SIEMENS

EM1.8D (reference product), EM1.8R, EM1.8U

Desigo Essentials I/O Extension Modules

Circularity Instruction

A6V15148756_en--_a

2025-08-15

Smart Infrastructure

Table of Contents

1 About this document

Legal notice

This Circularity Instruction is for information purposes only.

This Circularity Instruction does not warrant or guarantee the composition of a product or that the product will retain a particular composition for a particular period. Therefore, all warranties, representations, conditions, and all other terms of any kind whatsoever implied by statute or common law are – to the fullest extent permitted by applicable law – excluded.

Siemens therefore does not assume any liability for any error or for any consequence which may arise from the use of this information to the maximum extent under the law.

About the Circularity Instruction

To support the circular economy and conserve resources, our products strive to reduce the consumption of materials. This begins with the design of the product. Once a product has reached end of life, every effort should be made to recover the reusable materials.

The **Siemens Circularity Instructions** help to implement the circular economy requirements. They include recommendations for reuse, repair, refurbishment, and recycling of existing materials and products.

The **Siemens Circularity Instructions** also provide guidance for recyclers on how to safely disassemble products to maximize the recovery of resources. These guides list the major material components of each product ("fractions"), so that recyclers can direct these components to the appropriate processing facility.

The recycler is responsible for independently evaluating the proper compliance with all applicable environmental, health, and safety laws related to recycling activities. These include but are not limited to laws relating to the management, handling, shipping, and disposal of the outputs of this work as waste and laws in place to ensure the health and safety of all employees who support this work.

1.1 Revision history

Version	Edition date	Brief description
a	2025-08-15	Initial release

2 Safety

Safety information

The recycler is responsible for independently evaluating all activities undertaken by its employees to perform or support the work and ensuring compliance with all applicable health and safety laws related to the work. These include but are not limited to laws relating to the health and safety of all employees who perform or support this work.

The recycler is also responsible for evaluating the workspace and ensuring that the area in which the work is to be undertaken is designed using ergonomic best practices and meets all ergonomic requirements to ensure the protection of its employees.

Personal protective equipment should be worn during the entire recycling process.

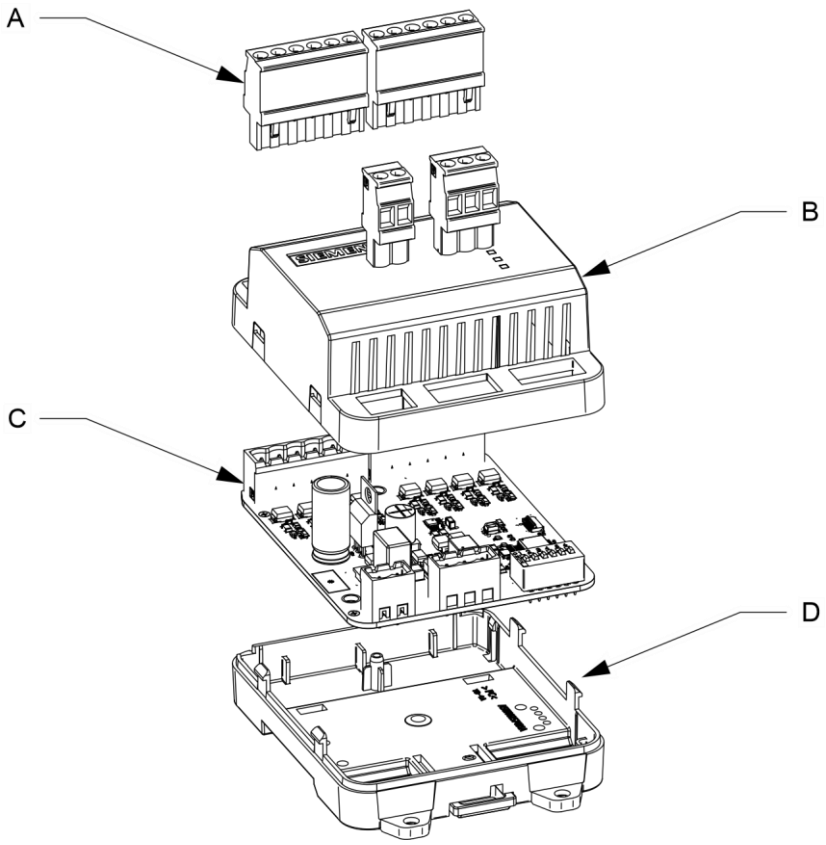
Protected part	PPE
Hands 	Wear protective gloves
Eyes 	Wear eye protection

2.1 Recommended tools

	0.6 × 3 mm	Slot screwdriver

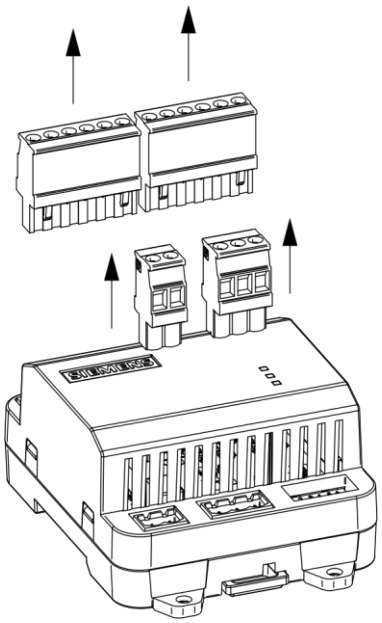
3 Disassembly

The following instructions provide detailed information on how to disassemble the product after the end-of-life, and what kind of materials can be collected and recycled to support the circular economy.

