

**3M**

**1700**

# Overhead Projector Operating Instructions

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Rétroprojecteur  
*Manuel de l'opérateur*

Tageslichtprojektor  
*Bedienungsanleitung*

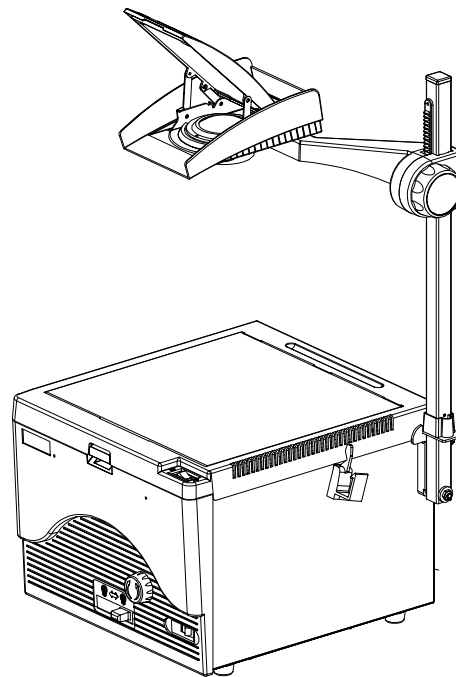
Retroproyector  
*Manual del operador*

Lavagna Luminosa  
*Manuale d'Uso*

Overheadprojektor  
*Bruksanvisning*

Overheadprojector  
*Handleiding*

Retroprojektor  
*Manual do usuário*



## INTENDED USE

Before operating the machine, please read the entire manual thoroughly. The 3M™ Overhead Projector 1700 was designed, built and tested for use indoors, using 3M brand lamps and nominal local voltages.

The use of other replacement lamps, outdoor operation or different voltages has not been tested, and could damage the projector or peripheral equipment and/or create a potentially unsafe operating condition.

## IMPORTANT SAFEGUARDS

When using your overhead projection equipment, basic safety precautions should always be followed, including the following:

1. Read and understand all instructions before using. Pay particular attention to areas where this symbol  $\triangle$  is shown.
2. Close supervision is necessary when any appliance is used by or near children. Do not leave appliance unattended while in use.
- $\triangle$ 3. Care must be taken as burns can occur from touching hot parts.
4. Do not operate appliance with a damaged cord or if the appliance has been dropped or damaged until it has been examined by a qualified service technician.
- $\triangle$ 5. Position the cord so that it will not be tripped over, pulled, or contact hot surfaces.
6. If an extension cord is necessary, a cord with a current rating at least equal to that of the appliance should be used. Cords rated for less amperage than the appliance may overheat.
7. Always unplug appliance from electrical outlet before cleaning and servicing and when not in use. Never yank cord to pull plug from outlet. Grasp plug and pull to disconnect.

- $\triangle$ 8. Let appliance cool completely before putting away or when replacing lamp.
9. To reduce the risk of electric shock, do not immerse this appliance in water or other liquids.
10. To reduce the risk of electric shock, do not disassemble this appliance, but take it to a qualified technician when service or repair work is required. Incorrect reassembling can cause electric shock when the appliance is used subsequently.
11. The use of an accessory attachment not recommended by the manufacturer may cause a risk of fire, electric shock, or injury to persons.
12. Do not overload accessory circuit (if equipped).
13. Connect this appliance to a grounded outlet.
14. Disconnect this unit from its source of supply before replacing the projection lamp.
- $\triangle$ 15. This unit is equipped with optical lenses and should not be exposed to direct sunlight.
16. Keep ventilation openings free of any obstructions.
17. This unit is connected by a special power cord that, if damaged, has to be replaced by the same type of power cord. This part can be ordered from your local 3M dealer and has to be installed by a qualified service technician.

## SAVE THESE INSTRUCTIONS

The information contained in this manual will help you operate and maintain your Overhead Projector.

