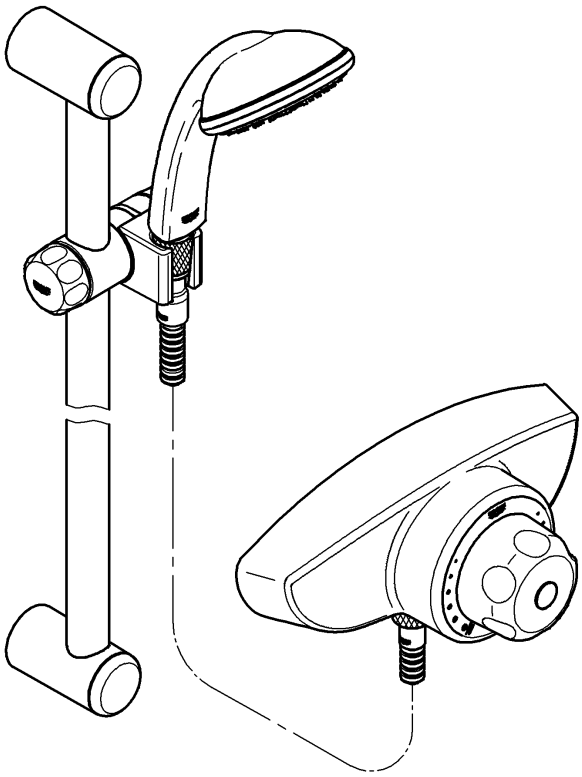
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Grohsafe

