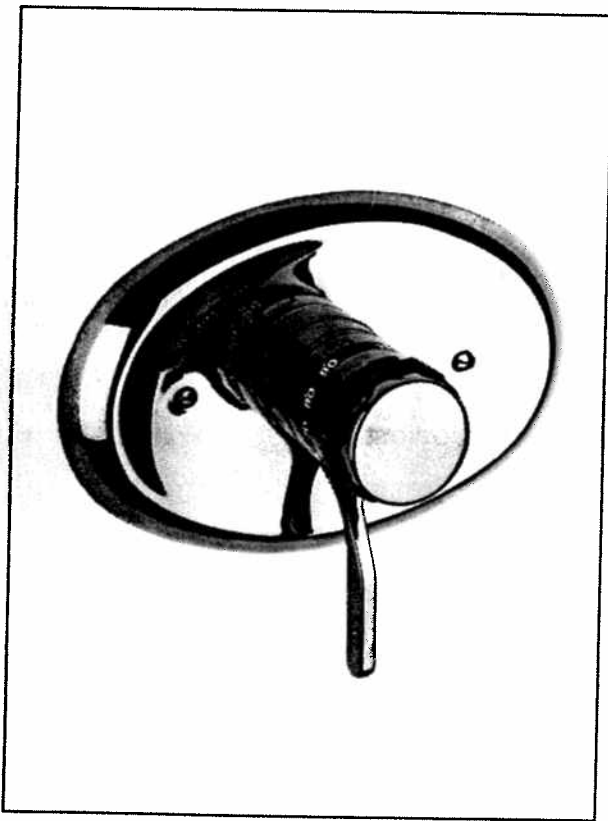


GROHE

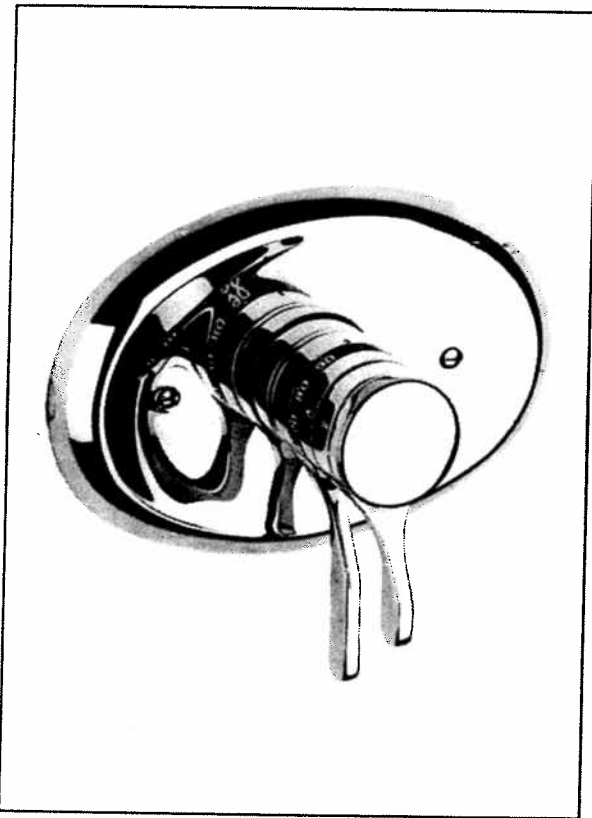


WATER TECHNOLOGY

Integrated Grohmix



34 436 and variants
34 436 et variantes
34 436 y variantes



34 458

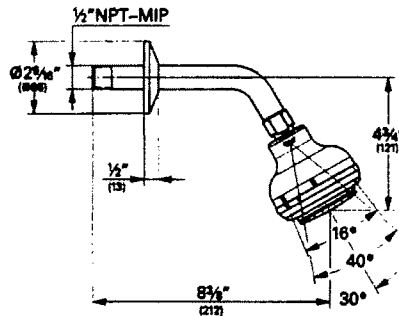
Printed on chlorine-free bleached paper.
Imprimé sur papier blanchi sans chlore.
Impreso en papel blanqueado sin cloro.



