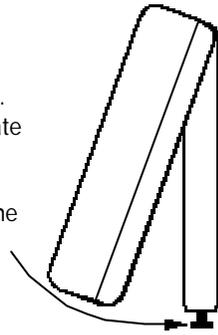


## FITTING THE PROGRAMMER

If surface wiring has been used, remove the knockout/insert from the bottom of the programmer to accommodate it. Loosen the two 'captive' retaining screws on the bottom of the Backplate. Now fit the programmer to the Backplate, ensure the lugs on the Backplate engage with the slots on the programmer. Swing the bottom of the programmer into position ensuring that the connection pins on the back of the unit locate into the terminal slots in the backplate. Tighten the two 'captive' retaining screws to fix the unit securely. Then switch on the mains supply.

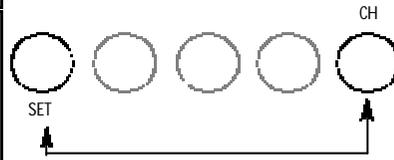


E N D V I E W O F S E R V I C E P L U S P R O G R A M M E R

UPON COMPLETION OF INSTALLATION PLEASE RESET THE PROGRAMMER, BEFORE SETTING THE HEATING AND HOT WATER OPERATIONS.

### RESETTING THE PROGRAMMER

On the ServicePlus press SET and CH buttons together. Then release the buttons and the programmer will return to preset factory settings. The Preset factory settings are illustrated on page 2 of the USER GUIDE.



The unit can now be programmed to suit the User's requirements.

Please refer to the User's Guide provided.

## GENERAL INFORMATION

Before handing over the installation to the user, always ensure that the system responds correctly on all control programmes and that other electrically operated equipment and controls are correctly adjusted.

EXPLAIN HOW TO OPERATE THE CONTROLS AND HAND OVER THE USERS OPERATING INSTRUCTIONS TO THE USER.

## SPECIFICATION S21 - S27

Contact type: Micro dis-connection  
Contact rating: 3(1)Amps 230-240V AC  
Power supply: 230-240V AC 50Hz

Operating Temperature range: 0°C to 40°C  
Double insulated.

Dirt protection: Normal situations.

Enclosure protection: IP30

Purpose of control: Electronic time switch

Independently mounted control for surface mounting.

Operating time limitation: Continuous

Type 1 Action

Battery Reserve: 10 months continuous operation(minimum)

Case material: Thermoplastic, flame retardant

Dimensions: 150mm x 84mm x 29mm

Display: Liquid crystal

Clock: 12 hour AM/PM

Display time adjustment: 1Minute steps

Switched time adjustment: 10 Minute steps

Programme selection: Auto, On all day, On constant, Off

Operating periods per day: Three for HW, Three for CH -

(Separate daily programmes for S27)

Override: 1 Hour Boost on Hot water

Instant advance on Central Heating

Backplate: Industry Standard Backplate



LEAFLET No P82506  
ISSUE 1



HORSTMANN

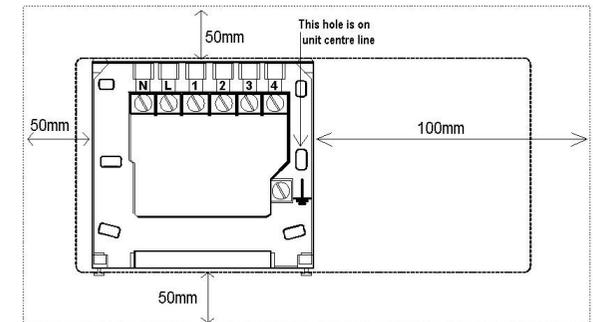
Horstmann ServicePlus - Two Channel service interval Programmers have been developed to facilitate compliance with the Gas Safety (Installation and Use) Regulations 1998. The device is not intended to replace the normal servicing regime already in operation, but is intended to act as a supplementary aid to enabling compliance.

INSTALLATION AND CONNECTION SHOULD ONLY BE CARRIED OUT BY A SUITABLY QUALIFIED PERSON AND IN ACCORDANCE WITH THE CURRENT EDITION OF THE IEE WIRING REGULATIONS.