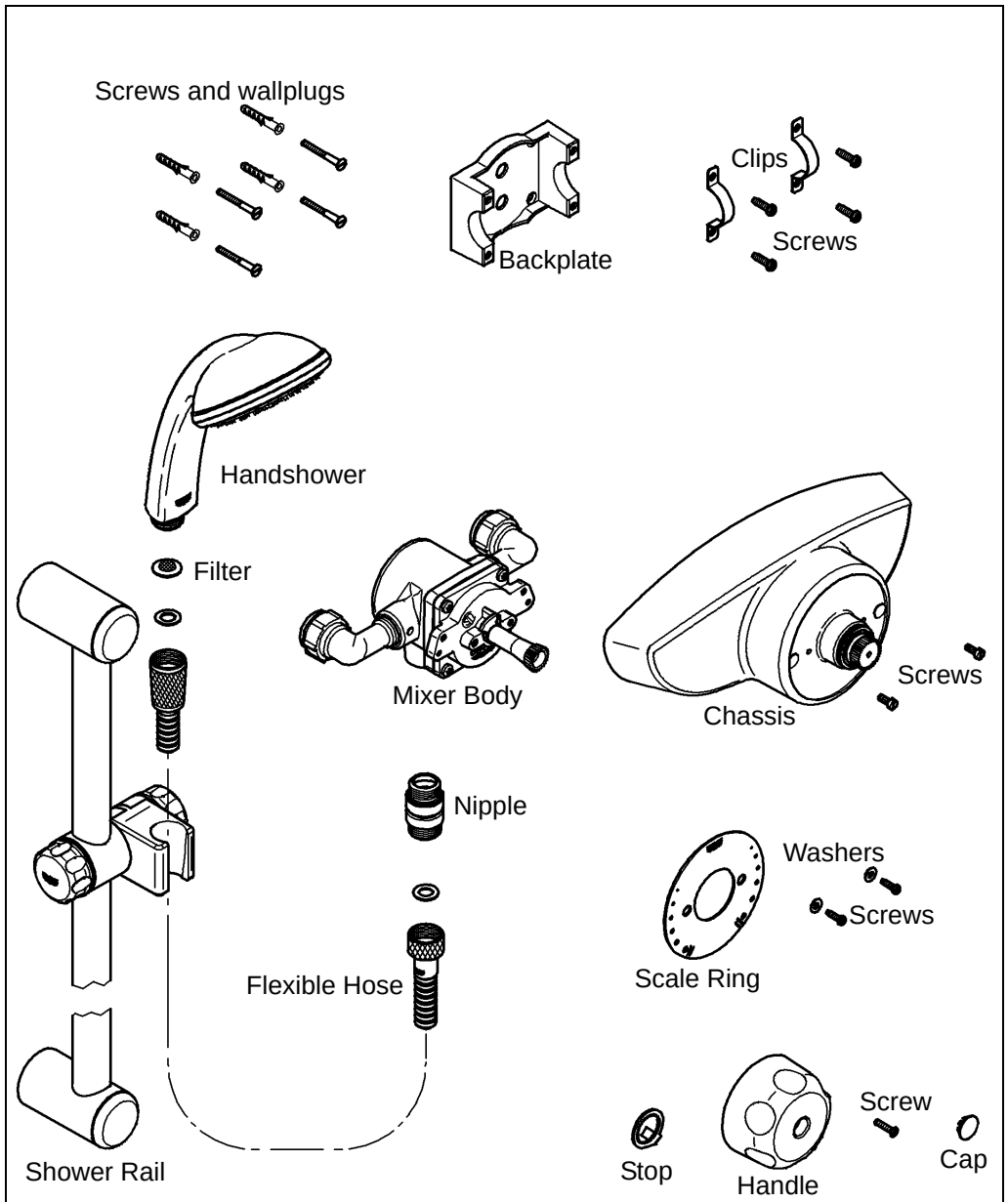
Grohsafe

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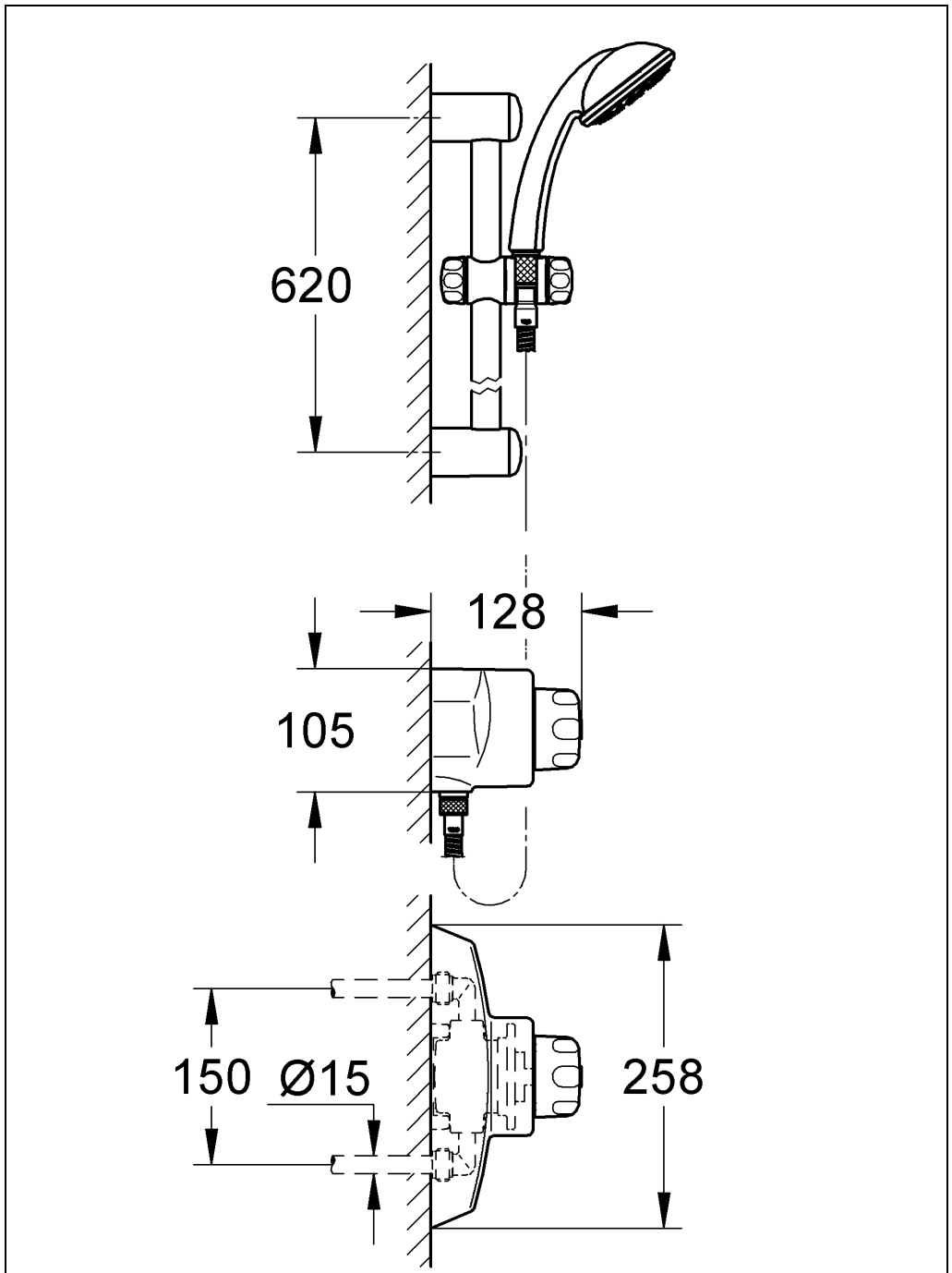
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GROHE®

