

# INSTRUCTION SHEET

# KO-CRD SERIES

## THERMAL MANAGEMENT KITS

### PARTS

KO-CRD-FAN, consisting of: (2) Fans, (6) Guards, (8) #6-32 x 2" panhead Phillips screws, (16) #6-32 Flange nuts, and (8) #6-32 x 3/8" panhead Phillips screws

KO-CRD-VT, consisting of: (4) Guards, (16) #6-32 x 3/8" panhead Phillips screws, and (16) #6-32 Flange nuts

### ASSEMBLY

**NOTE:** See page 2 for configurations.

- 1) Remove appropriate knockouts from split rear doors (top and bottom). (See FIGURE A)

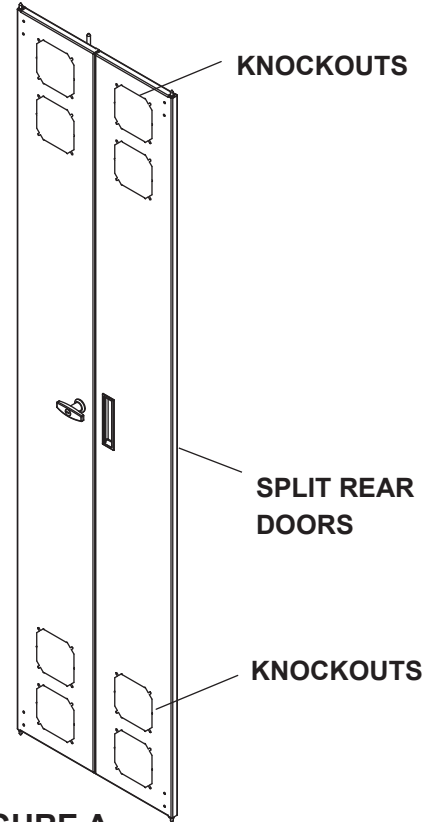


FIGURE A

- 2) Using the hardware provided, install fan and guards to the top portion of the split rear doors and install guard to the bottom portion of the doors as shown. (See FIGURE B)

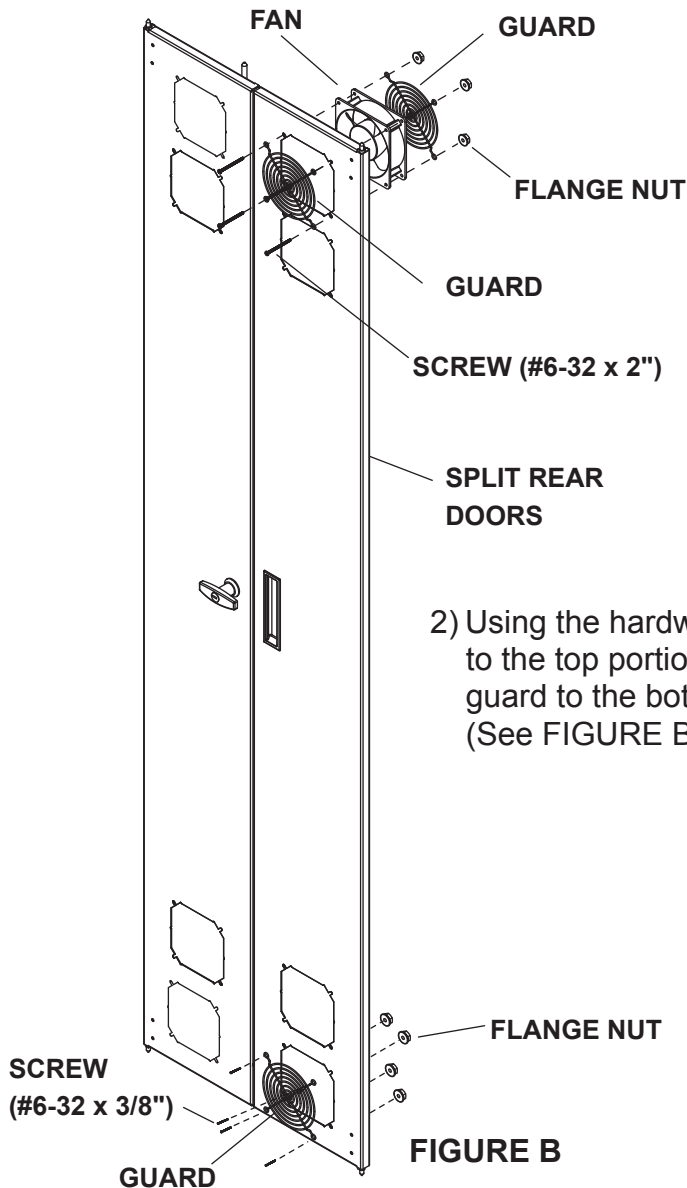
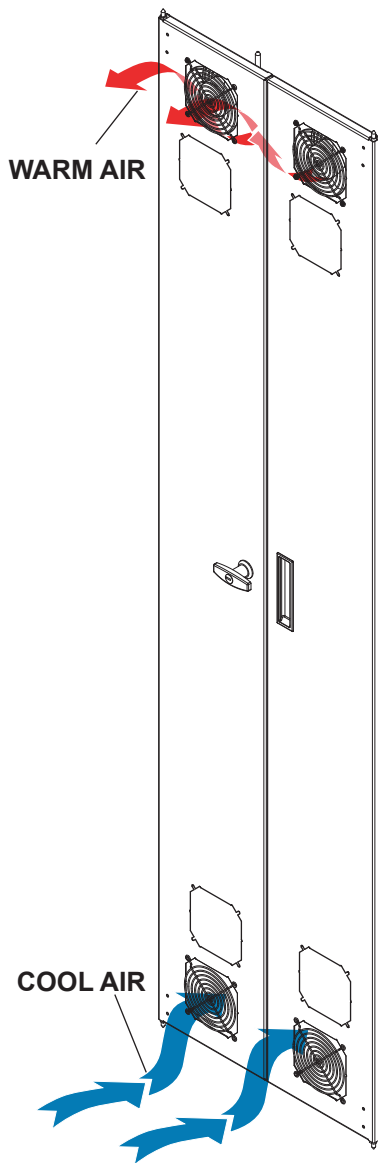


