

COBRA

MODEL: MX46SPE

COBRA LAWN MOWER OWNER'S MANUAL



Cobra Garden Machinery

Henton and Chattell Ltd., London Road, Nottingham NG2 3HW UK

www.cobragarden.co.uk

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KNOW YOUR LAWN MOWER

Read this manual carefully, observing the recommended safety instructions before, during and after using your lawn trimmer. Following these simple instructions will also maintain your lawn trimmer in good working order. Familiarize yourself with the controls on your mower before attempting to operate it, but above all, be sure you know how to stop your mower in an emergency. Retain this user manual and all other literature with your mower for future reference.

1. SYMBOLS MARKED ON THE PRODUCT



Read this instruction book carefully before using the lawn mower and keep it in a safe place for future reference.



Keep bystanders away.



Beware of sharp blades. Blades continue to rotate after the motor is switched off.

Remove the plug from the machine before maintenance or if cord damaged.



Keep the supply flexible cord away from the cutting blades.



CE Marking

The product meets demands and regulations set by the European Community.



WEEE Marking

CAUTION! Unusable power tools do not belong with domestic waste. They must be taken to a communal collecting point for environmentally friendly disposal in accordance with local regulations.



Noise level marking

Your tool noise is not more than 96dB.



SAFETY ALERT SYMBOL: Indicates caution or warning may be used in conjunction with other symbols or pictures.

DOUBLE INSULATED



Your mower is double insulated.

This means that all external parts are electrically isolated from the power supply. This is achieved by placing an extra insulation barrier between the electrical and mechanical parts.

2. GENERAL SAFETY RULES

The purpose of the safety rules is to attract your attention to possible dangers. The safety symbols and the explanations with them, require your careful attention and understanding. The safety warnings do not by themselves eliminate any danger. The instruction or warnings they give are not substitutes for proper accident prevention measures.



WARNING: This machine produces an electromagnetic field during operation. This field may under some circumstances interfere with active or passive medical implants. To reduce the risk of serious or fatal injury, we recommend persons with medical implants to consult their physician and the medical implant manufacturer before operating this machine.



WARNING: Failure to obey a safety warning can result in serious injury to yourself or to others. Always follow the safety precautions to reduce the risk of fire, electric shock and personal injury. Save owners manual and review frequently for continuing safe operation and instructing others who may use this tool.

1. Before use check the supply and extension cord for signs of damage or worn. If the cord becomes damaged during use, disconnect the cord from the supply immediately.
DO NOT TOUCH THE CORD BEFORE DISCONNECTING THE SUPPLY.
2. **Do not use the appliance if the cord is damaged or worn.**
3. If the supply cord is damaged, it must be replaced by the manufacturer, its service agent or similarly qualified persons in order to avoid a hazard. Use suitable power cord not lighter than H05VV-F 2x1.0mm²
4. Do not touch the blade before the machine is disconnected from the supply and the blade has come to a complete stop.
5. Always keep extension cords away from the blade. The blade can cause damage to the cords and lead to contact with live parts.
6. Always disconnect the power supply (i.e. by removing the plug from the wall socket)
 - whenever leaving the machine unattended
 - before clearing a blockage
 - before checking, cleaning or working on the machine
 - after striking a foreign object
 - whenever the machine starts vibrating abnormally
7. When servicing the blades be aware that, even though the power source is switched off, the blades can still be moved.
8. Residual Current Device (RCD) with a tripping current of not more than 30 mA is recommended.



WARNING: The operation of any tool can result in foreign objects being thrown into your eyes, which can result in eyes severely damaged. Before beginning power tool operation, always wear safety goggles or safety glasses with side shields and a full face shield when needed. We recommend Wide Vision Safety Mask for use over eyeglasses or standard safety glasses with side shield.

IMPORTANT
READ CAREFULLY BEFORE USE.
KEEP FOR FUTURE REFERENCE.

