



TIPS ON THE CARE AND USE OF MAGNETIC PIN REPLICATORS AND THE MAGNETIC STIRRER™ LOADER AND UNLOADER

Magnetic Pin Replicators

Sterilizing:

The Replicators can be sterilized in a hot air oven or by autoclave.

Disinfecting:

The Replicator pins can be cleaned between source plates by dipping in a detergent bath, followed by 3 sterile water rinses followed by a 95% alcohol bath and air drying in a stream of hot air from a hair drier or flaming the alcohol. We recommend using an ultrasonic water bath (available through Cole Parmer®) and MICRO 90® ultrasonic detergent. Twenty seconds of sonication is sufficient to clean the pins.

Alternatively the pins can be disinfected by dipping in a 10% bleach solution followed by a series of 3 sterile water baths ending in a 95% alcohol bath and air drying or flaming. If you use bleach you must remove it from the pins before placing them into a source plate. We recommend at least three additional sterile distilled water dips to dilute out the bleach. It is important that the pins be dry before going into the source plate. Also if you flame, we strongly advise you to use a non-flammable alcohol reservoir such as the VP 420 Pyrex® alcohol reservoir to avoid laboratory fires.

Hydrogen peroxide may also be used to disinfect the pins as long as it is rinsed off in distilled water. The % of hydrogen peroxide necessary will vary between applications.

Care:

After each day's use we recommend that the pins be cleaned in an ultrasonic bath with MICRO 90® ultrasonic detergent or with the VP 425 brush and Ivory dish detergent. Rinse in several baths of distilled water and dip in alcohol, and air dry. Avoid long periods of soaking in bleach or detergent baths. If you use an ultrasonic bath, hold the Replicator in the bath without letting the pins touch the bottom of the reservoir (the vibrating bottom surface of the sonicator's reservoir may damage the pin tips).

Magnetic Stirrer Loader, Stirrer Unloader and Stirrer Catch Tray

Care:

Use care when handling powerful magnets! Do not place the loading magnet on the unloading magnets or let any portion of your body be caught between the loader and unloading magnets as they will pinch you. Avoid exposing your credit cards, computer discs etc. to these powerful magnets.

The exterior cases of the loader and unloader magnets and the stirrer catch tray may be cleaned with a soft cloth and a mild detergent. If the liquid being stirred is infectious or contains dangerous chemicals, the surface of the stirrer catch tray on the unloading magnet can be protected by covering it with aluminum foil.

Use:

Place a microplate with magnetic stirrers in it on the loading magnet to stand the stirrers on end (north pole up). Place the Magnetic Pin Replicator into the wells and move the pins around in a circular pattern to make direct contact with each of the magnetic stirrers and the magnetic pins. Slowly raise the Magnetic Replicator pins with the stirrers attached. Move the Magnetic Replicator over the north pole of the unloading magnet and lower the Replicator until the stirrers are about 1 cm above the Stirrer Catch Tray. Then quickly move the Replicator laterally over the south pole of the unloading magnet. The stirrers are pulled off as they attempt to flip polarity. Repeat if some of the stirrers are not pulled off.

When all the stirrers are removed from the wells, the Stirrer Catch Tray can be lifted off the unloading magnet and the magnetic stirrers decanted into another container for washing, sterilizing or demagnetizing. The Stirrer Catch Tray is cleaned or protected as described above. The Magnetic Pin Replicators are disinfected or cleaned between microplates as described above.