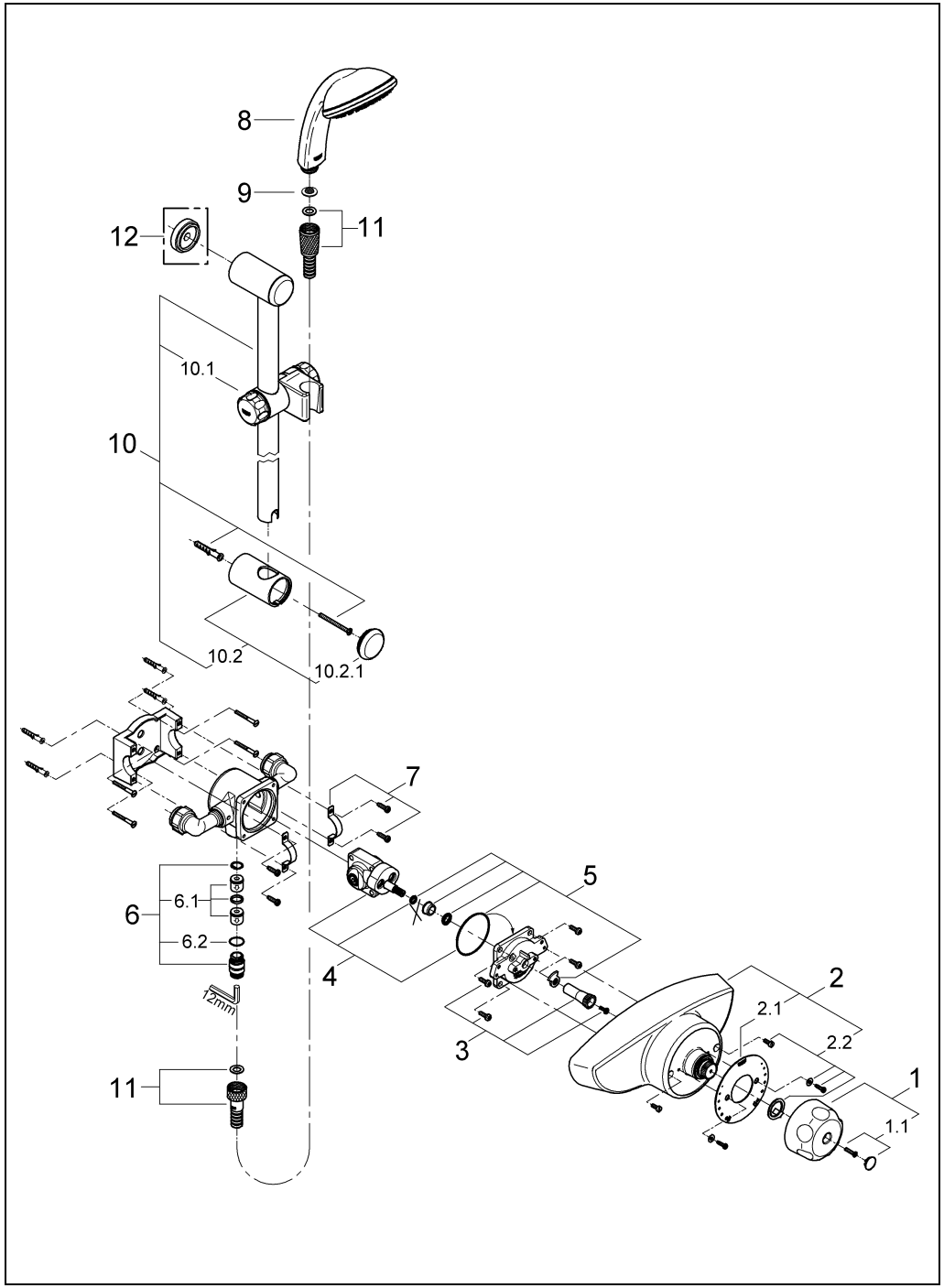
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Installation Dimensions (mm)



Spare Parts



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Dear Customer,

Thank you for choosing a GROHE product. Please follow these instructions carefully and you will enjoy many years of reliable service from this fitting.

Spare Parts

No.	Description	Cat.-No.	Pack-ing unit	No.	Description	Cat.-No.	Pack-ing unit
1	Handle complete	47 547	1	8	Handshower	28 422	1
1.1	Screw and cap	47 548	1	9	Filter	07 002	2
2	Chassis	47 554	1	10	Shower rail	28 666	1
2.1	Scale ring	47 557	1	10.1	Sliding shower holder	07 659	1
2.2	Screws and stop	47 555	1	10.2	Shower rail holder	45 362	1
3	Connection set	47 556	1	10.2.1	Cover cap	45 363	1
4	Pressure balancing	47 080	1	11	Flexible hose	28 151	1
	cartridge						
5	Seal kit	47 341	1		**Optional accessory**		
6	Connection nipple	47 558	1	12	Compensation ring	45 406	1
6.1	Non-return valve	45 481	1				
6.2	Seal	01 209	10				
7	Clip	47 560	2				

Technical Data

Functioning Principle

The **Grohsafe** pressure balance valve is a safety mixer designed to compensate for fluctuations in the water supply pressures, which would otherwise affect the mixed water temperature.

