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***STIHL***®

**Cleaning Systems  
Safety Manual**



**Warning!**

Because of the dangers associated with electricity and the high pressure water produced by the cleaning units, 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.

To receive maximum performance and satisfaction from your STIHL cleaning unit (high pressure cleaner or vacuum cleaner), it is important that you read and understand the maintenance and safety precautions before using your cleaning unit.

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

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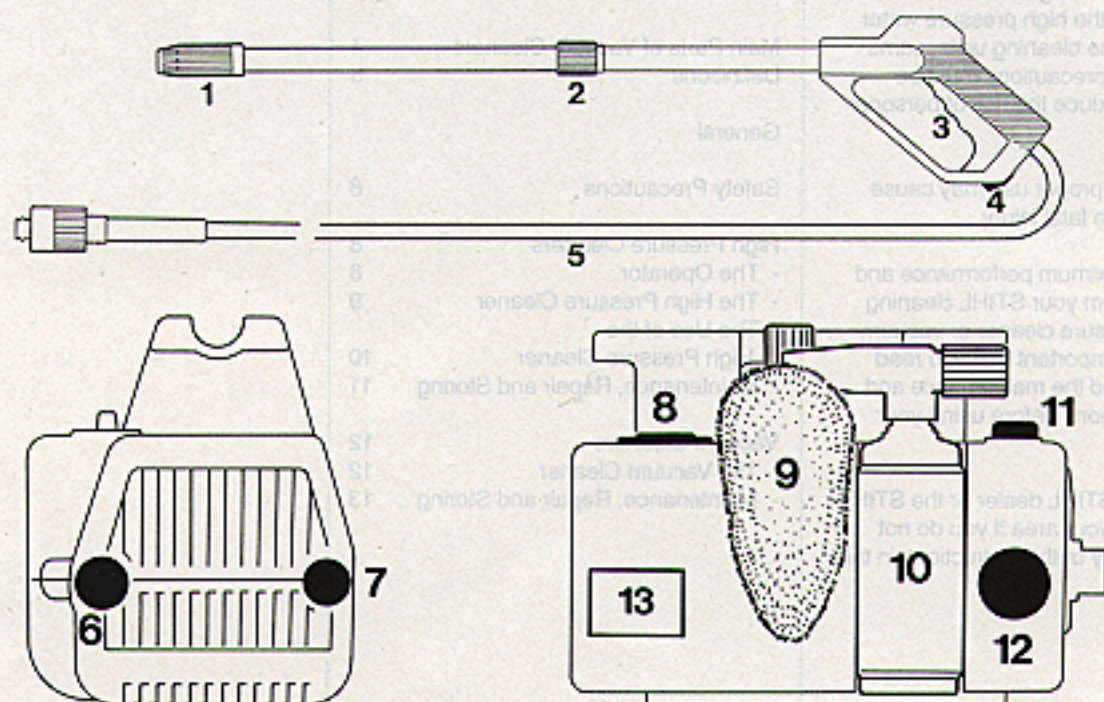
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**STIHL®**



# Main Parts of High Pressure Cleaner



- 1 Spray head
- 2 Quick-release connection
- 3 Trigger
- 4 Trigger lock
- 5 High-pressure hose

- 6 Outlet for high-pressure hose
- 7 Water inlet
- 8 Switch
- 9 Washing brush

- 10 Chemical spray set
- 11 Pressure control knob
- 12 Pressure gauge
- 13 Nameplate



## Definitions

1. **Spray head**  
Device for adjusting the shape of the spray.
2. **Quick-release connection**  
Enables quick change of the spray head.
3. **Trigger**  
Controls the operation.
4. **Trigger lock**  
Designed for blocking the trigger against unintended operation.
5. **High-pressure hose**  
Reinforced hose for high-pressure stream.  
Connects pump with spray gun.
6. **Outlet for high-pressure hose**  
Flange for connecting the high-pressure hose.
7. **Water Inlet**  
Flange for connecting the water supply.
8. **Switch**  
Switches the unit on or off.
9. **Washing brush**  
Accessory for cleaning process.

10. **Chemical spray set**  
accessory for blending chemical detergents to the water stream.
11. **Pressure control knob**  
for adjusting the pressure output.
12. **Pressure gauge**  
displays pressure output value-psi.
13. **Nameplate**  
displays the number, model number, technical data and manufacturers name.

