EPSON

Safety Manual

This manual describes precautions for using the robot system safely. Be sure to read this before using the robot system.

After reading this manual, store it in an easily accessible location for future reference.

Epson RC+ Option Part Feeding Original instructions

Main doc. No. MD003

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1. Introduction

1.1 Introduction

Thank you for purchasing our robot system. This manual contains the information necessary for the correct use of the Epson RC+ Part Feeding Option.

Please carefully read this manual and other related manuals before using the Epson RC+ Part Feeding.

After reading this manual, store it in an easily accessible location for future reference.

The robot system's performance has been subjected to the strictest tests and inspections to certify its compliance with our high performance standards. Please note that the basic performance of the product will not be exhibited if our robot system is used outside of the usage conditions and product specification described in this manual.

This manual describes possible dangers and consequences that we can foresee. Be sure to comply with the safety precautions on this manual to use our robot system safely and correctly.

1.2 Trademarks

Microsoft, Windows, and the Windows logo are either registered trademarks or trademarks of Microsoft Corporation in the United States and/or other countries. All other company names, brand names, and product names are registered trademarks or trademarks of their respective companies.

1.3 Terms of Use

No part of this instruction manual may be reproduced or reprinted in any form without express written permission.

The information in this document is subject to change without notice.

Please contact us if you find any errors in this document or if you have any questions about the information in this document.

1.4 Manufacturer

SEIKO EPSON CORPORATION

3-5, Owa 3-chome, Suwa-shi, Nagano 392-8502 Japan URL : https://www.epson.jp/company/ URL : https://www.epson.jp/prod/robots/

Toyoshina Plant Manufacturing Solutions Division 6925 Tazawa, Toyoshina, Azumino, Nagano, 399-8285, Japan TEL : 0263-72-1530 FAX : 0263-72-1685

1.5 Importers

Importer for the EU EPSON EUROPE B.V.

Azie building, Atlas ArenA, Hoogoorddreef 5,1101 BA Amsterdam Zuidoost The Netherlands TEL: +31-20-314-5000 FAX: +31-20-314-5010

Importer for the UK EPSON EUROPE B.V.

Floor 3&4, The Clarendon Works, 37-39 Clarendon Road, Watford WD17 1JA, U.K. TEL: +44-1442-261144 FAX: +44-1442-227227

1.6 Contact Information

For details on contact information, refer to the "Supplier" of each robot controller's safety manual.

1.7 Disposal

When disposing of this product, please do so in accordance with the laws and regulations of your country.

2. Safety of This Product

2.1 Application and Purpose of This Product

The Epson RC+ Part Feeding Option (From hereon forward refereed to as Part Feeding Option) is a system that is designed to separate parts with the feeder, have the robot pick up parts from the feeder, and used in an industrial environment.

2.2 Residual Risks

For more details about the residual risks present in our Part Feeding Option, check the warnings and caution statements in each section.

2.3 Declaration of Conformity

2.3.1 Part Feeding IF-80/IF-240/IF-380/IF-530

EPSON		Translation	- Original - French (FR)
l	DECLARATION of C	ONFORMITY	
1	DÉCLARATION DE C	ONFORMITÉ	
Manufacturer /Fabriquant: Address /Adresse:	SEIKO EPSON CORPORATION 3-5, Owa 3-chome, Suwa-shi Nagano-ken 392-8502 Japan	<u>www.epson.com</u> Telephone /Téléphone: F ax /Fax:	+81-266-52-3131 +81-266-52-8409
Representative /Représentant: Address /Adresse:	EPSON EUROPE B.V. Atlas Arena, Asia Building, Hoogoorddreef 5,1101 BA Amsterdam Zuidoost The Netherlands	<u>www.epson.eu</u> Telephone /Téléphone:	+31-20-314-5000
	y is issued under the sole responsibility o est établie sous l'entière responsabilité		
Brand Name /Nom de la marqu Product Name /Nom du produ Model /Model:		(Serial number A2001000	0 to A50000000)
	For more details, please refer to the p Pour plus de détails, merci de vous p		chiit
Options /Options: See Technical Data File			
Conforms to the following Direct Machinery Directive 2006/42 EN 12100 2010 EN 60204-1 2018 EN14118 2018	tive(s) and Norm(s) /Conforme selon les l ÆC	Directives et Normes suivante.	82
Electromagnetic Compatibilit EN 61000-6-2 2005 EN 61000-6-4 2007/A1:20			
Restriction of the use of certa EN IEC 63000 2018	in hazardous substances (RoHS)2011/65	i/EU	