This product is supplied with connectors to fit ø 15mm pipework with inlet connections apart 150mm. Connection should be hot left, cold right as viewed from the operating position. The product is preassembled, as standard, with the **outlet down**.
For reversed supply installations refer to page 10.

Plumbing Systems

Suitable for use with multi-point gas water heaters or combination boilers with a modulating hot water output. To maintain sufficient hot water output ensure the combination boiler temperature setting is on **high**. Also suitable for mains pressure unvented and instantaneous thermal hot water storage systems.

Not suitable for instantaneous hot water displacement heaters or gravity-fed plumbing systems with an open vented hot water cylinder and cold water storage cistern.

Supply Pipework

Ensure the supply pipework is thoroughly flushed before installing the mixing valve. GROHE recommends installing isolating valves upstream of the mixing valve for servicing purposes, and in-line strainers to prevent the ingress of water borne debris.

New Water Regulations

This GROHE-product is designed to comply with the current Water Bylaw 17 and the new Water Regulations covering back-flow prevention. It must be installed in accordance with local authority bye-laws. Incorrect installation could contravene bye-law installation requirements.

Specification

- Exposed single handle pressure balancing shower valve, concealed supplies, with shower set.
- Integral non-return valves prevents cross flow.
- The pressure balance valve cartridge is a safety mixer and will shut off in the event of total pressure failure of the hot or cold water supplies.
- Flow pressure
  - min. 1 bar
  - recommended 1.5 - 5 bar
  - greater than 5 bar, fit pressure reducing valve
- Max. operating pressure 10 bar
- Max. test pressure 20 bar
- Flow rate at 3 bar pressure: approx. 15.5 l/min
- Temperature
  - Max. (hot water inlet) 80 °C
  - Recommended (for economy) 60 °C
  - Max. outlet temperature is reached when handle is turned counter-clockwise through 270°.
  - Max. outlet temperature can be pre-set using the adjustable hot water limit stop.
  - Temperature accuracy +/- 1 °C with 50% pressure drop of hot or cold supplies.
- Water connection hot - LH, cold - RH
  - Installation with reversed supplies possible by rotating the cartridge 180°

Installation

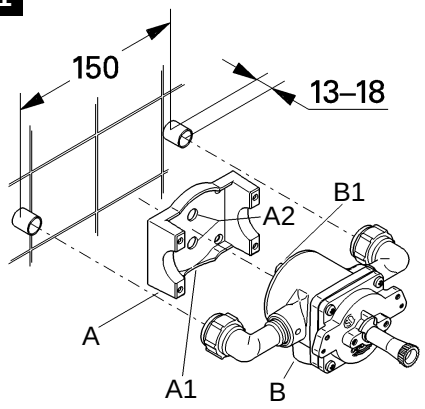
Exposed Installation

The standard position is outlet to bottom. The Pressure Balance Valve is fixed to the wall via the backplate and connected to the supply pipes by a pair of elbows. The elbows are preassembled with set screws to the valve body. The chassis is fixed to the cover of the valve body by screws.

For reversed supplies installation refer to page 10.

1. Ensure that the projections of the supply pipes, (i.e. exposed beyond the wall surface) have the correct length (13 - 18mm) and distance (150mm), see Fig. [1].

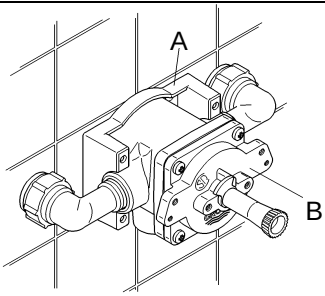
1



2. Place the backplate (A) with the fillet (A1) onto the mixer body (B). Make sure that the locating pins (B1) on the valve body slot into the apertures on the back plate (A2).

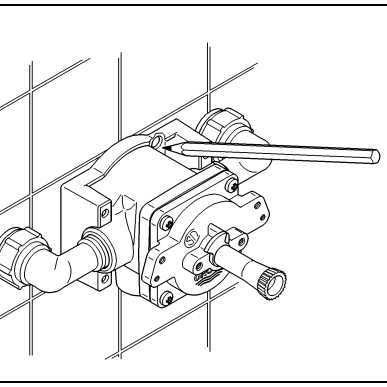
3. Place the valve body (B) with the elbows and backplate (A) to the supply pipes, see Fig. [2].

