



# Modulating Combustion Air System with VSUB 8/12/16/20 Blower, CPC-3 Controller and 460 volt VFD

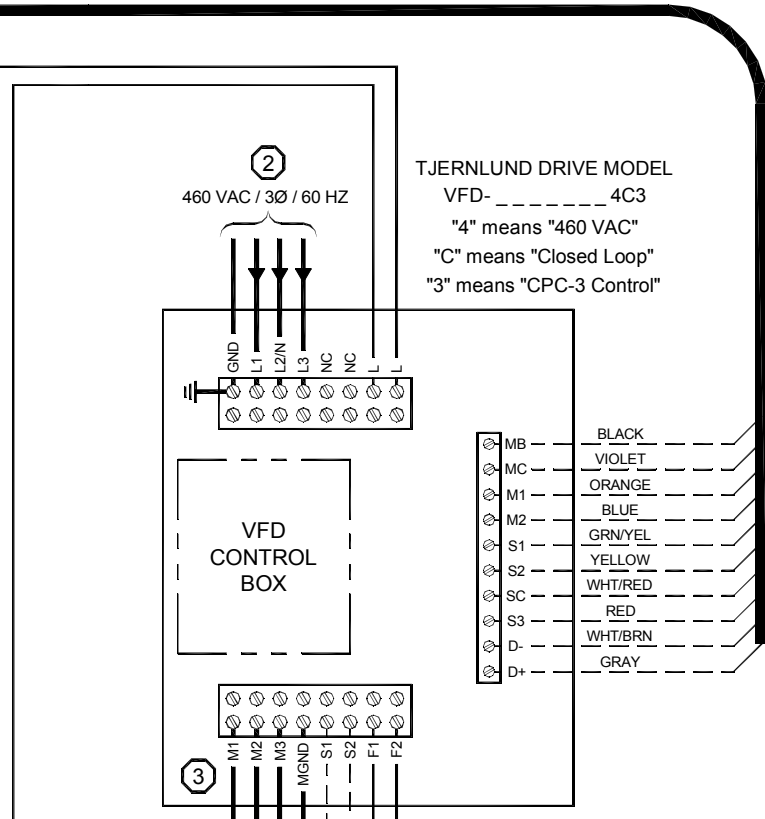
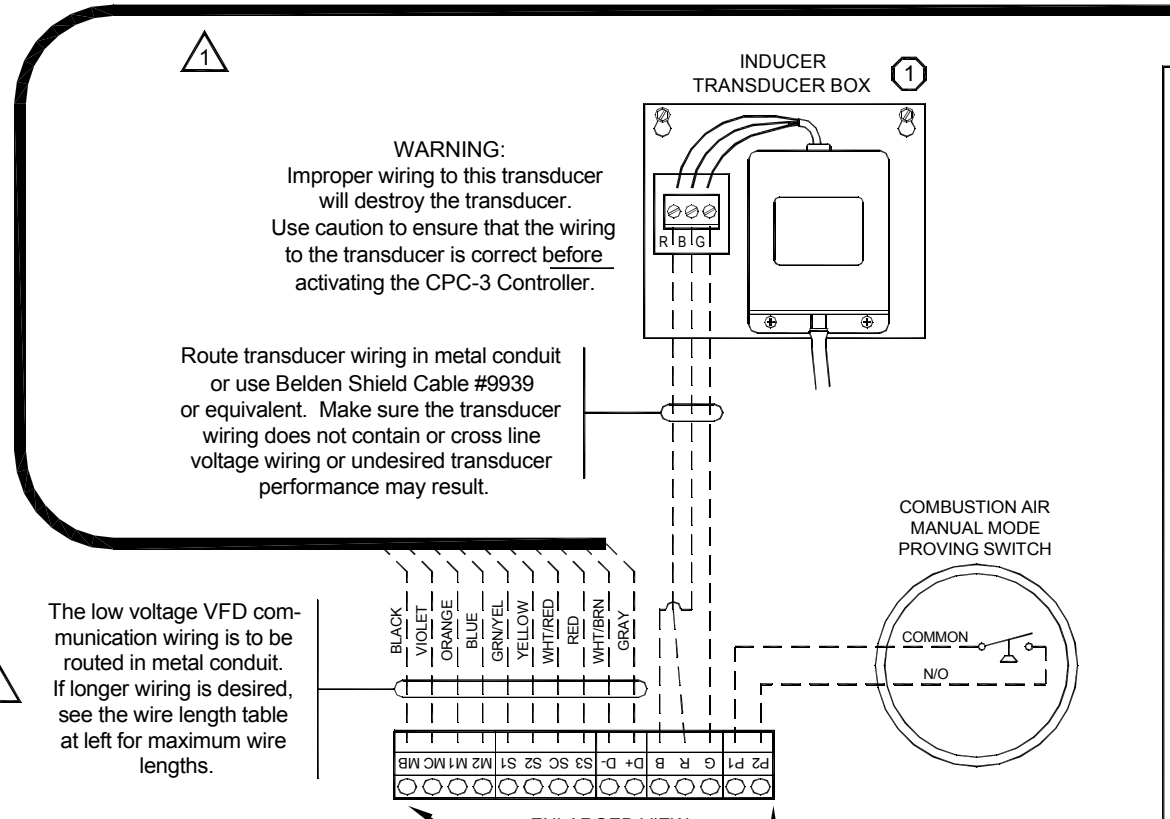
PROJECT: \_\_\_\_\_

10' (3m) COMMUNICATIONS CABLE PROVIDED WITH EACH VFD

**LEGEND:**

- LOW VOLTAGE / DC CONTROL WIRING
- 230 VAC SUPPLY / LOAD WIRING
- 460 VAC SUPPLY / LOAD WIRING
- VFD COMMUNICATIONS CABLE

FIGURE 8052020 11/18/04



- WARNINGS:**
- Improper wiring to the transducer will destroy the transducer. Use caution to ensure that the wiring to the transducer is correct before activating the CPC-3 controller.
  - Verify that the input power voltage matches the VFD's nameplate rating before applying power. Improper supply voltage to the VFD could damage the VFD.
  - Verify that the blower (VSUB 8/12/16/20) is wired for the output voltage from the VFD. If not correct, severe damage to the blower and/or the VFD could result.
  - When the system is completely installed, perform the safety interlock and operational test as outlined in the installation manuals. Failure to do these tests could result in an unsafe and/or incorrectly operating system.

- CAUTIONS:**
- All wiring must be in metal conduit (best) or shielded cable.
  - Route transducer wiring in metal conduit or use Belden Shield Cable #9939 or equivalent. Make sure the transducer wiring does not contain or cross line voltage wiring or undesired transducer performance may result.
  - Do not run the VFD's input power and output power wiring in the same conduit. Undesired VFD operation could result.

- NOTES:**
- If the provided 10-foot, 10-wire VFD control cable is not long enough to meet the application needs, use caution to ensure that the connections from the VFD to the CPC-3 controller are correctly located. MB to MB, MC to MC, etc. In addition, reference the Wire Length Table.
  - Use caulking to seal the electrical box cover to the electrical box, and to seal the conduit holes to hole plugs.
  - If required, non-fused disconnects are to be supplied by the installer.
  - The FFP-1 will disable the combustion air blower when excessively hot or cold room air is detected. Refer to the FFP-1 installation instructions for details.

