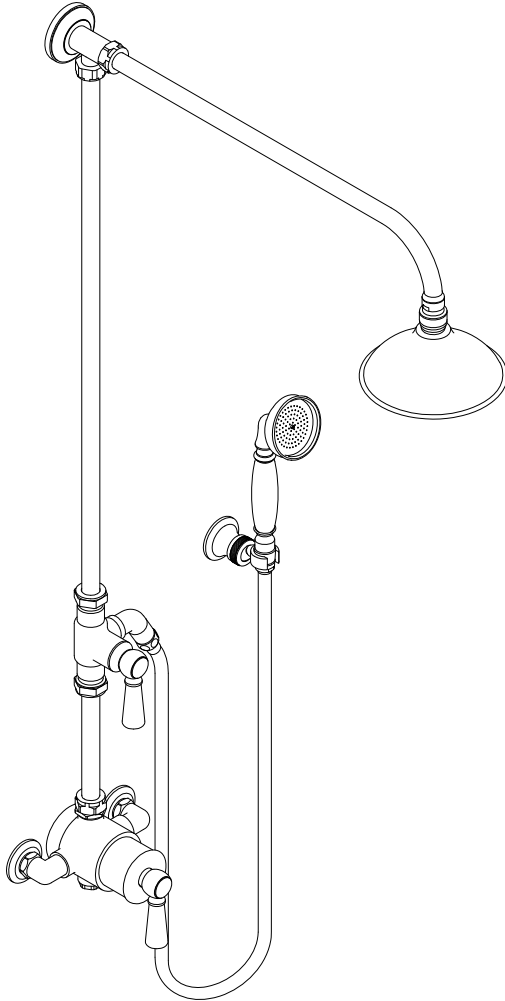


STYLE No. HGXS70 (Thermostatic System)**STYLE No. HGHS30** (Diverter with Handshower)**SPECIFICATIONS:****RDXS70:**

Inlet Connection Size: ½"

Inlet Connection Type: Compression

Inlet Connection Spread: 5½" (NOT ADJUSTABLE)

Maximum Water Pressure: 80psi

Minimum Water Pressure: 20psi

Recommended Water Pressure: 45psi

Restricted Maximum Flow Rate: 2gpm

RDHS30:

Restricted Maximum Flow Rate: 2gpm

IMPORTANT:

- To ensure this product is installed properly, you must read and follow these guidelines.
- The owner/user of this product must keep this information for future reference.

- Be sure your installation conforms to all federal, state, and local codes. In the State of Massachusetts, all installations must comply with the rules and regulations set forth within 248 CMR.
- This product must be installed by a professional licensed contractor. The risk of scalding exists until the installer has properly calibrated/ adjusted the temperature setting.
- Product should be on-site prior to rough-in. This allows the installer to visualize the installation and verify the inlet connection spread.
- Refer to the specification and assembly drawings attached. Product is sold partially assembled but shown fully disassembled for illustrative and service purposes only.
- Inspect this product to ensure you have all parts required for proper installation.
- Use only a strap wrench or protected/smooth-jaw wrench on any finished surface.
- Run ½" copper supply lines for maximum flow and install accessible hot and cold service stop valves to facilitate servicing.

ROUGH-IN:

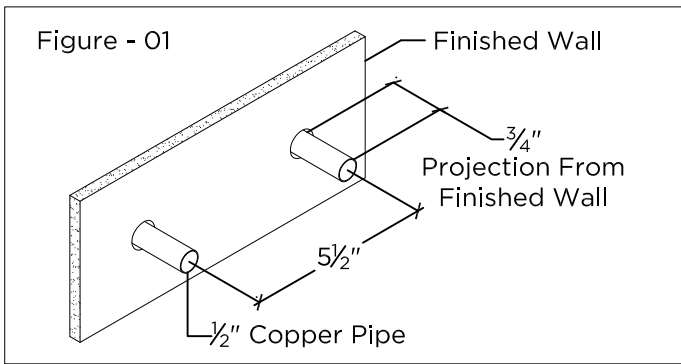
1. Run well supported ½" hot and cold copper supply lines for maximum water flow. The inlet supply spread is 5½" on-center and is NOT ADJUSTABLE.
2. Determine the ideal location of the valve (29) based on user preference and taking into consideration ceiling clearance and proper shower head height. The riser (53) and shower arm (58) can be cut as needed. Install adequate blocking to properly secure the valve body mounting plate (38) and the elbow (56) that connects the riser and shower arm.
3. Verify the supplies are secure, level, at the proper spread of 5½" and equal depths. Cap off the supplies and check for leaks.

