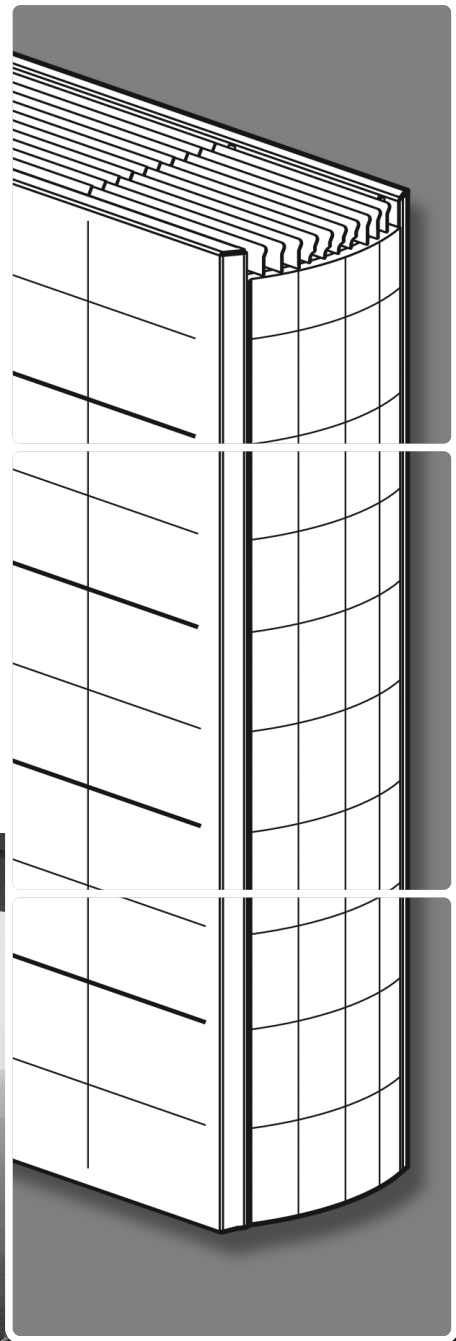




iVECTOR HEATER/COOLER 2 AND 4-PIPE MODELS.

INSTALLATION, OPERATING, MAINTENANCE & AFTER SALES MANUAL

JANUARY 2013, ISSUE 1

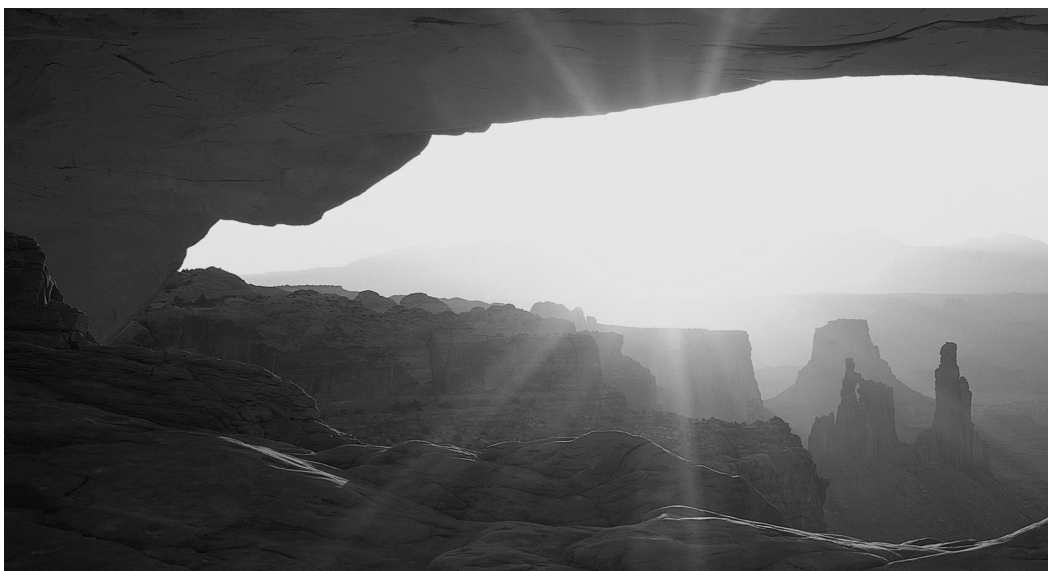


Product Serial Number:

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Please leave this manual with the end user.

Part Number: 1371060



heatingthrough**innovation.**





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1.0 Introduction

This heater/cooler fan convector is designed for use on central heating systems or heating and cooling systems in homes and commercial environments. Models are available with 2 and 4-pipe connections.

The control system provides thermostatic room temperature and fan speed control, and allows operation on a stand alone basis, or by integration into building management systems.

The unit is fitted with a washable air filter that can be easily removed for cleaning.

A range of accessories are available for this product including control valves and condensate pumps for cooling installations.

This manual should be read carefully prior to installation and retained for future reference.

2.0 Warnings & Safety Measures

This unit **MUST NOT** be installed in a bathroom or other high humidity area.

This appliance must be grounded.

DO NOT cover or obstruct the air inlet or outlet grille.

Disconnect from the power supply before carrying out any maintenance work.

- Please carefully follow the instructions and guidelines contained in this manual during installation. Always perform each step in sequence.
- Inspect this product for concealed shipping damage prior to installation. If items are damaged or missing please contact your supplier.
- This fan convector must be installed by qualified tradespeople.
- Do not install this fan convector in areas where excessive dust exists.
- The manufacturer accepts no liability for damage or injury caused by failure to adhere strictly to the safety precautions and instructions contained in this manual, or by negligence during the installation of the product and any accessories described in this manual.
- For the correct installation of this unit it is essential that fixing is carried out in such a way that it is suitable for intended use and predictable misuse. A number of elements need to be taken into consideration including the fixing method used to secure it to the wall, the type and condition of the wall itself, and any additional potential forces or weights that may happen to be applied to the unit, prior to finalising installation.
- Please leave this manual with the end user.

3.0 Heating System Design

This fan convector can be fitted on a series loop with mono-flo or venturi tees, on a two pipe system, or on a stand alone zone.

This heater/cooler fan convector is designed for wall mounted installation.

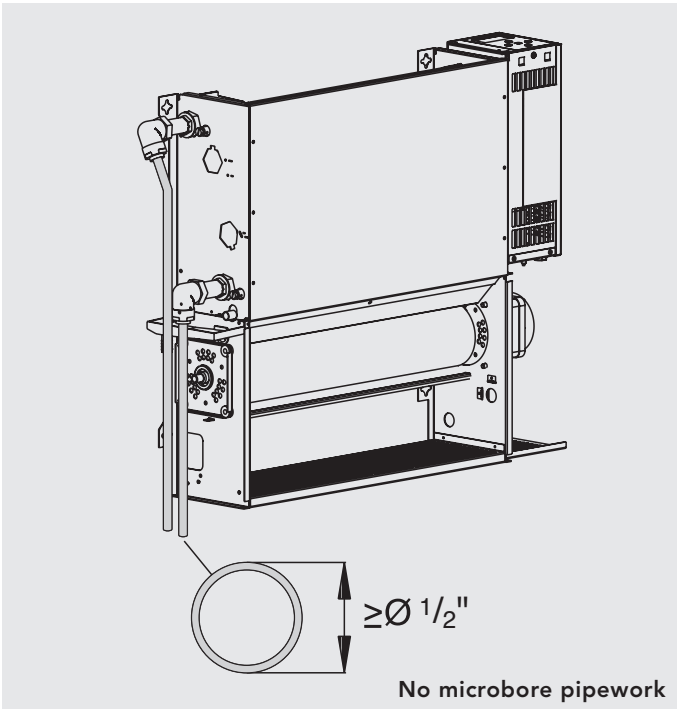
For optimum fan convector performance the system must be capable of providing sufficient flow of water through the heat exchanger at the correct temperature. This means that:

1. Pipework should be designed and installed to guarantee sufficient water flow through the unit. Refer to section 3 on page 4 for recommended pipe sizes.
2. This unit is not suitable for series loop pipe systems.
3. Optimum performance will require effective balancing of the whole system. Each emitter on the circuit should be checked and valves adjusted so that the required water flow rate through each unit is achieved.
4. Where the unit is fitted on to a system with other emitters a separate circuit for the fan convector should be considered in order to provide sufficient flow through the unit.
5. The system water must be above 90°F for heating mode and below 59°F in cooling mode.
6. This unit must not be used to replace a radiator in an existing heating system unless an adequate flow of water through the unit can be guaranteed.



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3.0 Heating System Design (continued...)



Note: Pressure independent balancing and control valve kits are available for this product as an accessory. The valve kits can simplify system design by eliminating the possible need for larger balancing valves elsewhere in the system, and will maintain the flow in the unit to the required levels. See accessories section for more details.

NB: Pipes should be sized using flow rate and pressure losses.

4.0 Unit Selection/Sizing

Heating output performance data is given in the technical data section of this manual (see page 15). Outputs are shown for the three fan speeds, however, it is important to size the unit to match the calculated heat loss requirements of the room with the unit operating on the **normal fan speed**. The higher fan speeds are used in Comfort mode when the room temperature is significantly lower than the preset temperature.

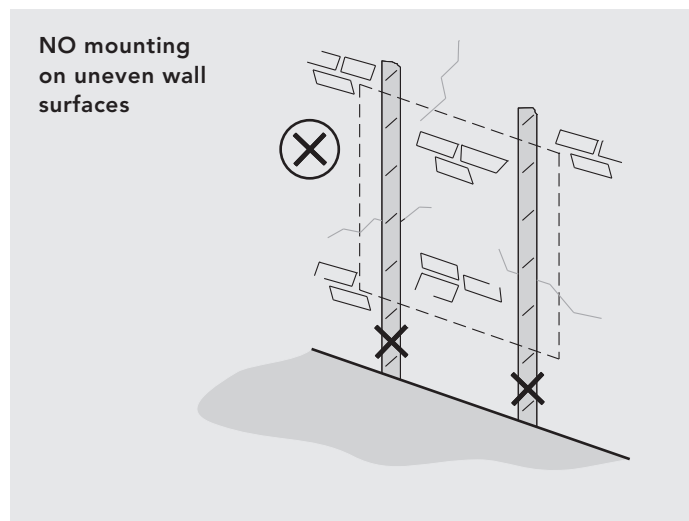
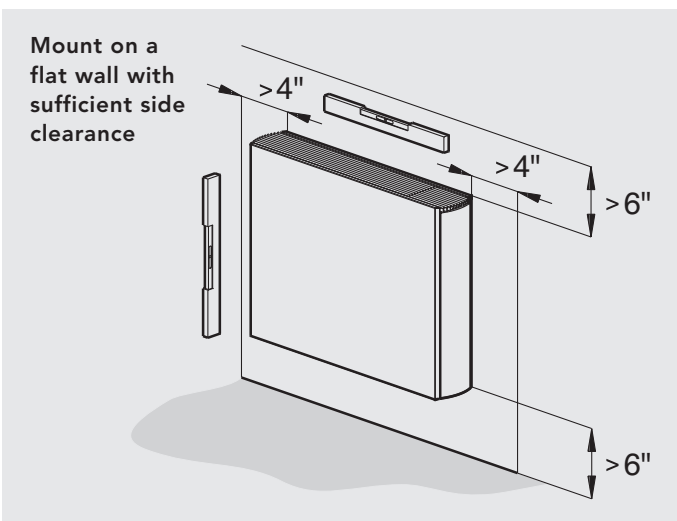
Note: It is also possible to electronically remove the highest fan speed from the functionality of this unit via the control system (see page 20). This may be advantageous on low temperature systems to prevent cool air being blown into the room on the highest setting.