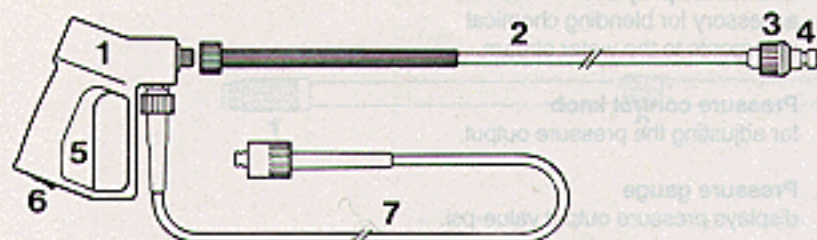
14. **Outlet for high-pressure hose**  
Flange for connecting the high-pressure hose.
15. **Control valve block with high pressure pump**  
Provides high pressure for cleaning process.
16. **Push handle**  
Handle for pushing and carrying the high pressure cleaner over the ground.

17. **Gear box**  
To couple engine with high pressure pump.
18. **Gear box oil level sight glass with plug**  
To check oil level in the gear box.
19. **Oil drain plug (gear box)**  
To drain oil from the oil tank (pump).
20. **Water inlet with a trigger gun**  
To connect the high pressure supply.
21. **High pressure hose**  
To connect the high pressure supply.
22. **Chemical metering valve**  
To control the chemical process of cleaning.
23. **Pressure control knob**  
To adjust the pressure.
24. **Oil drain plug (pump)**  
To drain oil from the oil tank (pump).
25. **Chemical intake hose with pickup body**  
Connects the chemical containers with the water pump.



# Main Parts of High Pressure Cleaner with combustible engine

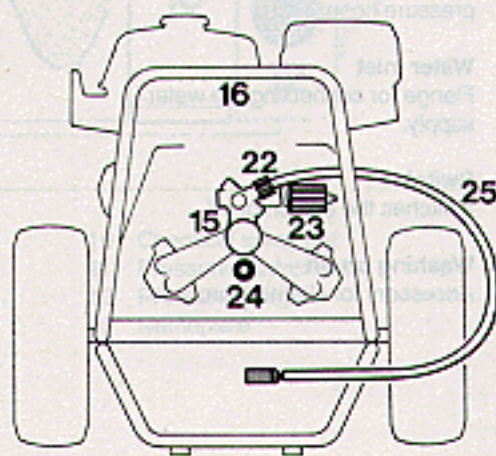
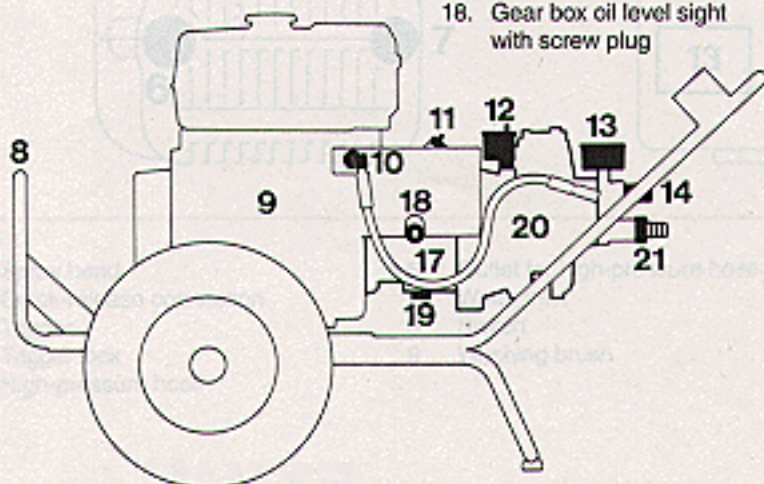
Definitions



- 1 Spray gun
- 2 Lance/wand
- 3 Spray head with high-pressure nozzle
- 4 High pressure nozzle
- 5 Trigger
- 6 Trigger lock
- 7 High pressure hose

- 8 Carrying handle
- 9 Engine
- 10 Engine speed controller
- 11 Oil filler plug (gear box)
- 12 Oil filler with cap and dip stick (pump)
- 13 Pressure gauge
- 14 Outlet for high pressure hose
- 15 Control valve block with high pressure pump
- 16 Push handle
- 17 Gear box
- 18 Gear box oil level sight with screw plug