VALVE INSTALLATION:

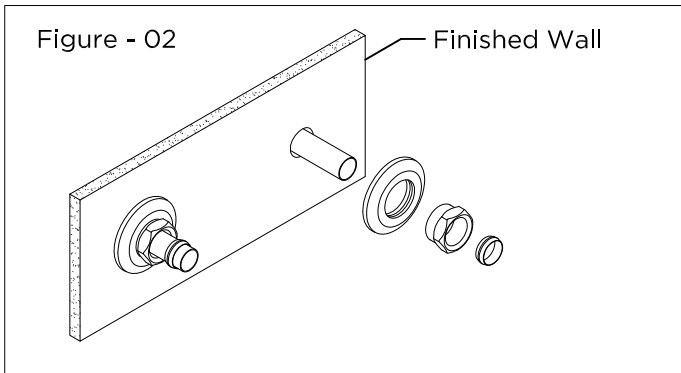
- Verify the 5½" inlet supply spread prior to installation.
4. Cut the supply lines so they extend ¾" past the surface of the finished wall. See Figure - 01.
 5. Turn on the water to flush out the supply lines.
 6. Unthread and remove the compression nuts (48) and compression rings (47) from the elbows(45).

These guidelines have been prepared for the professional contractor to aid in the installation of:
HIGHGATE EXPOSED THERMOSTATIC SYSTEM WITH 6" SHOWER ROSE AND WHITE PORCELAIN LEVER HANDLE (STYLE No. HGXS70) AND
HIGHGATE HANDSHOWER WITH DIVERTER AND WHITE PORCELAIN HANDLE (STYLE No. HGHS30).
 All dimensions are based on origin specification and are subject to change and variation.
 Please consult your Design Associate for current specifications.

WATERWORKS
STUDIO



- Slide 1 escutcheon (49-51), compression nut and compression ring onto each copper supply. See Figure - 02.

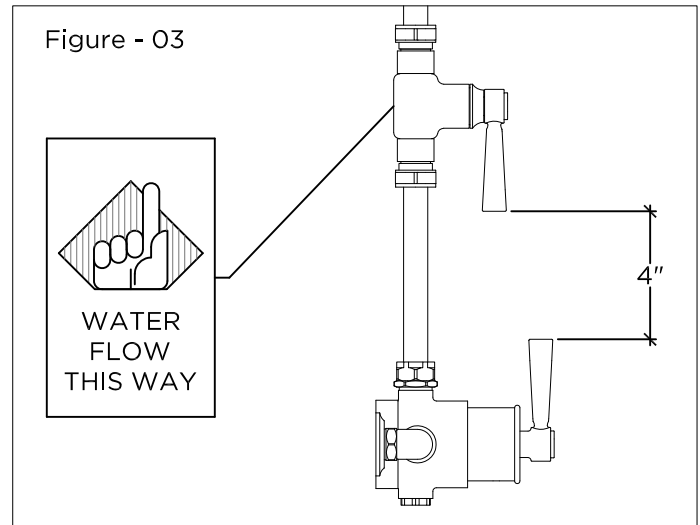


- Ensure that a filter screen (46) is installed in the inlet of each elbow (45).
- Thread each elbow into the valve body (29) until it stops, then unthread it enough so it will be aligned with the supplies. Note: The elbow seal is created by the o-ring (44) and **NOT** by fully tightening the elbow into the valve body.
- Position the valve assembly onto the supplies until they are fully seated in the elbows. If there is a gap between the surface of the finished wall and valve mounting plate (38), cut the supplies.
- With the valve assembly and mounting plate against the wall, mark its location so the plate can be secured.
- Pull the valve assembly off of the supplies and then loosen the set screw (12) on the mounting plate (38) and remove the plate.
- Hold the plate against the wall in its proper location based on the marks made in Step 11 and then make a mark for each of the 2 holes at 9 and 3 o'clock.
- Drill 2 holes at the proper location and secure the mounting plate to the wall using the anchors (39) and screws (37) provided.

- Align the elbow (45) with the supplies and the valve body (29) with the mounting plate (38) and secure the valve body to the mounting plate by tightening the set screw (12).
- Remove the riser plug and thread the post (30,40) into the valve body.
- Complete final connections by tightening the compression nuts (48).

DIVERTER VALVE INSTALLATION (OPTIONAL):

- If a handshower will be installed, continue with Step 18; if not, continue with Steps 26:
- With the handshower elbow (83) pointing to the right in the 3 o'clock position, determine the proper height of the diverter (67-83): For comfortable operation of the levers, there should be a minimum 4" gap between the diverter handle (7-10,75) positioned at 6 o'clock and the valve handle (6-10) positioned at 12 o'clock. See Figure-03.



- Cut a piece of the riser (53) to make the connection between the valve and diverter. Make sure this piece is long enough to be inserted deep enough into the post (40) on the valve and the post (69) on the diverter (67) to assure a tight connection.
- Install the diverter. Make sure to install the diverter in the correct orientation as specified by the label shown in Figure - 03.
- Thread the check valve housing (85) onto the diverter elbow (83) making sure the washer (84) is installed at the connection.
- Determine the ideal location of the hook (99) and then drill a hole to accommodate the screw (96) provided.

These guidelines have been prepared for the professional contractor to aid in the installation of:
HIGHGATE EXPOSED THERMOSTATIC SYSTEM WITH 6" SHOWER ROSE AND WHITE PORCELAIN LEVER HANDLE (STYLE No. HGXS70) AND
HIGHGATE HANDSHOWER WITH DIVERTER AND WHITE PORCELAIN HANDLE (STYLE No. HGHS30).
 All dimensions are based on origin specification and are subject to change and variation.
 Please consult your Design Associate for current specifications.

