

WuduMate®

MODULAR



Installation Guide



WuduMate®



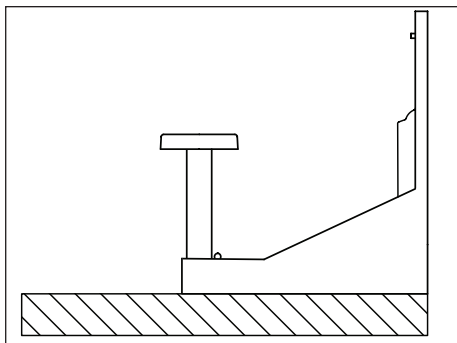
Introduction

The WuduMate Modular can be installed singly, but its major feature is its ability to be installed in 'series', to make a single, communal ablution unit. In order for the units to fit snugly together in series, the wall must be completely vertical and the floor completely flat so each unit is absolutely level.

Configuration

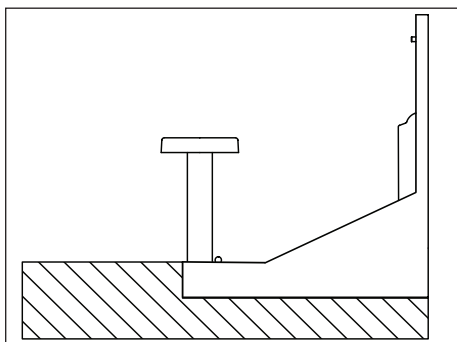
The WuduMate Modular can be configured in one of two ways, as per customer preference:

On top of the slab

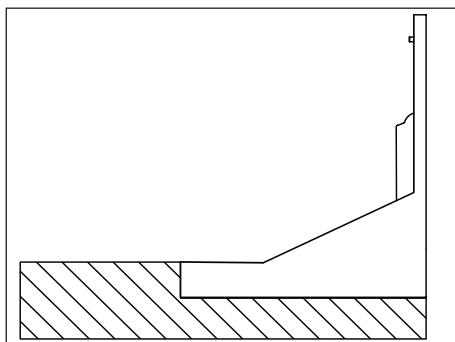


The WuduMate Modular can be installed on top of the floor, which will require a "step up" onto the unit.

Within the slab with seat pole



Within the slab without seat pole

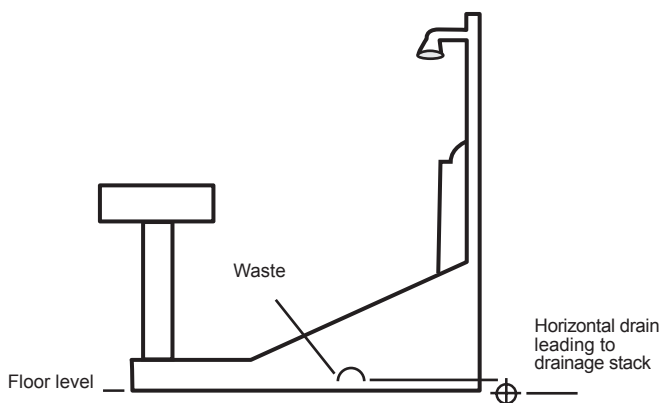


The WuduMate Modular can be installed within the slab, with tiling level to the back of the unit. This will allow wheelchair access onto the unit provided no seat pole is installed (WuduMate Modular Standing Unit).

Drainage Options

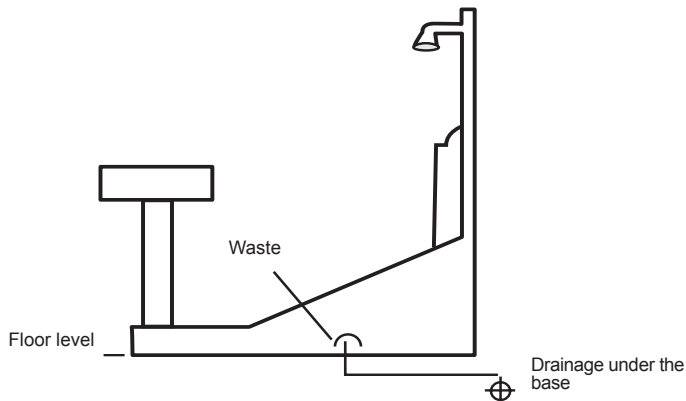
Option 1

If rear drainage is to be used without sub-floor level excavation, a "low level" (less than 80mm deep) waste should be used, such as the McAlpine waste offered as standard, enabling the mains drainage to run within the base of the WuduMate Modular. The location of the drainage stack will dictate exactly where the drains can be located, but if possible it is suggested that each of these individual drains runs into a horizontal drain running behind the WuduMate Modular's, close to the wall, but lower enough and with sufficient fall to take the waste to the mains drainage stack.