## THANK YOU

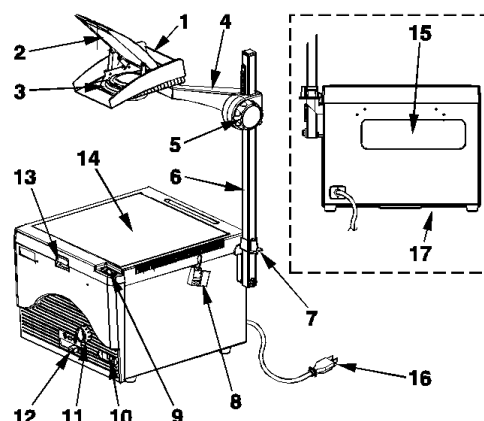
Thank you for choosing 3M overhead projection equipment. This product has been produced in accordance with 3M's highest quality and safety standards to ensure a smooth and troublefree use in the years to come. Your purchase of this product proves that you appreciate this.

For optimum performance we kindly ask you to follow these operating instructions carefully. We hope you will enjoy using this high performance product in your meeting, training and presentation sessions.

## Part Identification List

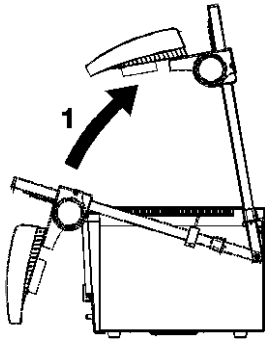
1. Open Projection Head
2. Projection Mirror
3. Singlet Lens (1705, 1708) Triplet Lens (1720, 1750)
4. Arm
5. Focus Knob
6. Post
7. Post Latch
8. Post Cradle
9. On/Off Power Switch
10. High/Low Brightness Switch (1708, 1720, 1750)
11. Color Tuning Knob (1708, 1720, 1750)
12. Lamp Changer (1708, 1720, 1750)
13. Top Cover Release Latch (with interlock)
14. Top Cover Stage Glass
15. Cord Storage
16. Power Cord

17. Machine Identification Plate



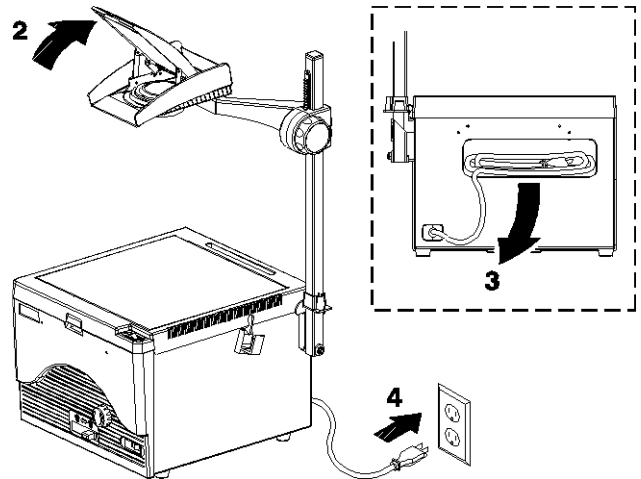
## Set Up Projector

1. Raise the post (1) until it locks into place.



2. Raise projection mirror (2) to adjust screen elevation.
3. Remove power cord (3) from storage area.

4. Plug in power cord into projector and wall outlet (4) and depress on/off power switch.



## Operating The Projector

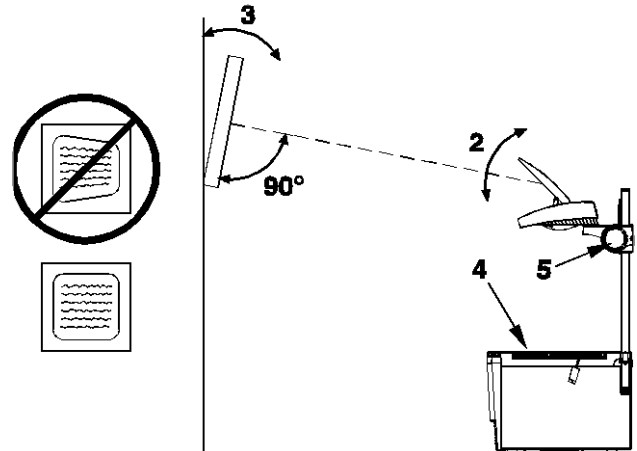
Read the Important Safeguards before operating this projector.

