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Dear Customer,

Thank you for choosing a quality engineered STIHL product.

It has been built using modern production techniques and comprehensive quality assurance. Every effort has been made to ensure your satisfaction and troublefree use of the product.

Please contact your dealer or our sales company if you have any queries concerning this product.

Your

Dr. Nikolas Stihl
Guide to Using this Manual

Pictograms

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

Symbols in text

⚠️ WARNING
Warning where there is a risk of an accident or personal injury or serious damage to property.

🔧 NOTICE
Caution where there is a risk of damaging the machine or its individual components.

Engineering improvements

STIHL's philosophy is to continually improve all of its products. For this reason we may modify the design, engineering and appearance of our products periodically.

Therefore, some changes, modifications and improvements may not be covered in this manual.

Safety Precautions and Working Techniques

⚠️ WARNING
Special safety precautions must be observed when using this machine because it uses electrical power.

It is important you read and understand the Instruction Manual before first use and keep the manual in a safe place for future reference. Non-observance of the Instruction Manual may result in serious or even fatal injury.

- Children or youngsters should never be allowed to use the machine. Supervise children to ensure that they do not play with the machine.

- The machine should only be provided or loaned to people familiar with this model and its operation. The instruction manual should always be handed over with the machine.

- Do not use the machine if anyone not wearing protective clothing is in the working area.

- Before starting any work on the machine, e.g., cleaning, servicing, replacement of parts – **unplug the power plug**!

- Spray (aerosols) may form when operating a high-pressure cleaner. Breathing in the spray can be harmful to health. To decide what measures should be taken for protection against sprays containing water, before starting work a risk
assessment should be made according to the surface to be cleaned and the surroundings. Respiratory masks of class FFP2 or higher provide suitable protection against sprays containing water.

Comply with national safety regulations, e.g. issued by employers' liability insurance associations, social security institutions, occupational safety and health authorities or other organizations.

When the machine is not in use, shut it off so that it does not endanger others. Ensure that the machine cannot be used without authorization; unplug the power plug.

The machine may only be used by persons who have been duly trained to use and handle it or who can demonstrate that they can operate the machine safely.

The machine can be used by persons with limited physical, sensory or mental capacity or with little experience and know-how as long as they are supervised and have been instructed on how to handle the machine safely and understand the associated risks.

The user is responsible for avoiding accidents or injury to third parties or damage to their property.

If you have not used this machine model before: Have your STIHL dealer or another expert show you how to use it safely.

In some countries, operation of machines that emit noise may be restricted by municipal regulations. Observe national regulations.

Always check that the machine is in good working order before starting work. Pay particular attention to the connecting cord, power plug, high-pressure hose, spray attachment and safety mechanisms.

Never operate the machine with a defective high-pressure hose – ensure that it is replaced immediately.

The machine may only be used when all parts are in perfect working order.

The high-pressure hose must not be driven over, pulled, buckled or twisted.

Do not use the high-pressure hose or connecting cord to pull or transport the machine.

The high-pressure hose must be approved for the permissible excess pressure of the machine.

The permissible excess pressure, the maximum permitted temperature and the date of manufacture are stated on the cladding of the high-pressure hose. The permissible pressure and date of manufacture are specified on the fittings.

Accessories and Spare Parts

⚠️ WARNING

- High-pressure hoses, fittings and couplings are important for machine safety. Only high-pressure hoses, fittings, couplings and other accessories which have been approved by STIHL for this machine or technically equivalent parts may be mounted on the machine. If you have
any questions in this respect, consult a servicing dealer. Use only high-quality accessories. Otherwise, there may be a risk of accidents or damage to the unit.

- STIHL recommends the use of genuine STIHL parts and accessories. These have been optimized for the product and the user’s requirements.

Do not modify the machine – otherwise the safety may be endangered. STIHL excludes all liability for personal injury and damage to property caused by using unauthorized attachments.

Physical suitability

The machine may only be operated by people who are rested, in good physical condition and mental health. If you have any condition that might be aggravated by strenuous work, check with your doctor before operating the machine.

Anyone who has consumed alcohol, medicines affecting their ability to react or drugs must not operate the machine.

Areas of application

The high-pressure cleaner can be used to clean surfaces, motor vehicles, machines, tanks, facades or stables and to remove rust without dust or sparks.

Other uses are not permitted and may lead to accidents or damage to the machine.

Do not operate the machine at temperatures near or below 0 °C (32 °F).

Clothing and equipment

Wear shoes with non-slip soles.

![WARNING]

To reduce the risk of eye injuries, wear tight-fitting safety goggles conforming to standard EN 166. Make sure that the safety goggles fit correctly.

Wear protective clothing. STIHL recommends that a boiler suit be worn in order to reduce the risk of injury due to accidental exposure to the high-pressure jet.

Transport

When transporting the machine in and on vehicles:

- Secure the high-pressure cleaner in accordance with the regulations applicable in the country so that it cannot topple over or be damaged.

- Empty the detergent tank and secure it so that it cannot tip over.
Antifreeze is recommended if the machine and accessories are to be transported at temperatures near or below 0 °C (32 °F) - see “Storage”.

### Detergents

**WARNING**

- The machine was designed for use with the detergents supplied or recommended by the manufacturer.
- Use only detergents that are approved for use with high-pressure cleaners. Use of unsuitable detergents can cause damage to health, as well as to the machine and the object to be cleaned. If you have any questions in this respect, consult a servicing dealer.

