

NOMAD GO

Key Cutting Machine User Manual

IMPORTANT

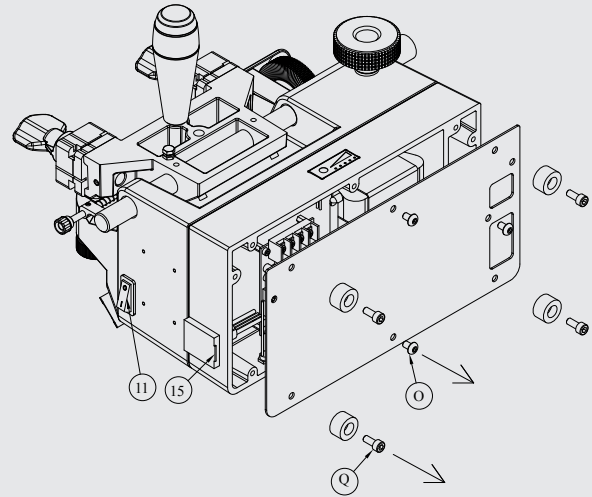
Due to the safety regulations governing air and maritime transport, the machine battery comes separate. Follow the steps below to connect it:



Before proceeding, make sure that the on/off switch (11) and the master switch (15) are OFF.

1) Turn the machine onto its back. Remove the three screws (O) and the four feet (Q) to take off the protective screen.

2) Plug in the yellow connector. Then replace the protective screen and return the machine to its natural position. Using the power adapter supplied with the machine, charge it to 100% before using it.



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1. INTRODUCTION AND GENERAL OVERVIEW

This manual has been written by the manufacturer and forms an integral part of the basic equipment supplied with the machine.

This manual provides information that the operator should be aware of and that will enable safe use of the machine.

SYMBOLS USED IN THIS MANUAL



1. Indicates a dangerous operation for people and/or proper operation of the machine.



2. You **MUST** read this user manual



3. The safety measures indicated in this manual **MUST** be followed, especially when operating or maintaining the machine.



4. This manual **MUST** be read carefully **BEFORE** using the machine.
Keep this manual in a safe place for as long as you have the machine and ensure that it is always available to the operator.

1.1 OVERVIEW

The NOMAD GO key cutting machine has been designed to meet European Regulations (EC).

Solutions have been applied to the design that seek to eliminate risks for the operator when using the machine: transport, adjustment, use and maintenance. The following instructions should be followed to ensure proper key duplication:

- Follow the procedures defined in this manual.
- Always use Original JMA Parts.

- Use JMA key blanks.

- Send the machine to an authorised JMA Customer Service Centre for regular servicing (a list can be found at the end of this manual).

IMPROPER USE

The machine must be installed and operated according to the instructions contained in this manual.

The manufacturer accepts no liability for any material damage or personal injury if the machine is used improperly and any improper use will void all guarantees to which the machine may be subject.

1.2 TRANSPORT AND PACKAGING

The machine comes inside a cardboard box with the following dimensions:

Width = 320 mm; Height = 380 mm; Depth = 370 mm

Machine weight (packaging included) = 8.5 kg.

When unpacking the machine, check carefully for any damage that may have occurred during transport.

If you find something out of the ordinary, immediately notify the carrier and do nothing with the machine until the carrier's agent has performed the corresponding inspection.



1. To move the machine from one place to another, only lift the machine by the base and not by any other parts.



2. The machine must always be transported in its original packaging to ensure its physical integrity.

1.3 IDENTIFICATION LABEL

The NOMAD GO key cutting machine comes with an identification label that indicates the serial or machine registration number, the name and address of the manufacturer, the CE mark and the year of manufacture. This manual has been written by the manufacturer and forms an integral part of the basic equipment supplied with the machine.



This manual provides information that the operator should be aware of and that will enable safe use of the machine.

2. SAFETY MEASURES

2.1 REGULATIONS

The NOMAD GO key cutting machine and its safety devices are compliant with Directive 2006/42 EC on Machinery.

This manual cites all the safety regulations that the user must respect when installing and operating the machine. Failure to follow these instructions may compromise the safety conditions provided for during design and testing.

When used for the purpose for which they have been designed, all machines bearing the CE mark are compliant with EU Directive 2006/42 EC on Machinery.

