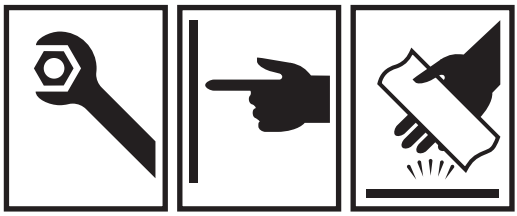
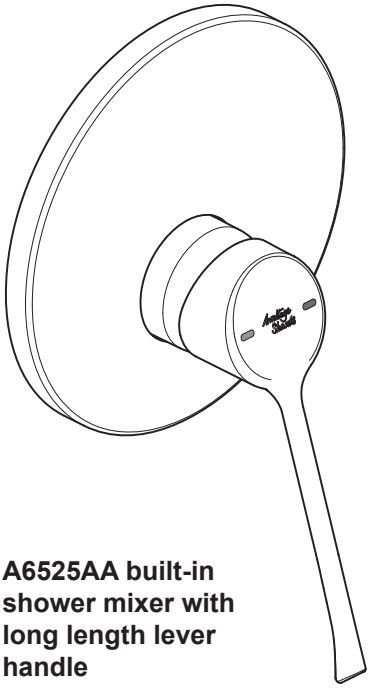


Armitage Shanks

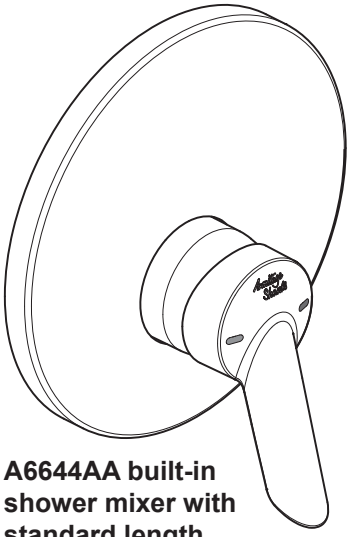
Piccolo 21 Single lever manual built-in shower mixers

INSTALLATION INSTRUCTIONS

WaterMark
AS/NZS 3718 WMK 25822
SAI Global



A6525AA built-in shower mixer with long length lever handle



A6644AA built-in shower mixer with standard length lever handle

IMPORTANT
BEFORE CONNECTION, FLUSH WATER THROUGH PIPEWORK TO REMOVE ALL DEBRIS ETC. WHICH COULD DAMAGE THE VALVE MECHANISM

INSTALLER: **After installation please pass this instruction booklet to user**

TABLE OF CONTENT

Piccolo 21 Single lever manual built-in shower mixers

A6644AA with standard lever handle

A6525AA with long lever handle

These Piccolo 21 products are single lever manual shower mixers. They are ergonomic & simple to operate. The shower valve is intended to be built into a wall for a concealed appearance.

These products feature a single lever ceramic disc cartridge with temperature limiting feature which can be set to prevent accidental scalding.

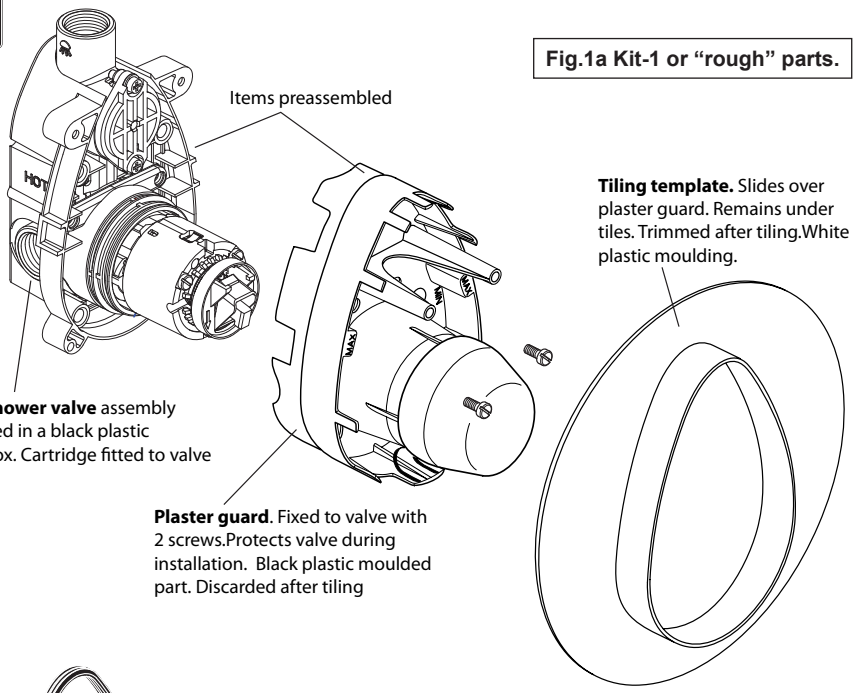
The cartridge also includes a click feature that encourages water saving. Lifting the handle to the first stop gives 50% flow, beyond the click delivers full flow.

These products include an 8 LPM flow regulator.
Outlet to shower can be plumbed above or below these showering products.
These showers can be installed into a wall or onto the rear of a panel

1 PRODUCT BOX CONTENTS

Shown below A6644AA built-in shower mixer with standard length lever handle.

Fig.1a Kit-1 or "rough" parts.



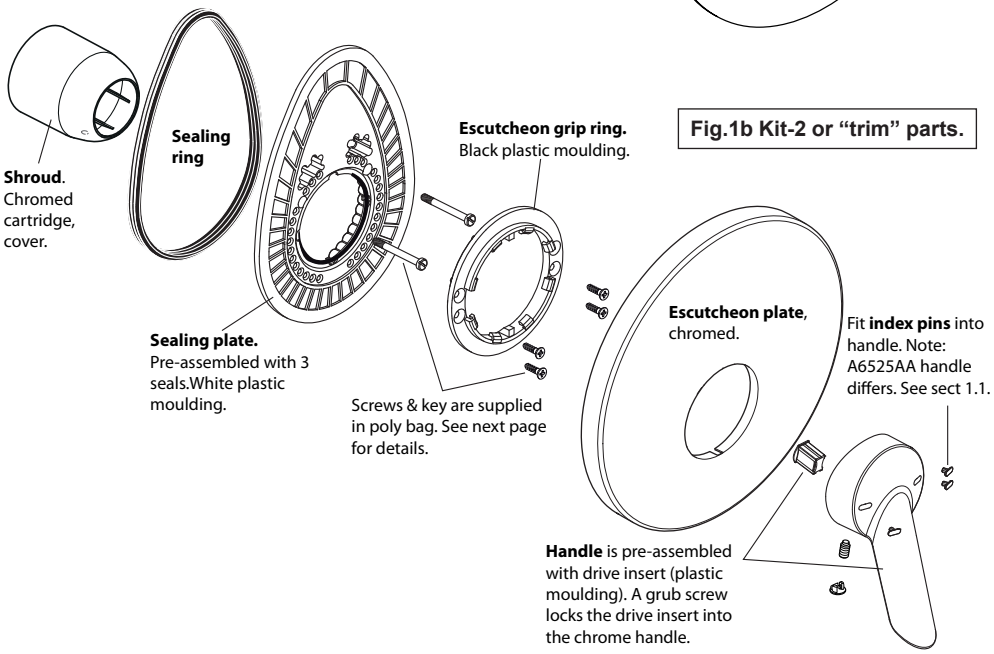
Items preassembled

Brass **shower valve** assembly mounted in a black plastic back-box. Cartridge fitted to valve body.

Plaster guard. Fixed to valve with 2 screws.Protects valve during installation. Black plastic moulded part. Discarded after tiling

Tiling template. Slides over plaster guard. Remains under tiles. Trimmed after tiling.White plastic moulding.

Fig.1b Kit-2 or "trim" parts.



Shroud. Chromed cartridge, cover.

Sealing ring

Escutcheon grip ring. Black plastic moulding.

