Touch Controller

Operation Manual

brivis by Rinnai

Congratulations on purchasing a Touch Controller. This intelligent Touch Controller can be used with a range of heating and cooling products.

The Touch Controller allows you to maximise the performance of your heating and cooling system with customised comfort control.

The Touch Controller can operate in many configurations, for example:

- a single Touch Controller with a single comfort system
- a single Touch Controller with multiple comfort systems
- a single Touch Controller with single or multiple room temperature sensors
- multiple Touch Controllers

The Touch Controller also facilitates either Single Temperature Set Point (STSP) or Multi Temperature Set Point (MTSP) control of zoned systems.

Your designer / installer will advise you on the appropriate configuration and operation of your system. Please also refer to any Owner's Manuals accompanying each of your products.

Follow the step-by-step instructions in this guide to begin enjoying the benefits of your climate system.

Specifications subject to change without notice.
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Note: Your Touch Controller is compatible with the Rinnai Touch App, however they are independent items. An additional Wi-Fi accessory must be installed and configured to enable Wi-Fi functionality.

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Diagram 2: Evaporative Cooling Screen

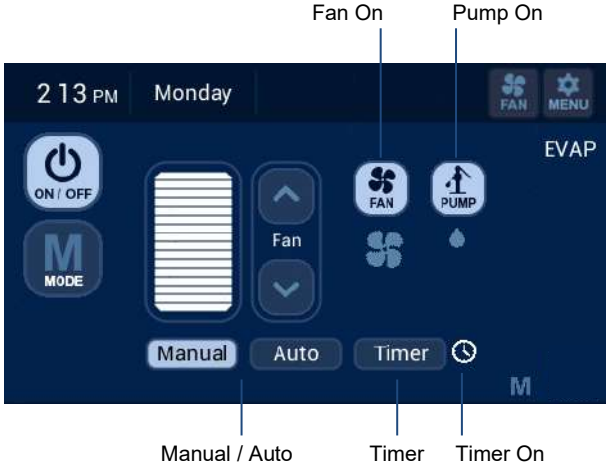


Diagram 3: Refrigerated Cooling Screen

2.0 Quick Start Guide

The quick start procedure, as outlined below, allows you to begin using your system before you learn all the details of system operation.

1. Activate the Touch Controller by touching anywhere on the LCD screen.
2. Select the required mode by pressing the “MODE” button (where more than one option is available – i.e. HEAT, COOL or EVAP).
3. Turn on the system by pressing the “ON/OFF” button.
4. Select the desired temperature / comfort level by using the “UP/DOWN” buttons.
5. System will run at desired comfort level until turned OFF by pressing the “ON/OFF” button.

You may access User Preferences and other advanced options by pressing the “MENU” button.

3.0 Fan Operation

FAN ONLY

With the system OFF (standby) push the “FAN” button in the top right hand corner to turn the fan ON.

If in ‘HEAT’ or ‘COOL’ mode the heater fan will turn on.

If in ‘EVAP’ mode the evaporative cooler fan will turn on.

CIRCULATION FAN

When enabled by the installer, the circulation fan will be on continuously between Heating and Refrigerated Cooling cycles.

CIRC FAN will be indicated below the FAN icon.

4.0 Heating – Manual Operation

To operate your heating system with full manual control, activate the Touch Controller by touching the LCD screen, select HEAT using the MODE button, turn system on using the ON/OFF button, and set the desired temperature. The system will operate to maintain the desired temperature level until turned OFF.

4.1 Heating – Program Schedule Operation

The Touch Controller uses default 'energy saver' HEAT settings that helps reduce your heating expenses.

> **Note:** Time period "**Pre-Sleep**" can be enabled in the "User Preferences" > "System Settings" > "Pre-Sleep Option". To customise your "**Schedule**" settings to suit your lifestyle, please see section "User Preferences" > "System Settings" > "Schedule Settings".

To operate your Heating system with the Schedule, activate the Touch Controller by touching the LCD screen, select HEAT using the MODE button, turn system on using the ON/OFF button, and press the "Schedule" button. The system will operate automatically to maintain the desired temperatures as programmed in the program Schedule.

Diagram 4: Heating ON – Schedule home screen

Advance to next Period

If you leave or arrive home early, you may skip to the next schedule period by pressing the current period displayed, e.g. LEAVE ».

The program schedule will automatically resume once one of the following occurs:

- The next time period begins.
- The "Cancel" button is pressed.
- The Temporary period is pressed.

