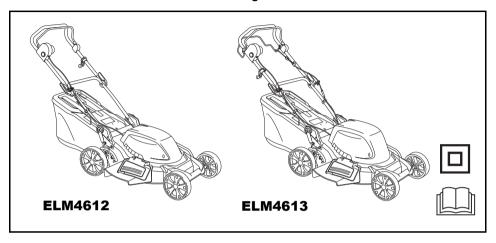
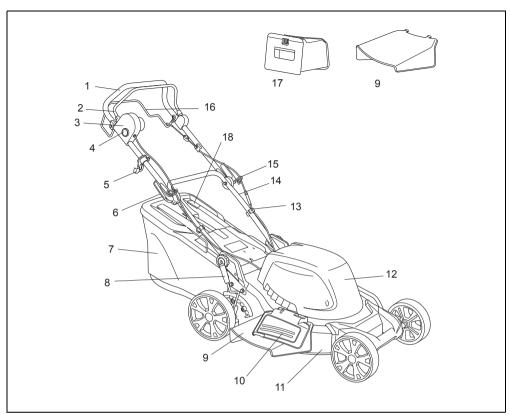


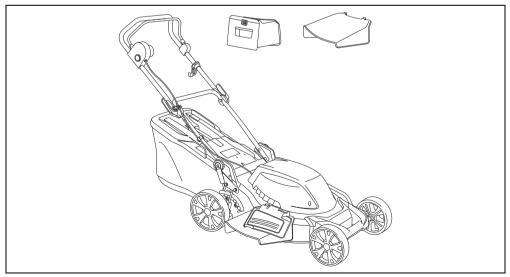
# **GB** Lawn Mower

# Original instruction manual

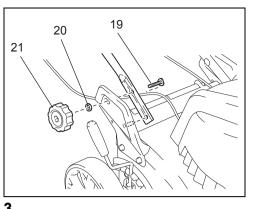


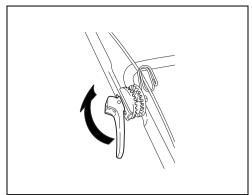


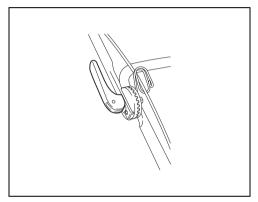
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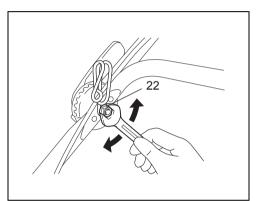


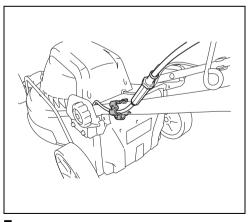
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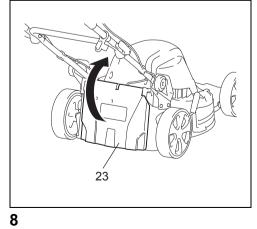


