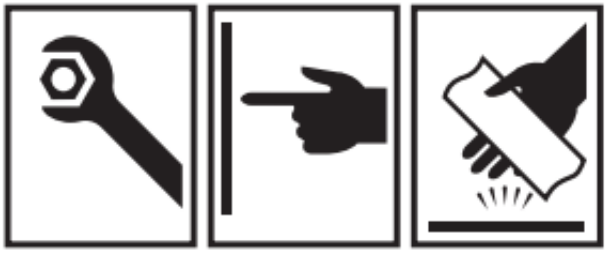


Armitage Shanks

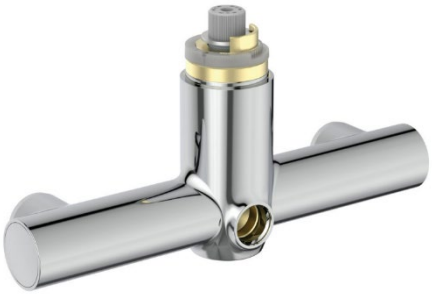
Markwik 21+ Comfort SQ Sequential Lever Operated Pressure Balancing Mixers

INSTALLATION INSTRUCTIONS

A7909AA – Panel Mounted Sequential Pressure Balancing Mixer

A7905AA – Deck Mounted Sequential Pressure Balancing Mixer

A7910AA – Panel Mounted Sequential Pressure Balancing Mixer Body Only



A7906AA – Deck Mounted Sequential Pressure Balancing Mixer Body Only

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

2. Description

This guide outlines the installation steps for Markwik 21+ Comfort SQ non-Thermostatic panel and deck-mounted mixers, equipped with pressure balancing and sequential lever operation. It is applicable to both complete products and stand-alone bodies that can be fitted to existing Markwik 21 and Markwik 21+ Thermostatic mixer inlets. *(Refer to Section 34 for required stand-alone body SKU's)*

Designed specifically for handwashing, these mixers dispense water ranging from ambient cold to a predetermined maximum hot temperature. They have a built-in thermal cleanse function, which permits the utilization of a specialized tool to bypass the maximum blend temperature stop. This capability allows users to access the full hot water supply temperature for thermal cleansing.

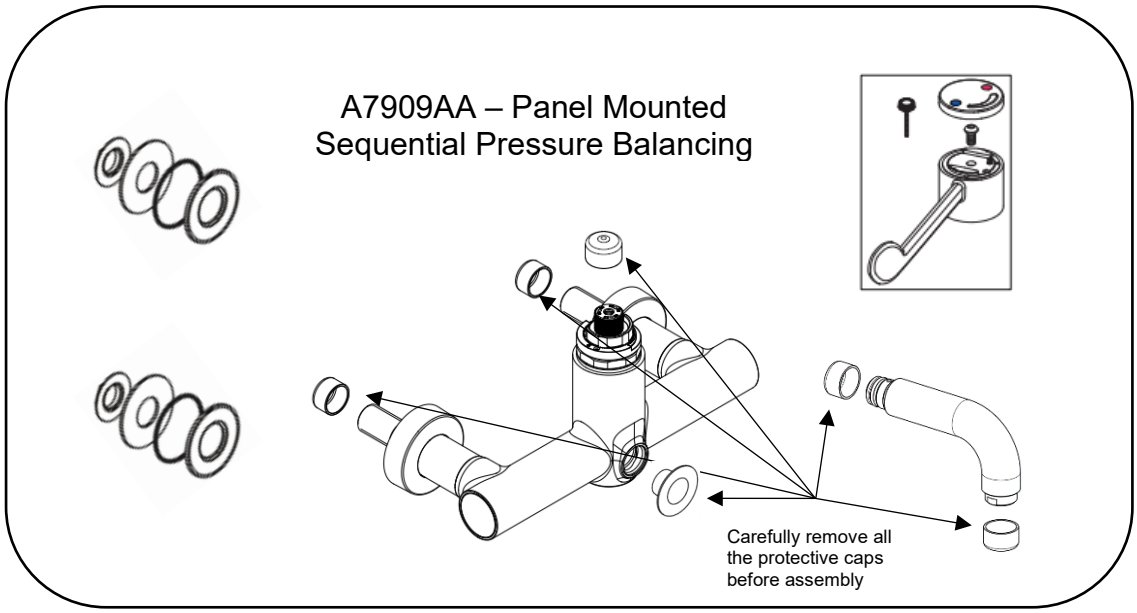
The pressure-balancing cartridge adjusts to variations in system pressure, ensuring a consistent water temperature at the outlet. The mixers incorporate safety measures: in the event of cold water supply failure, the hot water flow rate decreases, and vice versa, with reduced cold water flow rate in case of hot water supply failure.

Enhancing hygiene, the mixers are equipped with Bioguard anti-microbial copper-lined outlets, minimizing the risk of bio-film attachment. They also come with integral isolating valves and strainers for convenience, along with thermally insulated smooth bore inlets to ensure safe surface temperatures during use. Furthermore, each inlet contains Ø15mm check valves and Ø10mm flow-regulated check valves to enhance the mixer's functionality.

For installation, the panel-mounted mixer is designed for duct panel walls ranging from 13 to 27mm in thickness. Meanwhile, the deck-mounted mixer is suitable for basins or worktop housing inset basins with a thickness of 1 to 40mm. The installation process involves cutting two Ø30mm holes at 200mm centers in the panel or worktop.

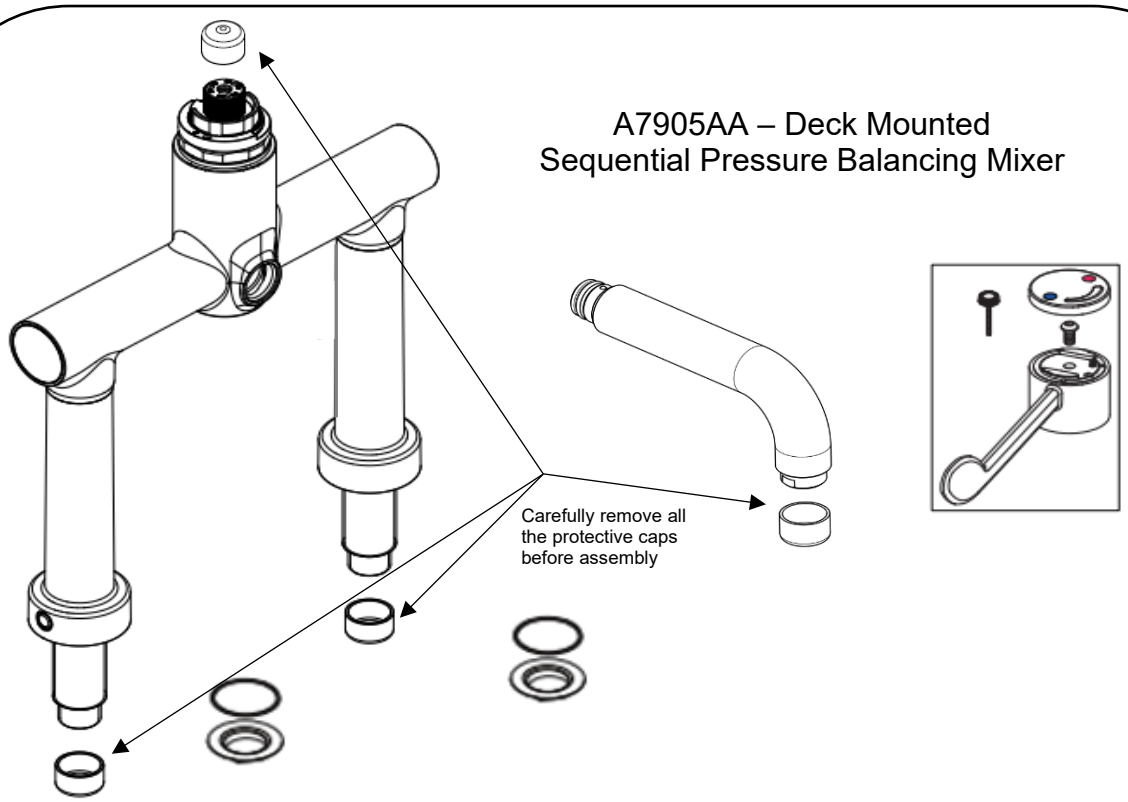
Products are shipped to customers in a dry state. Instead of water testing at the factory, we employ air testing with clean, dry, filtered air. Following testing, protective caps are securely placed on both inlets and the outlet. This precautionary measure ensures that the products remain uncontaminated during transit, safeguarding them from environmental factors.

3. Box Contents

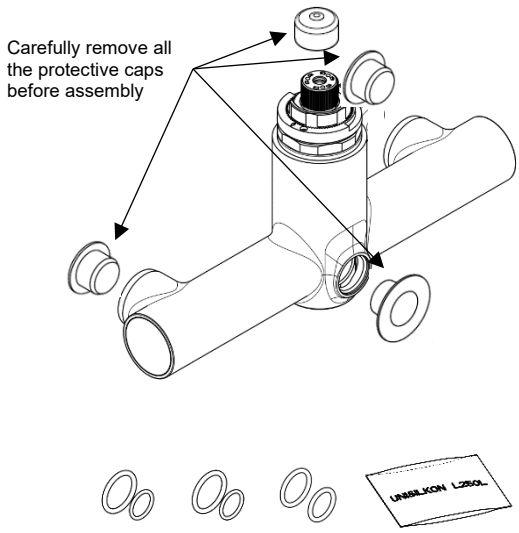


3. Box Contents Continued…

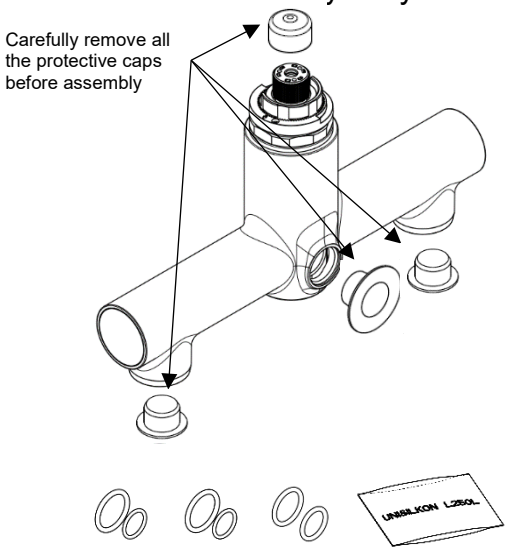
A7905AA – Deck Mounted
Sequential Pressure Balancing Mixer