Sealing plate. Pre-assembled with 3 seals.White plastic moulding.

Screws & key are supplied in poly bag. See next page for details.

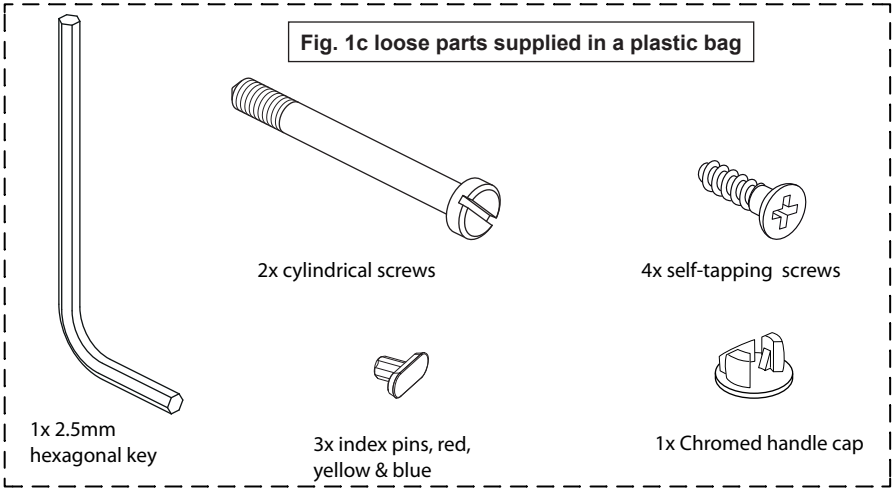
Escutcheon plate, chromed.

Fit **index pins** into handle. Note: A6525AA handle differs. See sect 1.1.

Handle is pre-assembled with drive insert (plastic moulding). A grub screw locks the drive insert into the chrome handle.

1 Product box contents continued…

Fig. 1c loose parts supplied in a plastic bag



G1/2" brass blanking plug

NOTE:
Products are supplied with one G1/2" brass blanking plug.

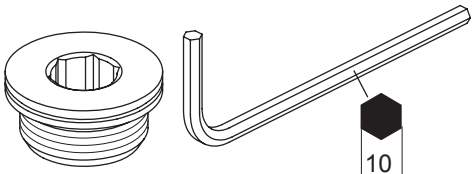
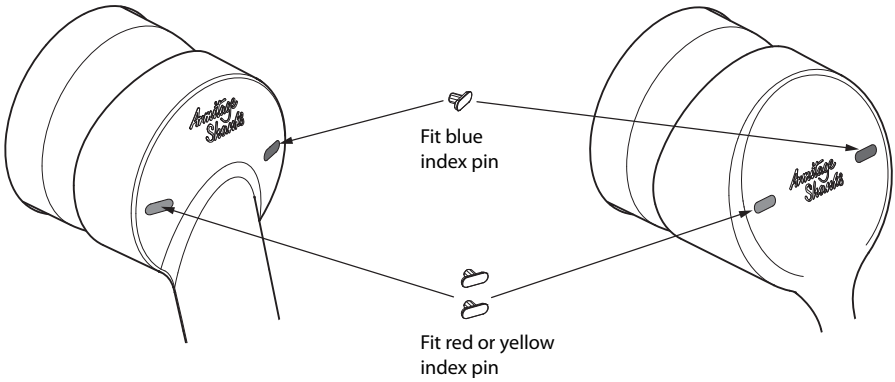


Fig.1d

1.1 Fitting handle index pins

Fig1.1a A6644AA shower

Fig1.1b A6525AA shower



Coloured index pins to be fitted into the handle as shown. Fit blue pin into the slot on the right.

Depending on local requirements, fit either red or yellow pin into the second slot. Discard the extra pin.

2 PRODUCT DIMENSIONS

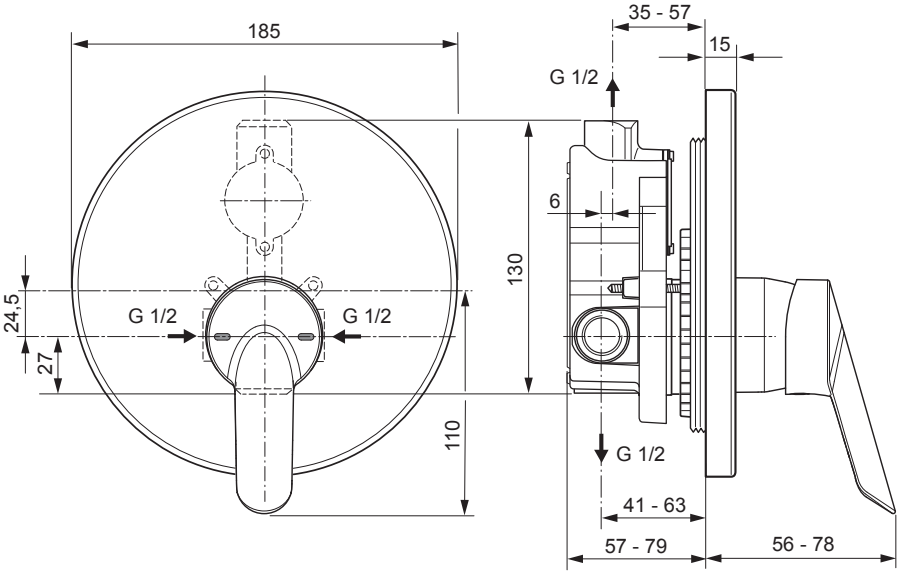


Fig.2a A6644AA Built-in shower mixer – with standard length lever handle

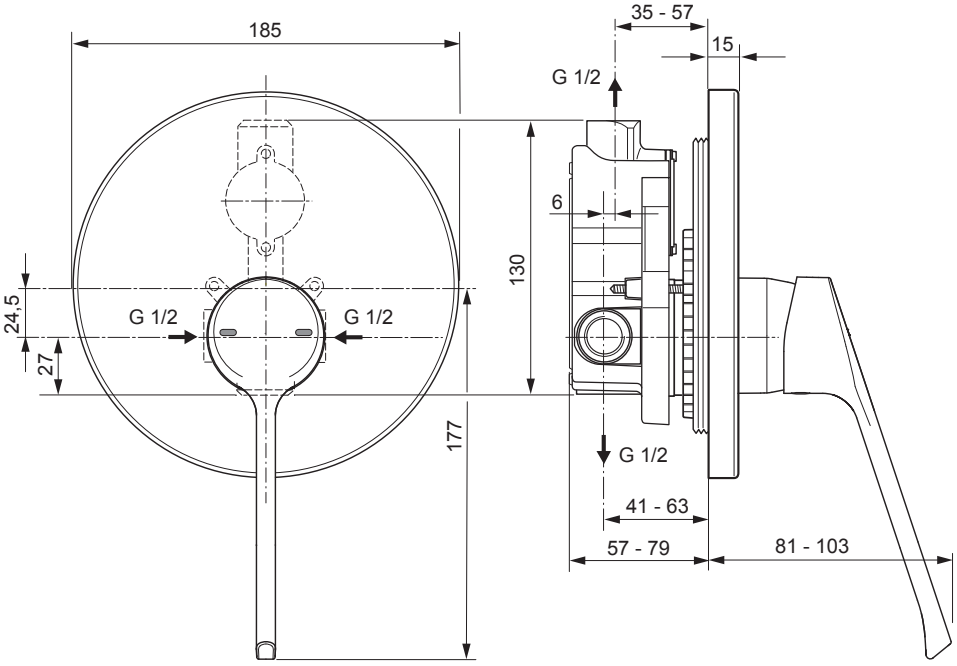


Fig.2b A6525AA Built-in shower mixer – with long length lever handle

3 SUPPLY CONDITIONS

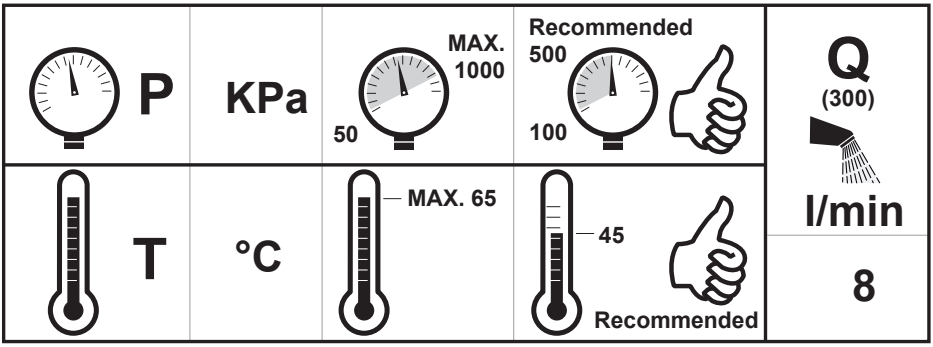


Fig.3

Supply temperatures:
Temperatures shown above are for the HOT inlet water supply. Avoid supplying scalding water to the HOT inlet. Hot water temperature supply should be controlled to circa 45°C.

