

# AquaSafe

**MFX50**

**Flexible**

**Microbiological**

**Safety**

**Incubator**

**Instruction Manual**

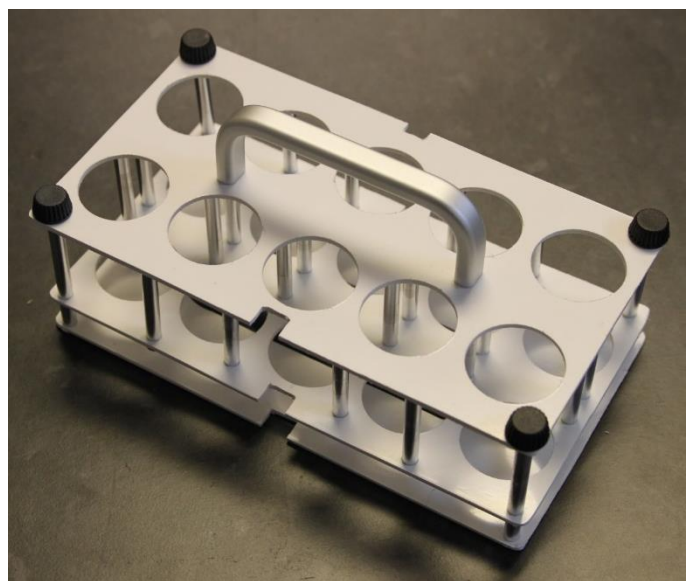
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## 1.0 Introduction

The AquaSafe® AquaFlex® MFX50 is a small benchtop incubator for the incubation of microbiological samples prepared using the membrane filtration method. The incubator is primarily designed to be used with the supplied 54mm x 3.5mm aluminium petri dishes which are suitable for 47mm membrane filter pads, but the incubator can also be used with 55mm pre-prepared plastic petri-dishes. Dip slides can also be accommodated.

The incubator has the option to run user defined temperature profiles for periods of 0 – 168 hours.

