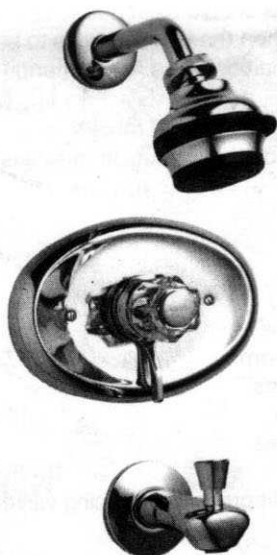


GROHE AMERICA

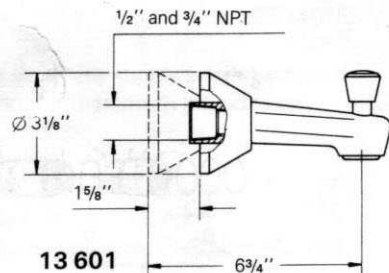
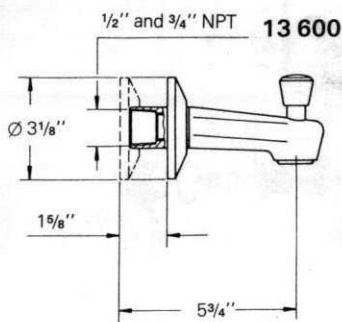
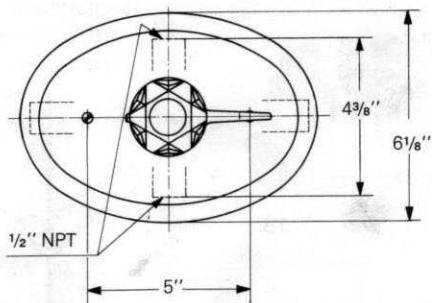
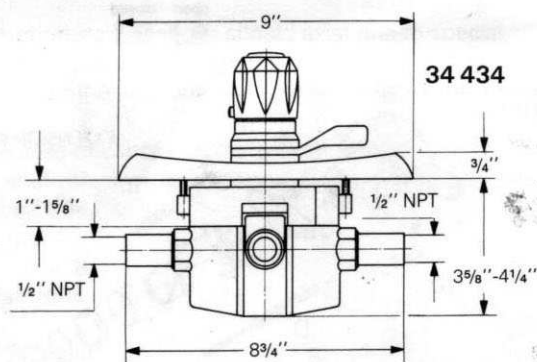
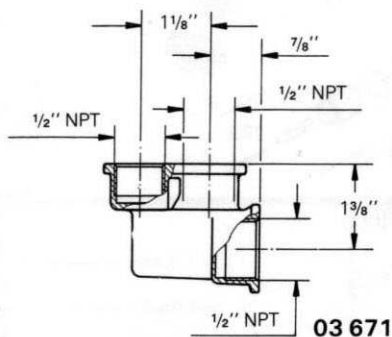
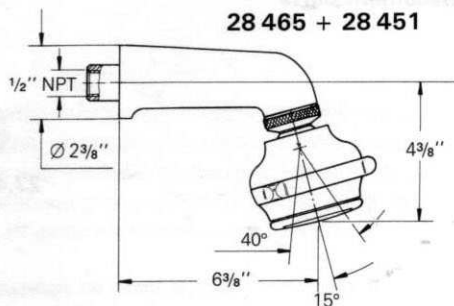
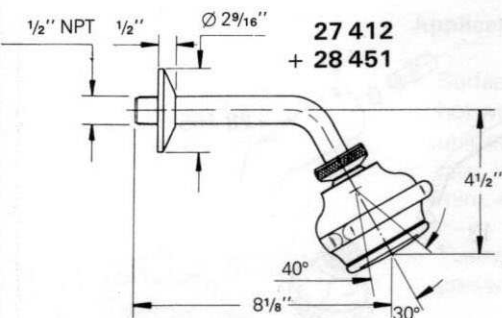


