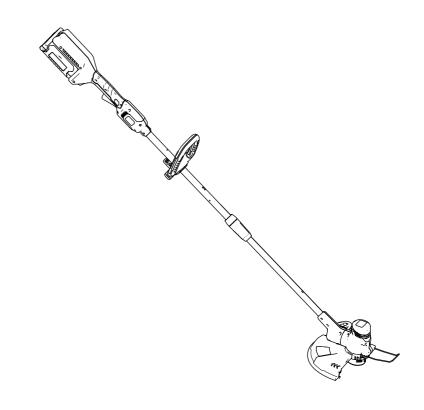


Count on it.

Operator's Manual

Power Plex™ 13in 40V MAX String Trimmer

Model No. 51481—Serial No. 317000001 and Up Model No. 51481T—Serial No. 317000001 and Up





If you have questions or problems, call toll free 1-800-237-2654 (US) or 1-800-248-3258 (Canada) before returning this product.

A WARNING

CALIFORNIA Proposition 65 Warning

This product contains a chemical or chemicals known to the State of California to cause cancer, birth defects, or reproductive harm.

Introduction

This trimmer is intended to be used by residential homeowners to trim grass as needed outdoors. It is designed primarily to use battery pack Model 88540 (provided with Model 51481) or 88541.

Read this information carefully to learn how to operate and maintain your product properly and to avoid injury and product damage. You are responsible for operating the product properly and safely.

Register your product at www.Toro.com to ensure that Toro can notify you in the case of a safety or warranty product recall.

Model 51481T does not include a battery or a charger.

Safety

WARNING: When using electric gardening appliances, always follow basic safety precautions to reduce the risk of fire, electric shock, and personal injury, including the following:

A WARNING

Failure to follow all warnings and instructions may result in electric shock, fire and/or serious injury.

Read all safety warnings and all instructions.

Save all warnings and instructions for future reference.

The term "power tool" in all of the warnings refers to your mains-operated (corded) power tool or battery-operated (cordless) power tool.

- 1. Work area safety
 - A. Keep the work area clean and well lit. Cluttered or dark areas invite accidents.
 - B. Do not operate power tools in explosive atmospheres, such as in the presence of flammable liquids, gasses, or dust. Power tools create sparks, which may ignite the dust or fumes.
 - C. Keep children and bystanders away while operating a power tool. Distractions can cause you to lose control.
 - D. Avoid dangerous environments. Do not use appliances in damp or wet locations.

2. Personal safety

- A. Stay alert; watch what you are doing and use common sense when operating a power tool. Do not use a power tool while you are tired or under the influence of drugs, alcohol, or medication. A moment of inattention while operating power tools may result in serious personal injury.
- B. Use personal protective equipment. Always wear eye protection. Protective equipment such as a dust mask, non-skid safety shoes, a hard hat, or hearing protection used for appropriate conditions will reduce personal injuries.
- C. Prevent unintentional starting. Ensure the switch is in the OFF position before connecting to power source and/or battery pack and picking up or carrying the tool.

 Carrying power tools with your finger on the switch or energizing power tools that have the switch on invites accidents.
- D. Do not overreach. Keep proper footing and balance at all times. This enables better control of the power tool in unexpected situations.
- E. Dress properly. Do not wear loose clothing or jewelry. Keep your hair, clothing, and gloves away from moving parts. Loose clothes, jewelry, or long hair can be caught in moving parts.

