

FOR RECYCLING PURPOSES ONLY

Disassembly Instructions

Motorized change-over switches OTM315–400_C

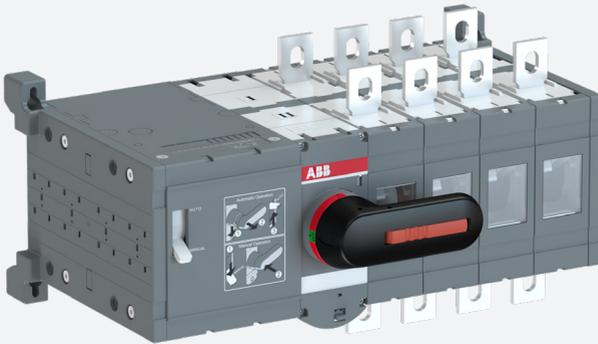


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Important information

This document shows the disassembly process of OTM315-400_C motorized 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 motorized change-over switch in open position.

Disassembly of motorized 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 motorized 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 motorized 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 motorized change-over switch

Phase 1,2,3,4 – End plates, contact guide supports, side covers and top cover

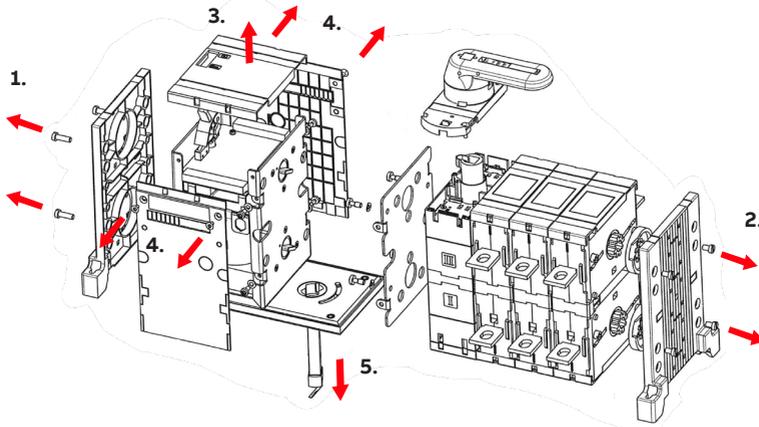
1. Use a torx key (size 10?) to unscrew the 4 screws fixing the end plate to the motor operator.

2. Use a torx key (size 6?) to unscrew the 4 screws fixing end plate and contact guide supports to the change-over switch.

3. Remove the top cover from the motor operator with the help of a flat screwdriver.

4. Use a torx key (size 6?) to unscrew the 4 screws fixing the side covers to the motor operator.

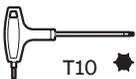
5. Use pliers to separate circlip and transmission shaft from the motor operator.



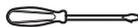
Tools

Torx key (size 10)?

Flat screwdriver

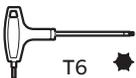


T10



Torx key (size 6)?

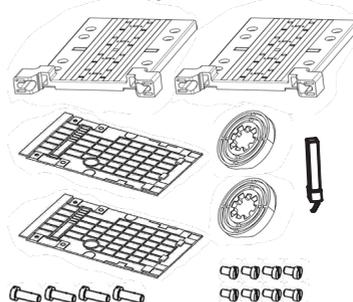
Pliers



T6



Disassembled parts



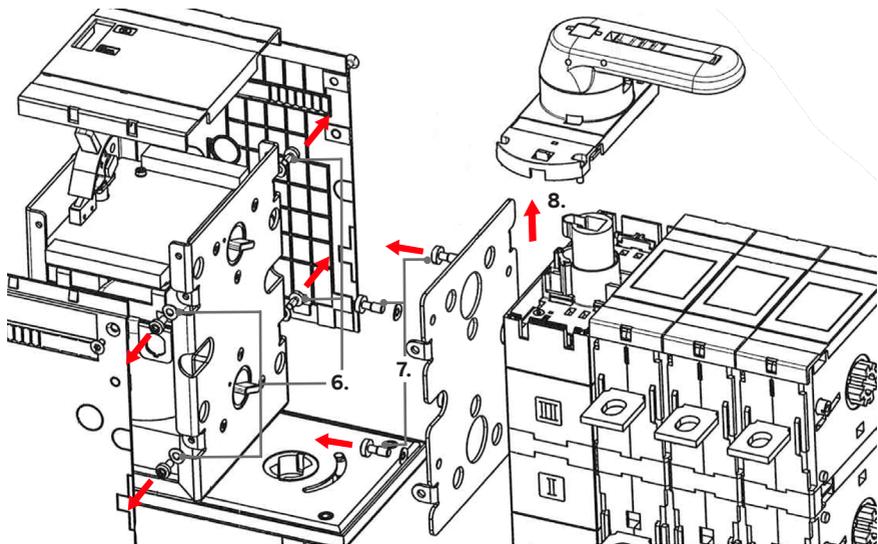
- 2 end plates
- 2 contact guide supports
- 4 screws
- 4 screws
- 2 side covers
- 1 top cover
- 4 screws
- 1 transmission shaft
- 1 circlip