2.2 SAFETY DEVICES



1. The machine operator must know and follow the instructions provided in this manual.

The NOMAD GO key cutting machine is fitted with safety and other protective devices that define the user operation area in order to guarantee their safety.

2.2.1 User protection

- Safety screen that protects against possible accidental activation of the master switch.
- Anti-swarf screen. The operator must still wear safety goggles even though this device is present.
- Protective tube over the main axis rack for the carriage assembly.

2.2.2 Personal protection equipment

When operating or maintaining the NOMAD GO machine, users must wear the following personal protective equipment:

- CLOTHING: Those responsible for maintaining and operating any key cutting machine should wear protective clothing that meets all the basic safety requirements currently

in effect. On wet floors, users should wear safety shoes with a non-slip sole.

- SAFETY GOGGLES: The operator should wear safety goggles over the eyes during the duplication stages of operation.

2.2.3 Safety signs and symbols



1. Safety goggles must be worn



2. Read the instruction manual before operating the machine



3. WARNING! Hazardous operation



4. WARNING! Rotating tool



5. WARNING! Electrical voltage

The NOMAD GO key cutting machine uses the following safety signs and symbols:

2.2.4 General safety instructions



Switch off the power switch (11), switch off the master switch (15), close the protective screen (16) and check that the machine is NOT connected to the battery charger.

- Do not try to remove the battery, do not apply pressure to it or expose it to heat or fire as this may cause it to explode.
- Keep all electrical connections safe from water and other liquids.
- Do not pull violently on the electrical power cord.

- Ensure that the electrical power cord does not come into contact with oils, sharp objects or heat.
- Do not start the motor while charging.
- During the duplication stages, always keep your hands on the carriage assembly motion controls.
- Always work with dry hands free of grease and oil.
- Do not use the machine in hazardous, damp or wet locations.
- Everyone, and especially children, should keep a safe distance to prevent contact with the machine.

2.3 RESIDUAL RISKS

The NOMAD GO key cutting machine has been designed with the utmost care to ensure it is safe during transport, adjustment, duplication and maintenance. Nonetheless, it is impossible to eliminate all risks, whether for technological reasons or for issues related to use of the machine (excessively complex operations). Therefore, the following residual risks should be taken into consideration when using the machine, as well as the risks associated with its use:



1. RISKS RELATED TO THE INSTALLATION LOCATION

The location where the machine is installed may present risks that could impact correct operation of the machine (temperature, humidity, rain, etc.)



2. ELECTRICAL RISK

Given that the machine is fitted with electrical devices, a risk of electrocution exists if a fault were to occur. The electrical power cord should be fitted with suitable control and protection devices (thermal magnetic circuit breaker and differential circuit breaker).



3. MECHANICAL RISK

The machine is fitted with tools (cutter and tracer) that are necessary for key duplication. The operator should therefore be careful in order to prevent cutting their hands when duplicating keys or replacing the tools.

The operator should avoid wearing necklaces, bracelets, rings and/or clothing that could become trapped in the machine or get caught up in the moving parts.

We recommend wearing a cap to cover and contain your hair, especially for those operators with long hair.

3. INSTALLATION AND PREPARATION OF THE MACHINE

3. INSTALLATION AND PREPARATION OF THE MACHINE

Installation of this machine presents no difficulty whatsoever, but you should not attempt to install, adjust or operate the machine without reading this user manual first. The machine leaves our factory ready for use and only needs to be calibrated for the tools that are going to be used.

3.1 ENVIRONMENTAL CONDITIONS IN THE WORKSHOP

- The machine should be used in places with an ambient temperature of between 0° and 40° C, a relative humidity of less than 50-60% and good lighting so that it can be operated and maintained correctly.



1. Use of the machine in explosive atmospheres or in the presence of flammable liquids or gases is strictly prohibited.

3.2 CHARACTERISTICS OF THE LOCATION FOR INSTALLATION

- The NOMAD GO key cutting machine has been designed for use in commercial and light industrial environments (e.g. hardware stores, key copying centres, etc.).
- Place the machine on a solid horizontal work surface capable of properly supporting its weight (8 Kg.)
- The height of the work bench should be adapted to the height of the operator. The machine should be at the same height as the pelvis of the operator.
- We recommend leaving 30 cm of free space around the machine for normal operation and maintenance.



1. The voltage connected to the machine should be the same as that connected to the workshop and the workshop should have a differential circuit breaker.

