

Carrier

A United Technologies
Company

Carrier Transicold Division
Carrier Corporation
P.O. Box 4805
Syracuse, New York 13221

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CROSS REFERENCE INDEX

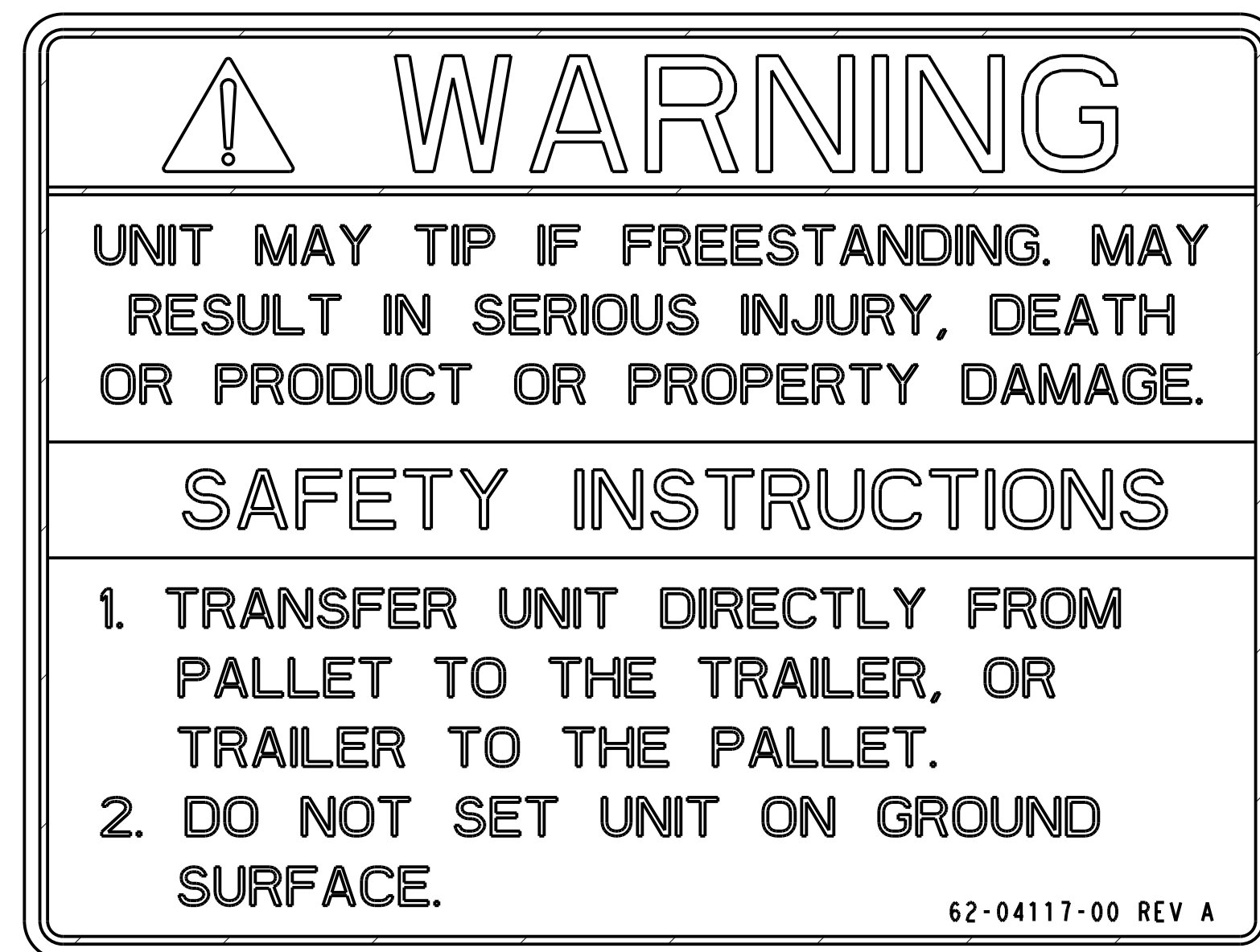
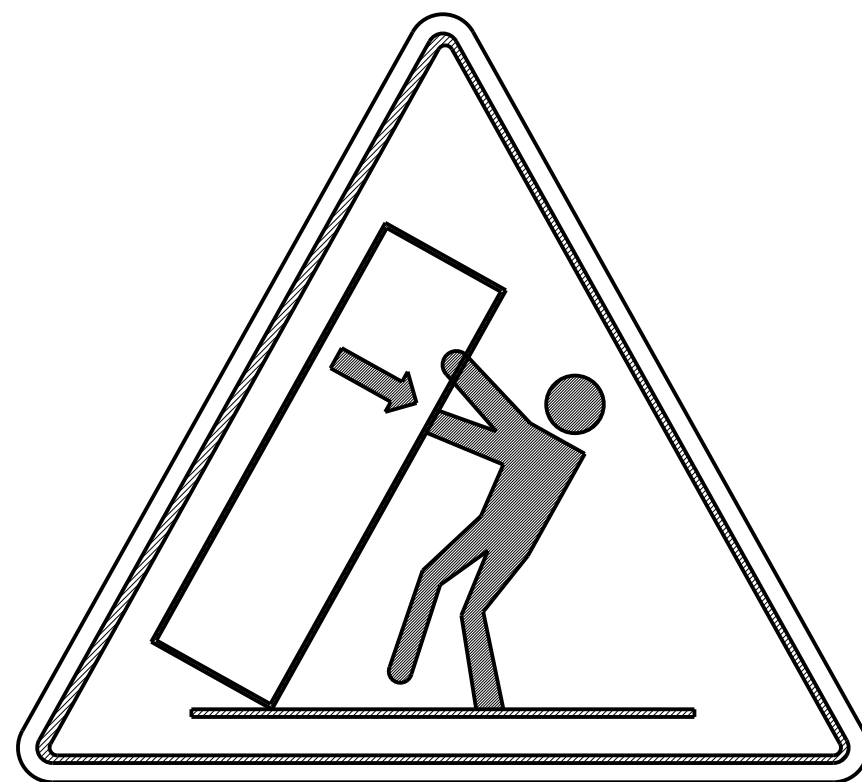
DESCRIPTION	INSTALLATION DRAWING NO.	KIT NO.
LED LIGHT BAR INSTALLATION INSTRUCTIONS	98-03246	76-02000-00

PART. NO.	MODEL DESCRIPTION
98-03308-00	VECTOR 5100 (DOMESTIC) STANDBY ONLY
98-03308-01	VECTOR 5100 (EMEA) STANDBY ONLY

NOTES:

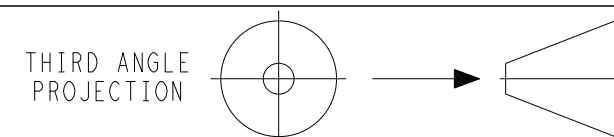
- 1.0 COMPLETE INSTALLATION INCLUDES AND IS NOT LIMITED TO:
 - 1.1 UNIT INSTALLATION
 - 1.2 BATTERY INSTALLATION, INCLUDING DRAIN HOSE
 - 1.3 COMPLETION OF PRE-DELIVERY INSPECTION (PDI) PER MODEL
 - 1.3.1 UNIT PREP AND INITIAL ADJUSTMENTS
 - 1.3.2 CHECKLIST
 - 1.3.3 UNIT RUN IN PER PDI CHECKLIST
 - 1.2.4 WARRANTY REGISTRATION CARD SUBMITTAL
 - 1.4 DEFROST LINE ROUTING AND CLAMPING
- 2.0 THE TRAILER OR BOXCAR STRUCTURE MUST BE EVALUATED BY THE TRAILER OR BOXCAR MANUFACTURER TO DETERMINE IT'S ABILITY TO WITHSTAND THE LOADS IMPOSED BY THE UNIT OVER IT'S SERVICE LIFE. CARRIER TRASCOLD DOES NOT CONVEY ANY ENDORSEMENT OR WARRANTY FOR THE TRAILER'S OR BOXCAR'S STRUCTURAL INTEGRITY.
WEIGHTS:
NEP-530 REEFER UNIT (WET, LESS BATTERY): 1320 LBS
BATTERY (TYPICAL): 65 LBS MAXIMUM
- 3.0 UNIT MOUNTING SURFACES OF THE TRAILER OR BOXCAR THAT CONTACT THE UNIT MOUNTING PADS MUST BE UNI-PLANAR TO WITHIN 0.13 [3] TO PREVENT DISTORTION OF THE UNIT AND/OR TRAILER.
- 4.0 TRAILER OR BOXCAR SURFACES THAT CONTACT THE UNIT MOUNTING GASKET SHOULD NOT PROTRUDE MORE THAN 0.19 [5] ABOVE THE PLANE DEFINED BY THE MOUNTING PAD SURFACES TO ENSURE PROPER AIR SEAL.
- 5.0 ALL DIMENSIONS SHOWN ARE IN INCHES, WITH THE METRIC CONVERSIONS IN [MILLIMETERS].

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C	UPDATED SHEET INDEX. ADDED 98-03308-01.	29 JAN 2013	ZMG			72N0209P13
B	UPDATED SHEET INDEX. SEE SHEET 8.	9 MAR 2011	ZMG			72N0219P11
A	UPDATED UNIT WEIGHT IN NOTE 2.0.	23 AUG 2010	ZMG			72N0278P10
-	INITIAL RELEASE.	25 JAN 2010	ZMG			72N0209P10
SYM	REVISION RECORD	DATE	BY	ENGR.	M.E.	NPCA NO.



IMPERIAL INCH FORMAT:
UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES WITH
METRIC CONVERSIONS IN [MILLIMETERS]

TITLE

INSTALLATION INSTRUCTIONS

TRAILER (VECTOR 5100)

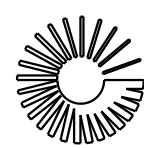
DRAWING NO.

