

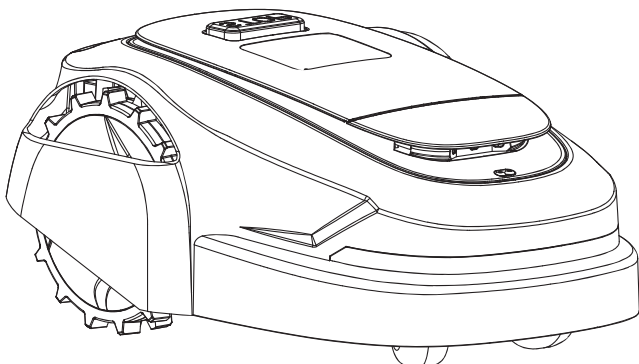


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Series By **MOWSION**

ROBOTIC LAWNMOWER

User Manual



TLM-H900/TLM-M600

⚠ WARNING

Read the User Manual carefully before use.

Make sure you understand all the instructions and safety warnings.

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About This Product

Thank you for choosing the TLM-H900/TLM-M600 lawnmower.

This product independently mows the lawn in a random pattern before returning to its charging station to charge the battery by navigating along the boundary wire.

The product is lightweight, and works on the lawn without damaging the lawn. Collection of grass is not necessary because the ?ne grass clippings can serve as a natural fertilizer.

Any other improper use can cause danger even personal injury.

WARNING! For your safety, read the User Manual carefully before use.

GB 1. Safety Warnings

1.1 IMPORTANT!

READ CAREFULLY BEFORE USE. KEEP FOR FUTURE REFERENCE.

- Be sure to install and operate the mower according to the instructions.
- The mower has many built-in safety sensors, but safety risks still exist. Inform your family and neighbors about the risks for accidents or hazards.

When using the mower on a public lawn, or when your lawn is open to your neighbor or street, protect or fence the lawn, or put up a warning sign around the working area that says:

WARNING! Automatic lawnmower! Keep away from the machine! Supervise children!

- DO NOT repair the mower by yourself. Repair may interfere with the mower operations, resulting in serious injury and damage.

Please contact a qualified specialist and use the approved parts and accessories.

WARNING

Never allow children, persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge or people unfamiliar with these instructions to use the machine. Local regulations may restrict the age of the operator.

Before Mowing:

- Before each mowing session, check that all parts of the mower can function normally.
- For the best mowing results, it is recommended to mow in dry weather. Mowing in the rain can make the grass stick on the product and the mower may slip. DO NOT mow in bad weather, such as heavy rain, thunderstorm or snow.
- Periodically inspect the area where the machine is to be used and remove all stones, sticks, wires, bones, and other foreign objects. The Limited Warranty does not cover damages caused by objects left on the lawn.
- To avoid possible damage, keep the operating mower at least 1 m (3 feet) away from sprinkler heads. The mower and the sprinkler should NOT work simultaneously. Time the mower so that it works at a different time from the sprinkler.
- NEVER allow children to touch the power supply unit, charging station, blades, the battery compartment, or any parts with gaps such as the wheels.

When Mowing:

- Keep away from the rotating blades! DO NOT put hands or feet under or near the rotating blades.
- Watch out for throwing objects! Keep a safe distance from the mower when operating.
- DO NOT leave the machine to operate unattended if you know that there are pets, children or people in the vicinity.
- DO NOT overreach. Keep your balance at all times and always be sure of the footing on slopes. Walk, never run while operating the machine or its peripherals.
- Instructions on when, where, and how to inspect the machine and its peripherals, connecting cords, and extension cords for signs of damage or aging and, if permitted, how to make repairs.
- A note not to connect or touch a damaged connection line to the power supply before it is disconnected from the power supply, because damaged connection lines can lead to contact with active parts.
- Connect the machine and/or its peripheral devices only to supply circuits protected by protected by a residual current device with a tripping current of not more than 30 mA
- The device must not be used at altitudes higher than 2000 m.
- A note not to lean forward when operating the machine and its peripherals, and always to maintain balance and a firm footing on slopes; and always to walk and not to run.

WARNING! If the mower makes an abnormal sound, abnormally vibrates, or signals an alarm, press the STOP button immediately.

WARNING! DO NOT touch moving dangerous parts before the mower is powered off.

WARNING! Do not touch moving dangerous parts before they have come to a complete standstill.

WARNING! Ensure that you always wear sturdy shoes and long trousers when operating the machine.

WARNING! Cut off the power:

Before blocking it;

Before the machine is tested, cleaned or processed;

Before cleaning foreign objects in the machine;

When the machine starts to shake violently, please stop the machine immediately for inspection.

1.2 Symbols and Decals

Please study the symbols on the product and labels carefully and understand their meaning:



⚠ WARNING-Read instruction manual before operating the machine.



⚠ WARNING-Do not touch rotating blade.