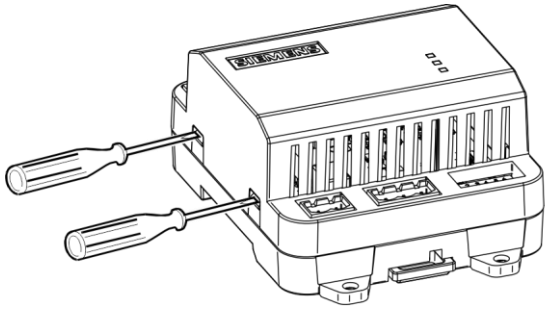


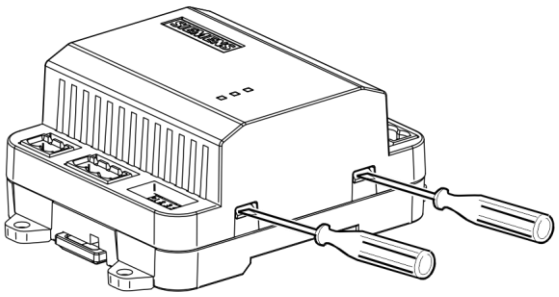
Part	Name	Material	Disassembly step
A	Terminal plugs	Plastic/Copper-Zinc/Iron	1
B	Top housing	Plastic	2
C	Mainboard	Printed Circuit Board	3
D	Bottom housing	Plastic	2

Step 1: Remove plugs

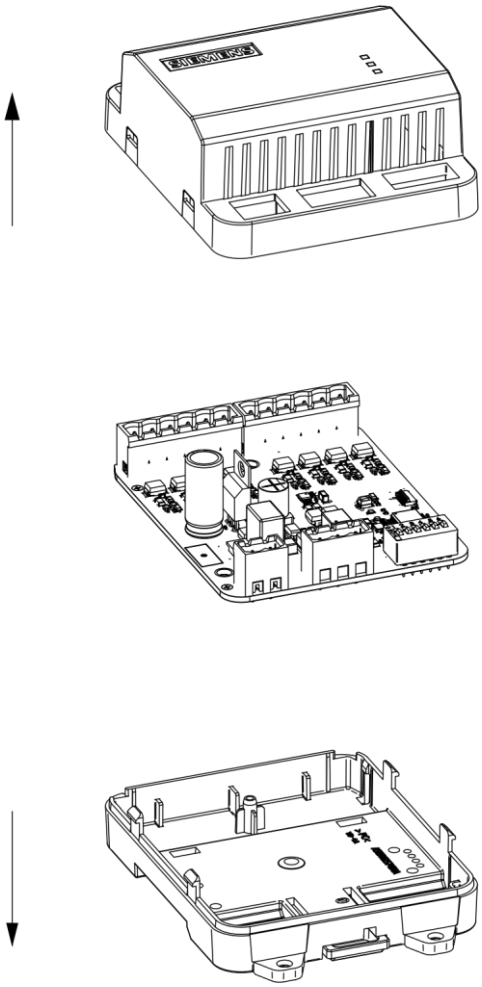


Step 2: Open snapper with a screwdriver





Step 3: Dismantle the device



4 Substance and component declaration

Directive 2012/19/EU Annex VII Components

At a minimum the following substances, mixtures and components have to be removed from this product.

Substance/component	Part	Disassembly step
Printed circuit boards with a surface greater than 10 square centimeters	E	3

Information beyond directive 2012/19/EU

To support the circular economy, Siemens creates transparency beyond the regulatory requirements.

In the following table you can find additional information on smaller printed circuit boards or displays that are not in scope of Directive 2012/19/EU Annex VII and metal alloys that contain elements that could be critical during end-of-life treatment, such as beryllium or lead.

Substance/component	Part	Disassembly step
Printed circuit board	C	3

EU critical raw materials

Raw materials combine a high economic importance to the EU with a high risk associated with their supply. To address this challenge, the European Commission has created a list of critical raw materials (CRM).

- This product does not contain any critical raw materials (CRM).

Dangerous substances SVHC

Siemens wants to guarantee its partners and customers that hazardous substances are used in products with high sensitivity and strives for a reduction to a minimum.

- This product does not contain any dangerous substances (SVHC).

Precious Metals

This product contains greater than 1mg of precious metals.

5 Output material fractions

All outputs from this process must be managed, handled, and disposed of in accordance with applicable waste laws and regulations, including but not limited to the Waste Framework Directive and its national enactments in Europe and worldwide.

The following table provides the main material fractions but is non-exhaustive. The material fractions are divided according to Regulation (EC) No. 2150/2002 (European Waste List).

Part	Potential material fractions (non-exhaustive)	Weight (g)
C	PCBs (FR4)	41
B, D	Plastics: PC	56.2
A	Other metals: Copper-Zinc/Iron	29.7

6 Disposal and return options for packaging and electrical appliances

Proper disposal of the product is the only way to ensure a circular economy.

For products that are no longer used or no longer required, Siemens may have a take-back procedure.

For more information on return options, see support.industry.siemens.com.

Issued by
Beijing Siemens Cerberus Electronics Ltd.
Smart Infrastructure
No.1, Fengzhi East Road, Xibeiwang,
Haidian District, Beijing, 100094
+86 400 150 6060
www.siemens.com/buildingtechnologies