

# Sepam 2000 protection relay

## End-of-life recycling

E40344\_cover



The three Sepam 2000 models

### Schneider Electric and the environment

Schneider Electric has undertaken a far-reaching environmental policy. As part of this policy, the Sepam 2000 range of protection relays has been designed to comply with the environmental standards of today and tomorrow. At the end of their life cycle, Sepam 2000 protection relays can be processed and their components recovered and recycled under optimum conditions in compliance with future European regulations concerning electrical and electronic products.

This document provides advice and information on how to recycle Sepam 2000 protection relays at the end of their service life.

### Breakdown of materials

On average, a Sepam 2000 relay is made up of 30 individual components joined at more than 70 fixing points by rivets and screws, giving an overall volume of 16 dm<sup>3</sup> and a weight of 6.1 kg, which is broken down as follows:

- 3.6 kg of ferrous metals (59%), primarily galvanised sheet steel
- 0.4 kg of thermoplastics (7%), primarily polycarbonate
- 2.1 kg of electronic cards (34%)

### End of product life

Sepam 2000 relays are modular products. At the end of their life cycle, they can be dismantled to recover the constituent parts.

Most of the materials used in the product are recyclable (namely the ferrous metals). The thermoplastic materials can be recycled or used for energy recovery purposes. After dismantling, the electronic cards must be disposed of by a certified recycling company.

### Safety instructions

- Before dismantling a Sepam 2000, disconnect all the wiring. The relay should be de-energised and disconnected from all other electrical equipment.
- Wear gloves when dismantling the sub-assemblies to avoid being cut by the metal parts.

### Tools required for disassembly

- 1 Torx screwdriver, size 10
- 1 4 mm flat blade screwdriver
- 1 drill and 3 mm bit for removing rivets

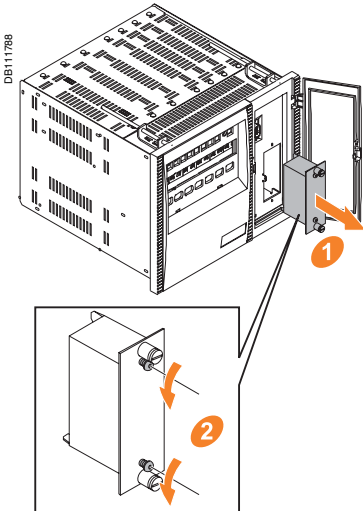
# Dismantling instructions

There are three models in the Sepam 2000 protection relay range:

- The compact model (Sepam 2026)
- The standard model (Sepam 2036)
- The bay controller model (Sepam 2046)

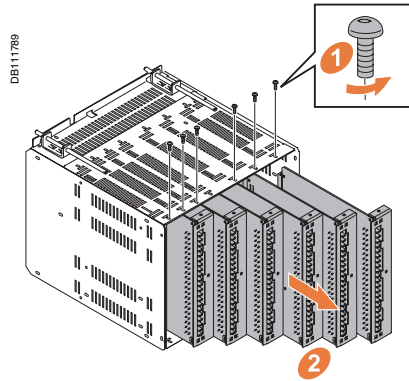
The dismantling instructions are the same for all three Sepam 2000 models.

