



Product manual, spare parts IRB 360

Trace back information:
Workspace R17-1 version a7
Checked in 2017-03-22
Skribenta version 5.1.011

Product manual, spare parts

IRB 360 - 1/800

IRB 360 - 1/1130

IRB 360 - 1/1600

IRB 360 - 3/1130

IRB 360 - 6/1600

IRB 360 - 8/1130

IRC5

Document ID: 3HAC049101-001

Revision: D

The information in this manual is subject to change without notice and should not be construed as a commitment by ABB. ABB assumes no responsibility for any errors that may appear in this manual.

Except as may be expressly stated anywhere in this manual, nothing herein shall be construed as any kind of guarantee or warranty by ABB for losses, damages to persons or property, fitness for a specific purpose or the like.

In no event shall ABB be liable for incidental or consequential damages arising from use of this manual and products described herein.

This manual and parts thereof must not be reproduced or copied without ABB's written permission.

Keep for future reference.

Additional copies of this manual may be obtained from ABB.

Original instructions.

© Copyright 2014 - 2017 ABB. All rights reserved.

ABB AB, Robotics
Robotics and Motion
Se-721 68 Västerås
Sweden

Table of contents

Overview of this manual	7
Product documentation, IRC5	9
1 Spare parts in robot base	11
1.1 Spare parts - gearbox axes 1- 3	11
1.2 Spare parts - gear unit axis 4	12
1.3 Spare parts - transmission cover	14
1.4 Spare parts - cable harness	16
1.5 Spare parts - SMB unit	18
1.6 Spare parts - base	20
1.7 Spare parts - brake release button	21
2 Spare parts arm system	23
2.1 Spare parts - upper arm, IRB 360	23
2.2 Spare parts - telescopic shafts	25
2.3 Spare parts - parallel arm system, IRB 360	27
2.4 Spare parts - movable plate	29
3 Spare parts, customer options	33
3.1 Spare parts - ejector unit	33
3.2 Spare parts - customer options signal lamp IRB 360	34
3.3 Spare parts - option 864-1 (Axis 7)	35
4 Upgrade set	37

This page is intentionally left blank

Overview of this manual

About this manual

This manual contains spare parts for:

- IRB 360 and all its variants.

Usage

This manual shall be used as a complement to the product manual for IRB 360 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 Rebuilding robot	Information of rebuilding parts, required when rebuilding the robot to another version.
2 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 360</i>	<i>3HAC030005-001</i>
<i>Circuit diagram - IRB 360</i>	<i>3HAC028647-009</i>

Revisions

Revision	Description
-	First edition
A	This revision includes the following updates: <ul style="list-style-type: none">• Spare parts with color Graphite White are added to the spare part lists.

Continues on next page

Revision	Description
B	This revision includes the following updates: <ul style="list-style-type: none">• Spare part number for Movable plate and ball bearing updated.• Minor corrections• Changes regarding SMB units.• Generally modified due to update of BOL
C	This revision includes the following updates: <ul style="list-style-type: none">• Corrections due to updates in SAP terminology.
D	This revision includes the following updates: <ul style="list-style-type: none">• Sealing ring (V-ring) added to spare part list, movable plate.

Product documentation, IRC5

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.

All documents listed can be ordered from ABB on a DVD. The documents listed are valid for IRC5 robot systems.

Product manuals

Manipulators, controllers, DressPack/SpotPack, 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.
- Decommissioning.
- Reference information (safety standards, unit conversions, screw joints, lists of tools).
- Spare parts list with exploded views (or references to separate spare parts lists).
- Circuit diagrams (or references to circuit diagrams).

Technical reference manuals

The technical reference manuals describe reference information for robotics products.

- *Technical reference manual - Lubrication in gearboxes*: Description of types and volumes of lubrication for the manipulator gearboxes.
- *Technical reference manual - RAPID overview*: An overview of the RAPID programming language.
- *Technical reference manual - RAPID Instructions, Functions and Data types*: Description and syntax for all RAPID instructions, functions, and data types.
- *Technical reference manual - RAPID kernel*: A formal description of the RAPID programming language.
- *Technical reference manual - System parameters*: Description of system parameters and configuration workflows.

Continues on next page

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, DVD with PC software).
- How to install included or required hardware.
- How to use the application.
- 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 trouble shooters.

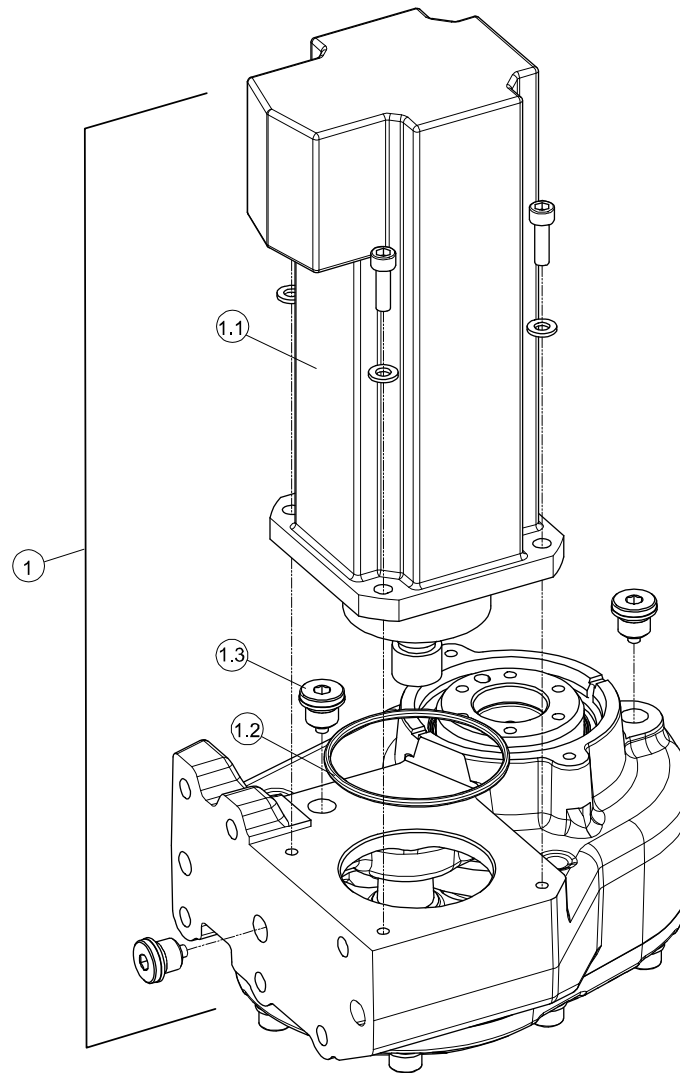
The group of manuals includes (among others):

- *Operating manual - Emergency safety information*
- *Operating manual - General safety information*
- *Operating manual - Getting started, IRC5 and RobotStudio*
- *Operating manual - IRC5 Integrator's guide*
- *Operating manual - IRC5 with FlexPendant*
- *Operating manual - RobotStudio*
- *Operating manual - Trouble shooting IRC5*

