Manual

aura-t™

TP726/EU

aura-t™ SMART

TP746/EU

MVHR (Mechanical Ventilation with Heat Recovery) Controllers

Product Manual

Warnings, Safety information and Guidance

Important Information

Read instructions fully before the installing this appliance.

1.   This manual covers the operation of the MVHR control system only, it must therefore be read in conjunction with the relevant heat recovery unit Product Manual.
2.   Installation of the appliance and accessories must be carried out by a qualified and suitable competent person and be carried out in clean, dry conditions where dust and humidity are at minimal levels.
3.   All wiring must conform to current I.E.E. Wiring Regulations and all applicable standards and Building Regulations.
4.   **aura-t**™ must be connected using the communication cable provided, this can be extended up to 30m. Control & Communication cable - Unshielded 4 Core 18-24AWG Stranded, Tinned Copper.
5.   Control & communication cables should not be placed within 50mm or on the same metal cable tray as any 230V lighting or power cables.
6.   Ensure all cable glands are fully tightened.
7.   The unit must be stored in a clean and dry environment.
8.   Do not install the appliance in areas where the following may be present or occur:
   •   Excessive oil or a grease laden atmosphere,
   •   Corrosive or flammable gases, liquids or vapours,
   •   Ambient temperatures above 40°C or below -5°C,
   •   Humidity levels above 90% or is a wet environment.
9.   The appliance is not suitable for installation to the exterior of the dwelling.

10. This appliance can be used by children aged from 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved.
11. Children should be supervised to ensure that they do not play with the appliance.
12. To avoid damaging the touch screen, do not operate it with sharp or hard objects; do not apply excessive fingertip pressure.
13. Do not use abrasive cleaners, waxes, solvents or alcohol based cleaning products; do not use paper towels for cleaning.

Contents

When this document is viewed as a PDF the headings & sub headings on this page are hyper links to the content. Additionally the page numbers in this document are hyper links back to this contents page.

Description

The **aura-t**™ is a programmable touch screen controller which monitors and displays the status of a MVHR unit. It allows the unit to be commissioned, and gives the user both manual and timed control of fan speeds. The **aura-t**™ is connected to the MVHR via a low voltage connection and can be sited remotely from the unit.

The **aura-t**™ SMART units can also connect to the auraSMART app, via WiFi Direct or the home WiFi network. This allows the MVHR to be commissioned and controlled with a Smartphone.
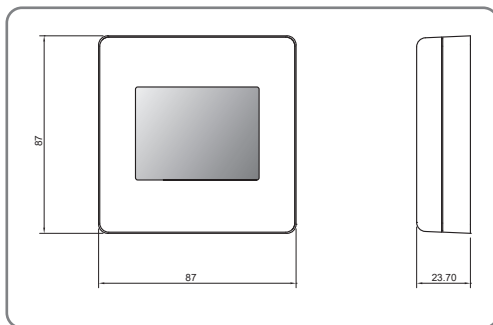
Packaging Contents

Inspect the unit when taking delivery. Check the unit for damage and that all accessories have been supplied.

Package supplied with:-
- 1 x **aura-t**™ controller.
- 1 x ~3m **aura-t**™ communication cable.
- 1 x Product Manual.

Any shortages or damage must be immediately reported to the supplier.

Dimensions

aura-t™ and **aura-t**™ SMART

Features

The following gives an outline description for each of the product features of the **aura-t**™ & **aura-t**™ SMART.

24 Hour Clock

The **aura-t**™ has a twenty four hour clock with a battery backup.

Day of Week Display

The **aura-t**™ displays the days of the week as numbers.

Internal Humidity Sensor

The MVHR has a relative humidity (RH) sensor. The RH sensor proportionally increases the fan speed between Speed 2; Continuous and Speed 3; Boost Speed

Boost Overrun Timers

A programmable timer that controls the time the MVHR remains at Boost Speed after all boost switches have been released.

Filter Change Alert

The **aura-t**™ will display an alert when the MVHR filters require changing. The time before the alert is displayed is adjustable.

Selection & Display

The unit speed can be manually selected via the on screen 1, 2, 3 & 4 buttons/icons which are also used to display any automatically selected speed

Programmable Speeds

The unit has 4 programmable speed settings, all speeds are variable between 14-100% and allow independent speed setting of both supply and extract ventilation rates

- Speed 1; Setback.
  Reduced ventilation.
- Speed 2; Continuous.
  Normal ventilation.
- Speed 3; Boost.
  Increased ventilation
- Speed 4; SUMMERboost®.
  Very high ventilation.

Timer

The **aura-t**™ has a programmable timer that can be used to switch the MVHR to Speed 1 at specified times.   Using the auraSMART® app all speeds can be controlled.

Boost Inhibit

Boost Inhibit is used to prevent the MVHRs speed increasing. Boost Inhibit is used in conjunction with a Timer event.

Status Icons

The **aura-t**™ displays icons to indicates modes of operation in Real-time.

Backlight

The LCD backlight turns on when the screen is touched; turns off after 30s of inactivity.

Eco Mode

The **aura-t** can be configured to run in Eco Mode which reduces power consumption.
Eco mode is unavailable on aura-t™ SMART.

Switches

The **aura-t** can setup the 3 x Volt Free and 2 x Live switches. (see MVHR Product Manual for details)

Summer ByPass

The temperature of the from dwelling and from atmosphere air which cause Summer Bypass to be enabled can be adjusted. Also SUMMERboost can be en/disabled.

0-10V Inputs (Room Sensors)

The sensor type, 0V reading, 10V reading for each of the 4 room sensors can be adjusted. Additionally the range over which proportional control is active can be selected, and whether it is between speeds 2 and 3 or 1 and 4.

Passcode

Passcode can either be enabled or disabled and is used to protect some setting from unintended changes.

Unit Handing

The controller can change the handing of the MVHR unit; either left hand or right hand.

Frost Settings

The aura-T can switch the MVHR between unbalanced Frost Protection, where only the supply fan stops (default) or balanced where both fans stop. Balanced Frost Protection is for use in properties with an open flue fireplace.

WiFi auraSMART®

The **aura-t** SMART units have WiFi connectivity; either WiFi Direct or connection to a WiFi router that enables smartphone control of the ventilation system using the auraSMART® app.

