



**ZoneTouch V2**  
**Zone Control System**  
*User Manual*



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## Liability

Please read the instructions before installing this Zonemaster Zoning Control System.

Polyaire Pty Ltd does not accept any responsibility for loss or damage that may occur as a result of the incorrect installation of this Zonemaster Control System.

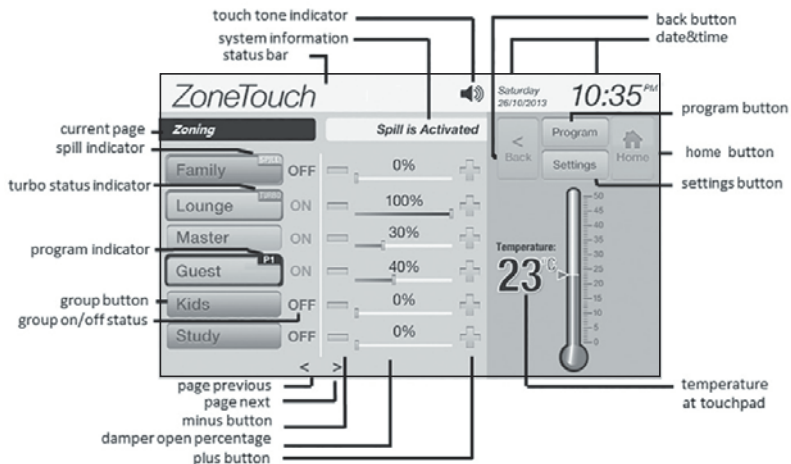
## 1) Features

- User friendly large touch screen interface
- Intuitive user interface
- Control airflow to individual zones<sup>1</sup> and groups<sup>2</sup>
- Colour LCD for clearer display
- Personalized system settings and labelling
- Wall mounted with up to two touch screens available in a system
- 5-1-1 Programmable On/Off time programs
- One selectable turbo<sup>3</sup> group to cool/heat a particular area quicker
- Half year, One year and Two year service reminders to call technician for cleaning and servicing AC system<sup>4</sup>.
- All zones automatically resume their original on/off state once power is restored after power outage.

1. *A zone is the area where air supply is controlled by one motorized damper*
2. *A group is a few zones grouped together which have the group name and are controlled (turning on and off, or adjusting opening percentage) at the same time. A group will have at least one zone and no more than four zones.*
3. *Turbo function will give the selected group a full-opening while all other groups' (dampers) opening positions are reduced by 50% of their open percentage value. This will bring a large volume of extra air into the designated area and cool or heat the area quicker.*
4. *AC system is the ducted air conditioner which has ZoneTouch V2 as its zone control system.*

## 2) Wall Controller Layout (Touch Screen)

The home screen of the system will normally display groups' status, dampers' open percentage with adjusting buttons, date, time, room temperature, touch tone status and ZoneTouch logo as shown in Figure 1.



Home Screen (Figure 1)

### NOTE:

- The touch screen will go to the sleep mode after 90 seconds of inactivity. In sleep mode, the screen is blank. Touching any area of the screen will activate the system.
- To clean the touch screen, use a dry, soft cloth and very gently wipe the screen. If necessary, dampen the cloth with distilled water or with an equal ratio of distilled water to white vinegar.

### 3) Manual Group control

#### 3.1 Group On/Off/Turbo

- a) On the home screen, touch a group button (Figure 2) to change the on/off group status and the dampers of the group will open or close accordingly.

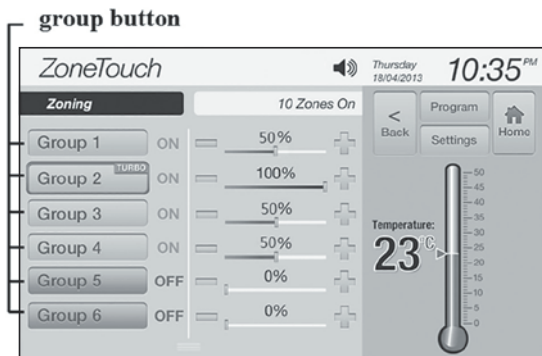


Figure 2

- b) The group status can be set to 'TURBO' active when the group is specified as a turbo group (refer to 5.3) and the grey turbo indicator will turn blue to indicate the TURBO function is active. Figure 3 shows the group status sequence alternated by touching the group button.