### ⚠ Caution

Do not illuminate lamp with projection mirror in the closed position. Heat from the lamp may produce parts that are **hot to the touch** and **damage the optics**.

1. Push power switch "ON" to illuminate lamp.  
 |= ON  
 ○ = OFF
2. Rotate projector (1) until projected light beam is perpendicular (90°) to the screen surface. The height at the left and right sides of the projected image should be equal.
3. Adjust angle of projection mirror (2) to raise or lower the image on the screen.
4. For best results, tilt projection screen (3) toward projector until the width of the projected image is equal at both the top and bottom.

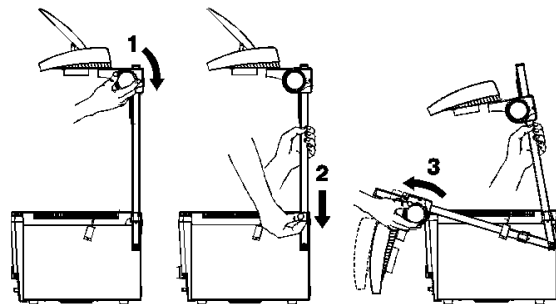
5. Place LCD projection panel or film transparency in the center of stage glass (4).
6. Set lamp brightness to "High" or "Low" position. See "High/Low Lamp Control" below.
7. Rotate focus knob (5) for sharpest image.



8. If yellow/orange or blue colors appear in corners of image, rotate color tuning dial to remove colors. See Color Tuning.

## Fold Down Projector

1. Depress ON/OFF power switch, then unplug power cord from outlet. Coil cord into cord storage area.
2. Close projection mirror.
3. Rotate focus knob (1) clockwise to raise projection head to maximum position.
4. Release post latch (2) and lower post until it locks in the post cradle.
5. Rotate focus knob (3) counterclockwise to lower head until it stops.
6. To move the projector, lift it from the bottom.



## Lamp Changer (1708, 1720, 1750)

If the selected lamp (position 1 or 2) is burned out or missing, slide lamp changer lever (1) to select alternate lamp.

### ✓ Important



*Slide lever fully left or right until it stops.*

### ✓ Important

*Lamp will not illuminate unless the top cover of the projector is closed.*

## High/Low Lamp Control (1708, 1720, 1750)

Activate High/Low switch (3) to select High (brightest) or Low (normal) lamp illumination.

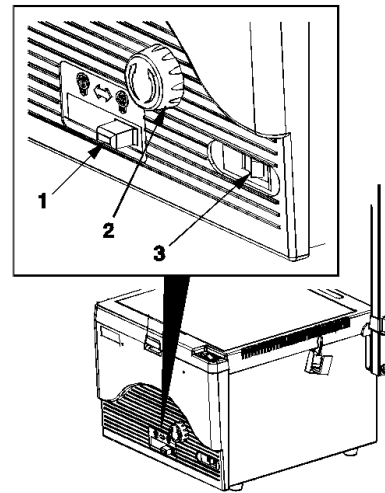
-  = Brightest image, normal lamp life
-  = Standard image, extended lamp life

### ✓ Note

Operating the lamp control switch in the LOW setting will extend the life of the lamp.

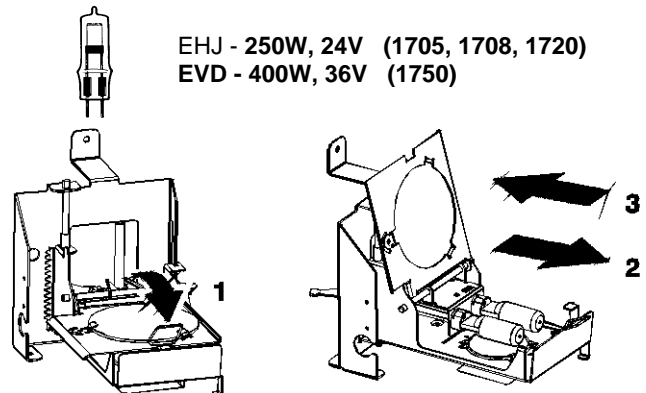
## Optical Adjustment (1708, 1720, 1750)

Turn the color tuning dial (2) to eliminate any yellow/orange to brown or blue corners. A color-free projection stage will produce the sharpest color images.



