

# pellenc s.a.



Translation of the original user guide

# **USER GUIDE**

# Cultivion



58\_15\_001A

READ THE USER GUIDE CAREFULLY BEFORE USING THE TOOL



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#### INTRODUCTION

#### **ENVIRONMENTAL PROTECTION**

Your equipment comprises numerous materials which can be valorised or recycled. Entrust these to your reseller or to an approved service centre so that they can be processed.



Comply with the regulations in force in your country as concerns environmental protection associated with your activity.

#### SAFETY INSTRUCTIONS



#### PLEASE KEEP THESE INSTRUCTIONS

This manual contains important information and operating instructions for the following tool: CULTIVION hoeing machine

You must read THE WHOLE of this user guide before using the tool or before carrying out servicing operations.

Comply scrupulously with the instructions and illustrations given in this document.

All through this user guide you will find advisory notes and information entitled: **REMARK**, **CAUTION** / **WARNING**.

A **REMARK** provides additional information, clarifies a point or explains a step to be followed in detail.

The **CAUTION** and **WARNING** advisories are used to define a procedure which, if neglected or incorrectly performed, may lead to serious damage to the equipment and/or personal injury.

This advisory: indicates that if the procedures or instructions are not complied with, any damage will not be covered by the warranty and the owner will be responsible for the repair costs.

Safety indications are also given on the tool; they remind you of the safety precautions to be taken. Identify and read these indications before using the tool. Immediately replace any indications that may become partially illegible or deteriorated.

Refer to the «SAFETY INDICATIONS» heading in order to identify the location of the safety indications on the tool.

No part of this manual may be reproduced without the written consent of PELLENC. The technical characteristics and the illustrations given in this manual are for information purposes and are in no way contractual. PELLENC reserves the right to make any modification or improvement to its products as deemed necessary without informing customers already in possession of a similar model. This manual forms an integral part of the tool and must accompany the tool if it changes hands.

#### SAVE THESE INSTRUCTIONS

#### GENERAL SAFETY INSTRUCTIONS FOR THE TOOL



CAUTION Read all the safety measures and all the instructions. Retain all the safety measures and instructions for later reading.

#### SAFETY INSTRUCTIONS

This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or preliminary instructions by a person responsible for their safety.

The Cultivion is a professional machine used exclusively for the maintenance of green spaces.

PELLENC declines all responsibility in case of damage caused by improper use and use other than for which it is intended.

PELLENC also declines all responsibility in case of damage caused by the use of non-genuine parts or accessories.

#### **WORK AREA SAFETY**

- a. Keep the work area clean and well lit.
- b. Do not use electric tools in an explosive atmosphere, for example in the presence of flammable liquids, gases or dust.
- c. Keep children and persons present away when using the tool.

#### **ELECTRICAL SAFETY**

- a. The plugs of the electric tool must be adapted to the base. Never modify the plug in any way whatsoever. Do not use adaptors with grounded tools.
- b. Avoid any body contact with grounded surfaces such as pipes, radiators, cookers and refrigerators.
- c. Do not expose tools to rain or damp conditions.
- d. Do not misuse the power cord. Never use the power cord to carry, pull or disconnect the tool. Keep the power lead away from heat, lubricant, sharp edges or moving parts.
- e. When using a tool outdoors, use an extension adapted to outdoor use.
- f. If you must use a tool in a damp place, use power supply protected by a residual current device (RCD).

#### **PERSONAL SAFETY**

- a. Remain vigilant, watch what you are doing and use common sense when using the tool. Do not use a tool if you are tired or under the influence of drugs, alcohol or medication.
- b. Wear safety equipment. Always wear eye protection.
- c. Avoid any untimely starting of the device. Make sure the switch is in the off position before connecting the tool to the mains and/or battery pack, picking it up or carrying it.
- d. Remove any adjustment key before starting the tool.
- e. Do not rush. Adopt a suitable position and remain balanced at all times.
- f. Wear appropriate clothing. Do not wear loose clothing or jewellery.
- g. Keep hair, clothing and gloves away from moving parts.
- h. If systems are provided to connect dust extraction and recovery equipment, make sure these systems are connected and properly used.