98-03308

SHEET 1 OF 8

REV

C



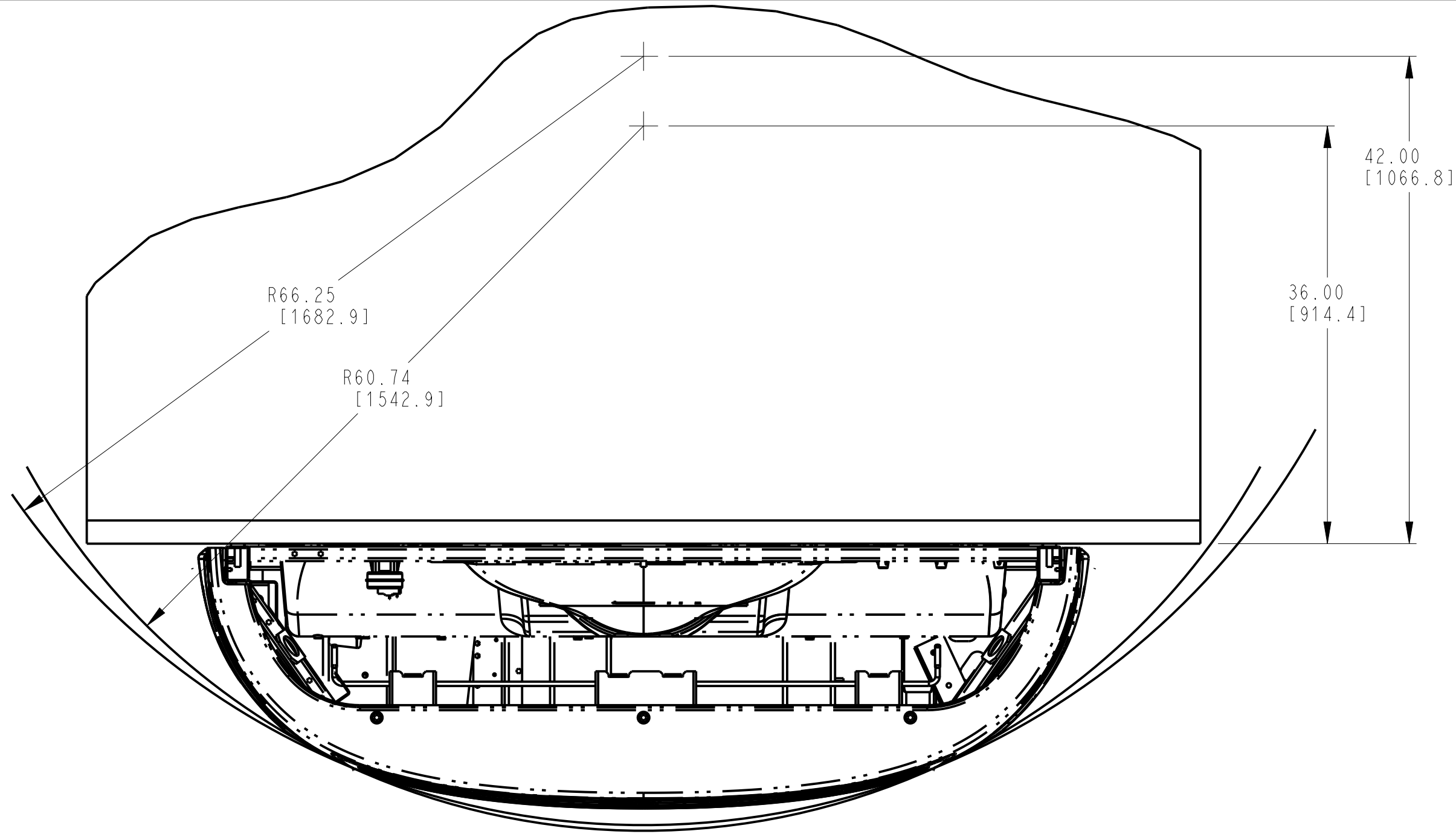
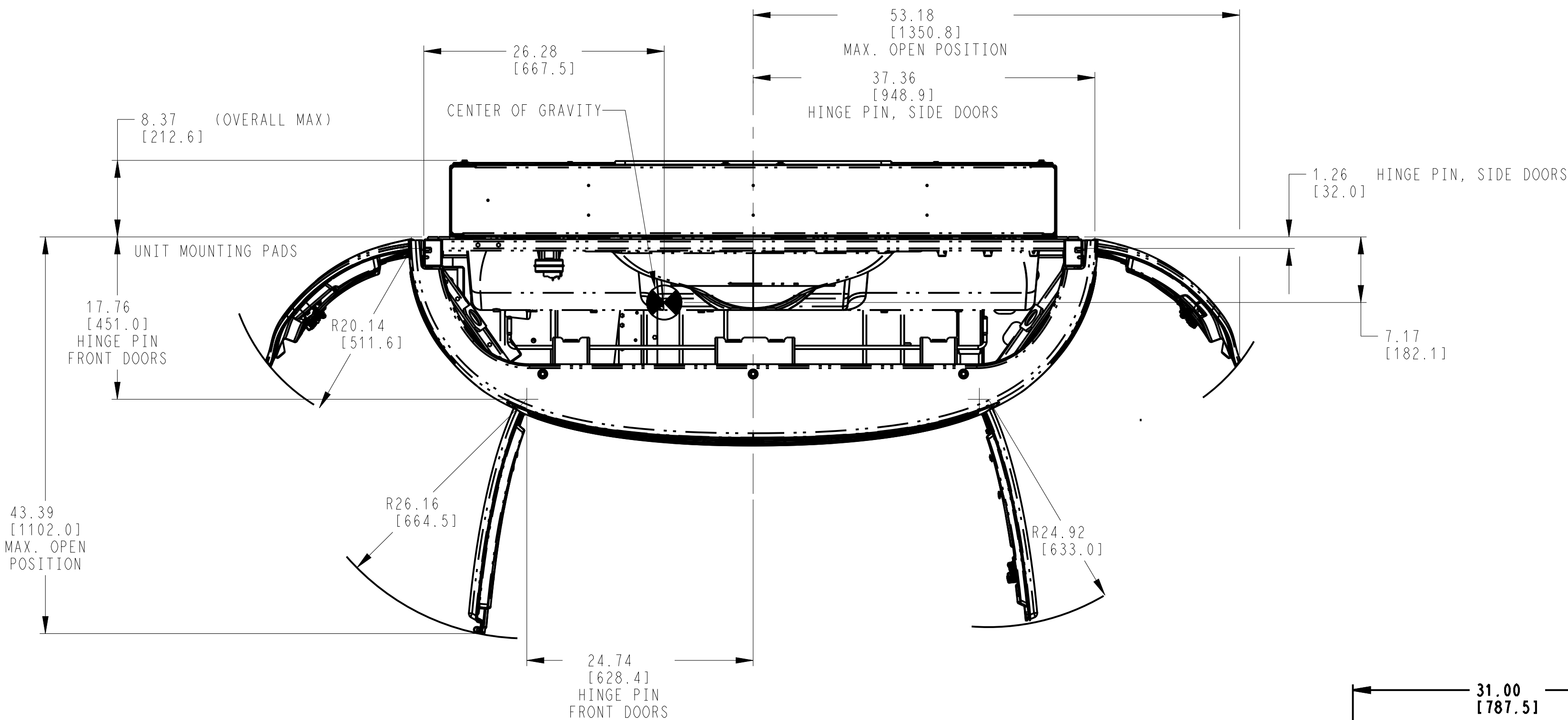
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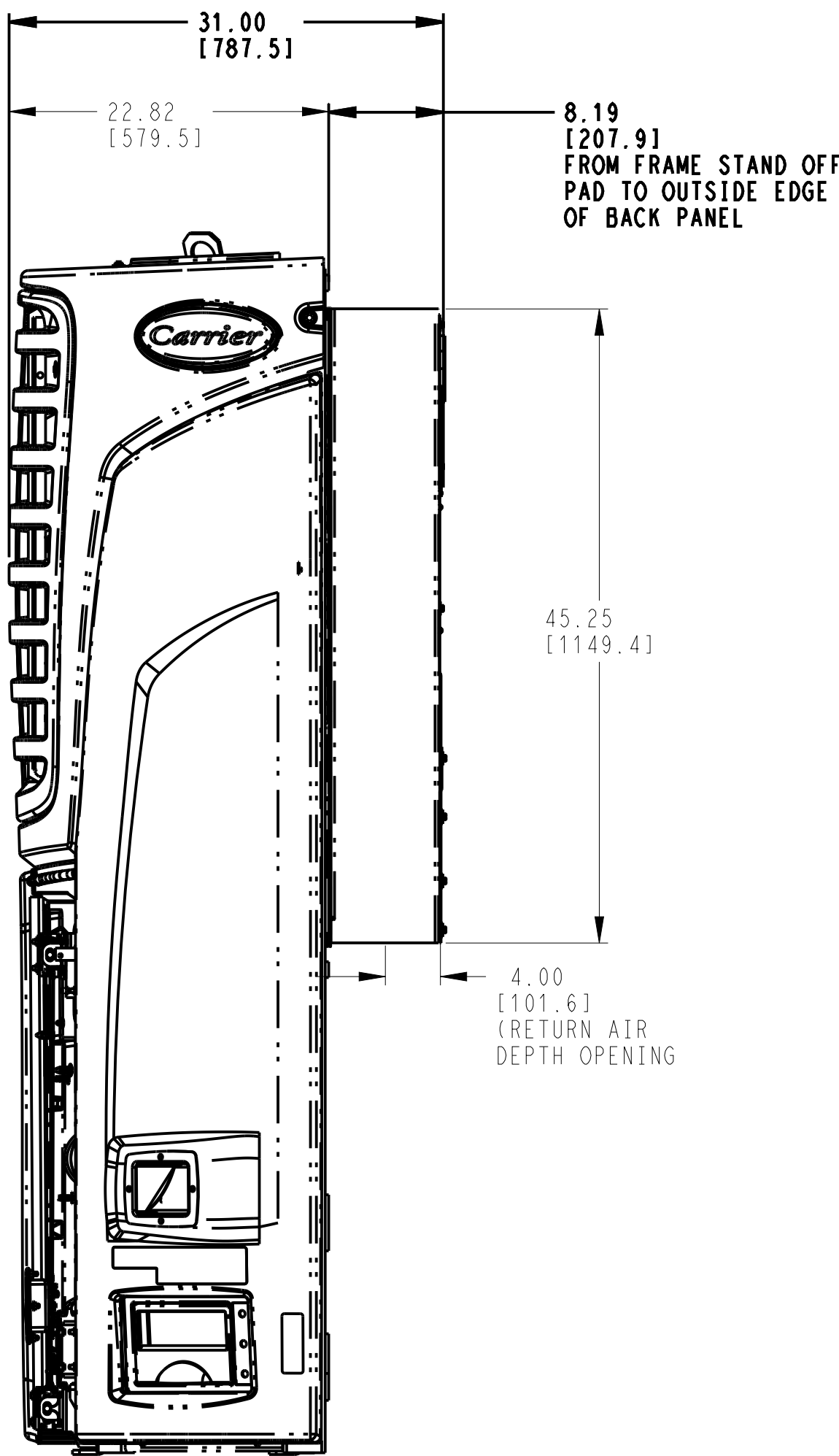
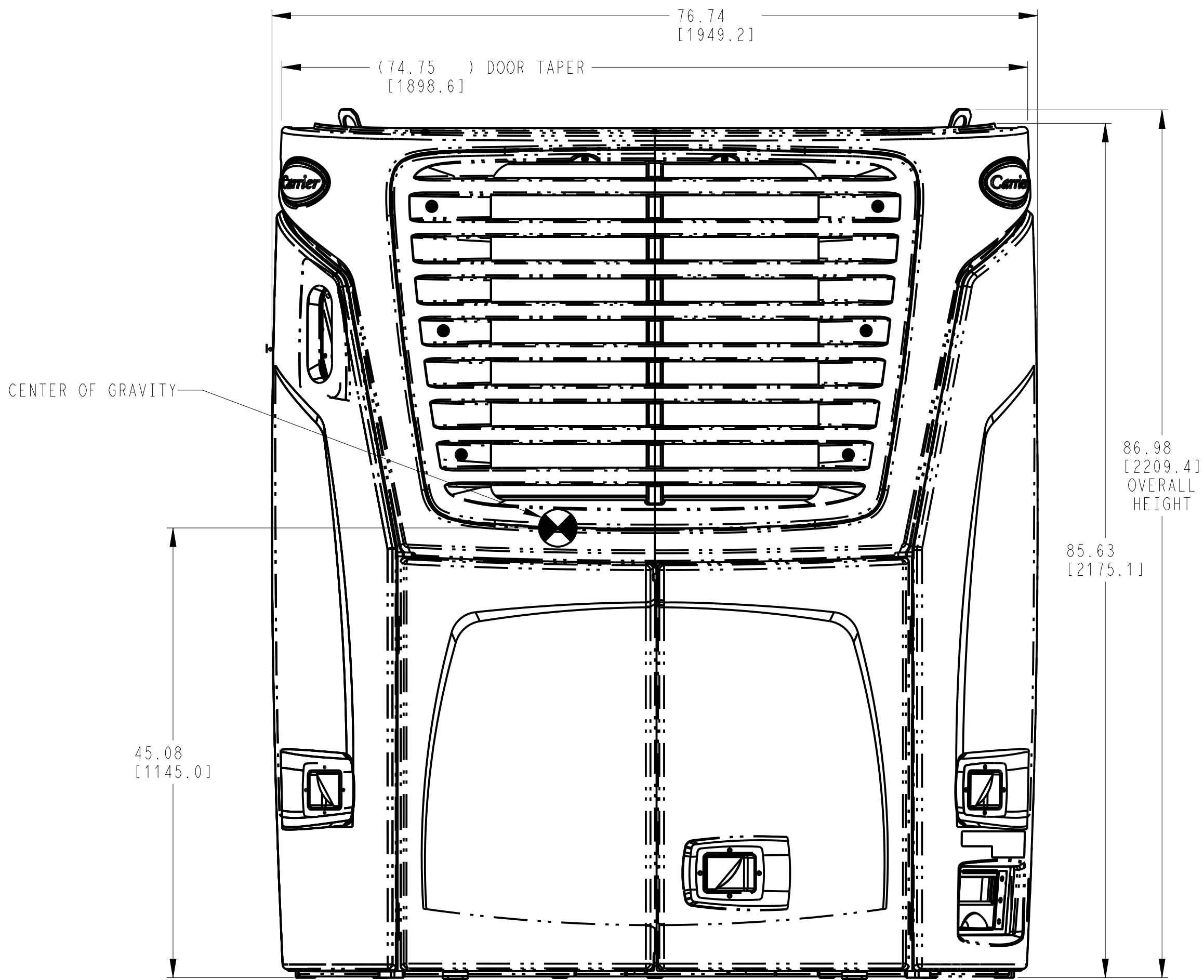
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SWING RADIUS