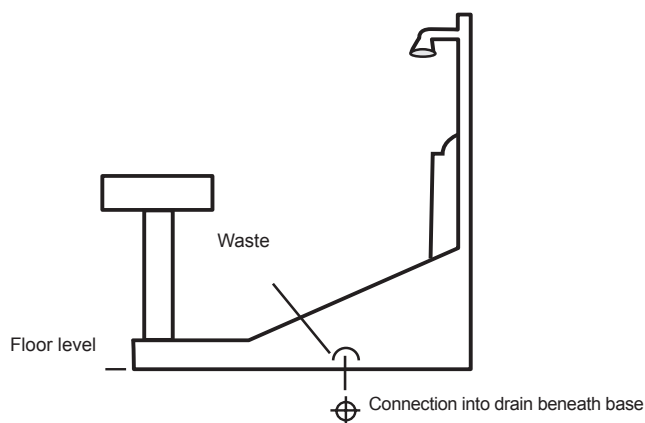
Option 2

Sub-floor level excavation can be undertaken to give more clearance under the base of the WuduMate Modular. This will enable other free flowing shower wastes to be used with drainage exiting the rear of the WuduMate Modular unit, in which case a trench will need to be installed to accommodate the drains sub floor, and the horizontal waste laid deeper.



Option 3

Where circumstances warrant, the waste can be taken down through the floor, to pick up drainage pipes running in false ceilings of rooms below.



Water Supply

Either a hot and cold water supply needs to be available for each WuduMate Modular unit or an appropriate premixed supply provided to all units. Premixed water should be connected to each WuduMate Modular tap, either mixed at source for all the taps in a block or premixed at each tap with a Thermostatic Mixing Valve (TMV).

Care must be taken in both instances to comply with local buildings regulations with regards to the prevention of Legionella

To maintain a constant flow of hot water, it is advised that a 'hot return' be installed within the water piping system. This is required to ensure no 'dead' cold water can gather in the hot water pipework.

Stud Wall

The WuduMate needs to be installed on a flat floor against a vertical surface or multiple units installed in a series will not fit together accurately.

If fitted directly against a vertical wall without using a stud wall, the water supply will either need to be chased into the wall, or run behind the wall to the tap (faucet). In this instance it is suggested that the tap be glued into the brass fitting with Loctite (or similar adhesive) to prevent twisting. It may be necessary to shorten the threaded 'nipple'.

Most WuduMate Modular installers prefer to construct a stud wall of between 80mm and 120mm (3.5 inches to 5 inches), depending on available space, which has the following benefits:

- i) The stud wall can hold the plumbing to the taps (faucets).
- ii) The WuduMate Modular tap/faucet has an extended 'nipple' which can pass through one of the structural supports of the stud wall and be used as a fixing of the back panel.
- iii) The stud wall can hold the soap reservoir on a strut/noggin within the stud wall and the pipes between the reservoir and soap dispenser can be run within the stud wall.
- iv) If the stud wall is to be used to contain the soap reservoir, some form of access will be required to refill with soap (reference access panel photo below).
- v) The top of the stud wall can form a shelf-top for users to put their personal belongings on.



Stud wall showing access to soap reservoirs

Back Panel Option or Tiles

The stud wall should be finished with the material of choice prior to fitting of the WuduMate Modular itself. Stud wall options would include:

- i) WuduMate Back Panel with phone shelf
- ii) Tiles
- iii) Other material of choice such as marine plywood

