

ELECTRIC SCISSORS MOD. SPEEDCUT



Rasor® Elettromeccanica S.r.l. was established in Milan in 1946 by the two promoting partners Spinelli and Ciminaghi. For more than sixty years it has been producing automatic cutting systems, cutting units for textile applications and electric and pneumatic cutters.





Initially considered as a point of reference for cutting systems in the textile applications, the Rasor® products are nowadays widely used in other fields: chemical, automotive, nautical and sport sectors and in furniture manufacturing.

dal 1946 Rasor® can rely on the professional continuity of three generations, thanks to the precious support of the promoting partner, to his passion, dedication and great experience of seventy years.

The main characteristic of Rasor® is that each working phase, starting from the manufacturing of the product up to its packing and delivery is carried out in Rasor® premises by qualified operators who have professionaly grown up following the spirit of the company and of its founders. This ensures the high quality which Rasor® has always considered as essential since the beginning of its activity.

Following the innovative spirit mentioned above, our company is constantly focused on the improvement of the product quality, on the study and development of new materials and technologies.

#### **ACKNOWLEDGMENT**

Dear Customer,

thank you for choosing a Rasor® Elettromeccanica S.r.l. product.

Rasor® has been a reference point in the field of cutting systems in the textile, clothing, furniture, tailoring, sport, chemical, automotive, nautical and insulating material sectors for years. Its production has been always synonymous with reliability attested by many of satisfied customers.

Rasor® quality system supervises all the company activities in order to provide the Customer with a service that meets its needs and expectations in terms of product quality, delivery reliability and stock of finished products.

All the parts of the devices have been planned and produced to guarantee an optimum performance. In order to keep the high quality level and the long reliability of the Rasor® products, it is recommended to use only original spare parts and to contact the head office for any maintenance work.

#### 1. GENERAL SAFETY RULES



This manual is an integral part of electric scissors SPEEDCUT and must be carefully read before using it since it gives important indications with regards to its safe installation, use and maintenance. Keep it with care.



Before using electric scissors SPEEDCUT, read carefully the following general safety rules.

• PACKAGING.

After taking off the packaging make sure that the electric scissors are intact. In case of doubt do not use it and contact an authorized service centre. Do not leave pieces of packaging (plastic bags, foam polystyrene, boxes, etc.) within the reach of children or disabled persons since they are potential sources of danger.

AVOID DANGEROUS ENVIRONMENTS.

Prevent the electric scissors SPEEDCUT components from coming in contact with damp or wet surfaces.

KEEP CHILDREN AWAY.

Unauthorized persons, in particular children, must be kept away from the working area.

FEED CABLE.

Prevent the feed cable from coming in contact with hot objects, pointed surfaces or sharp edges. Never pull the feed cable of the machine. It must never be replaced by the user. If necessary contact professionally qualified staff.

KEEP THE WORKING AREA ALWAYS IN ORDER.

The workplace must always be kept in order and well lightened; liquids or oil traces must not be present.

ALWAYS USE ELECTRIC SCISSORS SPEEDCUT PROPERLY.

Use the scissors only to carry out the works they have been designed for; do not use them improperly.

OBSERVE THE USE OF THE TOOLS.

Do not cut excessively thick materials and always check blade conditions.

AVOID ACCIDENTAL STARTINGS.

Before connecting electric scissors SPEEDCUT, make sure that everything is installed properly.

CLOTHING.

Do not use large clothes or accessories that might get stuck in the moving parts.

GOGGLES AND PROTECTIVE METAL MESH GLOVES.

Always use goggles, protective metal mesh gloves approved by Rasor® during use and maintenance operations (according to UNI EN 388:2004 standard).

SPARE PARTS.

During maintenance and replacement operations use only original spare parts. Blade maintenance must be only performed by Rasor® technicians.

INSTALLATION.

Any installation that is not in conformity with these specifications could jeopardize your safety and cancels the warranty.