3.3 PREPARATION OF THE MACHINE

After positioning the machine on the work bench, the parts that come packaged separately will need to be assembled by the customer as follows:

- Connect the battery as shown on the first page of this manual.
- The machine can be secured to the work bench using the anchoring tool included with the accessories. Follow the steps below to secure the machine:

See Figure 3



1. Switch off the power switch (11), switch off the master switch (15), close the protective screen (16) and check that the machine is NOT connected to the battery charger.

1) Very carefully roll the machine onto its rear side.

2) Attach the tool (E) to the machine using the two screws (U) included with the accessories.

3) Roll the machine back upright and secure it to the work bench using the grooves at the ends of the tool.

4. MACHINE CHARACTERISTICS

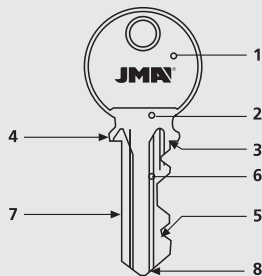
The NOMAD GO machine is a small but highly precise cutting machine for copying flat cylinder lock keys, vehicle keys, star keys and special keys.

It has one three-sided clamp.

4.1 KEY NOMENCLATURE

1. Key grip
2. Collar
3. Upper shoulder
4. Lower shoulder
5. Notch
6. Blade
7. Shaft
8. Tip

See Figure 3



4.2 MAIN PARTS OF THE MACHINE

The main parts of the machine are listed below:
See Figures 1A-1B

1. Cutter: The cutter is made from high-speed steel (HSS).
2. Tracer: Specifically designed to read the key coding.
3. Clamps: The clamps can be rotated to one of four sides, enabling different key models to be secured in place. See Section 4.4.4
4. Knob for releasing/locking the clamp: The clamps are locked in place using two ergonomically designed knobs.
5. Carriage assembly: This is fitted with two clamps.
- 6.-7. Carriage assembly control lever and carriage assembly motion lever.



The machine is fitted with two ergonomically designed levers. The operator **MUST** hold the carriage assembly control lever (6) and motion lever (7) when duplicating keys.

8. Stopper positioning handle: The stoppers are used to position and align the key.

9. Tracer depth adjustment control: This is used for depth adjustment using the knob in centesimal steps.

10. Brush: This is used to remove any burr that may have formed during duplication.

11. Power switch:



The machine is on when the light is on. 12. Protective shield: Provides protection from the cutter.

12. Protective shield: Provides protection from the cutter.

13. Handle: For making it easier to carry the machine.

14. Jack connector: Connect to the power adapter when needing to charge the battery.

15. Master switch: This switch needs to be ON to operate the machine.

16. Safety switch protective screen: To prevent accidental use of the master switch.

17. Battery: For being able to use the machine without needing a mains connection.

18. Battery charge indicator: Pressing the red circle will display the battery charge level.

4.3 TECHNICAL DATA

The main technical data is shown below:

Power supply: 29.4 V – 1 A

Battery: Ion-lithium 25.9 V 2500 mAh

Motor: 24 VDC – 150 W

Cutter: High-speed steel (HSS); Ø63x5 (orifice: Ø16)

Cutter speed: 2,100 rpm

Clamps: Four-way steel clamps Carriage movement: On bearings

Carriage range (maximum rail length): 53 mm Dimensions:
Width: 266 mm; Height: 260 mm; Depth: 165 mm Weight:
8 kg

4.4 COMPONENTS AND FUNCTIONAL PARTS

4.4.1 Accessories

- 1 - Keys for lateral and depth adjustment
- 2 - Key tip chocks
- 3 - Star key chocks
- 4 - Ø 1.70 rods
- 5 - Ø 1.20 rods
- 6 - Rod for changing the cutter or brush
- 7 - Set of Allen keys (2, 3, 4 and 5 mm)
- 8 - Machine securing tool
- 9 - Battery charger

4.4.2 Wiring diagram

The main components of the electrical and electronic circuit are the following:

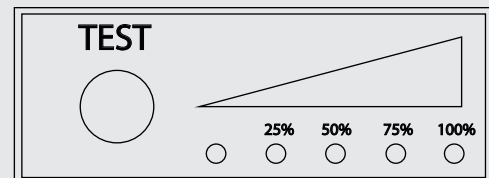
1. Jack connector
2. Battery
3. Driver
4. Motor
5. Master switch
6. On/off switch
7. Battery charge indicator

See Figure 4

4.4.3 Battery

The machine has a screen with a battery charge indicator. To display the charge level at any given time, just press the red "TEST" circle. A series of blue diodes will illuminate to show the charge percentage (25%, 50%, 75% or 100%). If only the first red diode illuminates, that means that the battery is flat and it needs to be charged to 100% again.

