

COLD-NOSE FIBER OPTIC PROJECTORS

NoUVIR manufactures the safest, most efficient, most elegant fiber optic projectors in the world. Perfect optics with zero heat at the projector nose allows incredible brightness with no stress or damage to the fiber. A unique slide-out drawer simplifies maintenance.

NOUVIR COLD-NOSE® FIBER OPTIC PROJECTORS

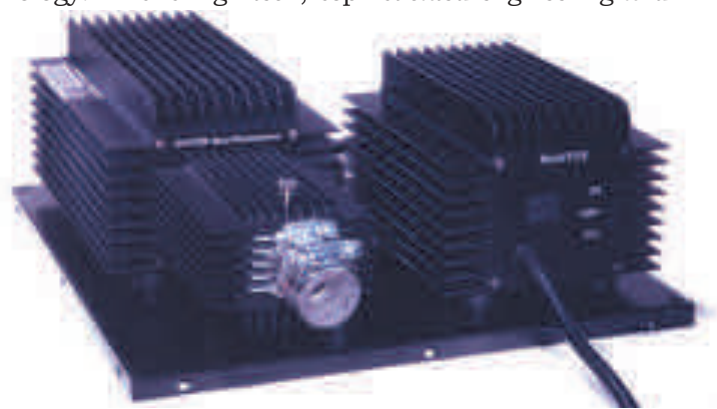
BEAUTIFUL DESIGN WITH HIGH LIGHT OUTPUT AND A 10-SECOND LAMP CHANGE

A projector ought to be great technology you turn on and just use! Awesome, intense, cool, quiet, gorgeous, full of science and incredible patented technology. This is high-tech, sophisticated engineering and design at its finest level. Nothing else comes close! One of our customers stated it this way, "There is NoUVIR. No one else. Everything else in fiber optic lighting is toy lighting."

Are there brighter fiber optic projectors? Yes, but there are no brighter *systems*. Wattage doesn't equal light output. Hot, loud, box-like, high-wattage projectors with poor optics damage objects, cook fiber and *often produce less light*. More hardware, higher costs, poor quality light and less control; you are free to choose, but why go there? If you measure output at the end of the fiber, where you actually work and where people see, NoUVIR is brighter by about 3 to 1.

Are there cheaper projectors? Yes. Do you really want cheap? Or, are you looking for quality and performance? Compare complete systems based on light output. What does it cost to put this many foot-candles on that many objects from this distance. Then look at energy, maintenance and warranties. One of our "cheaper" competitors overspent the museum budget by 160% and lit only one half of the gallery.

Beware. Again, compare systems. Compare U.L. listings. NoUVIR is listed under both U.L. 153 and C.S.A. 22.2 for portable (cord-and-plug) systems **and** U.L. 1598 for direct wired systems. Stage lighting or lab equipment listings won't satisfy your insurance company. Look at lamp replacement, time, effort and cost. A NoUVIR EKE lamp is under \$20.00 and takes about 10-seconds to change. Look at noise levels. NoUVIR is whisper quiet at 7 db. Side-by-side, the differences show! There is NoUVIR and no one else!



COLD-NOSE Projector and Power Supply on a Mounting Pan

COLD-NOSE
PROJECTOR



Systems mounted above a ceiling.
Hatch supplies access for lamp change.

Hatch.

A projector is usually ordered as a "package" or a "system." This means it comes with a power supply vibration-isolated mounted on a mount pan by the factory. Put in four screws and it's installed. The system can be mounted in any orientation except nose up.

Projectors can sit on top of cases, under tables, in cabinets or in light attics. They can be installed in ceilings, on top of insulation, sideways anchored to studs or panels, screwed to plywood floors, upside-down on rafters or floor joists, suspended above T-bar ceilings, hidden in basements and even tucked behind historic doors, anywhere with access and minimum ventilation.



Crawl space
behind wall.