Diagram 5: Heating Advance Period

Temporary Temperature Override

To temporarily adjust the temperature, simply adjust the temperature level with the UP/DOWN arrows. The program Schedule will automatically resume once one of the following occurs:

- The next time period begins.
- The “Cancel” button is pressed.

The word “Temporary” will flash on the screen.

Diagram 6: Heating Temperature Override

5.0 Cooling – Manual Operation

To operate your Refrigerated Cooling system with full manual control, activate the Touch Controller by touching the LCD screen, select COOL using the MODE button, turn system on using the ON/OFF button, and set the desired temperature. The system will operate to maintain the desired temperature level until turned OFF.

5.1 Cooling – Program Schedule Operation

The Touch Controller uses default ‘energy saver’ COOL settings that helps reduce your refrigerated cooling expenses.

> **Note:** Time period “**Pre-Sleep**” can be enabled in the “User Preferences” > ”System Settings” > ”Pre-Sleep Option”. To customise your “**Schedule**” settings to suit your lifestyle, please see section “User Preferences” > “System Settings” > ”Schedule Settings”.

To operate your Refrigerated Cooling system with the program schedule, activate the Controller by touching the LCD screen, select COOL using the MODE button, turn system on using the ON/OFF button, and press the SCHEDULE button. The word COOL will appear on the screen. The system will operate automatically to maintain the temperatures as programmed in the Schedule. Refer Diagram 7.

Diagram 7: Cooling ON – Schedule home screen

Advance to next Period

If you leave or arrive home early, you may skip to the next schedule period by pressing the current period displayed, e.g. LEAVE ».

The program schedule will automatically resume once one of the following occurs:

- The next time period begins.
- The “Cancel” button is pressed.
- The Temporary period is pressed.

Diagram 8: Cooling Advance Period

Temporary Temperature Override

To temporarily adjust the temperature, simply adjust the temperature level with the UP/DOWN arrows. The program Schedule will automatically resume once one of the following occurs:

- The next time period begins.
- The “Cancel” button is pressed.

The word “Temporary” will flash on the screen.

Diagram 9: Cooling Temperature Override

5.2 Calibrating the Touch Controller

The Touch Controller leaves the factory with the touch screen calibrated ready for use.
Should the touch screen require calibration this can be achieved by doing the following:

1. Turn the system off if running
2. Remove the Touch Controller from the backing plate leaving the loom connected
3. Locate dip switches at the rear of the Touch Controller as highlighted in Diagram 10
4. With a small object slide the right dip switch up and then down back to original position
5. Fix the Touch Controller to the backing plate
6. Follow the on screen instructions to complete the calibration process, refer to Diagram 11

Diagram 10: Resetting the Touch-Screen Calibration Values

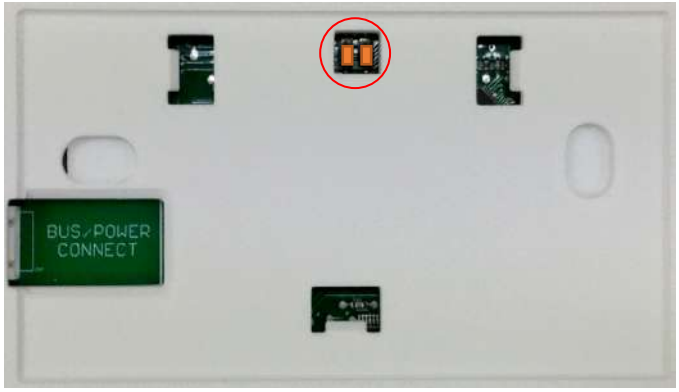
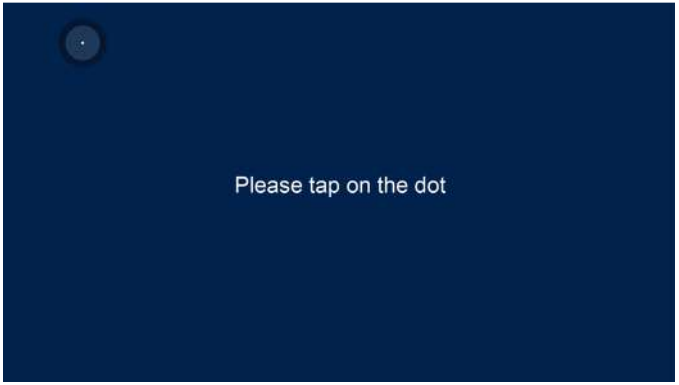


Diagram 11: Touch Controller Screen Calibration



6.0 Evaporative Cooling – Manual Operation

To operate your Evaporative Cooling system with full manual control, activate the Controller by touching the LCD screen, select EVAP using the MODE button, turn system on using the ON/OFF button. When the Evaporative Cooler turns on for the first time the PUMP and FAN will be on, indicated by the light blue colour buttons. Set the desired FAN SPEED level with the UP/DOWN arrows. The system will operate until turned OFF.

