

FAST & FLUID MANAGEMENT

HA150

ENGLISH
User manual

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HA150 manual (EN)

EU Declaration of conformity

We,
Fast & Fluid Management, Nederland
A Unit of IDEX Corporation
Hub van Doorneweg 31
2171 KZ Sassenheim, Nederland

declare that:

Produkt: Automatic dispensers
Model: Harbil
Types: HA150

are in compliance with the following directives:

Machinery Directive 2006/42/EC
Low Voltage Directive 2006/95/EEC
Electromagnetic Compatibility Directive 2004/108/EEC

according to the following harmonized standards:

EN-ISO 12100-1, EN-ISO 12100-2, EN-ISO 13850 & EN-ISO 14121-1
EN 60204-1
EN 61000-6-2, EN 61000-6-3, EN 61000-3-2 & EN 61000-3-3

Sassenheim, 01-06-2005



ir. F. Puijman
Vice President Manufacturing
Fast & Fluid Management, the Netherlands
A Unit of IDEX Corporation



Introduction & warranty

Introduction

By selecting a Fast & Fluid Management Color Dispenser you have opted for a product which is the result of intensive research. Top-quality components, craftsmanship and a modern ergonomic design all serve to guarantee a long service life and a high degree of user friendliness. The machine complies with Council Directives 89/392/EEC on machines, 89/336/EEC on electromagnetic compatibility, and 73/23/EEC on electrical equipment intended for use within given voltage limits, as enacted by the Council of Ministers of the European Community. The machine is furnished with a CE mark.

Warranty conditions

In these warranty conditions, 'F&FM' is understood to mean Fast & Fluid Management. The warranty conditions incorporated into F&FM's general conditions of sale are summarized as follows (for free general conditions you can contact F&FM):

F&FM guarantees the proper operation of any goods which it supplies, for a period of one year, except where a breakdown is the result of normal wear and tear. The cost of any inspection activities carried out by F&FM, with the aim of establishing whether or not a breakdown is covered by the warranty will be reimbursed by the other party if it transpires that the breakdown is not covered by the warranty. If it transpires that a breakdown is covered by the warranty then F&FM will supply identical or equivalent goods under the conditions referred to in point 6 of the general conditions of sale. The warranty obligation described in this article only applies if the goods supplied by F&FM have been used in accordance with the manual. Time spent on warranty-related activities, including travel time, travel costs and accommodation costs, are charged at current rates.

In contrast to the above, F&FM will not be held to any warranty obligation if:

1. Repairs have been carried out, or attempted, by the other party or a third party, unless F&FM had previously declined to repair the goods for a fair price;
2. F&FM demonstrates that the defect did not emerge during testing;
3. The other party fails to inform F&FM of the defect immediately, if possible either by letter and/or by fax, providing full, accurate details and/or has failed to comply fully with F&FM's instructions;
4. The other party has failed to use or treat the goods properly or in accordance with F&FM's instructions;
5. The damage has been caused by incidents, beyond F&FM's supervision, which have occurred either during transport or installation.

In the following text, the expression "Software" will be understood to mean the standard computer software supplied by F&FM to the other party, recorded on a computer-readable storage medium, plus the accompanying documentation (Software Manual) and including any improved and/or new versions supplied. The expression "processing unit" (PU) is understood to mean the machine for which and with which the Software is supplied, and which is the sole machine on which the Software may be used.

The other party is authorized to copy the Software either in its entirety, or in part, (up to a maximum of 2 copies) for purposes of internal security. These copies will be furnished with the same marks, designations relating to copyright and other registration numbers as the original version of the Software.

The other party will neither amend, translate, decompile nor adapt the Software, nor convert it into source code, without express written permission from F&FM. If the other party so requests, F&FM will provide that party with the information required to render the Software interoperable with other software.

