

# TECHNICAL NOTE

### Preliminary information to ask the customer

- 1. What is the Contact's name and Company?
  - a. What Dealer / Rep did they purchase the equipment from?
  - b. What is the PO # and/or Invoice / Order #?
- 2. What is the ENVIRCO model number and type of equipment?
  - a. Is the unit new or an older type?
  - b. Is there another working example or is this the only one?
- 3. Who are previous contact persons? Is this a follow-up, distributor or factory?
  - a. What has been tried and what were the results?
  - b. Were photos taken? This is needed for clarity of problems.
- 4. Is the IOS manual with the machine or with the person?a. What e-mail address is to be used for document transfers?
- 5. When was the unit last running correctly? Has there been something done recently?
  - a. Any record of past repairs or problems?
  - b. What is the history record of maintenance for unit?
- 6. What type of problem is being experienced?
  - a. Electrical / controls?
  - b. Mechanical / parts?
  - c. Setup / installation?

## Contact Us

Contact ENVIRCO sales or technical team for any assistance needed.



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# Helpful Tips

As the majority of products in the field are the MAC10 FFU's, the troubleshooting is heavily towards this product.

**Electrical:** Power connections that have come loose or disconnected during installation of filter. This includes connections at the motor, not just the control box.

Motor controller card setup improperly for the type of control being used. For the CON4 and Universal Cards, the control mode switch must match control type, local, remote, or network. The network cards used must also have the individual address settings for each filter for independent monitoring and control for each FFU. As this is a control for the ECM motors used elsewhere, there are some similarities in usage and control.

#### <u>CON4</u>

**Local control:** is accomplished by the speed pot mounted on the card and both switches of SW1 off, and can be adjusted through the control box front panel.

**Remote control:** this is a voltage signal from external source 0-10vdc that adjust fan speed from minimum speed to maximum or 0FF-100% speed. SW1 set for 1on-2off.

**Network control:** The motor monitoring and control is shared over the CAT5E cable network to a central controller. This function can be used to communicate with up to 254 individual FFU's. On SW1 both switches must be on. SW2 must be set for each filter for a unique number in the network to talk with the central controller.

**AC UNITS:** The three speed switch and the solid state speed switch are motor controllers for speed control and not to be confused as a dimmer switch. The solid state controller has a minimum speed setting for motor protection, not allowing speeds below a safe speed setting for the motor operation. This minimum speed setting has caused issues with the motor speed not being controlled at the lower speeds by keeping the blower speed too high. This can be field adjusted by removing the switch from the control box face, adjusting the speed pot on the front of the switch labeled as *min. adj.*, then reinstalling the controller and testing operation.

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