STIHL

STIHL MM 56

Instruction Manual
Manual de instrucciones

WARNING
Read Instruction Manual thoroughly before use and follow all safety precautions – improper use can cause serious or fatal injury.

ADVERTENCIA
Antes de usar la máquina lea y siga todas las precauciones de seguridad dadas en el manual de instrucciones – el uso incorrecto puede causar lesiones graves o mortales.

English

Contents

MultiSystem	2
Guide to Using this Manual	2
Safety Precautions and Working Techniques	3
Approved MultiTools	11
Adjusting the bicycle handle	11
Fuel	12
Fueling	13
Starting / Stopping the Engine	15
Extra weight	17
Wheels	18
Operating Instructions	19
Replacing the Air Filter	19
Engine Management	19
Adjusting the Carburetor	20
Spark Arresting Screen in Muffler	20
Spark Plug	20
Engine Running Behavior	21
Storing the Machine	22
Maintenance and Care	23
Main Parts	24
Specifications	25
Maintenance and Repairs	26
Disposal	26
Limited Warranty	27
STIHL Incorporated Federal Emission Control Warranty Statement	27
Trademarks	29

Allow only persons who fully understand the manuals of the MultiEngine and the MultiTool to operate your power tool.

To receive maximum performance and satisfaction from your STIHL power tool, it is important that you read, understand and follow the safety precautions and the operating and maintenance instructions in chapter "Safety Precautions and Working Techniques" before using your power tool. For further information you can go to www.stihlusa.com.

Contact your STIHL dealer or the STIHL distributor for your area if you do not understand any of the instructions in the two manuals.

⚠ WARNING

Because this MultiEngine is the engine for a high-speed power tool, some special safety precautions must be observed to reduce the risk of personal injury. Careless or improper use may cause serious or even fatal injury.

Make sure your unit is equipped with the proper deflector for the type of cutting attachment being used. Always wear proper eye protection.

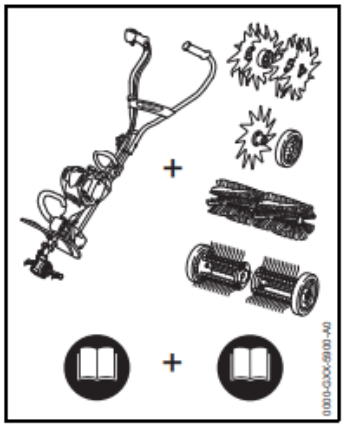
Original Instruction Manual

Printed on chlorine-free paper
Printing inks contain vegetable oils, paper can be recycled.

STIHL

English

MultiSystem



In the STIHL MultiSystem a number of different MultiEngines and MultiTools can be combined to produce a power tool. In this instruction manual the functional unit formed by the MultiEngine **and** MultiTool is referred to as the power tool.

Therefore, the separate instruction manuals for the MultiEngine and MultiTool should be used together for the power tool.

Always read and and make sure you understand **both** instruction manuals before using your power tool for the first time and keep them in a safe place for future reference.

Guide to Using this Manual

Pictograms

All the pictograms attached to or embossed on the machine are shown and explained in this manual.

Symbols in Text

Many operating and safety instructions are supported by illustrations.

The individual steps or procedures described in the manual may be marked in different ways:

- A bullet marks a step or procedure.

A description of a step or procedure that refers directly to an illustration may contain item numbers that appear in the illustration. Example:

- Loosen the screw (1).
- Lever (2) ...

In addition to the operating instructions, this manual may contain paragraphs that require your special attention. Such paragraphs are marked with the following symbols and signal words:

DANGER

Indicates a hazardous situation that, if not avoided, will result in death or serious injury.

WARNING

Indicates a hazardous situation that, if not avoided, could result in death or serious injury.

NOTICE

Indicates a risk of property damage, including damage to the machine or its individual components.

Engineering Improvements

STIHL's philosophy is to continually improve all of its products. As a result, engineering changes and improvements are made from time to time. Therefore, some changes, modifications and improvements may not be covered in this manual. If the operating characteristics or the appearance of your machine differs from those described in this manual, please contact your STIHL dealer or the STIHL distributor for your area for assistance.

Safety Precautions and Working Techniques

Because this MultiEngine is the engine for a high-speed power tool, special safety precautions must be observed to reduce the risk of personal injury.

It is important that you read, fully understand and observe the following safety precautions and warnings. Read the instruction manuals and the safety precautions of your MultiEngine and MultiTool periodically. Careless or improper use may cause serious or fatal injury.

Have your STIHL dealer show you how to operate your power tool. Observe all applicable local safety regulations, standards and ordinances.

WARNING

Do not lend or rent your power tool without the instruction manual. Be sure that anyone using it understands the information contained in this manual.

Use your power tool only for the applications described in the instruction manual of the MultiTool you are using.

WARNING

Do not use it for other purposes, since misuse may result in personal injury or property damage, including damage to the machine.

WARNING

Minors should never be allowed to use this power tool. Bystanders, especially children, and animals should not be allowed in the area where it is in use.

WARNING

To reduce the risk of injury to bystanders and damage to property, never let your power tool run unattended. When it is not in use (e.g. during a work break), shut it off and make sure that unauthorized persons do not use it.

Most of these safety precautions and warnings apply to the use of all STIHL power tools. Different models may have different parts and controls. See the appropriate section of your MultiEngine and MultiTool instruction manuals for a description of the controls and the function of the parts of your model.

Safe use of a power tool involves

1. the operator
2. the power tool
3. the use of the power tool

THE OPERATOR

Physical Condition

You must be in good physical condition and mental health and not under the influence of any substance (drugs, alcohol, etc.) which might impair vision, dexterity or judgment. Do not operate this machine when you are fatigued.

WARNING

Be alert – if you get tired, take a break. Tiredness may result in loss of control. Working with any power tool can be strenuous. If you have any condition that might be aggravated by strenuous work, check with your doctor before operating this machine.

WARNING

Prolonged use of a power tool (or other machines) exposing the operator to vibrations may produce whitefinger disease (Raynaud's phenomenon) or carpal tunnel syndrome.

These conditions reduce the hand's ability to feel and regulate temperature, produce numbness and burning sensations and may cause nerve and circulation damage and tissue necrosis.

All factors which contribute to whitefinger disease are not known, but cold weather, smoking and diseases or physical conditions that affect blood vessels and blood transport, as well as high vibration levels and long periods of exposure to vibration are mentioned as factors in the development of whitefinger disease. In order to reduce the risk of whitefinger disease and carpal tunnel syndrome, please note the following:

- Wear gloves and keep your hands warm.
- A power tool with loose components will tend to have higher vibration levels.
- Maintain a firm grip at all times, but do not squeeze the handles with constant, excessive pressure. Take frequent breaks.

All the above-mentioned precautions do not guarantee that you will not sustain whitefinger disease or carpal tunnel syndrome. Therefore, continual and regular users should closely monitor the condition of their hands and fingers. If any of the above symptoms appear, seek medical advice immediately.

WARNING

The ignition system of the STIHL unit produces an electromagnetic field of a very low intensity. This field may interfere with some pacemakers. To reduce the risk of serious or fatal injury, persons with a pacemaker should consult their physician and the pacemaker manufacturer before operating this tool.

Proper Clothing

WARNING

To reduce the risk of injury, the operator should wear proper protective apparel.

WARNING

To reduce the risk of injury to your eyes never operate your sprayer unless wearing goggles or properly fitted protective glasses with adequate top and side protection complying with ANSI Z87 "+" (or your applicable national standard). To reduce the risk of injury to your face STIHL recommends that you also wear a face shield or face screen over your goggles or protective glasses.

Power tool noise may damage your hearing. Wear sound barriers (ear plugs or ear mufflers) to protect your hearing. Continual and regular users should have their hearing checked regularly.

Be particularly alert and cautious when wearing hearing protection because your ability to hear warnings (shouts, alarms, etc.) is restricted.

Good footing is very important. Wear sturdy boots with nonslip soles.

For further instructions on proper clothing see the safety precautions in the instruction manual of the MultiTool you are using.

THE POWER TOOL

For illustrations and definitions of the power tool parts see the chapter on "Main Parts."