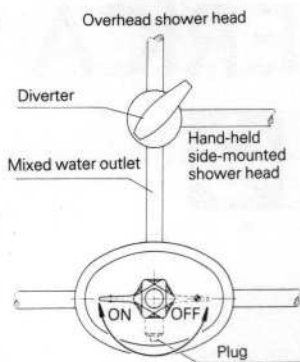
Integrated Grohmix 34 434 and variants

Technical Product Information



Installation dimensions





①

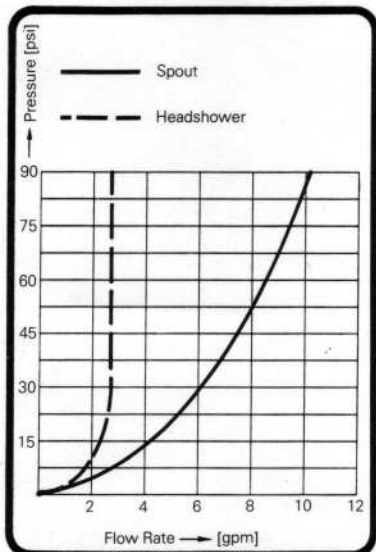
Specification

Application

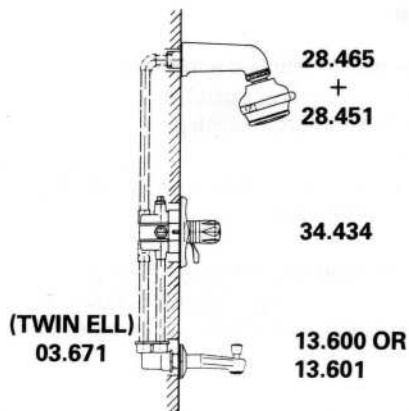
- Surface mounted thermostat mixers are designed for hot water supply via pressurized storage heater and utilized in this way provide the best temperature accuracy. With sufficient power (from 18 kW or 250 Kcal/min). electric or gas instantaneous are suitable.
- Thermostat **cannot** be used in connection 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).
- In the case of concealed thermostat mixers with shut-off valve, an additional shut-off device is only required if so desired.

Specifications

- Flow pressure
 - min, without downstream resistances 7 p.s.i.
 - min, with downstream resistances 15 p.s.i.
 - recommended 15-75 p.s.i.
 - greater than 90 p.s.i., fit pressure reducing valve
- Flow rate
 - min ≥ 2 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 60-140° F.
 - Safety stop 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 –), left
 - Cold water connection – K – (– C –), right
 - If supplies are reversed, a reverse Cartridge (47.040) is available.



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 mixers on the wall and connect to pipe lines, see fig. ③ and fold out page I (Installation dimensions).

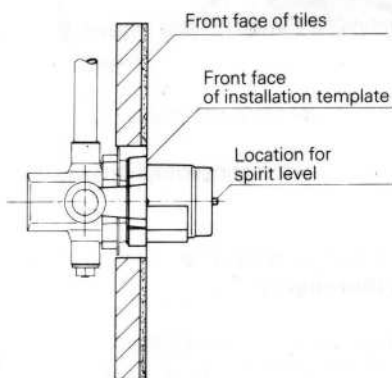
Important

This valve has no by-pass annulus and therefore when used with diverter spout a

TWIN ELL MUST BE USED see fig. ③.

③

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



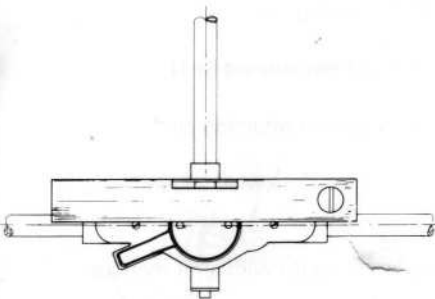
④

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

Important!