2



4. Mark the holes in the backplate for wall plugs, see Fig. [3].

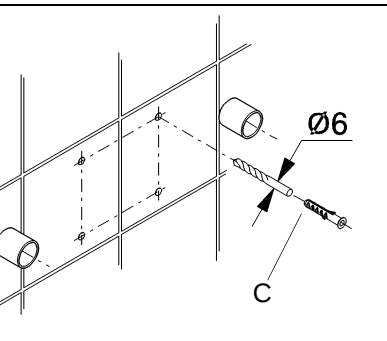
3



5. Remove valve body with backplate from supply pipes.

6. Drill the holes (6mm) for the wall plugs (C) and fit them into the wall, see Fig. [4].

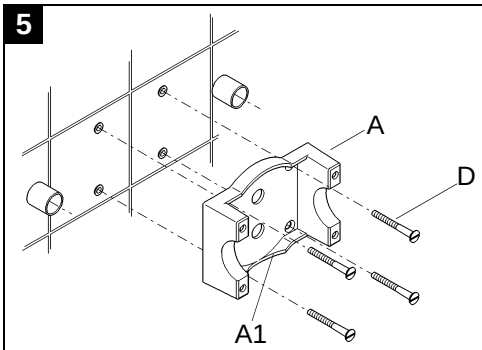
4



Installation

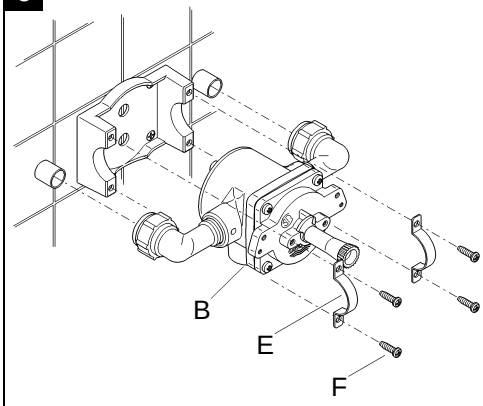
7. Fix the backplate (A) with the fillet (A1) down to the wall with screws (D), see Fig. [5].

5



8. Slide the valve body with elbows and compression nuts loosely over the supply pipes, see Fig. [6].

6

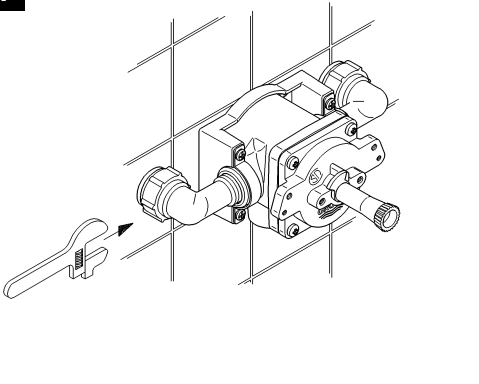


The body must touch the backplate. If not, check pipes for length again.

9. Fix the valve body (B) to the backplate with clips (E) and screws (F).
Do not use excessive force to tighten the screws (E).

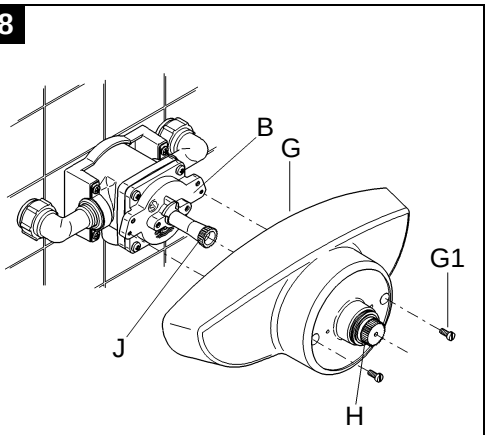
10. Tighten the compression nuts (torque min. 20 Nm), see Fig. [7].

7



11. Slide the chassis (G) with the intermediate handle (H) over the driver (J) and tighten to body with screws (G1), see Fig. [8].

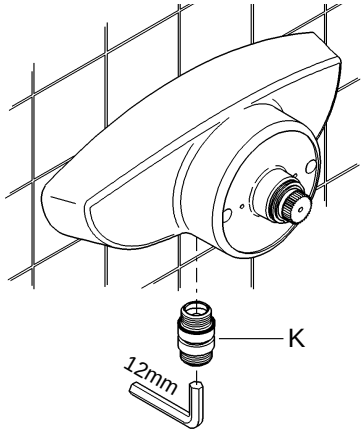
8



Additionally seal the top edge of the chassis with silicone if it is fitted against a particularly rough surface (deep tile joints, highly textured tile).

