

## Introduction

Thank you for purchasing a Siemens Zone Switching System. Systems are available to control 5, 6, 7 & 8 zones.

Features of the Zoning system include:

- Automatic spill function to ensure a zone is always open.
- Zone status indication.
- Quick connect cabling.
- Automatic over-current protection with fault indication
- 24Volt power supply enabling quick, cost effective and safe installation.
- Touch panel labels to help customise the panel to your house design.

## Contents of Kit

- 1 x Touch panel.
- 1 x Touch panel overlay.
- 1 x Relay module.
- 1 x 240 VAC/24 VAC plug-pack transformers.
- Instructions.
- Bag containing screws & RJ12 connectors.
- Zone labels sheet.

## Installation

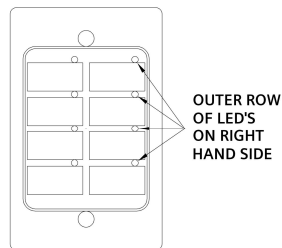
The Siemens Zoning System has been designed for simple installation and comprises of the following components:

### Touch Panel

The touch panel should be located in a central position either flush mounted to the wall or mounted on a standard 15mm mounting block.

As power cables can interfere with the operation of the system, the touch panel should be located at least 250mm away from any 240VAC cabling.

**IMPORTANT NOTE:** When installing the touch panel, please ensure that the outer row of LED's are positioned on the right-hand side. (See below.)



### Fitting of Zone Labels and Touch Panel Overlay

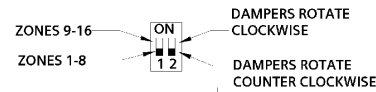
- 1) Remove self-adhesive zone labels from the perforated sheet and insert into the recesses on the touch panel to represent each of the active zones.
- 2) Remove the touch panel overlay from the adhesive backing and place over the top of the zone labels.

### Relay Module

The relay module should be mounted within approx. 1 metre of a power point. This should be in a central location close to the Fan Coil Unit, generally in the roof or floor space. (i.e. out of the weather). Two screws are provided to mount the relay module through the bottom right and top left holes. Alternatively, the relay module can be mounted on a din rail.

The relay box can be configured to always rotate the Zone motors clockwise or counter clockwise (default for Siemens Zone Motors). Switch 2 should be off for Counter clock wise operation

**NOTE:** Switch 1 should be in the off position when used with Touch Panels. The relay box can only be configured as ZONES 9-16 when used with a TOUCH SCREEN

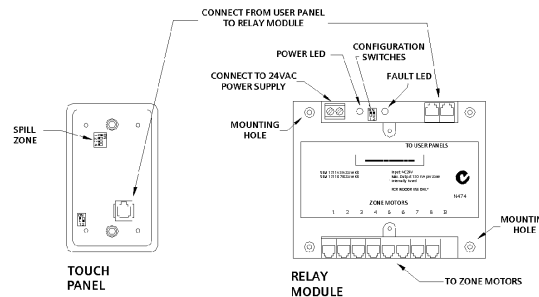


### Interconnection Cable

A single 6 core RJ12 cable must be run between the touch panel and the relay module. This cable should not exceed 25m in length.

**To ensure correct operation, make sure the connectors are crimped the same way at each end of the interconnection cable.** RJ12 connectors are provided for this purpose.

The interconnection cable from the user panel must be connected into one of the RJ12 sockets marked "TO USER PANELS".



### Power Supply

The relay module should be mounted within approx. 1 metre of a power point. Connect the two black wires into the 24VAC terminal block of the relay module.

### Zone Motors

Depending on the model selected, up to 8 zone motors can be connected to the relay module via the 6 core RJ12 cables. These cables should not exceed 25m in length.

### Spill Zones

This Siemens Zoning System has an automatic spill feature that can ensure that at least one zone is always open. By default, all systems are set to spill to Zone 1.

Up to 4 spill zones can be configured. (e.g. If Z1, Z2 & Z4 are selected the unit will recognize that at least 3 zones must be open. The system will then not permit the user to run the unit with less than 3 zones open)



The 4 way DIP switch can be set to determine which is the spill zone(s).

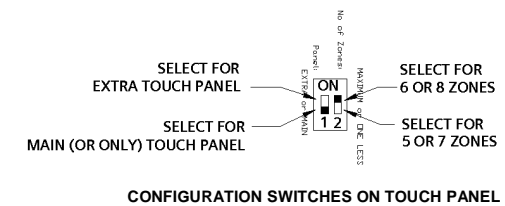
### 5 & 7 Zone configuration

Configuring a 6 zone unit to 5 zone operation (or an 8 zone unit to 7 zone operation) is achieved by setting the 2 way dip switch to "ONE LESS" instead of "MAXIMUM". In this mode, pressing zone 6 (or 8) will have no effect. A plain white room label should be fitted to this non useable zone.

