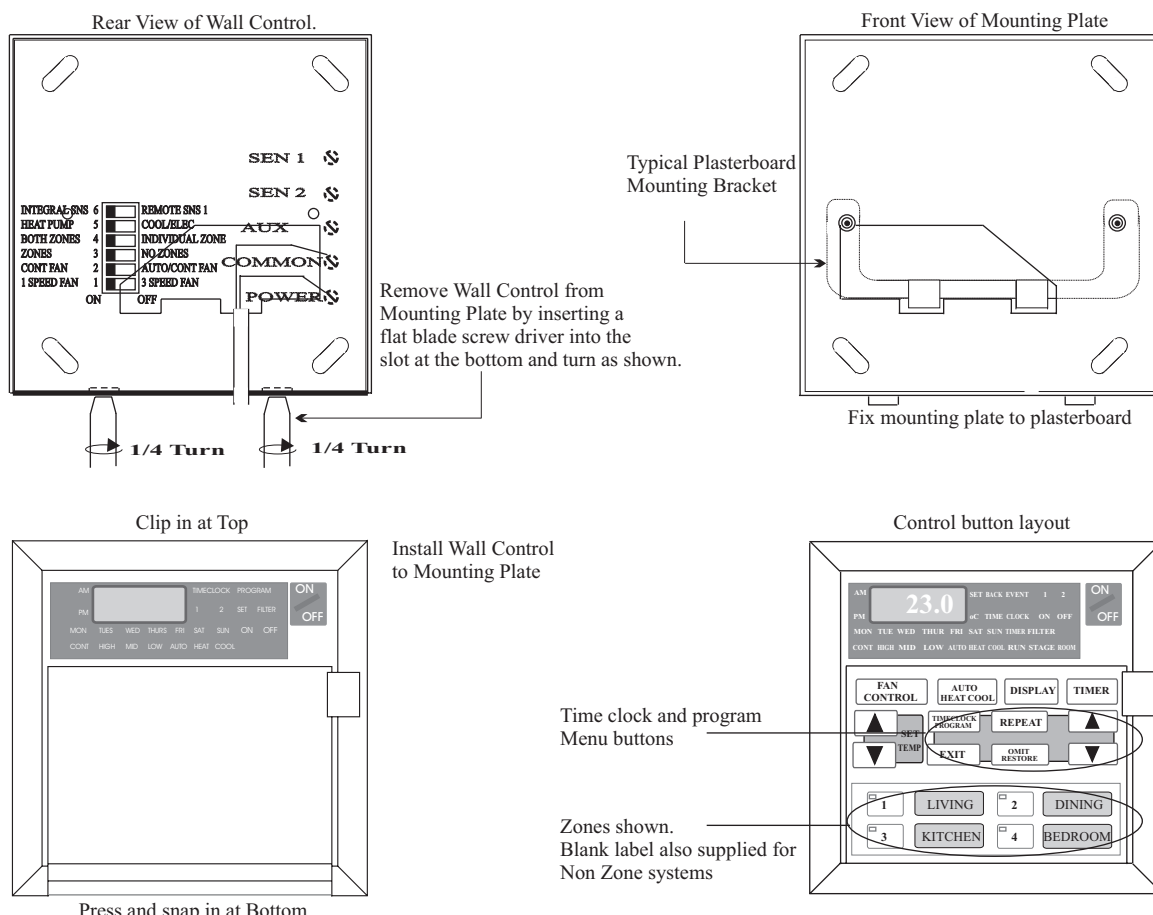


The B512GZ is a two part Temperature Control system, comprising a Wall Control Pad with Integral sensor and a Relay Module.

Location of Wall Control Pad.

Fix to a flat surface on an internal wall approximately 1500mm above floor level at a location to sense average room temperature. Avoid locations in direct sunlight or sources of hot or cold drafts directly on or near the Wall Control sensing element. The same location guide should be observed for additional sensors.



FOR LEASAM SERVICE SUPPORT. FREE CALL 1300 135 735 normal office hours.

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Wall Control Pad operating buttons.

ON/OFF button.

Press to start or stop system manually or activate optional After Hours Run Time.

FAN CONTROL button. Select fan speed and operating mode. See Function Menu and Wall Control DIP switch for other options

Repeat pressing of button to select the required fan speed in continuous or automatic operating mode.

Automatic mode (CONT light off). Fan cycles with heating or cooling demand.

Continuous mode (CONT light on). Fan runs continuously when system is on.

Air circulation mode. Turn system off. Press FAN CONTROL button. To stop fan Press ON/OFF.

AUTO/HEAT/COOL button. Select temperature operating mode.

Repeat pressing of button to select operating mode.