When establishing the temperature difference, *i.e.* entering water to room temperature difference, allowance should be made for the temperature drop in the system. It is the water temperature at the unit that dictates the output.

5.0 Location

This unit may be fitted to any convenient wall at a height from the floor level that suits the application, providing an unimpeded flow of air into the area to be heated/cooled.

For cooling applications, the need for disposal of condensate may influence the position of the unit.



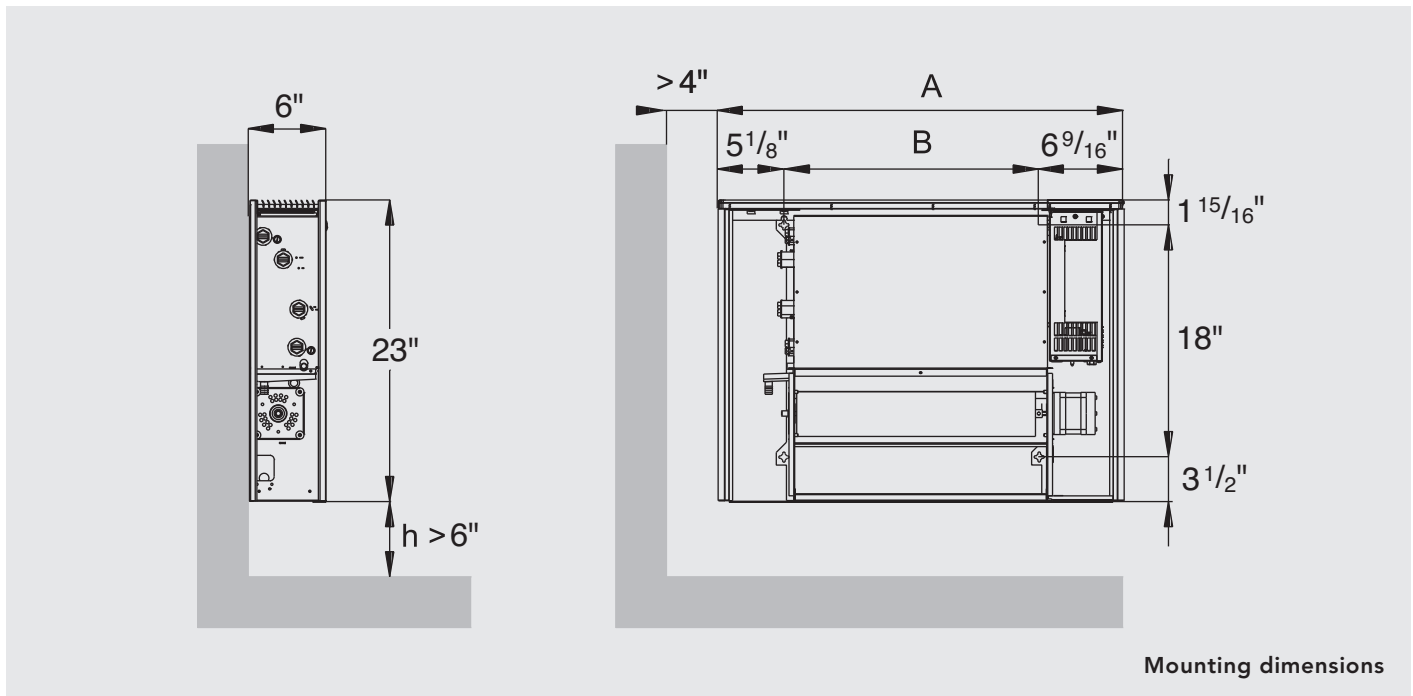
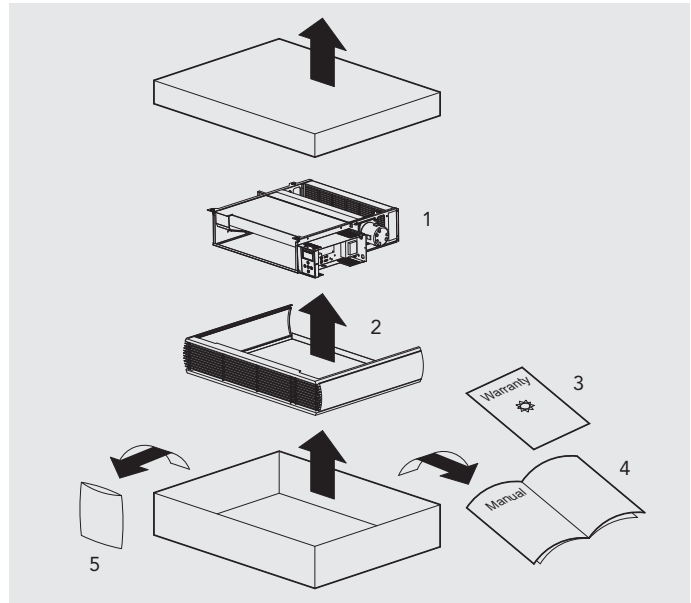
6.0 Preparation

Before proceeding with the installation, remove the carton lid, unpack the contents carefully and check against the checklist below:

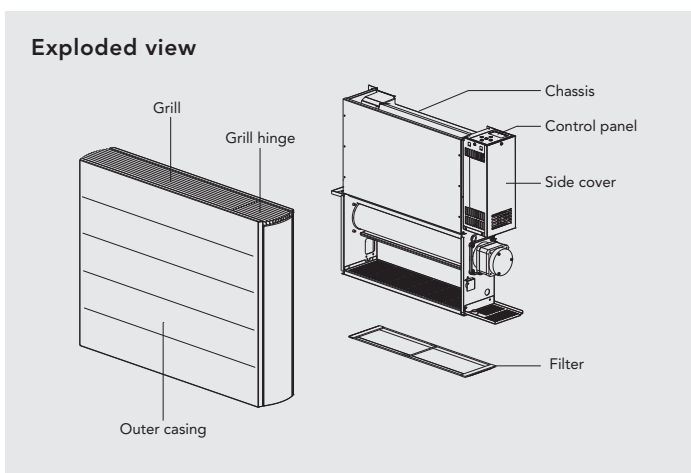
1. Heater/Cooler unit (chassis)
2. Outer Casing
3. Warranty Card
4. Instruction Manual
5. Fixing kit

Check contents for concealed shipping damage.

Tools required:



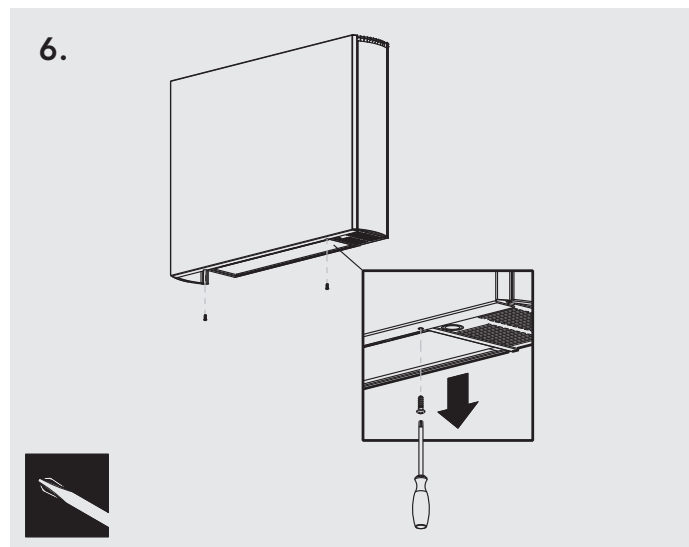
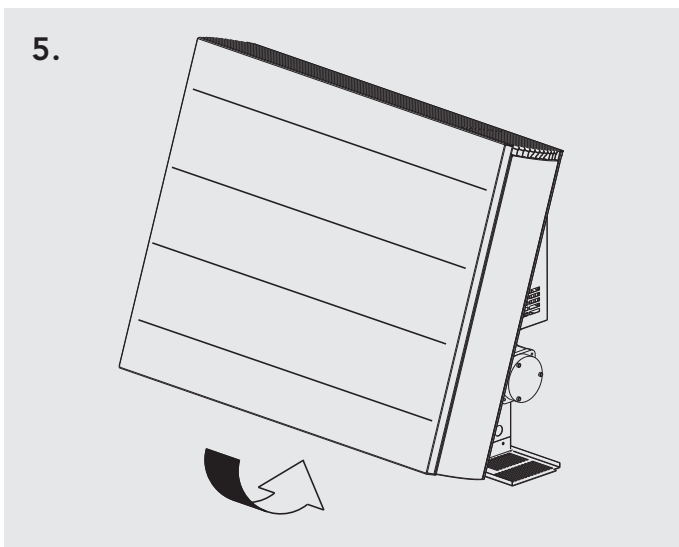
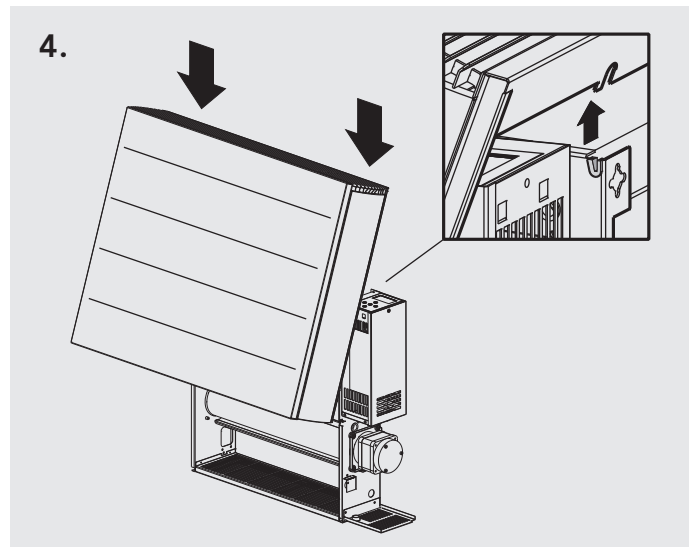
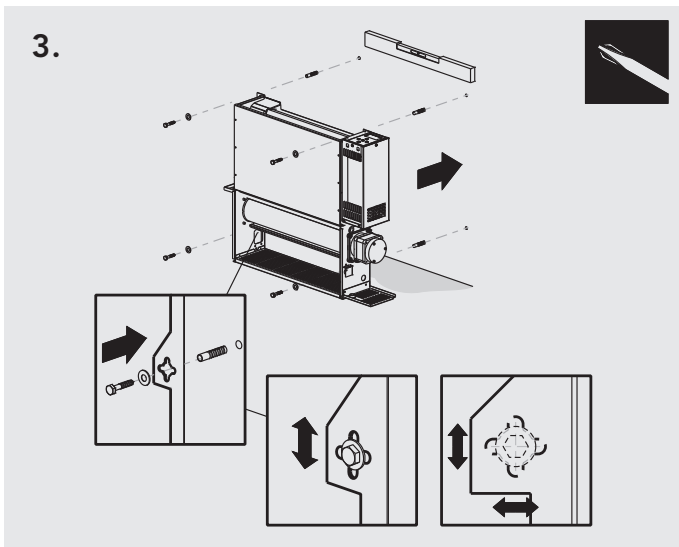
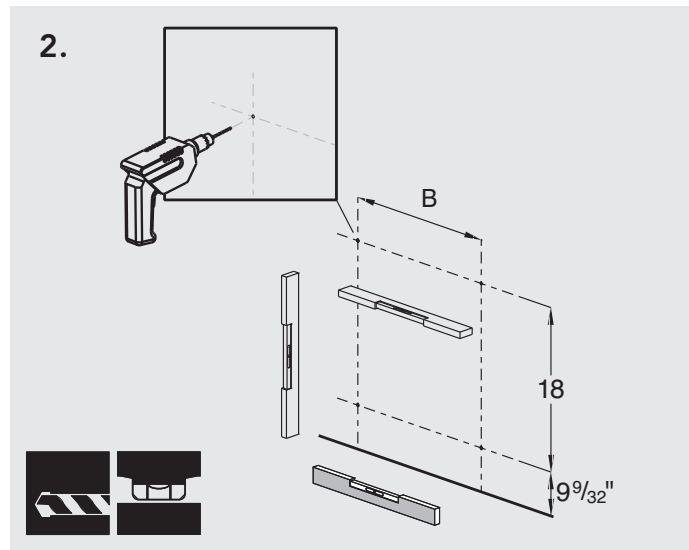
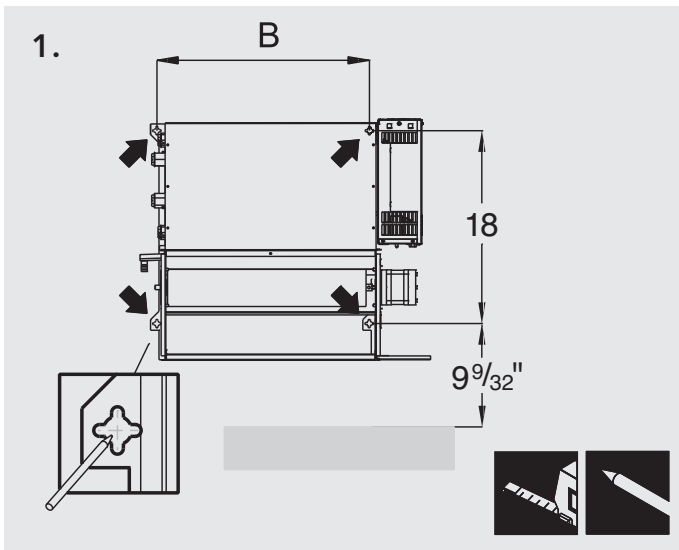
Model	Dimensions (inches)	
	A	B
iV60x080	31 1/2	19 13/16
iV60x100	39 3/8	27 11/16
iV60x120	47 1/4	35 9/16
iV60x140	55 1/8	43 7/16
iV60x160	63	51 5/16





