



## Troy-Bilt 2-cycle String Trimmer Instructions

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**WARNING:** This product can expose you to chemicals including engine exhaust, which is known to the State of California to cause cancer, and carbon monoxide, which is known to the State of California to cause birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

## SAFETY

The purpose of safety symbols is to attract your attention to possible dangers. The safety symbols, and their explanations, deserve your careful attention and understanding. The safety warnings do not by themselves eliminate any danger. The instructions or warnings they give are not substitutes for proper accident prevention measures.

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**WARNING:** Signals a SERIOUS hazard.

Failure to obey a safety WARNING symbol CAN result in serious injury to yourself or to others.

**CAUTION:** Signals a MODERATE hazard.

Failure to obey a safety CAUTION symbol MAY result in property damage or injury to yourself or to others.

**NOTE:** Advises you of information or instructions vital to the operation or maintenance of the equipment.

## SPARK ARRESTOR NOTE

**NOTE:** For users on U.S. Forest Land and in the states of California, Maine, Oregon and Washington. All U.S. Forest Land and the state of California (Public Resources Codes 4442 and 4443), Oregon and Washington require, by law that certain internal combustion engines operated on forest brush and/or grass-covered areas be equipped with a spark arrestor, maintained in effective working order, or the engine be constructed, equipped and maintained for the prevention of fire. Check with your state or local authorities for regulations pertaining to these requirements. Failure to follow these requirements could subject you to liability or a fine. This unit is factory equipped with a spark arrestor. If it requires replacement, contact your local service dealer to install the appropriate muffler assembly.

**WARNING:** Read the operator's manual and follow all warnings and safety instructions. Failure to do so can result in serious injury to the operator and/or bystanders.

## IMPORTANT SAFETY INSTRUCTIONS

### READ ALL INSTRUCTIONS BEFORE OPERATING

**WARNING:** When using the unit, all safety instructions must be followed. Please read these instructions before operating the unit in order to ensure the safety of the operator and any bystanders. Please keep these instructions for later use.

- Read the instructions carefully. Be familiar with the controls and proper use of the unit. Know how to stop the unit and disengage the controls quickly.
- Stay alert. Do not operate this unit when tired, ill or under the influence of alcohol, drugs or medication.
- Never allow children to operate the unit. Teens must be trained, accompanied and supervised by an adult. Never allow adults to operate the unit without proper instruction.
- All guards and safety attachments must be installed properly before operating the unit.
- Inspect the unit before use. Check for damaged parts. Check for fuel leaks. Make sure all parts operate properly. Make sure all fasteners are in place and secure. Make sure all moving parts are properly aligned and are not bound. Replace parts that are cracked, chipped, or damaged in any way. Have all damaged or improperly working parts repaired or replaced by an authorized service center. Do not operate the unit with loose or damaged parts.
- Be aware of risk of injury to the head, hands and feet.
- Carefully inspect the area before starting the unit. Remove rocks, broken glass, nails, wire, string and other objects that may be thrown or become entangled with the unit.
- Clear the area of children, bystanders and pets; keep them outside a 50-foot (15 m) radius, at a minimum. Even then, they are still at risk from thrown objects. Encourage bystanders to wear eye protection. If you are approached, stop the unit immediately.
- Squeeze the throttle control and check that it returns automatically to the idle position. Make all adjustments or repairs before using the unit.
- Do not change the engine governor settings or overspeed the engine.
- This unit is intended for occasional, household use only.

### SAFETY WARNINGS FOR GAS UNITS

**WARNING:** Gasoline is highly flammable and its vapors can explode if ignited. Take the following precautions:

- Store fuel only in containers specifically designed and approved for the storage of such materials.
- Always stop the engine and allow it to cool before filling the tank. Never remove the fuel tank cap or add fuel when the engine is hot. Always loosen the fuel tank cap slowly to relieve any pressure in the tank before fueling.
- Always mix and add fuel in a clean, well-ventilated outdoor area where there are no sparks or flames. DO NOT smoke.
- Never operate the unit without the fuel cap securely in place.
- Avoid creating a source of ignition for spilled fuel. Wipe up any spilled fuel from the unit immediately, before starting the unit. Move the unit at least 30 ft. (9.1 m) from the fueling source and site before starting the engine. DO NOT smoke.
- Never start or run the unit inside a closed room or building. Breathing exhaust fumes can kill. Operate this unit

only in a well-ventilated outdoor area.

## **WHILE OPERATING**

- Wear safety glasses or goggles that meet current ANSI / ISEA Z87.1 standards and are marked as such. Wear ear/hearing protection when operating this unit. Wear a face mask or dust mask if the operation is dusty.
- Wear heavy long pants, boots, gloves and a long sleeve shirt. Do not wear loose clothing, jewelry, short pants, sandals or go barefoot. Secure hair above shoulder level.
- Adjust the handle to provide the best grip, if applicable.
- Use the unit only in daylight or good artificial light.
- Avoid accidental starting. Be in the starting position whenever pulling the starter rope. The operator and unit must be in a stable position while starting. Refer to Starting and Stopping.
- Use the right tool. Only use this tool for its intended purpose. Only use the unit as described in this manual.
- always hold the unit with both hands when operating. Keep a firm grip on both handles or grips.
- Do not overreach. Always keep proper footing and balance. Take extra care when working on stairs, steep slopes or inclines. To avoid serious injury, do not operate the unit while on a ladder or a roof.
- Keep hands, face, and feet away from all moving parts. Do not touch or try to stop moving parts.
- Do not touch the engine, gear housing or muffler. These parts get extremely hot from operation, even after the unit is turned off.
- Do not operate the unit faster than the speed needed to do the job. Do not run the unit at high speed when not in use.
- Do not force the unit. It will do a better, safer job when used at the intended rate.
- Always turn the unit off when operation is delayed or when carrying the unit from one location to another. Make sure all moving parts come to a complete stop.
- Before setting the unit down, always make sure the engine is off and all moving parts have stopped.
- If the unit strikes or becomes entangled with a foreign object, stop the unit immediately. Check for damage. If damaged, do not restart or operate the unit until it is repaired. Do not operate the unit with loose or damaged parts.
- Turn the engine off and disconnect the spark plug for maintenance or repair.
- Use only original equipment manufacturer (OEM) replacement parts and accessories for this unit. These are available from your authorized service dealer. Use of any other parts or accessories could lead to serious injury to the user, or damage to the unit, and void the warranty.
- Keep the unit clean. Carefully remove vegetation and other debris that could block moving parts.
- To reduce fire hazard, replace a faulty muffler and spark arrestor. Keep the engine and muffler free from grass, leaves, excessive grease or carbon build up.
- If the unit starts to vibrate abnormally, stop the unit immediately. Inspect the unit for the cause of the vibration. Vibration is generally an indicator of trouble.

## **TRIMMER SAFETY**

- Only use the trimming line described in the Specifications section of this manual. Never use metal-reinforced line, wire, chain or rope. These can break off and become dangerous projectiles.
- Do not replace the cutting head with rigid or metal blades. Doing so could result in serious injury.
- The cutting head shield must always be in place while operating the unit.

- do not operate the unit without both trimming lines extended and the proper line installed. Do not extend the trimming line beyond the length of the shield.
- The cutting head will spin during idle speed adjustments. Wear protective clothing and observe all safety instructions to prevent serious personal injury.
- Make sure the cutting head is not in contact with anything before starting the unit.

#### **OTHER SAFETY WARNINGS**

- Maintain the unit with care. Follow all maintenance instructions in this manual.
- Do not perform maintenance procedures other than those described in this manual. All service, other than the maintenance procedures described in this manual, should be performed by an authorized service dealer.
- Never remove, modify or make inoperative any safety device furnished with the unit.
- Before inspecting, maintaining, cleaning, storing, transporting or replacing any parts on the unit:
  - Stop the unit. Refer to Starting and Stopping.
  - Make sure all moving parts have stopped.
  - Allow the unit to cool.
  - Disconnect the spark plug wire.
- Secure the unit while transporting.
- Never store the unit with fuel in the tank, inside a building where fumes may reach an open flame (pilot lights, etc.) or sparks (switches, electrical motors, etc.).
- Store the unit in a dry place, secured or at a height to prevent unauthorized use or damage. Keep the unit out of the reach of children.
- Never douse or squirt the unit with water or any other liquid. Keep handles dry and clean (free from debris, oil and grease). Clean the unit after each use. Refer to Cleaning and Storage. Do not use solvents or strong detergents.
- Keep these instructions. Refer to them often and use them to instruct other users. If you loan this unit to others, also loan them these instructions.










