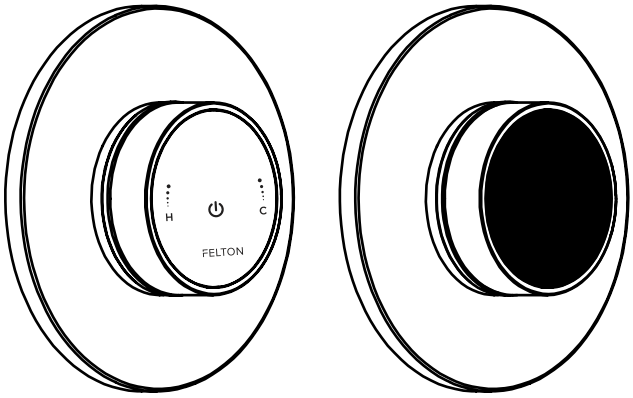
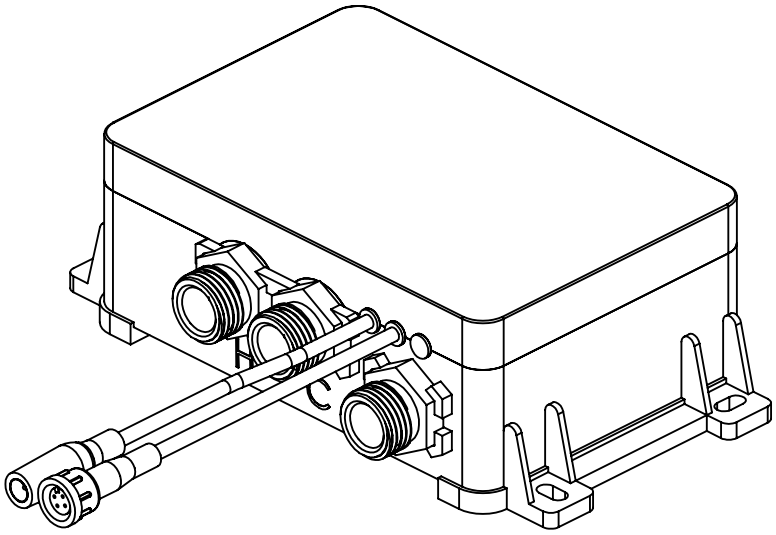
INSTALLATION GUIDE

LINEA

Digital Thermostatic Shower Mixer





FELTON

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NOTICE

PLEASE READ THE MANUAL CAREFULLY BEFORE STARTING THE INSTALLATION. AFTER COMMISSIONING AND TESTING THE SYSTEMS FUNCTIONALITY, THIS DOCUMENT MUST BE GIVEN TO THE END USER OF THE SYSTEM.

PRODUCT TO BE DISCONNECTED BEFORE LINE TEST

In case of a power cut, the unit will remain inactive until the power is back on.

GENERAL

This installation manual contains instructions for the correct installation of the **Linea digital mixer** unit The warranty will be invalidated if the product is not installed according to these instructions.

Installation must be carried out by qualified installers in accordance to this installation manual. AS/NZS3500 standards, rules and safety regulations do apply.

PLACE OF INSTALLATION

The **Linea digital mixer** unit must be installed in an accessible place and in accordance to this installation manual. This ensures a problem-free service and maintenance procedure.

DANGER OF ELECTRIC SHOCK!

ELECTRICAL INSTALLATION

Before opening the housing, the mains connection must be switched off. Work on electrical parts and connections must be carried out by qualified electrician. Country-specific standards and regulations do apply.

1. **Digital controller and Digital Display**
   The Digital controller and the digital display are is powered by a low voltage supply, so can safely be installed in a showering are they must not be installed in situations where the ambient temperature is likely to fall below 5°C or rise above 40°C. The digital controller and the digital display are water proof

2. **Cables**
   Cables which are chased into the wall must be protected by a conduit or sheathing to allow removal for service or maintenance.

   Surface mounted cables should be protected by a conduit, even in a loft, where there may be a risk of damage from vermin.

   Please check for hidden pipes or cables before drilling any holes.

3. **Pipe work**
   Long pipe runs, on both inlet and outlet, will reduce the flow rate at the shower head, 22mm pipe should be used for supply and reduce down to 15mm as close to the processor as possible to reduce pressure losses and help maintain flow rate. To optimize performance minimse the number of elbows used.

   Install isolating valves on the supply pipes to enable easy maintenance.

   All copper pipework must be cross-bonded and connected to an earth point.

Please note:

Before connecting pipework to the valves, flush for at least 5 minutes to ensure that any debris is washed out.