1. Read the instructions carefully. Be familiar with the controls and the proper use of the equipment.
2. Never allow children or people unfamiliar with these instructions to use the lawnmower. Local regulations can restrict the age of the operator
3. Never mow while people, especially children, or pets are nearby.
4. The operator or user is responsible for accidents or hazards occurring to other people or their property.
5. While mowing, always wear substantial footwear and long trousers. Do not operate the equipment when barefoot or wearing open sandals; Avoid wearing clothing that is loose fitting or that has hanging cords or ties.
6. Thoroughly inspect the area where the equipment is to be used and remove all objects which can be thrown by the machine.
7. Before using the mower, always visually inspect to see that the blades, blade bolts and cutter assembly are not worn or damaged. Replace worn or damaged blades and bolts in sets to preserve balance. Replace damaged or unreadable labels.
8. Mow only in daylight or in good artificial light;
9. For best results avoid operating the equipment in wet grass, where feasible.
10. Always be sure of your footing on slopes
11. Walk and never run with the mower.
12. For wheeled rotary machines: mow across the face of slopes, never up and down.
13. Take extra care when changing direction on slopes.
14. Do not attempt to mow excessively steep slopes.
15. Take extra care when reversing or pulling the lawnmower towards you.
16. Stop the mower blades if the lawn mower has to be tilted for transportation when crossing surfaces other than grass, and when transporting the lawn mower to and from the area to be mowed.
17. Never operate the lawnmower with defective guards, or without safety devices, for example deflectors and/or grass catchers, in place.
18. Start or switch on the motor carefully according to instructions and with feet well away from the blades.
19. Do not tilt the lawnmower when starting the motor.
20. Do not start the motor when standing in front of the discharge chute.
21. Do not put hands or feet near or under rotating parts, Keep clear of the discharge opening at all times.
22. Never pick up or carry a lawnmower while the motor is running.
23. Stop the motor and disconnect the plug. Make sure that all moving parts have come to a complete stop.
 - whenever you leave the machine;
 - before clearing blockages or unclogging chute;
 - before checking, cleaning or working on the lawnmower;
 - after striking a foreign object. Inspect the lawnmower for damage and make repairs before restarting and operating the lawnmower;
 - If lawnmower starts to vibrate abnormally (check immediately);
 - inspect for damage;
 - replace or repair any damage parts.
 - check for and tighten any loose parts.
24. Keep all nuts, bolts and screws tight to be sure the equipment is in safe working condition.
25. Check the grass catcher frequently for wear or deterioration.
26. Replace worn or damaged parts for safety.
27. Children should be supervised to ensure that they do not play with the appliance.
28. 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 instruction concerning use of the appliance by a person responsible for their safety.

- 29. Be careful during adjustment of the machine to prevent entrapment of the fingers between moving blades and fixed parts of the machine.
- 30. Always allow the machine to cool before storing.
- 31. Replace worn or damaged parts for safety; Use only genuine replacement parts and accessories.
- 32. Be careful during adjustment of the appliance to prevent entrapment of the fingers between moving blades and fixed parts of appliance.

3. GENERAL PARTS IDENTIFICATION

- | | | |
|-----------------------|---------------------------|-------------------------------|
| 1. Upper handle | 2. Switch box | 3. Safety push-button |
| 4. Cable hook | 5. Locking lever | 6. Plug |
| 7. Grass catcher | 8. Height adjusting lever | 9. Deck |
| 10. Sideward flap | 11. Motor cover | 14. Self-drive control handle |
| 12. Cable clamp | 13. Lower handle | 15. Switch handle |
| 16. Discharge channel | 17. Mulching wedge | |



