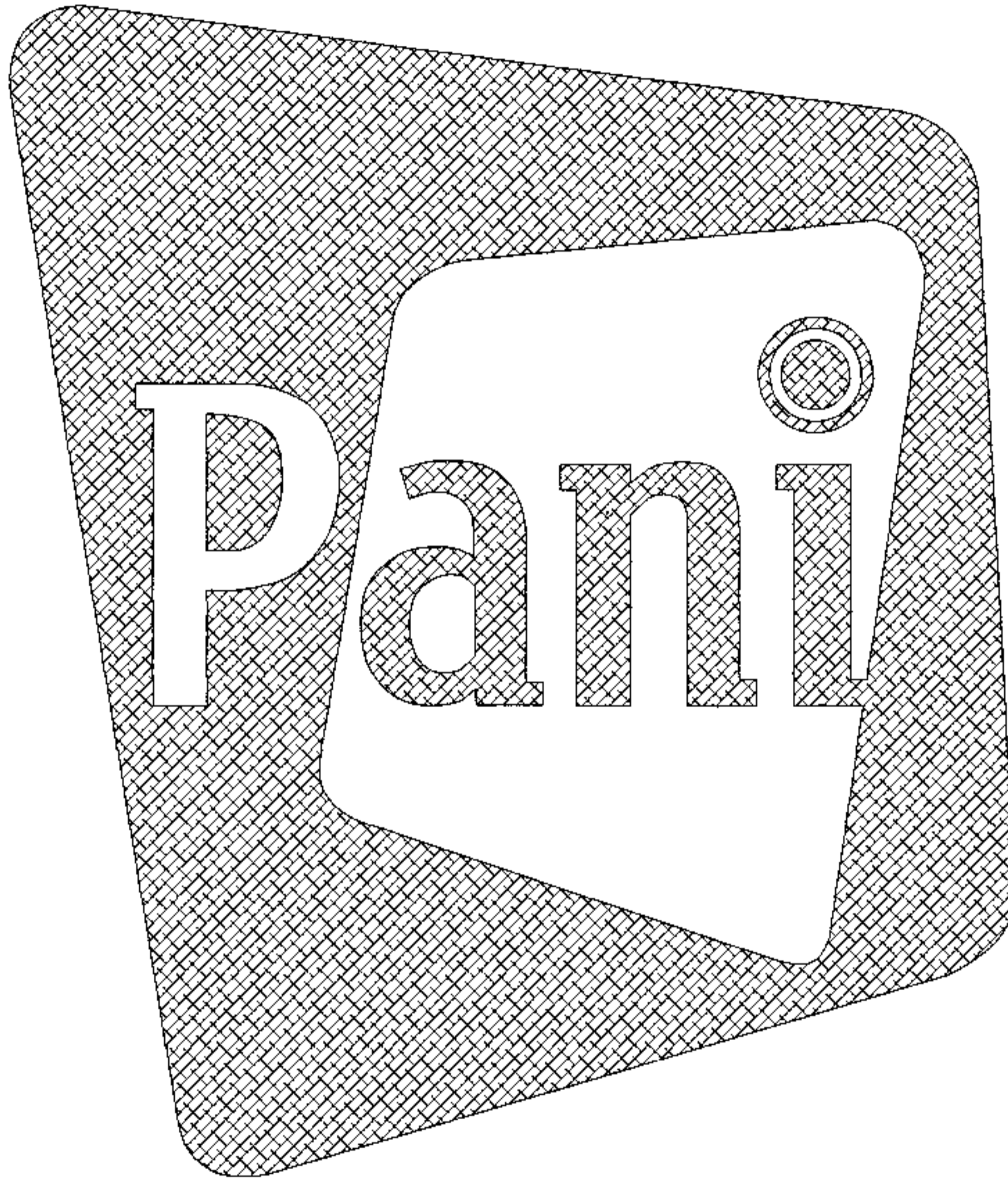


**instruction manual**

# **DFX**



# **Double Effects Disc Drive**

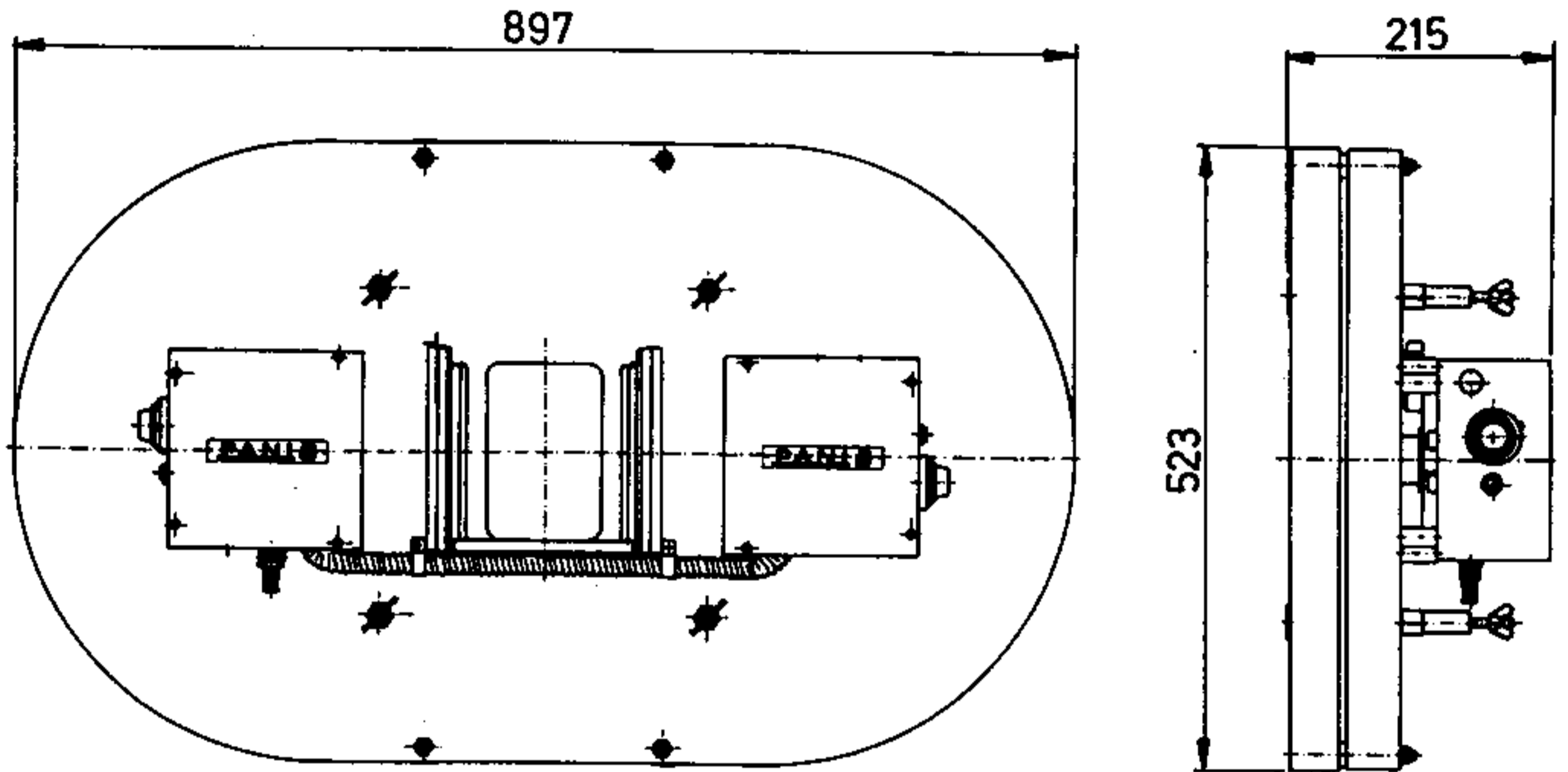
**Order Code:** ..... **13102**