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7.0 Fixing



NOTE: Do not replace outer cover until connection to system and connection to electrical supply has been completed.



8.0 Water Connection

Connect the unit to the supply and return pipes. Pipework can be routed from the floor or through the wall at the back of the unit. (See options below). Connections are 3/4" bsp.

Connection directly onto the heat exchanger should be made using straight connectors so that the pipework can more easily be routed inside the unit.

For heating only applications the condensate collector mounted on the chassis below the heat exchanger connections is not

needed and can be removed by unscrewing the two bracket fixing screws. Removal of this component will aid pipework fitting when the pipes are routed up from the floor.

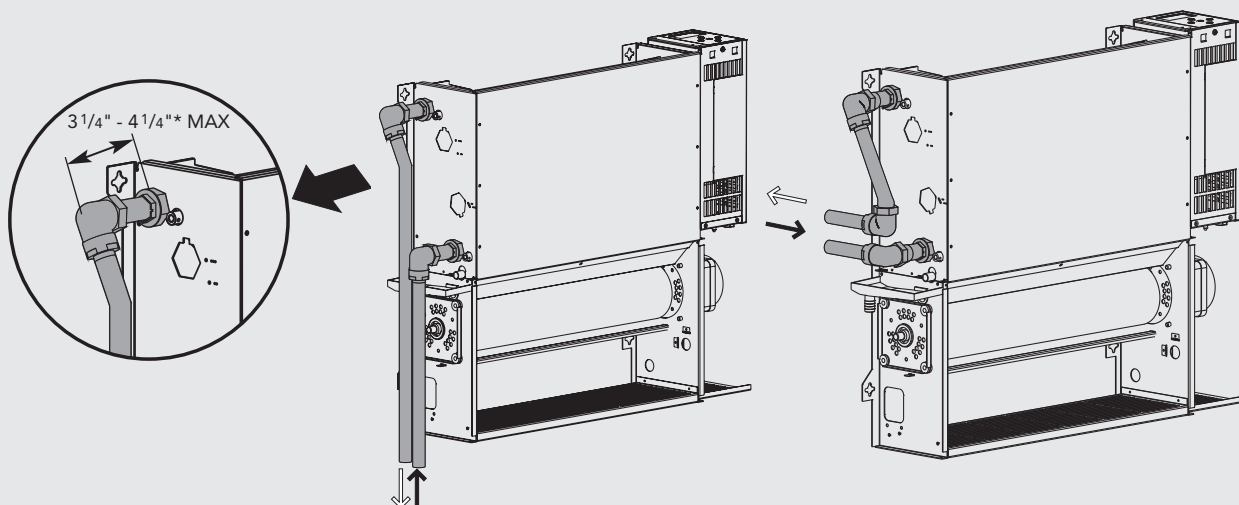
For applications involving cooling, the pipework must be routed to avoid the condensate collector. Connection to the heat exchanger should be made using straight connectors so that the pipework can more easily be routed past the condensate collector.

Before making the pipework connections refer to section 3.0 for advice on System Design.

Pipe Routing Options

2-pipe connection

(The same options are possible for 4-pipe connection)



*Dimension from chassis side to pipe centre.

Note 1: The supply pipe should be connected to the bottom connection of the heat exchanger.

Note 2: Isolating valves are not supplied with this unit, but should be fitted in case of future service requirements. The type and size of valves and their location should be suitable for the application. Valves should be selected in accordance with system temperature and pressure requirements whilst taking into account pressure drop characteristics.

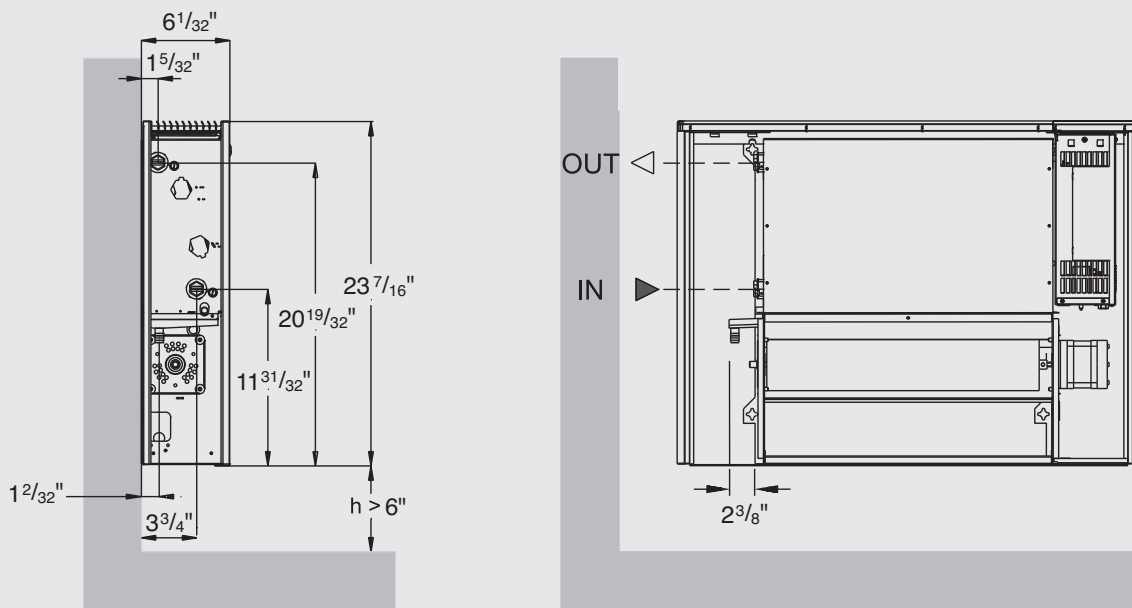
Note 3: External pipework carrying chilled water must be insulated. Use a suitable sealant as necessary to ensure that condensate does not spill or leak. Once connection to the system flow and return pipes is made, any exposed internal pipework and isolating valves must also be insulated.



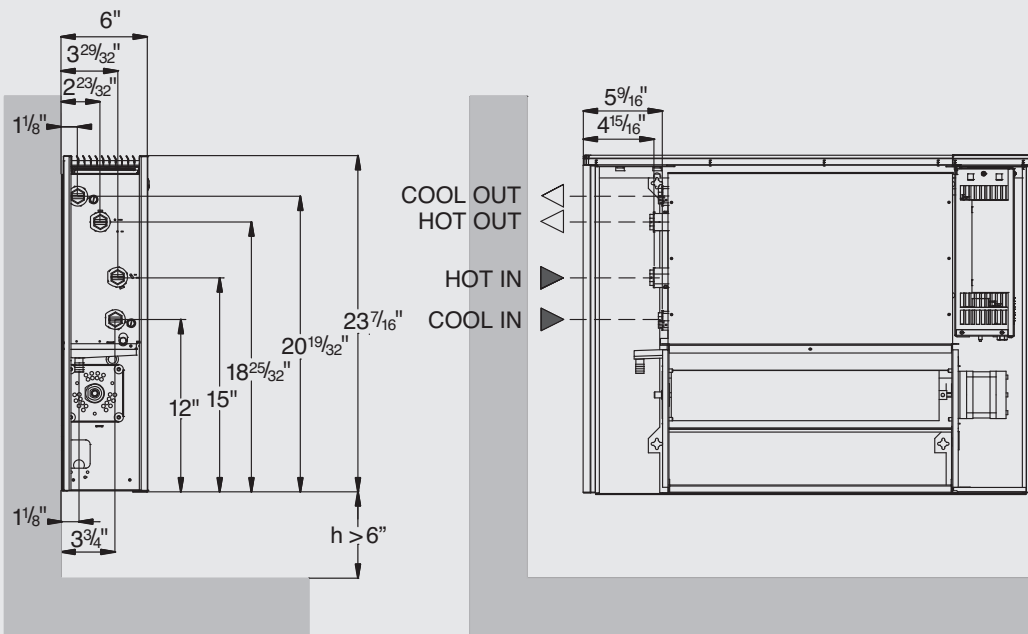
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8.0 Water Connection (continued...)

