



V4073A

Motorised Mid-Position Valve

INSTALLATION INSTRUCTIONS

APPLICATION

The V4073A 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
(Special models available for chilled water applications)

Maximum Ambient 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. 40003916-003
 Motor Part No. 40002737-003
 Ball & O-Ring Kit Part No. 272742A CARD

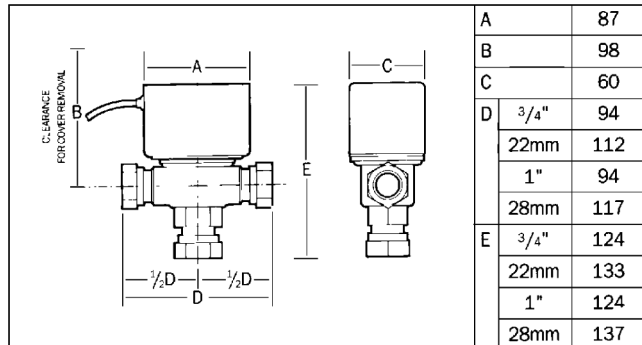


Fig. 1. Dimensions

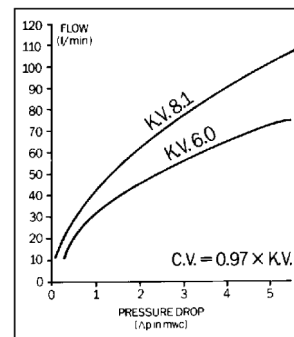
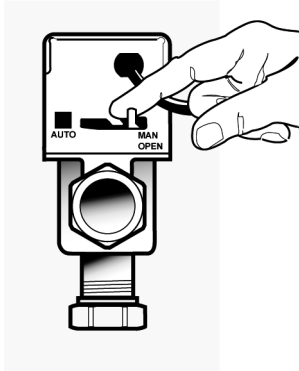


Fig. 2. Flow Characteristics



INSTALLATION

V4073A 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.



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.

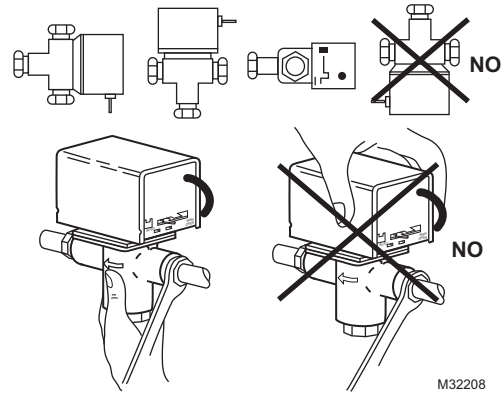
PLUMBING

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.



WIRING

The wiring diagram below 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:

White	= Heating on
Grey	= Hot water off
Orange	= Boiler and pump live
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.
- If replacing a 6 wire relay model valve with a non-relay 5 wire valve, contact Resideo for advice.

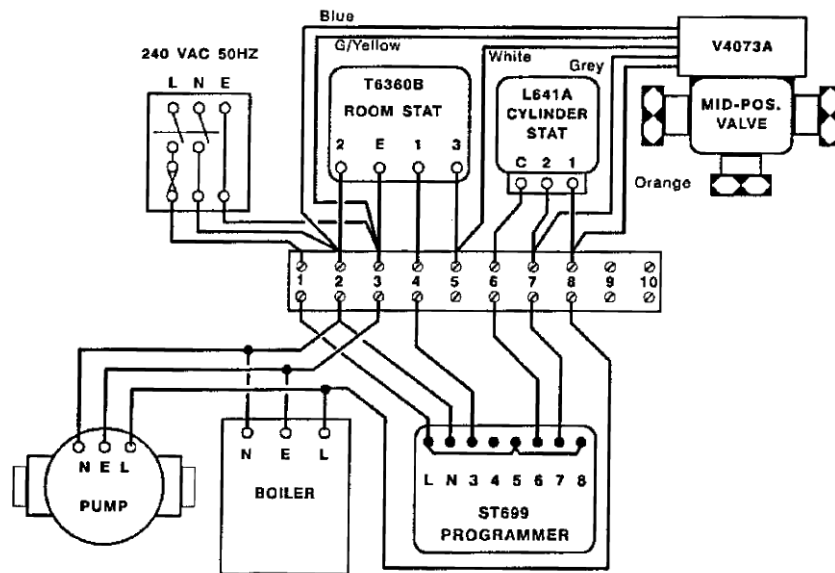
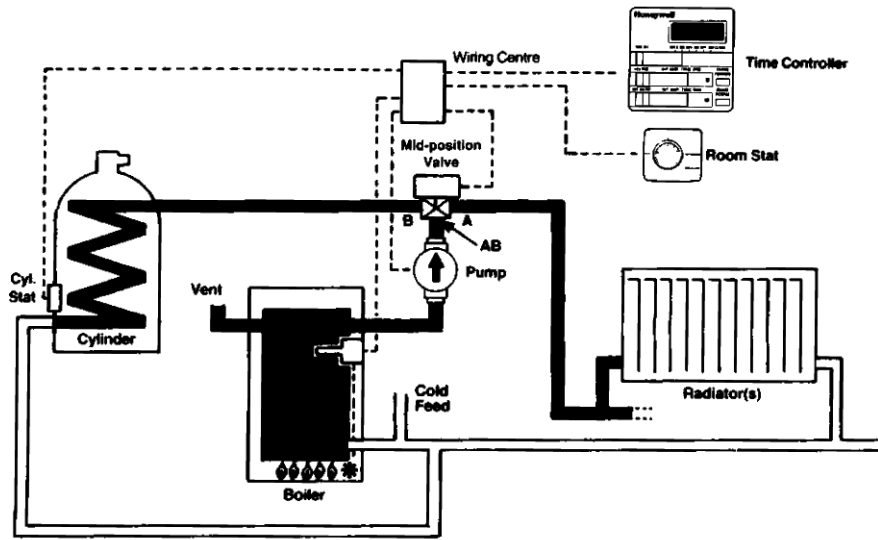


Fig. 3. 'Y' Plan

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 or switch off at programmer.
 - b. Set room thermostat to maximum and programmer to 'CENTRAL HEATING ON'.
 - c. Boiler should fire and pump should run. Feel pipe approximately 12" from port A, it should get hot.
4. Confirm valve is functioning at mid position by switching 'HEATING ON' and 'HOT WATER ON' at the programmer. Set both thermostat to maximum, feel pipes approximately 12" from both ports A and B. Both pipes 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.



www.resideo.com

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