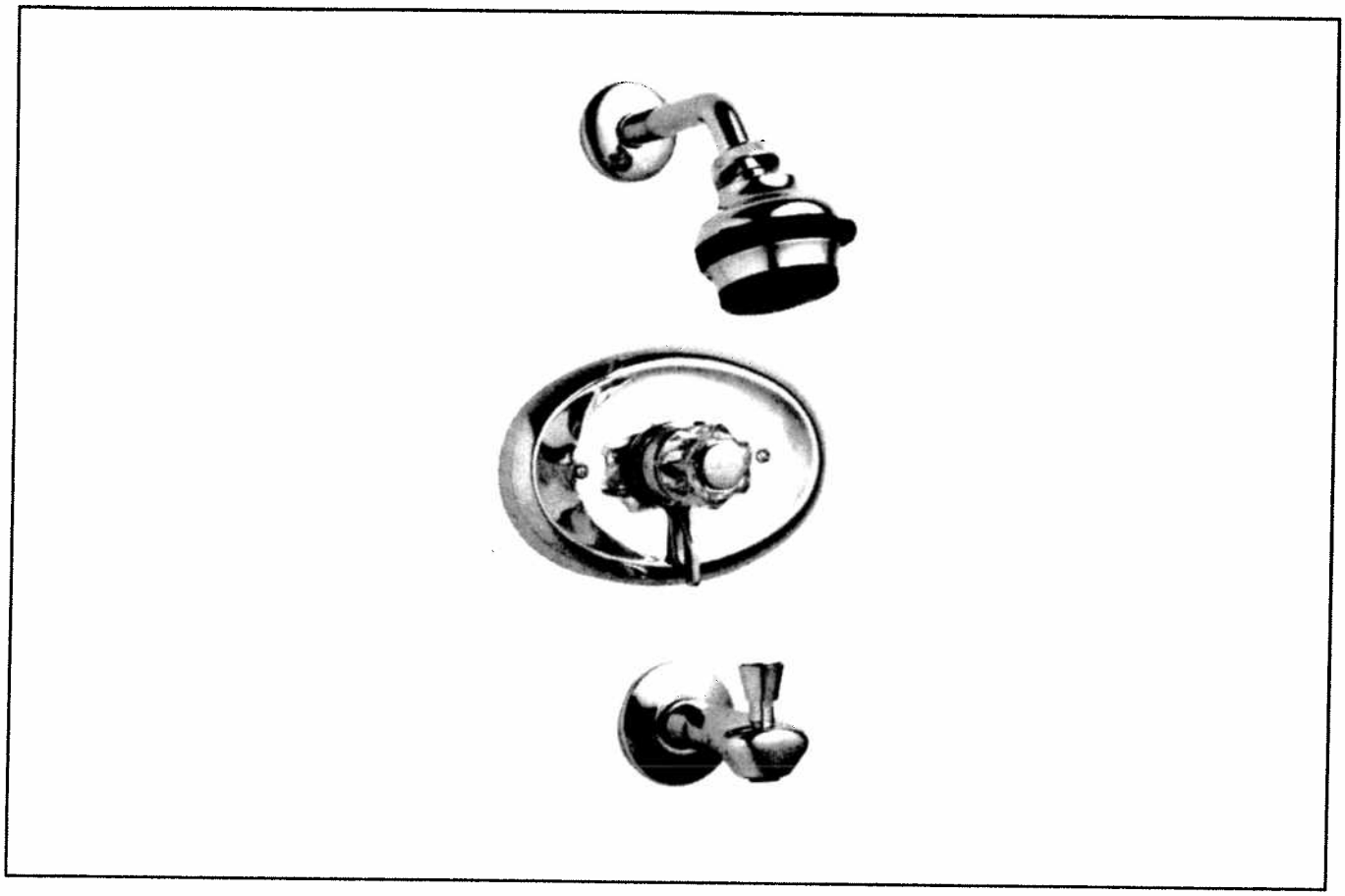
GROHE

Integrated Grohmix



34 434 and variants

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100% RECYCLABLE 100% RECYCLABLE
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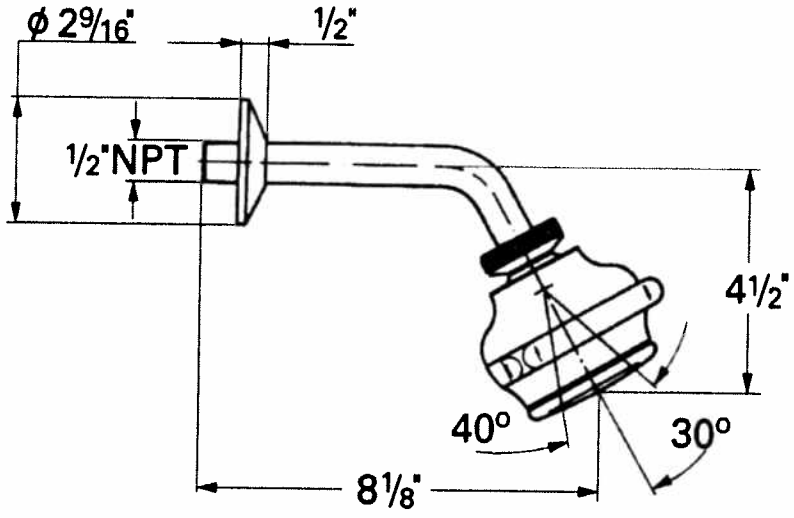
97.443.331/ÄM 20 898/01.95

