



# THE REMEHA HIU RANGE

Installation, operation  
and maintenance manual  
December 2017

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The following instructions are for the E70/5, E70/9, T60/5 & T60/7.

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# INTRODUCTION

## DECLARATION & SYMBOL KEY

The following instructions are offered as a guide to the user and installer.

The installation must be carried out by a competent plumbing and electrical installer in accordance with Building Regulations, The Building Standards (Scotland) Regulations 1990, The Building Regulations (Northern Ireland), UK Water Regulations and IEE Electrical Regulations.

Also, BSEN.12828:2003 - Heating Systems in buildings Design for water based systems.

BSEN.12831:2003 Heating Systems in buildings: Method for calculation of the design heat load.

BSEN.13831 Specification for: Expansion vessels using an internal diaphragm, for sealed hot water heating systems.

BSEN.14336:2004 Heating Systems in buildings: Installation and commissioning of water based heating systems.

The appropriate Building Regulations either The Building Regulations, The Building Regulations (Scotland), Building Regulations (Northern Ireland).

The Water Fittings Regulations or Water Bye laws in Scotland.

The Current I.E.E. Wiring Regulations.

Electromagnetic Compatibility Directive 2004/108/EEC

Low Voltage Directive 2006/95/EC

Ensure that the primary and secondary heating circuit have been flushed in accordance to BS7593 and BSRIA guide B629/2012.

### Declaration of conformity

Our products are manufactured in compliance with the requirements of applicable European Directives. This appliance complies with the requirements of the CE marking directive.

In the interest of customers we are continuously endeavouring to make improvements in product quality.

All the specifications stated in this document are therefore subject to change without notice.

### Symbol Key,

In these instructions various risk levels are employed to draw the user's attention to particular information. In doing so we wish to safeguard the user, avoid hazards and guarantee the correct operation of the appliance.



#### **DANGER**

Risk of a dangerous situation causing serious physical injury.



#### **WARNING**

Risk of a dangerous situation causing slight physical injury.



#### **CAUTION**

Risk of material damage.

# INSTALLER'S & USERS LIABILITY

Our liability as the Supplier may not be invoked in the following cases:

- Failure to abide by the instructions on using the appliance.
- Faulty or insufficient maintenance of the appliance.
- Failure to abide by the instructions on installing the appliance.

## Installer's liability

The installer is responsible for the installation and the commissioning of the appliance. The installer must respect the following instructions:

- Read and follow the instructions given in the manuals provided with the appliance.
- Carry out installation in compliance with the prevailing legislation and standards.
- Perform the initial start up and carry out any checks necessary.
- Complete the commissioning checklist.
- Explain the installation to the user.
- If maintenance is necessary, warn the user of the obligation to check the appliance and maintain it in good working order.
- Leave all the instruction manuals to the user.

## Users liability

To guarantee optimum operation of the appliance, the user must respect the following instructions:

Read and follow the instructions given in the manuals provided with the appliance.

- Call on qualified professionals to carry out installation and initial start up.
- Ask the installer to explain the installation.
- Have the required checks and services carried out annually.

Keep the instruction manuals in good condition and close to the appliance.



### DANGER

This unit becomes pressurised when in operation. The combination of pressurisation and hot water could lead to serious physical injury if the safety instructions in this manual are not adhered to.

The unit is also designed to work at district heating hydraulic pressures up to 10 bar g and temperatures up to 90°C, which, if exposed to could lead to serious injury.



### WARNING

- Only competent persons having received the appropriate training are permitted to work on the appliance and the installation.
- Do not tamper with any of the safety valves or controls supplied with the unit.
- Before any work, isolate the mains electrical supply to the appliance.



### WARNING

- Do not adjust the (ESBE) three way thermostatic mixing valve. This is factory set to prevent excessive hot water temperatures reaching the taps in the event of a system failure (see fig. 3 & 4). The purpose of this valve should not be confused with that of a point of use mixing valve which is fitted near to the tap to prevent scalding.
- Do not tamper with any of the safety valves fitted to the systems. If a fault is suspected contact a competent installer.



## WARNING

- Under no circumstances should the factory fitted safety valves (three way thermostatic mixing valve and safety valve, see fig. 1+2) be removed by anyone other than a competent person. The unit must not be run if either of these safety valves have been removed. Doing so will invalidate any guarantee or claim.
- Although the unit is suitable for cold water pressures up to 10 bar g it is strongly recommended that pressures above 3 bar g are reduced down using a suitable PRV fitted in the cold feed pipework.
- Where water hammer may be an issue fit a suitably sized potable water shock arrester / expansion vessel.
- Where expansion vessels have been fitted, it is good practice to protect the system in the event of its failure using a suitable potable water safety valve.
- No control of safety valve should be tampered with or used for any other purpose.
- The safety valve discharge pipe should not be blocked or used for any other purpose.
- Where a tundish is fitted, this should not be located adjacent to any electrical components.

## Please note:

A means for disconnecting the power supply must be incorporated in the fixed wiring in accordance with BS EN 7671:2008.

This unit is designed to be permanently connected to the hydraulic systems and as such flexible hose connections should not be used.

Details of how the unit should be fixed to its support can be found on page 19.

For maximum and minimum cold water inlet pressures see page 6 & 7.

The unit is fitted with an integral pressure safety valve. Water may drip from the discharge pipe of the Safety valve and this can be witnessed through a tundish open to atmosphere. Where discharge pipework is piped to a drain, a trap to prevent foul odours should be installed. The pressure safety valve should be tested regularly to remove lime deposits and to verify it is not blocked.

Only competent persons having received the appropriate training are permitted to work on the appliance and the installation. Children must be supervised to ensure they do not play with the appliance.

Prior to installation make sure that the primary & secondary heating circuit have been flushed.

# PERFORMANCE AND HIU DATA

The DHW output and performance of the HIU is related to the district flow temperature and flow rate.

	REMEHA HIU E70/5					REMEHA HIU E70/9					REMEHA HIU T60/7				REMEHA HIU T60/5			
HWS output (kW)	30	40	50	60	70 <sup>(1)</sup>	30	40	50	60	70 <sup>(1)</sup>	30	40	50	60	30	40	50	60
HWS delivery (l/min)	10.8	14.4	18.0	21.5	25.1	10.8	14.4	18.0	21.5	25.1	10.8	14.4	18.0	21.5	10.8	14.4	18.0	21.5
Primary flow rate (l/min) <sup>(6)</sup>	13.0	17.4	17.9	19.1	18.3	13.0	17.4	17.4	19.1	18.3	13.0	17.4	17.9	19.1	13.0	17.4	17.9	19.1
Cold water temp (°C)	10					10					10				10			
Hot water temp (°C)	50					50					50				50			
Hot water (Δt °C)	40					40					40				40			
Primary flow (°C)	75					75					75				75			
Primary return (°C)	42	42	35	30	20	42	42	35	30	20	42	42	35	30	42	42	35	30
Primary (Δt °C)	33	33	40	45	55	33	33	40	45	55	33	33	40	45	33	33	40	45
PHE primary loss (kPa)	12.2	21.1	22.4	25.4	23.4	12.2	21.1	22.4	25.4	23.4	12.2	21.1	22.4	25.4	12.2	21.1	22.4	25.4
PHE secondary loss (kPa)	15.1	24.5	37.5	53.2	71.4	15.1	24.5	37.5	53.2	71.4	15.1	24.5	37.5	53.2	15.1	24.5	37.5	53.2
Min pressure (bar)	0.5					0.5					0.5				0.5			
Max pressure (bar)	10					10					10				10			
HTG output (kW)	1.5	3	5	7	9	7	9	7	9	7	9	1.5	3	5				
HTG flow rate (l/min)	0.71	1.43	2.38	3.33	4.29	3.33	4.29	3.33	4.29	3.33	4.29	0.71	1.43	2.38				
HTG flow temp (°C)	70					70					70				70			
HTG return temp (°C)	40					40					40				40			
HTG (Δt °C)	30					30					30				30			
Primary flow (°C)	75					75					75				75			
Primary return (°C)	45					45					45				45			
Primary (Δt °C)	30					30					30				30			
PHE primary loss (kPa)	0.11	0.39	0.99	1.82	2.88	1.82	2.88	1.82	2.88	1.82	2.88	0.11	0.39	0.99				
PHE secondary loss (kPa)	0.20	0.66	1.57	2.78	4.27	2.78	4.27	2.78	4.27	2.78	4.27	0.20	0.66	1.57				
Min pressure (bar) <sup>(2)</sup>	1					1					1				1			
Max pressure (bar) <sup>(2)</sup>	2.8					2.8					2.8				2.8			

# PERFORMANCE AND HIU DATA

The DHW output and performance of the HIU is related to the district flow temperature and flow rate.

	REMEHA HIU E70/5			REMEHA HIU E70/9			REMEHA HIU T60/7			REMEHA HIU T60/5		
**WRAS approved	Type	Material	Jig fitted	Type	Material	Jig fitted	Type	Material	Jig fitted	Type	Material	Jig fitted
MCWS**	Female	Plated steel	Yes	Female	Plated steel	Yes	Female	Plated steel	Yes	Female	Plated steel	Yes
DHW outlet**												
District flow**												
District return**												
Heating flow**												
Heating return**												
Safety valve discharge	Brass	Brass	Brass	Brass								
Electrical supply (Volts)	230			230			230			230		
Electrical frequency (Hz)	50			50			50			50		
Electrical consumption (Watts)	75			75			75			75		
Fuse rating (Amps)	3			3			3			3		
HIU only (mm)	750 x 570 x 338			750 x 570 x 338			750 x 570 x 338			750 x 570 x 338		
First fix jig (mm)	130 x 570 x 338			130 x 570 x 338			130 x 570 x 338			130 x 570 x 338		
Combined (mm)	880 x 570 x 338			880 x 570 x 338			880 x 570 x 338			880 x 570 x 338		
Clearance all sides (mm) (*) (side x side x top x bottom)	50 x 50 x 200 x 50			50 x 50 x 200 x 50			50 x 50 x 200 x 50			50 x 50 x 200 x 50		
HIU boxed – delivery (kg)	55			55			55			55		
HIU complete (kg) (²)	48			48			48			48		
First fix jig (kg) (³)	4			4			4			4		
Expansion vessel – HTG (litres)	12			12			12			12		
Safety valve setting (Bar)	3			3			3			3		
Grundfos UPM3 – heating (kPa)	44	44	38	44	44	38	38	38	38	44	44	38
Heat loss (kWh/day)	0.384			0.384			0.384			0.384		
<b>RECOMMENDED OPTION</b>												
First fix jig	Yes			Yes			Yes			Yes		
<b>OPTIONS</b>												
Water meter	Yes			Yes			Yes			Yes		
Heat meter	Yes			Yes			Yes			Yes		
DHW priority	Yes			Yes			No			No		
Data module	Yes			Yes			Yes			Yes		

(¹) Only with domestic hot water priority. (²) Maximum heating water expanded pressure. (³) Water pressure switch set to 1bar. (⁴) Below the valves on first fix jig.

(⁵) Suitable fixings are to be used for wall type. (⁶) Please refer to flow rate calculation/sizing the central boiler plant.

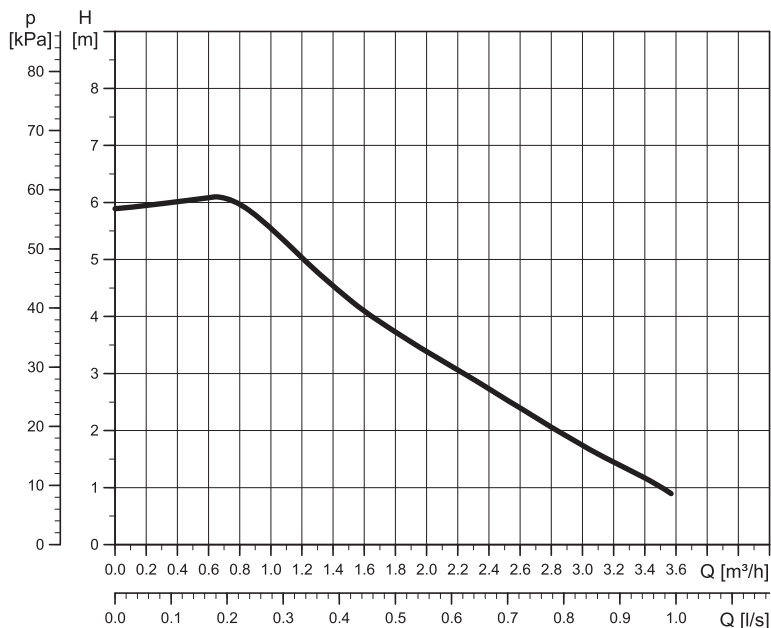
# TECHNICAL CALCULATION GUIDE

## HEATING CALCULATIONS

OUTPUT RATING (Kw)	PRIMARY DELTA (T)(°C)	SECONDARY DELTA (T) (°C)	PRIMARY PLATE PRESSURE DROP (kPa)	SECONDARY PLATE PRESSURE DROP (kPa)	PRIMARY FLOW RATE (l/m)	SECONDARY FLOW RATE (l/m)	PRIMARY CONTROL Vv PRESSURE DROP (kPa)	TOTAL PRIMARY PRESSURE DROP (kPa)
1.5	30 (75/45)	30 (70/40)	0.08	0.20	0.71	0.71	0.03	0.11
3	30 (75/45)	30 (70/40)	0.28	0.66	1.43	1.43	0.12	0.39
5	30 (75/45)	30 (70/40)	0.66	1.57	2.38	2.38	0.33	0.99
7	30 (75/45)	30 (70/40)	1.18	2.78	3.33	3.33	0.64	1.82
9	30 (75/45)	30 (70/40)	1.82	4.27	4.29	4.29	1.06	2.88

## DHW CALCULATIONS

OUTPUT RATING (Kw)	PRIMARY DELTA (T)(°C)	SECONDARY DELTA (T) (°C)	PRIMARY PLATE PRESSURE DROP (kPa)	SECONDARY PLATE PRESSURE DROP (kPa)	PRIMARY FLOW RATE (l/m)	SECONDARY FLOW RATE (l/m)	PRIMARY CONTROL Vv PRESSURE DROP (kPa)	TOTAL PRIMARY PRESSURE DROP (kPa)
30	33 (75/42)	40 (10/50)	8.4	15.1	13.0	10.8	3.8	12.2
40	33 (75/42)	40 (10/50)	14.3	24.5	17.4	14.4	6.8	21.1
50	40 (75/35)	40 (10/50)	15.2	37.5	17.9	18.0	7.2	22.4
60	45 (75/30)	40 (10/50)	17.2	53.2	19.1	21.5	8.2	25.4
70	55 (75/20)	40 (10/50)	15.9	71.4	18.3	25.1	7.5	23.4