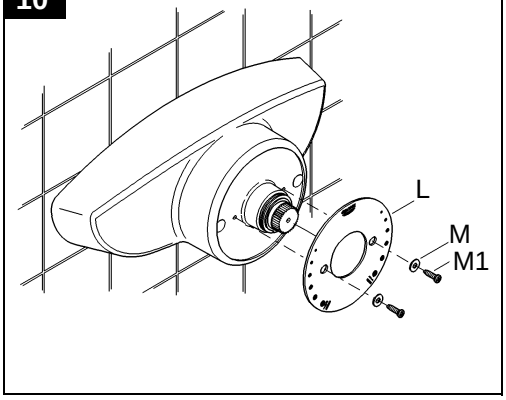
12. Thread the connection nipple (K) with the O-ring seal and the stops into the valve body outlet, see Fig. [9].

9



13. Place the scale ring (L) onto the chassis, see Fig. [10].

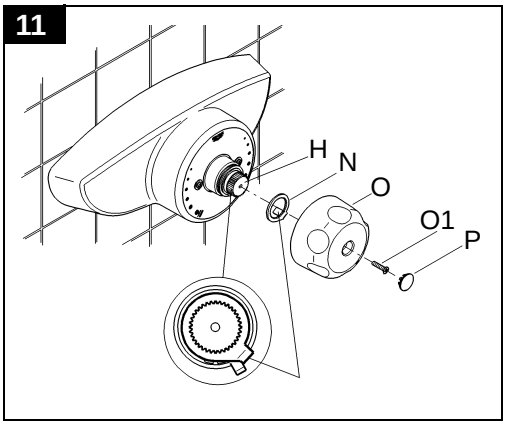
10



14. Fix the scale ring (L) to the chassis with washers (M) and screws (M1).
Do not use excessive force to tighten the screws (M1).

15. Push adjustable hot water limit stop (N) to the intermediate handle (H) as described in Fig. [11].

11



Please refer to chapter **"Maximum Hot Water Limit Setting"** on page 11 for limiting maximum outlet temperature.

16. Push the handle (O) on the intermediate handle (H) so that the **"OFF"** position on the scale ring is in alignment with the arrow on the handle.

17. Tighten handle (O) with screw (O1) and cover with cap (P).

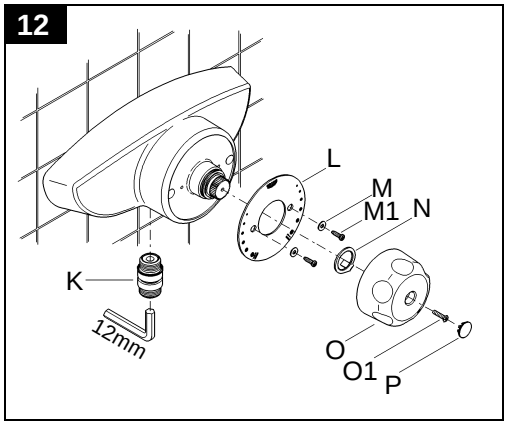
The pressure balancing valve is now ready for use.

Reversed Supplies Installation

For reversed supplies installation the cartridge must be rotated 180° to ensure proper valve operation.

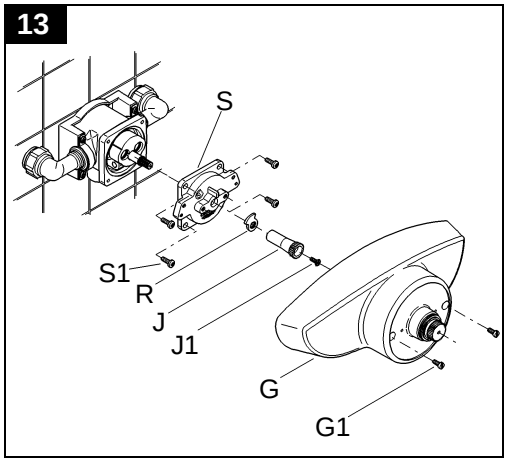
1. Shut off hot and cold water supply!
2. Remove the connection nipple (K), see Fig. [12].

12



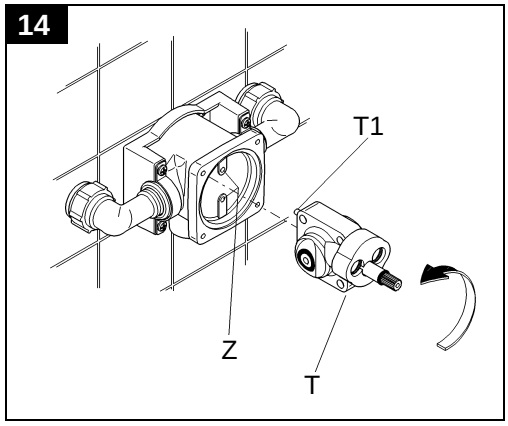
3. Pull off cap (P), loosen centre screw (O1) and pull off handle (O).
4. Detach hot water limit stop (N) and note position.
5. Remove screws (M1), washers (M) and scale ring (L).
6. Remove screws (G1) and chassis (G), see Fig. [13].

