIC	N/A	4
36-010FW55	FLAT WASHER, #10, SS	N/A	4
V201-0014	1/4-20, 3/4" LONG, KNURLED,	3/4"	1

Table 3: 36-7052-003 Bezel Hardware Install Kit

Overall Dimensions

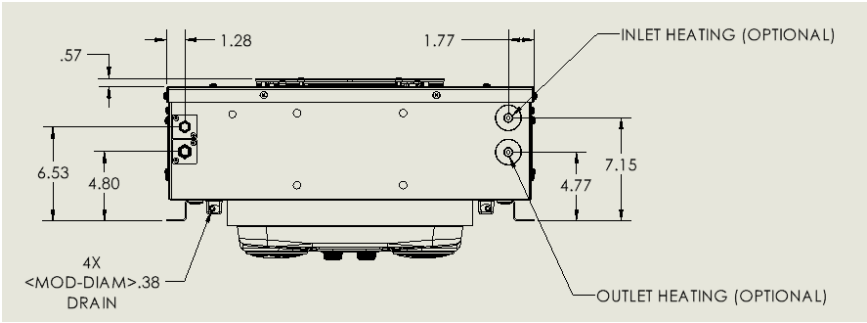


Figure 1 Rear view 47-7052-1190/2190

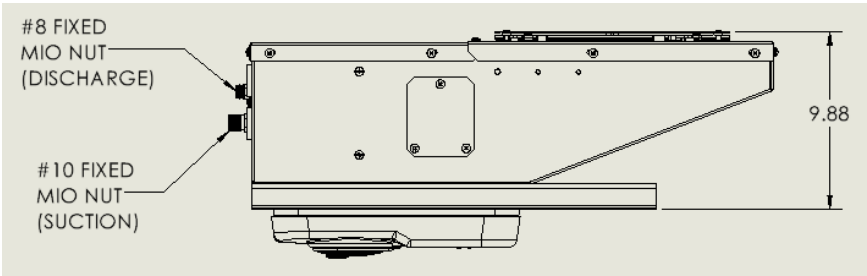


Figure 2 Side view 47-7052-1190/2190

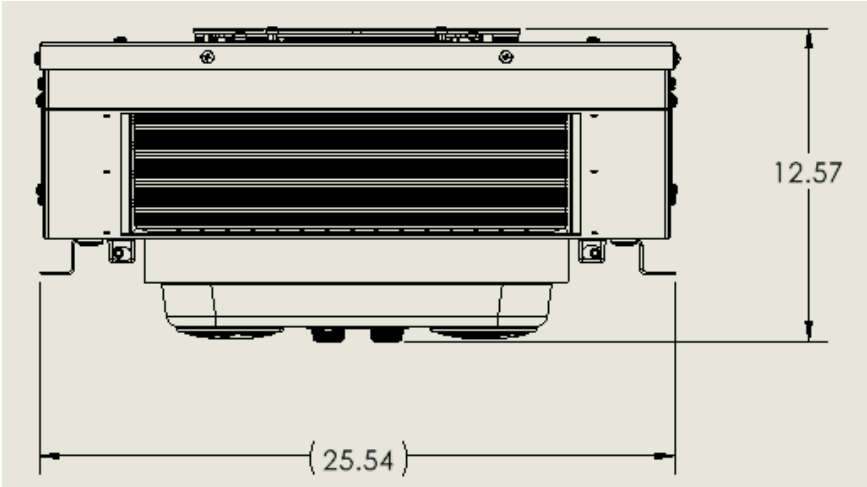


Figure 3 Front view 47-7052-1190/2190

A. Mounting the Unit

1. Remove the headliner or loosen enough to drop the center portion (Disregard if no headliner).
2. Determine the most suitable location for mounting the air conditioning unit.
 - a. Mark the front-to-rear centerline of the cab on the outside of the cab roof.
 - b. Consider the position of the horn(s) and marker lights.
 - c. Ensure that air flow to the unit is not obstructed.
 - d. Do not mount the unit with the front lower than the rear, as this will prohibit water drainage.
3. Avoid cutting roof stiffeners if possible. If stiffeners are cut or roof is weakened due to the cut-out, reinforcement may be required.
4. Tape the template located on side of the box to the roof at the desired location. Mark the mounting hole location and the roof cut-out area (punch or scribe the roof).
 - a. Note mounting location for legs Figure 11: 90-7052-005
 - i Position legs flush with the rear of unit seen in Figure 5 Mounting position 1
 - ii Extending past rear of unit based on power pack install or replacement of similar unit seen in Figure 4 Mounting position 2