WARNING

Never modify this power tool in any way. Only attachments supplied by STIHL or expressly approved by STIHL for use with the specific STIHL MultiEngine model are authorized. Although certain unauthorized attachments are useable with STIHL power tools, their use may, in fact, be extremely dangerous.

If this tool is subjected to unusually high loads for which it was not designed (e.g. heavy impact or a fall), always check that it is in good condition before continuing work. Check in particular that the fuel system is tight (no leaks) and that the controls and safety devices are working properly. Do not continue operating this machine if it is damaged. In case of doubt, have it checked by your STIHL servicing dealer.

THE USE OF THE POWER TOOL

Transporting the Power Tool

WARNING

Always switch off the engine and make sure the working tool has stopped before putting a power tool down. When transporting your power tool in a vehicle, properly secure it to prevent turnover, fuel spillage and damage to the power tool.

Fuel

Your STIHL power tool uses an oil-gasoline mixture for fuel (see the "Fuel" chapter in this instruction manual).

WARNING

Gasoline is an extremely flammable fuel. If spilled and ignited by a spark or other ignition source, it can cause fire and serious burn injury or property damage. Use extreme caution when handling gasoline or fuel mix. Do not smoke or bring any fire or flame near the fuel or the power tool. Note that combustible fuel vapor may escape from the fuel system.

Fueling Instructions

WARNING

To reduce the risk of fire and serious personal injury, always place the power tool on the ground before attempting to fuel the machine.

WARNING

Pick a Safe Location

To reduce the risk of fire and explosion, fuel your power tool in a well-ventillated area, outdoors away from flames, pilot lights, heaters, electric motors, and other sources of ignition. Vapors can be ignited by a spark or flame many feet away. Select bare ground for fueling and move at least 10 feet (3 m) from the fueling spot before starting the engine. Wipe off any spilled fuel before starting your power tool. Take care not to get fuel on your clothing. If this happens, change your clothing immediately.

Allow the Power Tool to Cool Before Removing the Fuel Cap

WARNING

Gasoline vapor pressure may build up inside the fuel tank. The amount of pressure depends on a number of factors such as the fuel used, altitude and temperature. To reduce the risk of burns and other personal injury from escaping gas, vapor and fumes, always shut off the engine and allow it to cool before removing the fuel cap.

The engine is air cooled. When it is shut off, cooling air is no longer drawn across the cylinder and engine temperatures will rise for several minutes before starting to cool. In hot environments, cooling will take longer. To reduce the risk of burns and other personal injury from escaping gas, vapor and fumes, allow the power tool to cool. If you need to refuel before completing a job, turn off the machine and allow the engine to cool before opening the fuel tank.

Fuel Spraying or "Geysering"

WARNING

Removing the cap on a pressurized fuel tank can result in gasoline, vapors and fumes being forcefully sprayed out from the fuel tank in all directions. The escaping gasoline, vapors or fumes can cause serious personal injury, including fire and burn injury, or property damage.

Sometimes also referred to as "fuel geysering," fuel spraying is an expulsion of fuel, vapors and fumes which can occur in hot conditions, or when the engine is hot, and the tank is opened without allowing the power tool to cool adequately. It is more likely to occur when the fuel tank is half full or more.

Pressure is caused by fuel and heat and can occur even if the engine has not been running. When gasoline in the fuel tank is heated (by ambient temperatures, heat from the engine, or other sources), vapor pressure will increase inside the fuel tank.

Some blends of gasoline, particularly those designed for use in winter, are more volatile and may cause tanks to pressurize more quickly or create greater pressure. At higher altitudes, fuel tank pressurization is more likely.

How to Avoid Fuel Spraying

Removing the fuel cap on a pressurized tank can result in gasoline, vapors and fumes being forcefully sprayed out from the fuel tank in all directions. To reduce the risk of burns, serious injuries or property damage from fuel spraying:

- Follow the fueling instructions in this chapter.
- Always assume your fuel tank is pressurized.
- Allow the power tool to cool before removing the fuel cap.
- In hot environments, cooling will take longer.
- The engine is air cooled. When it is shut off, cooling air is no longer drawn across the cylinder and the engine temperature will rise for several minutes before starting to cool.

After the power tool has cooled appropriately, follow the safety instructions in this chapter for removing the cap.

Never remove the fuel filler cap by turning it directly to the open position. First check for residual pressure in the tank by slowly turning the cap approximately 1/2 turn counter-clockwise. The cap should be held in place by the threads while allowing residual vapor/pressure to be relieved. Once the fumes or vapor have been relieved, turn the cap further until it can be removed from the tank opening.

Use only good quality fuel that is appropriate for the season (summer v. winter blends). Some blends of gasoline, particularly winter blends, are more volatile and can contribute to fuel spraying.

Removing the Threaded Fuel Filler Cap

WARNING

After allowing the power tool to cool, remove the fuel filler cap slowly and carefully to allow any remaining pressure build-up in the tank to release:

- While maintaining steady, downward pressure, slowly turn the cap approximately 1/2 turn counter-clockwise.
- If any significant venting occurs, immediately re-seal the tank by turning the cap clockwise to the closed position. Allow the power tool to cool further before attempting to open the tank.
- Turn the cap to the open position only after the contents of the tank are no longer under pressure.
- Never remove the cap by turning it directly to the open position. First allow the power tool to cool adequately and then release any residual pressure by slowly turning it approximately 1/2 turn counter-clockwise.
- Never attempt to remove the cap while the engine is still hot or running.

Installing the Threaded Fuel Filler Cap

WARNING

Unit vibrations can cause an improperly tightened fuel filler cap to loosen or come off and spill quantities of fuel. To reduce the risk of fuel spillage and fire, tighten the fuel filler cap by hand with as much force as possible.

Damaged or Broken Cap

If your fuel cap does not tighten properly, it may be damaged or broken. Stop using the power tool and take it to your authorized STIHL dealer for repair.

Vapor Lock

WARNING

Vapor lock occurs when fuel in the fuel line or carburetor vaporizes, causing bubbles to block the free flow of liquid fuel into the carburetor. Vapor lock cannot be relieved or affected by opening the fuel tank. Removing the fuel filler cap without first allowing the power tool to cool adequately can result in fuel spraying. Always follow the instructions in this section when removing the fuel cap.

To relieve vapor lock:

- Place the Choke Knob in the cold start position and pull the starter cord approximately 20 times to clear the vapor and send liquid fuel into the carburetor.
- To start the power tool, move the Choke Knob to the starting throttle position and pull the starter cord approximately 10 times.
- If your power tool will not restart, or if vapor lock occurs again, the power tool is being used in conditions too extreme for the fuel being used. Discontinue use and let the engine cool completely before attempting to start the power tool.

Before Operation

Before starting work, open up the bike handle and lock it in position with the rotary knob. See chapter on "Adjusting the Bike Handle."

WARNING

Always check your power tool for proper condition and operation before starting, particularly the throttle trigger, starting throttle lock, slide control / stop switch, working tool and deflector. The throttle trigger must move freely and always spring back to the idle position. Never attempt to modify the controls or safety devices.

WARNING

Check fuel system for leaks, especially the visible parts, e.g., filler cap, hose connections, manual fuel pump (only for power tools equipped with a manual fuel pump). Do not start the engine if there are leaks or damage – risk of fire. Have the power tool repaired by a STIHL servicing dealer before using it.

WARNING

Never operate your power tool if it is damaged, improperly adjusted or maintained, or not completely and securely assembled.

Inspect for loose parts (nuts, screws, etc.) and for cracked, bent, warped or damaged working tools.

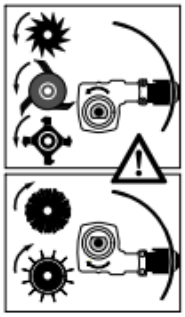
WARNING

Check that the spark plug boot is securely mounted on the spark plug – a loose boot may cause arcing that could ignite combustible fumes and cause a fire.

Keep the handles clean and dry at all times; it is particularly important to keep them free of moisture, pitch, oil, fuel mix, grease or resin in order for you to maintain a firm grip and properly control your power tool.

WARNING

To reduce the risk of injury from a MultiTool rotating in the wrong direction, check that the position of the gearbox is correct and change it if necessary.



On metal tools (top illustration), position the gearbox so that the shaft is below the drive tube.

