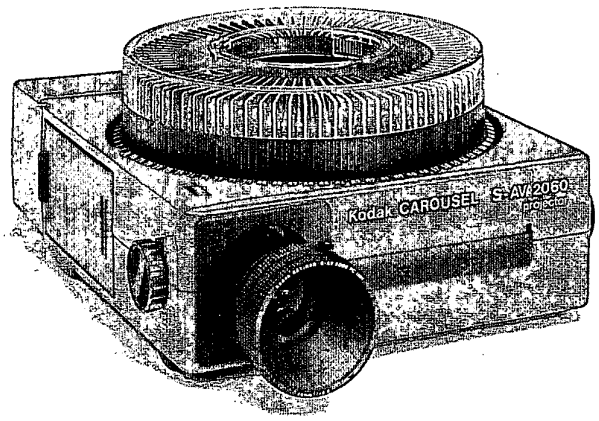
Bedienungsanleitung · Instruction Manual · Mode d'emploi
Manual de Instrucciones · Istruzioni per l'uso · Gebruiksaanwijzing
Bruksanvisning · Käyttöohje



KODAK CAROUSEL S-AV 2060 Projector

Kurzanleitung
Summary
Mode d'emploi résumé
Esquema resumido
Introduzione
Aanwijzingen in 't kort
Igångsättning
Johdanto

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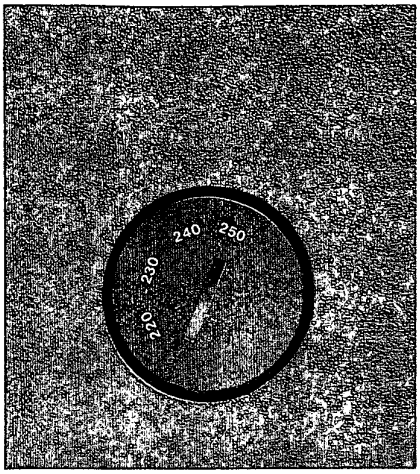

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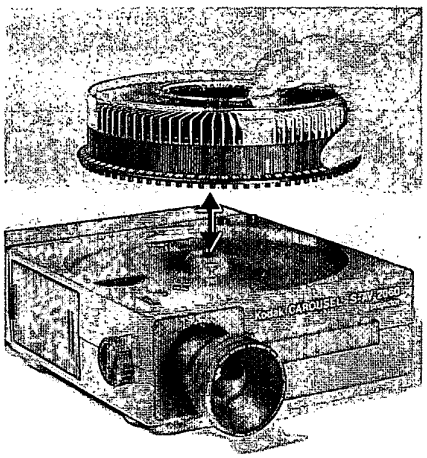

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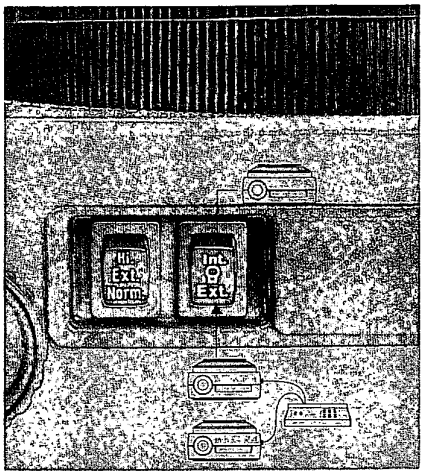

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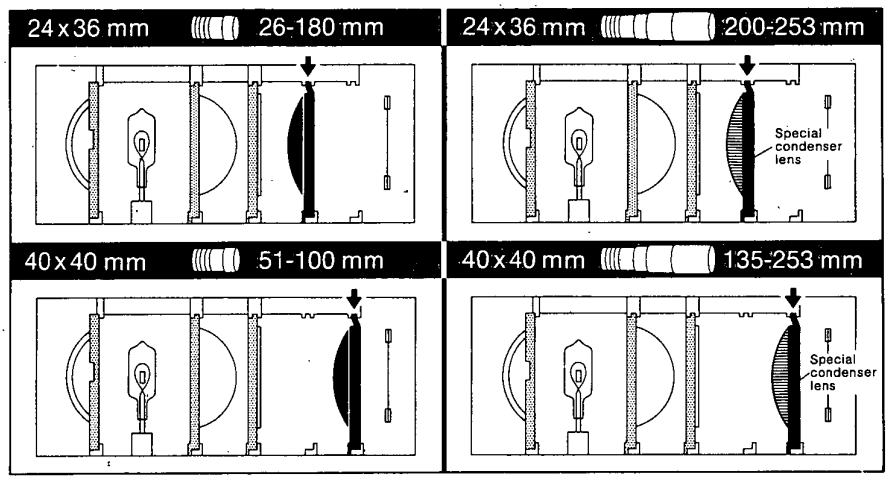

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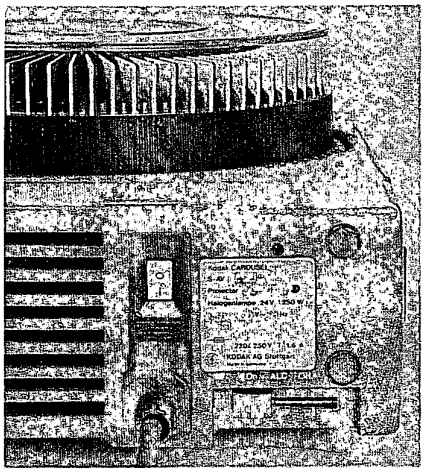

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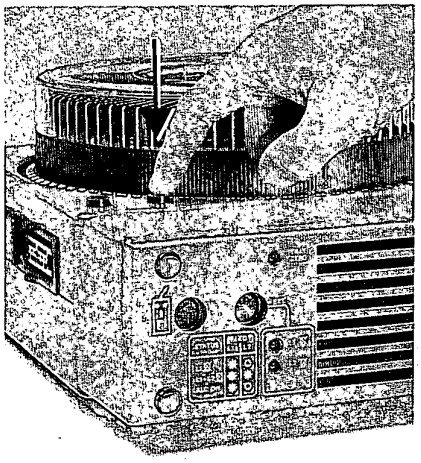

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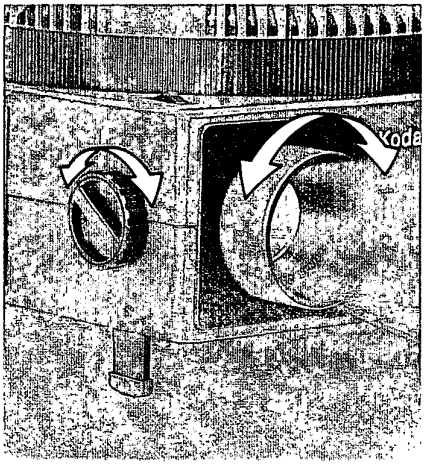

