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:

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].

SEE SEPARATE PARTS LIST

REF: 98-03308-00 REV A

WARNING

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

SAFETY INSTRUCTIONS

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

SEE SEPARATE PARTS LIST
Rear View: Upper Back Panel Only

Rear View: With Upper and Lower Back Panels
CAUTION: TRAILER OR BOXCAR SURFACES THAT CONTACT THE UNIT MOUNTING PADS MUST BE UNIPLANAR TO WITHIN 0.13 mm TO PREVENT DISTORTION OF UNIT MOUNTING SURFACES OF TRAILER OR BOXCAR THAT CONTACT THE UNIT MOUNTING SURFACES OF TRAILER OR BOXCAR TO ENSURE PROPER AIR SEAL.

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

ALLOW 2.75" SPACE AROUND TRAILER OPENING FOR GASKET SEALING. (SEE CAUTION NOTES)

TRAILER OR BOXCAR SIDE VIEW

TRAILER OR BOXCAR FRONT VIEW

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

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ALLOW 2.75" SPACE AROUND TRAILER OPENING FOR GASKET SEALING. (SEE CAUTION NOTES)
NOTE: BULKHEAD, AIR CHUTE, AND TRANSITION DUCT SHOWN ARE OPTIONAL FEATURES FOR BEST AIR CIRCULATION AND PRODUCT PROTECTION. CARRIER CORPORATION 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. ENSURE THAT ALL MOUNTING STUDS ARE FULLY ENGAGED IN THE UNIT FRAME AND LOCK-NUT (ITEM 45) WHEN INSTALLING STUDS. THE CENTER OF GRAVITY SHOULD BE DESIGNATED FOR INSTALLATION.

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 THE UNIT FRAME AND MOUNTING STUD LOCATIONS. 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 MOUNTING STUDS ARE FULLY ENGAGED IN THE UNIT FRAME AND LOCK-NUT (ITEM 45) WHEN INSTALLING STUDS. THE CENTER OF GRAVITY SHOULD BE DESIGNATED FOR INSTALLATION.

7.0 INSTALL BUTTON PLUGS (ITEM 92) IN UNIT FRAME WHERE MOUNTING STUD LOCATIONS ARE LOCATED AND ADDITIONAL UNUSED HOLES (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 HOSES TO PROPER LENGTH (APPROXIMATELY 6.00 FT 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 SETUP 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 OF THE "FORM AND A COPY OF THE WARRANTY REGISTRATION FORM" MUST BE SENT TO CARRIER TRANSICOLD. INSERVICE 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 W/ FLOOR.
ITEMS SUPPLIED IN BATTERY KIT
(PARTS IN POLY BAG AND/OR ATTACHED TO BATTERY TRAY)

UNIT SUPPLIED WITHOUT BATTERY INSTALLED

1.0 USE THE FOLLOWING INSTRUCTIONS TO CORRECTLY SELECT THE BATTERY PERFORMANCE
NEEDED FOR EACH UNIT.

GROUP SIZE GROUP 31
VENT LOCATION SIDE VENT
POST TYPE SCREW POST ONLY
AMPERAGE MINIMUM 700 COLD CRANKING AMPS @ 0°F
MAXIMUM 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 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
AND CONNECT BATTERY LEADS FROM UNIT HARNESS TO THE TERMINAL CONNECTORS SECURELY.
THE USE OF A CORROSION INHIBITOR ON THE TERMINALS IS RECOMMENDED; RED WIRE RING TERMINAL TO THE POSITIVE (+) TERMINAL, BLACK WIRE RING TERMINAL TO THE NEGATIVE (-) TERMINAL.

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 WIRE TIES OVER TERMINALS.

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

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).

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TRANSITION & CHUTE DETAILS
**Electrical Specifications & Minimum Standby Infrastructure**

**for**

**Carrier Transicold Trailer units equipped with Standby**

<table>
<thead>
<tr>
<th>Vector 5100 WSTEBY</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating Voltage</td>
<td>460V / 3ph / 60Hz</td>
</tr>
<tr>
<td>Full Load Amp Draw (FLA)</td>
<td>25 A</td>
</tr>
<tr>
<td>kVA</td>
<td>20.8</td>
</tr>
<tr>
<td>Locked Rotor Amp Draw (LRA)</td>
<td>99 A</td>
</tr>
<tr>
<td>Electrical Receptacle (installed on unit)</td>
<td>IEC IP 67 pin &amp; sleeve, 480V, 30A, 4 wire, 3 pole</td>
</tr>
<tr>
<td>Receptacle pin</td>
<td>22-04166-00</td>
</tr>
<tr>
<td>Phase reversal</td>
<td>Automatic</td>
</tr>
</tbody>
</table>

**Standby Circuit Breaker & Cordset Specifications**

- Standby cable type & gauge (min 50' long, up to 75' long): SOOW, 600V, 90C, 104 (3ph + G)
- Recommended external circuit breaker: 30A
- Connector pin: 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 104 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.
- Read entire supplier directions supplied with plug before starting installation.

**PARTIAL LOWER ROADSIDE VIEW**

**STANDBY PLUG MOUNTING**

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**SUPERSEDES PRINT DISTRIBUTION**

**Carrier Corporation**

Syracuse, New York 13221

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Carrier

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