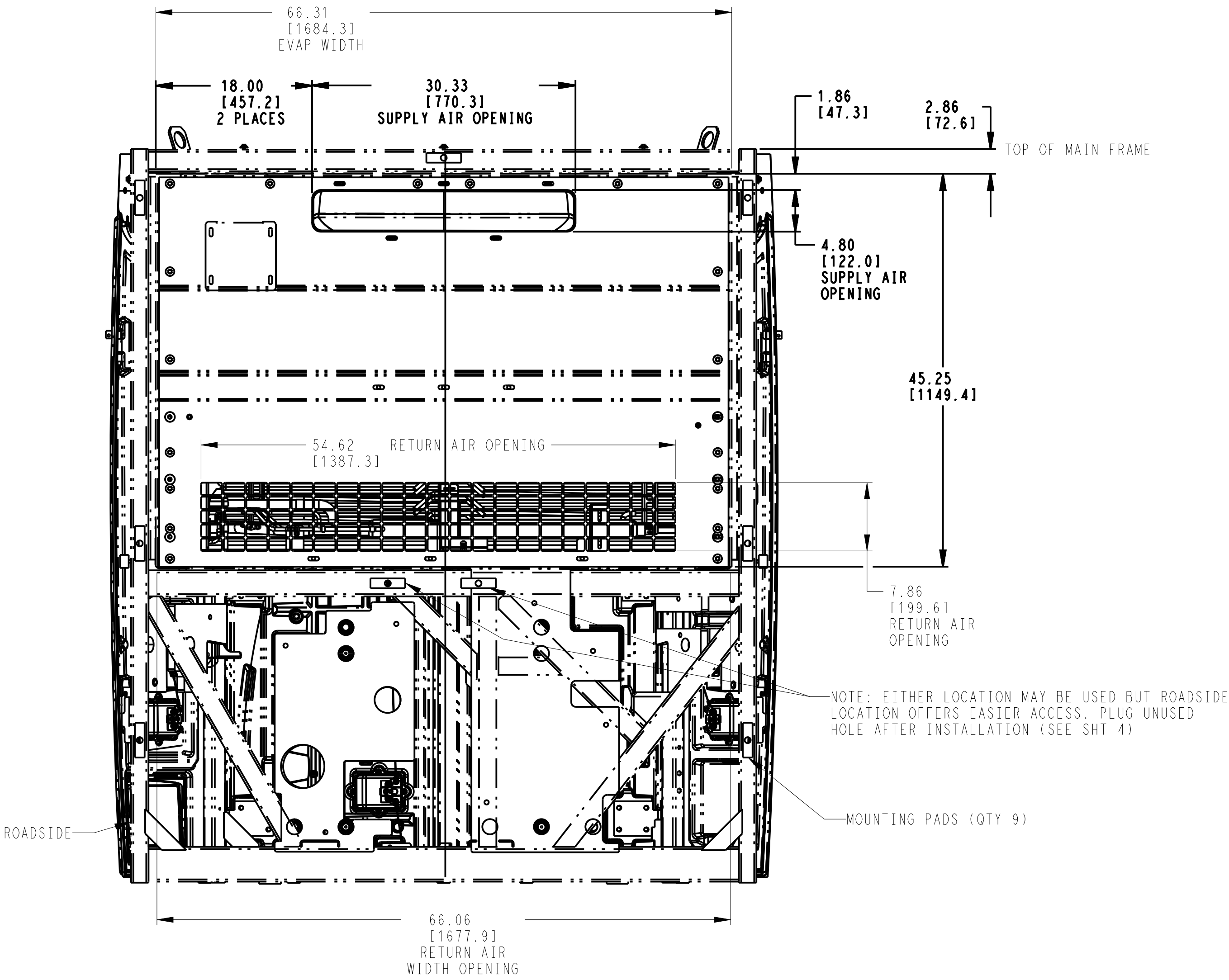
ALL UNIT VERSIONS



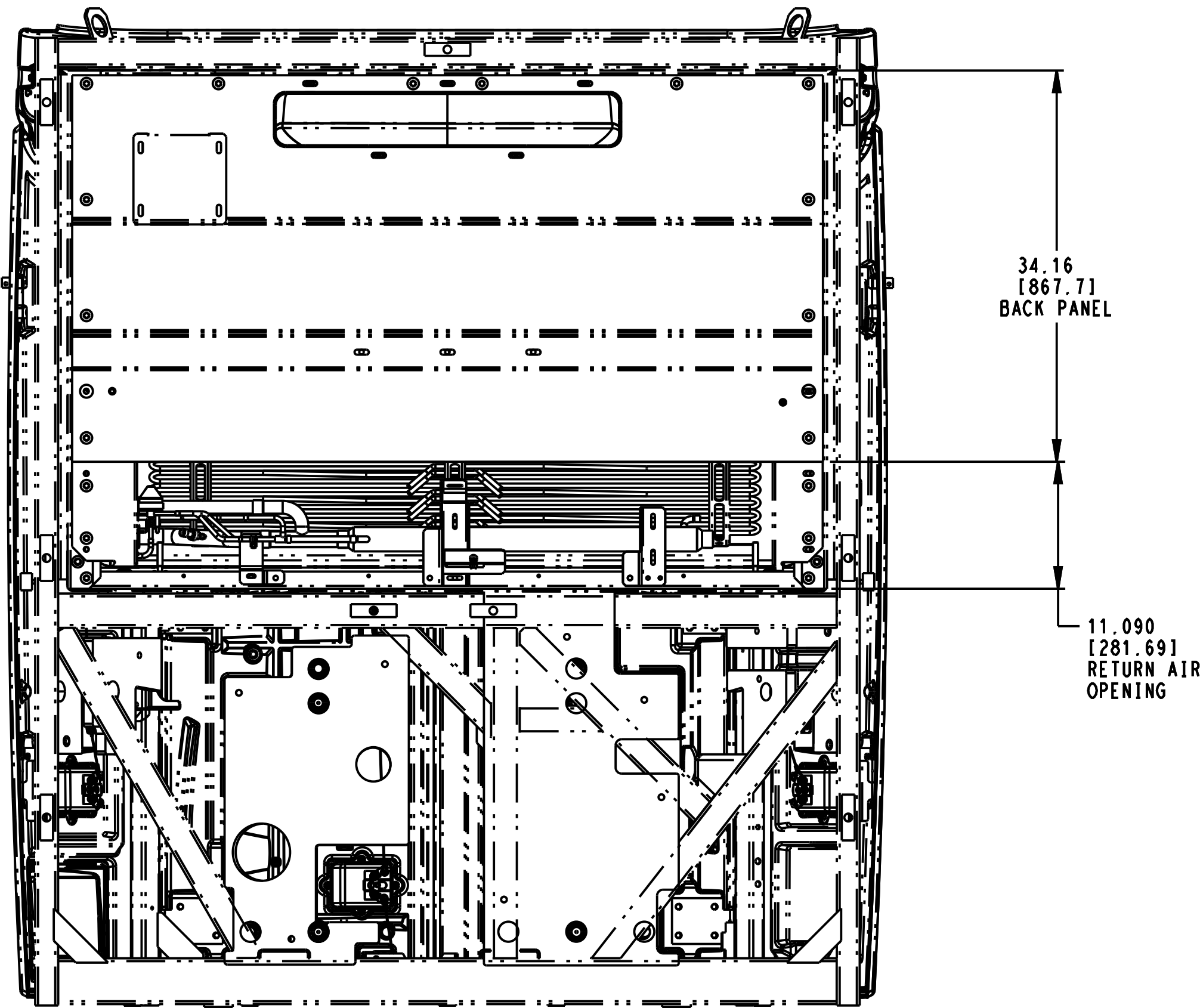
UNIT DIMENSION INFORMATION

ALL UNIT VERSIONS

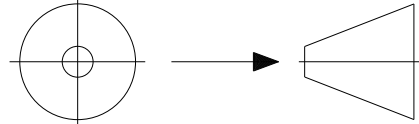
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SYM	REVISION RECORD	DATE	BY	ENGR.	M.E.	NPCA NO.						SHEET 2 OF		



