

anti-scorching device. To increase the temperature, press the button (25) and turn further. The other handle (20) adjusts water flow. If the tap is equipped with both bath and shower outlet, this handle also adjusts deviation - turn in onwards to get water from the shower and backwards to divert water to the bath. Independently from the selected outlet, the more this handle moves from the water stop point the more the flow increases progressively. Flow rate limitation also prevents from water wasting - to increase the flow rate press the button (23) and turn further.

Shower assembling (Fig.2)

Before connecting the shower (11), verify the correct placing of the non-return valve (7). Place the gasket (8), screw the cap (9) onto the threaded connection, then connect the flexible (9.1) to the shower (11) after placing the gasket (10). If the tap is equipped with a wall-bracket (35), bore the wall at the proper height to allow a proper bearing of the shower (11); put the plugs (36) in the holes and fix the wall-bracket (35) with the screws (34).

If the tap is equipped with a wall-bracket with "Duplex" (14), bore the wall at the proper height to allow a proper bearing of the shower (11); put the plugs (15) in the holes, fix the wall-bracket (14) with the screws (13) and place the cap (12).

Replacement of the thermostatic cartridge (close the waterworks) (Fig.3)

To replace the thermostatic cartridge (39), unscrew the grub screw (40) on the lower part of the tap (6) and remove the group together with handle (24). Disassemble the cartridge elements to use again, remove the cap (22), unscrew the grub screw (21) and remove the handle (24). Also remove the temperature nut (37) and the insert (38) from the thermostatic cartridge (39).

Place the new thermostatic cartridge (39) and make sure that the positioning hole matches with the grub screw seat (40). Tighten the screw avoiding excessive tightening which could cause malfunctioning or breaks.

Definitely avoid moving the cartridge rod (39) as shown in the figure in order to keep perfect calibration.

Place the temperature nut (35) as shown in "Fig.5", position the insert (38) and the handle (24) making sure that 38° matches the temperature ring mark and screw the group with the grub screw (21). Place the cap (22).

Replacement of the headwork (Fig.2) (close the waterworks)

To replace the headwork (16) remove the cap (22), loosen the grub screw (21), remove the handle (20) and the flow restrictor (19). With a wrench unscrew the headwork (16) and replace it. Take care of the surfaces in contact with the sealing washers and assemble proceeding in reverse. Place the squared insert (17) and the screw (18) onto the headwork (16) to guarantee the alignment between handle (20) and tap body (6).

Replacement of the diverting cartridge (Fig.2) (close the waterworks)

To replace the diverting cartridge (29) remove the cap (22), loosen the grub screw (21), remove the handle (20) and the diverter blocking nut (33). Unscrew the locking nut (32) and remove the diverting cartridge (29).

Take care of the surfaces in contact with the sealing washers and assemble proceeding in reverse. Place the insert (30) and the screw (31) on the new diverting cartridge (29). Position the handle (20) in alignment with the tap body (6).

Replacement and cleaning of the aerator (Fig.2)

It is advisable to periodically clean the aerator (28.1) in order to avoid build-up of dirt and limestone residue, which could in time gradually limit the water flow.

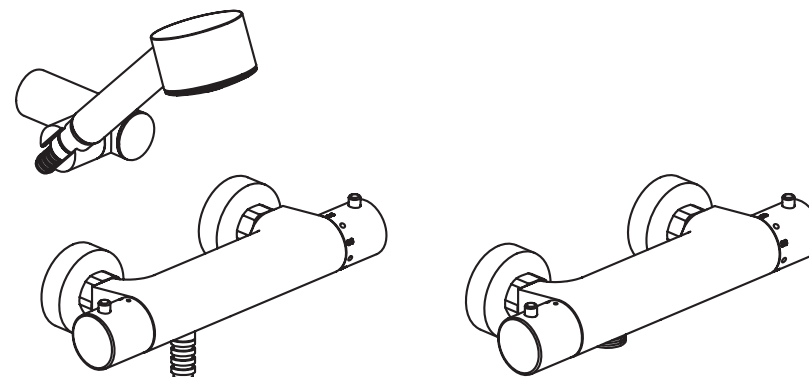
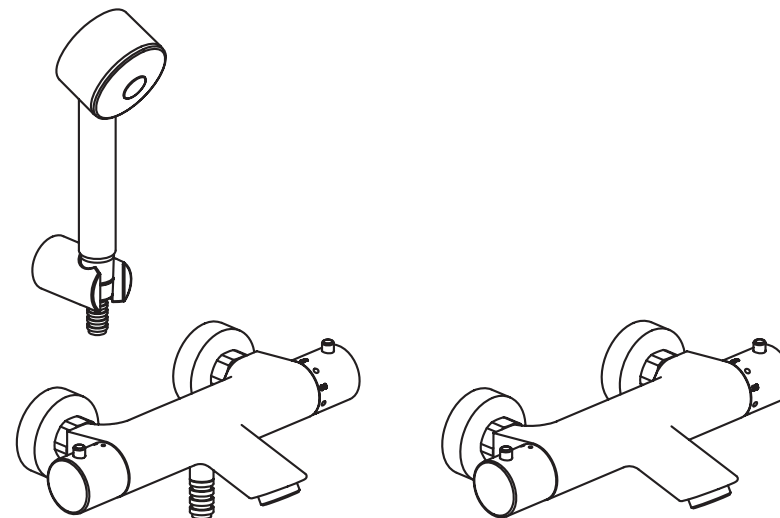
Unscrew the ring nut (28) and clean the filter (27) from any impurity.

