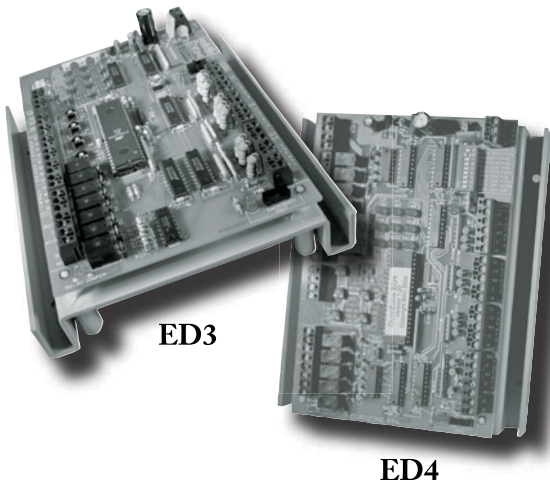


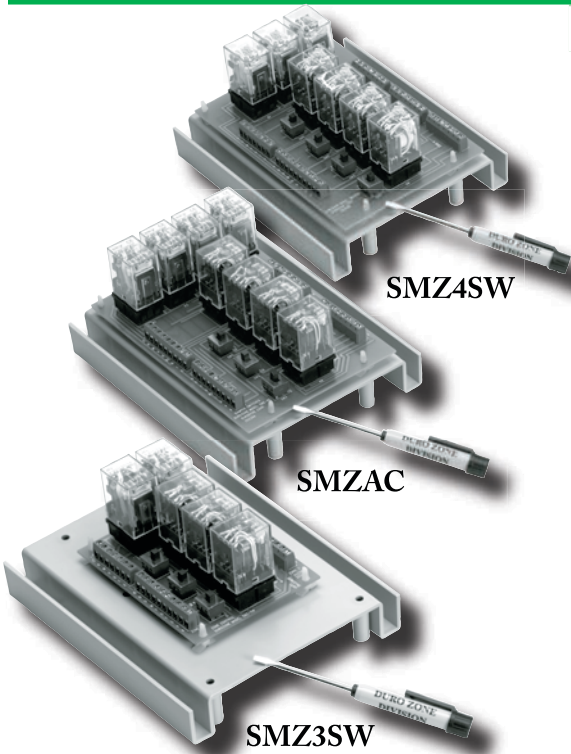
ZONE CONTROL PANELS

ED Zone Panels



The ED3 and ED4 are configurable microprocessor based control panels. They are suitable for use with gas/electric, oil, electric, conventional, and dual fuel heat pumps with two stages of cooling. "DIP" switches on each panel allow the contractor to program this panel to operate in virtually any application. The ED panels are protected by a built in circuit breaker and are compatible with almost any thermostat on the market. The ED4 can also be programmed for fresh air intake in accordance with local codes.

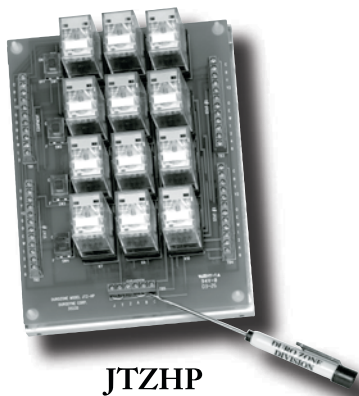
SMZ Zone Panels



DuroZone's SMZ-SW Panels provide contractors with a simple, low-cost zoning system for 2, 3, or 4 zones. SMZ-SW Panels require the use of a switchable subbase (which must have separate B & O terminals) in zone 1 to act as the system's master switch for heat, cool, and fan functions. SMZ Panels are relay based systems, and are not sensitive to temperature. So, SMZ's can be mounted virtually anywhere.

All SMZ Zone Systems are equipped with individual zone damper control switches. These switches will allow a zone damper to remain in either open or closed position when the system is at rest. By setting the switches, the installer or home owner can choose the position of his system's dampers; to inhibit or allow air flow when the system is in constant fan mode.