1 Spare parts in robot base

1.1 Spare parts - gearbox axes 1- 3

Illustration



xx0700000667

Spare part list

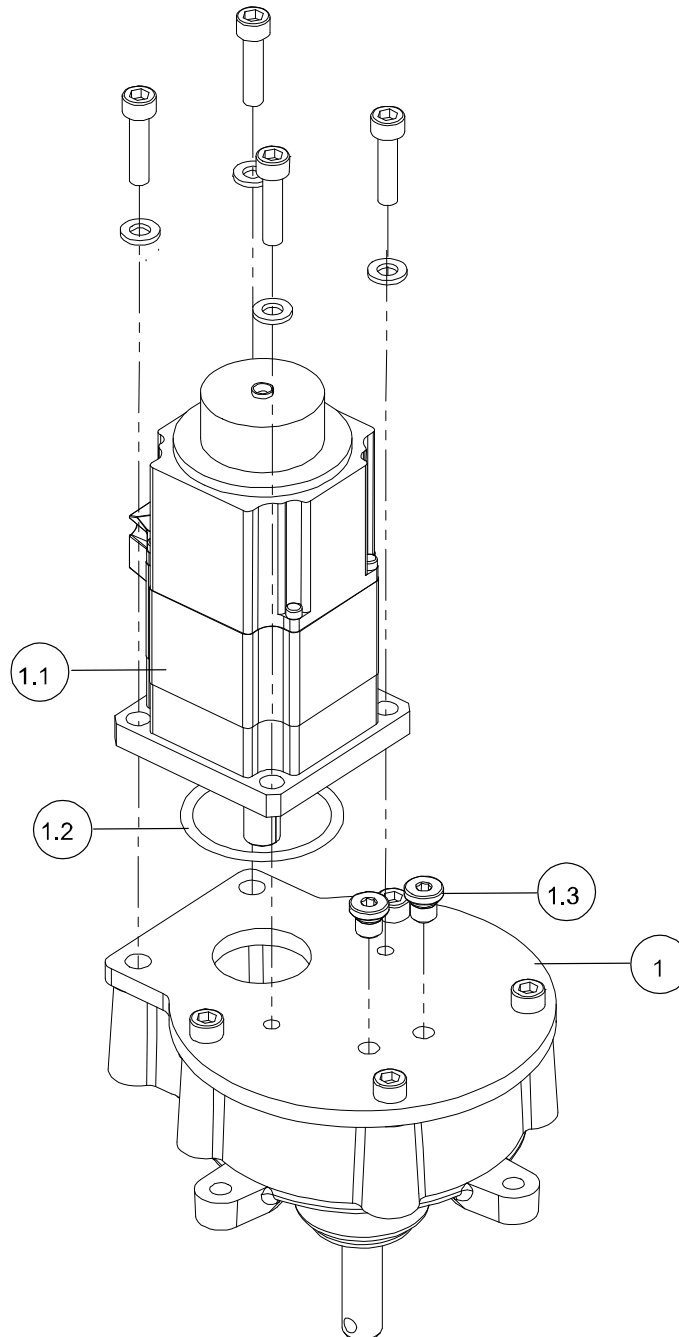
Part	Description	Spare part no.	Note/Qty
1	Gearbox with motor	3HAC028017-003	3 pcs
1.1	Motor with pinion ax1-3	3HAC026110-001	3 pcs
1.2	O-ring 67,5x3,0	3HAB3772-22	3 pcs
1.3	Magnetic plug	3HAC037925-001	9 pcs

1 Spare parts in robot base

1.2 Spare parts - gear unit axis 4

1.2 Spare parts - gear unit axis 4

Illustration



Spare part list

Part	Description	Spare part no.	Note/Qty
1	Motor and gearbox unit ax 4	3HAC028018-003	1 pcs
1.1	Motor with pinion ax 4	3HAC021799-003	1 pcs

Continues on next page

1 Spare parts in robot base

1.2 Spare parts - gear unit axis 4

Continued

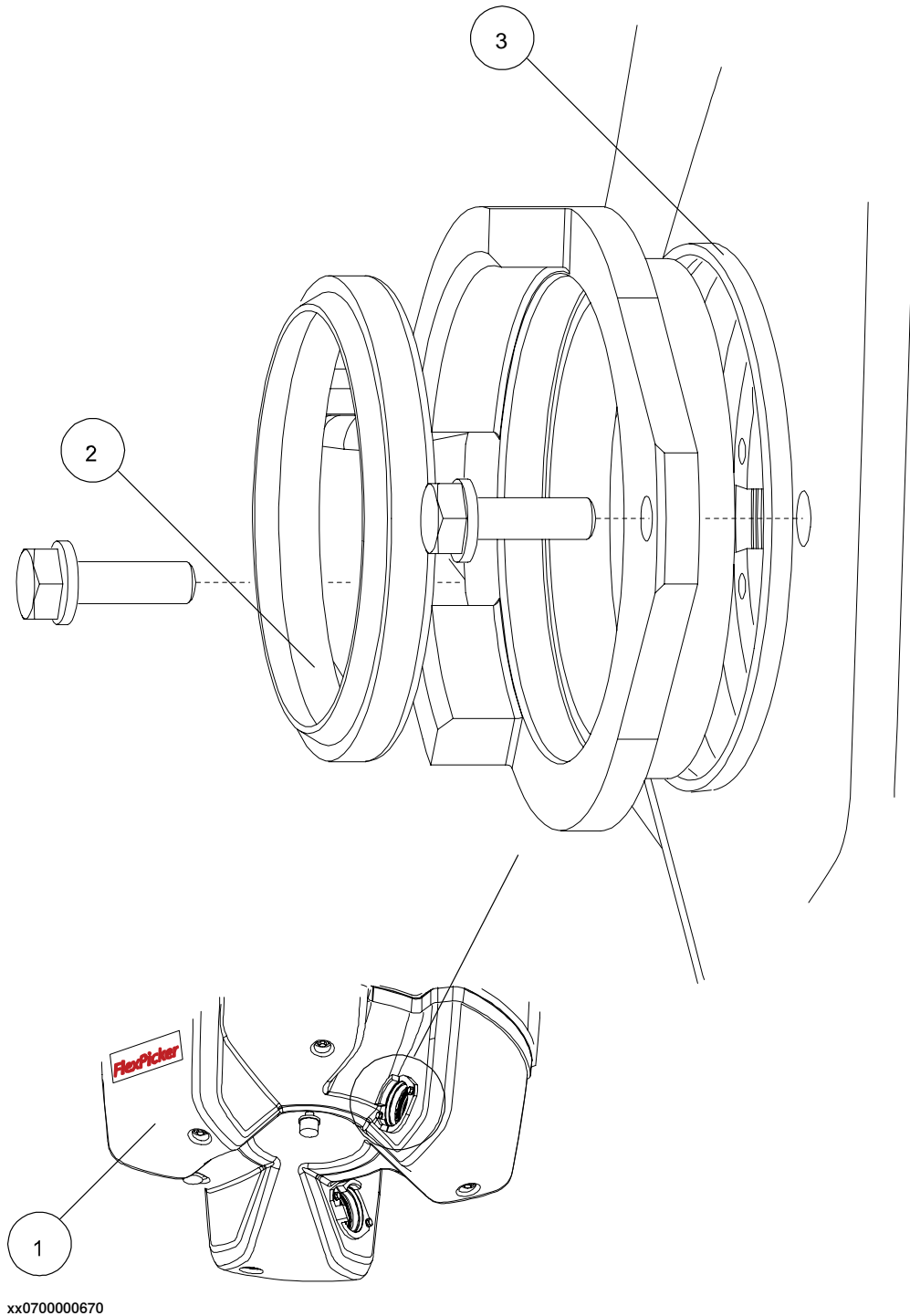
Part	Description	Spare part no.	Note/Qty
1.2	O-ring	3HAB3772-81	1 pcs
1.3	Sealing plug	3HAC9353-1	2 pcs

