



**Important Note for the Installer.**

A separate document (Installer level Settings) is available for programming the electronic controller should the factory settings need to be altered. This covers temperature settings (example for UFH), Prepayment etc,.

Phone 01889 272199 to request copy.

These should not be left with the home-owner

# Instructions

for installing and using HIPER HIU

1. Important information
2. Description and Features
3. Dimensions and components
4. Installation and Assembly instructions, Accessories
5. Electrical and Wiring instructions
6. Commissioning
7. Operation - The HIU Controller
8. Maintenance instructions
9. Fault codes and fault finding
10. Spares
11. Technical Specification
12. Warranty and Declaration of Conformity

### Hiper Xi45 INDIRECT HIU 45DHW/10HTG

Part Code : HIPER4510

### Hiper Xi60 INDIRECT HIU 60DHW/10HTG

Part Code : HIPER6010

### Hiper Xi60 INDIRECT HIU 60DHW/15HTG

Part Code : HIPER6015

### Hiper Xi60 INDIRECT HIU 70DHW/15HTG

Part Code : HIPER7015

## SECTION 1 - Important Information

### SECTION 1 - Important information

These instructions describe the installation, assembly, operation, maintenance and fault finding of the Hiper Heat Interface Unit (HIU). For operation of the entire plant, the technical documentation of all the components used such as, boiler, tank, pumps, pipework and valves must be complied with. Design of the entire plant is not the responsibility of the Hiper HIU.

Symbols are used in this manual to highlight;



**DANGER** – immediate risk of physical injury or even death.  
**DANGER** – immediate risk of serious damage.



**IMPORTANT** – information critical to the installation or installer.  
**IMPORTANT** – information critical to the user.



**NOTE** – useful information regarding the operation or installation of the HIU.

Do not start installation until you have thoroughly read and understood these Assembly and Operating Instructions and the safety provisions.

Comply with all safety provisions.

Installation can only be carried out by a qualified and competent plumbing installer and a qualified and competent electrical installer in accordance with the current document Building Regulations, Legislation and Standards.

**SAFETY!** – before any electrical work or maintenance ensure that the electrical supply is isolated.

**SAFETY!** – High Pressures and temperatures are present in the system primary and secondary pipework and system circuits.

**SAFETY!** – all safety equipment and valves must not be tampered with or removed prior to operating the HIU.

## SECTION 2 - Description

**Heat Interface Units (HIU)** deliver heat generated from a centralised heating plant to multiple homes, apartments or flats. The method is to combine plate heat exchangers with a control valve to enable the supply of sufficient heat to provide hot water (DHWS) and room heating (HTG). The Hiper HIU has been developed to this concept with unique control and ability to optimise performance and operation.

The Hiper HIU is all that is needed in the home to provide all its heating and hot water. It's like a boiler without a flame. The heat is provided by the 'communal' heating boiler or heat source.

Heat is transferred to the home requirement by two plate heat exchangers which have been designed to match the intended output. One plate heat exchanger provides the hot water supply (DHWS) and the other plate heat exchanger supplies a heating circuit (radiators or underfloor heating, the installer has the option to commission for either).

The Hiper HIU has innovative design advantages, and is the result of many years experience, research and collaboration with specialised engineers. Its general classification is INDIRECT HIU as the two plate heat exchangers provide a barrier between the secondary and primary heating circuits.

**PROPORTIONAL interface with PRESSURE INDEPENDENT CONTROL** - 100% authority (regardless of pressure fluctuations in the district heating supply) and interfaced with electronic PID (Proportional-Integral-Derivative) control. Performance is guaranteed even when apartment heating and DHW systems fluctuates. The benefits are high volume performance delivery of hot water for the end-user by enabling the use of larger area PHE (plate heat exchangers) while maintaining very low return temperatures giving substantial energy savings.

## SECTION 2 - Description FEATURES



### **PID Electronic Controller**

(Proportional-Integral-Derivative) - with temperature and flow sensor input maintains the efficiency of the HIU. Switches to priority DHW on demand and maintains stable temperatures under varying load conditions. The PID logic is also different in that it is dual speed, and reacts to demand by accelerating or decelerating response to achieve the set point and stabilise it quickly.



### **Pressure Independent Control (PICV)**

Integral PICV with electric actuator giving proportional modulating control as instructed by the PID Controller, 100% authority, (regardless of pressure fluctuations in the district heating supply). Unlike many other HIU, no further control valves are required.



### **Minimising scale build up.**

In the DHW PHE - the flow is always diverted away from the DHW PHE into the HTG PHE reducing the scale formation potential. Option—see ActivFlo Scale Protection



### **Automatic Fault Diagnostics**

The control unit can identify faults to components within the HIU and issues an identifying fault code on the screen. Once the fault or error has been rectified the control unit automatically resets and resumes normal operation.



**Heating Flow Limitation** - decreasing the possibility of starving the DH circuit when extreme demands are made on the entire network. For example in cold weather when a large heating demand is made on the network the control unit does not allow 100% opening on start up and prevents the 'over demand' causing disruptions. The value is factory set but can be if advised changed in the installer settings.



**Instant Hot Water Response** - Instant water response is guaranteed by keeping heat (supplied by the district supply) close at hand to the HIU at all times. At regular intervals (factory set to 20 minutes), the controller opens (factory set to 2 min) the PICV to deliver a low flow of about 100 l/hr, then closes the valve again. This repeats whenever the HIU is on standby when there is no demand.



**OPTIMISED HEATING CONTROL** - return temperatures are monitored and controlled. The controller of the HIU uses this information to maintain the optimum flow temperature and keep the DISTRICT return temperature as low as possible. This can be seen on the display screen as AUTO and is the factory setting.



**DHWS Priority** - DHWS is the priority operation of the HIU. A flow switch detects the demand and the HIU (if in heating mode) switches to DHW production. Even if the heating system is in fault mode, the HIU will still produce DHWS.



**High DHW temperature safety.** If for whatever reason un-managed hot water at extreme temperature were to pass through the PHE, there is a thermostatic limiting valve on the DHW exit. This is locked and factory set to 57C. Being non electric this still maintains the safety feature even when electric supply to the HIU is cut.



**Low Pressure protection for the HIU.** Low pressure switch will stop the circulating pump should the secondary system drop below 0.7bar. The HIU is fitted with a Safety Relief valve set at 3 bar for high pressure protection.



**Underfloor Heating** - the unit is fully compatible with low temperature systems. The installer simply sets the required value for temperature on installation.



**Insulation** - the HIU casing panels are all fully insulated including the back-plate to prevent overheating of the surrounding area.



**Prepayment Billing** can be accommodated with an accessory kit to shut down the unit when the tenant is no longer in credit.



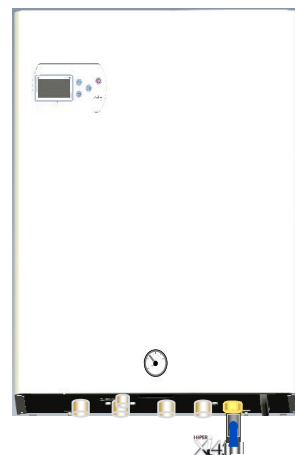
**Security** - the metal casing can be closed to prevent unauthorised tampering with optional fixing bolts on request.

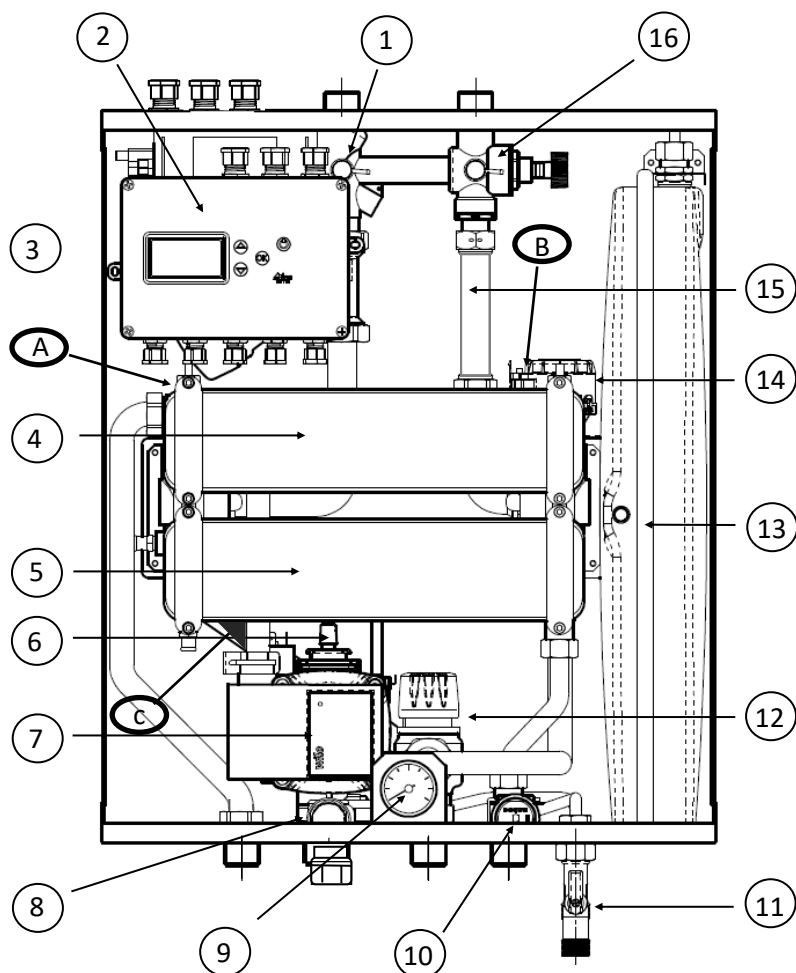
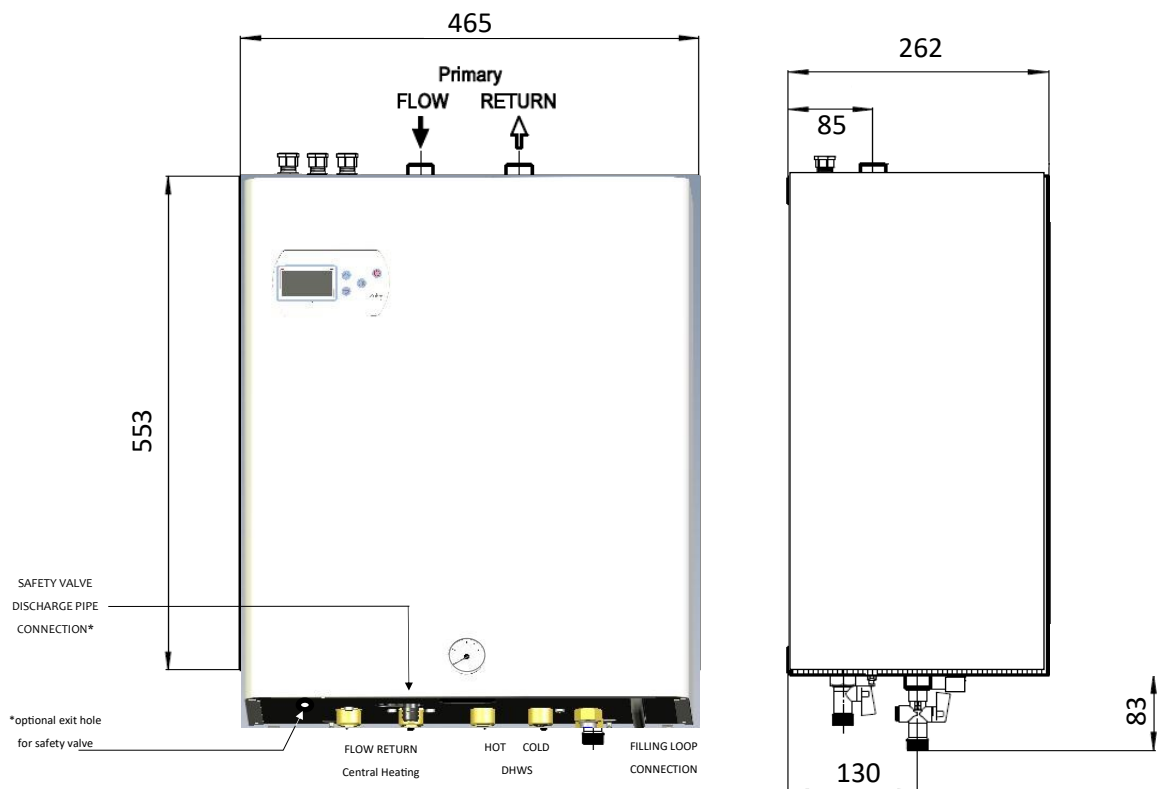