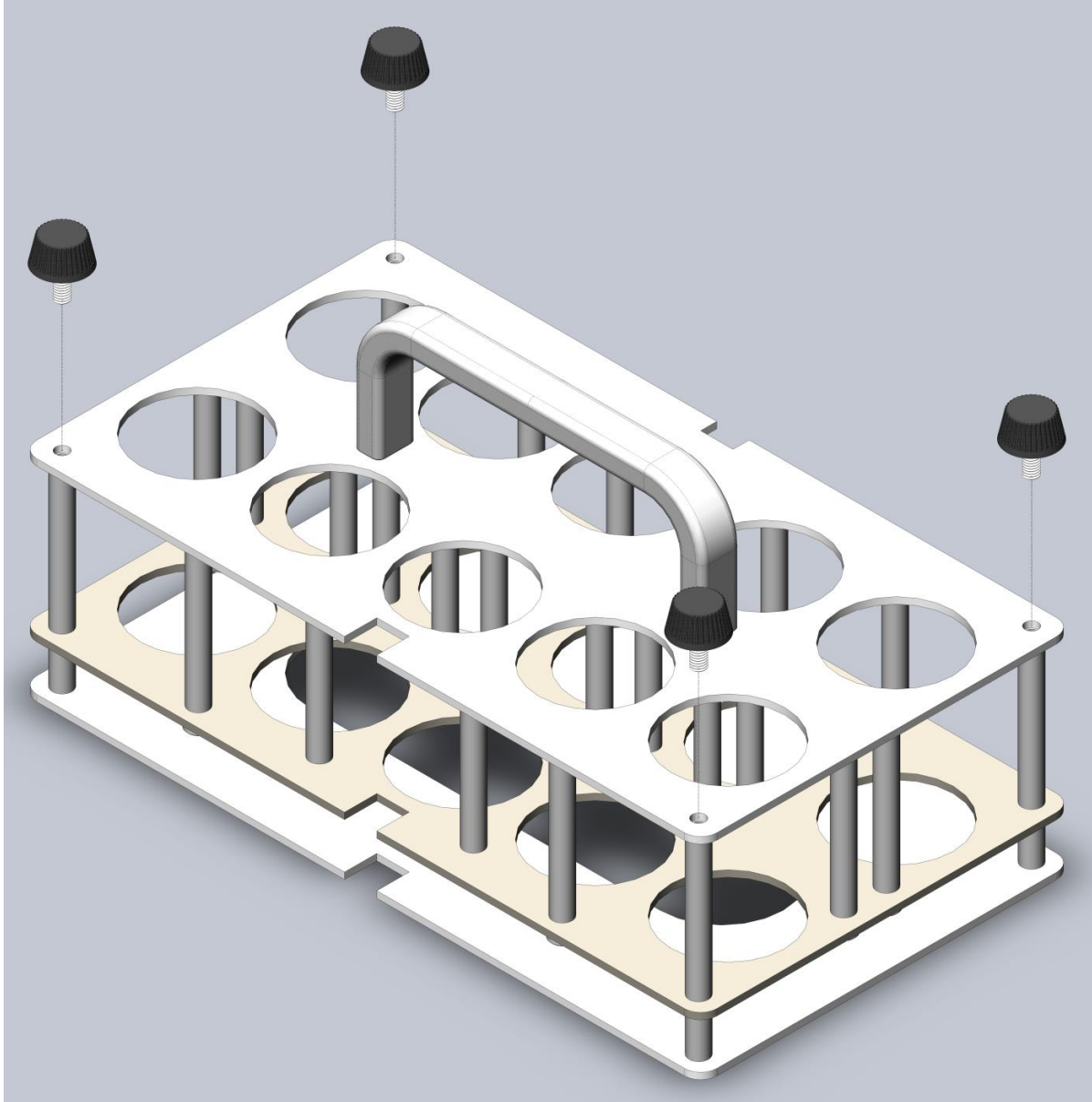


### 1.1 The Integral Flexi-Frame System

The AquaFlex® Incubator incorporates the integral flexi-frame system which enables different sizes of petri dishes, dip slides and multiple tubes to be inserted and incubated.

## 1.2 Accessing Petri Dishes

The petri dishes are access by removing the black knobs at each corner of the rack, followed by removal of the top layer of the rack system:

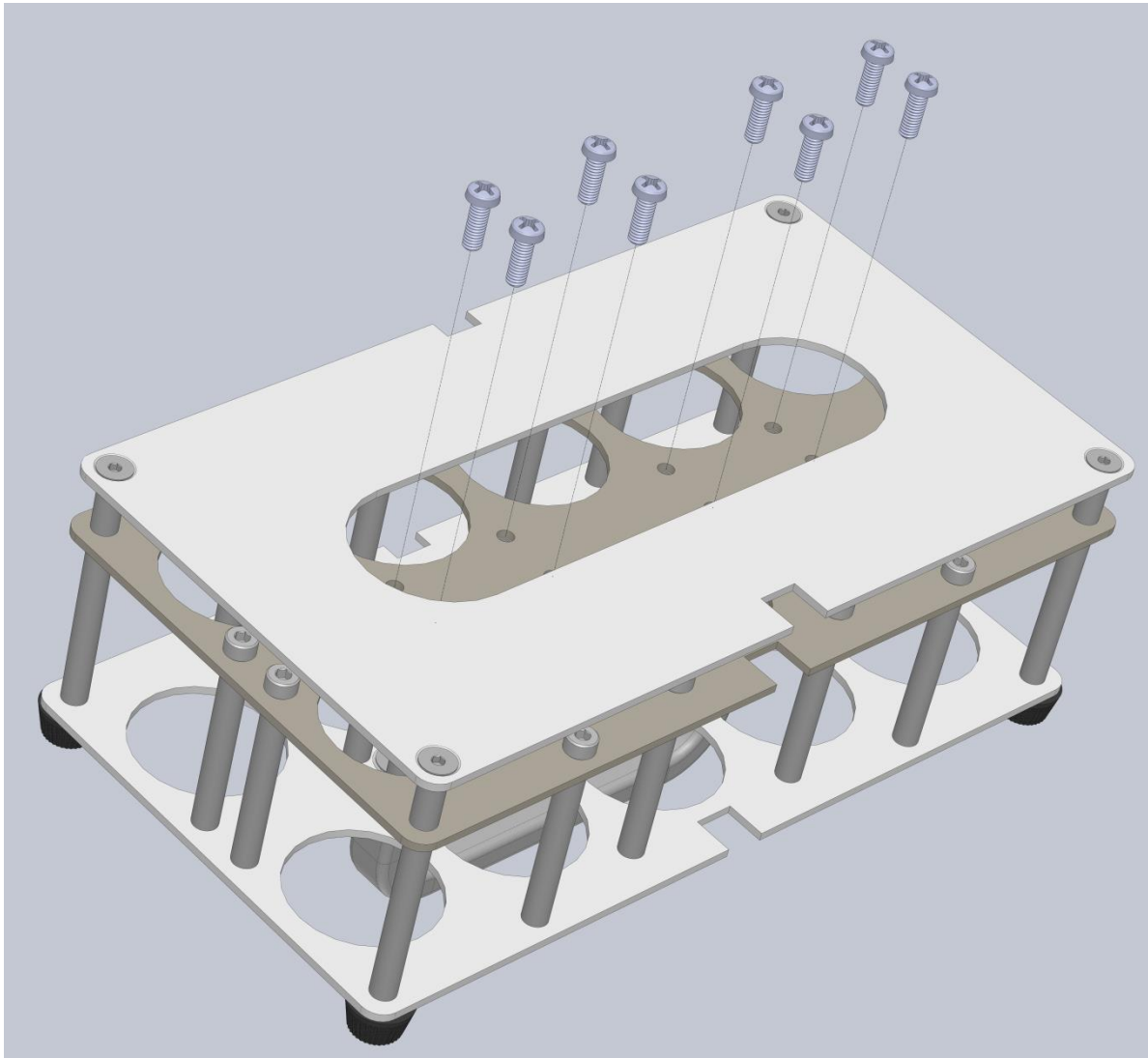


### 1.3 Larger Sizes of Petri Dish

The central spacer columns can be removed by the user to facilitate the use of larger plastic (90mm) petri dishes.