SAVE THESE INSTRUCTIONS









#### **SAFETY & INTERNATIONAL SYMBOLS**

This operator's manual describes safety and international symbols and pictographs that may appear on this product. Read the operator's manual for complete safety, assembly, operating and maintenance, and repair information.

##### **SAFETY ALERT SYMBOL**

Indicates danger, warning, or caution. May be used in conjunction with other symbols or pictographs.

	<b>SAFETY ALERT SYMBOL</b> Indicates danger, warning or caution. May be used in conjunction with other symbols or pictographs.
	<b>READ OPERATOR'S MANUAL</b> <b>WARNING:</b> Read the operator's manual(s) and follow all warnings and safety instructions. Failure to do so can result in serious injury to the operator and/or bystanders.
	<b>WEAR EYE AND HEARING PROTECTION</b> <b>WARNING:</b> Thrown objects and loud noise can cause severe eye injury and hearing loss. Wear eye protection meeting current ANSI / ISEA Z87.1 standards and ear protection when operating this unit. Use a full face shield when needed.
	<b>WEAR FOOT PROTECTION</b> Always wear heavy-duty, non-slip footwear when operating this unit.
	<b>WEAR HAND PROTECTION</b> Always wear heavy-duty, non-slip gloves when handling this unit.
	<b>HANDLE POSITION</b> Make sure the handle is positioned beyond the end of the safety label.
	<b>UNLEADED FUEL</b> Always use clean, fresh unleaded fuel.
	<b>OIL</b> Refer to operator's manual for the proper type of oil.
	<b>DO NOT USE E85 FUEL IN THIS UNIT</b> <b>CAUTION:</b> It has been proven that fuel containing greater than 10% ethanol will likely damage this engine and void the warranty.
<b>I</b>	<b>ON / OFF STOP CONTROL</b> ON / START / RUN
<b>O</b>	<b>ON / OFF STOP CONTROL</b> OFF or STOP

	<b>PRIMER BULB</b> Slowly press and release the primer bulb 10 times. If fuel cannot be seen in the primer bulb, press and release the primer bulb until fuel is visible.
	<b>CHOKE CONTROL</b> 1. FULL choke position 2. PARTIAL choke position 3. RUN choke position
	<b>THROWN OBJECTS CAN CAUSE SEVERE INJURY</b> <b>WARNING:</b> Small objects can be propelled at high speed, causing injury.
	<b>KEEP BYSTANDERS AWAY</b> <b>WARNING:</b> Keep all bystanders, especially children and pets, at least 50 feet (15 m) from the operating area.
	<b>HOT SURFACE</b> <b>WARNING:</b> Do not touch a hot muffler or cylinder. You may get burned. These parts get extremely hot from operation. When turned off, they remain hot for a short time.
	<b>SHARP BLADE</b> <b>WARNING:</b> There is a sharp blade on the cutting head shield. To prevent serious injury, do not touch the line cutting blade.
	<b>DO NOT REPLACE CUTTING HEADS WITH BLADES*</b> <b>WARNING:</b> When using a trimmer, to prevent serious injury, do not replace the cutting head with rigid or metal blades. <i>*This warning does not apply to units equipped with blades, such as edgers and brush cutters.</i>
	<b>TIGHTEN SCREWS</b> <b>WARNING:</b> To prevent serious injury and damage to the unit, tighten the screws securely.

## KNOW YOUR UNIT

**NOTE:** The model depicted may differ from yours.

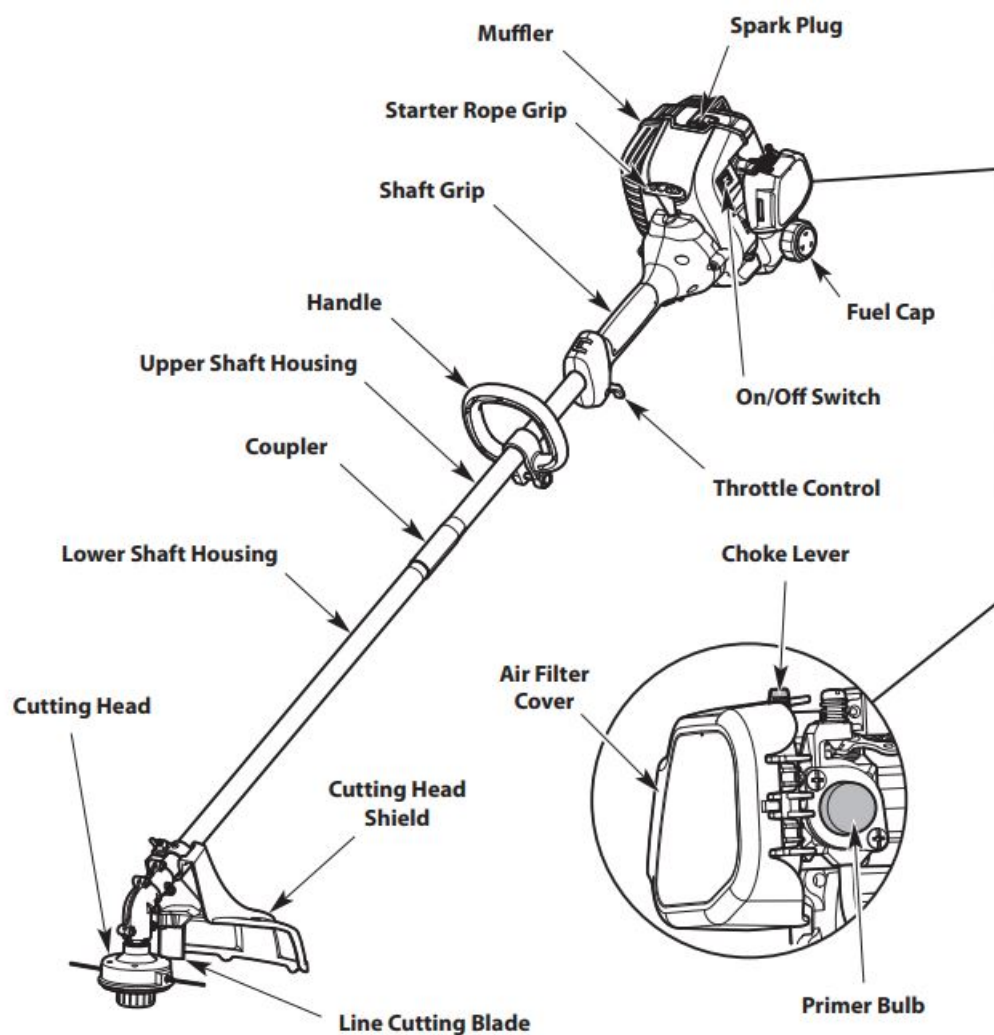
## APPLICATIONS

- Cutting grass and light weeds.
- Edging
- Decorative trimming around trees, fences, etc.

## ASSEMBLY TOOLS REQUIRED

- #2 Phillips screwdriver





## SPECIFICATIONS

- Engine Type: Air-Cooled, 2-Cycle
- Displacement: 25 cc (1.52 cu. in.)
- Spark Plug Gap: 0.025 in. (0.635 mm)
- Spark Plug: Champion® RDJ7J or Equivalent Plug
- Lubrication: Fuel/Oil Mixture
- Fuel/Oil Ratio: 40:1
- Fuel Tank Capacity: 8.5 fl. oz. (251 ml)
- Approximate Unit Weight (No Fuel) (Varies by Model): 9.5 – 11.5 lbs. (4.3 – 5.2 kg)
- Trimmer Mechanism (Varies by Model): Bump Head or Fixed-Line Cutting Head
- Trimming Line Diameter (Bump Head): 0.095 in. (2.41 mm)
- Trimming Line (Fixed-Line Cutting Head): 0.095 in. (2.41 mm) or 0.105 in. (2.67 mm) Pre-Cut Line
- Cutting Path Diameter (Bump Head): 16 in. (40.6 cm)
- Cutting Path Diameter (Fixed-Line Cutting Head) : 14 in. (35.6 cm)

**Canada:** This spark ignition system complies with Canadian ICES-002.

\* All specifications are based on the latest product information available at the time of printing. We reserve the

right to make changes at any time without notice.