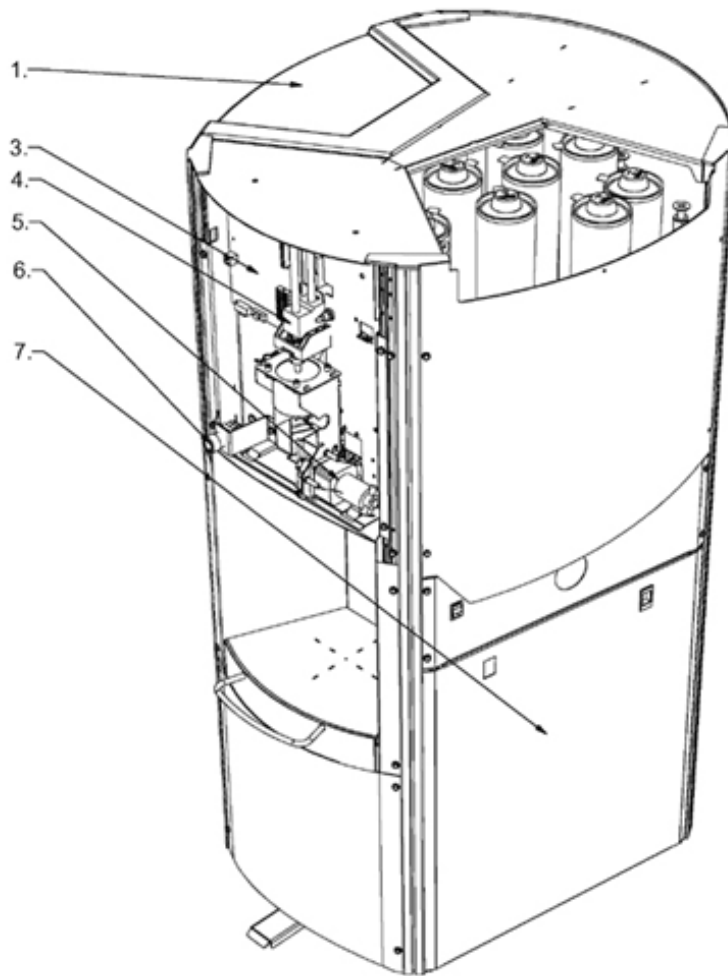
In the event that the PU experiences a breakdown, the other party may use the software on another processing unit until the PU is again operational. The other party will inform F&FM of this within 5 days.

If it is a requirement that the Software be definitively transferred from the PU to another processing unit then the other party shall request permission from F&FM, which will not withhold such permission on unreasonable grounds.

Explanation of images

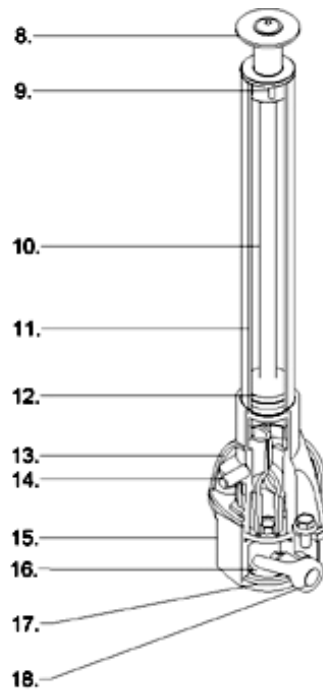
Dispenser

1. Electronics power board
2. Top lids
3. Pump gripper spindle & spindle stepper motor
4. Pump & canister assembly (details below)
5. Valve gripper actuator
6. Emergency stop
7. Side panel, computer cavity



Pump assembly

8. Disc grip
9. Pump cap
10. Pump tube
11. Nozzle wiper
12. Nozzle
13. Top valvehouse
14. Pin sensor
15. Bottom valvehouse
16. Ballvalve lid
17. Ballvalve arm
18. Clozer



Safety instructions

A - General safety instructions



Attention! Before installing the equipment and setting it in operation, please read the instructions for use carefully. This is safer for yourself and prevents unnecessary damage to the machine.