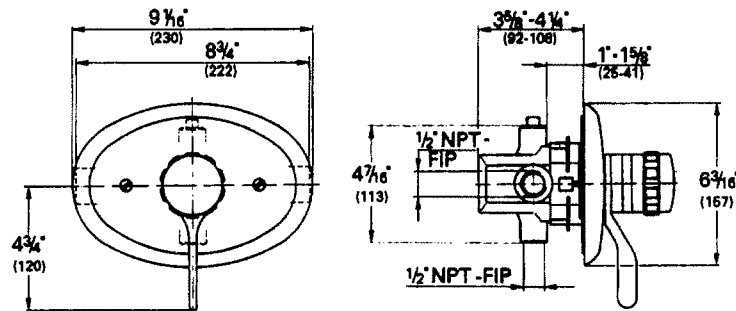
Installation dimensions
Inch and (mm)
27 412 + 28 272

Dimensions d'installation
Pouces et (mm)

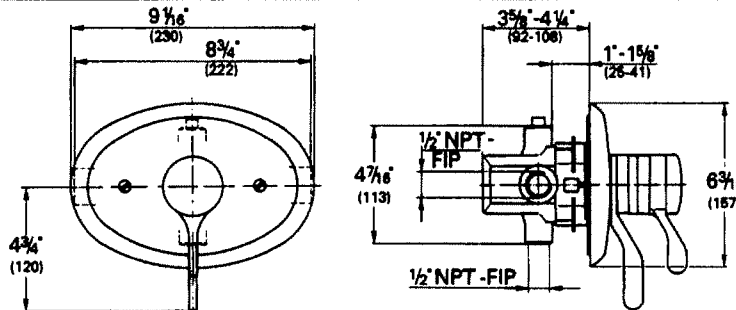
Dimensiones de montaje
Pulgadas y (mm)