Use for:

- BF-MM cultivator blades with pointed tines
- BK-MM cultivator blades with curved tines
- FC-MM edger
- RL-MM aerator
- MF-MM dethatcher

On sweeping tools (bottom illustration), position the gearbox so that the shaft is above the drive tube.

Use for:

- KB-MM bristle brush
- KW-MM STIHL PowerSweep

English

For tools used to cut grass, trim and prune, remove the gearbox.

Use for:

– FS-MM brushcutter

Check the instruction manual for the MultiTool to ensure you are using the appropriate deflector for that MultiTool.

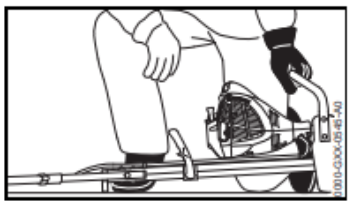
For specific starting instructions, see the appropriate section of your MultiEngine and MultiTool manuals.

Starting

Start the engine at least 10 feet (3 m) from the fueling spot, outdoors only.

For specific starting instructions, see the appropriate section of your MultiEngine and MultiTool manuals.

Place the power tool on firm ground or other solid surface in an open area. Maintain good balance and secure footing.



WARNING

Always stand to one side of the unit to avoid the risk of injury from contact with the rotating working tool.

WARNING

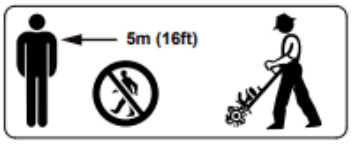
To reduce the risk of injury from loss of control, be absolutely sure that the working tool is clear of you and all other obstructions and objects, including the ground, because when the engine starts at starting-throttle, engine speed will be fast enough for the clutch to engage and move the working tool.

Once the engine has started, immediately blip the throttle trigger, which should release the starting throttle and allow the engine to slow down to idle.

WARNING

Your power tool is a one-person machine. Do not allow other persons in the general work area, even when starting.

Stop the engine and working tool immediately if you are approached.



To reduce the risk of eye and other injury always wear proper eye protection (see section on "Proper Clothing") and ensure that bystanders are at least 16 feet (5 m) away. To reduce the risk of damage to property, also maintain this distance from such objects as vehicles or windows. Any coworkers who must be in the restricted area should also wear goggles or protective glasses.

WARNING

To reduce the risk of injury from loss of control, do not attempt to "drop start" your power tool.

WARNING

When you pull the starter grip, do not wrap the starter rope around your hand. Do not let the grip snap back, but guide the starter rope to rewind it properly. Failure to follow this procedure may result in injury to your hand or fingers and may damage the starter mechanism.

See also the safety precautions on Starting in the instruction manual of the MultiTool.

Important Adjustments

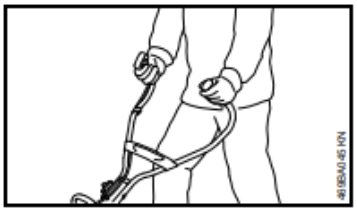
WARNING

To reduce the risk of personal injury from loss of control or contact with the running working tool, do not use a power tool with incorrect idle adjustment. At correct idle speed, the working tool should not move. For directions on how to adjust idle speed, see the appropriate section of your instruction manual.

If you cannot set the correct idle speed, have your STIHL dealer check your power tool and make proper adjustments and repairs.

During Operation

Holding and Controlling the Power Tool



Always hold the unit firmly with both hands on the handles while you are working. Wrap your fingers and thumbs around the handles, keeping the handles cradled between your thumb and forefinger. Keep your hands in this position to have your power tool under control at all times.

WARNING

To reduce the risk of injury from loss of control, never work on a ladder or on any other insecure support.

Working Conditions

Operate and start your power tool only outdoors in a well ventilated area. Operate it under good visibility and daylight conditions only. Work carefully.

WARNING

As soon as the engine is running, this product generates toxic exhaust fumes containing chemicals, such as unburned hydrocarbons (including benzene) and carbon monoxide, that are known to cause respiratory problems, cancer, birth defects, or other reproductive harm. Some of the gases (e.g. carbon monoxide) may be colorless and odorless. To reduce the risk of serious or fatal injury / illness from inhaling toxic fumes, never run the machine indoors or in poorly ventilated locations.

WARNING

Inhalation of certain dusts, especially organic dusts such as mold or pollen, can cause susceptible persons to have an allergic or asthmatic reaction.

Substantial or repeated inhalation of dust and other airborne contaminants, in particular those with a smaller particle size, may cause respiratory or other illnesses. Control dust at the source where possible. Use good work practices, such as operating the unit so that the wind or operating process directs any dust raised by the power tool away from the operator. Follow the recommendations of EPA / OSHA / NIOSH and occupational and trade associations with respect to dust ("particulate matter"). When the inhalation of dust cannot be substantially controlled, i.e., kept at or near the ambient (background) level, the operator and any bystanders should wear a respirator approved by NIOSH / MSHA for the type of dust encountered.

Operating Instructions

WARNING

Do not operate your power tool using the starting throttle lock, as you do not have control of the engine speed.

In the event of an emergency, switch off the engine immediately by pressing the stop switch.

WARNING

Never modify your muffler. Any modification could cause an increase in heat radiation, sparks or sound level, thereby increasing the risk of fire, burn injury or hearing loss. You may also permanently damage the engine. Have your muffler serviced and repaired by your STIHL servicing dealer only.

WARNING

The muffler and other parts of the engine (e.g. fins of the cylinder, spark plug) become hot during operation and remain hot for a while after stopping the engine. To reduce risk of burns, do not touch the muffler and other parts while they are hot. Keep the area around the muffler

clean. Remove excess lubricant and all debris such as pine needles, branches or leaves. Let the engine cool down sitting on concrete, metal, bare ground or solid wood away from any combustible substances.

WARNING

An improperly mounted or damaged cylinder housing or a damaged/deformed muffler shell may interfere with the cooling process of the muffler. To reduce the risk of fire or burn injury, do not continue work with a damaged or improperly mounted cylinder housing or a damaged/deformed muffler shell.

Your muffler is furnished with a spark arresting screen designed to reduce the risk of fire from the emission of hot particles. Never operate your unit with a missing or damaged spark arresting screen. If your gas/oil mix ratio is correct (i.e., not too rich), this screen will normally stay clean as a result of the heat from the muffler and need no service or maintenance. If you experience loss of performance and you suspect a clogged screen, have your muffler maintained by a STIHL servicing dealer. Some state or federal laws or regulations may require a properly maintained spark arrestor for certain uses. See the "Maintenance, Repair and Storing" section of these Safety Precautions. Remember that the risk of a brush or forest fire is greater in hot or dry conditions.

MAINTENANCE, REPAIR AND STORING

Maintenance, replacement, or repair of the emission control devices and systems may be performed by any nonroad engine repair establishment or individual. However, if you make a warranty claim for a component which has not been serviced or maintained properly, STIHL may deny coverage.

WARNING

Use only identical STIHL replacement parts for maintenance and repair. Use of non-STIHL parts may cause serious or fatal injury.

Strictly follow the maintenance and repair instructions in the appropriate section of your MultiEngine and MultiTool instruction manuals. Please refer to the maintenance charts respectively the maintenance notes in these manuals.

WARNING

Always stop the engine and make sure that the working tool is stopped before doing any maintenance or repair work or cleaning the power tool. Do not attempt any maintenance or repair work not described in your MultiEngine and MultiTool instruction manuals. Have such work performed by your STIHL servicing dealer only.

Wear gloves when handling or performing maintenance on any blade.

WARNING

Never repair damaged working tools by welding, straightening or modifying the shape. This may cause parts of the working tool to come off and result in serious or fatal injuries.

WARNING

Use the specified spark plug and make sure it and the ignition lead are always clean and in good condition. Always press spark plug boot snugly onto spark plug terminal of the proper size. (Note: If terminal has a detachable SAE adapter nut, it must be attached.) A loose connection between spark plug boot and the ignition wire connector in the boot may create arcing that could ignite combustible fumes and cause a fire.

WARNING

Never test the ignition system with the ignition wire boot removed from the spark plug or with a removed spark plug, since uncontained sparking may cause a fire.

