



SUNJOE iON100V-16ST-CT Cordless String Trimmer – Core Tool Instruction Manual

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SUNJOE iON100V-16ST-CT Cordless String Trimmer – Core Tool



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IMPORTANT! Safety Instructions

All Operators Must Read These Instructions Before Use

Read all the instructions contained in this manual. Keep this manual in a safe place, so that the information is available at all times. If you give the equipment to another person, make sure to provide these operating instructions. Basic safety precautions should always be followed to reduce the risk of fire, electric shock, and personal injury.



DANGER! This indicates a hazardous situation, which, if not followed, will result in serious injury or death.



WARNING! This indicates a hazardous situation, which, if not followed, could result in serious injury or death.



CAUTION! This indicates a hazardous situation, which, if not followed, could result in minor or moderate injury. Improper use of the machine will invalidate the warranty, relieve the manufacturer from all liabilities. The user will consequently be liable for all and any damage or injury to himself/herself or others.



DANGER! The cordless string trimmer should only be used for cutting lawns and for trimming along the borders of flower beds. Other uses of the string trimmer that are not indicated in these instructions could damage the unit or seriously injure the operator.

General Safety

1. Avoid dangerous environments – Do not use appliances in damp or wet locations. Do not use in rain.
2. Keep children and bystanders away – Children and other spectators, including pets, should be kept at least 50 feet (15 meters) away from the work area. When the grass is cut, stones and debris contained in the grass can be picked up by the string trimmer and dispersed into the air. These flying projectiles can cause blindness or other bodily injury.
3. Dress properly – Always wear suitable clothing when using the string trimmer to prevent head, hand, or feet injuries. Do not wear loose clothing or jewelry. They can get caught in moving parts.
4. Use safety glasses – Also use safety footwear, snug fitting clothing, protective gloves, hearing and head protection.
5. Use the right tools – Do not use tools for any job except that for which they are intended.
6. Avoid unintentional starting – Do not carry the tool with finger on the trigger. Make sure the switch is off before inserting the battery.
7. Do not force the tool – It will do the job better and with less likelihood of injury if it is used at the rate for which it was designed.
8. Do not overreach – Keep proper footing and balance at all times.
9. Stay alert – Watch what you are doing. Use common sense. Do not operate the string trimmer when you are tired, or under the influence of alcohol or drugs.
10. Disconnect the tool – Turn the string trimmer off and remove the battery when: the unit is not in use; it is left unattended; it is being examined because it is not working correctly; the cutting line is being removed or changed; or when the trimmer is being moved from one place to another.
11. Store idle tools indoors – When not in use, tools should be stored indoors in a dry and high or locked-up place out of the reach of children.
12. Maintain tools with care – Keep cutting lines sharp and clean for best performance and to reduce the risk of injury. Follow instructions for maintenance and changing accessories. Repair the string trimmer only at an authorized service facility. Keep handles dry, clean, and free from oil and grease.
13. Checked for damaged parts – Before continuing to use the string trimmer, a guard or other part that is damaged should be carefully checked to determine that it will operate properly and perform its intended function. Check for the alignment of moving parts, binding of moving parts, breakage of parts, mounting, and any other condition that may affect the tool's 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.



CAUTION! The safety guard is critical to the safety of the operator and the safety of people standing within a safe distance of the string trimmer. The safety guard keeps the unit in good working order and must always be in place during operation. Failure to have the guard in place during operation is dangerous and will void the warranty.

14. Keep away from the cutting line – It can seriously injure the skin.
15. Do not try to stop the cutting device with your hands – Always let it come to a stop by itself.
16. Stay alert – Watch what you are doing. Use common sense. Do not operate the string trimmer when you are tired or under the influence of drugs, alcohol, or other medication.



CAUTION! The trimmer line spool will continue to rotate after turning the trimmer OFF. Wait until the trimmer line spool has completely stopped before making contact.

- Only use the same type of line originally provided with the tool.
- Do not use the unit to cut grass that is not in contact with the ground.
- Do not switch the string trimmer ON in enclosed or poorly ventilated spaces or in the presence of flammable and/or explosive substances such as liquids, gases, and powders.
- The user of the string trimmer is responsible for any damage sustained by third parties that has been caused by the string trimmer within the working area.
- Only cut during broad daylight or with adequate artificial light.
- Do not cross roads or gravel paths while the unit is still running.
- When the string trimmer is not in use, store it in a dry place and out of the reach of children.
- The string trimmer must be operated in a vertical position, perpendicular to the ground.
- Check regularly that all screws are properly secured.

Battery + Charger Safety Instructions

NOTE: The battery and the charger are not included and must be purchased separately. The iON100V-16ST-CT is compatible with the following batteries (models iON100V-2.5AMP and iON100V-5AMP) and charger (model iON100V-RCH). See page 19 for more information.

We pay a great deal of attention to the design of every battery pack to ensure that we supply you with batteries that are safe, durable and have a high energy density. The battery cells have a wide range of safety devices. Each individual cell is initially formatted and its electrical characteristic curves are recorded. This data is then used exclusively to be able to assemble the best possible battery packs.

Despite all the safety precautions, caution must always be exercised when handling batteries. The following points must be obeyed at all times to ensure safe use. Safe use can only be guaranteed if undamaged cells are used. Incorrect handling of the battery pack can cause cell damage.

IMPORTANT! Analyses confirm that incorrect use and poor care of high-performance batteries are the main factors responsible for personal and/or product damage.



WARNING! Use only approved replacement batteries; other batteries may damage the string trimmer and cause it to malfunction, which can lead to serious personal injury.



CAUTION! To reduce the risk of injury, charge the iON100V-2.5AMP battery pack or the iON100V-5AMP

battery pack only in their compatible charger (model iON100V-RCH). Other types of chargers present risk of fire, personal injury, and damage. Do not wire a battery pack to a power supply plug or car cigarette lighter. Such misuse will permanently disable or damage the battery pack.

- Avoid dangerous environments – Do not charge the battery pack in rain, snow or in damp or wet locations. Do not use the battery pack or charger in the presence of explosive atmospheres (gaseous fumes, dust or flammable materials) because sparks may be generated when inserting or removing the battery pack, which could lead to a fire.
- Charge in a well-ventilated area – Do not block the charger vents. Keep them clear to allow for proper ventilation. Do not allow smoking or open flames near a charging battery pack. Vented gases may explode.
NOTE: The safe temperature range for the battery is -4°F (-20°C) to 113°F (45°C). Do not charge the battery outside in freezing weather; charge it at room temperature.
- Maintain charger cord – When unplugging the charger, pull the plug, not the cord, from the receptacle to reduce the risk of damage to the electrical plug and cord. Never carry the charger by its cord or yank it by the cord to disconnect it from the receptacle. Keep the cord away from heat, oil and sharp edges. Make sure the cord will not be stepped on, tripped over or subjected to damage or stress when the charger is in use. Do not use the charger with a damaged cord or plug. Replace a damaged charger immediately.
- Do not use an extension cord unless it is absolutely necessary – Using the wrong, damaged or improperly wired extension cord poses a risk of fire and electric shock. If an extension cord must be used, plug the charger into a properly wired 18 gauge or larger extension cord with the female plug matching the male plug on the charger. Make sure that the extension cord is in good electrical condition.
- Charger iON100V-RCH is rated for 100 – 120 volt AC only – The charger must be plugged into an appropriate receptacle.
- Use only recommended attachments – Use of an attachment not recommended or sold by the battery charger or battery pack manufacturer may result in risk of fire, electric shock or personal injury.
- Unplug charger when not in use – Make sure to remove battery pack from unplugged chargers.



WARNING! To reduce the risk of electric shock, always unplug the charger before performing any cleaning or maintenance. Do not allow water to flow into the charger. Use a Ground Fault Circuit Interrupter (GFCI) to reduce shock hazards.

- Do not burn or incinerate battery packs – Battery packs may explode, causing personal injury or damage. Toxic fumes and materials are created when battery packs are burned.
- Do not crush, drop or damage battery packs – Do not use the battery pack or charger if they have sustained a sharp blow, been dropped, run over or have been damaged in any way (i.e. pierced with a nail, hit with a hammer, stepped on, etc.).
- Do not disassemble – Incorrect reassembly may pose a serious risk of electric shock, fire or exposure to toxic battery chemicals. If the battery or charger are damaged, please contact an authorized Snow Joe® + Sun Joe® dealer or call the Snow Joe® + Sun Joe® customer service center at 1-866-SNOWJOE (1-866-766-9563).
- Battery chemicals cause serious burns – Never let a damaged battery pack contact the skin, eyes or mouth. If a damaged battery pack leaks battery chemicals, use rubber or neoprene gloves to safely dispose of it. If skin is exposed to battery fluids, wash the affected area with soap and water and rinse with vinegar. If eyes are exposed to battery chemicals, immediately flush with water for 20 minutes and seek medical attention. Remove

and dispose of contaminated clothing.

- Do not short circuit – A battery pack will short circuit if a metal object makes a connection between the positive and negative contacts on the battery pack. Do not place a battery pack near anything that may cause a short circuit, such as paper clips, coins, keys, screws, nails and other metallic objects. A short-circuited battery pack poses a risk of fire and severe personal injury.
- Store your battery pack and charger in a cool, dry place – Do not store the battery pack or charger where temperatures may exceed 104°F (40°C), such as in direct sunlight or inside a vehicle or metal building during the summer.

Protection from environmental influences

1. Wear suitable work clothes. Wear safety goggles.
2. Protect your cordless tool and the battery charger from moisture and rain. Moisture and rain can cause dangerous cell damage.
3. Do not use the cordless tool or the battery charger near vapors and flammable liquids.
4. Use the battery charger and cordless tools only in dry conditions and at an ambient temperature of 50°F – 104°F (10°C – 40°C).
5. Do not keep the battery charger in places where the temperature is liable to reach over 104°F (40°C). In particular, do not leave the battery charger in a car that is parked in the sunshine.
6. Protect batteries from overheating. Overloads, overcharging and exposure to direct sunlight will result in overheating and cell damage. Never charge or work with batteries that have been overheated – replace them immediately, if possible.
7. Store the charger and your cordless tool only in dry locations with an ambient temperature of 50°F – 104°F (10°C – 40°C). Store your lithium-ion battery pack in a cool, dry place at a temperature of 50°F – 68°F (10°C – 20°C). Protect the battery pack, charger and cordless tool from humidity and direct sunlight. Only place fully charged batteries in storage (charged to at least 40%).
8. Prevent the lithium-ion battery pack from freezing. Battery packs that were stored below 32°F (0°C) for more than 60 minutes must be discarded.
9. When handling batteries, be wary of electrostatic charge. Electrostatic discharges can damage the electronic protection system and the battery cells. Avoid electrostatic charging and never touch the battery poles.

Information about the battery

1. The battery packs (model iON100V-2.5AMP or iON100V5AMP) must be purchased separately for use with this cordless string trimmer are only partially charged. The battery packs have to be charged completely before you use the tool for the first time.
2. For optimum battery performance, avoid low discharge cycles by charging the battery packs frequently.
3. Store the battery packs in a cool place, ideally at 59°F (15°C) and charged to at least 40%.
4. Lithium-ion batteries are subject to a natural aging process. The battery packs must be replaced at the latest when its capacity falls to just 80% of its capacity when new. Weakened cells in an aged battery pack are no longer capable of meeting the high power requirements needed for the proper operation of your cordless string trimmer, and therefore pose a safety risk.
5. Do not throw battery packs into an open fire as this poses a risk of explosion.
6. Do not ignite the battery packs or expose them to fire.

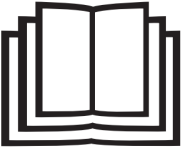







7. Do not exhaustively discharge batteries. Exhaustive discharge will damage the battery cells. The most common cause of exhaustive discharge is lengthy storage or non-use of partially discharged batteries. Stop working as soon as the performance of the batteries falls noticeably or the electronic protection system triggers. Place the battery packs in long-term storage only after they have been fully charged.
8. Protect batteries and the tool from overloads. Overloads will quickly result in overheating and cell damage inside the battery housing even if this overheating is not apparent externally.
9. Avoid damage and shocks. Immediately replace batteries that have been dropped from a height of more than one meter or those that have been exposed to violent shocks, even if the housing of the battery pack appears to be undamaged. The battery cells inside the battery may have suffered serious damage. In such instances, please read the waste disposal information for proper battery disposal.
10. If the battery pack suffers overloading and overheating, the integrated protective cutoff will switch off the equipment for safety reasons. If this situation happens, stop the tool and let the battery cool down for a few minutes before restarting.
11. Use only original battery packs. The use of other batteries poses a fire risk and may result in injuries or an explosion.

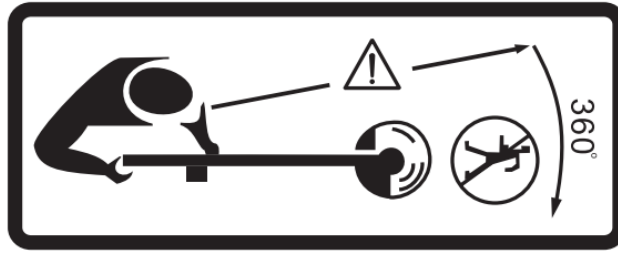
Information about the charger and the charging process

1. Please check the data marked on the rating plate of the battery charger (sold separately). Be sure to connect the battery charger to a power supply with the voltage marked on the rating plate. Never connect it to a different mains voltage.
2. Protect the battery charger and its cord from damage. Keep the charger and its cord away from heat, oil and sharp edges. Have damaged cords repaired without delay by a qualified technician at an authorized Snow Joe® + Sun Joe® dealer or call the Snow Joe® + Sun Joe® customer service center at 1-866-SNOWJOE (1-866-766-9563).
3. Electrical plugs must match the outlet. Never modify the plug in any way. Do not use any adapter plugs with grounded appliances. Unmodified plugs and matching outlets will reduce the risk of electric shock.
4. Keep the battery charger, battery pack(s) and the cordless tool out of the reach of children.
5. Do not use the battery charger to charge other cordless tools.
6. During periods of heavy use, the battery pack will become warm. Allow the battery pack to cool to room temperature before inserting it into the charger to recharge.
7. Do not overcharge batteries. Do not exceed the maximum charging times. These charging times only apply to discharged batteries. Frequent insertion of a charged or partially charged battery pack will result in overcharging and cell damage. Do not leave batteries in the charger for days on end.
8. Never use or charge batteries if you suspect that it has been more than 12 months since the last time they were charged. There is a high probability that the battery pack has already suffered dangerous damage (exhaustive discharge).
9. Charging batteries at a temperature below 50°F (10°C) will cause chemical damage to the cells and may cause a fire.
10. Do not use batteries that have been exposed to heat during the charging process, as the battery cells may have suffered dangerous damage.
11. Do not use batteries that have suffered curvature or deformation during the charging process or those that exhibit other atypical symptoms (gassing, hissing, cracking, etc.)
12. Never fully discharge the battery pack (maximum recommended depth of discharge is 80%). A complete

discharge of the battery pack will lead to premature aging of the battery cells.

Safety Symbols

Symbols	Descriptions	Symbols	Descriptions
	READ THE OPERATOR'S MANUAL(S) – Read, understand, and follow all instructions in the user manual(s) before attempting to assemble and operate.		Keep bystanders and children a safe distance away.
	SAFETY ALERT – Indicates a precaution, a warning, or a danger.		WARNING! Do not expose the unit to rain or wet conditions.
	WEAR EYE AND HEARING PROTECTION – For protection against injury, wear ear defenders and safety goggles.		Beware of flying objects and debris.
	Wear protective gloves when using the machine and handling debris.		Indoor use only. Only use battery charger indoors.

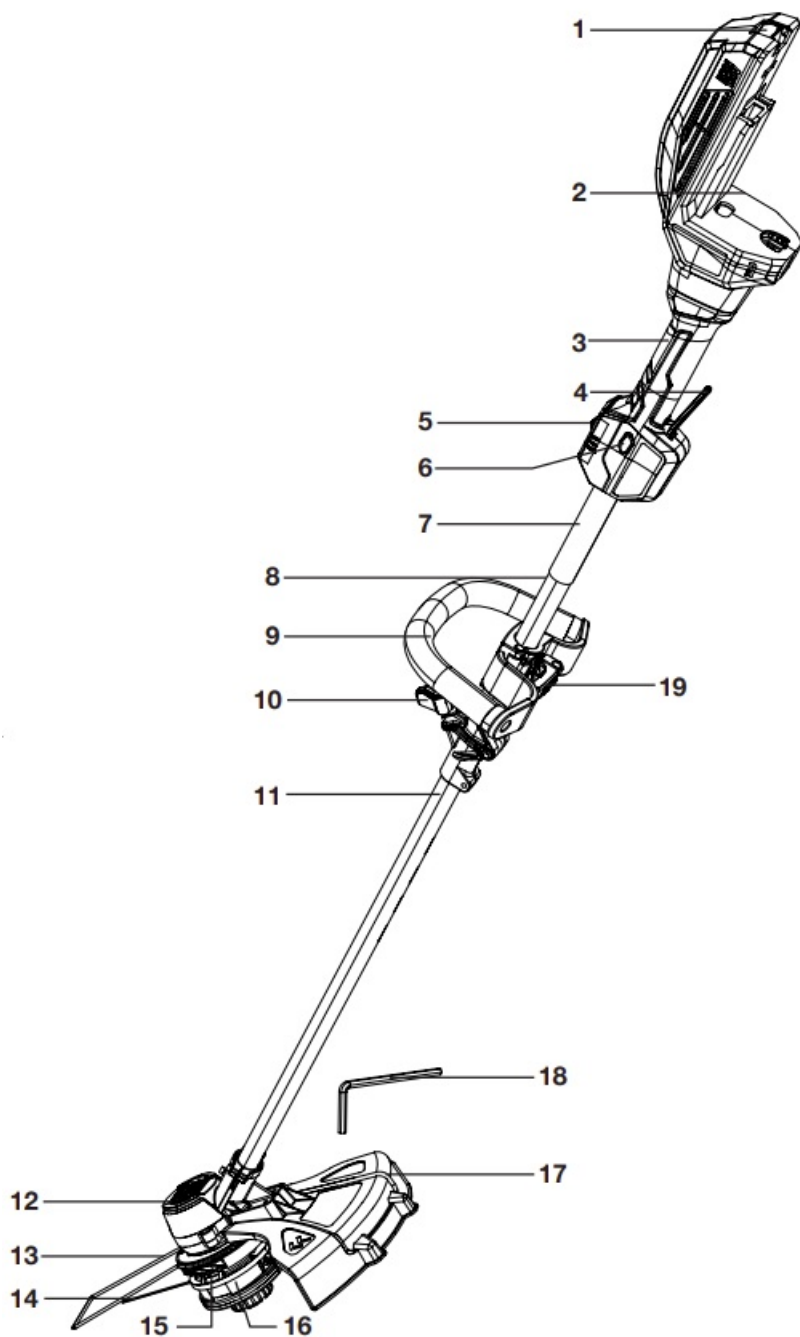


DANGER! Beware of thrown objects to bystanders. Keep bystanders at least 15 m (50 ft) away from the machine.