Fig.1A

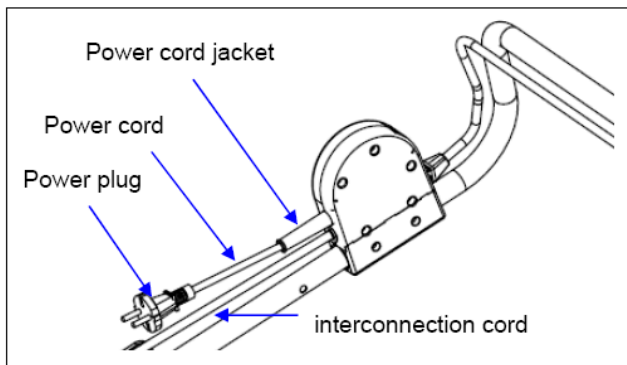


Fig.1C: Switch box

4. TECHNICAL DATA

Model:	MX46SPE
Rated Voltage:	230V~
Rated Frequency:	50Hz
Rated Power:	1800W
No Load Speed:	2900/min
Cutting Width:	460mm
Grass catcher:	60 L
Net weight:	31.2kg
Degree of protection against liquid:	IP24
Height adjustment :	25-75mm, 7 adjustment

Sound pressure level at the operator's position	81.3dB(A) K=3 dB(A)
Measured sound power level	93.5dB(A) K= 1.83dB(A)
Guaranteed Sound power level	96dB(A)
Vibration	1.096m/s ² K=1.5 m/s ²

5. ASSEMBLY

5.1 ASSEMBLY THE FOLDING HANDLE

1. Fix the lower handlebars into the mower body with locking knobs as Fig. 2A/ 2B/2C shown.
2. Lift the two locking levers to release the upper handlebars for folding. (Fig.2D)
3. Push the locking lever closed to lock the handlebars in the operating position. (Fig. 2E)
4. Adjust the tension by turning the lock nut with a suitable spanner. (Fig.2F)
5. Attach the cable-clamp to the position shown and then attach the cable. (Fig. 2G/2H)



Fig. 2A



Fig. 2B

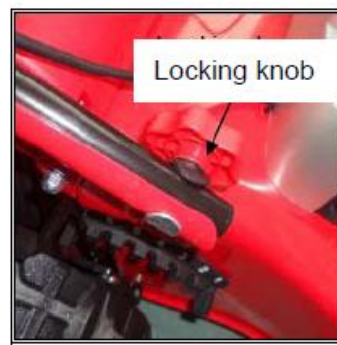


Fig. 2C



Fig.2D



Fig.2E

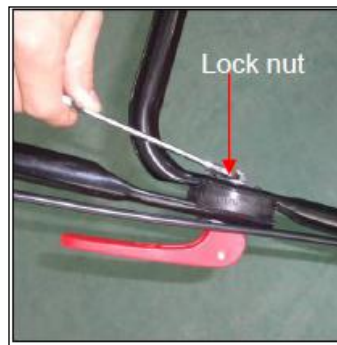


Fig.2F



Fig.2G

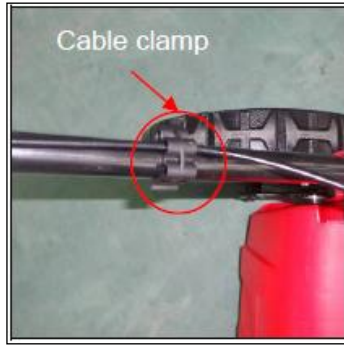


Fig.2H

5.2 ASSEMBLING THE GRASS CATCHER

1. To fit: Raise the rear cover and hitch the grass catcher on rear of mower. (Fig. 3A/Fig. 3B/ Fig. 3C)
2. To remove: grasp and lift the rear cover, remove grass catcher.



Fig.3A



Fig.3B



Fig.3C

There is a level indicator on the top of the grass catcher that shows whether the catcher is empty or full:

- The level indicator inflates if the catcher is not full during the moving. (Fig. 3E)
- If the catcher is full, the indicator collapses; once this happens, stop mowing immediately and empty the catcher, make sure it is clean and ensure its meshwork is ventilated. (Fig. 3D)

IMPORTANT:

If the position of indicator opening is very dirty, the indicator will not inflate. In this case, clean the position of indicator opening immediately.