Dimensions 2-pipe

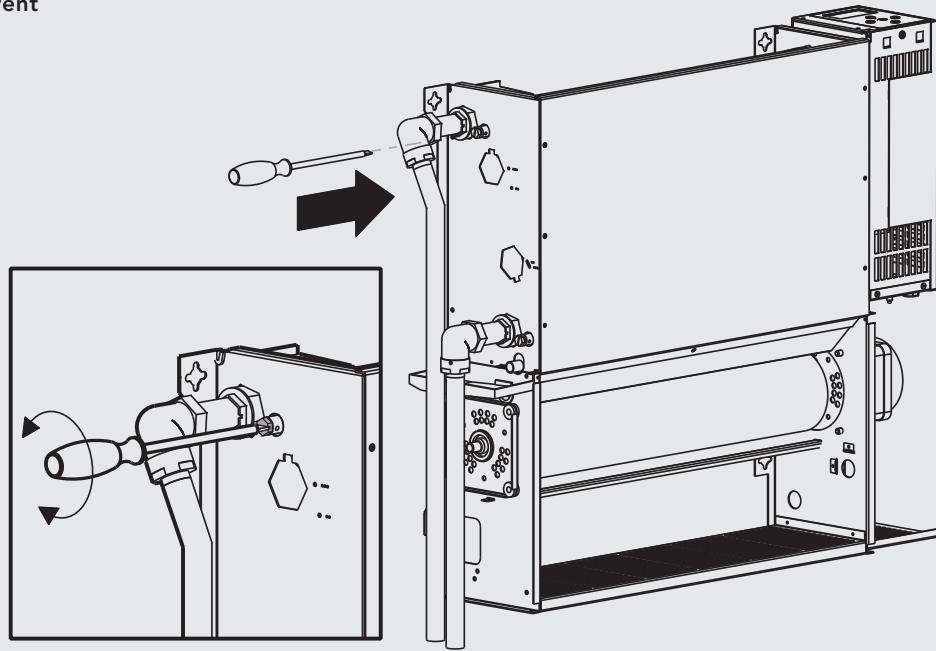


Dimensions 4-pipe

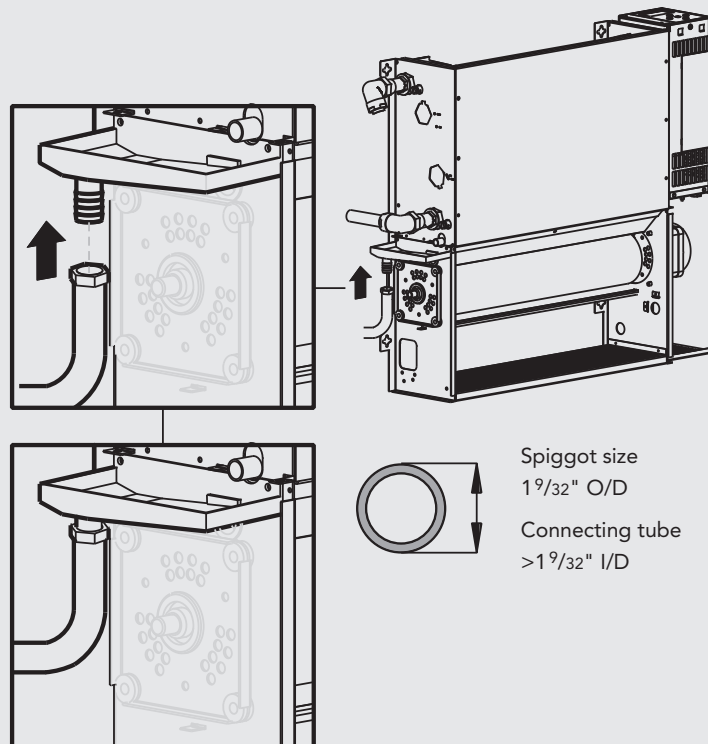


8.0 Water Connection (continued...)

How to bleed/vent



Condensate drain connection



Ensure all water fittings are secure before filling the system.

Fill the system, open the valves fully and check pipe connections for leaks and vent the heat exchanger.

Installations with chilled water will require provision for condensate disposal in accordance with any local regulations.

A drain tray is fitted for condensate collection within the unit.

This should be connected to a 1/2" drain pipe.

Alternatively a condensate disposal pump is available as an accessory, e.g. for use on internal walls (see Accessories page).



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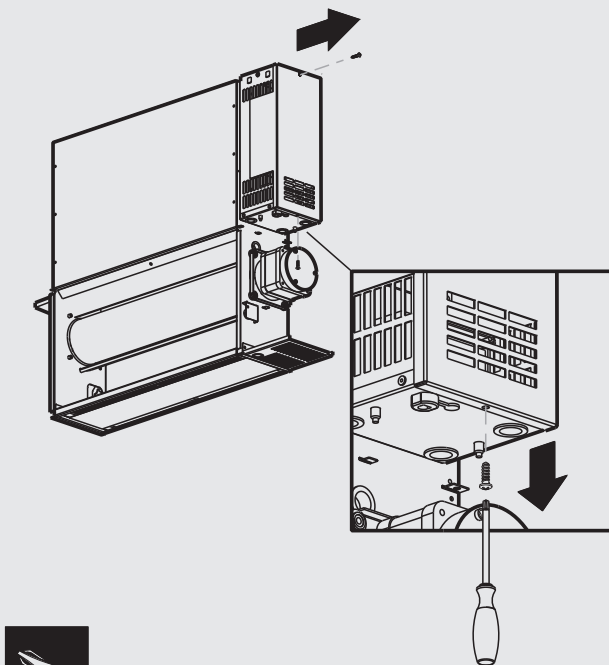
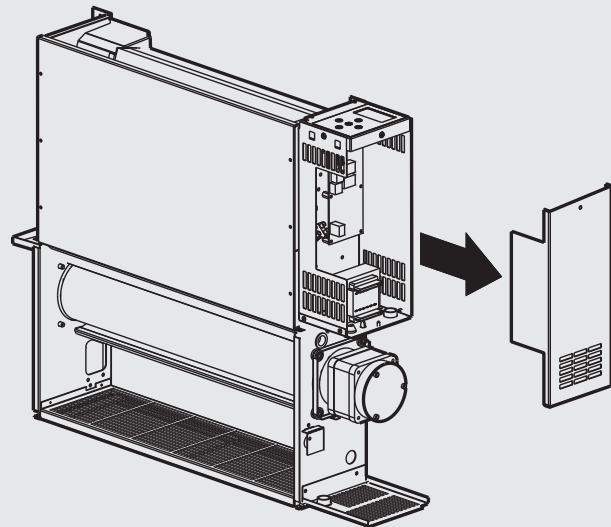
9.0 Electrical Connection

WARNING: This appliance must be grounded. The electrical installation must comply with state or local codes.

- The electrical installation of this appliance should be carried out by a qualified electrician in accordance with current regulations.
- This unit is supplied with factory fitted 3 core cord, 6ft in length with moulded plug.

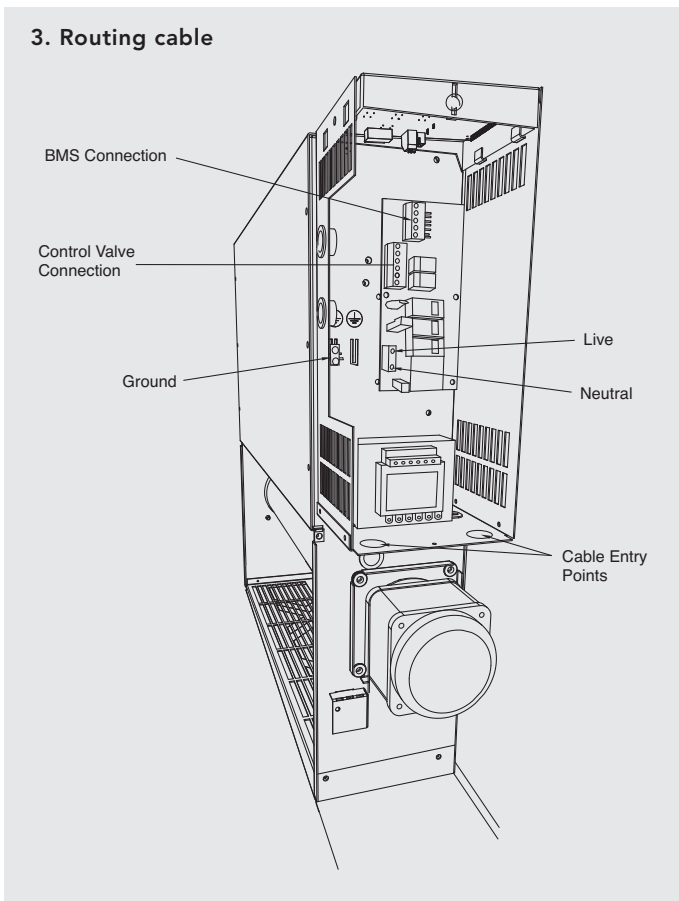
For Building Management System

- Connect wires from BMS and valves as necessary, using the same cable routing into the control box, and with the cable gland supplied.

1. Remove x 2 screws to access control panel**2. Remove control panel cover**

9.0 Electrical Connection (continued...)

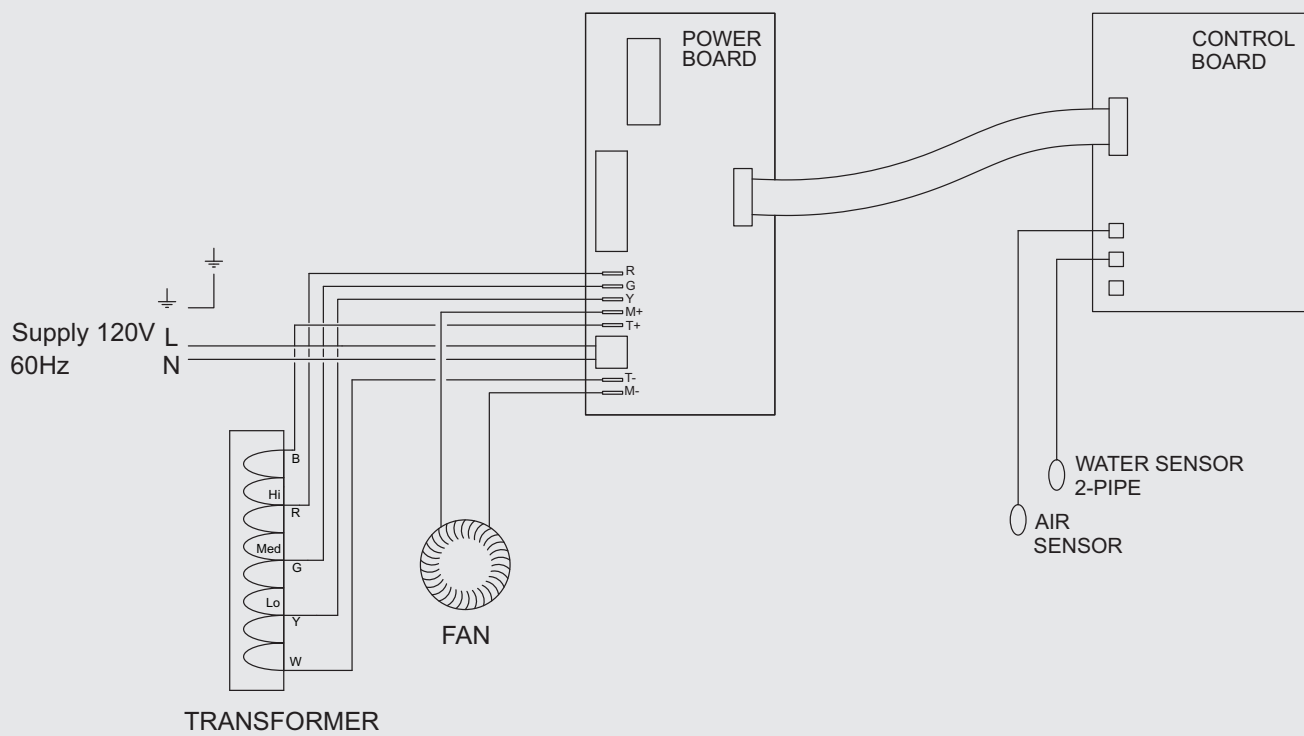
3. Routing cable



Refer to wiring diagrams below and on page 12-13.

After making the electrical connections replace the side cover to the control box.