Know Your Cordless String Trimmer

Read the owner's manual and safety instructions carefully before operating the cordless string trimmer. Compare the illustration below to your cordless string trimmer in order to familiarize yourself with the location of the various controls and adjustments. Save this manual for future reference.

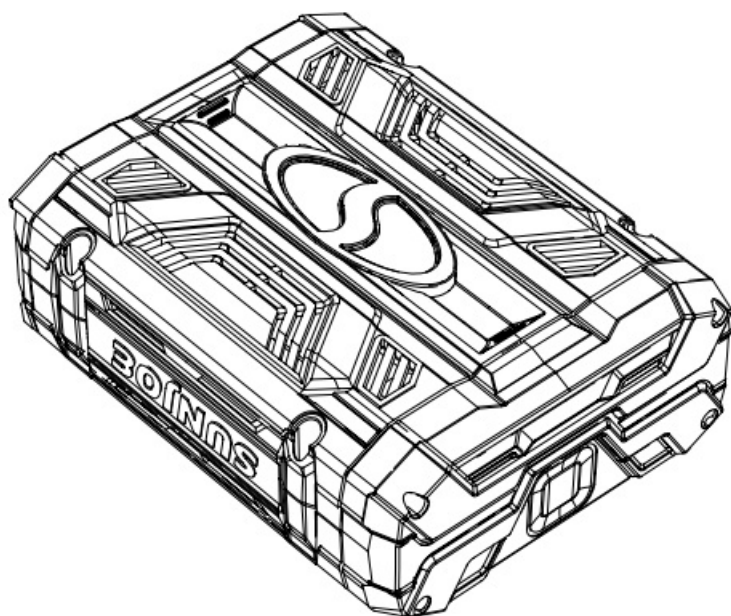
1. Battery releasing button
2. Battery compartment
3. Rear handle
4. On/Off switch
5. Speed adjusting switch
6. Safety button (2)
7. Soft grip
8. Upper pole
9. Auxiliary handle
10. Pole knob
11. Lower pole
12. Motor housing
13. Edger guide + flower guard
14. Cutting line
15. Spool releasing tab (2)
16. Spool assembly
17. Safety guard
18. Hex key
19. Handle latch



SOLD SEPARATELY

Battery + Charger options available at sunjoe.com

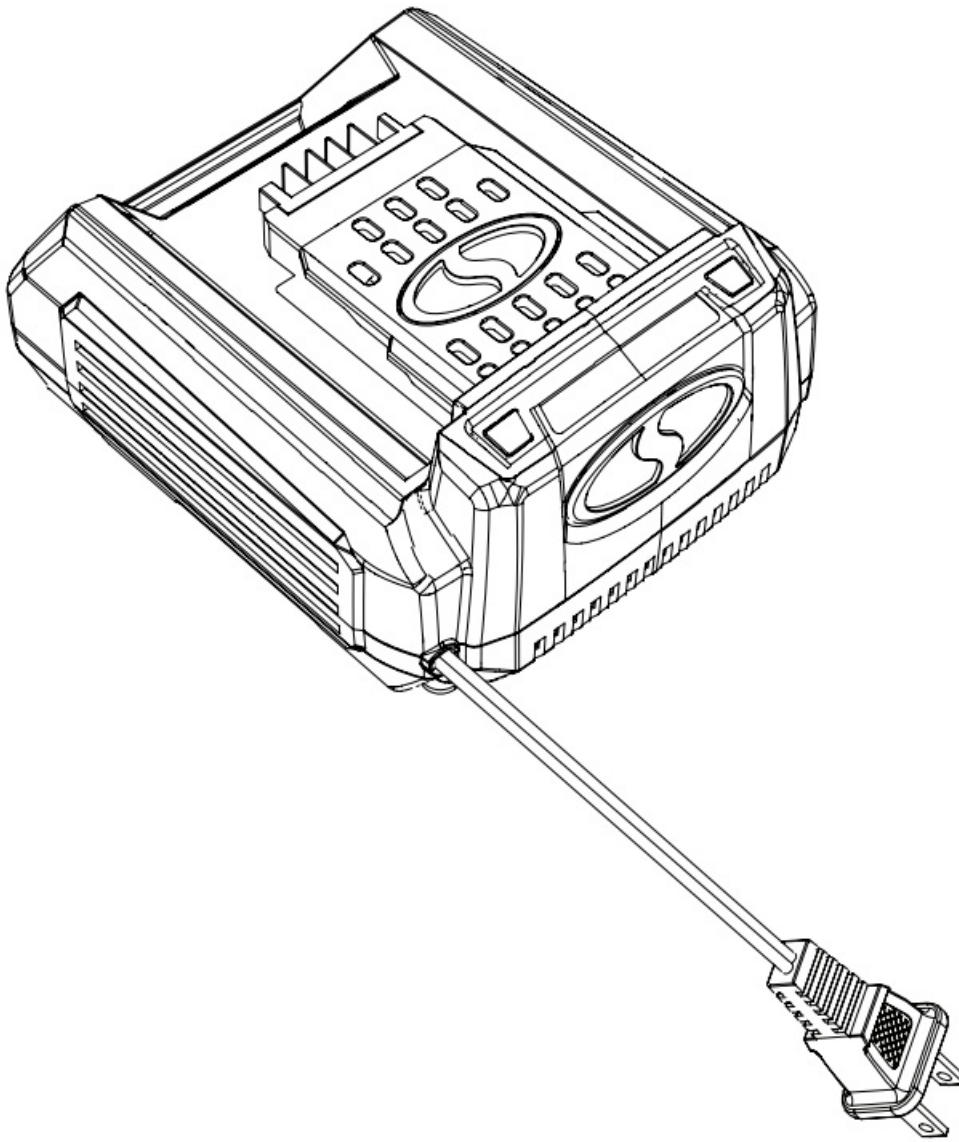
iON100V-2.5AMP



iON100V-5AMP



iON100V-RCH



Technical Data

Battery Voltage* 100 V D.C.

Cutting Width Max 16 in. (40.6 cm)

Cutting Speed

low: 4300 \pm 10% rpm

high: 5000 \pm 10% rpm

turbo: 6000 \pm 10% rpm

Trimmer Line Length 13.2 ft (4 m)

Trimmer Line Diameter 0.095 in. (2.4 mm)

Spool Advance Bump-feed

Motor 500 W Brushless

Net Weight 9 lbs (4.1 kg)

Unpacking

Carton Contents

- Cordless string trimmer
- Safety guard
- Safety guard screws (4)

- Hex key
- Pole knob
- Auxiliary handle assembly with handle latch, bolt and washer
- Edger guide + flower guard
- Manual with registration card

TOOL ONLY BATTERY + CHARGER SOLD SEPARATELY

In order to operate this string trimmer, you will need to additionally purchase either the iON100V-2.5AMP or iON100V-5AMP lithium-ion battery and the 100 V quick charger (model iON100V-RCH). Battery and charger options available at sunjoe.com.

1. Carefully remove the cordless string trimmer and check to see that all of the above items are supplied.
2. Inspect the product carefully to make sure no breakage or damage occurred during shipping. If you find damaged or missing parts, DO NOT return the unit to the store. Please call the Snow Joe® + Sun Joe® customer service center at 1-866-SNOWJOE (1-866-766-9563).

NOTE: Do not discard the shipping carton and packaging material until you are ready to use the cordless string trimmer. The packaging is made of recyclable materials. Properly dispose of these materials in accordance with local regulations or save the packaging for long-term product storage.

IMPORTANT! The equipment and packaging material are not toys. Do not let children play with plastic bags, foils, or small parts. These items can be swallowed and pose a suffocation risk!

Assembly

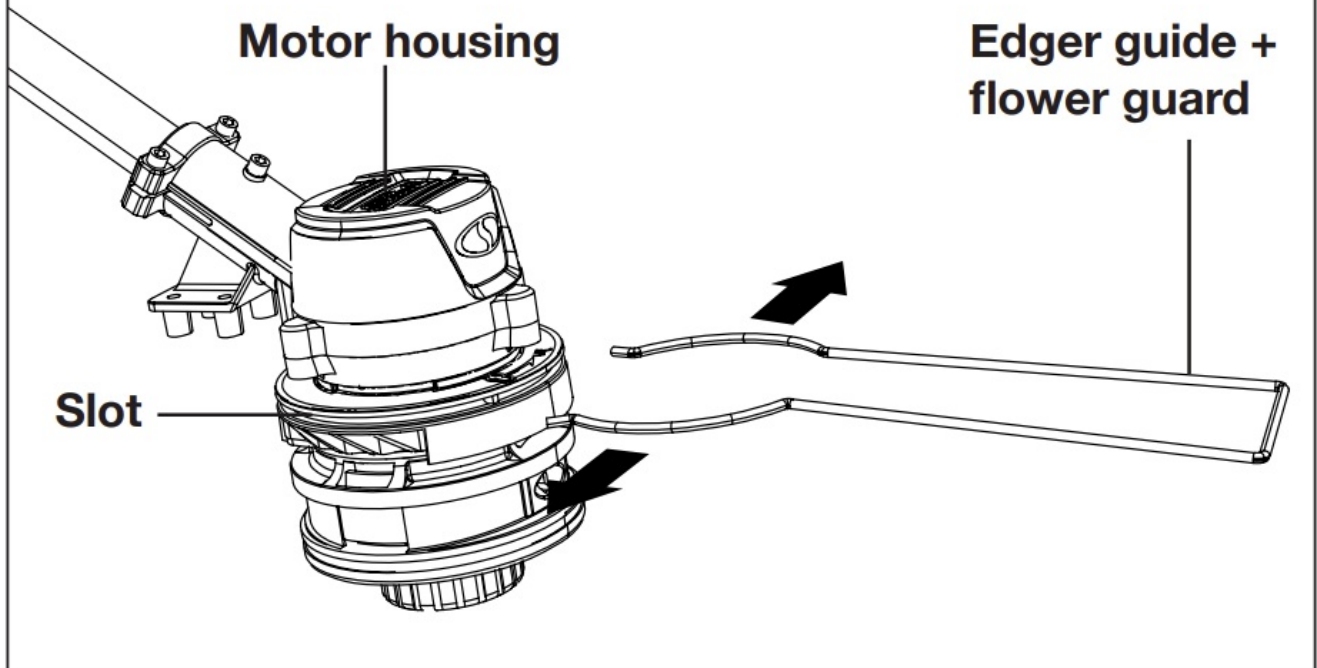


WARNING! Do not insert the battery until assembly is complete. Failure to comply could result in accidental starting and possible serious personal injury.

Fitting the Edger Guide + Flower Guard

1. Lightly spread the edger guide + flower guard by hand while approaching the motor housing.
2. While lightly spreading the edger guide + flower guard, fit the curved parts into the slot on the motor housing, and release (Fig. 1).

Fig. 1

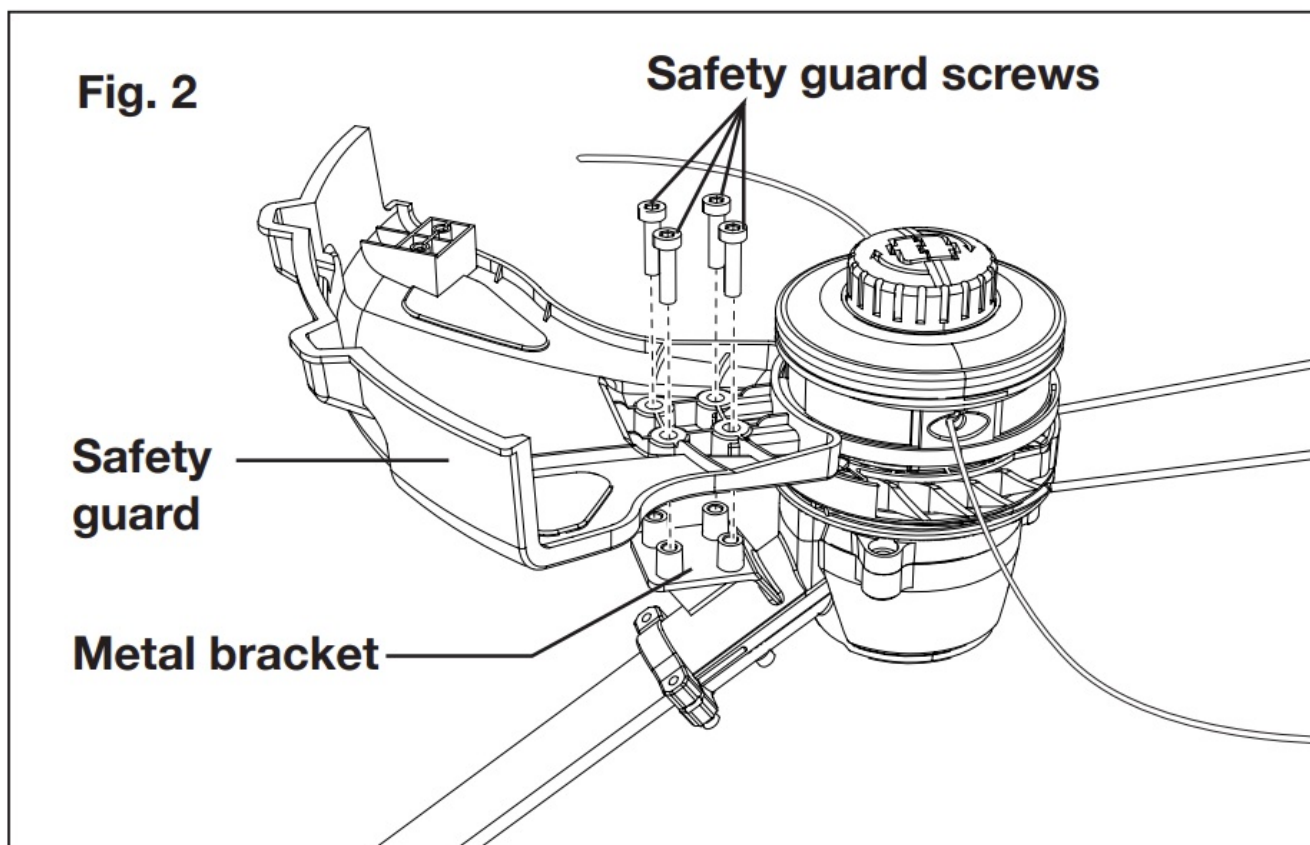


Fitting the Safety Guard



WARNING! The guard must be properly installed. The guard provides the operator and other bystanders with some protection from thrown objects.

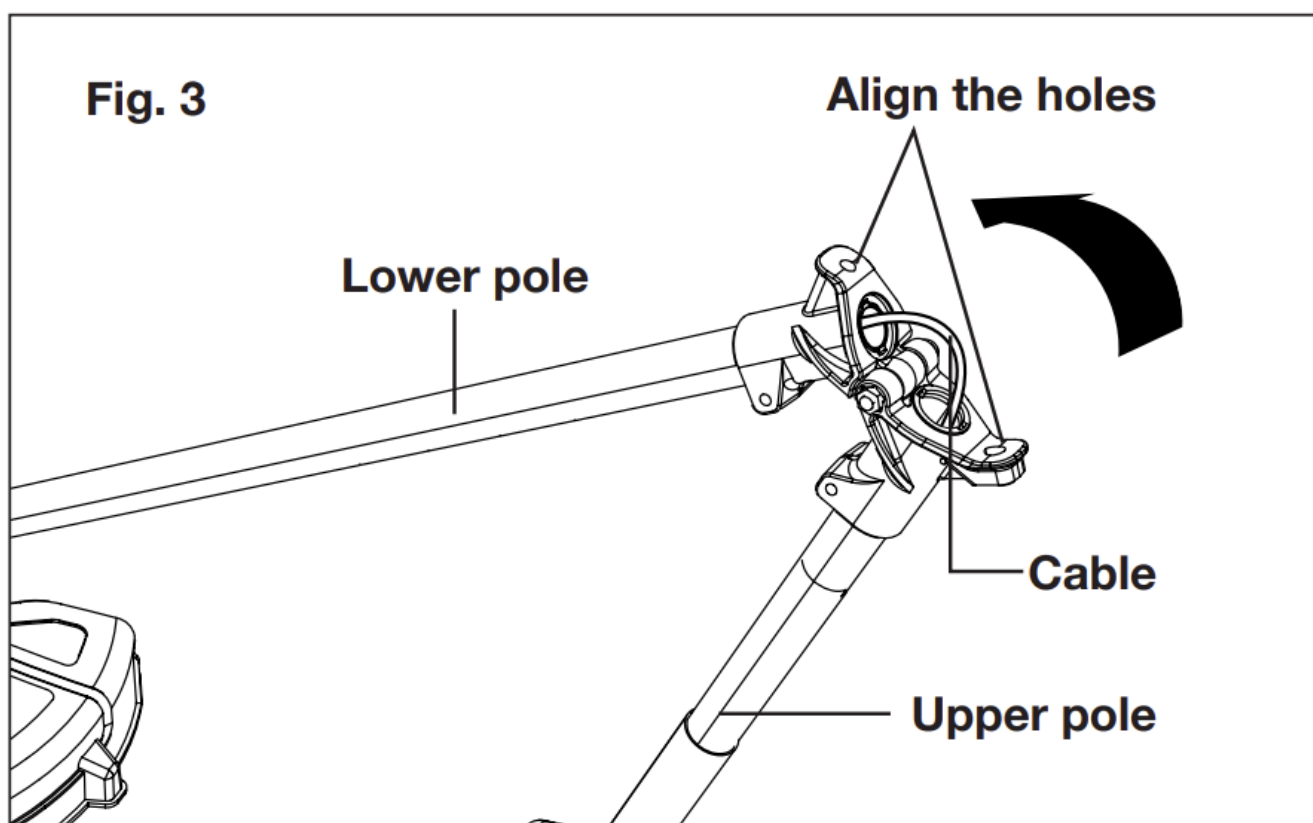
1. Lay the trimmer on the ground with the trimmer head facing upward.
2. Place the safety guard on the metal bracket on the back of the motor housing, align the 4 screw holes. Fix it with the provided 4 safety guard screws. Tighten the screws with the hex key provided (Fig. 2).



NOTE: Never use the tool unless the safety guard is properly fitted.