**EN** 

#### **Informative letter**

The installer and the maintenance man must know the content of this manual. Although the main features of the machine described in this manual are not subject to change, **Rasor® Elettromeccanica S.r.l.** reserves the right to modify the components, details and accessories it deems necessary to improve the machine or to meet manufacturing or commercial requirements at any time and without being obliged to update this manual immediately.





## **WARNING**



## ALL RIGHTS ARE RESERVED ACCORDING TO THE INTERNATIONAL COPYRIGHT CONVENTIONS,

The reproduction of any part of this manual, in any form, is forbidden without the prior written authorization of Rasor® Elettromeccanica S.r.l.

The content of this guide can be modified without prior notice. Great care has been taken in collecting and checking the documentation contained in this manual to make it as complete and comprehensible as possible.

Nothing contained in this manual can be considered as a warranty, either expressed or implied - including, not in a restrictive way, the suitability warranty for any special purpose. Nothing contained in this manual can be interpreted as a modification or confirmation of the terms of any purchase contract.

Rasor® Elettromeccanica S.r.I. machines have not been conceived to work in areas at risk of explosions and at high risk of fire and they cannot cut wet or damp materials. Moreover, they cannot work in case of rain.

In case of damage or malfunction, electric scissors SPEEDCUT must not be used until the Customer Care Technical Service has repaired them.

#### **Customer Care Technical Service**



For any information, please contact RASOR®ELETTROMECCANICA S.r.l. Via V. Caldesi, 6; 20161, MILANO (MI) - ITALY Tel: +39.02.66221231; Fax: +39.02.66221293

e-mail: info@rasor-cutters.com web: www.rasor-cutters.com

## WARNING



The original configuration of the electric scissors must not be changed at all. On receiving the machine make sure the supply corresponds to what has been ordered. In case of non-compliance immediately inform Rasor®.

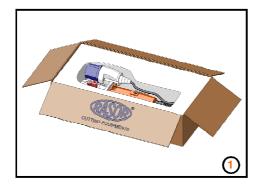
Also make sure the scissors have not been damaged during transport.

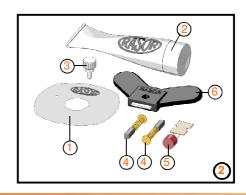


#### 2. TRANSPORT AND PACKING

The electric scissors are delivered in a cardboard box, inside which there are various options. The code of the ordered product and its serial number are indicated outside the package (see picture 1). The following accessories are contained in a bag inside the package:

- Quadrangular blade (4 sides);
- 2) Grease tube;
- 3) Drift for blade assembly/disassembly;
- 4) Brushes for electric motor;
- 5) Fuse 1.6 A;
- 6) Butterfly wrench for blade nut disassembly.

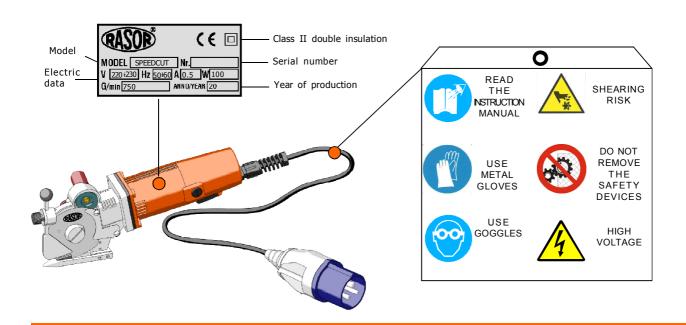




#### 3. PLATE DATA

The manufacturer's identification and CE STANDARD 2006/42/CE conformity plate (see picture below) is located on the front part of the electric scissors.

