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 TRANSICOLD DOES NOT CONVEY ANY ENDORSEMENT OR WARRANTY FOR THE TRAILER'S OR BOXCAR'S STRUCTURAL INTEGRITY.

WEIGHTS:
NEK-530 REEFER UNIT (WET, LESS BATTERY): 1095 LBS
BATTERY (TYPICAL): 80 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].

6.0 PRE-DELIVERY INSPECTION AND WARRANTY REGISTRATION DOCUMENTS ARE SHIPPED WITH UNIT AND ARE LOCATED IN THE SIDE DOOR POCKET WITH UNIT MANUAL AND SCHEMATIC.

![WARNING]

UNIT MAY TIP IF FREESTANDING. MAY RESULT IN SERIOUS INJURY, DEATH OR PRODUCT OR PROPERTY DAMAGE.

SAFETY INSTRUCTIONS

1. TRANSFER UNIT DIRECTLY FROM PALLETT TO THE TRAILER, OR TRAILER TO THE PALLETT.
2. DO NOT SET UNIT ON GROUND SURFACE.

SEE SEPARATE PARTS LIST
CAUTION: UNIT MOUNTING SURFACES OF TRAILER OR BOXCAR THAT CONTACT THE UNIT MOUNTING GASKET SHOULD BE UNI-PLANAR TO WITHIN 0.13 mm TO PREVENT DISTORTION OF UNIT AND/OR TRAILER/BOXCAR.

NOTE: EITHER LOCATION MAY BE USED BUT ROADSIDE LOCATION OFFERS EASIER ACCESS. PLUG UNUSED HOLE AFTER INSTALLATION.
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 6-7. IF UNIT HAS BEEN SUPPLIED WITH BATTERY, CONNECT BATTERY CABLES ACCORDING TO THE INSTRUCTIONS ON SHEET 6-7.
5.0 Prepare the unit for lifting.

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 EIGHT STUDS. (NOTE: THE LOWER CENTER STUD MUST BE ACCESSED FROM THE FRONT OF THE UNIT.)
7.0 INSTALL BUTTON PLUGS (ITEM 92) IN UNIT FRAME WHERE MOUNTING STUDS ARE LOCATED AND ADDITIONAL UNUSED WILL SEE SH. 1.
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 60 IN. 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. COPIES OF COMPLETED CHECKLIST SHOULD BE SUPPLIED TO SELLING DEALER AND CUSTOMER.
11.0 OPERATE UNIT IN CONTINUOUS RUN WITH REAR DOORS OPEN (MANUAL) MODE. REFER TO THE PRE-DELIVERY INSPECTION FORM SUPPLIED WITH UNIT KIT FOR THE RECOMMENDED LENGTH OF TIME. COMPLETE FINAL INSTRUCTION ON UNIT RUN-INT SETUP SHOULD BE "YES".
12.0 IMPORTANT: PRIOR TO FINAL DELIVERY TO CUSTOMER, WARRANTY REGISTRATION 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 SQF OF AIR PASSAGE. HOLE PATTERN OR OPEN AREA MUST BE RECESSED SO THAT CARGO LOADED AGAINST BULKHEAD WILL NOT DISTURB AIR PASSAGE OPENINGS. PERFORATED BULKHEADS THAT MEET THESE REQUIREMENTS MAY BE INSTALLED TIGHT WITH FLOOR.
BATTERY INSTALLATION INSTRUCTIONS

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

UNITS 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.

UNITS SUPPLIED WITHOUT BATTERY INSTALLED

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

GROUP: GROUP 31
VENT LOCATION: SIDE VENT
IMPERIAL INCH FORMAT: UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES WITH METRIC CONVERSIONS IN MILLIMETERS

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 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 CABLES OVER TERMINALS.

NOTE: WHEN SELECTING A SPECIFIC SIZE OF BATTERY, ALWAYS ENSURE THAT THE BATTERY CHOSE 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.
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.
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.

MINIMUM FROM BOTTOM EDGE OF EVAPORATOR NOZZLE TO TRANSITION FOR CHUTE.

MINIMUM TRANSITION ANGLE

W1  H1  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

CHUTE REMOVED FOR CLARIFICATION OF TRANSITION

HARD RECTANGULAR CHUTE MIN. DIMENSIONS

W  H
60.00  9.00  54.00  9.75  48.00  11.00  42.00  12.25  36.00  13.75  30.00  15.00

SOFT CHUTE MINIMUM DIMENSIONS

W  H
50.00  5.00  48.00  5.75  46.00  6.25  44.00  7.25  42.00  8.25  40.00  9.25

TRANSITION & CHUTE DETAILS

INSTALLATION INSTRUCTIONS

98-02591  INITIAL RELEASE. 14 MAR 2013 LT-KM 72N0560P12

SUPERSEDES:                        PART CLASSIFICATION: US           EAR99
DRAWING CLASSIFICATION: US EAR99

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

- SHEET 8 OF     TRAILER (VECTOR 8100)

SCALE 0.200
**Electrical Specifications & Minimum Standby Infrastructure for Carrier Transicold Trailer Units Equipped with Standby**

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating Voltage</td>
<td>460V/3PH/60HZ</td>
</tr>
<tr>
<td>Full Load Amp Drain Draw</td>
<td>22 A</td>
</tr>
<tr>
<td>hp</td>
<td>18.5</td>
</tr>
<tr>
<td>Locked Motor Amp Drain Draw</td>
<td>304</td>
</tr>
<tr>
<td>Electrical Receptacle (Installed on Unit)</td>
<td>DEC IP 63 PIN &amp; SLEEVE, 400V, 30A, 4 WIRE, 3 POLE</td>
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<tr>
<td>Receptacle P/N</td>
<td>22-04166-01</td>
</tr>
<tr>
<td>Phase Reversal</td>
<td>AUTOMATIC</td>
</tr>
</tbody>
</table>

**Standby Circuit Breaker & Cordset Specifications**

- Standby Cable Type & Gauge (with 35' long, up to 75' long): 500V, 600V, 90°C, 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 electrical codes and requirements.**
2. **Ensure that each Refrigeration Unit is protected by an individual circuit breaker sized per the appropriate unit electrical specification listed above.**
3. **A continuous earth 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 electrical code (NEC).** For the assured equipment grounding conductor program, the NEC calls for all conductors to be verified for ground continuity and correct wiring on a 3 month basis.
5. **A neutral conductor must be connected to the refrigeration unit.** 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 circuits between the circuit breaker and the refrigeration unit must be constructed from 6/4 or 4/12 gauge cable.** Carrier recommends a minimum cable length of 350' to limit maximum fault currents and prevent damage to the power circuit within the unit.

**Warning:**

BE SURE POWER IS DISCONNECTED TO CUSTOMER CABLE. READ ENTIRE SUPPLIER DIRECTIONS SUPPLIED WITH PLUG BEFORE STARTING INSTALLATION.
BOTTOM PANEL INSTALLATION

NOTES:

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

2.0 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.

OPENING FOR CONDENSATE DRAIN LINE
OPENING FOR LIFT GATE
BATTERY CABLE OPTION
OPENING FOR CONDENSATE DRAIN LINE AND OPTIONAL HARNESS CONNECTORS.