1 Spare parts in robot base

1.3 Spare parts - transmission cover

1.3 Spare parts - transmission cover

Illustration



Spare part list

Parts	Description	Spare part no.	Note/Qty
1	Transmission cover	3HAC028899-001	Without labels, 1 pcs

Continues on next page

1 Spare parts in robot base

1.3 Spare parts - transmission cover

Continued

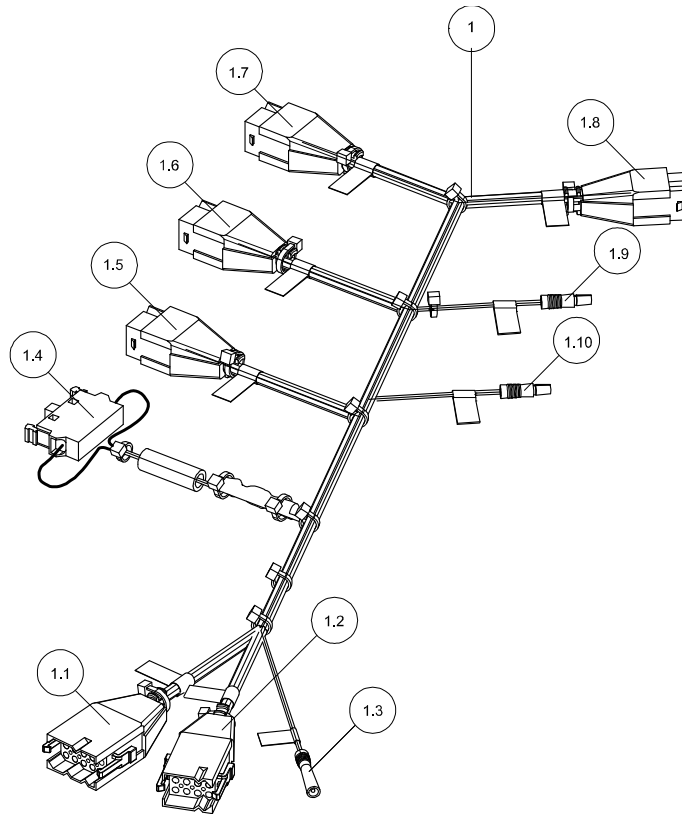
Parts	Description	Spare part no.	Note/Qty
2	Sealing ring	3HAC3934-1	3 pcs Not applicable to protection Clean Room and Stainless Clean Room.
2	Sealing ring	3HAC031586-002	Applicable for protection Clean Room and Stainless Clean Room.
3	Flange gasket ax.1-3	3HAC4309-1	3 pcs

1 Spare parts in robot base

1.4 Spare parts - cable harness

1.4 Spare parts - cable harness

Illustration power cable



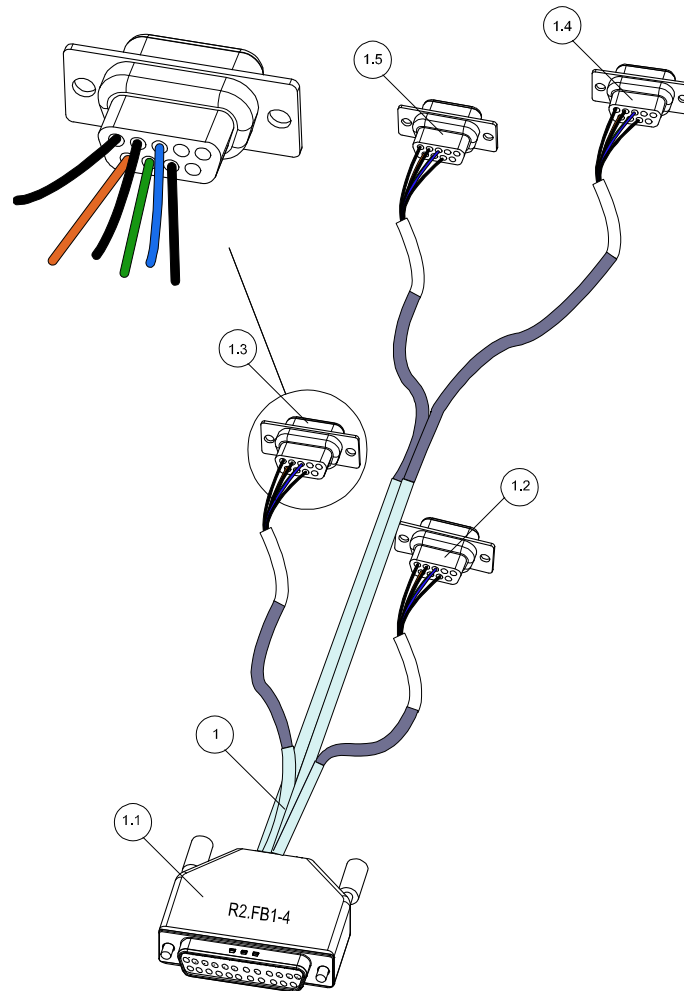
xx0700000672

Spare part list power cable

Part	Description	Spare part no.	Note
1	Cable harness power IRB 360	3HAC029695-001	
1.1	R1.MP1-3		Motor power
1.2	R1.MP4-6		Motor power
1.3	R1.H1		Signal lamp (Option)
1.4	S1		Brake release
1.5	R3.MP1		Motor power
1.6	R3.MP3		Motor power
1.7	R3.MP4		Motor power
1.8	R3.MP2		Motor power
1.9	R3.H1		Signal lamp (Option)
1.10	R3.H2		Signal lamp (Option)

Continues on next page

Illustration signal cable



xx0700000673

Spare part list signal cable

Part	Description	Spare part no.	Note
1	Cable harness signal IRB 360	3HAC1762-1	
1.1	R2.FB1-4		
1.2	R3.FB2		
1.3	R3.FB4		
1.4	R3.FB3		
1.5	R3.FB1		