PRECAUTIONS

1. This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.
2. Children should be supervised to ensure that they do not play with the appliance.
3. If the supply cord is damaged, it must be replaced by the manufacturer, its service agent or similarly qualified persons in order to avoid a hazard.
4. An electronic copy of the installation and user guides are available on the Felton website – please visit www.felton.co.nz

MAINTENANCE

Felton products are made of high quality materials and require only minimal maintenance. The following maintenance tips help to preserve the surface and prevent damage through incorrect cleaning. Fittings and control parts should be wiped dry after used. Only use mild cleaning products that contain soap. The following must not be used: Scourers, abrasive sponges, hydrochloric acid, lime, plaster or cement removers, solutions or cleaning agents containing acid (pH ≤ 4), lime scale remover or vinegar-based cleaner – and cleaning agents where the chemical solution is not known which may be sold as special cleaner for fittings.

System Specifications

Electrical Parameters

Input Supply Voltage	50Hz-60Hz
Supply Voltage of Control Processor & Diverter	DC12V
Maximum Load	18W

Water Pressures

Inlet Cold Water Static Pressure	150-500kPa
Inlet Cold Water Dynamic Pressure	150-500kPa
Inlet Hot Water Static Pressure	150-500kPa
Inlet Hot Water Dynamic Pressure	150-500kPa
Outlet Water Flow Rate at 300kPa	25L/min

Water Path

Input	1/2” BSP
Outlet	1/2” BSP

Temperatures

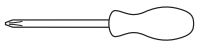
Temperature (Factory Preset)	38°C
Maximum Temperature (Setting Range)	25°C - 45°C
Minimum Temperature	25°C, full cold water selectable
High Temperature Protection	49°C
Temperature Stability	+/- 1°C at recommended supply condition
Inlet Hot Water Range	55°C - 65°C
Inlet Cold Water Range	5°C - 25°C
Ambient Temperature	5°C - 40°C
Humidity	95% non-condensing

Time

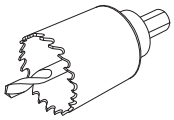
Power Off Water Protection Time	≤3s
Cold Water Supply Failure Protection	≤2.5s
IP Rating	IPX4

TOOLS REQUIRED

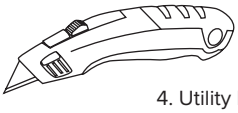
1. Pencil



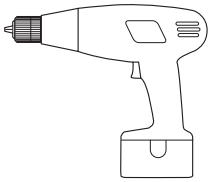
2. Phillips screwdriver



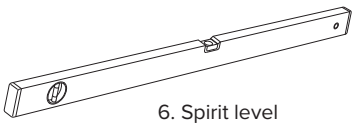
3. ø40mm hole saw



4. Utility knife



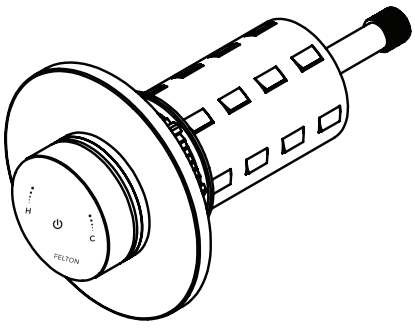
5. Drill



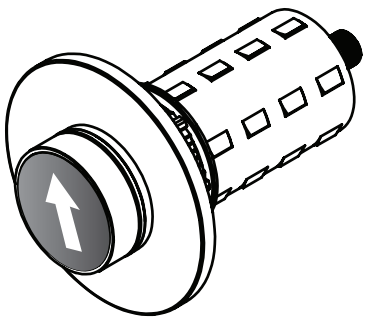
6. Spirit level

DIGITAL MIXER

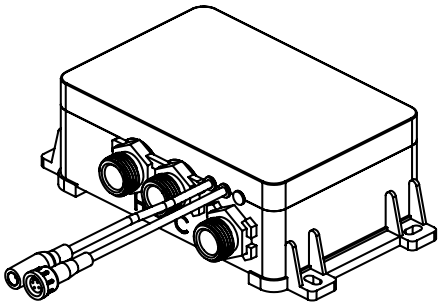
1 x Digital controller



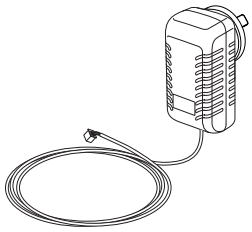
1 x Digital display



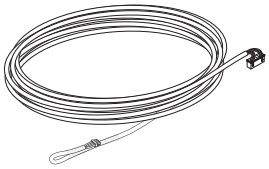
DIGITAL MIXER



1 x Digital mixing unit

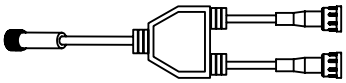


1 x DC12V power adapter

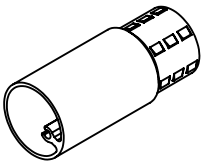


2 x 2m data cable

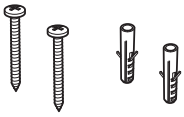
(7.5mm option is available. If a longer extension cable is required, please contact Felton customer service.)