Phase 6,7,8 – Motor operator, handle kit and assembling plate

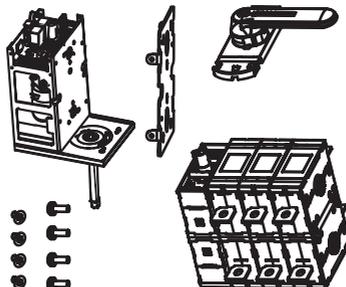
6. Unscrew the 4 screws fixing assembling plate and change-over switch to the motor operator.

7. Unscrew the 4 screws fixing the assembling plate to the change-over switch.

7. Separate the handle kit from the box (see instructions on the page 8).



Disassembled parts

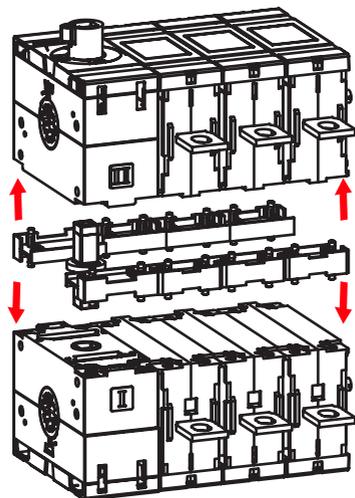


- 1 motor operator
- 4 screws
- 1 assembling plate
- 4 screws
- 1 handle kit
- 1 change-over switch

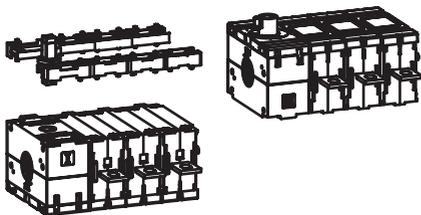
Disassembly of the change-over switch

Phase 1 – Switch-disconnectors and intern covers

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



Disassembled parts

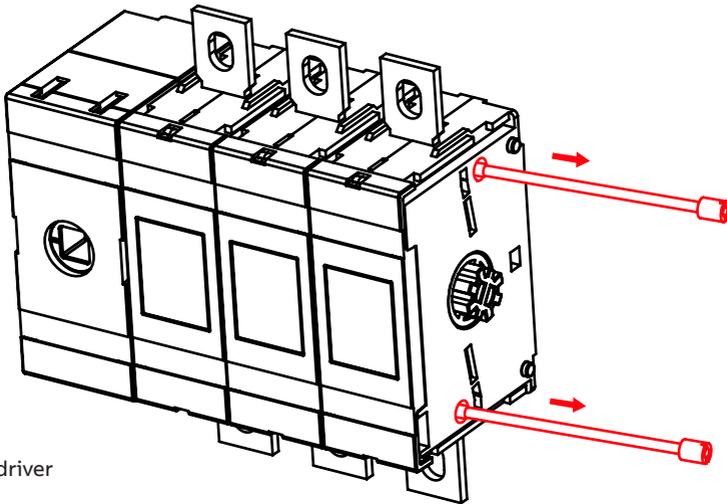


- 1 connecting part
- 2 intern covers
- 6-8 intern covers
- 2 switch-disconnectors

Disassembly of the switch-disconnector

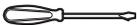
Phase 1 – Stud screws

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

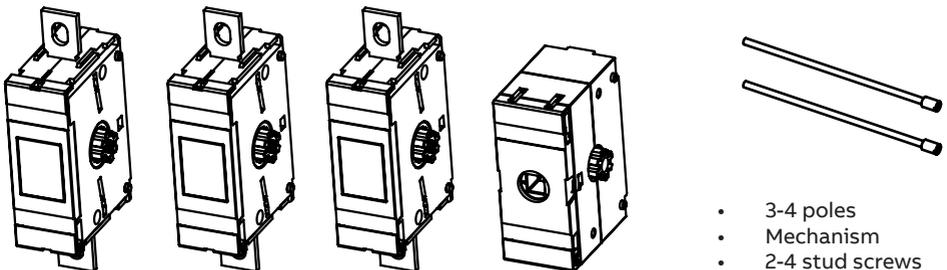


Tools

Flat screwdriver



Disassembled parts



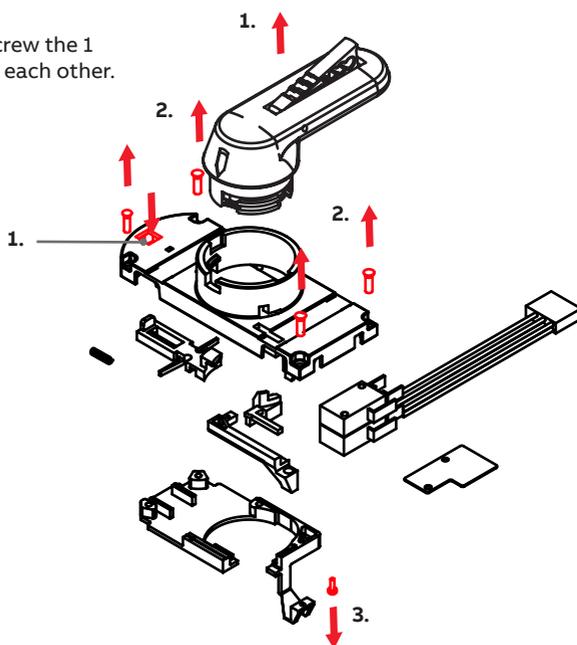
Disassembly of the handle kit

Phase 1 & 2 – Handle kit

1. Remove the handle by pressing on the clip (marked with red) and pulling the handle up.

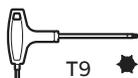
2. Use a torx key (size 9) to unscrew the 4 screws.

3. Use a torx key (size 9) to unscrew the 1 screw. Separate the parts from each other. Use pliers if needed.



Tools

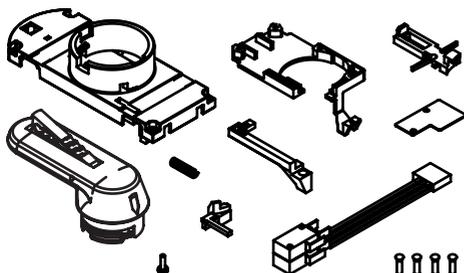
Torx key (size 9)



Pliers



Disassembled parts



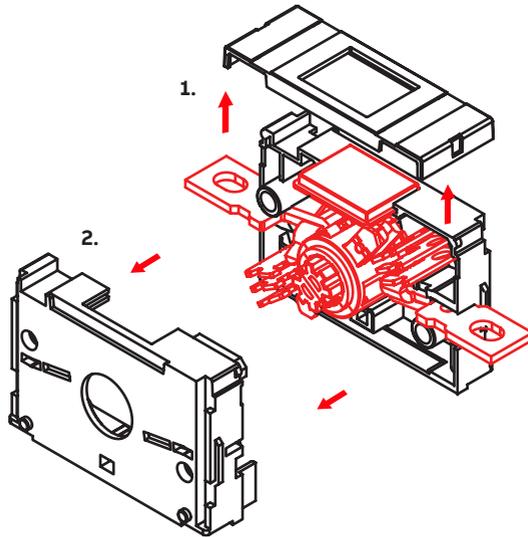
- 4 screws
- 1 screw
- 1 cover
- 1 compression spring
- 1 lock
- 1 bottom plate
- 1 mechanism for micros
- 1 locking bolt for micros
- 1 electric harness
- 1 insulator
- 1 handle

Disassembly of the pole

Phase 1 & 2 – Cover, frames and inner parts

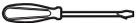
1. Use a flat screwdriver to remove the cover.

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

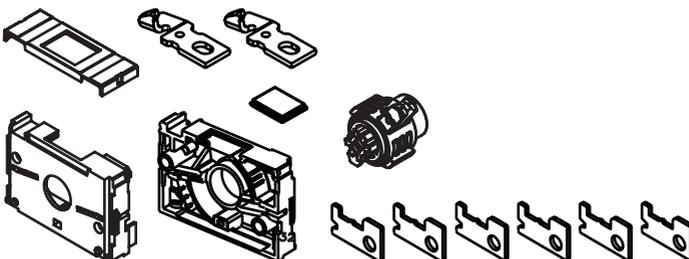


Tools

Flat screwdriver



Disassembled parts

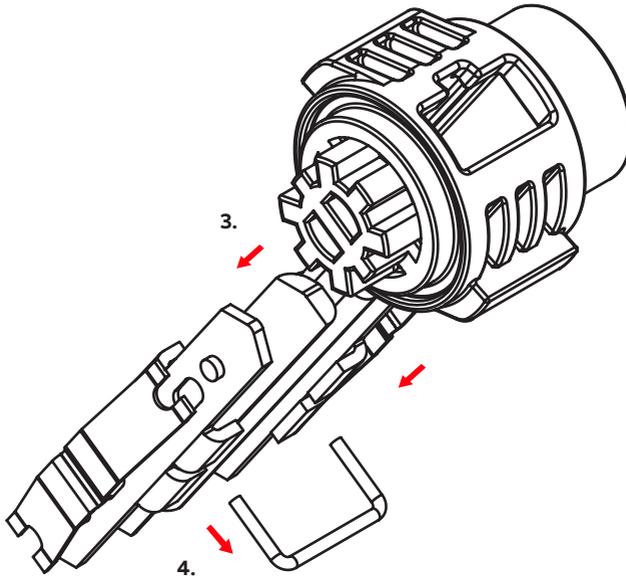


- Frame A
- Frame B
- Contact construction
- 2 fixed contacts
- 6 arc plates
- Cover
- Window

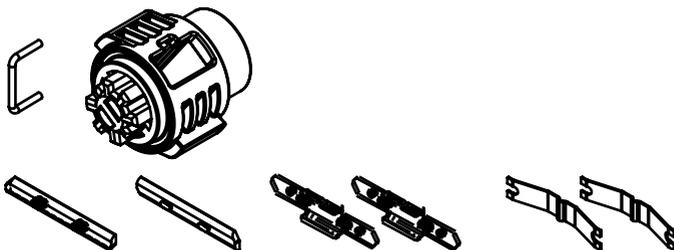
Phase 3 & 4 – Contact construction

3. 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.



Disassembled parts



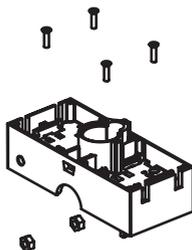
- Roll
- 1 contact knife
- 1 contact knife
- 2 contact irons
- 2 contact springs
- 1 spring guide

Disassembly of the mechanism

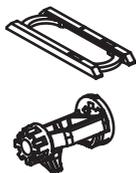
1. Remove the cover with the help of a flat screwdriver.



2. Unscrew the 4 screws with a torx key to remove the upper frame. Remove contact guide support and two steel nuts manually.



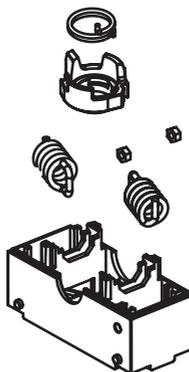
3. Remove the lever.



4. Remove pipeshaft, lever and rhythm spring.

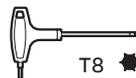


5. Remove the springs using pliers. Remove the two steel nuts manually.



Tools

Torx key (size 8)



Flat screwdriver



Pliers



Disassembled parts

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



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

Component list

Motorized change-over switch OTM315-400_C

Component name	Quantity	Material(s)	Weight (g/pc)
Change-over switch	1	See component list	5680
End plate	2	Polyamide	109
Screw	4	Steel	1
Contact guide support	2	Polyamide	8
Screw	4	Steel	3
Motor operator	1	Assembly	3582
Handle kit	1	See component list	210
Transmission shaft	1	Steel	20
Circlip	1	Steel	1

Change-over switch OT315-400E_C

Component name	Quantity	Material(s)	Weight (g/pc)
OT315-400E_C1	1	See component list	2750
OT315-400E_C2	1	See component list	2750
Connecting part	1	Zinc	49
Interm cover	2	Polyamide	6
Interm cover	8-10	Polyamide	6

Switch-disconnector OT200E_C1

Component name	Quantity	Material(s)	Weight (g/pc)
Mechanism	1	See component list	560
Pole	2-4	See component list	570
Stud screw	2	Steel	15-25

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Switch-disconnector OT200E_C2

Component name	Quantity	Material(s)	Weight (g/pc)
Mechanism	1	See component list	600
Pole	2-4	See component list	570
Stud screw	2	Steel	15-25

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Handle kit

Component name	Quantity	Material(s)	Weight (g/pc)
Cover	1	Polycarbonate	28
Lock	1	Polyamide	3
Compression spring	1	Steel	0
Screw	4	Steel	1
Bottom plate	1	Polycarbonate	9
Screw	1	Steel	0
Mechanism for micros	1	Polyamide	2
Locking bolt for micros	1	Polyamide	1
Insulator	1	Polycarbonate	1
Electric harness	1	Assembly	14
Handle	1	Assembly	94

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Pole

Component name	Quantity/pole	Material(s)	Weight (g/pc)
Frame A	1	Polyester	143
Frame B	1	Polyester	165
Contact knife	1	Copper	26
Contact knife	1	Copper	26
Contact iron	2	Steel	18
Contact spring	2	Steel	3
Spring guide	1	Steel	1
Roll	1	Polyamide	35
Arc plate	6	Steel	8
Fixed contact	2	Copper	103
Window	1	Polycarbonate	4
Cover	1	Polycarbonate	11

Mechanism

Component name	Quantity	Material(s)	Weight (g/pc)
Frame	1	Polyamide	116
Frame	1	Polyamide	74
Cover	1	Polycarbonate	16
Pipeshaft	1	Zinc	13
Lever	1	Zinc	72
Lever	1	Zinc	90
Spring	2	Steel	27
Rhythm spring	1	Steel	8
Steel hex nut	4	Steel	1
Screw	4	Steel	1

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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