## ASSEMBLY

### INSTALLING THE CUTTING HEAD SHIELD (For curved-shaft units)

**WARNING:** To prevent serious personal injury, never operate the unit without the cutting head shield in place.

1. Remove the wing nut and washer from the cutting head shield.
2. Insert the short tab (the one without a hole) on the mount bracket into the slot on the cutting head shield (Fig. 1).
3. Rotate the cutting head shield counterclockwise to align the hole on the cutting head shield with the hole on the mount bracket (Fig. 1).

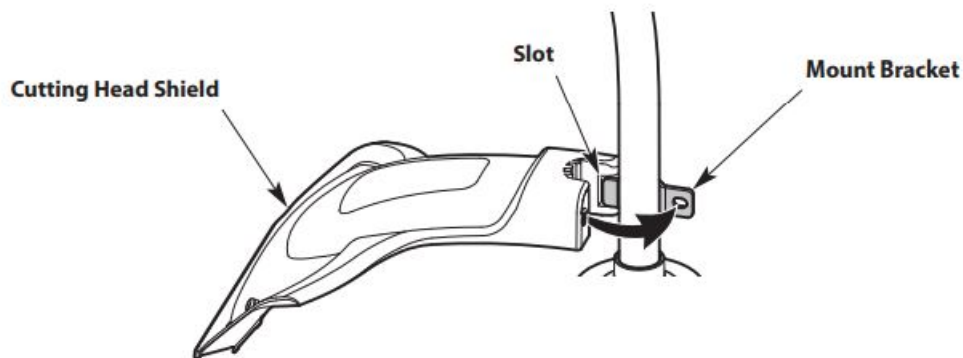


Fig. 1

4. Insert the square bolt into the hole underneath the cutting head shield (Fig. 2). Push the square bolt through the cutting head shield and mount the bracket.
5. Place the washer onto the square bolt (Fig. 2).
6. Screw the wing nut onto the square bolt until the cutting head shield is firmly in place (Fig. 2).

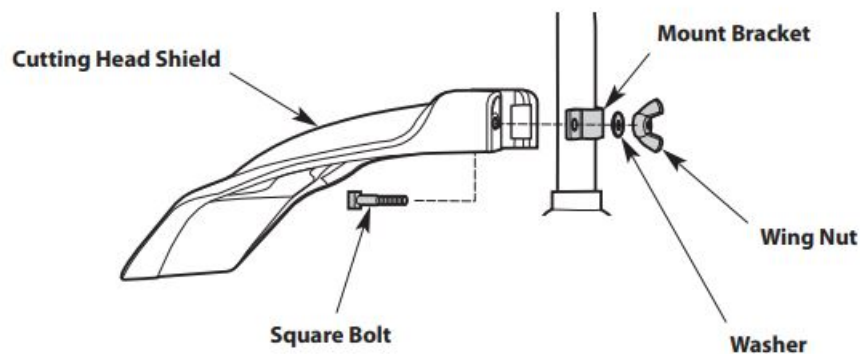


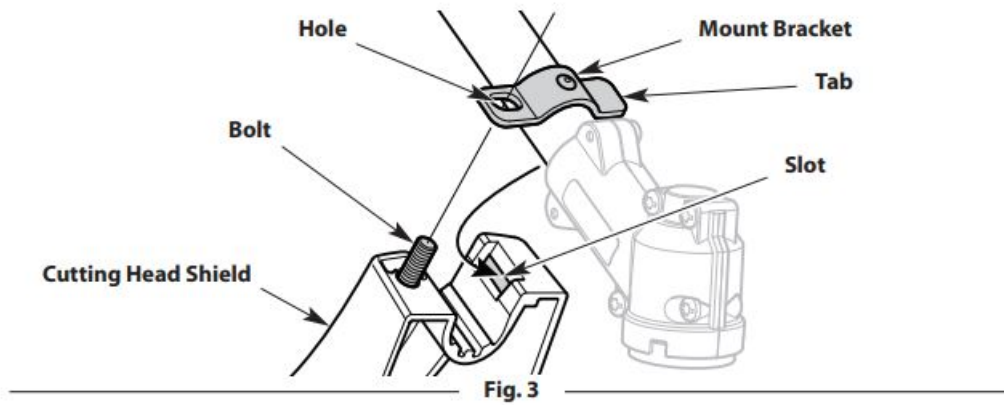
Fig. 2

### INSTALLING THE CUTTING HEAD SHIELD (For straight-shaft units)

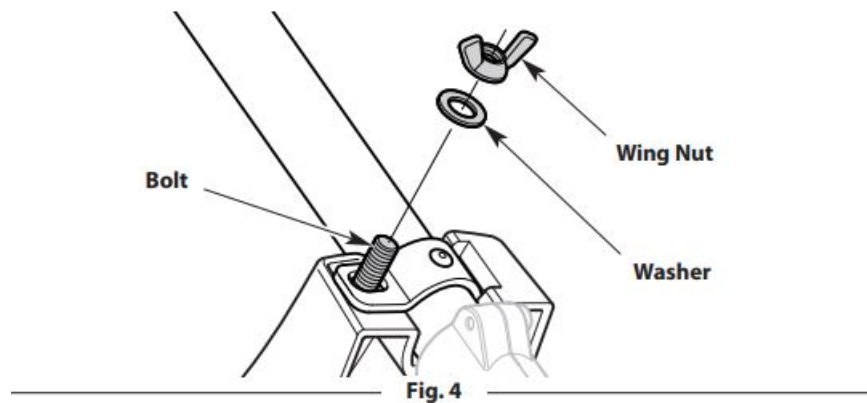
**WARNING:** To prevent serious personal injury, never operate the unit without the cutting head shield in place.

1. Remove the wing nut and washer from the cutting head shield.
2. Insert the short tab (the one without a hole) on the mount bracket into the slot on the cutting head shield (Fig. 3).
3. Rotate the cutting head shield until the bolt on the cutting head shield protrudes through the hole on the mount

bracket (Fig. 3).



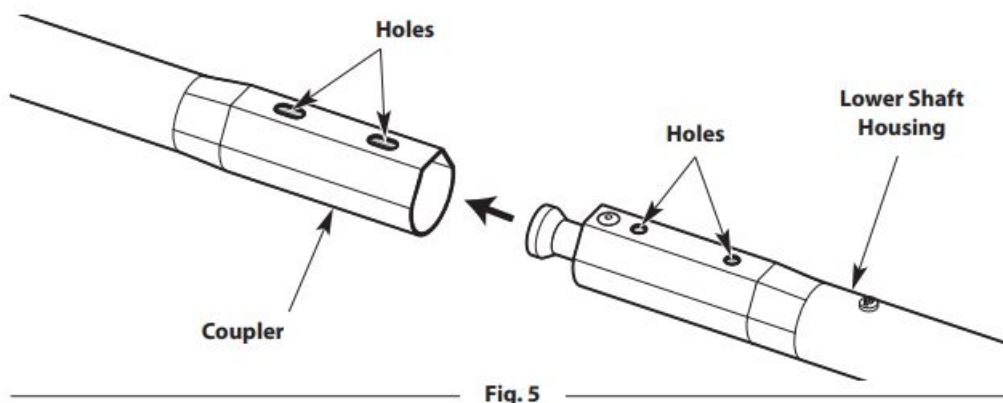
4. Place the washer onto the bolt (Fig. 4).



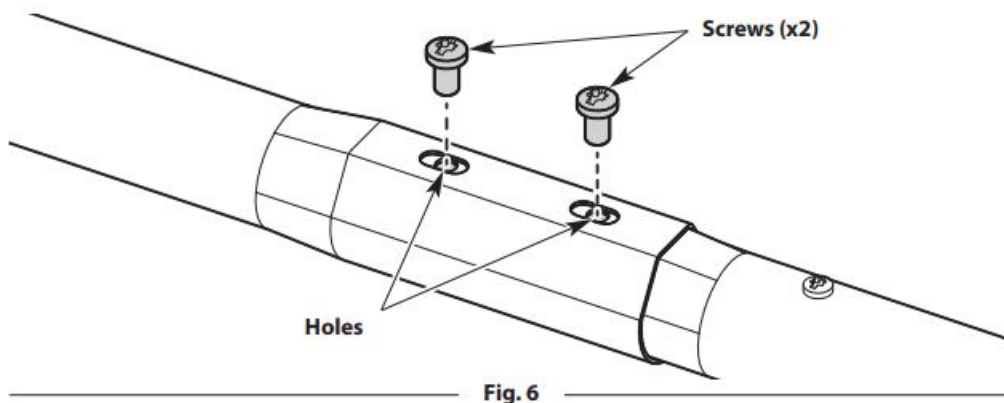
5. Screw the wing nut onto the bolt until the cutting head shield is firmly in place (Fig. 4).