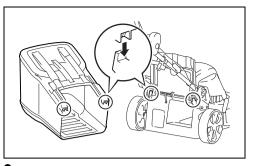


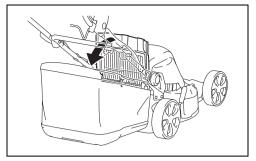


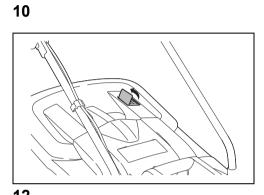


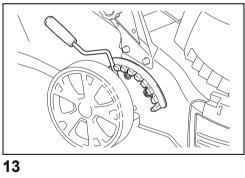


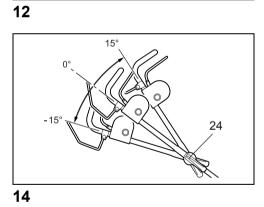


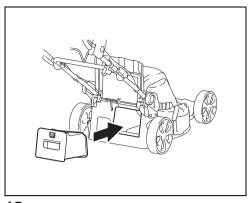


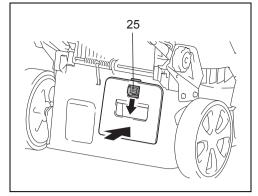


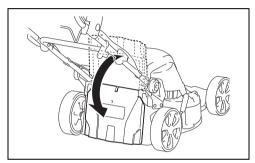


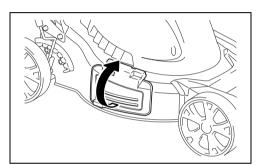




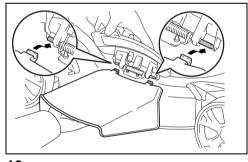


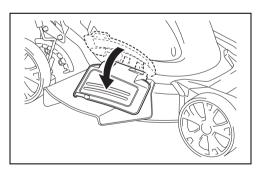


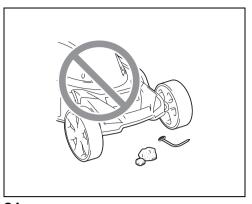


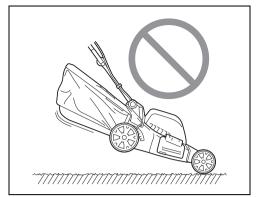


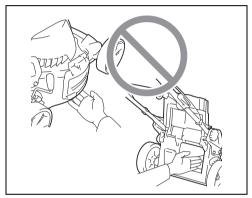
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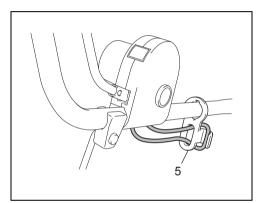




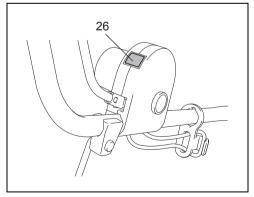


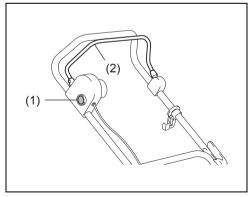


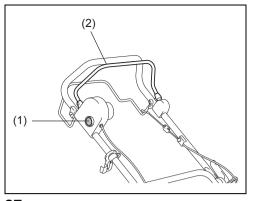


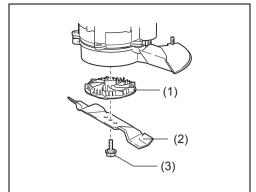


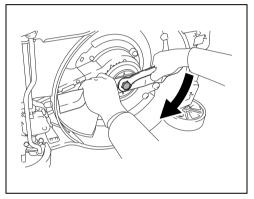
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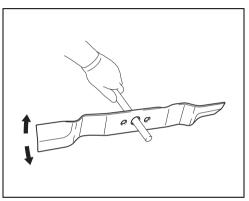




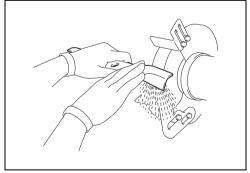








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#### **FNGLISH**

- 1 Upper handle
- Switch handle 2
- 3 Switch hox
- 4 Safety push-button
- 5. Cable hook
- 6 Locking lever
- 7. Grass catcher
- Height adjustment lever
- Discharge channel

# Explanation of general view

- 10. Sideward flap
- 11 Deck
- 12 Motor cover
- 13 Cable clamp
- 14. Lower handle
- 15. Cable fixing ring
- 16. Self-drive control handle
- 17. Mulching wedge
- 18. Level indicator

- 19. Bolt
- 20 Washer
- 21. Locking knob
- 22 Lock nut
- 23. Rear cover
- 24. The angle adjusting gear
- 25. Button
- 26. Indicator light

## KNOW YOUR I AWN MOWER

Read this manual carefully, observing the recommended safety instructions before, during and after using your lawn mower. Following these simple instructions will also maintain your lawn mower 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.



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



Keep the supply flexible cord away from the cutting blades.



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 SAFFTY 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: 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.

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: 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 wears 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.