REAR VIEW : WITH UPPER AND LOWER BACK PANELS



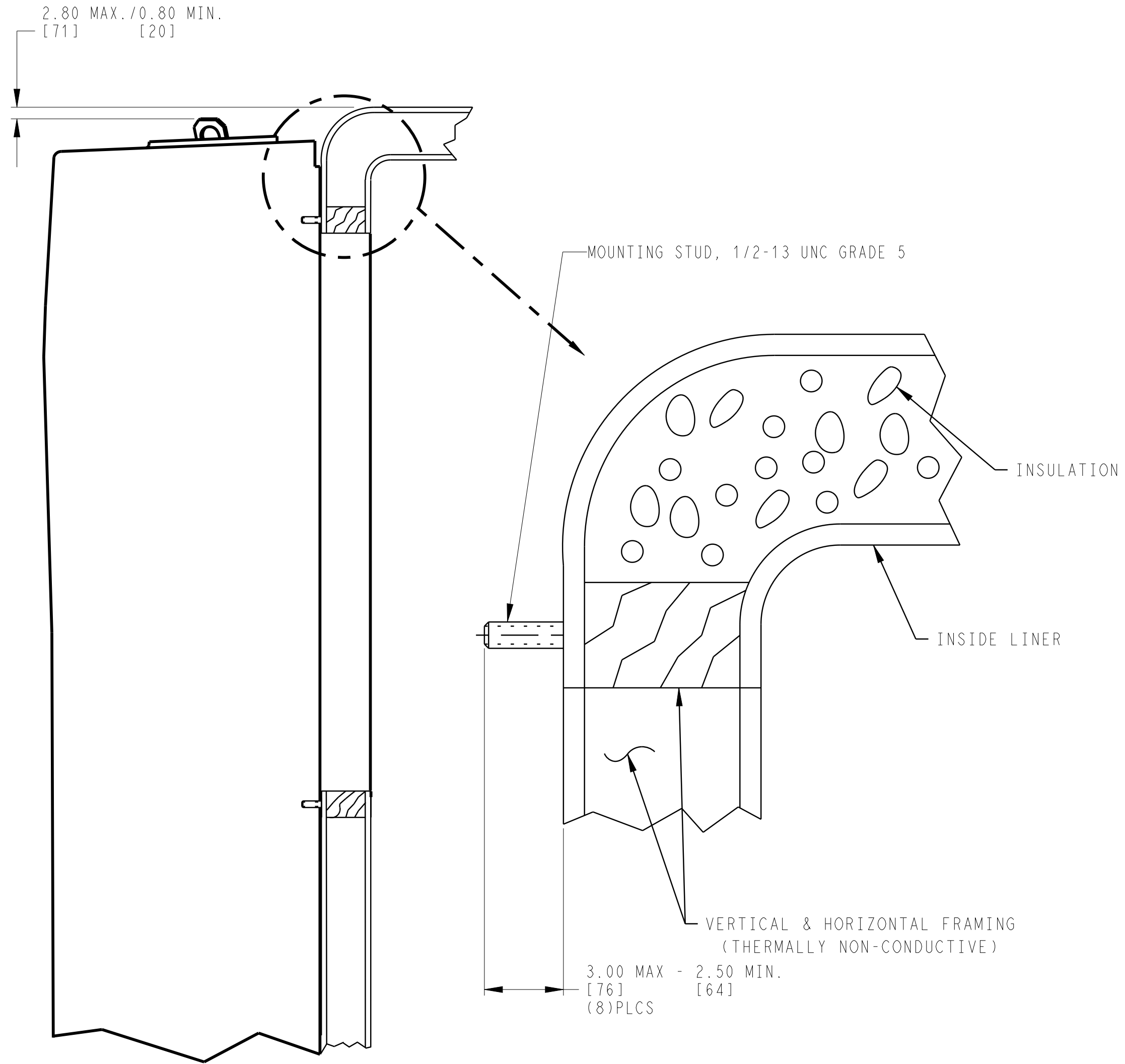
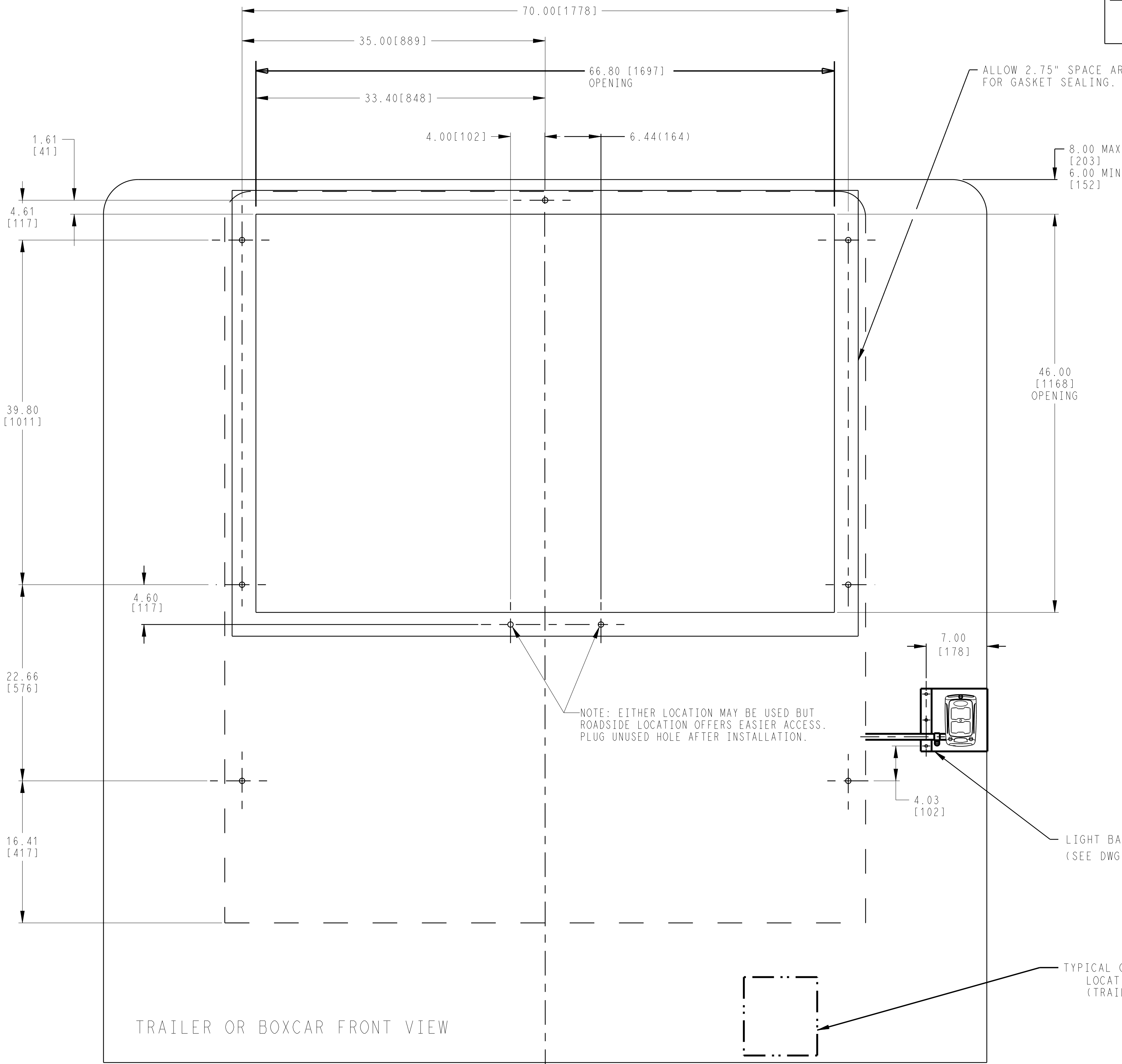
REAR VIEW : UPPER BACK PANEL ONLY

-	INITIAL RELEASE.	25 JAN 2010	ZMG			72N0209P10	THIRD ANGLE PROJECTION 	IMPERIAL INCH FORMAT: UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES WITH METRIC CONVERSIONS IN [MILLIMETERS]	TITLE INSTALLATION INSTRUCTIONS TRAILER (VECTOR 5100)	DRAWING NO. 98-03308 SHEET 3 OF	REV -
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TRAILER OR BOXCAR BODY PREPARATION

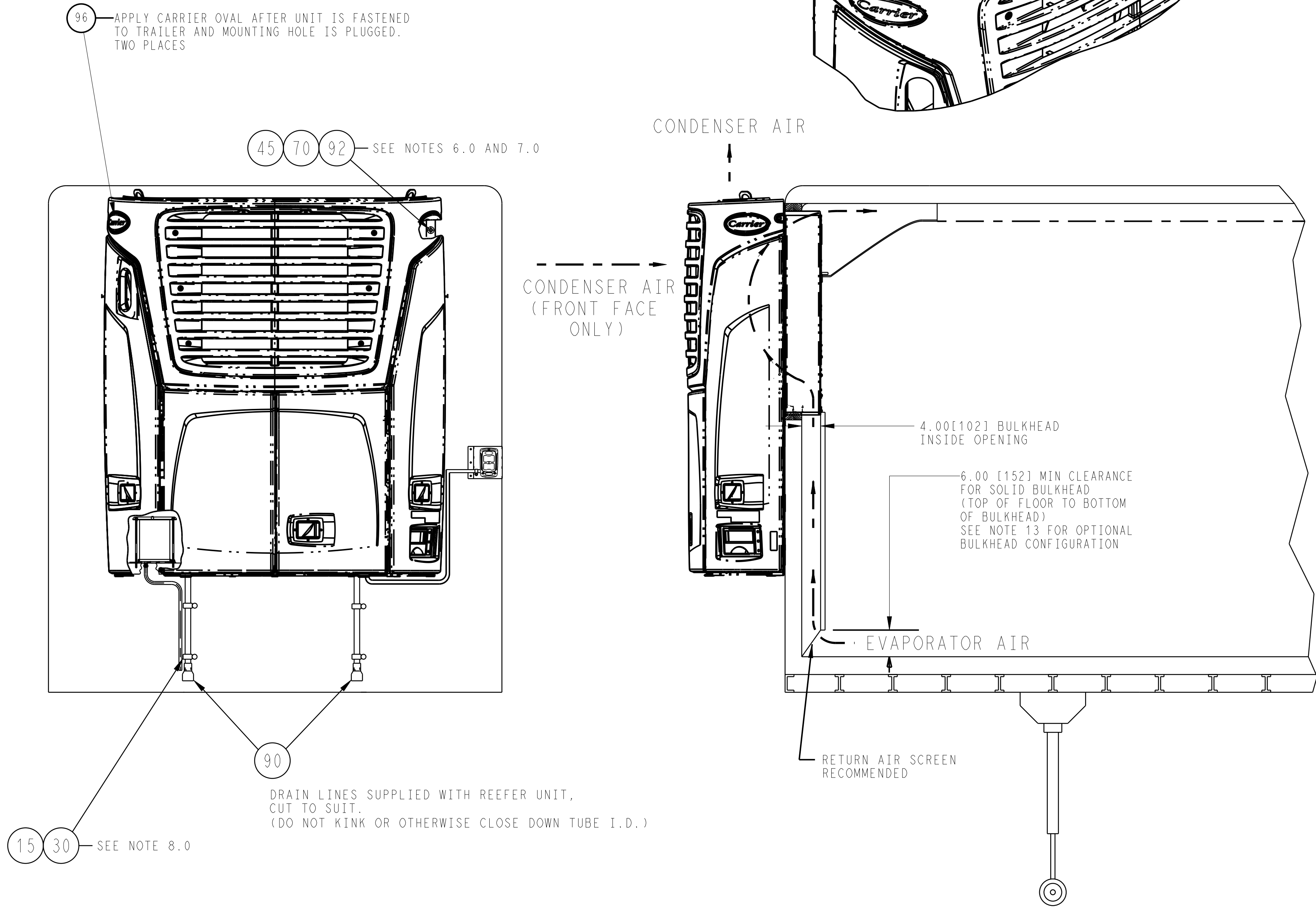
CAUTION: UNIT MOUNTING SURFACES OF TRAILER OR BOXCAR THAT CONTACT THE UNIT MOUNTING PADS MUST BE UNI-PLANAR TO WITHIN 0.13[3] TO PREVENT DISTORTION OF UNIT AND/OR TRAILER/BOXCAR.