Fig.3D

Fig.3E

6. ADJUSTMENT OF CUTTING HEIGHT

Apply outward pressure to disengage the lever from the rack. Move the lever forward or back to adjust the height. The height (the blade to the ground) can be adjusted from 25mm (position 1) to 75mm (position 7), 7 height positions. All wheels will be in the same height of cut.



Fig.4A



Fig.4B



WARNING: Make this adjustment only when the blade is stopped.



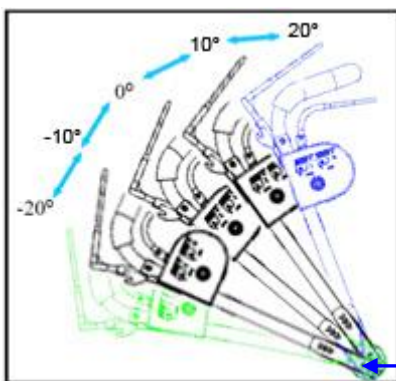
WARNING: Disconnect the electric cord from the power supply.

7. ADJUSTMENT FOR AN APPROPRIATE ANGLE

A). Pull the locking lever opening;

B). Rotating the upper handle centered of the angle adjusting gear for adjusted a appropriate angle into the scope -20° to 20° (5 position: $-20^{\circ}/-10^{\circ}/0^{\circ}/10^{\circ}/20^{\circ}$) as the Fig.5 shown;

C). Push the locking lever closed to connect the lower handle and the upper handle.



The angle adjusting gear

Fig.5

8. "3 IN 1"

The lawn mower has 3 in 1 features:

1. Rear grass collection.
2. Grass mulching.
3. Side-discharge.

What is mulching?

When mulching, the grass is cut in one working stage, then finely chopped and returned to the grass strip as natural fertilizer.

Recommendations for mulch-mowing:

- Cut your lawn regularly. Cut-back by a maximum of 2cm from grass of 6cm height.
- Ensure the blade is sharp for best results - Do not mulch wet grass.
- Only move at a walking pace.
- Regularly clean mulching wedge, housing inner side and mowing blade.

ONE: Retrofitting for mulching mower

! **WARNING:** only with a stopped motor and standstill cutter.

1. Raise the rear cover and remove the grass catcher;
2. Push the mulching wedge into the deck. Lock the mulching wedge with the button into the opening on the deck (Fig.6A/Fig 6B).
3. Lower the rear cover again.



Fig.6A



Fig.6B

TWO: Resetting for side-discharge mowing

! **Only when motor and cutting are at standstill!**





Fig 6C

1. Lift the rear cover and remove the grass catch bag.
2. Mount the Mulching wedge. (Fig 6A/Fig.6B)
3. Lift sideward flap for side discharge (Fig 6C)
4. Mount the discharge guide for side discharge on the support pin of the sideward flap. (Fig 6C/Fig.6D)
5. Lower the sideward flap- the flap lies on the discharge channel. (Fig 6E)

THREE: Mowing with the grass catch bag

⚠ WARNING: only with a stopped motor and standstill cutter.

For mowing with the grass catch bag, remove the mulching wedge and discharge channel for side discharge and mount the grass catch bag.

1. Removing the mulching wedge:
 - Lift rear cover and remove the mulching wedge.
2. Removing the discharge guide for side discharge:
 - Lift sideward flap and remove discharge channel.
 - The sideward flap automatically closes the discharge opening on the housing by mean of spring force.
 - Regularly clean the sideward flap and discharge opening form grass rest and stuck dirt.
3. Mount the grass catch bag:
 - To fit: Raise the rear cover and hitch the grass catcher on rear of mower. (Fig.3A/Fig.3B)
 - To remove: grasp and lift the rear cover, remove grass catcher.

⚠ Warning: Disconnect the electric cord from the power supply.

