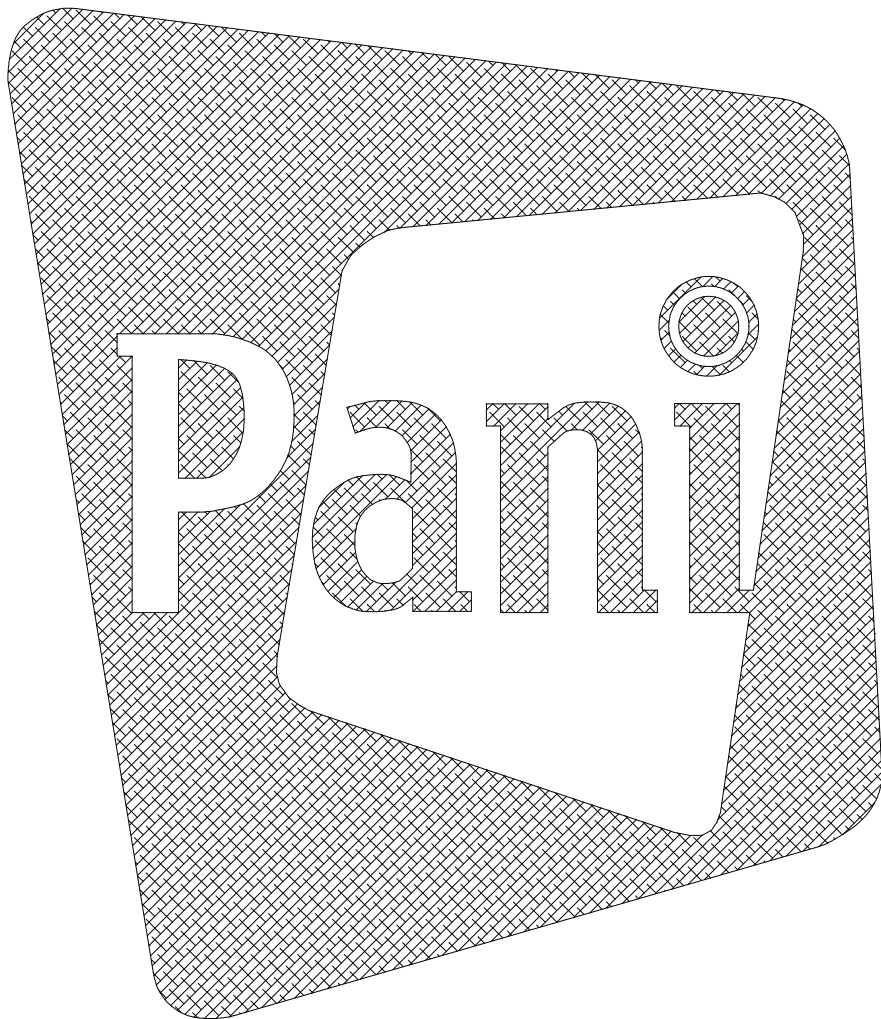


Operation Manual

# wave effect machine



# W F X

Order Code:

13105

VERSION 09/06

Status of September 2006

## CONTENTS

	Page
1) Dimension Drawing .....	2
2) Position Drawing.....	2
3) General .....	3
4) Drive and Control.....	3
5) Control facilities.....	3
5.1) Control on board.....	3
5.2) Control (DMX- 512) .....	3
6) Positioning the Hubs .....	4
7) Changing the Film Frames or Effects Glass.....	4
8) Disposition of Effects Glass .....	5
9) Power Plan (types Mattke or Escape).....	6
10) Unit as Delivered.....	7
11) General Technical Data .....	7
12) Spare Parts.....	7+8