- 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 lawn mower. Local regulations can restrict the age of the operator.
- 3) Never mow while people, especially children, or pets
- 4) Keep in mind that 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.

- 6) Thoroughly inspect the area where the equipment is to be used and remove all objects which can be thrown by the machine.
- Before using, 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.
- 8) Mow only in daylight or in good artificial light.
- Avoid operating the equipment in wet grass, where feasible.
- 10) Always be sure of your footing on slopes.
- 11) Walk, never run.
- 12) For wheeled rotary machines; mow across the face of slopes, never up and down.
- 13) Exercise extreme caution when changing direction on slopes
- 14) Do not mow excessively on steep slopes.
- 15) Use extreme caution when reversing or pulling the lawn mower towards you.
- 16) Stop the blade 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 lawn mower 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 lawn mower when starting switching on the motor, except if the lawn mower has to be tilted for starting. In this case, do not tilt it more than absolutely necessary and lift only the part which is away from the operator.
- 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 lawn mower while the motor is running.
- 23) Stop the motor and disconnect the plug:
  - before clearing blockages or unclogging chute;
  - before checking, cleaning or working on the lawn
  - after striking a foreign object. Inspect the lawn mower for damage and make repairs before restarting and operating the lawn mower;
  - if lawn mower starts to vibrate abnormally (check immediately).
- 24) Stop the mower:
  - whenever you leave the lawn mower.
- 25) Keep all nuts, blots and screws tight to be sure the equipment is in safe working condition.
- 26) Check the grass catcher frequently for wear or deterioration.
- 27) Replace worn or damaged parts for safety.
- 28) Do not use the lawn mower if the cords are damaged or worn.
- 29) Do not connect a damaged cord to the supply or touch a damaged cord before it is disconnected from the supply. A damaged cord can lead to contact with live parts.
- 30) Do not touch the blade before the machine is disconnected from the supply and the blade have come to a complete stop.

- 31) To keep extension cords away from the blade. The blade can cause damage to the cords and lead to contact with live parts.
- 32) To disconnect the supply (i.e. pulling the plug from the 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.
- 33) Children should be supervised to ensure that they do not play with the appliance.
- 34) 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.
- 35) If the supply cord is damaged, it must be replaced by a special cord or assembly available from the manufacturer or its service agent.
- 36) Instructions for the safe operation of the appliance, including a recommendation that the appliance should be supplied via a Residual Current Device (RCD) with a tripping current of not more than 30 mA.
- 37) Be careful during adjustment of the machine to prevent entrapment of the fingers between moving blades and fixed parts of the machine.
- 38) Always allow the machine to cool before storing.
- 39) When servicing the blades be aware that, even though the power source is switched off, the blades can still be moved.
- 40) Replace worn or damaged parts for safety; Use only genuine replacement parts and accessories.
- 41) Be careful during adjustment of the appliance to prevent entrapment of the fingers between moving blades and fixed parts of appliance.
- 42) 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. Do not use the appliance if the cord is damaged or worn.
- 43) 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.

# 3. PARTS DESCRIPTION (Fig. 1, Fig. 2)

# 4. TECHNICAL DATA

Model:	ELM4612	ELM4613
Rated voltage:	230 V~	230 V~
Rated frequency:	50 Hz	50 Hz
Rated power:	1,800 W	1,800 W
No load speed:	2,900/min	2,900/min
Cutting width:	460 mm	460 mm
Grass catcher capacity:	60 L	60 L
Net weight:	29.5 kg	32.5 kg
Degree of protection against liquid:	IPX4	IPX4
Height adjustment:	20-75 mm, 8 adjustment	20-75 mm, 8 adjustment

	ELM4612	ELM4613
Sound pressure level at operator's position	78.9 dB (A) K=3 dB (A)	78.9 dB (A) K=3 dB (A)
Measured sound power level	91.6 dB (A) K=1.94 dB (A)	91.6 dB (A) K=1.94 dB (A)
Guaranteed sound power level	96 dB (A)	96 dB (A)
Vibration	1.132 m/s <sup>2</sup> K=1.5 m/s <sup>2</sup>	1.132 m/s <sup>2</sup> K=1.5 m/s <sup>2</sup>

