

ZONETOUCH DAMPER CONTROL SYSTEM Operation 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 Zoning Control System.

1) Features

- Wireless remote control using Smart phones (iPhone and Android Phones)
- Controls the AC unit
- Controls airflow to individual groups
- Larger backlit LCD for clear display
- Personalized group labeling.
- Wall mounted touchpad(s) with up to 4 touchpads available in a system.
- 5-1-1 Programmable On/Off time programs.
- One selectable Turbo group to cool/heat a particular Group quicker.
- Half yearly (182 days) and Two yearly (728 days) service alerts remind customers to call a technician for cleaning and air conditioning system service respectively.
- All zones automatically resume their original on/off state once power has been restored after power outage.

2) Wall Controller Layout (Touchpad)

The Touchpad has a LCD screen with nine buttons as shown in Figure 1. The LCD screen will normally display clock time, room temperature and the Zonemaster logo.



Figure 1. Touchpad Layout

NOTE: If the temperature is not displayed on the screen your installer might have disabled the temperature display.

3) Manual On/Off Mode

In sleep mode, as shown in Figure 2, there are two ways to enter into zoning mode to manually turn the groups on or off. The first way is to press or button; the other one is to press button to get into the function selection mode and then press button again after selecting Zoning by using or button.



Figure 2.

NOTE 1: The bottom right hand corner of the screen may display AC status (AC ON / AC OFF). If this is not displayed, then the ZoneTouch system might not be enabled to control the AC unit.

NOTE 2: A group can have up to a maximum of 4 zones. Your installer would have already set up your zones and groups.

3.1 Group On/Off

- a) In zoning mode, the touchpad displays Group name, On/Off Status,
 % Open and Program mode of up to eight groups in one screen as shown in Figure 3.
- b) Use the or button to select a group to be controlled. The On/Off status of the group will be highlighted.
- c) Press button to turn on/off the group. The group status will change from ON to OFF (Figure 4) or vice versa and dampers of the selected group will open/close accordingly.
- d) Scroll down past the last group shown at the bottom using the button to show subsequent groups
- Pressing button will exit the zoning mode. Alternatively, it will return to the sleep mode itself in 15 seconds if no key is pressed.

Group	Status	%Open	Prog
Living	ON	100%	NO
Lounge	ON	100%	NO
Master	ON	100%	NO
Bedroom2	ON	100%	NO
Bedroom3	ON	100%	NO
Family	ON	100%	NO
Kitchen	ON	100%	NO
Dining	ON	100%	NO

Figure 3.

Group	Status	%Open	Prog
Living	OFF		NO
Lounge	ON	100%	NO
Master	ON	100%	NO
Bedroom2	ON	100%	NO
Bedroom3	ON	100%	NO
Family	ON	100%	NO
Kitchen	ON	100%	NO
Dining	ON	100%	NO

Figure 4.

3.2 Turbo Mode

Turbo function will give the selected group a full-opening while all the other group's (dampers) opening positions are reduced by 50% of their %Open 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).

1) Assign a group as a Turbo Group

- a) Go to 'Setting' menu by holding and buttons at the same time for 5 seconds (Figure 5).
- b) Select 'Parameter' sub-menu by pressing button.
- c) Go to TURBO menu by pressing or button and highlight Group Name (the current name of the turbo group). If there is NONE, then there is no group assigned as Turbo group (Figure 6).
- d) Select desired group by pressing or button (Figure 7).
- e) Return to 'Setting' menu by pressing button.
- f) Return to normal display by pressing button.

Setting Parameter Grouping Balance Naming Service AC Setup Wifi Setup Figure 5.

Parameter			
Touchard Adds			
Touchpad Add:	1		
Total Group:	08		
High Limit:	60 C		
Low Limit:	5°C		
Safety Spill:	30%		
Turbo Zone:	None		
Temper Show:	Disable		
Touchpad Tone:	Disable		

Figure 6.

Parameter		
Touchpad Add:	1	
Total Group:	08	
High Limit:	60°C	
Low Limit:	5°C	
Safety Spill:	30%	
Turbo Zone:	Living	
Temper Show:	Disable	
Touchpad Tone:	Disable	

Figure 7.

2) Turn Turbo On

- a) Select the group which is assigned as turbo group by highlighting it from the normal display mode by pressing and or button.
- b) If the group is showing ON, press the button once to activate Turbo function. The group will now show Turbo. (Figure 8). Press to return to Sleep Mode
- c) If the group is showing OFF, press (U) twice to activate Turbo function.
 The group will show Turbo. Then press
 to return to Sleep Mode.