2-pipe 0 valve

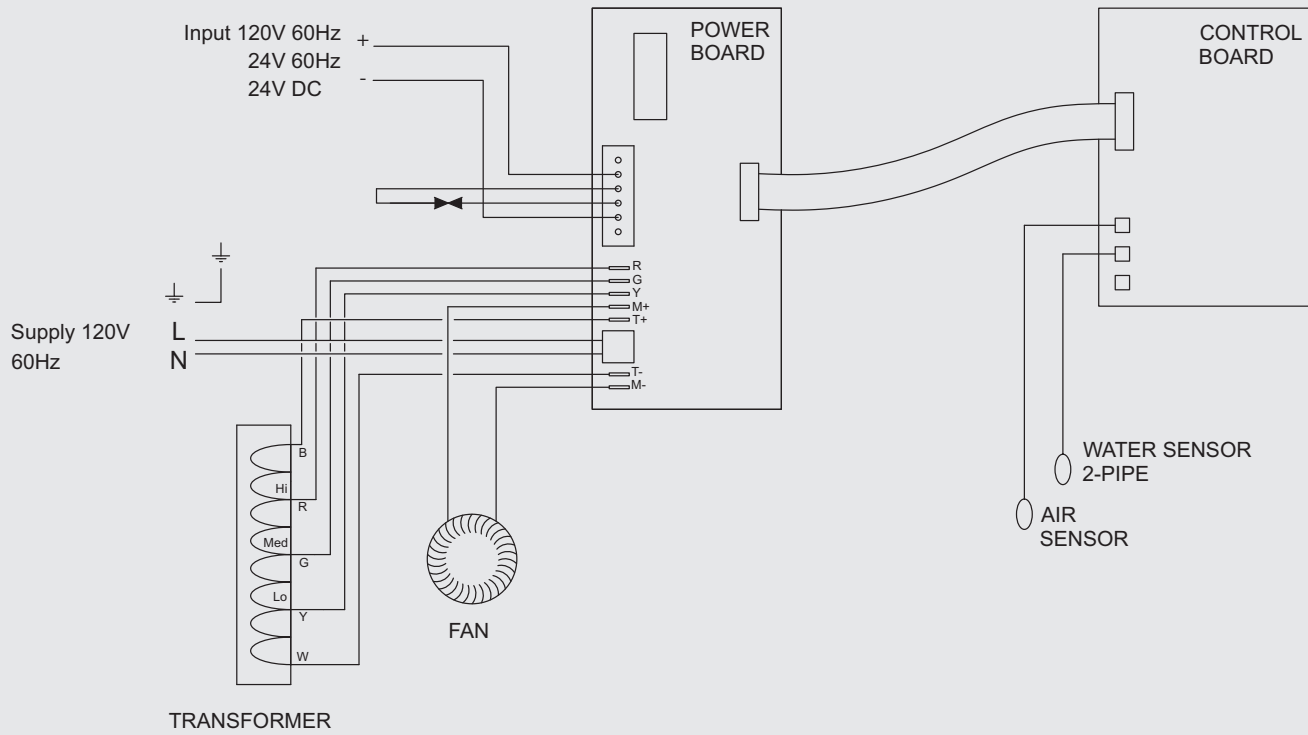


9.0

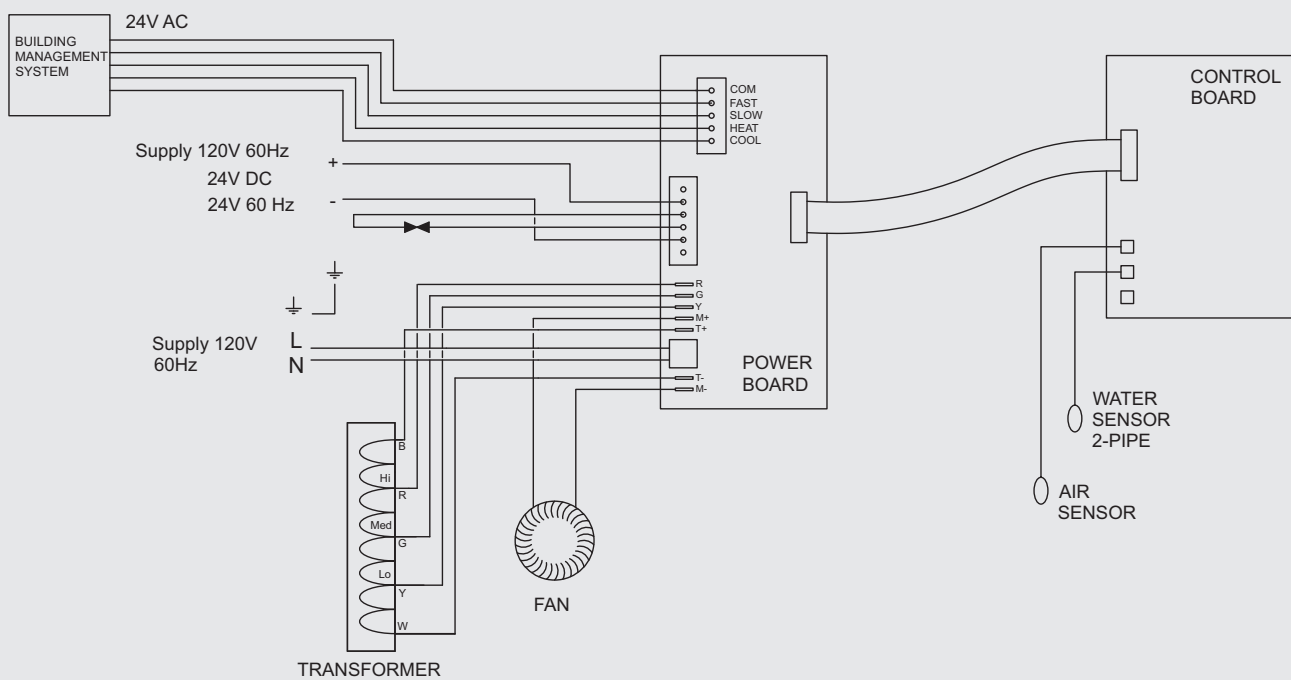
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9.0 Electrical Connection (continued...)

