

Charles HVAC Door Kit

97-80DHVACDRKT

General Description and Installation

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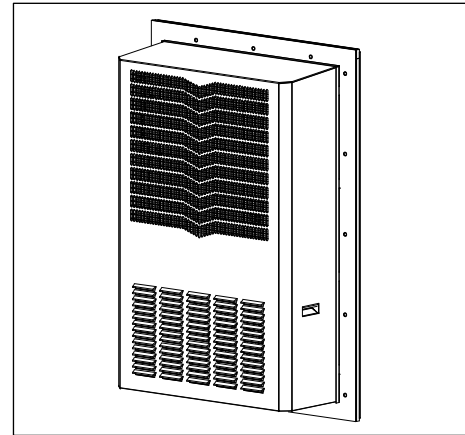


Figure 1 Kit Assembly

1. GENERAL INTRODUCTION

1.1. Document Purpose

This document provides general information for the Charles 97-80DHVACDRKT door kit. Figure 1 shows a view of the kit assembly. Hardware, mounting template, and power cable are not shown.

-NOTE-

Hereafter, the Charles 97-80DHVACDRKT will be referred to as the "kit."

1.2. Product Purpose

The kit is intended for mounting on the outer surface of the front door of a Lucent 80D cabinet. The kit includes a 2000BTU, 115VAC powered HVAC system. Kit dimensions are shown in Figure 2.

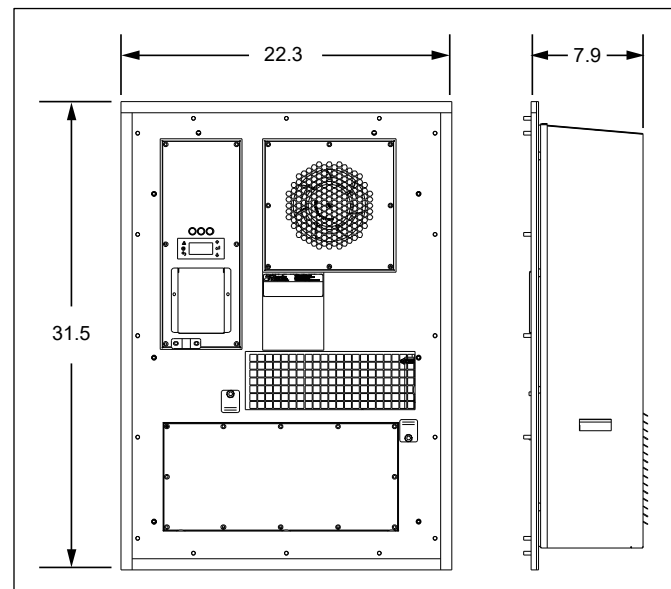


Figure 2 Kit Dimensions (in inches)

2. INSTALLATION

2.1. Inspecting the Product

The kit is shipped mounted upright on a pallet-mounted frame. Remove the bolts, unpack the unit, and dispose of the packaging material.

-INSPECTION NOTE-

Visually inspect the unit for damages prior to installation. If the equipment was damaged in transit, immediately report the extent of the damage to the transportation company.

2.2. Following and Using Safety Precautions

Read the following site and safety tips, cautions, and warnings, then proceed with the paragraphs that follow.

- For installation, follow all National Electrical Codes (NEC) ANSI/NFPA 70, local, environmental, workplace, and company codes, safety procedures, and practices.
- Minimum spacing between the accessories and components and the housing for ITE equipment shall be maintained for safe operation of the equipment when installed in accordance with NEC ANSI/NFPA 70.
- Read all instructions, warnings and cautions on the equipment and in the documentation shipped with the product.
- Do not place this product on weak or unstable surfaces which may allow the product to fall, resulting in potentially serious damage(s) to persons or product.
- Only authorized trained personnel shall install the kit.

2.3. Obtaining Tools and Equipment

Obtain the following recommended or needed items for installing the kit.

- Protective and/or insulated work gloves
- Safety glasses
- Marking utensil
- Drill with 1/4" bit
- Saw or cutter for aluminum sheets
- Wrench for 1/4"-20 nuts
- Torque wrench
- Lifting equipment (e.g. hand truck, dolly)

2.4. Unpacking the Kit

CAUTION: Keep the door kit upright at all times. If the HVAC system is left lying down, then the compressor oil can flow out of its reservoir, which will impair the HVAC operation when it is turned on. Store the door in an upright position for 24 hours prior to installation and keep it upright during the installation process.

