

instruction manual

RFX



Rotation

Effects Drive

Order Code: **13103**



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Version of December 2009

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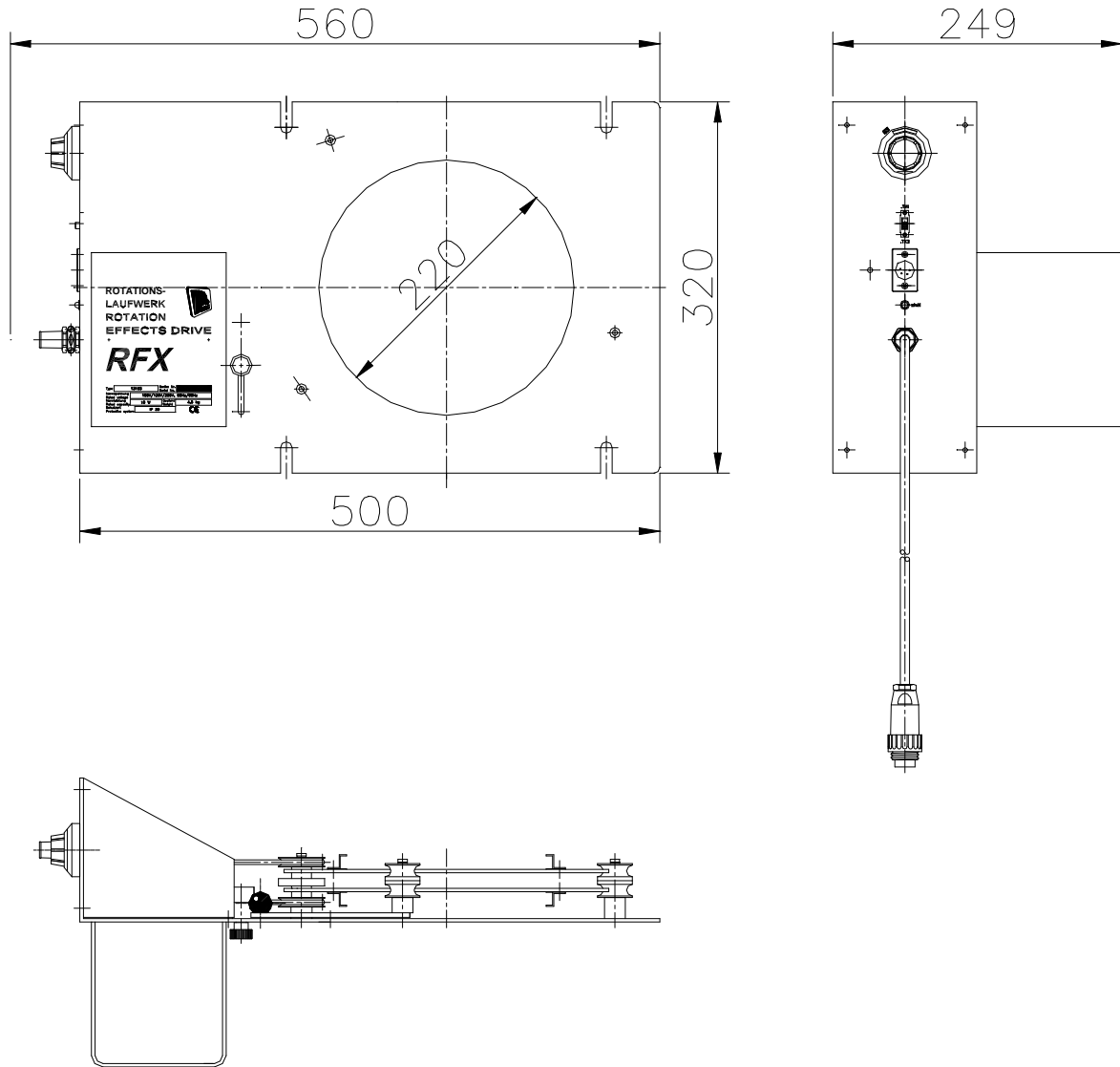
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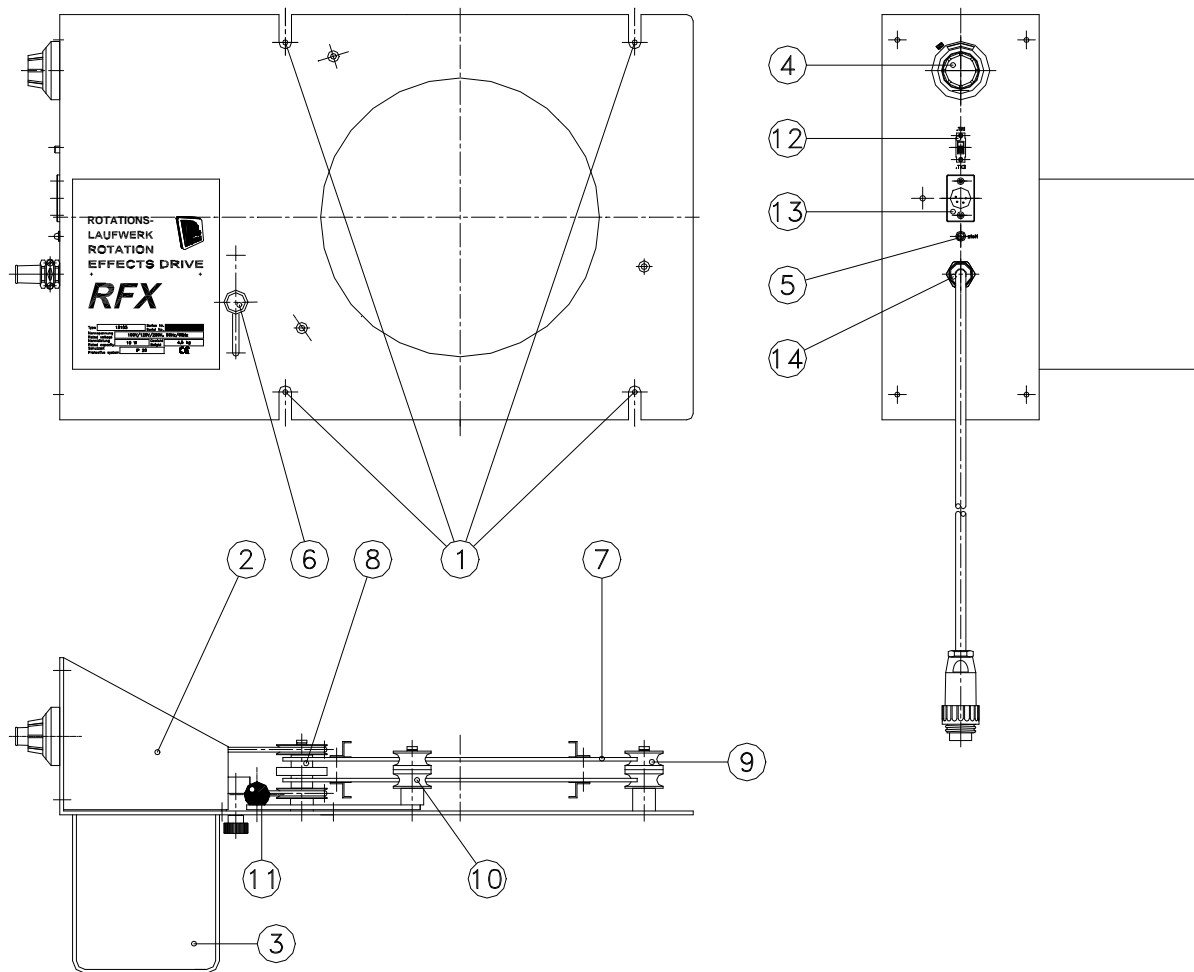
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1) Dimension Drawing