#### **TOOL USAGE AND MAINTENANCE**

- a. Do not force the tool. Use a tool suited to your application.
- b. Do not use the tool if the switch does not allow it to be switched on and off.
- c. Disconnect the plug of the power supply source and/or battery pack from the tool prior to any

#### SAFETY INSTRUCTIONS

- adjustment, change of accessories or before putting the tool away.
- d. When not in use, keep tools out of reach of children, and do not allow persons to use the tool if they do not know how to use it and if they have not read these instructions.
- e. Comply with tool servicing instructions. Check that the moving parts are not misaligned or jammed, that there are no broken parts or that there is no other condition which could affect the operation of the tool. In the event of damage, have the tool repaired before using it.
- f. Keep the cutting components sharp and clean.
- g. Use the tool, accessories, blades etc., in accordance with these instructions, taking into account the working conditions and the work to be performed.

#### **MAINTENANCE AND UPKEEP**

a. Have the tool serviced by a qualified repairer using only identical spare parts.

#### SAFETY INSTRUCTIONS FOR THE WHEEL HOE

- **1–** Clear the work area before working.
- 2-Make sure that the cultivion is not in contact with anything other than soil and vegetation.
- **3–** Take up a position so as to prevent accidents.
- **4–** Do not use the Cultivion to dig hard, stony ground or near large roots.
- **5–** Keep all persons away when starting up and during use.
- **6–** Never modify the connector in any way whatsoever.
- **7–** As the carbon of the pole conducts electricity, always keep the hedge trimmer well away from power and telephone lines, and other sources of electric power.
- **8–** THIS TOOL MAY CAUSE SEVERE INJURIES. Read carefully the intructions relative to the proper handling, operation, maintenance, startup and stop of the hedge trimmer. Familiarize with all its controls and proper use.
- **9–** Wear safety equipment. Always wear safety footwear.
- 10-Before starting the motor, make sure that the working tool is not in contact with any object.
- **11–** Always use a suitable lifting device complying with the working regulations in force for overhead works.
- **12—**When in use, the electric motor of the tool may heat up (risk of burns). Avoid contact with skin, clothing or any flammable products (risk of explosion) during and after use.
- **13–** Nobody other than the user shall be within a radius of 3 meters.

#### SAFETY MEASURES FOR THE CHARGER AND THE BATTERY



Refer to the Pellenc tools battery manual.

# **SAFETY INSTRUCTIONS**

# **SAFETY EQUIPMENT**

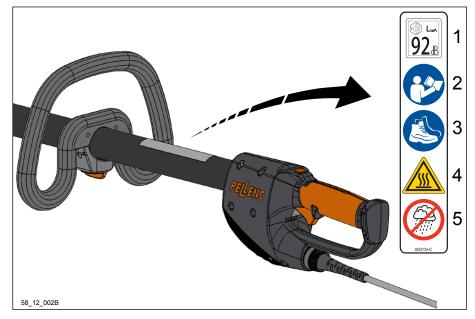


	Protective equipment	Wearing is
1	Helmet	
2	Visor	
3	Hard-wearing gloves	
4	Safety footwear	Mandatory
5	Ear protection	Recommended
6	Safety goggles	Recommended
7	Safety jacket or over-sleeves	
8	Protective trousers	Recommended

# **SAFETY REFLEXES**

- Hold the rear handle of the cultivion with the right hand and the front handle with the left hand.
- Hold the left arm straight for better control.
- Use working tools of Pellenc origin.Maintain working tools in good operating condition.
- Remain in a steady position.
- Kepp feet away from the working tool.Only work soil with the cultivion.

#### SAFETY INDICATIONS

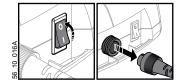


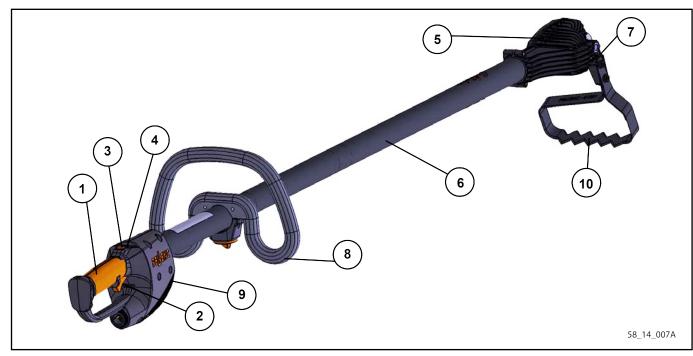
- 1- Guaranteed sound power level.
- **2–** Read the user guide.
- **3–** Safety shoes are mandatory.
- 4-Risk of burns (motor electronic board cooling radiator).
- **5–** Do not expose to rain.