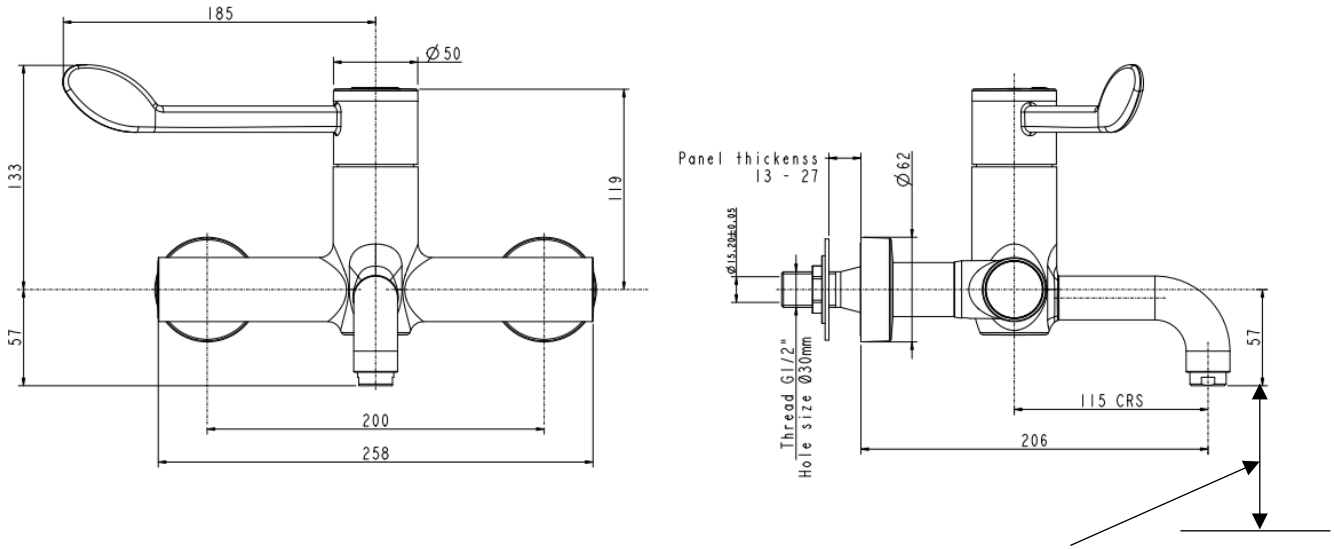
A7910AA – Panel Mounted
Sequential Pressure Balancing
Mixer Body Only



A7906AA – Deck Mounted
Sequential Pressure Balancing
Mixer Body Only

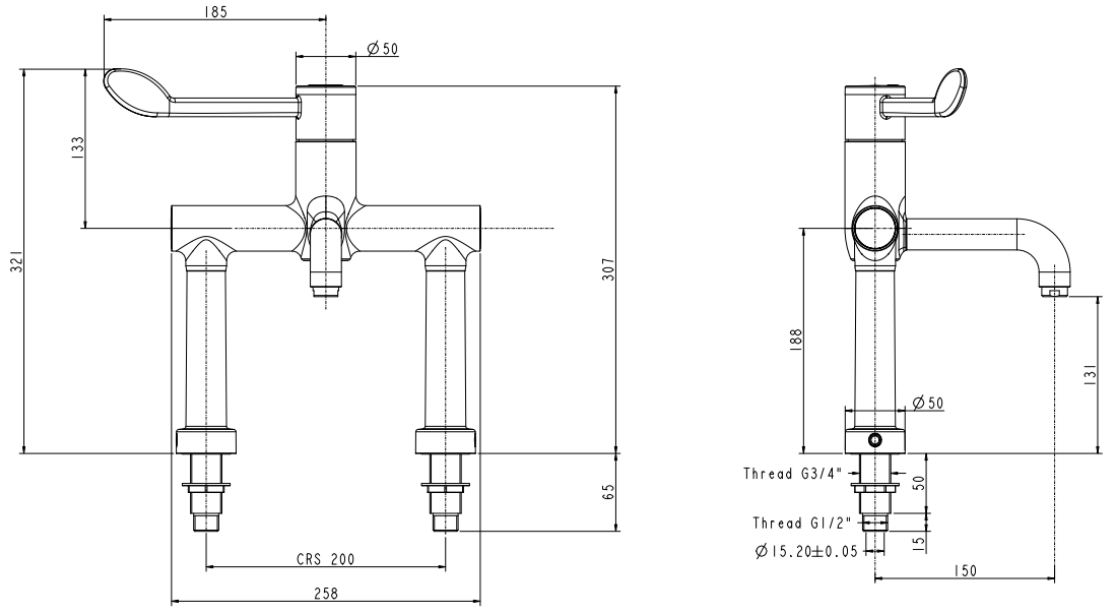


4. Panel Mounted Mixer Dimensions



In healthcare settings, choose the height of the fixation holes above the waste appliance to establish the recommended activity space outlined in HBN 00-10 Part C. Generally, this is set at 150mm – 200mm for a basin and 250mm – 300mm for a surgeon's scrub-up trough.

5. Deck Mounted Mixer Dimensions



6. Water Supply Conditions

Pressure Range: The mixer tap operates within 0.2 – 5 bar (20 – 500 kPa), with optimal performance at 3 bar (300 kPa).Suitable for ambient cold water and hot water up to 70°C.

Whilst balanced hot and cold water pressures are ideal, this mixer can operate with unequal pressures up to a 5:1 ratio.

Integral Features: Includes isolating valves for easy servicing of the strainer, check valves, regulators, ceramic disc cartridge, and pressure balancing valve.

Water Supply Conditions Continued…

Regulations Compliance: Must comply with the Water Regulations of 1999. Professional installation is strongly recommended by Armitage Shanks. Reference: For details, see the Water Supply (Water Fittings) Regulations 1999 guide from WRAS (ISBN 0-9539708-0-9).

Flow Rate Improvement for pressures below 0.6 bar (60 kPa):

Remove the Ø10mm flow regulated check valves from the inlets (see Section 32).

If the flow regulated check valves have been removed the strainers can also be removed to further enhance the flow rate. For the panel mounted mixers use a 5mm hexagon key to detach strainers from the adaptors and refit adaptors into inlets (see Section 26).
For the deck-mounted mixers: Remove the strainers (see Section 27).

Important: Do not remove the Ø15mm check valves inside the inlet bores.

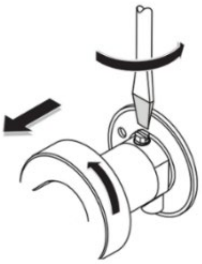
DO NOT apply heat near this product. Heat generated by soldering could damage plastic parts and seals.

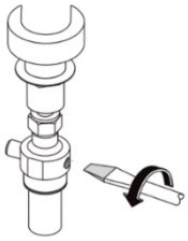
Check that all joints are securely tightened, test for leaks.

7. Installation Of Body Only Products A7906AA & A7910AA

7.1 Isolating Water Supplies Existing Markwik 21 Mixer Body

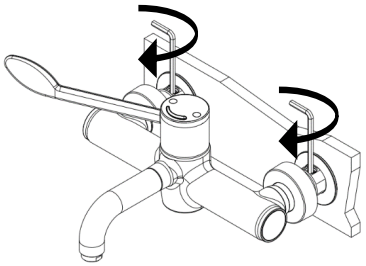
1. Turn off the water supplies using the integral isolation valves.
2. Unscrew and slide forward the wall shrouds.
3. Isolate both inlets by turning the isolation valves through 90° anti-clockwise.

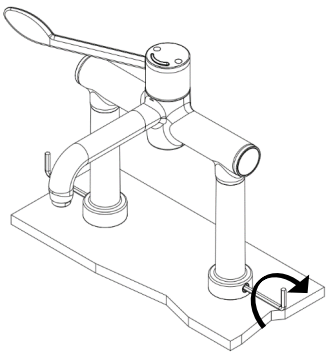




7.2 Isolating Water Supplies Existing Markwik 21+ Mixer Body

1. Unscrew and slide forward the wall shrouds. For Markwik 21+ deck-mounted mixers, remove the small index buttons at the base of the shrouds.
2. Isolate both inlets by fully screwing down the isolation valves using a 5mm hexagon key in the clockwise direction.

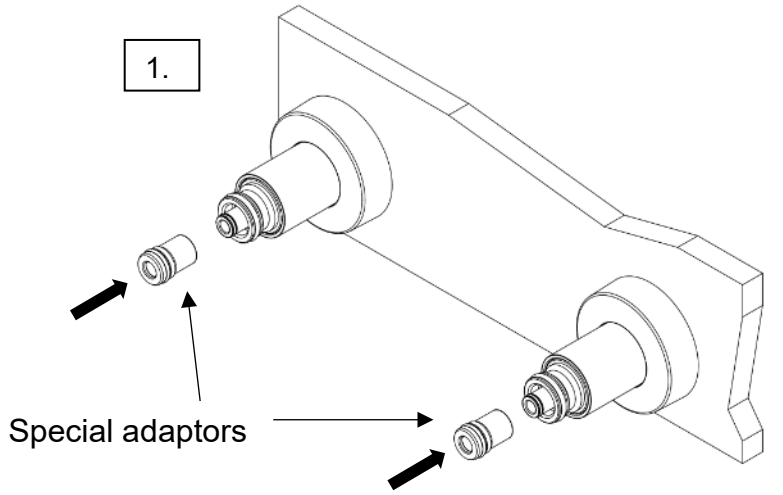


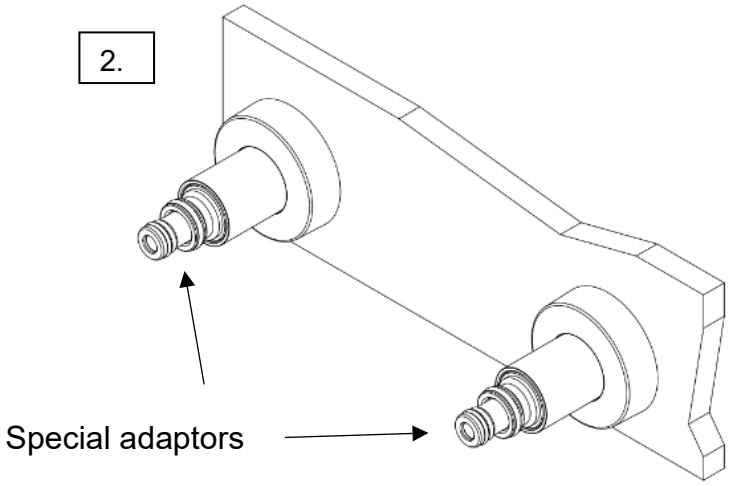


Refer to Section 19 to demount the existing mixer body

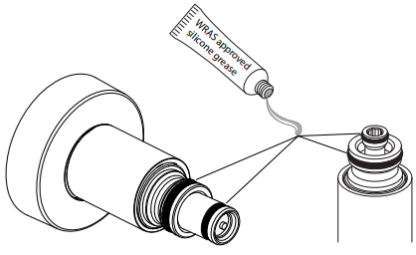
7.3 Fitting Special Adaptors Markwik 21 Inlets (Included In Kit A861794AA)

For Markwik 21 inlets, attach the special adaptors to the front of the inlets. Prior to assembly, apply a thin layer of Regulation 4 / WRAS approved silicone grease to the inlet O-rings to prevent any potential damage.





