

OPERATOR'S MANUAL

MODEL #100682 STRAIGHT SHAFT TRIMMER



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A WARNING

To reduce the risk of injury, the user must read and understand the operator's manual before using this product. If you do not understand the warnings and instructions in the operator's manual, do not use this product.

NOTICE

Do not use E15 or E85 fuel (fuel containing ethanol greater than 10%) in this product. It is a violation of federal law and will damage the engine and void your warranty. FUEL MIXTURE for this product is powered by a 2-cycle engine and requires pre-mixing gasoline and 2-cycle oil in a 50:1 ratio. Pre-mix unleaded gasoline and 2-cycle engine oil in a clean container approved for gasoline. DO NOT mix quantities larger than usable in a 30-day period.

SAVE THESE INSTRUCTIONS. This manual contains important safety precautions which should be read and understood before operating the product. Failure to do so could result in serious injury. This manual should remain with the product.

Specifications, descriptions and illustrations in this manual are as accurate as known at the time of publication, but are subject to change without notice.



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INTRODUCTION

Congratulations on your purchase of a Champion Power Equipment (CPE) product. CPE designs, builds, and supports all of our products to strict specifications and guidelines. With proper product knowledge, safe use, and regular maintenance, this product should bring years of satisfying service.

Every effort has been made to ensure the accuracy and completeness of the information in this manual at the time of publication, and we reserve the right to change, alter and/ or improve the product and this document at any time without prior notice.

Since CPE highly values how our products are designed, manufactured, operated and are serviced, and also highly value your safety and the safety of others, we would like you to take the time to review this product manual and other product materials thoroughly and be fully aware and knowledgeable of the assembly, operation, dangers and maintenance of the product before use. Fully familiarize yourself, and make sure others who plan on operating the product fully familiarize themselves too, with the proper safety and operation procedures before each use. Please always exercise common sense and always err on the side of caution when operating the product to ensure no accident, property damage, or injury occurs. We want you to continue to use and be satisfied with your CPE product for years to come.

When contacting CPE about parts and/or service, you will need to supply the complete model and serial numbers of your product. Transcribe the information found on your product's nameplate label to the table below

SAFETY DEFINITIONS

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.

A DANGER

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

A WARNING

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

A CAUTION

CAUTION indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.

NOTICE

NOTICE indicates information considered important, but not hazard-related (e.g., messages relating to property damage).

IMPORTANT SAFETY INSTRUCTIONS

- Do not allow children or untrained individuals to use this unit.
- Never start or run the engine inside a closed area; breathing exhaust fumes can kill.
- Always wear eye protection with side shields marked to comply with ANSI Z87.1 along with hearing protection.
 Failure to do so could result in objects being thrown into your eyes and other possible serious injuries.
- Keep all bystanders, children, and pets at least 50' (15.2 m) away.
- Wear heavy long pants, long sleeves, boots, and gloves.
 Do not wear loose fitting clothing, short pants, sandals, jewelry of any kind, or go barefoot.
- Do not operate this unit when you are tired, ill, or under the influence of alcohol, drugs, or medication.
- Do not operate in poor lighting.
- Keep all parts of your body away from any moving parts and all hot surfaces of the unit.
- Wear a face filter mask in dusty conditions to reduce the risk of injury associated with the inhalation of dust.
- Check the work area before each use. Remove all objects such as rocks, broken glass, nails, wire, or string which can be thrown or become entangled in the machine.
- Keep firm footing and balance. Do not overreach.
 Overreaching can result in loss of balance or exposure to hot surfaces.
- Never operate the unit without a spark arrestor screen;
 this screen is located inside the muffler.
- Use only identical manufacturer's replacement parts and accessories.
- Use of any other parts may create a hazard or cause product damage.
- Maintain the unit per maintenance instructions in this Operator's Manual.
- Inspect the unit before each use for loose fasteners, fuel leaks, etc. Replace damaged parts.
- Do not use on a ladder, rooftop, tree, or other unstable support. Stable footing on a solid surface enables better control of the trimmer in unexpected situations.
- Before cleaning, repairing, or inspecting, shut off the engine and make certain all moving parts have stopped. Disconnect the spark plug wire and keep the wire away from the plug to prevent starting.

- Service on the trimmer must be performed by qualified repair personnel only. Service or maintenance performed by unqualified personnel could result in injury to the user or damage to the product.
- The cutting attachment should never rotate at idle during normal use. The cutting attachment may rotate at idle during carburetor adjustments.
- Use only as directed in this operator's manual.
- Never use blades, flailing devices, wire, or rope on trimmer attachment. Never use flailing devices, wire, or rope on any attachment.
- To reduce the risk of hearing loss associated with sound level(s), hearing protection is required.
- To reduce the risk of injury associated with contacting rotating parts, stop the engine before installing or removing attachments. Always disconnect the spark plug before performing maintenance or accessing any movable parts.
- Never run the unit without the proper equipment attached.
 Always ensure the grass shield is installed.
- This product is intended for infrequent use by homeowners and other occasional users for such general applications as trimming grass and edging lawns, etc. It is not intended for prolonged use. Exposure to vibrations through prolonged use of gasoline-powered hand tools could cause blood vessel or nerve damage in the fingers, hands and joints of people prone to circulation disorders or abnormal swelling. Prolonged use in cold weather has been linked to blood vessel damage in otherwise healthy people. If symptoms occur such as numbness, pain, loss of strength, change in skin color or texture, or loss of feeling in the fingers, hands or joints, discontinue use of the tool and seek medical attention. For such use, it may be appropriate to use a product having an anti-vibration feature.

Fuel Safety

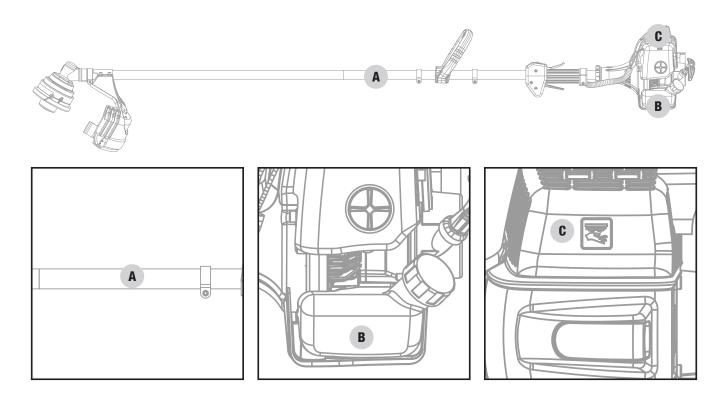
- Fuel is highly flammable. Take precautions when using to reduce the chance of serious personal injury.
- Store fuel in a cool, well-ventilated area, safely away from spark and/or flame-producing equipment.
- Store fuel in containers specifically designed for this purpose.
- Only refuel outdoors and do not smoke while refueling.
- Add fuel before starting the engine. Never remove the cap of the fuel tank or add fuel while the engine is running or when the engine is hot.
- Do not smoke while handling fuel.
- Mix and store fuel in a container approved for gasoline.

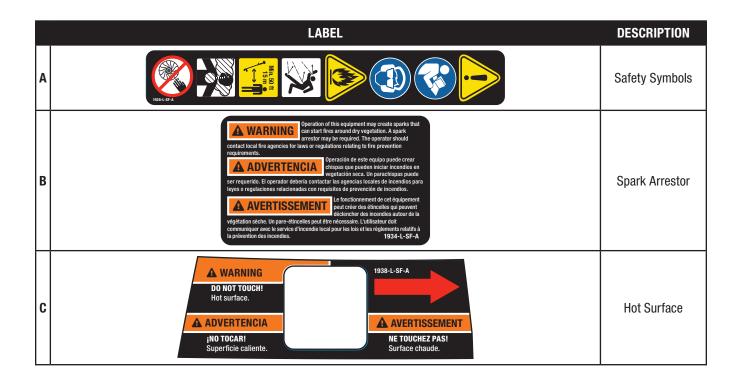
- Mix fuel outdoors where there are no sparks or flames.
- Loosen fuel cap slowly to release pressure and to keep fuel from escaping around the cap.
- Tighten the fuel cap securely after refueling.
- Wipe spilled fuel from the unit. Move 30' (9 m) away from refueling site before starting engine.
- Never attempt to burn off spilled fuel under any circumstances.
- To reduce the risk of fire and burn injury, handle fuel with care. It is highly flammable.
- If fuel is spilled, do not attempt to start the engine but move the machine away from the area of spillage and avoid creating any source of ignition until fuel vapors have dissipated.
- Replace all fuel tank and container caps securely.
- Empty fuel tank into a container approved for gasoline and restrain the unit from moving before transporting in a vehicle.
- When draining the fuel tank, use an approved fuel storage container in a well-ventilated area.
- Select bare ground, stop engine, and allow to cool before refueling.
- Save these instructions. Refer to them frequently and use them to instruct others who may use this product. If you loan someone this tool, loan them these instructions also.