NOTE: When the battery charge level falls very low, the cutter will suddenly stop rotating. This does not mean that the machine is faulty but rather that the battery needs to be recharged.



To recharge the battery, just connect the power adapter supplied with the machine to a 220-110 V power supply and the Jack connector (14) located on the rear of the machine.



Make sure that the yellow connector on the battery is connected. Otherwise, the battery will not charge.



Do not use the machine while charging as this could overheat the battery and damage critical components.



Always use original power adapters and cables.



The mains connection must have an Earthing connection.

4.4.4 Four-way clamp

The clamp is designed to hold a different family of keys on each of its four sides:

SIDE 1: Keys held by the SHAFT and NORMAL blade

SIDE 2: Keys held by the SHAFT and NARROW blade

SIDE 3: Keys held by the LOWER RIDGE SIDE 4: Keys held by the UPPER RIDGE

See Figure 5

Key clamping diagram for "NEIMAN" keys in the ridges of SIDES 3 and 4

See Figure 6

5. OPERATION AND FUNCTIONS

5.1 DEPTH ADJUSTMENT

See Figure 5



Switch off the power switch (11), switch off the master switch (15), close the protective screen (16) and check that the machine is NOT connected to the battery charger.

- Secure the two adjustment keys (R) in "side 1" of the clamps so that the upper edge of the adjustment key is in contact with the inner face of the clamp (J).

- Raise the carriage to move the clamps closer to the cutter (C) and the tracer probe (T).

- Position the tip of the tracer probe (T) against the flat edge of the adjustment key. While in this position, manually rotate the cutter one full rotation in the opposite direction to standard operation.

- The depth has been set correctly when the cutter brushes slightly against the adjustment key.

- If the cutter rotates freely, it is too far back from the tracer and the cutting gear is set too shallow. The depth requires adjustment.

- If the cutter gets stuck on the adjustment key, it is too far forward from the tracer and the cutting gear is set too deep. The depth requires adjustment.

- To adjust the cutter depth, move the micrometric tracer as follows:

- Loosen the stud bolt (S) to release the tracer but leaving the stud bolt (S) very gently touching the hidden part of the tracer. This will avoid any involuntary rotation of the tracer when moving it forwards or backwards.

- Rotate the control wheel (W) clockwise to move the tracer backwards.

- Rotate the control wheel (W) anti-clockwise to move the tracer forwards.

Once the depth has been adjusted, re-secure the tracer probe using the stud bolt (S).

See Figure 7

5.2 LATERAL ADJUSTMENT

See Figure 6

- Lateral adjustment is fixed and calibrated during factory assembly. It will therefore not need to be adjusted. You can check that this calibration has been performed correctly as follows:



Switch off the power switch (11), switch off the master switch (15), close the protective screen (16) and check that the machine is NOT connected to the battery charger.

- Secure the two adjustment keys (R) in "Side 1" of the clamps so that the upper edge of the adjustment key is in contact with the inner face of the clamp (J).

- Ensure that the positioner support faces (H) coincide perfectly with the upper edges of the adjustment keys (R). If this is not the case, loosen the stopper screw (H) on the right-hand side and re-secure it in its correct position.

- Raise the carriage to move the clamps closer to the cutter (C) and the tracer probe (T).

- Insert the tip of the tracer probe (T) into the notch on the adjustment key (R). While in this position, manually rotate the cutter one full rotation in the opposite direction to standard operation. Ensure that the cutter brushes slightly against the notch of the adjustment key.

See Figure 8

5.3 KEY COPYING

- Rotate the clamps towards the side you will use for holding the keys.

- Insert the original key into the left-hand clamp so that the notched section more or less coincides with the edge of the clamp. With the key in this position, secure it in place by rotating the knob (A).

- When using SIDE 1 or 2: support the shaft of the key correctly on the base of the clamp.

- When using SIDE 3 or 4: correctly insert the key guide into the clamp guide.

- Insert the blank key into the right-hand clamp and align the two keys as follows:

- Raise the stoppers using their corresponding knob and support them against the upper shoulders of the keys.