1 x communication cable

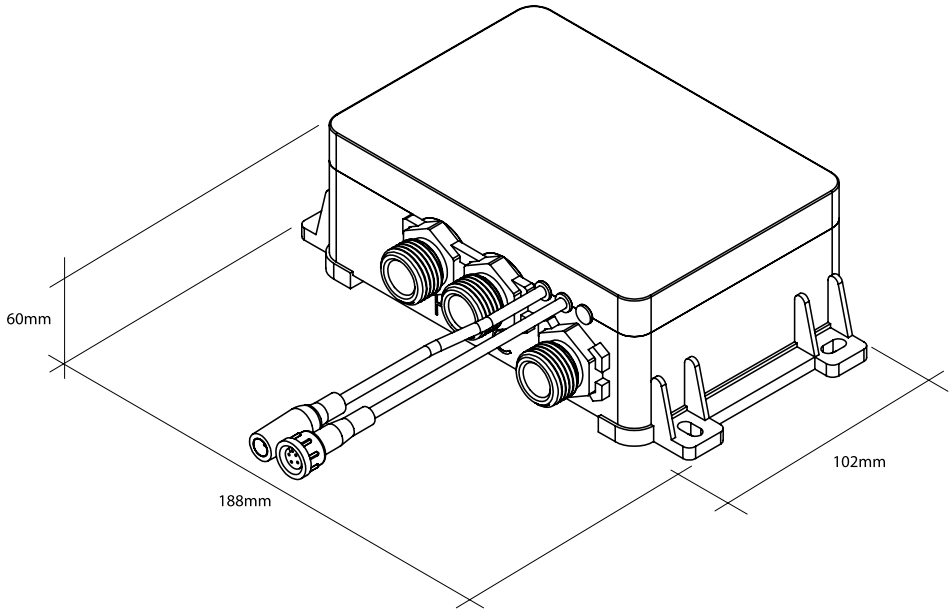


2 x preline wall plugs



4 x Set of screws
4 x Wall screw plugs

MEASUREMENTS



SCOPE OF APPLICATION

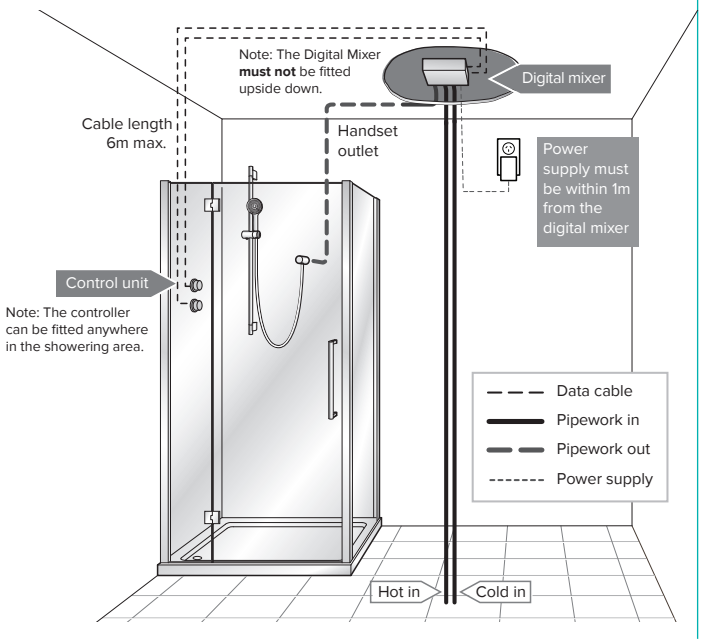
Wire and Data Cable must be installed prior to the wall lining.
It is recommended that the data cable is installed in conduit for ease of maintenance.

Important: The Digital Mixer must have an access panel and should not be sealed in the wall

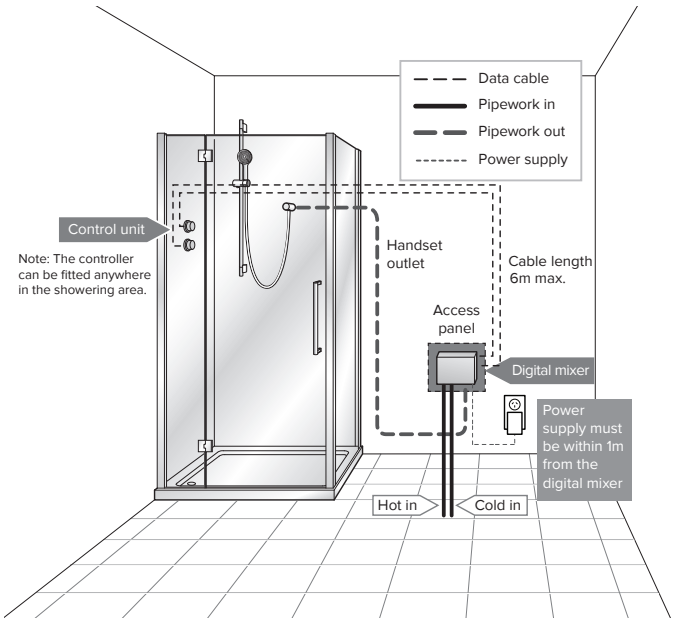
Warning: Please ensure that all electrical installations are installed by a registered electrician and complies with the Electrical (Safety) Regulations of NZ.
Important: The Digital Mixer must have an access panel.