Diagram 12: Evaporative Cooling Manual Operation

6.1 Evaporative Cooling – Pump Only Operation

While in Manual Operation, press the FAN icon to disable the fan. The PUMP icon will remain illuminated, the FAN icon will not. Only the pump will be running in this mode and no air will be circulating.

6.2 Evaporative Cooling – Fan Only Operation

While in Manual Operation, press the PUMP icon to disable the pump. The FAN icon will remain illuminated, the PUMP icon will not. Only the fan will be running in this mode.

6.3 Evaporative Cooling– Auto Operation

To operate your Evaporative Cooling system so that it automatically maintains your desired comfort level, activate the Controller by touching the LCD screen, select EVAP using the MODE button, turn system ON using the ON/OFF button, press the “AUTO” button, set the desired comfort level using the UP/DOWN arrows. The system will automatically regulate the pump and fan speed to maintain your desired comfort level.

The darker bars represents a cooler comfort level requirement, refer Diagram 13.

Diagram 13 Evaporative Cooling Auto Operation

6.4 Evaporative Cooling – Timer Operation

The “Timer” option allows access to the evaporative cooler program to turn the system ON or OFF for Manual or Auto operation. The timer can be set within the next 24 hour period by selecting the time of day for it to activate.

6.5 Evap Timer ON – Manual / Auto

With the system in “EVAP” mode and OFF, press the “Timer” button, refer Diagram 14.

Diagram 14: EVAP mode in OFF state

To set the ON Timer firstly select mode of operation, either MANUAL or AUTO.

For ON Timer in MANUAL mode the below configuration options become available to change:

- Fan Speed (Low to High)
- Pump ON or OFF (Press the “PUMP” button to change)
- Set On Time (within next 24 hours)

To save settings and return to the home OFF screen press “Done”. To cancel Timer setting press “BACK”.

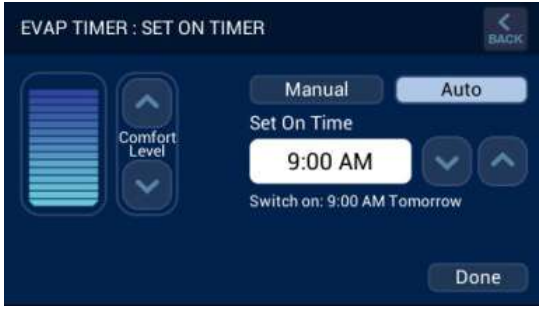
Diagram 15: Manual – Set On Timer

For ON Timer in AUTO mode the below configuration options become available to change:

- Comfort Level (Dark blue is cooler)
- Set On Time (within next 24 hours)

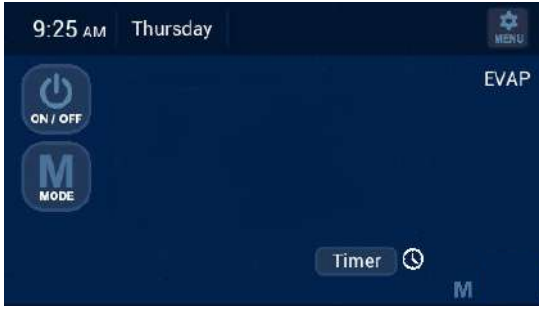
To save settings and return to the home OFF screen press “Done”. To cancel Timer setting press “BACK”.

Diagram 16: Auto – Set On Timer



The EVAP home OFF screen will display with a clock symbol adjacent to the “Timer” button to confirm TIMER ON has been set, refer Diagram 17.