WATERWORKS
STUDIO

23. Position the escutcheon (94) with the flat side facing the wall and post (95) then secure them using the screw (96).
24. Thread the hook (99) onto the post making sure the spring (97) and socket (98) are installed properly.
25. Thread the conical end of the hose (87) to the handshower (90) and the hex end of the hose to the check valve housing (85). NOTE: A flow regulating check valve (89) is located in the inlet of the handshower.

RISER AND SHOWER ARM INSTALLATION:

26. Dry-fit the riser (53) and shower arm (58) into the elbow (56) and valve post (40) or diverter valve post (69) to determine the ideal riser and shower arm lengths/location. Loosen the set screw (55) in the elbow, remove the mounting plate (57) and then secure the plate to the wall using the anchors (39) and screws (37) provided.
27. Install the riser and shower arm, secure the elbow to the mounting plate and tighten ALL compression nuts.
28. If desired, a bead of caulk or silicone may be applied where the escutcheon contact the wall.

CALIBRATE THE TEMPERATURE:

- The risk of scalding exists until the installer has properly calibrated the temperature setting.
29. Remove the indice (1,2) and remove the screw (4,5).
 30. Fully open the valve to HOT by rotating the handle (6-10) counter-clockwise. When rotated counter-clockwise, the valve sequence is: OFF-COLD-HOT.
NOTE: Water will flow out of the valve stem (19) during this step which is normal.
 31. With the valve all the way open and using a thermometer as a reference, set the upper temperature limit by inserting a small bladed screw driver into the valve stem (19) and rotate it counter-clockwise to increase the temperature and clockwise to decrease the temperature. You should feel steady resistance when turning the temperature limit stop screw (23).
 32. Turn the valve off and then on again to verify the temperature range; adjust as needed.
 33. Re-install the handle while making sure the o-ring (5) remains seated in the valve stem.

SHOWER HEAD INSTALLATION:

34. Install the swivel (30,46,60-65) and shower head (66) onto the shower arm (58). NOTE: There is a 2.0gpm flow restrictor (64) in the swivel.

INSPECT THE INSTALLATION:

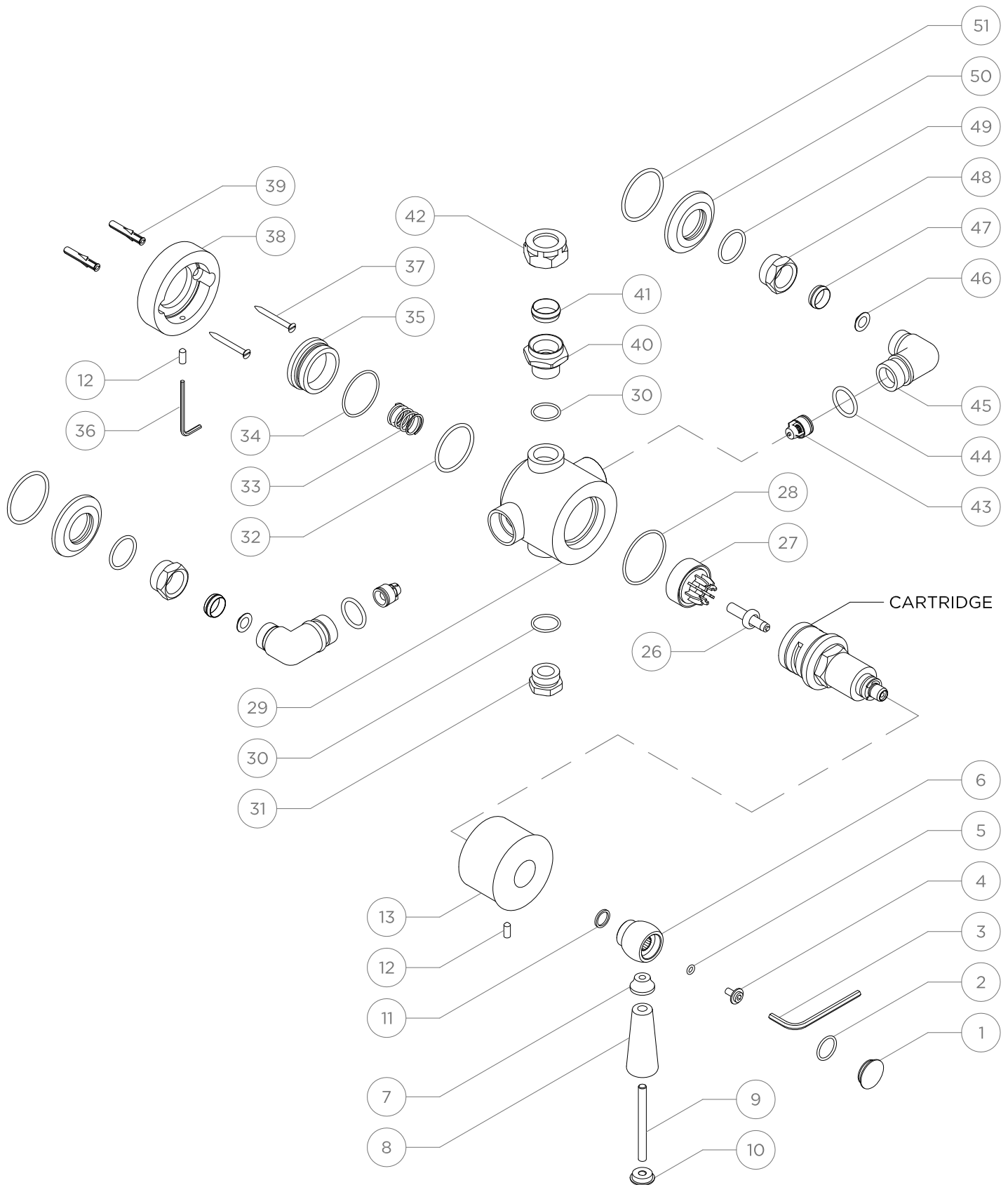
35. Operate the valve and make sure the diverter is operating properly.
- If further assistance is required, contact Product Support at 1-800-927-2120 (9am-6pm EST).

