



HOPE INDUSTRIAL SYSTEMS



ENCLOSURES FOR COMMERCIAL AND INDUSTRIAL PCs

USER MANUAL

Model No. ENCL-PC _ _ - _ _ - _ _



Table of Contents

Safety and Regulatory Information	3
Waste Electrical and Electronic Equipment Directive (WEEE)	3
Mechanical Drawings	4
Top View (showing clearance required for door).....	4
Rear View	5
Inside View of Access Door	6
Inside View of Enclosure.....	7
Close-up showing measurements of Access Door Mounting Bracket	8
Installation Instructions	9
Step 1: Determine Cable Entry	9
Step 2: Mount the Enclosure	10
Mounting to a Wall (with optional wall mount bracket WB-ENCL2-xxx).....	11
Mounting Directly to a Wall (without optional wall mount bracket).....	13
Step 3: Install Power Strip	13
Step 4: Install the PC	14
Standard PC Mounting Bracket.....	14
Dell Optiplex XE2 Mounting Bracket (part number MK-PC10-DELLXE2).....	14
Step 5: Install Optional Accessories and Route Cables.....	15
Specifications	17
Electrical	17
Environmental	17
Physical	17
Mounting Options and Device Compatibility	18
Compliances and Certifications	18
Warranty Statement	19



Safety and Regulatory Information



WARNING!

Operator could be exposed to dangerously high voltage if AC power is not connected properly. Verify all wiring is properly connected.

Waste Electrical and Electronic Equipment Directive (WEEE)

The following information is only for EU-member states:

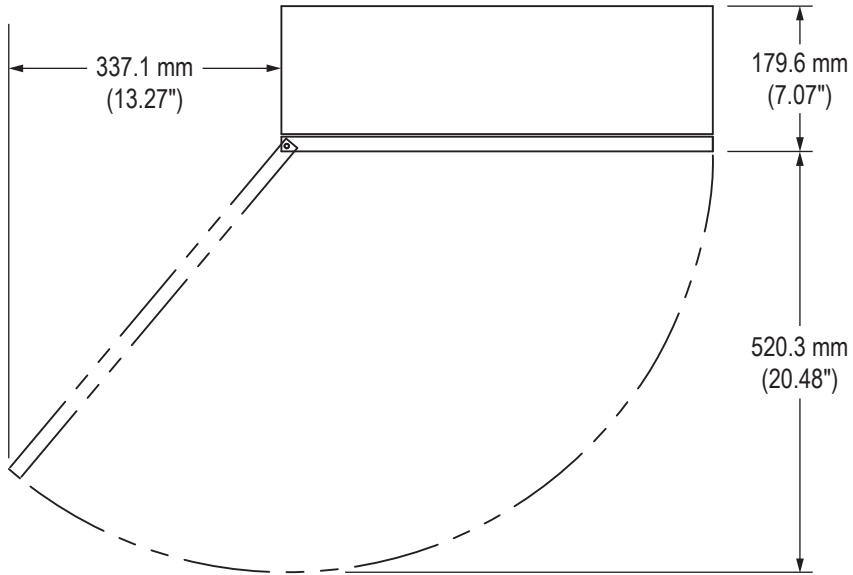
The mark shown to the right indicates compliance with the Waste Electrical and Electronic Equipment Directive 2002/96/EC (WEEE).



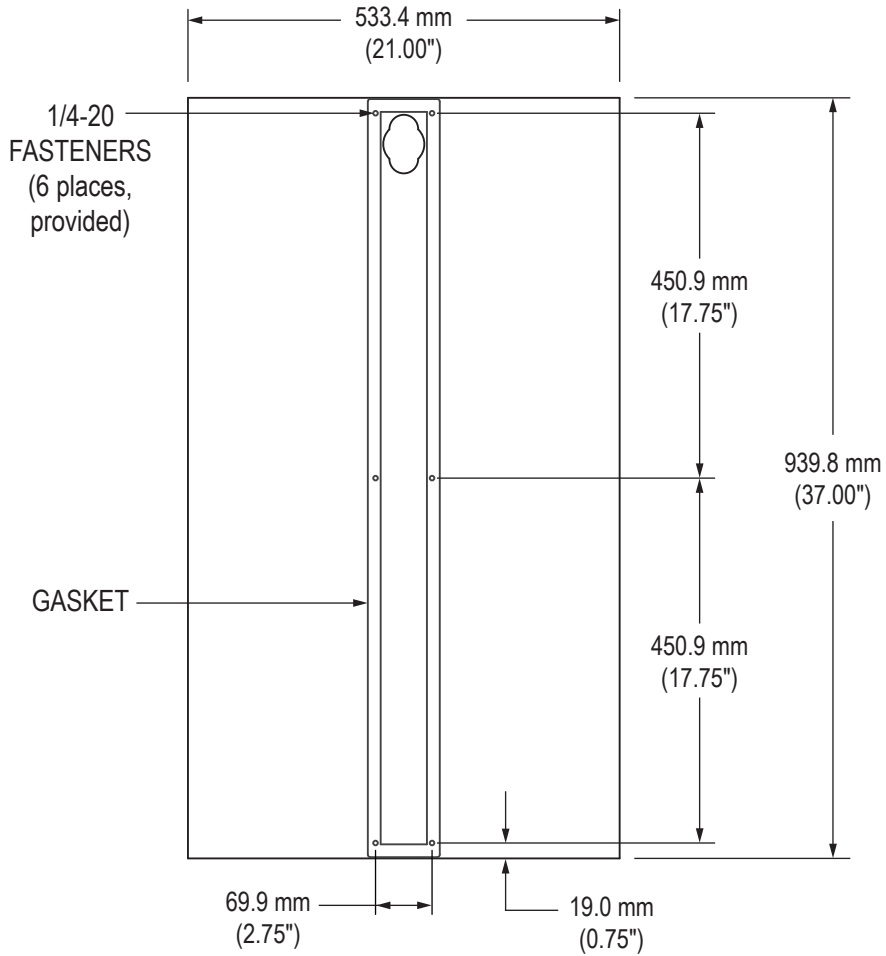
The mark indicates the requirement NOT to dispose of the equipment as unsorted municipal waste, but use the return and collection systems according to local law. Users should contact their supplier and check the terms and conditions of the purchase contract. When purchased directly from Hope Industrial Systems, you may contact technical support for disposal arrangements.

