

FOR RECYCLING PURPOSES ONLY

# Disassembly Instructions

## Change-over switches OT160–250\_C



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## Important information

This document shows the disassembly process of OT160–250\_C change-over switches. Accessories, such as shafts, clamps, shrouds, neutral links and auxiliary contacts are not included. **Note! This document is for recycling purposes only.**

### Safety Notes

Before starting the disassembly process it is mandatory to put the change-over switch in open position.

Disassembly of change-over switches must be performed by qualified and skilled personnel in the electrical field (IEV 195-04-01: person with relevant education and experience to enable him or her to perceive risks and to avoid hazards which electricity can create) and having a detailed knowledge of change-over switches.

Disassembly must be done in an ergonomic workspace which can ensure the protection of the person doing the disassembling.

Applicable national legislation and international standards in force at the time of the disassembly of the change-over switches must be taken into account in addition to the prescriptions illustrated in this document.

ABB declines any responsibility for injury to people or damage to property resulting from a failure to comply with the instructions set out in this document and with any applicable safety standard.

### Personal Protective Equipment (PPE)

When doing the disassembling following safety Personal Protective Equipment (PPE) must be worn:

Glasses



Gloves



Safety shoes



Protective clothes



### Tools

The disassembly process requires the use of tools (e.g. screwdriver, torx key, pliers). Tools to be used are specified inside each phase of the disassembly process.

### Disassembly process

For each phase of the disassembly process the following information is provided:

- Part/parts to be disassembled (title of the phase)
- Tools to be used
- Description of actions to be performed
- Pictures showing actions to be performed
- List, quantity and picture of disassembled parts with an indication about separate treatment (when applicable)
- In case of potential hazards signal below is reported:

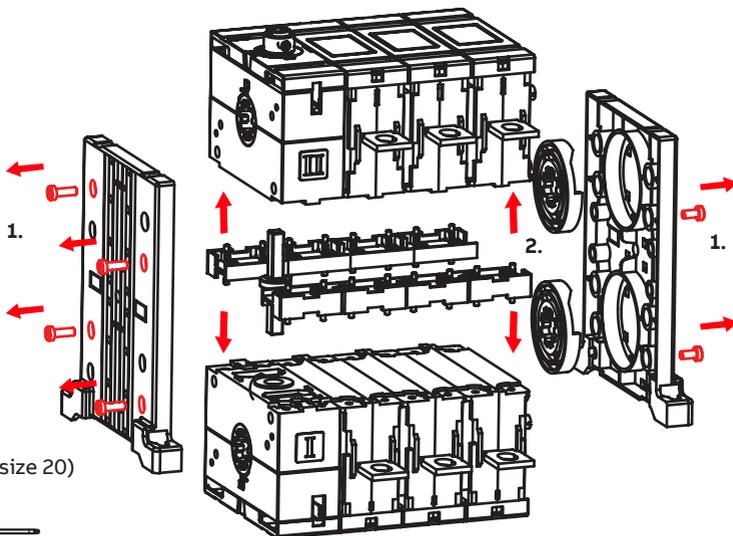


# Disassembly of the change-over switch

## Phase 1 to 3 – End plates and switch-disconnectors

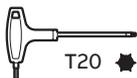
1. Use a torx key (size 20) to unscrew the 8 screws fixing the end plates to the switch-disconnectors.

2. Separate the switch-disconnectors, interm covers and contact guide supports from each other manually.

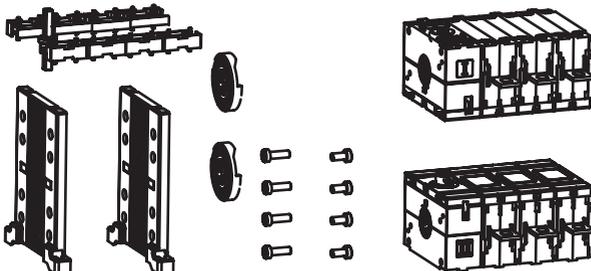


### Tools

Torx key (size 20)



### Disassembled parts



- 4 screws
- 4 screws
- 2 end plates
- 2 contact guide supports
- 1 joint + 8-10 interm covers
- 2 switch-disconnectors

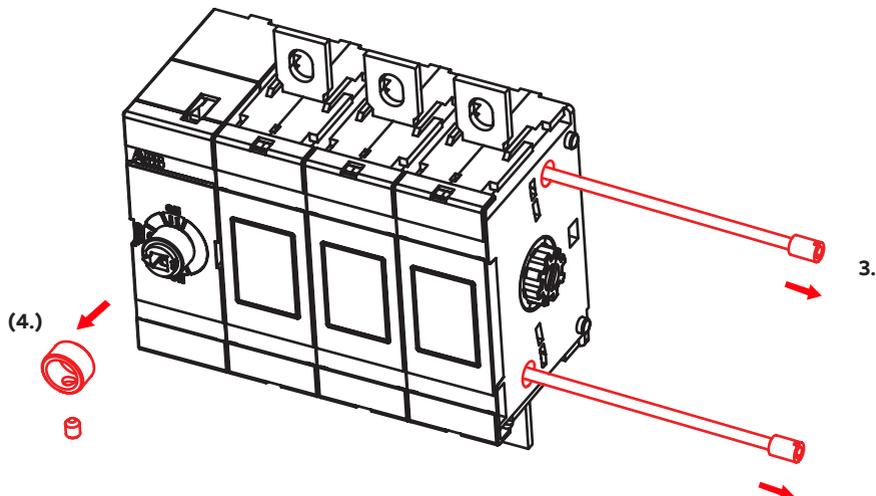
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### Phase 3 & 4 – Stud screws and shaft locking

3. Use a flat screwdriver to unscrew the stud screws fixing the poles to the mechanism.

(4. Use a flat screwdriver to remove shaft locking.\*)

\*Shaft locking only in one switch-disconnector.




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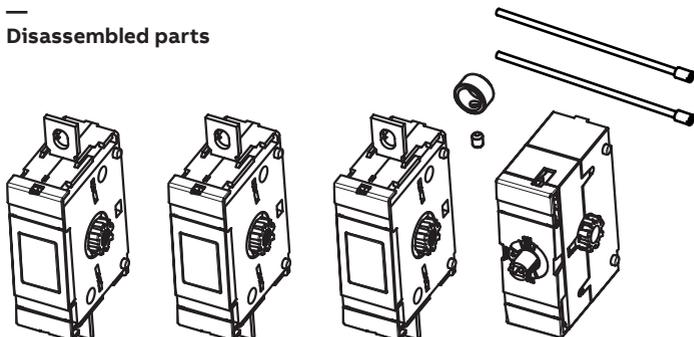
### Tools

Flat screwdriver




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### Disassembled parts



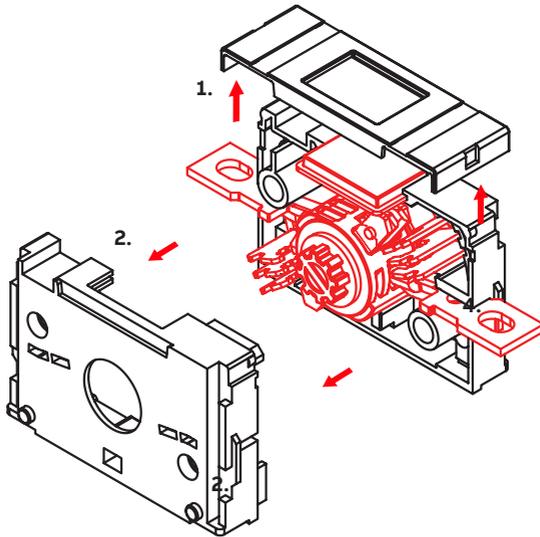
- 3-4 poles
- Mechanism
- 2-4 stud screws
- (1 locking ring + 1 hexag. socket head screw

# Disassembly of the pole

## Phase 1 & 2 – Cover, frames and inner parts

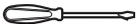
1. Use a flat screwdriver to remove the cover.

2. Separate the frames and remove contact construction, arc plates, fixed contacts and window manually.

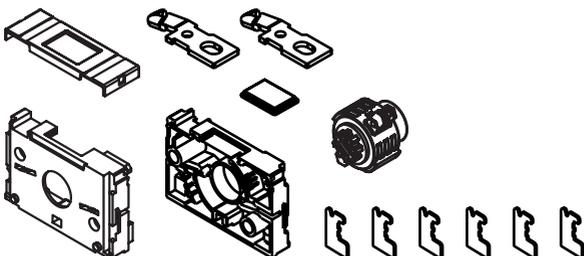


### Tools

Flat screwdriver



### Disassembled parts



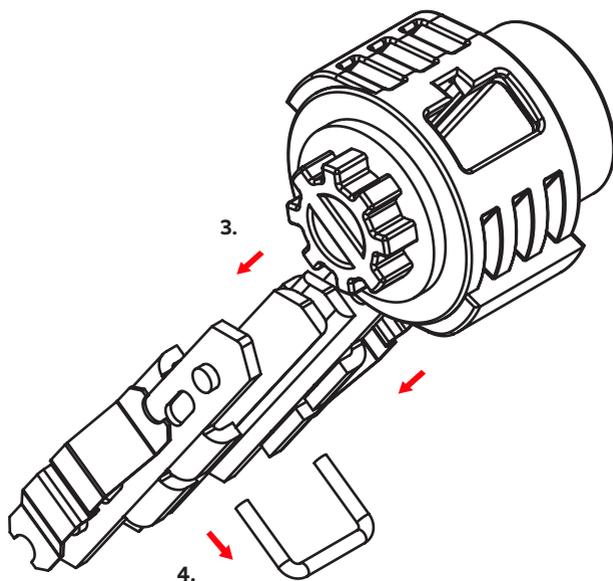
- Frame A
- Frame B
- Contact construction
- 2 fixed contacts
- 6 arc plates
- Cover
- Window

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### Phase 3 & 4 – Contact construction

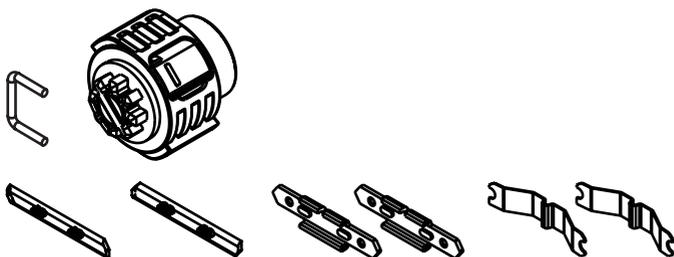
6. Remove the knife structure from the roll manually.

4. Remove the spring guide and separate contact knives, contact springs and contact irons from each other manually.




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### Disassembled parts



- Roll
- 1 contact knife
- 1 contact knife
- 2 contact irons
- 2 contact springs
- 1 spring guide

# Disassembly of the mechanism

1. Remove the cover with the help of a flat screwdriver.

2. Unscrew the 2 screws with a torx key to remove the upper frame. Remove contact guide support and two steel nuts manually.

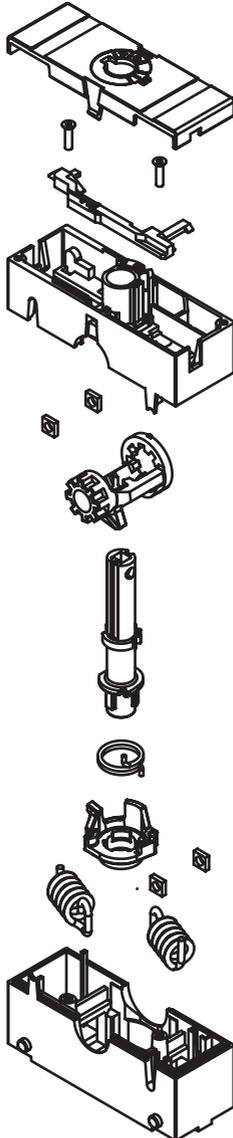
3. Remove the lever.

4. Remove pipesaft, lever and rhythm spring.

5. Remove the springs using pliers. Remove the two steel nuts manually.

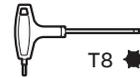


**Note!** Pay special attention to tensioned springs. Use personal protective equipment.



## Tools

Torx key (size 8)



Flat screwdriver



Pliers



## Disassembled parts

- Frame
- 2 springs
- 4 steel nuts
- Lever
- Pipeshaft
- Lever
- Rhythm spring
- Frame
- 4 screws
- Cover
- Contact guide support

# Component list

## Change-over switch OT160-250\_C

Component name	Quantity	Material(s)	Weight (g/pc)
OT160-250_C1	1	See component list below	1213,0
OT160-250_C2	1	See component list below	1221,0
Joint	1	Steel	22,8
Interm cover	8-10	Polycarbonate	3,6
End plate	2	Polyamide	68,3
Contact guide support	2	Polyamide	8,2
Screw	4	Steel	1,7
Screw	4	Steel	2,2
Locking ring	1	Steel	5,4
Hexag. socket head screw	1	Steel	0,5
Address plate	1	Polyest-resin	0,0

## Switch-disconnector OT160-250\_C1

Component name	Quantity	Material(s)	Weight (g/pc)
Mechanism	1	See component list	229,5
Pole	3-4	See component list	320,6
Stud screw	2-4	Steel	5,0-15,0

## Switch-disconnector OT160-250\_C2

Component name	Quantity	Material(s)	Weight (g/pc)
Mechanism	1	See component list	237,4
Pole	3-4	See component list	320,6
Stud screw	2-4	Steel	5,0-15,0

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**Pole**

<b>Component name</b>	<b>Quantity/pole</b>	<b>Material(s)</b>	<b>Weight (g/pc)</b>
Frame A	1	Polyest-resin	79,3
Frame B	1	Polyest-resin	78,1
Contact knife	1	Copper	9,1
Contact knife	1	Copper	9,1
Contact iron	2	Steel	12,2
Contact spring	2	Chromium steel	1,6
Spring guide	1	Chromium steel	0,7
Roll	1	Polyest-resin	33,5
Arc plate	6	Steel	4,3
Fixed contact	2	Copper	24,3
Window	1	Polycarbonate	2,5
Cover	1	Polycarbonate	6,5

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**Mechanism**

<b>Component name</b>	<b>Quantity</b>	<b>Material(s)</b>	<b>Weight (g/pc)</b>
Frame	1	Polyamide	54,3
Frame	1	Polyamide	38,1
Cover	1	Polycarbonate	8,3
Pipeaxis	1	Steel	42,3-50,2
Lever	1	Zinc alloy	25,2
Lever	1	Zinc alloy	35,5
Spring	2	Steel	9,7
Rhythm spring	1	Steel	2,6
Steel nut	4	Steel	0,6
Screw	2	Chromium steel	0,8

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## Recycling information in accordance with the WEEE

The product is marked with the wheelie bin symbol. It indicates that at the end of life the product should enter the recycling system.

You should dispose of it separately at an appropriate collection point and not place it in the normal waste stream.

The figure below shows the wheelie bin symbol indicating separate collection for electrical and electronic equipment (EEE).



The horizontal bar underneath the crossed-out wheelie bin indicates that the equipment has been manufactured after the Directive came into force in 2005.

The wheelie bin symbol is added to the type designation label of the product since 2017.



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## Contact us

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