The manufacturer accepts no liability if the instructions below are not followed:

1. If a machine has been damaged (during transport, for example), do not attempt to set it in operation. When in doubt, first contact either your supplier or the F&FM service department.
2. The equipment should be positioned and connected up in strict accordance with the installation instructions.
3. All local safety regulations and ordinances should be observed.
4. The machine may be connected only to a 230V/16A/50Hz or 110V/25A/60HZ earthed wall socket installed in accordance with the regulations.
5. Users should see to it that the machine is kept in good condition. Defective components should be replaced.
6. In order to prevent physical injury, the doors should be closed and the paneling fitted during normal use.
7. All service activities (other than routine maintenance and adjustments) may only be carried out by qualified technicians. See to it that the mains lead is always kept unplugged while repairs are being carried out.
8. Because of the design of the valve, a nozzle drill may never be used. Cleaning is done by running the cleaning program.

B - Specific warnings in this manual



Attention! Switching off the dispenser with the emergency stop will also stop colorant agitation.



Attention! MOVING PARTS CAN CAUSE INJURY. Always turn off power (e.g. by pressing emergency stop) before accessing moving parts.

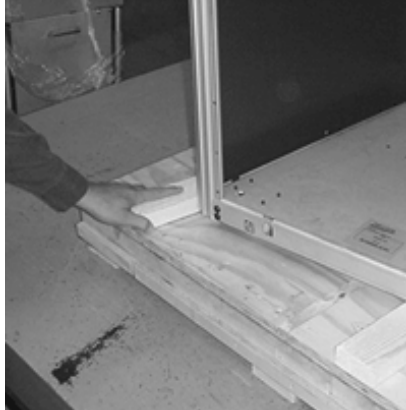
Installation

A - Installing the dispenser

Step 1 - Detach the dispenser from its transport skid



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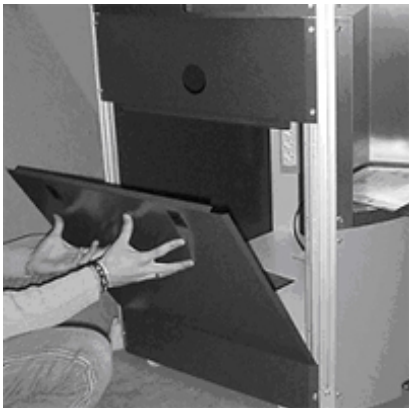
Unscrew transport the transportscrews connecting the machine to the skid from the inside of the computer cavity.

Detach the supporting wooden strips from the pallet.

Carefully maneuver the machine off the skid onto its rear wheels and roll it to its final operational position.

B - Installing the computer and software

Step 1 - Place and connect computer to dispenser



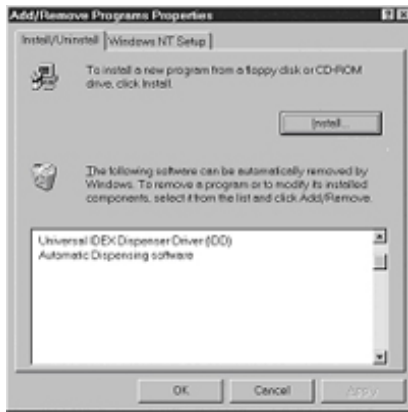
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Remove one of either side panels and place computer in cavity.

Connect dispenser to COM1 (default) and mouse, keyboard and other appliances to designated computer ports.

Step 2 - Install dispenser software on computer



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Install all necessary software provided by software supplier. Check software manual for details.

Use software to test basic functions of dispenser before filling. Check software manual for testing procedure.

B - Installation of the monitor keyboard arm



Attention! This is a sales option. Not a standard option.

Step 1 - Take the monitor keyboard-arm out of the HA150



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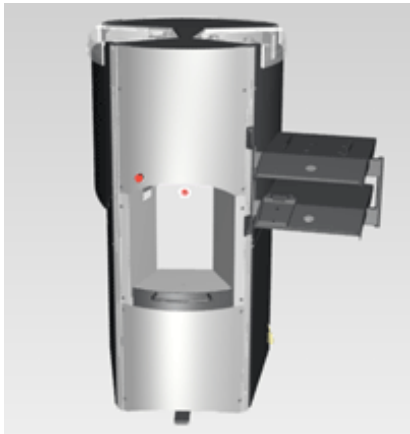
Remove the panel on the side of the Canova.

