

DISASSEMBLY INSTRUCTIONS

# Switch Disconnectors

## OT1000–1600



---

# Table of contents

<b>003</b>	<b>Important information</b>
<b>004–005</b>	<b>Disassembly of the switch-disconnector</b>
<b>006–008</b>	<b>Disassembly of the pole</b>
<b>009</b>	<b>Disassembly of the mechanism</b>
<b>010–011</b>	<b>Component list</b>
<b>012</b>	<b>Recycling information in accordance with the WEEE</b>

## Important information

This document shows the disassembly process of OT1000–1600 switch-disconnectors. Accessories, such as shafts, clamps, shrouds, neutral links and auxiliary contacts are not included in this document.

### Safety Notes

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

Disassembly of switch-disconnectors 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 switch-disconnectors.

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 switch-disconnectors 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:



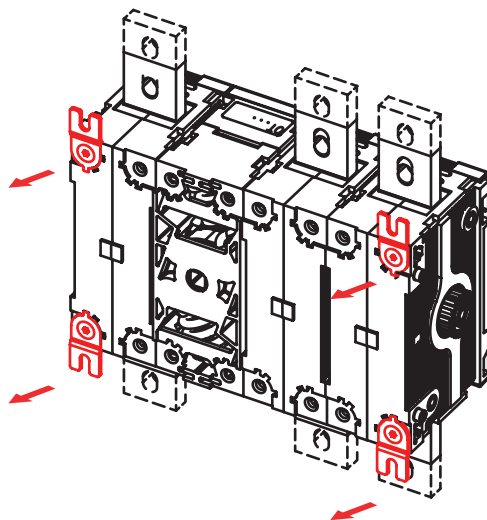
---

# Disassembly of the switch-disconnector

---

## Phase 1 – The mounting plates

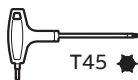
Use a torx key to unscrew the 4 screws fixing the mounting plates to the switch-disconnector.



---

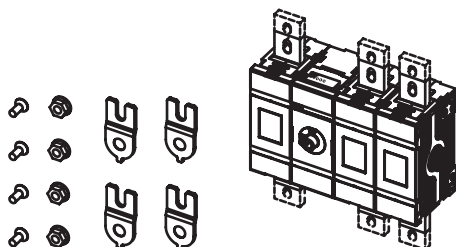
### Tools

Torx key (size 45)



---

### Disassembled parts

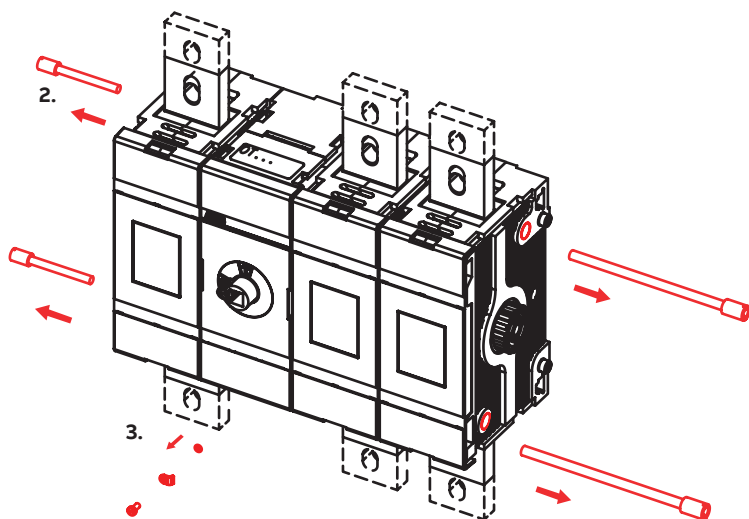


- 4 screws
- 4 hex nuts
- 4 mounting plates
- 1 mechanism with 1-4 poles

## Phase 2 & 3 – Stud screws and shaft locking

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

3. Use a flat screwdriver to remove shaft locking.

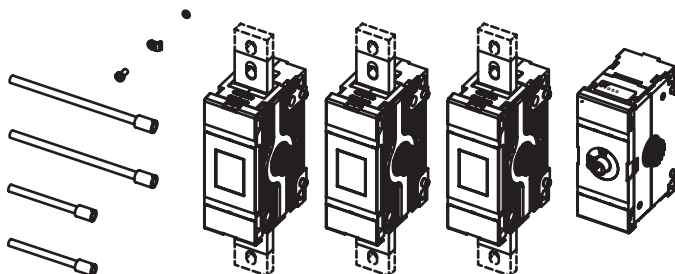


### Tools

Flat screwdriver



### Disassembled parts



- 2-4 stud screws
- 1 mechanism
- 1-4 poles
- Lock spring
- Slot screw
- Steel locking washer
- O-ring
- (8-14 filling plates + 8-14 guide wheels)\*