- 19 Oil drain plug (gear box)
- 21 Water inlet with strainer
- 22 Chemical metering valve
- 23 Pressure control knob
- 24 Oil drain plug (pump)
- 25 Chemical intake hose with pickup body



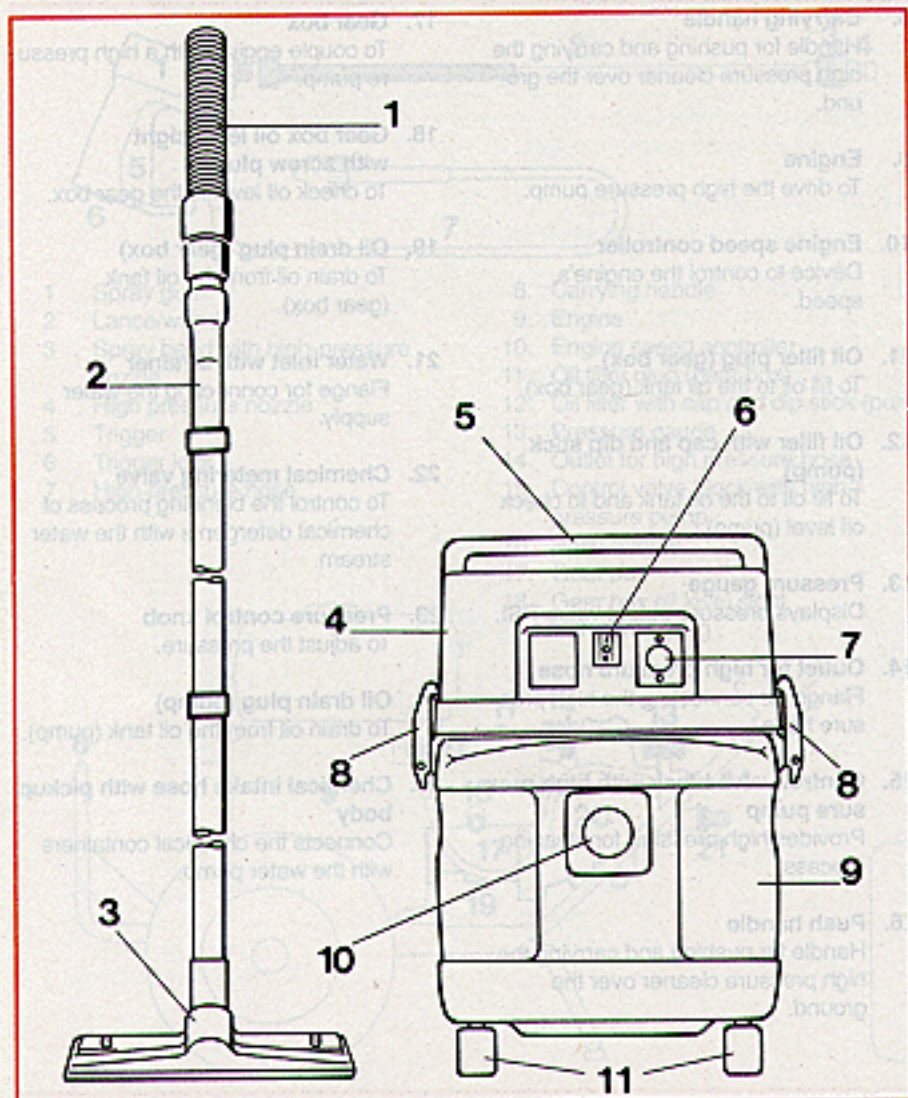


## Definitions

1. **Spray gun**  
Device for triggering and directing the spray connected between lance and high-pressure cleaner.
2. **Lance/wand**  
For directing the high-pressure stream, connects spray head with spray gun.
3. **Spray head with high-pressure nozzle**  
Device for adjusting the shape of the spray.
4. **High pressure nozzle**  
Outlet device.
5. **Trigger**  
Controls the output of the unit.
6. **Trigger lock**  
Designed to prevent the trigger from unintended operation.
7. **High pressure hose**  
Reinforced hose for high pressure.
8. **Carrying handle**  
Handle for pushing and carrying the high pressure cleaner over the ground.
9. **Engine**  
To drive the high pressure pump.
10. **Engine speed controller**  
Device to control the engine's speed.
11. **Oil filler plug (gear box)**  
To fill oil to the oil tank (gear box).
12. **Oil filler with cap and dip stick (pump)**  
To fill oil to the oil tank and to check oil level (pump).
13. **Pressure gauge**  
Displays pressure output value/PSI.
14. **Outlet for high pressure hose**  
Flange for connecting the high pressure hose.
15. **Control valve block with high pressure pump**  
Provides high pressure for cleaning process.
16. **Push handle**  
Handle for pushing and carrying the high pressure cleaner over the ground.
17. **Gear box**  
To couple engine with a high pressure pump.
18. **Gear box oil level sight with screw plug**  
To check oil level in the gear box.
19. **Oil drain plug (gear box)**  
To drain oil from the oil tank (gear box).
21. **Water inlet with strainer**  
Flange for connecting the water supply.
22. **Chemical metering valve**  
To control the blending process of chemical detergents with the water stream.
23. **Pressure control knob**  
To adjust the pressure.
24. **Oil drain plug (pump)**  
To drain oil from the oil tank (pump).
25. **Chemical intake hose with pickup body**  
Connects the chemical containers with the water pump.



## Main Parts of Vacuum Cleaner



- 1 Suction hose
- 2 Extension tube (3-part)
- 3 Floor tool
- 4 Motor head
- 5 Handle
- 6 On/Off switch
- 7 Power tool outlet  
(not applicable in the U.S.)
- 8 Catches
- 9 Container
- 10 Air intake fitting
- 11 Casters



## Definitions

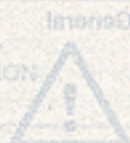
- 1. Suction hose**  
Device designed to direct the debris to be vacuumed into the vacuum cleaner.
- 2. Extension tube (3-part)**  
Accessory for lengthening the suction hose.
- 3. Floor tool**  