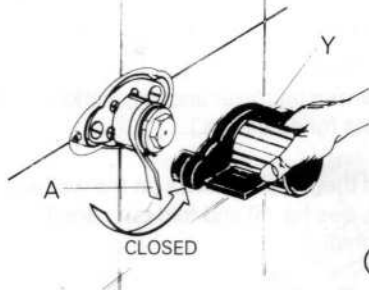
- **The hot water connection must be made on the left** (marked W (H) on the housing), **and the cold water connection on the right** [marked K (C) on the housing].
- Seal off the unused outlet by means of the threaded stopper plug.
- Check the pipework and the connections to the thermostat mixer for 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, and will be emptied when emptying the system because of risk of frost. Do **not** remove the installation template until the finish installation.



⑤

Finish installation

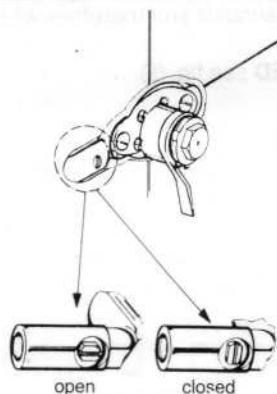


⑥

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

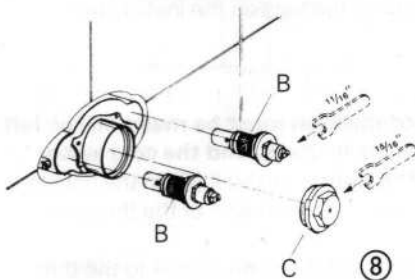
Before turning on the supplies, the installation template (Y) must be removed and the lever (A) control moved to avoid a cross flow between cold and hot water pipes, see fig. ⑥.

Flush pipe lines thoroughly



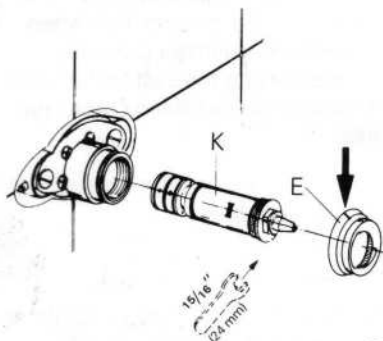
⑦

- Shut off cold and hot water stop see fig. ⑦.
- Turn the lever (A) clockwise to its end-stop (thermostat open), see fig. ⑥.
- Remove retaining circlip (5.1), lever (5) and sleeve (6) see fold out page II.
- Remove six screws and guide plate assembly (7).
- Screw out check valves (B) and plastic protection plug (C) see fig. ⑧.



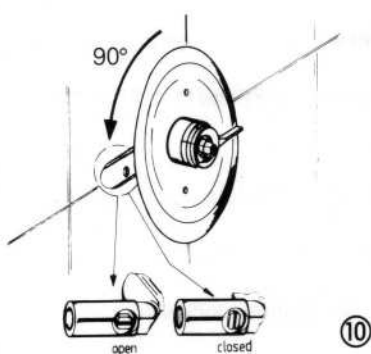
⑧

- Turn on cold and hot water supplies, see fig. ⑦ **and flush the pipes thoroughly.**
- Shut off the cold and hot water supplies again.
- Install check valves see fig. ⑧.
- Install guide plate assembly (7) and screw in position.
- Fit thermoelement (K), see fig. ⑨.



⑨

- Install rosette (3) without the screws (3.1).
- Install sleeve (6), lever (5) and retaining circlip (5.1).
- Turn the lever, fully counter clockwise (closed), see fig. ⑥.
- Install temperature limit ring (E) with limit mark up, see fig. ⑨.

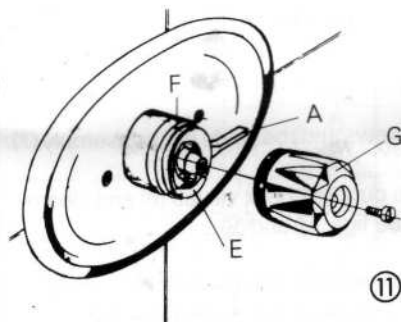


- Rotate the rosette (3) 90° and turn on the hot and cold water supplies see fig. 10.
- Fix the rosette (3) with the screws (3.1).

