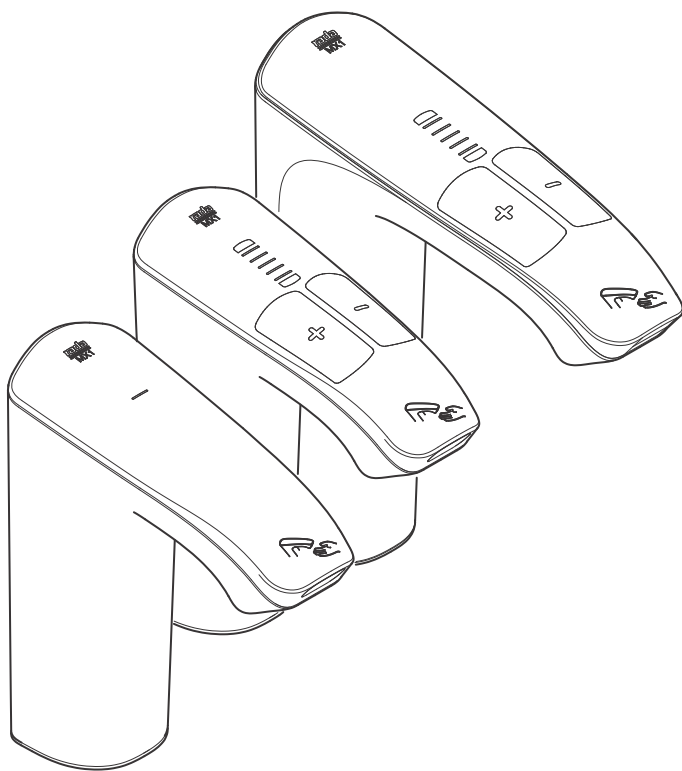


# Rada Digital Faucet MX1 Deck Mounted Tap Installation Operation & Maintenance Manual



Please read and save these instructions

495-EN V1.7



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# General

Make sure that the Rada MX1 is installed by a competent installer.

The product commissioning, clock (date/time) and tap set up can only be done in conjunction with the “RADA AP1” available from the Apple App store. Time and date setting is critical to ensure data reporting is correct.

**Note: Clock settings are lost after a period of 24hrs without mains power. When power is restored clock settings return to factory default (1st February 2000) and will need to be reset via the App.**

Shut off the main water and electrical supply.

Observe all local plumbing and building codes.

The Rada MX1 is a type 1, electronic, electrically operated, independently mounted valve. It is intended for surface mounting and is for connection to the mains water supply.

Isolator / Check valve / Filter housing supplied is an integral component of the tap, failing to install will invalidate the product's warranty.

The Rada MX1 must only be supplied from the power adaptor provided.

The power adaptor must be connected to the fixed wiring of the electrical supply via a switched 3A fused spur.

If the power adaptor supply cord is damaged the power adapter must be replaced by a competent person.

Where chlorine disinfection is practiced, DO NOT exceed a chlorine concentration of 50 mg/l (ppm) in water, per one hour dwell time. Such procedures must be conducted strictly in accordance with the information supplied with the disinfectant and with all relevant Guidelines/Approved Codes of Practice.

## Important Safety Information

The use of the word ‘failsafe’ to describe the function of any thermostatic mixing valve is both incorrect and misleading. In keeping with every other mechanism it cannot be considered as being functionally infallible.

Malfunction of thermostatic mixing valves can be detected by the use of proper temperature checking and maintenance routines.

Certain types of system can result in the thermostatic mixing valve having excessive ‘dead-legs’ of pipework. Such systems can disguise the onset of thermostatic mixing valve malfunction. Ultimately, the user must exercise due diligence to ensure that the delivery of warm water is at a stable, safe temperature

Make sure that the water delivery does not cause splashing or overflow.

# Specification

General	PSU	Valve
Maximum Ambient Temperature	122°F (50°C)	104°F (40°C)
Minimum Ambient Temperature	33.8°F (1°C)	33.8°F (1°C)
Maximum Humidity	95% rH	95% rH
Electrical	PSU	Valve
Supply Voltage	100 - 240 V 50/60 Hz	12 V DC
Rated Input Current	1 A	2.0 A
Water Ingress Protection	IP X4	IP X4
Protection Against Electric Shock	Class II (double insulated)	Class III (SELV)
Pollution Degree	2	2
Rated Impulse Voltage	2.5 kV	18 V
Performance		
Factory pre-set temperature	102.2°F (39°C)	
Factory pre-set temperature range	98.6°F - 105.8°F (37°C - 41°C)	
Programmable temperature range	91.4°F - 113°F (33°C - 45°C) (Full cold can be selected during programming)	

For Type 3 installations, the supply conditions specified in the TMV3 Requirements Manual take precedence over the operating parameters which follow.

Water Supply	
Minimum dynamic pressure	14.5 Psig - 100 kPa (1.0 bar)
Maximum dynamic pressure	72.5 Psig - 500 kPa (5.0 bar)
Maximum static pressure	145.0 Psig - 1000 kPa (10.0 bar)
Supply pressure differential	Equal pressure recommended - inlet pressures must be stable for optimum performance.
Minimum recommended differential between hot supply and outlet temp (consistent with HSE Guidelines)	44.6°F (7°C)
Hot supply temp	131°F - 149°F (140°F - 149°F Recommended) 55°C - 65°C (60°C - 65°C Recommended)
Cold supply temp	33.8°F - 77°F (1°C - 25°C)
Maximum disinfection temperature	176°F (80°C)

# Factory Default Settings

RADA App Tile / Section	Adjustable Temperature Variant	Fixed Temperature Variant	Range		Units
			Min Value	Max Value	
1. Valve Setup / 4. Installation Setup					
1. Setup Advice	Info Field				
2. Valve Identity	Editable Text Field				
3. Outlet Type and Sub Type	Info Field				
4. Unit Address	17	17	1	31	
5. Valve Date and Time	24 Hr Clock			DD/MM/YYYY	
6. Last Service and Time	Info Field				
7. Flow Calibration					
8. Minimum Flow Limit	5	5	1	100	
9. Maximum Flow Limit	13	13	1	100	
10. Valve DOB	Info Field				
11. Calibration	N/A Set to max 300, 300				
12. IR Calibration	Factory Programmed - Typical Range 180 - 220				
13. Pin	0001 - 9999 Permissible. Re-entry of 5945 Not Permitted				
14. Tap Interface	Info Field				
15. Operational State	Enable	Enable	Enable, Disable		
16. Tasks	Apply Changes to Valve/Undo Changes				
1. Valve Setup / 5. Outlet Setup					
1. Type	Info Field				
2. Sub Type	On/Off	On/Off	(On/Off), Timed Blocking		N/A
3. Outlet Selection	Info Field				
4. Full Cold Mode	Disabled	Disabled	Start Cold Enabled Disabled	Start Cold Enabled Disabled	
5. Minimum Temperature	98.6°F (37°C)	N/A	91.4°F (33°C)	113 °F (45°C)	32.9°F (0.5 °C)
6. Default Temperature	102.2°F (39°C)	100.4°F (38°C)	91.4°F (33°C)	113 °F (45°C)	
7. Maximum Temperature	105.5°F (41°C)	N/A	91.4°F (33°C)	113 °F (45°C)	32.9°F (0.5 °C)
8. Flow Rate Setup	N/A				
9. Default Flow Rate	50	50	10	100	%
10. Outlet Timeout	5 Min	5 Min	0s	30 Min	Seconds/min
11. Run on Time	5 S	5 S	1	60	Seconds
12. Temperature Memory	40 S	N/A	0	5 Min	Seconds/min