- Always use detergent in the specified dosage – follow the corresponding instructions for use of the detergent.
- Chemical detergents may contain physiologically harmful (toxic, caustic, irritant), flammable or explosive substances. In the event of skin or eye contact with detergent, flush the affected body parts with plenty of clean water immediately. If detergent is swallowed, seek medical attention immediately. **Note the manufacturer’s safety data sheets!**

### Before starting work

**WARNING**

- If drinking water has passed through the back flow preventer, it can no longer be regarded as drinking water. Do not use the machine with dirty water.
- If there is a risk that dirty water will occur (e.g., flowing sand), an appropriate water filter must be used.

**Inspect the high-pressure cleaner**

**WARNING**

- The high-pressure cleaner should only be used if it is in full working order and undamaged – **risk of accident!**
- It must be possible to move the switch to the 0 position easily
- The switch must be in the 0 position
- Do not use the machine with a damaged high-pressure hose, spray attachment or safety devices

Do not connect the high-pressure cleaner directly to the drinking water main.

Only connect the high-pressure cleaner to the drinking water main in conjunction with a back flow preventer – see "Special accessories".
- High-pressure hose and spray attachment in good condition (clean, moving easily) and correctly assembled
- For good control of the machine, the handles should be clean and dry with no oil or dirt on them
- Never attempt to modify the controls or safety devices in any way
- Set up the machine so that it cannot slip or tip over. Only operate the machine on stable and level ground

**Electrical connection**

**WARNING**

Minimize the risk of electrical shock:

- Voltage and frequency of the machine (see rating plate) must match the voltage and frequency of the mains supply
- Examine the connecting cord, power plug and extension cord for damage. Do not use the machine with a damaged connecting cord, extension cord or damaged power plug
- Only connect the machine to a correctly installed power socket
- The insulation on the connecting cord and any extension cord, the plug and the coupling must be fully intact
- Never touch the power plug, connecting cord and extension cord and electrical plug connections with wet hands

**WARNING**

Route the connecting cord and extension cord properly:

- Observe the minimum cross-section of the individual cords – see "Connecting the machine to the power supply"
- Route and mark the power cord so that it cannot become damaged and no one is endangered – danger of stumbling!
- Use of unsuitable extension cords can be dangerous. Use only extension cords that are approved for outdoor use and are correspondingly marked and have a sufficient cross-section
- The connector and coupling of the extension cord must be waterproof and they must not lie in water
- It is advisable to keep the plug connection at least 60 mm above the ground/floor, e.g. by using a cable drum
– don't let the cord rub against edges or pointed or sharp objects
– don't squeeze the cord under doors or windows
– if cords become snarled – unplug the power plug and unsnarl the cord
– Always unroll the power cord from the cable drum completely to avoid risk of fire due to overheating.

**During operation**

**WARNING**

- Never draw in fluids containing solvents or undiluted acids and solvents (e.g., gasoline, heating oil, paint thinner or acetone). These substances damage the materials used in the machine. The spray is highly combustible, explosive and toxic.

The plug must be disconnected immediately if the cord is damaged – danger of electrocution!

**Never direct the high-pressure jet or water hose against the machine itself or against other electrical appliances – danger of short-circuiting!**

**Never direct the high-pressure jet or water hose against electrical equipment, connections and power cords – danger of short-circuiting!**

**Never direct the high-pressure jet against yourself or other people, not even to clean clothing or shoes – risk of injury!**

Ensure you always have a firm and safe footing.

The machine may only be operated in an upright position.

Beware of slipping on ice, water, snow, slopes or uneven ground!

Keep the high-pressure cleaner as far away as possible from the object being cleaned.

Do not cover the machine. Ensure adequate motor ventilation.

Do not direct the high-pressure jet against animals.

Do not direct the high-pressure jet onto places you cannot see.

Keep children, animals and bystanders at a safe distance.

Hazardous substances (e.g., asbestos or oil) must not be allowed to escape into the environment unchecked when working with the machine. The applicable environmental regulations must be observed without fail.

Surfaces of asbestos cement must never be cleaned with a high-pressure jet. Hazardous, breathable asbestos fibers may be released in addition to the dirt. The danger is greatest when the washed surface has dried.

Delicate parts made of rubber, fabric or similar materials must not be cleaned with a
pencil jet, e. g. from the rotary nozzle. Maintain a sufficient distance between the high-pressure hose and the surface when cleaning to avoid any damage to the surface being cleaned.

The trigger on the spray gun must move easily and return automatically to its starting position when released.

Hold the spray attachment firmly with both hands in order safely to withstand the kickback force and additional torque produced when using spray attachments with an angled spray lance.

Do not buckle or loop the high-pressure hose.

Ensure that the connecting cord and the high-pressure hose are not damaged by being driven over, squashed or pulled; protect them against heat and oil.

Do not touch the connecting cord with the high-pressure jet.

If the machine is subjected to a strain for which it was not designed (e.g., heavy impact or a fall), always check that it is in good condition before continuing work - refer also to the chapter "Before starting work". Also make certain that the safety mechanisms are working properly. Never continue using a machine that is not in perfect working order. In case of doubt, have the unit checked by your servicing dealer.

Before leaving the machine unattended: Switch off the machine – unplug the power plug.

Safety equipment
When the safety equipment is activated, excessive pressure is returned to the intake side of the pump via a safety valve. This safety feature has been set by the manufacturer and must not be adjusted.

After finishing work

- Unplug the power plug from the socket
- Disconnect water intake hose between machine and water supply

Never unplug the power plug by pulling on the connecting cord: always grip the plug itself.