Run Mode

Within this section the user can control the speed of the MVHR Unit. The current status of the MVHR and any warnings or alerts are also shown on this screen.

Fan Commissioning

When installing any MVHR unit, it's important to get the air flow correct as per design specifications. The Fan Commissioning section allows installers to adjust the air flow accordingly. Ideal for maintenance and quick and easy commissioning. Passcode 3333.

Boost Overrun

A programmable timer that controls the length of time the MVHR remains at Boost Speed after all boost switches have been released. Separate times can be configured for both Kitchen and Wetroom Boost switches. Adjustable between 0 and 60 minutes.

Summer Bypass

During summer months, it's important to put your MVHR unit into Summer Bypass to restrict the amount of hot air returning into a dwelling. With the Summer Bypass Control, it allows the user to be able to check the temperatures and disable Summer Boost if necessary.
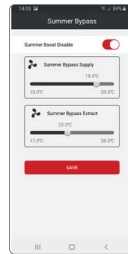
Humidity Threshold Control

Units are fitted with an Integrated Humidity Control. This continuously monitors the relative humidity (RH) of the extracted air and triggers Boost Speed when the relative humidity rises over the set threshold. The Humidity Sensor's trigger point is variable from 30% RH to 100%RH
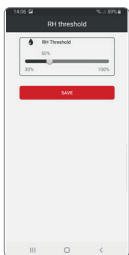
Control/Switch settings

Control/Switch settings allows the user to set the function of 5 (3 volt free and 2 Live switch) physical switch inputs on the controller. These can be set to a Kitchen Boost, Wet Room Boost (providing a different run on time), setback, summer boost disable, or fan speed 4.
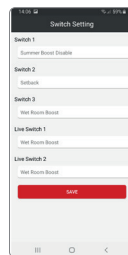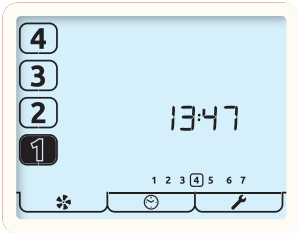
User Interface

Menu Tabs

The **aura-t**™ screen has three interactive menu screens which are selected via tabs at the bottom of the touchscreen.

Tab	✤	☻	⚒
Function	Monitor & Control Fan Commission	Timer	Setup
Name	Run Mode	Timer Mode	Setup (Tap) Setup Menu

Tab	✤	☻	⚒
Option	Displays: Fan Speed, Time, Day and Status. Gives access to: Fan Speed Setup.	Gives access to: Timer Run/Pause Timer Setup Second press display MVHR's runtime.	Gives access to: Time, Day, RH threshold, Overrun Timers, WiFi, Filter Setup, Filter Reset.
			Setup (Long Press) Setup Sub-Menu

Tab			
			Gives access to: Eco Mode, Switch setup, Summer Bypass, 0-10v Inputs (Room Sensors), Passcode settings, MVHR handing settings, Frost setup.

Run Mode

The **aura-t**™ controls the MVHR unit's 4 programmable speed settings.
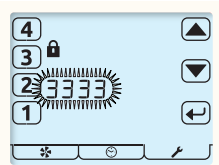
Passcode Screen

The passcode is always required to edit fan speeds and is optional for protection of the Setup-Sub-Menu settings.
Passcode - 3333
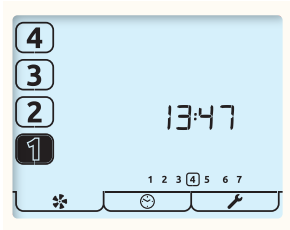
This is the Run Mode screen; use the number buttons to select the required fan speed.	
1	Press and Hold the [1] button to turn the unit off, just the [1] icon will be displayed; Tap the button to turn the unit back on.
	The current running speed will be indicated by the corresponding number button being highlighted.
	The time of day is also shown on this screen in 24 hour format along with the days of the week; the current day is ringed.

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Status Icons

If the fan speed is being controlled by an external switch, a sensor or the timer this is indicated by an icon beneath the speed selection buttons being visible. The icons are as follows:

	An external switch is active and is controlling a function of the unit.
	The timer is active and is keeping the MVHR at Speed 1. Using the auraSMART® app all speeds can be controlled.
	The speed the MVHR is running at is being controlled by the internal humidity sensor or an external Proportional Input sensor

Other Icons

Other status icon that may be visible on the screen are listed below:

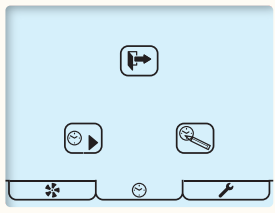|	
	Filters require replacement. Refer to the Controller Setup for details of how to reset.
	Frost Protection, if this icon is constantly lit the temperature outside is low and the MVHR Supply Fan has been stopped (both fans if Balanced Frost Protection enabled) to prevent damage to the Heat Cell. If the Frost icon is slowly flashing and the Speed 1 button is highlighted, the unit is in Pre-Frost mode; both fan speeds will have been reduced as an attempt to maintain balanced ventilation and avoid going into full Frost Protection mode. If the Frost icon and backlight are flashing the indoor temperature is low and both fans will have stopped. Tap any of the fan speed number buttons to restart the fans. If the temperature is still too cold, Frost Protection will be activated. If this occurs with an indoor temperature above approximately 5°C it could indicate the handing of the unit is wrong or the ducting is misconnected.
	Summer Bypass is in operation, air from outside is being supplied directly to the property without recovering heat from the Heat Cell. This is often accompanied by SUMMERboost®, both fans switch to Speed 4 to increase the rate fresh air is supplied to the property and stale hot air is extracted. Press & Hold the [4] button to cancel SUMMERboost®.
	The Boost Overrun timer is active and is holding the MVHR at Speed 3; this follows an external Boost switch being deactivated.
	The padlock icon adjacent to the Speed 3 button and accompanying the timer icon indicates Boost Inhibit is active; the MVHR's maximum speed is Speed 2. The unit will not respond to external Boost switches or the internal Humidity sensor & proportional Input sensors can only increase the MVHR to Speed 2.
	In an MVHR with constant volume functionality; when one of the fans has reached the maximum permissible speed for constant volume operation, either of these icons will slowly flash to indicate which fan is running too fast. Check the duct work and filters for restrictions or blockages
	The warning icon flashing at the bottom of the screen adjacent to the Fan icon indicates a fan failure has been detected; a flashing supply or extract icon at the top of the screen indicates which fan has failed; contact the installer. If very high temperatures are detected inside the MVHR, fan failure mode will be enabled to protect the MVHR from damage.

|	
	WiFi Full Connection
	Not Connected to Server (link bar flashing)
	Not Connected to router (no link bar)
	Local network, searching for connection
	Connected to Local network; internet or server unavailable
	When the Backlight is flashing along with the Speed 3 button the MVHR has been held at Boost, Speed 3 for more than 2 hours; Boost Alert is active.