Installation dimensions

27 412 + 28 451



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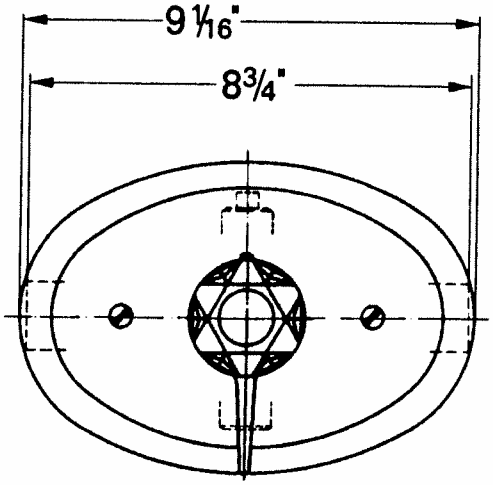

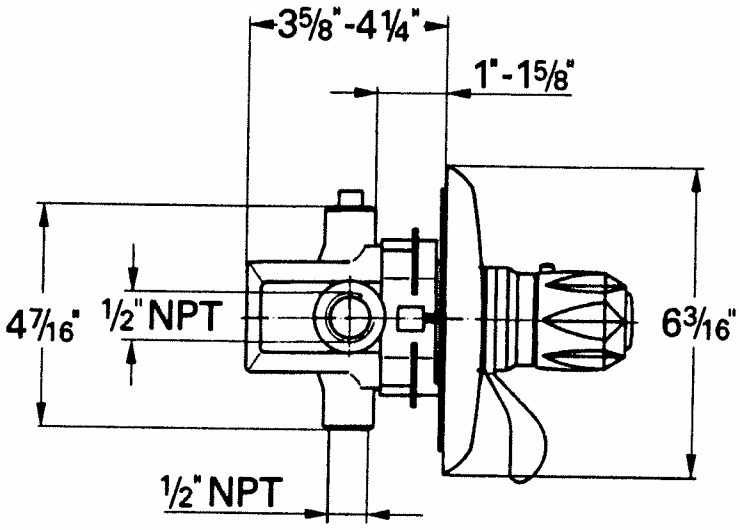

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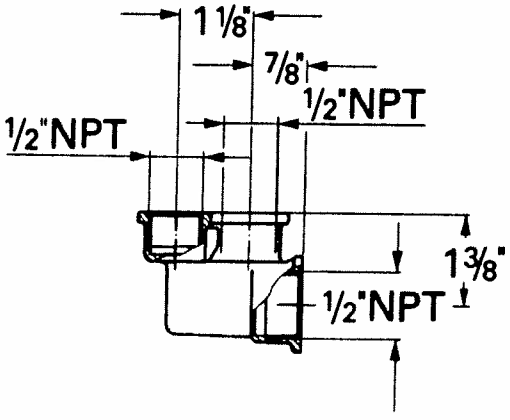