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NOTE: BULKHEAD,AIR CHUTE AND TRANSITION DUCT SHOWN ARE OPTIONAL FEATURES.FOR BEST AIR CIRCULATION AND PRODUCT PROTECTION CARRIER TRANSICOLD HIGHLY RECOMMENDS THE USE OF BULKHEADS AIR CHUTES AND TRANSITION DUCTS. CONTACT YOUR DEALER OR CARRIER TRANSICOLD FOR RECOMMENDATIONS.



PREPARE UNIT FOR INSTALLATION:

- 1.0 PREPARE THE BODY TO RECEIVE THE UNIT. DIMENSIONS FOR EVAPORATOR OPENING AND MOUNTING STUD LOCATIONS CAN BE FOUND ON SHEET 4 OF THIS DRAWING.
- 2.0 REMOVE WIRE TIES HOLDING DEFROST DRAIN HOSES. PLACE LINES WHERE THEY WILL NOT BE CAUGHT BETWEEN THE UNIT FRAME AND THE MOUNTING SURFACE.
- 3.0 OPEN SIDE DOORS TO ALLOW ACCESS TO MOUNTING STUD LOCATIONS ON UNIT.
- 4.0 INSTALL BATTERY ACCORDING TO INSTRUCTIONS ON SHEET 6. IF UNIT HAS BEEN SUPPLIED WITH BATTERY, CONNECT BATTERY CABLES ACCORDING TO THE INSTRUCTIONS ON SHEET 6.
- 5.0 PREPARE THE UNIT FOR LIFTING: STANDING ON A LADDER OR WORK-STAND, HOOK LIFTING APPARATUS (LIFTING SPREADER BAR WITH SUFFICIENT CAPACITY TO SUPPORT UNIT AND BATTERY) THROUGH THE LIFTING EYES. LIFT POINT SHOULD BE CENTERED OVER THE CENTER OF GRAVITY.

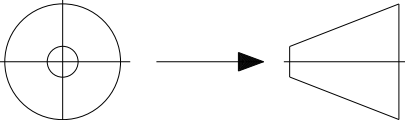
UNIT INSTALLATION:

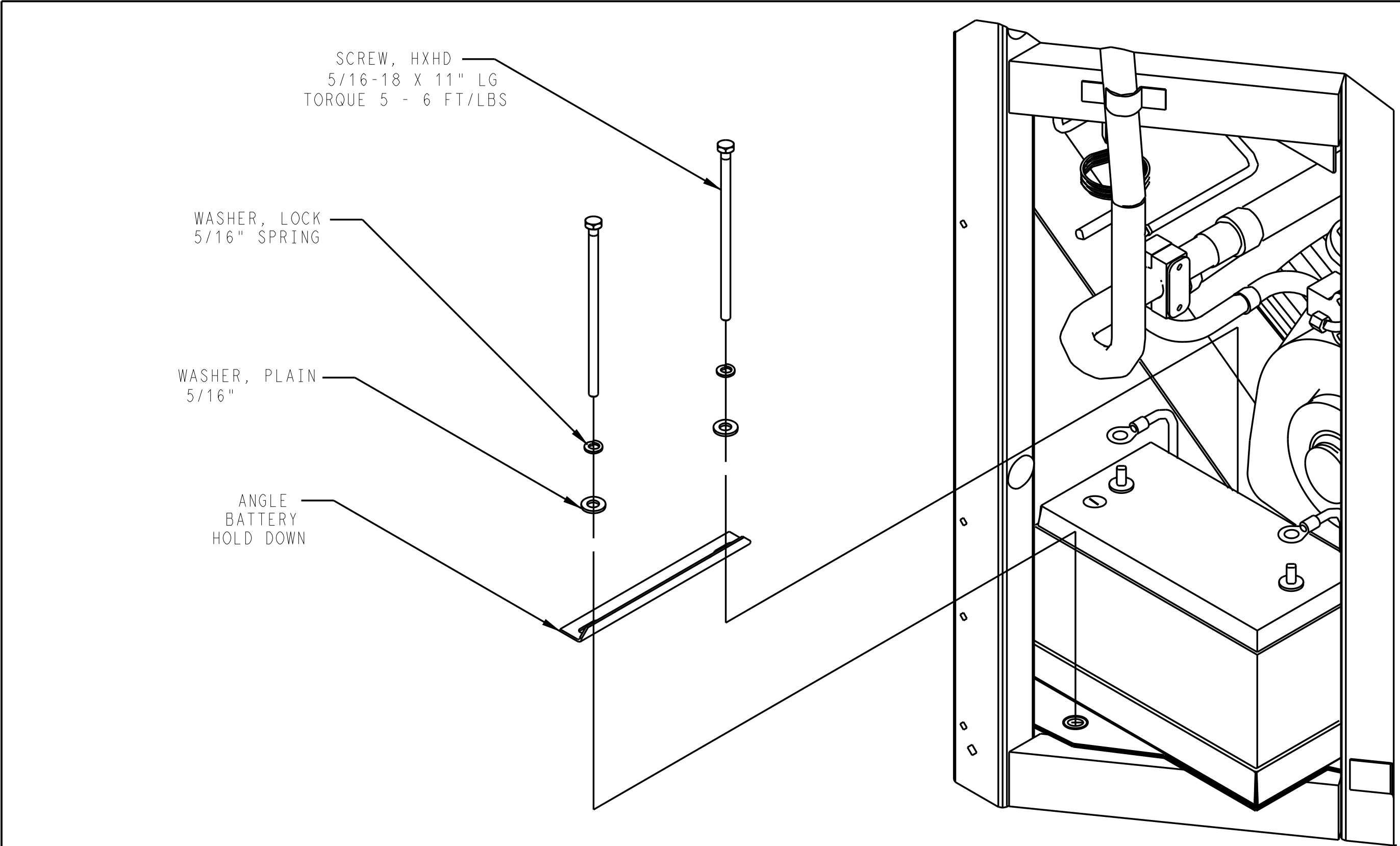
- 6.0 RAISE THE UNIT FROM THE PALLET AND INSTALL IN THE BODY OPENING. ENSURE THAT ALL EIGHT STUDS ARE FULLY ENGAGED IN THE UNIT FRAME. PLACE WASHER (ITEM 70) AND LOCK-NUT (ITEM 45) ON EACH OF THE 8 STUDS. (NOTE: THE LOWER CENTER STUD MUST BE ACCESSED FROM THE FRONT OF THE UNIT.) SNUG THE NUTS, THEN EVENLY TIGHTEN ALL EIGHT 0 60 FT-LB/81.6 NM USING A TORQUE WRENCH. REMOVE LIFTING APPARATUS.
- 7.0 INSTALL BUTTON PLUGS (ITEM 92) IN UNIT FRAME WHERE MOUNTING STUDS ARE LOCATED AND ADDITIONAL UNUSED HOLE (SEE SHT.2).
- 8.0 ROUTE DEFROST DRAIN HOSES DOWN THE FRONT OF THE TRAILER OR BOXCAR AND CLAMP TO FRONT WALL USING 2 CLAMPS (ITEM 15) AND 2 THREAD FORMING SCREWS (ITEM 30) FOR EACH DRAIN HOSE. CUT HOSE TO PROPER LENGTH (APPROXIMATELY 3.00[76.2] ABOVE 5th-WHEEL PLATE ON TRAILER) AND INSTALL KAZOOS (ITEM 90) ON THE HOSES.
- 9.0 INSTRUCTIONS FOR LIGHT BAR INSTALLATION ARE INCLUDED WITH THE LIGHT BAR KIT.

