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# Dawsonne House & Emerald House

APARTMENT SERVICES QUICK STEP GUIDE USER MANUAL

# Contents

**PLEASE NOTE:** A bespoke control panel governs the day to day operation of apartment heating & cooling functions. Equipment and services linked to the panel include:

- Apartment Heating Installed throughout all rooms.
- Ventilation System Operates both automatically and via the 'Cool Boost' function.
- 'Cool Boost' Provides a targeted dispersal of cool air within the desired room.
- Bedroom Set Point Adjuster These units allow the adjustment of temperatures within individual rooms without the need to return to the master control panel.

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# 1. Apartment Heating and Cooling Controls





Apartment Heating and Cooling Control is achieved by a 6 button Room Display Unit (Main Control Panel) located in the Living Room area within your Apartment. This screen will allow the adjustment of temperature, mode and time scheduling for the Apartment.

This Control unit will be the Master controller, and it will be working alongside the Cooling Set Point Adjuster (located in the Master Bedroom) and the TRVs in the Bedroom Radiators to adjust the Cooling or the Heating in that Bedroom, respectively.



Bedroom Cooling Set Point Adjuster



Bedroom Radiator TRV

# <u>1.1 – Main Control Panel</u>



The Main Control Panel will be our point of reference for any of the other Heating/Cooling equipment within the apartment. It will allow us to select the mode (Heat, Cool, and Off) and the target temperature that we want to achieve in the Apartment (Set Point Temperature).

When the Heat mode is selected within the Main Control Panel, the whole Apartment will enter in heating mode, and the target temperature will be the one selected in the Unit. To adjust the other rooms temperature above or below the one selected in the Living Room, it needs to be adjusted via the Radiator TRVs (Please see section 1.3).

When Cooling mode is selected within the Main Control Panel, the whole Apartment will enter in cooling mode, and the target temperature will be the one selected in the Unit. To adjust the other rooms temperature above or below the one selected in the Living Room, it needs to be adjusted via the Cooling Set Point Adjuster in the Applicable bedrooms (Please see section 1.2).

# <u>1.2 – Bedroom Cooling Set Point Adjuster</u>

When the Cooling mode is selected, we will be able to vary the temperature in the bedrooms equipped with a Cooling Set Point Adjuster in relation with the temperature in the Main Control Panel.



The cooling adjustment will allow us to increase the bedroom set point in 3° C in relation to the temperature selected in the Main Control Panel when the adjuster is all the way to the +.

It will also allow us to decrease the temperature 3° C in relation to the Main Control Panel when the adjuster is all the way to the -.

This adjustment will be only applicable for the room where the Adjuster is located. In this way we can modify the temperature in the Main Control Panel and the temperature in the bedroom will be always kept above or below as we adjusted it.

**NOTE:** This Adjuster only works for the Cooling mode. If the Main Control Panel is in Heating or Off mode, the adjuster will not make any difference to the system.

# <u>1.4 – Bedroom Radiator TRVs</u>

When the Heating mode is selected, we will be able to vary the temperature in the bedrooms in relation with the temperature in the Main Control Panel.



The heating adjustment is achieved through the TRV located in the Radiators. This TRV is adjustable with 6 levels of intensity from 1 to 5, and a Final level called MAX.

That will allow the radiator to be at the same temperature than the Main Control Panel when in MAX position or lowered down if we need less heating in the room, selecting other levels.

This adjustment will be only applicable for the room where the TRV is located. In this way we can modify the temperature in the Main Control Panel and the temperature in the bedroom will be always kept below the temperature as we adjusted it.

**NOTE:** TRVs will only work when the Main Control Panel is in heating mode. If the Main Control Panel is in Cooling or Off mode no heating will be circulating to the radiators, so no need to change the TVR selection.

# 1.5 – Mode Adjustment

We can adjust the system mode in the Main Control Panel. Pressing the mode buttons on the right-hand side of the Unit will cycle through the available mode selections.

The mode will be transmitted to all controllers within the apartment to prevent heating and cooling systems fighting. There are 4 Cooling modes, an OFF mode and a Heating Only mode. The available control modes are as follows:

MODE	DESCRIPTION
Cool Boost	Max Fan and cooling position until set point is achieved. Reverts
	back to <i>Cool — AUTO</i>
Cool Medium	Auto control of cooling valve - fixed medium fan speed
Cool Night	Auto control of cooling valve - fixed low fan speed
Cool Auto	Auto control of both cooling valve and fan speed
OFF	System Off – No heating or cooling active
HEAT ONLY	Apartment Heating operational via set point in the Main Control
	Panel.

# <u> 1.5.1 - COOLING MODES:</u>

The Cooling mode for the whole apartment is dictated by the Main Control Panel (RDU). When a cooling mode is selected the heating mode will be disabled for the whole apartment.

The fan speed and cooling mode selected in the Main Control Panel is transmitted to all the Cooling Units in the Apartment (Fan Coil Units).

<u>AUTO</u>: The fan and cooling valves are modulated when the actual temperature is above the selected. The fan will be disabled once the space temperature is satisfied.

<u>NIGHT</u>: Operates as a low fan speed. The fan will continue to run at the selected speed until the mode is manually changed within the Main Control Panel.

<u>MEDIUM</u>: Operates as a medium fan speed. The fan will continue to run at the selected speed until the mode is manually changed within the Main Control Panel.

<u>BOOST</u>: The apartment cooling is placed in a Boost condition with the Fan Speed Control and the Cooling Valve being held in a maximum position. The Fan and Valve control will be disabled once the temperature set point is achieved and the apartment control will revert back to Cool Auto mode to prevent over-cooling of the property.

When the space temperature is satisfied in AUTO, NIGHT and MED control modes, the cooling values are fully closed and the fan operation will depend on the cool mode selected.