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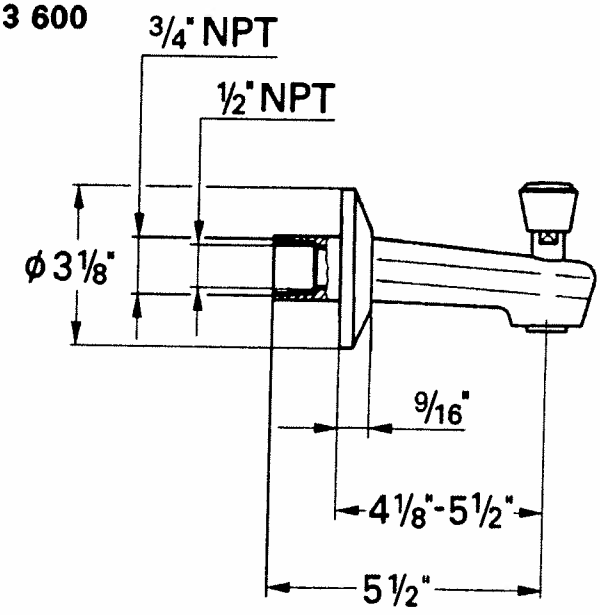
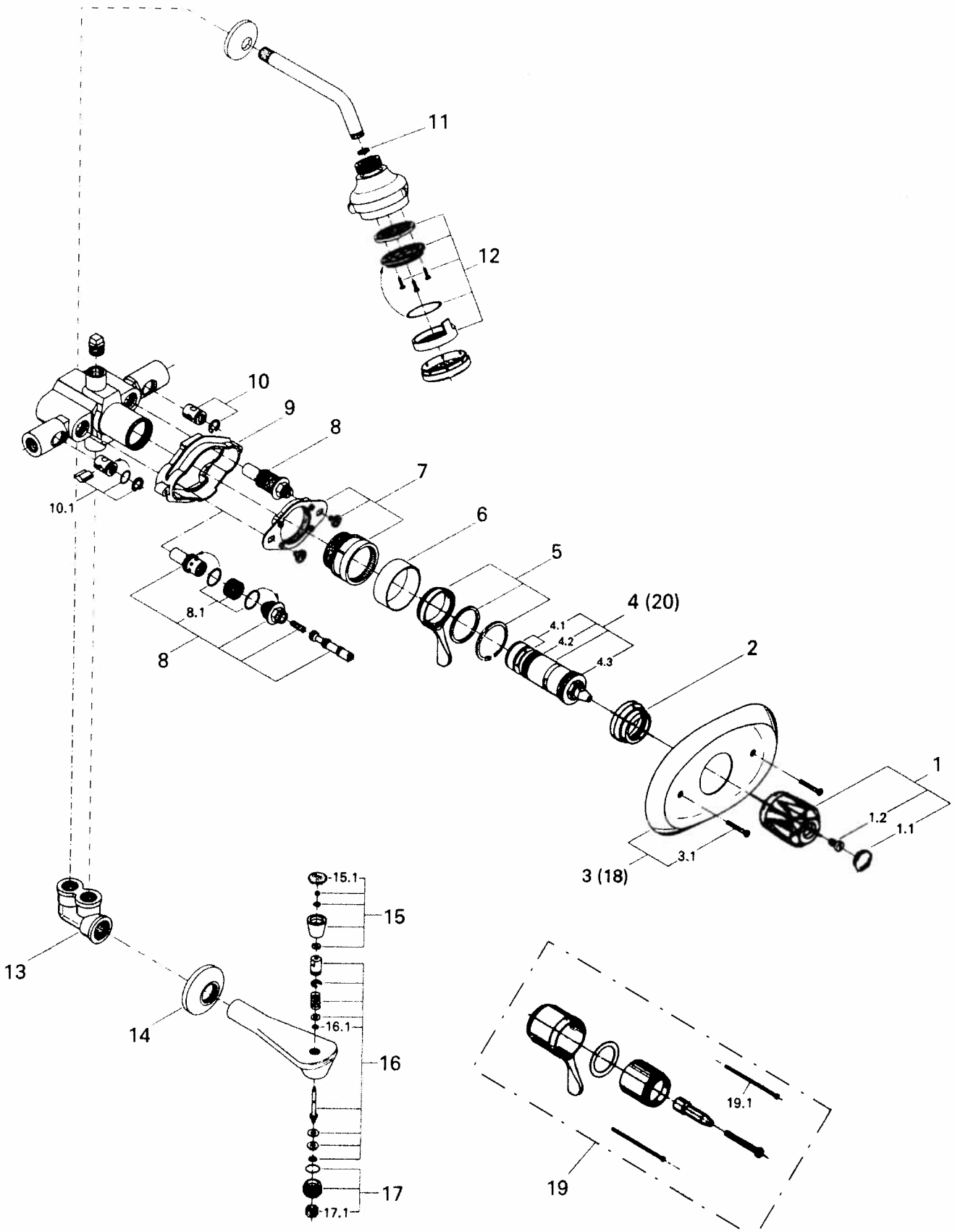
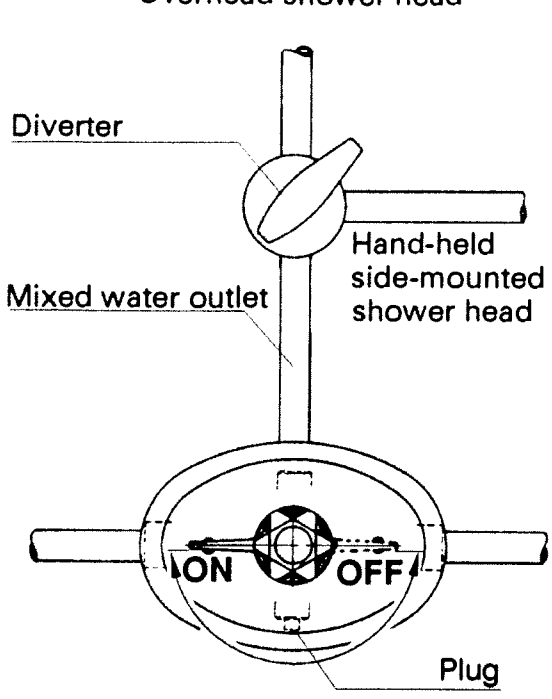
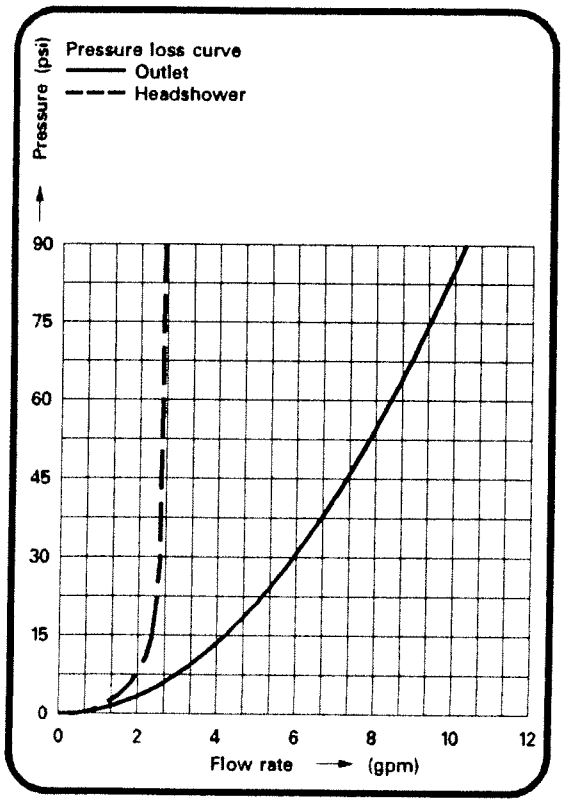


