

Purewell Variheat mk2 c Boilers

**Cast Iron, Pre-mix, Condensing, Modular Boilers with
Automatic Ignition for Heating and Domestic Hot
Water Installations**

AGU 2.550 Expansion Kit Wiring Instructions - Single Heating Circuits & Two Heating Circuits

MODELS - 70c, 95c, 110c, 140c & 180c

IMPORTANT NOTE

**THESE INSTRUCTIONS MUST BE READ
AND UNDERSTOOD BEFORE INSTALLING,
COMMISSIONING, OPERATING OR
SERVICING EQUIPMENT**

Customer After Sales Services

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Technical Enquiries

To supplement the detailed technical brochures, technical advice on the application and use in the Hamworthy Heating range is available from our technical team in Poole and our accredited agents.

Site Assembly

Hamworthy offer a service of site assembly for many of our products where plant room access is restricted. Using our trained staff we offer a high quality of build and assurance of a boiler built and tested by the manufacturer.

Commissioning

Commissioning of equipment by our own engineers, accredited agents or specialist sub-contractors will ensure the equipment is operating safely and efficiently.

Service Contracts

Regular routine servicing of equipment by Hamworthy service engineers inspects the safety and integrity of the plant, reducing the risk of failure and improving performance and efficiency. Service contracts enable you to plan and budget more efficiently.

Breakdown service, repair, replacement

Hamworthy provide a rapid response breakdown, repair or replacement service through head office at Poole and accredited agents throughout the UK.

Spare Parts

We offer a comprehensive range of spare parts, providing replacement parts for both current and discontinued products. Delivery options are available to suit you. Please refer to our website for more details.

To add either single heating circuit or two circuit heating expansion kit to the Variheat mk2 boiler:

With the boiler electrically isolated, remove the front access panel (please refer to 'Installation, Commissioning & Servicing Instructions' supplement for more details) to access the LMS Controller.

- ◆ Identify and remove the single BSB expansion lead (218464) between LMS Controller X50 (see Figure 1) and the preinstalled extension module (AGU2.550) mounted above the LMS Controller. This may be easier if the AGU2.550 module is removed (see Figure 2).

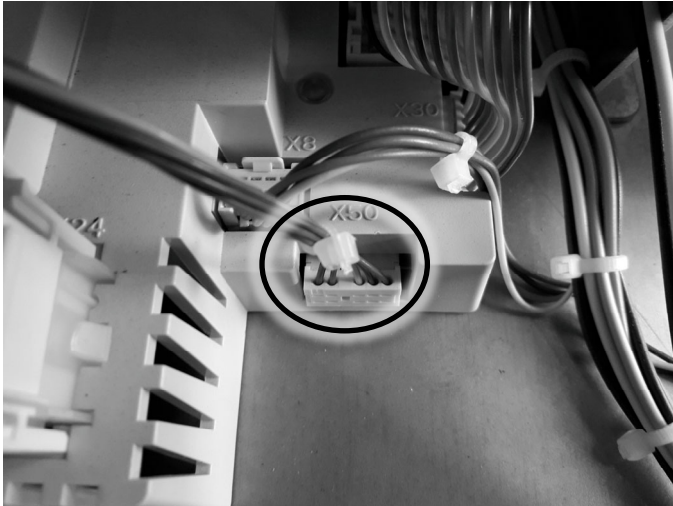


Figure 1: BSB Expansion Lead - LMS Controller X50



Figure 2: BSB Expansion Lead - Extension Module

- ◆ Add either one or two Extension modules for either the single heating circuit or two heating circuit expansion kit into the metal frame below the boiler controls (see figures 3 and 4).