The HIPER HIU has been independently tested and proved, and conforms to **BS EN13203-01** - for appliances producing hot water.



Integral Flushing Bypass, if cleaning the system with the HIU Installed, or First Fix Jig and bypass pipe accessory if the HIU is to be fitted last, after primary flushing.





## MAIN COMPONENTS

1. Strainer
2. PID Controller
3. PICV (behind the controller)
4. Heating PHE
5. DHWS PHE
6. Automatic Air Vent
7. Heating Circulating Pump (erp com.)
8. Safety valve
9. Pressure gauge
10. Flow switch
11. Filling Loop connection
12. Thermostatic Valve (High Temperature Limit)
13. Expansion Vessel
14. Diverting valve
15. Spacer for installation of Heat Meter
16. Bypass valve

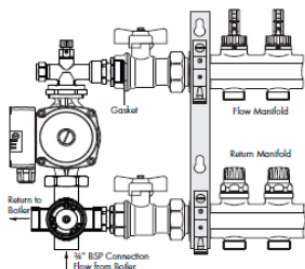
## LOCATION OF TEMPERATURE SENSORS

- A. CH flow temperature sensor
- B. CH return temperature sensor
- C. DHW temperature sensor



For **Underfloor Heating** .....

the installer is required to reset the heating flow temperature!



This is to be found in the INSTALLER ONLY SETTINGS AND PARAMETERS Guide. This guide is printed separately, and not to be left with the end user!

This underfloor heating set point could be made by installer on the controller, however the HIU can connect and control the UFH circuits by means of a **second pump with thermostatic temperature control**, which feeds the underfloor pipe loops by means of a manifold. Consult the system designer.

Recommended Product for UFH Pump Mixer Control as described above;  
**Inta Ecomix UFH pump mixer set. Part code UFH-EM15.**

#### **IMPORTANT – information critical to the installation or installer.**

Do not start installation until you have thoroughly read and understood the Installation, Assembly and Operating Instructions and the safety provisions. Equally, it is the installer's responsibility to check before installation that the HIU has been transported to site without damage, all components are present, and that it has clearly been stored in a suitable dry environment.

#### **IMPORTANT CHECKLIST :**



Comply with all safety provisions.



The Installers Responsibility -in accordance with Part L of the Building Regulations, all hot and cold water pipes should be labelled and insulated to the current standards.



Installation can only be carried out by a qualified and competent plumbing installer and a qualified and competent electrical installer in accordance with the current document Building Regulations, Legislation and Standards.



It is the installer's responsibility to ensure that the place of installation is suitable. An unsuitable location or provision of adequate supplies (Primary Heating and Cold Water mains) will not justify any warranty or fault claim;

- Locations where access is restricted for maintenance
- Locations where criminal damage or illegal tampering cannot be reasonably preventable.
- Locations where discharge pipe is not able to be safely or legally installed and connected
- Supplies which are not suitably clean, and free from contaminants.
- Supplies which contain chemical contaminants.
- Supplies with inadequate flow or pressure (less than 2.5 bar)

Cold water mains supply should be protected from excessive high pressures.

An Inta Pressure Reducing Valve is recommended and pre-set to 3 bar.

To prevent water hammer a small expansion vessel is recommended – to be specified by the system designer.

## SECTION 4 - Installation and Assembly instructions CHECK LIST

Ref	Checklist - Installation	Checked (Initial)
1	Choose appropriate location, Fix wall bracket level and securely.	
2	Hang the HIU into position. (Note, check if Stand Off Brackets required)	
3	Fit Primary isolation ball valves seal with gaskets provided. <b>CHECK ALL CONNECTIONS ON THE HIU ARE TIGHT. Some may have loosened during transport.</b>	
4	Connect DISTRICT pipe work. Check isolation valves are closed.	
5	Flush District system thoroughly and remove all debris and contaminants. Ensure the PICV is fully closed by pressing the off button on the controller. Flush through the built in bypass. After flushing isolate and drain, then remove the filter and clean before replacing.	
6	Note - The condition of the water in the District Side is required to be cleaned and chemically protected - this is the responsibility of the installer!	
7	Secondary connections to the HIU must have isolation valves fitted (as recommended on the accessories page. Filling Loop supplied with the HIU.	
8	Ensure provision is made in the heating secondary circuit for an open circuit at all times, either by an automatic bypass valve or a manual bypass	
9	Fit Secondary pipe work, noting carefully the correct system connection points on the HIU. As shown in Section 4 Stage 6.	
10	Connect discharge pipe to the safety valve discharge connection as per Building Regulations. (pipework to comply with current Building regulations or refer to BS6798)	
11	Ensure all drain valves are closed before opening isolation valves and filling! See below.	
12	Check the position of all the isolating valves, and ready for flushing.	
13	Flush and clean all pipe work before connection and filling the HIU - DO NOT FLUSH CONTAMINATED OR UNCLEAN WATER THROUGH THE PLATE HEAT EXCHANGERS. Use an approved cleansing chemical as recommended by the DWTA, and after cleaning flush away completely. Check the pH value for any remaining acidity and flush again if acidity is still present *	*full information SEE SECTION 8 - Zilmet instructions
14	Drain and re-fill Secondary side and vent all air out of the system. Check all connections for integrity / leaks.	
15	Condition the water in the secondary side using approved chemical inhibitors (as recommended by the DWTA code of practice for chemical cleaning and treatment of domestic hot water and central heating systems).	

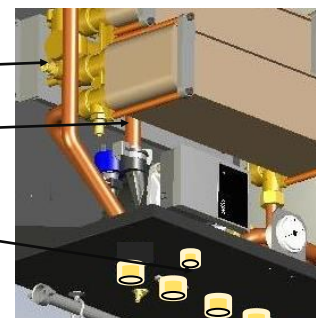


### DRAIN Locations

Primary DRAIN

DHWS Drain

Central Heating DRAIN



**PRIOR TO INSTALLATION, please note.**



- Wall fixing bolts are to be provided by the installer and be suitable to bear the weight of the HIU and fix securely to the wall.
- The position of the HIU should be in a location where pipe runs to DHW be kept to a minimum. The HIU is not suitable for DHW circuits which require a secondary circulation pump.
- Ensure sufficient access to the HIU and its components for future maintenance.
- Have you a copy of Installer Level parameters? (for settings other than Factory)

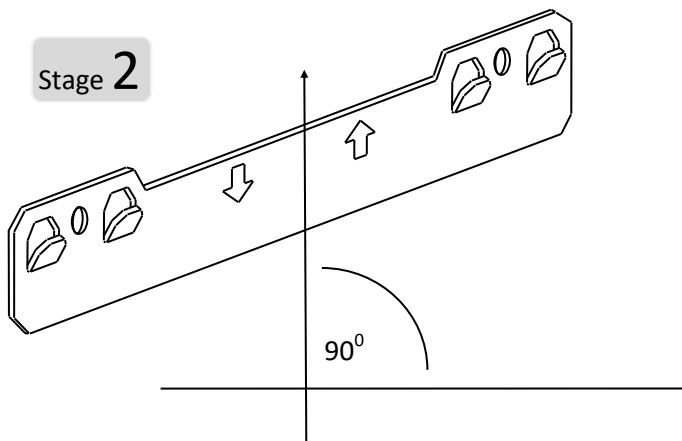
Stage **1**

**Unpack carefully and check contents.**

**Check that any accessories required are ready to use. (Stage 7 of Section 4)**

**Pipework behind the HIU? See Standoff Brackets (Stage 5 of Section 4)**

Stage **2**



Steel WALL BRACKET is provided with the HIU or Primary First Fix Kit.

**This can be sent with the HIU or in advance**

### OPTIONAL

For First Fix Pipe installation using the Hiper First Fix JIG—see accessories Stage 4.1 of Section 4.