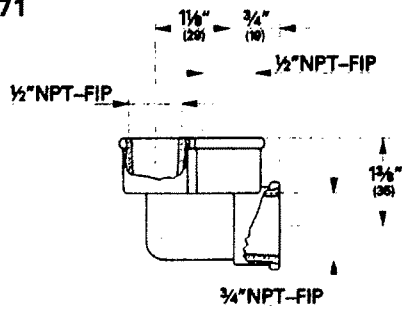
34 436



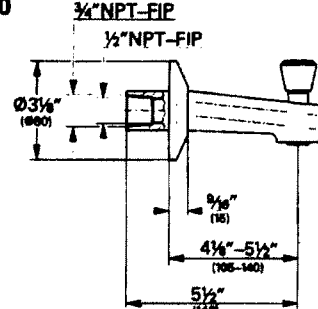
34 458



03 671



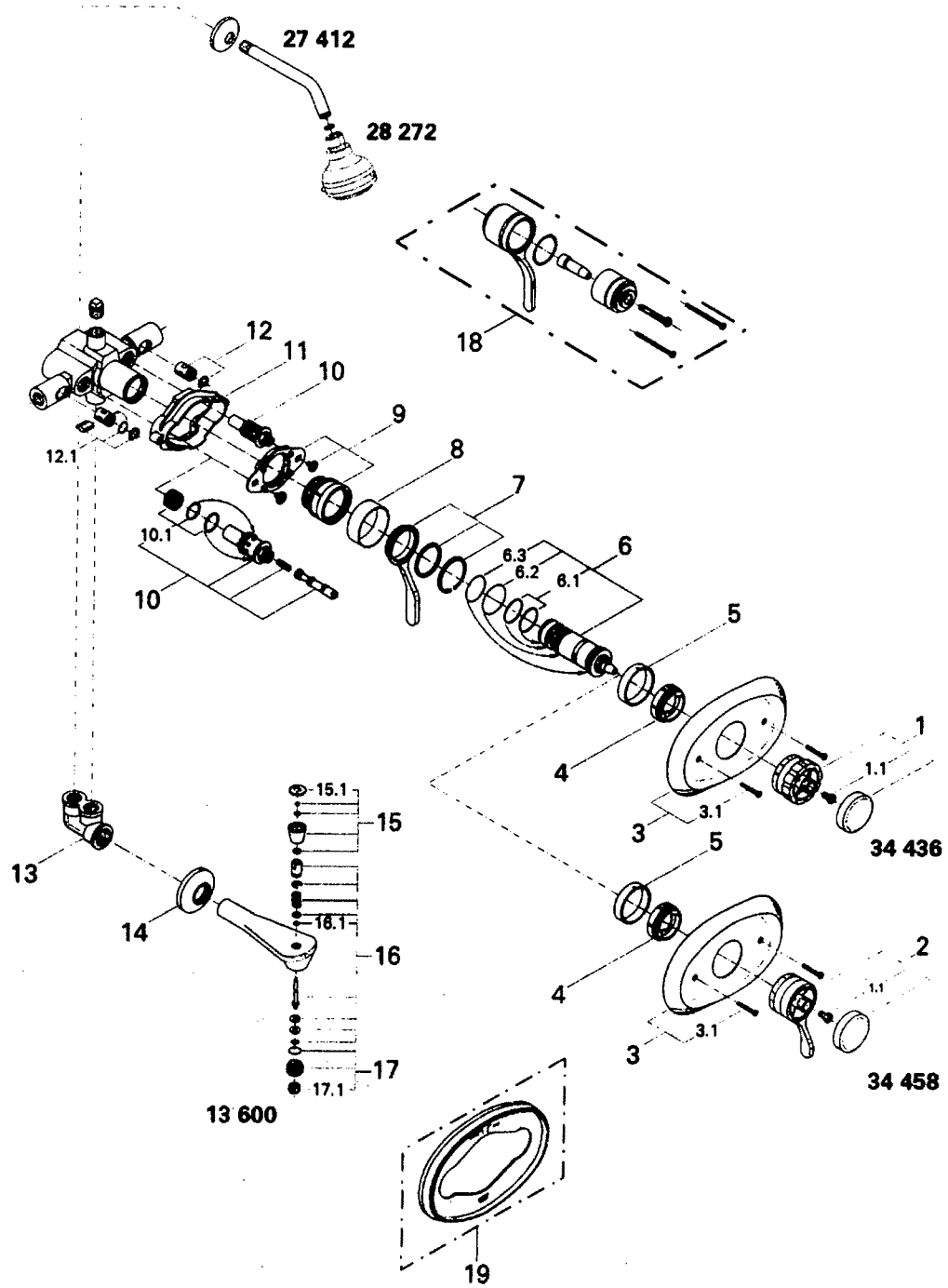
13 600



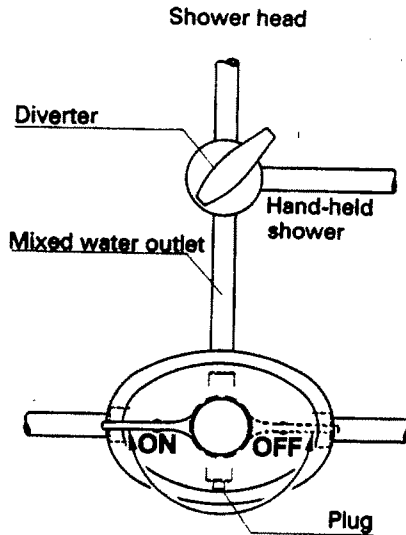
Replacement parts

Pièces de rechange

Repuestos



English



Specification

Application

Thermostat mixers are designed for use with hot water supplied from pressurized storage heaters and offer the highest temperature accuracy when used in this way. Given sufficient output (min. 18 kW or 250 kcal per min), electric or gas-fired instantaneous heaters are also suitable.

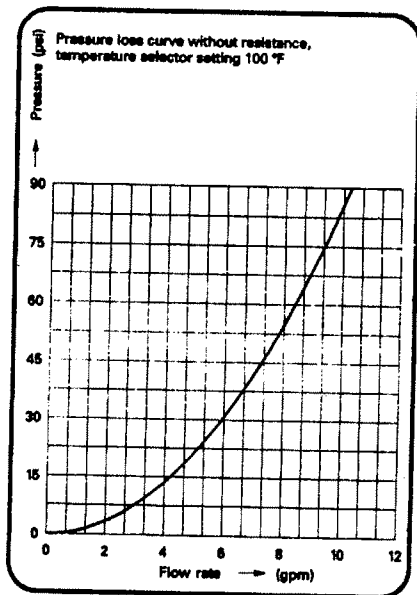
Thermostat mixers **cannot** be used in conjunction with low-pressure storage heaters (displacement water heaters).

All thermostat mixers are adjusted at the factory at a flow pressure of 45 psi on both sides.

If temperature deviations should occur due to special installation conditions, the thermostat should be adjusted to local conditions (see Adjustment, page 4).

