AC Power & Battery Backup Connection

Wiring Rules

These modules are intended for installation within the enclosure of another product.

Do not remotely ground any part of the input sensor wiring.

Remote grounds connected to the return terminal could make the
system operate incorrectly or damage the equipment.

The signal return is not true earth ground. It is an electronic
reference point necessary to interpret the sensor properly.

For reliable input operation, follow these input wiring guidelines:

- Never lay wires across the surface of a printed circuit board.
- Wires should never be within 1 in. or 25 mm of any component
  on a printed circuit board.
- Use shielded input wire.
- Terminals of the input wires at one end of the run
  only—preferably at the end where your I/O module is located.
- Be careful when stripping wire to not drop small pieces of wire
  inside the cabinet.
- Do not run your input wiring in the same conduit with your
  output wiring.
- Don’t run your input wiring in the same conduit with your
  output wiring.

Grounding the Controller

To ensure proper operation of the controller, it is imperative that it be connected
to a good earth ground. It is important that this connection be made as close to
the module as possible.

Caution: Earth ground (●) must be
connected to avoid module damage.

AC Power & Battery Backup Connection

Mechanical Installation

Attach the controller to the VAV box using the following procedure:

1. Loosen the nuts that attach the mounting U-bolt to the actuator motor.
2. Manually, position the damper blade at its fully closed position.
3. With the manual override button depressed, rotate the actuator clamp
   of the controller motor to approximately 1/16 - 1/8” between the actuator
   stop and clamp, depending on seal design. The rotation direction to turn
   depends on the setting of the rotation direction switch on the controller.
   The default direction to position the clamp would be counter-clockwise
   (full '-' position). See the other side of this sheet for details on the rotation
   direction switch.

   Manual Override

   Use care when attaching power
   wiring to these connectors.
   They are not to be used as a strain relief.
   The connectors cannot withstand
   excessive bending or flexing.

   Use a separate transformer for each 865/6 installed
   unless the units are installed next to each other.

   BATTERY ENABLE INFORMATION

   During shipment, an insulating plastic tab is inserted under
   the clip on the battery to prevent it from draining prior to
   installation. To activate the battery, this tab must be removed. Remove
   the cover to access the board.

   BATTERY
**Inputs**

Accessing the Reference Resistor and Rotation Direction Switches

- Each input includes a reference resistor that may be disabled.
- Switch shown in 'disabled' OFF position.
- Slide Switch to Right to Enable Resistor Pullup.

**Outputs**

**Digital Triac Output**

- **LOAD**
- **OUT x**
- **GND**

**Output Rating:** 24 VAC, 0.5 A (Cannot switch DC Loads)

**Minimum Load Current:** 30 mA

**Tristate from 2 Triac Outputs**

- OUT3 and OUT4
- OUT4 and OUT5

can be combined to form a standard Tri-state output.

Configure the output point of the first point of a pair (i.e., OUT3 of the pair OUT3 and OUT4) with an Electrical Type of Tri-state.

**Analog Output (866 only)**

**Output Rating:**

- Voltage Output = 0 - 10V

**Device Load Resistance**

- ≥ 2KΩ

** minimum Load Current:**

- 30 mA

© 2010 Schneider Electric - All Rights Reserved.