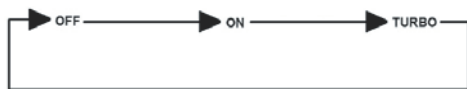






Figure 3

- c) Up to 6 group buttons are shown in one screen and touch < or > to bring up previous or next page.

**NOTE: A group can have up to a maximum of 4 zones. Your installer would have already set up your zones and groups.**

### 3.2 Adjusting airflow for a group

- The damper opening percentage for every group can be adjusted to control the amount of airflow at every outlet between 10% and 100% of the balanced value (setup by Installer) at 10% increments.
- Touch  or  buttons on the home screen to increase or decrease the percentage opening for the corresponding group.
- The airflow will be unadjustable if the Turbo function is active. Pressing  and  will not change the opening percentage.

## 4) Automated Group Control

Automated on/off control for each group is an important feature of the ZoneTouch V2 system. This system has three program scenarios, one for weekdays (Monday to Friday), one for Saturday and one for Sunday respectively.

Each program scenario has 4 programmable events per day: on time 1, off time 1, on time 2 and off time 2. Each program event can be enabled and disabled and the time can be adjusted as desired. All four events are disabled in the factory default with settings as listed in the table below. Users can create up to 4 programs using the scenarios and different event time slots.

	On time 1	Off time 1	On time 2	Off time 2
Monday to Friday	6.30AM	8.00AM	5.30PM	10.00PM
Saturday	7.30AM	12.30PM	6.00PM	11.30PM
Sunday	7.30AM	12.30PM	6.00PM	11.30PM

**NOTE: The Turbo function cannot be programmed. It is activated manually from the touch screen as needed.**

Touch the **Program** button on the home screen to enter 'Programming' screen (Figure 4).

#### 4.1 Set Program

Up to four programs can be created.

Touching **Home** button will go back to the home screen from programming setting pages.



Figure 4.

- a) Touch Program buttons (e.g. **Program 1**) on 'programming' screen (Figure 4) to enter the screen (Figure 5) to select scenarios and adjust the event times.

**day option radio button**

**time switch radio button**

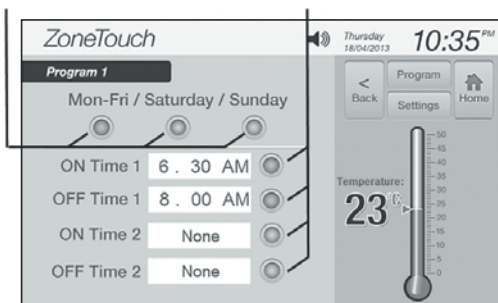


Figure 5

- b) Touch a day option radio button to select Monday-Friday, Saturday or Sunday program to modify. Touch the time switch radio button on the right to enable/disable ON/OFF time.
- c) Touch the hour, minute or AM/PM field on the screen to highlight it, and then the **+** and **-** buttons will appear on the screen (Figure 6). Touch **+** or **-** buttons to adjust the time.



Figure 6.

**NOTE:** After an edit field is highlighted, touching that field again will quit from the editable status and the **+** and **-** will disappear.



## 4.2 Select Program for a Group

Enter the 'Assignment' screen (Figure 7) by touching **Assignment** on programming screen (Figure 4). Assignment screen shows the list of the current program of each group. Touching **Home** button will go back to the home screen from Assignment page.

Touch the program field of a group to show all program options (Figure 8). Touching a program option will assign the program to the group (Figure 9).

Each group can be assigned with one program from program1 to program4 ('P1' to 'P4'), and the group will not have a program if 'No' is selected. If a program has been assigned to a group, the program indicator will appear on the group (Figure 10) if any of the four events in the program is enabled.

**NOTE: Programs cannot be assigned to a group with turbo status. Record programs and groups to 'Table 5: Programs' on Page 13**

### program field

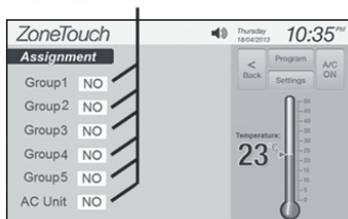


Figure 7.

### touch to select the program

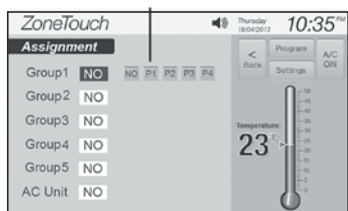


Figure 8.