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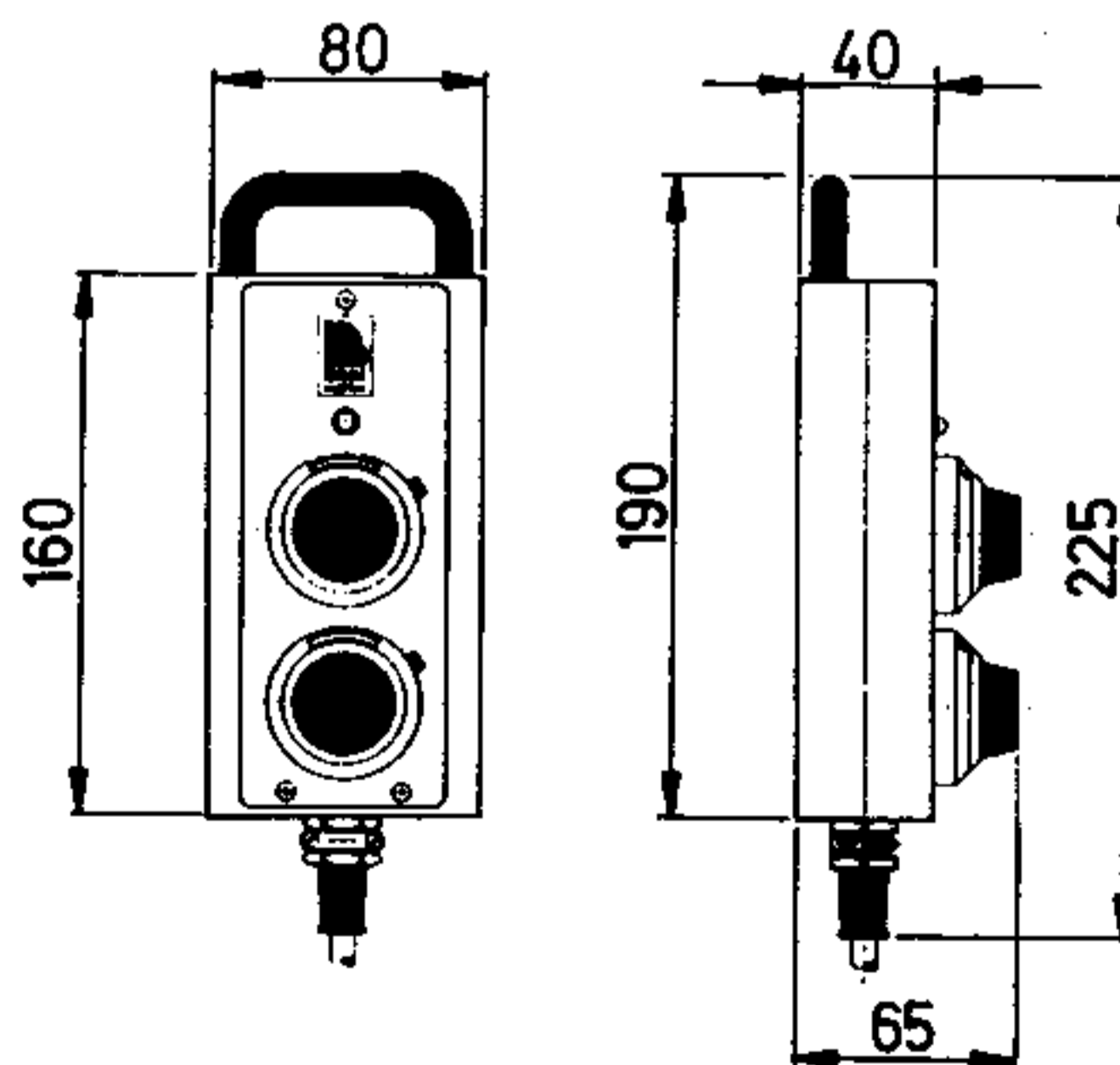
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**PANI Projection  
and Lighting  
Vertriebs GmbH  
Kandlgasse 23  
A-1070 WIEN / AUSTRIA**