Replacement parts





①



②

Specification

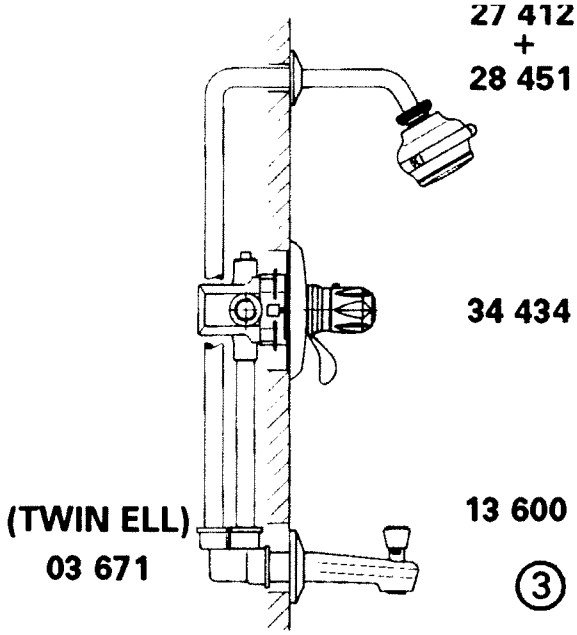
Application

Operation is possible in conjunction with:

- Concealed thermostat mixers are designed for hot water supply via pressurized storage heater and utilized in this way provide the best temperature accuracy. With sufficient power (from 18 kW or 250 Kcal/min) electric or gas instantaneous heaters are suitable.
- Thermostat **cannot** be used in connection with low pressure (displacement) storage heaters.
- All thermostats are adjusted in the plant at a flow pressure on both sides of 45 p.s.i.
- If temperature deviations should exist due to special installation conditions, then the thermostat is to be adjusted to the local conditions, see Adjustment page 4.

Specifications

- Flow pressure
  - min, without downstream resistances — 3 p.s.i.
  - min, with downstream resistances — 7 p.s.i.
  - recommended — 15 - 75 p.s.i.
  - greater than 90 p.s.i., fit pressure reducing valve
- Flow rate
  - min — ≥1.3 GPM
- Working pressure - max. — 150 p.s.i.
- Test pressure — 230 p.s.i.
- Flow delivery see fig. ②.
- Temperature
  - max. (hot water inlet) — 180 °F
  - recommended (economy setting) — 140 °F
  - Temperature range adjustable on the scale-marked handle — 60 - 130 °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
- Conncetion
  - Hot water connection -W-(-H-), left
  - Cold water connection -K-(-C-), right
  - If supplies are reversed, a reverse cartridge (47 040) is available.



