

# LE220 Focused-ultrasonicator Instrument Maintenance

## NaDCC Instrument Cleaning Protocol

### Purpose

An instrument cleaning procedure should be performed monthly to prevent biological growth in the water bath, chiller, degas, and water conditioning system (WCS).

### Caution

Wear protective gloves when handling NaDCC tablets.

**Use the 'Home,' 'Service Position,' and 'Degas Pump On/Off,' buttons on the Run Screen, as instructed below:**

### Instructions

1. Turn off the chiller and WCS. Disconnect hoses from the front of the water tank.
2. Click 'Service Position.' The transducer assembly raises out of the tank and the degas pump turns off.
3. Empty, rinse, and fill tank with DI water to 10 on "Fill" side of label. Place tank back in instrument.
4. Dissolve (2) NaDCC 13.1 G tablets in the water tank.
5. Reconnect hoses to the front of the tank and turn on the chiller. Keep WCS turned off.
6. Click 'Home.' The transducer assembly lowers into the tank and the degas pump turns on.
7. Operate the chiller and degas pump for approximately 5 minutes.
8. Turn off the chiller and disconnect hoses from the front of the tank.
9. Click 'Service Position.' The transducer assembly raises out of the tank and the degas pump turns off.
10. Empty, rinse, and place the empty tank back in instrument.
11. Reconnect hoses to the front of the tank and turn on the chiller. The solution is purged from the chiller, WCS, and hoses.
12. Click 'Home.' The transducer assembly lowers into the tank. Click 'Degas On/Off.' The degas pump turns on and the solution is purged from the degas pump and hoses. The degas pump automatically turns off.
13. Turn off the chiller and disconnect hoses from the front of the tank.
14. Click 'Service Position.' The transducer assembly raises out of the tank and the degas pump turns off.
15. Empty, rinse, and fill tank with DI water to 10 on "Fill" side of label. Place the tank back in instrument.
16. Reconnect hoses to the front of the tank and turn on the chiller.
17. Click 'Home.' The transducer assembly lowers into the tank and the degas pump turns on.
18. Operate the chiller and degas pump for approximately 5 minutes.
19. Turn off the chiller and disconnect hoses from the front of the tank.
20. Click 'Service Position.' The transducer assembly raises out of the tank and the degas pump turns off.
21. Repeat rinse steps, 15–20, two more times for a total of three rinses.
22. Empty, rinse, and fill tank with DI water to level indicated by consumable. Place tank back in instrument.
23. Click 'Home.' The transducer assembly lowers into the tank and the degas pump turns on.
24. Reconnect hoses to the front of the water tank. Keep chiller and WCS turned off.
25. Allow the water to degas at ambient temperature for 30 minutes before chilling the water.
26. Turn on the chiller and WCS.

## LE220 Focused-ultrasonicator Instrument Maintenance

Maintenance of the instrument’s water tank, chiller, degas, and water conditioning system are required to keep the instrument free of particles, gases, and biological growth.

The WCS filter and UV lamp should be replaced annually. Filter and UV lamp replacements are included with annual PMs.

After the monthly cleaning procedure has been performed, the instrument, chiller, and WCS should be left on to keep the water clean. The chiller can be set to ambient temperature, when not in use.

When there is water in the tank, the instrument should be left on. Interior fans reduce humidity and condensation on interior surfaces.

If the instrument is going to be idle for more than 2 weeks, refer to the User’s Manual for shutdown instructions.

### Monthly Cleaning Protocol Performed

Date	Name

### Annual WCS Filter and UV Lamp Replaced

Date	Name