



# V4044C Diverter Valve

## INSTALLATION INSTRUCTIONS

### APPLICATION

The V4044C valve has been designed to control the flow of water in a small bore domestic central heating system where both radiator and hot water cylinder circulation are pumped. It is typically suited for systems up to 90,000 Btu/h (26 KW).

### SPECIFICATIONS

**Voltage:** 230-240V ~ 50 Hz

**Power Consumption:** 6W

**Lead Supplied:** 1 metre, 5 core

**Operating Temperature Range:** +5 to +88° C

**Maximum Ambient Air Temperature:** +52° C

**Pipe Fitting Sizes:** 22 mm & 28 mm compression fitting, 3/4" & 1" BSP

**Dimensions and KV values:** See diagrams

### SPARES AVAILABLE

- Powerhead            Part No. 40003916-002
- Motor                Part No. 40002737-003
- Ball & O-ring Kit   Part No. 272742A CARD

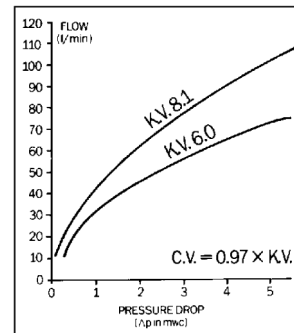


Fig. 2. Flow Characteristics.

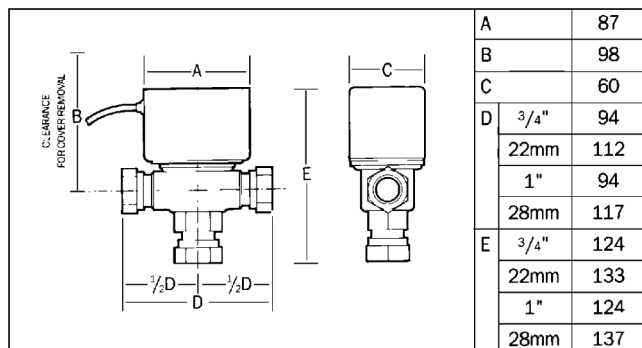


Fig. 1. Dimensions (mm).



## INSTALLATION

V4044C incorporates a manual lever, the lever should normally be in 'AUTO' position, but can be moved to 'MAN. OPEN' position for system draindown and filling purposes only.

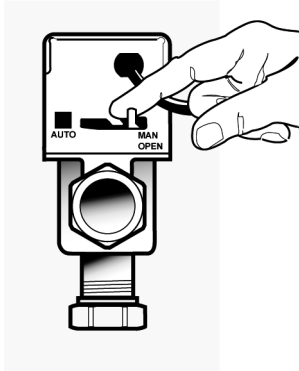


Fig. 3.

Before fitting the valve, read through the plumbing and wiring instructions.

This product **MUST** be installed by a competent person. The installation **MUST** conform to I.E.E. Regulations and with The Electricity at Work Regulations.

A Class 'A' switch (having contact separation of at least 3 mm in all poles) must be incorporated in the fixed wiring as a means of disconnecting the supply. The system must be appropriately fused.

## PLUMBING

The valve **MUST NOT** be fitted on the return pipework under any circumstances. Flow from the boiler must be connected to port AB, the radiator circuit to port A and the hot water cylinder circuit port B.

The valve may be plumbed in at any angle, but must not be mounted so that the valve head is below the horizontal level of the pipework. In the unlikely event of a leak, a safety hazard could result.

Do not grip the valve head while making and tightening up plumbing connections. Attach a spanner (32 mm or 1 1/4" AF) onto the valve body at each port, whilst tightening up the nuts. Tighten compression nuts enough to make a watertight seal.

TAKE CARE NOT TO OVERTIGHTEN.

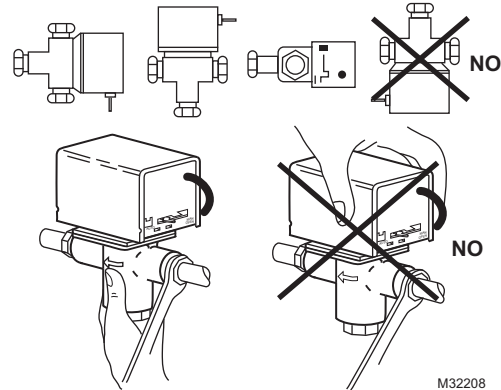


Fig. 4.

## WIRING

The wiring diagram (Fig. 5) shows relevant connections to a Resideo junction box (Part No. 42002116-001). Ensure that each numbered, lettered or coloured wire is connected to the correct terminal in the junction box. Make sure all connections are good and all terminal screws are firmly tightened.

Valve wiring configuration is:

Brown	= Motor open
Blue	= Neutral
Green/Yellow	= Earth

NOTES:

- Wiring diagram shows connections to a programmer with separate control of heating and hot water.
- If single channel time clock is used, connect switched live from time clock to terminal 4 or 6 at junction box, then link terminal 4 to terminal 6 with a link wire.
- If the programmer or time clock have no 'Hot water OFF' terminal, then the time clock will need to be replaced.