JTZ Zone Panels

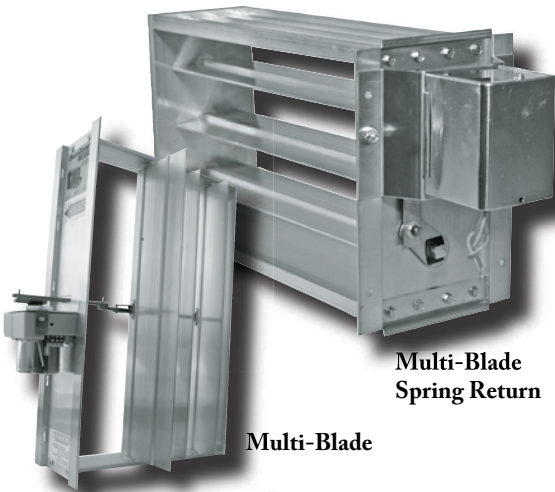


This system introduces features unique to the needs of heat pump applications. DuroZone's JTZ-HP Panel is a low cost expandable zoning system for use with heat pumps. The JTZ-HP can control three or more zones on a single unit. The switchable thermostat subbase in Zone 1 acts as the selector switch for heat, cool, emergency heat and fan functions. When all zones are satisfied, all zone dampers will be open to allow air circulation. Moving the fan switch on the Zone 1 thermostat subbase to "on" will activate the fan to enhance air movement. DuroZone's JTZ-HP panel has Y1 and Y2 terminals to allow operation of heat pumps with 2 stage compressors and will operate changeover valves activated in either the heat or cool mode.

DAMPERS

Multi-Blade

The DuroZone Multi-Blade damper for residential zoning systems has been engineered to include many features. Ribbed for strength and extruded from lightweight aluminum, the sleek frame profile provides maximum strength without excessive reduction of free area inside the ductwork. The extruded aluminum blades are mounted with friction minimizing nylon bushings to provide easy transition between opening and closing. The DuroZone Spring Return MultiBlade Dampers also feature damper blades designed to remain within the damper frame for easy insertion and an external side-mounted linkage for smooth and quiet operation. These Multi-Blade dampers are available in 74 stock sizes with a 24-volt spring return "Mid-Torque" motor or a Power Open/Power Closed motor. An optional Spring Return High Torque motor is also available.

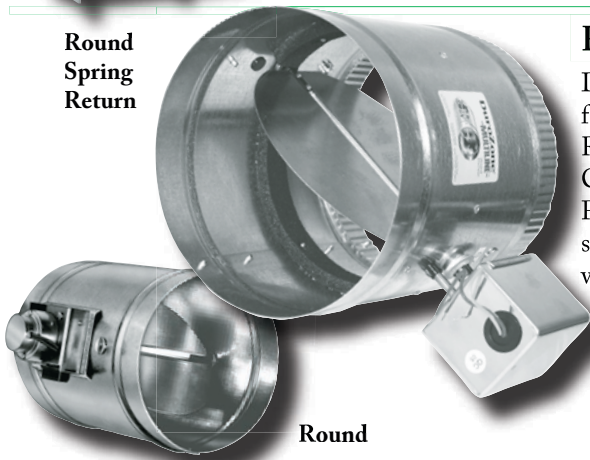


Multi-Blade
Spring Return

Multi-Blade

Round

DuroZone round dampers are made of galvanized steel with reinforcing beads for maximum durability and are crimped on one end for easy installation. Round dampers are available with different motor options: Power Open/Power Close, Mid Torque Spring Open/Power Close and High Torque Spring Open/Power Close. The single blade design insures smooth operation and efficient sealing for maximum control of air flow. The round housing is suitable for use with flexible ducting or round sheet metal duct.

