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Dallas, Texas, USA

ZONING SYSTEM

LZS1 ZONE CONTROL PANEL

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USER GUIDE FOR ZONE CONTROL PANELS USED WITH LENNOX HEATING AND COOLING EQUIPMENT (Y7766) USER GUIDE



⚠️ WARNING

Improper installation, adjustment, alteration, service or maintenance can cause property damage, personal injury or loss of life. Installation and service must be performed by a licensed professional HVAC installer or equivalent, service agency, or the gas supplier.

Overview

The zone control panel has been designed to increase comfort in your home. It's able to do this because it solves the problem caused by various areas of the home gaining and losing heat at different rates. Unlike conventional heating and air conditioning systems, the zone control knows, at any given time, which areas (zones) of your home require conditioned air. With this information, the zone control automatically directs the conditioned air to the zones that require it. Because of this, you will be able to increase the comfort level throughout the home.

The components that make up the zone control system are the thermostats, zone control panel, zone dampers, and heating and cooling equipment as shown in the following illustration. The zone control panel is typically located on an inside wall, most likely near your heating and air conditioning equipment. The dampers are located inside your air ducts in such a way that each zone can be independently controlled. Thermostats, placed in each zone, are directly connected to the control panel.

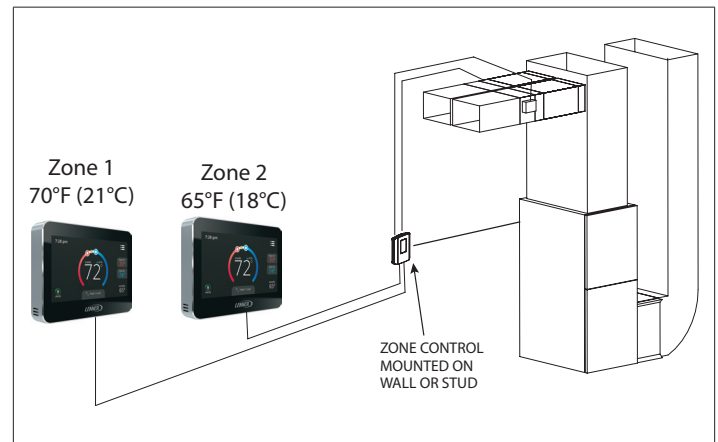


Figure 1. Two-Zone Control System

This zone control panel was designed to work with your single-stage or self-staging heat/cool equipment (for example a furnace and an air conditioner).

Application

- Two zones
- Single-stage electric or gas furnace
- Single-stage air conditioner
- Multi-stage equipment can be used if it stages on it's own internal controls
- Not applicable to heat pump systems
- Remote access using either the E30 or M30 Smart Wi-Fi thermostats.

LEDs and Buttons

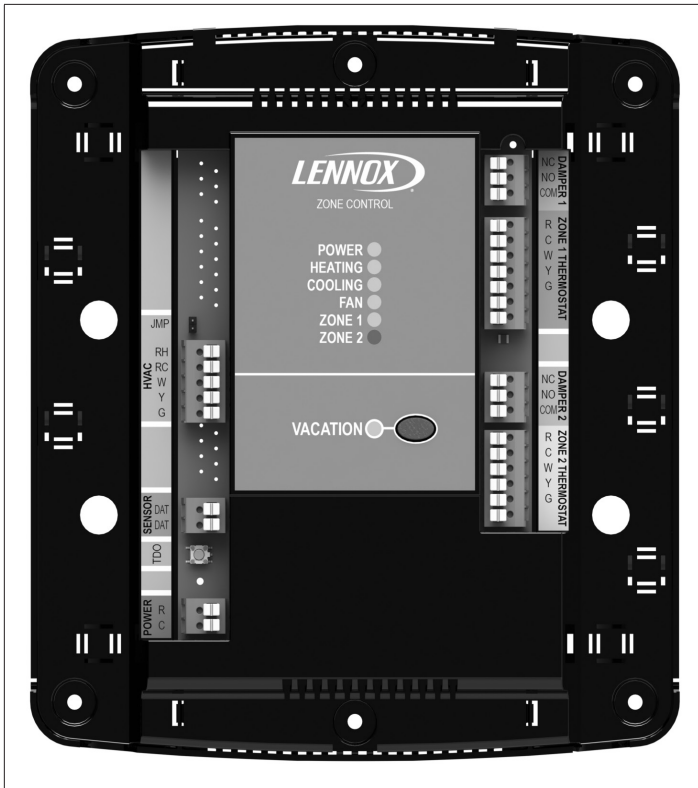


Figure 2. LED and Buttons (Front Panel Removed)

LEDs

1. **POWER** - Green: 24VAC is present. When the time delay override button (located on left side under panel cover) is pressed, the power LED will flash.
2. **HEATING** - Green: Heating is active. Flashing: Discharge air temperature sensor - high temperature limit reached.
3. **COOLING** - Green: Cooling is active. Flashing: Discharge air temperature sensor - low temperature limit reached.
4. **FAN** - Green: Fan output is active.
5. **ZONE 1** - Green: Damper is open. Red: Damper is closed.
6. **ZONE 2** - Green: Damper is open. Red: Damper is closed.
7. **VACATION** - Green: Vacation mode is enabled.

