

Title: **KODAK CAROUSEL/EKTAGRAPHIC Projectors: Troubleshooting**

Projector Does Not Operate
Slide Fails To Drop Into Projection
Dark Screen Shutter
Projector Will Not Cycle To Next
Projector Cycles Continuously
Uneven Illumination on Screen
Uneven Image Size or Proportion
No Illumination in Projector
Image Angle Is Distorted
Movement of Strange Shapes on
Early or Repeated Lamp Burnout
Focus Trouble Shooting

CAROUSEL/EKTAGRAPHIC Troubleshooting : Projector Does Not Operate

Probable Cause	Possible Solutions
No power to projector	Plug power cord into suitable electrical outlet; Set power switch to
Shutdown from overheating due to improper ventilation (rear air flow	Have serviced

Slide Fails To Drop

Probable Causes	Possible Solutions
Tray base plate not properly	Align index hole & index notch see Trouble Shooting Trays for how to align bottom plate
Tray not properly positioned on	Reposition tray on projector
Slide mount warped or frayed at	Straighten mount or remount slide
Projector not level or tilted too high	Set projector on a stand equal with center of screen

Projector Not Cycling

Probable Causes	Possible Solutions
Tray not properly positioned	Reposition tray
Slide or foreign object stuck in gate	See Tray Troubleshooting for finding a tray jam

Cycle cam, index and/or select lever not functioning * * Remove tray, press Forward button; should be 3 levers moving	
Elevated too high; should not	Reduce elevation

Projector Cycles Continuously

Probable Causes	Possible Solutions
Voltage irregularity (unplug remote if connected)	Use surge suppressor Power strip outlet with fuse
Timer engaged (on featured)	Turn off timer
If no results, may be a bent or damaged lever in linkage	Have serviced
Hot relay in receiver when connected with an IR Remote	Remove IR Remote Receiver and replace with wire remote or operate
IR signal may be susceptible to high intensity interference (e.g.,	Turn off fluorescent lighting

Uneven Illumination on Screen

Probable Causes	Possible Solutions
Projection lamp not fully seated	Check lamp
Condenser lens not installed or not positioned properly in mount	Check condenser lens
Slide mount not seated properly in projector gate	Check slide position & slide-mount condition
Shutter hanging partially	Have serviced

Uneven Image Size/Proportion

Probable Causes	Possible Solutions
Gate may be damaged or out of	Have serviced
Key stoning may be occurring	Projector should be positioned perpendicularly at a 90° angle to

No Illumination in Projector

Probable Causes	Possible Solutions
Power switch on Off or Fan position	Set switch to Lamp
Contact pins in module may not be connecting	Remove, then reinsert module

Lamp not seated in socket	Check lamp
Lamp burned out	Install new lamp Note: Wear cotton gloves or use soft cloth when inserting new lamp

Image Angle Is Distorted

Probable Causes	Possible Solutions
Projector angle is incorrect	Adjust to 90°
Projector is not level	Adjust elevation feet accordingly

Movement of Strange Shapes

Probable Causes	Possible Solutions
Moisture on glass slides in high humidity environments	Allow extended warm-up time Store slides with silica desiccant to absorb moisture

Early/Repeated Lamp Burnout

Probable Causes	Possible Solutions
Rapid cooling with fan	Move selector switch directly to OFF position following operation
Incompatible lamp type	Lamp should be ANSI approved consistent with recommendations in
Faulty lamp. Possibly stored in excessive temperature conditions or heat sensitive areas	Use lamps that have been stored at room temperature

Probable Causes	Possible Solutions
Internal projector components allowing irregular voltage	Have serviced
Restricted air flow ventilation	Air vents should be at least 3 feet from an obstruction

KODAK Projector Troubleshooting : Dark Screen Shutter

Probable Cause	Possible Solution
Light transmits onto screen when no slide is in gate	Dark Screen Shutter not engaging. Press Select Lever * to block light Select Lever is located on top of projector rim chassis behind the

Probable Causes	Possible Solutions
Lamp position on Light visible in rear compartment Tray cycles forward but no light transmits onto screen to view slide	Dark Screen Shutter remains Step 1: Remove tray (may have to press lever while rotating tray to 0-zero position) Remove a single tray from tray. Step 2: Shutter spring may be dislodged or missing. Send in for

KODAK CAROUSEL/EKTAGRAPHIC Projectors : Focus Troubleshooting

Focus Troubleshooting

Slide Not in Proper Focus	Auto focus Runs Continuously
Uneven Edge-to-Edge Focus	
Auto focus Drifts	Auto focus Delay
No Auto focus	
All Slides Have	
Consistent Out of Focus	Slight Out of Focus
Portions Out of Focus	Dark Portions
Some Slides Have	
Same Portions Out Of Focus	Other Factors Affecting Focus Behavior (AF & Non-AF)
Different Portions Out of Focus	
for Corrective Lens Wearers	

CAROUSEL/EKTAGRAPHIC Focus Troubleshooting : Slide Not in Proper Focus

Probable Causes	Possible Solutions
Slide itself not sharp	Examine slide for proper focus
First slide in tray not properly	Focus center of first slide manually
Slide in different type of mount from	Focus manually
Projection lens improperly installed	Make sure lens is moving when turning focus knob

Uneven Edge-to-Edge Focus

Probable Causes	Possible Solutions
Slide itself is not sharp	Examine slide condition
Curved field lens used with glass, plastic, or non-embossed mounts	Try a flat field lens; see Flat Field versus Curved Field Lens under
Curved field lens used for rear	Use a flat field lens