F. Keep your hands and feet away from the cutting area.

3. Power tool use and care

- A. Do not force the power tool. Use the correct power tool for your application. The correct power tool will do the job better and safer at the rate for which it was designed.
- B. Do not use the power tool if the switch does not turn it on and off. Any power tool that cannot be controlled with the switch is dangerous and must be repaired.
- C. Remove the battery pack from the power tool before making any adjustments, changing accessories, or storing power tools. Such preventive safety measures reduce the risk of starting the power tool accidentally.
- D. Store idle power tools out of the reach of children and do not allow persons unfamiliar with the power tool or these instructions to operate the power tool. Power tools are dangerous in the hands of untrained users.
- E. Store idle appliances indoors. When not in use, appliances should be stored indoors in a dry and high or locked-up place, out of the reach of children.
- F. Maintain power tools. Check for misalignment or binding of moving parts, breakage of parts, and any other condition that may affect the operation of power tools. If damaged, have the power tool repaired before use. Many accidents are caused by poorly maintained power tools.
- G. Maintain appliance with care. Keep cutting edge sharp and clean for best performance and to reduce the risk of injury. Follow instructions for lubricating and changing accessories. Keep handles dry, clean, and free from oil and grease.
- H. **Keep cutting tools sharp and clean.** Properly maintained cutting tools with sharp cutting edges are less likely to bind and are easier to control.
- I. Use the power tool in accordance with these instructions and in the manner intended for the particular type of power tool, taking into account the working conditions and the work to be performed. Using the power tool for operations different from those intended could result in a hazardous situation.
- J. Keep guards in place and in working order.
- K. Check for damaged parts. Before using the appliance, carefully check a guard or other part that is damaged to determine that it will operate properly and perform its intended function. Check for alignment of moving parts, binding of moving parts, breakage of parts, mounting, and any other condition that may affect its

operation. A guard or other part that is damaged should be properly repaired or replaced by an authorized service center unless indicated elsewhere in this manual.

4. Service

Have your power tool serviced by a qualified repair person using only identical replacement parts. This will ensure that the safety of the power tool is maintained.

5. Battery Safety

- A. Do not charge appliance in rain or in wet locations.
- B. Do not use battery-operated appliance in the rain.
- C. Use only the following type and size battery(ies): Toro battery Model 88540 or 88541.
- D. Remove or disconnect the battery before servicing, cleaning, or removing material from the gardening appliance.
- E. Do not dispose of the battery(ies) in a fire. The cell may explode. Check with local codes for possible special disposal instructions.
- F. Do not open or mutilate the battery(ies). Released electrolyte is corrosive and may cause damage to the eyes or skin. It may be toxic if swallowed.
- G. Exercise care in handling batteries in order not to short the battery with conducting materials such as rings, bracelets, and keys. The battery or conductor may overheat and cause burns.

SAVE THESE INSTRUCTIONS

Safety and Instructional Decals



Safety decals and instructions are easily visible to the operator and are located near any area of potential danger. Replace any decal that is damaged or missing.



136-2463 Model 51481 decal136-2463



136-2464 Model 51481T decal136-2464



136-2471

decal136-2471



decal136-2473

136-2473

TO REDUCE THE RISK OF INJURY, USER MUST READ INSTRUCTION MANUAL,
Do not expose to rain, Use only TORO PowerPlax battery.

To reduce risk of Injury to persons, remove battery pack when not in use; Use safety glasses or similar eye protection. To reduce the risk of injury to persons, do not operate without guards in place.

AVERTISSEMENT POUR REDUCE LES RISCOUSE DE RESSURES, LISEZ ATTENTIVEMENT LE MANUEL DE L'UTILISATEUR.
Ne l'exposez pas à la plue. Utilisez uniquement avec batterie TORO PowerPlax. Pour réduire les risques de blessures corporelles, retirez l'ensemble batterie quand la machine ne ser plax, Portez des lunettes de sécurité ou autres protections oculaires du même genre, Pour réduire les risques de blessures, n'utilisez jamais la machine sans ses protections.

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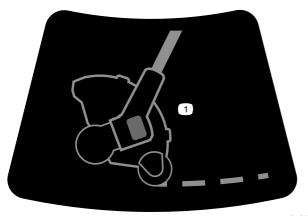
136-2474



decal136-2476

136-2476

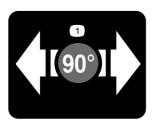
- . The battery pack is charging.
- 2. The battery pack is fully charged.
- 3. The battery pack is too warm.
- 4. Replace the battery pack.



136-2482

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1. String trimmer edger



136-2484

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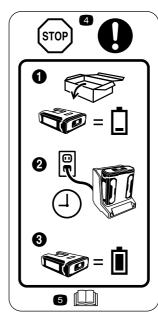
1. Press to rotate.



136-2533

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 Warning—read the Operator's Manual; keep away from moving parts; keep all guards and covers in place; wear eye protection; do not operate in wet conditions.