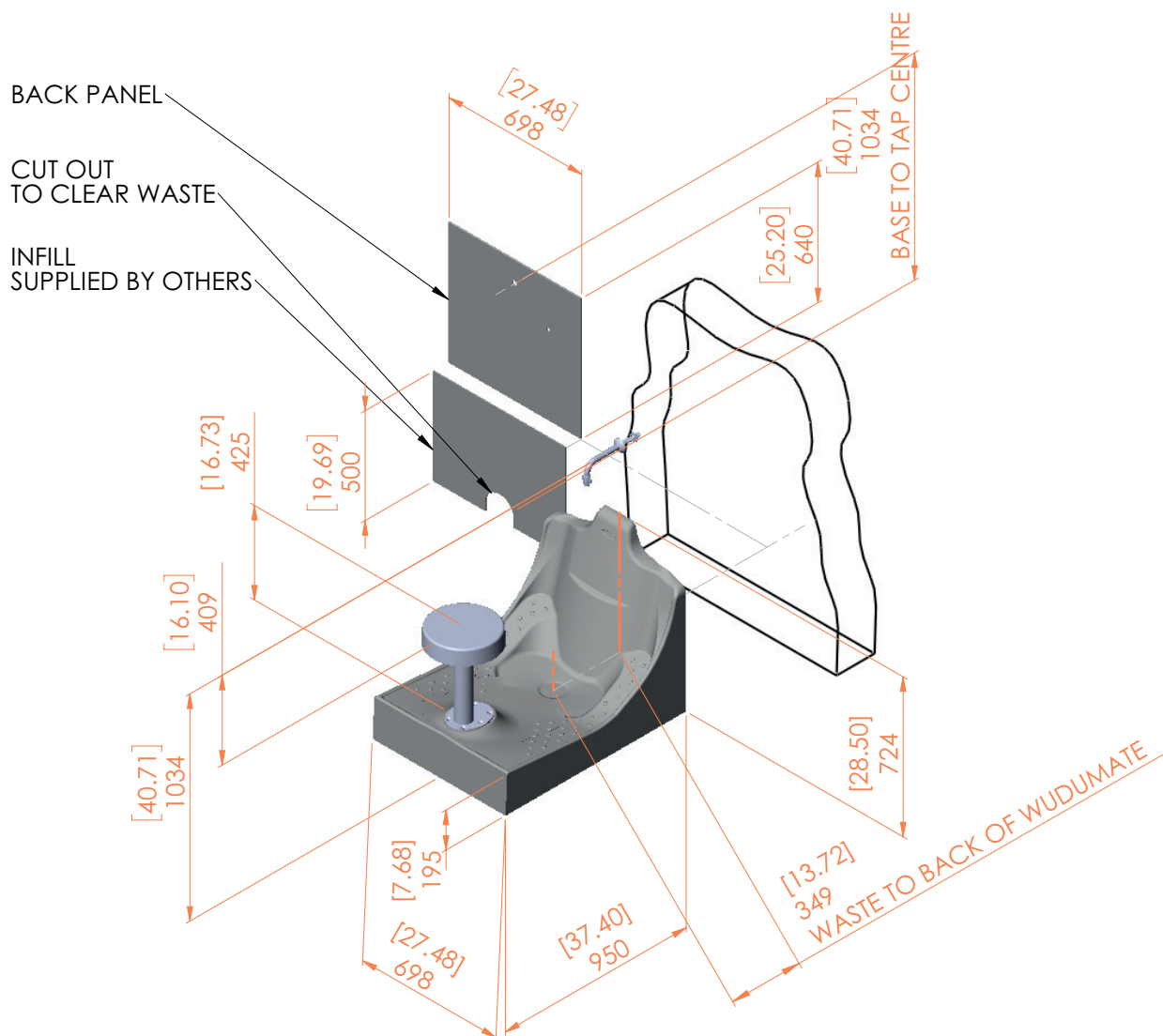
It is not necessary to apply 'finished tiling' below circa 500mm (19.68 inches) from the floor, since the WuduMate Modular itself will cover this area, but some substitute material (e.g. ply) of the same thickness should be applied to leave a flat surface to which the WuduMate Modular can be fixed, leaving an access point around the waste pipe as it enters the stud wall.

Fitting against the WuduMate Modular Back Panel

The matching, white, acrylic WuduMate Modular Back Panel can be fitted behind each WuduMate Modular. This can be held in place by a combination of the WuduMate tap and two fixings to the bottom of the Back Panel (hidden when the WuduMate Modular is installed). It is suggested that an industry standard adhesive spread evenly against the wall surface be used for additional fixing.

The WuduMate Modular backpanels and the WuduMate themselves are designed to be 698mm wide, thus should be installed at 700mm centres. The size of the WuduMate Modular is therefore suitable to fit into holes in the slab at 700mm wide (say 702mm with additional tolerance).

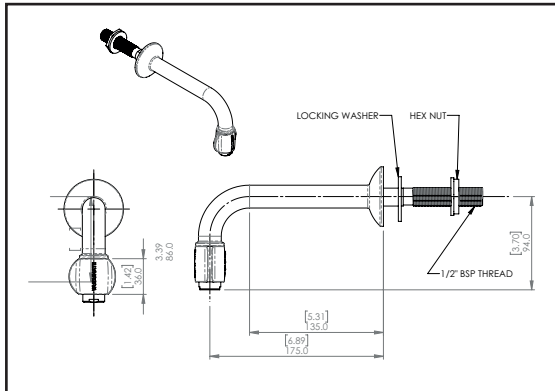
The Back Panel's hole for tap/faucet should be located 1034 mm (40.71 inches) from the base of the WuduMate.