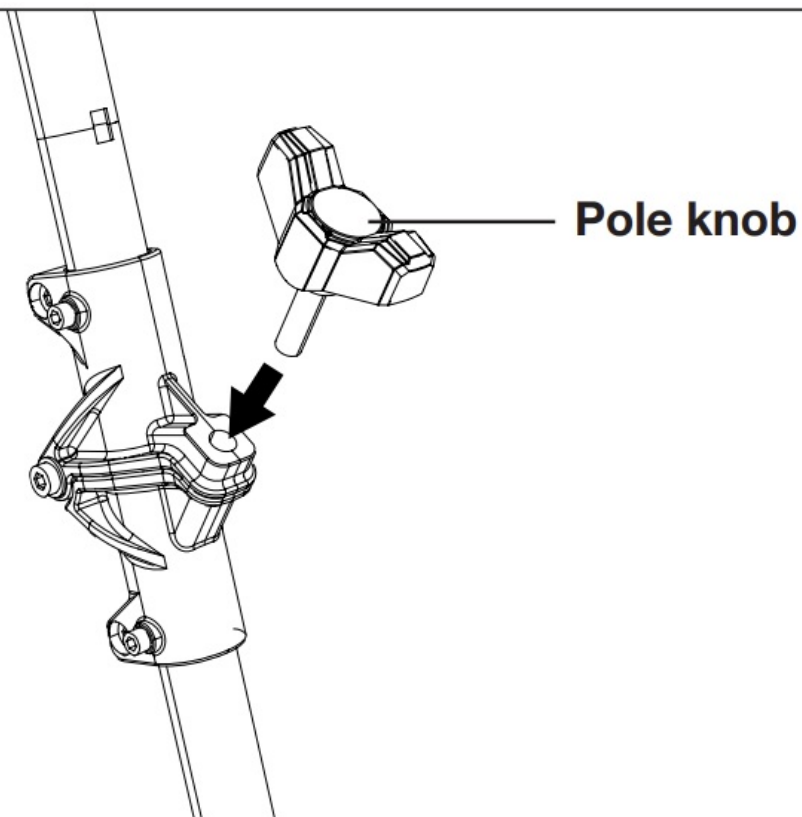
Fitting the Auxiliary Handle

1. Put your trimmer on a flat surface and make sure that the cable inside the poles will not be pinched when closing the joints. Carefully unfold the upper pole and the lower pole until the two holes in the joint are accurately aligned (Fig. 3).



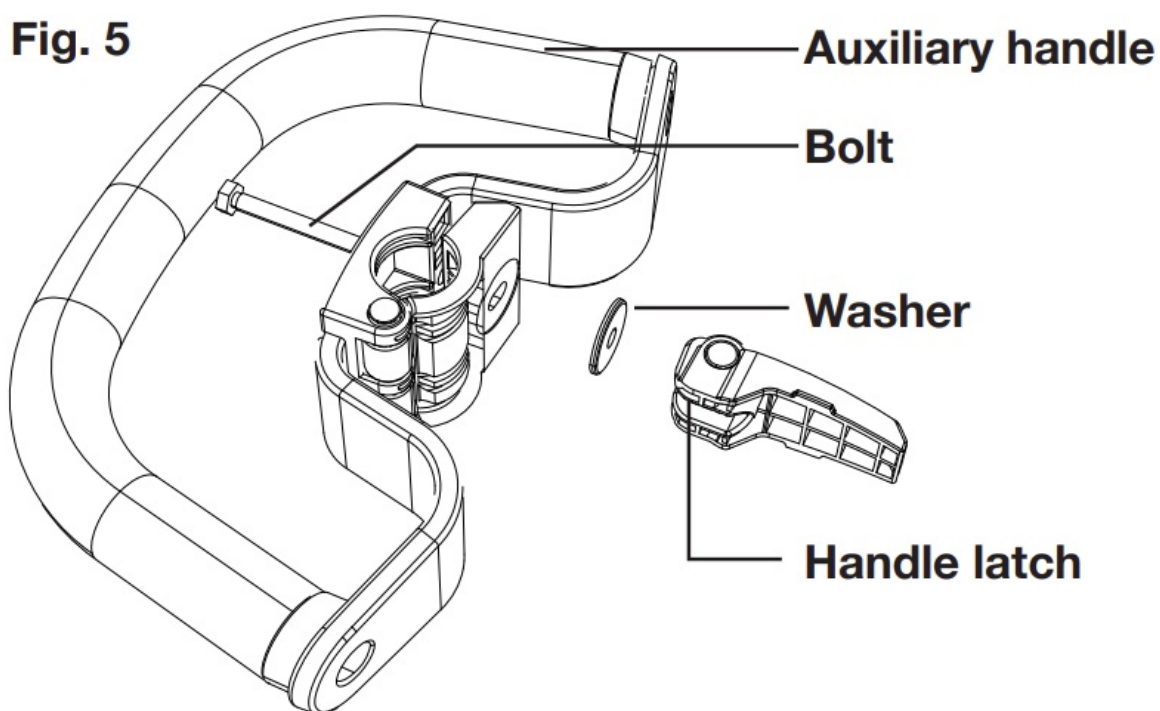
2. Insert the pole knob into the holes and tighten it to lock the poles in place (Fig. 4).

Fig. 4

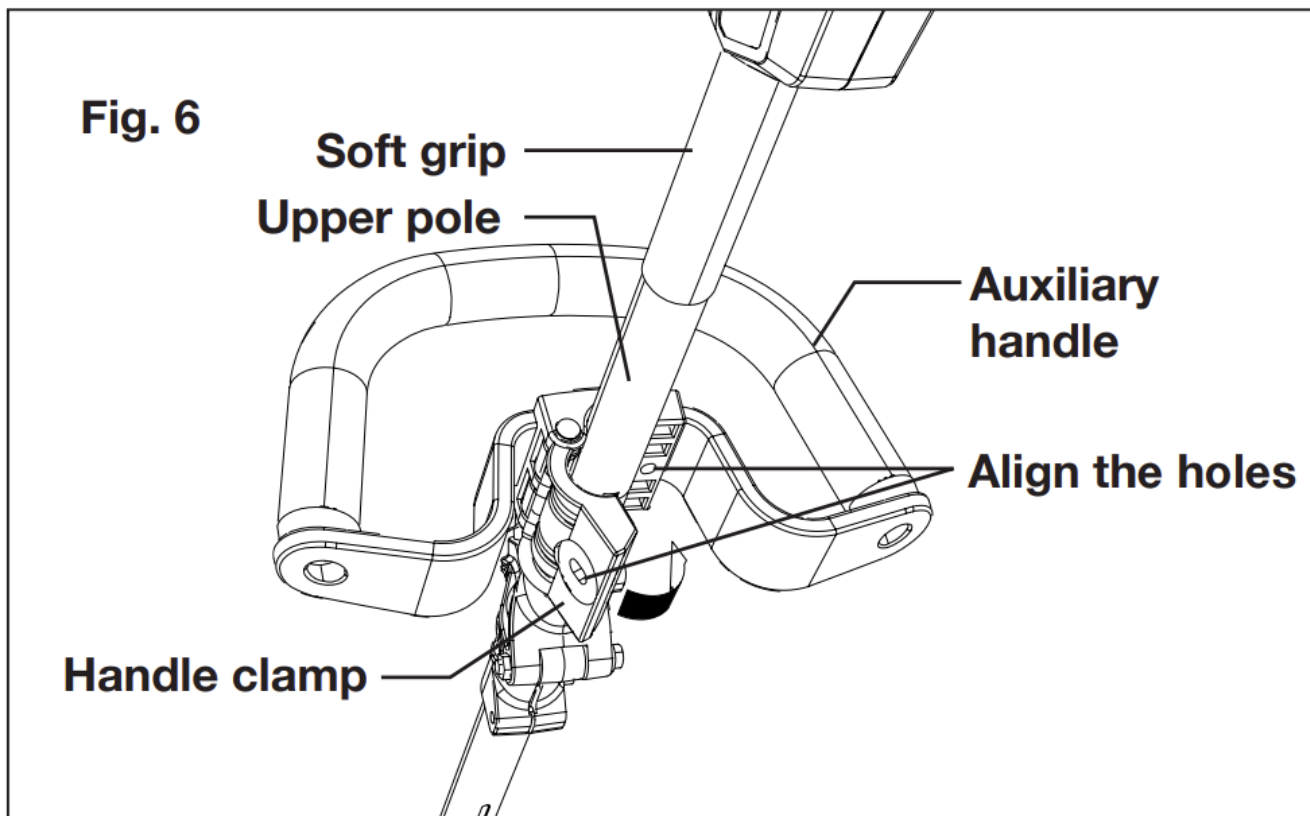


3. The auxiliary handle comes preassembled with all related hardware required to secure the handle clamp. To assemble the auxiliary handle, first loosen and remove the handle latch, washer and bolt (Fig. 5).

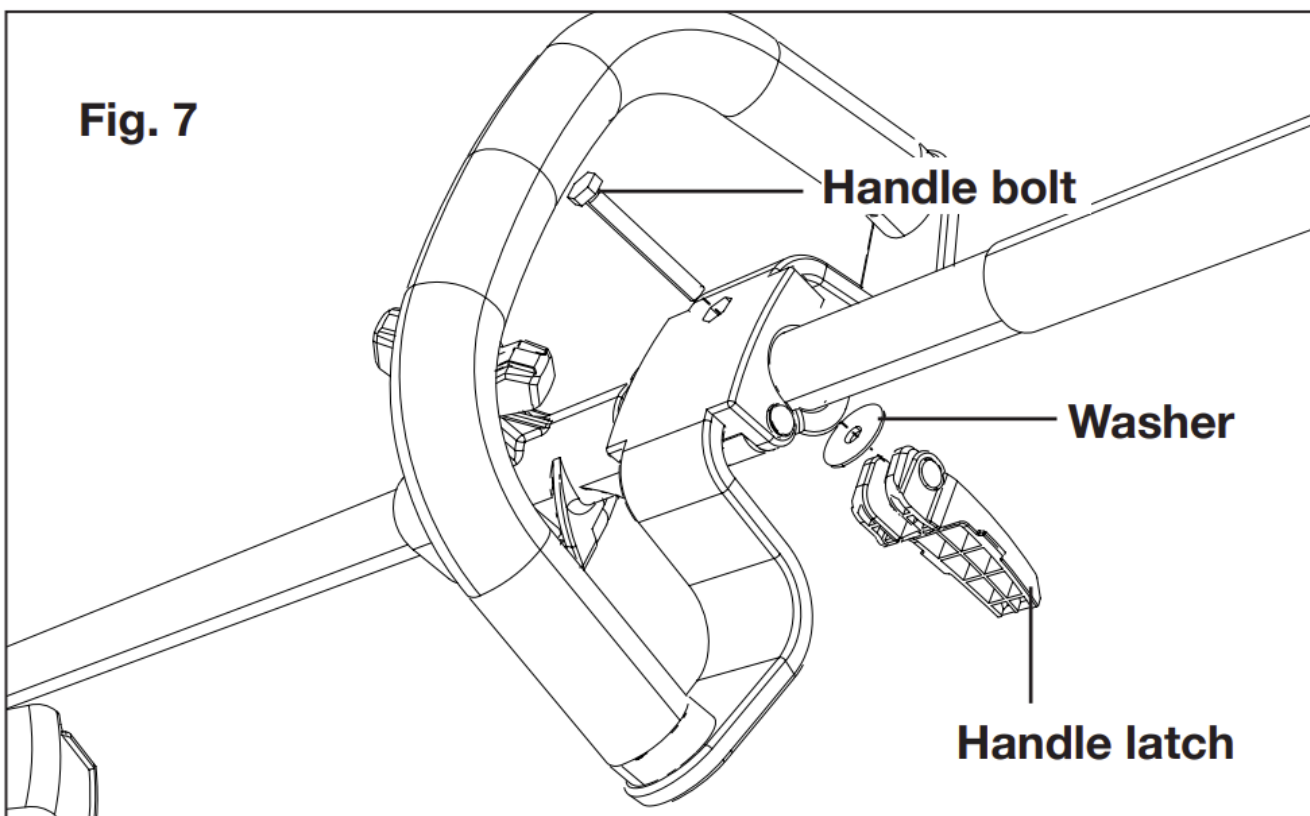
Fig. 5



Clamp the auxiliary handle under the soft grip on the upper pole, align the holes on the handle clamp (Fig. 6)



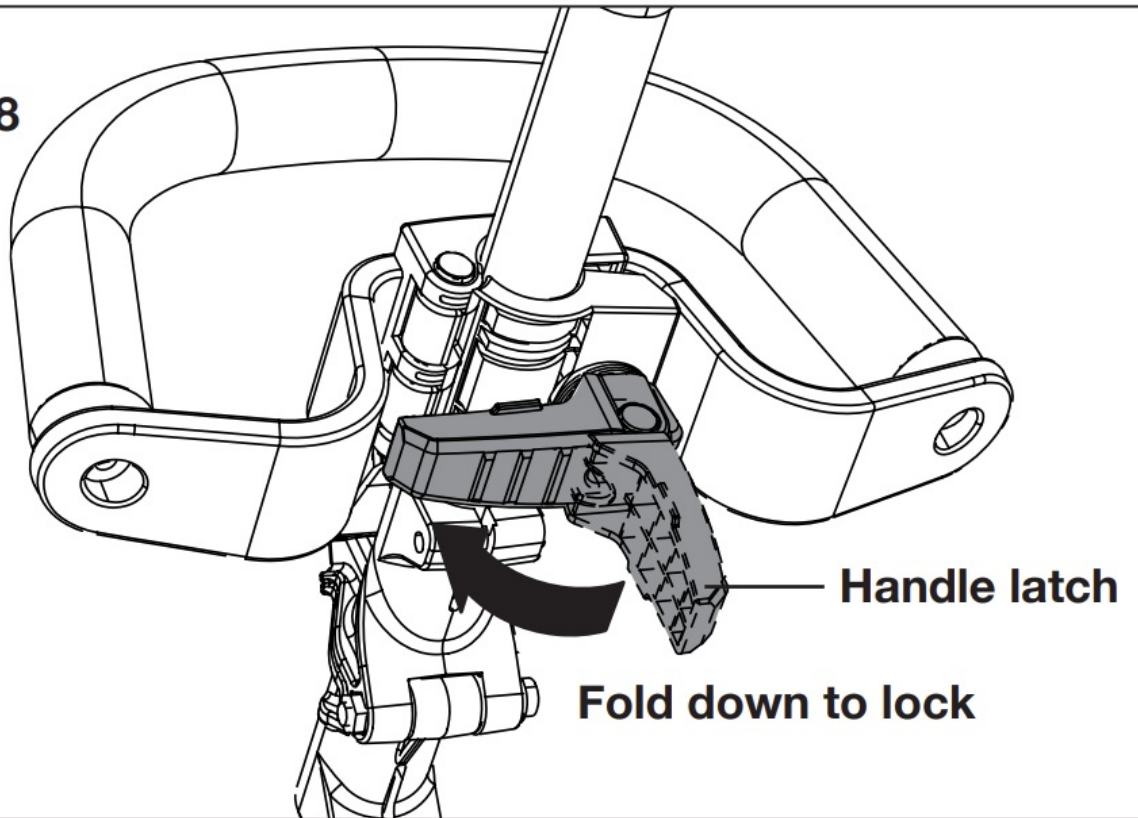
4. Insert the handle bolt into the hole on the handle clamp as shown, on the other side place the washer, and the handle latch (Fig. 7). Fix the auxiliary handle by twisting the handle latch clockwise, until nearly tight.



5. Fold down the latch to secure the assemble (Fig. 8).

NOTE: Adjust the position of the auxiliary handle between the joint and the soft grip by flipping up the handle latch and moving the handle along the pole. The auxiliary handle should be adjusted so that your front arm will be straight when using the trimmer. After adjusting, fold down the handle latch to lock the auxiliary handle in place. If the latch is difficult to fold down, loosen it 1-2 rotations before trying again.

Fig. 8



Battery Pack Operation

The equipment is powered by a lithium-ion battery (sold separately). The battery pack is completely closed and maintenance free.

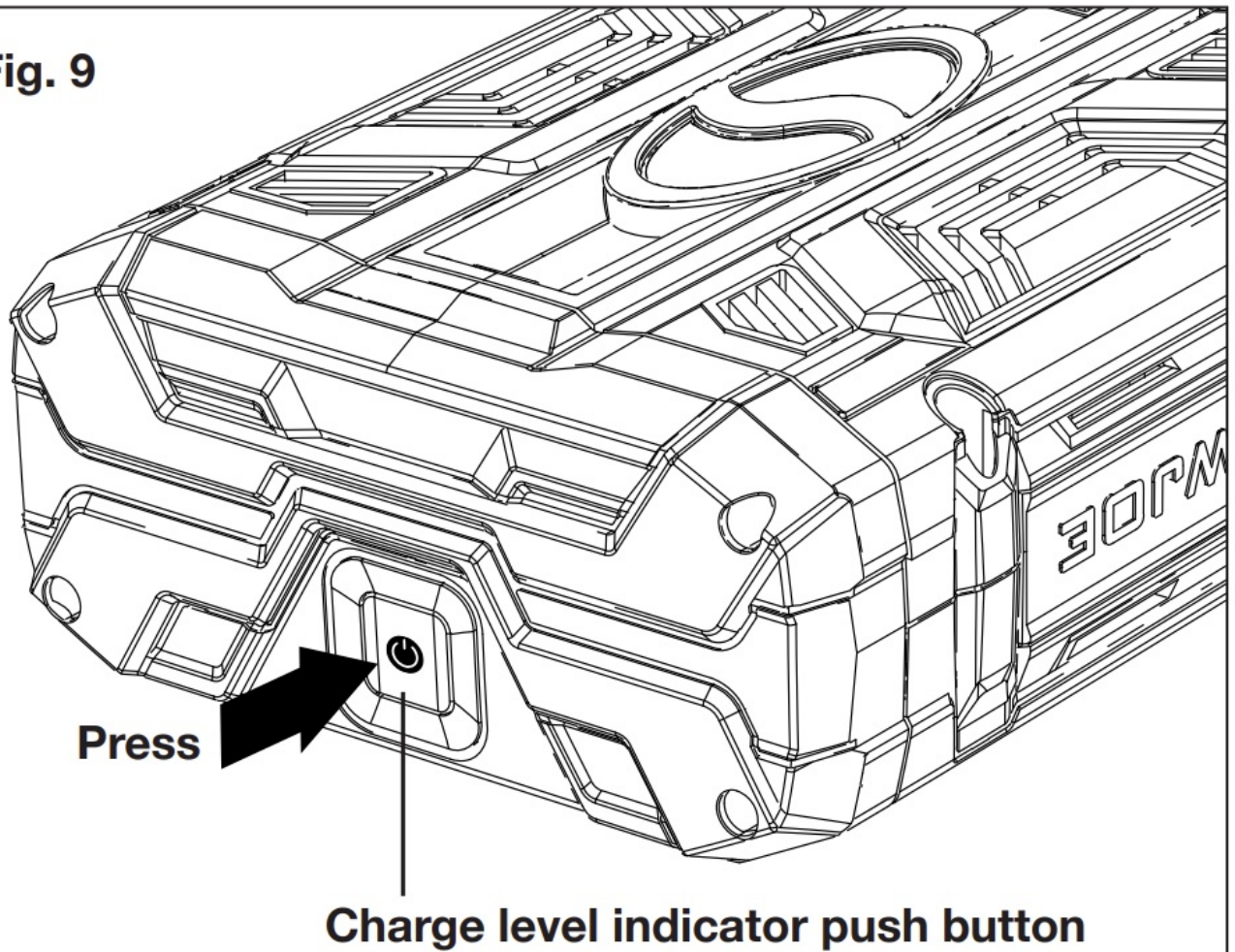
TOOL ONLY BATTERY + CHARGER SOLD SEPARATELY

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Battery Charge Level Indicator

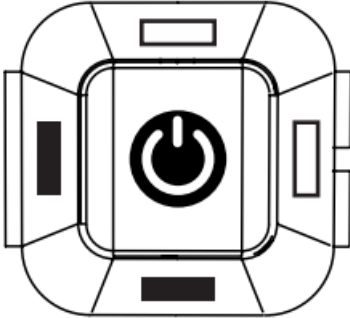
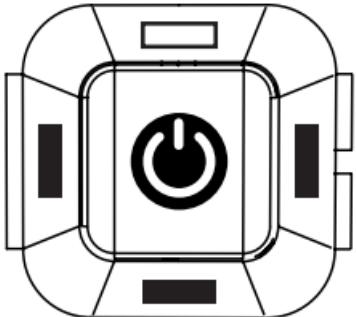
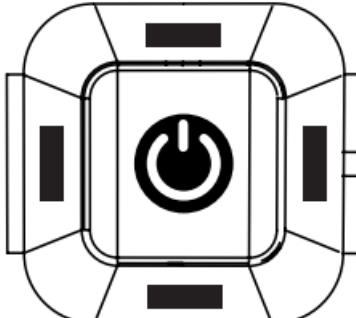
The battery pack is equipped with a push button for checking the charge level. Simply press the push button to read off the battery charge level from the LEDs of the battery indicator (Fig. 9):

Fig. 9



- All 4 level monitoring LEDs are lit: Battery charge level is high.
- 3 level monitoring LEDs are lit: Battery charge level is decreasing.
- 2 level monitoring LEDs are lit: Battery charge level is decreasing. Stop work as soon as possible.
- 1 level monitoring LED is lit: Battery is flat. Stop work IMMEDIATELY and charge the battery. Otherwise the battery's service life will be greatly shortened.