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136-2534

- The battery does not come out of the box fully charged.
- 2. Place the battery in the battery charger.
- Wait until the battery is fully charged before the first use.
- Stop—follow these instructions before first use.
- 5. Read the Operator's Manual.

Setup

Loose Parts

Use the chart below to verify that all parts have been shipped.

Procedure	Description	Qty.	Use	
1	No parts required	_	Mount the battery charger (optional).	
2	No parts required	_	Unfold the handle.	
3	Auxiliary handle	1	Install the auxiliary handle.	
4	Guard Phillips head screw	1 2	Install the guard.	
5	Wire edge guard	1	Install the edge guard.	

Note: The battery pack is not fully charged when you purchase it. Before using the tool for the first time, refer to Charging the Battery Pack (page 10).



Mounting the Battery Charger (Optional)

No Parts Required

Procedure

If desired, mount the battery charger securely on a wall using the wall-mount key holes on the back of the charger.

Mount it indoors (such as a garage or other dry place), near a power outlet, and out of the reach of children.

Refer to Figure 1 for assistance in mounting the charger.

Note: Slide and twist the charger over the appropriately positioned hardware to secure the charger in place (hardware not included).

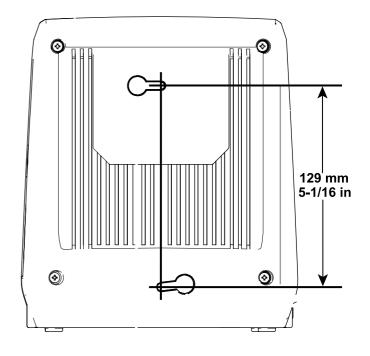


Figure 1



Unfolding the Handle

No Parts Required

Procedure

- 1. Unfold the handle (A of Figure 2).
- 2. Press and hold the locking button on the upper shaft, align the locking button with the slotted hole on the lower shaft, and slide the 2 shafts together. Once the slotted hole on the lower shaft is past the locking button, release the locking button, and slide the lower shaft into the upper shaft until the trimmer is at the desired height (B of Figure 2).

Note: Use the locking button only for assembly and disassembly. You do not need to use the button to adjust the handle.

3. Tighten the lower shaft connector to secure the handle at the desired height (C of Figure 2).

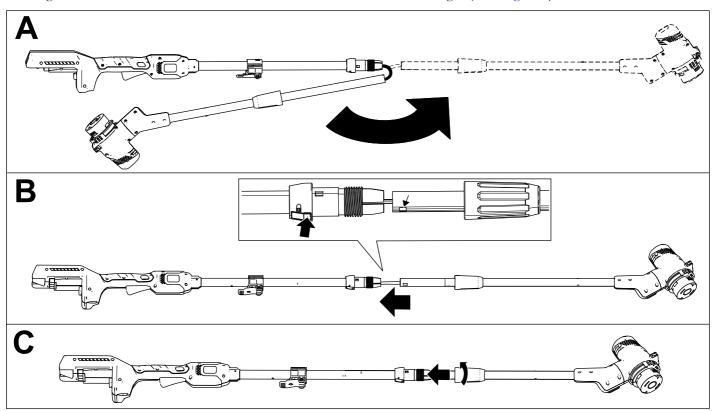


Figure 2

7

Installing the Auxiliary Handle

Parts needed for this procedure:

1 Auxiliary handle

Procedure

- 1. Line up the groove along the handle with the groove on the auxiliary handle and slide the auxiliary handle toward the trimmer handle (A of Figure 3).
- 2. Snap the handle securely into place (B of Figure 3).

