### CROSS REFERENCE INDEX

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### NOTES:

1. Complete installation includes and is not limited to:
   - Unit installation
   - Battery installation, including drain hose
   - Completion of pre-delivery inspection (PDI) per model
   - Unit preparation and initial adjustments
   - Completion of PDI checklist
   - Unit run-in per PDI checklist
   - Warranty registration card submission
   - Defrost line routing and clamping
   - Fuel line connections to unit

2. The trailer or boxcar structure must be evaluated by the trailer or boxcar manufacturer to determine its ability to withstand the loads imposed by the unit over its service life. Carrier Transicold does not convey any endorsement or warranty for the trailer's or boxcar's structural integrity.

3. The weight of the Vector 8600MT Reefer unit (wet, less battery) is 1865 lbs [846 kg].

4. Unit mounting surfaces of the trailer or boxcar that contact the unit mounting pads must be uniplanar to within 0.13 [3] to prevent distortion of the unit and/or trailer.

5. 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.

6. All dimensions shown are in inches, with the metric conversions in [millimeters].

7. Pre-delivery inspection and warranty registration documents are shipped with the unit and are located in the side door pocket with unit manual and schematic.

### ATTENTION:

- If installing remote evaporator(s) with the unit, an additional 2 lbs of refrigerant needs to be added to the refrigeration system for it to operate properly. Bringing the total refrigerant charge to 18 lbs.
- If operating as a single temperature unit (no remote evaporators), no additional refrigerant is required.
TRAILER OR BOXCAR BODY PREPARATION

CAUTION: UNIT MOUNTING SURFACES OF TRAILER OR BOXCAR MUST BE UN-PLANAR TO WITHIN 0.089 inches (2.27 mm) TO PREVENT DISTORTION OF UNIT AND/OR TRAILER/BOXCAR.

CAUTION: TRAILER OR BOXCAR SURFACES THAT CONTACT THE UNIT MOUNTING SURFACES OF TRAILER OR BOXCAR SHOULD NOT PROTRUD MORE THAN 0.196 inches (5 mm) ABOVE THE PLANE DEFINED BY THE MOUNTING PAD SURFACES TO ENSURE PROPER SEAL.

NOTE: EITHER LOCATION MAY BE USED BUT ROAD SIDE LOCATION OFFERS EASIER ACCESS. PLUG UNUSED HOLE AFTER INSTALLATION.

TRAILER OR BOXCAR FRONT VIEW

TRAILER SIDE VIEW

TYPICAL GLADHAND LOCATION (TRAILER)

LIGHT BAR OPTIONAL (SEE DWG 98-03246)

INSTALLATION INSTRUCTIONS

TRAILER OR BOXCAR: 2 & 3 COMPARTMENT MULTI-TEMP VECTOR 8600MT

IMPERIAL INCH FORMAT:

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES WITH METRIC CONVERSIONS IN MILLIMETERS

98-02393 INSTALLATION INSTRUCTIONS

SUPERSEDES: PART CLASSIFICATION: US

EAR99

DRAWING CLASSIFICATION: US EAR99

98-02393 INITIAL RELEASE. 14 MAR 2013 LT-NM 72N0560P12

NOTE: EITHER LOCATION MAY BE USED BUT ROAD SIDE LOCATION OFFERS EASIER ACCESS. PLUG UNUSED HOLE AFTER INSTALLATION.

LIGHT BAR OPTIONAL (SEE DWG 98-03246)
NOTE: BULKHEAD, AIR CHUTE, AND TRANSITION DUCT SHOWN ARE OPTIONAL FEATURES FOR REEFER AIR COOLING AND PRODUCT PROTECTION.

UNIT INSTALLATION:

1. PREPARE UNIT FOR INSTALLATION:
   - Prepare the body to receive the unit. Dimensions for evaporator opening and mounting stud locations can be found on Sheet 4 of this drawing.
   - Route defrost drain hoses, coolant overflow tube, and air lines. Place lines where they will not be damaged between the unit frame and the mounting surface. Remove pallet mounting angle on each bottom of frame.