2-pipe 1 valve

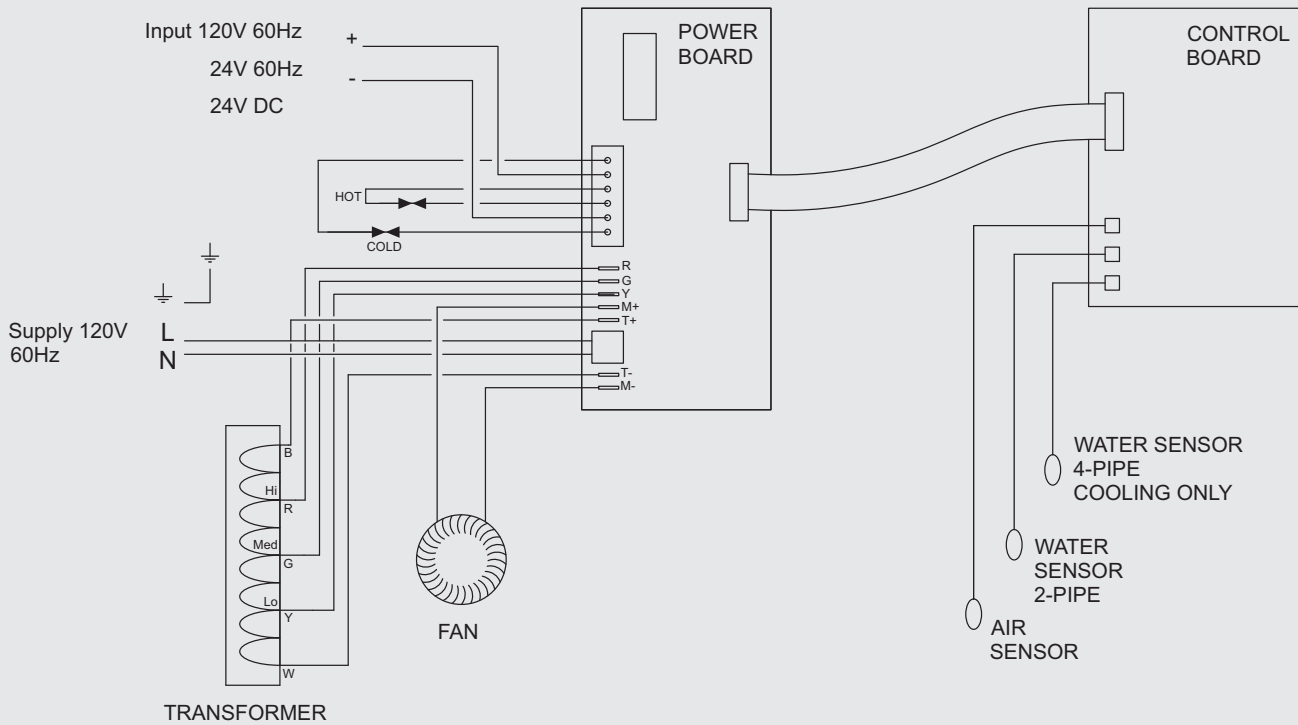


2-pipe 1 valve + BMS

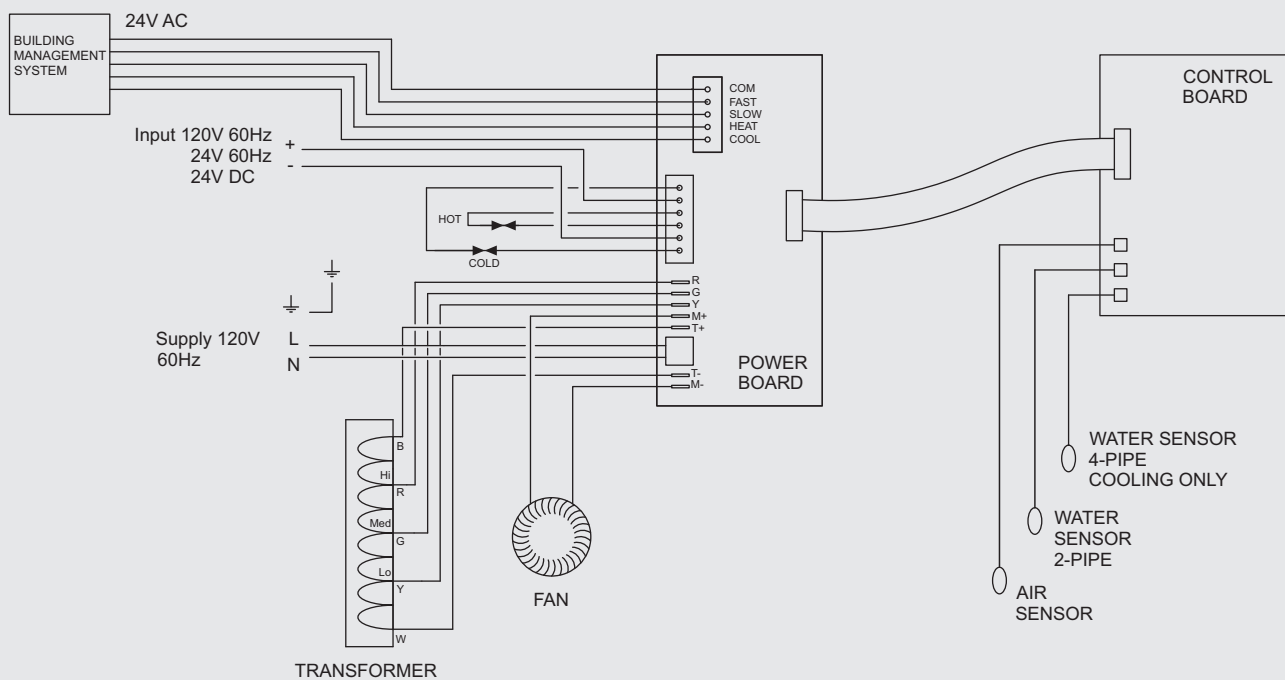


9.0 Electrical Connection (continued...)

4-pipe 2 valve



4-pipe 2 valve + BMS

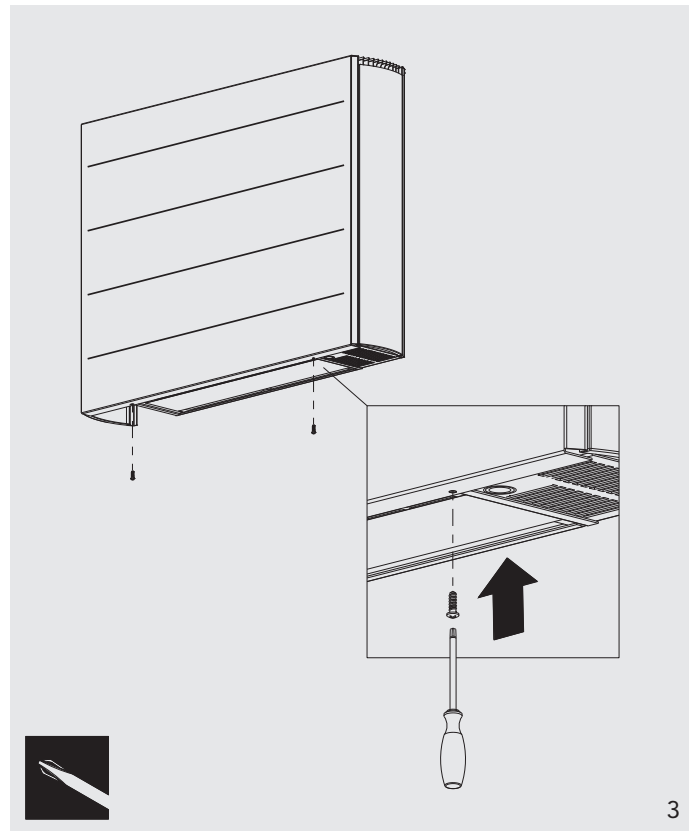
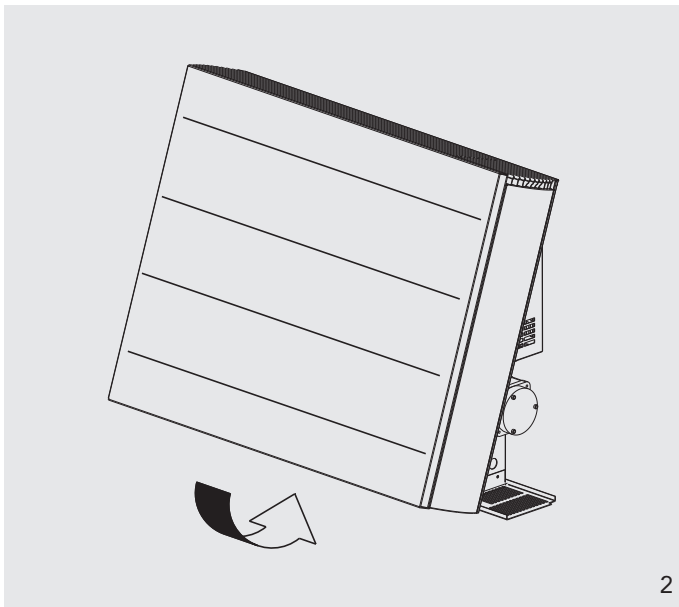
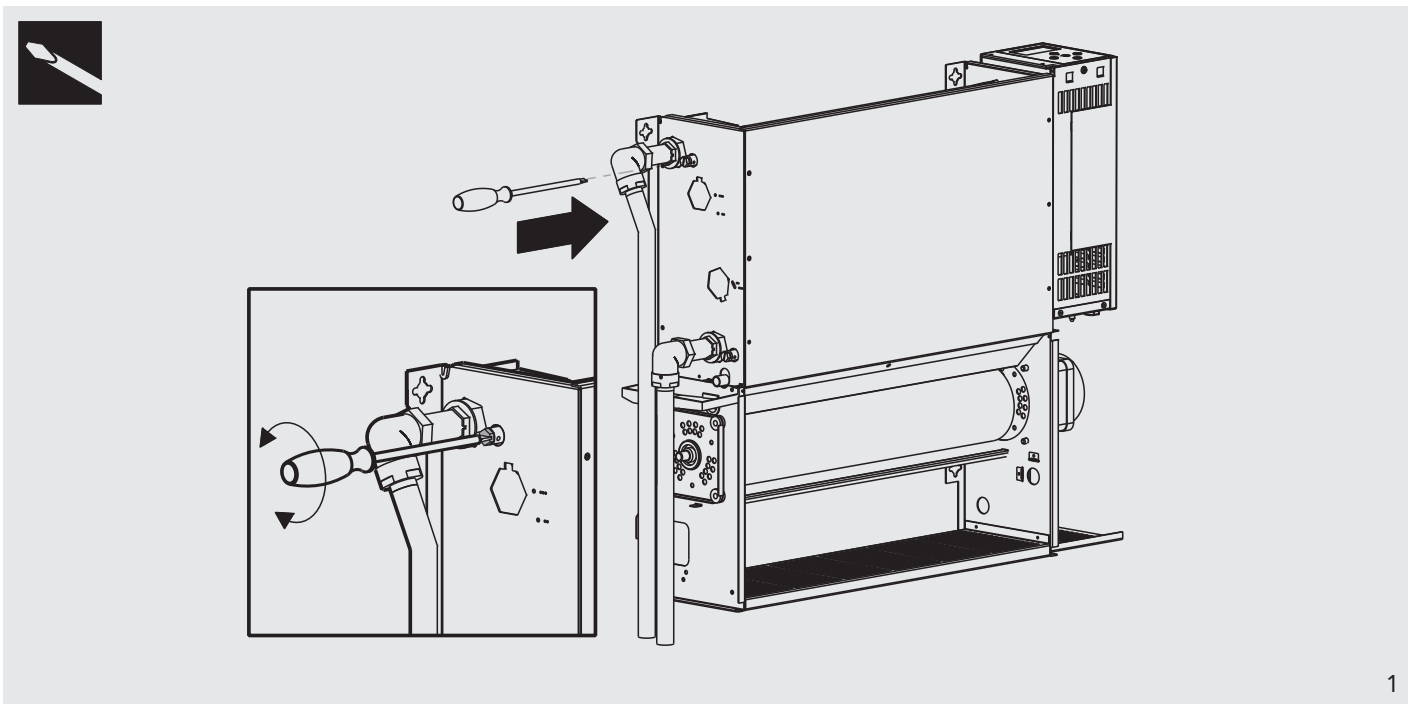


9.0



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10.0 Commissioning Procedure



1. ● Fill and vent the system.
 - Open all valves fully and vent air from the heat exchanger.
 - Check for leaks at pipe connections.
2. ● Refit the outer casing and secure with the 2 screws.
 - Switch on the electrical supply.
 - Check the operation of the unit by following the operating instructions.
3. ● Set up the installation parameters on the controls system as necessary.
 - When installation and commissioning are complete, hand over the instruction manual to the end user.



11.0 Technical Data

Performance Data 2-Pipe

Model	Fan Speed	Flow (gpm)	Heat Output (Btu/h)										Cooling (Btu/h)	
			Entering Water - 65°F Air Temperature										Condition 45-54-81	
			110	120	130	140	150	160	170	180	190	200	Total	Sensible
iV60x080	Normal	1.5	3051	3791	4543	5304	6073	6850	7634	8423	9219	10020	2412	1798
	Medium	1.5	4023	4998	5988	6990	8003	9026	10058	11098	12146	13200	3842	2829
	Boost	1.5	5402	6709	8035	9377	10733	12102	13483	14874	16275	17684	5623	4187
iV60x100	Normal	2	4176	5190	6218	7260	8313	9377	10450	11531	12620	13716	3450	2569
	Medium	2	5487	6817	8167	9533	10915	12310	13717	15134	16562	17999	5459	4019
	Boost	2	7482	9291	11126	12984	14862	16757	18668	20593	22532	24483	7861	5855
iV60x120	Normal	2.65	5038	6261	7503	8761	10033	11317	12613	13919	15234	16559	5186	3177
	Medium	2.65	6708	8334	9984	11655	13345	15051	16771	18505	20251	22009	6688	4920
	Boost	2.65	9564	11876	14222	16597	18996	21419	23862	26323	28801	31295	9956	7414
iV60x140	Normal	3.1	5923	7361	8821	10299	11795	13305	14829	16364	17911	19468	5084	3787
	Medium	3.1	7933	9856	11807	13783	15781	17798	19832	21882	23947	26025	7916	5824
	Boost	3.1	11539	14329	17158	20023	22918	25840	28787	31755	34744	37753	12055	8977
iV60x160	Normal	3.5	6828	8486	10169	11874	13597	15338	17094	18864	20646	22441	5899	4395
	Medium	3.5	9157	11377	13630	15911	18217	20546	22895	25262	27646	30046	9141	6728
	Boost	3.5	13510	16776	20089	23443	26832	30253	33702	37178	40677	44199	14150	10536

Relative Humidity: Sensible cooling at 50%.

Performance Data 4-Pipe

Model	Fan Speed	Flow (l/h)	Heat Output (Btu/h)										Cooling (Btu/h)		
			Entering Water - 65°F Air Temperature										Condition 45-54-81		
			110	120	130	140	150	160	170	180	190	200	Flow (l/h)	Total	Sensible
iV60x080	Normal	300	2157	2681	3213	3752	4296	4846	5401	5961	6524	7091	350	2292	1708
	Medium	300	2854	3546	4249	4961	5681	6408	7141	7880	8625	9374	350	3650	2687
	Boost	300	3849	4782	5728	6686	7655	8633	9619	10613	11614	12621	350	5342	3977
iV60x100	Normal	350	2938	3652	4376	5109	5850	6599	7355	8116	8883	9655	450	3277	2441
	Medium	350	3867	4804	5756	6720	7694	8678	9670	10671	11678	12692	450	5186	3818
	Boost	350	5285	6564	7862	9175	10503	11843	13195	14557	15929	17309	450	7468	5562
iV60x120	Normal	400	3519	4373	5240	6118	7006	7903	8807	9719	10638	11562	600	4927	3018
	Medium	400	4681	5816	6967	8133	9311	10501	11702	12911	14129	15355	600	6353	4674
	Boost	400	6666	8277	9911	11565	13237	14925	16626	18340	20066	21803	600	9458	7044
iV60x140	Normal	450	4129	5131	6148	7179	8221	9273	10334	11404	12482	13567	700	4830	3598
	Medium	450	5523	6861	8218	9593	10983	12386	13801	15227	16664	18109	700	7520	5533
	Boost	450	8014	9949	11913	13901	15909	17937	19980	22040	24113	26200	700	11452	8528
iV60x160	Normal	500	4753	5907	7077	8263	9462	10673	11894	13125	14365	15613	800	5604	4175
	Medium	500	6532	8118	9729	11360	13009	14674	16355	18048	19754	21471	800	8684	6392
	Boost	500	9726	12082	14473	16895	19343	21815	24308	26820	29350	31897	800	13442	10009

Relative Humidity: Sensible cooling at 50%.

11.0 10.0



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11.0 Technical Data (continued...)

Dimensions

Model	Nominal Height (ins)	Depth (ins)	Length (ins)
iV60x080	23 5/8	6	31 1/2
iV60x100	23 5/8	6	39 3/8
iV60x120	23 5/8	6	47 1/4
iV60x140	23 5/8	6	55 1/8
iV60x160	23 5/8	6	63

Weight, Water Content and Motor Power

Model	Motor Power (w)	2 Pipe Water Content (gal)	4 Pipe Water Content (gal)	2 Pipe Unpacked Weight (lbs)	4 Pipe Unpacked Weight (lbs)
iV60x080	32	0.174	0.087	50	115
iV60x100	35	0.243	0.1215	61	140
iV60x120	44	0.314	0.6	72	164
iV60x140	53	0.383	0.73	83	189
iV60x160	65	0.454	0.227	94	215

Note: 2 pipe water content = 2 pipe heating/cooling or 4 pipe cooling and 4 pipe water content = 4 pipe heating.