#### CONNECTING THE UPPER AND LOWER SHAFTS

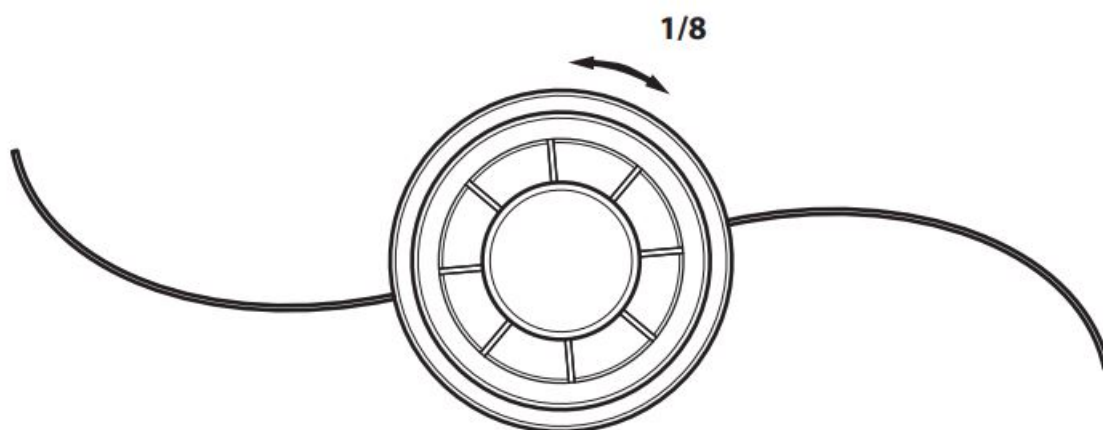
1. Set the unit on a flat, level surface.
2. Turn the upper portion of the unit upside down. The holes on the coupler should face up (Fig. 5).



3. Turn the lower portion of the unit upside down. The holes on the lower shaft housing should face up (Fig. 5).
4. Push the lower shaft housing into the coupler (Fig. 5). The holes on the lower shaft housing should align with the holes on the coupler (Fig. 6).



the lower shaft housing does not enter the coupler completely and the holes do not align, remove the lower shaft housing, rotate the cutting head slightly ( $1/8$ th turn) and repeat step 4 (Fig. 7).



5. Insert the screws (x2) into the aligned holes (Fig. 6).
6. Tighten the screws securely with a #2 Phillips screwdriver.

**WARNING:** To prevent serious personal injury or damage to the unit, always make sure that the screws are securely tightened before each use.

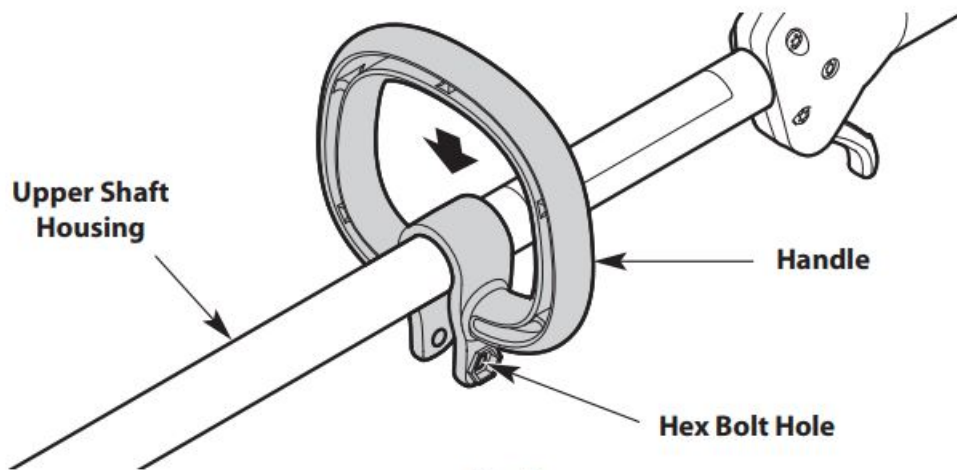
## HANDLE ASSEMBLY

Follow the instructions that apply to the handle included with your unit. Refer to Installing and Adjusting the Handle.

## INSTALLING AND ADJUSTING THE HANDLE (Handle Type A)

### Installing the Handle

1. Push the handle down onto the upper shaft housing (Fig. 8). Make sure the hex bolt hole faces to the left (Fig. 8).



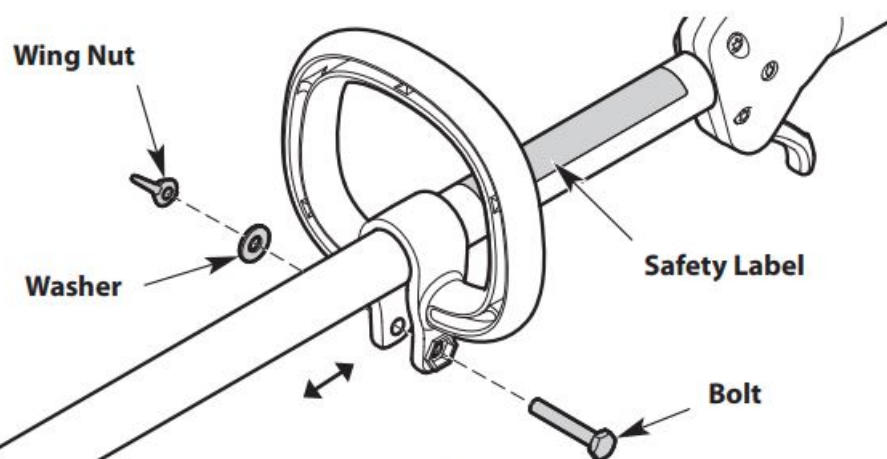
**Fig. 8**

2. Insert the bolt into the hex bolt hole and push it through (Fig. 9). Place the washer onto the bolt (Fig. 9). Screw the wing nut onto the bolt, but do not tighten the wing nut completely (Fig. 9).
3. Hold the unit in the operating position (Fig. 15).



**Fig. 15**

Move the handle up or down the upper shaft housing to a comfortable location (Fig. 9). Make sure the handle is positioned beyond the end of the safety label (Fig. 9).



**Fig. 9**

4. Tighten the wing nut until the handle is secure.

## Adjusting the Handle

If the handle requires adjustment:

1. Loosen the wing nut (Fig. 9).
2. Hold the unit in the operating position (Fig. 15). Move the handle up or down the upper shaft housing to a comfortable location (Fig. 9). Make sure the handle is positioned beyond the end of the safety label (Fig. 9).
3. Tighten the wing nut until the handle is secure.

## INSTALLING AND ADJUSTING THE HANDLE (Handle Type B)

### Installing the Handle

1. Push the handle down onto the upper shaft housing (Fig. 10). Make sure the bolt hole faces to the right (Fig. 10).

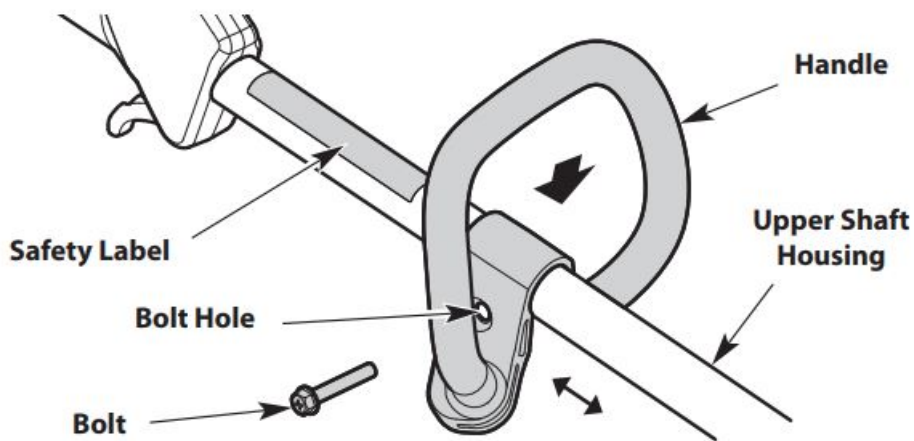


Fig. 10

2. Insert the bolt into the bolt hole and push it through (Fig. 10). Tighten the bolt with a flat-head screwdriver, but do not tighten the bolt completely .
3. Hold the unit in the operating position (Fig. 15). Move the handle up or down the upper shaft housing to a comfortable location (Fig. 10). Make sure the handle is positioned beyond the end of the safety label (Fig. 10).
4. Tighten the bolt with a flat-head screwdriver until the handle is secure.