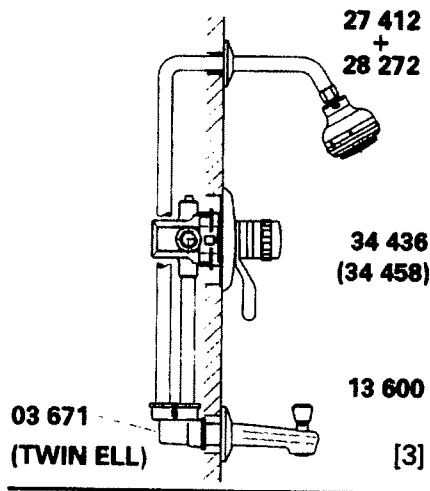
[1] **Specifications**

- Flow pressure
 - min. without downstream resistances 2.9 psi
 - min. with downstream resistances 7.25 psi
 - recommended 14.5 psi - 72.5 psi
 - greater than 72.5 psi, fit pressure reducing valve
- Flow rate
 - min. 1.32 gpm
- Working pressure - max. 145 psi
- Test pressure 232 psi
- Flow delivery see fig. [2]
- Temperature
 - max. (hot water inlet) 176 °F
 - temperature range adjustable on the scale marked handle 70 - 110 °F
 - safety check 100 °F
 - hot water temperature at the supply inlet must be at least 4 °F higher than the maximum mixed water temperature.
- Connection
 - hot water connection - W - (-H-)
 - cold water connection - K - (-C-)



34 436
34 458

[2]



Rough Installation

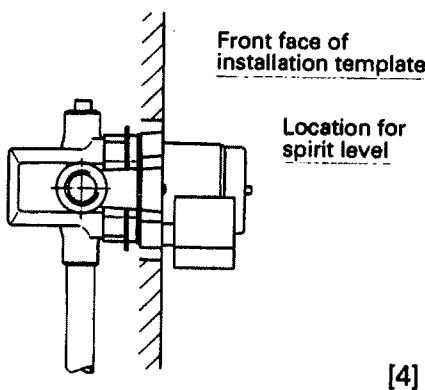
Rough Installation

- Prepare fitting wall. (Provide holes for thermostat mixer and installation fittings and chase slots for pipe lines.)
- Mount the concealed thermostat mixer on the wall and connect to pipe lines, see fig. [3] and fold-out page I (Installation dimensions).

Important

- Separate stop valve not required for this mixer.
- This valve has no by-pass annulus and therefore when used with diverter spout a **TWIN ELL MUST BE USED** see fig. [3], and the top outlet plugged.

Front face of tiles

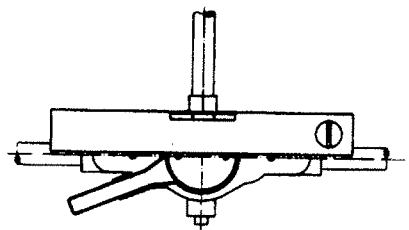


The thermostat mixer should be positioned so that the face of the tiles fall within the finished wall min./max. thickness marking on the fitting template, see fig. [4].

Level and align the thermostat, see fig. [5]. (Lay the spirit level on the lugs on the fitting template).

Important!

- Do not solder the connections between the pipes and valve body unless all internal parts are removed (parts 6, 10 and 12, see fold-out page II).
- The hot water connection must be made on the side of the valve body marked - W - (-H-) and the cold water connection must be on the side marked - K - (-C-).
- Seal off the unused outlet by means of the threaded stopper plug.
- Check the pipework and the connections to the thermostat mixer for leaks.