ADDITIONAL NOTES:

- To remove the handshower elbow (83): remove the set screw (81) to allow the cap (79) to rotate freely then rotate the cap to expose and remove the second set screw (80).

These guidelines have been prepared for the professional contractor to aid in the installation of:
HIGHGATE EXPOSED THERMOSTATIC SYSTEM WITH 6" SHOWER ROSE AND WHITE PORCELAIN LEVER HANDLE (STYLE No. HGXS70) AND
HIGHGATE HANDSHOWER WITH DIVERTER AND WHITE PORCELAIN HANDLE (STYLE No. HGHS30).
 All dimensions are based on origin specification and are subject to change and variation.
 Please consult your Design Associate for current specifications.

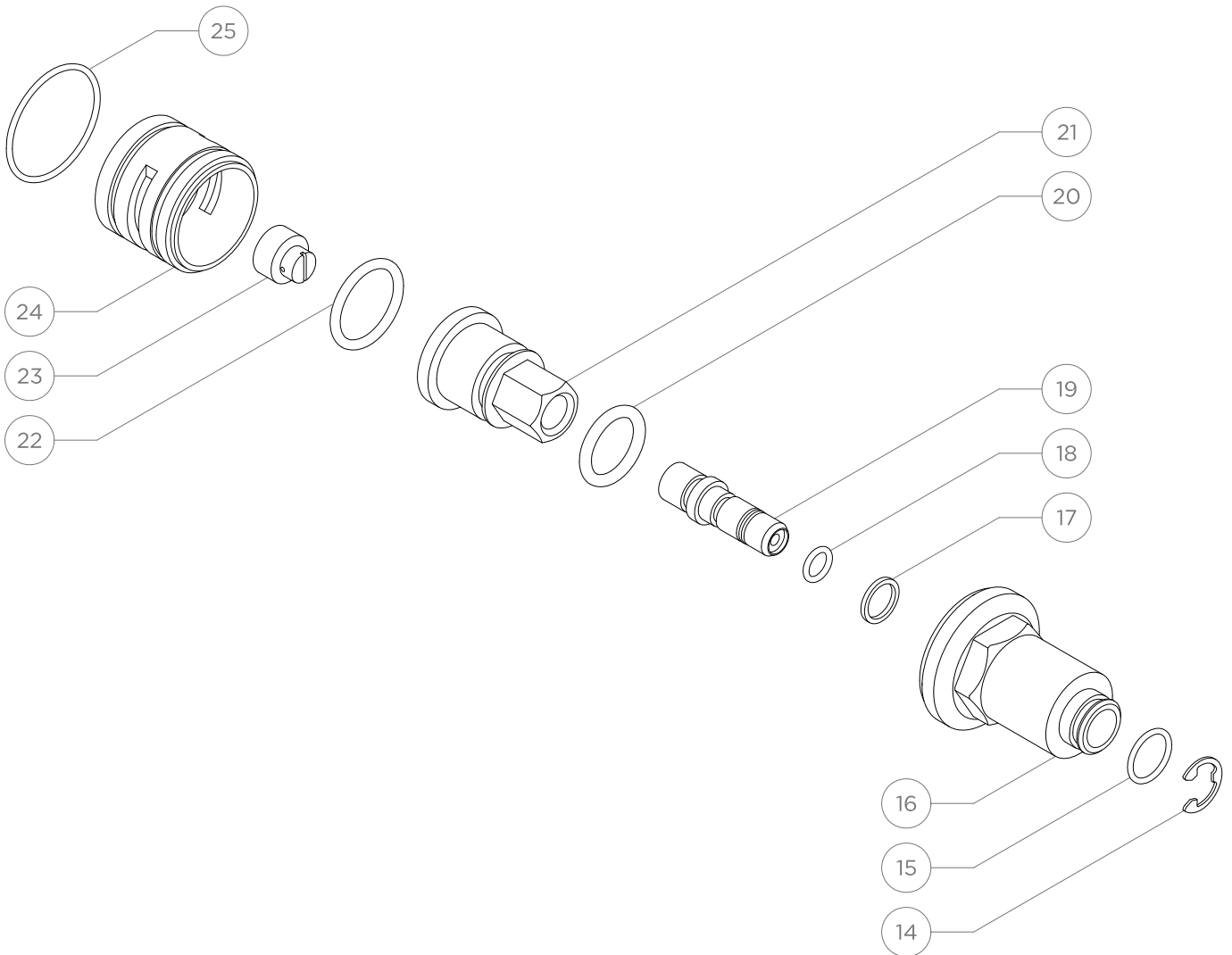
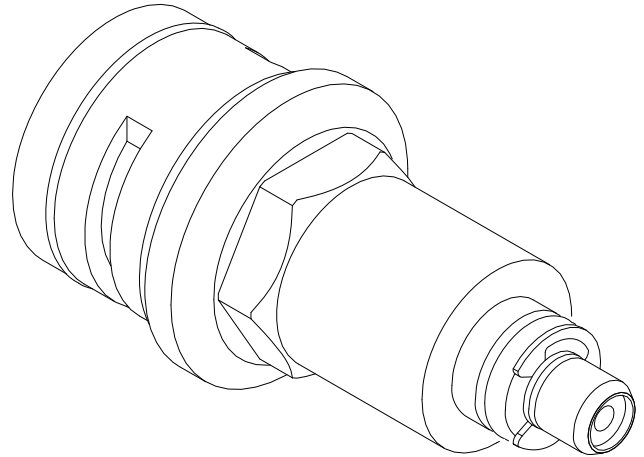
WATERWORKS
STUDIO



