

THE DUMONT

ALBERT EMBANKMENT

USER MANUAL

TABLE OF CONTENTS

0. INTRODUCTION	1
1.0 APARTMENT VENTILATION, HEATING AND COOLING	3
1.1 VENTILATION SYSTEM.....	3
1.2 HEATING SYSTEM.....	6
1.3 COOLING SYSTEM	7
1.4 ELECTRICAL UNDERFLOOR HEATING	9
2.0 DOMESTIC HOT & COLD	10
2.1 HOT SUPPLY.....	10
2.2 COLD SUPPLY.....	10
2.3 ISOLATION	11
3.0 ELECTRICAL FIT OUT SPECIFICATION	12
3.1 Video Entry.....	12
3.2 Lighting Control (MK Aspect)	12
3.3 Heating and Cooling	13
3.4 Sockets (MK Aspect).....	13
3.5 Satellite System.....	14
3.6 5A lighting /feature	14
3.7 Apartment Electrical Lighting.....	15
4.0 OPERATIONAL GUIDE.....	16
4.1 Changing Light Bulbs.....	16
4.2 Towel Rail & Return pump Timeguard (WHERE applicable).....	18
4.2.1 BATTERY	19
4.2.2 SETTING THE CLOCK.....	19
4.2.3 MODIFYING THE TIME & DATE OF DAY	20
4.2.4 PROGRAMMING ON/OFF TIMES.....	20
4.2.5 PROGRAMMING ACROSS MIDNIGHT.....	22
4.2.6 MODIFYING OR ADDING PROGRAMMES.....	22
4.2.7 BOOST	22
4.3 Switch and Sockets operability.....	23
4.4 MVHR Operational guide	23
4.4.1 Filter and Routine Maintenance	24
4.4.2 Filter Maintenance.....	24
4.4.3 Routine Maintenance	25
4.4.4 Technical Support	25

4.5 FCU Operational and Maintenance	25
4.5.1 Filter and Routine Maintenance	26
4.6 FCU & UFH Operability (HVAC).....	27
4.6.1 Controlling the HVAC system:.....	28
4.7 Door Entry Operation.....	29
4.7.1 MONITOR DISCRIPTION	29
4.8 Electrical UFH Operability.....	30
5.0 FIRE SUPPRESSION	31
ANNEX.....	33
Annex A (Comelit Door entry User Manual)	33
Annex B (Ability FCU O&M)	33
Annex C (Titan FCU & RDU Guide)	33
Annex D (Fire suppression Guide).....	33

0. INTRODUCTION

CILANTRO ENGINEERING UK LTD IS RESPONSIBLE FOR ALL MEP (MECHANICAL, ELECTRICAL & PLUMBING) SERVICES WITHIN THE APARTMENT. ALL SERVICES ARE INSTALLED TO THE SPECIFICATION SET BY TUV SUD AND MEETS ALL THE CRITERIA REQUIRED BY ST. JAMES. THE CONTROLS WITHIN THE APARTMENTS ARE ALL SET AND COMMISSIONED TO ALLOW FOR OPTIMAL COMFORT AND FUNCTIONALITY OF THE SYSTEMS WITHIN THE APARTMENTS.

1.0 APARTMENT VENTILATION, HEATING AND COOLING

THE MAIN EQUIPMENT FOR YOUR HEATING AND VENTILATION IS IN YOUR UTILITY CUPBOARD WITH YOUR WASHER AND DRYER AND COOLING EQUIPMENT IS WITHIN THE CEILING VOID.

THE APARTMENTS HAVE A HEAT RECOVERY **VENTILATION** SYSTEM INSTALLED THAT EXTRACTS AIR FROM THE BATHROOMS AND KITCHEN AREA AND RECYCLES THE HEAT TO SUPPLY FRESH AIR TO THE LIVING ROOM AND BEDROOMS. THIS VENTILATION IS ALWAYS ON TO ENSURE THAT THE APARTMENT IS ALWAYS VENTILATED. THE HEAT RECOVERY IN THE UNIT AND THE HIGH-PERFORMANCE WALLS AND WINDOWS MEAN THAT VERY LITTLE HEATING IS NEEDED IN THE APARTMENT.

HEATING IN THE APARTMENT IS PROVIDED THROUGH A HEAT INTERFACE UNIT THAT EXCHANGES HEAT WITH THE BUILDING NETWORK. THIS UNIT SEPARATES YOUR APARTMENT FROM THE NETWORK WITH HEAT EXCHANGERS AND PROVIDES A HEATING CIRCUIT AND A HOT WATER SUPPLY. HEATING IS PROVIDED BY UNDERFLOOR HEATING IN BEDROOMS AND LIVING SPACES AND ELECTRICAL UNDERFLOOR HEATERS ARE INSTALLED IN THE BATHROOMS ALONG WITH ELECTRICAL TOWEL RAIL.

THE APARTMENT **COOLING** IS ACHIEVED BY FAN COIL UNITS (FCU) LOCATED IN THE CEILING VOID. THESE UNITS WILL PROVIDE COOLING BY DRAWING AIR IN A SPACE THROUGH A FAN INTO THE UNIT, THAT IS THEN BLOWN OVER A COOLING COIL AND RETURNED BACK TO THE SPACE OR ROOM.

NOTE: COOLING IN THE APARTMENTS IS COMFORT COOLING, NOT AIR CONDITIONING.

1.1 VENTILATION SYSTEM

Note: It is strongly recommended to read the Operational Guide for this chapter.

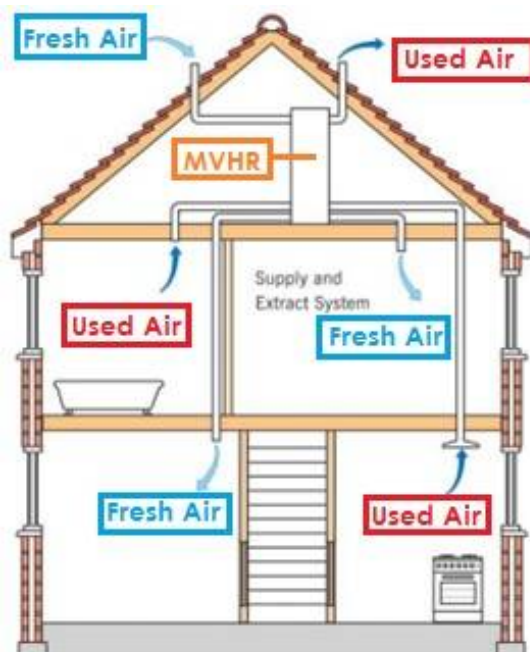


Figure 1 Ventilation Schematic

- ✓ MVHR supplies & extracts air continuously at a low rate with boost facility to extract pollutants and supply fresh outdoor air at a higher rate as required
- ✓ Can be controlled either; - Manually via single or multiple switches - Automatically, typically via humidity or other sensors These should be clearly marked and located in an accessible location in or near the wet rooms - Normally the MVHR unit is sited remotely in a loft space or cupboard and ducted via rigid duct to outside air using the most economical route
- ✓ Replacement tempered air is introduced into bedrooms and living areas by the system, therefore background ventilators in windows are not required

Cilantro has installed a Nuair MVHR Ventilation Unit in the Apartments, Located in the Utility Cupboard.

The Home Air Circulation Fan Unit moves air around your property at such a low level that you never feel it, but it takes all the stale air from inside your house and replaces it with clean fresh air, 24 hours a day, 7 days a week. Your home is ventilated without the need to open windows which can let in noise, fumes and can compromise security.

It will supply filtered fresh air to the living areas and will extract air and fumes from the wet areas: Bathrooms, En-suites, Kitchens and Utility Cupboard. The fresh air supply will be pre-heated through the MVHR heat exchanger element using the heat on the extracted air (previously pre-filtered).

When the integrated humidity sensor detects a higher humidity than the one set up in the system, it will turn on the Boost extract fan in the bathroom & Kitchen areas. The boost extract fan will remain on until the humidity has gone below the setpoint. The unit will also turn into Boost mode when light switches in Bathrooms and Kitchen are turned on.