WARNING

Do not operate your power tool if the muffler is damaged, missing or modified. An improperly maintained muffler will increase the risk of fire and hearing loss. Your muffler is equipped with a spark-arresting screen to reduce the risk of fire; never operate your power tool if the screen is missing, damaged or clogged. Remember that the risk of a brush or forest fire is greater in hot or dry weather.

In California, it is a violation of § 4442 or § 4443 of the Public Resources Code to use or operate gasoline-powered tools on forest-covered, brush-covered or grass-covered land unless the engine's exhaust system is equipped with a complying spark arrester that is maintained in effective working order. The owner/operator of this product is responsible for properly maintaining the spark arrester. Other states or governmental entities/agencies, such as the U.S. Forest Service, may have similar requirements. Contact your local fire agency or forest service for the laws or regulations relating to fire protection requirements.

Tighten all nuts, bolts and screws, except the carburetor adjustment screws, after each use.

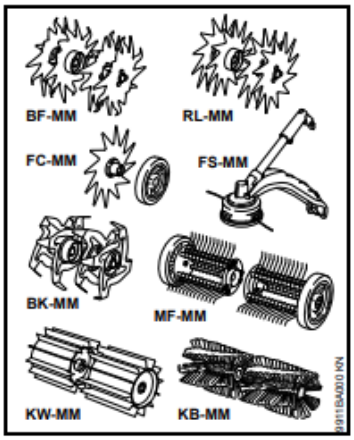
Do not clean your machine with a pressure washer. The solid jet of water may damage parts of the machine.

Store the power tool in a dry and high or locked location out of reach of children.

Before storing for longer than a few days, always empty the fuel tank. See chapter "Storing the Machine" in the instruction manual.

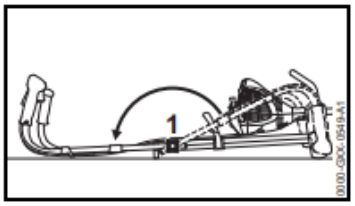
Approved MultiTools

The following STIHL MultiTools may be mounted on the MultiEngine:



MultiTool	Application
BF-MM	Pick tines
BK-MM	Bolo tines
RL-MM	Aerator
FC-MM	Edger
FS-MM	Clearing saw
MF-MM	Dethatcher
KW-MM	STIHL PowerSweep™
KB-MM	Bristle brush

Adjusting the bicycle handle



- Loosen the knob (1).
- Swing the bicycle handle with both hands into the working position (as far as stop).
- Tighten down the knob firmly.

English

Fuel

This engine is certified to operate on unleaded gasoline and the STIHL two-stroke engine oil at a mix ratio of 50:1.

Your engine requires a mixture of high-quality gasoline and two-stroke air cooled engine oil.

Use mid-grade unleaded gasoline with a minimum octane rating of 89 ((R+M)/2) and no more than 10% ethanol content.

NOTICE

Fuel with an octane rating below 89 may increase engine temperatures. This, in turn, increases the risk of piston seizure and damage to the engine.

The chemical composition of the fuel is also important. Some fuel additives not only detrimentally affect elastomers (carburetor diaphragms, oil seals, fuel lines, etc.), but magnesium castings and catalytic converters as well. This could cause running problems or damage the engine. For this reason STIHL recommends that you use only quality unleaded gasoline!

NOTICE

Gasoline with an ethanol content of more than 10% can cause running problems and major damage in engines and should not be used.

For further details, see www.STIHLusa.com/ethanol

The ethanol content in gasoline affects engine speed – it may be necessary to readjust the carburetor if you use fuels with various ethanol contents.

⚠WARNING

To reduce the risk of personal injury from loss of control and/or contact with the running cutting tool, do not use your unit with an incorrect idle adjustment. At correct idle speed, the cutting tool should not move.

If your machine's idle speed is incorrectly adjusted, have your authorized STIHL servicing dealer check your machine and make the proper adjustments and repairs.

The idle speed and maximum speed of the engine change if you switch from a fuel with a certain ethanol content to a fuel with a much higher or lower ethanol content.

This problem can be avoided by always using fuel with the same ethanol content.

To ensure the maximum performance of your STIHL engine, use a high quality 2-cycle engine oil. To help your engine run cleaner and reduce harmful carbon deposits, STIHL recommends using STIHL HP Ultra 2-cycle engine oil or ask your dealer for an equivalent fully synthetic 2-cycle engine oil.

To meet the requirements of EPA and CARB we recommend to use STIHL HP Ultra oil.

STIHL MotoMix

STIHL recommends the use of STIHL MotoMix. STIHL MotoMix has a high octane rating and ensures that you always use the right gasoline/oil mix ratio.

STIHL MotoMix uses STIHL HP Ultra two-stroke engine oil suited for high performance engines.

For further details, see www.STIHLusa.com/ethanol

If not using MotoMix, use only STIHL two-stroke engine oil or equivalent high-quality two-stroke engine oils that are designed for use in air cooled two-cycle engines.

The use of non-seasonal gasoline blends may increase the potential for pressure to build in the fuel tank during operation. For example, using a winter blend during the summer will increase pressure in the fuel tank. Always use gasoline blends appropriate to the season, altitude and other environmental factors.

Do not use NMMA or TCW rated (two-stroke water cooled) mix oils or other mix oils that state they are for use in both water cooled and air cooled engines (e.g., outboard motors, snowmobiles, chain saws, mopeds, etc.).

⚠WARNING

Take care when handling gasoline. Avoid direct contact with the skin and avoid inhaling fuel vapor. When filling at the pump, first remove the container from your vehicle and place the container on the ground before filling. To reduce the risk of sparks from static discharge and resulting fire and/or explosion, do not fill fuel containers that are sitting in or on a vehicle or trailer.

The container should be kept tightly closed in order to limit the amount of moisture that gets into the mixture.

The machine's fuel tank should be cleaned as necessary.

Fuel mix ages

If not using MotoMix, only mix sufficient fuel for a few days of work, not to exceed 30 days of storage. Store in approved fuel-containers only. When mixing, pour oil into the container first, and then add gasoline. Close the container and shake it by hand to ensure proper mix of oil and gasoline.

WARNING

Shaking fuel can cause pressure to build in the fuel container. To reduce the risk of fire and severe personal injury or property damage from fuel spraying, allow the fuel container to sit for several minutes before opening. Open the container slowly to release any residual pressures. Never open the fuel container in the vicinity of any ignition source. Read and follow all warnings and instructions that accompany your fuel container.

Gasoline	Oil (STIHL 50:1 or equivalent high-quality oils)
US gal.	US fl.oz.
1	2.6
2 1/2	6.4
5	12.8

Dispose of empty mixing-oil containers only at authorized disposal locations.

Fueling

WARNING

Removing the cap on a pressurized fuel tank can result in gasoline, vapors and fumes being forcefully sprayed out from the tank in all directions. The escaping gasoline, vapors or fumes, sometimes referred to as fuel spraying or "geysering," can cause serious personal injury, including fire and burn injury, or property damage.

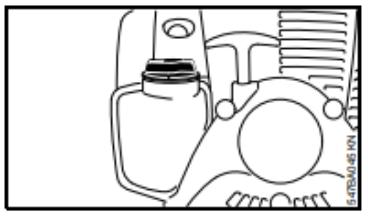
Fuel spraying can occur when the engine is hot and the tank is opened while under pressure. It can occur in hot environments even if the engine has not been running. Spraying is more likely to occur when the fuel tank is half full or more.

Avoid Injuries from Fuel Spraying.

Always follow the fueling instructions in this manual:

- Treat every fuel tank as if it is pressurized, particularly if it is half full or more.
- Always allow the power tool to cool adequately before attempting to open the fuel tank or refueling; this will take longer in hot conditions.
- Never remove the cap by turning it directly to the open position. Turn it first approximately 1/2 of a turn counter-clockwise to relieve any residual pressure.
- Never open the fuel tank while the engine is still hot or running.
- Never open the fuel tank or re-fuel the power tool near any sparks, flames or other ignition sources.
- Pick the right fuel: use only good quality (89 octane or higher), fresh fuel blended for the season.
- Vapor lock: do not remove the fuel cap in an effort to relieve vapor lock. Removing the cap has no effect on vapor lock.
- Be aware that fuel spraying is more likely at higher altitudes.