⚠ WARNING-Keep a safe distance from the machine when operating.



⚠ WARNING-Do not ride on the machine.



⚠ Remove (or operate) the disabling device before working on or lifting the machine*. * Make sure the mower is locked by the PIN code before lifting or operating.



⚠ WARNING-It is not permitted to dispose of this product as normal household waste. Ensure that the product is recycled in accordance with local legal requirements.



This product conforms to the applicable EC Directives.

RoHS

This product conforms to the regulations of Restriction of Hazardous Substances.



Before charging, read the instructions.



Class II appliance



SMPS incorporating a short-circuit-proof safety isolating transformer (inherently or non-inherently)



SMPS (Switch mode power supply unit)

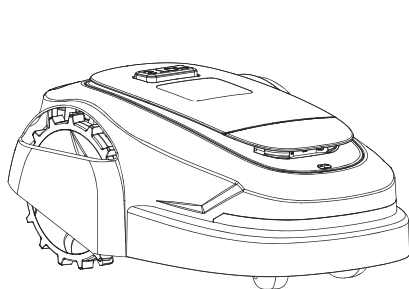


Direct current

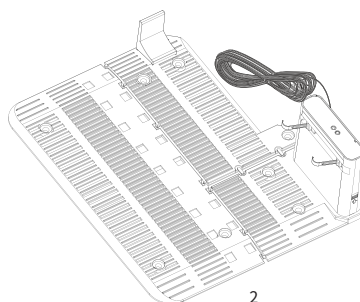


Alternating current

2.What's in the box?



1



2



3



4



5



6



8



9



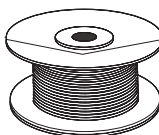
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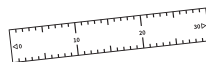
11



12



7



13

-
- | | | |
|---|---|------------------------|
| 1 Mower*1 | 6 Connection Clip*2 | 10 Battery Pack*1 |
| 2 Charging Station*1(includes
10m extension cord) | 7 Boundary Wire
(TLM-H900)*150m
(TLM-M600)*100m | 11 M4*12 Screws*3 |
| 3 Power Adapter*1 | 8 Blade*3 | 12 Hex Key*1 |
| 4 Boundary Wire Peg
(TLM-H900)*200
(TLM-M600)*150 | 9 Instruction Manual*1 | 13 Measurement Gauge*1 |
| 5 Charging Station Fixing Screw*6 | | |