13



7. Loosen screw (J1) and pull off driver (J).
8. Detach stop ring (R) and note position.
9. Remove the four corner screws (S1) and valve cover (S).
10. Pull the pressure balancing cartridge (T) out of the valve body. Do not damage the O-ring seals, see Fig. [14].

14



Reverse the pressure balancing cartridge 180° by turning it upside down. Place it into the valve body. Ensure the two alignment pins (T1) on the rear of the pressure balancing cartridge are properly seated in the holes (Z) of the valve body.

Notice the position of hot **"H"** and cold **"C"** markings on the cartridge to assure the correct position in relation to reversed or back to back installation.

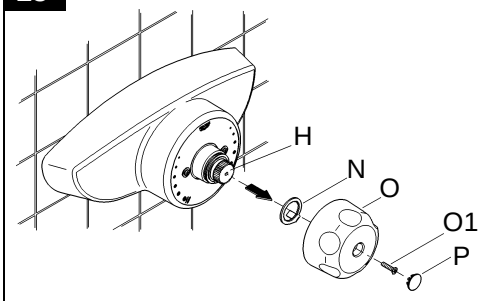
Reassemble in reverse order. Be sure that the stop ring (R) and the hot water limit stop (N) are in the previously noted position.

Maximum Hot Water Limit Setting

On applications requiring limiting the valve opening from full hot position, the adjustable hot water limit stop must be reset as described below.

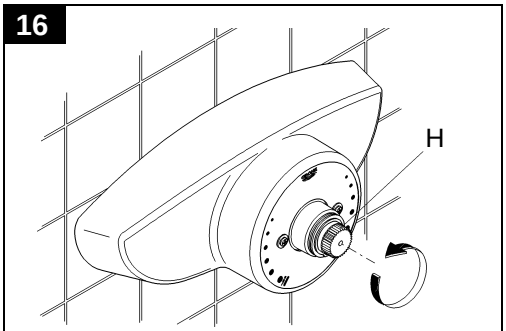
1. Detach handle cap (P) loosen screw (O1) and remove handle (O), see Fig. [15].

15



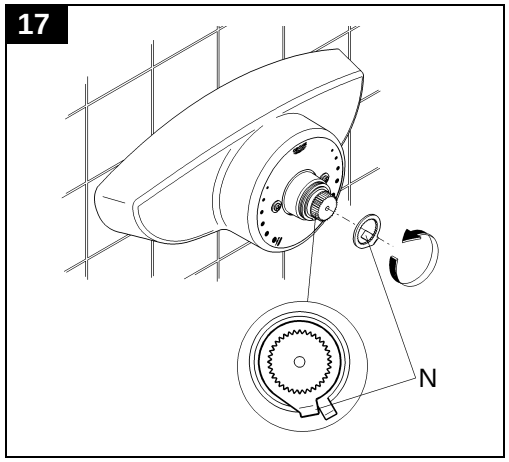
2. Detach hot water limit stop (N).
3. Turn the intermediate handle (H) counterclockwise until the outlet water reaches the desired temperature, see Fig. [16].

16



4. Place the hot water limit stop (N) over the splines on the intermediate handle with the limit stop resting against the chassis stop post, see Fig. [17].

17

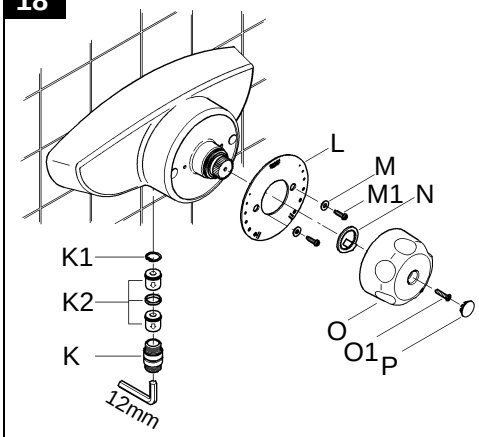


5. Close the valve by turning the intermediate handle clockwise.
6. Reinstall handle as described in Fig. [15] in reversed direction.

Pressure Balancing Cartridge

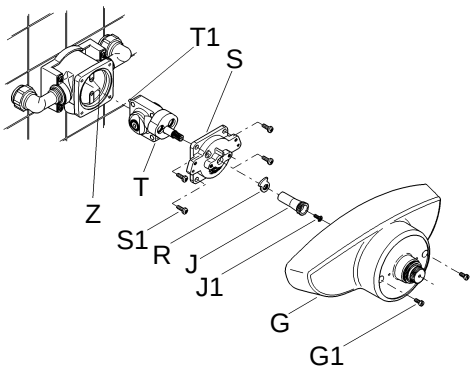
1. Shut off hot and cold water supply!
2. Remove the connection nipple (K), see Fig. [18].