The Master Set Point in the Main Control Panel can be offset within the bedrooms provided with Set Point Adjuster by -3/+3 °C.

# <u>1.5.2 – HEAT ONLY MODE:</u>

The Heating mode for the whole apartment is dictated by the Main Control Panel (RDU), the slave controllers (TRVs) will not dictate when heating is called for. When heating mode is selected, no fan or cooling options will be available for the whole apartment.

The set point selected on the RDU within the main area is common to the whole apartment during the heating mode. If the room temperature is below the set point, the heating is activated to the whole apartment.

Once the room temperature reaches the set point, the controller disables the HIU heating output, and the Controller will wait to a room temperature decrease before activating it again.

The Heating output within the bedrooms can be adjusted via the TRVs located in the Radiators.

# <u> 1.5.3 – OFF MODE:</u>

When OFF is selected on the Main Control Panel (RDU) or during an unoccupied period, no heating or cooling takes place. However, if the internal temperature within the master space falls to the frost limit setting (e.g. 10° C), the RDU will enable the heating cycle to maintain the frost protection temperature set point.

# <u>1.6 – Temperature Adjustment</u>

We can adjust the temperature in the Main Control Panel. Pressing the up & down temperature buttons on the left-hand side of the Unit will select the desired settings between -5 (coldest) and +5 (warmest).

Set Point 0.0 is  $21^{\circ}$  C, so the Temperature selection will allow us to select between  $26^{\circ}$  C (+5 setting) or  $16^{\circ}$  C (-5 setting).

Pressing the up arrow on the left hand side of the Room display unit will increase the temperature setting in 0.5 increments.

Pressing the down arrow on the left hand side of the Room display unit will decrease the temperature setting in 0.5 increments.

<u>Cooling Mode Only</u>: The bedroom Cooling Set Point adjuster can be used to adjust the bedroom set point during cooling modes (if installed). Please see Section 1.3 for more details.

<u>Heating Mode Only</u>: The bedroom TRVs within the Radiators can be used to adjust the bedroom heating output for that Radiator. Please see Section 1.4 for more details.

**NOTE:** Please remember the temperature achievement depends on the mode selected. If the system is not in heating mode, selecting +5 will not switch heating mode on. The same if we have heating mode and we select -5, heating will remain active, but it will switch off the heating output when set point is reached (at  $21^{\circ}$ C on -5 setting).

# <u>1.7 – TIME SCHEDULING</u>

The Heating and Cooling system can be operated in 2 configurations:

- Time Schedules
- Manual Mode (or Override mode)

The Apartment Heating & Cooling system is designed to operate around a programmed time schedule to be entered into the controller, however the system also allows to be operated in a Manual Mode.

To enter the time scheduling mode, press the Time schedule button on the bottom left button of the Apartment Master Room Display Unit. The following menu will appear:

Scheduling					
1	Set Date and Time				
2	On / Off Schedule				
3	System Off	No			
4	Return to Previous				

#### 1.7.1 – Set Time and Date

With **Set Date and Time** line selected (the number will appear with a black background), press the mode button to enter the Set Date and Time menu.

Scheduling		Set Date and Time		е	
1	Set Date and Time		1	Date	25/02/19
2	On / Off Schedule		2	Time	14:46
3 System Off No		3	Return to Pr	evious	
4	Return to Previous				

To change the date and time use the temperature up and down arrows on the left-hand side of the Main Control Panel (RDU) to highlight the figure to change. Once highlighted, use the right-hand side mode buttons to adjust the figures to the required numbers.

Once the desired settings have been made, scroll down the menu with the left-hand temperature buttons, highlight **Return to Previous** and press a mode button.

#### 1.7.2 – On / Off Schedule

**On / Off Schedule** is where the ON and OFF times of the heating / cooling are set. To set a time schedule enter the Scheduling screen by highlighting **On / Off Schedule** in the above Scheduling Menu and the following menu will appear. Use the left buttons to highlight line 1 **Weekly Schedule** and then press a mode button on the right.

Sche	eduling		On / Off Schedule	
1	Set Date and Time		1	Weekly Schedule
2	On / Off Schedule		2	Holidays
3	System Off	No	3	Return to Previous
4	Return to Previous			

The following menu with the **Weekly Schedule** day list will be displayed.

Weekly Schedule			
1	Monday		
2	Tuesday		
3	Wednesday		
4	Thursday		
5	Friday		
6	Saturday		
7	Sunday		
8	Return to Previous		

In the **Weekly Scheduling** menu use the temperature adjust buttons on the left side of the Room Display Unit to scroll through to the day required. With the day required highlighted, press a mode button on the right-hand side of the Room Display Unit.

The following corresponding day menu with setting options will appear (example shows Monday is selected)

Monday					
1	Copy from	None			
2	Add Entry				
3	ClearAll				
4	Return to Previous				

#### Copy From

This allows you to copy existing day schedules to the day that has been selected. Highlight line 1 **Copy from** then use the mode buttons on the right-hand side of the Room Display Unit to select the option. The following menu with setting options will appear.

Monday					
1	Copy from	Sunday			
2	Confirm Copy				
3	Return to Previous				

With the left-hand temperature buttons highlight line 1 Copy From then with the righthand mode buttons scroll through the days until the desired day is shown. With the lefthand temperature buttons now select **Confirm Copy** then press one of the mode buttons to confirm. This action copies all the time schedules from one day to another and is useful if the time schedules are the same for each day of the week. Using this feature, you can set all the time events for one day then copy the time schedule to the respective days that are the same.

Once **Copy From** and **Confirm Copy** actions are complete, with the Room Display Unit left hand buttons select **Return to Previous** to continue the entry of time schedules.

#### • Add Entry

This allows you to add a time schedule. In the selected Day menu select line 2 Add **Entry** and press the mode button to view the **Edit Event** menu. In this menu the below setting options will appear (example shows Monday is selected).

