

SIP Industrial Products Limited

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United Kingdom



SIP FX100 Welding Fume Extractor



For help or advice please contact
your distributor, or sip directly on:

Tel.: 01509 500400

Email:

sales@sip-group.com

or

customerservice@sip-group.com

www.sip-group.com







SIP Code 05815

Please read and fully understand the instructions in this manual before
operation. Keep this manual safe for future reference.



<i>Page</i>	<i>Description</i>
4 - 10	Safety Instructions
10	Guarantee
11	Technical Specification
12	Getting To Know Your Fume Extractor
13	Operating Instructions
14 - 17	Maintenance
18	Wiring Diagram
19	Troubleshooting
20	Parts Information
22	UK Declaration Of Conformity
23	EU Declaration Of Conformity

SAFETY SYMBOLS USED THROUGHOUT THIS MANUAL

	Danger / Caution: Risk of electrical injury or damage.
	Danger / Caution: Risk of injury or damage.
	Danger / Caution: Risk of personal injury and / or the possibility of damage.
	ATTENTION: draws attention to situations and problems associated with the efficiency of the machine that do not affect the safety of people.
	Note: Supplementary information
	ENVIRONMENT: draws attention to behaviors and procedures to limit the environmental impact related to the use of the machine.

SAFETY INSTRUCTIONS

- Do not use the machine in places where there is a risk of explosion or fire. Do not approach the machine with naked flames or other.
- Use the machine in a dry environment, not subject to condensation phenomena of atmospheric humidity and protected from direct exposure to atmospheric agents and sunlight.
- Always use the machine in adequate lighting conditions. The environment of use must be well ventilated and in compliance with the regulations in force on hygiene and safety at work.
- Do not use the machine in harsh environmental conditions: the ambient temperature must be between 5 ° C and 40 ° C, with a humidity level less than 80%.
- Check that the electrical power supply system of the machine is up to standard and equipped with appropriate protection devices against current leakage and short circuit.
- The use of the product must be preceded by adequate staff training and by reading this User Manual.
- The machine can be used as a portable unit for the extraction, filtration and deodorisation of welding fumes in the electronics industry in general, in body shop departments and for small welds.
- The use of the machine is allowed only to adult and responsible operators, properly trained.
- The machine must be handled with caution, respecting the rules given in this manual.
- After use, do not leave the flexible hose unattended on the ground, as it maybe a trip hazard or get damaged.
- Handle the hose and the cap using protective gloves in order to avoid burns due to the high temperatures that can be reached in conditions of prolonged use.
- Do not carry out repairs or modifications to the machine.
- Do not carry out maintenance when the machine is running. To clean the machine, do not use corrosive or harmful detergents.

SAFETY INSTRUCTIONS

- In case of breakdown or malfunction of the machine DO NOT USE IT AND CLEARLY LABEL IT AS OUT OF THE SERVICE. Contact our Customer Service for any repairs.
- Wear suitable personal protective equipment (PPE) during use, maintenance and cleaning of the machine.
- During the maintenance phases, do not disperse any residues in the surrounding environment, but comply with the current regulations.

WELDING

- The intended use of the machine is the suction of welding fumes in industry and automotive workshops: it is forbidden to use it to suck up other substances (dust, liquids, vapors, etc.), especially if flammable, explosive, corrosive, etc
- The machine must only be used in a work environment protected from atmospheric agents.
- The machine must be used with caution, making sure that the power supply cable and flexible hose are not placed in dangerous areas or where they can hinder other operators.
- The machine was not designed to be used in a potentially explosive atmosphere: its use in environments where there is a risk of fire or explosion is prohibited.
- The nozzle must allow the entry of air at room temperature in a ratio of 1: 1 with the aspirated fumes. This is necessary to lower the average temperature of the sucked gases, preserving the life of the internal components of the machine.
- It is forbidden to use it with systems for capturing and conveying the flow rate that do not allow the entry of air at room temperature as prescribed.
- SIP Industrial Products disclaims any liability for damage to the machine itself, to people or property caused by the incorrect use of the collection cap or the use of inappropriate hoods.