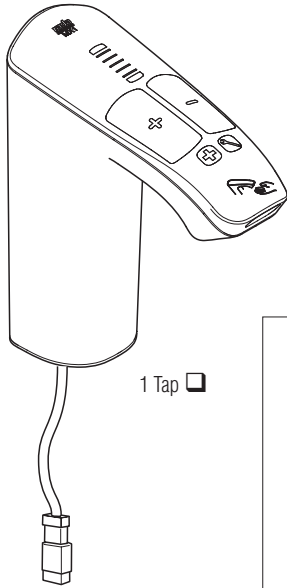
# Factory Default Settings - continued

RADA App Tile/Section	Adjustable Temperature Variant	Fixed Temperature Variant	Range		Units
			Min Value	Max Value	
13. Blocking Time	1	1	1	25 Min	Seconds/min
14. Temperature Scale	9 Increments	N/A	9, 5 Increments		
15. Tasks	Apply Changes to Valve/Undo Changes				
1. Valve Setup / 6. Duty Flush Setup					
1. Activation	Manual	Manual	Manual, Automatic		
2. Type	Standard	Standard	Disabled, Standard, Standard oscillation	Disabled, Standard, Standard oscillation	
2. Type	Standard	Standard	Disabled, Standard, Standard Oscillation, Smart, Smart Oscillation	Disabled, Standard, Standard Oscillation, Smart, Smart Oscillation	
3. Activation Time	02:00 Hrs	02:00 Hrs			Time 24 Hr Clock
4. Duration	1 Min	1 Min	1 S	25 min	Seconds/Min
5. Frequency	1 Per 3 Days	1 Per 3 Days	1 Hr	1 Week	Hrs/day/ 1 Week
6. Schedule	Auto Populated Field				
7. Temperature	102.2°F (39°C)	102.2°F (39°C)	98.6°F (37°C)	105.8°F (41°C)	deg F(C)
8. Flow Rate	100	100	10	100	%
9. Warm Up Time	1 Min	1 Min	1 S	25 Min	Seconds/Min
10. Post Cold Flush	0	0	0	10	Seconds/min
11. Tasks	Apply Changes to Valve/Undo Changes				
1.Valve Setup / 7. Cold Flush Setup					
1. Activation	Manual	Manual	Manual, Automatic		
2. Type	Disabled	Disabled	Disabled, Standard		
3. Activation Time	04:00 Hrs	04:00 Hrs			Time 24 Hr Clock
4. Duration	2 Mins	2 Mins	5 S	10 Mins	Seconds/Min
5. Frequency	1 Per 3 Days	1 Per 3 Days	1 Hr	1 Week	Hrs/Day/1 Week
6. Schedule	Auto Populated Field				
7. Cool Down Temperature	66.2°F (19°C)	66.2°F (19°C)	59°F (15°C)	<= Maintain Temperature	deg F(C)
8. Maintain Temperature	68°F (20°C)	68°F (20°C)	59°F (15°C)	86°F (30°C)	deg F(C)

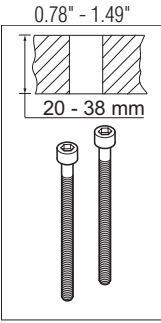
# Factory Default Settings - continued

RADA App Tile / Section	Adjustable Temperature Variant	Fixed Temperature Variant	Range		Units
			Min Value	Max Value	
9. Cool Down Timeout	2 Mins	2 Mins	5 S	10 Mins	Seconds/Min
10. Flow Test	Start/Stop				
11. Flow Rate	100	100	10	100	%
12. Taks	Apply Changes to Valve/Undo Changes				
1. Valve Set Up / 8. Thermal Disinfection Setup					
1. Activation	Manual	Manual			
2. Type	Disabled	Disabled	Disabled, Standard, Exponential, Standard Cold, Exponential Cold		
3. Duration	20	20	1	30	Mins
4. Minimum Temperature	140°F (60°C)	140°F (60°C)	140°F (60°C)	<=Upper	deg F(C)
5. Upper Temperature	140°F (60°C)	140°F (60°C)	>=Lower	176°F (80°C)	deg F(C)
6. Flow Rate	10	10	10	100	%
7. Warm Up Time	5	5	1	20	Mins
8. Timeout	30	30	1	59	Mins

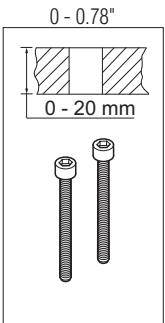
# Pack Contents



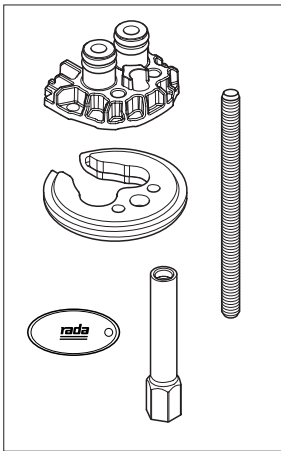
1 Tap ☐



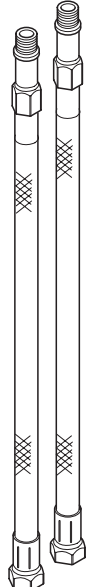
2 x Fixing  
Screws ☐



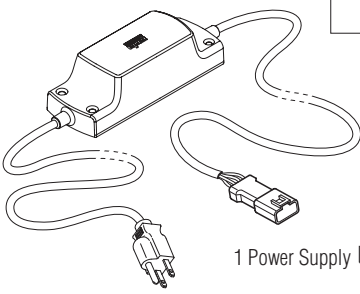
2 x Fixing  
Screws ☐



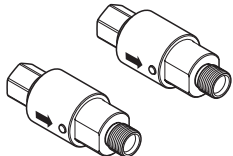
1 Tap Fixing Kit ☐



2 Flexible Tails ☐



1 Power Supply ☐

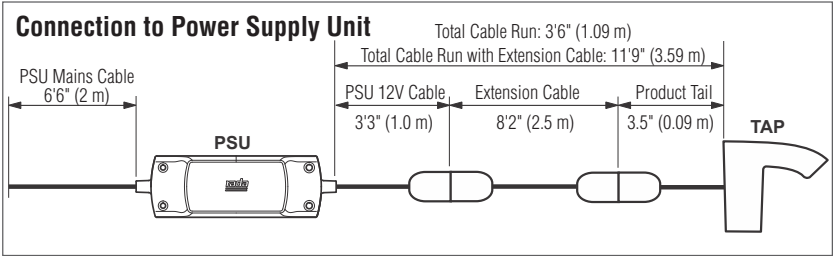
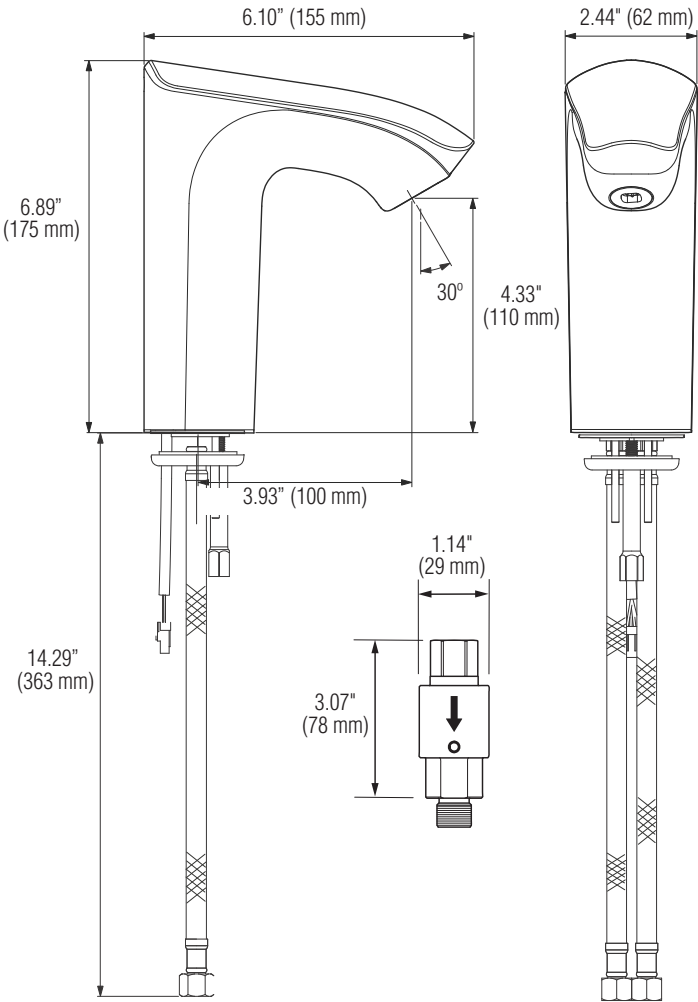