Preparations



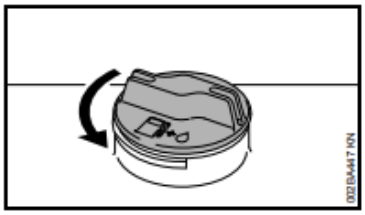
- Before fueling, clean the filler cap and the area around it to ensure that no dirt falls into the tank.
- Position the machine so that the filler cap is facing up.

English

WARNING

In order to reduce the risk of fire and other personal injury from escaping gas vapor and fumes, remove the fuel filler cap slowly and carefully so as to allow any pressure build-up in the tank to release slowly.

Opening



WARNING

After allowing the power tool to cool, remove the fuel filler cap slowly and carefully to allow any remaining pressure build-up in the tank to release:

- While maintaining steady, downward pressure, slowly turn the cap approximately a 1/2 turn counter-clockwise.
- If any significant venting occurs, immediately re-seal the tank by turning the cap clockwise to the closed position. Allow the power tool to cool further before attempting to open the tank.
- Turn the cap to the open position only after the contents of the tank are no longer under pressure.
- Remove the fuel filler cap.

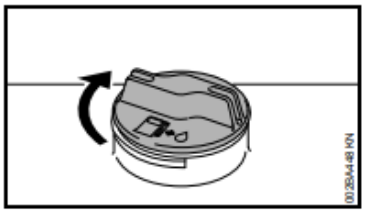
WARNING

Never remove the cap by turning it directly to the open position. First allow the power tool to cool adequately and then release any residual pressure by slowly turning the cap approximately 1/2 turn counter-clockwise. Never attempt to remove the cap while the engine is still hot or running.

Refueling

Take care not to spill fuel while fueling and do not overfill the tank – leave approximately 1/2" (13 mm) air space.

Closing



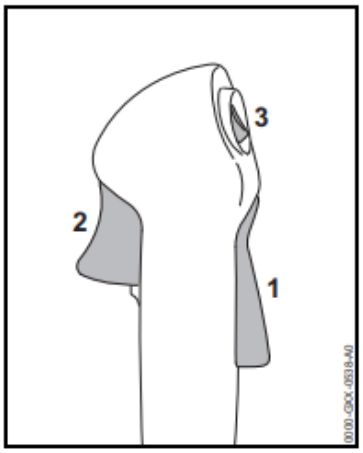
WARNING

An improperly tightened fuel filler cap can loosen or come off and spill quantities of fuel. To reduce the risk of fuel spillage and fire from an improperly installed fuel cap, tighten the fuel filler cap by hand with as much force as possible:

- If your fuel cap still does not tighten properly, it may be damaged or broken. Stop using the power tool and take it to your authorized STIHL dealer for repair or replacement.

Starting / Stopping the Engine

Controls



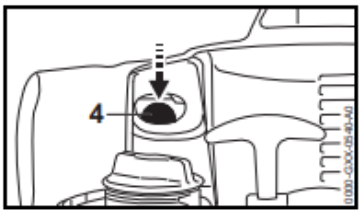
1 Throttle Trigger Lockout
2 Throttle Trigger
3 Stop switch with **Run** and **Stop** positions. Depress the stop switch (⊖) to switch off the ignition – see "Function of stop switch and ignition system".

Function of stop switch and ignition system

The ignition is switched off and the engine stopped when the stop switch is depressed. The stop switch returns automatically to the **Run** position when it is released: The ignition is switched on again after the engine stops – the engine is then ready to start.

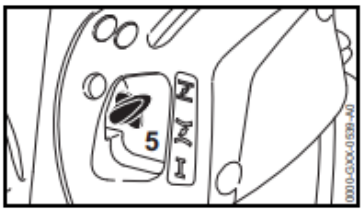
Starting the Engine

- Swing bicycle handle into working position – see "Adjusting the Bicycle Handle"



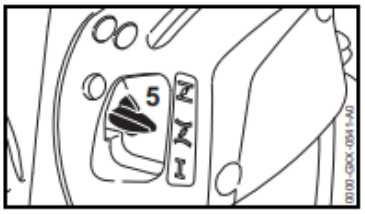
- Depress the manual fuel pump bulb (4) at least five times – even if the bulb is filled with fuel.

Cold engine (cold start)



- Depress the choke knob (5) and turn it to ⊼ at the same time.

Warm engine (warm start)

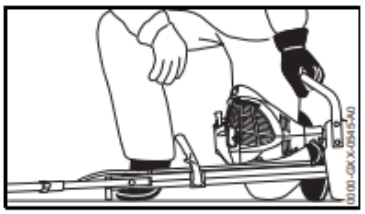


- Depress in the choke knob (5) and turn it to ⊼ at the same time.

Also use this setting if the engine has been running but is still cold.

Cranking

- Retract the wheels, if fitted.



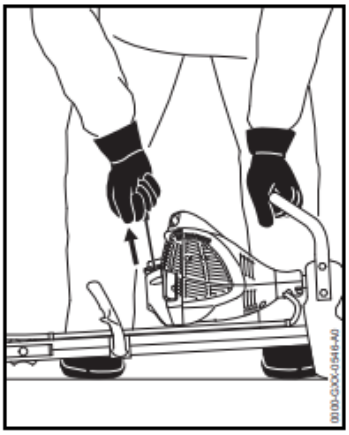
- Put the unit on the ground: It must rest securely on the engine flange and the support on the frame. Check that the MultiTool is not touching the ground or any other

obstacles – see also "Starting / Stopping the Engine" in the MultiTool instruction manual.

- Make sure you have secure footing – as shown. To reduce the risk of injury from contact with rotating attachments, always stand to the side of the power tool.
- With your left hand on the carrying handle, press the unit firmly against the ground.

NOTICE

Do not stand or kneel on the shaft.



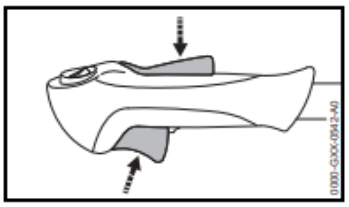
- Hold the starter grip with your right hand.
- Pull the starter grip steadily.

NOTICE

Do not pull out the starter rope all the way – it might otherwise break.

- Do not let the starter grip snap back. Guide it slowly back into the housing so that the starter rope can rewind properly.
- Continue cranking until the engine runs.

As soon as the engine runs



- Press down the throttle trigger lockout and open the throttle – the choke lever moves to the run position I. After a cold start, warm up the engine by opening the throttle several times.

WARNING

Make sure the carburetor is correctly adjusted. The MultiTool must not rotate when the engine is idling.

Your machine is now ready for operation.

Stopping the Engine

- Depress the momentary contact stop switch – the engine stops – release the stop switch – it springs back to the run position.

Other Hints on Starting

Engine stalls in cold start position or under acceleration.

- Move the choke knob to and continue cranking until the engine runs.

Engine does not start in warm start position

- Move the choke knob to and continue cranking until the engine runs.

If the engine does not start

- Check that all settings are correct.
- Check that there is fuel in the tank and refuel if necessary.
- Check that the spark plug boot is properly connected.
- Repeat the starting procedure.

Engine is flooded

- Move the choke knob to I and continue cranking until the engine runs.

Fuel tank run until completely dry

- After refueling, depress the manual fuel pump bulb at least five times – even if the bulb is already filled with fuel.
- Set the choke knob to suit the engine temperature.
- Now start the engine.

Extra weight

To increase the weight on the MultiTool, the MultiEngine can be retrofitted with an additional weight (special accessory).

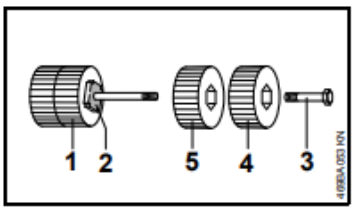
Always use original STIHL additional weight. Using other weights can lead to damage to the machine and personal injuries.

Attaching additional weight

No wheels are attached to the MultiEngine

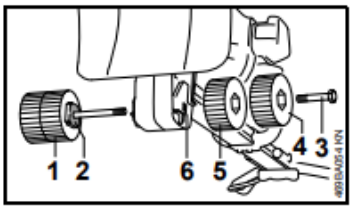
Use the combination wrench to loosen and tighten the weights.