Tap/Faucet installation as follows:

The WuduMate wall mounted tap (faucet) has been manufactured to a higher specification than would be normal for a faucet, on the expectation that it will sometimes be used by elderly and infirm users to help them stand up. This requires the tap (faucet) to be fixed securely, either to the wall (if no stud wall is being used) or to the stud wall itself.

It is suggested that the tap (faucet) be installed through a support within the stud wall, and this in turn be connected to the structure of the building, so that any pressures made on the tap (faucet) are transferred to the structure of the building.



In order to prevent the tap being twisted by users, the Non-Twist washer provided should be fixed securely to preferably the rear face of the fascia onto which the tap (faucet) is being fixed. If access to fix the non-twist washer is not possible, the threaded nipple of the tap should be fixed into a fixed brass elbow with Loctite or something similar.

The process of installing new plumbing to the WuduMate taps (faucets) can dislodge particles within the pipes, which can subsequently pass through the pipes to the taps (faucets). Such particles can damage tap mechanisms, resulting in dripping/jammed taps, and it is therefore suggested that in-line filters be installed before all taps to prevent such occurrences.

In case maintenance of taps is required, it is suggested that easily accessible isolator valves are installed at each tap.

N.B. Other tap/faucet options are available from WuduMate including a non-concussive time delay model – all of which would be fitted as above.

Soap Dispenser Installation

It is suggested that the WuduMate panel mounted soap dispenser is NOT installed at the same level as the tap (faucet), since it will prevent application of the decals in the recommended position, which is either side of the tap (faucet). It is suggested positioning the soap dispenser as shown in the section Positioning & Application of Decals (page 14), circa 150mm (below the level of the tap (faucet), so as not to affect the positioning of the decals, best placed either side of the tap (faucet).

The length of the soap dispenser tube should be approximately 40cm, any longer could make it difficult to pump the liquid soap from reservoir to dispenser.

The location of the top of the soap reservoir should ideally be at a similar level as the dispenser itself. If too high, the soap dispenser could drip. 'Priming' of the soap dispenser when first installed could be difficult. ('Priming' is the initial process of pumping the dispenser to exclude air in the pipe and lift the weight of the soap in the tube to the level of the dispenser itself.)

'Priming' to get the soap running can be awkward and we suggest the following U tube video is watched beforehand, which although for a different type of soap dispenser, uses the same concept of 'priming' to get the soap running.

https://www.youtube.com/watch?v=Jxm_Fytzwlw

Also suggested:-

- The soap reservoir should be fitted close to the dispenser and the length of tube trimmed to 40cm to ensure not too much air is in the tube, since this air has to be removed when priming.
- It may be easier to prime the dispenser before installation, with the tube horizontal, then once soap is flowing, the dispenser can be installed with soap actually within the tube, which should enable subsequent operation easily.

Soap

- Use only cream soap or liquid soap; the WuduClean liquid soap supplied by WuduMate is ideal.
- Do not use any soaps or liquids which contain sand or granular material
- Use only soaps of a viscosity of 0.01 to 35dPa s

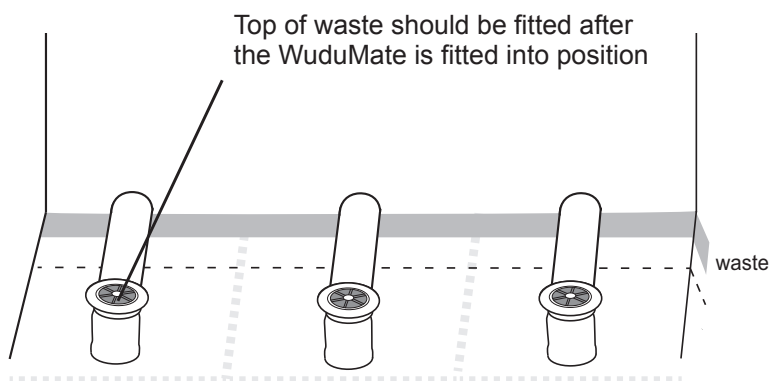
Waste/Trap Installation

Each WuduMate Modular has its own individual waste with trap, designed to exit the rear of the WuduMate Modular base (refer to section on drainage on page 2). **For UK:** ST90CP10-70, **Europe:** ST90CP50-70, **North America:** ST90CP10USA-70. If the WuduMate Modular is placed into position before the waste is connected, there is no way to get access to the waste pipes to connect to the drainage. The drainage must therefore be installed before the WuduMate Modular(s) are installed.

Ensure the waste and traps are connected to the main drain before WuduMate Modular installation.

Connect the waste to the main drainage with appropriate plumbing accessories, ensuring that the location of the waste ends up exactly where the waste hole of the WuduMate Modular base is expected to be (circa 248mm/9.76 inches from the face of the stud wall).