These guidelines have been prepared for the professional contractor to aid in the installation of:
HIGHGATE EXPOSED THERMOSTATIC SYSTEM WITH 6" SHOWER ROSE AND WHITE PORCELAIN LEVER HANDLE (STYLE No. HGXS70) AND
HIGHGATE HANDSHOWER WITH DIVERTER AND WHITE PORCELAIN HANDLE (STYLE No. HGHS30).
 All dimensions are based on origin specification and are subject to change and variation.
 Please consult your Design Associate for current specifications.

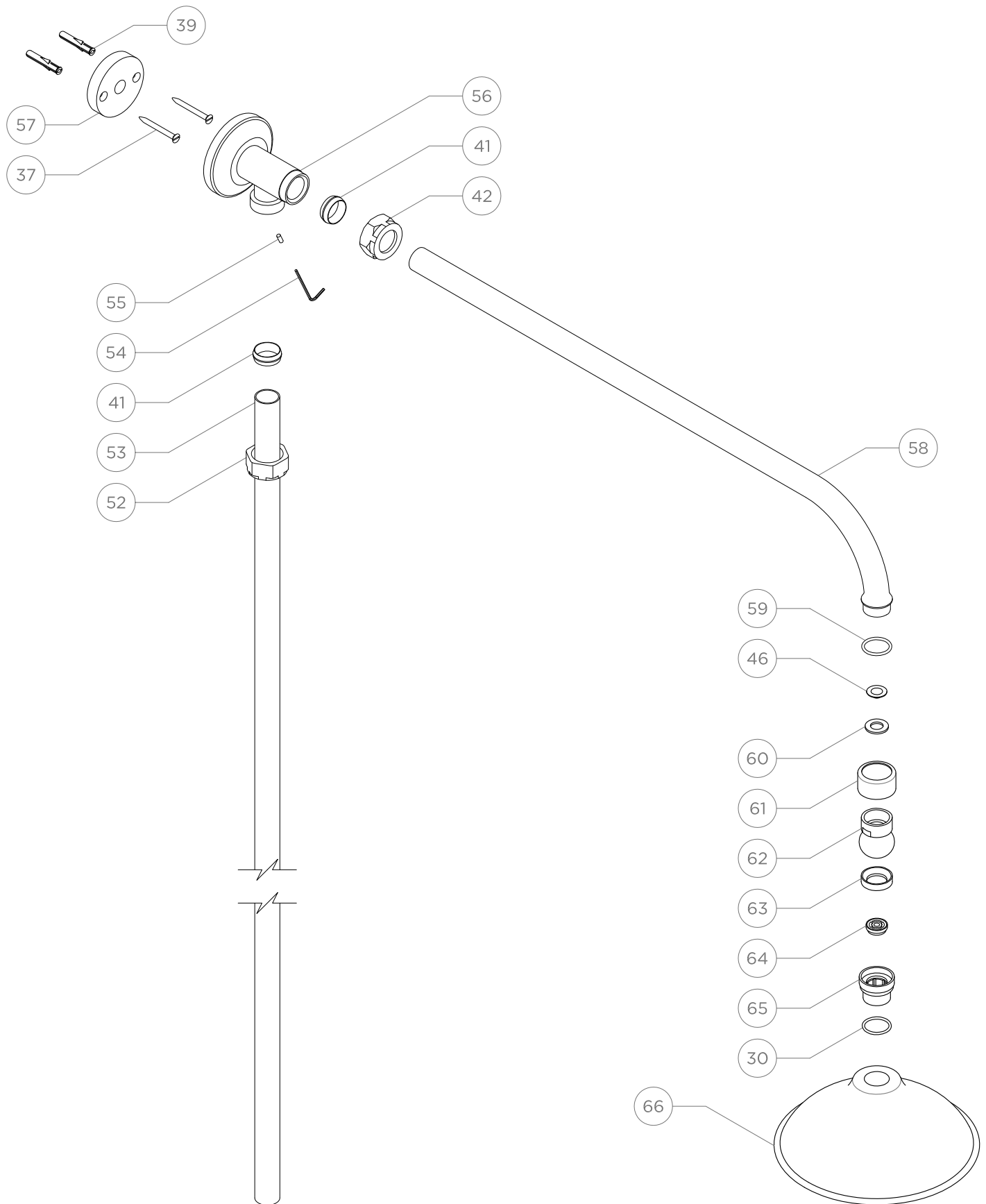
WATERWORKS
STUDIO

Cartridge



These guidelines have been prepared for the professional contractor to aid in the installation of:
HIGHGATE EXPOSED THERMOSTATIC SYSTEM WITH 6" SHOWER ROSE AND WHITE PORCELAIN LEVER HANDLE (STYLE No. HGXS70) AND HIGHGATE HANDSHOWER WITH DIVERTER AND WHITE PORCELAIN HANDLE (STYLE No. HGHS30).