## Lamp Replacement

- Push power switch to “OFF” and unplug projector.
- Release cover latch and lift up top cover.
- After lamp has cooled, release spring clip (1) and raise condenser lens frame to access lamp.
- Pull lamp out (2) and discard.
- Push new lamp (3) fully and squarely into socket. *Do not touch bulb glass with fingers.*
- Close condenser lens frame and secure with spring clip (1).
- Close top cover and plug in power cord.



EHJ - 250W, 24V (1705, 1708, 1720)  
EVD - 400W, 36V (1750)

### ⚠ Caution

To avoid **burns to the fingers**, allow projector parts to cool before replacing lamp.

### ⚠ Caution

If a lamp cracks or breaks and deposits glass fragments inside the projector body, use a vacuum cleaner to remove. Touching sharp glass could result in **cuts to your fingers**.

### ⚠ Caution

Use care when placing hands inside projector body. Sharp or rough edges could cause **abrasions or cuts to fingers**.

### ⚠ Caution

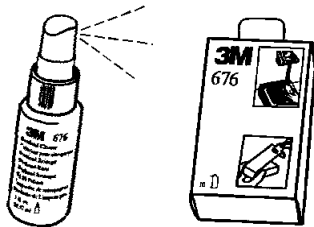
When the top cover is in the open position, use care not to tip it over. If the cover slams shut, it could result in **pinching or bruises to your fingers**.

## Troubleshooting

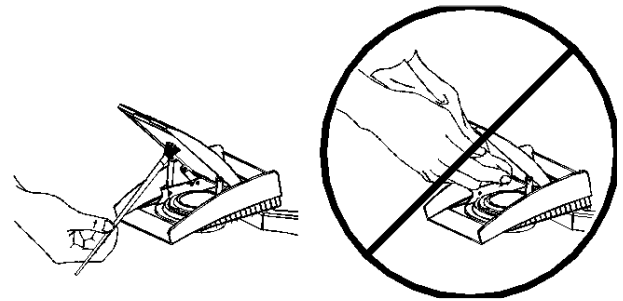
Problem	Probable Causes	Solution
Lamp does not illuminate but fan motor runs.	a. Lamp changer control not engaged. b. Lamp not seated properly. c. Burned out lamp.	a. Fully slide lamp changer control until it stops. b. Seat lamp squarely in socket. c. Replace lamp.
Neither lamp nor fan energize.	a. Projector not plugged in. b. Stage cover not completely closed. c. No power at wall outlet.	a. Plug projector into outlet. b. Close stage cover to engage safety interlock. c. Verify outlet has power.
Fan motor does not run but lamp illuminates.	a. Fan blade/motor obstructed. b. Burned out fan motor.	a. Call for service. b. Call for service.
After replacing a burned out lamp, the new lamp fails.	a. Defective lamp was installed. b. Possible electrical problem.	a. Replace lamp. b. If new lamp fails immediately, you may have an electrical problem. Call for service.
Short lamp life: Lamps seem to fail before expected life span.	a. Defective lamps. b. High line voltage.	a. Document actual lamp life, then contact Lamp Supplier or 3M Service Center. b. Have electrical line checked by an electrician.
Projected image is wider at the top than bottom (Vertical Keystoning).	a. Screen not aligned at 90° angle to projected light beam.	a. Tilt projection screen toward projector until image width is equal at top and bottom.
Projected image higher on one side (Horizontal Keystoning).	a. Projector not aligned at 90° angle to screen.	a. Rotate projector until image height is equal on both sides.
Projected image is dim.	a. Dirty stage glass, lenses, mirrors. b. Condenser lens bracket open or retaining clip not engaged. c. High/low lamp control setting incorrect.	a. Remove surface dirt. b. Close and secure lens bracket with retaining clip. c. Set control to high for brightest image.
Projected image does not have uniform brightness.	a. Lamp not aligned properly.	a. Properly seat lamp in socket. Fully slide lamp changer into position 1 or 2.
Yellow/orange to brown or blue colors appear in corners of image.	a. Lamp not at best location for projector to screen distance.	a. Rotate color tuning dial to remove colors in corners.
Color, focus or image problem.	a. Optics out of alignment.	a. Call for service.