Secondary heating pump graph

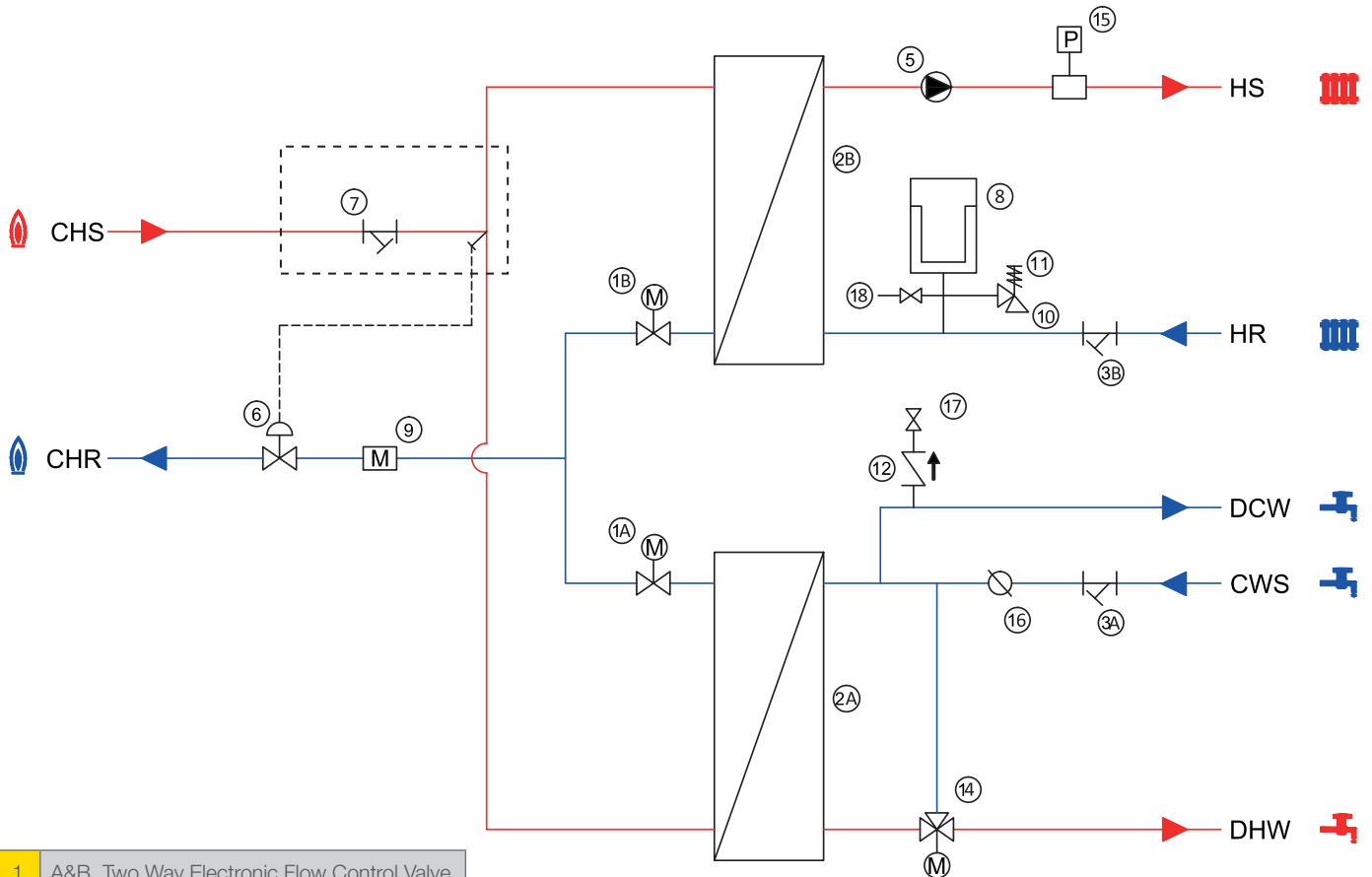


# FIG.1

# HYDRAULIC SCHEMATIC

## E70/5 & E70/9

The hydraulic schematics within this document are for guidance only and do not constitute system design. Some components may not be detailed and connection positions have been moved for clarity purposes.



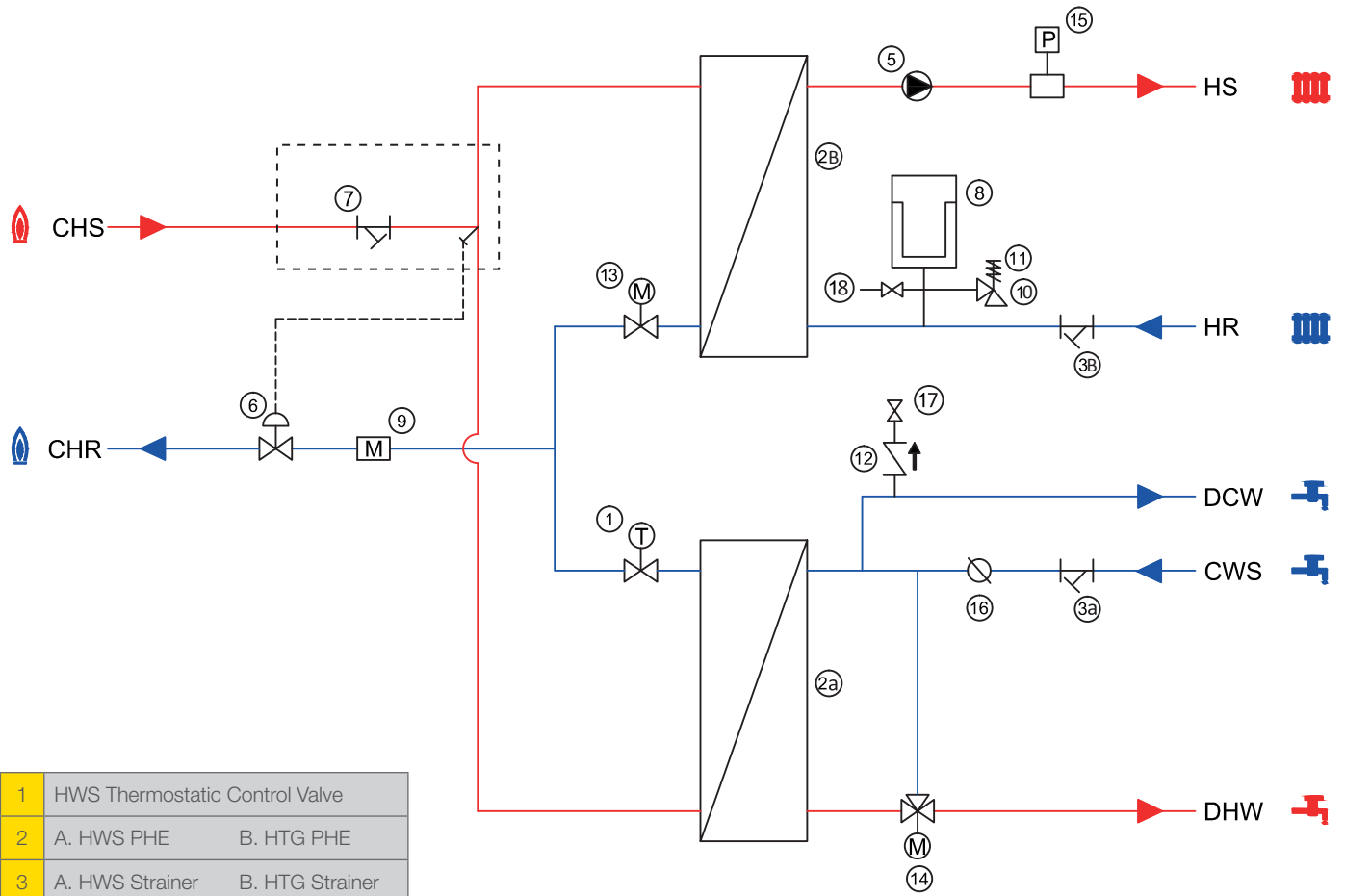
1	A&B. Two Way Electronic Flow Control Valve
2	A. HWS PHE      B. HTG PHE
3	A. HWS Strainer      B. HTG Strainer
5	Heating Circulation Pump
6	Differential Pressure Controller
7	Primary 5 Way Distributor + Strainer
8	Expansion Vessel
9	Heat Meter (optional)
10	Safety Discharge Outlet Connection
11	Safety Valve
12	Check Valve (Non-Return Valve)
14	Three Way Thermostatic Mixing Valve
15	Pressure Switch
16	Cold Water Meter (optional)
17	Filling Valve
18	Draining Valve

# HYDRAULIC SCHEMATIC

T60/5 & T60/7

FIG.2

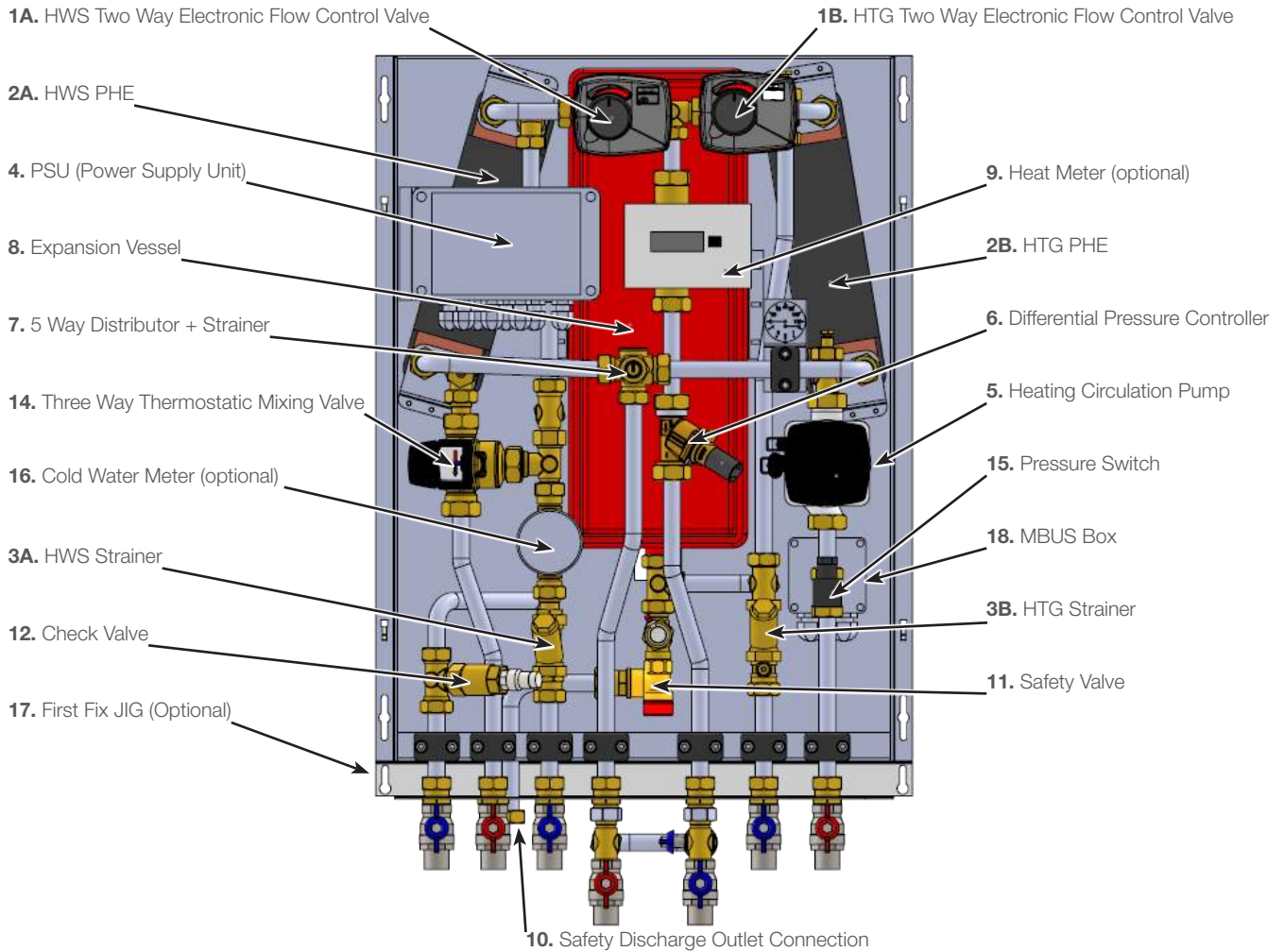
The hydraulic schematics within this document are for guidance only and do not constitute system design. Some components may not be detailed and connection positions have been moved for clarity purposes.