AFTER INSTALLATION

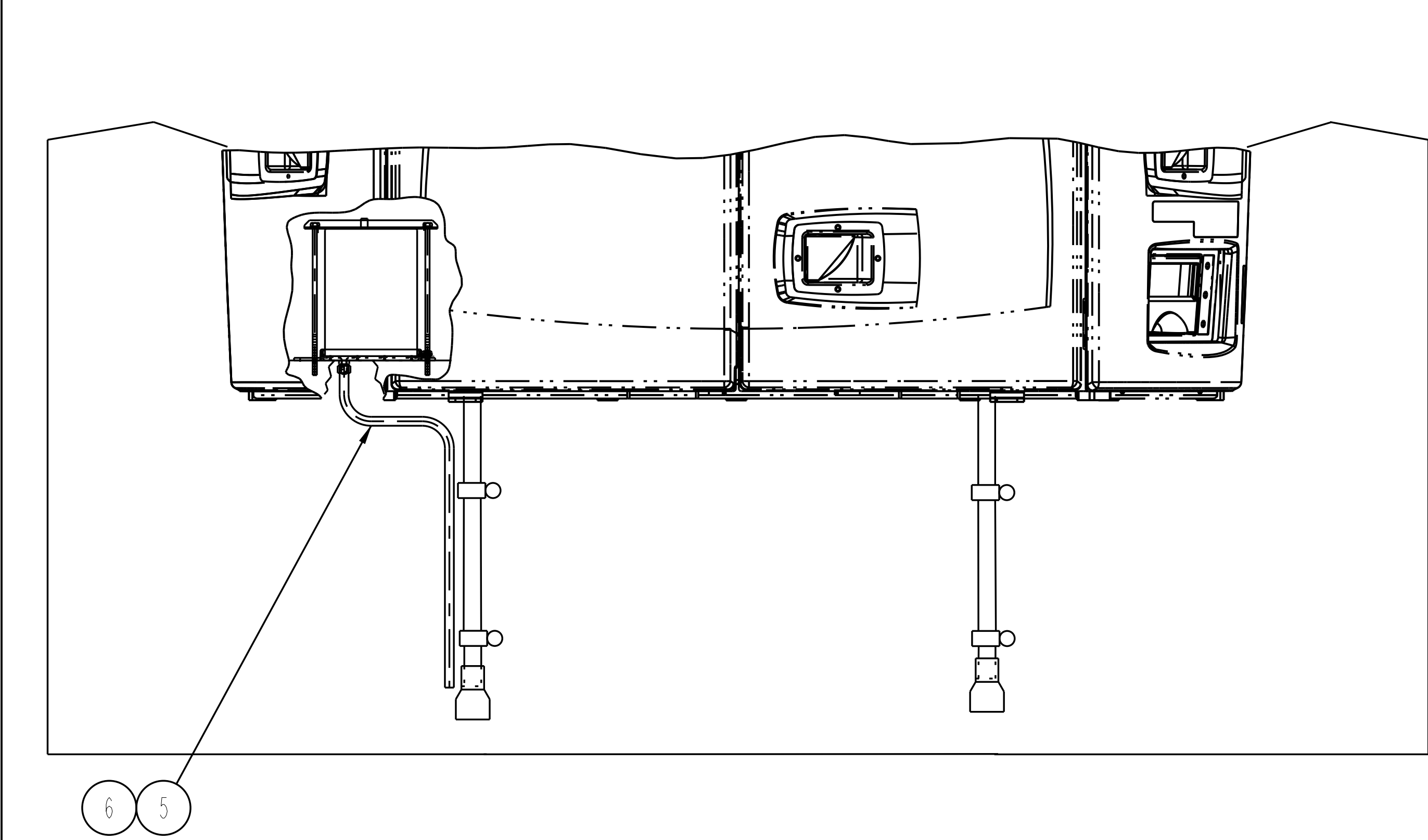
- 10.0 PERFORM PRE-DELIVERY INSPECTION (ITEM 98). COPIES OF COMPLETED CHECKLIST SHOULD BE SUPPLIED TO SELLING DEALER AND CUSTOMER.
- 11.0 OPERATE UNIT IN CONTINUOUS RUN (MANUAL) MODE FOR A MINIMUM OF 8 HOURS (12 HOURS PREFERRED) WITH REAR DOOR OPEN. PERFORM FINAL INSPECTION ON UNIT. RUN- IN SET UP SHOULD BE "PER" PDI SHEET".
- 12.0 IMPORTANT: PRIOR TO FINAL DELIVERY TO CUSTOMER, WARRANTY REGISTRATION (ITEM 101) MUST BE COMPLETED. ONE COPY SHOULD BE PROVIDED TO THE CUSTOMER, ONE COPY TO THE SELLER, AND THE FINAL COPY MUST BE SENT TO CARRIER TRANSICOLD. IN-SERVICE DATE MUST BE STAMPED ON THE UNIT IN THE PROPER LOCATION (SERIAL NUMBER PLATE) TO ACTIVATE WARRANTY COVERAGE.
- 13.0 OPTIONAL BULKHEAD CONFIGURATION: HOLE PATTERN OR OPEN AREA FOR RETURN AIR FLOW MUST TOTAL AT LEAST 2.75 SQFT OF AIR PASSAGE. HOLE PATTERN OR OPEN AREA MUST BE RECESSED SO THAT CARGO LOADED AGAINST BULKHEAD WILL NOT OBSTRUCT AIR PASSAGE OPENINGS. PERFORATED BULKHEADS, THAT MEET THESE REQUIREMENTS, MAY BE INSTALLED TIGHT WITH FLOOR.

UNIT INSTALLATION

-	INITIAL RELEASE.	25 JAN 2010				72N0209P10	THIRD ANGLE PROJECTION 	IMPERIAL INCH FORMAT: UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES WITH METRIC CONVERSIONS IN [MILLIMETERS]	TITLE INSTALLATION INSTRUCTIONS TRAILER (VECTOR 5100)	DRAWING NO. 98-03308 SHEET 5 of	REV -
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ITEMS SUPPLIED IN BATTERY KIT
(PARTS IN POLY BAG AND/OR ATTACHED TO BATTERY TRAY)



UNITS SUPPLIED WITHOUT BATTERY INSTALLED

1.0 USE THE FOLLOWING INFORMATION TO CORRECTLY SELECT THE BATTERY PERFORMANCE NEEDED FOR REFRIGERATION UNITS.

GROUP SIZE: GROUP 31
VENT LOCATION: SIDE VENT
VOLTS: 12 VOLTS DC
POST TYPE: SCREW POST ONLY
AMPERAGE: MINIMUM 700 COLD CRANKING AMPS @ 0°F
MINIMUM 545 COLD CRANKING AMPS @ -20°F

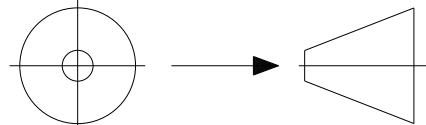
NOTE: WHEN SELECTING A SPECIFIC BRAND OF BATTERY, ALWAYS ENSURE THAT THE BATTERY CHOSEN IS RATED AT 0°F (0 DEGREES FAHRENHEIT) AND NOT 0°C (0 DEGREES CELSIUS). FAILURE TO USE THE PROPER BATTERY SIZE WILL RESULT IN REDUCED BATTERY LIFE AND A NO-START CONDITION. THE RECOMMENDED MAXIMIM BATTERY WEIGHT IS 65 LBS.

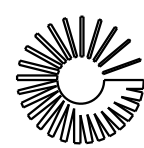
2.0 CUT WIRE TIE HOLDING THESE PARTS IN THE BATTERY TRAY AND REMOVE PARTS. PLACE BATTERY IN TRAY WITH NEGATIVE (-) TERMINAL TO THE REAR OF THE UNIT (AS SHOWN). CONNECT BATTERY LEADS FROM UNIT HARNESS (THE USE OF A CORROSION INHIBITOR ON THE TERMINALS IS RECOMMENDED); RED WIRE RING TERMINAL TO POSITIVE (+) TERMINAL, BLACK WIRE RING TERMINAL TO THE NEGATIVE (-) TERMINAL. TIGHTEN TERMINAL CONNECTORS SECURELY.

3.0 INSTALL SCREWS AND HOLD-DOWN CHANNEL USING PLAIN AND LOCK WASHERS AS SHOWN. SECURELY TIGHTEN THE SCREWS TO PREVENT MOVEMENT OF THE BATTERY.

4.0 POSITION TERMINAL COVERS SUPPLIED WITH WIRES OVER TERMINALS.

5.0 INSTALL DRAIN HOSE (ITEM 6) TO BARB ON BOTTOM OF BATTERY TRAY USING CLAMP (ITEM 5). ROUTE AND CLAMP HOSE TO UNIT DRAIN LINE USING WIRE TIES (ITEM 55).