2 Flow Regulator/Filter  
Assemblies ☐



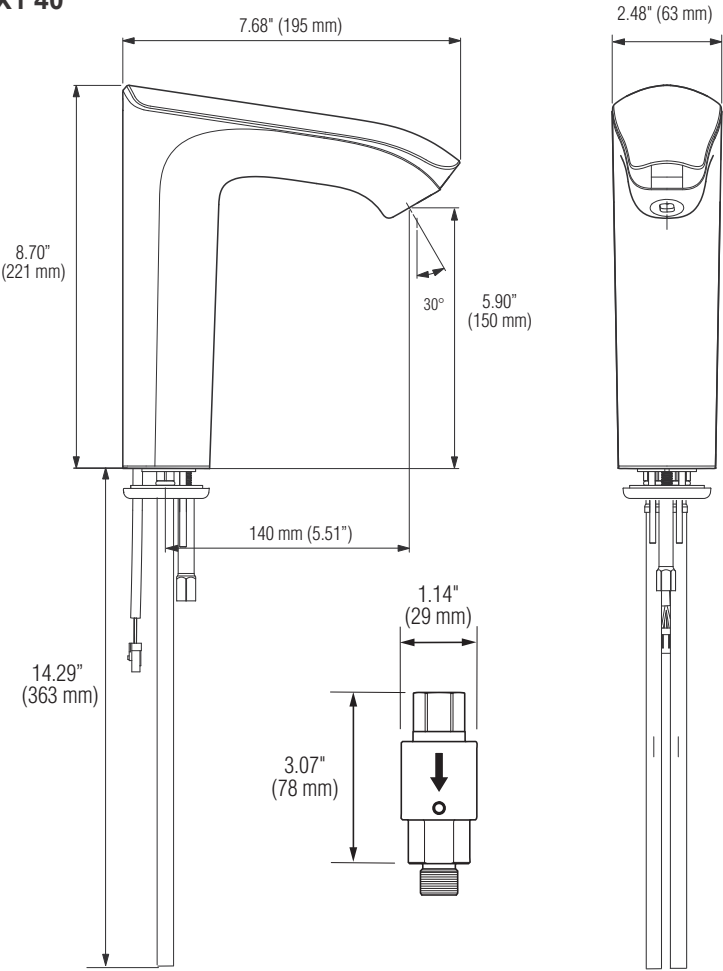
# Dimensions

## MX1 20

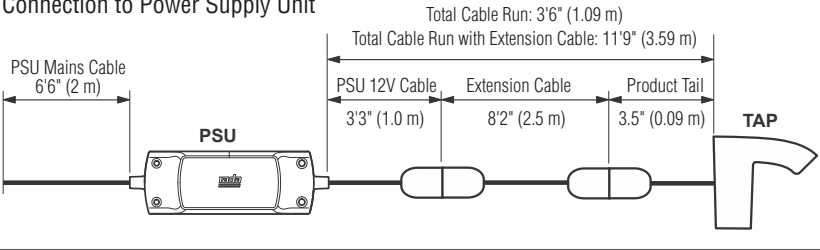


# Dimensions - continued

## MX1 40



### Connection to Power Supply Unit



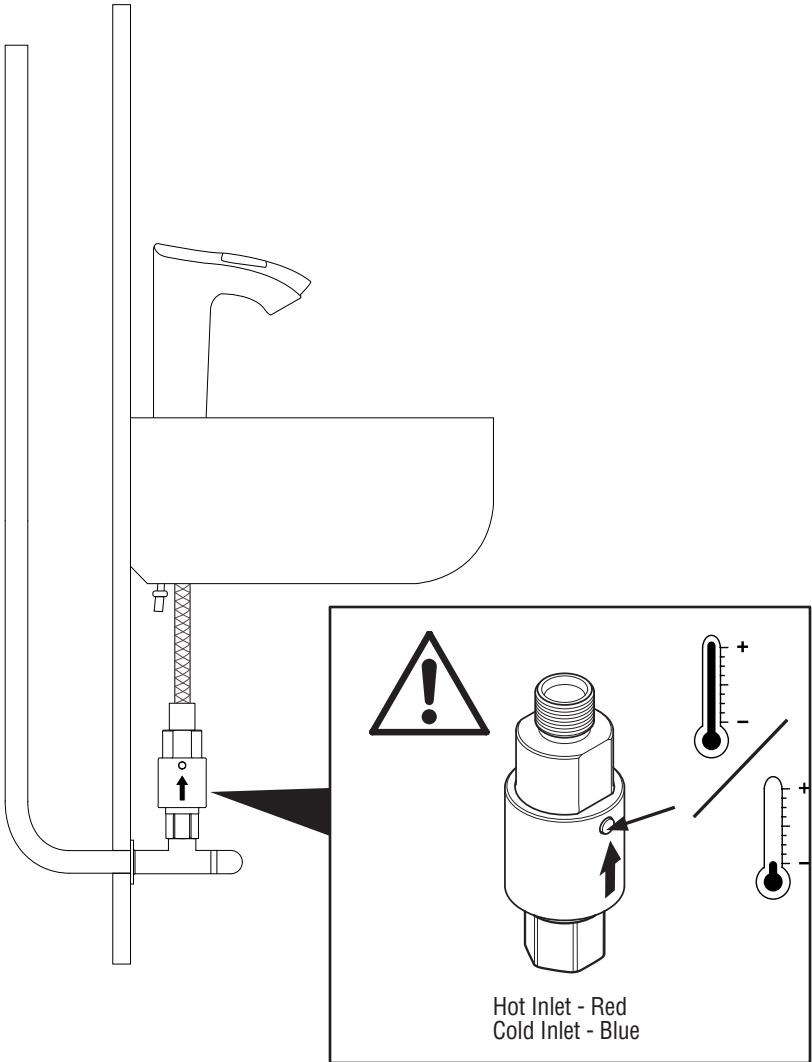
# Installation Requirements

The Rada MX1 basin mounted tap can be installed with either flexible tails or rigid pipes. The filter flow regulator unit must be fitted.

Hot – Red Dot, Cold – Blue Dot.

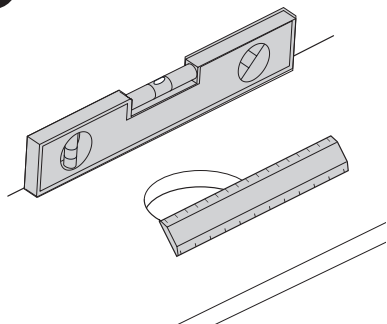
The arrow indicates flow direction.

The unit must be accessible for service.



# Installation

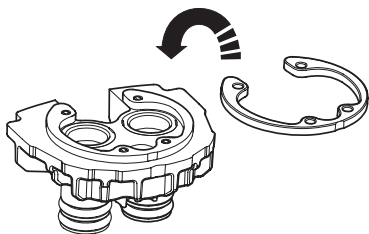
1



Measure the size of the basin hole.

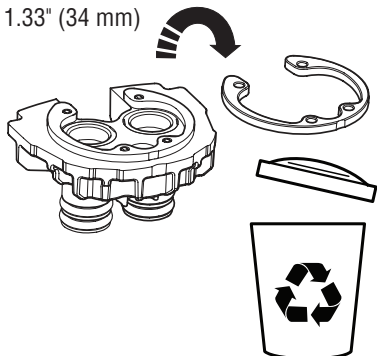
2

> 1.33" (34 mm)



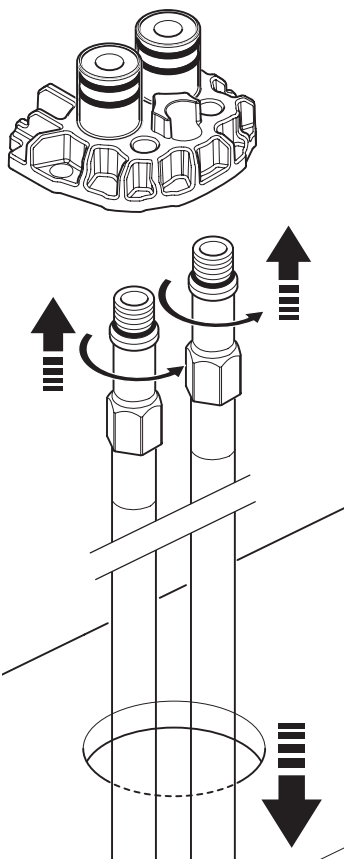
If the basin hole is greater than 1.33" (34 mm)  
fit the plastic spacer.

< 1.33" (34 mm)



If the basin hole is smaller than 1.33" (34 mm)  
discard the plastic spacer.