EPSON

UK

DECLARATION OF CONFORMITY

According to the Supply of Machinery (Safety) Regulations 2008

Manufacturer Address	SEIKO EPSON CORPORATION 3-5, Owa 3-chome, Suwa-shi Nagano-ken 392-8502 Japan	<u>www.epson.com</u> Telephone Fax	+81-266-52-3131 +81-266-52-8409
Representative Address	Epson (U.K.) Limited Floor 3&4, The Clarendon Works, 37-39 Clarendon Road, Watford WD17 1JA, U.K.	www.epson.co.uk Telephone	+44-1442-261144

This declaration of conformity is issued under the sole responsibility of the manufacturer:

 Brand Name
 EPSON

 Product Name
 Part Feeding

 Model
 IF-80, IF-240, IF-530
 (Serial number A20010000 to A50000000)

For more details, please refer to the product description

Options

See Technical Data File

 Conforms to the following Directive(s) and harmonized Norm(s) are applied:

 The Supply of Machinery (Safety) Regulations 2008

 EN 12100
 2010

 EN 60204-1
 2018

 EN14118
 2018

The Electromagnetic Compatibility Regulations 2016 EN 61000-6-2 2005

EN 61000-6-4 2007/A1:2011

The Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Regulations 2012 EN IEC 63000 2018

2.3.2 Hopper (Gen.2)

EPSON		Translation	- Original - French (FR)
	DECLARATION of C DÉCLARATION DE (
Manufacturer /Fabriquant: Address /Adresse:	SEIKO EPSON CORPORATION 3-5, Owa 3-chome, Suwa-shi Nagano-ken 392-8502 Japan	<u>www.epson.com</u> Telephone /Téléphone: Fax /Fax:	+81-266-52-3131 +81-266-52-8409
Representative /Représentant: Address /Adresse:	EPSON EUROPE B.V. Atlas Arena, Asia Building, Hoogoorddreef 5,1101 BA Amsterdam Zuidoost The Netherland	<u>www.epson.eu</u> Telephone /Téléphone:	+31-20-314-5000
	ty is issued under the sole responsibility é est établie sous l'entière responsabilite		
Brand Name /Nom de la marq Product Name /Nom du produ Model /Model:		(Serial number A2001000	00 to A50000000)
	For more details, please refer to the Pour plus de détails, merci de vous		oduit
Options /Options: See Technical Data File			
Conforms to the following Directive 2006/42 EN 12100 2010 EN 60204-1 2018 EN14118 2018	etive(s) and Norm(s) <i>/Conforme selon le.</i> //EC	s Directives et Normes suivante	s:
Electromagnetic Compatibili EN 61000-6-2 2005 EN 61000-6-4 2007/A1:2			
Restriction of the use of certa EN IEC 63000 2018	ain hazardous substances (RoHS)2011/0	55/EU	

EPSON

DECLARATION OF CONFORMITY

According to the Supply of Machinery (Safety) Regulations 2008

Manufacturer Address	SEIKO EPSON CORPORATION 3-5, Owa 3-chome, Suwa-shi Nagano-ken 392-8502 Japan	<u>www.epson.com</u> Telephone Fax	+81-266-52-3131 +81-266-52-8409
Representative Address	Epson (U.K.) Limited Floor 3&4, The Clarendon Works, 37-39 Clarendon Road, Watford WD17 1JA, U.K.	www.epson.co.uk Telephone	+44-1442-261144

