



# KM-800 3 in 1



Art.No.: KM800

operating instructions

Sweeper KM-800 3 in 1, hand-held



## IMPORTANT





#### DANGER!

Before assembling and using the device, read the entire text of the operating instructions. Use these instructions to familiarize yourself with the device, its correct use and the safety instructions. Keep them in a safe place so that you can refer to the information at any time.

If you hand the device over to other people, please also hand over the complete manual.

## A NOTICE

According to the applicable product liability law, the manufacturer of this device is not liable for damages caused to or by this device in the event of:

- improper handling,
- Failure to follow the operating instructions.
- Repair by third parties, unauthorized specialists,
- Installation and replacement of non-original spare parts,
- improper use. The risk is borne solely by the user.

Graphics, images, texts and layouts created by LVG Hartham GmbH are subject to copyright and the laws protecting intellectual property. Reproduction or use of such graphics, images, texts and layouts in other electronic or printed publications is not permitted without the express consent of LVG Hartham GmbH.

Type and design subject to change.



## CONTENTS

- 1. introduction
- 2. Intended Use
- 3. safety instructions
  - 3.1 General safety instructions
  - 3.2 operational safety
  - 3.3 Safety when using combustion engines
  - 3.4 service security
  - 3.5 residual risks and protective measures
  - 3.6 Behavior in an Emergency
  - 3.7 Warning and information symbols used
- 4. scope of delivery
- 5. controls
- 6. transport
  - 6.1 storage
- 7. assembly
  - 7.1 Install the guide rail
  - 7.2. Installing the rods and cables
  - 7.3 Mounting wheels
  - 7.4 Assembly instructions for waste container and clearing blade

### 8. commissioning

- 8.1. Refueling
- 8.2 Recommended fuel
- 8.3 Check before each start-up

#### 9. service

- 9.1 Start the engine
- 9.2. Turn off the engine
- 9.3 Driving the sweeper
- 9.4 drive
- 9.5 sweeping brush drive
- 9.6 Stop the sweeper
- 9.7 lateral adjustment of the sweeping brushes
- 9.8 height adjustment of the sweeping brushes
- 9.9 end of work or breaks
- 9.10 Accesories
- 9.11 Cleaning the sweeper

#### 10. maintenance

- 10.1 General information
- 10.2 maintenance plan
- 10.3 Checking and refilling the engine oil
- 10.4 draining of operating fluids
- 10.5 air filter maintenance
- 10.6 spark plug
- 10.7 tires, tire pressure
- 10.8 Adjusting the Bowden cable
- 10.9 drive belt
- 11. troubleshooting
- 12. TechnicalData
- 13. warranty and customer service
- 14. EC declaration of conformity
- 15. components of the machine



# INTENDED USE SAFETY INSTRUCTIONS

#### 1. INTRODUCTION

This manual contains information and procedures for the safe operation and maintenance of this model. For your own safety and to prevent injury, carefully read, understand, and follow the safety instructions in this manual at all times.

#### 2. INTENDED USE

The hand-held sweeper was specially developed for the maintenance of paved areas, sidewalks and facilities as well as for winter maintenance. The machine's chassis is mechanically driven by engine power.

The device is suitable for sweeping or picking up loose dirt. With the snow blade attachment, the device can also be used for clearing snow.

The sweeper is equipped with brushes as standard. A mounting system allows the sweeper to be equipped with a waste container and a snow blade. The sweeper's brush roller/brush can be moved to different positions using the lever (page 13, Fig. 1 (3), left, right and a neutral position for the waste container.

The permitted inclination of 30° in the direction of travel and 15° transverse to the direction of travel must not be exceeded.

The sweeper is not approved for transporting people.

Any use that does not comply with the above specifications is deemed to be improper. LVG Hartham GmbH will indemnify itself against the consequences of any claims resulting from non-compliance with these provisions.

#### DANGER

Persons who are not familiar with the operating instructions, children, young people and persons under the influence of alcohol, drugs or medication are not permitted to operate the device.

#### 3. SAFETY INSTRUCTIONS

When using the sweeper, the following basic safety measures must be observed to protect against the risk of injury, fire and property damage.

Read all of these instructions before using this equipment and keep them in a safe place. Inadequately informed operators can endanger themselves and others through improper use.

The information concerning your personal safety is highlighted by a warning triangle; information concerning property damage alone is provided without a warning triangle.



## **A** DANGER

Failure to follow these instructions may result in serious danger to life or death.

## A WARNING

Failure to follow these instructions may result in death or serious injury.

## **A** CAUTION

Failure to follow these instructions may result in minor to moderate injury.

#### A NOTICE

Failure to follow these instructions may result in damage to the engine or other property.

In addition, the operating instructions contain other important text passages marked with the word **DANGER** are marked

#### 3.1 General safety instructions

- 1. Keep your work area tidy
- Disorder in the work area can lead to accidents.