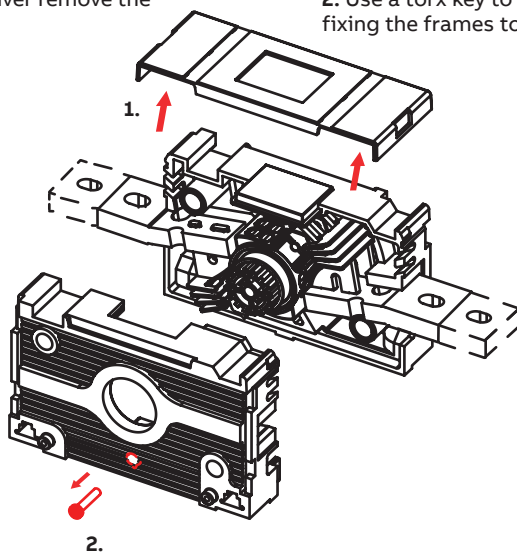
\*Filling plate and guide wheel only in UL / Wide phase distance products

# Disassembly of the pole

## Phase 1 & 2 – Cover and frame

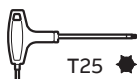
1. Use a flat screwdriver remove the cover.

2. Use a torx key to unscrew the screw fixing the frames to each other.



## Tools

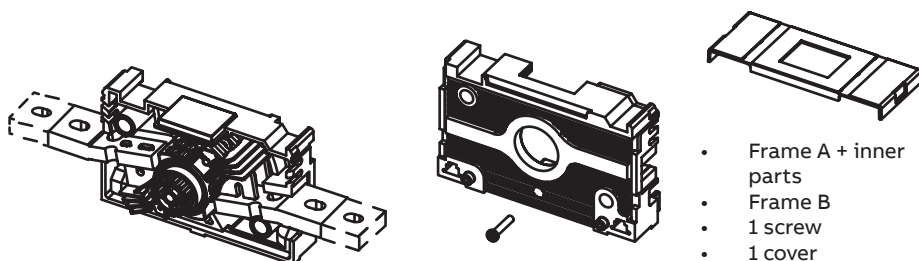
Torx key (size 25)



Flat screwdriver



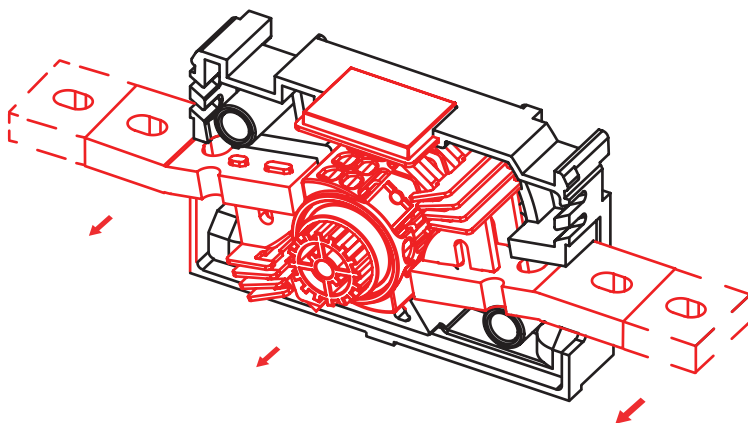
## Disassembled parts



---

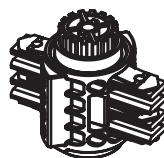
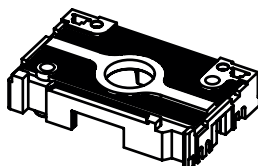
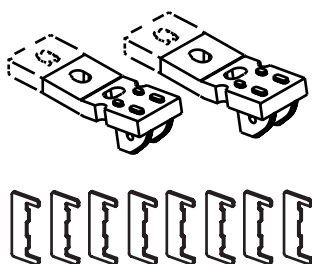
### Phase 3 – Inner components of the pole

Remove rest of the components (arc plates, roll with knife structure, fixed contacts and window) from frame A manually.



---

### Disassembled parts

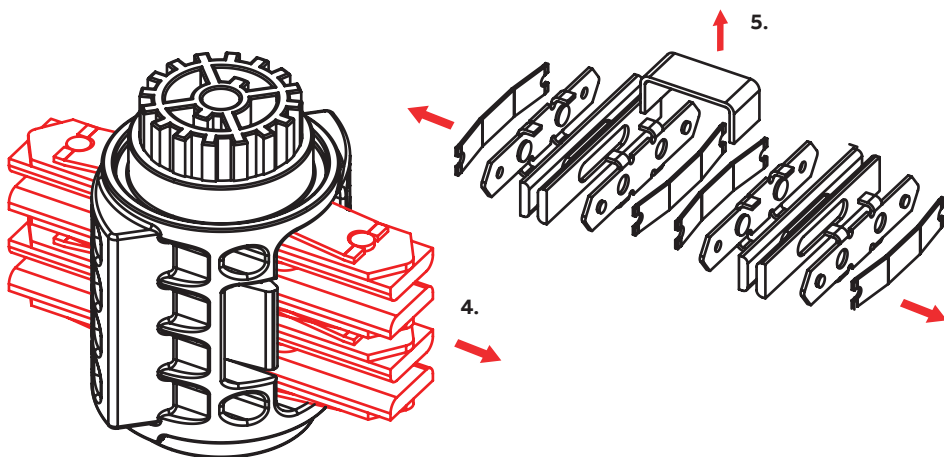


- Frame A
- Roll + knife structure
- Window
- 8 arc plates
- 2 fixed contacts

### Phase 4 & 5 – The contact construction

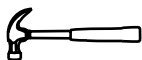
4. Remove the knife structure from the roll with a hammer.

5. Separate contact knives, contact springs and contact irons from each other by removing the guide support of spring.

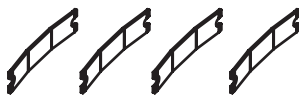
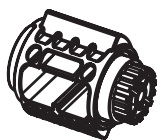


### Tools

Hammer



### Disassembled parts



- Roll
- 4 contact knives
- 4 contact springs
- 4 contact irons
- Guide support of spring



# 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 frame.

3. Remove hexnuts and contact guide support.

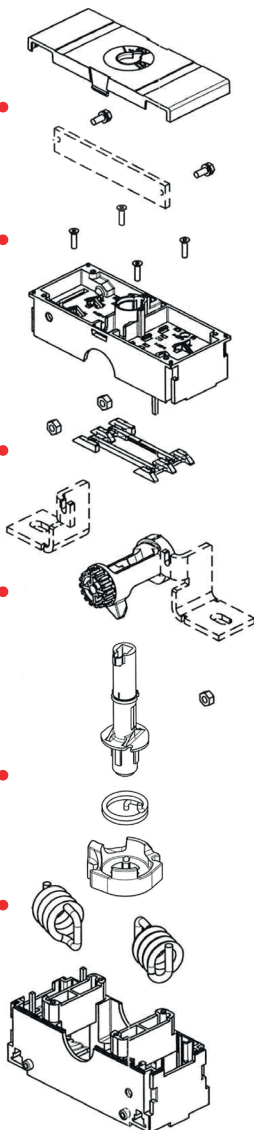
4. Remove the lever.

5. Remove pipesaft, lever and rhythm spring.

6. Remove the springs using pliers.

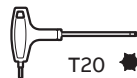


**Note!** Pay special attention to tensioned springs. Use personal protective equipment.



## Tools

Torx key (size 20)



Flat screwdriver



Pliers



## Disassembled parts

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

# Component list

## Switch-disconnector

Component name	Quantity	Material(s)	Weight (g/pc)
Mechanism	1	See component list below	2110,7
Pole	1-4	See component list below	3995,7
Lock spring	1	Steel	0,2
Slot screw	1	Chromium steel	2,0
Steel locking washer	1	Steel	0,4
O-ring	1	Rubber	0,0
Mounting plate	4	Steel	28,2
Screw	4	Steel	9,9
Hex nut	4	Steel	6,4
Stud screw	2-4	Steel	37,0-110,0
Label set/YKLW8049-1	1	Polyest-resin	0,2
Label set/YKLW8009-1	1	Polyest-resin	0,2
Address plate	1	Polyest-resin	0,0
Guide wheel*	8-14	Zinc alloy	150,0
Filling plate*	8-14	Polycarbonate	127,0

\*Filling plate and guide wheel only in UL / wide phase distance products

## Pole

Component name	Quantity/pole	Material(s)	Weight (g/pc)
Frame A	1	Polyest-resin	715,1
Frame B	1	Polyest-resin	759,5
Cover	1	Polycarbonate	47,3
Window	1	Polycarbonate	10,8
Arc plate	8	Steel	14,0
Screw	1	Steel	9,2
Roll	1	Polyarylamide	113,5
Guide support of spring	1	Chromium steel	41,9
Contact knife	4	Copper	93,6
Contact iron	4	Steel	35,9

Component name	Quantity	Material(s)	Weight (g/pc)
Contact spring	4	Chromium steel	15,3
Fixed contact	2	Copper	1607,1

—

**Mechanism**

Component name	Quantity	Material(s)	Weight (g/pc)
Frame	1	Polyamide	487,0
Frame	1	Polyamide	226,2
Contact guide support	1	Polyamide	14,9
Cover	1	Polycarbonate	60,6
Pipesaft	1	Zinc alloy	268,9
Lever	1	Zinc alloy	282,3
Lever	1	Zinc alloy	365,3
Spring	2	Steel	169,1
Rhythm spring	1	Steel	39,0
Steel hex nut	4	Steel	5,4
Screw	4	Chromium steel	1,7

## 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.



---

## Contact us

### **ABB Oy**

P.O. Box 622

FI-65101 Vaasa

Finland

**[abb.com/lowvoltage](https://abb.com/lowvoltage)**