

ROBOTICS

Product manual, spare parts

IRB 910SC



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Product manual, spare parts

IRB 910SC-3/0.45 IRB 910SC-3/0.55 IRB 910SC-3/0.65

IRC5

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Revision: G

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Overview of this manual

About this manual

This manual contains spare parts for:

IRB 910SC and all its variants.

Usage

This manual shall be used as a complement to the product manual for IRB 910SC during:

- · maintenance work
- · repair work.

Who should read this manual?

This manual is intended for:

- · maintenance personnel
- · repair personnel.

Prerequisites

A maintenance/repair/installation craftsman 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 |
|--------------------------------|---|
| Spare parts and exploded views | Complete spare part list and complete list of robot components shown in exploded views. |

References

Documentation referred to in the manual, is listed in the table below.

| Document name | Document ID |
|-----------------------------|----------------|
| Product manual - IRB 910SC | 3HAC056430-001 |
| Circuit diagram - IRB 910SC | 3HAC056159-002 |

Revisions

| Revision | Description |
|----------|--|
| - | First edition. |
| Α | Spare part numbers of base and lifting label have been changed. |
| В | Published in release R16.2. The following updates are done in this revision: Spare part item for the fixing calibration block of axes 3 and 4 removed and related spare part illustration updated. See <i>Upper arm parts - body, covers, mechanical stop on page 13</i>. |
| | R3.CP/CS connector set removed. |

Continued

| Revision | Description |
|----------|--|
| С | Published in release R17.1. The following updates are done in this revision: The spare part number of the lower cover of the upper arm is changed from 3HAC055203-001 to 3HAC060106-001. Upper and lower axis-3 and axis-4 stop blocks of the ball screw spline unit are added as spare parts. |
| D | Published in release R17.2. The following updates are done in this revision: • Minor editorial changes. |
| E | Published in release R18.1. The following updates are done in this revision: • Spare part UL label (3HAC037252-001) is removed and related information label illustration is updated. |
| F | Published in release R18.2. The following updates are done in this revision: • Spare part brake release harness is added. |
| G | Published in release 20A. The following updates are done in this revision: Spare part AbsAcc label (3HAC14257-1) is added and related information label illustration is updated. |

1.1 Spare parts - electrical parts

1 Spare parts and exploded views

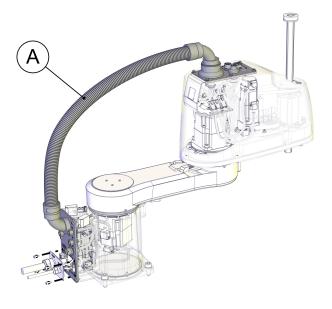
1.1 Spare parts - electrical parts

Main cable parts

Spare part list

| | Spare part number | Description | IRB 91 | 0SC | |
|---|-------------------|--------------------|--------|--------|--------|
| | | | 3/0.45 | 3/0.55 | 3/0.65 |
| Α | 3HAC056165-001 | Main cable, 450 mm | X | | |
| | 3HAC056080-001 | Main cable, 550 mm | | Х | |
| | 3HAC056166-001 | Main cable, 650 mm | | | х |

Spare part illustration



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Control cable parts

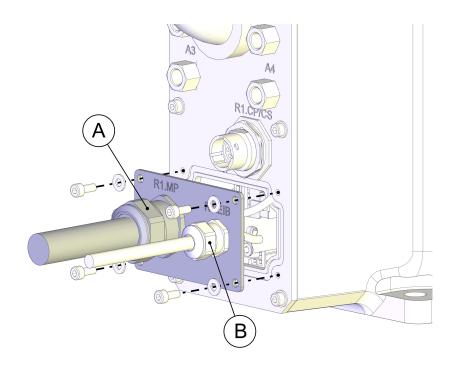
Spare part list

| | Spare part number | Description | IRB 91 | 0SC | |
|---|-------------------|-------------------------|--------|--------|--------|
| | | | 3/0.45 | 3/0.55 | 3/0.65 |
| Α | 3HAC057784-001 | Power floor cable, 3 m | Х | Х | Х |
| | 3HAC057785-001 | Power floor cable, 7 m | Х | X | X |
| | 3HAC057786-001 | Power floor cable, 15 m | Х | Х | Х |