LINEA DIGITAL SHOWER MIXER

A Ceiling Mounted (Recommended)

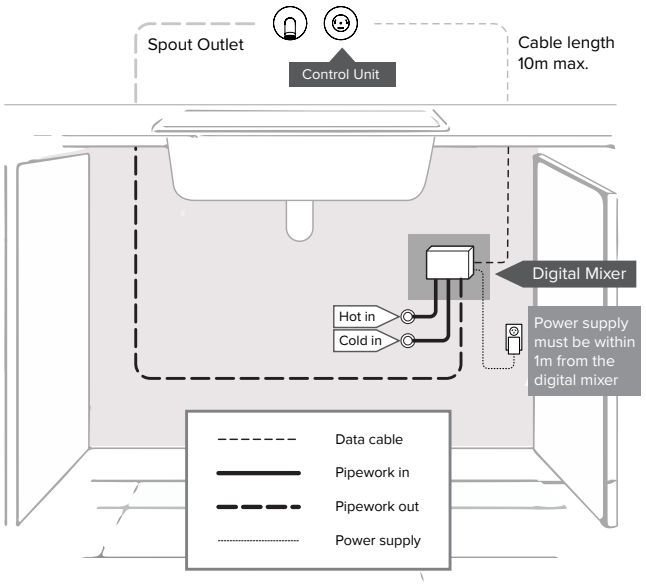


B Wall Mounted

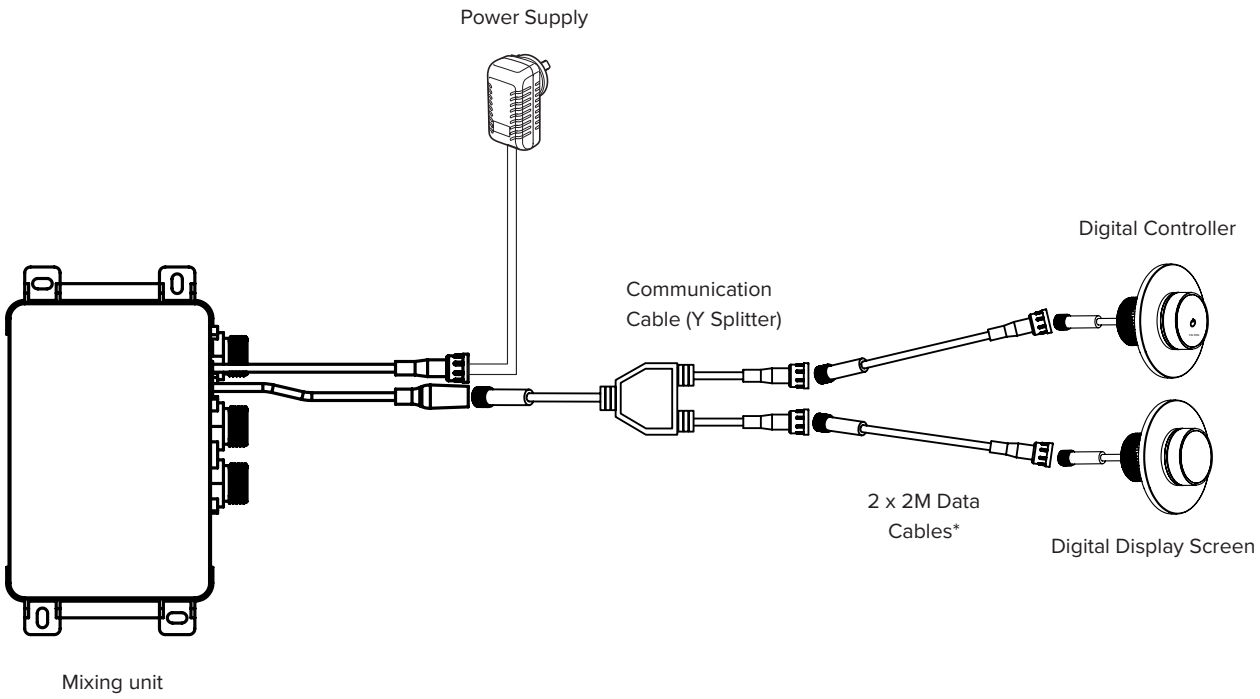


LINEA DIGITAL WALL MOUNT BASIN/BATH MIXER

Under Basin (Recommended)



