

Recycler Guide, TOMRA R2

90431000



Original

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About this guide

This product contains electrical and electronic components that should be recycled by a specialist electronics recycler. Disposal and recycling of products containing electrical and electronic components may be governed by national environmental legislation.

This guide provides information pertaining to the decommissioning and recycling of TOMRA reverse vending machines and backroom equipment pursuant to the European Community directive 2012/19/EU on waste electrical and electronic equipment (WEEE).

This information shall identify the different EEE components and materials, as well as the location of dangerous substances and mixtures in EEE so that they can be properly handled. If you have any questions or feedback regarding this guide, please contact us on www.tomra.com.

Disclaimer

This Recycler Guide is intended only for information purposes. It does not guarantee the composition of any product or that the product will retain a specific composition for a specific period.

The Recycler Guide provides information on the disassembly process of a product to assign the components to the correct recycling channels. The values given are only valid in this specified context and cannot be used to create the environmental compatibility assessment of a product.

Reuse of disassembled components is not permitted. TOMRA therefore assumes no liability for errors or consequences that may result from the use of this information for anything other than assigning the product components to the correct recycling channels.

Safety instructions

Introduction

TOMRA Systems ASA is not liable for any damage caused by incorrect actions taken during the disassembly of the product/system.

The recycler is responsible for ensuring the safety of its employees performing disassembly of TOMRA products.

Safety symbols

Safety symbols are used on the safety labels on TOMRA machines. The table below lists the commonly used symbols and explains what they mean. Not all warnings will be relevant for all products.



NOTE: These symbols are designed for machine use during operation. Not all warnings may be relevant for the purpose of recycling but may be useful to understand the components that are being disassembled.

Table 1: Mandatory actions







Symbol	Description
	Refer to the instructions.
	Use protective gloves.
	Use ear protection.
	Use eye protection.
	Switch off power before carrying out maintenance or repair.
	Disconnect the mains power cable before carrying out maintenance or repair.

Table 2: Prohibited actions










Symbol	Description
	Do not reach in.
	Do not clean with a hose or spray with water.
	Do not step on this surface.

Table 3: Warnings

Symbol	Description
	General warning sign. Indicates a warning, caution or presence of a hazard, specified by text or symbol.
	Electricity hazard: <ul style="list-style-type: none"> • Disconnect power before opening or handling • High voltage present • No serviceable parts inside
	The system can start without warning.
	Drawing in and crush hazard. Keep hands and clothes clear.
	Indicates an overhead obstacle.
	Tip-over hazard. The machine is top-heavy and may tip over when transported.

Disassembly instructions

Disassemble the TOMRA R2

Part ID

TOMRA R2 (90431000)

Recommended tools

- Socket wrenches 7, 8, 10, 13, 24 and 38 mm
- Torx screwdrivers T10, T20 and T30
- Allen keys 4 and 5 mm
- Crosshead screwdrivers PZ1, PZ2 and PZ3
- Flathead screwdriver, 4 mm
- Habasit tool for feeder-conveyor belt
- Pick punch
- Hammer
- Side-cutting pliers
- Stepladder
- Pallet truck



Disassemble all parts and sort the components per material types listed below. Do not mix material types.



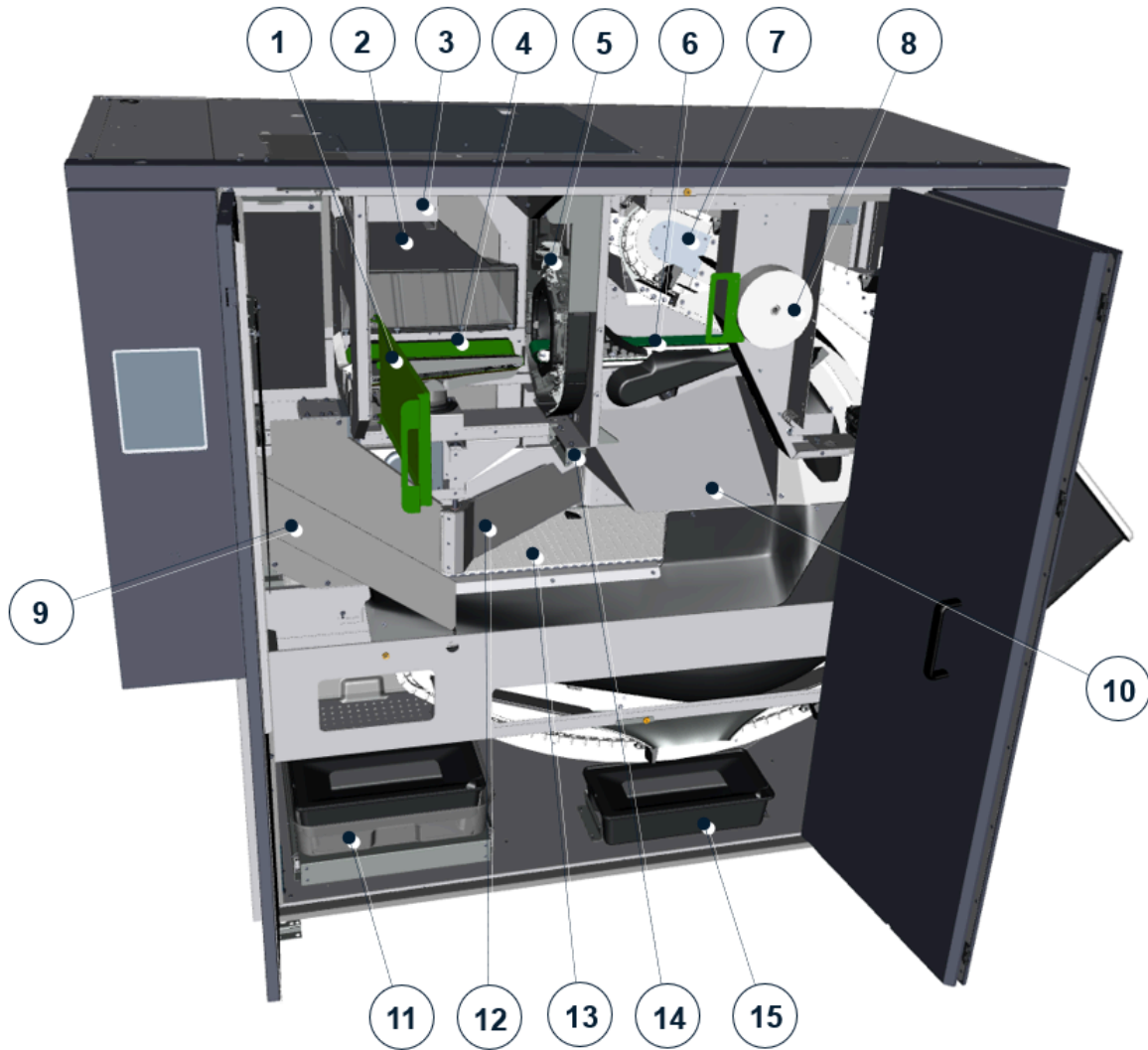
NOTE: All circuit boards shall be destroyed/grinded.