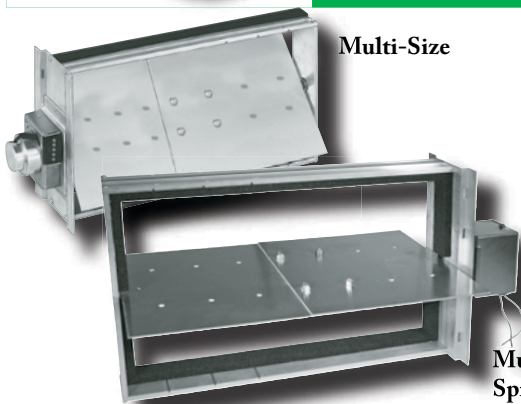


Round
Spring
Return

Round

Multi-Size

Since each damper of this series is adjustable, the eight different sizes available will adjust to 30 of the most common duct size requirements. This, coupled with an extruded aluminum frame and formed aluminum blade (combining minimum weight with maximum strength) defines a damper of unsurpassed durability and versatility. Each damper easily adjusts to a minimum of three different sizes and includes a mid-torque motor that ensures reliable trouble free operation.

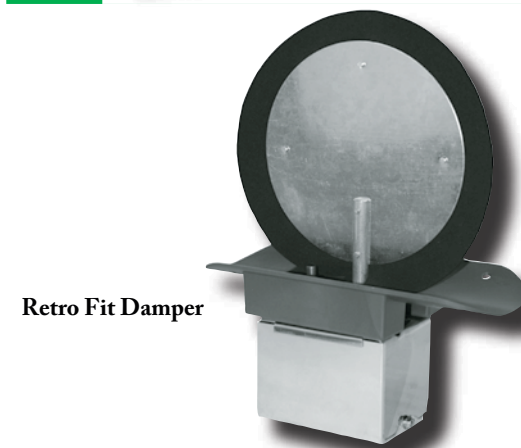


Multi-Size

Multi-Size
Spring Return

Retro Fit Dampers

DuroZone Retro Fit Dampers can be used to add a zoning system to existing 6" round ductwork without the need to section, take down or redesign existing ductwork. Retro Fit Dampers feature a high strength molded mounting plate with gasketing as well as a blade with an integral blade seal to further minimize or eliminate leakage. DuroZone Retro Fit dampers are powered by a 24 volt spring open/power closed motor and can be linked together for tandem operation.



Retro Fit Damper

THERMOSTATS



DT3

Digital Set Back Thermostat
5+1+1 programmable – Battery powered
System settings: Cool – Off – Heat, Fan settings: On – Auto
Available terminals – RC, RH, W, Y, G, B, O
Use with control panels – SMZ, SMZ-AC, ED



DT4

DT4

Digital Display Thermostat
Non-programmable – Battery powered
System settings: Cool – Off – Heat, Fan settings: On – Auto
Available terminals – RC, RH, W, Y, G, B, O
Use with control panels – SMZ, SMZ-AC, ED



DTAC

DTAC

Universal Multi-Stage Auto Changeover Digital Set Back Thermostat
5+2 programmable – 24 Volt or Battery powered
System settings: Heat – Off – Cool – Emer – Auto, Fan settings: On – Auto
Available terminals – R, C, E/W1, W2, Y1, Y2, G, B, O, L
Use with control panels – SMZ, SMZ-AC, ED, JTZ-HP



DT5

DT5

Heat Pump Digital Display Thermostat
Non-programmable – 24 Volt powered with battery back up
System settings: Cool – Off – Heat – Emer, Fan settings: On – Auto
Available terminals – R, C, E, W2, Y, G, O/B, L
Use with control panel – JTZ-HP, ED (zone 1 only)



DT7

DT7

Heat Pump Digital Display Thermostat
System settings: Cool – Off – Heat – Emer, Fan settings: On – Auto
5+2 programmable – 24 Volt powered with battery back up
Available terminals – R, C, E, W2, Y, G, O/B, L
Use with control panel – JTZ-HP, ED (zone 1 only)



DZSBT

DZSBT

Digital Set Back Thermostat
System settings: Cool – Off – Heat, Fan settings: On – Auto
5+1+1 programmable – 24 Volt or Battery powered
Available terminals – RC, RH, W, Y, G, B, O
Use with control panels – SMZ, SMZ-AC, ED