This is accomplished by inverting the tray and removing the cross-head screws holding the spacer columns in place. The space columns can now be removed.

The spacer columns are reinserted by reversing the above steps.



## 2.0 Operating Instructions

### 2.1 Routine Operation of the Incubator

Connect the incubator to the mains power by inserting the power cable to the power socket on the side of the instrument and screwing on firmly.

Depress the ON/OFF switch to power on.

The screen will display the current temperature.



Press the UP and DOWN keys to move between the screens and display the elapsed time and target temperature.

Press the HEAT SETTING key to switch on the heaters and circulating fans.

Press the HEAT SETTING key again to switch off the heaters. The circulating fans will continue to operate to assist the incubator in cooling.

On the side of the instrument, the RED LED will show that the heaters are activated. When the target temperature has been reached, the GREEN LED will come on and the RED LED will switch off.

These lights will turn on and off to reflect the instrument's heating functions to keep the incubator at the required temperature. If both lights are on and there is no ERROR message on the screen, the incubator will be at temperature and only small, fast pulses of heat are required. In this condition, the lights will be switching on and off very fast and may give the impression that they are on all the time.

It is important to observe the LED lights to ensure that the heaters are active before commencing and incubation cycle.

If the power fails while the heaters are active, the incubator will display POWER FAILURE once power is restored to alert the user to the problem.

## 2.2 Incubation Cycle

To change the target temperature, press and hold DOWN for 5 seconds, then release. The screen will change to display 'Target Temp: XX'



To alter the target temperature, press UP or DOWN to change the value (min = 20°C, max = 50°C).

Press the HEAT SETTING key to store the value.

Press the HEAT SETTING key to switch on the heaters and circulating fans.

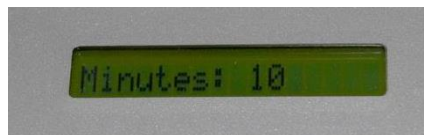
Once the incubator has reached the desired temperature, press and hold HEAT SETTING for 5 seconds, then released. The time elapsed will be set to 0.

## 2.3 Timed Incubation Facility

Normally, the incubation will continue until the power supply is switched off. However, the incubation period can be set on a timer from 1 minute to 160 hours. This facility may be useful if the incubator is connected to a car battery and there is a need to limit the power drain on the battery.

The facility is set up as follows:

Press and hold UP for 5 seconds, then release. The screen will change to display 'Minutes: XX'.



To alter the incubation time in minutes, press UP or DOWN to change the value (min = 0, max = 59). Press the HEAT SETTING key to store the value.

The screen will change to display 'Hours: XX'

To alter the incubation time in hours, press UP or DOWN to change the value (min = 0, max = 160). Press the HEAT SETTING key to store the value.

Upon depressing the HEAT SETTING key, the incubator will heat until reaching the target temperature, before incubating for the time specified in the memory.

To revert to continuous heating, set the time to 0.

### 3.0 Care and Maintenance

#### 3.1 General

The AquaSafe® incubator is designed to require minimal maintenance if used correctly and the instructions herein are adhered to, although from time to time cleaning will be required as outlined in section 4.2.

If the equipment is used in a manner not specified by the manufacturer, the protection provided by the equipment may be impaired.

#### 3.2 Cleaning

Before cleaning the incubator, ensure that the power supply is disconnected, the incubator is turned off and has cooled down.

After cleaning, ensure all parts are thoroughly dried prior to operation.

To clean the incubator outer surfaces and plastics use a cloth moistened with a mild soap solution or an alcohol impregnated cloth or wipe. **Do not** use acetone or other solvents.

The incubator is splash proof but it is not fully waterproof so it should not be left outside in wet conditions and **must not** be submersed in water.

The rack can be steam sterilised if required.

### 4.0 Technical Specification

<b>User Interface</b>	
Display	16 x 1 LCD
Keypad	3 key, tactile chemical resistant keypad
<b>Power supply</b>	
Input (Max)	12-28V DC, 24W ( via supplied Power supply unit vehicle charging lead or docking station only)
<b>Environmental</b>	
Operating temperature range	5 – 40 °C
Storage temperature	0 – 70°C



## 5.0 Guarantee and Assistance

Trace2o® hope that the AquaFlex® incubator will give many years of trouble free operation, but in the event of a technical problem occurring the AquaFlex® incubator is covered by Trace2o® Ltd's standard Guarantee terms and conditions available via email or via download from [www.trace2o.com](http://www.trace2o.com).

In the event that any technical assistance is required, the Trace2o® Customer Service department will be happy to assist. Contact details as follows:

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