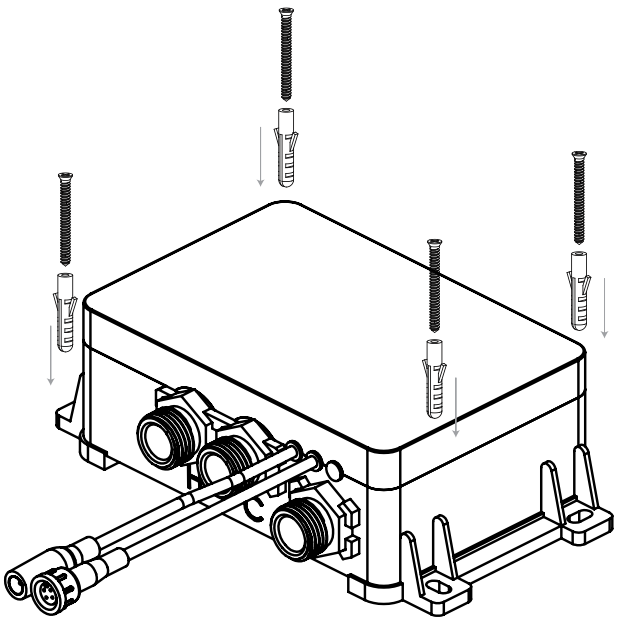
SYSTEM CONNECTION DIAGRAM



***Note: 7.5mm option is available. If a longer data cable is required, please contact Felton customer service.**

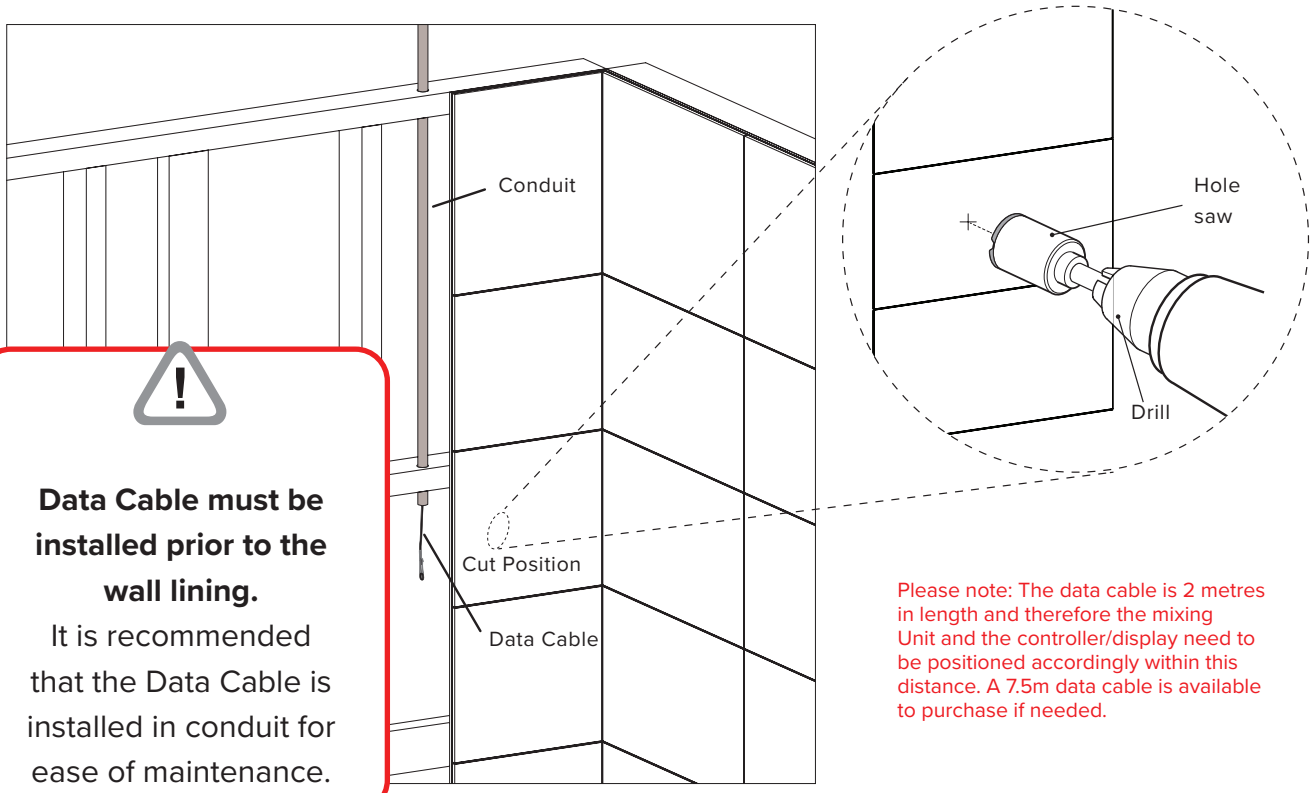
MIXING UNIT MOUNTING

1 Mark fixing holes and mount the mixing unit using the supplied screws (use the wall plugs if mounting on to jib). The digital mixing unit must be accessible and should not be sealed in the wall.