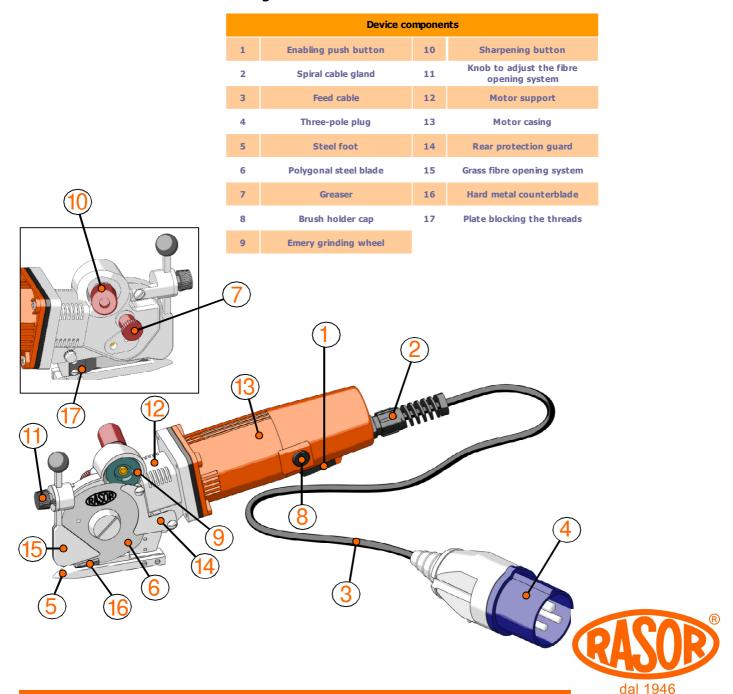
The plate must not be removed at all, even if the machine is resold. Always refer to the serial number (written on the plate itself) when contacting the manufacturer. Several safety warnings are printed on a card which is applied to the scissors feeding cable; such warnings must be strictly followed by everyone dealing with the machine. The company is not to be held responsible for damage to property or accidents to people which might occur if the above-mentioned warnings are not observed. In such a case, the operator is the only person responsible.



The fixtures described in this manual are electric scissors model SPEEDCUT which are used in order to cut synthetic (sports and ornamental) grass and surfaces (ex. playgrounds). The electric scissors are effective on all types of grass, with any kind of fibre, with classical or thermowelded backings. Thanks to a system where the blade is always into contact with the counterblade, the cut is precise, clean and with no tearing. A system opening the turf allows the machine to cut only the backing leaving the fibres untouched.

One special feature of electric scissors SPEEDCUT is their ability to sharpen the blade in each moment without disassembling it by means of a grinding wheel mounted on the scissors. After carrying out this operation, it is possible to immediately start cutting again. A high power motor, perfectly balanced, with a high number of revolutions and totally free of maintenance, reduces the vibrations to the minimum. For this reason the electric scissors comply with Legislative Decree  $n_0$  187 dated 19/8/2005, which adopts European Directive  $n_0$  2002/44/CE concerning the risks deriving from mechanical vibrations.

The mechanical parts are made of high-quality steel, bronze and aluminium and require lubrication after several working hours.



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Features of the available blades

GC 70SHSS HSS steel quadrangular blade Ø 70 mm

HSS steel hexagonal blade Ø 70 mm

#### 5. TECHNICAL FEATURES

Electric scissor SPEEDCUT features				
Blade diameter	70 mm with hard metal counterblade			
Blade speed	750 revolutions/min			
Cutting working depth	about 20 mm			
Motor power	Monophase 220 V - 100 W			
Maximum absorption	12.05 AM			
Weight (with feeding cable)	1150 g			
Total weight (with packaging)	<b>2000</b> g			
Electrical cable length	1.5 m			
Minimum luminosity for working operations	LUX 200			
Vibrations at the start up	< 2.5 m/s <sup>2</sup>			
Temperature	0 ∼ 55°C			
Humidity	10 ~ 95% without condensate			

The technical data is only indicative and it can be changed without notice.