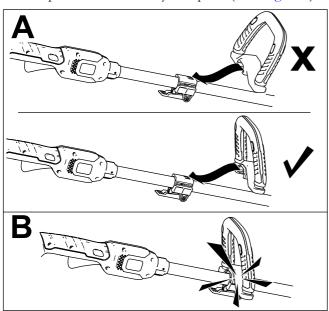


Figure 3

4

Installing the Guard

Parts needed for this procedure:

1	Guard
2	Phillips head screw

Procedure

1. Remove the 2 Phillips screws that are taped to the guard and slide the guard onto the trimmer base (A of Figure 4).

2. Secure the guard onto the base of the trimmer with the 2 Phillips screws (B of Figure 4).

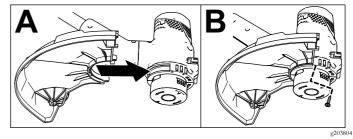


Figure 4

5

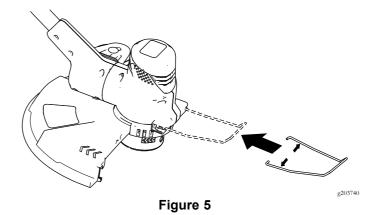
Installing the Edge Guard

Parts needed for this procedure:

1 Wire edge guard

Procedure

Slightly spread the ends of the wire edge guard apart and insert the ends into the holes in the trimmer housing as shown in Figure 5.



8

Operation

Starting the Trimmer

 Make sure that the vents on the trimmer are clear of any dust and debris.

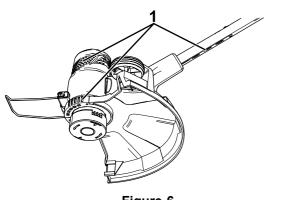


Figure 6

- 1. Trimmer venting areas
- 2. Align the cavity in the battery pack with the tongue on the handle housing (Figure 7).
- 3. Push the battery pack into the handle until the battery locks into the latch (Figure 7).

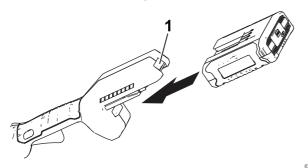


Figure 7

- Battery latch
- 4. To start the trimmer, press the lockout button, then squeeze the variable-speed trigger (Figure 8).

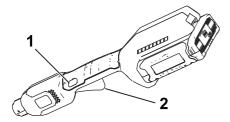


Figure 8

1. Lockout button

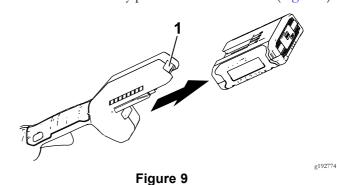
2. Variable-speed trigger

Stopping the Trimmer

To stop the trimmer, release the trigger.

Removing the Battery Pack from the Trimmer

Press the battery latch on the machine to release the battery pack and slide the battery pack out of the machine (Figure 9).



1. Battery latch

Charging the Battery Pack

Important: Read all safety precautions.

Important: For best results, charge your battery pack in a location where the temperature is more than 0°C (32°F) but less than 50°C (122°F). To reduce the risk of serious personal injury, do not store it outside or in vehicles. Charging time increases if you do not charge it within this range.

Note: At any time, press the battery-charge-indicator button on the battery pack to display the current charge (LED indicators).

- Make sure that the vents on the battery pack are clear of any dust and debris.
- Line up the cavity in the battery pack (Figure 10) with the tongue on the charger.

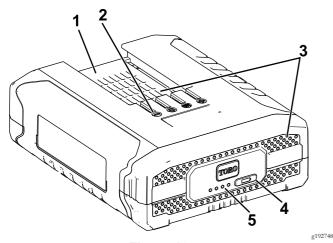


Figure 10

- Battery pack cavity
- Battery-charge-indicator button
- Battery pack terminals
- LED indicators (current charge)
- Battery pack venting areas
- Make sure that the vents on the battery charger are clear of any dust and debris.
- Slide the battery pack into the charger until it is fully seated (Figure 11).

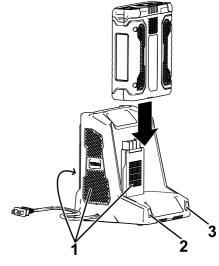


Figure 11

- Charger venting areas
- 3. Right indicator light

- Left indicator light
- To remove the battery pack, slide the battery backward out of the charger.
- Refer to the following table to interpret the LED indicators on the battery charger.

Left Light	Right Light	Indicates:	
Off	Red	Charger is on; no battery pack inserted	
Red	Red	Battery pack is charging	
Green	Red	Battery pack is charged	
Orange Red		Battery pack is too warm	
Red Blinking	Red	Replace the battery pack	

Advancing the Line

Note: The trimmer is equipped with an auto-feed head.