## Cleaning

For best performance, use 3M™ Overhead Cleaner 676 to keep your projector free of excess dust and surface dirt.



78-8095-4140-8  
70-0705-6877-2



**Stage Glass and Lenses:** Use 3M overhead cleaner and a soft, lint-free cloth to remove surface dirt from the stage glass, projector lens and bottom of Fresnel lens.

**Projection Mirror:** Use a soft brush to remove surface dirt from the projection mirror.

### ⚠ Caution

The projection mirror is a front-surface mirror and to avoid damage to the lens surface, the lens must not be wiped clean.

**Service Information – Service Information – Service – Información de Servicio – Servizio assistenza – Service – 3M-Service – Serviço informativo**

- English: Contact your supplier or 3M sales office where you purchased your unit.
- Français: Contactez votre distribution ou le bureau de vente 3M où vous avez acheté votre appareil.
- Deutsch: Wenden Sie sich bitte an Ihren 3M Händler oder den technischen Kundendienst der 3M, wenn Sie Serviceinformationen benötigen. Die zentrale Service-Nr. der 3M Deutschland GmbH lautet: Tel. 0130/114969
- Español: Póngase en contacto con su proveedor o con la oficina de ventas 3M, en la que compró su aparato.
- Italiano: Contattare il Vostro fornitore oppure 3M visual informa, Tel. 02-70352630.
- Norsk: Henvend deg til forhandleren eller til 3M-salgskontoret hvor du har kjøpt apparatet.
- Nederlands: Neem contact op met uw leverancier of de 3M vestiging waar u uw apparaat hebt gekocht.
- Português: Contacte o serviço de vendas da 3M ou o fornecedor onde adquiriu o seu aparelho.

COUNTRY	COMPANY NAME	ADDRESS	LOCATION
Austria	3M Österreich Ges.m.b.H.	Brunner Fieldstraße 63	A-2380 Perchtoldsdorf
Belgium	3M Belgium N.V./S.A.	Hermeslaan 7	B-1831 Diegem
Denmark	3M Denmark	Fabriksparken 15	DK-2600 Glostrup
Finland	Suomen 3M OY	PL 26 Sinimaentie 6	02630 Espoo 63
France	3M France	Boulevard de l'Oise	F-95006 Cergy
Germany	3M Deutschland GmbH	Hammfelddamm 11	D-41453 Neuss
Greece	3M Hellas Ltd.	Gr 15125 Maroussi	Gr-14110 Heraklaon Athens
Ireland	3M Ireland	7th Floor, 3M House - Adelphi Centre, Dun Laoghaire	Co. Dublin
Italy	3M Italia SpA - Sistemi Visual	Via S. Bovio 3 Loc. San Felice	20090 Segrate Milano
Netherlands	3M Nederland BV	Industrieweg 24	NL-2382 NW Zoeterwoude
Norway	3M Norge A/S	Hvamveien 6	N-2013 Skjetten
Portugal	Minnesota (3M) de Portugal, Lda.	Rua Conde de Redondo, 98	P-1169 Lisboa Codex
Spain	3M España, S.A.	Juan Ignacio Luca de Tena 19-25	Madrid 28027
Sweden	3M Svenska AB	Bollstanacsvægen 3, Rotebro	SE-19189 Sollentuna
Switzerland	3M (Schweiz) AG	Eggstraße 93	CH-8803 Rüschiikon
Turkey	3M Ticaret A.S.	Buyukere Cad. Ucyol Mevkii Normanin Is Merkezi No: 414-416	Maslak 80670 Istanbul
United Kingdom	3M UK	3M House PO Box 1 Berkshire RG 1211 JU	Bracknell

**SAFETY POINTS TO NOTE:**

Use an alternating current only. Check that the supply voltage is the same as that stated on the rating plate of the appliance.