AUTO MODE. AUTO light On. Heat or Cool automatically selected on system demand.

HEAT MODE. HEAT light On. System operates in heating cycle only.

COOL MODE. COOL light On. System operates in cooling cycle only.

DISPLAY button. Select screen display.

Repeat pressing of button to display the following:

TEMPERATURE SET POINT. SET light On.

TIME. Time and day displayed.

ROOM TEMPERATURE. ROOM light On.

SET TEMP Up and Down arrow. Adjust room temperature set point.

Press UP or DOWN arrow to select temperature set point. To change factory adjustment range. See Temperature Set Point Range Limit (page3).

Zone buttons. If applicable

Press Zone button to open. Zone light on. Press Zone button to close. Zone light off.


Note: One zone is always activated to prevent air conditioning system operating with all zones closed.

Time Clock program buttons. Turn off system to set up time clock

Turn time clock On. Press DISPLAY button to read Time. Press  button twice.


TIME CLOCK light on. OFF light flashing. Press ON/OFF button. ON light flashing. Press  to accept.


Time displayed and Hours flashing. Press Up or Down arrows to set hours. Press  to accept.

Minutes flashing. Press Up or Down arrow to set minutes. Press  to accept.

Day flashing. Press Up or Down arrow to set day Press  to accept.

Monday EVENT 1 ON displayed. Press Up or Down arrow to set the On time. Press  to accept.

Monday EVENT 1 OFF displayed. Press Up or Down arrow to set the Off time. Press  to accept.

Monday EVENT 2 ON displayed. Press Up or Down arrow to set the On time. Press  to accept



Monday EVENT 2 OFF displayed. Press Up or Down arrow to set the Off time. Press  to accept.

Tuesday EVENT 1 ON displayed. Repeat as above.

Alternatively to repeat previous day program from Tuesday onwards.

Press REPEAT button then  for each On/Off event for that day. At EVENT 1 ON, repeat for the following days.


Individual On/Off event times can be programmed for each day. E.g different Off time on Thursday.

To omit an On Event. E.g EVENT 2 ON Saturday and Sunday press . Three dashes  will be displayed.

Notes.

1. To restore an On Event press . The On Time will be displayed.

2. To exit menu at anytime press EXIT button.



3. To turn time clock operation off. Press  button twice. ON flashing. Press ON/OFF button. OFF flashing. Press EXIT button.

TIMER Button. Set timer as a) Countdown timer (factory setting) or b) After Hour Run Timer.

a) Countdown timer. Setting timer to override time clock function.

Set timer to start air conditioning system.

Press TIMER button. Time and day shown with TIMER and ON light flashing.

Press  Up or Down arrow to select On time. Press  button to accept. TIMER light on.

Set timer to stop air conditioning system.

Press TIMER button. Time and day shown with TIMER and OFF light flashing.

Press  Up or Down arrow to select off time. Press  button to accept. TIMER light on.

Notes.

1. To cancel the TIMER set up. Press the ON/OFF button. TIMER light off.

2. To see the set time to start or stop the system, press TIMER button. Time is shown on display.

b) After Hour Run Timer. To run A/C system for preset time (adjustable) out of normal operating time.

Notes:

1. Time clock function has to be enabled for AH run on timer function to operate..

2. Set AH run timer function and run time from Function Menu F9 and F10. Note F8 must also be in A1 setting.

3. Press Wall Control ON button or optional remote ON button (see wiring diagrams) to enable AH Timer. TIMER light On


4. To turn off system before completion time, Press OFF button.

5. If AH run time setting overlaps time clock start time the system starts but TIMER light will be Off.

Wall Control Pad operating buttons. Continued

Temperature setback. (Economy temperature setting). Turn off system to set up.

Generally used in unoccupied times or during the night to limit the maximum or minimum room temperature.

Press **DISPLAY** button until room temperature is displayed. **ROOM** light On. Press  button. **SET BACK** light On. **OFF** light flashing if setback is disabled.

Press **SET TEMP Up** arrow to select SETBACK operating mode (COOL, HEAT, COOL and HEAT or OFF). SETBACK COOL mode only. **COOL, ON** lights flashing.

SETBACK HEAT mode only. **HEAT, ON** lights flashing.

SETBACK COOL and HEAT mode. **COOL, HEAT, ON** lights flashing. Press  to accept selection.

Current cooling setback temperature displayed. **COOL** and **ON** lights flashing.

Press **SET TEMP Up** or **Down** arrow to select cooling setback temperature. Press  to accept.

Current heating setback temperature displayed. **HEAT** and **ON** lights flashing.

Press **SET TEMP Up** or **Down** arrow to select heating setback temperature. Press  to accept.