In order to maintain water quality, the hot supply should be stored & distributed at a temperature greater than 55°C.

An appropriate temperature reduction device (i.e. tee pattern thermostat) can be used to temper an excessively hot water supply.

Supply pressures:
Products should be plumbed to balanced pressure water supplies for best mixing performance.

The recommended working pressure for these products is 100 to 500 KPa.
Exceeding this pressure will adversely affect the operation of the shower.
This adverse effect can be overcome by using PRV to reduce the pressure accordingly.

4 NATIONAL PLUMBING & DRAINAGE CODE

The products covered by this installation and maintenance instruction must be installed in accordance with the provisions of AS/NZS 3500 & any relevant local regulations.
Installations not complying with AS/NZS 3500 may void the product performance & warranty.
Armitage Shanks strongly recommends that this product is fitted by a professional installer.

4.1 Water supply controlling devices (external)

Pressure & temperature ranges of the incoming water supplies should comply with the limits specified above.

NOTE: Maximum recommended static pressure in AS 3500.1.2 is 500 Kpa.
To avoid exceeding this pressure, install a suitable pressure reducing valve - PRV (or pressure limiting valve - PLV) on both hot & cold incoming water supply systems. A suitable location for a PRV on the hot supply may be on the cold inlet to the heating appliance.
Similarly, if the water supply temperature ranges do not conform as above, then suitable temperature controlling devices should be installed to achieve this.

5 PRE-INSTALLATION NOTES

Valve back-box features
The moulded black plastic back-box is very versatile & permits valve to be mounted front-fix into a wall (or timber batten or metal framework) or rear-fix onto the back of a panel (access permitting). The plaster guard features are also shown below:

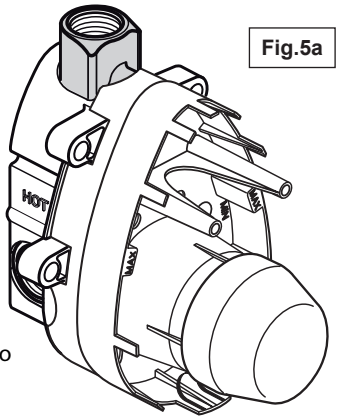


Fig.5a

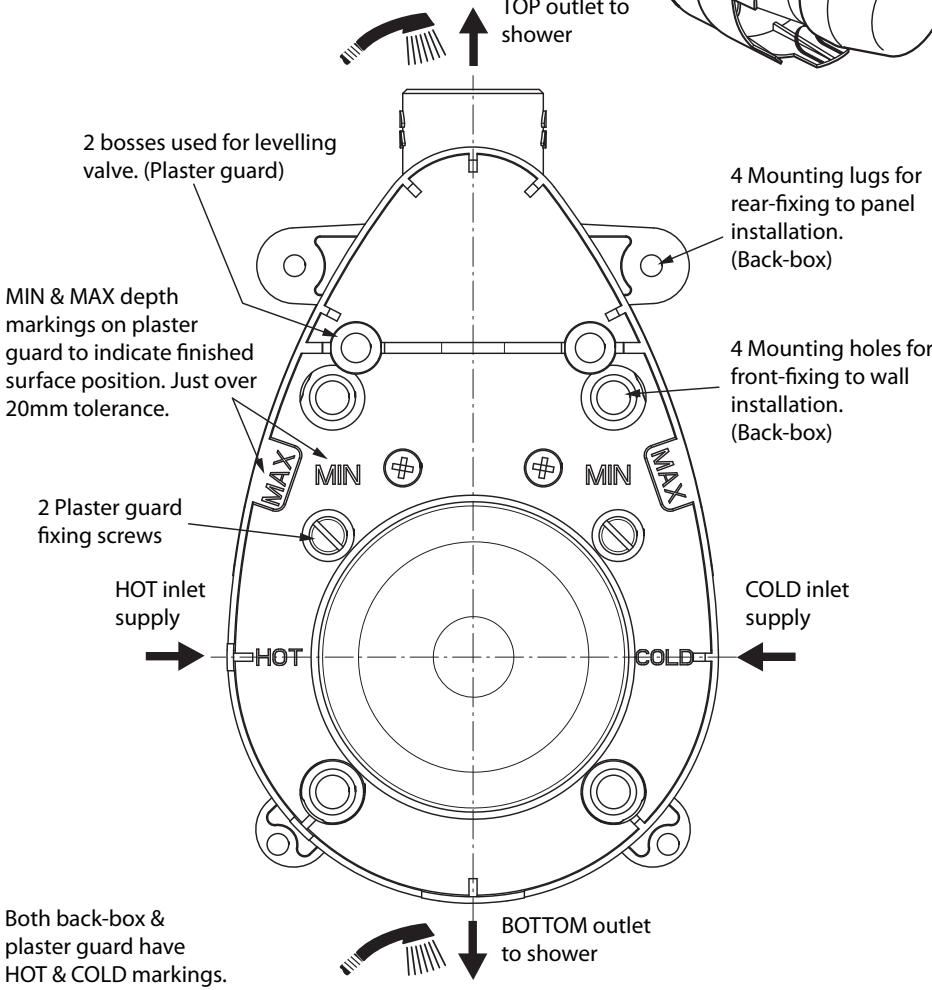


Fig.5b Valve & plaster guard assembly

5 Pre-installation notes continued…

Mounting information

Decide on a suitable location for mounting the shower valve on the wall. Give consideration to the mounting depth. Note the following:

• The plaster guard (black moulding) is marked with MINIMUM & MAXIMUM to help the installer achieve the correct depth. Dimensions shown in sect.2 are from the rear of the back-box to the finished surface (which could be tiles).

• Two bosses are provided on the plaster guard to act as a levelling aid. Balance a small spirit level on these bosses for accuracy.

• Ideally secure the back-box to a suitable surface using the holes shown in fig.5b. Ensure it is level. The pipe-work alone may not sufficiently support the valve. Running pipe-work & making connections will be easier if the valve is securely mounted.

• The profile of either the tiling template or the plaster guard can be used as a guide for marking out the size & shape of the aperture required in the finished wall for the sealing the trim kit.