③

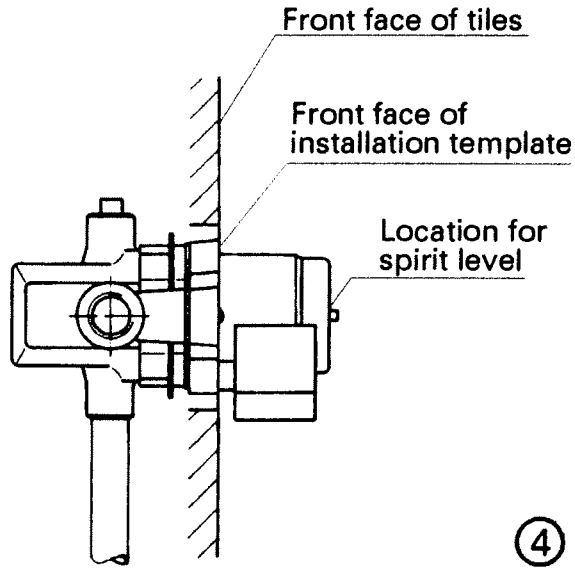
Rough installation

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

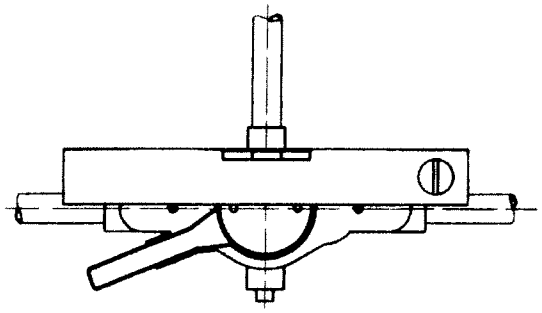
This valve has no by-pass annulus and therefore when used with diverter spout a **TWIN ELL MUST BE USED** see fig. ③.



④

The thermostat mixer should be positioned so that the template lines up with the front face of the tiles, see fig. ④.

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



⑤

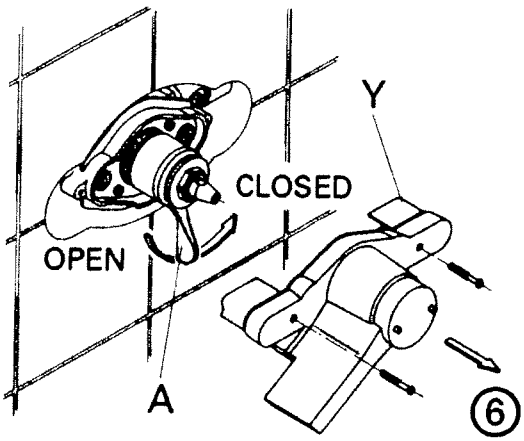
Important!

- **The hot water connection must be made on the left** (marked W (H) on the housing), **and the cold water connection on the right** (marked K (C) on the housing).
- Seal off the unused oulet by means of the threaded stopper plug.
- Check the pipework and the connections to the thermostat mixer for leaks.

The installation 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.

Remove installation template and turn service stops to the OFF Position, see fig. ⑦.

Replace installation template.



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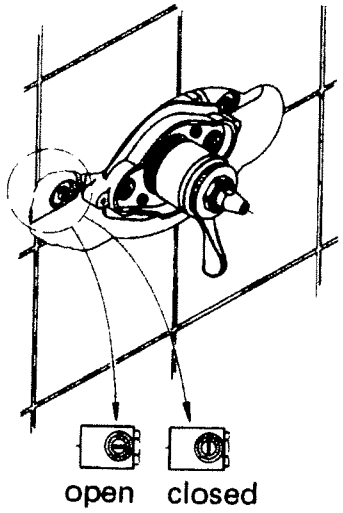

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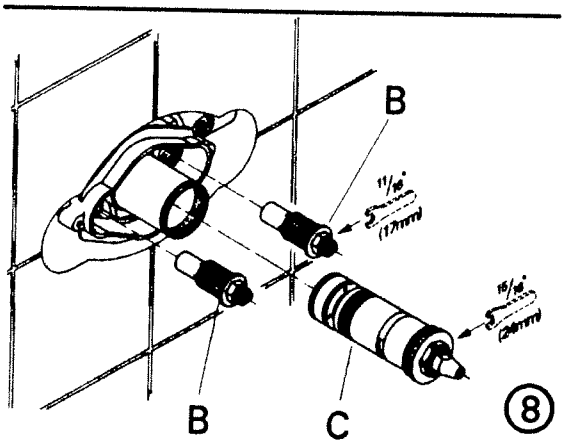