### Using 2 touch panels

Two touch panels can be connected to a relay board if desired. If a second touch panel is installed, one of the touch panels must be set to "MAIN" and the other one set to "EXTRA".

Spill zone & 5 or 7 zone configuration must be done on the "MAIN" board. Configuration settings on the "EXTRA" board are ignored.

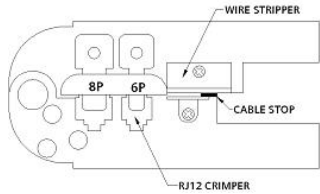


**Panel Calibration**

The touch panel calibrates itself during the first 15 seconds following power-up. This is indicated by the zone LED's flashing in pairs. It is essential that the touch panel isn't being touched & isn't touching anything during this calibration period.

**NOTE: It is important that all labels are fitted prior to power-up to ensure correct calibration.**

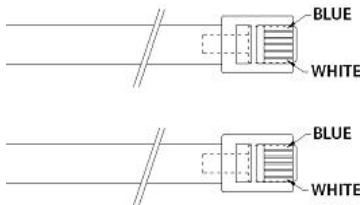
**Crimping RJ12 Connections**



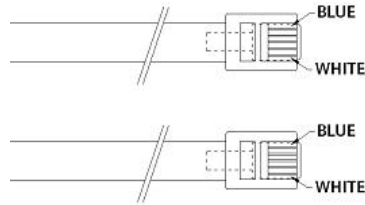
To simplify installation and service, the Siemens Zoning System utilises RJ12 connectors and cables. Construction of these cables is simple if the following procedure is adhered to.

- (a) Cut cable to desired length ensuring that the cable is cut squarely. Utilise the cutter section of the crimper. Insert the cable into the stripper section of the crimper until it hits the stop provided (approximately 6.5mm in).  
  
Squeeze the handles of the crimper in one hand whilst firmly holding the cable in the other and pull the tool away to remove 6.5mm of the outer sheath. Check that the ends of the 6 inner cores are all the same length. If not, trim cores ensuring at least 6mm of each core is still exposed.
- (b) Insert the cable into the RJ12 plug. Check that cable has gone fully into the connector and all cores are fully in position.
- (c) Insert the connector into the crimper being careful not to displace the wire. Squeeze the handles firmly to ensure each of the 6 gold contacts crimp to the cores.
- (d) Repeat the above procedure for the other end of the cable, ensuring the correct orientation of the cores to correspond to the opening direction of the damper barrel being used.

**INTERCONNECTION CABLE ORIENTATION (Must be as shown below)**



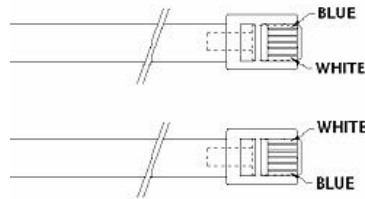
**ZONE MOTOR CABLE FOR DAMPER BARRELS**



Zone cables should be wired as above. If all motors then operate in the wrong direction, reverse the motor direction by changing SW2 on the relay module

**ZONE MOTOR CABLE FOR A DAMPER BARREL THAT IS REQUIRED TO OPERATE IN THE OPPOSITE DIRECTION**

The rotation direction of all motors can be reversed though use of SW2. If an individual motor is required to operate opposite to all other motors, assemble the cable as shown below.



**Trouble Shooting**

Some common faults are listed in the table below:

Symptom	Potential Cause/s	Suggested Solution	
Touch panel doesn't operate	Panel Not Calibrated	Turn Power Off & On	
	No Master	Set 1 panel to be Master	
	Incorrect Spill Selection	Correct spill selection	
	Relay Box configured as zones 9-16	Select off on SW1 on relay box	
Panel doesn't Flash during Calibration	Fault displayed on Relay Module	Check Relay Module Fault light	
	Interconnection cables connected up the wrong way.	Re-wire connecting cable	
	Fault in cable between Touch Panel and Relay Module	Re-wire connecting cable	
Zone Motors drive in wrong direction	Power supply not switched on	Plug Power supply into mains and turn on	
	Fault displayed on Relay Module	Check Relay Module Fault light	
	Plugs on cables to zone motors reversed on one end to the other.	Re-terminate in correct orientation	
Motor drives in one direction only	SW2 on relay box in incorrect position	Change SW2 position	
	Broken wires in cable	Repair Cable	
Red Fault LED flashing on Relay module	Relay board not communicating with Touch Panel	Plug in Touch Panel	
Red Fault LED flashing on Relay module	1 Flash	Check interconnection cable	
	2 Flashes	Excessive current being drawn on a zone : - shorted cable - faulty zone motor - too many motors attached to one zone	Repair cable Replace zone motor Reduce number of motors on the indicated zone
	3 Flashes	Zones 1, 2 or 3 have a fault	
	4 Flashes	Zones 4, 5, 6 have a fault Zones 7 or 8 have a fault	