

UVO-CLEANER



University of Notre Dame

Department of Electrical Engineering

General Precautions

For problems, clarifications of procedures, or general information pertaining to this machine, please contact lab staff.

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Model 144AX produces near-atomically clean surfaces in less than one minute by utilizing the UV/Ozone cleaning method. This process effectively and thoroughly removes an assortment of organic contaminants from surfaces. These contaminants include human skin oils, silicone oils, solder flux, residues from wet cleaning processes or water residue, contamination absorbed during prolonged exposure to air, and many others.

Allowed Materials: Si, Ge, C, GaAs and its compounds, InP and its compounds, cleaned SiO₂ (glass), and cleaned Al₂O₃ (sapphire).

Prohibited Materials: Indium, tin, zinc, iron

Standby Conditions



Figure 1. Front Panel Controls

- a. Lamp power switch at OFF position. Power-on indicator and process indicator are OFF.
- b. Chamber door is closed.

System operation:

1. Login from iLab.
2. Switch the ON/OFF button to ON; the green power ON indicator will illuminate.
3. Load the substrate on the removable Cleaning Tray. Substrates should be pre cleaned before processing in the UVO Cleaner. Removing large amounts of contamination will take long periods of time. Normal cleaning time should be determined through experimentation.
4. Program the timer as desired. The following outline shows the sequence for the programming routine for both cleaning and exhaust cycle times.

Key Sequence	Display
Press SET key	SEt1 prompt is displayed
Press SET key	Current cleaning cycle time is displayed with flashing digit indicating that the time can be changed.
Change time using Δ , ∇ , and $\triangleleft$ keys.	New cleaning cycle time displayed.
Press ENT key	Cleaning cycle time entered into memory.
Press SET key	SEt2 prompt is displayed.
Press SET key	Current exhaust cycle time is displayed with flashing digit indicating that the time can be changed.
Change time using Δ , ∇ , and $\triangleleft$ keys.	New exhaust cycle time displayed.
Press ENT key	Exhaust cycle time entered into memory
Press SET key	Display shows cleaning cycle time. End of prompted set-up routine

5. When the cleaning and exhaust cycles are complete, the Timer will sound an audible signal and the red Process Indicator will turn off. Do not open the drawer before the exhaust cycle is complete.
6. Unload your sample and close the chamber door.
7. Collect your belongings, clean the SS table and log out from iLab.