D-ERASE UV EPROM Eraser

The D-ERASE will erase four chips at a time and has an internal timer with a beeper that sounds for one minute after the lamp has turned off. Power is supplied by a 24V 100ma adapter. The timer unit has a trimmer pot labeled "MIN." for minutes and can be adjusted to set the exposure time from 4 to 24 minutes. The timer is reset each time the unit is turned on.

The unit has a drawer under the UV lamp and is provided with an interlock to prevent the unit from operating if the drawer is open. The EPROM's to be erased are placed window side up, centering them in the drawer. With the EPROMs in place, the drawer is slid closed and should "snap" closed. Then the slide switch is moved to "ON" and the unit will start. The BLUE indicator should light up. This BLUE light is generated by a fluorescent dye on the label that is exposed to the UV generated by the lamp. Thus, it is indicating actual UV output. The lamp can be turned off either by the slide switch or by opening the drawer. Thus, both the slide switch ON and the drawer closed are necessary for the lamp to turn on. It is possible to defeat the interlock but you are cautioned not to look directly at the UV source without eye protection. Ordinary plastic or glass eye shields will do. The electronic circuitry that drives the lamp is a simple, current regulating, boost switcher. This provides high voltage for starting the lamp and the constant current which is necessary for mercury vapor lamp operation and for stable UV output level.

The four erase stations available do not have exactly the same intensity. This varies somewhat with the lamp but, in general, the end stations will have about 20% lower intensity than the middle two. In normal use it is not likely that you will be aware of this difference. Erase time of EPROMs is quite variable and is primarily determined by the manufacturer. Most Japanese EPROMs, as well as those from Intel, reach complete erasure in 60-90 seconds. We consider safe erase to be double this "threshold" time. Thus we say the "The D_ERASE erases most EPROMs in 3 minutes". However, some manufacturers are making EPROM's that may take 10 minutes to threshold and thus should be erased for 20 minutes. In addition, some microcomputer chips and EPLDs require erase times two and three times that of the normal EPROM.

The D_erase case is made of ABS plastic and has such low conductivity that static electric damage to an IC from placing or removing it is very unlikely.

The UV lamp (G4T5) has a small ball of mercury that will rattle, this rattle is normal.