

User's Information and Installation Instructions

Solid - State Enthalpy Sensor - C7400A

This Solid-State Differential Enthalpy Control kit can be used for all Nordyne economizer applications. This second C7400A control is used to achieve maximum system efficiencies over the standard single enthalpy control set up. The differential enthalpy control system compares the temperature and humidity of the outside air to that of the building return air and allows the economizer to adjust position to ensure the lowest enthalpy air is used for cooling.



WARNING!

This kit is to be installed by a qualified service technician in accordance with these instructions and all codes having jurisdiction. Failure to follow these instructions could result in serious injury, property damage, or death.



WARNING!

All electrical wiring must comply with the latest edition of the National Electrical Code ANSI/NFPA 70.

These instructions are primarily intended to assist qualified individuals experienced in the proper installation of this appliance. Some local codes require licensed installation/service personnel for this type of equipment.

Read these instructions and those which accompany the Solid-State Enthalpy control in their entirety before proceeding with the installation of this control kit.

DIFFERENTIAL ENTHALPY CONTROL

1. **SET UNIT INDOOR THERMOSTAT TO THE "OFF" POSITION.**
2. **DISCONNECT ALL ELECTRICAL POWER TO THE UNIT.**
3. The second C7400A controller is used for return air sensing and should be mounted in the return air duct as far from the outdoor air sensor as possible. **IMPORTANT! Connect the Blue wire to the "S" terminal and the Violet wire to the "+" terminal of the C7400A control.**
4. Partial removal of economizer is required for wire routing purposes.
5. Remove the 7/8" K.O. located on the lower right side of economizer panel, insert wire grommet provided in kit, then route wires from the second sensor out through grommet and along existing wiring harness. Wire tie as required to keep away from vane travel.
6. Remove the 620 Ohm resistor across SR and (+) on the W7459 logic module and connect additional C7400 for differential operation. **IMPORTANT! Connect the Blue**

wire to the "SR" terminal and the Violet wire to the "+" terminal of the logic module.

7. The enthalpy control setpoint scale markings located on the W7459, are A, B, C, and D. They are field selectable and are used for single enthalpy control only. **IMPORTANT! Turn the setpoint potentiometer fully clockwise to the "D" setting for Differential Enthalpy control.** The economizer will select the air with lower enthalpy for cooling. i.e. If outdoor air has lower enthalpy than return air, then the outdoor air damper will be opened to bring in outdoor air for free cooling.
8. Replace all panels.
9. Return electrical power to the unit and check economizer for proper operation.

**INSTALLER: PLEASE LEAVE THESE
INSTALLATION INSTRUCTIONS
WITH THE HOMEOWNER**