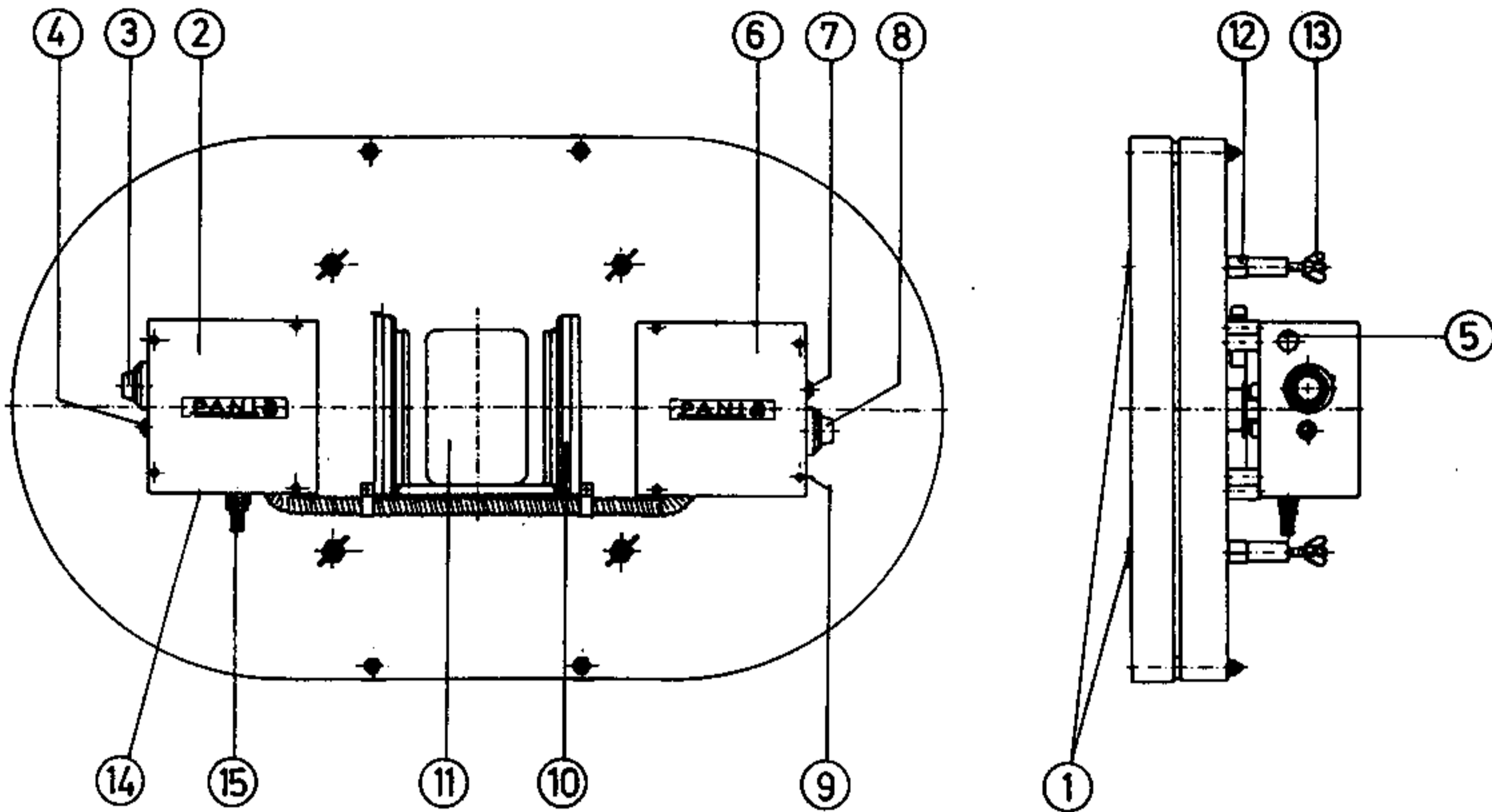
### 1) Dimension Drawing Double Disc Effects Drive