### Adjusting the Handle

If the handle requires adjustment:

1. Loosen the bolt with a flat-head screwdriver (Fig. 10).
2. Hold the unit in the operating position (Fig. 15). Move the handle up or down the upper shaft housing to a comfortable location (Fig. 10). Make sure the handle is positioned beyond the end of the safety label (Fig. 10).
3. Tighten the bolt with a flat-head screwdriver until the handle is secure.

## OIL AND FUEL

### OIL AND FUEL MIXING INSTRUCTIONS

The use of old and/or improperly mixed fuel is the most common cause of performance problems. Use only fresh,



clean unleaded gasoline. Follow the instructions carefully for the proper gasoline/oil mixture.

**Definition of Blended Fuels**

Today’s fuels are often a blend of gasoline and oxygenate such as ethanol, methanol or MTBE (ether). Alcohol-blended fuel absorbs water. As little as 1% water in the fuel can make fuel and oil separate, forming acids when stored. ALWAYS use fresh fuel (less than 30 days old).

**NOTE:** Dispose of old fuel according to federal, state and local regulations.

**Using Blended Fuels**

If using a blended fuel:

- Always use the fresh fuel mix explained in this operator’s manual
- Use a fuel additive
- Always agitate the fuel mix before fueling the unit

**CAUTION:** DO NOT USE E85 FUEL IN THIS UNIT.

It has been proven that fuel containing greater than 10% ethanol will likely damage this engine and void the warranty.

**Using Fuel Additives**



The container of 2-cycle oil provided with this unit includes a fuel additive to help inhibit corrosion and minimize gum deposits. Always use the brand of 2-cycle oil that came with this unit. If this is unavailable, use a 2-cycle oil designed for air-cooled engines and mix it with a fuel additive. Add 0.8 oz.(23 ml) of fuel additive per gallon of fuel, according to the instructions on the container. NEVER add fuel additives directly to the unit’s fuel tank.

**Mixing the Fuel**

**NOTE:** This unit comes with a 3.2 oz. (95 ml) container of 2-cycle oil. To obtain the correct fuel mixture described below, pour the entire container into one gallon of unleaded gasoline.

**CAUTION:** For proper engine operation and maximum reliability, pay strict attention to the gasoline and oil mixing instructions on the 2-cycle oil container. Using improperly mixed fuel can severely damage the engine.

Thoroughly mix the proper ratio of unleaded gasoline with 2-cycle engine oil. Do not mix them directly in the unit’s fuel tank. Use a separate fuel can. Use a 40:1 gasoline/oil ratio. See the table below for specific gasoline and oil mixing ratios.

	
Unleaded gasoline	2-cycle oil
1 gallon U.S. (3.8 liters)	3.2 fl. oz. (95 ml)
1 liter	25 ml

**MIXING RATIO - 40:1**

**FUELING THE UNIT**

**WARNING:** Gasoline is extremely flammable. Ignited vapors may explode. Always stop the engine and allow it to cool before filling the fuel tank. Do not smoke while filling the tank. Keep sparks and open flames at a distance from the area.

**WARNING:** Remove the fuel cap slowly to avoid injury from fuel spray. Never operate the unit without the fuel cap securely in place.

**WARNING:** Add fuel in a clean, well-ventilated outdoor area. Wipe up any spilled fuel immediately. Avoid creating a source of ignition for spilled fuel. Do not start the engine until fuel vapors dissipate.

1. Position the unit with the fuel cap facing up.
2. Slowly remove the fuel cap.
3. Place the fuel container spout into the fuel tank fill hole and fill the tank.

**NOTE:** DO NOT overfill the tank.

4. Wipe up any fuel that may have spilled.
5. Reinstall the fuel cap.
6. Move the unit at least 30 ft. (9.1 m) from the fuel container and the fueling site before starting the engine.

## STARTING AND STOPPING

**WARNING:** Operate this unit only in a well-ventilated outdoor area. Carbon monoxide exhaust fumes can be lethal in a confined area.

**WARNING:** Avoid accidentally starting the unit. To avoid serious injury, the operator and the unit must be in a stable position when pulling the starter rope (Fig. 14).



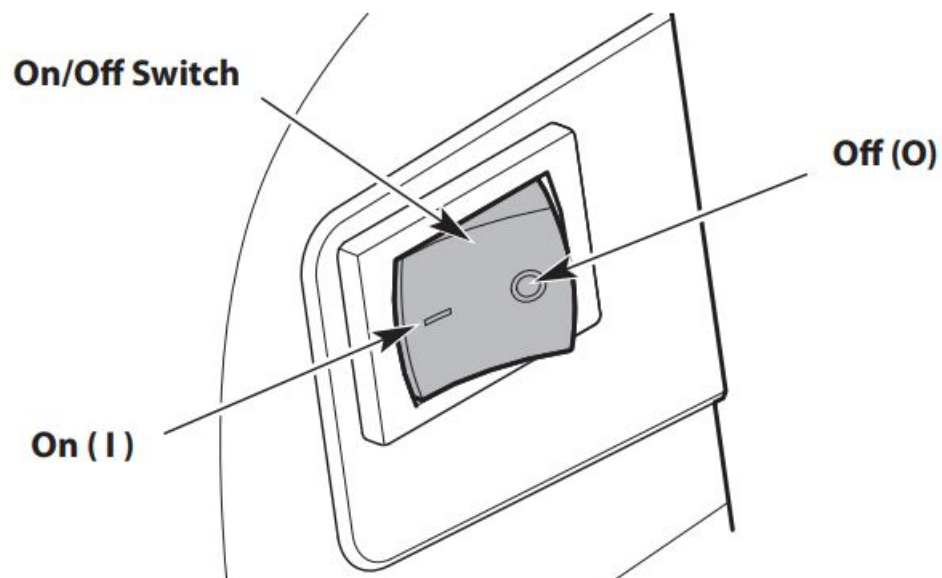
**Fig. 14**

**WARNING:** The cutting head will spin during the starting procedure. Wear protective clothing and observe all safety instructions to prevent serious personal injury.

