# EMI FILTER KIT INSTALLATION

 $ilde{\mathbb{A}}$  WARNING: Risk of fire, electric shock, or injury to persons during cleaning and user maintenance. Disconnect the appliance from the power supply before servicing.

MARNING: The fan VFD contains high voltage capacitors which take time to discharge after removal of mains supply. Before working on the VFD, ensure isolation of main supply from line inputs at the VFD or fan controller's disconnect. Wait three minutes for capacitors to discharge to safe voltage levels. Failure to do so may result in personal injury or death. Darkened display LEDs are not an indication of safe voltage levels.

#### **HARDWARE**

Note: Discard hardware and installation instructions included in box with EMI filter.



8-32 x 1/2" Flange Hex Head Cap Screws\*



Snap-On Ferrite Core for Controller Cable



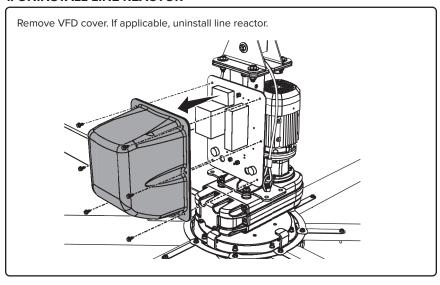
Ferrite Core for Fire Relay Wires



Snap-On Ferrite Core for Motor Output Wires

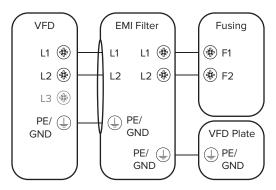
\*One spare screw provided

#### 1. UNINSTALL LINE REACTOR

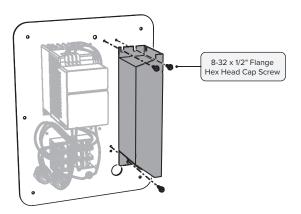


#### 2A. INSTALL EMI FILTER (200-240 V, 1 Φ)

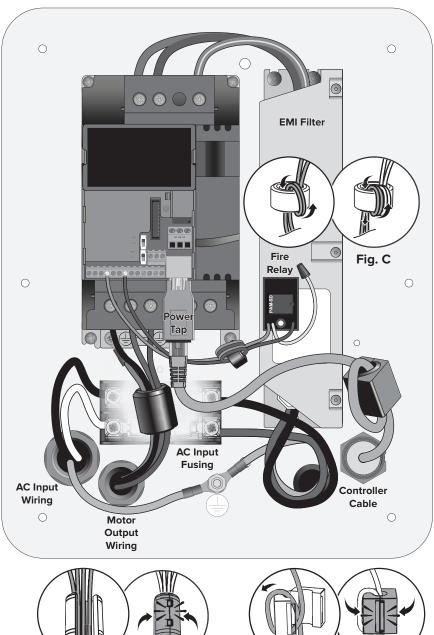
- Disconnect wires from top of VFD (L1, L2, PE/GND). Cut and discard cable tie securing wires to VFD mounting plate.
- Position EMI filter on VFD mounting plate. If fire relay interferes with VFD placement, relocate relay to EMI filter housing with provided double-sided tape. Trim wires from AC input fusing to appropriate length and strip for connecting to EMI filter terminals.
- Make electrical connections between EMI filter and VFD. Ensure ground wires are connected as shown below and on following page. Do not tie ground wires together.

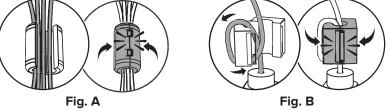


4. Secure EMI filter to VFD with provided screws.



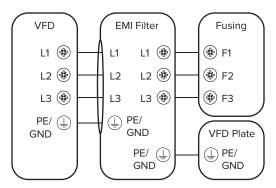
- 5. Snap ferrite core around the four motor output wires (Fig. A).
- Unplug CAT5 controller cable from VFD power tap. Wrap cable around ferrite core
  once, and then close ferrite core (Fig. B). Make sure ferrite core is positioned at the
  end of the cable closest to VFD mounting plate. Plug cable back into power tap.
- Disconnect fire relay wires from VFD. Wrap fire relay wires around ferrite core twice (Fig. C). Reconnect wires to VFD (MI3 = Orange or Yellow; DCM = Blue).