2. INSTALL UNIT:
   - Remove wire ties holding defrost drain hoses, coolant overflow tube, and air lines. Place lines where they will not be damaged between the unit frame and the mounting surface. Remove pallet mounting angle on each bottom of frame.
   - Open side doors to allow access to mounting stud locations on unit.

3. INSTALL BATTERY:
   - Install battery according to instructions on Sheets 6 & 7. If unit has been supplied with battery, connect battery cables according to the instructions on Sheets 6 & 7.

4. PREPARE THE UNIT FOR LIFTING:
   - Remove side doors to allow access to mounting stud locations on unit.

5. UNIT INSTALLATION:
   - Raise the unit and install in the body opening. Ensure that all stud mountings are secured to the unit frame. Place washer, nut, and lock nut over stud at each stud, making sure that the lower center stud must be accessible from the front of the unit.

6. INSTALL BUTTON PLUGS:
   - Install button plugs in unit frame where mounting studs are located and additional unused will face front (item 92).

7. ROUTE DEFROST DRAIN HOSES:
   - Route defrost drain hoses down the front of the trailer or boxcar and clamp to front wall using 2 clamps (item 32 and 2 threads forming screws, item 87) for each drain hose. Cut hose to proper length (approximately 2076.2 mm) above 5th-wheel plate on trailer, and install rafter (item 92) on the hoses.

8. INSTALL BATTERY:
   - Install battery according to instructions on Sheets 6 & 7. If unit has been supplied with battery, connect battery cables according to the instructions on Sheets 6 & 7.

9. INSTRUCTIONS FOR FUEL LINE CONNECTION:
   - Instructions for fuel line connection are supplied with the fuel tank kit. Instructions for light bar installation are included with the light bar kit.

10. AFTER INSTALLATION:
    - Perform pre-delivery inspection. Copies of completed checklist should be supplied to selling dealer and customer.

11. OPERATE UNIT:
    - Operate unit in continuous run with rear doors open (manual mode).

12. IMPORTANT:
    - In case of any problems or questions, refer to the pre-delivery inspection form supplied with unit. The recommended length of time for final inspection on unit run is set up should be 24 hours.

13. OPTIONAL BULKHEAD CONFIGURATION:
    - Bulkhead pattern or open area for return air flow must be at least 25% of airflow area. Bulkhead pattern or open area must not obstruct airflow openings. Perforated bulkheads that meet these requirements may be installed with this floor.
BATTERY INSTALLATION INSTRUCTIONS

SEE NEXT SHEET FOR PICTORIALS OR REFER TO BATTERY INSTALLATION DOCUMENT IN POLY BAG FASTENED TO BATTERY TRAY PLATE.

UNIT 3 SUPPLIED WITH BATTERY INSTALLED

1.0 CUT WIRE TIES THAT HOLD BATTERY CABLES TO UNIT FRAME.
2.0 CONNECT RED BATTERY CABLE TO THE POSITIVE (+) BATTERY TERMINAL, CONNECT BLACK CABLE TO NEGATIVE (-) BATTERY TERMINAL (USE OF CORROSION INHIBITOR IS RECOMMENDED).
3.0 POSITION TERMINAL COVERS SUPPLIED WITH CABLES OVER TERMINALS.

UNIT 3 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
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 MAXIMUM BATTERY WEIGHT IS 80 LBS.