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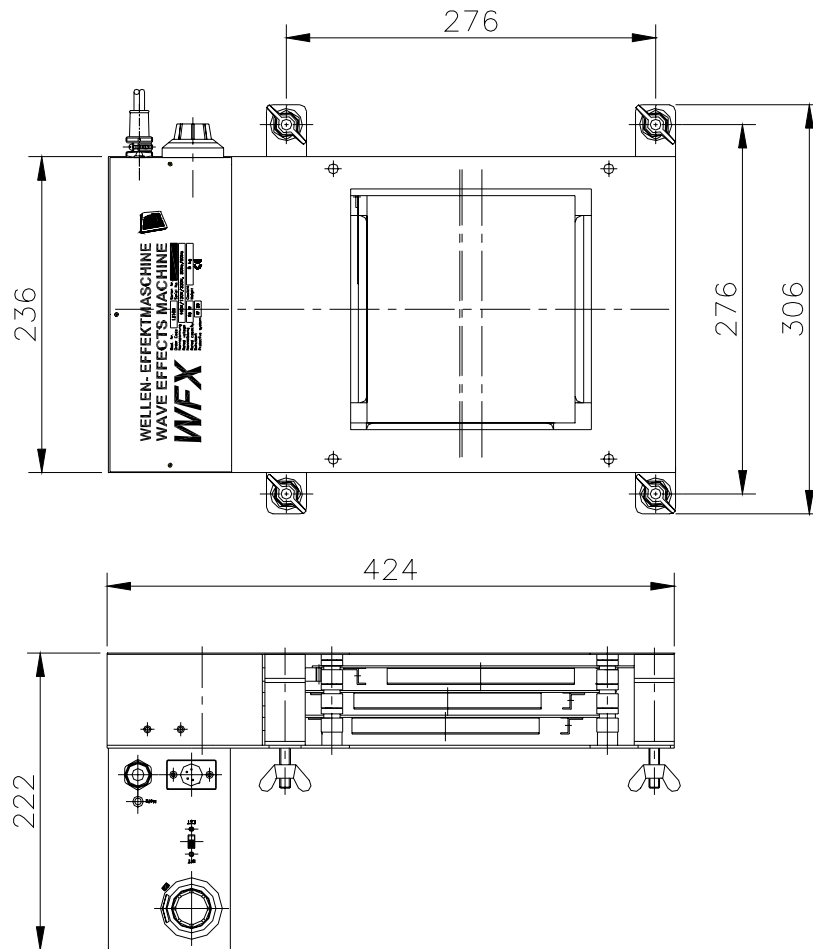
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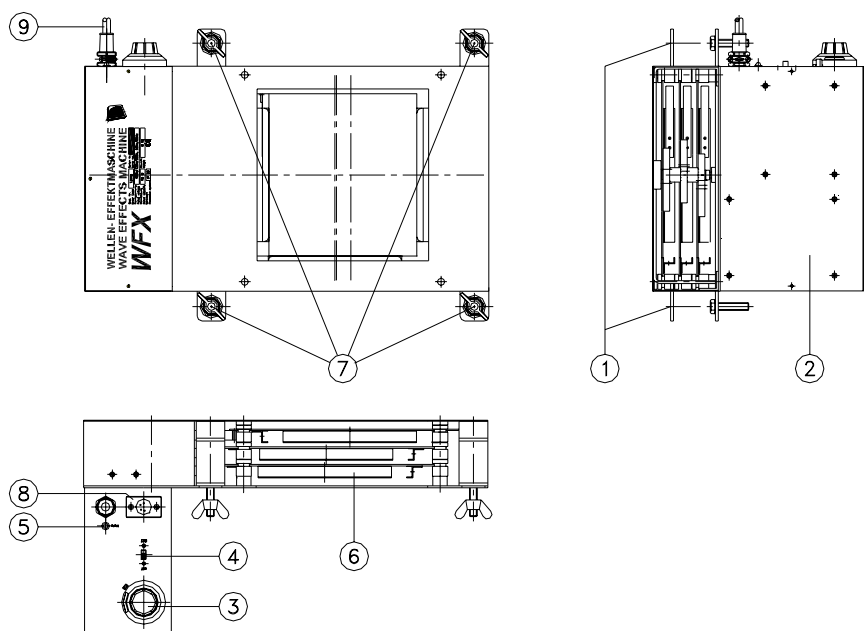
### 1) Dimension Drawing