Lights	Light Indicators
	The battery is at 20% capacity and requires charging

	<p>The battery is at 50% capacity and requires charging soon</p>
	<p>The battery is at 70% capacity</p>
	<p>The battery is at full capacity</p>

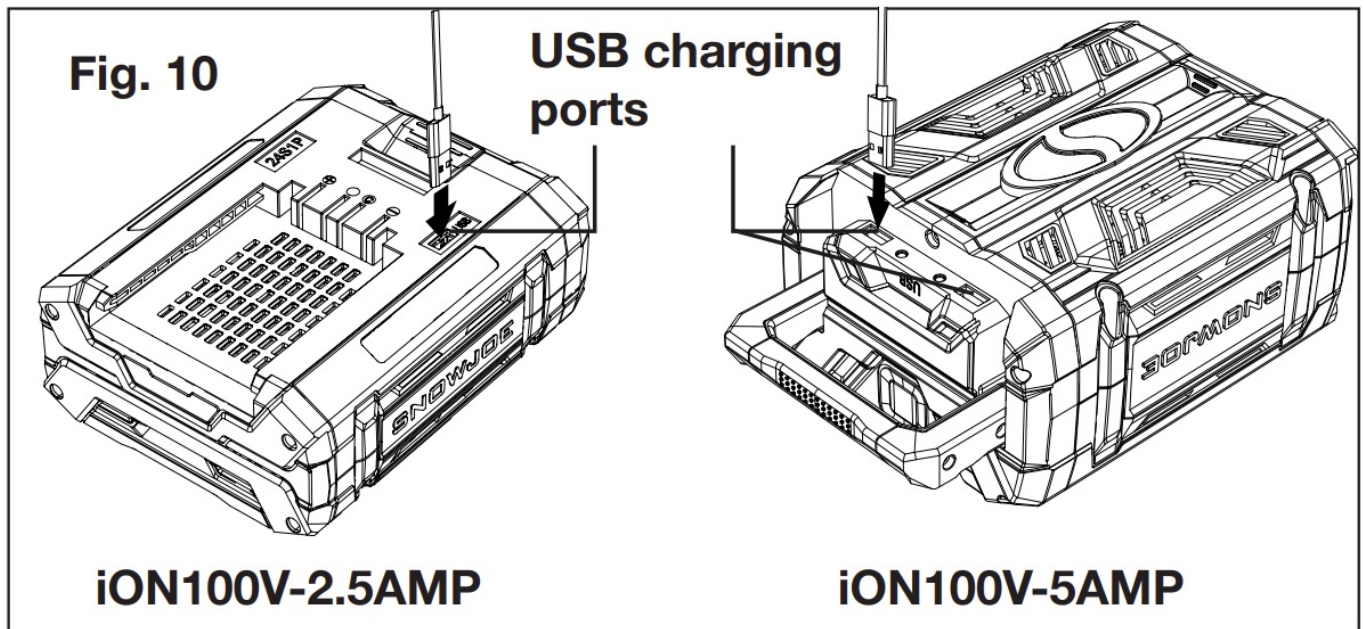
NOTE: If the charge level button does not appear to be working, place the battery pack on the charger and charge as needed.

Immediately after using the battery pack, the charge level button may display a lower charge than it will if checked a few minutes later. The battery cells “recover” some of their charge after resting.

USB Charging Port

iON100V series batteries are equipped with a USB port (or ports, depending on your model) which can provide 5 V power for most popular smartphones, tablets, wearables and other USB devices.

To charge with the battery, connect the USB cable that came with your device to the USB port (or ports) on your iON100V series battery and to your device. The charging process will start immediately (Fig. 10).



NOTE: If you experience any issues with charging your particular device, ensure that the iON100V battery is fully charged.



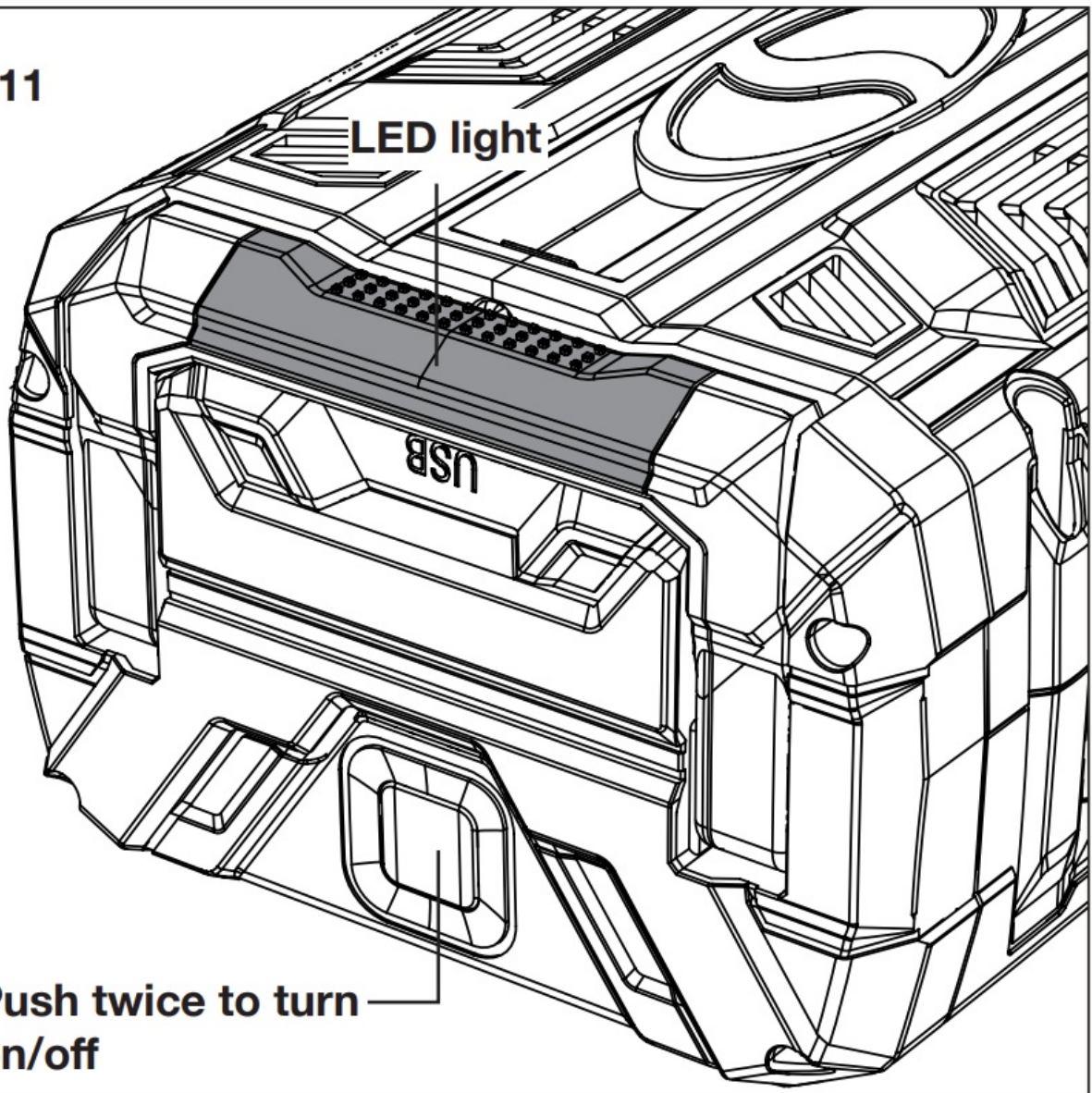
WARNING! Make sure the battery's USB port(s) is not contaminated with lint or other debris. Use a canned-air type of product periodically to ensure that the port openings are clear.

LED light (iON100V-5AMP batteries only – sold separately)

The iON100V-5AMP battery is equipped with a 0.35 watt LED light located on the handle, which is good for camping and emergency illumination. To turn on the LED light, open the carry handle, and press the battery push button twice in a row. To turn off the LED light, press the battery push button twice again (Fig. 11).

NOTE: This function only comes with iON100V-5AMP battery. iON100V-2.5AMP battery is not equipped with the handle or the LED light.

Fig. 11



Charger Operation

TOOL ONLY BATTERY + CHARGER SOLD SEPARATELY

In order to operate this string trimmer, you will need to additionally purchase either the iON100V-2.5AMP or iON100V-5AMP lithium-ion battery and the 100 V quick charger (model iON100V-RCH). Battery and charger options available at sunjoe.com.



WARNING! Charge only the iON100V-2.5AMP or the iON100V-5AMP lithium-ion battery packs in compatible iON100V-RCH battery charger. Other types of batteries may cause personal injury and damage. To reduce the risk of electric shock, do not allow water to flow into the charger's AC/DC plug.

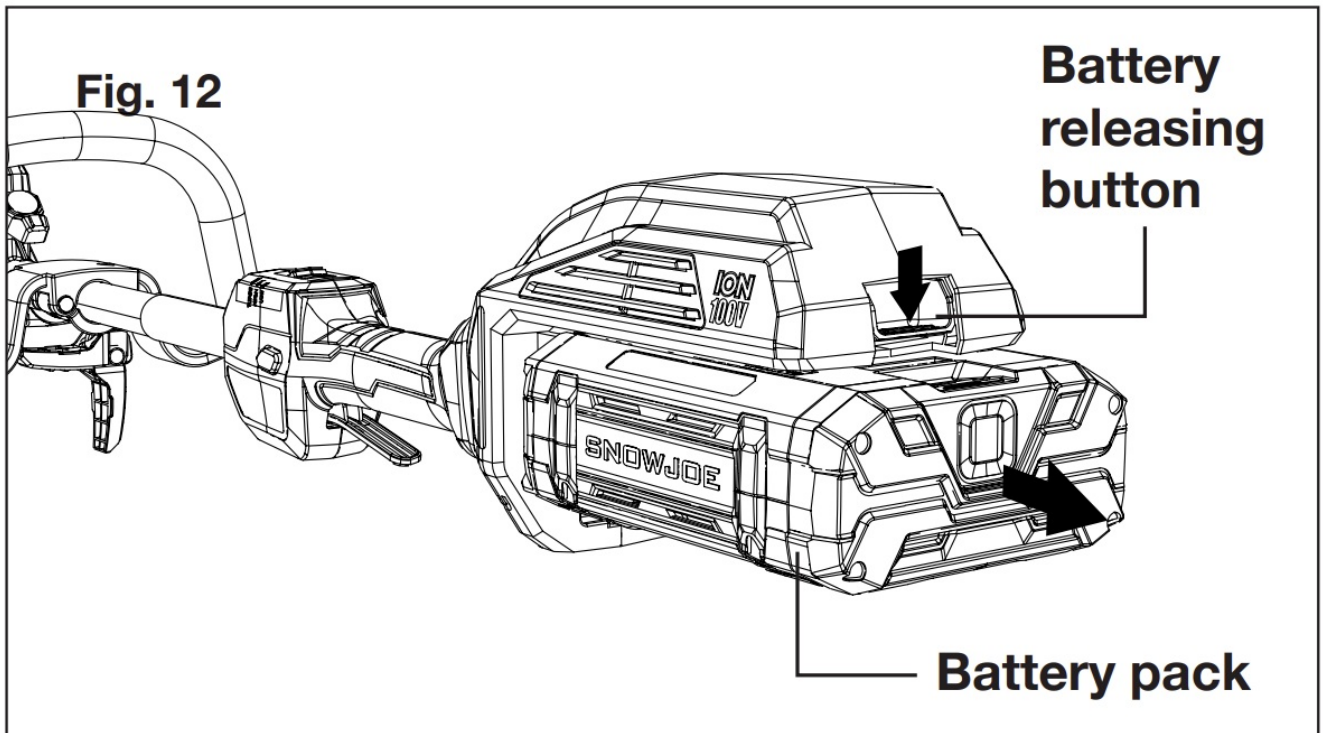
When to Charge the iON100V Lithium-ion Batteries

NOTE: The iON100V-2.5AMP and iON100V-5AMP lithium-ion battery packs do not develop a "memory" when charged after only a partial discharge. Therefore, it is not necessary to run down the battery pack before placing it into the charger.

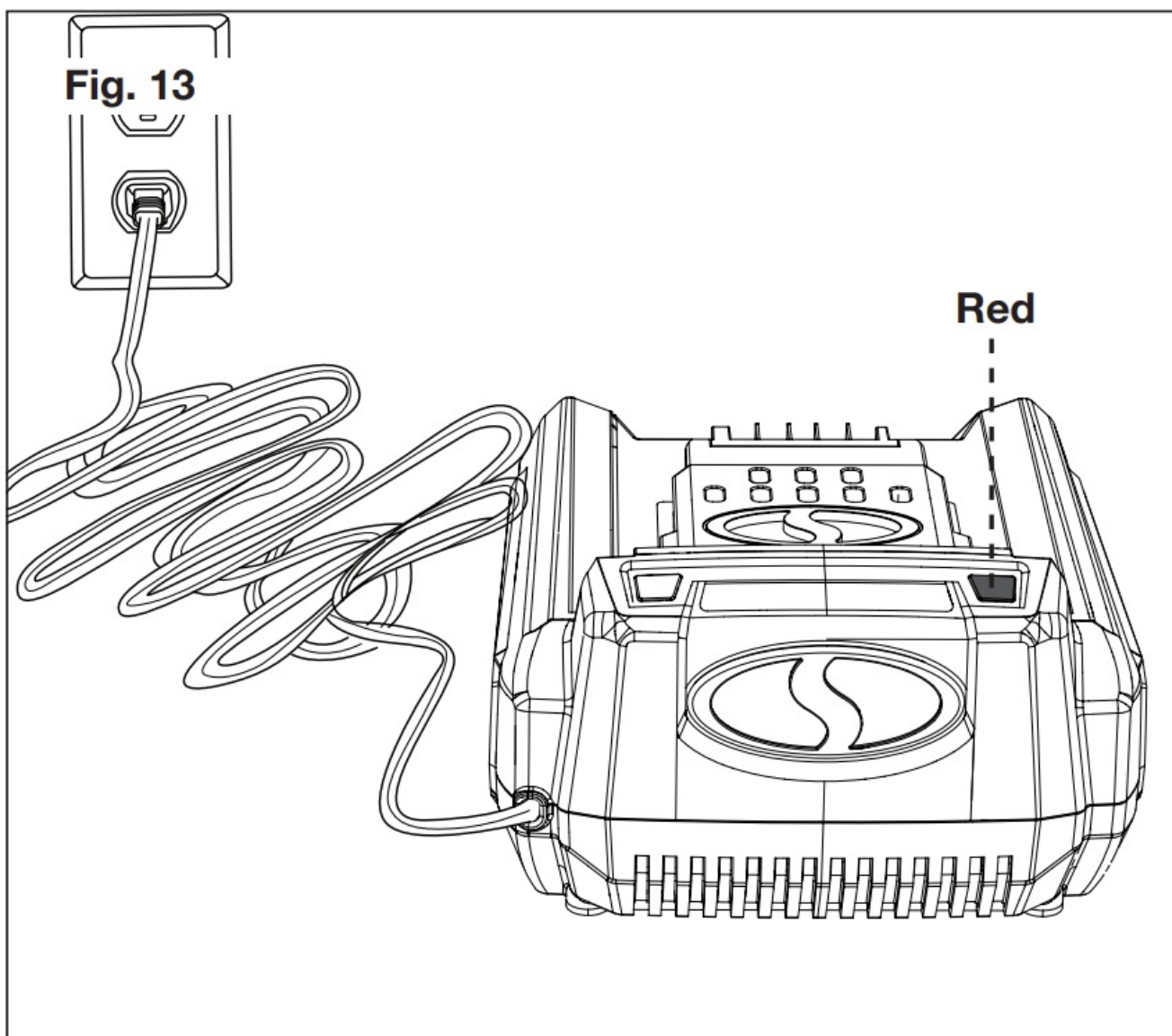
- Use the battery charge indicator lights to determine when to charge your iON100V-2.5AMP and iON100V-5AMP lithium ion battery packs.
- You can "top-off" your battery pack's charge before starting a big job or after a long day of use.

Charging the Battery

1. Push the battery releasing button on the string trimmer to release the battery pack. Pull the battery out of the equipment. (Fig. 12).