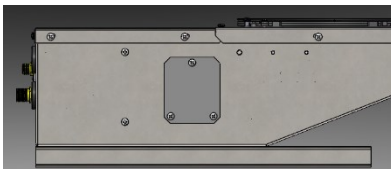


Figure 5 Mounting position 1

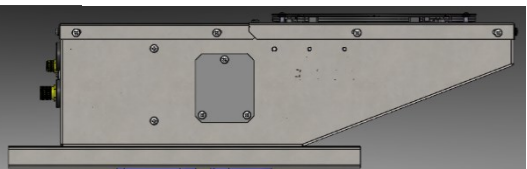


Figure 4 Mounting position 2

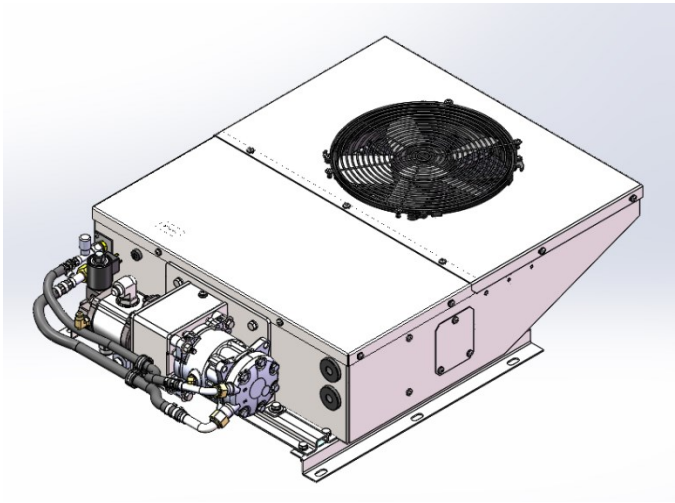


Figure 6 47-7052-Configuration with optional power pack

5. Using the template provided on the side of the shipping box, and below in Figure 11: 90-7052-005
 - a. Cut the cab roof where marked and drill the 7/16-inch diameter mounting holes.
 - b. Remove burrs and sharp edges.
6. Temporarily install the headliner and trace the cut-out onto it from the cab roof. Remove the headliner and cut out the area marked.

NOTE: Use caution and do not cut the headliner opening larger than the roof opening (check against template if in doubt).

7. Should roof reinforcement be required, fabricate, and install at this time.
8. Clean the outside roof area around the cut-out and mounting holes using Sikaflex 205 or equivalent cleaner.

9. Apply a Sikaflex 252 (VISPN: 19-13-0223) to the holes of the 7/16-inch diameter holes previously drilled through the cab. Area of coverage should be about the size of a dime.
10. Adhesive side of gasket attaches to the unit shown in Figure 7: 90-7052-003 Install instructions Sheet 1
11. Apply Sikaflex 252 (VISPN: 19-13-0223) generously to the *bottom outer edge of the gasket*. (Do not get sealant under the gasket)
12. (Lifting eye bracket VISPN:30-0000-007) are sold separately. shown in Figure 8: 90-7052-003 003 Install instructions Sheet 2
13. Set unit on cab roof. Line up mounting holes as close possible.
14. Apply Sikaflex 252 (VISPN: 19-13-0223) generously to the *bottom outer edge of the gasket* that is attached to the unit.
15. Customer should provide adequate installation hardware based on roof thickness and your specific application requirements.
 - a. Visionaire recommends bolt diameter of 3/8" minimum.
16. Install and tighten hex bolts evenly.


B. Refrigerant Hose Installation

1. Install "O" Rings to fittings on AC Hoses (customer supplied)
 - a. Connect hoses to unit.
 - b. Unit hose connections are shown in Figure 2 Side view 47-7052-1190/2190
2. Route hoses over the top of the cab and down the back wall to the compressor. On tilt cab vehicles, route hose to the cab pivot point and then to compressor.

3. Use clamps to secure hoses and prevent hose movement. Hoses must not come in contact with hot vehicle components, and they should not be subjected to mechanical abrasions.
4. Install heating hoses to unit using connections on unit. See Figure 1.