Detach the weights on the side without the square – to do this:



The weights (1) on the side with the square (2) remain mounted on the bolt.

- Unscrew the hexagon head bolt (3) and remove the outer weight (4)
- Detach the inner weight (5) and remove it from the bolt



- Push additional weight (1) with bolt through the hole (6) in the flange; in the process, rotate it until the square (2) engages in the opening in the flange
- Turn the inner weight (5) onto the bolt and tighten
- Fasten outer weight (4) with the hexagon head bolt (3) in the thread of the inner weight and tighten

One or two weights can be mounted on each side of the additional weight as needed.

Weights on each side	Additional weight, total
1	4.4 lbs. (2 kg)
2	8.8 lbs. (4 kg)

NOTICE

The maximum additional weight is 8.8 lbs. (4 kg). Never use higher additional weight. This can cause damage to the machine.

Wheels are attached to the MultiEngine

If wheels (special accessory) – see "Wheels" – are already attached to the MultiEngine, then additional parts are required in order to install the additional weight.

In this case, have the additional weight installed by a servicing dealer.

STIHL recommends that maintenance and repair work be carried out only by authorized STIHL dealers.

English

Wheels

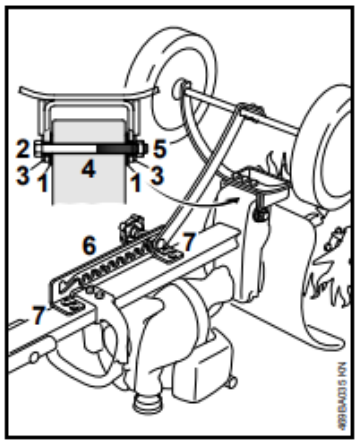
For convenient transport, the MultiEngine can be retrofitted with a set of wheels (special accessory).

Always use original STIHL wheels. Using other wheels can lead to damage to the machine and personal injuries.

Installing wheels

No additional weight is attached to the MultiEngine

To simplify installation, turn the machine so that it rests on the handles.



- Insert the two sleeves (1) in the frame
- Push the frame onto the flange
- Insert the bolt (2) with the washer (3) through the hole (4) in the flange
- Fit the washer (3) and tighten it down with the nut (5)
- Fasten the notched plate (6) to the frame with the screws (7) in the threaded holes – in the process, push the notched plate toward the handle
- The wheels must fold down automatically in working position; if necessary, loosen the nut (5) by a quarter turn

Additional weight is attached to the MultiEngine

If additional weight (special accessory) – see "Additional weight" – is already attached to the MultiEngine, then additional parts are required in order to install wheels.

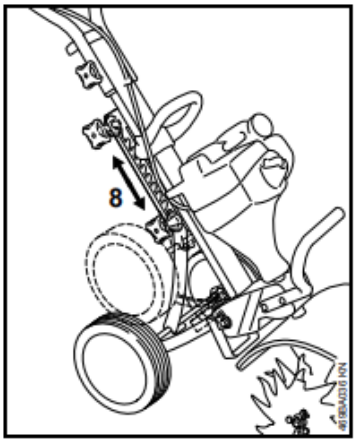
In this case, have the wheels installed by a servicing dealer.

STIHL recommends that maintenance and repair work be carried out only by authorized STIHL dealers.

Folding the wheels in and out

The wheels can be locked in various positions.

If the wheels are not needed during work, fold in the wheels.



- Loosen knob (8)
- Engage knob in the desired working position and tighten it

Operating Instructions

During break-in period

A factory-new machine should not be run at high revs (full throttle off load) for the first three tank fillings. This avoids unnecessary high loads during the break-in period. As all moving parts have to bed in during the break-in period, the frictional resistances in the engine are greater during this period. The engine develops its maximum power after about 5 to 15 tank fillings.

During Operation

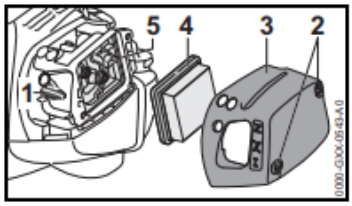
After a long period of full throttle operation, allow the engine to run for a short while at idle speed so that engine heat can be dissipated by the flow of cooling air. This protects engine-mounted components (ignition, carburetor) from thermal overload.

After Finishing Work

Storing for a short period: Wait for the engine to cool down. Empty the fuel tank and keep the machine in a dry place, well away from sources of ignition, until you need it again. For longer out-of-service periods – see "Storing the Machine".

Replacing the Air Filter

If There is a Noticeable Loss of Engine Power



- Move the choke lever (1) to ⧖.
- Loosen the screws (2).
- Remove the filter cover (3).
- Clean away loose dirt from around the filter.
- Remove the filter element (4).
- Replace dirty or damaged filter element (4).

Replacing the filter element

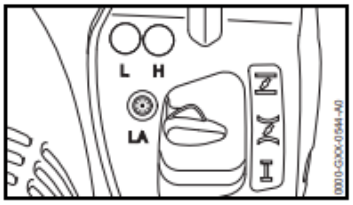
- Install the filter element (4) in the filter housing (5) and fit the cover.
- Insert the screws (2) and tighten them down firmly.

Engine Management

Exhaust emissions are controlled by the design of the engine and components (e.g. carburation, ignition, timing and valve or port timing).

English

Adjusting the Carburetor



The carburetor has been set at the factory to provide an optimum fuel-air mixture under most operating conditions.

Adjusting Idle Speed

Engine stops while idling

- Warm up the engine for about 3 minutes.
- Turn the idle speed screw (LA) slowly clockwise until the engine runs smoothly – the MultiTool must not run.

MultiTool runs when the engine is idling

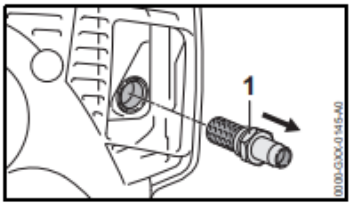
- Turn the idle speed screw (LA) counterclockwise until the MultiTool stops moving and then turn the screw about another 1/2 to 3/4 turn in the same direction.

WARNING

If the MultiTool continues to run when the engine is idling, have your machine checked and repaired by your servicing dealer.

Spark Arresting Screen in Muffler

- If the engine is down on power, check the spark arresting screen in the muffler.
- Wait for the muffler to cool down.



- Use the combination wrench to unscrew the spark arrestor.
- Clean the spark arrestor screen. If the screen is damaged or heavily carbonized, fit a new one.
- Insert the spark arrestor and tighten it down firmly with the combination wrench.

Spark Plug

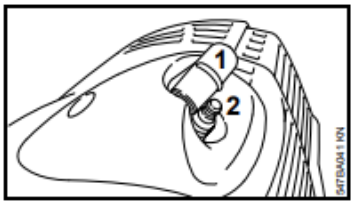
If there is a loss of engine power, the machine is difficult to start or runs poorly at idle, first check the spark plug.

Install a new spark plug after approximately 100 operating hours or earlier if the electrodes are eroded/corroded.

The wrong fuel mix (too much engine oil in the gasoline), a dirty air filter and unfavorable running conditions (mostly at part throttle etc.) affect the condition of the spark plug. These factors cause deposits to form on the insulator nose, which may degrade performance.

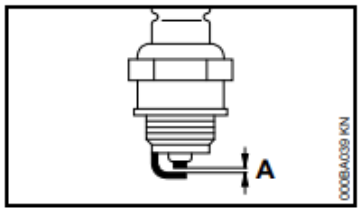
Removing the Spark Plug

- Shut off the engine.



- Remove the spark plug boot (1).
- Unscrew the spark plug (2).

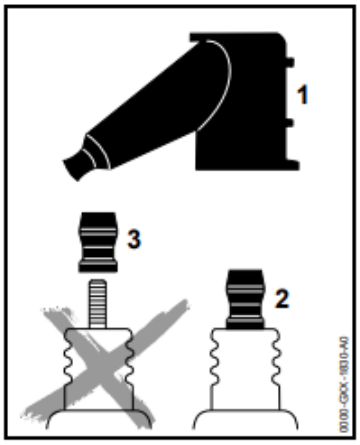
Checking the spark plug



- Clean the spark plug if it is dirty
- Check the electrode gap (A) and readjust if necessary – see "Specifications"
- Use only resistor type spark plugs of the approved range. See the chapter "Specifications" in this instruction manual

Correct the problems that have caused fouling of the spark plug:

- too much oil in fuel mix;
- dirty air filter; or
- unfavorable running conditions, e.g. operating at part throttle.