#### 2. Consider environmental influences

- Never operate the power tool in enclosed or poorly ventilated areas. When the
  engine is running, poisonous gases are produced. These gases may be odorless
  and invisible.
- Do not expose the power tool to rain.
- Do not use the power tool in damp or wet environments.
- Make sure you have a secure footing on uneven terrain.
- Pay attention to shafts, trenches and excavations that are not cordoned off.
- Make sure you have good lighting while you work.
- Do not use the power tool in easily flammable vegetation or where there is a risk of fire or explosion.
- If it is dry, have a fire extinguisher ready (fire hazard).

#### 3. Keep other people away

- Do not use the sweeper to transport people.
- Do not allow other people, especially children and young people, to use the power tool. Keep them away from your work area.

#### 4. Store unused tools safely

- Unused tools should be stored in a dry, high or locked place, out of the reach of children.

#### 5. Do not overload your machine

They work better and more safely within the specified performance range.

#### 6. Use the right tool

- Do not use low-power tools for heavy-duty work.
- Use the tools only for the purposes for which they were designed.
- Always keep the tool clean.



#### 7. Wear appropriate clothing

- Do not wear loose clothing or jewelry as they could get caught in moving parts.
- Wear sturdy work gloves; leather gloves provide good protection.
- Wear safety shoes.
- Always wear work clothing made of sturdy material when carrying out any work.
- If you have long hair, wear a hair net and protective helmet.

## 8. Use personal protective equipment (PPE)

- Always wear head, eye, hand, foot and hearing protection.
- Use respiratory protection when performing work that generates dust.

#### 9. Avoid abnormal posture

- Make sure you stand safely and keep your balance at all times.

## 10. Do not leave any tool keys in

- Before switching on, make sure that kevs and adjustment tools are removed.

## Before switching on, make sul 11. Be careful

- Be careful what you are doing. Be sensible when working. Do not use power tools when you are not concentrating.
- Never work under the influence of alcohol, drugs, medication or other substances that may impair vision, dexterity or judgment.

## 12. refueling

- Always switch off the engine before filling.
- Always open the tank cap carefully so that the existing excess pressure can slowly dissipate.
- When working with the sweeper, high temperatures are generated on the housing. Allow the machine to cool down before refueling. The fuel could ignite and cause severe burns.
- Be careful not to overfill the tank with fuel. If you spill fuel, remove the fuel immediately and clean the machine.
- Always close the fuel tank screw tightly.
- 13. Take breaks from work in good time.

## **A** CAUTION

- Prolonged use of the power tool can lead to vibration-related circulatory problems in the fingers, hands or wrists. Symptoms such as numbness in body parts, tickling, pain, stinging, changes in skin color or skin can occur. If these symptoms are noticed, consult a doctor.
- However, suitable gloves and regular breaks can extend the duration of use. However, please note that personal predisposition to poor circulation and/or high gripping forces when working will reduce the duration of use.

#### 14. Check the motor device

- Before further use of the power tool, protective devices or slightly damaged parts must be carefully checked to ensure that they are functioning properly and as intended.
- Check that the moving parts are working properly and are not jammed or damaged. All
  parts must be correctly fitted and meet all conditions to ensure the correct operation of
  the power tool.
- Damaged protective devices and parts must be repaired or replaced as intended by an approved specialist workshop, unless otherwise stated in the operating instructions.



- Defective switches must be replaced by a service workshop.
- Do not use any power tool that does not have a switch that can be turned on and off.

## 15. A WARNING

- The use of other attachments or accessories that are not expressly recommended may pose a risk of injury to you.

#### 16. Use only approved parts

- This machine complies with the relevant safety regulations. Repairs must only be carried out by an authorized service center or our service team using original spare parts; otherwise, accidents may occur to the user.

#### 3.2 operational safety

## **A** WARNING

Familiarize yourself with the machine. Proper training is a prerequisite for working safely with this machine. Incorrect operation or operation by untrained personnel can be dangerous. Read the operating instructions for this machine and the engine manual carefully and familiarize yourself with the controls.

Inexperienced operators must be instructed by personnel who are familiar with the machine. Only then may they operate the machine.

- **NEVER**allow untrained personnel and persons under 18 years of age to operate this machine. The personnel operating this equipment must be familiar with the risks and dangers associated with its operation.
- **NEVER**touch the engine or muffler when the engine is running or shortly after it has been switched off. These areas become very hot and can cause burns.
- ALWAYSUse original accessories. The use of other tools and accessories can lead to unforeseeable damage to the machine or pose a risk of injury to you.
- ALWAYS adjust your driving speed to suit the surrounding conditions. ALWAYS drive the machine at walking pace.
- The sweeper should be operated over terrain that is as level as possible.
- **ATTENTION!** Danger of tippingDanger of the machine rolling away on slopes, extreme inclines and declines. Drive or park across the slope!
- When driving uphill or downhill or across slopes, avoid sudden turns.
   NEVERturn on excessively steep slopes (max. 30°).
- DO NOT place hands or feet near rotating parts.
- Staying in the work area is prohibited.