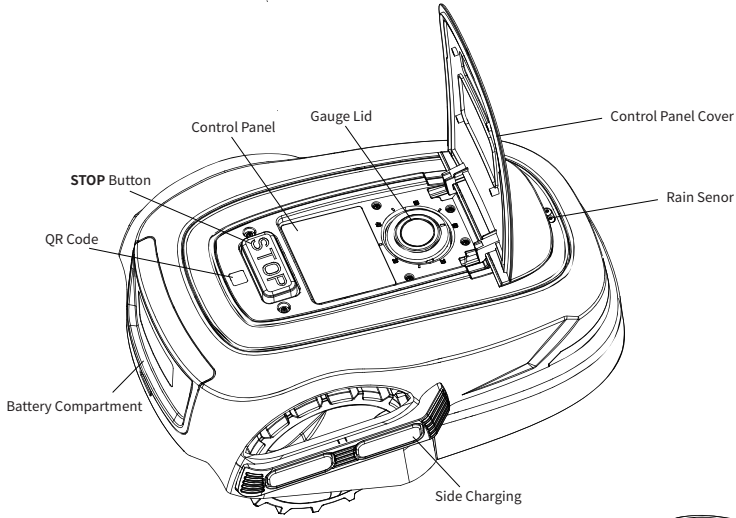


Fig.1

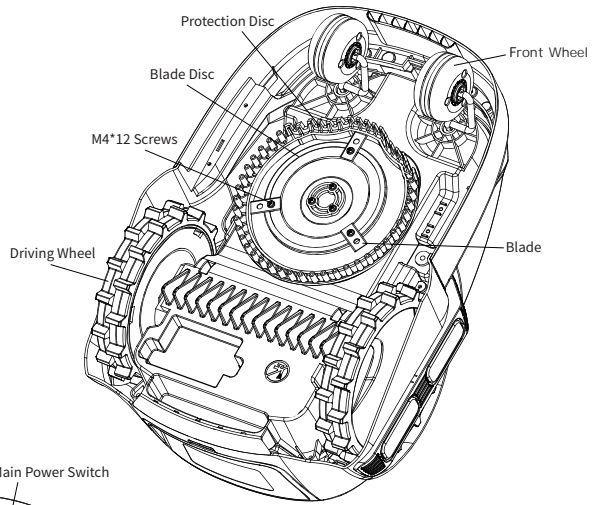


Fig.2

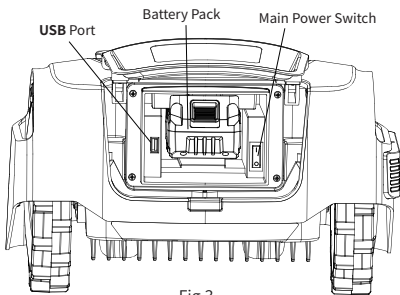
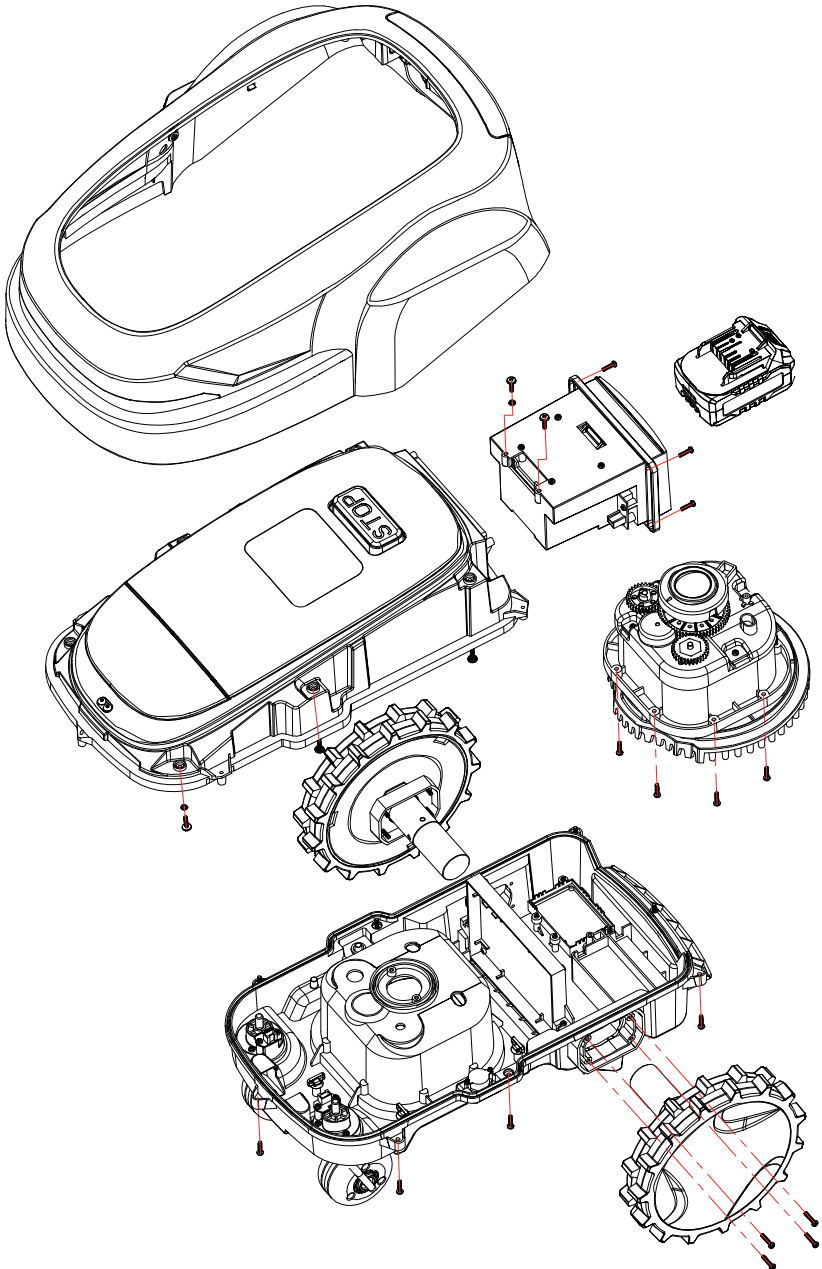


Fig.3

Exploded view



3. Installation

Read the whole section before starting the installation. Plan the installation carefully as inappropriate installation may affect the performance of the mower.

The main tasks of the installation process are as follows:

3.1 Planning and Preparation

Ensure that the following conditions are met in the working area of the mower:

- The height of grass is no more than 60mm.
- NOTE: If the original grass is higher than 60mm, please use a manual mower to cut your lawn in advance.
- No stones, loose pieces of wood, wires, live cables and other foreign objects.
- Level and flat working area, no ditch or trench, slope less than 30% (Fig.3-1)

The following tools are required for the installation process:

- Hammer (to drive pegs into the ground to fix the boundarylines).
- Hex key (to fasten the charging station).
- Set of pliers (to cut and set aside the boundarylines).

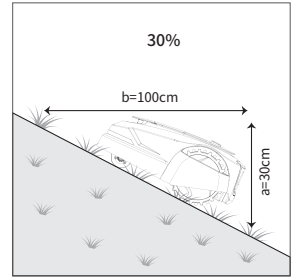


Fig.3-1

3.2 Select the Proper Location and Fix the Charging Station

The location of the charging station is as follows (Fig.3-2-1):

- A relatively flat and even area of the lawn.
- Near the border of the lawn.
- Close to the power socket on the wall.