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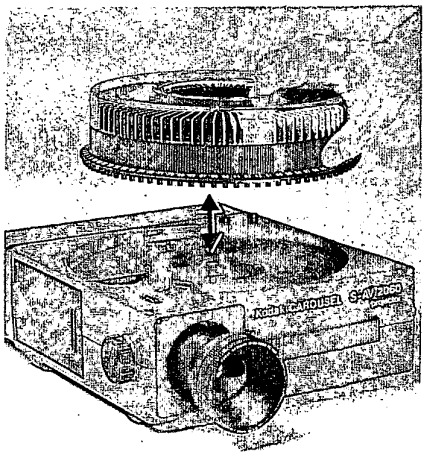
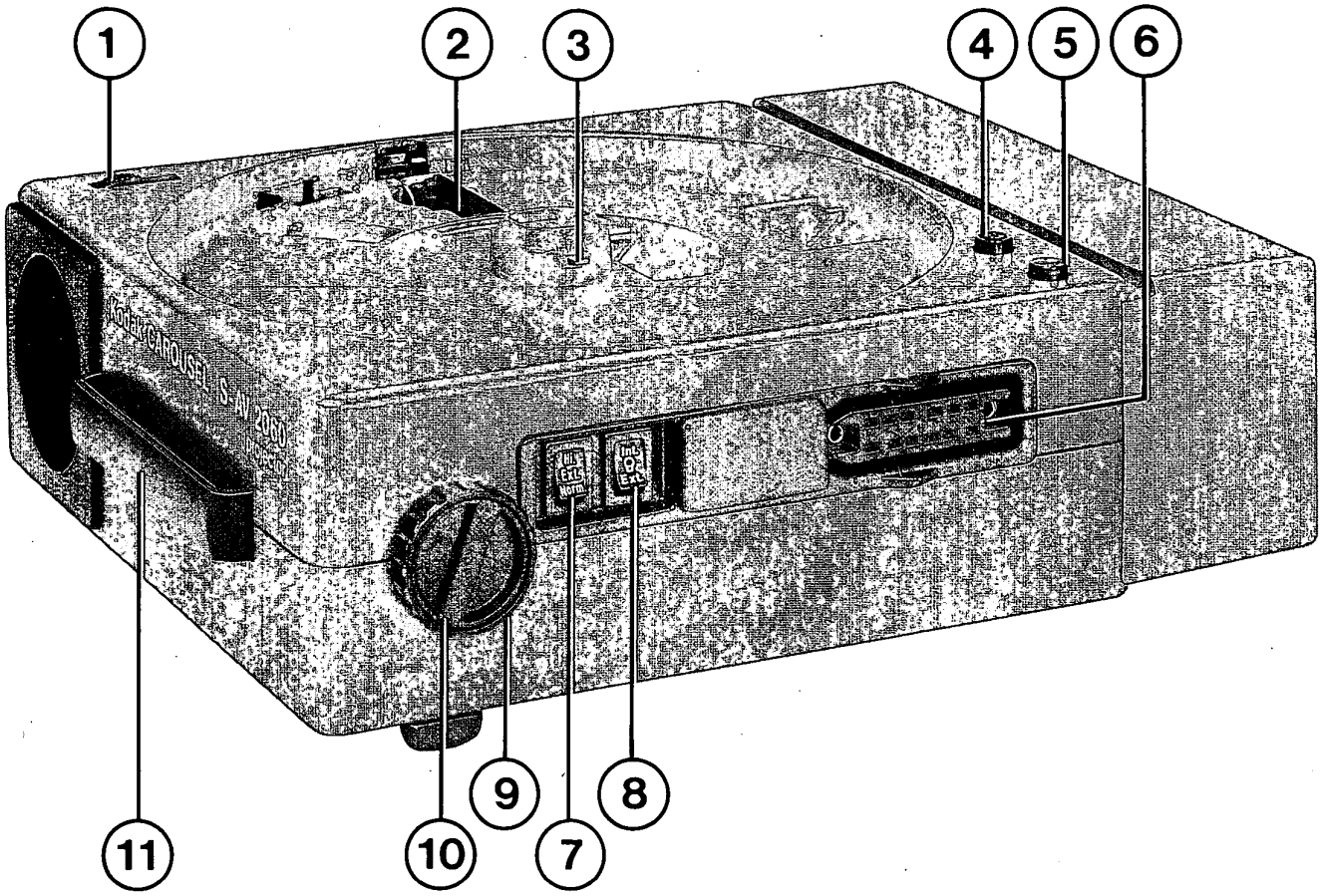
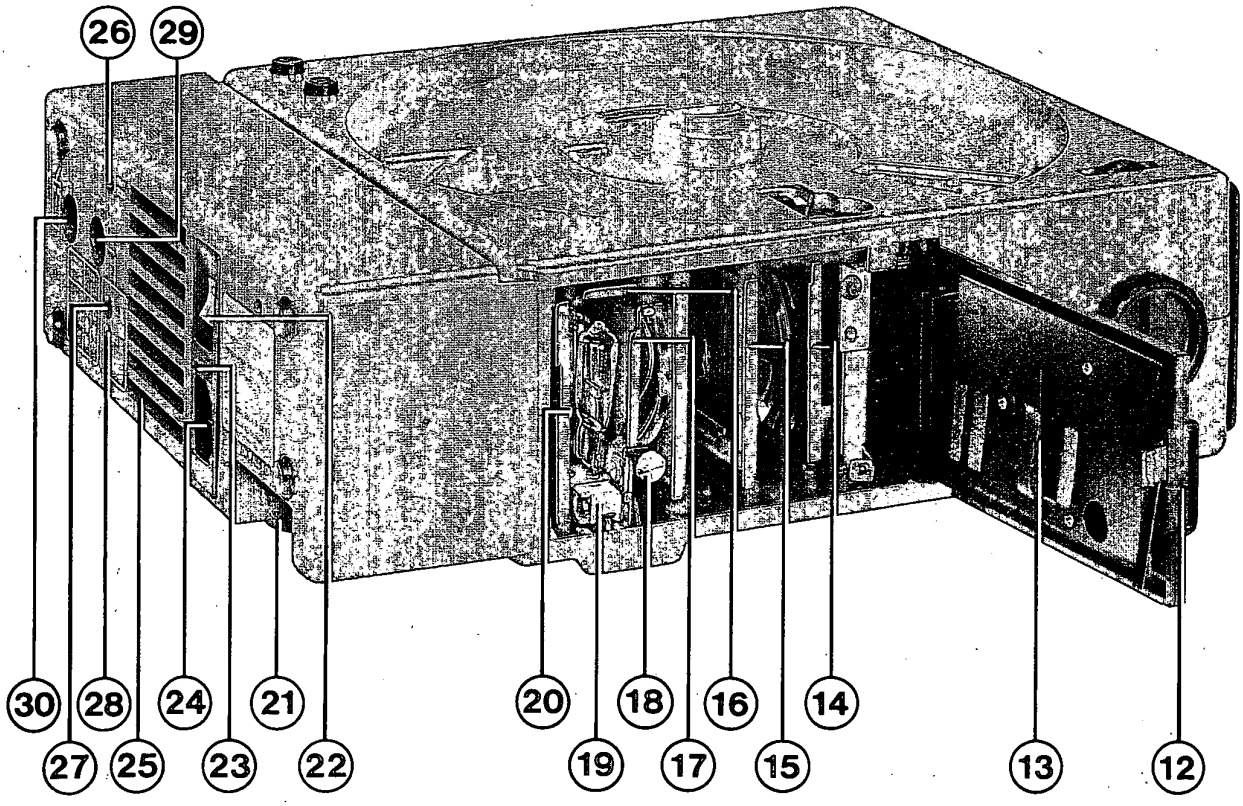