7.4 Inlet O-Rings (Included In Kit A861794AA)



Replace the two inlet O-rings on each inlet and apply a light coating of Regulation 4 / WRAS approved silicone grease. This step aids in preventing damage to the O-rings during assembly.

Refer to Section 19 to fit the new mixer body.

Refer to Section 11 for lever assembly and positioning

7.5 Fitting Detachable Outlet (Panel Outlet Kit A6250AA. Deck Outlet Kit A6252AA)

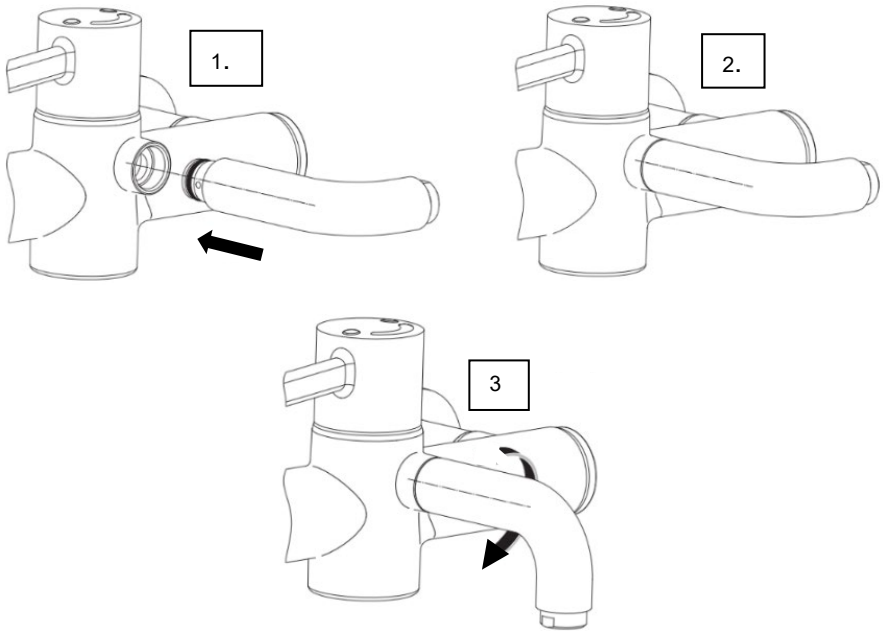
Replace both O-rings on the outlet with new ones supplied in the kit A861794AA.

Insert the outlet fully into the body with its orientation set at the 3 o'clock position. Finalize the attachment by rotating it a full 90° clockwise.

Restore the water supplies at the integral inlet isolation valves.

Refit the shrouds / index buttons.

Ensure the new mixer operates correctly by turning the lever counterclockwise.

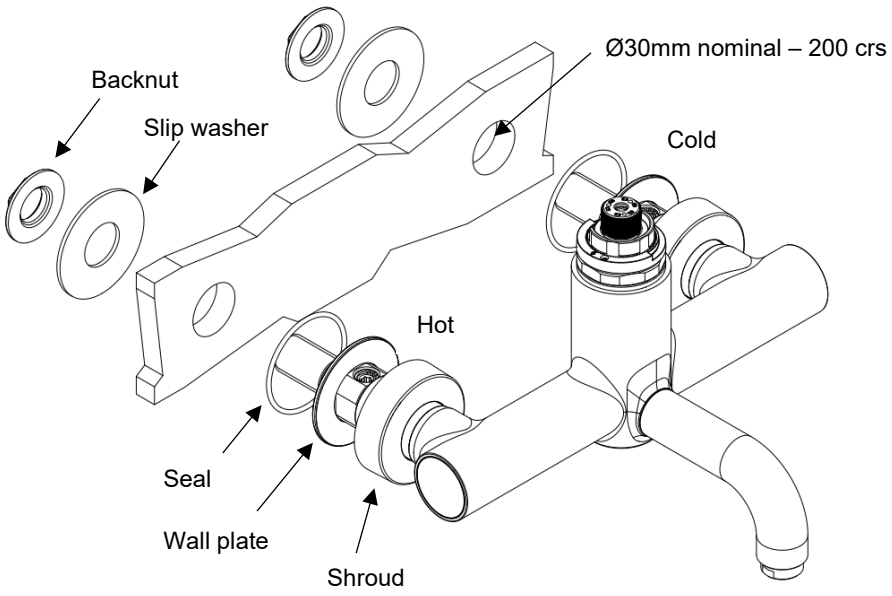


8. A7909AA Panel Mounted Mixer Installation

The panel-mounted mixer is specifically designed for mounting on a duct wall with a thickness ranging from 13-27mm. In the case of thicker panels, a counterbore of 62mm or more is required at the rear of the panel. Cut two Ø30mm holes horizontally aligned at 200mm centers. For healthcare applications in adherence to HBN 00-10 Part C, the fixation holes' height above the waste appliance is crucial for creating the recommended activity space. Typically, this is set between 150mm – 200mm for a basin and 250mm – 300mm for a surgeon's scrub-up trough. Before installation, remove the protective cover caps from the mixer's inlets, outlet, and thermostatic cartridge.

To install, loosen the chrome shrouds and insert the fitting with the wall plates and seals facing the front of the panel. Secure the slip washers and tighten the backnuts to a torque of 25 Nm. Screw the shrouds onto the wall plates.

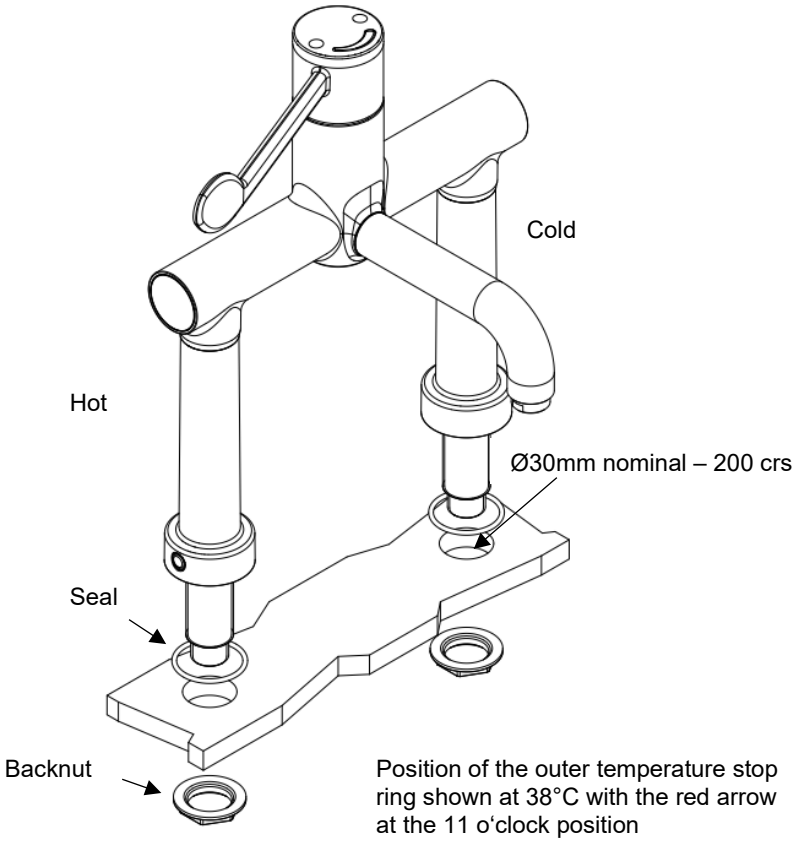
Connect the plumbing using G1/2" swivel couplers. Attach the hot water supply to the left inlet and the cold water supply to the right inlet (as viewed from the front) using swivel couplers.



9. A7905AA Deck Mounted Mixer Installation

The deck-mounted mixer is intended for installation on a basin or countertop with a maximum thickness of 40mm. For countertops, create two horizontally aligned Ø30mm holes spaced 200mm apart. Make sure the base 'O' seals are in position, then insert the inlets through the tap holes. Securely fasten the backnuts and tighten them to a torque of 25 Nm.

Utilize Ø15mm compression connections to connect the hot water supply to the left inlet the cold water supply to the right inlet (as viewed from the front).

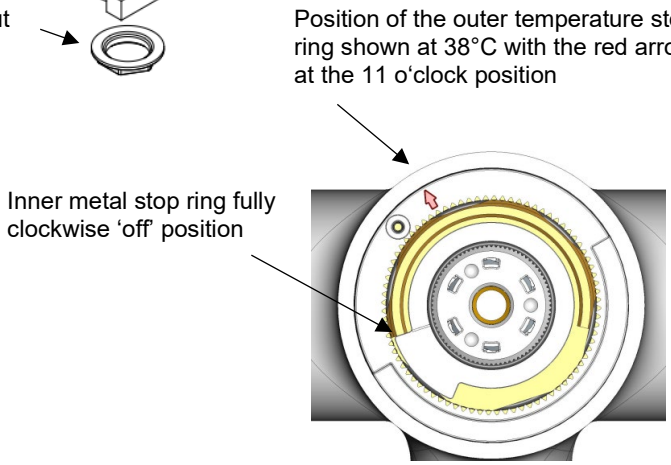


10. Flushing The Pipework

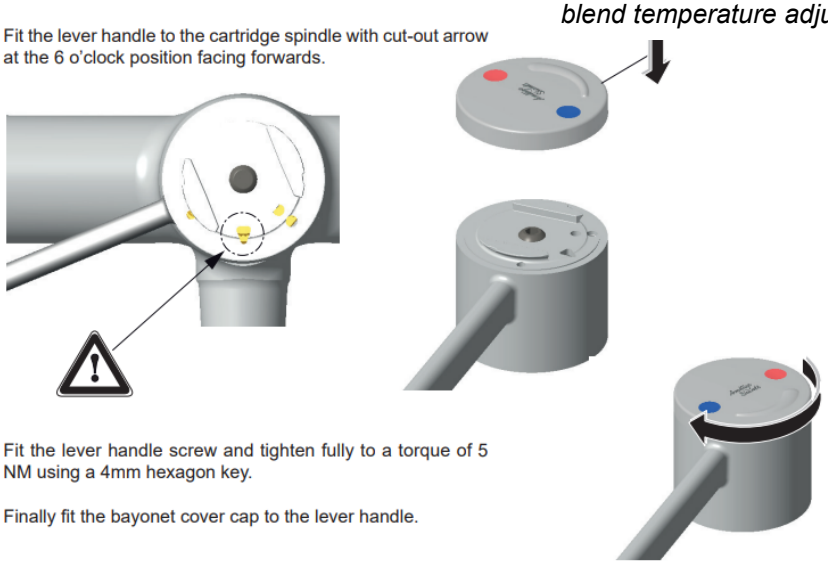
An essential step before using the products is to flush the pipework thoroughly to eliminate any residues or debris that may remain post-installation. Flushing kits are available *Refer to Section 28 for details*

11. Lever Assembly And Positioning

Rotate the cartridge fully clockwise, ensuring the tab of the inner metal stop ring firmly aligns with the clockwise rotation stop. If not, continue rotating the spindle clockwise until alignment is achieved. This ensures the cartridge is in the off position. Use the spline drive in the lever for spindle rotation if necessary.