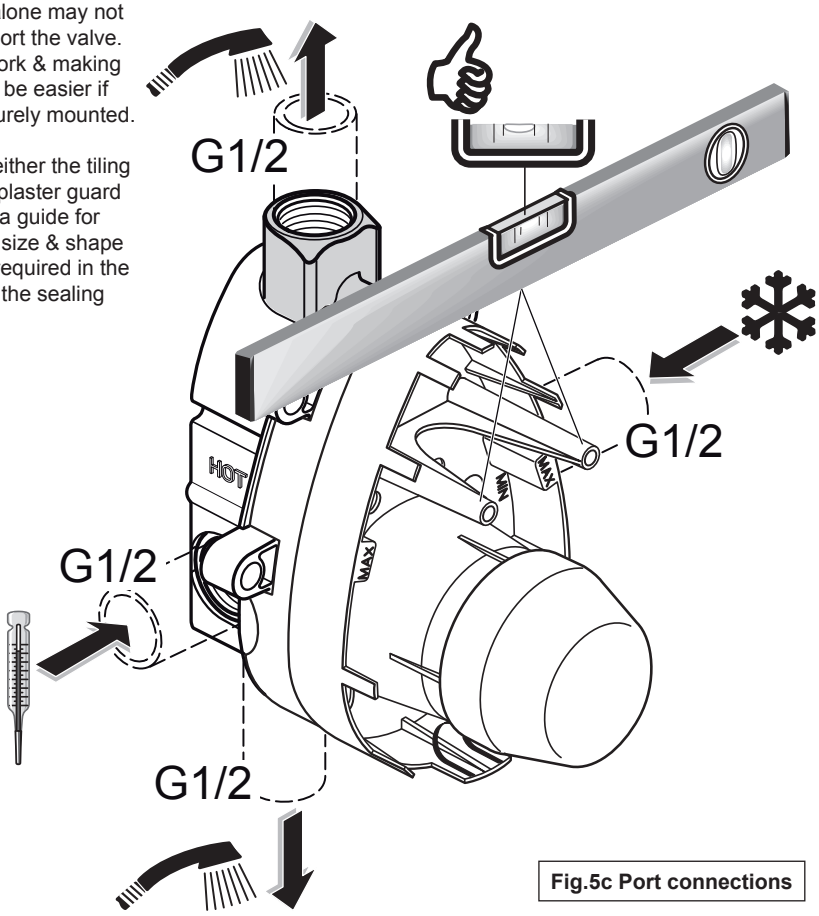


Fig.5c Port connections

Valve has two shower outlets. One outlet should be blocked off with G1/2" brass plug supplied.

5 Pre-installation notes continued…

Port details:
All 4 ports on these valves are threaded G½" female.

Inlet ports
The HOT water supply to the valve should be on the left & COLD water supply on the right.

Outlet ports
The valve has two outlet ports. The installer can decide which port to use & fit the supplied G½" plug into the other port.

Purchase 3x G½" male connectors suitable for the type of pipe being used to plumb the installation. Use an appropriate approved thread sealing medium.

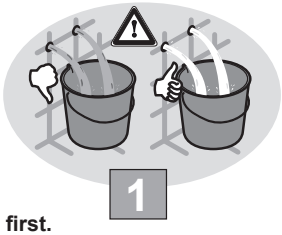
DO NOT apply heat near this product. Heat generated by soldering could damage plastic parts and seals.

6 INSTALLATION GUIDE

Kit-1 or "rough" parts.

Before connection, flush water through pipe-work to remove all debris etc. to prevent damage to the valve mechanism.

THEN ENSURE WATER SUPPLIES HAVE BEEN ISOLATED.



Installer should become familiar with the product by reading sect.5 first.

- Mount the shower valve assembly at the desired location, give consideration to mounting depth from finished surface.
- If the valve assembly is being fitted into a wall or onto a timber batten, secure the back-box using a least two suitable screws (4 screws better). Screw heads should go through clearance holes in the plaster guard, so there is no need to disassemble the plaster guard from the back-box.
- Ensure the back-box is level.
- Fit blanking plug to one of the shower outlets.
- Fit G½" male connectors (suitable for the type of pipe being used) to the remaining ports of the shower valve. Use an appropriate approved thread sealing medium.
- Fit inline service valve(s) upstream of these products into the supply pipe(s). Service valve(s) should be easily accessible; allowing product to be isolated for future maintenance.
- Run pipework to the shower valve & connect. Run pipe work to shower outlet.
- At this stage the pipework can be tested for leaks. Restore water supply pipe(s), direct the shower outlet water into a vessel. The cap on the plaster guard can be removed allowing the shower valve spindle to be accessed.
- Finally make good the wall, apply plaster up to the profile of the plaster guard.

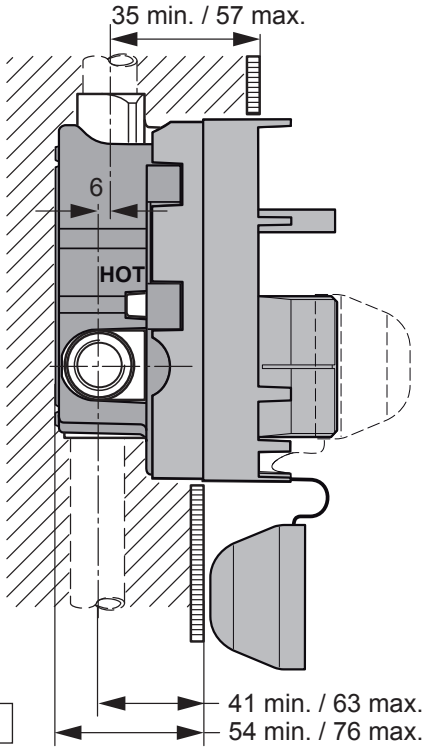


Fig.6a built-in dimensions

Check that all joints are securely tightened, test for leaks.

DO NOT apply heat near this product. Heat generated by soldering could damage plastic parts and seals.

6 Installation guide continued… <u>Kit-2 or “trim” parts.</u>

1. When the plaster work has dried, the wall can be tiled if required.
A tiling template is supplied to help produce a good finished appearance.

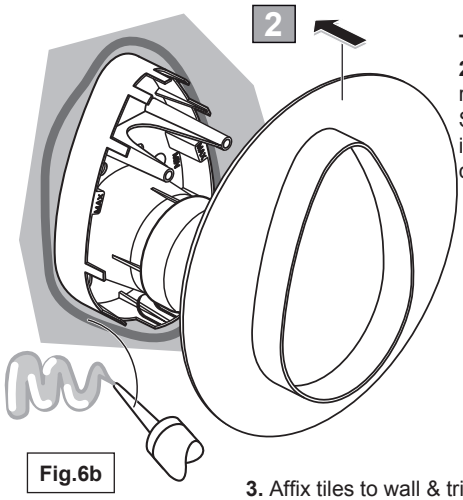


Fig.6b

Tiling
2. Apply a thin layer of silicon sealant on the wall surrounding the plaster guard as shown.
Slide the tiling template over the plaster guard & press it firmly against the wall. Wipe away any excess silicone. Allow silicone time to set.

3. Affix tiles to wall & trim neatly - close to the tiling template.

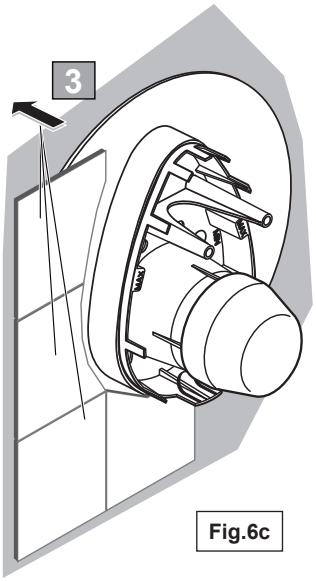


Fig.6c

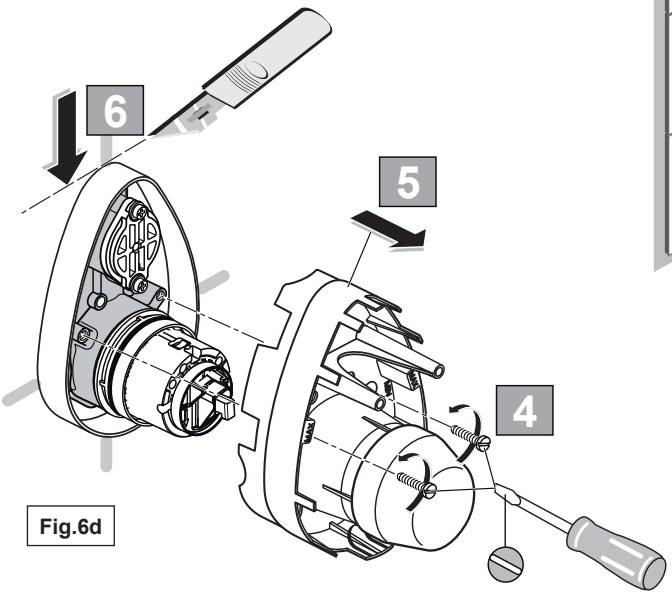


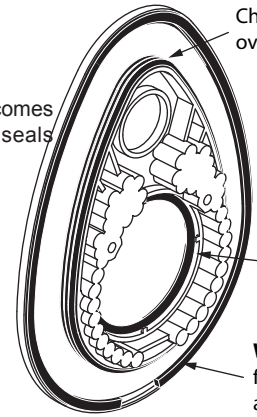
Fig.6d

4. Undo the two screws retaining the plaster guard. Use a “long reach” flat blade screw driver.

5. To remove the plaster guard gently pull it away from the wall. The plaster guard & the two small screws can be discarded.