## STARTING INSTRUCTIONS

**NOTE:** There is no need to turn the unit on. The On/Off switch is in the On ( I ) position at all times (Fig. 11).





**Fig. 11**

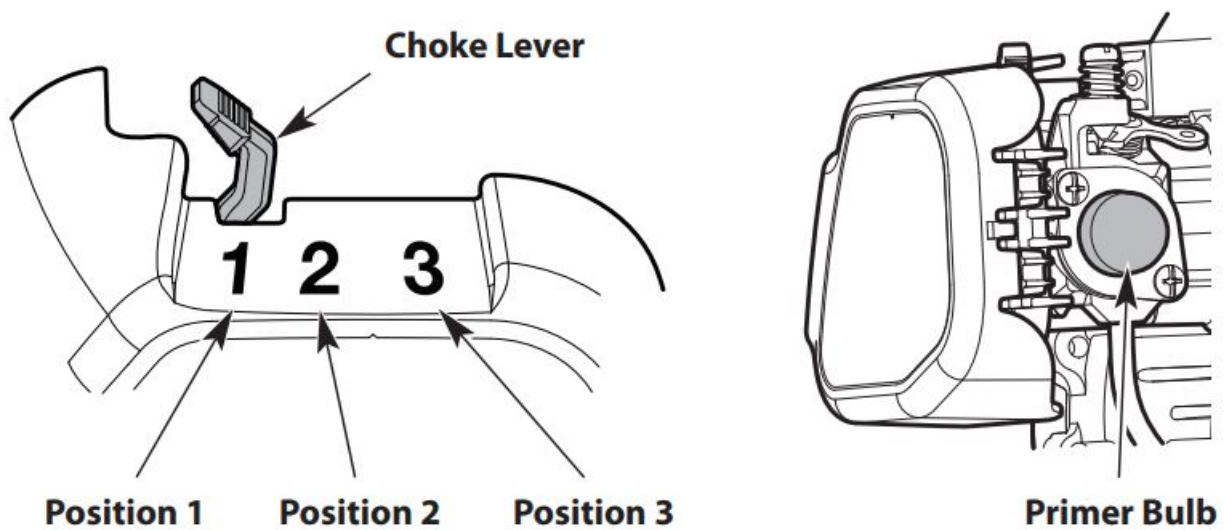
### Before Starting the Unit

1. Mix gasoline with oil. Refer to Oil and Fuel Mixing Instructions.
2. Fill the fuel tank. Refer to Fueling the Unit

### Starting the Unit

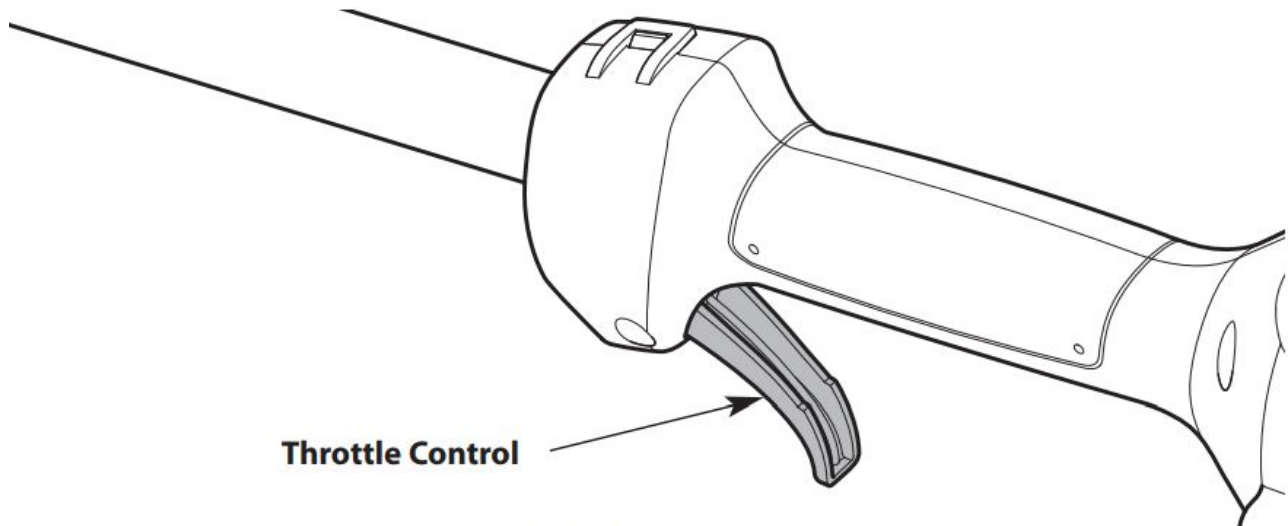
#### PRIME:

1. Slowly press and release the primer bulb 10 times (Fig. 13). If fuel cannot be seen in the primer bulb, press and release the primer bulb until fuel is visible.
2. Move the choke lever to Position 1 (Fig. 13).



**Fig. 13**

3. Crouch in the starting position (Fig. 14).
4. Squeeze and hold the throttle control (Fig. 12).



**Fig. 12**

**NOTE:** Continue to SQUEEZE and HOLD the throttle control for ALL further steps.

5. Pull the starter rope with a controlled and steady motion 5 times (Fig. 14). DO NOT pull the starter rope more than 5 times.

**START:**

6. Move the choke lever to Position 2 (Fig. 13).
7. Pull the starter rope with a controlled and steady motion 5 to 10 times to start the engine.
8. Allow the engine to warm up for 60 seconds.
9. Move the choke lever to Position 3 (Fig. 13). Allow the engine to warm up for an additional 60 seconds. The unit may be used during this time.

**NOTE:** The engine is properly warmed up when it accelerates without hesitation.

**IF...** the engine hesitates, return the choke lever to Position 2 and continue the warm-up.

**IF...** the engine does not start, repeat the starting procedure.

**IF...** the engine fails to start after a few attempts: Move the choke lever to Position 3. Squeeze and hold the throttle control. Pull the starter rope with a controlled and steady motion until the unit starts.

**IF...** the engine is already warm: Move the choke lever to Position 3. Squeeze and hold the throttle control. Pull the starter rope with a controlled and steady motion until the unit starts.

## OPERATION

### HOLDING THE UNIT

**WARNING:** Always wear eye, hearing, hand, foot and body protection to reduce the risk of injury when operating this unit.

**WARNING:** To prevent serious personal injury, avoid arm contact with the engine while operating the unit. The engine may be extremely hot.

- Stand in the operating position (Fig. 15). Stand up straight. Do not bend over.
- Keep feet apart and firmly planted.
- Hold the shaft grip with the right hand. Keep the right arm slightly bent.
- Hold the handle with the left hand. Keep the left arm straight.
- Hold the unit at waist level.

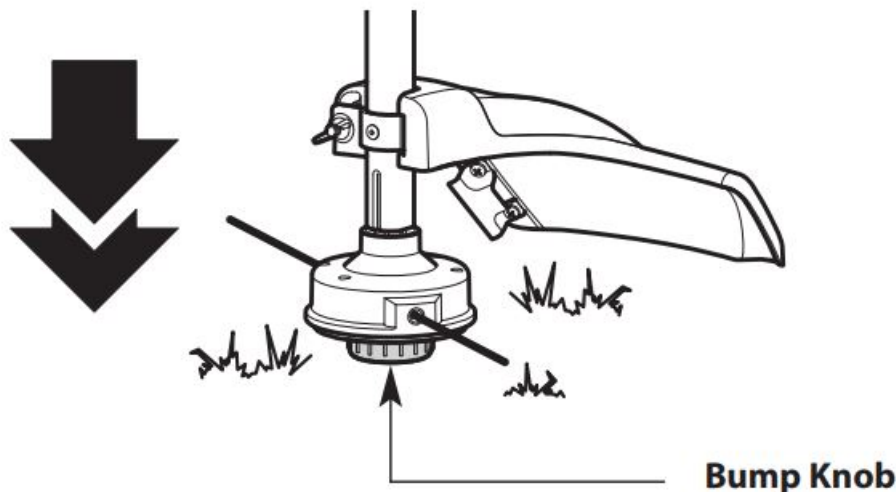
- Position the cutting head a few inches above the ground.

## ADJUSTING THE TRIMMING LINE LENGTH

### (For units with bump heads)

If the unit is equipped with a bump head, the trimming line can be released from the cutting head without stopping the engine. Before doing so, make sure the cutting head is loaded with line. Refer to the Line Replacement Addendum.

To release more line, lightly tap the bump knob on the ground (Fig. 16) while operating the unit at high speed. For best results, tap the bump knob on bare ground or hard soil. Attempting to release line in tall grass may stall the engine.



**Fig. 16**

**NOTE:** Do not rest the cutting head on the ground while the unit is running.

Each time the bump knob is tapped, about 1 inch (25.4 mm) of trimming line is released.

**NOTE:** Always keep the trimming line fully extended. Line release becomes more difficult when the cutting line gets shorter.

A blade in the cutting head shield will cut the line to the proper length if any excess line is released.

**WARNING:** Do not remove or alter the line cutting blade assembly. Excessive line length will make the unit overheat. This may lead to serious personal injury or damage to the unit.