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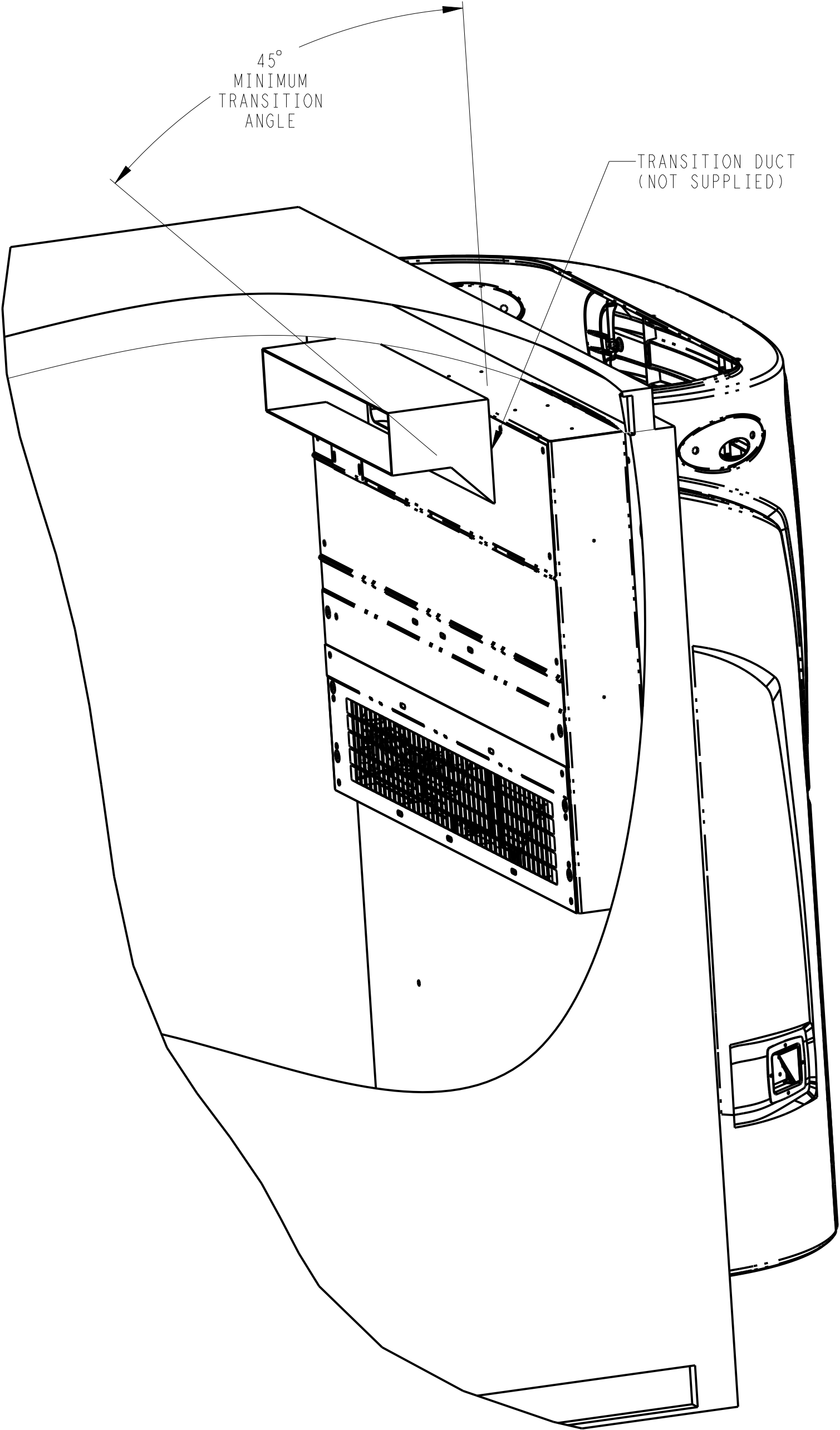
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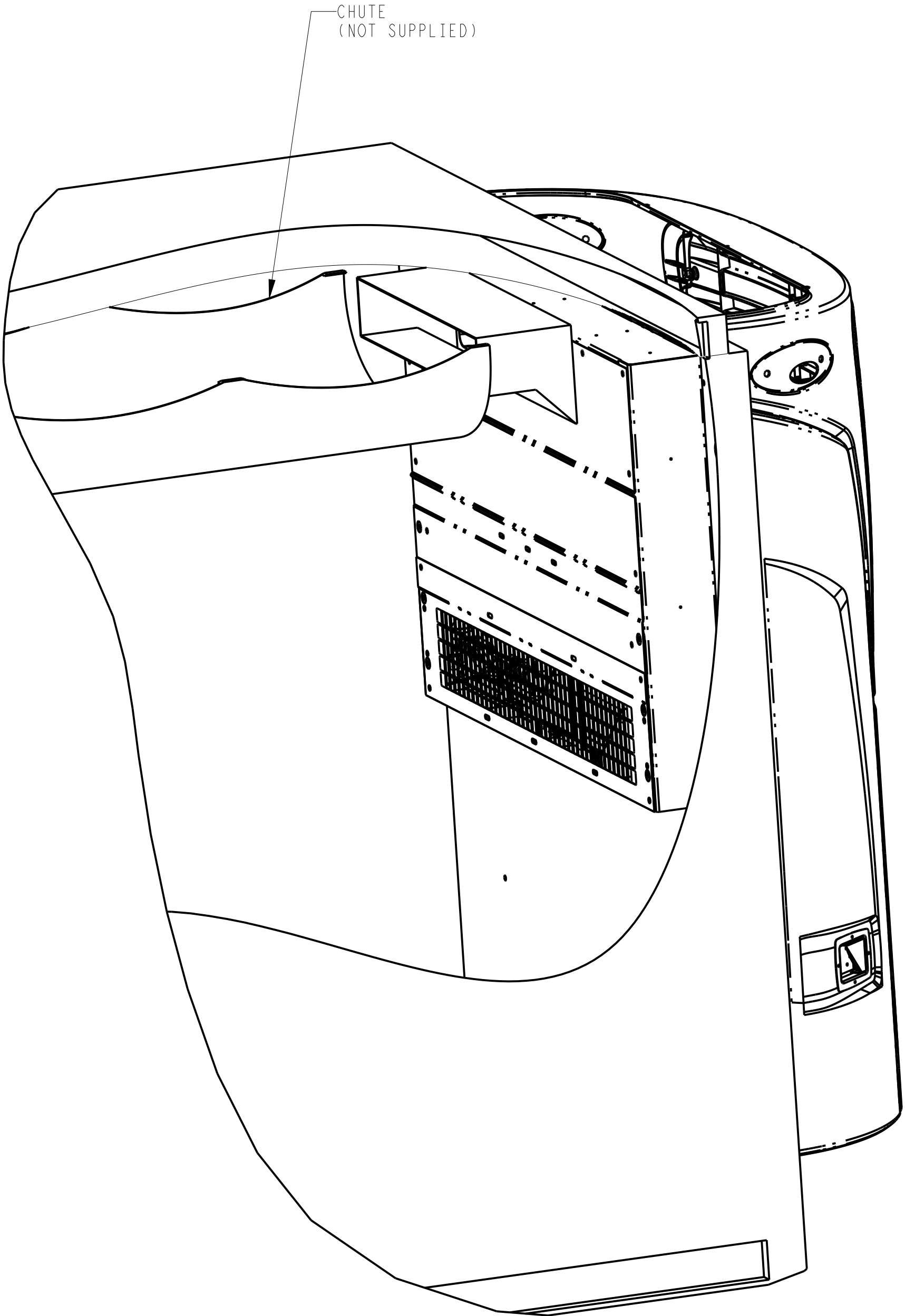
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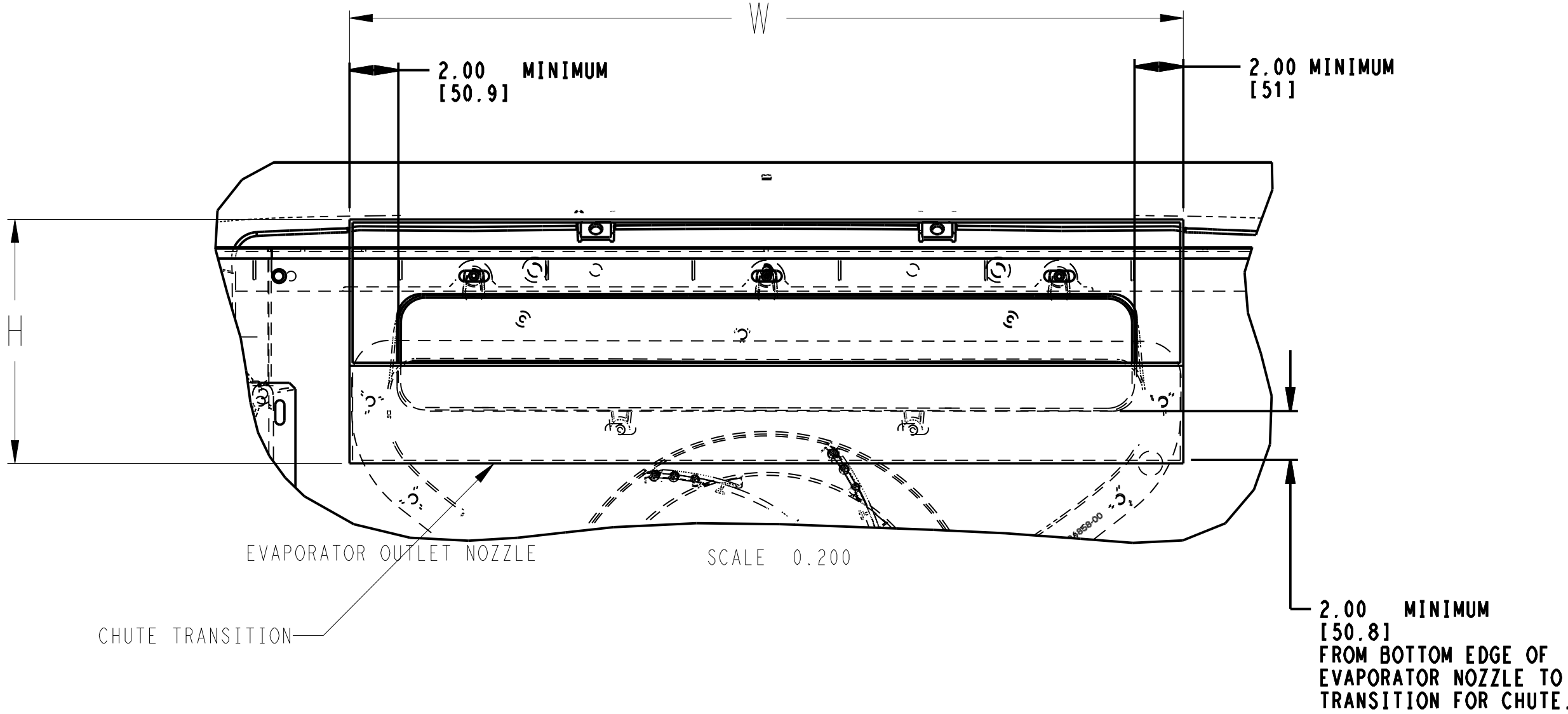
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CHUTE REMOVED FOR CLARIFICATION
OF TRANSITION

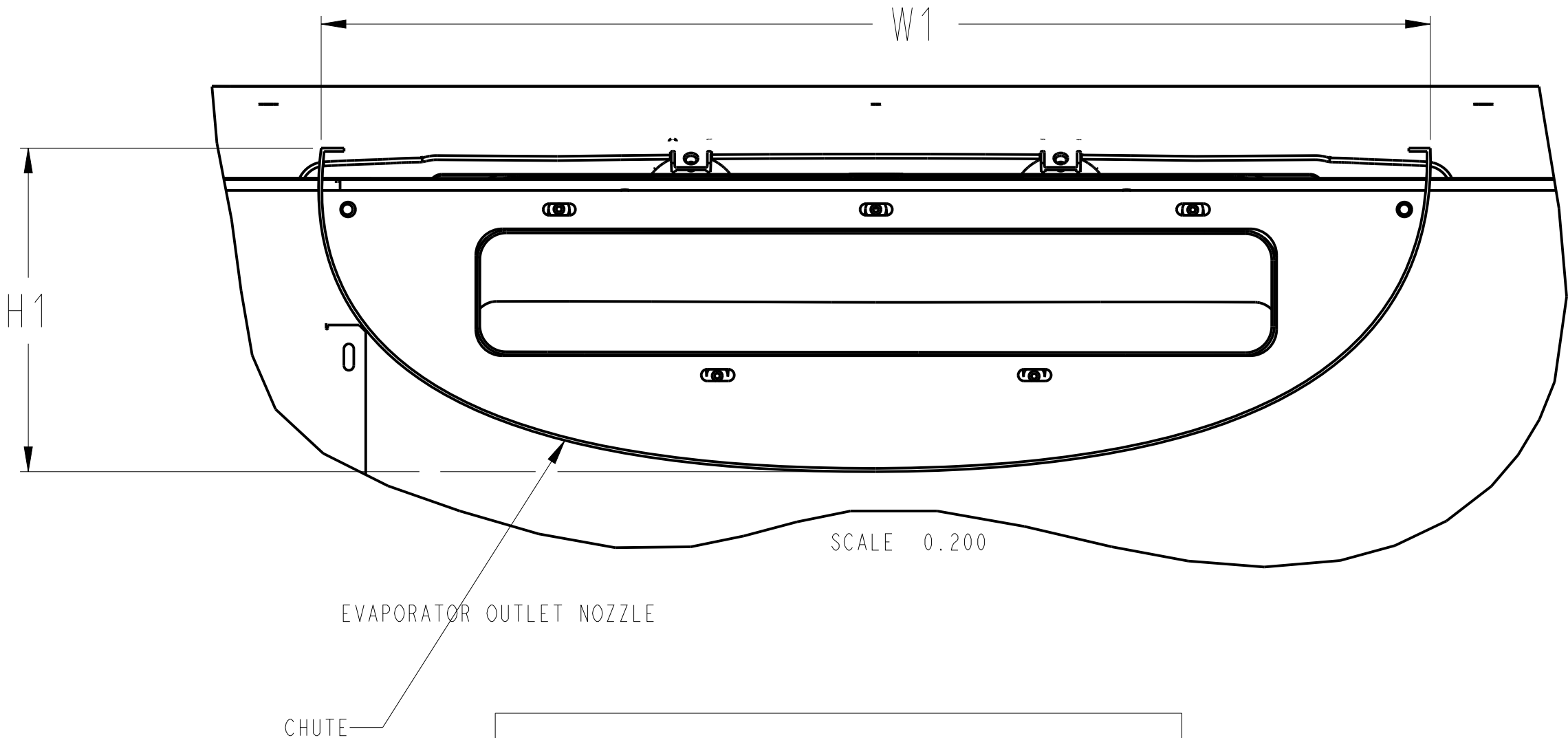


TRANSITION & CHUTE DETAILS



HARD RECTANGULAR
CHUTE MIN. DIMENSIONS

W	H
60.00	6.00
54.00	6.75
48.00	7.50
42.00	8.75
36.00	10.00
30.00	12.00



SOFT CHUTE
MINIMUM DIMENSIONS

W1	H1
60.00	9.00
54.00	9.75
48.00	11.00
42.00	12.25
36.00	13.75
30.00	15.00

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Electrical Specifications & Minimum Standby Infrastructure

