



**Unisonics**  
Australia

# **FXP12**

# **Operating Manual**

**Unisonics Australia Pty Ltd**

[www.unisonics.com.au](http://www.unisonics.com.au)

[sales@unisonics.com.au](mailto:sales@unisonics.com.au)

(02) 9939 4800

56/46 Wattle Rd  
Brookvale NSW 2100

### **APPLICATIONS:**

The Unisonics FXP range is a single chamber device used to clean instruments and other hardware with ultrasonic energy in a mixed water/chemical solution.

### **SPECIFICATIONS:**

Model	FXP12M	FXP12D	FXP12MH	FXP12DH
Timer	Mechanical (30min)	Digital (120min)	Mechanical (30min)	Digital (120min)
Heating Power	Nil		175W	
Tank Material	Pressed 304 Stainless Steel			
Tank Capacity	5.6L			
Transducer Frequency	40kHz			
Ultrasonic Power	100W			
Overall Dimensions	375 x 180 x 270mm			
Internal Tank	295 x 150 x 150mm			
Gross Weight	4.0kg		4.5kg	
Basket	Standard: 250 x 110 x 100mm with 9mm Mesh Aperture Option: 5mm Mesh Aperture			
Lid	Standard: Stainless Steel Included Option: PVC			
Valve	Standard: Front Left Option: Position TBA			

### **CONSTRUCTION:**

Certified by the Australian Made Campaign as Made and Owned in Australia.

Power is supplied by one single phase 10A plug.

Operating temperature should not exceed 60°C to maintain reliability and efficiency.

Minimum operating depth should not be less than 80mm.

Care should always be taken to avoid excessive spillage of solution when draining fluid.

Resin coated transducers and circuit board for moisture protection.

### **APPROVALS:**

AS/NZS 3760:2010

AS/NZS 3100:2017

Certificate of Conformity No:E990002-(C-Tick)

Certificate for inclusion of medical device – Class 1 (T.G.A.)

## **GUIDELINES:**

Always allow 5 minutes for fresh liquids to degas. Degassing is the action of removing air bubbles from the solution, which is achieved from turning the ultrasonics on.

It is not recommended to operate unit for longer than 30 minutes.

Fluid temperature will increase under operating conditions.

The operator should always be aware that it only takes a small amount of moisture contamination on the power connections to cause electrical breakdown.

## **DO:**

- ✓ Use a suitable chemical applicable to your application. Check the suitability of the chemical for use in ultrasonics, as some chemicals can emit a dangerous toxic gas.
- ✓ Use beakers and positioning covers or auxiliary pans for additional solutions.
- ✓ Rinse thoroughly after each cleaning application.
- ✓ Keep tank bottom free of silt and dirt accumulation.
- ✓ Always drain the basket fully of fluid before leaving the cleaning chamber.

## **DON'T:**

- × Run machine without solution in the tank.
- × Do not allow liquid level to drop below 80mm from tank bottom.
- × Use heaters without a thermostat control.
- × Setting for the thermostat on heated models should not exceed 60°C.
- × Place items directly on the tank bottom, always suspend in basket or rack.
- × Drop items into stainless steel bath.
- × Do not pour hot water directly into the tank.
- × Use chemicals with very high or low pH level.
- × Use wax and compound removers on plastic or acrylics.
- × Use a flammable or combustible solution.
- × Subject the jacket and controls to splashing liquid and fluid overflows.

## **GENERAL CLEANING:**

- The turnover of solution must be determined by the user to satisfy acceptable cleaning results of the finished article.
- If the contamination is heavy and difficult to remove, a pre-rinse in a heated solution could be enough to soften and loosen unwanted debris for ultrasonic cleaning.
- At the other end of the scale, after the items have been removed it is essential that a final rinse be performed to remove any residue that remains on the cleaned parts.

## **INSTALLATION:**

When locating a position for the cleaner, consideration should be given to the following:

Generous circulation of air all around the cleaner.  
Surrounding air free of dirt, contamination and high temperatures.  
Away from possible liquid splatter.  
Easy access for manual adjustment.

