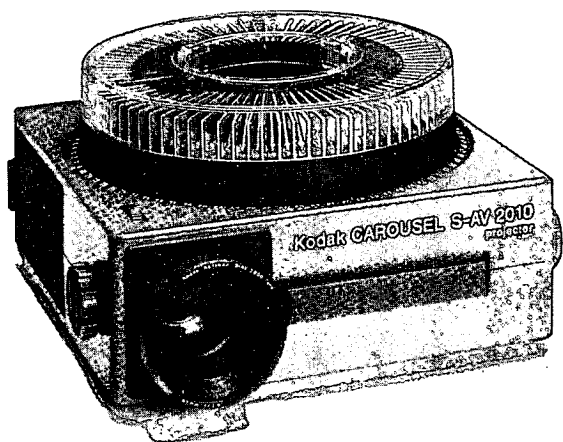


Bedienungsanleitung · Instruction Manual · Mode d'emploi  
Manual de Instrucciones · Istruzioni per l'uso · Gebruiksaanwijzing  
Bruksanvisning · Käyttöohje

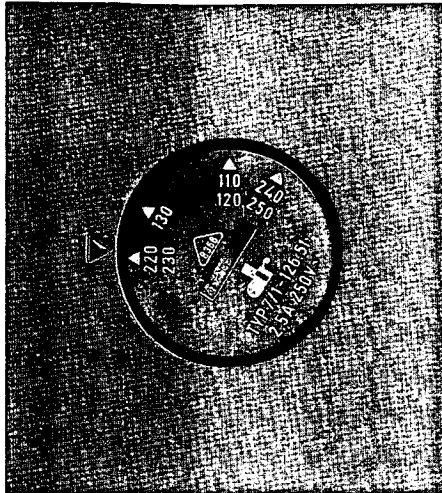


# KODAK CAROUSEL S-AV 2010 Projector



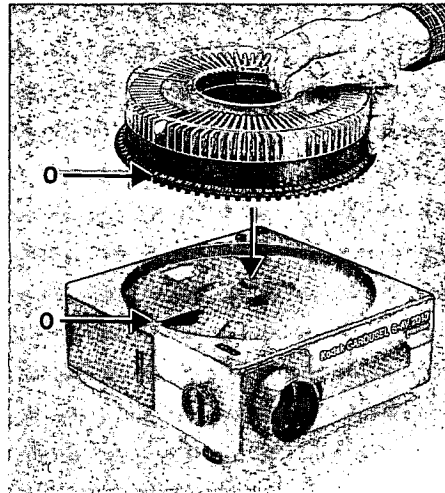
**Kurzanleitung**  
**Summary**  
**Mode d'emploi résumé**

**1.**



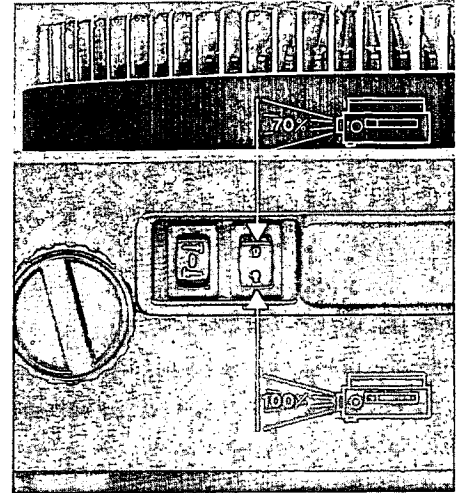
**Esquema resumido**  
**Introduzione**  
**Aanwijzingen in 't kort**