- With the blank key in this position, secure it in place using the knob (A). NOTE: Both the original key and the blank key should be inserted from the left-hand side of their clamps.

- Remove the stoppers from the keys so they do not interfere with the key cutting process.

Raise the protective screen (16) and press the safety switch (15).

- Switch on the machine so the cutter begins to rotate.

- Bring the keys towards the cutter (C) and the tracer probe (T). Remember that you should work from left to right.

- Press the original key against the tracer probe and begin the duplication process, moving the carriage assembly sideways by operating the carriage movement control (G).

- After completing the duplication process:

- Return the carriage assembly to its rest position.

- Switch off the machine so the cutter stops rotating.
- Release the keys from the clamps.
- If the duplication process produced any burrs on the copy, these can be removed using the brush that is provided with the machine for this purpose.

See Figure 9

5.3.1 Copying keys with a narrow blade

To duplicate this type of key and in order for the cutter to reach maximum depth in the key to be copied, "Side 2" of the clamp should be used.

5.3.2 Copying a key with no shoulder

- Insert the chocks (Y) into one of the vertical slots on one of the four sides of the clamps.
- Insert the original key into its clamp until the key tip rests against the chock (Y). With the key in this position, secure it in place by rotating the knob (A). Repeat this process with the blank key.
- Remove the chocks (Y), raise the carriage assembly and begin the duplication process.

See Figure 10

5.3.2 Copying a cruciform key

- Use SIDE 1 of the clamp for this type of key.
- Insert the star key chocks (X) into the vertical slots in the clamps so that the gap in the chock is facing the cutter or tracer probe.
- Insert the original key into its clamp until the key shoulder rests against the chock (X). With the key in this position, secure it in place by rotating the knob (A). Repeat this process with the blank key.
- Raise the carriage assembly and begin the duplication process.
- These keys have three notched blades. So the same steps will need to be repeated twice more for the remaining two key blades.

See Figure 11

6. MAINTENANCE

The NOMAD GO key cutting machine requires no particular maintenance plan. Nonetheless, certain parts should be checked regularly and eventually replaced once they become worn. This particularly includes the cutter, the brush, the tracer and the belt.

We recommend disconnecting the battery if the machine is not going to be used for an extended period of time. Maintenance operations should be carried out by qualified professionals with the necessary protective equipment for working safely. The instructions provided in this manual should be followed carefully when performing any maintenance tasks and the following instructions should be followed in general:



Before starting any maintenance work, switch off the power switch (11), switch off the master switch (15), close the protective screen (16) and check that the machine is NOT connected to the battery charger. The operator should make sure that nobody can access the machine.



Do not perform any maintenance operations while the machine is in operation.



Original spare parts should always be used. The CE mark is only guaranteed when original spare parts supplied by the manufacturer are used.



Only use original batteries and battery chargers.



After replacing a component, make sure that the corresponding screws are in their correct position.



NEVER USE COMPRESSED AIR! We recommend using the small brush supplied with the machine for keeping the clamps and carriage assembly free from metallic swarf.



We recommend using protective oil (WD40 or similar) to protect the metal parts of the machine against oxidation, applying oil to the clamps, tracer, rails, etc.

6.1 BRUSH REPLACEMENT

The brush should be replaced when it can no longer remove burrs.

Follow the steps below to do so:



Switch off the power switch (11), switch off the master switch (15), close the protective screen (16) and check that the machine is NOT connected to the battery charger.

- 1) Release the three screws securing the cutter and brush protector and then remove it.
- 2) Insert the securing rod into the hole in the brush assembly.
- 3) Use the 5 mm Allen key to release the screw holding the brush in place.
- 4) Replace the brush and secure it in place.
- 5) Remove the securing rod and reattach the cutter and brush protector.

See Figure 12

6.2 CUTTER REPLACEMENT

The cutter should be replaced when it becomes worn. Follow the steps below to do so:



Switch off the power switch (11), switch off the master switch (15), close the protective screen (16) and check that the machine is NOT connected to the battery charger.

- 1) Release the three screws securing the cutter and brush protector and then remove it.
- 2) Insert the securing rod into the hole in the cutter assembly.
- 3) Using the 5 mm Allen key, release the screw holding the cutter in place. Bear in mind that this is a reverse-thread bolt.
- 4) Carefully clean the new cutter and all areas that will come into contact with it.
- 5) Replace the cutter and re-secure it using the reverse-thread screw.
- 6) Ensure that the cutter is securely in place and facing the correct direction (it rotates clockwise).
- 7) Remove the securing rod and reattach the cutter and brush protector.
- 8) The depth adjustment process should be repeated. The steps for doing so are explained in another section of this manual.