#### 6. NOISE LEVEL

The maximum acoustic pressure level emitted by electric scissors SPEEDCUT is about 60 dB (A). Noise tests have been carried out in compliance with Standard ISO 11202 (1995). The device noise levels, measured at different distances (without any sound wave filtering system), vary in the extent of few db (A).

#### NOTE

It is advisable for electric scissors SPEEDCUT owners to verify the compliance with the standard concerning safety of workers: Italian legislative decree N.277 ITEM IV (DATED 15-08-91).

#### 7. FIELD OF APPLICATIONS

Electric scissors SPEEDCUT have been designed, manufactured and assembled to cut every kind of synthetic grass and sports surfaces by means of rotary blades.

This equipment must not work:

- in areas prone to explosions;
- in presence of fine dust or corrosive gases;
- on wet or damp materials;
- to cut plastic materials other than synthetic grass, metal and wooden materials.

It is forbidden to use electric scissors SPEEDCUT for purposes different from the abovementioned ones.



#### 8. USE WARNINGS

We recommend following the indications below in order to always work in safety conditions.

• All the operations must be carried out complying strictly with the safety rules of the country where the device is sold.

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- It is STRICTLY FORBIDDEN to smoke during the installation or adjustment operations of the electric scissors.
- The Customer undertakes to comply with and make his staff observe all the rules and regulations in force concerning safety, prevention of accidents and health in the work place. Therefore, the Customer assumes the responsibility to strictly follow all the rules and regulations in force, as well as the special provisions in force in sport and public installations the Customer declares to know after receiving all the relative necessary pieces of information.
- The electric scissors work also without their safety protective device. This protective device must NEVER be removed.
- Always check the resistance of the material to be cut and the kind of blade which is being used.
- The Customer shall equip his own personnel with all the individual safety protections for the execution of the works, as well as with the ones which might be prescribed by the Manufacturer due to specific danger conditions of the plant or of the area where the personnel must work.
- Only one operator must use the electric scissors always standing behind the guide handle. Do not make any adjustment while the blade is working or while the electric plug is connected.
- Always pay attention to the electric cable position to prevent it from being cut or damaged by the blade.
- It is allowed to assemble electric scissors SPEEDCUT on machines O.E.M. on condition that their original structure is not modified. Otherwise, the intervention must be certified by Rasor®



#### 9. RESIDUAL RISKS

Even though the electric scissors are safe, operators must pay attention to preserve their and other people's safety.

- At the end of the working operations, the motor and the metal parts could be very hot.
- The cutting blade can work even when the protective device is disassembled.

#### 10. USE

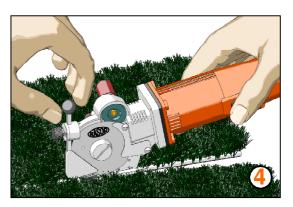
To use the electric scissors manually, proceed as follows:

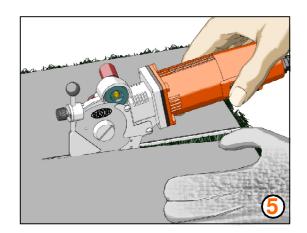
- 1) Prepare the synthetic grass to cut;
- 2) Put the synthetic turf on the cutting foot; (see picture 3);
- Adjust the fibre opening system according to the thickness of the turf (see picture 4).A low adjustment ensures that a minimum quantity of fibres is cut;
- 4) Connect the scissors to the power supply;
- 5) Press the start push button;
- 6) Push the electric scissors in the desired direction by tightening the synthetic turf as much as possible;
- 7) It is also possible to cut the overturned turf (see picture 5).

#### **NOTE**

The thrust on the electric scissors must be as uniform as possible.



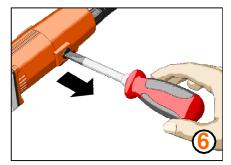






#### 11. REPLACEMENT OF THE MOTOR BRUSHES

Electric scissors SPEEDCUT are provided with a high power permanent magnet motor and torque. For this reason it is necessary to check periodically if the carbon brushes are worn in order not to jeopardize the motor operation and its duration period. Unscrew the caps located on the cover by means of a slotted screwdriver (see picture 6); withdraw the carbon brushes, check if they are worn and, if needed, replace them. Assemble the two caps again, being careful to hold them in a



perfectly vertical position, and screw them completely only when you are sure that the mouth is the correct one.