2) Position Drawing



LEGEND

- (1) mounting slots
- (2) control housing
- (3) motor housing
- (4) 10- turn spindel potentiometer
- (5) LED- red for source control
- (6) shifting knob for losening the forward disk
- (7) rotation disk(s)
- (8) driving reel
- (9) guiding reel
- (10) pin roller
- (11) knob for removable pin roller
- (12) toggle switch for internal / external control
- (13) socket XLR-4pol. for remote control
- (14) mains connection

3) General

The Rotation Effects unit is universal good for being used on the HMI and Halogen Stage Projectors BP 1,2 HMI, BP 2, BP 2500 Halogen, BP 2,5 Compact, BP 2,5 CT, BP 4 Compact, BP 4 CT, BP 6 Gold and the BP 6 GT.

One or two effect discs of diam. 280 mm are counterrotated around a common center in the projection axis by outside driving reels. The drive of the front disc is able to be disconnected mechanically for integrating this disc as a stagnant unit into the projection. Besides of empty discs for individual designs and some special effect discs, there are discs for mounting slides 18x18cm available. The rotation speed is adjustable from standing still continuous up to 4 rpm.

The original projector slide cooling fan is used to cool the two effect discs for being nearly in the slide plane position and the effect drive being constructed in this way.

4) Drive and Control

The mechanism for the effect drive is provided by a 12 volt DC motor with a built in tachogenerator. The power section and electronic RPM generator is housed within the printed circuit card.

Fuse of Power Source: 250mA, 5x 20

Fuse of Electronic Control: 2AT, 5x 20

5) Control facilities

For setting the rotation speed and direction the following two facilities are selectable:

5.1) Control on board

POSITION NUMBERS SEE PAGE 3

With the 10- turn spindle potentiometer (4) you may adjust rotation speed and direction if you have set the toggle switch (12) to position „internal“.

5.2) Control (DMX- 512)

POSITION NUMBER SEE PAGE 3

By using the 4-pole XLR-jack (13) you may control rotation speed and direction of the driving unit if the toggle switch (12) is in position „external“ by using a control voltage from 0 to ± 10 V .

For controlling the wave effect machine by the control standard USITT DMX 512 the optional Universal- DMX 512- Interface – Order code 15205 – and the 2- circuit- Control Cable – Order code 19318 – to the XLR jack (13) is necessary.

See details in the instruction manual of the Universal- DMX 512- Interface.

6) Mounting the Rotation Effects Drive

- a) Dismount the projection lens after loosening the 4 wing nuts M8.
- b) Dismount the Slide Carrier Position Locking unit
- c) Remove the upper 2 wing nuts M8 completely.
- d) Hang the Rotation Effects Drive into the lower objective lens support bolts and slide it onto the upper bolts.
- e) Screw on the two wing nuts M8 of the upper lens support bolts
- f) Mount the projection lens and fix the whole assembling by fastening the 4 wing nuts M8.

6.1) Changing the Effect Discs

Being mounted nearby the front condenser lens, a larger useful area of the effect disc is provided, so that the temperature stress is low. Therefore changing the Effect discs is only possible with dismounted effect drive!

6.2) Using two Effect Discs

Always insert that effect disc first, which has a greater distance to the projector.

6.3) Using one Effect Disc

If you use only one effect disc, position it nearer to the projector.

ATTENTION:

Using two discs for carrying slides, always abandon the inserting side one from another .

7) Comments to various effects

POSITION NUMBERS SEE PAGE 7

	Order Cde.
Liquatron disc	13327

This effect disc has two independent chambers containing colored oils. Rotating the disc shows a fascinating dynamic effect of the flowing oil merging together.

Galaxy- Effect	13328
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The effect is consisting of two identical discs, which are inserted in that way, that the arcs of one disc are running to the right and that of the other to the left. Choosing the direction of rotation shows a flowing symmetrical beaming effect running to or from the center.

Polarisation Effect (see sketch on page 6)	13329
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configuration of the special slide(2)

The special slide (2) consists of 2 glass plates 18x 18 cm with a hostaphan- foil jammed between; fix the glass plates with the delivered self adhesive foil (cut stripes 180x20mm). The hostaphan foil may be rumpled or cut into precise forms before being jammed. In that way how the foil is positioned in the individual area or is missing in the slide, rotation offset against each other of the polarizing filter (1) and polarisation disk (3) results in different colour changing of the various areas.

