

i2/b3 885 VAV Controller Installation

30-3001-848 Rev F

Full programming and installation information can be found in the following documents:

i2885 i2 Controller Technical Reference 30-3001-861

b3885 b3 and b4920 Technical Reference 30-3001-862

Mechanical Installation

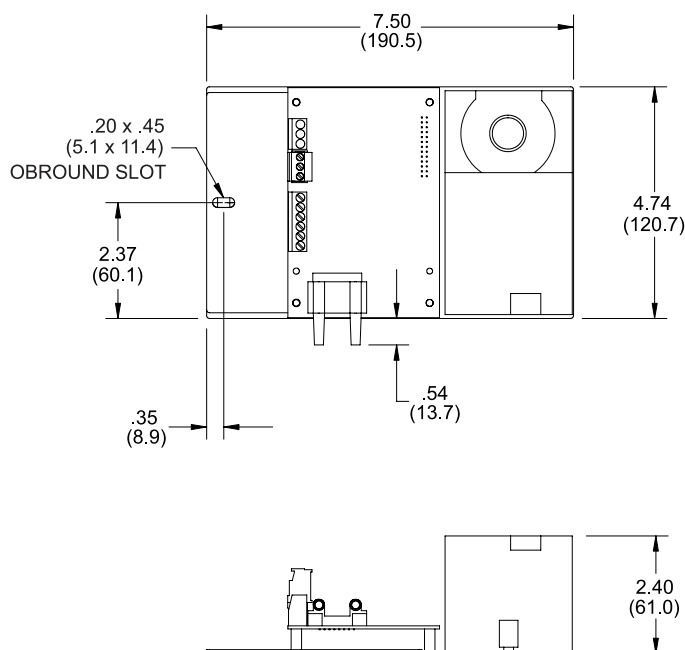
The 885 is designed for mounting directly to the damper shaft of a VAV box. The shaft is inserted through the opening in the actuator and secured using a U-bolt. It is secured via one sheet metal screw.

Note: The unit requires that the VAV damper shaft be at least 1.5" (38 mm) in length and 1/4" - 5/8" (6-16 mm) in diameter (1/4"-7/16" (6-11 mm) square) for proper mounting. The unit may be mounted in any orientation.

Overall Dimensions

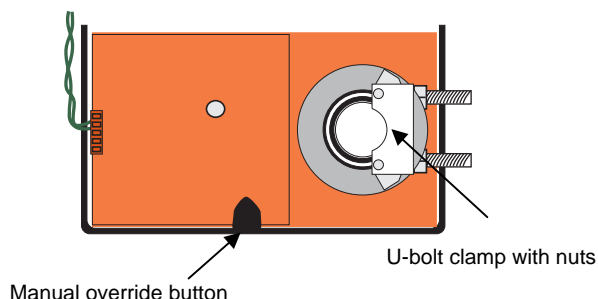
Note:

This equipment is intended for field installation within the enclosure of another product.



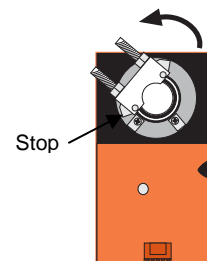
Attach the controller to the VAV box using the following procedure:

1. Loosen the nuts that attach the mounting U-bolt to the actuator motor.

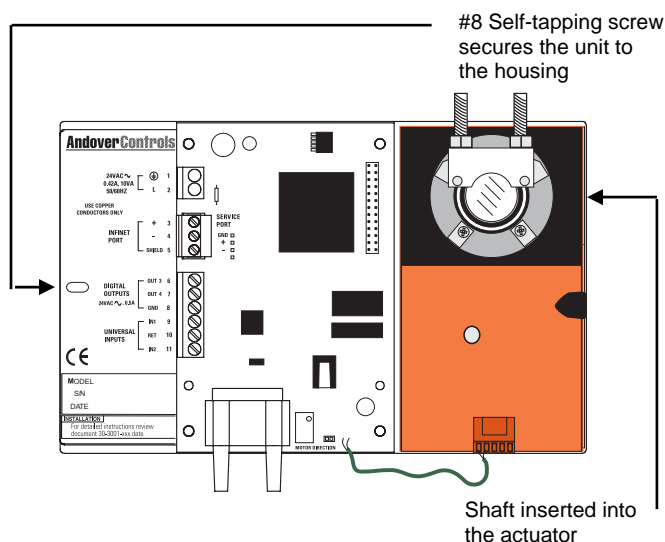


2. Manually, position the damper blade at its fully closed position.

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 jumper 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 jumper.