**Note:** The brush must be inserted with its black part directed inside the motor.

**Note:** A slight difference in the wear of the two brushes is absolutely normal in a permanent magnet motor. Nevertheless, in the event that the difference between them is excessive, it is necessary to apply to a technical center for a complete check of the fixture.

## WARNING



Before carrying out any operations on the electric scissors, make sure that the supply plug is not connected to the mains.

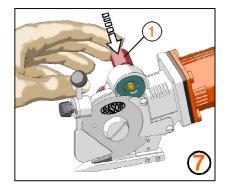
#### 12. BLADE SHARPENING

After many hours of a continuative use of the electric scissors or if they would not be able to cut anymore, it is necessary to sharpen the blade.

To carry out this operation, start the blade and press sharpening button "1" for 3-4 seconds (as shown in picture 7).

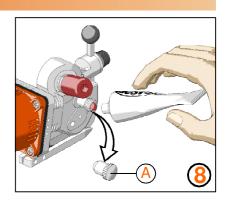
Repeat the operation 2-3 times.

From time to time check the wear of the emery grind.



#### 13. LUBRICATION

Every 3-4 working hours, it is necessary to lubricate the pair of gears. To carry out this operation, remove protective plug "A" located on the head of the electric scissors and fill it with the supplied lubricating grease. Screw plug "A" again few turns. Screw plug "A" some turns every 2-3 working hours (see picture 8). Fill the plug again, once it has been tightened.



## WARNING



The blade must never be dirty with grease or oil.



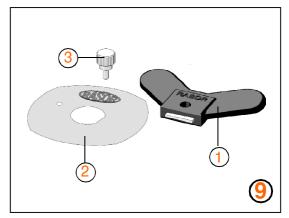
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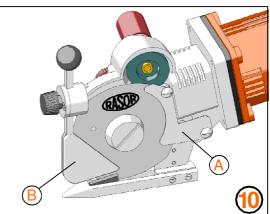
If the blade is no more able to cut (even after repeating the sharpening operation several times), it is necessary to replace it. In order to carry out this operation, use butterfly wrench "1" and drift "3" locking the blade (shown in picture 9).

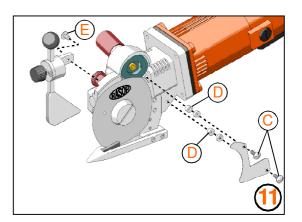
In order to replace the blade, proceed as follows:

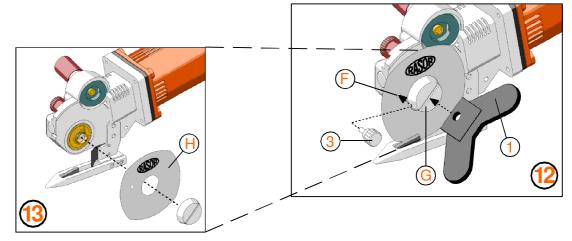
- 1) Use some protective gloves in compliance with Legislative Decree 242 dated 19 march 1996 (use of personal protection devices);
- 2) Remove safety back fixed protection "A" (see picture 10), by unscrewing the two slotted screws "C" by means of a screwdriver (not supplied by the manufacturer) and by extracting spacers "D" as indicated in picture 11.

  Remove the fibre opening device "B" (see picture 10) by unscrewing screw "E" as indicated in picture 11.
- 3) Insert drift "3" (see picture 12) into hole "F" in order to lock the blade (the hole in the blade must correspond to the hole in the structure).
- 4) Use butterfly wrench "1" in order to unscrew nut "G" (see picture 12) and remove blade "H" (see picture 13).
- 5) Replace the worn blade with the new one "2", being careful to center the blade on the shaft, in the correct position, and remember to assemble it with the side with the writing Rasor positioned towards the external side of the electric scissors.
- 6) Assemble all the components again and carry out some cutting and sharpening tests.