Mon	onday Edit Event		Event		
1	Copy from	None	1	Time	00:00
2	Add Entry		2	Value	Off
3	ClearAll		3	Temperature	0.0°C
4	Return to Previous		4	Delete and Return	
			5	Confirm and Return	

To set an ON time in the **Edit Event** menu, select line 1 and use the temperature up and down arrows on the left-hand side of the Room Display Unit to highlight the **Time** digit you want to change. Once highlighted, use the right-hand side mode buttons to adjust the time (hours then minutes).

Once the time is entered, using the left-hand side buttons scroll and highlight line 2 Value. With the mode buttons enter the desired control mode for the ON period (Heat or Cool\*). Once entered, use the temperature adjust buttons to scroll to line 3 Temperature and select the ON Temperature profile required for that period (-5 to +5). Once the temperature has been set scroll to line 5 Confirm and Return now press the mode buttons to save the entry made.

After the ON period is set and confirmed you can now set an OFF time. Use the left temperature buttons to scroll back to line 1 **Time** and highlight the time digit to be changed. Once highlighted, use the right-hand side mode buttons to adjust the time (hours then minutes).

Once the time is entered, using the left-hand side buttons scroll and highlight line 2 Value. Now with the mode buttons enter **OFF** (which is the end of the programmed ON period). Once entered use the temperature adjust buttons to scroll to line 4 **Confirm and Return** now press the mode buttons to save the entry made.

A programmed ON and OFF period has now been completed and saved. You can enter up to 6 x On/Off events for each day of the week.

**Note:** If a day schedule is set and is to be repeated on other days, use the Copy From feature which saves time programming every day.

Once all event schedules for the day have been added, select **Confirm and Return** to exit this menu.

\*When cool is selected as the time ON mode, the control mode set for the whole apartment will be Cool – AUTO

To delete a time scheduled entry:

- Select the day required in the Weekly menu
- Select the time event in the **Day** menu
- Select **Delete and Return** in the **Edit Event** menu and press the mode button.

• To delete an On/Off cycle then you need to delete the Occupied and Un-Occupied events.

• Clear All

To delete the time schedules for a whole day:

- Select the day required in the Weekly menu
- Select line 5\* Clear All
- Press the mode button to clear all time events for the selected day.

This allows you to copy existing day schedules to the day that has been selected. Highlight line 1 **Copy from** then use the mode buttons on the right-hand side of the Room Display Unit to select the option. The following menu with setting options will appear.

Mon	day	
1	Copy from	None
2	04:00	Heat
3	10:00	Off
4	Add Entry	
5	Clear All	

\*The line where is Clear All depends on the number of On/Off Schedules already created. In the example above there is one schedule on (Heat mode) and one off.

#### 1.7.3 – On / Off Schedule – Holiday Mode

Holiday mode allows you to set specific date ranges that you do not wish the controller to follow the time schedules that have been set.

In the main Scheduling menu select On / Off Schedule and the following menu appears

Sche	duling	On/Off Schedule	
1	Set Date and Time	1	Weekly Schedule
2	On / Off Schedule	2	Holidays
3	System Off No	3	Return to Previous
4	Return to Previous		

With the left-hand temperature buttons select line 2 **Holidays** and press a mode button. The following menu is displayed. Select **Add Holiday** 

Holidays		
1	Add Holiday	
2	Return to Previous	

Add Holiday		Edit	Date	
1	Edit Date	1	Start	01/06/18
2	Edit Schedule	2	End	10/06/18
3	Delete and Return	3	Confirm and Return	
4	Confirm and Return			

Select **Edit Date** using the mode buttons. In **Edit Date** you can set your **start** date and **end** date of the holiday period for when you wish the controllers to operate in Holiday Mode.

Once the holiday period has been set for the specific date range, select **Confirm and Return** then use the mode button on the right-hand side of the Room Display Unit to confirm. An overview of the new holiday will be viewed. From here you can add more schedules, clear schedules or return to previous.

01/06/18 – 10/06/18				
1	Start	01/06/18		
2	End	10/06/18		
3 Confirm and Return				

#### 1.7.4 – System Off

**System Off** option gives you the option of a quick override off of the time schedule until the System Off is cancelled.

To enabled System Off, highlight **System Off** using the left-hand side buttons on the Room Display Unit and toggle System Off between **Yes** and **No** using the right-hand side mode buttons on the Room Display Unit. When **Yes** is selected the apartment will ignore all time schedules and the control will control to an OFF mode.

Scheduling			
1	Set Date and Time		
2	On / Off Schedule		
3	System Off	No	
4	Return to Previous		

During the System Off:

- All time scheduling is ignored, and controller will remain off until the System Off is cancelled
- 'System Off' will be displayed on the RDU screen
- The Controller will operate to the Low & High Limit fabric protection settings
- Temperature adjust buttons, mode select buttons and O/R button will be disabled on the Room Display Unit. Time schedule button will remain active
- Press mode up and down button to cycle between System Off Yes / No

#### 1.7.5 – Override Mode

During the time schedule, the system will be in On or Off mode.

In order to change the settings, like in Manual Mode press the Override button in the bottom-left side of the Screen.

**NOTE**: Override function will allow to override the settings from the schedule during the time that the schedule lasts. Once the next On/Off Schedule starts, it will start with the settings of that schedule.

# 2. Apartment Hot Water



# 2.1 – Evinox Energy – 'ModuSat' Heat Interface Unit

The Heat Interface Unit (HIU) generates hot water for domestic use, as well as the apartment heating system. Whilst the controlling of heating services is managed by the heating & cooling control panel (Refer to section 1.0), the following features are included as part of your heat interface unit.



#### Pressure Gauge

Indicates the HIU's current working pressure.