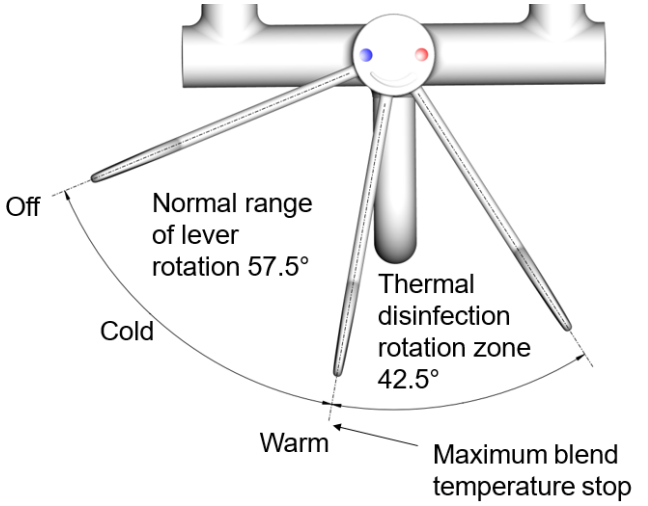


Refer to Section 14 for maximum blend temperature adjustment.



12. Operation

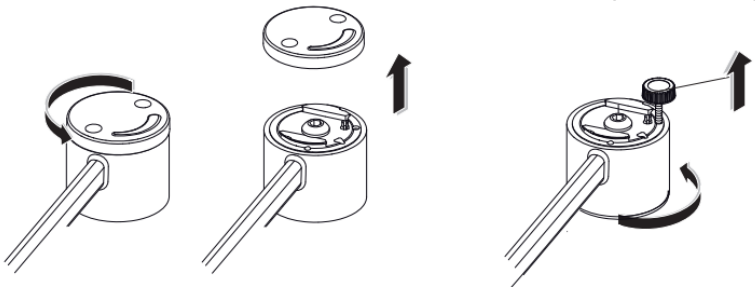
Rotate the Lever anti-clockwise. The delivered water will progress from cold through warm up to the preset maximum blend temperature.



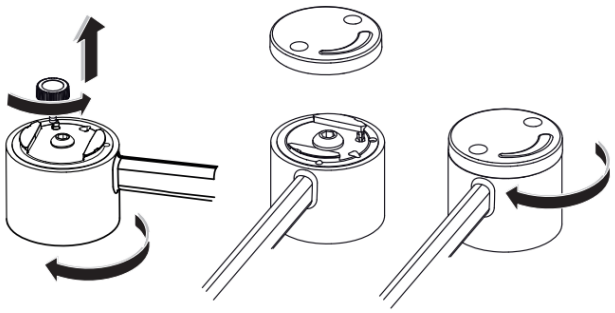
13. Thermal Cleanse

Care should be taken when carrying out the following procedure to avoid contact with hot water and hot surfaces.

This mixer comes with a built-in thermal cleanse feature for thermal disinfection. It enables overriding of the maximum blend temperature stop to utilize the full hot water supply temperature in the system.



To activate, twist the Lever cap anticlockwise and remove. Screw the override tool fully into the threaded port on top of the Lever
Carefully lift the override tool and turn the Lever fully anticlockwise

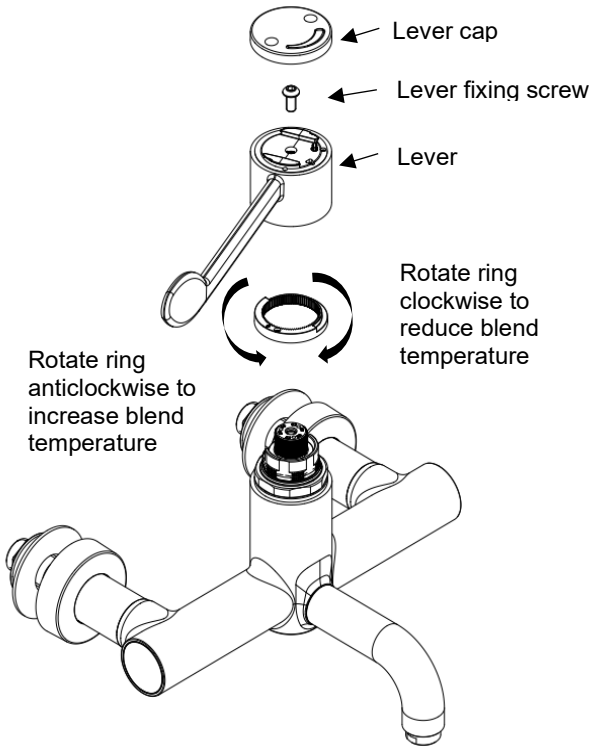


Once the thermal cleanse is complete, simply unscrew and remove the override tool, return the Lever to the off position and refit the Lever cap.

Temperature	Disinfection time
60°C	20 minutes
65°C	10 minutes
70°C	5 minutes

14. Adjustment Of The Maximum Blend Temperature

It is important to ensure that the normal maximum delivery temperature is set appropriate to the risks posed by the potential users and controlled to safe limits, in the absence of thermostatic control. Installation, commissioning and maintenance should take account of the system's dynamic pressure and temperature changes, and the seasonal changes in incoming cold water temperatures



1. Twist the lever cap anticlockwise and lift it off

2. Unscrew the lever fixing screw using a 4mm hexagon key and lift off the Lever

14. Adjustment Of The Maximum Blend Temperature Continued…

3. Lift, rotate to the desired setting and refit the maximum blend temperature stop ring.

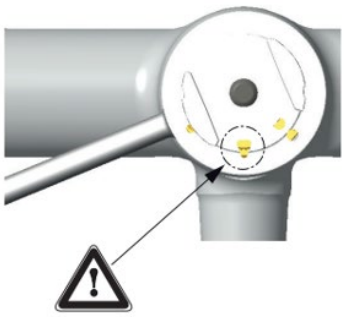
   Rotate anticlockwise to increase & clockwise to reduce the temperature

   We recommend a maximum blend temperature setting of 38°C.

4. Fit the lever to the cartridge spindle with cut-out arrow facing forwards at the 6 o'clock position as shown.

5. Fit the lever fixing screw and tighten fully to a torque of 5 Nm using a 4mm hexagon key.

6. Conclude the assembly by attaching the lever cap to the lever. Align the blue dot located on the top of the lever cap with the cut-out arrow on the lever at the 6 o'clock position. Press the cap down until it sits flush with the lever, then rotate it 90 degrees clockwise to securely fix it in place.



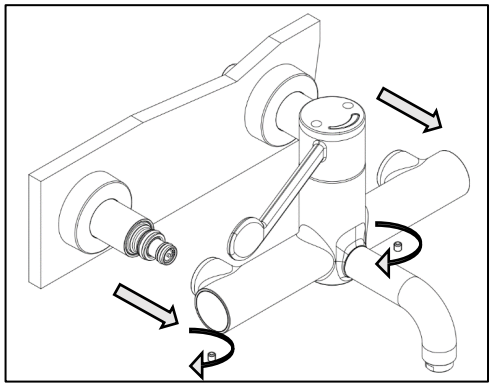
15. Demounting The Mixer

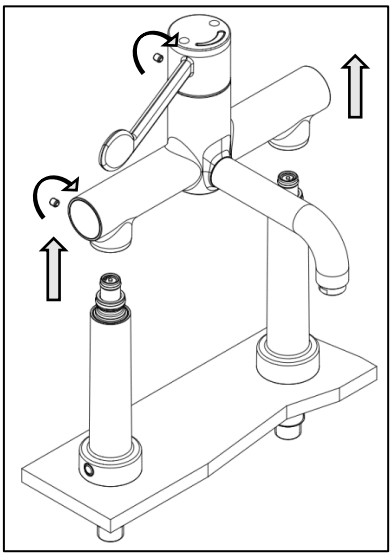
On the panel mounted mixer unscrew and slide forward the wall shrouds. For deck-mounted mixers, remove the small index buttons at the base of the shrouds.

Isolate both inlets by fully screwing down the isolation valves using a 5mm hexagon key in the clockwise direction. *Refer to Section 7.2*

To verify the closure of water supplies, turn the mixer lever fully anti-clockwise.

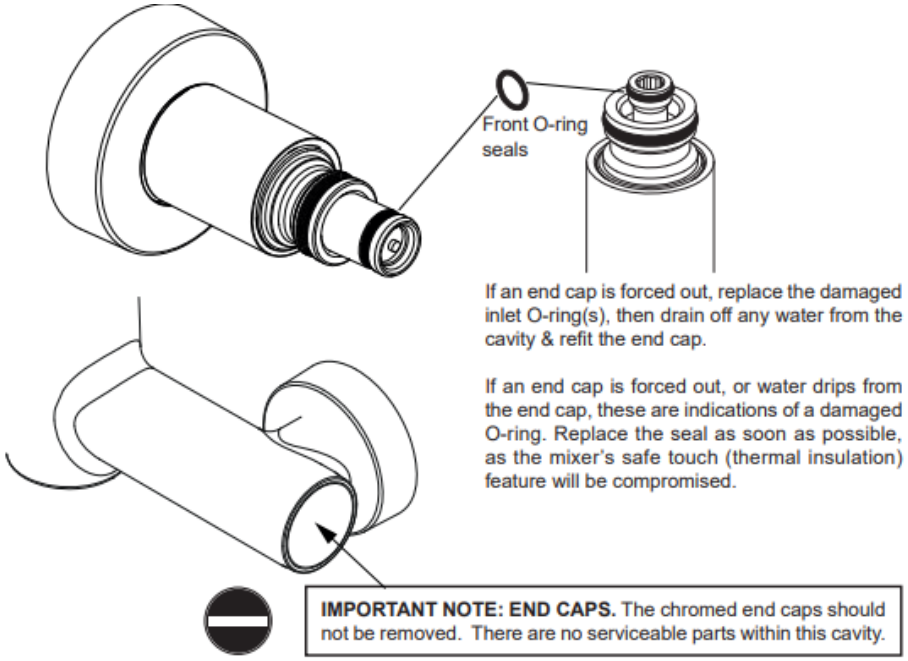
Loosen the mixer by undoing the two grub screws with a 3mm hexagon key. Be cautious not to misplace the screws.