Various kinds of attachment for the suction hose / extension tube designed for different vacuum operations.
- 4. Motor head**  
Covers the electric motor of the vacuum cleaner.
- 5. Handle**  
To carry the vacuum cleaner.
- 6. On/Off switch**  
Switches on or off the electric motor of the vacuum cleaner.

- 7. Power tool outlet**  
(not applicable in the U.S.)
- 8. Catches**  
Fixes motorhead on container
- 9. Container**  
Contains the material to be collected.
- 10. Air intake fitting**  
Flange for connecting the suction hose
- 11. Casters**  
Wheels on the bottom of the unit to roll it over the ground.

## Safety Precautions

**GROUND-FAULT CIRCUT-INTERRUPTER (GFCI)**  
To reduce the risk of electric shock, use a GFCI.

See directions on the plug.



Read the owner's manual and the safety precautions carefully. Careless or improper use of any cleaning unit, high-pressure cleaner or vacuum cleaner, may cause serious or even fatal injury.

### EXTENSION CORDS

Have your STILL dealer show you how to connect your extension cord properly to ensure the best vacuum cleaning results. Observe all applicable local electrical regulations, standards and codes. Use only extension cords that are intended for outdoor use. These extension cords are identified by a marking "Outdoor" and are suitable for use with outdoor equipment. Do not use extension cords that are not labeled "Outdoor".

**SAVE THESE INSTRUCTIONS!**

Keep extension cords away from heat and sharp edges. Always disconnect the cord from the extension cord and disconnect the product from the wall outlet.



## Safety Precautions

### General



#### Warning!

To reduce the risk of fire, electric shock or injury:



It is important that you read, fully understand, and observe the following safety precautions and warnings.

Read the owner's manual and the safety precautions periodically. Careless or improper use of any cleaning unit (high-pressure cleaner or vacuum cleaner) may cause serious or even fatal injury.

Have your STIHL dealer show you how to operate your cleaning unit (high-pressure cleaner or vacuum cleaner). Observe all applicable and local safety regulations, standards and ordinances.

## SAVE THESE INSTRUCTIONS!

### HIGH PRESSURE CLEANER

#### Warning!

Minors should never be allowed to use a high-pressure cleaner. Bystanders, especially children, and animals should not be allowed in the area where a high-pressure cleaner is in use. Never let the high-pressure cleaner run unattended.

Do not lend or rent your high-pressure cleaner without the owner's manual. Be sure that anyone using your high-pressure cleaner understands the information contained in this manual.

Most of these safety precautions and warnings apply to the use of all STIHL high-pressure cleaners.