9. SAFETY PRECAUTIONS

- a) Always operate with the deflector or grass catcher in the correct position.
- b) Always stop the motor before removing the grass catcher or adjusting the height of cutting position.
 1. Before mowing, remove all foreign objects from the lawn which may be thrown by the machine. While mowing, stay alert for any foreign objects which may have been missed. (Fig.7A)
 2. Never lift the rear of the mower while starting the motor or during normal operation. (Fig.7B)
 3. Never place your hands or feel underneath the underpan or into the rear discharge chute while the motor is running.

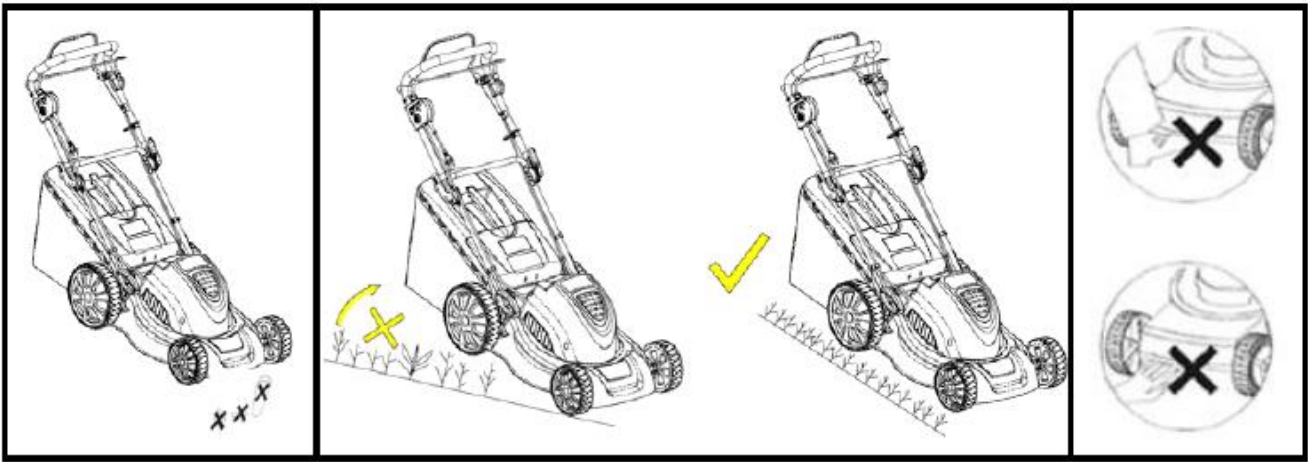


Fig.7A

Fig.7B

Fig.7C

10. STARTING

10.1 STARTING

Before connecting up the lawn mower to the electric power supply, make sure that the mains supply voltage is 230V~50Hz. Before starting the lawn mower, fix the extension cord with the machine as the Fig.8A /Fig.8B shown.



Fig.8A

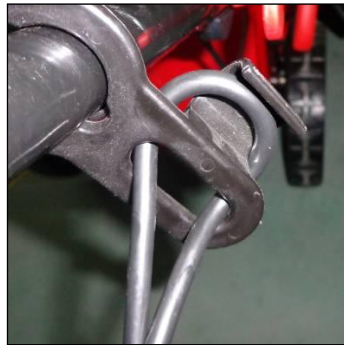


Fig.8B

When the lawn trimmer power is on, the indicator light will turn on (Fig.8C).

Start the motor as follows (Fig.8D):

- a) Press the safety push-button (1).
- b) And then, pull the the switch handle (2), to the main upper handle.