CONTROL UNIT INSTALLATION

2 Drill a 40mm hole on the wooden nog or backer board where the controller or display will be mounted.

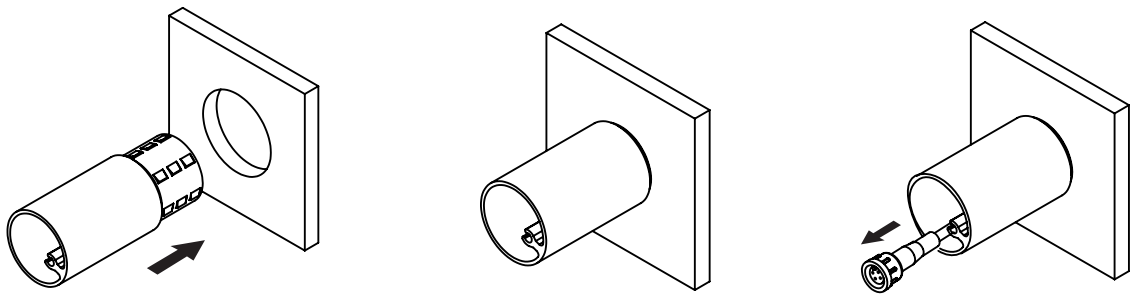


Data Cable must be installed prior to the wall lining.
It is recommended that the Data Cable is installed in conduit for ease of maintenance.

Please note: The data cable is 2 metres in length and therefore the mixing Unit and the controller/display need to be positioned accordingly within this distance. A 7.5m data cable is available to purchase if needed.

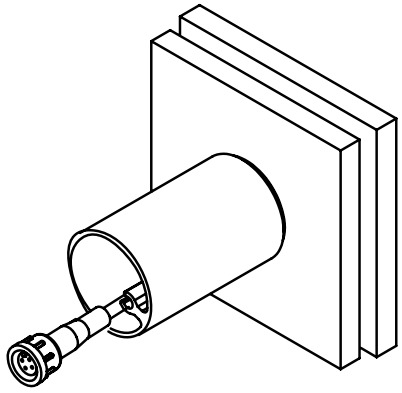
3 Press the pre-line wall plug into the 40mm hole on the nog and feed the cable through the plug. Attach the cable onto the convenient clip at the front of the plug.

NOTE: this plug will need to be removed after the wall is finished so do not seal it in the nog.

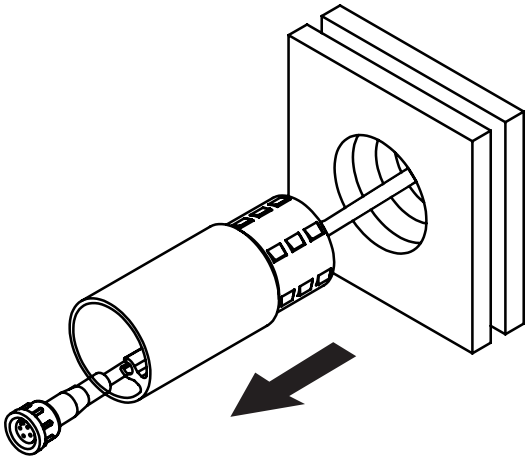


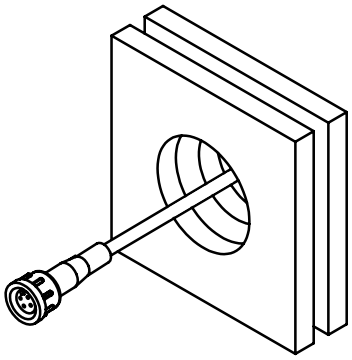
Data cable fed through the plug

4 When installing gib and finished lining, drill a hole that accommodates the diameter of the wall plug. (min 45mm dia, max 65mm dia). should end up looking like this:



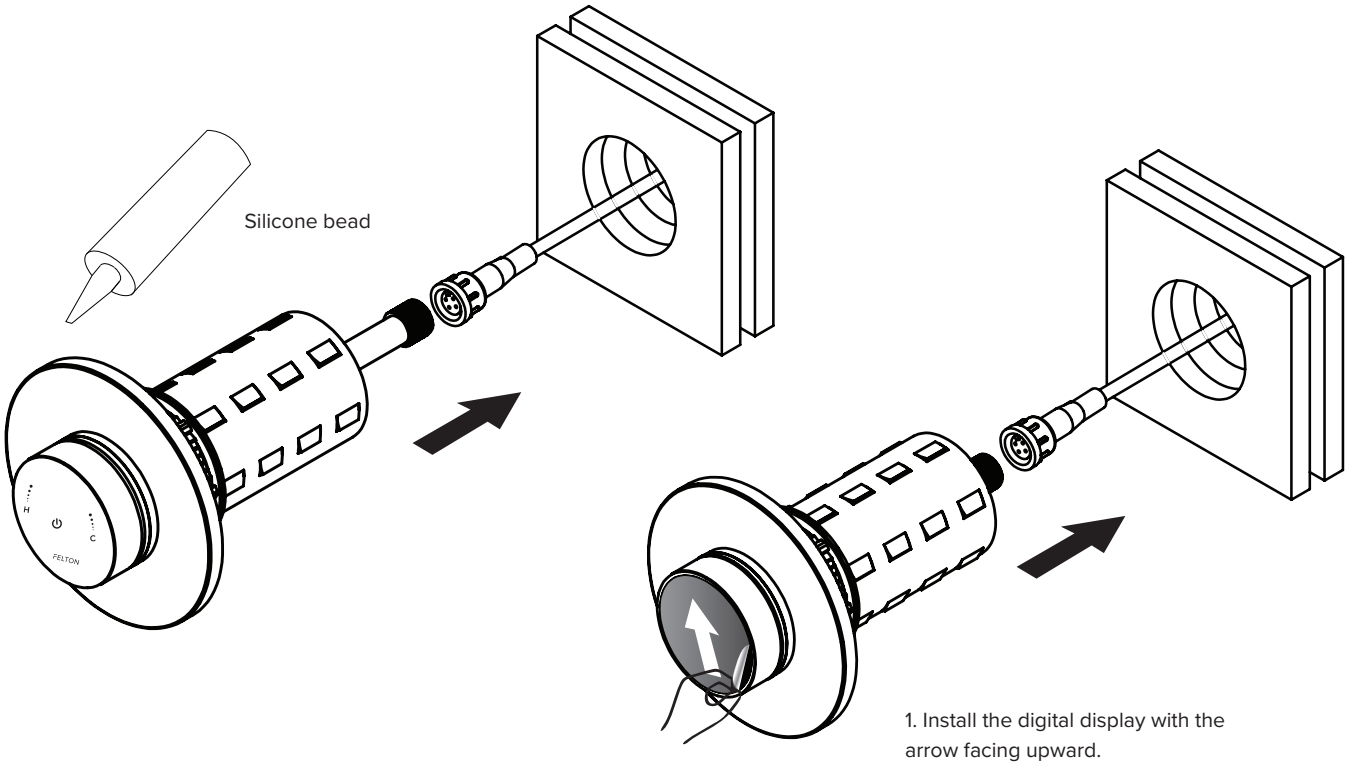
5 Pull the pre-line wall plug free of the wall (take care not to damage the data cable). Remove the data cable that was clipped on to the pre-line wall plug and hold on to it.





CONNECTING THE CONTROL SYSTEM TO THE MIXERS

6 Connect the data cable to the digital controller/display and push in the attached mounting plug.
Apply a silicone bead to the back of faceplate.



1. Install the digital display with the arrow facing upward.

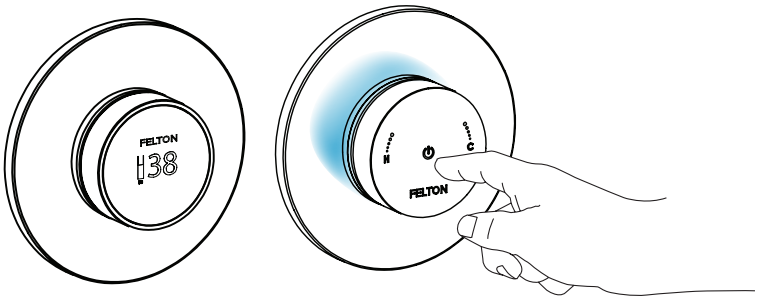
2. Remove the protective film & the arrow.

Note: If the Mounting plug is too long (hits the back of the nog), it can be removed and cut down to size. Min mounting distance (distance from the front of the finished wall to the front of the nog) is 25mm. The max mounting distance is 70mm.

OPERATING THE CONTROL UNIT

1 TURNING THE MIXER ON/OFF

Press the mixer once to turn on.
The mixer will light up. Press the mixer again to turn off.



2 ADJUSTING THE TEMPERATURE

Turn the mixer clockwise for hot water and anti-clockwise for cold water.

TROUBLESHOOTING

ERROR MESSAGE ON SCREEN OR FUNCTIONAL ISSUE	RED LIGHT FLASH	POSSIBLE CAUSES
COLD INLET FAILURE	Flash twice	No cold water
		Hot water presser too high
		Processor failure
TEMPERATURE CONTROL FAILURE	Flash three times	Outlet water temperature sensor failure
INLET TEMPERATURE SENSOR FAILURE	Flash four times	Hot water temperature sensor failure
OUTLET SWITCH FAILURE	Flash five times	Motor failure
CONNECTION ERROR	Flash six times	Cable is not connected
		Pins are damaged
INLET HOT WATER TEMPERATURE OVER 85 °C	Flash seven times	Inlet hot water temperature is over 85°c
INLET HOT WATER TEMPERATURE IS TOO LOW	Flash eight times	Balance pressure to eliminate difference
		No hot water
		Inlet hot water temperature is too low
		Check valve in hot water inlet failure & cold water pressure is too high
		Inlet hot water pipe is too long so that mixed water cannot reach pre-set temperature within 2 minutes
INLET COLD WATER TEMPERATURE IS TOO HIGH	Flash nine times	Inlet cold water temperature is too high
		Check valve in cold water inlet failure & hot water pressure is too high
PROCESSOR SOUNDS AS THOUGH IT IS REPEATEDLY CLICKING	-	Water supplies can't reach the pre-set temperature, and system keeps on adjusting temperature
WATER COMES OUT OF MORE THAN ONE OUTLET	-	Electronic valve inside diverter is blocked
OUTLET TEMPERATURE FLUCTUATES	-	Temperature of hot water supply is too low
		Inlet hot and cold water pressure is not stable
		Inlet hot and cold water pressure difference is not stable
		Water flow is too low
WATER OUTLET IS LETTING BY	-	Cartridge is blocked by debris
		Cartridge failed
THE PROCESSOR IS LEAKING		Inlet pressure is too high
		Over rotated the brass inside seal
		Seal damaged during installation