## A Disassembling the removable sub-assemblies on the front panel



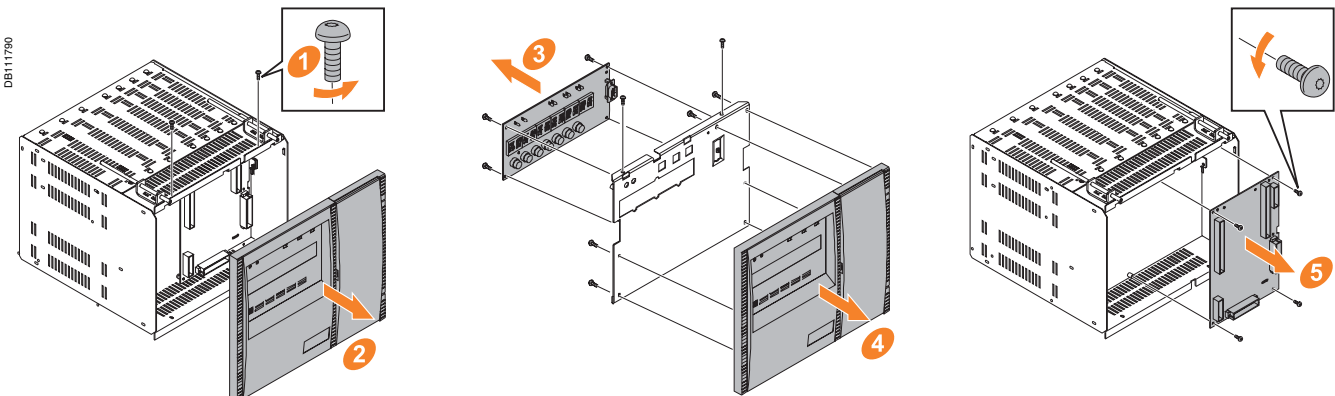
1. Remove the cartridge from the front panel of the Sepam relay.
2. Dismantle the cartridge by unscrewing the two Torx screws on the front and separating the three component parts - plastic casing, mounting plate and printed circuit.

## B Disassembling the removable sub-assemblies on the rear panel



1. Unscrew the Torx screws.
  - Sepam 2026: Comprises a maximum of 6 cards and 12 Torx screws
  - Sepam 2036: Comprises a maximum of 8 cards and 16 Torx screws
  - Sepam 2046: Comprises a maximum of 14 cards and 28 Torx screws
2. Remove the electronic cards behind.

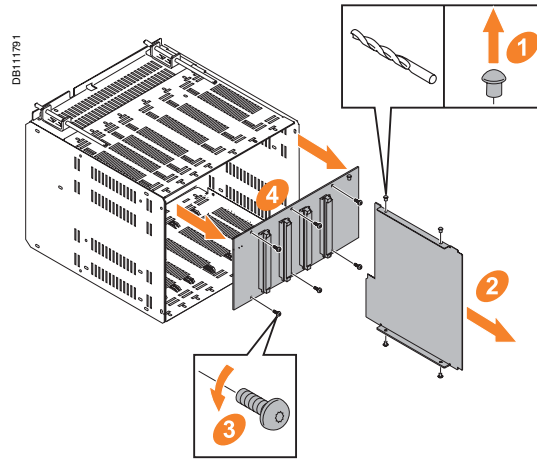
## C Disassembling the fixed sub-assemblies on the front panel



1. Unscrew the Torx screws.
  - Sepam 2026: 4 Torx screws
  - Sepam 2036: 6 Torx screws
  - Sepam 2046: 8 Torx screws
2. Remove the front panel.
3. Unscrew the display unit printed circuit from its support (4 Torx screws).
4. Unscrew the plastic parts from the mounting plate.
  - Sepam 2026: 15 Torx screws
  - Sepam 2036: 20 Torx screws
  - Sepam 2046: 25 Torx screws
5. Unscrew the printed circuit from the metal chassis (4 Torx screws).

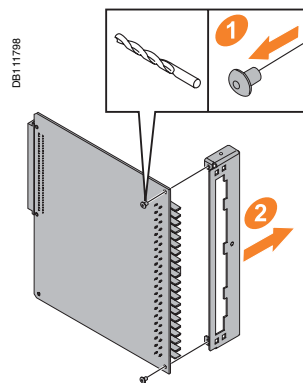
# Dismantling instructions

## D Disassembling the fixed sub-assemblies on the rear panel (Removing the printed circuit from the backplane)



1. Remove the 4 rivets from the screen mounting plate by counterdrilling the rivets using a 3 mm bit.
2. Remove the screen mounting plate.
3. Unscrew the Torx screws.
  - Sepam 2026: 6 Torx screws
  - Sepam 2036: 8 Torx screws
  - Sepam 2046: 10 Torx screws
4. Remove the backplane.