Pressure Drop

Flow (l/h)	Pressure Drop (ins wg)				
	iV60x080	iV60x100	iV60x120	iV60x140	iV60x160
	2 Pipe Heating/Cooling & 4 Pipe Cooling				
100	12	18	23	26	30
150	26	36	47	52	60
220	44	60	78	85	98
330	66	89	115	124	143
500	92	124	157	170	194
750	123	163	205	221	253
4 Pipe Heating					
100	24	36	46	52	60
150	52	72	94	104	120
220	88	120	156	170	196
330	132	178	230	248	286
500	184	248	314	340	388

Sound Levels

Model	Sound Pressure (dBA) (at 2.5m)		
	Normal	Medium	Boost
iV60x080	24.8	37.7	47.9
iV60x100	27	35.8	47.9
iV60x120	24	40.5	51.7
iV60x140	24.9	35.5	54.8
iV60x160	27	35	56.3

Sound levels tested in accordance with ISO 3741.

Air Flow Rates

Condition	Fan Speed	Air Flow (cfm)				
		iV60x080	iV60x100	iV60x120	iV60x140	iV60x160
Heating	Normal	53	80	106	132	159
	Medium	87	130	174	217	261
	Boost	145	218	290	363	436
Cooling	Normal	38	58	77	96	115
	Medium	65	97	129	162	194
	Boost	119	178	237	297	356

Electrical Data

All iVECTOR models require an electrical supply of 120V 60Hz.

The iVECTOR should be sized based on "normal" outputs.



12.0 Control System Set-up and Operating Instruction

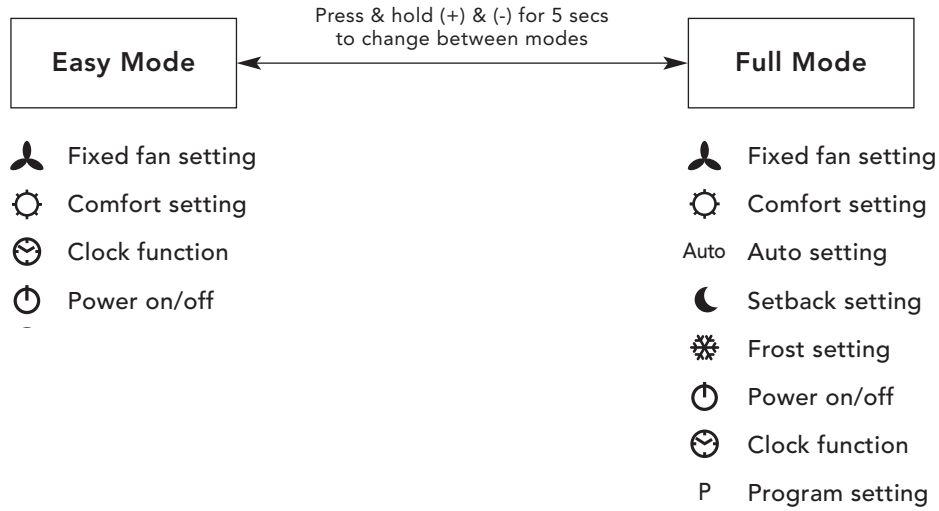
General Description

The electronic control system on this unit provides a wide range of options that can be selected according to system complexity and operating requirements.

The unit is factory set to 'Easy mode' giving thermostatic temperature control, fan only option and clock function.

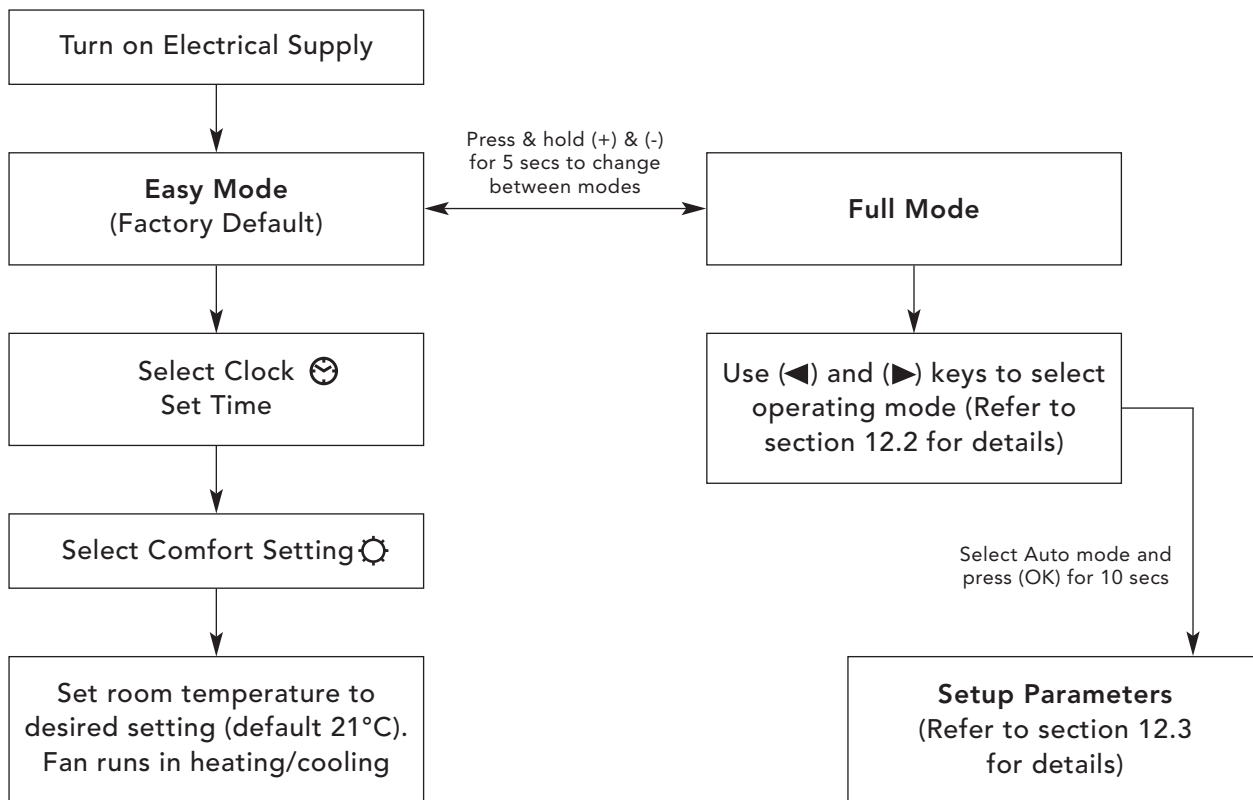
Additional functions are available if necessary from the Full operating mode menu.

A range of additional parameters and features can be changed or activated in a further set up menu should these be required.



12.1 Unit Operation

Use (◀) and (▶) keys to choose from the operating modes described in section 12.2. A function is selected when the relevant icon is highlighted by □.



11.0
12.0



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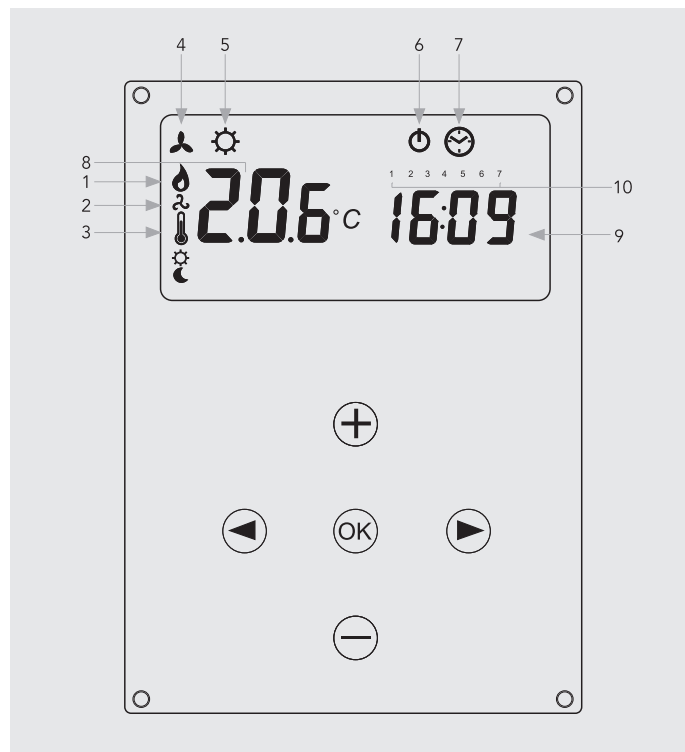
12.1 Unit Operation (continued...)

Easy Mode Display

1. Heating indicator
2. Cooling indicator
3. Temperature symbol – when this is displayed the current room temperature is displayed
4. Fan speed symbol (fan blades will rotate when active)
5. Comfort setting
6. Power (on/off)
7. Clock setting
8. Room temperature
9. Time
10. Day of the week

Keys:

- OK Validation key (OK)
- + Plus key (up)
- Minus key (down)
- ◀ Navigation left
- ▶ Navigation right



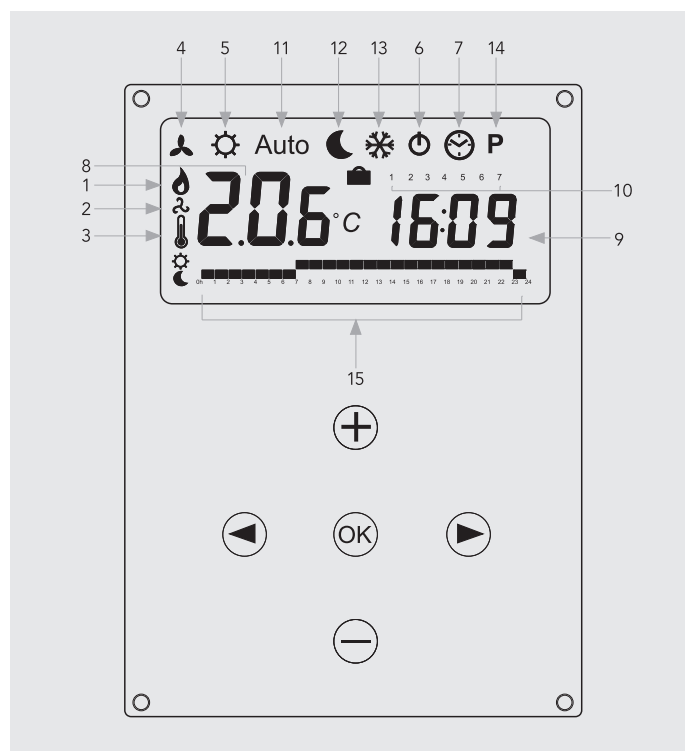
Full Mode Display

The full control display can be accessed by pressing the (+) and (-) buttons for 5 seconds. This action can be repeated to revert back to 'Easy mode'.

1. Heating indicator
2. Cooling indicator
3. Temperature symbol – when this is displayed the current room temperature is displayed
4. Fan speed symbol (fan blades will rotate when active)
5. Comfort setting
6. Power (on/off)
7. Clock setting
8. Room temperature
9. Time
10. Day of the week
11. Auto setting (to follow set programme)
12. Night set-back setting
13. Holiday setting
14. Program menu
15. Program schedule










Keys:

- OK Validation key (OK)
- + Plus key (up)
- Minus key (down)
- ◀ Navigation left
- ▶ Navigation right



12.2 Operating Modes

Use (◀) and (▶) keys to choose from the following parameters.
A function is selected when the icon is surrounded by □.

