

**FLEXZONE™ CONTROL SYSTEM  
FOR DUAL ZONE  
HEATING/COOLING SYSTEMS**

**FLEXZONE**

Bulletin #210117

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Supersedes

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**FlexZone™ System** — The FlexZone system is designed to provide two separate heating/cooling zones utilizing a single heating/air conditioning system or matched heat pump system. The system consists of the FlexZone control panel and duct mounted zone dampers with a thermostat in each zone. Zone dampers, in response to the control panel, electronically regulates supply air flow to each zone. Dampers are available in either rectangular or round configurations. Lennox furnaces with add-on evaporator coils or blower coil units with matching condensing and heat pump outdoor units are applicable to the system. Each zone is individually sized for the heating-cooling load and is controlled by the control panel in conjunction with a thermostat in each zone. Zone dampers and thermostats are not furnished and must be ordered extra. The FlexZone system saves energy by allowing temperature setback in the unoccupied area while maintaining comfort in the occupied area. System also results in lower equipment costs by eliminating the need for two separate heating/cooling systems.

**System Equipment Data** — See condensing unit bulletins in Cooling Units — Condensing Units section for unit data. For blower coil or add-on coil unit data, see section Cooling Units — Coils-Blower Coil Units. See Heating Units — Gas or Oil tabs for furnace data. For heat pump unit data, see Heat Pumps — Outdoor Units tab.

**Sequence of Operation** — If zone 1 thermostat calls for heating or cooling, damper(s) in zone 1 will remain open while damper(s) in zone 2 will close, restricting air flow to zone 2. If zone 2 thermostat calls for heating or cooling the opposite will happen. If both zone thermostats call for heating or cooling, damper(s) in both zones will open. System will operate on automatic or manual heat/cool change-over depending on thermostat settings. If thermostats are simultaneously calling for heating and cooling, the zone calling first is served first. The other zone will be served 5 minutes after first zone is satisfied.

**FlexZone Solid-State Control Panel** — The control panel is constructed of heavy gauge steel with a durable enamel paint finish and features a removable latching cover. The panel consists of low voltage input terminals for the two thermostats and power transformer and low voltage output terminals for the heating/cooling equipment and the zone dampers. Up to 5 dampers may be connected in parallel on each zone. The panel also contains solid-state printed circuit board with all relays and controls necessary to operate the system. Panel features operational mode LED's that are red when lit indicating heat/cool system (Heat 1 – Heat 2 – Cool 1 – Cool 2 – Fan – Zone 1 Open – Zone 2 Open) or heat pump system (Auxiliary Heat – Emergency Heat – Heat Pump 1 – Heat Pump 2 – Fan – Zone 1 Open – Zone 2 Open). DIP switches determine heating/cooling or heat pump operation. Time delay function prevents short cycling of the system. Time delay override button and indicator LED are provided for system testing. Holes for mounting are furnished and electrical inlets are provided in top, bottom and rear of panel. Dimensions: 13-1/4 x 10 x 1-3/4 in. (337 x 254 x 44 mm). Power requirements: 24VAC. Shipping weight: 6 lbs. (3 kg).

**REQUIRED ACCESSORIES (Must Be Ordered Extra)**

**Round Zone Damper Assembly (Required)** — Round damper is constructed of heavy gauge galvanized steel. Damper shell is furnished with one straight end and one crimped end for ease of connection. Damper blade rotates smoothly in nylon bearings. Adjustable blade stop is furnished on damper for system balancing. Damper features factory installed, heavy duty, synchronous motor with spring return open. Heavy duty steel gearing provides long motor life and easy spring return operation. Damper springs open in case of power failure. See damper specifications table for sizes, air resistance and shipping weights. Power requirements: 24 VAC.

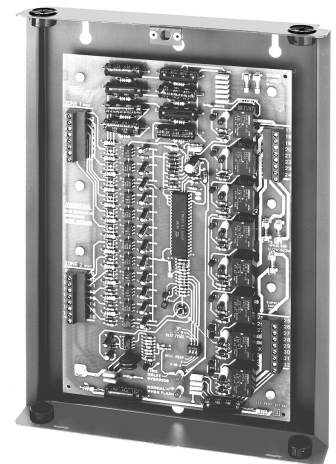
**Rectangular Zone Damper Assembly (Required)** — Rectangular damper is constructed from heavy gauge aluminum and stainless steel. Damper is a slip-in, opposed blade type with duct mounting plate furnished on one end for ease of installation. A rubber blade stop is furnished for installation on damper if system balancing is required. Damper features factory installed, heavy duty, synchronous motor with spring return open. Heavy duty steel gearing provides long motor life and easy spring return operation. Damper springs open in case of power failure. See damper specifications table for sizes, air resistance and shipping weights. Power requirements: 24 VAC.