## 15. TROUBLESHOOTING

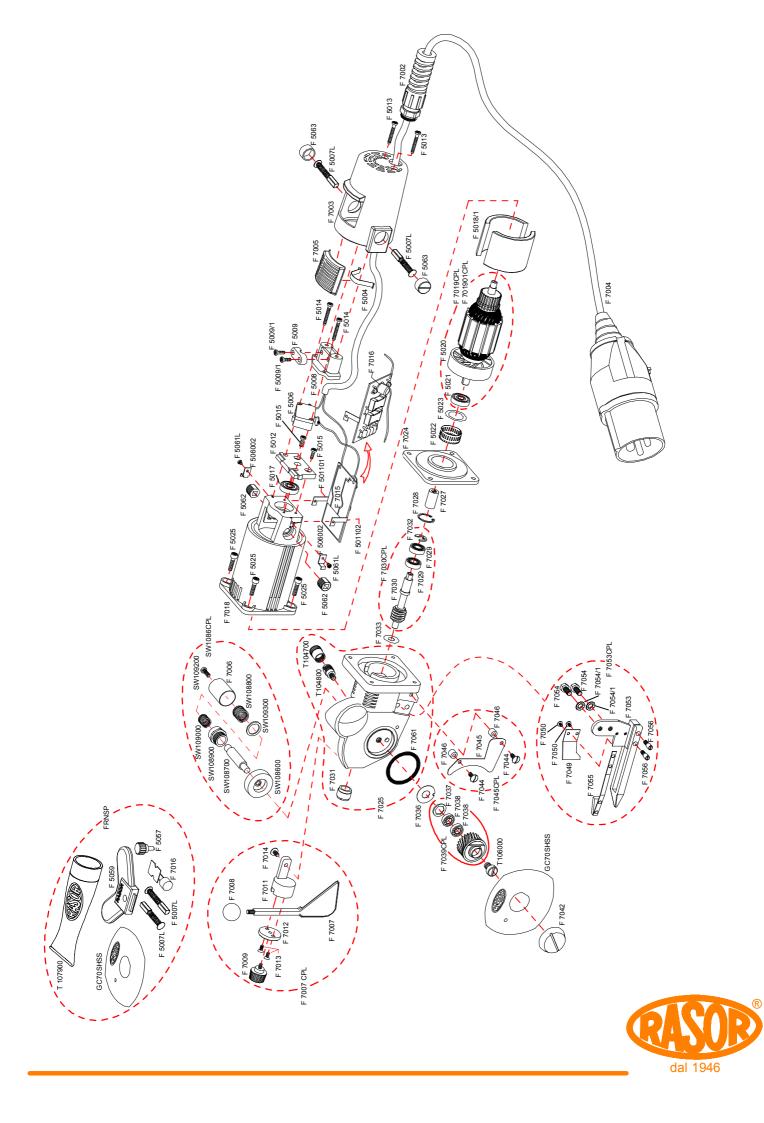
	* PROBLEM	⇒ SOLUTION
	The turf is not cut or it gets stuck between the blade and the counterblade	Check that blade and counterblade contact with each other
Th		Check the kind of turf
		Sharpen the blade
		Check the turf thickness
		Make sure that the motor turns correctly
		Reduce the feeding speed
		Check the counterblade integrity
	The electric scissors are noisy	Carry out the lubrication
		Disassemble the blade and remove the grass residues
		Check the wear of the pair of gears
		Check the protection fuse with a tester
	The scissors start slowly, work intermittently	Check the electric connections
	or do not start	Check the motor brushes
		Check the feeding cable