Safety Labels

These labels warn you of potential hazards that can cause serious injury. Read them carefully.

If a label comes off or becomes hard to read, contact Technical Support Team for possible replacement.





Safety Symbols

Some of the following symbols may be used on this product. Please study them and learn their meaning. Proper interpretation of these symbols will allow you to more safely operate the product.

SYMBOL	MEANING
	Read Operator's Manual. To reduce the risk of injury, user must read and understand operator's manual before using this product.
	Eye and Ear Protection. Always wear safety goggles or safety glasses with side shields, and as necessary a full face-shield as well as full ear protection when operating this product.
	Safety Alert. Precautions that involve your safety.
	Risk of Fire/Explosion. Fuel and its vapors are extremely flammable and explosive. Fire can cause severe burns or death. Do not add fuel while the product is operating or still hot.
	Open Flame alert. Fuel and its vapors are extremely flammable and explosive. Keep fuel away from smoking, open flames, sparks, pilot lights, heat, and other ignition sources.
	Toxic Fumes. The engine exhaust from this product contains chemicals known to the state of California to cause cancer and birth defects and other reproductive harm.
	Risk of Asphyxiation. This engine emits carbon monoxide, an odorless, colorless poison gas. Breathing carbon monoxide can cause nausea, fainting or death. Use only in a well ventilated area.
**	Thrown Objects. This machine may pick up and throw objects which can cause serious personal injury.
Min, 50 ft 15 m	Clearance. Keep all objects including others at least 50' (15.2 m) from this machine.
	Hot Surface. To reduce the risk of injury or damage, avoid contact with any hot surface.
	Rotating String Trimmer Head. Keep clear of string trimmer head when engine is running. Never point the trimmer at yourself or others. Do not operate unit without proper attachments and guards in place. Stop the engine and allow the trimmer head to stop before cleaning or performing any maintenance. Never put your hand by the trimmer head when engine is running. Contact with rotating parts can cause severe injury.

Operation Symbols

Some of the following symbols may be used on this product. Please study them and learn their meaning. Proper interpretation of these symbols will allow you to more safely operate the product.

SYMBOL	MEANING
	Choke. Move choke lever to "RUN" position. See Starting and Stopping Section.
/	Choke. Move choke lever to "CHOKE" position. See Starting and Stopping Section.

Quick Start Label Symbols

Some of the following symbols may be used on this product. Please study them and learn their meaning. Proper interpretation of these symbols will allow you to more safely operate the product.



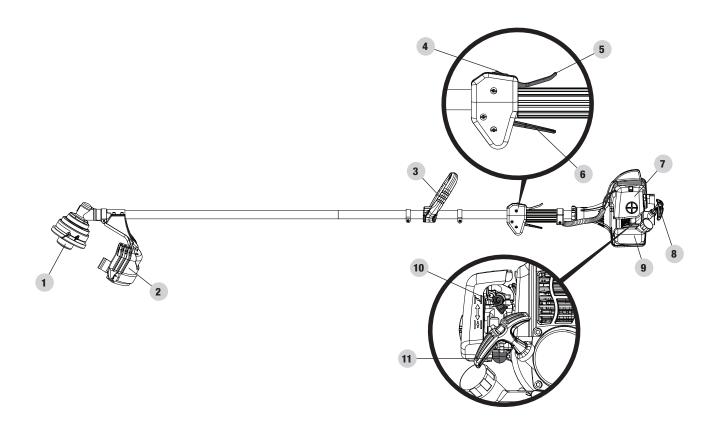
Starting the Engine

- Check fuel. Make sure fuel-to-oil mixture is 50:1 and add if necessary.
- 2. Primer bulb:
 - 2a. For cold starts, press primer bulb 7-10 times.
 - 2b. For warm starts, DO NOT press primer bulb.
- 3. Move choke lever to the CHOKE position.
- 4. Holding the unit firmly, pull starter handle until the engine starts.
- Press the throttle trigger lockout (top) and throttle trigger (bottom) when the engine starts. This will automatically move the choke lever to the RUN position. Once the engine is running, release the throttle lockout and throttle trigger.
- 6. Allow the engine to idle for 30 seconds.

CONTROLS AND FEATURES

Read this operator's manual before operating your grass trimmer. Familiarize yourself with the location and function of the controls and features. Save this manual for future reference.

Trimmer



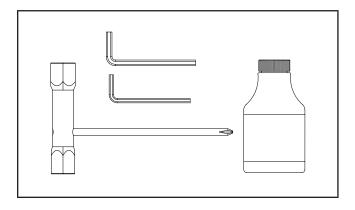
- 1. Bump Feed Trimmer Head
- 2. Grass Shield
- 3. Front Handle
- 4. Stop Switch
- 5. Throttle Trigger Lockout
- 6. Throttle Trigger

- 7. Air Filter Cover
- 8. Starter Handle
- 9. Fuel Cap & Tank
- 10. Choke Lever
- 11. Primer Bulb

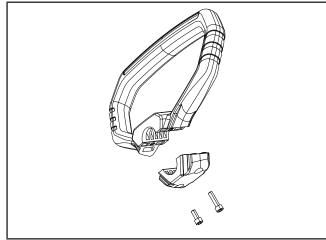
Parts Included

Accessories

Allen wrench (3 mm)	1
Allen wrench (4 mm)	1
Spark plug wrench	1
2-cycle oil	

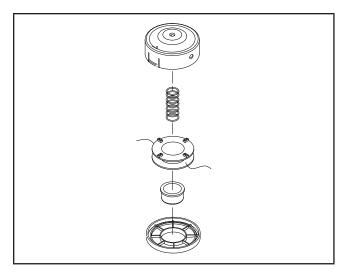


Handle	 1
Bolts	 2

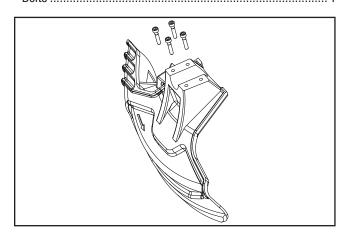


Assembly Parts

Trimmer Head......1



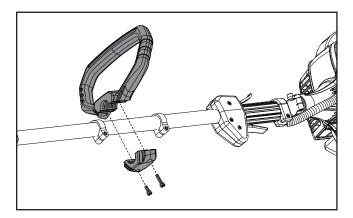
Grass Shield	
Rolts	



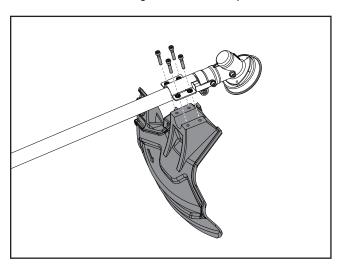
ASSEMBLY

Your trimmer requires some assembly. If you have any questions regarding the assembly of your trimmer, call our Technical Support Team at 1-877-338-0999. Please have your serial number and model number available.

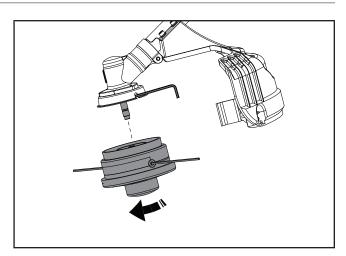
 Attach the trimmer handle by placing both pieces of the handle around the trimmer shaft at the desired length.
 Fasten both pieces together by tightening the bolts clockwise with the Allen wrench provided.



Install the grass shield by placing (4) bolts through the grass shield assembly and fasten the bolts to the grass shield clockwise using the Allen wrench provided.



Assemble the trimmer head to the unit by placing the trimmer head into the trimmer assembly. Keep the assembly from spinning by placing a screwdriver in the trimmer head slot. Tighten the trimmer head onto unit by rotating it counter-clockwise.



OPERATION

Fueling and Refueling

Fuel Mixture

This product is powered by a 2-cycle engine and requires pre-mixing gasoline and 2-cycle oil in a 50:1 ratio. Pre-mix unleaded gasoline and 2-cycle engine oil in a clean container approved for gasoline. DO NOT mix quantities larger than usable in a 30-day period. Recommended fuel: This engine is certified to operate on unleaded gasoline intended for automotive use.