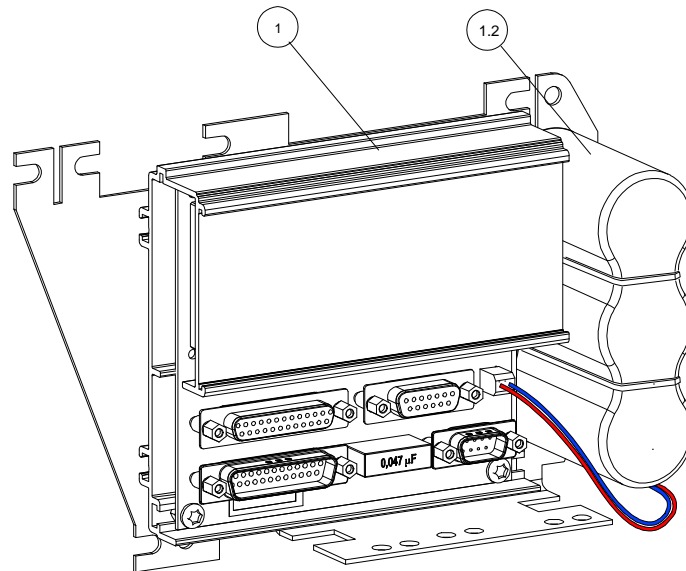
1 Spare parts in robot base

1.5 Spare parts - SMB unit

1.5 Spare parts - SMB unit

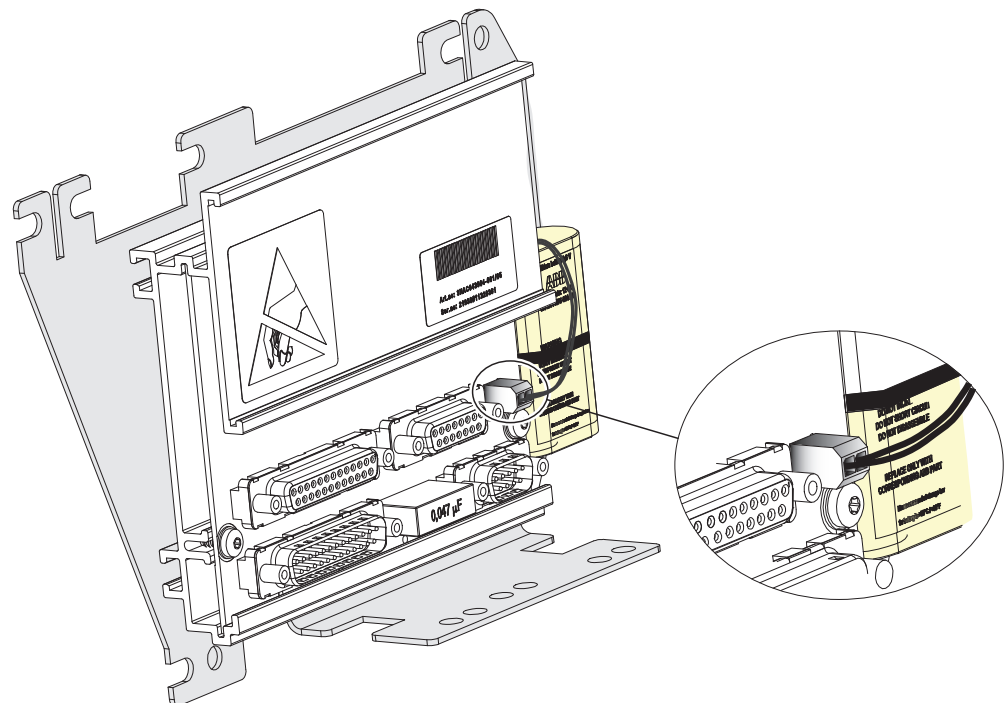
Illustration

DSQC 633A



xx0700000666

RMU 101



xx1300000352

Continues on next page

1 Spare parts in robot base

1.5 Spare parts - SMB unit

Continued

Spare part list

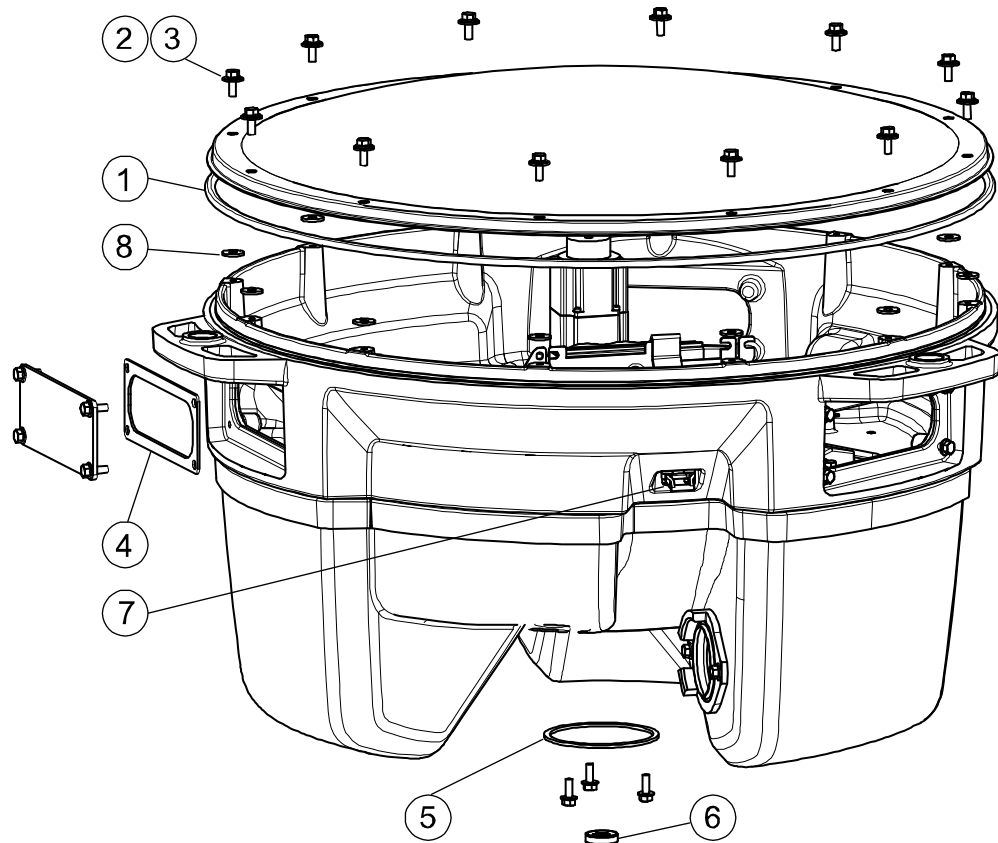
Part	Description	Spare part no.	Note
1	Serial measurement unit	3HAC046277-001	Contains serial measurement board 3HAC044168-001 and battery unit 3HAC044075-001.
1	Serial measurement board	3HAC044168-001	RMU 101
1.2	Battery pack (2-pole battery contact)	3HAC16831-1	Lithium 34x102x63 Does not fit SMB unit 3HAC046277-001.
1.2	Battery unit (3-pole battery contact)	3HAC044075-001	RMU Lithium 7.2V 3.6Ah Can only be used with SMB unit 3HAC046277-001 containing SMB board 3HAC044168-001.
-	SMB replacement set	3HAC046686-001	Contains all parts needed if SMB unit 3HAC17396-1 shall be replaced with SMB unit 3HAC046277-001.