Projector features

1. *Focusing knob for rack focusing lens*
2. *Slide gate*
3. *Slide tray lock*
4. *Forward slide-change and select button*
5. *Reverse slide-change button*
6. *12-pin socket*
7. *HI/NOM lamp setting*
8. *Switch for external or internal lamp control*
9. *Height adjustment knob*
10. *Locking device for height adjuster*
11. *Retractable handle*
12. *Lamphouse door*
13. *Holder for additional spare lamp*
14. *Standard condenser lens (in position for 24 x 36 mm slides)*
15. *Heat filter*
16. *Lampholder latch*
17. *Lamp changeover lever*
18. *Lamp adjustment (horizontal)*
19. *Lamp socket with 2 lamps*
20. *Mirror adjustment (vertical)*
21. *Automatic lamp change lever*
22. *Mains switch*
23. *Fuse holder*
24. *Mains socket*
25. *Fan vent*
26. *Zero position indicator*
27. *Lamp 1 failure indicator*
28. *Lamp 2 failure indicator*
29. *5-pin socket for lamp failure remote control*
30. *6-pin socket for remote control*

Using the instruction manual

Open out the cover flap. The principal stages of operating the projector are illustrated in figures 1–8. The figures also apply to the following text.

Note:
Voltage losses at the TRIAC of external control systems will be identified by the projector's electronic as lamp failure. Therefor accessories where the lamp is controlled by a relais (e. i. KODAK S-AV 1020 Quick Change Control etc.) can't be used.

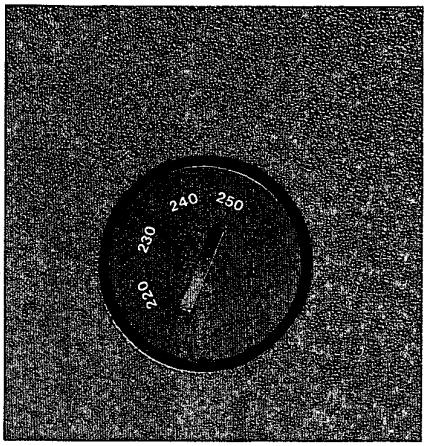
Introduction

Your KODAK CAROUSEL S-AV 2060 projector enlarges the very successful series of the KODAK 2000 projectors. Rugged machines which are well known because of their prominent features such as the unique convertible condensor system. Special motor mounting and lubrication make these projectors extremly reliable resulting in a prolonged maintenance interval.
Your KODAK CAROUSEL S-AV 2060 projector brings you some more innovative features:

- **Automatic Lamp Changer (ALC)**
  When the projection lamp fails the incorporated spare lamp is brought automatically into the projection position.
- **Faster Slide Change Time of 0,86 s (at 50 Hz only)**
- **HI/NOM Lamp Setting (increased voltage)**

Switching-on the projector

Voltage selector



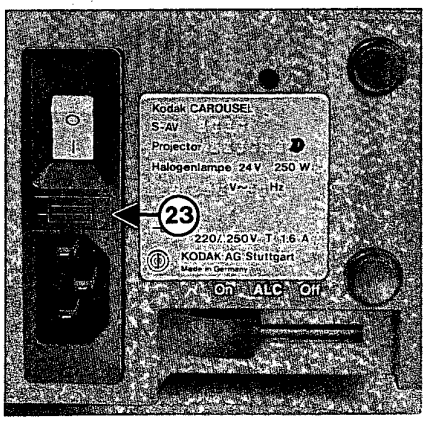
The voltage selector on the underside of the projector is set at manufacture to 220 V. Before altering the voltage selector, disconnect the mains supply and fit the correct fuse.

Note: UK users should select the 240 V setting only.

Mains fuse

220, 230, 240, 250 V: 1.6 A slow blow fuse (already installed).

The fuse must only be changed after the mains supply has been disconnected.

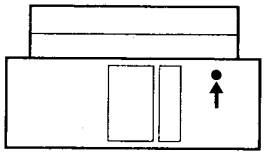


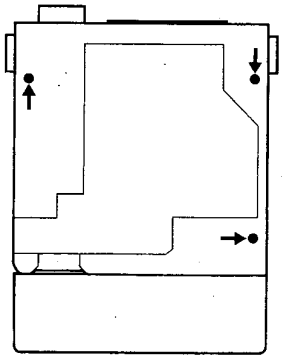
Pull out the fuse holder (23) by pressure on the small catch. Remove the fuse and insert the new one.

Setting-up the projector

Place the projector on a firm, vibration-free base. The projector may be set at an angle of up to 30° from the horizontal in any direction. Check that the projector can draw in sufficient cold air for cooling and that warm air can be freely expelled. (The projector requires 20 litres of cooling air per second.) Keep air vents on the underside, at the rear of the projector, and on the lamphouse door, free from obstructions.

Note:
For fastening the projector in a fixed projection position, fixing holes suitable for self-tapping screws can be found in the back of the projector and in the baseplate (Figure).





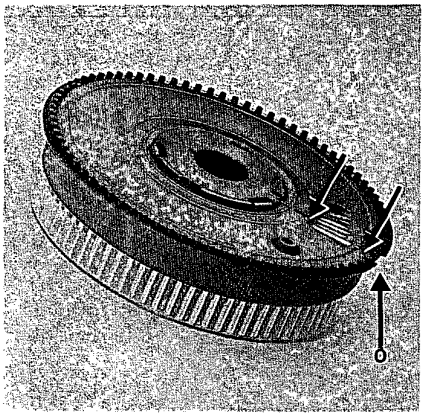
Slide mounts

The projector accepts all slides of 5 cm x 5 cm external size and up to 3.2 mm thick (complying with DIN 108). For a slide presentation it is important to use glass mounted slides throughout to avoid the need for refocusing.

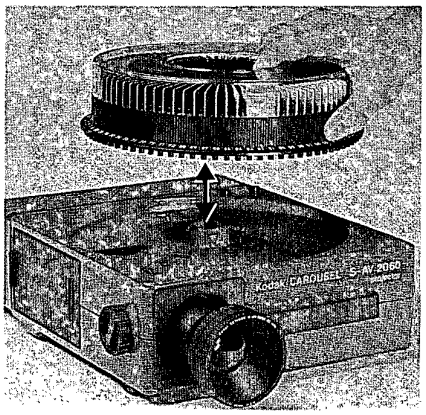
Damaged, distorted or warped slides should not be used as they may damage the transport mechanism.

Fitting the slide tray

- Turn the transparent cover on the slide tray counter-clockwise and lift it off.
- Insert the slides into the tray.
- Replace the cover and lock it.



- Check that the baseplate of the slide tray is locked in position. (When locked, the baseplate cannot be rotated.)



- Place the tray in its approximate position on the projector and rotate it until it locks in the zero position.