Carfully take the monitor keyboard arm out of the Canova.



Warning! Don't damage the machine with unpacking.

Step 2 - Instal the monitor keyboard-arm.



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Place the arm into the Aluminium profile slot (left or right).

Operation

A - First time operation

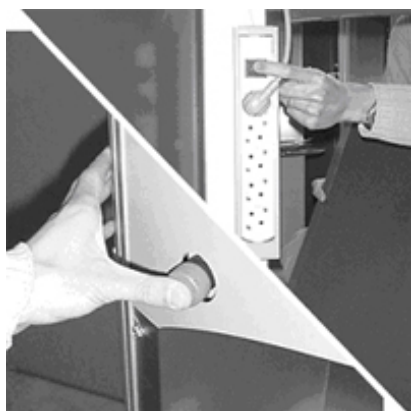
Step 1 - Switching ON the dispenser & computer



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Unlock the emergency stop button on the front of the machine by turning clockwise. The machine is automatically switched on when the power connector at the back of the dispenser is plugged into a 220V or 110V wall socket. Please be aware that the HA150 dispensers are fitted with sleeping timers as standard. This means that after approximately 30 minutes the dispenser will enter a power saving mode in which all secondary units (e.g. sensors) are switched off automatically. Stirring is not affected by this mode. To awake the dispenser from its sleeping mode, perform any command from the dispensing software or press either of the cantable buttons.

Step 2 - Switching OFF the dispenser & computer



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Please note that with normal operation there should be no reason to take the power off the dispenser. In case the dispenser must be switched off, there are several ways of achieving this:

1. Shut down the computer and unplug the power connector at the back of the machine.
2. Shut down the computer and switch the internal power socket behind the bottom service panel at the front of the machine.
3. Shut down the computer and press the emergency stop button.



Attention! Switching off the dispenser with the emergency stop will also stop colorant agitation.

Step 3 - Agitation timer

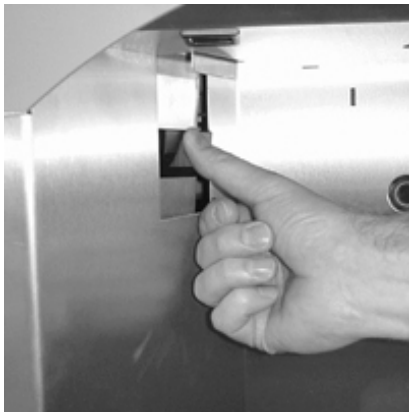


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The stirring time and interval can be altered from its default settings*. This can be done through the dispenser software, check your software manual for instructions. Please ask your paint supplier for optimal agitation settings for your specific colorant products.

* Default value is 180 seconds of agitation every 3 hours.

Step 4 - Fill the brush tray (nozzle cleaning system)



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Remove the brush tray at the left side of the dispenser, by pushing it backwards until it falls down.

Take out the brush container, and fill the container with water or an alternative liquid proposed by your colorant supplier.

Replace the brush tray in its original position by pushing the brush tray up. Cleaning fluid must be refreshed daily!



Use only cleaning fluids recommended by your paint supplier. Wrong materials can result in nozzle blockage and reduced accuracy.

Step 5 - Fill the canisters with colourant



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Access the canisters from either side top lid. Turn the turntable so that the canister concerned, is positioned under opening.

Remove the canister lids and check your software manual for filling sequence.

Purge twice to remove air from the system.

B - Dispensing

Step 1 - Bring can to correct position



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Place the can at the center of the can table.

Lift the can table to the right height (unlock by pressing down the foot pedal).

The can must be as close to the dispenser opening as possible.

Step 2 - Dispense colorant into base material



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Ensure can opening is under the dispenser nozzle and at its optimal height.

Choose desired formula as shown in software manual. The turntable will subsequently rotate to correct positions.

Take the can table down. Remove can, dispensing is now complete.