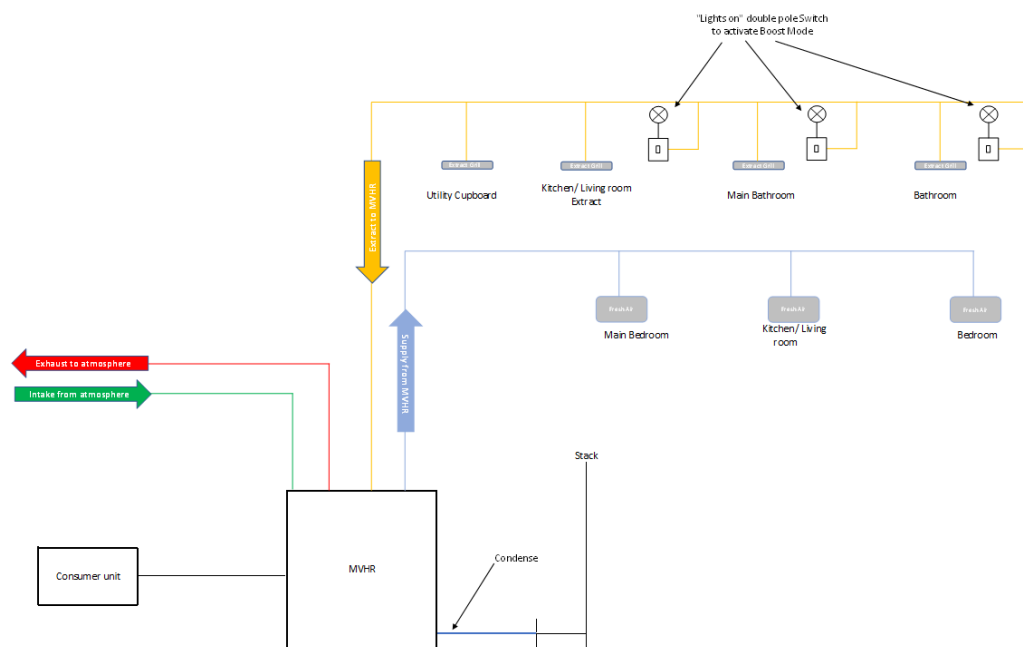


Figure 2 APARTMENT MVHR OPERATIONAL SCHEMATIC

Model: MRXBOXAB-ECO2

Location: Utility Cupboard



Figure 3 MVHR Unit

MVHR (MECHANICAL VENTILATION WITH HEAT RECOVERY) PROVIDES FRESH FILTERED AIR INTO A BUILDING WHILST RETAINING MOST OF THE ENERGY THAT HAS ALREADY BEEN USED IN HEATING THE BUILDING. HEAT RECOVERY VENTILATION IS THE SOLUTION TO THE VENTILATION NEEDS OF ENERGY EFFICIENT BUILDINGS. MECHANICAL VENTILATION WITH HEAT RECOVERY (MVHR), HEAT RECOVERY VENTILATION (HRV) OR COMFORT VENTILATION ARE ALL NAMES FOR THE SAME THING. A HEAT RECOVERY VENTILATION SYSTEM PROPERLY FITTED INTO A HOUSE PROVIDES A CONSTANT SUPPLY OF FRESH FILTERED AIR, MAINTAINING THE AIR QUALITY WHILST BEING PRACTICALLY IMPERCEPTIBLE.

MVHR WORKS QUITE SIMPLY BY EXTRACTING THE AIR FROM THE POLLUTED SOURCES E.G. KITCHEN, BATHROOM, TOILETS AND UTILITY ROOMS AND SUPPLYING AIR TO THE 'LIVING' ROOMS E.G. BEDROOMS, LIVING ROOMS, STUDIES ETC. THE EXTRACTED AIR IS TAKEN THROUGH A CENTRAL HEAT EXCHANGER AND THE HEAT RECOVERED INTO THE SUPPLY AIR. THIS WORKS BOTH WAYS, IF THE AIR TEMPERATURE INSIDE THE BUILDING IS COLDER THAN THE OUTSIDE AIR TEMPERATURE THEN THE COOLING IS MAINTAINED IN THE BUILDING.

1.2 HEATING SYSTEM

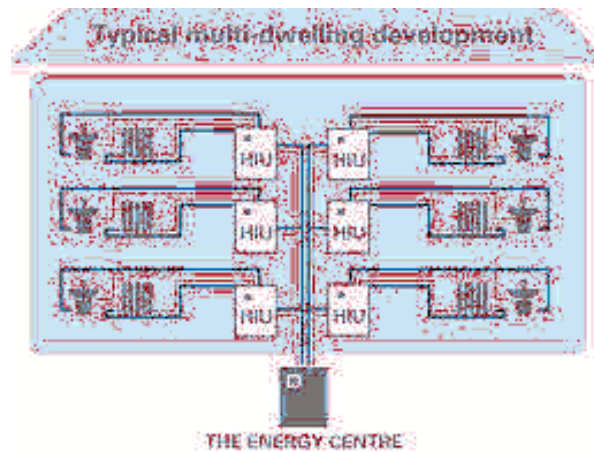


Figure 4. District Heating Schematic

Heating in The Dumont is achieved through a District Heating Installation. The Boilers are located in the Basement of the Building and supply Heating flow and return to the different apartments.

Within each apartment, Cilantro has installed a Heat Interface Unit (HIU) that will interchange heat with that Primary system and provide this heat to the Heating and Hot Water within the Apartment.

The apartments are equipped with Underfloor heating, making the floor surface into a big radiator in essence. Underfloor heating is more energy efficient and capable of maintaining the temperature more efficiently than conventional systems.

The Cooling and Heating within the Apartment is done through a Control Panel located within the Living areas.

Note: It is strongly recommended to read section 4.6 on how to operate the Cooling and Heating through the control panel.

Model: VVX-1-FI-4-2-UFH

Location: Utility Cupboard



Figure 5 HIU Unit

HIUS PROVIDE HEATING, AND DOMESTIC HOT WATER, TO INDIVIDUAL PROPERTIES WITHIN A MULTI DWELLING DEVELOPMENT (SUCH AS A BLOCK OF FLATS OR APARTMENTS, OR A LARGER DISTRICT HEATING SCHEME) SERVED BY CENTRALISED HEATING PLANT. HEAT INTERFACE UNITS ALLOW CONNECTION TO A CENTRALISED HEAT NETWORK WHILST STILL GIVING INDIVIDUAL OCCUPANTS CONTROL OVER THE TEMPERATURE IN THEIR PROPERTY AND ALLOWS INDIVIDUAL METERING AND BILLING.

1.3 COOLING SYSTEM

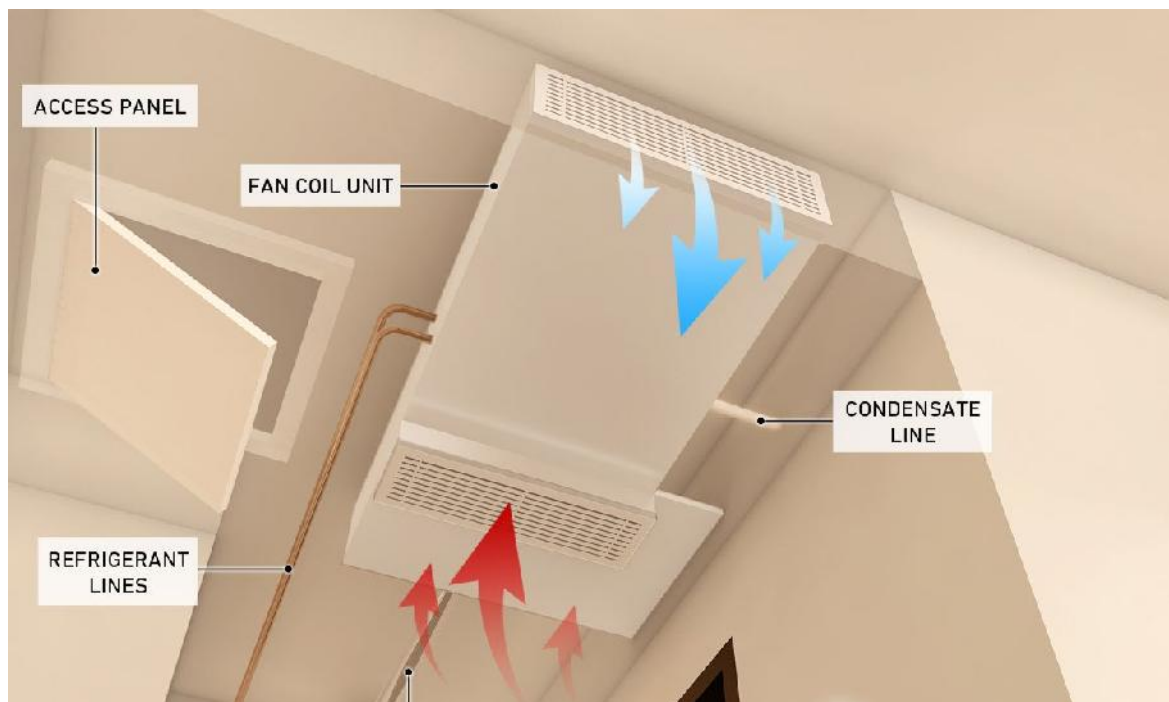


Figure 6 Cooling Schematic

The Cooling System in The Dumont works similarly to the Heating system. The Chillers are located in the Plantrooms within the Building and Chilled water flow and return pipework goes from these plantrooms to each Fan Coil Unit in the Apartment.

