

# ROBOMOW

- **READ CAREFULLY BEFORE OPERATING YOUR ROBOMOW®**
- **IT IS IMPORTANT TO READ AND FOLLOW THE WARNING AND SAFETY INSTRUCTIONS THAT APPEAR, FOR YOUR CONVENIENCE, ON THE LAST PAGE OF THIS MANUAL. IF SOMEONE OTHER THAN YOU IS GOING TO OPERATE ROBOMOW - MAKE SURE THEY READ AND FOLLOW ALL SAFETY INSTRUCTIONS AND WARNINGS.**

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### INTRODUCTION

Congratulations! You have just purchased an advanced and sophisticated home lawn-mowing robot. We feel sure that you will enjoy many years of efficient operation. Please note that this model is intended for home use only. Do not use it in public areas or for commercial use. **It is essential to watch the accompanying video before installation, in order to be familiar with the robot's components and operation.**

If you have any questions about ROBOMOW that are not answered in this book, please contact your local ROBOMOW distributor, or visit Friendly Machines web site [www.robomow.com](http://www.robomow.com).

The ROBOMOW is easy to use. It does not contain a grass collector which needs to be emptied, nor does it require the operator's presence during operation.

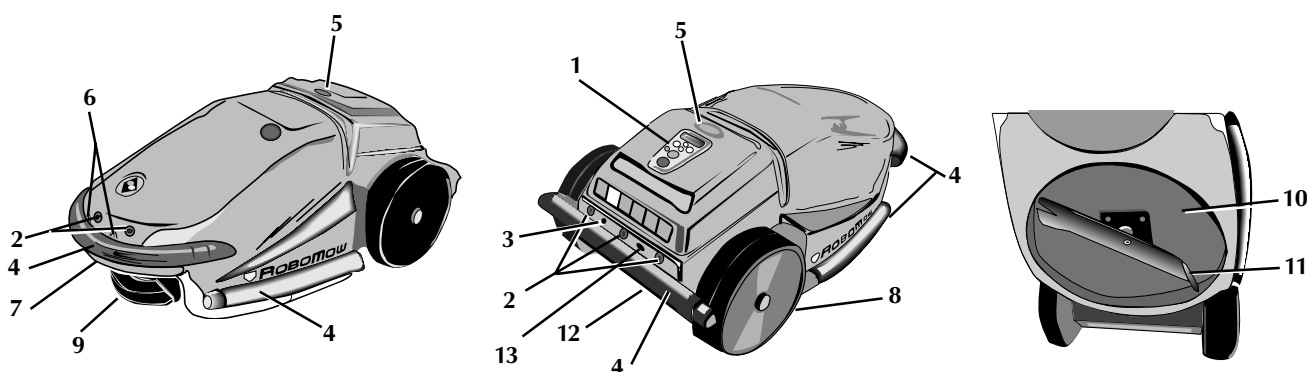
This is a "green" machine, programmed to cut a few centimeters of grass each time, and to insert the mown grass down and in between the grass blades, to be recycled as compost. The ROBOMOW is supplied fully equipped and ready for action immediately upon unpacking. However, some preparations must be made in the lawn before it can be used for the first time.

The ROBOMOW uses Friendly Machines' unique SharpScan™ technology.

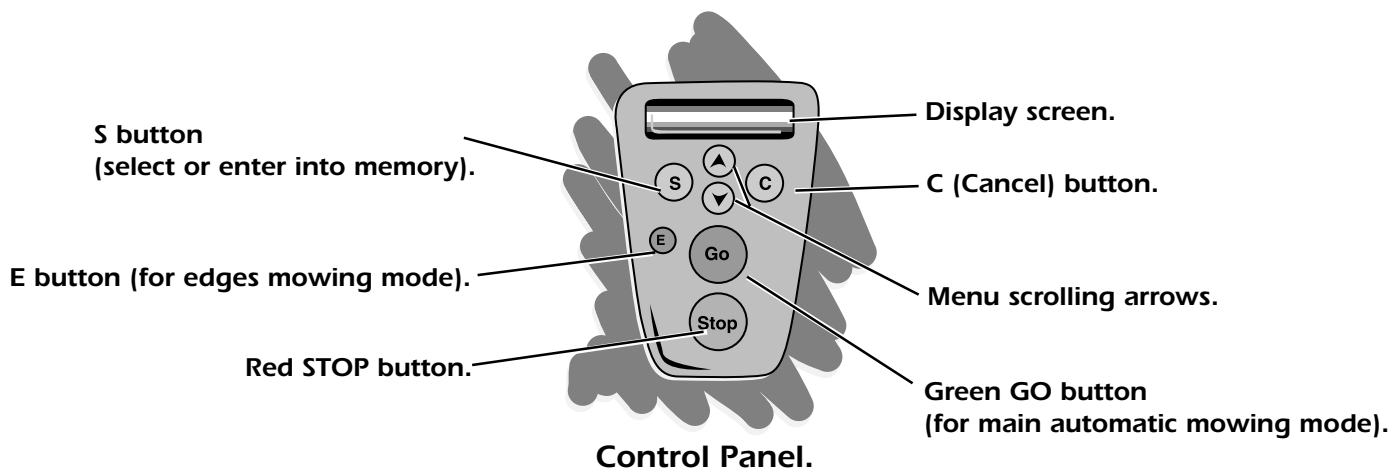
The SharpScan™ is a small electronic unit, the machine's brain, which systematically handles spaces. The SharpScan™ learns and refers to the conditions of the area, its perimeter and obstacles while operating, and therefore has no need for prior knowledge of the working area.

**Robots, in general, can be dangerous. Make sure you understand the safety instructions in this book, and act accordingly.**

### DESCRIPTION OF THE ROBOMOW



- |  |   |
|--|---|
| 1. Control panel with display screen.                          | 7. Front handle (under the front bumper). |
| 2. Ultrasonic proximity sensors (front and back).              | 8. Back wheels.                           |
| 3. Charging / manual control/ enabler socket.                  | 9. Front wheel (height adjustable).       |
| 4. Bumpers - contact pressure sensors (front, back and sides). | 10. Mowing deck.                          |
| 5. Operating light.  | 11. Mowing blade.                         |
| 6. Tow switches.   | 12. Rear handle (under the rear bumper).  |
|  | 13. Emergency stop.                       |



## UNPACKING

The ROBOMOW is provided with the following items:



1. Yardstick.



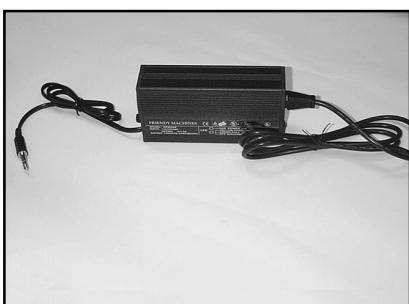
2. Manual controller.