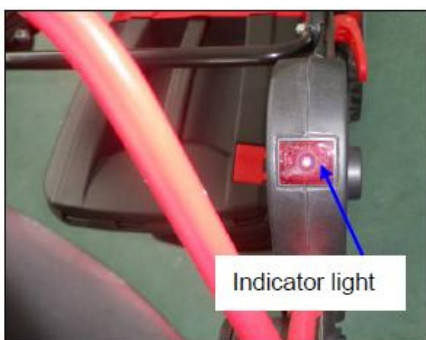


Fig.8C

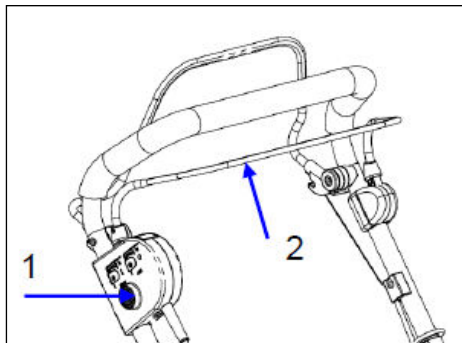


Fig.8D

If you release the switch handle the motor will stop.

! **CAUTION!** The blade starts turning as soon as the motor is started.

! **WARNING!** Cutting elements continue to rotate after the motor is switch off.

⚠ CAUTION! The equipment is suitable for use only in a power supply with permissible modulus of system impedance is 0.237Ω or less.

10.2 CONNECTION FOR AUTO DRIVE – SELF PROPELLED

Grip the Self-drive control handle, the lawnmower will move forward automatically with about 3.6km/h, release the self-drive handle, the lawnmower will stop moving.

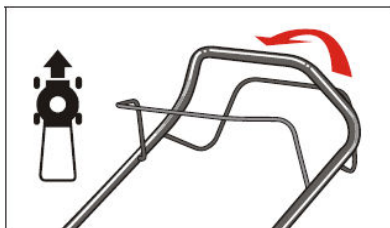


Fig.9

⚠ CAUTION: your mower is designed to cut normal residential grass of a height no more than 250mm. Do not attempt to mow through unusually tall dry or wet grass (e.g., pasture) or piles of dry leaves.

10.3 FOR THE BEST RESULTS WHEN MOWING

Clear lawn of debris: Be sure that the lawn is clear of stones, sticks, wire or other objects, which could be accidentally thrown out by the mower in any direction and cause serious injury to the operator and others as well as damage to property and surrounding objects.

Avoid cutting wet grass: For effective mowing do not cut wet grass, because it tends to stick to the underside of the deck preventing proper mowing of the grass clippings.

General Recommendations: Cut no more than 1/3 the length of the grass. The recommended cut for mowing is 1/3 the length of the grass. Ground speed will need to be adjusted so the clippings can be dispersed evenly into the lawn. For especially heavy cutting in thick grass it may be necessary to use one of the slowest speeds in order to get a clean well mowed cut. When mowing long grass you may have to cut the lawn in two passes, lowering the blade another 1/3 of the length for the second cut and perhaps cutting in a different pattern than was used the first time. Overlapping the cut a little on each pass will also help to clean up any stray clippings left on the lawn. The mower should always be operated at full throttle to get the best cut and allow it to do the most effective job of mowing.

Clean underside of deck: Be certain to clean the underside of the cutting deck after each use to avoid a build-up of grass, which would prevent proper mulching. Mowing leaves. The mowing of leaves can also be beneficial to your lawn. When mowing leaves make sure they are dry and are not laying too thick on the lawn. Do not wait for all the leaves to be off the trees before you mow.

WARNING: if the mower blade strikes a foreign object, then stop the engine. Disconnect the plug from the wall socket, thoroughly inspect the mower for any damage and repair the damage before restarting and operating the mower. Extensive vibration of the mower during operation is an indication of serious damage. The unit should be promptly inspected and repaired.

11. BLADE

The blade is made of pressed steel. It will be necessary to reshape it frequently (with a grinding wheel). Ensure that it is always balanced (an unbalanced blade will cause dangerous vibrations). To check for balance, insert a round rod through the central hole and support the blade horizontally. A balance blade will remain horizontal. If the blade is not balanced the heavy end will rotate downwards. Reshape the heavy end until the blade is currently balanced. To remove the blade (2), unscrew the blade screw (3).