NOUVIR COLD-NOSE FIBER OPTIC PROJECTORS

BEAUTIFUL DESIGN WITH HIGH LIGHT OUTPUT AND A 10-SECOND LAMP CHANGE

CLDN-HP • COLD-NOSE® FIBER OPTIC PROJECTOR

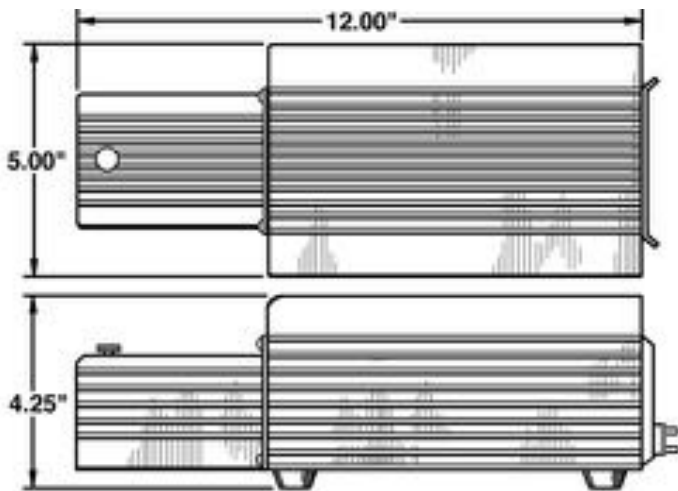
COLD-NOSE HIGH POWER PROJECTOR

NoUVIR makes *the only tuned light sources in the world*. We invented the patented technology. NoUVIR's high-technology optical elements actually tune for visible light on a sub-atomic level.

Acrylic fiber is the most practical and efficient transmitter of visible light available, but it is susceptible to IR. NoUVIR optics tune all of the invisible IR out of the source. The fiber interface stays cool to the touch. There is no IR output! NoUVIR acrylic fiber lasts indefinitely, without the yellowing or "carmilization" common in other systems. (NoUVIR fiber is warranted against *any* yellowing or loss of transmission for 10-years.)

The CLDN-HP is the best performing fiber optic projector in the world. COLD-NOSE technology tunes the light for visible light only. It creates high light levels so cold you can remove the fiber from

the nose of the projector and comfortably put your finger against the optical element. The optics are cold to the touch. You can place your hand above the lamp area on the projector body. It is warm, but the nose is cold. Thus the name COLD-NOSE. NoUVIR projectors are absolutely unique. Tuned, uniform, full visible spectrum light with no spikes, no gaps, perfect color rendition (100 CRI) and no UV and no IR...NoUVIR!



*Snap in drawer make fast lamp changes.
Order CLDN-HP for the projector or **CLDN-PKG** for
the projector and power supply on a mount pan.*

FEATURES:

- Powers 32 3 mm fibers or 300 1 mm fibers. Fiber bushing included with projector or optional pre-polished fiber bundles. No glue or potting required. Add or change fiber anytime.
- Snap-in drawer provides access to all electrical components, including the lamp, without tools, for a ten-second lamp change! Included drawer can be easily serviced and exchanged.
- Thermal circuit breaker under the lamp for additional safety.
- Whisper quiet operation (7db).
- Can be dimmed 0 to 100%. (Dimmer should go to full "off").
- Pure-white light (3200°K - CRI 100) with inexpensive EKE MR-16 lamp (1,500 to 2,000 hour life).
- 10-year warranty on structural and optical parts. Durable anodized aluminum construction.
- One-year warranty on drawer (excludes lamp, but a spare lamp is always included).

SPECIFICATIONS:

- 18 VAC (118V, 1.0 amp at plug)
- ETL listed as conforming to U.L. Standard 153 and C.S.A. Standard 22.2 for Portable Electric Lamps
- ETL listed as conforming to U.L. Standard 1598 for Recessed Lighting Fixtures.
- 4.25" high x 5" wide x 12" long. 5 lbs.

Mounted in any orientation, horizontal or vertical. Vertical mounting must be nose down. Enclosed installations **require 45 sq. in. open inlet and 45 sq. in. open outlet area** for ventilation.