- 1. With the trimmer running, release the switch trigger.
- Wait a few seconds, then press the lockout button and squeeze the trigger.

Note: The line extends approximately 6 mm (1/4 inch) with each stop and start of the trimmer until the line reaches the length of the grass deflector blade.

3. Resume trimming.

Advancing the Line Manually

Remove the battery from the trimmer, then push the button at the base of the spool retainer while pulling on the trimmer line to manually advance the line.

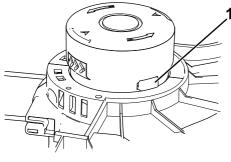


Figure 12

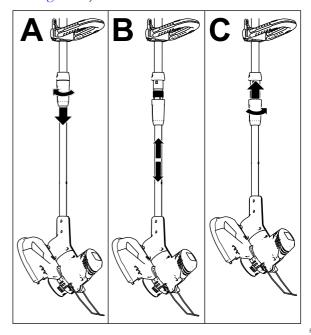
1. Button

Adjusting the Handle Height

- 1. Loosen the lower shaft connector (A of Figure 13).
- 2. Slide the telescoping shaft to your desired position (B of Figure 13).

Important: Do not slide the upper shaft over the vents on the lower shaft and do not remove the rubber bumper.

3. Tighten the handle connector to secure the handle (C of Figure 13).



Adjusting the Auxiliary Handle

Figure 13

- 1. Release the auxiliary-handle latch (A of Figure 14).
- 2. Slide the auxiliary handle up or down to your desired height (B of Figure 14).

Important: Do not remove the rubber bumper.

3. Close the auxiliary-handle latch to secure the auxiliary handle in place (C of Figure 14).

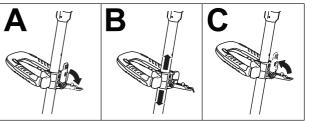


Figure 14

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Trimming



Edging

To use the trimmer as an edger, refer to the following steps:

- 1. Press the rotator button, rotate the head 90°, and make sure that it locks into place (A of Figure 15).
- 2. Stand the trimmer on the wheel and begin edging (B of Figure 15).

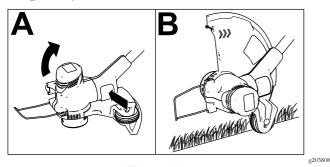
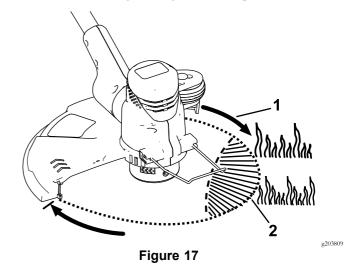


Figure 16

Operating Tips

- Keep the trimmer tilted toward the area being cut; this is the best cutting area.
- The string trimmer cuts when you move it from left to right. This prevents the trimmer from throwing debris at you.
- Use the tip of the string to do the cutting; do not force the string head into uncut grass.
- Wire and picket fences can cause the string to wear rapidly and even break. Stone and brick walls, curbs, and wood can also cause the string to wear rapidly.
- Avoid trees and shrubs. The string can easily damage tree bark, wood moldings, siding, and fence posts.



1. Direction of rotation

2. String path

Maintenance

After each use of the trimmer, complete the following:

- 1. Remove the battery from the trimmer.
- 2. Wipe the trimmer clean with a damp cloth. Do not hose the trimmer down or submerge it in water.

A CAUTION

The line cutoff blade on the deflector is sharp and can cut you.

Do not use your hands to clean the deflector shield and blade.

- 3. Wipe or scrape clean the cutting head area any time there is an accumulation of debris.
- 4. Check and tighten all fasteners. If any part is damaged or lost, repair or replace it.
- 5. Brush debris away from air intake vents and exhaust on motor housing to prevent the motor from overheating.

Replacing the Spool

Use only 2 mm (0.080 inch) diameter monofilament string. Use the original manufacturer's replacement string for best performance (Toro Part No. 88545).