1.1 Spare parts - electrical parts *Continued*

| | Spare part number | Description | IRB 91 | 0SC | |
|---|-------------------|--------------------------|--------|--------|--------|
| | | | 3/0.45 | 3/0.55 | 3/0.65 |
| В | 3HAC057787-001 | Signal floor cable, 3 m | X | X | X |
| | 3HAC057788-001 | Signal floor cable, 7 m | X | X | X |
| | 3HAC057789-001 | Signal floor cable, 15 m | Х | Х | Х |

Spare part illustration



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Cable harness parts

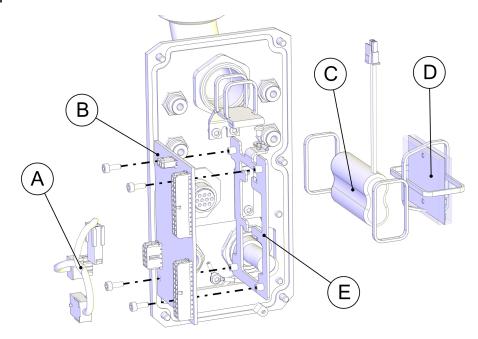
Spare part list

| | Spare part number | Description | IRB 91 | IRB 910SC | | IRB 910SC |
|---|-------------------|------------------------|--------|-----------|--------|-----------|
| | | | 3/0.45 | 3/0.55 | 3/0.65 | |
| Α | 3HAC056703-001 | EIB connection cable | Х | Х | х | |
| В | 3HAC045759-001 | EIB unit | Х | X | х | |
| С | 3HAC051036-001 | Battery pack | Х | X | X | |
| D | 3HAC057687-001 | PCB board | Х | Х | X | |
| Е | 3HAC055165-001 | EIB mounting plate | Х | Х | X | |
| - | 3HAC037038-001 | R1.CP/CS connector set | Х | X | x | |
| - | 3HAC037070-001 | R3.CP/CS connector set | Х | X | X | |

1.1 Spare parts - electrical parts

Continued

Spare part illustration



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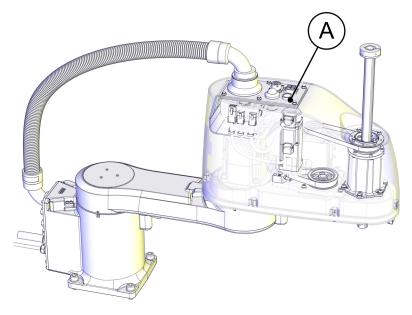
Brake release harness parts

Spare part list

| | Spare part number | Description | IRB 91 | 0SC | |
|---|-------------------|---|--------|--------|--------|
| | | | 3/0.45 | 3/0.55 | 3/0.65 |
| Α | 3HAC038361-001 | Brake release harness Includes brake release button and harness. | X | X | X |

1.1 Spare parts - electrical parts *Continued*

Spare part illustration



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1.2 Spare parts - upper arm

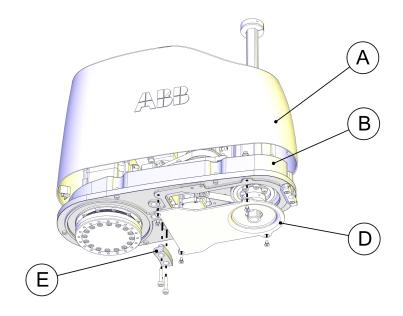
1.2 Spare parts - upper arm

Upper arm parts - body, covers, mechanical stop

Spare part list

| | Spare part number | Description | IRB 910SC | | |
|---|-------------------|------------------------------|-----------|--------|--------|
| | | | 3/0.45 | 3/0.55 | 3/0.65 |
| Α | 3HAC057615-001 | Upper cover unit | х | Х | х |
| В | 3HAC057711-001 | Upper arm body | х | Х | Х |
| D | 3HAC060106-001 | Lower cover | х | Х | Х |
| E | 3HAC055185-001 | Axis-2 mechanical stop block | Х | Х | х |

Spare part illustration



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Upper arm parts - Cable plate, ball screw spline unit, axis-2 drive unit