Press **EXIT** to exit menu.

Note.

COOL mode. Operates in cooling only. Cooling setback range 24oC to 36oC.

HEAT mode. Operates in heating only. Heating setback range 8oC to 20oC.

COOL and **HEAT** mode. Operates in cooling and heating.

Temperature Set Point Range Limit. Turn off system to change settings.

To change UPPER LIMIT

Press **DISPLAY** button to display TIME and day .

Press  button then timeclock program Up arrow. Current setting will be displayed. E.g U28 (28oC).

Press the **SET TEMP Up** or **Down** arrow within 0.5 seconds to adjust set point upper limit.

The system will automatically except the new settings.

Note . Maximum set point limit is 36oC.

To change LOWER LIMIT.

Press **DISPLAY** button to display TIME and day.

Press  button then timeclock program Down arrow. Current setting will be displayed. E.g L16 (16oC).

Press and **SET TEMP Up** or **Down** arrow within 0.5 seconds to adjust set point lower limit.

The system will automatically except the new settings.

Note. Minimum set point limit is 10oC.

Filter light.

Filter light operates every 160 running hours to remind owners to check air filter.

Reset filter light by pressing ON/OFF button.

Note.

Filter light is a reminder only and is not indicating a fault.

To read Set point when screen is displaying time or room temperature.

Quick press of SET TEMP Up or Down arrow to display set point. To change set point, press and hold Up or Down arrow.

COMMISSIONING and SERVICE KEYS


Reset controller to factory default settings. With the system OFF.

Press and hold **EXIT** button, press and release  **Down** arrow. Press **ON/OFF** button and release with **EXIT** button. All LED's will display if successful.

High resolution temperature reading. Displays sensor temperature to 1/10 degree.

Press and hold **EXIT**, press **REPEAT**, release both. Press **DISPLAY** to exit menu.

Room temperature and set point temperature differential.

Press and hold **EXIT**, press  release both. Press **DISPLAY** to exit menu.

Cancel timers.

Press and hold **EXIT**, press **ON/OFF**, release both.

LED check. Turn off system to check.

Press and hold **EXIT**, press **DISPLAY**, release both.

TEMPERATURE SWITCHING DIFFERENTIAL MENU. Turn OFF system to change settings.

Press and hold **EXIT** button. Press **TIMECLOCK PROGRAM** **UP** arrow. Release both buttons. **STAGE 1, COOL** and **OFF** lights On.
 Press **TIMECLOCK PROGRAM** **UP** or **DOWN** arrow to change setting.
 Press **TIMECLOCK PROGRAM** button to accept change and move to next stage. **STAGE 1, COOL** and **ON** lights On.
 Repeat for other settings. See Table Below.
 To exit from menu at any time press **EXIT** button.

All settings are the temperature offset from the Controller set point.

Heating and Cooling	Factory Settings	Temperature Adjustment	Lights (LED'S) Displayed on Wall Controller								
			COOL	HEAT	1	2	OFF	ON	SET	STAGE	
Stage1 Cool Off	0.5oC	0.0 to 9.0oC	On		On			On		On	On
Stage1 Cool On	1.0oC	0.1 to 9.9oC	On		On				On	On	On
Stage2 Cool Off	1.0oC	0.0 to 9.0oC	On			On		On		On	On
Stage2 Cool On	1.5oC	0.1 to 9.9oC	On			On			On	On	On
Stage3 Cool Off	1.5oC	0.0 to 9.0oC	On		On	On		On		On	On
Stage3 Cool On	2.0oC	0.1 to 9.9oC	On		On	On			On	On	On
Stage1 Heat Off	-0.5oC	-0.0 to 9.0oC		On		On		On		On	On
Stage1 Heat On	-1.0oC	-0.1 to 9.9oC		On		On			On	On	On
Stage2 Heat Off	-1.0oC	-0.0 to 9.0oC		On				On		On	On
Stage2 Heat On	-1.5oC	-0.1 to 9.9oC		On					On	On	On
Stage3 Heat Off	-1.5oC	-0.0 to 9.0oC		On	On	On		On		On	On
Stage3 Heat On	-2.0oC	-0.1 to 9.9oC		On	On	On			On	On	On

NB. 3-stages of heating and cooling only available without zones control. DIP switch 3 Off. See settings page 5

FUNCTION MENU. Turn OFF system to change settings.

Press and hold **EXIT** button press **TIMECLOCK PROGRAM** button. Release both buttons. Enters Function Menu F1 (Function 1).
 Press the **Up** or **Down** arrow to change setting.
 Press **TIMECLOCK PROGRAM** button to except your choice and move to F2 (Function 2). Repeat for all functions.
 Note. To exit menu at any time press **EXIT** button.