NOUVIR COLD-NOSE FIBER OPTIC PROJECTORS

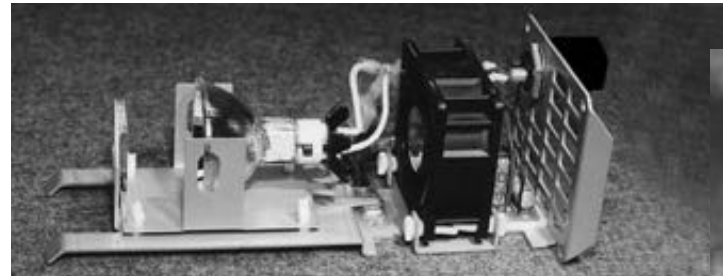
BEAUTIFUL DESIGN WITH HIGH LIGHT OUTPUT AND A 10-SECOND LAMP CHANGE

DRWR-HP • COLD-NOSE PROJECTOR DRAWER

Identical to the drawer provided with each projector, the DRWR-HP is a snap-in, thermally-protected tray that slides out of the projector and into your hands. Replacing the lamp within the drawer takes seconds and does not require tools.

A spare drawer can simplify lamp replacement. Swap drawers and replace the lamp on a bench. Now it's ready for the next time. Over time or with multiple systems, a spare makes maintenance easier. If a part wears out, rough handling breaks something a spare drawer lights the system while the other is on the bench.

NoUVIR rebuilds any drawer returned to our factory with all new electrical and optical parts, saving just the sheetmetal, and returns it to you with a new one-year warranty for a nominal charge. We can even ship you a new drawer and then credit you for the return of the old drawer later. Call NoUVIR for details. *You must be a NoUVIR customer using NoUVIR projectors to buy drawers or accessory parts*



*Spare drawers makes relamping easier for staff and reduces down time in exhibits. For an extra drawer, order **DRWR-HP**.*

VENT • VENTILATION LOUVER SET FOR COLD-NOSE PROJECTOR



ONE SET OF TWO VENTS REQUIRED FOR VENTILATION IN ENCLOSED SPACES

Projectors mounted in enclosed locations must have 45 sq. in. cool air inlet and 45 sq. in. warm air outlet to provide proper ventilation. Failure to provide ventilation reduces lamp life, damages the fan and invalidates the NoUVIR warranty. Any shaped vent with a 45 sq. in. opening will work from ornate brass, Victorian floor registers to speaker cloth stretched over a wood frame. NoUVIR offers a basic VENT set that provides adequate ventilation through 6" x 9" rectangular cut outs in display cases or other enclosed areas. *Cool air inlets should be placed low and toward the nose of*

projectors with warm air outlets high and toward the rear (fan end). For placement, refer to our INSTRUCTIONS and INSTALLATION MANUAL when you install.

WARNING:
IMPROPER VENTILATION WILL
CAUSE SHORT LAMP LIFE,
PREMATURE FAN FAILURE
AND AN INVALIDATED WARRANTY.

CNUP-HP • PROJECTOR UPGRADE

COLD-NOSE UPGRADE

NoUVIR systems last and last. Customers with systems installed before 2000 can upgrade to a "High Power" projector and renew their 10-year limited warranty. Call NoUVIR at 302-628-9933 for details.

Customers also use NoUVIR in traveling exhibits. The mileage can bring back sad and tired cases, platforms, graphics and mounts. But don't scrap the NoUVIR fiber optic lighting. It's so durable, remove it and re-install it in a permanent gallery or save for another traveling exhibit. NoUVIR can completely rebuild, clean and make old projector systems like new. Call for details.

A parapet hides the system and fiber. A track is installed on the inside upper mullion with access for loading artifacts and adjusting lights through the large case's front windows. The pan is screwed down with access to the drawer by reaching over the parapet. No vents needed.



MRIN • MARINE SERVICE ADDED

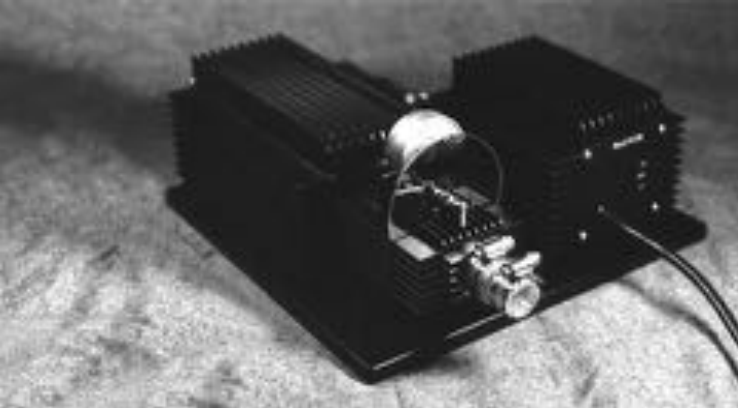
Projectors are not designed for outdoor use. They need to be put in a correct enclosure if installed in gardens, outdoor exhibits, caverns, aquariums or other exposed places. Even so, for added durability, any NoUVIR projector can be ordered with stainless steel fasteners and extra corrosion protection for ocean or marine service.