C. Drain Hose Installation

1. Make sure drain tubes are routed with a vertical run in them. Secure drain tubes with tie wraps. Do not overtighten tie wraps as this could cause inadequate drainage.
2. Inspect to be sure that drain hoses are not kinked or squished, especially at the back of the cab.

 **3. Install rubber kazoo tubes** (VISPN:12-39-1000) at the end of the clear drain hose (VISPN:17-30-3800). **Installation of the kazoo tubes are necessary for the system to drain properly.**

- a Use tie wraps (customer supplied) to secure kazoo tubes (VISPN:12-39-1000). Do not overtighten tie wraps

D. Wiring

*See Diagram below in **Error! Reference source not found.***

NOTE: Unit is wired for a negative ground.

1. Disconnect battery.
2. **Orange and Black wires (condenser fan circuit):** Connect the Orange wire to the ignition switch supplied power through a

30-amp circuit breaker (20 amp/24V) and the black wire to ground.

3. **Red and Black wires (blower motor circuit):** Connect the red wire to ignition switch supplied power through 30-amp circuit breaker (20 amp/24V) and the black wire to ground.
4. **Green wire (compressor clutch signal):** Route the wire around the hinge point before connecting to compressor clutch on tilt-cab installations.

NOTE: Circuit breakers are customer supplied

E. Bezel

1. See Figure 7: 90-7052-003 Install instructions Sheet 1, and Figure 9: 90-7052-003 003 Install instructions Sheet 3
2. Install headliner (if it was removed).
 - a For roof thickness up to 1/2 inch install bezel as normal, for roof thickness 0.5" to 1" inch foam spacer will be needed between bezel and unit to ensure fit and function of unit. (SPACER VISPN)
3. Remove filter from bezel using thumb screw.
4. Remove louvers. Place bezel on headliner locating on the four threaded studs.
5. Install the provided #10 flat washer 36-010FWSS), locking hex nut (36-010FLNSS) onto each threaded stud. Tighten until snug. Roughly 10lb-ft of torque.
 - a There are 2 studs located behind the filter, and 1 stud located behind each louver. See Figure 7: 90-7052-003 Install instructions Sheet 1.

6. Re-install filter. The filter can be attached using the provided thumb screw (V201-0014).
7. Install the controller and louvers. The controller and louvers can be installed by placing them in their designated locations and snap into place

F. Refrigerant Charging

1. Be sure that the unit is securely fastened to the roof of the cab before attempting to charge the system.
2. Use Refrigerant R134a. The unit accepts 2.2 (+.25/-0) lbs.; 1 (+0.1/-0) Kg of refrigerant (indicative of a system with 10 ft of hose)
3. **Reference the unit compressor for guidelines on the type of oil that should be used.** The unit accepts 3.3+/- .25 Oz: 1.5 +/- 0.01 Kg ((indicative of a system with 10 ft of hose)

NOTE: If more than 10 ft of refrigerant hose is required, please call Visionaire Inc at 1-(972)-647-1056.

G. REFRIGERANT CHARGING PROCEEDURE

Required tools:

- Refrigeration Quality Vacuum Pump (6 CFM)
- Manifold Gauge Set (R-134a)
- Pressure Vacuum Meter (micron gauge).
- Digital Scale (accurate in Ounces)
- Refrigerant Tank Heater or other approved heating device
- Protective eyewear

Supplies required:

- R134a Refrigerant

Charge Procedure Notes:

- Service to this system should only be performed by properly trained personnel using appropriate tools.
- Any time the cooling unit has had service that requires disconnecting refrigerant fittings or if air is allowed to enter the refrigerant system, the refrigerant receiver/dryer should be replaced.
- These instructions assume you are starting with an uncharged system.
- If any refrigerant remains in the system, it should be properly recovered before charging.
- Never charge this system by using gauges alone.
- This procedure is to be performed with the engine and compressor off.
- Ensure it cannot be started while you are performing this service.

Procedure:

1. Connect the Manifold Gauge set to both Service ports located on the Compressor fittings and to the Vacuum Pump.
2. Start the Vacuum Pump then open valves on the pump and the Manifold Gauge Set.
3. Observe the low side gauge and Pressure Vacuum Meter as the pump runs. Evacuate the circuit to 500 microns
4. Isolate the vacuum pump from the refrigerant circuit and wait 5 minutes. Read the micron gauge again to verify that the pressure

did not rise more than 500 microns within that 5-minute time frame.