Timer Mode

The controller has a seven day, four events per day timer. The timer is used to automatically change the MVHR speed to Setback, Speed 1 at programmed times.

An additional function of the timer is that when it activates Setback there is an option to engage Boost Inhibit. By default the timer is set to paused indefinitely. See below for details of how to set it running.

This is the Timer Mode screen; the buttons displayed on screen have the following functions:	
	Tap the Play / Pause button to toggle between play and pause. Press and Hold to pause timers indefinitely.
	The Run arrow indicates the timer is currently active and will be used to switch the MVHR in and out of Speed 1
	The Pause and Hour Glass symbols indicate the Timer is temporarily paused; Timer will restart 8 hours after being invoked.
	The Pause symbol indicates the timer is currently inactive and will have no effect on fan speeds; this pause is indefinite (default mode).
	Timer Setup , Tap this button to adjust the Timer, see Timer Setup section.
	Tap this to Exit and return to Run Mode.

When the timer has automatically switched the MVHR to Speed 1 this can be manually overridden by tapping [2-4] keys.   Tap the Speed 1 key to return to timer control.
When the next timed event occurs the unit will revert to timer control.
Manual override is not possible if Boost Inhibit is in operation.
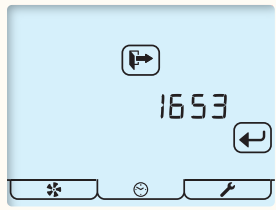
| Second Press of Timer Tab Displays MVHR runtime.	
⏎	Updates displayed fan speeds; used during fan speed cloning.
⇥	Exit tab to Run Mode

auraSMART® WiFi Timers

1. The auraSMART® App has a seven day, eight events per day timer. The timer is used to automatically change the MVHR speed to any of the speeds at programmed times.
2. An additional function of the timer is that when it activates Speeds 1 or 2 there is an option to engage Boost Inhibit.
3. If the timer is being controlled by the app the timer screen below will be shown.
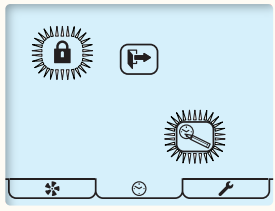
4. To return to the aura-t™ SMART controller's timers press and hold the Timer Setup button; the controller's timer has reduced functionality and can only set speed 1.

auraSMART® Connection Guides

WiFi/Internet - Option One

ANDROID APP ON
Google play

Download on the
App Store

1. Download the auraSMART® app from either Google Play or the App Store.
2. Open the app, select "HOME WiFi/INTERNET CONNECTION VIA ROUTER"
3. Click Register to create a new user account (if you have not set one up before)
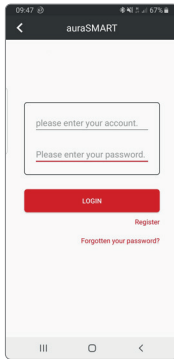

4. Create your chosen account details in the screen below, and accept the app terms and conditions. You will receive an e-mail with a link to activate your account, you will not be able to access account facilities until completing the activation process.
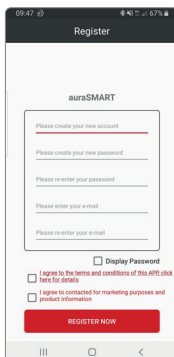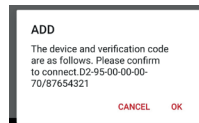

Log in to your new account using the account name and password that you just created.

5. In your phone WiFi settings, ensure your phone is connected to the same WiFi router as the **aura-t**™ will be connected (not a 3G/4G mobile connection). Note this needs to be a 2.4GHz network.
6. In Device List click ADD, then scan the QR code on the **aura-t**™ WiFi module, or manually input the ID and Code
7. The module will show on the app screen as "Status:offline", click the module details in the app, and confirm you want to connect to the internet OK
8. Input your WiFi router password.
9. A short video is displayed in the app showing the **aura-t**™ settings
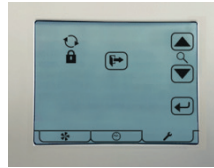
a. Click the settings spanner
b. Use the arrow buttons to scroll to the WiFi connection screen shown left (for info the icon functions are given below)
   i. icon is to search for a WiFi/internet router network connection
   ii. icon is to search for a WiFi Direct connection (see section 2)

   iii. icon resets the **aura-t**™ WiFi module passcode to default (displayed on the label in the WiFi module)
c. Press then using the arrow buttons select to make a WiFi/internet connection, pressing to select.
d. Tap to return to Run screen.
e. The WiFi symbol will flash to confirm the **aura-t**™ is searching for a connection.
f. In the app check the "Device is ready for internet connection" and click NEXT
g. In the app, click OK as shown:

ADD
The device and verification code are as follows. Please confirm to connect.D2-95-00-00-00-70/87654321
CANCEL   OK

Once paired the **aura-t**™ will display the full WiFi symbol (not flashing), The status of the module in the app will show as "Online". WiFi functions of the app are now available via the internet and 3G/4G connections.

Trouble shooting: If the device/**aura-t**™ fails to connect ensure that the network is set to 2.4GHz rather than 5GHz.

The app may display incorrectly on a minority of devices due to font size and text scaling settings.

WiFi Direct – Option Two

The unit can also be connected via WiFi direct where there is no router network or internet connection. In WiFi direct mode only a local connection is possible with a single phone to **aura-t**™.