Installing the polarisation effect

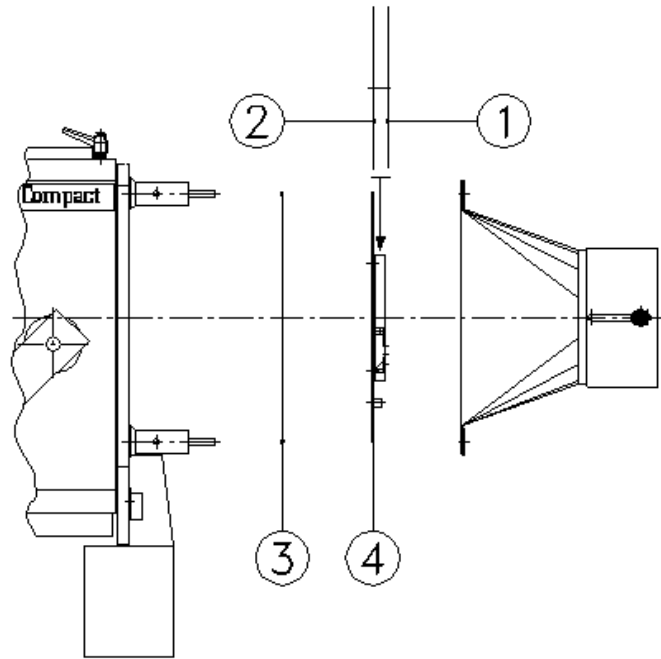
Insert the special slide (2) together with the polarisation filter (1) – which is set into a slide holder disc (4) in that way, that the filter is on the projection lens side of the rotation drive - into the retainer, which is positioned at the projection lens side of the rotation drive too.

The polarisation disc (3) has to be set into the retainer at projectors side.

You may choose between projection with standing or rotating special slide (2).

Setting of the polarisation effect

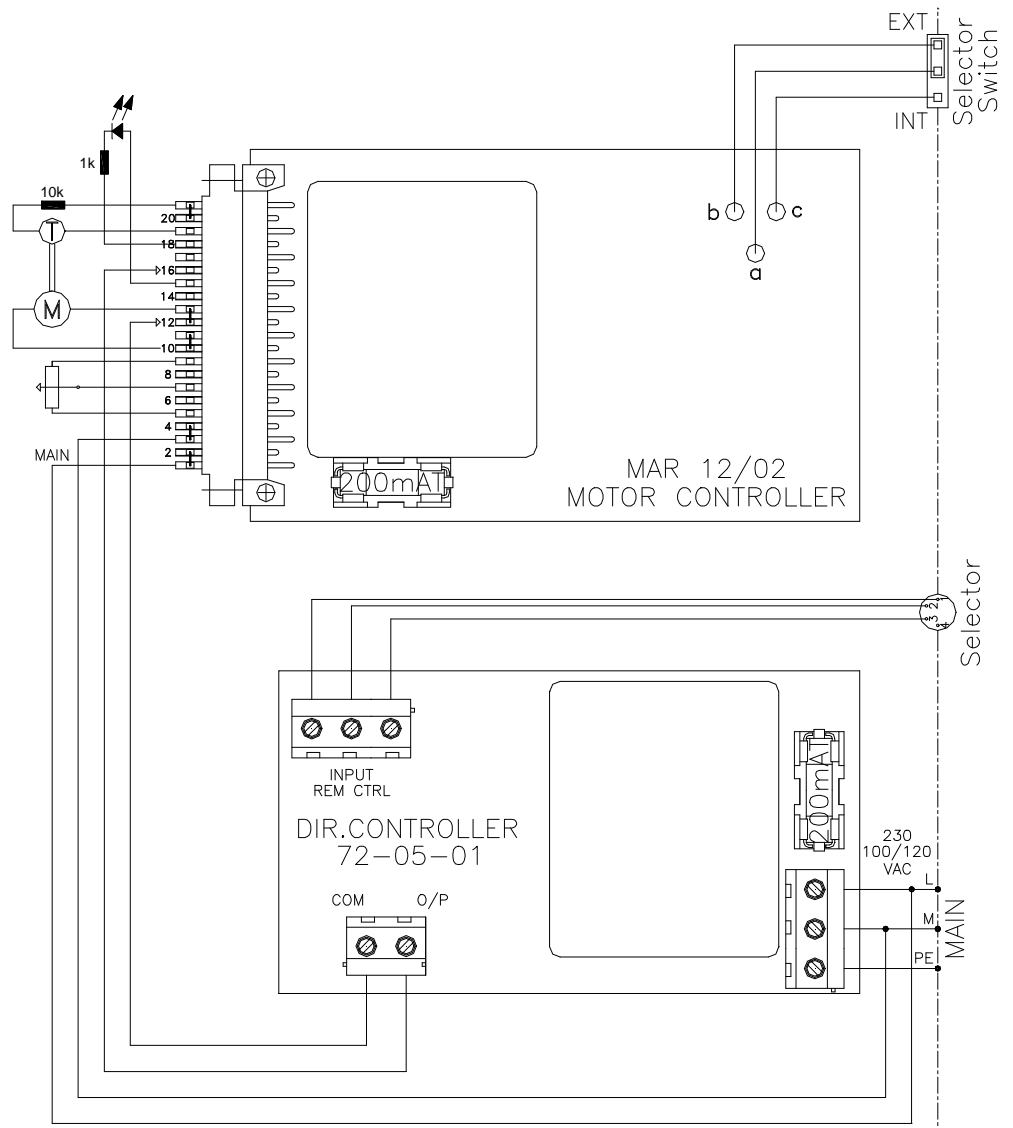
- (1) polarizing filter 18x 18 cm
- (2) special slide 18x 18 cm
- (3) polarisation disc Ø 280 mm
- (4) slide holder disc



8) Power Plan

Type **Mattke**

Drawing number:
72-05-03



9) Basic Kit and Unit as delivered

	Order Code
1 Rotationslaufwerk for 2 discs Ø 280 mm, with adjustable motor drive 230 V AC	13103
1 Slide disc disc Ø 280 mm for retaining slides 18x 18 cm	13338

10) Accessories

	Order Code
Liquatron disc Ø 280 mm	13327
Galaxy - effect 2 discs Ø 280 mm	13328
Polarisation effect Consisting of: 1 Polarisation disc Ø 280 mm 1 Polarisation filter 180x 180 mm 2 pieces of tempered glass 180x 180 mm Hostaphan 19 my, 700x 400 mm Self adhesive silver foil, matt, 180x 166 mm	13329
empty disc disc of tempered glass Ø 280 mm for painting your own creation	13330

11) General technical data

Rated Voltage	230 V 50/ 60 Hz
Rated Power	10 VA
Power Plug	4p - AMPH.
Weight Netto	4,5 kg
Dimensions (Bx Hx T)	560 x 320 x 249 mm
Number of revolutions	0- 4 r.p.m.

12) Spare Parts

Rotation Effects Drive

Order text	Order Code:	pieces per unit
Bearing Assembly	90-0095	1
Head Wheel	31-0008	4
Pendulum Support	11-0044	2
Motor Holder Assembly	90-0096	1
Main Shaft and Assembly	11-0205	1
Driving Wheel	11-0206	1
Lever	11-0045	1
Bearing 1	11-0046	1
Bearing 2	11-0047	1
Bearing 3	11-0048	1
Bearing 4	11-0049	1
Bearing 5	11-0050	1
Guide Rollers	11-0051	5
Band Pulley 2	11-0207	1
Release	90-0093	1
Band Pulley 1	11-0052	1
Space	11-0053	1
Case	11-0054	1
Tension Spring	31-0009	1
Bolt	11-0055	1
Tension Belt	90-0022	1 unit = 1m
Cooler Tube	31-0066	2
Press on Spring	31-0042	4
Lateral Press on Spring for Slide	11-0208	2
Slide Stopper	11-0209	4
Elbow Joint	11-0210	4
Motor Contoller	431347	1
Drive Motor Assembly	431242	1
Beckmann Potentiometer	23-0004	1
Potentiometer Drive	23-0005	1
LED Ø5 red+ socket	90-0027	1
Connector	22-0002	1
Cable Strain Relief with Nut and Foldprotection	90-0012	1
Ball Knob	21-0003	1
Clamping Pin Ø3x30	21-0145	2
Hallow Milled Nut	21-0011	1
Sliding Switch	22-0177	1

Power Supply + Direction Identification

Print complete	90-0111	1
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