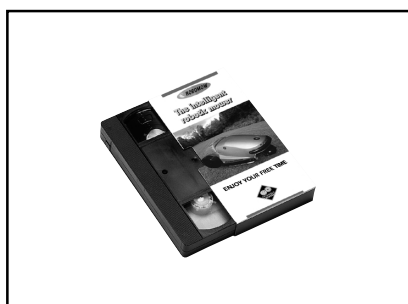
3. Perimeter switch.



4. Pegs and perimeter wire.



5. Charger.



6. Video tape.

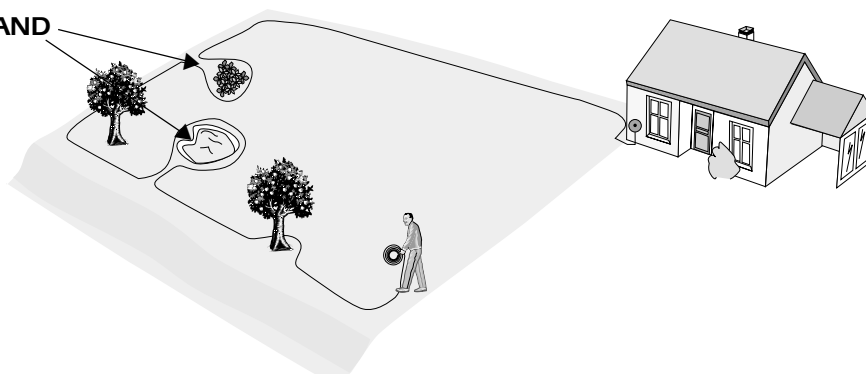
- **Yardstick:** For setting the perimeter wire at the correct distance from the lawn edge.
- **Manual controller:** For moving the ROBOMOW and for manual mowing.
- **Perimeter switch:** Transmits electrical pulses to the perimeter wire, which are interpreted by the ROBOMOW as a barrier not to be crossed.
- **Perimeter wire 650 ft (200 m.):** Serves to mark the lawn borders for the ROBOMOW's work, and as a guiding line for edge mowing.
- **Pegs (250 pegs):** Used for fixing the perimeter wire flush to the lawn.
- **Charger:** For rapid charging of the ROBOMOW.
- **Video tape:** Installation and operation. Watch this before installing and operating.

## PREPARING THE LAWN

1. Watch the attached video tape, to get to know the robot and its accessories.
2. Install 6AA batteries (alkaline only) into the perimeter switch, close the cover and mount the switch in a protected location on a shady wall, in a place sheltered from rain or irrigation, inside a shed, away from children's reach etc.
3. Lay the perimeter wire around the edges of the lawn, and around low or soft obstacles: ponds, flower beds, young trees, etc. This will prevent the ROBOMOW from entering or crossing an obstacle it cannot detect. This solution is called a Perimeter Island - an island the ROBOMOW can not enter. Do not include slopes exceeding 15 degrees in your perimeter wired area. These slopes will be mowed by Robomow, but on manual mowing mode. Measuring your slopes: Scroll to 'diagnostics', press 'S', scroll to 'Tilt', press 'S' and drive ROBOMOW on the lawn, using the manual controller. The tilt / slope degrees will be shown on the display. Press 'C' to get out of this menu.

## PERIMETER ISLAND

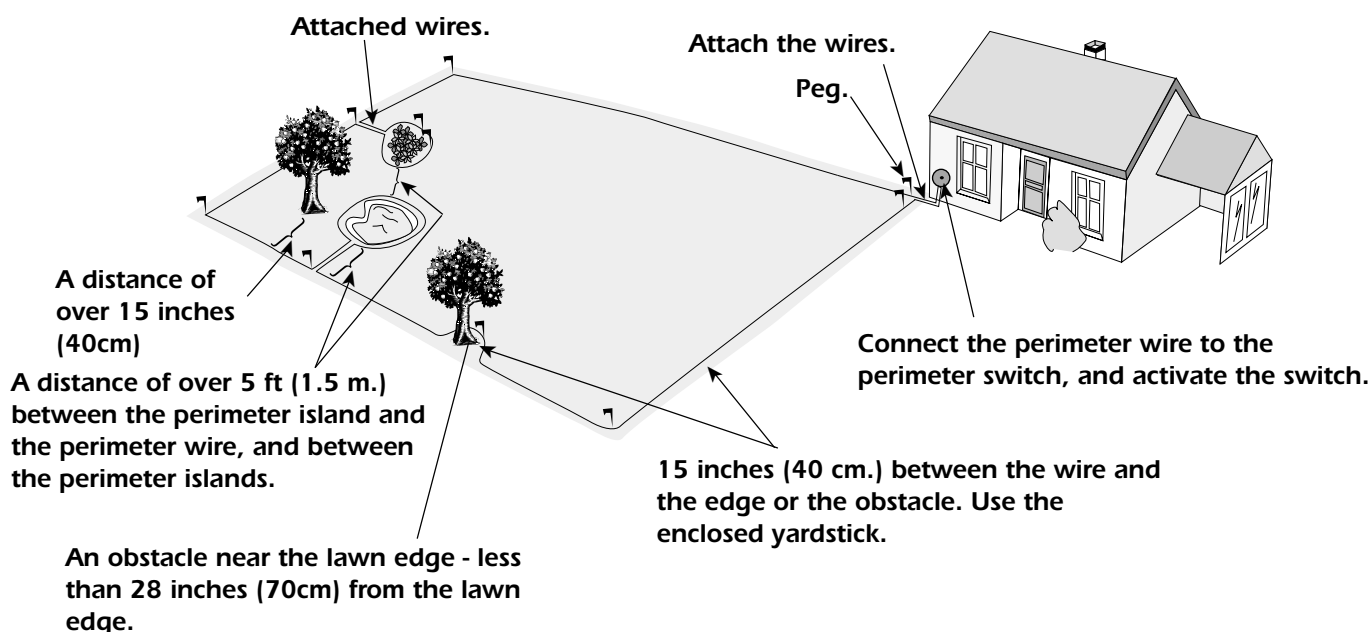
Slopes exceeding 15 degrees:  
Do not include in the perimeter wire area - will be mowed manually.