Group	Status	%Open	Prog
Living	Turbo		NA
Lounge	ON	50%	NO
Master	ON	50%	NO
Bedroom2	ON	50%	NO
Bedroom3	ON	50%	NO
Family	ON	50%	NO
Kitchen	ON	50%	NO
Dining	ON	50%	NO
		•	

Figure 8.

NOTE: In TURBO status the assigned Group is fully open to 100% and its corresponding %Open value and the program (NA) are disabled. The %Open value and the program assigned to that particular group will be enabled when the status is changed back to OFF/ON.

3) Turn Turbo Off

- *a)* Select the Turbo group by highlighting it and it should show Turbo.
- b) Press (1) once. The group and Turbo function will be turned off and will now show OFF (Figure 9).
- c) The figure below shows the sequence through which the Group status cycles through.

Group	Status	%Open	Prog
Livina	OFF		NO
Lounge	ON	100%	NO
Master	ON	100%	NO
Bedroom2	ON	100%	NO
Bedroom3	ON	100%	NO
Family	ON	100%	NO
Kitchen	ON	100%	NO
Dining	ON	100%	NO



Figure 10.

IMPORTANT NOTE: The Parameter mode is used to set up your system, this will have been done by your installer. Any attempt to change the parameter settings may result in your system not performing at its best. If you wish to change any parameters we suggest you consult your installer or service provider.

3.3 AC Unit On/Off

The AC unit can be turned On/Off through the Zonemaster control system using the touchpad as below

Press the 🕛 button to turn the AC unit On/Off at Sleep / home screen as shown in Figure 11 & Figure 12.



Figure 11.

NOTE 1: If AC ERROR is displayed instead of AC ON or AC OFF, refer to Page 13 to rectify the error.

NOTE 2: The AC status display depends on the AC model and Setup. If the AC unit status is not displayed at the bottom right hand corner, then the ZoneTouch system is not setup to control the AC unit.



Figure 12.

4) Programming On/Off Mode

Programmable on/off time control for each group and the AC unit is an important feature of the ZoneTouch system. This system has a 5-1-1 program capability with three possible program settings; one for weekdays (Monday to Friday), one for Saturday and one for Sunday respectively.

Each program 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/disabled and their times can be adjusted as desired. All 4 sets of program are disabled in the factory default with settings as listed in the following table.

	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 touchpad as needed.

4.1 Set Clock and Day

- a) Press the ✓ button once to enter into the 'Function' Screen.
- b) Use the or button to select the 'Clock', and then press button to enter the sub menu of the clock setting (Figure 13).
- c) Use or button to select between hours and minutes and then press or button to change the time (Figure 14).
- d) Press the button to select the day of the week and then press or button to change it.
- Pressing button will exit the 'CLOCK' and 'FUNCTION' setting mode. Alternatively, it will return to the sleep mode itself in 15 seconds if no key is pressed.





Figure 14.

NOTE: The days displayed at the bottom of the screen are the days the air conditioning system has been operating since commissioned or last serviced. Adjust the clock regularly to ensure its accuracy.

4.2 Adjust Program Time

- a) Press the *button* once to enter into the 'Function' Screen.
- b) Use the or button to select the program to be modified, and then press button to enter into its sub menu. (Figure 15).
- c) Use the or button to select Monday-Friday, Saturday or Sunday program (Figure 16). Then press button to enter into its sub menu.
- d) The default setting is Disabled for all the programs (Figure 17). Press
 button to enable the setting for ON/OFF time. The LCD will show the start time of the first turning on event of the program (Figure 18).
- e) Press or button to change the time
- f) Press or to move between hours and minutes and press button when completed.
- g) Press the or button to select other ON/OFF settings. Follow steps d) to f) to enable other events or change the time for other settings
- h) Press the button to return to program Setting menu.
- Follow steps c) to g) to set the ON/ OFF time or disable the event for other weekdays in the program.
- *j*) Repeat steps *b*) to *i*) to set the time for the remaining programs.
- k) Press button to exit the Program Mode. Alternatively, it will return to the sleep mode itself in 15 seconds if no key is pressed.



5) Adjusting airflow for a Group

The blade opening percentage for every group can be adjusted to control the amount of airflow at every outlet between 10% to 100% of the balanced value (Setup by Installer) with 10% increments. The relevant Groups to be changed are to be turned ON before the %Open can be

changed. This can be done as follows

- a) Press the \triangle or \bigvee button to get into zoning screen, and then press or W button to select the group.
- b) Press the *b* button once to move to the %Open sub Menu at the corresponding Group (Figure 22).

1	ON	100%	
	Figure	22.	

4.3 Select Program for a Group

- a) One of the four programs can be enabled by setting up all the parameters in the program and assigning it to a Group.
- b) Press the \land or 💟 button to get into zoning screen, and then press or W button to select the group.
- c) Press the button twice to move to the Program Menu.
- d) Press the 📲 or 🚎 button until the desired program is selected for the corresponding group (Figure 20).