Maintenance and repairs

WARNING

Before starting any work on the machine: Always disconnect the machine from the mains power supply.

- Use only high-quality spare parts. Otherwise, there may be a risk of accidents and damage to the unit. If you have any questions in this respect, consult a servicing dealer.

- To avoid risks, work on the machine (e.g. replacing a damaged power cord) may only be carried out by authorized dealers or qualified electricians.
Clean plastic parts with a cloth. Harsh detergents can damage the plastic.

Clean ventilation slots in motor housing as needed.

The machine must be serviced regularly. Do not attempt any maintenance or repair work not described in the Instruction Manual. All other work should be carried out by a servicing dealer.

STIHL recommends the use of genuine STIHL spare parts. Such parts have been optimized for the machine and the user's requirements.

STIHL recommends that maintenance and repair work be carried out only by authorized STIHL dealers. STIHL dealers receive regular training and are supplied with technical information.

Assembling the Unit

The following accessory parts must be fitted before using the machine for the first time.

Holder for spray attachment

- Slide the upper holder into the mount on the handle and fasten it with the screw

- Slide the lower holder into the mount on the housing – until it engages

Crank for hose reel

- Fit knob (1) onto crank (2).
- Engage crank (2) into the hose reel support (3)

Connector on water inlet

- Attach the connector (1) to the water inlet (2) and tighten it by hand

Holder for flat hose cassette

A flat hose cassette is available as special accessory.

The holders for the flat hose cassette are included and can be installed as needed.
- Remove the screws (1) from the spray gun holder
- Unscrew screw (2)

- Fasten the holder for the flat hose cassette with the included screws (3)
- Fasten the catch hook for the flat hose cassette with the included screw (4)

### Transporting the Unit

**Height adjustable handle**

- Press button (1) and pull handle (2) upward as far as it will go
- Release button and pull/push on the handle again until the telescopic shafts engage

**Carrying handle**

The machine can be carried using the transport handle.

### Fitting, removing spray lance

- Pull back and hold the coupling (1)
- Push the spray lance (2) into the mount on the spray gun, or pull it out to remove the spray gun, respectively
- Release the coupling (1)
Fitting, removing high-pressure hose

High-pressure hose on machine

The high-pressure hose is already connected.

Disconnecting the high-pressure hose

- Pull out the spring clip (1) and pull the high-pressure hose (2) out of the connector

Connecting the high-pressure hose

- Push the high-pressure hose (2) onto the connector of the hose reel
- Push the spring clip (1) into the connector

High-pressure hose and spray gun

Fitting

- Push the high-pressure hose (1) onto the connector (2)
- Attach union nut (3) and screw it on and tighten by hand

Removing

- Push the coupling (4) in the direction of the arrow and hold it
- Loosen the union nut (3) and unscrew it from the connector in the direction of the arrow

High-pressure hose extension

As a rule, always use only one high-pressure hose extension – see "Special accessories"

Connecting the water supply

- Connect the water hose
  Briefly rinse out the water hose with water before connecting it to the machine to prevent sand and other dirt particles from entering the machine and to purge the air from the water hose.

<table>
<thead>
<tr>
<th>Diameter of water hose:</th>
<th>1/2&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Length of water hose:</td>
<td>min. 10 m (to absorb pressure surges)</td>
</tr>
<tr>
<td></td>
<td>max. 25 m</td>
</tr>
</tbody>
</table>

- Push the coupling (1) on to the hose connector (2)
- Turn on water supply
To vent the system:
- Actuate the spray gun (without spray lance mounted) until a uniform water jet emerges
Connection to the drinking water main

When hooking up to the drinking water main, a backflow preventer must be installed between the water tap and the hose. The design of the backflow preventer must comply with the applicable country-specific regulations.

If drinking water has passed through the backflow preventer, it can no longer be regarded as drinking water.

Follow the rules laid down by the local water supply company to prevent water flowing back from the high-pressure cleaner into the drinking water main.

Connecting to a pressureless water supply

The high-pressure cleaner can only be used in suction operation with the suction set (special accessory).

![Notice]

As a rule, it is advisable to use a water filter.

- Connect the machine to the pressurized water supply and start it up briefly in accordance with the Instruction Manual
- Switch off the machine
- Disconnect the spray attachment from the high-pressure hose
- Unscrew the hose connector from the water connection
- Connect the suction set to the water connection with the included connector

Always use the connector included in the suction set. The hose connectors included as standard with the high-pressure cleaner are not leakproof in suction operation and thus are not suitable for drawing in water.

- Fill the suction hose with water and immerse the suction cup of the suction hose in the water tank – do not use dirty water
- Hold down the high-pressure hose by hand
- Switching on the machine
- Wait until a steady jet exits the high-pressure hose

- Switch off the machine
- Connect spray attachment
- Switch on the machine with the spray gun open
- Actuate the spray gun several times briefly in order to bleed the air out of the machine as quickly as possible
Connecting to Power Supply

The voltage and frequency of the machine (see rating plate) must match the voltage and frequency of the power connection.

The minimum fuse protection of the power connection must comply with the specifications – see "Specifications".

The machine must be connected to the power supply via an earth-leakage circuit breaker to disconnect the power supply if the differential current to earth exceeds 30 mA for 30 ms.

The power connection must correspond to IEC 60364-1 and relevant national regulations.

When the machine is switched on, voltage fluctuations that occur under unfavorable mains conditions (high power line impedance) may negatively affect other connected electrical appliances. Trouble is not anticipated at power line impedances less than 0.15 Ω.

The extension cord must have the following minimum cross-section depending on the mains voltage and cord length.