1 Spare parts in robot base

1.6 Spare parts - base

1.6 Spare parts - base

Illustration



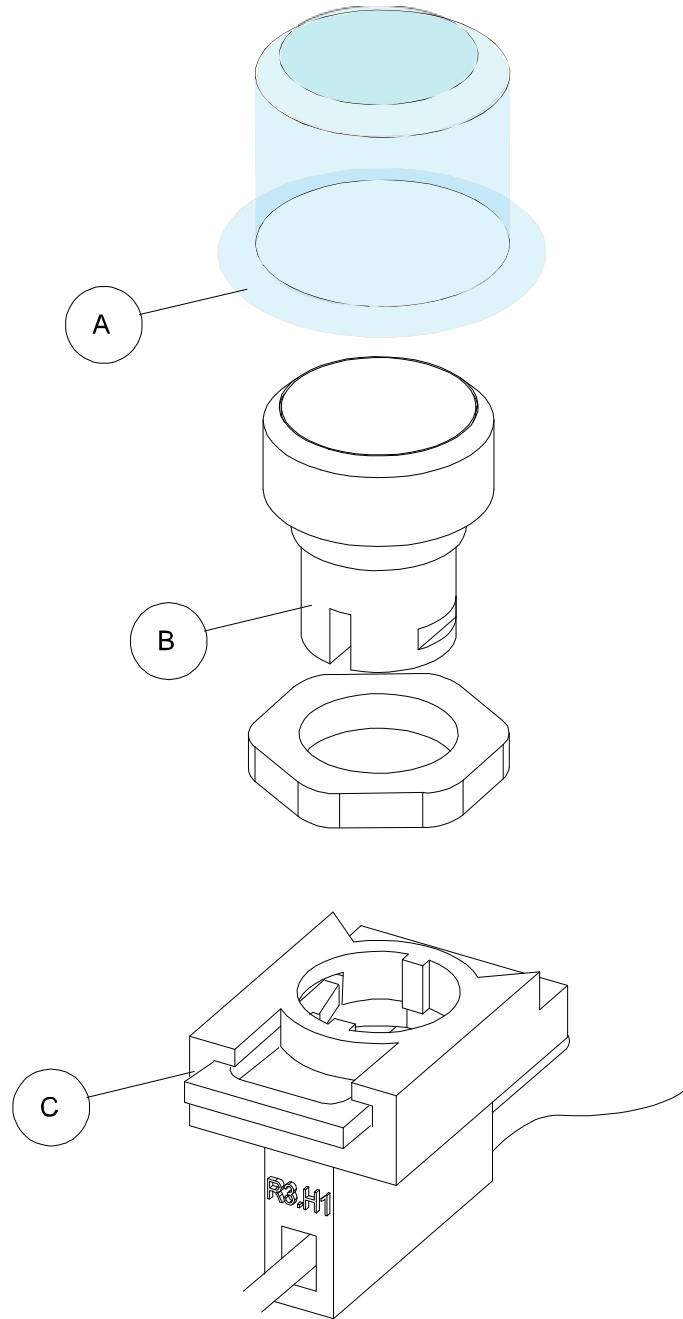
xx070000685

Spare part list

Part	Description	Spare part no.	Note/Qty
1	Hollow o-ring (base cover)	3HAC029556-007	1 pcs
2	Screw	3HAC029879-002	M6x20, 12 pcs
3	Washer	3HAC029877-001	Nylon, 12 pcs
4	Gasket	3HAC028972-001	3 pcs
5	Flange gasket	3HAC028959-001	1 pcs
6	Sealing ring	3HAB3701-27	1 pcs (not in 3D version)
7	Calibration mark	3HAC029997-001	3 pcs
8	Gasket	3HAC038185-001	12 pcs

1.7 Spare parts - brake release button

Illustration



xx0700000718

Spare part list, brake release button

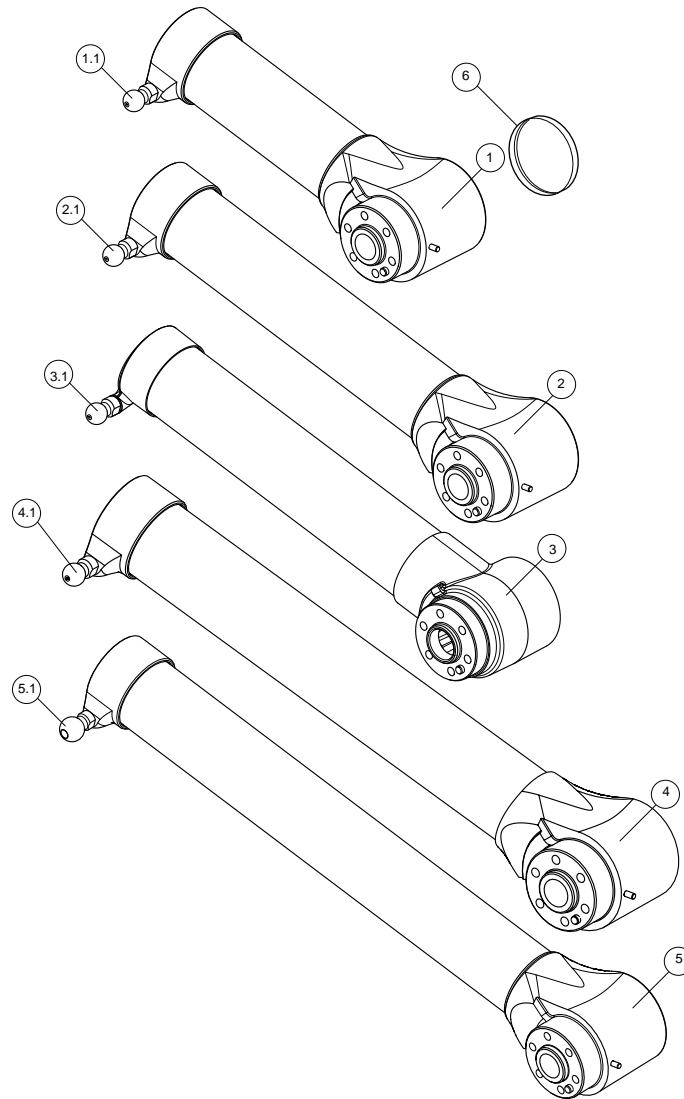
Part	Description	Spare part no.	Note/Qty
A	Membrane	SK615503-2	1 pcs
B	Push button	1SFA611100R1006	1 pcs
C	Holder	1SFA611605R1100	1 pcs

This page is intentionally left blank

2 Spare parts arm system

2.1 Spare parts - upper arm, IRB 360

Illustration



xx0700000663

Spare part list

Part	Description	Spare part no.	Note/Qty
1	Upper arm	3HAC029743-001	For robot version IRB 360 - 1/800. 3 pcs
1.1	Joint ball	3HAC5176-1	6 pcs