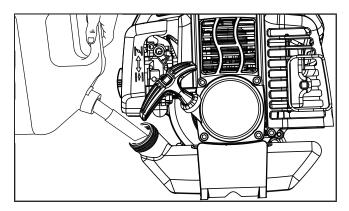
When mixing fuel, always use clean, fresh, regular unleaded gasoline with a minimum octane rating of 87 and an ethanol content of 10% or less by volume. DO NOT USE E15 or E85. Recommended oil: Use premium 2-cycle oil, or an equivalent high-quality synthetic 2-cycle oil. Do not use automotive oil or 2-cycle outboard oil.

Gasoline (US gal.)	Oil (oz.)
1	2.6
2.5	6.4
3.0	7.7
4.0	10.2
5.0	12.8

Gasoline (L)	Oil (ml)
3.8	76
9.5	190
11.4	228
15.1	302
18.9	378

Filling the Fuel Tank

- 1. Place the trimmer on a flat stable surface, with the fuel tank cap facing upwards.
- Clean the surface around the fuel cap to prevent contamination.
- 3. Loosen the fuel cap slowly by turning counterclockwise.
- 4. Pour the fuel mixture carefully into the tank.



- 5. Only fill the fuel tank to 80% of the full capacity. Fuel level can be seen via the clear fuel tank.
- Clean and inspect the fuel cap gasket before replacing the fuel cap.
- 7. Replace the fuel cap and tighten it by turning it clockwise.
- 8. Wipe spilled fuel from the product.
- 9. If you spill fuel on the unit, wait 10 minutes after wiping before starting.
- 10. Move at least 30 ft. away from refueling area before starting the product.

NOTE: It is normal for smoke to be emitted from a new engine during first use.

A WARNING

Always shut off engine before fueling. Never add fuel to a machine with a running or hot engine. Wait at least 15 minutes to allow for cool down before refueling. Move at least 30 ft. from refueling site before starting engine. Do not smoke and stay away from open flames and sparks. Failure to safely handle fuel could result in serious personal injury.

NOTICE

Do not use E15 or E85 fuel (fuel containing ethanol greater than 10%) in this product. It is federal violation and will damage your engine and void your warranty.

NOTICE

Gasoline containing up to 10% ethanol by volume (commonly referred to as E10) is acceptable. **E15 and E85 are not.**

NOTICE

For Emissions control devices and systems, read and understand your responsibilities for service as stated in the Emission Control Warranty Statement of this manual.

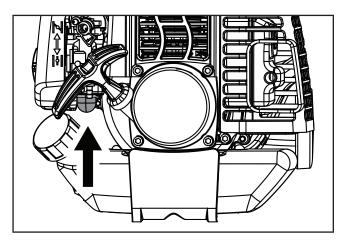
Starting and Stopping

NOTICE

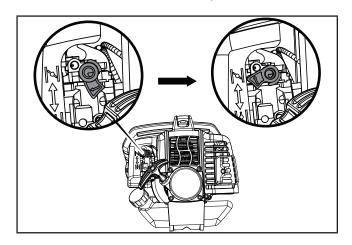
To avoid breaking the starter rope, do not pull the whole length or let it slide along the edge of the rope guide. Allow the starter rope to rewind gradually.

To Start a Cold Engine:

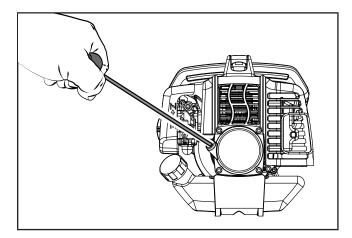
- 1. Trimmer should be on a flat, bare surface for starting.
- 2. Slowly press the primer bulb 7-10 times or until fuel is visible and flows freely into the clear tank return line.



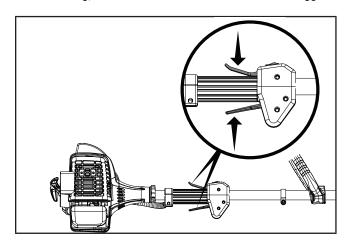
3. Set the choke lever to the CHOKE position



4. Holding the unit firmly, pull the starter handle until the engine starts.



 Press the throttle trigger lockout (top) and throttle trigger (bottom) when the engine starts. This will automatically move the choke lever to the RUN position. Once the engine is running, release the throttle lockout and throttle trigger.



NOTICE

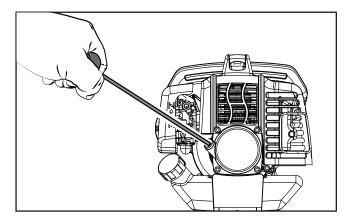
Manually adjusting or turning the choke lever to the CHOKE position during idle will cause the engine to stop.

NOTICE

Allow engine to warm at least 30 seconds depending on ambient temperature. The colder the temperature, the longer the warm up required.

To Start a Warm Engine:

- Do not adjust the CHOKE lever. It should already be in the RUN position. If not, press the throttle trigger lockout (top) and throttle trigger (bottom) once. This will automatically move the choke lever back to the RUN position.
- 2. Holding the unit firmly, pull starter handle until engine starts. Use short pulls and do not allow the rope to snap back.

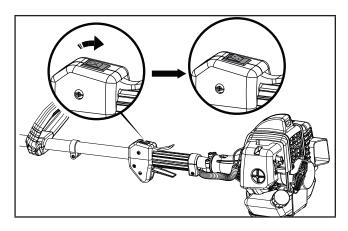


NOTICE

If the engine does not start, return to the "Start a Cold Engine" and repeat the steps that follow.

To Stop the Engine:

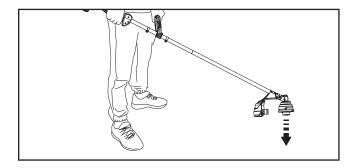
To stop the engine, depress and hold the throttle switch to the STOP position.



100682 - STRAIGHT SHAFT TRIMMER OPERATION

To Extend Line

This unit features a bump feed trimmer head. If the cutting swath has decreased do to wear or breaking, firmly bump the bump feed on the trimmer head on the ground to extend the line.



Proper Trimmer Operation

SAFETY:

- Fully familiarize yourself with the IMPORTANT SAFETY INSTRUCTIONS section.
- Check your equipment before operation, especially the string head, grass shield, muffler, air intakes, and air filters.
- Use only recommended or equivalent replacement line in the cutting head. Do not use any other cutting attachment. To install any other type of replacement line or cutting head to this string trimmer can result in serious personal injury.

OPERATION:

- Assemble the grass trimmer. Refer to the ASSEMBLY section earlier in this manual.
- Start the trimmer. Refer to Starting and Stopping earlier in this manual.
- Maintain a firm grip on both handles while trimming. Hold the trimmer with your right hand on the throttle and your left hand on the front handle. Keep string head below waist level. Never cut with the string head located over 15 in. (38.1 cm) or more above the ground.
- Move the trimmer slowly along outer edge of grass or vegetation to be trimmed.
- Cut tall grass from the top down. This will prevent grass from wrapping around the shaft housing and string head which could cause damage from overheating. If grass becomes wrapped around the string head, STOP THE ENGINE, disconnect the spark plug wire, and remove the grass. Prolonged cutting at partial throttle will result in lubricant dripping from the muffler.

GENERAL TIPS:

- To reduce sound levels, limit the number of pieces of equipment used at any one time.
- Keep the trimmer tilted toward the area being cut.

- Use the edge of line to do the cutting; do not force the string head into uncut grass.
- Fencing, posts, rocks and other items can cause extra wear and possibly breakage of the trimmer line. Take extra care when cutting around these items as they can be damaged by the string.
- The straight shaft trimmer cuts when passing the unit from left to right. This will avoid throwing debris at the operator.

A WARNING

Always hold the string trimmer away from the body keeping clearance between the body and the product. Any contact with the housing or string trimmer cutting head can result in burns and/or other serious personal injury.

A WARNING

Always position the unit on the operator's right side. The use of the unit on the operator's left side will expose the user to hot surfaces and can result in possible burn injury. Any contact with the housing can result in burns and/or other serious personal injury.

A WARNING

Never use blades, flailing devices, wire, or rope on this product. Do not use any attachments or accessories not recommended by the manufacturer of this product. The use of attachments or accessories not recommended can result in serious personal injury.

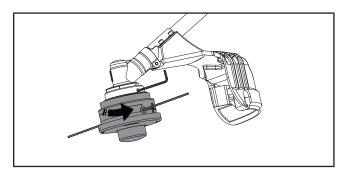
Operate power equipment at reasonable hours only - not early in the morning or late at night when people might be disturbed. Comply with the times listed in local ordinances.