1	HWS Thermostatic Control Valve
2	A. HWS PHE    B. HTG PHE
3	A. HWS Strainer    B. HTG Strainer
5	Heating Circulation Pump
6	Differential Pressure Controller
7	Primary 5 Way Distributor + Strainer
8	Expansion Vessel
9	Heat Meter (optional)
10	Safety Discharge Outlet Connection
11	Safety Valve
12	Check Valve (Non-Return Valve)
13	Two Way Electronic Flow Control Valve
14	Three Way Thermostatic Mixing Valve
15	Pressure Switch
16	Cold Water Meter (optional)
17	Filling Valve
16	Draining Valve

# FIG.3

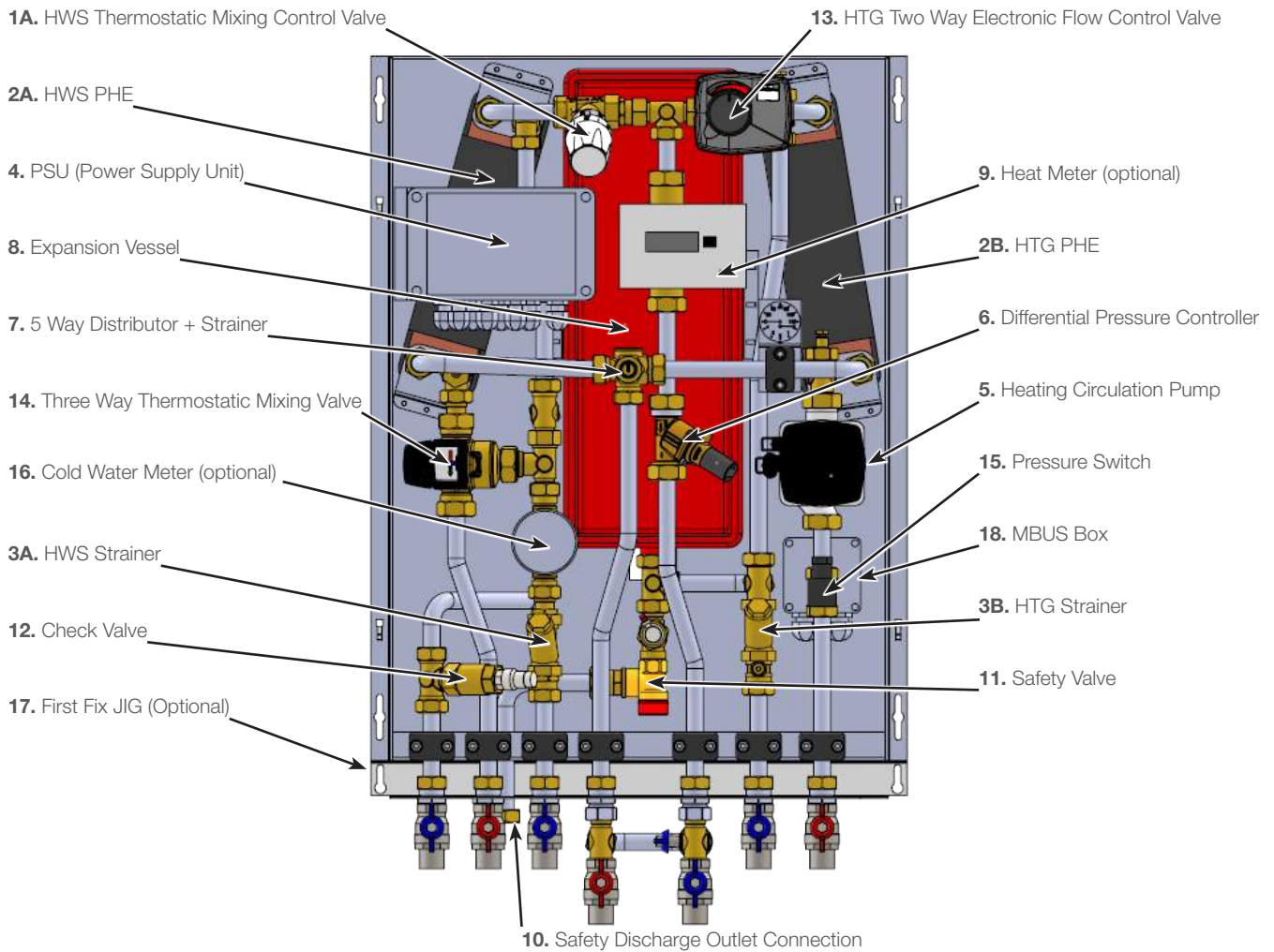
# E70/5 & E70/9 COMPONENT PARTS



COMPONENTS:		
1	A&B. Two Way Electronic Flow Control Valve	10 Safety Discharge Outlet Connection
2	A. HWS PHE      B. HTG PHE	11 Safety Valve
3	A. HWS Strainer      B. HTG Strainer	12 Check Valve (Non-Return Valve)
4	PSU (Power Supply Unit)	14 Three Way Thermostatic Mixing Valve
5	Heating Circulation Pump	15 Pressure Switch
6	Differential Pressure Controller	16 Cold Water Meter (optional)
7	Primary 5 Way Distributor + Strainer	17 First Fix JIG (Optional)
8	Expansion Vessel	18 MBUS Box
9	Heat Meter (optional)	

# T60/5 & T60/7 COMPONENT PARTS

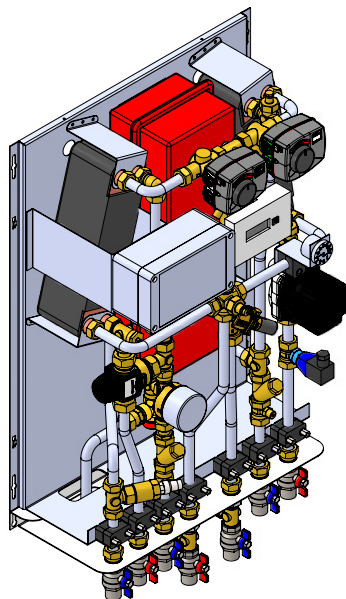
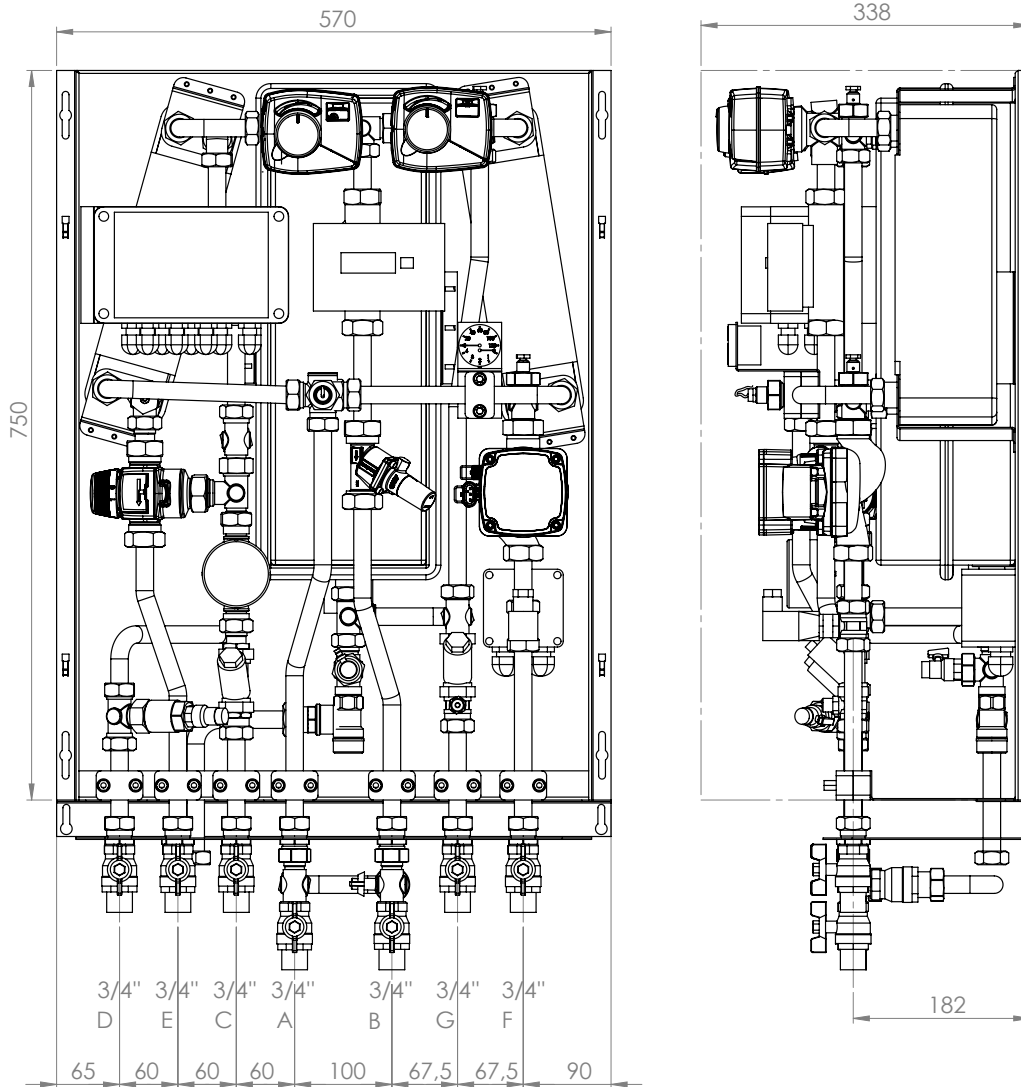
## FIG.4



COMPONENTS:			
1	HWS Thermostatic Control Valve	10	Safety Discharge Outlet Connection
2	A. HWS PHE      B. HTG PHE	11	Safety Valve
3	A. HWS Strainer      B. HTG Strainer	12	Check Valve (Non-Return Valve)
4	PSU (Power Supply Unit)	13	Two Way Electronic Flow Control Valve
5	Heating Circulation Pump	14	Three Way Thermostatic Mixing Valve
6	Differential Pressure Controller	15	Pressure Switch
7	Primary 5 Way Distributor + Strainer	16	Cold Water Meter (optional)
8	Expansion Vessel	17	First Fix JIG (Optional)
9	Heat Meter (optional)	18	MBUS Box

# FIG.5

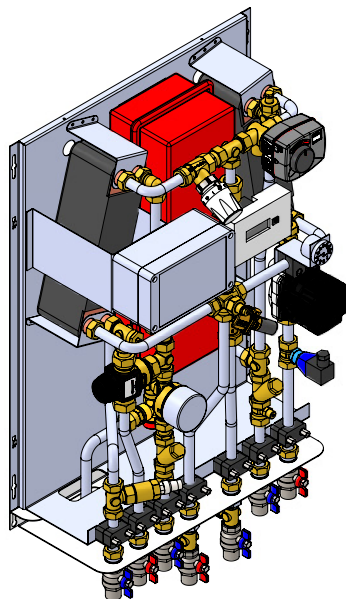
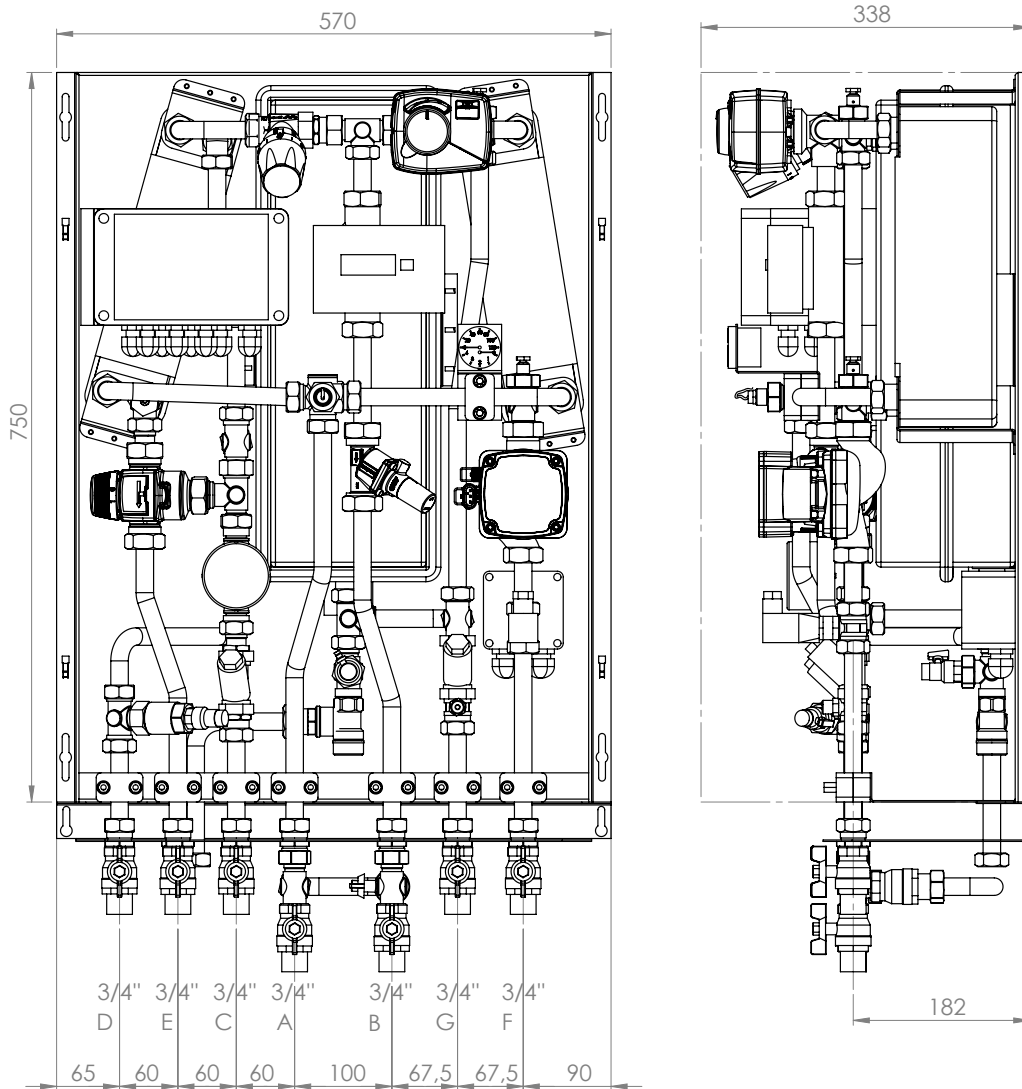
## E70/5 & E70/9 DIMENSIONS



CONNECTIONS:	
A	Central Heating Supply
B	Central Heating Return
C	Domestic Cold Water Inlet
D	Domestic Cold Water Outlet
E	Domestic Hot Water
F	Space Heating Supply
G	Space Heating Return