ELECTRICAL

- **ELECTRICAL RISK:**
- It is forbidden to perform repairs or maintenance on the machine when it is connected to the electrical power system; however, should it be necessary to operate with the machine powered on, this practice can only be carried out by Qualified Personnel, with expertise in the electrotechnical field, or by SIP Industrial Products / SIP Service Agent.
- Adopt all the precautions according to the regulations in force if you have to operate with the machine powered on: wear insulating gloves and shoes and use insulating mats and insulated tools. Also check that the system to which the machine is connected is protected from leaks and short circuits, as required by current legislation
- **RISK OF FIRE OR EXPLOSION:**
- The machine cannot be used in environments with a high risk of fire or explosion. It is forbidden to store, even temporarily, potentially flammable or deflagrating substances in the rooms where the exhaust gas extraction system is installed.
- **RISK OF BURNS:**
- During work operations, the machine, especially on the exhaust side, can reach high temperatures with consequent risk of burns. Use heat-resistant gloves for handling the machine.
- **RISK OF FAILURE OR MALFUNCTIONING:**
- Long use of the machine in particularly severe environmental conditions (brackish environment, excessive temperature, condensation, presence of dust, exposure to atmospheric agents, etc.), can cause malfunctions or failures of the product and compromise its safety.
- Respect the requirements indicated in the "Safety Warnings" relating to the work environment, reported in this User Manual.
- **RISK OF INCORRECT INTERPRETATION OF SAFETY LABELS:**
- Following the identification of the main sources of danger that emerged from the Risk Analysis, Safety Stickers, with unified symbols, were applied to the machine to signal these sources of danger. Over time, these stickers can become illegible or difficult to interpret due to aging or wear.

SAFETY INSTRUCTIONS

- The user is required to immediately replace the Safety Stickers that become illegible due to aging, wear or damage.



Danger: Risk of Electric Shock. Electrocution risk around the mains input and socket. Do not touch electrical parts. Do not extinguish electrical fires using water, use an appropriate extinguisher.



Danger: Risk of Burns from contact with Hot Surfaces. During normal work operations the machine casing, especially on the exhaust side, and the activated carbon filter can reach temperatures above 60 ° C with consequent risk of burns.



Warning: Always use appropriate personal protective equipment (PPE) .

DOCUMENTATION

- The SIP FX100 machine is accompanied by this User Manual which contains the technical information, figures, instructions and warnings necessary for correct use of the product.
- The User Manual must accompany the machine throughout its life cycle, even in the event of sale or transfer; must be stored in such a way as to ensure its integrity and must be easily accessible in case of need (it is advisable to keep a copy near the machine).
- The purpose of this document is the transmission of the information necessary for the competent and safe use of the product and therefore must be made available to all personnel who work with the machine and its systems (Plant Manager, User, Maintenance Technician and Qualified Personnel machine installation, power supply and commissioning).
- In the event that this manual is lost or damaged, it is recommended to

SAFETY INSTRUCTIONS

request a new copy directly from SIP Industrial Products Ltd or our website.

DELIVERY, TRANSPORT & HANDLING

- Upon delivery, the machine is contained in a single package. Upon receipt of the goods, check that the packaging integrity and that there are no signs of possible damage suffered during transport; if necessary, before opening the package, document the problems encountered with some photographs.
- In the event that the product is damaged, do not use and report the incident to SIP Industrial Products .
- Arrange a place protected from bad weather to store the product waiting for the installation, in case installation is not immediate.
- The product cannot be exposed to bad weather, store and use it in a dry and covered room.
- In case of damage to the product during transport, do not proceed with use
- For the transport operation, the operator must unload the packaged machine using a suitable means for lifting.
- Remove the packaging only at the time of final commissioning of the machine and dispose of the materials in accordance with current regulations.
- The loading and unloading operations and subsequent handling must be performed keeping the machine in its original packaging and using an appropriate lifting device.
- Make sure that the lifting means are suitable for the weight of the machine and carry out handling in safe conditions, in accordance with the provisions of current legislation.
- Personnel not involved in the operation must keep a safe distance. Check that there are no objects resting on the machine and that the moving parts have been fixed. The floor must be flat, clean and free of residues
- When opening the packaging, the operator must check that all machine components are present and that they have not been damaged during transport. If not, contact our dealer.

SAFETY INSTRUCTIONS

- Connect the flexible suction hose to the machine's suction duct and secure it using the hose clamp supplied.
- Assemble the handle of the machine using the 2 screws supplied and a No. 6 Allen key.
- Do not leave the packaging elements (cellophane, wood, cardboard, etc.) within the reach of children, as they are potential sources of danger.
- Do not dispose of the packaging materials in the environment. The packaging must be done in accordance with the regulations.