Continues on next page

2 Spare parts arm system

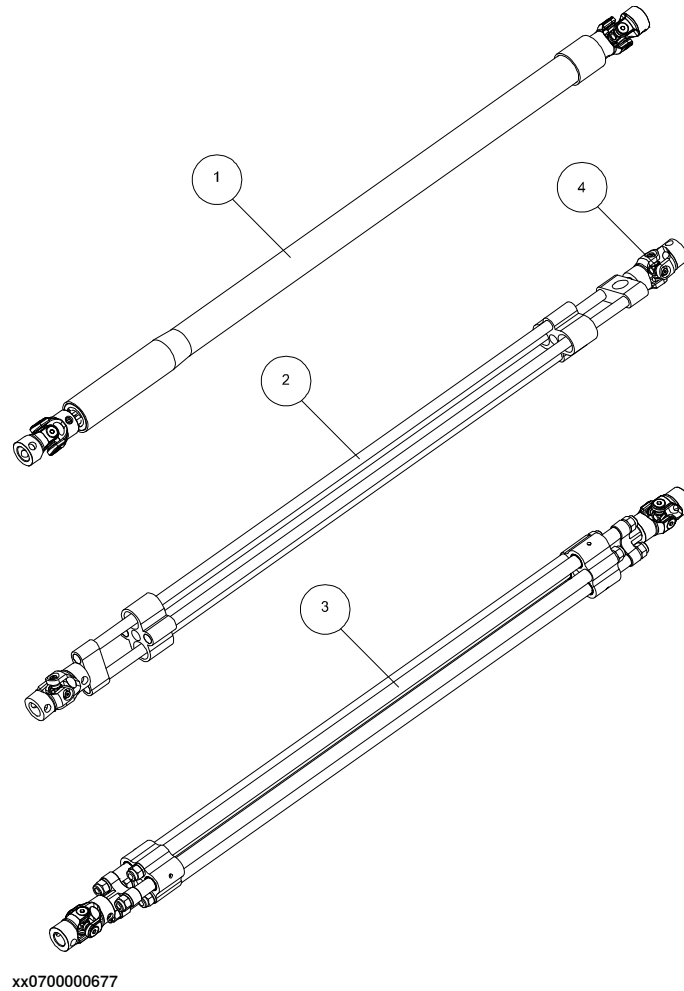
2.1 Spare parts - upper arm, IRB 360

Continued

Part	Description	Spare part no.	Note/Qty
2	Upper arm	3HAC021121-001	For robot versions IRB 360 - 1/1130 and IRB 360 - 3/1130. 3 pcs
		3HAC046644-001	For robot version IRB 360 - 8/1130. 3 pcs
2.1	Joint ball	3HAC5176-1	For robot versions IRB 360 - 1/1130 and IRB 360 - 3/1130. 6 pcs
		3HAC045216-001	For robot version IRB 360 - 8/1130. 6 pcs
3	Upper arm	3HAC029454-001	For Stainless robot versions IRB 360 - 1/1130 and IRB 360 - 3/1130 (WDS). 3 pcs
3.1	Joint ball	3HAC028080-001	12 pcs
4	Upper arm	3HAC034599-001	For robot version IRB 360 - 1/1600.
4.1	Joint ball	3HAC5176-1	6 pcs
5	Upper arm	3HAC047079-001	For robot version IRB 360 - 6/1600.
5.1	Joint ball	3HAC045216-001	For robot version IRB 360 - 6/1600. 6 pcs
6	VK-cover	3HAA2166-21	3 pcs

2.2 Spare parts - telescopic shafts

Illustration



Spare part list

Part	Description	Spare part no.	Note
1	Telescopic shaft	3HAC029293-003	For robot versions IRB 360 - 1/1130, IRB 360 - 3/1130, IRB 360 - 1/800. 1 pc. (Without joints.)
		3HAC046430-002	For robot version IRB 360 - 8/1130. 1 pc. (Without joints.)
		3HAC034174-003	For robot version IRB 360 - 1/1600. 1 pc. (Without joints.)
		3HAC047082-003	For robot version IRB 360 - 6/1600. 1 pc. (Without joints.)
2	Telescopic shaft	3HAC029425-001	(WDS) 1 pc. (Without joints.)
3	Telescopic shaft	3HAC030013-001	(WD) 1 pc. (Without joints.)

Continues on next page

2 Spare parts arm system

2.2 Spare parts - telescopic shafts

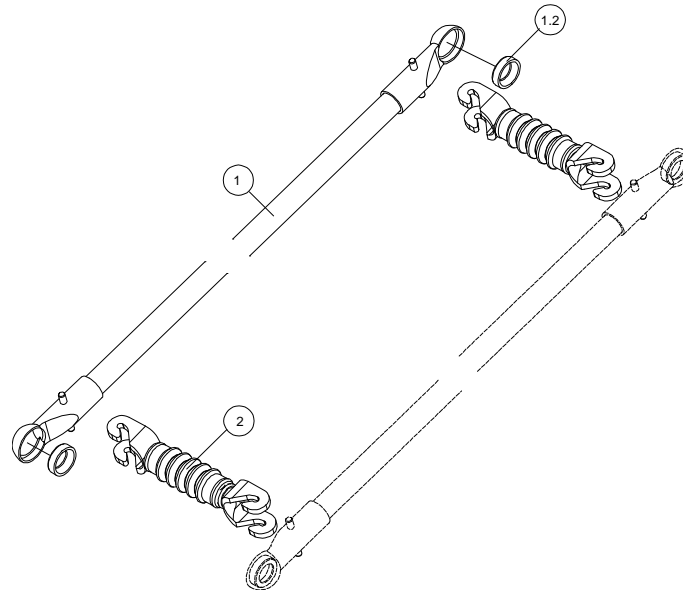
Continued

Part	Description	Spare part no.	Note
4	Universal joint	3HAC046664-001	(Standard) 2 pcs.
		3HAC030512-001	(WDS, WD) 2 pcs.
	Set screw	3HAC12846-2	For robot versions IRB 360 - 1/1130, IRB 360 - 3/1130, IRB 360 - 1/800, IRB 360 - 1/1600. 4 pcs.
		3HAC12846-3	For robot versions IRB 360 - 8/1130, IRB 360 - 6/1600. 4 pcs.

2.3 Spare parts - parallel arm system, IRB 360

IRB 360 - 1/1130, IRB 360 - 3/1130, IRB 360 - 1/800, IRB 360 - 1/1600

Illustration



xx0700000665

Spare part list

Part	Description	Spare part no.	Note/Qty
1	Bar	3HAC029024-001	6 pcs (800/1130)
1	Bar	3HAC029893-001	6 pcs (WDS)
1	Bar	3HAC034172-001	6 pcs (1600)
1.2 i	Bearing ring	3HAC028087-001 ii	12 pcs
1.2 i	Bearing ring	3HAC2091-1 iii	12 pcs
2	Spring unit	3HAC028530-003	6 pcs

i Only one type of bearing ring is needed. Read more about the difference in *Maintenance - Bar system - Different versions of bearings.* in *Product manual - IRB 360*

ii Bearing ring 3HAC028087-001 is maintenance-free.

iii Bearing ring 3HAC2091-1 needs to be lubricated according to maintenance schedule.