(low-voltage cable length of 10m, a cool and dry place for adapter, and no direct sunlight).

- At least 2m in front of the charging station should be unobstructed
- It is recommended to place the charging station in a dry and sheltered location.
- The power adapter is 30cm above the ground.

Fix the charging station to the ground using 6 Fixing screws (using hex key to fasten) (Fig.3-2-2).

NOTE: DO NOT tread or walk on the plate of the charging station.

NOTE: DO NOT make new holes in the plate of the charging station. Only use the existing holes in the charging station to secure it to the ground.

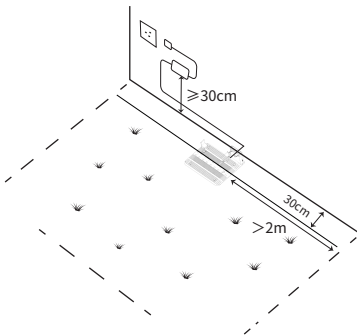


Fig.3-2-1

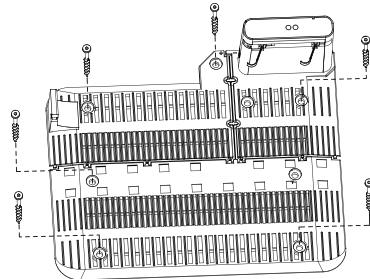


Fig.3-2-2

3.3 Lay the Boundary Wire

The boundary wire is used to define the mower's working area and guide the mower back to the charging station.
 NOTE: If your neighbour also uses a mower, keep a space of at least 1m between your boundary wire and your neighbour's.

Planning how to lay the boundary wire

Before laying the boundary wire, walk along the preset boundary to clear all the debris such as stones.

NOTE: The maximum permitted length for the boundary wire is 200m

WARNING! The mower must not run over gravel or similar material which can damage the blades.

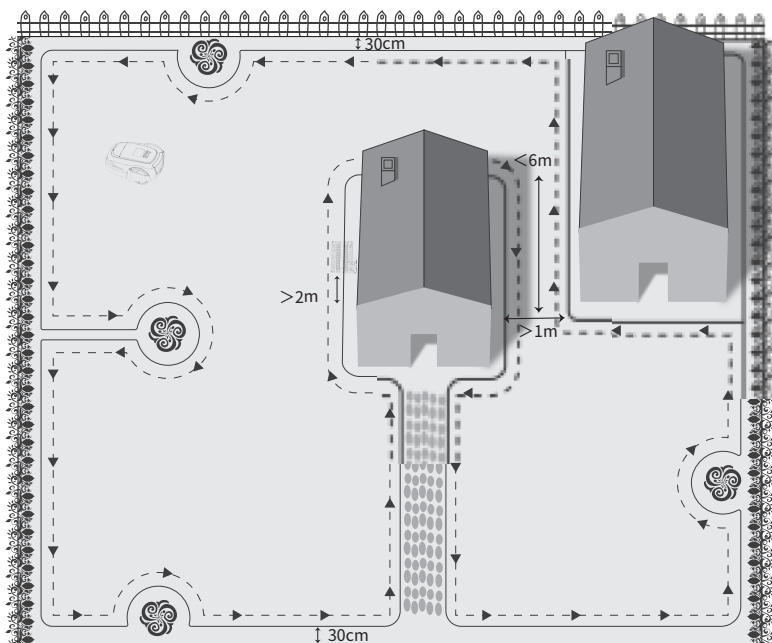


Fig.3-3-1

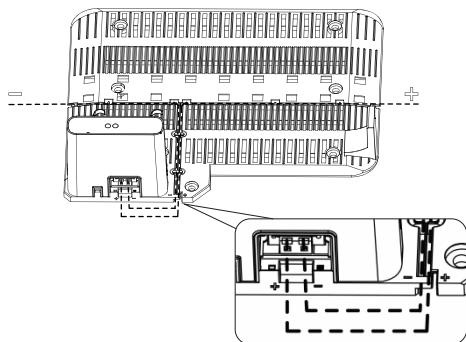


Fig.3-3-2

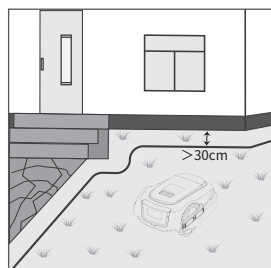


Fig.3-3-3

GB

Laying the boundary wire (Fig.3-3-1)

Follow the instructions listed as below to lay the boundary wire around the working area and around obstacles. Use the supplied measurement gauge in the box to lay the boundary wire properly.

NOTE: The boundary wire is powered with a very low voltage, and it is safe for humans and pets.