COLD-NOSE PROJECTOR

NOUVIR COLD-NOSE FIBER OPTIC PROJECTORS

BEAUTIFUL DESIGN WITH HIGH LIGHT OUTPUT AND A 10-SECOND LAMP CHANGE

WEEL • COLD-NOSE COLOR-WHEEL PROJECTOR WHEEL COLD-NOSE® PROJECTOR



*Projector is available with a color wheel, shown here with power supply and pan, order **WEEL**. Specify R.P.M.*

NoUVIR technology permits incredibly bright light levels through an inexpensive and easily replaced acrylic color wheel. Segments of the wheel can be colored with permanent or other translucent markers, or photographic gel or dichroic filters can be simply glued to the wheel. Minute variations in color or thin black lines can induce a slight flicker to historic flames. Outer edges of the wheel can be left clear, so that only some of the fibers powered by a projector are affected.

SPECIFICATIONS:

- Same as CLDN-HP
- Two acrylic wheels included
- Wheel can be replaced from outside projector
- **4 R.P.M. wheel drive is standard**
- 1 R.P.M. can be special ordered

WELO • CLEAR ACRYLIC REPLACEMENT WHEEL

Clear acrylic replacement wheel for WEEL color wheel projector.

WELS • COLOR WHEEL OF GLASS DICHROIC FILTER SEGMENTS

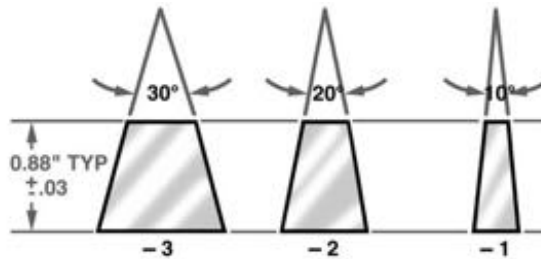
COLOR WHEEL DICHROIC 1 MM GLASS FILTER COLOR WHEEL SEGMENTS

A wheel can be made up of dichroic filter glass color segments. Segments are available for the WEEL color wheel projector in five colors and three widths as 30°, 20° and 10°. Specify the segments by colors and degrees to make a 360° wheel.

COLORS:

- R** - Red
- Y** - Yellow
- G** - Green
- B** - Blue
- V** - Violet

Call NoUVIR for ordering information.



A candle flickering in a case is an astonishing sight. It brings an exhibit into a realism that can take one's breath away.

A COLOR-WHEEL Projector will not blink historic lights on and off like fake looking bulbs, but creates a shift in the flame's color. From the subtle change of a gentle flicker to the dark flare of a guttering flame, a wheel lets you pick and control what visitors see.

Instantly set time periods. Create moods. Tell stories. Be stunning. Rooms with multiple historic luminaires and COLOR-WHEEL Projectors are amazing. You can see flames shift through the room as the effect moves from one side to the other. The wheel creates a flow that looks like a small draft disturbed the candles. You can see color move across a single burning wick of a kerosene using a three-fiber flame. Flames don't blink, they shift with life at seeming random intervals. They look realistic, yet active. COLOR-WHEEL Projectors create awesome effects easily with a few colored lines drawn on the acrylic disk.



Holds 32 3 mm fibers to 300 1 mm fibers

INBU • FIBER-SERT BUSHING

Every COLD-NOSE Projector comes supplied with a bushing, but sometimes you need a second one as fiber is left in one exhibit and a projector is reused in another. This unique bushing holds fiber mechanically (no glue), so a fiber can be replaced with longer fiber or changed to a different diameter fiber as the lighting needs change. Replace any fiber, any time. It holds 32 regular 3 mm fibers, 300 1 mm fibers or a mixture of different sized fibers. Start with an empty bushing and light as you go. Tighten fibers and hold them in the bushing using a hex driver.

