

SIEMENS

SIMATIC

ET 200SP

Recycler Guide for Electronic Modules (6ES713.-6....-.... and 6AG.13.-6....-....)

Product Information

Legal information

Warning notice system


This manual contains notices you have to observe in order to ensure your personal safety, as well as to prevent damage to property. The notices referring to your personal safety are highlighted in the manual by a safety alert symbol, notices referring only to property damage have no safety alert symbol. These notices shown below are graded according to the degree of danger.

 DANGER

indicates that death or severe personal injury will result if proper precautions are not taken.
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 WARNING
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indicates that death or severe personal injury may result if proper precautions are not taken.

 CAUTION
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indicates that minor personal injury can result if proper precautions are not taken.
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NOTICE

indicates that property damage can result if proper precautions are not taken.
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If more than one degree of danger is present, the warning notice representing the highest degree of danger will be used. A notice warning of injury to persons with a safety alert symbol may also include a warning relating to property damage.

Qualified Personnel

The product/system described in this documentation may be operated only by **personnel qualified** for the specific task in accordance with the relevant documentation, in particular its warning notices and safety instructions. Qualified personnel are those who, based on their training and experience, are capable of identifying risks and avoiding potential hazards when working with these products/systems.

Proper use of Siemens products

Note the following:

 WARNING
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Siemens products may only be used for the applications described in the catalog and in the relevant technical documentation. If products and components from other manufacturers are used, these must be recommended or approved by Siemens. Proper transport, storage, installation, assembly, commissioning, operation and maintenance are required to ensure that the products operate safely and without any problems. The permissible ambient conditions must be complied with. The information in the relevant documentation must be observed.
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About this guide

In order to conserve important resources, we work on reducing the materials we use and supporting the recycling economy right from the product design stage. An important way to achieve this goal is the resource recovery of electronic products at the end of their service life.

The Siemens recycler guide provides recyclers of electronic products with instructions on how to disassemble products safely in order to maximize resource recycling. This guide provide step-by-step disassembly instructions and material composition information to help recyclers direct fractions to the appropriate material recycler.

Disassembly procedures should only be performed by trained electronics recycling professionals. The recycler is responsible for independently evaluating and ensuring compliance with all applicable environmental and health and safety laws related to the work. This includes, but is not limited to, laws related to the management, handling, shipping, and disposal of the results of this work as waste, and applicable laws to ensure the health and safety of all employees supporting this work.

If you have any questions or feedback regarding this guide, please email this address: recycling@siemens.com

Safety instructions

The recycler is responsible for independently evaluating all activities of its employees to perform or support the work and to ensure compliance with all applicable health and safety laws related to the work. This includes, but is not limited to, laws regarding the health and safety of all employees performing or assisting in that work. The recycler is also responsible for assessing the workplace and ensuring that the area where the work is to be carried out is designed according to ergonomic best practices and meets all ergonomic requirements to ensure the protection of its employees.

Danger notice (DIN EN ISO 7010)



Figure 1 Warning against hand injuries



Figure 2 Warning against pointed/sharp objects

Wear personal protective equipment throughout the recycling process.



Figure 3 Wear hand protection



Figure 4 Wear a mask



Figure 5 Wear eye protection



Figure 6 Wear foot protection



Figure 7 Wear protective clothing

Recommended tool

For the disassembly of the product, we recommend using the following tool:

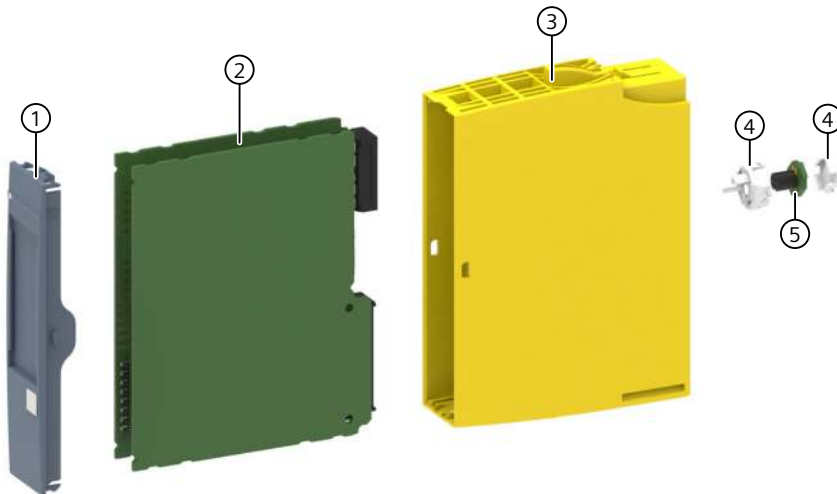


Figure 8 Slotted screwdriver

Disassembly instructions

The following guide provides detailed information on how to disassemble the product at the end of its service life and on what materials you can collect and recycle. In doing so, you support the recycling economy.

Components of the product

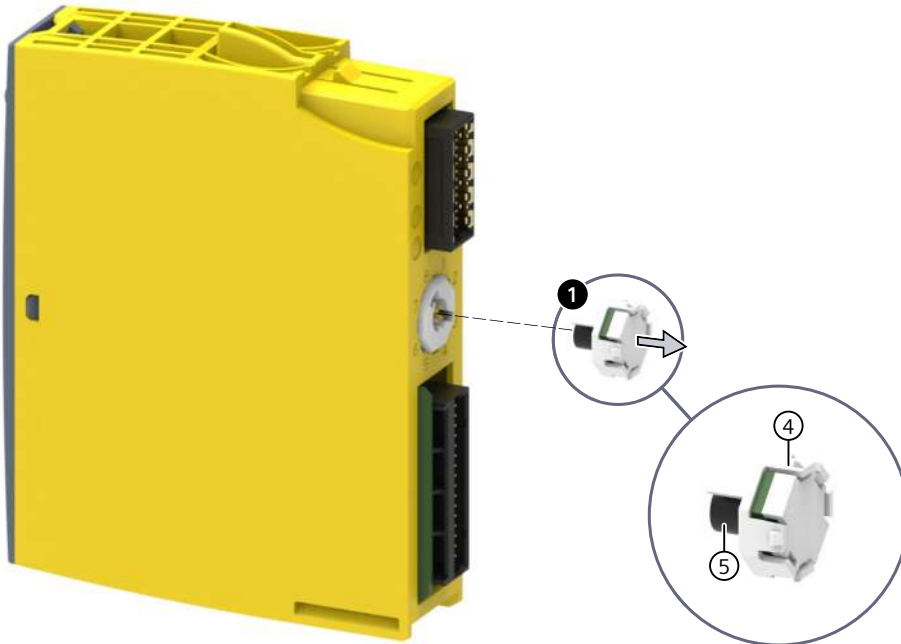


Position	Part	Material	Disassembly step
1	Front cover	Thermoplastic	Step 4
2	Assembled PCB	Electronics	Step 5
3	Housing	Thermoplastic	Step 5
4	Enclosure for electronic coding element	Thermoplastic	Steps 1 and 3
5	Printed circuit board	Electronics	Steps 1 and 3

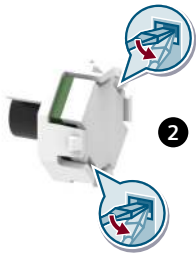
Dismantling the product

Follow these steps for disassembly:

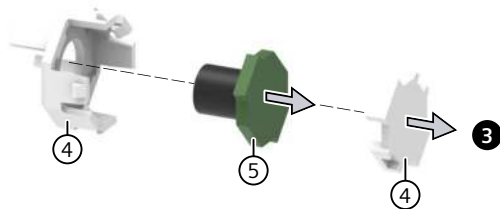
1. If present, remove the electronic coding element (4) and (5).
In the case of mechanical coding, (5) is not included.