### after selection

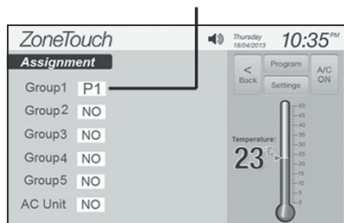


Figure 9.

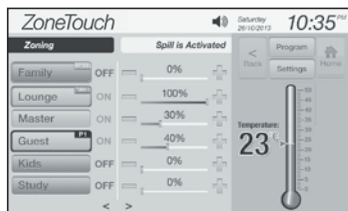


Figure 10.

## 5) User Settings

- Touch **Settings** on the home screen (Figure 1) enter “Settings” screen (Figure 11)
- Touch **User** to enter ‘user settings’ screen (Figure 12)

In User Setting, you can set up date and time, owner’s name, Turbo group, temperature display and touch tone.

Touching **Home** button will go back to the home screen from User setting pages.



Figure 11.



Figure 12.

### 5.1 Time/Date setup

- Touch **Set Time/Date** on the ‘User Settings’ screen (Figure 12) to enter the time/date setup screen (Figure 13).
- Hour, Minute, AM/PM, day, month and year fields will be shown on the screen. Touch the field which need to be modified, then touch **+** or **-** button to change the value (Figure 14).
- Touch **Back** button to save the changes and go back to User Setting page.

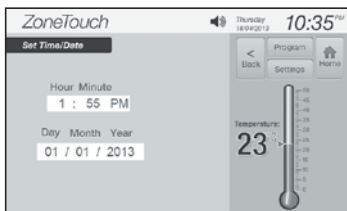


Figure 13.



Figure 14.

## 5.2 Owner's Name

The maximum length of the name is 16 letters.

Go to 'User Settings' screen (Figure 12).





Touch 'Owners Name' to change the owner's name by using the keyboard shown on the screen (Figure 15). Touch  to switch between lower case and upper case and touch  to confirm the name or touch  or  to cancel the change.



Figure 15.

## 5.3 Turbo Group

Touch 'Turbo Group' to specify a group as a Turbo Group. Turbo function will give the selected group a full-opening while all other groups' (dampers) opening positions are reduced by 50% of their open percentage value. This will bring a large volume of extra air into the designated area and cool or heat the area quicker. Typically this may be a family room, dining room or home theatre (or in commercial application a meeting, lunch or board room).

Touch the 'Turbo Group' field on the 'User Settings' screen (Figure 12), to display the list of available group name (Figure 16). Choose the desired group name as the turbo group. The grey turbo indicator will appear on the group button after it's chosen as Turbo group.

**NOTE: To make the specified group start to work in turbo mode, the group status needs to be turned to 'turbo' on the home screen (3.1).**



Figure 16.

## 5.4 Temperature Display

Touch the radio button of **Display Temperature** ☒ to enable or disable the temperature display on the touch screen. Below images show the enabled status (Figure 17) and disabled status (Figure 18) of temperature display.



Figure 17.

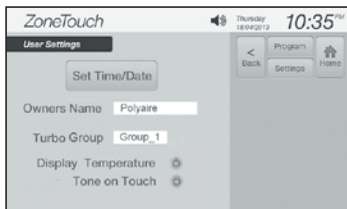



Figure 18.

## 5.5 Touch Tone

The touch tone feature allows to either enable or disable the tone when the screen is touched. It is disabled as default and will display a mute logo  on the screen.

Touch the radio button of **Tone on Touch** ☐ to switch the touch tone on or off.

## 6) Information Sheets

These should be filled out by the installer

**Table 1: System Configuration**

Total Groups	Bypass Damper Installed	Supply Air Sensor Installed
	Yes/No	Yes/No

**Table 2: Grouping**

Group	Group Name	Zones Included	Turbo Function
1			
2			
3			
4			
5			
6			
7			
8			
9			
A			
B			
C			
D			
E			
F			
G			

**Table 3: Balance**

Zone	Balance Percentage
Zone 1	
Zone 2	
Zone 3	
Zone 4	
Zone 5	
Zone 6	
Zone 7	
Zone 8	
Zone 9	
Zone A	
Zone B	
Zone C	
Zone D	
Zone E	
Zone F	
Zone G	