#### **WARNING:**

Before working on the machine, check that the On / Off switch is in the off position «0» and disconnect the battery power lead.





- 1-Rear Handle
- **2–** Activating trigger
- **3–** Speed selector (4 speeds)
- 4-Power ON light and speed indicator
- **5–** Pellenc Motor
- 6-Aluminum Pole

- **7–** Working tool support
- 8- Front handle
- 9- Electronic board cooling radiator
- **10**–Working tool

#### **DESCRIPTION AND TECHNICAL CHARACTERISTICS**

#### **TECHNICAL CHARACTERISTICS**

	Cultivion
Model	Fixed pole
Revolutionary Pellenc motor	with electronic switch-over
Power	380 W
Weight	3100 g
Dimensions (L x w x H) in mm	400 x 1710 x 300
Working tool width	as per model
Working tool oscillation frequency	13 à 15 Hz
Working capacity (time)	According to use and battery type

Determining the sound levels and vibration rates is based on the operating conditions at the maximum nominal rating.

Values defined as per sound measurement standards NF EN ISO 11201 and NF EN ISO 3744.

	Speed 1	Speed 4
Maximum A-weighted sound pressure level (ref. 20 μPa) at the position of the user	L <sub>pA</sub> = 75 dB(A)	L <sub>pA</sub> = 78 dB(A)
Uncertainty	K = 2,5 dB(A)	K = 2,5 dB(A)
C-weighted peak sound pressure (ref. 20 μPa) at the position of the user	L <sub>pC</sub> < 13	0 dB(C)

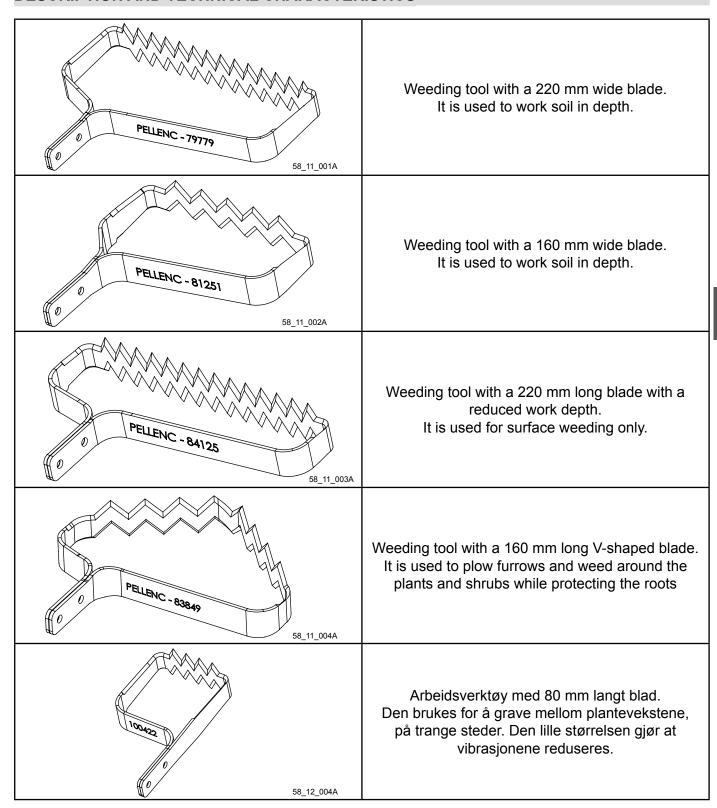
Symbol	Value	Unit	Reference	Comment	
L <sub>WAm</sub>	91	dB(A)	1 pW	Measured sound power level	
L <sub>WAg</sub>	92	dB(A)	1 pW	Guaranteed sound power level	

The recording of the measured sound power level and of the guaranteed sound power level has been performed according to a procedure in accordance with directive 2000/14/CE appendix V.