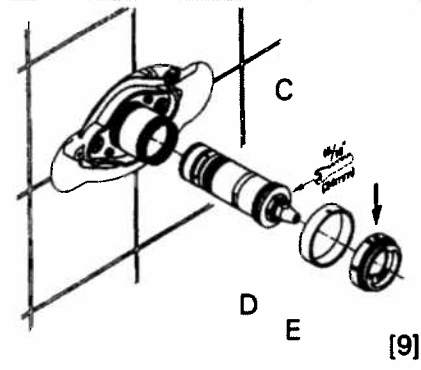
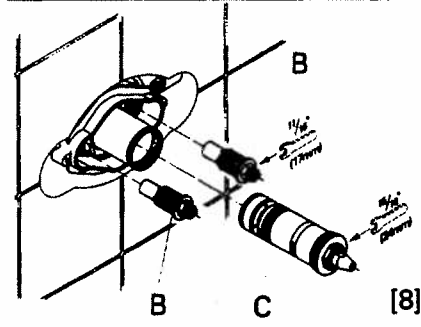
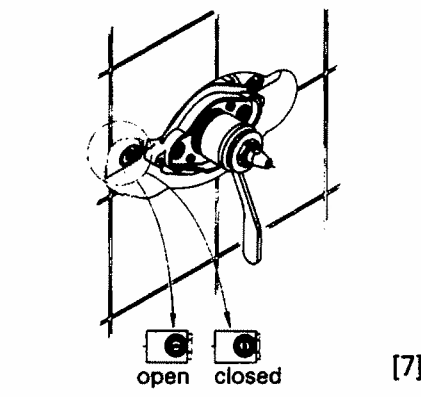
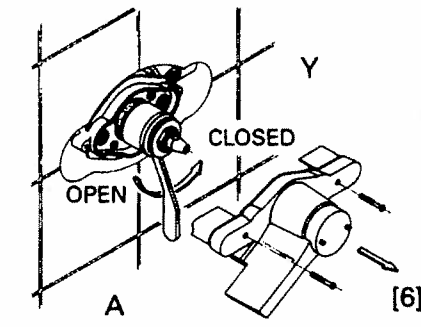
The fitting template is so designed that the lever is held fixed in the ON position. This ensures that when testing, all parts of the pipework are under pressure.

After testing remove fitting template and turn service stops to the OFF Position, see fig. [7].

[5]

Replace fitting template.

English



Finish installation

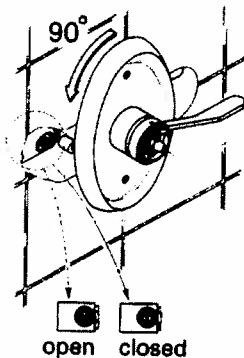
Plaster and tile the wall to finished condition, and seal the installation hole against splashwater.

- If the tiles are pointed in mortar, finish as a struck joint facing outwards.
- When using prefabricated wall panels, use an elastic sealing compound for the seal.

Flush pipes thoroughly.

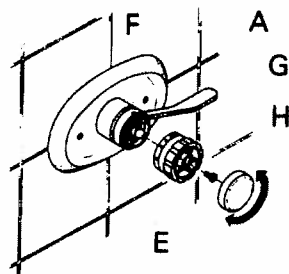
- Remove fitting template (Y), see fig. [6].
- Remove retaining circlip, lever (7) and body sleeve (8), see fold-out page II.
- Remove the two slotted screws and guide plate assembly (9), see fold-out page II.
- Screw out stop valves (B) and thermoelement cartridge (C), see fig. [8].
- Turn on cold and hot water stops, see fig. [7] **and flush the pipes thoroughly.**
- Shut off the cold and hot water stops again.
- Install stop valves, see fig. [8].
- Install guide plate assembly (9) and screw in position, see fold-out page II.
- Install thermoelement cartridge (C), see fig. [9].
- Install sleeve (8), see fold-out page II.
- Install escutcheon (3) without the screws (3.1).
- Install lever (7) in the full on position [9 o'clock] and retaining circlip, see fig. [6]. and fold-out page II.
- Turn the lever counter clockwise to full closed position [3 o'clock], see fig. [6].
- Slide on body sleeve (D) and push the temperature limit ring (E) onto the ridges of the thermoelement cartridge (C) in such a way that the marking point is upwards, see fig. [9].

English



[10]

- Rotate the escutcheon (3) 90° and turn on the hot and cold water stops, see fig. [10].
- Install the escutcheon (3) with the screws (3.1), see fold-out page II.
- Push on the thermostat handle (G) [the 100 °F mark should point the mark (F) on the temperature limit ring (E)], and screw it firmly into position, see fig. [11], the lever thermostat handle can be installed in four position. Choose the best position suitable for the end user.



[11]

If thermostat is installed too deep, the fitting depth can be increased by $1\frac{9}{16}$ " with extension set Part No. 47 329.

If the thermostat is installed too shallow, the fitting depth can be reduced by $1\frac{3}{16}$ " with a compensation ring Part No. 47 347 (see Replacement Parts, page 6, items 18 and 19).