# T60/5 & T60/7 DIMENSIONS

## FIG.6

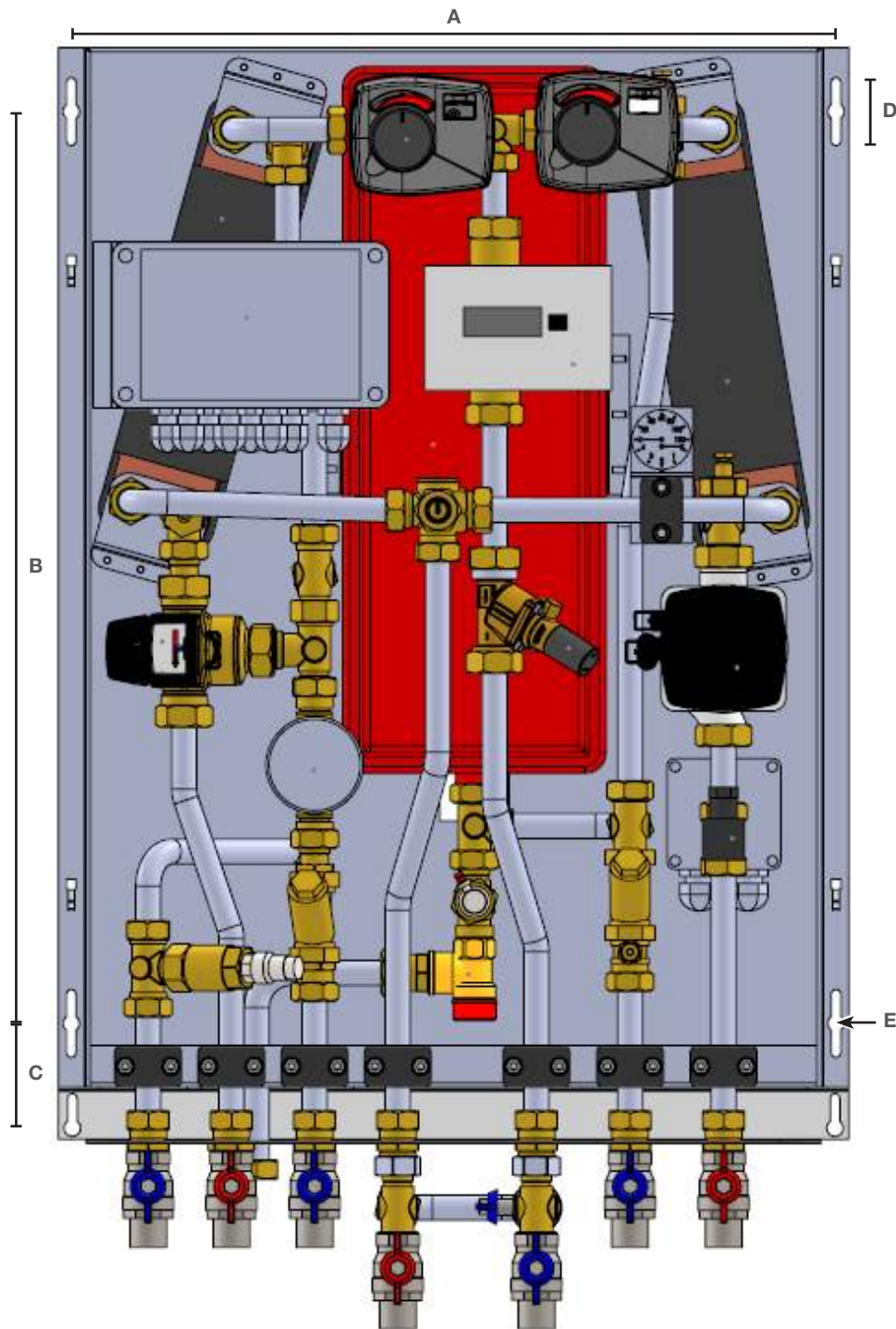


CONNECTIONS:	
A	Central Heating Supply
B	Central Heating Return
C	Domestic Cold Water Inlet
D	Domestic Cold Water Outlet
E	Domestic Hot Water
F	Space Heating Supply
G	Space Heating Return



# FIG.7

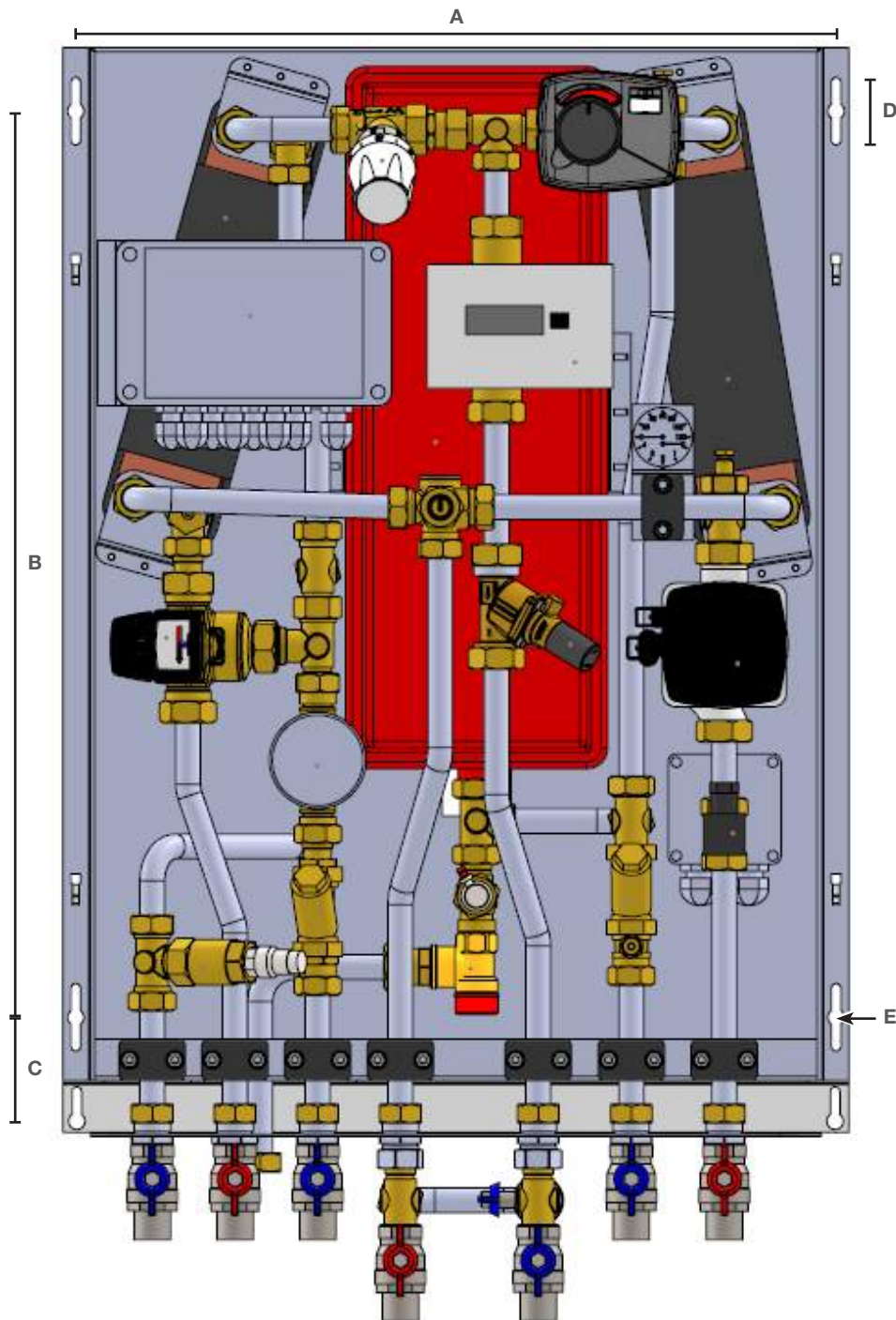
## E70/5 & E70/9 FIXING HOLES



FIXING LOCATION	DIMENSIONS
A	550mm
B	657mm
C	80mm
D	45mm
E	7mm wide x 13mm diameter

# T60/5 & T60/7 FIXING HOLES

## FIG.8

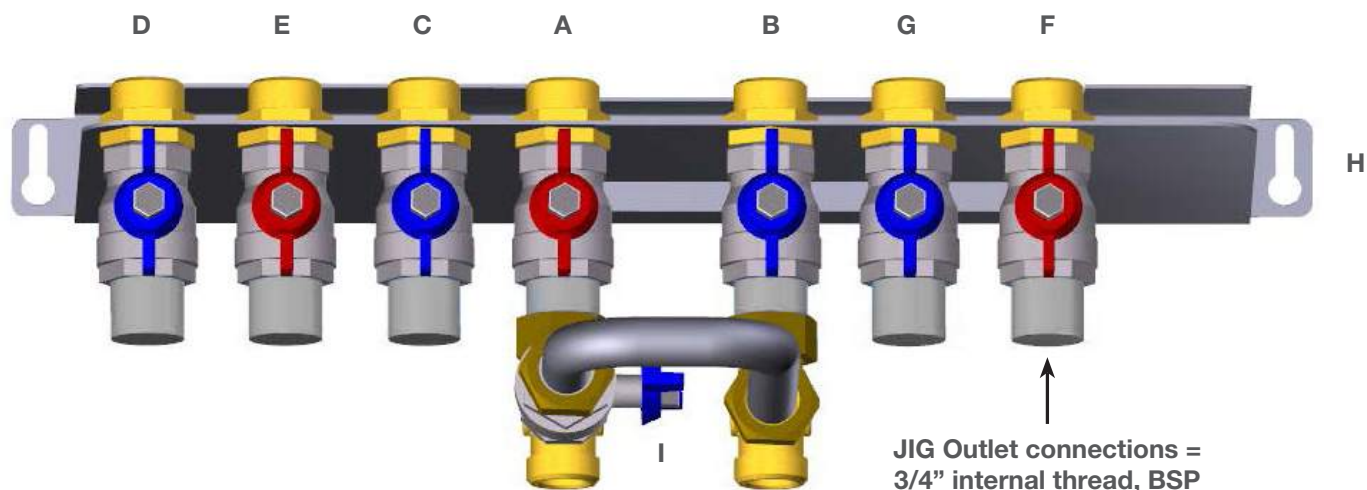









FIXING LOCATION	DIMENSIONS
A	550mm
B	657mm
C	80mm
D	45mm
E	7mm wide x 13mm diameter



# FIG.9

## E70/5, E70/9, T60/5 & T60/7 FIRST FIX JIG AND HIU CONNECTION PORTS AND FIRST FIX JIG FIXING HOLES

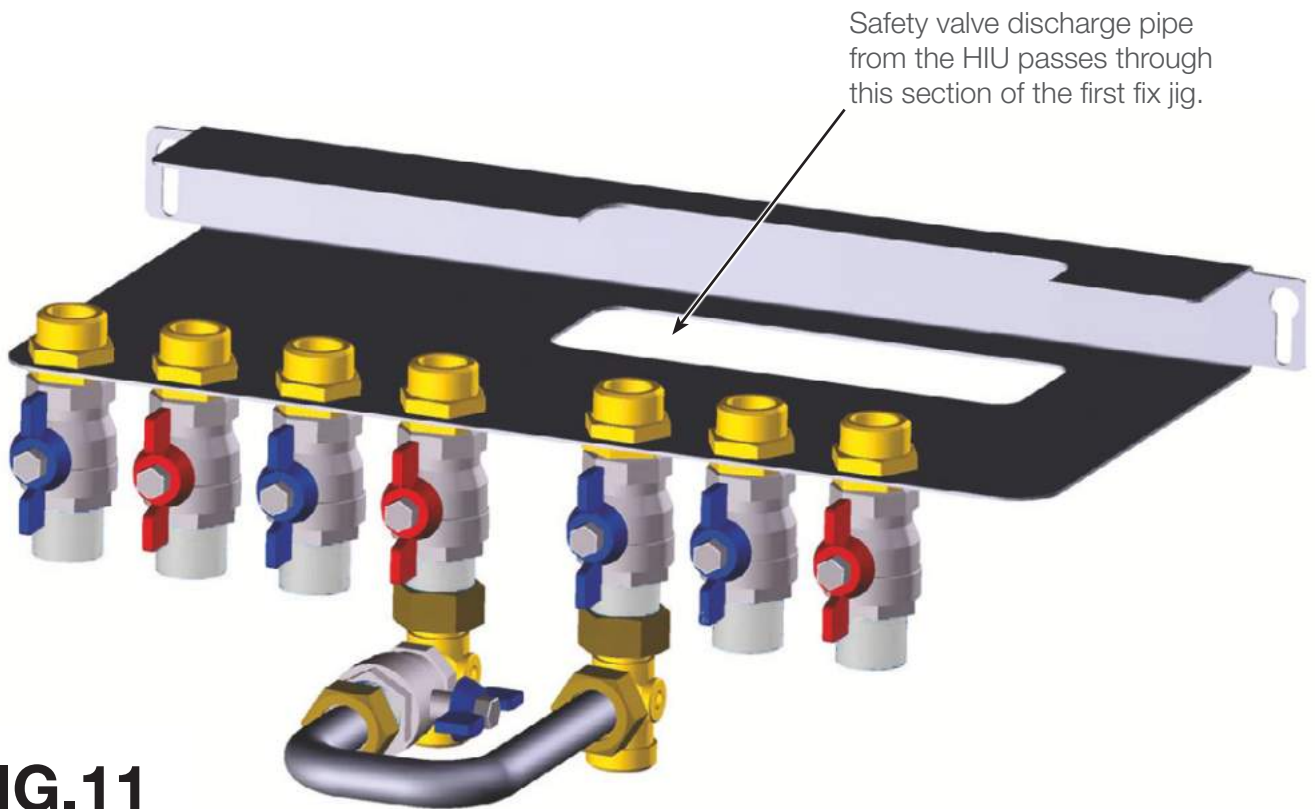
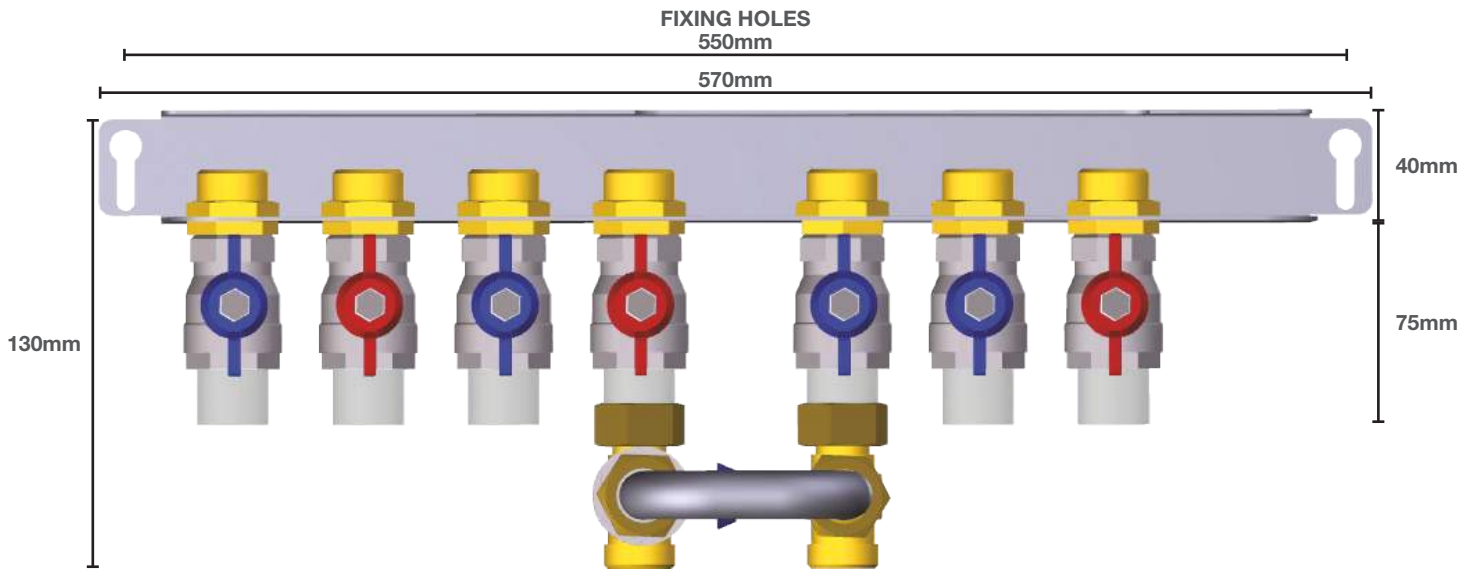


CONNECTIONS PORTS*	DESCRIPTION	CONNECTIONS PORTS*	DESCRIPTION
D 	Domestic Cold Water Outlet	G 	Heating Return
E 	Domestic Hot Water Outlet	F 	Heating Supply
C 	Domestic Cold Water Inlet	H	Fixing Holes - 7mm x 13mm diameter
A 	Primary Supply	I	Bypass C/W Isolation Ball Valve
B 	Primary Return		

\*Connections to HIU, 3/4" thread, BSP Female

# E70/5, E70/9, T60/5 & T60/7 FIRST FIX JIG

## FIG.10



## FIG.11

# E70/5, E70/9, T60/5 & T60/7 FIXING OF FIRST FIX JIG AND HIU MOUNTING DETAILS

Please refer to fig. 7, 8, 9, 10 & 11 for the HIU and jig fixing/mounting diagrams.