Carefully pull the mixer away from the inlets to detach it, being prepared for the release of any trapped water. Should the O-ring seals on the front of the inlets sustain damage, leaking water may lead to pressure accumulation within the fitting, eventually resulting in the expulsion of an end cap. If this occurs, it is imperative to replace the damaged inlet O-ring seals.

15. Demounting The Mixer Continued…



16. Inlet Maintenance And Removal Guidelines

Before installation, securely fix both inlets to the mixer body. Fit the complete assembly onto the panel and secure it with the back-nut kit, applying a torque of 25Nm. Avoid separating the inlets and installing them individually, as it may result in misalignment with the mixer body, risking damage to O-rings during installation.

17. Disinfection

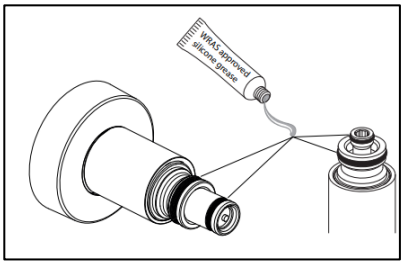
To effectively disinfect the mixer, we recommend full immersion in a suitable bactericidal solution. Prior to immersion, ensure the fitting is thoroughly cleaned and adequately dismantled to prevent air locking. The extent of dismantling may vary based on water quality and service life, and practical experience should guide this decision. Our recommendation is to remove the lever, sequential cartridge, and pressure balancing valve before immersion. However all components can also be immersed together in an unassembled state. Disinfected mixers should either be promptly replaced or stored using an appropriate method until needed.

To ensure practical functionality and prevent environmental contamination, it is advised not to leave the inlets open. Our flushing kits for panel (A6899NU) and deck (A6898NU) include inlet cover caps for this purpose.

18. Disinfection Solution Guidelines

The recommended disinfection solution for immersion is a 70% ethanol solution, and immersion should last for 10 minutes. Contrary to intuition, concentrations exceeding the recommended levels are less effective, not more effective. It is crucial to ensure that the concentration aligns with the manufacturer's recommendation to maximize efficacy.

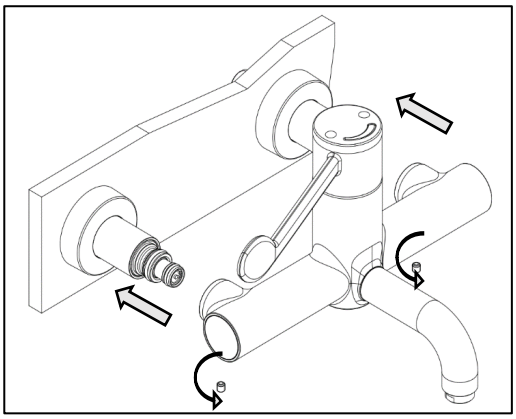
19. Remounting The Mixer

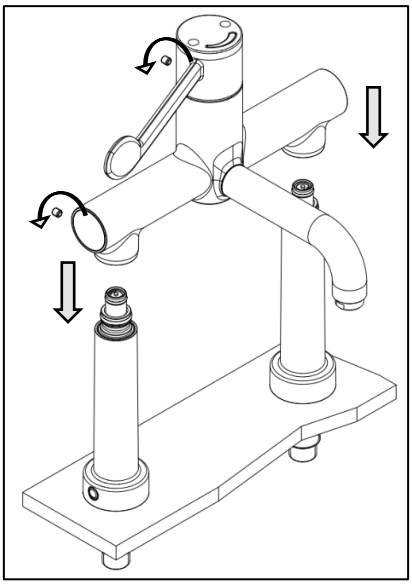


1. Apply a light coating of Regulation 4 / WRAS approved silicone grease to the inlet O-rings to prevent damage during assembly.

2. Attach the mixer carefully in a perpendicular manner onto the inlets, ensuring precise alignment to prevent any potential damage to the inlet O-rings.

3. Secure the mixer by tightening the two grub screws fully clockwise with a 3mm hexagon key to a torque of 2.5-3Nm





20. Bioguard Outlet

Research has identified the susceptibility of traditional flow straightener outlets for bacteria retention. Owing to their high surface-area-to-volume ratio and location at the tap outlet, certain designs of flow straightener may present a greater surface area for colonization and support the growth of organisms. Therefore, where possible flow straighteners should be avoided. Our solution is the Bioguard outlet, an innovative alternative that replaces the conventional flow straightener with a fully open copper-lined waterway. This not only significantly diminishes the risk of bacteria accumulation but also capitalizes on the inherent antimicrobial properties of copper. While Bioguard outlets provide an effective complement to standard infection control practices, they do not substitute for them. It is crucial to maintain current infection control protocols diligently, particularly those concerning surface cleaning and disinfection. For a more comprehensive understanding, refer to HTM04-01. We also offer a minimally restrictive antimicrobial star insert for our Bioguard outlet, providing the option to control water flow more precisely if desired. (Code S961044NU)

21. Bioguard Outlet Cleaning

Regular maintenance of the Bioguard outlet is important. To inspect and clean, carefully unscrew and remove using a 20mm adjustable spanner on the flats. When refitting, hand tighten initially, then use the spanner until the outlet is snug in the bore, avoid over-tightening. In areas prone to lime scale, regular cleaning is essential to prevent build-up. If lime scale accumulates, use an inhibited proprietary scale solvent (e.g., kettle descaling solvent), following the manufacturer's guidelines. After descaling, ensure thorough rinsing in clean water. Take care during cleaning, avoiding abrasive materials or scrapers. Remove lime scale deposits before applying disinfection treatments.

22. Detachable Outlet Removal Procedure

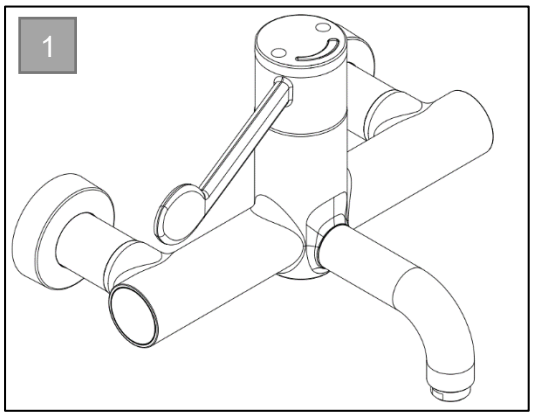
The mixers are equipped with a conveniently removable spout, facilitating easy cleaning and disinfection through immersion or autoclave sterilization. It is assumed that a replacement spout is available. For both practical functionality and to prevent environmental contamination, it is essential not to leave the mixer without a spout in place.

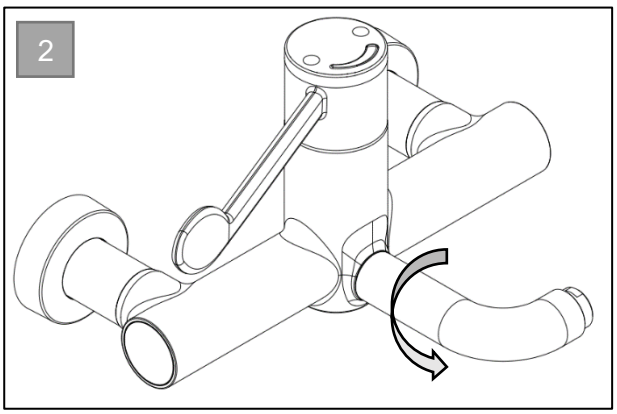
1. Ensure the handle is fully clockwise in the off position. To remove the spout, gently rotate the end of the spout anticlockwise by 90°.

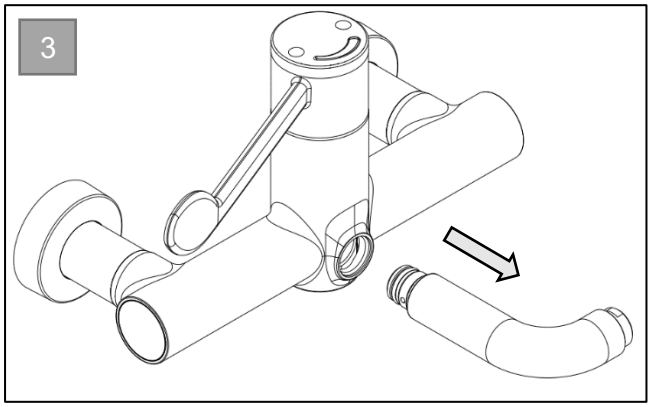
2. The spout orientation should now be at the 3 o'clock position as illustrated.

3. Gently pull the spout away from the body as demonstrated. To reinstall a spout, reverse this procedure. *(Refer to Section 7.6)*

Additional spouts are available to facilitate cleaning protocols, allowing for an alternative spout to be fitted while the original is removed. This ensures uninterrupted use of the mixer. For additional spout part numbers. *(Refer to Section 33)*





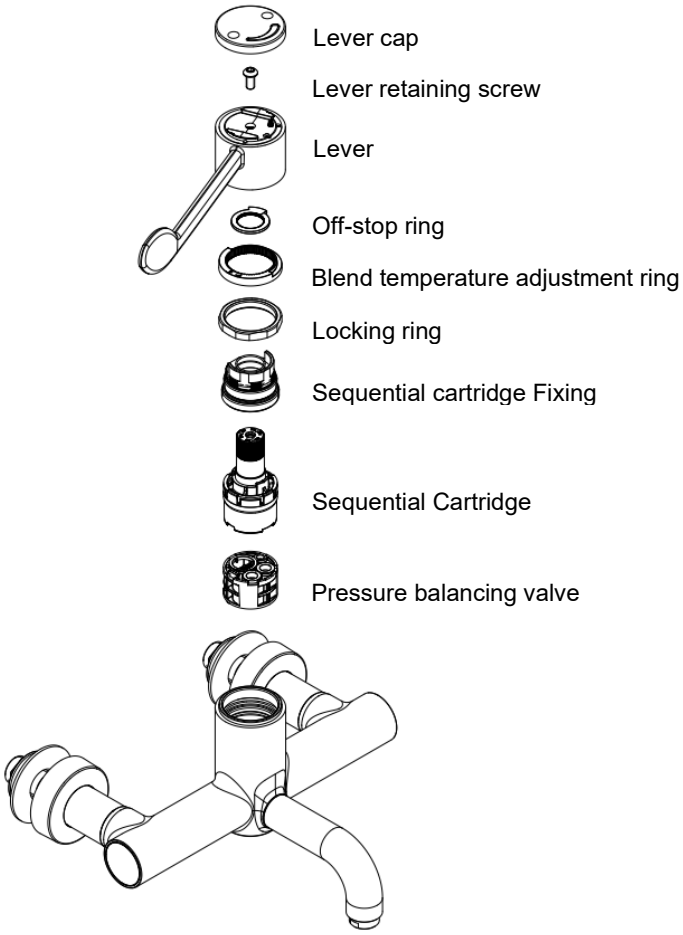


23. Cleaning, Disinfecting, Sterilizing The Removed Outlet

Physical cleaning is necessary only when visible solid deposits, such as calcium or similar substances, are observed around the outlet. For disinfection purposes, immerse the spout in a suitable bactericidal solution. It is highly recommended to remove the Armitage Bioguard outlet from the spout before immersion. Sterilization can be achieved through autoclaving for the recommended duration. The entire spout, including the blue O-ring seals can undergo autoclaving.