Mechanical Drawings

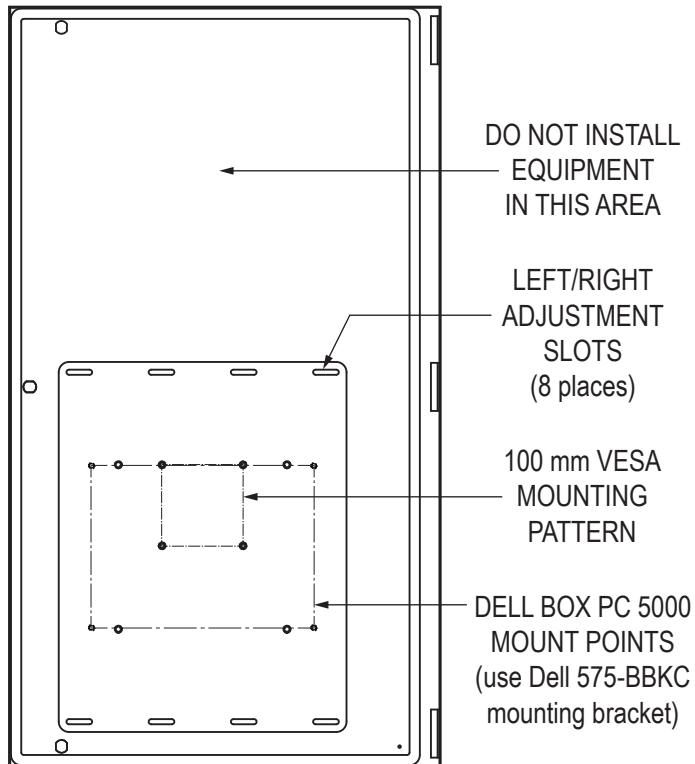
Top View (showing clearance required for door)