#### Heat Meter

Indicates the HIU's current heat output. (For billing purposes)

NOTE: Please note that the Meter Readings can be seen also in the ViewSmart located at the bottom left side of the HIU (Refer to section

# 2.2 - HIU Checks – System Pressure

In order to maintain the correct working pressure within your HIU Unit, the home owner should check the reading on the Pressure Gauge dial (manometer) displayed on the unit. Failure to maintain this correct idling and working pressure could result in your HIU Unit not preforming to its manufacturing standards and suffering permanent damage.

This Pressure Gauge dial is located on the bottom right hand corner of the unit. (Please see figure 3.1).

- The correct system gauge idling pressure reading when cool, should be between 1bar and 1.5bar.
- The correct system gauge working position when the system is Hot, should be maintained between 1.5bar 2 bar.



Figure 3.1 (HIU & Pressure Gauge)

# 2.3 – HIU Checks – Pressure Parameters

Your HIU unit must be set to the correct pressure limit to achieve its optimum working output. Large fluctuations in pressure are normally a result of abnormal system water levels.

- When the heating system is cool, the pressure should be between 1 and 1.5 bar on the pressure gauge.
- If pressure is below 0.5 bar, water has been lost from the system and must be replaced. (Note: The gauge could also indicate the pressure being too high approximately 2.5 bar or more).
- If the pressure gauge indicates high pressure as a result of over filling, you will need to bleed a radiator until the pressure gauge returns between 1 and 1.5 bar. (Please see section on: *Decreasing the Pressure of Your Unit*).

If the pressure (bar) values go below the optimum working pressure you can increase the pressure of the system by use of a bypass loop, connected at the top of the HIU unit.

# 2.4 – HIU Procedure – Increase Pressure

**<u>PLEASE NOTE</u>**: Only carry out the following steps if you are fully trained to do so and have obtained the relevant permit to work:

- Step 1. Please ensure you use the correct PPE (Personal Protective Equipment):
  - Safety glasses
  - Appropriate hot works gloves
  - Additional safety equipment where applicable
- Step 2. Please use a safe raised working platform and do not stand, kneel or ever use the HIU cupboard shelf as a working platform.
- Step 3. Above the HIU unit there is a Valve Kit installed (Please see figure 3.2). There are multiple accessible Valves serving the unit. Locate the fill & drain valves and make sure they are closed, i.e. in the anticlockwise position.

Step 4. Unscrew and remove the caps on valves (A) and (B) by turning them in an anticlockwise direction.



Figure 3.2 - The view above your HIU unit. Closed valves (A) and (B) with caps screwed on



Turn the cap anticlockwise to loosen and remove it



Removed pipe caps are now hanging from the valves

Step 5. Connect the filling loop provided by screwing both ends on to valves (A) and (B).



Attaching the loop to the first pipe end



Attaching the loop to the second pipe end

Step 6. When you have fitted the filling loop and it has been fixed into position, it should resemble the picture below.



- Step 7. Once you have the filling loop connected:
  - 7.1 Open valve (B), the right-hand side valve, first
  - <u>7.2</u> Once you have the valve fully in its open position, begin to open valve (A), the left-hand side valve, in a slow, anticlockwise motion.
  - <u>7.3</u> You will hear water begin to transfer between the pipe and HIU system via the filling loop.
  - <u>7.4</u> You will need to keep a close watch on the pressure gauge as the pressure begins to rise.
  - <u>7.5</u> When the pressure reaches 1.5bar, close the left and right valves simultaneously. Unscrew the filling loop and return the valve caps to their original position. Store the filling loop safely its original position to ensure it is ready for future use.

# 2.5 – HIU Procedure – Decrease Pressure

If pressure rises by more than 1 bar when the heating is up to temperature, then the expansion vessel may require re-pressurising. This will require a service engineer. The pressure in the system will usually require topping up once or twice a year. If you are having to re-pressurise your heating system much more frequently, please contact your installer.

- Step 1. In order to get your unit at the optimum pressure, you can decrease the pressure of the HIU system by removing some water/air from the systems radiator.
- Step 2. You need to position a bucket below the valve of the radiator (Note: Please use a suitable cloth for any unexpected spillages).
- Step 3. Position the bucket under the valve where the pressure valve key is positioned.
- Step 4. Using the pressure release radiator key, slowly turn the key anticlockwise to release the water into the bucket, until you see the water flowing and the air being released.
- Step 5. You will then need to carefully control the flow of the water by turning the radiator key, which will in-turn release the pressure from the HIU unit.
- Step 6. When the pressure is at its optimum cold idling pressure level (1.5 bar), you can turn the radiator key in a clockwise rotation until the valve closes, which will end the process.



# <u>2.6 – Heat Meter</u>

A Heat Meter is located in the front of the HIU Case, also a smart controller (Evinox Viewsmart) is located at the bottom left of the HIU that displays the Heating and Cooling Meter Readings.

Evinox			
Smar	t Meter	12:43 04-03-	2019
Meter CO2 E Heatir Date/	Readings mission 9g Time		
* → J	PROG	- *	• 🔘
Home (Also press to access main menu from Home screen)	Left & Right (Scroll Buttons: For Menu or Item in Page)	Minus & Plus (Buttons: Use to Change Values & Scroll through menus)	Enter (Use to Save Settings. Also a Shortcut to Info Menu from Home Screen)

In order to get the screen illuminated press the Home Button and the Home menu will appear.

Smart Meter	12:43 04-03-2019
Meter Readings CO2 Emission	
Heating Date (Time	
Daternine	

We can move up and down in the Main Page using the Minus and Plus buttons and moving along the menus using the left and right buttons.

#### 2.5.1 – Meter Readings

From the Home menu, press Right button to enter the Meter Readings Menu.

Meter Readings	12:37 04-03-2019
Heating	247 kWh
Cooling	111 kWh
Water Meter 1	0 m3
Water Meter 2	0 m3
	N

The window will show the Heating and Cooling Readings.