## Access requirements; Weight and dimensions:

CLEARANCE		
FRONT X SIDE X TOP X BOTTOM <sup>(4)</sup>	mm	50 x 50 x 200 x 50 <sup>(4)</sup>

<sup>(4)</sup> Below the valves on first fix jig

WEIGHT		
HIU Boxed - Delivery	kg	55
HIU Complete <sup>(5)</sup>		48
First Fix Jig <sup>(5)</sup>		4

DIMENSIONS			
HIU Only	H x W x D inch	mm	750 x 570 X 338
First Fix Jig			130 x 570 x 338
Combined			880 x 570 x 338

<sup>(5)</sup> Suitable fixings are to be used for wall type

## Connections:

Please see fig. 9 for connections details of HIU and jig.

CONNECTIONS					
** was approved	Size		Type	Material	Jig Fitted
MCWS **	inch	3/4	Female	Plated Steel	Yes
DHW OUTLET **					
DISTRICT FLOW **					
DISTRICT RETURN **					
HEATING FLOW **					
HEATING RETURN **					
SAFETY VALVE DISCHARGE				Brass	

## Wall fixing (first fix jig)

The HIU unit can be supplied with a first fix jig for ease of installation. The jig allows the installer to pipe up and test the primary and secondary pipework to and from the heat interface unit without the need to have the heat interface unit on site.

Please check that the primary heating circuit has been flushed.

A safety valve discharge pipe connection is provided through the 1st fix jig from the HIU to allow the installer to carry out all piping work at the same time.

The first fix jig is the same for all HIU versions.

Please see fig. 5, 6, 7, 8 & 10 for dimensions, fixing holes and connection details.

It is important that all fixing holes are used as they give support to the first fix jig and internal ball valves. Failure to do so could lead to misalignment issues.

The unit is only suitable to be installed in one orientation, primary and secondary pipework is bottom entry.

Ensure that the access requirements have been met.

Ensure the structure that the HIU will be fixed to will sustain the weight of the unit when full of water and with all its casings on.

Position the 1st fix jig kit on the wall ensuring it is level using a spirit level and mark out the two fixing holes.

Fixing holes are 7mm x 13mm diameter.

Drill and plug the wall as necessary.

Fix the 1st fix jig to the wall using suitable fixings and check that it is still level using a spirit level.

Ensure that all ball valves remain fully closed when the first fix jig is mounted connected to primary and secondary pipework.

HIU is now ready to be plumbed in.

# E70/5, E70/9, T60/5 & T60/7

## FIXING OF FIRST FIX JIG AND HIU MOUNTING DETAILS

### Wall fixing (HIU)



#### CAUTION

It is important that when piping to and from the 1st fix jig that the connecting pipes are aligned with the connections on the 1st fix jig. Failure to do so could lead to damage of the isolation valves.



#### CAUTION

When connecting the HIU to the 1st fix jig, do not over tighten the joints.



#### CAUTION

When fixing the HIU to the 1st fix jig it is important that you do not over tighten the nuts on the studs provided.

#### Maximum torque 3Nm.

Use a torque adjustment spanner.



#### CAUTION

When piping to and from the 1st fix jig, take care not to flex the bracketry as this could lead to connection misalignment issues.

Insert the fibre washers supplied between the pipe connections on the HIU and the isolation valves.

The safety discharge pipe is connected to the safety valve within the HIU, this will pass through the first fix jig to enable external pipework to be connected, see fig. 11.

Lightly tighten up all connection nuts connecting the HIU to the first fix jig and external pipework connecting to the safety valve discharge pipe.

Please see fig. 7 & 8 regarding the fixing holes located on the back plate of the HIU.

Please ensure that there is enough access space surrounding the HIU and first fix jig.

Do not over tighten the connections to the HIU and first fix jig.

Position the HIU on the wall connecting the HIU pipe connections to the first fix jig ensuring it is level using a spirit level and mark out the 4 fixing holes. Fixing holes are 7mm x 13mm diameter. See fig. 7, 8 & 10.

Drill and plug the wall as necessary.

Fix the HIU while connected to the first fix jig to the wall using suitable fixings and check that it is still level using a spirit level.

Ensure the correct connections from the HIU are connected to the correct primary and secondary pipe work, please see fig. 9.

This unit is not suitable for secondary pumped circulation type systems.

### Secondary heating connections

The HIU is suitable to connect to either radiator type heating systems or underfloor heating systems.

The safety valve discharge has a 15mm pipe connection which is provided within the HIU through the first fix jig so that all plumbing work can be carried out during the first fix stage of the installation.

The discharge pipework should have a continuous fall to a suitable drain and be in a frost free environment.

It is good practice to fit a tundish to facilitate commissioning and servicing. A trap should be used when discharging to drain.

See BS6798 for advice on safety discharge pipework.

# E70/5, E70/9, T60/5 & T60/7

## FIXING OF FIRST FIX JIG, HIU MOUNTING DETAILS AND WIRING DETAILS



### WARNING

Although the amount of water discharged from the safety valve is not likely to be great, it is important to note that it is likely to be hot and carry a risk of scalding.



### CAUTION

Always check that all connections are still leak free and that all drain valves are closed before attempting to fill the system.

### Wiring details



### DANGER

230V supply

A safe means of electrically isolating the HIU must be provided.

### The wiring schematics within this document are for guidance only and do not constitute system design.

Always check that all connections are still leak free and that all drain valves are closed before attempting to fill the system.

Cable entry to the HIU is located through the bottom of the first fix jig

Cable ties are provided to attach to the backplate for cables to reach the PSU and m-bus box.

Ensure all casing screws are fitted, as these provide earth continuity through the casing.

The power supply is earthed through the PSU box at the factory.

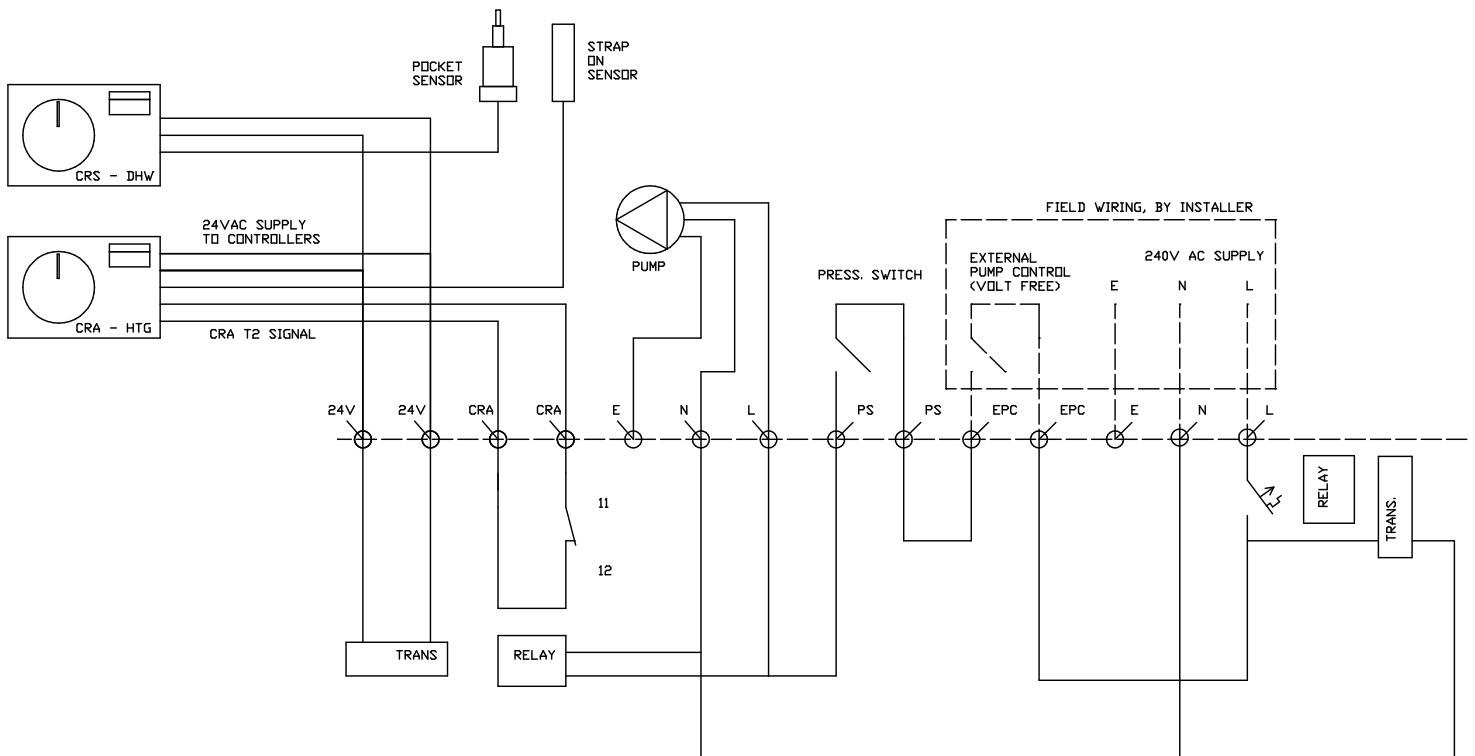
The HIU requires a programmable room thermostat to control the apartment heating. The switching cable should be routed through the first fix rail and then connected to the PSU box, fig. 12, 13, 14 & 15 in the wiring details section.

Always isolate the power supply before opening the unit.