The Fan Coil Units (FCU) will blow air through an internal radiator to reduce the temperature in the ambient.

The Cooling and Heating within the Apartment is done through a Control Panel located within the Living areas.

Note: It is strongly recommended to read section 4.6 on how to operate the Cooling and Heating through the control panel.

Note: Cooling system in Dumont is Comfort Cooling, not Air Conditioning. Avoiding the disadvantages of really low temperatures associated with Air Conditioning Units.

MODEL: EVO235

LOCATION: CEILING VOID

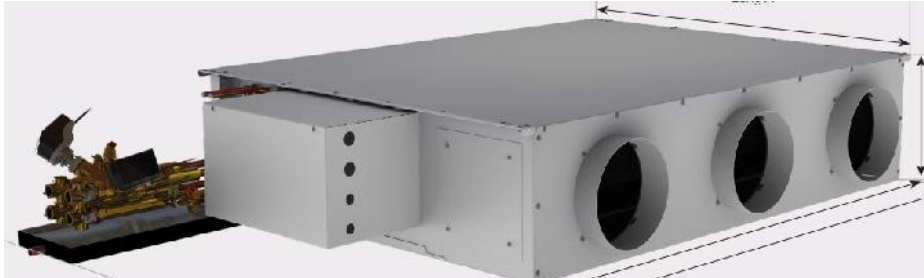


Figure 7 FCU Unit

A FAN COIL UNIT (FCU) IS A SIMPLE DEVICE CONSISTING OF A HEATING AND/OR COOLING HEAT EXCHANGER OR 'COIL' AND FAN. IT IS PART OF AN HVAC SYSTEM FOUND IN RESIDENTIAL, COMMERCIAL, AND INDUSTRIAL BUILDINGS. A FAN COIL UNIT IS A DIVERSE DEVICE SOMETIMES USING DUCTWORK AND IS USED TO CONTROL THE TEMPERATURE IN THE SPACE WHERE IT IS INSTALLED OR SERVE MULTIPLE SPACES. IT IS CONTROLLED EITHER BY A MANUAL ON/OFF SWITCH OR BY A THERMOSTAT, WHICH CONTROLS THE THROUGHPUT OF WATER TO THE HEAT EXCHANGER USING A CONTROL VALVE AND/OR THE FAN SPEED.

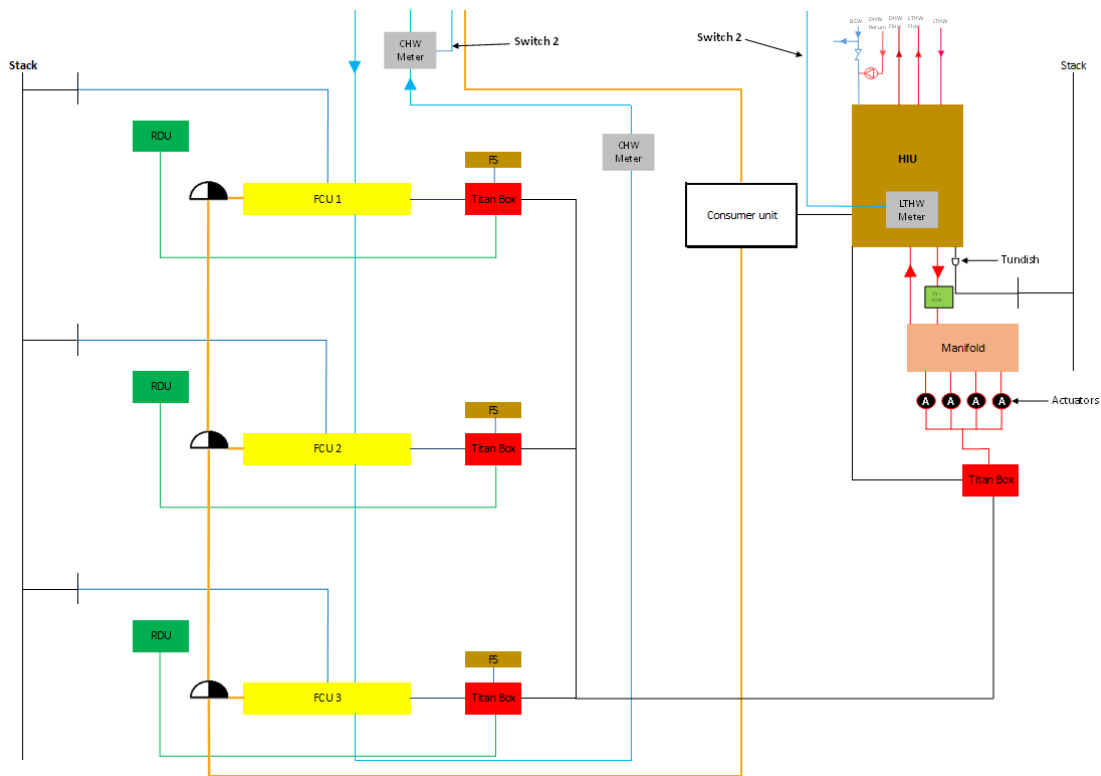


Figure 8 APARTMENT HEATING AND COOLING INTERFACE

1.4 ELECTRICAL UNDERFLOOR HEATING



Figure 9 Bathroom Electrical UFH

Dumont Apartments are provided with Electrical Underfloor Heating or Electrical Matt for the Bathroom areas (Installed by Others).

The Electrical Underfloor Heating is controlled by a Small Controller located in the Utility Cupboard.

2.0 DOMESTIC HOT & COLD

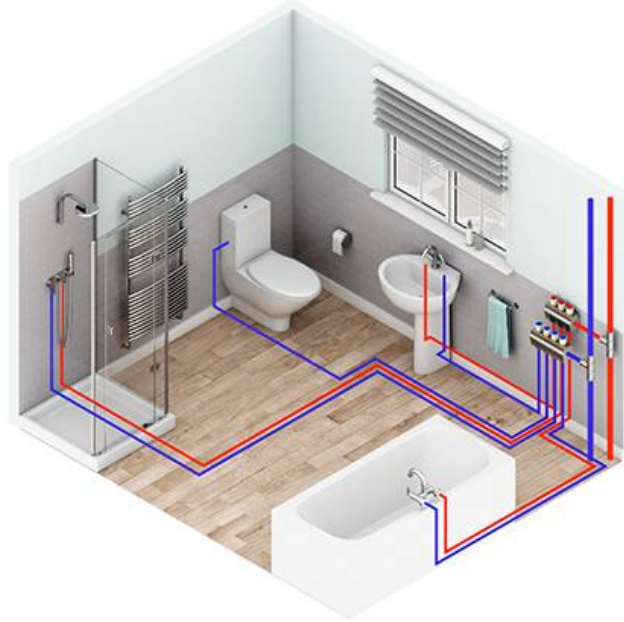


Figure 10 Domestic Pipework Schematic

The Hot and Cold are supplied to the apartment from the primary supply through the Risers and landlord's corridor. The supply can be isolated directly from the access hatch located outside each apartment above the front door or within the Utility cupboard.

2.1 HOT SUPPLY

Domestic hot water is generated instantaneously via the Heat Interface Unit. Hot water is generated at 55°C and distributed to all hot water outlets via a single pipe system. In apartments; all baths, showers and basins are provided with an accessible thermostatic mixing valve to limit hot water temperature to 48°C.

2.2 COLD SUPPLY

Boosted cold water supply to the apartment is provided from the Riser into the individual apartment where the tenants valve and the water meter are located, the supply then gets diverted into the apartment and the plate heat exchanger for Hot water supply and the cold supply direct to the taps.