- **NEVER**Do not leave the device unattended when the engine is running.
- **NO**Carry people on the device.
- ALWAYSGuide the sweeper in such a way that the operator is not crushed between the machine and a solid object.
- ALWAYSEnsure that the operator is familiar with the relevant safety precautions and operating procedures before using the machine.
- **ALWAYS**wear personal protective equipment (PPE).
  - Hearing protection to reduce the risk of hearing loss.
  - Respiratory protection to reduce the risk of inhaling hazardous dust.
  - Eye protection to reduce the risk of eye damage.
  - Sturdy work gloves, leather gloves offer good protection.
  - Safety shoes or sturdy footwear.
  - Safety helmet to protect against head injuries from flying debris.
- ALWAYSWear hearing protection when operating the machine.
- ALWAYSClose the fuel tap when the machine is not in use.
- **NEVER**use the choke lever to stop the engine.
- ALWAYSStore the machine properly when not in use. Secure the machine against rolling away. Choose a safe location so that the machine cannot be started by unauthorized persons. Do not set up the machine unprotected outdoors or in a damp environment.
- **ALWAYS**Before commissioning, check that protective devices (especially the V-belt cover) and protective plates are functioning properly and as intended.
- Check that moving parts are working properly and are not jammed or damaged. All parts must meet all requirements to ensure the correct operation of the machine.
- Damaged protective devices and parts must be repaired or replaced as intended by an approved specialist workshop, unless otherwise stated in the operating instructions.
- **ALWAYS**Read the operating instructions before operating the equipment. Instructions on dangers, warnings and precautions must be strictly observed in order to minimize the risk of personal injury and property damage as well as incorrect servicing.



## 3.3 Safety when using combustion engines

## A DANGER

Internal combustion engines pose a particular danger during operation and when refueling. Always read and observe the warnings and the additional safety instructions listed further down in this manual. Failure to observe these instructions could result in serious or even fatal injuries.

- DO NOT operate the machine indoors, in garages, deep ditches, or enclosed areas.
   Engine exhaust contains poisonous carbon monoxide. Exposure to carbon monoxide can cause unconsciousness and death.
- DO NOT operate the device near an open flame.
- DO NOT smoke while operating the sweeper.
- ALWAYS check the fuel lines, fuel cap and fuel tank for leaks or cracks. Do not operate the machine if such damage is present.
- DO NOT refuel the unit when the engine is hot or while it is running.
- ALWAYS fill the fuel tank in a well-ventilated area.
- DO NOT refuel the machine near an open flame.
- DO NOT smoke while refueling.
- DO NOT spill fuel when refueling.
- Make sure that you ALWAYS replace the fuel cap and close it properly after refueling.
- Store fuels in a special container away from heat and sources of ignition.

#### 3.4 Service security

## **▲** WARNING

Improper maintenance or failure to observe or resolve a problem can become a source of danger during operation. Only operate machines that have been regularly and correctly maintained. This is the only way you can be sure that you will operate your device safely, economically and without problems. And for a long time to come.

- DO NOT clean, maintain, adjust or repair the machine while it is running. Moving parts can cause serious injury.
- ALWAYS remove the spark plug before carrying out maintenance or repairs.
   This will prevent accidental starting.
- NEVERRun the device without an air filter.
- **NO**Gasoline or other flammable solvents for cleaning machine parts use. Vapors from fuels and solvents can explode.
- DO NOT stack paper, cardboard or similar materials near the muffler. The hot muffler could cause a fire.
- ALWAYSAfter repair and maintenance work, reattach the protective and safety equipment to the device.
- ALWAYSensure that the sweeper is in a safe operating condition, especially the



Check the fuel system for leaks.

- ALWAYS replace damaged or worn machine parts with new original spare parts.
- ALWAYSCheck the tank cap regularly for leaks.
- The stickers on the machine warn of dangers. ALWAYS keep the machine clean and replace any damaged stickers.

#### 3.5 Residual risks and protective measures

#### Mechanical residual hazards

#### Saueeze

Careless operation of the sweeper can result in serious injuries.

→ Be particularly careful on uneven terrain. Make sure you have a secure footing.

#### neglect of ergonomic principles

#### Negligent use of personal protective equipment (PPE)

Careless use or omission of personal protective equipment can result in serious injury.

→ Wear prescribed protective equipment.

#### Human behavior, misconduct

→ Always be fully concentrated on all work.

Residual risk - Can never be excluded.

#### Flectrical Residual Hazards

#### Electrical contact

Touching the spark plug connector while the engine is running may result in an electric shock.

→ Never touch the spark plug connector or spark plug while the engine is running.

#### Thermal residual hazards

#### burns, chilblains

Touching the exhaust/housing may cause burns.

→ Allow the motor device to cool down.

#### danger from noise

#### hearing loss

Prolonged unprotected work with the sweeper can lead to hearing damage.

→ Always wear hearing protection.

#### Hazards from materials and other substances

#### contact, inhalation

The exhaust fumes from the machine can cause health damage.

→ Only use the power tool outdoors and take regular breaks.

#### fire, explosion

The machine's fuel mixture is flammable.

→ Smoking and open fires are prohibited during work and refueling.



## SYMBOLS USED

#### Danger from vibration

#### whole-body vibration

Prolonged work with the sweeper can lead to physical impairments due to vibrations.

→ Take regular breaks

#### Other hazards

#### Slipping, tripping or falling of persons

On unstable surfaces, you may be injured by tripping.

ightarrow Be aware of obstacles in the work area. Always ensure you have a secure footing and wear safety shoes.