**2.**

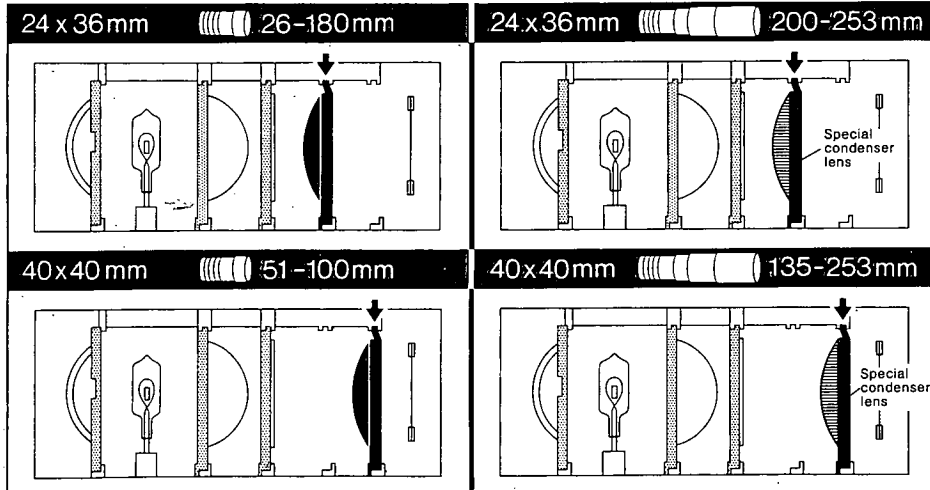


**Igångsättning**  
**Johdanto**

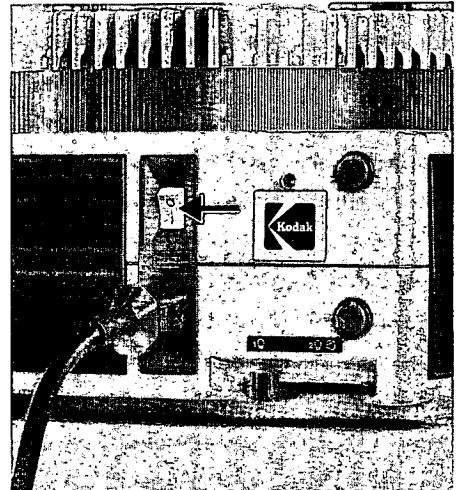
**3.**



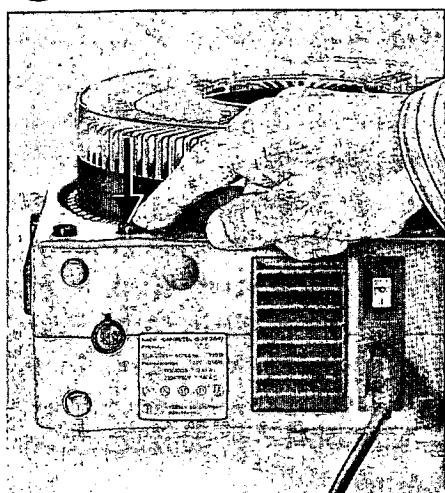
**4.**



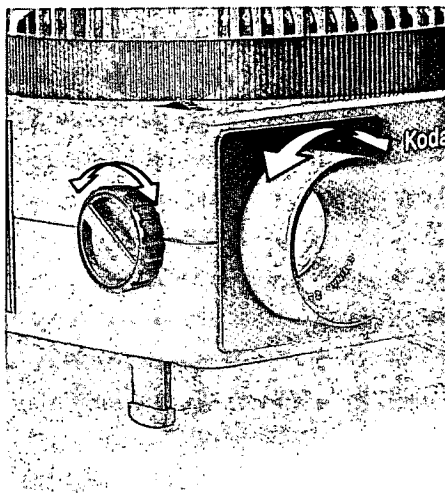
**5.**



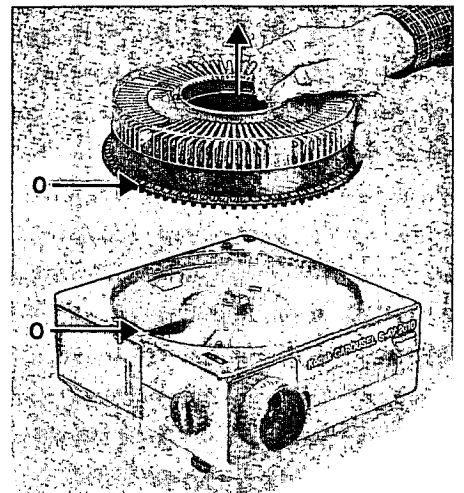
**6.**

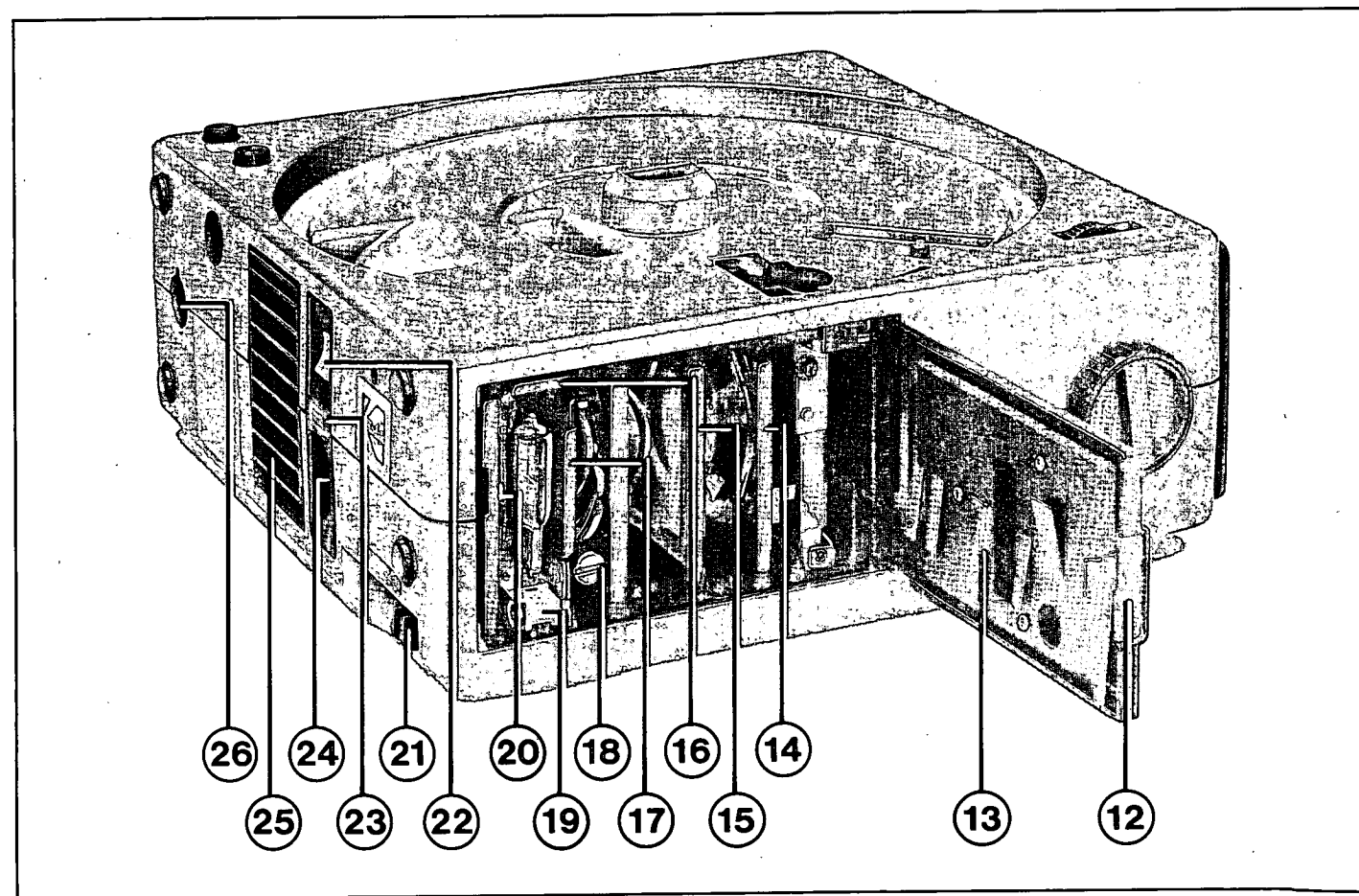
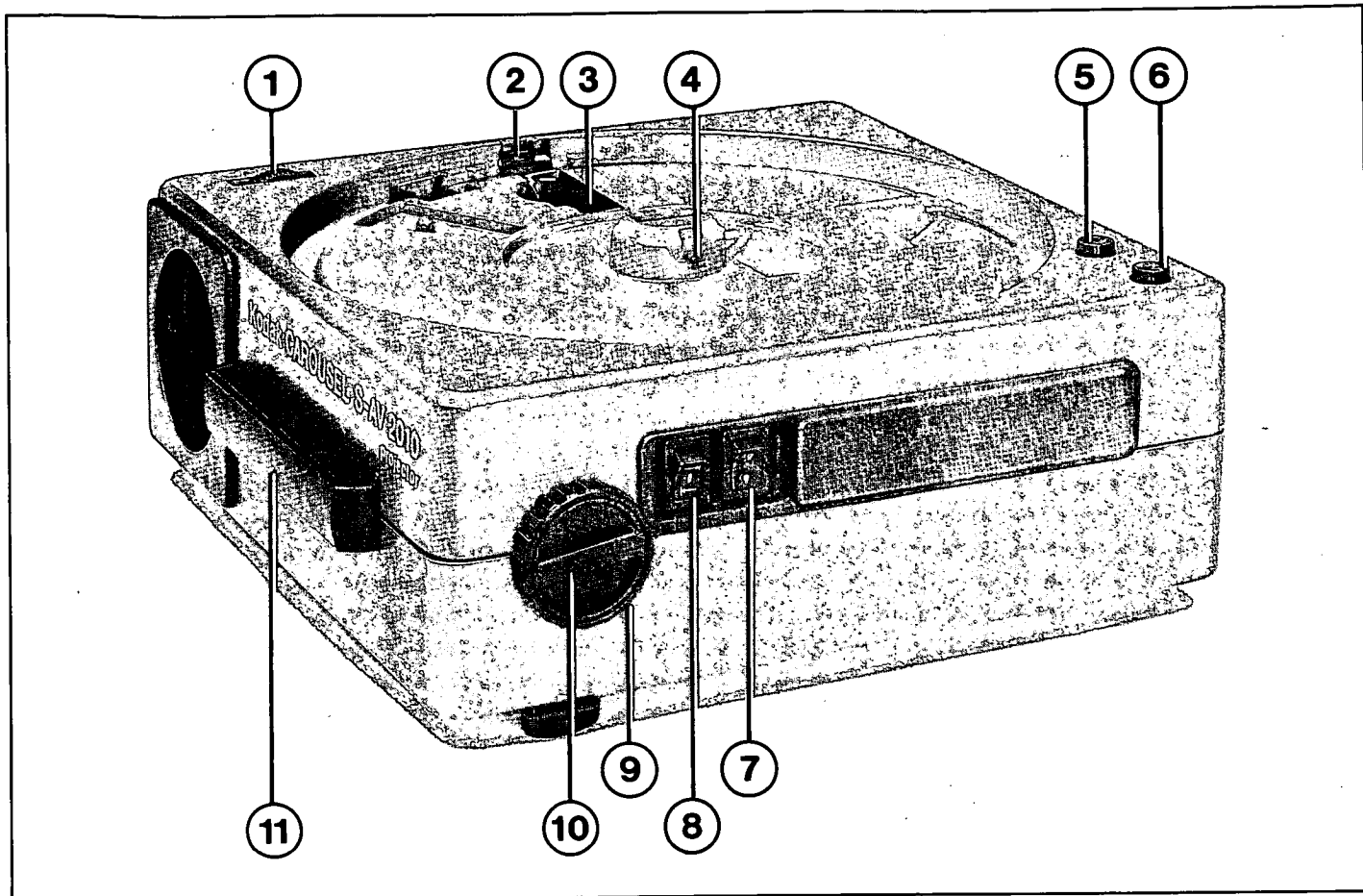


**7.**



**8.**





# Switching-on the projector

## Projector features

- 1 Focusing knob for rack focusing lens.
- 2 Sensor for zero position of slide tray.
- 3 Slide gate.
- 4 Slide tray lock.
- 5 Forward slide-change and select button.
- 6 Reverse slide-change button.
- 7 Switch for full power and economy settings.
- 8 Switch for automatic zero position (forward/reverse).
- 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 (position for 24 mm 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 Rapid lamp change lever.
- 22 Mains switch.
- 23 Fuse holder.
- 24 Mains socket.
- 25 Fan vent.
- 26 6-pole socket.

## Using the instruction manual

Open out the front and rear cover flaps. These diagrams relate to the following text. One flap can also be used as a book mark.

## Summary

The principal stages of operating the projector are illustrated on the front flap in illustrations 1-8.

### Voltage selector (Figure L)

The Voltage Selector on the underside of the projector is set to 220/230V by the manufacturer. Before altering the voltage selector, disconnect the mains supply and fit the correct fuse.

### Mains fuse (Figure M)

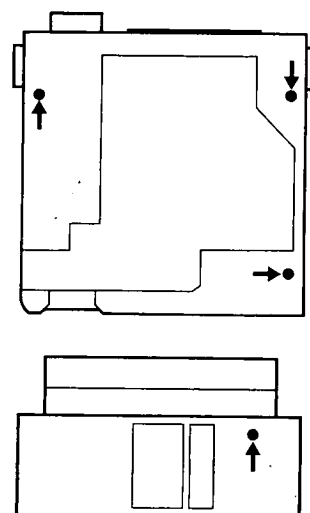
220/230V or 240/250V: 1.6A slow-blow fuse.  
110/120V or 130V: 3.15A slow-blow fuse (packed separately).

The fuse must only be changed after the mains supply has been disconnected. Press out the fuse holder (23) with pressure on the small catch. Remove the fuse and insert the new one. The projector is supplied with a fuse for 220/250V fitted.

### 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 base-plate (Figure).



## Slide mounts

The projector accepts all slides of 5 cm × 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 disrupt the transport mechanism.

## Fitting the slide tray (Figures N and O)

- 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 (Figure N). (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 (Figure O).

The 'Kodak' CAROUSEL slide tray holds up to 80 slides. The transparent cover on the slide tray prevents slides from falling out and protects them from dust.

## Lenses

The 'Kodak' RETINAR S-AV 1000 range of lenses and the high-precision 'Kodak' RETINAR S-AV 2000 Lenses are available in a range of different focal lengths. Rack focusing lenses can also be used.