# WIRING DETAILS

E70/5 & E70/9

FIG.12

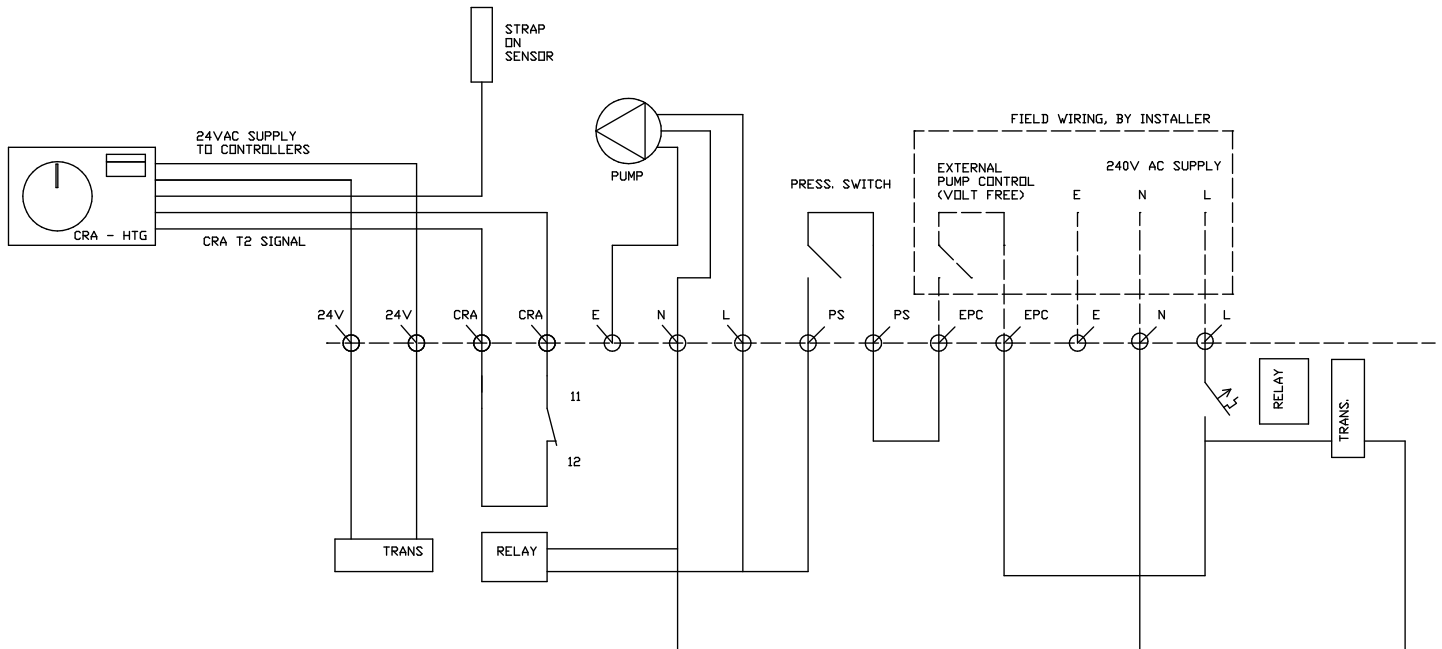


ELECTRICAL		
ELECTRICAL SUPPLY	Volts	230
ELECTRICAL FREQUENCY	Hz	50
ELECTRICAL CONSUMPTION	Watts	75
FUSE RATING	Amps	3

# FIG.13

# WIRING DETAILS

## T60/5 & T60/7

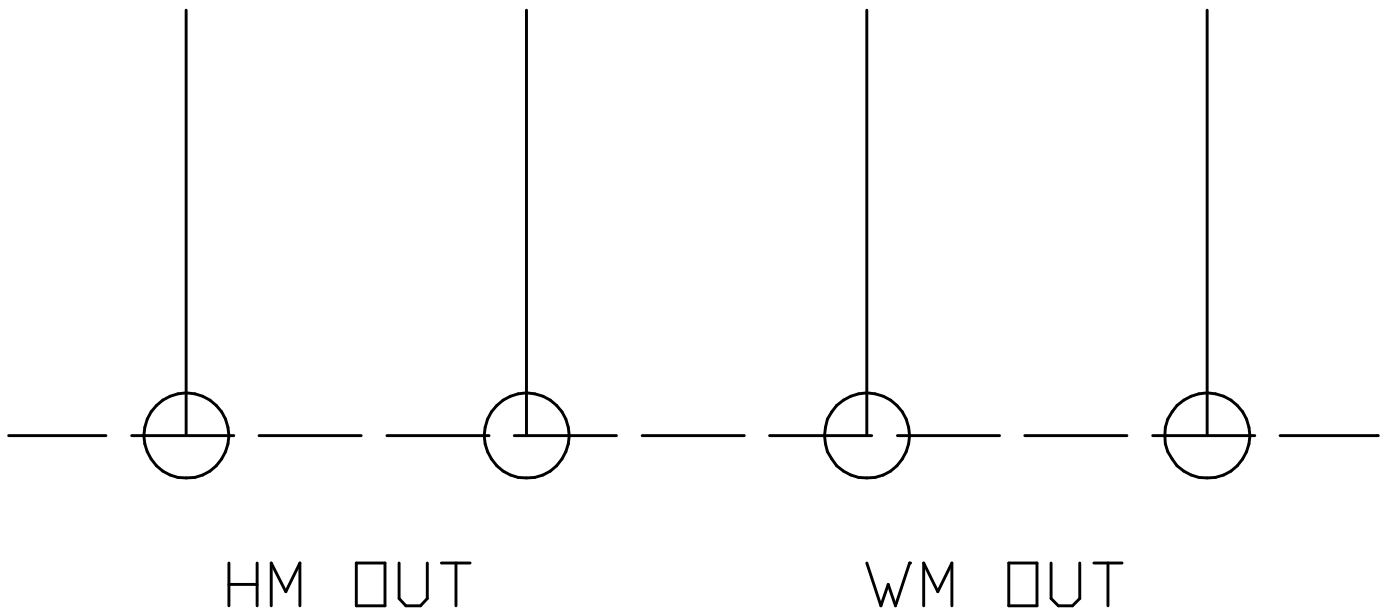


ELECTRICAL		
ELECTRICAL SUPPLY	Volts	230
ELECTRICAL FREQUENCY	Hz	50
ELECTRICAL CONSUMPTION	Watts	75
FUSE RATING	Amps	3

# WIRING DETAILS

E70/5, E70/9, T60/5 & T60/7  
M-BUS BOX

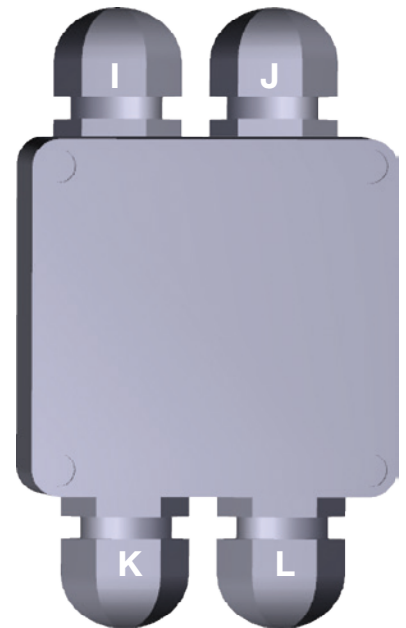
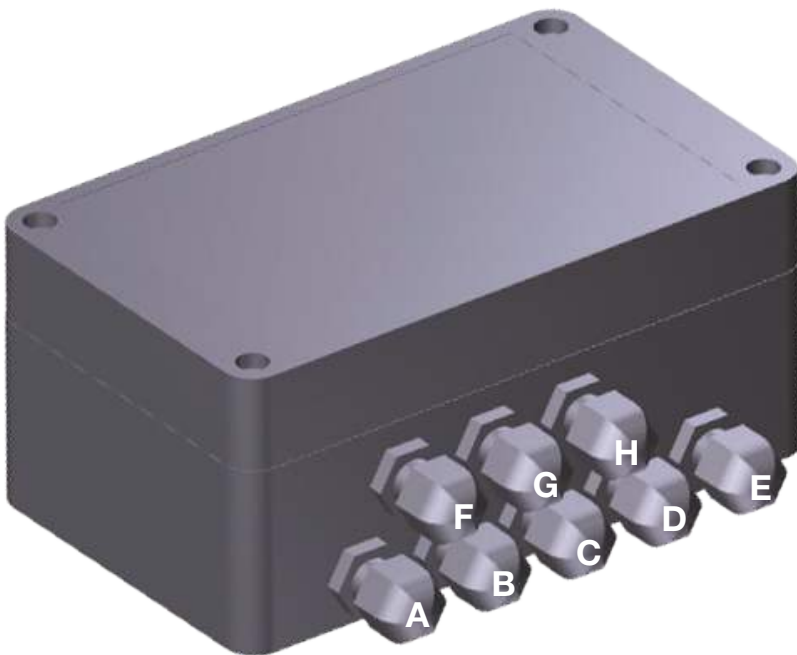
**FIG.14**





**FIG.15**

# E70/5, E70/9, T60/5 & T60/7 POWER SUPPLY UNIT (PSU) AND M-BUS BOX CONNECTIONS



(PSU) CONNECTION:	DESCRIPTION
F	Mains Supply
G	Pump Control (Stat)
H	Spare
A	Spare
B	CRA T2 Connection
C	Pump Supply
D	Pressure Switch
E	24v AC to CRA/CRS Controllers

MBUS CONNECTION:	DESCRIPTION
I	Internal Water Meter
J	Internal Heat Meter
K	External Water Meter
L	External Heat Meter

# E70/5, E70/9, T60/5 & T60/7 COMMISSIONING (START UP)

**This product has been pressure tested following production. Please make sure that all internal connections are not disturbed during installation. Ensure that all flat face connections within the HIU are tightened and checked for leaks, this is due to storage and transportation conditions prior to filling. The HIU is installed with fibre washer seals to each flat face connection, these are designed to expand when water contact has been made.**

## Filling the system (secondary heating)

The HIU comes with a filling loop, this needs to be connected to the ball valve located above the cold water mains input (fig. 3 & 4), connect the other end of the filling loop to the ball valve located above the safety valve (fig. 3 & 4). Fill the system to a minimum pressure of 1 bar. Maximum working pressure is 3 bar.

The pressure switch located after the pump is pre-set at 1 bar, this is a safety device to protect the pump from running dry if there was to be a leak on the secondary heating pipework.

Gradually start to open the ball valves on the first fix jig until fully open, fig. 9 connections G & F.

When the system is filled, close the two ball valves connected to the filling loop, then remove the filling loop.

The system is now pressurized and ready to use.

Check that the flow and return temperatures of the secondary heating circuit meet the specified requirements and adjust the temp setting on the HTG two way electronic flow control valve (factory set at 70°C) as required.

**The HIU is pre-set and commissioned with the following factory settings, HWS two way electronic flow control valve = 53°C (E-series), HTG two way electronic flow control valve = 70°C, ESBE thermostatic mixing valve (DHW output) = 49°C, HWS two port thermostatic control valve = 70°C (T-series).**

Ensure that the first fix jig ball valves are closed. (fig. 9 connections C, D & E)

The primary flow connections can be now fully opened as they are part of a separate circuit. (fig. 9 connections A, B)

## Domestic hot water

The HWS two way electronic flow control valve (fig. 3 & 4) self modulates the primary flow in accordance to the heat demand. An inbuilt pocket sensor is placed on the DHW output of the plate heat exchanger.

This is pre-set at 53°C.

To check/set the temperature setting of the controller, press the dial above the screen, flick from left or right, then press to confirm.

When there is no DHW demand the controller will maintain the PHE @ 40°C ready for instantaneous heat demand.

The DHW outlet is controlled by the three way thermostatic mixing valve (fig. 3 & 4), this is set at 49°C.

The ESBE three way thermostatic mixing valve has a scald safe function, when cold water supply fails the valve will shut off.

If power failure was to occur the thermostatic mixing valve will ensure the outlet temperature can not exceed the set temperature.

DHW outlet temperature can be adjusted on the three way valve by adjusting the dial.

The temperature adjustment dial is labelled from 1-6.

1 = 45°C    2 = 49°C    3 = 53°C    4 = 57°C    5 = 61°C    6 = 65°C



### CAUTION

When adjusting the three way thermostatic mixing valve temperature output, ensure the two way electronic flow control valve is set at least 3°C above the dhw output setpoint!



### CAUTION

Check the HIU unit for leaks, tighten all flat face connections within the HIU.

# E70/5, E70/9, T60/5 & T60/7 COMMISSIONING (START UP)

Gradually start to open the ball valves on the first fix jig until fully open, connections A,B,E,C

Only open connection D if optional water meter is fitted. If not, keep this closed and plugged. Fig 9 & 5.

Check the temperature achieved at the index tap meets the requirement. Adjust the settings as required, ensuring the controller is set to 3°C above the three way thermostatic mixing valve set point.

**The domestic hot water is set to an optimum setting of 49°C in the factory in accordance with the recommendations of HSE HSG274. It is recommended that this isn't adjusted because lower temperatures increase the risk of bacterial growth within the hot water system and higher temperatures increase the risks associated with scalding. Higher temperature also increase the rate of scale formation within the hot water system.**

The T60/5 & T60/7 has a two port thermostatic control valve instead of the HWS two way electronic flow control valve. This is a self acting thermostatic control valve. Ensure that the thermostatic control valve is set 10°C above the ESBE thermostatic mixing value. Fig. 4

## Space heating

Connections on the first fix jig need to be closed. (fig. 9 connections G,F)

The HTG two way electronic flow control valve (fig. 9) self modulates the primary flow in accordance to the heat demand, a pipe sensor located after the pump monitors the current flow temperature. The controller will then modulate the flow to achieve the set value.

This is pre-set at 70°C. Please check that the suitable flow temperature is set to protect the heating circuit and its associated environment (eg. Rads, ufh, floor type etc).

When there is no HTG demand the controller will zone the primary flow running through the plate by closing the control valve.

The pump will activate as soon as heating demand is required, when the system is at a satisfied temperature the pump will stop running.

To check/set the temperature setting of the controller, press the dial above the screen, flick from left or right, then press to confirm.

## External Space Heating Control

Please see page 21-24 for instructions to wire the external heating control to the HIU.

## Heat meter (optional)

All HIU's supplied without a heat meter come complete with an in-built spacer, heat meter pockets will be plugged. Heat meters are pre-set and ready to operate. If you have ordered a HIU with a heat meter the operating instructions and calibration certificate shall be contained with the HIU upon delivery. Heat meters are battery powered and need to be connected to the M-bus box. Fig. 14 & 15.

It's recommended that only heat meters provided by Remeha are used in the HIU, please contact Remeha if you wish to use another type.

## Water meter (optional)

All HIU's supplied without a water meter comes complete with an in-built spacer.

When a water meter is used the ball valve connecting the domestic cold water outlet (fig. 9 connection D) needs to be opened and used for all cold water outlets.



### WARNING

If a water meter is not used, make sure that connection D remains fully closed and plugged.

# E70/5, E70/9, T60/5 & T60/7 COMMISSIONING (START UP)

## Important information when commissioning the HIU

The HIU should not be used in association with any of the following:

- Situations where maintenance is likely to be neglected or safety devices tampered with.
- Water supplies that have either inadequate pressure or where the supply may be intermittent. (Minimum pressure 1 bar)
- Situations where it is not possible to safely pipe away any discharge from the safety valves.
- In areas where the water consistently contains a high proportion of solids, e.g. suspended matter that could block the strainer, unless adequate filtration can be ensured.
- In areas where the water supply contains chloride levels that exceed 100mg/l.

For information or advice regarding any of the above contact Technical Enquiries on: 0118 978 3434

## Ensure all flat face unions and all connections within and outside the HIU are tightened.

If the unit has to be stored prior to installation, it must be in a secure area free from frost, excessive dampness and humidity.

HIU must be wall mounted. Although location is not critical, the following points should be considered:

- The HIU should be sited to ensure minimum dead leg distances, particularly to the point of most frequent use.
- Avoid siting where extreme cold temperatures will be experienced. All exposed pipework should be insulated.
- The discharge pipework from the heating system safety valve should have a continuous fall.
- Access to associated controls must be available for the servicing and maintenance of the system.
- Ensure that the wall that the HIU is mounted on is level and capable of permanently supporting the weight when the unit is full of water.
- The HIU must be installed internally to the building

Access to the unit and all its components is gained from the front when the front cover is removed. Access can be gained through the sides if the casing is removed.

**It is important that as much access is provided around the unit as is practical. In the event of a component failure, full access in front of the unit is required for servicing.**

**Access to all isolation valves and controls is also required for normal operation and servicing.**



### WARNING

Water that is left standing in a stainless steel plate heat exchanger for long periods without draw off will become de-oxygenated and potentially corrode the plate material. If the unit is to be left unused following installation and commissioning, the water in the unit should be drained or regularly (quarterly) flushed through with fresh mains water.

All re-circulatory water systems will be subject to corrosion unless they are flushed and an appropriate water treatment is applied. To prevent this, follow the guidelines given in BS 7593 'Treatment of Water in Domestic Hot Water Central Heating Systems' and the treatment manufacturer's instructions.

Treatment must involve the use of a proprietary cleanser, such as Sentinel X300 or X400, or Fernox F3 and an inhibitor such as Sentinel X100 or Fernox MB-1.

Full instructions are supplied with the products. For further information contact Sentinel or Fernox.

# E70/5, E70/9, T60/5 & T60/7

## COMPLETION OF INSTALLATION

Failure to flush and add inhibitor to the system will invalidate the appliance warranty.

It is important to check the inhibitor concentration after installation, system modification and at every service in accordance with the inhibitor manufacturer's instructions. (Test kits are available from inhibitor stockists.)

For information or advice regarding any of the above, contact Technical Enquiries on: 01 18 978 3434



### CAUTION

Note the filling loop braided hose provides a temporary connection between the apartment's heating system and the cold water supply system. It is important that the filling loop braided hose is disconnected after commissioning in accordance with the water regulations. Ensure that the filling loop is stored in a known and safe location for future use.