**Note:** Heating Reading will be equal to the reading shown on the heat meter.

#### 2.5.2 – CO2 Emission

From the Home menu, move down until CO2 Emission line is selected and press Right button to enter the CO2 Emission Menu.

CO2 Emission	12:37 04-03-2019
CO2 Heating	0 KgCO2
Inst Power Heating	0.000 kw

#### 2.5.3 – Heating

From the Home menu, move down until Heating line is selected and press Right button to enter the Heating Menu.

Smart Meter Heating	12:38 04-03-2019
Energy Last 7 Days Energy Last Week Energy Last 12 Months Energy Costs This Year	<b></b> 1

An array of selections will show the different energy consumptions for the last 7 days, the last week or the last year, as well as the costs for the actual year.

• Last 7 Days: A Graph with the heating consumption in the last 7 days will show, with a consumption comparison between days.



• Last Week: A Graph will show with the comparison between previous week and the current week.



• Last 12 Months: A Graph will show with the comparison between months.



• Energy Cost: A list of energy cost by month will show.

Heating Costs This Year	12:41 04-03-2019
January	0.0000
February	0.0000
March	0.0000
April	0.0000
May	0.0000 🔻

#### 2.5.4 – Date / Time

From the Home menu, move down until Date / Time line is selected and press Right button to enter the Date / Time Menu.

04-03-2019 Monday
12:39

To change the date/Time, move with left/right buttons to select the digit to be changed and press up and down buttons to adjust.

Once is changed, press the Enter Button to save.

**Technical Support** 

#### **Contact details**

For more information on how to operate your Heating and Hot Water please call technical support on:

01372 722 227 (Mon – Thurs 8am – 5pm & Fri 9am – 4pm)

08714 235 446 (Out of hours cover helpline)

# 3. Fan Coil Units



Fan Coil Units (FCU) are sophisticated installations which have multiple fans and distribution points. A filter malfunction will greatly reduce the efficiency of a unit and can also lead to increased noise output.



3.1 - Fan Coil Unit Schematic (NOTE: Not to scale)

The Fan Coil Units are located within the Ceiling Void in the Bathroom. There is a small access panel to access the FCU for maintenance purposes.

# <u>3.1 – Fan Coil Unit Maintenance</u>

This section of the manual deals with the requirements for service and maintenance of the equipment. It is essential that the following instructions be carried out to obtain long life from the unit.

**WARNING:** It is essential that before any work or maintenance is carried out, the unit must be isolated manually from the electrical supply. Please make sure the Main Control Panel is not in Cooling mode and the FCU isolator is switched off in the Consumer Unit.



# 3.1.1 – 6 Monthly Check

The FCU needs to obtain a 6-month maintenance check from a qualified technician where the following equipment is checked:

- Electric Motors
- Coil

# 3.1.2 – Yearly Check

The FCU needs to obtain a yearly maintenance check from a qualified technician where the following equipment is checked:

- Fan Impeller
- Casing Internal surfaces
- Access Panels
- Screw and Fixings
- Wiring Terminations & Condition
- Case external surfaces

# 3.1.3 – Air Filter Maintenance

Filters must be properly maintained in order to ensure proper air cleaning efficiency. Dirty filters will reduce the air volume handled by the unit thus adversely affecting its performance.

The length of time between cleaning of filters is dependent upon the condition of the air. A nine-week cycle is recommended; however, a more frequent servicing may be required in some cases.

To clean the filter, find the access panel located in the Bathroom ceiling and open it with a square key.



**NOTE**: Please bear in mid the door unlocks upon turning the key, one of the hands must be holding the panel to avoid hitting in our head.



The filter will be in one side of the FCU. With the help of a step ladder locate the FCU filter and prepare the hoover to clean it (you may need an extension for the hoover to reach all the surface of the filter).



Once you can get a better angle, you can clean the filter by hoovering the surface.



Gently tapping and removing loose dust with a vacuum cleaner can clean synthetic filament pad filters.

Filters are suitable for washing in warm water with a mild detergent, rinse with clean water and allow to dry prior to re-fitting into unit. In order to take the filter out, we need to release the screws on each side that hold it in place.

**NOTE:** We don't need to take the filter out for cleaning, it involved a difficult task to remove and place back the filter.

The operational life expectancy before cleaning or changing the filter is dependent upon the condition of the air being treated and the specific unit volumetric performance.

# 4. Home Air Circulation Fan (MEV)



#### **Run Timer**

The Home Air Circulation Fan Unit continuously runs a mechanical extract fan within each area of this apartment. Switching on the bathroom light will in-turn, turn on the light and also the Boost extract fan in the bathroom area. The boost extract fan will remain on as long as the bathroom light is turned on. On switching the bathroom light switch into the off position, the boost extract fan will remain active for an additional set time of 15 minutes and after this period turn into its off position.

In addition, there is a boost switch located within the Utility Cupboard. In boost mode the fan will extract an increased volume of air from the bathroom/s and kitchen area.

#### *Important:* Unit must not be switched off, product is designed to run continuously.

#### **Routine Maintenance**

All ventilation units require periodic maintenance. Routine maintenance must only be carried out by a suitably qualified and competent person. The CME2 Q Plus must be periodically cleaned internally. The maximum time between cleaning will depend on the local environment. Titon recommend the unit be cleaned every 3 – 4 years at a minimum.

In the event of any queries please contact the system installer. WARNING: The unit uses a 230V ~ supply and contains rotating mechanical parts. ISOLATE the unit from mains power supply and allow sufficient time for all moving parts to stop before undergoing any Servicing or Maintenance.

#### **Cleaning Exterior**

For best results use a clean cloth and warm water with a mild detergent solution. Do not use solvents or abrasive cleaners.

#### **Cleaning Interior**

For best results use a clean damp cloth and mild detergent. Do not use solvents or abrasive cleaners. When cleaning the interior ensure that the humidity sensor does not get wet, dust with a dry cloth.