### 2) Position Drawing

#### LEGEND

- (1) Effect Attachment Hanger Brackets
- (2) Control Housing
- (3) 10 Turn- Potentiometer
- (4) Toggle Swich for Intern – Extern - Control
- (5) LED- red for Power Control
- (6) Wave Glass Insert
- (7) Objective Lens Hanger Bolts
- (8) XLR 4-pol Remote Control Jack
- (9) Powe Cable



### **3) General**

A multitude of stage effects may be realized with the aid of projection. For naturalistic wave motion is a complicated visual challenge through which a convincing solution may be achieved optically.

The PANI Wave Effect Machine shows that in nature light is a moving substance. Light is seldom static, it changes itself in the highest degree, flowing or with extreme sensitivity. With the PANI Wave Effect Machine all nuances of motion can be convincingly produced.

The mechanical assembly of the Wave Effect Machine consists of three ball bearing eccentric discs with adjustable cam height. The hardened discs are driven by a DC motor. As a supplement to the color character of the waves, a filter attachment for objective lens with round tubes, order code: G1510 is also available.

A tempered glass plate with three colors screen printed with green and blue wave patterns enhances the visual effect.

### **4) Drive**

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 NUMBER SEE PAGE 3

With the 10- turn spindle potentiometer (3) you may adjust rotation speed and direction if you have set the toggle switch (4) to position „internal“.

#### **5.2) Control (DMX- 512)**

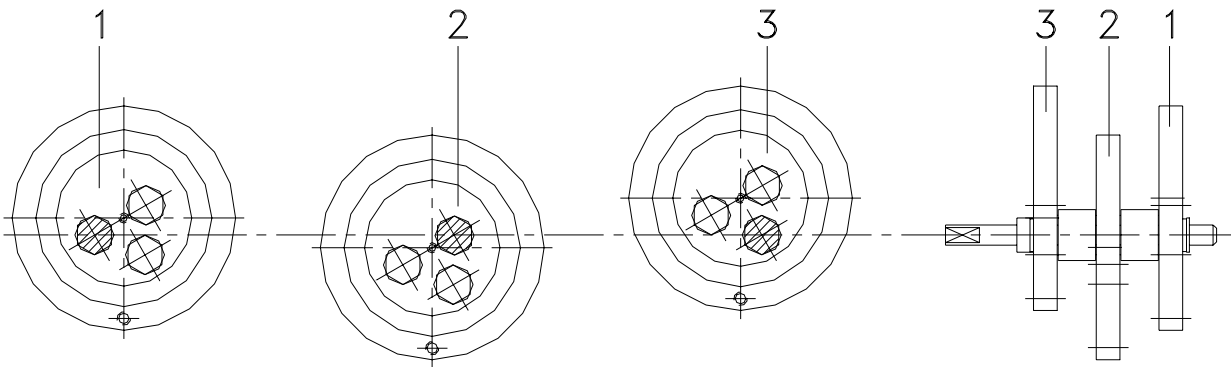
POSITION NUMBER SEE PAGE 3

By using the 4-pole XLR-socket (8) you may control rotation speed and direction of the driving unit if the toggle switch (4) is in position „external“ by using a control voltage from 0 to  $\pm 10$  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 (8) is necessary.

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

## 6) Positioning the Hubs



Changing the stroke of the three effect glasses is standardly enabled between 5 and 15 mm. Further adjustment of the stroke is possible by changing the relative angles between the eccentric discs (min 60°)

### Set Up Instructions

- 1) Remove rear cover (take out 12 screws)
- 2) Remove retainer ring from the eccentric axis.
- 3) Remove screws from the aluminium 4kt spacers and insert frames and pull out the insert frames from the bottom.
- 4) Pull off the eccentric discs.
- 5) Take away the spacers  $\varnothing 15 \times 11$ .
- 6) = 3);
- 7) = 4);
- 8) = 5);
- 9) = 3);
- 10) = 4);
- 11) For factory setting of the eccentric disc, see sketch below.
- 12) Select new hub.
- 13) Place the eccentric disc in the new order in the eccentric axis.
- 14) Replace the screws on the aluminium 4kt spacers and insert frames.
- 15) Place the spacers on the eccentric axis.
- 16) = 13); 17) = 14); 18) = 15); 19) = 13); 20) = 14)
- 21) Replace retainer ring on the eccentric axis.
- 22) Replace rear cover.

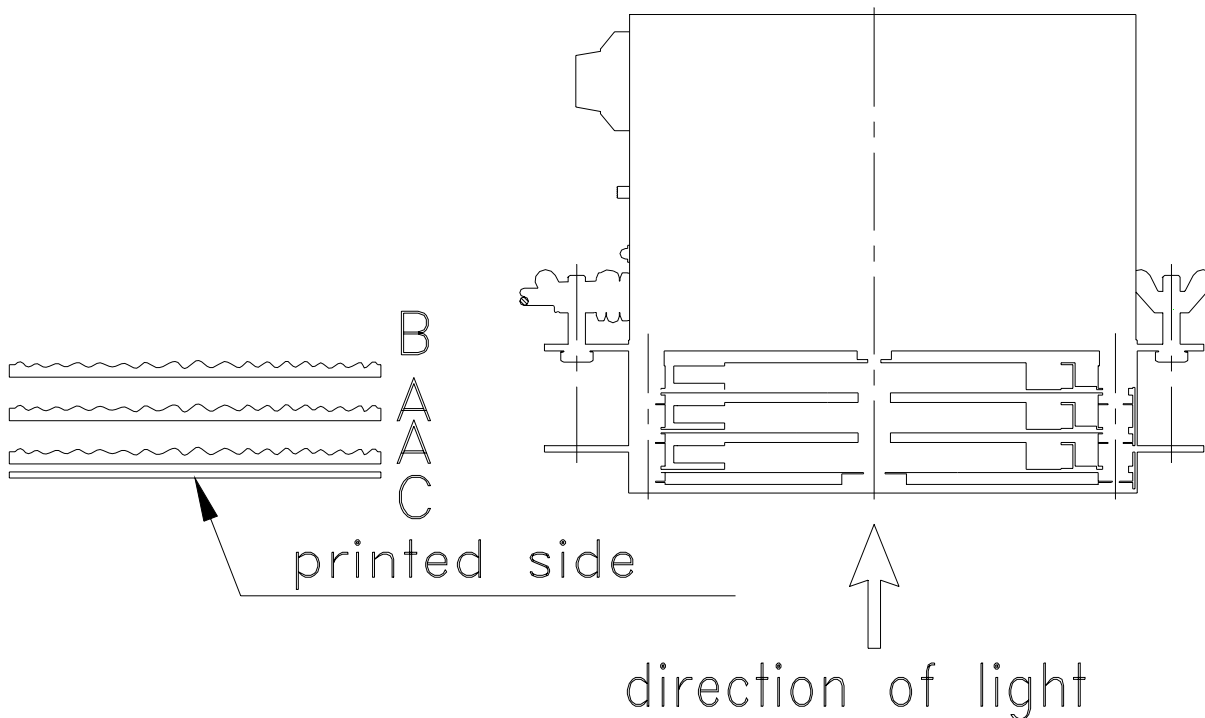
## 7) Changing the Film Frames or Effects Glass

To change the effects glass (or film frames), follow these steps:

Align each insert holder by positioning the eccentric axis between the guides such that the effects glass (or film frame) may be drawn out after lifting the spring clip.

## 8) Disposition of effect glass

- 2 Effect glass type A (Niagara)
- 1 Effect glass type B (Silvit)
- 1 Effect glass type C  
with blue- green waves, to intensify the visual effects; positioning together with type A in middle insert support
- 1 Filter adapter G 1510 for objective with round tubus incl. Blue- green filter insert



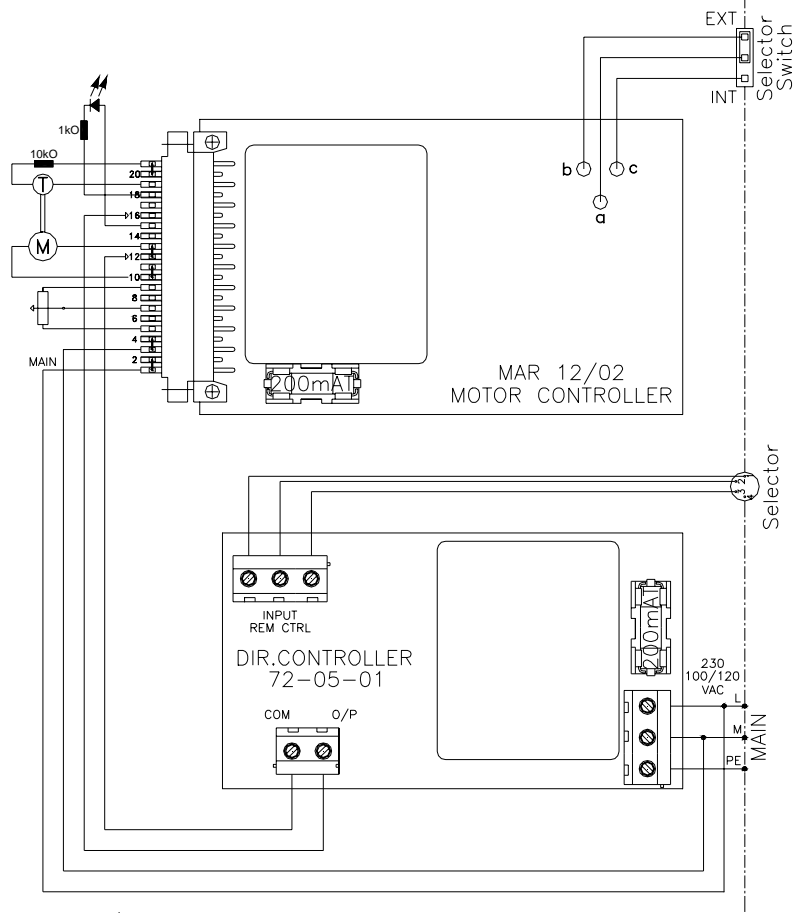
### Note:

Instead of effect glass C you may also insert selfdesigned slides (film or painted tempered glass plate). But take care of mounting the slide in the **first wave glass insert** with the **colour layer oriented to the projector**, because of the essential cooling. Other mounting positions don't ensure sufficient cooling effect.

### 9) Power Plan

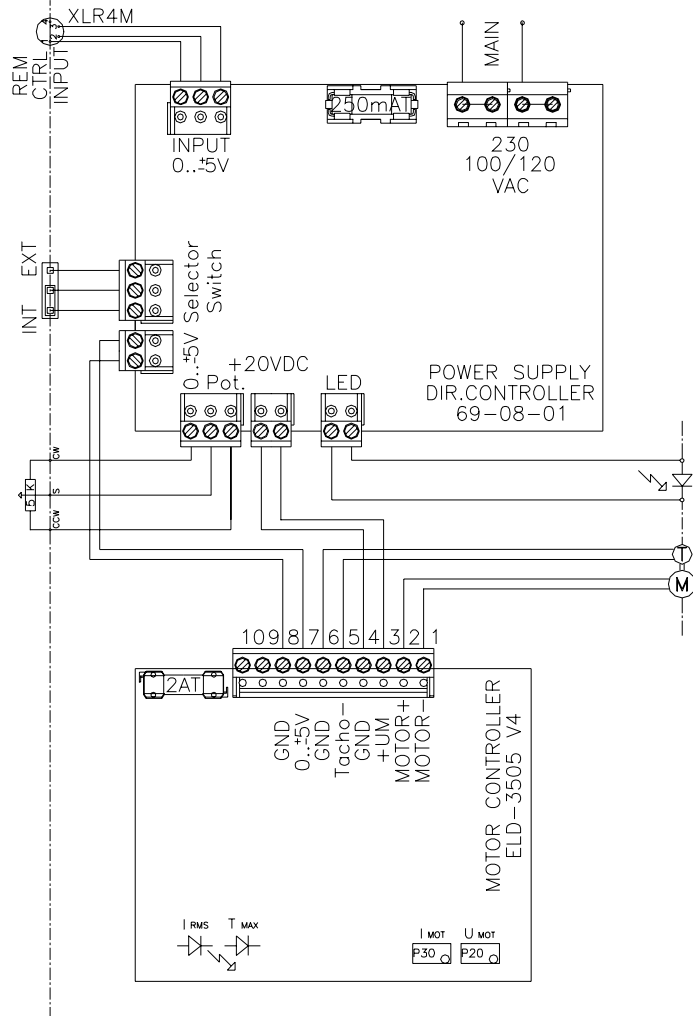
#### a) type Mattke

part number: 72-05-03



#### a) type Escape

part number: 69- 08- 03/ V1.4



## 10) Unit as Delivered

1 Wave Effect Machine Order Code: 13105  
 with adjustable motor drive for 3 tempered wave glass plattes  
 18x18cm (interchangeable), complete with color filter insert for  
 objective lenses with round tubes, includes tempered glass slide with  
 blue-green wave patterns.

### Optional

Slide frame (Kst.) for selfpainted slides	Order Code: 12812
Slide frame (Alu) for selfpainted slides	Order Code: 12802
Tempered glass plate for selfpainted slides	Order Code: 12803
Reprolux projection colours	Order Codes: 32801 to 32810
Universal- DMX 512- Interface	Order Code: 15205
2- circuits- cable	Order Code: 19318

## 11) General Technical Data

Source Voltage	230 V 50/ 60 Hz
Power Rating	10 VA
Power Connector	4p- AMPH.
Net Weight	8,00 kg
Dimensions (Hx Bx T)	306x 424x 222
Hubs	10- 28 mm einstellbar
Usable Format	180x 180 mm

## 13) Spare Parts

### **Wave Effect Machine**

Main Assy. No.: 88-

Description	Order Code:	Qty. / Unit
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### **Wave Effect Machine**

Main Assy. No.: 88- 01-

Effect Glass Holder	11-0022	3
Shaft Connection	11-0021	1
Bearing	11-0040	2
Axis	11-0025	1
Eccentric Spacer	11-0023	2
Eccentric Bearing	11-0024	3
Suspension	11-0031	3
Guide Axle	11-0041	4
Guide Wheel	11-0042	12
Guide Spacer	11-0043	4
Space for Suspension	11-0032	3
Protection Spring	11-0033	3



Description	Order Code:	Qty. / Unit
Andruckfeder	31-0042	6
Stop Brackets	11-0103	9
Control Unit for DC Motors	23-0001	1
Drive Motor including tachogenerator and gear	22-0176	1
Beckmann Potentiometer	23-0004	1
Potentiometer Drive	23-0005	1
LED with base Ø 5 red	90-0027	1
Cable Strain Relief	90-0012	1
Sliding Switch	22-0177	1
Connector Amphenol	22-0002	1
Wing Nut	21-0019	4
Wave Effects Glass "A" Niagara	24-0002	2
Wave Effects Glass "B" Silvit	24-0003	1
Wave Effects Glass "C" Colored Waves	24-0004	1
XLR - Connector	22-0172	1
Shock Absorber Motor	21-0118	4
Resistor 247k 1%	22-0173	1
Resistor 931E 1%	22-0174	1
foilcapacitor	22-0175	1
<b>Filterholder for Effect Lenses</b>	90-0102	1
<b>Power Supply + Rotation Perception</b>	90-0111	1