Function	Description	Adjustment	Availability	
			Easy	Full
	Control Operation Setup The unit must be programmed for operation in heating only, cooling only or heating and cooling.	Control Operation Setup Scroll to the Fixed Fan mode  , and then press on the (◀) key. Use (+) or (-) keys to choose from the following: Nod (Mode) HOt for heating. Nod (Mode) COLd for cooling. Nod (Mode) AUtO for heating and cooling. Press (OK) to confirm.	No	Yes
	Fixed Fan Setting F1, F2, F3 gives fan speed 1,2 or 3 respectively with no temperature control. A1, A2, A3 gives fan speed 1,2 or 3 respectively in heating only if the water temperature $\geq 90^{\circ}\text{F}$.	Use (+) or (-) to select and press (OK) to confirm. (Note the fan speed symbol will only appear when the fan is running).	Yes	Yes
	Comfort Setting Provides room temperature control with automatic fan speed adjustment according to difference between actual and set temperature. The fan operates when water $\geq 90^{\circ}\text{F}$ in heating or $\leq 60^{\circ}\text{F}$ cooling.	Press (OK) to view the set temperature. Use (+) or (-) to adjust the required room temperature. Default setting is 21°C in Heating.	Yes	Yes
Auto	Automatic Setting The unit will run according to one of the 9 pre-set timed programs, or one of the 4 user defined programs.	See section 12.5 for program options and setup. Press (OK) to view the actual set temperature (Comfort or Set-back).	No	Yes
	Night Set-back Setting Provides room temperature control with automatic fan speed adjustment according to difference between actual and night set-back temperature.	Press (OK) to view the set temperature. Use (+) or (-) to adjust the required room temperature. Default setting is 19°C in Heating.	No	Yes
	Holiday Function Provides frost protection or overheat protection during periods of absence (holiday). The control will count down the time to "00" after which control is resumed in Auto setting. For frost protection the set temperature is 45°F . For overheat the set temperature is 86°F .	Select  and  is displayed. Use the (+) and (-) to adjust the duration. (In hours "H" if below 24H and then in days "d"). Use the (-) key to interrupt this period and adjust the duration on "no".	No	Yes
	Power On/Off Turns unit on/off.	Press (OK) to turn the power on or off.	Yes	Yes
	Set Clock Menu Displays time in 12h or 24h format.	Press (OK) Use the (+) and (-) keys to set the minutes. Press (OK) Use the (+) and (-) keys to set the hours. Press (OK) Use the (+) and (-) to set the days. Press (OK).	Yes	Yes
P	Program Menu Provides choice from 9 pre-programmed and 4 user defined timed programs.	See section 12.5 for full details.	No	Yes



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12.3 Installer's Set-up Parameters

The various parameters that can be defined by the installer are shown in the table below.

To access the installation parameters menu, scroll to **Auto**, then press **(OK)** for 10 seconds.

Use **(◀)** and **(▶)** keys to highlight the parameter to be adjusted.

Press **(OK)** to toggle the parameter setting or edit the value. If the value starts to blink, use **(+)** and **(-)** keys to adjust the value. When the value is adjusted to the desired setting, press **(OK)** to confirm.

Once parameters are set, go to **<End>** parameter and press **(OK)** to go back to the main menu.

Parameter Name	Description	Default Setting	Alternative Setting
dEG	Select temperature scale.	°C	°F
00:00	Select the hour format.	24H	12H
Air (Air)	Calibration of the internal air sensor against the actual room temperature. (The calibration must be done after 12 hours working at the same set temperature).	To adjust the air sensor temperature, enter the measured temperature using the (-) or (+) keys. To confirm the calibration, press (OK) Press (+) and (-) keys at the same time to reset the offset value.	
AiPu	Fan pulse will switch on the fan for 30 seconds every 5 minutes. This will draw air over the air sensor if unit is mounted where air circulation is restricted.	YE5 (Yes)	NO (No)
Nb vAL (2 Pipe models only)	Selection of the number of valves to be driven. This parameter depends on the system design.	0 valve	1 valve
FAS SPEE	Allows the maximum fan speed to be switched off - the unit will only run in Low and Medium speeds.	FA5 For Fast	NEd For Medium
SetU	Select whether control is from the internal controls system or from external BMS.	AUt (Auto)	bN5 (For BMS)
NIGt	Select option for fan speeds when the unit reverts to night set back in cooling operation.	NOr (For Normal regulation)	AL1 (Fan speed 1 only)
CLr ALL	Reverts the control back to factory settings.	Press (OK) for 5 seconds	
End	Exit the installation menu.	Press (OK)	

12.4 Building Management System Input Set-up

If the unit is integrated into a Building Management System, control of the unit will be by BMS input only. The BMS alternative setting from the parameters menu must be selected. On the main screen the AUTO symbol will be turned off.

P1: Low fan speed input: P1 is indicated where the Room temperature / set temperature is shown normally.
F1 is ON

P2: High fan speed input: P2 is indicated where the Room temperature / set temperature is shown normally.
F3 is ON

P3: WINT MODE: Winter mode is used for system regulation. Heating indicator flashes in this mode.

P4: SUMM MODE: Summer mode is used for system regulation. Heating indicator flashes in this mode.

If the BMS inputs are wrong (e.g. P1 + P2 or P3 + P4), a message **ERR BMS** will flash and the system stops BMS control.



12.5 Program Mode

P Program Menu

A quantity of 9 built-in (P1 - P9) and 4 user defined (U1 - U9) timed program options are available to choose from. Each day is divided into 24 one hour periods operating in either Comfort setting (21°C default) or Night set-back setting (19°C default).

Use the (+) and (-) keys to scroll through the program options.

1. Built-in Program Selection

Scroll to the preferred program number P1 to P9 - the number will flash. Press (OK) to confirm.

Scroll back to Auto setting to activate the selected program.

Use (+) & (-) to choose a program number

Use (<) & (>) to see the other days in the program

Shows the daily program

Built-in programs description

P1 Morning, Evening & Weekend	P4 Evening & Weekend	P8 8h - 19h, Saturday (Shop)
P2 Morning, Afternoon, Evening & Weekend	P5 Morning, Evening (Bathroom)	P9 Weekend (Secondary House)
P3 Day & Weekend	P6 Morning, Afternoon & Weekend	
	P7 7h - 19h (Office)	

2. User Program Menu

Select U1 to U4 and press (OK) to enter a user defined program.

Choose a user program with (+) & (-)

Day

Hour at the cursor position

The (+) key sets temperature at each flashing program hour
 The (-) key sets temperature at each flashing program hour

Use (<) or (>) keys to move the flashing cursor position to the required day and modify the program. When the displayed day is correct, press (OK) to jump and copy the program of that day to the following day. Press (OK) on day "7" to finish and validate the program. The user-defined program will be followed in Auto operating mode.



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13.0 Troubleshooting

Please follow the troubleshooting guide below before calling for assistance. It is important to make sure that an apparent problem with this unit is not the result of system controls being

incorrectly set, that there is no electrical supply to the unit or that the unit is incorrectly set.

Problem	Possible Causes	Remedy
Heating Mode/ Cooling Mode - No Fan	Electrical supply switched off	Switch on supply
	Fuse blown	Replace fuse
	Unit switched off	Switch unit on at LCD display
	Temperature set point reached	Increase temperature set point
	Water temperature reaching fan convector below 90°F in heating or above 60°F in cooling	Check boiler, heat pump or equivalent Programmer ON Boiler/heat pump on and set to correct setting Pump running Note: Operation of fan convector can be checked by switching to manual fan setting
Poor heating performance/ unit cycling on water sensor	Low water temperature to unit	Turn up water temperature at boiler or heat pump
	Poor water flow	Vent air from heating system

If the fan convector is still faulty after checking the above, call your installer or MYSON Service.

Possible Installation Faults

Poor heating or cooling performance from this unit could be the result of one or more of the following factors which should have been taken into consideration at the installation stage.

- Unit incorrectly sized against the room heat loss.
- Lack of water flow - Incorrect pipe size to unit
 - Valves not fully open
 - System incorrectly balanced
 - Pump set too low
- Boiler or heat pump controls set too low.

System Diagnostic

A system diagnostic tool has been built into the control system of this unit which enables testing of all the input and output functions from the control.

Select Auto setting in the user menu then press "Down" for 5 seconds.

Use the left and right arrows to scroll through the inputs/outputs from relays, air sensor, water sensors, BMS inputs, and screen to check as necessary.

Note: The control will revert back to the main menu after 1 minute if no buttons are pressed.



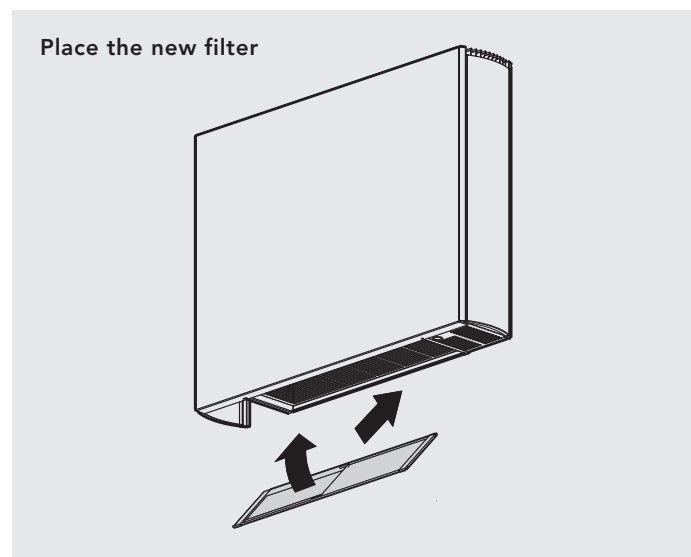
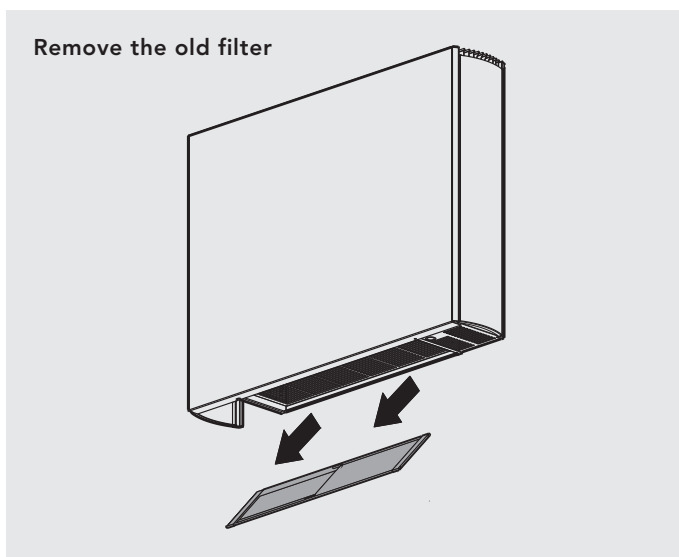
14.0 Maintenance

Disconnect from the power supply before carrying out maintenance work.

Maintenance should be restricted to occasional removal of dust and lint around the unit. The outer surface may be wiped over with warm water and mild detergent taking care to avoid water entering the grille areas.

Replacing the Filter

Periodically the filter will need to be cleaned, and the control system on this product will display 'FILT' when it is time for the filter to be checked. Filters can be easily removed for cleaning as shown below. See spare parts list section if replacement filters are needed.



15.0 Spare Parts

Filters

Part No	Size (mm)	iV080	iV100	iV120	iV140	iV160
1290027	495	1		1		1
1290028	695		1		1	
1290029	400			1	1	2



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