## TIPS FOR BEST RESULTS

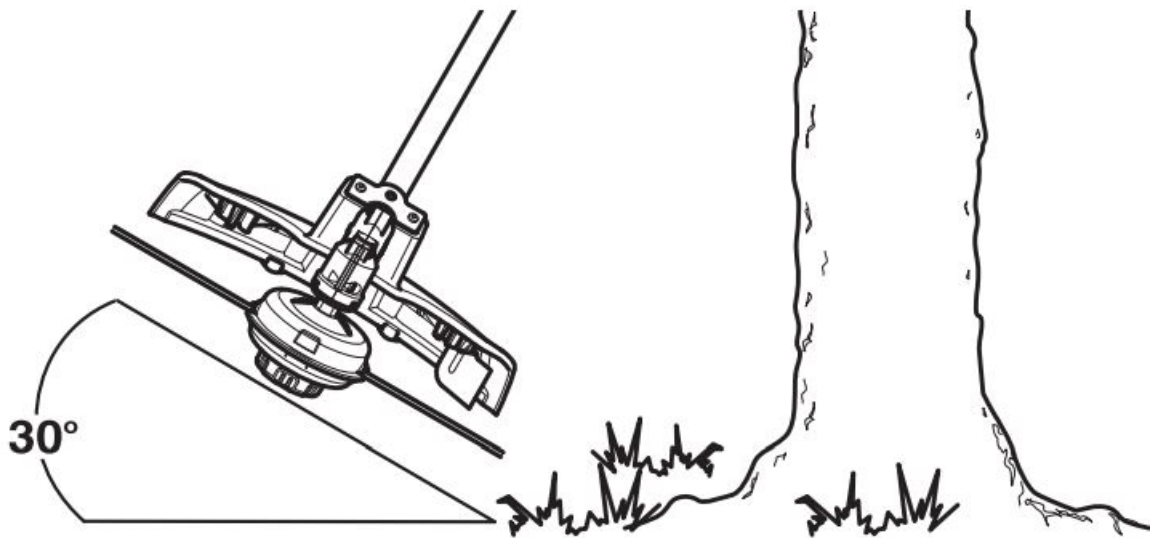
- For most operations, cut from side to side.
- The direction that clippings are thrown depends upon the rotation of the cutting head. To direct clippings away from the operator:
  - Clockwise rotation: Tilt the cutting head slightly down to the left; cut from right to left whenever possible.
  - Counterclockwise rotation: Tilt the cutting head slightly down to the right; cut from left to right whenever possible.
- Cut tall grass (over 8 inches (20cm)) from the top down by lowering the cutting head onto the grass.
- cut with the tip of the trimming line.
- Cut in small increments. Move slowly. Do not force the unit.
- Do not trim wet grass or weeds.

**NOTE:** Some line breakage will occur from:

- Entanglement with foreign matter
- Normal line fatigue
- Attempting to cut thick vegetation
- Forcing the line into objects such as walls or fence posts

## DECORATIVE TRIMMING

When trimming around trees, posts, fences, etc., rotate the whole unit so that the cutting head is at a 30° angle to the ground (Fig. 17).



**Fig. 17**

## MAINTENANCE

**WARNING:** To avoid serious personal injury, always stop the engine and allow it to cool before cleaning or maintaining the unit. Never perform cleaning or maintenance while the unit is running. Disconnect the spark plug wire to prevent the unit from starting accidentally.

**WARNING:** Wear protective clothing and observe all safety instructions to prevent serious personal injury.

## MAINTENANCE SCHEDULE

Perform these required maintenance procedures at the frequency stated in the table. These procedures should also be a part of any seasonal tune-up.

**NOTE:** Some maintenance procedures may require special tools or skills. If you are unsure about these procedures, take the unit to an authorized service dealer. Refer to the Service / Warranty Supplement for more information.

**NOTE:** Maintenance, replacement, or repair of the emission control devices and system may be performed by an authorized service dealer. Refer to the Service / Warranty Supplement for more information.

**NOTE:** Please read the California/EPA statement that came with the unit for a complete listing of terms and coverage for the emissions control devices, such as the spark arrestor, muffler, carburetor, etc.

FREQUENCY	MAINTENANCE REQUIRED
Every 10 hours	<ul style="list-style-type: none"> <li>Clean and re-oil the air filter. Refer to <i>Maintaining the Air Filter</i>.</li> </ul>
Every 25 hours	<ul style="list-style-type: none"> <li>Check the spark plug condition and gap. Refer to <i>Maintaining the Spark Plug</i>.</li> </ul>

## REPLACING THE TRIMMING LINE

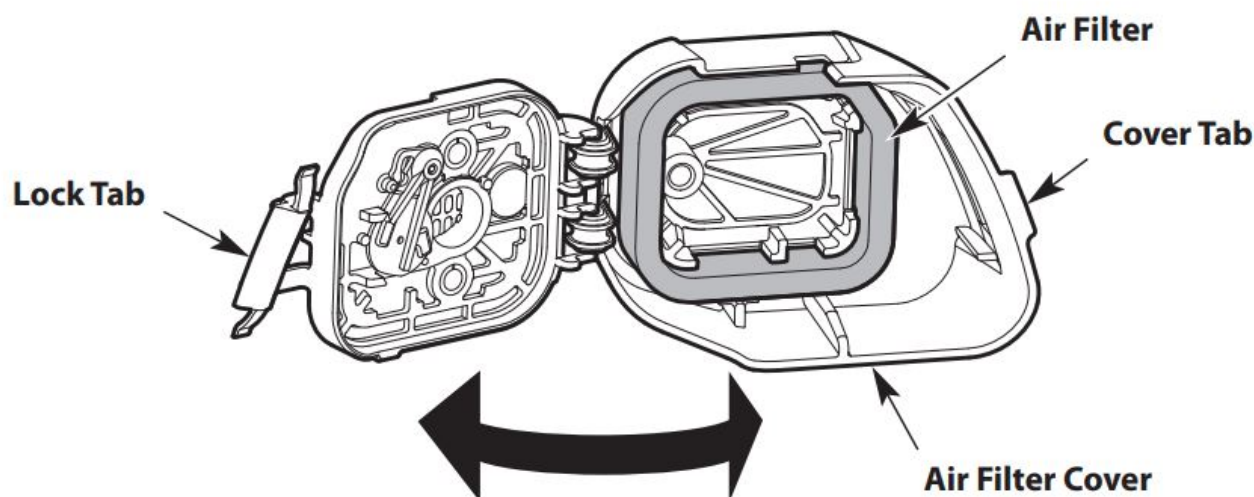
Refer to the Line Replacement Addendum for complete instructions.

## MAINTAINING THE AIR FILTER

Failure to maintain the air filter can result in poor performance or can cause permanent damage to the engine. Engine failure due to improper air filter maintenance is not covered by the product warranty.

### Cleaning the Air Filter

1. Open the air filter cover: Hook your fingers behind the cover tab. To unlock the air filter cover, pull it to the left and away from the engine. This may require a firm pull. Swing the air filter cover to the right (Fig. 18).



**Fig. 18**

2. Remove the air filter from inside the air filter cover (Fig. 18).
3. Wash the air filter in detergent and water. Rinse the air filter thoroughly and allow it to dry.
4. Lightly coat the air filter with clean SAE 30 oil.
5. Squeeze the air filter to spread and remove excess oil.
6. Reinstall the air filter inside the air filter cover (Fig. 18).

NOTE: Operating the unit without the air filter and air filter cover will VOID the warranty.

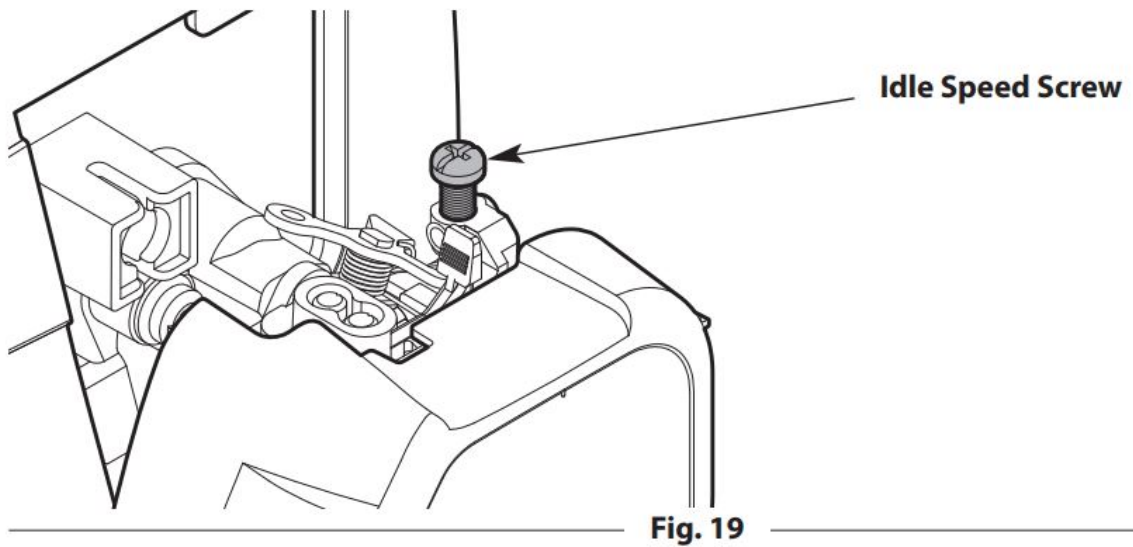
7. Close the air filter cover: swing the air filter cover to the left and press it closed until the lock tab snaps into place (Fig. 18).