All dimensions are based on origin specification and are subject to change and variation.
Please consult your Design Associate for current specifications.

WATERWORKS
STUDIO



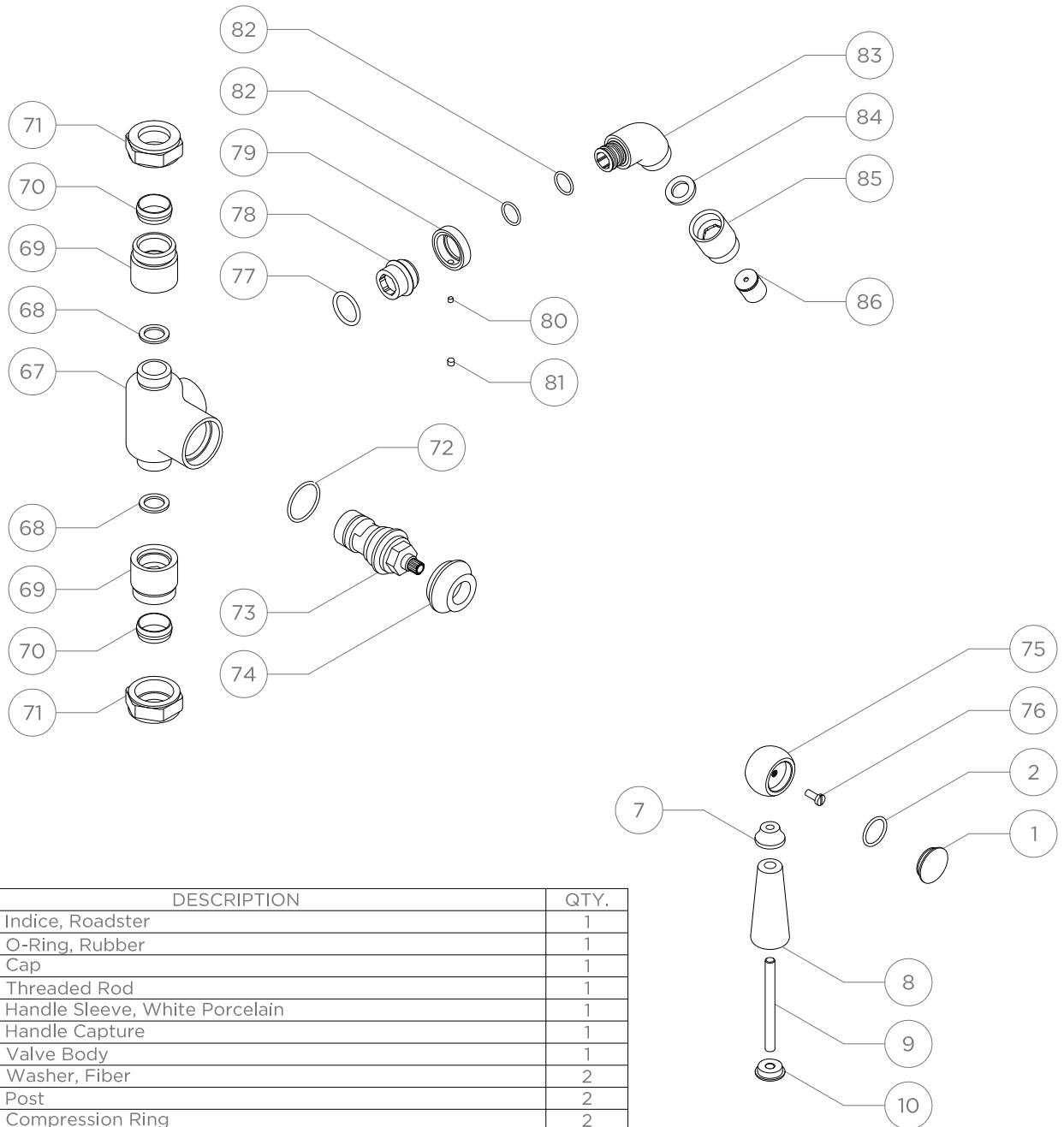
These guidelines have been prepared for the professional contractor to aid in the installation of:
HIGHGATE EXPOSED THERMOSTATIC SYSTEM WITH 6" SHOWER ROSE AND WHITE PORCELAIN LEVER HANDLE (STYLE No. HGXS70) AND HIGHGATE HANDSHOWER WITH DIVERTER AND WHITE PORCELAIN HANDLE (STYLE No. HGHS30).
 All dimensions are based on origin specification and are subject to change and variation.
 Please consult your Design Associate for current specifications.