# 5. ASSEMBLY

### 5-1 ASSEMBLE THE FOLDING HANDLE

- Fix the lower handlebar onto the handle bracket with bolt, washer and locking knob. (Fig. 3)
- 2. Lift the two locking levers to connect the upper and lower handle. (Fig. 4)
- 3. Push the locking lever closed to lock the handlebars in the operating position. (Fig. 5)
- 4. Adjust the tension by turning the lock nut with a suitable spanner. (Fig. 6)
- 5. Position the cable over the handle shaft. Clamp it around the middle of lower handle by the cable clamp and make sure the cable is fixed around the outside of the handle. (Fig. 7) Otherwise the cable may be pinched by opening/closing the rear cover.

### 5-2 ASSEMBLE THE GRASS CATCHER

- 1. To fit: Raise the rear cover and hitch the grass catcher on rear of mower. (Fig. 8, Fig. 9, Fig. 10)
- 2. To remove: Grasp and lift the rear cover, remove grass catcher.

### **GRASS CATCHER**

There is a level indicator on the top of the grass catcher that shows whether the catcher is empty or full (Fig. 11, Fig. 12):

- The level indicator inflates if the catcher is not full during the moving. (Fig. 12)
- If the catcher is full, the indicator collapses. Once this happens, stop moving immediately and empty the catcher, make sure it is clean and ensure its meshwork is ventilated. (Fig. 11)

#### **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.

# 6. ADJUSTMENT OF CUTTING HEIGHT

Apply outward pressure to disengage lever from rack. Move lever forward or back to adjust height.

The height (the blade to the ground) can be adjusted from 20 mm (the lowest position) to 75 mm (the highest position), 8 height positions. (Fig. 13)

**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.
- Rotating the upper handle centered of the angle adjusting gear for adjusting an appropriate angle into the scope -15° to 15° (3 position: -15°/0°/15°) as the Fig. 14 shown.
- c) Push the locking lever closed to connect the lower handle and the upper handle.

### 8. FUNCTION

These lawn mowers can be retrofitted from its normal function, based on the application purpose.

From lawn mower with rear collection to:

Mulching mower or as

Side-discharge mower.

What is mulching?

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

Hints for mulch-mowing:

- Regular cut-back by max. 2 cm from 6 cm to 4 cm grass height.
- Use a sharp cutting knife.
- Do not mow wet grass.
- Set max. Motor speed.
- Only move at working pace.
- Regularly clean mulching wedge, housing inner side and mowing blade.

## Starting Operation

ONE: Retrofitting for mulching mower

**WARNING:** Only with a stopped motor and standstill cutter.

- 1. Raise the rear cover and remove the grass catcher.
- Push the mulching wedge into the deck. Lock the mulching wedge with the button into the opening on the deck. (Fig. 15, Fig. 16)
- 3. Lower the rear cover again. (Fig. 17)
- 4. Lift sideward flap and remove side discharge channel.

### TWO: Resetting for side-discharge mowing

WARNING: Only when motor and cutting are at standstill!

- 1. Lift the rear cover and remove the grass catcher.
- 2. Mount the mulching wedge.
- Lift sideward flap for side discharge. (Fig. 18)
- 4. Mount the side discharge channel for side discharge on the support pin of the sideward flap. (Fig. 19)
- Lower the sideward flap- the flap lies on the side discharge channel. (Fig. 20)

### THREE: Mowing with the grass catcher

**WARNING:** Only with a stopped motor and standstill cutter.

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

- 1. Removing the mulching wedge:
  - Lift rear cover and remove the mulching wedge.
- Removing the side discharge channel for side discharge:
  - Lift sideward flap and remove the side 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 forms of grass rest and stuck dirt.
- 3. Mount the grass catcher:
  - To fit: Raise the rear cover and hitch the grass catcher on rear of mower.
  - 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.
- Always stop the motor before removing the grass catcher or adjusting the height of cutting position.
- 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. 21)
- d) Never lift the rear of the mower while starting the motor or during normal operation. (Fig. 22)
- Never place your hands or feel underneath the underpan or into the rear discharge chute while the motor is running. (Fig. 23)

### 10. STARTING

Before connecting up the lawn mower to the electric power supply, make sure that the mains supply voltage is  $230 \text{ V} \sim 50 \text{ Hz}$ .