Continues on next page

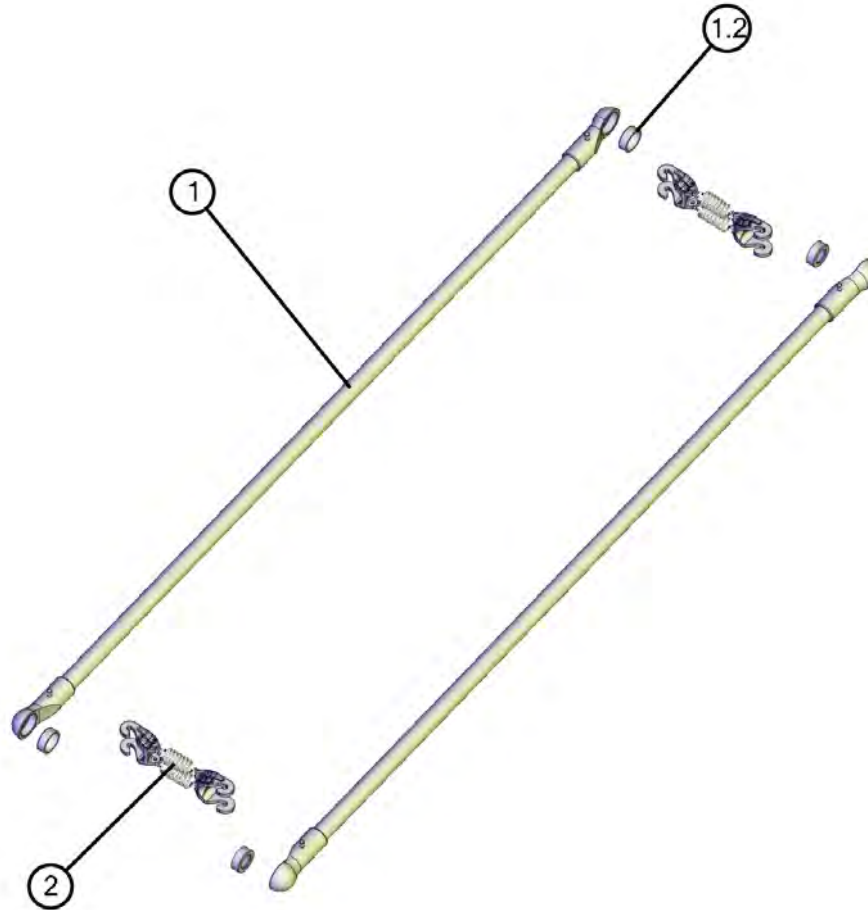
2 Spare parts arm system

2.3 Spare parts - parallel arm system, IRB 360

Continued

IRB 360 - 8/1130, IRB 360 - 6/1600

Illustration



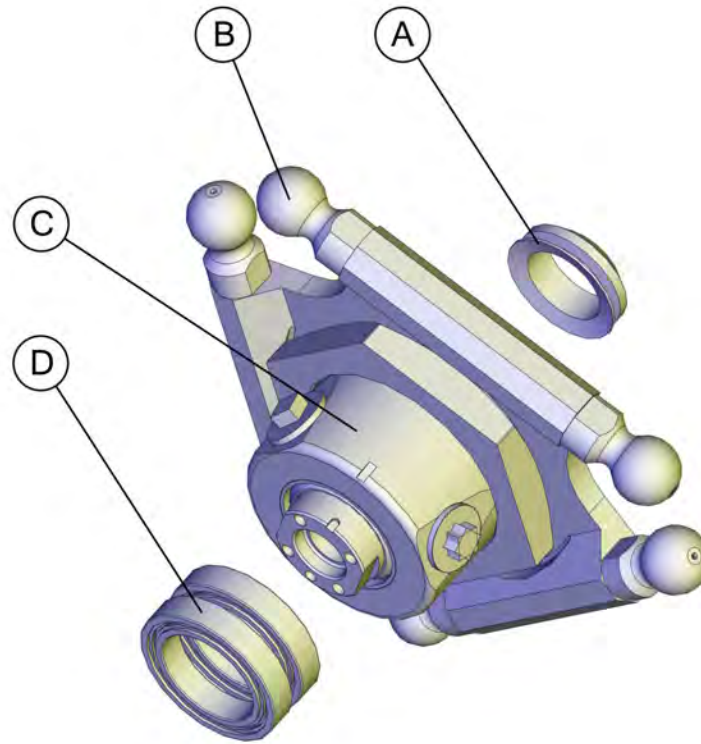
Spare part list

Part	Description	Spare part no.	Note/Qty
1	Bar	3HAC046196-001	For robot version IRB 360 - 8/1130. 6 pcs
		3HAC046197-001	For robot version IRB 360 - 6/1600. 6 pcs
1.2	Bearing ring	3HAC045215-001	12 pcs
2	Spring unit	3HAC046529-001	6 pcs

2.4 Spare parts - movable plate

IRB 360 - 1/1130, IRB 360 - 3/1130, IRB 360 - 1/800, IRB 360 - 1/1600 (With swivel)

Illustration



xx1500002267

Spare part list

Part	Description	Spare part no.	Note/Qty
A	Sealing ring (V-ring)	3HAB3732-16	1 pc
B	Joint ball	3HAC5176-1	6 pcs
	Joint ball, stainless	3HAC028080-001	6 pcs
C	Movable plate with swivel (Std.)	3HAC028021-003	1 pc
	Movable plate with swivel (WDS/Stainless)	3HAC029423-003	1 pc
D	Ball bearing	3HAC056902-001	2 pcs

Continues on next page

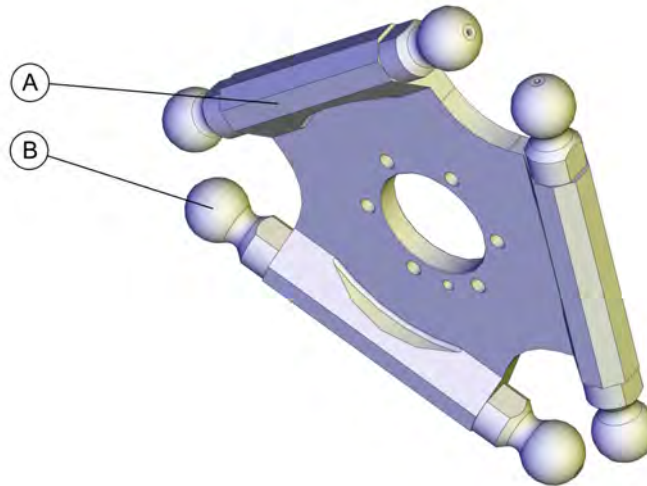
2 Spare parts arm system

2.4 Spare parts - movable plate

Continued

IRB 360 - 1/1130, IRB 360 - 3/1130, IRB 360 - 1/800, IRB 360 - 1/1600 (3 DOF)

Illustration



xx1500002268

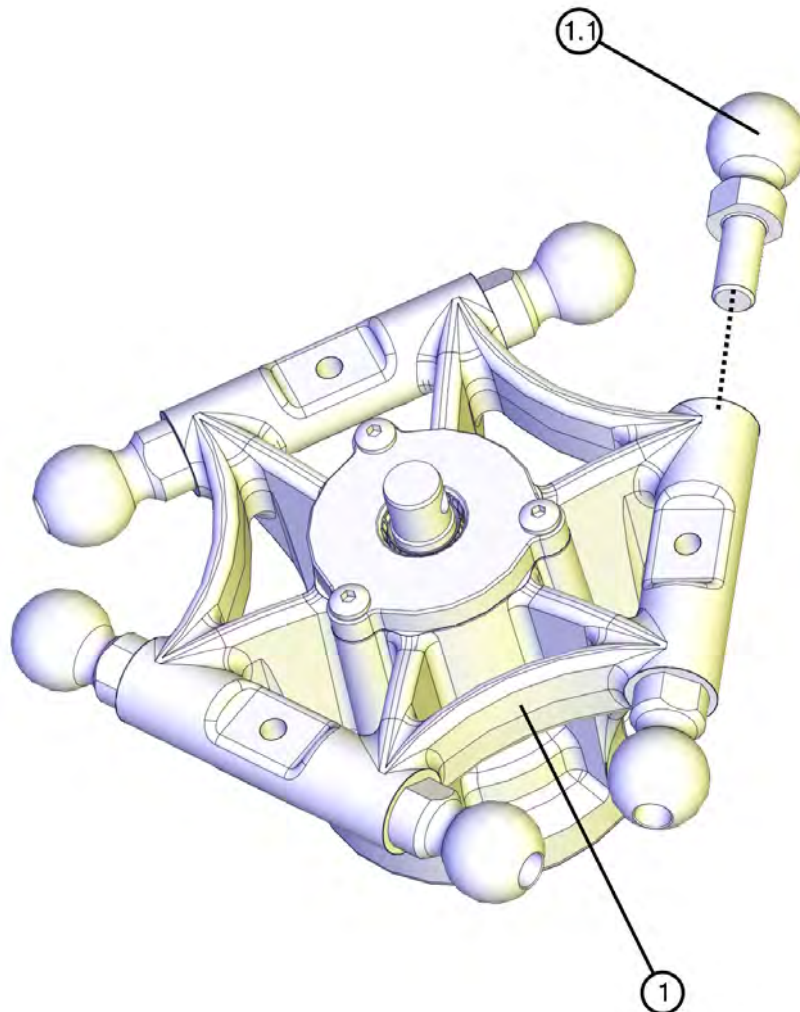
Spare part list

Part	Description	Spare part no.	Note/Qty
A	Movable plate (3 DOF)	3HAC029745-001	1 pc
B	Joint ball	3HAC5176-1	6 pcs

