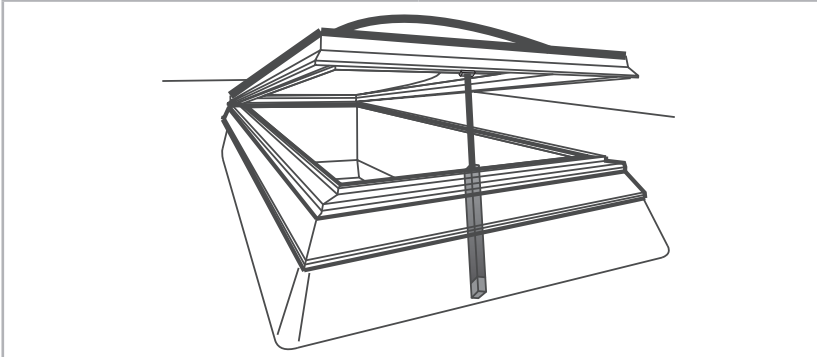
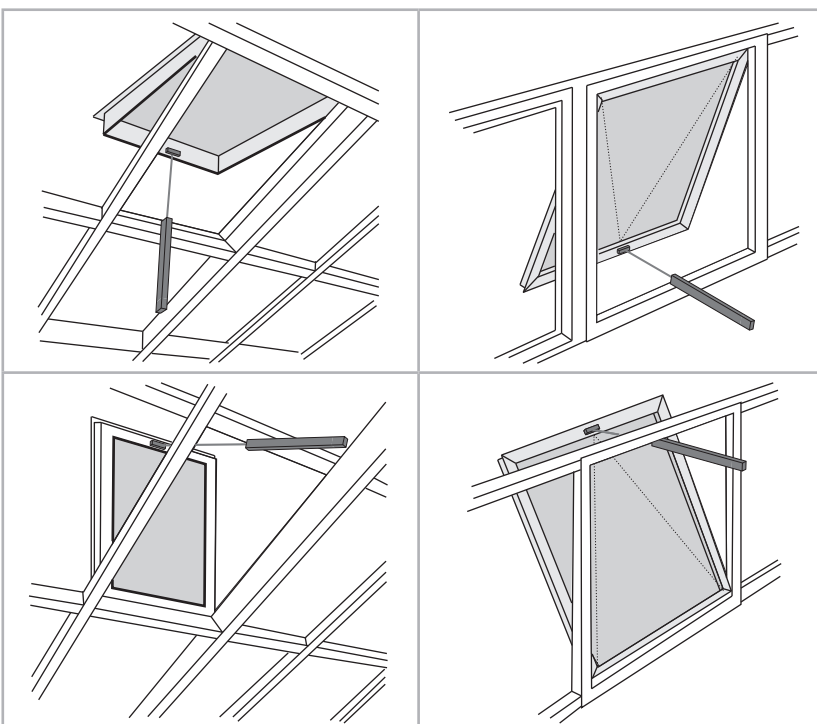
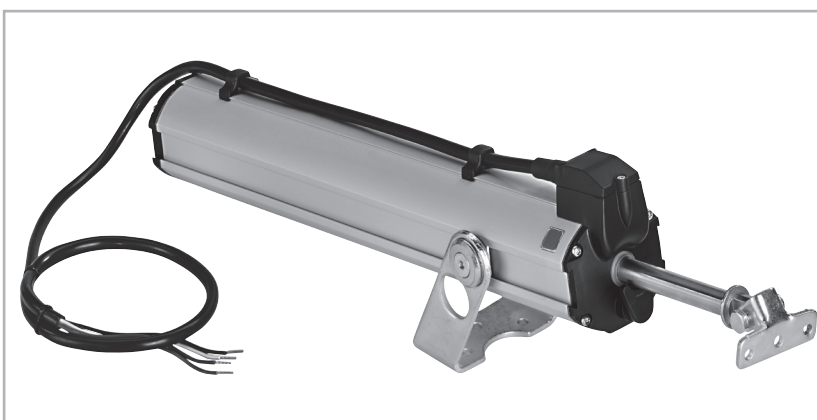


# ASSEMBLY INSTRUCTION BDS Eco

SPINDLE DRIVE FOR WINDOWS  
according to Machinery Directive  
2006/42/EG (annex VI)



# BTR



**Note the safety instructions!**  
Links to safety instructions, assembly instructions, and manufacturer statements:  
Please scan in the QR code and follow the link to the **BTR** homepage.

