PHYWE	Colour disc, adjustable	65987-00

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Operating instructions

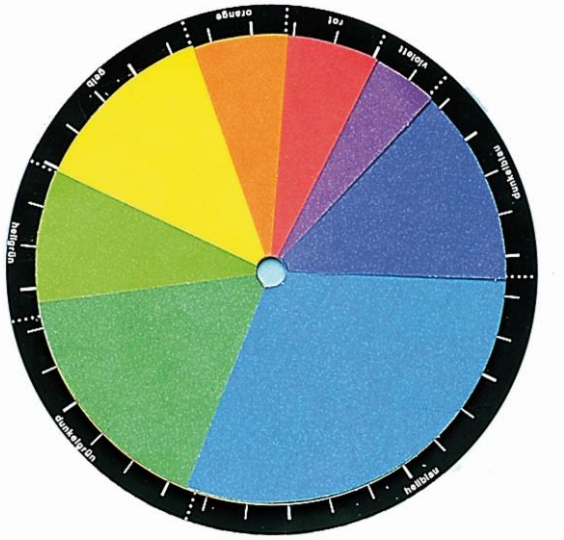

Fig. 1: 65987-00 Colour disc, adjustable

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1 SAEFTY PRECAUTIONS

Caution!

- Carefully read these operating instructions before operating this instrument. This is necessary to avoid damage to it, as well as for user-safety.
- Only use the device for its intended purpose.

2 PURPOSE AND CHARACTERISTICS

The color disk can be used to demonstrate or investigate the creation of different colors through additive color mixing in student experiments.
The device includes eight equally sized circular disks made of colored cardboard (red, orange, yellow, light green, dark green, light blue, dark blue, violet). Each disk is slit along a radius up to its central hole (Ø 10 mm). By sliding two or more disks into each other, a disk with differently colored sectors can be formed, which can then be mounted on the axis of a motor.
At a rotational speed of about 25 revolutions per minute, the human eye can no longer resolve the individual color sectors; instead, the impression of a mixed color is produced (additive color mixing).
The size of the individual color sectors can be read from the degree scale (in steps of 10°) on a metal disk mounted behind the cardboard disks. In addition, the color distribution and sector sizes required to produce the color impression “white” are indicated by dotted lines.
Depending on the number, color, and size of the sectors on the color disk, the surface of the rotating disk can appear in almost any desired color. For example, the color impression orange (one of the eight basic colors of the disk) can be produced by mixing 130° yellow and 230° red, while the color impression violet can be produced by mixing 150° light blue and 210° red.

3 HANDLING

The color disks are carefully slid into one another (as shown in Fig. 2). To produce mixed colors, two or three colors are generally sufficient; however, to create the color impression “white,” all eight colors are required.

To prevent the loss of individual color disks, it is recommended to insert all eight disks into each other according to the order indicated on the metal disk (starting with any color). If a particular color is not needed, it can simply be rotated underneath the disk above it.

The colour discs are placed on the metal disc with degree markings and secured to the axle of motor 11610-11 together with adapter 11617-00 (Fig. 3).

For optimal illumination of the color disk, the experimental lamp 08130-99 can also be used.

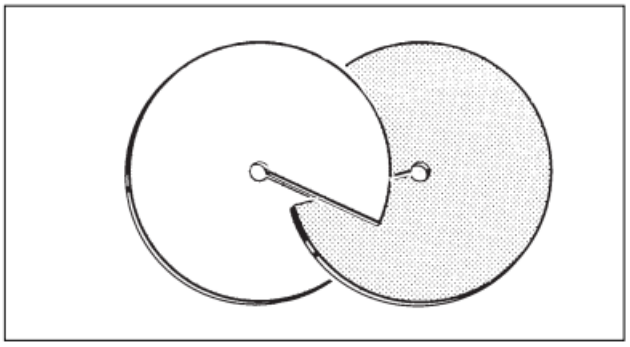

Fig. 2

Fig. 3: Setup for P0872500

4 ACCESSORIES

Adapter of adjustable colour disc	11617-00
Motor, with gearing, 12 VDC	11610-11
PHYWE Power supply 0...12V	13506-93

Optional accessories:

Experimental lamp LED HEX 1	08130-99

5 TECHNICAL DATA

Disc diameter:	170 mm
Hole diameter:	10 mm

6 NOTES ON THE GUARANTEE

We guarantee the instrument supplied by us for a period of 24 months within the EU, or for 12 months outside of the EU. Excepted from the guarantee are damages that result from disregarding the Operating Instructions, from improper handling of the instrument or from natural wear.

The manufacturer can only be held responsible for the function and technical safety characteristics of the instrument, when maintenance, repairs and alterations to the instrument are only carried out by the manufacturer or by personnel who have been explicitly authorized by him to do so.

7 WASTE DISPOSAL

The packaging consists predominately of environmentally compatible materials that can be passed on for disposal by the local recycling service.

Should you no longer require this product, do not dispose of it with the household refuse.

Please return it to the address below for proper waste disposal.

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