Pratt Institute Libraries
Visual & Multimedia Resources

Training Guide

16mm Projectors
16mm Projector Parts & Accessories

- 16mm Projector
- Take-up Reel
- Power Cable
- Lenses
- 16mm Film
- Projector Cover
- Projection Cart
16mm Projector Set Up

Power & Placement

16mm projectors should only be used on stable carts.

The protective case should be kept on the projector when not in use.

Projectors and carts should be kept dusted to prevent dust from clogging the projector and scratching films.

Never move projector carts with projector arms raised.

Pull out the power cable from the power cord compartment.

Be sure to run the cable neatly out of the way of foot traffic.
16mm Projector Set Up

Select Appropriate Take-Up Reel

Select a take-up reel that is the same size or larger than the film reel.

Elmo 16-Ci projectors circulate with a take-up reel slotted into their backs (opposite from side with controls).

Place Reels On Projector

Remove projector cover and fully extend both arms.

Place take-up reel on left arm (closest to power cord).

Place film reel on right arm (closest to the lens).

Make sure both reels are locked into place, by turning down spindle tip.
Secure Film To Take-Up Reel

Before threading the print through the projector channel, thread the white leader across the top from the feeder reel (right arm) to the take-up reel (left arm).

Insert the end of the film into a slot on the take-up reel. Do NOT tape the film to the take-up reel.

Check to make sure the film leader is not twisted. An easy way to do this is to ensure the perforations face the same way across.

Manually wind film around the take-up reel a couple of turns, until film is secured to the take-up reel.
16mm Projector Set Up

Run Film Through Projection Track

Check that the white leader labeled “HEAD” comes off the front of the reel, hanging like a “9”.

Check that the perforations are facing towards you as you’re facing the control-side of the projector.

Starting at the slot above the lens, guide white film leader through slot load.

Continue to guide the leader through the slot in an “S” form as shown below.

By the end of your loading the projector, make sure that there is still enough white leader on the feeder reel to start the projector before the picture itself appears.
16mm Projector Set Up

Adjust Slack

Before turning the projector on, make sure that there is a small amount of slack in the film as it leaves the first reel and is taken up on the second.

Good

This will help prevent film tears on start up & image obstruction.

Too tight

Too Loose
**16mm Projector Usage**

**Control Functions**

Turn knob right to the forward position to move film forward. Then once more to turn lamp on.

Never reverse while film is loaded.

Turn sound on by turning inner volume knob clockwise. The exciter lamp will go on inside. Adjust outer EQ ring as needed.
Rewinding Films

Preparing To Rewind

Insert TAIL end of the white leader into slot of the empty feeder reel.

Wind the film a few times until it is secure, without passing film through projector channel.

Allow film to play until entire print is on the take-up reel.

Make sure spindle tips are locked and reels are secure.

When ready to rewind, projector should look like this:
16mm Projector Usage

Rewinding Films Continued

**NEVER** rewind films through the projector. Rewinding films through the projector can completely destroy them.

Turn the switch left to reverse.

Allow film to rewind completely.

Turn projector off.

Tape the **HEAD** of the film down with paper tape and remove feeder reel from projector.

Unlock spindle tips and remove take-up reel.

Use buttons to release projector arms (see right)
16mm Projector Trouble Shooting

Film Breakage During Projection

If a film breaks, turn off projector immediately.

Turn off the audio.

Remove take-up reel from projector and set aside.

Check the film path for debris and remove any.

Use white paper tape (NOT SCOTCH TAPE) to tape the film back to itself, manually turn until taped section is safely on take-up reel, and project the remainder of the film.
16mm Projector Trouble Shooting

Film Breakage During Projection

Wind the remaining film until you are past any damage.  

Play film to end.

All damaged films should have a full written description of the damage attached to them. They should be brought to the attention of a Technician. Please email video.library@pratt.edu with any damage reports.

Be sure to identify which projector was used when damage occurred, in case it was due to a projector malfunction.

Example of sprocket damage.  

Example of film burn.