

## What Is the Harmony II® Zone Control System?

Lennox Harmony II® Zone Control System manages the distribution of conditioned air to as many as four specific areas or zones in a home or small commercial building. The Harmony II® control is an advanced control system that allows a home to be zoned for heating and cooling without the extra expense of purchasing two or more HVAC (Heating, Ventilation, and Air Conditioning) systems.

This control allows the owner to heat or cool occupied areas without conditioning unused areas, resulting in lower utility bills. This control orchestrates the system components to provide a balanced and comfortable environment.

The system consists of the control panel and the control center. The Harmony II control panel is your link to a comfortable environment. The control panel is usually located near the main or master thermostat. The control center is the larger control box and is the “brains” of the Harmony II® system. It organizes the operations of the thermostats, dampers, and HVAC equipment to result in total comfort. The Harmony II® system operates with any of the following HVAC system combinations: Option 1 - Pulse21™ “V” series gas furnace and either a single- or two- speed condensing unit; Option 2 - CB21 series blower coil unit and either a Lennox single- or two- speed heat pump; or Option 3 - Pulse21 “V” series gas furnace, a Lennox heat pump, and the FM21 control. Harmony II® zone control system uses off-the-shelf thermostats and dampers with any of the above systems to distribute conditioned air to zones.

## How Are Zones Determined?

Your Lennox dealer has sectioned the rooms of your home or building into zones using the below considerations.

### Structural/Architectural Considerations

In multi-level houses using regular HVAC systems, heated air rises to the upper floor(s) causing those rooms become too hot. Zoning will remedy this situation by splitting the conditioned space into two specific zones (first and second floors). The second floor temperature is now controlled by its own thermostat, not that of the first floor.

### Climate Considerations

Exposure from the sun and weather can produce cold and hot spots in homes that are conditioned with the use of one thermostat. Zoning lessens this by grouping rooms with the same exposure into one zone. Therefore, a room with a northern exposure and a room with a southern exposure should not be zoned together. In the winter, the northern room may be too cool while the southern room may be too hot. In order to keep a balance of conditioned air, the zone must contain rooms with the same weather exposure.

### Occupancy Considerations

A single structure contains different types of living spaces. Without zoning, it is difficult to condition all areas so that everyone will be comfortable. Zoning a home or office allows the owner to control the zones which need to be conditioned. Rooms that are used or occupied at the same time are zoned together. Bedrooms which are generally used at night, should not zoned with a living room that is used only during the day or evening.

# Using the Harmony II® Control Panel

The Harmony II® control panel is where the control center gets its information on how to operate. It works with the thermostats to provide a desired comfort level for each zone. The Harmony II® control panel uses LEDs (light emitting diodes) to display the current operating mode.

The Harmony II® system operates in either of two modes: Central mode or Zone mode. In **Central** mode, all zones receive conditioned air at the same time, just like a traditional heating and air conditioning system. The master thermostat located in zone 1 controls any heating or cooling need for the entire building. When the Harmony II® system is placed in **Zone** mode, specific zones are conditioned only when the demand comes from that zone. Notice that each zone, not each room, has its own thermostat. These thermostats only work when the control panel is in Zone Mode. The **System Off** button will turn off the Harmony II® control.

The Heat, Cool, and Auto buttons on the control panel tell the control center what type of air to provide and are available in Central and Zone modes. Select one operation (Heat, Cool or Auto) at a time. The **Heat** selection, tells the control center that it should provide heat to the zones when it is needed. The **Cool** selection, in turn, tells the control center to provide cool air to the zones when there is a need. The **Auto** selection is the most flexible choice since it allows either heating or cooling to occur, depending on the need. This selection is particularly nice in times of seasonal changes. For example, in the spring, the temperature is cool in the morning and warm in the afternoon. By placing the control panel and thermostats in Auto, heating will come on in the morning and cooling in the afternoon, if needed.

The Fan Auto and Fan On buttons on the control panel tell the control center how the blower should operate. Select one operation (Fan Auto or Fan On) at a time. **Fan Auto** allows the blower to cycle on and off with the heating or cooling needs. The **Fan On** selection allows the blower to run continuously. To stop the blower, press the Fan Auto button.

## Service Light

A red LED, visible only when an error occurs, indicates an error condition has been logged in the control center and either the inside unit or zone control system requires service. Alert your Lennox service technician that the Harmony II® control panel service light is on. Also inform the technician if the light is lit steadily or if it flashes off and on. **DO NOT** try to diagnose error codes or repair control panel. The control center must be handled by qualified service technicians only. Tampering with control center may result in electrical shock and damage to the control center.

*NOTE - The service light located in the master thermostat (heat pumps only) provides a separate function indicating the outdoor unit requires service. The service light in zone 2, zone 3 and zone 4 thermostats is not functional. Call your Lennox service technician if the service light on the zone 1 thermostat is lit.*

## To Operate Harmony II® control:

Choose either **Central** or **Zone** mode.