If installing multiple units, set out location of all wastes first (see picture below).



Seat Support Bracket

If a Stainless Steel Seat Pole is being utilised, it will be provided together with a Seat Support Bracket.

The Seat Support Bracket is designed to take the weight of the seat and the person sitting on the seat directly onto the substrate, thus it must be fixed firmly on the floor or bedding material.



Seat Support Bracket (SSB)

Ensure the base plate is seated firmly on the floor or bedding material to transfer weight of the seated person directly to the floor.

Turn the WuduMate Modular base onto its side and align the Seat Support Bracket (SSB) with the drilled holes in the seat fixing area and fix in place with the two self-tapping screws through the two small holes in the SSB.

Seat Pole Installation

Remove the protective film from the area where the seat is to be fixed.

Turn the WuduMate Modular base to its correct position, place the silicone gasket in place over the holes and place the seat pole into its preferred position, either Child/closest position or Adult/furthest position (refer below). Apply a generous filling of silicone into each hole and fix the seat into position with the six M10 counter sunk bolts provided.

Seat Positioning

Some communities from Asia are shorter than others from the Middle East and Africa, so some visitors to an ablution area might prefer the seat closer to the tap than others. Similarly, if an ablution area is for children's use as well as adults', then the positioning of the seat might well need to be different. The seats can therefore be located in two positions on the "Seat Fixing Area".



Seat closest to tap

i) The seat can be positioned with the pole nearer the tap.



Adult/furthest position

ii) The seat can be turned around so the pole is further from the tap.

WuduMate Modular seats can be installed in two positions so to accommodate use by children, adults or a mixture of the two.

Unit Installation

WuduMate Modular Fixings

The WuduMate Modular is provided with fixings, which may or may not be required, depending on fixing methodology.

If the WuduMate is to be set 'within the slab' (refer Page 1) in a bed of sand and cement (refer below), this in itself is likely to be sufficient to hold the unit tightly in place, so the fixings supplied may or may not be required.

The fixings on the rear of the WuduMate can be used to secure the WuduMate to the rear wall or framework by using the 2x wall brackets provided, using appropriate fixings (screws/wall plugs, etc).

The two brackets secured to the rear of the WuduMate, will hook onto two wall mounted brackets fixed onto the rear fixing surface at 410mm (16.1") centres either on the back wall, or onto the horizontal floor-fixed support (most probably actually fixed onto the material used to clad the framework e.g. sheet of marine ply).



WuduMate Modular Fixings Brackets.



Modular wall mounted bracket.

There should be gaps cut into the horizontal supports, or holes cut, to enable the waste pipe to exit. The central fixing hole of the bracket should be 80mm (3.15") from the floor.



Gap to allow exit of waste.

Unit Installation

Be sure to remove all protective film from the WuduMate surface.

When installing the WuduMate Modular onto a concrete floor, lay the unit into a shallow bed 4:1 sand and cement (similar to a shower tray installation) to ensure it is level.



When installing WuduMate Modular bases on other surfaces use industry standard bonding material, avoiding any solvent-based materials, as these could react with the polyurethane filler used in the WuduMate Modular.

Ensure installation area is absolutely level. If more than one WuduMate Modular is to be installed, ensure that the units are level with each other and butted up as tight as possible with consistent gaps between each unit.

When multiple WuduMate Modular units are to be installed side by side, a bead of silicon should be applied to the side of one unit to give adhesion between the units. Ensure you do not apply too large an amount of silicon that it prevents the WuduMate Modular units from sitting neatly and evenly side by side.

Ensure Silicone is applied between units to provide a good seal.

Lift WuduMate Modular unit into position, ensuring it is tight and exactly vertical to the stud wall's outer face. Use a rubber mallet and spirit level to ensure the unit's front face is vertical and the base is horizontal from left to right.

If using fixing brackets, locate the fixing brackets onto the wall mounted brackets.

Make sure to avoid moving the waste during this operation so that it can still be accessed through the hole in the base of the unit.

Access the waste unit through the WuduMate Modular drain hole on the base of the WuduMate Modular and fix to the WuduMate Modular unit by screwing the top half of the waste to the bottom, lifting the base of the waste into position against the unit ensuring a watertight fixing.

Insert tap and soap dispenser (if used) into the unit from the front. Secure the tap through the stud wall behind the tap intended as a primary fixing. Connect the plumbing to the tap.

Unit Finishing

Joints Between Units

We strongly suggest that professional siliconers are used to undertake the final siliconing of the units, using the highest quality “neutral cure” silicone sealant which is best for sealing acrylic to acrylic. When applying silicone between bases, ensure it is level with both acrylic bases and NOT indented. If the silicone has an indent, water could gather in this position and not run off to the drain as intended.