2.3 ISOLATION

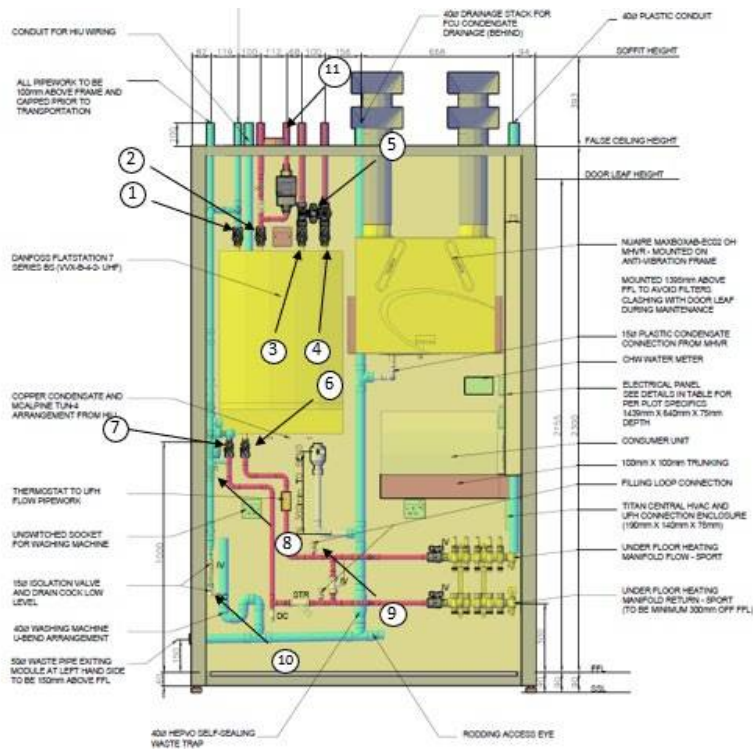


Figure 11 Utility Cupboard isolation points

1	BCWS V1	UTILITY CUPBOARD
2	DHW V2	UTILITY CUPBOARD
3	DHW V3	UTILITY CUPBOARD LTHW FLOW
4	LTHS V4	UTILITY CUPBOARD LTHW RETURN
5	LTHW V5	UTILITY CUPBOARD LTHW BYPASS
6	LTHW V6	UTILITY CUPBOARD UFH FLOW
7	UFH V7	UTILITY CUPBOARD UFH RETURN
8	UFH V8	UTILITY CUPBOARD
9	UFH V9	UTILITY CUPBOARD
10	BCWS V10	UTILITY CUPBOARD NO 10 TO BE RAISED TO ABOVE THE TENANTS VALVE ASSEMBLY AND SHOULD SAY STOP COCK. * THIS IS AN ISOLATION VALVE FOR THE BCW
11	CWS V11	ABOVE ACCESS HATCH

Figure 12- Valve number and corresponding services isolated by the valves

3.0 ELECTRICAL FIT OUT SPECIFICATION

3.1 Video Entry



Video Intercom (Icona)

3.2 Lighting Control (MK Aspect)



Figure 2 Mains dimming (Rotary) to living room and master bedroom.



Figure 3 Standard switching to all other areas

NOTE. BAND B PLATES ARE IN A POLISHED CHROME FINISH.

3.3 Heating and Cooling



Figure 4 Standalone thermostatic display controller (Titan HDU)

Note. Band B plates are in a Chrome finish.

3.4 Sockets (MK Aspect)



Figure 5 Double Sockets



Figure 6 USB sockets

USB REQUIRED EITHER SIDE OF THE BED IN ALL BEDROOM LOCATIONS (1 X LOUNGE & 1 X KITCHEN SOCKET)

NOTE. BAND B PLATES ARE IN A CHROME FINISH.

ALL BACK OF HOUSE AREAS TO BE MK LOGIC WHITE PLASTIC. INCLUSIVE OF UTILITY CUPBOARD, MULTI-GANG GRID SWITCH, COAT CUPBOARDS AND HIDDEN KITCHEN SERVICE EQUIPMENT.

3.5 Satellite System

PRE-WIRED CABLING TO MEDIA PLATES FROM PATCH PANELS WITHIN UTILITY CUPBOARD TO AV SPACE WITHIN CUPBOARD. ALL DATA CABLES TO BE CAT 6. NO BATHROOM TV.

3.6 5A lighting /feature



Figure 7 - 5Amps socket



Figure 8- 2way switch

LOUNGE: 2NO 5 AMPS TO THE LIVING AREA SWITCHED TOGETHER AT THE ENTRANCE.

BEDROOM (MB): 5A LIGHTING IN MASTER BEDROOM TO BE MAINS SWITCHED TO EACH SIDE OF BED AND AT THE ENTRANCE. EACH 5 AMP WILL BE INDEPENDENTLY SWITCHED BETWEEN THE BED AND THE ENTRANCE.

DOWNLIGHTS TO BE SWITCHED USING THE SLIDE DIMMER SWITCH BETWEEN THE ENTRANCE AND EITHER SIDE OF

THE BED. 2 X 2 WAY AND 1 X INTERMEDIATE.

3.7 Apartment Electrical Lighting

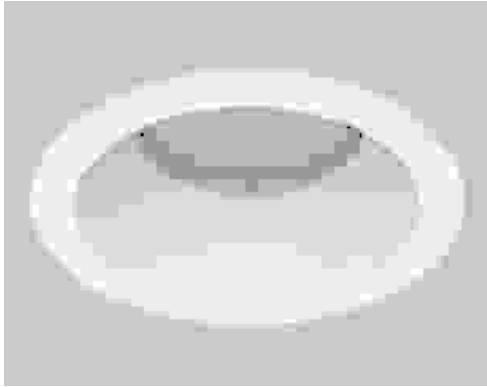


Figure 9- Orlight LED 3000K 7W Switched IP (82mm x 80 mm Ø)

Areas Installed: Lounge, Kitchen, Hall Way, Bedrooms & En-suite

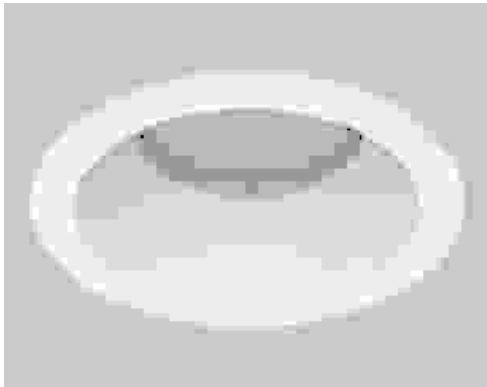


Figure 10- Orlight LED 3000K 20W Switched IP (82mm x 80 mm Ø)

Areas Installed: Utility Cupboard



Figure 11- Orlight 9.6W/M ~ 2700k switched IP65

Areas Installed: Bathroom Niche light & Lounge coffer

4.0 OPERATIONAL GUIDE

Non-essential works

4.1 Changing Light Bulbs

PLEASE NOTE: SAFE WORKING PRACTICES MUST ALWAYS BE OBSERVED WHEN WORKING WITH ELECTRICAL EQUIPMENT. PLEASE ALWAYS USE THE CORRECT PPE (PERSONAL PROTECTIVE EQUIPMENT):

1. SAFETY GLASSES
1. APPROPRIATE HOT WORK GLOVES
2. A SAFE RAISED WORKING PLATFORM (DO NOT STAND, KNEEL OR USE THE HIU CUPBOARD SHELF AS A WORKING PLATFORM.)

STEP 1: TURN THE POWER OFF

MAKE SURE THE POWER TO THE LIGHTS WITHIN YOUR APARTMENT IS 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. LOCATE THE ISOLATOR IN THE FUSE BOX AND FLICK THE SWITCH ON THE CIRCUIT BREAKER, ENSURING IT IS IN THE 'OFF' POSITION (PLEASE SEE FIGURE 3.1).

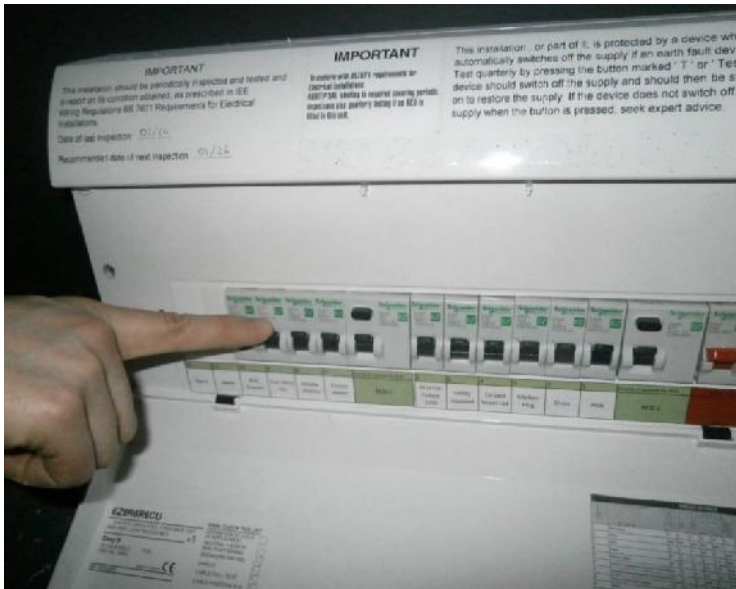


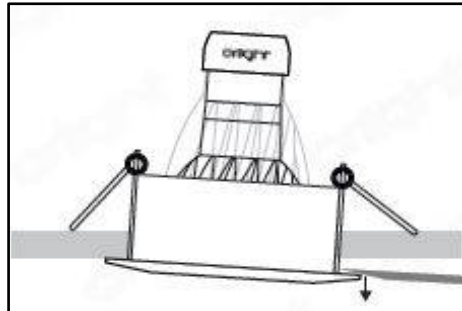
Figure 12 - Fuse Box (Customer Consumer Unit)