I ( I II I I I I I I I I I I I I I I I	Speed 1 (800 strokes/min)	Speed 4 (885 strokes/min)
Front handle, a	9.5 m/s <sup>2</sup>	17.5 m/s <sup>2</sup>
Rear handle, a	8.5 m/s <sup>2</sup>	12.0 m/s <sup>2</sup>
Measurement uncertainty, K	3.0	3.0

Vibration emission value according to EN ISO 22867 and EN 50260-1

# **DESCRIPTION AND TECHNICAL CHARACTERISTICS**



#### **PUTTING THE MACHINE INTO SERVICE**

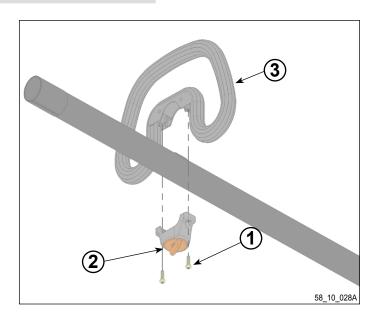
#### ASSEMBLY/DISASSEMBLY OF THE FRONT HANDLE

#### **ASSEMBLY:**

- Install the adjuster knob (2) and front handle (3) with the 2 bolts (1).
- Lock the **adjuster knob (2)** in order to block the front handle's position on the cultivion.

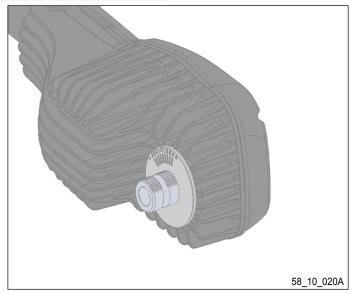
#### **DISASSEMBLY:**

- Unlock the adjuster knob (2).
- Unscrew the 2 bolts (1) and remove the front handle (3) and adjuster knob (2).



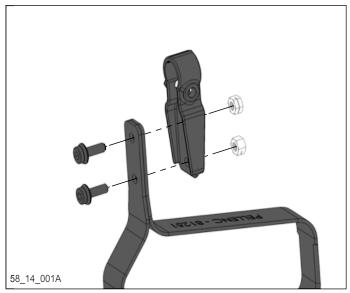
#### **ASSEMBLING THE WORKING TOOL**

• The machine's head has a rotation axis which is graduated from de -4 to +4 passing through the 0 position.



• Install the working tool on its support using the two assemblies (screw and nut).

Tighten the screws to a torque of 6 N.m.





WARNING! Wear protective gloves when handling the working tool.

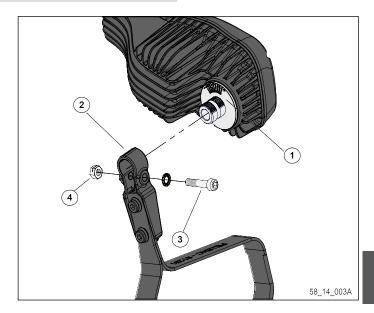
# **PUTTING THE MACHINE INTO SERVICE**

#### **ASSEMBLING THE WORKING TOOL**

• Place the working tool support on the output shaft (1), aligning the support marker (2) with the "0" marker on the casing (1).

For further information on how to adjust the working tool position, (see page 13)

• Install the washer and screw (3) and tighten them with max torque 6 N.m.





WARNING: Never work with loose tightening screws.



ATTENTION: Do not forget the nut (4) during assembly.

#### HOLDING THE TOOL

- 1- Hold the machine by the rear and and front handles and check that nothing is touching the working tool.
- 2-The cultivion is in its starting position.



WARNING! Do not work anywhere other than in soil.



#### **CAUTION:**

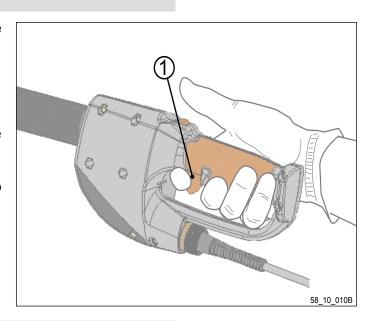
Never disconnect the electrical lead from the battery without checking that the ON/OFF switch is in the OFF position «0».