# Cleaning Procedure for Your Air Circulating Fan

- Step 1. Please use the correct PPE (Personal protective equipment):
  - i. Safety glasses
  - ii. Appropriate hot work gloves
- Step 2. Please use a safe raised working platform and do not stand, kneel or ever use theHIU cupboards shelf as a working platform.
- Step 3. Turn off isolator switch located in the fuse box prior to commencing work (Please see figure 2.1).



# Fuse box (Figure 2.1)

Step 4. Remove the stopper from the Air Circulating Fan cupboard door (Please see figure 2.2).



Air Circulating Fan Cupboard Door (Figure 2.2)

## Access to The Interior for Cleaning

To gain access to the interior of the unit for cleaning –

- 1. Unscrew the 3 retaining screws that hold on the Cover and remove
- Remove the 4 Scroll retaining screws.
- Using a flat bladed screw driver, un-clip Scroll from Inlet Ring by disengaging the 3 retaining clips. Ensure that the Scroll is supported and does not strain the cables.







- 4. Remove the 3 retaining screws
- Using a flat bladed screwdriver, un-clip the Inlet Ring from Base by disengaging the 4 retaining clips.
- 6. Carefully remove dust from the unit and fan blades using a vacuum cleaner.
- Wipe with damp cloth and mild detergent.
- 8. Check fixing screws.
- 9. Assembly is the reverse of the preceding instructions.
- 10. Ensure all fasteners are secure before returning power to the unit.

# Tighten screws by hand, DO NOT over tighten screws or use power tools.







Positions of Clips

#### Warranty

The 3-year warranty starts from the day of delivery and includes parts and labour for the first year. The remaining period covers replacement parts only. This warranty is conditional on planned maintenance being undertaken.

**Technical Support** 

#### **Contact Details**

For more information on how to operate your Home Air Circulating Fan please call technical support on: **01206 713800** 

# 5. Apartments Lamp

# **Product Description**

The lighting installed in your apartment is an Orlight illumination light fitting. The fitting consists of a Die-Cast Aluminium fixture with anti-glare baffle including replaceable GU10 LED Engine. The units housing comprises of a simple magnetic lamp change mechanism for ease of maintenance. There is an Orlight black light effect for visual comfort. The unit features the latest in Sharp generation – 5W chipset ~ 3000K.

# Light Fixture Components

**Orlight Product** 



Orlight Lamp: GU10 240V 50W max

# How to Change Your Lamp

# Note: Safety First

- Please use the correct PPE (Personal protective equipment):
  - Safety glasses
  - Appropriate hot work gloves
- Please use a safe raised working platform and do not stand, kneel or ever use the HIU cupboards shelf as a working platform.

# Step 1. Turn Off Power

Make sure the power to the lights within your apartment are turned off. The safest way to ensure the power is off before you change a light bulb is to isolate or knock the power off at the source. Turn off isolator switch located in the fuse box prior to commencing work, by flicking the switch, on the breaker/fuse box, within the heating cupboard to its off position (Please see figure 3.1).



Fuse box (Figure 3.1)

#### Step 2. Let It Cool Down

Allow enough time for the lamp to cool down if necessary, before attempting to touch and separate the housing or to change the bulb.



# Step 3. Separate the Light Housings

Using your index finger and thump, gently separate the magnetic inner fitting (ceiling light housing) from the downlight (lamp housing) by pulling it in a downward motion. This will release the magnetic mechanism within the housing and separate the housings of the light fitting (ceiling housing from the lamp housing). Continue this motion of moving the two housings away from each other and allow the cable to extend through the lights ceiling housing in your apartment. Please follow Steps Figure 4(a), (b), (c) and (d) below.



Step 4(a)



Step 4(b)



Step 4(c)



Step 4(d)

#### Step 4. Remove the Lamp

- Holding the lamp housing in one hand and the spring (Please see figure 5a), which holds the lampholder in place, in your other hand, gently remove the spring from the lampholder. Repeat this process on the second lampholder spring (Please see figure 5b).
- Separate the lamp and lampholder from the downlight (lamp housing).
- Hold lampholder with a firm grip and simultaneously clasping the lamp in a light but firm grip, turn the bulb in an anticlockwise quarter turn, to release the lamp from the lampholder fitting.



Step 5(a)



Step 5(b)



Step 5(c)



Step 5(d)

#### Step 5. Replace Lamp

- 1. With a new lamp in hand, insert the replacement lamp into the lampholder. Turn the bulb in a clockwise quarter turn.
- 2. Replace the lamp and lampholder into the downlight (lamp housing).
- 3. Holding the lamp housing in one hand and the spring, which holds the lampholder in place, in your other hand, gently replace the spring into the lampholder fitting. Repeat this process on the second lampholder spring.
- 4. Now you can begin to move the inner fitting (lamp housing) into the downlight fitting (ceiling light housing). As you move these two fixtures together, guide the electrical wire into the ceiling crevice. Once the two fixtures touch, they should hold together in a fixed position magnetically.

#### Step 6. Turn on Power

Now that the new lamp has been fitted and you feel as though you have safely carried out the replacement procedure, it is now time to turn back on the power. To recirculate power to the apartment lights, flick the switch, on the breaker/fuse box, within the heating cupboard to it's on position (please refer to figure 1. below).

#### Step 7. Disposal

After fitting the new lamp, it is now necessary to dispose of the old lamp. This needs to be done in a safe manner, as the old bulbs glass may be fragile and very sharp. One approach to this is to wrap the old lamp in the packaging of the newly fitted lamp.

#### Lamp Safety

Safety is critical when working with faults related to electrical or wiring issues. Remember to always check the following:

- 1. The wattage on the old used bulb and replace it with a new lamp of the same wattage.
- 2. Keep your fingers away from live electrical wires and do not put your fingers in the exposed light socket.
- 3. In the interest of health and safety, dispose of the light lamp well out of the reach of children.