### Fitting the Wall mounting BRACKET

Align the bracket for level **VERTICAL** installation of the HIU

Fix the Bracket **SECURELY** to the wall using appropriate fixings (supplied and selected by the installer)

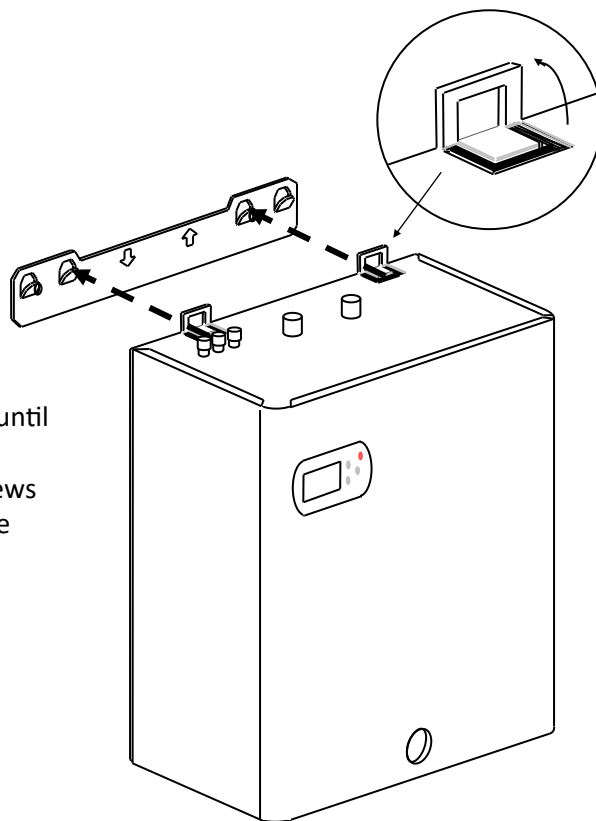
Stage **3**

LIFT the two BRACKETS as shown here that are cut into the HIU frame into the vertical position.

Hang the HIU onto the two INNER CLASPS on the Wall Bracket.

Remove the FRONT COVER and store carefully until installation is complete.

FRONT COVER is removed by removing the screws and sliding the FRONT COVER forward along the channels that align it to the HIU FRAME.





## 4 OPTIONAL – FIRST FIX WITHOUT THE HIU ON SITE

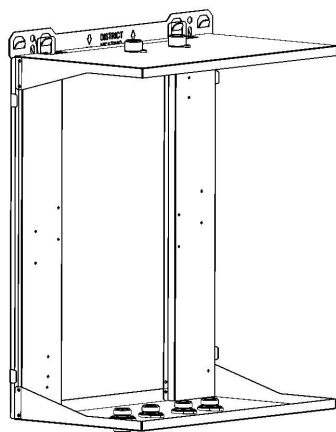
**You will need - Part Number HIACPFFKIT. This can be provide in advance of the Hiper HIU**

Contents—1 pair Isolation Valves for the Primary connections to the Hiper HIU

And 1 x Wall Bracket.

Note—wall fixings not included and are selected and provided by the installer.

### Stage 4.1



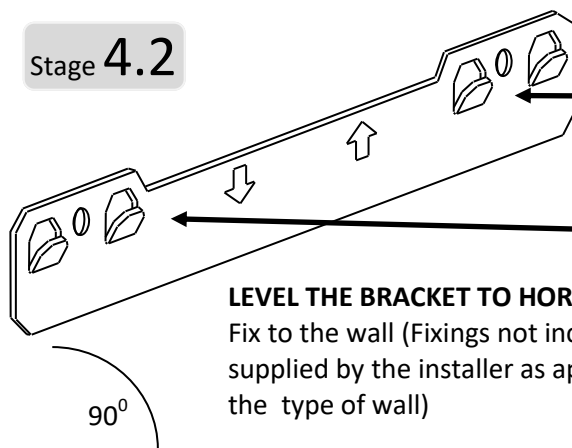
#### Using the 'First Fix JIG'.

The First Fix JIG is a re-usable frame that is used as the template for positioning all the pipe work up to the Hiper HIU. The pipes are connected using the Hiper Isolation Valves (See Hiper accessories)

#### Ensure that ALL isolation valves are turned OFF!

The pipe and valves can be fixed to the JIG, then the JIG removed leaving the pipe work ready and in place for the 2nd Fix, when the HIU is then installed.

### Stage 4.2



#### LEVEL THE BRACKET TO HORIZONTAL

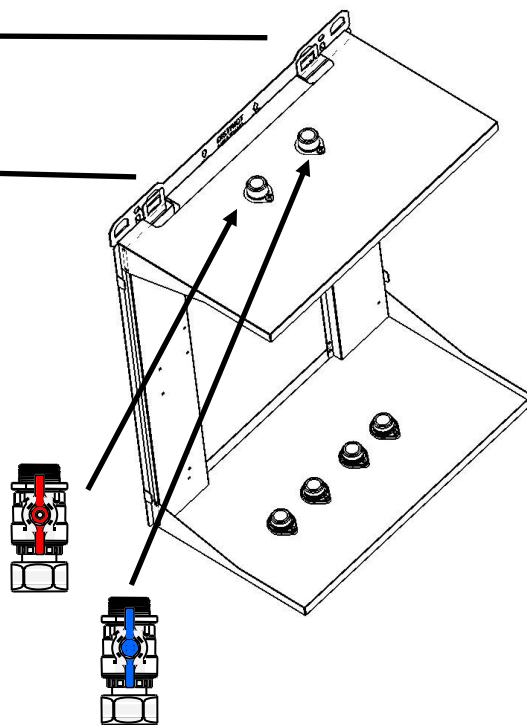
Fix to the wall (Fixings not included and supplied by the installer as appropriate for the type of wall)

90°

### Stage 4.3

**Install and SEAL the valves onto the pipework to ensure no leaks when the system is pressurised!**

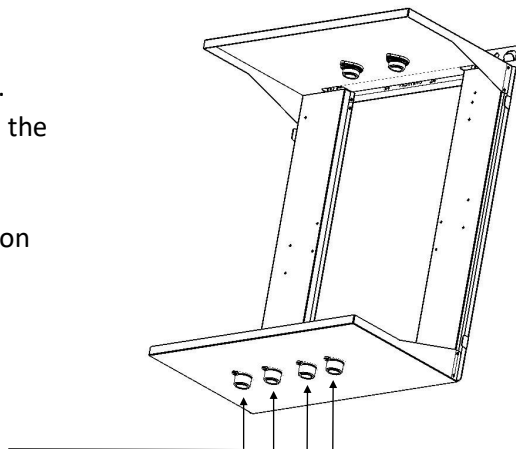
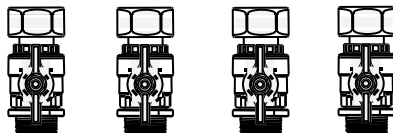
- Note the Primary FLOW connection, on the LEFT, use RED handle ball valve.
- Note the Primary RETURN connection, on the RIGHT, use BLUE handle ball valve
- Make sure they are in the closed position



## 4 OPTION – FIRST FIX WITHOUT THE HIU ON SITE

### Stage 4.4

- Now connect the secondary isolation ball valves.
- Note the correct connection for flows and returns.
- Connect the pipework, seal to prevent leaks when the system is pressurised.
- Position safety valve discharge pipe for later connection. There are 2 outlet positions available on the HIU for this.



### Stage 4.5

- Ensure all connections are made properly and sealed
- Ensure all valves are in the closed position
- Remove the jig by the union connection nuts, safely store the gaskets for later use.
- If required, fit temporary plugs to the union nuts of the isolation valves.
- Then take the Jig to the next installation and re-use as many times as required.

A temporary Flushing Pipe can be connected between the valves to enable Flushing before fixing the HIU.

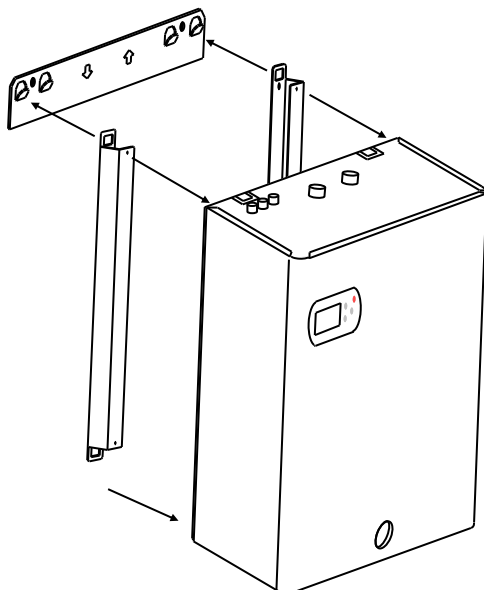
- Primary side
- Secondary side heating
- Secondary side Cold feed / DHWS



#### Reminder!

- pipework for SAFETY VALVE DISCHARGE!
- Discharge as per latest applicable Building Regulations

Stage 5



**OPTION / Accessories - 'Stand off' wall brackets**

Allows pipework to run behind the HIU.

These Brackets are available as an accessory and are ordered separately.

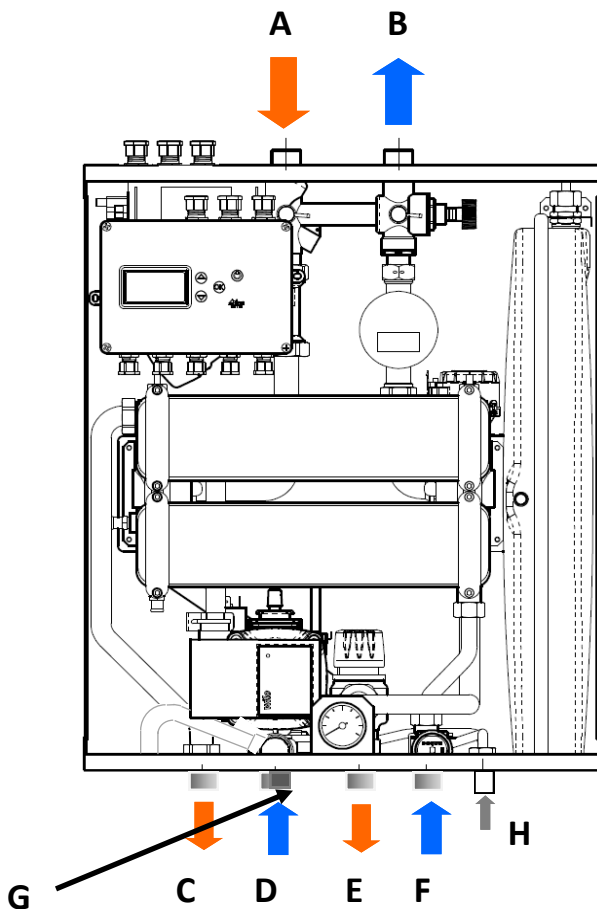
- Fix a Stand Off Bracket to the back of the HIU using the fixing points and screws provided.
- Once secure, hang the HIU by the Stand Off Brackets onto the two OUTER CLASPS on the wall bracket.

**Inta Part Number - HIAC01SOB**

Stage 6

**PIPE WORK Connections and Isolation Valves**

DISTRICT (PRIMARY) CONNECTIONS  
FLOW RETURN



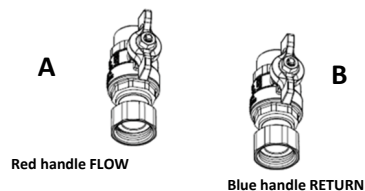
**See Accessories for Isolation Valves!**

**ONLY USE Inta APPROVED Valves!**

RED handle to connection 'A' DISTRICT FLOW

BLUE handle isolation valve to 'B' District Return.