Lenses

The KODAK RETINAR S-AV 1000 range of lenses, the high-precision KODAK RETINAR S-AV 2000 lenses and rack focusing lenses can be used.

For technical data on KODAK RETINAR S-AV 1000 and S-AV 2000 lenses see page 68.

The table of projected picture sizes (page 69) may help you to select the optimum lens focal length for each projection condition.

Key to table:

Scale a = Projection distance in metres
Scale c = Projected picture width in metres
Scale b_1 = Picture width of slide 24x36 mm horizontal format
Scale b_2 = Picture width of slide 24x36 mm vertical format
Scale b_3 = Picture width of slide 40x40 mm

Example: A projection distance of 10 m with 24x36 mm format (scale b_1) and a 150 mm lens produces a picture width of 2.30 m.

Condenser settings

(see summary on the front cover flap, Figure 4).

As supplied, the projector is fitted with the standard condenser lens (drawn in black in the diagram) in position for **24x36 mm** slides.

For **40x40 mm** slides, the standard condenser lens is put into the adjacent right-hand slot.

When using the 200 mm and 253 mm lenses, the standard condenser lens should be replaced by the special condenser lens supplied with these lenses. The special condenser lens is also recommended when projecting 40x40 mm slides with the RETINAR 135 mm, 150 mm and 180 mm lenses, giving better overall illumination.

Note: Ensure that the curved side of the standard condenser lens or special condenser lens is always facing the lamp.

Setting the lamp control

The position of the lamp control switch (8) depends on the application.

INT = Position for single projector mode. Lamp switching is controlled inside the projector.

EXT = Position for dissolve and multiple projector modes. The lamp only comes on when an external control unit is connected via the 12-pole socket (7).

Setting the lamp voltage

The HI/NOM switch enables you to run your projector with a 2 Volt higher lamp voltage to compensate for voltage losses in the (EXT) dissolve mode.

Note: The HI/NOM switch setting is only activated when the lamp control setting is on the EXT position.

NOM-setting: The nominal voltage of 24 volts will be reduced to approx. 22 volts.
This setting should be used in normally because the lamp will be less stressed, resulting in an extended lamp life.

HI-setting: The nominal voltage will be raised to approx. 26 volts.
That means that the lamp will have at least the nominal voltage in the dissolve mode. The switch setting is recommended when you require an optimum brightness in your multivision presentation show.

Mains connection

Connect the projector to the mains with the 3.5 m mains lead supplied. Turn on the mains switch (22), the projection lamp comes on and the fan operates.

Centering the lamp

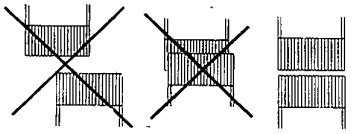
The projection lamp is adjusted at manufacture.

Only a correctly adjusted lamp yields maximum brightness and gives optimum durability.

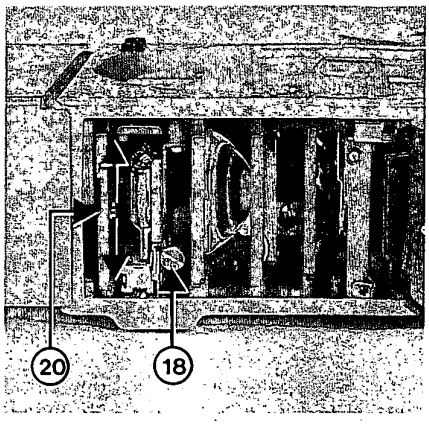
Check the adjustment again before using the projector: it may have changed in transit.

- After switching off the projector, look through the lens and check the position of the lamp filament.
- 135 mm and longer focal length lenses: Place the pinhole slide enclosed with these lenses in the slide gate. Switch on the projector, fit the lens cap over the lens and observe the lamp filament images projected on the lens cap. Centre the lamp as shown below.

To be correctly adjusted the filaments must be in line and should not overlap (right-hand diagram).

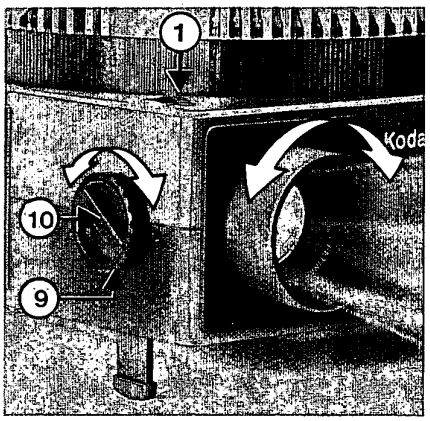


The left-hand diagrams show incorrect adjustments. To correct, proceed as follows:



- Open the lamphouse door (12).
- Turn the adjustment screw (18) for horizontal adjustment.
- Move the adjustment stud (20) up or down for vertical adjustment.

Levelling the projector



The height of the projector is adjusted by rotating the two knurled knobs (9), on the sides of the projector. They can then be locked in position by turning the inner knobs (10).

Focusing the image

Press the slide advance button (4):
The first slide will transport into the slide gate and be projected.

Focus the projected image either by turning the lens or by turning the milled wheel (1) when using rack focusing lenses.

Operation

Slide-changing

1. Using the buttons on the Projector

- Forward slide change:
  Press button (4) ⓜ.
- Reverse slide change:
  Press button (5) ⓜ.
- Individual selection:
  Press button (4) ⓜ and hold it down. The slide tray can now be turned by hand to any position. Note that after releasing the button the slide tray moves forward one position.

2. Using the KODAK CAROUSEL Remote Control

For single projector operation, connect the plug on the remote control cable to the 6-pin socket (30) on the projector. In dissolve mode the cable is plugged into the appropriate socket on the dissolve unit.

The remote control operates the following functions:
Slide change forward ⓜ.
Slide change reverse ⓜ.
Focusing.
KODAK extension cables can extend the remote control cable up to 24 m.

3. With the KODAK Interval Timer

The KODAK Interval Timer is available for automatic slide changing at preset intervals. It can be set from about 4 to 40 secounds. In single projector mode it plugs into the 6-pin socket (30) on the projector.

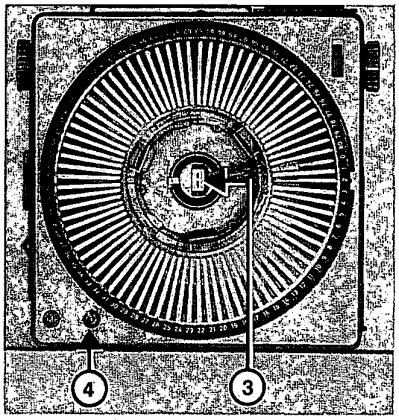
4. With the KODAK S-AV Infrared Remote Control, Model TF

This consists of a hand-held battery powered transmitter and a receiver. Forward and backward slide transport and focus can be controlled without cables up to a distance of about 30 metres from the receiver. The receiver can be attached to the projector (holder is supplied) and is plugged into the 6-pin socket (30).

Changing the slide tray

Always lift off the slide tray in the zero position. By pressing button (4) the slide tray can be turned by hand to the zero position.