STEP 2: LET IT COOL DOWN

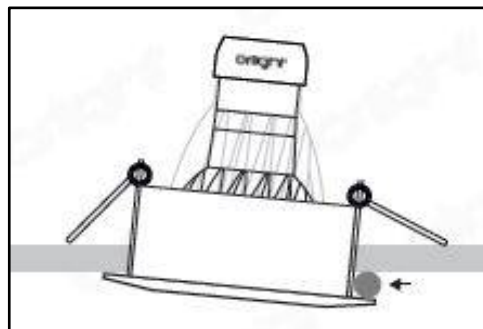
ALLOW ENOUGH TIME FOR THE LAMP TO COOL DOWN IF NECESSARY, BEFORE ATTEMPTING TO TOUCH AND SEPARATE THE HOUSING OR TO CHANGE THE BULB LET IT COOL DOWN

STEP 3: REMOVE AND REPLACE THE LAMP

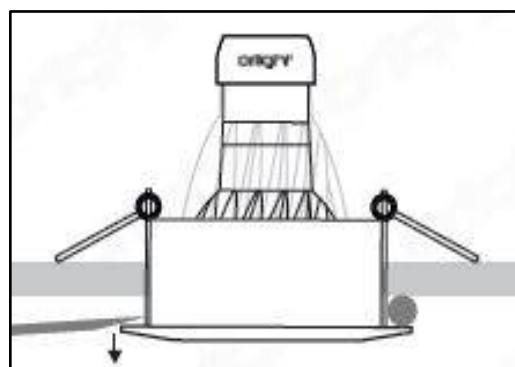
THE PROCEDURE DESCRIBED BELOW IS RELEVANT FOR THE FOLLOWING PRODUCTS:



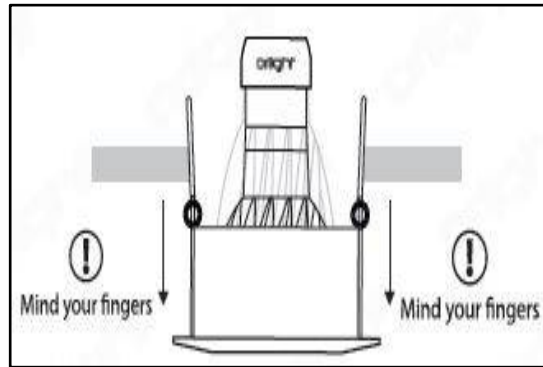
1. USE A LARGE FLAT BLADE TOOL TO LEVER ONE SIDE OF THE FITTING AWAY FROM THE CEILING.



2. INSERT A SMALL BATTEN OR PENCIL INTO THE GAP CREATED TO HOLD THE BEZEL AWAY FROM THE CEILING.



3. USE THE FLAT BLADED TOOL TO LEVER THE OTHER SIDE OF THE FITTING DOWN, TAKING CARE TO AVOID DAMAGING THE CEILING. (REFER TO FIGURE 4.3)



4. EVENLY PULL THE WHOLE FITTING AWAY FROM THE CEILING. (REFER TO FIGURE 4.4) THIS MAY REQUIRE SOME FORCE TO BEND THE SPRINGS BACK FULLY. BE CAREFUL TO AVOID THE SPRING FOLDING BACK AND PINCHING YOUR FINGERS.

NOTE: SAFETY IS CRITICAL WHEN WORKING WITH FAULTS RELATED TO ELECTRICAL OR WIRING ISSUES. REMEMBER TO ALWAYS CHECK THE FOLLOWING:

THE WATTAGE ON THE OLD USED BULB AND REPLACE IT WITH A NEW LAMP OF THE SAME WATTAGE. KEEP YOUR FINGERS AWAY FROM LIVE ELECTRICAL WIRES AND DO NOT PUT YOUR FINGERS IN THE EXPOSED LIGHT SOCKET. DISPOSE OF THE REPLACED LIGHT LAMP RESPONSIBLY. ALWAYS KEEP WASTE ELECTRICAL EQUIPMENT WELL OUT OF THE REACH OF CHILDREN.

4.2 Towel Rail & Return pump Timeguard (WHERE applicable)

TOWEL RAIL TIMEGUARD IS FOR FEEDING AND CONTROLLING THE TOWEL RAIL IN THE APARTMENTS. IT HAS EASY VIEWING DISPLAY, OPTIONAL 1 OR 2-HOUR BOOST FACILITY AND AUTOMATIC SUMMER/WINTER TIME CHANGEOVER. YOU HAVE UP TO 4 ON AND OFF PROGRAMMES AVAILABLE (5 DAY PLUS 2- OR 7-DAY PROGRAMMES) GIVING UP TO 28 ON AND OFF PROGRAMMES PER WEEK.



Figure 13- Time guard and Towel rail respectively

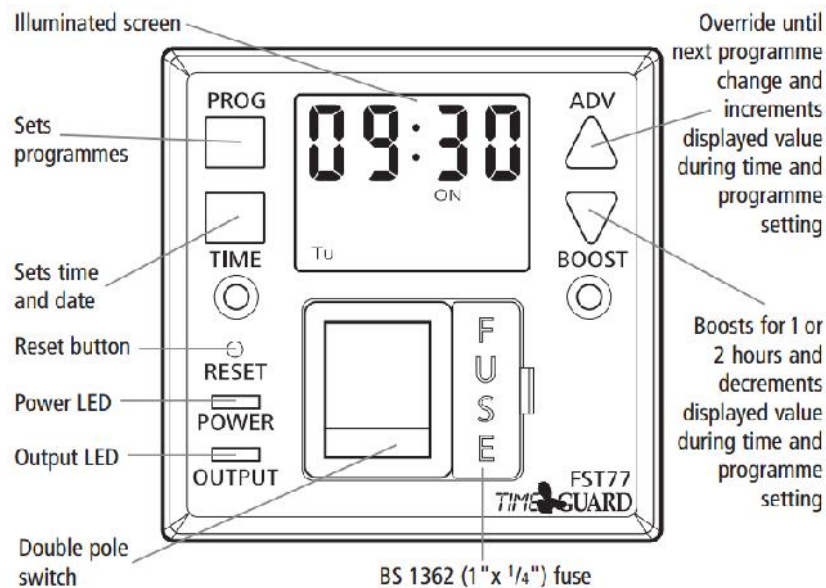


Figure 14- Towel rail operational drawing

4.2.1 BATTERY

THE UNIT HAS AN IN BUILT NON-REPLACEABLE, RECHARGEABLE BATTERY, WHICH WILL KEEP THE PROGRAMMED TIMES DURING POWER IS RESTORED, AND 4 HOURS HAVE ELAPSED (TO GIVE A WORKING BATTERY CHARGE), RESET MUST BE PRESSED, AND TIMES/PROGRAMMES RE – ENTERED. BEFORE PROGRAMMING FOR THE FIRST TIME, CONNECT THE UNIT TO THE MAINS FOR AT LEAST 15 MINUTES’ PRIOR PRESSING THE RESET BUTTON AND PROGRAMMING THE UNIT. IF THE DISPLAY IS NOT VISIBLE OR VERY FAINT, CHARGE FOR 4 HOURS PRIOR TO PRESSING RESET AND PROGRAMMING.

4.2.2 SETTING THE CLOCK

PRESS AND HOLD DOWN THE TIME BUTTON FOR 3 SECONDS. THE WORD HOLD WILL SHOW ON THE SCREEN.

AFTER 3 SECONDS, THE SCREEN WILL SHOW A YEAR.



USE THE ADV OR BOOST BUTTONS TO CHANGE THE YEAR TO THE CORRECT YEAR. PRESS TIME TO SET THE YEAR, AND THEN THE MONTH WILL SHOW.



USE THE ADV OR BOOST BUTTON TO ADJUST THE DAY TO THE CORRECT DAY.
PRESS TIME TO SET THE DAY, AND THEN THE TIME WILL SHOW, HOURS FIRST.



USE THE ADV OR BOOST BUTTON TO ADJUST THE HOUR TO THE CORRECT HOUR.
PRESS TIME TO SET THE HOUR, AND THEN THE TIME WILL SHOW THE MINUTES. THE HOUR IS A 24-HOUR CLOCK.

USE THE ADV OR BOOST BUTTON TO ADJUST THE MINUTES TO THE CORRECT MINUTES.
PRESS TIME TO EXIT THE TIME/DATE ENTRY MODE. THE DISPLAY SHOULD NOW SHOW THE CORRECT TIME/DAY OF THE WEEK.