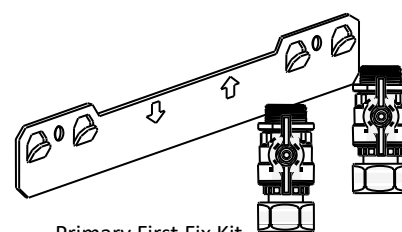
1. See step 8 for accessory option.
2. Connect District and isolate the HIU



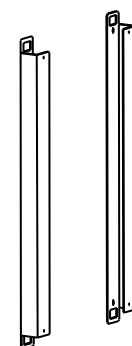
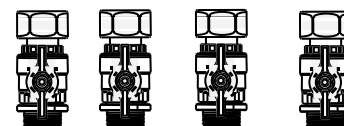
**System Connections**

- A** District FLOW 3/4" M
- B** District RETURN 3/4" M
- C** Central Heating FLOW 3/4" M
- D** Central heating RETURN 3/4" M
- E** DHW SUPPLY 3/4" M
- F** Cold Water Mains INLET 3/4" M
- G** Safety Valve DISCHARGE 3/4" M
- H** Filling Loop (supplied) for Central Heating filling.

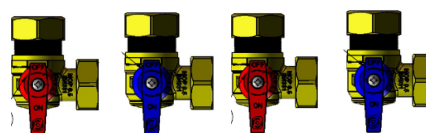
Description	Order as Part Code
<b>Primary First Fix Kit</b> <b>Price included with HIPER HIU</b> Can be delivered with HIU or in advance for first fix pipe work. (Use with HIPER First Fix Installation Kit)	<b>HIACPFCKIT</b>
<b>Stand off Wall Brackets</b> To allow pipes from above or below to run behind the HIU.	<b>HIAC01S0BPACK</b>
<b>Secondary Side Isolation Valves.</b> WRAs approved ball valves with union $\frac{3}{4}$ " nuts to fit directly to the HIU secondary connections. Wras approved	<b>HIAC03BVPACK</b>
<b>Prepayment 230v Relay Kit</b> (for pre-payment billing network with 230v signal)	<b>HIAC04230KIT</b>
<b>Security Fixing Screws with special drive bit for locking and removal.</b> Prevents casual tampering	<b>HIAC05SSPACK</b>
<b>First Fix Jig</b> Reusable jig for installing the isolation valves, before installing the HIU .	<b>HIAC06SSPACK</b>
<b>HIU Panel Insulation Set</b> Insulation set for the back of the HIPER HIU	<b>HIAC07SSPACK</b>
<b>Link Pipe Accessory Pack</b> for flushing the primary pipework without the HIU installed.	<b>HIAC08SSPACK</b>
<b>HIU Accessory Pack HIU Isolation Valves</b> 22mm x $\frac{3}{4}$ " union nut <b>ANGLE</b> Female Ball Valves (4) alternate secondary side connections	<b>HIAC09BVPACK</b>
<b>HIU Accessory Pack HIU Isolation Valves</b> $\frac{3}{4}$ " male x $\frac{3}{4}$ " union nut <b>ANGLE</b> Female Ball Valves (4) alternate secondary side connections	<b>HIAC10BVPACK</b>
<b>Intaklean Compact Magnetic Filter/Strainer</b> protecting the heating system and HIU PHE	<b>IKCMF34</b>
Weather Compensation Sensor and Box	<b>RB8410000</b>
Zenner <b>Heat Meter</b> Mid Class 2	<b>ZE102C5</b>
<b>ActivFlo Water Conditioner</b> Prevents scale formation through the entire DHW circuit, protecting the HIU, taps, showers etc. in hard water areas	Please ask for further details <a href="http://www.activ-tec.com">www.activ-tec.com</a> Ph. 01889 272197



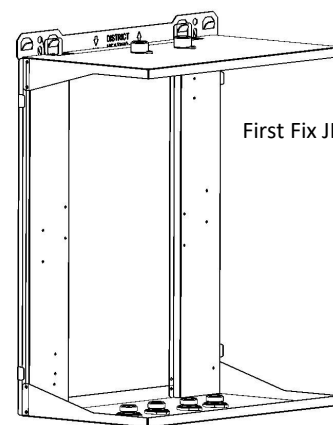
Primary First Fix Kit

Pack 1  
STAND OFF  
wall Brackets

Pack 3 secondary side ball valves



ANGLE isolation ballvalves



First Fix JIG



HIAC08SSPACK

The HIU comes pre-wired for all components.



A wiring box is the connection point for the installer.

The installer is to provide a 230vAC 3 amp fused supply as per BS EN 7671:2008

Ensure the HIU is earthed in accordance with BS EN 7671:2008

The connections are clearly marked as : L N E 

Two terminals - T1 and T2 are provided for the volt-free connection to the room thermostat.



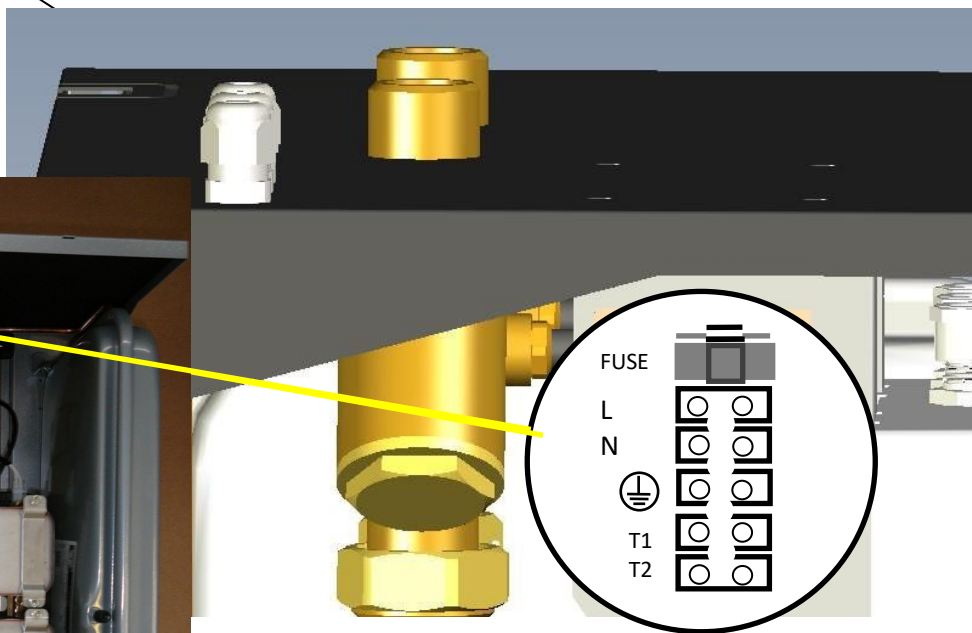
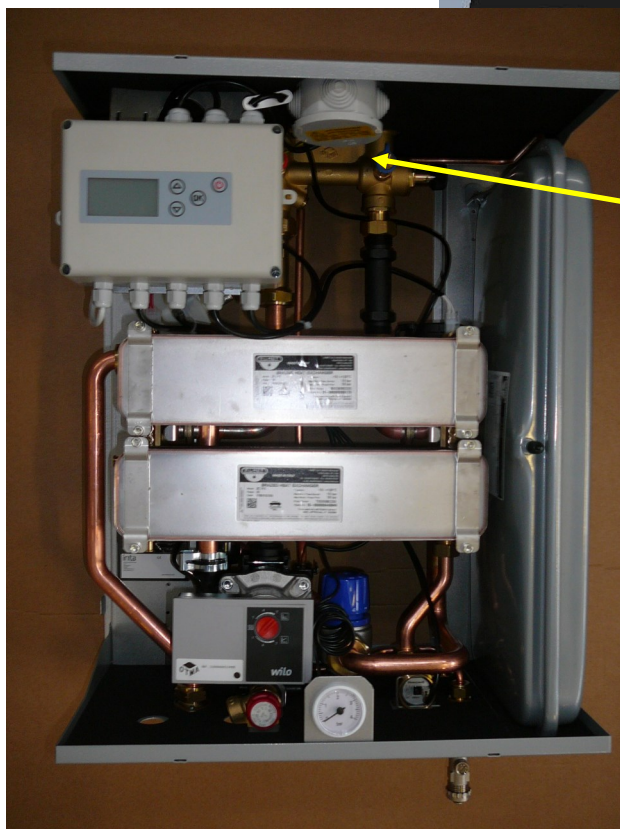
**Note that the Room thermostat switching must be VOLT FREE !!**

**Programmable room thermostats (battery powered) are recommended, but some version of thermostatic control must be used!**

Three cable ENTRY points

- Mains electricity supply
- Room thermostat
- External sensor wire and/ or Pre-Payment Billing connection

**Any connection of Voltage to T1 and T2 will destroy the PCB's in the Controller and void the warranty!**



**T1 and T2 MUST BE VOLT FREE!**

## Connection of Pre-Payment Billing Systems

For installations where the landlord of the properties has fitted a metering system that enables a scheme where the tenant pays for heat by pre-payment, the HIU is required to have the capability to shut down the supply of heat when payment agreements have not been met. This is usually achieved by the billing system sending a signal to the HIU when credit is no longer available.

**The SIGNAL from the prepayment system maybe 230v or VOLT FREE—this must be checked before connection!**

The HIU Controller has an auxiliary connection terminal that facilitates this option. The billing system working in conjunction with the heat meter selected by the consultant or energy provider, may send a 230v signal to the relay provided in the Accessory Kit while the tenant is in credit.

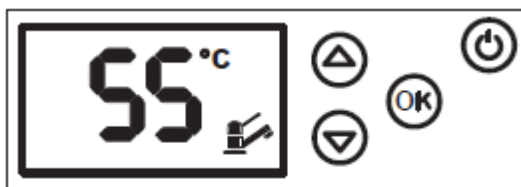
**IMPORTANT CHECK THIS WITH THE SUPPLIER OF THE BILLING SYSTEM!  
IF THE SIGNAL FROM THE BILLING SIGNAL IS VOLT –FREE IT CAN BE CONNECTED DIRECTLY TO THE  
AUX TERMINALS WITHIN THE CONTROLLER COVER—SEE PAGE 3**

The relay accessory (See **PART 8 of SECTION 4**) is connected by the installer to the AUX terminals marked in the low voltage board on the controller. Part Code for RELAY is **HIAC04230KIT**

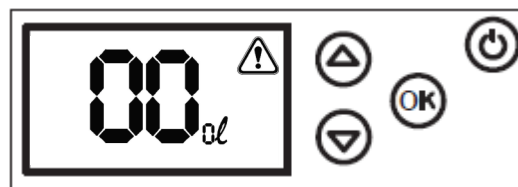
If credit is not available, then the 230v signal is suspended, relay deactivates, and in turn the controller closes the PICV. Availability of DHW and Heating is suspended until credit is restored.