#### 3.6 Behavior in an Emergency

In the event of an accident, provide the necessary first aid

Take appropriate action and seek qualified medical attention as soon as possible.

When requesting assistance, please provide the following information:

- where it happened
- what happened
- how many injured
- what type of injury
- who reports!

#### 3.7 Warning and information symbols used

## A NOTICE

The machine is delivered without engine oil. The first thing to do before using it for the first time is to fill it with engine oil. Failure to do so can lead to irreparable damage to the engine.



## **DANGER** when handling the engine

- Health-endangering vapors
- Read the engine manufacturer's operating instructions
- Avoid open flames
- Turn off the engine
- Use unleaded fuel RON 91 or higher



#### **COMMANDMENTS**

Read the operating instructions



## SYMBOLS USED



Wear protective gloves



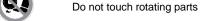
Wear safety shoes



Wear eye and hearing protection



#### **PROHIBITIONS**





Keep the machine away from heat, sparks and flames. **Danger of explosion!** 



Protection and safety devices must not be removed or modified.

#### WARNING



Warning of hot surfaces! Contact can cause burns. Only carry out maintenance, servicing and cleaning work when the engine has cooled down.



warning of flying objects



**Danger!**There is a risk that dust, grit or other waste material will suddenly be ejected. For this reason, bystanders, children, pets and livestock must never stand in front of or next to the rotating broom.



Guaranteed sound power level LWA



#### NAMEDI ATE

Equipped with model name, year of manufacture and serial number. Please always state this information when ordering spare parts or for service information.



Old electrical/motor devices are recyclable materials and therefore do not belong in theHousehold waste! Please dispose of the components in an environmentally friendly manner.

# SCOPE OF DELIVERY

## 4. SCOPE OF DELIVERY

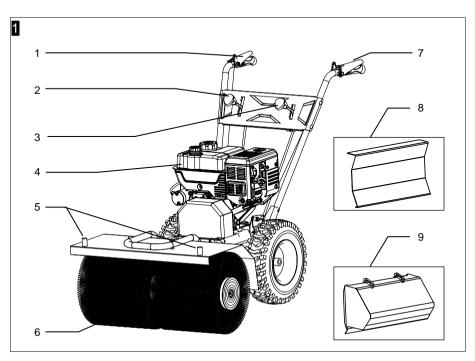
sweeper with petrol engine handlebar waste container snow plow assembly kit

#### 5. CONTROLS

## sweeper(Fig. 1)

- 1 lever for the brush drive
- 2 Gear lever 5 x forward / 2 x reverse
- 3 lever for pivoting the sweeping roller/brush
- 4 Motor
- 5 dirt container/snow blade holder

- 6 sweeping roller/ -brush
- 7 lever for the drive
- 8 snow plow
- 9 waste container

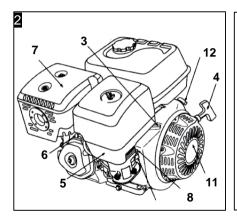


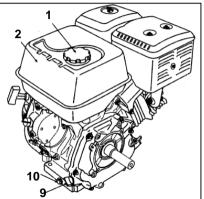




## Motor(Fig. 2)

- 1 tank cap
- 2 fuel tank
- 3 throttle
- 4 recoil starter
- 5 air filter
- 6 spark plug, spark plug connector
- 7 muffler
- 8 choke lever
- 9 engine oil filler plug with dipstick
- 10 engine oil drain plug
- 11 recoil starter
- 12 ignition switch







## TRANSPORT

#### 6. TRANSPORT

## **A** WARNING

Before transporting the machine or storing it indoors, switch off the engine and allow it to cool down to avoid burns and to eliminate the risk of fire.

Furthermore, it must be ensured that persons are not endangered by the machine tipping over or slipping or by machine parts flying up or down.

## The sweeper is heavy and must not be lifted alone. Get help or use the appropriate equipment to lift the machine.

- When transporting or tilting the machine, always stop the sweeping brush (6) and switch off the motor!
- Align the sweeping roller/brush to the neutral position using the lever (3).
- Transport the device in an upright position to avoid fuel or oil leakage.
- When transporting over long distances, the fuel tank must be completely emptied.
- When lifting, use the stop point wheels/axle.
- Attach suitable hooks to the anchor point and pull up carefully to avoid injury.
- Secure the machine on the transport vehicle against rolling, slipping or tipping over and additionally lash it in suitable places.

#### A NOTICE

Before lifting, make sure that the lifting device is capable of supporting the weight of the machine (see "Technical data") without danger. Loading ramps must be loadbearing and stable.

#### 6.1 Storage

Storing the sweeper for a month or longer.

- Thoroughly remove dirt, deposits and dust from the engine and device.
- Grease the lubrication points and let the sweeper run for 1-2 minutes.
- Drain the fuel tank, leaving the engine running until the fuel runs out.
- Clean the air filter or replace it if it is heavily soiled or damaged.
- Spray the sweeping brush and chassis with anti-corrosion oil.
- Cover the device and motor to protect them from dust and store them in a dry, clean place that is inaccessible to children. Secure the device against rolling away and unauthorized use (wheel chock). The sweeper must not be stored outdoors.