NOTE: DURING TIME/DATE SETTING, WHEN ADV OR BOOST BUTTONS ARE HELD DOWN, THE SETTING UNDER ADJUSTMENT WILL ADVANCE OR DECREASE MORE RAPIDLY.

4.2.3 MODIFYING THE TIME & DATE OF DAY

NORMALLY THE ONLY CHANGE REQUIRED WILL BE TO THE TIME OF DAY MINUTES, IN WHICH CASE PRESS AND HOLD TIME FOR 3 SECONDS, DURING WHICH HOLD WILL SHOW ON THE DISPLAY. AFTER 3 SECONDS THE DISPLAY WILL SHOW YEAR:



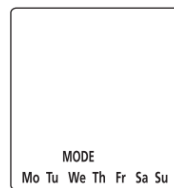
PRESS TIME REPEATEDLY UNTIL THE MINUTES ARE SHOWN. USE ADV OR BOOST TO CHANGE THE MINUTES TO THE CORRECT VALUE. PRESS TIME TO RETURN TO OPERATING MODE. OTHER CHANGES CAN BE MADE THE SAME WAY, BUT THE TIME BUTTON MUST BE PRESSED TO RETURN TO OPERATING MODE AFTER ANY CHANGES, THERE IS NO AUTOMATIC EXIT FROM TIME/DATE ENTRY MODE.

4.2.4 PROGRAMMING ON/OFF TIMES

THE FST77 HAS 4 INDEPENDENTS ON/OFF PERIODS AVAILABLE FOR PROGRAMMING EACH DAY. THERE IS A CHOICE OF PROGRAMMING OPTIONS, INCLUDING 7 DAYS THE SAME (24 HOURS), 5+2 DAYS (WHERE THE WEEKDAYS ARE THE SAME, AND THE TWO WEEKEND DAYS ARE THE SAME), AND 7 INDIVIDUAL DAYS.

PRESS AND HOLD THE PROG BUTTON FOR 3 SECONDS. WHILST HOLDING, THE WORLD HOLD SHOULD SHOW ON THE DISPLAY.

AFTER 3 SECONDS, THE MODE SCREEN WILL SHOW.



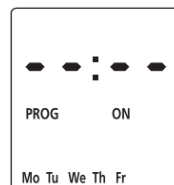
USE ADV OR BOOST TO CHANGE THE DAY GROUPING MODE. THIS WILL STEP THROUGH THE FOLLOWING OPTIONS:

24HR – MO TU WE TH FR SA SU

5DAY - MO TU WE TH FR FOLLOWED AUTOMATICALLY IN PROGRAMMING BY 2 DAY – SA SU

INDIVIDUAL DAY – MO FOLLOWED AUTOMATICALLY IN PROGRAMMING BY EACH OF THE OTHER DAYS

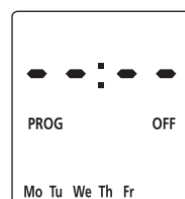
ONCE THE DESIRED DAY GROUPING IS SELECTED, PRESS PROG TO MOVE ONTO PROGRAMMING ON/OFF TIMES. THE DISPLAY WILL SHOW PROG 1, WITH DASHES FOR THE HOURS AND MINUTES.



EXAMPLE SHOWN IS FOR 5+2 PROGRAMME.

USE ADV OR BOOST TO SET THE HOUR FOR THE FIRST ON PERIOD. PRESS PROG TO CHANGE TO SETTING THE MINUTES.

PRESS PROG TO CHANGE TO PROGRAMME 1 OFF TIME.



PRESS PROG TO SCROLL THROUGH PROGRAMME 2 ON, PROGRAMME 2 OFF, PROGRAMME 3 ON, PROGRAMME 3 OFF, PROGRAMME 4 ON AND PROGRAMME 4 OFF, ADDING IN TIMES AS REQUIRED. IF TIMES ARE NOT REQUIRED, JUST LEAVE THE DASHES IN PLACE, AND SCROLL PAST THAT PROGRAMME.

AFTER PROGRAMME 4 HAS BEEN ENTERED, THE DAY WILL INDEX TO THE NEXT DAY TO BE PROGRAMMED, OR IN THE CASE OF 5+2 IT WILL CHANGE TO SA SU. PROGRAMME THE ON/OFF TIMES AS BEFORE.

AFTER THE LAST OFF TIME FOR PROGRAMME 4 HAS BEEN SET, PRESS PROG TO EXIT PROGRAMME MODE.

AT ANY STAGE IN PROGRAMMING, IF THE PROG BUTTON IS PRESSED AND HELD FOR 3 SECONDS, THE TIMES WILL RETURN TO OPERATING MODE.

THE DISPLAY WILL NOW SHOW:



WHERE THE DAY AND TIME ARE CORRECT, BUT THE ON/OFF INDICATOR MAY NOT REFLECT THE CURRENT PROGRAMME ACCURATELY, IN WHICH CASE PRESS THE ADV BUTTON TO CORRECT THE INDICATOR.

IN THE SAME WAY, AS FOR INDIVIDUAL PROGRAMMES, DAYS OR GROUPS OF DAYS CAN BE OMITTED EITHER BY LEAVING DASHES IN ALL THE LOCATIONS FOR ON/OFF TIMES FOR THAT DAY OR GROUP OF DAYS. ALTERNATIVELY, LEAVING THE PROGRAMME ENTRY MODE BEFORE FILLING IN ALL THE ON/OFF TIMES WILL LEAVE THE REMAINING TIMES BLANK.

THE ONLY WAY TO RE – ENTER A BLANK TIME IS TO RESET THE UNIT.

4.2.5 PROGRAMMING ACROSS MIDNIGHT

1. ENTER THE PROGRAMME ON TIME AS ABOVE
2. ENTER THE PROGRAMME OFF TIME AS 00:00
3. ENTER THE FIRST PROGRAMME ON TIME FOR THE NEXT DAY AS 00:00
4. ENTER THE REQUIRED PROGRAMME OFF TIME

NOTE: FOR 24 HOURS, THE ON PERIOD FOR PROGRAMME 1 MUST START 00:00.

4.2.6 MODIFYING OR ADDING PROGRAMMES

1. PRESS PROG AND HOLD FOR 3 SECONDS. WHILST HOLDING, THE WORD HOLD WILL APPEAR ON THE DISPLAY.
2. AFTER 3 SECONDS THE DISPLAY WILL SHOW THE PROGRAMMING MODE SCREEN.
3. THIS WILL BE IN THE MODE IN WHICH IT WAS LAST PROGRAMMED. FOR INSTANCE, IF IT WAS PROGRAMMED 5+2, THEN IT WILL SHOW MO TU WE TH FR. EITHER ACCEPT THIS, PRESS PROG, AND REVIEW THE TIMES PROGRAMMED FOR THIS MODE BY PRESSING PROG, OR PRESS ADV OR BOOST TO CHANGE THE MODE, AND THEN PRESS PROG TO REVIEW THE TIMES. IN THIS CASE, EITHER TO SA SU, OR TO 7 DAY OR TO INDIVIDUAL DAYS.

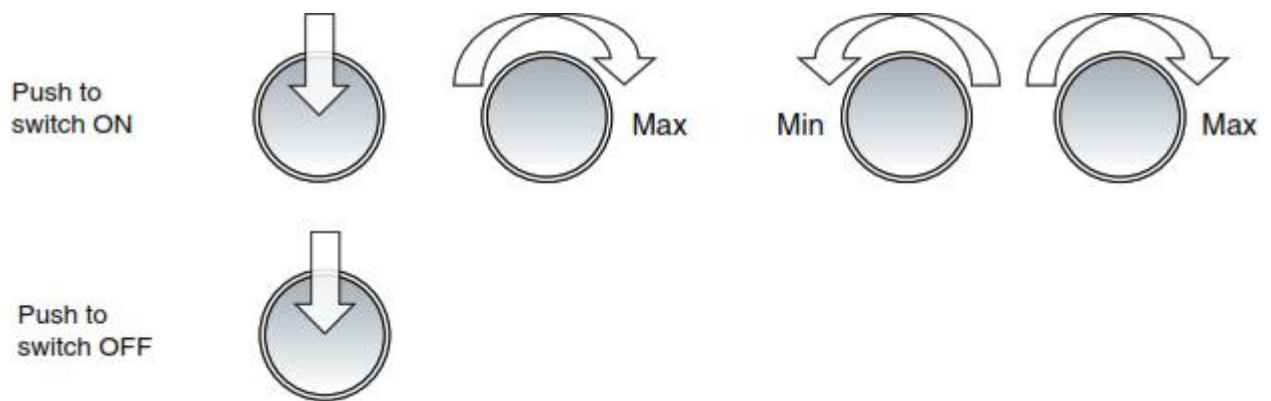
NOTE: IF THE UNIT WAS PROGRAMMED AS A 5+2 THEN CHANGING THE MODE TO ANY OTHER MODE THAN SA SU MAY BLANK ANY PREVIOUS PROGRAMMING. THE SAME APPLIES FOR CHANGING FROM ANY OTHER MODE, CHANGING FROM THE MODE IT WAS LAST PROGRAMMED IN MAY BLANK THE PREVIOUS PROGRAMME.

