

FOR RECYCLING PURPOSES ONLY

Disassembly Instructions

Motorized change-over switches OTM630–800_C



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Important information

This document shows the disassembly process of OTM630-800_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 1,2,3,4,5 – End plates, mounting plates, top cover, handle kit

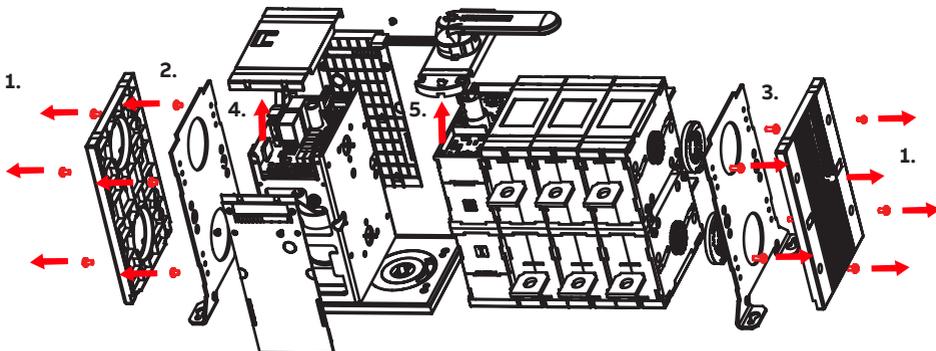
1. Use a torx key (size 20) to unscrew the 8 screws fixing the end plates to the motorized change-over switch.

2. Use a torx key (size 20) to unscrew the 4 screws fixing mounting plate to the motor operator.

3. Use a torx key (size 20) to unscrew the 4 screws fixing mounting plate and contact guide supports to the change-over switch.

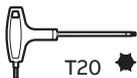
4. Remove the top cover from the motor operator with the help of a flat screwdriver.

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



Tools

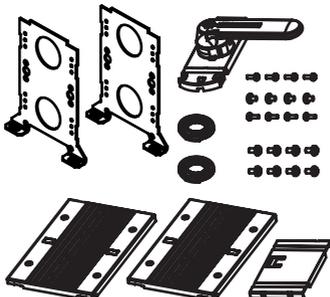
Torx key (size 20)



Flat screwdriver



Disassembled parts



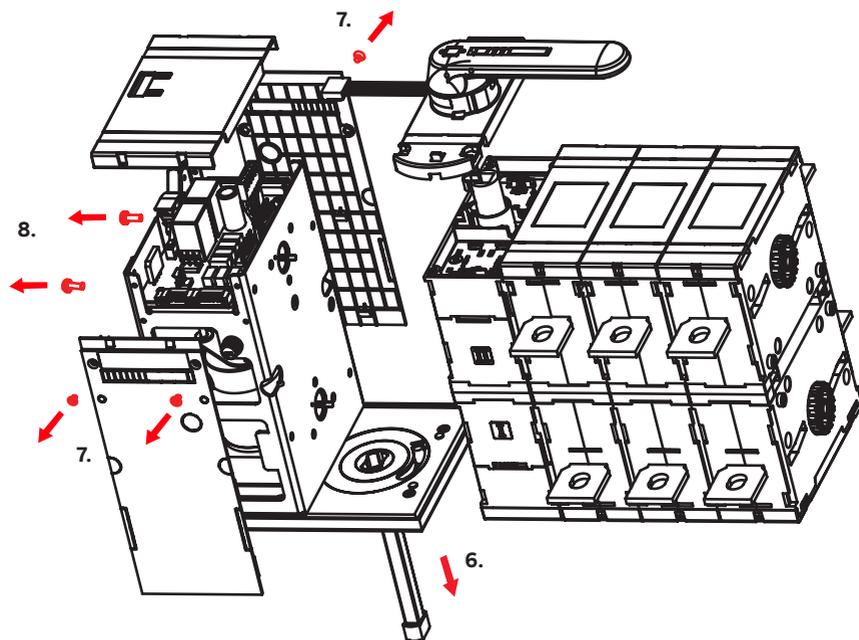
- 2 end plates
- 2 contact guide supports
- 8 screws
- 4 screws
- 4 screws
- 4 screws
- 2 mounting plates
- 1 top cover
- 1 handle kit

Phase 6,7,8 – Transmission shaft, motor operator, side covers

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

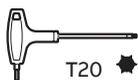
7. Use a torx key (size 20) to unscrew the 4 screws fixing the side covers to the motor operator.