POWER SUPPLIES

VERY DURABLE, CUSTOM-WOUND, 18V POWER SUPPLY WITH FUSE

TRNP-HP • CORD AND PLUG FIBER OPTIC POWER SUPPLY TRANSFORMER WITH CORD AND PLUG

Each COLD-NOSE® Projector uses a separate power supply. Pick a cord that plugs into a grounded outlet as a TRNP or choose the power supply below that is hard wired through conduit as a TRNR. Both have the same features and specification.

FEATURES:

- Provides a "High" and a "Low" setting
- 1,500 hours lamp life (3200° K) on "HI"
- 2,000+ hours lamp life (3000° K) on "LO"
- 6' low voltage cord allows installation of power supply remote from projector.

SPECIFICATIONS:

- Input, 118 VAC (1 amp) from a receptacle through a 5', U.L. listed cord and grounded plug
- Black anodized aircraft aluminum case, strong, elegant, cool running
- Internal auto-reset thermal cutoff and replaceable fuse for double safety
- Emits no radio-frequency interference
- With the COLD-NOSE Projector, E.T.L. listed as conforming to U.L. Standard 153 and C.S.A. Standard 22.2 for Portable Electric Lamps
- 4.25" high x 5" wide x 6" long



*Portable power supply with cord and plug,, order **TRNP-HP***

TRNR-HP • RECESSED FIBER OPTIC POWER SUPPLY

TRANSFORMER WITH CORD AND PLUG- HIGH POWER

A power supply with identical features to the TRNP-HP above, but designed specifically to be hard-wired with either rigid or flexible electrical conduit for recessed applications. With the COLD-NOSE Projector, the TRNP-HP is E.T.L. listed as conforming to U.L. Standard 1598 for Recessed Lighting Fixtures.



*For recessed installation,
order **TRNR-HP***

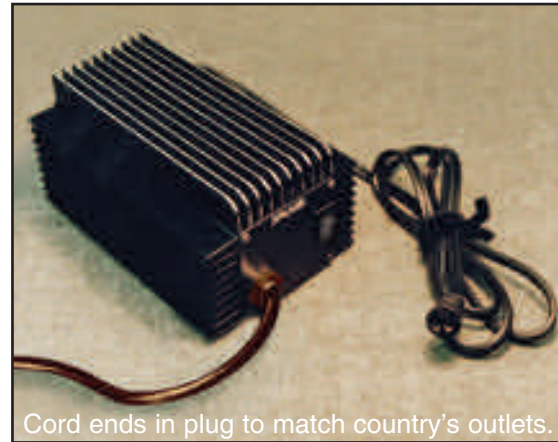
NoUVIR systems are U.L. tested for both portable lamp use and FOR RECESSED LIGHT FIXTURES. These are tough safety standards. Systems listed for electric signs (outdoor, not indoor fire safety), medical equipment (human monitored 100% of the time) or stage lighting (handled by union-trained pros with gloves) do not belong in a museum or a home.

NOUVIR POWER SUPPLIES AND MOUNTINGS FOR PROJECTORS

BEAUTIFUL DESIGN TO MATCH, BUT WITH INCREDIBLE DURABILITY

TRNP/R-EU • EUROPEAN POWER SUPPLY CUSTOM TRANSFORMER FOR 220 EUROPEAN POWER

Each COLD-NOSE® Projector needs its own power supply to convert the building's voltage to 18 volts for the projector. NoUVIR offers a 220-volt, 50-Hz unit for Europe supplied with a cord matching the power outlet of the country specified. The power supply has the same features and safety testing as its American counterpart, but is also tested and conforms to E.U. requirements. It has an internal thermal cutoff and a fuse in a fuse holder. It generates no radio-frequency interference. The European power supply is 4.25" high (10.8 cm) x 5" wide (12.7 cm) x 6-5/8" long (16.8 cm).



Cord ends in plug to match country's outlets.



