

## Introduction

This **Supplementary Set Up Guide** should be read in conjunction with the **Colour Touch Screen Installation Guide** enclosed with your Variable Opening Relay Module Kit

Your Variable Opening Relay Module will allow you to adjust the percentage each zone opens, giving you the ability to better balance the air flows throughout the installation.

### Note:

Your Variable Opening Relay Module can only be used with the Siemens Colour Touch Screen Controller.

All Features outlined below are in addition to those referred to in the Colour Touch Screen Installation Guide

## Usage Guidelines

Once connected to your Siemens Colour Touch Screen Controller in the Installer Menu, the additional variable opening set up menus will be activated.

## RETROFITTING

These modules can be retrofitted to your system depending on the type of damper actuator installed (See **Damper Actuator Selection** below). Once the module is fitted your Siemens Colour Touch Screen will automatically sense this, and add the configuration screens to your menu.

## MIX and MATCHING of Relay Module Types

Whilst it is not recommended, variable and standard opening relay module models can be mix and matched with some limitations. When the Variable Open Relay Module is used, it must be designated as Module Number 1 on the configuration switch. Whilst the Colour Touch Screen will display the option for setting the variable opening time of ALL zones, for those zones connected to the standard Relay Module the variable opening setting will have **NO** affect (i.e.no matter what setting the variable opening value is set to they will only open to 100%).

You should set all zones connected to the standard relay module to 100% Opening Percentage to ensure optimal spill zone functionality. **In addition at least one spill zone(s) MUST be connected to the Variable Opening Relay Module**

## SETTING UP DAMPER MOTOR TIME CONSTANT

Your Variable Opening Relay Module allows you to set the time constant for your damper motors (i.e. the time it takes the damper motor to drive from closed to fully open). Literature supplied with your damper motor should advise this value. Your Variable Opening Relay Module comes preset to 19secs which is the time constant for the Siemens GXD131.1K.

Access to this time constant value is found in the **Installer Settings** menu, press the **Zone Balancing** button and from this screen you will be able to change the value (in seconds).

## SETTING OF OPENING PERCENTAGES FOR EACH ZONE

In the **Installer Settings** go to the **Zone Balancing** menu found. Pressing the **Summary** button allows you to see a summary of each of the zones. Pressing the **Balance Zones** button gives you access to change the percentage opening of each of the zones connected to the controller, press the left and right arrows to scroll between the zones. Click **Done** when finished making changes to the individual zones. Following changes to settings your system will follow a predetermined cycle process to ensure accurate update of the zones.

## USER ACCESS TO PERCENTAGE OPENING SETTINGS

The installer has the option of either allowing or not allowing the user to have access to change the percentage opening for each zone. If this feature is allowed an additional **Balance Zone** menu item will appear in the User Menu.

Ability to enable this feature is found in the **Installer Settings** menu, press the **Zone Balancing** button and from this screen you will be able to enable or disable the **Allow home owner to adjust balance** function.

## DAMPER ACTUATOR SELECTION

The Variable Opening Relay Module turns on and off power to each damper motor to control the percentage open of each zone. The type of motor selected must maintain its open position when power is removed, and have a separate contact for actuation in each direction. Failure to use the correct type of damper actuator will result in your system not working correctly and potential system failure.

Please check actuator functionality prior to installation. Time constant (actuating of the motor) for the motor selected can be set in **Installer Settings** of your Touch Screen.

## SPILL ZONE OPERATION

Spill Zones are still set up as per the Colour Touch Screen Installation Guide. Your Colour Touch Screen will automatically take into account the percentage open for each active zone and operate the spill zone(s) accordingly.

## TROUBLE SHOOTING

Some common faults are listed in the table below:

Symptom	Potential Cause/s	Suggested Solution
No Variable Opening menus shown	If multiple relay modules are used (mix and match) the Variable Opening Relay module must be designated Module Number 1  If Variable Opening menus not found in User Menu	Change Variable Opening Relay Module to be set as Module Number 1  Ensure the <b>Allow home owner to adjust balance</b> setting is turned on in the <b>Zone Balancing</b> menu found in the <b>Installer Settings</b> menu
No variable opening on some zones	Standard opening relay module is operating the zone(s) not operating as expected	Replace standard relay module with variable opening relay module or Rearrange zone connections to relay modules to connect zones requiring variable opening to the variable opening module (note you will need to change the zone names in the set up menu as zones will now be in a different order)
Cannot adjust opening value for selected zone	Zone is set up as spill zone	Change spill zone set up if required (this should only be undertaken by an appropriately qualified person)
Zone(s) open correctly but then close straight away	Incorrect type of damper actuator used	Refer to DAMPER ACTUATOR SELECTION above. Change damper actuators as required
Zones do not open as expected	Incorrect time constant set for damper actuators	Check time constant setting versus damper actuators specification and ensure they match