WARNING : ISOLATE MAINS SUPPLY BEFORE COMMENCING INSTALLATION

## FITTING THE BACKPLATE

Once the Backplate has been removed from the packaging please ensure the programmer is re-sealed to prevent damage from dust, debris etc. The Backplate should be fitted with the wiring terminals located at the top and in a position which allows a total clearance of at least 50mm around the programmer.



## DIRECT WALL MOUNTING

Offer the plate to the wall in the position where the programmer is to be mounted, remembering that the Backplate fits to the left hand end of the programmer. Mark the fixing positions through the slots in the Backplate(Fixing centres 60.3mm), drill and plug the wall, then secure the plate in position. The slots in the Backplate will compensate for any misalignment of the fixings.

## WIRING BOX MOUNTING

The Backplate may be fitted directly on to a single gang steel flush wiring box complying with BS4662, using two M3.5 screws. ServicePlus programmers are suitable for mounting on a flat surface only, they must not be positioned on a surface mounted wall box or on unearthed metal surfaces.

## ELECTRICAL CONNECTIONS

All necessary electrical connections should now be made. Flush wiring can enter from the rear through the aperture in the Backplate. Surface wiring can only enter from beneath the programmer and must be securely clamped.

The mains supply terminals are intended to be connected to the supply by means of fixed wiring. The recommended cable sizes are 1.0mm<sup>2</sup> or 1.5mm<sup>2</sup>.

# NEW INSTALLATIONS

Example circuit diagrams for some typical installations are shown below. These diagrams are schematic and should be used as a guide only.

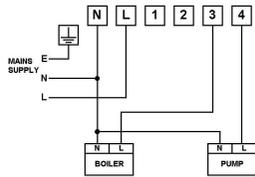
Please ensure that all installations comply with the current IEE regulations.

For reasons of space and clarity not every system has been included and the diagrams have been simplified, for instance some Earth connections have been omitted.

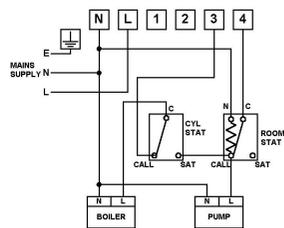
Other control components shown in the diagrams i.e. Valves, RoomStats etc are general representations only. However the wiring detail can be applied to the corresponding models of most manufactures e.g. Horstmann, Honeywell, Danfoss Randall, ACL Drayton etc.

Cylinder and Room Thermostat Key:

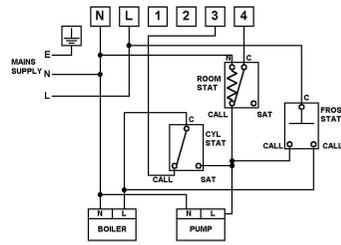
C = Common CALL = Call for heat or break on rise SAT = Satisfied on rise N = Neutral



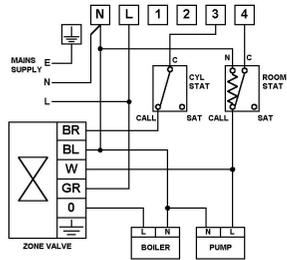
1. Gravity Hot water with Pumped Heating



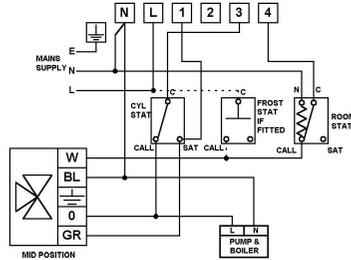
2. Gravity Hot water with Pumped Heating via RoomStat and CylinderStat



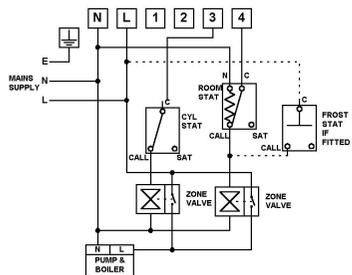
3. Gravity Hot water with Pumped Heating via RoomStat and CylinderStat including Frost protection via double pole FrostStat



