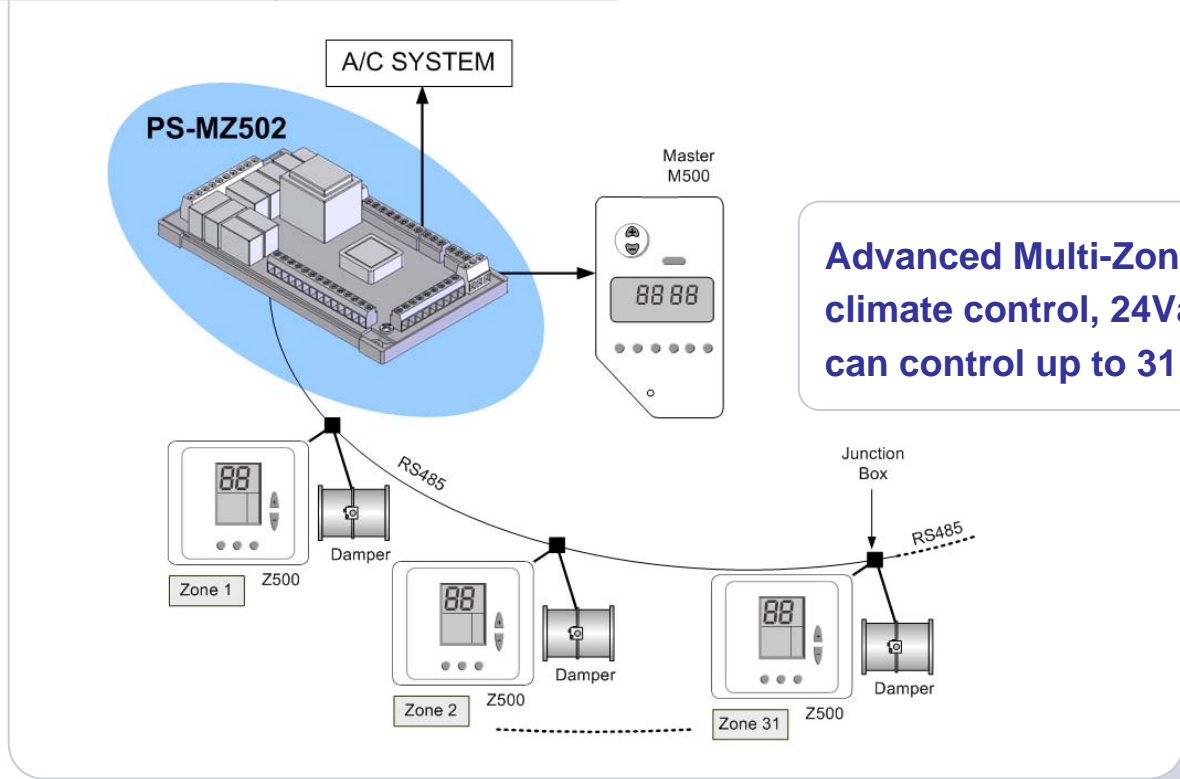




## Multi-Zone System PS-MZ502



### General

The PS-MZ502 is an advanced multi-zone system that can control up to 31 Zones. Suitable for Heat/Cool or Heat Pump applications, the PS-MZ502 allows for multiple stages of Cool and Heat.

The system's Master Unit allows the user to view AND change the zone parameters, such as local ON/OFF and set point. It is also used to set the main system parameters. Through the main board, features such as proportional Fresh Air and Bypass damper outputs are available. A special pressure sensor input exists, in order to control the bypass damper. There are also 2 different fault inputs and 3 temperature sensor inputs.

All in all, the PS-MZ502 multi-zone system is the perfect climate control system for small to medium residential, commercial or industrial applications.

### Features

- Main Input - 24Vac
- Controls up to 31 zones
- Selectable system configuration- Heat/Cool or Heat pump
- Up to 4 stages of Heat and 2 stages of Cool
- Selectable Heat output- Electric or Oil/Gas (jumper selectable)
- Modes: Cool, Heat, Auto-change Over, Fan Only-selectable through Master ONLY
- T1- Indoor temperature sensor
- T2- Outdoor temperature sensor
- T3- Duct temperature sensor (freeze protection in Cool, overheat protection in Heat)
- Output for dampers- 3-wire, 24Vac, general purpose with P.I logic
  - Zone dampers- open / close time adjustable
  - Fresh Air Dampers- 2 logics for open/close:
    1. by timer (min. per hour) OR
    2. by temperature difference (T1-T2)
  - Bypass Damper (0-10V) output- 2 options:
    1. by pressure (input for air pressure sensor) OR
    2. by number of rooms
- Display temperature available in C or F
- Access zones from master (set point, on/off)
- Master unit with weekly program- jumper selectable
- Weekly Program- 7 days, 4 programs per day (start time/stop time)