24. Sequential Cartridge & Pressure Balancing Valve Removal

1. Rotate the Lever cap 90° counterclockwise and lift it off.
2. Utilize a 4mm hexagon key to unscrew the retaining screw, then lift off the lever.
3. Lift and remove the off-stop ring from the sequential cartridge spline.
4. Lift and remove the blend temperature adjustment ring from the fixing ring spline.
5. Unscrew the locking ring from the fixing ring by rotating counterclockwise using a 43mm A/F socket or a suitable spanner.
6. Unscrew the sequential cartridge fixing ring from the body by rotating counterclockwise using a 33mm A/F socket or a suitable spanner.
7. Lift and extract the sequential cartridge from the body with precision and care.



8. Carefully employ long-nose pliers to lift up and extract the pressure balancing valve from the body.

25. Sequential Cartridge & Pressure Balancing Valve Assembly

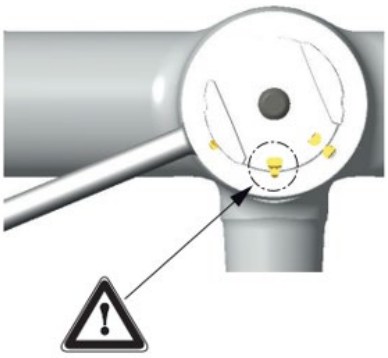
1. Insert the pressure balancing valve into the body, ensuring accurate alignment of the two location lugs on its underside with the manifold inside the body.
2. Carefully insert the sequential cartridge into the body, ensuring precise alignment of the single lug on its underside with the pressure balancing valve.
3. Tighten the sequential cartridge fixing ring clockwise into the body using a 33mm A/F socket or a suitable spanner, ensuring it reaches a torque of 8 Nm.
4. Rotate clockwise and securely tighten the locking ring onto the fixing using a 43mm A/F socket or an appropriate spanner, ensuring it achieves a torque of 25 Nm.
5. Turn the cartridge fully clockwise to the off position, utilizing the spline drive in the lever for spindle rotation.
6. Slide the off-stop ring onto the sequential cartridge spline. Confirm that the tab of the inner metal stop ring aligns securely with the clockwise rotation stop.
7. Place the blend temperature adjustment ring back onto the fixing ring with the red arrow at the 11 o’clock position facing left.

25. Sequential Cartridge & Pressure Balancing Valve Assembly Continued…

8. To adjust the blend temperature lift, rotate and refit the maximum blend temperature stop ring.

   Rotate the ring anticlockwise to increase the temperature
   Rotate the ring clockwise to reduce the temperature

   We recommended a maximum blend temperature setting of 38°C.



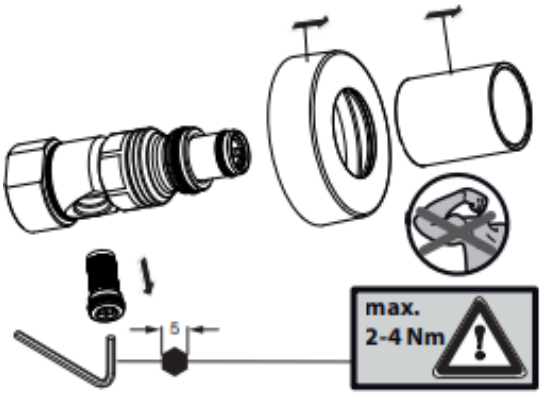
9. Ensure the tab of the inner metal stop ring firmly aligns with the clockwise rotation stop then fit the lever to the cartridge spindle with cut-out arrow facing forwards at the 6 o'clock position

10. Fit the lever retaining screw and tighten to a torque of 5 Nm with a 4mm hexagon key.

11. Conclude the assembly by affixing the bayonet cover cap to the lever. Align the blue dot on the top of the lever cap with the cut-out arrow on the lever at the 6 o'clock position. Press down on the cap and rotate it 90° in the clockwise direction.

26. Panel Mounted Mixer – Inlet Strainers

To maintain optimal mixer performance, follow these steps for maintenance of the inlet strainers.



1. Unscrew and remove the chrome panel shrouds and pull the chrome Sleeves forward off the inlet.

2. Isolate both inlets by screwing down the isolation valves with a 5mm hexagon key in the clockwise direction. Confirm closure by operating the lever.

3. Using a 3mm hexagon key, carefully undo the 2 grub screws securing the mixer, exercising caution to prevent the loss of screws.

4. Carefully pull the mixer forward in a perpendicular manner from the inlets to disengage it, anticipating the release of any trapped water.

5. Unscrew and remove the strainers from the underside of the inlets using a 5mm hexagon key inserted into the strainer adaptors.

6. Inspect and wash the strainers with clean water. These can be autoclaved or replaced if necessary (Code: A861172NU). *Alternatively, if the supply pressures are below 0.6 Bar and the Ø10mm flow regulators have been removed, use a 5mm hexagon key to snap away and remove the strainers from the adaptors.*

7. Before reassembling the strainers, flush the inlets with our flushing and water sampling kit A6899NU (not included).

8. Refit the strainers using a 5mm hexagon key with a torque of 2-4 Nm.

9. Apply a light coating of Regulation 4 / WRAS approved silicone grease to the inlet O-rings to prevent damage during assembly.

26. Panel Mounted Mixer – Inlet Strainers Continued…

10. Attach the mixer carefully in a perpendicular manner onto the inlets, ensuring precise alignment to prevent any potential damage to the inlet O-rings.

11. Slide the wall shrouds forward and screw them clockwise back into position.

12. Secure the mixer by tightening the two grub screws fully clockwise with a 3mm hexagon key to a torque of 2.5-3 Nm.

27. Deck Mounted Mixer – Inlet Strainers

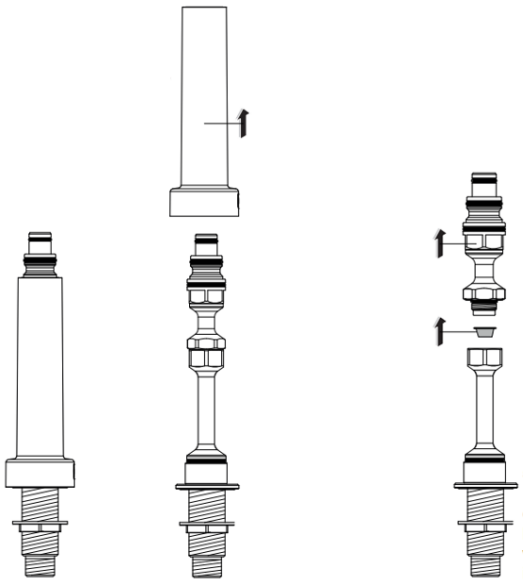
1. Remove the small index buttons at the base of the shrouds exercising caution to prevent loss of the buttons.

2. Isolate both inlets by fully screwing down the isolation valves using a 5mm hexagon key in the clockwise direction.

3. Lift the one piece chrome shrouds up off the inlets.

4. Use a 25mm A/F spanner to secure the bottom inlet while unscrewing the top inlet with another 25mm A/F spanner.

5. Inspect and wash the strainers with clean water, replace if necessary (Code: F961032NU) If supply pressures are below 0.6 Bar and the Ø10mm flow regulators have been removed, proceed to remove the strainers.



6. Reassemble the inlet using two 25mm A/F spanners to a torque of 15-20 Nm

7. Re-fit the chrome shrouds, ensuring to align the small access hole in the base of the shroud with the isolation screw on the inlet.

8. Refit the small index buttons.

9. Apply a light coating of Regulation 4 / WRAS approved silicone grease to the inlet O-rings to prevent damage during assembly.

10. Attach the mixer carefully in a perpendicular manner onto the inlets, ensuring precise alignment to prevent any potential damage to the inlet O-rings.

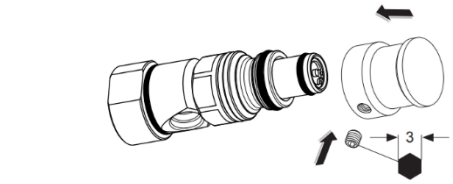
11. Secure the mixer by tightening the two grub screws fully clockwise with a 3mm hexagon key to a torque of 2.5-3 Nm.

28. Flushing

It is highly advisable to conduct a thorough flushing of the pipework to remove any residues or debris remaining after installation. To facilitate this process, panel (A6899NU) and deck (A6898NU) flushing kits are available, providing the added capability to measure water supply temperatures at the inlets.

29. Panel Mounted Mixer Flushing Procedure

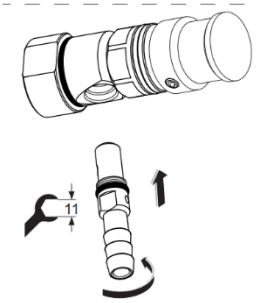
Exercise caution during the following procedure, avoid contact with hot water and surfaces. We strongly recommend protective hand wear.

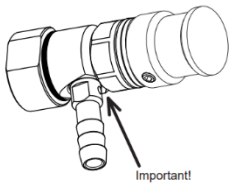


1. Isolate the water supplied and demount the mixer – *refer to section 7.2 & 15*

2. Use a 5mm hexagon key to remove the strainer from the inlet, providing access to the flushing port.

3. Screw the flushing kit adaptor fully into the inlet port and then unscrew it until the small indent faces the front of the inlet, as illustrated.





Small indent on the flushing kit adaptor must be aligned towards the front of the inlet.

4. Fit the inlet end cap as shown

5. Attach tubing to the flushing kit adaptor and direct it into the basin

6. Open the isolating valve and allow water to discharge into the basin until the water flows clear.

7. Repeat the process on both sides of the mixer to flush both hot and cold supplies.

8. Once the system is flushed, remove the flushing kits and reattach the strainers using a 5mm Allen key to a torque of 2-4 Nm

9. Apply a light coating of Regulation 4 / WRAS approved silicone grease to the inlet O-rings to prevent damage during assembly.

10. Attach the mixer carefully in a perpendicular manner onto the inlets, ensuring precise alignment to prevent any potential damage to the inlet O-rings. Slide the wall shrouds forward and screw them clockwise back into position.