When the 'NO CREDIT' sequence is activated, the controller will show a warning message on the display. See below, 'Screen display when NO CREDIT' illustration.

**Any application of HIGH VOLTAGE to the connections on the controller will destroy the printed circuit boards and not be covered by the manufacturer's warranty!**



Typical screen display when in operation.  
User is in credit.



Screen display when **NO CREDIT**.  
(Backlight is ON)



**The connections on the low voltage board inside the controller are 0 voltage.  
Applying any voltage from external source will destroy the board and void any warranty on the HIU.**

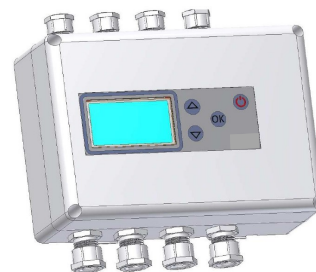
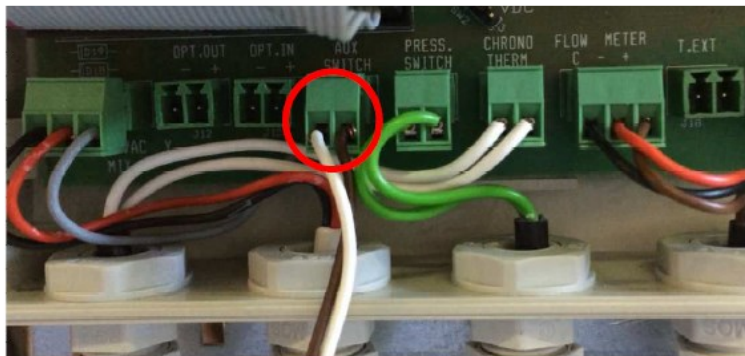


## WIRING TO THE CONTROLLER



**ISOLATE THE ELECTRIC SUPPLY TO THE HIU!**

- The Controller front cover is fixed by 4 screws at each corner
- Remove the cover and locate the terminals as pictured - spare terminals marked AUX
- Connect the pre-wired cable (NO VOLTAGE) as connected to the relay on terminals 5 and 9.
- If the billing system is VOLT FREE then the relay is not required—check with the billing provider
- Replace the cover.



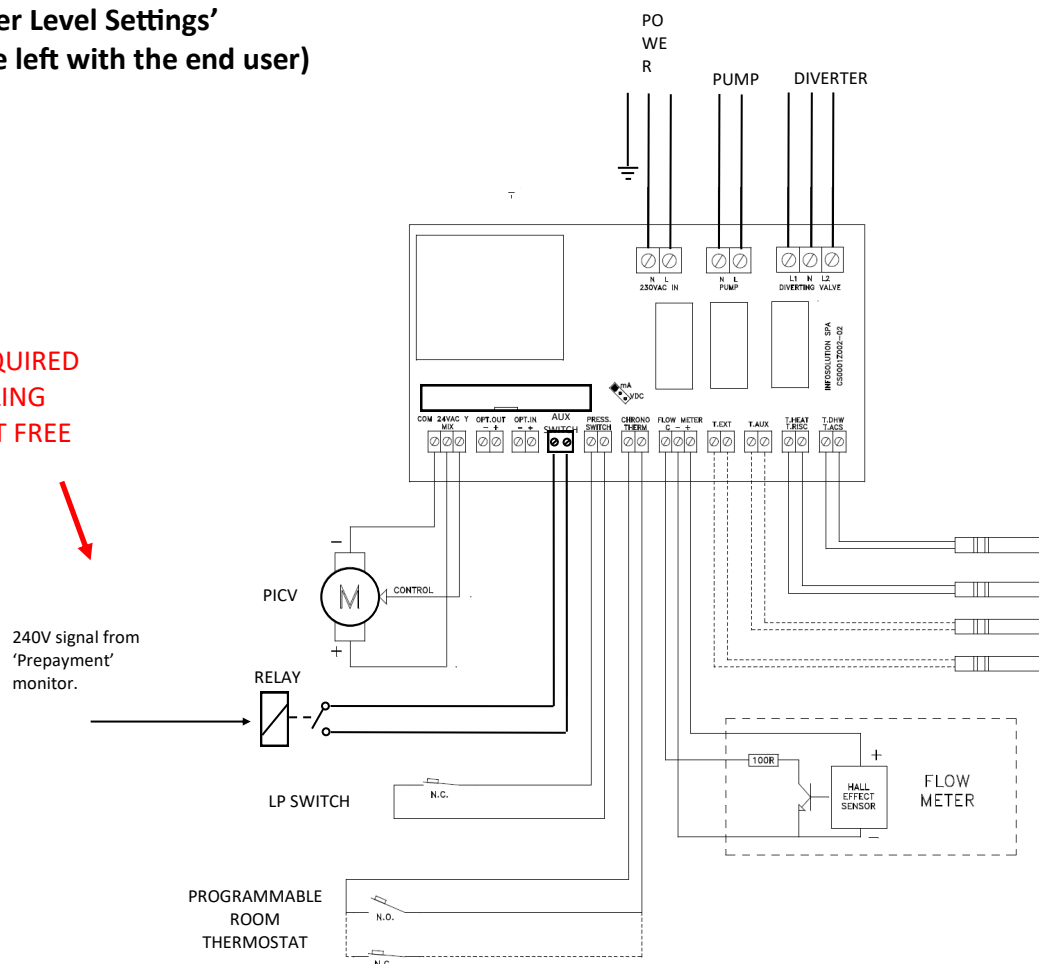
Hiper HIU Controller

Installation complete.






**Now programme the controller for 'Pre-Payment' ON**  
 - see separate document;  
**'Installer Level Settings'**  
 (not to be left with the end user)

**RELAY NOT REQUIRED  
 WHEN THE BILLING  
 SYSTEM IS VOLT FREE**



## SECTION 6 - Commissioning HIU CHECK LIST

Ref	Checklist	Remarks /Notes
1	System filled and no leaks found. Primary pipework has been flushed and is clean. Note that the PICV must be powered shut, i.e. the controller is powered up and turned OFF. Open the integral bypass valve, flush, and afterwards check the strainer for any debris. Alternately remove the strainer mesh before flushing, then replace after the flushing procedure.	As per <i>ICOM guide to water treatment</i> . 
2	All Strainers are clean. Inside the HIU and on the incoming cold water main. A strainer to 800 micron may be installed in the central heating system, to comply other component suppliers (pumps, plate heat exchangers etc) best practice guide.	Amendment 26.11.19
3	Check in-coming water main pressure and flow rate meets the requirement of the HIU specification.	
4	Check the safety valve discharges by twisting the cap. Check the safety valve re-seats and seals. Check the discharge pipework for leaks and conformity to regulations.	
5	All valves in the Central heating circuit are in the correct position. All valves in the Cold water mains supply are in the correct position.	
6	<b>Check the settings on the circulation pump are set to meet the requirement of the central heating design.</b> <b>VARIABLE SPEED FOR RADIATORS or FIXED SPEED FOR UNDERFLOOR HEATING</b>	
7	Check the manual bypass is <b>CLOSED</b> . The bypass is only opened under authorised design conditions, and is supplied LOCKED in the closed position.	
8	Check all pipes for insulation and are to the requirement of current building regulation. Check all pipes are secured and fastened with adequate pipe clips.	
9	Check wiring and earth connections are correct.	
10	Power supply is available. Casing is secure, all electrical connections are safe and conform to current wiring regulations	
11	Switch ON power supply to the unit. Follow instructions as written in section: 'Operating Instructions'.	
12	<b>If required to change any of the factory settings follow instructions in separate document:</b> <b>'Installer level Settings– Parameter Reference Table'</b>	 See Document :
13	For Underfloor Heating installations check the central heating flow temperatures to the pipes into the floor circuits are as specified by the system designer!	 <b>'Installer Level Settings'</b>
14	Check the heating by adjusting the room thermostat to call for heating, and check rooms reach temperature	
15	Check all hot water outlets in turn to validate correct operation and supply of hot water. When complete and all taps off, check that the Room thermostat is still calling for heat, and that the HIU reverts to Heating Mode.	
16	Return Room Thermostat to its 'normal setting' (20C for example), and wait until this room temperature reaches this set point. HIU goes back to standby. Secure the HIU casing as required by the landlord and checklist complete	



## SECTION 7 - Operation - The HIU Controller



The factory settings are set according to normal operating conditions and should only be changed if specified to do so!



After initial start up, should the HIU be required to be turned off until the home is occupied press the ON/OFF button



<b>Switch on the Power supply</b>		When powered up for the first time, the controller goes through a diagnostics check of the HIU. This may last a few seconds. If a problem is detected the controller will display an 'ERROR' symbol. (see error codes section)
<b>The controller is now on standby</b>		Having completed its checks, the controller is now ready to operate. Until a demand is created it remains in its standby mode.
<b>Turn on a hot water tap</b>		The hot water temperature is factory set to the industry recommended temperature of 55°C. Once the HIU controller senses water flow it will commence the production of hot water immediately, and stabilise it at the set temperature.
<b>Turn the tap off (no demand for hot water)</b>		The screen will show the 'stand by' symbol.
<b>To change the hot water temperature set point</b>	 Symbol for hot water	If the user wants to change the hot water temperature to a higher or lower value, <b>press the 'OK' button</b> until the 'tap' symbol appears.  Use the  and  to change the value.  To confirm the new temperature set point, press the 'OK' button. After a few seconds the screen will revert back to operational mode.
<b>Heating Flow Temperature</b>	 Symbol for central heating	<b>Room temperature is controlled by the room thermostat!</b>  The temperature flow to the radiators is factory set at 60°C. For underfloor heating this needs to have been changed by the installer during commissioning to a lower design temperature (usually between 35°C and 45°C). <b>FOR INSTALLER SETTINGS CONTACT YOUR SUPPLIER.</b> The house symbol shows when central heating is in operation. The AUTO symbol shows that the function OPTIMISED HEATING is on. This is the factory setting is
<b>Installer Settings (special applications!)</b>		Only available by request - contact your supplier. <b>See Document : Installer Level Settings</b>