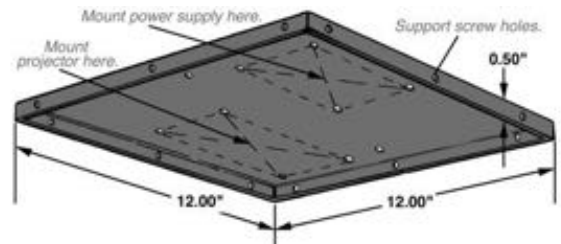
MOUNTINGS

ESURE AND QUICK INSTALLATION FOR PROJECTOR AND POWER SUPPLY

MPAN • MOUNTING PAN

VIBRATION ISOLATION MOUNTING PAN FOR PROJECTOR AND POWER SUPPLY

The MOUNTING PAN provides a simple, secure support for a COLD-NOSE Projector and its power supply on a single platform. Rubber mounts isolate the projector to extend lamp life by cushioning it from vibration. For convenience, the projector and its power supply are factory installed on a pan when sold as a "system" or "package".



COLD-NOSE PROJECTOR

SPECIFICATIONS:

- 12" x 12" by 0.50" deep
- Black powder coat, 16 gauge sheet metal
- Predrilled holes for mounting pan and hardware.
- Rubber pads, washers and screws supplied isolate hardware from vibration, increasing lamp life.
- E.T.L. listed for recessed systems

Order **MPAN** for simple and quick installation.



This pan is important. Not only is it lit with NoUVIR showing every detail, but it has a solid mount. A projector should be mounted with the same thought as an artifact...solid and with practical access in mind.

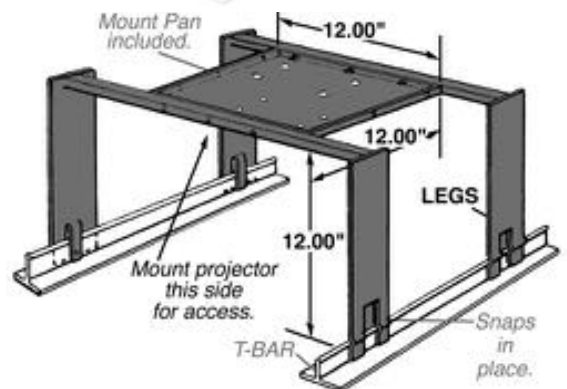
TBAR • T-BAR MOUNT

MPAN FOR T-BAR CEILINGS

A unique mount for ceilings, the T-BAR MOUNT holds the projector and power supply above something else. It is a MPAN MOUNTING PAN (see above) on sturdy legs. The legs snap onto the runners of a T-bar ceiling. Shift a ceiling tile and expose the projector to change the lamp.



Order **TBAR** for a mount pan with legs.



But the legs can also be attached to studs above dust or insulation, bridge a gap between floor joists, create a shelf in the base of a case or hang a projector system from rafters, inside a closet as a shelf or mount it above or away from other equipment much like a computer rack. The projector and power supply come pre-mounted on the pan. The projector can be installed upside down or rightside up on the legs by reversing the pan. Comes with the hardware required to attach the pan to the legs.

ZSFT Spots in 2-inch bannister (page 4-7).



No IR.
Over time IR will crack or craze this 800-year-old ceramic horse's finish.



Imperial Dragon



Use no UV and no IR. Make things beautiful. Make them outstanding. **But make them secure.**

Projectors are outside the cases and can even be outside the room. One of the small Hollywood artifacts shown above could be concealed and carried away. The venue has high traffic and the public is left unattended. But with *remote maintenance* and lamp changes outside the space, the cases are sealed and absolutely secure, requiring tools to open.

Fragile items are also safer. Vibration isn't easily transmitted to the objects with projectors mounted to a wall, a ceiling, a basement or another case. This Song Dynasty figure shows every detail down to the "imperial yellow dragon" on its trappings as a war horse for carrying the dead to heaven. The tomb cup set below has a very delicate structure. The lighting clearly shows the three tiny lotus flowers.

Removing the need for maintenance is a big plus in protection of each of these items. Movement or jarring is minimized. Cases have controlled access.



A spot reaches from the case's ceiling to its floor.

Limiting the need for maintenance inside cases is a good part of protecting artifacts. Fiber can run short distances linking a few cases like the three volunteer-built cases in a pinwheel design shown below. Just grab a ladder and reach in behind the ledge to change a lamp.