Check the conditions of the fan (1), and replace any parts, which are damaged.

When reassembling, make sure that the cutting edges face in the direction of the motor rotation. The blade

screw (3) must be torque to 25NM.

⚠ WARNING: For service, replace the blade with Cobra blade: **Cobra Part no. 263001504**

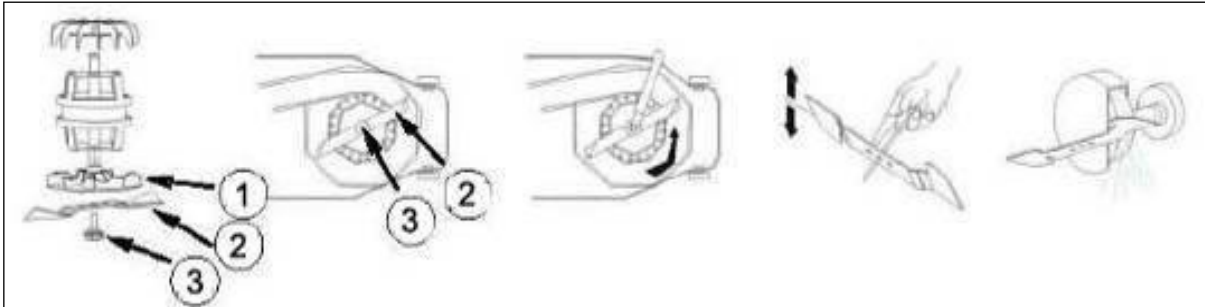


Fig.10

⚠ Warning: Disconnect the electric cord from the power supply.

⚠ WARNING: Protect hands by using heavy gloves or a rag to grasp the cutting blades when replace the blade.

12. EXTENSION CORDS

You should only use extension cords for outdoor use, PVC ordinary duty with a cross sectional area not less than 1.0mm² (not light than H05VV-F 2x1.0mm²).

Before using, check the supply and extension cords for signs of damaged during use, disconnect the cord for signs of damage or aging. If the cord becomes damaged during use, disconnect the cord from the supply immediately. **DO NOT TOUCH THE CORD BEFORE DISCONNECTING THE SUPPLY.** Do not use the appliance if the cord is damaged or worn. Keep extension cords away from cutting elements.

⚠ Warning: Always ensure that the ventilation openings are kept clear of debris.

13. MAINTENANCE AND CARE

⚠ Warning: Before performing any Maintenance or cleaning work, Always pull out the mains plug!

Do not spray the unit with water. Ingress of water may destroy the Switch-plug combination unit and the electric motor. Clean the unit with a cloth, hand brush, etc.

Expert inspection is required, do not make any adjustment by yourself. Contact your local Service centre:

- a) if the lawn mower strikes an object.
- b) if the motor stops suddenly
- c) if the blade is bent (do not align!)
- d) if the motor shaft is bent (do not align!)
- e) if a short-circuit occurs when the cable is connected.
- f) If the gears are damaged.
- g) If the V-belt is defective.
- h) Use only manufacturer's recommended replacement parts and accessories.

14. TROUBLE SHOOTING

Fault

Remedial action

Motor does not run	check mains connection cable Start on short grass or on an area which has already been mown. Clean discharge channel/housing –the mowing blade must rotate freely. Disconnect the power supply first. Correct the cutting height.
Motor power drops	Raise the cutting height, in long grass. Clean discharge channel/housing. Check the cutting blade's sharpness, replace as necessary.
Grass catcher is not filled	Very long grass may require a higher cutting height. Wet grass is more prone to clogging - allow the lawn to dry Check the cutting blade's sharpness, replace as necessary. Clean the grille and fabric of the grass catcher, to improve air flow. Clean the discharge channel / housing – Disconnect the power first.
Wheel drive does not function	Adjust the flexible cable. Check the V-belt / gears – refer to your local service centre. Check the drive wheels for damage.