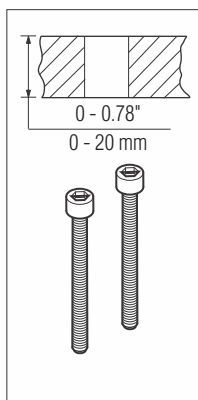
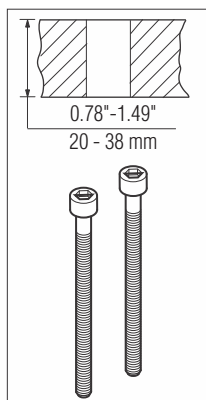
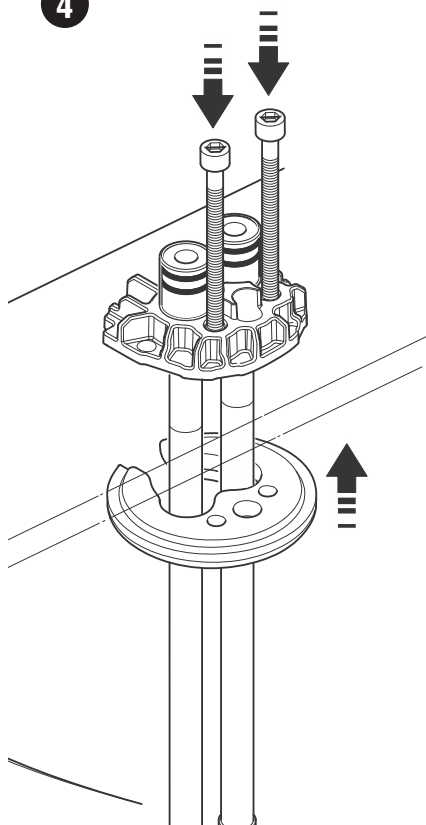
3



Install the flexible tails or rigid  
pipes.

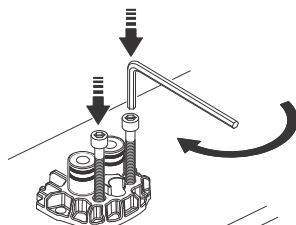
## Installation - continued

4



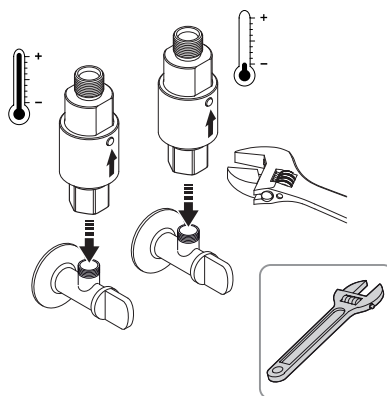
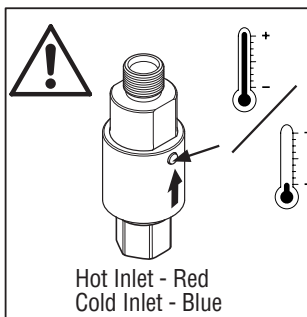
Select the screws to suit the thickness of the washbasin.

5



Tighten the screws using a 1/8" (3 mm) hexagonal wrench

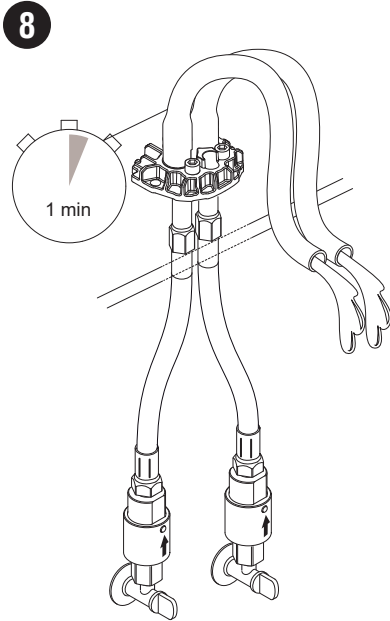
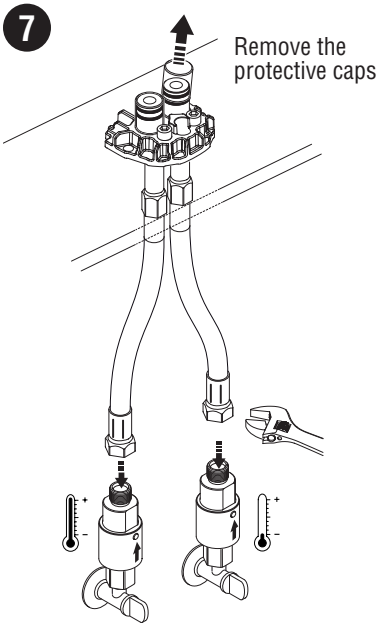
6



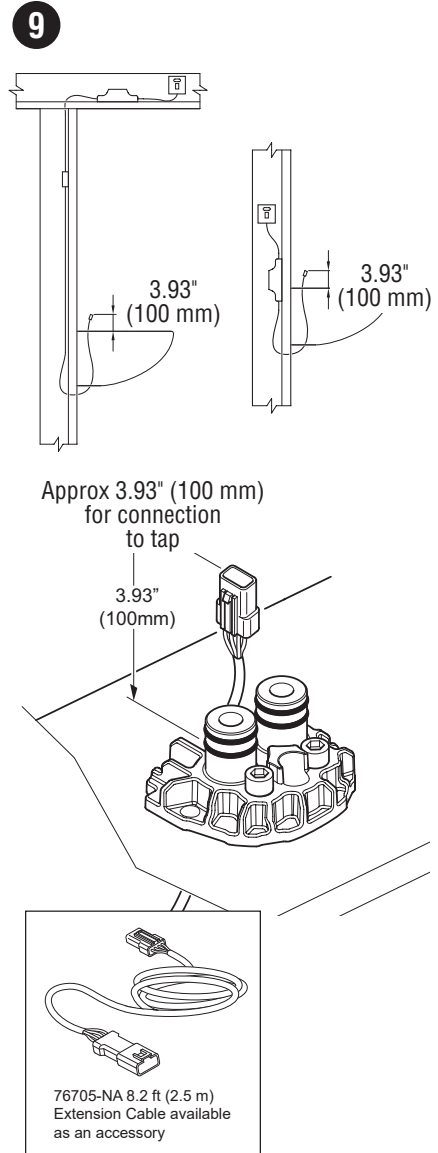
**DO NOT** use jointing paste when making plumbing connections.

**Note:** Make sure that the Filter / flow regulator housings are installed in the correct orientation. An arrow indicates the direction of water flow.

# Installation - continued



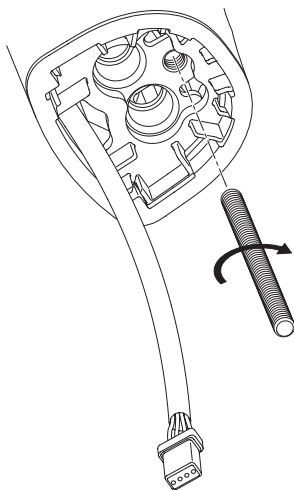
Flush both supplies for 1 minute.



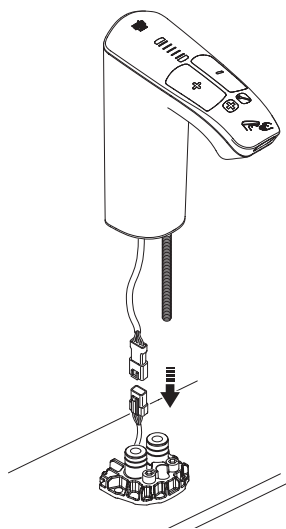
**Note:** Make sure that you install the PSU (Power Supply Unit) in an area that you can access easily for servicing and maintenance purposes. Ensure connection to tap is dry and latch engaged on assembly.

