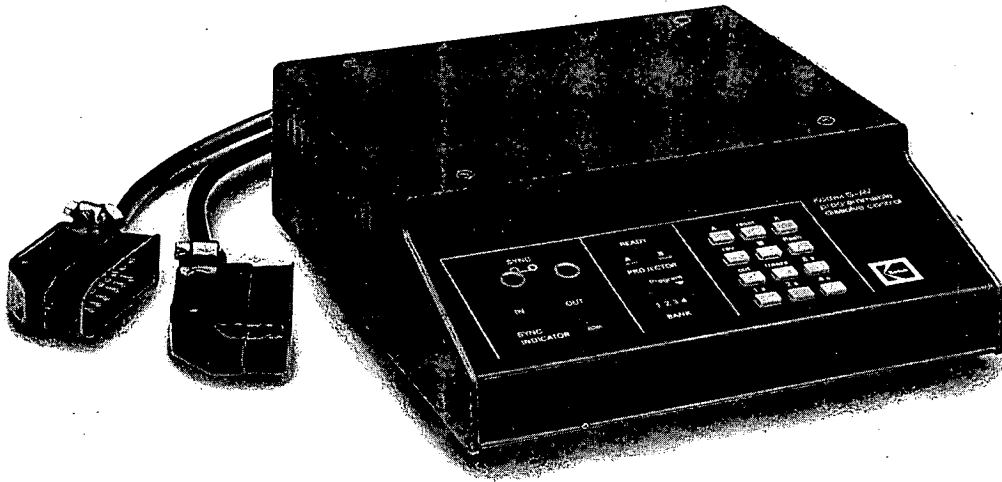


Bedienungsanleitung · Instruction Manual · Mode d'emploi  
Manual de Instrucciones · Istruzioni per l'uso · Gebruiksaanwijzing  
Bruksanvisning · Käyttöohje



# KODAK

# S-AV Programmable

# Dissolve Control

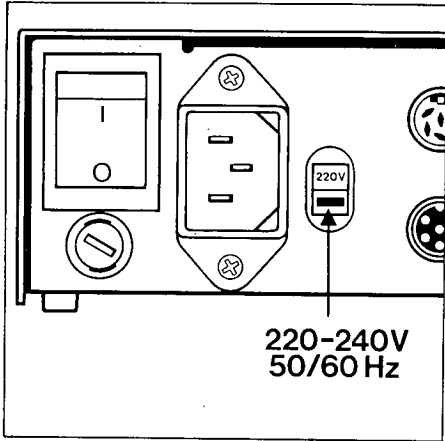


AUDIOVISUAL PRODUCTS

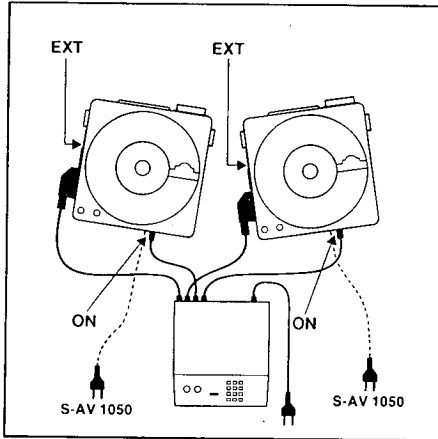
**Kurzanleitung (Wiedergabebetrieb)**  
**Summary (Playback)**  
**Mode d'emploi résumé (Lecture)**  
**Breve introducción (Reproducción)**

**Riepilogo (Audiovisione)**  
**Samenvatting (Weergave)**  
**Kort handledning (Uppspelning)**  
**Yhteenveto (Toisto)**

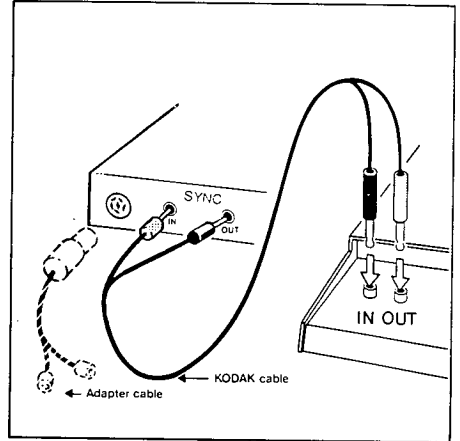
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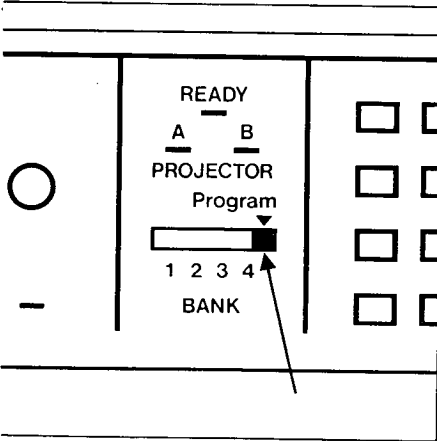
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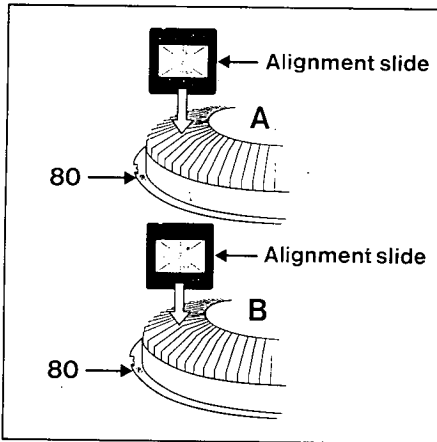
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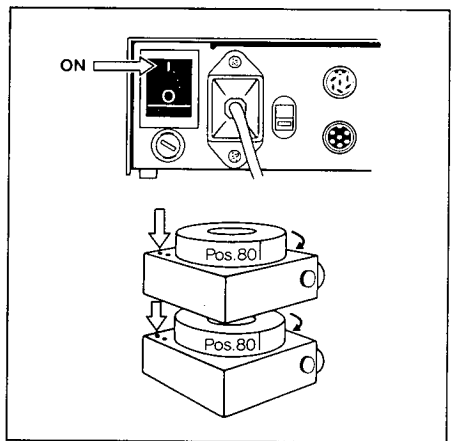
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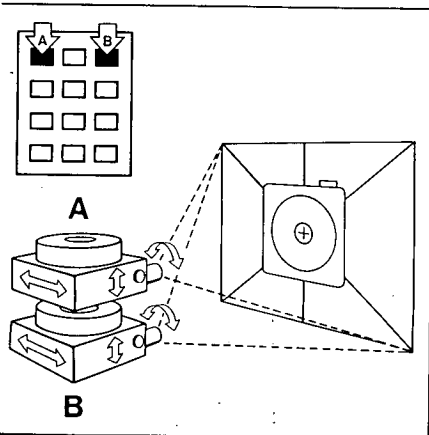
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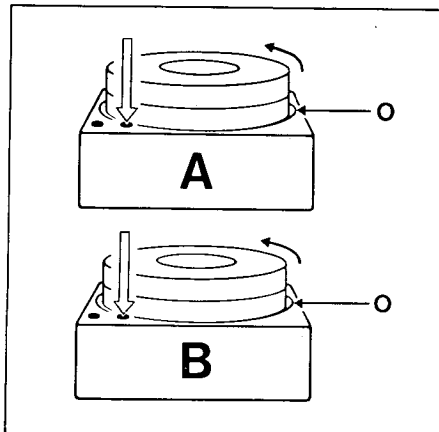
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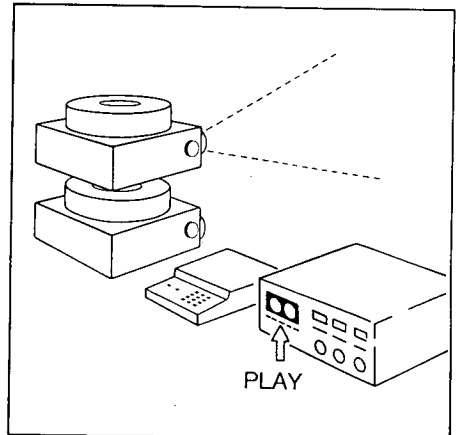
**7.**

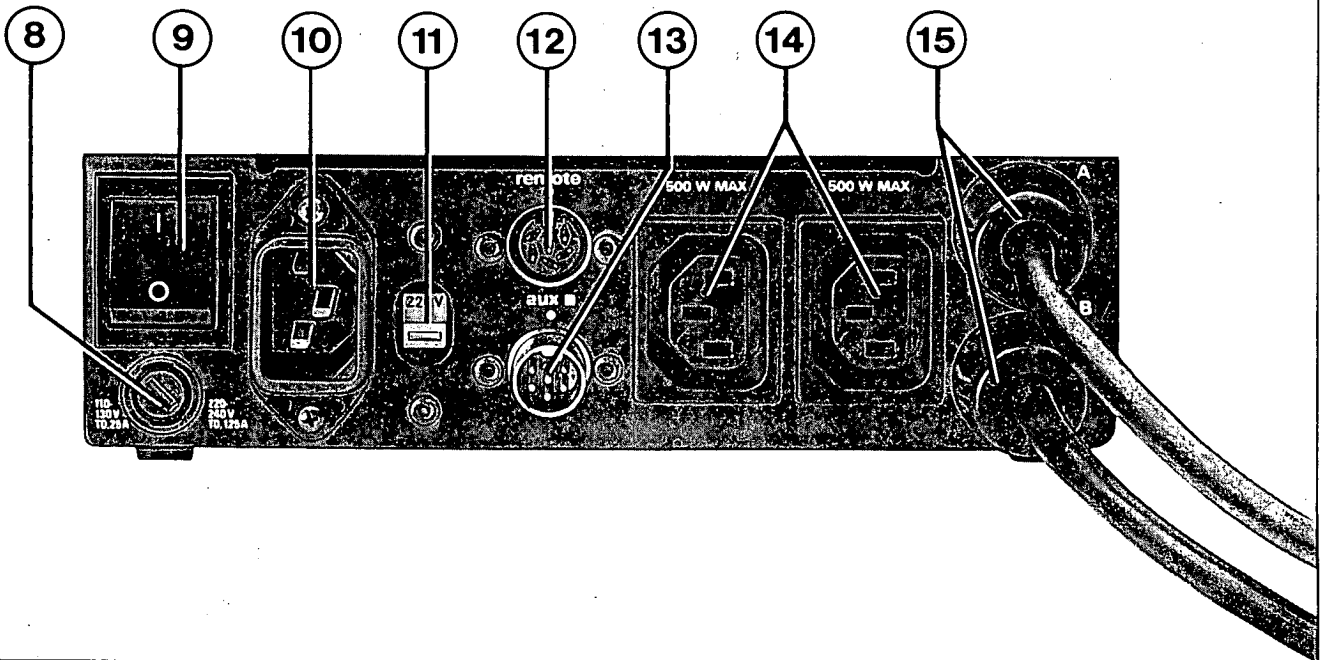
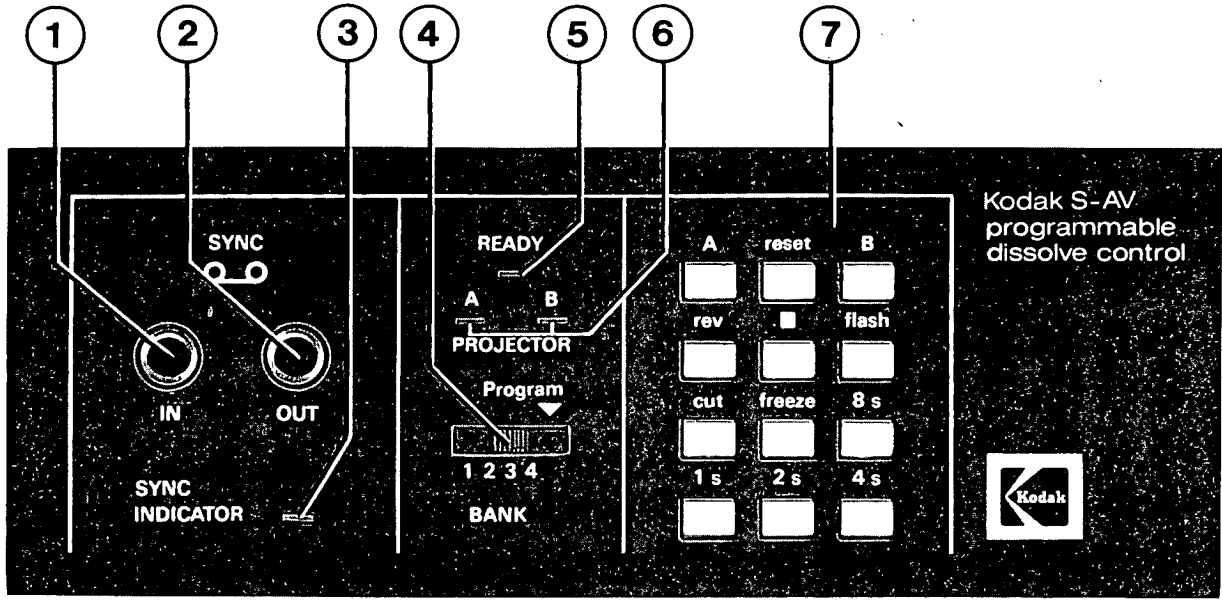


**8.**



**9.**





## Features

- 1 **SYNC IN:**  
Control signal input
- 2 **SYNC OUT:**  
Control signal output
- 3 **SYNC INDICATOR:**  
Green lamp indicates input control signal.
- 4 **BANK:**  
Selector switch for use with up to four Dissolve Controls in Multivision shows.
- 5 **READY:**  
Amber lamp glows when a new command can be keyed.
- 6 **PROJECTOR A and B:**  
Red lamps indicate which projector lamp is on.
- 7 **KEYBOARD:**  
For input of different commands.
- 8 Fuse-holder for mains fuse.
- 9 Mains switch for dissolve control and projectors.
- 10 Mains socket. Accepts a projector mains lead.
- 11 Voltage selector
- 12 **REMOTE:** Socket for KODAK CAROUSEL Remote Control.
- AUX:**  
Relay switched outlet for extra control functions: e.g. slide change on a third projector or tape recorder stop.
- 13
- 14 Switched sockets for projector power.
- 15 Projector control cables (fitted with 12 pin plugs).

## Using the instruction manual

Open the front and rear cover flaps. The diagrams apply to the text that follows. One flap can also be used as a book mark.

## Summary

The principal steps for running a two projector slide show using a KODAK S-AV Programmable Dissolve Control are shown in figures 1 to 9 on the front cover flap (page 2). Further detail can be found in the sections "Setting up" and "Playback operation".

## General Description

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

- Each effect can be recorded in digital form on magnetic tape and played back as control of the slide show.
- The KODAK S-AV Programmable Dissolve Control can form part of more complex multivision installations.
- An outstanding feature of the unit is its built-in protection against loss of slide and sound synchronization (see SYNC Feature below).
- The Auxiliary connector ⑬ permits other control functions to be programmed: e.g. a third projector, tape stop and restart, film projector, strobe, or room lights.
- The KODAK S-AV Programmable Dissolve Control can run programmes recorded using 1000 Hz cue tones.

### SYNC Feature

The KODAK S-AV Programmable Dissolve Control allows slide projector control signals to be recorded, and automatically monitors the projector tray positions relative to the recording. It prevents loss of synchronization between slides and sound track in the following situations.

- Repeat of a sequence of the show.
- Fast forward or rewind of the tape.
- Severe tape drop-outs.
- Switching a projector off and on (for example, when a lamp fails).
- Accidental loss of projector or tape recorder power, or disconnection of connecting leads.

While the projectors are homing to the correct slide positions, their lamps remain off.

# Setting-up

## The following accessories are supplied with the KODAK S-AV Programmable Dissolve Control:

- 1 KODAK CAROUSEL Projector mains lead (3.5 m)
- 2 Connecting cables for projector power (1 m)
- 1 signal cable for connection of the unit to a tape recorder. It is fitted with two 6.35 mm jack plugs and two phono (cinch) plugs (1.5 m).
- 1 0.16 A slow-blow fuse for 110/120 V supplies.
- 2 KODAK Alignment Slides

## Additional equipment needed:

- 2 KODAK CAROUSEL S-AV Projectors (Models: S-AV 1050, 2000, 2020, 2030 or 2050). Both projectors should preferably be the same model.
- 2 Projection lenses of the same focal length (see projector instructions for choice of lens)
- 2 KODAK CAROUSEL S-AV Slide Trays, for 80 slides
- 1 Projection screen

## Dependent on application, the following may be needed:

- 1 Projector stand and if needed, a twinning stand if projectors stacked
- 1 Audio Tape Recorder, reel-to-reel or cassette
- 1 Adapter cable: 5-pin DIN plug to tape recorder sync signal connections (if needed).
- 1 KODAK CAROUSEL Remote Control
- 1 extension cable for KODAK CAROUSEL Remote Control
- 1 cable for daisy chain of KODAK S-AV Programmable Dissolve Controls (6.35 mm jack plug at each end).

## Voltage Selector ⑩

The KODAK S-AV Programmable Dissolve Control is set at manufacture for 220/240 V AC supplies. This is indicated as 220 V on the selector ⑩. (Fig. 1, page 2.) For a mains supply of 110–120 V, first fit the correct fuse, then slide the voltage selector ⑩ to the indication 115 V, before connection to the mains. The unit is suitable for 50 or 60 Hz supplies.

## Mains fuse

Warning: always disconnect the mains supply when changing fuses.

220/240 V 0.08 A slow-blow fuse (already installed)  
110/120 V 0.16A slow-blow fuse (packed separately)

The fuse holder ⑧ can be opened with a small coin when changing fuses. The unit is delivered already fitted with the fuse for 220/240 V supplies.

## Projector connection (fig. 2, page 2)

Make sure that the projectors are switched off before they are connected. Power for S-AV 2000 series is fed via the two leads supplied with the Dissolve Control. Plug each into a power outlet ⑭ on the unit and the mains socket on one projector. Fit a projector mains lead into the mains socket ⑩. This supplies power to all the equipment. Connect the 12 pin plugs on the two control cables ⑮ to the projectors. Make sure that the plug labelled A is on projector A.

Note: The KODAK S-AV 1050 Projector has a permanently attached mains lead and must therefore be connected directly to the mains power supply. The two connecting cables supplied cannot be used to make the mains connection via the dissolve control.

## Switch settings

- Set the Selector Switch ④ of the dissolve control on Program. (Fig. 4, page 2.)
- For KODAK CAROUSEL S-AV 1050, 2020, 2030, and 2050 Projectors, set the lamp control switch on Ext.
- For the KODAK CAROUSEL S-AV 2030 Projector, the Zero position selector should be set in the mid-position (0).
- Switch on the projectors' mains switches.

## Operational check

Turn on the Mains Switch ⑨. Both projector fans should run, but both lamps will be off.

If all the connections are correct and the projectors switched on, the red PROJECTOR indicator lights ⑥ will light for about 2 seconds.

If one or both of them do not light, check the connections and the projectors. After this check, switch the Mains Switch ⑨ off and on again so that the unit can recheck the system.

## Setting up the projectors and slide trays.

In audio visual practice, the upper or left-hand projector (when viewed facing the projection screen) is defined as projector A, the starting projector. The slide tray containing the first slide to be projected is fitted to this projector. The other projector B will normally carry the tray containing the second slide to be shown.

## Projector Alignment

- Put KODAK Alignment Slides (supplied with the KODAK S-AV Programmable Dissolve Control Unit) in position 80 of both slide trays. (Fig. 5, page 2.)
- Bring the alignment slides into the projector gates by pressing the projector reverse slide-change buttons. (Fig. 6, page 2.)
- Turn on lamp of projector A by pressing key A on the keyboard ⑦. Focus the slide and centre it on the screen. (Fig. 7, page 2.)
- Press key A and key B. Projector A lamp will turn off and B on. Focus projector B. (Fig. 7, page 2.)
- Press key A to turn on lamp A again. Align the two images. (Fig. 7, page 2.)
- Turn off both lamps by pressing keys A and B.
- Bring both slide trays to the zero position by pressing the forward slide change buttons on the projectors. (Fig. 8, page 2.)

Note: The dissolve control records the starting position of the slide trays at the point when it is switched on. Manual slide changes using the projector buttons are not recorded by the dissolve control. Synchronization will be lost if manual slide changes are made when the unit is on.

# Basic functions

## READY light ⑤

The amber READY light comes on when the dissolve control is switched on. During a dissolve, the light goes off. When the dissolve is complete, the light comes on to indicate that the unit can accept the next command.

If commands are keyed before the light comes on, the current operation will be interrupted and the new command will start.

## PROJECTOR A & B lights ⑥

Each indicates which projector lamp is lit, or, during a dissolve, which lamp will be lit when the dissolve is complete.

## Keys A, B, flash, freeze ⑦

These keys control the projector lamps without a slide change following. (See also Effects.)

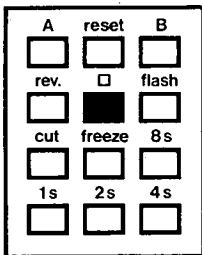
## Keys rev, cut, 1 s, 2 s, 4 s, 8 s, ⑦

These keys control the projector lamps. Each effect is followed by a slide change of the dark projector. (See Effects also.)

## Storage of commands

If commands (such as dissolve, forward or reverse slide change) are keyed in faster than the projectors can respond, the memory will count the commands and change the correct number of slides with both lamps off until the final state is reached.

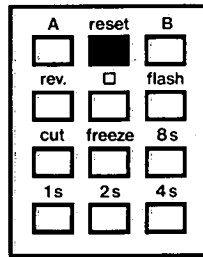
## Aux



The auxiliary control key, identified by a white square on the keyboard ⑦, operates contacts on the aux socket ⑬ on the rear of the unit (see Technical Data). Its main use is to control external equipment, such

as automatic tape stop, or slide change in a third projector (see Additional Applications page 17). It is also used to terminate continuous dissolve effects in manually operated shows (see Continuous Projection without sound p. 18).

## Reset



This automatically resets both slide trays to the initial position at the start of the show. The internal logic in the dissolve control decides the shortest way for each projector to return to the start. During resetting

and when the start position is reached, both projector lamps are off.

Note: If there is a break in power to the dissolve control, memory of the tray position will be lost. A manual show can be continued, but pressing the **reset** key will not return the trays to the start position. They will need to be reset manually.

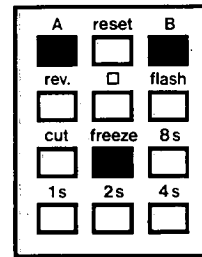
## Choice of tray start

It is not essential to start a show with the slide trays at the zero position. The Dissolve Control remembers the initial tray setting and returns to it when the **reset** key is pressed. This feature permits slides for several AV shows to be stored in one pair of trays.

Several control tapes can be made, with the tray positions established for each tape. To run each show, manually select the chosen starting slide numbers.

# Effects

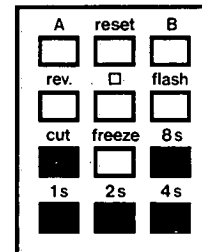
## Forward slide change



In normal dissolves, the projector with lamp off at the end of the dissolve makes a forward change. Additional forward changes when lamps are off can be made by pressing the **freeze** key together with the **A** and/or **B** keys.

Both lamps are off when the dissolve control is switched on. For the start of an AV show, to move the trays to put the slides at position 1 into the projector gates, press the **freeze** key and both **A** and **B** keys. This can be recorded on the control tape. It also avoids the need to fit opaque slides in the projector gates.

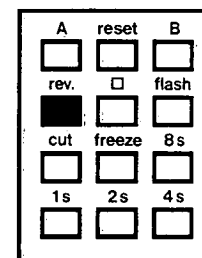
## Dissolves



Five different rates are available. For a single dissolve followed by a slide change, press one of the following keys: **cut** (approx. 1/4 s), **1 s**, **2 s**, **4 s**, **8 s**.

Note: The first dissolve command on first switching on the equipment operates a fade in of A projector without a slide change. This is useful when starting a show with a slow fade-in e.g. sun rise.

## Reverse



To reverse slides, press the **rev** key. The projector with lamp off will make a reverse slide change. Its lamp will come on at the cut rate, approx. 1/4 s. The projector with lamp on will go off at the rate

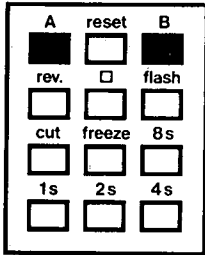
of the last dissolve command.

If the **rev** key is pressed rapidly a number of times, the unit will store and change this number of slides with lamps off.

Note: Reverses are only possible after dissolves. They are not possible after a tape stop. It is not possible to reverse beyond the initial tray starting position.

# Recording

## Superimpose

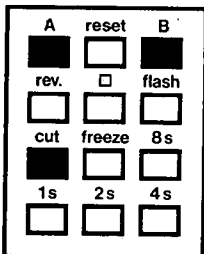


To project two slides at once, e.g. to superimpose a title or add text, press key **A** or **B** to turn on the appropriate lamp that is off. Pressing the key again turns it off. The rate is the same as the last dissolve command.

By using forward transport with lamp off (**freeze** and **A** or **B** keys) and the **A** or **B** key alone, a sequence of slides can be faded on and off a held slide (e.g. arrows animated to show stages of a process).

Note: when superimposing text on a background of tones it is best for the text slide to have a dark background.

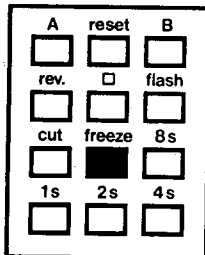
## Animation



With suitably chosen pairs of slides, an effect of motion can be generated by rapidly alternating the lamp intensity from one to the other. To do this, repeatedly press both keys **A** and **B** simultaneously.

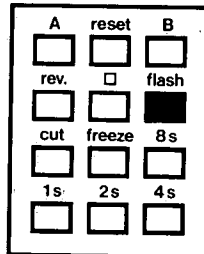
The fastest animation rate can be produced when the previous dissolve command is **cut**.

## Freeze



By pressing the **freeze** key, a dissolve or fade can be stopped at any stage it has reached. A second press on the **freeze** key allows the effect to continue.

## Flash



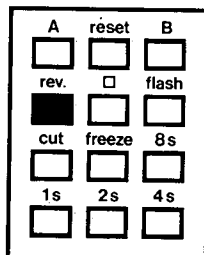
The flash effect can be used to make certain slides or sequences stand out: e.g. Product features, Price, New, etc.

Pressing the **flash** key gives a rapid blinking (5 times

per second) of the lit projector(s). Other effects can be programmed at the same time: e.g. dissolve, freeze, reverse. Pressing the **flash** key again stops the effect.

Rapidly pressing **A** or **B** keys can produce a similar effect.

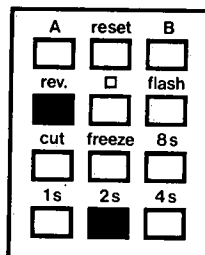
## Command reversal



A dissolve command can be reversed in direction during its action by pressing the **rev** key. The dissolve reverses to its original state.

A dissolve stopped by **freeze** can similarly be reversed by pressing **rev**.

## Swing effect



This effect is a slow dissolve to and from one slide and another. It is achieved by pressing one dissolve key alternately with the **rev** key before the slide transport operates.

Better control of this effect, avoiding the risk of unwanted slide changes, is by pressing both keys **A** and **B** after a dissolve at the desired rate.

## Equipment needs

The most suitable tape recorders for programming slide shows are special AV types with separate, preferably controllable, inputs and outputs for the control track. Multi-channel recorders with at least three independently controllable channels are also suitable. The unit should also be able to record the control track while the audio tracks are being played back.

Stereo recorders with 'Duoplay' or 'Sync-Play' are also suitable because both channels can be recorded independently, and one track can be played back while the other is recorded. The audio track can only be mono in this case.

'Free Head' recorders with the head directly connected to a control signal socket need an intermediate recording and replay amplifier unit for use with the Sync signal from the Dissolve Control.

To avoid interference between the audio and control tracks, the equipment should have a low level of cross talk.

'DOLBY' NR\* can be used for control signal recording.

Further information on choice of suitable recorders is available from Kodak in your country.

\*'Dolby' is a trade mark of Dolby Laboratories

## Connecting the recorder

Install the KODAK S-AV Programmable Dissolve Control and the projectors (see "Setting-up" page 13). Connect the Dissolve Control to the tape recorder using the signal cable supplied (Fig. 3, page 2).

Insert the signal cable grey plug into the SYNC OUT socket ②. Insert the corresponding phono plug into the recorder AV control signal input socket (if necessary use an adapter to suit your equipment).

Note: Make sure that the BANK switch ④ is set on "Program" (Fig. 4, page 2). Normally the black jack plug should not be inserted in the SYNC IN socket ① during recording: there is a risk of feedback between the input and output signals. When this occurs, it is not possible to input commands, and the READY and SYNC lights flash alternately. The risk of this effect is dependent on the design of the tape recorder circuits.

Connect the recorder to the mains supply and switch it on.

### Preparing a slide show

Select slides and fill the slide trays A and B following your story board.

Record sound and text on sound track.

Measure the projection time of slides and mark in your story board the point where a command is to be given and the kind of effect. Take into consideration the times of the dissolves and slide changes.

On page 75 you will find an example of a story board. It can be copied for use as a story board blank.

### Programming

- Set your recorder ready to record the AV control track (see the instruction manual) and set the control track recording level such that the SYNC indicator ③ lights steadily when the tape is replayed. In practice, a suitable level is less than 0 dB: usually around -10 dB.
- Start to record by programming forward slide changes with both lamps off to bring the first slides to be shown into position. Follow the cues of the story board to programme the show using the keyboard ⑦ of the dissolve control. The projectors will react according to the commands being given. At the same time these commands will be recorded on the control track.
- Programme a Reset command at the end of the show. The trays will then automatically return to their start position after every run.

Note: Make sure that the control track is completely blank, with no commands or sound track after the Reset command, otherwise the trays may fail to return to their start positions.

When using KODAK CAROUSEL S-AV 2050 Projectors, the zero position indicator (green LED) at the rear of the projector can be used as an extra system check. Programmes should start with both trays at zero.

### Programming over-rides

When programming a sequence with superimpositions and fades using the **A** and **B** keys, the show may call for fade rates different from those of the previous dissolve commands, e.g.

- where a text slide is superimposed on a held background at a different fade rate than the previous dissolve.
- where after a rapid dissolve, the last slide is to be faded out slowly.

To achieve these on the control tape: stop the tape following the previous dissolve; key the new fade rate; reverse the slide change using the **rev** key; re-start the tape; key the required fades in or out or superimpositions.

### Editing the control track

The method of editing the control track to correct mistakes or make changes is as follows.

- Insert the black jack plug into SYNC IN socket ①. Slide the Selector Switch ④ to the left, away from 'Program' setting.
- Rewind the tape to a point shortly before the last correct command. Stop the tape.
- Press the tape recorder 'Playback' key. Both slide trays will move to the correct slide positions.
- Stop the recorder just after the last correct command and slide change.
- Remove the black jack plug from SYNC IN socket ①. Reset Selector Switch ④ to 'Program'. Switch the tape recorder to 'Record' and start the tape.
- Change the commands as required, using the keyboard.

If you only need to edit one or two commands in the middle of a show, we recommend that you also re-programme the first correct command following the revised sequence. The number of revised commands and of slide changes must be the same as before editing. If the number is different, the remainder of the show must be re-programmed.

- Stop the tape recorder, rewind the tape to a point before the revised section, press the 'Playback' key. The SYNC system will bring the slides to the correct point. Check the revised sequence. Re-correct it if necessary.

### General notes

Break out cassette lugs to prevent accidental erasure.

Label the top surface of a cassette TOP to prevent incorrect insertion.

If copies of the master tape have to be made make sure that the control and sound track are compatible with your playback equipment.

The control signal is compatible with high speed copiers.

Label the tape with the following details:

- Programme name
- Number of projectors and type of installation e.g. 2 pairs of projectors/ 2 KODAK S-AV Programmable Dissolve Controls/ parallel control of seamless slides
- Coding used (e.g. KODAK S-AV Programmable Dissolve Control)
- Number and position of control and sound tracks
- Duration of show
- Starting slide tray position
- Whether reset and tape stop programmed.

# Playback operation

# Additional Applications

## Tape equipment needs

Almost any reel-to-reel or cassette recorder is suitable to play back a pre-recorded AV show, provided that the replay heads align with the recorded tracks of the original recorder. However, the Dissolve Control will not operate directly from a recorder with a free head because these give insufficient output.

## Connection

Install the KODAK S-AV Programmable Dissolve Control and projectors according to the setting-up procedure. Use the control signal cable supplied for playback connection from the control signal output on the recorder to the SYNC IN socket ① using the black plug only. Use an adapter if necessary.

Connect the tape recorder to the mains and switch it on. Make necessary amplifier and speaker connections.

## Start

Put the slide trays on the appropriate projectors in their starting positions. Insert the tape and check that it is wound back to the starting point. Press the play button on the recorder. When the control track is reached, the SYNC INDICATOR light ③ should come on. The programme should run. If it does not light or flickers, there is insufficient signal or an incorrect connection. (See Technical Data page 68 for required signal levels.) While the SYNC INDICATOR light ③ is on, the keyboard ⑦ is inoperative, to avoid the programme being interrupted.

## Resetting

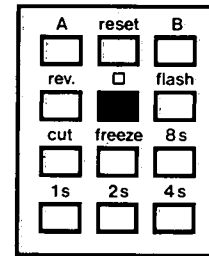
When no reset command has been programmed at the end of the tape (e.g. show ends with a slide being projected) rewind the tape and bring trays back to their starting positions by pressing the **reset** key on the keyboard ⑦.

## Resetting after power failure

Interruption of power to the dissolve control means the tray position memory has been lost. To continue a show after power is restored follow these steps.

- Stop the tape recorder (do not rewind).
- Turn both trays manually to their original starting position.
- Start the tape. The dissolve control senses the required tray settings and the projectors will start changing slides. Stop the tape when this starts.
- When the trays have stopped moving, restart the tape. The show will continue correctly.

## Uses of AUX facility



Pressing the **aux** key on the keyboard ⑦ will operate an internal relay for about 0.5 s. Normally open and closed contacts are wired to the aux outlet ⑬. (Fig. B, page 72)

With suitable circuits, you can control room lighting, strobe flash or other effects: smoke, fireworks, etc.

Without additional circuits following applications are possible.

- **Remote tape stop** (Fig. F, page 73)

If your tape recorder has a remote control facility, an automatic stop can be operated by the control track using Aux. The remote control connection is made to the appropriate pins of the aux socket ①. The recorder must be started manually. This can be used to present a mix of live and slide presentations.

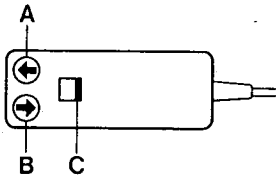
- **Third Projector** (Fig. G, page 73)

Aux can be used to make forward slide changes on a third projector. This can be superimposed or on a second screen. Connection is normally to the projector remote control socket. Opaque slides should be inserted when no picture is required. Resetting does not control this third projector. It should be manually reset at the end of the show, except when using a projector with zero position control (KODAK CAROUSEL S-AV 2010 or 2030 Projector, or projector fitted with a KODAK CAROUSEL S-AV Zero Position Control, Model B).

**Remote control**  
(Fig. E, page 73)

The KODAK CAROUSEL Remote Control can be used to present a manual AV show. Not all effects can be operated. Plug the remote control into the remote socket ⑫.

Before starting a show using the remote control, it is necessary to bring the first slides to be shown into position. This can be done by pressing the forward slide change buttons of the projectors.



The table indicates the button or buttons to be pressed to produce an effect. The focus button (C) may be pressed forward or back, the effect will be the same.

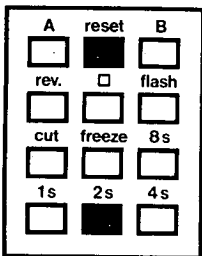
Effect	button pressed
cut	C
1 s	A
2 s	A and C
4 s	B and C
rev	B
Fade out or in	A and B
reset	A and B and C

**Note:** KODAK S-AV Remote Control Model TF, type II can **only** be used with the KODAK S-AV Interface IRC-PDC, because there is no power supplied at the remote socket (12) of the KODAK S-AV Programmable Dissolve Control!

**Note:** In combination with cable remote controls, the interface also allows the use of the 16 m extension cord (CAT 7015654) which originally was designed for direct connection to the projector only. But without the interface, direct connection to the PDC would cause malfunctions.

**Continuous projection without sound**

Continuous dissolves with slide changes can be programmed. As soon as one dissolve is complete another starts. Any dissolve rate (except 8 s) can be used.



Press the key for the chosen rate, and hold it down until the dissolve is complete. Continue to hold it down and press **reset**. Release both keys together (if the **reset** key is released before the rate key, continuous dissolves may not occur).

Pressing the **aux** key stops the continuous dissolves once the dissolve in progress has finished. Pressing other dissolve keys (but not **A** or **B**) also stops the effect, but may give an interruption to the last dissolve.

Pressing the **flash** key will stop the effect as well as adding blinking of the lamp. Pressing the **flash** key before starting continuous dissolves allows them to blink continuously. Pressing the **flash** key again stops the blinking and the dissolves.

Possible application: Continuous back-projection displays.

**Note:** With automatic zero positioning switched on in the KODAK CAROUSEL S-AV 2030 Projector, after the last slide in the first tray is shown it will begin to zero during projection of the last slide in the second tray. As soon as the first slide in the first tray is projected, the second tray will zero.

**Multivision** (Fig. H, page 74).

The KODAK S-AV Programmable Dissolve Control uses control signals compatible with Arion Mate-trac\* signals. Up to four pairs of projectors (each with Dissolve Control) can be independently controlled.

To programme the control track, a suitable programmer is needed (e.g. the ARION "Mate-Trac" Design Sixteen). With such a unit, individual commands and whole command sequences can be stored in memory and recalled precisely during playback. Inserts, erasures and corrections are also possible.

The programmer is not essential for playback of a recorded AV Multivision show: the dissolve controls can be linked together as a "daisy-chain". A cable fitted with a 6.35 mm jack plug at each end is connected from the SYNC OUT socket ② of the first unit to the SYNC IN socket ① of the second, and so on for further units. The BANK switch ④ of the first unit is set on 1, the second on 2, and so on, so that the appropriate control signals are directed to each projector pair.

Multi-projector shows can also be made by using a multi-track tape recorder. Separate channels are used for each Dissolve Control and pair of projectors, as well as for the sound tracks.

\* Mate-trac is a trade mark of Arion Corporation.

**Parallel operation**

Tapes programmed on the KODAK S-AV Programmable Dissolve Control can control up to four pairs of projectors. All the pairs of projectors give the same effects. A dissolve control is needed for each pair of projectors. Connect the signal cable from the tape recorder into SYNC IN ① on dissolve control No. 1. Connect a second cable from SYNC OUT ② on No. 1 to SYNC IN ① on No. 2 and so on. Make sure that the BANK switch ④ of each dissolve control is on Program.

An application is use for wide-screen shows using seamless slide masks.

**Single projector operation**

The dissolve control can be used for single projector programmes. The SYNC control signal advances the projector in synchronisation with the sound track and all benefits of the SYNC-system remain.

Connect the projector to the dissolve control as follows:

- Plug dissolve control cable A ⑬ into the projector.
- Connect the projector power supply into one of the power outlets ⑭.
- Switch on the projector mains switch.
- Switch on the dissolve control power switch ①. The red PROJECTOR A indicator ② should light for 2 seconds.

- Fit the projector slide tray.
- Tape recorder connections are as for two projector shows (see playback operation).

Possible effects with one projector.

- Forward slide change with lamp off: while pressing **freeze** key, press key **A**. This can be used to bring slide 1 into the projector gate.
- Fade in: when the lamp is off, pressing any dissolve key will brighten the lamp at the chosen rate.
- Forward slide change with lamp on: once the lamp is on, pressing any dissolve key gives a normal forward slide change without fading of the lamp.
- Reverse slide change with lamp on: pressing the **rev** key gives a reverse slide change without fading of the lamp.
- Fade out. Pressing key **A** causes the lamp to fade at the same rate as the last dissolve key pressed.
- Flash. Pressing the **flash** key makes the lamp blink at 5 times a second. A second press stops the effect.
- Freeze. This can stop or restart a fade-out or fade-in part way.

**Note:** The internal logic of the KODAK S-AV Programmable Dissolve Control defines its functions for 1 or 2 projectors by assuming that a single projector is always controlled via cable B. If it is connected via cable B by mistake, the commands will produce effects as if the projector is one of a two projector show.

## Playback of 1000 Hz cue tone tapes (Fig. 1, page 74)

The REMOTE socket ⑫ can be used to run dissolve shows controlled by 1000 Hz cue tones. Also, shows made for use with a single projector can be converted into simple two projector shows by separating the slides into two slide trays and playing back via the dissolve control.

The dissolve control does not respond directly to 1000 Hz cue tone signals. A recorder or slide synchronizer that has a relay circuit actuated by the 1000 Hz cue tones is needed.

Remember to fit an opaque slide after the final slide in each tray, as well as in the zero position.

Feed the control signals using a suitable lead from the projector control output of the tape recorder to the REMOTE socket ⑪ of the dissolve control. Before running the tape, press the cut key once (press it twice when a single projector show is being converted to a two projector show): the projectors are then ready to start the show. Start the recorder: the show will run, giving a one second dissolve for each 1000 Hz cue.

If the control track input of a second recorder is connected to the SYNC OUT socket ⑫, a control track can be recorded including SYNC signals in digital form during replay of the 1000 Hz cue tone track. The audio track can be transferred simultaneously by direct connection between the recorders.

The new recording can be enriched by some effects, e.g. Flash, Superimpose, set between two 1000 Hz cue tones. The new recording can be edited later to convert 1 second dissolves to different times (see "Editing the control track" page 16). In order to maintain synchronisation you cannot add commands which cause extra forward changes.

## Maintenance

The unit needs no routine maintenance. In the event of a problem, contact KODAK Customer Equipment Services in your country.

For U.K., contact:  
Customer Equipment Services,  
Equipment Service Centre,  
Kodak Limited,  
Caxton Way,  
Stevenage, Herts.  
SG 1 2DJ  
Tel. 0438/3134 11

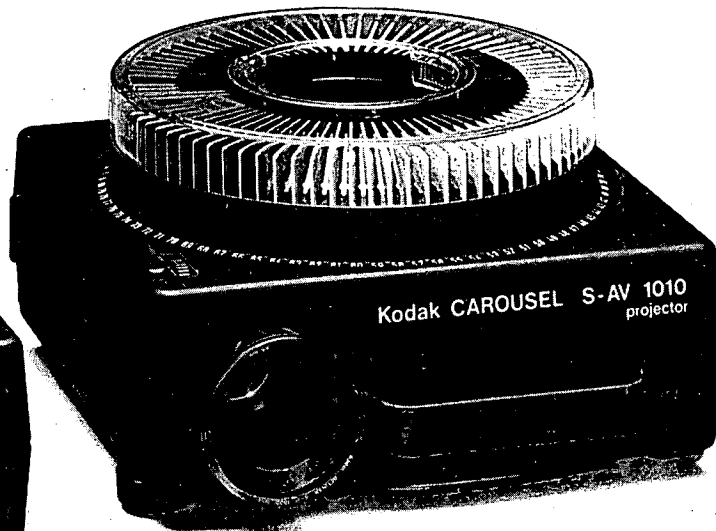
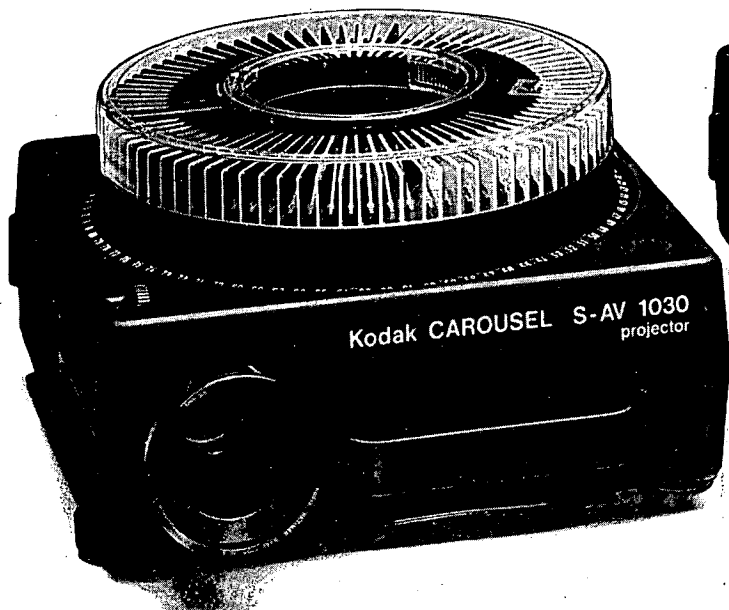
## Possible problems during operation

- READY light ⑤ does not light when unit switched on
  - Check mains supply, cable connections, fuses
- PROJECTOR A or B lights ⑥ do not light
  - Projector mains lead not fitted
  - Projectors switched off
  - Control cable 12 pin plug not fitted
  - Projector fuse blown
  - Thermal cut-out operated
- Programme only operates effects on one projector (A & B lights o.k.)
  - Lamp failure on other projector
  - Lamp selector switch of other projector on 'Int' (S-AV 1050, 2020, 2030, 2050)
- Visual effect not as expected
  - Wrong key pressed
  - Key pressed before light ⑤ shows previous command is complete
- SYNC INDICATOR ③ lights, but programme does not operate effects:
  - Selector Switch ④ not on "Program" or "bank 1" setting (If the show has been programmed on a PDC) or on wrong setting for a multi-projector show made with a compatible programmer.
- SYNC INDICATOR ③ does not light
  - Insufficient signal. Signal cable disconnected or wrongly wired or connected. Cassette inserted wrong way up. Tape erased. Tape still on leader. Tape jammed.
- Wrong slide sequence
  - Initial tray settings wrong
  - A & B trays interchanged
  - Unit switched off & on during programme
  - Trays moved by touching projector buttons during programme

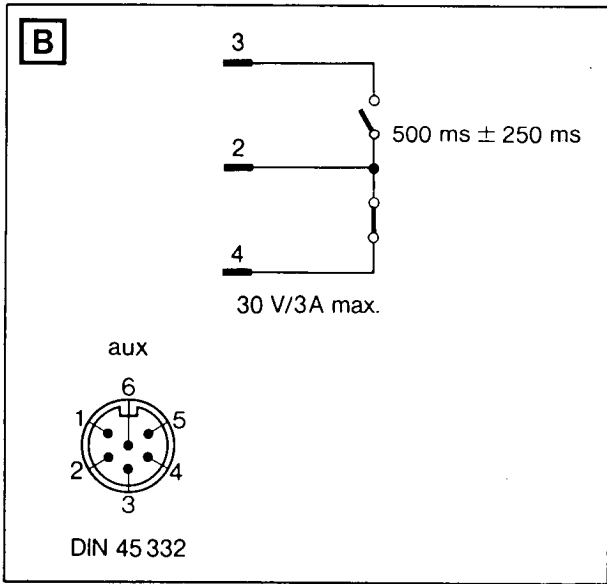
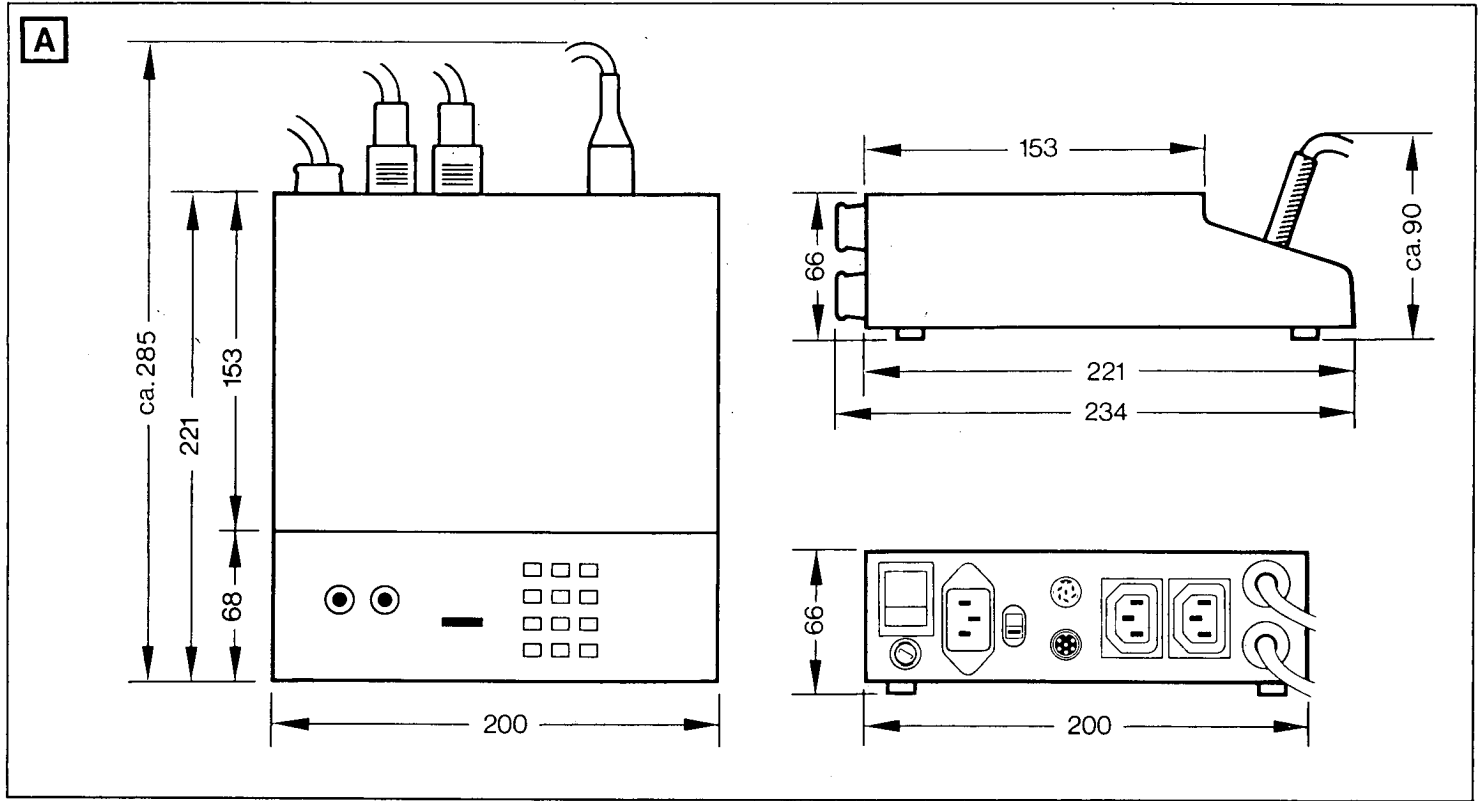
- KODAK CAROUSEL Remote Control
- Extension cable for KODAK CAROUSEL Remote Control
- KODAK S-AV Interface IRC-PDC for KODAK S-AV Infrared Remote Control Model TF, type II.

For further accessories see projector instruction manual.

Technical data see page 68



KODAK CAROUSEL S-AV 1010/1030 Projektoren



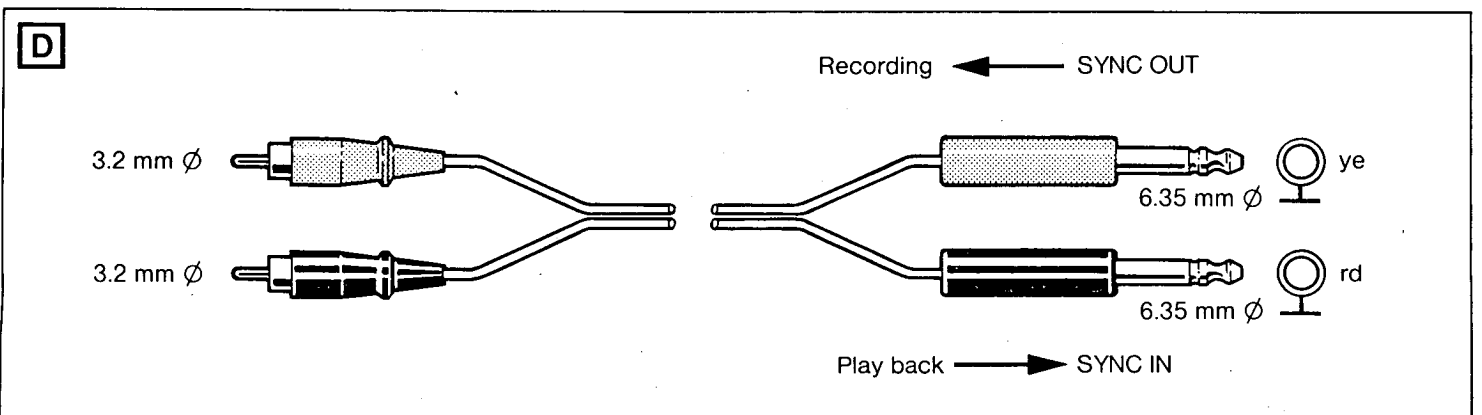
**C**

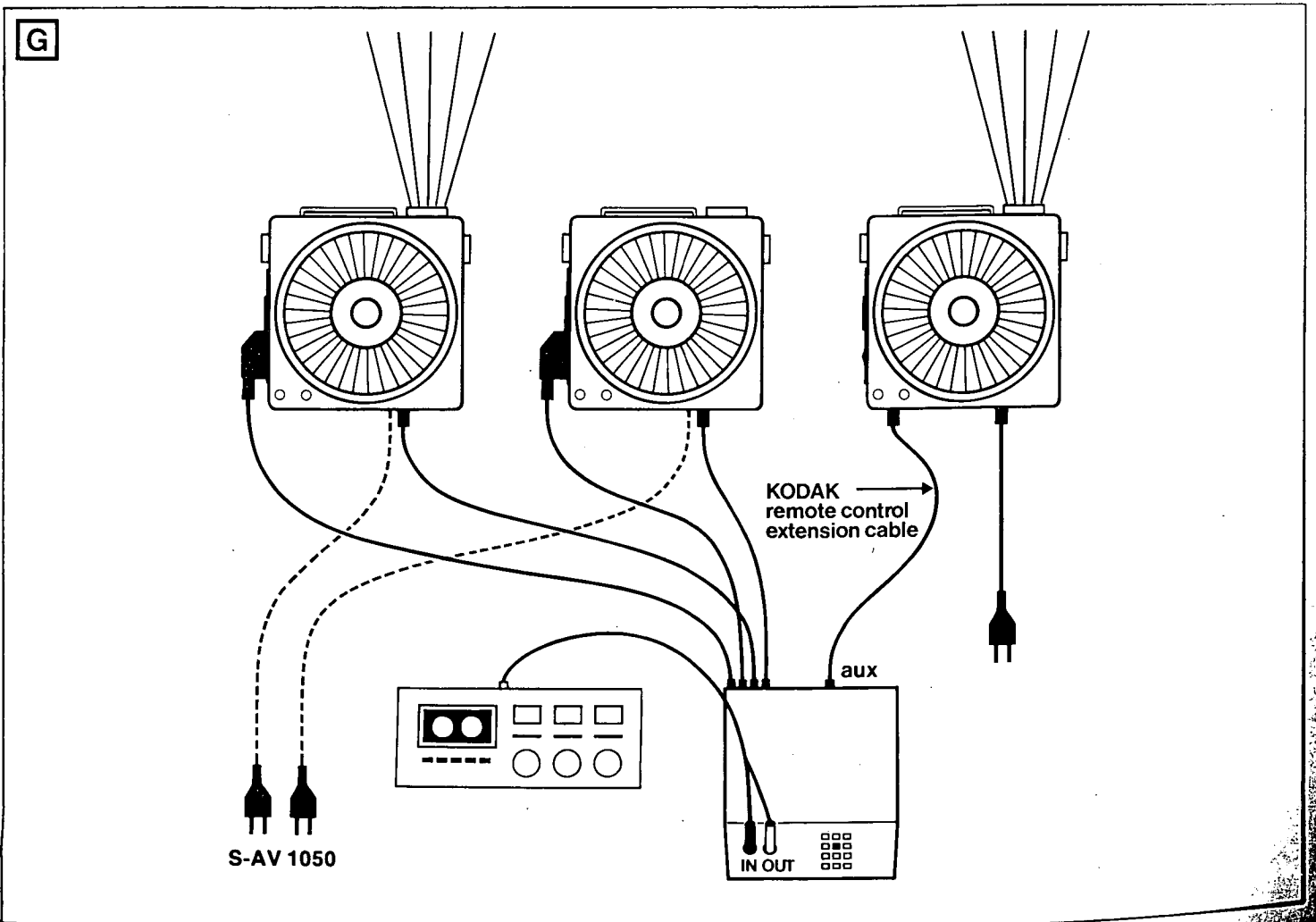
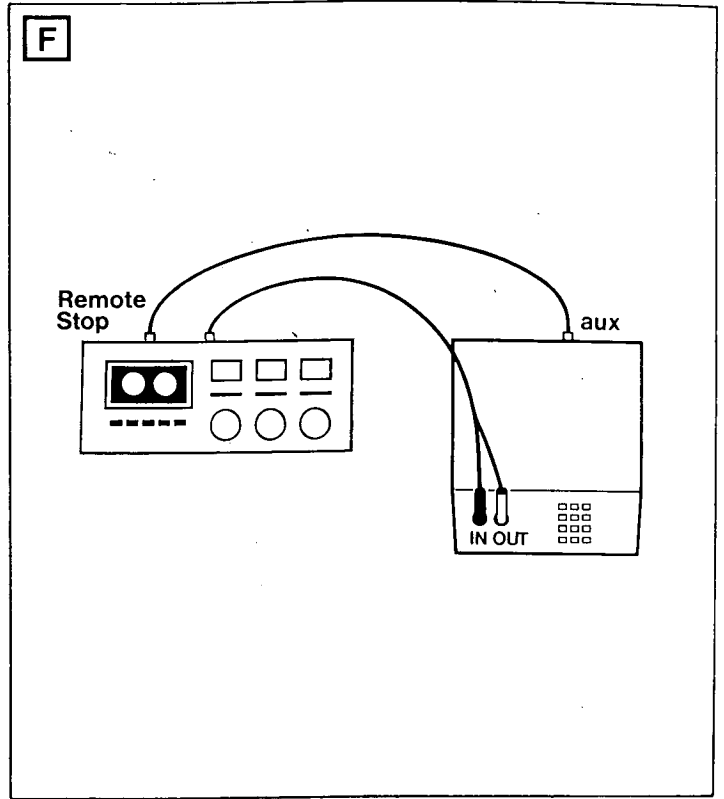
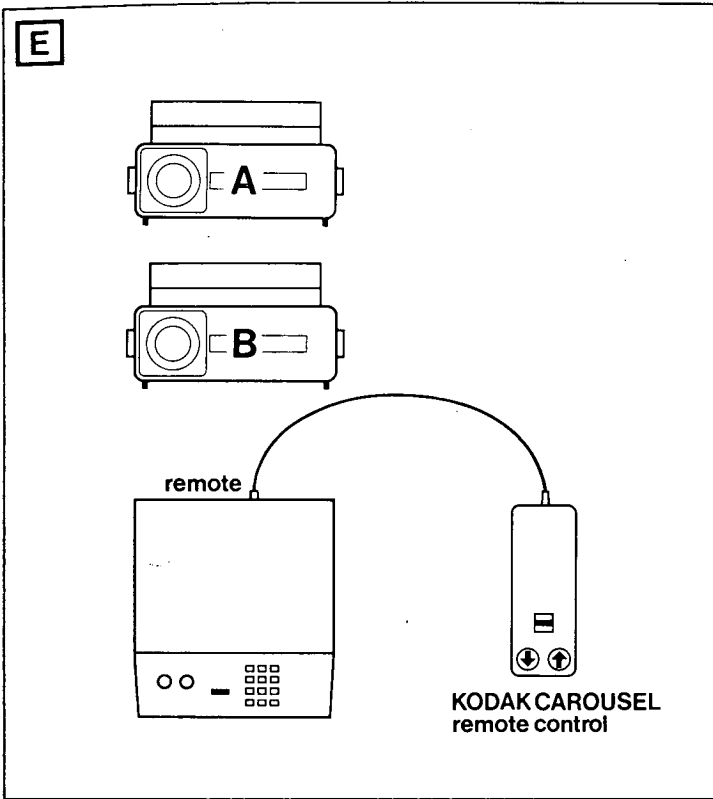
Effects	Pin connections
cut	3 + 4* + 6*
1 s	2 + 3
2 s	2 + 3 + 4* + 6*
4 s	1 + 3 + 4* + 6*
rev	1 + 3
Fade in/out	1 + 2 + 3
reset	1 + 2 + 3 + 4* + 6*

remote connector pinout:

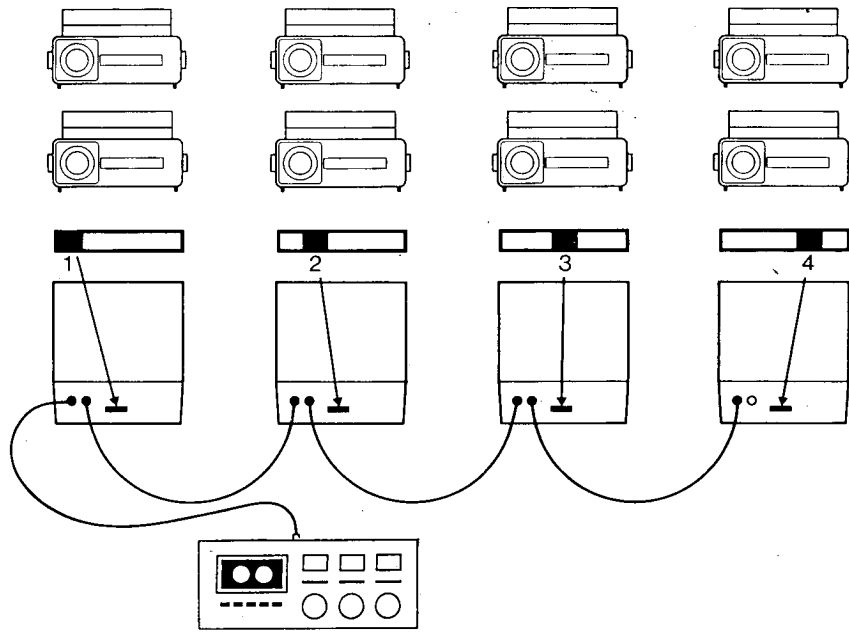
- 1: Ground
- 2: Ground
- 3: Ground
- 4: Ground
- 5: Ground
- 6: Ground

\*or 5+6

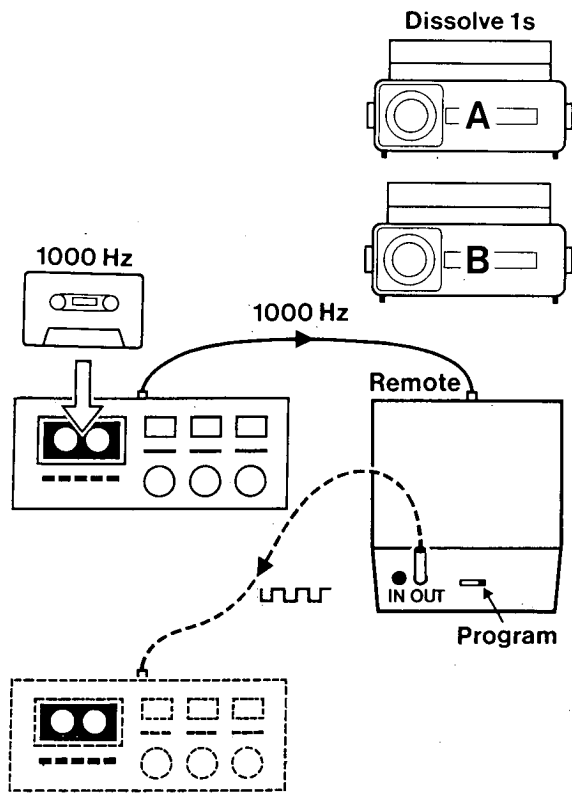




H



I



RECORDER: \_\_\_\_\_

CUE	SLIDE PROJECTOR A	SLIDE PROJECTOR B	KEYBOARD	TIME	SOUND	NOTE														
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