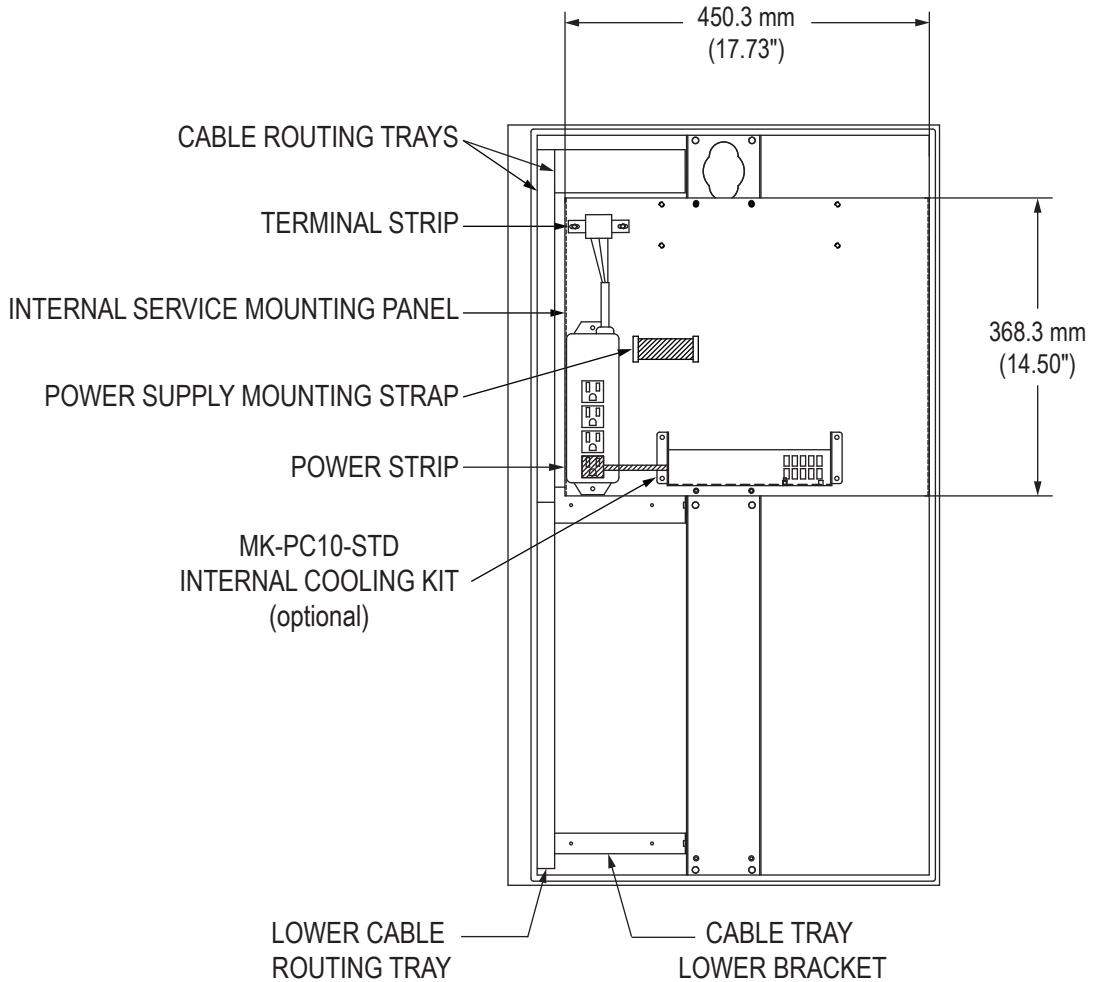
Rear View



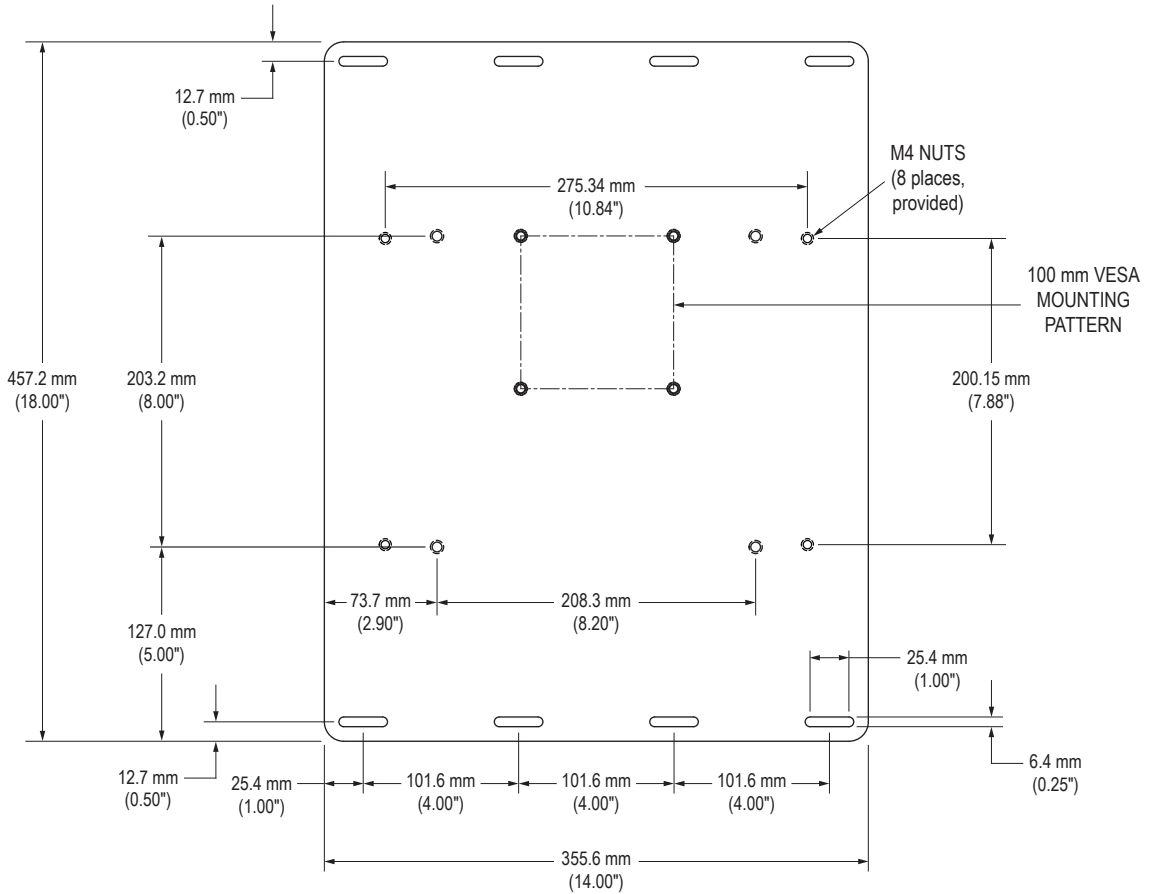
Inside View of Access Door



Inside View of Enclosure



Close-up showing measurements of Access Door Mounting Bracket



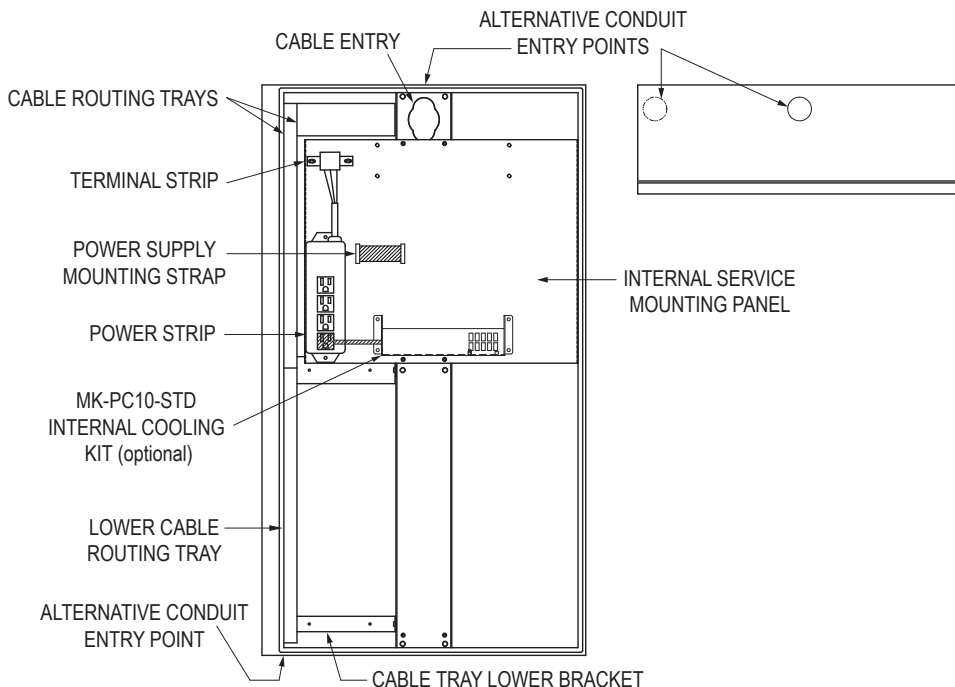
Installation Instructions

Step 1: Determine Cable Entry

A wiring entry hole is provided at the top center of the enclosure for use when pedestal or wall mounting the enclosure. If cables will not be going through the rear hole already provided, punch conduit holes as required.

NOTE: If punching conduit holes in the enclosure, place the hole(s) so that wires can be routed through the trays provided. See diagram below for alternative conduit entry points on the enclosure top, bottom, and rear walls. If necessary, remove cable routing covers and trays before drilling to avoid damage and to allow room for conduit installation. In wet environments, ensure that conduit entry points are adequately sealed.