<table>
<thead>
<tr>
<th>Cord length</th>
<th>Minimum cross-section</th>
</tr>
</thead>
<tbody>
<tr>
<td>220 V – 240 V:</td>
<td></td>
</tr>
<tr>
<td>up to 20 m</td>
<td>1.5 mm&lt;sup&gt;2&lt;/sup&gt;</td>
</tr>
<tr>
<td>20 m to 50 m</td>
<td>2.5 mm&lt;sup&gt;2&lt;/sup&gt;</td>
</tr>
</tbody>
</table>

Connection to the power supply socket

Before connection to the power supply, check that the machine is switched off – see "Switching off the machine"

- Swivel the lower holder upward and remove the power cord
- Plug the power cord or extension cord into a properly installed outlet

Switching On

- Turn on water supply

**NOTICE**

The machine may only be switched on when the water intake hose is connected and the water supply has been turned on. Otherwise the machine may be damaged due to lack of water.

- Completely unroll the high-pressure hose

- Turn the master switch to I – now the machine is in standby mode
## Working

### Actuating the spray gun

- Point the spray gun at the object to be cleaned – **never at persons!**
- Point the rotary nozzle downwards when starting (if fitted)  
  ![Diagram of spray gun](image)

- Press the safety latch (1) in the direction of the arrow – the lever (2) is unlatched
- Squeeze the lever (2)

The motor stops when the lever is released.

### Standby mode

**NOTICE**

The machine must not be operated in standby mode for more than 5 minutes. If work is interrupted for more than 5 min., during breaks or if the machine is left unattended, switch off the machine at the master switch – see "Switching off the machine".

### High-pressure hose

**NOTICE**

- Do not buckle or loop the high-pressure hose.
- Do not place any heavy objects on the high-pressure hose, and do not drive any vehicles over it.

### Pressure/quantity control

Working pressure and water flow rate can be set on the high-pressure pump for long-term adjustment in line with the cleaning job concerned.

- Turn the knob (1) to set the working pressure and water flow rate
- The pressure in the high-pressure pump is indicated by a pressure gauge (2)

### Pressure control at the nozzle

The operating pressure can be infinitely adjusted at the nozzle.

---

### Storing accessories

Roll up the power cable and high-pressure hose. Spray attachment and cleaning pin can be stored directly on the machine – see "Main Parts".
Adding detergent

- Hold the detergent tank by both handles and pull it out to the stop
- Unscrew the cap with intake hose from the detergent tank
- Fill detergent tank with STIHL detergent diluted as specified
- Seal the filling opening of the detergent tank with the cap
- Press against the detergent tank until it engages in the housing

- Turn sleeve as far as possible in the direction of the arrow (low-pressure operation)

Detergent can only be drawn into the machine in low-pressure operation.

- Use the detergent metering knob to adjust the amount of detergent to be added

Detergent metering knob to the left: 0 % (min)
Detergent metering knob to the right: 5 % (max)

- When applying detergent, start at the bottom and work upwards

Detergent must not be allowed to dry on the object to be cleaned

If detergent is no longer to be added:
- Set the detergent metering knob to 0 % (min)
- Let the high-pressure cleaner continue to run with the spray gun open until no more detergent comes out of the nozzle

If high-pressure hose extensions are connected, it is impossible to draw in detergent from the detergent container.

Fitting, removing detergent tank

The detergent tank can be removed from the machine e. g. to empty or clean it.

- Hold the detergent tank by both handles and pull it out past the stop and out of the housing
- Unscrew the cap with intake hose from the detergent tank

The intake hose can be pushed into the high-pressure cleaner housing for storage.

Fitting

- Position the detergent tank in the mounts on the base of the housing
- Press against the detergent tank until it engages in the housing
Using detergent from a separate container

- Pull out the detergent tank
- Unscrew the cap with intake hose from the detergent tank
- Screw the cap with intake hose onto a separate detergent container

The cap has a standard thread and fits all standard detergent containers.
- Slide the intake hose as far as possible into the detergent container

After finishing work

- Empty the detergent tank and rinse it out with clean water
- Immerse the intake hose in clean water
- Actuate the spray gun and flush out the residual detergent

Precisely calculating/setting the detergent concentration

For a few detergents, the concentration must be very precisely set. In this case, measure the water flow and detergent consumption.

- Set the nozzle sleeve to low-pressure operation – as described above
- Set the detergent metering knob to "0 % (min)"
- Hold the spray gun in a suitable empty receptacle (> 20 l) and actuate for exactly 1 minute
- Measure the quantity of water "Q" in the container
- Pour 2 liters of detergent diluted as directed into a suitable container (with a scale of 0.1 l) – STIHL recommends the use of genuine STIHL detergents
- Hold the intake hose in the container
- Set the detergent metering knob to the desired concentration: 0 % (min) to 5 % (max)
- Hold the spray gun in a suitable empty receptacle (> 20 l) and actuate for exactly 1 minute
- Read the detergent consumption "QR" on the scale

Calculating the actual detergent concentration:

\[
\frac{QR}{Q} \times V = \text{concentration}
\]

- QR = amount of consumed detergent (in l/min)
- Q = Water without detergent (in l/min)
- V = Predilution of detergent (in %)

If the actual concentration deviates from the desired concentration, reset knob and repeat measurement if necessary.