5. If the micron gauge rises more than 500 microns (to exceed a gauge reading of $500 + 500 = 1000$ microns) at the end of the 5 minutes, either a leak is present, or an unacceptable level of moisture remains in the circuit and the system should NOT be released for operation. If the micron gauge reads a gain of less than 500 microns during the 5-minute wait, the circuit is acceptably tight and dry.
6. Close gauge and pump valves. Turn off Vacuum Pump. Observe low side gauge after the pump is off for 10 minutes. If the vacuum level decayed there is likely a leak.
7. Disconnect Vacuum Pump and attach refrigerant container.
8. Place refrigerant container on Scale.
9. Attach Heater and turn on.
10. Set scale to zero or make a note of the indicated weight.
11. Open the refrigerant valve on the refrigerant container, Manifold Gauge Set, then the Red, high pressure valve only. Do NOT open the Blue, low pressure valve.
12. Observe the scale. Refer to the serial tag on the system for the correct amount of refrigerant to add. Allow the refrigerant to enter the system, then close all valves.
13. For belt driven compressors, turn the faceplate of the compressor several times by hand or with a wrench before starting engine or compressor.

14. Disconnect and stow Manifold Gauge Set and refrigerant.

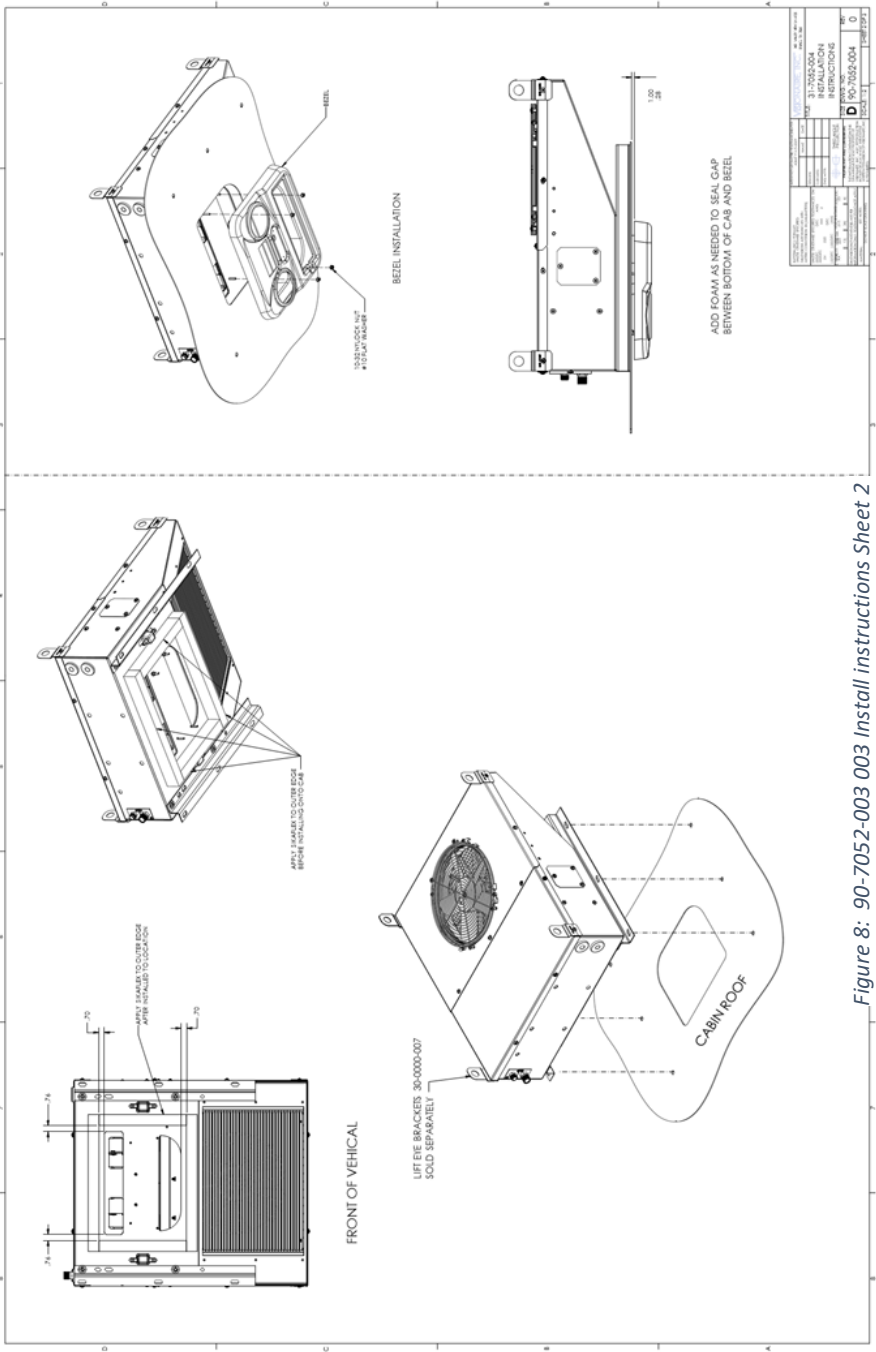
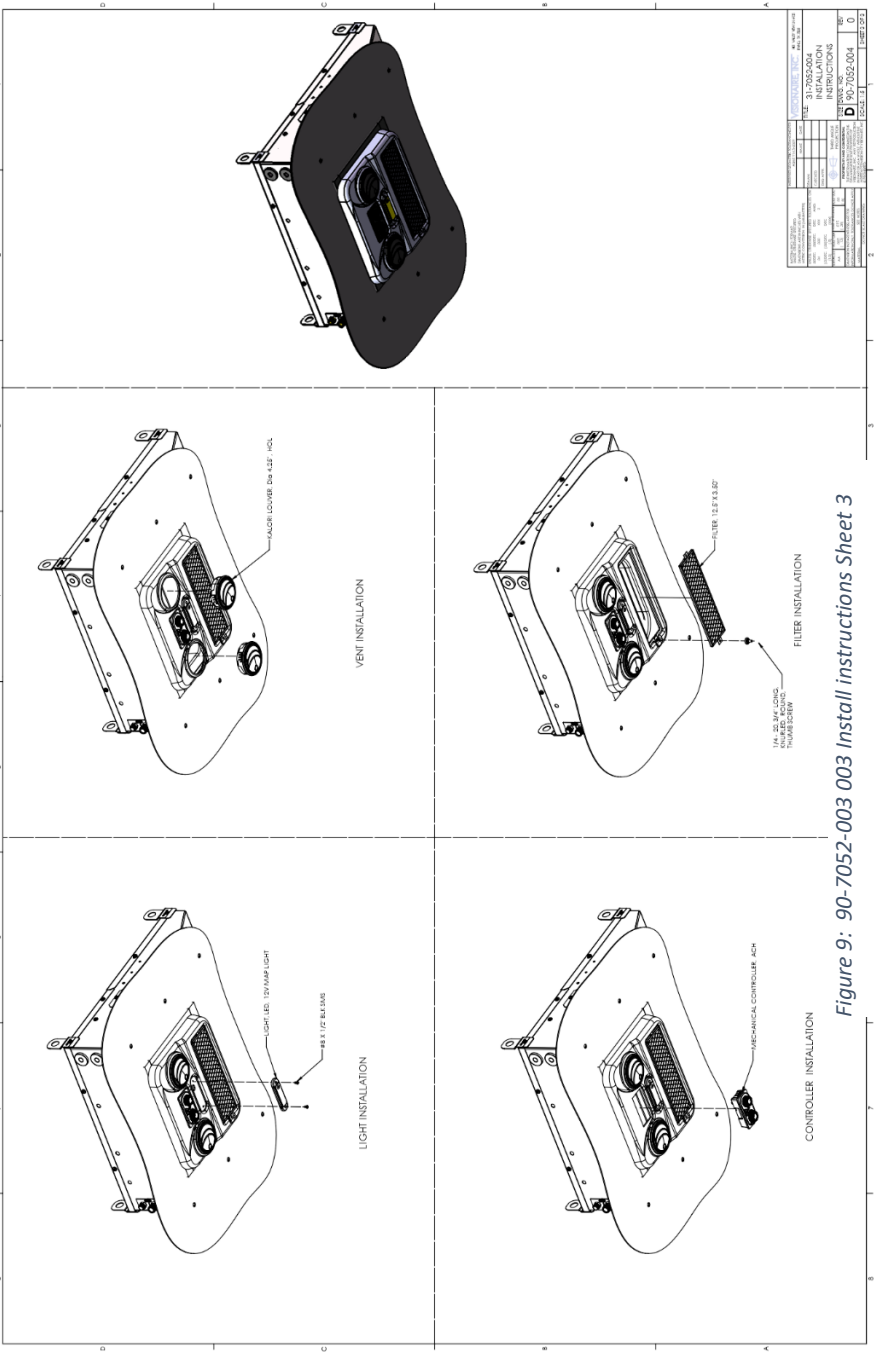