Silicone manufacturers will generally offer some form of mould-free guarantee, and when challenged after mould appears, state it is dirt and soap which is mouldy not the silicon. A careful post installation cleaning program is therefore essential and we suggest regular anti-mould treatment undertaken as detailed in the section on WuduMate Modular Aftercare and Maintenance, (refer to page 14).

Shelf Top (to be provided by others)

In order to obscure any inconsistencies in the level of the top of the WuduMate Modular backs, which will line up with users' eye level and thus subject to scrutiny, we suggest that an overhang can be created on the front of the shelf top and a 'shadow gap' created. (refer 'shadow gap' in Google).

Shelf Top Aperture

If a soap dispenser is to be used, make appropriate arrangements to access its soap reservoir periodically for refilling. An access circle can be cut to allow access to the shelf top, or a hinged lid.



Stud wall showing typical access to soap reservoirs

Seat Pole Base Cover

The WuduMate Modular Seat Pole Base Cover is designed to prevent the build up of lime-scale on the seat pole base and reduce cleaning.



If Seat Pole Base Covers are being utilised, (refer photo above), the surface of the seat pole base should be thoroughly covered in silicone, so that when the seat pole cover is pushed into position, it is held firmly in place. Sealant should be applied around the seat pole itself to prevent ingress of water down the pole and under the Seat Pole Base Cover.

Valley Block

After installation of a series of WuduMate, the 'valleys' created at the top of where the WuduMates join, could potentially be dirt traps if the cleaning regime is not thorough. 'Valley blocks' are provided to fit into these 'valleys' to facilitate cleaning, and if required should be siliconed into place during final siliconing. Available from June 2018.



Cleaning decals

It is suggested that care is taken to avoid contact with decals when cleaning.

Optional End Panels

When an individual or a series of WuduMate Modulares is being installed, and there is no supporting end wall, a WuduMate Modular End Panel is available from WuduMate, used to provide a barrier between the outside of the end unit and the open space beyond.

Applying Vinyl Graphics

When the protective plastic film has been removed from the WuduMate Modular optional Back Panel, apply either 'customer specific' or 'WuduMate standard' decals. These should be applied as the final phase of the installation.

The following tools are recommended when applying vinyl lettering:

- Squeegee or credit card
- Application spray
- Pin

Positioning & Application of Decals

The standard WuduMate decals are designed to fit either side of the WuduMate tap in the indented area marked either side of the tap (faucet).

Mix water and a single drop of washing up liquid (suggest not the brand Fairy as this is known to have an adverse effect) in a plant sprayer or similar sprayer, since this mix will allow the vinyl to be repositioned until it is located in the exact position required.

Peel off the sticky, transparent paper ('application tape') together with the vinyl pattern from the 'backing paper', ('backing paper' has words on the back) taking care that the vinyl pattern remains undamaged and stuck to the 'application tape'.