#### A NOTICE

For further engine storage instructions, see the engine manual, section "Storage".



#### 7. ASSEMBLY

Only install assembly parts when the engine and device drive are switched off. When replacing parts and attachments, use suitable tools and wear gloves.

When attaching and detaching the attachments, place the support devices in the appropriate position and ensure stability. Secure the sweeper and attachments against rolling away. (Use wheel chocks!)

## 7.1 Installing the guide bar

Mount the guide bar on the right and left to the chassis using screws and nuts.



## 7.2 Install rods and cables

rods 1 andcable pullers hang up.



<u>ASS</u>EMBLY

## 7.3 Mounting wheels

Place the wheel on the axle and secure it with a cotter pin.



## 7.4 Installing the waste container and snow plow blade

Hang the waste container or snow blade into the mounting pins and secure each one with fix with a safety pin.





#### 8. COMMISSIONING

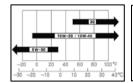
#### ATTENTION!

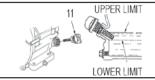
You may only carry out the work described in this chapter after you have read and understood Chapter 3. Safety instructions. This concerns your personal safety!

## A NOTICE

The engine oil must be topped up before the first use! Incorrect oil filling can lead to irreparable damage to the engine. In this case, the seller and manufacturer will not provide any warranty.

- Use commercially available engine oil with the specification 10W-30 or 10W-40.
- · Remove the engine oil filler plug on the engine.
- Fill engine oil until it is visible in the thread of the filler opening (= lower edge of the oil filler opening).





engine oil
Filling capacity approx. 0.6 liters.
Do not overfill!

engine oil

engine oil filler plug

#### 8.1 refueling

## **A** DANGER

Health and explosion hazards from combustion engines









- The engine's exhaust contains poisonous carbon monoxide. Staying in an environment containing carbon monoxide can lead to unconsciousness and death. Do not run the engine in an enclosed area.
- Before starting, read the machine's operating instructions and the engine manual
- Keep the engine away from heat, sparks and flames. Do not smoke near the sweeper!
- Petrol is extremely flammable and explosive. Before refueling, turn off the engine and let it cool down.



## 8.2 Recommended fuel

## A CAUTION

Engine damage! Danger of engine damage due to incorrect gasoline.



Danger of engine damage due to incorrect petrol. Only fill up with petrol RON 91 or higher. Under no circumstances should you fill up the sweeper with a 2-stroke mixture.

This engine requires only regular unleaded gasoline with a research octane rating of 91 or higher. Use only fresh, clean fuel. Water or impurities in the gasoline will damage the fuel system.



Tank volume: 3.6 liters

Refuel in a well-ventilated area with the engine stopped. If the engine has been running immediately before, allow it to cool down first. Never refuel the engine inside a building where gasoline vapors can reach flames or sparks.

## **A** WARNING

Gasoline is extremely flammable and explosive. You can suffer burns or other serious injuries when handling fuel.

When refilling fuel, please note:

- Turn off the engine and allow it to cool for at least 10 minutes before removing the fuel tank cap.
- Keep engine away from heat, sparks and flames.
- Fill the fuel outdoors or in a well-ventilated area.
- To allow room for the gasoline to expand, do not fill beyond the bottom edge of the fuel neck.
- Keep gasoline away from sparks, open flames, pilot lights, heat sources and other Keep away from sources of ignition.
- If fuel is spilled, wait until the vapors have dissipated before the engine is started.

#### refueling

- 1. Clean the area around the fuel tank cap of dirt and foreign objects.
- Remove the fuel tank cap.
- 3. Fill the fuel tank with petrol (RON 91 or higher). To allow room for the petrol to expand, do not fill beyond the bottom edge of the fuel filler neck.
- 4. Screw the tank cap tightly onto the tank neck.
- 5. Wipe up any spilled gasoline immediately.

## COMMISSIONING OPERATION



## 8.3 Checks before each commissioning

Before each use, carry out the following checks. The device must be on a firm, level surface. This is the only way to ensure safe operation of the sweeper.

- Is the distance between the brushes and the surface being swept correctly?
- Are all covers and mudguards correctly installed?
- Is the sweeper complete or are parts missing?
- Check all electrical wiring and connections for damage or corrosion.
- Check all load-bearing metal parts for mechanical damage.
- Check the tire pressure.
- Check the engine:
  - the engine oil level,
  - the filling of the fuel tank (the tank should be at least half full),
  - the condition of the air filter.
  - the fuel lines and connections for leaks and mechanical damage,
  - the fuel tank, cap and connections for cracks and leaks.
- Is the attachment correctly mounted and secured?

#### 9. OPERATION

Depending on the workload

#### Attaching a waste container or snow plow blade

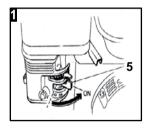
- 1. Hang the container into the mounting pins (page 17 / 7.4).
- 2. Press the locking pin into the mounting pins.