The zero position indicator (26) lights up when the slide tray is in the zero position, or has been lifted off.

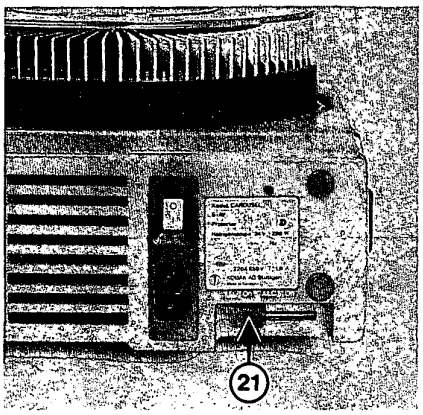


In an emergency, e.g. transport failure, the tray can be removed from the projector in any position. To do this, push aside and hold the slide tray centring latch (3) while lifting off the slide tray. Remove the slide from the slide gate.

Having removed the slide tray, turn it over and rotate the base plate until it locks in position. Otherwise the slide tray cannot be replaced on the projector.

Automatic Lamp Changer (ALC)

The KODAK CAROUSEL S-AV 2060 projector is the first professional projector by KODAK to come equipped with a fully automatic system that switches over to a backup lamp (L_2) in case the original lamp (L_1) fails.



Make sure that the lever of the automatic lamp changer (ALC) is always at the "ON" position on left the side. Only then is the projection lamp (L_1) is correctly positioned and the ALC is switched on!

Replacement is achieved within seconds. The spare lamp may not be perfectly centered, but illumination eveness should be adequate for completion of a multivision. After the slide show insert a new lamp (L_1), centre it and push the lever of the ALC back to its basic position "ON".

Lamp Failure Position Indicator

Lamp failures (L_1, L_2) will be indicated by two red LEDs (27, 28). For details see chart below:

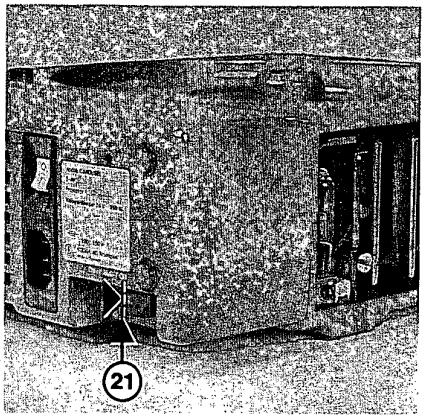
L_1	L_2	Status
lights	–	Lamp 1 failed ALC not in "ON" position
lights	lights	Lamp 1 and lamp 2 are failed
–	–	ALC in "ON" position and Lamp 1 and lamp 2 are not defective

Note: The 5-pin socket (29, Figure D, page 72) enables you to connect a remote indicating device for the two red LEDs. When running a multivision show the status of all the projector lamps could then be indicated at a central place. Lamp replacement can be done very quickly.
The connections of the 5-pin socket can be seen in figure D, page 72.

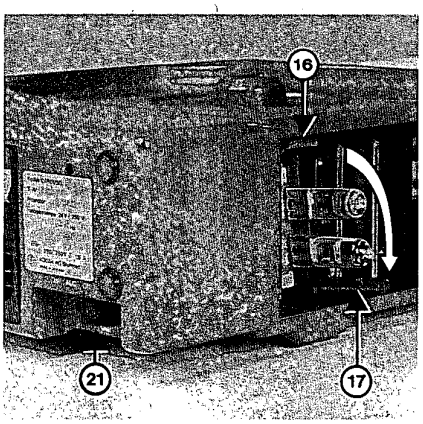
Other projection modes

Replacing a defective lamp

Unplug the mains lead before replacing a defective lamp! Let the projector cool before you touch the lamp and the part around it!



- Open the lamphouse door (12).
- Push the automatic lamp changer (21) to the right "OFF"-position.



- Swing out the lamp changeover lever (17) until the lampholder latches into position.
- Remove the defective lamp. Always handle lamps by the protective sleeve when inserting to avoid getting fingerprints on the glass. When the lamp is in place, remove the sleeve.
- Push up the lampholder latch (16) and swing back the lever (17).
- Push the automatic lamp changer (21) fully to the left into the "ON"-position.
- Centre the operating lamp (L_1).

A further spare lamp can be accommodated in a holder (13) on the inside of the lamphouse door.

Continuous projection with 81 slides

Before putting on the full slide tray, insert an additional 81st slide in the slide gate. For automatic slide changing, plug the KODAK Interval Timer into the projector's 6-pin socket (30).

Dissolve and multi-projection mode

For dissolve and multi-projection mode, the projector can be connected to external control units via the 12-pin socket (6) (see Technical data).

Note: Always use the original KODAK accessory!

- Press switch (8) to **EXT.** In this setting, the lamp is controlled by an external control unit.
- Press switch (7) to HI.

The KODAK range of accessories includes control units for dissolve and multi-projection modes:

- The KODAK S-AV Programmable Dissolve Control is a microprocessor controlled digital dissolve unit for two projectors with 12-pin standard socket. It can make AV programmes with a wide range of visual effects. The keyboard provides five dissolve rates, as well as several special effects.

  An outstanding feature of the unit is its built-in protection against loss of sound and slide synchronization.

  The dissolve control can form part of more complex multivision installations. The auxiliary connector permits other control functions to be programmed: e.g. a third projector, tape stop and restart, film projector, strobe, or room lights.

Zero-position indicator

To enable the operator to recognize immediately when all projectors in a multi-projector presentation are zeroed, the projector is fitted with a zero-position-indicator (LED) (26) which lights when the slide tray is zeroed.

Snap facility (Figure A, page 72)

The snap facility is an electromagnetically controlled shutter, built into the projector, which can be controlled via the projector's 12-pin socket. The light path from the projection lamp can be suddenly cut off and then restored, making numerous visual effects possible (see Technical Data).

Slide Change Time

The KODAK CAROUSEL S-AV 2060 projctor is the fastest KODAK projector. Slide change times of down to 0.8 seconds are feasible. Before now only American made EKTAGRAPHIC projectors could achieve speeds like that because of their higher 60 Hz frequency! Besides the advantage to speed up your shows there is the advantage that you can run multivisual slide shows programmed in USA over here without any trouble!

Servicing

Tape Control of a Single Projector

In single projector slide-tape presentations, the slide change is simply controlled by the tape recorder. The recorder must be fitted with an AV head with a built-in slide control unit or have an external slide control unit connected. (Control pulse duration: 0.18–0.6 seconds at 50 Hz.)

The connection to the projector is made via the 6-pin socket (30).

The KODAK CAROUSEL Twin Socket Model B together with the KODAK Remote Control Cable, permits remote focusing during tape recorder control.

Projection in parallel

With parallel projection, the projectors linked in parallel are simultaneously operated, either by remote control, interval timer or slide control unit. To do this, a connection cable to the twin socket and a KODAK CAROUSEL Twin Socket, Model B are required for each additional projector.

Maintenance

Dirt and dust can have adverse effects on the lubricants used in the projector and thus cause malfunctions. Therefore the projector and the slide tray should be returned to the KODAK Customer Service Department after approximately 1500 hours of operation.