Diagram 17: EVAP OFF with ON Timer Set



6.6 Evap Timer OFF – Manual / Auto

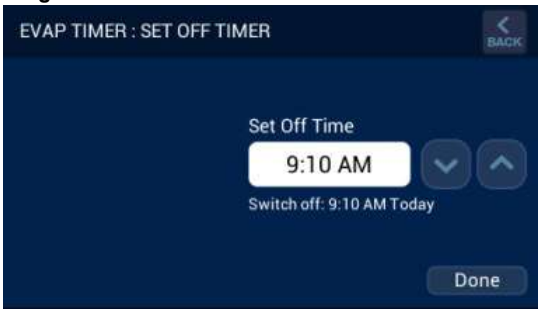
With the system ON in either MANUAL or AUTO mode, press the “Timer” button, refer Diagrams 14 & 15.

For OFF Timer the below configuration option becomes available to change:

- Set Off Time (within next 24 hours)

To save settings and return to the ON screen press “Done”. To cancel Timer setting press “BACK”.

Diagram 18: Set OFF Timer



6.7 Evap Timer Cancel or Change

If TIMER ON or TIMER OFF has been set, as indicated by the clock adjacent to the TIMER button, this may be cancelled or changed.

To cancel the timer press the “Timer” button to enter the timer settings then press “BACK”. The clock adjacent to the “Timer” button will disappear.

To change the timer press the “Timer” button to enter the timer settings, change the time then press “Done”. The clock adjacent to the “Timer” button will remain.

7.0 Zoning (where installed)

IMPORTANT NOTE:
Your specialist Dealer may have divided your home into a maximum of four controlled zones that can be operated and controlled separately. The exact configuration of your system will determine the programming features that are enabled, as well as the number of zones that can be heated (or cooled) simultaneously. Your system may be operated manually, or you can program your comfort schedule and let the system automatically do the rest. Multiple Touch Controllers or Temperature Sensors may be fitted.

The following information applies to HEATING or REFRIGERATED COOLING systems only (i.e. not Evaporative Systems).

Please ensure your dealer has provided you with details on zone identification, the capabilities of your heating and cooling system, and the maximum or minimum number of zones that can be operated simultaneously for heating or cooling design conditions.

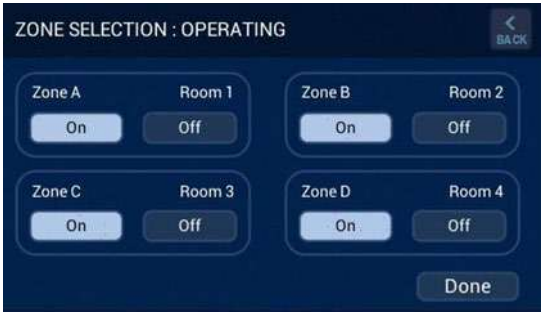
7.1 Single Temperature Set Point Zoning (STSP)

The zone temperature set point is the same across all Touchscreens and/or Temperature Sensors.

Pressing the “ZONES” button on the Home Screen will bring up the ZONE SELECTION: OPERATING screen, refer Diagram 19.

- A blue light indicates the zone’s status (ON or OFF)
- Press to select “On” or “Off” as required
- A flashing blue “On” status indicates the zone is at the set point

Diagram 19: STSP Zone Selection: Operation



7.2 Multi Temperature Set Point Zoning (MTSP)

The zone temperature set point can be set independently across all Touchscreens and/or Temperature Sensors.

Pressing the “ZONES” button on the Home Screen will scroll between the available zones, indicated by the Zone ID, refer Diagram 20.

- The Home Screen indicates the Zone Temperature and Set Point of each Zone

- A flashing Zone ID indicates you are viewing a Zone other than the Zone being controlled by the Controller
- Any Zone can be viewed or adjusted from any Touch Controller
- The System Run Indicator (e.g. Flame) identifies if the Zone is active

Diagram 20: MTSP Zone Selection

Note: A flashing "ZONE" button on the Home Screen indicates all Zones are satisfied and system is in standby.

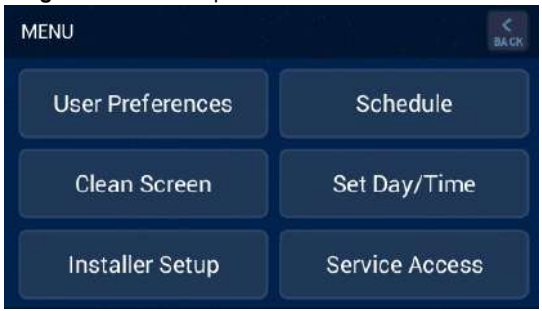
8.0 Menu

The configuration MENU screen is accessed whenever the "MENU" button is pressed on all Touch Controllers installed. It provides access to various settings that control how the Touch Controller appears and for the homeowner these are:

1. User Preferences
2. Clean Screen
3. Schedule
4. Set Day/Time

Refer Diagram 21.