Lens supports which used to be supplied with earlier long focal length RETINAR lenses are not needed.

For technical data on 'Kodak' RETINAR S-AV 1000 and S-AV 2000 lenses see page 56.

The table of projected picture sizes (page 59) may help you to select the optimum lens focal length for each projection condition.

Key to table of projected picture sizes:

- Scale a = Projection distance in metres
- Scale c = Projection picture width in metres.
- Scale  $b_1$  = Picture width of slide 24 × 36 mm horizontal format
- Scale  $b_2$  = Picture width of slide 24 × 36 mm vertical format
- Scale  $b_3$  = Picture width of slide 40 × 40 mm

Example: A projection distance of 10 m (using scale  $b_1$ ) and a 150 mm lens produces a picture width of 2.30 m

## Condenser settings

(See "Condenser settings" 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 24 × 36 mm slides.

For 40 × 40 mm slides, the standard condenser lens is pushed 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 40 × 40 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.

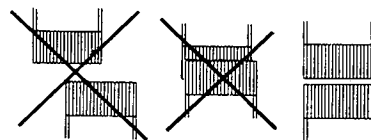
## Mains connection

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

## Centring the lamp (Figure P)

- 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). Only in this case the lamp yields maximum of brightness and gives optimum of durability.

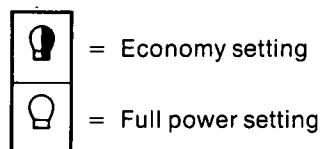


The left-hand diagrams show incorrect adjustments. To correct proceed as follows.

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

## Full power or economy settings

The projection lamp can be operated at full power or economy settings. The setting is selected by switch (7):



This facility gives the following operating characteristics: On the full power setting, the average lamp life is approximately 300 hours. On the economy setting, the lamp life is extended to approximately 1200 hours, the average light output is reduced by approximately 30%.

# Operation

## Levelling the projector (Figure Q)

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 (5): The first slide will transport into the slide gate and be projected. Focus the projected image:

- a) With RETINAR lenses, by turning the lens.
- b) With rack focusing lenses, by turning the milled wheel (1)

## Slide-changing

### 1. Using the buttons on the Projector

- Forward slide change:  
Press button (5) Ⓞ.
- Reverse slide change:  
Press button (6) Ⓞ.
- Individual selection:  
Press button (5) Ⓞ 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 (Figure R)

For single projector operation, connect the plug on the remote control cable to the 6-pole socket (26) on the projector.

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 (Figure G, page 57)

The 'Kodak' Interval Timer is available for automatic slide changing at preset intervals. It can be set from about 4 to 40 seconds. It plugs into the 6-pole socket (26) on the projector.

### 4. With the 'Kodak' S-AV Infrared Remote Control, Model TF, type II (Figure F, page 57)

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 (26).

## Changing the slide tray

Always lift off the slide tray in the zero position. By pressing button (5) the slide tray can be turned by hand to the zero position.

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 centering latch (4), 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.

## Rapid lamp changer (Figure S)

With the rapid lamp changer (21), the spare lamp (L<sub>2</sub>) can be brought into use immediately if the normal lamp (L<sub>1</sub>) fails.



- Push the rapid lamp changer (21) to the right to position 2 Ⓞ. The spare lamp is now ready to be used.

The spare lamp (L<sub>2</sub>) may not be perfectly centered, but illumination evenness should be adequate for completion of a show. After the slide show insert a new lamp (L<sub>1</sub>) and centre it.

# Other projection modes

## Replacing a defective lamp (Figures T and U)

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 rapid lamp changer (21) to the right until it stops .
- Swing out the lamp changeover lever (17) until the lampholder latches into position.
- Replace 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 rapid lamp changer (21) fully to the left into the operating position .
- Centre the operating lamp (L<sub>1</sub>). A further spare lamp can be accommodated in a holder (13) on the inside of the lamphouse door.

## Continuous projection

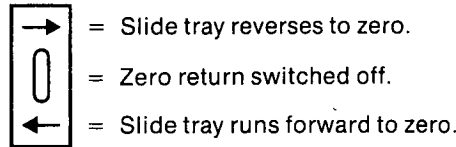
### 1. With 81 slides

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-pole socket (26).

### 2. With a part-filled slide tray

Continuous projection with a part-filled slide tray is possible with the 'Kodak' CAROUSEL S-AV 2010 Projector by using the automatic slide tray zero reset. The switch (8) selects the direction in which the slide tray returns to zero:



The zero reset is triggered by inserting the supplied triggering slide (arrow downwards) into the slide tray after the last slide, Figure V.

Zero reset is also triggered by the absence of a slide in the gate. This will, however, also cause a short flash of light to appear on the screen.

If the slide tray contains less than 40 slides, let the tray reverse to zero by pushing up switch (8). Where there are more than 40 slides, it is advisable to push down switch (8). The slide tray will then run forwards to zero.

During the slide tray return, the projector lamp is switched off.

Before connecting the CAROUSEL Remote Control, select switch (8) to its mid position (zero return switched off).

For automatic slide change, either the 'Kodak' Interval Timer or a tape-slide control unit is connected.

## Tape Control (Figure W)

In slide-tape presentations, the slide change is controlled by the tape recorder. The recorder must be fitted with an AV head with a built-in slide control unit (incorporated in the 'Kodak' S-AV Cassette Recorder 200) or have an external slide control unit connected. (Control pulse duration: 0.2 to 0.75 seconds with 50 Hz; 0.18 to 0.6 seconds with 60 Hz.)

Slide change time of the projector: 1 sec.

The connection to the projector is made via the 6-pole socket (26).

The 'Kodak' Twin Socket Adaptor 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 (Figure H, page 57).

## 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 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:
    - Defective lamp.
  - Projected image insufficiently illuminated:
    - Condenser lens in wrong position.
    - Wrong condenser lens fitted.
    - Lamp not centered.
    - Lamp changeover lever not exactly in position 1 or 2.
  - 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.
    - Base plate of slide tray not located in zero position.
    - Magazine base plate bent.
    - Remote control cable exceeds the permitted 24 m extension.
    - Slide transport pulse too short.
- 'Kodak' RETINAR S-AV 1000 range of lenses and high-precision 'Kodak' S-AV 2000 Lenses in various focal lengths (see Chart on page 56).
  - 'Kodak' CAROUSEL S-AV 2000 Slide Trays for 80 slides (Fig. J, page 57).
  - 'Kodak' CAROUSEL Remote Control (4 m) plus Extension Cables 4 m and 16 m (Fig. E, page 57).
  - 'Kodak' S-AV Infrared Remote Control Model TF, for lead-less remote control of the projector up to about 30 metres (Fig. F, page 57).
  - 'Kodak' CAROUSEL Twin Socket, Model B for simultaneous connection of a Remote Control and a slide synchronizer. Also used for parallel connection of projectors, where the Connection Cable, Model B and one Twin Socket is required per projector (Fig. H, Page 57).
  - 'Kodak' CAROUSEL Interval Timer, adjustable from approximately 4 to 40 seconds (Fig. G, page 57).
  - '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 (Figure K, page 57).
  - 'Kodak' CAROUSEL Carrying Case (Figure I, page 57).



# Technical data

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

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

Universal lens carrier for 'Kodak' RETINAR Lenses and rack focusing lenses.

Slide change time: 1 second with 50 Hz operation; 0.9 seconds with 60 Hz operation.

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

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

## Illumination

Two 24 V/250 W halogen lamps fitted on a rapid lamp changer (operational lamp and spare lamp).

Optional full power or economy setting for the projection lamp.

Effective light intensity of approximately 950 lumens with 24 × 36 mm slides and with KODAK RETINAR 93 mm lens.

Interchangeable condenser system for slide formats 24 mm × 36 mm and 40 mm × 40 mm, and for lenses with longer focal lengths.

## Operating range (Figure A, page 55)

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:  
110/120 V; 130 V; 220/230 V; 240/250 V  
Frequency: 50/60 Hz.

Total power consumption: approximately 320 W.

Fuses:

- a) Primary circuit  
for 220/230 V or 240/250 V: 1.6 A slow-blow.  
for 110/120 V and 130 V: 3.15 A slow-blow.
- b) Secondary circuit: 1.25 A slow-blow.

The projector meets electrical safety requirements of VDE, Class 1. Interference suppressed (FN 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.

Built-in automatic zero reset with three-position selector switch: forward, reverse and built-in zero reset switched off.

6-pole DIN socket, Figure B, page 55, to take CAROUSEL Remote Control, 'Kodak' S-AV Infrared Remote Control Model TF, 'Kodak' Interval Timer and Slide Control Units.

Connections 2 + 3 = Forward slide change (pulse duration 0.2 to 0.75 seconds with 50 Hz, and 0.18 to 0.65 seconds with 60 Hz).

Slide changing continues for the duration of the pulse.

Connections 1 + 3 = Reverse slide change (pulse duration 0.3 to 0.85 seconds with 50 Hz, and 0.27 to 0.7 seconds with 60 Hz).