Important: Using a larger diameter string causes the motor to overheat and fail.

- 1. Remove the battery.
- 2. Push in the tabs on the side of the spool retaining cover (Figure 17).

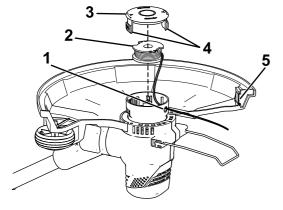


Figure 18

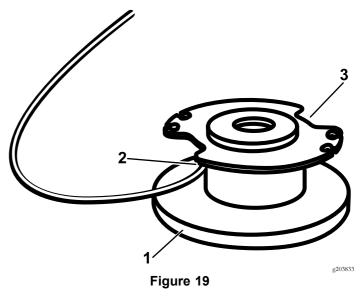
- 1. Eyelet
- 2. Spool

- 4. Tabs
- 5. Line cutoff blade
- 3. Spool retaining cover
- 3. Pull the spool retaining cover up to remove it and remove the spool.
- 4. Install the new spool so that the string aligns with the eyelet in the string head. Thread the string into the eyelet.

- 5. Verify that the end of the string extends approximately 152 mm (6 inches) beyond the slot.
- 6. Pull the string extending from the string head so that the string releases from the slot in the spool.
- 7. Install the spool retainer by pressing the tabs into the slots and pushing down until the spool retainer clicks into place.

Replacing the String

- 1. Remove the battery.
- 2. Remove the spool; refer to Replacing the Spool (page 13).



. Spool

- 3. Upper part of spool
- 2. Anchor hole

Note: Remove any old string remaining on the spool.

3. The spool accepts approximately 3.9 m (13 ft) of string. Use only 2 mm (0.080 inch) diameter monofilament string.

Note: Do not use any other gauge or type of string, as this could damage the trimmer.

- 4. Insert the string into the anchor hole (Figure 19). Wind the string onto the spool in the direction shown by the arrows on the spool.
- 5. Place the string in the slot on the upper spool flange, leaving about 152 mm (6 inches) extended beyond the slot.

Note: Do not overfill. After winding the string, there should be at least 6 mm (1/4 inch) between the wound string and the outside edge of the spool.

6. Replace the spool and the spool retainer; refer to Replacing the Spool (page 13).

Storage

Important: Store the tool, battery pack, and battery charger only in temperatures between -20°C (-4°F) and 70°C (158°F).

Important: Unplug the charger if you store it below -20°C (-4°F) or above 70°C (158°F).

Important: If you are storing the tool for a prolonged period of time, remove the battery pack. When you are ready to use the battery pack again, charge it until the left indicator light turns green on the charger or all 4 LED indicators turn blue on the battery.

- Disconnect the product from the power supply (i.e., remove the plug from the power supply or the battery pack) and check for damage after use.
- Clean all foreign material from the product.
- When not in use, store the tool, battery pack, and battery charger out of the reach of children.
- Keep the tool, battery pack, and battery charger away from corrosive agents, such as garden chemicals and de-icing salts.
- Store the tool, battery pack, and battery charger in a clean, dry area.

Preparing the Battery Pack for Recycling

Important: Upon removal, cover the terminals of the battery pack with heavy-duty adhesive tape. Do not attempt to destroy or disassemble the battery pack or remove any of its components. Recycle or properly dispose of lithium-ion battery packs at a battery recycling facility.

Troubleshooting

Perform only the steps described in these instructions. All further inspection, maintenance, and repair work must be performed by an authorized service center or a similarly qualified specialist if you cannot solve the problem yourself.