## Installation - continued

10

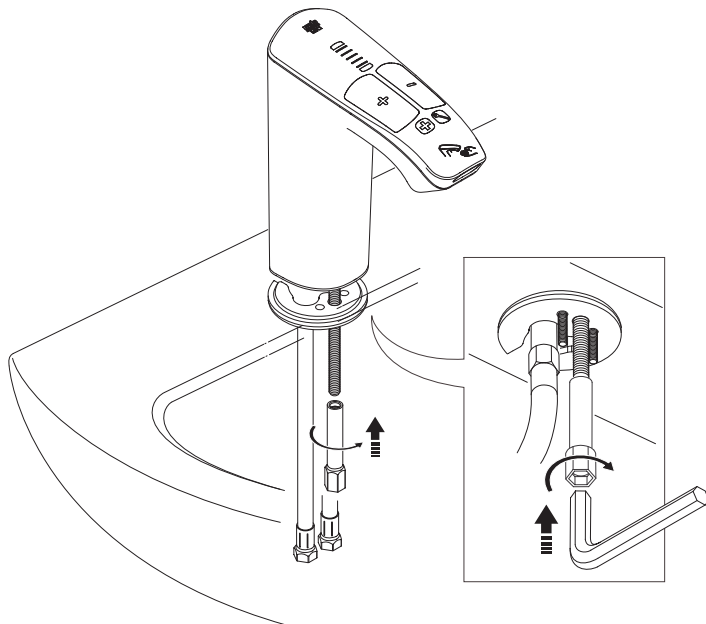


11



**Note:** Ensure connection is dry and latch engaged on assembly.

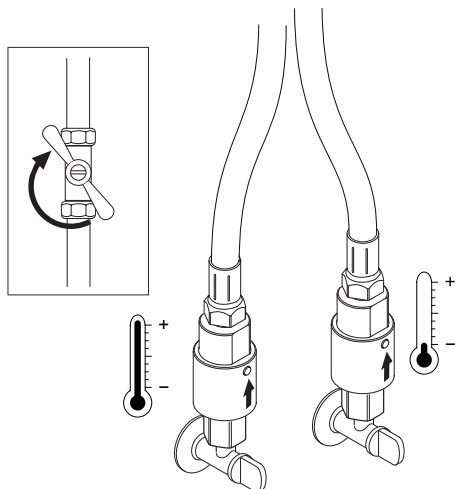
12



Tighten the nut using a 7/23" (6 mm) hexagonal wrench.

# Comissioning

The Rada MX1 basin mounted tap will operate to factory settings when first installed. Download the "RADA AP1" from the Apple App Store and follow the on-screen instructions.



Open hot and cold water supply and check for leaks.

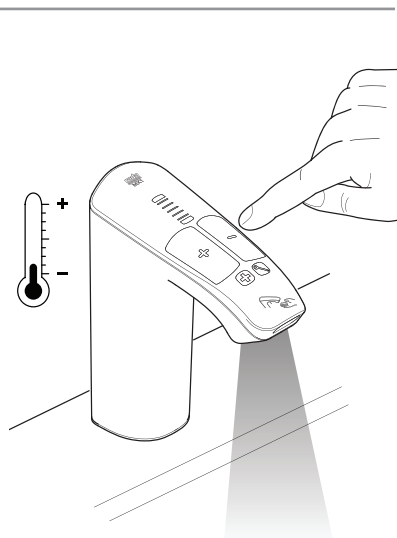
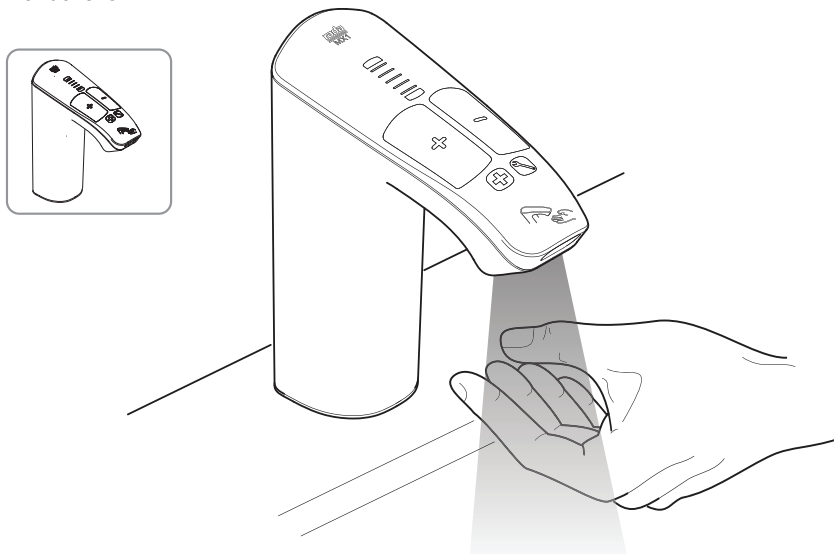
**Note: Run the tap for 30 seconds in order for self calibration to take place.**



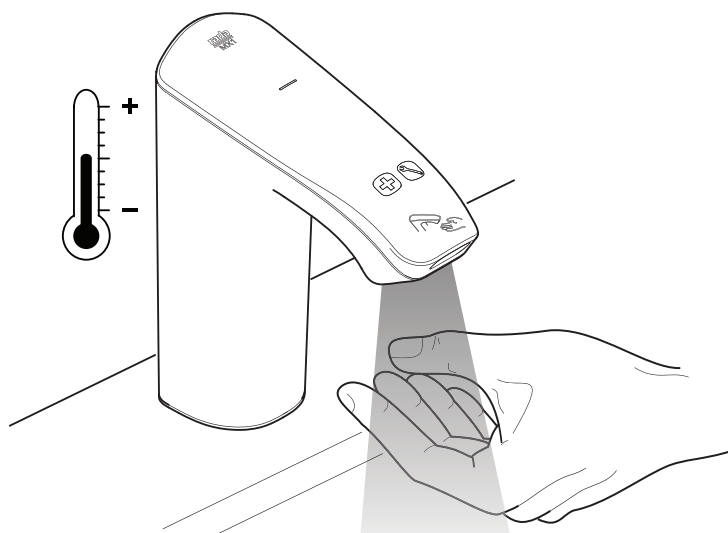
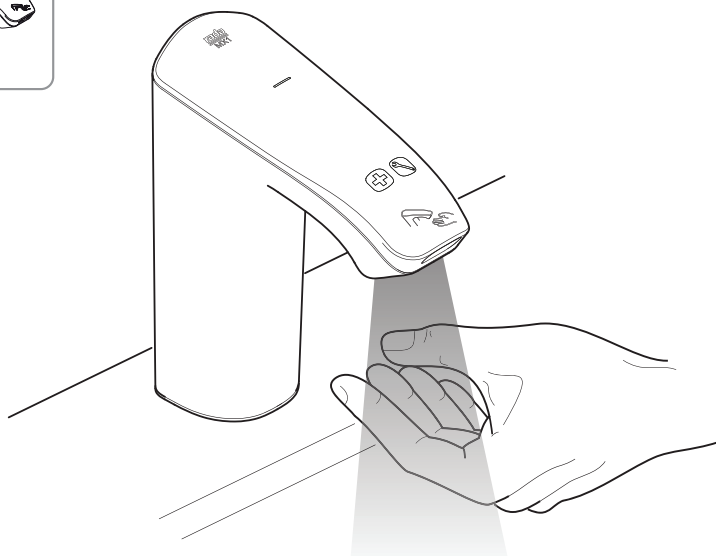
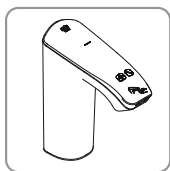


# Operation

The Rada MX1 basin mounted tap will operate to factory settings when first installed. Download the “RADA AP1” from the Apple App Store and follow the on screen instructions.



## Operation - continued



**Note: This tap has an over temperature limiting device, should blend temperature exceed safe conditions, the valve will shut down and reset automatically once temperature returns to a safe state.**

# Fault Diagnosis

As with most electronic equipment re-setting the mixing valve by powering it down at the mains, waiting a few seconds and powering it up again can often cure any issues.

Symptoms	Probable Cause	Possible Remedy
No water flow / will not turn on	Product has entered an error mode indicated by a flashing “ <b>spanner</b> ” symbol	Refer to Error Log
	Product in cleaning / disabled mode	Use magnetic key to put back in normal mode.
	No power to the Digital Mixing Valve	Check electrical connection and power supply - Power cycle the digital mixer (turn off and on again).
	Inlet water supply isolators not fully turned on	Check and remedy.
	Inlet water supply failure	Check and remedy.
	Inlet filters or check valves blocked	Check and remedy.
	Inlet check valves / flow regulators installed the wrong way around	Check and remedy.
	Outlet spout, hose or handset blocked	Check and remedy.
	Reversed inlet supplies	Check and remedy.
	Inlet water pressure too low	Check specification.
	“ <b>Blocking</b> ” time set	Commission “ <b>Blocking</b> ” time using the communication app.
	Digital Mixing Valve air locking	Check for correct installation practices, repeat commissioning procedure and rearrange pipework to avoid airlock forming.
	Digital Mixing Valve failure	Contact Rada
Flow rate too low	Inlet water supply isolators not fully turned on	Check and remedy.
	Inlet filters or check valves blocked	Check and remedy.
	Outlet spout, hose or handset blocked	Check and remedy.
	Reversed inlet supplies	Check and remedy.
	Inlet Water pressures too low	Check specification.
	Digital Mixing Valve air locking	Check for correct installation practices, repeat commissioning procedure and rearrange pipework to avoid airlock forming.
	Digital Mixing Valve failure	Contact Rada.

