

Look up film on IMDB either tech or DVD details for aperature/Aspect Ratio Sound Length Bring to Projection Flashlight Stickies	2 nd or 3 rd Shows: Check aperature/lens match Check heads on Countdown correct Note sound level from previous show For Matinees Rewind to heads Mark Heads #s Write changeovers on paper & put in shipping can
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- I. **TURN ON POWER:** Turn on sound, circuit breaker, exhaust fan, and projector bulb
- a. Sound button on 2 black towers
 - i. On buttons
 1. Left tower – bottom left white
 - a. Right - On
 - b. Left tower has to be on for right tower to be on
 - c. Turn off 4 35mm sound readers
 - i. don't need to do this if not going to remember to turn them back on
 - ii. saves the led lights
 2. Right Tower – Black button
 - a. Right - On
 - b. Select User 16
 - c. For booth monitor, if sound is bad, switch Right knob (channels) for better sound

Film Mono	External 6 Channel
Film Dolby (Analog) A-Type Older	User 16 16 mm projection
Film Dolby SR (Analog) Better	Upstairs Monitor Non Sync 1 For playing before show music
Film Dolby Digital (is grey in area between sprocket holes)	Downstairs Sound NonSync2

b. Breaker Box:

Left Breaker Box		Right Breaker Box	
			4: Projector Motors --This also turns on bulb in area where load film
4 – 16 mm Proj Bulb			
5 – 16 mm Proj Bulb			
11: Sound Tower			
12: Sound Tower			

c.

i. Right

1. #4 – Projector Motor

ii. Left

1. #4 & #5 – 16 mm Projector Bulb
2. #11 & 12; 2 Sound Towers (Should already be on)

d. Exhaust fan switch behind #6 in film canisters

e. 10 minutes before show: Projector lamp switch “DC Power” on back of projector

II. CLEAN PROJECTORS

- a. 50% isoprophol alcohol/50% water
- b. rollers
- c. spindles
- d. Gate
 - i. Remove 2 thumb screws & pull out plate
 - ii. Clean using alcohol/cloth/q-tips

III. PREP REELS – BUILD REEL

- a. Determine whether heads out (beginning of reel) or tails out (end of reel)
 - i. Double check by looking at film
 1. for credits
- b. Place reels in order
- c. Turn on light box
- d. Load on rewind table, using our reels to build reel while cleaning
 - i. Left reel head comes from over top to over top on right reel
 - ii. Sprocket holes only on 1 side of film. Heads out:

1. Toward you
 2. Soundtrack is away, on other side of film
 3. Image top is to the right
 4. Image is reversed
 5. (Rewind tails out, sprocket holes are away from you)
- iii. Push reel all the way on, engaging slot, otherwise may come flying off
- iv. Soundtrack on side opposite from sprocket holes
- v. Can use tape at head of reel to attach to take-up reel
- vi. Hand load a few turns
- vii. Make sure toggle set to wind forward (vs neutral or reverse)
- viii. Make sure speed wheel at 0
- ix. Turn on by pushing button
- x. Slowly turn wheel to comfortable forward speed
- xi. REWIND NOTE: Since 16mm reels tend to have slot only on one side, can “rewind” bottom to bottom with direction on rewind table in REVERSE with take-up reel still on right side (this would have the same effect of rewinding to the left reel in “top to top” position)
- e. Measures
 - i. 24 frames /second
 - ii. 40 frames/foot
 - iii. 1 sprocket hole/frame
- f. Make sure of count down from 11 – 1:
 - i. 8 – 2 (New SMPTE Universal Leader)
 1. Measured in seconds
 2. Load to #5
 - ii. 11 – 3 (Academy Leader; common on older prints)
 1. Measured in feet (i.e. 16 frames)
 2. Load to #8
- g. Clean, gripping firmly between flat thumb/fingers (No cleaning on ARCHIVAL print—see below)
 - i. Touch metal to prevent shock
 - ii. About half-speed to clean
 - iii. Check EVERY splice while cleaning
 1. Twist splices at top/bottom to make sure secure
 2. Unscrew black knob on splicer to replace tape
 3. Clear tape (for splices) in drawer marked “tape”??
 4. Retape – both sides
 - iv. Make sure sound is consistently away from you across any splices
 - v. Tape ripped sprocket holes
 - vi. Remove any loose tape (other than leader) b/c don’t want tape sticking up projector
 - vii. Clean all the way through
- h. Remove (unless ARCHIVAL Print—see below)
 - i. Tail (except last)—leave on take-up reels
 - ii. head (except first)

- iii. Mark & Tape heads on Sound Tower
- i. Splice reels with zebra tape
- j. Mark sides of take-up reel with tape & arrow indicating end of each reel
- k. Indicate last image of film so know when to do raise dowser
- l. Rewind to head (if film came heads first and cleaned to tail)
 - i. Top over top
 - ii. Sprocket holes should be away from you