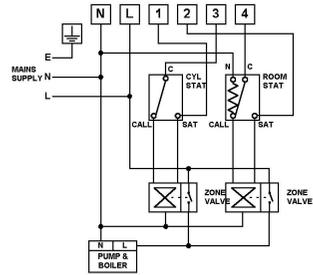
4. Gravity Hot water with Pumped Heating via RoomStat, CylinderStat and Two Port Zone Valve (with Changeover Auxiliary Switch) on Hot Water circuit



5. Fully Pumped Heating System using RoomStat, CylinderStat and Three Port Mid-Position Valve



6. Fully Pumped System using RoomStat and Two (2 Port) Spring Return Zone Valve with Auxiliary Switches



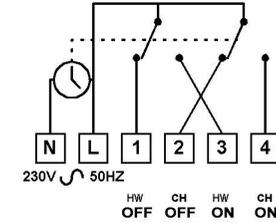
7. Fully Pumped System using RoomStat and CylinderStat and Two (2 Port) Motorised Valve with Auxiliary Switches

# ELECTRICAL CONNECTIONS

ServicePlus programmers are double insulated and do not require an Earth connection but an Earth connection block is provided on the Backplate for terminating any cable Earth conductors. Earth continuity must be maintained and all bare Earth conductors must be sleeved. Ensure that no conductors are left protruding outside the central space enclosed by the Backplate.

## INTERNAL WIRING DIAGRAM S21 - S27

Your ServicePlus has an integral connection which makes it only suitable for mains voltage applications. No additional linking is required between terminals.



## COMMISSIONING THE PROGRAMMER

Ensure all dust and debris has been cleared away from the work area before removing the programmer from its packaging.

All ServicePlus programmers are suitable for GRAVITY HOT WATER or FULLY PUMPED systems.

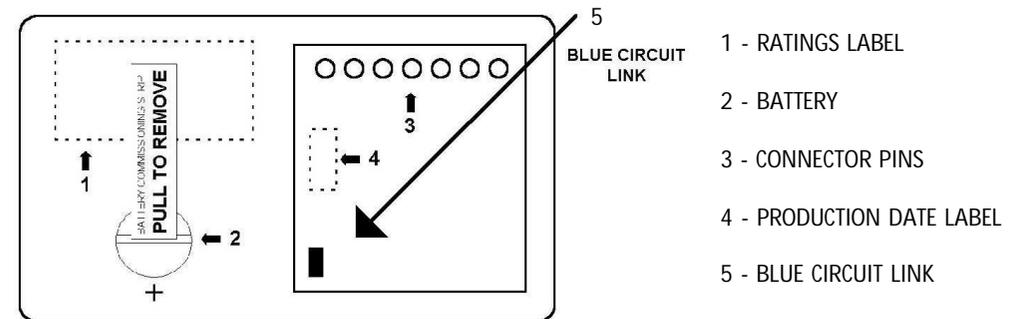
On a FULLY PUMPED or CONTROLLED systems it is possible to programme independent time settings for Hot water and Heating.

On GRAVITY or PARTIALLY CONTROLLED systems the Hot water and Heating follow a common time setting. It is not usually possible to have Heating without Hot water.

Correct control of each type of system is ensured by a BLUE CIRCUIT LINK located on the rear of the programmer.

If the programmer is to control a GRAVITY HOT WATER system this link should be removed by simply pulling it out of the back of the programmer. When used to control a FULLY PUMPED system the link must remain in situ.

## REAR VIEW OF SERVICEPLUS PROGRAMMER



## BATTERY RESERVE

The Battery must be commissioned prior to fitting the control to the Backplate.

This is achieved by the means of a COMMISSIONING STRIP situated on the back of the unit. Pull out the battery commissioning strip at the back of the programmer and re-insert the Battery, the reserve is now activated. When the programmer is running on battery reserve the clock display will disappear. This is to prolong the life of the battery.