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

**Wiring diagram** See page 52.

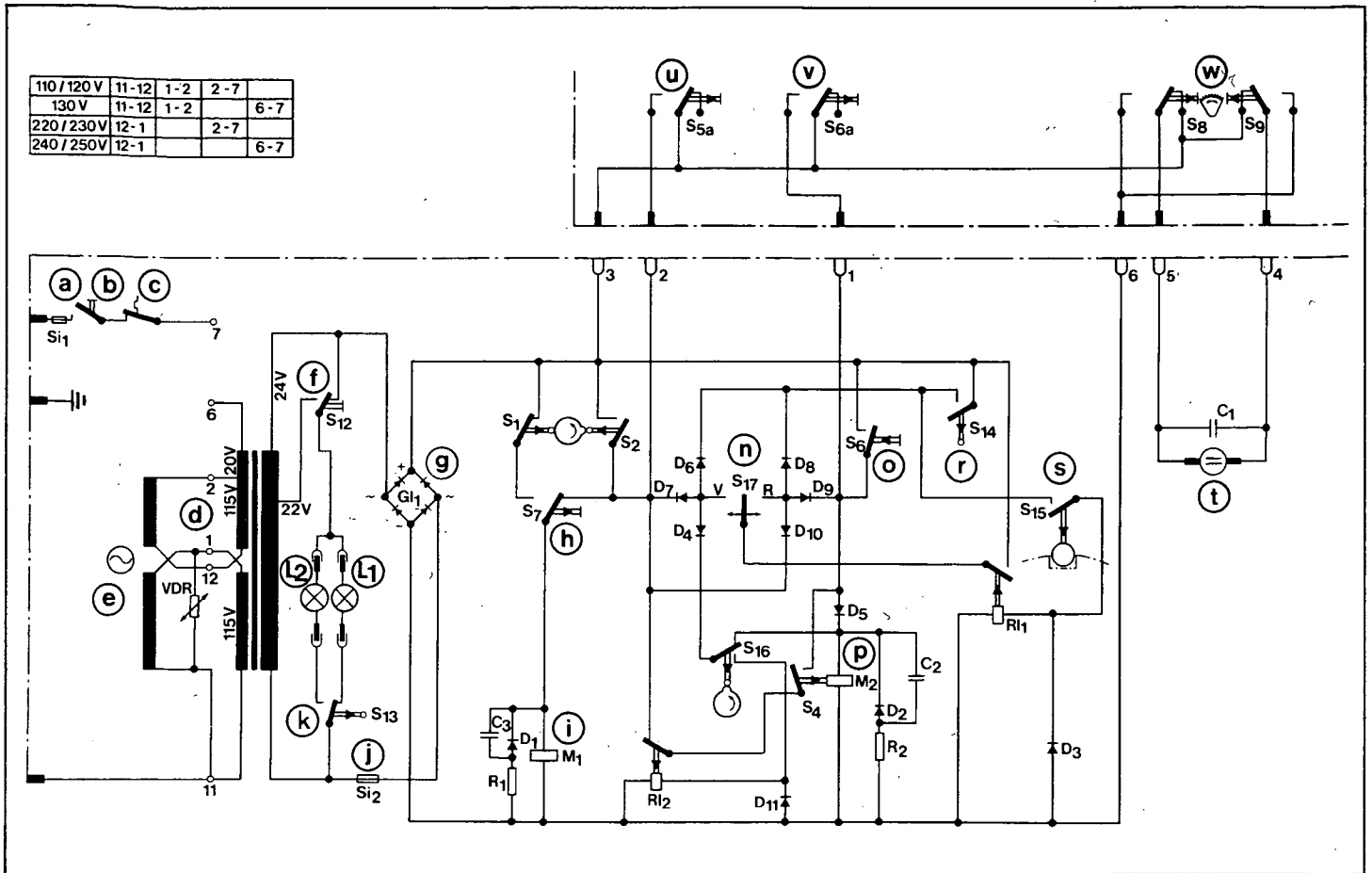
**Dimensions** (Figure C, page 55).

Length: 262 mm  
Width: 284 mm  
Height: 101 mm  
Height with slide tray: 151 mm  
Weight (without slide tray): approx. 7600 g  
Weight of slide tray: 540 g

Equipment subject to minor appearance changes.

'Kodak', CAROUSEL, and RETINAR are trade marks.

110 / 120 V	11-12	1-2	2-7	
130 V	11-12	1-2		6-7
220 / 230 V	12-1		2-7	
240 / 250 V	12-1			6-7



### Schaltplan

- a = Netzsicherung
- b = Netzschalter
- c = Wärmeschutzschalter
- d = Spannungswähler
- e = Spaltpolmotor
- f = Schalter für Standard- oder Sparschaltung
- g = Gleichrichter
- h = Diatransport vorwärts und freie Diawahl
- i = Kupplungsmagnet
- j = Sekundärsicherung
- k = Schalter für Umschaltung auf Reservelampe
- L<sub>1</sub> = Betriebslampe
- L<sub>2</sub> = Reservelampe
- n = Schalter für Richtungswahl der Nullstellung
- o = Diatransport rückwärts
- p = Umschaltmagnet für Vorwärts-/Rückwärtstransport
- r = Nullstellungsschalter im Fallschacht
- s = Magazin-Nullstellungs-Schalter
- t = Fokussiermotor
- u = Fernbedienung vorwärts
- v = Fernbedienung rückwärts
- w = Fernbedienung Fokussierung

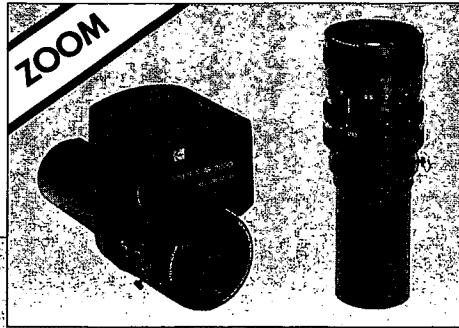
### Wiring diagram

- a = Mains fuse
- b = Mains switch
- c = Thermal overload cut-out
- d = Voltage selector
- e = Shaded pole motor
- f = Switch for full power or economy setting
- g = Rectifier
- h = Forward slide change and select
- i = Clutch solenoid
- j = Secondary fuse
- k = Switch for lamp changeover
- L<sub>1</sub> = Lamp in circuit
- L<sub>2</sub> = Spare lamp
- n = Switch for zero reset control (forward/reverse)
- o = Reverse slide change
- p = Reversing solenoid for forward/reverse slide change
- 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

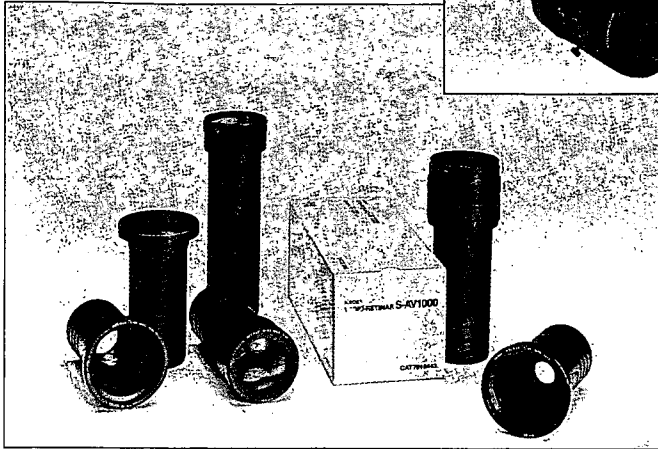
### Plan de câblage

- a = fusible
- b = commutateur marche/arrêt
- c = disjoncteur thermique
- d = sélecteur de tension
- e = moteur asynchrone
- f = commutateur réglage normal/ réglage économique
- 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<sub>1</sub> = lampe en service
- L<sub>2</sub> = lampe de réserve
- n = Sélecteur de sens du retour à zéro (marche avant/marche arrière)
- o = marche arrière
- p = contacteur marche avant/ marche arrière
- 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

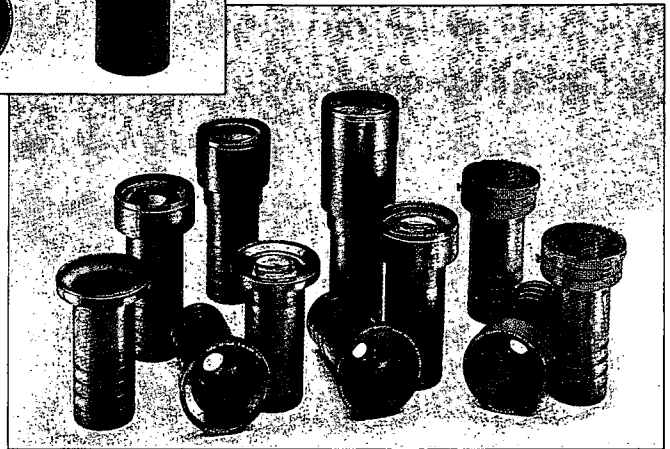
# KODAK RETINAR S-AV 1000 and S-AV 2000 Projection Lenses