6. Carefully trim away the tiling template “flush” with the finished tiled surface using a sharp craft knife.

6 Installation guide continued… Fitting trim kit



Seal to tiling template: Chunky ribbed seal on oval boss.

Sealing plate (White plastic moulding) comes pre-fitted with the three seals shown here (rear view).

O-ring seal: Clipped into tangs on central hole.

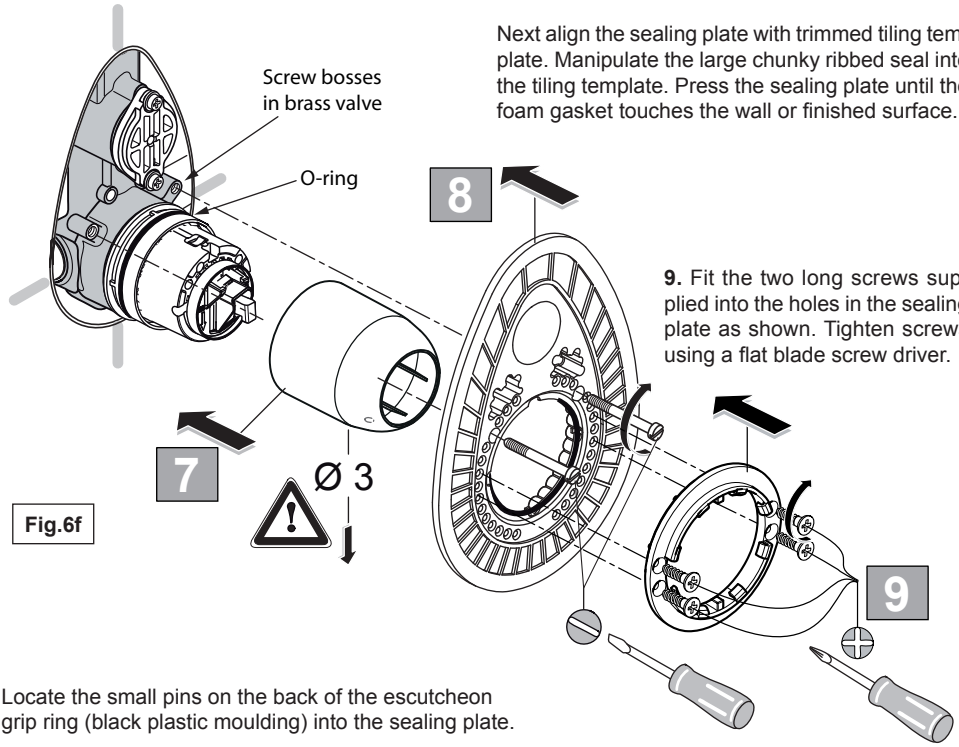
Wall seal: Self-adhesive foam gasket fitted around periphery

Fig.6e

7. Align the chromed shroud onto the cartridge & slide down towards the valve body. The chrome shroud should grip onto the O-ring shown.

8. Carefully slide the sealing plate onto the chrome central cartridge boss (seals facing wall) & push towards the wall. If necessary lubricate the o-ring with water containing a little washing–up liquid. Ensure centre O-ring stays in position.

Next align the sealing plate with trimmed tiling template. Manipulate the large chunky ribbed seal into the tiling template. Press the sealing plate until the foam gasket touches the wall or finished surface.



9. Fit the two long screws supplied into the holes in the sealing plate as shown. Tighten screws using a flat blade screw driver.

Fig.6f

Locate the small pins on the back of the escutcheon grip ring (black plastic moulding) into the sealing plate.

IMPORTANT: Make sure the 4 screw holes of the grip ring are horizontal & the two longer tabs are vertical (see fig.6g & 6h).

Tighten the 4 self-tapping screws using a positive drive screw driver.

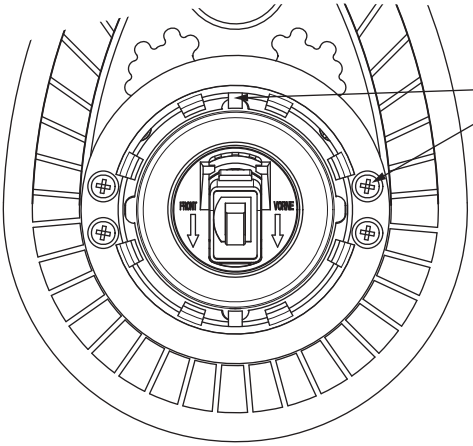


Fig.6g

9. continued…
Escutcheon grip ring orientation:
Long tabs should be vertical.
Screw holes should be horizontal.

The long tabs will locate inside the escutcheon plate.

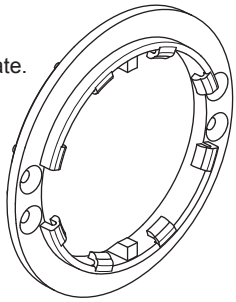


Fig.6h

10. Align the hole in the chromed escutcheon plate to the projecting chromed central cartridge shroud & carefully press it against the finished wall.The escutcheon plate should snap onto the grip ring & be retained in position.

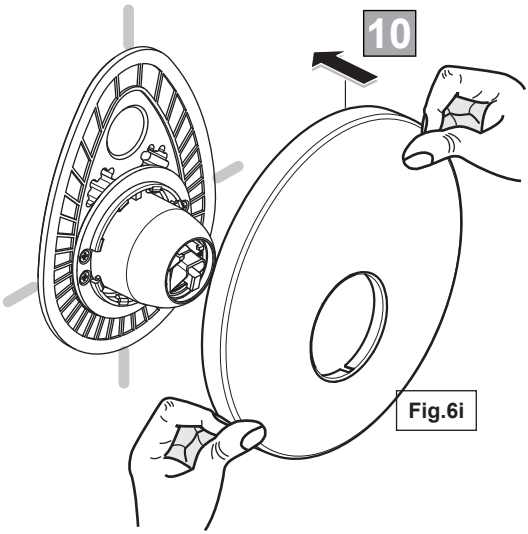


Fig.6i

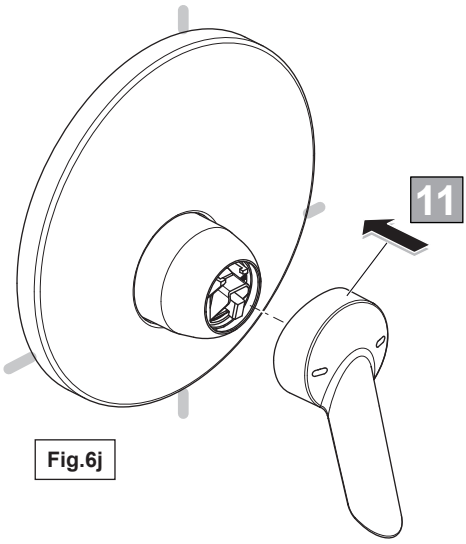


Fig.6j

11. Note the handle grub screw may already be fitted to the handle.

Before fitting handle, the spindle should be rotated to the correct position. The cut-out in the rectangular drive spindle should be facing downwards. Align the handle with the lever pointing downwards, engage handle onto the cartridge spindle.