## E Disassembling the removable sub-assemblies (electronic cards)



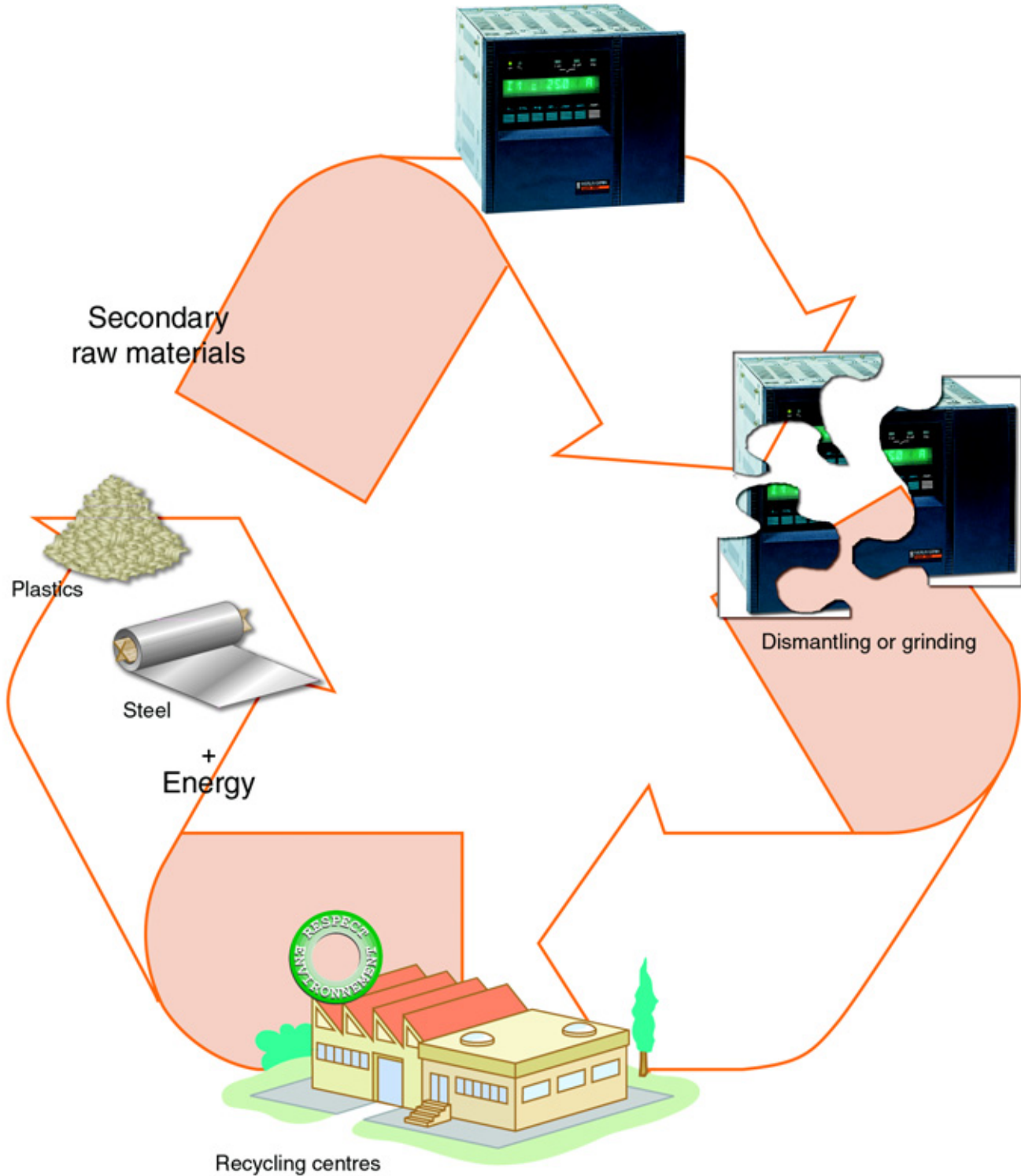
1. Remove the 2 rivets by counterdrilling them using a 3 mm bit.
2. Separate the printed circuit from the rear mounting plate.

## F Disassembling the fixed sub-assemblies

The remaining chassis can be crushed as it is (the rivets and card support inserts are made of steel).

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As standards, specifications and designs develop from time to time, always ask for confirmation of the information given in this publication.



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