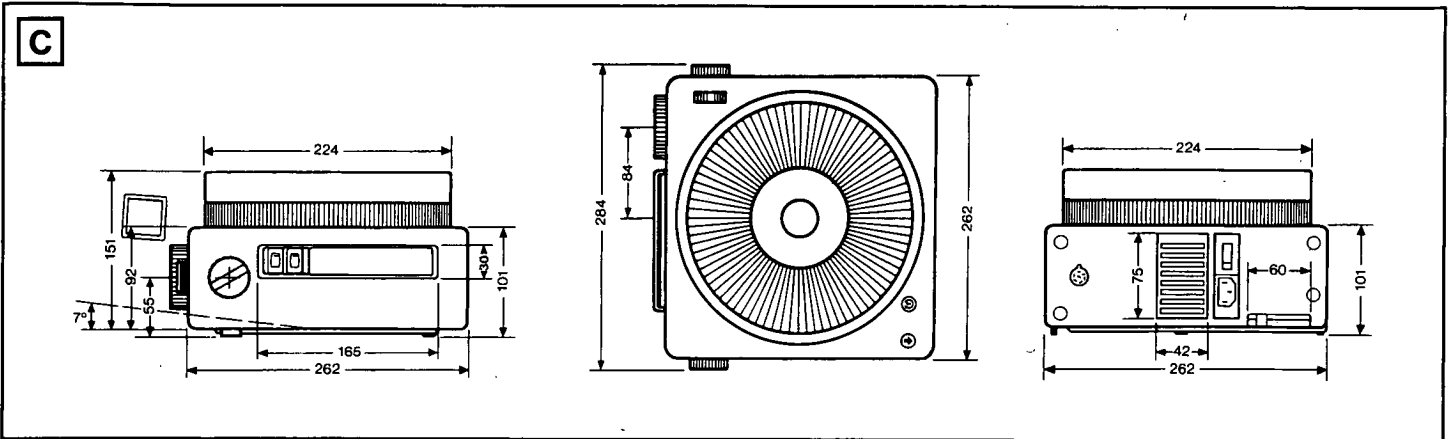
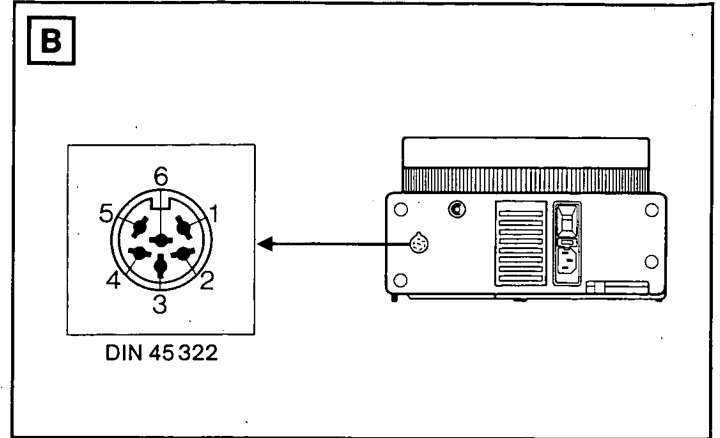
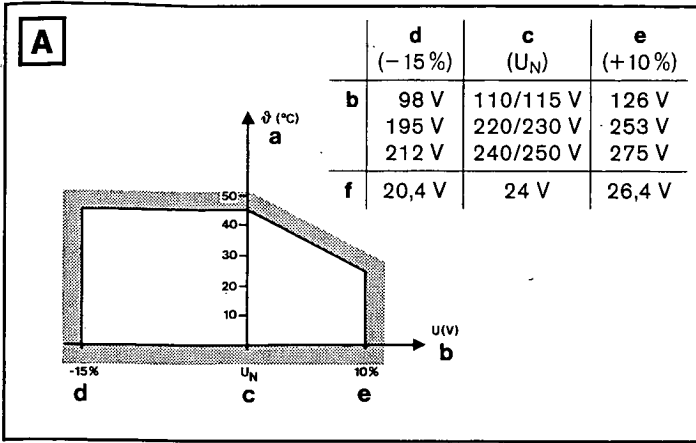
KODAK VARIO-RETINAR  
S-AV 2000 Zoom Lenses 85-210 mm



KODAK RETINAR S-AV 1000 Lenses



KODAK RETINAR S-AV 2000 Lenses



# KODAK RETINAR S-AV 1000 und S-AV 2000 Objektive

## KODAK RETINAR S-AV 1000 and S-AV 2000 Lenses

KODAK RETINAR S-AV 1000 Lenses		55 mm	85 mm	100 mm	150 mm*	180 mm*	75-120 mm	
Vergütung Coating	Couche Revestimiento	●	●	●	●	●	●	
24x36 cm	40x40 mm							
Länge Length	Longueur Longitud	125 mm	125 mm	125 mm	156 mm	190 mm	148 mm	
Front-Ø Front tube Ø	Tube Ø devant Tubo delantero Ø	73 mm	73 mm	73 mm	63 mm	63 mm	61 mm	
Gewicht Weight	Poids Peso	174 g	108 g	108 g	206 g	205 g	239 g	
Lichtstärke Aperture	Aperture Abertura	f/2.8	f/2.8	f/2.8	f/3.5	f/3.5	f/3.5	
Anzahl Linsen Elements	Elements Número de lentes	5	3	3	3	3	7	
Bildwinkel Field angle	Champ Angulo de proyección	40° 50°	27° 34°	23° 29°	16° 20°	13° 17°	32°-20°	
KODAK RETINAR S-AV 2000 Lenses		26 mm (26.4 ± 0.3)	36 mm (35.4 ± 0.3)	51 mm (50.6 ± 0.5)	72 mm (72.5 ± 0.5)	93 mm (92.8 ± 0.5)	135 mm* (134.4 ± 0.7)	150 mm* (149.8 ± 0.7)
Vergütung Coating	Couche Revestimiento	MC	MC	MC	MC	MC	MC	MC
24x36 cm	40x40 mm							
Länge Length	Longueur Longitud	151 mm	125 mm	125 mm	127 mm	125 mm	125 mm	146 mm
Front-Ø Front tube Ø	Tube Ø devant Tubo delantero Ø	73 mm	78 mm	78 mm	78 mm	78 mm	78 mm	73 mm
Gewicht Weight	Poids Peso	721 g	457 g	389 g	386 g	320 g	437 g	605 g
Lichtstärke Aperture	Aperture Abertura	f/2.8	f/2.8	f/2.8	f/2.4	f/2.5	f/2.8	f/2.8
Anzahl Linsen Elements	Elements Número de lentes	9	7	6	5	5	5	5
Bildwinkel Field angle	Champ Angulo de proyección	78°	62°	45° 55°	32° 40°	25° 32°	17° 22°	15° 20°
		200 mm** (200.5 ± 1)	253 mm** (252.5 ± 1)	45 mm PC (45.2 ± 0.5)	60 mm PC (59.8 ± 0.5)	93 mm PC (93.1 ± 0.5)	85-210 mm** ZOOM	
Vergütung Coating	Couche Revestimiento	MC	MC	MC	MC	MC	MC	
24x36 cm	40x40 mm							
Länge Length	Longueur Longitud	164 mm	214 mm	142 mm	138 mm	138 mm	176 mm	
Front-Ø Front tube Ø	Tube Ø devant Tubo delantero Ø	73 mm	73 mm	72.5 mm	72.5 mm	72.5 mm	68 mm	
Gewicht Weight	Poids Peso	618 g	870 g	447 g	359 g	389 g	769 g (1320 g)	
Lichtstärke Aperture	Aperture Abertura	f/3.5	f/4	f/2.8	f/2.8	f/2.8	f/3.9	
Anzahl Linsen Elements	Elements Número de lentes	5	5	6	6	5	15	
Bildwinkel Field angle	Champ Angulo de proyección	11° 15°	9° 12°	51°	39°	25°	27°-11°	

\* Für die Projektion von 40x40 mm Dias empfehlen wir den Spezialkondensator (CAT 706 0833) einzusetzen.

\*\* Spezialkondensator grundsätzlich notwendig (liegt dem Objektiv bei).

\* For projection of 40x40 mm slides the use of the special condenser lens (CAT 706 0833) is recommended.

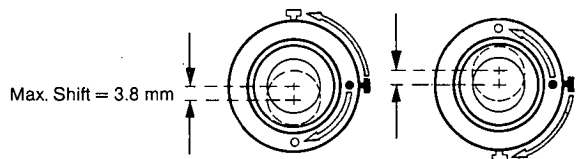
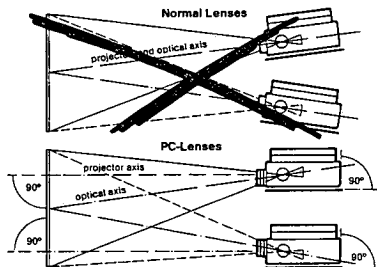
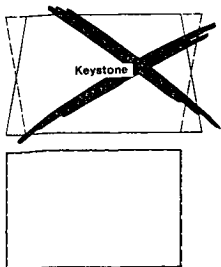
\*\* Use of the special condenser lens necessary and enclosed with the lens.