Before start the lawn mower, fix the extension cord into the cable hook. (Fig. 24)

When the lawn mower power on, the indicator light will turn on. (Fig. 25)

### Fig. 26 for ELM4612:

- a) Press the safety push-button (1).
- And meanwhile, pull the switch handle (2), and keep it in grasp.
- Push the lawn mower manually when the motor is running. If you release the switch handle, the motor will stop.

## Fig. 27 for ELM4613:

- a) Press the safety push-button (1).
- b) And meanwhile, pull the switch handle (2), and keep it in grasp.
- c) Grip the Self-drive control handle, the lawn mower will
  move forward automatically with about 1 m/s. 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 switched off.

**CAUTION:** The equipment is suitable for use only in a power supply which permissible modulus of system impedance is  $0.3536~\Omega$  or less.

### 11. BLADE

The blade is made of pressed steel. It will be necessary to reshape it frequently (with a grind 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 tightened to torque 20-25 Nm.

WARNING: For service, replace the blade with: MAKITA 263001461 for ELM4612 and ELM4613 only. (Fig. 28, Fig. 29, Fig. 30, Fig. 31)

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, ordinary duty with a cross sectional area not less than 1.0 mm<sup>2</sup>

Before using, check the supply and extension cords for signs of damage 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 cord 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, must contact Makita authorized 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.

### 14. TROUBLESHOOTING

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

F	,
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. Correct the cutting height.
Motor power drops	Correct the cutting height. Clean discharge channel/housing. Have mowing blade resharpened/ replaced → authorized service centre.
Grass catcher is not filled	Correct the cutting height. Allow the lawn to dry. Have mowing blade resharpened/ replaced — authorized service centre. Clean the grille on the grass catcher. Clean the discharge channel/housing.
Wheel drive does not function	Adjust the flexible cable. Check the V-belt/gears → authorized service centre. Check the drive wheels for damage.

CAUTION: Faults which cannot be rectified with the aid of this table may be rectified by Makita authorized service centre only.

# 15. ENVIRONMENTALLY FRIENDLY DISPOSAL



According to EU directive 2002/96/EC 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.

For European countries only EC Declaration of Conformity We Makita Corporation as the responsible manufacturer declare that the following Makita machine(s):

Designation of Machine: Lawn Mower Model No./Type: ELM4612. ELM4613

Specifications: See "4. TECHNICAL DATA" are of series production and

### Conforms to the following European Directives:

2004/108/EC, 2006/42/EC, 2000/14/EC & 2005/88/ EC, 2006/95/EC And are manufactured in accordance with following standards or standardized documents:

EN 60335, EN 62233, EN 55014, EN 61000

The technical documentation is kept by:

Makita International Europe Ltd.,

Technical Department,

Michigan Drive, Tongwell,

Milton Keynes, Bucks MK15 8JD, England

The conformity assessment procedure required by

Directive 2000/14/EC was in Accordance with Annex VI.

Notified Body:

TÜV SÜD Industrie Service GmbH

Westendstraße 199, D-80686 München, Deutschland

Identification Number: 0036

Model: ELM4612

Measured Sound Power level: 91.6 dB (A)

Guaranteed Sound Power level: 96 dB (A)

Model: ELM4613

Measured Sound Power level: 91.6 dB (A)

Guaranteed Sound Power level: 96 dB (A)

7. 1. 2013

- Diet

Tomoyasu Kato Director Makita Corporation 3-11-8, Sumiyoshi-cho, Anjo, Aichi, 446-8502, JAPAN

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