

Rollei



Rolleivision twin MSC 325 P / 535 P

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User's manual

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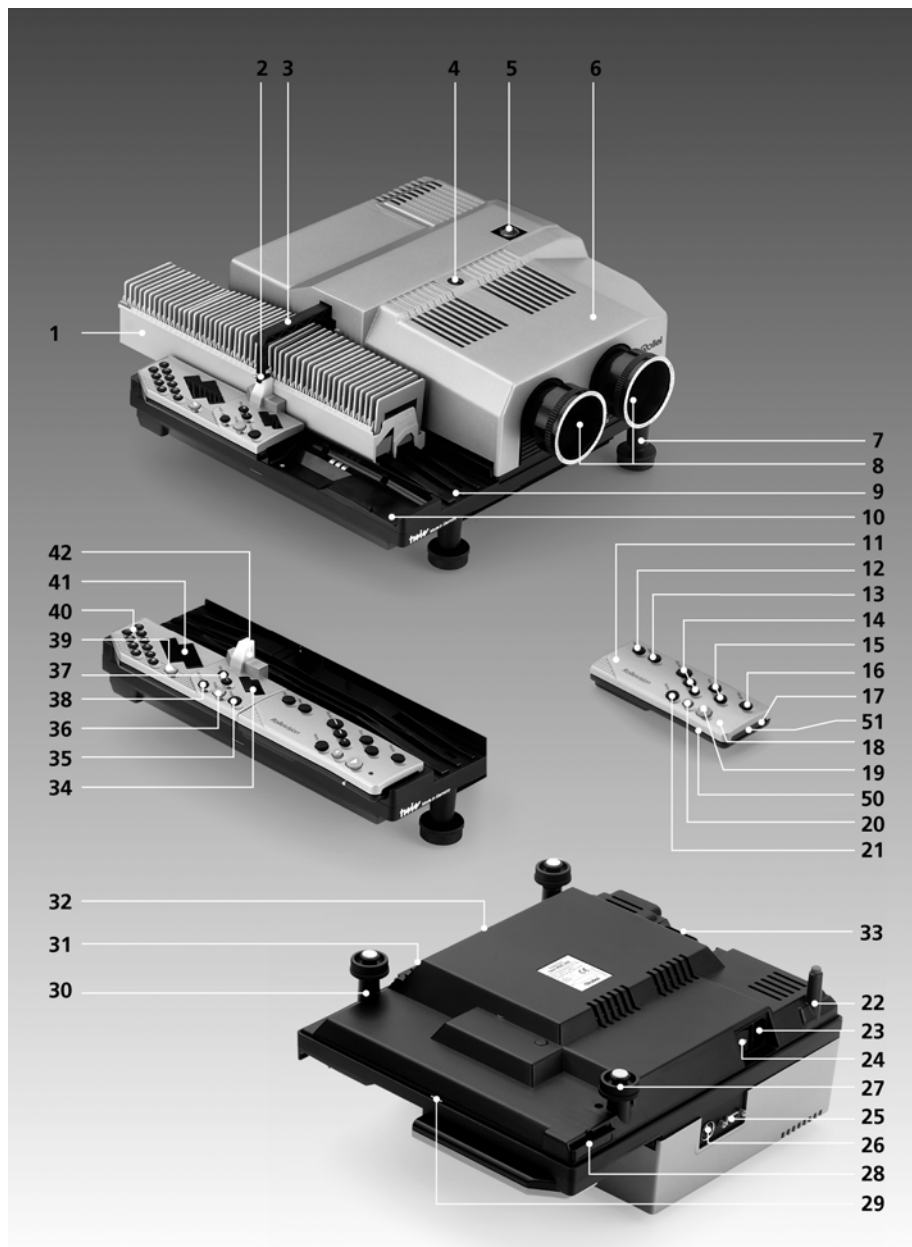
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COMPONENTS AND CONTROLS

- 1 Slide magazine
- 2 Feed heel on slide changer, adjustable for different magazine types
- 3 Slide changer
- 4 Cover retaining screw
- 5 IR sensor
- 6 Cover
- 7 Left-hand foot with height adjustment
- 8 Interchangeable lenses
- 9 Magazine track
- 10 Remote tray
- 11 IR remote control
- 12 »end« button
- 13 »timer« button
- 14 »dissolve« duration buttons
- 15 Manual-focusing and magazine-advance buttons
- 16 »stop/go« button
- 17 Transmitter diodes
- 18 Red LED blinking to confirm transmission of signal input, also battery check
- 19 Green button for forward slide change
- 20 Red button for reverse slide change
- 21 »memo« button
- 22 Rear left foot
- 23 Socket for power cable
- 24 Master switch
- 25 PC control terminal
- 26 Sync-pulse/remote-cable terminal
- 27 Rear right foot with height adjustment
- 28 Chip-module slot
- 29 Emergency lever disengaging magazine drive
- 30 Front right foot with height adjustment
- 31 Lateral overlap dial
- 32 Vertical overlap setscrew
- 33 Lamp unit, interchangeable
- 34 Mode display
- 35 »mode« button
- 36 Red »module« button with LED
- 37 »+/-« timer buttons with LED

- 38 »autofocus off« button with LED
- 39 Red »enter« button with LED
- 40 Numerical keyboard for onboard programming
- 41 Screen-time/dissolve-time/slide/program no. display
Special functions and projector parameters
- 42 Pause light
- 50 »Laser pointer« button
- 51 Laser exit window

Parts number 43 to 49 in separate illustrations

- 43 Battery connector
- 44 Chip module
- 45 Projection lamp
- 46 MT2A/250V fuse for magazine drive and electronics
- 47/48 T8A/250V overload fuse for lamps (MSC 325 P)
- 49 Lamp-unit release
- 52 Transit lock
- 53/54 T10A/250V overload fuse for lamps (MSC 535 P)

INTRODUCTION

The Rolleivision Twin MSC 325 P and Rolleivision MSC 535 P are highly precise optoelectronic projectors designed for dissolve projection. Focusing, magazine advance, slide changing, dissolve time and screen time are microprocessor-controlled. A remote infrared handset with integral timer and dissolve-time control plus integral laser pointer ensures high operator comfort. Intelligently organized indicators keep you informed about the current operating status. The line of interchangeable lenses includes suitable focal lengths for all normal projection distances.

Either projector accepts LKM, CS and standard magazines, including the Rollei CM-55/50 hook-up magazines based on the latter. There is no need to use special magazines that would require rearranging your slides.

Awkward blackout between screen images and abrupt image changes are a thing of the past: Projection with smooth transitions opens up new perspectives for creative slide shows.

We have prepared detailed operating instructions that will enable you to use the full potential of these unique projectors to best advantage. An explanation of all important components and their functions is followed by brief information on essential controls. This in turn is followed by a detailed description of use and operating modes of the

projectors. At the end of the instructions, you will find practical hints as well as troubleshooting help. A table lists screen sizes and projection distances.

Whether you use your projector in your work or as a fascinating hobby – we wish you a lot of fun with dissolve projection.

Rollei

This section is intended for the hurried reader. It describes the most important steps for first-time use of the projector.

Before using the projector for the first time

- >> Loosen cover retaining screw 4, lift off cover and remove the transit locks 52.
- >> Replace the cover and secure.

X NOTE: Keep transit locks for later use, for example, if the projector has to be shipped for servicing!

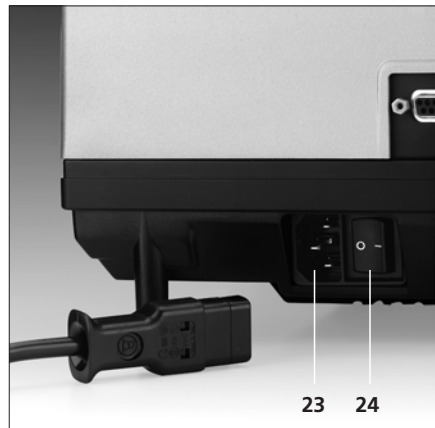


Connecting the power cable

The projector is designed for operation on 220 to 240V AC. It will automatically set itself to the available line frequency.


- >> Insert power plug in socket 23 and connect the other end of the cable to a wall outlet. Set master switch 24 to » - «.

X CAUTION: Never obstruct the ventilation slits or air outlets! Never use the projector without its cover in place!



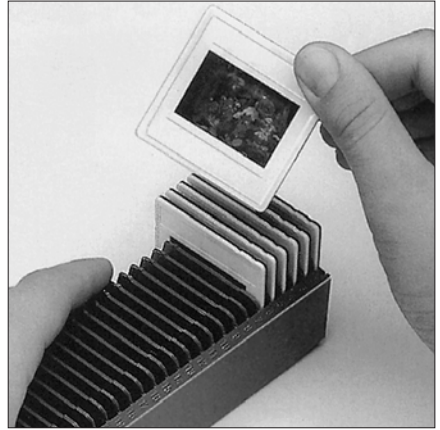
BRIEF INSTRUCTIONS


Loading slides (standard magazine, Rollei CM 55/50)

» Use uniform slide mounts, preferably only plastic or only cardboard or glass-mounted slides. Slide mounts made by  are highly recommended.

Do not use sharp-edged metal or all-glass mounts!

» Insert slides upside down, emulsion side facing the screen, in the required order, starting with slide slot No. 1.



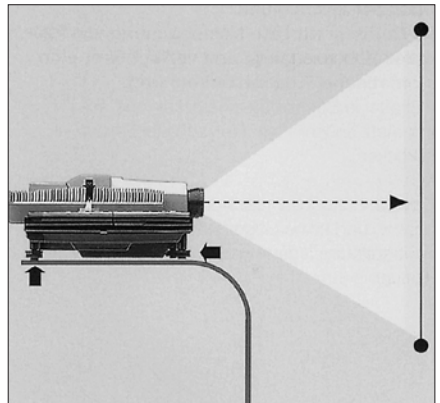
 **NOTE:** The following description refers to projection with DIN 108 standard magazines or the Rollei CM-55/50 magazine supplied with the projector.

Fitting the lenses

» Screw in the two lenses without touching their glass surfaces.

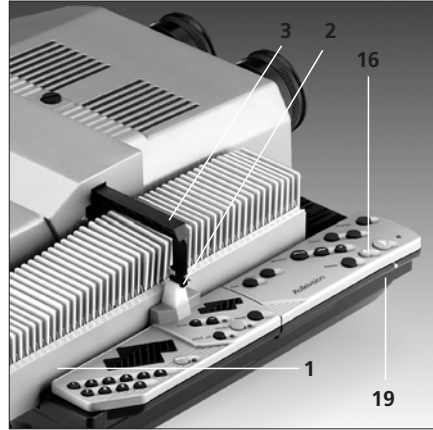
Setting up the projector and screen

» Set up the screen so that it is parallel to the front of the projector with the lenses centered on the screen. Recommended screen size: 1.5 m x 1.5 m. Projection distance (with 85 or 90mm focal length): 1.5 m or longer —> Table on pages 68/69.



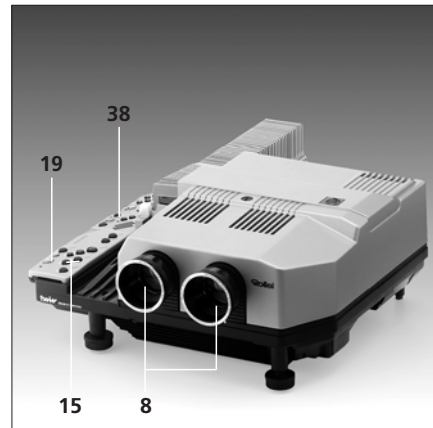
Inserting the standard magazine

- >> Check position of feed heel on slide changer. To do this, first press »stop/go« button 16, then green button 19. The slide changer moves out.
- >> Use knurled screw to make feed heel 2 horizontal for cardboard or thin plastic slide mounts.
- >> Insert magazine 1 with its numbers facing outwards until it stops.
- >> Press green button 19. The slide changer 3 feeds the first pair of slides into the projector, the lamps come on automatically, and the first slide appears on the screen.



Focusing

- >> Focus the first slide turning the corresponding projection lens 8.
- >> Then press the green button 19. Next, focus the second slide turning the lens used for projection. All following slides will then be focused automatically, but the »focus« buttons 15 remain active for manual override.
- >> For manual focusing, press »autofocus off« button 38. Its red LED lights up. Then use the »focus« buttons 15 to focus each slide.



BRIEF INSTRUCTIONS

Adjusting the image on the screen

- >> Center the image on the screen and adjust it horizontally using the projector feet.
- >> To eliminate lateral misalignment, shift projector or screen in relation to each other.

Adjusting image registration

With a 90mm lens, the screen should be at least 1.5 m away from the projector.

- >> Press green button **19**, watch dissolve and
- >> check whether the two images register perfectly.

It is advisable to make this adjustment during a slow dissolve or after freezing the dissolve with the »stop/go« button **16**. For this adjustment, the slide mounts should preferably be of identical type.

- >> Turn dial **31** for lateral adjustment.

Vertical registration has been set at the factory. However, should a vertical misalignment be found in spite of the use of identical mounts, use a screwdriver and turn setscrew **32** to eliminate it.



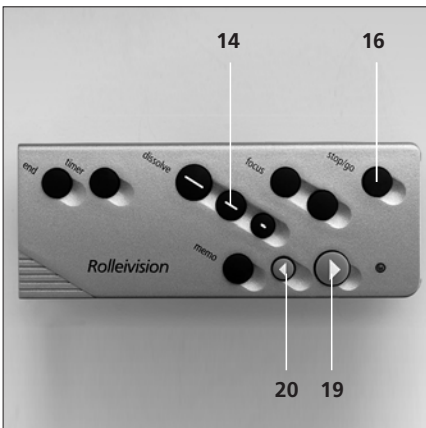


Loading the transmitter battery

- >> Lift off the integral remote control 11. Open battery cover. Align battery connector 43 with terminals of 9V battery and press down. Replace cover.
- >> When using the remote control, make sure to point its transmitter diodes 17 in the direction of the projector sensor. A minimum distance of 1 m is required between transmitter and sensor.
- >> To replace the remote control, push it back into its tray 10.

NOTE:

The projector is fully operational even without a battery in the remote control as long as the latter is in its tray.



Setting the dissolve duration

The default dissolve time is two seconds. This setting is activated when the projector is switched on.

- >> To change the dissolve time, press one of the three buttons 14 marked »dissolve«. Available settings are 0.1, 3 and 6 seconds. The corresponding lines indicate the duration of the dissolve.
- >> The »stop/go« button 16 may also be used to freeze a dissolve → page 24.

The standard dissolve time of 2 seconds is no longer available after the duration has been changed.

BRIEF INSTRUCTIONS

Slide changing

Forward and reverse:

>> Press green forward button **19** or red reverse button **20**.

With timer:

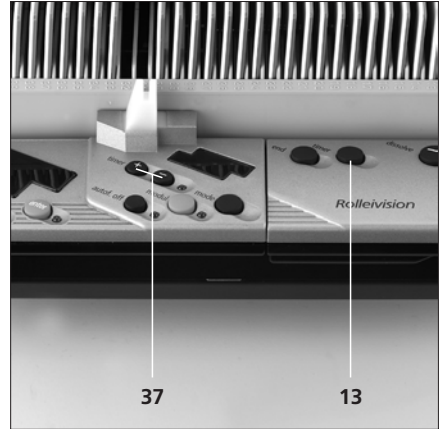
>> Insert magazine. Activate screen time pressing »timer« button **13**; to change the setting, press »+/-«. Upon depression of the »timer« button, the projector defaults to 8 s. Depression of »+« button sets 12 s, of »-« button 4 s (MSC 535 P 5 s). Simultaneous depression of the »+/-« buttons resets the projector to 8 s.

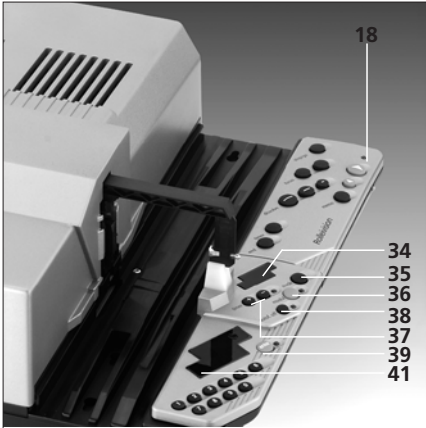
The red »timer« LED blinks as the timer interval is entered.

>> Start timer cycle by pressing the green forward button **19**; the »timer« LED is now steady.

>> The timer cycle may be interrupted by pressing the »stop/go« button **16**.

>> To switch the timer off, press »timer« button **13**.





Note displays and warnings

>> The red LED **18** on the remote control blinks each time a command is input.

>> The timer LED **37** signals the status of automatic timer-controlled slide changing:

LED blinking = Screen time entered or timer cycle or dissolve interrupted.

LED steady = Timer operating.

>> The LED of the »autofocus off« button **38** lights when autofocus is off.

>> The LED of the »module« button **34** signals operations in the »auto« and »record« modes (-> page 28).

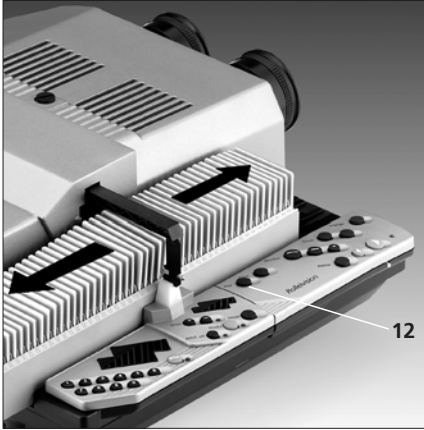
>> The »enter« LED **39** reflects input commands during programming.

>> The LED display **34** shows the different operating modes. "manual" will appear in the standard mode (as described here).

>> Other modes can be selected by pressing the »mode« button **35** (-> page 28).

During standard operation, the display **41** shows slide number as well as dissolve and screen times (reverse-counting seconds).

BRIEF INSTRUCTIONS



Removing the magazine

- >> After projection of the last slide, remove the magazine in forward direction.
- >> To remove a partly run magazine, press »end« button 12. The projector completes the last command received, and the slide changer returns the loaded slides to their slots. The magazine is automatically shifted back to starting position and may be removed.

Before using the projector for the first time

- >> Loosen cover retaining screw 4, lift off cover and remove the transit locks 52.
- >> Replace the cover and secure.

NOTE:

Keep transit locks for later use, for example, if the projector has to be shipped for servicing!

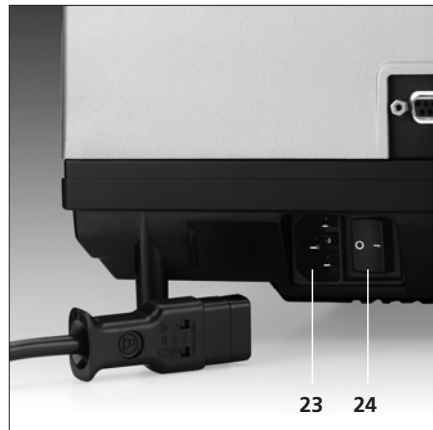


Connecting the power cable

The projector is designed for operation on 220 to 240V AC. It will automatically set itself to the available line frequency of 50 or 60 Hz.

- >> Insert power plug in socket 23 and connect the other end of the cable to a wall outlet. Set master switch 24 to » - «.

The projector is designed for exclusive operation on alternating current!




X CAUTION: Never obstruct the ventilation slits or air outlets! Never use the projector without its cover in place!

OPERATION

Loading slides

Standard Rollei CM-55/50 magazine

Preferably use “auto-safe” slides in smooth plastic mounts with rounded corners, no thicker than 3.2 mm. We recommend the use of  slide mounts that are available in a comprehensive range of types and sizes.

NOTE:

Bent cardboard-mounted slides, metal mounts or all-glass mounted slides with sharp edges or corners should not be used because they are liable to cause problems.

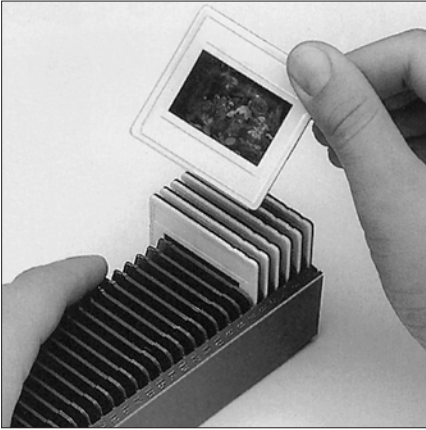
Identical slide mounts ensure optimum registration of images during the dissolve.



CAUTION:

Use only high-quality magazines made of an opaque material to avoid projector malfunctions!

The Rollei CM-55/50 magazines are a perfect match for the Twin projectors.. These 50-slide magazines are easily hooked up before or during projection, which permits continuous projection of several magazines without any interruption. To aid in this, magazine extension tracks are available as optional accessories, which are simply hooked into the projector. Rollei CM-55/50 magazines can also be used with most other commercially available projectors.



Loading slides

» Position the magazine with its numbers on the right and insert slides upside down, emulsion facing the screen, in the desired order, starting with slot No. 1.

LKM magazines

LKM magazines may be used for all slide mounts up to 2 mm thick. To avoid problems, we recommend the use of slides between 1.5 and 2 mm thick with LKM magazines. Mounts of less than 1.5 mm thickness should be used only with standard magazines. Be sure to use only identical slide mounts for optimum registration of images. Magazines for 60 or 80 slides are commercially available (not from Rollei).

CS magazines

CS magazines take specially designed CS mounts. These have shaped edges that engage guides in the slide slots. Other types of mount cannot be used. CS magazines are commercially available in sizes for 40 or 100 slides (not from Rollei).

Fitting the lenses

Screw the two lenses into their mounts, taking care not to leave any fingerprints on their glass surfaces.

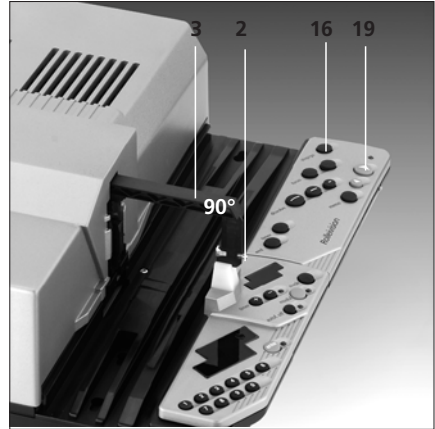
OPERATION

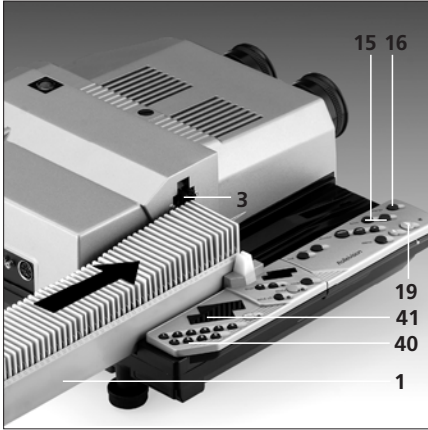
Inserting the magazine

- »» When using a standard magazine, always turn the feed heel 2 to its horizontal position for cardboard-mounted slides or thin plastic mounts.
- »» To do this press »stop/go« button 16 after switching on the projector.
- »» Next, press green forward button 19. Slide changer 3 moves out.
- »» Press down knurled screw of slide changer, turn it through 90°, and let go.
- »» Press green forward button 19; the slide changer returns to its original position.

When using LKM or CS magazines

- »» Turn the horizontal feed heel to its vertical position.
- »» Insert the loaded magazine from behind in the track, its numbers facing outwards (CS magazines: numbers facing inwards) as far as it will go.
- »» Press green forward button 19; the slide changer 3 loads the first and second slides into the projector. The lamp comes on automatically, and projection begins.





Selecting a specific slide

If projection is to begin with a specific slide other than No. 1, the magazine may be advanced to the desired position.

» To do this, keep front »focus« button 15 depressed until the corresponding magazine slot is in the desired position.

» Release the button and press it again to start normal incremental advance.

» If you have gone past the slide you want, run the magazine back in the same way, pressing the rear »focus« button 15.

This special function only works after insertion of the magazine, before the first slide-change command is given by pressing button 19 or by a sync pulse.

Direct access to a specific slide slot

» Input slide number on numerical keyboard 40. The corresponding number is displayed in 41.

» Trigger feed command pressing button 19. The projector will start showing the slide selected.

By entering slide (slot) numbers during projection via the numerical keyboard, slides can easily be projected in any desired order. When the next feed command is given, the slide in position will be changed for the selected one and dissolved onto the latter.

OPERATION

Setting up the projector and screen

>> Set up the projector properly: its front parallel to the screen, the lenses centered on the screen, with adequate space for cables and magazine travel. A stable horizontal position is very important. We recommend the use of a projector table. Do not obstruct the ventilation slits!

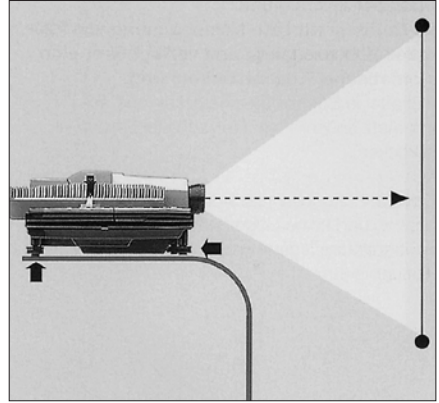
Aligning the image

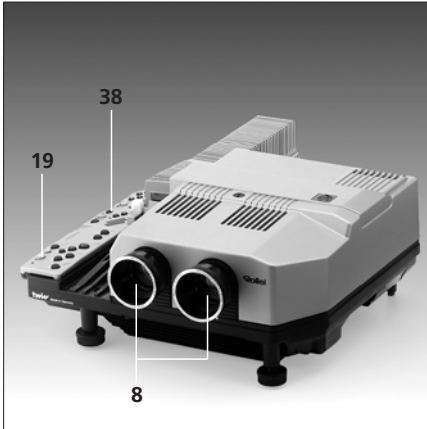
>> Line up the projected image with the center of the screen. Turn the projector feet to adjust the height and horizontal position of the image.

>> To eliminate lateral misalignment, shift projector and screen in relation to each other.

>> Correct major differences in level between projector and screen exclusively by raising the projector or its table to avoid keystone distortion of the image.

X CAUTION:
Do not tilt the projector excessively, e.g. by raising its front edge beyond the adjustment range of its feet.





Focusing

>> Focus slide 1 by turning the corresponding lens **8**.

>> Then press the green button **19** and focus the second slide by turning the other lens.

This basic manual focusing is required only once at the beginning of the show. Thereafter, the autofocus system will take over and automatically focus the two lenses.

Manual refocusing is necessary after changing the lenses, varying the projection distance or changing the focal-length setting of zoom lenses.

Slides in glassless mounts may pop when exposed to the heat of the light beam. In this case also, the AF system automatically refocuses the image.

The two »focus« buttons used for manual operation remain active even with the AF system in operation. In other words, pressing one of these buttons will override autofocusing. Blinking of the LED next to button **38** indicates that the image on the screen is being projected without AF. AF will be reactivated either by depression of button **38** or by the next slide-change command. The LED will then go out.

>> If you wish to project entirely without AF, press »autofocus off« button **38**. Its LED lights.

OPERATION

Adjusting image registration

- >> Press green forward button **19**.
- >> Watch the dissolve and check whether the two images register perfectly.
- >> It is advisable to make this adjustment during a slow dissolve or after freezing the dissolve with the »stop/go« button **16**. For this adjustment, the slide mounts should preferably be of identical type.
- >> Turn dial **31** for lateral adjustment. Keep a minimum distance of 1.5 m.

Vertical registration has been set at the factory. However, should a vertical misalignment be found in spite of the use of identical mounts, use a screwdriver and turn setscrew **32** to eliminate it.





Remote control

- >> Leave the IR control **11** in its tray on the projector if you wish to control the show directly from the projector.
- >> For remote-control operation, remove the handset from its tray and open its cover.
- >> Press the connector **43** onto the terminals of a 9V battery, insert the latter and close the cover.
- >> When using the remote control, make sure to point its transmitter diodes **17** in the direction of the projector sensor. A minimum distance of 1 m is required between transmitter and sensor.
- >> After the show replace the remote control, pushing it back into its tray **10**.



CAUTION:

To avoid malfunctions, the IR sensor **5** must not be exposed to bright light, such as from a lamp or direct daylight.

NOTE:

Before connecting a cable remote control to terminal **26**, remove the IR remote control from its tray.

OPERATION

Setting dissolve duration

The default dissolve time of the projector is two seconds. This setting is activated when the projector is switched on.

>> To change the dissolve time, press one of the three buttons **14** marked »dissolve«. Available settings are 0.1, 3 and 6 seconds. The dissolve time entered is displayed on **41**. (For assigning different dissolve times to the buttons, → page 52, item 2.2.1.)

>> The »stop/go« button **16** may also be used to freeze a dissolve

>> and to resume dissolve by pressing it again. The default time can then no longer be activated.

Forward slide change:

For each forward slide change

>> briefly press green button **19** once.

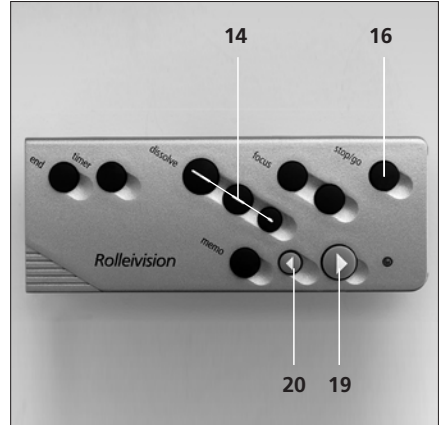
Reverse slide change:

For each reverse slide change, e.g. for repeating a slide already shown,

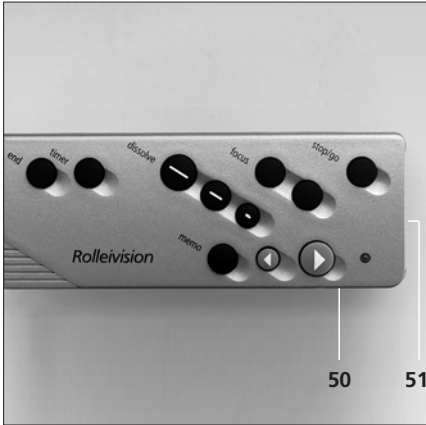
>> briefly press red button **20** once.

NOTE:

Single slides can only be projected with a magazine inserted, since the latter also has a control function.



If you re-sort or temporarily remove slides from the magazine during a show, be sure to keep the two empty slots free – this is where the projector must return the slides actually being projected!



Laser pointer

>> Press button **50** on the side of the remote control to switch on the laser pointer built into the handset.

The pointer is supplied with power by the 9V battery in the handset.



CAUTION:

Note that laser beams can harm your eyesight!

Therefore:

- Never look into the light-exit opening at the front of the remote set when the pointer is on.
- Never direct the pointer at the eyes of another person.
- Always keep the laser pointer out of reach of children.

NOTE:

Laser power corresponds to Class II. The figure **51** points to the exit window of the laser.

OPERATION

Timer-controlled slide changing

- >> Activate the automatic screen time by briefly pressing the »timer« button **13**.
- >> Start the cycle by pressing the green forward button **19**.

To vary the screen time, proceed as follows:

Screen time after depression of button **13** is 8 s.

- >> Depression of the »+« button changes the setting to 12 s. Depression of the »-« button sets an interval of 4 s (MSC 535 P 5 s). Simultaneous depression of the »+/-« buttons resets the timer to 8 s.

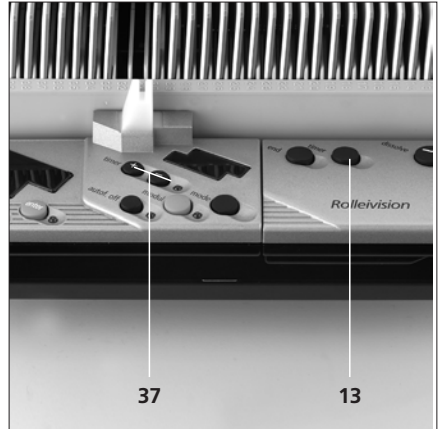
- >> To switch off the timer, press »timer« button **13**.

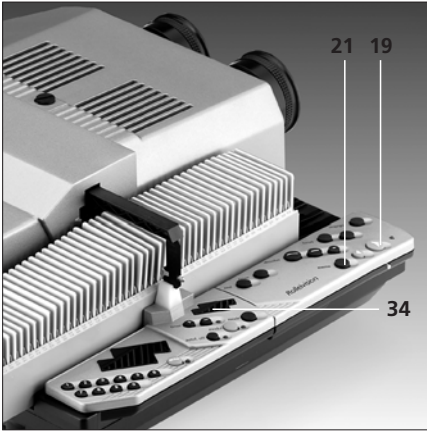
If the screen time is set with the buttons **37**, the red timer LED will at first blink red and then light steady when the projector is started with the green forward button **19**.

The screen time entered and the number of the projected slide are displayed on **41**.

- >> Timer intervals can easily be cut short by pressing the forward button **19** and will then resume normally.

- >> Depression of the red reverse button **20** clears the timer and loads the previous slide back into the projector. To go back to automatic timing after such a reverse slide change, reset the timer.





Selecting the memo function

With the »memo« button 21, up to 16 slides in a magazine can be electronically flagged for repetition after the run.

>> To do this, briefly press the »memo« button 21 each time a slide to be repeated appears on the screen.

Once the magazine has completed its run, the projector will automatically show the first slide so selected.

>> To recall each of the remaining flagged slides, press the green button 19.

During projection of the flagged slides, the LED display 34 will show »test«, reflecting operation of the working memory.

NOTE:

Automatically recalling the slides under timer control is not possible.

OPERATION

Displays and warnings

»» LED 18 on the remote control lights up for each input command.

»» The »timer« LED 37 signals the status of automatic timer-controlled slide changing:

LED blinking = Screen time set or timer cycle or dissolve interrupted.

LED steady = Timer operating.

The display 34 indicates the different operating modes.

manual = Standard operation

test = Commands entered are executed automatically via the working memory.

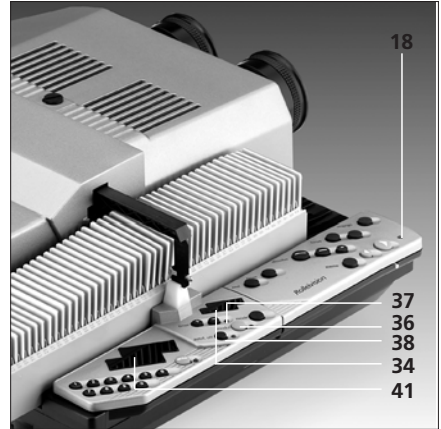
auto = Automatic execution of program from chip module.

record = Recording mode; program stored in working memory may be loaded into chip module.

During standard operation, the LED display 41 informs about slide number as well as dissolve and screen times.

Timer operation is indicated by the reverse-counting second counter.

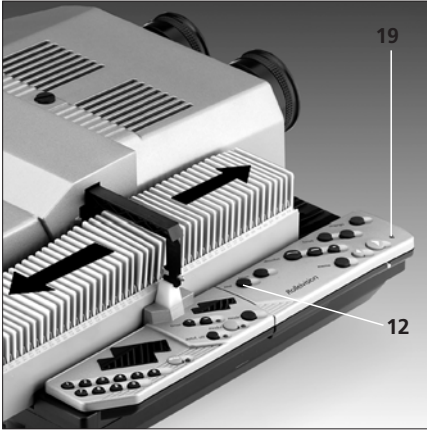
In the enter modes 1 and 2 (programming), the program number and the special-function (SF) ID number as well as the projector parameters (PP) are also displayed (-> page 41).



The »autofocus off« LED 38 lights when autofocus is off.

In the »auto« and »record« modes, the red »module« LED 36 signals that a command has to be entered with the »module« button.

In the enter modes 1 and 2, the »enter« LED 39 signals that the projector is ready for programming via the numerical keyboard (-> pages 42 and 52).



Changing magazines

The magazine has completed its forward or reverse run:

- >> Pull magazine out from front or rear of projector. Insert new magazine.
- >> Continue show pressing green forward button 19.

Changing a magazine before the end of its run:

- >> Press »end« button 12. The projector completes the last command, and the slide changer returns the slides in the projector to their magazine slots. The magazine automatically returns to starting position and may be removed. All commands are cleared.



CAUTION:

When using different types of magazine (standard, LKM, CS), make sure that the feed heel is in the correct position! (-> page 18)

Only insert or remove the magazine when the projector is switched on!

OPERATION

Using Rollei CM-55/50 magazines

To ensure smooth attachment and removal of Rollei CM 55/50 magazines during projection, observe the following:

» Push the first magazine forward as far as it will go and start magazine advance.

Attach the second magazine not later than during projection of slide 45 of the first magazine. The first magazine may be detached after slide No. 6 of the second magazine, but not later than slide No. 12.

» To do this, slightly raise the magazine and lift it out.

If a track extension is used, the first magazine may be detached later.

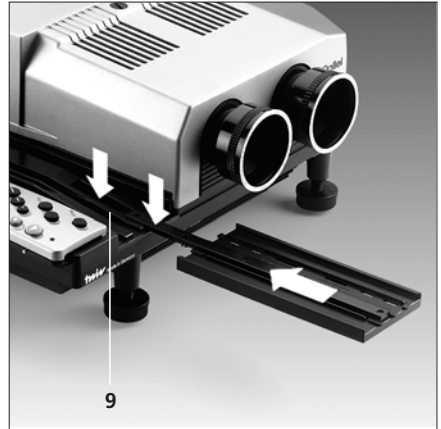
» To attach a track extension, engage its studs into the corresponding holes 9 of the magazine track where they are engaged by the force of springs.



CAUTION:

Even with the track extensions in place, never have more than two magazines on the track at any time.

Rollei CM-55/50 magazines can also be used on their own as standard magazines on any projector designed to take this type of magazine.



.....

.....

1.1 Logging a manually controlled slide show

Unnoticed by the user, the projector will automatically log the slide data in its working memory during a normal slide show. These include: Slide number as well as dissolve and screen time, which are logged under a common program number. If a dissolve time is changed by pressing one of the three dissolve buttons **14**, this will be logged during the following dissolve. The timer interval recorded is always equivalent to the screen time of a slide between the end of its fade-in and the beginning of its fade-out.

»» In the timer mode, the show can be stopped and continued by pressing the »stop/go« button **16**. The resultant extended screen time will be recorded.

»» Dissolves also can be stopped with the aid of the »stop/go« button. However, this will not be logged.

NOTE: Logged data will be lost if the projector is switched off.

1.2 Running a test

A manually controlled slide show can immediately be repeated automatically for testing purposes.

»» To do this, switch on the »test« mode by pressing the »mode« button **35** after the end of the show.

»» Playback can be started immediately by pressing the green forward button **19**.

»» Use the »stop/go« button **16** to stop and restart a dissolve or the timer.

»» The show can be terminated at any time by pressing the »end« button **12**.

The »memo« button **21** can be activated as in the manual mode.

Making corrections during a test run

It is often necessary to change the dissolve or screen time of a slide.

»» To do this, press the »stop/go« button **16** during the test run while the corresponding slide is being shown.

»» If the timer-correction button **37** or one of the three dissolve buttons **14** is then pressed, this will change the previously recorded screen time of the slide being shown or the dissolve duration from this to the next slide.

»» If, however, the dissolve time being watched is to be corrected, first press the red reverse button before making the correction. Additional reverse commands are, however, impossible during test runs.

»» To resume the show, press the green forward button **19** or the »stop/go« button **16**.

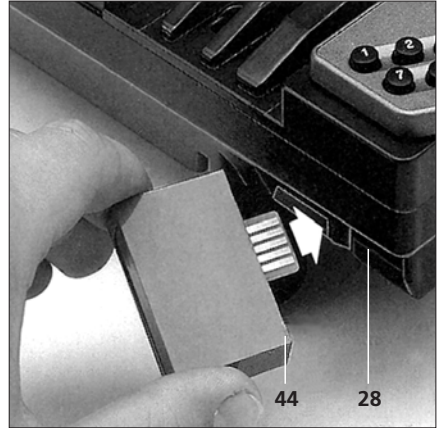
PROGRAMMING

1.3 Chip modules

A slide show logged in the program storage of the projector can be permanently saved in an interchangeable chip module 44. The slot for this module is located underneath the control panel.

Modules are available with a capacity of approx. 120 slides (module 100) or approx. 400 slides (module 300). The capacity may vary depending on the slide information involved. All modules can be read and overwritten as often as desired. In each case the entire contents of the module is loaded into the projector's program storage or the latter's content into the type 100 or 300 module (insofar as this is possible).

NOTE: Standard equipment of the projector is a type 100 module.



1.3.1 Saving in the chip module

When saving a show in the module, the data logged in the working memory of the projector are transferred to the module.

»» To do this, press the »mode« button 35 to set the »record« mode. The LED of the »module« button 36 will blink.

»» After pressing the »module« button 36, the word »record« will also blink, signaling that any further depression of the »module« button will completely erase the information stored in the module.

»» The logged data are transferred to the module after the second depression of the »module« button. During this process, the LED of the »module« button 36 is lit. It will go out as soon as the recording is complete, and the projector will automatically switch to the »test« mode. The data of the show remain logged in the working memory.

If there is no module in the slot, the LED will keep blinking.

The »module« LED will also blink if the capacity of the module is insufficient. However, the show has been saved as far as possible.

»» In this case, quit the »record« mode by pressing the »mode« button 35.

NOTE: Do not switch off the projector during saving!

1.3.2 Playing back a show saved in the module

To play back a show saved in a module it is necessary to transfer its data into the working memory of the projector.

»» To do this, set the »auto« mode by pressing the »mode« button 35. The LED of the »module« button 36 starts blinking.

»» After depression of the »module« button 36, a copy of the data in the module will be transferred from the latter to the working memory.

»» The show can be started immediately by pressing the green forward button 19.

»» Using the »stop/go« button 16, dissolves or the timer can be stopped and restarted.

»» The »memo« button 21 can be activated as in the manual mode.

»» The show can be terminated at any time by pressing the »end« button 12.

1.3.3 Miscellaneous

The »test« and »auto« modes are similar. The only difference is that corrections can be made in the »test« mode and that module data can be loaded down from the module in the »auto« mode.

1.4 Direct access to specific slides in the »auto« and »test« modes

As in the »manual« mode, direct access to all slides in the working memory is also possible in the »test« and »auto« modes. The run can be started in three different ways:

- »» 1. By pressing the green forward button.
- »» 2. By accessing a slide slot using the »focus« buttons 15 and then pressing the green forward button 19.
- »» By entering the number of the slide slot on the numerical keyboard and pressing the green forward button 19.

The projector will then search for the program number under which the selected slide number is logged. This and the slide registered under the following program number will be moved into the projector.

- »» During a slide show, direct access is possible at any time using the keyboard and then pressing the green forward button 19. In this case, the slide in the standby position is exchanged for the one selected and then faded in.

NOTE:

Direct access is possible in the »auto« and »test« modes only if the slide selected does exist in the working memory.

NOTE:

An uninterrupted show of over 100 slides can be assembled only with type CM 55/50 Rollei hook-up magazines. If such a show is to start with slide (slot) number 175, for example, first enter the figure 175 via the keyboard and then press the green forward button 19. As a result, the magazine will not advance by 175 slide slots, but only by 25 - the projector assuming that the magazine with slides 151 to 200 is in place. The projector will start operating that way beginning with slide (slot) number 101.

2.1 Programming a slide show with the aid of "enter mode 1"

Input via the keyboard offers a much greater number of possibilities for assembling a slide show. In this case, it is not necessary to run the show in parallel, as has been described under 1.1. In addition, → special functions can be programmed as well.

Setting up a table like the one shown on page 46 is helpful because it allows one line of the program after another to be processed. "Enter mode 1" is used for programming.

For this purpose,

»» select the »test« mode using the »mode« button 35

»» and press the »enter« button 39.

The slide show can now be entered with all desired special effects.

2.1.1 Program number

»program« blinks in the display 41, prompting you to enter the program number via the keyboard 40. It is advisable to start the program with number 1. After input, press the »enter« button 39. This transfers the selected number to the working memory where it is logged. The highest program number is 999. In other words, a show may include up to 999 slides.

2.1.2 Slide number

After transfer of the program number, »position« will now blink in display **41**. The digit field shows the slide (slot) number previously entered under this program number.

»» To accept this time, press »enter« button **39**.

»» To input a different number, use the keyboard

»» and press »enter« button **39** to log it in the working memory. The highest possible slide number is 999.

2.1.3 Dissolve time

After transfer of the program number, »position« will now blink in display **41**. The digit field shows the dissolve time previously entered under this program number. When programming a new show, the default dissolve time of 2.5 second is prompted.

»» To accept this time, press »enter« button **39**.

»» To input a different time, use the keyboard and confirm by pressing »enter« button **39**.

Any dissolve duration between 0.1 s (cut) and 25 s may be chosen.

2.1.4 Screen time (timer)

Upon transfer of the dissolve time, »timer« will blink in display 41. The digit field shows the screen time previously entered under this program number. When programming a new show, the default timer interval of »0« second will be prompted - in other words, the timer is inoperative.

>> To accept this interval, press »enter« button 39.

>> To input a different interval, use the keyboard and confirm by pressing »enter« button 39.

Timer intervals can only be input in increments of full seconds.

When the timer is inoperative, the forward command is either given by pressing the green forward button 19 or by the forward command from the sync-pulse generator or the computer. Screen time can be set in steps of one second from 4 s (MSC 535 P 5 s) to 600 s. It should not be shorter than the time required for slide changing (longer in the case of far-distant slides).

NOTE:

The display will always show the timer interval in full seconds. In other words, a timer interval of, say, 7.8 s previously saved in another mode will be shown as 7 seconds.

>> After pressing the »enter« button 39, the interval displayed will be transferred to the working memory - 7.0 seconds in our example.

>> To avoid accidental change of the timer interval, do not press the »enter« button 39, but the »timer(+)correction« button 37 to activate the timer (->2.1.7).

2.1.5 Special functions

After transfer of the screen time, »SF« will now blink in display 41.

The digit field shows the program number of the special function previously recorded.

When programming a new show, special function »0.0.0« will be prompted. In other words, no special function will be used.

If the slide is to be projected without any special function,

»» press the »enter« button 39.

To enter another special function,

- »» use the keyboard
- »» and confirm by pressing »enter« button 39.

The possibilities afforded by the special functions is described in detail under 2.1.9. To enter one of the special functions listed in the corresponding table,

- »» use the keyboard
- »» and confirm by pressing »enter« button 39.

2.1.6 Next program line

After all the parameters (slide slot number, dissolve time, screen time and special function) have been entered for a slide, »position« will again blink in the display, and the next-higher program number will appear.

The information for the next program line (program step) can now be entered.

To correct slide information anywhere within the program, overwrite the program number displayed using the keyboard and confirm by pressing »enter« 39.

-> To continue, see 2.1.1.

2.1.7 "Enter mode 1" details

With the aid of the timer-correction buttons **37** the program may be checked line by line, with the green forward and the red reverse button **2 19/20** column by column.

Errors should immediately be corrected by overwriting before pressing the »enter« button **39**.

Should the error be detected only after depression of »enter« button **39**,

- »» press »timer(-)correction« button **37**, until the same letter field is blinking again.
- »» Then enter the desired information.
- »» Always confirm any change or new entry by pressing the »enter« button **39**.

NOTE:

Any numerical input followed by depression of the »end« button **12** or the »mode« button **35** will be lost.

- »» To quit the "enter mode 1", simply press the »end« button **12** or the »mode« button **35**.

2.1.8 Additional corrections during test run

In the »test« mode, the "enter mode 1" may be used to make changes in a current show via the keyboard. Slide data may be changed at will. These include slide number, dissolve time, screen time and special functions. The changes are logged in the working memory.

- »» To do this during the show, press the »stop/go« button **16** in the »test« mode.

The "enter mode 1" is active after the »enter« button has been pressed.

- »» Next, select the program number (line) that is to be changed. To aid your orientation, the currently active program number is shown.

- »» Confirm the (new) program number by pressing »enter« **39**. The slide (slot) number entered under this program number appears and may be changed.

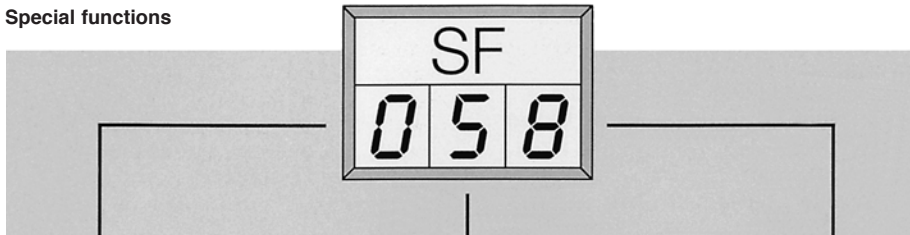
After depression of »enter« **39**, the dissolve time, etc., appear in the display.

- »» Terminate the change by pressing the »end« button **12**
- »» and resume the show by pressing either the »stop/go« button **16** or the green forward button **19**.

2.1.9 Description of special functions

The term "special function" covers all functions other than standard dissolve of one slide onto another. It always refers to the slide under which the function is entered. There are special light functions and special mechanical functions.

Special functions



Mechanical functions

- 0 Normal slide change
- 1 Autoreverse
- 2 Slave pulse at beginning of a dissolve
- 4 Slave pulse roughly in the middle of a dissolve

Function 1 can be combined with functions 2 or 4 by entering the the corresponding sum.

Light functions

- *0 Normal dissolve
- 1 Fade-in/sandwich
- 2 Freeze
- 3 Blinking
- 4 Flashing
- 5 Toggling
- *6 Fade-out of previous program step/fade-in of slide of current program step
- *7 Fade-out of slide of previous program step / pause / continue with slide of current program step by pressing forward button.

Number / Duration

-
- 1 sec . . . 9 s
- 1 sec . . . 9 s
- 1 x . . . 9 x
- 1 x . . . 9 x
- 1 x . . . 9 x

* Only light functions 0, 6 and 7 can be combined with the mechanical functions.

2.1.9.1 Special light functions

Fade-in/sandwich

In the »test« and »auto« modes, a slide with the „fade-in“ special function entered in its program line will be faded into the slide already being projected in the other projector channel with full brightness. The screen time of the fade-in slide can be selected between 1 and 9 s. The fade-in and fade-out times will depend on the dissolve time entered for that slide. The timer interval programmed for the slide gives the screen time of the slide in the other channel after the end of the fade-in function.

Freeze

In the »test« and »auto« modes, a slide with the „freeze“ function entered in its program line will be stopped in mid-dissolve. The freeze time can be chosen between 1 and 9 seconds.

Blinking

In the »test« and »auto« modes, a slide with the „blinking“ function entered in its program line will be faded in blinking into the slide being projected in the other projector channel with full brightness. The number of blinking cycles may be chosen between 1 and 9. The duration of fade-in/fade-out depends on the dissolve time entered for the fade-in slide, but should be kept brief in order to preserve the impression of blinking. The timer interval selected gives the screen time of the slide in the other channel after the end of the blinking function.

Flashing

→ Blinking – reduced duration.

Toggling

In the »test« and »auto« modes, a slide with the „toggling“ function entered in its program line will be projected alternately with the slide already on the screen. The number of toggling cycles can be varied from 1 to 9. The toggling characteristics can be varied with the aid of the dissolve time entered. The timer interval selected gives the screen time of the slide in the other channel after the end of the toggling function. The toggling cycle always ends with the slide in the other channel.

Fade-in/fade-out

In this function, the previous slide will first fade out completely before fading in again. This is useful if two slides should not be dissolved, for instance when changing from horizontal to vertical format.

Fade-out – pause – fade-in

This function may be selected if the show is to be interrupted. The previous slide is faded out. The next slide is faded in and the show resumes only after renewed depression of the green forward button.

2.1.9.2 Special mechanical functions

Autoreverse

In the »test« and »auto« modes, a slide with the „Autoreverse“ function entered in its program line will automatically be followed by the first slide of the show. The transition will be seamless, in other words, there will be no blackout.

Master-slave operation

In the »test« and »auto« modes, a slide with one of the two „master-slave“ functions entered in its program line will cause a control pulse to be applied to the PC terminal. With a Rollei adapter cable connected to the remote-control terminal (RC terminal) of another MSC 325 P, MSC 535 P, MSC 300 MSC 300 P, MSC 320 S or MSC 330 P, this may be used to trigger a forward pulse in a slave. The pulse may be applied either at the beginning or in the middle of a dissolve. If the slave also is a type MSC 325 P, MSC 535 P, MSC 330 P or MSC 300 P projector, this may execute special functions and can in turn be used as a master driving an additional slave. Depending on its operating mode, the latter will use the dissolve times and, possibly, special functions either according to the dissolve time set on its keyboard (manual mode) or the data in its working memory (test or auto mode). A certain triggering delay is, however, unavoidable in a ladder network.

NOTE: To avoid malfunctions, make sure that the slave projector has completed its dissolve or special function before a slave command is given.

2.1.9.3 Entering special functions

See page 43, top.

PROGRAMMING

Sample program

Program-No.	Slide-No.	Dissolve	Timer	Special function	Comments
1	5	5.0	9	000	000 need not be entered if »enter« is pressed.
2	6	2.5	6	000	
3	7	0.5	10*	043	Flash slide 7 three times into slide 6. Brief flash duration of 0.5 s. Dissolve time * screen time of slide 6 after end of flashing.
4	9	3.0	8	000	
5	3	1.5	16**	018	Fade slide 3 into slide 9 for 1.5 s. Fade-in duration 8 s. ** screen time of slide 9 after end of fade-in.
6	6	1.0	20***	054	Toggle slide 6 four times with slide 4. *** screen time of slide 9 after end of toggling.
7	1	0.5	9	028	Freeze dissolve of slide 9 onto slide 1 for 8 s.
8	2	2.0	6	060	Fade out slide 1, then fade in slide 2.
9	3	1.0	5	100	Autoreverse dissolve of slide 3 onto slide 5 (then start of program) with dissolve time of slide 5.
<p>Enter special function »000« (none) if the show is to stop after program number 9. Slide 3 will then automatically be faded out for 2.0 s. If another fade-out duration - e.g. 5.0 s - should then be desired, add program line 10 in which only the fade-out time need be entered.</p>					
9	3	1.0	5	000	
10	0	5.0	0	000	Slide 3 fades out for 5.0 s.

Entering an example:

```
>> Use »mode« button to select »test«
>> enter      -> Program No. 1 is
prompted
>> enter      -> ... accepted,
                slide no. is prompted
>> 5          -> overwrite with slide no. 5
>> enter      -> accepted,
                dissolve time is prompted
>> 5-0       -> overwrite with 5.0 seconds
>> enter      -> accepted,
                timer interval is prompted
>> 9          -> overwrite with 9 seconds
>> enter      -> accepted,
                special function is prompted
>> enter      -> unchanged, previous
value (here »000«) is taken over
```

Program 2 is prompted

```
>> enter      -> program number
accepted,
                slide no. is prompted
>> 6          -> overwrite with slide no. 6
>> enter      -> accepted,
                dissolve time is prompted
>> 2-5       -> overwrite with 2.5 s
>> enter      -> accepted,
                timer interval is prompted
>> 6          -> overwrite with 6 seconds
>> enter      -> accepted,
                special function is prompted
>> enter      -> unchanged, the pre-
vious value (here »000«) is taken over
```

Program 3 is prompted

```
>> enter      -> program number
accepted,
                slide no. is prompted
```

```
>> 7          -> overwrite with slide no 7
>> enter      -> accepted,
                dissolve time is prompted
>> 0-2       ->overwrite with 0.2 second
>> enter      -> accepted,
                timer interval is prompted
>> 1-0       -> overwrite with 10 seconds
>> enter      -> accepted,
                special function is prompted
>> 0-4-5     -> overwrite with special
function „Flashing“ (5x)
>> enter      -> accepted
```

Program 4 is prompted

```
>> enter      -> program number
accepted,
                slide number is prompted
>> 9          -> overwrite with slide number 9
>> enter      -> accepted,
                dissolve time is prompted
>> 3-0       -> overwrite with 3 seconds
>> enter      -> accepted,
                timer interval is prompted
>> 8          -> overwrite with 8 seconds
>> enter      -> accepted,
                special function is prompted
>> enter      -> unchanged, previous
value (here »000«) is taken over
```

Program 5 is prompted

```
>> enter      -> program number
accepted,
                slide no. is prompted
>> 3          -> overwrite with slide no. 3
>> enter      -> accepted,
                dissolve time is prompted
>> 1-5       -> overwrite with 1.5 second
>> enter      -> accepted,
```

PROGRAMMING

timer interval is prompted
>> 16 -> overwrite with 16 seconds
>> enter -> accepted,
special function is prompted
>> 0-1-8 -> overwrite with "Fade-
in" special function (8 s)
>> enter -> accepted

Program 6 is prompted

>> enter -> program number
accepted,
slide no. is prompted
>> 6 -> overwrite with slide no. 6
>> enter -> accepted,
dissolve time is prompted
>> 1-0 -> overwrite with 1.0 second
>> enter -> accepted,
timer interval is prompted
>> 20 -> overwrite with 20 seconds
>> enter -> accepted,
special function is prompted
>> 0-5-4 -> overwrite with "Togg-
ling" special function (4x)
>> enter -> accepted,

Program 7 is prompted

>> enter -> program number
accepted,
slide no. is prompted
>> 1 -> overwrite with slide no. 1
>> enter -> accepted,
dissolve time is prompted
>> 0-5 -> overwrite with 0.5 second
>> enter -> accepted,
timer interval is prompted
>> 9 -> overwrite with 9 seconds

>> enter -> accepted,
special function is prompted
>> 0-2-8 -> overwrite with "Free-
ze" special function (8 s)
>> enter -> accepted,

Program 8 is prompted

>> enter -> program number
accepted,
slide no. is prompted
>> 2 -> overwrite with slide no. 2
>> enter -> accepted,
dissolve time is prompted
>> 2-0 -> overwrite with 2 seconds
>> enter -> accepted,
timer interval is prompted
>> 6 -> overwrite with 6 seconds
>> enter -> accepted,
special function is prompted
>> 0-6-0 -> overwrite with "Fade-
out/fade-in" special function
>> enter -> accepted,

Program 9 is prompted

>> enter -> program number
accepted,
slide no. is prompted
>> 3 -> overwrite with slide no. 3
>> enter -> accepted,
dissolve time is prompted

- >> 1-0 -> overwrite with 1.0 second
- >> enter -> accepted,
timer interval is prompted
- >> 5 -> overwrite with 5 seconds
- >> enter -> accepted,
special function is prompted
- >> 1-0-0 -> overwrite with „Auto-
reverse“ special function
- >> enter -> accepted,

Program 10 is prompted

- >> end -> End of program

- >> The programmed slide show can now be started by pressing the green forward button.

It is advisable to save the program by transferring it from the working memory to a chip module (-> module).

NOTE:

It is highly recommended that long slide shows be programmed in sections and saved in a chip module.

- >> To do this, terminate programming by switching from the »test« to the »record« mode using the »mode« button. The program can then be saved in a module as previously described.

- >> Next, switch back to the »test« mode

- >> and press the »enter« button again. Programming can now be resumed

- >> by selecting the next program number.

The previous data will remain in the working memory and have not been changed in any way by saving. If the projector is switched off in between, the contents of the module will have to be loaded into the working memory of the projector before resuming programming.

Slide shows programmed with the previous Rolleivision 35 Twin Digital / P can be played back and edited with the Rolleivision MSC 325' P, MSC 535P, MSC 300 P, MSC 330 P.

The opposite, however, is not possible.

2.1.10 Several slide shows in one module

shows might look as follows:

2.1.10.1 Slide shows in several magazines

If a show is started with a slide (slot) number of 1, 101, 151, 201, 251, 301, 351, 401 ... 951, it will always begin with the first slide of the corresponding magazine. This may be used to save several slide shows in one chip module. It should be noted, however, that the projector will always save the entire contents of its working memory in one module. Consequently, if a new show has to be expanded, the old shows will first have to be loaded down from the module into the working memory. A combination of several slide

	Program No.	Slide No.	
Show 1:	1	1	
	2	2	
	3	3	
	.	.	
	.	.	
	36	36	
	37	0 !!	
Show 2:	38	101	
	39	102	
	40	103	
	.	.	
.	.		
59	122		
60	0 !!		
Show 3:	(Slide sequence may also be irregular!)		
	61	151	
	62	162	
	63	195	
	64	155	
	.	.	
	.	.	
	114	205	
	115	0 !!	
	Show 4:	116	251
		117	255
.		.	
.		.	
293	442		
294	0 !!		

It should be noted that every show has to end with a »0« slide number. In the case of irregular slide sequence, slide numbers must not be lower than the number of the starting slide.

Note: To allow subsequent program expansion of the different shows, some gaps should be left in the current program numbers. However, these should not be too large because they use up module space.

	Program No.	Slide No.
Show 1:	.	.
	.	.
	36	36
	37	0 !!
Show 2:	70	101
	71	102
	72	103
	.	.
	.	.
	91	122
	92	0 !!

2.1.10.2 Several shows in one magazine

There may also be several shows in one magazine. Each starting slide should be selected via the keyboard upon starting.

	Program no.	Slide No.
Show 1:	1	1
	2	2
	3	3
	4	4
	5	0 !
Show 2:	6	16
	7	17
	8	18
	9	19
	10	20
	11	0 !!
Show 3:	(The data sequence may also be irregular, and it is even possible to use slides from preceding shows. However, starting slides may not be used in any other show.)	
	12	25
	13	29
	14	3
	15	17
	16	20
	17	0 !!

2.2 Enter mode 2 (varying projector parameters)

“Enter mode 2” permits factory settings to be varied. These include the dissolve times of two of the three dissolve buttons, the brilliance of the projection lamps and the stereo mode. The corrected parameters have to be saved and reactivated as needed, because the projector will revert to its factory settings every time it is switched on.

To set “enter mode 2”,

»» select the »record« mode using the »mode« button **35**

»» and press the »enter« button **39**. The information “PP” (projector parameter) appears in display **41**.

»» Depression of the »enter« button will transfer a changed value to the projector, automatically terminating “enter mode 2”. The mode display changes from »record« to »manual«.

2.2.1 Varying dissolve time with the IR remote control

The medium and long dissolve times can be varied over a range of 1 – 25 s in steps of one second.

»» The first figure entered on the keyboard selects the dissolve button. Then enter two digits for the dissolve time

»» and save it by pressing the »enter« button **39**.

2 x x “medium” dissolve button

3 x x “long” dissolve button

2.2.2

Adjusting basic projection-lamp brilliance

MSC 325 P:

Basic lamp brilliance can be reduced.

» Entering the figure 1 on the numerical keyboard selects the dimmer mode of a volatile memory.

» Enter a two-digit dimmer value

» and confirm by pressing »enter« 39.

The following table gives approximate output values.

4 0 0	Brilliance	100%
4 1 0		90%
4 2 0		80%
4 4 0		70%
4 8 0	Brilliance	50%

» When switching the projector on, the default setting is always 100%.

MSC 535 P:

The MSC 535 P has an additional boost mode allowing basic brilliance to be increased, if necessary.

Note:

The boost mode may shorten lamp life.

The following tables give approximate values and differ only by selection of a volatile or non-volatile memory.

4 8 1	Brilliance	80%
4 8 2		90%
4 8 3		100%
4 8 4	Brilliance	approx. 110% (boost mode)

» When switching the projector on, the default setting is always 100%.

4 9 1	Brilliance	80%
4 9 2		90%
4 9 3		100%
4 9 4	Brilliance	approx. 110% (boost mode)

» The value selected will remain locked in memory even if the projector is switched off.

2.2.3 Stereo mode

To switch the projector to stereo mode,

- >> enter the figures 5-0-1
- >> and press the »enter« button.

To quit the stereo mode,

- >> enter 5-0-0
- >> and press the »enter« button **39**.

In the stereo mode, two slides are projected at a time with full lamp power. To protect the linear polarizing filters from excessive heat, stereoscopic projection is limited to one minute per slide pair.

- >> To project another slide pair, press the green forward button **19**.
- >> Pressing the »memo« button **21**, up to eight discrete slide pairs can be repeated after the show.

No special functions (except for master-slave pulses) are available in stereo mode.

2.2.4 Saving/reactivating projector parameters

To save the selected projector parameters for later use (beyond switching the projector off),

- >> enter the figures 0-0-2
- >> and press the »enter« button **39**.

To reactivate the selected parameters after switching on the projector,

- >> select "enter mode 2",
- >> enter the figures 0-0-1
- >> and press the »enter« button.

3.1 "DiaEdit Win"

The Rollei "DiaEdit Win" software has been developed especially for IBM-compatible PCs and serves to simplify the assembly even of sophisticated slide shows. It allows the slide information required, such as program number, slide (slot) number, dissolve time, screen time and special functions, to be presented on the screen in tabular form for editing. The course of the show can easily be followed on the screen, interrupted and terminated at will. The programs can be downloaded into a PC or into a chip module and can be reloaded at any time. Printing and copying (partial) programs onto each other are additional features of "DiaEdit Win".

4. Sync-pulse control

The projector has a special terminal (26) for this purpose. The following equipment is recommended for sound recording:

--> GEBUHR DIA-AV Recorder

--> KINDERMANN AV Stereo Radio Recorder.

These are stereo recorders with a freehead track and integral sync-pulse generator for projector control. The Rollei Adapter Cable 83 881 is needed for connecting the recorder to the projector. The cable is connected to terminal 26 of the projector. It is 1.5 m long.

Other suitable equipment is made by Fostex, Tascam and Yamaha.

These units use an external sync-pulse generator, such as the Rollei RCP Slide Synchronizer **62 656**. Be sure to follow the instructions supplied with these units.

NOTE:

Since the feed pulses are generated by the sync-pulse generator or AV recorder, timer intervals have to be deleted from programmed shows!

>> To do this, press the »timer« button in the »record« mode. It is advisable to delete the timer intervals before saving the show in the chip module.

HELPFUL HINTS ON SLIDE PROJECTION

Standby/Pause

At the start of a show, the first two slides have to be moved into the projector from the magazine before the first fade-in. The corresponding delay can be avoided only if the slides are moved into position beforehand.

- »» To do this, press »stop/go« button **16**,
- »» followed by green forward button **19**.

The first two slides are loaded into the projector.

Fade-in will follow only when the green forward button is pressed the next time. The »timer« LED will blink during waiting.

The forward commands may also be given by the sync-pulse generator or the computer. Standby operation is also possible if a discrete slide in the magazine is to be accessed directly via the keyboard.

During projection in the manual mode (timer disabled), the slide show may be interrupted.

- »» To do this, press the »stop/go« button,
- »» followed by the green forward button.

The current slide fades out, and the pause light comes on.

- »» To resume the show, press the forward button.

The screen

is a decisive factor in determining the quality of your projected images. A tensioning device taking creases out of the screen is very desirable. Larger screens mean greater impact.

The larger the screen, the more impressive the projected image.

- »» Select a large-enough screen - about 1.5 m y 1.5 m for home projection. Screens of 1.8 m

x 1.8 m to 3 m x 3 m are suitable for large to very large rooms.

- »» Set the screen up vertically (and parallel to the front of the projector). The center of the screen should be at the same height as the projection lenses and about 25 cm above the audience's eye level.

In very large rooms alignment is easier if you tilt the top of the screen about 5 - 10° towards the projector.

In small rooms it may be helpful to set up the projector in an adjacent room and project through an open door.

NOTE:

The table on pages 68/69 gives screen sizes and projection distances for different lenses.

HELPFUL HINTS ON SLIDE PROJECTION

Changing lenses

- » Unscrew the lenses by turning them counterclockwise.
- » Clean the glass surfaces of two lenses of matching focal length and screw them into the projector.
- » Repeat basic manual focusing.

Zoom lenses with focal lengths between 70 and 120 mm are useful for projection in rooms of different size and make it easier to match the slide size with the screen size.

Rollei AV-Apogon and Schneider-Kreuznach AV-Xenotar lenses meet the most stringent demands for edge sharpness, uniform illumination and color balance. They are renowned as high-performance slide-projection lenses bringing to the screen the outstanding image quality of modern camera lenses.

Sophisticated slide shows

- » Select slides very critically, eliminating repetitions and poor quality.
- » Avoid frequent changes between daylight and flash shots as well as random series of personal souvenir pictures.
- » Assemble powerful series of uniform predominant color, candid shots, etc.
- » Focus and adjust images before beginning the show.
- » Always keep a spare lamp ready.
- » Keep the number of slides to a tolerable level.
- » Allow for pauses in the show to keep up the interest of viewers.
- » Terminate your show with a particularly evocative slide.
- » Use subdued room lighting before the show and for a while after it.
- » Matching background music improves any slide show. For today's audience, accustomed to TV, it is almost essential, particularly if there is no commentary.

PRACTICAL TIPS

Stereoscopic projection

>> Precisely mounted slides are a prerequisite for troublefree stereoscopic projection.

- Be sure to use a metal-coated screen that will not affect polarization. Align the projector so that its axis is perpendicular to the screen to avoid light falloff.

>> Insert the original Rollei polarizing-filter set (Cat. No. 38 130) behind the projection lenses. No adjustment is required. Other polarizing filters should be adjusted to suit the spectacles used. Suitable slip-on polarizing filters of 54 mm diameter - for example from Heliopan - for 60 mm f/2.8, 90 mm f/2.4, 90 mm CF f/2.4 or 150 mm f/2.8 are available from photo dealers.

>> Literature about stereoscopic photography and projection is likewise available from the photo trade.

In the case of misalignment, for instance due to differences in slide mounts, lateral or vertical adjustment is possible with the overlap dial 31 and setscrew 32.



In case of malfunction

In the case of a malfunction, the projector automatically switches off the lamps, and the pause light 42 blinks.

Do not switch off the projector!

>> Press »end« button. The projector will try to correct the problem on its own and will eject the magazine.

Slides still in the projector will be returned to the magazine. Steady lighting of the pause light indicates that the malfunction has been corrected. The projector is ready to resume operation.

Should the problem persist, proceed as follows:

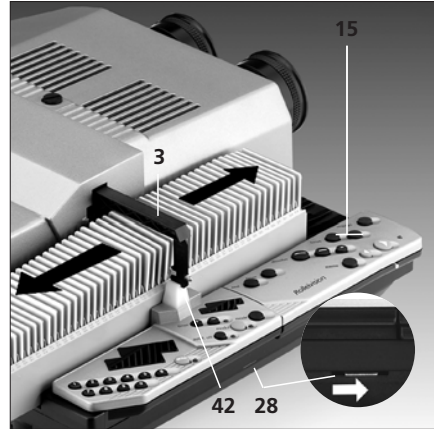
- >> Switch projector off.
- >> Pull power plug!
- >> Remove cover.

If the slide changer 3 is jammed in the magazine or in the slide stage:

>> Pull out or push back the changer in whichever direction it can move, returning the slide either to the magazine or the slide stage.

If the slide changer 3 or a jammed slide does not obstruct the magazine:

>> Remove magazine from track by pushing back the emergency lever 29.



When the projector is switched on again after a malfunction, the magazine is automatically returned to starting position, and slides are ejected.

If you wish to continue the show where it broke off:

- >> Insert the magazine as far as it will go.
- >> Select desired slide slot pressing »focus« button 15.

NOTE: If a slide show has to be resumed at a high slide number, such as 321, insert the magazine with slot numbers 301-350 and enter slide number 321. After depression of the green forward button 19, the magazine will move forward by 21 slots and start projection there. The correct slide number 321 will appear in the display.

MALFUNCTIONS

Changing lamps

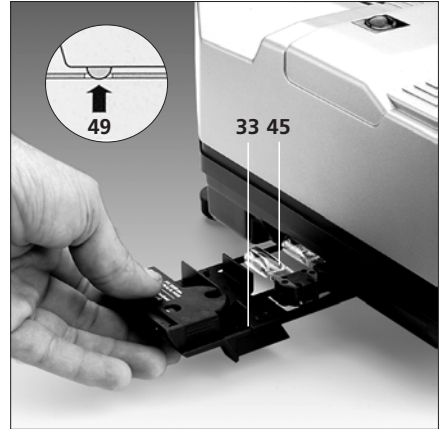
>> The lamp module of the MSC 535 P comes with four lamps. Should one of the lamps fail, press down release 49 and pull the module out slightly by its grip, until it engages in the position provided for the spare lamp.

>> To change a lamp, press release 49 and completely remove lamp unit 33 by its grip.

>> Remove the faulty lamp from its base, and replace.

A spare lamp unit for the MSC 535 P is available as an optional accessory under Cat. No.

38 131.



Caution: Lamps are hot! Risk of burns!

>> Push spare lamp 45 with its protective sleeve all the way into the base.

>> Only then remove the protective sleeve. Never touch the lamp bulb with your bare fingers!

>> To facilitate an exchange of lamps, it is advisable always to keep a spare lamp unit ready.

A spare lamp unit for the MSC 325 P is available as an optional accessory under Cat. No.

66 393.



CAUTION:

Only 24V/150W halogen lamps are suitable for use in the MSC 325 P. These are available from Rollei under Cat. No. 66 380.

The MSC 535 P comes with 24V/250W halogen lamps. These are available from Rollei under Cat. No. 85

To avoid accidents, always take the following precautions:

Before all maintenance work

- » Remove the magazine and leave the fan running for a few minutes to cool down the inside of the projector.
- » Switch the projector off.
- » Pull the power plug!
- » Remove the cover.

After all maintenance work

- » Replace and secure cover.
- » Only then (!) reconnect the projector to the power supply!
- » Check all functions.

CARE AND MAINTENANCE

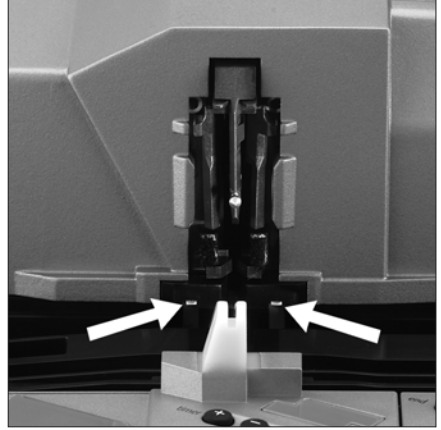
Magazine track

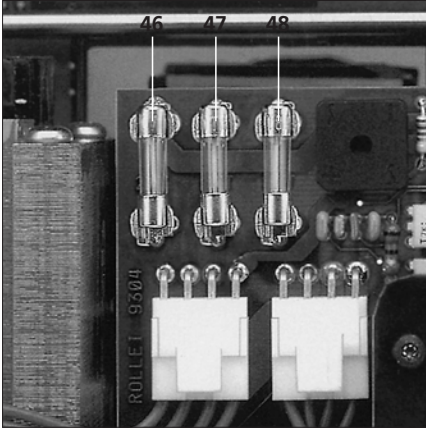
>> Regularly remove dust and other foreign particles with a soft brush, paying special attention to the optical magazine-scanning aperture (see illustration).

Optical system

>> Use a long, soft camel-hair brush to dust all glass surfaces in the two slide stages.
>> Remove the lenses and clean their exposed glass surfaces with lens-cleaning tissue.

This cleaning is required only now and then because with the projector running the cooling air carries away most of the dust. What is much more important is to keep your slides clean and free from dust!





Changing fuses

The illustrations show the location of the three fuses.

>> Pull the defective fuse MSC 325 P 46 (T 2 A/250V) or 47, 48 (T 8 A/250V) out of its holder and replace.

>> Pull the defective fuse MSC 535 P 46 (T 2 A/250V) or 53, 54 (T 10 A/250V) out of its holder and replace.



CAUTION:

Should the new fuse blow right away, do not try any DIY repair (which would invalidate the Rollei warranty), but have the projector repaired by Rollei Service.

NOTE:

Spare fuses are available from photo or electronics dealers.

Rollei Service

has experts to service your Rollei projector and advise you on all aspects of photography and projection with Rollei equipment.

Please call

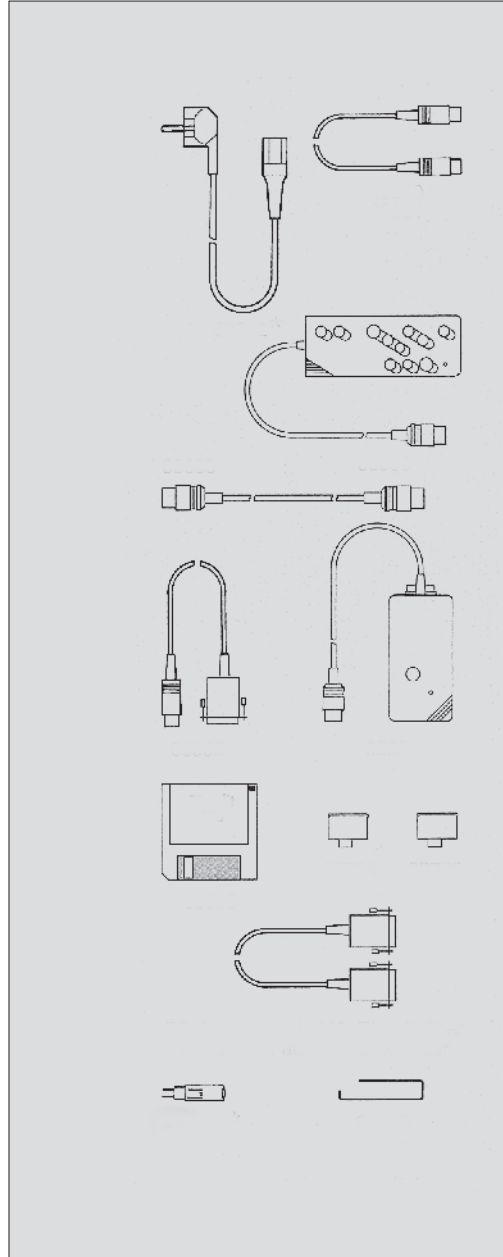
Technical support: + 49 531 68 00-2 77

Service: + 49 531 68 00-3 33

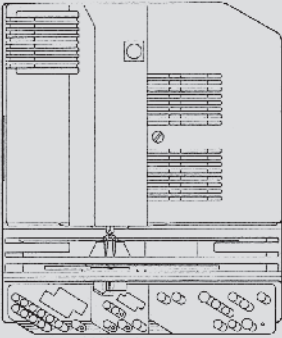
DEDICATED ACCESSORIES

The MSC System

- 38 152 Rolleivision MSC 535 P projector body
- 38 112 Rolleivision MSC 325 P projector body
- 36 985 Rollei AV Apogon 35 mm f/2.8
- 83 891 AV-Xenotar 60 mm f/2.8 HFT
- 83 887 Rollei S-Heidosmat 90 mm f/2.8 MC
- 85 147 AV-Xenotar 90 mm f/2.4 HFT
- 83 893 AV-Xenotar CF 90 mm f/2.4 HFT (for Kodak cardboard mounts)
- 62 094 AV-Xenotar 90 mm f/2.4-8 HFT, with iris diaphragm
- 85 149 Vario-Xenotar 70-210 mm f/3.5
- 83 889 AV-Xenotar 150 mm f/2.8 HFT
- 85 137 Rollei AV-Heidosmat 250 mm f/4.3
- 66 383 Carrying case
- 63 401 Rollei CM-55/50 magazine in stackable box
- 83 342 Power cable
- 83 880 Adapter cable, 8/6pin, for sync-pulse-generator control
- 83 881 Adapter cable, 8/6pin, for AV-stereo-recorder control
- 62 656 Rollei RCP Sync-pulse Generator
- 66 992 Master/slave cable
- 83 784 Type 100 chip module (black)
- 83 785 Type 300 chip module (red)
- 66 994 DiaEdit Win software
- 26 750 Magazine extension-track set
- 66 380 24V/150W halogen lamp
- 85 034 24V/250W halogen lamp
- 85 060 Lamp extractor
- 66 393 Spare lamp unit MSC 315 / 325 P
- 66 131 Spare lamp unit MSC 535 P



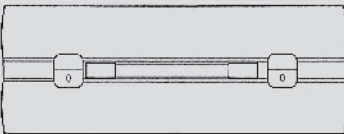
DEDICATED ACCESSORIES



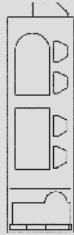
38152/38112



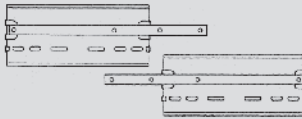
63401



66383



3813166393



26750



36985



83891



83887



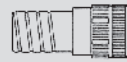
85147



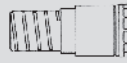
83893



62094



85149



83889



85137

TROUBLESHOOTING

Problem	Cause
Image blurred	Lenses dirty or fogged. Slide inserted the wrong way. Faulty focusing after change of lenses. Autofocus switched off.
Image shows keystone distortion	Projector or screen too high, too low or not at right angles to each other.
Unsatisfactory image registration	Misalignment Slide mounts inaccurate or too different.
Color fringes in light portions of image	"Newton's rings" – Interference phenomena between film back and cover glass of slide mount.
Uneven image brightness	Halogen lamp incorrectly fitted.
Slide advance jammed	Sharp-edged metal or glass mounts jammed in slide changer. Magazine slot for projected slide occupied.
IR sensor does not respond to remote control	Projector outside remote-control range. Transmitter battery exhausted.
Projector does not respond to input commands or executes them incorrectly	IR sensor exposed to direct light.
Projector jammed	Feed heel in wrong position.
Module LED keeps blinking after saving of program	Insufficient capacity of module. No module in place.
Advance gear keeps running after magazine has been removed	Dust or foreign particles on optical magazine-scanning aperture (below slide feed).
Pause light blinks after switching on projector and pressing green forward button; projector stalled.	Transit lock still in projector.
Projection lamp goes dead	Lamp defective Thermal overload protection in operation

Remedy

- >> Clean lenses, allow condensation to evaporate.
- >> Insert slide with emulsion side facing the screen.
- >> Repeat basic manual focusing.
- >> Switch autofocus on or focus manually.
- >> Align screen so that it is vertical to and parallel with front of projector; center lenses on screen.
- >> Realign images.
- >> Use better and identical slide mounts only.
- >> Use glassless mounts; allow film to dry under pressure before mounting; if necessary, wash film and dry again.
- >> Align lamp.
- >> Pull power plug, remove cover and carefully remove jammed slide.
- >> Do not exceed range of 10 m.
- >> Change battery. If no battery is available, projection can be continued if remote control is placed in its tray in projector.
- >> Avoid stray light on sensor.
- >> Switch projector off and remove jammed slide, then reposition feed reel.
- >> Insert type 300 module.
- >> Insert module.
- >> Clean optical magazine-scanning aperture with a camel-hair brush.
- >> Remove transit lock.
- >> Change lamp or switch to spare lamp (MSC 535 P)
- >> Make sure there is adequate ventilation

SCREEN SIZES AND PROJECTION DISTANCES

Format	Focal length
24 x 36 mm	35 mm
	60 mm
	70 mm
	85 mm
	90 mm
	120 mm
	150 mm
	250 mm

SCREEN SIZES AND PROJECTION DISTANCES

Screen size in m

1 x 1	1.25 x 1.25	1.5 x 1.5	1.8 x 1.8	2 x 2	2.4 x 2.4	3 x 3
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Projection distance

1.0 m	1.2 m	1.5 m	1.8 m	2.0 m	2.4 m	3.0 m
1.7 m	2.1 m	2.5 m	3.1 m	3.4 m	4.2 m	5.1 m
2.0 m	2.5 m	3.0 m	3.6 m	4.0 m	5.0 m	6.0 m
2.4 m	3.0 m	3.6 m	4.3 m	4.8 m	6.0 m	7.2 m
2.6 m	3.2 m	3.9 m	4.6 m	5.2 m	6.4 m	7.8 m
3.4 m	4.3 m	5.1 m	6.2 m	6.8 m	8.6 m	10.2 m
4.3 m	5.3 m	6.4 m	7.7 m	8.6 m	10.6 m	12.9 m
7.1 m	8.9 m	10.7 m	12.9 m	14.2 m	17.8 m	21.3 m

SPECIFICATIONS

Type

Compact dissolve projector for 24x36mm slides with two complete projection systems and one magazine; microprocessor control, MSC technology, automatic dissolve and timer systems, double autofocus systems and IR remote control.

Design

Flat, compact housing with open magazine track. Diecast aluminum chassis. Five motors for slide change, magazine drive, focusing and fan.

Magazines

Standard DIN-108 magazine for 36 or 50 5x5cm slides, LKM, CS and Rollei CM-5/50 hook-up magazines for continuous projection.

Slide change

Forward/reverse by push buttons, automatically forward by timer, program or sync-pulse generator for tape control. Also, program-controlled forward and reverse.

Dissolve system

Default setting 2 s; dissolves of 0.1, 3 or 6 seconds can be selected from handset. Dissolves can be interrupted using stop function (freeze). 1/10-second increments between 0/1 and 25 seconds in program mode.

Focusing

Double autofocus with override function and manual adjustment, separately for the two image channels.

Image registration

Horizontally and vertically adjustable.

Interval timer

Fixed screen times of 4 (MSC 535 P 5 s), 8 or 12 seconds for automatic slide presentation. In program mode, free choice from 4 (MSC 535 P 5 s) to 600 seconds.

Internal memory (working memory)

Stores all manually selected screen and dissolve times for all slide changes. Also allows direct retrieval of up to 16 selected slides.

External memory

Program chips (modules) store program data for up to 120 slides (type 100 module) or 400 slides (type 300 module).

Remote control

Removable handset for IR multi-channel remote control (slide change forward and reverse, dissolve and screen times, stop and memory functions, AF override and end button), integral laser pointer. Powered by 9V block battery for external operation.

Special programming options

Programming of slide series of discrete order, with variable dissolve and screen times, image brightness, fade-in, flash and toggle effects. Numerical input for programming and control desk. Rollei "DiaEdit Win" software for programming complete slide shows via PC on 3.5" diskette available as an optional accessory. Stereoscopic projection.

Displays

Clearly visible LEDs for »manual«, »test«, »record« and »auto« modes, autofocus off, reading in and out of module, and interval timer. Green seven-segment LEDs for timer and dissolve times, slide number and numerical programming.

Illumination

MSC 535 P:

Four 24V/250W halogen lamps (base G 6.35) in factory-adjusted base as interchangeable lamp module.

Basic lamp brilliance variable in 10% increments from 80% to 110%.

MSC 325 P:

Two 24V/150W halogen lamps (base G 6.35) in factory-adjusted base as interchangeable lamp module.

Basic lamp brilliance variable in 10% increments from 50% to 100%.

Either model has two coated aspherical condenser systems, two mirrors, two heat filters. Automatic switchover to pause lighting before projection and after completion of magazine run.

Cooling system

Highly effective, extremely quiet cross-flow fan with separate motor. Hot air ejected at front. Cooling also operative when lamps are switched off. Protection against mechanical and thermal overload.

Lenses

Rollei AV-Apogon 35 mm f/2.8

Schneider AV-Xenotar 60 mm f/2.8 HFT

Rollei S-Heidosmat MC 90 mm f/2.8

Schneider AV-Xenotar 90 mm f/2.4 HFT

Rollei AV-Apogon 90 mm f/2.4

Schneider AV-Xenotar CF 90 mm f/2.4 HFT

Schneider AV Xenotar 90 mm f/2.4-8 HFT (with iris diaphragm)

Schneider AV-Xenotar 150 mm f/2.8 HFT

Rollei AV-Heidosmat 250 mm f/4.3

Vario-Xenotar 70-120 mm f/3.5

Control terminals

8pin terminal for cable remote control, external equipment (via adapter cable) and tape control via sync-pulse generator.

PC connection

9pin submin D terminal.

Power supply

230 V AC. 2.5m power cable.

Dimensions (wxhxd/mm)

344 x 149 x 290

Weight

approx. 9.5 kg (MSC 325 P)

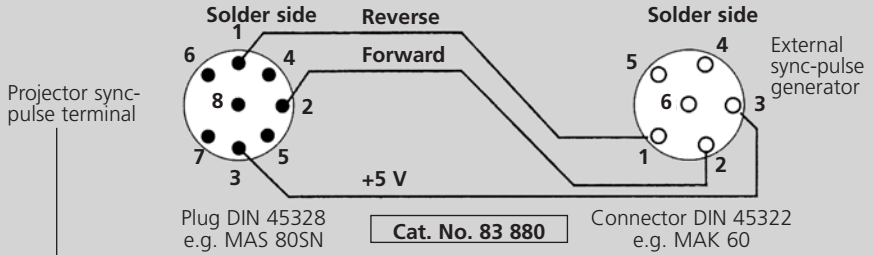
approx. 6.0 kg (MSC 535 P)

Optional accessories

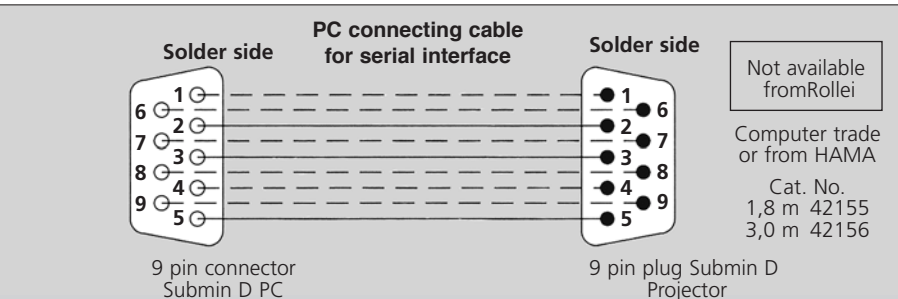
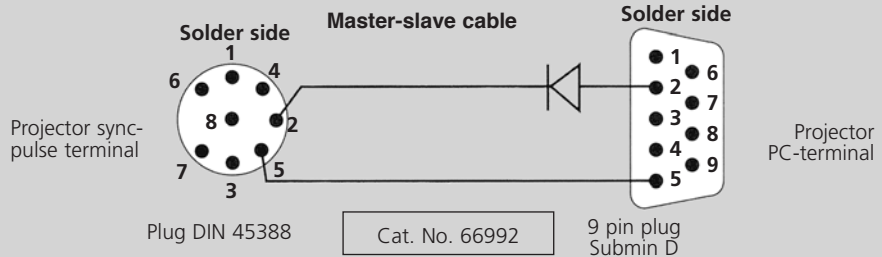
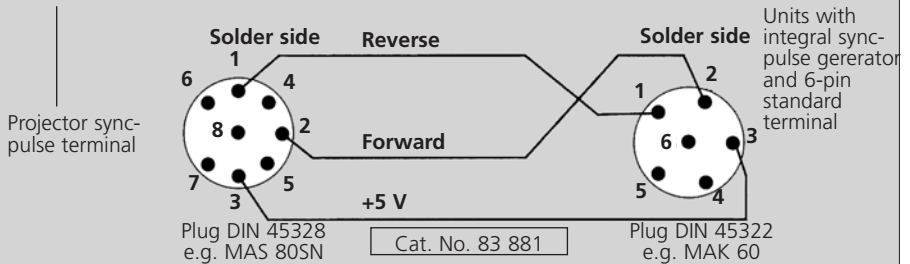
Interchangeable lenses, carrying case, 2 adapter cables for tape control, chip modules, magazines, magazine extensions, spare lamp unit. Rollei RCP sync-pulse generator. Cable remote control and extension cable (10 m), master/slave connecting cable (9pin submin D/8pin terminal).

ADAPTER CABLE

Rolleivision twin MSC 535 P / MSC 325 P



Function	Connection
Forward	PIN 2 – PIN 3
Reverse	PIN 1 – PIN 3



Note: Connect only accessories to interfaces that are classified as suitable for this projector.