12. Using the 2.5mm hexagonal key, (supplied) tighten the grub screw as shown into the handle.

13. Press the chromed button into the hole in the handle.

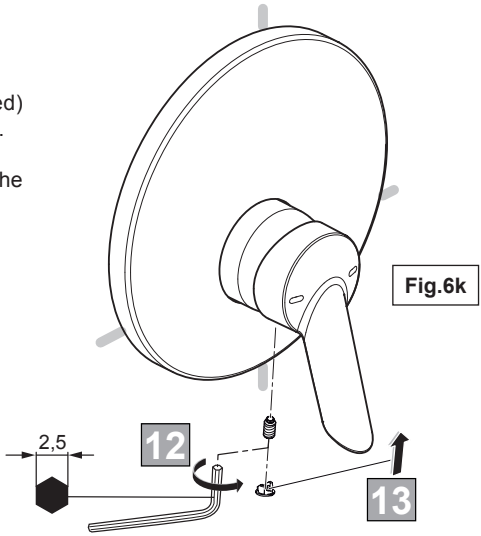


Fig.6k

7 SHOWER OPERATION

To operate these products, simple lift the lever (away from the wall). With the lever in the vertical position this will deliver showering water at mid-mix temperature.

To adjust the water temperature, rotate the handle as shown. From the mid-mix position, the handle can rotate about 60° in either direction. See fig.7b below.

Clockwise rotation will increase the water temperature.

The cartridge includes a click feature that encourages water saving. Lifting the handle to the first stop delivers 50% flow, beyond the click delivers full flow. See Fig.7a below.

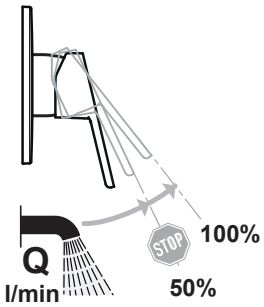


Fig.7a flow control

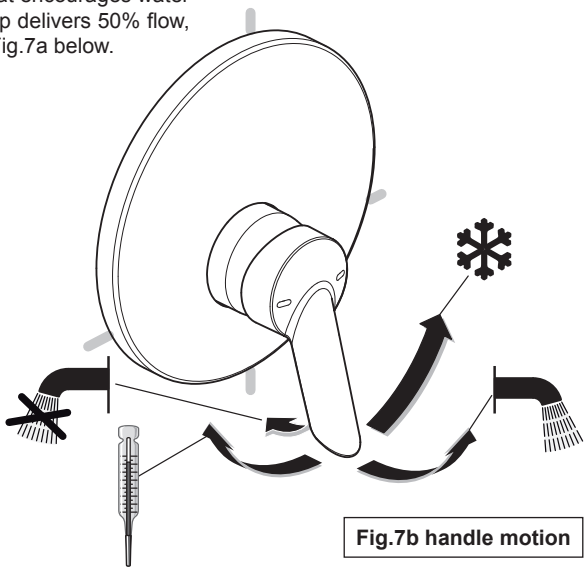
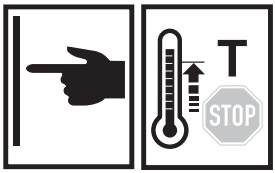


Fig.7b handle motion

8 TEMPERATURE LIMITER



To make adjustments to the temperature limiter it will be necessary to remove the handle first.

The temperature limiter restricts the handle movement to reduce the volume of hot water available to the cartridge for mixing.

Handle removal

See section 6, fig 6k. To remove the handle prise out the chrome button, located at the bottom of the handle. Insert the 2.5mm hexagonal key (supplied) into the hole & undo the grub screw a few turns. The handle should pull away from the shower. ISOLATE WATER SUPPLIES.

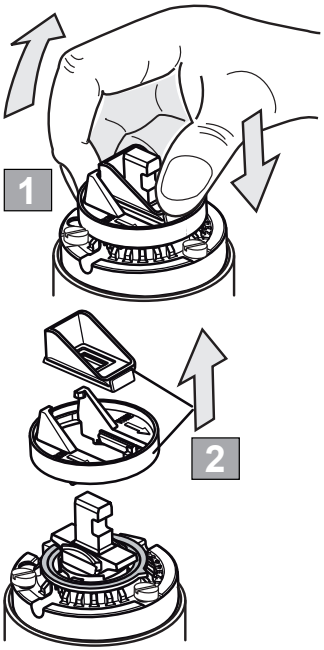


Fig.8a

Note in these figs cartridge is shown in the vertical plane. In showering products the cartridge would be horizontal.

1. Pull off the green triangular moulding parallel to the cartridge spindle.

2. Push the green cylindrical moulding downwards, in the direction of the arrows marked on this part. This item will “snap out” & can then be lifted away.

3. The red adjustment ring is now exposed. Lift the ring about 3mm (trapped) & rotate it to a suitable alternative position & press it back into the cartridge. The cartridge face is marked 0-7, & the adjustment ring is pointing to one of these numbers.

Keep the cartridge spindle parallel to the cartridge.

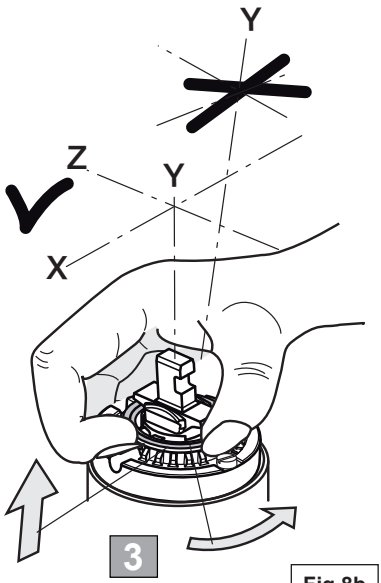


Fig.8b

8 Temperature limiter continued…

Position “0” provides the warmest water & allows the handle to travel furthest towards the hot. Position 9 provides the least warm water (positions 8 & 9 fall into the cutaway, so not marked).

Fig 8d shows mid mix-temperature position & red adjustment ring pointer at “0”.

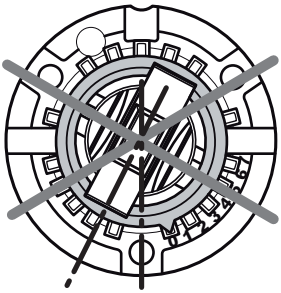


Fig.8c

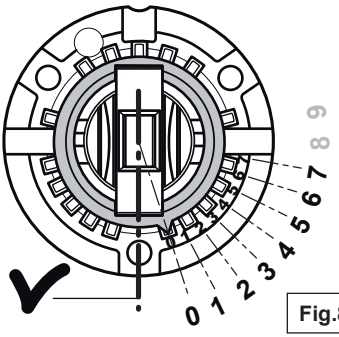


Fig.8d

4. Both green mouldings can be refitted to the cartridge. The cylindrical moulding will snap back into position. Shroud & handle can be refitted. Restore water supplies. Check showering water temperature. If not correct, adjust the red ring again.

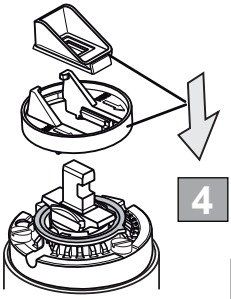


Fig.8e

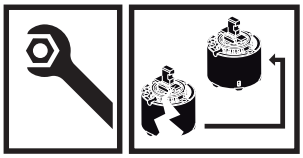
As a rough guideline, the table below shows the approximate showering water temperatures expected from the supply temperatures specified.
Showering temperature is dependent on inlet water supply temperatures & pressures.