## ADJUSTING THE IDLE SPEED

**WARNING:** The cutting head will spin during idle speed adjustments. Wear protective clothing and observe all safety instructions to prevent serious personal injury.

If the engine will not idle properly:

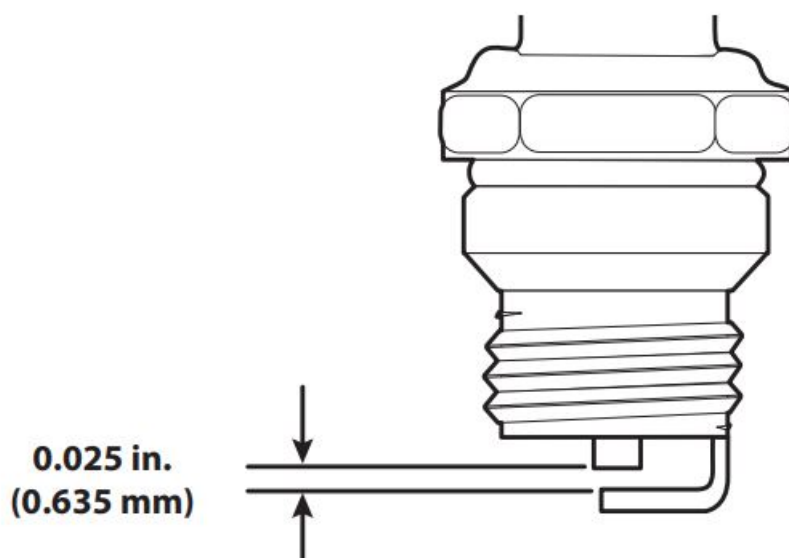
1. Start the engine. Refer to Starting and Stopping.
2. Release the throttle control and let the engine idle.
  - If the engine stops, increase the idle speed. Use a small Phillips screwdriver to turn the idle speed screw clockwise, 1/8 of a turn at a time, until the engine idles smoothly (Fig. 19).



#### MAINTAINING THE SPARK PLUG

**WARNING:** Do not sand blast, scrape or clean spark plug electrodes. Grit in the engine could damage the cylinder.

1. Stop the engine and allow it to cool. Grasp the spark plug boot firmly and pull it from the spark plug.
2. Clean around the spark plug. Remove the spark plug from the cylinder head with a 5/8-inch socket, turning counterclockwise.
3. Inspect the spark plug. If the spark plug is cracked, fouled or dirty, replace it with:
  - replacement part #753-06847, a Champion RDJ7J or an equivalent spark plug.
4. Use a feeler gauge to set the air gap at 0.025 in. (0.635 mm) (Fig. 20).



5. Install the spark plug in the cylinder head. Tighten the spark plug with a 5/8-inch socket, turning it clockwise

until snug.

**NOTE:** If using a torque wrench, torque to:

110-120 in.·lb. (12.3-13.5 N·m). Do not over-tighten.

6. reattach the spark plug boot.

## CLEANING AND STORAGE

### CLEANING

**WARNING:** To avoid serious personal injury, always stop the engine and allow it to cool before cleaning or maintaining the unit.

- Use a small brush to clean the outside of the unit.
- Do not use strong detergents. Household cleaners that contain aromatic oils such as pine and lemon, and solvents such as kerosene, can damage the plastic.
- Wipe off any moisture with a soft cloth.

### STORAGE

**WARNING:** Store the unit out of the reach of the children. Lock up the unit to prevent unauthorized use or damage.

**WARNING:** Store the unit in a dry, well-ventilated area. Never store a fueled unit where fumes may reach an open flame or spark. Allow the engine to cool before storing.

#### Short-term Storage (1-2 weeks)

1. Store the unit in a horizontal position. If this is not possible, store the unit vertically with the engine at the top.

#### Long-term Storage

1. Remove the fuel cap, tip the unit and drain the fuel into an approved container. Reinstall the fuel cap.
2. Start the engine and allow it to run until it stalls. This ensures that all fuel has been drained from the carburetor.
3. Allow the engine to cool. Remove the spark plug and put 5 drops of any high-quality motor oil or 2- cycle oil into the cylinder. Pull the starter rope slowly to distribute the oil. Reinstall the spark plug.
4. Thoroughly clean the unit and inspect it for any loose or damaged parts. Repair or replace damaged parts and tighten loose screws, nuts or bolts.

#### Preparing the Unit for Use after Long-term Storage

1. Remove the spark plug. Tip the unit and drain all of the oil from the cylinder into an approved container. Reinstall the spark plug.

**NOTE:** Do not use fuel that has been stored for more than 30 days. Dispose of old fuel and oil according to federal, state and local regulations.

## TROUBLESHOOTING

PROBLEM	SOLUTION
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THE ENGINE WILL NOT START	
The fuel tank is empty	Fill the fuel tank with properly-mixed fuel
The primer bulb was not pressed enough	Press the primer bulb 10 times or until fuel is visible
The engine is flooded	Move the choke lever to Position 3, squeeze the throttle control and pull the starter rope until the engine starts
The fuel is old (over 30 days) and/or improperly mixed	Drain the fuel tank and add fresh, properly- mixed fuel
The spark plug is fouled	Replace the spark plug

THE ENGINE WILL NOT IDLE	
The air filter is dirty	Clean or replace the air filter
The fuel is old (over 30 days) and/or improperly mixed	Drain the fuel tank and add fresh, properly- mixed fuel
The idle speed is incorrect	Adjust the idle speed

THE ENGINE WILL NOT ACCELERATE	
The fuel is old (over 30 days) and/or improperly mixed	Drain the fuel tank and add fresh, properly- mixed fuel
The cutting head is bound with grass	Stop the engine and clean the cutting head
The air filter is dirty	Clean or replace the air filter

THE ENGINE LACKS POWER OR STALLS	
The fuel is old (over 30 days) and/or improperly mixed	Drain the fuel tank and add fresh, properly- mixed fuel
The air filter is dirty	Clean or replace the air filter
The spark plug is fouled	Replace the spark plug



THE CUTTING HEAD WILL NOT ADVANCE LINE (FOR BUMP HEADS ONLY)	
The cutting head is bound with grass	Stop the engine and clean the cutting head
The cutting head is out of line	Refill the cutting head with new line
The inner reel is bound up	Rewind the line
The cutting head is dirty	Clean the inner reel and outer spool
The line is welded	Open the cutting head and remove the welded section
The line is twisted	Rewind the line
Not enough line is extended	Stop the unit, push the bump knob and pull the line until 4 inches (102 mm) is outside of the cutting head

THE CUTTING LINE ADVANCES UNCONTROLLABLY (FOR BUMP HEADS ONLY)	
There is oil, cleaner or lubricant in the cutting head	Clean and thoroughly dry the cutting head

If further assistance is required, contact an authorized service center.

### Documents / Resources

<p>Operator's Manual Trimmer 25cc, 25cc</p> <p>SAVE THESE INSTRUCTIONS</p> <p>Manuel de l'utilisateur Taille-bordure 25cc, 25cc</p> <p>CONSERVEZ CES INSTRUCTIONS</p> <p>Manual del Operador Desmalezadora 25cc, 25cc</p> <p>CONSERVE ESTAS INSTRUCCIONES</p>	<p><a href="#">Troy-Bilt 2-cycle String Trimmer</a> [pdf] Instructions 2-cycle String Trimmer, String Trimmer, 25cc</p>
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