Warning: before performing any maintenance or cleaning work, always pull out the mains plug and wait until the cutter has come to a standstill.

CAUTION! Faults which can not be rectified with the aid of this table may be rectified by a Cobra Service Centre only.

15. WARRANTY

This product is warranted in accordance with legal regulations for a 24 month period effective from the date of purchase by the first user.

This product will not be covered if used in a commercial application.

This warranty covers all material or production failures, it does not include: defects from normal wear and tear, parts such as, bearings, brushes, cables, air cleaning elements, brake pad, clutch disc, tyre, wheel, recoil starter rope, belts, cutter blades, plugs, lubricant oils and grease or accessories. Damage or defects resulting from abuse, accidents or alterations, natural fading of painted or plated surfaces, sheet peeling and other natural deterioration.

Any damage that occurs from the use of non-genuine Cobra parts will not be covered.

We reserve the right to reject any claim where the purchase cannot be verified or when it is clear that the product was not maintained properly. (Clean ventilation slots, carbon brushes and serviced regularly)

Expenses incidental to the warranty claim that are not covered;

-Compensation for loss of time, commercial loss or rental costs of substitute product.

-Costs incurred for transportation to and from the dealership.

Any damage that occurs from the following will not be covered; exposure of the product to smoke and soot, chemical agents, bird droppings or other animal waste, seawater, sea breeze, salt or other environmental phenomena.

Any damage resulting from operating methods other than those indicated in the owner's manual will not be covered.

Your purchase receipt must be kept as proof for date of purchase. Your un-dismantled mower must be returned to your dealer in an acceptably clean state, accompanied by your proof of purchase.

Please Register Your Mower

If your dealer did not collect registration information from you, please take a few minutes and register your purchase with Cobra.

You can register by completing and mailing the registration card that should be in the box or by going online to: www.cobragarden.co.uk and clicking on Product Registration.

Before using the lawn mower, all mower operators must read this manual


16. ENVIRONMENTALLY FRIENDLY DISPOSAL



According to EU directive 2012/19/EU on electric and electronic equipment and its implementation into national law, all electric tools must be separately collected and environmentally friendly recycled. Alternative disposal: If the owner of the power tool does not return the tool to the manufacturer, he is responsible for proper disposal at a designated collection point that prepares the device for recycling according to national recycling laws and regulations. This does not include accessories and tools without electric or electronic components.



17. EC-DECLARATION OF CONFORMITY

EC Declaration of Conformity	
We herewith declare,	Cobra Garden Machinery Henton & Chattell Ltd, London Road, Nottingham NG2 3HW United Kingdom
that the following machine complies with the appropriate basic safety and health requirements of the EC Directive based on its design and type, as brought into circulation by us.	
In case of alteration of the machine, not agreed upon by us, this declaration will lose its validity	
Machine Description:	Lawn Mower
Machine Type:	MX46SPE (1173C-3)
Rated voltage/power	230V~50Hz,1800W
Measured sound power level:	93.5dB(A)
Guaranteed sound power level:	96dB(A) Notified Body for EC Directive 2000/14/EC:0036 TÜV SÜD Industrie Service GmbH Westendstrasse 199 • 80686 München • Deutschland
Applicable EC Directives	EC Machinery Directive:2006/42/EC EC- Low voltage directive:2006/95/EC EC Directive of Electromagnetic Compatibility:2004/108/EC EC Directive of noise emission: 2000/14/EC&2005/88/EC
Applicable Harmonized Standards	EN 60335-1 EN 60335-2-77 EN 62233 EN 55014-1 EN 55014-2 EN 61000-3-2 EN 61000-3-11
Authorized Signature/Date	 Peter J. Chaloner 02-12-2013
Title of Signatory	Managing Director
Name and address of the person authorised to compile the technical file	Cobra Garden Machinery Henton & Chattell Ltd, London Road, Nottingham NG2 3HW United Kingdom