

10 General information

10.1 Information about these operating instructions

These operating instructions provide important information on handling the equipment. All technical data in these instructions have been developed or compiled with the greatest of care. Errors cannot however be excluded. We therefore feel obliged to point out that neither guarantee nor any legal responsibility nor any sort of liability can be accepted for consequences as a result of incorrect data. We are always glad to be informed of any errors.

Adherence to the specified safety instructions and handling instructions is a precondition for safe work. In addition, it is mandatory to observe the local accident prevention regulations and general safety requirements applicable at the location where the equipment is used.

Carefully read through the operating instructions before beginning any work!

It is a constituent component of the product and must be kept carefully available in the immediate vicinity of the equipment at all times for the personnel. If you sell or subcontract this product, it is essential to hand over these instructions as well. The figures in this manual are not necessarily true to scale in order to show details better and can vary slightly from the actual configuration.

10.2 Explanation of symbols

10.2.1 Symbols used in these operating instructions

Warning instructions

Warning instructions are identified by symbols. They are also prefaced with signal words that indicate the extent of the hazard.

- It is essential to follow all instructions!
- Always act cautiously during all work in order to avoid accidents, injury to personnel and material damage!

WARNING!



... indicates a possible dangerous situation that can lead to death or serious injury if it is not avoided.

CAUTION!



... indicates a possible dangerous situation that can lead to minor or slight injury if it is not avoided.

ATTENTION!



... indicates a possible dangerous situation that can lead to material damage if it is not avoided.

Tips and recommendations

NOTE!



... highlights useful tips and recommendations as well as information for more efficient and troublefree operation.

10.3 Limitation of liability

All data and instructions in this manual were compiled in accordance with the applicable standards and regulations, the state-of-the-art and our many years of know-how and experience.

The manufacturer accepts no liability for damages due to:

- non-compliance with the manual
- non-designated use
- deployment of untrained personnel
- unauthorized alterations
- technical modifications
- use of non-approved spare parts

The actual scope of delivery can vary from the explanations and illustrations described here for special versions, the purchase of additional order options, or due to latest technical changes.

In addition, the obligations agreed in the procurement contract, the General Terms & Conditions and the delivery conditions of the manufacturer and the legal regulations in force at the time of the contract conclusion apply.

Warranty

The manufacturer guarantees the functionality of the applied technology and the declared performance parameters. The warranty period begins from the point in time of the free-of-defects acceptance.

Wearing parts

Wearing parts are all components that come into immediate contact with the material to be worked on or processed. These components are excluded from the guarantee and claims for defects if this involves damage due to wear.

10.4 Warranty conditions

The warranty conditions are included in the sales documents.

Generally valid:

Alterations and technical modifications which have not been certified by Adolf Nissen Elektrobau void all warranty claims.

10.5 Spare parts

WARNING!

Risk of injury due to incorrect spare parts!



Incorrect or defective spare parts can lead to damage, malfunction or complete failure and can greatly compromise safety.

For this reason:

- Only use original spare parts!
- Original spare parts can be purchased directly from the manufacturer (for the address, see last page).

10.6 Customer Service

For technical information, please contact our Customer Service.

Instructions on the regionally responsible contact partner can be obtained at any time per telephone, fax, e-mail or via the Internet (for the address, see last page).

In addition, our employees are constantly interested in any new information and experience that result from the application and that may be valuable for improving our products.

10.7 Copyright protection

This manual is only intended for personnel who are engaged with the equipment. The manual must not be handed over to third parties without the written approval of the manufacturer.

NOTE!



The contents, data, texts, drawings, photographs and other illustrations are copyright-protected and are subject to industrial property protection.

Any improper use will be liable to prosecution.

Reproduction in of any shape or form - in whole or in part - and the utilisation and/or disclosure of its contents are not allowed without a written declaration of consent from the manufacturer. Violation will lead to claims for damages.

All other rights are reserved.

11 Safety

This section provides an overview of all important safety aspects for optimum protection of personnel and for safe and troublefree operation.

Non-compliance with the handling instructions and safety instructions listed in this manual can lead to significant danger.

11.1 Responsibility of the operator

The equipment is designed for use in the industrial sector. Consequently, the operator of the equipment is liable for the legal obligations of safety at work.