**U.K. only! How to connect the flex to a plug:**

**IMPORTANT** - The wires in the mains lead are coloured in accordance with the following code:

Green and Yellow	Earth
Blue	Neutral
Brown	Live

Please read the instructions given below before connecting the flex to a plug. If in doubt, please consult a qualified electrician. As the colours of the wires in the mains lead of this appliance may not correspond with the coloured markings identifying the terminals in your plug, proceed as follows:

The wire which is coloured green and yellow must be connected to the terminal which is marked with the letter E, or the symbol <> , or coloured green or green and yellow.

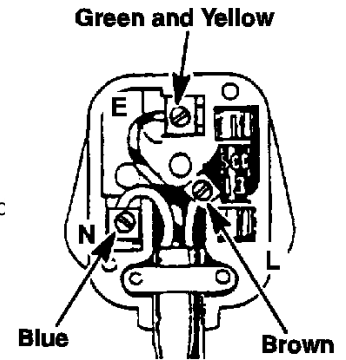
The wire which is marked brown must be connected to the terminal which is marked with the letter L or coloured red.

The wire which is coloured blue must be connected to the terminal which is marked with the letter N or coloured black.

Replacement fuses of 10 amp should be used which have A.S.T.A. and B.S. 1362 approval.

**Attention:**

The plug, if severed from the mains lead, must be destroyed, as a plug with bared flexible cord is hazardous if engaged in a live socket outlet.



**WARNING!**  
**THIS APPLIANCE MUST BE GROUNDING.**

English: The models 1700 series fulfill 73/23/EEC, 89 / 336 EEC.

Français: Le type 1700 est conforme à 73 / 23 / EEC, 89 / 336 EEC.

Deutsch: Das Model 1700 erfüllt 73/23/EEC,89/336 EEC.

Español: El modelo 1700 cumple las normas 73/23/EEC y 89/336 EEC.



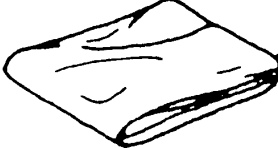
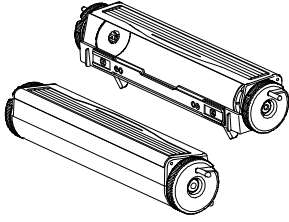

Italiano: Il modello 1700 è conforme alle norme 73 / 23 / EEC, 89 / 336 EEC.

Norsk: Modellen 1700 oppfyller 73/23/EEC,89/336 EEC.

Nederlands: Dit model 1700 is conform met 73 / 23 / EEC, 89 / 336 EEC.

Português: O modelo 1700 cumpre as normas 73 / 23 / EEC, 89 / 336 EEC.

**Accessories – Accessoires – Zubehör – Accesorios – Accessorio – Tilbehør –  
Accessories – Accessórios**

 <p><b>Overhead Cleaner</b> Nettoyant pour rétroprojecteur Tageslichtprojektor-Reiniger Limpiador para retroproyectors Prodotto di pulizia per proiettori Rengjøringsmiddel for Overhead Prosjektører Overhead schoonmaakmiddel Limpiador de Retroprojectores</p> <p>78-8095-4140-8 70-0705-6877-2</p>	 <p><b>Lamp</b> Lampe Lampe Bombilla Lampadina Lampe Lamp Lämpada</p> <p>EHJ DY-9920-0520-6 78-8062-0930-6 EVD DY-0210-0010-3 78-6969-7970-3</p>	 <p><b>Dust Cover</b> Housse anti-poussières Staubschutzhaube Cubierta para polvo Copertura antipolvere Støv beskytter Stofhoes Capa anti-pó</p> <p>78-6969-7216-1 HA5792</p>
 <p><b>Roller Attachment</b> Fixations à roulettes Rollen-Baugruppe Accesorio de rodillo Avvolgitore del cavo elettrico Hjul med feste Rolhulpstuk Accessório de rodas</p> <p>78-6969-8506-4</p>	 <p><b>Write-on Film Roll</b> Rouleau de pellicule sur laquelle on peut écrire Schreibfolie Rollo de película Pellicola Rull med film som det kan skrives på Filmrol om op te schrijven Rolo de filme</p> <p>285 mm x 15 m 78-6969-1751-3 AF4311</p>	



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