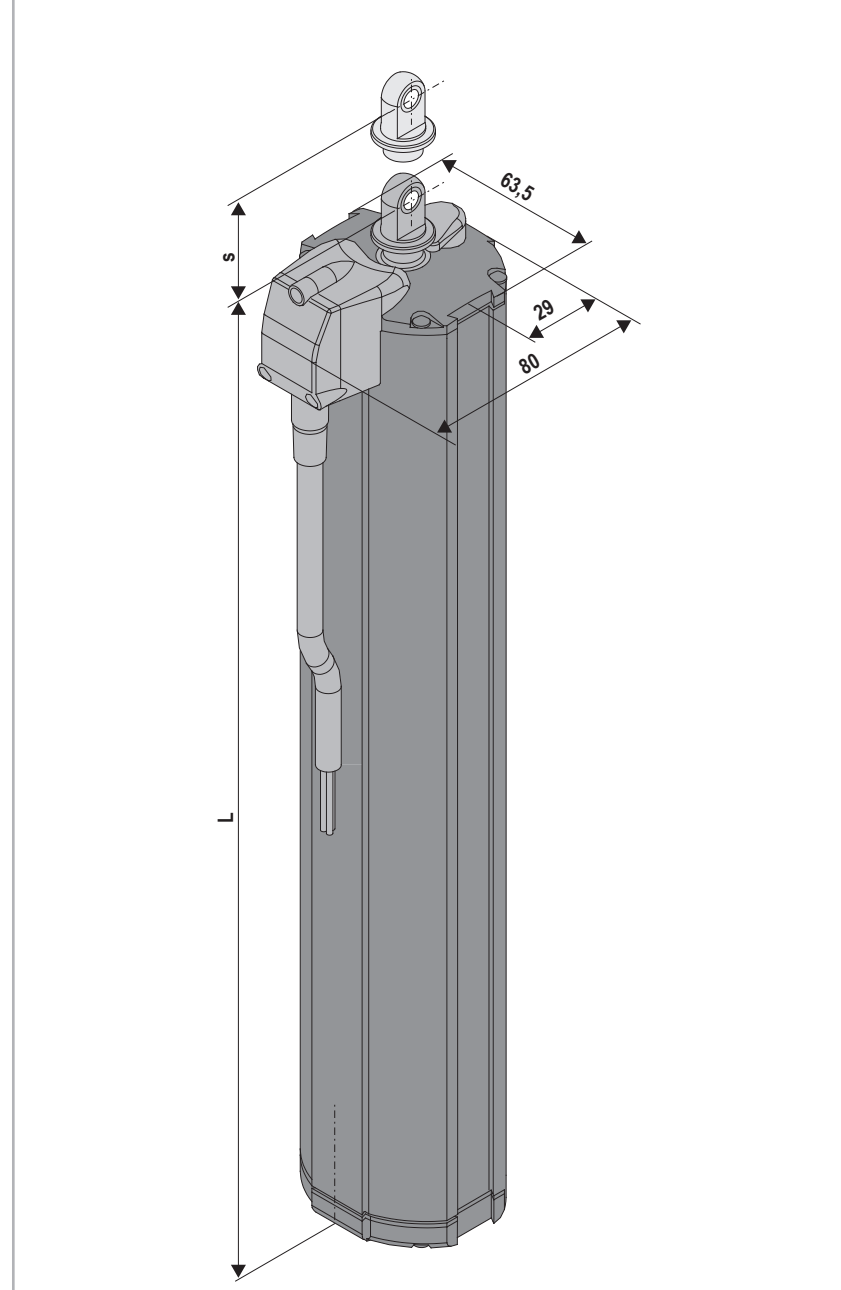


[www.btr-hamburg.de](http://www.btr-hamburg.de)

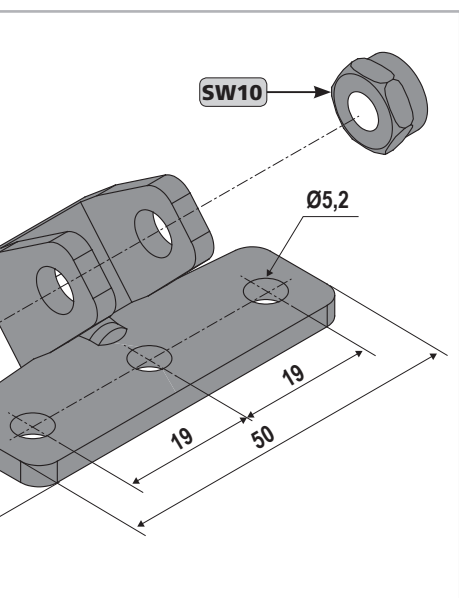
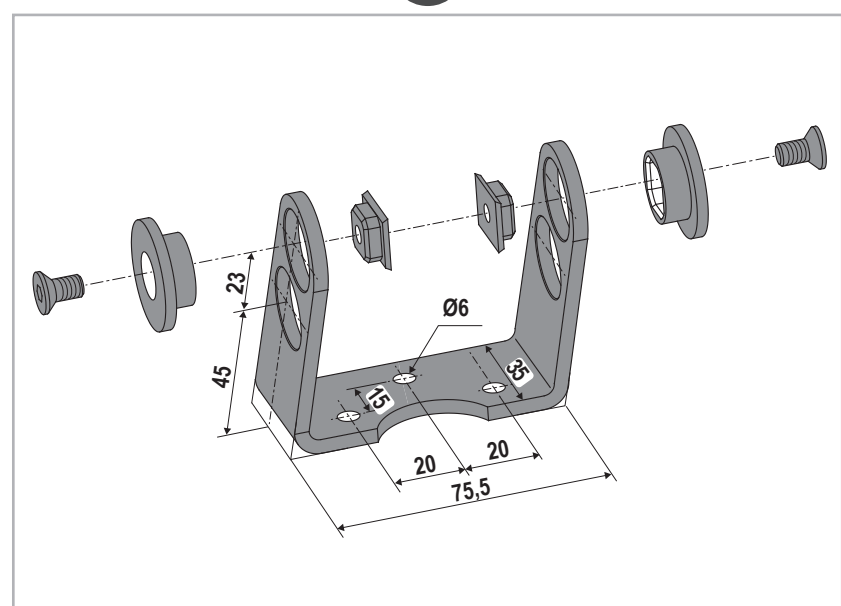
BTR GMBH  
Gemeindewald 11  
86672 Thierhaupten  
9000032761\_V0.1\_KW05/20

Tel. +49 8271 811 92-0  
Fax +49 8271 811 92-55  
info@btr-hamburg.de

BDS Eco	Part.-No.	s (mm)	L (mm)
BDS Eco 300 230V	20.100	300	419



1



1

BDS Eco 230V AC

2

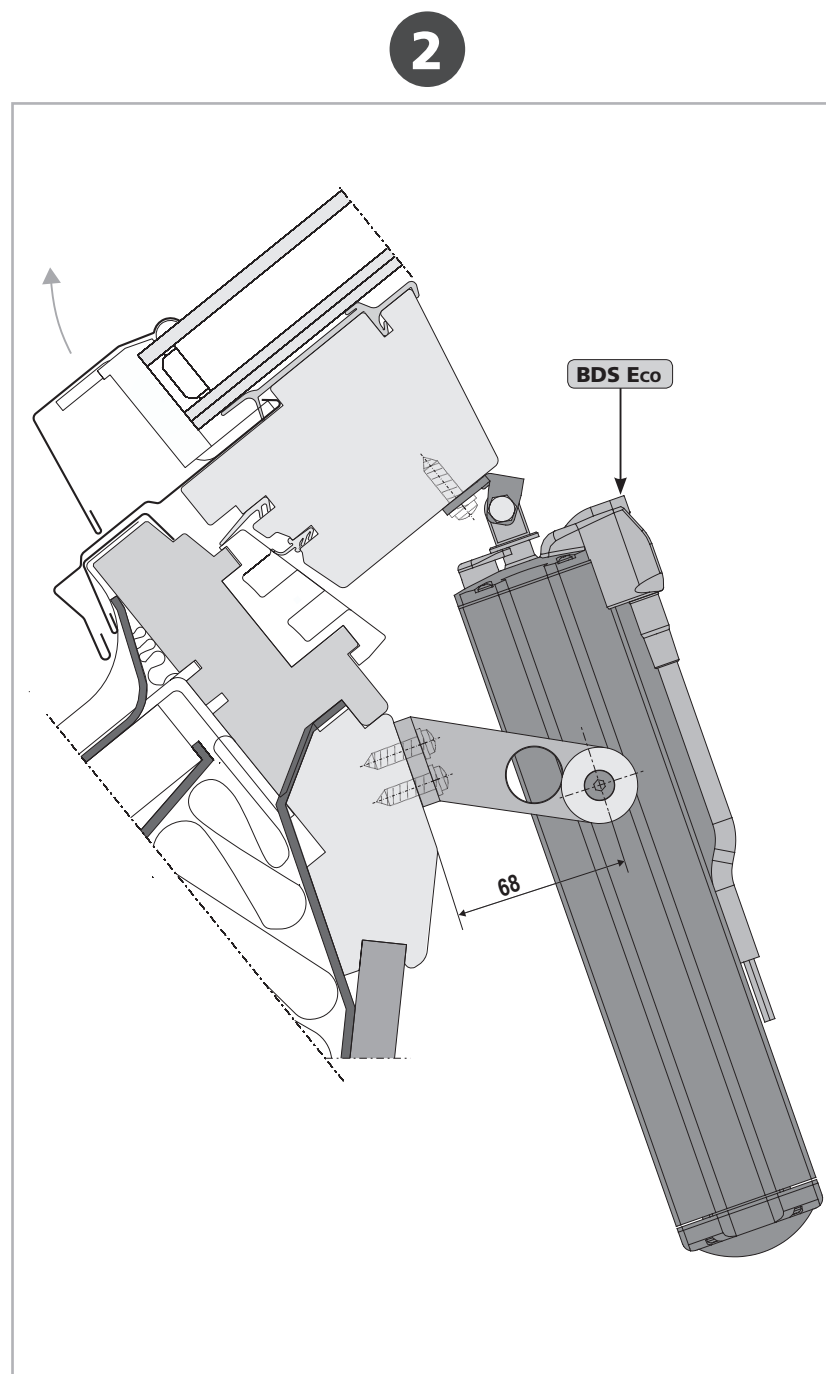
BDS Eco 230V AC

3

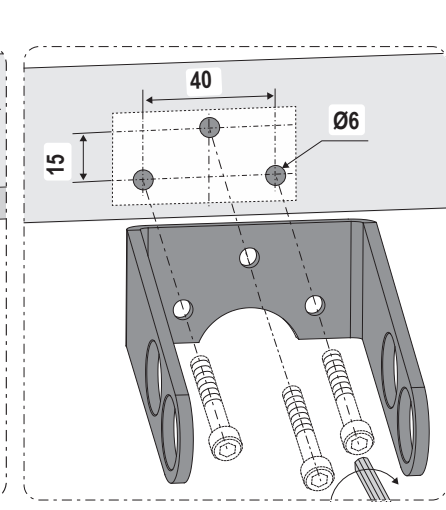
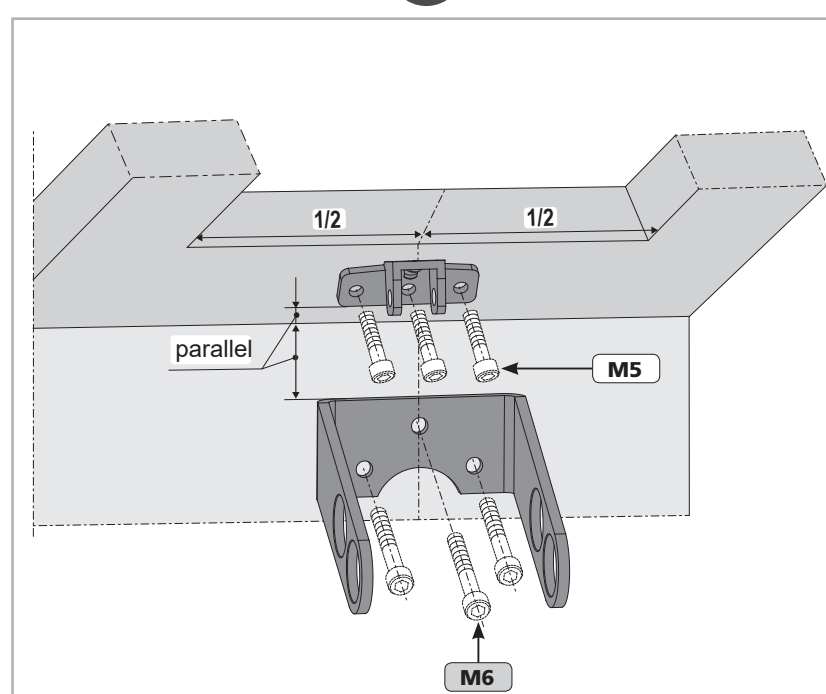
BDS Eco 230V AC

4

BDS Eco 230V AC



2

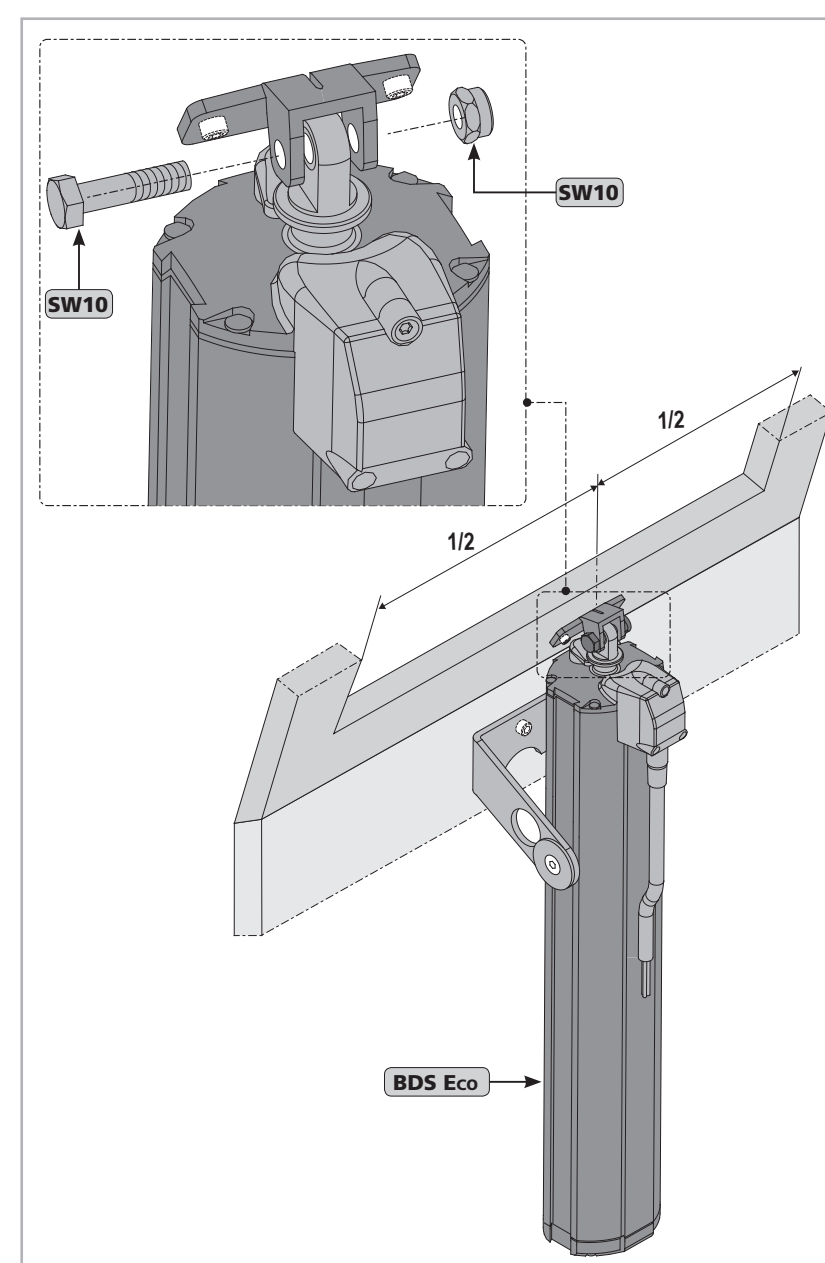
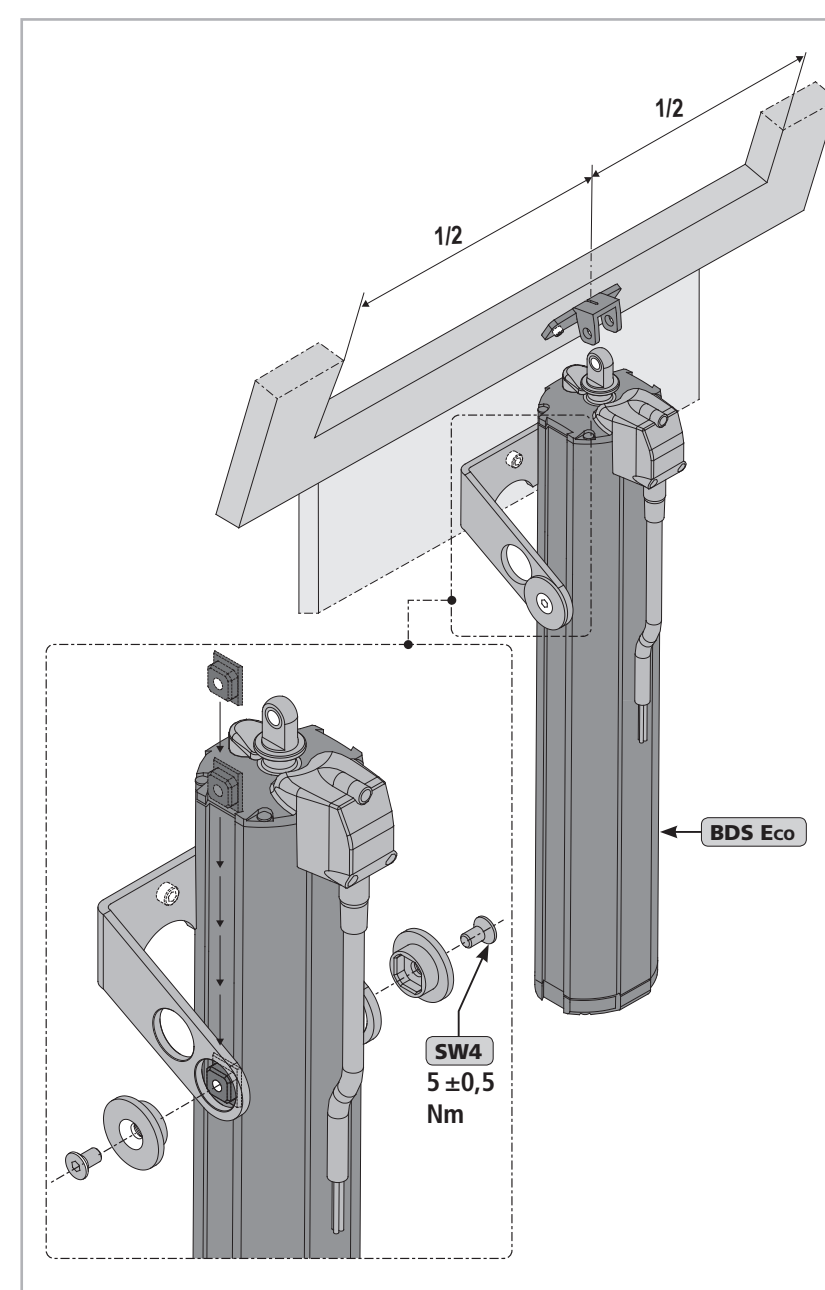


3

BDS Eco 230V AC

4

BDS Eco 230V AC

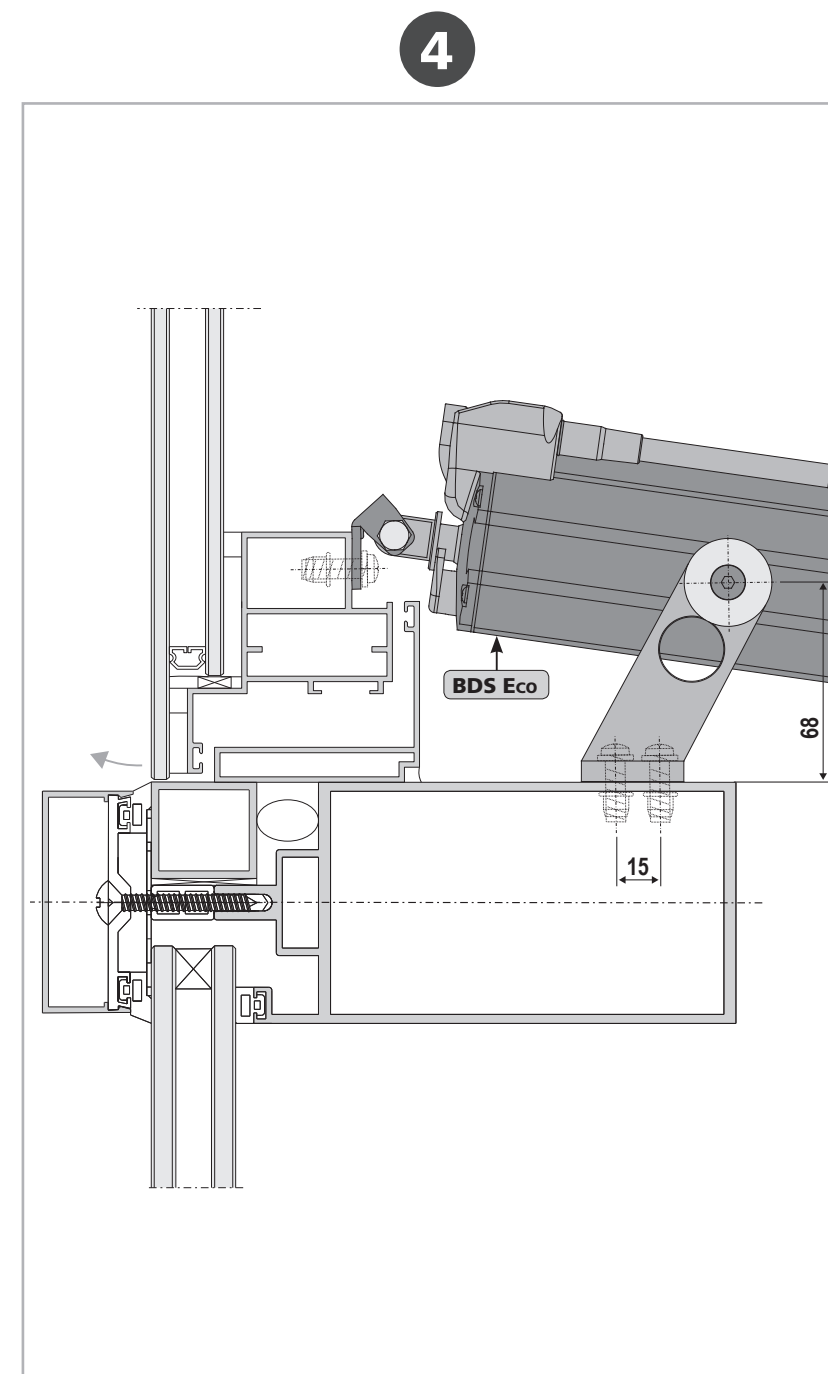


5

BDS Eco 230V AC

6

BDS Eco 230V AC



**BDS Eco**

BDS Eco 230V	↑	↓
	OPEN	CLOSE
	L	BN BK

GN / YE: = PE  
BU: = N  
Switch position with spindle inside (Position CLOSE).

BN  
BK  
BU  
GN / YE

Video-Link to the detailed assembly instructions

7

BDS Eco 230V AC

8

BDS Eco 230V AC

9


BDS Eco 230V AC


10

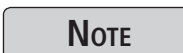
BDS Eco 230V AC

## SAFETY INSTRUCTIONS


### WARNING AND SAFETY SYMBOLS:


 **WARNING** Failure to comply with the warning notes can result in irreversible injuries or death.

 **CAUTION** Failure to comply with the warning notes can result in minor or moderate (reversible) injuries.


 **NOTE** Failure to comply with the warning notes can lead to damage to property.

 **Caution / Warning**  
Danger due to electric current.

 **Caution / Warning**  
Risk of crushing and entrapment during device operation (is provided as a sticker with the drive).


 **Attention / Warning**  
Risk of damage to / destruction of drives and / or windows.

Once the assembly and commissioning has been completed, the installer of a machine „power-operated window“ shall hand these instructions over to the end-user.

 **WARNING** The end-user shall store these instructions in a safe place over the whole lifecycle and use it for further reference, if required.


### TARGET GROUP


These instructions are intended for trained personnel and operators of systems for natural smoke ventilation (SHEVS) (smoke and heat exhaust ventilation system) and natural ventilation via windows, who are knowledgeable of operating modes as well as the remaining risks of the system.

 **WARNING** This device is not intended for use by persons (including children) with physical, sensory or mental limitations or lacking experience and / or knowledge, unless they are supervised by a person who is responsible for the safety or were instructed on the usage of this equipment.

This „Short Assembly Instruction“ contains the most important safety instructions for installation, commissioning and maintenance of **BTR** drives. The detailed and always up-to-date „Assembly Instructions“ are available online.

## SAFETY INSTRUCTIONS

 **WARNING** It is important to follow these instructions for the safety of persons. **These instructions shall be kept in a safe place for the entire service life of the products.**


 **Risk of crushing and entrapment!**  
**Window can close automatically!**


**Crush and shear points**  
To avoid injuries, **crushing and shear points** between casement and frame must be secured **against entrapment up to an installation height of 2,5 meters above the floor** with appropriate measures.

## INTENDED USE

This drive is intended for the electromotive opening and closing of windows in facade or roof areas.

The drive is intended for stationary installation and electrical connection at the window as part of a building.

 **NOTE** By attaching the drive to a movable element of the window and connecting it to a power supply a so-called “power-operated window” is created which, according to the Machinery Directive 2006 / 42 / EG, represents a machine.

 **WARNING** Pay attention to possible hazards on tilting or rotating windows, whose side closing edges (NSK) are located at less than 2,5 m installation height above the floor, under consideration of the Control Unit and usage!

**The need for a risk assessment at the installation site due to the reasonably foreseeable misuse.**

**A risk assessment in accordance with the Machinery Directive 2006 / 42 / EG for the usage of the power-operated window for natural ventilation is necessary, when:**


- the installation height of the drive is or at the „main closing edge“ (parallel to hinge) < 2,5 m above the floor and
- the closing force at the „main closing edge“ (parallel to hinge) is > 150 N


A sample risk assessment can be found in the download area of our homepage:

[www.btr-hamburg.de](http://www.btr-hamburg.de)

## AREA OF APPLICATION

The drive shall only be used according to its intended use.

 **WARNING** Do not misuse the drive for other lifting operations! Do not allow children to play with this drive or its electric controls, including the remote control!

 All devices must be permanently protected from dirt and moisture, if the drive is not explicitly suitable for use in wet areas.

### Installation

All specifications for installation must be checked independently and, if necessary, adjusted at the installation site.

The connection assignment, the electrical supply data (see product label) and performance limits (see technical data) as well as the mounting and installation instructions of the drive must be strictly observed and adhered to!


Do not reach into the window rabbet or the operating element during installation and operation!


Ensure that, based on the installation position and the opening movement of the casement, persons cannot be trapped between the driven part of the window and surrounding fixed components (e.g. wall).

### Mounting material

The required mounting material must fit with the drive and occurring load and, if necessary, supplemented.

### Unintentional or independent opening or falling

 **WARNING** The movable casement must be secured against unintentional or independent opening as well as falling down - e.g. by double suspensions, safety shears, safety gears.

 **WARNING** The opening width of the safety device must not obstruct the drive when opening the casement (sash).


## COMMISSIONING, OPERATION AND MAINTENANCE


After the installation and after each modification in the set up all functions shall be checked with a trial run. It shall be ensured that drive and casement are set correctly and that security systems, if available, are functioning properly.


**After the installation of the system is completed the end-user shall be instructed in all important operating steps.**

If necessary, he must be advised of all remaining risks / dangers.

 **NOTE** Post warning signs!

 **CAUTION** Other persons must be kept away from the casement when a hold-to-run switch (pushbutton) is operated or when a window, which has been opened by a smoke and heat exhaust system, is closing!

 During cleaning and maintenance works and while exchanging parts, all poles of the drive must be disconnected from the power supply and secured against unintentional reactivation.

 **WARNING** Do not actuate the drive or the casement when repair or re-setting works are performed!

### Replacement parts, fasteners and controls

The drive shall only be operated with control devices from the same manufacturer. There is no liability if third-party parts are used.

Exclusively original spare parts of the manufacturer shall be used.

### Ambient conditions

The product may not be subjected to impacts or falls, or to vibrations, moisture, aggressive vapors or other harmful environments.

Ambient temperature: -5 °C ... +40°C

Relative humidity: < 90% less 20°C;

< 50% less 40°C;

no formation of condensation

 **NOTE** Observe temperature range during installation!

### Accident prevention regulations

For work on or in a building or building part the provisions and instructions of the respective accident prevention regulations (UVV and workmen's compensation insurance guidelines (BGR /ASR) shall be observed and adhered to.

## ROUTING CABLES AND ELECTRICAL CONNECTION

Routing or installing of electrical cables and connections may be performed only by specialist companies.

All relevant instructions shall be observed for the installation.



 **NOTE**

 **WARNING**



Never connect 24 V DC drives to 230 V AC mains voltage!  
**Danger to life!**

24V DC drives may only be connected to power supply sources that comply with SELV specifications.

In the case of tandem / multiple operation of drives connected in series, the cross-section of the connection cable must be checked autonomously, depending on the total current consumption of the drive system.

Damaged mains supply lines of drives with plug connectors may only be replaced by the manufacturer or qualified service / maintenance personnel! Power cables which are fixed to the drive casing cannot be replaced. If the cable is damaged the device must be scrapped!

Cables must be laid such way that they cannot be sheared off, twisted or bent during operation. Drive cables laid inside window profiles must be protected by insulating tubes with a sufficient temperature resistance.

Through holes shall be equipped with cable sleeves!

Clamping points shall be checked for tightness of threaded connections and cable ends. Access to junction boxes, clamping points and external drive control boxes shall be ensured for maintenance work .

## WARRANTY

In principal apply our: „General Terms for the Supply of Products and Services of the German Electrical Industry (ZVEI)“.

The warranty corresponds with legal provisions and applies to the country in which the product has been acquired.

The warranty includes material and manufacturing defects incurred during normal use.

Contact persons for possible warranty claims, for spare parts or accessories:

Firm **BTR** GmbH  
([www.btr-hamburg.de](http://www.btr-hamburg.de))

## DISPOSAL



According to the European Directive 2012/19 / EU on Waste Electrical and Electronic Equipment (WEEE) and its transposition into national law, obsolete electrical appliances must be collected separately and sent for environmentally friendly recycling.

## LIABILITY

We reserve the right to change or discontinue products at any time without prior notice. Illustrations are subject to change. Although we take every care to ensure accuracy, we cannot accept liability for the content of this document.

### Assembly and Commissioning Instruction

The complete **Assembly and Commissioning Instructions** are available via the QR code or directly on our homepage:

Firm **BTR** GmbH  
([www.btr-hamburg.de](http://www.btr-hamburg.de))

### Declaration of Conformity and of Incorporation

We declare under our sole responsibility that the product described under „Data sheet“ is in conformity with the following directives:

- 2014/30/EU Directive relating to Electro-Magnetic Compatibility
- 2014/35/EU Low voltage Directiv



We further declare that the drive is an incomplete machine within the meaning of the European Machinery Directive (2006/45/EG).

The declarations are available via the QR code or directly on our homepage:

Firm **BTR** GmbH  
([www.btr-hamburg.de](http://www.btr-hamburg.de))

### Links to assembly instructions

Please scan in the QR code and follow the link to the **BTR** homepage.

- Select on the homepage:
- wished language
  - product groupe / product name
  - documents.



### Important note for this original version:

We are aware of our responsibility, which is why we present life-supporting and value-preserving products with greatest possible conscientiousness. Although we make every effort to ensure that the data and information are as correct and up-to-date as possible, we still cannot guarantee that they are free from mistakes and errors. All information and data contained in this document are subject to alterations without prior notice. Distribution and reproduction of this document as well as the use and disclosure of its content is not authorized unless expressly approved. Offenders will be held liable for the payment of damages. All rights reserved in the case of a patent award or utility model registration. Basically the General Terms and Conditions of **BTR** GmbH apply to all offers, supplies and services.

The publication of these assembly and commissioning instructions supersedes all previous editions.