Where the projector is used in very dusty locations (e.g. exhibitions) more frequent servicing may be advisable.

Cleaning of the projector optics, such as the lens, condenser and heat filter should be carried out using a soft lintfree cloth or camel hair brush.

The heat filter fits loosely into its holder to allow room for expansion as it gets warm. Take care not to bend the holder during cleaning.

Possible problems during operation

- Lamp fails to light, but the fan operates:
  - Switch for lamp control (8) in EXT-position.
  - Defective lamp.
  - ALC is switched off.
  - Lamps (L_1, L_2) defective
- Projected image insufficiently illuminated:
  - Condenser lens in wrong position.
  - Wrong condenser lens fitted.
  - Lamp not centered.
  - Lamp 1 defective and lamp 2 in position.
- Switching on the projector, the lamp fails to light and the fan does not operate:
  - Fuse blown.
  - Thermal overload cut-out has switched the projector off.
- Slide transport problem:
  - Slide damaged.
  - Magazine base plate not located in zero position.
  - Magazine base plate bent.
  - Remote control cable exceeds the permitted 24 m extension.
  - Slide transport pulse too short.

Accessories

- KODAK RETINAR S-AV 1000 range of lenses and high-precision KODAK RETINAR S-AV 2000 lenses in various focal lengths (see page 68).
- KODAK CAROUSEL S-AV 2000 Slide Tray with transparent cover. The slide trays hold up to 80 slides.
- KODAK CAROUSEL Remote Control (4 m), plus Extension Cables 4 m and 16 m.
- KODAK S-AV Infrared Remote Control, Model TF Type II, for lead-less remote control of the projector up to about 30 metres.
- KODAK CAROUSEL Interval Timer, adjustable from approximately 4 to 40 seconds.
- KODAK CAROUSEL Twin Socket, Model B, for simultameous connection of a Remote Control and a slite synchronizer. Also used for parallel connection of projectors.
- KODAK S-AV Cassette Recorder 200, mono audio recorder with built-in AV control track facility; capable of controlling slide changes on one or two projectors independently. With single projector control, automatic tape stops can be programmed. Control signals from external dissolve units can also be recorded.
- KODAK S-AV Programmable Dissolve Control for two projector tape-slide presentations with a wide range of effects.
- KODAK CAROUSEL Carrying Case.

Technical data

Mechanical system

Gravity feed slide change with pressure levers in two planes to ensure good slide alignment.

Slide format up to 40x40 mm. Maximum slide thickness 3.2 mm (DIN 108).

Universal lens mount for KODAK RETINAR Lenses and lenses with rack focus.

Slide change time: 0.86 seconds with 50 Hz operation only.

Height setting to a maximum of 6° via two locking, adjusting knobs.

The projector will also function on a slope of up to 30° in any direction.

Illumination

Two 24V/250 W halogen lamps (G 6,35-EHJ, Cat. 709 2539) fitted on a rapid lamp changer (operational lamp and spare lamp).

300 hours of average lamp life. For replacement lamp can be swung out.

Lamp control switch, internal or external depending on projection mode.

Effective light intensity of approximately 950 lumens with 24x36 mm slides and with KODAK RETINAR 93 mm lens.

Interchangeable condenser system for slide formats 24x36 mm and 40x40 mm, and for lenses with longer focal lengths.

Operation range (Figure B, page 72)

The permissible operating range of the projector depends on the ambient temperature and the mains voltage.

a = Ambient temperature (°C)
b = Mains voltage
c = Nominal voltage
d = 15% Undervoltage
e = 10% Overvoltage
f = Lamp voltage

Should the projector overheat, e.g. due to lack of cooling air or jamming of the slide transport mechanism, the built-in thermal cut-out automatically switches off the projector and then switches it on again, once it has cooled down.

Electrical system

Voltage selector for:
220 V, 230 V, 240 V, 250 V.

Frequency: 50 Hz

Total power consumption:
approximately 350 W.

Fuses:
a) Primary circuit:
220, 230, 240, 250 V: 1.6 A
slow blow.
b) Secondary circuit: 1.25 A slow blow.

The projector meets electrical safety requirements of VDE, Class 1.
Interference suppressed
(VDE 0875).
This equipment conforms with the requirements of EEC Directive 76/889 with respect to radio interference.

Control system

Push buttons for slide changing: forward (with additional possibility of manual slide selection) and reverse.

Zero-position indicator (LED) which lights when the slide tray is zeroed.

Snap facility making numerous visual effects.

12-pin standard socket (Figure C, pag. 72) with connections for dissolve units.

Socket connections:
$a_1 + a_4$ = 24 V a.c. (maximum load 750 mA rms).

$b_4 + a_5$ = 20 V pulsed d.c. (maximum load 750 mA rms).

$a_3 + a_4$ = external control.

$b_5 + b_6$ = slide tray zero reset.

a_6 = zero reset switch in gate (for zero reset signal).

$b_3 + b_4$ = forward slide change (pulse duration 0.18–0.6 seconds at 50 Hz.
Slide changing is continuous with a continuous pulse.

$b_2 + b_4$ = reverse slide change (pulse duration 0.27–0.7 seconds at 50 Hz.
With activated snap change pulse duration 0.6–0.7 seconds at 50 Hz.

$b_1 + b_4$ = snap change (pulse duration $\geqq$ 0.18 seconds).

6-pin DIN socket, Figure D, to take CAROUSEL Remote Control, KODAK Interval Timer, KODAK S-AV Infrared Remote Control, Model TF Type II, Slide Control Units, and Programmer.

Connections 2 + 3 = Forward slide change.

Connections 1 + 3 = Reverse slide change. (Pulse duration as for $b_3 + b_4$ and $b_2 + b_4$ of the 12-pole socket.)

For control purposes, connections 6 + 3 can supply approx. 20 V d.c. at a maximum current of 750 mA.

5-pin DIN socket (Figure 72) to take a remote indicator (not a KODAK accessory) for controlling the lamp failures LEDs (27, 28).

Connections:
Cable lengths of 100 m and longer are possible and will have no influence on the remote control.