NOTE: Start from the "+" interface at the rear of the charging station (reserve 10cm) to lay the boundary wire anticlockwise around the lawn, and end the boundary wire at the "-" interface of the rear of the charging station (reserve 10cm). Make sure the boundary wire is in contact with the metals of the "+" and "-" interfaces and the extra boundary wire is cut off (Fig.3-3-2).

- Keep a straight path or driveway of at least 2m between the boundary wire for the mower and the charging station
- Make sure to keep a space of 30cm between the boundary wire and the edge of the lawn (Fig.3-3-3).
- Secure the boundary wire into the ground with supplied pegs. Keep the boundary wire straight and tight. It is recommended that each peg should be placed 1m apart (can be adjusted according to the specific lawn) (Fig.3-3-4).
- No acute or right angle for the boundary wire (Fig.3-3-5).
- Create perimeter islands to lay the boundary wire if there are flowerbeds, ponds, and trees in the lawn. Keep a space no less than 30cm between the boundary wire and their edges. The boundary wire is not crossed on its way to and from an island (Fig.3-3-6).
- Allow a narrow space in the working area of the mower. Make sure that the distance between the parallel boundary wires is greater than 1m (Fig.3-3-1).

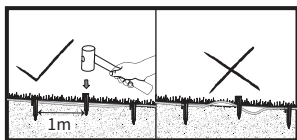


Fig.3-3-4

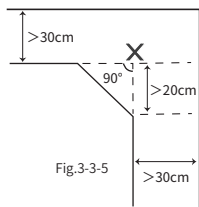


Fig.3-3-5

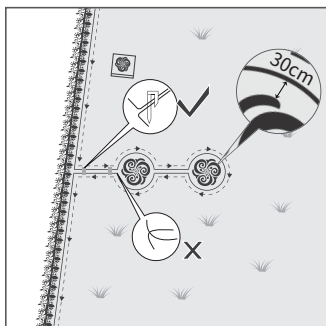
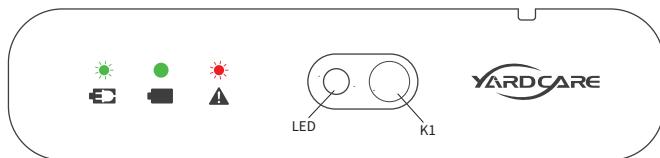


Fig.3-3-6

3.4 Initial Power-up of the Charging Station

1. Connect the power plug to a 100-240V wall outlet.
2. Check the LED status on the charging station:
 - Green, continuous: Successful connection (currently not charged or fully charged)
 - Green, flashing: The mower is charging.
 - Red, flashing: The common fault is "Boundary wire disconnection" (refer to page 13)
 - Off: The common fault is "No 100-240V power supply" or "Failure of connection to the power supply"

NOTE: When the battery is too low to turn on, try to activate the battery pack with a long press on the K1 button (operate under the guidance of a qualified specialist).



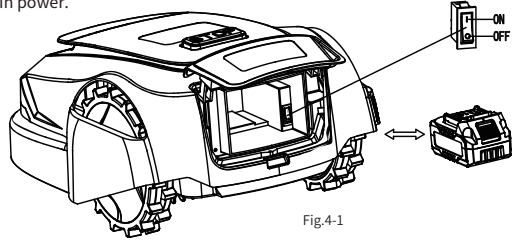
4. Operation

4.1 Switch On/Off the Main Power

1. Open the battery compartment (Fig.4-1).
2. Turn the switch to "O" position to turn off the main power.
3. Turn the switch to "I" position to turn on the main power.


4.2 Install the Battery Pack

1. Open the battery compartment.
2. Turn off the main power switch the install the battery pack.



4.3 Start/Stop the Mower

Start:

1. Turn on the main power.
 2. Open the panel cover, long press the power button  to start.
- Note: When starting, do not shake the machine, so as not to start failure; if no, try again.

Stop:

Press the "STOP" button on the mower.

4.4 Turn off the Mower

First press the "STOP" button to stop the mower, then turn off the main power

NOTE: If you do not use the mower for a long time, unplug the battery pack and store it in a cool, dry place.

4.5 Adjust the Cutting Height

Before mowing for the first time, first set the mowing height to 60mm, and then adjust it to the desired height when the whole lawn is relatively flat.

- TLM-H900 series: Electric height adjustment (refer to Examples of Common Operations on page 10).
- TLM-M600 series: Clockwise rotation to increase the cutting height; counterclockwise to decrease the height (Fig 4-4).
- The cutting height of the mower can be adjusted from MIN (20 mm) to MAX (60 mm).

4.6 Carry the Mower

Under the battery compartment base of the mower, a lifting handle is reserved for easy one-handed handling of the mower (Fig.4-6).