**WATERWORKS
STUDIO**

ITEM No.	DESCRIPTION	QTY.
1	Indice	1
2	O-Ring, Rubber	1
3	Hex L-Key, 4mm	1
4	Socket Head Cap Screw, 4mm Hex, 10mm Length	1
5	O-Ring, Rubber	1
6	Handle Hub	1
7	Cap	1
8	Threaded Rod	1
9	Handle Sleeve, White Porcelain	1
10	Handle Capture	1
11	Washer, Plastic	1
12	Set Screw, 2.5mm Hex, 12.7mm Length	2
13	Gland Cover	1
14	E-Clip	1
15	O-Ring, Rubber	1
16	Cartridge Bonnet	1
17	Washer, Plastic	1
18	O-Ring, Rubber	1
19	Cartridge Stem	1
20	O-Ring, Rubber	1
21	Cartridge Shuttle	1
22	O-Ring, Rubber	1
23	Temperature Limit Stop Screw	1
24	Cartridge Seat	1
25	O-Ring, Rubber	1
26	Thermostat	1
27	Thermostat Cradle	1
28	O-Ring, Rubber	1
29	Valve Body	1
30	O-Ring, Rubber	3
31	Plug	1
32	O-Ring, Rubber	1
33	Spring	1
34	O-Ring, Rubber	1
35	Valve Seat	1
36	Hex L-Key, 2.5mm	1
37	Wood Screw, Slotted, 1-1/2" Length	4
38	Mounting Plate	1
39	Anchor	4
40	Post, Compression Connection	1
41	Compression Ring	3
42	Compression Nut, 30mm Hex	2
43	Check Valve	2
44	O-Ring, Rubber	2
45	Inlet Elbow, Compression Connection	2
46	Mesh Screen	3
47	Compression Ring	2
48	Compression Nut, 25.4mm Hex	2
49	O-Ring, Rubber	2
50	Escutcheon	2
51	O-Ring, Rubber	2
52	Compression Nut, 30mm Hex	1
53	Riser, Exposed Thermostatic System, 970mm Length	1
54	Tool, Hex L-Key, 1.5mm	1
55	Set Screw, 1.5mm Hex, Cone Point, 8mm Length	1
56	Elbow, Compression Connection	1
57	Mounting Plate	1
58	Shower Arm	1
59	O-Ring, 21mm ID x 2mm Width, Rubber	1
60	Washer, 10mm ID x 18mm OD x 1mm Thickness, Rubber	1
61	Pivot Ball Retaining Collar	1
62	Pivot Ball	1
63	Formed Gasket, Rubber	1
64	Flow Restrictor, 2.0gpm	1
65	Pivot Ball Socket	1
66	Shower Head, Rain, 6"	1

These guidelines have been prepared for the professional contractor to aid in the installation of:
HIGHGATE EXPOSED THERMOSTATIC SYSTEM WITH 6" SHOWER ROSE AND WHITE PORCELAIN LEVER HANDLE (STYLE No. HGXS70) AND
HIGHGATE HANDSHOWER WITH DIVERTER AND WHITE PORCELAIN HANDLE (STYLE No. HGHS30).
 All dimensions are based on origin specification and are subject to change and variation.
 Please consult your Design Associate for current specifications.