## **OPERATION:**

Insert the single phase 10A plug into a 240-volt, AC outlet.  
Pour cleaning fluid of your choice into the tank.  
Switch the supply mains ON.  
The unit is now ready to operate.

### **For M/MH:**

Turn the Mechanical timer switch to the desired time setting and ultrasonic cavitation will occur in the liquid.

### **For D/DH:**

If time display is set, press I/O power button to start countdown.  
To change interval time, press SET.  
Use the Up and Down arrows to adjust Minutes.  
Press SET to lock time, and I/O to start countdown.  
When countdown finishes, 5 seconds of beeps are given, and the relay is off.  
To terminate the countdown process early, press the I/O power button for 2 seconds.  
To re-start the same cycle of countdown, press I/O power button.  
**Ensure timer is terminated before switching off mains power.**

## **TANK HEATING:**

Unisonics heated ultrasonic cleaner models use silicon rubber contact heaters on the outside face of the tank and are thermostatically controlled. The liquid level in all cleaners should not drop below 80mm from the tank bottom and the thermostat setting should not exceed 60°C. Hot water should never be poured directly into tank bottom but instead be brought to temperature gradually.

Once the cleaner has been turned on according to the Operations above, the thermostat can be set to your desired temperature. (Note: Heaters come standard wired through the timer control to ensure the heater is not accidentally left on for extended periods of time.)

## **SERVICING**

Unauthorized repairs will void warranty.

Only Unisonics Australia employees should service this ultrasonic cleaner.

The circuit board presents high-level voltage. Improper testing or repair procedures could result in injury to the service person and damage to the product.

All repair requests are supplied as a no obligation free quote.

## **PERFORMANCE TEST:**

Please find as follows the testing process for efficiency levels in the ultrasonic cleaner.

The aluminium foil test is an economical and consistent test for units under 60 Litres to gauge performance. Ultrasonic cleaners over 60 Litres should use a cavitation meter for more accurate testing.

Testing Procedure:

1. Always degas the solution prior to the performance test to allow for the elimination of air found in fresh solution. This is achieved by turning the ultrasonics on for 5 minutes.
2. Testing should always be carried out in a solution only chamber (basket and cleaning items removed).
3. The foil must be suspended in the solution for a duration of 30 seconds.
4. A consistent pattern of perforation should result with hole sizes varying from one to four mm in diameter.
5. Tested fluid should be disposed of, as aluminium residue will remain and deposit as a contaminant.

Please note: Inconsistency in foil thickness and manual holding can create a degree of error that will vary the results of the foil test.

### **WARRANTY:**

The MANUFACTURER of this machine, UNISONICS AUSTRALIA PTY. LTD., warrants it to be free from defects in material and workmanship under normal use and service and the purchaser shall be entitled to the following consideration:

If any part or parts of the cleaner prove defective within twelve months of the date of installation, in the original purchasers' premises, the defective part or parts will be repaired or replaced free of charge. The cost of transportation both ways of the part or parts or even the unit itself, to the premises of the MANUFACTURER is to be paid by the claimant.

At the discretion of the MANUFACTURER, this warranty shall not apply to: -

- (a) Parts of proprietary manufacture supplied or incorporated in this machine, which are covered by their manufactures separate guarantee.
- (b) Parts made defective through accident, incorrect voltage or current characteristics, alteration misuse, neglect or wear and tear.

The MANUFACTURER will not be liable for any loss, damage or expense caused directly or indirectly by any fault developing in this machine or its accessories.

This WARRANTY applies only to installations within the Commonwealth of Australia and its Territories. Removal of the original serial numbers voids this WARRANTY in its entirety.

The MANUFACTURES decision shall be final and binding in respect to any claim or dispute arising out of a defect in any machine parts.

The MANUFACTURER recognises no other WARRANTY, expressed or implied by others.

### **WARNING:**

**UNAUTHORIZED MODIFICATIONS AND/OR REPAIRS WILL VOID WARRANTY.**

Only a full authorized service person should attempt to service this product. The circuits present high-level voltage. Improper testing or repair procedures could result in injury to the service person and damage to the product.