GUARANTEE

This SIP FX100 welding fume extractor is covered by a 24 month parts and labour warranty covering failure due to **manufacturers defects.** .

This does not cover failure due to **misuse** or **operating the extractor outside the scope of this manual** - any claims deemed to be outside the scope of the warranty may be subject to charges including, but not limited to parts, labour and carriage costs.

Failure to regularly clean your extractor will shorten its working life and reduce performance.

Failure to clean and / or replace the filters regularly will impact the life of the motor, and excess ingress or damaged caused by ingress to the motor will not be covered under the warranty.

The warranty does not cover consumable items such as hoses, filters etc and also components subject to normal wear & tear.



NOTE: Proof of purchase will be required before any warranty can be honoured. .

TECHNICAL SPECIFICATION

The SIP FX100 machine described in this manual is a portable unit for the extraction, filtration and deodorisation of welding fumes in industry, automotive workshops and for small welding fabricators.

<i>05815 SIP FX100 Welding Fume Extractor</i>	
<i>Supply Voltage</i>	230V / 50Hz
<i>Motor Power</i>	1100watts
<i>Weight</i>	18kg
<i>Maximum Flow Rate</i>	163m ³ /Hour
<i>Maximum Pressure Drop</i>	660mmH ₂ O
<i>Sound</i>	73dBA
<i>Diameter of Suction Hose</i>	60mm
<i>Length of Suction Hose</i>	3mtrs
<i>Diameter of Suction Hood</i>	100mm
<i>Suction Hose Bending Radius</i>	42mm
<i>Suction Hose Working Temperature</i>	90°C
<i>Suction Hose Maximum Temperature</i>	120°C **
<i>Filtering Material</i>	Cellulose
<i>Filtering Surface Area</i>	1.12m ²
<i>Dust Classification</i>	M
<i>Active Carbon Qty</i>	2kg

** Peak Temperature of 120°C is intended for a maximum of 15seconds

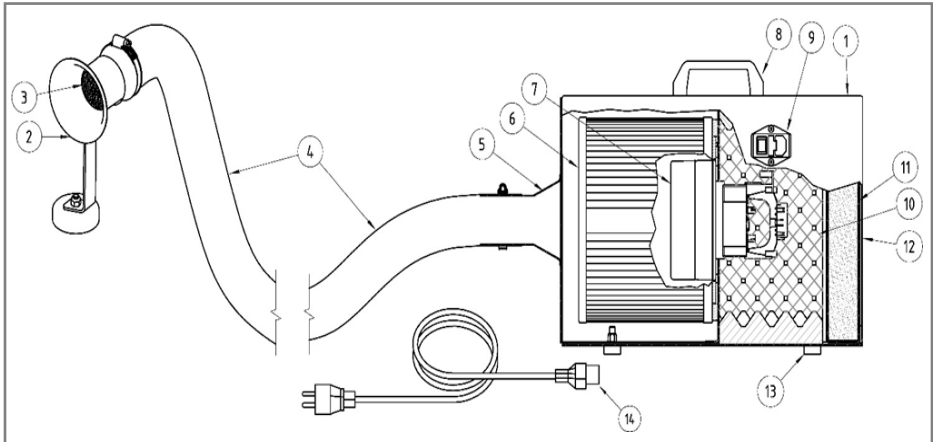


The hood must allow the entry of air at room temperature in a ratio of 1: 1 with the aspirated fumes. This is necessary to lower the average temperature of the extracted fumes, preserving the life of the internal components of the machine.

GETTING TO KNOW YOUR FUME EXTRACTOR

The SIP FX100 machine described in this booklet is a portable unit for the extraction, filtration and deodorisation of welding fumes in industry, automotive workshops and for small welding fabricators.

Polluted air extracted by a brush motor with integrated aspirator positioned inside the machine casing. Capture is done by an adjustable hood and through a 60mm diameter flexible hose which reaches a filtration cartridge. After the fan, the fume will be finally expelled. The final deodorisation is carried out through an activated carbon cell.