Diagram 21: MENU options

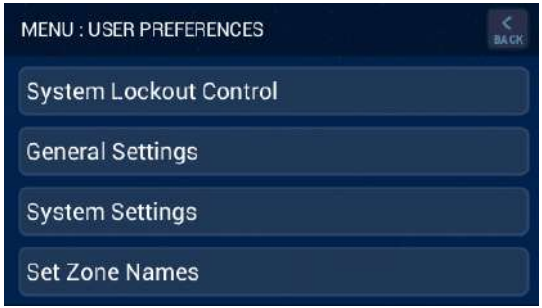


Note: Once you access the MENU Screen and select a configuration option, if no button is pressed for 60 seconds, the Touch Controller will exit the configuration mode and return to normal operation; this applies to all options other than SCHEDULE.

9.0 User Preferences

When the "User Preferences" button is pressed on the Master Touch controller user settings are accessed, refer Diagram 22.

Diagram 22: User Preferences



9.1 System Lockout Control

From the Master Touch Controller, “System Lockout Control” allows the system to be locked or unlocked in any state, and the user PIN codes to be set or reset, refer Diagram 23.

Note: All Touch Controllers are able to lock and unlock the system – only the Master Controller allows you to change the PIN.

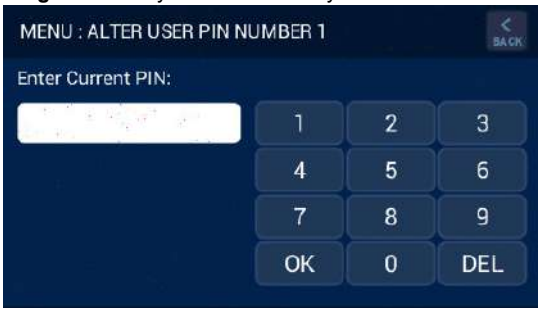
Diagram 23: System Lockout Control

To lock the system press “Lockout System” and enter the User PIN, the default PIN is “1111” until modified. When locked a padlock icon will flash at the bottom of the touch screen.

If the system is locked the “System Lockout Control” button (Diagram 22) appears as “Unlock System”. When this button is pressed the display reverts to showing a numeric keypad which is used to enter the PIN code to unlock the system.

To modify the User PIN, press either “PIN Number 1” or “PIN Number 2”. Pressing either one of these will allow the PIN to be modified and a key pad will appear as shown in Diagram 24. Once the new PIN has been entered press “OK” to accept.

Diagram 24: Key Pad for PIN entry



9.2 General Settings

When the “General Settings” button is pressed on any Touch Controller the general settings can be viewed and altered. These settings are specific to the Touch controller being accessed. The three settings currently available are:

Diagram 25: Active backlight intensity

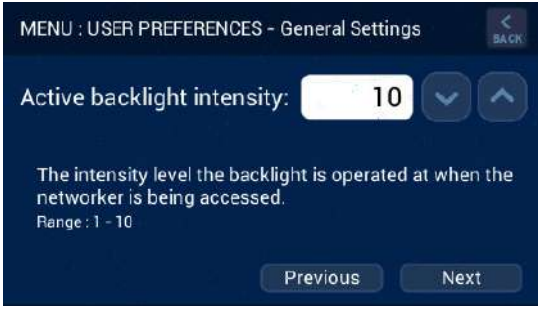


Diagram 26: Active backlight delay

Diagram 27: Dimmed backlight delay

9.3 System Settings

When the “System Settings” button is pressed on the Master Touch Controller the system settings can be defined, refer Diagram 28.

Diagram 28: System Settings

The “Schedule Day Grouping” option allows the customisation of days when programming the AUTO schedule.
For “Schedule Day Grouping” (Heat/Cool) the options are:

- Weekdays / Weekends
- Same for all days
- Set days individually

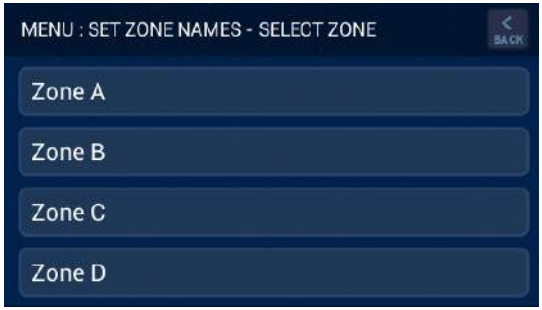
The “Schedule Pre-Sleep Option” allows this period to be ON or OFF when programming the AUTO schedule.