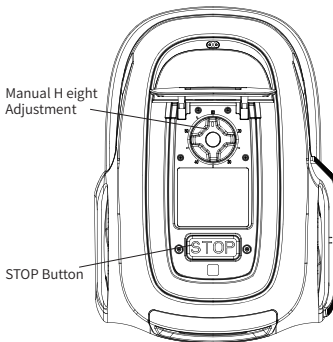


Fig.4-4

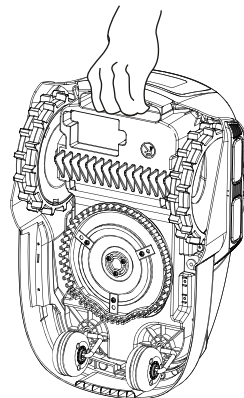
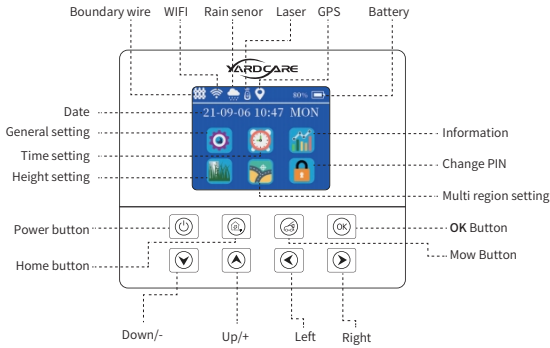
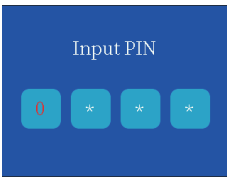


Fig.4-6

4.7 Operate the Mower 1. Control Panel



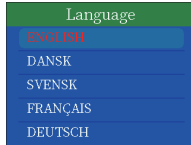
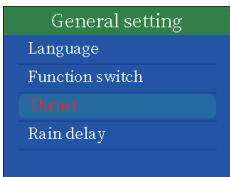
2. Enter PIN code



PIN code: Default PIN code is 1234

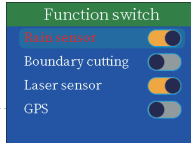
- : Left/Right
- : Up/Down
- : OK

3. General setting



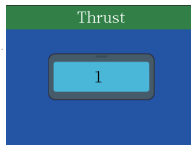
Language setting: Including English, French and others

- : Up/Down
- : Return
- : OK



Function switch: Including rain sensor, boundary cutting, laser sensor, and GPS (no laser sensor in TLM-M600)

- : Left/Right to Off/On
- : Return
- : OK



Boundary: Thrust: Set the driving wheel torque (The fifth gear is the largest)

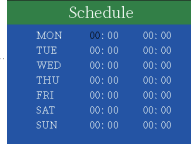
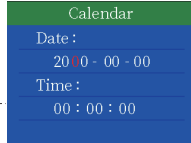
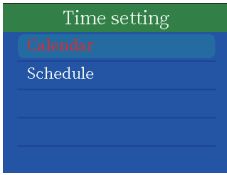
- : Up/Down
- : Return
- : OK



Rain sensor: Set the rain delay working time

- : Left/Right
- : Up/Down
- : Return
- : OK

3. Time setting



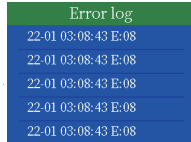
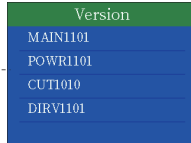
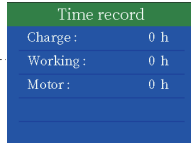
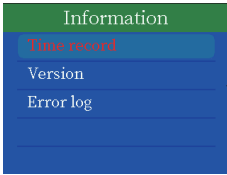
Calendar: Set date and time

- : Left/Right
- : Up/Down
- : Return
- : OK

The first time when modifying, press button before the font turns red Schedule(/day) :Set the starting working time and working hours

- : Left/Right
- : Up/Down
- : Return
- : OK

4. Information



Time record: Time of charge, working, and motor

- : Return

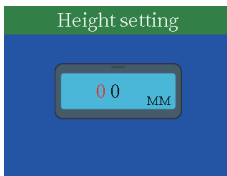
Version

- : Return

Error log

- : Page Up/Page Down
- : Return

5. Height setting



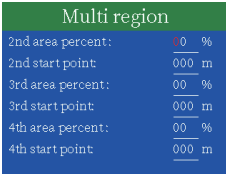
Height setting: Electric adjustment in the range of 20-60mm

NOTE:

TLM-H900 for electric adjustment
TLM-M600 for manual adjustment

- : Left/Right
- : Up/Down
- : Return
- : OK

6. Multi region

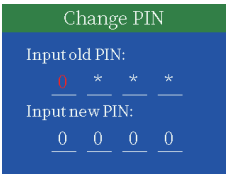


Up to four regions. Each region can be proportionally allocated the working hours of the day, and the location of the wire point after leaving the charging station can each be set. The location of the wire point of region 1 is fixed, about 1m away from the charging station. The working hour is the remaining percentage after other areas are occupied.