Spare part list

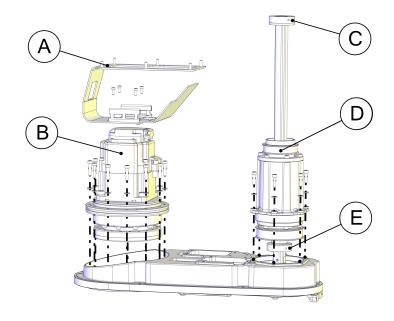
| | Spare part number | ber Description IRB 910SC | IRB 910SC | | |
|---|-------------------|---|-----------|--------|--------|
| | | | 3/0.45 | 3/0.55 | 3/0.65 |
| Α | 3HAC056086-001 | Plate for upper arm cable harness | X | X | X |
| В | 3HAC056153-001 | Axis-2 drive unit | X | X | X |
| С | 3HAC061259-001 | Upper axis-3 and axis-4 mechanical stop block | X | X | X |
| D | 3HAC056148-001 | Ball screw spline unit | х | Х | х |

1.2 Spare parts - upper arm

Continued

| | Spare part number | Description | IRB 910SC 3/0.45 3/0.55 3/0.65 | | |
|---|-------------------|---|-----------------------------------|---|--------|
| | | | | | 3/0.65 |
| E | 3HAC055208-001 | Lower axis-3 and axis-4 mechanical stop block | X | X | Х |

Spare part illustration



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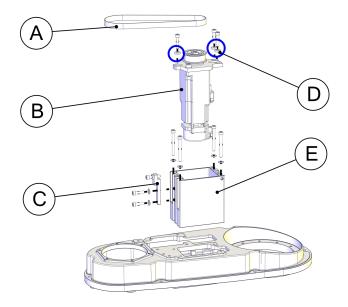
Upper arm parts - Axis-3 drive unit parts

Spare part list

| | Spare part number | | | IRB 910SC | | | |
|---|--|--|---|-----------|--------|--|--|
| | | | | 3/0.55 | 3/0.65 | | |
| Α | 3HAC055209-001 | Axis-3 timing belt | X | X | x | | |
| В | 3HAC056111-001 | Axis-3 drive unit | X | X | X | | |
| С | 3HAC056650-001 | Adjusting block for axis-3 timing belt | X | X | X | | |
| D | 3HAC056937-001 | 937-001 Plain washer | | X | X | | |
| Е | 3HAC055184-001 Axis-3 drive unit housing | | Х | X | X | | |

1.2 Spare parts - upper arm Continued

Spare part illustration



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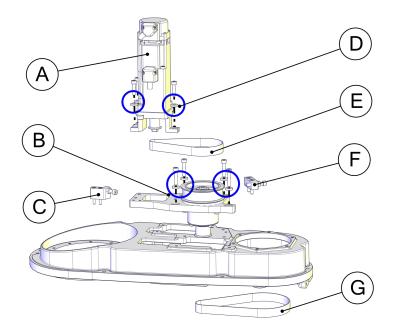
Upper arm parts - Axis-4 drive unit parts

Spare part list

| | Spare part number | Description | | IRB 910SC | | | |
|---|-------------------|--|--------|-----------|--------|--|--|
| | | | 3/0.45 | 3/0.55 | 3/0.65 | | |
| Α | 3HAC056112-001 | Axis-4 drive unit | X | X | Х | | |
| В | 3HAC056121-001 | Axis-4 housing with idler | X | X | X | | |
| С | 3HAC056651-001 | Adjusting block for upper axis-4 timing belt | X | X | Х | | |
| D | 3HAC056937-001 | Plain washer | X | X | X | | |
| E | 3HAC055206-001 | Upper axis-4 timing belt | X | X | X | | |
| F | 3HAC056652-001 | Adjusting block for lower axis-4 timing belt | x | X | X | | |
| G | 3HAC055201-001 | Lower axis-4 timing belt | Х | Х | Х | | |