**Thermostats (Required)** — Thermostats are not furnished and must be ordered extra. See Lennox Price Book. One thermostat is required for each zone. Any electro-mechanical or programmable thermostat up to 2 stage heat/2 stage cool may be used.

**Transformer (Required)** — 24 volt transformer is not furnished and must be ordered extra.



FLEXZONE CONTROL PANEL



FLEXZONE CONTROL PANEL (Cover Removed)



ROUND ZONE DAMPER



RECTANGULAR ZONE DAMPER

♣ The maple leaf symbol in this bulletin denotes Canadian only usage where applicable

NOTE — Due to Lennox' ongoing commitment to quality, Specifications, Ratings and Dimensions subject to change without notice and without incurring liability.

## DAMPER SPECIFICATIONS

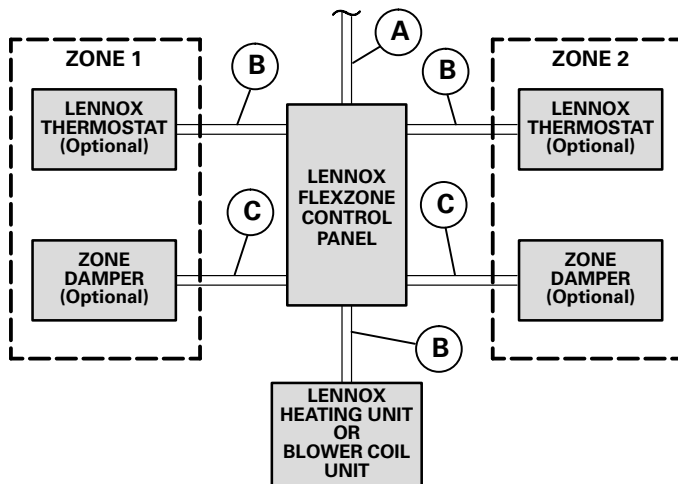
### ROUND ZONE DAMPERS

Model No.	Dimensions		Air Volume		Total Resistance		Shipping Weight	
	in.	mm	cfm	L/s	in. w.g.	Pa	lbs.	kg
DR-06	6	152	50	25	.01	2	2	1
			100	45	.04	10		
			110	50	.05	12		
DR-08	8	203	100	45	.02	5	4	2
			150	70	.03	7		
			210	100	.05	12		
DR-10	10	254	100	45	.01	2	6	3
			200	95	.02	5		
			325	155	.05	12		
DR-12	12	305	200	95	.02	5	8	4
			350	165	.03	7		
			460	215	.05	12		
DR-14	14	356	200	95	.01	2	10	5
			400	190	.02	5		
			640	300	.06	15		

### RECTANGULAR ZONE DAMPERS

Model No.	Dimensions		Air Volume		Total Resistance		Shipping Weight	
	in.	mm	cfm	L/s	in. w.g.	Pa	lbs.	kg
DS-1008	10	254	100	45	.01	2	4	2
			200	95	.02	5		
			325	155	.05	12		
DS-1208	12	305	120	55	.01	2	3	1
			240	115	.02	5		
			395	185	.05	12		
DS-1408	14	356	200	95	.02	5	3	1
			350	165	.03	7		
			460	215	.05	12		
DS-1608	16	406	225	105	.02	5	4	2
			395	185	.03	7		
			520	245	.05	12		
DS-1808	18	457	185	85	.01	2	4	2
			375	175	.02	5		
			600	285	.06	15		
DS-2008	20	508	210	100	.01	2	4	2
			415	195	.02	5		
			665	315	.06	15		

## FIELD WIRING



A – Two wire low voltage power (not furnished) 18 ga. minimum

B – Seven low voltage (not furnished) 18 ga. minimum

C – Two low voltage (not furnished) 18 ga. minimum

NOTE – All wiring must conform to NEC or CEC and local electrical codes.

## TYPICAL SYSTEM LAYOUT

