
Load Shedding - Interlock Relay

MODELS: All Four Chamber RA and CA Models



Description:

The Interlock Relay is an optional add-on relay for all four chamber RA and CA models. The input end is connected to the *Seisco Water Heater* circuit board and the output is a normally closed connection.

The output is wired to the low voltage thermostat leads of a resistance-heating load to be controlled. The most convenient access point is usually in the attic at the furnace. The relay connection opens after a twenty-second delay from when the SEISCO begins its heating cycle. This avoids interrupting the HVAC for short hot water draws such as hand washing, appliance rinse cycles, or kitchen activities. Once the interlock is engaged, it has a 3-minute cycle delay to close, engineered to prevent stress on HVAC equipment by ensuring a minimum delay between cycles. An LED lamp illuminates on the relay box to indicate the interlock is active.

By installing the Interlock Relay you can ensure that the controlled load does not operate simultaneously with the *Seisco Water Heater* avoiding any potential electrical overload of the electrical panel. This allows installation of the *Seisco Water Heater* without an expensive upgrade in electrical service and with minimal lifestyle impact on the homeowner.

Applications:

The Interlock Relay is only necessary in applications where it is determined that the addition of a *Seisco Water Heater* to the electric service panel would risk overload and would require an expensive upgrade of electrical service. Typical applications include: Thermostat controlled baseboard strip heat or resistance heat elements in an electric or heat pump central furnace. The relay can be used to delay or interrupt the operation of any electrical appliance controlled by a thermostat or contact closure, including another *Seisco Water Heater*.

How to Order:

The interlock feature was included in all 4-chamber SEISCO RA, CA models and replacement circuit boards manufactured beginning in fall 2009. If the unit's board has the necessary 14-pin header at position J3, then it includes this feature. For these units, it is only necessary to order the relay part number: SA-RELAY.

For more information call our toll free tech support line at 888.296.9293 or email technical@seisco.com

INSTALLATION INSTRUCTIONS:

1. With the power off to the heater, connect the black connector block from the relay module to the pin header at position J3 on the circuit board of the heater.



2. Find a convenient location to secure the relay inside the heater using a nylon tie wrap
3. Route the interlock wire outside the case through any convenient gap
4. Splice and extend the wire as necessary to reach the Thermostat wire (or low voltage dry contact connection) for the device you wish to disable.
5. Typically this is the WHITE wire labeled (W), (W1), (W2) White, "Heat" (gas burner, oil burner, electric heat, (auxiliary heat on a heat pump including defrost output from the outdoor unit to activate electric heat and turn on the AUX. heat lamp). Note: some thermostats require a jumper from "W" to "Y" for heat pump operation.
6. To activate the load shedding feature, cut the appropriate wire and connect one each of the two low voltage wires from the relay to each of the cut ends. Seal the connections to prevent short circuit.
7. To test the relay, restore power and activate the heater by opening a nearby hot water valve. After a short delay the red light should illuminate on the relay indicating that the relay interlock is active.
8. Verify function of the HVAC as appropriate
9. Replace the cover on the Seisco with the power off then restore power.