<i>Item</i>	<i>Description</i>	<i>Item</i>	<i>Description</i>
1	Machine Casing	8	Handle
2	Adjustable Suction Hood	9	Power Connection - ON/OFF Switch
3	Fine Spark Arrestor	10	Sound-proofing
4	Suction Hose	11	Activated Carbon Filter
5	Connection	12	Exhaust Outlet
6	Main Filter Cartridge	13	Rubber Feet
7	Brush Suction Motor	14	Mains Power Cable

OPERATING INSTRUCTION

For correct use of the machine you must:

- Position the machine near the source of the fumes, using the handle provided.
- Position the suction hood of the machine at the point where you want to extract the fumes using the magnetic base supplied.
- Position the hood no more than 4" / 100mm from the welding fume source.
- Connect the supplied cable to the machine's power socket Fig.1.
- Insert the plug into a suitable electrical socket (check that the power and supply match the rating label).
- Press the ON/OFF switch into the "I" position. The switch is located on the left side of the machine when looking at it from the activated carbon side (exhaust flange). The switch itself will light up;
- When you have finished with the extraction press the ON/OFF switch into the "0" position.
- Disconnect the electric plug from the power socket and if necessary also disconnect the electric cable from the power socket on the machine; position the machine in such a way as not to cause obstacles and / or problems and in such a way that it is not a source of danger to normal activities.

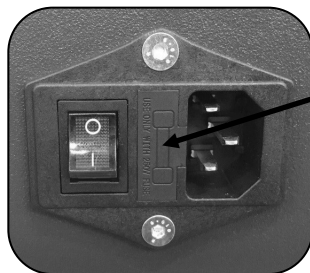


Fig.1

Protection Fuse
Assembly



At the end of its use, do not leave the hose and the power cable on the ground as they could become a trip hazard or get damaged.

Wear heat resistant gloves & PPE to prevent burns from high temperatures that can reach the suction cap and hose.

MAINTENANCE

REGULAR MAINTENANCE

<i>Description</i>	<i>Frequency</i>
Visual Inspection of Suction Hose	Before every use
Hose Clamp Tightness	Before every use
Mains ON/OFF Assembly	Before every use
Mains Power Cable	Before every use
Visual Inspection of Filters	Every 2 months
Cartridge Filter Replacement	Every 6 months
Fine Hood Filter Replacement	Every 6 months
Active Carbon Filter Replacement	Annually



NOTE: The frequency indicated is purely indicative and refers to standard conditions of use.

REPLACING THE FILTERS

With use, the suction capacity of the machine tends to decrease as a result of the progressive clogging of the filters. They are not regenerable and must be periodically replaced.



ATTENTION: The machine could contain dusts which is harmful to health. Repair, maintenance, filter replacement cleaning operations must be carried out by suitably trained personnel equipped with adequate personal protective equipment (PPE): Gloves, Goggles and Facial filter mask.



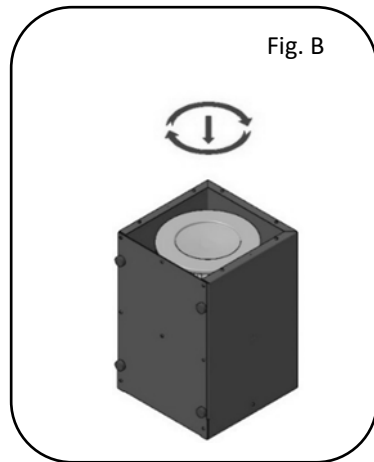
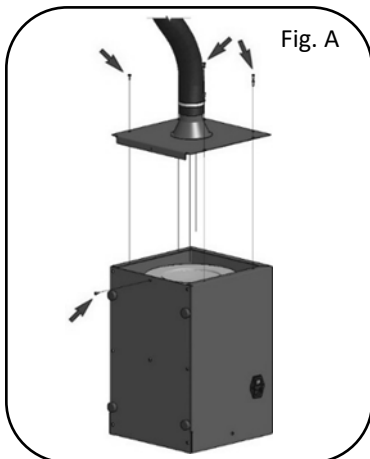
NOTE: Do not disperse the filters used in the environment. Deliver them to specialised disposal companies in accordance with current legislation.

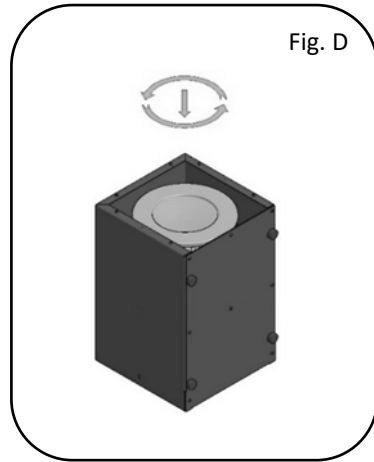
CARTRIDGE FILTER

The cartridge filter is located inside the casing of the machine. Access is from the suction inlet, fixed by means of a bayonet anchoring system.