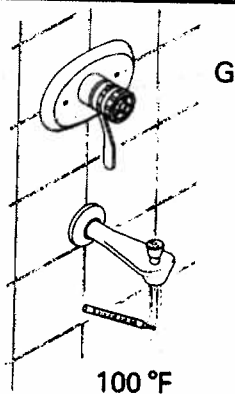
Temperature/Adjustment

- Before commissioning, if the temperature of the mixed water emerging from the mixer unit is different from that shown on the handle scale.
- After performing each routine maintenance.

Turn on the volume control lever, and measure the temperature of the water emerging, with the aid of a thermometer, see fig. [12].

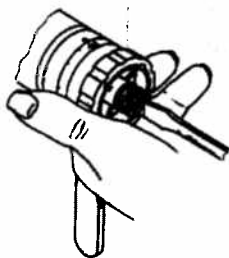
Turn the thermostat handle (G) until the flowing water has a temperature of 100 °F.

Hold the thermostat handle (G) firmly in this position, and loosen screw (H) two or three turns. Rotate the thermostat handle (G) so that the 100 °F marking on the handle lines up with mark (F) on the temperature limit ring (E). Hold the thermostat handle (G) firmly in this position, and retighten the screw (H), see fig. [13].



[12]

E F G H

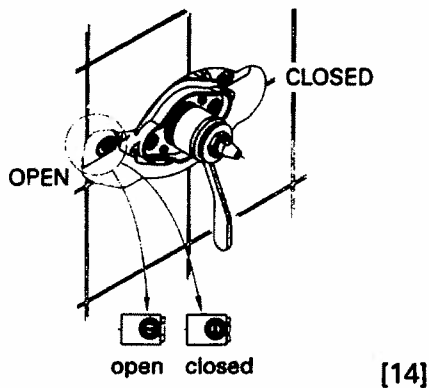


[13]

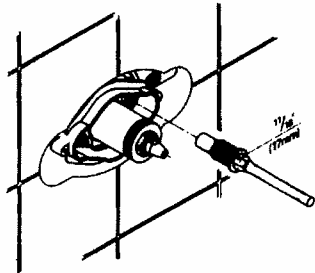
Temperature limit

When in proper calibration the temperature range is limited to 110 °F. There is a safety check at 100 °F. If a higher temperature is desired, one can exceed 100 °F by overriding the safety check.

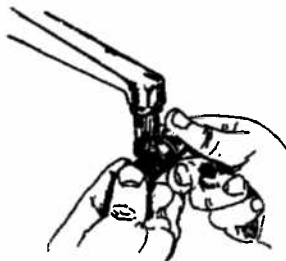
English



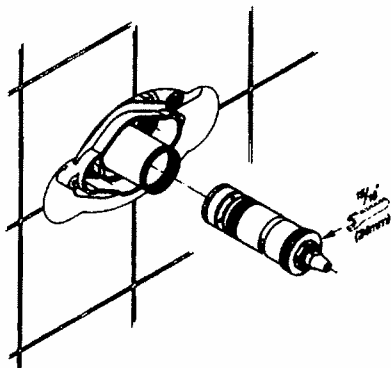
[14]



[15]



[16]



[17]

Maintenance

For maintenance, see figs. [14] to [17] and fold-out page II.

1. Take off the thermostat handle (1 or 2).
2. Take off the temperature limit ring (4).
3. Remove the screws (3.1) and rotate the escutcheon (3) 90°.
4. Shut off cold and hot water stops, see fig. [14].
5. Turn the lever (7) to the full open position clockwise [9 o'clock].
6. Remove retaining circlip, lever (7) and body sleeve (8).
7. Remove the two slotted screws and the guide plate assembly (9).
8. Unscrew and take out the stop valves (10) together with the dirt strainer and clean them, see figs. [15] and [16].
9. Unscrew and remove the thermoelement cartridge (6) using a slight up and down pulling movement, see fig. [17].

Check, clean and, if necessary, replace parts. Grease with special valve grease 18 012.

Installation is carried out in reverse sequence. Only original Grohe replacement parts may be used!

Temperature adjustment is necessary after each servicing of thermoelement, see Adjustment page 4.

Prevention of frost damage

When the domestic water system is drained, the thermostat mixers must be drained separately, since stop valves are installed in the hot and cold water connections.