11. Secure the mixer by tightening the two grub screws fully clockwise with a 3mm hexagon key to a torque of 2.5-3 Nm.

30. Deck Mounted Mixer Flushing Procedure

Exercise caution during the following procedure to avoid contact with hot water and hot surfaces. The use of protective hand wear is strongly recommended.

1. Isolate the water supplied and demount the mixer – *refer to section 7.2 & 15*

2. Lift the one piece chrome shrouds up off the inlets.

3. Use a 25mm A/F spanner to secure the bottom inlet while unscrewing the top inlet with another 25mm A/F spanner.

4. Remove the strainer from the inlets to access the flushing port.

5. Screw the flushing tool fully into the bottom deck inlet.

30. Deck Mounted Mixer Flushing Procedure Continued…

6. Attach tubing to the flushing tool and direct it into the basin.

7. Open the isolating valve and allow water to discharge into the basin until the water flows clean.

8. Repeat the process on both sides of the mixer to flush both the hot and cold supplies.

9. Once the system is thoroughly flushed, remove the purging kits and reinstall the strainers with the sealing washer facing upwards and the strainer mesh facing downwards.

10. Apply a light coating of Regulation 4 / WRAS approved silicone grease to the inlet O-rings to prevent damage during assembly.

11. Attach the mixer carefully in a perpendicular manner onto the inlets, ensuring precise alignment to prevent any potential damage to the inlet O-rings.

12. Refit the small index buttons at the base of the shrouds.

13. Secure the mixer by tightening the two grub screws fully clockwise with a 3mm hexagon key to a torque of 2.5-3 Nm.

31. Check Valves

Ø15mm check valves are fitted Inside the bore of the inlets, these can be cleaned or replaced but must not be removed.

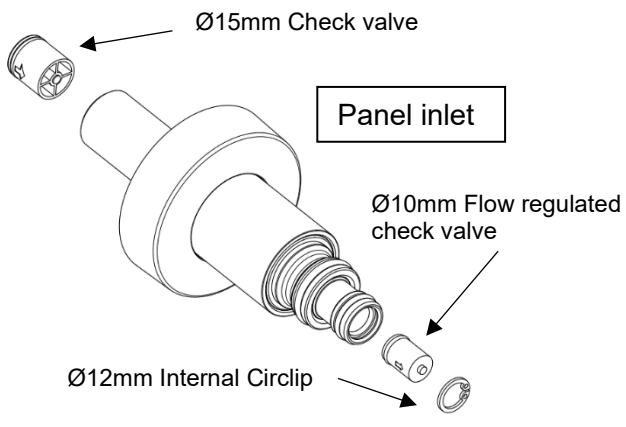
32. Flow Regulated check valves

Ø10mm flow regulated check valves are fitted inside the front of each inlet which can be cleaned or replaced. They can be removed to increase flow performance if the supply pressures are less than 0.6 bar.

1. Isolate both inlets by fully screwing down the isolation valves using a 5mm hexagon key in the clockwise direction. Confirm closure by operating the lever.

2. Using a 3mm hexagon key, carefully undo the 2 grub screws securing the mixer, exercising caution to prevent the loss of screws.

3. Gently pull the mixer forward to remove it from the inlets, being prepared for some trapped water to escape.

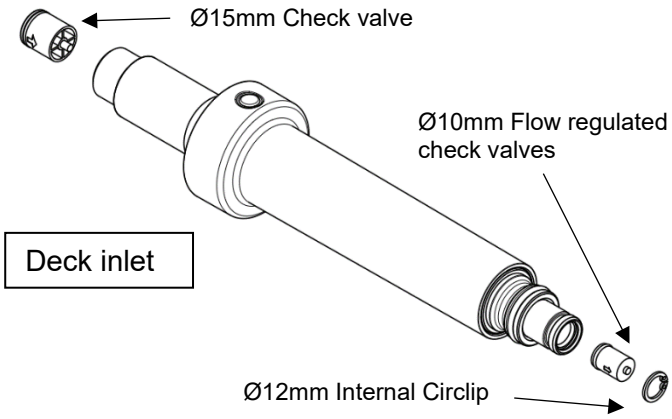


32. Flow Regulated Check Valves Continued…

4. Remove the Ø12mm circlip using suitable internal circlip pliers.

5. The Ø10mm flow regulated check valve can now be removed, inspected or replaced using long nose plyers; however there is a high probability of damage during removal.

6. Apply a light coating of Regulation 4 / WRAS approved silicone grease to the inlet O-rings to prevent damage during assembly.

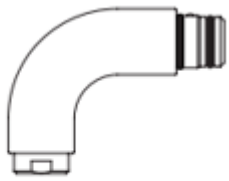


7. Attach the mixer carefully in a perpendicular manner onto the inlets, ensuring precise alignment to prevent any potential damage to the inlet O-rings.

8. For panel-mounted mixers, slide the wall shrouds forward and secure them by screwing them clockwise back into position. For deck-mounted mixers, refit the small index buttons at the base of the shrouds.

9. Secure the mixer by tightening the two grub screws fully clockwise with a 3mm hexagon key to a torque of 2.5-3 Nm.

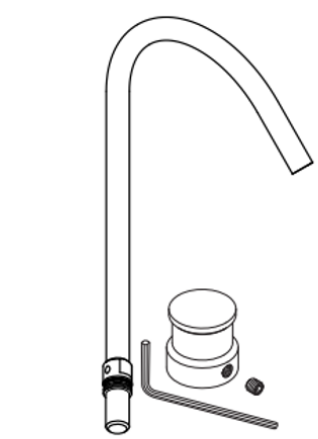
33. Accessories



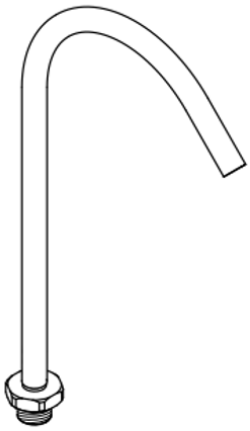
A6252AA
Panel mount spout complete.
Short version with100mm reach.
Fitted with Armitage Bioguard outlet
& o-rings at the mixer coupling end.

A6255AA
Cover caps kit.
To protect & seal the inlets legs when
a mixer has been demounted & removed.

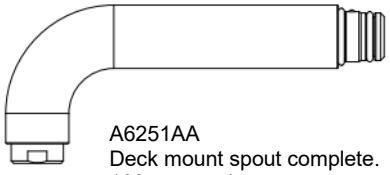
A6250AA
Panel mount spout complete.
With normal 135mm reach.
Fitted with Armitage Bioguard outlet
& o-rings at the mixer coupling end.



A6899NU
Panel Flushing set



A6898NU
Deck Flushing set



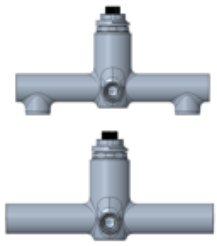
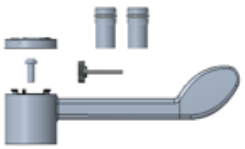
A6251AA
Deck mount spout complete.
160mm reach.
Fitted with Armitage Bioguard outlet & o-rings at the mixer coupling end.

34. Body Only Products A7906AA & A7910AA Required SKU's For Replacement

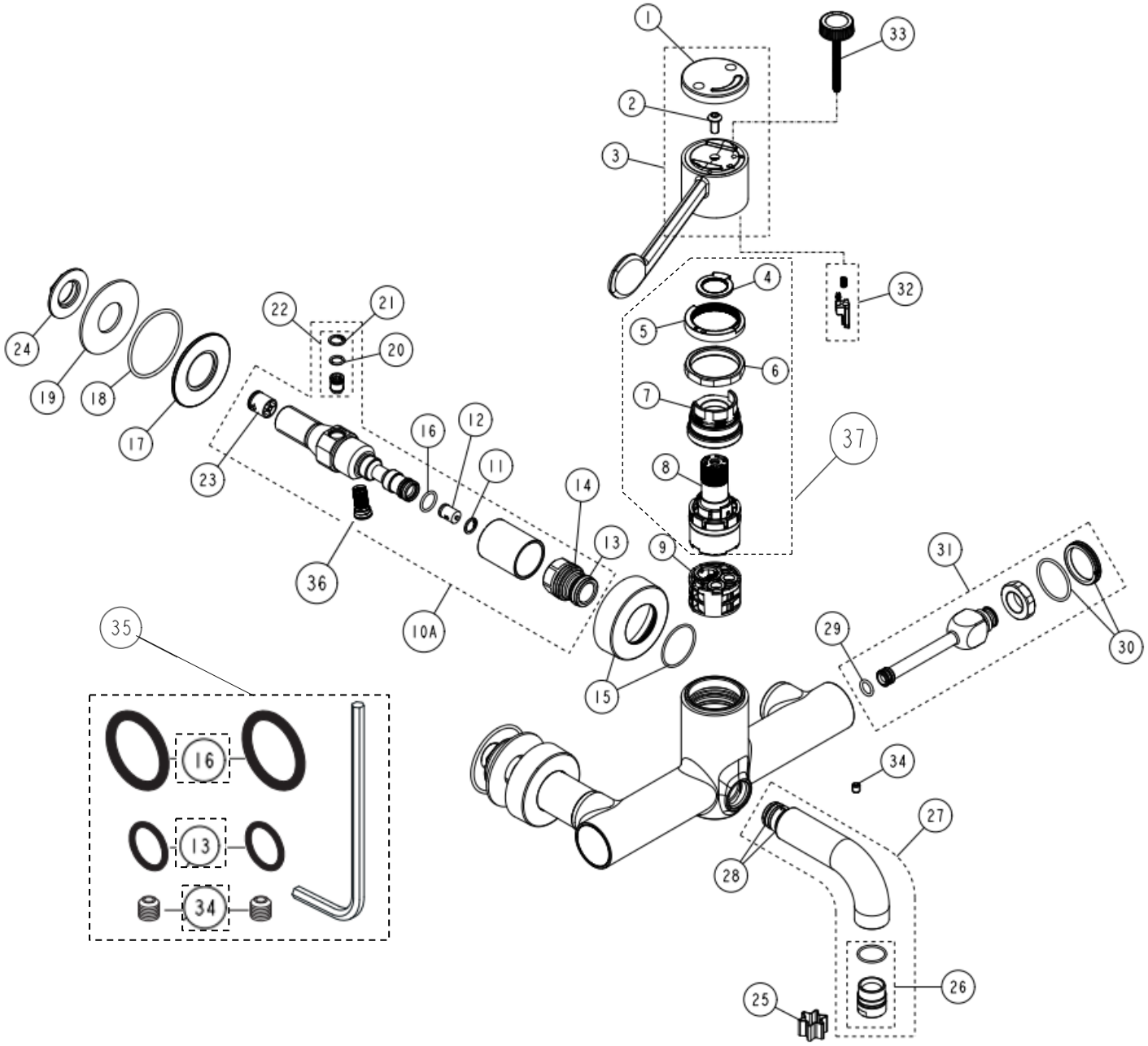
If a Markwik 21 or 21+ Thermostatic mixer is currently installed and replacement of the Thermostatic mixer body with the new Comfort SQ pressure balancing mixer body is desired, consult the following matrix for the required codes, working from left to right:

For instance, if there is an A6682AA – Markwik 21+ Panel mounted thermostatic mixer installed, only the replacement Comfort SQ body A7910AA would be required.