To replace it, follow the procedure below:-

- Remove the Suction Intake Flange, unscrewing the self-tapping screws indicated in Fig. A. Save the screws.
- Press the filter and, keep some pressure on it, turn it clockwise until the bayonet hooks disengage (about 1.5cm) (Fig. B);
- Remove and set aside the filter which will then be disposed of.
- Position the new filter where the old one was, making sure that the 3 pins of the bayonet coupling system correctly engage the 3 dedicated keyhole slots (Fig. C);
- Press the filter and, keep some pressure on it, rotate it counterclockwise for about 1.5cm in order to send the pins of the bayonet system into the dedicated seat (Fig. D);
- Check that the filter is correctly and firmly attached;
- Fix back the Suction Intake Flange.





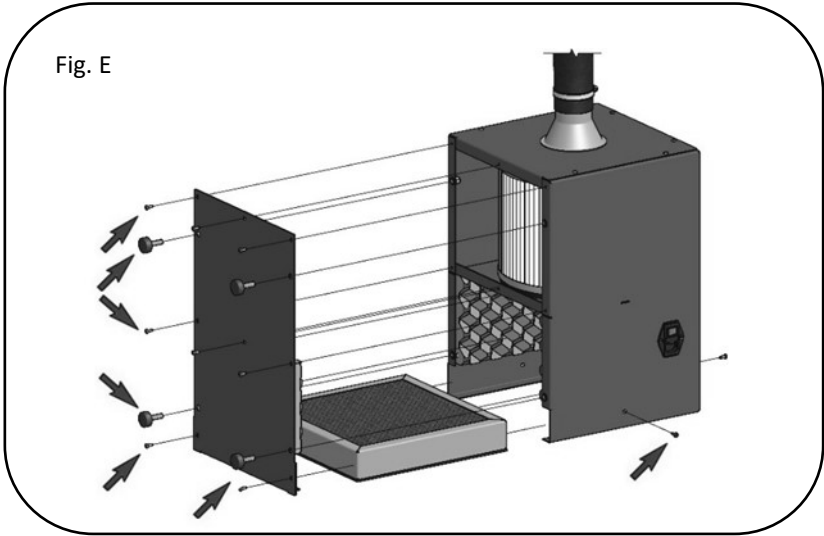
ACTIVE CARBON FILTER

The activated carbon filter is positioned in view in the rear part of the machine, Fig. E, previously referred to as the exhaust flange.

To replace the filter follow the procedure below:

- Remove and keep the 4 rubber feet and the fixing screws of the lower flange of the machine.
- Remove the filter fixing screws.
- Remove the filter from its seat and put it to one side: afterwards dispose of it following local guidelines.
- Place the new filter in place of the old one, making sure that the sealed edge of the gasket is facing the outside of the machine, butting up to the sheet metal flange of the machine casing.
- Pressing the filter downwards in order to compress the gasket, make 3 $\varnothing 3.5$ holes on the 3 sides of the filter in correspondence with the slots on the machine casing.
- Apply 3 of the previously removed screws and lock the filter;
- Reassemble the lower flange of the machine fixing it with the screws previously removed.