See Figure 13

6.3 TRACER REPLACEMENT

The tracer should be replaced when it becomes worn. Follow the steps below to do so:



Switch off the power switch (11), switch off the master switch (15), close the protective screen (16) and check that the machine is NOT connected to the battery charger.

- 1) Release the screw (S) using the 3 mm Allen key.
- 2) Rotate the control wheel (W) until the tracer probe (T) is fully removed.
- 3) Insert and secure the new tracer, ensuring that the flat end is facing upwards.
- 4) The depth adjustment process should be repeated. The steps for doing so are explained in another section of this manual.

See Figure 14

6.4 CARRIAGE DEPTH ADJUSTMENT

A maximum cutting depth should be set in order not to damage the clamps or the cutter.

The distance between cutter/probe and clamp should be 0.1 mm. Do the following if this is not the case:



Switch off the power switch (11), switch off the master switch (15), close the protective screen (16) and check that the machine is NOT connected to the battery charger.

- 1) Raise the carriage and move the clamps towards the cutter/probe as far as the carriage assembly will go.
- 2) Loosen the securing bolt (D) with the 8 mm wrench.
- 3) Adjust the screw (P) to achieve a separation of 0.1 mm.
- 4) Secure the screw (P) by tightening the bolt (D).

See Figure 15

6.5 ACCESSING THE LOWER HOUSING

For maintenance requiring access to the lower part of the machine, proceed as follows:



Switch off the power switch (11), switch off the master switch (15), close the protective screen (16) and check that the machine is NOT connected to the battery charger.

- 1) Very carefully roll the machine onto its rear side.
- 2) Remove the four feet. Loosen the four screws (Q) to do so.
- 3) Remove the lower casing. Loosen the three screws (O) to do so.

See Figure 16

6.6 REPLACING THE BATTERY



Switch off the power switch (11), switch off the master switch (15), close the protective screen (16) and check that the machine is NOT connected to the battery charger.

- 1) Access the lower housing as explained in Section 6.5 of this manual.
- 2) Disconnect the yellow power connector from the battery.
- 3) Disconnect the red charging connector from the battery.
- 4) Disconnect the red charging indicator connector.
- 5) Remove the two screws (T1) holding the battery in the machine.
- 6) Install the new battery by securing it with the two screws (T1).
- 7) Connect the three connectors to the battery.
- 8) Replace the lower housing plate.

See Figures 17 and 18

6.7 REPLACING THE ELECTRONIC CARD



Switch off the power switch (11), switch off the master switch (15), close the protective screen (16) and check that the machine is NOT connected to the battery charger.

- 1) Access the lower housing as explained in Section 6.5 of this manual.
- 2) Disconnect the yellow power connector from the battery.
- 3) Disconnect the four wires from the electronic card, noting

down the position of each one for subsequent reconnection.

4) Remove the four screws (T2) holding the electronic card in the machine.

5) Install the new electronic card by securing it with the four screws (T2).

6) Connect the four wires to the electronic card and, finally, connect the yellow power connector to the battery.

7) Replace the lower housing plate.

See Figure 19

6.8 REPLACING THE JACK CONNECTOR



Switch off the power switch (11), switch off the master switch (15), close the protective screen (16) and check that the machine is NOT connected to the battery charger.

1) Access the lower housing as explained in Section 6.5 of this manual.

2) Disconnect the yellow power connector from the battery.

3) Disconnect the red battery charging connector from the battery (the one connecting the two wires from the jack to the battery).

4) Using a spanner, release the nut (T3) securing the jack connector to the machine.

5) Remove the jack connector (14) and its wiring through the hole in the machine.

6) Install the new jack connector following the same steps but in reverse order.

See Figure 20

6.9 REPLACING THE MASTER SWITCH



Switch off the power switch (11), switch off the master switch (15), close the protective screen (16) and check that the machine is NOT connected to the battery charger.

1) Access the lower housing as explained in Section 6.5 of this manual.

2) Disconnect the yellow power connector from the battery.

3) Disconnect the round blue connector from the master switch.