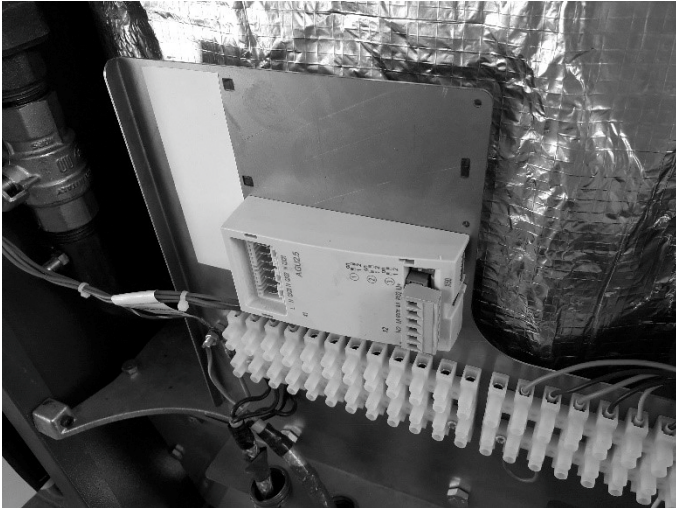


Figure 3: Single Extension Module for Single Heat Circuit Expansion Kit

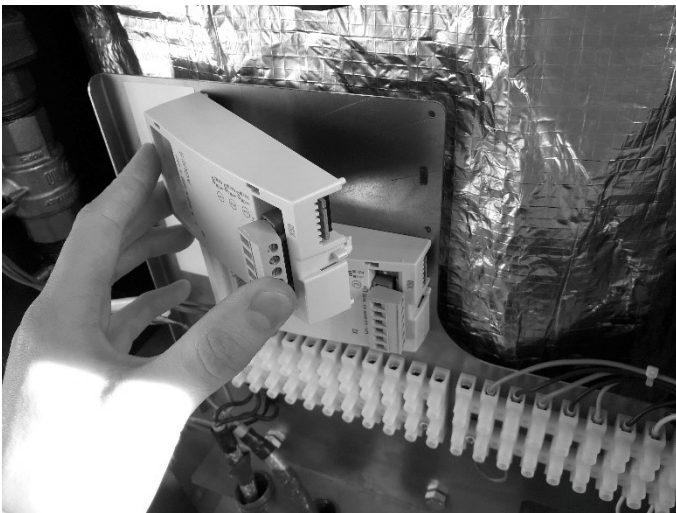


Figure 4: Two Extension Modules for Two Heat Circuit Expansion Kit

- ◆ Install The new BSB cable between the MS controller, the preinstalled extension module and the new extension module(s). Ensure the BSB cable is terminated at the LMS controller (see figure 5).

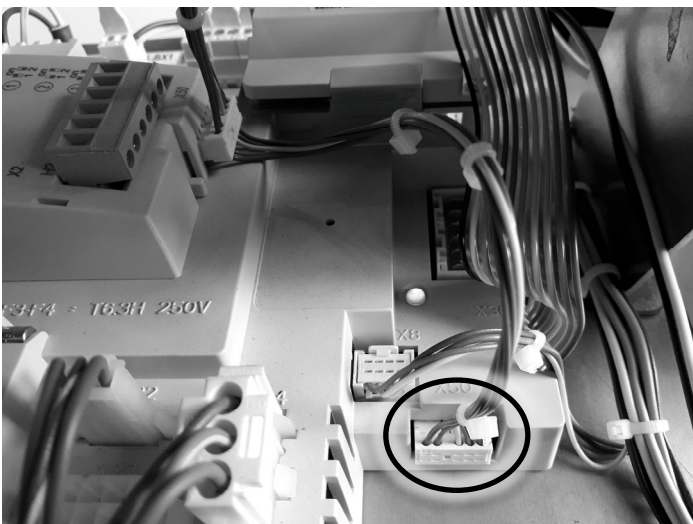


Figure 5: BSB cable termination

- ◆ If required, add the ELV connector (see Figure 6) to the extension module(s).

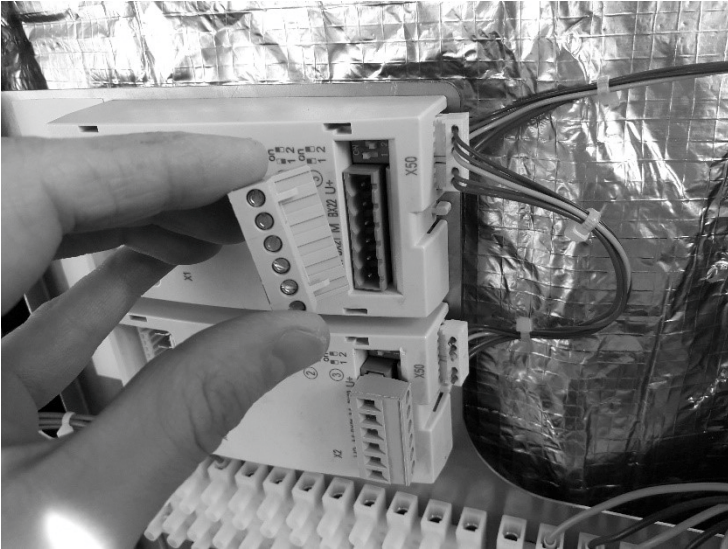


Figure 6: ELV connector

- ◆ If required, add the Control Harness Terminal Block Adaptor (see Figure 7) to the extension module(s).