IV. **PREP PROJECTORS**

- a. Turn on projector bulb at back
- b. Change lens
 - i. Rare to never

V. **LOAD REELS:** (Check 6 Locks & 3 Loops)

- a. there are 3 loops which MUST be there to take up slack of variation of film being pulled through so quickly
- b. Load to #11 in Gate
- c. Load upper reel with
 - i. film coming out toward screen
 - ii. LOCK #1: Lock down top reel on spindle
 - iii. Sprocket holes toward you
 - iv. sound is away from you (opposite sprocket holes)
 - v. Films goes through top slit in projector body
- d. Film Gate
 - i. LOCK #2: (gate) Close with small lever toward projector (away from screen)—make sure snaps in
- e. Upper Sprocket & Loop above Film Gate
 - i. 1st loop just beyond sprocket til not hitting post at top right
 - 1. top loop is there so film goes pretty much vertically into the gate
 - ii. LOCK #3: (above gate) Lock down sprocket pad roller
- f. Lower one below gate
 - i. 2nd loop just between gate and sound head; should almost touch housing body away from screen
 - 1. Looser is better
 - 2. pull to make sure tension is correct
 - ii. LOCK #4: Lock down sprocket pad rollers
 - iii. 3rd Loop: Marilyn Monroe's boob
 - iv. LOCK #5: Lock down sprocket pad rollers
 - v. Out bottom slit
 - vi. Over tension roller
- g. Load film on to take-up reel
 - i. When looking at take-up reel, spins clockwise, so put take-up reel on with reel-end tape marks on inside (toward projector)
 - ii. LOCK #6: Lock down take-up reel

- h. Once loaded manually move film forward using geneva (at top of projector on 16 mm) to make sure
 - i. 3 loops look good
 - ii. No bad scraping sounds
- i. Turn on motor by turning knob **clockwise** (never anti-clockwise) 2 clicks (turn off by turning 2 more clicks clockwise) and forward to about #8 w/in the gate

VI. CHECKING OTHER PERSON'S LOAD

- a. 6 Locks, 3 loops
- b. Pull to make sure tension is correct
- c. film over _____ sprocket
- d. Count down #8

VII. TEST REELS: (about 40 minutes before show, as some SC's let people in 30 minutes before film)

- a. Open Curtain (top Button)
- b. Turn down house lights
- c. Masking – Aspect Ratio
 - i. “Side Masking Button”
 - 1. #4 for 16 mm
 - ii. “Top Masking”
 - 1. Set toggle button to bottom for 16 mm
- d. Turn down booth lights
- e. Turn off light box
- f. Turn on work light
- g. Select proper film sound on sound tower
 - i. User 16
- h. Check
 - i. Frame Rate if film is before circa late 1920s and Silent
 - ii. Framing
 - iii. Image focus
 - 1. push rod down til vertical
 - 2. turn knob to focus
 - iv. Image Size
 - 1. Adjust “Zoom” knob??? (Does this mean twisting focus???)
 - v. Sound level
 - 1. Bottom right of box is lever that adjusts sound track tracking over the head
- i. Close Curtain (Middle Button)
- j. Turn up House Lights
- k. Rewind test reel and reload

VIII. START FILM

- a. Booth Lights off 5 minutes before show
 - i. Turn off work light/light box

- b. As Show Captain walks toward front
 - i. Lower BACK lights (middle slide) half way down
 - ii. SOUND
 - 1. Slowly turn volume down
 - 2. Switch to correct movie source
 - 3. Mute
 - 4. Correct Sound Level
 - 5. Left top knob is sound level for booth monitor
 - 6. Mute
- c. As show captain walks off,
 - i. CURTAIN/IMAGE
 - 1. 2 clicks clockwise to start projector motor
 - a. Start counting 6 seconds
 - 2. Run to
 - a. Open Curtain (Top Button)
 - b. Lower Lights
 - 3. At end of 6 seconds – lower dower
 - 4. Yell Start (for sound person to unmute sound)
 - 5. Double-check focus

IX. END OF FILM

- a. IMAGE/CURTAIN/LIGHTS
 - i. As credits roll, raise Back lights half-way (by raising Middle slide) (so still can see screen)
 - ii. At Final Image:
 - 1. Raise Dowser
 - 2. Mute Sound
 - 3. close curtain
 - 4. Slowly raise house lights
 - 5. Turn off projector once film runs out
- b. Turn off projector lamps
- c. Turn off sound towers
 - i. Turn on 4 35mm sound readers on left tower
- d. Turn off 3 circuit breakers
- e. Turn off Fan
- f. Take film to outer office

X. Archival Prints

- a. Restrictions
 - i. No cuts (unless taped splices already exist)
 - ii. No cleaning
 - iii. No dot making
 - 1. Use grease pen to make dots if there are none
- b. Procedure

- i. If can't remove heads/tails, then tape tail reel 1 to head reel 2 (etc.) onto larger 16mm reel.
- ii. Have show captain announce there will be black between reels, b/c it is an archival print & splicing is not allowed
- iii. Mark down dots on board (so know when to lower dower, mute sound)
 1. If no dots, try grease pen
 2. Relative to sprocket holes, dots are _____
- iv. Changeovers
 1. Have one person at projection, one at sound
 2. At first dots, yell dots
 3. At 2nd dots
 - a. mute sound
 - b. Lower dower
 4. Projector person with flashlight on film see when image is coming
 - a. Raise dower
 - b. Yell "sound" for sound person to unmute