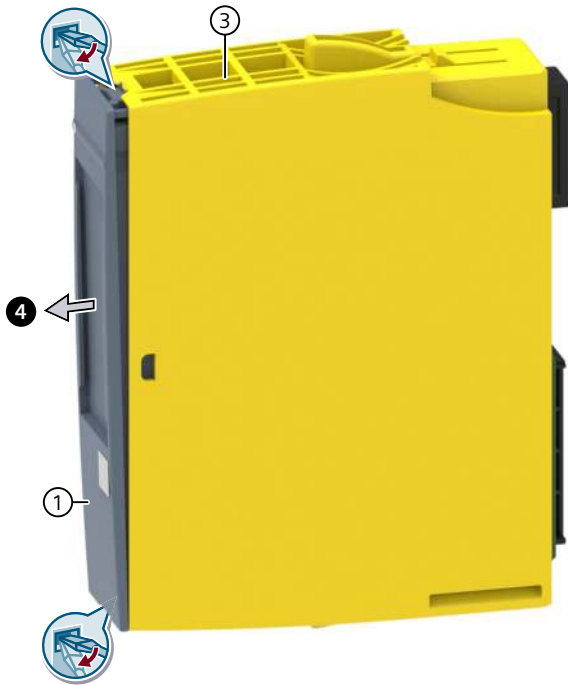
2. Remove the cover of the electronic coding element with a slotted screwdriver.



3. Pull out the printed circuit board (5).



4. Remove the front cover (1) by pressing into the snap locks with a slotted screwdriver.



5. Pull out the printed circuit board(s) (2), of which there may be one or two. The housing may be yellow or gray.



Explanation of substances and components

Components according to Directive 2012/19/EU Annex VII

You must remove at least the following substances, mixtures and components from the product:

Substance/mixture/component	Position	Disassembly step
Printed circuit boards with a surface area greater than 10 cm ²	2	Step 5
Plastic with brominated flame-retardants	2, 5	Steps 3, 5

Information on Directive 2012/19/EU

In order to support the recycling economy, SIEMENS creates transparency that goes beyond the regulatory requirements. See the table for additional information on smaller printed circuit boards or displays, as well as metal alloys containing elements that may be critical at the end of the service life, such as beryllium or lead.

This information does not fall within the scope of Annex VII of Directive 2012/19/EU.

Substance/mixture/component	Position	Disassembly step
Printed circuit boards with a surface area less than 10 cm ²	5	Step 3

Received material fractions

All results 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 legislation in Europe and worldwide. The following table contains the main material fractions, but is not exhaustive.

Position	Possible material fractions (not exhaustive)
1, 3, 4	Polycarbonate
2, 5	Copper, precious metals, tin

Disclaimer of liability

This guide for recyclers is intended only for information purposes.

This recycler guide does not guarantee the composition of any product or that the product will retain a specific composition for a specific period of time. Therefore, all warranties, assurances, conditions and all other terms of any kind implied by statute or common law are excluded to the fullest extent permitted by applicable law.

The Recycler Guide provides information on the disassembly process of a device in order to assign the components to the correct recycling channels. Reuse of dismantled components is not permissible.

Siemens therefore assumes no liability for errors or consequences that may result from the use of this information to the greatest possible legal extent.

Please note that the data in this recycler guide cannot be compared to data calculated based on product category rules (PCRs) other than the above standards. The values given are only valid in the specified context and cannot be used directly to create the environmental compatibility assessment of a plant.

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Disclaimer of Liability

We have reviewed the contents of this publication to ensure consistency with the hardware and software described. Since variance cannot be precluded entirely, we cannot guarantee full consistency. However, the information in this publication is reviewed regularly and any necessary corrections are included in subsequent editions.