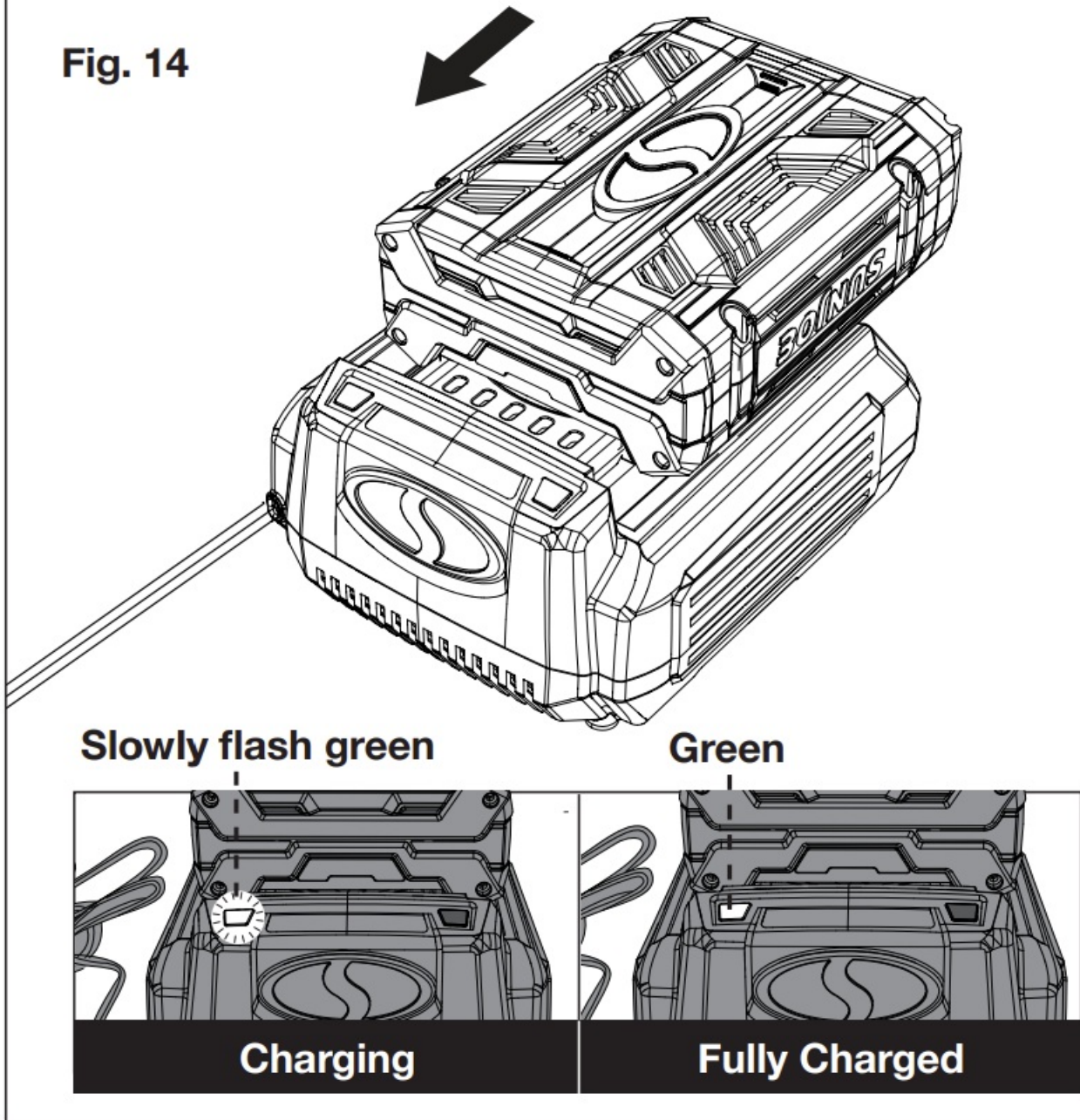
2. Check that the mains voltage is the same as that marked on the rating plate of the battery charger. Then, insert the charger's plug into the electrical wall outlet. When you plug in the charger, the red light will illuminate steadily (Fig. 13).



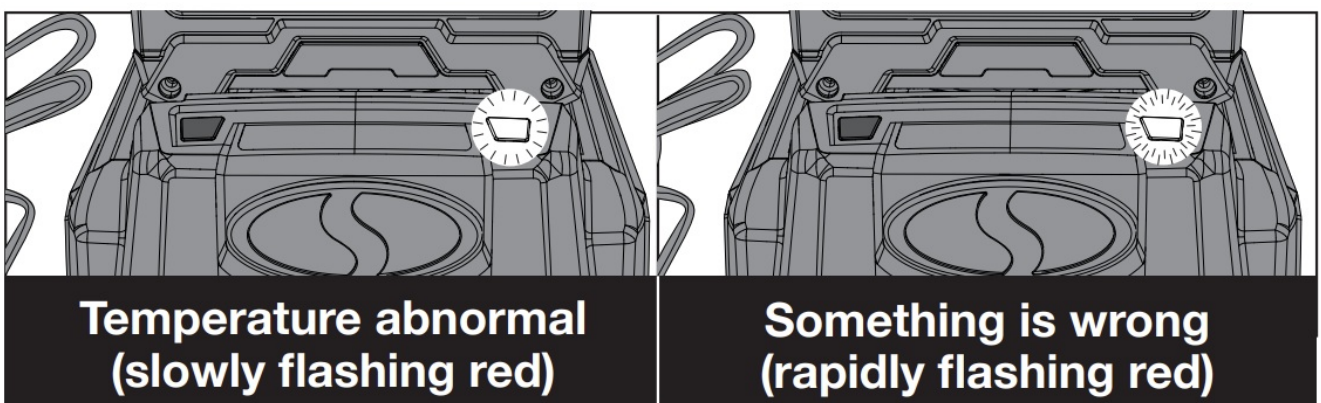
CAUTION! Charger iON100V-RCH is rated for 100 – 120 volt AC only. DO NOT plug the charger into any outlet that will provide power with a higher voltage. Over voltage charging will be harmful to both the battery and charger, and may cause the charger to burn out.

3. Place the battery pack into the charger by sliding the pack as shown until it clicks into the position. When the battery is inserted in properly, the green light will slowly flash to indicate that the battery is charging. The red light will turn off. You will also hear a fan sound (Fig. 14).
4. When the green light stays on, the battery is fully charged (Fig. 14).

Fig. 14



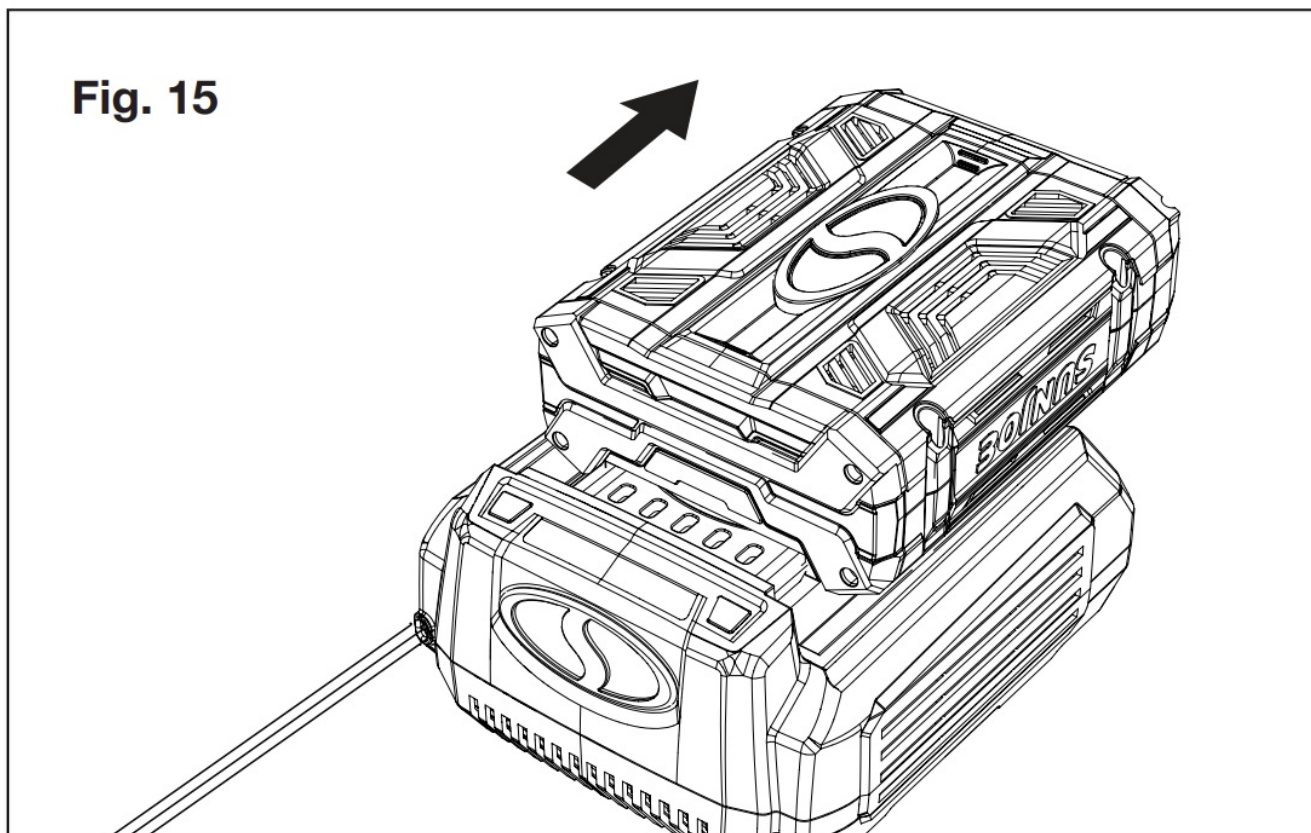
NOTE: If the green light is off while the red light flashes slowly, this indicates a temperature abnormality (i.e. that the battery pack is too hot). If the green light is off while the red light flashes rapidly, this indicates there's something wrong with the charger or the battery. Wait for a while and try to reinsert the battery into the charger. If the situation still persists, contact Snow Joe® + Sun Joe® customer service at 1-866-SNOWJOE (1-866-766-9563).



5. A fully discharged iON100V-2.5AMP battery pack with an internal temperature in the normal range will fully

charge in 50 minutes (between 32°F/0°C and 113°F/45°C). A fully discharged iON100V-5AMP battery pack with an internal temperature in the normal range will fully charge in 100 minutes (between 32°F/0°C and 113°F/45°C). Heavily cycled battery packs may take longer to charge completely.

6. When charging is complete, remove the battery from the charger by pulling the battery backward to unlock it from the charger (Fig. 15).



7. Timely recharging of the battery will help prolong the battery's life. You must recharge the battery pack when you notice a drop in the equipment's power.

IMPORTANT! Never allow the battery pack to become fully discharged as this will cause irreversible damage to the battery

Charger Light Indicator Table

Consult the table for meanings and possible solutions for the charger indication light. If there's anything not indicated in the table or you are not sure about the cause and cannot resolve the charger issue, contact the Snow Joe® + Sun Joe® customer service center at 1-866-SNOWJOE (1-866-766-9563).

Indication	Possible Cause (Solution)
<ul style="list-style-type: none"> • Red Light – Steady • Green Light – Off 	<ul style="list-style-type: none"> • No load charging – There's no battery inserted in the charger.
<ul style="list-style-type: none"> • Red Light – Off • Green Light – Slowly flashes 	<ul style="list-style-type: none"> • Normal charging – The battery is being charged.
<ul style="list-style-type: none"> • Red Light – Off • Green Light – Steady 	<ul style="list-style-type: none"> • Fully charged – The battery is fully charged and the charging process is finished.
<ul style="list-style-type: none"> • Red Light – Off • Green Light – Rapidly flashes 	<ul style="list-style-type: none"> • Discharged – The battery is heavily discharged. It may take longer to charge.
<ul style="list-style-type: none"> • Red Light – Slowly flashes • Green Light – Off 	<ul style="list-style-type: none"> • Temperature abnormal – Charging process will start when battery returns to normal temperature.
<ul style="list-style-type: none"> • Red Light – Rapidly flashes • Green Light – Off 	<ul style="list-style-type: none"> • Over current charging – The current coming through the charger is greater than what the charger can support. Stop charging as soon as possible.
	<ul style="list-style-type: none"> • Abnormal performance – Something is wrong with the battery or the charger. Contact Snow Joe® + Sun Joe® customer service at 1-866-SNOWJOE (1-866- 766-9563).

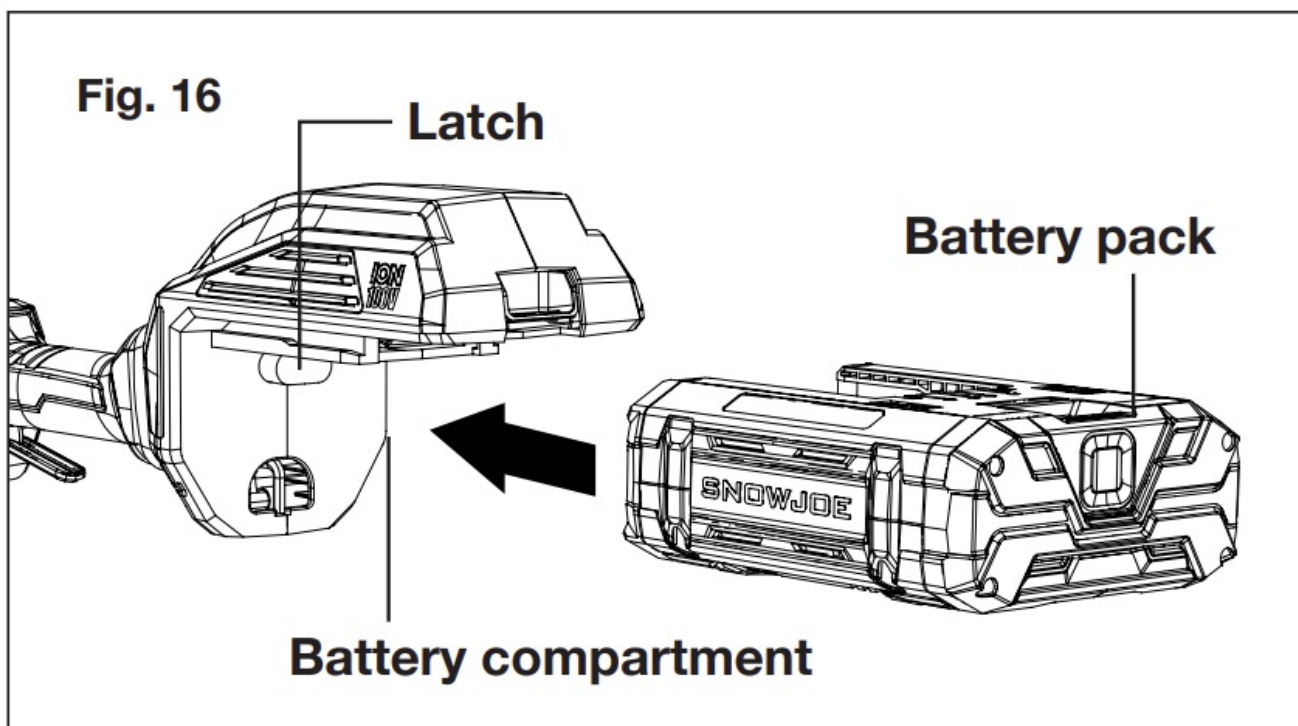
Operation

Starting + Stopping

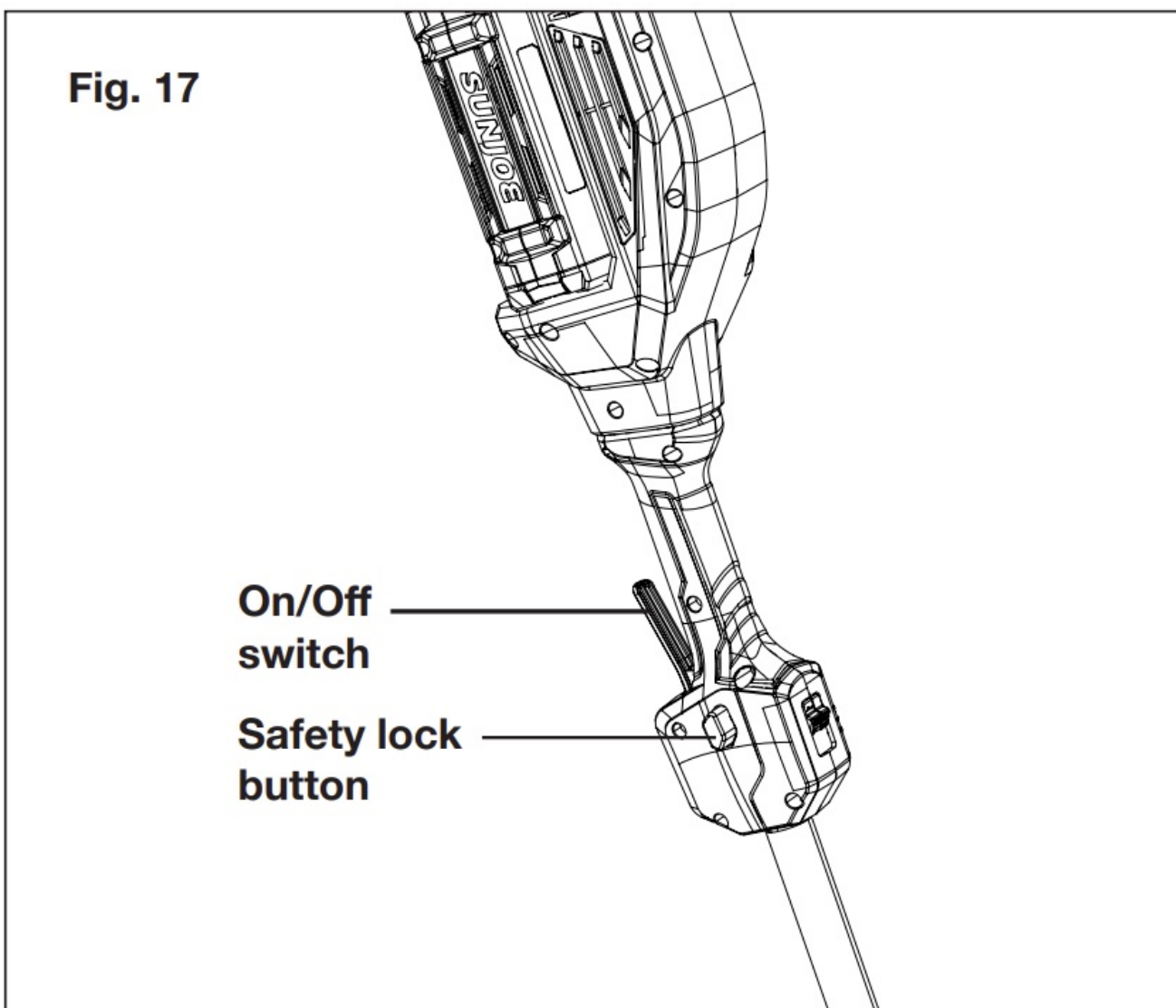
Before you start the unit, make sure the trimmer is not contacting any object.

1. Align the ribs of the battery pack with the battery mounting slots in the string trimmer. Slide the battery pack in until it snaps into position (Fig. 16).