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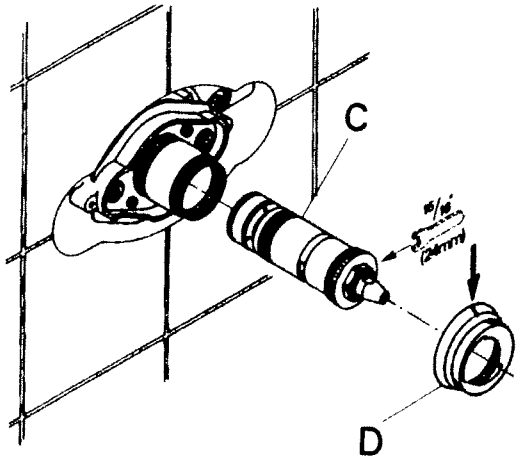


⑨

Finish installation

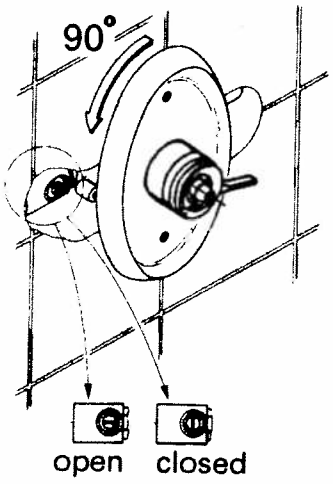
Plaster and tile the wall to finished condition, and seal the installation hole against splashwater.

- 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.

Before turning on the supplies, the installation template (Y) must be removed and the lever (A) control moved to the closed position to avoid a cross flow between cold and hot water pipes, see fig. ⑥.

Flush pipe lines thoroughly

- Shut off cold and hot water stops see fig. ⑦.
- Turn the lever (A) clockwise to its end-stop (thermostat open), see fig. ⑥.
- Remove retaining circlip, lever (5) and body sleeve (6), see fold out page II.
- Remove the two slotted screws and guide plate assembly (7).
- 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 by opening the stops.**
- Shut off the cold and hot water stops again.
- Install stop valves, see fig. ⑧.
- Install guide plate assembly (7) and screw in position.
- Install thermoelement cartridge (C), see fig. ⑨.
- Install escutcheon (3) without the screws (3.1).
- Install sleeve (6), lever (5) and retaining circlip.
- Turn the lever, fully counter clockwise (closed), see fig. ⑥.
- Push the temperature limit ring (D) onto the ridges of the thermoelement cartridge (C) in such a way that the marking point is upwards, see fig. ⑨.



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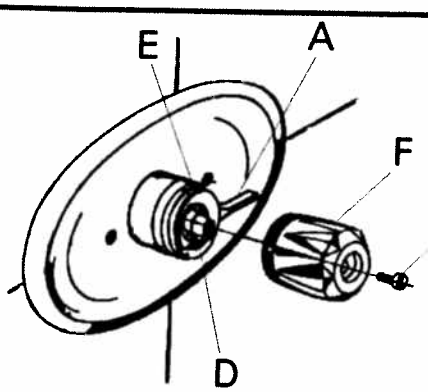

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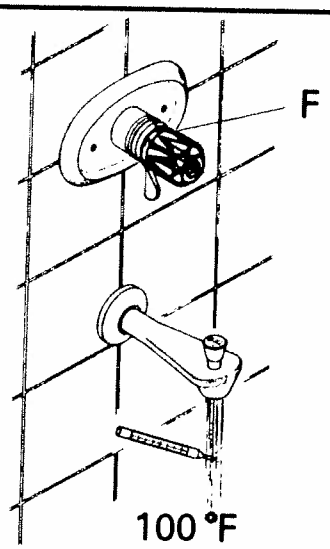

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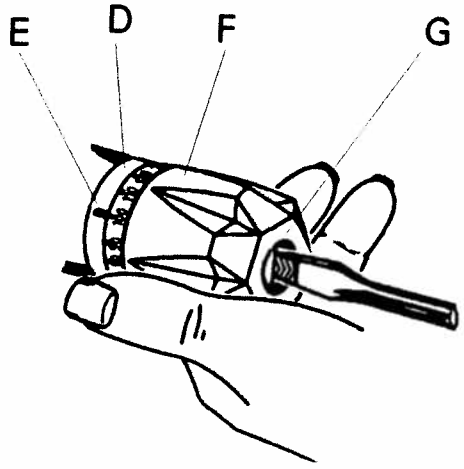


⑬

- Rotate the escutceon (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.

If the thermostat is not installed deep enough, escutcheon **47.001** can be used to compensate for this up to a maximum of 1 ⅜", see fold out page II item 18.

If the thermostat is installed to deep, it can be extended by up to 1 ½" max. by the use of the extension kit **07 038**, see fold out page II item 19.

- Push on the scale handle (F) [the 100 °F mark should point the mark (E) on the temperature limit ring (D)], and screw it firmly into position, see fig. ⑪.

