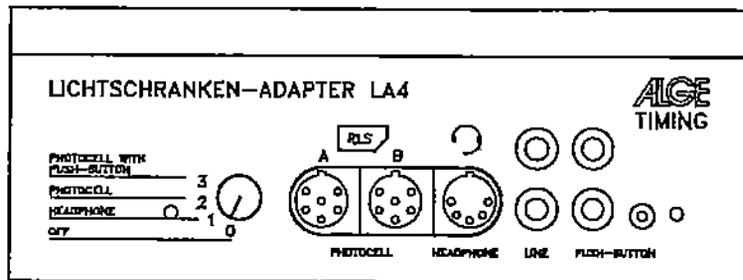
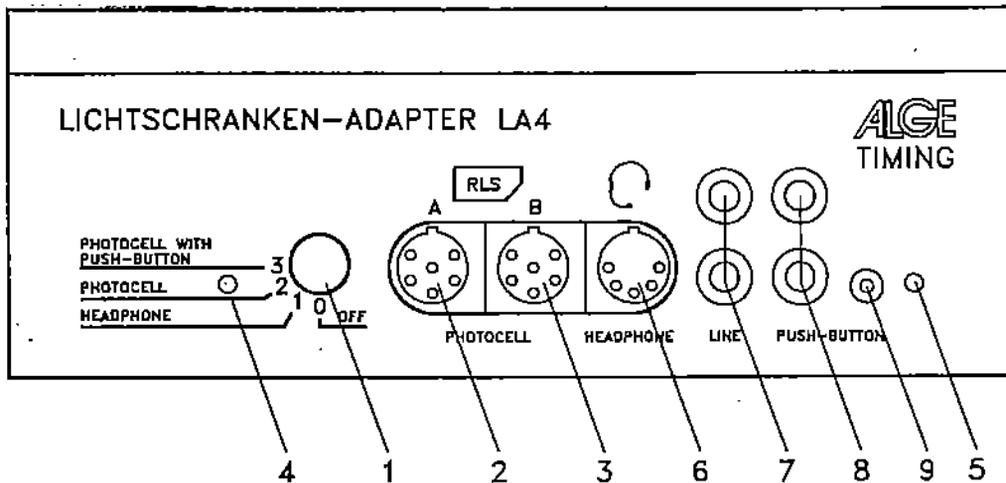


# LICHTSCHRANKENADAPTER LA4



# ALGE-TIMING

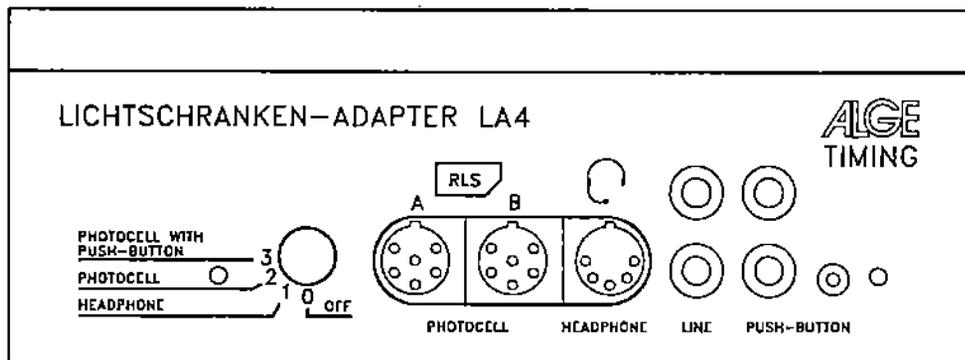


- 1 .... rotation switch
- 2 .... photocell A
- 3 .... photocell B
- 4 .... delay time controller for photocell A
- 5 .... delay time controller for photocell B
- 6 .....connection for headphone Q34
- 7 .... connection for the 2-core finishcable
- 8 .... connection for handswitch 023-02
- 9 .... internal push-button

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GENERAL



The Lichtschrankadapter LA4 is for big distances between the photocell and the timing device. If you use the LA4 you need only a 2-core-cable. Through this cable you send the timing-impulse as well as it is used as telephon wire. The LA4 has a built in speech amplifier to connect a headphone.

The LA4 is used e. g. for luge-starts, for intermideate-times, for speed measurement, etc.

The LA4 has two separate photocell inputs with independent delay times.

Each photocell-impulse starts a 7 ms shortage at the output (7).

3 ..... PHOTOCCELL WITH PUSH-BUTTON :

In position 3 you cannot receive only photocell impulses, when you press the handswitch (8 or 9).

Speach connection: in function

Photocell: in function, if you press the handswitch (8 or 9)

Handswitch: photocell is on, as long as you press the handswitch

### WORKING WITH THE LA4

- Connect the cable from the finish with the LA3 (banana jack 7)
- Plug photocell (jack 2 or 3), headphone (jack 6), and handswitch (jack 8)
- Turn the position switch to the program you choose (position 1, 2, or 3)
- Adjust photocell (meter should be as far in the green sector as possible)
- You can adjust the delay time if needed (e. g. for speedmeasurement)

In position 3 is the photocell only on, if you press the handswitch. In position 1 you receive no impulses from the photocell.

#### Speed Measurement:

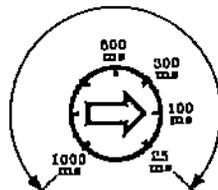
The LA4 is also used for speed measurement with the Comet. You can connect two photocells, which are both supplied by the LA4.

Attention: Set for speed measurement the longest delay times.

#### Adjustment of the Delay Time:

You can adjust the delay time (between 25 to 1000 ms) for a photocell impulse with a small screw-driver.

Adjust photocell A (2) at hole (4), and photocell B (3) at hole (5).



The length of the headphone- and device-beeps is related to the adjusted delay time.

TECHNICAL DATA

Switches :

Rotation Switch (1) :

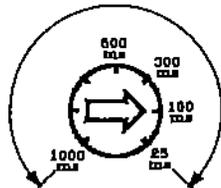
-----  
Four-position rotation switch

Push-Button (9) :

-----  
Internal button, parallel connected to handswitch-jack (8)

Delay Time Potentiometer (4+5) :

-----  
Potentiometer to adjust the delay time of the photocell.

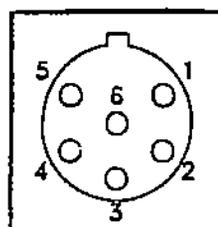


Connections:

DIN jack (2+3)

-----  
Connection for two ALGE photocells

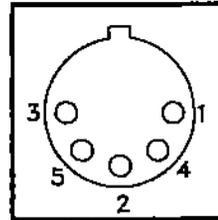
- 1 .... photocell signal
- 2 .... photocell signal
- 3 .... ground (0 Volt)
- 4 .... external supply (7 to 15 VDC)
- 5 .... output +5 V stabilized
- 6 .... photocell signal



DIN jack (6) :

Jack to connect the headphone Q34

- 1 .... mikrophone
- 2 .... ground (0 V)
- 3 .... earphone
- 4 .... empty
- 5 .... empty



Banana Jack Green and Black (7):

Banana jack to connect the 2-core-cable to the finish.

Banana Jack Red and Black (8):

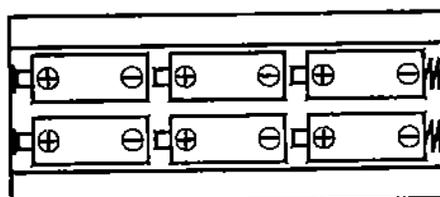
Banana jack to connect the handswitch 023-02.

Power Supply:

The LA4 has 6 batteries as power supply for the photocell(s) and headphone. For additional price you can get the LA4 with rechargeable NiCd batteries.

battery durability with one connected photocell :

- Alkaline Battery: about 400 hours
- Standard Battery: about 200 hours
- NiCd-Battery: about 100 hours
- Power consumption of a photocell: about 30 mA



Batteries :

6 Monozellen (1,5 Volts, 33 mm diameter, 60 mm length) built into the LA4.

Optional: Rechargeable NiCd-Batteries:

6 NiCd batteries 1,2 Volts built into the LA4.

Battery control:

If the battery voltage goes lower than 6.3 Volts the built in buzzer starts to beep and in the headphone you hear a beep every second. If the battery control signals that, it is time to change the battery (or recharge the rechargeable batteries).

Attention: Use only batteries, which cannot leak. Take the batteries out of the device at the end of the season (leakage may occur).

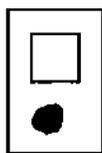
Recharge the NiCd-Batteries:

Recharge the NiCd batteries with the ALGE netcharger NLG4. Chargeing time is about 14 hours.

Switch from Battery to Rechargeable Battery:

On the electronic board is a "jumper", which you have to set in case, that you replace the batteries by rechargeable batteries.

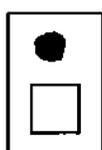
Batterie



Jumper is set on battery

Akku

Batterie



Jumper is set on rechargeable battery

Akku

Attention: If you have batteries in the device, do not set jumper on rechargeable batteries!