#### STARTING IN NORMAL MODE

- A. Put the machine into its working position with the working tool on the ground.
- B. Set the Pellenc tool battery ON/OFF switch to the ON position «I».

# From this moment the machine is energized and is ready to operate.

- C. Raise the machine so that it doesn't touch the ground when starting.
- D. Press the starting trigger (1).
- E. The machine then operates as long as you keep the starting trigger (1) pressed.
- F. Release the trigger, the machine stops.



#### STARTING IN CONTINUOUS MODE

- A. Place the machine in its starting position, with the working tool on the ground
- B. Press the start-up trigger (1).
- C. Switch the Pellenc tools battery start/stop switch to the **«I» on position**, while holding down the trigger (1).
- D. Wait for the indicators to light up, and release the trigger.

# The machine is now energized and is ready to operate.

- E. Raise the machine so that it doesn't touch the ground when starting.
- F. Press the start-up trigger once (1) and release.
- G. The machine operates continuously.
- H. Press the start-up trigger again (1) and release.
- I. The machine stops.



If at least 1 light on the handle is lit, the machine is supplied with electrical power.



G Always turn the motor on before allowing the tool to make contact with the ground.



Your machine is equipped with a Pellenc-designed electric motor. This motor keeps the speed constant off load and when working.

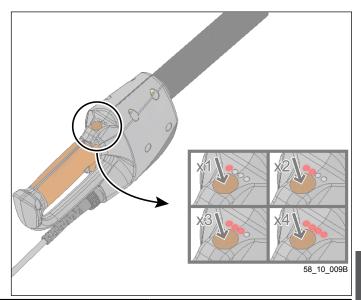
Let the cultivion work by pulling towards you without over-forcing.

#### SPEED SELECTOR

Your machine is equipped with a speed selector system. The speed selector is located on the handle and allows you to optimize the desired quality of work.

Four lights located on the handle indicate the selected speed level when the machine is energized.

These lights may flash when the temperature of the machine approaches the safe temperature limit.



1 lights lit	Speed 1 (800 strokes/mn)	Hard, compact soil
2 lights lit	Speed 2 (830 strokes/mn)	Quite hard soil
3 lights lit	Speed 3 (860 strokes/mn) Neutral soil	
4 lights lit	Speed 4 (885 strokes/mn)	Loose soil

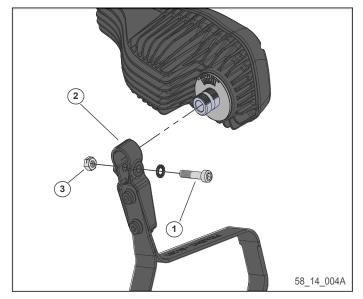
#### **ADJUSTING THE TOOL ANGLE**

Untighten the tightening screw (1) using the M6 wrench.

Remove the working tool assembly (2).





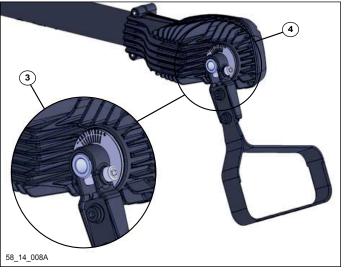


Turn it so as to place the working tool support marker (3) opposite the selected marker (-4 to +4). Push in the tool support up to the stop point.

Install the washer and M6 screw (4) and tighten the unit with max torque 6 N.m.



Use appropriate gloves when handling the working tool.



#### ADJUSTING THE TOOL ANGLE

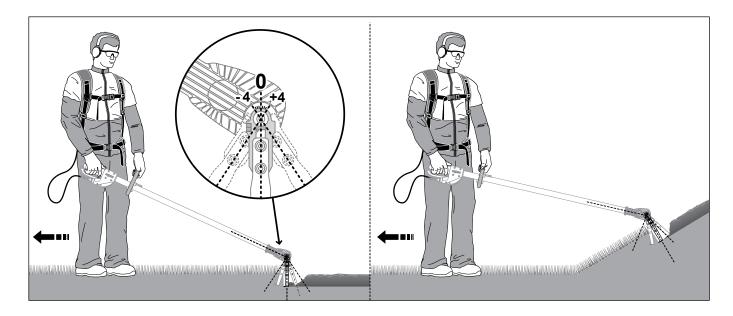
Correct setting is achieved when the machine moves backwards with virtually no effort from the user. **Work is carried out moving backwards so as not to step on completed work.** 