## 16. SPARE PARTS / EXPLODED VIEW

CODE	DESCRIPTION	CODE	DESCRIPTION	CODE	DESCRIPTION	CODE	DESCRIPTION
F 5004	PUSH BUTTON CLIP	F 5059	BLADE ASSEMBLY/DISASSEMBLY WRENCH	F 701901CPL	COMPLETE ROTOR 110 V	F 7049	PLATE BLOCKING THE THREAD
F 5006	SINGLE-POLE ENABLING PUSH BUTTON	F 506002	BRUSH CONTACT SPRING	F 7019CPL	COMPLETE ROTOR 220 V	F 7050	PLATE BLOCKING THE THREAD FASTENING SCREW
F 5007L	LONG MOTOR CARBON BRUSH	F 5061L	CONTACT FASTENING SCREW	F 7024	CLOSING FLANGE	F 7053	WELDED FOOT
F 5007L	LONG MOTOR CARBON BRUSH	F 5062	CARBON BRUSH HOLDER	F 7025	SPEEDCUT COMPLETE MOTOR SUPPORT	F 7054	FOOT FASTENING SCREW
F 5008	SWITCH FIXING PLATE	F 5063	BRUSH HOLDER CAP	F 7027	JOINT	F 7054/1	TOOTHED WASHER
F 5009	CABLE FIXING U-BOLT	F 7002	SPIRAL CABLE GLAND	F 7028	CLOSING RING	F 7055	WIDIA COUNTERBLADE WITH SPRING
F 5009/1	U-BOLT FASTENING SCREW	F 7003	MOTOR CASING	F 7029	WORM SCREW BEARING mm 10x22x6	F 7056	COUNTERBLADE FASTENING SCREW
F 501101	RIGHT CONTACT TERMINAL	F 7004	FEEDING CABLE WITH PLUG	F 7030	WORM SCREW - MOD. 1	F 7061	SUB-BLADE RING
F 501102	LEFT CONTACT TERMINAL	F 7005	PUSH BUTTON LEVER	F 7030CPL	COMPLETE WORM SCREW - MOD. 1	FRNSP	SPEEDCUT COMPLETE ACCESSORY SET
F 5012	BEARING FIXING PLATE	F 7006	EMERY GRINDING WHEEL CAP	F 7031	ANTIFRICTION BRUSHING	GC 70SHSS	HSS STEEL QUADRANGULAR BLADE Ø 70 mm
F 5013	MOTOR CAP FIXING SCREW	F 7007	SPEEDCUT FIBRE OPENING SYSTEM	F 7032	SNAP RING	SW108600	EMERY GRINDING WHEEL:MEDIUM GRAIN
F 5014	SWITCH PLATE FASTENING SCREW	F 7007CPL	COMPLETE SPEEDCUT FIBRE OPENING SYSTEM	F 7033	CORRUGATED THRUST WASHER	SW1086CPL	COMPLETE EMERY GRINDING WHEEL UNIT
F 5015	BEARING PLATE FASTENING SCREW	F 7008	BALL FOR SPEEDCUT SUPPORT	F 7036	THRUST WASHER	SW108700	EMERY GRINDING WHEEL PIN
F 5017	MOTOR BEARING mm 5x16x5	F 7009	SPEEDCUT SUPPORT FIXING KNOB	F 7037	RING GEAR	SW108800	EMERY GRINDING WHEEL SPRING Ø 11 mm
F 5018/1	PERMANENT MAGNET COUPLE	F 7011	CYLINDRICAL SUPPORT	F 7038	RING GEAR BEARING	SW108900	THREADED BUSH
F 5020	FAN	F 7012	CLOSING DISK	F 7039CPL	COMPLETE RING GEAR	SW109000	EMERY GRINDING WHEEL SPRING Ø 6 mm
F 5021	MOTOR BEARING 6x19x6	F 7013	DISK FASTENING SCREW	F 7042	BLADE FIXING RING NUT	SW109200	EMERY GRINDING WHEEL CAP FASTENING SCREW
F 5022	BEARING FIXING SPRING	F 7014	CYLINDRICAL SUPPORT FASTENING SCREW	F 7044	BACK PROTECTION GUARD FASTENING SCREW	SW109300	STEEL WASHER
F 5023	ADJUSTMENT RING	F 7015	ELECTRONIC CIRCUIT WITH FUSE 1.6 A	F 7045	BACK PROTECTION GUARD	T104700	GREASER CAP
F 5025	MOTOR COVER FASTENING SCREW	F 7016	FUSE 1.6 A	F 7045CPL	BACK PROTECTION SET	T104800	GREASER
F 5057	DRIFT LOCKING THE BLADE	F 7018	MOTOR FRAME WITH MAGNETS	F 7046	BACK PROTECTION SPACER	T106000	RING GEAR LEFT FASTENING SCREW
						T107900	LUBRICATING GREASE