1. Download the auraSMART® app from either Google Play or the App Store.
2. Open the app, select "WiFi DIRECT CONNECTION"
3. On the **aura-t**™, follow the steps below to create a WiFi hotspot

a. Click the settings spanner 🔧

Use the arrow buttons 🔽 to scroll to the WiFi connection screen shown above (for info the icon functions are given below)

i. 🔍 icon is to search for a WiFi/internet router network connection

ii. 🔄 icon is to search for a WiFi Direct connection (see section 2)

iii. 🔒 icon resets the **aura-t**™ WiFi module passcode to default (displayed on the label in the WiFi module)

b. Press ⏎ then using the arrow 🔼 buttons 🔽 select 🔄 to create a WiFi direct hotspot, pressing ⏎ to select. The display screen will show:

3. Connect your phone to the **aura-t**™ SMART WiFi direct hotspot, it will be named as the Device ID. The default passcode is 12345678.
4. In app, Device List click ADD, then scan the QR code on the **aura-t**™ WiFi module.
5. In the app, click OK as shown:
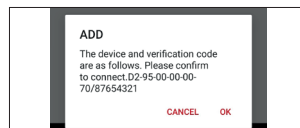
6. The module will show on the app screen as "Status:online", click the module details in the app to connect.

Location

The **aura-t™** should be mounted in position convenient for the householder and where the supplied control cable will reach.

Fixing Holes

Wiring Access Hole

60
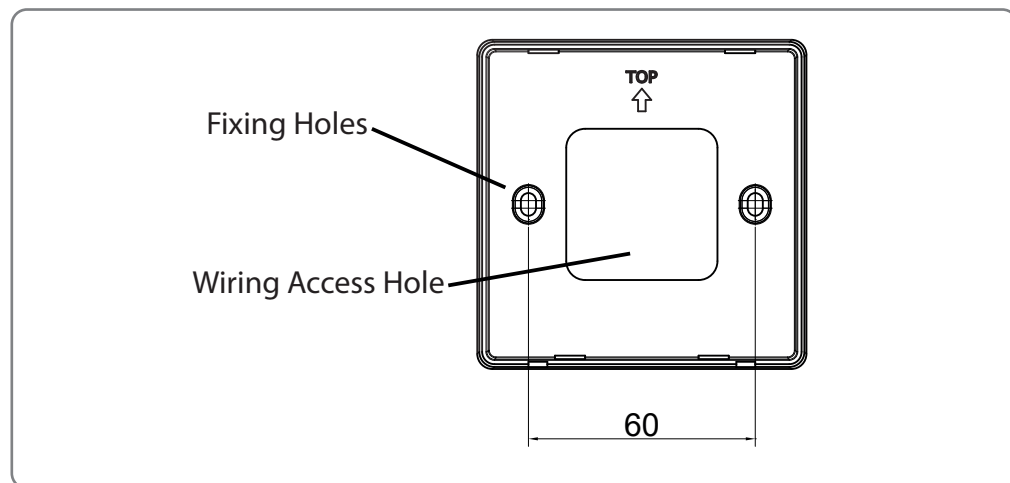
aura-t Backplate

Fixing

1. Un-clip the front of the **aura-t™** case from the Back Plate.
2. Thread the control cable through the hole in the Back Plate.
3. Fix Back Plate .
4. Connect the communication cable, see Wiring section.
5. Clip the front of **aura-t™** to the Back Plate

Wiring

The **aura-t™** control cable is supplied fitted with a plug in connector for connection to the MVHR, if the MVHR does not have a socket use the wiring diagrams on the following page.

Plug connection to MVHR

12V Red
White
A
B
Yellow
0V
Black
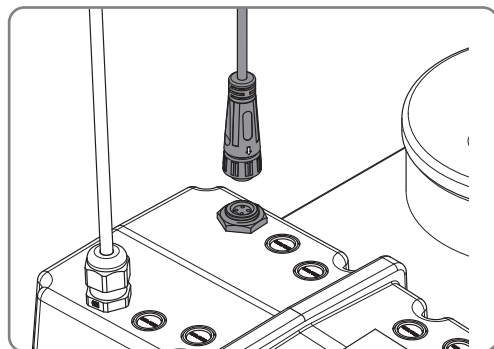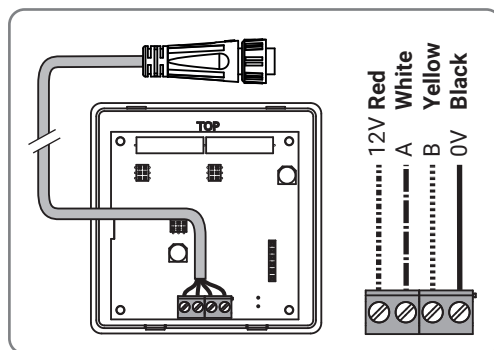
Wired connection to **aura-t™**

aura-t™ must be connected using the communication cable provided, this can be extended up to 30m.
Control & Communication cable - Unshielded 4 Core 18-24AWG Stranded, Tinned Copper.

Connection to MVHR
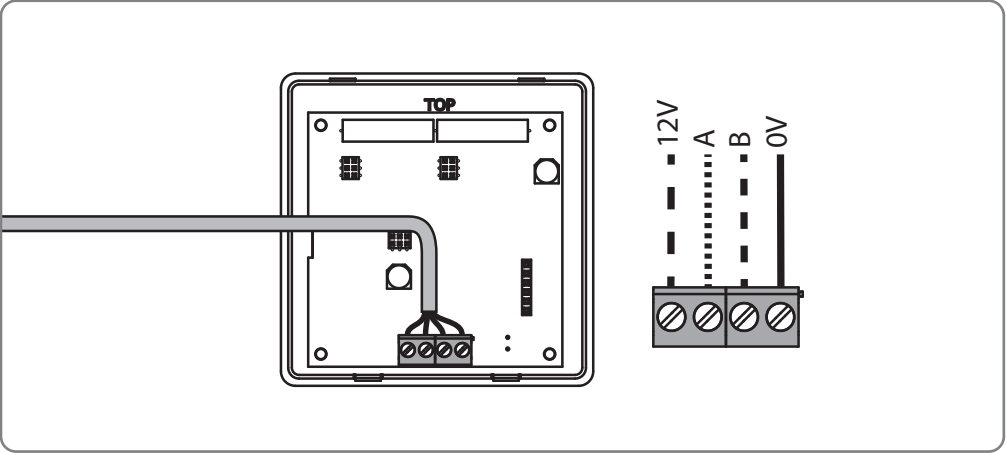
Connection to aura-t™

Fan Commission

For constant volume (AR) units the fan speeds will be displayed as either:
- m3/hr
- l/s
- l/s to 0.1 resolution