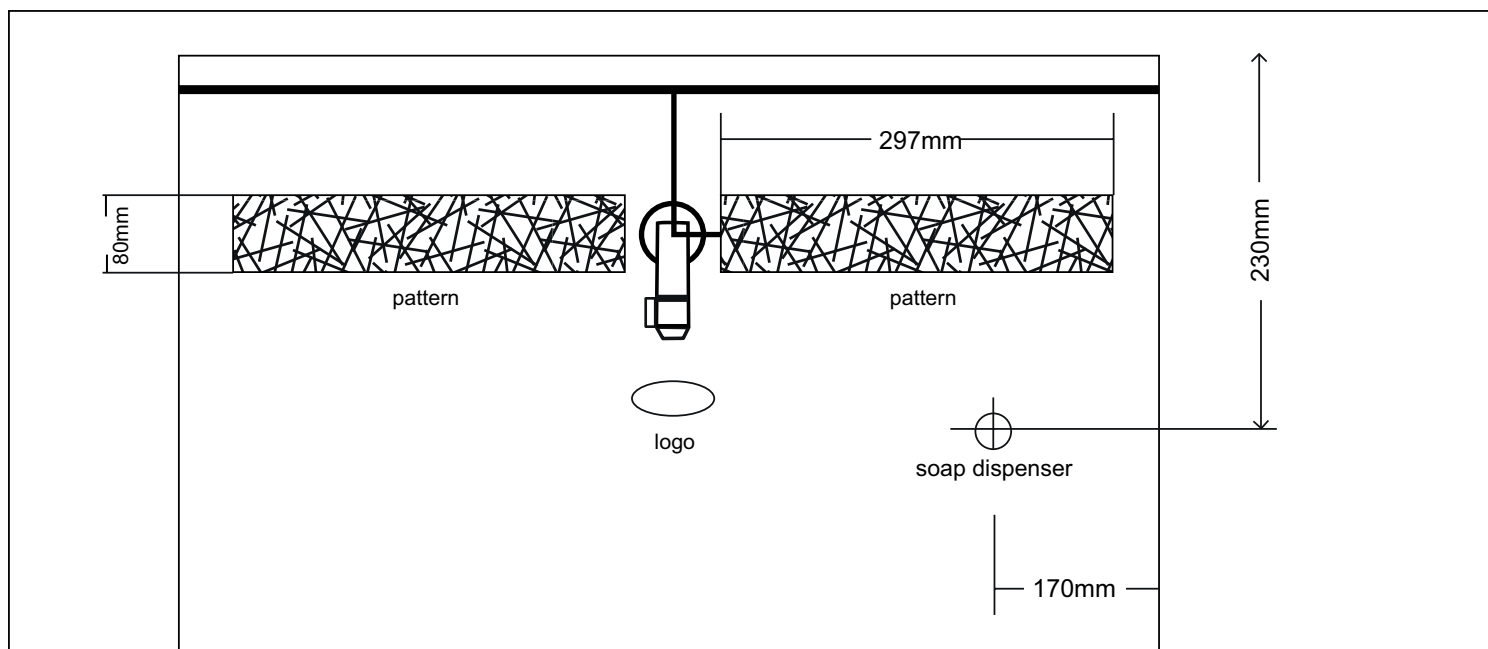
Spray the area where the first pair decals are to be applied with the detergent infused water, and apply the first decal with 'application' tap still stuck to the back. The soapy water will allow the decal to slip around until in position, but this will get harder as the solution dries.

WE SUGGEST THE DECALS ARE APPLIED IN PAIRS SO SOAPY SOLUTION DOES NOT DRY OUT WHILST EARLIER DECALS ARE BEING APPLIED.

Press firmly using the squeegee or credit card, working out any bubbles/water from centre to edge.

Allow approximately 15 minutes for the vinyl to bond and the water to evaporate, then slowly remove the application paper taking care not to tear the vinyl.

Bubbles can be removed with a pin although if left they will normally disappear in time.



WuduMate Modular Aftercare & Maintenance

The WuduMate Modular is made from high-quality sanitary grade acrylic, and should be cleaned and maintained in a similar way to other acrylic items found in the home, (e.g. baths and shower trays).

Cleaning should be undertaken with NON-SCOURING (i.e. non- abrasive) cleaning agents or detergents and wiped away with a soft, clean, dampened sponge or cloth.

We strongly recommend using WuduClean – a comprehensive range of animal and alcohol-free cleaning agents, soaps and odourisers which have been specifically blended to combat the build-up of bacteria and unpleasant odours, typically present in high usage ablution environments where normal detergents are less likely to be used.

- Daily Cleaner - WuduMate Daily Cleaner will clean, kill germs and leave surfaces sparkling
- Enzyme Drain Cleaner - WuduMate Enzyme Drain Cleaner combats bad odours by using enzymes that naturally digest organic waste materials such as grease and body fats
- Limescale Remover - WuduMate Limescale Remover is a powerful, non-abrasive cleaner that removes calcium deposits and is excellent for combatting limescale
- Liquid Hand Soap - WuduMate Antibacterial Liquid Hand Soap cleans and protects against infections, leaving hands feeling smooth, conditioned and pleasantly perfumed
- Mould Remover - WuduMate Mould Remover will help remove and prevent the build-up of mould, fungus and algae

It is really important in all washroom environments (including showers at home) to prevent the beginnings of mould, since once mould has a grip on silicone, it's very difficult to shift. This is the same for those ablution environments where silicone has been used.

Most, if not all, silicones will have some form of manufacturers anti-mould warranty (some up to 25 years), but if mould appears before the end of the warranty period, manufacturers tend to argue that it is not the silicone which has gone mouldy, it's dirt/bacteria on the silicone which is going mouldy.

There is almost certainly some truth in this, but the key to effective mould control, is to stop it coming in the first place. We suggest using WuduClean Mould Preventer/Remover (or other household bleach) when the first sign of any discolouring of silicone appears; apply the WuduClean Mould Preventer/Remover evenly with a gentle brush to get into any corners, and wash off after about 20 minutes. This should prevent the mould taking hold. Its suggested that this is repeated whenever required, or as a preventative measure, periodically every 6 weeks.

Scratches can be removed the same way that they are removed from the bodywork of motor cars – i.e. using T-Cut scratch removers and liquid polish.