1. Locate the cross braces on the back of the frame. Remove these by removing the screws that hold them in place.
2. Remove the foam gaskets and set aside.
3. Use proper lifting equipment to move the kit off the pallet. Make sure the kit remains in a vertical position when transporting.

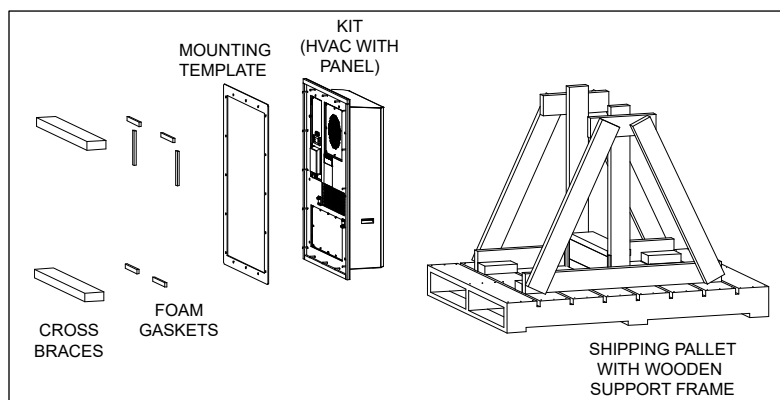


Figure 3 Unpack the Kit

2.5. Mounting the Kit

1. The kit has threaded mounting studs and a rectangular opening on the back. A matching drilling template is included. Place the template against the cabinet door in the desired location for mounting. Mark the holes and rectangular opening and set the template aside.
2. Drill holes and cut out the opening on the cabinet door.
3. Lift the kit into position on the front of the door so that the threaded studs on the kit fit into the mounting holes on the door.
4. Secure the kit in place using the 1/4" Keps nuts and washers that are included with the kit (Figure 4). Torque the nuts to 60 in-lbs.

Note: the kit includes a blank label on the back of the HVAC. If any identifying information about the cabinet (e.g. serial number) was lost when the opening was cut into the cabinet door, copy that information onto the blank label before discarding the panel.

2.6. Kit Wiring

Connect the power cable included with the kit to the power connector on the back of the HVAC system (Figure 5). Connect the other end of the cable to a 10A breaker on the cabinet power system. If alarm terminals are available in the cabinet, connect them to the Alarm pins. Ensure that the jumper is placed on the On/Off pins (jumper is supplied by the factory).