Problem	Possible Cause	Corrective Action
The tool does not start.	The battery is not fully installed in the tool.	Remove and then replace the battery into the tool, making sure that it is fully installed and latched.
	The battery pack is not charged.	Remove the battery pack from the tool and charge it.
	3. The battery pack is damaged.	Replace the battery pack.
	There is another electrical problem with the tool.	Contact an Authorized Service Dealer.
The tool does not reach full power.	The battery pack charge capacity is too low.	Remove the battery pack from the tool and fully charge the battery pack.
	2. The air vents are blocked.	2. Clean the air vents.
The tool is producing an unsatisfactory	The blade is worn or damaged.	Replace the blade.
result.	The thickness of branches exceed capacity.	Cut only branches that are equal to or smaller than the suggested diameter.
The tool is producing excessive vibration	1. The blade is dull or damaged.	Replace the blade.
or noise.	2. The bolts/nuts are loose.	2. Tighten the bolts/nuts.
The battery pack loses charge quickly.	The battery pack is over or under the appropriate temperature range.	Move the battery pack to a place where it is dry and the temperature is between 0°C (32°F) and 50°C (122°F).
The battery charger is not working.	The battery charger is over or under the appropriate temperature range.	Unplug the battery charger and move it to a place where it is dry and the temperature is between 0°C (32°F) and 50°C (122°F).
	The outlet that the battery charger is plugged into does not have power.	Contact your licensed electrician to repair the outlet.
The battery pack shows only 3 LED indicators after only a few seconds of using a fully charged battery.	1. This is a normal occurrence.	Stop the tool and press battery-charge-indicator button or the remove the battery from the tool to display the actual battery charge.
All 4 LED indicators are blinking on the battery pack after you press the battery-charge-indicator button on the battery pack and the current charge displays (when the battery pack is not in use).	The battery pack is over or under the appropriate temperature range.	Move the battery pack to a place where it is dry and the temperature is between 0°C (32°F) and 50°C (122°F).
All 4 LED indicators are blinking on the battery pack after releasing the trigger (when the battery pack is in use).	The battery pack is over or under the appropriate temperature range.	Move the battery pack to a place where it is dry and the temperature is between 0°C (32°F) and 50°C (122°F).
2 LED indicators are blinking on the battery pack after you press the battery-charge-indicator button on the battery pack and the current charge displays (when the battery pack is not in use).	There is a difference in voltage between cells in the battery pack.	Place the battery on the charger until it is fully charged.
2 LED indicators are blinking on the battery pack after releasing the trigger (when the battery pack is in use).	There is a difference in voltage between cells in the battery pack.	Place the battery on the charger until it is fully charged.

The Toro Promise - Electric Products

A Three-Year¹ Full Warranty for Residential Use for the United States and Canada

The Toro Company and its affiliate, Toro Warranty Company, pursuant to an agreement between them, jointly warrant this product for three years against defects in material or workmanship when used for normal residential purposes.*

If you think your Toro Product contains a defect in materials or workmanship, if you have questions or problems, and before returning this product call toll free:

Trimmers:	Chainsaw:	Blowers:	Snowthrowers:
1-800-237-2654 (US)	1-855-340-7689 (US and Canada)	1-888-367-6631 (US)	1-800-808-2963 (US)
1-800-248-3258 (Canada)		1-888-430-1687 (Canada)	1-800-808-3072 (Canada)

To receive a replacement or repair, at our option, return the complete unit to the seller. United States and Canada customers may return their product, with proof of purchase, to any Authorized Service Dealer. United States customers may also return their product, with proof of purchase, postage prepaid, to the Toro Service Center, 5500 SE Delaware, Ankeny, IA 50021.

This warranty covers product defects only. Neither The Toro Company nor Toro Warranty Company is liable for indirect, incidental, or consequential damages in connection with the use of the Toro Products covered by this warranty, including any cost or expense of providing substitute equipment or service during reasonable periods of malfunction or non-use pending completion of repairs under this warranty. Some states do not allow exclusions of incidental or consequential damages, so the above exclusions may not apply to you. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

Countries Other than the United States and Canada

This warranty is not valid in Mexico. Customers who have purchased Toro products exported from the United States or Canada should contact their Toro Distributor (Dealer) to obtain guarantee policies for your country, province, or state. If for any reason you are dissatisfied with your Distributor's service or have difficulty obtaining guarantee information, contact the Toro importer. If all other remedies fail, you may contact us at Toro Warranty Company.

Australian Consumer Law

Australian customers will find details relating to the Australian Consumer Law either inside the box or at your local Toro Dealer.

* Residential use means use of the product on the same lot as your home.

Part Number 374-0262 Rev. G

¹ Does not include the battery. 1 Year Battery Warranty for Residential Use.