THERMOSTATS (CONTINUED)



DT8

DT8

Multi – Stage Digital Set Back Thermostat
5+1+1 programmable – 24 Volt or Battery powered
System settings: Cool – Off - Heat, Fan settings: On - Auto
Available terminals – R, C, Y1, Y2, W1, W2, G
Use with control panels - SMZ-AC



DT6

DT6

Multi – Stage Digital Display Thermostat
Non-programmable – 24 Volt or Battery powered
System settings: Cool – Off - Heat, Fan settings: On - Auto
Available terminals – R, C, Y1, Y2, W1, W2, G
Use with control panels - SMZ-AC



3WT

3WT

Three Wire SPDT Mechanical Thermostat
Hermetically sealed, read switch construction
No system settings or fan settings
Available terminals – R, W, Y
Use with control panel – SMZ (zone 2 and above)
(Use with MSSB sub base for zone 1 on SMZ)



MSSB

MSSB

Six Wire Sub Base for use with 3WT thermostat
System settings: Heat – Off - Cool, Fan settings: On - Auto
Available terminals – R, W, Y, G, B, O
Use with control panels – SMZ (with 3WT zone 1 only), SMZ-AC, ED



SB1

SB1

Three Wire Sub Base for use with 3WT thermostat
System settings: Heat – Cool, No Fan settings
Available terminals – R, W, Y
Not for use with control panels – Use for damper control only



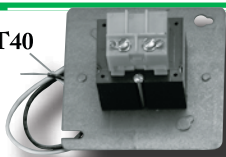
DZOT

DZOT

Outdoor thermostat
SPDT remote bulb thermostat for sensing temperature changes
Available terminals – R, W, B
Use where activation initiated by outdoor temperature change required

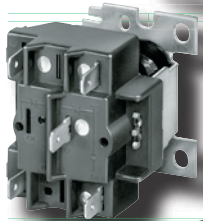
ACCESSORIES

PT40



PT40 Plate Mounted Transformer

The DuroZone PT40 Plate Mounted Transformer is a 120 volt input, 24 volt output, 40va rated step down transformer. The PT40 installs on a typical 4 x 4 electrical box and one transformer can operate up to 4 DuroZone dampers.



RR1

RR1 Relay

The DuroZone RR1 Relay is a 24 volt single pole, double throw, multi-purpose relay that is typically used for applications when isolation or protection of circuits is desired. When more than one relay is required, use DRP-2 Universal Relay Pack (35233).



M4000

M4000 Batch Analyzer

The M-4000 helps contractors and engineers make intelligent decisions on balancing and/or maintaining HVAC systems. It calculates CFM and BTU's by measuring and analyzing humidity, temperature and air velocity. Custom designed solid state circuitry ensures high accuracy.

SPECIAL CONTROLS

OTS



OTS Outdoor Temperature Sensor

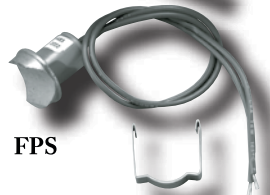
For use with the ED3 and ED4 panels. The OTS is installed outdoors and out of direct sunlight. The OTS is used with dual fuel heat pump/gas furnace installations.



LAT

LAT Supply Air Temperature Sensor

For use with ED3 and ED4 panels. The LAT is installed in the plenum or supply air duct after the evaporator coil. LAT helps protect equipment from freeze up or high limit lock out.



FPS

FPS Freeze Protection Sensor

The DuroZone FPS Freeze Protection Sensor is a low cost control designed to be put on the suction line outside the evaporator coil. At 38° it will break the circuit to the compressor relay (Y) preventing freeze-up. At 51° it will make the compressor relay (Y) continue the cooling cycle. The FPS can be used with any of the DuroZone control systems.



DS11

DS11 Remote Damper Switch

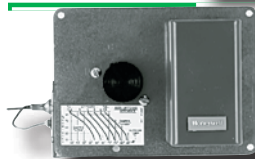
The DuroZone DS11 Remote Damper Switch is a wall mounted switch for manually opening and closing standard DuroZone dampers. Generally used in special applications for ventilation control, it installs in a standard 2 x 4 electrical switch box.