IMPORTANT! Make sure that the latch in the battery compartment snaps into place and the battery pack is secured to the tool before beginning operation.

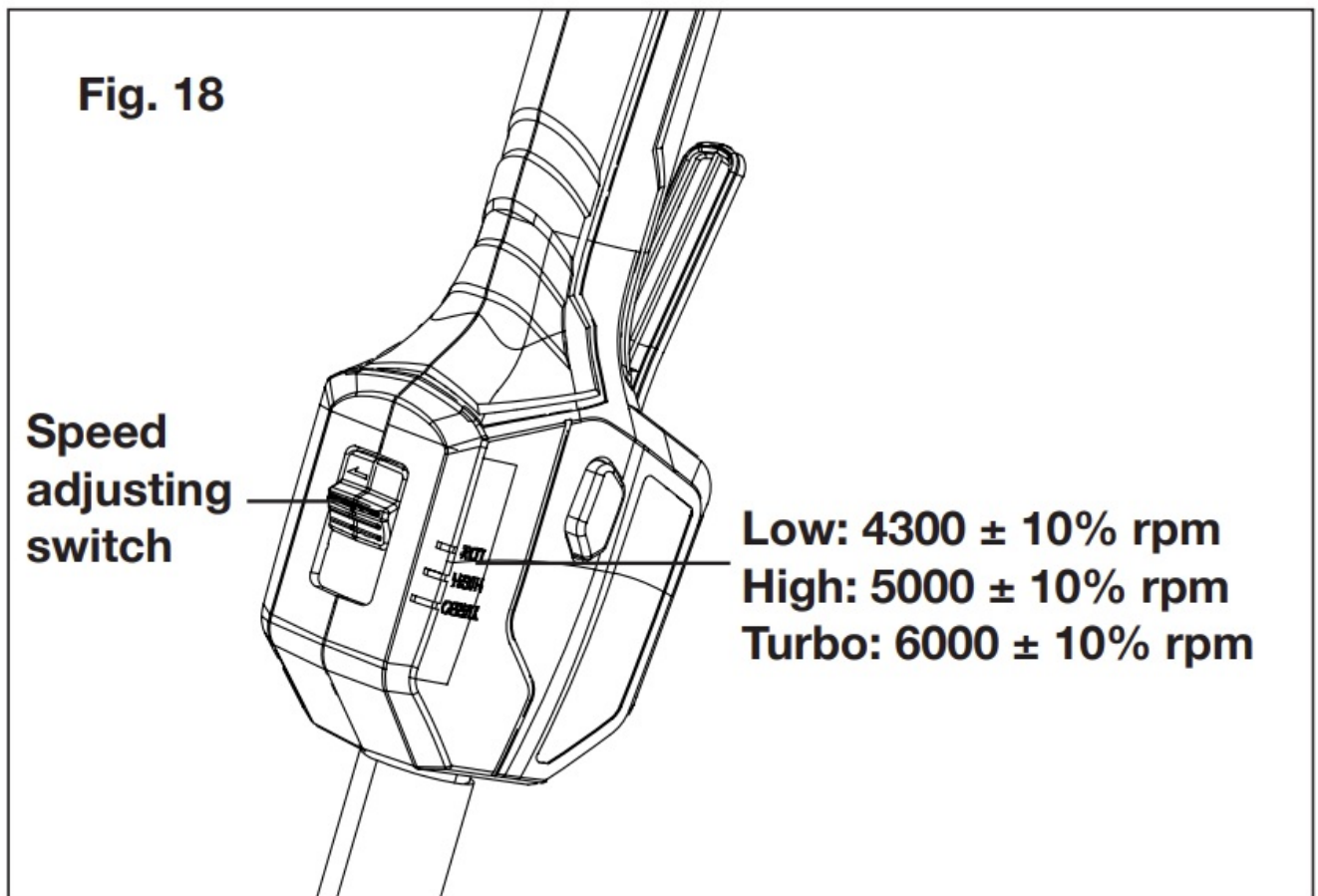


2. Press the safety button down (on either side) and hold it in the position. Press the On/Off switch to turn on the string trimmer. Release the safety button and continue to squeeze the On/Off switch for continued operation (Fig. 17).



3. Using the speed adjusting switch to adjust the rotation speed of the motor. The unit is equipped with 3 speeds

(Fig. 18).



To switch OFF, release the ON/OFF trigger switch. Remove the battery from the battery compartment (Fig. 17).



WARNING! Always remove the battery pack from the string trimmer during work breaks and after finishing work.

Trimming

- Wear non-slip gloves for maximum grip and protection. Hold the string trimmer with your right hand on the rear handle while the right arm slightly bent, and your left hand on the front auxiliary handle with the left arm straight. The string trimmer should be held at a comfortable position with the rear handle about hip height. The trimmer head should be parallel with the ground and easily contacts the material to be cut without the operator having to bend over (Fig. 19).

Fig. 19



- For the best cutting action against walls, fences, and in high grass, move the string trimmer slowly so grass is cut with the tip of the high speed nylon line. Do not force the trimmer. Cutting with more than the tip will reduce cutting efficiency and may overload the motor.
- Avoid dragging the string trimmer and string spool hub in contact with the ground.
- Trim only when grass and weeds are dry.
- Cut tall grass from top down. This will prevent grass from wrapping around the shaft housing and string head which may cause damage from overheating.
- If grass becomes wrapped around the string head:
 - Stop the trimmer.
 - Remove the battery.
 - Remove the grass.



WARNING! Always hold the trimmer away from body. Any contact with the string trimmer cutting head while operating can result in serious personal injury.

- The life of your nylon line is dependent upon following instructions for proper use, as well as what is being cut, and where the cutting is being done.



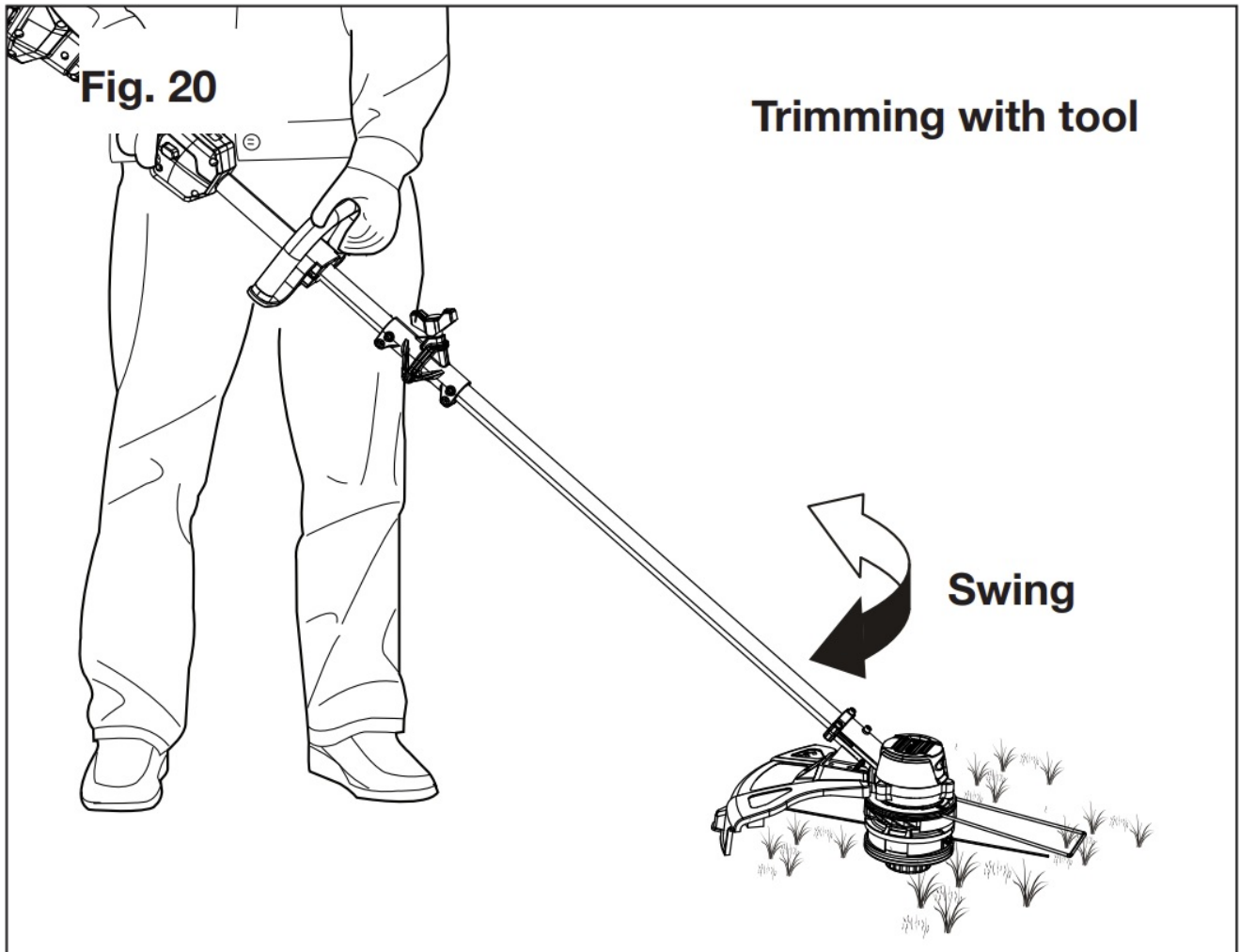
WARNING! Remove stones, loose pieces of wood, and other objects from the cutting area. The string continues to rotate for a few seconds after switching off the trimmer. Let the motor come to a complete stop before

resuming operation. Do not rapidly switch the trimmer off and on.

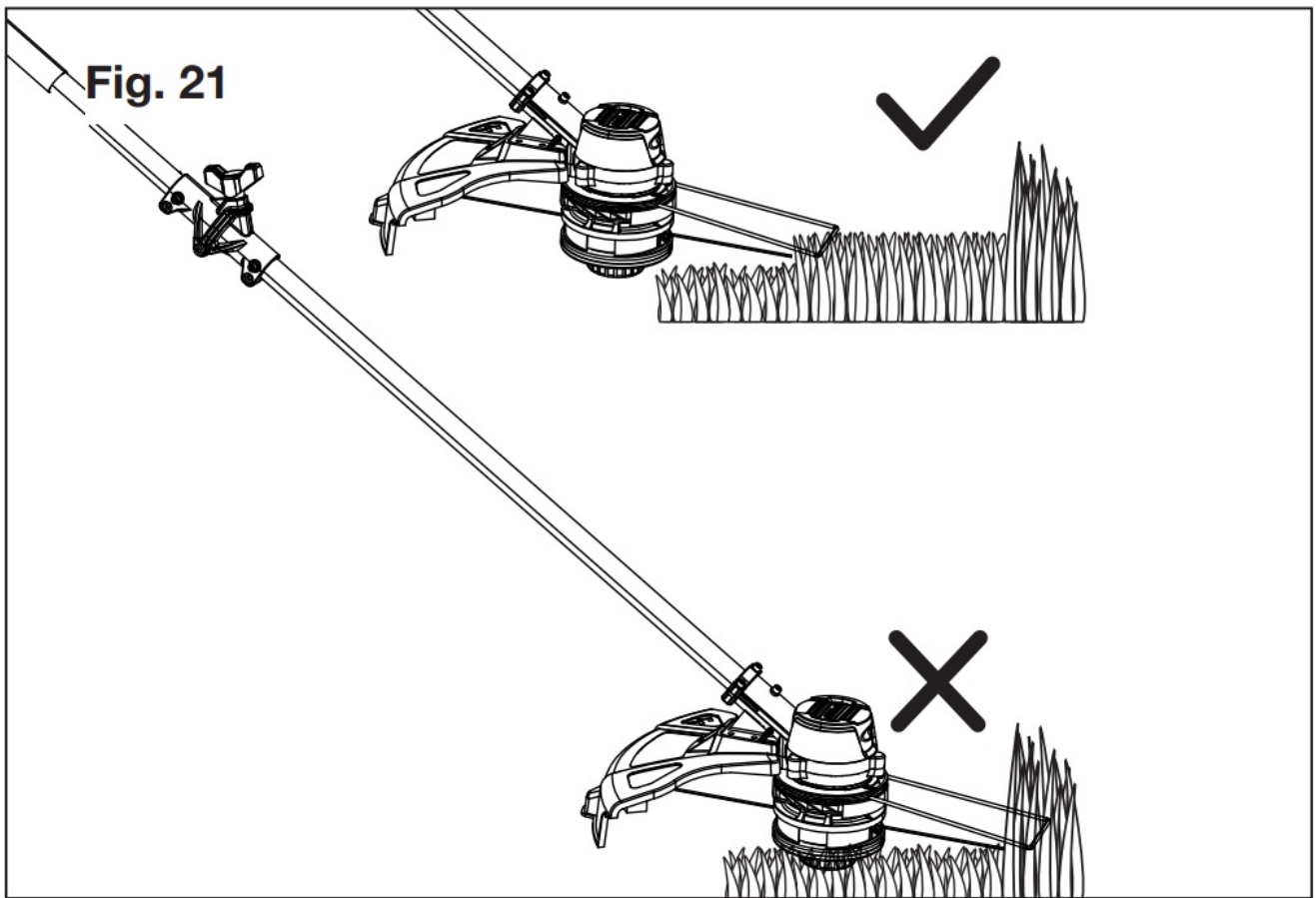


CAUTION! Always wear eye protection

1. The correct angle for the cutting attachment is parallel to the ground.
2. Slowly swing the trimmer from side to side (Fig. 20).



3. Do not overload your trimmer; instead, take small “bites” of grass, working from the top to the bottom. This will keep the machine operating at high speed and will greatly improve its cutting efficiency (Fig. 21).

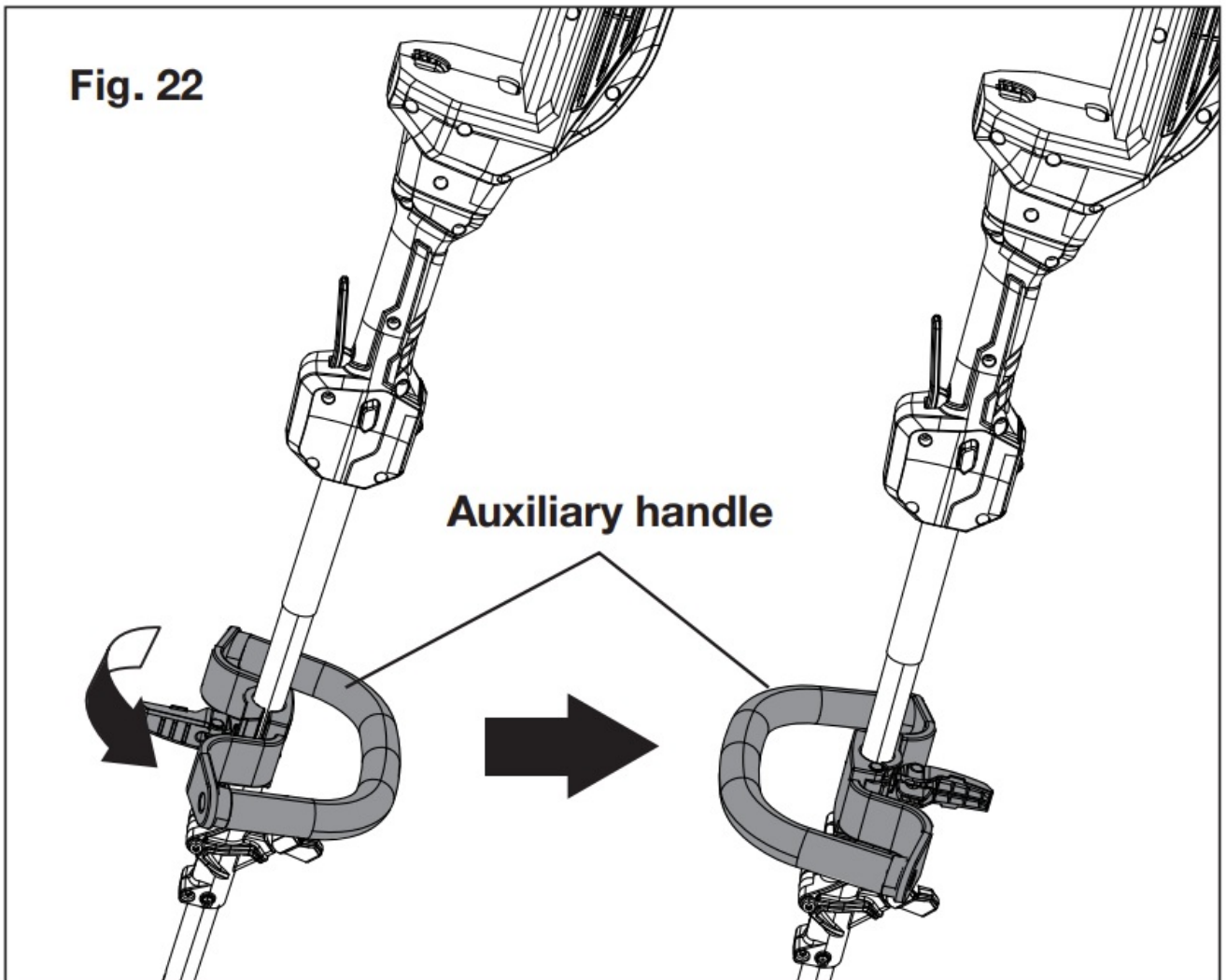


Edging

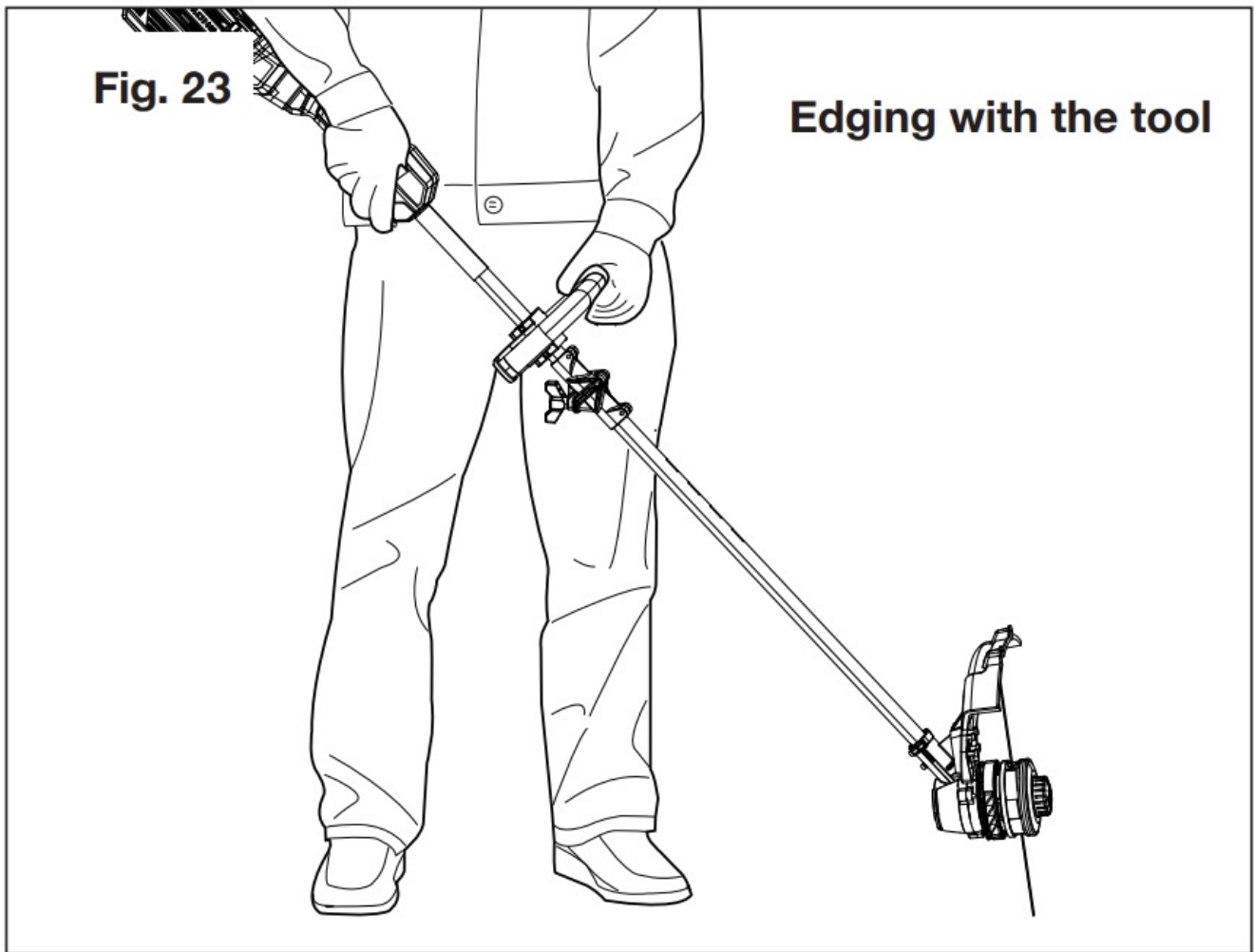
To using the machine for edging, simply turn the unit 180 degree, and adjust the position of the auxiliary handle as described.