# Operation Guide

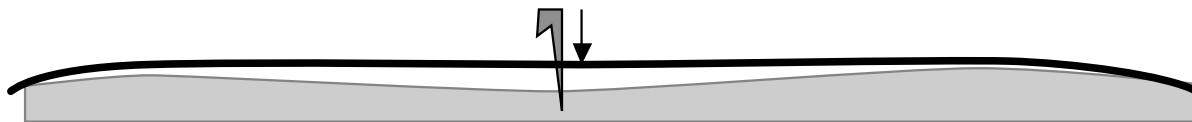
## Installation and

4. Lay the perimeter wire 15 inches (40 cm.) from the edge of the lawn, using the yardstick and pegs. Take care not to insert the pegs where there are electrical wires, communications wires, or water pipes within the soil. Use only the original plastic pegs, to eliminate the hazard of being electrocuted. Start at the corners of the lawn and spread the wire along the whole perimeter. Avoid creating corners sharper than 90 degrees since this may cause ROBOMOW cross the perimeter wire. At this stage, the wire should be accurately fixed around the perimeter islands. The two wires leading from the perimeter to the island should be parallel to and touching each other. It is recommended to use the same pegs for fixing them into the soil.



- Obstacles less than 3 ft (1 m) apart: Surround them both with perimeter wire, as a perimeter island, to prevent the robot from getting stuck between them.
- Insert the peg very deep, so that the wire is taut and will be invisible within the grass.
- Add pegs wherever the wire is loose or slightly raised above the grass, so that its entire length will be very closely attached to the lawn, and so that the wire will not cause tripping or be cut by the mowing blade.
- If the lawn borders on a road, sidewalk, public area, pond or sharp drop: It is advisable, as an additional safety measure, to set up a low fence around the lawn's border, to ensure completely that the ROBOMOW cannot enter these areas, damage itself or introduce a hazard to neighbours or the public.

Adding a peg where the wire is slightly raised.



### DIRECTION KEEPER CALIBRATION (D.K. CALIBRATION)

Direction Keeper (DK) calibration is a process which calibrates and orients ROBOMOW in a new area. It needs to be done only once in your garden, before ROBOMOW can be used. If you neglect to do this, ROBOMOW will not work in automatic mode and the display window will show "Calibration Required". DK calibration is done using the user panel located on the ROBOT'S battery cover. The Perimeter Switch

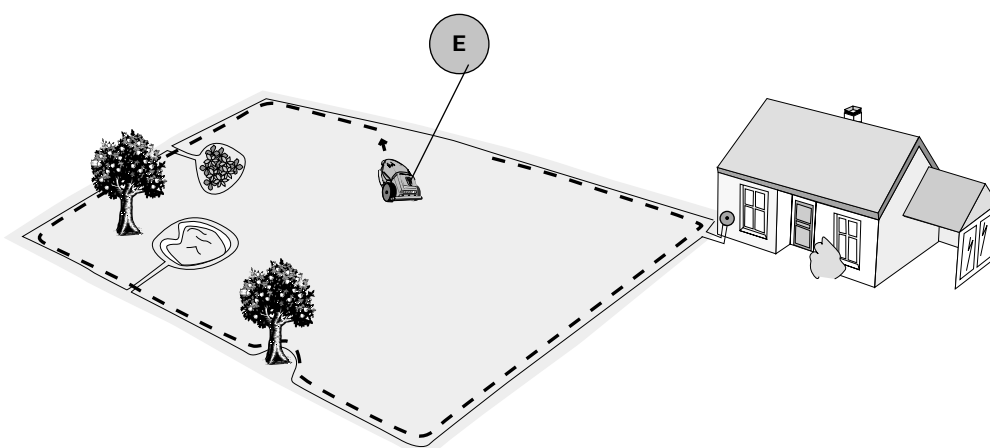
does not have to be turned on and has nothing to do with this process. Do it step by step as described below:

1. Plug the emergency stop (red) into its socket at the rear end of ROBOMOW and drive it out of the box.
2. Insert the manual controller into its socket in the rear and drive ROBOMOW to a flat, smooth area on your lawn, using the arrows in the manual controller.
3. Adjust the front wheel to the HIGH position by pulling its flat, scaled round plate, down and rotating until the HIGH writing is facing forward.
4. Unplug the manual controller. The message SharpScan will appear in the display.
5. Using the arrow keys (Up or Down), scroll through the menu until you reach the Maintenance option. When you reach it press "S" as indicated, in order to access its submenus.
6. Scroll through the submenus until you reach the DK Calibration option. Then press "S" to select it.
7. The display window will show 

**"DK Calibration"**  
**"S" to confirm**
8. Make sure no one is standing near ROBOMOW and press "S" again. Walk away from the ROBOT.
9. ROBOMOW will turn around twice (with one short stop) while calibrating the direction keeping system, indicating "wait" on the display window.
10. When it has completed the calibration process, a score between 0 to 100 will be indicated. A score above 60 is OK. Less than 60, retry at another spot on your lawn.
11. If the calibration was unsuccessful, (which may happen), the display window will show "Calibration failed" or "Retry elsewhere" followed by a beeping sound. You will then have to perform another calibration. Move ROBOMOW to another place on the lawn and repeat the process. Moving ROBOMOW just a few feet will suffice. Then, simply press "S" again, twice. If you wish to return to the main menu, press "C" (cancel).

## EDGE MOWING MODE

1. Turn on the perimeter switch by pressing the green ON button in its center.
2. Place the ROBOMOW on the lawn, 3 ft (1 m) from the perimeter wire, at an angle of 30-45 degrees leftward, for counterclockwise operation, as shown in the illustration below.
3. Press the green E button on the ROBOMOW's keypad. "Auto calibration" will show on the display for a few seconds, with short beeping sounds.
4. The ROBOMOW will identify the wire, approach it, locate itself over the wire, and will then start mowing. After one and a half to two circuits, the ROBOMOW will stop and wait for the next operation.