Different models may have different parts and controls. See the appropriate section of your owner's manual for a description of the controls and function of the parts of your high-pressure cleaner model.

Safe use of a high-pressure cleaner involves

1. the operator;
2. the high-pressure cleaner; and
3. the use of the high-pressure cleaner.

#### Only RB units:

It is important that you read, fully understand, and observe the safety precautions and warnings contained in this and the appropriate Owner's Manual of the gasoline engine (ask your dealer).

### 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 judgement. Do not operate a high-pressure cleaner when you are fatigued.

Be alert – if you get tired while operating your high-pressure cleaner, take a break. Tiredness may result in loss of control.

Working with any high-pressure cleaner can be strenuous. If you have any condition that might be aggravated by strenuous work, check with your doctor before operating a high-pressure cleaner.

#### Proper clothing



To reduce the risk of injury to your eyes, never operate a high-pressure cleaner unless wearing goggles or safety glasses

with adequate top and side protection complying with ANSI Z 87.1 (or your applicable national standard).

Good footing is most important in high-pressure cleaner work. Wear shoes with non-slip soles.

STIHL recommends to wear a boilersuit in order to reduce the risk of injury due to accidental exposure to the high-pressure jet.



## THE HIGH-PRESSURE CLEANER

For illustrations and definitions of the high-pressure cleaner parts see the chapter on "Main parts of the machine".

### Warning!

Never modify your machine in any way as this could be extremely dangerous. Only attachments supplied by STIHL or expressly approved by STIHL for use with a specific STIHL high-pressure cleaner model are authorized.

### Preparation for the use of the high-pressure cleaner

Before starting work, always check that your machine is completely assembled and in good condition. Pay special attention to the power cable and plug, high-pressure hose and wand/lance.

The spray gun's trigger must move freely and automatically spring back to the off position.

Know how to stop the product and bleed pressures quickly (see the chapter on "Switching off" in your owner's manual). Be thoroughly familiar with the controls.

### Only for hot water units:

Only fill the fuel tank when the heat exchanger is cold.

## Electrical precautions

### Warning!

The electrical supply voltage must agree with the voltage specified on the machine's nameplate. Improper connection will damage the machine and may cause personal injury.

## GROUNDING INSTRUCTIONS

This product must be grounded. If it should malfunction or break down, grounding provides a path of least resistance for electric current to reduce the risk of electric shock. This product is equipped with a cord having an equipment-grounding conductor and a grounding plug. The plug must be plugged into an appropriate outlet that is properly installed and grounded in accordance with all local codes and ordinances.

### DANGER!

Improper connection of the equipment-grounding conductor can result in a risk of electrocution. Check with a qualified electrician or service person if you are in doubt as to whether the outlet is properly grounded. Do not modify the plug provided with the product - if it will not fit the outlet, have a proper outlet installed by a qualified electrician. Do not use any type of adapter with this product.

## GROUND-FAULT CIRCUIT-INTERRUPTER PROTECTION (US version only)

See directions on the plug.

This pressure washer is provided with a ground-fault circuit-interrupter (GFCI) built into the plug of the power supply cord. This device is designed to provide additional protection from the risk of electric shock. Should replacement of the plug or cord become necessary, use only identical replacement parts that include GFCI protection.

## EXTENSION CORDS

Use only 3-wire extension cords that have 3-prong grounding-type plugs and 3-pole cord connectors that accept the plug from the product. Use only extension cords that are intended for outdoor use. These extension cords are identified by a marking "Acceptable for use with outdoor appliances; store indoors while not in use." Use only extension cords having an electrical rating not less than the rating of the product. Do not use damaged extension cords. Examine extension cord before using and replace if damaged. Do not abuse extension cord and do not jerk on any cord to disconnect. Keep cord away from heat and sharp edges. Always disconnect the extension cord from the receptacle before disconnecting the product from the extension cord.



## Safety Precautions

### Warning!

To reduce the risk of electrocution, keep all connections dry and off the ground. Do not touch plug with wet hands.



Avoid damage to the power cable, do not roll over, crush or pull it. Never pull the power cable to disconnect the plug from the wall outlet.

### Warning!

Inspect the power cable before and after each use for signs of damage or aging. In order to reduce the risk of serious or fatal injury from electrocution, never use your machine if the power cable is cut, cracked, worn or damaged. Turn off power at source and have dealer replace cable. If you use an extension cord, note that the individual conductors must have a certain minimum gauge rating. An improper gauged extension cord will cause a drop in wire voltage resulting in loss of power and overheating.