## Fault Diagnosis - continued

Symptoms	Probable Cause	Possible Remedy
Flow rate too high	Inlet water pressures too high	Check specification.
	Inlet check valves / flow regulators not fitted	Check and remedy.
	Digital Mixing Valve failure	Contact Rada.
Outlet flow rate fluctuates	Inlet filters or check valves blocked	Check and remedy.
	Outlet spout, hose or handset blocked	Check and remedy.
	Reversed inlet supplies	Check and remedy.
	Inlet water supply pressures are unstable or imbalanced	Ensure the water supply pressures are stable and nominally equal, refer to <b>"Specifications"</b> .
	Digital Mixing Valve air locking	Check for correct installation practices, repeat commissioning procedure and rearrange pipework to avoid airlock forming.
	Digital Mixing Valve failure	Contact Rada.
Keeps cutting out	Product has entered an error mode indicated by a flashing <b>"spanner"</b> symbol	Refer to Error Log.
	Inlet water supply isolators not fully turned on	Check and remedy.
	Inlet filters or check valves blocked	Check and remedy.
	Outlet spout, hose or handset blocked	Check and remedy.
	Reversed inlet supplies	Check and remedy.
	<b>"Run time"</b> is set too short.	Commission the run time using the <b>"RADA AP1"</b> .
	<b>"Blocking"</b> time set	Commission <b>"Blocking"</b> time using the <b>"RADA AP1"</b> .
	Digital Mixing Valve air locking	Check for correct installation practices, repeat commissioning procedure and rearrange pipework to avoid airlock forming.
	Digital Mixing Valve failure	Contact Rada.
	Inlet pressures and/or temperatures are unstable or spiking	Check and remedy, refer to <b>"Specifications"</b> .

## Fault Diagnosis - continued

Symptoms	Probable Cause	Possible Remedy
Outlet temperature too cool	Temperature adjustment set too low	Increase temperature control - Some models only
	Blend temperature set too low	Re-commission blend temperature using " <b>RADA AP1</b> ".
	Inlet filters or check valves blocked	Check and remedy.
	Outlet spout, hose or handset blocked	Check and remedy.
	Reversed inlet supplies	Check and remedy.
	Hot inlet water supply temperature is too cool	Increase hot inlet water temperature to between 131°F and 149°F (55°C and 65°C), refer to " <b>Specifications</b> ".
	Insufficient quantity of stored hot water	Hot water supply running out, increase storage capacity.
	Inlet water supply pressures are unstable or imbalanced	Ensure the water supply pressures are stable and nominally equal, refer to " <b>Specifications</b> ".
	Outlet pipe run is too long	Ensure outlet pipe work is thermally lagged.
	Digital Mixing Valve failure	Contact Rada.
Outlet temperature is too hot or fluctuates	Temperature adjustment set too high	Decrease temperature control - Some models only.
	Blend temperature set too high	Re-commission blend temperature using " <b>RADA AP1</b> ".
	Hot inlet water supply temperature is too hot	Reduce hot inlet water temperature to between 131°F and 149°F (55°C and 65°C), refer to " <b>Specifications</b> ".
	Inlet filters or check valves blocked	Check and remedy.
	Outlet spout, hose or handset blocked	Check and remedy.
	Reversed inlet supplies	Check and remedy.
	Fluctuating supply pressures and / or temperatures	Check and remedy.
	Inlet water supply pressures are unstable or imbalanced	Ensure the water supply pressures are stable and nominally equal, refer to " <b>Specifications</b> ".
	Temperature affected by use of adjacent hot/cold outlet. Insufficiently sized pipe work to feed both Digital Mixer Valve and additional outlets at the same time.	Increase pipe sizes or separately feed to the product.
	Digital Mixing Valve failure	Contact Rada.

# Fault Diagnosis - continued

Symptoms	Probable Cause	Possible Remedy
No shut off/ Continuous flow	Run on time set too long	Check settings in “RADA AP1”
	Possible debris in Digital Mixing Valve	Power cycle the digital mixer (turn off and on again). Ensure inlet filters are clean.  Perform a cold flush using the Coms App to flush debris from unit.
	Digital Mixing Valve failure	Contact Rada.
Noise	The product will make a mechanical noise during (and just after) normal operation	
	Digital Mixing Valve air locking	Check for correct installation practices, repeat commissioning procedure and rearrange pipework to avoid airlock forming.
	Water Hammer	Ensure all pipework is securely fixed.
	Amplified acoustic noise from the Digital Mixing Valve mechanism due to structure of the mounting	The type of wall or surface the appliance is fixed to will affect the perceived noise level; solid walls will provide a quieter operation.
	Digital Mixing Valve failure	Contact Rada.
False triggering	Protective film not removed from product	Remove protective film.
	Dirty sensor window	Clean sensor window.
	Reflective surfaces	Infra Red sensors activated by reflective surfaces such as polished basins, Hi-Vis jackets and mirrors.
	Ambient light conditions	Direct sunlight or constant shadowing of the sensors to be reduced.
	Digital Mixing Valve failure	Contact Rada.
Water leaking from product	Damaged seal	Replace seal and re-fit product.
	Product not fully engaged to manifold	Correctly engage product to manifold.





A flashing “spanner” symbol indicates the product has gone in to an error mode. If repeated errors are logged this **MUST** be diagnosed and corrected by a technician. The “RADA AP1” can be used to disable the valve until fault diagnosis can be made. Using the “RADA AP1”, navigate to the Health Check Page tile 12, to read the error log.

**Note: The last 10 errors are logged in the units memory.**

As with most electronic equipment, re-setting the mixing valve by powering it down at the mains, waiting a few seconds and powering it up again can often cure any issues.

Alternatively navigate to the Health Check Page tile 9 of the “RADA AP1” and press “Clear Valve Error” button to reset the valve.

 Error Log	Probable Cause	Possible Remedy
Over temperature at control Over temperature warning Over temperature at outlet	Non Product fault - Thermistor has seen an unsafe blend temperature and has gone in to a thermal shutdown to protect the user	Valve will self clear fault.
	Inlet filters or check valves blocked	Check and remedy.
	Obstruction in inlet water supplies, e.g. kinked inlet hose	Check and remedy.
	Hot inlet water supply temperature is too hot	Reduce hot inlet water temperature to between 131°F and 149°F (55°C and 65°C), refer to “ <b>Specifications</b> ”.
	Inlet water supply isolators not fully turned on	Check and remedy.
	Inlet water supply failure	Check and remedy.
	Outlet spout, hose or handset blocked	Check and remedy.
	Reversed inlet supplies	Check and remedy.
	Fluctuating supply pressures and / or temperatures	Check and remedy.
	Inlet water supply pressures are unstable or imbalanced	Ensure the water supply pressures are stable and nominally equal, refer to “ <b>Specifications</b> ”.
	Blend temperature affected by use of adjacent hot/cold outlet. Insufficiently sized pipe work to feed both Digital Mixer Valve and additional outlets at the same time.	Increase pipe sizes or separately feed the product.
	Digital Mixing Valve failure	Contact Rada.