WATERWORKS
STUDIO

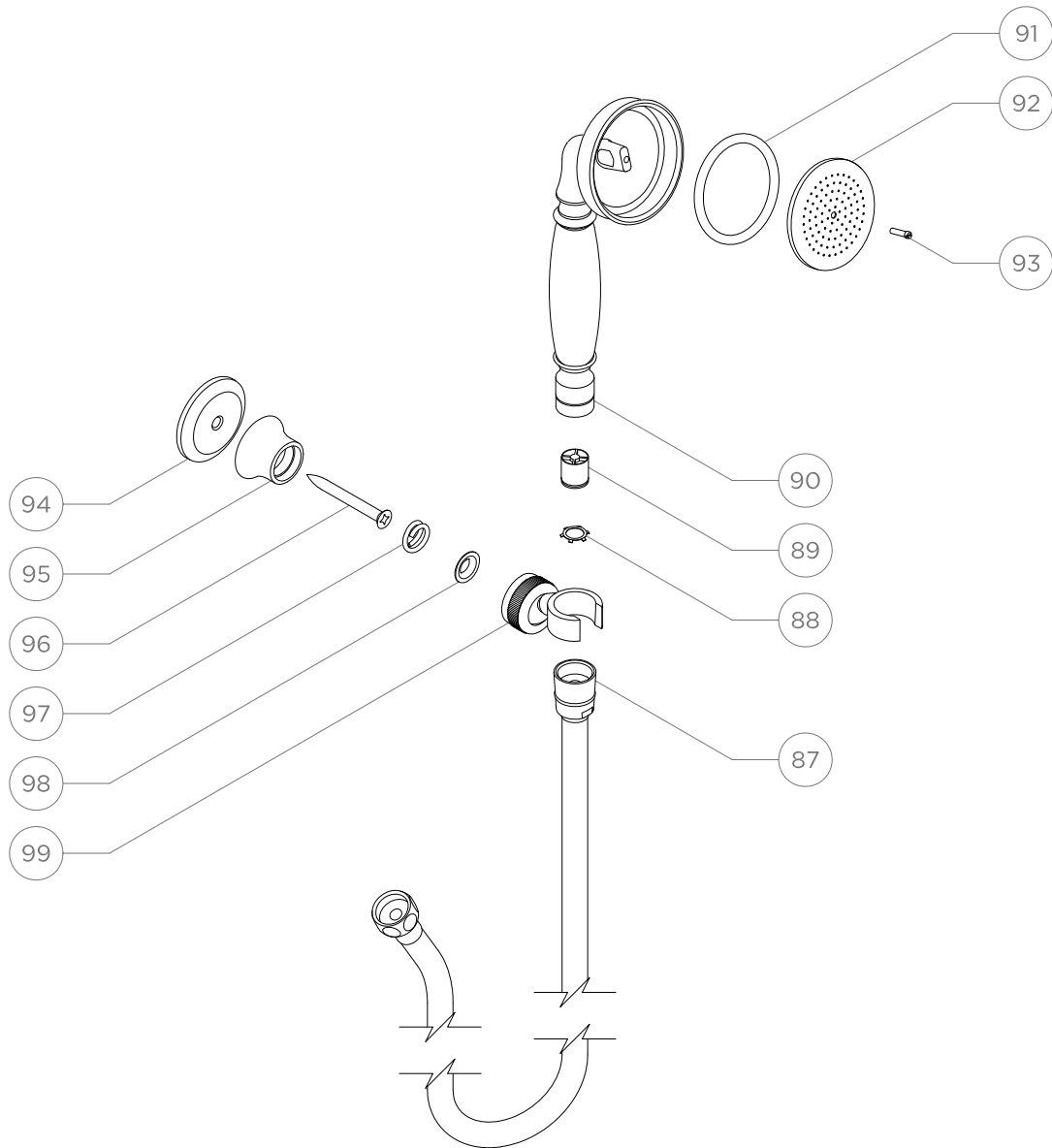


HGHS30

ITEM No.	DESCRIPTION	QTY.
1	Indice, Roadster	1
2	O-Ring, Rubber	1
7	Cap	1
8	Threaded Rod	1
9	Handle Sleeve, White Porcelain	1
10	Handle Capture	1
67	Valve Body	1
68	Washer, Fiber	2
69	Post	2
70	Compression Ring	2
71	Compression Nut	2
72	O-Ring, Rubber	1
73	Cartridge	1
74	Gland Cover	1
75	Lever Handle	1
76	Screw, Slotted, 10mm Length	1
77	O-Ring, Rubber	1
78	Outlet Adapter	1
79	Cap, Metal	1
80	Set Screw, 1.5mm Hex, 3mm Length	1
81	Set Screw, 2mm Hex, 4mm Length	1
82	O-Ring, Rubber	2
83	Elbow	1
84	Washer, Rubber	1
85	Check Valve Housing	1
86	Check Valve	1

These guidelines have been prepared for the professional contractor to aid in the installation of:
HIGHGATE EXPOSED THERMOSTATIC SYSTEM WITH 6" SHOWER ROSE AND WHITE PORCELAIN LEVER HANDLE (STYLE No. HGXS70) AND
HIGHGATE HANDSHOWER WITH DIVERTER AND WHITE PORCELAIN HANDLE (STYLE No. HGHS30).
 All dimensions are based on origin specification and are subject to change and variation.
 Please consult your Design Associate for current specifications.

WATERWORKS
STUDIO



HGHS30

ITEM No.	DESCRIPTION	QTY.
87	Hose, 1.5m Length	1
88	Tooth Lock Washer	1
89	Flow Regulating Check Valve, 2.0gpm	1
90	Handshower	1
91	O-Ring, Rubber	1
92	Face Plate	1
93	Screw, Slotted, Cheese Head, 12mm Length	1
94	Escutcheon	1
95	Post, Handshower Hook, Metal	1
96	Screw, Phillips Head, 60mm Length	1
97	Spring	1
98	Pivot Ball Socket	1
99	Hook, Handshower	1

These guidelines have been prepared for the professional contractor to aid in the installation of:
HIGHGATE EXPOSED THERMOSTATIC SYSTEM WITH 6" SHOWER ROSE AND WHITE PORCELAIN LEVER HANDLE (STYLE No. HGXS70) AND HIGHGATE HANDSHOWER WITH DIVERTER AND WHITE PORCELAIN HANDLE (STYLE No. HGHS30).
 All dimensions are based on origin specification and are subject to change and variation.
 Please consult your Design Associate for current specifications.

**WATERWORKS
STUDIO**