3M™ Overhead Projectors

Frequently Asked Questions

Q. How do I properly dispose of a projection lamp?

A. All fluorescent and most high intensity discharge lamps, such as the projection lamp in 3M’s Digital Projector and Digital Wall Display, contain a small amount of mercury. Dispose of the projection lamp in a manner that is consistent with your local hazardous waste regulations for mercury. In U.S., see www.lamprecycle.org.

Q. The lamps in our overhead projector seem to fail before the expected life span. Can we use different lamps?

A. We do not recommend substituting different lamps, but suggest you check line voltage at the outlet. Variations in line voltage will affect lamp life. When line voltage is higher or lower than the standards of 120v, 220v, 230v or 240v, there will be an effect on lamp life. Line voltage at 4 or 5 percent higher than the standard can cause a lamp to give 16% more light but last only 60% of the rated life. A lamp used where the line voltage is only 95 or 96 percent of the standard can give 14% less light but will last much longer--about 171% of the rated life in hours.

Q. Can I make substitutions for the projection lamp?

A. No. Most overhead projectors are designed and wired to use one specific lamp type of a certain watt and voltage rating. The lamp types are usually not interchangeable. Halogen lamps give typically 25 to 70 hours of light, depending on use and manufacturing quality. Halogen lamps usually burn out completely or do not re-light after the end of their useful life. We recommend using 3M brand projector lamps; other brands may not meet ANSI standards for size and quality.

Q. We no longer have the instruction manual for our overhead projector. How can we tell
what type of lamp to use as a replacement?

A. The overhead projector should have a label or identification plate that tells you what type of lamp to use in it. We do recommend you replace the old lamp with the exact type of lamp specified. Overhead projector lamps have an ANSI standard three-letter designation.

Q. What distance from the screen should our overhead projector be placed so that the image it projects will fill the screen?

A. You may use this equation to find the optimal screen-to-projector distance to fill the screen:

\[ D = F \left( \frac{S}{A} + 1 \right) \]

\( D = \) distance from projector to screen
\( F = \) focal length of optical head
\( S = \) screen size
\( A = \) aperture size of projector stage or LCD projection panel

Positioning the projector very far away or very close to the screen will result in poor image quality. In the U.S., you may ask for help in determining screen distance from our Customer Assistance Center at 1-800-328-1371, or consult the projector instruction manual. Check our website for an online screen calculator.

Q. Our overhead projector is plugged in and the fan works but the lamp does not go on. How can we get it to light?

A. On 9000 model overhead projectors, make sure all access doors are closed. Some overhead projectors made for use in the U.S. have safety interlocks that will prevent the lamp from lighting unless the interlocks are properly latched. On the portable models 9600 and 9700, there are collapsible legs that must be fully deployed before the lamp will go on. Call 1-800-328-1371 if you need further assistance.

Q. Can an overhead projector be transported as checked baggage?

A. We recommend shipping or checking as baggage any electronic presentation equipment ONLY if the unit is carefully contained in the original shipping carton with the protective internal packing components. Projectors are high quality precision optical and electronic devices; they can be safely transported when correctly protected and handled as such. For help, consult your electronic presentation systems dealer.

Q. How can we eliminate unwanted color at the corners of the image projected through our overhead projector?

A. Red or blue colors at the corners of your image indicate the optical system is out of alignment. Color tuning adjusts the distance between the lamp and the Fresnel lens. Color tuning can remove tinges of yellow, brown or blue colors at the corners of your image. This may be an internal or an external control. If your projector has an external color tuning control, consult your instruction manual for adjustment details. For internal color tuning, consult your projector service dealer.
Frequently Asked Questions, cont’d.

Q. The image projected on screen through our overhead projector is wider at the top than at the bottom, or taller on one side than the other. How can we correct this?

A. You are experiencing “keystoning”. This occurs when the image projected is not perpendicular to the screen. Most often, keystoning can be corrected by tilting the screen or repositioning the projector so that the screen is perpendicular to the axis of the projected light beam.

Q. Our overhead projector has a high-low lamp switch. When should we use each setting?

A. If you are projecting black-and-white or simple color images on clear background transparencies, you should set the lamp switch on “low” for normal illumination. Operating the projector on the low setting will extend lamp life. High settings can be used when extra brightness is needed or images are too dim.

Q. What is a metal halide lamp?

A. Metal halide lamps in projectors, such as the Model 9850, typically give 650 to 750 hours of bright output. They lose effective brightness as they age, but may continue to re-light even after their useful life. Switching on and off frequently can shorten the life expectancy of a metal halide lamp. You will need to wait several minutes for the lamp to regain full brightness each time it is restarted.