 <b>Error Codes</b>	<b>Probable Cause</b>	<b>Possible Remedy</b>
Temp imbalance Unstable supply	Non Product Fault - The supply conditions are out of specification	Valve will self clear fault.
	Hot inlet water supply temperature is too hot or fluctuating	Reduce hot inlet water temperature to between 131°F and 149°F (55°C and 65°C), refer to <b>"Specifications"</b> .
	Inlet water supply pressures are unstable or imbalanced	Ensure the water supply pressures are stable and nominally equal, refer to <b>"Specifications"</b> .
Motor homing error Recovered EE error EE error - reverted to default	Non Product Fault	Re-set the product by turning electrical supply off for 30 seconds then re-apply power.
Open circuit error	Software failure	Re-set the product by turning electrical supply off for 30 seconds then re-apply power.
	Loose internal wiring connections (Thermistor)	Ensure all wiring connections are securely made.
	Thermistor failure	Contact Rada.
Unconfigured A to D Read Error RAM error EE Error External EE error RTC Fault Flash Error Scheduler Error IR not calibrated	Software failure	Re-set the product by turning electrical supply off for 30 seconds then re-apply power.
	PCB failure	Contact Rada.
Shut Off Mechanism Controller Error	Software failure	Re-set the product by turning electrical supply off for 30 seconds then re-apply power.
	Loose internal wiring connections (Solenoid and PCB)	Ensure all wiring connections are securely made.
	Digital Mixing Valve failure	Contact Rada.
Interface Error Interface CGF error IO expander error	Software failure	Re-set the product by turning electrical supply off for 30 seconds then re-apply power.
	Loose internal wiring connections (Interface and PCB)	Ensure all wiring connections are securely made
	Interface failure	Contact Rada.



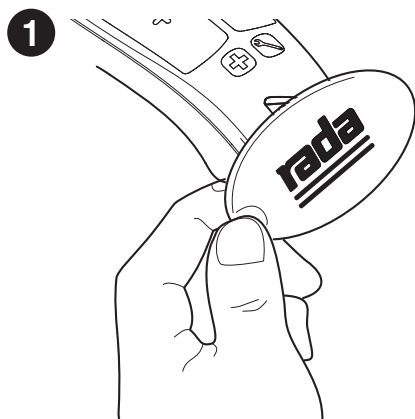
# Maintenance

## Cleaning

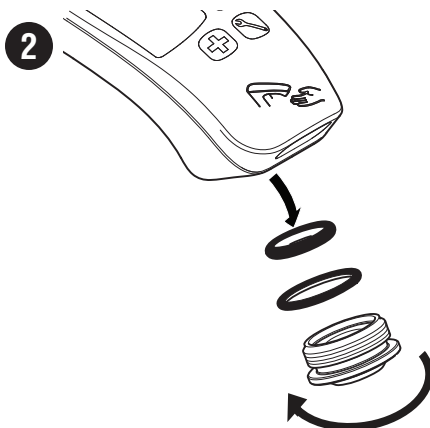
**⚠ Caution!** Risk of product damage. Many cleaners contain abrasive and chemical substances, and should not be used for cleaning stainless steel, enamel, plated or plastic fittings. These finishes should be cleaned using a mild washing up detergent or soap solution, rinsed and then wiped dry with a soft clean cloth.

**Note:** Run the tap for 30 seconds in order for self calibration to take place.

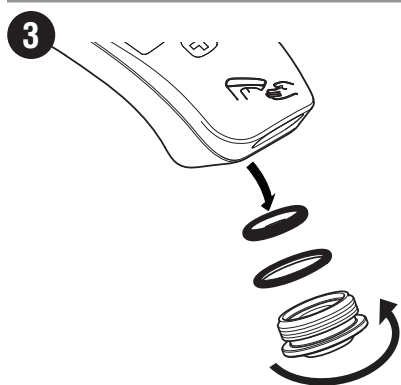
### Change the flow insert.



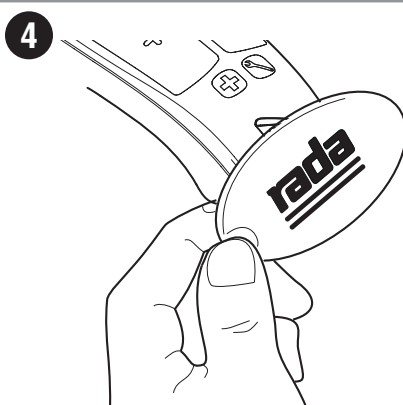
Enter cleaning mode. Scan the Rada key over the spout to enter / exit cleaning mode.



Remove the flow insert using a 5/16" (8mm) hexagonal wrench.



Replace the new flow insert.

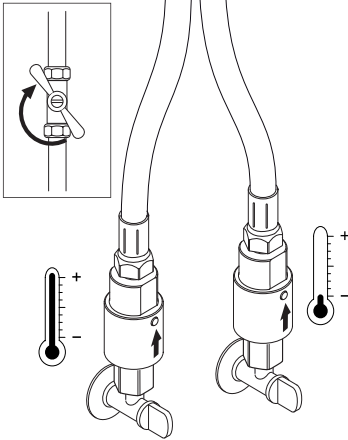


Exit cleaning mode.

# Maintenance- continued

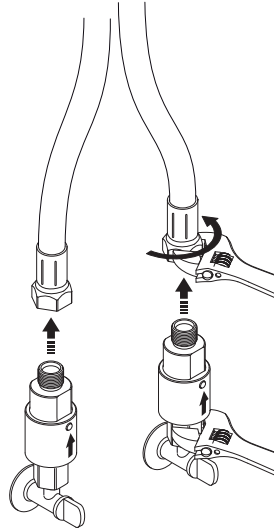
Clean the filter.

1



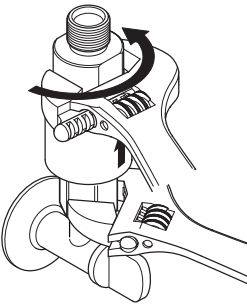
Isolate water supplies

2



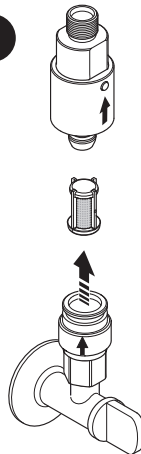
Disconnect tails

3



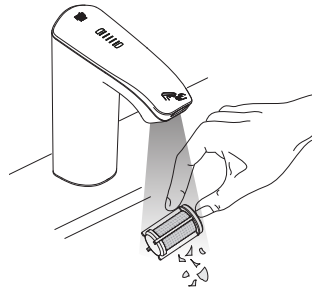
Separate the filter unit,  
lower portion can remain  
attached to supply elbow.

4



Remove the filter.

5

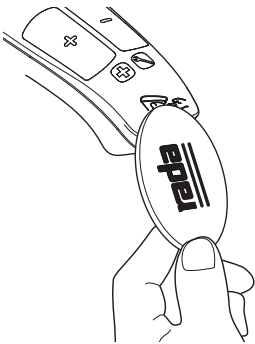


Clean/replace filter.  
Refit the components in  
reverse order.

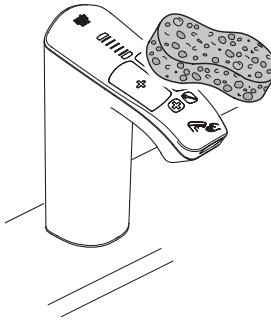
# Maintenance- continued



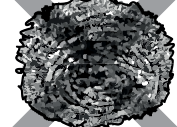
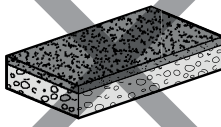
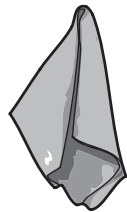
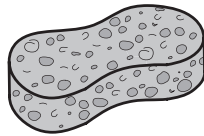
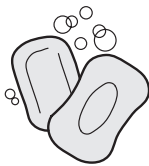
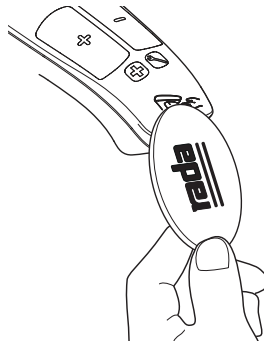
1