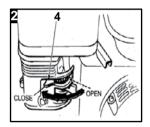
#### 9.1 Start the engine (Fig. 1-7)

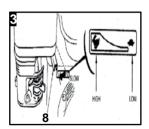
- 1. To open the fuel tap (5), slide it to the right.
- When cold, move the choke lever (4) to the left to "CLOSE". When warm, leave the choke lever (4) to the right to "OPEN".
- 3. Push the throttle lever (8) slightly to the left.
- 4. Set the ignition switch (1) to "ON".
- Pull the recoil starter (2) gently until you feel resistance, then pull the cable firmly and slowly let it roll in again or press the start button (Z) if the device is equipped with an electric start.
- 6. If the choke lever (4) was set to "CLOSE" when starting the engine, gradually return it to "OPEN" while the engine warms up. Throttle lever
  - (8) Open fully for operation or adjust to the desired engine speed.

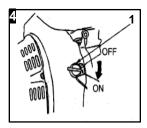


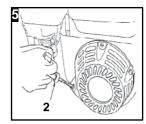
## **OPERATION**

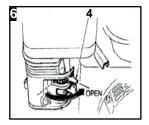




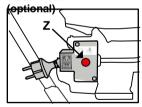








#### electric start



By connecting to a power outlet, the engine can be started simply by pressing a button (Z).

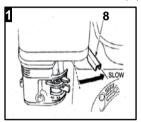
## A NOTICE

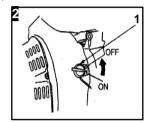
Do not use the electric starter continuously for long periods of time, otherwise the starter will overheat and become damaged.

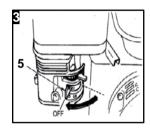
## 9.2 Shut off the engine (Fig. 1 - 3)

To stop the engine in an emergency, simply turn the ignition switch (1) to "OFF".

- 1. Push the throttle lever (8) to the right into the idle position "SLOW".
- 2. Set the ignition switch (1) to "OFF".
- 3. Then slide the fuel tap (5) to the left to "OFF" to close it.







## A NOTICE

Stopping the engine suddenly at full throttle can cause engine damage.



#### 9.3 Driving the sweeper

## **A WARNING**

Risk of accident due to improper operation of the sweeper.

When making jerky movements, the sweeper tends to move uncontrollably. This can lead to the sweeper tipping over and can cause crush injuries and broken bones for the operator and bystanders..

#### A NOTICE

The sweeper is not approved for use on public roads.

#### Please note:

- Avoid sudden movements with the device.
- Avoid sudden changes in direction.
- Do not use the device to transport people.
- Pay attention to people in the danger zone. Do not stand in the rotation and swivel range of the device.
- Make sure that no people, pets or livestock are near the device and ensure that there are no foreign bodies, stones, sharp objects, etc. in the work area.
- Check that the attachment is secured before continuing to drive the machine.
- Adjust the speed of the sweeper to the local conditions. Only drive the machine at walking pace.
- Pay attention to the maximum transverse and longitudinal inclination of the sweeper. If possible, always work across the slope.
- Avoid steep slopes and ALWAYS operate the machine with both hands on the handles on the guide bar.
- Make sure that cooling and combustion air can be sucked in unhindered (Leaves can clog the intake channels).
- Make sure that the exhaust gases are discharged unhindered.
- Only work in good light and visibility conditions!
- If there is a malfunction in the steering, stop the sweeper immediately and switch off the engine. Have the malfunction rectified immediately.





#### 9.4 drive

## Make sure you stand securely!



#### The sweeper moves forward,

by moving the gear lever (2) to the desired forward gear (1-5) is pressed down and the lever (7) on the left side (seen in the direction of travel) is pressed down.

#### The sweeper drives backwards.

by pulling the gear lever (2) up to the desired reverse gear (R1-R2) and pressing down the lever (7) on the left side (seen in the direction of travel).

## **A** WARNING

Risk of severe bruising or bone fractures.

When working on inclines or declines, always walk on the uphill side. The operator must never stand in the direction of fall.

Make sure that there are no obstacles behind you when reversing condition.

## A NOTICE

Do not change gear while driving!

#### 9.5 sweeping brush drive

#### The sweeping brushes are activated,

by pressing down the brush drive lever (1) on the right-hand side (seen in the direction of travel).

#### DANGER!

Always switch on the drive first and then switch on the brush drive.

## A NOTICE

The sweeper is equipped with a safety switch. The brushes and the device are deactivated as soon as you release the levers.

#### 9.6 Stop the sweeper

The machine stops when the control levers are released.



## 9.7 Lateral adjustment of the sweeping brushes



To ensure that the debris is swept to one side, the sweeping roller can be positioned at an angle.

By pressing the lever (3) down or up, the sweeping brush can be turned approx. 15° to the right or left and locked into place.

#### DANGER!

When working with the waste container, the brush position is always 90° to the direction of travel

#### 9.8 Height adjustment of the sweeping brushes

Using the support wheel, the brush should be positioned low enough so that the bristles just touch the ground. Setting it too low will overload the drives and cause unnecessary wear on the brushes without achieving a better sweeping result.