To obtain the correct setting, place the tool in the "0" position:

- If the machine tends to push downwards into the soil and does not move backwards, remove the tool and place the setting in a position on the "+" side.
- If the machine tends not to dig in depth and pulls out earth while moving violently backwards, turn the setting to a position on the "-" side.
- Repeat the operation as many times as required.

#### Remark:

It may be necessary to adjust the tool's angle according to the topology of the terrain (slope, trenches, mounds, etc.).



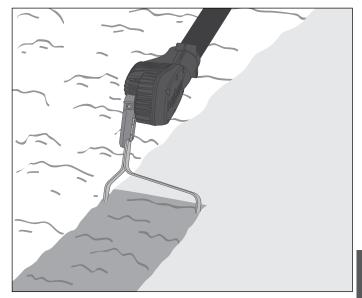


The ideal working position is: left arm straight, left hand on the front handle. Right arm slightly bent, right hand on the rear handle.

#### THE VARIOUS USES

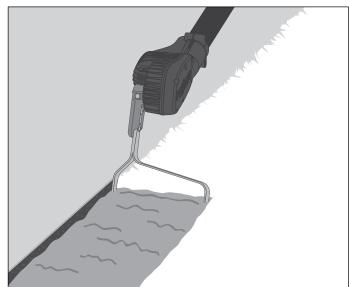
The Cultivium is a soil working machine, which:

- · airs and cultivates the earth
- removes weeds
- mixes soil, compost and fertilizer, etc.



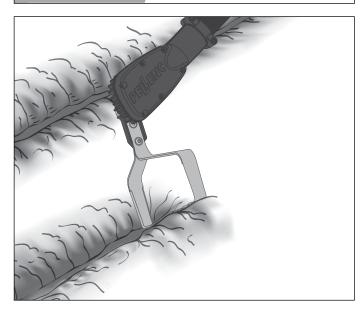
# Border cutting:

It may also be used to cut borders thanks to the lateral cutting faces of the tool.



# To plow furrows:

It can also be used to plow furrows by tilting the tool at 45°, or by using the weeding tool (P/N 83849)



Several tool widths are available:

- P/N 81251
- P/N 79779
- P/N 84120
- P/N 83849
- P/N 100422

# **SERVICING**

# **SERVICING SCHEDULE**

	Each time the tool is used	After use	Each year or when necessary
Cleaning the machine	Х	Х	
Visually inspect the tool	Х	Х	
Check the operation of the safety devices	Х		
Check the sharpness and sharpen if necessary	Х		
Check the tightness of the working tool	Х		
Check the battery charge level	Х		
Send the tool to an approved dealer for inspection			Х



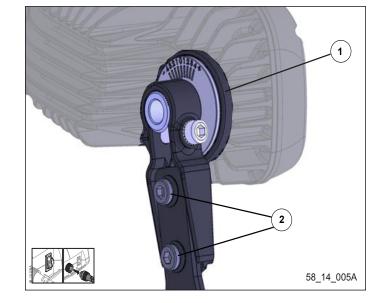
# REMARK:

Send the hedge trimmer for overhaul every 200 hours or at least once per year. When the tool is stored, it must be clean and the battery must be charged.

#### **TIGHTENING THE BLADES**

Check the screw tightening torque:

- (1) 6 N.m tightening torque.
- (2) 6 N.m tightening torque.



WARNING! Always disconnect the battery before working on the cutting tool.

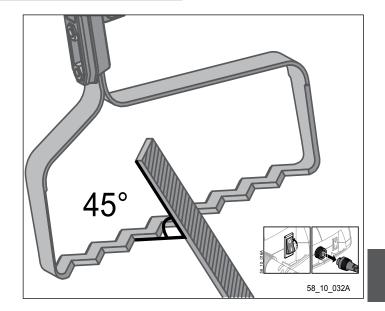
#### **SERVICING**

# SHARPENING THE WORKING TOOL

Sharpen the working tool little but often using a flat file.