Or projector systems can be placed in another room. Fiber can run 40 feet or more. The two projectors, shown to the right, are in a museum basement. Note the row of DMSP DIMMER-SPLICE Connectors used to precisely light rare papers in this historic house museum.



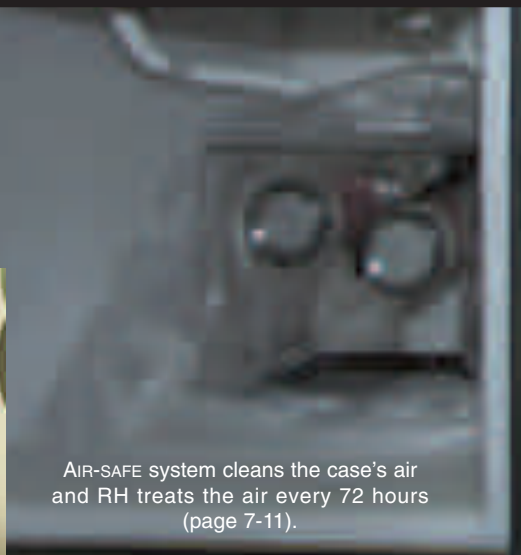
Volunteer-built and beautifully lit.

A professional-built document case, seen below, has EORL ELECTRO-OPTICAL Relays and an AIR-SAFE Micro-Climate Control System. Insulation separates the AIR-SAFE from the projector. One door opens to expose both chambers. EORLs produce heat. Insulating case floors insures that no heat creeps into a display. This museum used the option of a conduit connection for the power supply. Maintenance has no access to the case's content, yet an EKE lamp is easy to change (page 5-3).

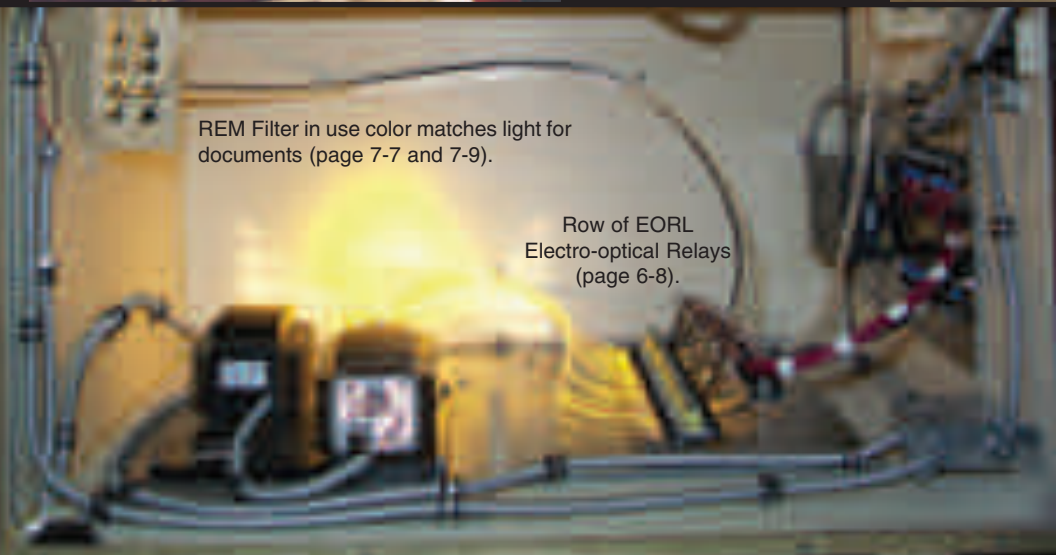


The costumes to the left, and others, were lit from a control room above each gallery. ZSBA MICRO-FOL Spots with AZ-EL Mirror and Bracket (page 1-7) run down the inside of the mullions. The cases are "rooms" with architectural outdoor windows as walls. The entrance is through a dead-bolt steel door. Lamp changes do not require entering galleries.

Because a costume is not historic "yet" doesn't mean it won't benefit from NoUVIR. This postman is lit with a variety of luminaires from fiber in a projector lighting another exhibit.



AIR-SAFE system cleans the case's air and RH treats the air every 72 hours (page 7-11).



REM Filter in use color matches light for documents (page 7-7 and 7-9).

Row of EORL Electro-optical Relays (page 6-8).