1.2 Spare parts - upper arm *Continued*

Spare part illustration



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1.3 Spare parts - lower arm

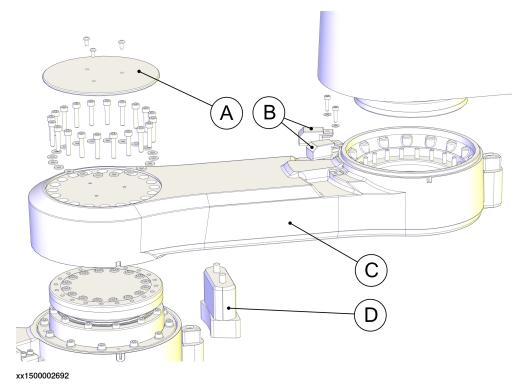
1.3 Spare parts - lower arm

Lower arm parts

Spare part list

| | Spare part number | Description | IRB 910SC | | | |
|---|-------------------|-------------------------------|-----------|--------|--------|--|
| | | | 3/0.45 | 3/0.55 | 3/0.65 | |
| Α | 3HAC056065-001 | Lower arm cover | X | X | X | |
| В | 3HAC056017-001 | Axis-2 mechanical stop rubber | X | X | X | |
| С | 3HAC057609-001 | Lower arm, 450 mm | X | | | |
| | 3HAC057612-001 | Lower arm, 550 mm | | X | | |
| | 3HAC057613-001 | Lower arm, 650 mm | | | X | |
| D | 3HAC055164-001 | Axis-1 mechanical stop block | X | X | X | |

Spare part illustration



1.4 Spare parts - base

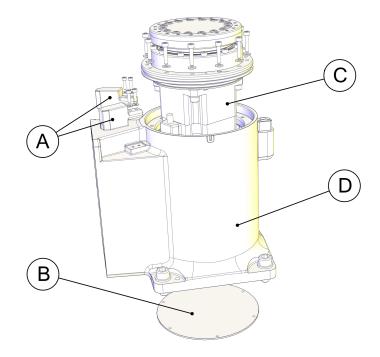
1.4 Spare parts - base

Base parts

Spare part list

| | Spare part number | Description | IRB 910SC 3/0.45 3/0.55 3/0.65 | | |
|---|-------------------|-------------------------------|-----------------------------------|---|--------|
| | | | | | 3/0.65 |
| Α | 3HAC056042-001 | Axis-1 mechanical stop rubber | х | Х | х |
| В | 3HAC055216-001 | Base bottom cover | х | Х | Х |
| С | 3HAC055900-001 | Axis-1 drive unit | х | Х | Х |
| D | 3HAC057614-001 | Base | X | Х | х |

Spare part illustration



1.5 Spare parts - drive units

1.5 Spare parts - drive units

Axis-1 drive unit

The axis-1 drive unit is illustrated in the whole base assembly, see *Spare parts - base on page 18*.

Axis-2 drive unit

The axis-2 drive unit is illustrated in the upper arm assembly, see *Upper arm parts* - *Cable plate, ball screw spline unit, axis-2 drive unit on page 13.*

Axis-3 drive unit

The axis-3 drive unit is illustrated in the upper arm assembly, see *Upper arm parts* - *Axis-3 drive unit parts on page 14*.

Axis-4 drive unit

The axis-4 drive unit is illustrated in the upper arm assembly, see *Upper arm parts* - Axis-4 drive unit parts on page 15.

1.6 Spare parts - information labels

1.6 Spare parts - information labels

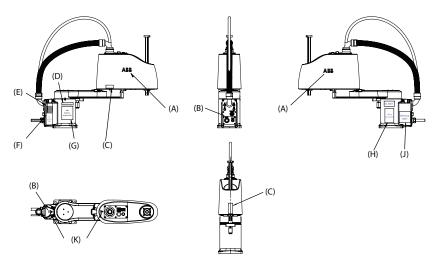
Information labels

Spare part list

| | Spare part number | Description | IRB 910SC | | |
|---|------------------------------|--------------------------------------|-----------|--------|--------|
| | | | 3/0.45 | 3/0.55 | 3/0.65 |
| Α | 3HAC0453-2 | ABB logo, large size | Х | X | X |
| В | 3HAC0453-6 | ABB logo, small size | Х | х | Х |
| С | 3HAC057089-001 | Calibration mark (axis 2) | Х | х | х |
| | 3HAC057090-001 | Calibration mark (axis 3 and axis 4) | Х | х | х |
| D | 3HAC14257-1 | AbsAcc label X | | х | х |
| Е | 3HAC13488-1 | Calibration label | Х | x | х |
| F | 3HAC057068-001 | Warning label Risk of tipping | X | X | x |
| G | 3HAB9549-1 | Rating label | х | Х | X |
| Н | 3HAC058299-001 Lifting label | | Х | X | x |
| J | 3HAC057070-001 | Instruction label | x | X | X |
| K | 3HAC1589-1 | Warning sign Electrical shock | Х | X | X |

Spare part illustration

The figure shows all labels included in the labels and plate set.



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