2.0 CUT WIRE TIE HOLDING THESE PARTS IN THE BATTERY TRAY AND REMOVE PARTS. PLACE BATTERY IN TRAY WITH POSITIVE (+) TERMINAL TO THE REAR OF THE UNIT (AS SHOWN). CONNECT BATTERY CABLES (THE USE OF A CORROSION INHIBITOR ON THE TERMINALS IS RECOMMENDED). RED CABLE TO POSITIVE (+) TERMINAL, BLACK CABLE TO THE NEGATIVE (-) TERMINAL. CABLES SHOULD BE ROUTED TOWARD THE COMPRESSOR AS SHOWN. TIGHTEN TERMINAL CONNECTIONS 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 CABLES OVER TERMINALS.
BATTERY INSTALLATION PROCEDURE FOR
UNITS SHIPPED WITHOUT BATTERY.
INSTALL BATTERY INTO
UNIT WITH POSITIVE (+) TERMINAL
TOWARD THE REAR.
NOTE:
1.0 CAUTION: DUE TO DIFFERENT BATTERY MFG. WHEN APPLYING TORQUE TO BATTERY U-BRACKET, MAKE SURE THERE IS NO BATTERY HOUSING DISTORTION OR CRUSHING.
2.0 WHEN INSTALLING POSITIVE BATTERY CABLE TO BATTERY POST ENSURE THERE IS CLEARANCE BETWEEN THE CABLE AND THE FRAME.
2.1 VECTOR 8500/8600: 0$
2.2 VECTOR NDKA: 15$
3.0 WHEN INSTALLING LEFT J-HOOK INTO L-BRACKET ROTATE OPPOSITE OF RIGHT J-HOOK.

BATTERY (NOT INCLUDED) CURB SIDE VIEW
INSTALL BATTERY INTO UNIT WITH POSITIVE (+) TERMINAL TOWARD THE REAR.

VIEW A-A BATTERY CABLE ARRANGEMENT.

BATTERY TOP BRACKET
BATTERY (NOT INCLUDED)
BATTERY L-BRACKET (REF)
BATTERY L-BRACKET (REF)
TOP OF BATTERY
TYPICAL CABLE ROUTING FOR: VECTOR 8600

NOTE:
1.0 CAUTION: DUE TO DIFFERENT BATTERY MFG. WHEN APPLYING TORQUE TO BATTERY U-BRACKET, MAKE SURE THERE IS NO BATTERY HOUSING DISTORTION OR CRUSHING.
2.0 WHEN INSTALLING POSITIVE BATTERY CABLE TO BATTERY POST ENSURE THERE IS CLEARANCE BETWEEN THE CABLE AND THE FRAME.
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Electrical Specifications & Minimum Standby Infrastructure for Carrier Transicold Trailer units equipped with Standby

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<th>Vector 8600 W/STBY</th>
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<tr>
<td>460V / 3ph / 60Hz</td>
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<table>
<thead>
<tr>
<th>Full Load Amp Draw (FLA)</th>
<th>22 A</th>
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<tbody>
<tr>
<td>Locked Rotor Amp Draw (LRA)</td>
<td>90 A</td>
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| Electrical Receptacle (installed on unit) | IEC IP 67 pin & sleeve, 480V, 30A, 4 wire, 3 pole |
| Receptacle p/n | 22-04168-01 |
| 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: 22-02944-00

**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. 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.

**WARNING:**

Be sure power is disconnected to customer cable before starting installation. Read entire supplier directions supplied with plug BEFORE starting installation.

**PARTIAL LOWER ROADSIDE VIEW**

**STANDBY PLUG MOUNTING**

**CUSTOMER CABLE AND PLUG ASSEMBLY**

**INSTALLATION INSTRUCTIONS**
NOTES:

1. INSTALL (3) MOUNTING ANGLES (ITEM #80), WITH RIVNUTED FLANGE DOWN. TO FRAME USING SUPPLIED SCREWS (ITEM #75). TORQUE SCREW TO 96 IN-LBS, KEEPING THE BOTTOM OF THE ANGLES FLUSH AND PARALLEL TO THE BOTTOM OF THE FRAME.

2. SLIDE (5) OPENINGS IN THE BOTTOM PANEL OVER THE (5) REAR MOUNTING ANGLES ON THE FRAME AND SECURE BOTTOM PANEL TO OTHER (5) MOUNTING ANGLES USING SUPPLIED SCREWS (ITEM #75). TORQUE SCREWS SECURELY TO 96 IN-LBS.

BOTTOM PANEL INSTALLATION

- OPENING FOR CONDENSATE DRAIN LINE
- OPENING FOR FUEL LINE ROUTING
- OPENING FOR BATTERY CABLE OPTION
- OPENING LIFT GATE
- OPENING FOR CONDENSATE DRAIN LINE