If the thermostat is installed too deep, it can be extended by up to 1½" max. by the use of Extension Kit 07.038, see fold out page II item 12.

If the thermostat is not installed deep enough, Rosette 47.001 can be used to compensate for this up to a maximum of 1⅜", see fold out page II item 22.

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



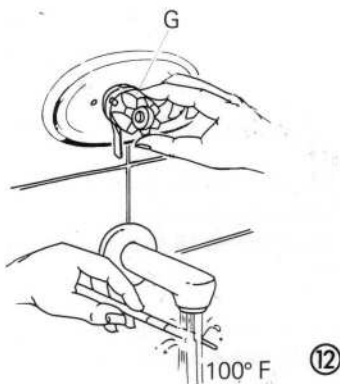
Caution in case of danger of freezing

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

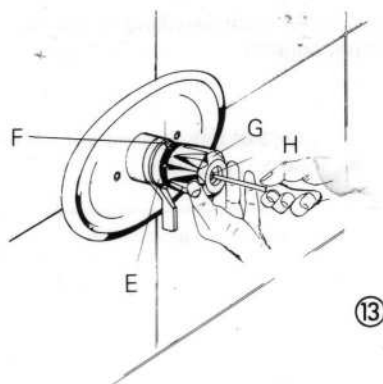
Temperature/Adjustment

- 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. With the safety stop pushed in, turn the scale handle (G) until the emerging stream of water has a temperature of 100° F.



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

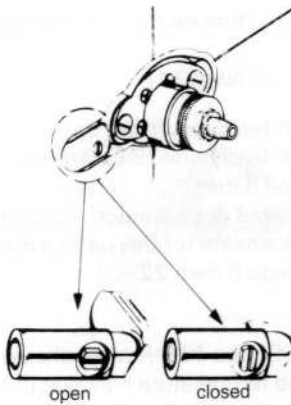


Temperature limit

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.

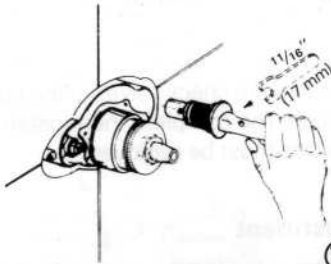
Maintenance / Care

For maintenance see fold-out page II

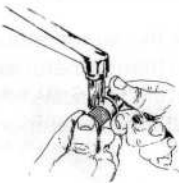


14

1. Take off the scale-marked handle (1).
2. Take off the temperature limit ring (2).
3. Turn the lever (5) fully counter clockwise.
4. Remove retaining circlip (5.1), lever (5) and sleeve (6).
5. Remove the screws and take off the rosette (3).
6. Shut off cold and hot water stops, see fig. 14.
7. Remove the six screws and the guide plate assembly (7).
8. Unscrew and take out the check valves (8) and clean the dirt strainer, see figs. 15 and 16.
9. Unscrew and remove the thermoelement (4) using a slight up and down pulling movement, see fig. 17.



15



16

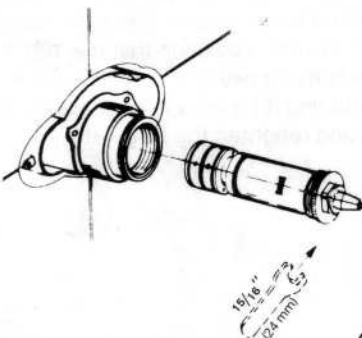
Check, clean and, if necessary, replace parts. Grease with special valve grease **18.012**, but not the pressure balance spool.

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

Adjustment is necessary after each servicing of thermoelement (see Adjustment page 4).

Care

Please read instructions for care of this thermostat mixer contained in the attached instruction sheet.