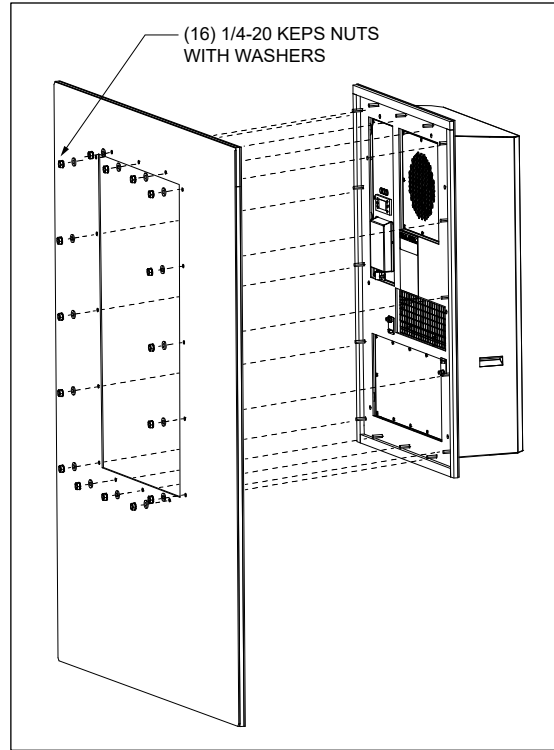


Figure 4 Mount Kit on Cabinet Door

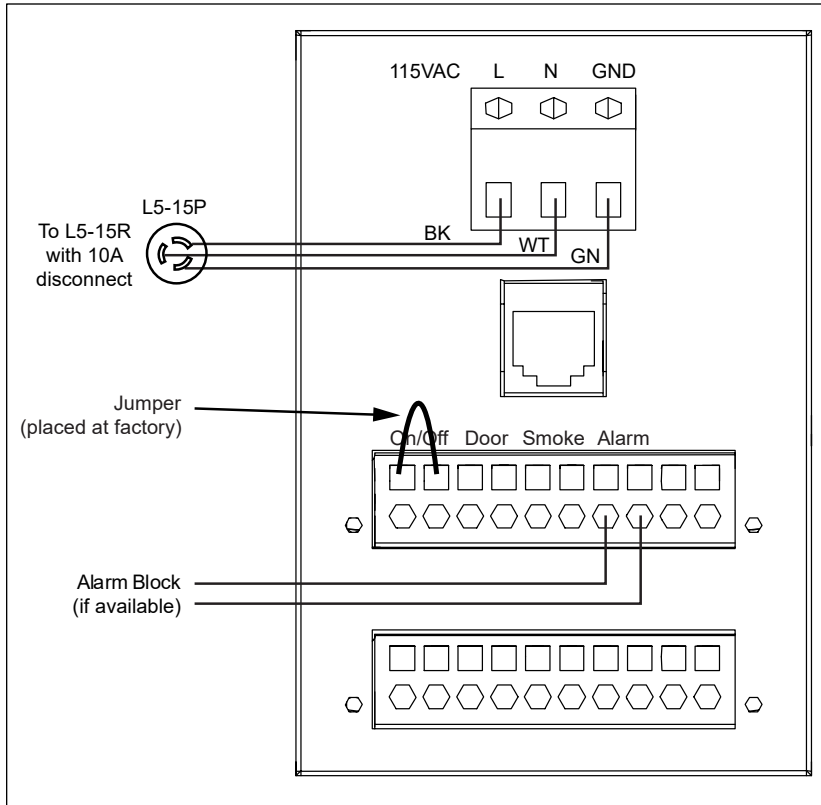


Figure 5 HVAC Control Panel

2.6.1. HVAC Operation

The 2000BTU DC powered HVAC compressor and fans are PID (proportional integral derivative) controlled. The compressor turns on at 25°C at low speed and will increase speed as needed to maintain that temperature. The compressor turns off at 22°C. The internal fan is always on at low speed to continually circulate heat within the cabinet. The heating cycle turns on at 8°C and off at 13°C. The CUBE is equipped with a cutoff switch that shuts off the HVAC compressor when a door is opened to minimize condensation buildup on the coils. For further information, refer to the HVAC documentation that ships with the CUBE.

-NOTE-

Changing the cooling or heating cycles' default factory set points can lead to system performance issues, such as equipment failures, increased power use, unnecessary alarms, noise, condensation build up, compressor or fan failure caused by excessive runtimes and vibration.

Avoid placing items in front of the HVAC's return and supply vents. Maintain a minimum of 6" clearance to enable proper air flow.

3. TECHNICAL ASSISTANCE AND REPAIR SERVICE

For questions on product repair or if technical assistance is required, contact Charles Technical Support.

847-806-8500
techserv@charlesindustries.com (email)
<http://www.charlesindustries.com/techserv.htm>

4. WARRANTY & CUSTOMER SERVICE

Charles Industries LLC offers a one-year warranty on the kit product. The Charles warranty is limited to the operation of the kit hardware as described in this documentation and does not cover equipment which may be integrated by a third party. The terms and conditions applicable to any specific sale of product shall be defined in the resulting sales contract. For questions on warranty or other customer service assistance, contact your Charles Customer Service Representative.

847-806-6300
mktserv@charlesindustries.com (email)
http://www.charlesindustries.com/main/telecom_sales_support.htm

5. SPECIFICATIONS

Physical	
Dimensions	32"Hx22"Wx8"D
Weight	Approx. 60 lbs. as shipped
Materials	0.125" aluminum
Color	Off-white
HVAC System	115VAC, Vikinor VAK-600
Cooling Capacity	2000BTU
Touch-up Paint	02-000290-0

Table 1 Kit Specifications