The following cords be used to meet the rating demands:

	Volts	Total Length of Cord in Feet			
	120	25	50	100	150
Ampere more than	Rating not more than	AWG			
0 - 5		18	16	16	14
6 - 10		18	16	14	12
10 - 12		16	16	14	12
12 - 16		14	12	not recommended	

## THE USE OF THE HIGH-PRESSURE CLEANER

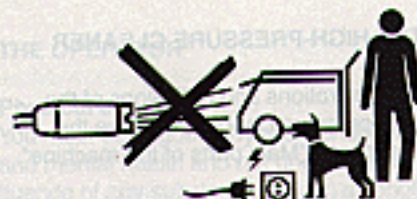
### Operating Instructions

#### Reactive forces

### Warning!

The high-pressure stream of fluid causes reactive forces on the gun or wand/lance. Always hold the spray gun or wand/lance firmly with both hands so that you can control these forces including those which may push the gun or lance/wand back towards your face or body. Do not overreach or stand on unstable support. Keep good footing and balance at all times.

Observe local regulations when connecting your machine to the drinking water supply, (i.e. a one-way water connector valve may be required).



### Warning!

In order to reduce the risk of serious injury from impact or injection, never point the high-pressure jet at persons or animals. Never direct the nozzle or fluid stream at any part of your body.

Pay attention to adequate air circulation in the work area. Do not cover the machine nor operate it in poorly ventilated rooms.

Do not touch the metal parts of the high pressure cleaner (e.g. lance or the pump) when operating the machine with hot water, as this may cause burns.

Only hotwater units:  
Never bend over the exhaust outlets or hold part of your body over the exhaust outlets.

**This may cause burns!**

### Warning!

The machine's operating pressure is printed on the nameplate and in the Owner's Manual of the high pressure cleaner. Only use a high-pressure hose which is designed and approved for the machine's operating pressure and temperature. The permissible operating pressure and temperature are printed on the high-



pressure hose. The high-pressure hose must never be crushed, stretched, kinked or twisted.

### Working Conditions

For hot water and/or combustible engine driven units:



#### **Warning!**

Your unit produces poisonous exhaust fumes as soon as the combustible engine is running.

These gases (e. g. carbon monoxide) may be colorless and odorless. To reduce the risk of serious or fatal injury from breathing toxic fumes, never run the high-pressure cleaner indoors or in poorly ventilated locations. Ensure proper ventilation when working in confined areas.

Do not attempt to move the machine by pulling the high-pressure hose. Replace damaged high-pressure hoses immediately. **Risk of injury!**

#### **Warning!**

An underrated or improperly used hose can explode from excess pressure and may result in serious injury from exploding material or loss of control.

#### **Warning!**

Never modify your machine in any way as this could be extremely dangerous and cause serious personal injury.

## MAINTENANCE, REPAIR AND STORING

Shut off the engine before performing any maintenance.

#### **Warning!**

In order to reduce the risk of serious or fatal injury from electrocution, disconnect the plug from the power supply before doing any work on the machine.

Do not attempt any maintenance or repair work not described in your owner's manual. Have such work performed at your STIHL service shop only.

Only use original replacement parts for maintenance and repair. Use of parts manufactured by others may cause serious or fatal injury.

Before replacing nozzles or removing the high-pressure hose, switch the machine off and hold the trigger pressed until all pressure in the machine has been released.

Store the machine in a dry place protected from freezing. Freezing temperatures may damage your high pressure cleaner, the hose or the lance if not properly stored with an antifreeze solution. Follow the storage instructions in your owner's manual.

### For RE units only:

The power cable may only be repaired or replaced by an authorized dealer. A damaged power cable must be replaced by one of the same type and rating as specified by the manufacturer.

#### **Warning!**

Set up the machine as far away from the object to be cleaned as possible.

Never spray the machine with a high-pressure jet – you risk short-circuiting the machine.

Only use STIHL chemicals and detergents, and follow the instructions supplied with them.

Other chemicals and detergents are not authorized and may cause damage to property or serious personal injury.



## THE VACUUM CLEANER

For illustrations and definitions of the vacuum cleaner parts see the chapter on "Main Parts of the Machine".