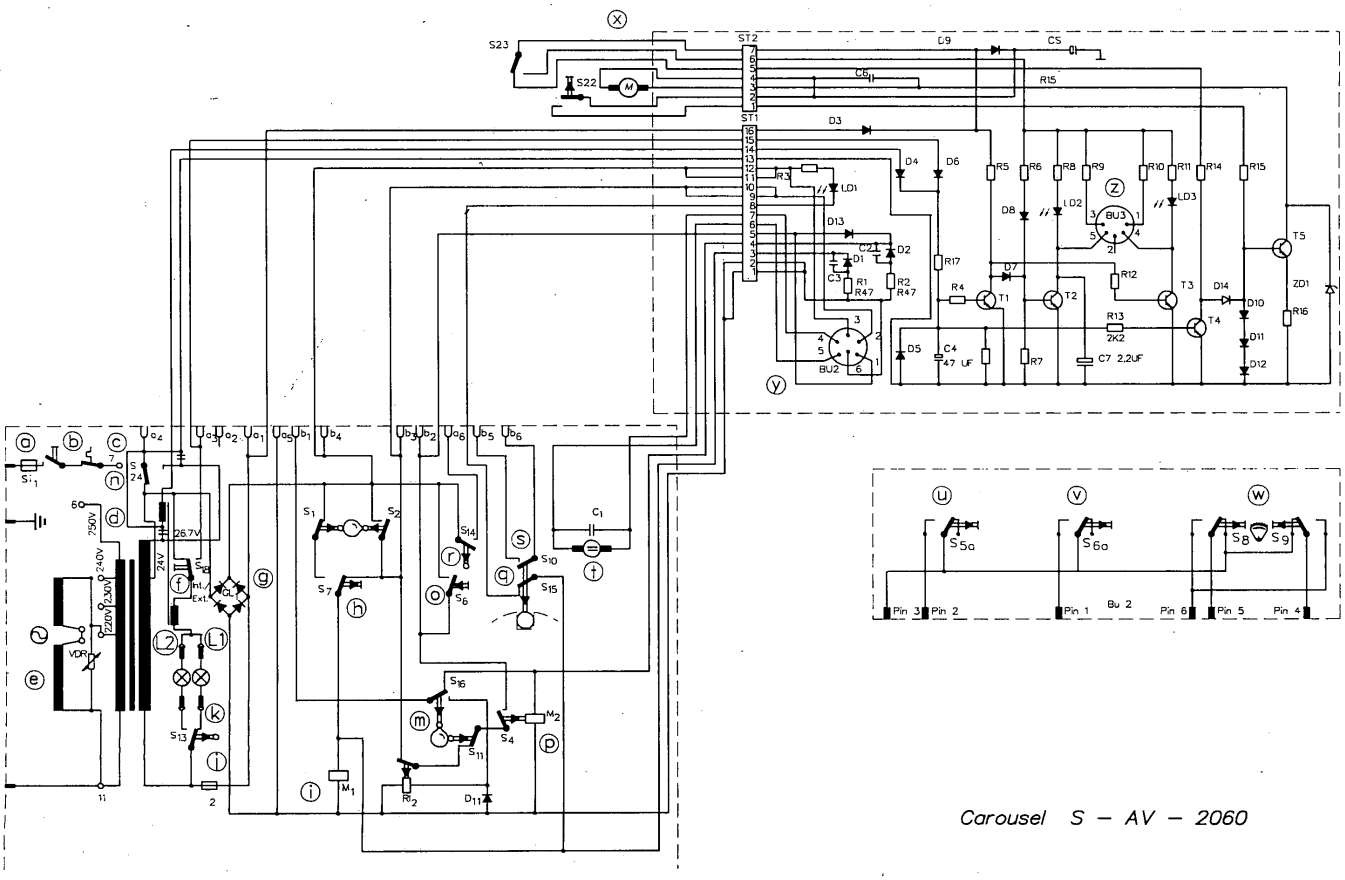
3 + 5: L_1
1 + 4: L_2

Wiring diagram of S-AV 2060 Projector see page 70.

Dimensions (Figure E, page 72)

Length: 327 mm
Width: 284 mm
Height: 101 mm
Height with slide tray: 151 mm
Weight (without slide tray):
approx. 8200 g
Weight of slide tray: 540 g

Equipment subject to minor appearance changes.



Carousel S – AV – 2060

Schaltplan

a = Netzsicherung
b = Netzschalter
c = Wärmeschutzschalter
d = Spannungswähler
e = Spaltpolmotor
f = Schalter für interne bzw. externe Lampenansteuerung
g = Gleichrichter
h = Diatransport vorwärts und freie Diawahl
i = Kupplungsmagnet
j = Sekundärsicherung
k = Schalter für Umschaltung auf Reservelampe
L_1 = Betriebslampe
L_2 = Reservelampe
m = Schalter für Tachystoskop
n = HI/NOM-Schalter
o = Diatransport rückwärts
p = Umschaltmagnet für Vorwärts-/Rückwärtstransport und Tachystoskop
q = Leuchtdiode für Nullstellung
r = Nullstellungsschalter im Fallschacht
s = Magazin-Nullstellungs-Schalter
t = Fokussiermotor
u = Fernbedienung vorwärts
v = Fernbedienung rückwärts
w = Fernbedienung Fokussierung
x = Motor Lampenwechsler
y = Fernbedienungsbuchse
z = Fernanzeigebuchse

Wiring diagramm

a = Mains fuse
b = Mains switch
c = Thermal overload cut-out
d = Voltage selector
e = Shaded pole motor
f = Switch for internal or external lamp control
g = Rectifier
h = Forward slide change and select
i = Clutch solenoid
j = Secondary fuse
k = Switch for lamp changeover
L_1 = Lamp in circuit
L_2 = Spare lamp
m = Switch for snap change
n = HI/NOM lamp setting
o = Reserve slide change
p = Reserving solenoid for forward/reverse slide change and snap change
q = LED for zero position
r = Zero reset switch in slide gate
s = Slide tray zero position switch
t = Focusing motor
u = Remote control forward
v = Remote control reverse
w = Remote control focusing
x = ALC
y = Socket for lampfailure remote control
z = Socket for remote control

Plan de câblage

a = fusible
b = commutateur marche/arrêt
c = disjoncteur thermique
d = sélecteur de tension
e = moteur asynchrone
f = commutateur pour la commande interne et externe de la lampe
g = redresseur
h = marche avant et projection d'une vue sélectionnée
i = électro-aimant d'inversion de la marche
j = fusible secondaire
k = contacteur pour la commutation de la lampe de réserve
L_1 = lampe en service
L_2 = lampe de réserve
m = contacteur du tachystoscope
n = commutateur de lampe HI/NOM
o = marche arrière
p = contacteur marche avant/marche arrière et tachystoscope
q = diode luminescente de l'indicateur de la position zéro
r = capteur de position 0 dans le couloir vertical
s = contacteur de retour à zéro du magasin
t = monteur de mise au point
u = commande à distance marche avant
v = commande à distance marche arrière
w = commande à distance mise au point
x = ALC
y = Prise pour commande à distance
z = Prise pour contrôle à distance de l'état des lampes

Esquema del cableado

a = Fusible de la red
b = Interruptor principal de encendido/apagado
c = Interruptor térmico de sobrecarga
d = Selector de voltaje
e = Motor asíncrono
f = Interruptor para el control interno o externo de la lámpara
g = Rectificador
h = Avance de la diapositiva y selección
i = Solenoide del embrague
j = Fusible secundario
k = Interruptor para el cambio de la lámpara
L_1 = Lámpara dentro del circuito
L_2 = Lámpara de repuesto
m = Interruptor del taquistoscopio
n = Ajuste de lámpara HI/NOM
o = Retroceso de la diapositiva
p = Solenoide de inversión para cambio de marcha; avance/retroceso y obturación rápida
q = Indicador LED de posición cero
r = Interruptor de puesta a cero en la ventanilla de proyección
s = Interruptor de puesta a cero en la bandeja de diapositivas
t = Motor de enfoque
u = Avance por control remoto
v = Retroceso por control remoto
w = Enfoque por control remoto
x = ALC
y = Enchufe para mando a distancia
z = Enchufe para control externa de fallo de lámpara