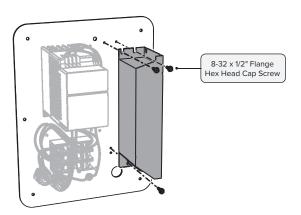


### 2B. INSTALL EMI FILTER (200-240 V, 3 Φ)

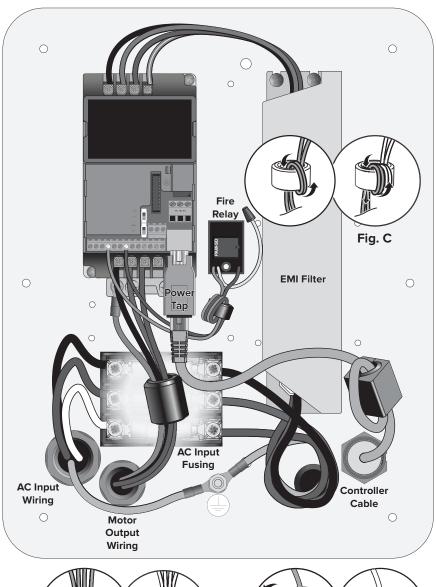
- 1. Disconnect wires from top of VFD (L1, L2, L3, PE/GND). Cut and discard cable tie securing wires to VFD mounting plate.
- Position EMI filter on VFD mounting plate. Trim wires from AC input fusing to appropriate length and strip for connecting to EMI filter terminals.
- Make electrical connections between EMI filter and VFD. Ensure ground wires are connected as shown below and on following page. Do not tie ground wires together.

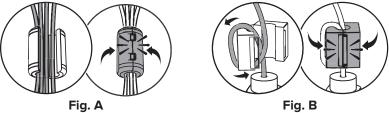


4. Secure EMI filter to VFD with provided screws.



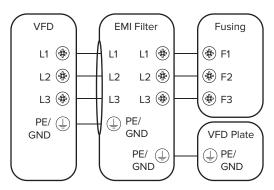
- 5. Snap ferrite core around the four motor output wires (Fig. A).
- 6. Unplug CAT5 controller cable from VFD power tap. Wrap cable around ferrite core once, and then close ferrite core (Fig. B). Make sure ferrite core is positioned at the end of the cable closest to VFD mounting plate. Plug cable back into power tap.
- Disconnect fire relay wires from VFD. Wrap fire relay wires around ferrite core twice (Fig. C). Reconnect wires to VFD (MI3 = Orange or Yellow; DCM = Blue).



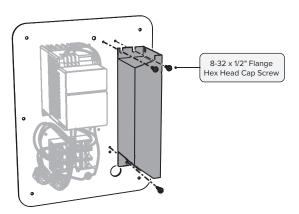


#### 2C. INSTALL EMI FILTER (400-480 V, 3 Φ)

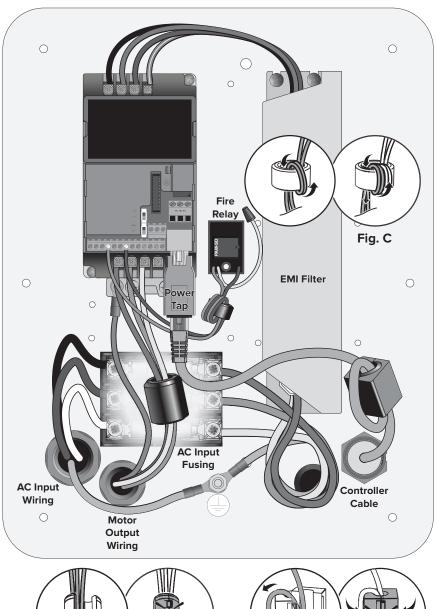
- 1. Disconnect wires from top of VFD (L1, L2, L3, PE/GND). Cut and discard cable tie securing wires to VFD mounting plate.
- Position EMI filter on VFD mounting plate. Trim wires from AC input fusing to appropriate length and strip for connecting to EMI filter terminals.
- Make electrical connections between EMI filter and VFD. Ensure ground wires are connected as shown below and on following page. Do not tie ground wires together.

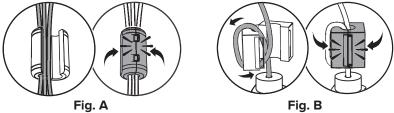


4. Secure EMI filter to VFD with provided screws.



- Snap ferrite core around the three motor output wires. Do not snap ferrite core around motor output PE/GND wire (Fig. A).
- 6. Unplug CAT5 controller cable from VFD power tap. Wrap cable around ferrite core once, and then close ferrite core (Fig. B). Make sure ferrite core is positioned at the end of the cable closest to VFD mounting plate. Plug cable back into power tap.
- Disconnect fire relay wires from VFD. Wrap fire relay wires around ferrite core twice (Fig. C). Reconnect wires to VFD (MI3 = Orange or Yellow; DCM = Blue).





## 3. REINSTALL VFD COVER