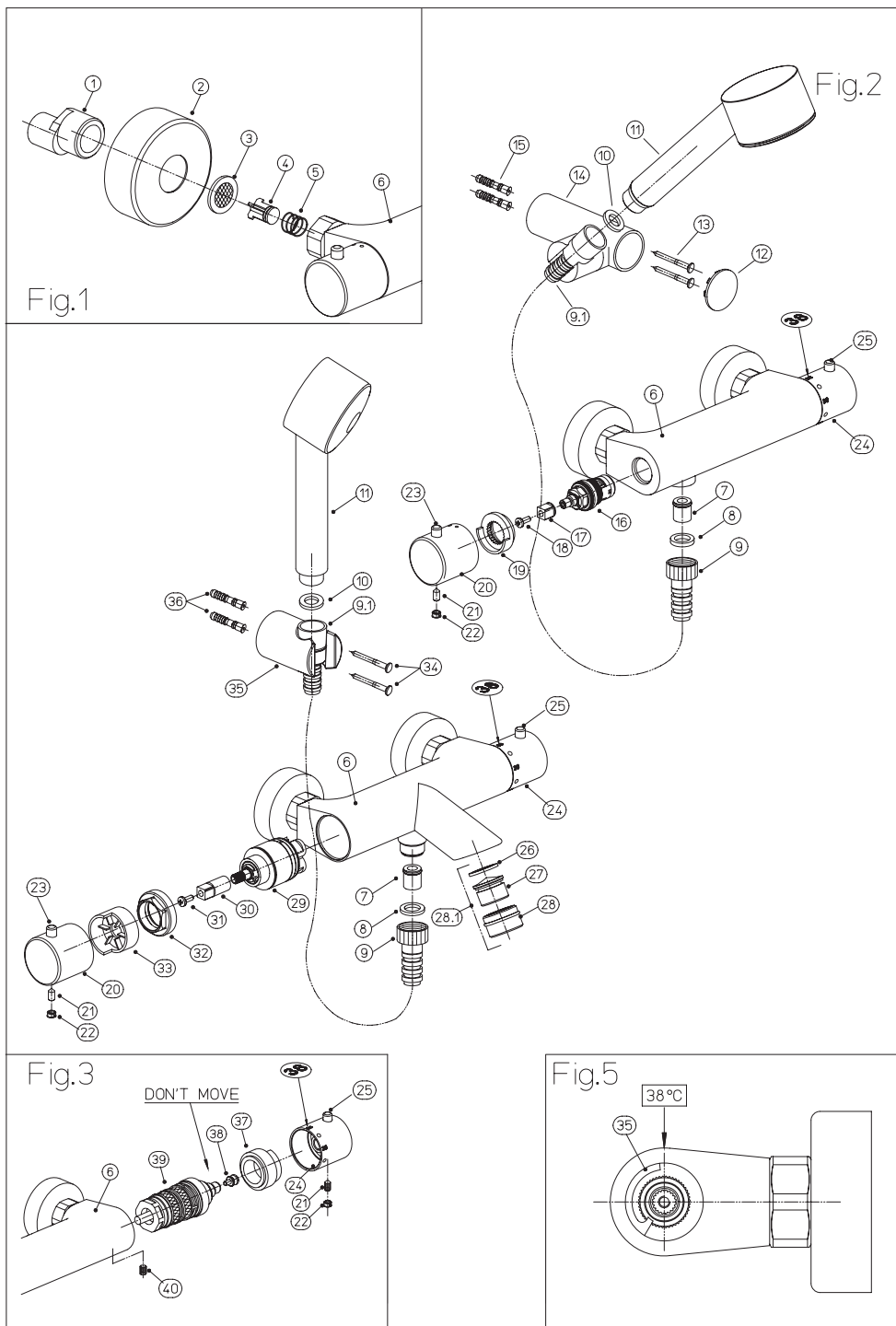
Reassemble the aerator proceeding in reverse order, making sure the washer (26) is correctly placed.