	SOLUTIONS	SYSTEM RESPONSE
	Check cold water supply	Will stop the water flow
	Adjust inlet hot water pressure (≤1mpa)	Will stop the water flow
	Replace processor	Will stop the water flow
	Replace processor	Will stop the water flow
	Replace processor	Will stop the water flow
	Replace processor	Will stop the water flow
	Check cable connection	Will stop the water flow
	Check communication cable	Will stop the water flow
	Adjust inlet hot water temperature (≤85°c)	This is only a warning, does not stop water flow
	Check hot water supply	
	Adjust inlet hot water temperature (≥55°c)	
	Check the valve to ensure it's clean and there is no external objects inside	
	Replace processor	
	Restart the unit (for multiple times if needed)	
	Adjust inlet cold water temperature (≤25°c)	
	Adjust temperature on panel until it display “cold ”	
	Check the valve to ensure it's clean and there are no external objects inside.	
	Replace processor	
	Ensure the temperature and pressure of hot water and cold water is within the specified range.	No programmed response
	Replace the diverter.	
	Open the diverter and clean inside to remove debris.	
	Check and ensure the temperature of hot water is between 55-75°C.	
	Check and ensure the water pressure supply is stable.	
	Ensure the pressure difference between hot and cold supply are maintained.	
	Ensure the water pressure is under the specified range.	
	Switch the valve on, then off, after 10 seconds.	
	Replace processor.	
	Ensure the water pressure is under the specified range.	
	Do not over-rotate.	
	Replace the processor.	

If issue persists or is not covered in the above, please contact our Felton Technical Team on NZ 0800 743 358 | AUS 1800 792 760 or sales@felton.co.nz

WARRANTY

5 year warranty applies to all **Felton** branded products including the electronic hardware and its components. Where products are promoted as having a "5 year warranty", Felton Industries Limited guarantees the electronic components of these products (excluding batteries) to be free from defects in materials and workmanship under normal installation, use and service for a period of five (5) years from the date of purchase. Fair wear and tear is expressly excluded.

This warranty is effective for five (5) years from the date of purchase and covers electronic replacement parts only (excluding batteries) and 2 years from the date of purchase for plumber's labour relating solely to repairing or replacing the Hardware, provided the product is installed by a registered plumber. You must retain proof of purchase of the Hardware (such as an invoice or receipt) and proof of installation by a registered plumber and provide these to Felton on request.

This warranty is for manufacturing defects only and does not cover any damage to product due to abuse, negligence or improper installation. This warranty is given on the understanding that the product is installed by a registered plumber and operated according to Felton's installation guide and the Australian/New Zealand standard AS/NZS3500. This warranty is provided to persons who are a "consumer" under the Consumer Guarantees Act 1993 only and for use in domestic/residential dwellings only (not for commercial use).

This warranty is subject to any other rights or remedies that you may have under the Consumer Guarantees Act 1993 (or any other applicable legislation) and to Felton's Terms of Trade.

This **5 year warranty** does not cover:

1) any consumable items (e.g. batteries, filters, installation fittings) supplied with the products.
2) damage, problems or unsatisfactory performance caused to the electronic hardware by:
   a. Faulty or incorrect electrical wiring, incorrect power supply, voltage fluctuations, over voltage transient spikes or electromagnetic interference not originating within the electronic hardware.
   b. Incorrect or poor installation or application
   c. Operation at conditions outside the operating conditions specified in the Felton technical or sales data applicable to that electronic hardware.
   d. Reconfiguration of the digital interface by the user – this is considered a service not a warranty.

MAINTENANCE & CARE

The screen and frame should be cleaned with a soft damp cloth only. Chemical or abrasive cleaners can damage the surface finish.
Check the digital mixing unit regularly to ensure that they have it has air space around them it, and that there aren't any leaks and that electric cables aren't damaged.

For technical assistance please ring
NZ 0800 743 358 or (09) 528 0810 | AUS 1800 798 760

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NOTES

FELTON