1. Turn OFF the tool and remove the battery.
2. Flip up the handle latch to unlock the handle, and rotate the handle 180 degrees around and make sure it's facing the same direction with the On/Off switch (Fig. 22). Fold down the handle latch and make sure the auxiliary handle is locked securely.

Fig. 22



3. Remove the edger guide + flower guard if it prevents the trimmer line from contacting the soil.
4. Reinstall the battery. Press the On/Off switch to start edging.
5. Hold the trimmer in a comfortable position with right hand on the rear handle and left hand on the front auxiliary handle (Fig. 23). Slowly walk with the tool, holding it with your arms steady. Moving your body instead of your arms will ultimately make the cut on the grass much straighter.



6. Move the unit in a backwards direction when trimming around edges to avoid damage.



WARNING! Do not trim near electrical wires.

Advancing String

NOTE: Your trimmer uses 0.095 in. (2.4 mm) diameter nylon line to cut grass and weed quickly and easily. In time, the tip of the nylon line will become worn. The trimmer head allows the operator to release more cutting line without stopping the motor. As line becomes frayed or worn, additional line can be released by lightly tapping the trimmer head on the ground while the motor is running.

NOTE: For best results, tap the trimmer head on bare ground or hard soil. Always keep the trimming line fully extended. Line release becomes more difficult as the cutting line becomes shorter.

Maintenance



WARNING! Make sure to remove the battery before inspecting its parts.



WARNING! Always wear protective gloves during maintenance tasks. Do not carry out maintenance when the motor is running or hot.

- Your trimmer line can dry out over time. To keep your line in top condition, store spare pre-wound spools or bulk line in a plastic resealable bag with a tablespoon of water.

- Never use water or chemical cleaners to clean your string trimmer. Wipe it clean with a dry cloth.
- Plastic parts may be cleaned by using mild soap and a damp rag.
- Always store your string trimmer in a dry place. Do not allow any liquid to get inside it.

IMPORTANT! To ensure product safety and reliability, repairs, maintenance, and adjustments to this power tool should be performed only with identical replacement parts. Contact your authorized Snow Joe® + Sun Joe® dealer or call the Snow Joe® + Sun Joe® customer service center at 1-866-SNOWJOE (1-866-766-9563) for assistance.

Replacing the Cutting Line



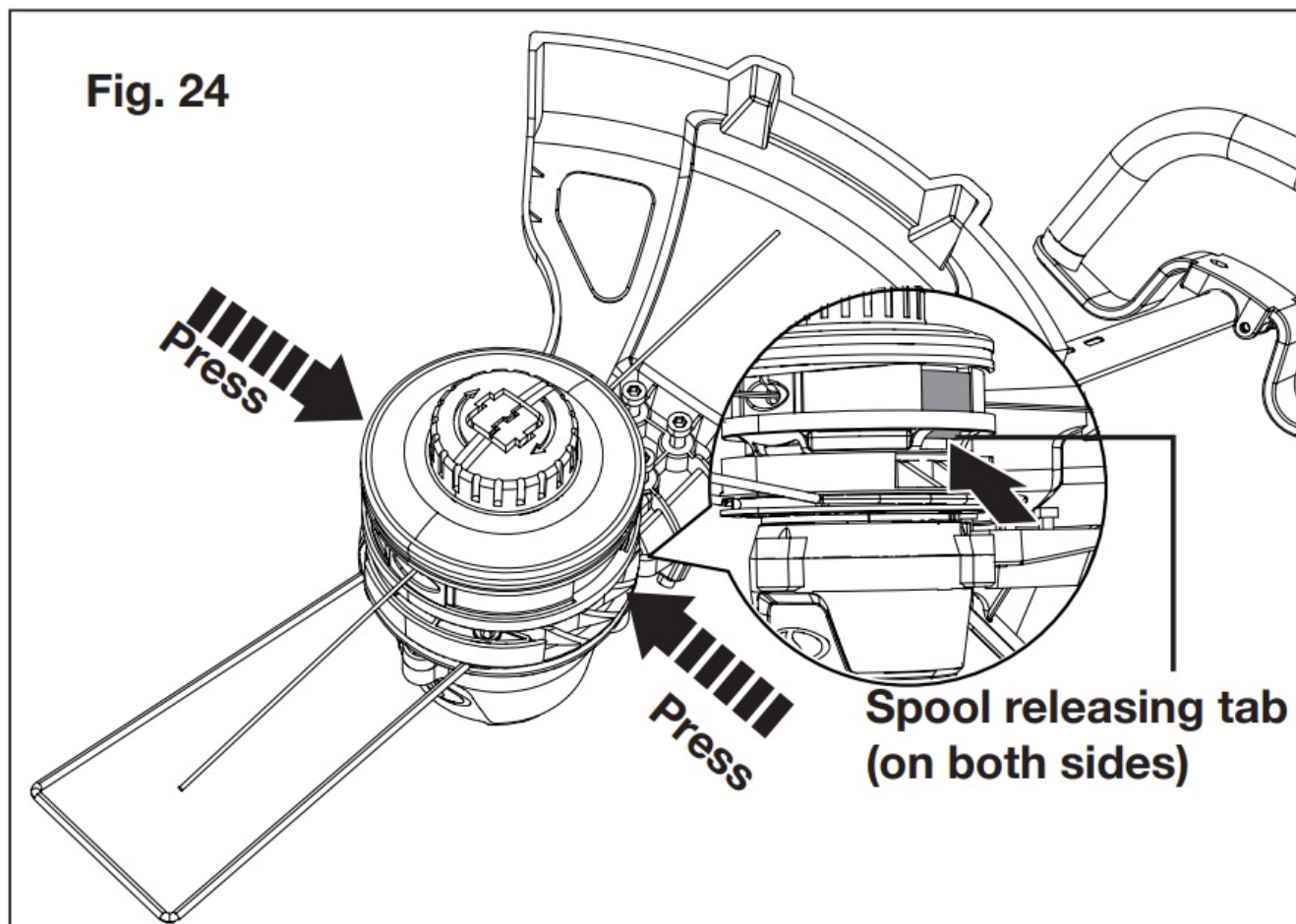
WARNING! Remove the battery from the battery compartment before changing the trimmer line.



WARNING! Never use metal-reinforced line, wire, or rope, etc. These can break off and become dangerous projectiles.

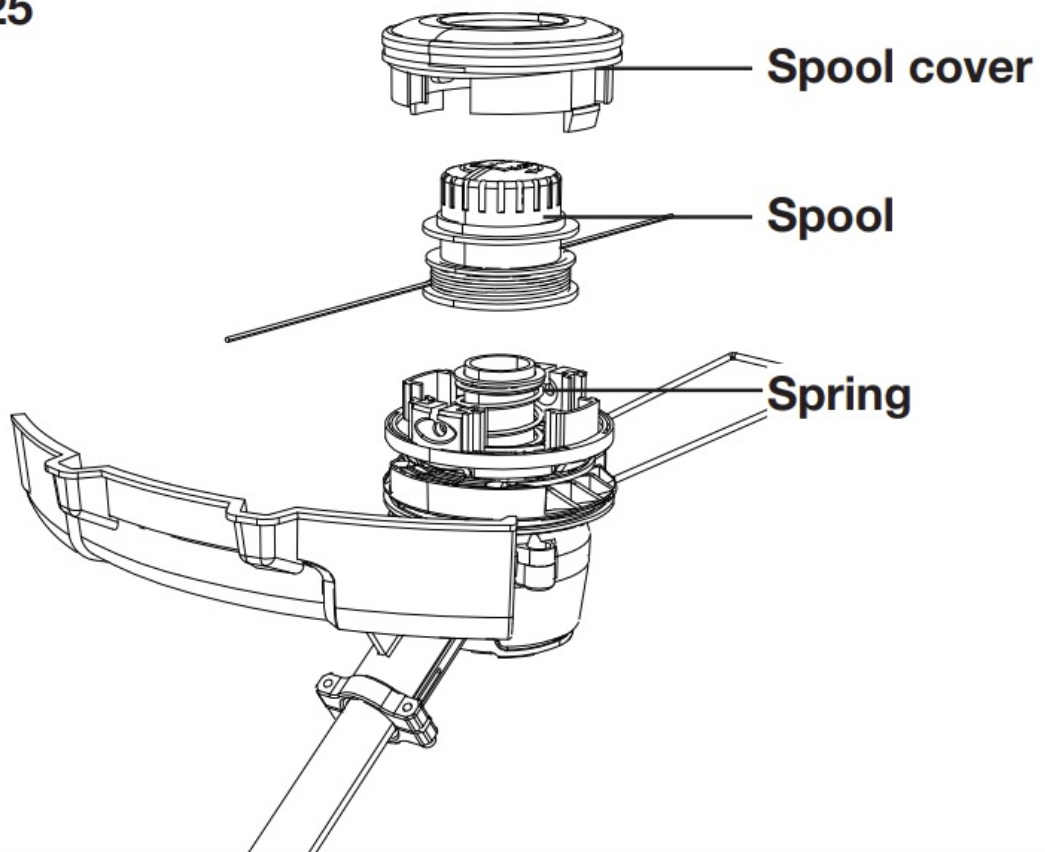
NOTE: 250 ft. (76.2 m) replacement trimmer line (model iON100V-STRS-250) is available for use with the iON100V-16ST-CT cordless string trimmer. Visit snowjoe.com to purchase this accessory online. Always use the recommended nylon cutting line with diameter no more than 0.095 in. (2.4mm). Using line other than that specified may cause the string trimmer to overheat or become damaged.

1. Press together both release tabs on the line spool cover and remove the cover by pulling it straight off (Fig. 24).



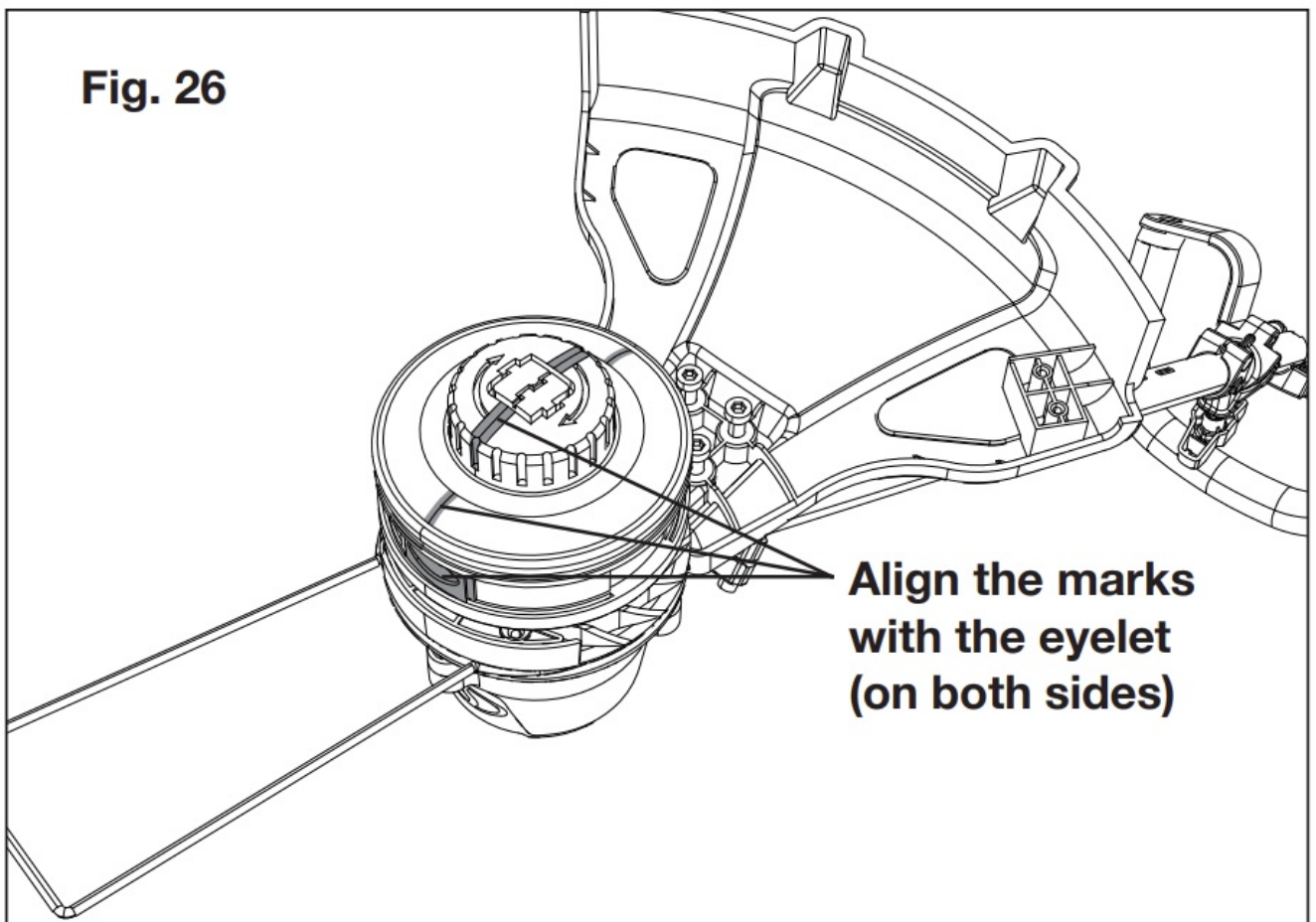
2. Lift and remove the spool out of the hub (Fig. 25) and clean out the remaining cutting line, remove any jams, or dirt and grass residue.

Fig. 25

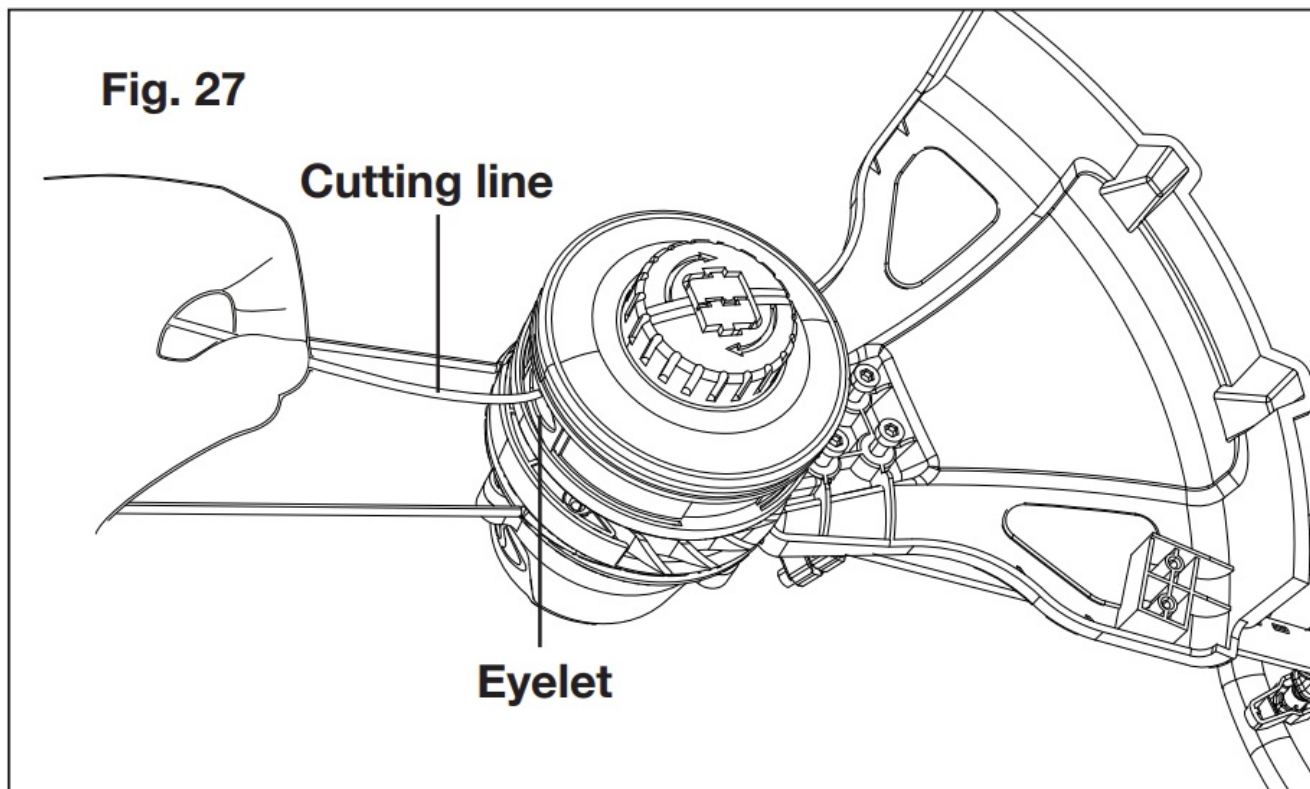


3. After cleaning the jam and remaining trimmer line, reassemble the spool and the spool cover on the motor head. Make sure to align the marks on the spool, and the spool cover with the metallic eyelets on the motor head where trimmer line comes out (Fig. 26).