'W' Plan

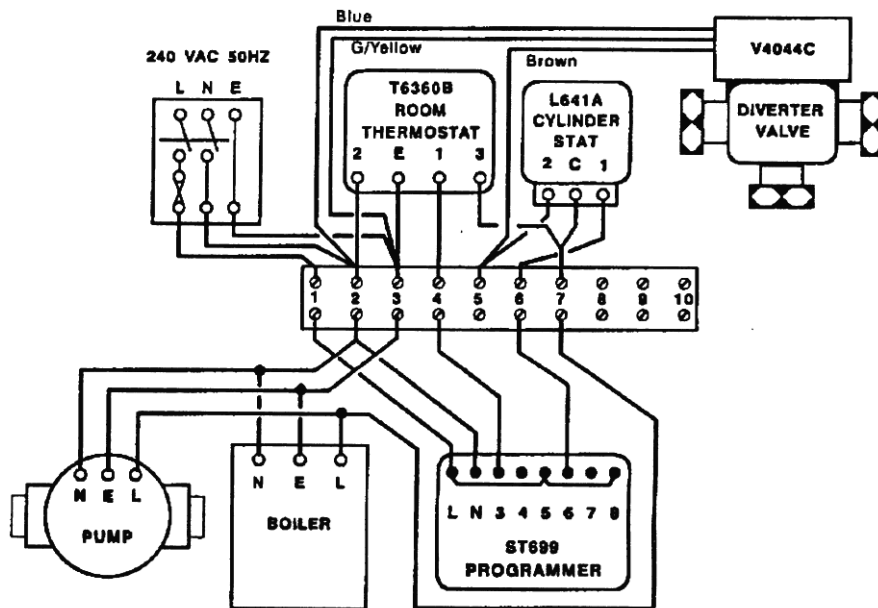
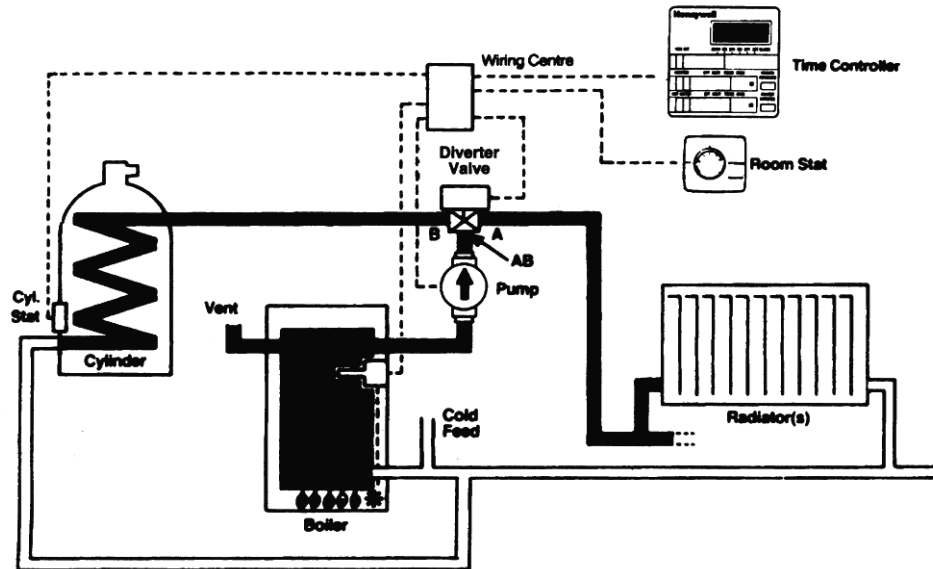


Fig. 5. 'W' Plan.

## CHECKOUT PROCEDURE

To ensure the valve is plumbed and wired correctly, carry out the following checks after filling the system and switching on the power:

1.
  - a. Check the manual lever is in 'AUTO' position.
  - b. Check programmer has power.
  - c. Check boiler is switched on and its thermostat set to maximum.
2. Confirm correct hot water functions as follows:
  - a. Turn room thermostat to minimum setting or switch off at programmer.
  - b. Set cylinder thermostat to maximum and programmer to 'HOT WATER ON'.
  - c. Boiler should fire and pump should run. Feel pipe approximately 12" from valve port B, it should get hot.

3. Confirm correct heating functions as follows:
  - a. Turn cylinder thermostat to minimum.
  - b. Set room thermostat to maximum and programmer to 'HOT WATER AND CENTRAL HEATING ON'.
  - c. Boiler should fire and pump should run. Feel pipe approximately 12" from port A, it should get hot.

## COMPLETION

Reset both thermostats to temperature required, normally 60° C for cylinder thermostat and 20° C for room thermostat. Return programmer to 'Auto' or mode selected by householder. Full installation, wiring and operating instructions for SUNDIAL products are included in every product pack. For special wiring diagrams or applications, contact Resideo.

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The wiring diagrams and installation instructions in this publication are provided for guidance purposes when installing recognised standard systems only. Any application of this product not shown here, or any deviation from these instructions, is neither recommended nor advised. Any such application or deviation should be referred to Resideo for technical assistance.



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