Check the sharpness of the working tool regularly during the first hours of work in order to determine the necessary sharpening frequency.

Ensure an angle of 45° on the blade during sharpening.





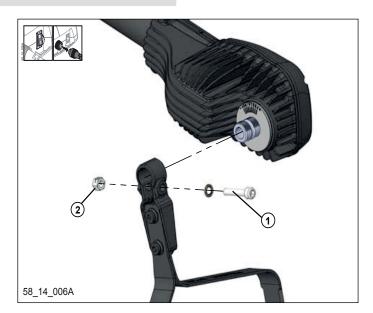
Use appropriate gloves when handling the working tool.

#### REPLACING THE WORKING TOOL

Loosen the M6 screw (1) and its washer.

Remove the nut (2)

Take out the support assembly + working tool.

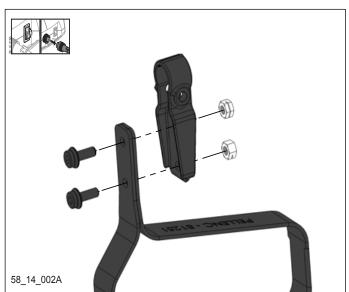


Unscrew the two assemblies (screw and nut).

Change the working tool.

Reassemble the two assemblies (screw and nut).

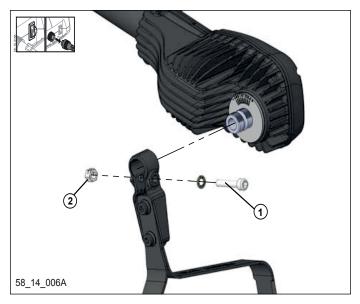
Tighten the screws to a torque of 6 N.m.



# **SERVICING**

#### REPLACING THE WORKING TOOL

Install the M6 bolt (1) and its washer and nut and tighten them to a maximum torque of 6 N.m.





WARNING! Always disconnect the battery before any intervention on the cutting tool.

#### **OUT-OF-SEASON STORAGE**

- Make sure the machine is clean when it is stored.
- Make sure the working tool blade is sharp and greased when the tool is stored.
- For battery storage, refer to the battery usage manual.

Repaired by	User	PELLENC approved dealer	User	PELLENC approved dealer	PELLENC approved dealer	PELLENC approved dealer
Solutions	Switch on the battery switch	Change the cord	Recharge the battery	Change the electronic board if the diodes remain off after starting and checking the previous points	Change the trigger or sensor	Change the electronic board
Checks	Battery switch	Check the cord's condition	Check that the battery is not completey discharged	At PELLENC approved dealer premises	At PELLENC approved dealer premises	At PELLENC approved dealer premises
Probable cause	Battery off	The power cord is sectioned	Battery	Electronic board	A trigger no longer functions	Electronic board
Condition of diodes	Off	₩o			o	
Battery start/stop switch position	0	_				
Symptoms	The machine does not start					

Symptoms	Battery start/stop switch position	Condition of diodes	Probable cause	Checks	Solutions	Repaired by
The machine makes an abnormal noise	_	Ö	Tightening of the two working tool screws	Tighten to 6.0N.m maximum	Tighten to 6.0N.m maximum	User
			Tightening of working tool head screw	Tighten to 8.0 N.m maximum	Tighten to 8.0 N.m maximum	
The diodes flash during use	_	Flashing	The machine is close to its temperature limit	Flashing diodes	Reduce the machine speed or pause for a while	User
The machine stops during use	_	ЭJO	The machine has reached its temperature limit	4 beeps from the battery	Allow the machine to cool down for around 5 minutes	User
		Stop then res	restart the battery and refer to the "The machine does not start" paragraph if necessary	r to the "The machine d	oes not start" paragraph	if necessary

# **«PELLENC SA» TERMS OF WARRANTY AND NON-RESPONSIBILITY CLAUSE MACHINE RANGE FOR OEP**

In the event of failure of a mechanical part and subject to normal, rational use and maintenance in compliance with the maintenance manual, **PELLENC** sa guarantees its products for a period of **ONE YEAR** as of delivery; this time shall not exceed a period of 18 months following departure from the factory of the equipment under warranty: on one hand in accordance with the conditions stipulated in the warranties of PELLENC sa and on the other hand subject to the delivery report indicating the commissioning date was made known to PELLENC sa.