# 6. Door Entry Phone

# **Product Description**

The door phone control system within your apartment (Urmet Signo video monitor 1740/795) The video door phone SIGNO is designed to have a minimal extra-slim style. In fact, it is the slimmest on the market. Colour version with a 4" display. In addition to the door lock release button, SIGNO is equipped with 3 auxiliary buttons which can be programmed by the system. Features for the hard of hearing are embedded in the device

# SIGNO DOOR PHONE FOR IPERVOICE



- 1. door lock release button
- 2. auxiliary buttons
- 3. colour adjustment command
- 4. brightness adjustment command
- 5. call volume command and adjustment

# **BUTTONS FUNCTION**

Button State	C-rr	•	•	••
Idle and on-hook	Pedestrian door lock release	Driveway door lock release	Auto-on	Scroll video-memory
Off-hook waiting time	Pedestrian door lock release	Driveway door lock release	Video switching	Special function
Speaking	Pedestrian door lock release	Driveway door lock release		Special function
Idle and off-hook	Pedestrian door lock release	Intercom call (default: not programmed)	Intercom call (default: switch board call)	Intercom call (default: not programmed)

# CHARACTERISTICS

The main video door phone characteristics are the following:

- 4" colour flat video module
- Call volume adjustment and mute function. When "Mute" function is active, the light on the front panel is red.



- With volume adjustment in "Mute" position, the video door phone does not emit the call ring tone, but the video module turns on.
- Door lock release button backlit by leds when the video module is turned on.
- Service buttons ( , , ) for additional functions: intercom calls, video door phone auto-on, video switching, etc.

# CALL RECEIVING AND VIDEO TRANSFER FUNCTION

When a call is received, the user apartment station rings with the programmed tone, according to the source:

- From main door unit
- From secondary door unit
- From Intercom
- From floor call
- From switchboard

When receiving a video door phone or door phone call, the door unit electric lock can always be activated, also without starting a conversation.

If in the apartment there are more apartment stations in parallel, the stations ring in sequence. If the call comes from a video door phone call station, the internal code with INT=0 of the user also switches the video door phone on.

In this case, during off-hook waiting time (60s starting from the call), the other internal codes can switch their video door phone on by pressing the auto-on button ('video transfer' function), until a video door phone of the called user answers.

If the image is already displayed, press the button to display cyclically the images coming from the surveillance cameras of the calling station only.

After picking up the handset or audio activation in case of hands-free stations, the image coming from the main camera will be displayed only on the apartment station which has answered.

So the image is always displayed on a single apartment station.

# AUTO-ON

If the apartment station is in standby mode, press the button on the video door phone to perform an auto-on function.

Press the button again to cyclically display the picture from the surveillance cameras installed in the main door units in the system and the secondary door units of the column to which the device belongs. By picking the handset up the user starts a conversation with the selected call station. With audio conversation active, the user can open the door at any time.

# INTERCOM CALLS

After programming an apartment station button for intercom function, activate audio by picking the handset up. Then press the intercom call button.

The following cases can occur, according to column state:

- Column free: the calling apartment station emits a confirmation tone (2 beep) and the called apartment station rings. When the user picks the handset up, the conversation can start.
- Column busy: the apartment station emits an alert tone (4 fast beeps). Hang up and try again later.

# FLOOR CALL

Apartment station is provided with two terminal pins (CP) used to connect the floor call button. If the button is pressed, the apartment station emits a 3s ring, according to the selected call ring tone. If the user has several apartment stations in parallel, <u>connect this button</u> <u>only to one apartment station</u>. However, apartment stations will ring in sequence.

# ADDITIONAL RINGER

Apartment stations are provided with two terminal pins (S+, S-) used to connect an additional ringer or a relay. This ringer is activated at the same time as any call ring tone.

# **OPTIONAL PROGRAMMING**

The following programming operations are needed after testing the basic operation of the system, only if are required.

# INTERCOM FUNCTION

In 2VOICE system, an apartment station button ( $\bullet$ ,  $\bullet$ ,  $\bullet$ ,  $\bullet$  or buttons 1÷6 on add-on buttons unit Ref. 1083/96) can be programmed to call another user of the same column or to call another internal code of the same apartment station. In the first case, all the internal codes of the called user will ring; in the second case, only the internal code specified in programming will ring.

# INTERCOM FUNCTION BETWEEN DIFFERENT USERS

- Go to the apartment station to be programmed as caller (apartment station A).
- Keeping the door lock release button pressed, pick the handset up. The apartment station A emits a beep to signal the access to programming mode.



Press the button to be programmed; the apartment station emits a confirmation tone.



 Go to the user to be called by that button (user B) and press the door lock release button. The apartment stations emit a beep to indicate that they have been programmed. Alternatively, go to a call station and press the call button of user B; the apartment station in programming mode (A) emits a beep to signal that it has been programmed. At the same time, user B apartment stations ring. Ignore this call.



- Hang up the handset of the apartment station A, that emits a beep to indicate the exit from the programming mode.
- Check the programmed function: pick up the handset A and press the programmed button. All user B stations ring; when answering, the communication is activated.
- If you want to program also the inverse call, it is necessary to program the apartment station B for the call to the apartment station A.

If buttons are programmed for this function, the other functions are not lost, because the intercom call is performed keeping the **handset picked up**.

# INTERCOM FUNCTION IN THE SAME APARTMENT

- Go to the apartment station to be programmed as caller (apartment station C1).
- Keeping the door lock release button pressed, pick the handset up. The apartment station C1 emits a beep to signal the access to button programming mode.



 Press the button to be programmed; the apartment station C1 emits a confirmation tone.