Apart from the safety at work instructions in these operating instructions, the safety, accident prevention and environmental protection regulations in force for the field of application of the equipment must be observed.

In particular, the operator must:

- inform himself of the applicable industrial safety regulations.
- carry out a risk assessment to determine any additional dangers that result from the special working conditions at the place of use of the equipment.
- convert the necessary conduct requirements for operation of the equipment at the place of use into operating instructions.
- regularly check that the operating instructions created by him are up to date with the current state of the regulations during the entire period of use of the equipment.
- update the operating instructions - as necessary - to new regulations, standards and operating conditions.
- clearly delegate the responsibilities for installation, operation, maintenance and cleaning of the equipment.
- ensure that all employees who are involved on or with the equipment have read and understood the operating instructions. In addition, he must train the personnel at regular intervals in how to deal with the equipment and inform them of the possible dangers.
- provide the prescribed and recommended protective gear to the personnel charged with carrying out the work.

The operator is also responsible for ensuring that the equipment

- is always in a technically perfect condition.
- is maintained according to the specified maintenance intervals.
- and that all safety installations are checked regularly for completeness and functionality.

11.2 Personal protective gear

When dealing with the BaKoTaper Typ 628 , especially in public road traffic, personal protective gear must be worn in order to minimise health hazards.



For this reason:

- Before all work, properly put on the respective protective gear as described and wear it during the work.
- It is also essential to follow all signs affixed in the working area regarding personal protective gear.

Recommended protective gear

Reflective warning vest



or wear reflective warning clothing in order to be more clearly visible for others. In particular, wear reflective warning clothing:

- while working in the vicinity of railway tracks,
- during maintenance and when securing vehicles on public roads,
- during roadwork: all personnel who are in the vicinity of public road traffic,
- when marshalling construction traffic. Dispose the reflective warning clothing after use or have it professionally cleaned to maintain visibility.

Light respiratory protection

to protect against hazardous dust particles (in dust-laden ambient air).

11.3 Designated use

The equipment is designed and constructed exclusively for the intended purpose described here. BaKoTaper Typ 628 creates a guiding light which guides the driver safely along building sites and danger situations. It is meant for quick mounting e.g. at beacon systems.

WARNING!**Danger through non-designated use!**

Any use that goes beyond the designated use and/or different use of the equipment can lead to dangerous situations.

For this reason:

- Only use the equipment as intended
- Strictly observe all data in these operating instructions.
- In particular, refrain from the following uses. They are considered as non-designated use:
 - Alteration, conversion or changes to the construction or individual accessory parts with the aim of changing the application or use of the equipment.

Claims of any type as a result of damage from non-designated use are excluded. All damage from non-designated use is the sole liability of the operator.

11.4 Environmental protection

CAUTION!**Danger to the environment through incorrect handling!**

Improper handling or improper disposal of environmentally hazardous substances can result in significant damages to the environment.

For this reason:

- Attention must be paid to the following instructions:
- If hazardous substances permeate into the environment, immediately initiate suitable countermeasures.
- Immediately inform local environmental and/or local authorities.

The following environmentally hazardous substances are used:

Batteries or rechargeable batteries

Batteries and rechargeable batteries contain toxic heavy metals. They are subject to treatment as hazardous waste and must be handed over to communal collection points or disposed of by a specialist company.

11.5 Conduct in case of danger and accidents

- When using the BaKoTaper Typ 628, always adhere to the general and specific regulations applicable to construction sites as well as local regulations for construction site protection, accident prevention and the performance of rescue measures.

In addition, the following apply as a basic principle:

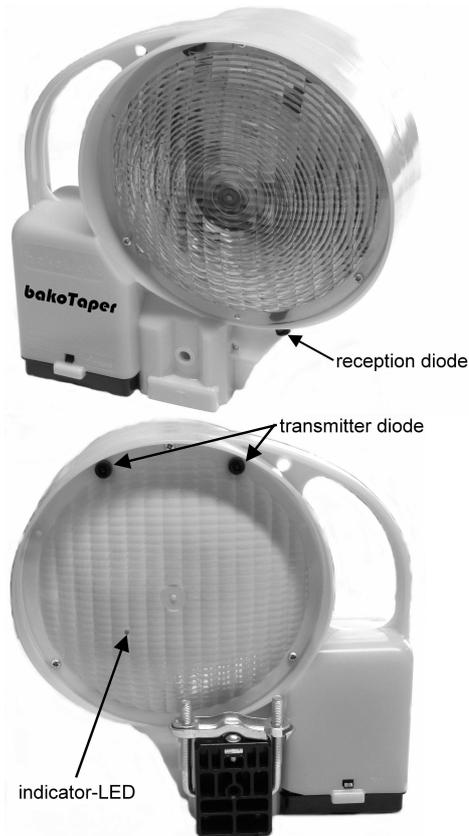
Preventive measures

- Always be prepared for accidents or fire.
- Keep first aid equipment (first-aid kit, blankets, etc.) and fire extinguishers freely accessible at all times.
- Make personnel familiar with accident notification, first aid and rescue facilities.
- Keep access routes free for rescue vehicles.

If worst comes to worst: take appropriate action

- Cordon off the accident site.
- Commence first-aid measures.
- Rescue persons from the danger zone.
- Inform those responsible at the place of use.
- Alarm doctor and/or fire brigade.
- Keep access routes free for rescue vehicles.

12 Construction and function



Niko-key

- for switching on and off the BaKoTaper Typ 628
- for replacement of battery
- for mounting

Description of function:

The lamps of the BaKoTaper Typ 628 guide light system are equipped with transmitting and receiving diodes. This enables an automatic synchronisation.

All BakoLight-Taper lamps are identical and can be used as individual lamp.

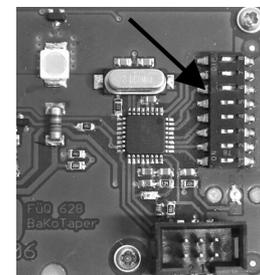
Additionally they are equipped with a switchable basic permanent light.

Any number of lamps can be synchronised as guide light.

Adjustment on the dip switch

The 8-fold dip-switch on the circuit board can be adjusted as follows (front lens must be removed):

- | | |
|-----------------|---|
| dip switch 1-4: | without function |
| dip switch 5: | on = night adaptation
off = day-/night adaptation (setting ex works) |
| dip switch 6: | on = basic light on
off = basic light off (setting ex works) |
| dip switch 7 | without function |
| dip switch 8: | on = light intensity 50% (setting ex works)
off = light intensity 100% |



Indication of undervoltage:

If the battery current sinks below 4 volt the lamp starts flashing every two seconds (normally once a second) for at least 16 hours.

Others:

Removal of the circuit board:

Attention! The battery has to be disconnected before removing the circuit board!

Remove the lens, loosen all connections of the spring clip, pull off the plug connection and remove the 4 screws of the circuit board. Take out the circuit board.

13 Starting up

The BaKoTaper Typ 628 is switched on/off by pushing the pin of the NiKo-key into the opening with the on/off-symbol. The lamps can be lined up in any order.

Take care that the distance between the single lamps is at least 4 m.

Maximum distance is 10 m, strong solar radiation can reduce the range.

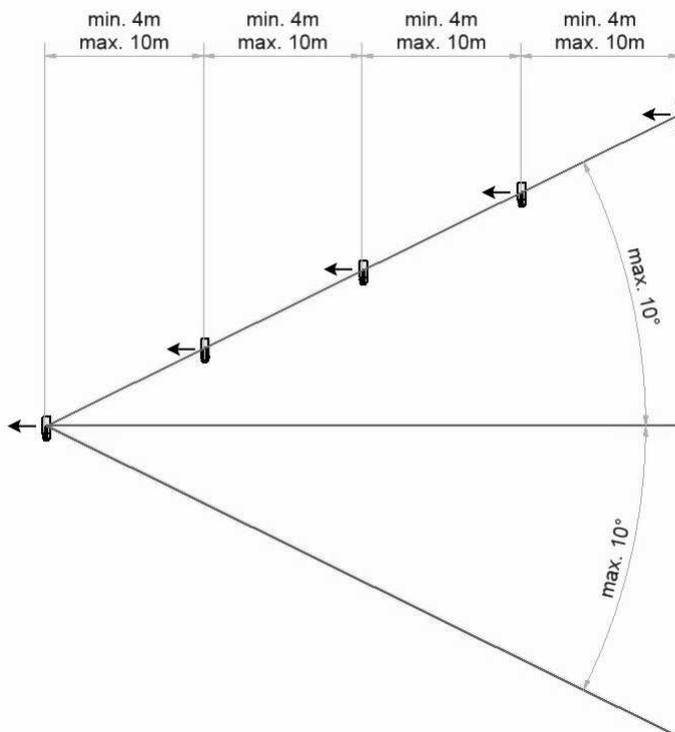
The displacement of the lamps must be less than ± 10 degrees in relation to the respective lamp in front.

When a lamp receives a signal for synchronisation this is confirmed by the lighting of a yellow LED behind the rear housing. A reliable synchronisation is indicated by a regular flashing of the LED in sequence with the lamp. Occasional failure of this LED does not affect function.

Complete synchronisation of the whole lamp chain may last longer than 5 minutes.



When the lamp is not in use it has to be switched off.

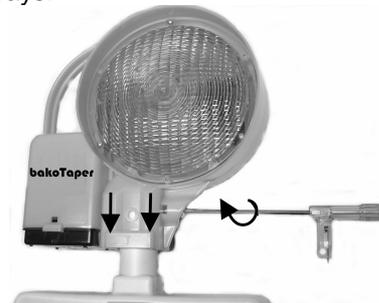


14 Mounting

The BaKoTaper Typ 628 can be mounted in different ways:

Mounting on beacons and safety barriers:

Loosen the securing screw on the side of the lamp.
Mount the lamp on the beacon or similar.
Fasten and secure the BaKoTaper Typ 628
by screwing in the securing screw.



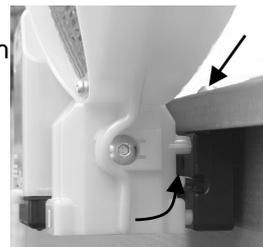
Mounting of BaKoTaper Typ 628 with pre-mounted
bracket:

Fold back the bolt clamp and slip the bracket onto the
beacon or tube.
Return the bolt clamp and fasten the nuts with the NiKo-
key.



Mounting of BaKoTaper Typ 628 on safety barriers with
pre-mounted bracket :

Remove the screw with the NiKo-key.
Push the bracket under the frame of the safety barrier.
Screw the BaKoTaper Typ 628 including bracket to the
safety barrier.



15 Replacement of battery

Remove the securing screw.
Turn the BaKoTaper Typ 628 around so that the lower part
of the battery box can be opened.



Loosen the battery box with the NiKo-key.
Press the NiKo-key to loosen the locking points as shown
on the right.



Pull out the battery box and replace the battery.
 Reassemble the battery box in reverse order until it locks audibly.
 Fasten the securing screw.



16 Technical data

Voltage: 6 V
 Max. power consumption: ca. 0,5 A
 Average power consumption: ca. 0,07 A
 Flashing rate: 60 fl./min

Operating time:
 At laboratory conditions with default settings: day off, night on (approx. 12 hours per day on - depending on the season), respectively day and night on (24 hours).

Battery	Day and Night 100% / 50%		Only night 100% / 50%	
	Premium 800	300 h	600 h	500 h
Premium 3000	1200 h	2400 h	1500 h	2800 h
Konstant 25	460 h	920 h	960 h	1920 h
Konstant 45	1400 h	2800 h	1600 h	3200 h

17 Troubleshooting

Fault

Remedy

Lamp does not flash:

Check battery - replace if necessary.

No synchronisation of the lamps:

Lamps lined up correctly? - Line up lamps again if necessary.
 Check distance and angle. - Modify if necessary.
 There must be no obstacles between the single lamps!
 Synchronisation time may last longer than 5 minutes.

18 Disassembly and disposal

18.1 Disassembly

Before beginning the disassembly:

- Switch off the system and secure against being switched on again.
 - Physically disconnect the entire power supply from the equipment and discharge stored residual energy.
 - Working, auxiliary and processing material must be removed and disposed according to regulations.
- Then professionally clean modules and components and disassemble in accordance with accepted local safety at work and environment protection regulations.

18.2 Disposal

If no take back or disposal agreement was made, take disassembled component parts to the recycling depot:

- Dispose of metallic residual component parts as scrap metal.
- Take plastic parts to the recycling depot.
- Sort and dispose of other components according to the properties of the material.

CAUTION!

Damage to the environment from improper disposal!

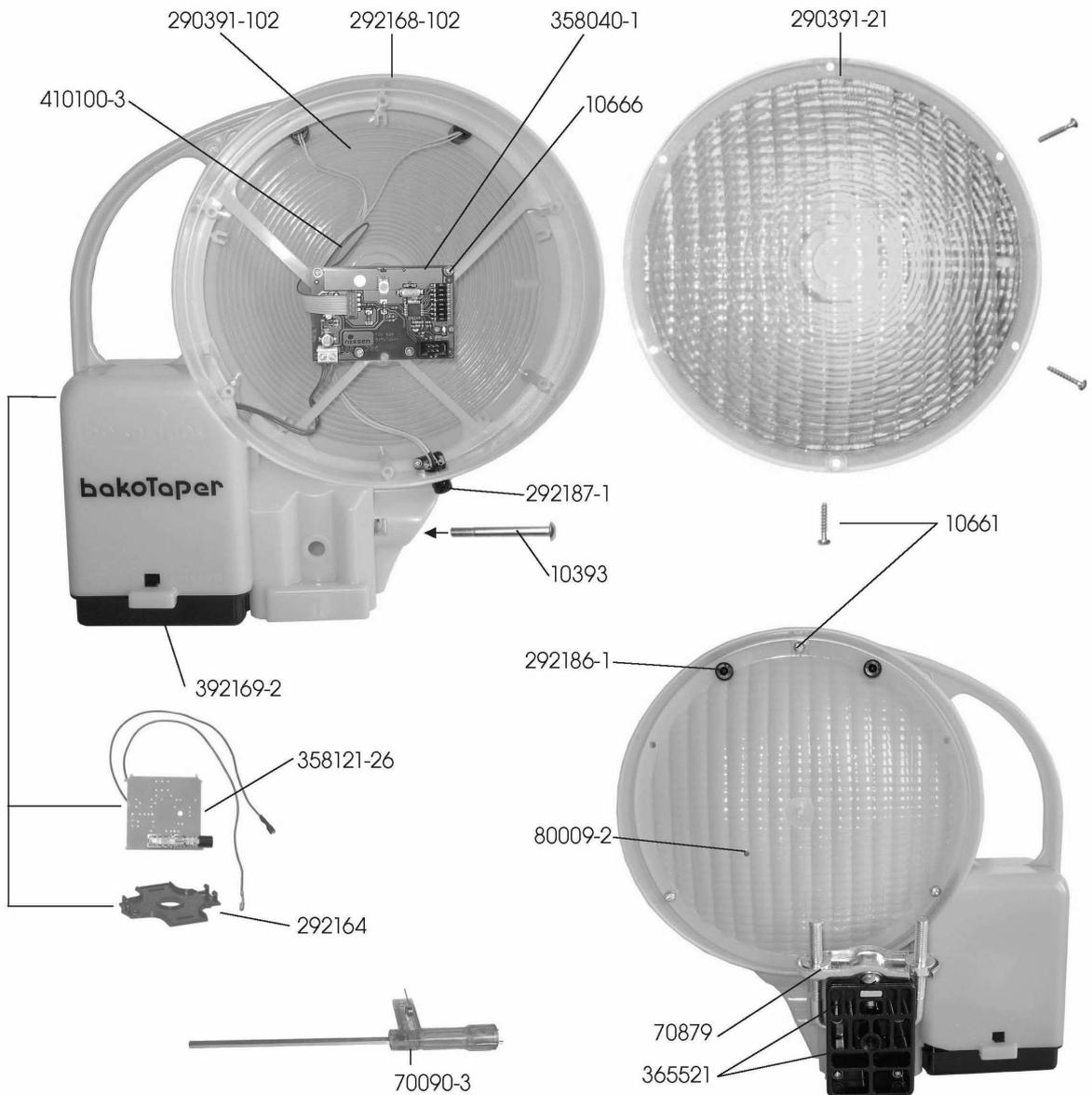


Electronic scrap, electronic components, lubricants and other auxiliary substances are liable to treatment as hazardous waste and must only be disposed by approved specialised companies!

Local authorities and specialist disposal companies can provide information on environmentally compatible disposal.

19 Ersatzteilliste/ Spare part list

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