## MAIN AUTOMATIC MOWING MODE - SHARPSCAN 2

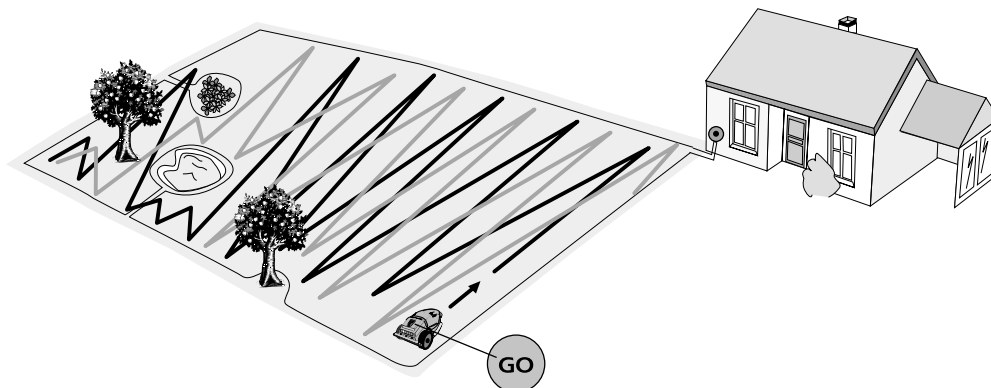
This mode is appropriate and recommended for all lawn types, including slopes, multiple obstacles, perimeter islands, etc.

1. Ensure that the perimeter switch is turned on: a red light should be flashing next to the word ON. If you hear a beep and a light lights up next to the words "Perimeter Disc", check the connections of the perimeter switch to the perimeter wire and the entire length of the perimeter wire.

# Operation Guide

## Installation and

- Place the ROBOMOW anywhere within the area defined by the perimeter wire, at least 7 ft (2 m) away from its front end.
- Press the green GO button on the ROBOMOW's keypad. "Auto calibration" will show on the display for a few seconds with short beeping sounds and then the robot will mow forwards and backwards, in triangular pattern, as shown in the illustration below. When reaching the perimeter wire at the other end of the lawn, it will change direction. The robot will continue mowing in this way until its batteries run down, or until the end of the defined time.
- The ROBOMOW will mow all around the obstacles in the lawn, both ordinary obstacles and those surrounded by the wire as perimeter islands.



### MOWING FREQUENCY AND DURATION - SHARPSCAN 2

The following table shows the mowing time and frequency required to maintain a well cared-for lawn, according to the mown area. These data should be taken as a recommendation, and the mowing frequency and time should be determined based on your experience after several mowing sessions. For lawns larger than 3800 sq. ft (350 sq. m.), we recommend performing several mowings day after day, to achieve a starting point of well mown grass, and then starting to mow according to the frequency recommended in the table.

Lawn size	2200 sq. ft (200 sq. m.)	3800 sq. ft (350 sq. m.)	7500 sq. ft (700 sq. m.)
Slow grass growth period (mowing with a normal lawnmower every 7 days)	Every 7 days. Set mowing time to two hours.	Every 7 days. Set mowing time to maximum - INF.	Every 4 days. Maximum mowing time, - INF.
Rapid grass growth period (mowing with a normal lawnmower every 4 days)	Every 4 days. Set mowing time to two hours.	Every 4 days. Set mowing time to maximum - INF.	Every 3 days. Maximum mowing time, - INF.

### Changing and setting the mowing time - 'work time'

When turned on (by pressing GO), the display shows

SharpScan 2

Scroll down with arrows



Press 'S' to enter the preferences menu

Preferences  
'S'

Scroll down with arrows



Press 'S' to change the mowing time

Work time INF.  
'S' to modify  
'S'

Change mowing time using the arrows



Press 'S' again to store the new mowing time in memory

'S'

Work time INF.  
min( ■ )max ↑

- The default mowing time in the factory settings is INF. This means: mowing until the batteries run down. In any case, there will always be enough power left in the batteries to move the robot back to the charging area.
- The ROBOMOW's starting position does not matter. Any location within the area surrounded by the perimeter wire, at least 7 ft (2 m.) from the perimeter wire, is suitable.
- Do not expect ROBOMOW to cut 100% of your lawn on any single operation. Good looking lawns are achieved by operating ROBOMOW frequently.

## SAFETY FEATURES

### Proximity sensors

There are three proximity sensors at each end of the ROBOMOW, front and rear. When operating, the robot transmits an ultrasonic "cloud" in the direction of its movement. If someone approaches the ROBOMOW'S path it will slow down, and when contact is made with the bumper it will identify the person as an obstacle and stop. The same applies to trees and others hard obstacles.

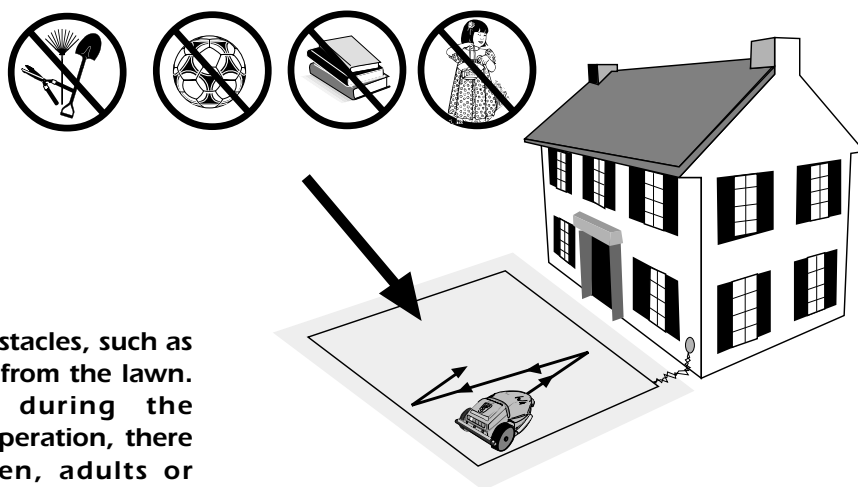
The sensors must be kept clean and unblocked.