P 300 KPa			0 ºC	1 ºC	2 ºC	3 ºC	4 ºC	5 ºC	6 ºC	7 ºC	8 ºC	9 ºC
	50ºC	16ºC	49,5	49,5	48	46	42,5	41	37	33,5	31	28
	65ºC	16ºC	65	65	63,5	60,5	57	53,5	49	44,5	39	34,5
	81ºC	16ºC	81	81	78,5	73	69	63,5	56	49	42,5	36

Fig.8f

Installer: Ensure product is delivering safe hot water for the end user. Our recommended maximum showering temperature is 43°C. Comfortable showering can be achieved at 37°C.

9 CARTRIDGE REPLACEMENT



Before deciding on a replacement cartridge make sure the cartridge inlet & outlet ports not blocked with debris.
Handle removal: Firstly remove the handle as detailed in section 8. ENSURE WATER SUPPLIES HAVE BEEN ISOLATED.

1. With the handle removed, gently pull of the chromed shroud around the cartridge (retained by an O-ring)

2. Using a flat blade screw driver, undo the 3 long screws retaining the cartridge to the brass valve.

NOTE: these screws also retain the manifold moulding below the cartridge. Manifold will become loose & can also be removed.

If necessary (depending on mounting depth of product) remove the chrome escutcheon plate & sealing plate, see figs 6f & 6i.

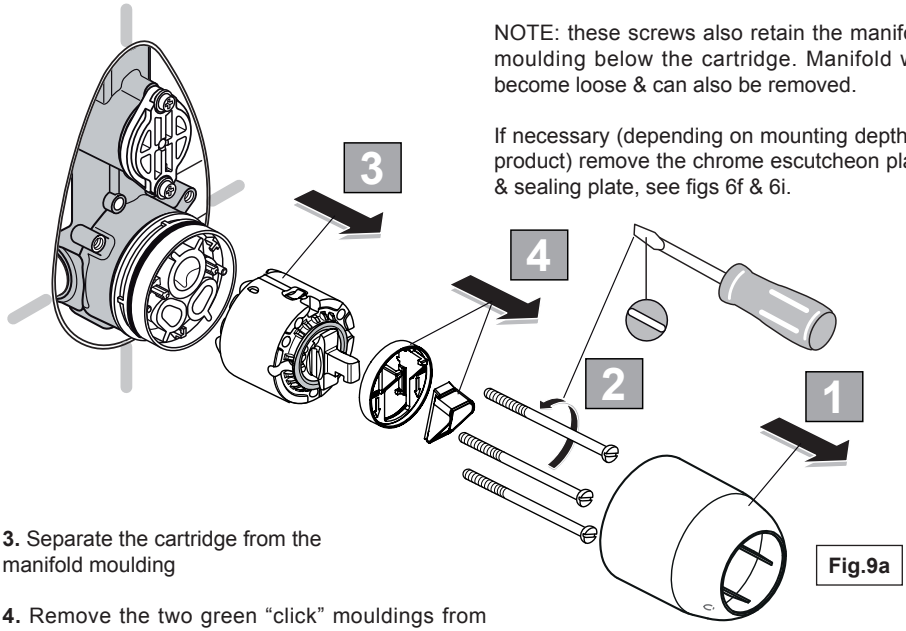


Fig.9a

3. Separate the cartridge from the manifold moulding

4. Remove the two green “click” mouldings from the top of the old cartridge as detailed in section 8. Remove the flow regulator located in the outlet port of the cartridge. See section 10.

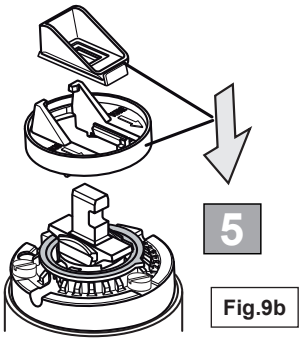


Fig.9b

5. Relocate the red temperature limiting ring on the new cartridge to the same position as the old cartridge. See figs 8b & 8d.
Refit the two green mouldings onto the new cartridge.

TAKE CARE NOT TO DAMAGE CHROMED SURFACES

9 Cartridge replacement continued…

6. Orientate the cartridge as shown here with the large circular outlet port to the top.
Slide the fixing screws into the cartridge body.
Align the cartridge to the manifold moulding & slide the screws also into the manifold.
Align the screws to the threaded holes in the brass valve & fasten screws. Ensure all seal are correctly in place.

Shroud & handle can be refitted. Restore water supplies. Check for leaks.
Check showering water temperature. If not correct, adjust the position of the red temperature limiting ring. See section 8.

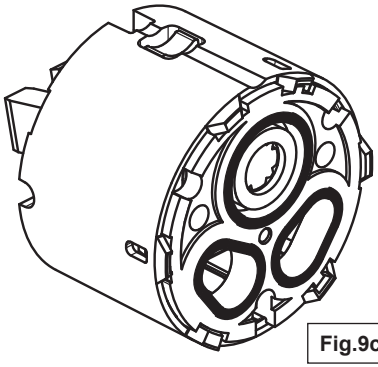


Fig.9c

10 FLOW REGULATOR INFORMATION

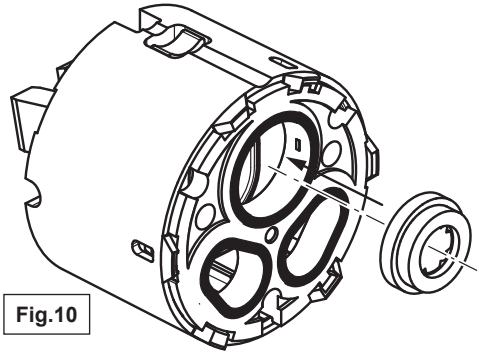


Fig.10

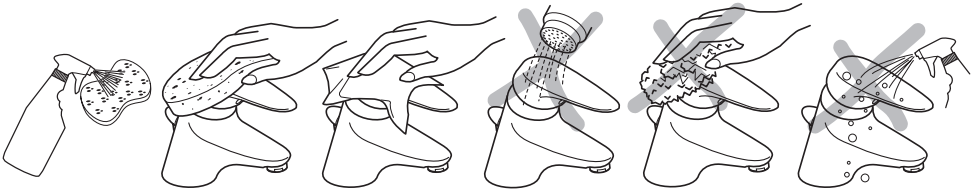
These showering products are fitted with an 8 litres per minute (LPM) flow regulator. The regulator is located in the water outlet port of the cartridge.

To gain access to the flow regulator, it will be necessary to remove the cartridge from the shower valve. Follow the instructions detailed in section 9.

The regulator can be pulled out of the cartridge. It is retained by the port seal which is ring-shaped. If the seal slides out, simply refit.

IMPORTANT: orientation of the flow regulator is critical. The regulator must be fitted with the smaller diameter visible as shown here.

11 CLEANING CHROME SURFACES



When cleaning chromed products use only a mild detergent, rinse & wipe dry with a soft cloth. Ideally clean after each use to maintain appearance.

Never use abrasive, scouring powders or scrapers. Never use cleaning agents containing alcohol, ammonia, hydrochloric acid, sulphuric acid, nitric acid, phosphoric acid or organic solvents. Use of incorrect cleaning products / methods may result in chrome damage which is not covered by the manufacturer's guarantee.