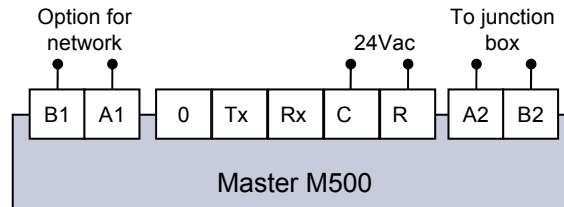


### Master M500

- Controls main system functions:
  - On/Off
  - Mode (Cool, Heat, Auto, Fan Only)
  - Fan: Fan On – Auto Fan
- View main system parameters- dampers status, faults, pressure, T2, T3
- Activate or de-activate Economy Mode (Unoccupied Mode)
- Set Fresh Air damper and Bypass damper logic
- Set weekly program for all system- option (7 days, 4 programs per day)
- Networking output connection- option
- Controls zone functions (for every single zone):
  - local ON/OFF
  - set point
  - local temperature limits (password protected)
- View zone parameters- mode, set point, % open of dampers



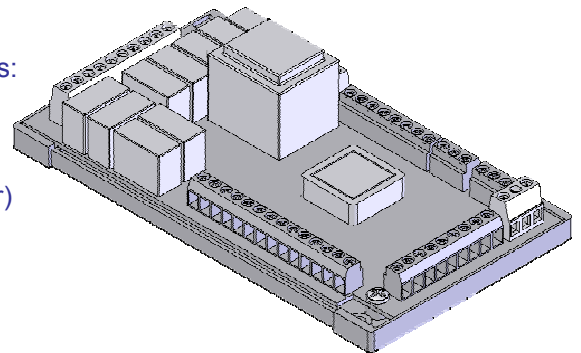
### Electrical Diagram- Master M500



### Main Board PS-MZ502

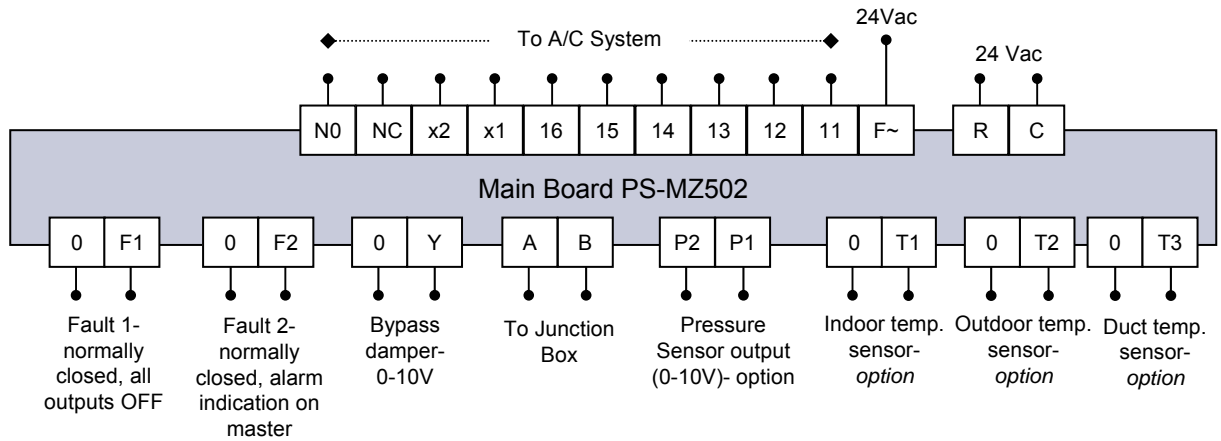
#### General Features

- Main Supply- 24 VAC
- System Configuration selectable on the unit:
  - Heat/Cool, Heat Pump
  - multiple stages
  - 1 or 2 fan speeds
  - Bypass damper output (0-10V) with 2 options:
    - by pressure
    - by number of rooms
- Fresh Air Damper output with 2 options:
  - by timer (certain number of minutes per hour)
  - by temperature difference (T1-T2)
- Input for air pressure sensor- for bypass output
- Compressor delay- option
- 3 temperature sensors:
  - T1- indoor temp (Fresh Air Damper)
  - T2- outdoor temp (Fresh Air Damper)
  - T3- duct temp (freeze protection in Cool, overheat protection in Heat)
- Economy (Set Back) Mode available for individual zones or all the system
- F1- Fault input, normally closed, voltage free- all system OFF
- F2- Fault input, normally closed, voltage free- alarm indication on master





### Electrical Diagram - Main Board PS-MZ502

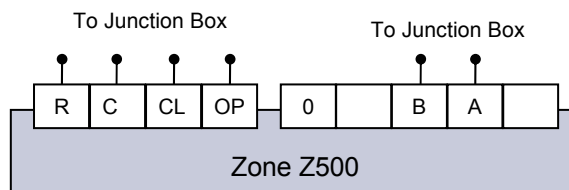


### Zone Z500

- Set local On/Off status
- Set local set point
- Set local temperature limits (password protected)
- Adjust damper's open/close time



### Electrical Diagram- Zone Z500



### Electrical Diagram- Junction Box