### Contact sensors

These sensors are the ROBOMOW's four hollow rubber bumpers. If anything touches them while the ROBOMOW is active, it will stop immediately, move backwards and change direction, then continue its operation.

### Tilt sensor

If for any reason the robot is tilted at an angle of over 20 degrees during the main mowing mode, the mowing action will stop. This sensor is deactivated in manual mowing mode.



Remove any obstacles, such as stones or toys, from the lawn. Ensure that during the ROBOMOW's operation, there are no children, adults or animals on the lawn.

### Emergency stop

Pull the red stop only in emergencies! (Only if the ROBOMOW does not stop when you press the red STOP button). The emergency stop's location is marked in the picture on page 2.

## OPERATION

### Turning the robot on and off

The ROBOMOW can be turned on in one of the following ways:

- Pressing the GO button for at least one second.
- Inserting the safety immobilizer plug.
- Inserting the manual controller plug.
- Inserting the charger plug.

## Operation Guide

The ROBOMOW can be turned off in one of the following ways:

- Pressing the STOP button for at least 3 seconds.
- Automatically, if there is no movement for 30 minutes (except in charging mode).

In main mowing mode, the ROBOMOW's action can be stopped by pressing the STOP button.

### Maneuvering with the manual controller

- Insert the manual controller plug into the charging/accessories socket.
- When the manual controller is connected to the ROBOMOW, the red light on the manual controller will flash, and the display screen will show Manual.
- Use the arrow keys to move backwards and forwards, and press both for turning and moving at the same time.

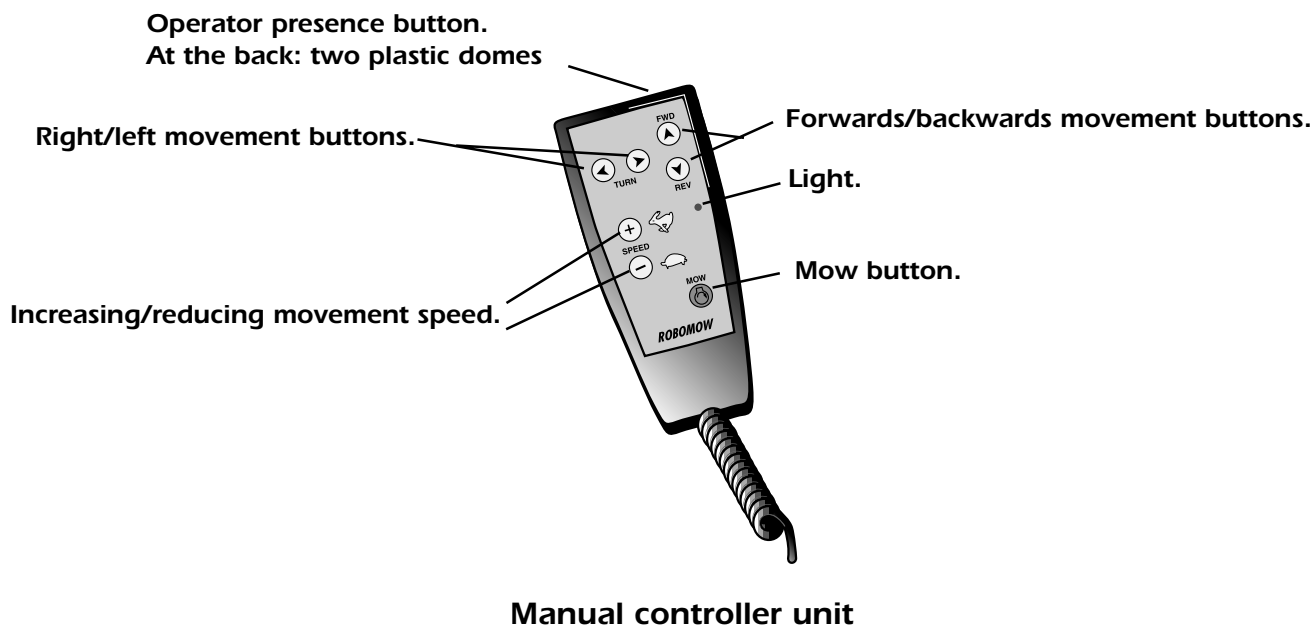
### Moving using the Tow switches

- Turn the robot on by pressing the GO button for one second.
- Lift the ROBOMOW diagonally using the front handle, located underneath the bumper. Move the ROBOMOW forwards or backwards using the appropriate Tow switches. It is recommend moving it backwards in normal maneuvering, and moving forwards, using both hands to hold the handle, when going up steps.
- Do not try to drag the robot without using the Tow switches. Such dragging causes mechanical and electrical damage to the robot.

### Manual mowing (using the manual controller)

- Insert the manual controller plug into its socket and press the Mow button. When the light on the manual controller turns off, press the front red button, or insert your finger in between the two red plastic domes at its back, and wait two seconds, until the mowing motor starts working. Now release the Mow button, but keep your finger on the front red button or in between the two red plastic domes at its back. If you remove this finger, the mowing blade will stop immediately.

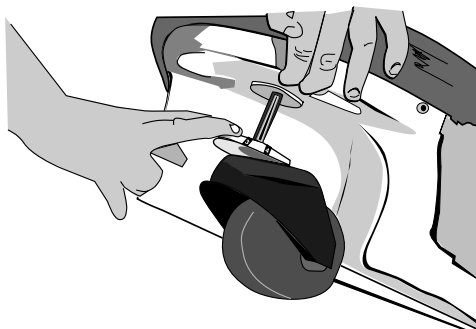
In this mode, the proximity sensors are turned off. However, if anything touches the bumpers, mowing will stop, until you start it again. Please note that in the manual mowing mode, the ROBOMOW is not a robot and functions only as a lawnmower. The operator has sole responsibility for safety. Always walk behind it.





## Adjusting the mowing height

Lift the ROBOMOW by the front handle. Pull down the height drum (above the front wheel). Turn the drum to the desired position (6 positions) and release it. The current height is that presented in the front facing position.