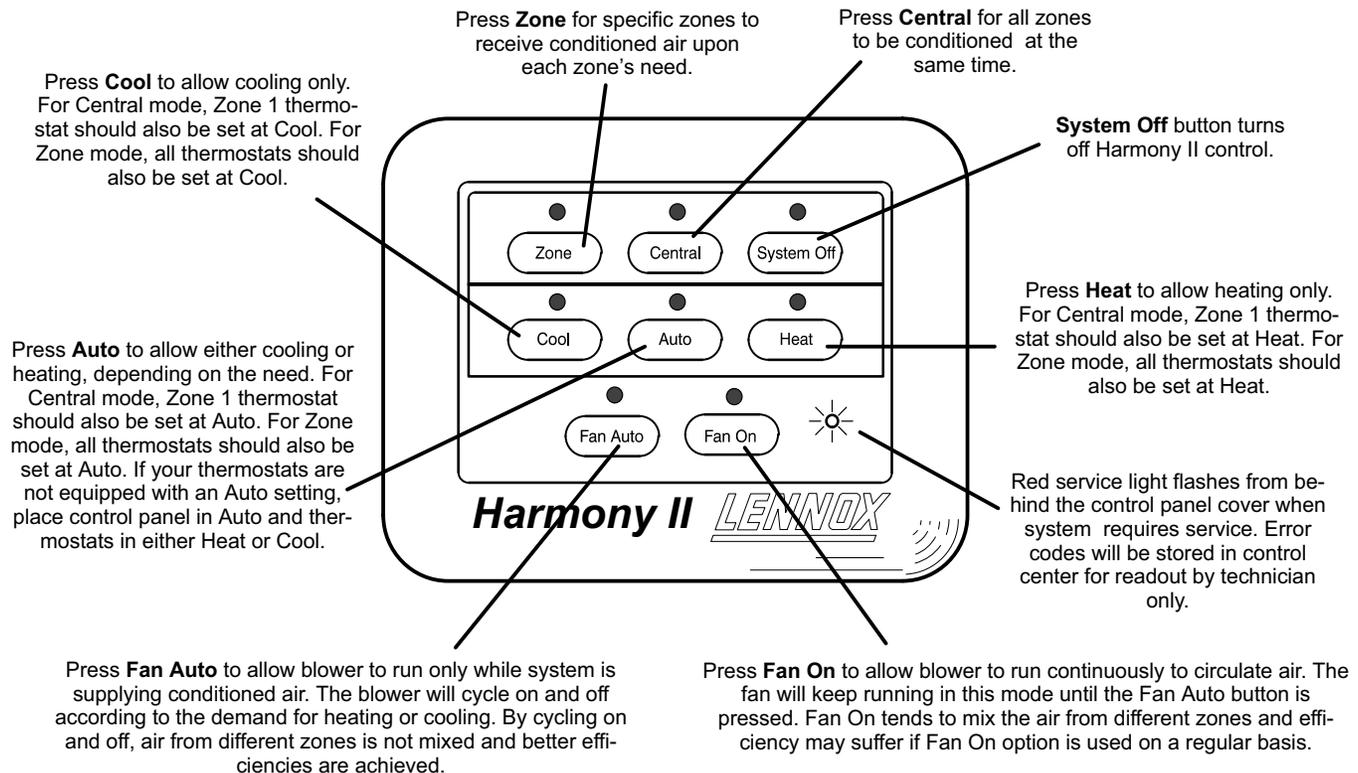
**Central Mode:** Heating and cooling to all zones.

- 1- Press Central button on control panel.
- 2- Choose either Heat or Cool or Auto button on control panel.
- 3- Choose either Fan Auto or Fan On button on control panel. The Fan switch on all thermostats will be inoperable. The fan is controlled at the control panel.
- 4- Set the zone 1 master thermostat at the same position (HEAT or COOL or AUTO) as the control panel. If your thermostat system does not have an auto-changeover selection, set the control panel in AUTO and the zone 1 thermostat in either HEAT or COOL. (Do not adjust other zone thermostats since they are non-functional in Central mode.)
- 5- Set thermostat to desired room temperature.

**Zone Mode:** Heating and cooling to specific zones.

- 1- Press Zone button on control panel.
- 2- Choose either Heat or Cool or Auto button on control panel.
- 3- Choose either Fan Auto or Fan On button on control panel. The Fan switch on all thermostat will be inoperable. The fan is controlled at the control panel.
- 4- Set each zone thermostat at the same position (HEAT or COOL or AUTO) as the control panel. If your thermostats do not have an auto-changeover selection, set the control panel in AUTO and the zone thermostats in either HEAT or COOL.
- 5- Set thermostats to desired room temperature.

## Harmony II® Control Panel



# Harmony II® Zone Control System

Zone #	Rooms
1	
2	
3	
4	

**Record which rooms are zoned together.**

**Lennox Dealer:** \_\_\_\_\_

**Contact:** \_\_\_\_\_

**Telephone Number:** \_\_\_\_\_

**Installation Date:** \_\_\_\_\_