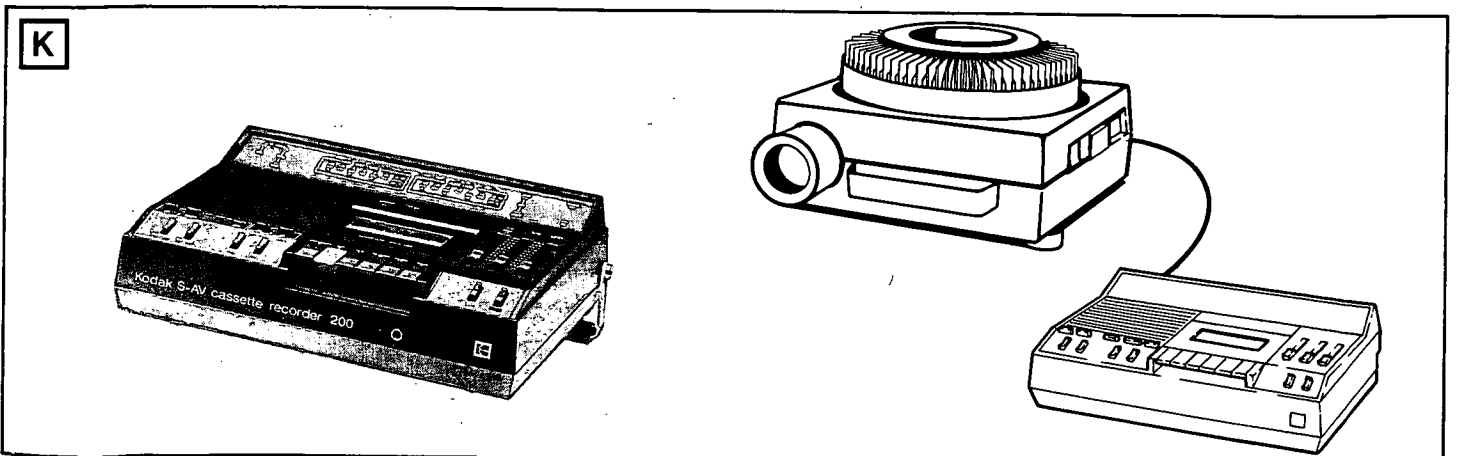
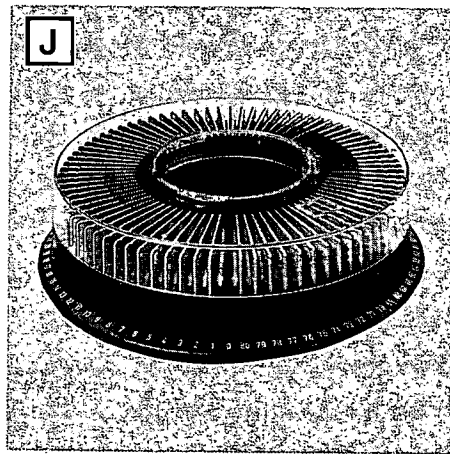
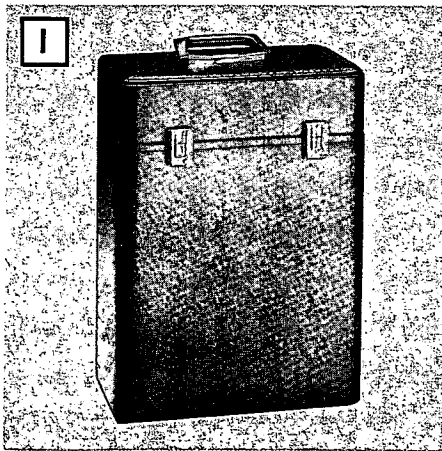
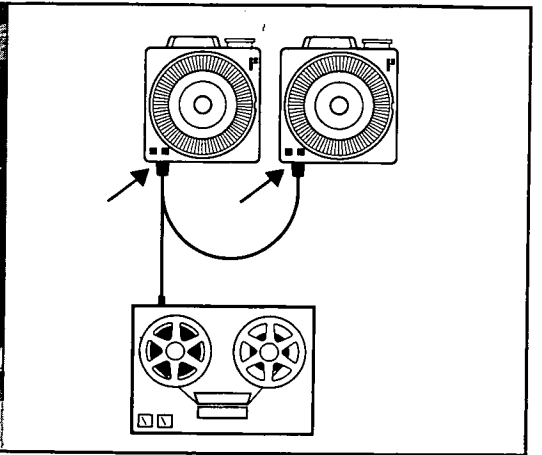
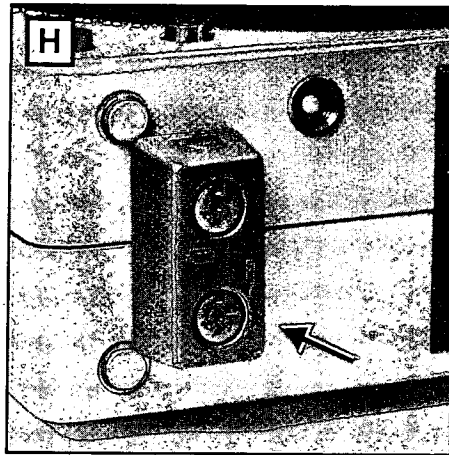
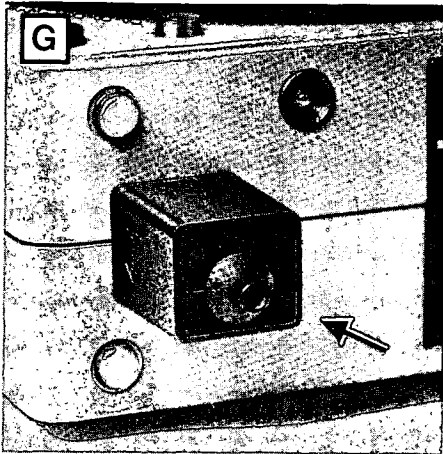
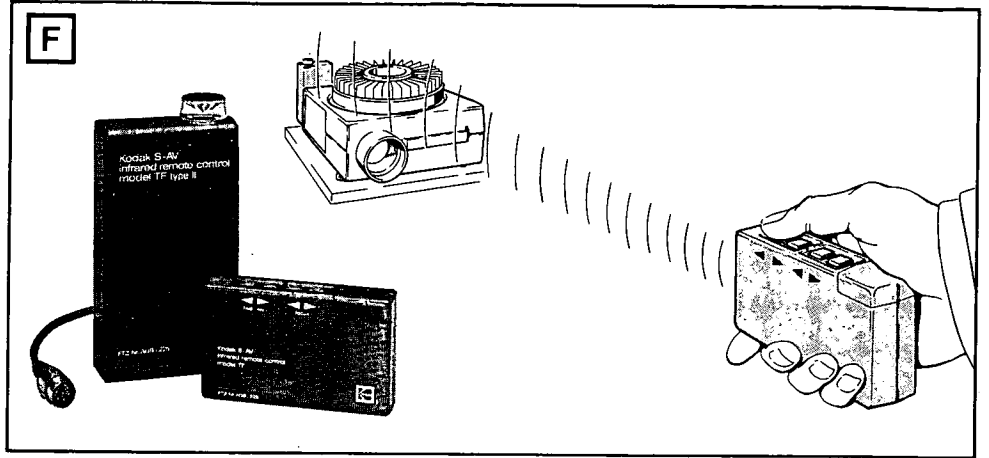
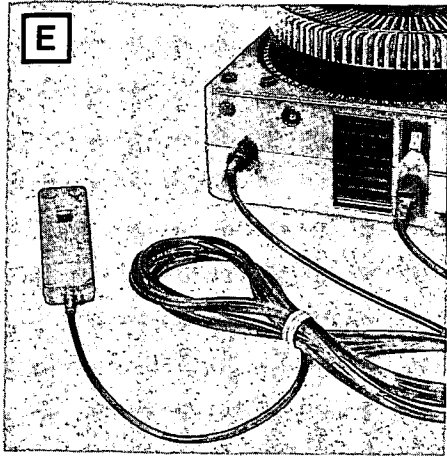
\* Pour la projection de dispositifs 40x40 mm il est recommandé d'utiliser un condensateur KODAK CAROUSEL (CAT 706 0833).