Height adjustment

## THE ROBOMOW'S CHARGING PROCESS

- Make sure the charger is set to the correct voltage for your country.
- The ROBOMOW must be fully charged after each use. Charging will take at most 16 hours (overnight).
- When the charger plug is connected to the ROBOMOW, and actual charging is in process, the message "Charging" will be displayed in the display screen.
- When the display screen displays the message " Fully Charged ", the ROBOMOW is ready for action.
- **Do not use the charger outdoors, where it may be exposed to rain or water, and thus become dangerous.**
- The ROBOMOW should be charged whenever it is not mowing.
- The charging process will stop automatically after 9 days and the display will become blank. To renew the charging, disconnect the plug and then reconnect it, or press the GO button.

## Charging during the winter/ in storage

Perform a full charge, and allow the process to stop after 9 days. Restart the charging after about 3 months.

### The charger's indicator lights (type: Rapid Charger, model: HP8204).

Red light:	Charger active.
Yellow light:	Charger connected to the ROBOMOW, and currently charging.
Green light:	Slow charging.

## PRACTICAL ADVICE

1. Young trees, or any other obstacles you do not want the robot to bump into, should be surrounded with wire and turned into perimeter islands.
2. If tree branches block the ROBOMOW's path, they should be removed. Or, the robot will treat them as an obstacle, and will not mow the grass near them.
3. Small lawns which cannot be mowed automatically by ROBOMOW, can be mowed using the manual controller. This is also true for small front gardens.
4. The best results are achieved when the grass is not too long. Therefore, it is recommended to mow the lawn regularly. If the grass grows long despite this, operate ROBOMOW at the maximum cutting height, then repeat the action at the desired height the following day, after fully charging the batteries.
5. If two neighbors operate their ROBOMOWS at the same time, a distance of at least 14 ft. (4 m) is needed between their adjacent plots, in order to avoid interference. This interference may cause ROBOMOW to cross out of the perimeter wire.

**CARE OF THE ROBOT**

1. Clean the robot with a damp cloth or a brush. Remove grass or any other waste which may have accumulated in the wheels or the mowing blade and deck.
2. Do not use the robot if you hear any unusual noise from the motor.
3. Always refer to this book to identify simple problems. Do not attempt to open the battery cover yourself, since this will immediately invalidate the product's warranty.
4. Do not set the robot to a low mowing height if the grass is long. Several mowing sequences may be required before the grass reaches the desired height.
5. Do not set the robot to a low mowing height if there are tree roots sticking out of the soil.
6. Exercise caution during difficult weather conditions. If there is water on the lawn, wait until the puddles are absorbed.
7. Do not use the ROBOMOW to drag any item.
8. Do not activate the robot if a lot of grass has accumulated around the back wheels. Clean and shake them first. Make sure the front wheel is also free of grass and waste.
9. Ensure that the ROBOMOW's charging location is dry and well ventilated. A shed or shelter outside the house is suitable for this purpose. Do not expose the charger to water.
10. Ensure that the charging socket is clean and operational. In any case, never connect the charging plug to the ROBOMOW if you feel any resistance. The charging connector or the ROBOMOW may have been damaged.
11. If the charging connector is damaged for any reason, please contact customer service in your area.
12. The ROBOMOW must be charged after each use, until the "Fully Charged" message is displayed.
13. Leave the ROBOMOW connected to the charger when it is not in use. Make sure the charger is connected. The ROBOMOW contains a microprocessor which prevents overcharging.
14. Make sure that the bumpers are not squashed during storage.

**MENUS**

In the ROBOMOW's operating software there are programmable functions, which are accessed through the menus. Most of the definitions are made during the first installation.

The menus are reached by pressing the Up and Down arrow keys. Press S to select an option or access a sub-menu. Press C to return to the previous menu.

SCAN MODE	SharpScan2
LANGUAGE	Select a language for the display.
LCD INTENSITY	Sets the intensity of the display in the display screen.
PREFERENCES	Press S to access the following sub-menus:
Mowing	Select On/Off to activate/deactivate the mowing motor. (Deactivating is intended for demonstrations, as a safety precaution to prevent children from using the ROBOMOW, and for the first edge mowing to check the installation quality).
Work Time INF.	Set the work time. If you leave it on INF, the robot will mow each time until the batteries run down.
Eco-mow Mode	Select On/Off to activate/deactivate the energy saving mode: When On, the mowing motor is deactivated during turns.
Cut Overlap	For sharpScan 1 only.
DIAGNOSTICS	For diagnosing features within ROBOMOW.
MAINTENANCE	Press S to access the following sub-menus:
Mower serial #	The ROBOMOW's serial number.
Operation #	The number of main mowing mode operations that ROBOMOW performed.
Total time	The cumulative time of the ROBOMOW's main mowing mode operations.
Time to service	The time left to the next service (in hours and minutes).
DK calibration	calibrating the direction keeping device.
S.W Version	Soft ware version
Diag Passwd	Password for doing diagnostic with service center "ONLINE" help.
USER MANAGEMENT	Press S to access the following sub-menu:
User	User's details (name, date of purchase). Only the company's installer or service representative can change or enter these details.

**DISPLAY**

The following list shows the messages that may appear in the display screen, and their meaning:

Message	Meaning
(battery indicator)	Indicates the batteries' charging level (empty (☐), full (■)).
SharpScan 2	Main mowing mode - systematic mowing of the main area.
Auto Calibration	for 30 seconds upon first time on the lawn and then roughly 10 seconds every time GO in pressed: Tunning ROBOMOW to the perimeter wire.
Edge	Edge mowing mode.
Manual	Manual mode (the manual controller is connected).
Charging	The ROBOMOW is connected to the charger and is being charged.
Charging problem	The charger is attached to the ROBOMOW, but it is not charging. The reasons for this: the charger is not connected to an electrical socket, or the charger is faulty. Disconnect the charger, turn the ROBOMOW off, then reconnect the charger. If this does not solve the problem, contact customer service.
Recharge batt	The ROBOMOW batteries need to be recharged. Manual or automatic mowing is not possible, but you may use the manual controller or tow switches to move the ROBOMOW.
Fully charged	Charging has been completed. ROBOMOW is ready for use.
Plug Immobilizer	An attempt has been made to use the ROBOMOW without the user enabler (only relevant if the user enabler option has been activated).
Immobilizer OK	The user immobilizer has been inserted correctly.
Immobilizer failure	The immobilizer is not the right one.
Unknown Immobilizer	The immobilizer is not the original one.
Wire too close	The robot is too close to the perimeter wire. Move the robot, then activate again.
Calibration req.	The direction system needs calibration.