A WARNING

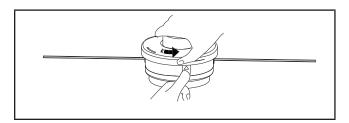
Always wear eye protection with side shields marked to comply with ANSI Z87.1, along with hearing protection. Failure to do so could result in objects being thrown into your eyes and other possible serious injuries.

Replacing Trimmer Line

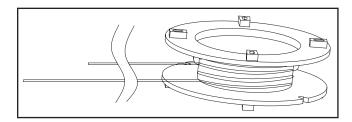
 Place the provided Allen wrench or a screw driver into the cut out on the trimmer head to prevent the assembly from moving.



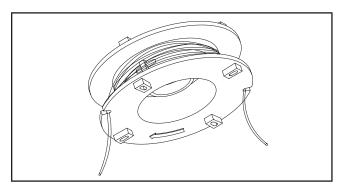
- 2. Rotate the head clockwise to remove the string head.
- To open up the spool, press in on the two tabs marked with arrows and rotate the trimmer head cap counterclockwise. Remove the string spool.



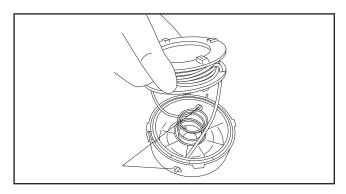
 Make sure the replacement line is 0.095" (2.4mm).
 Connect line to the holder in opposite directions. Wind the string lines in the direction as indicated by the arrow on the spool.



5. With about 4" (10 cm) left on each of the ends, place string into string detents on spool.



6. Thread the two ends of the string through the holes on the string trimmer head assembly.



7. Assemble the bump head to the unit by rotating counterclockwise and adjust the string length as needed.

MAINTENANCE

General Maintenance

Avoid using solvents when cleaning plastic parts. Most plastics are susceptible to damage from various types of commercial solvents and may be damaged by their use. Use a clean cloth to remove dirt, dust, lubricant, grease, etc.

A WARNING

Before inspecting, cleaning, or servicing the machine, shut off engine, wait for all moving parts to stop, and disconnect spark plug wire and move it away from spark plug. Failure to follow these instructions could result in personal injury or property damage.

A WARNING

When servicing, use only identical replacement parts. Use of any other parts could create a hazard or cause product damage.

A WARNING

Do not at any time let brake fluids, gasoline, petroleum based products, penetrating oils, etc., come in contact with plastic parts. Chemicals can damage, weaken, or destroy plastic which could result in serious personal injury.

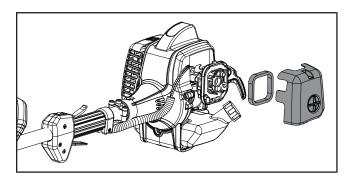
A WARNING

Tampering or adjusting the factory set carburetor is a Federal Violation and will void your warranty coverage.

Cleaning the Air Filter

For proper performance and long life, keep the air filter clean.

- Move choke knob to CHOKE position (See Cold Start section of manual) to prevent dirt and debris from entering carburetor.
- Remove the air cleaner cover by turning the cover fastener counter-clockwise. Brush away any accumulated dirt from the air filter cover area.
- Inspect and clean the air filter. To reassemble make sure the filter fits in the cavity and reinstall the filter as shown. Fasten the air filter cover by turning the fasteners clockwise.



Fuel Cap

A WARNING

Check for fuel leaks. A leaking fuel cap is a fire hazard and must be replaced immediately. If you find any leaks, correct the problem before using the product. Failure to do so could result in a fire that could cause serious personal injury.

Spark Plug

- Remove spark plug and check for worn and rounded center electrode.
- 2. Clean, adjust or replace with a new spark plug per gap specifications below.

OEM Type	TORCH CMR6A
Replacement Type	NGK CMR6A
Gap	0.024" - 0.028" (0.6 - 0.7 mm)

Maintenance Schedule

Follow the service intervals indicated in the adjacent schedule of this page. Service your trimmer more frequently when operating in adverse conditions. Contact our help line authorized service dealer. Time intervals shown are maximum. Actual use and your experience will determine the frequency of required maintenance.

BEFORE USE

- ☐ Wipe up fuel leaks, fuel spillage.
- ☐ Inspect and clean fuel tank.
- Inspect grass shield and trimmer head.

EVERY 25 HOURS

- ☐ Clean cylinder fins and intake cooling vent.
- ☐ Inspect and clean the air filter.

EVERY 50 HOURS

- ☐ Clean and readjust spark plug gap (gap: 0.6 0.7 mm [0.024 0.028"]), and replace if necessary.
- ☐ Clean exhaust port.
- ☐ Inspect and clean the air filter.

ANNUALLY

Replace spark plug.

Storing The Trimmer

- Clean all foreign material from the product. Store idle unit indoors in a dry, well-ventilated area that is inaccessible to children. Keep away from corrosive agents such as garden chemicals and deicing salts.
- Abide by all ISO and local regulations for the safe storage and handling of gasoline.

When storing 1 month or shorter:

 Fuel stabilizer is an acceptable alternative in minimizing the formation of fuel gum deposits during storage. Add stabilizer to your fuel container (not the fuel tank on the trimmer). Run engine at least 3 minutes after adding stabilizer.

When storing longer than a month:

 Drain all fuel from tank into a container approved for gasoline. Run engine until it stops.

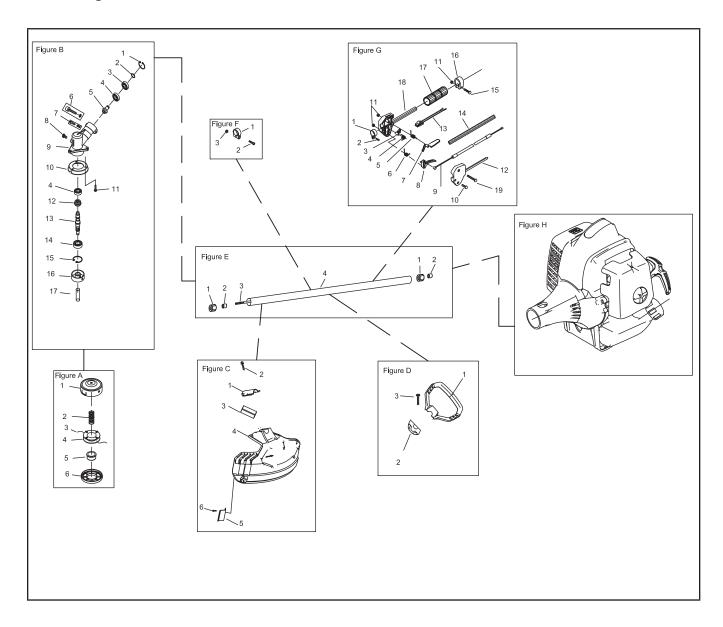
SPECIFICATIONS

Model	100682
Displacement	23 cc
Туре	2-Stroke
Line Size	0.095 in. (2.4 mm)
Cutting Swath	16 in. (41.5 cm)
Cutting Swath	, ,
•	76.4 dB(A) @ 50 ft. (15.2 m)

^{*} Rated per ANSI/OPEI B175.3-2013

100682 - STRAIGHT SHAFT TRIMMER SPECIFICATIONS

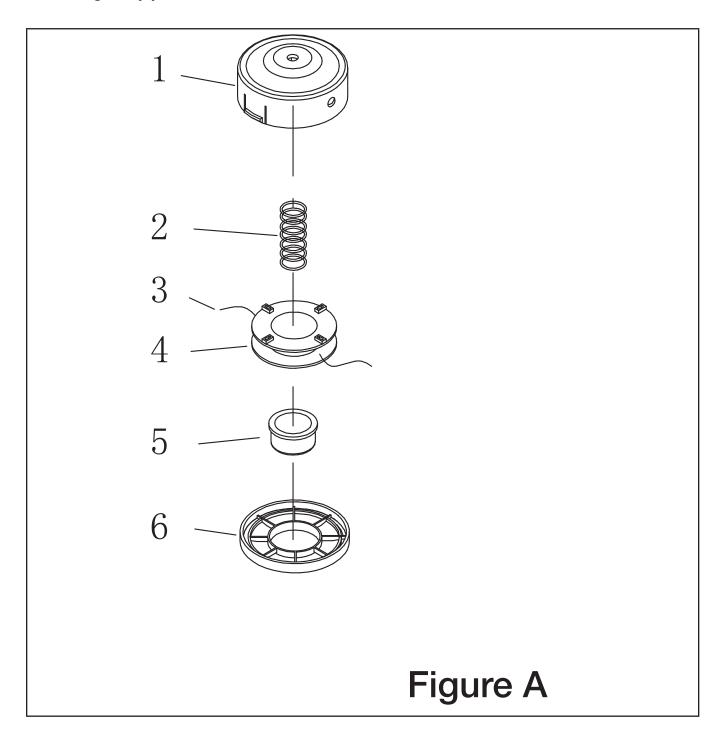
Parts Diagram Overview



Parts Diagram Overview List

#	Part Number	Description	Qty.
1	CG415Q23.1	Figure A	1
2	CG415.3	Figure B	1
3	3GC400B.6	Figure C	1
4	3CS260.1	Figure D	1
5	CG415Q23.2	Figure E	1
6	CG260.3	Figure F	2
7	CG415Q23.3	Figure G	1
8	80114937	Figure H	1