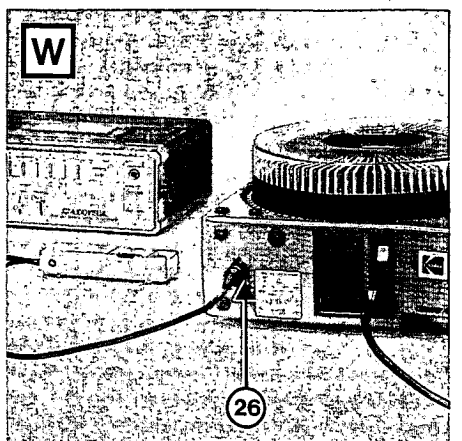
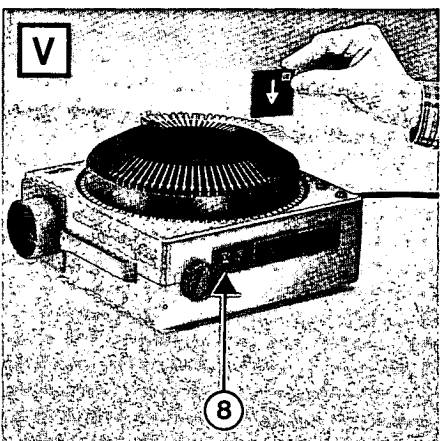
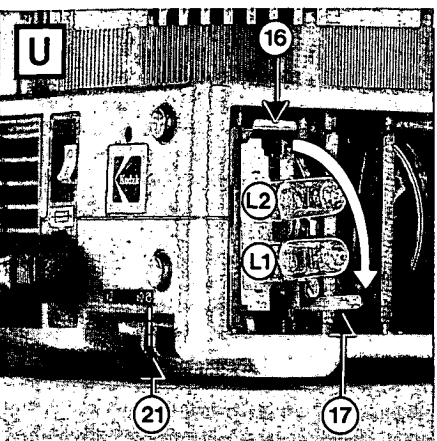
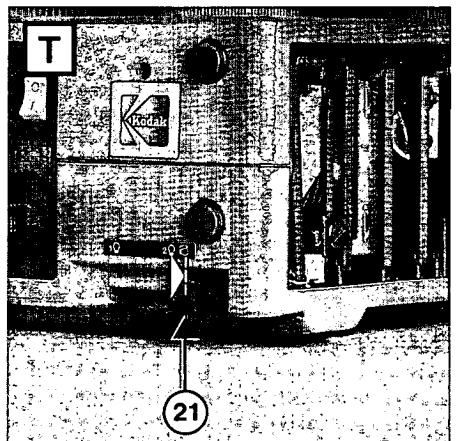
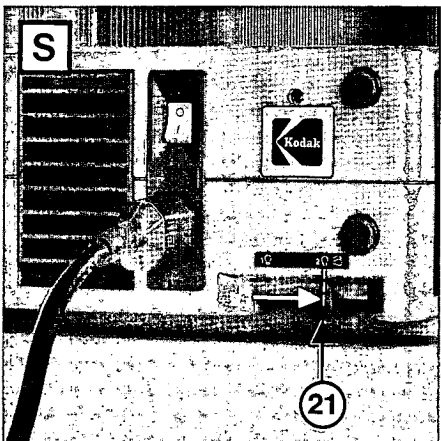
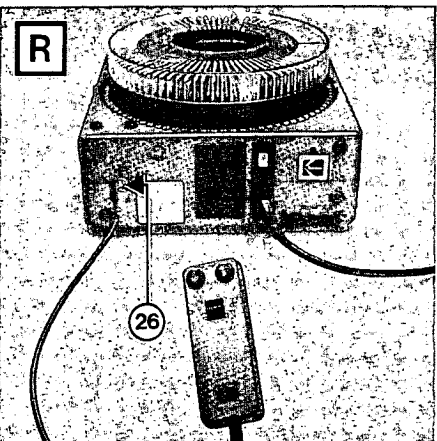
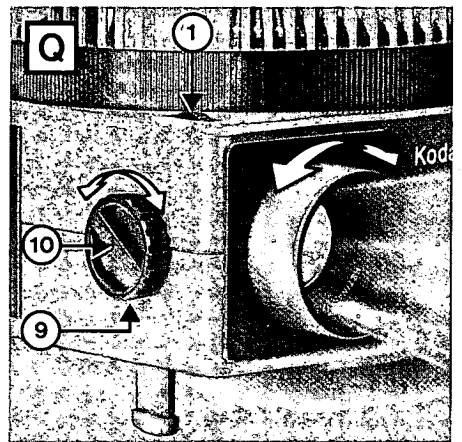
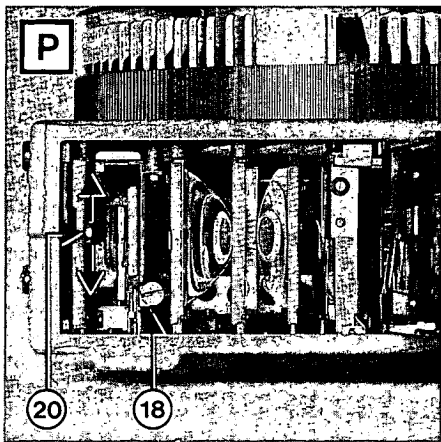
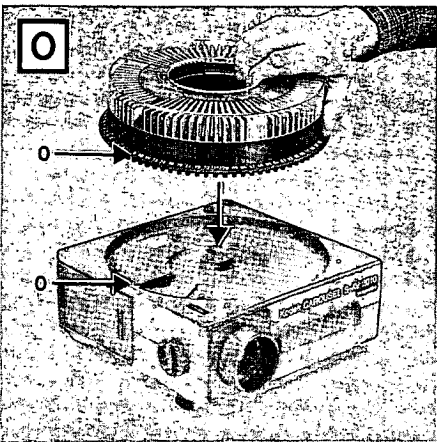
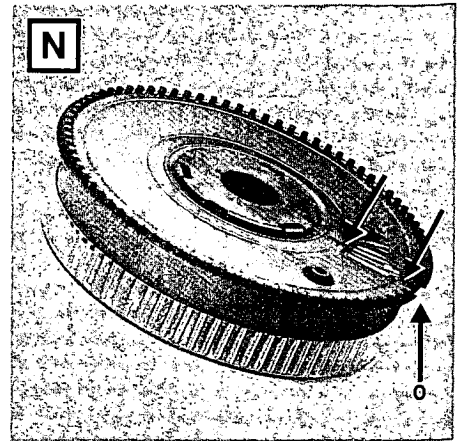
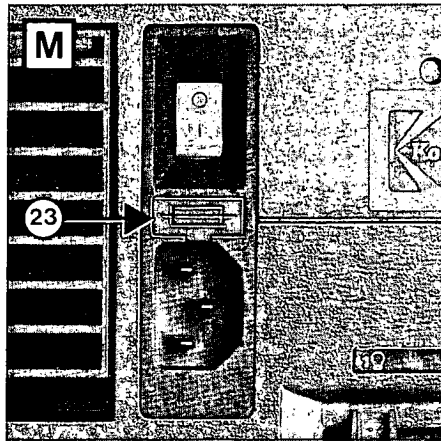
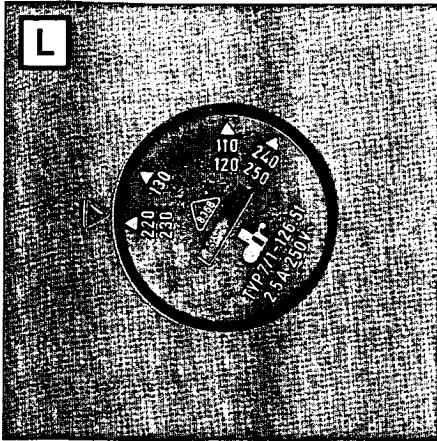
\*\* Il est nécessaire d'utiliser le condensateur fourni avec l'objectif.

\* Para la proyección de diapositivas de 40x40 mm se recomienda el uso de la lente condensadora especial (No. CAT 706 0833).

\*\* Es necesario el uso de la lente condensadora especial que se incluye con el objetivo.