In the event of an accident and total or partial destruction of the product, PELLENC sa's warranty can only be granted, and their responsibility engaged, if the party claiming the warranty can provide technical proof specifying the origin of the accident, a defect in materials or a structural defect and the product components which are the cause of it.

This contractual warranty excludes any other responsibility of PELLENC sa, whether implicit or explicit. For this reason, the responsibility of PELLENC sa can not exceed the limits defined above and covers, to a limited extent, repair **or** replacement, as chosen by PELLENC sa, of parts recognized to be defective and, when applicable, the labour required to perform the repair or replacement on the basis of warranty time as defined by PELLENC sa.

Any maintenance or repair work whatsoever carried out during the warranty period shall mandatorily be performed by PELLENC sa or by a PELLENC sa authorized dealer, under penalty of forfeiture of the warranty.

All costs arising from the immobilization, movement, approach and transport shall be, in all events, for the sole account of the purchaser.

As concerns parts or equipment that are not manufactured by PELLENC sa, in particular ball screw, battery, etc., the warranty is limited to that of the suppliers to PELLENC sa. Normal wear parts worn out as the result of use are never under warranty.

#### PELLENC sa and the authorized dealer shall not be liable in the following cases:

- Malfunctions due to faulty servicing, user inexperience or abnormal use.
- Failure to perform overhauls and checks in accordance with manufacturer's instructions.
- Replacement of genuine parts or accessories with parts of accessories of another origin, or when the machine sold has been transformed or modified.

This warranty is explicitly limited to the terms defined above. **PELLENC sa shall not be liable, under any circumstances, for payment of any indemnity for any reason whatsoever**.

However, it is specified, in compliance with the provisions of decree No. 78.464 dated March 24th 1978, that this contractual guarantee does not replace the legal guarantee which obliges the seller to guarantee the buyer against the consequences of defects or hidden defects of the object sold.

# "CE" STATEMENT OF CONFORMITY FOR MACHINES

(ONLY CONCERNS EUROPE)

MANUFACTURER	PELLENC S.A.
ADDRESS	QUARTIER NOTRE-DAME ROUTE DE CAVAILLON - B.P. 47 84122 PERTUIS CEDEX (FRANCE)
PERSON/ENTITY AUTHORISED TO COMPILE THE TECHNICAL DOSSIER	PELLENC S.A.
ADDRESS	QUARTIER NOTRE-DAME ROUTE DE CAVAILLON - B.P. 47 84122 PERTUIS CEDEX (FRANCE)

#### WE HEREBY DECLARE THAT, FOR THE MACHINE HEREINAFTER REFERRED TO AS:

GENERIC DENOMINATION	SOL CULTIVATOR
FUNCTION	TOOL INTENDED FOR GROUND MAINTENANCE
COMMERCIAL NAME	CULTIVION
TYPE	CULTIVION P
MODEL	CULTIVION P160
SERIAL No.	58P00001 - 49999 58P50000 - 99999

COMPLIES WITH THE PERTINENT PROVISIONS OF THE MACHINES DIRECTIVE (2006/42/CE)

AND COMPLIES WITH THE PROVISIONS OF THE FOLLOWING OTHER EUROPEAN DIRECTIVES:

- ELECTROMAGNETIC COMPATIBILITY 2004/108/CE

# Sound Level at the maximum operating rating

Symbol	Value	Unit	Reference	Comment
L <sub>WAm</sub>	91	dB(A)	1 pW	Measured sound power level
L <sub>WAG</sub>	92	dB(A)	1 pW	Guaranteed sound power level

The recording of the measured sound power level and of the guaranteed sound power level has been performed according to a procedure in accordance with directive 2000/14/CE appendix V.

THE FOLLOWING HARMONIZED EUROPEAN STANDARDS WERE USED:

- EN 60745-1:2009

CONCLUDED AT PERTUIS, DATED 02/01/2015 ROGER PELLENC CHIEF EXECUTIVE OFFICER