4.2.7 BOOST

1. ONE PRESS OF THE BOOST BUTTON WILL PROVIDE A 1-HOUR BOOST, AFTER WHICH OUTPUT WILL TURN OFF.
2. TWO PRESSES WILL GIVE 2 HOURS' BOOST.
3. A THIRD PRESS OF THE BOOST BUTTON WILL CANCEL ANY BOOST PERIOD.

4.3 Switch and Sockets operability

Switches and sockets are operated as usual with additional feature of USB sockets available within certain area of the plot. There are Dimmable light switches available in bedroom and living area within applicable plots. See below for brief operation illustration.



4.4 MVHR Operational guide

Your apartment is equipped with a Nuaire Ventilation System (MRXBOX95). The MVHR Fan is located within the Utility Cupboard, it's comprised of air extraction points in the Kitchen and bathrooms, and air supply points in Bedrooms and Living Room.

You don't need to setup anything. MVHR Fan is working automatically.



Note: These systems are heat recovery ventilation systems, **NOT AIR-CONDITIONING SYSTEM**. It offers the highest level of comfort and control available.

Note: The most common concern with home owners is that heat ventilation devices create noise. With Advance, absolute optimization of every element does everything possible to minimize generation and transmission of both motor and airflow noise.

Important:

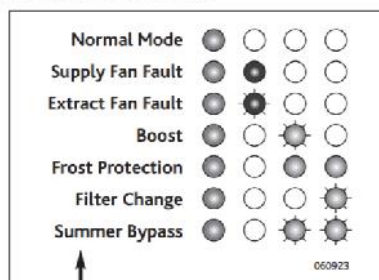
Unit must not be switched off, product is designed to run continuously.

4.4.1 Filter and Routine Maintenance

All ventilation units require periodic maintenance. Routine maintenance must only be carried out by a suitably qualified and competent person.

7.0 Status Indication

The status of the unit is indicated by a series of LED's on the front cover. The variants are listed below.



Summer Bypass (AB unit only).

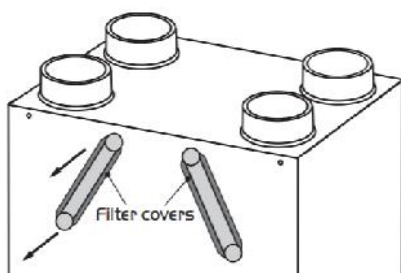
4.4.2 Filter Maintenance

Filters should be cleaned when indicated by the unit control panel ("Filter Change") at varying intervals depending on the external environment or every 6 months if not indication is shown in the Unit.

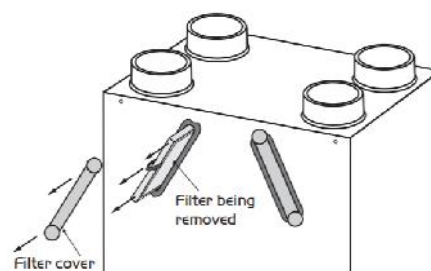
Note: It's recommended that the 2 filters are inspected after 6 months and replaced every 12 to 18 months.

NOTE: Prior to start, make sure the unit has been switched off

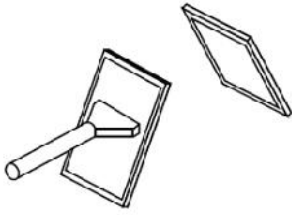
Remove the 2 filter Covers



Remove filters by pulling the black tab



Vacuum the filters or replace them



Replace in reverse order

If the filters need to be replaced, contact Nuair Sales by calling 029 2085 8200 quoting the model reference.

The product should be professionally serviced every two years.

4.4.3 Routine 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.

4.4.4 Technical Support

Contact Details

For more information on how to operate your Home Air Circulating Fan please call technical support on: 029 2085 8200

4.5 FCU Operational and Maintenance

Your new Ability fan coils will operate for many years affording a comfortable, controlled working environment. This sheet provides useful installation guidelines, a trouble shooting table and a list of routine maintenance procedures.

Service and Routine Maintenance	
Every 3 Months	<ul style="list-style-type: none">• Clean filters
Every 6 months	<ol style="list-style-type: none">1. Clean filters2. Brush or vacuum coil surface
Every 12 months	<ul style="list-style-type: none">• Clean or replace filters• Brush or vacuum coil surface• Wipe out condensate tray and chemically clean if required• Vacuum fan and motor sets if required.• Visually inspect for any failures or failing components

ROBLEMS AND POSSIBLE CAUSES	
Air Volumes are lower than expected or the noise level is higher than expected	<ul style="list-style-type: none"> • Signal voltages above 7.5V will never be selected by Ability. If you • have an installation defect or measurement error, turning the fan • speed ever higher will not solve the problem but will, generate noise. • Is the filter dirty • If VCD's are fitted, have they been left closed. • Are the flexible ducts installed correctly there should be no tight bends, no restrictions and no excess material in the lengths of duct.
Condensate does not drain or the unit leaks	<ul style="list-style-type: none"> • Is the air filter dirty — Dirty filters impede condensate flow • Is the fan coil installed out of level
Controls do not work	<ul style="list-style-type: none"> • Have the commissioning valve caps or pegs been removed? • Has the set point temperature been reset correctly after commissioning • Is the sensor being “fooled” by an external temperature influence • Have the controls not yet finished their start-up diagnostics routine.
Unit becomes noisier over time	<ul style="list-style-type: none"> • Is the filter dirty

4.5.1 Filter and Routine Maintenance

- Locate the Filter at the back of the unit.
- Gently apply force in the direction you want slide the filter out on (see figure 23). This will ease the filter out of its location slot on the fan coil unit.
- When the filter is clear of the flange on the fan coil unit, the filter can be slide clear of its location slot.

Note: Larger fan coil units have 2 filters to ease removal/refitting.

- Carefully remove the filter from the ceiling void for cleaning. Avoid snagging the filter media on suspended ceiling wires for example. Also avoid twisting the filter to clear obstacles. This may deform the filter and make it more difficult to refit.

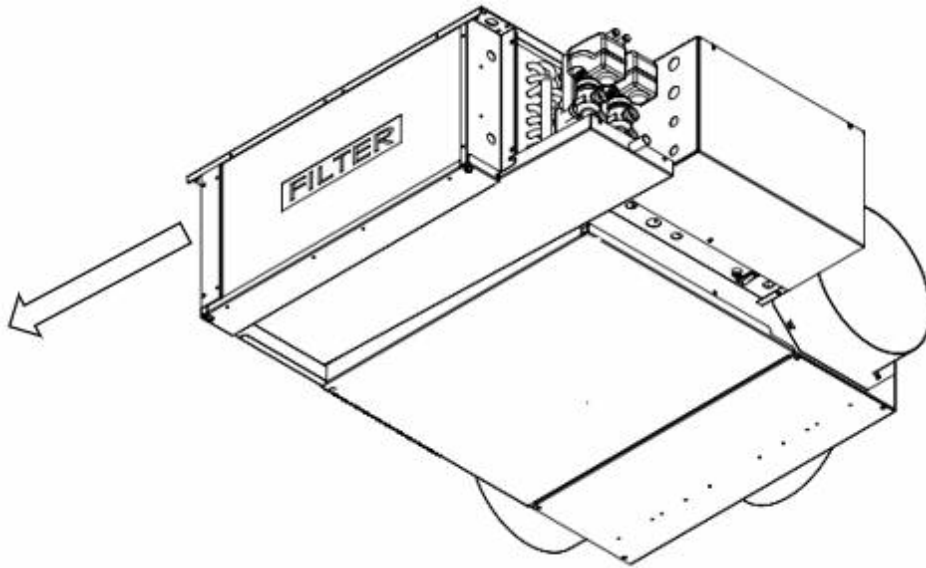


Figure 15- Filter removal

- Clean the filter using a vacuum cleaner. The filter can also be cleaned using warm water and a mild detergent, if required.
- Installation of the filter is the reverse of removal.
- Check the filter is correctly located. If the filter is damaged or too dirty to clean satisfactorily, it must be replaced. Contact Ability Projects for any replacement parts.

4.6 FCU & UFH Operability (HVAC)

The HVAC system within the apartment has been commissioned to the required specification provided. FCU (Fan Coil Unit) and UFH (Underfloor heating) are interface within the one system and can be controlled using the RDU (Remote display unit) which are pre-programmed for your comfort.