This declaration of conformity is issued under the sole responsibility of the manufacturer:

Brand Name Product Name Model

EPSON Part Feeding

Hopper Base S, M, L

(Serial number A20010000 to A5000000)

For more details, please refer to the product description

Options

See Technical Data File

Conforms to the following Directive(s) and harmonized Norm(s) are applied: The Supply of Machinery (Safety) Regulations 2008 EN 12100 2010 EN 60204-1 2018 EN14118 2018

The Electromagnetic Compatibility Regulations 2016 EN 61000-6-2 2005 EN 61000-6-4 2007/A1:2011

The Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Regulations 2012 EN IEC 63000 2018

2.4 Important Notice Regarding Safety Functions

Specific tolerance value and requirements to ensure safety is written in each product's manual. Be sure to read this as well.

When installing and operating this product, please do so in accordance with the safety standards of each country. Examples of related safety standards are specified in the following. Refer to these standards and be sure to take necessary safety measures.

Note) These standards are not the only safety standards that are necessary.

ISO 12100

Safety of machinery -- General principles for design -- Risk assessment and risk reduction

IEC 60204-1

Safety of machinery -- Electrical equipment of machines -- Part 1: General principles for design

IEC 61000-6-2

Electromagnetic compatibility (EMC) -- Part 6-2: Generic standards -- Immunity for industrial environments

IEC 61000-6-4

Electromagnetic compatibility (EMC) --Part 6-4: Generic standards – Emission standard for industrial environments

3. Safety Precautions

This chapter describes precautions for using this product safely. Be sure to read this before using the robot system.

3.1 Conventions Used in This Manual

The following symbols are used in this manual to indicate important safety information. Be sure to read the descriptions shown with each symbol.

🕂 WARNING

This symbol indicates an imminently hazardous situation which, if operation is not performed properly, will result in death or serious injury.

\land WARNING

This symbol indicates a potentially hazardous situation which, if operation is not performed properly, could result in an injury due to electric shock.

▲ CAUTION

This symbol indicates a potentially hazardous situation which, if operation is not performed properly, may result in an injury or in property damage only.

3.2 Safety Information

Specific tolerance value and requirements to ensure safety is written in each product's manual. Be sure to read this as well. When installing and operating this product, please do so in accordance with the safety standards of each country.

3.2.1 General

🚯 WARNING

Do not modify this product. Unauthorized modification can cause a malfunction and result in injuries, electric shocks, and fire.

3.2.2 Transporting/Unpacking

🕂 CAUTION

- When transporting, pay attention to the weight of the product.
- Make sure to always use both hands to carry the product.
- Operators should not carry heavy container boxes on their own.
- The container box should be horizontal.
- Do not get on top of the container box.
- Do not put heavy items on top of the container box.
- Be sure to take thorough safety measures such as wearing a protective equipment when unpacking.

3.2.3 Environment

\land WARNING

Do not get water on the product. Spraying, washing, and using the product under water can cause a malfunction and result in injuries, electric shocks, and fire.

🕂 CAUTION

- Do not use corrosive gas in this atmosphere. Corrosion can weaken the product's structural strength.
- Do not use the product in an area where there are water and oil droplets.

3.2.4 Installation

🐴 WARNING

Make sure the power supply's grounding is completely connected.

ACAUTION

Only authorized or certified personnel should perform wiring. Wiring by unauthorized or uncertified staff may result in bodily injury and/or malfunction of the robot system. Install the wirings in a way that prevents tripping or falling.

🔥 CAUTION

- Do not operate the product when it may be broken. Check for abnormalities before using the product.
- The volume may get bigger depending on the parts dispersed within the feeder or hopper's container. In this case, the customer or system integrator should take necessary measures that meets the safety requirements of the operator.

3.2.6 Maintenance

\land WARNING

Before performing maintenance checkup, make sure the power supply and other cables connected to the machine are all completely removed.