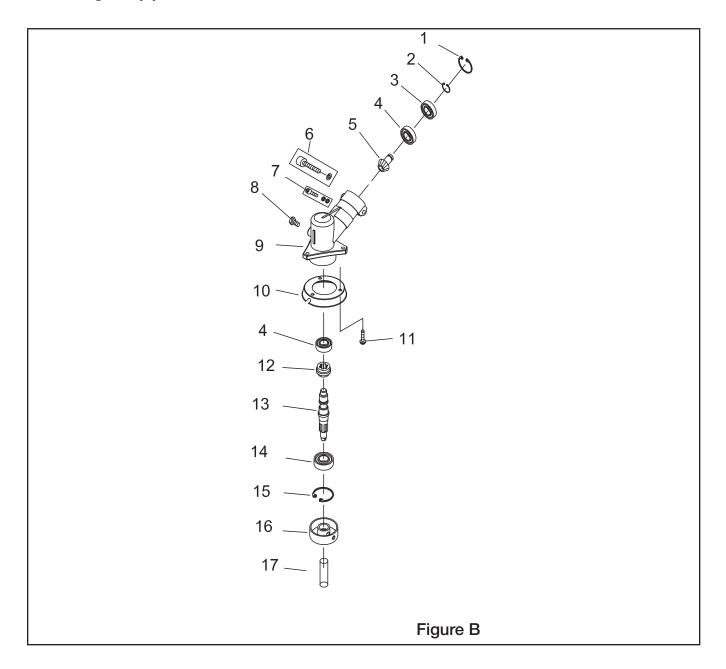
Parts Diagram (A)



Parts List (A)

#	Part Number	Description	Qty.
1	2320120944	Case	1
2	2320034140	Spring	1
3	2320111584	Cord Ø2.5 × 2100	2
4	2320120945	Cord Holder	1
5	2320042301	Rope Wheel Head	1
6	2320049609	Cover	1

Parts Diagram (B)

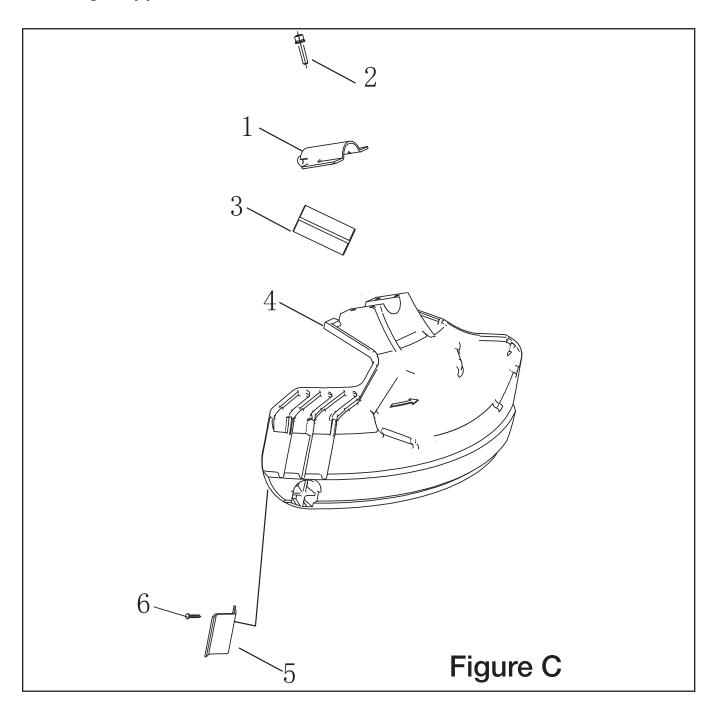


Parts List (B)

#	Part Number	Description	Qty.
1	2320011579	Stop Ring Ø26	1
2	2310001038	Stop Ring Ø10	1
3	2310002112	Bearing 6000-2RS/P6	1
4	2310002697	Bearing 6000/P6	2
5	2320106391	Pinion	1
6	23100047808	Screw M5 × 25	1
7	2310004467	Screw M5 × 12,CE	1
8	2310004465	Bolt M5 × 12	1
9	2320049610	Gear Case	1
10	2320107966	Safety Guard	1

#	Part Number	Description	Qty.
11	2310004842	Screw M5 × 12	3
12	2320101132	Gear	1
13	2320106390	Gear Shaft	1
14	2310003582	Bearing 6002-2RS/P5	1
15	2320011581	Stop Ring Ø32	1
16	2320088002	Holder A	1
17	2320121826	Oil Pipe	1

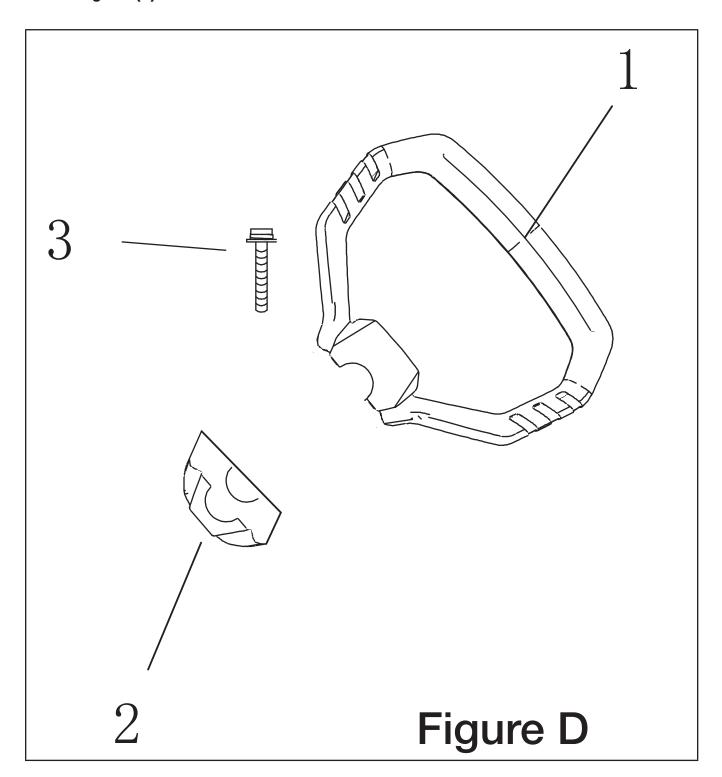
Parts Diagram (C)



Parts List (C)

#	Part Number	Description	Qty.
1	2320080799	Safety Guard Bracket	1
2	2310004780	Screw, M5 × 20, GB93+GB97	4
3	2320081905	Reducing Sleeve	1
4	2320118940	Safety Guard	1
5	2320070018	Blade	1
6	2310004831	Screw ST4.2 × 16	2

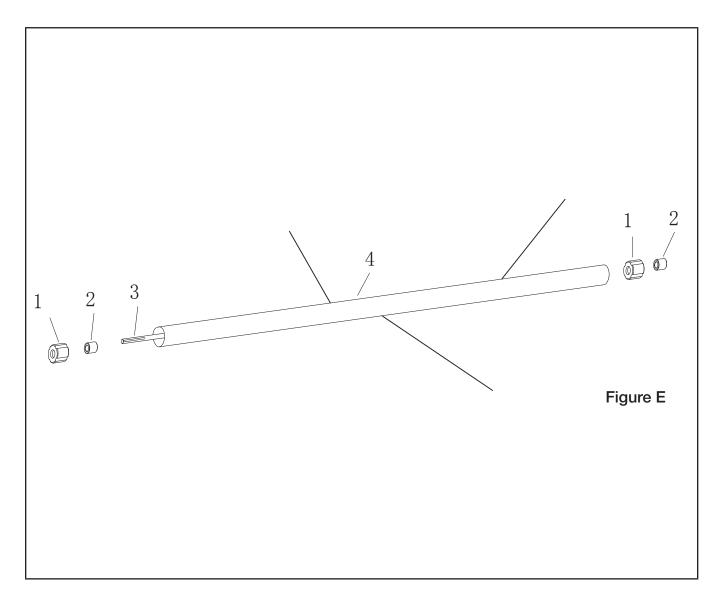
Parts Diagram (D)