Main parts, outside



- 1. Main unit
- 2. Front unit
- 3. Infeed hatch with light guidance
- 4. Receipt slot
- 5. Proximity sensor
- 6. Touch display, front
- 7. Touch display, rear
- 8. Sliding door
- 9. Door

Main parts, inside



1. Door with shape reflector
2. Shape-recognition unit
3. Power box
4. Infeed conveyor
5. OneRing reader
6. Main conveyor
7. Singulation unit
8. Printer unit
9. Retry chute
10. Feeder chute
11. Debris tray
12. Feeder gate
13. Feeder conveyor
14. Reservoir sensor
15. Spill tray



NOTE: Machines for the German market also include an arch reflector.

Material types



NOTE: There are variants of this machine, minor weight differences may occur.

Material	Weight (kg)
Steel	359.5
Aluminium	1.0
Other metal parts	0.7
Electrical, electronic and electromechanical (EEE) parts	21.4
Plastic	27.3
Rubber	0.4
Glass	3.0
Other parts	78.8
Total	492.0

Recommended disassembly procedure

Step	Materials
<p>1 Remove the front unit and disassemble the front unit:</p> <p>Remove the dashboard, the step motor, the sensors and the MMI unit with the display. Remove all cables and circuit boards.</p>	Steel, EEE parts (cables, circuit boards, motor), plastic, glass
<p>2 Remove the covers and doors (see instructions for sliding door and side panel). Remove the MMI unit at the rear.</p>	Steel, EEE parts (cables, circuit boards), plastic, glass, rubber

Step

Materials

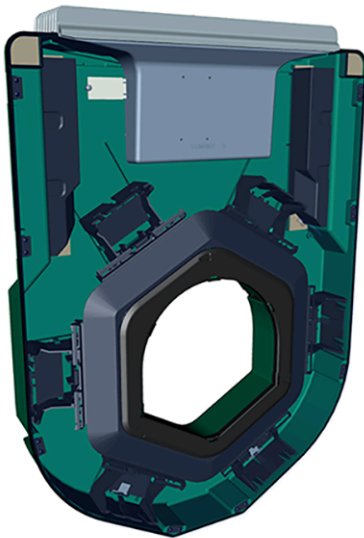
- 3 Disassemble the recognition unit and remove the parts listed below:

Steel, aluminium, EEE parts (cables, circuit boards, motor), plastic, glass, rubber

door with shape reflector, infeed conveyor, infeed docking-station, arch reflector (if applicable), OneRing reader, shape-recognition unit, power box



NOTE: The OneRing reader has a glass cover that shall be removed and recycled.



- 4 Remove the other internal components:
Chutes, driver boards, feeder gate, V6-conveyor, three-way sorter, main conveyor, inverter unit, printer unit with printer,

Steel, EEE parts (cables, circuit boards, motors), plastic

- 5 Remove the singulation unit.

Steel, EEE parts (cables, circuit boards, motor), plastic

- 6 Remove the feeder conveyor.

Steel, aluminium, EEE parts (cables, circuit boards, motor), plastic

- 7 Remove the cables.

Steel, iron, EEE parts (cables, circuit boards), plastic, rubber

- 8 Disassemble the cabinet.

Steel

- 9 Disassemble the assembled units.

Steel, aluminium, EEE parts (cables, circuit boards, motor), plastic, glass, rubber



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