If there is an A6060AA – Markwik 21 Panel mounted mixer installed, the replacement Comfort SQ body A7910AA, detachable spout A6250AA, and spares pack A861794AA would be needed.

				
Installed Thermostatic mixer		Replacement body only	Required spout	Required spares pack
A6682AA	M21+ Panel mixer detachable spout	A7910AA		
A6735AA	M21+ Panel mixer fixed spout	A7910AA	A6250AA	
A6734AA	M21+ Deck mixer fixed spout	A7906AA	A6251AA	
A6243AA	M21 Panel mixer detachable spout	A7910AA		A861794AA
A6060AA	M21 Panel mixer fixed spout	A7910AA	A6250AA	A861794AA
A6242AA	M21 Deck mixer detachable spout	A7906AA		A861794AA
A6711AA	M21 Panel mixer detachable spout	A7910AA		A861794AA

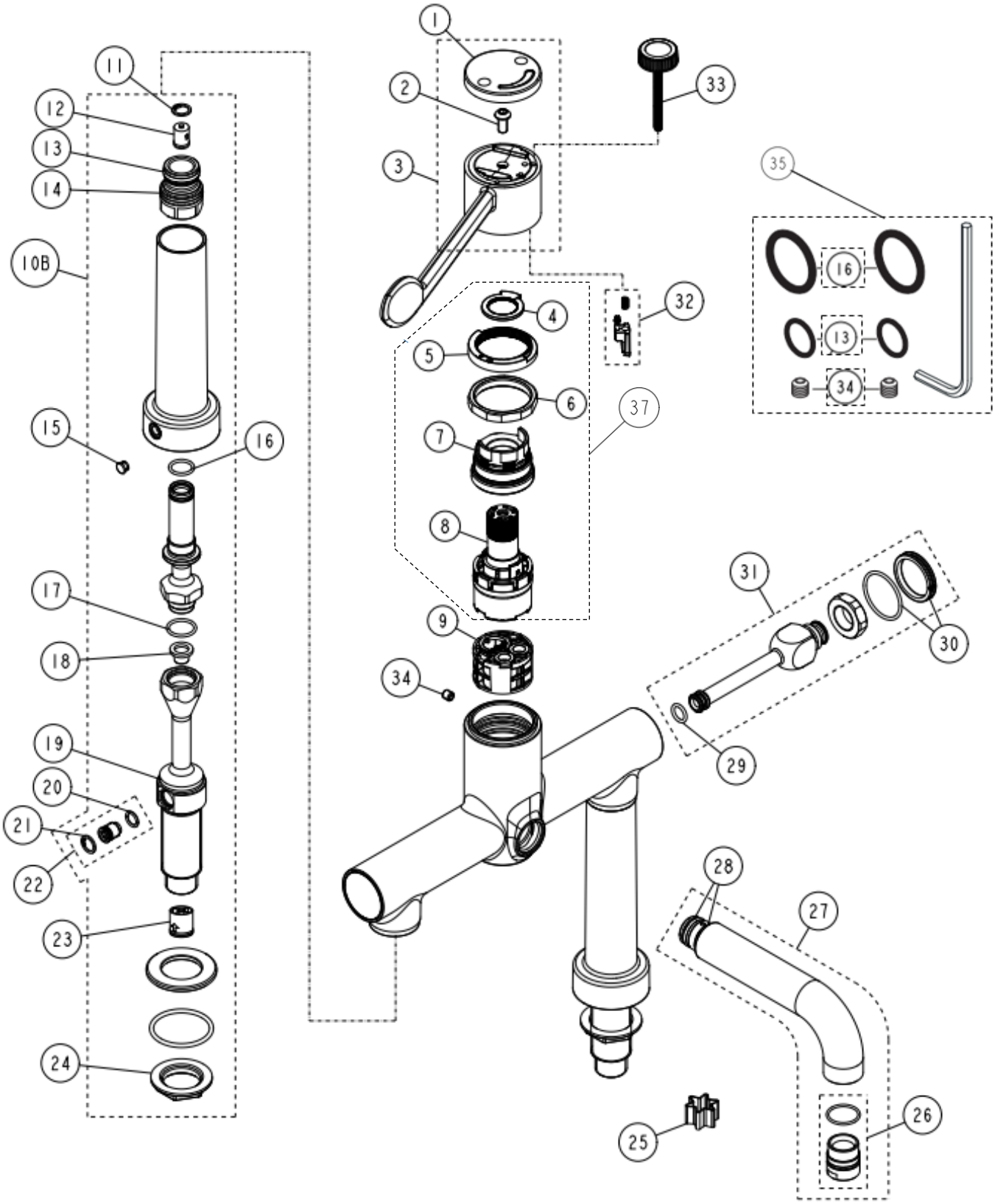
35. Spare Parts Panel Mounted Mixer



35. Spare Parts Panel Mounted Mixer continued…

Ref.	Description	Part No
1	Lever cap	A861159AA
2	Lever screw	A961950NU
3	Lever set	A861158AA
4	Off stop ring + Splined Lever adaptor	A861310NU
5	Maximum blend temperature stop ring	A861122NU
6	Locking ring	-
7	Sequential cartridge fixing ring	-
8	Sequential cartridge	-
9	Pressure balancing valve	B961620NU
10A	Panel Inlet set	A861825AA
11	Circlip (Pack contains 4x parts)	A861346NU
12	Combined CV&FR Ø10mm (light blue)	A861176NU
13	O-ring Ø 17 x 2.5	A963143NU
14	O-ring Ø 24 x 2	A961809NU
15	Escutcheon + O-ring	A962346AA
16	O-ring Ø 12,42 x 1,78	A961332NU
17	Wall plate	E960633NU
18	O-ring Ø 51 x 2.4	E960632NU
19	Slip washer	E960631NU
20	O-ring Ø 8.1 x 1.6	A962345NU
21	Circlip (Pack contains 4x parts)	A861346NU
22	Isolation plug complete (2 sets)	A861329NU
23	Ø15mm Check valve (pair)	A962594NU
24	Backnut	E960112NU
25	Brass flow straightener (star shape insert - optional)	S961044NU
26	Bioguard outlet	F960847AA
27	Detachable outlet complete	A6251AA
28	O-ring Ø 15 x 2.5	F961003NU
29	O-ring Ø 9 x 2	A961868NU
30	Cap w. O-ring Ø 30 x 2	A861124AA
31	Port sleeve complete	A861819AA
32	Disinfection interlock + spring	A861276NU
33	Override tool	A860888NU
35	Demountable seal kit with grub screws, o-rings & hex hey	A861162NU
36	Strainer	A861172NU
37	Sequential Cartridge Set	A861818NU

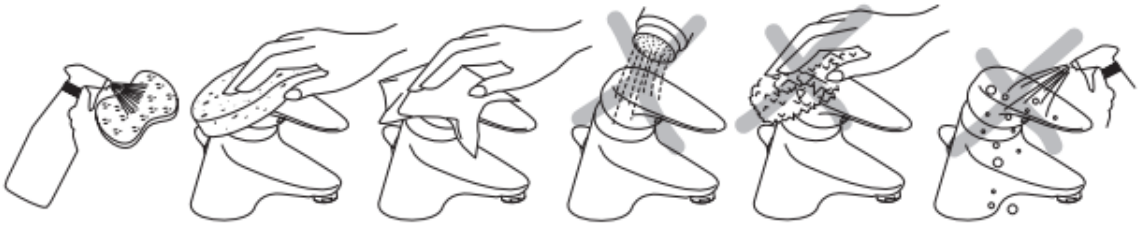
36. Spare Parts Deck Mounted Mixer



36. Spare Parts Deck Mounted Mixer continued…

Ref.	Description	Part No
1	Lever cap	A861159AA
2	Lever screw	A961950NU
3	Lever set	A861158AA
4	Off stop ring + Splined Lever adaptor	A861310NU
5	Maximum blend temperature stop ring	A861122NU
6	Locking ring	-
7	Sequential cartridge fixing ring	-
8	Sequential cartridge	-
9	Pressure balancing valve	B961620NU
10B	Deck Inlet set	A861347AA
11	Circlip (Pack contains 4x parts)	A861346NU
12	Combined CV&FR Ø10mm (light blue)	A861176NU
13	O-ring Ø 17 x 2.5	A963143NU
14	O-ring Ø 24 x 2	A961809NU
15	Indice	A960396AA
16	O-ring Ø 12,42 x 1,78	A961332NU
17	O-ring Ø15,6 x 1,78	A963916
18	Strainer	F961032NU
19	O-ring Ø 24 x 2	A961809NU
20	O-ring Ø 8.1 x 1.6	A962345NU
21	Circlip (Pack contains 4x parts)	A861346NU
22	Isolation plug complete (2 sets)	A861329NU
23	Ø15mm Check valve (pair)	A962594NU
24	Backnut	E960111NU
25	Brass flow straightener (star shape insert - optional)	S961044NU
26	Bioguard outlet	F960847AA
27	Detachable outlet complete	A6250AA
28	O-ring Ø 15 x 2.5	F961003NU
29	O-ring Ø 9 x 2	A961868NU
30	Cap w. O-ring Ø 30 x 2	A861124AA
31	Port sleeve complete	A861819AA
32	Disinfection interlock + spring	A861276NU
33	Override tool	A860888NU
35	Demountable seal kit with grub screws, o-rings & hex hey	A861162NU
37	Sequential Cartridge Set	A861818NU

CLEANINGCHROMESURFACES



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.

For more information on accessories contact our customer care.

For more information about our products & spares visit our websites:
www.idealstandard.co.uk

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0870 122 8822

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0870 122 8282

E-MAIL
aftersalesnonresidential@idealstandard.com

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.

Armitage Shanks is a division of Ideal Standard (UK) Ltd

Ideal Standard International NV
Corporate Village - Gent Building
Da Vincilaan 2
1935 Zaventem
Belgium

www.idealstandardinternational.com

FSC C149187

Ideal Standard (UK) Ltd.
The Bathroom Works
National Avenue
Hull HU5 4HS
England

Ideal Standard International NV
Corporate Village - Gent Building
Da Vincilaan 2
1935 Zaventem
Belgium

www.idealstandardinternational.com

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