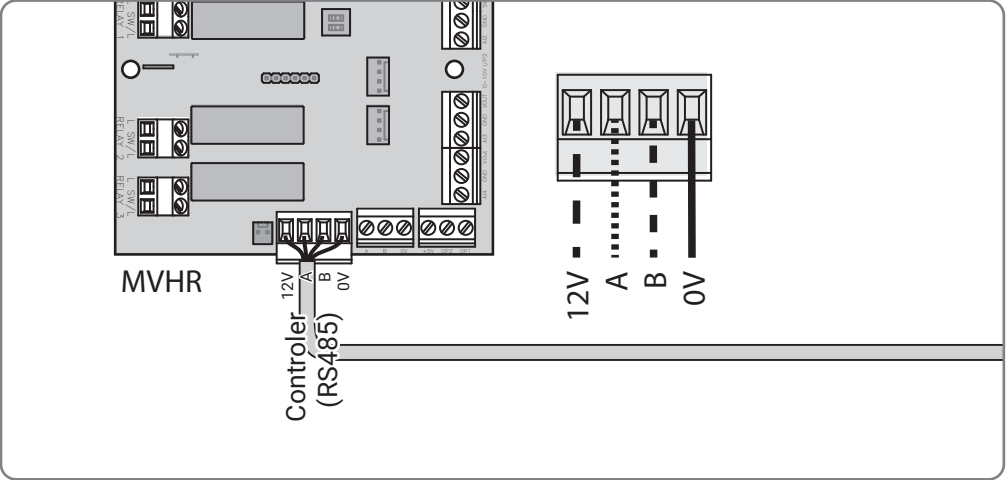|	
✿	Fan Commission Mode is entered by pressing the Fan Button for 5 seconds whilst in Run Mode.
	A flashing item on the screen indicates it is being edited.
	1. Select the required fan speed using the number buttons at the left of the screen. The current fan speeds are highlighted, the MVHR will run at the selected speed.
Supply Extract	2. Use the Supply to dwelling or Extract from dwelling buttons at the top of the screen to select which fan is to be adjusted.
▲ ▼	3. Use the arrow keys to adjust the fan speed. The fan will respond in real-time to the adjustment being made.
	4. Repeat the above for all fan speeds requiring adjustment.
💾	5. When all of the fan speeds are correct tap the Save button to store all the fan speed settings to memory and exit back to Run Mode.

The temperature sensors are not active during fan commissioning, this prevents Frost Protection and the duct heater from functioning. Take care not to damage the heat cell if commissioning during extremely cold weather.

To set the fan speed to Zero/Off set Speed 1 to the minimum speed for the selected units and press and hold the [1] key

Cloning

Cloning allows the commissioned fan speeds to be copied from one unit to another the using an external **aura-t**.
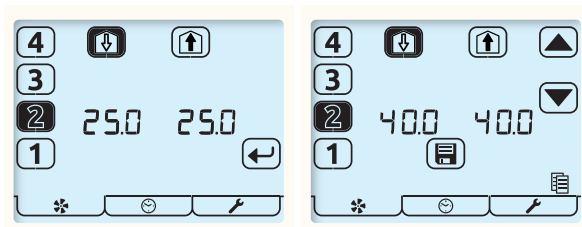
Saving Fan Speeds to the aura-t

Supply / **Extract**	To save the current fan speed to the **aura-t**™ press and hold the Supply or Extract buttons whilst on the fan commission screen. The copy icon will be illuminated and when save is tapped the fan speeds will be saved to the **aura-t**™ and written to the MVHR.
Copy	The **aura-t**™ could then be connected to another MVHR and the stored speeds written or Cloned to it as detailed previously.

Writing Stored Fan Speeds to the MVHR

|	
	Enter Fan Commission Mode by pressing the Fan button for 5 seconds whilst in Run Mode. The MVHR's fan speeds will be displayed. Tap the Fan button to display the fan speeds stored on the **aura-t**™. The stored speeds can be viewed using the number buttons, the MVHR will run at the selected speed.
	To copy the stored speeds to the MVHR tap the Enter button, the arrow buttons will be illuminated and the speeds could be adjusted as detailed in Commissioning or simply written to the MVHR by tapping the Save button
	If the stored speeds are incompatible with the MVHR model the aura-T is connected to, dashes will be shown in place of the numbers and the warning triangle will be illuminated.

Timer Setup
Timer setup is achieved in three steps

1 Day Selection
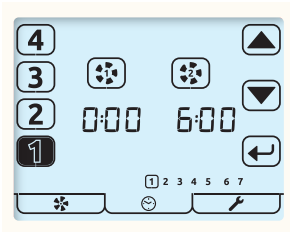
⌣	1. Tap the Timer Mode tab to enter the Timer Mode menu.
🔧	2. Tap the Timer Setup Key to commence setup.
▲ ▼	3. A ring around the day selected will blink. Change the day that the timers are to be edited by using the Arrow Keys. .
↵	4. Tap the Enter Key to start editing timers for that day.

2 Select Event & Edit Timers
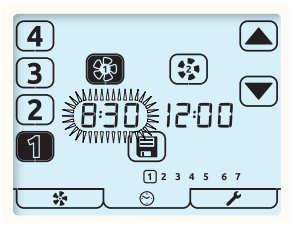
In this example; tapping the Save key will save the settings; these will set the unit to run at Speed 1 between 08:00 & 12:00

	1. Tap the event number to be edited [1-4] from on left hand side of the screen. The selected event will highlight.
❄ ❄	2. Use the fan keys to select either the time the HRV will switch into Speed 1 or Speed 2.
🔒 ❄	3. Speed 1 key toggles between selecting Speed 1 and selecting Speed 1 with Boost Inhibit indicated by Padlock Icon.
▲ ▼	4. The selected time will flash, use the arrow keys to adjust in 5 minute increments.
	5. Select the other events [1-4] to edit/check their times and function as required.
💾	6. When all events for the current day Tap to save.
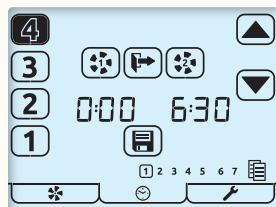
	1. The flashing Copy icon indicates the option to copy just edited settings to another day.
↵	2. Tap the Enter Key to commence copy procedure.
↪	3. Tap the Exit key to start editing another day's times or press a second time to exit to Run Mode.
↵ ▲ ▼	4. When copying; the just edited day is ringed and the following day has a flashing ring. Tap the Enter key to select this day, solid ring indicates selection or use the arrow keys to choose days and the Enter key to select/deselect.
💾	5. When all required day(s) have been selected tap the Save key to complete the copy and return to step 1 Day Selection Screen.
↪	6. Repeat day, event and timer setup or tap the Exit key to return to Run Mode.