Group

- e) Press \wedge or \vee button to choose programs for other groups and follow step d) to choose the desired program.
- Press button to exit. Alternatively, it will return to the sleep f) mode itself in 15 seconds if no key is pressed.

NOTE: When a Group is in TURBO status, a program cannot be assigned to that particular Group. Record Programs and groups to Table 5 on Page 12.

4.4 Select Program for AC unit

 a) In Sleep Mode, press the ---------button until the desired program is selected for the AC unit (Figure 21).





i u u p				
vina	OFF		P1	
ving	OFF		100	
ounge	UFF	4000	P2	
aster	ON	100%	NO	
edroom2	ON	100%	NO	
edroom3	ON	100%	NO	
amily	OFF		NO	
itchen	OFF		NO	
ining	OFF		NO	

Status %Onen Prog

Figure 20.

- c) Press or button to increase or decrease the percentage opening for the group.
- d) Press or button to adjust the percentage for other Groups and follow steps b) and c).

NOTE: If the Group is OFF, pressing + button will turn the Group ON by 10% If the Group is ON and the %OPEN is 10%,

Group	Status	%Open	Prog
Living	ON	60%	NO
Lounge	ON	100%	NO
Master	ON	100%	NO
Bedroom2	ON	100%	NO
Bedroom3	ON	100%	NO
Family	ON	100%	NO
Kitchen	ON	100%	NO
Dining	ON	100%	NO

Figure 23.

If the Group is ON and the %OPEN is 10%, pressing the — button will turn the Group OFF.

6) Service Reminder

There is a built-in service reminder in the ZoneTouch system to automatically display an alert to tell customers that the air conditioning system is due for service.

If the service reminder has been enabled during commissioning by the installer, then the service reminder will display 'CLEANING DUE' (Figure 24) or 'AC SERVICE DUE' (Figure 25) and installer's name and contact number on LCD screen for the set number of days every 6 months (182 days) or 2 years (728 days) respectively since the air conditioning system was commissioned or last serviced.

To clear the displayed alert before the set days reaches, go to 'CLOCK' menu (see the CLOCK menu on page 6), highlight the 'Days' line, and press 🕖 button once (Figure 26). The alert will disappear after exiting from CLOCK menu.



Figure 24.





Figure 26.

7) 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			
В			
С			
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				

8) Troubleshooting Guide for Touchpad

PROBLEM	SUGGESTED ACTION
Dampers have no response when turned on or off	 Check if 'SAFETY CONTROL' is displayed at the bottom of the screen. If the above error is displayed, the High limit (Heating) or Low limit (Cooling) may have reached. Check the air conditioner to see if supply air is normal and rectify the error with the air conditioner. ZoneTouch system will resume to operational after the supply air is corrected Check if the Supply air sensor is plugged in the main board and High Limit & Low Limit is enabled. If the sensor is not plugged in, plug the sensor and the system will be operational in a minute. If the sensor is not required, disable the High limit and Low limit from the touchpad and the system will return to operational in a minute. Check if the LEDs on the main module light up for the relevant zones when the zone dampers are being turned On/Off. If the Green/Red LED are not activated for the respective zone, there might be a faulty control module and the control module would have to be replaced. 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.
Some zones cannot be turned off	 Check if 'Spill Control' is displayed at the bottom of the LCD screen. If 'Spill Control' is displayed, Check if 'Spill' is displayed for the Group status in the Zoning screen. Opening other zones will rectify the error if 'SPILL' is displayed. If all zones are turned ON but the total %Open doesn't meet the required spill percentage, then the SPILL warning message will be displayed. Increasing the %OPEN of a few zones will resolve the issue. Check spill set-point.
No display on the LCD	 Check if the cable is plugged in properly. Unplug the cable and reconnect it. Check if there is power to the unit.
LCD Display Corrupted	 Reset LCD by holding button for 10 seconds. If error is still not resolved, then reset the touchpad by unplugging the cable from behind the touchpad and then reconnect it.
Some zones are not operational	 Check the Grouping on the touchpad against the records on Page 10, Table 2 and find out if the right zones have been assigned to the right groups and have been turned ON/OFF in the Zoning section. Check if total group numbers and zone numbers are right. 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.
"AC ERROR" is displayed on touchpad	 This error is displayed due to a fault with the AC unit. The AC ON/ OFF function will be disabled when this error is displayed. Please check the AC unit / AC touchpad to fix the problem.
AC ON/OFF status is not consistent between AC unit touchpad and ZoneTouch touchpad	 The AC status on the ZoneTouch LCD may not reflect the true status of the AC if ON and OFF status are operated from the AC touchpad for LG and Panasonic without CZ-TA31P units.