However, once the brushes are a little worn, the distance between the brushes and the ground must be readjusted. Adjust the spacer rings on the brush support wheel as follows:

- 1. Remove the locking pin on the support wheel.
- 2. Depending on requirements, move the support wheel to the desired position.
- 3. Reattach the safety pin.









OPERATION

#### 9.9 End of work or breaks

After completing the last sweeping cycle, let the machine run for another 1 to 2 minutes at idle speed without load (engine cooling phase).

When leaving the machine, secure it against rolling away and unauthorized use (wheel chock). Turn off the engine, close the fuel tap. Never leave the machine unattended while the engine is still running.

#### 9.10 Accesories

As an accessory, a robust waste collection container can be attached to the brush cover by simply plugging it onto pins.

The sweeper can be equipped with a snow plow for winter service.

CAUTION! When swinging the blade, be careful of crushing and shearing points.

## **▲** WARNING

Moving machine parts: sweepings container/snow blade

If the sweeping waste container or snow plow blade is accidentally left unlocked, there is a risk of injury to people in the immediate vicinity of the sweeper.

The operator must therefore

- Always check that the locking mechanism is working properly before continuing to operate the device and
- Make sure that no one is in the immediate vicinity of the sweeper before starting the engine.

#### 9.11 Cleaning the sweeper

After each use, the sweeper must be cleaned externally. This applies in particular to the wheels, sweeping brushes and brush cover. Use high-pressure cleaners and brushes for this purpose.

Lubricate the pivot and joint points as well as the Bowden cables with oil and let the sweeper run for 1 - 2 minutes so that the water that has penetrated is pushed out again.

Handles, controls and the engine must not be cleaned with a high-pressure cleaner. Use a damp cloth to clean this area.

## **A** CAUTION

Electrical damage!

Danger of electrical short circuit in the engine when working with water or a high-pressure cleaner. Never work on the engine with water or a high-pressure cleaner.



#### 10. MAINTENANCE

#### 10.1 General information

All persons who carry out maintenance work on the sweeper must be technically qualified and appropriately trained. They must be aware of all dangers and risks associated with the machine. Any further work not described in this operating manual may only be carried out by a qualified specialist workshop.

The sweeper is designed to reduce the required maintenance to a minimum - see maintenance schedule, section 10.2. It is sufficient to carry out a visual inspection at regular intervals. You should also always pay attention to any unusual noises or malfunctions in the sweeper.

## **A** WARNING

Improper maintenance or failure to observe or rectify a problem can become a source of danger during operation. Only operate machines that have been regularly and correctly maintained. This way, you can be sure that you will operate your device safely, economically and without problems. And for a long time.

- The machine is exposed to strong vibrations during operation. Therefore, all screw connections must ALWAYS be checked for tightness after a few hours.
- When carrying out maintenance or cleaning work on the device, ALWAYS set the throttle lever (8) on the right side of the handlebar to STOP.
- DO NOT clean, maintain, adjust or repair the machine while it is running. Moving parts can cause serious injury.
- ALWAYS remove the spark plug before carrying out maintenance or repairs.
   This will prevent accidental starting.
- NEVERRun the device without an air filter.
- **NO**Gasoline or other flammable solvents for cleaning machine parts use. Vapors from fuels and solvents can explode.
- DO NOT stack paper, cardboard or similar materials near the muffler. The hot muffler could cause a fire.
- ALWAYSAfter repair and maintenance work, reattach the protective and safety equipment to the device.
- ALWAYSensure that the sweeper is in a safe operating condition, especially the Check the fuel system for leaks.
- **ALWAYS**Check the tank cap regularly for leaks.
- The stickers on the machine warn of dangers. ALWAYS keep the machine clean and replace any damaged stickers.









- There are parts on the engine with hot surfaces, for example the exhaust muffler or the cooling fins of the engine.
- Wait until the engine has cooled down before performing any work on the engine.

Only use original spare parts for maintenance and service work.

## 10.2 maintenance plan

Please follow this machine and engine maintenance table! For further information please refer to the engine manual provided.

| interval     | Task   | remark  | Description   |
|--------------|--|---|---|
| 20 BT hours  | change engine oil                              | after the first 20<br>operating hours (BT-<br>Std.)                                   | see section 10.3 / 10.4<br>see LONCIN engine manual |
| daily        | visual inspection                              | entire machine  | see section 8.3                                     |
| daily        | Check belt tension                             |   | see section 10.9                                    |
| 8 BT hours   | Check engine oil level                         | or daily  | see section 10.3<br>see LONCIN engine manual        |
| 8 BT hours   | Clean the area around the exhaust and controls | or daily  | see LONCIN engine manual                            |
| weekly       | Adjusting the Bowden cable                     |   | see section 10.8                                    |
| weekly       | Check tire pressure                            |   | see section 10.7                                    |
| 50 BT-Std.   | Clean the air filter                           | clean more frequently<br>if there is a lot of dust<br>or foreign matter in the<br>air | see section 10.5<br>see LONCIN engine manual        |
| 100 BT hours | change engine oil                              | or every 6 months   | see section 10.3 / 10.4<br>see LONCIN engine manual |
| 100 BT hours | Check exhaust (muffler)                        | or every 6 months   | see LONCIN engine manual                            |
| Yearly       | Replace air filter and pre-filter              |   | see LONCIN engine manual                            |
| Yearly       | replacing the spark plug                       |   | see section 10.6<br>see LONCIN engine manual        |
| Yearly       | Cleaning the air cooling system                | clean more frequently<br>if there is a lot of dust<br>or foreign matter in the<br>air | see LONCIN engine manual                            |



## 10.3 Checking and refilling the engine oil

## **A** WARNING

Hot surfaces.