FUNCTION MENU INFORMATION.

- F1. Automatic-Only temperature changeover or Customer-Select temperature operation from Wall Control.
- F2. Fan Runon. Recommended when using electric heating.
- F3. Compressor start delay. Anti-cycle protection
- F4. Condenser Pump Interlock. Enter menu to enable function.
- F5. Add Zones and assign zones to optional sensors. Sensor 1 has been factory assigned to Zone 1. Optional Sensor 2 has been factory assigned to Zone 2. Zone 3 or Zone 4 can be assigned(set to sense temperature)to either Sensor 1 or optional Sensor 2.**
- F6. Sensor 1 calibration offset.
- F7. Sensor 2 calibration offset.
- F8. Auxiliary input functions. Four available external input functions. See notes in Function Table.
- F9. Turn On After Hours run timer function. Note: Time clock program has to be enabled for After Hours to operate.
- F10 Set After Hours run time period.
- F11 Filter. Time remaining before indication.

	Factory Default	Adjustment Range	Options or Increments	Lights (LED's) Displayed on Wall Control																		
				1	2	FILTER	ROOM	HIGH	LOW	MID	COOL	HEAT	AUTO	°C	SET	TIME	TIMER	ON	OFF	RUN		
F1	Cool/ Auto/Heat		Auto									Blinks	Blinks	Blinks	Blinks		On					
F2	0.5Mins	0-10Mins	0.5Mins					On	On	On						On	Blinks		On			On
F3	0.5Mins	0-10Mins	0.5Mins								On	On	On		On	Blinks						
F4	P1		ON. Blinks												On						Blinks	
F5	2-1	Press Zone button 3 or 4 to add to system. Press Up or Down arrow to assign Zone 3 or 4 to Sensor 1 or optional sensor 2.																				
F6	0.0	-2.5 to 2.5	0.1oC	On			On								On	Blinks						
F7	0.0	-2.5 to 2.5	0.1oC		On		On								On	Blinks						
F8	A1		A2,A3,A4	A1. Time switch. Open contact stops A/C. Closed contact starts A/C. Wall Control can override time switch function. A2. Standby. Open contact stops A/C. Closed contact starts A/C at last setting. Wall Control cannot override function. A3. Start. Contact momentary closed starts A/C. Wall Control can override this function. A4. Key card. Open contact stops A/C. Wall Control cannot override function. Closed contact, A/C can be restarted from Wall Control.																		
F9			On												On		On			Blinks	On	
F10	180 Mins	30-600Mins	15 Mins												On	Blinks		On				On
F11	160 Hours	No adjustment. Indicates time remaining			Blinks													On				

	ON	OFF	
Wall Control onboard sensor used.	Integral sensor	DS.6 Remote sensor 1	Wall Control onboard sensor not used
Heat Pump or reverse cycle A/C system.	Heat Pump	DS.5 Cool/Electric	Comp/Cooling valve - Electric Heat/ Heating valve
Control Individual or all the Zones	Both Zones	DS.4 Individual Zones	Two zone. I.e Day or Night not both.
When zone control is required	Zones	DS.3 No Zones	When 3 stage heat or cool is required
Fan operates continuously when system On.	Continuous Fan	DS.2 Auto/Cont Fan	Allows fan operating mode from Wall Control Pad.
Single fan speed only. Connect to HIGH relay	1 Speed Fan	DS.1 3 Speed Fan	Allows fan speed selection from Wall Control Pad

NOTES. See wiring diagrams for Note No. and FUNCTION MENU for additional information.

- 24 volt Control System. Connect 24vac into SUPPLY terminals instead of 240 volts.
- Single Speed Fan. Use HIGH fan relay terminal.
- Zone Dampers. Use 240 vac Drive Open, Drive Close or Drive Open, Spring Close Actuators.
- External stop/start input by others. See **Function Menu.F8** in **A1** setting and **F9** to be Off.
- Remote after hours run momentary push button. See **Function Menu. F8** in **A1** setting and **F9** to be set On.
- System **ON** indication. Max 24vac supplied by others. **Function Menu F4** Off. No indication if system in ventilation mode.
- Pump Interlock with LEASAM P.I.R.M or differential water pressure switch. Enable **Function Menu F4**.
- System **ON** indication. Use **ZONE 4**, 240 vac output. Wall Control **DIP switch 3** On. Zone 4 not enabled in F5.
- Two Sensors in circuit. Temperature readings from sensors are averaged.
- Remote Sensor 1. Remote used instead of Wall Control Sensor. Wall Control **DIP switch 6** Off.

TYPICAL WIRING CONNECTIONS. See following diagrams for other Systems