Dispensing is mainly a software issue. Please read your software manual thoroughly for all possible options.

Maintenance

A - Daily maintenance

Clean the brush tray, refill canisters and run morning program



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Remove the brush tray and empty the container. Clean the brush with water and refill the container with correct fluid (e.g. water).

Check colorant levels and refill canisters if level is low. Update levels in software. Stir colorant beforehand.

Start software morning program to purge valves and clean nozzles. Check your software manual for details.



Use only cleaning fluids recommended by your paint supplier. Wrong materials can result in nozzle blockage and reduced accuracy.

B - Weekly maintenance

Remove spilt paint & colorant and refill canisters



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Clean can table and outside parts with diluted detergent.

Check canister content and refill if necessary.



Always close canisters and machine lids after refilling.

C - Monthly maintenance

Check and clean important functional parts



Remove back panel and check pump valve for possible malfunctions (e.g. leakage or blockage)



Attention! MOVING PARTS CAN CAUSE INJURY. Always turn off power (e.g. by pressing emergency stop) before accessing moving parts.

Troubleshooting

A - Introduction




Before calling your machine supplier or Service Department, please check whether you can solve the problem yourself. If you cannot, then call the Service Department for advice. Have the model number and serial number at hand (these can be found on the silver CE sticker at back of the machine, next to the net entry). Use the Problem Solving chart below to judge whether you can solve a problem yourself or not. The tool symbol (🔧) means you cannot solve the problem yourself and the Service Department must be called. On no occasion remove side panels yourself, this may only be done by trained service personnel. This chart does not include any of the malfunctions which are reported in an error message by the software. In the event of a malfunction, these messages and possible solutions are displayed on the monitor.



Attention! MOVING PARTS CAN CAUSE INJURY. Always turn off power (e.g. by pressing emergency stop) before accessing moving parts.

B - Problem solving

<i>Symptom</i>	<i>Cause</i>	<i>Action</i>
Valve leaks through the outlet opening	Air bubble in pump	Prime the pump
	Valve is defective	Replace pump 🔧
Canister connection leaks around the suction point	Worn O-ring(s)	Replace O-ring(s) 🔧
Air is being fed together with the paste	Air bubble in the pump	Prime the pump
	Canister is empty	Refill canister
	Piston is defective	Replace pump 🔧
No power from power unit	Computer not correctly booted	Reboot computer & software
	Software incorrectly installed	Reinstall software
Geen stroom	Not connected to power grid	Check power cables
	Fuse blown	Remove plug from socket, replace fuse
Colours are difficult to reproduce	Mechanisms are dirty	Clean
	Quality fluctuations in paste supplied	Contact paste supplier
	One or more pastes have thickened	Replace paste(s)
	Turntable in wrong position	Reset (press and unlock emergency stop button)
	Leaks around piston(s)	Replace piston(s) 🔧
Poor monitor picture, or no picture	Monitor is switched off	Switch monitor on
	Loose cable(s)	Check cables
	Picture set too dark	Adjust picture correctly
	Monitor malfunctioning	🔧
Keyboard is not working	Loose cable(s)	Check cables
	Windows Regional setting is incorrect	Check Windows software manual
	Defective cable(s)	🔧
	Keyboard is defective	🔧
Stirrer is not rotating	Timer setting incorrect	Set the timer correctly (software)

Turntable is not turning	Loose cable	Check cable
	Defective cable	
	Defective motor	
	Piston rod positioned too high	Push piston to lower position
	Cable(s) loose	Check cables
	Cable or motor defective	

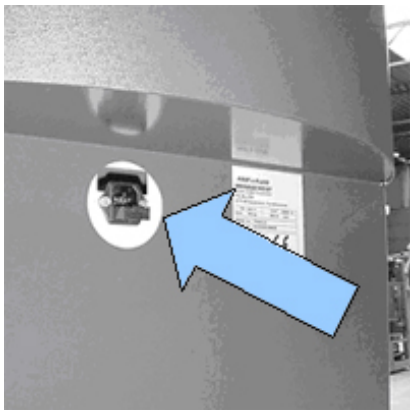
C - Service Department

If necessary, you can get in touch with your supplier or the local service department, or contact the manufacturer directly. If you contact the manufacturer, make sure that you have the model number and serial number to hand. They can be found on the nameplate on back of the machine next to the netentry.