 Go to the apartment station to be called by that button (apartment station C2) and press the door lock release button. The apartment stations C1 and C2 emit a beep to indicate that they have been programmed.



- Hang up the handset of the apartment station C1, that emits a beep to indicate the exit from the programming mode.
- Check the programmed function: pick up the handset C1 and press the programmed button. The apartment station C2 ring; when answering, the communication is activated.
- If you want to program also the inverse call, it is necessary to program the apartment station C2 for the call to the apartment station C1.

If buttons are programmed for this function, the other features are not lost, because the intercom call is performed keeping the **handset picked up**.

# CALL RING TONE PROGRAMMING

In 2VOICE system each user can select the video door phone call ring tone and the floor call ring tone among the 5 available ones.

# DOOR PHONE CALL RING TONE

- By keeping the door lock release button pressed, press and release the button
- The apartment station emits a call ring tone.
- By keeping the door lock release button pressed, press again the button
  to change the call ring tone.
- When the call ring tone has been selected, release the door lock release button.
- The call ring tone is programmed.



The selected call ring tone is the same for all door phone calls. However, the call ring tone source can be identified thanks to the call ring tone timing. The selected call ring tone is the same for all door phone calls. However, the call ring tone source can be identified thanks to the call ring tone timing.

Call source	Time	Ring total duration
Main call station	3 s ON	3 s
Secondary call station	0,4 s ON 0,2 s OFF for 5 times	2,8 s
Intercom	0,5 s ON 0,5 s OFF for 3 times	2,5 s
Switchboard	0,1 s ON 0,05 s OFF for 3 times pause 0,2 s repeated for 5 times	2,8 s

# FLOOR CALL RING TONE

- By keeping the door lock release button pressed, press and release the button
- The door unit emits a ring with a ring tone.
- By keeping the door lock release button pressed, press again the button to change the call ring tone.
- When the call ring tone has been selected, release the door lock release button.
- The call ring tone is programmed.



# **PROGRAMMING DATA DELETING**

To delete all optional programming data (intercom call codes), perform the following operations:

- By keeping the door lock release button pressed, pick the handset up.
- Press at the same time the buttons and and keep them pressed for 3 seconds until a tone confirming the deletion is emitted.
- Release the buttons and <sup>•</sup> and hang the handset up.

The deleting procedure does not change the previously selected call ring tones.

Warning: when programmed data are deleted, also the column code will be deleted; it will be automatically acquired after about 5 minutes.

# 7. Shower Unit RM530WC+



#### Operation

- Step 1. Turn the Flow control handle away from you to increase the flow of water to the shower rose.
- Step 2. To divert the water to the handset press the button and turn the control handle towards you.
- Step 3. Return the control handle to the upright position with the button on top to turn off the flow of water.
- Step 4. Turn the Temperature control handle to increase/decrease the temperature.
- Step 5. Push down on the Override button and turn the handle towards you to override the set temperature
- Step 6. To change the set temperature, please see section next section on Temperature Setting.



# **Temperature Setting**

- Step 1. Removing the handle/cover unscrew (but do not remove) the hexagonal grub screw the underside of the handle/cover, pull off the handle/cover.
- Step 2. Rotate the exposed thermostatic spindle (clockwise for cold, and anti-clockwise for hot) until the maximum desired showering temperature is set (38°C suggested maximum "pre-set" temperature).
- Step 3. Then line up the button on the top of the handle/cover with the stop on the stop ring itself.
- Step 4. Push the handle/cover onto the splines, tighten the screw.
- Step 5. The thermostat is now set to its new temperature and can only be increased or decreased by repeating this process.



# Cleaning

## Taking Care of Your Shower Valve & Riser

We recommend cleaning the valve with a soft damp cloth. We strongly advise against the use of ALL cleaning products.



#### Shower Rose & Handset

Your shower rose and handset has rub clean nozzles for easy cleaning. Rub your fingers across the rubber nozzles to remove any scale or debris. If you live in a hard water area you might have to repeat this procedure regularly.

# Maintenance

**NOTE:** Before carrying out any maintenance please remember to turn OFF all mains water and turn ON the isolating valves.

#### **Thermostatic Cartridges**

The concealed thermostatic valve should give trouble free service, but in the event of failure, servicing is straight forward.

#### Procedure on How to Remove the Thermostatic Cartridge.

- Step 1. Remove the handle/cover see temperature setting.
- Step 2. Pull off the stop ring.
- Step 3. Using a hexagonal key undo and remove the screw on the underside of the valve (keep in a safe place) pull the valve out of the body, you can use the flats on the thermostatic cartridge to aid removal.
- Step 4. Wash the cartridge with clean running water and make sure that any trapped debris has been removed.
- Step 5. Dry and lightly grease the seals (only use silicone grease) and replace the cartridge making sure that the hole in the cartridge is lined up with the hole in the body, replace and tighten the hexagonal screw.
- Step 6. Replace the stop ring making sure that the stop is at the 12 o'clock position.
- Step 7. Push the control handle onto the splines, tighten the screw, refit the cover.



#### Filters

Turn off water supply to the valve and remove from the wall. Using a 29 wrench key undo the retaining nut within each of the inlets. Wash the filters with clean running water and replace.

#### Flow Control Cartridge

The Flow Control Cartridge uses ceramic discs which normally last indefinitely unless debris manages to get between them. Wash the cartridge with clean running water, dry and lightly grease the seal.

# **Trouble Shooting**

SYMPTOM	SOLUTION
After installation the shower runs HOT or COLD and will not mix.	Hot and cold supplies are plumbed the wrong way round.
Shower will not run hot enough when first installed.	Maximum temperature needs adjusting, see 'temperature setting'.
Cold water tracking through the valve into the hot water system.	Check and clean the filters.
Very low flow or no flow (gravity).	Check hot and cold feeds (the valve will shut down if either the hot or cold supply fails.

# 8. Bathroom Towel Radiator