Ref	Checklist - Maintenance Only to be carried out by trained and qualified operatives.	Remarks /Notes
1	Turn off the District side Isolation valves and isolate the HIU electrical supply (Fig 4, Section Installation). Drain the Primary side of the HIU. (Fig 6 , Section: Installation) If leaving the installation while maintenance is in progress notices should be placed accordingly to prevent others from interfering with equipment and valves.	
2	Inspect STRAINER on the HIU Primary (District) side flow. (Fig 1 and 2) - REMOVE CAP, REMOVE MESH, CLEAN AND REPLACE. Sample the Primary water chemical composition and check against specification. Report any abnormalities to the Building manager immediately.	
3	ISOLATE all connections to HIU (central heating flow and return and cold water mains connection and DHW outlet). DRAIN the HIU using the built in drain valves	
4	Check all strainers, including filters fitted on the cold water mains supply . This may also include Pressure Reducing Valves with integral strainer cartridges. Always isolate any components before maintenance.	
5	If a potable vessel is fitted on the cold water main before the HIU the pressure should be checked. Pressure charge value will be seen on the vessels data label. Check if a Safety valve has been installed in the cold main, and check operation by twisting the cap and check the valve re-seats without leaking. Grit may get caught on the seal, remove by flushing (twist the cap on the safety valve)	
6	Central Heating side of the HIU - check the safety valve discharges by twisting the cap. Check the safety valve re-seats and seals.	
7	Central Heating side of the HIU - check the expansion vessel pressure and adjust or recharge to 0.75 bar.	
8	PLATE HEAT EXCHANGERS - MAINTENANCE Special attention should be given to the plate heat exchangers, recent reported loss of performance may be caused by dirty or blocked plates (lime scale). Heating PHE (Fig 8A) - remove the 4 fixing screws. DHW PHE (Fig 8B) remove the 4 fixing screws. Read Zilmert Plate Heat Exchanger Maintenance Recommendations on next page. After cleaning (or replacing) refit both plate heat exchangers. Tighten the 4 fixing bolts each PHE until sealed with reasonable force - do not over-tighten.	
9	PICV Settings -these are set at the factory and should not be tampered with. This setting is critical to the HIU performance design. The setting can be checked by removing the PICV Actuator (by hand, avoid damaging the securing nut). To replace the actuator the pin needs to be fully retracted. The method for this is only for fully trained operatives.	
10	Check all drain valves are closed, open isolation valves and REFILL (secondary and primary), check for leaks and vent air from the systems. Central Heating side of the HIU - check the safety valve discharges by twisting the cap. Check the safety valve re-seats and seals. Satisfied all is checked, replace casing and carry out commissioning check list.	

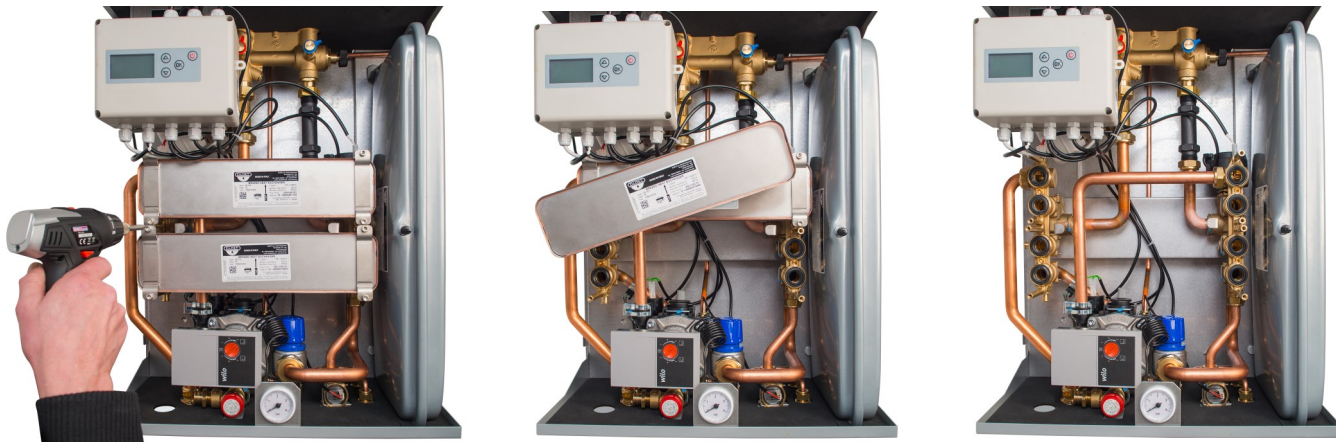


System maintenance, commissioning and design is not the responsibility of INTA.

## Notes on the Plate Heat exchangers

Plate Heat Exchangers are designed for easy access and simple removal for servicing.

Four Fixing bolts and seals, all available as spares if required. Service engineers are advised to keep a stock of these spares in case during works one or more gets lost or damaged.



### Zilmet UK Plate Heat Exchanger Maintenance Recommendations (as per Zilmet Documentation)

Please, note that only qualified and licensed personnel may perform service and maintenance.

Should the pressure loss through the heat exchanger increase and/or to reach the design temperature be not possible, replace the heat exchanger or clean up the heat exchange plates. To perform service and control, make sure that the system is off, cooled down and not pressurized, all the electric parts are not energised and the heat exchanger is completely empty.

In some applications encrustations and/or deposits are likely to build up on the heat exchange plates (e.g. applications with hard water at high operating temperature). In order to reduce the quantity of encrustations and deposits in the heat exchanger, use oxalic acid solution ( $\text{HOOC-COOH} \cdot 2\text{H}_2\text{O}$ ) at  $20^\circ\text{C}$  as a cleaning fluid: the concentration of the acid must be 5% and the cleaning with acid solution must last 15 minutes at maximum.

Before cleaning, completely empty the heat exchanger: the compatibility of the cleaning fluid with the residues of the operating fluids must be taken into account in relation with the emanation of toxic or dangerous substances. After the cleaning with acid solution, use sodium bicarbonate ( $\text{NaHCO}_3$ ) solution at  $20^\circ\text{C}$  to neutralize the acid solution: the concentration of the basic solution must be 2%. The flow rate of both the acid solution and the basic solution through the heat exchanger must be at least 1.5 times greater than the operating flow rate: the flow rate direction both for the acid solution and the basic solution must be opposite to the operating flow rate direction. Finally wash the heat exchanger with clean soft water to completely remove every residue of acid and basic solution.





**Any residue of the acid or basic solution in the heat exchanger may cause serious damages to things/properties and persons: after the cleaning, completely remove every residue of acid and basic solution from the heat exchange plates. In cleaning the heat exchanger as above described, all the technical and organizing means must be adopted according to the laws and local regulations referring to the occupational health and safety; use the individual protection devices prescribed in the safety data sheet of each chemical products. All the technical and organizing means must be adopted to treat the waste water according to environmental laws and local regulations.**

Should the fouling factor of the operating fluids be high, completely empty the heat exchanger in case of extended time of not use.

**Zilmet S.p.A. shall not be responsible for any damage to things and to properties and/or injuries to persons due to not observing all the above instructions and, particularly, to improper calculation and choice, installation and maintenance of this heat exchanger and/or of the connected system.**

## SECTION 9 - Fault codes and fault finding

Explaining the HIU Controller Fault or Error diagnostics feature.



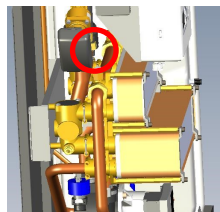
FAULT CODE DISPLAY SYMBOL	MESSAGE	ACTION	REMARKS and REFERENCES
 <p>Warning Symbol appears!</p>	A fault or error has occurred. The warning signal is constantly flashing,	To identify what the fault is press the OK button.  The screen now displays the fault code	
<p><b>Fault Code</b></p>  <p>or <b>Error Code</b></p> 	The code is understood as; FO = Fault EO = Error	Read on - the following table will identify the fault code and inform what action to take.	<p>The number after the letter is the reference for identifying the actions required</p> <p>The number below the flashing warn- ing triangle informs how many faults have been detected</p>



When carrying out any repair work on the HIU the unit must be switched off and isolated!  
**Always isolate the power supply before opening the unit!**



All work must be carried out by a trained and approved operator.

FAULT CODE DISPLAY SYMBOL	MESSAGE	ACTION	REMARKS and REFERENCES
	<p>A fault has been detected in the sensor used to monitor the DHW temperature.</p> <p>The HIU PID Controller automatically defaults the diverter valve to heating mode.</p> <p>DHW is not available now until the error has been resolved! POTENTIAL CAUSES:</p> <ul style="list-style-type: none"> <li>• Sensor has FAILED (broken)</li> <li>• Sensor detects a temperature &gt; 70°C</li> <li>• Sensor is not properly connected in the controller</li> <li>• Sensor is unplugged!!</li> </ul>	<ul style="list-style-type: none"> <li>• Flush the unit with cold water to reduce the temperature detected by the sensor.</li> <li>• Check connection of the sensor cable at the Controller. Reconnect and check if error clears.</li> <li>• If error still shows replace the sensor - ISOLATE THE ELECTRICITY SUPPLY</li> <li>• Check the 'Ribbon Wire Plug connecting the twp boards. If it is not secure the FO symbol will appear</li> </ul>	<p><b>DHW NTC TEMPERATURE SENSOR</b> <b>Spare Part Ref H10011SP</b></p> <p>The sensor is to be found on the DHW supply pipe between the PHE and the high temperature safety mixing valve (un-clip remove &amp; disconnect)</p> <p>The HIU PID Controller will automatically reset to normal opera- tion once the cause of the fault has been corrected.</p>
	<p>A fault has been detected in the central heating flow temperature sensor .The result is that central heating will not be available as the HIU Controller will not allow these functions until the fault is rectified.</p> <p>POTENTIAL CAUSES</p> <ul style="list-style-type: none"> <li>• Heating sensor is broken or damaged</li> <li>• Heating sensor detects a temperature &gt; 110°C</li> <li>• Heating sensor is not properly connected into the controller box</li> <li>• Heating sensor cable has FAILED</li> </ul>	<ul style="list-style-type: none"> <li>• Check connection of the sensor cable at the HIU PID Controller. Reconnect and check to see if error clears.</li> <li>• If error still shows replace the sensor - ISOLATE THE ELECTRICITY SUPPLY, TURN OFF THE ISOLATION VALVES, DRAIN THE HIU.</li> </ul> <p>The HIU PID controller will automatically reset to normal operation once the cause of the fault has been corrected.</p>	<p><b>TEMPERATURE SENSOR PT1000</b> <b>Spare Part Ref H10012SP</b> Measuring central Heating Flow temperature. See page 23 for position of this sensor. Isolate and drain all the water from the HIU first Disconnect and install a replacement.</p> 



When carrying out any repair work on the HIU the unit must be switched off and isolated!  
**Always isolate the power supply before opening the unit!**