Calculating the predilution of the detergent in %

If the predilution is not indicated as a percentage, it can be calculated using the following table:

<table>
<thead>
<tr>
<th>Ratio</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1:1</td>
<td>50</td>
</tr>
<tr>
<td>1:2</td>
<td>33.3</td>
</tr>
<tr>
<td>1:3</td>
<td>25</td>
</tr>
<tr>
<td>1:5</td>
<td>16.6</td>
</tr>
<tr>
<td>1:10</td>
<td>9</td>
</tr>
</tbody>
</table>

Example:

Calculation ratio of 1:2

\[
\frac{A}{A + B} \times 100 = \text{value in %}
\]

\[
\frac{1}{1 + 2} \times 100 = 33.3\%
\]
The following information and examples of application make work easier and contribute to achieving an optimum cleaning result.

**Operating pressure and water throughput**

High pressure dissolves dirt better. The higher the water throughput, the easier it is to remove the dirt that has been loosened.

Clean delicate parts and surfaces (e.g. car paint, rubber) by applying low pressure or at a greater distance to avoid damage. 100 bar pressure is sufficient for cleaning vehicles.

**Nozzles**

**Fan-jet nozzle**
All-purpose – to clean parts and (sensitive) surfaces.

Applications:
- Cleaning vehicles and machines
- Cleaning floors and surfaces
- Cleaning roofs and facades

**Rotary nozzle**
To remove stubborn dirt on hard-wearing surfaces.

**Extremely dirty surfaces**

Soak extremely dirty surfaces with water before cleaning them.

**Detergents:**
The cleaning effect can be improved by using detergents. The corresponding exposure time (dependent on the detergent used) increases the cleaning performance.

Do not allow the detergent to dry.

Always use detergent in the specified dosage and follow the corresponding instructions for use of the detergent.

**Mechanical cleaning:**
The additional use of e.g. rotary nozzles or washing brushes helps to remove highly adhesive layers of dirt.

**Switching Off**

- Turn the machine switch to 0 and turn off the water supply
- Actuate the spray gun until water only drips from the spray head (the machine is now depressurized)
- Release trigger
- Press the safety latch (1) in the direction of the arrow – the spray gun is locked to prevent inadvertent operation
- Unplug the power plug from the socket
- Disconnect hose from the water supply and from the machine
After use

- Roll the high-pressure hose and power cable up on the brackets provided for this purpose – see "Main Parts"

After Finishing Work

- Unplug the power plug from the socket
- Disconnect hose from the water supply and from the machine
- Rolling up the high-pressure hose and storing the spray attachment

Storing the Machine

Store the machine in a dry room where it is protected from frost.

If protection from frost cannot be guaranteed, draw glycol-based antifreeze – like that used in motor vehicles – into the pump:

- Insert water intake hose in container with antifreeze
- Insert spray gun without spray lance in the same container
- Switch on the machine with the spray gun open
- Actuate the spray gun until a uniform jet emerges
- Keep leftover antifreeze in a sealed container
First use after long periods of storage

During long periods of storage, mineral residue from the water may be deposited in the pump. This may cause the motor to start with difficulty or not at all.

- Connect the machine to the water supply and flush thoroughly with tap water, leave the power cord unplugged while doing so
- Plug the power plug into the wall socket
- Switch on the machine with the spray gun open
## Maintenance and Care

The following maintenance intervals apply in normal operating conditions. The specified intervals must be shortened accordingly for longer daily working hours. If the machine is only used occasionally, the intervals can be extended accordingly.

<table>
<thead>
<tr>
<th>Item</th>
<th>Action</th>
<th>Before Starting Work</th>
<th>At the End of Work and/or Daily</th>
<th>Monthly</th>
<th>If Damaged</th>
<th>As Required</th>
</tr>
</thead>
<tbody>
<tr>
<td>Complete machine</td>
<td>visual inspection (condition, leaks)</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>clean</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Connectors on high-pressure hose</td>
<td>clean</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>grease</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Plug-type coupling of the spray lance and the coupling sleeve of the spray gun</td>
<td>clean</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Water intake screen in the high-pressure inlet</td>
<td>clean</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>replace</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High pressure nozzle</td>
<td>clean</td>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td></td>
<td>replace</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Ventilation openings</td>
<td>clean</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Machine supports</td>
<td>check</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td></td>
<td>replace</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
</tbody>
</table>
Maintenance

Always unplug the power cord before servicing or cleaning the machine.

In order to ensure trouble free operation, we recommend carrying out the following steps whenever the machine is used:

- Rinse the water hose, high-pressure hose, spray lance and accessories with water before fitting them
- Remove all dust and sand from the couplings

Cleaning the nozzle

Since the pump pressure increases if the nozzle is clogged, it must be cleaned immediately.

- Switch off the machine
- Actuate the spray gun until water only drips from the spray head – the machine is now depressurized
- Remove spray lance
- Clean the nozzle with the cleaning pin

NOTICE

Always remove the spray lance before cleaning the nozzle

- Rinse spray lance with water from the nozzle end

Cleaning the water intake screen

The water intake screen must be cleaned once per month or more often if necessary.

- Unscrew the hose connection
- Carefully remove the screen with pliers and rinse it with water
- Before refitting the strainer, ensure that it is undamaged and replace if necessary

Cleaning the ventilation openings

The machine must be kept clean so that cooling air can flow freely through the openings in the machine.