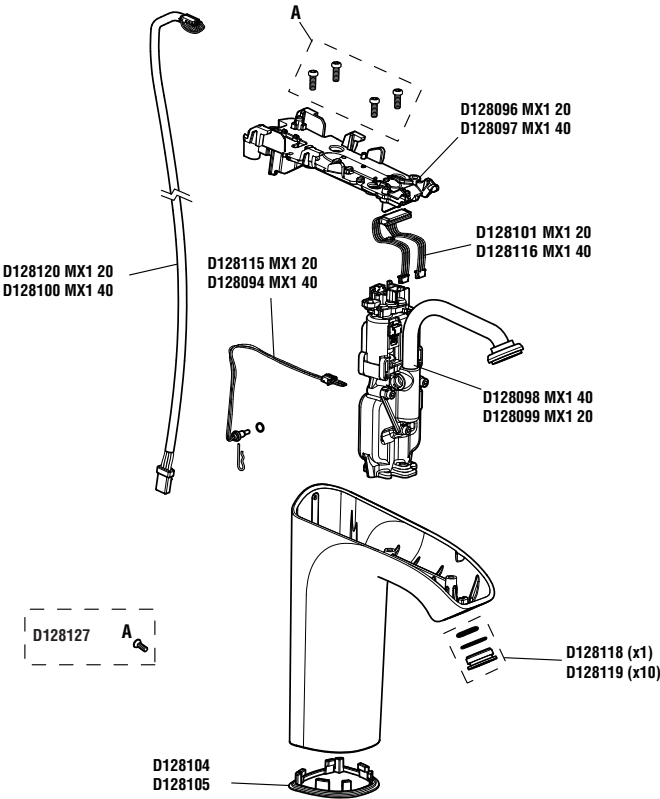
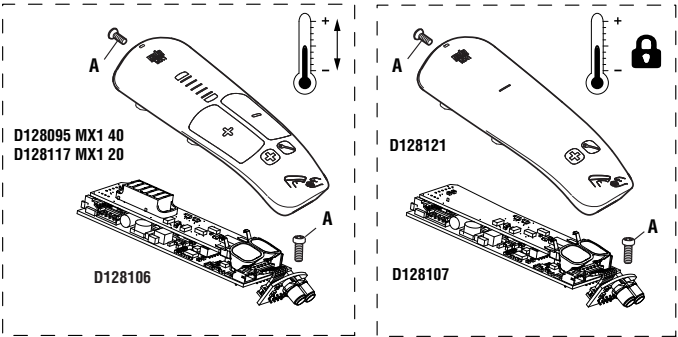
2



3



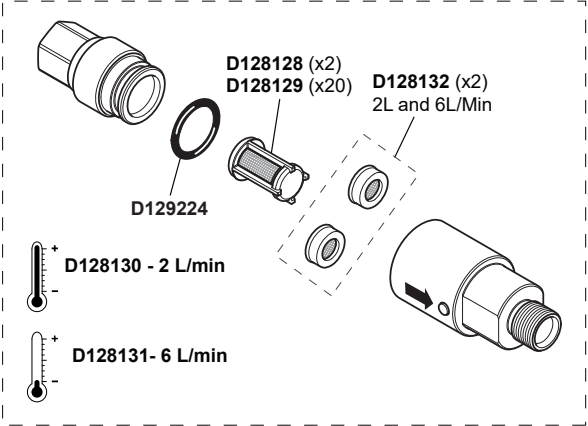
# Spare Parts



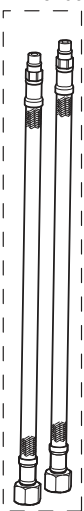
# Spare Parts - continued

Part Number	Description	MX1-Model
D128094	Thermistor	MX1-40
D128095	Interface Cover - Temperature	MX1-40
D128096	Mount - Printed Circuit Board	MX1-20
D128097	Mount - Printed Circuit Board	MX1-40
D128098	Valve Assembly	MX1-40
D128099	Valve Assembly	MX1-20
D128100	Power Supply Cable	MX1-40
D128101	Loom Wiring	MX1-20
D128104	Base Seal	MX1-40
D128105	Base Seal	MX1-20, MX1-40
D128106	Printed Circuit Board - Temperature	MX1-20, MX1-40
D128107	Printed Circuit Board - No Temperature	MX1-20NT
D128115	Thermistor	MX1-20
D128116	Wiring Loom	MX1-40
D128117	Interface Cover - Temperature	MX1-20
D128118	Flow Insert (1 pack)	MX1-20, MX1-20 NT, MX1-40
D128119	Flow Insert (10 packs)	MX1-20, MX1-20 NT, MX1-40
D128120	Power Supply Cable	MX1-20
D128121	Interface Cover - No Temperature	MX1-20NT
D128127	Screw Pack (Noted as "A" below)	MX1-20, MX1-20 NT, MX1-40

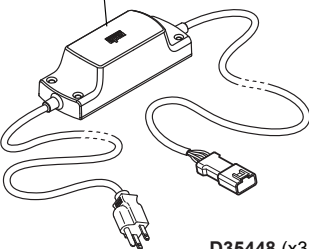
# Spare Parts - continued



D128103



D128114



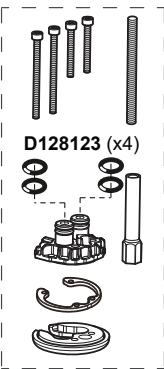
D35448 (x3)



D129223 8'2" (2.5m)



D128102



Faucet Cover Plates



D126263



D126262

# Spare Parts - continued

Part Number	Description	MX1-Model
D128102	Fixture Pack	MX1-20, MX1-20NT, MX1-40
D128103	Flexi Tails (1 pair)	MX1-20, MX1-20NT, MX1-40
D128114	Power Supply Unit	MX1-20, MX1-20NT, MX1-40
D128123	Seal Fixtures	MX1-20, MX1-20NT, MX1-40
D128128	Filter Insert (pack of 2)	MX1-20, MX1-20NT, MX1-40
D128129	Flow Insert (pack of 20)	MX1-20, MX1-20NT, MX1-40
D128130	Filter/Flow Regulator Assembly - Hot (1 each)	MX1-20, MX1-20NT, MX1-40
D128131	Filter/Flow Regulator Assembly - Cold (1 each)	MX1-20, MX1-20NT, MX1-40
D128132	Flow Regulator Pack (One 2L & One 6L)	MX1-20, MX1-20NT, MX1-40
D129223	Cable Extension Assembly	MX1-20, MX1-20NT, MX1-40
D35448	Disable Key Pack x3 (3 each)	MX1-20, MX1-20NT, MX1-40
D126263	Cover Plate 8 inch	MX1-20, MX1-20NT, MX1-40
D126262	Cover Plate 4 inch	MX1-20, MX1-20NT, MX1-40

# Limited Warranty and Remedy

Armstrong International, Inc. or the Armstrong division that sold the product ("Armstrong") warrants to the original user of those products supplied by it and used in the service and in the manner for which they are intended, that such products shall be free from defects in material and workmanship for a period of one (1) year from the date of installation, but not longer than 15 months from the date of shipment from the factory, [unless a Special Warranty Period applies, as listed below]. This warranty does not extend to any product that has been subject to misuse, neglect or alteration after shipment from the Armstrong factory. Except as may be expressly provided in a written agreement between Armstrong and the user, which is signed by both parties, Armstrong **DOES NOT MAKE ANY OTHER REPRESENTATIONS OR WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR ANY IMPLIED WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE.**

The sole and exclusive remedy with respect to the above limited warranty or with respect to any other claim relating to the products or to defects or any condition or use of the products supplied by Armstrong, however caused, and whether such claim is based upon warranty, contract, negligence, strict liability, or any other basis or theory, is limited to Armstrong's repair or replacement of the part or product, excluding any labor or any other cost to remove or install said part or product, or at Armstrong's option, to repayment of the purchase price.

As a condition of enforcing any rights or remedies relating to Armstrong products, notice of any warranty or other claim relating to the products must be given in writing to Armstrong: (i) within 30 days of last day of the applicable warranty period, or (ii) within 30 days of the date of the manifestation of the condition or occurrence giving rise to the claim, whichever is earlier. **IN NO EVENT SHALL ARMSTRONG BE LIABLE FOR SPECIAL, DIRECT, INDIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES, INCLUDING, BUT NOT LIMITED TO, LOSS OF USE OR PROFITS OR INTERRUPTION OF BUSINESS.** The Limited Warranty and Remedy terms herein apply notwithstanding any contrary terms in any purchase order or form submitted or issued by any user, purchaser, or third party and all such contrary terms shall be deemed rejected by Armstrong.

Special Warranty Periods are as Follows:

Pre-packaged skid shall have a 2 year warranty from date of installation but not longer than 27 months from date of shipment.

DRV shall have a 5 year all components parts warranty from date of shipment other than preventative maintenance service items which include batteries and all 'wetted' O-Rings/Seals.

The heat exchanger shall have a 1 year warranty from date of installation but not longer than 18 months from date of manufacturing.

Rada Digital Faucets shall have a 3 year all mechanical and electrical parts and a 1 year all finish parts warranty from date of shipment.



## Notes

## Notes



# Rada Installation Operation & Maintenance Manual

*Designs, materials, weights and performance ratings are approximate and subject to change without notice.*  
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