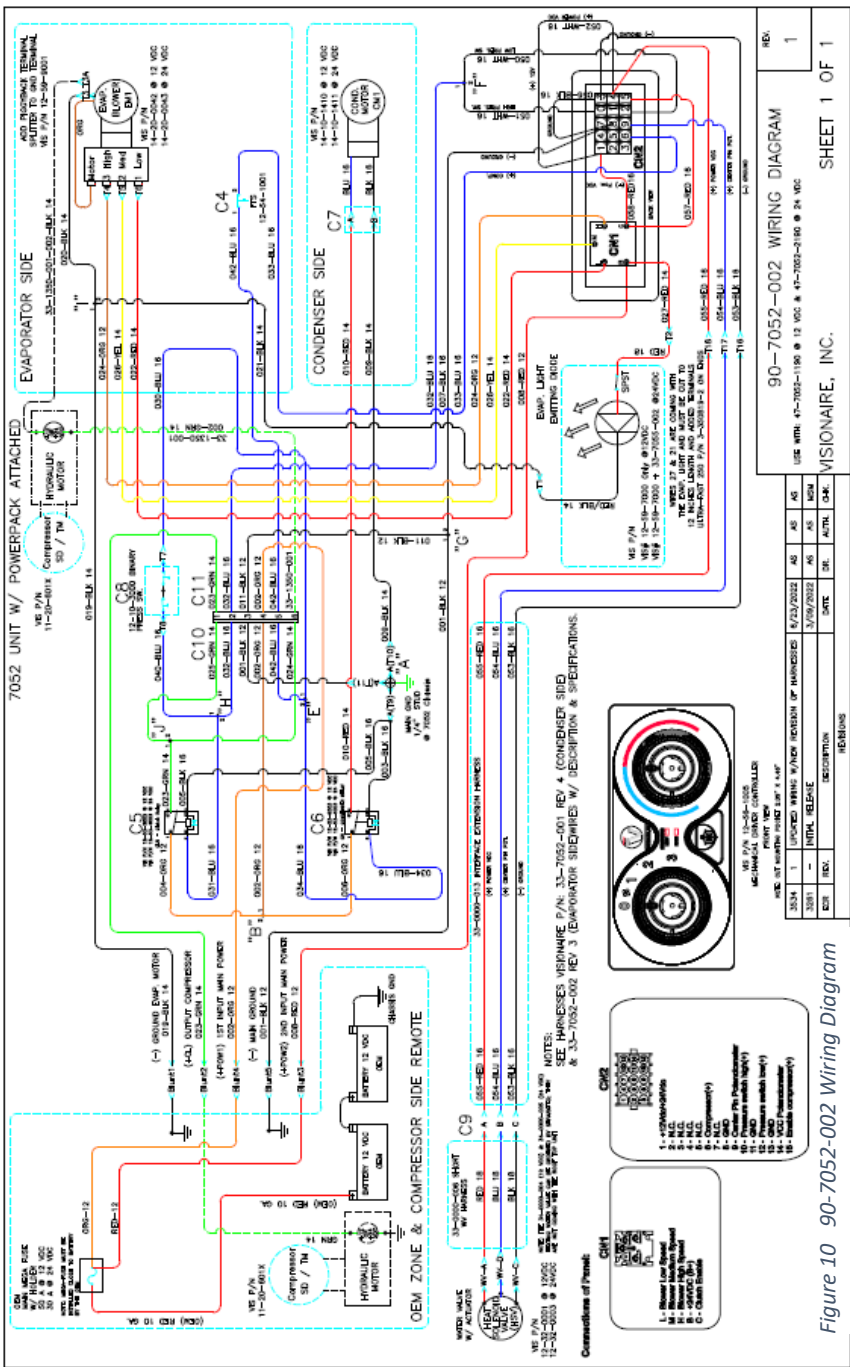
Figure 8: 90-7052-003 003 Install instructions Sheet 2