Start point **m: The distance traveled clockwise along the boundary wire from the charging station
 Area percent **: Percentage of working hours in the current region



7. Change PIN



Change PIN code: ranging from 0000 to 9999

NOTE: Default code is 1234



8.Examples of Common Operations:

Shortcut operations in the Home screen:

Autonomous charging of the mower: → /Directly close the panel cover

Autonomous mowing of the mower: → /Directly close the panel cover

Mowing height adjustment (Only for TLM-H900): →

(Enter the height setting menu, refer to 5. Height Setting in page 11 in this manual.)

NOTE: Electric adjustment can be performed in the range from 20mm to 60mm.

8.Mobile APP

APP Download

Go to the Google Play Store (Android) or the Apple App Store (iOS) and search "yardcare".

After installing the app, please register and log in.

See APP operation guide: [https://api.yardcaremower.com/front/doc/yardcare app user manual.doc](https://api.yardcaremower.com/front/doc/yardcare%20app%20user%20manual.doc)

5. Maintenance

WARNING! Always main power switch the mower off before cleaning and maintaining the mower.

WARNING! Unplug the power supply before cleaning and maintaining the charging station.

WARNING! Always wear protective, heavy gloves when changing the blades and cleaning the underside of the mower

- Regularly check screws and nuts for proper tightness. Maintain or replace defective parts to ensure safety.
- Regular inspect the blades to ensure free rotation.

NOTE: When turning the mower over, place it on the lawn or a softer surface to avoid wearing and scratching the cover.

5.1 Cleaning

WARNING! Turn off the main power switch before cleaning.

- Use a low-pressure washer and a soft brush or towel to clean the front part (Fig.5-1-1, Fig.5-1-2).
- Use a hard brush to clean the grass clippings and debris from the blades, wheels and other parts on bottom.
- Regularly check the rain sensors and wheels for mud or grass clippings and clean them with a brush.

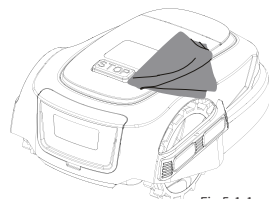


Fig.5-1-1

NOTE: DO NOT wash the underside of the mower with water.

NOTE: Clean weeds on the underside of the machine regularly, so as not to affect the efficiency of grass cutting.

NOTE: Clean dust and sundry matter at the laser mirror surface regularly to avoid misjudgment by the machine (Fig. 5-3)

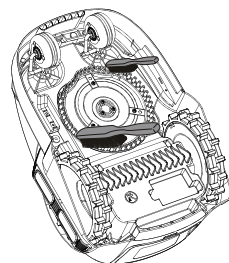


Fig.5-1-2

5.2 Replace the Blades

WARNING! Turn off the main power switch and put on protective gloves first.

WARNING! Only use the original and designated blades as approved.

- Replace all three blades and their screws at the same time when replacing (Fig. 5-2)
- Use a screwdriver to loosen or fasten the screws.
- Check if the new blades can pivot freely.

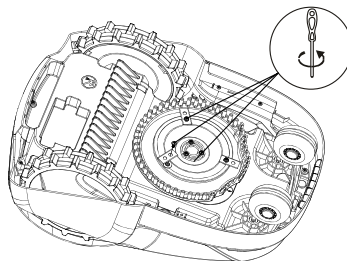


Fig.5-2

5.3 Replace the Battery Pack

WARNING! Turn off the main power.

WARNING! Use only the original battery pack as specified.

- Open the battery compartment.
- Turn off the main power switch.
- Take out the battery pack and replace it with a new one.

5.4 Upgrade USB

- Open the battery compartment.
- Insert USB upgrade disk (FAT format).
- Automatic update and upgrade upon powered on

Recycling Symbol



Please dispose of used batteries in accordance with the environmental regulations in your jurisdiction.

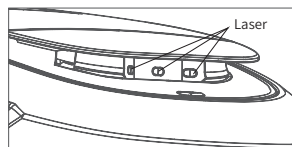


Fig.5-3

6. Troubleshooting

The following chart offers a guide to help identify an issue.

If possible, repair by yourself. When the problem cannot be solved, consult an authorized dealer or repairer.

WARNING! Please take protective measures.