The complete thermostat assembly and stop valves must be unscrewed and removed.

Replacement parts/Care

No.	Description	Cat. No.	Pack-aging unit	No.	Description	Cat. No.	Pack-aging unit
1	Thermostat handle	47 298	1	12	Service stop	47 051	2
1.1	Screw	02 426	2	12.1	Washer set stop	47 306	2
2	Lever thermostat handle	47 299	1	13	Twin ell (included with	03 671	1
3	Escutcheon with screws	47 293	1		tub and shower sets)		
3.1	Screw	02 413	1	14	Flange	06 388	1
4	Temperature limit ring	47 297	4	15	Diverter knob	46 007	1
5	Sleeve	03 620	1	15.1	Diverter cap	03 288	1
6	Thermoelement cartridge	47 111	1	16	Diverter set	45 166	1
6.1	O-ring	03 139	10	16.1	Diverter spindle O-Ring	01 283	20
6.2	O-ring	00 149	5	17	Flow regulator	45 167	1
6.3	O-ring	01 288	5	17.1	Flow regulator insert	02 350	10
7	Lever set	47 296	1				
8	Body sleeve	05 172	1				
9	Guide plate with threa- ded sleeve	47 044	1				
10	Stop valve complete	08 355	2		Optional accessories		
10.1	Washer set shut off valve	47 305	2	18	Extension 1 ³ / ₁₆ "	47 329	1
11	Plastic guard	08 224	1	19	Compensation ring 1 ³ / ₁₆ "	47 347	1

Subject to technical modification without notice.

Care

Instructions for care of this thermostat mixer will be found in the Limited Warranty supplement.

MAINTENANCE and SERVICE GUIDE 34.434

TROUBLE	CAUSE	REMEDY
<ul style="list-style-type: none"> Hot and cold water only, no control in-between. 	<ul style="list-style-type: none"> Hot and cold inlet supplies reversed. 	<ul style="list-style-type: none"> Reverse inlet supplies. Install 47.040 reverse cartridge.
<ul style="list-style-type: none"> Vibration from thermostat. 	<ul style="list-style-type: none"> Dirt strainers blocked. Pressure adjusting screw is out of adj. 	<ul style="list-style-type: none"> Clean dirt strainers. Re-adjust pressure adjust. screw.
<ul style="list-style-type: none"> Hot or cold water only. 	<ul style="list-style-type: none"> Pressure balance spool stuck. Handle setting is out of adjustment. 	<ul style="list-style-type: none"> Remove cartridge and release spool. Re-adjust temperature setting.

CLEANING DIRT STRAINERS

1. Turn handle to 100°F.
2. Remove Cap.
3. Unscrew center screw (CCW) to remove handle.
4. Pull-off limit ring. NOTE: Limit mark is up.
5. Remove screws and rotate plate 90°.
6. Turn "off" stops.

7. Turn lever to the full "on" position. NOTE: Lever will be replaced in this position.
8. Remove snap ring.
9. Remove volume lever assembly and sleeve.
10. Unscrew control plate screws (CCW) and pull-off control plate assembly.

11. Remove volume control assembly with a 11/16" (17mm) socket wrench.
12. Clean and rinse dirt strainers (replace screens as necessary).
13. Pull-out volume control piston. Check O rings.

LUBRICATE WITH GROHLUBE

RE-ASSEMBLE IN REVERSE ORDER

TO ELIMINATE VIBRATION

1. Turn handle to 100°F.
2. Remove Cap.
3. Unscrew center screw (CCW) to remove handle.
4. Pull-off limit ring. NOTE: Limit mark is up.

5. Turn water on so valve vibrates.
6. Loosen set screw.
7. Turn screw inside stem a little bit in/out until vibration stops.
8. Tighten set screw.
9. Re-assemble.
10. Set temperature.

set screw

SETTING OUTLET TEMPERATURE

1. Turn dial handle to obtain temperature of 100°F at showerhead or outlet with thermometer.

2. Remove handle cap.
3. While holding handle steady, loosen screw with screwdriver 2-3 turns (CCW), until handle is loose.
4. Turn Handle to 100°F, matching the outlet temperature.

5. Tighten screw while holding handle steady. NOTE: When tightening handle, temperature setting MUST not be altered.
6. Recheck outlet temperature with thermometer.
7. Install handle cap. Calibration is now complete.