Caution in case of danger of freezing

When draining the system, the thermostat must be drained separately as there are stop valves in the cold and hot water connection. The complete thermostat cartridge and stop valves must be removed.

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.

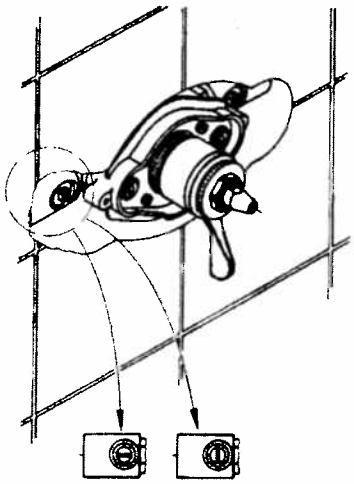
Turn on the faucet, and measure the temperature of the water emerging, with the aid of a thermometer, see fig. ⑫.

Turn the scale handle (F) until the emerging stream of water has a temperature of 100 °F.

Hold the scale handle (F) firmly in this position, and undo screw (G) by two or three turns. Loosen the scale handle (F) and push it back on in such a position that the 100 °F marking on the handle lines up with the pointer mark (E) on the temperature limit ring (D). Hold the scale handle (F) firmly in this position, and retighten the screw (G), see fig. ⑬.

Temperature limit

The temperature range is limited to 100 °F by means of the safety check. If a higher temperature is desired, one can exceed the 100 °F limit by pressing in the red safety check.



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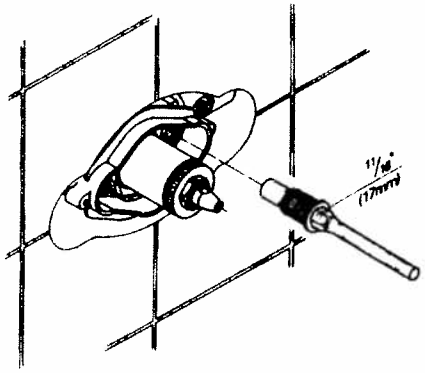

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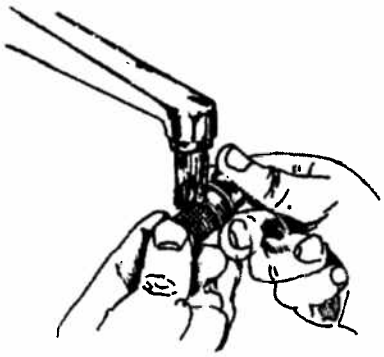

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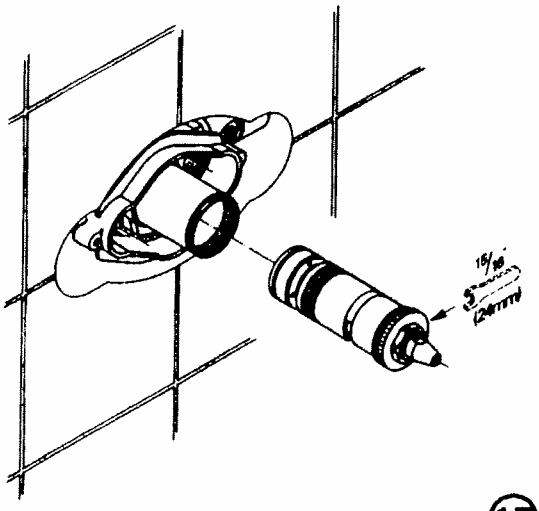


(17)

Maintenance / Care

For maintenance see fold-out page II

1. Take off the scale-marked handle (1).
2. Take off the temperature limit ring (2).
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 (5) fully open position clockwise.
6. Remove retaining circlip, lever (5) and body sleeve (6).
7. Remove the two slotted screws and the guide plate assembly (7).
8. Unscrew and take out the stop valves (8) together with the dirt strainer and clean them, see figs. (15) and (16).
9. Unscrew and remove the thermoelement cartridge (4) 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 **Friedrich Grohe** replacement parts may be used!