Greasing couplings

The couplings on the spray gun for connecting the high-pressure hose and the spray lance must be greased as required.
## Main Parts

<table>
<thead>
<tr>
<th>Number</th>
<th>Part Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Spray gun</td>
</tr>
<tr>
<td>2</td>
<td>Coupling for spray lance</td>
</tr>
<tr>
<td>3</td>
<td>Safety catch</td>
</tr>
<tr>
<td>4</td>
<td>Lever</td>
</tr>
<tr>
<td>5</td>
<td>Safety latch for high-pressure hose</td>
</tr>
<tr>
<td>6</td>
<td>Union nut for high-pressure hose</td>
</tr>
<tr>
<td>7</td>
<td>Nozzle</td>
</tr>
<tr>
<td>8</td>
<td>Selector sleeve for the working pressure</td>
</tr>
<tr>
<td>9</td>
<td>High-pressure hose</td>
</tr>
<tr>
<td>10</td>
<td>Handle</td>
</tr>
<tr>
<td>11</td>
<td>Upper holder for spray attachment</td>
</tr>
<tr>
<td>12</td>
<td>High-pressure hose connection</td>
</tr>
<tr>
<td>13</td>
<td>Hose reel</td>
</tr>
<tr>
<td>14</td>
<td>Crank for hose reel</td>
</tr>
<tr>
<td>15</td>
<td>Button for height adjustment of handle</td>
</tr>
<tr>
<td>16</td>
<td>Machine switch</td>
</tr>
<tr>
<td>17</td>
<td>Detergent metering knob</td>
</tr>
<tr>
<td>18</td>
<td>Holder for power cord</td>
</tr>
<tr>
<td>19</td>
<td>Pressure gauge</td>
</tr>
<tr>
<td>20</td>
<td>Lower holder for spray attachment</td>
</tr>
<tr>
<td>21</td>
<td>Water attachment</td>
</tr>
<tr>
<td>22</td>
<td>Pressure/quantity control knob</td>
</tr>
<tr>
<td>23</td>
<td>Carrying handle</td>
</tr>
<tr>
<td>24</td>
<td>Cleaning pin</td>
</tr>
<tr>
<td>25</td>
<td>Detergent tank</td>
</tr>
</tbody>
</table>

# Model plate
### Specifications

#### Electrical specifications

**RE 143, RE 143 PLUS**

- **Power supply:**
  - 230 V / 1~ / 50 Hz ¹, ², ⁴
  - 220 V / 1~ / 50 Hz ²
  - 220 V / 1~ / 60 Hz ³

- **Power output:**
  - 2.9 kW ¹, ³
  - 2.2 kW ²
  - 2.8 kW ⁴

- **Ampere rating:**
  - 12.6 A ¹
  - 10 A ²
  - 13.2 A ³
  - 12.2 A ⁴

- **Fuse, slow (characteristic "C" or "K"):**
  - 13 A ¹, ², ⁴

- **Protection class:** I

- **Type of protection:** IP X5

- **Working pressure:**
  - 14 MPa ¹
  - (140 bar)
  - 12 MPa ²
  - (120 bar)
  - 12.2 MPa ³
  - (122 bar)
  - 12.8 MPa ⁴
  - (128 bar)

- **Max. permissible pressure:** 15 MPa (150 bar)

- **Max. water throughput:**
  - 610 l/h ¹, ⁴
  - 520 l/h ²
  - 700 l/h ³

- **Water throughput as per EN 60335-2-79:**
  - 540 l/h ¹
  - 470 l/h ²
  - 660 l/h ³
  - 570 l/h ⁴

- **Max. suction lift:** 0.5 m

**RE 143, RE 143 PLUS GB**

- **Power supply:**
  - 230 V - 240 V / 1~ / 50 Hz ⁵

- **Power output:**
  - 3.3 kW
  - 2.4 kW ⁵

- **Ampere rating:**
  - 14.3 A
  - 10 A ⁵

- **Fuse, slow (characteristic "C" or "K"):**
  - 16 A ¹, ², ⁴

- **Protection class:** I

- **Type of protection:** IP X5

- **Working pressure:**
  - 15 MPa (150 bar)
  - 12 MPa ⁵

- **Max. permissible pressure:** 16 MPa (160 bar)

- **Max. water feed pressure:** (10 bar)

- **Max. water throughput:** 650 l/h

- **Water throughput as per EN 60335-2-79:** 570 l/h ⁵

- **Max. suction lift:** 0.5 m

**RE 163, RE 163 PLUS**

- **Power supply:**
  - 230 V / 1~ / 50 Hz
  - 230 V - 240 V / 1~ / 50 Hz ⁵

- **Power output:**
  - 3.3 kW
  - 2.4 kW ⁵

- **Ampere rating:**
  - 14.3 A
  - 10 A ⁵

- **Fuse, slow (characteristic "C" or "K"):**
  - 13 A ¹, ², ⁴

- **Protection class:** I

- **Type of protection:** IP X5

- **Working pressure:**
  - 14 MPa ¹
  - (140 bar)
  - 12 MPa ²
  - (120 bar)
  - 12.2 MPa ³
  - (122 bar)
  - 12.8 MPa ⁴
  - (128 bar)

- **Max. permissible pressure:** 15 MPa (150 bar)

- **Max. water throughput:**
  - 610 l/h ¹, ⁴
  - 520 l/h ²
  - 700 l/h ³

- **Water throughput as per EN 60335-2-79:**
  - 540 l/h ¹
  - 470 l/h ²
  - 660 l/h ³
  - 570 l/h ⁴