MPS4



MPS4 Multi-Position Switch (formally FAS-4)

The DuroZone MPS4 switch is a remote, wall-mounted switch for manual control of DuroZone 4 position dampers - models MPRD, MPMS and MPMB. Easy to install, this 4 position switch allows the dwelling occupant greater comfort and flexibility in controlling the volume of air entering into the space. Typically used for fresh air intake purposes, it installs in a standard 2 x 4 electrical switch box.



DZEC

DZEC Enthalpy Control

The DuroZone DZEC Enthalpy Control senses temperature and humidity and closes a set of contacts at a user determined level. The DZEC is typically used with the DuroZone EC-1 and EC-2 Economizer Panels.



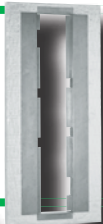
DDW

DDW Pressure Relief Damper Weight/Arm

The DuroZone DDW replacement arm & weight for DuroZone Pressure Relief Dampers can be used to add more weight to the Damper Arm for higher pressure settings.

SPECIAL CONTROLS (CONTINUED)

DZDBF



DZDBF Duct Board Damper Frames

The DuroZone DZDBF Duct Board Damper Frames allow easy mounting of standard DuroZone model MS and MB dampers into Duct Board without tools. It consists of two metal sleeves which clip onto the edge of a slot cut into the duct board.

TDT1



TDT1 Time Delay Timer

The DuroZone TDT1 Timer is a "delay on make" solid state device for energizing 2nd stage heating or cooling without the need of a 2 stage thermostat. The time setting is adjustable from 1 to 8 minutes. It operates with voltages from 19 to 240 AC.



DRP-2

DRP-2 Universal Relay Pack

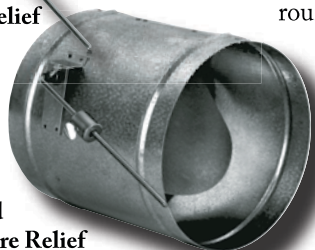
The DuroZone DRP-2 Universal Relay Pack consists of two 24 volt 4PDT "plug-in relays mounted on a circuit board. The circuit board has convenient terminal strips to make wiring easy and it is mounted in a plastic enclosure for protection. The DRP-2 can be used in a variety of situations and applications where two or more isolation relays are needed.

PRESSURE RELIEF DAMPERS

Rectangular
Pressure Relief



Round
Pressure Relief

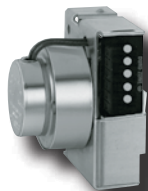


Rectangular and Round Pressure Relief Dampers

DuroZone Pressure Relief Dampers are used to relieve excess air pressure created when less than all the zones of a duct system are calling. They do this in a simple and reliable fashion based on barometric/static pressure in the duct system. When pressure builds up in the duct system due to satisfied zones, the pressure opens the damper blade and "bypasses" to an unconditioned area or back to the return air duct. The pressure relief damper closes when the system is off or when all the zones are calling. DuroZone Pressure Relief Dampers are available in both rectangular and round configurations.

REPLACEMENT MOTORS

RM13



SRHTM024



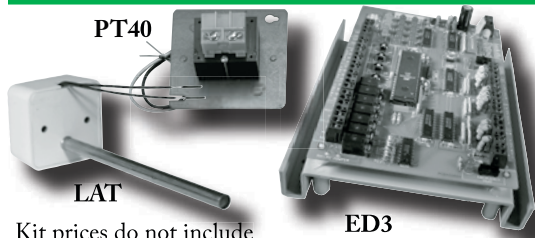
RMSR024



Duro Zone has a wide variety of replacement motors for all the dampers it manufactures. Most are low voltage (24 volt) activated, but some are also available as 110 volt units.

Models such as spring return, power open/ power close, and high torque spring return are available. For help in determining your replacement motor needs, contact your Duro Dyne representative or the Duro Dyne Technical Support department.