Parts List (D)

#	Part Number	Description	Qty.
1	2320077337	Handle	1
2	2320077338	Handle Cover	1
3	2320031146	Bolt M5 × 25, CE	2

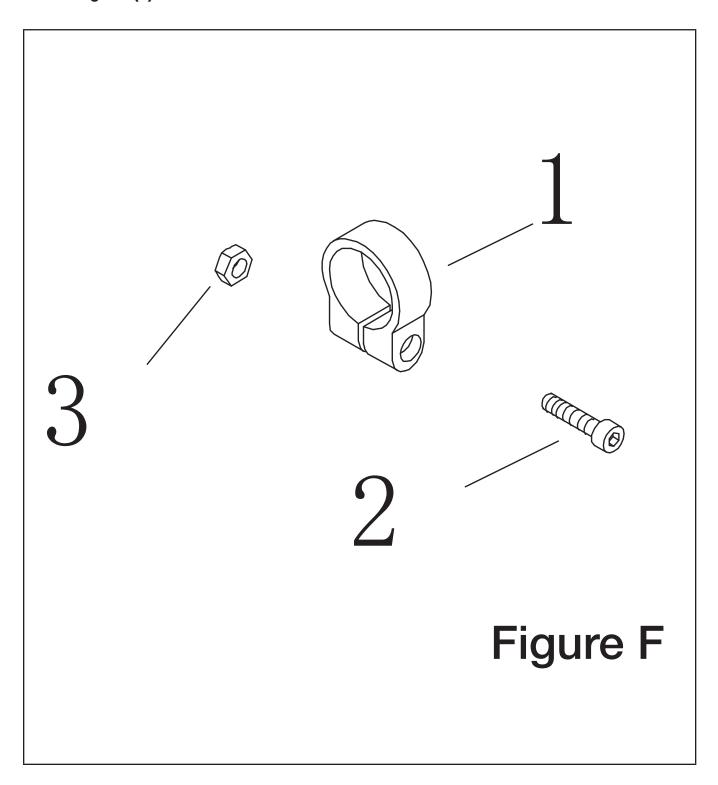
Parts Diagram (E)



Parts List (E)

#	Part Number	Description	Qty.
1	2320001244	Rubber Cover	6
2	2320006790	Oil-bearing	6
3	2320028569	Drive Shaft	1
4	2320120261	Pipe	1

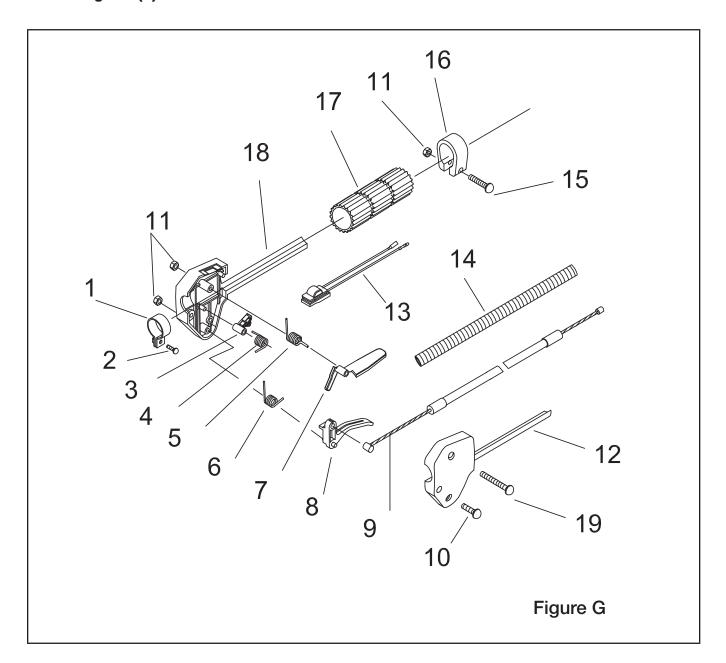
Parts Diagram (F)



Parts List (F)

#	Part Number	Description	Qty.
1	2320070118	Loacting Ring	1
2	2320121894	Screw M5 × 18, CE	1
3	2310000142	Nut M5, DWH	1

Parts Diagram (G)

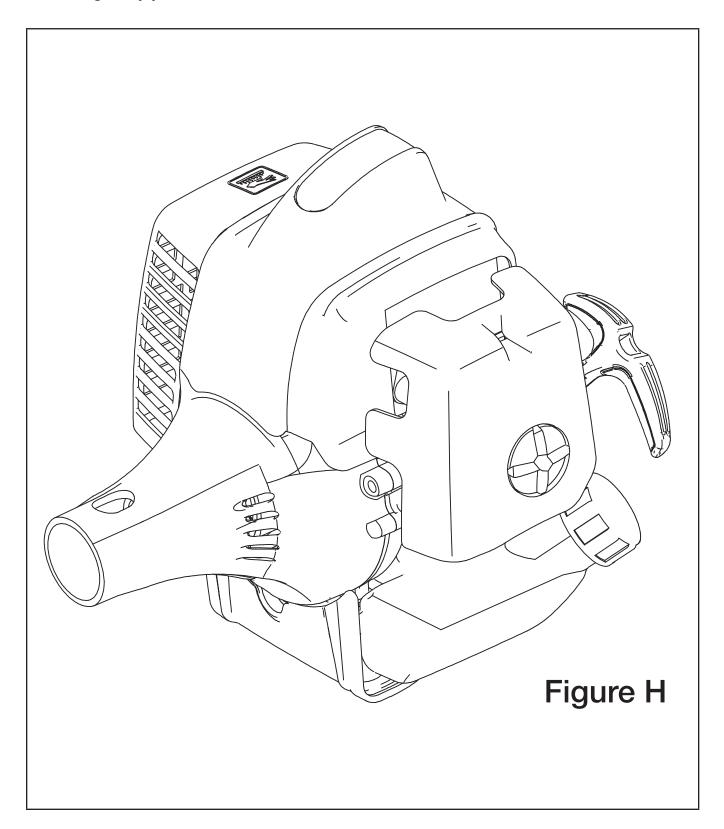


Parts List (G)

#	Part Number	Description	Qty.
1	2320038381	Tighting Ring	1
2	2310001588	Screw M5 × 16, 9074.4	1
3	2320001181	Tine	1
4	2320006287	Spring A	1
5	2320008102	Spring B	1
6	2320006700	Spring C	1
7	2320017667	Safety Lever	1
8	2320017665	Throttle Lever	1
9	2320019414	Cable Assembly	1

#	Part Number	Description	Qty.
10	2310004870	Screw M5 × 20	1
11	2310000142	Nut M5, CZH	3
12	2320022241	Box, Left	1
13	2320120402	Stop Switch	1
14	2320001856	Tube 12.5 × 170	1
15	2310004871	Screw M5 × 25, GB9074.4	1
16	2320120260	Clamp	1
17	2320002995	Handle Rubber Cover	1
18	2320022242	Box, Right	1
19	2310004869	Screw M5 × 30	1