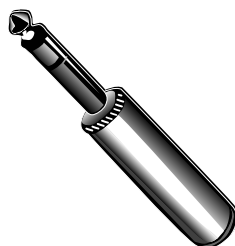
*The following messages may appear on the display screen if the ROBOMOW stops:*

User assessment	The ROBOMOW has stopped for safety reasons, or has finished edge mowing. If the robot stops in the middle of mowing, make sure the area is free of obstacles, move the robot if necessary, and then press the GO button.
Time	The ROBOMOW has completed the allocated mowing time.
Mowing problem	Mowing difficulties: the grass is too long or there is too much dirt on the wheels. Turn the ROBOMOW off and check the reasons. If a lot of dirt has accumulated, clean it. If the grass is too long, set the mowing height to the highest setting.
No wire signal	No signal is being received from the perimeter wire. There may be a break in the perimeter wire, or the perimeter switch may not be operating. Check that the perimeter switch is active, and that there are no breaks in the wire or the connectors.
Tilt problem	ROBOMOW has tilted by more than 20 degrees. To continue working, move ROBOMOW to an area where tilt is less than 20 degrees, and then press the GO button.
Blocked path	ROBOMOW has reached an obstacle that prevents it from continuing, in the first mowing line.
Path problem	The ROBOMOW has reached an obstacle or a perimeter wire/ perimeter island less than 5 ft (1.5 m.) from another wire / obstacle. The ROBOMOW will stop.
E #	A fault has been detected. Contact customer service, stating the fault number.
Call for service	A serious fault has been detected, requiring professional service. Call customer service.
Time for service	A service reminder appears automatically after 250 work hours. Contact customer service and arrange for service.

**ACCESSORIES (OPTIONAL)****Safety immobilizer**

The safety immobilizer is a sophisticated computer device designed to protect the ROBOMOW from use by unauthorized persons. When this option is activated, ROBOMOW will request that the immobilizer is

inserted at each operation, otherwise it will not work. Insert the immobilizer into the charging/accessories socket for two seconds, then remove it. ROBOMOW will now enable manual or automatic operation, until it is turned off.



Safety immobilizer

After the safety immobilizer is inserted into the ROBOMOW for the first time, it activates the immobilizer option. From this moment, the immobilizer will be required at each operation of the ROBOMOW. Only a service representative can cancel the immobilizer option.

### Recommendation

We recommend using the immobilizer. The immobilizer should be kept out of the reach of children.

## DIAGNOSIS OF PROBLEMS

**Problem:** After you press E for edge mowing or GO for main mowing mode, the ROBOMOW does not move, beeps, and the message "No wire signal" appears in the display window.

**Solution:** Make sure the perimeter switch is activated and is properly connected. If the connection is OK, look for loose connections or breaks in the perimeter wire. In this case, a red indicator light should light up in the perimeter switch, which means "perimeter break".

**Problem:** During edge mowing, the right side of the ROBOMOW encounters obstacles on the lawn edge.

**Solution:** The perimeter wire is too close to the obstacle. Remove a few pegs, and move the wire away from the obstacle.

**Problem:** After you press GO, the ROBOMOW moves forward a little, stops, beeps, and the message "Path blocked" is displayed.

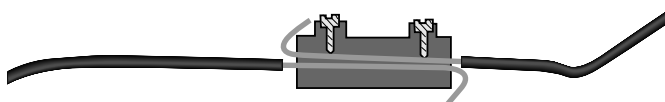
**Solution:** ROBOMOW was placed near an obstacle at the beginning of its work. Move it at least 5 ft (1.5 m.) away from the obstacle, and then activate it again.

**Problem:** ROBOMOW stops during mowing, beeps, and the message "User Assessment" is displayed.

**Solution:** ROBOMOW has identified a problematic situation, and therefore has stopped and is waiting for you to check the situation and decide what to do. Move the robot if necessary, then press GO again. Usually pressing GO again is sufficient. It is also possible that ROBOMOW has finished mowing the grass, in edge mowing mode.

**Problem:** A break in the perimeter wire.

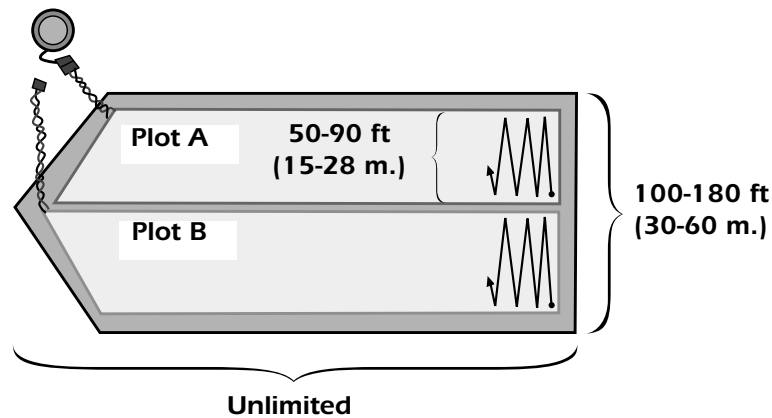
**Solution:** The perimeter switch packaging contains connectors for the eventuality of a break in the wire. The connection process: Peel back 1 inch (3 cm.) of the plastic coating of the wire at both ends intended for connection. Release the screws on both sides of the connector, and insert the wire ends all the way. Screw the screws in tightly. Twist the ends of the wire for extra strength (as illustrated below):



Using the connector

## Dividing the lawn due to its size

If the lawn is very large, so that there could be a situation where the ROBOMOW is over 50 ft (15 m.) away from the nearest perimeter wire, dividing the lawn into two or more plots is needed (only for purposes of mowing). This can be done by using two perimeter wire loops, as illustrated in the following picture. Each loop is attached to a connector, which can be easily connected to the perimeter switch. The additional connector is in the perimeter switch packaging. Each plot will be mowed separately.