NOTE: Keyless latches should be operated with a 6 mm (0.25") wide screwdriver bit to prevent scarring or scratching of the lock mechanism.



Step 2: Mount the Enclosure

The ENCL-PC enclosure can be mounted to a Hope Industrial Systems pedestal, directly to a wall, or to a wall with optional WB-ENCL2-xxx bracket from Hope Industrial Systems.



WARNING!

Mounting the ENCL-PC directly to a wall or other surface without using the WB-ENCL2-xxx bracket severely reduces its heat handling ability, since a large portion of the enclosure's surface area is effectively insulated.

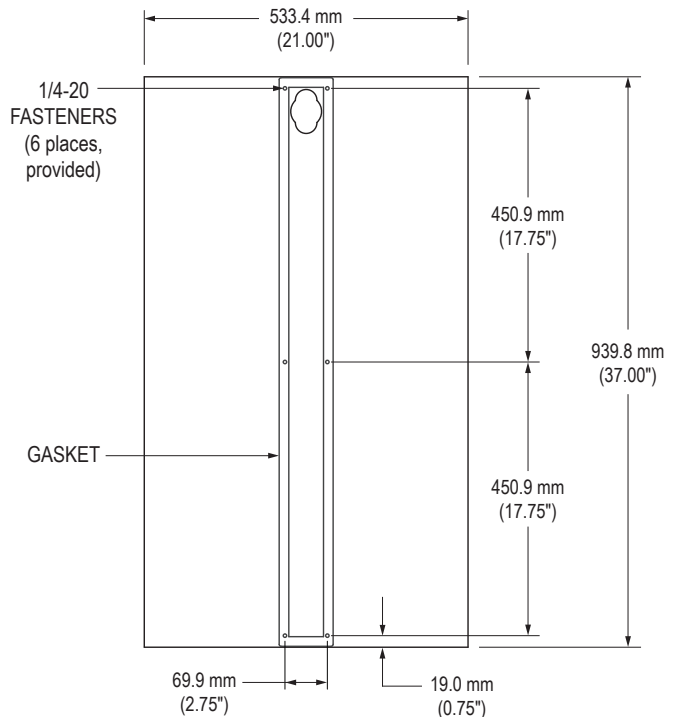
Wall-mounting without the bracket should only be done when using very low-power devices inside the enclosure. Please contact Hope Industrial Support for guidance before mounting directly to a wall.

