

6166

# LASER<sup>®</sup>

## Ultrasonic Cleaner 13L | Euro Plug

### Instructions



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## Introduction

Ultrasonic cleaning is a thorough, fast and safe way of cleaning small and difficult to clean parts. The ultrasonic cleaner uses high frequency sound waves to create millions of tiny bubbles in the liquid solution. These bubbles expand and collapse rapidly, the energy released creating an intense scrubbing action which is equally as effective on unseen small crevices and blind holes as on visible surfaces. The dirt is loosened and removed from any surface that the liquid touches. This action is referred to as 'acoustic cavitation' and occurs thousands of time per second to quickly produce clean parts.

Ultrasonic cleaners are most effective when used to clean hard materials such as metals, glass, stone, ceramic and dense, hard plastics. It will also clean jewellery with hard, natural stones like diamond, sapphire, ruby, garnet, etc, but is not suitable for soft gemstones such as pearls, opal, emerald, tanzanite, malachite, turquoise, lapis and coral.

As ultrasonic cleaning relies on the impact of the cavitation bubbles against a hard surface to erode soiling, it is not an effective cleaning method on soft materials such as rubber, cloth, polystyrene foam or similar.

The large 13 litre capacity of the fluid tank enables the cleaning of automotive components such as dismantled carburettors, brake parts, etc.

Ultrasonic cleaning **does not sterilise**.

## Components

Ref.	Component
A	Fluid Tank
B	Parts Basket
C	Heater Control
D	Heater Indicator
E	Timer Indicator
F	Timer Control
G	Drain Tap
Not pictured	Lid
Not pictured	Power Cord

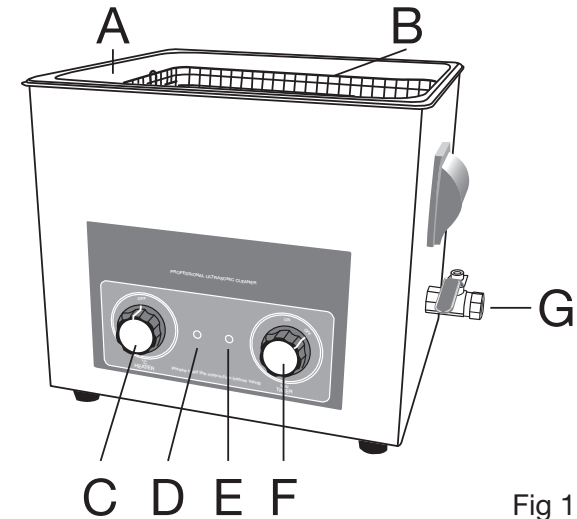


Fig 1

## Controls

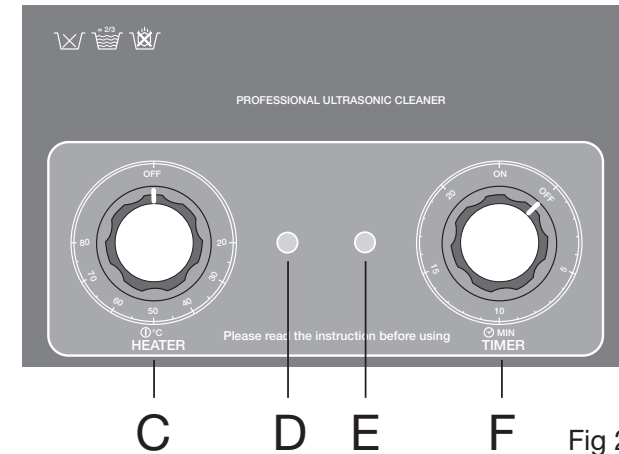


Fig 2

## Instructions - Operation

1. Before use, please fully read and understand these instructions, particularly the **Precautions** section.
2. Place the ultrasonic cleaner on a flat, clean surface where there is adequate ventilation for the cooling fans.
3. Ensure the power lead is plugged securely into the socket at the rear of the cleaner.
4. Refer to Fig 1. Check that the drain tap (**G**) is in the closed position, then carefully fill at least 2/3 of the tank with clean water or cleaning solution. Fill to a level where the tank will not overflow when the item(s) to be cleaned are added. The cleaner is now ready for use.
5. Place the item(s) to be cleaned in the parts basket (**B**) and lower the basket into the tank. The basket will rest securely on the bottom of the tank.
6. Replace the lid back on the tank.
7. Switch on the mains power supply socket.
8. Set the Timer (**F**) to the desired length of cleaning time (a maximum of 20 minutes). This also switches the ultrasonic cleaner ON. The Timer Control (**F**) can also be turned to the left to the **ON** position for continuous use (do not run the ultrasonic cleaner continuously for more than an hour).
9. For heavily soiled parts or items, the fluid can be heated. Set the Heater Control (**C**) to the desired temperature (best results are usually between 40°—60°C).
10. When the Timer returns to zero and the cleaning is completed, return the Heater Control to the **OFF** position. Then switch off at the mains.
11. Let the water or cleaning solution **cool down** before draining and cleaning the ultrasonic cleaner in preparation for its next use. **The cleaner will be damaged if hot fluid is immediately drained off after a cleaning operation.**

## Instructions - Cleaning Fluids and Solutions

For general cleaning it is satisfactory to use just deionised, demineralised or distilled water and a warm temperature setting (40°—50°C). For enhanced cleaning a few drops of standard washing up liquid (or similar non-acidic detergent) can be added. Proprietary specialist solutions are also available designed for ultrasonic cleaners.

The effectiveness of cleaning solutions will deteriorate over time and use, especially where heavily soiled items have been cleaned. Regularly change the fluid and carefully wash and dry the inside of the fluid tank after every use. Do not use corrosive or abrasive cleaning products.

## Precautions

- **Do not operate** if the tank is less than 2/3 full.
- Ensure power is disconnected from the mains before adding or removing fluid.
- Do not rest items on the base of the bath — always use the basket.
- When cleaning items for the first time, test a sample piece before cleaning the remainder.
- **Do not place hands or fingers in the bath while the machine is switched on.** Contact exposure to ultrasonic cavitation may cause tissue and bone damage.
- Do not use any fluids which could damage the Stainless Steel bath, for example acids or strong alkaline.
- **Solvents or flammable liquid solutions should never be used in the ultrasonic cleaner.**
- Do not run the ultrasonic cleaner continuously for more than an hour.
- **Let the fluid cool down and disconnect power from the mains before draining off.**
- Always clean bath after use.
- Water-based detergent solutions should be made up with deionised, demineralised or distilled water as calcium carbonate and other impurities in tap water can reduce the cleaning properties and even cause deposits and staining on the items being cleaned.
- Cleaning solutions should be changed regularly. Dirty solutions will re-deposit soils on the items being cleaned and can coat the bottom of the tank reducing ultrasonic activity.

## Specifications

- Cleaner/tank material: SUS304 Stainless Steel
- Timer setting: 0-20 minutes adjustable
- Temperature setting: 20°C-80°C adjustable
- CE, FCC, ROHs tested and approval
- Power (ultrasonic): 300W
- Power (heating): 400W
- Tank capacity: 13 litres
- Tank size (mm): 330 × 300 × 150 (L × W × H)
- Overall size (mm): 360 × 330 × 310 (L × W × H)
- Unit weight: 9.86kg

UK plug version also available - **Part No. 6164**

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