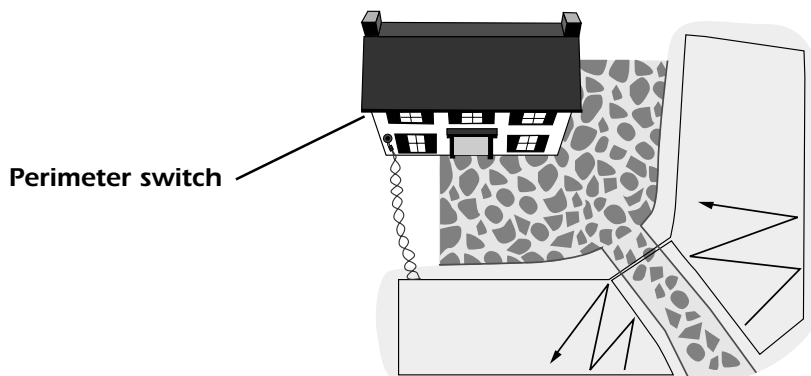


Dividing the lawn due to its size

## Two subplots connected to the perimeter switch at the same time

If there is an obstacle wider than 3 Ft (1m), such as a path, physically dividing the lawn, the following solution can be applied:

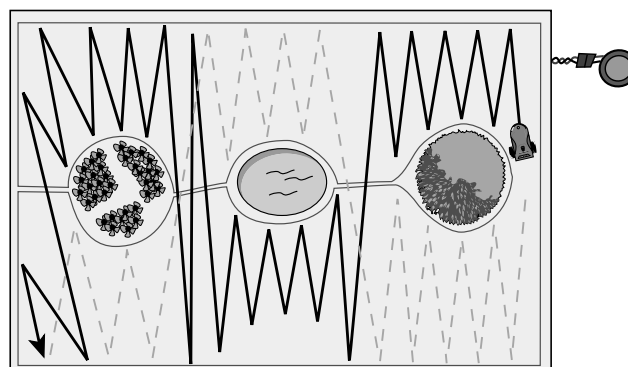
- 1) Create two perimeter loops using the same wire, as illustrated in the following picture.
- 2) Lay the wires leading from one subplot to the next close together, preferably underneath the path / sidewalk. This will create two subplots connected as one perimeter loop.
- 3) Separate ROBOMOW operation is required in each subplot.



Two subplots both connected to the perimeter switch

## Dealing with a sequence of low or soft central obstacles

Surround all the obstacles with perimeter wire, creating a sequence of three perimeter islands (in this example). Between the islands themselves, the two perimeter wires should be close together, fixed to the soil with the same pegs, so that the ROBOMOW will not detect them at all during its work. The distance between the perimeter islands should be over 5 ft (1.5 m.).



**WARNINGS - WARNINGS - WARNINGS - WARNINGS**

- Do not allow children to operate the ROBOMOW.
- Keep children away during the ROBOMOW's operation.
- Store the ROBOMOW out of the reach of children.
- Never leave the ROBOMOW working unattended.
- Keep hands and feet well away from the ROBOMOW's mowing drum.
- Never adjust the ROBOMOW while it is operating! Press the Stop button, and only then approach the robot.
- Never check or touch the blades while ROBOMOW is operating.
- Do not operate ROBOMOW when there are children, adults or animals on the lawn or in the vicinity of the robot.
- Do not touch the robot while it is operating, except for pressing the Stop button.
- Remove all obstacles, such as stones and toys, from the lawn.
- Make sure the perimeter wire is taut and well stretched, so it will always lie very close to the ground.
- Wherever people are likely to walk, make sure the perimeter wire is taut and closely attached to the ground, so that nobody can trip over it.
- Ensure that ROBOMOW will not be able to leave the defined lawn area. If the lawn borders on a street or a sidewalk, installation of a low fence is recommended.
- Operate ROBOMOW only within your own lawn.
- Do not operate ROBOMOW during irrigation.
- Never let anyone ride on the robot.
- Do not use ROBOMOW in temperatures above 104°F (40°C), or under 41°F (5°C).
- Never charge ROBOMOW in temperatures above 104°F (40°C), or under 50°F (10°C).
- Lift ROBOMOW only by using the handles located under the rubber bumpers.
- Never lift ROBOMOW by holding the rubber bumpers.
- For lifting ROBOMOW fully, two people are required (due to its weight).
- Handle ROBOMOW carefully. Incorrect handling can damage the electronic and mechanical components.
- Manual mowing can be dangerous. Take extra care when mowing in this mode, especially when turning. Always walk behind the robot. Never walk beside it or in front of it.
- Do not operate the robot on areas other than lawns, except when moving.
- Store the ROBOMOW in a temperature no higher than 104°F (40°C) and no lower than 50°F (10°C). If these temperatures cannot be guaranteed during lengthy storage, charge ROBOMOW once every 3 months, and then transfer it to an appropriate storage place.
- Never turn the ROBOMOW off during charging.
- Do not use the charger outside the premises, where it may be exposed to rain or water, and thus become dangerous.
- Before connecting the charger, ensure that the socket is clean and dry.
- Make sure that the robot is turned off when you clean the mowing deck or the mowing blade. Before cleaning, disconnect the emergency stop.
- Only authorized ROBOMOW technicians may service the robot.
- When servicing the ROBOMOW, only original ROBOMOW spare parts should be used. Do not alter anything.
- Do not wash the ROBOMOW using a hose pipe or sprinkler, since this could damage electronic components within the robot.
- Please note: disregarding these instructions could be dangerous, and could lead to the guarantee being invalidated.

**TECHNICAL SPECIFICATIONS**

Dimensions	18 X 24 X 42 inches (46 X 60 X 108 cm); 121 lb. (55 kg.) (including batteries)
Charging time	16 hours.
Batteries	2 X 12v, 27 Ampere-Hour of sealed sulfur type.
Mowing width	18 inches (46 cm.)
Mowing height	1-2.2 inch 25-55 mm. (6 settings).
Mowing motor	750 w, brush motor (containing carbon) 24v DC with real time power control.
Maximum movement speed	20 inches (50 cm.) per second.
Turning circle diameter	23 inches (60 cm.) (turning at zero radius).
Noise level	Lp 67.96 dB(A) Lw 81.96 dB(A)/lpw
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For additional information, technical support, future products, upgrades and suggestions, visit our web site:  
[www.robomow.com](http://www.robomow.com)