

ROBOTICS

# Product manual, spare parts

IRB 1510



Trace back information:  
Workspace 23C version a8  
Checked in 2023-09-21  
Skribenta version 5.5.019

**Product manual, spare parts**

**IRB 1510ID - 4/1.5**

IRC5, IRC5C

Document ID: 3HAC087872-001

Revision: A

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# Overview of this manual

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## About this manual

This manual contains spare parts for:

- IRB 1510
- 

## Usage

This manual shall be used as a complement to the product manual for IRB 1510 during:

- maintenance work
  - repair work.
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## Who should read this manual?

This manual is intended for:

- maintenance personnel
  - repair personnel.
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## Prerequisites

Maintenance/repair/installation personnel working with an ABB Robot must:

- be trained by ABB and have the required knowledge of mechanical and electrical installation/repair/maintenance work.
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## References

Reference	Document ID
<i>Product manual - IRB 1510</i>	<i>3HAC087870-001</i>
<i>Circuit diagram - IRB 1510</i>	<i>3HAC087368-003</i>

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## Revisions

Revision	Description
A	First edition

# Product documentation

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### Categories for user documentation from ABB Robotics

The user documentation from ABB Robotics is divided into a number of categories. This listing is based on the type of information in the documents, regardless of whether the products are standard or optional.



#### Tip

All documents can be found via myABB Business Portal, [www.abb.com/myABB](http://www.abb.com/myABB).

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### Product manuals

Manipulators, controllers, DressPack, and most other hardware is delivered with a **Product manual** that generally contains:

- Safety information.
- Installation and commissioning (descriptions of mechanical installation or electrical connections).
- Maintenance (descriptions of all required preventive maintenance procedures including intervals and expected life time of parts).
- Repair (descriptions of all recommended repair procedures including spare parts).
- Calibration.
- Troubleshooting.
- Decommissioning.
- Reference information (safety standards, unit conversions, screw joints, lists of tools).
- Spare parts list with corresponding figures (or references to separate spare parts lists).
- References to circuit diagrams.

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### Technical reference manuals

The technical reference manuals describe reference information for robotics products, for example lubrication, the RAPID language, and system parameters.

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### Application manuals

Specific applications (for example software or hardware options) are described in **Application manuals**. An application manual can describe one or several applications.

An application manual generally contains information about:

- The purpose of the application (what it does and when it is useful).
- What is included (for example cables, I/O boards, RAPID instructions, system parameters, software).
- How to install included or required hardware.
- How to use the application.

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- Examples of how to use the application.

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**Operating manuals**

The operating manuals describe hands-on handling of the products. The manuals are aimed at those having first-hand operational contact with the product, that is production cell operators, programmers, and troubleshooters.

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# 1 Spare part lists and illustrations

## 1.1 Spare parts - complete robot

### Spare part list

Pos.	Description	Spare part no.	Qty
A	Labels and plate set	3HAC039497-001	1 pc

# 1 Spare part lists and illustrations

## 1.2 Spare parts - motors

### 1.2 Spare parts - motors

#### Spare part list

All the spare part numbers for the motors include both the pinion and required o-ring. The o-ring can also be ordered separately and is listed directly under the motor spare part.



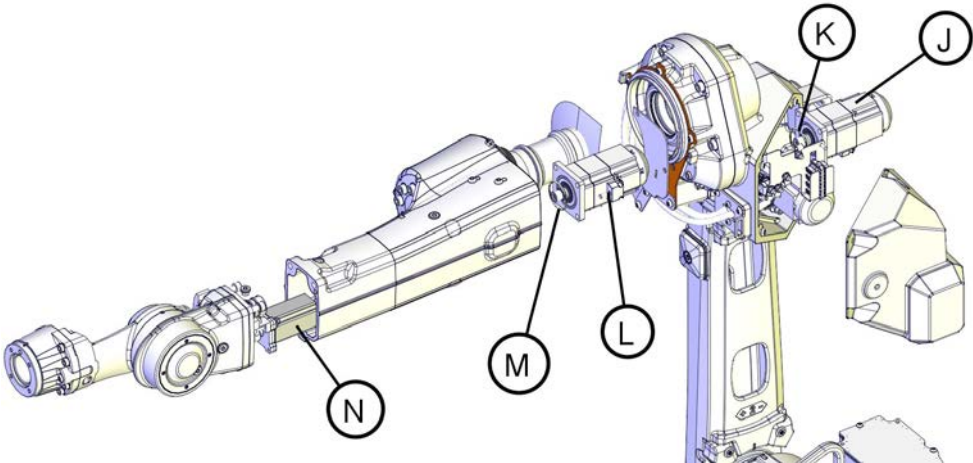
#### Note

Motors and connection boxes for Type B are not compatible with other types and can therefore only be used to replace other motors and connection boxes of Type B.

Pos.	Description	Spare part no.	Color	Qty
A	Motor, axis 1	3HAC050430-001 (for other than Type B)	Graphite White	1 pc
		3HAC054858-001 (for Type B)		
B	O-ring, axis 1 motor	3HAB3772-102	-	1 pc
C	Connection box	3HAC050431-001 (for other than Type B)	Graphite White	2 pcs
		3HAC056382-001 (for Type B)		
D	Motor cover	3HAC050432-001	Graphite White	2 pcs
E	Motor, axis 2	3HAC050433-001 (for other than Type B)	Graphite White	1 pc
		3HAC054860-001 (for Type B)		
F	O-ring, axis 2 motor	3HAB3772-102	-	1 pc
G	Motor, axis 3	3HAC041749-001 (for other than Type B)	-	1 pc
		3HAC054861-001 (for Type B)		
H	O-ring, axis 3 motor	3HAB3772-112	-	1 pc
J	Motor, axis 4	3HAC021799-003	-	1 pc
K	O-ring, axis 4 motor	3HAB3772-81	-	1 pc
L	Motor, axis 5	3HAC021799-003	-	1 pc
M	O-ring, axis 5 motor	3HAB3772-81	-	1 pc
N	Motor, axis 6	3HAC17342-1	-	1 pc

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Spare part - illustrations



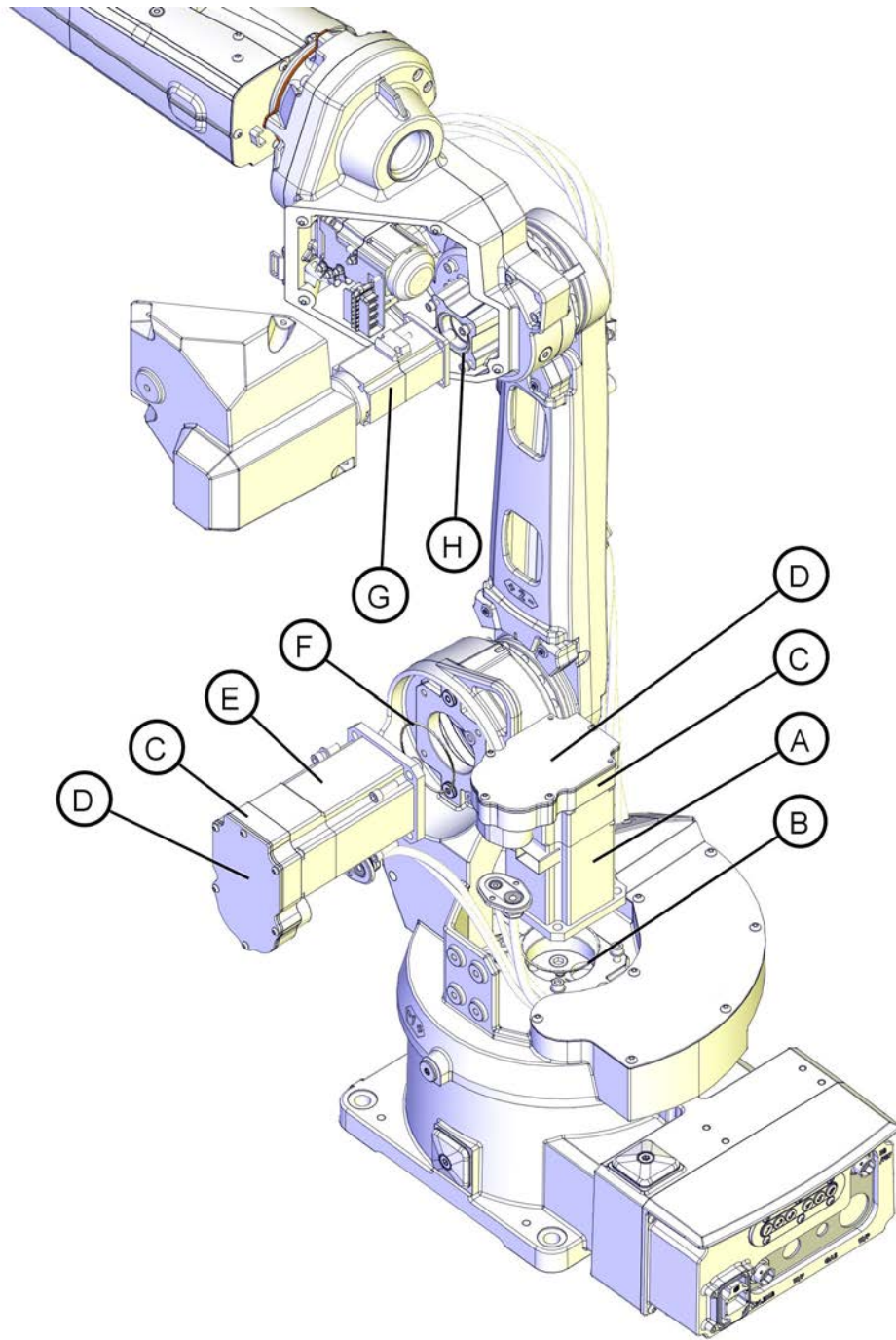
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# 1 Spare part lists and illustrations

## 1.2 Spare parts - motors

Continued



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### 1.3 Spare parts - gearboxes

#### Spare part list

Pos.	Description	Spare part no.	Color	Qty
A	Gearbox, axis 1	3HAC037835-001	-	1 pc
B	O-ring, axis 1 gearbox	3HAB3772-65	-	1 pc
C	O-ring, axis 1 gearbox	21520431-20	-	6 pcs
D	Gearbox, axis 2	3HAC050429-001	Graphite White	1 pc
E	Gearbox, axis 3	3HAC050429-001	Graphite White	1 pc

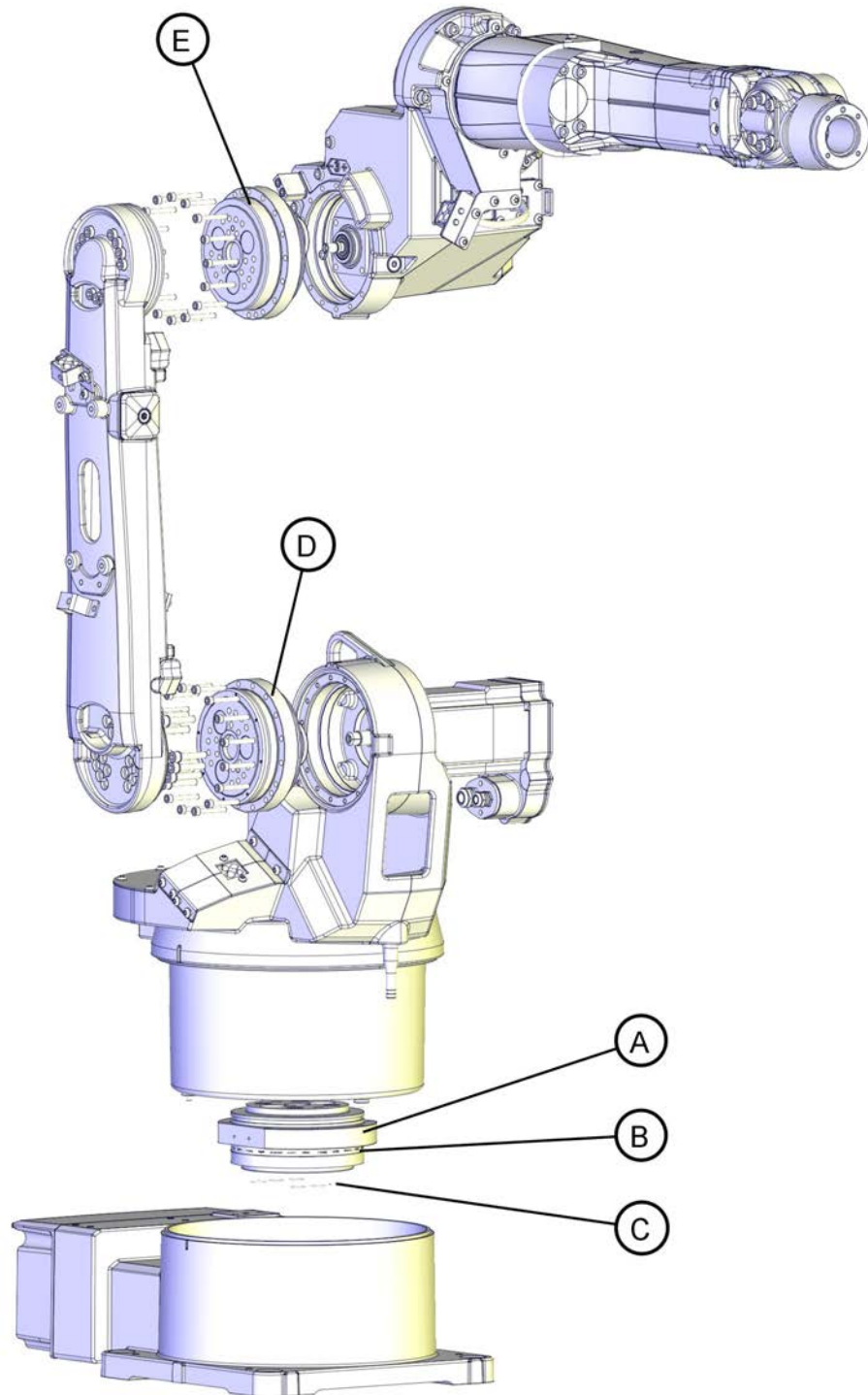
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# 1 Spare part lists and illustrations

## 1.3 Spare parts - gearboxes

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### Spare part - illustration



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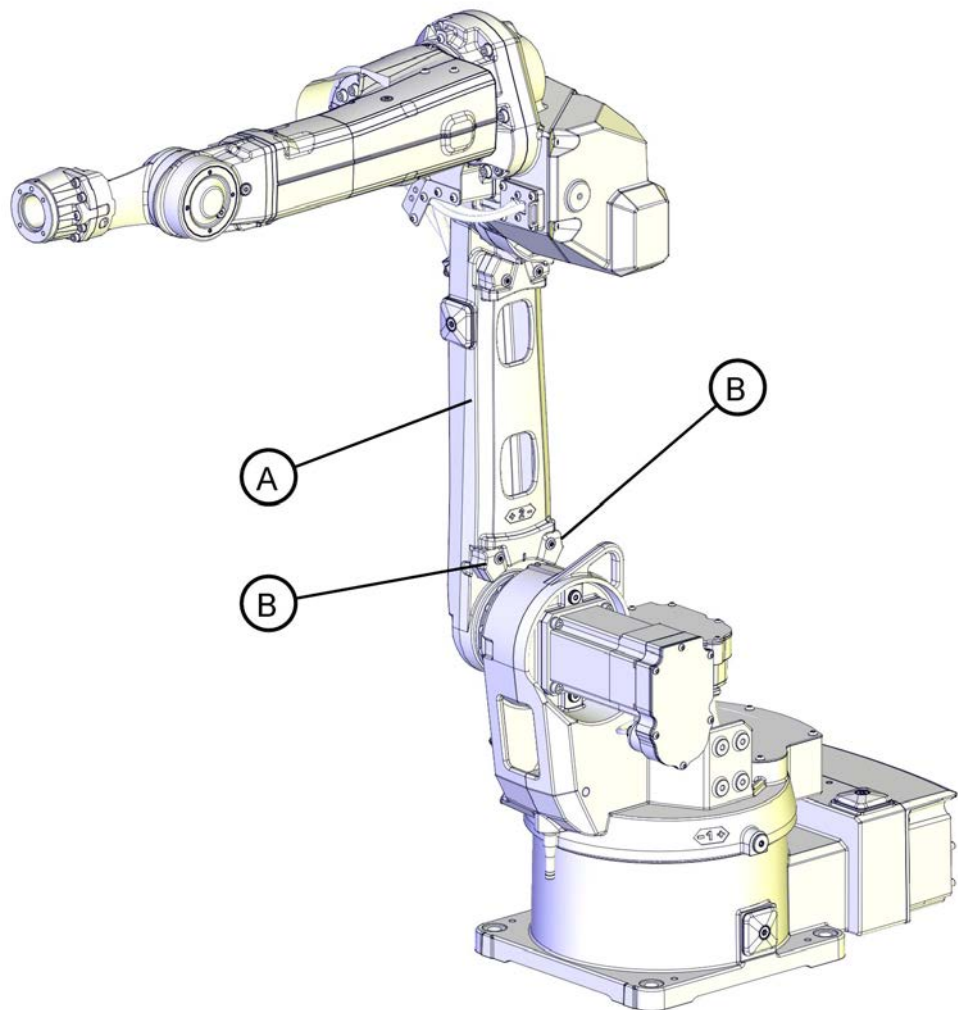


### 1.4 Spare parts - lower arm

#### Spare part list

Pos.	Description	Spare part no.	Color	Qty
A	Lower arm	3HAC050427-001	Graphite White	1 pc
B	Damper, axis 2	3HAC041533-001	-	2 pcs

#### Spare part - illustration



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# 1 Spare part lists and illustrations

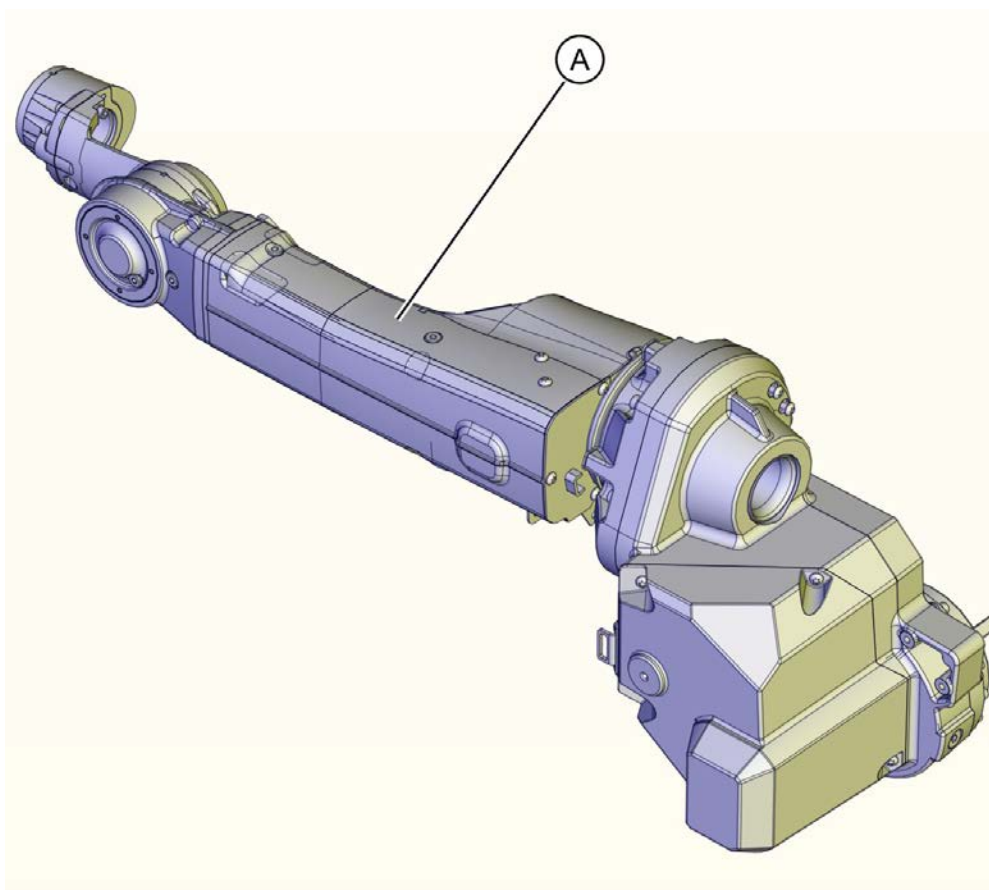
## 1.5 Spare parts - upper arm and wrist

### 1.5 Spare parts - upper arm and wrist

#### Spare part list

Pos.	Description	Spare part no.	Color	Qty
A	Upper arm	3HAC050426-001	Graphite White	1 pc
B	Wrist	3HAC050411-001	Graphite White	1 pc
C	Cable harness	3HAC027523-001	-	1 pc
D	Armhouse cover	3HAC050425-001	Graphite White	1 pc
E	Mechanical stop, axis 3	3HAC041768-001	-	1 pc
F	Cover, upper arm tube	3HAC050413-001	Graphite White	1 pc
G	Bracket	3HAC040074-001	-	1 pc
H	V-ring, axis 4	3HAB3732-25	-	1 pc
I	Torx pan head screw	3HAC080811-001	-	4 pcs

#### Spare part - illustration

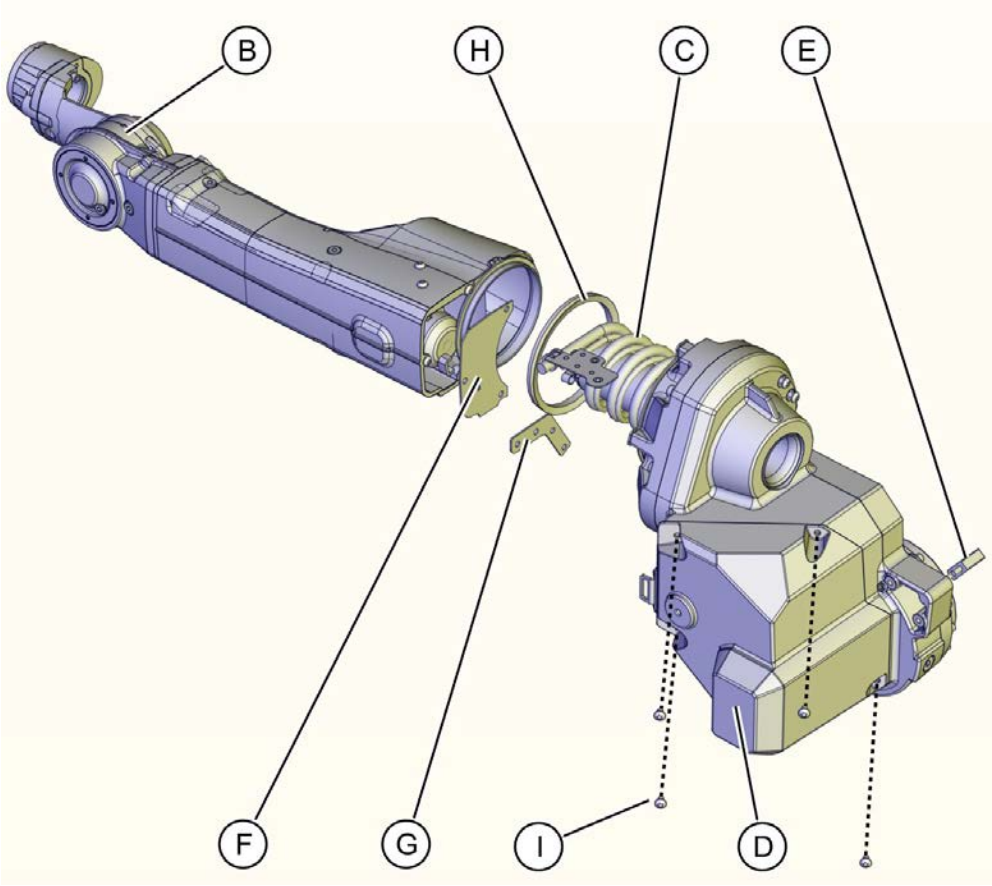


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1 Spare part lists and illustrations

1.5 Spare parts - upper arm and wrist  
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# 1 Spare part lists and illustrations

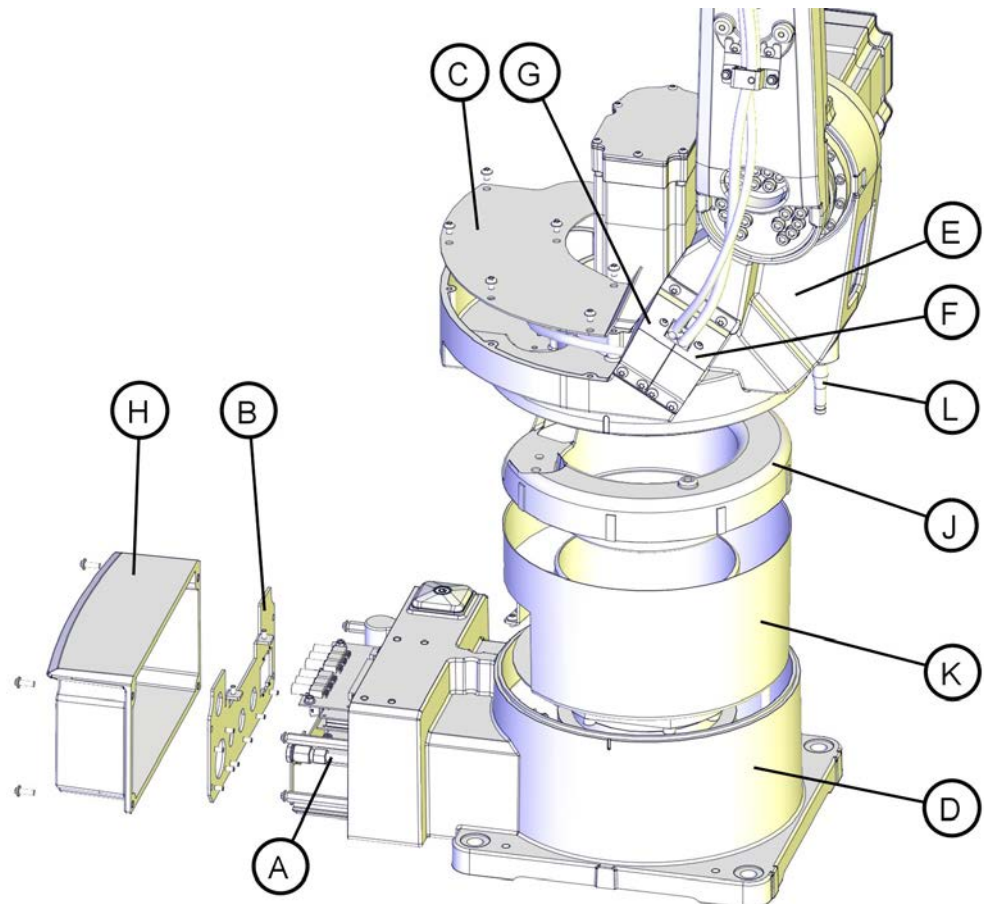
## 1.6 Spare parts - base and frame

### 1.6 Spare parts - base and frame

#### Spare part list

Pos.	Description	Spare part no.	Color	Qty
A	Oil draining tube	3HAC041258-001	-	1 pc
B	Plate for connector	3HAC039881-001	-	1 pc
C	Cover, frame	3HAC050424-001	Graphite White	1 pc
D	Base	3HAC050420-001	Graphite White	1 pc
E	Frame	3HAC050423-001	Graphite White	1 pc
F	Cover	3HAC050421-001	Graphite White	1 pc
G	Cover	3HAC050422-001	Graphite White	1 pc
H	Base cover, including gas-ket (3HAC039951-001)	3HAC050419-001	Graphite White	1 pc
J	Cable protection, frame	3HAC039159-001	-	1 pc
K	Cable protection, base	3HAC039158-001	-	1 pc
L	Mechanical stop, axis 1	3HAC041530-001	-	1 pc

#### Spare part - illustration



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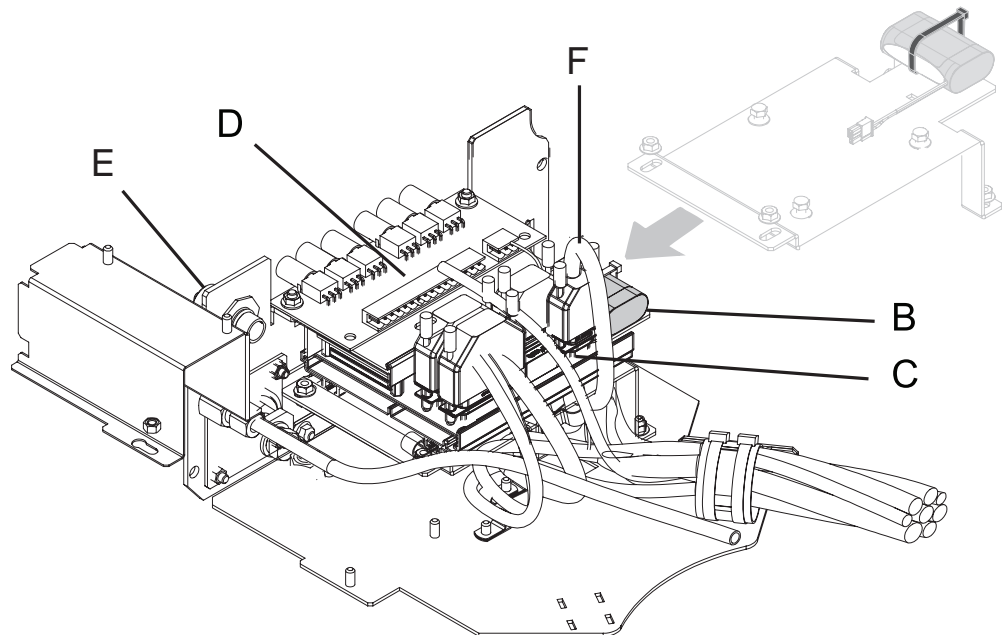
### 1.7 Spare parts - cable harness, brake release and SMB

#### Spare part list

Pos.	Description	Spare part no.	Note
-	Cable harness, standard	3HAC039515-001	
-	Cable harness, AW	3HAC039514-001	
B	Battery pack (3-pole battery contact)	3HAC044075-001	RMU Lithium Can only be used with SMB board 3HAC044168-001
C	Serial measurement board	3HAC044168-001	RMU 101
D	Brake release board/Push button unit	3HAC064944-001	DSQC1054
E	Protection screw	3HAC079177-001	
F	Signal cable SMB	3HAC4050-1	

#### Spare part - illustration

RMU 101



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# 1 Spare part lists and illustrations

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## 1.8 Spare parts - options

### 1.8 Spare parts - options

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#### Spare part list

Pos.	Description	Spare part no.	Note
-	Cable FB7-SMB 1.7	3HAC15619-1	Option 864-1 On base





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