Mounting to a Pedestal

1. Insert the provided six 1/4-20 fasteners through the holes in the back of the enclosure and into the corresponding pre-tapped holes in the pedestal.

NOTE: When mounting to a black pedestal, remove and discard the plastic screws from the bottom four holes on the pedestal prior to mounting the enclosure.

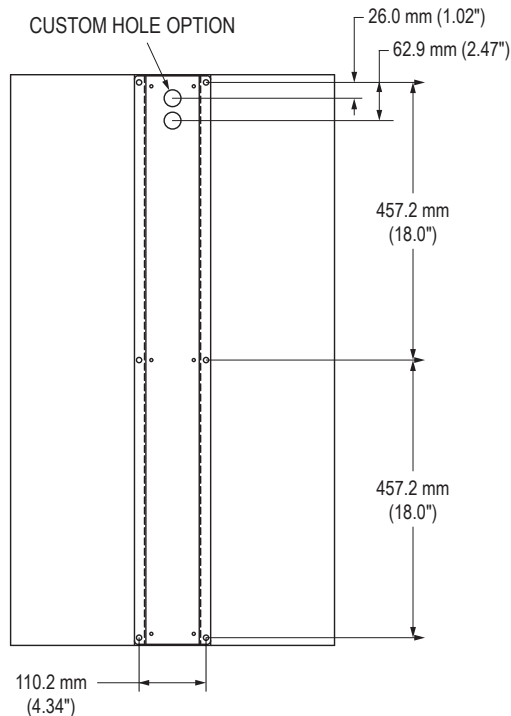
2. Route power and signal cables through the cable entry into the enclosure.



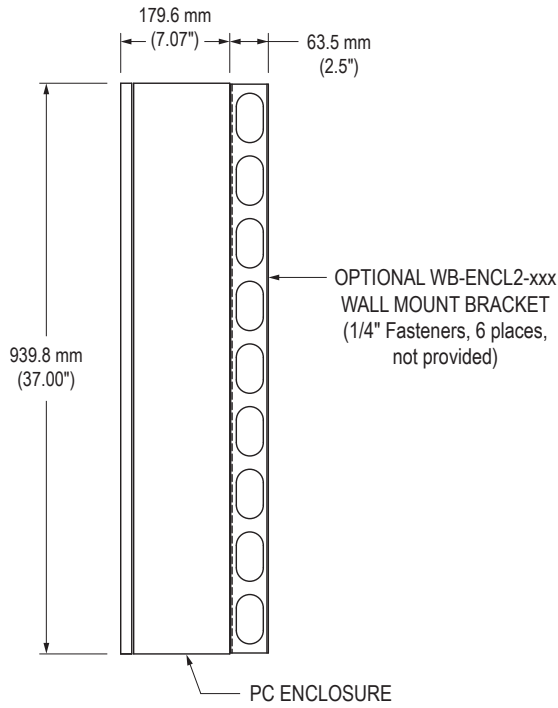
Mounting to a Wall (with optional wall mount bracket WB-ENCL2-xxx)

1. Refer to the following diagrams. Cut holes in the bracket for conduit entry into the rear of the enclosure, or cut holes in the enclosure.
2. Use six 1/4" fasteners (not provided) to mount the bracket to the wall using the hole pattern shown in the diagram below.
3. Mount the enclosure to the bracket using the provided six 1/4-20 fasteners.
4. Route power and signal cables through the cable entry into the enclosure.

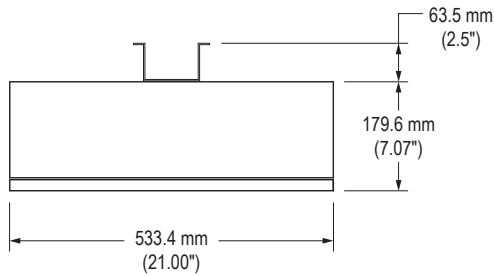
Rear View with Optional WB-ENCL2-xxx Bracket