Issue	Possible Causes	Solutions
The charging station is red flashing.	The boundary wire is broken.	Check and repair the damaged boundary wire section.
The mower has difficulty docking with the charging station.	The charging station is not properly installed.	Refer to Page 6.
	The boundary wire is not properly laid.	Refer to Page 7-8.
No boundary wire signal.	No power.	Check the power supply.
	The boundary wire is reversed.	Swap the "+" and "-" interfaces.
	The boundary wire is not connected to the charging station.	Check the boundary wire for proper connection to the charging station.
	The boundary wire is broken.	Check if the entire boundary wire is broken.
	The boundary wire is crossed on its way to and from an island.	Check if the boundary wire is correctly installed.
The mower goes outside the boundary.	The boundary wire is reversed.	Swap the "+" and "-" interfaces.
Abnormal vibration or abnormal sound of lawn mower.	The blade is damaged or missing.	Replace the blade.
	The knife dish is loose.	Check and repair blade fastening screws

When there is an abnormality, an error code is shown in the app. Below is a list of the the error codes, what they mean and what to do:

Error Code	Meaning	Solution
E01	FLASH initialization error	Restart the mower and try again. Contact after-sales service if the problem persists.
E02	Laser sensor initialization error	
E03	WIFI initialization error	
E04	Gyroscope initialization error	
E05	Initialization error	
E06	Panel cover warning	Check the panel cover. Whether misplaced and does it correctly.
E07	Power board communication error	Restart the mower and try again. Contact after-sales service if the problem persists.
E08	Slope warning	Press the STOP button and place the mower in the upright position on a flat surface.
E09	Electric height adjustment error	Check if there are any obstacles. Or restart the mower and try again. Contact after-sales service if the problem persists.
E10	Off-ground warning	Press the STOP button and place the mower in the upright position on a flat surface.
E11	ADC channel fault	Restart the mower and try again. Contact after-sales service if the problem persists.
E12	Abnormal signal	Refer to "No boundary wire signal" in the table above.
E13	Stuck warning	Press the STOP button and move the mower on a flat surface.
E14	Software interrupt	Restart the mower and try again. Contact after-sales service if the problem persists.
E20	Continuous failure of left and right wheel motors	Press the STOP button and move the mower on a flat surface. Or check if there are any obstacles. Or restart the mower and try again. Contact after-sales service if the problem persists.
E25	Motor communication error	Restart the mower and try again. Contact after-sales service if the problem persists.
E27	Motor start failure	Increase the height of cut. Or check if there are any obstacles. Or restart the mower and try again. Contact after-sales service if the problem persists.
E29	Motor software error	Restart the mower and try again. Contact after-sales service if the problem persists.
E30	Left wheel motor communication error	
E33	Left wheel motor Hall error	
E34	Left wheel motor software error	
E35	Right wheel motor communication error	
E38	Right wheel motor Hall error	
E39	Right wheel motor software error	

7. Specifications

Model No.	TLM-H900	TLM-M600
Feature		
Cutting area	900m ² (9600sq ft)	600m ² (6500sq ft)
Appearance & Color	Selectable	Selectable
Function Settings	TFT-LCD Keyboard & APP	TFT-LCD Keyboard & APP
Cutting Height Settings	Electronal	Manually
Charging Interface Type	Sideward Charging Interface	Sideward Charging Interface
Obstacle Detection	Laser & Intelligent resistance detection	Intelligent resistance detection
Safeguard	Liftoff / Slant / Emergency Stop	Liftoff / Slant / Emergency Stop
Battery Settings	Pluggable Battery	Pluggable Battery
System upgrade	OTA or USB	OTA or USB
Functions		
Multi Area Mowing	4 Area	4 Area
Intelligent Scheduling	●	●
Boundary Collision	●	●
Rain Sensor	●	●
Rain Sensor Delay	●	●
GPS	●○	N/A
Cutting Height	20-60mm	20-60mm
Cutting Diameter	180mm	180mm
Hill Capability	Max slope 20 degree	Max slope 20 degree
APP Control	IOS or Android	IOS or Android
Upgrade Interface	WIFI or USB	WIFI or USB
Motor Type	BLDC	BLDC
Error Message Record	●	●
Multiple Language	●	●
PIN Settings	●	●
Time Synchronization	●	●
Gyroscope	●	●
Spiral Cut mode	●	●
Straight Cut mode	●	●
Emergency STOP Switch	●	●
Cuts to Edge	●	●
Self-charging management	●	●
Virtual line abnormal alarm stopped	●	●
Battery		
Type of battery	Lithium	
Rated voltage	20V	
Battery capacity	2000mAh/4000mAh	2000mAh/4000mAh
Charging time	80mins/150mins	80mins/150mins
Average working time	60mins/120mins	60mins/120mins
Charge Parameters		
Input	110-240V AC,50/60Hz 40W	
Output	20V 2A	
Water proofed	IPX4	
other parameters		
Certificate	GS&CE&RoHS	GS&CE&RoHS
Measurement	570x406x264 mm	570x406x264 mm
Weight	10.2kg	10.2kg

8.Warranty

This Warranty covers only defects of any material or quality of the Product and components when the Product and components thereof are being used under normal and ordinary conditions.

The Limited Warranty Period of two years commences on the date of the original purchase of the Product.

This Limited Warranty does not cover and excludes damage to your product or any component thereof caused by:

- The normal deterioration of wear and tear parts
- Improper battery storage or operation of the Product
- Use of any non-original battery
- Service, repair, and maintenance by unauthorized providers
- Others

9.EC Declaration of Conformity

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