Fig. E



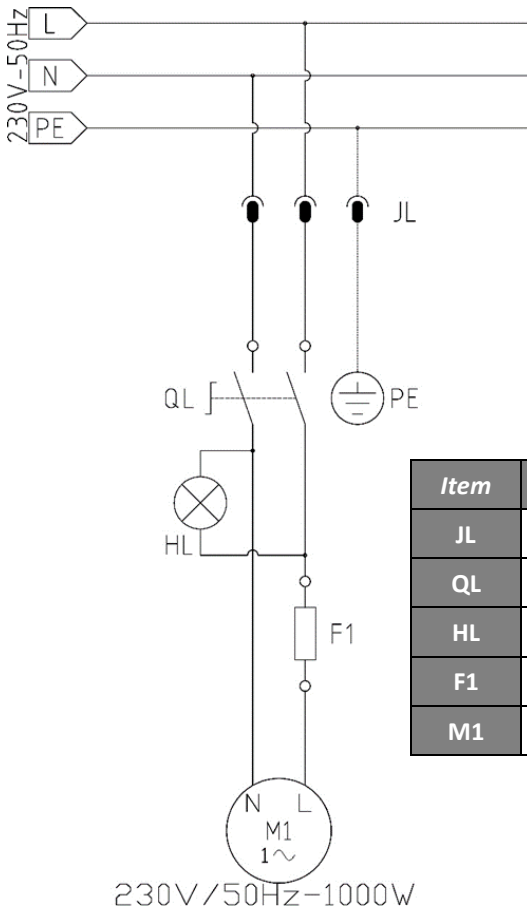
WIRING DIAGRAM

The SIP FX100 machine is equipped with an electric power socket with ignition switch, power light and protection fuses.

By pressing the switch, it directly powers the electric motor, starting the suction operations.

At the same time the red LED lights up to indicate that the machine is powered and switched on.

The following diagram shows the electrical wiring of the machine.



Item	Description
JL	Electric Power Cable
QL	Bi-Polar Switch
HL	RED Switch LED
F1	6.3A Fuse
M1	Motor 1100watt

TROUBLESHOOTING

<i>Problem</i>	<i>Issue</i>	<i>Remedy</i>
Extractor fails to start	Blown Fuse Voltage Too Low Mains Cable Issue Suction Motor Issue	Test the fuse in the plug & extractor. Test Voltage. Check & Replace. Check & Replace.
The air is not sufficiently filtered	Ineffective filters	Check the condition & replace
The extractor has poor / low suction	Clogged / Dirty Filters Physical Obstructions Damaged Hose Motor Issue	Check the condition & replace Remove any foreign bodies / obstructions Check hose and replace if necessary Check & Replace.
Circuit Breaker Tripping	Earth Ground Fault Motor Short Circuit	Check extractor insulation with tester Check and replace if necessary

PARTS INFORMATION

<i>Item</i>	<i>Description</i>	<i>SIP Code</i>
1		CARTRIDGE FILTER WE08-00052
2		CARBON FILTER WE08-00053
3		MOTOR WE08-00054
4		SUCTION HOSE WE08-00055
5		SUCTION HOOD C/W MAGNETIC BASE WE08-00056
6		CARTRIDGE & CARBON FILTER KIT WE08-00057
7		MAINS INPUT CABLE WE08-00058

UK DECLARATION OF CONFORMITY

We

SIP (Industrial Products) Ltd
Gelders Hall Road
Shepshed Loughborough
Leicestershire
LE12 9NH
England

As the manufacturer within England, Scotland and Wales, we declare that the
SIP FX100 Welding Fume Extractor : SIP Code 05815

Conforms to the requirements of the following regulation(s), as indicated:

Electromagnetic Compatibility Regulations 2016
Supply of Machinery (Safety) Regulations 2008
Electrical Equipment (Safety) Regulations 2016
The Restriction of the Use of Certain Hazardous Substances in
Electrical & Electronic Equipment Regulations 2012



Signed.

Mr. Paul Ippaso

Managing Director

SIP (Industrial Products) Ltd

Date: 31 January 2024



EU DECLARATION OF CONFORMITY

We

SIP Machinery Europe Ltd
Quayside Business Park
Dundalk
County Louth
Republic of Ireland

As the manufacturer within England, Scotland and Wales, we declare that the
SIP FX100 Welding Fume Extractor : SIP Code 05815

Conforms to the requirements of the following directive(s), as indicated:

EMC 2014/30/EU
Machinery Directive 2006/42/EC
Low Voltage Directive 2014/35/EU
RoHS 2011/65/EU & 2015/863/EU



Signed.

Mr. Paul Ippaso

Managing Director
SIP (Machinery Europe) Ltd
Date: 31 January 2024



Please dispose of packaging for the product in a responsible manner. It is suitable for recycling. Help to protect the environment, take the packaging to the local amenity tip and place into the appropriate recycling bin.

Never dispose of electrical equipment or batteries in with your domestic waste. If your supplier offers a disposal facility please use it or alternatively use a recognised recycling agent. This will allow the recycling of raw materials and help protect the environment.



FOR HELP OR ADVICE ON THIS PRODUCT
PLEASE CONTACT YOUR DISTRIBUTOR,
OR SIP

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