FAULT CODE DISPLAY SYMBOL	MESSAGE	ACTION	REMARKS and REFERENCES
	<p>A fault has been detected in the external PT1000 sensor (optional extra selected at point of commissioning) used for weather compensation function.</p> <p>The HIU PID Controller will then turn off the 'AUTO' function which is used for <b>Optimised Heating Function</b>- as shown in the below symbol (heating flow temperature automatic set point calculation):</p> <p>The HIU PID Controller reverts to the standard mode for heating until the fault is fixed.</p>	<ul style="list-style-type: none"> <li>Check connection of the sensor cable in the HIU PID Controller, reconnect and check if error clears.</li> <li>Replace temperature sensor if found to be faulty.</li> </ul> <p>The HIU PID Controller will automatically reset back to AUTO mode when the fault is rectified.</p>	<p><b>WEATHER COMPENSATION OUTSIDE SENSOR</b>  <b>Spare Part Ref 841.00.00</b></p> <p>The sensor is to found on the outside of the building.</p>
	<p>Power failure within the controller. The result is that central heating and DHW may not be available as the HIU PID Controller will not allow these functions until the fault is rectified</p> <p>The HIU PID Controller will automatically reset to normal operation once the cause of the fault has been corrected.</p>	<ul style="list-style-type: none"> <li>Check power supply.</li> <li>Check fuse in the wiring box</li> </ul> <p>Once proven that the fault lies within the controller, disconnect the power supply and disconnect all connection plugs on the main board as shown. Unclip the board carefully, and then install the new board. Plug in all the connections exactly as they come out. Replace the cover, and test / check. Turn on the power and all will reset</p>	<p><b>HIU CONTROLLER PCB Power Board</b>  <b>Spare Part Ref H10002SP</b></p>
	<p>The HIU PID Controller has registered an anomaly in the power consumption as compared to what it expects to see.</p> <p>The result is that central heating and DHW may not be available</p>	<p><b>Possible Pump Failure</b></p> <ul style="list-style-type: none"> <li>Check error display on the pump</li> <li>Check cable and connectors</li> <li>Replace the pump if proven to have failed.</li> </ul> <p><b>Possible Diverter valve failure</b></p> <ul style="list-style-type: none"> <li>Check cable and connectors</li> <li>Check valve motor for operation and replace if proved to be not operating.</li> </ul>	<p><b>PUMP HEAD</b>          Wilo Yonos Para 7.0 RKC  <b>Spare Part Ref H10013SP</b></p> <p><b>DIVERTER ACTUATOR</b>          Spare Part Ref H10010SP</p>
	<p>A fault has been detected in the central heating return temperature sensor.</p> <p>The HIU PID Controller will disable the AUTO function and run without the <b>Optimised Heating Function</b></p>	<ul style="list-style-type: none"> <li>Check connection of the sensor cable in the HIU Controller. Reconnect and check if error clears.</li> <li>Replace the temperature sensor if found to be faulty.</li> </ul>	<p><b>TEMPERATURE SENSOR PT1000</b>          Central Heating RETURN sensor. Disconnect and replace . See spares page 23 for position. Isolate the HIU and drain all water first.  <b>Spare Part Ref H10012SP</b></p>





When carrying out any repair work on the HIU the unit must be switched off and isolated!  
**Always isolate the power supply before opening the unit!**

FAULT CODE DISPLAY SYMBOL	MESSAGE	ACTION	REMARKS and REFERENCES
	A fault has been detected in the PICV. The result is that central heating and DHW may not be available as the HIU PID Controller will not allow these functions until the fault is rectified.	<p>Check cable and connectors.            Check the PICV Actuator;</p> <ul style="list-style-type: none"> <li>power up and run a test sequence as per commissioning instructions</li> </ul> <p>Replace the PICV actuator valve if found to be faulty            See Section Technical Specification - PICV            The HIU PID Controller will automatically reset to normal operation once the cause of the fault has been corrected.</p>	<p><b>PICV ACTUATOR</b>  <b>Spare Part Ref</b> H10007SP</p> <p>Follow the instructions with the spare, note the valve pin must be fully retracted before re-fitting.</p>
	<p>A fault has been detected in the pressure switch. The result is that central heating is not available.</p> <p>POTENTIAL CAUSES:</p> <ul style="list-style-type: none"> <li>Low pressure in the central heating system</li> <li>Connecting cable is damaged or disconnected</li> <li>Pressure switch is faulty</li> </ul>	<ul style="list-style-type: none"> <li>Check system pressure, refill, check for leaks. E0 warning then goes off</li> <li>Check cable and connectors</li> <li>Check pressure switch functionality</li> <li>Replace the pressure switch if found to be faulty.</li> </ul>	<p><b>PRESSURE SWITCH</b>  <b>Spare Part Ref</b> H10016SP</p>

Other Trouble shooting checklists where there is NO ERROR warning, which may be useful to check through:



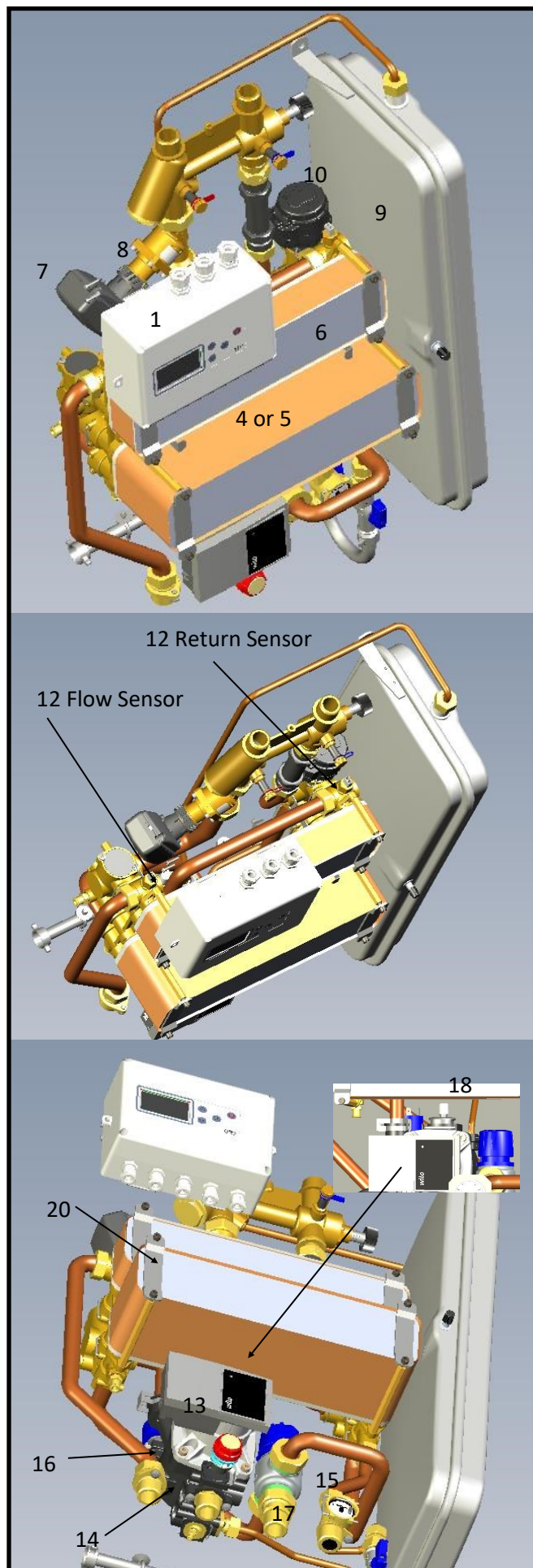
When carrying out any repair work on the HIU the unit must be switched off and isolated!  
**Always isolate the power supply before opening the unit!**

Ref	REPORTED PROBLEM	Trouble Shooting Checklist
1	<p>Reported problem;</p> <ul style="list-style-type: none"> <li>The water from the hot taps is COLD.</li> </ul>	<ul style="list-style-type: none"> <li>Is there power to the HIU?</li> <li>Possible blockages – if there is heat coming into the HIU from the communal heating system, follow the path through the Strainer, PICV, Diverter ?</li> <li>Plate Heat Exchanger blockage, possibly scale. If suspected take the necessary steps to remove and clean (Fig 8B in the Section Maintenance)</li> </ul> <p>Once blockages are cleared, then reconnect the unit, and follow the commissioning instructions.</p>
2	<p>Reported problem;</p> <ul style="list-style-type: none"> <li>There is NO WATER at the Hot Taps.</li> </ul>	<ul style="list-style-type: none"> <li>Is there water at the cold taps? If not, check the mains stop tap. If it is found to be closed, open it and check the fault is resolved.</li> <li>Are the HIU isolation valves ON?</li> </ul> <p>If not check for blockages on the cold water supply pipe. Check all filters and clean if blocked.</p>

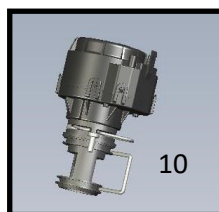


When carrying out any repair work on the HIU the unit must be switched off and isolated!  
**Always isolate the power supply before opening the unit!**

Ref	REPORTED PROBLEM	Trouble Shooting Checklist
3	Reported problem; <ul style="list-style-type: none"> <li>Insufficient Hot Water at the taps, but no error codes at the Controller</li> </ul>	If all checks prove the HIU is working correctly, <ul style="list-style-type: none"> <li>Is there a bypass fitted on the primary before the HIU, and it has been left open? CLOSE the valve, the HIU will now work as designed.</li> <li>Is the TMV set at the correct temperature? Has it been tampered with or reset in error? Set to 57C</li> <li>Is there enough FLOW at the HIU? If the supply pumps have not been designed to the required flow of the HIU, then DHWS will not be sufficient</li> <li>Similar for pipework, if not sized correctly, the HIU will not be able to deliver to its designed output</li> </ul>
4	Reported problem; <ul style="list-style-type: none"> <li>No Room Heating</li> <li>Radiators are COLD.</li> <li>Under Floor Heating is installed Floor is COLD.</li> <li>No Room Heating or Hot Water</li> </ul>	<ul style="list-style-type: none"> <li>Check the ambient temperature. Is the reason that the room thermostat setting is too low to switch on the heating?</li> <li>system low pressure. Has the safety valve discharged? Check system pressure and top up if necessary.</li> <li>Check the Circulating Pump (see LED lights on the pump which can warn of a problem or a fault). Is the pump fully operational?</li> <li>Is the controller set up correctly? See Installer settings</li> <li>Is the Room thermostat wired correctly? Is it working?</li> <li>Check that the communal heating is supplying heat to the unit</li> <li>Check then that the isolation valves to the unit are open.</li> <li>Is the Bypass Valve open on the valve above the HIU?</li> </ul>
5	Reported problem; <ul style="list-style-type: none"> <li>The Control mode seems to be stuck in either Heating or Hot water function, and wont change even if either the room stat or flow switch is disconnected.</li> </ul>	<ul style="list-style-type: none"> <li>A PCB in the Controller is damaged. Look for the cause first before replacing. Usual suspect is that a 230v supply has been connect in error to a zero volt connection, either the T1 / T2 connection for the room stat or on the AUX plug for pre-payment connection</li> </ul>
6	Reported problem; <ul style="list-style-type: none"> <li>Suspect colouration of the water from the Hot Taps</li> </ul>	<ul style="list-style-type: none"> <li>Check a water sample from the cold main supply, is this the cause?</li> </ul> <p>If the water seems slightly 'milky', the cause of this is simply the aeration of the water. Once the oxygen has been released the water will clear of its own accord.</p> <p>For persistent and extreme contamination check the Plate Heat Exchanger for signs of cross contamination</p>