Auto focus Runs Continuously

Probable Causes	Possible Solutions
Using mixed mounts: Cardboard or plastic w/glass Multi-aperture (e.g., stereo) Matte surface write-on w/different colored backgrounds *	Step 1: Turn off Auto focus (Not an option w/CAROUSEL or Step 2: Adjust focus manually (Not an option w/CAROUSEL 4600 or If Autofocus use is necessary, have duplicate slides made in same type of mount (cardboard or plastic)
Ambient infrared light from lamp interferes w/photocell beam	Replace lamp. If older model (unpainted metal), replace w/Extra Bright Lamp Module (black housing assembly) to absorb & control stray

Auto focus Drifts

Probable Causes	Possible Solutions
Excessive curvature or lack of uniformity of film or Moisture from humidity on slide (if prolonged humidity, fungus may have formed)	Pre-warm slides w/projector lamp on for approximately 30 seconds and rotate tray slowly 30 degrees by pressing Select Level and If no results: turn Auto focus off (if possible) or fine-tune w/remote or have duplicates made in open mounts
Projector or screen is subject to vibration	Adjust properly on smooth, flat surface away from other machine

Probable Causes	Possible Solutions
Slides may shift position if mounted in less rigid plastic mounts	Allow longer pre-warm time before setting focus on first slide
Fixed focus lens, if used, may be installed backwards* * Print information on lens periphery should be facing the screen	Reinsert lens correctly
Lamp may have a hairline fracture near base scattering IR light	Rotate lamp 180 degrees. If no results, replace lamp

Probable Causes	Possible Solutions
Ambient infrared light from lamp interferes with photocell beam	If older model (unpainted metal), replace with Extra Bright Lamp Module (black housing assembly)
Only occurs when no slide is in gate	Use blanking slides with models manufactured prior to 1/97 * or Turn off AF (EKTAGRAPHIC) Internal cut-off switch added to eliminate open gate drifting of auto

No Auto focus

Probable Causes	Possible Solutions
Null needs adjustment or faulty	Have serviced by an authorized

Auto focus Delay

Probable Causes	Possible Solutions
Auto focus trying to adjust for warped mount (if cardboard) or excessive curvature and flex in film --KODACHROME film has a thicker base & is less susceptible to popping but will not withstand projection as well as	Use glass mounts

Consistently Out of Focus

Problem: Consistently out of focus when autofocus engaged but OK when adjusted manually

Probable Causes	Possible Solutions
Faulty photocell or circuit board	Have serviced by authorized
Fixed focus lens, if used, may be installed backwards* * Print information on lens periphery should be facing the screen	Reinsert lens correctly

Portions Out of Focus

Problem: All slides consistently have **portions** of an image out of focus with or without autofocus engaged

Probable Causes	Possible Solutions
Slide gate may be out of alignment or pressure pads may Condenser lens is out of	Have serviced by an authorized technician

Slightly Out of Focus

Problem: All slides **slightly** out of focus with or without autofocus engaged & subject orientation reversed

Probable Causes	Possible Solutions
Slides mounted with emulsion facing lamp	Have slides remounted with emulsion facing the screen
Loaded without proper orientation	Make sure slides are properly orientated in the tray (number will usually be in the upper right corner)

All Have Dark Portions

Problem: All slides have dark portions and behavior is **not consistent** with another projector with the same

Probable Causes	Possible Solutions
Internal optical components may be condenser lens mirror heat absorbing glass	Clean optics with lens cleaner

CAROUSEL/EKTAGRAPHIC Focus Troubleshooting : Same Portions Out Of Focus

Problem: Some select slides have the **same portions** of an image out of focus with or without autofocus engaged and behavior is consistent with another projector with the same lens

Probable Causes	Possible Solutions
Original exposure may lack correct focus or depth of field	Make certain the camera is working properly and re-shoot the slide
Dirt, fungus or foreign matter on	Clean slide Find <DAMAGE>

Different Portions Not Focus

Problem: Some select slides have the **different portions** of an image out of focus with or without autofocus engaged and behavior is consistent with another projector with the same lens

Probable Causes	Possible Solutions
Lens may have aberration in one or more elements	Replace the lens

Other Factors Affecting Focus

NOTE: This info applies to AF & Non-AF Projectors

Probable Causes	Possible Solutions
Environment	Control the temperature, humidity & time allotment for adjusting If slides react more favorably to warmer conditions when presented, the EKTAPRO 80 Slide Tray will retain approximately .30 percent more heat to expedite popping (into
Mixed Slides	Don't mix slides with varying base thickness (e.g., KODACHROME & EKTACHROME dupes can be made from both.

Flat- Versus Curved-field lenses - Rack Mount Lenses from Kodak

Flat Field Lenses - RECOMMENDED FOR MAJORITY OF APPLICATIONS

Designed to be used with glass mounted slides

Used for open frame slides where film is held relatively flat in the mount

For mixed glass slides & open-framed mounts, or slides having the emulsion toward the lamp

Curved Field Lenses compensate for curve of transparency when mounted in open frame, permitting improved center-to-corner sharpness on the screen

The curved field lens was made to specifications for open-face mounts in the 1960's and 1970's.

Curved field lenses can often be identified by the blue printing on the front of the barrel of the lens. It also can have the letter C in its name, such as EKTANAR-C lens. 102 and 102-152mm are also curved field lenses.

NOTE: Both flat field and curved field lenses can be used in the EKTAGRAPHIC, EKTAGRAPHIC III, and CAROUSEL Projectors

For Slide Type	Flat Field	Curved Field
Open-frame cardboard or plastic	Recommended	Acceptable
Glass-mounted	Recommended	Acceptable
Duplicates, emulsion away from	Acceptable	Not Recommended
KPP open-frame cardboard *	Acceptable	Recommended **
Rear screen projection application	Recommended	Not Recommended
Mixed or unknown	Acceptable	Not Recommended

* Kodak Processing uses an embossed "automated" cardboard mount with a beveled edge

** With flat screen and front