The “Temperature Display Scale” allows the temperature scale displayed on the home screen to be either Celsius or Fahrenheit. .

9.4 Set Zone Names

All installed zones can be given a descriptive name up to sixteen characters long. When the “Set Zone Names” button is pressed on the Master Touch Controller all installed zones appear and when selected can be changed accordingly, refer Diagram 29.

Diagram 29: Naming of Zones

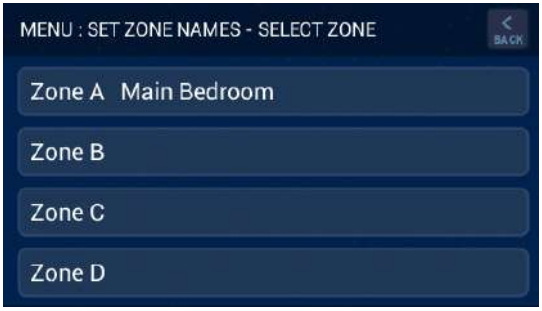


By pressing a zone, a keypad appears to enable the zone name change, refer Diagram 30.

Diagram 30: Keypad for Naming of Zones

Press the “Done” button once complete and the zone name will be changed, refer Diagram 31.

Diagram 31: Keypad for renaming of zones



10.0 Clean Screen

The screen displayed after pressing the “Clean Screen” button allows no user input, reverting back to the configuration menu screen after 30 seconds. This allows the Touch Controller screen to be cleaned without affecting any operation, refer Diagram 32.

Diagram 32: Clean Screen for 30 seconds

11.0 Schedule

The default time and temperature values for each period are set as shown in Diagram 33 and Diagram 34 for Heating and Cooling respectively.

Diagram 33: Heating Default Schedule – Weekdays shown

Diagram 34: Cooling Default Schedule – Weekdays shown

Note: For STSP systems default times and temperatures apply to all zones, and their default is 'ON'.

To access the Heating Schedule the system must be in HEAT mode and access is through "MENU" > "Schedule".

To access the Cooling Schedule the system must be in COOL mode and access is through "MENU" > "Schedule".

To modify the time, select the time for the relevant period, e.g. Wake 6:00AM and press the UP/DOWN arrows to change.

To modify the temperature, select the temperature for the relevant period, e.g. Wake 20° and press the UP/DOWN arrows to change. To set a period to OFF, reduce the temperature for that period DOWN to the minimum setting.

Repeat this for all day grouping options, Weekdays / Weekends shown in Diagrams 33 & 34 if installed. Once complete press "BACK" to save and exit back to the MENU screen.

Only the zones installed for the heating/cooling system are displayed and can be enabled or disabled for each period by pressing the relevant zone button. Light blue indicates the zone is enabled.

Note:

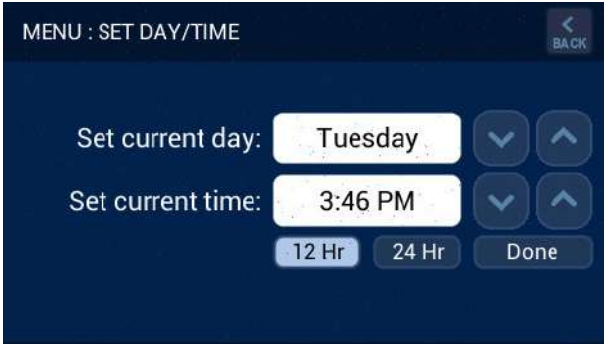
For STSP systems, there is one Heating/Cooling Schedule **for all zones**

For MTSP systems, there is one Heating/Cooling Schedule for **each controlled zone**.

12.0 Set Day/Time

When the “Set Day/Time” button is pressed on the Master Touch Controller this allows the day, time and time period to be changed, refer Diagram 35.

Diagram 35: Set Day/Time



To set the Day and Time press the adjacent UP/DOWN arrows. Pressing the “Done” button saves the changes and returns you to the configuration menu screen. Pressing the “BACK” button does not save the changes and returns to the configuration menu screen.

Note: Changing the system DAY/TIME can only be done on the Master Touch Controller.