There are three mode of environment to select from Auto, cooling and Heating. Once



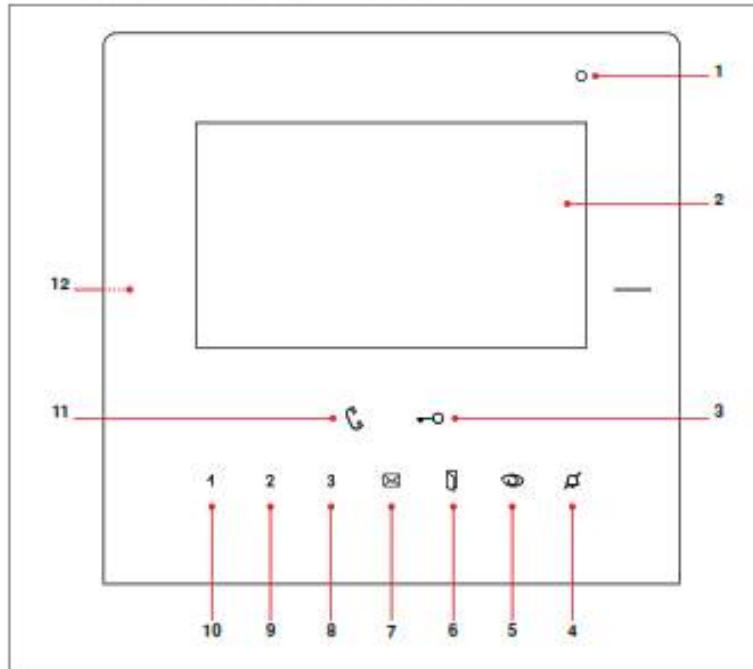
1. Auto Temperature mode (Pre-set to 00°)
2. Heat option will control the Underflooring within the plot
3. Cool function will control the comfort cooling (FCU) within the plot.
4. To turn off the HVAC system.
5. Temperature control to increase and decrease temperature.
6. Fan speed control to increase speed from Manual Low Speed Fan/ Manual Med Speed Fan/Manual High-Speed Fan.

4.6.1 Controlling the HVAC system:

- Manual and Auto Control by the occupant to select the control via the Fan Speed Buttons on the RDU. Auto/Off/Manual Low Speed Fan/ Manual Med Speed Fan/Manual High-Speed Fan. Setpoint controlled via the Temperature adjust buttons on the RDU
- In both Heating and Cooling mode, the temperature setpoint can be adjusted.
- From a Timed off condition to a Timed-On condition the controller defaults to Auto Mode and its selected Temperature for that Timed Period
- From a Timed off condition to an Override On condition the controller defaults to Auto Mode and default Temperature.
- On a Power cycle the controller picks up its last occupancy condition (On or off) and in an on-condition defaults to the last known Mode and its selected Temperature for that timed period.






4.7 Door Entry Operation



4.7.1 MONITOR DISCRPTION



1. Microphone
2. 4.3" touch screen
3. Door lock key [programmable]
4. Privacy / Doctor key [programmable]
5. Self-ignition key [programmable]
6. Open doors key
7. Video memory key
8. Key "3" [programmable]
9. Key "2" [programmable]
10. Key "1" [programmable]
11. Audio key
12. Micro SD card port

4.7.2 FUNCTION KEYS

	Audio key: activates or deactivates conversation with the external unit.
	Door lock key: opens the corresponding door lock. [programmable] lock release / actuators
1	Programmable key 1:[programmable] intercom / self-ignition / lock-release / call priority 1-4 /actuators / activate output default = deactivated
2	Programmable key 2:[programmable] intercom / self-ignition / lock-release / call priority 1-4 /actuators / activate output default = deactivated
3	Programmable key 3:[programmable] intercom / self-ignition / lock-release / call priority 1-4 /actuators / activate output
	<ul style="list-style-type: none"> In ADDITION to the programmable functions for keys 1 - 2 - 3 it is possible to assign one SCENARIO that will be activated at the same time as the associated function is activated by pressing the corresponding key (1 - 2 - 3).
	Video memory key: PRESSED allows access to the messages section. LIT STEADILY video memory or absent message active. FLASHING new message waiting.
	Open doors key: LIT STEADILY signals the opening of one or more of the doors listed in the directory PRESSED allows access to the open doors section.

	<p>Self-ignition key: switches on the monitor and displays video from an external unit. [programmable] intercom / self-ignition / lock-release / call priority 1-4 / actuators /activate output</p>
	<p>Privacy / Doctor function key [programmable]</p> <ul style="list-style-type: none"> • The PRIVACY function disables call from the external unit and from the switchboard. • The DOCTOR function enables automatic activation of the lock- release in response to a call from the external unit. • The PRIVACY + DOCTOR function, in addition to disabling the door-entry phone ringtone in the same way as the Privacy function, also enables automatic activation of the lock-release in response to a call from the external unit.

For Further Instruction on setup and See attached manufactures guide in the Annex A.

4.8 Electrical UFH Operability

5.0 FIRE SUPPRESSION

The KitchenSafe fire suppression system has been developed to meet the requirements for domestic & residential kitchens and is **Third party tested and approved to UL300A**.

The KitchenSafe System is a fully automatic domestic and residential fire suppression system which uses state of the art digital technology to sense and respond to high temperatures and fire conditions.

KitchenSafe is quick and easy to install and compatible with all two, four and six burner ranges. It can be installed next to the appliance or inside a kitchen cupboard out of sight.

This unique system consists of an easy to clean stainless steel wall mounted cabinet which houses the agent tank and electronics. The system is supplied with a manifold which houses the nozzle(s), and stainless-steel hoses which connect to the cabinet.

In residential accommodation including open plan apartment, it is common - where the kitchen facilities are within 1.8M of the final exit door - that fire suppression systems are installed to the cooker top to aid with exit strategy, similar to the example below.



Kitchen Safe operates automatically in the event of fire which removes the need or risk of a person attempting to fight the fire with conventional extinguishers or fire blankets. The system

has a typical fire knock down time within 5 seconds of discharge, allowing the remaining discharge time to cool and render the affected area completely safe.

Following system activation the cooking area is easily cleaned down in minutes and ready for use, unlike conventional extinguisher types such as dry powder etc.

<https://www.flamefast-fire-suppression.co.uk/index.php/fire->

Annex

Annex A (Comelit Door entry User Manual)

Annex B (Ability FCU O&M)

Annex C (Titan FCU & RDU Guide)

Annex D (Fire suppression Guide)

FIGURE 1 - VENTILATION SCHEMATIC.....	3
FIGURE 2 - APARTMENT MVHR OPERATIONAL SCHEMATIC	4
FIGURE 3 - MVHR UNIT	5
FIGURE 4 - DISTRICT HEATING SCHEMATIC	6
FIGURE 5 - HIU UNIT	6
FIGURE 6 - COOLING SCHEMATIC	7
FIGURE 7 - FCU UNIT	8
FIGURE 8 - APARTMENT HEATING AND COOLING INTERFACE	8
FIGURE 9 - BATHROOM ELECTRICAL UNDERFLOOR HEATING.....	9
FIGURE 10 - DOMESTIC PIPEWORK SCHEMATIC.....	10
FIGURE 11 - UTILITY CUPBOARD ISOLATION POINTS.....	11
FIGURE 12 - VALVE NUMBER AND CORRESPONDING SERVICES ISOLATED BY THE VALVES	11
FIGURE 13 - MAINS DIMMING (ROTARY) TO LIVING ROOM AND MASTER BEDROOM.	12
FIGURE 14 - STANDARD SWITCHING TO ALL OTHER AREAS.....	12
FIGURE 15 - STANDALONE THERMOSTATIC DISPLAY CONTROLLER (TITAN HDU)	13
FIGURE 16 - DOUBLE SOCKETS.....	13
FIGURE 17 - USB SOCKETS.....	13
FIGURE 18 - 5AMPS SOCKET	14
FIGURE 19 - 2WAY SWITCH.....	14
FIGURE 20 - ORLIGHT LED 3000K 7W SWITCHED IP (82MM X 80 MM Ø)	15
FIGURE 21 - ORLIGHT LED 3000K 20W SWITCHED IP (82MM X 80 MM Ø)	15
FIGURE 22 - ORLIGHT 9.6W/M ~ 2700K SWITCHED IP65	15
FIGURE 23 - FUSE BOX (CUSTOMER CONSUMER UNIT)	16
FIGURE 24 - TIME GUARD AND TOWEL RAIL RESPECTIVELY.....	18
FIGURE 25 - TOWEL RAIL OPERATIONAL DRAWING	19
FIGURE 26 - FILTER REMOVAL.....	27