### Preparation for the Use of the Vacuum Cleaner

Before starting work, check that your vacuum cleaner is operating correctly and in good condition. Pay special attention to the power supply cord and plug.

### Electrical Precautions

#### Warning!

The electrical power voltage must agree with the voltage specified on the machine's nameplate. Improper connection will damage the machine and may cause personal injury.

Avoid damage to the power supply cord. Do not roll over, crush or pull it. Do not pull the cord around sharp edges or corners. Keep away from heated surfaces. Never pull the power supply cord to disconnect the plug from the wall outlet. To unplug, grasp the plug not the cord.

#### Warning!

Inspect the power supply cord and plug before and after each use for signs of damage or aging.

In order to reduce the risk of serious injury from electrocution, never use your machine if the power supply cord or plug is cut, cracked, worn or damaged. Turn off power at source and have dealer replace the power supply cord or plug. If your vacuum cleaner is not working properly or if it has been dropped, damaged, left outdoors, or dropped into water, return it to your STIHL dealer.

#### Warning!

To avoid electric shock do not expose to rain. Store indoors. To reduce the risk of electric shock do not handle the plug or the unit with wet hands.

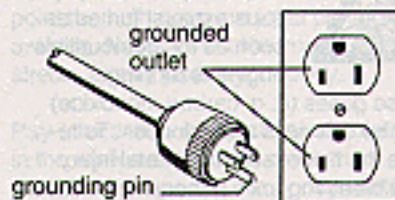
### Grounding Instructions

The vacuum cleaner must be grounded. If it should malfunction or breakdown, grounding provides a path of least resistance for electric current to reduce the risk of electric shock. This appliance is equipped with a cord having an equipment-grounding conductor and grounding plug. The plug must be plugged into an appropriate outlet that is properly installed and grounded in accordance with all local codes and ordinances.

## WARNING!

Improper connection of the equipment-grounding conductor can result in a risk of electric shock. Check with a qualified

electrician or service person if you are in doubt as to whether the outlet is properly grounded. Do not modify the plug provided with the appliance - if it will not fit the outlet, have a proper outlet installed by a qualified electrician. This appliance is for use on a nominal 120 Volt circuit and has a ground plug that looks like the plug illustrated.



Make sure that the appliance is connected to an outlet having the same configuration as the plug. No adapter should be used with this appliance.

### Working Conditions

#### Warning!



To reduce the risk of serious injury, never attempt to pick up flammable materials (hot ashes, glowing cigarettes, etc.) or combustible fluids (gasoline, paint, thinners, etc.) as they represent a fire hazard and might cause an explosion.





Never attempt to use a vacuum cleaner in locations where there is a potential for explosive or flammable atmospheres.

Never attempt to pick up toxic materials with your vacuum cleaner. In order to reduce the amount of dust resulting from the use of the vacuum cleaner, do not use the vacuum cleaner without filter element or with a damaged filter element. Inhaling dust or toxic materials in the air may cause an allergic reaction or serious or fatal injury.

Some toxic materials and dangerous fine dusts may be picked up with the STIHL SE 201 in combination with a heavy duty (HD) filterbag.

The STIHL SE 201 is presently not available in the USA.

Always remove the paper filter bag before using your vacuum cleaner for wet pickup.

In order to reduce the risk of loss of control and falling, use extra care when using the vacuum on stairs or an incline.

To reduce the risk of serious or fatal injury, do not put any object into openings. Do not use with any opening blocked; keep free of dust, lint hair, and anything, that may reduce air flow. Keep hair, loose clothing and all parts of your body away from openings.

## **MAINTENANCE, REPAIR AND STORING**

Always disconnect the plug from the power supply before cleaning or servicing the unit, replacing parts or performing any other work on the unit. Turn off all controls before unplugging.

Only authorized personnel may repair or replace the power supply cord. A damaged power supply cord must be replaced by one of the same type and rating as specified by the manufacturer.

Only carry out the maintenance operations and repairs described in this manual. Other work should be performed by your STIHL servicing dealer.

Only use original replacement parts for maintenance and repair. Use of parts manufactured by others may cause serious or fatal injury.

All plugs and connectors must be splashproof.

The vacuum cleaner must be protected by a 10 A automatic circuit-breaker or 15 A fuse.





## **WARNING!**

The engine exhaust from this product contains chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

englisch/english