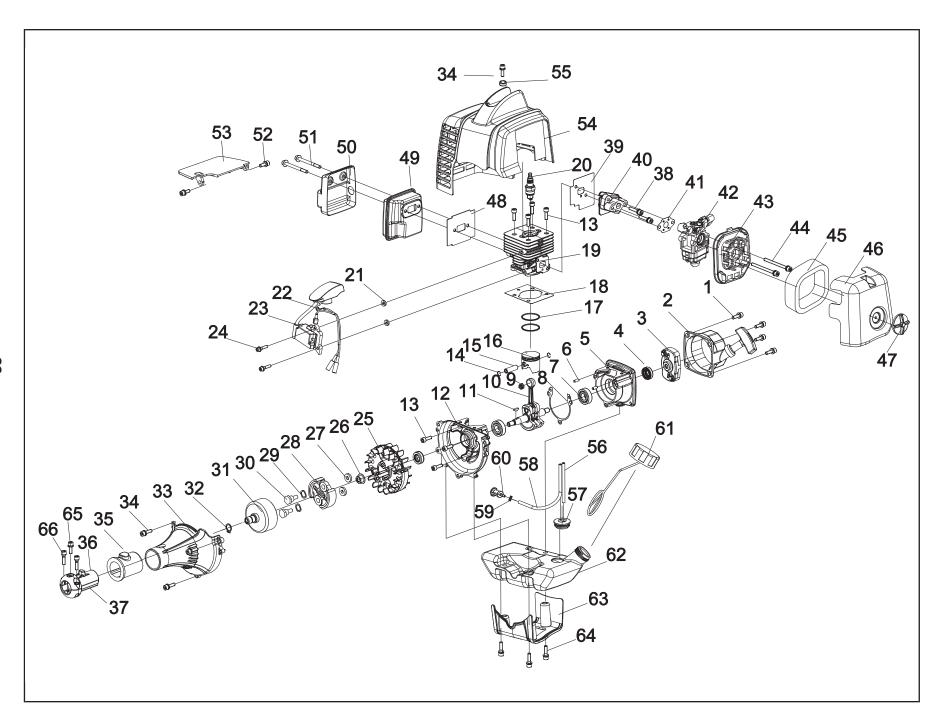
Parts Diagram (H)



Parts List (H)

	#	Part Number	Description	Qty.
I	1	80114937	Engine	1

Engine Parts Diagram



SPECIFICATIONS

Engine Parts List

#	Part Number	Description	Qty.
1	0010004000	Screw Assembly, M5 ×	4
L	2310004829	16 , Black	4
2	2320072616	Starter	1
3	2320072617	Guide Cover Assembly	1
4	2320088162	Oil seal	2
5	10303990	Crank Case R	1
6	2310000936	Pin, $4 \times h8 \times 8$	2
7	2310003397	Bearing, 6001/P53	2
8	2320067936	Gasket, Crank Case	1
9	2320094553	Bearing	1
10	19002064	Crank Shaft Assembly	1
11	2320006273	Key	1
12	10303989	Crank Case F	1
13	2310000645	Screw, M5 × 16 , Black	7
14	2320007024	Ring Snap	2
15	2320014632	Piston Pin	1
16	2320099508	Piston	1
17	2320067932	Ring Piston	2
18	2320067933	Gasket Cylinder	1
19	10303605	Cylinder	1
20	2320007041	Spark Plug	1
21	2320024997	Spacer, Igniton Coil	2
22	2320072757	Wire Lead Assembly	1
23	2320121672	Ignition Coil	1
24	2310004864	Screw Assembly, M4 \times 20 , Black	2
25	2320121673	Rotor Magnet	1
26	2310003436	Nut, M8	1
27	2320008938	Wave Washer	2
28	2320078430	Clutch Assembly	1
29	2320006290	Washer	2
30	2320007237	Clutch Bolt	2
31	2320056698	Clutch Drum Assembly	1
32	2310001042	Circlips For Shaft-type, A 15	1
33	2320078424	Fan Cover	1
34	2310004866	Screw Assembly, M5 × 18 , Black	4
35	2320048723	Rubber	1
36	10301766	Holder A	1
37	10301767	Holder B	1
38	2310004837	Screw Assembly, M5 \times 25 , Black	2

#	Part Number	Description	Qty.
39	2320068749	Gasket Insulator	1
40	2320104306	Insulator	1
41	2320008614	Gasket, Carburetor	1
42	2320120630	Carburetor	1
43	2320087835	Cleaner Base Assembly	1
44	2310003120	Screw Assembly, M5 × 60 , Black	2
45	2320008862	Air Filter Element	1
46	2320101558	Cover, Cleaner	1
47	2320120242	Knob Cover	1
48	2320078125	Gasket, Muffler	1
49	2320120445	Muffler	1
50	2320089034	Cover, Muffler	1
51	2320121573	Screw M5 × 55-10.9	2
52	2310004865	Screw Assembly, M5 × 14 , Black	2
53	2320104916	Clapboard	1
54	2320120241	Top Cover	1
55	2320033686	Spacer, Top Cover	1
56	2320121532	Fuel Pipe, Ø $5 \times Ø 2.5 \times 100$	1
57	2320081831	Plug	1
58	2320121533	Fuel Pipe, Ø $5.5 \times Ø 3$ $\times 165$	1
59	2320092088	Snap Ring	1
60	2320047780	Filter	1
61	2320120879	Tank Cap Assembly	1
62	2320099801	Fuel Tank	1
63	2320067927	Stand	1
64	2310004780	Screw Assembly, M5 \times 20 , Black	3
65	2310002354	Screw Assembly, M5 \times 16 , White	1
66	2310002216	Screw Assembly, M5 \times 25 , White	2

TROUBLESHOOTING

Problem	Cause	Solution
	Fuel mixture is too rich.	Open choke.
	Fuel strainer clogged.	Clean fuel strainer.
Engine does not start.	Fuel line clogged.	Clean fuel line.
Engine does not start.	Flooded engine.	Let unit sit for 15 minutes or remove spark plug and clean per manual.
	Spark plug gap is incorrect.	Replace or adjust spark plug per instructions.
	Air filter dirty.	Clean air filter.
Engine dies or accelerates poorly.	Incorrect fuel.	Drain and fill with correct fuel/new fuel.
Engine dies of accelerates poorly.	Exhaust port / spark arrestor screen blocked.	Clean exhaust port / Spark arrestor screen.
Spool retainer hard to turn.	Screw threads are dirty or damaged.	Clean threads and lubricate with grease – if no improvement, replace the spool retainer.
Grass wraps around drive shaft housing	Cutting tall grass at ground level.	Cut tall grass from the top down to prevent wrapping.
and string head.	Operating trimmer at part throttle.	Operate trimmer at full throttle.

For further technical support:

Technical Support Team
Mon-Fri 8:30 AM-5:00 PM (PST/PDT)
Toll Free 1-877-338-0999
support@championpowerequipment.com

WARRANTY*

CHAMPION POWER EQUIPMENT 2 YEAR LIMITED WARRANTY

Warranty Qualifications

To register your product for warranty and FREE lifetime call center technical support please visit:

https://www.championpowerequipment.com/register

To complete registration you will need to include a copy of the purchase receipt as proof of original purchase. Proof of purchase is required for warranty service. Please register within ten (10) days from date of purchase.

Repair/Replacement Warranty

CPE warrants to the original purchaser that the mechanical and electrical components will be free of defects in material and workmanship for a period of two years (parts and labor) from the original date of purchase and 90 days (parts and labor) for commercial and industrial use. Transportation charges on product submitted for repair or replacement under this warranty are the sole responsibility of the purchaser. This warranty only applies to the original purchaser and is not transferable.

Do Not Return The Unit To The Place Of Purchase

Contact CPE's Technical Service and CPE will troubleshoot any issue via phone or e-mail. If the problem is not corrected by this method, CPE will, at its option, authorize evaluation, repair or replacement of the defective part or component at a CPE Service Center. CPE will provide you with a case number for warranty service. Please keep it for future reference. Repairs or replacements without prior authorization, or at an unauthorized repair facility, will not be covered by this warranty.

Warranty Exclusions

This warranty does not cover the following repairs and equipment:

Normal Wear

Products with mechanical and electrical components need periodic parts and service to perform well. This warranty does not cover repair when normal use has exhausted the life of a part or the equipment as a whole.

Installation, Use and Maintenance

This warranty will not apply to parts and/or labor if the product is deemed to have been misused, neglected, involved in an accident, abused, loaded beyond the product's limits, modified, installed improperly or connected incorrectly to any electrical component. Normal maintenance is not covered by this warranty and is not required to be performed at a facility or by a person authorized by CPE.

Other Exclusions

This warranty excludes:

- Cosmetic defects such as paint, decals, etc.
- Wear items such as filter elements, o-rings, etc.
- Failures due to acts of God and other force majeure events beyond the manufacturer's control.
- Problems caused by parts that are not original Champion Power Equipment parts.

When applicable, this warranty does not apply to products used for prime power in place of a utility.

Limits of Implied Warranty and Consequential Damage

Champion Power Equipment disclaims any obligation to cover any loss of time, use of this product, freight, or any incidental or consequential claim by anyone from using this product. THIS WARRANTY AND THE ATTACHED U.S. EPA and/or CARB EMISSION CONTROL SYSTEM WARRANTIES (WHEN APPLICABLE) ARE IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

A unit provided as an exchange will be subject to the warranty of the original unit. The length of the warranty governing the exchanged unit will remain calculated by reference to the purchase date of the original unit.