Side View with Optional WB-ENCL2-xxx Bracket



Top View with Optional WB-ENCL2-xxx Bracket

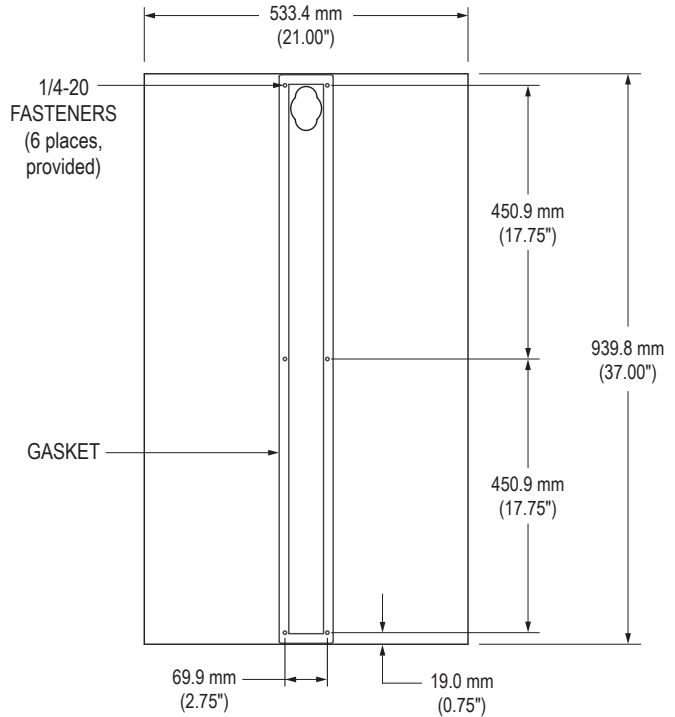


Mounting Directly to a Wall (without optional wall mount bracket)

1. Select a wall with a smooth surface. Use the hole pattern shown in the diagram to the right.

NOTE: Mounting the enclosure to a rough surface can prevent the pre-installed rear gasket from forming a proper seal around the six mounting holes and the pre-punched wiring hole. If the enclosure must be mounted to a rough surface in a potentially wet area, a seal appropriate for the situation must be devised for the mounting and wiring holes.

2. After the enclosure is in place, install conduit if necessary, then route cables through the cable entry into the enclosure.



Step 3: Install Power Strip

If power strip (part number MK-4OUTLET-xx) was purchased, install it at this time. Refer to the "Inside View of Enclosure" diagram shown on page 7.

1. Mount the power strip using the two screws installed on the service panel.
2. Wire the power strip to the terminal strip, ensuring wires are aligned properly.

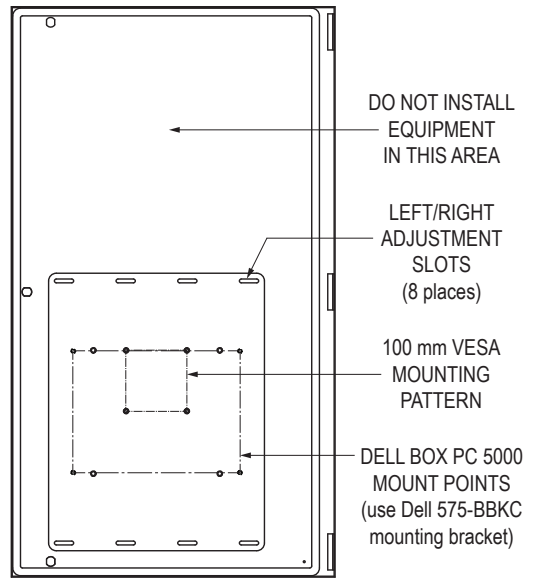
Step 4: Install the PC

Standard PC Mounting Bracket

Refer to the diagram to the right. Remove the mounting bracket from the enclosure door and drill holes as required to accommodate the PC.

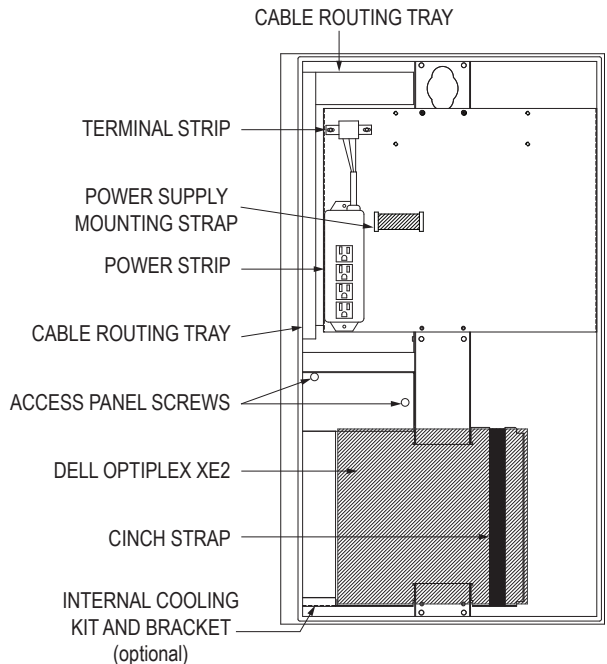
NOTE: If the PC has internal fans, orient it so that the fans take in air from the bottom of the enclosure and exhaust air toward the top. If the PC has a finned heat sink, orient it so air can flow parallel from bottom to top.