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

9) Specifications

Electrical Requirements

Power supply:	24VAC ± 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 s	sources
Avoid dust contamination	
Avoid highly corrosive environme	ents

Zone Output

Output voltage:	24VAC, 50Hz
Current:	200mA (1 damper motor)

Transformer

Input Voltage:	240VAC, 50Hz	
Output Voltage:	24VAC, 50Hz	
Wattage:	40W	
Supply Air Sensor:	NTC type, 10 k Ω at 25°C	
Battery:	3.6V, 3xAAAM Rechargeable for Main Module	

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

10) ZoneTouch App Operation Manual

1. Downloading and Installing the ZoneTouch App

ZoneTouch application can be downloaded from the following locations.

The application is available free of charge.



Figure 27.

For Android Phones: Go to Market / Google Play store from your Android phone and search for ZoneTouch application developed by Zonemaster. After downloading the application, open the file and follow the prompts to install the application on your phone.

For iPhones: Go to the App store and search for ZoneTouch application developed by Zonemaster. Tap on the ZoneTouch app and press Install. Enter your iTunes password and the ZoneTouch app will be automatically downloaded and installed on your iPhone.

2. Using ZoneTouch App.

Tap the ZoneTouch app (Figure 27) from the main screen and open up the app. Figure 28 shows the buttons required to change settings in the main screen.

NOTE:

- All Zones can be turned ON/ OFF at the same time by holding any Zone button for more than 2 seconds.
- Turbo zone can be activated by tapping the respective chosen zone until Turbo appears on that





chosen zone until Turbo appears on that particular zone.

 Message box will display normal status and will turn yellow to display any warning messages. Look at App Troubleshooting section for solutions for the displayed warning messages.

3. Information Screens

Press the menu button on your phone to display Program, Settings Info (i) and Help sub-menu (Figure 29).

NOTE: The settings shown in this menu cannot be changed from your phone. This is only to display information. All changes to Settings can be made from the Touchpad.

MENU INFORMATION SCREENS



Figure 29.

4. Troubleshooting Guide for ZoneTouch App

No	PROBLEM	SOLUTION
1	ZoneTouch app displays "Please turn on the WiFi and set WiFi to the router connected to ZoneTouch, and then restart the app"	 a) Check if the phone WiFi is turned ON and is connected to the same router which the ZoneTouch is set to. b) For iPhone 4S, turn OFF "Cellular Data" in "Settings/ General/Network". Restart the app and if required "Cellular Data" can be turned back ON after the app is running successfully. c) Check if there was a power failure. If so, wait for ZoneTouch to re-establish connection with the home router (3 minutes from Power ON). Now check if the WiFi icon (1) is displayed at the bottom left-hand corner of the screen on the touchpad and then try re-opening the app. If WiFi icon does not appear refer to Problem 2. d) Close the ZoneTouch app and restart again.
2	WiFi symbol () disappeared from the touchpad.	 a) If there was a power failure, the ZoneTouch will try to re-connect to the home router and the WiFi symbol (1) will turn back on in a few minutes (3 minutes from Power ON). b) Turn the wireless router OFF and then turn it back ON. Wait for 3 minutes for the ZoneTouch system to initialise. c) If the WiFi symbol (1) does not appear on the touchpad, follow the WiFi setup process from the installation manual to re-establish connection between your home router and ZoneTouch system.
3	 ZoneTouch app does not respond even if the app is in operation. "Send message error" is displayed on the screen. 	The connection might have been disconnected between the phone and ZoneTouch module due to no action from the mobile for a period of time. a) Close the ZoneTouch app and restart it. b) Turn the phone off and restart it.
4	"SPILL, TURNING ON MORE ZONES WILL RESOLVE THE ISSUE." warning message is displayed	This message implies that the spill function has been activated as a safety measure because too many zones have been turned OFF. Turning ON more zones will resolve the issue.
5	"SAFETY PROTECTION ACTIVATED. CHECK AC SYSTEM", warning message is displayed	This message implies that the safety protection has been activated due to very high or low temperatures reached at the supply air end. Please check the AC system to fix the problem.
6	 "CLEANING DUE, DIY OR CALL", warning message is displayed "AC SERVICE DUE, PLEASE CALL", warning message is displayed 	This is an optional message set-up by your installer to alert you to clean your filters or service your air-conditioner every 6 months and 2 years respectively. This can be turned off by following the Service Reminder section on Page 09 of this manual on the touchpad.
7	"AC ERROR. CHECK AC SYSTEM", warning message is displayed	This error is triggered due to a fault with the AC unit. Please check the air conditioning system to resolve the issue.



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