Timer Defaults

Event timings:
- The Speed 2 cannot be set earlier than Speed 1.
- Events where Speed 1 and Speed 2 are identical are ignored by the timer.

By default the timers are paused, consult the Timer Mode section for details of how to set them running.

1 2 3 4 5 6 7 Days	Event	Speed 1	Speed 2
1 2 3 4 5	**1**	00:00	06:30
	2	08:30	12:00
	3	13:30	18:00
	4	22:30	00:00
6 7	**1**	00:00	07:30
	2	09:30	12:00
	3	14:00	18:00
	4	22:30	00:00
⏱	Press & Hold the Timer Tab to load/reload the above default setting for the timer; this action also opens Timer Setup.		

Controller Setup

Setup menu
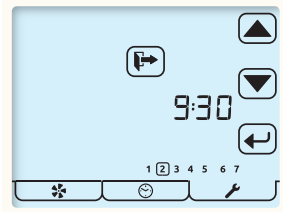
↵ Enter key.

↪ Exit Key.

🔧	Tap the Setup Menu tab to enter the Setup Menu

All the editable settings in the Controller Setup menu are accessed in the same way. Menu navigation is achieved by first Setting Selection and then Editing.

Setting Selection

[arrow keys, enter, exit icons]	• Arrow keys are used to select a setting, the setting will flash. • Tapping the Enter key will allow the setting to edited. • Tap the Exit button to return to Run Mode.

Setting Editing

[arrow keys, enter icons]	• Arrow keys are used to change setting value. • Tapping the Enter key whist editing will save and move to the next setting in the list.

The order in which editable settings are displayed is as follows.

6:30	1. Time (24 hour clock)
1 2 3 4 5 6 7	2. Day of week.
[flame icon]	3. Humidity threshold4
[hob icon]	4. Kitchen Overrun timer.
[shower icon]	5. Wet room Overrun timer.

	6. WiFi
[WiFi direct icon]	WiFi Direct connection
[search icon]	WiFi Network Connection
[lock icon]	Reset WiFi passcode to factory default & reset connection to WiFi Direct

[filter icon]	7. Filter Change Interval (months 1-24)
[filter icon]	8. Filter Reset; also displays remaining time in days
[reset ring icon]	If a filter change is required the reset ring will be flashing. Tap the Enter key to reset or the Exit key.
[enter icon]	If a filter change is not due but the filter timer requires resetting press the Enter key twice.
[exit icon]	Tap Exit key to return to Run Mode.

Setup Sub Menu
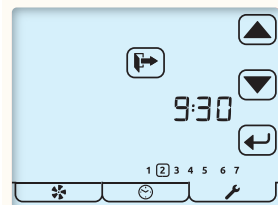
⏎ Enter key.

[→ Exit Key.

Long Press the Setup Menu tab to enter the Setup Sub Menu, if the Pass code is enabled enter the passcode.

The order in which editable settings are displayed is as follows.

1. Eco Mode

2. Switches, 5 switches.

3. Summer Bypass

4. Room Sensors, 4 sensors

5. Passcode

6. Unit Handing

7. Frost Setup; balanced / unbalanced

8. Tap Exit key to return to Run Mode.

Eco Mode Setup
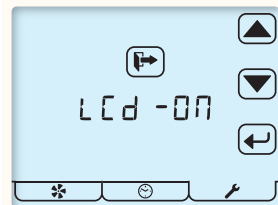
Use to adjust between the options. Eco or On

Tap Enter key
to save and exit.

On - LCD display (not the Backlight) is on continuously.
Eco - After a one minute period of inactivity the **aura-t** will enter sleep mode.

Eco mode will only operate when timers are permanently paused.

To manually wake the screen up from Eco Mode tap anywhere on the screen.

The screen will wake from Eco Mode if there is a fault; ie Fan failure,

Filter Change, Boost Alert, Internal Frost or Fan Flow Warning.

Switch Setup Menu

In this menu the installer can configure the function of the MVHR unit's switch inputs S1, S2, S3, LS1 & LS2 (see MVHR Product Manual for details)
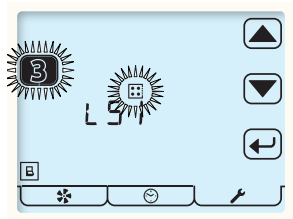
	↵	Enter key.
	↦	Exit Key.

B	Switch Setup menu active.

All switch inputs to the MVHR unit; S1, S2, S3, LS1 & LS2 can be assigned any of the following functions.

⊡ 3	Kitchen Boost, Speed 3.
⌐ 3	Wet Room, Boost, Speed 3.
1	Speed 1, Setback
☀ 4	SUMMERboost disable.
4	Speed 4
OFF no	Off Normally Open
OFF nc	Off Normally Closed
☀	Manual Summer Bypass
ΓELAY	Relay control.

Summer Bypass Setup
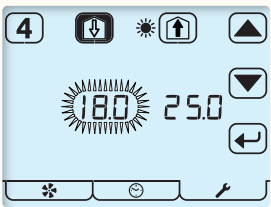
	▲▼	Use to adjust value up or down.
	↵	Enter key.

Supply Extract	Use the Supply and Extract buttons to select which threshold is to be adjusted. Supply represents from atmosphere air temperature; Extract represents from dwelling air temperature.
4	Tap button[4] to enable / disable SUMMERboost. Unfilled icon (shown) represents disabled.

0-10V Inputs (Room Sensors)

The 0-10V inputs control fan speed.
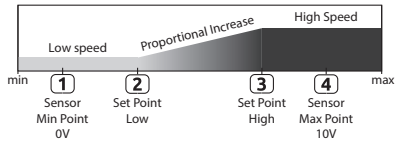
There are 4 room sensors connections available; each Sensor has two configuration screens, each pair of screens is displayed sequentially. ie 1a, 1b, 2a, 2b, 3a etc.