BUTTONS

8. **VACATION** - Used to enable/disable vacation mode. In vacation mode all zones will be controlled by the thermostat in Zone 1.

Basic Operations

Your zone control system will allow you to increase your comfort by directing conditioned air to separate area zones based on each zone's thermostat setting.

To operate this system, just set or program each zone's thermostat to your desired comfort set points. When there is a heating or cooling call from any zone, the appropriate heating or cooling equipment will be turned on. The dampers to zones not requiring heating or cooling will close and the conditioned air will be directed to the calling zone(s) until the thermostat is satisfied.

Your zone control system is designed to direct conditioned air only to the rooms served by that zone thermostat. However, due to the open design of today's homes, it may not be possible to maintain drastic temperature differences between zones.

Closing interior doors is a good way to reduce the air exchange between zones and increase the temperature difference between them.

NOTE: Closing interior doors could be an issue if only one return air vent is present in the home.

The following sections describe how to make heating and cooling calls.

HEATING OPERATIONS

To start heating:

1. Set your thermostat to the heat mode. Depending on the thermostat, this is accomplished by either manually moving a switch to the heat position or digitally selecting Heat mode with a push button. Consult your thermostat Owner's Manual for details.
2. Adjust the thermostat set point to a temperature higher than the displayed room temperature so that a Heat call is initiated. Consult your thermostat user guide for details on how to do this properly.

When you have correctly initiated a heat call, the Lennox zone control panel will start your heating equipment. If the equipment does not come on right away it may be due to the minimum-off time delay. Four minutes must elapse after the last furnace cycle before it can come on again. This built in feature ensures that the furnace does not cycle too frequently, which can reduce the life of your furnace.

COOLING OPERATIONS

To start cooling:

1. To start cooling: Set your thermostat to the cool mode. Depending on the thermostat, this is accomplished by either manually moving a switch to the cool position or digitally selecting cool mode with a push button. Consult your thermostat user guide for details.
2. Adjust the thermostat set point to a temperature lower than the displayed room temperature so that a cool call is initiated. Consult your thermostat User Guide for details on how to do this properly.

When you have correctly initiated a cooling call, the zone control panel will start your cooling equipment. If your air conditioning does not come on right away it may be due to the minimum-off time delay. Four minutes must elapse after the last air conditioner cycle before it can come on again. This built-in feature ensures that the air conditioner does not cycle too frequently, which can reduce the life of your equipment.

HEAT / COOL CHANGEOVER

When a call for heating/cooling exists and an opposing call is made from another zone, a changeover time limit of 20 minutes begins at the time that the opposing call is made. If the original call is not satisfied within that 20-minute time period, the call will be interrupted, and the zone panel will turn the equipment off and complete the normal fan purge cycle and minimum equipment off time. The opposing call will then be answered. After 20 minutes, if the original call still exists, the opposing call will be interrupted and the original call can once again be recognized.

DAMPER OPERATION

When the zone control panel receives a call and turns on the appropriate equipment, it also automatically closes the dampers that serve the non-calling zones and opens those in the calling zones. When all calls are satisfied, the control panel initiates a purge cycle during which time the dampers maintain their last position. After this purge all dampers open.

FAN OPERATION

The zone control panel allows you to control fan operation from any zone. Dampers in zones not calling for fan will close. If continuous fan operation is desired in all zones, the fan must be turned on at the thermostat in both zones.

VACATION MODE

The vacation mode button allows the homeowner to switch from normal operation to vacation mode. When vacation mode is enabled the thermostat in zone 1 becomes the only zone from which a call for heating or cooling is recognized.

Additionally, when in vacation mode, all dampers remain in the open position. This feature allows the homeowner to create a setback at a single thermostat and control the whole home based on that thermostat.

TURNING THE SYSTEM OFF

In order to shut off the system and prevent the zone control panel from turning on your equipment, you need to set ALL of your thermostats to the OFF mode.

Depending on your thermostats, this is done manually with a slide switch on your thermostat's sub-base or with a digital push button. Consult the user guide for your particular thermostat.

If leaving the home for a long period of time, set the thermostats to the heat mode and adjust the set point to a temperature that will prevent freezing in all areas of the home. It is not recommended to turn off all thermostats for

extended periods in climates where freezing temperatures may occur.

Thermostat Replacement

Not all thermostats will work for all systems. If you need to replace a thermostat, call the Lennox dealer that installed your system. Certain types of thermostats, known as power robbing thermostats, could cause unintended operation and should never be used.

Maintenance

Once your Lennox zone control system is properly installed, there is no maintenance required to the control panel components. Standard heating and cooling equipment maintenance is required.