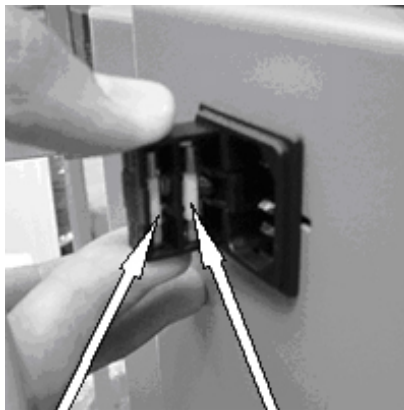
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2171 KZ Sassenheim, the Netherlands
Tel: +31 (0)252 240 800
Fax: +31 (0)252 240 882 (service)
+31 (0)252 240 880 (algemeen)

D - Fuse

Replacing fuse in netentry.



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Spare fuse

Damaged fuse

Specifications

Number of canisters	12/14/16/18/20/24
Canister sizes	2.3 liter
EasyClick canister/stirrer (material)	molded polymeric
Valves	stainless steel / teflon
Pump type	piston pump
Pump sizes	2 ounce
Min. dispensing	1/384 fl.oz
Accuracy	0.004 ml/step
Flow rate	0.4 L/min
Nozzle closures	integrated
Cleaning system	standard
Nozzle diameter	2 en 4.5 mm
Maximum can height	46 cm
Can table depth	27 cm
Can detector	standard
Stirring timer	standard
Moveable can table	manual
Heating set	option
Manual punch 46 mm	option
Dimensions (H x W x D)	157 x 80 x 94 cm
Power supply	110V +/- 10%, 50Hz/60Hz
	230V +/- 10%, 50Hz/60Hz
CE approved & Patent applied.	
Specifications subject to change without prior notice.	

Electrical wiring diagram

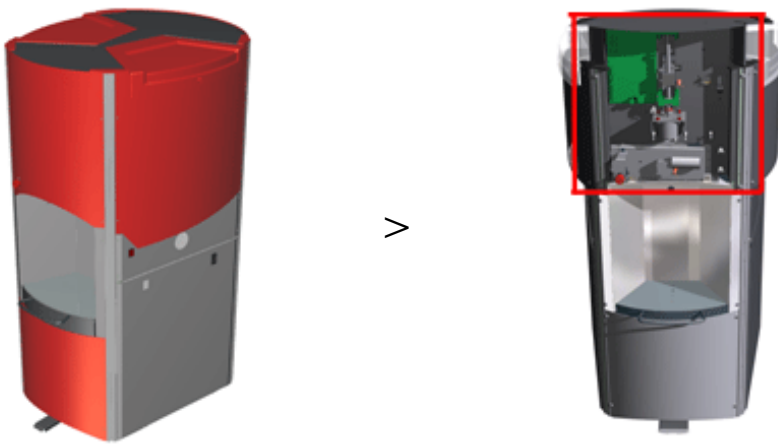
Contributing to the Protection of the Environment

Packaging Material

The packaging protects the machine against damage during transport. The packaging material was chosen based on its limited impact on the environment and its inherent possibilities for waste-disposal. The reuse of packaging material saves raw materials and produces less waste material. Generally speaking, your supplier will take the packaging off your hands.

Discarding the Machine

Discarded equipment usually still consists of valuable materials. For this reason, do not simply throw your machine out with the oversized refuse, but ask your supplier whether he will take the machine back. If he will not, then enquire at your local government offices or ask a trader of raw materials what options there are for recycling the material (e.g. scrap processing, electrical components and plastic (see below for additional information)).



All red-coloured components are made of ABS. These components can be recycled.

Inside the red square pictured above (on the front of the dispenser) are electrical components that can be recycled.