The first screen (a) configures:
- The sensor type either RH, Air Quality, CO2, Temperature or OFF.
- The Speed range that the sensor operates between; either 2 to 3 or 1 to 4.

The number adjacent to the arrow buttons display the Sensor number..
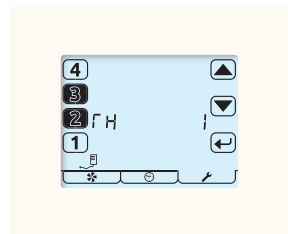
▲▼	Use to cycle through the sensor options
	Use the number keys to select the sensor Speed range.
↵	Tap Enter key to save and move to next screen.

The second screen (b) configures:-
The Sensor Min Point 0V, Set Point Low, Set Point High, Sensor Max 10V
The number adjacent to the arrow buttons display the Sensor number..
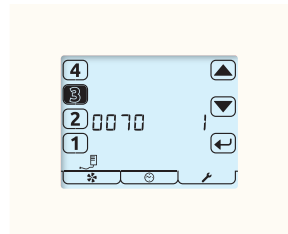
▲▼	Use to adjust parameter value.
	Use the number keys to select which parameter to adjust,
↵	Tap Enter key to save and exit.

|	
1	Sensor Min Point 0V; Consult the Room Sensor's specification for these values.
2	Set Point Low; the lower threshold where the fan speed begins to proportionally increase.
3	Set Point High; the upper threshold where the fan speed will go to Speed 3 or Speed 4 depending on the range selected on the previous screen.
4	Sensor Max 10V; Consult the Room Sensor's specification for these values.

The above is repeated for Sensors 2, 3 and 4.

Passcode Enable / Disable
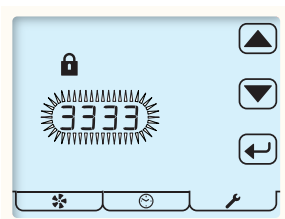
Tap Enter key
to edit state.

Use to enable / disable Passcode.

- - - - indicates Passcode is disabled.
3 3 3 3 indicates Passcode is enabled.
Enabling the Passcode only protects the menu items in the Setup Sub Menu.
The passcode is permanently enabled on the fan commission screen

Unit Handing

This menu item changes the handing of the unit; it is not available on units where it is unsupported, (eg H200).

This option is only to be used during installation of the unit. The unit will have a sticker, that is marked showing which hand has been selected during the installation. Handing, changes the duct port layout and which side of the unit the condensate drain connection is required.

230V~

LH   RH

DOS830 iss01
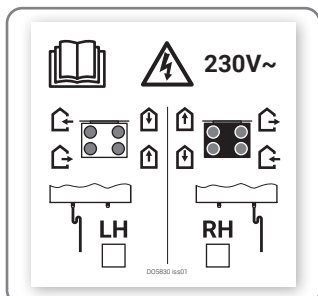
Unit's Handing Sticker

Left Hand/Right Hand switching
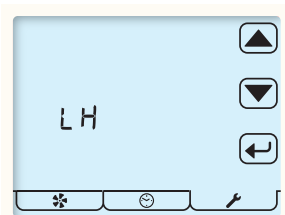
Use the Arrow buttons to select between LH and RH

LH

Tap Enter key
to save and exit.

Frost Setup

This screen is used to select between unbalanced Frost Protection, where only the supply fan stops (default) or balanced where both fans stop. Balanced Frost Protection is for use in properties with an open flue fireplace.
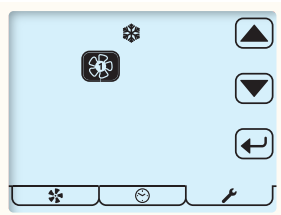
Use the Arrow buttons to select between supply fan or both fans.

Tap Enter key
to save and exit.

If this setting has been defined by MODBUS the Frost Setup menu item will not be displayed.

Appendix

aura-t™ Configurable Defaults

The table below details the default values and the range of available settings, plus any additional information about those settings the **aura-t**™ can configure. The installer should record all configuration settings in the space available.

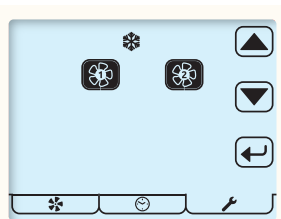| Configurable Item		Range		Default	Configured Value	Additional information
		Min	Max			
Time		Any Time		00:00		24 hour clock.
Day of Week		1	7	1		Two groups, five week days & two weekend days.
Boost Overrun	Kitchen	0 mins	60 mins	15 mins		
	Wet Room	0 mins	60 mins	15 mins		
Boost Overrun timers are set independently for Kitchen and Wet Room inputs. Boost Overrun timers must be set greater than zero for any momentary switch to trigger boost. When using latching switches to initiate Speed 3, Boost, the Overrun timer will start when the latching switch is disengaged.						
Internal Humidity Boost (Set point)		30%	89%	70%		
Speed 1, Setback.	Supply	14%	100%	18%		Can be set to Zero/Off
	Extract	14%	100%	18%		
Speed 2, Continuous.	Supply	14%	100%	40%		
	Extract	14%	100%	40%		
Speed 3, Boost.	Supply	14%	100%	70%		
	Extract	14%	100%	70%		
Speed 4, SUMMERboost®	Supply	14%	100%	100%		
	Extract	14%	100%	100%		
Constant volume units will have different flow rate defaults depending on the performance of their fans; these will approximate to the above percentages values. Speeds will be displayed as either: m3/hr, l/s or l/s to 0.1 resolution.						