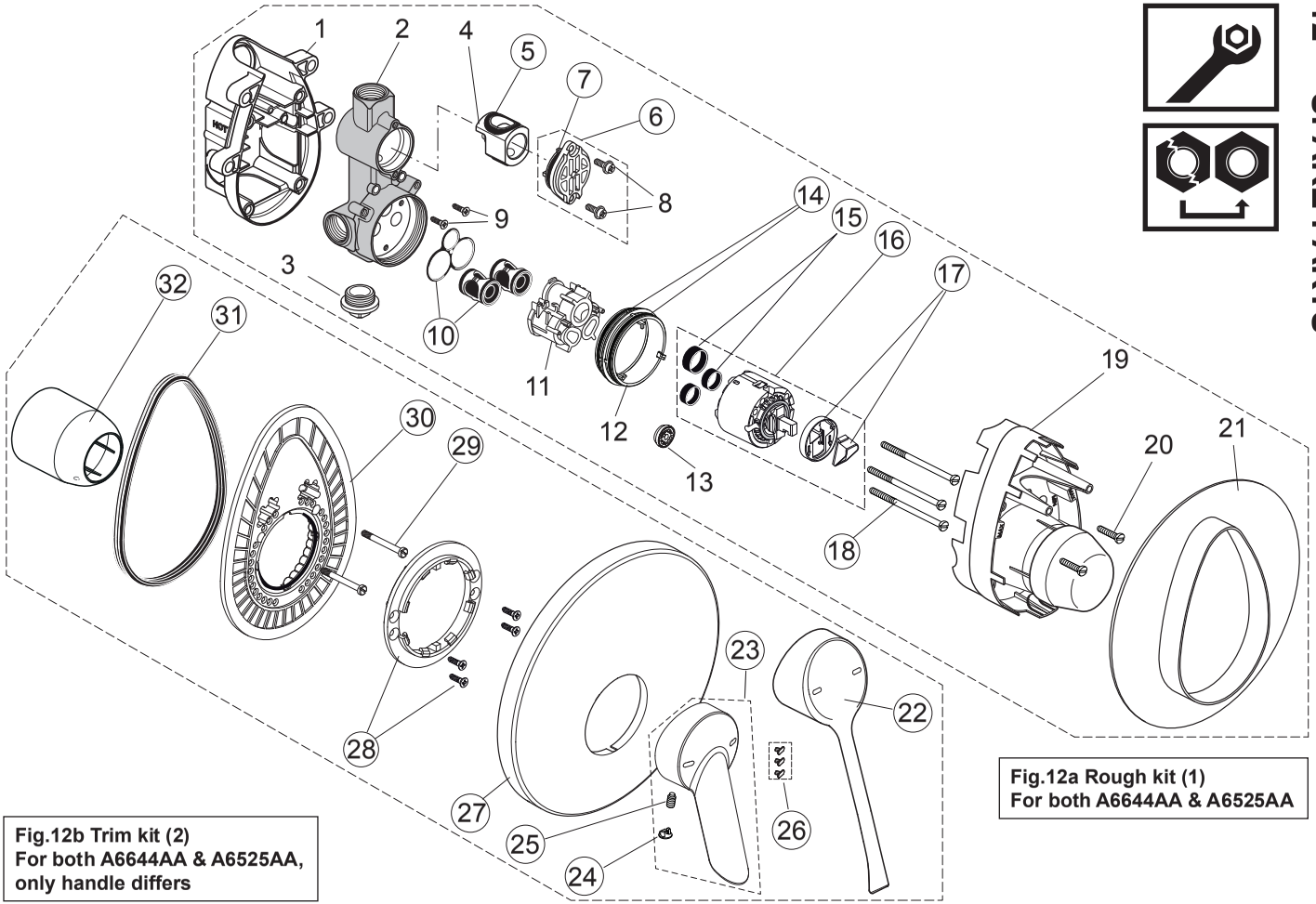


Fig.12a Rough kit (1)
For both A6644AA & A6525AA

Fig.12b Trim kit (2)
For both A6644AA & A6525AA,
only handle differs

13 SPARE PARTS LIST

Ref.	Description	Part No.
5	O-ring set	A963523NU
6	Cover complete	A963412NU
7	O-ring Ø 28,3 x 1,78	A961667NU
10	Low noise insert complete	A963524NU
13	Flow regulator 8 LPM	A962727NU
14	O-ring Ø47,3 x 1,78	A963526NU
15	Sealring Set	A961155NU
16	Cartridge Ø47 complete	A960500NU
17	ECO-kit	A860 700NU
18	Cylindrical screw M4 x 69	A963783NU
22	Lever complete for A6525AA w.logo AR	A861048AA
23	Lever complete for A6644AA w.logo AR	A861047AA
24	Handle cap	B960473AA
25	Thread pin M5 x 10	A963309NU
26	Set of pins	A861040NU
27	Escutcheon w. logo Watermark	A861049AA
28	Escutcheon holder + screw	A962107NU
29	Cylindrical screw M4 x 39	A963176NU
30	Escutcheon holder basic	A963447NU
31	Seal ring (Profil)	A963444NU
32	Cover cap f. cartridge	A963571AA*
	** Universal-Set (not all parts needed)*	

Armitage Shanks pursues a policy of continuing improvement in design and performance of its products.

This right is therefore reserved to vary specification without notice.

CUSTOMER CARE HELPLINE:

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CUSTOMER CARE FAX:

+44 (0)844 543 6171

CUSTOMER CARE EMAIL:

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Armitage Shanks

1015 / A 868 117
Made in Germany

REECE PRODUCT QUALITY GUARANTEE

You have purchased a product from Reece Australia Pty Ltd ABN 84 004 097 090 ("Reece"). This product is covered by a 5 year replacement product warranty and a 12 month warranty over spare parts and labour.

5 YEAR PRODUCT WARRANTY

This warranty covers faults in the construction, material and assembly of finished products. Products which are within 5 years from the date of purchase, found upon inspection by an authorised Reece representative to be defective in construction, material or assembly, will be repaired or exchanged with an equivalent product free of charge. Replaced items become Reece's property.

This warranty also covers any spare parts included under "Manufacturer's Provisions" below.

Manufacturer's Provisions

The following spare parts are covered by a 10 year warranty:

- Mixer Cartridge

ONE YEAR SPARE PARTS WARRANTY

Spare parts other than those listed in the Manufacturer's Provisions above which are within 1 year from the date of purchase found upon inspection by an authorised Reece representative to be defective in construction, material or assembly will be replaced free of charge. Replaced items become Reece's property.

AVAILABILITY OF REPLACEMENT PRODUCTS AND SPARE PARTS

All replacement products and spare parts will be available for collection without charge to the customer at the nearest Reece branch to the customer's location, or elsewhere as agreed between the customer and Reece.

LABOUR

The labour for the replacement of products that are within one year from the date of purchase found upon inspection by an authorised Reece representative to be defective in construction, material or assembly, and in relation to all spare parts to which this warranty applies, will be supplied by Reece or the relevant supplier using licensed plumbers engaged by Reece or the relevant supplier

WARRANTY CONDITIONS

This warranty will apply only under all of the following conditions:

- The item has been installed by a licensed plumber
- Failure is due to a fault in the manufacture of the product
- Proof of purchase (including the date of purchase) is provided
- The installation of the product is in accordance with the instructions provided
- The product has been installed in valid applications as stated in accordance with the recommended use

This warranty does not cover products purchased as an ex-display without being fully checked and tested for sale by the manufacturer.

This warranty does not include faults caused by:

- Unsuitable or improper use
- Incorrect installation or installation not in accordance with the instructions provided
- Installation or part installation by any person other than a LICENSED PLUMBER who is suitably qualified to install the product, or a Licensed Electrician where applicable.
- Normal wear and tear
- Inadequate or complete lack of maintenance
- Chemical, electrochemical or electrical influences
- Harsh detergents or abrasive cleaners used on product finishes

EXCLUSIONS

To the fullest extent permitted by law, Reece excludes all liability for damage or injury to any person, damage to any property, and any indirect consequential or other loss or damage.

CLAIM PROCEDURE

For all warranty queries customers are to contact the branch where the product was purchased. These details can be found on your purchase invoice.

General contact details for Reece are as follows:

Reece Australia Pty Ltd
118 Burwood Hwy
Burwood VIC 3125
+61 3 9274 0000
admin@reece.com.au

The benefits given by this warranty are in addition to the other rights and remedies that consumers may have under the Australian Consumer Law and any other applicable laws.

Our goods come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and for compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure.