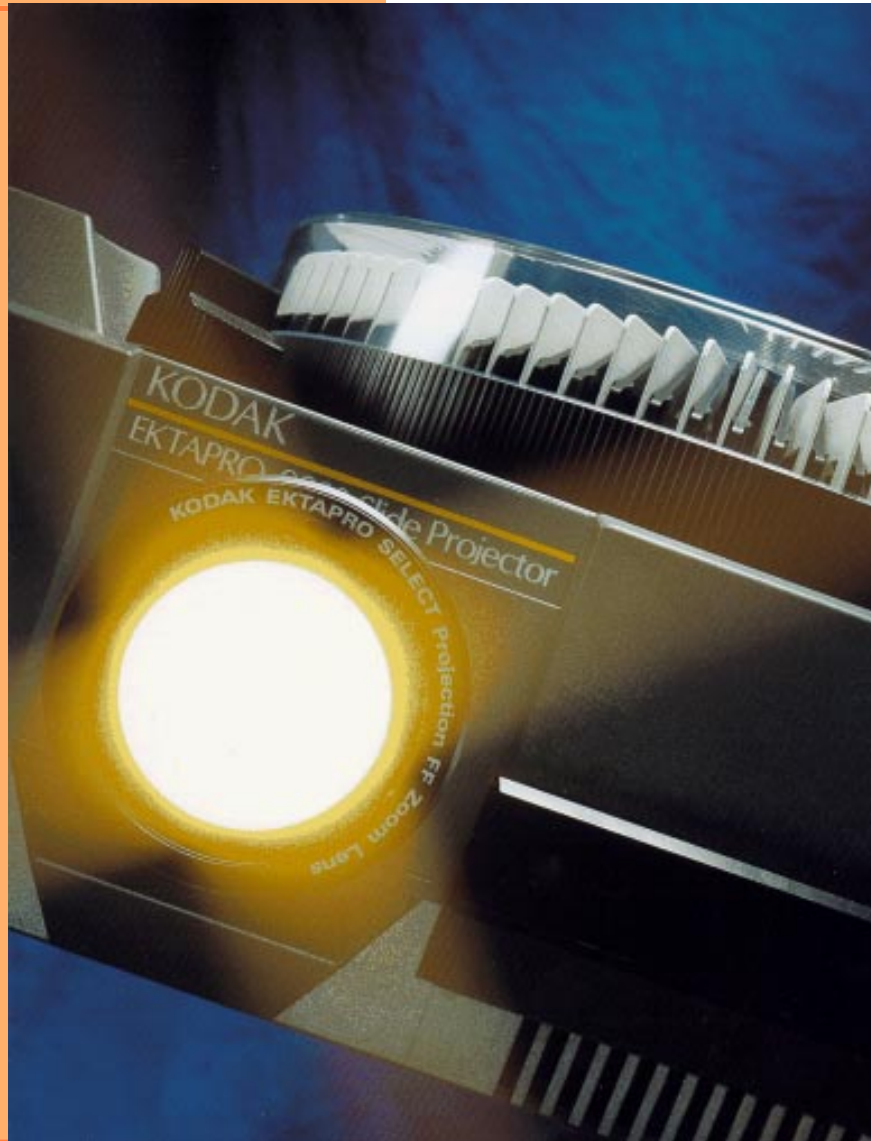


Quick Reference

EKTAPRO



The Quick Reference - is designed to be your ultimate source to all applications, technical constellations, accessories etc. for **Kodak Ektapro Slide Projectors**

Accessories	3
Remote Control	
Cable	4
Infrared.....	5
IR + Extension Cable.....	6
2 IR Systems.....	7
Parallel Projection	
IR and 2 Receivers.....	8
IR and Twin Socket.....	9
Cable Remote + Twin Socket.....	10
Parallel Mode Setting.....	11
Endless Projection	
Timer.....	12
Autotimer Setting.....	13
Tray Selector Switch	15
Autofocus	16
No slide - no light feature	17
Slide Recording	18
Lenses	
General.....	19
Lens Support.....	20
4 x 4 condenser.....	22
Lamps	
General.....	23
Extra Bright Light Module	
General.....	24
Safety Precautions.....	25
Compatibility.....	26
Sweat Spots.....	27
Lumen output.....	28
External Control	
General.....	29
Hardware Controllers.....	30
PC (Software) and Hardware Controllers.....	31
PC (Software) Direct Control.....	32
P-COM Protocol.....	33
Apple Computer Cable.....	34
Shutter Control.....	35
Carrying Case	37
Professional Installation	
Racks - Fixing Holes.....	38
Tilting - Operation Temperature.....	39
Boxes, Furniture.....	40
Line-up.....	41
Specification	
Dimensions.....	42
Connectors.....	43
Applications	
Control via Lighting Control Console.....	44
Use of two control systems via standard computer switchboard.....	45
Presenting with two projectors via integrated dissolver.....	46
Control from a speaker's desk.....	50
Addresses	51
Appendix	
Control via MIDI.....	55
Editorial	56

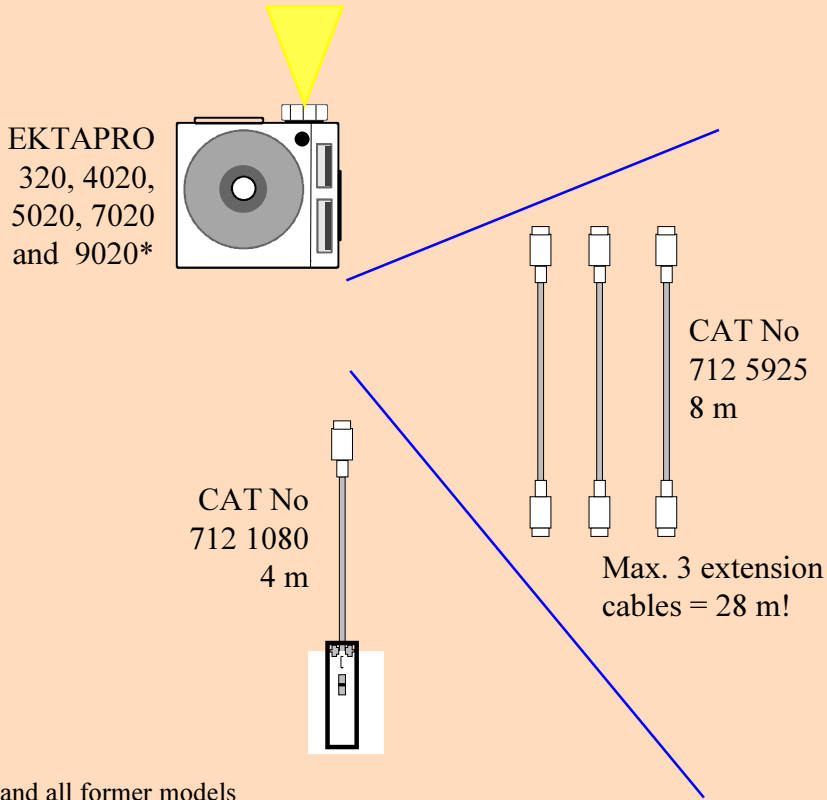


Product	CAT NO
EKTAPRO IR Remote Control	712 1072
EKTAPRO IR Remote System with built in Laser Pointer	712 1064
EKTAPRO IR Remote Receiver	712 8606
EKTAPRO Cable Remote (4 m)	712 1080
Remote Extension Cable 8 m	712 5925
EKTAPRO Extra Bright Single Lamp Module	718 3379
EKTAPRO Extra Bright Dual Lamp Module	712 4369
EKTAPRO Standard Heatfilter	717 7140
EKTAPRO Heatfilter + 10	717 7157
EKTAPRO 4 x 4 Condenser Kit	714 4967
EXR Projection Lamp -35 h	145 2259
FHS Projection Lamp - 70 h	147 7678
EXY Projection Lamp - 200 h	145 2143
Lenses (see section "Lenses")	
EKTAPRO Lens Support	715 1335
EKTAPRO Twin Socket Adapter	712 5909
EKTAPRO Twin Socket Adapter Cable	712 5917
EKTAPRO Dissolve Cable	715 3992
EKTAPRO Carrying Case	718 1993
EKTAPRO 12/7 Pin Module	712 5875
EKTAPRO 12/7 Pin Module Adapter Cable	712 5883
EKTAPRO 80 Slide Tray	712 8580
TRANSVUE 140 Slide Tray	184 0768



Remote Control Cable

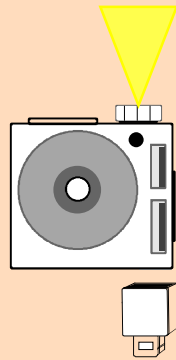
■ General



EKTAPRO Cable Remote CAT No 712 1080	1	1	1	1
Extension Cable 8 m CAT No 866 0573		1	2	3
Total Cable Length	4 m	12 m	20 m	28 m

Remote Control Infrared

■ General

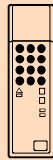


EKTAPRO
320, 4020,
5020, 7020
and 9020*

*and all former models

IR Remote System
CAT No 712 1072
CAT No 712 1064

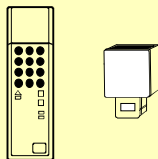
30 m!



Note

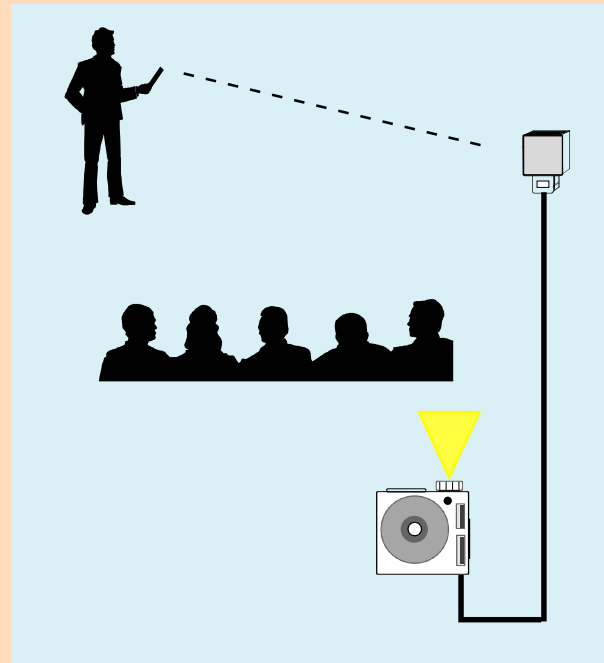
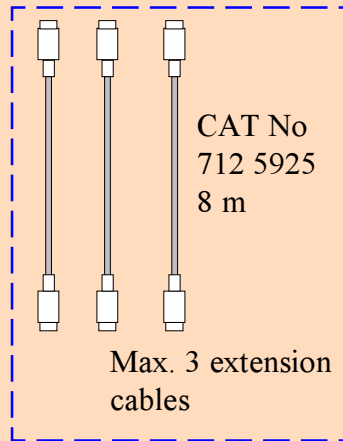
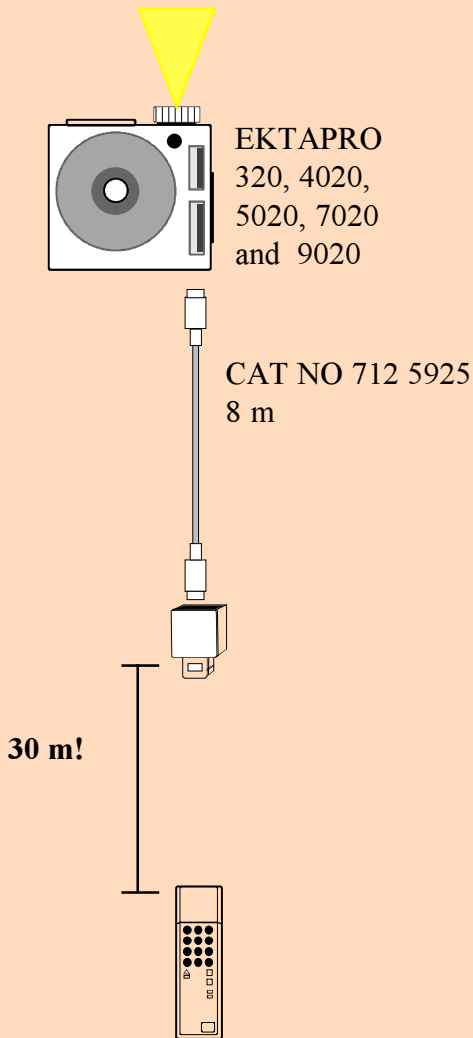
Dimmed fluorescent light (neon) may reduce
max. achievable IR distance!

An IR Control System always consists
of a transmitter and a receiver!



Remote Control IR + Extension Cable

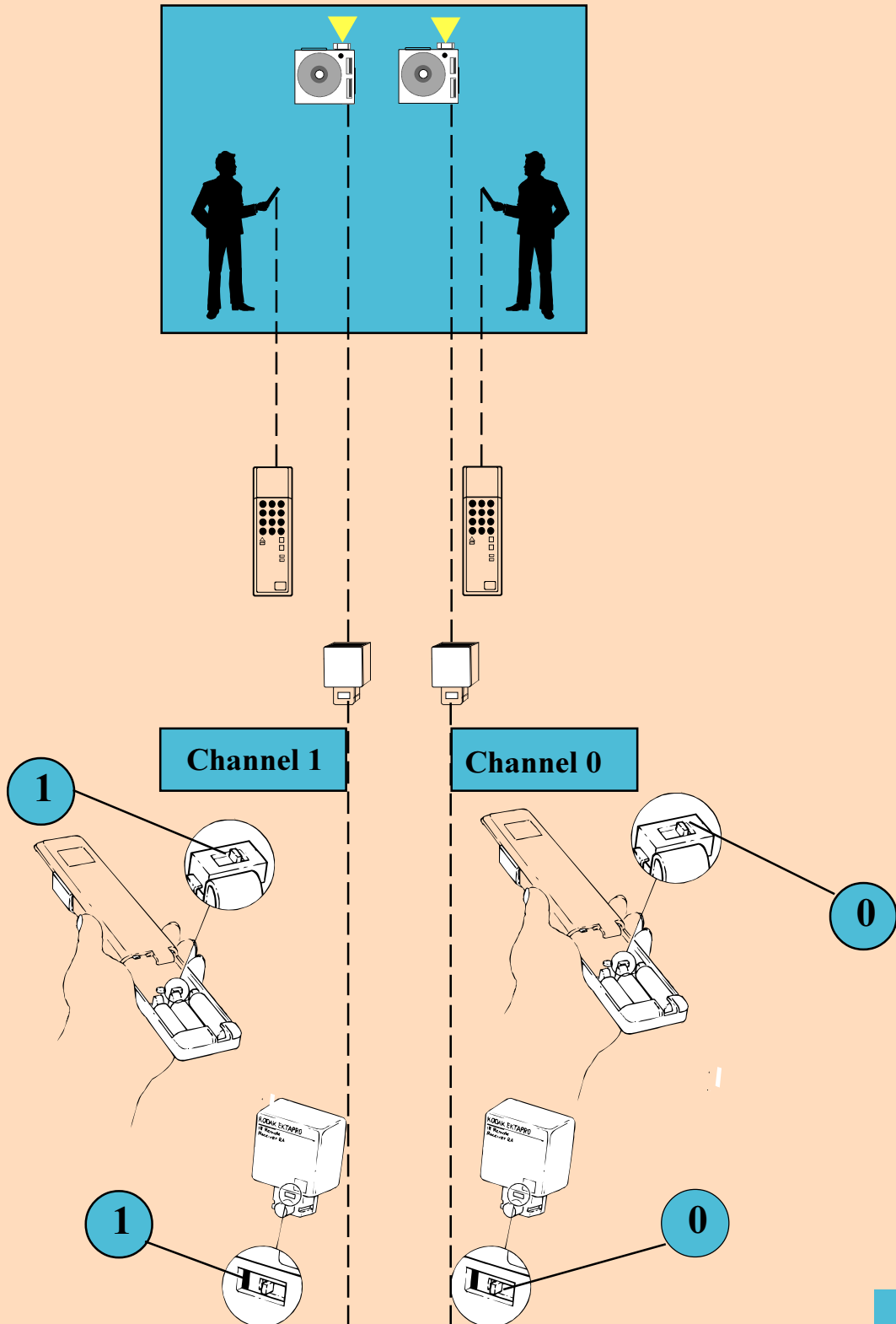
- 1 Ektapro Projector, IR Remote System and 8 m extension cable for optimal placement of IR receiver



Remote Control

2 IR Systems

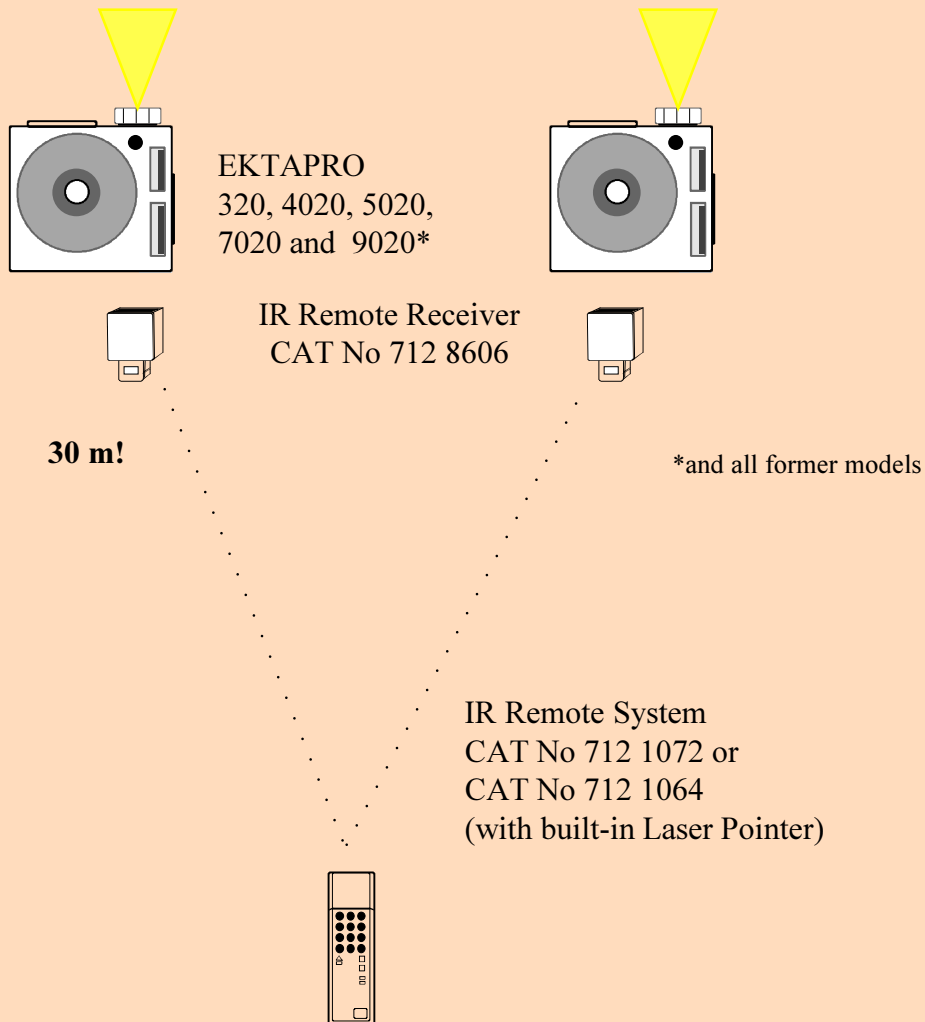
- Individual control of two projectors in one room via 2 IR Systems



Compliments of:
www.KodakParts.com

Parallel Projection IR and 2 Receivers

■ IR Remote System and a second receiver

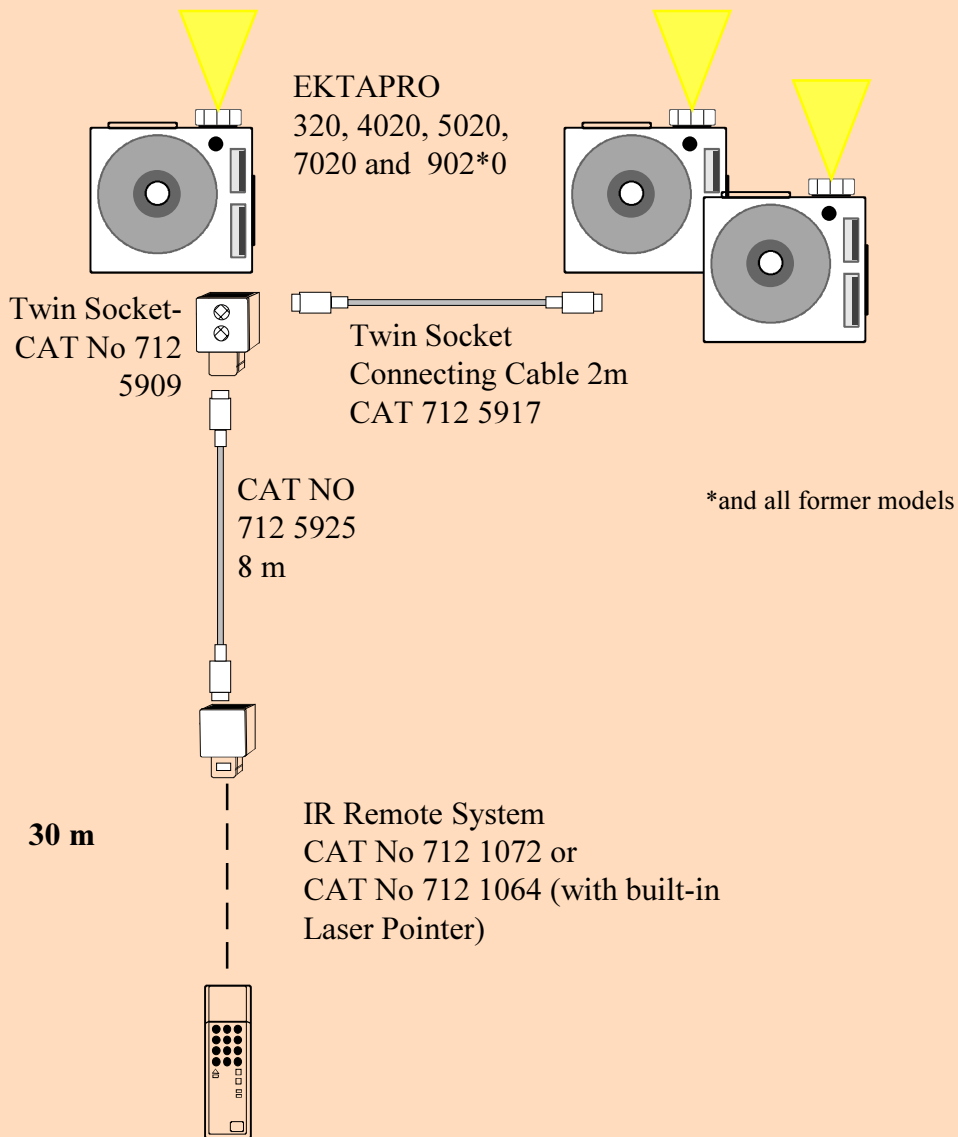


Total Projectors	2	3	4	4 + x
EKTAPRO IR Remote CAT No 712 1072 or CAT No 712 1064	1	1	1	1
IR Receiver CAT No 712 8606	1	2	3	3+ x

Compliments of:
www.KodakParts.com

Parallel Projection IR and Twin Socket

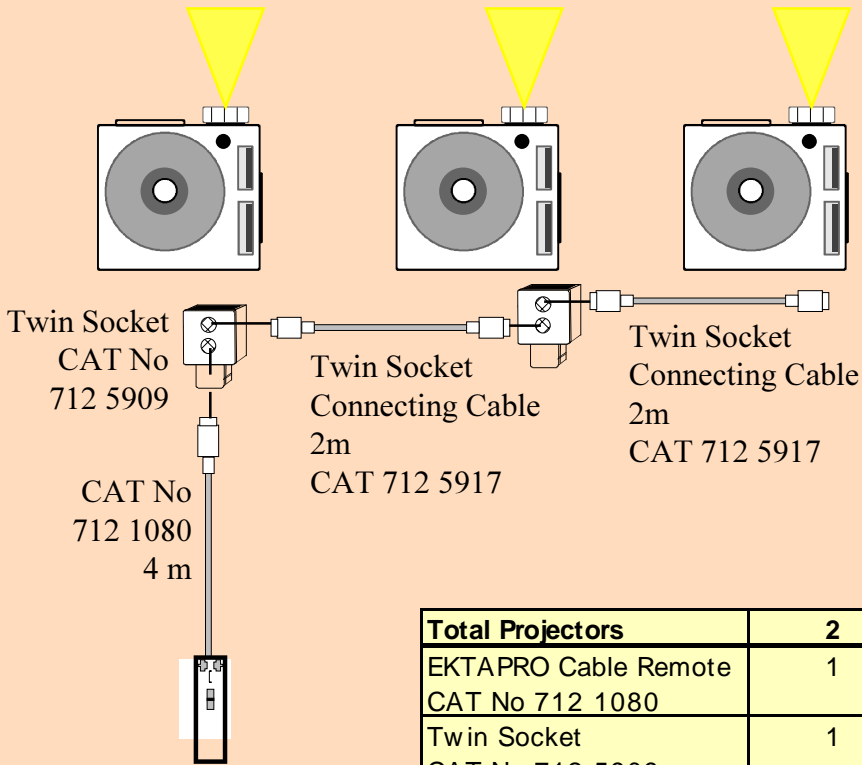
■ IR Remote System and Twin Socket



Total Projectors	2	3
EKTAPRO IR Remote CAT No 712 1072 or CAT No 712 1064	1	1
8 m Extension Cable CAT No712 5909	1	1
Twin Socket CAT No 712 5909	1	2
Connecting Cable CAT No 712 5909	1	2

Parallel Projection Cable Remote + Twin Socket

■ Cable Remote and Twin Socket(s) for max. three projectors



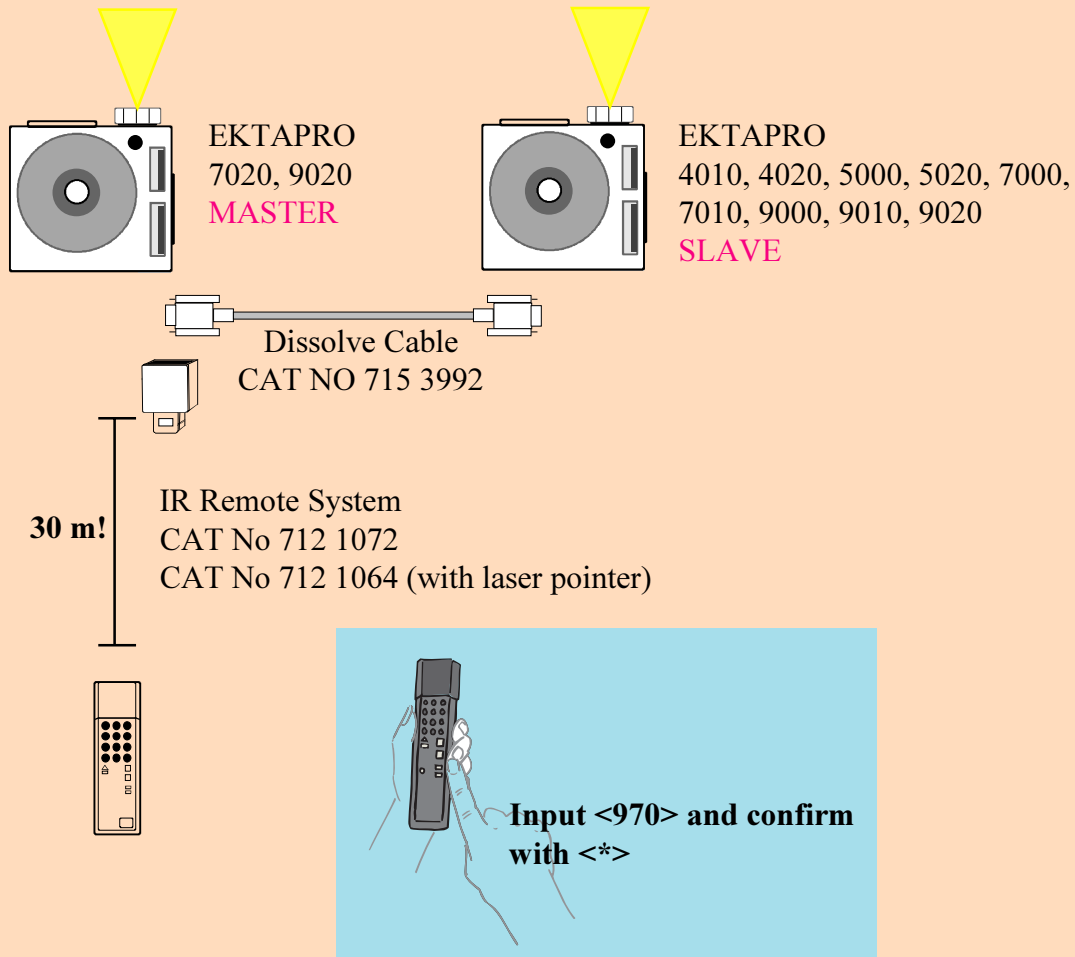
Total Projectors	2	3
EKTAPRO Cable Remote CAT No 712 1080	1	1
Twin Socket CAT No 712 5909	1	2
Connecting Cable CAT No 712 5909	1	2

Compliments of:
www.KodakParts.com

Parallel Projection

Parallel Mode Setting

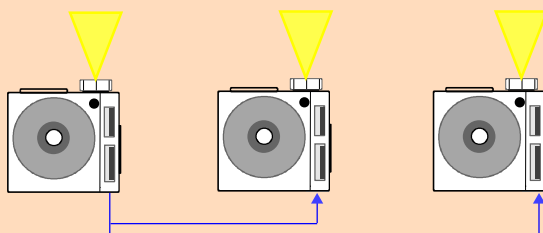
■ One IR Remote and two 7020 or 9020 Ektapro Projectors



Note
Mode must be set again after projector has been switched off/on again!

Need a third projector in parallel?

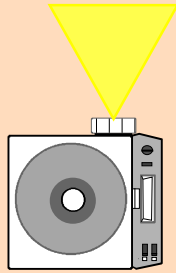
With a special cable available from AVSZ (👉 addresses page 52) you can connect a third projector



Compliments of:
Muller & Pappas Inc.

Endless Projection Timer

■ Integrated Timer



EKTAPRO
5020, 9020,



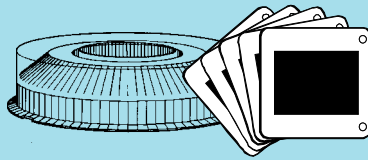
Note

EKTAPRO 5020 Projector:

In order to avoid "dark pause" it is recommended that the slide tray is filled as completely as possible (81 or 141 slides).

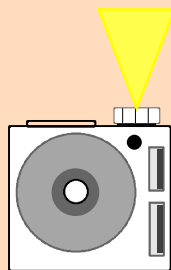
EKTAPRO 9020 Projector:

You can immediately bring the tray back to the zero position after the last slide with the help of the automatic zero positioning feature. This is useful when continuous projection is required using only a few slides.



■ External Timer (no Kodak product)

EKTAPRO
320, 4020, 7020



Note

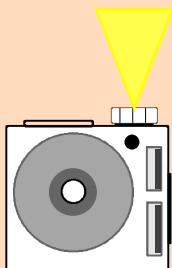
An external timer is offered by some companies (👉 Addresses at page 52).



External Timer

Endless Projection Autotimer Setting

■ One Projector, IR Remote System and Autotimer Mode Setting

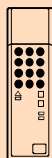


EKTAPRO
4020, 5020,
7020, 9020



30 m!

IR Remote System
CAT No 712 1072 or
CAT No 712 1064



Settings 1-60 sec
Code: <600 - 660>

Example: 4s
Input <604> and confirm
with <*>

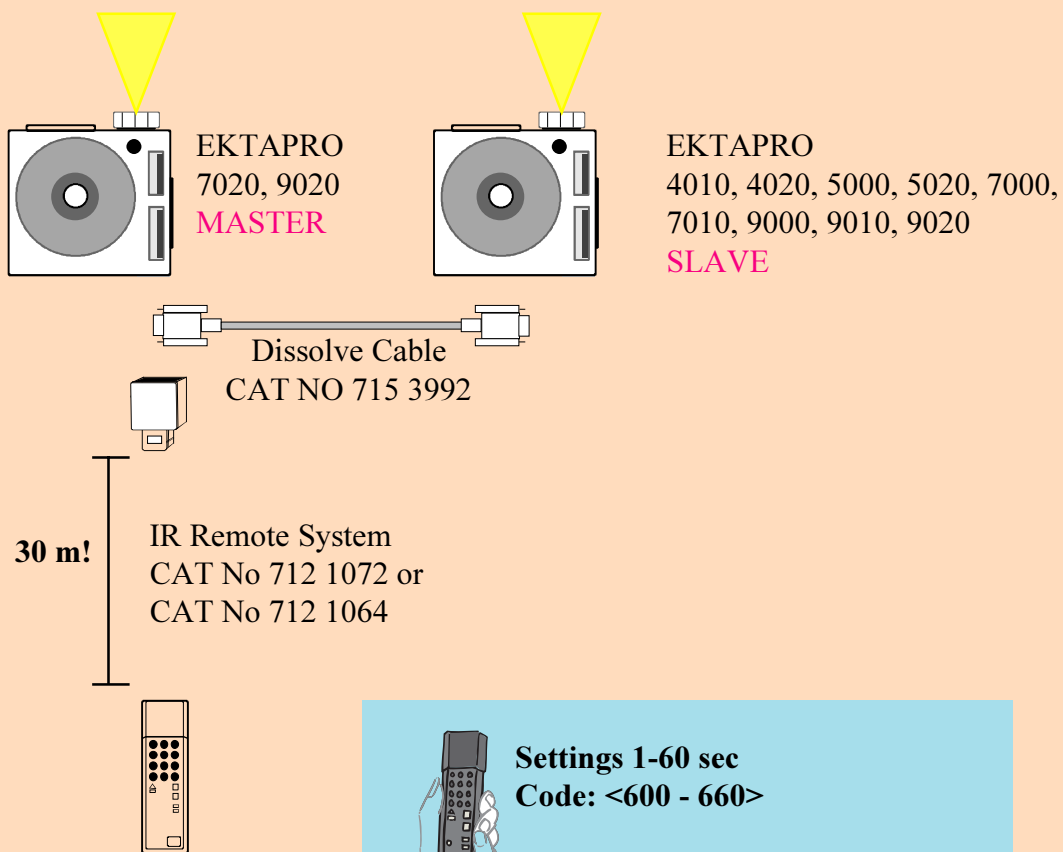


Note

*Mode must be set again after projector has been switched off/on again!

Endless Projection Autotimer Setting

■ Two Projectors, IR Remote System and Autotimer Mode Setting



Settings 1-60 sec
Code: <600 - 660>

Example: 4s
Input <604> and confirm
with <*>



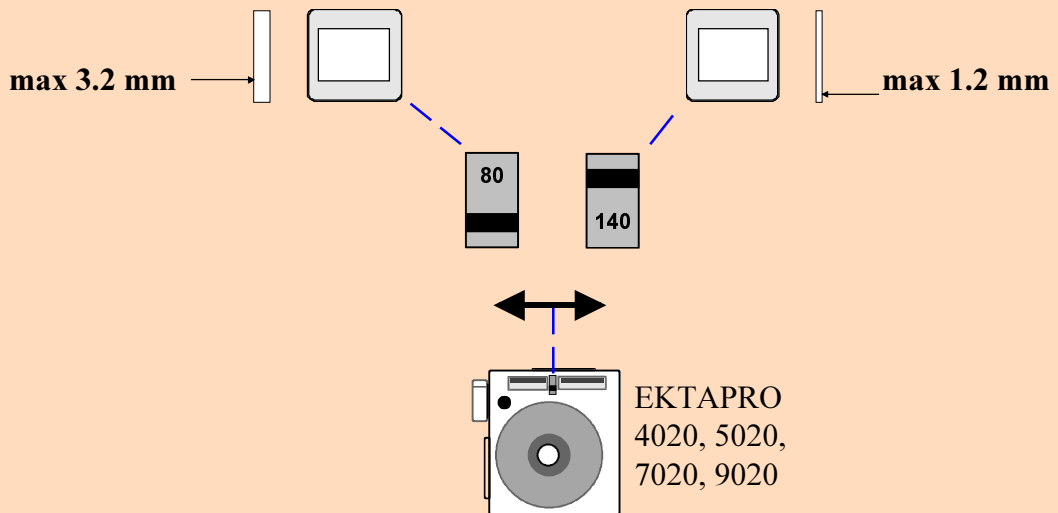
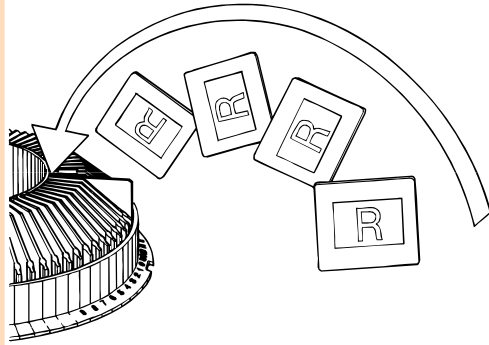
Note

*Mode must be set again after projector has been switched off/on again!

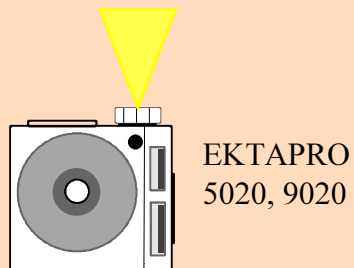
Trays

Tray Selector Switch

■ General

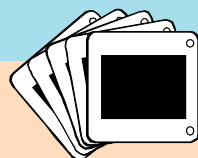


■ **Important Note for use of Autofocus**

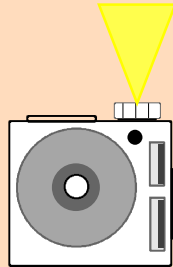


Important

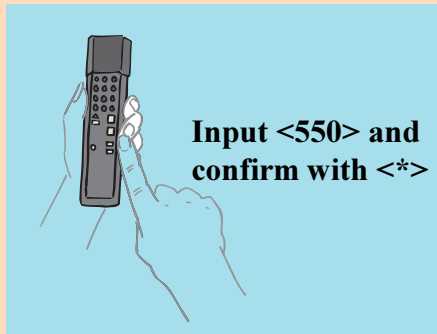
Use **either** glass or glassless (cardboards) mounted slides! **Never mix up!**



■ **Switchable “no slide - no light” feature**



EKTAPRO
4020, 5020, 7020
and 9020



Note

If no slide is in the slide gate, the projection lamp will not light up. There are two reasons to switch off this feature:

1. High IR-transmissive slide mounts

There are some mounts on the market which do not reflect IR radiation. That means they cannot be detected by the IR sensor in the slide gate. The result is that the shutter will not open.

2. Light on the screen

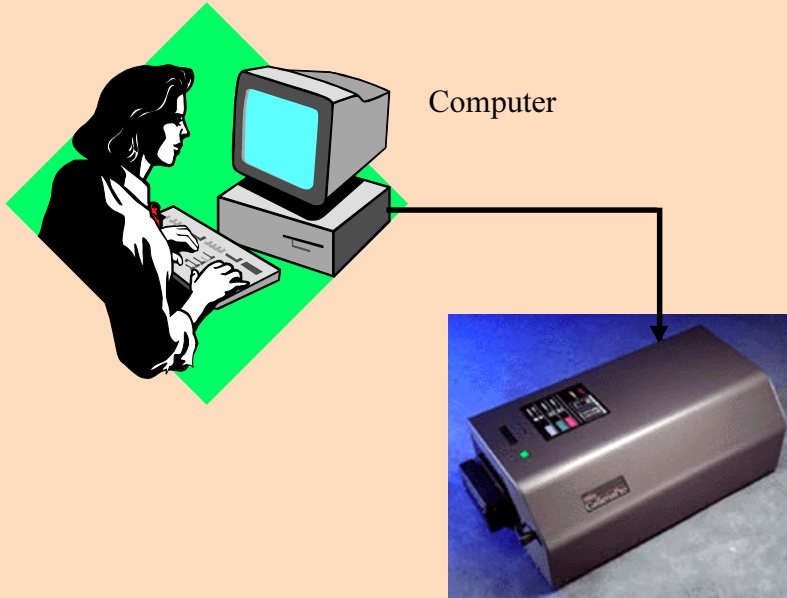
Tray replacement is easier done if the room is not darkened. You will appreciate to have light on the screen.

With the help of the IR control you can now switch the "No-Slide-No-Light feature" off and on!

Compliments of:
www.KodakParts.com


Slide Recording

■ Creating 35 mm slides with film recorders



Computer



Filmrecorder ( Addresses page 54)



Lenses General

Kodak FF Lenses			Ektapro
75-120 Zoom	CAT 847 034€	X	
100-150 Zoom	CAT 143 343€	X	
100-200 Zoom	CAT 712 574€	X	
85 mm	CAT 712 550€	X	
100mm	CAT 712 5511	X	
180mm	CAT 712 552€	X	
Kodak Ektapro Select FF Lenses			
75-120 Zoom	CAT 712 547€	X	
87-200 Zoom	CAT 712 5487	X	
200-300 Zoom	CAT 712 5495	X	
36 mm	CAT 712 5446	X	
93 mm	CAT 712 5453	X	
150mm	CAT 712 5461	X	



WEB User

You will find more details on lenses under [lenses](#).

Lens Calculator

You do not know what kind of lens you need for your projection venue? There is a formular but before getting nervous we can offer you a better solution: There are two well made lens calculators available on the WEB. It is freeware and can be easily downloaded.

Lenscalculator by Bässgen company:

Go to <http://www.dia.de> Click on [Bässgen](#) and go to [Download](#) and click on [SCREEN 2.0](#).

Lenscalculator by Stumpfl company:

Go to <http://www.stumpfl.com/E/Service/>

Lenses

Lens Support

■ KODAK EKTAPRO Lens Support CAT NO 715 1335

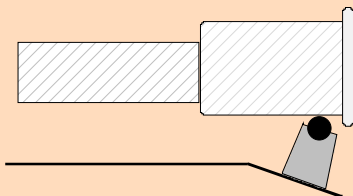
- ✓ Gives maximum hold on heavy lenses
- ✓ Is ideal in fixed installations where lens positions should be kept
- ✓ Supports smooth operation of focus autofocus when heavy lenses are used

KODAK FF Projection Lenses

75-120 Zoom	CAT 847 0346
100-150 Zoom	CAT 143 3432
100-200 Zoom	CAT 712 5743
180mm	CAT 712 5529

KODAK EKTAPRO SELECT FF Projection Lenses

75-120 Zoom	CAT 712 5479
87-200 Zoom	CAT 712 5487
200-300 Zoom	CAT 712 5495
150mm	CAT 712 5461

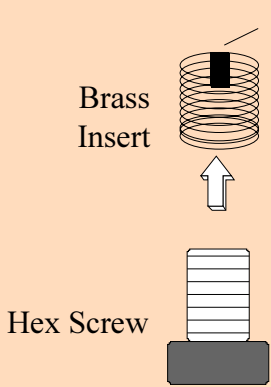


Lenses

Lens Support

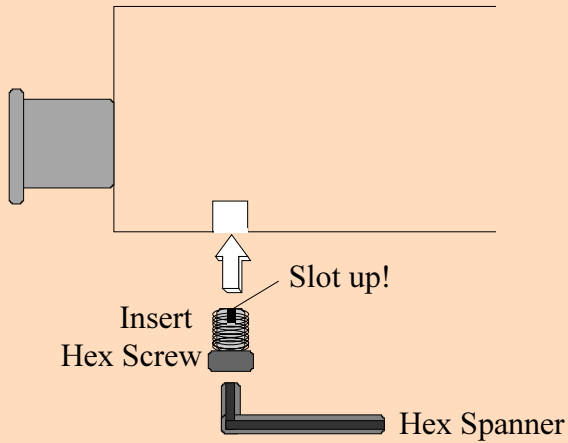
■ Installation

1.

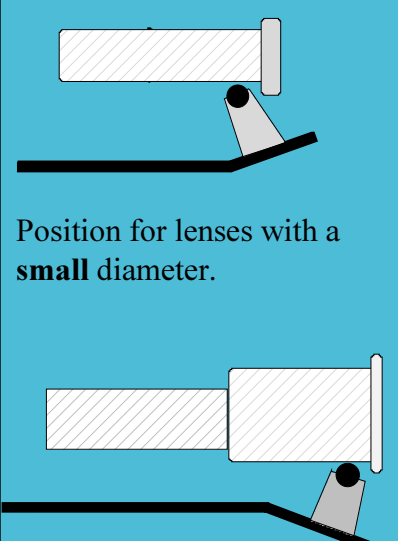
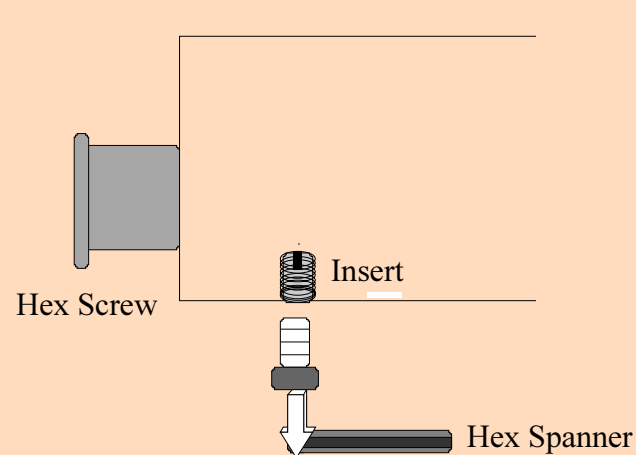


1. Screw hex screw into the insert.
2. Use the hex spanner to screw hex screw with the insert into the projector's hole.
3. Remove hex screw and fix baseplate as shown in the picture. The insert remains in the hole.

2.



3.



Position for lenses with a **small** diameter.

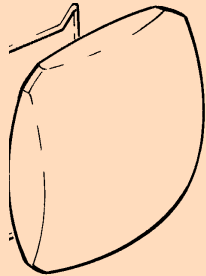
Position for lenses with a **big** diameter. Turn baseplate.

Lenses

4 x 4 condenser

■ Condenser for 4 x 4 Projection

The projection of 4 x 4 slides is only recommended with the following KODAK Lenses and the 4x4 Condenser (CAT No 714 4967).



Condenser
CAT 714 4967

KODAK FF Projection Lenses

85 mm	CAT 712 5503
100 mm	CAT 712 5511
180 mm	CAT 712 5529

KODAK EKTAPRO SELECT FF Projection Lenses

93 mm	CAT 712 5453
150 mm	CAT 712 5461

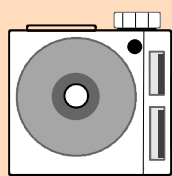
Lamps

General

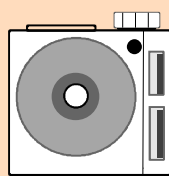


	CAT No
EXR	82V 300W 35h 145 2259
FHS	82V 300W 70h 147 7678
EXY	82V 250W 200h 145 2143

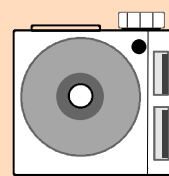
■ Standard - Economy - High Light Setting



All Ektapro models



Ektapro 4020, 5020,
7020, 9020



Ektapro 7020, 9020

	Standard		Economy		High Light	
	Brightness	Lifetime	Brightness	Lifetime	Brightness	Lifetime
EXR	100%	35h	75%	105h	120%	25h
FHS	80%	70h	60%	210h	96%	50h
EXY	60%	200h	45%	600h	72%	140h

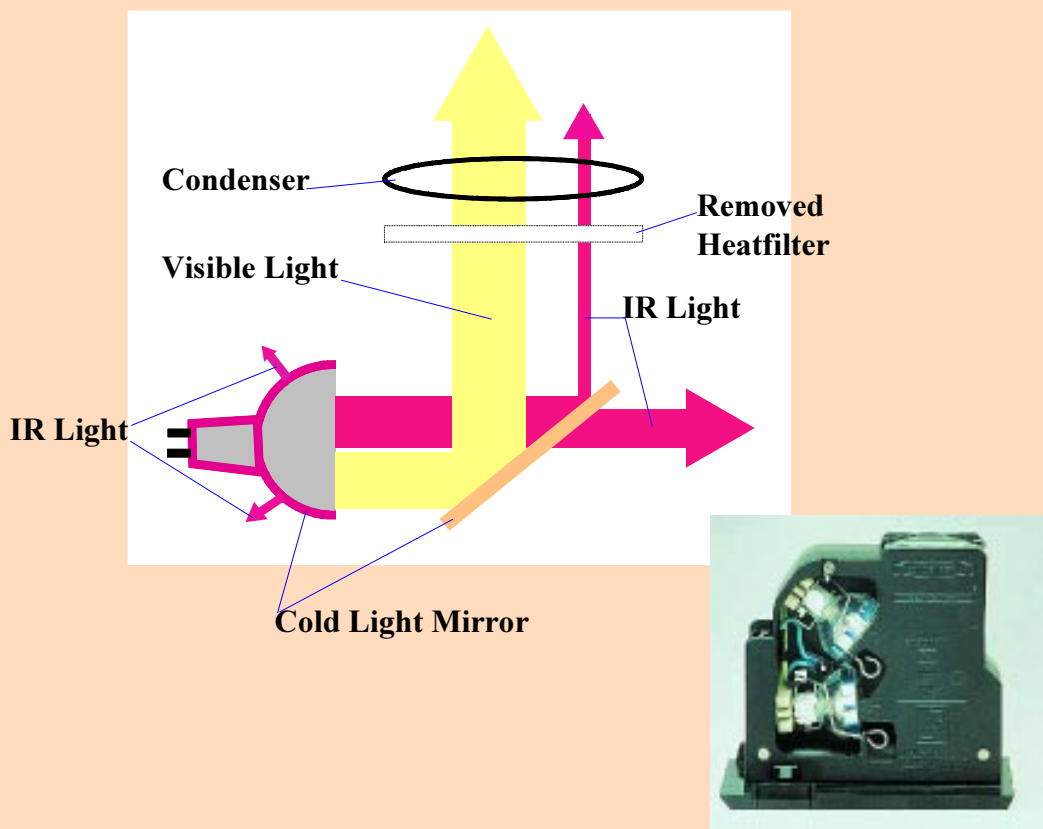
Extra Bright Lamp Module General

■ How it works

All current Kodak Slide Projectors are equipped with the Extra Bright Lamp Module offering 30% more light than compared to former models:

- √ **more light**
- √ **more brilliant colors**
- √ **higher contrast**
- √ **better legibility**

According to a new cold light mirror the biggest part of the IR (heat) light will be absorbed and not reflected. Therefore the heatfilter could be removed (see illustration). This system is unique to Kodak.



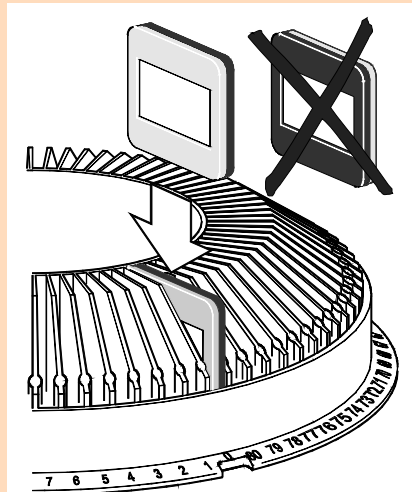
Extra Bright Lamp Module

Safety Precautions

According to a temperature increase in the slide gate which, therefore, needs more careful handling when using slides, mounts and lamps.

With the higher light output of the Extra Bright Lamp Module the temperature in the slide gate rises. To enable a smooth operation following hints should be considered:

- √ Use **only light** respectively **light gray** slide mounts (e.g. Wess slide mounts). Slide mounts with only one dark side or black side have to be sorted in respectively, mounted with the side facing the lamp. Please pay special attention when sorting your slide mounts in rear projections:



- √ Do not use a lamp type EXW/15 h for the projector (higher temperature - lamp not available from Kodak).
- √ Consider the room temperature! It may not exceed 35 degrees C!
- √ High-Light-Mode (models 7010, 7020, 9010, 9020): Slide projection time per slide may not exceed **1 minute!**

If these hints are not considered, mounts may deform!

Extra Bright Lamp Module Compatibility

■ Upgrade

All former Ektapro Projectors can be upgraded with the Extra Bright Lamp Module:

Extra Bright Lamp Modules	CAT NO
Ektapro Single (models 3020 and lower)	718 3379
Ektapro Dual (models 4010 and higher)	718 4369

■ Downgrade (Ektapro projectors, only)

There are some reasons for downgrading current Ektapro models:

- ✓ in order to match same slide gate temperature as your former models
- ✓ in order to match same colour temperature as your former models

Downgrading is easily done by inserting a heatfilter into the Extra Bright Lamp Module:

In order to buy the appropriate heatfilter please verify the type of lamp module being used in your projector:

KODAK EKTAPRO Single Lamp Module



Requires Standard Heatfilter Cat No 717 7140

KODAK EKTAPRO Dual Lamp Module



Requires Standard Heatfilter Cat No 717 7140

KODAK EKTAPRO Single Lamp Module +10



Requires Heatfilter +10 Cat No 717 7157

KODAK EKTAPRO Dual Lamp Module +10



Requires Heatfilter +10 Cat No 717 7157

Extra Bright Lamp Module

Sweat Spots

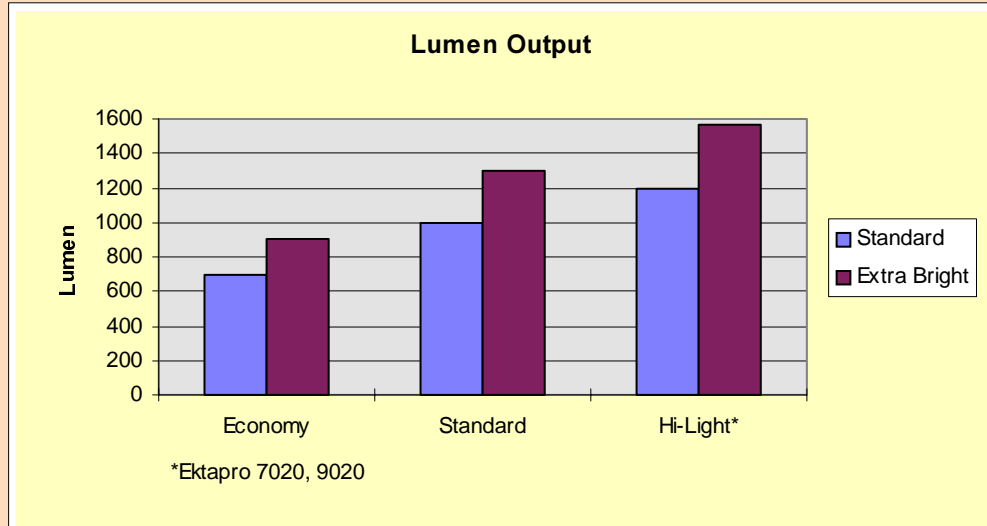
■ Sweat Spots

According to the higher slide gate temperature of the Extra Bright Lamp Module, sweat spots may faster appear when glass mounted slides are used (in long term projections). As soon as the slides will warm up the spots will disappear. Have a look at the following hints:

- Switch on the projector with the loaded tray approx. half an hour before you start your presentation. The slides will warm up.
- If you do not need highest light output, use the economy lamp setting or use the FHS or EXY lamp.

Extra Bright Lamp Module Lumen Output

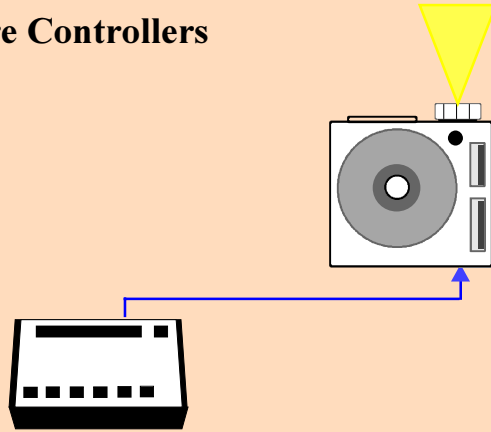
- Lumen output for *standard*, *economy* and *Hi-light* mode.



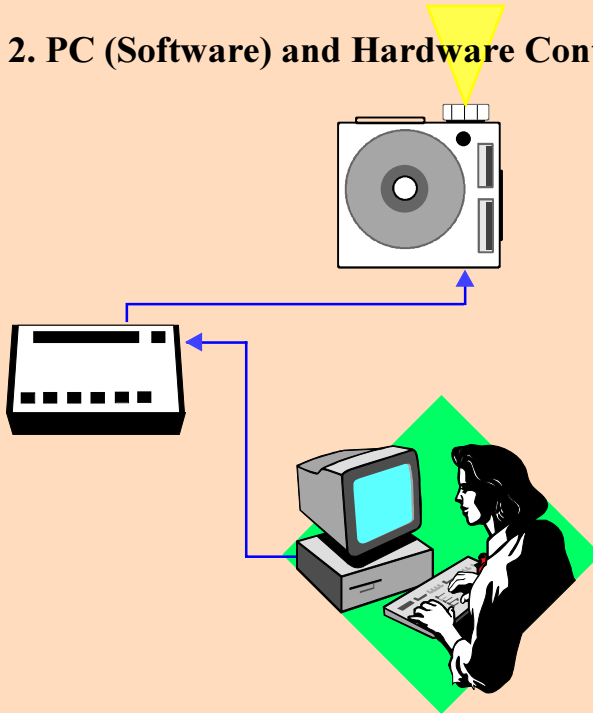
External Control General

■ Three main ways to control Slide Projectors

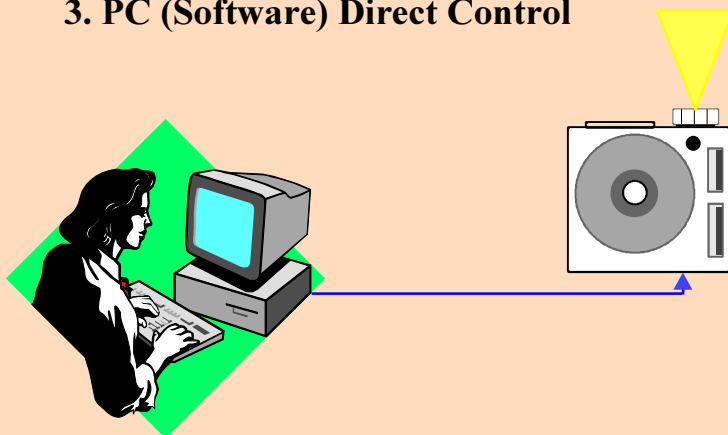
1. Hardware Controllers



2. PC (Software) and Hardware Controllers



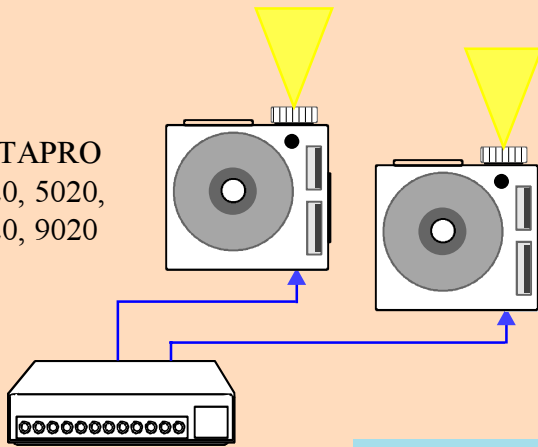
3. PC (Software) Direct Control



External Control Hardware Controllers

■ OEM Hardware Controllers

EKTAPRO
4020, 5020,
7020, 9020

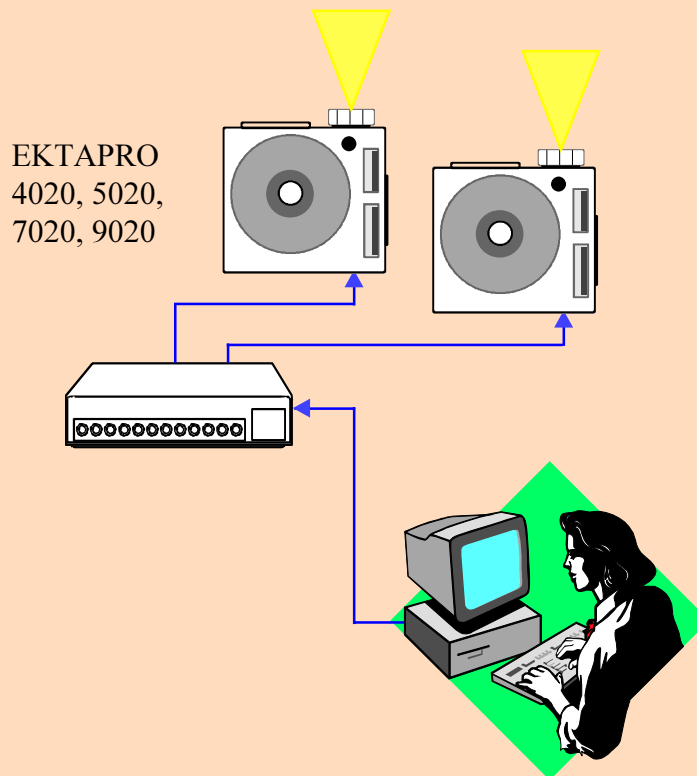


addresses page 51

External Control PC + Hardware Controllers

■ PC (Software) and Hardware Controllers

There are several companies offering a complete control system based on either IBM or Apple Macintosh computers (☞ Addresses page 51).

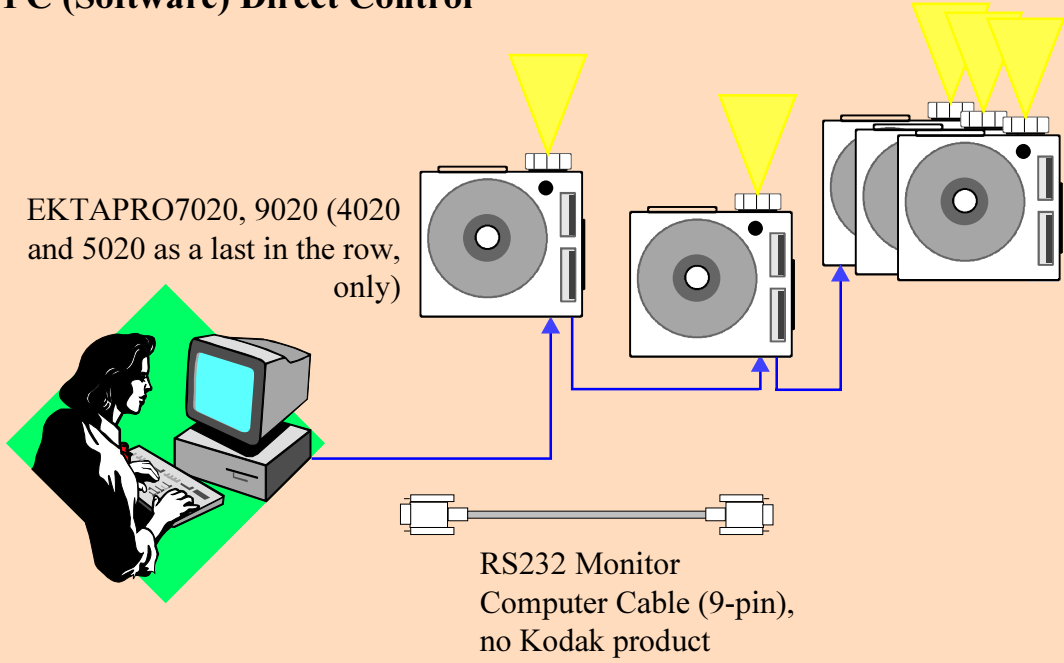


Compliments of:
www.KodakParts.com

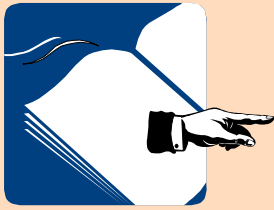
External Control

PC Direct Control

■ PC (Software) Direct Control



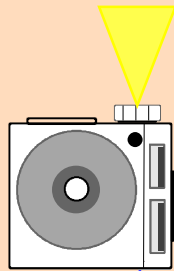
External Control P-COM Protocol



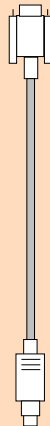
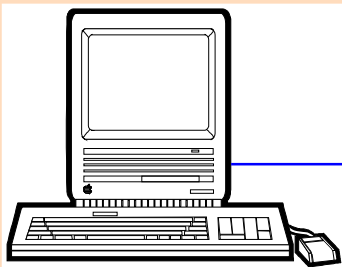
Need to create own software?
If you are familiar with writing computer programs, you easily can create your own control software. The commands are laid down in the so called P-COM Protocol available at Kodak.


■ Apple Computer Cable

If you use an Apple Macintosh Computer, Hypercard is the ideal program to write your software.



EKTAPRO7020,
9020 (4020 and 5020
as a last in the row,
only)

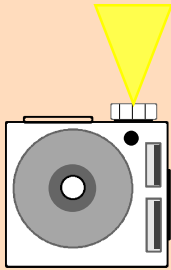


RS232 Monitor Computer Cable (9-pin),
not available at retailer  next page for
configuration).

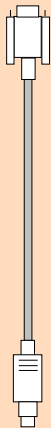
Compliments of:
www.KodakParts.com

External Control Apple Connecting Cable

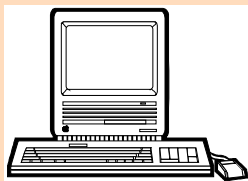
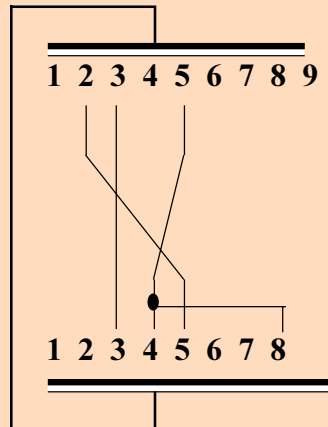
■ Apple Computer Cable Configuration



P-Bus Connector DB9 male		
Pin No	Description	
1	NC	
2	RXD	Transmit Data
3	TXD-	Receive Data
4	NC	
5	GND	Ground
6	NC	
7	NC	
8	NC	
9	NC	



shield

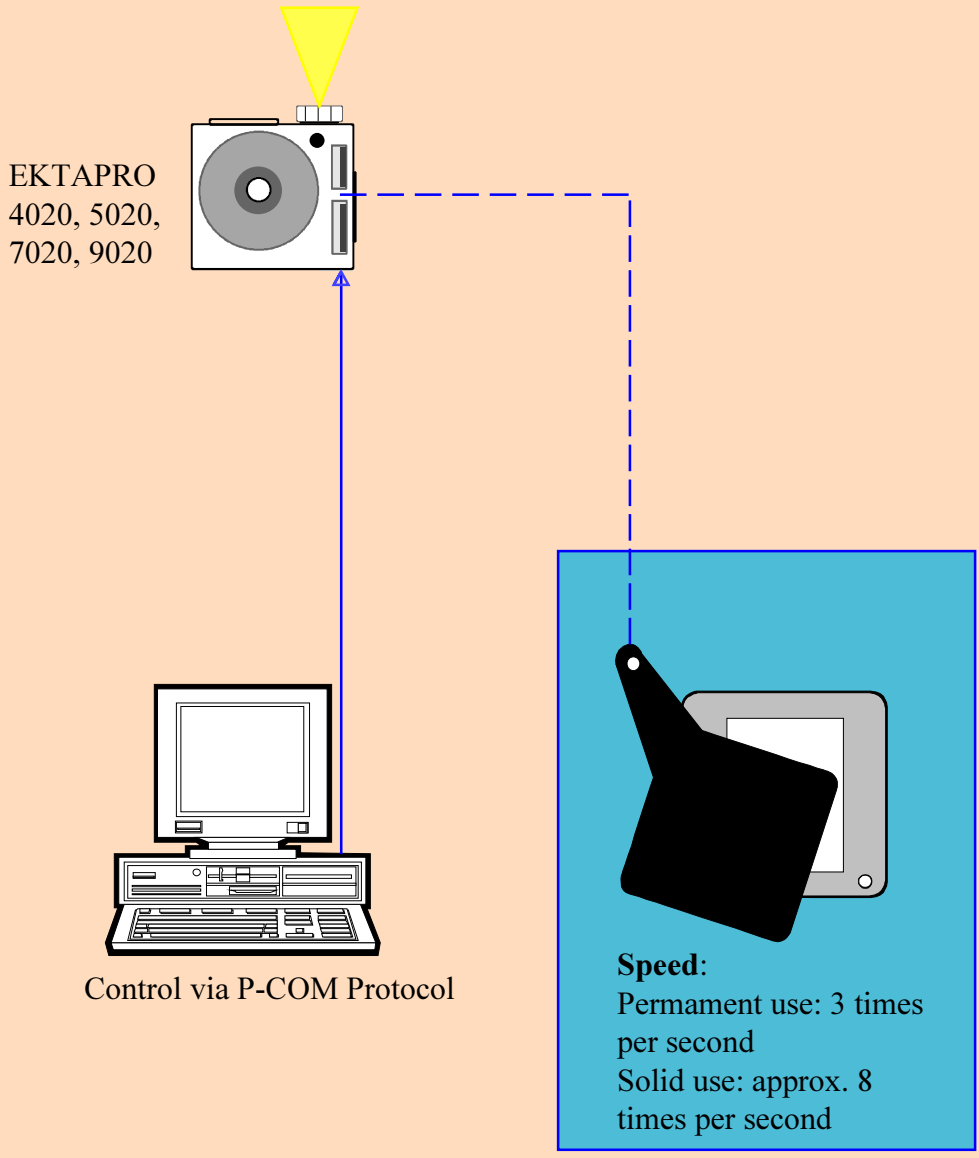


Macintosh Mini DIN 8 male		
Pin No	Description	
1	HSKo	Handshake out
2	HSKi	Handshake in
3	TXD-	Transmit Data inverted
4	GND	Ground
5	RXD-	Receive Data
6	TXD+	Transmit Data
7	GPI	General Purpose Input
8	RXD+	Receive Data

Compliments of:
www.KodakParts.com

External Control Shutter Control

■ Shutter Control via PC



Note
If shutter is moved in its fastest speed for some seconds, the shutter may get slower or switch off and on again (after some minutes) by the internal thermal cut.

External Control

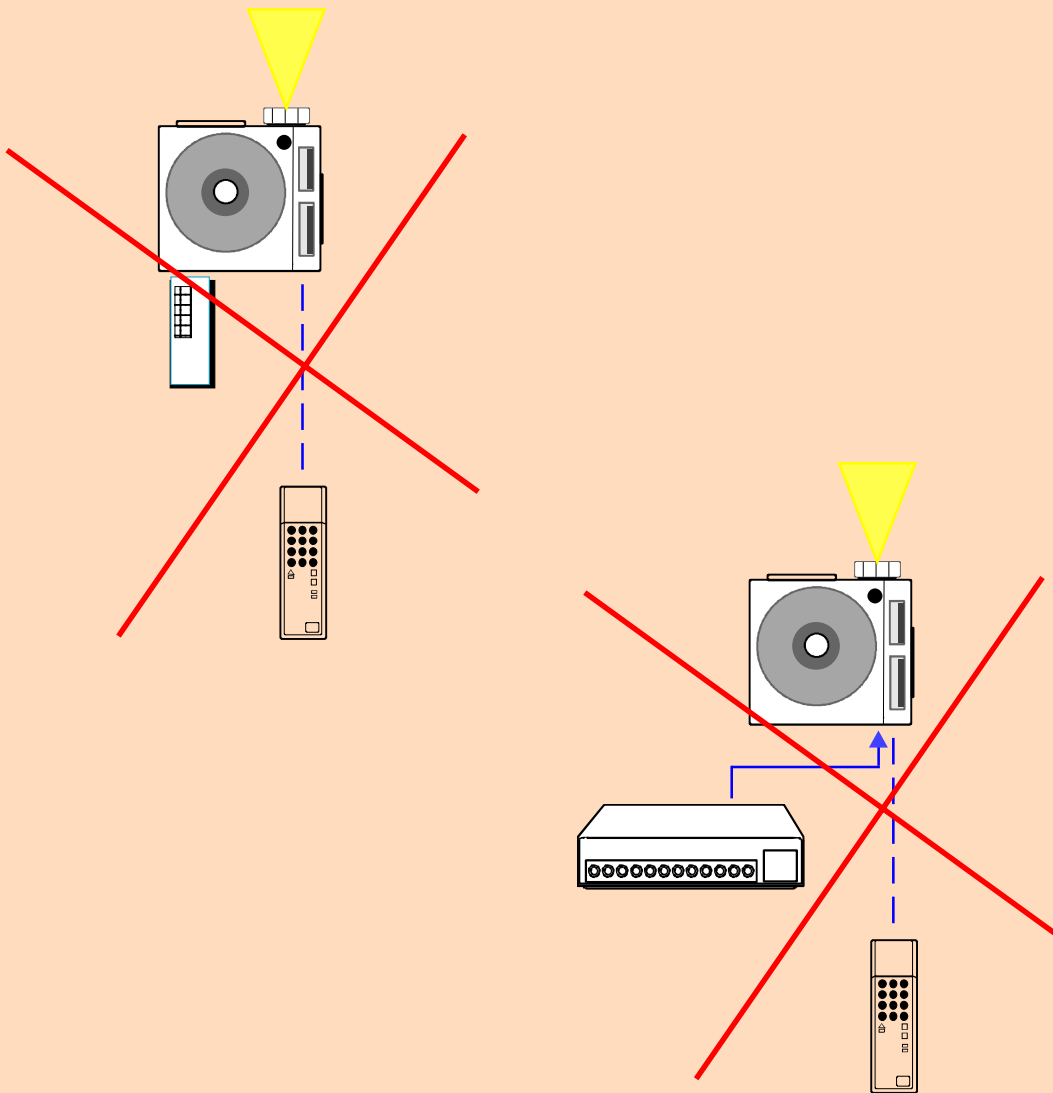
Important Hint

- **Simultaneous Control via IR Remote and via RS-232 controllers (AV Slot, P-Bus)**



Important

It is not allowed to control the projector(s) via IR remote and RS-232 controllers (P-BUS or AV-slot) simultaneously!

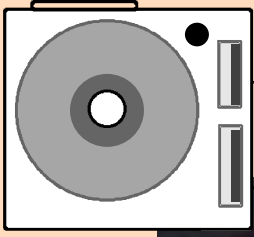


Compliments of:
www.KodakParts.com
Carrying Case

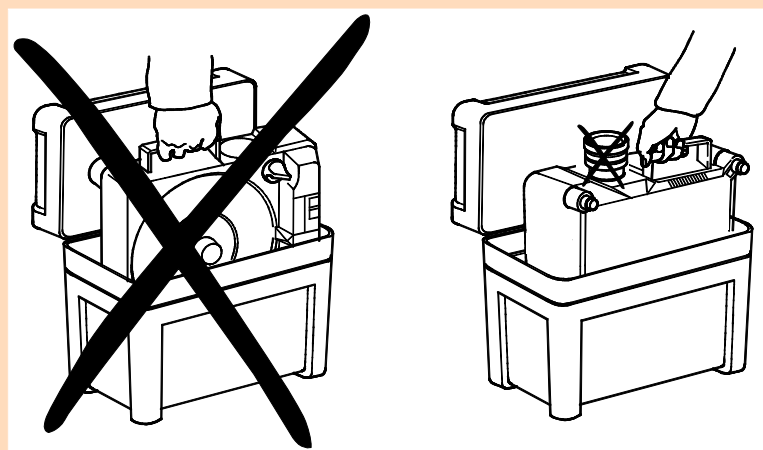
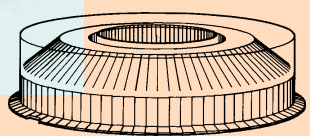
- **Less Weight**
- **Stackable**



CAT No 718 1993



To take **projector, lens and tray**



© by Kodak AG Stuttgart CMS edition 6/98 -QR-Epro pm6.5

Professional Installation

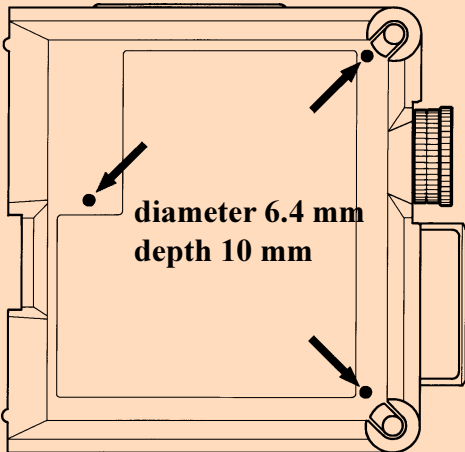
Racks - Fixing Holes

■ Racks



Some companies offering racks for professional use. (👉Addresses page 53)

■ Fixing Holes



Inserts (expansion collars)

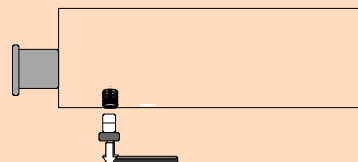
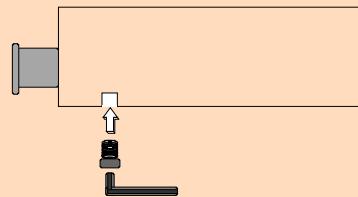
outer thread M7

inner thread M5



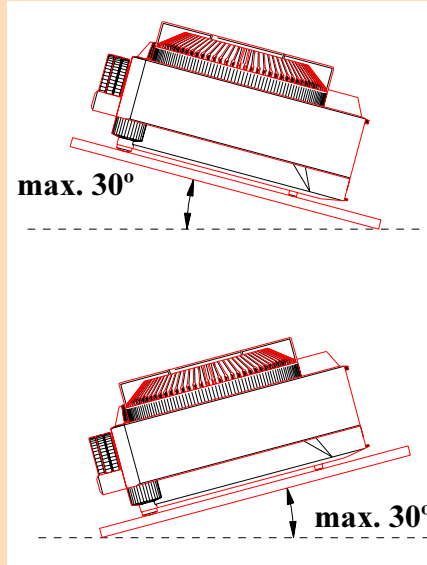
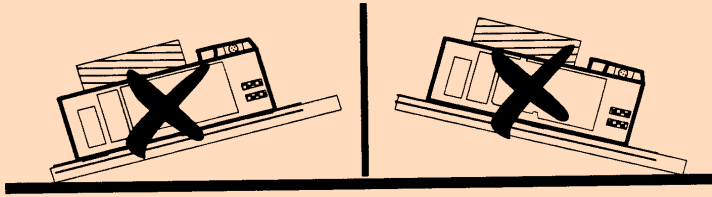
Screws M5

(max. length allowed 49 mm)



Professional Installation Tilting - Operation Temperature

■ Tilting



■ Operating Temperature



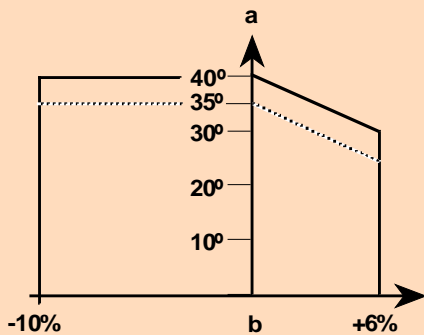
Note

Standard and economy setting:

Minimum 0° C and maximum +40° C

High Light setting (models 7020/9020):

Minimum 0° C and maximum + 35° C



a = Ambient temperature (C°)

b = Nominal voltage

Professional Installation

Boxes, Furniture

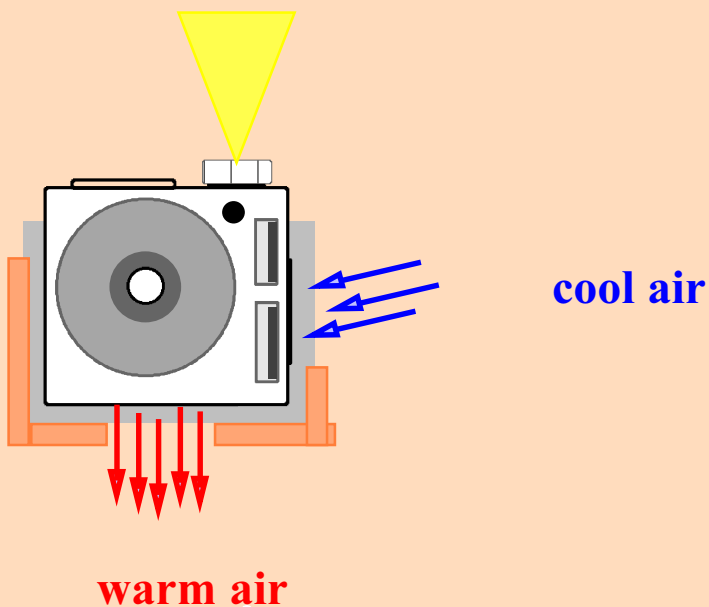
■ Installation in boxes, furniture



Important Note

Proper ventilation is required!

Check that the projector can draw-in sufficient cool air and that warm air can be freely expelled. Keep air inlet and air outlet free from obstruction!



Note

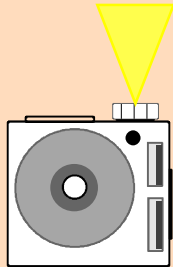
Should the projector overheat, e.g., due to lack of cooling air, the built-in thermal cut-out automatically switches the lamp off and on again once it has been cooled down.

Professional Installation

Line-up

■ Line -Up

EKTAPRO
4020, 5020,
7020, 9020



Aligning the projectors i.e. fully fading up all projectors, in multivision operation is difficult, since dissolve units often do not provide this kind of option.

With the Line-up feature you can turn the light of every projector on and off independently. This means the projectors can be aligned or checked at any time.

You can **only set the line-up on the projector.** (The external controlling via P-Bus is rejected during setting. With line-up standby will be also switched off and the shutter will be opened):

Line-up on: Press both transport buttons on the projector simultaneously for at least 1 second. The lamp now lights up at maximum output and the zero position indicator (green LED) flashes.

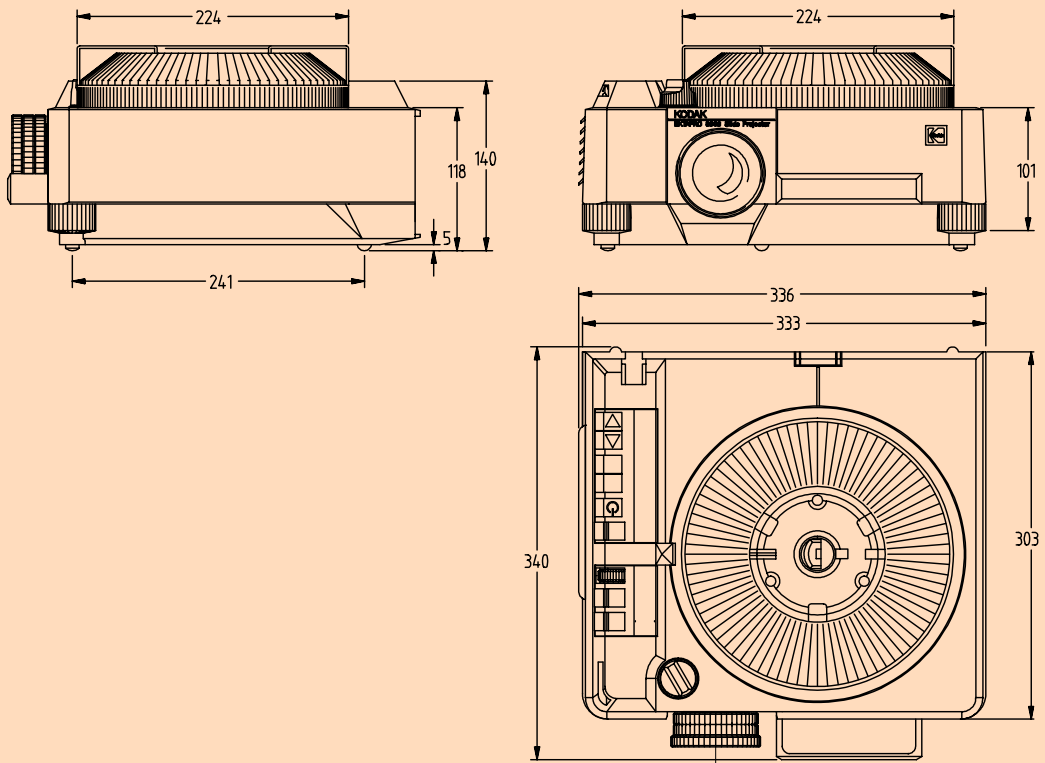
Line-up off: Press the standby button.!

Specification

Dimensions

■ Projector Measurements

- Length: 340 mm
- Width: 336 mm
- Height: 140 mm
- Height with tray: 175 mm
- Weight without tray: approx. 9000 g
- Weight of tray without slides: 540 g

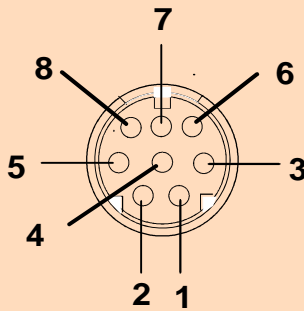


Specification Connectors

■ 8-pin Standard Projector Socket

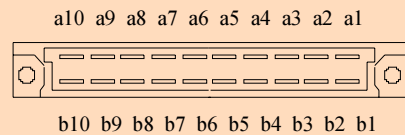
(For connecting the KODAK EKTAPRO Remote Systems or KODAK EKTAPRO Twin Socket Adapter).

- Pin 1: 12 VDC
- Pin 2: Gnd
- Pin 3: Signal 1 (LSB)
- Pin 4: Signal 2
- Pin 5: Signal 3
- Pin 6: Signal 4
- Pin 7: Signal 5 (MSB)
- Pin 8: Interrupt



■ Slot for Modules

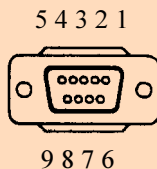
- | | |
|--------------------|--------------------|
| Pin a1: SDA | Pin b1: SCL |
| Pin a2: - | Pin b2: PLL_DISS |
| Pin a3: SLOT_232_R | Pin b3: SLOT_232_T |
| Pin a5: SLOT_A | Pin b4: STBY_DIS |
| Pin a6: SLOT_C | Pin b5: SLOT_B |
| Pin a8: 12 VDC | Pin b6: SL_DISS |
| Pin a9: 34 VDC | Pin b8: VSS 12 |
| Pin a10: 24 VAC_N | Pin b9: VSS 34 |
| | Pin b10: 24 VAC_L |



■ P-Bus-in and P-Bus-out

The following pin connections are used for data transmission:

- Pin 2: Transmit Data TxD
- Pin 3: Receive Data RxD
- Pin 5: Signal ground



Applications

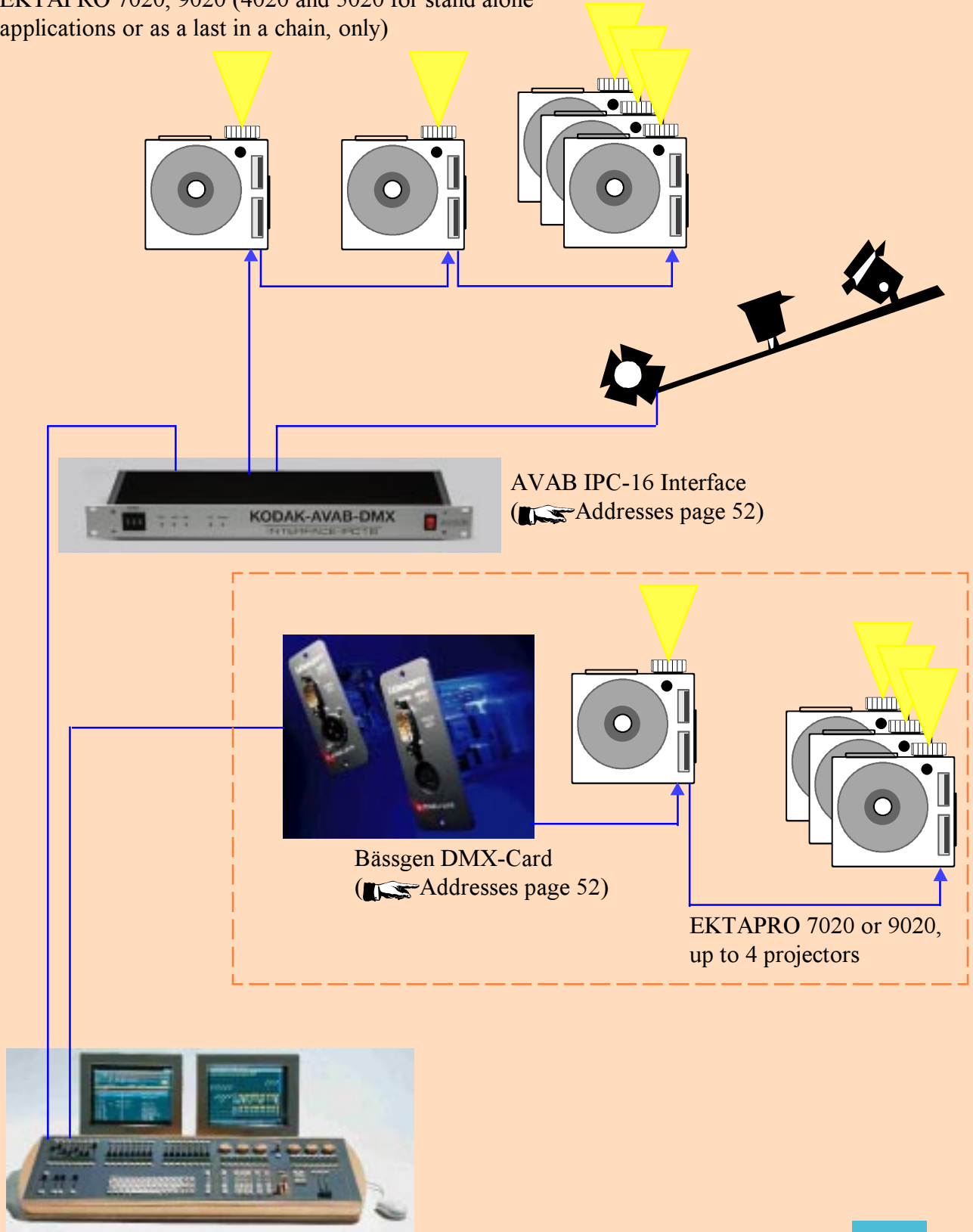


Opera Houses (Theatre)



■ Control via Lighting Control Console (DMX-512 standard)

EKTAPRO 7020, 9020 (4020 and 5020 for stand alone applications or as a last in a chain, only)



AVAB IPC-16 Interface
(Hand icon) Addresses page 52)

Bässgen DMX-Card
(Hand icon) Addresses page 52)

EKTAPRO 7020 or 9020,
up to 4 projectors

Lighting Console with DMX 515 Standard

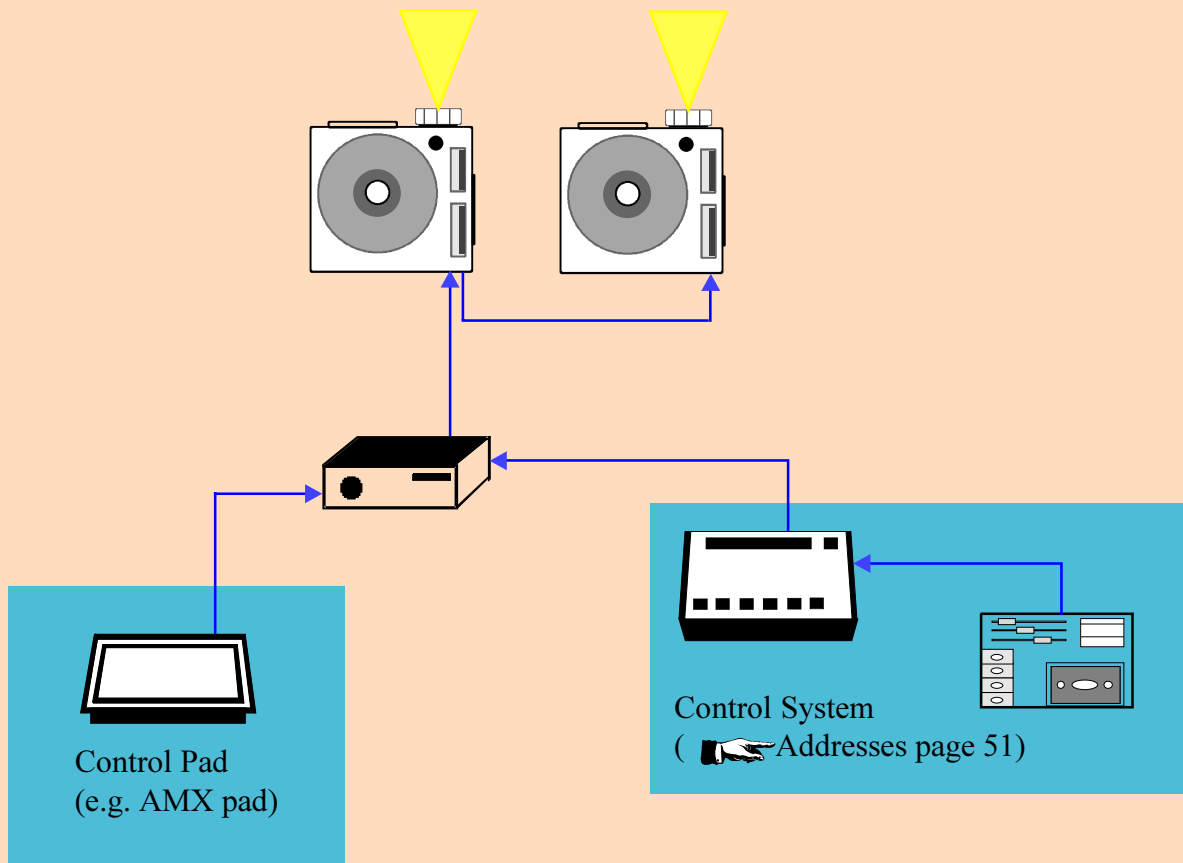
© by Kodak AG Stuttgart CMS edition 6/98 -QR-EPRO pm6.5



■ Use of two control systems via standard computer switchboard

EKTAPRO

7020, 9020 (4020 and 5020 for stand alone applications or as a last in a chain, only)



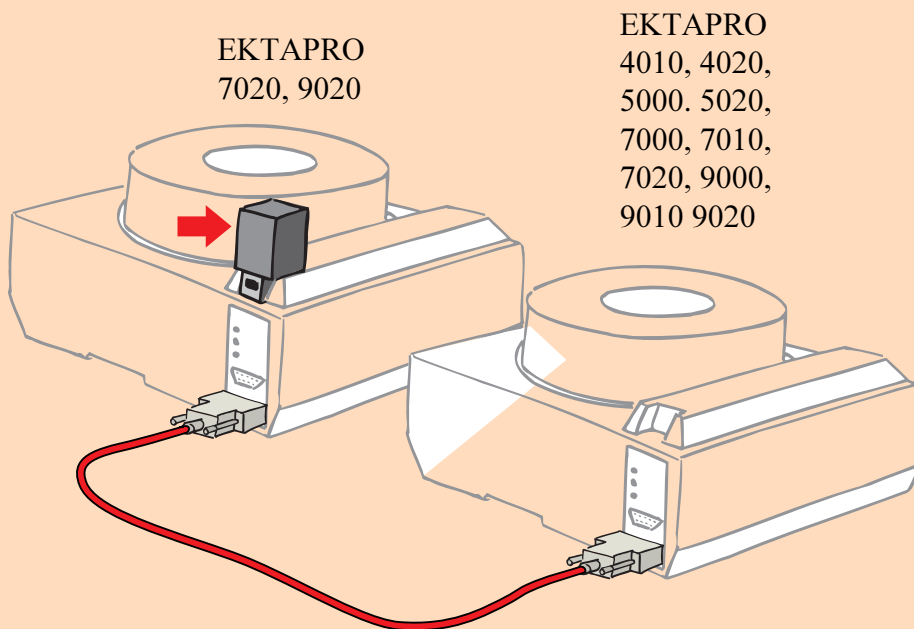
Applications



Business Presentation



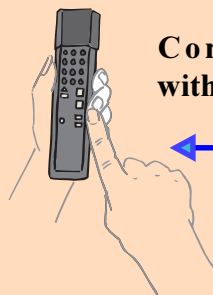
■ Presenting with two projectors via integrated dissolver. Take control of the presentation!



EKTAPRO
7020, 9020

EKTAPRO
4010, 4020,
5000, 5020,
7000, 7010,
7020, 9000,
9010 9020

MASTER SLAVE Projection	
MASTER E 7020 or 9020	1
SLAVE E 4020, 5020, 7020, 9020	1
Dissolve Cable CAT NO 715 3992	1
CAT NO 712 1072 or CAT NO 712 1064	1



Confirm with <*>

Function	Code
•Dissolve times (0.1 - 9.9 s) CUT	801 - 899 800
Random Access	0-160
Fade: MASTER SLAVE	770 707
Alternate	777
Freeze	789
•Independent Projector Control Mode	980
•Parallelprojection Focus Slave*	970 666*
•Reactivating dissolve mode	990
•Remote Security Mode	989
Reset	999
Autotimer (1-60 s) ----- off	601 - 660 600

Applications

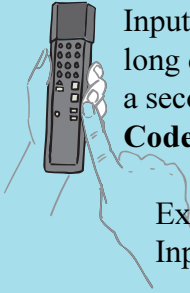


Business Presentation



- Presenting with two projectors via integrated dissolver. Three main possibilities:

1. Dissolve time

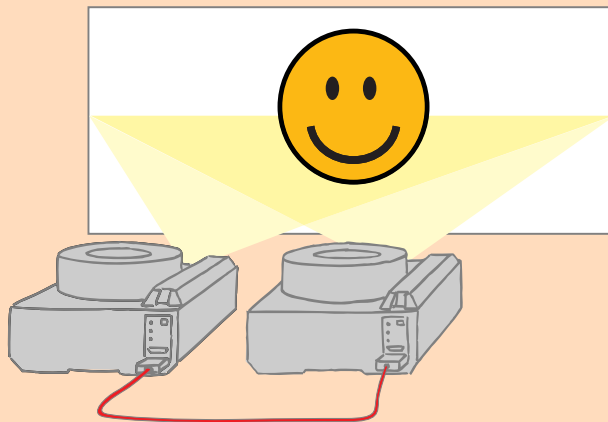


Input dissolve times of 0 sec (hard cutup for a long dissolve of 9.9 sec in increments of a tenth of a second

Code: <801 - 899>

Example: 4s

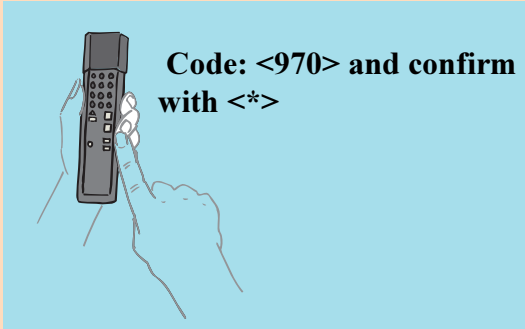
Input <840> and confirm with <*>



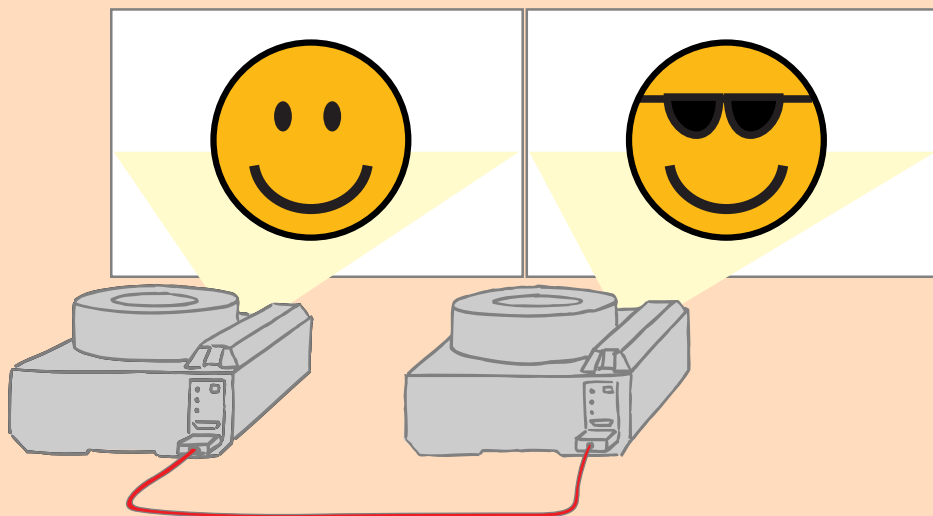
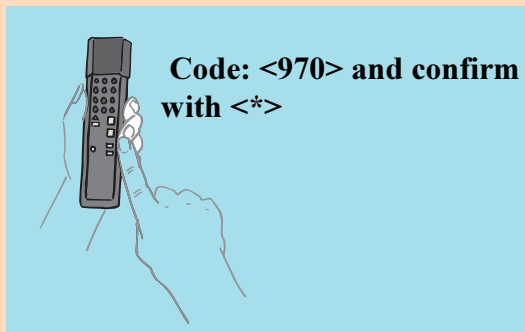


- Presenting with two projectors via integrated dissolver. Three main possibilities:

2. Parallel in harmony and Panorama

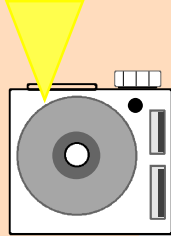


3. Parallel independent

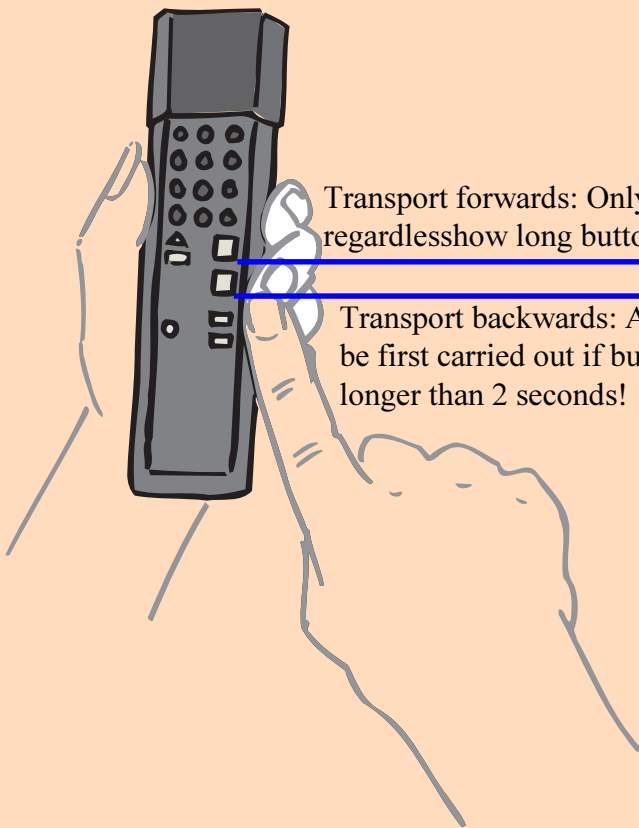
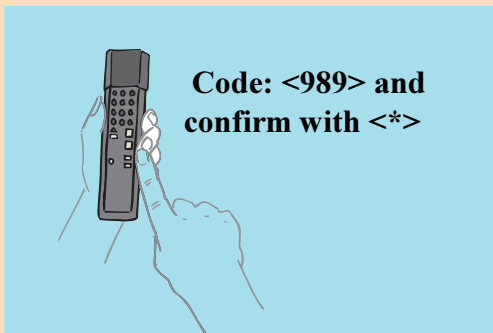




■ IR Remote Control Security Setting



EKTAPRO
4020, 5020,
7020, 9020



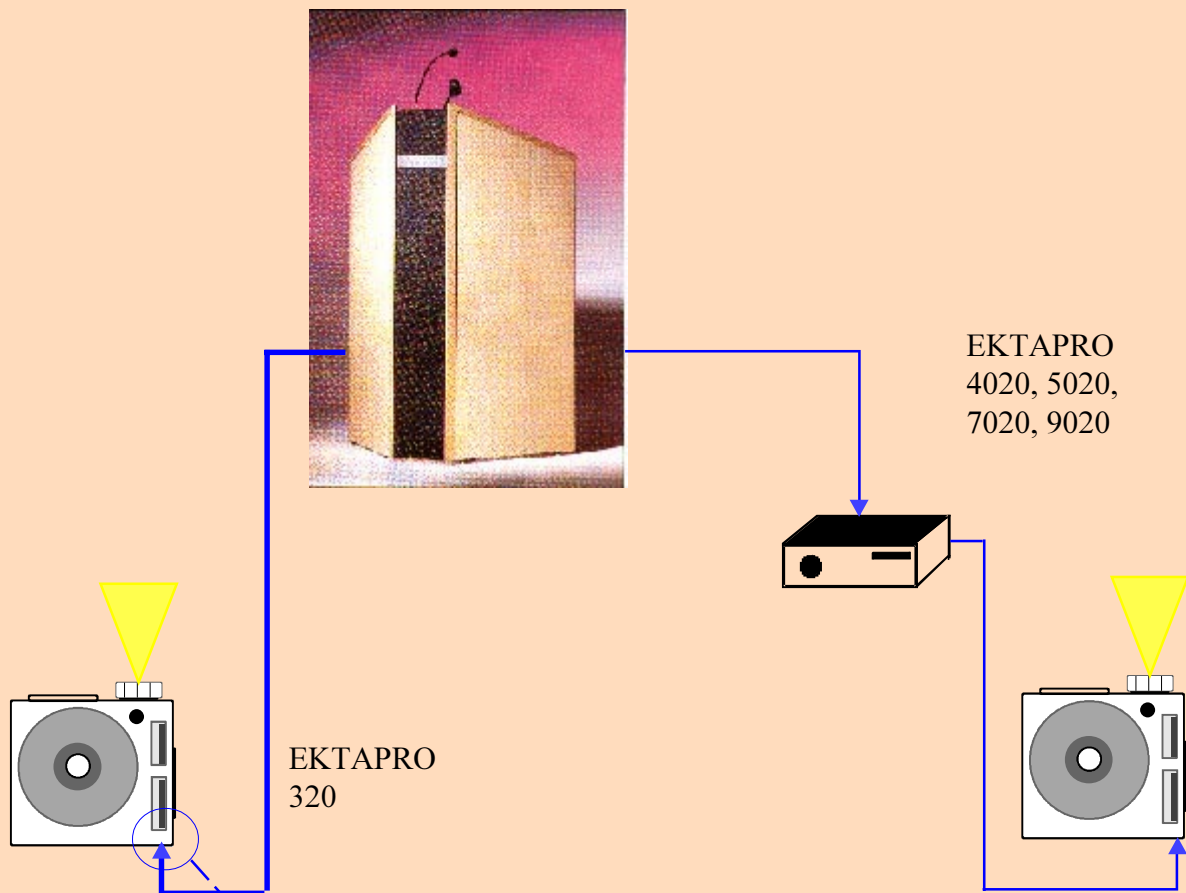
Transport forwards: Only one transport step, regardless how long button is depressed.

Transport backwards: A transport step will be first carried out if button is depressed longer than 2 seconds!



■ Using built-in control systems (control from a speaker's desk)

Almost all congress halls, lecture halls etc. have speaker's desks. From this desk the speaker is able to use installed remote controls for all kinds of presentation equipment such as slide projectors.. In many cases the technique of control is based on "closing contacts". All Ektapro (besides Ektapro 320) accept digital commands only; and therefore can not directly be connected to the existing cables at the venue. For connecting to such systems they need a so called slide synchronizer.



Pin 8 must always be connected with pin 2!

Slide transport forwards:

connect pin 7 with pin 2

Slide transport reverse:

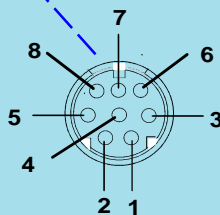
connect pin 6 with pin 2

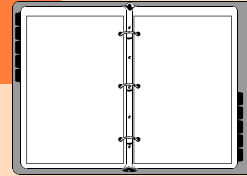
Focus forwards:

connect pin 5 with pin 2

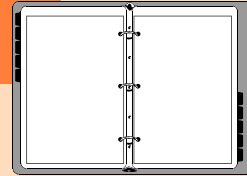
Focus backwards:

connect pin 4 with pin 2

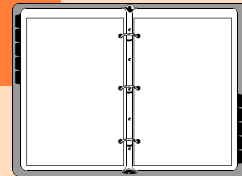




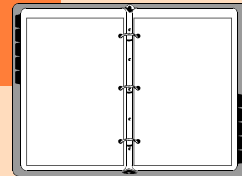
Company	Street	City	Country	Phone/FAX/WEB
Projector Control Systems - Hardware				
ARION	701 South 7th Str.	Delano, MN 55328	USA	(001) 612 972 3351 F: (001) 612 972 3524 www.arion-usa.com/
AVL	50 Barnes Park North	Wallingford, CT 06492	USA	(001) 203 269-8410 F: (001) 203 284-8414 www.usa.net/icia/avl
Bässgen	Hauptstraße 58	79104 Freiburg	Germany	(0049) 761 23953 F: (0049) 761 35042 www.dia.de/
Dataton	Box 257	S-581 02 Linköping	Sweden	(0046) 13114325 F: (0046) 13138445 www.dataton.se/
Electrosonic	Hawley Mill Hawley Rd	Dartford Kent DA2 7SY	England	(0044)-1322 282317 F: (0044)-1322 282215 www.electrosonic.co.uk
HEP	Road	3005 EC Rotterdam	The Netherlands	(0031) 10 418 3689
Müwo		72379 Hechingen- Stetten	Germany	(0049) 7471 15830
RMF	1275 Paramount PKW	Batavia, IL 60510	USA	(001) 708 879 0020 F: (001) 708 879 6749
Stumpfl	Rudigierstr. 8	A-4701 Bad Schallerbach	Austria	(0043) 7249 42811 F: (0043) 7249 42811 18 www.stumpfl.com/
Zygo Syst. Ltd.	48 Fallowfields	Bicester Oxon OX6 7Qs	England	(0044) 869 248261 F: (0044) 869 248 260
Software (Direct PC Control)				
ARION	701 South 7th Str.	Delano, MN 55328	USA	(001) 612 972 3351 F: (001) 612 972 3524 www.arion-usa.com/
COMM- TEC	Siemensstr. 22	73066 UHINGEN	Germany	(0049) 7161 3000 0 F: (0049)7161 3000 11
M-Objects	Auf dem Berg 7	59387 Ascheberg	Germany	(0049) 2593 988 88 F:(0049) 2593 988 89 www.mobiects.com/
P. Ziegler	Van Gogh Platz 6	53844 Troisdorf	Germany	(0049) 2241 946 217 F:(0049) 2241 946 218 home.t- online.de/home/ziegler.av
Kodak Taiwan Ltd.	35, Chung Yang S, Rd., Sec. 2,	Pei Tou, Taipei	Taiwan	(0088) 6 2 2893 8178 F: (0088) 6 2 2893



Company	Street	City	Country	Phone/FAX/WEB
Other Accessory (e.g. Slide Synchronizer)				
AVSZ	Tarweaker 63	2723 TB Zoetermeer	The Netherlands	(0031) 79 341 43 46 F: (0031) 793 425 687
Müwo	In den Maltwiesen 11	72379 Hechingen-Stetten	Germany	(0049) 7471 15830
Zeller	Wettsteinallee 15	4058 Basel	Switzerland	(0041) 6168 4343 F: (0041) 6168 3907
DMX 516 Theatre Controller				
AVAB	Södermannagatan 21	S-116 40 Stockholm	Sweden	(0046)8 56 31 52 00 F. (0046)8 56 31 52 99 www.avab.se
Bässgen	Hauptstraße 58	79104 Freiburg	Germany	(0049) 761 23953 F: (0049) 761 35042 www.dia.de/
Midi Controller				
Bässgen	Hauptstraße 58	79104 Freiburg	Germany	(0049) 761 23953 F: (0049) 761 35042 www.dia.de/
Schubert	Römerstr.29	52064 Aachen	Germany	(0049) 241 35 439 F:(0049) 241 406 961
1000 Hz Tape Decks				
ARION	701 South 7th Street	Delano, MN 55328	USA	(001) 612 972 3351 F:(001) 612 972 3534 www.arion-usa.com
3-Track Tape Decks				
Califone	Superior Street	Chatsworth CA 91311	USA	(001) 800 722 0500 www.califone.com
Yamaha	6600 Orangethorpe Avenue	Buena Park, CA 90620	USA	(001) 714 522 9011 www.yamaha.com
Fostex	15431 Blackburn Avenue	Norwalk, CA 90650	USA	(001) 562 921-1112 F. (001) 562 802-1964 www.fostex.com
Gebuhr	Imhoffstr. 4	90429 Nuernberg	Germany	(0049) 911 260 304 F:(0049) 911 268 738
Tascam	7733 Telegraph Rd.	Montebello, Ca 90640	USA	(001) 213 726-0303 F:(001) 213 727 7635 www.tascam.com
Single Projector dissolve				
Entré	2184 SE 53rd Avenue	Hillsboro OR 97123 7800	USA	(001) 503 649 4641



Company	Street	City	Country	Phone/FAX/WEB
Racks				
Baumann	Hauptstraße 58	79104 Freiburg	Germany	(0049) 761 23953 F: (0049) 761 35042
Chief	14310 Ewing Avenue	South Burnsville, MN 55337	USA	(001) 612 894-6280 F: (001) 612 894-
Roha	Bruno Jacoby Weg 11	70597 Stuttgart	Germany	(0049) 711 723621
Projection Lenses				
Buhl	1009 Beech Avenue	Pittsburgh, PA 15233	USA	(001) 412 321-0076 F: (001) 412 322
Docter	Industriegebiet	35641 Schoffengrund	Germany	(0049) 6445 609 0 F:(0049) 6445 609 165
Isco	Robert Bosch Breite 10	37013 Goettingen	Germany	(049) 551 5058 3 F: (0049) 551 5058 410
Leica	Saarbrueckeners tr. 263	38116 Braunschweig	Germany	(0049) 531 5900 479 F:(0049) 531 5900 489 www.leica- camera.com
Navitar	200 Commerce Drv	Rochester, NY 14623	USA	(001) 716 359 4000 F:(001) 716 359 4999
Projection Screens				
Da-Lite	3100 N. Detroit Str	Warsaw, IN 46581 0137	USA	(001) 219 267 5101 F:(001) 219 267 5101 www.da- lite.com
Stumpfl	Rudigierstr. 8	A-4701 Bad Schallerbach	Austria	(0043) 7249 42811 F: (0043) 7249 42811 4



Company	Street	City	Country	Phone/FAX/WEB
Slide Recorders				
Agfa	Septestraat 27	B-2640 Mortsel	Belgium	(0032) -3-4442111 F: (0032) - 3-444 7094 www.agfa.com
Lasergraphics	20 Ada	Irvine, CA 92718	USA	(001) 714 753-8282 F: (001)(714) 727-9282 www.lasergraphics.com
Management Graphics,	1401 E. 79th Street	Minneapolis, MN 55425	USA	(001) 612 854-1220 F: (001) 612 851-6159 www.mgi.com
Mirus	3350 Scott Boulevard, Bldg. 48	Santa Clara, CA 95054	USA	(001) 408 980-660 F: (001) 408 980-6601 www.mirus.com
Polaroid	549 Technology Square	Cambridge, MA 02139	USA	(001)(781) 386-2000 www.polaroid.com
Other Places of Interest				
Gavi	333 West Merrik RD	Valley Stream, NY 11580	USA	F:(001) 516 568 2057
Jobo	Koelnerstr. 58	51645 Gummersbach	Germany	(0049) 2261 54525 F:(0049) 2261 54542 www.jobo.com
Leica	Saarbrueckenerstr. 263	38116 Braunschweig	Germany	(0049) 531 5900 479 F:(0049) 531 5900 489 www.leica-camera.com
Pacon	106 Baker Techn. Plaza 6121 Baker Road	Minnetonka, MN 55345	USA	(001) 612 936 9500 F:(001) 612 936 9509 www.pakon.com
Telex	9600 Aldrich Ave Sough	Minneapolis, MN 55420	USA	F: (001) 612 887 5588 www.telex.com
Slide Mounts				
Alfi	P.O.B 10 20 47	86010 Augsburg	Germany	(0049)-821-80867-0 F: (0049)-821-80867-40
Geimuplast	P.O.B 1364	82453 Garmisch-Partenkirchen	Germany	(0049) 8821 6850 F: (0049) 8821 685100
GEPE	Baarerstr. 43	6304 Zug	Switzerland	(0041) 41 711 7588 F: (oo41) 41 711 2870
Wess	70 Commerce Drive	Hauppauge, NY 11788	USA	F:(001) 516 231 0608 www.wesspl.com

Applications



Music-Stages (Performance)



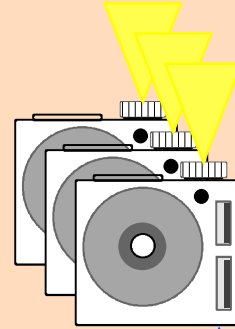
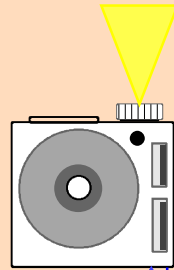
APPENDIX



Bässgen MIDI-Card
(Addresses page 52)



Keyboard with MIDI Interface



EKTAPRO 7020 or 9020,
up to 4 projectors

The Quick Reference was created and published by Kodak AG, Germany. In case of any questions, requests, useful ideas, please get in direct contact with Kodak. The address is:

Kodak AG
PT CMS
Hedelfingerstr. 60
70327 Stuttgart
Germany
Phone: int +711 406 5151
Fax: int + 711 406 5367
E-mail: heinrich@kodak.com

Stuttgart, July. 1998

1st revised edition: January 1999