8. Unscrew the 4 screws fixing the motor operator to the change-over switch.



Tools

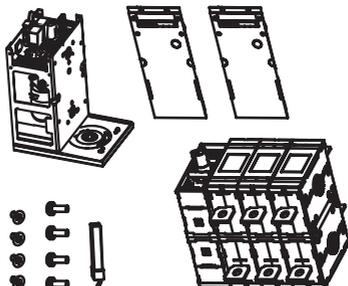
Torx key (size 20)



Pliers



Disassembled parts

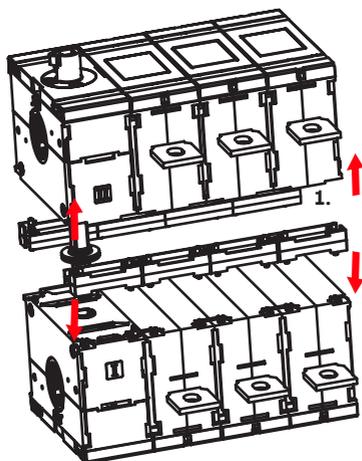


- 1 motor operator
- 4 screws
- 2 side covers
- 4 screws
- 1 handle kit
- 1 change-over switch
- 2 side covers
- 1 transmission shaft
- 1 circlip

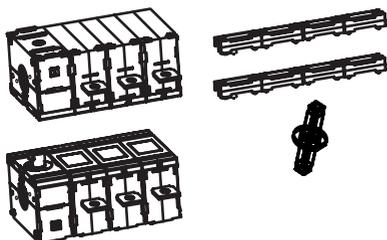
Disassembly of the change-over switch

Phase 1 – Switch-disconnectors and interm covers

1. Separate the switch-disconnectors and interm covers from each other manually.



Disassembled parts

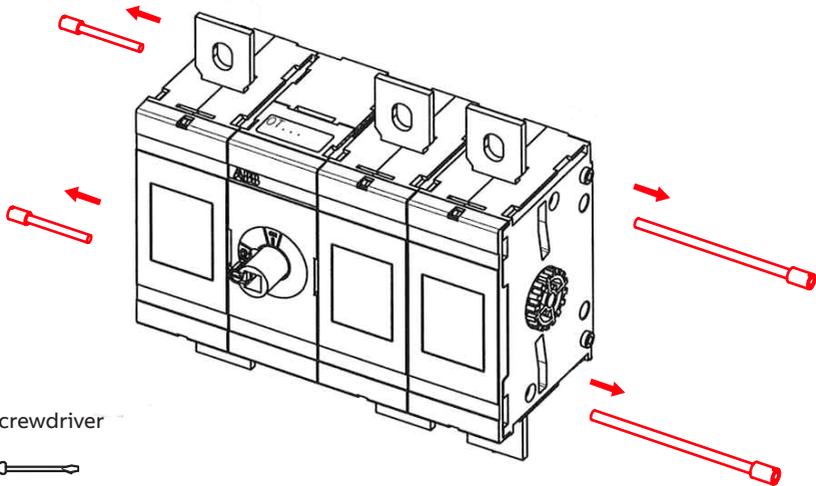


- 1 connecting part 6 poles
- 8 interm covers
- 2 switch-disconnectors

Disassembly of the switch-disconnector

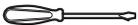
Phase 1 – Stud screws

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

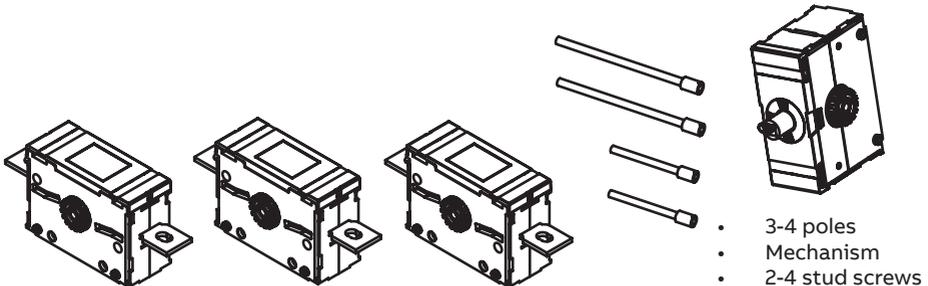


Tools

Flat screwdriver



Disassembled parts



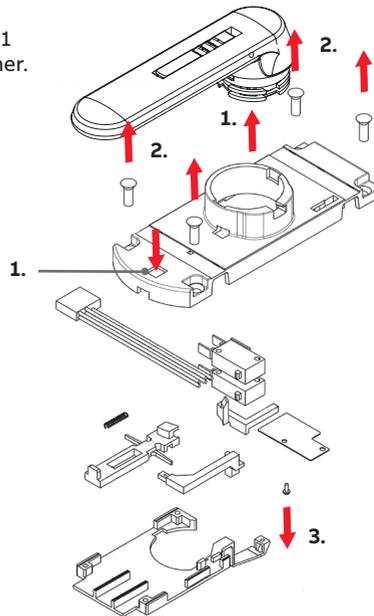
Disassembly of the handle kit

Phase 1,2,3 – Handle and other parts

1. Remove the handle by pressing on the clip and pulling the handle up.

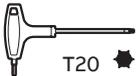
2. Use a torx key (size 20) to unscrew the 4 screws.

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



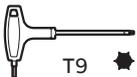
Tools

Torx key (size 20)



T20

Torx key (size 9)

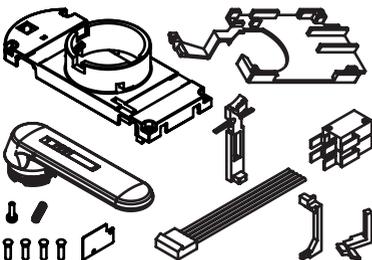


T9

Pliers



Disassembled parts



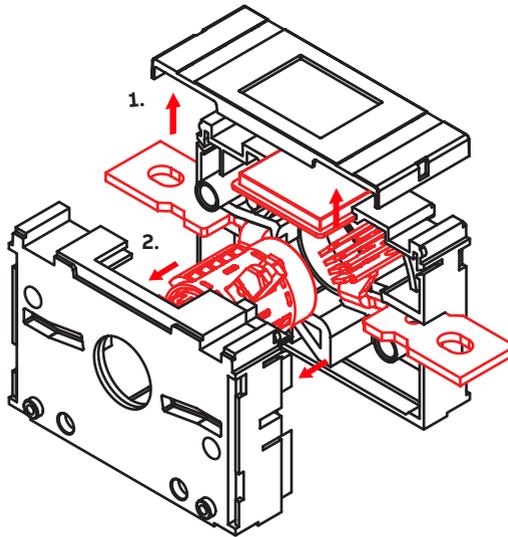
- 4 screws
- 1 screw
- 1 cover
- 1 compression spring
- 1 lock
- 1 bottom plate
- 1 mechanism for micros
- 1 locking bolt for micros
- 1 electric harness
- 1 insulator
- 1 handle

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.

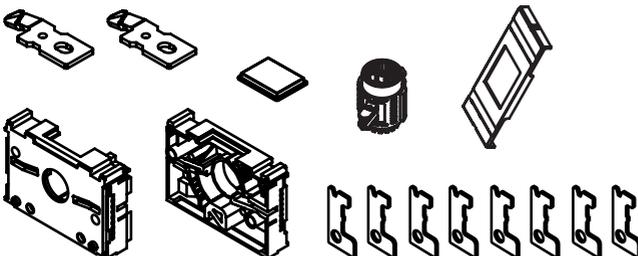


Tools

Flat screwdriver



Disassembled parts



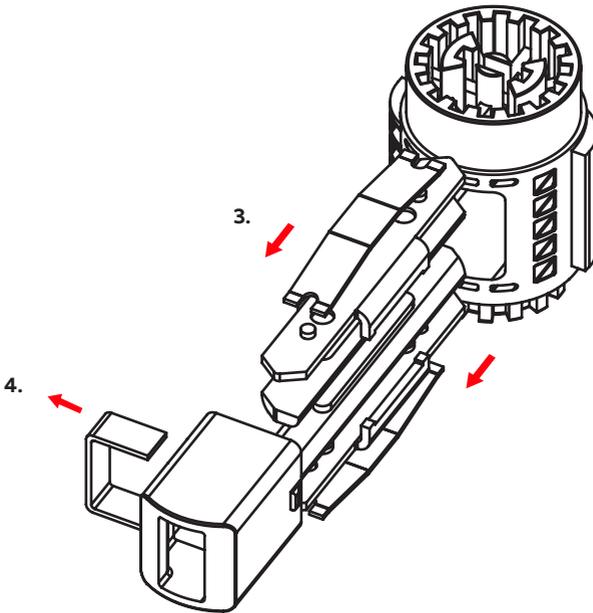
- Frame A
- Frame B
- Contact construction
- 2 fixed contacts
- 8 arc plates
- Cover
- Window



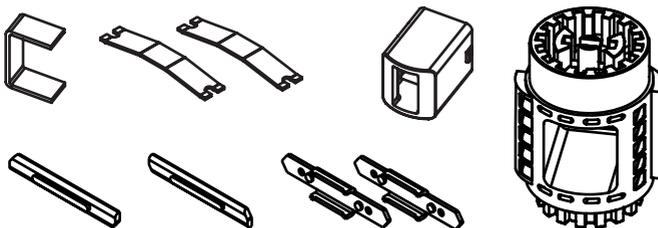
Phase 3 & 4 – Contact construction

3. Remove the knife structure from the roll manually.

4. Separate spring guide, locking piece, contact knives, contact springs and contact irons manually.



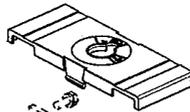
Disassembled parts



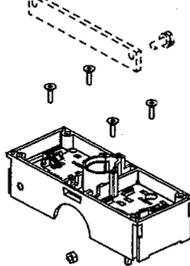
- Roll
- 1 contact knife
- 1 contact knife
- 2 contact irons
- 2 contact springs
- 1 spring guide

Disassembly of the mechanism

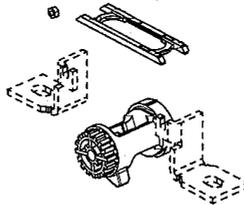
1. Remove the cover with the help of a flat screwdriver.



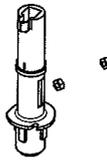
2. Unscrew the 4 screws with a torx key to remove the upper frame. Remove contact guide support and two steel nuts manually.



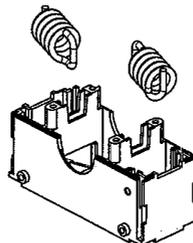
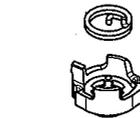
3. Remove the lever.



4. Remove pipesaft, lever and rhythm spring.

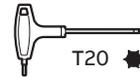


5. Remove the springs using pliers. Remove the two steel nuts manually.



Tools

Torx key (size 20)



T20

Flat screwdriver



Pliers



Disassembled parts

- Frame
- 2 springs
- 4 steel hex nuts
- Lever
- Pipesaft
- 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 OTM630-800_C

Component name	Quantity	Material(s)	Weight (g/pc)
Change-over switch	1	See component list	
End plate	2	Polycarbonate	132
Mounting plate	2	Steel	740
Screw	4	Steel	1
Screw	4	Steel	1
Contact guide support	2	Polyamide	18
Screw	8	Steel	1
Motor operator	1	Assembly	4700
Handle kit	1	See component list	270
Transmission shaft	1	Steel	20
Circlip	1	Steel	1

Change-over switch OT630-800E_C

Component name	Quantity	Material(s)	Weight (g/pc)
OT630-800E_C1	1	See component list	6060
OT630-800E_C2	1	See component list	6060
Connecting part 6 poles	1	Zinc alloy	110
Interm cover	8-10	Polycarbonate	10

Switch-disconnector OT630-800_C1

Component name	Quantity	Material(s)	Weight (g/pc)
Mechanism	1	See component list	1121
Pole	3-4	See component list	1364
Stud screw	2-4	Steel	10-35

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Switch-disconnector OT630-800_C2

Component name	Quantity	Material(s)	Weight (g/pc)
Mechanism	1	See component list	1165
Pole	3-4	See component list	1364
Stud screw	2-4	Steel	10-35

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Handle kit

Component name	Quantity	Material(s)	Weight (g/pc)
Cover	1	Polycarbonate	47
Lock	1	Polyamide	4
Compression spring	1	Steel	1
Screw	4	Steel	1
Bottom plate	1	Polycarbonate	13
Screw	4	Steel	1
Mechanism for micros	1	Polyamide	2
Locking bolt for micros	1	Polyamide	1
Insulator	1	Polycarbonate	1
Electric harness	1	Assembly	1
Handle	1	Assembly	120

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Pole

Component name	Quantity/pole	Material(s)	Weight (g/pc)
Frame A	1	Polyest-resin	348
Frame B	1	Polyest-resin	353
Contact knife	1	Copper	40
Contact knife	1	Copper	40
Contact iron	2	Steel	34
Contact spring	2	Chromium steel	7
Spring guide	1	Chromium steel	8
Roll	1	Polyamide	88
Locking piece	1	Polyamide	13
Arc plate	8	Steel	10
Fixed contact	2	Copper	142
Window	1	Polycarbonate	11
Cover	1	Polycarbonate	22

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Mechanism

Component name	Quantity	Material(s)	Weight (g/pc)
Frame	1	Polyamide	236
Frame	1	Polyamide	126
Cover	1	Polycarbonate	37
Pipeshaft	1	Zinc alloy	190
Lever	1	Zinc alloy	167
Lever	1	Zinc alloy	315
Spring	2	Chromium steel	7
Rhythm spring	1	Steel	26
Steel hex nut	4	Steel	2
Screw	4	Steel	2

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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