ED ZONE SYSTEM PANEL KITS



Kit prices do not include Dampers and Thermostats.

ED microprocessor zone control panels are suitable for all 2,3 and 4 zone applications. The panels are configurable and can be used for conventional heat-cool, heat pump, dual fuel heat pump, geothermal and even hydronic and oil systems. Kits include a 24 volt 40va transformer, a control panel, and a supply air temperature sensor. The ED4 is especially well suited for applications where building codes require fresh air intake.

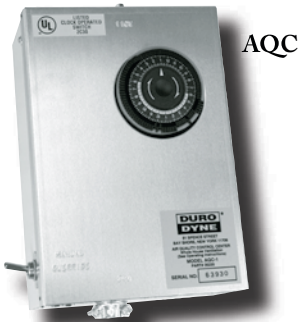
JTZ AND SMZ ZONE SYSTEM PACKAGES



Kit prices do not include Dampers and Thermostats.

JTZ and SMZ Zone Control Packages provide, in one convenient box, all the controls necessary to install a 2 or 3 zone system. Each box contains a control panel, a 24 volt 40va transformer, and the necessary thermostats for each zone. JTZ and SMZ Zone Control Packages come in several configurations to address most two and three zone situations for both conventional Heating/Cooling Systems and for Heat Pumps.

INDOOR AIR QUALITY AND ECONOMIZERS

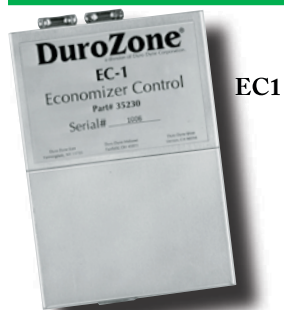


AQC

AQC-1 Air Quality Control Center

When tightly insulated homes have windows and doors shut, stale air is sealed in and fresh air is sealed out. Fresh air provides a healthier home and work environment. The key to eliminating moisture, bacteria, carbon monoxide and household odors is bringing fresh air indoors. The Dyna-Fresh Air Quality Control System brings outdoor air inside to make a more comfortable and healthy environment. The key component is a control panel which draws air into the home or workplace at pre-determined intervals with a 24 volt timer or manual override for continuous fresh air flow. The fresh air is drawn in through a motorized round damper. This fresh air is mixed with the indoor air already inside the heating / cooling system.

The mixture is now circulated through the ductwork while stale air is vented out through an existing ventilation (such as a bathroom exhaust fan).



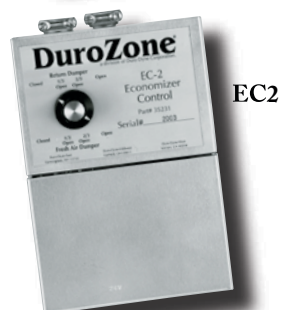
EC1

EC-1 Economizer Control

The EC-1 is used in conjunction with two Duro Zone zone dampers and an enthalpy control to create an economizer package for an air-conditioning system.

At rest, (outside conditions not conducive for cooling), the return air damper will be open, the fresh air damper will be closed, and the compressor will function normally.

When correct enthalpy conditions are attained, (humidity and temperature conducive for cooling), the EC-1 will close the return air damper and open the fresh air damper. At the same time the compressor will shut down, but the fan will continue to run, drawing fresh air from outside to satisfy the cooling demand.



EC2

EC-2 Economizer Control

The EC-2 is used in conjunction with two Duro Zone fresh air 4 position dampers and an enthalpy control to create an economizer package for an air-conditioning system. The EC-2 incorporates a 4 position rotary switch to allow mixing of the outside air with return air.

At rest (humidity and temperature not conducive for cooling), the return air damper and fresh air damper will be in the position indicated on the switch and the compressor will function normally.

When correct enthalpy conditions are attained, (outside conditions conducive for cooling), the return air damper and the fresh air damper will change positions. At the same time, the compressor will shut down, but the fan will continue to run, drawing fresh air from the outside to satisfy the cooling demand.