NOTE: The mounting bracket adjusts left and right as needed to provide clearance for the door to close. Pay special attention to clearances for cable connections and internal components.



Dell Optiplex XE2 Mounting Bracket (part number MK-PC10-DELLXE2)

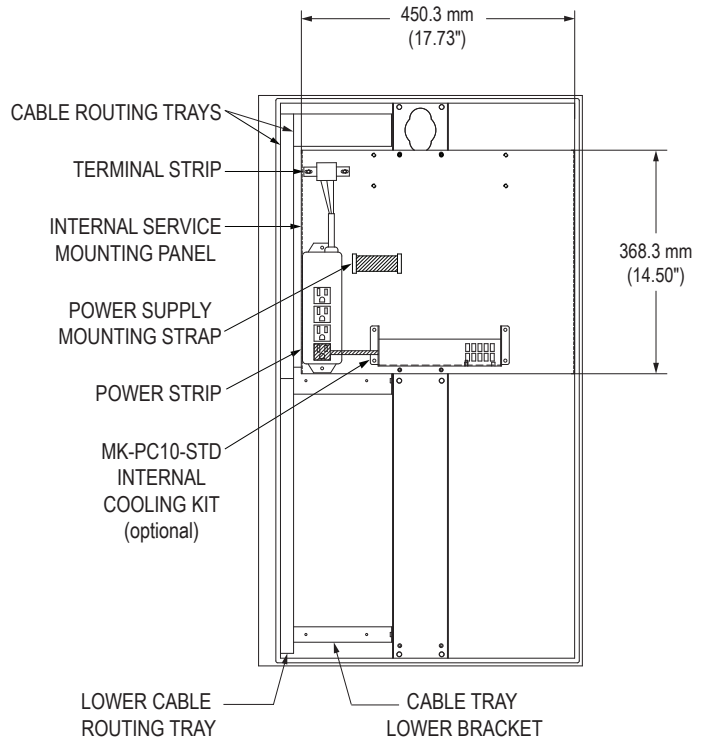
1. Remove lower half of cable routing tray and cable tray lower bracket.
2. Install the cooling kit and bracket assembly onto the center stiffener bracket using the provided four screws.
3. Unscrew the two thumb screws to remove the access panel.
4. Loosen the cinch strap.
5. Route all PC cables through the upper cable routing tray and through the compression gasket next to the cooling kit.
6. Position the PC close enough to the bracket to plug cables in.



7. Push the PC to the left against the lip seal and back into position.
8. Wrap cinch strap around the PC and tighten.
9. Bring AC power to the cooling kit by plugging the included AC power cable into an outlet on the power strip.
10. Reinstall the access panel that was removed in step 3. Compression gasket will have to be closed to tighten the left hand access panel thumb screw.

Step 5: Install Optional Accessories and Route Cables

1. Install any additional equipment on the internal service panel. The panel can be removed for drilling as required.
2. If you ordered the optional MK-PC10-STD internal cooling kit, install it on the service panel now. This cooling kit may be low-mounted, as shown in the diagram to the right, or high-mounted on the top mounting pattern on the service panel. Hook up power to the internal cooling kit by plugging the kit's AC cable into an outlet on the power strip. For non-North American power strips, connect power using the alternative cable that shipped with your internal cooling kit. Connect the cable to the kit, then connect the pigtail end to the AC input terminal blocks.



3. Remove cable routing tray covers and route the power cable to the power strip terminal block on the internal service panel. Route all signal cables (video, keyboard/mouse, serial, network, etc.) and AC power cables as required. For good internal air flow, all cables should be routed neatly through the trays.
4. Ensure the enclosure access door swings freely and closes without binding the routed cables or internal components. Adjust installed equipment as necessary, then reinstall cable routing tray covers.
5. If display, I/O, or other external devices to be used have not already been installed, install them now using instructions provided with those devices.
6. Power up the PC and test the system before closing and latching the enclosure door.



WARNING!

Failure to close the enclosure door may result in water damage to internal components in a wet environment and void the warranty.

Specifications

Electrical	
Power Distribution	Integrated AC power distribution and terminal blocks included
Power Input	90 to 264 VAC
Power Strip Options	<ul style="list-style-type: none"> US Power Strip (Hope Industrial part number: MK-4OUTLET-US): 4 x NEMA 5-15R socket-outlets EU Power Strip (Hope Industrial part number: MK-4OUTLET-EU): 4 x CEE 7/39 (Shuko) socket-outlets UK Power Strip (Hope Industrial part number: MK-4OUTLET-UK): 4 x BS1363 socket-outlets

Environmental	
Enclosure Rating	Sealed to NEMA 4/4X, IP65/IP66 standards, 3rd-party certified
Operating Temperature	0° to 50°C (32° to 122°F)
Storage Temperature	-20° to 50°C (-4° to 122°F)