WARNING

To reduce the risk of fire and burn injury, use only spark plugs authorized by STIHL. Always press the spark plug boot (1) firmly and securely onto the spark plug terminal (2).

Do not use a spark plug with a detachable SAE adapter terminal (3). Arcing may occur that could ignite combustible fumes and cause a fire. This can result in serious injuries or damage to property.

- Only use resistor type spark plugs with solid, non-threaded terminals

Installing the Spark Plug

- Screw the spark plug into the cylinder.
- Press the boot firmly onto the spark plug.

Engine Running Behavior

If engine running behavior is unsatisfactory even though the air filter is clean and the carburetor is properly adjusted, the cause may be the muffler.

Have the muffler checked for contamination (carbonization) by your servicing dealer.

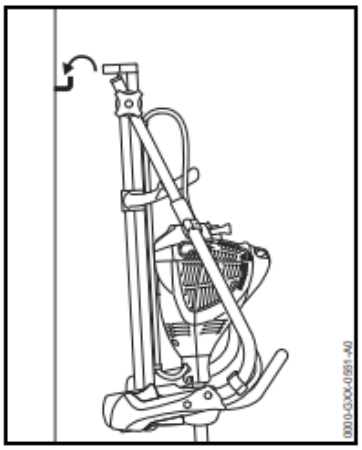
STIHL recommends that you have servicing and repair work carried out exclusively by an authorized STIHL servicing dealer.

English

Storing the Machine

For periods of about 3 months or longer

- Drain and clean the fuel tank in a well ventilated area.
- Dispose of fuel properly in accordance with local environmental requirements.
- Run the engine until the carburetor is dry – this helps prevent the carburetor diaphragms sticking together.
- Thoroughly clean the machine – pay special attention to the cylinder fins and air filter.
- Remove, clean and inspect the attachment.
- Store the machine in a dry and secure location Keep out of the reach of children and other unauthorized persons.



Fold the handle down and hang up the machine by the handle support.

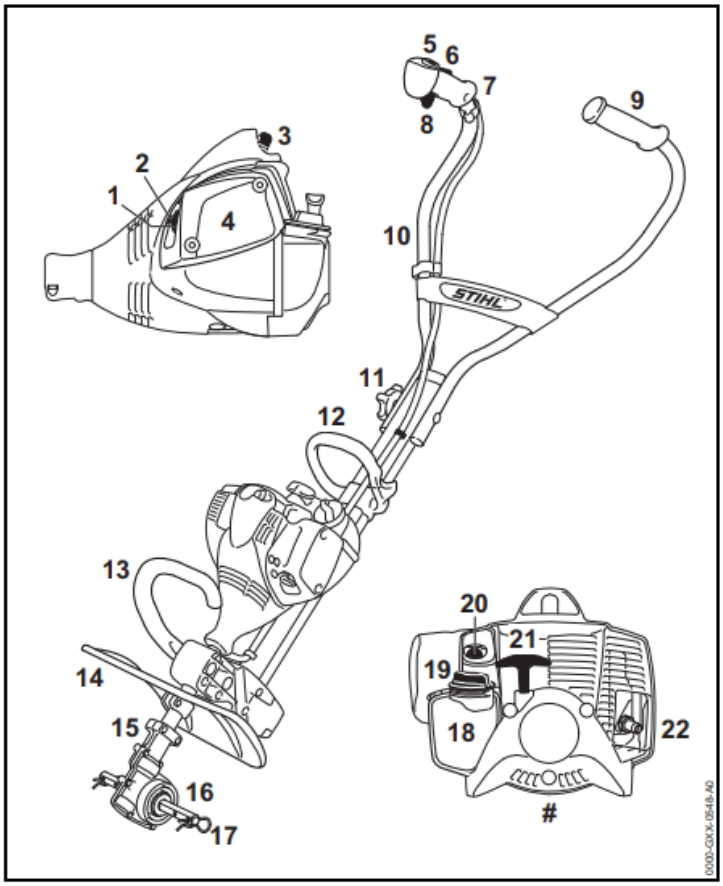
Maintenance and Care

The following intervals apply to normal operating conditions only. If your daily working time is longer or operating conditions are difficult (very dusty work area, etc.), shorten the specified intervals accordingly.		before starting work	after finishing work or daily	after each refueling stop	weekly	monthly	every 12 months	if problem	if damaged	as required
Complete machine	Visual inspection (condition, leaks)	X		X						
	Clean		X							
Control handle	Check operation	X		X						
Air filter	Clean							X		X
	Replace								X	
Manual fuel pump (if fitted)	Check	X								
	Have repaired by servicing dealer[1)]								X	
Pickup body (filter) in fuel tank	Check							X		
	Have replaced by servicing dealer[1)]						X		X	X
Fuel tank	Clean							X		X
Carburetor	Check idle adjustment – the working/cutting attachment must not run	X		X						
	Readjust idle									X
Spark plug	Readjust electrode gap							X		
	Replace after every 100 operating hours									
Cooling inlet	Visual inspection		X							
	Clean									X
Spark arrestor in muffler	Check		X					X		
	Clean or replace								X	X
All accessible screws and nuts (not adjusting screws)	Retighten									X
Safety labels	Replace								X	

[1)] STIHL recommends an authorized STIHL servicing dealer.

English

Main Parts



1 Choke Knob
2 Carburetor Adjusting Screws
3 Spark Plug Boot
4 Air Filter Cover
5 Stop Switch
6 Throttle Trigger Lockout
7 Control Handle
8 Throttle Trigger
9 Left Handle
10 Handlebar
11 Knob
12 Loop Handle
13 Carrying Handle
14 Deflector
15 Gearbox
16 Shaft
17 Hitch Pin
18 Fuel Tank
19 Fuel Filler Cap
20 Manual Fuel Pump
21 Starter Grip
22 Muffler with Spark Arresting Screen
Serial Number

Definitions

1 Choke Knob
Eases engine starting by enriching mixture.

2 Carburetor Adjusting Screws
For tuning the carburetor.

3 Spark Plug Boot
Connects the spark plug with the ignition lead.

4 Air Filter Cover
Covers and protects the air filter element.

5 Stop Switch
Switches the engine´s ignition off and stops the engine.

6 Throttle Trigger Lockout
Must be depressed before the throttle trigger can be activated.

7 Control Handle
For holding and controlling the unit with the right hand during operation.

8 Throttle Trigger
Controls the speed of the engine.

9 Left Handle
For holding the unit with the left hand during operation.

10 Handlebar
For holding and controlling the unit with both hands during operation.

11 Knob
Locks the handlebar in the selected position.

12 Loop Handle
For transporting the unit.

13 Carrying Handle
For transporting the unit.

14 Deflector
Designed to reduce the risk of injury from foreign objects flung backwards toward the operator by the attachment and from contact with the attachment.

15 Gearbox
Transmits power from the engine to the shaft.

16 Shaft
Holds the tools in position.

17 Hitch Pin
Secures the attachments and simplifies removal and installation of the attachments.

18 Fuel Tank
For fuel and oil mixture.

19 Fuel Filler Cap
For closing the fuel tank.

20 Manual Fuel Pump
Provides additional fuel feed for a cold start.

21 Starter Grip
The grip of the pull starter, for starting the engine.

22 Muffler with Spark Arresting Screen
Muffler reduces exhaust noises and diverts exhaust gases away from operator.
Spark arresting screen is designed to reduce the risk of fire.

Specifications

EPA / CEPA

The Emission Compliance Period referred to on the Emissions Compliance Label indicates the number of operating hours for which the engine has been shown to meet Federal emission requirements.