🔥 CAUTION

This product does not emit heat that requires careful attention during its usage. However, make sure to cool down the robot system when performing maintenance checkup or repair work.

3.3 Product Labels

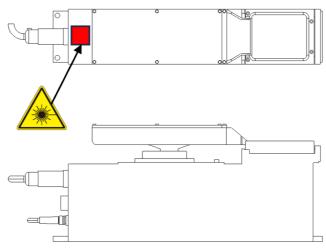
Warning labels and other labels are attached to the product. Specific hazards exist in the vicinity of these labeled locations. Be thoroughly careful in handling. To safely operate and maintain the robot product, be sure to observe the cautions and warnings described in the warning labels. Also, do not tear, damage, or remove these labels.

3.3.1 Labels for IF-80/IF-240/IF-380/IF-530

Backlight

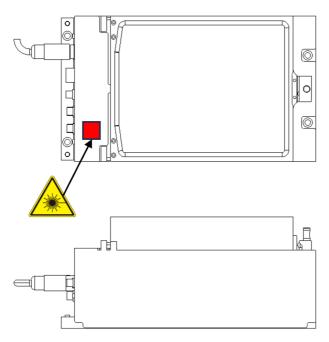
A backlight equipped with LED is installed inside the Parts Feeder. These LEDs radiate visible or invisible radiation depending on the color of the backlight. LED lighting can cause discomfort or injuries to the cornea, retina, or eyeball. Do not look directly at the ray of light without wearing protective glasses. It is the customer's responsibility to instruct the procedures needed to limit worker's exposure to LED radiation by wording out one's application.

Labelled Locations

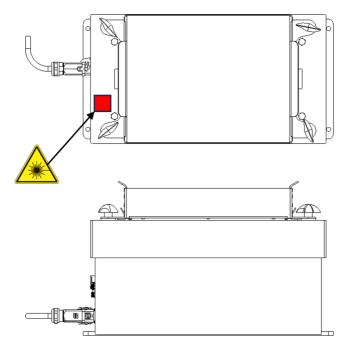


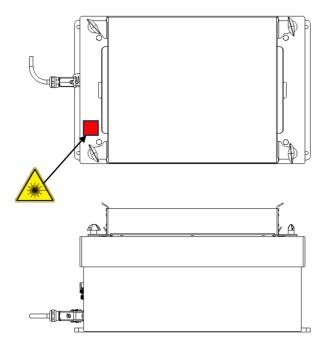
IF-80

IF-240



IF-380





4. Manuals for This Product

4.1 Manual Types

This describes the typical types of manuals for this product and presents an overview of their content.

- Epson RC+ Option Part Feeding Introduction & Software This manual describes the general system of the Part Feeding Option.
- Epson RC+ Option Part Feeding IF-xxx This manual describes how to use each feeder. xxx: 80/240/380/530
- Epson RC+ Option Part Feeding 8.0 Hopper (Gen.1) This manual describes how to use the Hopper (Gen.1).
- Epson RC+ Option Part Feeding 8.0 Hopper (Gen.2) This manual describes how to use the Hopper (Gen.2).
- Epson RC+ User's Guide

This manual presents an overview of the program development software.

Epson RC+ SPEL+ Language Reference

This manual explains the robot programming language SPEL+.

Other manuals

Manuals are available for each option.

4.2 Viewing Manuals

PDF manuals can be viewed from the Epson RC+ software and the desktop.

Epson RC+ 8.0: Select Epson RC+ 8.0 menu - [Help] - [Manual]. Click [Start] - [Program] - [Epson RC+ 8.0] - [Epson Robot Manuals] from the desktop.

Double click [Epson Robot Manuals] icon on the desktop.

EPSON RC+ 7.0:

Select EPSON RC+ 7.0 menu - [Help] - [PDF Manual]. Click [Start] - [Program] - [EPSON RC+ 7.0] from the desktop.

You can also view them from the following website: URL: https://download.epson.biz/robots/