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INSTALLATION INSTRUCTIONS

UK





I Conditions of use for Type 2 valves:

	High Pressure
Maximum Static Pressure - Bar	10
Flow Pressure, Hot & Cold - Bar	0.5 to 5
Hot Supply Temperature - °C	55 to 65
Cold Supply Temperature - °C	Equal to or Less than 25°

NOTE: Valves operating outside these conditions cannot be guaranteed by the Scheme to operate as Type 2 valves. The valves designation of use is the HP, tested against BS EN 1111.

If a water supply is fed by gravity then the supply pressure should be verified to ensure the conditions of use are appropriate for the valve.

The BuildCert TMV scheme recommends the following set maximum mixed water outlet temperatures for use in all premises:

	Recommended outlet temperatures
for bath fill (but see notes below)	44°C
for showers	41°C
for washbasins	41°C
for bidets	38°C

The mixed water temperatures must never exceed 46°C. The maximum mixed water temperature can be 2°C above the recommended maximum set outlet temperatures.

NOTE: 46°C is the maximum mixed water temperature from the bath tap. The maximum temperature takes account of the allowable temperature tolerances inherent in thermostatic mixing valves and temperature losses in metal baths. It is not a safe bathing temperature for adults or children. The British Burns Association recommends 37 to 37.5°C as a comfortable bathing temperature for children. In premises covered by the Care Standards Act 2000, the maximum mixed water outlet temperature is 43°C.

The thermostatic mixing valve will be installed in such a position that maintenance of the TMV and its valves and the commissioning and testing of the TMV can be undertaken.

The fitting of isolation valves is required as close as is practicable to the water supply inlets of the thermostatic mixing valve.

The fitting of strainers is recommended as close as is practicable to the water supply inlets of the thermostatic mixing valve.

Commissioning notes for Thermostatic Mixing Valves.

The first step in commissioning a thermostatic mixing valve is to check the following:

The designation of the thermostatic mixing valve matches the application.

The supply pressures are within the valves operating range.

The supply temperatures are within the valves operating range.

Isolating valves (and strainers preferred) are provided.

If all these conditions are met, proceed to set the temperature as stipulated in the manufacturer installation instructions.

The mixed water temperature at the terminal fitting must never exceed 46°C.

It is a requirement that all TMV2 approved valves shall be verified against the original set temperature results once a year. When commissioning/testing is due the following performance checks shall be carried out.

Measure the mixed water temperature at the outlet.

Carry out the cold water supply isolation test by isolating the cold water supply to the TMV, wait for five seconds if water is still flowing check that the temperature is below 46°C.

If there is no significant change to the set outlet temperature ($\pm 2^\circ\text{C}$ or less change from the original settings) and the fail-safe shut off is functioning, then the valve is working correctly and no further service work is required.

NOTE: if there is a residual flow during the commissioning or the annual verification (cold water supply isolation test), then this is acceptable providing the temperature of the water seeping from the valve is no more than 2°C above the designated maximum mixed water outlet temperature setting of the valve.

Temperature readings should be taken at the normal flow rate after allowing for the system to stabilise.

The sensing part of the thermometer probe must be fully submerged in the water that is to be tested.

Any TMV that has been adjusted or serviced must be re-commissioned and re-tested in accordance with the manufacturers' instructions.

The installation of thermostatic mixing valves must comply with the requirements of the Water Supply (Water Fittings) Regulations 1999.

Installation instructions (Fig.1 and 2)

After closing the waterworks disassemble the old tap.

Before starting assembly operations, bleed the pipes of hot and cold water to prevent dirt or other impurities from affecting the operation of the tap.

Clean the waterworks threads thoroughly.

Verify to have on the wall two female pipe fitting pieces with a G1/2" thread and a 150±20 distance between points of connection. Connect the eccentric fittings to the wall adapters (1). Use teflon to secure the tightness of the coupling. Screw the rosettes (2) tight and flat into the wall. Position the spring (5) and the non-return valve (4). Place the G 3/4" gaskets (3) inside the caps. Position the single lever group and block it with the caps. It is recommended to use a proper wrench, making sure not to damage the surfaces.

The tap (6) needs to be perfectly horizontal.

Turn the water on and verify the functioning of the mixer as well as the tightness of all its components. Open the handle (24) to adjust water temperature, the tap is equipped with an