This warranty gives you certain legal rights which may change from state to state or province to province. Your state or province may also have other rights you may be entitled to that are not listed within this warranty.

Contact Information

Address

Champion Power Equipment, Inc. 12039 Smith Ave. Santa Fe Springs, CA 90670 USA www.championpowerequipment.com

Customer Service

Toll Free: 1-877-338-0999

info@championpowerequipment.com

Fax no.: 1-562-236-9429

Technical Service

Toll Free: 1-877-338-0999

tech@championpowerequipment.com

• EMERGENCY 24 HOUR SUPPORT: 1-562-204-1188

CHAMPION POWER EQUIPMENT, INC. (CPE) AND THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY (U.S. EPA) EMISSION CONTROL SYSTEM WARRANTY

Your Champion Power Equipment (CPE) engine complies with U.S. EPA emissions regulations.

YOUR WARRANTY RIGHTS AND OBLIGATIONS:

The U.S. EPA and CPE are pleased to explain the Federal Emission Control System's Warranty on your 2021 small off-road engine and engine powered equipment. In the United States new equipment that use small off-road engines shall be designed, built and equipped to meet U.S. EPA regulations. CPE shall warrant the emission control system on your small off-road engine and equipment for the period of listed below, provided there has been no abuse, neglect, unapproved modification or improper maintenance of your equipment.

Your emission control system may include parts such as: carburetor, fuel tanks, fuel lines (for liquid fuel and fuel vapors), fuel caps, valves, canisters, filters, clamps, connectors, and other associated components. Where a warrantable condition exits, CPE will repair your small off-road engine at no cost to you including diagnosis, parts and labor.

MANUFACTURER'S WARRANTY COVERAGE:

This emission control system is warranted for two years. If any emission related part on your engine or equipment is defective, the part will be repaired or replaced by CPE.

OWNER'S WARRANTY RESPONSIBILITIES:

As the small off-road engine owner, you are responsible for the performance of the required maintenance listed in your Owner's Manual. CPE recommends that you retain all your receipts covering maintenance on your small off-road engine, but CPE cannot deny warranty solely for the lack of receipts.

As the small off-road engine owner, you should be aware that CPE may deny you warranty coverage if your small off-road engine or a part has failed due to abuse, neglect, or improper maintenance or unapproved modifications.

You are responsible for presenting your small off-road engine to an Authorized CPE distribution center or service center or alternate service outlet as soon as a problem exists. The warranty repairs shall be completed in a reasonable amount of time, not to exceed 30 days.

If you have any questions regarding your warranty coverage, you should contact:

Champion Power Equipment, Inc.
Customer Service
12039 Smith Ave.
Santa Fe Springs, CA 90670
1-877-338-0999
tech@championpowerequipment.com

EMISSION CONTROL SYSTEM WARRANTY

1. **APPLICABILITY:** This section applies to Emissions Control Systems on small off-road engines or equipment that use small off-road engines subject to the emission standards in this Article. The warranty period begins on the date the new engine or equipment is delivered to an ultimate purchaser and shall continue for 24 consecutive months thereafter.

2. GENERAL EMISSIONS WARRANTY COVERAGE

CPE warrants to the ultimate purchaser of the new engine or equipment and to each subsequent owner that the Emissions Control System when installed is:

- 2a. Designed, built and equipped to conform to U.S. EPA emissions standards for spark-ignited engines at or below 19 kilowatts;
- 2b. Free from defects in materials and workmanship that cause the failure of a warranted part to be identical in all material respects to the part as described in the engine manufacturer's application for certification for a period of two years.

3. THE WARRANTY ON EXHAUST AND EVAPORATIVE EMISSION-RELATED PARTS WILL BE INTERPRETED AS FOLLOWS:

- 3a. Any warranted part that is not scheduled for replacement as required maintenance in the Operators Manual required by subsection (e) must be warranted for the warranty period defined in subsection (b)(2). If any such part fails during the period of warranty coverage, it must be repaired or replaced by CPE according to subsection (3)(3d) below. Any such part repaired or replaced under the warranty must be warranted for a time not less than the any remaining warranty period.
- 3b. Any warranted emissions-related part that is scheduled only for regular inspection in the Operators Manual shall be warranted for the warranty period defined in subsection (b)(2). A statement in such written instructions to the effect of "repair or replace as necessary" shall advise owners of the warranty coverage for emissions related parts. Replacement within the warranty period is covered by the warranty and will not reduce the period of warranty coverage. Any such emission-related part repaired replaced under warranty shall be warranted for a time not less than the remaining warranty period.
- 3c. Any warranted emissions-related part that is scheduled for replacement as required maintenance in the Operators Manual shall be warranted for the period of time prior to the first scheduled replacement point for that part. If the part fails prior to the first scheduled replacement, the part shall be repaired or replaced by CPE according to Subsection (3)(3d) below. Any such emissions-related part repaired or replaced under warranty shall be warranted for a time not less than the remainder of the period prior to the first scheduled replacement point for such emissions-related part.
- 3d. Repair or replacement of any warranted emissions-related part under the Warranty provisions of this article shall be performed at no charge to the owner at a CPE Authorized Service Outlet.
- 3e. The owner of the small off-road engine shall not be charged for diagnostic labor that leads to the determination that a warranted part is in fact defective, provided that such diagnostic work is performed at a CPE Authorized Service Outlet.
- 3f. CPE shall pay for covered emissions warranty repairs at non-authorized service outlets under the following circumstances:
 - i. The service is required in a population center with a population over 100,000 according to U.S. Census 2000 without a CPE Authorized Service Outlet AND
 - ii. The service is required more than 100 miles from a CPE Authorized Service Outlet. The 100-mile limitation does not apply in the following states: Alaska, Arizona, Colorado, Hawaii, Idaho, Montana, Nebraska, Nevada, New Mexico, Oregon, Texas, Utah and Wyoming.
- 3g. CPE shall be liable for damages to other original engine components or approved modifications proximately caused by a failure under warranty of an emission-related part covered by the ECS Warranty.
- 3h. Throughout the Emissions Control Systems Warranty period, CPE shall maintain a supply of warranted emission-related parts sufficient to meet the expected demand for such emission-related parts.
- 3i. Any CPE Authorized, and approved emission-related replacement part may be used in the performance of any ECS Warranty maintenance or repair and will be provided without charge to the owner. Such use shall not reduce CPE's warranty obligation.
- 3j. Unapproved add-on or modified parts may not be used to modify or repair a CPE engine. Such use voids this Warranty and shall be grounds for disallowing a warranty claim. CPE shall not be liable hereunder for failures of any warranted parts of a CPE engine caused by the use of such an unapproved add-on or modified part.

EMISSION-RELATED PARTS INCLUDE THE FOLLOWING: (using those portions of the list applicable to the engine)

Systems covered by this warranty	Parts Description
Fuel Metering System	Fuel regulator, Carburetor and internal parts
Air Induction System	Air cleaner, Intake manifold
Ignition System	Spark plug and parts, Magneto ignition system
Exhaust System	Exhaust manifold, catalytic converter
Miscellaneous Parts	Tubing, Fittings, Seals, Gaskets, and Clamps associated with these listed systems.
Evaporative Emissions	Fuel Tank, Fuel Cap, Fuel Lines (for liquid fuel and fuel vapors), Fuel Line Fittings, Clamps, Pressure Relief Valves, Control Valves, Control Solenoids, Electronic Controls, Vacuum Control Diaphragms, Control Cables, Control Linkages, Purge Valves, Gaskets, Liquid/Vapor Separator, Carbon Canister, Canister Mounting Brackets, Carburetor Purge Port Connector

TO OBTAIN WARRANTY SERVICE:

You must take your CPE engine or the product on which it is installed, along with your warranty registration card or other proof of original purchase date, at your expense, to any Champion Power Equipment dealer who is authorized by Champion Power Equipment, Inc. to sell and service that CPE product during normal business hours. Alternate service locations defined in Section (3)(f.) above must be approved by CPE prior to service. Claims for repair or adjustment found to be caused solely by defects in material or workmanship will not be denied because the engine was not properly maintained and used.

If you have any questions regarding your warranty rights and responsibilities, or to obtain warranty service, please write or call Customer Service at Champion Power Equipment, Inc.

Champion Power Equipment, Inc.

12039 Smith Ave. Santa Fe Springs, CA 90670 1-877-338-0999

Attn.: Customer Service tech@championpowerequipment.com