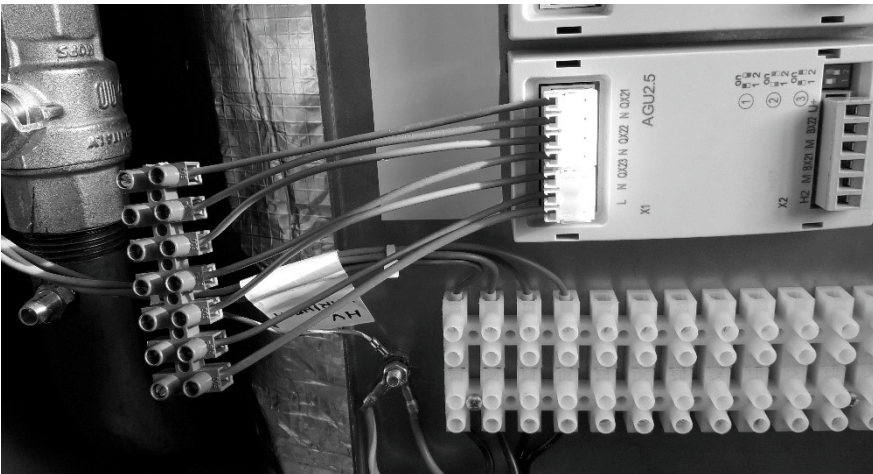


Figure 7: Control Harness Terminal Block Adaptor

- ◆ Using the DIP switches (see Figure 8) on the Expansion Modules select the correct address for each module. By assigning a function to the extension module, the inputs / outputs are self-configured. Refer to Table 1 for extension module configuration possible values.



Figure 8: Dip Switch Location

Table 1 Expansion Module function selection

Line No.			Access	Programming	Possible Values
Mod.1	Mod.2	Mod.3			
6020	6021	6022	C	Function Extension Module 1, 2, 3	None Multifunctional Heat Circuit 1 Heat Circuit 2 Heat Circuit 3 Return Temp. Controller Primary Control / System Pump

- ◆ None - The function is inoperative.
- ◆ Multifunction - The functions which can be assigned to the multifunction inputs/outputs can be viewed on lines 6030...6038 (please see table 2) and 6040...6045 (please see table 3).
- ◆ Heating circuit 1 - The settings corresponding to the « Heating circuit 1 » operator page^{*1}.
- ◆ Heating circuit 2 - The settings corresponding to the « Heating circuit 2 » operator page^{*1}.
- ◆ Heating circuit 3 - The settings corresponding to the « Heating circuit 3 » operator page^{*1}.
- ◆ Return temp. regulator - This function is not used. It results in a configuration error message.

Table 2 Extension Module Outputs QX 1 / 2 / 3

Line No.			Access	Programming	Possible Values
QX21	QX22	QX23			
6030	6031	6032	C	Relay Output Module 1	None Cons circuit pump VK1 Q15 Boiler pump Q1 Alarm output K10 Heat circuit pump HC3 Q20 Cons circuit pump VK2 Q18 Cascade pump Q25 Heat circuit pump HC1 Q2 Heat circuit pump HC2 Q6 DHW ctrl elem Q3 Status information K36
6033	6034	6035	C	Relay Output Module 2	
6036	6037	6038	C	Relay Output Module 3	

Table 3 Extension Module Inputs BX

Line No.		Access	Programming	Possible Values
BX21	BX22			
6040	6041	C	Sensor Input Module 1	None Common flow sensor B10 Cascade return sensor B70
6042	6043	C	Sensor Input Module 2	
6044	6045	C	Sensor Input Module 3	

^{*1} Please refer to 'Navistem 3000' manual section 14.3 for expansion module programming details.

After wiring any external hardware to the Expansion Modules reattach the access panels before applying mains power to the boiler.

NOTES:

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