It is important that the quality of the heating water is in line with BS EN 14866:2005 and VDI2035.



### CAUTION

Depending on the size of the building there will be an element of diversification factored into the design. As such the centralised plant and pumps are unlikely to be able to supply 100% of the heat load to all apartments at any one time. Where extensive parts of the development are ready to be commissioned (especially in the depths of winter), this must be done with a controlled and phased approach to overcome the initial thermal inertia within the building.

## Completion of installation

Ensure that the following has been carried out:

- 1) All hydraulic connections have been made and all joints are sound in accordance with CIBSE Code W.
- 2) Check that all air has been bled from the systems.
- 3) All hot and cold water outlets have suitable flow rates at the taps.
- 4) Check that the safety discharge pipework is complete. Manually open the safety relief valve to ensure they operate and discharge freely.
- 5) Ensure that the controls temperature sensors are fitted in the pockets.
- 6) Ensure that all motorized valves are plugged in and are in the auto position.
- 7) Ensure that all wiring to the control panel and room thermostat(s) are complete.
- 8) Ensure that there is a safe means of isolating the unit from the mains power supply in accordance with BS EN 7671:2008.
- 9) Ensure that the primary and secondary heating circuits have been properly flushed.
- 10) It is recommended that the flushing bypass isolation lever is removed and kept safe with the filling loop, for future servicing and maintenance.
- 11) Now fill in the Service Commissioning Record, page 41.

# E70/5, E70/9, T60/5 & T60/7

## MAINTENANCE AND SERVICING OF HIU

### Maintenance and Servicing of the HIU

Warning, when working with the unit, supply services when connected could reach 95°C, and once electrically connected the unit has 230V present within. It is recommended that the unit is serviced once every 12 months to maintain its efficiency and longevity.



#### **WARNING**

Any valves and exposed pipes may be hot!



#### **CAUTION**

Before commencing any servicing or maintenance on the HIU ensure that the electrical power supply, the district heating connections, the apartment heating connections and the domestic hot water connections are all isolated.



#### **DANGER**

Water discharge may be very hot!

HIUs have an annual maintenance requirement in order to ensure safe working and optimum performance. This is of particular importance in hard water areas or where the water supply contains particulate matter.

It is essential that the safety valve(s) are periodically inspected and manually opened to ensure no blockage has occurred in the valves or discharge pipework.

Similarly cleaning of the district heating flow strainer filter mesh and the cold water inlet strainer will help to prevent possible operational faults. The district heating flow strainer is built into the 5 way distributor.

Other areas to check are the gas charge in the expansion vessel and the pressure gauge within the heating system.

The maintenance checks described below should be performed by a competent person on a regular basis, e.g. annually to coincide with other maintenance work.

To isolate primary flow and return within the HIU. Close connections A+B on the first fix jig then open connection I to allow a bypass for the primary flow. When finished, close connection I (bypass valve) and open the primary flow and return (connections A+B. See fig 9).

After any maintenance, please complete the relevant Service Interval Record section of the Commissioning Checklist on page 41 & 43.

### Internal pipework

Ensure all internal pipe work and connections between the first fix jig and HIU are checked for leaks, before and after the service of the HIU.

### DHW heating circuit

See fig. 3 & 4.

# E70/5, E70/9, T60/5 & T60/7 MAINTENANCE AND SERVICING OF HIU

## **ESBE three way thermostatic mixing valve**

Ensure the temperature adjustment dial can be moved freely in both directions. The temperature setting must be re-set at no.2 (49°C), this is factory settings.

The temperature setting for the DHW output (ESBE three port thermostatic mixing valve) must be set 10°C below the ESBE HWS two way electronic flow control valve (E-series). The same applies to the T-series, two port thermostatic control valve.

## **HWS two way electronic flow control valve**

By pulling the large black dial towards you a red ring would appear underneath the controllers dial, this is now in manual mode. Rotate the dial a full 90° left and right, this is to check if the two way control valve can move freely within the pipework. To put the dials back on the controller, push them back into position while turning the dial left and right. The dial will line up and click into place.

Removing the dials will leave the controllers in manual mode. Dials must be kept on at all times.

The temperature setting of the controller must be 3°C above the ESBE three way thermostatic mixing valve, DHW output. Factory settings (53°C).

## **Heating circuit**

See fig. 3 & 4.

## **HTG two way electronic flow control valve**

By pulling the large black dial towards you a red ring would appear underneath the controllers dial, this is now in manual mode. Rotate the dial a full 90° left and right, this is to check if the two way control valve can move freely within the pipework. To put the dials back on the controller, push them back into position while turning the dial left and right. The dial will line up and click into place.

Removing the dials will leave the controllers in manual mode. Dials must be kept on at all times.

The temperature setting on the controller is factory set at 70°C.

Please check that the suitable flow temperature is set to protect the heating circuit and its associated environment.

## **Important information**

Where scale has been allowed to build up and is affecting the operation of the unit, remove and replace the component(s).

In hard water areas (above 150ppm) where scale build up is an issue it is recommended that a suitable scale prevention device is fitted.



### **CAUTION**

Do not use a sharp implement to remove scale from a component as damage may occur.

Where any pipework joints may of been disturbed by servicing activities it is recommended that the gaskets are replaced.



# E70/5, E70/9, T60/5 & T60/7

## MAINTENANCE AND SERVICING OF HIU

### Safety valve and expansion vessel

The safety valve should be checked periodically to ensure that the valve is operational. This is done by simply twisting the red plastic cap at the top of the valve. In so doing, a small burst of water will discharge from the valve, which can be witnessed through the tundish by others. After doing so check the system pressure and top back up to 1-2 bar as necessary.



#### CAUTION

Discharge water will be hot. Although the amount of water discharged from the safety valve is not likely to be great, it is important to note that it is likely to be hot and carries a risk of scalding.

Isolate the central heating flow and return connections.

Drain down the HIU's secondary heating circuit using the drain isolation ball valve next to the safety valve below the expansion vessel and any external drain valves fitted within the heating circuit.

Using a pressure gauge, check the gas charge in the expansion vessel. This should be 1.0 bar . If the gas charge is too low, recharge the gas pressure using a bicycle pump or compressor.

### Replacing the expansion vessel

Once the HIU has been isolated from the primary and secondary heating circuits, drain down the HIU. A clearance space of 200mm should be allowed above the HIU when installed. If not, please contact technical support for further assistance of removing necessary pipework.

Please see diagram (Fig.16 on page 34). Remove the recommended pipe work, controllers and heat meter as per the diagram.

Once completed, ensure that all connections are restored to its original state, checking for leaks.

### Refilling and draining the HIU

The HIU comes with a filling loop, this needs to be connected to the ball valve located above the cold water mains input (fig. 3 & 4), connect the other end of the filling loop to the ball valve located above the safety valve (fig. 3 & 4). Fill the system to a minimum pressure of 1 bar. Maximum working pressure is 3 bar.

The pressure switch located after the pump is pre-set at 1 bar, this is a safety device to protect the pump from running dry if there was to be a leak on the secondary heating pipework.

Gradually start to open the ball valves on the first fix jtg until fully open, fig. 9 connections G & F.

When the system is filled, close the two ball valves connected to the filling loop, then remove the filling loop.

The system is now pressurized and ready to use.

Check that the flow and return temperatures of the secondary heating circuit meet the specified requirements and adjust the temp setting on the HTG two way electronic flow control valve (factory set at 70°C) as required.

Draining of the HIU can be achieved by opening the ball valve located above the safety valve, below the expansion vessel using a hose. Due to the placement of the hiu when installed (higher up, on the wall) we recommend that the secondary heating circuit is drained through the heating system drain cock. All closed loop pressurised heating systems should have drain cocks installed (mainly at the lowest point of the system).

Please note, a pressure and temperature gauge is installed within the hiu. This indicates the current pressure and



# E70/5, E70/9, T60/5 & T60/7 MAINTENANCE AND SERVICING OF HIU

temperature within the secondary heating circuit.

## **HIU plate heat exchangers**

All re-circulatory water systems will be subject to corrosion unless they are flushed and an appropriate water treatment is applied. To prevent this, follow the guidelines given in BS 7593 'Treatment of Water in Domestic Hot Water Central Heating Systems' and the treatment manufacturer's instructions.

Treatment must involve the use of a proprietary cleanser, such as Sentinel X300 or X400, or Fernox F3 and an inhibitor such as Sentinel X100 or Fernox MB-1. Full instructions are supplied with the products. For further information contact Sentinel or Fernox.

Ensure that the strainers on both primary and secondary are cleaned when servicing.

## **Inhibitor**

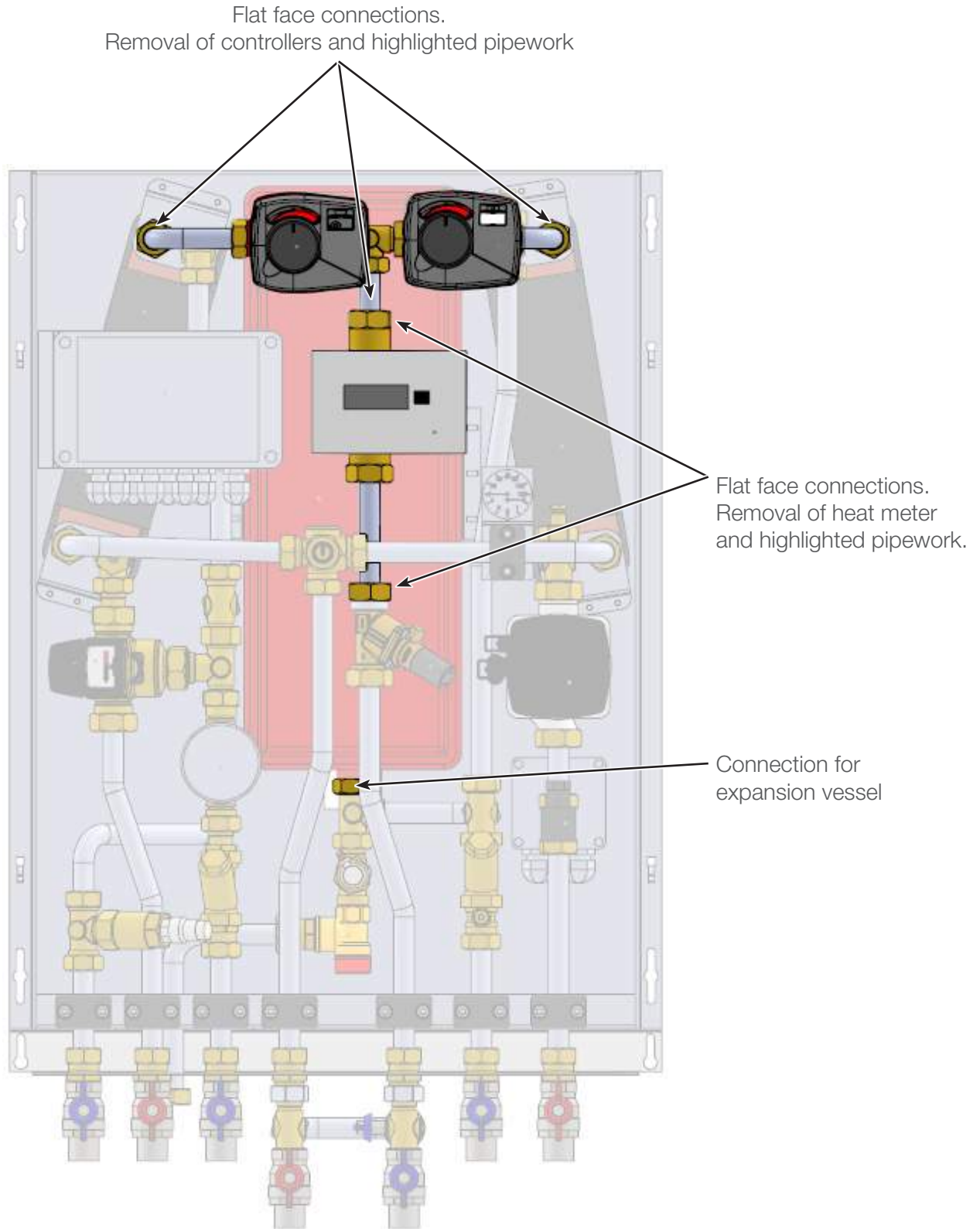
Take a small sample of the water from the central heating system. Then using a protector test kit, check the concentration of inhibitor in the system. Top up the system using the filling loop and add inhibitor as necessary.

For more information on HIU performance data, commissioning, setup, wiring etc please see page 6.

Now fill in the commissioning service record, page 41 & 43.

# E70/5, E70/9, T60/5 & T60/7 MAINTENANCE AND SERVICING OF HIU

## FIG.16



# E70/5, E70/9, T60/5 & T60/7

## FAULT FINDING



### CAUTION

It is important that any work carried out on this unit is done by a competent engineer who is familiar with and understands the design of the system. This HIU is linked to a network and as such any unauthorised modifications or adjustments to the way the unit is set up to run could inadvertently affect the operation of other parts of the system. Authorisation from the community heating supplier should be sought before any system changes are carried out.

### Fault finding



### WARNING

Do not tamper with any of the safety valves or controls supplied with the HIU as this will invalidate any guarantee.



### WARNING

Water contained in the HIU may be very hot, especially following a thermal control failure. Caution must be taken when draining water from the unit.

### Important!

After servicing, complete the relevant Service Interval Record section located on pages 41 & 43 of this book.

- Servicing should only be carried out by competent persons in the installation and maintenance of hydraulic interface units and district heating systems.
- Any spare parts used **MUST** be a Remeha authorised part.
- Disconnect the electrical supply before removing the casings and any electrical equipment covers.
- **NEVER** operate system without the necessary safety valves and devices.