Configurable Item		Range		Default	Configured Value	Additional information
		Min	Max			
Summer Bypass	Extract	17°C	35°C	25°C		
	Supply	10°C	20°C	18°C		
In order for the Summer Bypass to operate the temperatures of both the air being extracted from the property and supplied from outside must be above their individual thresholds. If the temperature of the Supply air is less than 1°C cooler than the Extracted air the Summer Bypass does not operate to prevent the warmer air being supplied directly to the property.						
SUMMERboost®		Enabled	Disabled	Enabled		
SUMMERboost® operates in conjunction with Summer Bypass and switches the fans to Speed 4. It can also be disabled by a latching switch if fitted.						
Switch Inputs	SW1			Kitchen Boost		
	SW2			Wet Room Boost		
	SW3			SUMMERboost® Disable		
Switch options are: Kitchen Boost, Wet Room Boost, Speed 1, Speed 4, SUMMERboost disable, OFF normally open, OFF normally closed, Manual Summer Bypass & Relay. When configured as Kitchen or Wet room Boost, the switch will use the associated Boost overrun and delay times for that room.						
Live Switch Inputs	LS1			Kitchen Boost		
	LS2			Wet Room Boost		
Live Switch options are: Kitchen Boost, Wet Room Boost, Speed 1, Speed 4, SUMMERboost disable, OFF normally open, OFF normally closed, Manual Summer Bypass & Relay. Live Switches also use the Boost overrun and delay times for the rooms they have been configured to.						
auraSMART® WiFi						
Connection Type				WiFi Direct		
Boost Delay Timer	Kitchen	0 mins	60 mins	0 mins		
	Wet Room	0 mins	60 mins	0 mins		
If the Boost Delay Timer is set greater than zero momentary switches will not switch the HRV into Speed 3 Boost. When using latching switches the HRV will not Boost until the Delay time has elapsed.						
Frost Protection						
Mode		Normal	Balanced	Normal		

Configurable Item		Range		Default	Configured Value	Additional information
		Min	Max			
Room Sensor 1						
Enable/Disable		Enabled	Disabled	Enabled		
Sensor Type				%RH		
0V				20%		
Lower threshold				60%		
Upper threshold				70%		
10V				100%		
Room Sensor 2						
Enable/Disable		Enabled	Disabled	Enabled		
Sensor Type				CO2		
0V				0PPM		
Lower threshold				800PPM		
Upper threshold				1400PPM		
10V				2000PPM		
Room Sensor 3						
Enable/Disable		Enabled	Disabled	Disabled		
Sensor Type				%RH		
0V				20%		
Lower threshold				60%		
Upper threshold				70%		
10V				100%		
Room Sensor 4						
Enable/Disable		Enabled	Disabled	Disabled		
Sensor Type				CO2		
0V				0PPM		
Lower threshold				800PPM		
Upper threshold				1400PPM		
10V				2000PPM		

The **aura-t**™ is maintenance free but will indicate when your heat recovery unit requires maintenance. Please refer to for your heat recovery unit manual for instructions.

Cleaning Exterior
For best results use a clean damp micro fibre cloth. Do not use abrasive cleaners, waxes, solvents or alcohol based cleaning products; do not use paper towels.

Error Codes
The aura-T may display the following error codes:

Code	Definition
Err-0001	The aura-T is not compatible with the MVHR it is connected to, please contact the system installer.
Err-0002	There is a communication problem between the aura-T and the MVHR. Refer to the wiring connection diagram and communication cable specification and check the wiring and connections.

In the event of any queries please contact the system installer.

Compatibility
The controller is compatible with MVHR units software version: FW0054-0404 circa May 2022.

WEEE

This symbol on this unit or the package, indicates that disposal of this unit after its life-cycle could harm the environment.
Do not dispose the unit as unsorted municipal waste; it should be disposed by a specialized company for recycling. This unit should be returned to your distributor or to a local recycling service. Respect the local environmental rules.
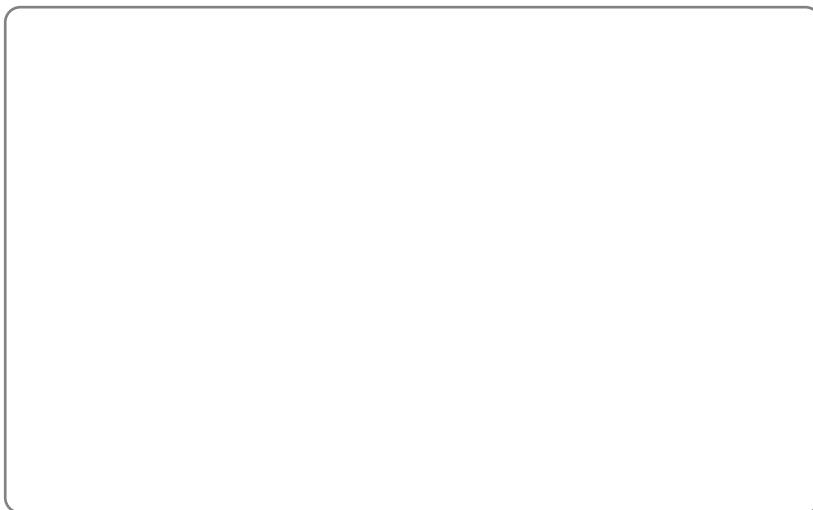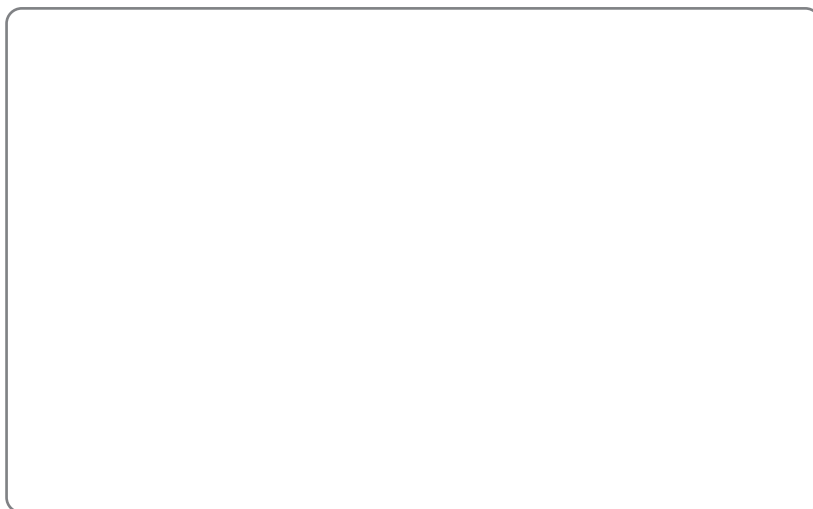
Manufacture

TITON Hardware Limited
894 The Crescent, Colchester Business Park,
Colchester, Essex, CO4 9YQ United Kingdom

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Supplied by:

Installed by:

In the event of any queries please contact the system installer.
Ensure this booklet is passed to the householder once installation & commissioning of the ventilation system is complete.
This Product Manual must be kept in the Home Information Pack.