18



3. Pull off cap (P), loosen centre screw (O1) and pull off handle (O).
4. Detach hot water limit stop (N) and note position.
5. Remove screws (M1), washers (M) and scale ring (L).
6. Remove screws (G1) and chassis (G), see Fig. [19].

19



7. Loosen screw (J1) and pull off driver (J).
8. Detach stop ring (R) and note position.
9. Remove the four corner screws (S1) and valve cover (S).
10. Pull the existing pressure balancing cartridge (T) out of the valve body noting the location of **"H"** and **"C"** marking near the cartridge inlets.

The pressure balancing cartridge (T) must be replaced as a complete unit.

Reassemble in reverse order.

Ensure the two alignment pins (T1) on the rear of the pressure balancing cartridge are properly seated in the holes (Z) of the valve body and that the hot **"H"** and cold **"C"** markings are on the correct side.

Be sure that the stop ring (R) and the hot water limit stop (N) are in the previously noted position.

Non-return valve

1. Remove the connection nipple (K), see Fig. [18].
2. Detach retaining ring (K1).
3. Pull out non-return valves.

Check, clean and if necessary replace parts. Only genuine GROHE replacement parts must be used.

Care

We want to ensure that you get long-lasting satisfaction and pleasure from your GROHE fitting. Therefore, please read the following care instructions because damage to the surface and underlying material resulting from improper treatment is not covered by guarantee.

Do not use any abrasive sponges or scouring agents for cleaning. We also advise not to use cleaning agents containing solvent or acid, limescale removers, household vinegar and cleaning agents with acetic acid. They are aggressive to the surface and will leave your fitting dull and scratched. As the formulations of commercially available cleaning agents frequently change, we cannot guarantee they will provide the gentle care our fitting deserves.

Clean the fitting with a little soap and a moist cloth only, then simply rinse off and wipe dry. You can avoid lime spots by drying the fitting each time it is used. If lime deposits do occur, remove them with **Grohclean** (ref. no. 45 939), our environment-friendly cleaning liquid. **Grohclean** is specially formulated to gently clean the surface of our fittings.

Trouble Shooting

Problem	**Cause**	**Remedy**
Shower control opening through hot	Hot and cold water supplies have been connected in reverse	Rotate cartridge as described in chapter **"Reversed Supplies Installation"**
Shower head drips after shutting off the valve	O-ring seal on the inlet of the cartridge is faulty Incorrect setting of the stop ring against the stop pin causing a partially opened cartridge	Check the O-ring for cuts or damage and replace if necessary Detach stop ring and close cartridge **without** using excessive force. Replace stop ring so it is positioned against stop pin on the cover
Shower insufficiently hot	Adjustable hot water limit stop incorrectly set Hot water supply temperature too low	Refer to the instructions in chapter **"Maximum Hot Water Limit Setting"** Check hot water source temperature setting
No flow of hot or cold water	Either the hot or cold side is not fully pressurized Debris caught inside the inlet of the cartridge	Be sure the system is fully pressurized Remove cartridge and flush out or remove any debris lodged inside the hot or cold inlets



Guarantee

Guarantee declaration

Our products correspond to the valid technical and water supply standards as well as the relevant approvals requirements. We guarantee them to be free of design and production faults at the time of delivery and that with correct use and care in accordance with our printed instructions they will function reliably.

Guarantee period

- The guarantee is valid in private homes for 5 years from the purchase date. Proof of purchase has to be provided when making a guarantee claim.
- By use in commercial or institutional applications the guarantee is valid for 1 year after first use. An extension of the guarantee up to 5 years can be achieved by showing that the product is professionally maintained each year.

To make a guarantee claim, proof of purchase or, the beginning of use is required. The guarantee period is not renewed or increased through supply of spare parts or repair during the guarantee period. The guarantee period for purchased spare parts is the same as for original products.

Guarantee performance

A)During the whole guarantee period we will correct all functional defects for which we are responsible (limitations see E + F).

B)It is our option if we correct the defects by repair or replacement.

C)During the above guarantee period we will not charge for the cost of parts, travel, working time, freight and packaging needed to effect the correction of defects.

D)If we are not able to correct the defect we are prepared to supply a replacement product.

E)Deliberate or careless damage is not covered by this guarantee. If the installation, assembly or care instructions that were valid at the time of installation are not followed or the product is used for a purpose other than that given in the written information the guarantee declaration does not apply. Problems caused by dirt, lime-scale or aggressive cleaners are not covered by the guarantee.

F)The guarantee becomes void if repairs are not carried out competently or spare parts of non GROHE origin are used.

G)Replaced parts become the property of GROHE and are to be surrendered to our service personnel or sent to our registered offices.

Please enter date of purchase and installation here.

Our address

GROHE Limited
1, River Road
Barking,
Essex, IG11 OHD
GB
Tel.: 0208 / 594 72 92
Fax: 0208 / 594 88 98

GROHE®

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