- **Max. suction lift:** 0.5 m

- **Max. water feed temperature:**

- **With pressurized water supply:** 60 °C

- **Suction operation:** 20 °C

- **Max. kickback force:**
  - 25.1 N ¹
  - 20.2 N ²
  - 28.6 N ³
  - 25.3 N ⁴

- **230 V / 50 Hz version**

- **220 V / 50 Hz version**

- **220 V / 60 Hz version**

- **2 3 0V/5 0H z v e r s i o n G B**

- **230 V - 240 V / 50 Hz version**

- **230 V - 240 V / 50 Hz version GB**
**Dimensions**

**RE 143, RE 163**
- Length approx.: 386 mm
- Width approx.: 377 mm
- Height approx.: 711 mm

**RE 143 PLUS, RE 163 PLUS**
- Length approx.: 386 mm
- Width approx.: 377 mm
- Height approx.: 787 mm

**Weight**

**RE 143**
- Device: 24 kg
- Ready for operation: 26.4 kg

**RE 143 PLUS**
- Device: 25 kg
- Ready for operation: 27.2 kg

**RE 163**
- Device: 24 kg
- Ready for operation: 26.4 kg

**RE 163 PLUS**
- Device: 25 kg
- Ready for operation: 27.2 kg

**High-pressure hose**

- RE 143: 9 m, DN 06, steel braided
- RE 143 PLUS: 12 m, DN 06, steel braided
- RE 163: 9 m, DN 06, steel braided
- RE 163 PLUS: 12 m, DN 06, steel braided

**Flat hose**

- 12 m, textile braided

**Sound and vibration levels**

**Sound pressure level** $L_{pA}$ to EN 60335-2-79 Appendix ZAA

- RE 163 PLUS: 76.1 dB(A)

**Sound power level** $L_{wA}$ to EN 60335-2-79 Appendix ZAA

- RE 163 PLUS: 89.2 dB(A)

**Vibration level** $a_{hv}$ at the handle according to ISO 5349

- With fan nozzle: < 2.5 m/s²

For the sound pressure level and the sound power level, the K-factor in accordance with Directive 2006/42/EC = 1.5 dB(A); for the vibration level, the K-factor in accordance with Directive 2006/42/EC = 2.0 m/s².

**REACH**

REACH is an EC regulation and stands for the Registration, Evaluation, Authorisation and Restriction of Chemical substances.

For information on compliance with the REACH regulation (EC) No. 1907/2006 see www.stihl.com/reach.
Special Accessories

Pipe cleaning kit

in lengths 10 or 20 m

There is a mark (arrow) at the end of the cleaning hose:

- Push the hose into the pipe to be cleaned until this mark is reached – then switch on the machine

When this mark appears as the hose is pulled out of the pipe:

- Switch off the machine
- Actuate the spray gun until the machine has been depressurized
- Pull the hose out of the pipe completely

The hose must never be pulled out of the pipe when the machine is switched on.

Other special accessories

Rotary washing brush – exchangeable brush insert.
Wash brush – for mounting on straight or angled spray lances.

Spray lance, straight – lengths 350, 500, 1070, 1800 or 2500 mm.

Spray lance, angled – length 1070 mm; spray lance, angled – do not direct around blind corners behind which other people may be concealed.

Rotary nozzle with spray lance – length 950 mm – for large areas and very stubborn dirt.

High-pressure hose extension – DN 06, connection M24x1.5 – steel braided, reinforced, lengths 10 or 20 m. Always use only one high-pressure hose extension.

High-pressure hose adapter – connection M24x1.5 – for connection of high-pressure hose and high-pressure hose extension.

Adapter – for connection of accessories with screw coupling and spray guns with push-in coupling.

Sand and wet-blasting unit – for sand-blasting, e. g., stone or metal.

Water filter – for filtering water from the water main, as well as for use in pressureless suction operation.

Backflow preventer – Prevents the water from flowing back from the high-pressure cleaner into the drinking water main.

Suction set – length 3 m.

Detergents and care products – for various spheres of application

Ask your STIHL servicing dealer for current information about this and other special accessories.
# Troubleshooting

Before working on the machine, unplug the power cord, turn off the water supply and actuate the spray gun until the pressure has been relieved.

<table>
<thead>
<tr>
<th>Fault</th>
<th>Cause</th>
<th>Remedy</th>
</tr>
</thead>
</table>
| Motor does not run when switched on (hums when switched on)           | Mains voltage is too low or improper | Check electrical connection  
                                                                            | Check plug, cable and switch                                                |
|                                                                      | Extension cord with wrong cross-section | Use an extension cord with a sufficient cross-section, see "Connecting the machine to the power supply" |
|                                                                      | Extension cord is too long            | Connect the machine without an extension cord or with a shorter one     |
|                                                                      | Mains circuit-breaker has been tripped | Switch off the machine, actuate the spray gun until water only drips out of the head, engage the safety catch, reset the mains circuit-breaker |
|                                                                      | Spray gun not actuated                | Actuate spray gun when switching on the machine                        |
| Motor constantly switches on and off                                 | High-pressure pump or spray attachment is leaky | Have the machine checked by a servicing dealer 1)                        |
| Engine stops                                                         | Machine switches off because the motor is overheating | Check whether the supply voltage and machine voltage match; let the motor cool down for at least 5 minutes |
| Weak, ragged, unclean jet                                            | Nozzle fouled                         | Clean nozzle, see "Maintenance"                                        |
| Pressure fluctuates or drops                                         | Shortage of water                     | Open water tap completely  
                                                                            | Comply with permissible suction lift (suction mode only)                  |
|                                                                      | High-pressure nozzle in spray head is dirty | Clean high-pressure nozzle; see "Maintenance"                           |
|                                                                      | Water intake strainer in pump inflow clogged | Clean water intake strainer; see "Maintenance"                          |
|                                                                      | High-pressure pump is leaky, valves are defective | Have the machine checked by a servicing dealer 1)                        |
|                                                                      | Nozzle clogged                        | Clean nozzle                                                            |
Before working on the machine, unplug the power cord, turn off the water supply and actuate the spray gun until the pressure has been relieved.