Ref	Part Code	Description
1	H10001SP	HIU Controller Unit
2	H10002SP	Controller PCB power supply board
3	H10003SP	Controller PCB low voltage board
4	H10004SP	23 plate DHW Zilmet Plate Heat Exchanger
5	H10005SP	33 plate DHW Zilmet Plate Heat Exchanger
6	H10006SP	18 Plate HEATING Zilmet Plate Heat Exchanger
7	H10007SP	PICV Actuator
8	H10008SP	PICV Valve
9	H10009SP	HEATING Zilmet expansion vessel
10	H10010SP	DIVERTER ACTUATOR
11	H10011SP	NTC DHW TEMPERATURE SENSOR (not shown)
12	H10012SP	PT1000 temperature sensor (CH flow and CH return)
13	H10013SP	Pump Head – Wilo Yonos Para 7.0 RKC
14	H10014SP	Complete Pump Block with Wilo Yonos Para 7.0 RKC Pump
15	H10015SP	Honeywell Flow Sensor
16	H10016SP	Pressure switch
17	H10017SP	Inta HIU High Temperature TMV
18	H10018SP	HIU Automatic Air Vent
19	H10019SP	GASKET SEALS for Plate Heat Exchanger (4)
20	H10020SP	Fixing Bolts for 18 Plate Heat Exchanger (4)
21	H10021SP	Fixing Bolts for 23 Plate Heat Exchanger (4)
22	H10022SP	Fixing Bolts for 33 Plate Heat Exchanger (4)
23	H10023SP	SET OF 2—Plate Heat Exchanger securing bars
	H10024SP	Rbm 3 Bar clip seal Safety Valve
27	H10027SP	DN20 Pipe gaskets (Set of 10)
28	H10028SP	Fuse (pack of 5)



H10017SP



H10007SP



**Hiper HIU Indirect models**

Indirect HIPER HIU Xi45

Indirect HIPER HIU Xi60

Indirect HIPER HIU Xi75

Technical Parameters	Xi45	Xi60	Xi70
PRIMARY (heat supply from communal heat source) MAXIMUM PRESSURE	16 bar	16 bar	16 bar
PRIMARY (heat supply from communal heat source) MAXIMUM TEMPERATURE	90° C	90° C	90° C
PRIMARY (heat supply from communal heat source) MAXIMUM pressure differential.	4 bar	4 bar	4 bar
SECONDARY (central heating ) MAXIMUM PRESSURE	3 bar	3 bar	3 bar
SECONDARY (central heating ) MAXIMUM TEMPERATURE	85° C	85° C	85° C
SECONDARY (central heating) TEMPERATURE ADJUSTMENT	20°C to 85°C	20°C to 85°C	20°C to 85°C
SECONDARY (central heating ) HEATING OUTPUT	10 kW	Xi6010 = 10 kW Xi6015 = 15kW	15 kW
DOMESTIC HOT WATER (including cold water supply main) MAXIMUM PRESSURE	10 bar	10 bar	10 bar
DOMESTIC HOT WATER MAXIMUM TEMPERATURE LIMITED by TMV Temperature setting update 19.06.17	57° C	57° C	57° C
DOMESTIC HOT WATER TEMPERATURE ADJUSTMENT	30°C to 65°C	30°C to 65°C	30°C to 65°C
DOMESTIC HOT WATER OUTPUT	45kW	60kW	70kW
COLD WATER MAINS SUPPLY RECOMMENDED PRESSURE AT INLET TO THE HIU	2 Bar	2 Bar	2 Bar

Controller factory settings	Xi45	Xi60	Xi75
Domestic Hot Water Services	55°C	55°C	55°C
For Heating to radiators	60°C	60°C	60°C

## SECTION 11 - Technical specifications

Main components	Xi45	Xi60	Xi70
SECONDARY circulating pump Wilo Yonos Para RKA 15.7 WM	✓	✓	✓
Pressure Independent Control Valve (PICV) 220 – 1330 Ltrs/hr	✓	✓	✓
Central Heating - Zilmet Plate Heat Exchanger Wras approved 1403059	ZC315	ZC315	ZC315
Domestic Hot Water - Zilmet Plate Heat Exchanger Wras approved 1403059	ZC315	ZC315	ZC315
Zilmet Expansion Vessel 13M0000804-004-14 8 Litre - max pressure 3 Bar.	✓	✓	✓
Thermostatic Mixing Valve 60007CP - factory set and locked at 60C	✓	✓	✓
Diverting Valve 3VP.SAT stroke 10 mm - 100 N	✓	✓	✓
Honeywell Flow Sensor C7195A/B	✓	✓	✓
Safety Valve (Secondary – Room Heating)	3 bar	3 bar	3 bar

Specification information	Xi45	Xi60	Xi70
HIU installation weight	25Kg	25.4Kg	25.4Kg
Connections	¾" M	¾" M	¾" M
Room Thermostat	NOT SUPPLIED	NOT SUPPLIED	NOT SUPPLIED

Technical for Electrical	Xi45	Xi60	Xi70
Power supply	230V / 50Hz / 1PH		
Maximum power consumption	53W		

Heat Meter installation	Xi45	Xi60	Xi70
110mm spacer pipe for Heat	✓	✓	✓

## Intatec Ltd

Airfield Industrial Estate  
Hixon  
Staffordshire  
ST180PF

T. 01889 272180  
F. 01889 272181  
sales@intatec.co.uk  
www.intatec.co.uk

## Warranty

The warranty for the Hiper HIU range commences from date of installation. This is deemed to be the same as the delivery date unless Intatec Limited is notified within 14 days of receipt, when a proposed future installation date is advised.

***To qualify the warranty agreement, all HIU have to be registered with Intatec, with details of site address, serial number (as per the label in the HIU) and installation date. Please note that failure to register the Product (HIU) may invalidate the warranty. Registration is by the below website;***

[http://www.intatec.co.uk/register\\_hiu\\_product](http://www.intatec.co.uk/register_hiu_product)

***Or by post to Intatec Ltd, Airfield Industrial Estate, Hixon, Staffordshire, ST180PF***

**Warranty for 3 years for component failure** proved to be caused by component manufacture.

Exceptions to the Warranty;

- ◇ Faults caused by installation by a 'non-competent' or unqualified installer.
- ◇ Faults caused by incorrect installation and not to the Installation Manual. Damage caused to the Controller by the installer connecting voltage to connections that are in this manual advised as VOLT FREE.
- ◇ Circulating Pump which is covered by the manufacturer's warranty of 12 months
- ◇ Plate Heat Exchanger which may fail due to water quality in the system (primary or secondary heating) or by scaling caused by the condition of the potable water supply. Plate Heat Exchanger warranty of 12 months applies as instructed by Zilmet UK
- ◇ Faults caused by lack of maintenance to the suggested schedule and maintenance procedure listed in this manual.
- ◇ Faults caused by the installer losing or not handing over this manual to the person or company responsible for the building and energy services welfare.
- ◇ Damage to the unit after delivery is received and signed for, or damage caused by vandalism.
- ◇ Any missing parts reported after the delivery is received and signed for.
- ◇ Use of non-original spares
- ◇ Any changes made to the original design and construction of the HIU at the factory.
- ◇ Any faults caused by poor or bad system design. System design is not the responsibility of the manufacturer.
- ◇ Any HIU which has not been maintained and serviced in regular 12 month periods and that maintenance procedure does not comply with the instructions as listed in this Installation Guide. Regular service/maintenance should be documented in a recognised format.
- ◇ Installations outside of the United Kingdom
- ◇ Installations where control by room thermostat is not adhered to
- ◇ Installations where proper control for the cold water mains are not adhered to. Check valve, Pressure Reducing Valve and shock arrester as a minimum.

## Invalid Claims

- ◇ Costs related to de-scaling or cleaning of filters or plate heat exchangers that are caused by the condition of the water in either the primary or secondary system.
- ◇ Any costs that are incurred unrelated to the repair, or replacement, of a faulty component.
- ◇ Any cost due to misuse or modification of the HIU that is not as intended in any of the Manufacturers user or installation guides.

Warranty claims are subject to proof that the product has been correctly installed in accordance with the installation instructions and good working practice.

***Any Costs incurred by Inta that are not covered by the warranty will be invoiced to the claimant.***

## HIU SERVICE CALL CHARGES

Initial Call Out Charge, including travel and 30 minutes on site labour.	£120.00 + VAT
Additional labour charge (per half hour) after initial call	£35.00 + VAT
Mileage will be charged at .....	£0.45 per mile + VAT
Spares will be charged at list price less standard discount + VAT	

The above is applicable to the UK, except for Highlands and Islands, Isle of Man, Isle of Wight, Channel Islands.

In the event a problem is deemed to be a manufacturing defect, no charge will be made

If the defect has been caused by an installation error, the above charges will apply

If the defect has been caused by misuse, the above charges will apply

## SERVICE RECORD

We recommend that your Heat Interface Unit is serviced regularly. When it is, please ensure that the details are recorded in the "service" boxes below.

### Service 1

**Date:**

Engineer name:

Company name:

Telephone no.

Comments \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Signature:

### Service 2

**Date:**

Engineer name:

Company name:

Telephone no.

Comments \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Signature:

### Service 3

**Date:**

Engineer name:

Company name:

Telephone no.

Comments \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Signature:

### Service 4

**Date:**

Engineer name:

Company name:

Telephone no.

Comments \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Signature:

### Service 5

**Date:**

Engineer name:

Company name:

Telephone no.

Comments \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Signature:

### Service 6

**Date:**

Engineer name:

Company name:

Telephone no.

Comments \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Signature:

### Service 7

**Date:**

Engineer name:

Company name:

Telephone no.

Comments \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Signature:

### Service 8

**Date:**

Engineer name:

Company name:

Telephone no.

Comments \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Signature: