

ROBOTICS

Product manual, spare parts

IRB 1200



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Product manual, spare parts

IRB 1200-5/0.9

IRB 1200-5/0.9 type A

IRB 1200-5/0.9 type B

IRB 1200-7/0.7

IRB 1200-7/0.7 type A

IRB 1200-7/0.7 type B

IRB 1200-7/0.9

IRC5, OmniCore

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Revision: S

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Original instructions.

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Overview of this manual

About this manual

This manual contains spare parts for:

- IRB 1200 and all its variants.

Usage

This manual shall be used as a complement to the product manual for IRB 1200 during:

- maintenance work
- repair work.

Who should read this manual?

This manual is intended for:

- maintenance personnel
- repair personnel.

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.

Organization of chapters

The manual is organized in the following chapters:

Chapter	Contents
1 Spare parts and exploded view	Complete spare part list and complete list of robot components shown in exploded views.

References

Reference	Document ID
<i>Product manual - IRB 1200</i>	<i>3HAC046983-001</i>
<i>Circuit diagram - IRB 1200</i>	<i>3HAC046307-003</i>

Revisions

Revision	Description
-	First edition
A	The following updates are made in this revision: <ul style="list-style-type: none"> • The spare part numbers for the battery pack and the axis-4 FPC unit are changed.
B	The following updates are made in this revision: <ul style="list-style-type: none"> • The spare part numbers for the base, the swing and some of the sealings between the base and swing are updated. • Spare parts with food grade lubrication added. • Spare part numbers for several gaskets (IP67) updated.

Continues on next page

Revision	Description
C	<p>Published in release R16.2. The following updates are done in this revision:</p> <ul style="list-style-type: none"> • Spare part illustration updated, in Spare parts - base on page 23, Spare parts - swing on page 26, and Spare parts - information labels on page 63. • Spare parts that are affected by Axis Calibration and Foundry Plus are updated. • Spare part items that belong to the standard calibration method (Axis Calibration) added. See Spare parts - Axis Calibration items on page 67. • Protection plug for the calibration hole in the swing added, see Spare parts - swing on page 26.
D	<p>Published in release R17.1. The following updates are done in this revision:</p> <ul style="list-style-type: none"> • V-ring on axis-1 sealing ring version 3HAC058568-001 added as a spare part. • Notes added for spare part versions. See Description of spare part versions on page 77. • Spare part items that belong to SafeMove 2 added. • Spare part lists restructured based on options. • Plug on base added to options IP67 and Foundry Plus.
E	<p>Published in release R18.1. The following updates are done in this revision:</p> <ul style="list-style-type: none"> • Spare part number of axis-4 gearbox shaft changed from 3HAC049631-001 to 3HAC044692-001.
F	<p>Published in release R18.2. The following updates are done in this revision:</p> <ul style="list-style-type: none"> • Spare part information about axis-2 drive unit and axis-3 drive unit updated.
G	<p>Published in release 19B. The following updates are made in this revision:</p> <ul style="list-style-type: none"> • Minor editorial changes. • Figure of protection plug for busing, clean room and food grade lubrication updated.
H	<p>Published in release 19D. The following updates are made in this revision:</p> <ul style="list-style-type: none"> • Spare part version of axis-1 sealing ring updated. See Spare part versions for the axis-1 sealing ring on IP40/IP67 robots on page 80. • Compatibility between cable harness and axis-1 sealing ring added. See Spare part versions for the axis-1 sealing ring on IP40/IP67 robots on page 80.
J	<p>Published in release 21C. The following updates are done in this revision:</p> <ul style="list-style-type: none"> • Spare parts for the Hygienic option added. • Spare part numbers for several gaskets updated.
K	<p>Published in release 22A. The following updates are done in this revision:</p> <ul style="list-style-type: none"> • IRB 1200 Hygienic supported working with OmniCore C line controllers. See Manipulator description on page 71.
L	<p>Published in release 22B. The following updates are done in this revision:</p> <ul style="list-style-type: none"> • IRB 1200 Hygienic supported working with OmniCore E line controllers. See Manipulator description on page 71. • Updated spare part article numbers of main cable harnesses for IRB 1200 Type B.
M	<p>Published in release 22C. The following updates are done in this revision:</p> <ul style="list-style-type: none"> • Updated spare part article numbers for swing, axis-2 sealing ring and axis-3 sealing ring. • Added robot description for new appearance design.

Revision	Description
N	Published in release 23B. The following updates are done in this revision: <ul style="list-style-type: none"> • Added spare part Swing bracket transfer 3HAC044925-001. • Updated spare part article numbers of gasket on process hub, gasket for tubular cover and gasket for tubular cable housing cover.
P	Published in release 23C. The following updates are done in this revision: <ul style="list-style-type: none"> • Updated the supported protection types for M2 variseal sealing used on the tubular because it is not used for IP40 robot.
Q	Published in release 23D. The following updates are done in this revision: <ul style="list-style-type: none"> • Added new robot variant IRB 1200-7/0.9.
R	Published in release 24B. The following updates are done in this revision: <ul style="list-style-type: none"> • Updated spare part article numbers of axis-2 sealing ring, axis-3 sealing ring and the sleeve on drive unit of axis-5 and axis-6.
S	Published in release 24C. The following updates are done in this revision: <ul style="list-style-type: none"> • IRB 1200-7/0.9 supported working with OmniCore C line controllers. See Manipulator description on page 71. • Updated the spare part number and supported protection type of M12 protector. • Updated the spare part article numbers of Gasket for tubular cover, Gasket for tubular cable housing cover, and Housing cover gasket to support robots in different protection types. • Updated the spare part article number of Axis-1 sealing ring used for robots in different protection types.

Product documentation

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.

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.

Technical reference manuals

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

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.

Continues on next page

- Examples of how to use the application.

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 parts and exploded views

1.1 Spare parts - electrical parts

Manipulator cable harness

Spare part list - IRB 1200 (no type specified) and IRB 1200 Type A

	Spare part number	Description	Standard (IP40)	IP67	Foundry Plus	Clean Room	Food Grade lubrication	Hygienic
A	3HAC059673-001	Manipulator cable harness with Ethernet (rear interface)	X	X	X			
	3HAC059674-001	Manipulator cable harness without Ethernet (rear interface)	X	X	X			
	3HAC056219-001	Manipulator cable harness with Ethernet (rear interface), Clean Room Manipulator cable harness with Ethernet (rear interface), food grade lubrication				X	X	
	3HAC056220-001	Manipulator cable harness without Ethernet (rear interface), Clean Room Manipulator cable harness without Ethernet (rear interface), food grade lubrication				X	X	
B	3HAC051415-001	Manipulator cable harness with Ethernet (bottom interface)	X	X	X	X	X	
	3HAC051416-001	Manipulator cable harness without Ethernet (bottom interface)	X	X	X	X	X	

Continues on next page

1 Spare parts and exploded views

1.1 Spare parts - electrical parts

Continued

Spare part list - IRB 1200 Type B

	Spare part number	Description	Standard (IP40)	IP67	Foundry Plus	Clean Room	Food Grade lubrication	Hygienic
A	3HAC084083-001	Manipulator cable harness with Ethernet (rear interface), SafeMove 2-supported	X	X	X			
	3HAC084086-001	Manipulator cable harness without Ethernet (rear interface), SafeMove 2-supported	X	X	X			
	3HAC084084-001	Manipulator cable harness with Ethernet (rear interface), Clean Room and SafeMove 2-supported Manipulator cable harness with Ethernet (rear interface), food grade lubrication and SafeMove 2-supported Manipulator cable harness with Ethernet (rear interface), Hygienic				X	X	X
	3HAC084087-001	Manipulator cable harness without Ethernet (rear interface), Clean Room and SafeMove 2-supported Manipulator cable harness without Ethernet (rear interface), food grade lubrication and SafeMove 2-supported Manipulator cable harness without Ethernet (rear interface), Hygienic				X	X	X
B	3HAC084082-001	Manipulator cable harness with Ethernet (bottom interface), SafeMove 2-supported Manipulator cable harness with Ethernet (bottom interface), Hygienic.	X	X	X	X	X	X
	3HAC084085-001	Manipulator cable harness without Ethernet (bottom interface), SafeMove 2-supported Manipulator cable harness without Ethernet (bottom interface), Hygienic.	X	X	X	X	X	X

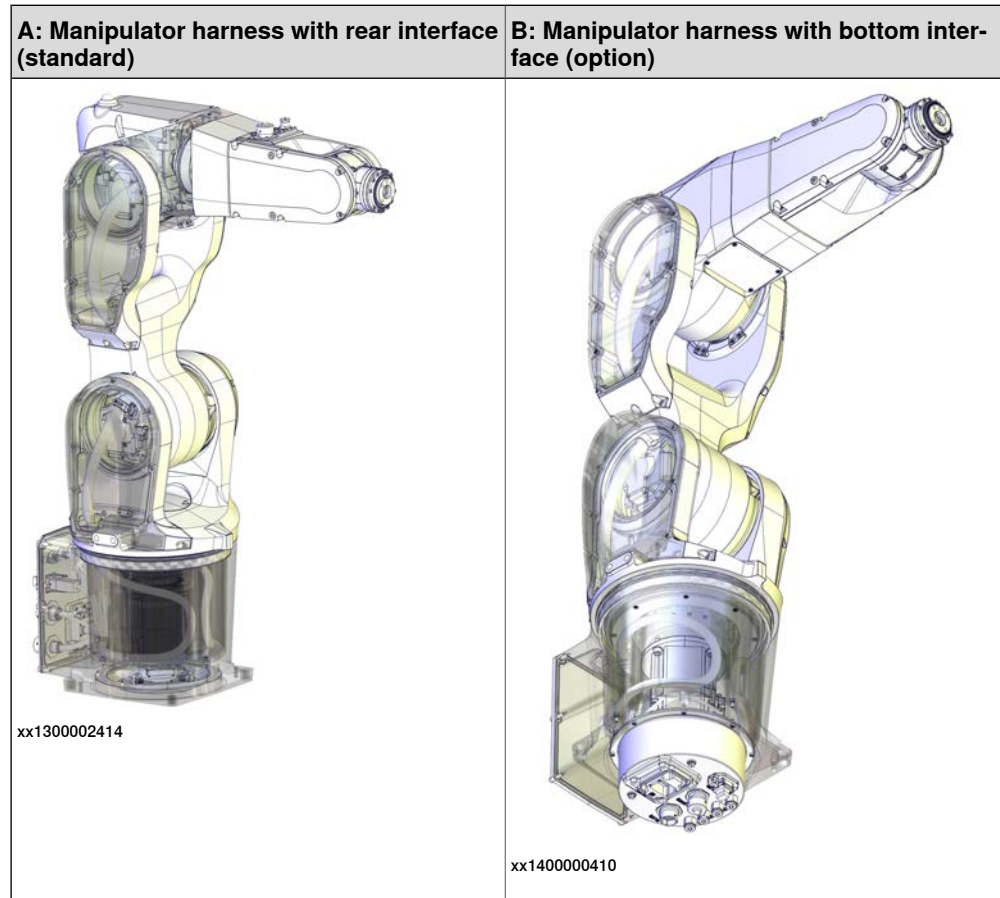
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1 Spare parts and exploded views

1.1 Spare parts - electrical parts

Continued

Spare part illustration



Manipulator cable harness parts

Spare part list

	Spare part number	Description	Note	Standard		Foundry Plus	Clean Room	Food Grade Lubrication	Hygienic
				(IP40)	IP67				
A	3HAC049664-001	Air connector set with Ethernet hole in flange	Includes tubular flange, air connectors and seal bolts. Replace if damaged.	X	X	X	X	X	
	3HAC049665-001	Air connector set without Ethernet hole in flange	Includes tubular flange, air connectors and seal bolts. Replace if damaged.	X	X	X	X	X	
B	3HAC080708-001	Gasket			X	X			
C	3HAC044906-001	One-way valve			X	X	X	X	X
D	3HAC049667-001	Base bottom cover (standard configuration)		X	X	X	X	X	X
E	3HAC058566-001 / 3HAC080710-001 ⁱ	Gasket for rear base cover			X	X	X	X	X
F	3HAC082235-001	FPC unit, axis 4		X	X	X	X	X	X

Continues on next page

1 Spare parts and exploded views

1.1 Spare parts - electrical parts

Continued

	Spare part number	Description	Note	Standard		Foundry Plus	Clean Room	Food Grade	
				(IP40)	IP67			lubrication	Hygienic
G	3HAC045743-001	FPC unit, axis 5		X	X	X	X	X	X
H	3HAC059675-001	Base rear cover, without connector interface		X	X	X			
	3HAC056147-001	Base rear cover, without connector interface, Clean Room Base rear cover, without connector interface, food grade lubrication Base rear cover, without connector interface, Hygienic					X	X	X
J	3HEA800897-002	Dust cap		X	X	X	X	X	X
K	3HAC073531-001	M12 protector		X	X	X	X	X	X
L	3HAC058350-001	Protection bracket for CP/CS connectors				X			
M	3HAC079691-001	Plate with connector set	Used with protection type Hygienic. Includes Ethernet connector, air connectors, CP/CS connector and gasket (3HAC078804-001).						X
N	3HAC078804-001	Gasket							X
P	3HAC078810-001	Plate without connector set	Used with protection type Hygienic. Includes gasket (3HAC078804-001).						X
-	3HAC049663-001	Cable harness material set	Includes brackets, sheets, distance screws, plastics, cable clamp, seal bolts and air protection in tubular.	X	X	X	X	X	X
-	3HAC032296-001	Cable harness CP/CS		X	X	X	X	X	X
-	3HAC037038-001	R1.CP/CS connector set		X	X	X	X	X	X
-	3HAC037070-001	R3.CP/CS connector set		X	X	X	X	X	X
-	3HAB3772-141	O-ring		X	X	X	X	X	X
-	3HAC047542-001	M12 plug (CP/CS)		X	X	X	X	X	X
-	3HAC047538-001	RJ 45 plug (CP/CS)		X	X	X	X	X	X
-	3HAC047540-001	Ethernet cable harness for upper arm		X	X	X	X	X	X
-	3HAB3772-19	O-ring		X	X	X	X	X	X

- i For robots with protection class IP67, with protection types Foundry Plus and Clean Room, and with food grade lubrication, order with the number 3HAC058566-001.
For robots with protection type Hygienic, order with the number 3HAC080710-001.

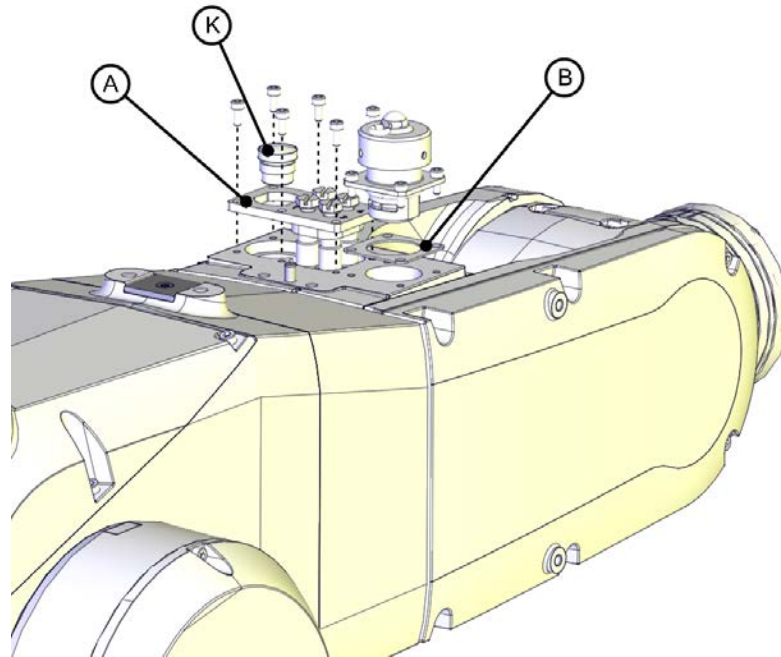
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1 Spare parts and exploded views

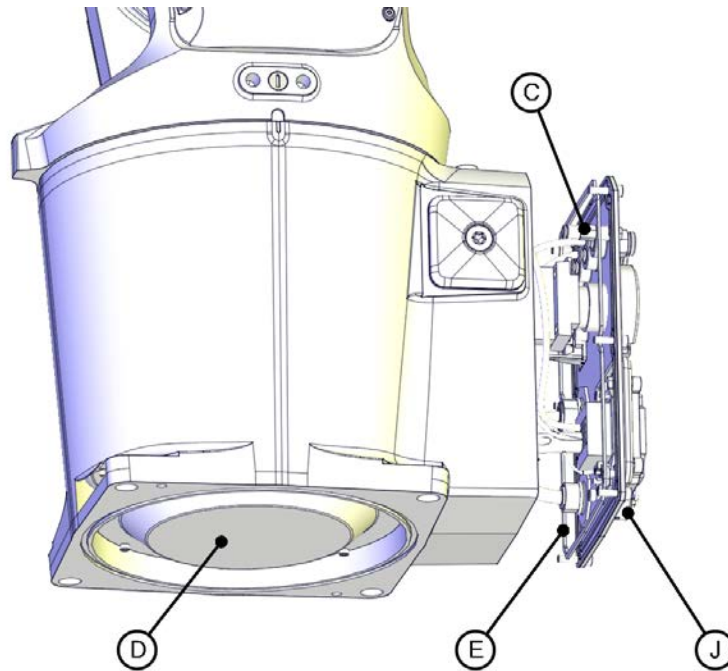
1.1 Spare parts - electrical parts

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Spare part illustration



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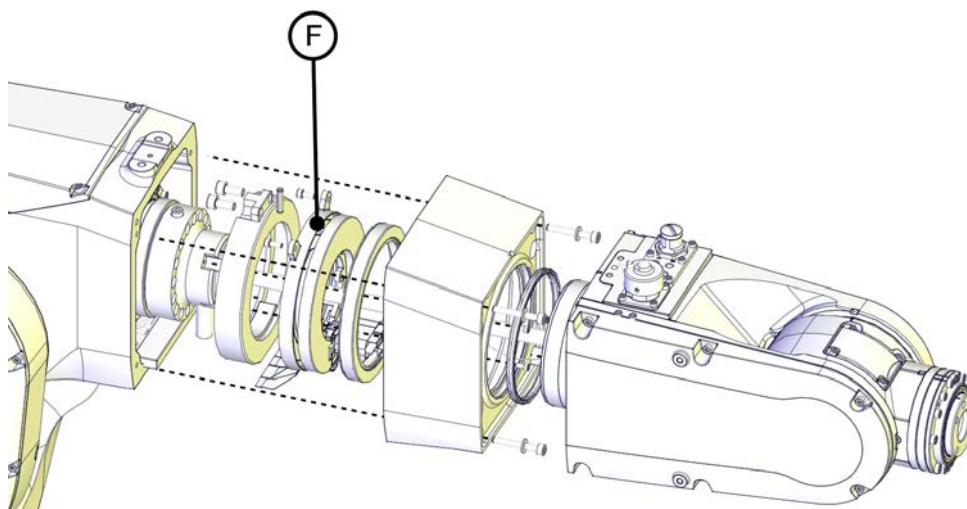
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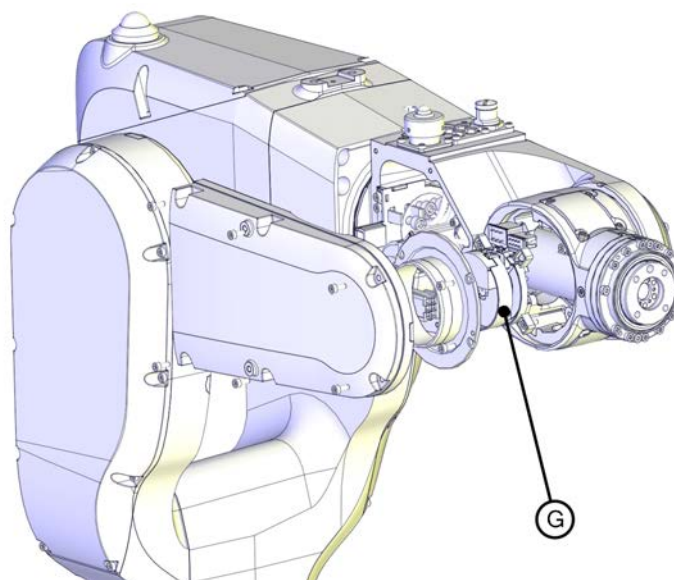
1 Spare parts and exploded views

1.1 Spare parts - electrical parts

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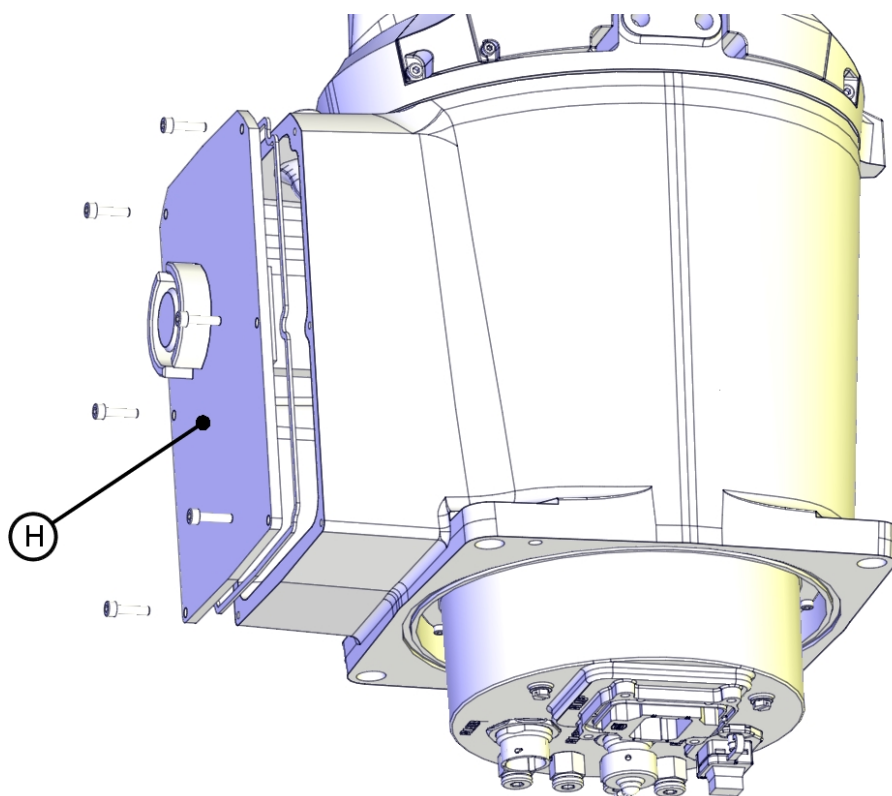
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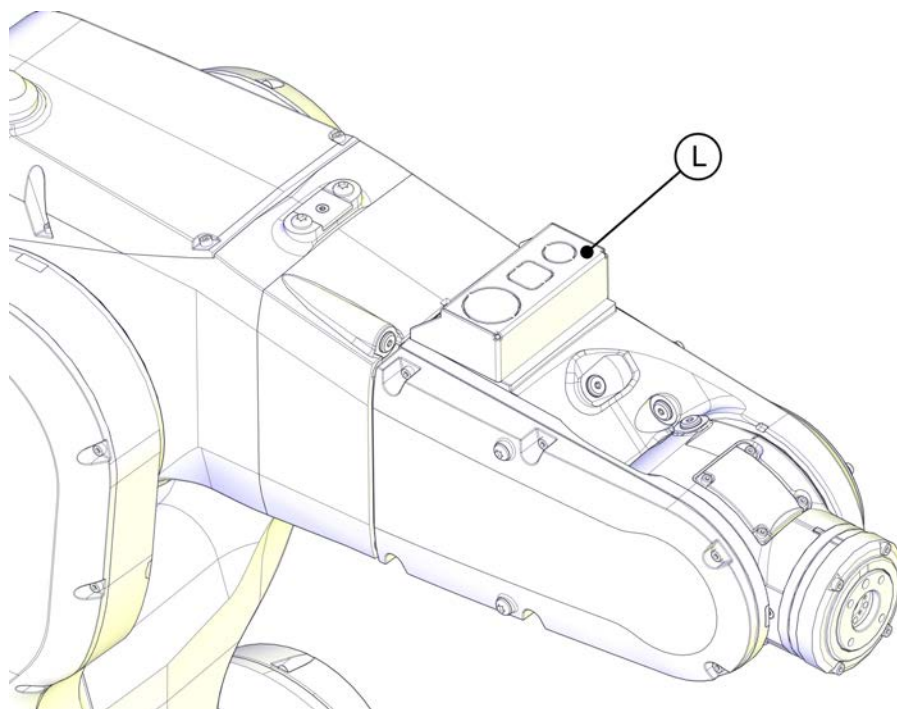
1 Spare parts and exploded views

1.1 Spare parts - electrical parts

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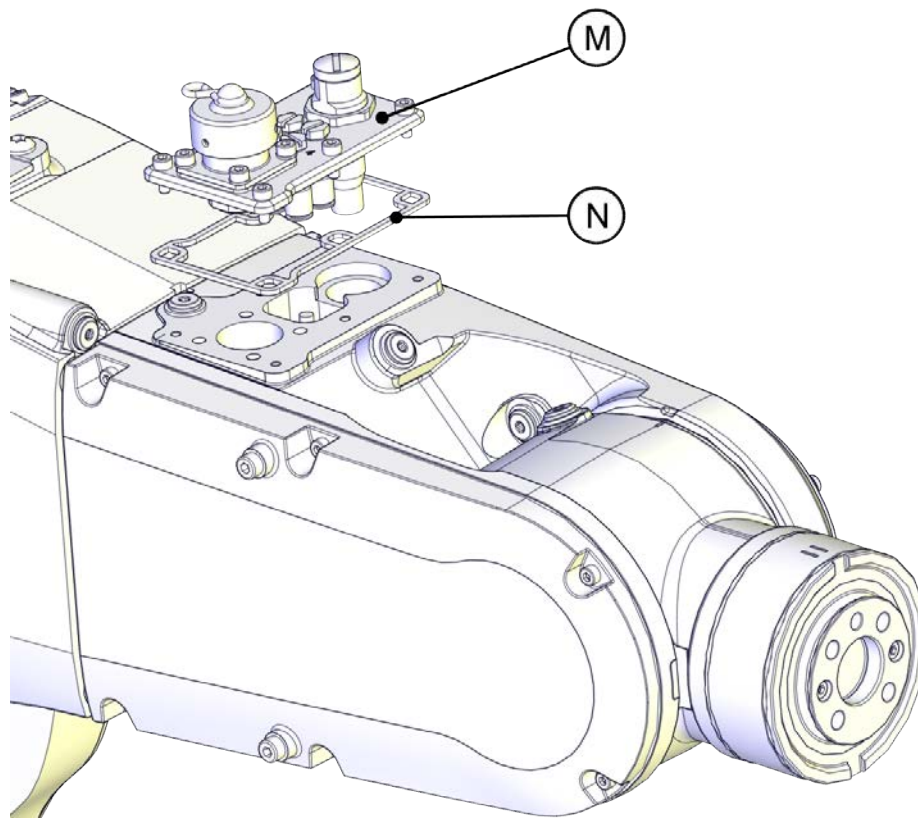
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1 Spare parts and exploded views

1.1 Spare parts - electrical parts

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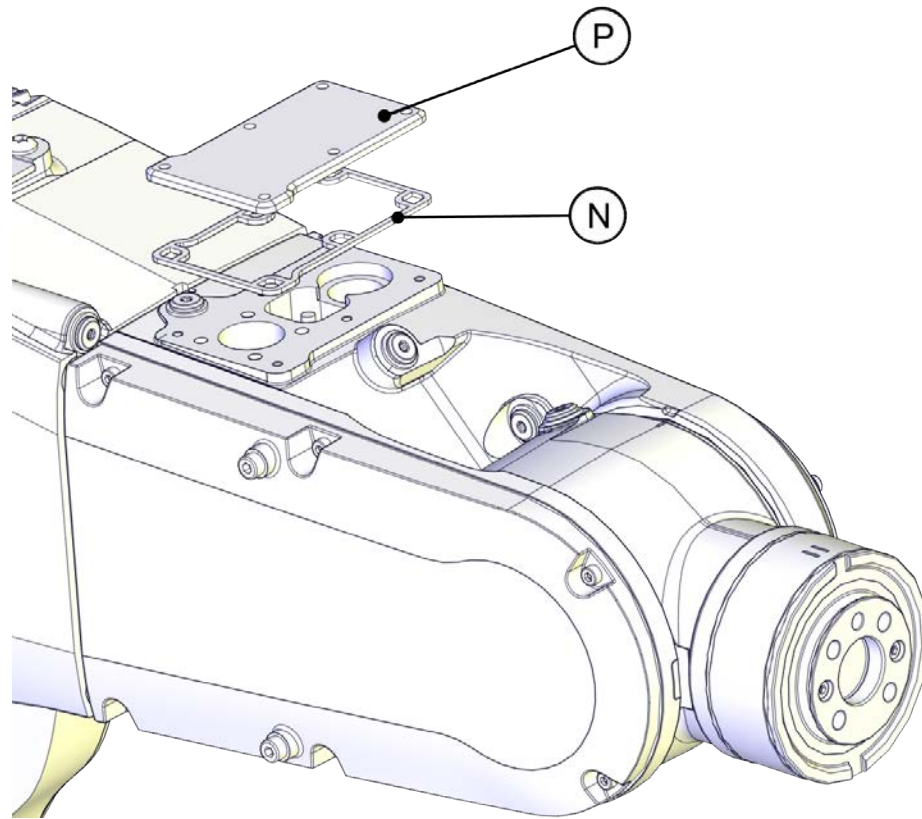
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1 Spare parts and exploded views

1.1 Spare parts - electrical parts

Continued



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EIB unit parts - IRB 1200 (no type specified) and IRB 1200 Type A

Spare part list

	Spare part number	Description	Note	Standard		Foundry Plus	Clean Room	Food Grade	Hygienic
				(IP40)	IP67			Lubrication	
A	3HAC045759-001	EIB unit		X	X	X	X	X	
B	3HAC051036-001	Battery pack	Battery includes protection circuits. Only replace with a specified spare part or an ABB-approved equivalent.	X	X	X	X	X	

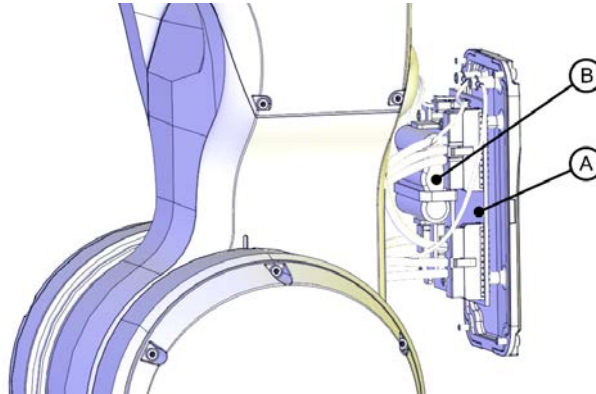
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1 Spare parts and exploded views

1.1 Spare parts - electrical parts

Continued

Spare part illustration



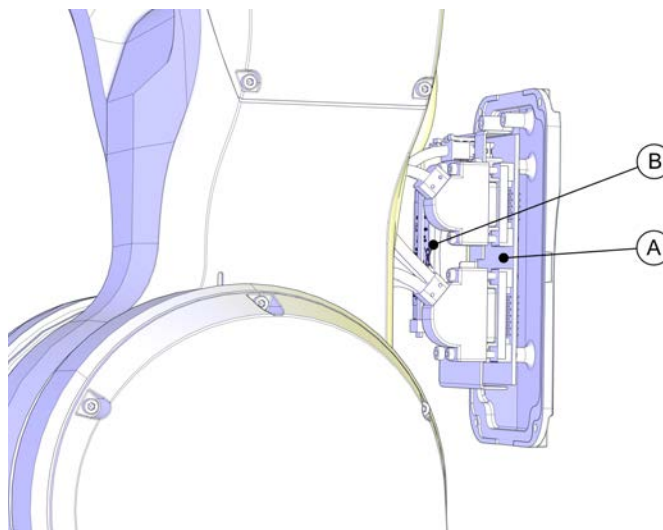
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SMB unit parts - IRB 1200 Type B

Spare part list

	Spare part number	Description	Note	Standard		Foundry Plus	Clean Room	Food Grade	Hygienic
				(IP40)	IP67			Lubrication	
A	3HAC059122-001	SMB unit		X	X	X	X	X	X
B	3HAC044075-001	Battery pack, SafeMove 2-supported Battery pack, Hygienic	Used for IRB 1200 Type B. See Type B of IRB 1200 on page 76 . For robots with protection type Hygienic Battery includes protection circuits. Only replace with a specified spare part or an ABB-approved equivalent.	X	X	X	X	X	X

Spare part illustration



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1.2 Spare parts - base

Base

Spare part list - IRB 1200 (no type specified) and IRB 1200 Type A

The base spare part for IRB 1200 (no type specified) and IRB 1200 Type A includes base machining, axis-1 gear unit and axis-1 AC motor with encoder interface.

	Spare part number	Description	Standard (IP40)	IP67	Foundry Plus	Clean Room	Food Grade lubrication	Hygienic
A	3HAC059553-001	Base ⁱ	X	X	X			
	3HAC059699-001	Base, Clean Room				X		
	3HAC057906-001	Base, food grade lubrication					X	

ⁱ Incompatible with swing 3HAC049632-001. See [Spare part versions for the base on IP40/IP67 robots on page 77](#).

Spare part list - IRB 1200 Type B

The base spare part for IRB 1200 Type B includes base machining, axis-1 gear unit and axis-1 AC motor with resolver interface.

	Spare part number	Description	Standard (IP40)	IP67	Foundry Plus	Clean Room	Food Grade lubrication	Hygienic
A	3HAC061270-001	Base, SafeMove 2-supported	X	X	X			
	3HAC061271-001	Base, Clean Room and SafeMove 2-supported				X		
	3HAC061272-001	Base, food grade lubrication and SafeMove 2-supported Base, Hygienic					X	X

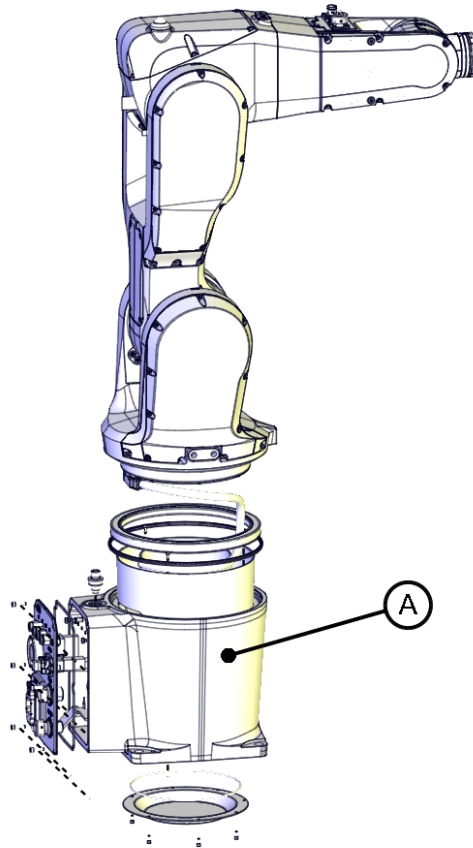
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1 Spare parts and exploded views

1.2 Spare parts - base

Continued

Spare part illustration



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Base parts

Spare part list

	Spare part number	Description	Note	Standard	Foundry Plus	Clean Room	Food Grade	Hygienic
				(IP40)	IP67		lubrication	
A	3HAB3701-47	Radial sealing with dust lip			X	X	X	X
-	3HAC044641-002	M2 variseal sealing	Used with protection class IP67. Used only on base 3HAC049628-001. See Spare part versions for the base on IP40/IP67 robots on page 77 . Replace if damaged.		X			
C	3HAC044690-001	Cable protection sleeve inside base		X	X	X	X	X
D	3HAB3772-86	O-ring			X	X	X	X
E	3HAC049667-001	Base bottom cover (standard configuration)		X	X	X	X	X

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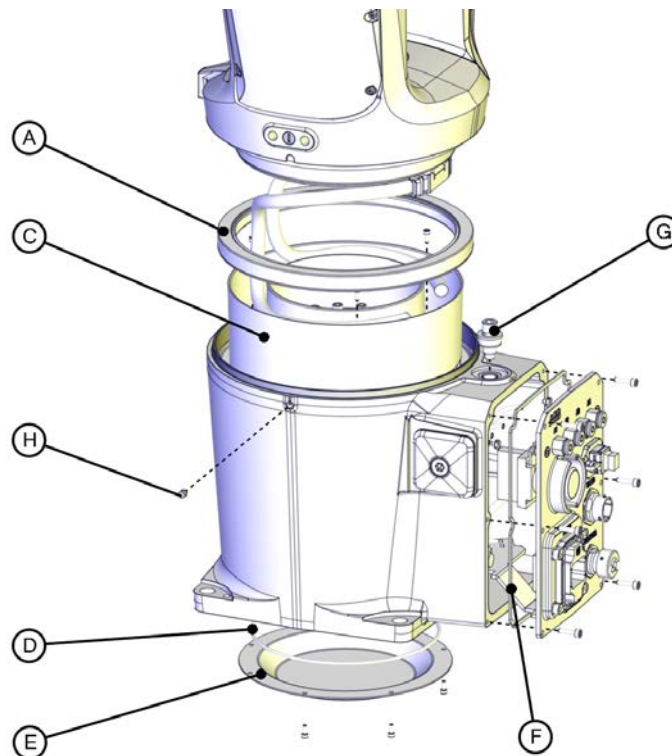
1 Spare parts and exploded views

1.2 Spare parts - base Continued

	Spare part number	Description	Note	Standard		Foundry Plus	Clean Room	Food Grade lubrication	Hygienic
				(IP40)	IP67				
-	3HAC059675-001	Base rear cover, without connector interface		X	X	X			
	3HAC056147-001	Base rear cover, without connector interface, Clean Room Base rear cover, without connector interface, food grade lubrication Base rear cover, without connector interface, Hygienic					X	X	X
F	3HAC058566-001 / 3HAC080710-001 ⁱ	Gasket for rear base cover			X	X	X	X	X
G	3HAC049630-001	Mechanical stop set, axis 1		X	X	X	X	X	X
H	3HAC056483-001	Plug		X	X	X	X	X	X

ⁱ For robots with protection class IP67, with protection types Foundry Plus and Clean Room, and with food grade lubrication, order with the number 3HAC058566-001.
For robots with protection type Hygienic, order with the number 3HAC080710-001.

Spare part illustration



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1 Spare parts and exploded views

1.3 Spare parts - swing

1.3 Spare parts - swing

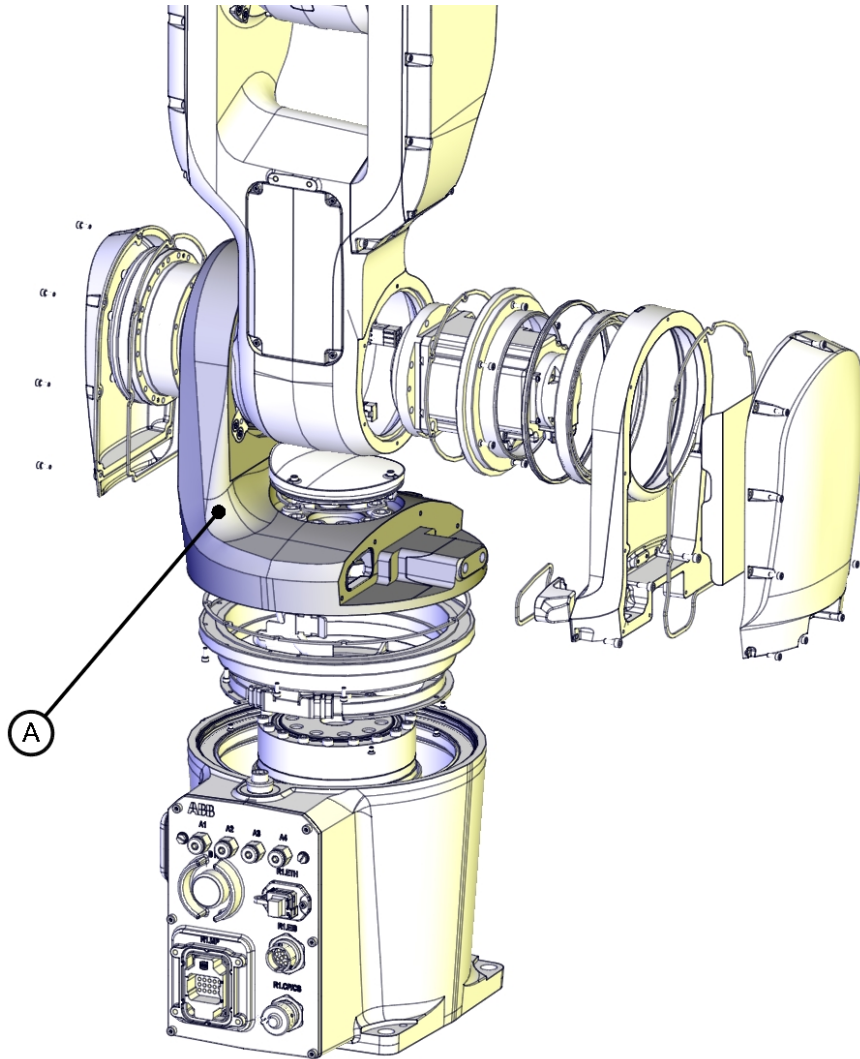
Swing

Spare part list

	Spare part number	Description	Note	Standard		Foundry Plus	Clean Room	Food Grade	Hygienic
				(IP40)	IP67			Lubrication	
A	3HAC059554-001	Swing	Used with protection classes IP40, IP67 and protection type Foundry Plus. If the swing 3HAC049632-001 or 3HAC058000-001 is previously installed on the robot, also a new sealing ring and, for IP67 and Foundry Plus, a gasket and a V-ring is required. See Spare part versions for the swing on IP40/IP67 robots on page 78 .	X	X	X			
	3HAC082506-001	Swing	Used with protection classes IP40, IP67 and protection type Foundry Plus. Swing 3HAC082506-001 is valid for robots with axis calibration. See Appearance description on page 72 for its difference with swing 3HAC059554-001.	X	X	X			
	3HAC059700-001	Swing, Clean Room Swing, food grade lubrication Swing, Hygienic					X	X	X

Continues on next page

Spare part illustration



xx140000821

Swing parts

Spare part list

	Spare part number	Description	Note	Standard		Foundry Plus	Clean Room	Food Grade lubrication	Hygienic
				(IP40)	IP67				
A	3HAC059676-001	Swing cover		X	X	X			
	3HAC056215-001	Swing cover, Clean Room Swing cover, food grade lubrication Swing cover, Hygienic					X	X	X
	3HAC056727-001 / 3HAC080705-001 ⁱ	Gasket on swing cover			X	X	X	X	X

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1 Spare parts and exploded views

1.3 Spare parts - swing

Continued

	Spare part number	Description	Note	Standard	Foundry Plus	Clean Room	Food Grade	Hygienic
				(IP40)	IP67		lubrication	
D	3HAC045688-001 / 3HAC080697-001 ⁱⁱ	Gasket of axis-2 sealing ring			X	X	X	X
E	3HAC086036-001	Axis-2 sealing ring		X				
	3HAC044677-001	Axis-2 sealing ring			X	X	X	X
F	3HAC044641-004	M2 variseal sealing			X	X		
G	3HAB3701-41	Radial sealing with dust lip			X	X	X	X
H	3HAC059677-001	Cable housing of the swing		X	X	X		
	3HAC056213-001	Cable housing of the swing, Clean Room Cable housing of the swing, food grade lubrication Cable housing of the swing, Hygienic					X	X
J	3HAC056726-001 / 3HAC080704-001 ⁱⁱⁱ	Gasket on cable housing cover			X	X	X	X
K	3HAC044660-001	PTFE film on cable housing cover		X	X	X	X	X
L	3HAC059678-001	Cable housing cover of the swing		X	X	X		
	3HAC056214-001	Cable housing cover of the swing, Clean Room Cable housing cover of the swing, food grade lubrication Cable housing cover of the swing, Hygienic					X	X
M	3HAC044894-001 / 3HAC080695-001 ^{iv}	Gasket of plastic plate			X	X	X	X
N	Included in Cable harness material set: 3HAC049663-001	Plastic cable protection plate		X	X	X	X	X
O	3HAC059679-001	Cover on top of swing		X	X	X		
	3HAC056133-001	Cover on top of swing, Clean Room Cover on top of swing, food grade lubrication Cover on top of swing, Hy- gienic					X	X
P	3HAC056696-001 / 3HAC080698-001 ^v	Gasket on top swing cover			X	X	X	X
Q	3HAC044925-001	Cable bracket on swing		X	X	X	X	X

Continues on next page

1 Spare parts and exploded views

1.3 Spare parts - swing

Continued

	Spare part number	Description	Note	Standard		Foundry Plus	Clean Room	Food Grade	Hygienic
				(IP40)	IP67			Lubrication	
-	3HAC045685-001	Axis-1 sealing ring gasket	Used with protection class IP67. Only on axis-1 sealing ring version 3HAC044676-001. See Spare part versions for the axis-1 sealing ring on IP40/IP67 robots on page 80 . Replace if damaged.		X				
	3HAC058349-001 / 3HAC080707-001 ^{vi}	Axis-1 sealing ring gasket	Not used with protection class IP40. Only on axis-1 sealing ring version 3HAC058568-001 or 3HAC068107-001. See Spare part versions for the axis-1 sealing ring on IP40/IP67 robots on page 80 . Replace if damaged.		X	X	X	X	X
R	3HAC086035-001	Sealing ring (for IP40 robots)		X					
	3HAC068107-001	Sealing ring (not for IP40 robots)			X	X	X	X	X
	3HAC059791-001	Sealing ring, gasket and V-ring			X				
-	3HAB3732-34	V-ring	Used with protection class IP67. Used with protection type Foundry Plus. Only on swing version 3HAC058000-001, 3HAC059554-001 and 3HAC082506-001. See Spare part versions for the swing on IP40/IP67 robots on page 78 . Replace if damaged.		X	X			
S	3HAC044691-001	Cable protection		X	X	X	X	X	X
T	3HAC044641-003	M2 variseal sealing			X	X			
U	3HAC053687-001	Swing sealing plug					X	X	X
V	3HAC4836-24	Protection plug for lifting holes				X			
W	3HAC051199-001	Protection plug	Protection plug for the calibration hole in the swing (the hole is used during calibration of axis 1 with the manual calibration method). Replace if damaged.	X	X	X	X	X	X

i For robots with protection class IP67, with protection types Foundry Plus and Clean Room, and with food grade lubrication, order with the number 3HAC056727-001.

For robots with protection type Hygienic, order with the number 3HAC080705-001.

ii For robots with protection class IP67, with protection types Foundry Plus and Clean Room, and with food grade lubrication, order with the number 3HAC045688-001.

For robots with protection type Hygienic, order with the number 3HAC080697-001.

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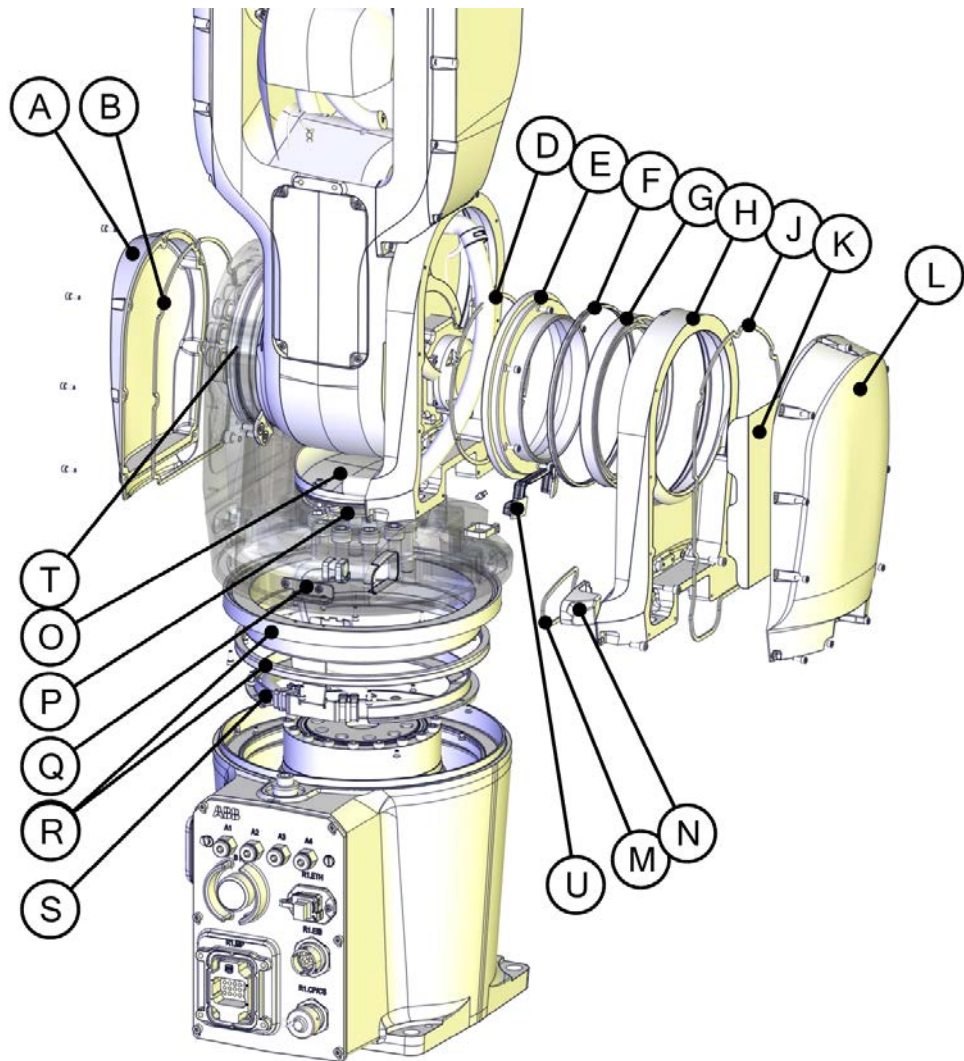
1 Spare parts and exploded views

1.3 Spare parts - swing

Continued

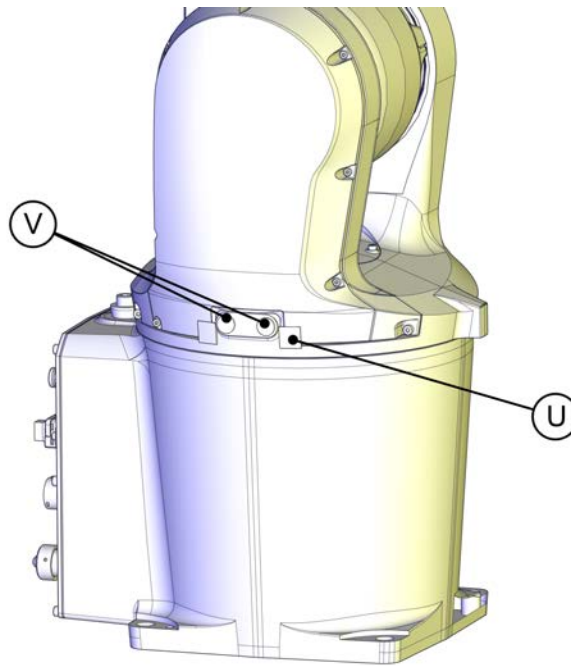
- iii For robots with protection class IP67, with protection types Foundry Plus and Clean Room, and with food grade lubrication, order with the number 3HAC056726-001.
For robots with protection type Hygienic, order with the number 3HAC080704-001.
- iv For robots with protection class IP67, with protection types Foundry Plus and Clean Room, and with food grade lubrication, order with the number 3HAC044894-001.
For robots with protection type Hygienic, order with the number 3HAC080695-001.
- v For robots with protection class IP67, with protection types Foundry Plus and Clean Room, and with food grade lubrication, order with the number 3HAC056696-001.
For robots with protection type Hygienic, order with the number 3HAC080698-001.
- vi For robots with protection class IP67, with protection types Foundry Plus and Clean Room, and with food grade lubrication, order with the number 3HAC058349-001.
For robots with protection type Hygienic, order with the number 3HAC080707-001.

Spare part illustration

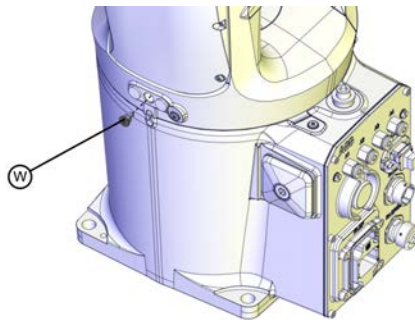


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1 Spare parts and exploded views

1.4 Spare parts - housing

1.4 Spare parts - housing

Housing

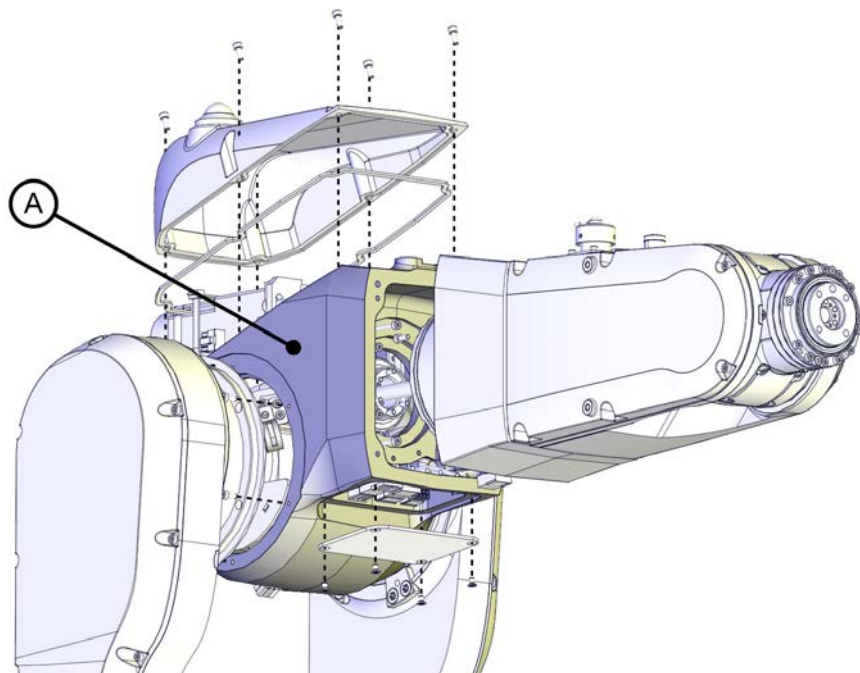
Spare part list

	Spare part number	Description	Standard		Foundry Plus	Clean Room	Food Grade lubrication	Hygienic
			(IP40)	IP67				
A	3HAC059680-001 / 3HAC059721-001 ⁱ	Housing (IRB 1200-7/0.7)	X	X	X			
	3HAC059681-001 / 3HAC059722-001 ⁱⁱ	Housing (IRB 1200-5/0.9 and IRB 1200-7/0.9)	X	X	X			
	3HAC059701-001	Housing, Clean Room (IRB 1200-7/0.7) Housing, food grade lubrication (IRB 1200-7/0.7) Housing, Hygienic (IRB 1200-7/0.7)				X	X	X
	3HAC059702-001	Housing, Clean Room (IRB 1200-5/0.9 and IRB 1200-7/0.9) Housing, food grade lubrication (IRB 1200-5/0.9) Housing, Hygienic (IRB 1200-5/0.9)				X	X	X

ⁱ For information on which housing (IRB 1200-7/0.7) to be ordered, see [Spare part versions for the housing on Type A robots on page 83](#).

ⁱⁱ For information on which housing to be ordered, see [Spare part versions for the housing on Type A robots on page 83](#).

Spare part illustration



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Continues on next page

1 Spare parts and exploded views

1.4 Spare parts - housing

Continued

Housing parts

Spare part list

	Spare part number	Description	Standard (IP40)	IP67	Foundry Plus	Clean Room	Food Grade lubrication	Hygienic
A	3HAC086038-001	Axis-3 sealing ring	X					
	3HAC044678-001	Axis-3 sealing ring		X	X	X	X	X
B	3HAC059682-001	Housing cover (IRB 1200-7/0.7)	X	X	X			
	3HAC059683-001	Housing cover (IRB 1200-5/0.9 and IRB 1200-7/0.9)	X	X	X			
	3HAC056141-001	Housing cover, Clean Room (IRB 1200-7/0.7) Housing cover, food grade lubrication (IRB 1200-7/0.7) Housing cover, Hygienic (IRB 1200-7/0.7)				X	X	X
	3HAC056140-001	Housing cover, Clean Room (IRB 1200-5/0.9 and IRB 1200-7/0.9) Housing cover, food grade lubrication (IRB 1200-5/0.9) Housing cover, Hygienic (IRB 1200-5/0.9)				X	X	X
C	3HAC091798-001	Housing cover gasket (IRB 1200-7/0.7)		X	X	X	X	
	3HAC080700-001	Housing cover gasket, Hygienic (IRB 1200-7/0.7)						X
	3HAC091797-001	Housing cover gasket (IRB 1200-5/0.9 and IRB 1200-7/0.9)		X	X	X	X	
	3HAC080699-001	Housing cover gasket, Hygienic (IRB 1200-5/0.9)						X
D	3HAC059684-001	Housing small cover	X	X	X			
	3HAC056142-001	Housing small cover, Clean Room Housing small cover, food grade lubrication Housing small cover, Hygienic				X	X	X

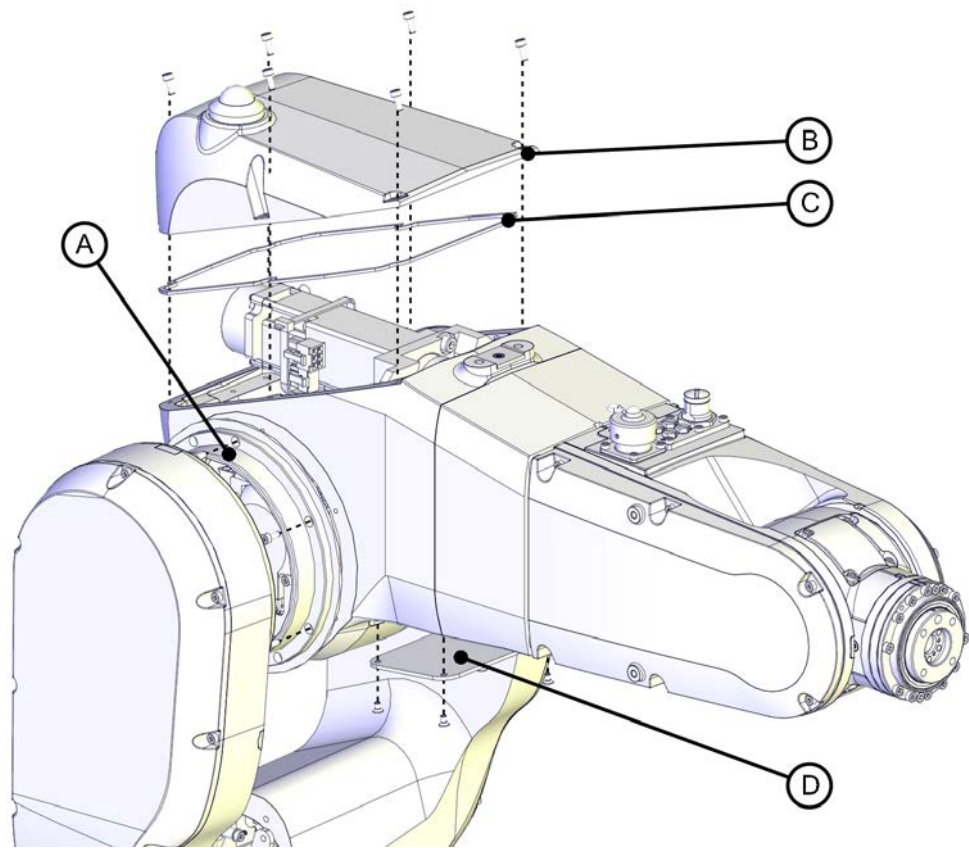
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1 Spare parts and exploded views

1.4 Spare parts - housing

Continued

Spare part illustration



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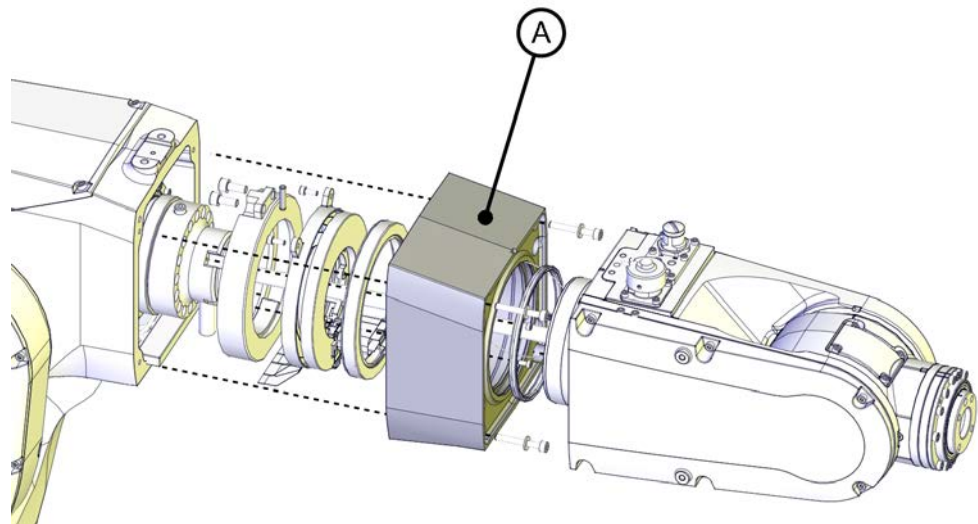
1.5 Spare parts - housing extender unit

Housing extender unit

Spare part list

	Spare part number	Description	Standard (IP40)	IP67	Foundry Plus	Clean Room	Food Grade lubrication	Hygienic
A	3HAC059686-001	Housing extender unit	X	X	X			
	3HAC059703-001	Housing extender unit, Clean Room Housing extender unit, food grade lubrication Housing extender unit, Hygienic				X	X	X

Spare part illustration



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Housing extender unit parts

Spare part list

	Spare part number	Description	Standard (IP40)	IP67	Foundry Plus	Clean Room	Food Grade lubrication	Hygienic
A	3HAC049652-001	Mechanical stop set	X	X	X	X	X	X
B	3HAC082235-001	FPC unit, axis 4	X	X	X	X	X	X
C	3HAB3701-48	Radial sealing with dust lip		X	X	X	X	X
D	3HAC044641-007	M2 variseal sealing		X	X			
E	3HAC053685-001	Screw sealing plug			X	X	X	X

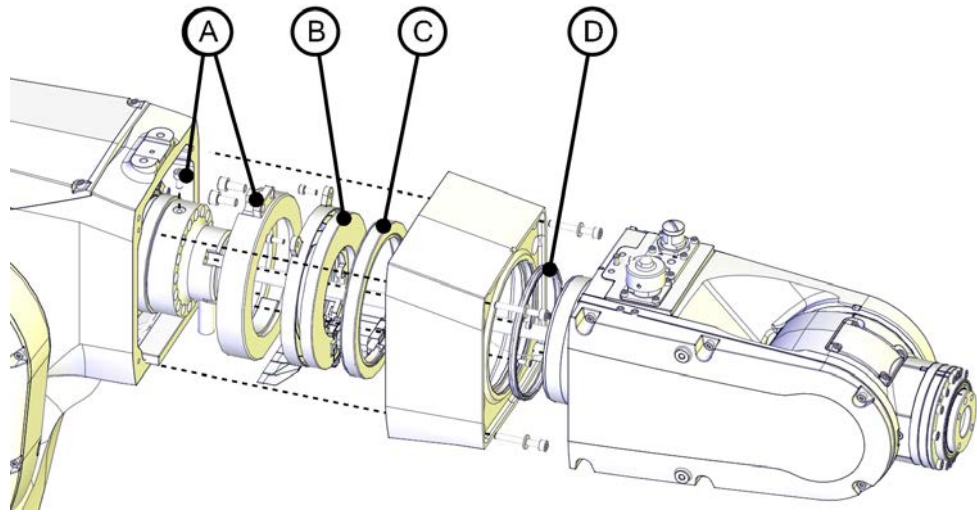
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1 Spare parts and exploded views

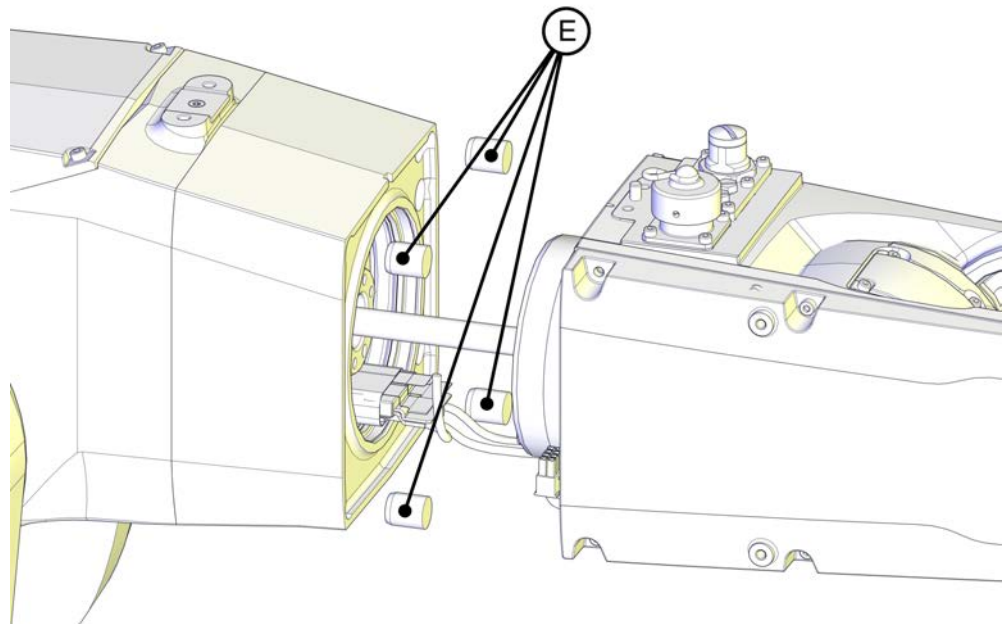
1.5 Spare parts - housing extender unit

Continued

Spare part illustration



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1.6 Spare parts - lower arm

Lower arm

Spare part list

The lower arm spare part includes a guide pin.

	Spare part number	Description	Standard (IP40)	IP67	Foundry Plus	Clean Room	Food Grade lubrication	Hygienic
A	3HAC059687-001	Lower arm (IRB 1200-7/0.7)	X	X	X			
	3HAC059688-001	Lower arm (IRB 1200-5/0.9 and IRB 1200-7/0.9)	X	X	X			
	3HAC059704-001	Lower arm, Clean Room (IRB 1200-7/0.7) Lower arm, food grade lubrication (IRB 1200-7/0.7) Lower arm, Hygienic (IRB 1200-7/0.7)				X	X	X
	3HAC059705-001	Lower arm, Clean Room (IRB 1200-5/0.9 and IRB 1200-7/0.9) Lower arm, food grade lubrication (IRB 1200-5/0.9) Lower arm, Hygienic (IRB 1200-5/0.9)				X	X	X

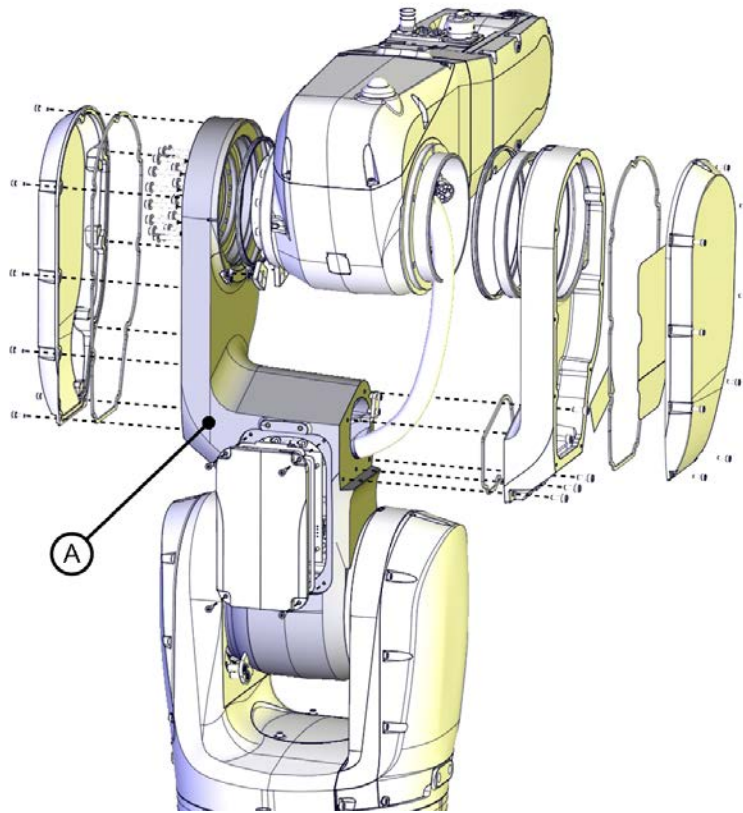
Continues on next page

1 Spare parts and exploded views

1.6 Spare parts - lower arm

Continued

Spare part illustration



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Lower arm parts

Spare part list

	Spare part number	Description	Standard		Foundry Plus	Clean Room	Food Grade	Hygienic
			(IP40)	IP67			Lubrication	
A	3HAC059689-001	Lower arm cover	X	X	X			
	3HAC056136-001	Lower arm cover, Clean Room Lower arm cover, food grade lubrication Lower arm cover, Hygienic				X	X	X
B	3HAC056725-001 / 3HAC080703-001 ⁱ	Gasket on lower arm cover		X	X	X	X	X
C	3HAC044641-005	M2 variseal sealing		X	X			
D	3HAC044641-006	M2 variseal sealing		X	X			
E	3HAC024865-001	Radial sealing		X	X	X	X	X

Continues on next page

1 Spare parts and exploded views

1.6 Spare parts - lower arm

Continued

	Spare part number	Description	Standard (IP40)	IP67	Foundry Plus	Clean Room	Food Grade lubrication	Hygienic
F	3HAC059690-001	Cable housing of the lower arm	X	X	X			
	3HAC056135-001	Cable housing of the lower arm, Clean Room Cable housing of the lower arm, food grade lubrication Cable housing of the lower arm, Hygienic				X	X	X
G	3HAC056724-001 / 3HAC080702-001 ⁱⁱ	Gasket on cable housing cover		X	X	X	X	X
H	3HAC059691-001	Cable housing cover of the lower arm	X	X	X			
	3HAC056217-001	Cable housing cover of the lower arm, Clean Room Cable housing cover of the lower arm, food grade lubrication Cable housing cover of the lower arm, Hygienic				X	X	X
J	3HAC049644-001	Mechanical stop set, axis 3	X	X	X	X	X	X
K	3HAC044895-001 / 3HAC080696-001 ⁱⁱⁱ	Gasket on lower arm cable housing		X	X	X	X	X
L	3HAC044710-001	PTFE film on lower arm cable housing	X	X	X	X	X	X
M	3HAC044660-001	PTFE film on cable housing cover	X	X	X	X	X	X
N	3HAC056728-001 / 3HAC080706-001 ^{iv}	Gasket on EIB/SMB cover		X	X	X	X	X
O	3HAC059692-001	EIB/SMB cover	X	X	X			
	3HAC056137-001	EIB/SMB cover, Clean Room EIB/SMB cover, food grade lubrication EIB/SMB cover, Hygienic				X	X	X
P	3HAC049637-001	Mechanical stop set, axis 2	X	X	X	X	X	X

- ⁱ For robots with protection class IP67, with protection types Foundry Plus and Clean Room, and with food grade lubrication, order with the number 3HAC056725-001.
For robots with protection type Hygienic, order with the number 3HAC080703-001.
- ⁱⁱ For robots with protection class IP67, with protection types Foundry Plus and Clean Room, and with food grade lubrication, order with the number 3HAC056724-001.
For robots with protection type Hygienic, order with the number 3HAC080702-001.
- ⁱⁱⁱ For robots with protection class IP67, with protection types Foundry Plus and Clean Room, and with food grade lubrication, order with the number 3HAC044895-001.
For robots with protection type Hygienic, order with the number 3HAC080696-001.
- ^{iv} For robots with protection class IP67, with protection types Foundry Plus and Clean Room, and with food grade lubrication, order with the number 3HAC056728-001.
For robots with protection type Hygienic, order with the number 3HAC080706-001.

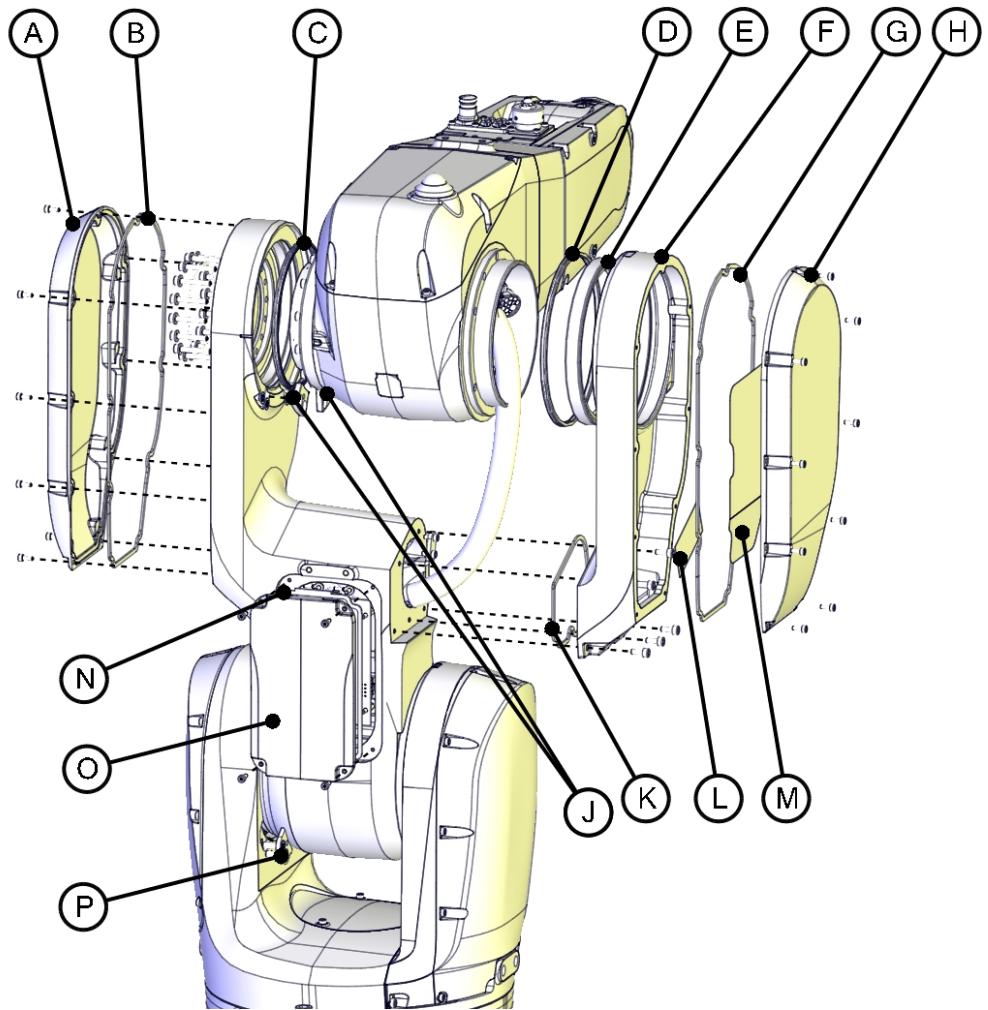
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1 Spare parts and exploded views

1.6 Spare parts - lower arm

Continued

Spare part illustration



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1.7 Spare parts - tubular

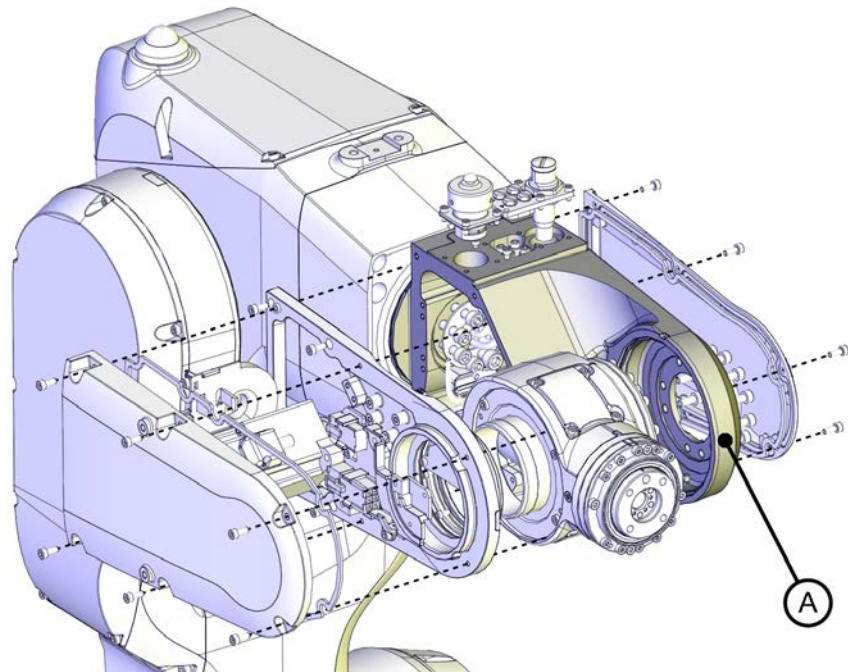
Tubular

Spare part list

	Spare part number	Description	Standard		Foundry Plus	Clean Room	Food Grade	Hygienic
			(IP40)	IP67			lubrication	
A	3HAC059693-001 / 3HAC059723-001 ⁱ	Tubular with sleeve	X	X	X			
	3HAC059706-001	Tubular with sleeve, Clean Room Tubular with sleeve, food grade lubrication				X	X	
	3HAC079693-001	Tubular with sleeve, Hygienic						X

ⁱ For information on which tubular to be ordered, see [Spare part versions for the tubular on Type A robots on page 84](#).

Spare part illustration



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1 Spare parts and exploded views

1.7 Spare parts - tubular

Continued

Tubular parts

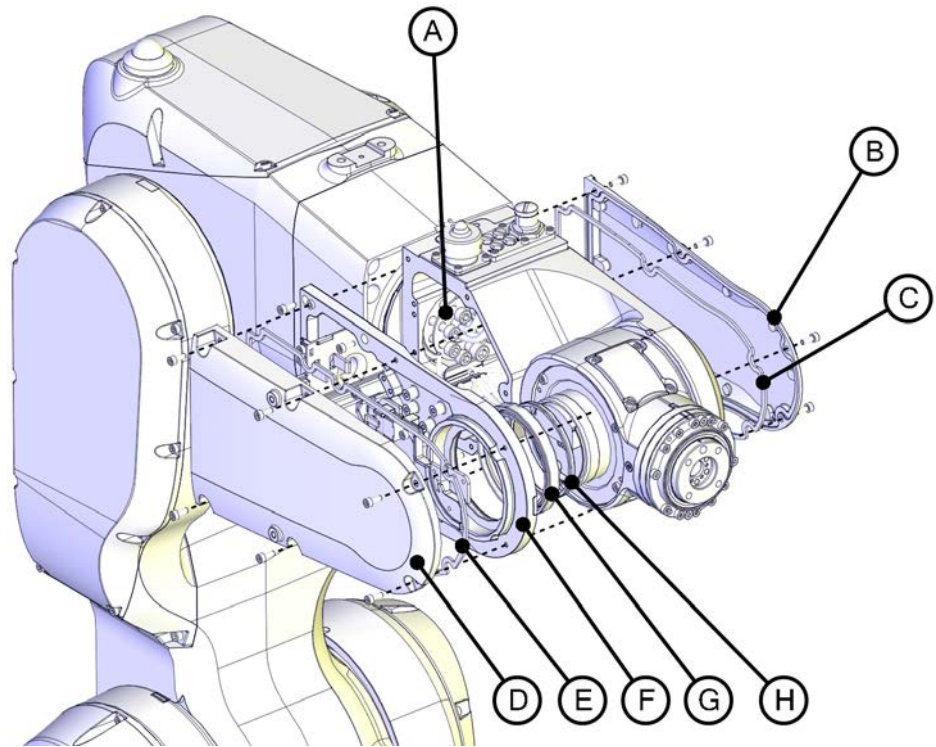
Spare part list

	Spare part number	Description	Standard (IP40)	IP67	Foundry Plus	Clean Room	Food Grade lubrication	Hygienic
A	3HAC044869-001	Washer	X	X	X	X	X	X
B	3HAC049656-001	Tubular cover	X					
	3HAC059555-001	Tubular cover		X	X			
	3HAC056144-001 / 3HAC059708-001 ⁱ	Tubular cover, Clean Room Tubular cover, food grade lubrication				X	X	
	3HAC079689-001	Tubular cover, Hygienic						X
C	3HAC091799-001	Gasket for tubular cover		X	X	X	X	
	3HAC080709-001	Gasket for tubular cover, Hygienic						X
D	3HAC059694-001	Tubular cable housing cover	X	X	X			
	3HAC056145-001	Tubular cable housing cover, Clean Room Tubular cable housing cover, food grade lubrication				X	X	
	3HAC079690-001	Tubular cable housing cover, Hygienic						X
E	3HAC091800-001	Gasket for tubular cable housing cover		X	X	X	X	
	3HAC080701-001	Gasket for tubular cable housing cover, Hygienic						X
F	3HAC059695-001	Tubular cable housing	X	X	X			
	3HAC056143-001	Tubular cable housing, Clean Room Tubular cable housing, food grade lubrication				X	X	
	3HAC079692-001	Tubular cable housing, Hygienic						X
G	3HAB3701-42	Radial sealing		X	X	X	X	
H	3HAC044641-009	M2 variseal sealing		X	X			

ⁱ For information on which tubular cover for Clean Room robots to be ordered, see [Spare part versions for the tubular cover on Clean Room robots on page 85](#).

Continues on next page

Spare part illustration



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1 Spare parts and exploded views

1.8 Spare parts - tilt unit parts

1.8 Spare parts - tilt unit parts

Tilt unit parts

Spare part list

	Spare part number	Description	Standard (IP40)	IP67	Foundry Plus	Clean Room	Food Grade lubrication	Hygienic
A	3HAC086143-001	Sleeve	X					
	3HAC044661-001	Sleeve		X	X	X	X	X
B	3HAC045743-001	FPC unit, axis 5	X	X	X	X	X	X
C	3HAC044641-012	T40 variseal sealing			X			
D	3HAC044666-001	Protection cover for axis-6 turning disk			X			
E	3HAC078798-001	Gasket, axis 6, Hygienic						X
F	3HAC079688-001	Seal ring unit  Note The seal ring unit is wear part.						X
G	3HAC077509-001	Stainless shaft						X
H	3HAC034160-003	Sealing washer						X
J	3HAC053686-001	Stainless screws						X

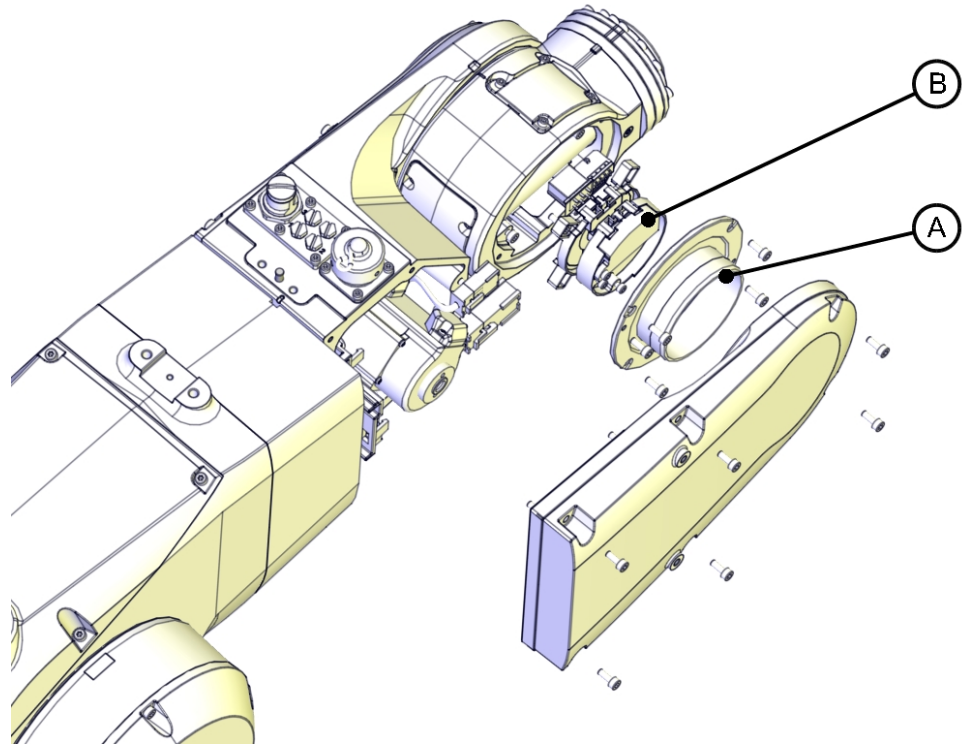
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1 Spare parts and exploded views

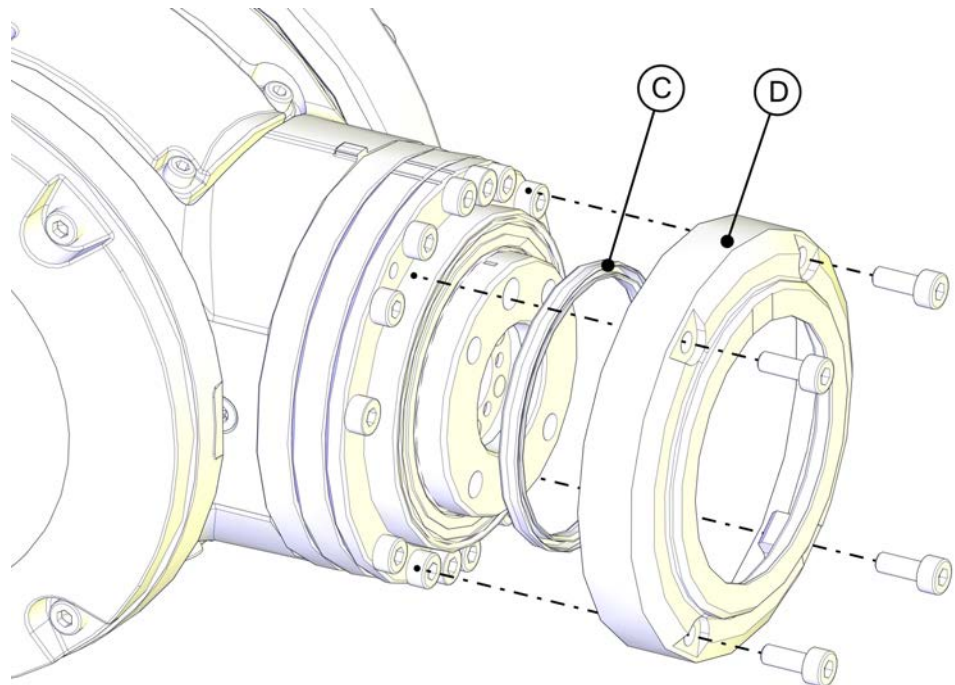
1.8 Spare parts - tilt unit parts

Continued

Spare part illustration



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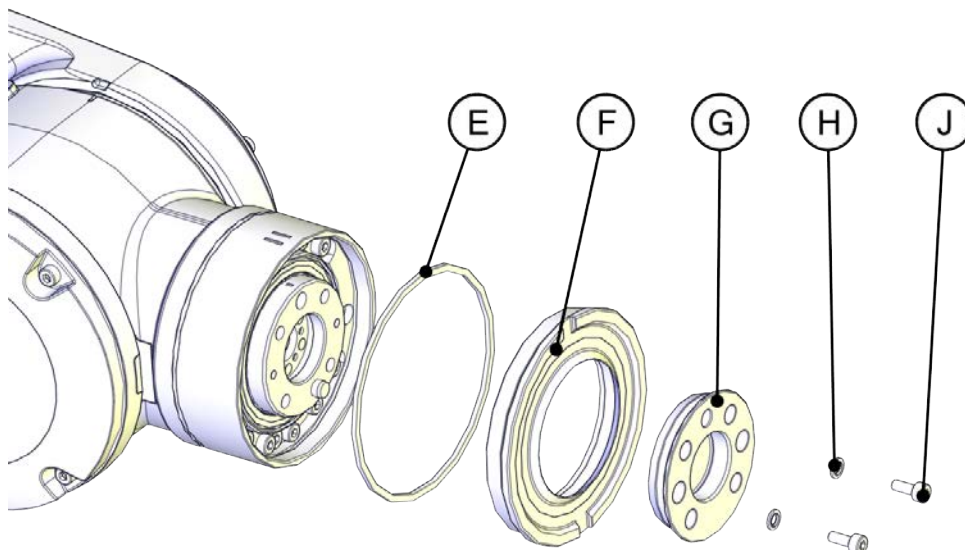
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1 Spare parts and exploded views

1.8 Spare parts - tilt unit parts

Continued



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1.9 Spare parts - motors

1.9.1 Spare parts - axis-1 motor

Axis-1 motor

The axis-1 gear unit and axis-1 motor is part of the complete base spare part assembly, see [Spare parts - base on page 23](#).

1 Spare parts and exploded views

1.9.2 Spare parts - axis-2 motor

1.9.2 Spare parts - axis-2 motor

Axis-2 motor

The axis-2 motor is part of the complete axis-2 drive unit spare part assembly, see [Spare parts - axis-2 drive unit on page 56](#).

1.9.3 Spare parts - axis-3 motor

Axis-3 motor

The axis-3 motor is part of the complete axis-3 drive unit spare part assembly, see [Spare parts - axis-3 drive unit on page 58](#).

1 Spare parts and exploded views

1.9.4 Spare parts - axis-4 motor

1.9.4 Spare parts - axis-4 motor

Axis-4 motor (including pulley)

Spare part list - IRB 1200 (no type specified) and IRB 1200 Type A

	Spare part number	Description	Standard (IP40)	IP67	Foundry Plus	Clean Room	Food Grade lubrication	Hygienic
A	3HAC045827-001	Motor with pulley	X	X	X	X	X	

Spare part list - IRB 1200 Type B

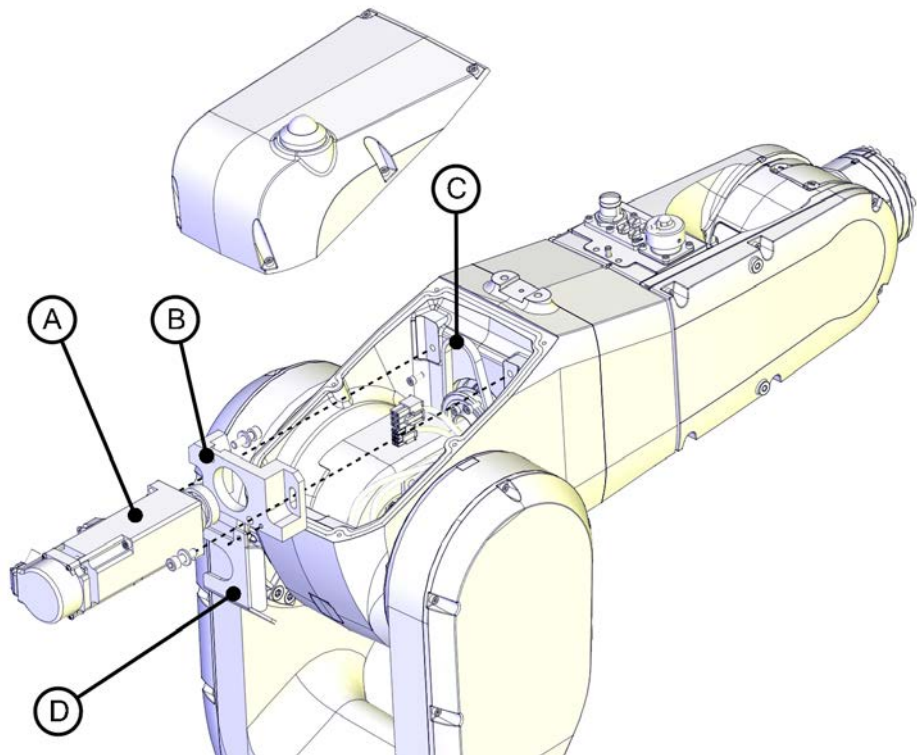
	Spare part number	Description	Standard (IP40)	IP67	Foundry Plus	Clean Room	Food Grade lubrication	Hygienic
A	3HAC061277-001	Motor with pulley, SafeMove 2-supported. Motor with pulley, Hygienic	X	X	X	X	X	X

Spare part list - axis-4 motor parts

	Spare part number	Description	Standard (IP40)	IP67	Foundry Plus	Clean Room	Food Grade lubrication	Hygienic
B	3HAC047479-001	Motor flange	X	X	X	X	X	X
C	3HAC044694-001	Timing belt	X	X	X	X	X	X
D	3HAC044689-001	Motor bracket	X	X	X	X	X	X

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Spare part illustration



1 Spare parts and exploded views

1.9.5 Spare parts - axis-5 motor

1.9.5 Spare parts - axis-5 motor

Axis-5 motor (including pulley)

Spare part list - IRB 1200 (no type specified) and IRB 1200 Type A

	Spare part number	Description	Standard (IP40)	IP67	Foundry Plus	Clean Room	Food Grade lubrication	Hygienic
A	3HAC045978-001	Motor with pulley	X	X	X	X	X	

Spare part list - IRB 1200 Type B

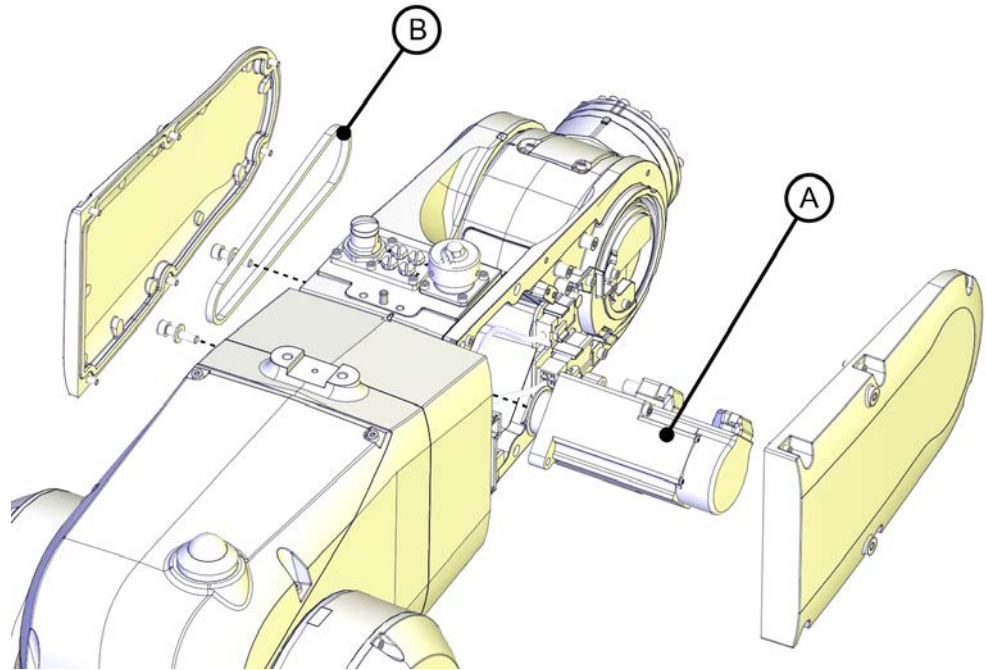
	Spare part number	Description	Standard (IP40)	IP67	Foundry Plus	Clean Room	Food Grade lubrication	Hygienic
A	3HAC061278-001	Motor with pulley, SafeMove 2-supported. Motor with pulley, Hygienic	X	X	X	X	X	X

Spare part list - axis-5 motor parts

	Spare part number	Description	Standard (IP40)	IP67	Foundry Plus	Clean Room	Food Grade lubrication	Hygienic
B	3HAC044657-001	Timing belt	X	X	X	X	X	X

Continues on next page

Spare part illustration



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1 Spare parts and exploded views

1.9.6 Spare parts - axis-6 motor

1.9.6 Spare parts - axis-6 motor

Axis-6 motor

The axis-6 motor is part of the complete axis-5 and axis-6 drive unit spare part assembly, see [Spare parts - axis-5 and axis-6 drive unit on page 61](#).

1.10 Spare parts - gears

1.10.1 Spare parts - axis-1 gear unit

Axis-1 gear unit

The axis-1 gear unit and axis-1 motor is part of the complete base spare part assembly, see [Spare parts - base on page 23](#).

1 Spare parts and exploded views

1.10.2 Spare parts - axis-2 drive unit

1.10.2 Spare parts - axis-2 drive unit

Axis-2 gearbox

Spare part list - IRB 1200 (no type specified) and IRB 1200 Type A

The axis-2 drive unit spare part for IRB 1200 (no type specified) and IRB 1200 Type A includes axis-2 gearbox, motor, motor adapter and O-ring (3HAC048939-001).

	Spare part number	Description	Standard (IP40)	IP67	Foundry Plus	Clean Room	Food Grade lubrication	Hygienic
A	3HAC049645-001	Drive unit	X	X	X	X		
	3HAC057903-001	Drive unit, food grade lubrication					X	

Spare part list - IRB 1200 Type B

The axis-2 drive unit spare part for IRB 1200 Type B includes axis-2 gearbox, AC motor with resolver interface, motor adapter and O-ring (3HAC048939-001).

	Spare part number	Description	Standard (IP40)	IP67	Foundry Plus	Clean Room	Food Grade lubrication	Hygienic
A	3HAC061273-001	Drive unit, SafeMove 2-supported	X	X	X	X		
	3HAC061274-001	Drive unit, food grade lubrication and SafeMove 2-supported Drive unit, Hygienic					X	X

Spare part list - axis-2 drive unit parts

	Spare part number	Description	Standard (IP40)	IP67	Foundry Plus	Clean Room	Food Grade lubrication	Hygienic
B	3HAC048939-001	O-ring	X	X	X	X	X	X

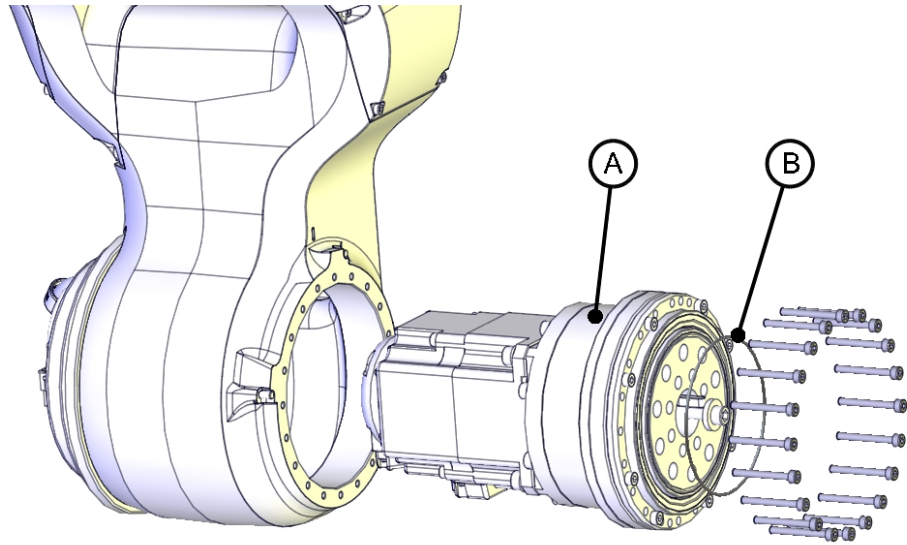
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1 Spare parts and exploded views

1.10.2 Spare parts - axis-2 drive unit

Continued

Spare part illustration



xx140000669

1 Spare parts and exploded views

1.10.3 Spare parts - axis-3 drive unit

1.10.3 Spare parts - axis-3 drive unit

Axis-3 gearbox

Spare part list - IRB 1200 (no type specified) and IRB 1200 Type A

The axis-3 drive unit spare part for IRB 1200 (no type specified) and IRB 1200 Type A includes axis-3 gearbox, motor, motor adapter and O-ring (3HAC048939-002).

	Spare part number	Description	Standard (IP40)	IP67	Foundry Plus	Clean Room	Food Grade lubrication	Hygienic
A	3HAC061403-001	Drive unit	X	X	X	X		
	3HAC057905-001	Drive unit, food grade lubrication					X	

Spare part list - IRB 1200 Type B

The axis-3 drive unit spare part for IRB 1200 Type B includes axis-3 gearbox, AC motor with resolver interface, motor adapter and O-ring (3HAC048939-002).

	Spare part number	Description	Standard (IP40)	IP67	Foundry Plus	Clean Room	Food Grade lubrication	Hygienic
A	3HAC061275-001	Drive unit, SafeMove 2-supported	X	X	X	X		
	3HAC061276-001	Drive unit, food grade lubrication and SafeMove 2-supported. Drive unit, Hygienic					X	X

Spare part list - axis-3 drive unit parts

	Spare part number	Description	Standard (IP40)	IP67	Foundry Plus	Clean Room	Food Grade lubrication	Hygienic
B	3HAC048939-002	O-ring	X	X	X	X	X	X

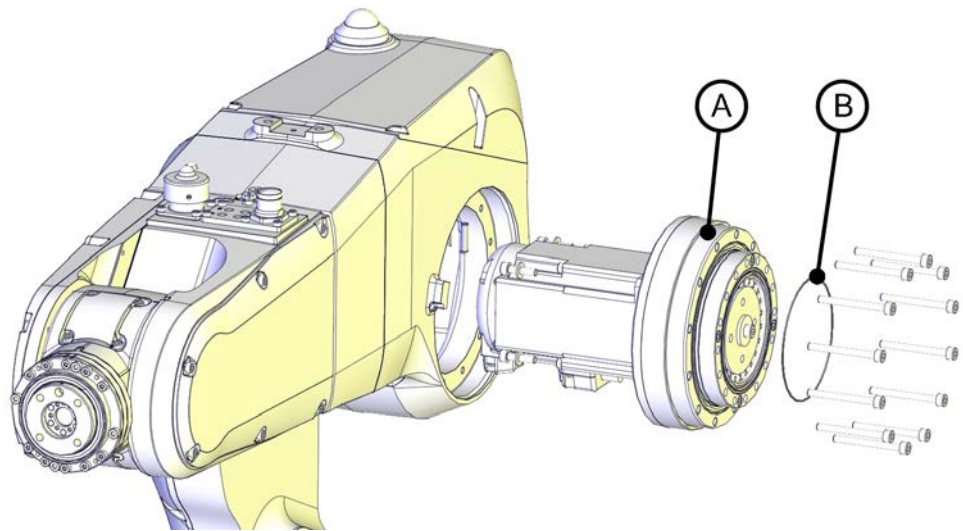
Continues on next page

1 Spare parts and exploded views

1.10.3 Spare parts - axis-3 drive unit

Continued

Spare part illustration



xx140000670

1 Spare parts and exploded views

1.10.4 Spare parts - axis-4 gearbox

1.10.4 Spare parts - axis-4 gearbox

Axis-4 gearbox

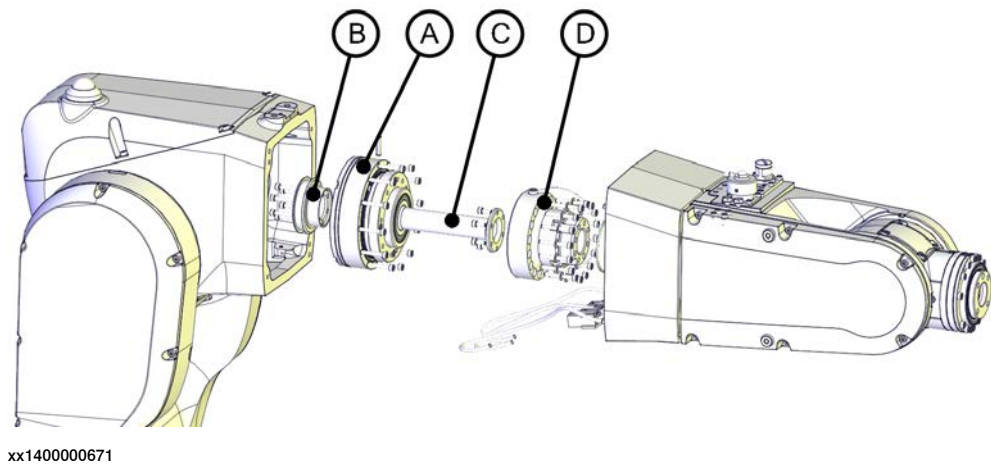
Spare part list - axis-4 gearbox

	Spare part number	Description	Standard		Foundry Plus	Clean Room	Food Grade	Hygienic
			(IP40)	IP67			lubrication	
A	3HAC049629-001	Gearbox	X	X	X	X		
	3HAC057904-001	Gearbox, food grade lubrication Gearbox, Hygienic					X	X

Spare part list - axis-4 gearbox parts

	Spare part number	Description	Standard		Foundry Plus	Clean Room	Food Grade	Hygienic
			(IP40)	IP67			lubrication	
B	3HAC044687-001	Pulley	X	X	X	X	X	X
C	3HAC044685-001	Gearbox sleeve	X	X	X	X	X	X
D	3HAC044692-001	Shaft	X	X	X	X	X	X

Spare part illustration



1 Spare parts and exploded views

1.10.5 Spare parts - axis-5 and axis-6 drive unit

1.10.5 Spare parts - axis-5 and axis-6 drive unit

Axis-5 and axis-6 drive unit

Spare part list - IRB 1200 (no type specified) and IRB 1200 Type A

The axis-5 and axis-6 drive unit spare part for IRB 1200 (no type specified) and IRB 1200 Type A includes axis-5 gear unit and axis-6 drive train unit.

	Spare part number	Description	Standard (IP40)	IP67	Foundry Plus	Clean Room	Food Grade lubrication	Hygienic
A	3HAC059696-001	Drive unit	X	X	X			
	3HAC059707-001	Drive unit, Clean Room				X		
	3HAC057907-001	Drive unit, food grade lubrication					X	

Spare part list - IRB 1200 Type B

The axis-5 and axis-6 drive unit spare part for IRB 1200 Type B includes axis-5 gear unit and axis-6 drive train unit.

	Spare part number	Description	Standard (IP40)	IP67	Foundry Plus	Clean Room	Food Grade lubrication	Hygienic
A	3HAC061279-001	Drive unit, SafeMove 2-supported	X	X	X			
	3HAC061280-001	Drive unit, Clean Room and SafeMove 2-supported				X		
	3HAC061281-001	Drive unit, food grade lubrication and SafeMove 2-supported					X	

Spare part list - IRB 1200 with protection type Hygienic

The axis-5 and axis-6 drive unit spare part for IRB 1200 with protection type Hygienic includes axis-5 gear unit and axis-6 drive train unit.

	Spare part number	Description	Standard (IP40)	IP67	Foundry Plus	Clean Room	Food Grade lubrication	Hygienic
C	3HAC079694-001	Drive unit, Hygienic						X

Spare part list - axis-5 and axis-6 drive unit parts

	Spare part number	Description	Standard (IP40)	IP67	Foundry Plus	Clean Room	Food Grade lubrication	Hygienic
B	3HAC044641-008	M2 variseal sealing		X	X			

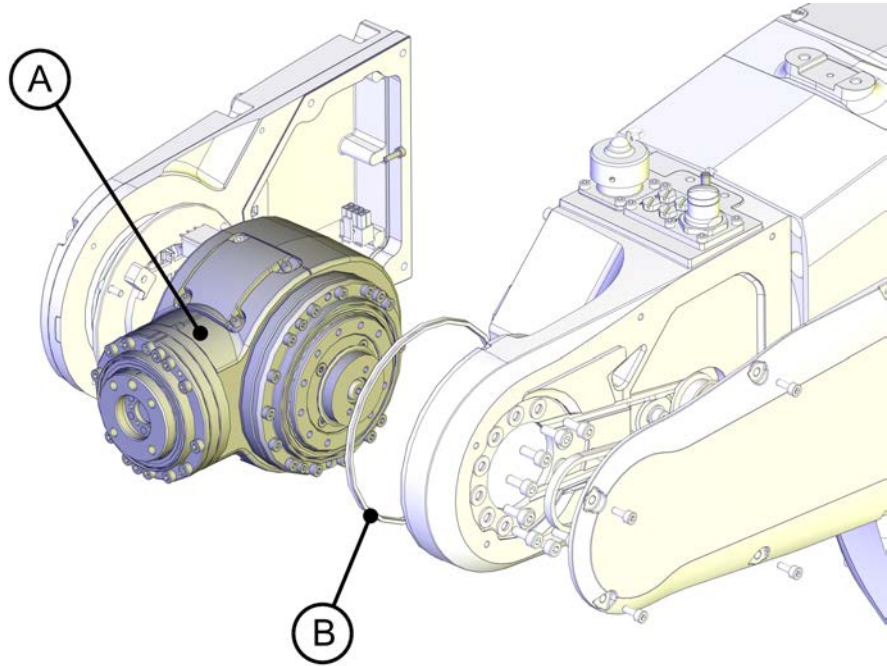
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1 Spare parts and exploded views

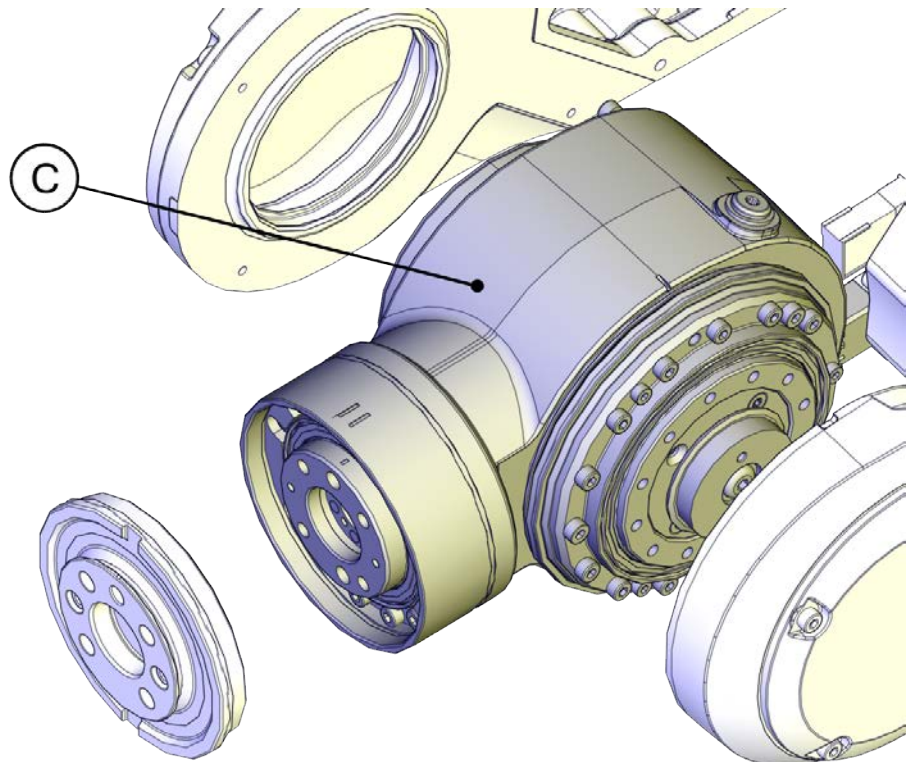
1.10.5 Spare parts - axis-5 and axis-6 drive unit

Continued

Spare part illustration



xx140000673



xx2100001163

1.11 Spare parts - information labels

Information labels

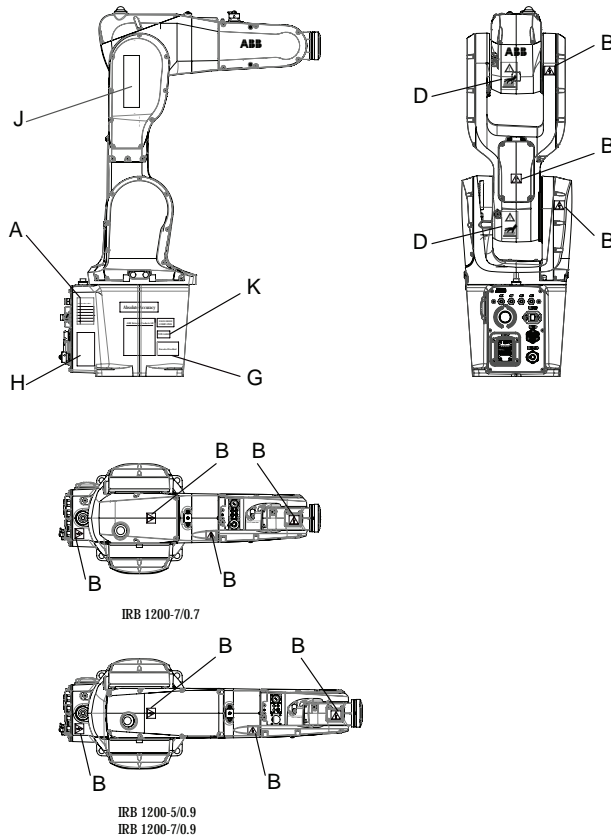
Spare part list

Spare part number	Description	Standard (IP40)	IP67	Foundry Plus	Clean Room	Food Grade lubrication	Hygienic
- 3HAC051417-001	Labels and plate set	X	X	X	X	X	

Spare part illustration

The figures show all labels included in the labels and plate set.

Illustration 1 of 2



xx140000520

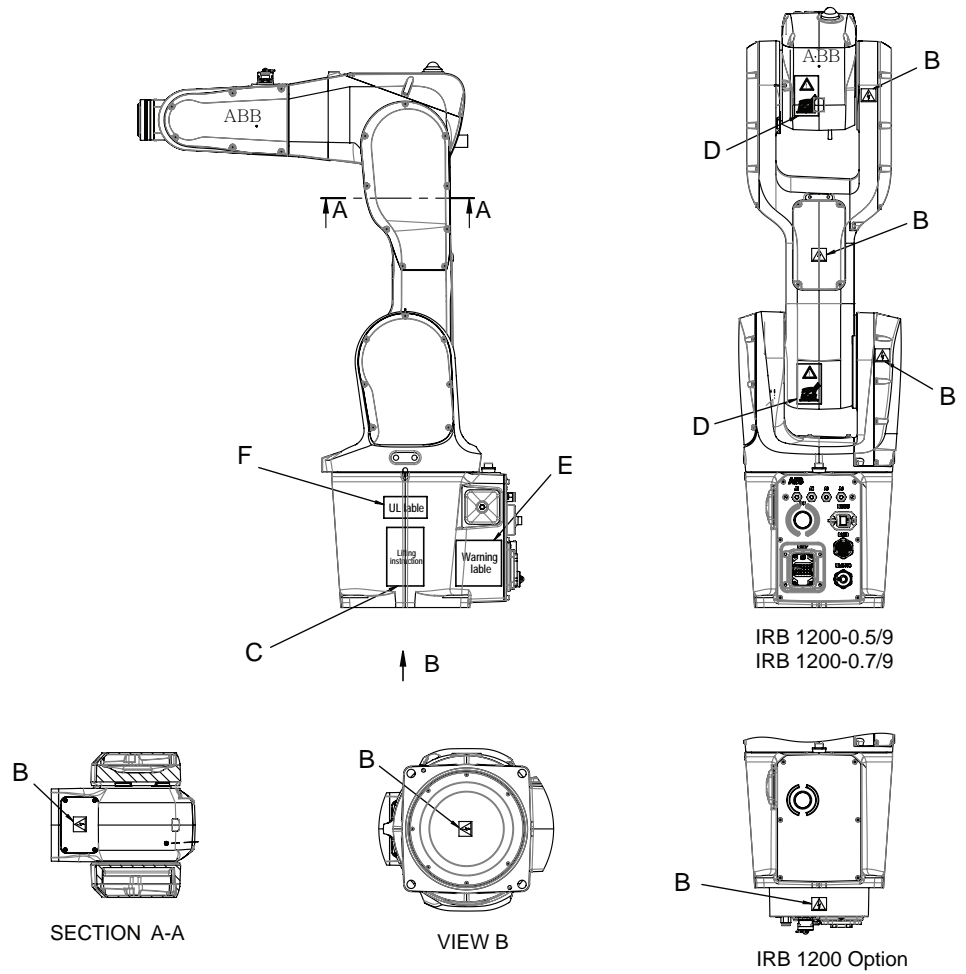
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1 Spare parts and exploded views


1.11 Spare parts - information labels

Continued

Illustration 2 of 2



xx140000521

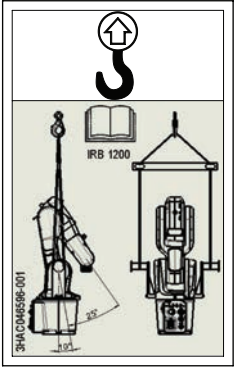

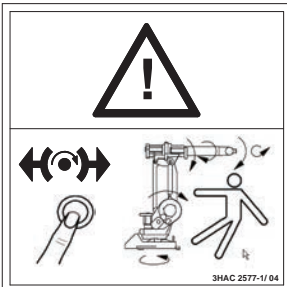
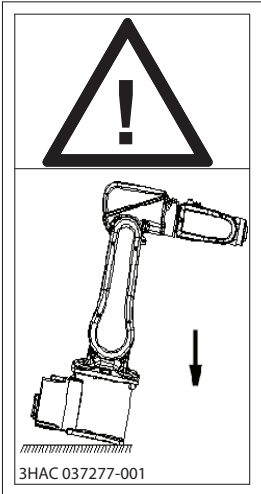
	Description	Illustration
A	Calibration label	
B	Warning label Flash	 xx1300001091

Continues on next page

1 Spare parts and exploded views

1.11 Spare parts - information labels

Continued





C	<p>Instruction label Lifting of robot</p>	 <p>IRB 1200 3HAC04698-001</p> <p>xx140000518</p>
D	<p>Warning label Heat</p>	 <p>3HAC 03711-006</p> <p>xx1300001087</p>
E	<p>Instruction label Brake release Moving robot Brake release buttons</p>	 <p>3HAC 2577-1/ 04</p> <p>xx140000519</p>
F	<p>UL label</p>	
G	<p>Rating label</p>	
H	<p>Warning label Tip risk when loosening bolts</p>	 <p>3HAC 037277-001</p> <p>xx140000527</p>

Continues on next page

1 Spare parts and exploded views

1.11 Spare parts - information labels

Continued

J	Clean Room label	 xx1600001074
	Foundry Plus label	 xx1600001075
K	Type A label	 xx1600002136
	Type B label	 xx1600002137



1 Spare parts and exploded views

1.12 Spare parts - Axis Calibration items

1.12 Spare parts - Axis Calibration items

Axis Calibration items

Spare part list

	Spare part number	Description	Figure	Standard (IP40)	IP67	Foundry Plus	Clean Room	Food Grade lubrication	Hygienic
-	3HAC059556-001	Protective plug for bushing	 xx1600001042	X	X	X			
-	3HAC059557-001	Protective plug for bushing, Clean Room Protective plug for bushing, food grade lubrication Protective plug for bushing, Hygienic	 xx1600001043				X	X	X

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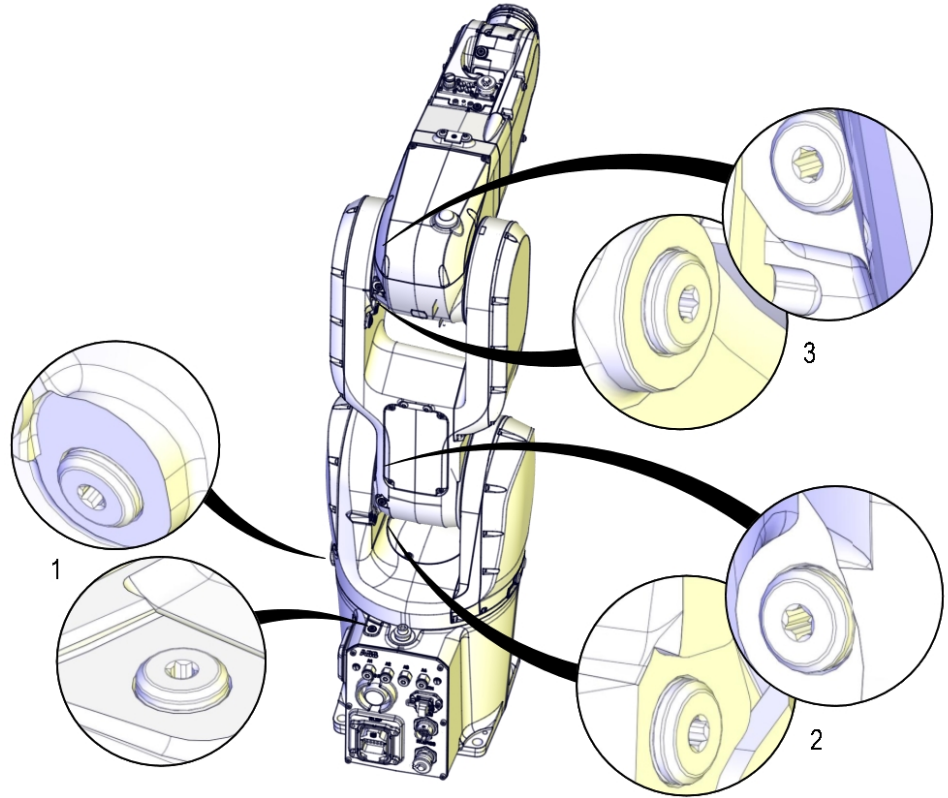
1 Spare parts and exploded views

1.12 Spare parts - Axis Calibration items

Continued

Spare part illustration

The protective plugs are installed in the bushings used for the calibration tools for Axis Calibration method. There are two bushings each on axes 1, 2, 3, 4 and 5. Axis 6 has only one bushing.



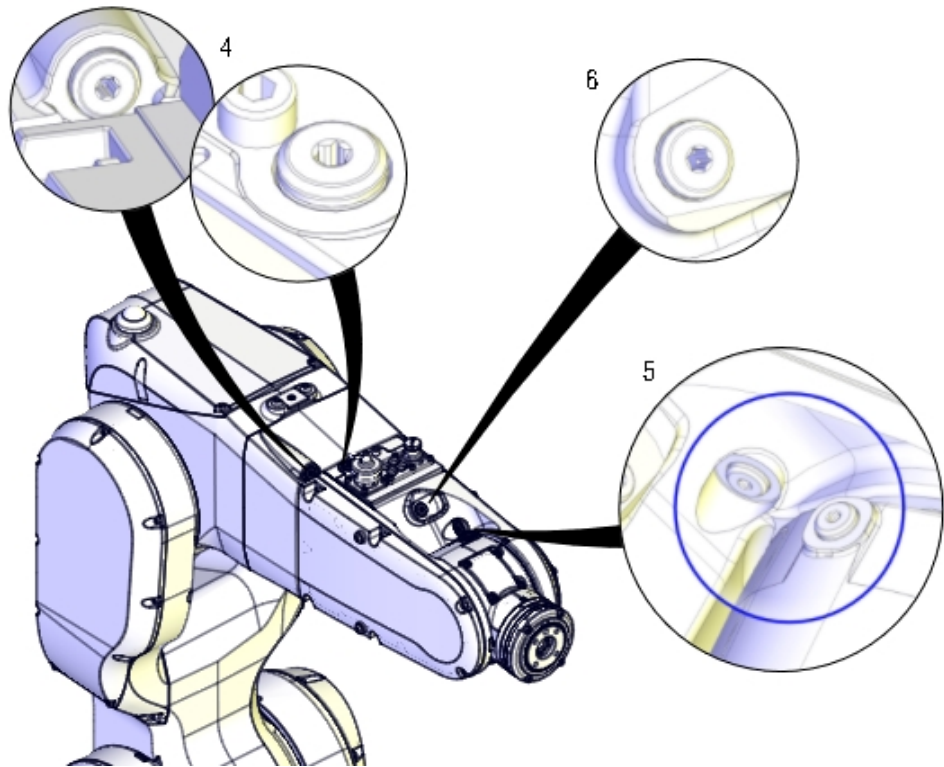
xx1600001035

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1 Spare parts and exploded views

1.12 Spare parts - Axis Calibration items

Continued



xx1600001044

1 Spare parts and exploded views

1.13 Spare parts - options

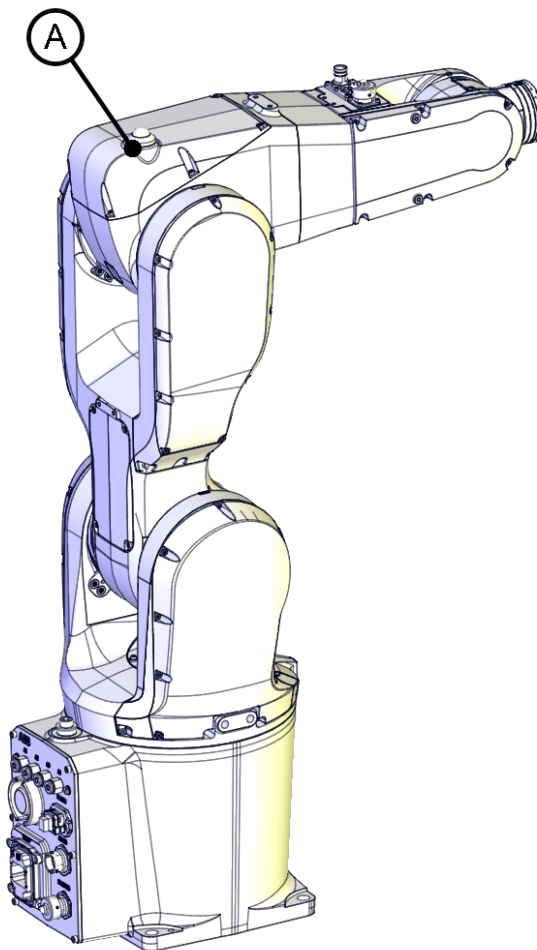
1.13 Spare parts - options

Options

Spare part list

	Spare part number	Description	Standard		Foundry Plus	Clean Room	Food Grade	Hygienic
			(IP40)	IP67			lubrication	
A	3HAC16738-1	Signal lamp	X	X	X	X	X	X

Spare part illustration



xx140000667

2 Robot description

2.1 Introduction

Manipulator description

IRB 1200 is one of ABB 6-axis industrial robots, with multiple variants designed to work in various environments. Different IRB 1200 variant supports to work with either IRC5/IRC5C controller or OmniCore controller, or both. This section describes the relationship among robot variants, protection classes/types and supported controller type. For details, see *Product specification - IRB 1200*.

Supported controller type for different IRB 1200 variants

Protection	Controller type			
	IRC5	IRC5C	OmniCore C line ⁱ	OmniCore E line
IRB 1200-5/0.9	X	X	X	X
IRB 1200-7/0.7	X	X	X	X
IRB 1200-7/0.9			X	X

ⁱ IRB 1200-5/0.9 and IRB 1200-7/0.7 work with OmniCore C30 and C90XT Type A controllers. IRB 1200-7/0.9 work with OmniCore C30 Type A and C90XT Type A controllers.

Supported protection classes/types for different IRB 1200 variants

Protection	Robot variant		
	IRB 1200-5/0.9	IRB 1200-7/0.7	IRB 1200-7/0.9
Standard, IP40	X	X	X
Standard, IP67	X	X	X
Clean Room	X	X	X
Food grade lubrication	X	X	
Foundry plus	X	X	X
Hygienic	X	X	

Supported controller type for IRB 1200 in different protection classes/types

Protection	Controller type			
	IRC5	IRC5C	OmniCore C line	OmniCore E line
Standard, IP40	X	X	X	X
Standard, IP67	X	X	X	X
Clean Room	X	X	X	X
Food grade lubrication	X	X		
Foundry plus	X	X	X	X
Hygienic	X	X	X	X

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2 Robot description

2.1 Introduction

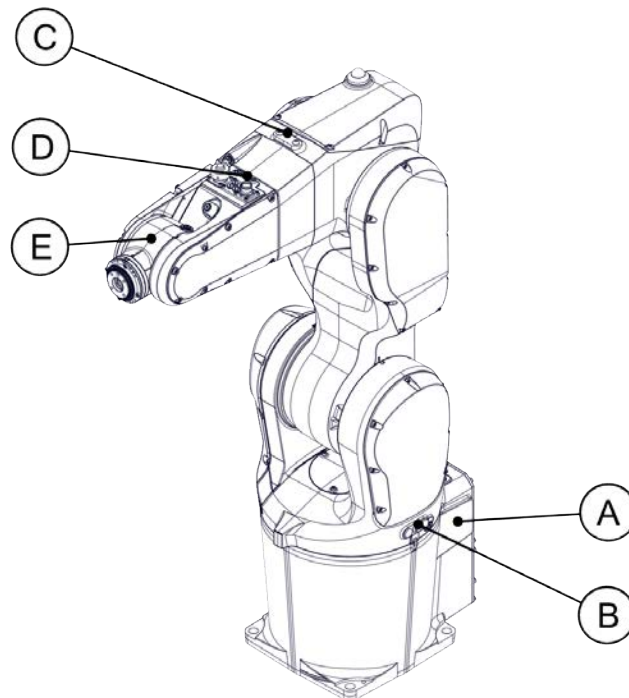
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Appearance description

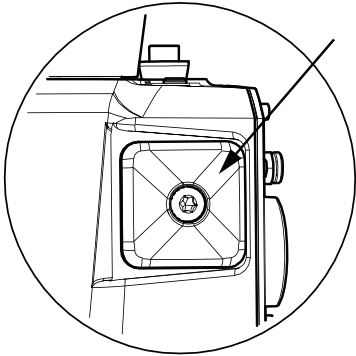
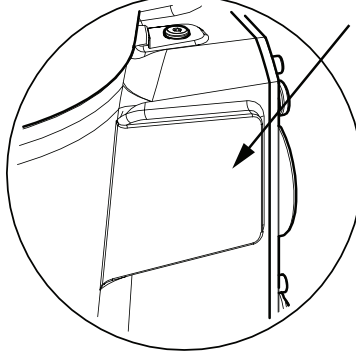
Appearance of IRB 1200 differs according to the actual order time, while robot functions remain the same.

Please note, figures throughout this product manual mainly show the original appearance design. If any installation, maintenance or replacement procedure is not required for the robots with new design, such as those related to tilt covers, skip related steps and proceed to following actions.

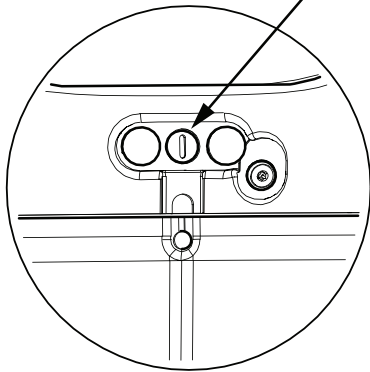
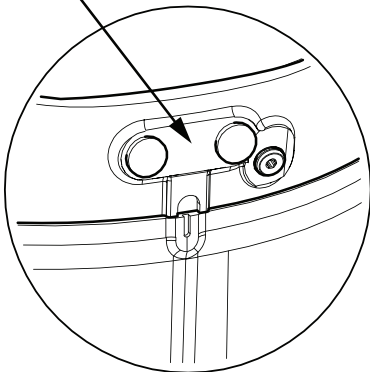
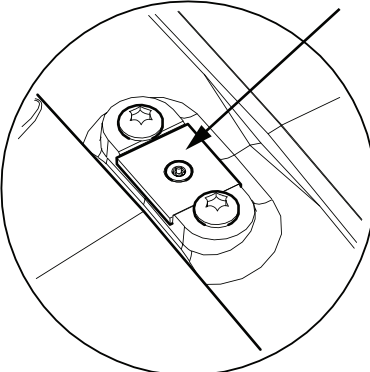
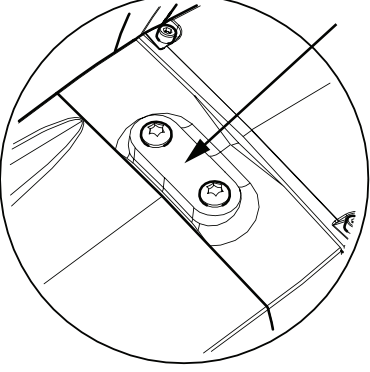
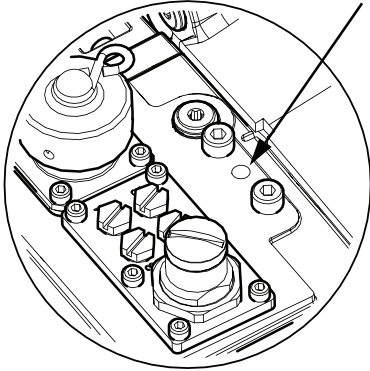
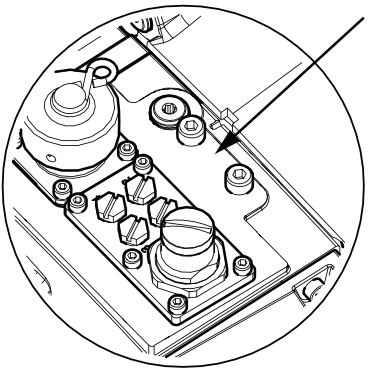
Refer to the following figure and table for detailed differences between original and new appearance design.



xx2200001263

Item	Location	Original appearance design	New appearance design
A	Base	 <p>xx2200001264</p>	 <p>xx2200001265</p>

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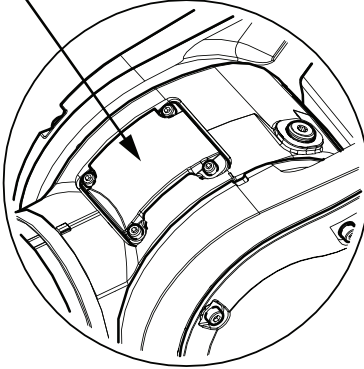
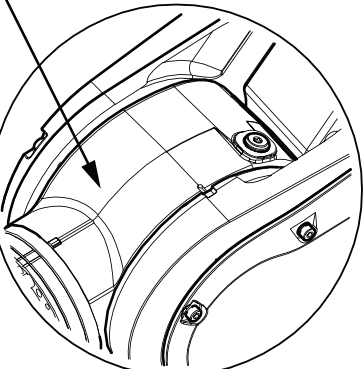
Item	Location	Original appearance design	New appearance design
B	Swing	 <p>xx2200001266</p>	 <p>xx2200001267</p>
C	Housing	 <p>xx2200001268</p>	 <p>xx2200001269</p>
D	Connector set on tubular	 <p>xx2200001270</p>	 <p>xx2200001271</p>

Continues on next page

2 Robot description

2.1 Introduction

Continued

Item	Location	Original appearance design	New appearance design
E	Tilt unit	 <p>xx2200001272</p>	 <p>xx2200001273</p>

2.2 Type A of IRB 1200

Type A - Axis Calibration

The difference between IRB 1200 and IRB 1200 Type A is that the Type A is calibrated with Axis Calibration. On each axis there are bushings for installation of calibration tools.

As a result of this, the castings differ between IRB 1200 and IRB 1200 Type A.



Note

IRB 1200 Type B is designed based on IRB 1200 Type A so that Type B has the bushings for installation of calibration tools too.

The difference between IRB 1200 Type A and IRB 1200 Type B is that Type B also supports SafeMove 2. See [Type B of IRB 1200 on page 76](#).

How to know which type the robot is?

The type label on the base of the robot tells if the robot is calibrated with Axis Calibration.

Those robots are named IRB 1200 Type A.



Note

If no type label attached on the robot, use the bushings on each axis to identify a robot calibrated with Axis Calibration.

Those robots which are not equipped for Axis Calibration are simply named IRB 1200 (no type specified).

2 Robot description

2.3 Type B of IRB 1200

2.3 Type B of IRB 1200

Type B - SafeMove 2



Note

IRB 1200 working with OmniCore E10 does not support SafeMove 2.

The difference between IRB 1200 Type B and other IRB 1200 versions is that the Type B supports SafeMove 2.

As a result of this, the following parts differ from other versions:

- Base
- Drive unit, axis 2, axis 3, axis 5 and axis 6
- Motor with pulley, axis 4 and axis 5
- Manipulator cable harness
- Battery pack
- SMB unit (replacing EIB unit)

IRB 1200 Type B is designed based on IRB 1200 Type A so that Type B has the bushings for installation of calibration tools too.

How to know which type the robot is?

The type label on the base of the robot tells if the robot supports SafeMove 2.

Those robots are named IRB 1200 Type B.

2.4 Description of spare part versions


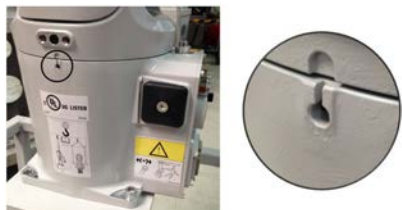
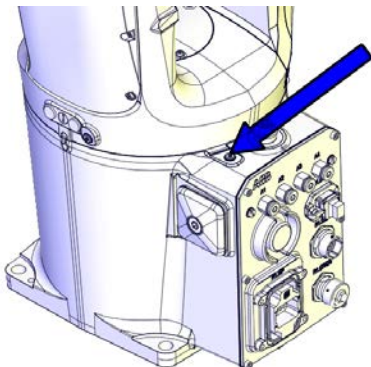
2.4.1 Spare part versions for the base on IP40/IP67 robots

Spare part versions for the base on IP40/IP67 robots



Note

IRB 1200 has different base versions that are not compatible with each other. Always use the following list as a reference to check the base installed on robot and order the correct spare parts.

Base installed on robot (spare part number)	Article number in WebConfig	What to order	How to see which version is installed on robot
3HAC049628-001	3HAC044533-001	Order: <ul style="list-style-type: none"> base 3HAC059553-001 swing 3HAC059554-001 or 3HAC082506-001 (depends on the calibration method used) IP40: sealing ring 3HAC086035-001 IP67: sealing ring + gasket + V-ring 3HAC059791-001 	Look on the outside of the base. Base 3HAC049628-001 has no hole on the side of the base.  xx160000124
3HAC057999-001	3HAC056657-001	Order: <ul style="list-style-type: none"> base 3HAC059553-001 	Base 3HAC057999-001 has a hole on the side of the base.  xx160000051
3HAC059553-001	3HAC058386-001	Order: <ul style="list-style-type: none"> base 3HAC059553-001 	Base 3HAC059553-001 has a bushing for fitting calibration tool for Axis Calibration.  xx1600001037

2 Robot description

2.4.2 Spare part versions for the swing on IP40/IP67 robots

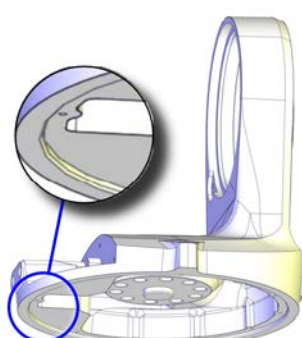
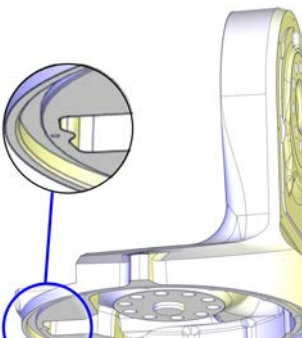
2.4.2 Spare part versions for the swing on IP40/IP67 robots

Spare part versions for the swing on IP40/IP67 robots

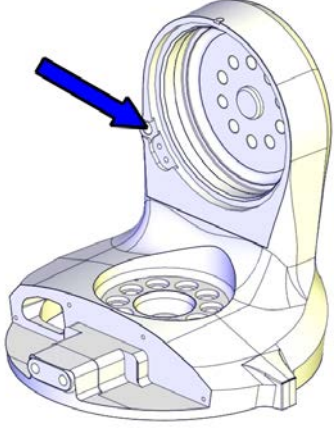
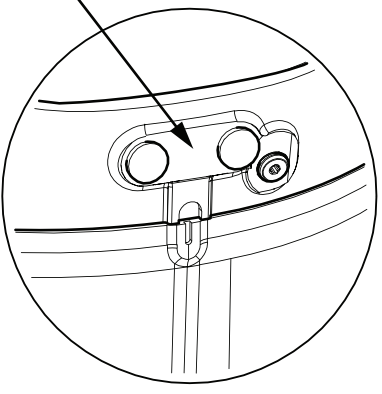


Note

IRB 1200 has different swing versions that are not compatible with each other. Always use the following list as a reference to check the swing installed on robot and order the correct spare parts.

Swing installed on robot (spare part number)	Article number in WebConfig	What to order	How to see which version is installed on robot
3HAC049632-001	3HAC044534-001	Order: <ul style="list-style-type: none"> • swing 3HAC059554-001 • IP67: sealing ring + gasket + V-ring 3HAC059791-001 	Look underneath the swing, the surface is flat.  <small>xx1600000052</small>
3HAC058000-001	3HAC056656-001	Order: <ul style="list-style-type: none"> • swing 3HAC059554-001 	Look underneath the swing, there is a groove.  <small>xx1600000053</small>

Continues on next page

Swing installed on robot (spare part number)	Article number in WebConfig	What to order	How to see which version is installed on robot
3HAC059554-001	3HAC058387-001	Order: <ul style="list-style-type: none"> • swing 3HAC082506-001 	The swing has a bushing for fitting calibration tool for Axis Calibration.  <p>xx1600001038</p>
3HAC082506-001	3HAC081401-001	Order: <ul style="list-style-type: none"> • swing 3HAC082506-001 	The swing removes the hole for fixing the manual calibration pin.  <p>xx2200001267</p>

2 Robot description

2.4.3 Spare part versions for the axis-1 sealing ring on IP40/IP67 robots

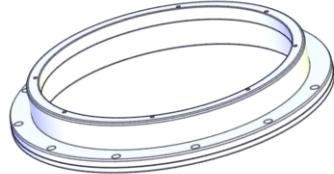


2.4.3 Spare part versions for the axis-1 sealing ring on IP40/IP67 robots

Spare part versions for the axis-1 sealing ring on IP40/IP67 robots



Note

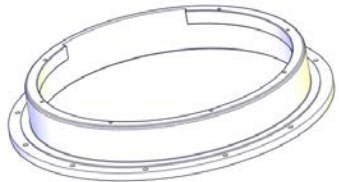
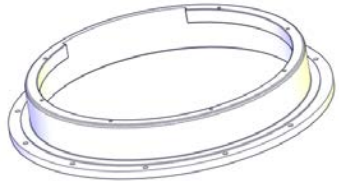
IRB 1200 has different axis-1 sealing ring versions that are not compatible with each other. Always use the following list as a reference to check the sealing ring installed on robot and order the correct spare parts.

Sealing ring installed on robot (spare part number)	Article number in WebConfig	What to order	How to see which version is installed on robot
3HAC044676-001	3HAC044676-001	Order: <ul style="list-style-type: none"> sealing ring 3HAC073849-001 	The sealing ring is flat.  xx1600000125
3HAC056658-001	3HAC056658-001	Order: <ul style="list-style-type: none"> IP40: sealing ring 3HAC086035-001 IP67: sealing ring + gasket + V-ring 3HAC059791-001 	The sealing ring has one folded wall on both sides.  xx1600000126
3HAC058568-001	3HAC058568-001	Order: <ul style="list-style-type: none"> IP40: sealing ring 3HAC086035-001 Other than IP40: sealing ring 3HAC068107-001 	The sealing ring is flat and the edge is thinner.  xx1600001039

Continues on next page


2.4.3 Spare part versions for the axis-1 sealing ring on IP40/IP67 robots

Continued

Sealing ring installed on robot (spare part number)	Article number in WebConfig	What to order	How to see which version is installed on robot
3HAC068107-001	3HAC068107-001	Order: <ul style="list-style-type: none"> IP40: sealing ring 3HAC086035-001 Other than IP40: sealing ring 3HAC068107-001 	The sealing ring has a gap in the inner side.  <small>xx1900001603</small>
3HAC086035-001	3HAC086035-001	Order: <ul style="list-style-type: none"> sealing ring 3HAC086035-001 	The sealing ring is in the same pattern as 3HAC068107-001 but has no coating. It is only used for IP40 robots.  <small>xx1900001603</small>

Compatibility between cable harness and axis-1 sealing ring on IP40/IP67 robots

The manipulator cable harness is designed with different cable brackets that are compatible with different spare part versions of the axis-1 sealing ring. Always use the following list as a reference to check the cable harness installed on robot and order the correct spare parts.

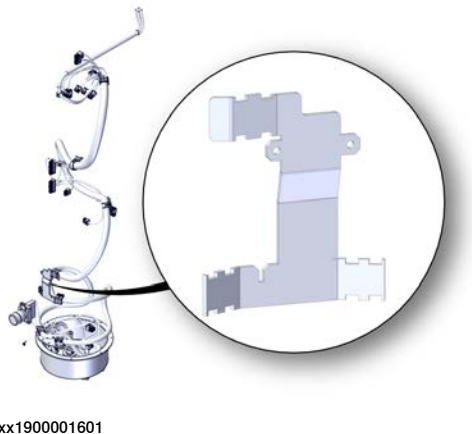
How to see which kind of cable harness is installed on robot	What to order
 <small>xx1900001602</small>	Order: <ul style="list-style-type: none"> corresponding cable harness. See "Manipulator cable harness" in <i>Product manual, spare parts - IRB 1200</i> for spare part numbers. sealing ring 3HAC086035-001 (for IP40 robots) or 3HAC068107-001 (for robots other than IP40)

Continues on next page

2 Robot description

2.4.3 Spare part versions for the axis-1 sealing ring on IP40/IP67 robots

Continued

How to see which kind of cable harness is installed on robot	What to order
 <p>xx1900001601</p>	<p>Order:</p> <ul style="list-style-type: none">• corresponding cable harness. <p>See "Manipulator cable harness" in <i>Product manual, spare parts - IRB 1200</i> for spare part numbers.</p>

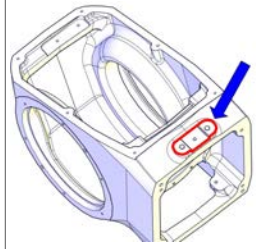
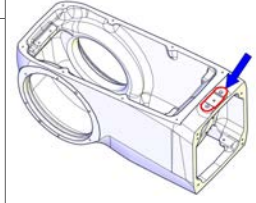
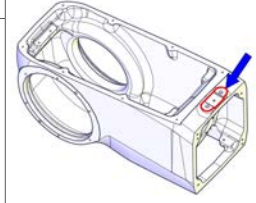
2.4.4 Spare part versions for the housing on Type A robots

Spare part versions for the housing on Type A robots



Note

IRB 1200 and IRB 1200 Type A have different housing versions that are not compatible with each other. Always use the following list as a reference to check the housing installed on robot and to order the correct spare parts.

Robot variant	Housing installed on robot (spare part number)	Article number in WebConfig	What to order	How to see which version is installed on robot
IRB 1200-7/0.7	3HAC059680-001	3HAC044544-001	Order: <ul style="list-style-type: none"> housing (IRB 1200-7/0.7): 3HAC059680-001 	The plane (encircled in the figure) on housing 3HAC059680-001 has no painting, while that on housing 3HAC059721-001 is painted.  xx1600001127
	3HAC059721-001	3HAC058389-001 / 3HAC081402-001	Order: <ul style="list-style-type: none"> housing (IRB 1200-7/0.7): 3HAC059721-001 	
IRB 1200-5/0.9	3HAC059681-001	3HAC044556-001	Order: <ul style="list-style-type: none"> housing (IRB 1200-5/0.9): 3HAC059681-001 	The plane (encircled in the figure) on housing 3HAC059681-001 has no painting, while that on housing 3HAC059722-001 is painted.  xx1600001129
	3HAC059722-001	3HAC058393-001 / 3HAC081405-001	Order: <ul style="list-style-type: none"> housing (IRB 1200-5/0.9 and IRB 1200-7/0.9): 3HAC059722-001 	
IRB 1200-7/0.9	3HAC059722-001	3HAC081405-001	Order: <ul style="list-style-type: none"> housing (IRB 1200-5/0.9 and IRB 1200-7/0.9): 3HAC059722-001 	 xx1600001129

2 Robot description

2.4.5 Spare part versions for the tubular on Type A robots

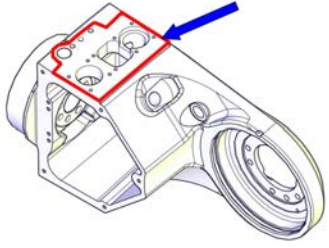
2.4.5 Spare part versions for the tubular on Type A robots

Spare part versions for the tubular on Type A robots



Note

IRB 1200 and IRB 1200 Type A have different tubular versions that are not compatible with each other. Always use the following list as a reference to check the tubular installed on robot and to order the correct spare parts.

Tubular installed on robot (spare part number)	Article number in WebConfig	What to order	How to see which version is installed on robot
3HAC059693-001	3HAC044548-001	Order: <ul style="list-style-type: none">tubular with sleeve: 3HAC059693-001	The plane (encircled in the figure) on tubular 3HAC059693-001 has no painting, while that on tubular 3HAC059723-001 is painted.  xx1600001128
3HAC059723-001	3HAC058390-001	Order: <ul style="list-style-type: none">tubular with sleeve: 3HAC059723-001	

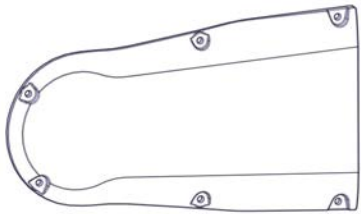
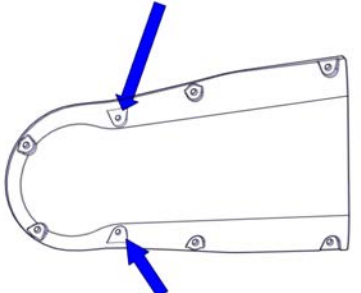
2.4.6 Spare part versions for the tubular cover on Clean Room robots

Spare part versions for the tubular cover on Clean Room robots



Note

IRB 1200 with protection type Clean Room has different tubular cover versions that are not compatible with each other. Always use the following list as a reference to check the tubular cover installed on robot and to order the correct spare parts.

Tubular cover installed on Clean Room robots (spare part number)	Article number in WebConfig	What to order	How to see which version is installed on robot
3HAC056144-001	3HAC044550-001	Order: <ul style="list-style-type: none"> tubular cover, clean room: 3HAC056144-001 	<p>Tubular cover 3HAC056144-001 has six screw holes.</p>  <p>xx1600001117</p>
3HAC059708-001	3HAC058929-001	Order: <ul style="list-style-type: none"> tubular cover, clean room: 3HAC059708-001 	<p>Tubular cover 3HAC059708-001 has eight screw holes.</p>  <p>xx1600001118</p>

2 Robot description

2.4.7 Spare parts for Hygienic robots with food grade lubrication

2.4.7 Spare parts for Hygienic robots with food grade lubrication

Spare part order requirement for Hygienic robots with food grade lubrication

To have food grade lubrication for robots working with OmniCore controllers, order spare parts used for Hygienic robots, with a consult to your local ABB Customer Service first.

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