Physical	
Enclosure Dimensions (W x H x D)	533.4 mm x 939.8 mm x 179.6 mm (21.00" x 37.00" x 7.07")
Enclosure Weight	31.75 kg (70 lbs.)
Cable Management	Integrated cable trays with removable covers
Door Seal	Drip gutters with continuous gasket divert water around the perimeter of the enclosure door
Door Latch Type	3 x single-turn vise action compression latches
Door Latch Lock Options	<ul style="list-style-type: none"> Keyless single-turn, tool-operated compression locks (operate with flathead screwdriver) (ENCL-PCxx-xxx-L1 models) Tubular key compression locks (ENCL-PCxx-xxx-L2 models)
Enclosure Materials	<ul style="list-style-type: none"> Black Powder-Coated Carbon Steel (ENCL-PCxx-BLK-xx models) 304 Stainless Steel (ENCL-PCxx-SS4-xx models)

Mounting Options and Device Compatibility	
Maximum PC Dimensions (W x H x D)	470 mm x 470 mm x 152 mm (18.50" x 18.50" x 6.00") total maximum clearance for computer, cable connectors, and cable bend
Internal Mounting Panels	<ul style="list-style-type: none"> • Primary PC Panel: removable, mounted on lower half of door interior, (W x H) 355.6 mm x 457.2 mm (14.0" x 18.0") • Secondary Service Panel: removable, mounted on inside surface, also holds power strip, terminal blocks, and optional cooling fan, (W x H) 450.3 mm x 368.3 mm (17.7" x 14.5")
Mounting Options	Designed for mounting directly to Hope Industrial Pedestal Mounts or for direct attachment to a wall using an optional Stand-off Mounting Bracket (Hope Industrial part numbers: WB-ENCL2-SS4 and WB-ENCL2-BLK)
Optional Cooling Kit	Hope Industrial part number: MK-PC10-STD <ul style="list-style-type: none"> • Voltage: 90 to 264 VAC • Frequency: 47 to 63 Hz

Compliances and Certifications	
Electrical	UL 508A Listed (File No. E340976)
Environmental	WEEE (Registration No. WEE/DJ1859ZX for UK only)

Warranty Statement

Who is Covered?

This warranty covers the purchaser of this product only and is not transferable without our written consent.

What Does This Warranty Cover and What is the Period of Coverage?

We warrant this product to be free from defects in material and workmanship, subject to the conditions set forth below. The warranty remains in force for a five year period beginning on the date we invoice you. If Hope Industrial Systems repairs or replaces a product under warranty, its warranty term is not extended, but the repair itself is warranted for 90 days.

What Will We Do to Correct Problems?

We will repair or replace (at our sole option) any part of the unit which proves to be defective. Replacement parts may be new or refurbished and will meet the same specifications of the original parts or unit. For orders sold through our U.S. operations, at our expense we will return the product to any location within the U.S.A. via the shipping method of our choice. Shipping fees for products returned to customers outside the U.S.A. are the responsibility of the customer. For products originally sold through Hope Industrial E.U. or U.K., return shipping to and from Hope Industrial repair facilities and any EU member country (except Croatia, Cyprus, and Malta) will be provided using a pre-paid UPS shipping label sent via email.

How Do You Get Service?

In order to receive warranty service you must get prior approval from Hope Industrial Systems. To request warranty service you can contact our customer service representatives. If we determine that warranty service is needed we will give you a Return Material Authorization (RMA) number. This RMA number must be conspicuously marked on the outside of the shipping box. Hope Industrial Systems will not accept shipments not accompanied by the RMA number. Except where otherwise noted, you must ship or deliver the product to Hope Industrial Systems Freight prepaid.

What Does This Warranty Not Cover?

This warranty does not cover equipment which has been damaged due to misuse, abuse or accident such as: operating the equipment outside of published specifications; exposure to chemicals or gases not covered by specified IP/NEMA standards; displaying fixed images for long periods of time resulting in afterimage effects; improper or unauthorized repair by anyone other than Hope Industrial Systems or a service agency authorized by Hope Industrial Systems to perform such repairs; fire, flood, "acts of God", or other contingencies beyond the control of Hope Industrial Systems.

Hope Industrial Systems' responsibility for malfunctions and defects in hardware is limited to repair and replacement as set forth in this warranty statement. Hope Industrial Systems shall not be liable for direct, indirect, incidental, consequential, or other types of damages resulting from the use of any Hope Industrial Systems product other than the liability stated above. These warranties are in lieu of all other warranties express or implied, including, but not limited to, the implied warranties of merchantability or fitness for a particular purpose. Some states do not allow the exclusion of implied warranties or the limitation or exclusion of liability for incidental or consequential damages so the above exclusions or limitations may not apply to you. You are cautioned that the performance of this product can be affected by many factors, such as system configuration, software, application, and operator control of the system. It is your responsibility to determine suitability of this product for your purpose and application.

Hope Industrial Systems, Inc.

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