FIGURE B

## Thermal Management Considerations

Middle Atlantic Products recommends configuring the split rear doors as shown below to maximize the thermal management capabilities.

### PASSIVE COOLING (CONVECTION)



**GUARDS ONLY  
MODEL # KO-CRD-VT**

**NOTE:** For additional airflow, 42, 44, and 45 space doors will accept a second Fan kit, Model # KO-CRD-FAN

For more information and a design guide, please see our thermal management white paper available at [www.middleatlantic.com](http://www.middleatlantic.com)

**GUARDS ONLY  
MODEL # KO-CRD-VT**

### ACTIVE COOLING (FORCED AIR FLOW)



**FANS WITH GUARDS  
MODEL # KO-CRD-FAN**

**GUARDS ONLY, PART OF  
MODEL # KO-CRD-FAN**

#### **WARRANTY**

Middle Atlantic Products, Inc. (the "Company") warrants the KO-CRD Series to be free from defects in material or workmanship under normal use and conditions for a period of (3) three years from date of shipment by the Company.

The Company's entire liability to the purchaser, and the purchaser's (or any other party's) sole and exclusive remedy, under this warranty shall be limited, at the Company's option, to either (a) return of and refund of the price paid for, or (b) repair or replacement at the Company's factory of the products purchased, or any part or parts thereof, which the Company has determined to be defective after inspection thereof at the Company's factory. This warranty does not cover damage due to acts of God, accident, misuse, abuse or negligence by parties other than the Company, or any modification or alteration of the products. In addition, this warranty does not cover damage due to improper handling, assembly, installation or maintenance.

THIS WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

TO THE MAXIMUM EXTENT PERMITTED BY APPLICABLE LAW, IN NO EVENT SHALL THE COMPANY BE LIABLE FOR ANY SPECIAL, INCIDENTAL, INDIRECT, OR CONSEQUENTIAL DAMAGES WHATSOEVER (INCLUDING, WITHOUT LIMITATION, DAMAGES FOR LOSS OF BUSINESS PROFITS, BUSINESS INTERRUPTION OR ANY OTHER PECUNIARY LOSS) ARISING OUT OF THE USE OF THE PRODUCTS PURCHASED, EVEN IF THE COMPANY HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. THE COMPANY'S LIABILITY TO THE PURCHASER (OR ANY OTHER PARTY) HEREUNDER, IF ANY, SHALL IN NO EVENT EXCEED THE PURCHASE PRICE OF THE PRODUCTS PAID TO THE COMPANY.

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**At Middle Atlantic Products we are always listening. Your comments are welcome.**