### Command Box for Remote Control



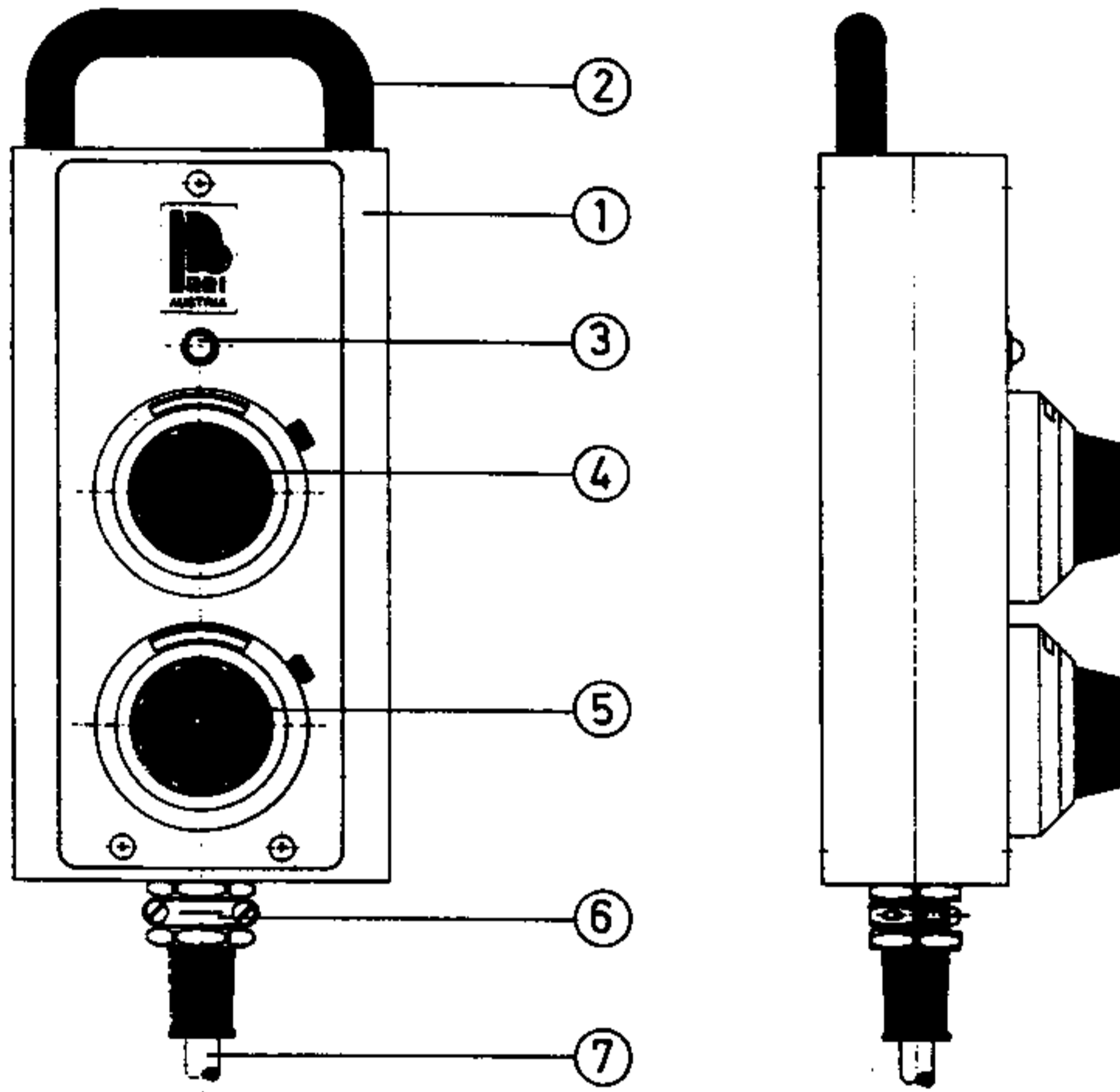
### 2.1) Position Drawing Double Disc Effects Drive



### LEGEND

- 1 Effects Attachment Mounting Bracket
- 2 Control Housing Right
- 3 10 - Turn Potentiometer for Stepless Control Right
- 4 Power Indicator Right
- 5 Hole for Adjustment of Control Card Right
- 6 Control Housing Left
- 7 10 - Turn Potentiometer for Stepless Control Left
- 8 Power Indicator Left
- 9 Hole for Adjustment of Control Card Left
- 10 Filter Holder
- 11 Effects Disc
- 12 Objective Lens Hanger Bolts
- 13 Wing Nuts For Objective Mounting
- 14 Remote Control Jack
- 15 Power Cord

## 2.2) Position Drawing Command Box for Remote Control



### LEGEND

- 1 Housing
- 2 Handle
- 3 LED
- 4 10 - Turn Potentiometer for Left Disc
- 5 10 - Turn Potentiometer for Right Disc
- 6 Cable Strain Relief
- 7 2m Connecting Cable with 8 Pin Connector

### 3) General

The Double Disc Effects Drive is a favorite as basic equipment for the realistic portrayal of fire and water effects. When utilized with the adjustable special mask G 1124 the size of the projection may be influenced. One can for example have small flames at first and slowly or quickly increase them in size. The Double Disc Effects Drive rotates two 500 mm diameter discs in parallel or in opposition to one another. The rotation speed and direction of the discs may be adjusted from a standstill to 10.5 RPM. Continuously changing images of fire, cloud and waves may be produced. By placing one effects disc in front of the other the effect becomes increasingly dimensional. Fire and water projections may be enhanced by using a textured glass G 1111

The construction of the Double Disc Effects Drive allows effects discs to be changed while the unit is mounted to the projector. By removing the large knurled nuts on the motor hubs, the discs may be easily removed and locked in place again by replacing the nut. When mounting discs they should be oriented such that the painted side of the discs face the lamp.

### 4) Drive and Control

The operation of the Double Disc Effects Drive is based on two 12 V direct current motors each with a built in tachometer. The power section and the electronic speed /direction components are located in the control housings on a printed circuit card. Each trim potentiometer (P1) is located on this card and is used for adjustment of the balance moment. Maximum adjustment will be reached when (P1) is rotated until the rotating disc begins to oscillate. Rotate (P1) back until the disc rotates smoothly. The potentiometer can be accessed through a hole in each control housing.

### 5) Control Card Terminals

1 / 2	220V	10 / 11 Motor +
3 / 4	220V	12 / 13 Motor - 0 V (Chassis)
5 / 6	a(E)	14 / 15 Motor - 0 V (Chassis)
7	b(S)	16 / 17 LED
8 / 9	c(A)	18 Generator -
		20 / 21 Generator +

The components are protected by a M 200 mA- Fuse.

## 6) Description of Individual Effects

### **Fire Effect: G 1118**

The unit should be mounted vertically on the projector. Two engraved and painted fire-effects discs and a textured glass ( G 1111) are utilized. The textured face of the glass must be oriented towards the objective lens. The grooves of the glass must also be aligned parallel to the grooves on the disc. In most cases it is good practice to use an orange color filter. A better effect may be achieved when the projected image is soft focused such that the focus point falls behind the textured glass.

An adjustable two directional Special Shutter (G 1124), available as a special accessory, allows the height of the fire to be altered.

### **Water Effect: G 1119**

The unit should be mounted horizontally on the projector for flowing water and vertically for waterfall effects. Two engraved and painted water-effects disc and a textured glass (G 1111) are utilized. The textured face of the glass must be oriented towards the objective lens. The grooves of the glass must also be aligned parallel to the grooves on the disc. For water effects it is obviously recommended to incorporate a blue or blue green color filter tint the projection. An improved effect may be achieved when the projected image is de-focused such that the focus falls behind the textured glass.

### **Clouds: G 1112, G 1114, G 1121**

The unit should be mounted horizontally on the projector for moving clouds. One or two painted cloud effects discs are utilized. Cloud effects may be adapted for many applications by varying the speed and direction of each effects disc. The focus of the projected image may be adjusted to taste although a slightly out of focus image is generally desirable.

### **Smoke: G 1120**

The unit should be mounted horizontally on the projector. One or two cloud effects disc is utilized without textured glass. The focus of the projected image may be adjusted to taste.

### **Snow: G 1117**

The unit should be mounted vertically on the projector. One snow effects disc is utilized without textured glass.

**Rain: G 1166**

The unit should be mounted vertically on the projector. One rain effects disc is utilized with linear "rain line" slide installed. This slide must be installed such that the lines are parallel to the disc rotation.

**Fog: G 1165**

The unit should be mounted horizontally on the projector. One or two fog effects disc is utilized without textured glass.

Aesthetically it should be noted that the double disc effects drive should be already rotating as the projection lamp is dimmed up (Halogen projectors) or dimming shutter opened (HMI projectors). Unless specifically required, a disc should not be allowed to start from a stopped position once the projection is up.



## 6.1) Anti Laser Effect

Suitable for use with all PANI projectors in conjunction with single or double disc effects drives and rotation mirror.

### Application:

The character of the effect can be modified through:

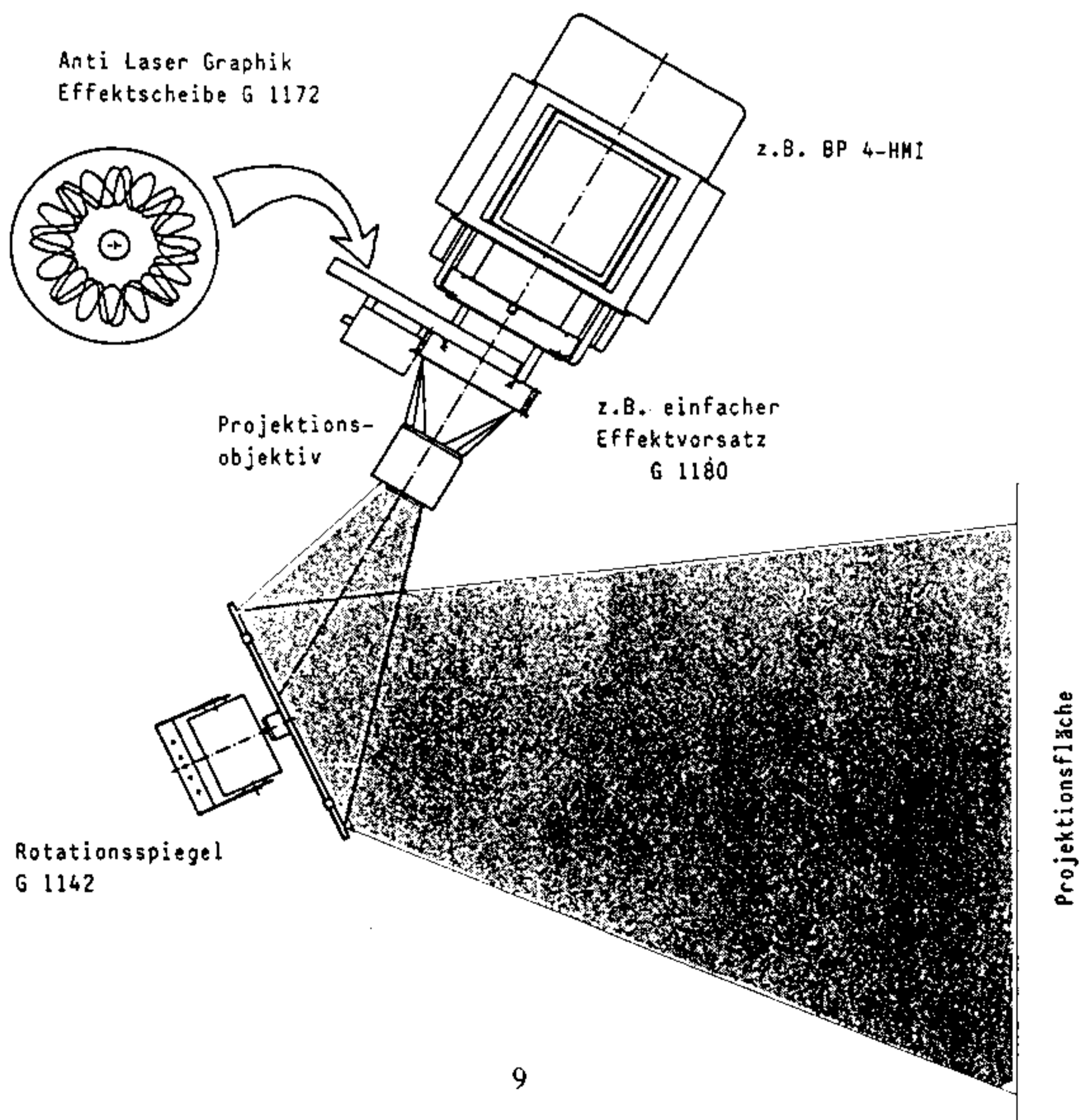
- o Number of Effects Discs (with Double Disc Drive)
- o Speed and Direction of the Effects Disc(s)
- o Speed and Direction of the Rotation Mirror
- o Selection of Projection Lens (Picture Size)

### Order Code:

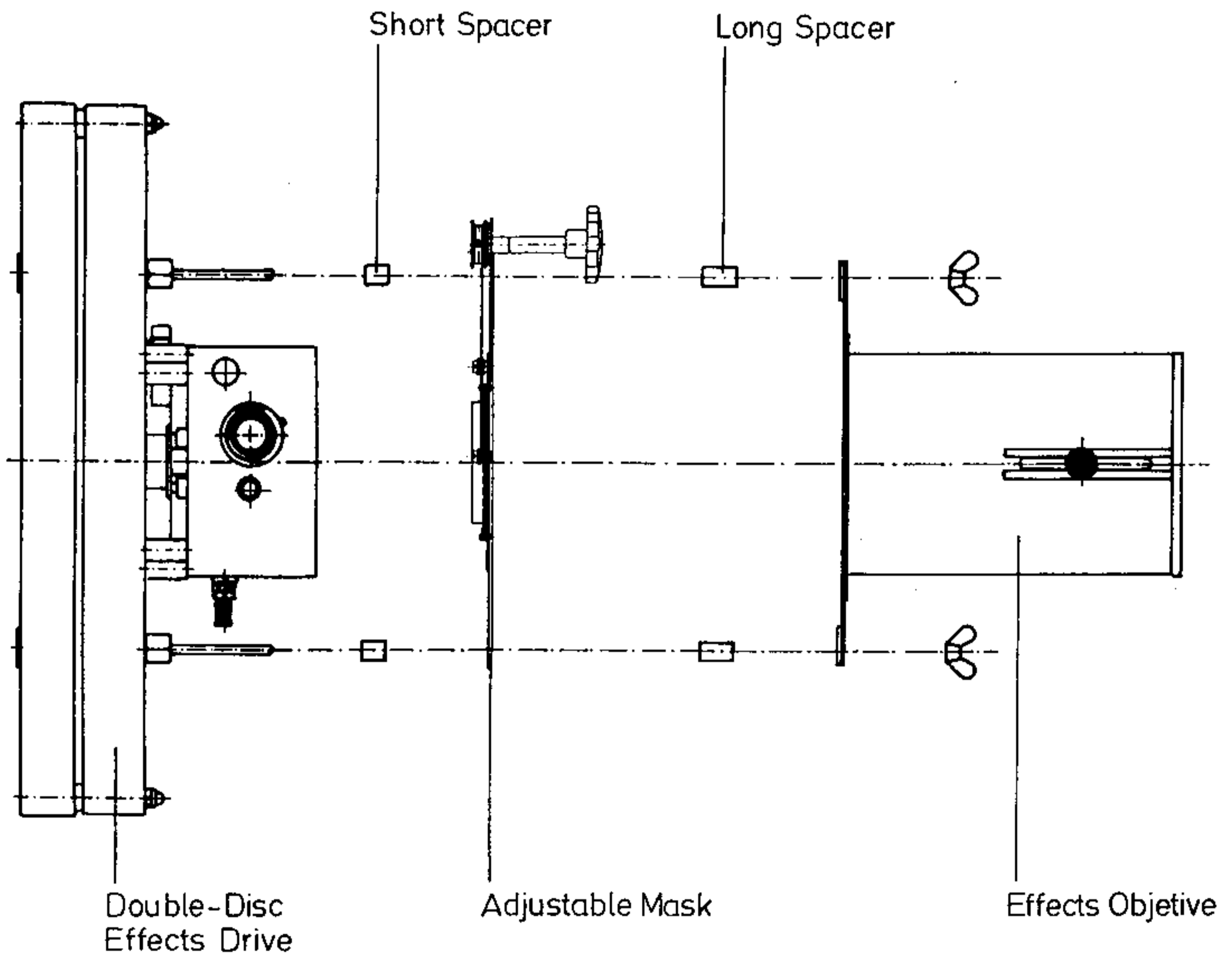
Rotation Mirror G 1142 plus Anti-Laser Graphic Effects Disc G 1172

### Equipment: Set-Up:

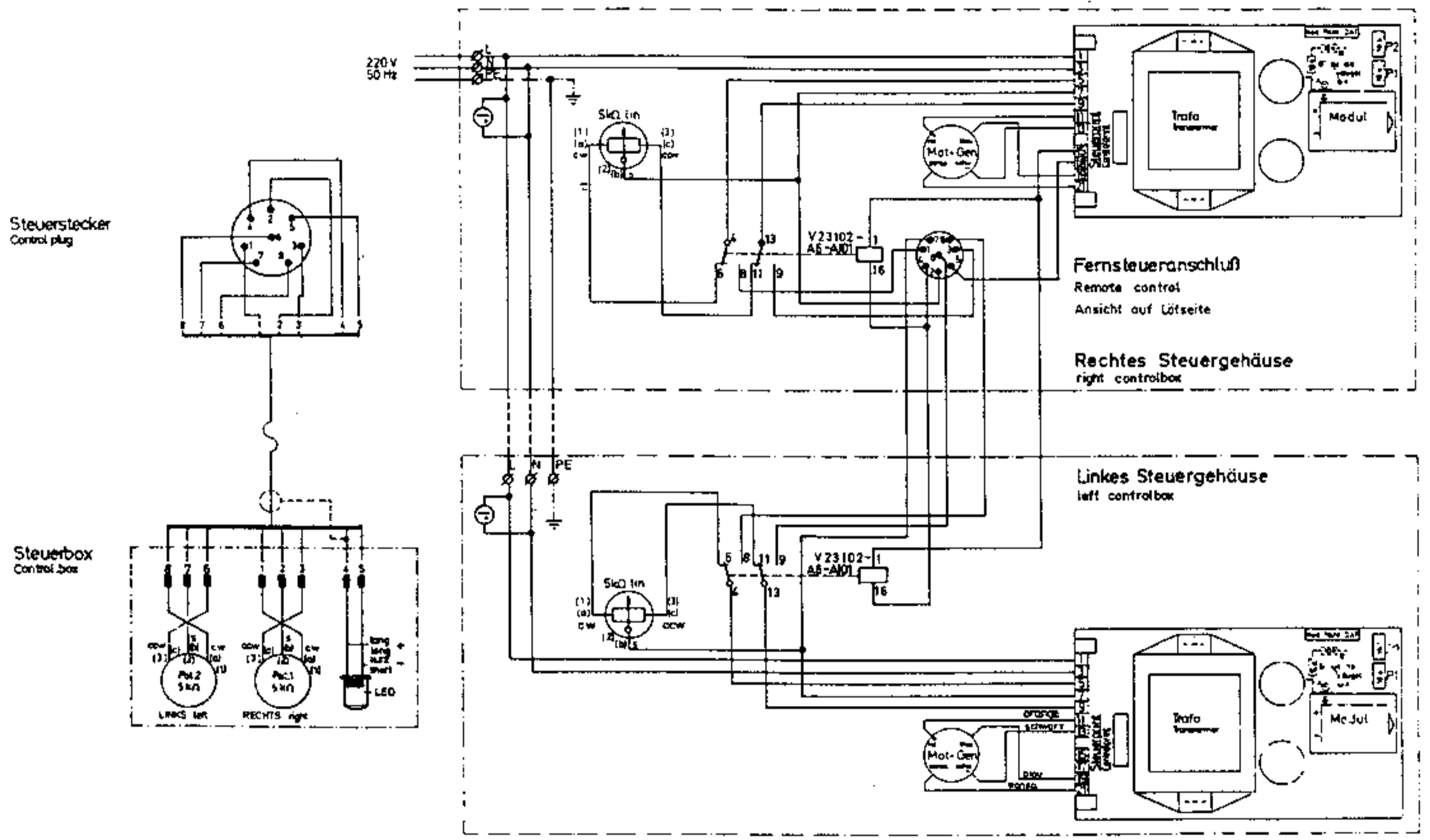
see sketch:



### 7) Mounting Drawing Utilizing Adjustable Mask



### 8) Electrical Schematic



## 9) Basic Components as Delivered

1	Double Disc Effects Drive for 2 discs 500 mm diameter, without discs	G 1122
1	Command Box for Remote Control, including 2m Connecting Cable	G 1123

## 10) Accessories

Effects Discs	Complete Set including G 1127 and G 1111	G 1110	500mm Ø
Effects Discs 500 mm diameter	Fire	G 1118	
	Water	G 1119	
	Fleecy Clouds	G 1112	
	Storm Clouds	G 1114	
	Thunder Clouds	G 1121	
	Smoke	G 1120	
	Fog	G 1115	
	Rain, includes "Rain Lines"	G 1116	
		G 1125	
	Snow	G 1117	
	Blank (Clear)	G 1113	
	Engraved Disc, Unpainted	G 1127	
Textured Glass		G 1111	
150 x 150 mm, required for "Fire" and "Water" effects.			

## 11) General Technical Data

Voltage	220 V - 50 / 60 Hz.
Power Consumption	10 VA
Power Connector	4p - AMPHENOL
Net Weight	16.5 Kg.
Dimensions	897 x 523 x 215
Rotation	0 - 10.5 Rpm
Usable Format (Slide Format)	100 X 95 mm
Control Box	G 1123

## 12) Spare Parts List

<b>Double Disc Effects Drive</b>		Main Assy No.: 69- 03	
Description		Order Code	Qty./ Unit
<b>Double Disc Effects Drive</b>		Mai Assy No.: 69- 03-	
Knurled Disc Retainer Nut		70- 01- 07	2
Dia Protection- spring		70- 01- 12	1
Motor Drive/ Tachometer		Typ 2251	2
Electronic Circuit Card and Edge Connector		Typ MUR 12/02 AWS	2
Beckmann Potentiometer		Type 7286 R5k	2
Drive		Type RB	2
Relay 12 V=		V 23 102- A6- 2A 101	2
Indicator Lamp		LRE 16 yellow	2
Jack- 8 pole		Mab 8 S	1
SH Cable Bushing and Strain Relief		SH 11	1
Cable Guard		SNR 09	1
Lock Nut		SM 11	1
Connector		T 3108- 001	1
Wing Nuts		DIN 315, M8	4
Cover Cap		DP- 375	2
Cover Cap		DP 687	1
Cover Cap		DP 750	1
Selastie Grommets		Art. Nr. 87 03 81	3
switchover Card for Remote Control		Effect 1.0 V1	2
<b>Double Disc Effects Control Box</b>		Main Assy No.: 70- 02-	
Beckmann Potentiometer		Type 7286 R5k	2
Drive		Type RB	2
LED and Connector		Ø 5 red	1
Control Cable		Art. Nr. 37- 0608	2m
Connector		Mas 80 S	1
Cable Strain Relief		SR 11/ 09	1
Lock Nut		SM 11	1
Hewi Grip (Handle)		Nylon Griff Farbe schwarz 64	1
Sheet Metal Screws		Ø 3, 9x 13, DIN 7971	2
<b>Cooling Unit</b>		Main Assy No.: 70- 05	
Air Canal		70- 05- 91	1
Radial Ventilator		RGS 85- 2/ 220 V	1
Connector		T 3108 001	1
Cable		YMM- J 3x 1, 5 2	3 m
Cable Strain Relief		SR 11/ 09	1
Lock Nut		SM 11	1