Category

A = 300 hours
B = 125 hours
C = 50 hours

Engine

Single cylinder two-stroke engine

Displacement:	1.66 cu.in 27.2 cc
Bore:	1.34 in (34 mm)
Stroke:	1.18 in (30 mm)
Engine power to ISO 8893:	1.1 bhp (0.8 kW)
Idle speed:	2,800 rpm
Max. engine speed:	8,900 rpm
Max. output shaft speed (MultiTool attachment):	200 rpm

Ignition System

Electronic magneto ignition

Spark plug (resistor type):	NGK CMR 6H
Electrode gap:	0.02 in (0.5 mm)

English

Fuel System

All position diaphragm carburetor with integral fuel pump

Fuel tank capacity: 11.5 oz (0.34 l)

Weight

Dry, without MultiTool attachment
MM 56 C: 17.4 lbs (7.9 kg)

Maintenance and Repairs

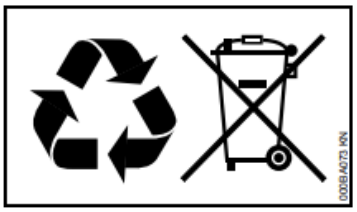
Users of this unit should carry out only the maintenance operations described in this manual. STIHL recommends that other repair work be performed only by authorized STIHL servicing dealers using genuine STIHL replacement parts.

Genuine STIHL parts can be identified by the STIHL part number, the STIHL® logo and, in some cases, by the STIHL parts symbol . The symbol may appear alone on small parts.

For repairs of any component of this unit's air emissions control system, please refer to the air emissions systems warranty in this manual.

Disposal

Observe all country-specific waste disposal rules and regulations.



STIHL products must not be thrown in the garbage can. Take the product, accessories and packaging to an approved disposal site for environment-friendly recycling.

Contact your STIHL servicing dealer for the latest information on waste disposal.

Limited Warranty

STIHL Incorporated Limited Warranty Policy for Non-Emission-Related Parts and Components

This product is sold subject to the STIHL Incorporated Limited Warranty Policy, available at

www.stihlusa.com/warranty.html.

It can also be obtained from your authorized STIHL dealer or by calling 1-800-GO-STIHL (1-800-467-8445).

A separate emissions control system warranty is provided for emission-related components.

STIHL Incorporated Federal Emission Control Warranty Statement

Your Warranty Rights and Obligations

The U.S. Environmental Protection Agency (EPA) and STIHL Incorporated are pleased to explain the Emission Control System Warranty on your equipment type engine. In the U.S. new 1997 and later model year small off-road equipment engines must be designed, built and equipped, at the time of sale, to meet the U.S. EPA regulations for small non road engines. The equipment engine must be free from defects in materials and workmanship which cause it to fail to conform with U.S. EPA standards for the first two years of engine use from the date of sale to the ultimate purchaser.

STIHL Incorporated must warrant the emission control system on your small off-road engine for the period of time listed below provided there has been no abuse, neglect or improper maintenance of your small off-road equipment engine.

Your emission control system includes parts such as the carburetor and the ignition system. Also included may be hoses, and connectors and other emission-related assemblies.

Where a warrantable condition exists, STIHL Incorporated will repair your small off-road equipment engine at no cost to you including diagnosis (if the diagnostic work is performed at an authorized dealer), parts and labor.

Manufacturer's Warranty Coverage

In the U.S., 1997 and later model year small off-road equipment engines are warranted for two years. If any emission-related part on your engine is defective, the part will be repaired or replaced by STIHL Incorporated free of charge.

Owner's Warranty Responsibilities

As the small off-road equipment engine owner, you are responsible for the performance of the required maintenance listed in your instruction manual. STIHL Incorporated recommends that you retain all receipts covering maintenance on your small off-road equipment engine, but STIHL Incorporated cannot deny warranty solely for the lack of receipts or for your failure to ensure the performance of all scheduled maintenance.

Any replacement part or service that is equivalent in performance and durability may be used in non-warranty maintenance or repairs, and shall not reduce the warranty obligations of the engine manufacturer.

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

You are responsible for presenting your small off-road equipment engine to a STIHL service center as soon as a

problem exists. The warranty repairs will be completed in a reasonable amount of time, not to exceed 30 days.

If you have any questions regarding your warranty rights and responsibilities, please contact a STIHL customer service representative at 1-800-467-8445 or you can write to

STIHL Inc.
536 Viking Drive, P.O. Box 2015
Virginia Beach, VA 23450-2015

www.stihlusa.com

Coverage by STIHL Incorporated

STIHL Incorporated warrants to the ultimate purchaser and each subsequent purchaser that your small off-road equipment engine will be designed, built and equipped, at the time of sale, to meet all applicable emissions regulations. STIHL Incorporated also warrants to the initial purchaser and each subsequent purchaser that your engine is free from defects in materials and workmanship which cause the engine to fail to conform with applicable emissions regulations for a period of two years.

Warranty Period

The warranty period will begin on the date the utility equipment engine is purchased by the initial purchaser. Product registration is recommended, so that STIHL has a means to contact you if there ever is a need to communicate repair or recall information about your product, but it is not required in order to obtain warranty service.

If any emission-related part on your engine is defective, the part will be replaced by STIHL Incorporated at no cost to the owner. Any warranted part which is not scheduled for replacement as required maintenance, or which is scheduled only for regular inspection to the effect of "repair or replace as necessary" will be warranted for the warranty period. Any warranted part which is scheduled for replacement as required maintenance will be warranted for the period of time up to the first scheduled replacement point for that part.

Diagnosis

You, as the owner, shall not be charged for diagnostic labor which leads to the determination that a warranted emissions part is defective. However, if you claim warranty for an emissions component and the machine is tested as non-defective, STIHL Incorporated will charge you for the cost of the emission test. Mechanical diagnostic work will be performed at an authorized STIHL servicing dealer. Emission test may be performed either at STIHL Incorporated or at any independent test laboratory.

Warranty Work

STIHL Incorporated shall remedy warranty defects at any authorized STIHL servicing dealer or warranty station. Any such work shall be free of charge to the owner if it is determined that a warranted part is defective.

Any manufacturer-approved or equivalent replacement part may be used for any warranty maintenance or repairs on emission-related parts and must be provided without charge to the owner. STIHL Incorporated is liable for damages to other engine components caused by the failure of an emissions warranted part still under warranty.

The following list specifically defines the emission-related warranted parts:

- Air Filter
- Carburetor (if applicable)
- Fuel Pump
- Choke (Cold Start Enrichment System) (if applicable)
- Control Linkages
- Intake Manifold
- Magneto or Electronic Ignition System (Ignition Module or Electronic Control Unit)
- Fly Wheel
- Spark Plug
- Injection Valve (if applicable)
- Injection Pump (if applicable)
- Throttle Housing (if applicable)
- Cylinder
- Muffler
- Catalytic Converter (if applicable)
- Fuel Tank
- Fuel Cap
- Fuel Line
- Fuel Line Fittings

- Clamps
- Fasteners

Where to Make a Claim for Warranty Service

Bring the product to any authorized STIHL servicing dealer.

Maintenance Requirements

The maintenance instructions in this manual are based on the application of the recommended 2-stroke fuel-oil mixture (see also instruction "Fuel"). Deviations from this recommendation regarding quality and mixing ratio of fuel and oil may require shorter maintenance intervals.

Limitations

This Emission Control Systems Warranty shall not cover any of the following:

- repair or replacement required because of misuse, neglect or lack of required maintenance,
- repairs improperly performed or replacements not conforming to STIHL Incorporated specifications that adversely affect performance and/or durability, and alterations or modifications not recommended or approved in writing by STIHL Incorporated,

and

- replacement of parts and other services and adjustments necessary for required maintenance at and after the first scheduled replacement point.

Trademarks

STIHL Registered Trademarks

STIHL®

The color combination orange-grey (U.S. Registrations #2,821,860; #3,010,057, #3,010,058, #3,400,477; and #3,400,476)

AutoCut®

FARM BOSS®

iCademy®

MAGNUM®

MasterWrench Service®

MotoMix®

OILOMATIC®

English

ROCK BOSS®
STIHL Cutquik®
STIHL DUROMATIC®
STIHL Quickstop®
STIHL ROLLOMATIC®
STIHL WOOD BOSS®
TIMBERSPORTS®
WOOD BOSS®
YARD BOSS®

Some of STIHL's Common Law Trademarks

STIHL Injection™

Team STIHL™

4-MIX ™
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Easy2Start ™
EasySpool ™
ElastoStart ™
Ematic ™
FixCut ™
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TrimCut ™

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