4) Using a spanner, release the nut (T4) securing the master switch to the machine.

5) Remove the master switch (15) and the protective screen (16).

6) Install the new master switch following the same steps but

in reverse order.

See Figure 21

6.10 ACCESSING THE MACHINE INTERIOR



Switch off the power switch (11), switch off the master switch (15), close the protective screen (16) and check that the machine is NOT connected to the battery charger.

1) Access the lower housing as explained in Section 6.5 of this manual.

2) Remove the four screws (T5) from the four corners of the base.

3) Remove the lower casing from the machine to access the machine interior.

See Figure 22

6.11 REPLACING THE POWER SWITCH

Follow the steps below to do this:

1) Access the interior of the machine as indicated in Section 6.10 of this manual.

2) Squeeze the tabs on the switch (11) to remove it.

3) Disconnect the wires from the switch, noting down the position of each one beforehand.

4) Connect the wires to the new switch.

5) Squeezing the tabs on the switch, push it all the way back into position.

See Figure 23

6.12 REPLACING AND TIGHTENING THE BELT

Follow the steps below to do this:



Switch off the power switch (11), switch off the master switch (15), close the protective screen (16) and check that the machine is NOT connected to the battery charger.

1) Release the three screws securing the cutter and brush protector and then remove it.

2) Release the tensioning screw (Z) using the 3 mm Allen key.

3) Access the interior of the machine as indicated in Section 6.10 of this manual.

4) Use the 5 mm Allen key to slightly loosen the 2 screws (F) holding the motor (N).

- 5) Move the motor (N) so the two wheels move closer together.
- 6) Remove the old belt. Remove it by moving it around the brush.
- 7) Fit the new belt and visually check it is in the right place.
- 8) TIGHTENING THE BELT: By turning the tensioning screw (Z), the motor (N) will move towards the bottom of the machine and the belt will consequently become more tense. When you think the belt is tense enough, secure the motor (N) using the two screws (F).
See Figure 24

6.13 REPLACING THE MOTOR

Follow the steps below to do this:



Switch off the power switch (11), switch off the master switch (15), close the protective screen (16) and check that the machine is NOT connected to the battery charger.

- 1) Release the three screws securing the cutter and brush protector and then remove it.
- 2) Release the tensioning screw (Z) using the 3 mm Allen key.
- 3) Access the interior of the machine as indicated in Section 6.10 of this manual.
- 4) Disconnect the two wires from the motor. Note down the position of each one beforehand.
- 5) Remove the motor (N). Remove the two screws (F) using the 5 mm Allen key to do so.
- 6) Insert the new motor (N) without tightening the two screws (F) too much.
- 7) Connect the two wires to the motor.
- 8) Fit the belt and visually check it is in the right place.
- 9) Tighten the belt as indicated at the end of Section 6.12 of this manual.
See Figure 25

7. WASTE DISPOSAL

Waste disposal should be managed according to the legislation in force in the user's country.



The installer of the machine is responsible for managing any waste correctly.

lity of their selective collection systems so that the owners of the machine and the distributors may deliver any waste produced within its territory to the collection facility for free.

7.1 SWARF

The swarf produced during key duplication is classified as special waste and falls into the same category of solid urban waste (SUW) as a metal scourer, for example.

Contaminated waste or waste containing toxic or harmful substances is considered as toxic or harmful waste and must be disposed of according to the legislation in force in the user's country.

7.2 PACKAGING

The machine is supplied in cardboard packaging, which can be recycled with all other cardboard packing material. It is considered as solid urban waste and should therefore be disposed of in the special containers for cardboard.

The material used to protect the machine inside the cardboard box is polymeric and comparable to solid urban waste. It must therefore be sent to the appropriate waste disposal facilities for processing.

7.3 MACHINE

When needing to dispose of the machine, it falls into the WEEE category (Waste Electrical and Electronic Devices). In compliance with "Directive 2012/19/EU on waste from electrical and electronic equipment (WEEE)",



Anyone found disposing of the machine illegally or as domestic waste will be subject to the penalties provided for by current national legislation.

Pursuant to the provisions of current national regulations, the machine cannot be disposed of as urban waste. Therefore, at the end of its life cycle and after performing the necessary operations for correct management, the device must be delivered to one of the selective collection facilities for waste electrical and electronic equipment from private homes. The collection facilities of the municipality where you live must guarantee the functionality, accessibility and suitability