<table>
<thead>
<tr>
<th>Fault</th>
<th>Cause</th>
<th>Remedy</th>
</tr>
</thead>
<tbody>
<tr>
<td>No supply of detergents</td>
<td>Detergent tank is empty</td>
<td>Fill detergent tank</td>
</tr>
<tr>
<td></td>
<td>Detergent intake is clogged</td>
<td>Eliminate clog</td>
</tr>
<tr>
<td></td>
<td>Venturi nozzle is worn</td>
<td>Have the machine checked by a servicing dealer</td>
</tr>
</tbody>
</table>

1) STIHL recommends STIHL servicing dealers
**Maintenance and Repairs**

Users of this machine may only carry out the maintenance and service work described in this user manual. All other repairs must be carried out by a servicing dealer.

STIHL recommends that you have servicing and repair work carried out exclusively by an authorized STIHL servicing dealer. STIHL dealers are regularly given the opportunity to attend training courses and are supplied with the necessary technical information.

When repairing the machine, only use replacement parts which have been approved by STIHL for this power tool or are technically identical. Only use high-quality replacement parts in order to avoid the risk of accidents and damage to the machine.

STIHL recommends the use of original STIHL replacement parts.

Original STIHL parts can be identified by the STIHL part number, the STIHL logo and the STIHL parts symbol (the symbol may appear alone on small parts).

**Disposal**

High-pressure cleaner, accessories and packaging must be collected and recycled in an environmentally beneficial manner.

Do not dispose of high-pressure cleaner, accessories and packaging as household waste.

Information concerning disposal is available from a STIHL servicing dealer.

- High-pressure cleaner, accessories and packaging must be disposed of in accordance with the regulations and in an environmentally beneficial manner.

**EC Declaration of Conformity**

ANDREAS STIHL AG & Co. KG
Badstr. 115
D-71336 Waiblingen
Germany
hereby confirms that

Type: High-pressure cleaner
Make: STIHL
Series: RE 143, RE 143 PLUS
Serial identification number: 4768
Series: RE 163, RE 163 PLUS
Serial identification number: 4769

complies with all relevant requirements of the Directives 2011/65/EU, 2006/42/EC, 2004/108/EC (until 19.04.2016), 2014/30/EU (from 20.04.2016) and 2000/14/EC and has been developed and built in compliance with the versions of the following standards valid at the production date:

EN ISO 12100-1, EN ISO 12100-2, EN 55014-1, EN 55014-2, EN 60335-1, EN 60335-2-79, EN 61000-3-2, EN 61000-3-3

The measured and guaranteed equivalent sound power level has been determined in accordance with Directive 2000/14/EC, Annex V, and standard ISO 3744.
### Measured sound power level

<table>
<thead>
<tr>
<th>Model</th>
<th>Level</th>
<th>Version</th>
</tr>
</thead>
<tbody>
<tr>
<td>RE 143</td>
<td>84.8 dB(A)</td>
<td>230 V / 50 Hz</td>
</tr>
<tr>
<td></td>
<td>87.6 dB(A)</td>
<td>220 V / 50 Hz</td>
</tr>
<tr>
<td></td>
<td>88.7 dB(A)</td>
<td>220 V / 60 Hz</td>
</tr>
<tr>
<td>RE 143 PLUS</td>
<td>90.5 dB(A)</td>
<td>230 V / 50 Hz</td>
</tr>
<tr>
<td>RE 163</td>
<td>86.6 dB(A)</td>
<td>230 V / 50 Hz</td>
</tr>
<tr>
<td></td>
<td>87.6 dB(A)</td>
<td>230 V / 60 Hz</td>
</tr>
<tr>
<td>RE 163 PLUS</td>
<td>92.8 dB(A)</td>
<td>230 V / 60 Hz</td>
</tr>
</tbody>
</table>

### Guaranteed sound power level

<table>
<thead>
<tr>
<th>Model</th>
<th>Level</th>
<th>Version</th>
</tr>
</thead>
<tbody>
<tr>
<td>RE 143</td>
<td>86 dB(A)</td>
<td>230 V / 50 Hz</td>
</tr>
<tr>
<td></td>
<td>89 dB(A)</td>
<td>220 V / 50 Hz</td>
</tr>
<tr>
<td></td>
<td>90 dB(A)</td>
<td>220 V / 50 Hz</td>
</tr>
<tr>
<td>RE 143 PLUS</td>
<td>92 dB(A)</td>
<td>230 V / 50 Hz</td>
</tr>
<tr>
<td>RE 163</td>
<td>88 dB(A)</td>
<td>230 V / 60 Hz</td>
</tr>
<tr>
<td></td>
<td>89 dB(A)</td>
<td>230 V / 60 Hz</td>
</tr>
<tr>
<td>RE 163 PLUS</td>
<td>94 dB(A)</td>
<td>230 V / 60 Hz</td>
</tr>
</tbody>
</table>

1) 230 V / 50 Hz version  
2) 220 V / 50 Hz version  
3) 220 V / 60 Hz version  
4) 230 V / 50 Hz version GB  
5) 230 V - 240 V / 50 Hz version

The technical documentation has been retained by:

ANDREAS STIHL AG & Co. KG
Produktzulassung

The year of construction of the machine is shown on the CE plate on the machine.