17

Replacement parts

Specification Page Nos.					Technical Product Information			
DRG REF	DRG REF	DRG REF	DRG REF	5-2 DRG REF	DRG REF	Description	Cat. No.	Packing unit
				1	1	Handle Complete	08.350	1
				1.1	1.1	Handle Cap	03.114	1
				1.2	1.2	Screw	02.426	5
				2	2	Temperature limit Ring	03.764	1
				3	3	Escutcheon with Screws	08.367	1
				3.1	3.1	Screw	02.414	2
				4	4	Cartridge	47.041	1
				4.2	4.2	Cartridge Cap O—Ring	01.288	10
				4.3	4.3	Cartridge Body O—Ring	03.139	10
				D	D	Complete Washer Set	47.052	1
				5	5	Lever Set	47.036	1
				5.1	5.1	Retaining Circlip	03.668	1
				6	6	Body Sleeve	05.172	1
				7	7	Guide Plate with Threaded Sleeve	47.044	1
				8	8	Check Valve, Complete	08.355	1
				9	9	Plastic Guard	08.224	1
				10	10	Stop	47.051	1
				11	11	Reverse Cartridge (Opt.)	47.040	1
				12	12	Extension Kit (Opt.)	07.038	1
				12.1	12.1	Extension Screw (Opt.)	02.697	2
					13	Washer	01.389	10
					14	Screw and O-Ring	45.137	1
					15	Shower Rose Kit	45.101	1
					16	Twin Ell	03.671	1
					17	Flange	06.389	1
					18	Flange	06.388	1
					19	Diverter Knob	46.007	1
					19.1	Diverter Cap	03.288	1
					20	Diverter Set	45.166	1
					20.1	Diverter Spindle O-Ring	01.283	20
					21	Flow Regulator	45.167	1
					22	Escutcheon with Screws to compensate for Shallow installation (Opt.)	47.001	1

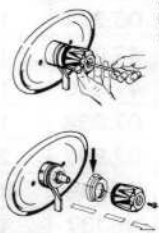
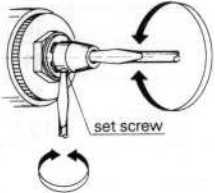
Subject to technical modifications without notice.

GROHE America Inc.
900 North Lively Boulevard
Wood Dale,
IL 60191


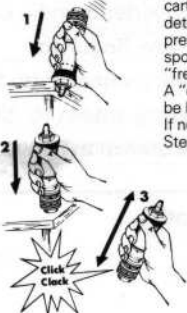

Maintenance and Service

Trouble	Cause	Remedy
● Hot and cold water only, no control in between.	● Hot and cold inlet supplies reversed.	● Reverse inlet supplies or ● Install 47.040 reverse cartridge.
● Vibration from thermostat.	● Dirt strainers blocked. ● Pressure adjusting screw is out of adjustment.	● 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 (see Page 4).

To eliminate vibration

<ol style="list-style-type: none"> 1. Turn handle to 100° F. 2. Remove Cap. 3. Unscrew center screw (CCW) to remove handle. 4. Pull-off limit ring. <p>NOTE: Limit mark is up.</p> 	<ol style="list-style-type: none"> 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. Adjust temperature (see Page 4). <p>Note: The normal setting of the screw inside stem is to fully close (cw) and to release 1 1/4 turns (ccw)</p> 
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To free pressure balance spool

 <ol style="list-style-type: none"> 1. Turn handle to 100° F. 2. Remove handle and temperature limit ring. 3. Remove screws and rotate rosette through 90°. 4. Turn off supply stops. 5. Unscrew and remove the thermoelement (1 5/16"/24 mm wrench). Use a slight up and down pulling movement to remove. 	 <ol style="list-style-type: none"> 6. Invert or shake cartridge to determine if pressure balance spool is moving "free". A "click" should be heard. If not, perform Step No. 7. 	 <ol style="list-style-type: none"> 7. Remove pressure balance valve by unscrewing rear section (cw), unwind rear clip and push out spool. Clean or remove any blockage! Do not lubricate! (See also fold out page II) 8. Reassemble in reverse order. 9. Adjust temperature (see page 4).
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