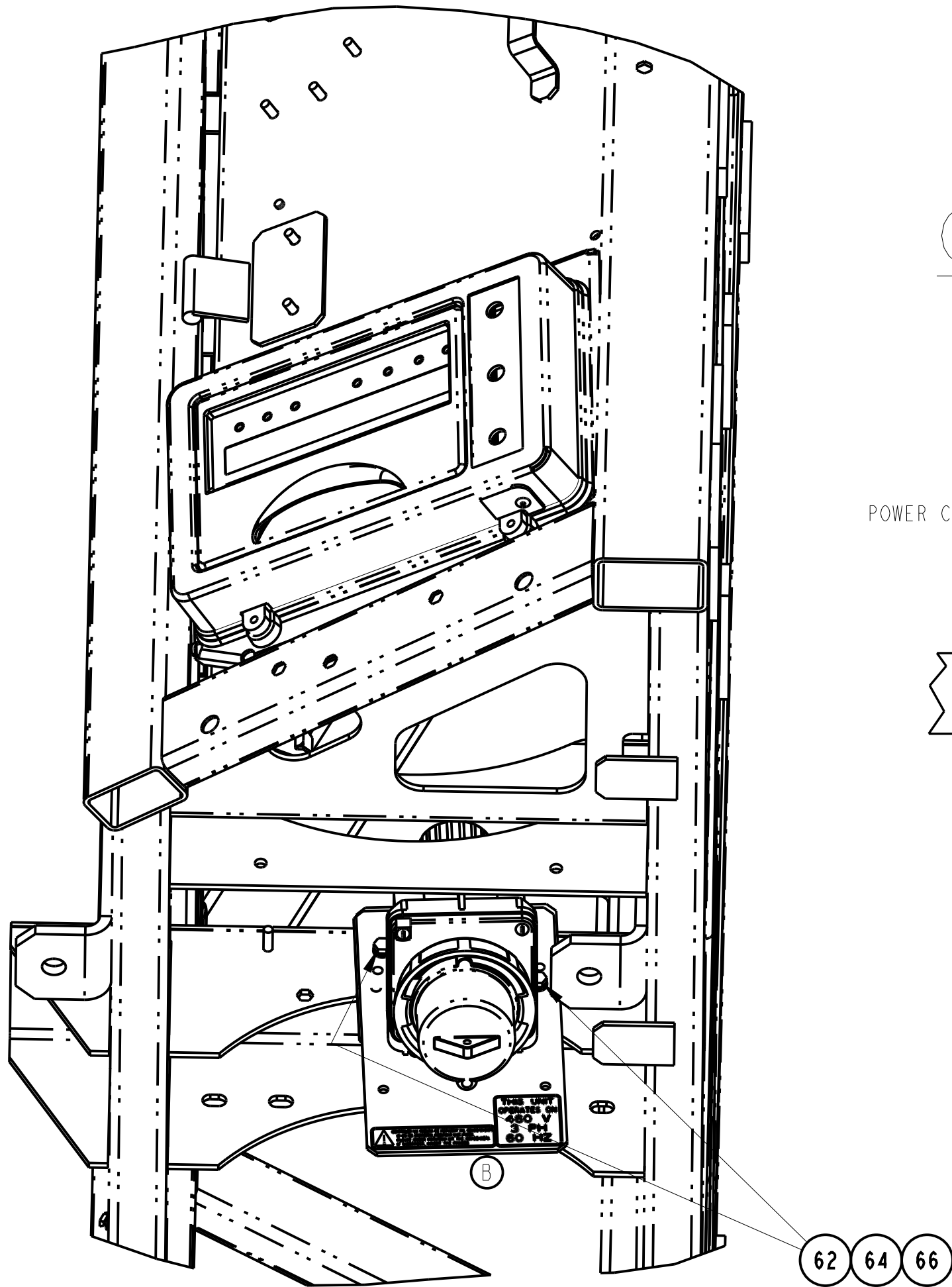
for

Carrier Transicold Trailer units equipped with Standby

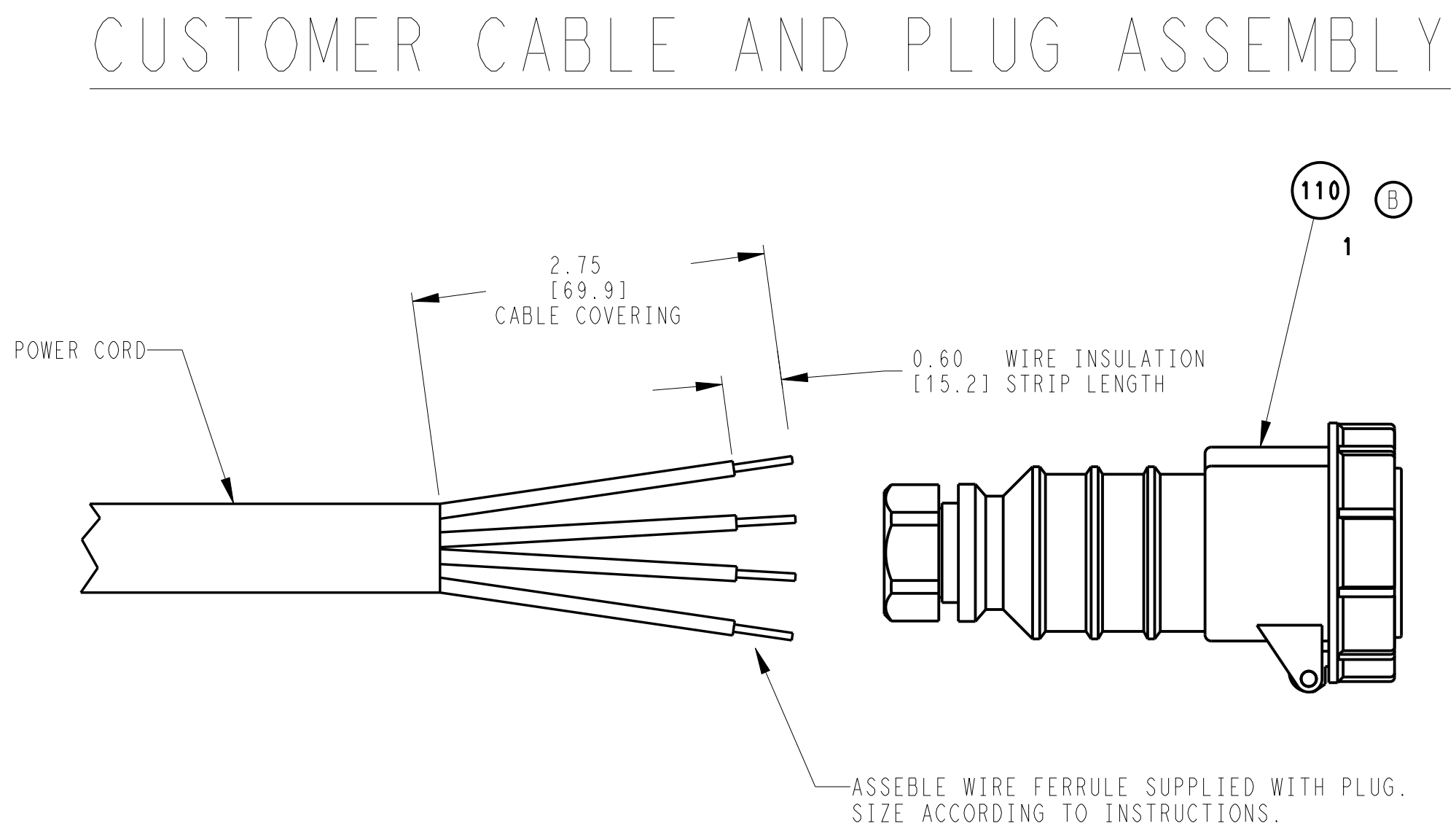
	Vector 5100 WSTBY
Operating Voltage	460V / 3ph / 60Hz
Full Load Amp Draw (FLA)	25 A
kVA	20.8
Locked Rotor Amp Draw (LRA)	99 A
Electrical Receptacle (installed on unit)	IEC IP 67 pin & sleeve, 480V, 30A, 4 wire, 3 pole
Receptacle p/n	22-04166-00
Phase reversal	Automatic
Standby circuit breaker & cordset specifications	
Standby cable type & gauge (min 50' long, up to 75' long)	SOOW, 600V, 90C, 10/4 (3ph + G)
Recommended external circuit breaker	30A
Connector p/n	22-04167-00

Minimum Requirements for Standby Infrastructure

- 1) Ensure that the standby power installation is performed by a licensed electrician who is familiar with both local and national electric codes and requirements.
- 2) Each refrigeration unit must be protected by an individual circuit breaker sized per the appropriate unit electrical specification listed above.
- 3) A continuous earthing ground conductor must be provided at the plug and through the power cord to the refrigeration unit.
- 4) Carrier Transicold recommends that customers establish an Assured Equipment Grounding Conductor Program per the National Electric Code (NEC). Per the Assured Equipment Grounding Conductor Program, the NEC calls for all cordsets to be verified for ground continuity and correct wiring on a 3 month basis.
- 5) A neutral conductor MUST NOT be connected to the refrigeration units. All Carrier Transicold refrigeration units are balanced three phase systems; therefore, the unit only requires three phase wires and a ground conductor.
- 6) For units without automatic phase reversal, proper phasing of the three phase wires is needed for correct motor rotation. Please reference the electrical specifications above for those units equipped with automatic phase reversal.
- 7) Standby power cordsets between the circuit breaker and the refrigeration unit MUST be constructed from 10/4 SOOW cable. Carrier recommends a minimum cable length of 50 feet to limit maximum fault currents and prevent damage to the power circuits within the unit.



PARTIAL LOWER
ROADSIDE VIEW
STANDBY PLUG MOUNTING

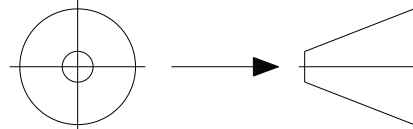


WARNING:

BE SURE POWER IS DIS-CONNECTED TO CUSTOMER CABLE.
READ ENTIRE SUPPLIER DIRECTIONS SUPPLIED WITH
PLUG BEFORE STARTING INSTALLATION.

B	UPDATED RECEPTACLE, POWER PLUG AND NOTE 7.	9 MAR 2011	ZMG			72N0219P11
-	INITIAL RELEASE.	25 JAN 2010	ZMG			72N0209P10
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THIRD ANGLE
PROJECTION



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TRAILER (VECTOR 5100)

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SHEET 8 OF

REV
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