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30	0	0	0	0	0

317-7052-004
 INSTALLATION INSTRUCTIONS
 PARTS NO. 7052-004
 90-7052-004
 15-2023

Figure 9: 90-7052-003 003 Install instructions Sheet 3



90-7052-002 WIRING DIAGRAM		
REV.		1
USE WITH: 47-7052-0186 @ 12VDC & 47-7052-0186 @ 24VDC		

VISIONAIRE, INC.			
	DATE	BY	REVISION



- CH2:**
- 1 - 12VDC
 - 2 - 24VDC
 - 3 - 12VDC
 - 4 - 24VDC
 - 5 - 24VDC
 - 6 - 24VDC
 - 7 - 24VDC
 - 8 - 24VDC
 - 9 - 24VDC
 - 10 - 24VDC
 - 11 - 24VDC
 - 12 - 24VDC
 - 13 - 24VDC
 - 14 - 24VDC
 - 15 - 24VDC
 - 16 - 24VDC
 - 17 - 24VDC
 - 18 - 24VDC

Figure 10 90-7052-002 Wiring Diagram

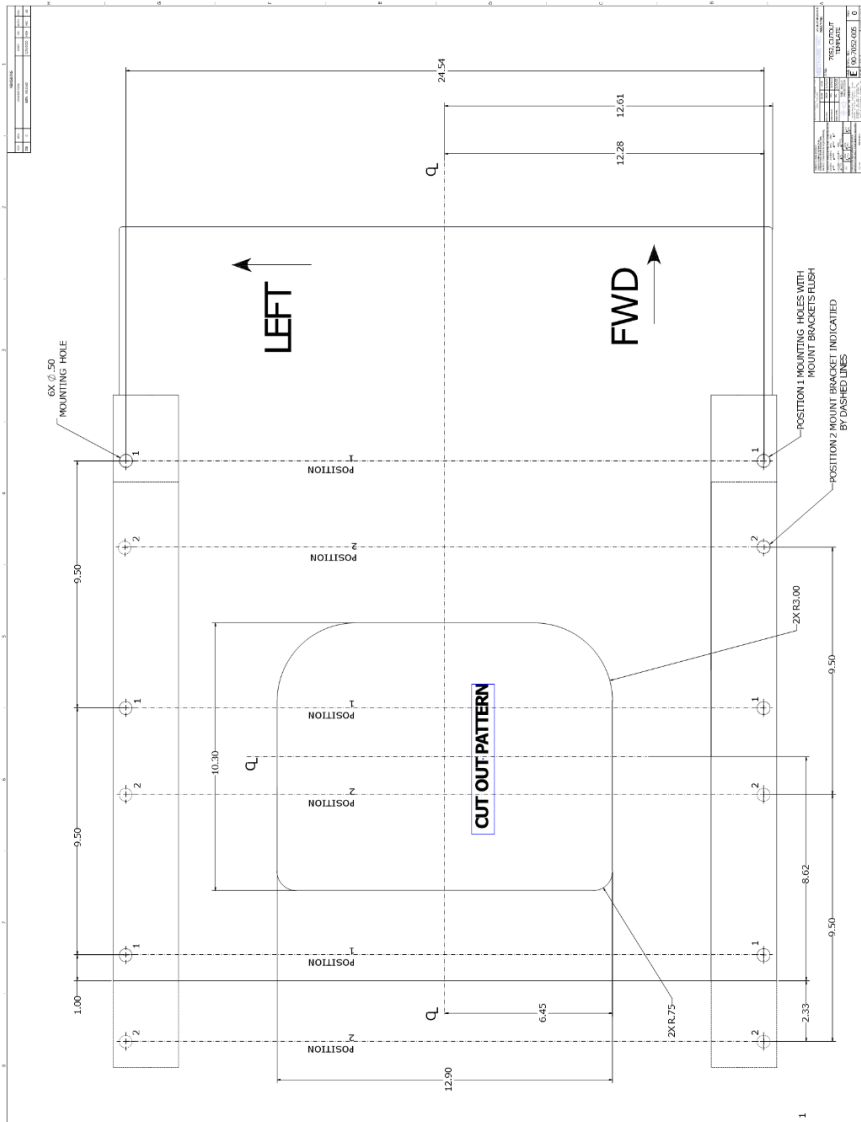


Figure 11: 90-7052-005 Cut Out Template

REVISION	Modification Details	RELEASED
ECR/ECN#: 3483 Revision #: 0-	Initial Release	By: Andrew Stewart & Shawn McFall Date: 6/23/22
3860	UPDATED FOR SYSTEM MOUNTING GASKET	ACS/4/13/2023