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

Care

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

Replacement parts

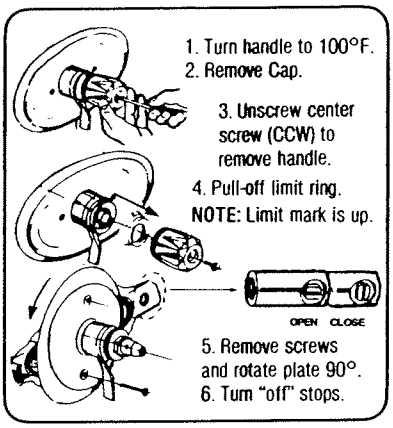
No.	Description	Cat. No.	Packaging unit	No.	Description	Cat. No.	Packaging unit
1	Handle complete	08 350	1	11	Washer	01 389	10
1.1	Handle cap	03 114	1	12	Shower rose kit	45 101	1
1.2	Screw	02 426	2	13	Twin ell	03 671	1
2	Temperature limit ring	03 764	1	14	Flange	06 388	1
3	Escutcheon with screws	08 367	1	15	Diverter knob	46 007	1
3.1	Screw	02 414	4	15.1	Diverter cap	03 288	1
4	Cartridge ½"	47 111	1	16	Diverter set	45 166	1
4.1	O-ring	03 139	10	16.1	Diverter spindle O-ring	01 283	20
4.2	O-ring	00 149	5	17	Flow regulator	45 167	1
4.3	O-ring	01 288	5	17.1	Flow regulator insert	02 350	10
5	Lever set	47 036	1				
6	Body sleeve	05 172	1		Optional accessories		
7	Guide plate with threa-	47 044	1	18	Escutcheon with screws	47 001	1
	ded sleeve				to compensate for		
8	Stop valve complete	08 355	2		shallow installation		
8.1	Washer set shut off valve	47 305	2	19	Extension kit	07 038	1
9	Plastic guard	08 224	2	19.1	Extension screw	02 697	2
10	Stop	47 051	2	20	Reverse cartridge	47 040	1
10.1	Washer set stop	47 306	2				

Subject to technical modification without notice.

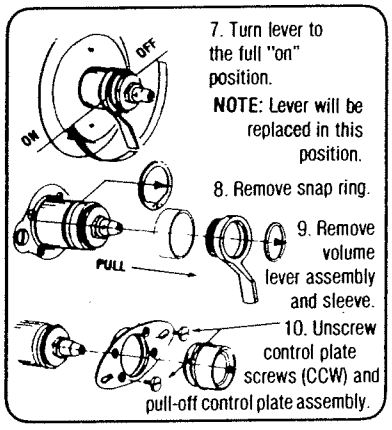
MAINTENANCE and SERVICE GUIDE 34.434

TROUBLE	CAUSE	REMEDY
• Hot and cold water only, no control in-between.	• Hot and cold inlet supplies reversed.	• Reverse inlet supplies. • Install 47.040 reverse cartridge.
• Vibration from thermostat.	• Dirt strainers blocked. • Pressure adjusting screw is out of adj.	• Clean dirt strainers. • Re-adjust pressure adjust. screw.
• Hot or cold water only.	• Pressure balance spool stuck. • Handle setting is out of adjustment.	• Remove cartridge and release spool. • Re-adjust temperature setting.

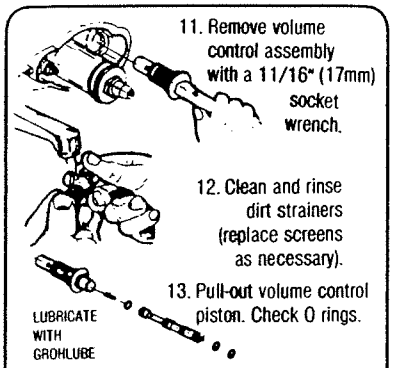
CLEANING DIRT STRAINERS



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.



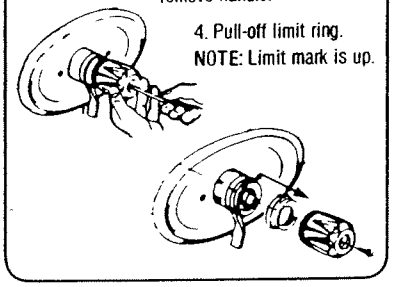
7. Turn lever to the full "on" position.
NOTE: Lever will be replaced in this position.
8. Remove snap ring.
9. Remove volume lever assembly and sleeve.
10. Unscrew control plate screws (CCW) and pull-off control plate assembly.



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.

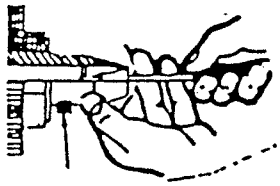
RE-ASSEMBLE IN REVERSE ORDER

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.

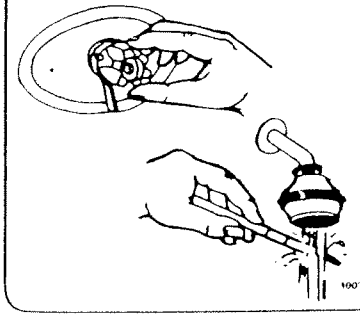
5. Turn water on so valve vibrates.
6. Loosen set screw.
7. Turn screw inside stem a little bit in/out until vibration stops.
8. Tighten set screw.
9. Re-assemble.
10. Set temperature.



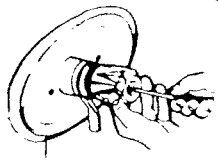
set screw

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.