Continues on next page

IRB 360 - 8/1130, IRB 360 - 6/1600

Illustration



xx1300000167

Spare part list

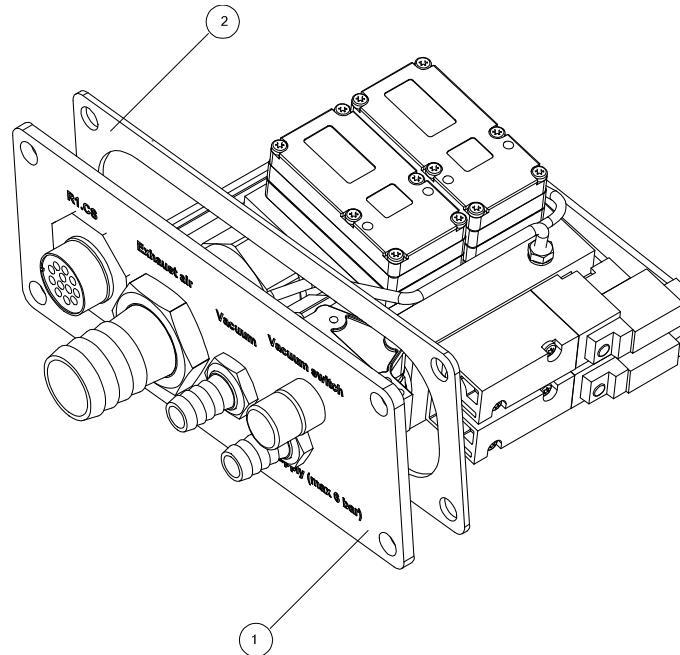
Part	Description	Spare part no.	Note/Qty
1	Movable plate	3HAC046233-003	1 pc
1.1	Joint ball	3HAC045216-001	6 pcs

This page is intentionally left blank

3 Spare parts, customer options

3.1 Spare parts - ejector unit

Illustration



xx070000684

Spare part list

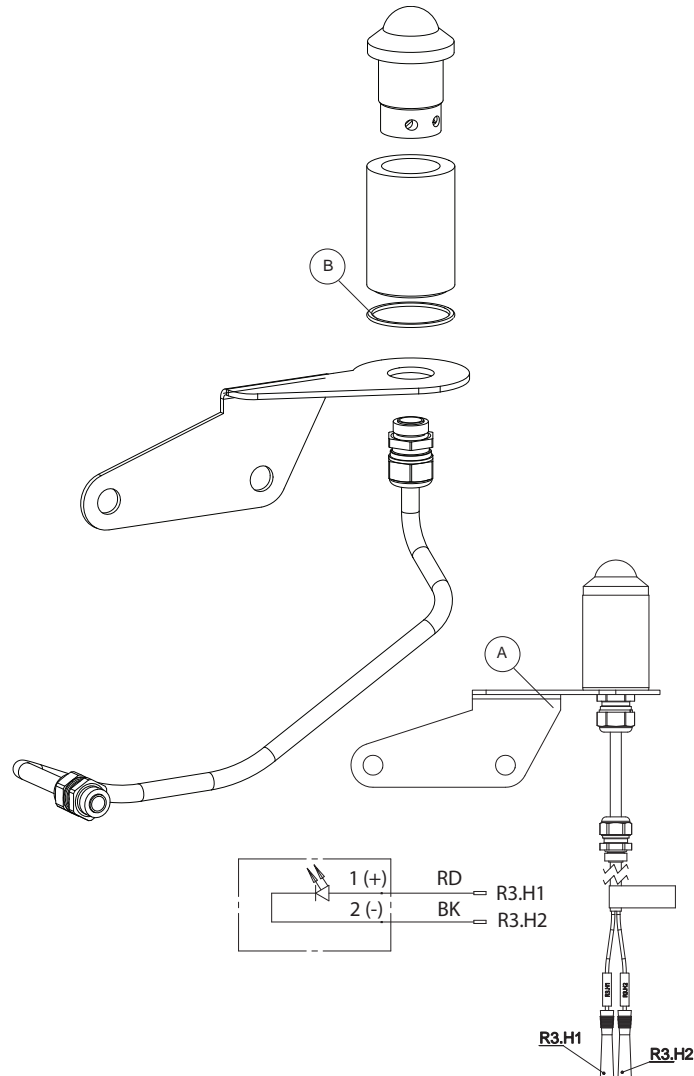
Part	Description	Spare part no.	Note/Qty
1	3HAC029648-001	Ejector unit	1 pcs
2	3HAC028972-001	Gasket	1 pcs

3 Spare parts, customer options

3.2 Spare parts - customer options signal lamp IRB 360

3.2 Spare parts - customer options signal lamp IRB 360

Illustration



Spare part list

Part	Description	Spare part no.	Note/Qty
A	Lamp unit (complete)	3HAC050417-001	1 pcs
B	O-ring	3HAB3772-21	1 pcs
	Cover, signal lamp/ ax 7	3HAC028966-006	1 pcs
	Cover gasket	3HAC028972-001	
	Locking plug with o-ring M25, for Ax7	3HAC022881-007	1 pcs

3.3 Spare parts - option 864-1 (Axis 7)

Spare part list

Part	Description	Spare part no.	Note/Qty
	Cover, signal lamp/ ax 7	3HAC028966-006	1 pcs
	Cover gasket	3HAC028972-001	
	Locking plug with o-ring M10, for signal lamp	3HAC022881-003	1 pcs

This page is intentionally left blank

4 Upgrade set

Upgrade set 6kg

Equipment	Qty	Art. no.	Note
Upgrade set 6kg	1	3HAC047623-001	
Movable plate	1		
Bearing ring	12		
Spring unit	6		
Set screw, dog point	4		
Bar	6		
Telescopic Shaft	1		
Upper arm, 1600	3		
Universal joint	2		
Locking liquid	5 ml		

Upgrade set 8kg

Equipment	Qty	Art. no.	Note
Upgrade set 8kg	1	3HAC047406-001	
Movable plate	1		
Bearing ring	12		
Spring unit	6		
Set screw, dog point	4		
Bar	6		
Telescopic Shaft	1		
Upper arm	3		
Universal joint	2		
Locking liquid	5 ml		

Contact us

ABB AB, Robotics
Robotics and Motion
S-721 68 VÄSTERÅS, Sweden
Telephone +46 (0) 21 344 400

ABB AS, Robotics
Robotics and Motion
Nordlysvegen 7, N-4340 BRYNE, Norway
Box 265, N-4349 BRYNE, Norway
Telephone: +47 22 87 2000

ABB Engineering (Shanghai) Ltd.
Robotics and Motion
No. 4528 Kangxin Highway
PuDong District
SHANGHAI 201319, China
Telephone: +86 21 6105 6666

ABB Inc.
Robotics and Motion
1250 Brown Road
Auburn Hills, MI 48326
USA
Telephone: +1 248 391 9000

www.abb.com/robotics