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## WARRANTY

Rasor® Elettromeccanica S.r.l. electric scissors have a 12 month warranty from the date indicated on the last page of this manual, except in case of different written agreements. The warranty covers all manufacturing and material defects. Replacement and repair operations

are covered only if carried out by our company and at our workshop.

The material to be repaired must be sent CARRIAGE FREE.

Once the machine has been repaired, it will be sent CARRIAGE FORWARD to the customer. The warranty covers neither technicians' intervention on site nor the machine disassembly from the installation place.

If for practical reasons, one of our technicians is sent to the premises, the customer will be charged the costs plus the travelling expenses.

#### The warranty does not include:

- failure caused by wrong use or assembly,
- failure caused by external agents,
- failure caused by lack of maintenance or neglicence;
- blades and parts subject to wear.

#### **WARRANTY FORFEITURE:**

- In case of arrearage or other breaches of contract,
- Whenever changes or repairs are carried out on our electric scissors without our prior authorization,
- Whenever the serial number is tampered with or cancelled,
- Whenever the damage is caused by improper use, bad treatment, bumps, falls and other causes not due to normal working conditions,
- Whenever the unit seems tampered with, dismantled or previously repaired by unauthorized staff,
- In case the electric scissores are used for purposes that are different from the ones described in this manual.

All repair operations carried out under warranty do not interrupt its duration.

#### All disputes will be settled in the court of justice of Milan (Italy).

We thank you in advance for the attention you will pay to this manual and we invite you to inform us of any change you deem necessary to improve it and make it more complete.

## **DECLARATION OF CONFORMITY**



We hereby certify that the machine specified hereunder complies to the requirements of Machinery Directive 2006/42/EC, Electromagnetic Compatibility 89/336/EEC and CEI EN 60204-1, Directive 2002/44/EC (Legislative Decree 187 of 19/08/2005) and to technical rulings UNI EN 414:2002, UNI EN ISO 12100-1:2005 and UNI EN ISO 12100-2:2005.

Noise tests have been carried out according to UNI EN ISO 11202 Standards.

Electric scissors SPEEDCUT have been produced according to workmanlike standards.

We declare that the above-mentioned goods comply with the standards in force concerning safety and hygiene at work that can be applied to the material itself according to the Legislative Decree No. 81/08; the above-mentioned goods are not included in the goods indicated in annex IV, art. 4, paragraph 1, (letter a), Law No. 459 of 24 July 1996.

Ι.	Category: ELECTRIC SCISSORS
2.	Manufacturer: RASOR®ELETTROMECCANICA S.R.L.
3.	Tipe: SPEEDCUT
4.	Serial number:
5.	Year of manufacture:
6.	Manufactured in: ITALY
7.	Additional information:
_	
Da	te:

RASOR ELETTROMECCANICA S.R.L.

CUTTING EQUIPMENTS

Warranty expiry:

12 months invoice date or receipt



(Signature)

Authorized dealer (Stamp)	

## WARRANTY

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