4. Position the unit at the proper perspective on the VAV box. Carefully insert the shaft of the VAV unit into the opening of the actuator motor through the U-bolt. Make sure the controller is flush with the VAV housing. Finger-tighten the nuts to secure the shaft to the actuator.
5. Insert a #8 self-tapping screw through the mounting slot to secure the controller to the housing. Position the screw in the center of the slot. Do not over-tighten. The controller should move freely on this screw.

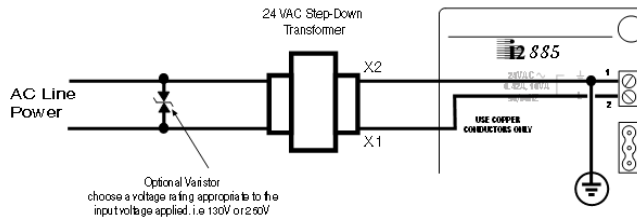


6. Tighten the U-Bolt to the shaft using an 8 mm wrench.

24 VAC Connection

The 885 controller is powered by an external 24 VAC source.

PIN		Function
1	⊕	24 VAC RETURN (Earth GND)
2	L	24 VAC ~



The ground wire should not exceed 12" in length and it must be connected to a good earth ground. The screw that connects the ground wire with earth ground shall have a green colored head that is hexagonal, slotted or both.

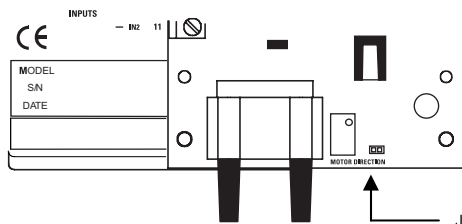


Caution: Earth ground (⊕) must be connected to avoid module damage.

Powering Multiple Controllers

Unless all the controllers you intend to power are resident in the same cabinet, it is imperative that you use a separate transformer for each controller.

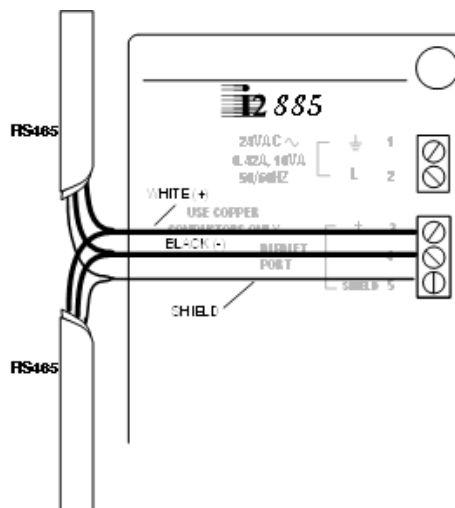
Damper Direction Jumper



Jumper Determines Rotation of Actuator

- ☒ Jumper Connected (DEFAULT)
+ = CW
- = CCW
- ☐ Jumper Disconnected
+ = CCW
- = CW

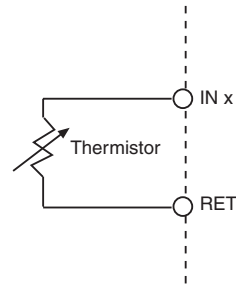
RS-485 Connection



Input Connections

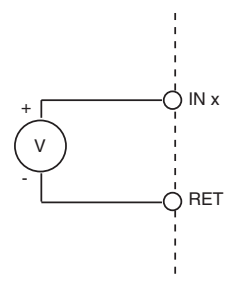
Caution: Do not externally ground any input signal or damage may result.

Temperature

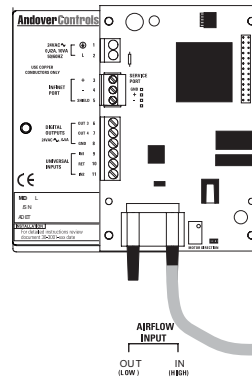


Voltage

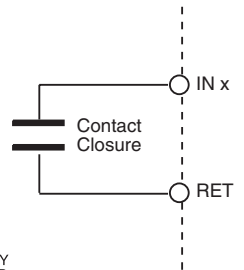
0-5V Max.



Airflow

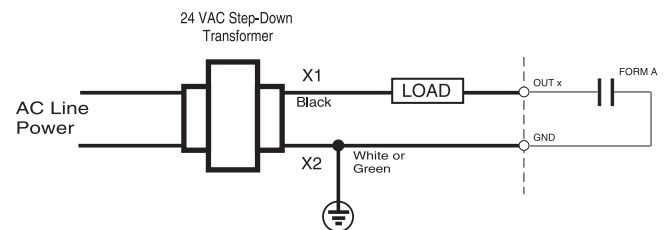


Contacts



Output Connections

Form A



Tri-State