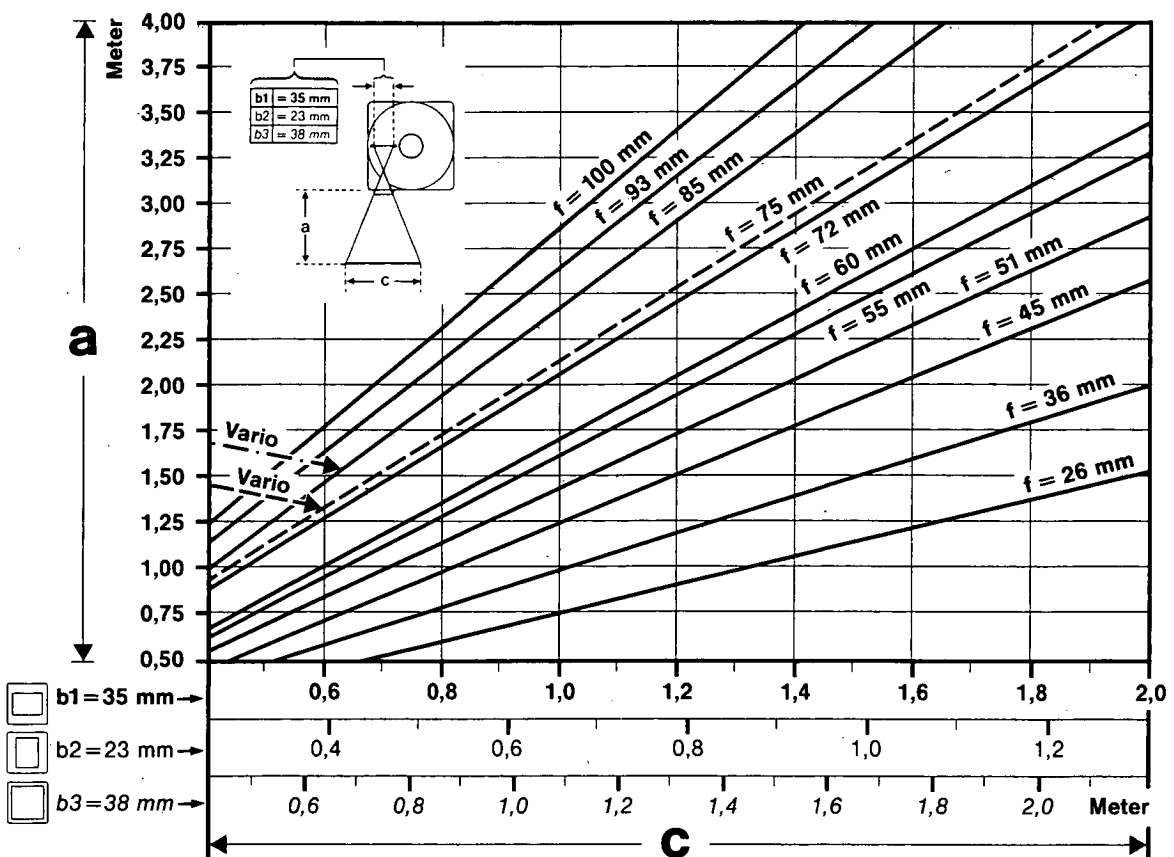
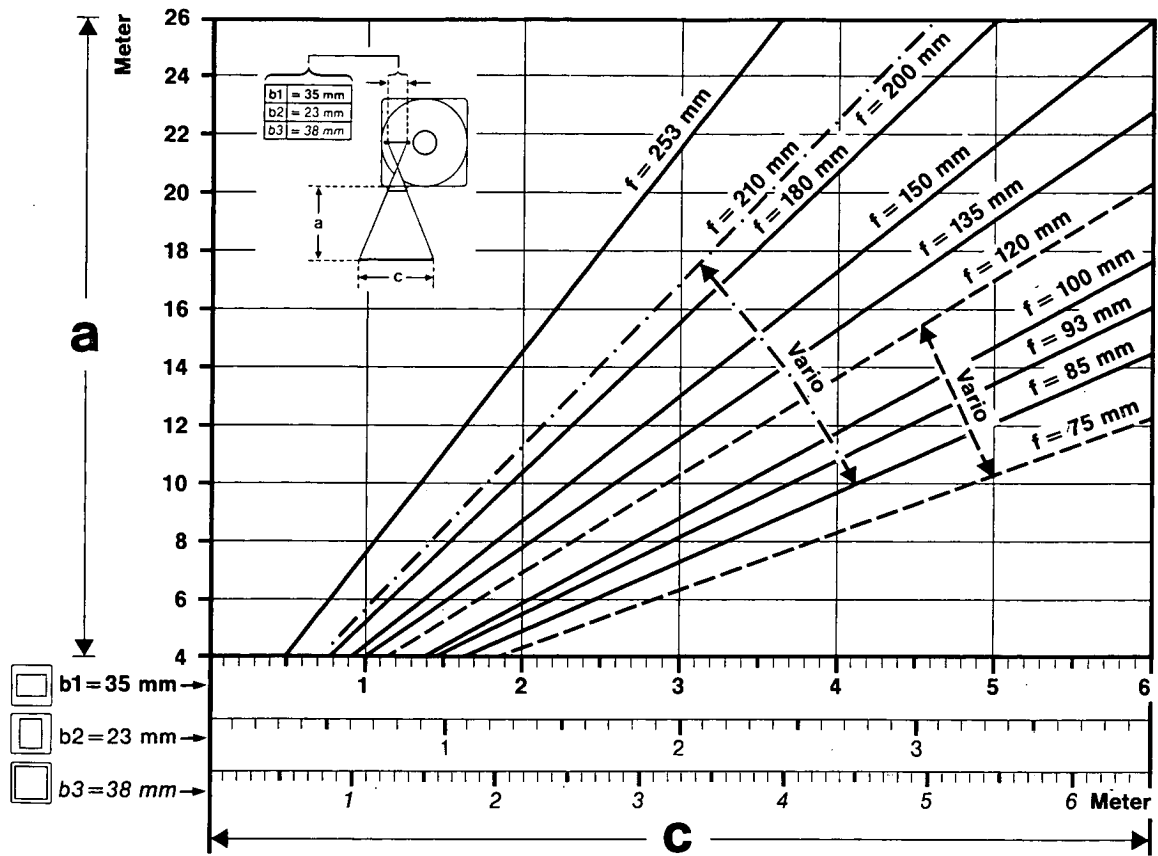






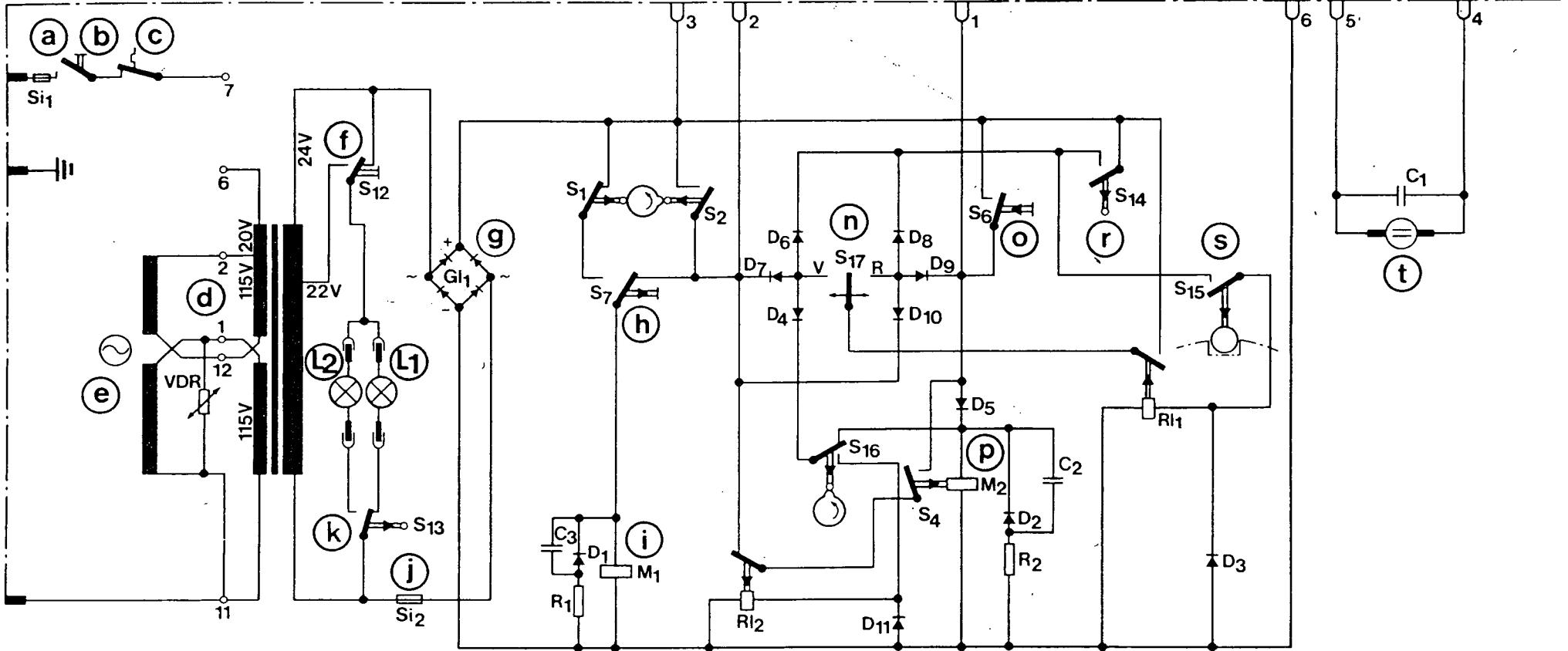
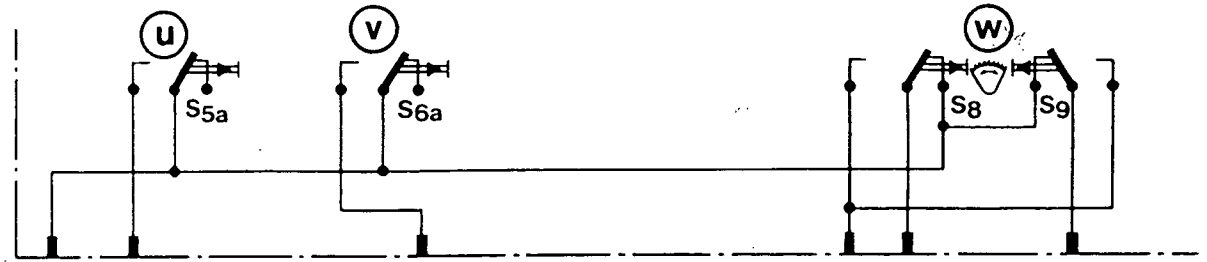
**Projektionsbildbreiten**  
**Projected picture sizes**  
**Dimensions des vues projeté**

**Anchura de la imagen proyectada**  
**Dimensioni dell' immagine proiettata**  
**Geprojecteerde beeldafmetingen**





110 / 120 V	11-12	1-2	2-7	
130 V	11-12	1-2		6-7
220 / 230 V	12-1		2-7	
240 / 250 V	12-1			6-7



Schaltplan

Wiring diagram

Plan de câblage

Materialienliste

Maine fuses

Équipement