13.0 Service Notification Message

When the operating hours logged for an appliance exceeds the predetermined period, the Touch Controller displays the following:

Diagram 36: System Alert

The “**Spanner**” icon appears flashing at one second intervals.

The “⚠” Alert icon is displayed with the “**Alert**” text flashing at one second intervals.

Pressing the "⚠" icon will result in the following message being displayed for either HEAT/COOL or EVAP fan run hours above the preset limit. The system will continue to run with this message displayed. You may book a service call or clear the Spanner and Alert icon by pressing the "Clear" button, refer Diagram 37.

Diagram 37: Fan run hour limit

14.0 Outdoor Temperature Sensor (Optional)

If you installed this option, the outdoor (ambient) temperature will be displayed as indicated in Diagram 38. If "OD" does not appear next to the day display on your screen, this feature is not enabled.

Diagram 38: Outdoor Temperature Display

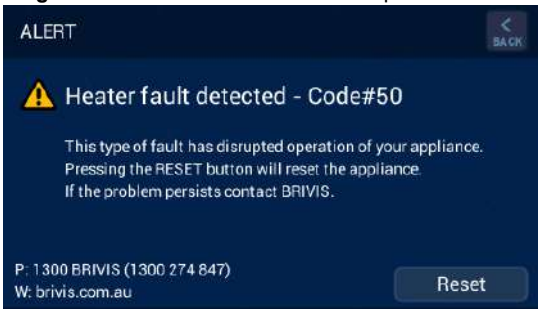
15.0 Error Messages

When your system is operating, the Touch Controller monitors and controls every aspect of the system's performance. On-board diagnostics help determine the source of any faults. If a lockout fault is detected, the yellow “Alert” will flash, refer Diagram 39. Press the “Alert” icon to display details of the fault, refer Diagram 40.

Diagram 39: Alert on the home screen

If the system turns off completely you may reset the system by pressing the “Reset” button, refer Diagram 40.

Diagram 40: Lockout fault ALERT example



If normal operation does not resume, please call Service for assistance. Inform them of the nature of your problem, the relevant error code, model and type of appliance so your issue can be remedied.

16.0 Power Outages

If power is restored within 10 minutes of a power outage, the Touch Controller will resume normal operation with the mode and settings immediately before the outage.

When powered OFF, the Controller will retain its Day and Time setting for up to 5 days.

17.0 Glossary

Zone
One room or a group of rooms; normally selected on the basis of usage or that have similar heating or cooling needs.

Controlled Zone
A zone that is separately controlled by its own zone sensor and zone damper. There are as many zone sensors in the home comfort system as there are Controlled Zones.

Common Zone
A zone that is not separately controlled by its own sensor and zone damper. It operates whenever heating or air conditioning is on, regardless of the status of any controlled zones.

Constant Zone
A predetermined zone, typically the largest and containing the return air grille, is designated as the Constant Zone. The Constant Zone functions as a Common Zone only during refrigerated cooling mode to ensure the minimum cooling airflow requirements are met.

Single Temperature Set Point (STSP) System
The zone temperature set point is the same across all Touchscreens and/or Temperature Sensors.

Your system can control up to four zones to a single temperature setting. You may operate the system in MANUAL or SCHEDULE operation. In MANUAL, you may activate each zone as required. In SCHEDULE operation, select each zone you wish to operate for each time and temperature setting in the program schedule.

Multi Temperature Set Point (MTSP) System
The zone temperature set point can be set independently across all Touchscreens and/or Temperature Sensors.

Your system can control up to four zones so that each zone has its own temperature set point. You may operate the system in MANUAL or SCHEDULE operation. In MANUAL, you may activate each zone and select the temperature level as required. In SCHEDULE operation, select each zone you wish to operate for each time and its own temperature setting in the program schedule.

Touch Controller
Primary user interface with Touchscreen display. Where multiple Touchscreens are installed, the “Master” Controller can be identified by the letter “M” in the bottom right hand corner of the screen.

Remote Temperature Sensor
Zone temperature sensor with an LED that blinks during communication with Master Controller. Additional Touchscreens can be used in place of up to 3 x Remote Temperature Sensors.

Sensor
Both the Touchscreen and Remote Temperature Sensors function as zone (room) temperature sensors – in this context, the word “sensor” in this manual can apply to both.

A Remote Temperature Sensor can also be used as an Outdoor Temperature Sensor.

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