To recreate a shine, once the unit is free of grease/dirt/lime-scale, polish thoroughly with T-Cut and/or a fine sandpaper (600 grit or higher).

If neglect causes the WuduMate to lose its gloss, the original shine can be largely (if not fully) recreated by buffing/polishing.

WuduMate®

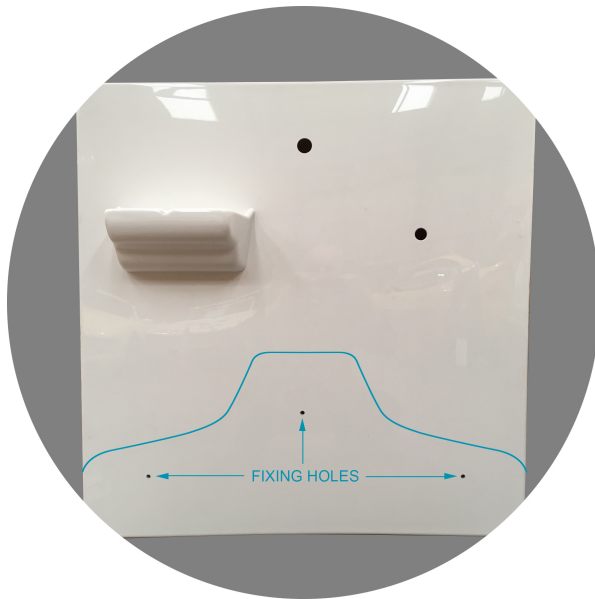
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Addendum to Installation Guide



DO – put fixings in the holes at the bottom of the WuduMate back-panel, to ensure it is fixed securely to whatever structure it is fixed to.



DO - Fix the back-panels securely to whatever structure is behind the WuduMate back panel to keep them solid, suggest with GRIPFIX or some similar adhesive

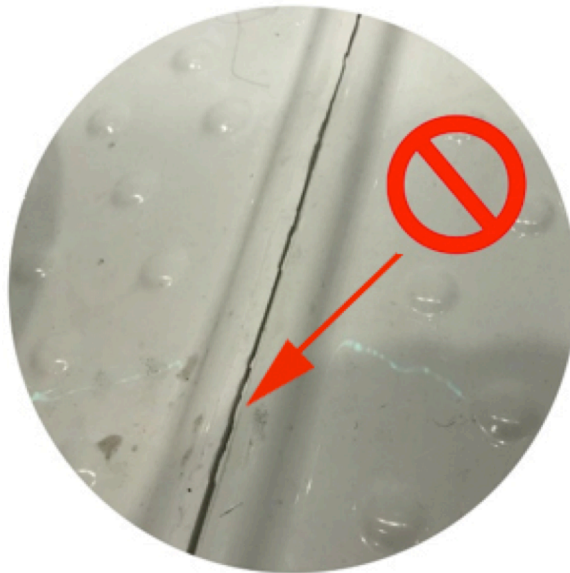




DO put reinforcing behind the 'shoulders of the WuduMate' so that the back panel is unable to move



DO NOT use low cost sealant and inexperienced siliconers



DO use high quality, ideally NEUTRAL CURE silicone and experienced siliconers



DO NOT use abrasive cleaning chemicals



DO use WuduClean



WUDUCLEAN	
DAILY CLEANER	<p>Cleans, kill germs and leave surfaces sparkling.</p>  
DRAIN CLEANER	<p>Combats bad odours by using enzymes that naturally digest organic waste materials such as grease and body fats.</p>  
HAND SOAP	<p>Cleans and protects against infections, leaving hands feeling smooth, conditioned and pleasantly perfumed.</p>  
LIMESCALE REMOVER	<p>A powerful, non-abrasive cleaner that removes calcium deposits and is excellent for combating limescale.</p>  
WUDUCLEAN FOR WUDUMATE	
FEATURES	
<p>WuduMate has used its extensive experience of working in Muslim ablution areas to develop WuduClean - a comprehensive range of animal and alcohol-free cleaning agents, soaps and odourisers which have been specifically blended to combat the build-up of bacteria and unpleasant odour which are typically present in high usage situation environments where normal detergents are less likely to be used.</p> <ul style="list-style-type: none">• Safe & environmentally friendly• Animal and alcohol-free• Helps prevent spread of germs• Active against bad odours• Subscribe & Save• Set up regularly scheduled deliveries and earn savings	
MOULD REMOVER	
<p>Helps remove and prevent the build-up of mould, fungus and algae.</p> 	



DO NOT hit the WuduMate corners to level up during Installation, fracturing of the acrylic surface can occur