In case of doubt contact service support, 0118 978 3434

# T60/5 & T60/7

## FAULT FINDING

Fault	Possible Cause of Fault	Solution
DHW	Primary circuit isolating valve closed	Open the isolating valve
	TMV faulty	Call qualified personnel to examine
	Thermostatic controller faulty	Call qualified personnel to examine
	Presence of air in the system	Call qualified personnel to rectify
	Primary system not working	Contact the person responsible for the system
	Power supply switch off	Switch on electrical supply
	Protection fuse blown	Call qualified personnel to rectify
	Set point on the controller and TMV is too low	Adjust the settings

Fault	Possible Cause of Fault	Solution
DHW temperature too low	Inlet strainer blocked	Call qualified personnel to rectify
	Heat exchanger partially blocked	Call qualified personnel to rectify
	Thermostatic controller faulty	Call qualified personnel to examine
	TMV faulty	Call qualified personnel to examine
	Excessive demand for DHW	Reduce demand
	Primary system flow insufficient	Adjust the settings
	Set point on the controller and TMV is too high or low	Contact the person responsible for the system

Fault	Possible Cause of Fault	Solution
DHW temperature is too high	Thermostatic controller faulty	Call qualified personnel to examine
	TMV faulty	Call qualified personnel to examine
	Inlet strainer blocked	Call qualified personnel to rectify
	Cold supply flow insufficient	Contact the person responsible for the system
	Set points on the controller and TMV are too high	Contact the person responsible for the system

Fault	Possible Cause of Fault	Solution
DHW flow is too low	Isolation valves may be partially closed or closed	Open the isolation valves
	Inlet strainer blocked	Call qualified personnel to rectify

Fault	Possible Cause of Fault	Solution
There is no DHW flow	Inlet strainers blocked	Call qualified personnel to rectify
	Heat exchanger blocked	Call qualified personnel to rectify
	No cold water supply	Contact the person responsible for the system

Fault	Possible Cause of Fault	Solution
The Heating circuit is not reaching the desired temperature	Heating inlet strainer blocked	Call qualified personnel to rectify
	CRA controller faulty	Call qualified personnel to examine
	CRA controller disconnected	Reconnect the controller
	Presence of air in the system	Call qualified personnel to rectify
	Pump not connected	Connect the power lead to the pump
	Pump not working	Call qualified personnel to rectify
	Isolation valves may be partially closed	Open the isolation valves
	Primary system flow insufficient	Contact the person responsible for the system
	Power supply switch off	Switch on electrical supply
	Protection fuse blown	Call qualified personnel to rectify
	Heating circuit pressure too low	Call qualified personnel to rectify
	Heating temperature is too low	Call qualified personnel to rectify

# E70/5 & E70/9 FAULT FINDING

Fault	Possible Cause of Fault	Solution
DHW	Primary circuit isolating valve closed	Open the isolating valve
	CRS controller disconnected	Reconnect the controller
	TMV faulty	Call qualified personnel to examine
	CRS controller faulty	Call qualified personnel to examine
	Presence of air in the system	Call qualified personnel to rectify
	Primary system not working	Contact the person responsible for the system
	Power supply switch off	Switch on electrical supply
	Protection fuse blown	Call qualified personnel to rectify
	Set point on the controller and TMV is too low	Adjust the settings

Fault	Possible Cause of Fault	Solution
DHW temperature too low	Inlet strainer blocked	Call qualified personnel to rectify
	Heat exchanger partially blocked	Call qualified personnel to rectify
	CRS controller disconnected	Reconnect the controller
	CRS controller faulty	Call qualified personnel to examine
	TMV faulty	Call qualified personnel to examine
	Excessive demand for DHW	Reduce demand
	Primary system flow insufficient	Contact the person responsible for the system
	Set point on the controller and TMV is too high or low	Adjust the settings

Fault	Possible Cause of Fault	Solution
DHW temperature is too high	CRS controller faulty	Call qualified personnel to examine
	TMV faulty	Call qualified personnel to examine
	Inlet strainer blocked	Call qualified personnel to rectify
	Cold supply flow insufficient	Contact the person responsible for the system
	Set points on the controller and TMV are too high	Contact the person responsible for the system

Fault	Possible Cause of Fault	Solution
DHW flow is too low	Isolation valves may be partially closed	Open the isolation valves
	Inlet strainer blocked	Call qualified personnel to rectify

Fault	Possible Cause of Fault	Solution
There is no DHW flow	Inlet strainer blocked	Call qualified personnel to rectify
	Heat exchanger blocked	Call qualified personnel to rectify
	No cold water supply	Contact the person responsible for the system

Fault	Possible Cause of Fault	Solution
The Heating circuit is not reaching the desired temperature	Heating inlet strainer blocked	Call qualified personnel to rectify
	CRA controller faulty	Call qualified personnel to examine
	CRA controller disconnected	Reconnect the controller
	Presence of air in the system	Call qualified personnel to rectify
	Pump not connected	Connect the power lead to the pump
	Pump not working	Call qualified personnel to rectify
	Isolation valves may be partially closed	Open the isolation valves
	Primary system flow insufficient	Contact the person responsible for the system
	Power supply switch off	Switch on electrical supply
	Protection fuse blown	Call qualified personnel to rectify
	Heating circuit pressure too low	Call qualified personnel to rectify
	Heating temperature is too low	Call qualified personnel to rectify

# SPARE PARTS

## E70/5 & E70/9

### Spare Parts

A range of spare parts are available for the unit (see fig. 1+2). Refer to the technical data label on the unit to identify the model installed and ensure the correct part is ordered. You will need to quote the serial number that is printed on the unit's data label, which can be found on the back plate of the HIU at the bottom left corner.

E70/5 & E70/9							
Remeha Part Number	Description	HWS PHE	HTG PHE	Complete Product	Spare Part	Optional Item	
E70/5	Twin plate HIU, no water meter, no heatmeter, no jig.	42	32	✓			
E70/9			42	✓			
1B	7687094				✓		
1A	7687095				✓		
6	7687096				✓		
6	7687098				✓		
5	7687099				✓		
11	7687100				✓		
15	7687101				✓		
1A	7687102				✓		
14	7687103				✓		
4	7687124				✓		
9	7687125				✓	✓	
16	7687126				✓	✓	
8	7687127				✓		
	7687128				✓		
	7687129				✓		
17	7687130				✓	✓	
	7687131				✓	✓	
12	7687132				✓		
2A	7687133				✓		
2B	7687134				✓		
2B	7687135				✓		
	7687136				✓		
3A	7687137				✓		
3A	7687138				✓		
18	7687139				✓		
7	7687140				✓		
1B	7687141				✓		
1B	7687142				✓		
	7687143				✓		
	7687144				✓		
	7687145				✓		
	7687146				✓		
	7696444				✓		
	7696445				✓	✓	

# SPARE PARTS

## T60/5 & T60/7

### Spare Parts

A range of spare parts are available for the unit (see fig. 1+2). Refer to the technical data label on the unit to identify the model installed and ensure the correct part is ordered. You will need to quote the serial number that is printed on the unit's data label, which can be found on the back plate of the HIU at the bottom left corner.

T60/5 & T60/7							
Remeha Part Number	Description	HWS PHE	HTG PHE	Complete Product	Spare Part		
T60/5	Twin plate HIU, no water meter, no heatmeter, no jig.	42	32	✓			
T60/7			42	✓			
1	7687147					✓	
1	7687148					✓	
13	7687149					✓	
6	7687096					✓	
6	7687098					✓	
5	7687099					✓	
11	7687100					✓	
15	7687101					✓	
13	7687102					✓	
14	7687103					✓	
4	7687124					✓	
9	7687150					✓	✓
16	7687126					✓	✓
8	7687127					✓	
	7687128					✓	
	7687129					✓	
17	7687130					✓	✓
12	7687132					✓	
2A	7687133					✓	
2B	7687134					✓	
2B	7687135					✓	
	7687136					✓	
3A	7687137					✓	
3A	7687138					✓	
18	7687139					✓	
7	7687140					✓	
13	7687141					✓	
	7687143					✓	
	7687144					✓	
	7687145					✓	
	7687146					✓	
	7696444					✓	

# DECOMMISSIONING WARRANTY

## **Decommissioning**

- Isolate electrical supplies and make safe
- Disconnect all wiring
- Isolate the water supply
- Isolate the community heating system
- Drain the HIU
- Disconnect the unit
- Remove the unit
- Cap pipework

Products are manufactured from many recyclable materials. At the end of their useful life they should be disposed of at a Local Authority Recycling Centre in order to realise the full environmental benefits.

## **Warranty**

Warranty is for 2 years for the HIU module and all other accessories are 1 year (heat meter, water meter) and are subject to our terms and conditions.



# COMMISSIONING AND INSTALLATION/SERVICE DOCUMENTS

## HEAT INTERFACE UNIT COMMISSIONING CHECKLIST

This commissioning checklist is to be completed in full by the competent person who commissioned the HIU as a means of demonstrating how the unit was installed and commissioned and must be handed to the customer to keep for future reference.

Failure to install and commission according to the manufacturer's instructions and complete this Commissioning Checklist may invalidate the warranty. This does not affect the customer's statutory rights.

Customer Name:										Telephone number:									
Address:										Email:									
HIU Make and Model:																			
HIU Serial Number:																			
Commissioned by (PRINT NAME):										Registered Operative ID number:									
Company name:										Telephone number:									
Company address:										Email:									
										Commissioning date:									
Installer name:										Installation company:									
Installer contact telephone number:																			
Building Regulations Notification Number (if applicable)																			

HIU TYPE		
1. Hot water only. (1 DHW PHE no Heating controls).	Yes	
2. Direct Apartment Heating Unit (1 DHW PHE with Apartment Heating Controls).	Yes	
3. Indirect Apartment Heating Unit (1 DHW PHE and 1 Apartment Heating PHE with Controls).	Yes	
4. Heat Only (Direct) (No plate heat exchanger just Heating Controls).	Yes	
5. Heat Only (Indirect) (1 Apartment heating plate heat exchanger with Heating Controls).	Yes	
6. HIU with integral cylinder.	Yes	
7. HIU to be connected to a cylinder.	Yes	
NOTE: If connecting HIU to an external cylinder, have you checked compatibility?	Yes	

DISTRICT SYSTEM (COMMUNITY HEATING SYSTEM)			
Primary Control arrangement:		Control Valve within HIU	Control Valve outside HIU
Balancing arrangements:		Pressure Independent	Differential Pressure
HIU Flow Regulation:		On/Off	Modulating
Differential pressure across HIU: (if applicable)			kPa
Static District pressure: (max system pressure)			bar (g)
District flow temperature:			°C
Flow control valve setting: (if applicable)			
Flow control valve type: (if external)			
Make:		Model:	
Size: Type:			
Primary pressure system breaks:			Yes
Flushing bypass fitted and closed:			Yes
Dwelling isolation valves fitted:			Yes
If 'Yes' where:			
Strainer checked and cleaned if necessary:			Yes

# COMMISSIONING AND INSTALLATION/SERVICE DOCUMENTS

DWELLING SYSTEM										
Heat emitters type:	Radiators		Underfloor system		MVHR		Fan Coil			
Controls section:										
Time and temperature control to heating:	Room thermostat and Programmer/Timer			Programmable Room Thermostat Load/Weather Compensation						
Time and temperature control to Hot Water:	Cylinder thermostat		HIU		Not applicable					
Hot Water Zone Valves: (Stored)	Fitted		Not applicable							
Thermostatic radiator valves:	Fitted		Not applicable							
Automatic Bypass to System:	Fitted within HIU		Fitted outside HIU							
Design Detail:										
Pump setting: (if applicable)										
Auto bypass setting: (if adjustable)										
Radiator circuit:	Radial					Manifold				
If 'Manifold' where is it:										
Number of heating zones:										
Cold fill pressure: (bar) (heating circuit)										
Expansion vessel pre charge pressure valve: bar (g)										
Filling loop disconnected and capped:	Yes					Not applicable				
Safety valve setting: bar (g)										
Discharge pipework has been connected:	Yes		(In accordance with the relevant regulations)							
Separate air vent's: (external to unit)	Yes					Not applicable				
If 'yes', location:										
Secondary Strainer fitted:									Yes	
Cold water meter installed?	Inside unit			Outside unit			None			
Drain cocks fitted:										
Yes										

DOMESTIC HOT WATER MODE									
Type:	Instantaneous		Vented Store		Unvented Store		Thermal Store		
Store Details: (If present)									
Make and model:									
Serial number:									
Date commissioned:									
Appropriate Benchmark Commissioning Checklist completed for cylinder: (if not instantaneous)									Yes
Instantaneous systems only: (types 1,2,3)									
What is the incoming static cold water pressure at the inlet to the system? bar (g)									
Has a strainer been cleared of installation debris (if fitted)?	Yes					Not applicable			
Is the installation in a hard water area (above 200ppm)?	Yes					No			
If yes, has a scale reducer been fitted?	Yes								
What type of scale reducer has been fitted?									
What is the hot water temperature set to?									
DHW recirculation fitted?	Yes					No			

HEAT METERS									
Heat Meter commissioned?	Yes					No			
Error Codes cleared?	Yes								

ALL INSTALLATIONS									
The HIU system complies with the appropriate Building and Trading Regulations?									Yes
The system has been installed in accordance with the manufacturer's instructions?									Yes
If an external cylinder has been connected, compatibility with HIU has been checked?									Yes
The manufacturer's literature has been completed clearly and left with the HIU?									Yes

ALL INSTALLATIONS									
Commissioning Engineer's Signature									
Commissioning Engineer's Name and Company: (Printed)									
Date:									
(To confirm satisfactory demonstration and receipt of manufacturer's literature)									

# SERVICE RECORD

It is recommended that your hot water system is serviced regularly and that the appropriate Service Record is completed.

## Service Provider

Before completing the appropriate Service Record below, please ensure you have carried out the service as described in the manufacturer's instructions.

---

### SERVICE 1

Date \_\_\_\_\_

Engineer Name \_\_\_\_\_

Company Name \_\_\_\_\_

Telephone Number \_\_\_\_\_

Comments \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Signature \_\_\_\_\_

### SERVICE 2

Date \_\_\_\_\_

Engineer Name \_\_\_\_\_

Company Name \_\_\_\_\_

Telephone Number \_\_\_\_\_

Comments \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Signature \_\_\_\_\_

---

### SERVICE 3

Date \_\_\_\_\_

Engineer Name \_\_\_\_\_

Company Name \_\_\_\_\_

Telephone Number \_\_\_\_\_

Comments \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Signature \_\_\_\_\_

### SERVICE 4

Date \_\_\_\_\_

Engineer Name \_\_\_\_\_

Company Name \_\_\_\_\_

Telephone Number \_\_\_\_\_

Comments \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Signature \_\_\_\_\_

---

### SERVICE 5

Date \_\_\_\_\_

Engineer Name \_\_\_\_\_

Company Name \_\_\_\_\_

Telephone Number \_\_\_\_\_

Comments \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Signature \_\_\_\_\_

### SERVICE 6

Date \_\_\_\_\_

Engineer Name \_\_\_\_\_

Company Name \_\_\_\_\_

Telephone Number \_\_\_\_\_

Comments \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Signature \_\_\_\_\_

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