Schema elettrico

a = fusibile
b = interruttore

Schakelschema

a = netzekering
b = netschakelaar

Kopplingsschema

a = Nätsäkring
b = Huvudströmbrytare

Kytkinkaavio

a = pääsulake
b = pääkytkin

z = Prise pour contrôle à distance de l'état des lampes

Schema elettrico

a = fusibile
b = interruttore
c = interruttore termico di sicurezza
d = selettore di tensione
e = motore asincrono
f = interruttore per comando lampada interno/esterno
g = raddrizzatore
h = interruttore per cambio diapositiva in avanti e selezione delle diapositive
i = solenoide
j = fusibile secondario
k = interruttore per commutazione sulla lampada di riserva
L_1 = lampada di esercizio
L_2 = lampada di riserva
m = interruttore per l'otturatore rapido
n = regolazione lampada HI/NOM
o = trasporto diapositiva in avanti
p = solenoide per cambio diapositiva avanti/indietro e comando otturatore rapido
q = diodo ottico di azzeramento
r = interruttore di azzeramento nel vano di caduta
s = interruttore di azzeramento del caricatore
t = motorino per la messa a fuoco
u = comando a distanza in avanti
v = comando a distanza all'indietro
w = comando a distanza per la messa a fuoco
x = ALC
y = Presa per comando a distanza
z = Presa per controllo a distanza guasti lampade

Schakelschema

a = netzekering
b = netschakelaar
c = thermische beveiliging
d = spanningskiezer
e = kortsluitankermotor
f = schakelaar voor in- of externe lampschakeling
g = gelijkrichter
h = diatransport vooruit en keuze willekeurige dia
i = koppelmagneet
j = secundaire zekering
k = schakelaar voor omschakeling op reservelamp
L_1 = in gebruik zijnde lamp
L_2 = reservelamp
m = schakelaar voor Tachystoscoop
n = HI/NOM lampinstelling
o = diatransport achteruit
p = schakelmagneet voor transport voor/achteruit en Tachystoscoop
q = LED voor nulstand
r = nulstelschakelaar in beeldvenster
s = nulstelschakelaar magazijn
t = scherpstelmotor
u = afstandsbediening vooruit
v = afstandsbediening achteruit
w = afstandsbediening scherpstelling
x = ALC
y = Aansluitbus voor aafstandsbediening
z = Aansluitbus voor aafstandsbediening defecte lamp

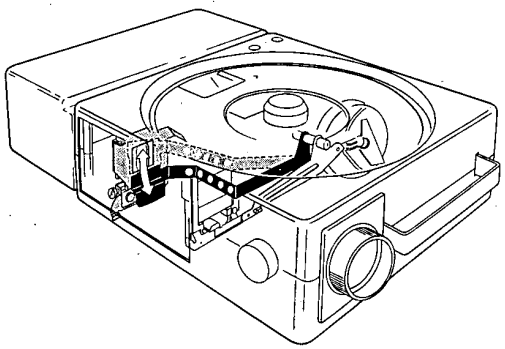
Kopplingsschema

a = Nätsäkring
b = Huvudströmbrytare
c = Termosäkring (överhettningsskydd)
d = Spänningsomkopplare
e = Spaltmotor
f = Brytare för intern resp. extern lampstyrning
g = Likriktare
h = Diatransport framåt och fritt diaval
i = Kopplingsmagnet
j = Sekundärsäkring
k = Brytare för omställning till reservlampa
L_1 = Driftslampa
L_2 = Reservlampa
m = Brytare för "snap-change"
n = HI/NOM lampinställning
o = Diatransport bakåt
p = Omkopplingsmagnet för matning framåt/bakåt och "snap-change"
q = Lysdiod för nollställning
r = Nollställningsbrytare i fallschakt
s = Nollställning av magasinet
t = Skärpeinställningsmotor
u = Fjärrkontroll framåt
v = Fjärrkontroll bakåt
w = Fjärrkontroll skärpeinställning
x = ALC
y = Uttag för fjärrkontroll
z = Uttag för fjärrkontroll vid lampfel

Kytkinkaavio

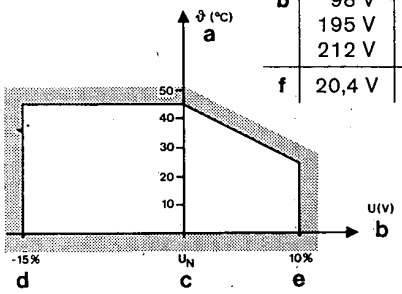
a = pääsulake
b = pääkytkin
c = ylilämpösuoja
d = jännitteen valitsin
e = suojamaadoitettu oikosulkumoottori
f = lampun ohjauskytkin
g = tasasuuntaaja
h = dian siirto eteenpäin ja valinta
i = kytkinsolenoidi
j = toisiosulake
k = lampunvaihtokytkin
L_1 = lampun virtapiiri
L_2 = varalamppu
m = pikavaihtokytkin
n = HI/NOM lampun käytto
o = suunnanvaihtosolen oidi dian siirrolle
p = eteenpäin/taaksepäin ja pikavaihto
q = nolla-asennon ilmaiseva LED
r = kuvaportissa oleva nollauskytkin
s = diakasetin nollauskytkin
t = objektiivin tarkennusmoottori
u = kauko-ohjaus eteenpäin
v = kauko-ohjaus taaksepäin
w = kauko-ohjaustarkennus
x = ALC
y = Pistoke kauko-ohajausta varten
z = Pistoke lampun kauko-ohajausta varten

A

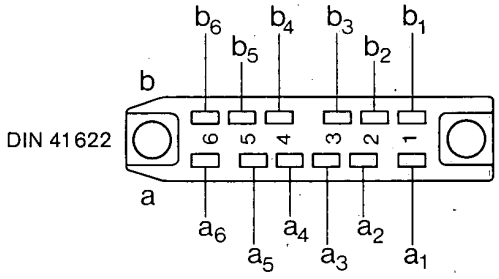


B

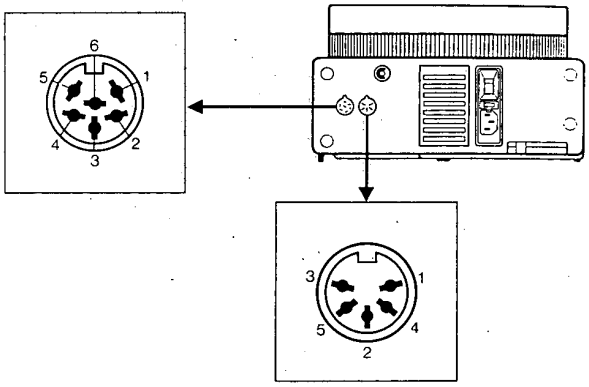
	d (−15 %)	c (U_N)	e (+10 %)
b	98 V	110/115 V	126 V
	195 V	220/230 V	253 V
	212 V	240/250 V	275 V
f	20,4 V	24 V	26,4 V



C



D



E