**Table 4: Installer Details**

Installer	Contact Number	Date

**Table 5: Programs**

PROGRAM 1	On time 1	Off time 1	On time 2	Off time 2
Monday-Friday				
Saturday				
Sunday				
Groups				

PROGRAM 2	On time 1	Off time 1	On time 2	Off time 2
Monday-Friday				
Saturday				
Sunday				
Groups				

PROGRAM 3	On time 1	Off time 1	On time 2	Off time 2
Monday-Friday				
Saturday				
Sunday				
Groups				

PROGRAM 4	On time 1	Off time 1	On time 2	Off time 2
Monday-Friday				
Saturday				
Sunday				
Groups				

## 7) Troubleshooting Guide

PROBLEM	SUGGESTED ACTION
Dampers have no response when turned on or off	<ul style="list-style-type: none"> <li>• Check if the 'Safety is Activated' error is displayed. High limit (Heating) or Low limit (Cooling) may have reached. Check the air-conditioner to see if it is operating normally. ZoneTouch V2 system will resume to operational after the supply air temperature is within safety range.</li> <li>• *Check if Supply air sensor is plugged in the mainboard and High Limit &amp; Low Limit is enabled. If the sensor is not plugged in, plug the sensor and the system will be operational after a minute. If the sensor is not required, disable High limit and Low limit from touchpad and system will return to operational in a minute.</li> <li>• *Check if LEDs on the main module light up for relevant zones when the zone dampers are being turned On/Off. If Green/Red LEDs are not activated for the respective zone, the main module may be faulty, replace it.</li> <li>• *Check if the cable from touchpad to the main control module is faulty. If it is a faulty cable, then the cable might have to be replaced.</li> </ul>
Some zones cannot be turned off	<ul style="list-style-type: none"> <li>• Check if 'Spill is activated' is displayed on the LCD screen.</li> <li>• Check if 'Spill' status is displayed for the Group status in the home screen. Opening other zones will rectify the error</li> <li>• *If all zones are turned on but the total opening percentage doesn't meet the required spill percentage, then the SPILL warning message will be displayed. Increasing the opening percentage of a few zones will resolve the issue.</li> <li>• *Check spill set-point.</li> </ul>
No display on the LCD	<ul style="list-style-type: none"> <li>• *Check if the cable is plugged in properly. Unplug the cable and reconnect it.</li> <li>• *Check if there is power to the unit.</li> </ul>
LCD Display Corrupted	<ul style="list-style-type: none"> <li>• Reset LCD by holding RESET button at the bottom of the Touchpad for 2s.</li> <li>• *If error is still not resolved, reset touchpad by unplugging the cable from behind and then reconnect it after a couple minutes. If the corrupted display remains, power off/on the mainboard. Otherwise, replace the touchpad.</li> </ul>
Some zones are not operational	<ul style="list-style-type: none"> <li>• *Check Grouping and find out if the right zones have been assigned to the right groups and have been turned ON/OFF in Zoning section.</li> <li>• *Check if the total group number and zone number are correct.</li> <li>• *Check if the LEDs on the main module light up for the relevant zones when the zone dampers are turned On/Off. If there is no response, there might be a faulty cable and the cable would have to be replaced. If the zone is still non-functional then there might be a faulty damper motor.</li> </ul>

**\*: These checks in the guide should be carried out by qualified personnel.  
If you have any doubt regarding the above please contact your installer.**



## 8) Specifications

### Electrical Requirements

Power supply: 24V AC  $\pm 10\%$

Line frequency: 50 Hz

### Components Power Consumption

Touchpad: 0.5 VA

Main Control Module: 5 VA

### Environmental Requirements

Operating temperature: 0°C to 60°C

Altitude: 0 to 2000 meters

Operating relative humidity: 10% to 80%

Avoid static electricity hazards

Avoid electromagnetic radiation sources

Avoid dust contamination

Avoid highly corrosive environments

### Zone Output

Output voltage: 24VAC, 50Hz

Current: 200mA (1 damper motor)

### Transformer

Input Voltage: 240V AC, 50Hz

Output Voltage: 24VAC, 50Hz

Wattage: 40W

**Supply Air Sensor:** NTC type, 10 k $\Omega$  at 25°C

**Battery:** 3.6V, 3xAAAM  
Rechargeable for Main Module

**Fuse:** Dimension 5x20 mm,  
Fast-Acting 2A, 250V







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