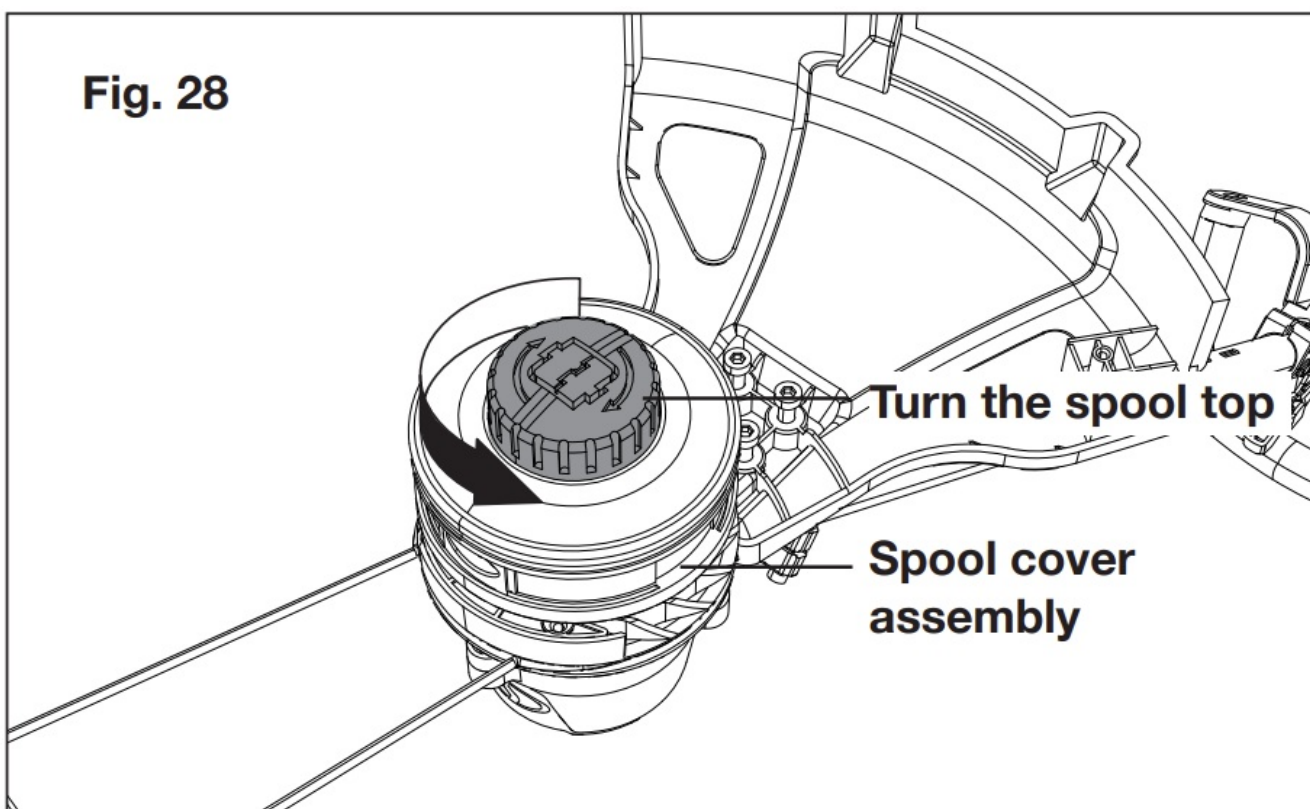
Fig. 26



4. Cut one length of trimmer line 13.2 ft. (4 m) long. Insert the line into the eyelet and push the line until the end of the line comes out of the opposite eyelet (Fig. 27). Pull the line from the other side until equal lengths of the line appear on both sides of the trimmer head.



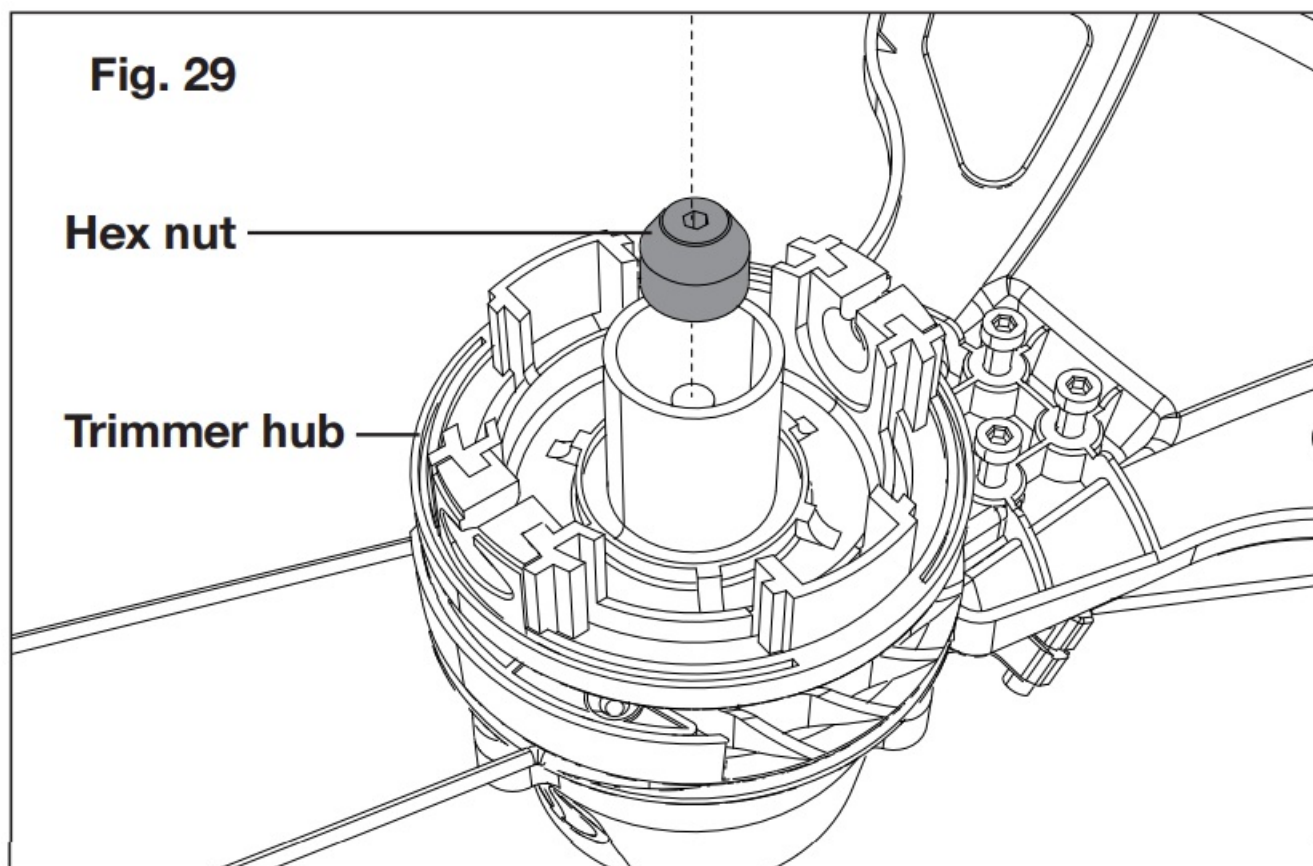
5. Use your left hand to hold the spool cover assembly steady so it won't move, meanwhile use your right hand to press down and firmly twist the top of the spool clockwise as shown. The line will be wound into the trimmer head (Fig. 28).



Replace the Spool Assembly

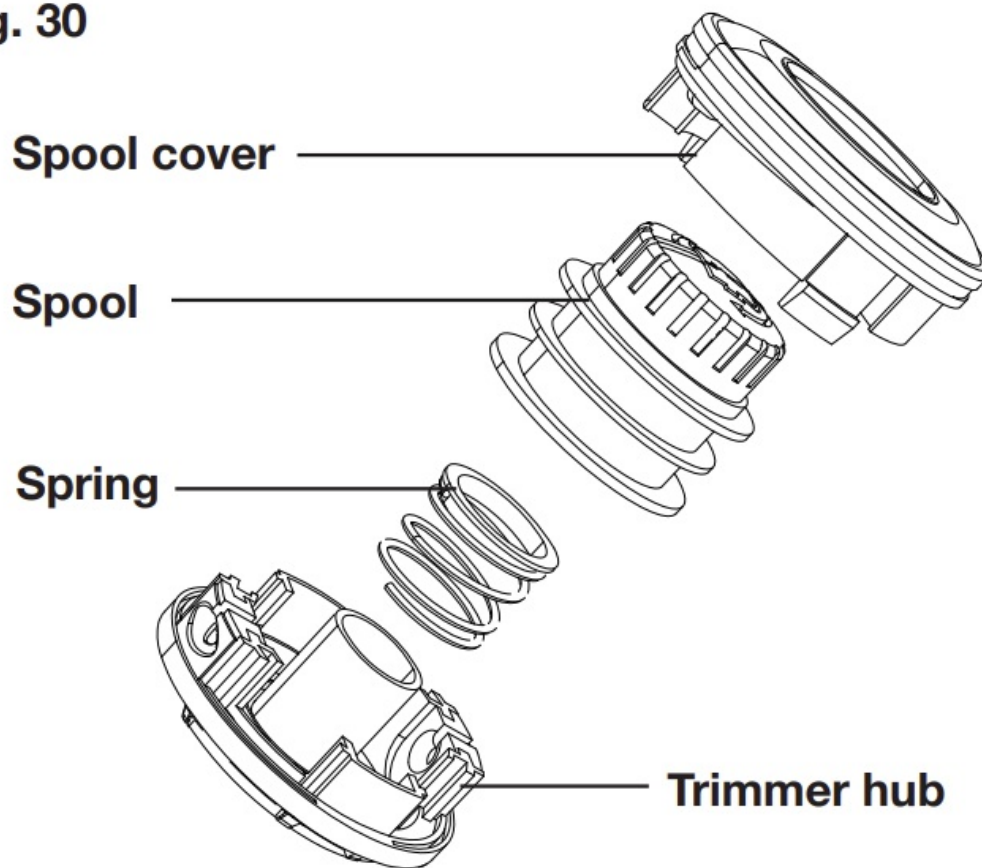
NOTE: The spool assembly may wear out over time with extended use. Should you wish to replace the whole spool assembly, the instructions are provided below. A replacement spool assembly (model iON100V-STRS) is available on snowjoe.com.

1. Stop the machine and remove the battery.
2. First, remove the spool from the trimmer hub, follow steps 1 and 2 from the section “Replacing the Cutting Line” beginning on page 14.
3. Take the spring out of the spool assembly (Fig. 25).
4. Using the provided hex key, remove the hex nut used to fix the trimmer hub (Fig. 29). Then the trimmer hub can be removed easily. Retain the hex nut.



5. To assemble the new spool assembly, first push both releasing tabs to separate the trimmer hub from the assembly (Fig. 30). Also remove the trimmer line from the spool.

Fig. 30



6. Place the trimmer hub on top of the cutting head, fix with the hex nut, and use the hex key to secure it in place (Fig. 28).

7. Re-install the spool and wind the line as instructed in steps 3 to 6 of “Replacing the Cutting Line”.

IMPORTANT: Keep all areas of the cutting head and cutting head cover clean. Replace the spool cover by pushing it firmly onto the cutting head to lock in place. To ensure that the spool cover is properly secured, try to remove it without depressing the two releasing tabs. If it is correctly fitted, it should not detach.

Storage

Follow these recommendations for storing the string trimmer.

- Clean the string trimmer thoroughly before storing.
- Store the string trimmer in a stable and safe position out of the reach of children. Keep the trimmer in a dry place where the temperature is not too hot or too cold.
- When storing the string trimmer, do not rest it against the floor. Hang it by the upper handgrip so that the guard does not touch anything. If the guard rests against a surface, its shape and dimensions could be permanently altered, and could render the machine unsafe to use.

Battery Caution + Disposal

Always dispose of your battery pack according to federal, state, and local regulations. Contact a recycling agency in your area for recycling locations.



CAUTION! Even discharged battery packs contain some energy. Before disposing, use electrical tape to cover the terminals to prevent the battery pack from shorting, which could cause a fire or explosion.



WARNING! To reduce the risk of injury or explosion, never burn or incinerate a battery pack even if it is damaged, dead, or completely discharged. When burned, toxic fumes and materials are emitted into the surrounding atmosphere.

1. Batteries vary according to device. Consult your manual for specific information.
2. Install only new batteries of the same type in your product (where applicable).
3. Failure to insert batteries in the correct polarity, as indicated in the battery compartment or manual, may shorten the life of the batteries or cause batteries to leak.
4. Do not mix old and new batteries.
5. Do not mix Alkaline, Standard (Carbon-Zinc), or Rechargeable (Nickel Cadmium, Nickel Metal Hydride, or Lithium-Ion) batteries.
6. Do not dispose of batteries in fire.
7. Batteries should be recycled or disposed of as per state and local guidelines.

Service and Support

If your Sun Joe® iON100V-16ST-CT cordless string trimmer requires service or maintenance, please call the Snow Joe® + Sun Joe® customer service center at 1-866-SNOWJOE (1-866-766-9563).

Model and Serial Numbers

When contacting the company, reordering parts, or arranging service from an authorized dealer, you will need to provide the model and serial numbers, which can be found on the decal located on the housing of the unit. Copy these numbers into the space provided below.

Record the following numbers from the housing or handle of your new product:

Model #:

i	O	N	1	0	0	V	-	1	6	S	T	-	C	T				
---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	--	--	--	--

Serial #:

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--



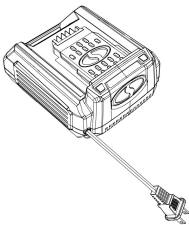


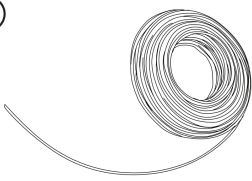
Troubleshooting

Problems	Possible Cause	Possible Solution
The motor does not run or the tool runs slowly.	<ul style="list-style-type: none"> Battery is not inserted well or is flat. Spool housing cannot rotate freely. Cutting line does not protrude. 	<ul style="list-style-type: none"> Check to make sure the battery is charged and inserted well. Remove the spool and clean the slots; carefully remove any grass and weeds or other debris. Cut the spool line off so that it just reaches the line trimming blade. Contact your authorized Snow Joe® + Sun Joe® dealer or call Snow Joe® + Sun Joe® customer service center at 1-866-SNOWJOE (1-866-766-9563) if the trimmer does not start after completing these checks.
Line fails to cut off.	<ul style="list-style-type: none"> Line cutter in guard is covered, damaged, or missing. Line extends past guard. 	<ul style="list-style-type: none"> Contact your authorized Snow Joe® + Sun Joe® dealer or call Snow Joe® + Sun Joe® customer service center at 1-866-SNOWJOE (1-866-766-9563). Rewind or trim line to line cutter.

Optional Accessories



WARNING! ALWAYS use only authorized Snow Joe® + Sun Joe® replacement parts and accessories. NEVER use replacement parts or accessories that are not intended for use with this cordless string trimmer. Contact Snow Joe® + Sun Joe® if you are unsure whether it is safe to use a particular replacement part or accessory with your cordless string trimmer. The use of any other attachment or accessory can be dangerous and could cause injury or mechanical damage.

Accessories	Item	Model
① 	100 V 2.5 Ah Lithium-Ion Battery	iON100V-2.5AMP
② 	100 V 5.0 Ah Lithium-Ion Battery	iON100V-5AMP
③ 	100 V Battery Quick Charger	iON100V-RCH
④ 	Universal wall bracket with mounting hardware	SJWB (Fits most Snow Joe® + Sun Joe® tools)
⑤ 	Replacement spool assembly	iON100V-STRS
⑥ 	250 ft (76.2 m) replacement trimmer line	iON100V-STRS-250

WARRANTY

OUR WARRANTY:

Snow Joe warrants new, genuine, powered and non-powered Products to be free from defects in material or workmanship when used for ordinary household use for a period of two years from the date of purchase by the original, end-user purchaser when purchased from Snow Joe or from one of Snow Joe's authorized sellers with proof of purchase. Because Snow Joe is unable to control the quality of its Products sold by unauthorized sellers, unless otherwise prohibited by law, this Warranty does not cover Products purchased from unauthorized sellers. If your Product does not work or there's an issue with a specific part that is covered by the terms of this Warranty, Snow Joe will elect to either (1) send you a free replacement part, (2) replace the Product with a new or comparable product at no charge, or (3) repair the Product. How cool is that!

This Warranty gives you specific legal rights, and you may also have other rights which vary from State to State.

PRODUCT REGISTRATION:

Snow Joe strongly encourages you to register your Product. You can register online at snowjoe.com/register, or by printing and mailing in a registration card available online from our website, or calling our Customer Service Department at 1-866-SNOWJOE (1-866-766-9563), or by e-mailing us at help@snowjoe.com. Failure to register your Product will not diminish your warranty rights. However, registering your Product will allow Snow Joe to better serve you with any of your customer service needs.

WHO CAN SEEK LIMITED WARRANTY COVERAGE:


This Warranty is extended by Snow Joe to the original purchaser and original owner of the Product.

WHAT IS NOT COVERED?

This Warranty does not apply if the Product has been used commercially or for non-household or rental applications. This Warranty also does not apply if the Product was purchased from an unauthorized seller. This Warranty also does not cover cosmetic changes that do not affect performance. Wearing parts like belts, augers, chains and tines are not covered under this Warranty, and can be purchased at snowjoe.com or by calling 1-866-SNOWJOE (1-866-766-9563).



Documents / Resources

	<p>SUNJOE iON100V-16ST-CT Cordless String Trimmer - Core Tool [pdf] Instruction Manual iON100V-16ST-CT Cordless String Trimmer Core Tool, iON100V-16ST-CT, Cordless String Trimmer Core Tool, String Trimmer Core Tool, Trimmer Core Tool, Core Tool</p>
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References

- [Cordless + Electric Snow, Lawn and Garden Outdoor Tools | Snow Joe® | Sun Joe® | Aqua Joe®](#)
- [Register Your Product | Product Registration For Your Snow Joe®, Sun Joe®, Aqua Joe®](#)
- [Cordless + Electric Snow, Lawn and Garden Outdoor Tools | Snow Joe® | Sun Joe® | Aqua Joe®](#)
- [Cordless + Electric Snow, Lawn and Garden Outdoor Tools | Snow Joe® | Sun Joe® | Aqua Joe®](#)