- There are parts on the engine with hot surfaces, for example the exhaust muffler or the cooling fins of the engine.
- Wait until the engine has cooled down before performing any work on the engine.

## A NOTICE

The engine oil must be topped up before the first use! Incorrect oil filling can lead to irreparable damage to the engine. In this case, the seller and manufacturer will not provide any warranty.

Oil capacity: 0.60 liters

Oil type: SAE 10W-30 or 10W-40

#### Check oil level

- 1. After turning off the engine, wait at least 5 minutes before checking the oil level.
- 2. The oil dipstick (9) is located on the left side of the engine.
- 3. Check the oil level using the dipstick.
- 4. The oil level should be at the top of the full mark on the dipstick.

If the oil level is below the mark, oil must be topped up immediately. Please refer to the engine manual provided for a detailed description.

## A NOTICE

A low oil level can cause engine damage. In this case, sellers and manufacturers will not provide any warranty.

#### refill oil

- 5. If the oil level is too low, slowly pour oil into the engine oil filler opening. Do not overfill!
- Top up the oil as described in the enclosed engine manual. Note they follow the engine manufacturer's oil specifications.



#### 10.4 draining of operating fluids

## DANGER! environmental damage.



Operating materials and parts contaminated with operating materials must not be allowed to enter the drinking water supply. Dispose of the operating materials as hazardous waste, even if only small quantities are involved.

- 1. Place a plastic pan large enough under the drain hole to catch all the engine oil.
- 2. Open the oil drain plug (10) on the engine and wait until no more oil drains out.
- 3. Dispose of engine oil in accordance with local regulations.

#### 10.5 air filter maintenance

The air filter is equipped with two air filter inserts. Frequent cleaning of the air filter prevents carburetor malfunctions.

Clean the air filter and change the air filter inserts

- Unscrew the wing nut, remove the air filter cover and check for holes or cracks.
   Replace damaged element.
- Wipe dirt from the inside of the filter housing with a clean, damp cloth.
- Unscrew the inner wing nut and remove the air filter elements.
- Carefully remove the foam filter insert from the paper filter insert. Place both parts on Check for damage. Replace damaged inserts.
- Clean the foam filter insert in warm water and a mild soap solution. Rinse thoroughly with Rinse with clean water and allow to dry thoroughly.

## **A** WARNING

NEVER use gasoline or low flash point cleaning solutions to clean the air filter element. A fire or explosion could result.

- Dip the foam insert into clean engine oil and squeeze out the excess oil.
- Tap the paper filter element on a hard surface to remove dirt.
   Never brush off dirt as this will force it into the fibres.
- Place the foam insert on the paper filter insert and tighten the air filter element with the Reinstall the seal.

## A NOTICE

Never run the engine without or with a damaged air filter element. This will allow dirt to enter the engine, which can cause serious engine damage. In this case, the seller and manufacturer will not provide any warranty.



#### 10.6 spark plug

## **A** WARNING

Hot surfaces



- There are parts on the engine with hot surfaces, for example the exhaust muffler or the cooling fins of the engine.
- Wait until the engine has cooled down before performing any work on the engine.

Clean or replace spark plug as necessary. See engine manual. Check, clean

and replace spark plug

- 1. Disconnect the spark plug connector and remove any dirt in the spark plug area.
- Unscrew the spark plug and check.
- 3. Check insulator. If there is damage such as cracks or splinters, replace spark plug.
- 4. Clean spark plug electrodes with a wire brush.
- Check the electrode gap and adjust if necessary. For the electrode gap, see the engine manual.
- 6. Screw in the spark plug and tighten it with the spark plug wrench.
- 7. Place the spark plug connector onto the spark plug.

## A NOTICE

A loose spark plug can overheat and damage the engine. And over-tightening the spark plug can damage the threads in the cylinder head.

#### 10.7 tires, tire pressure

When working on the wheels, make sure that the sweeper is securely jacked up and secured against rolling away. Repair work on the tires may only be carried out by specialists and with suitable assembly tools. Check the tire pressure regularly (1.8 bar). If the air pressure is too low, the hose can slip onto the casing and the hose can break. WARNING! Danger of explosion if the air pressure is too high.

#### 10.8 Adjusting the Bowden cable

Check that the Bowden cables are working properly. The operating levers must be safely switched off by the springs at the lower end of the Bowden cables. If the Bowden cables need to be adjusted, the adjusting screws at the end of the handle should be used.

#### 10.9 drive belt

Drive belts may only be fitted or removed when the engine is stopped and secured against starting. Wait until the machine has come to a standstill.

Make sure that all drive belt guards are fitted correctly and in accordance with the instructions. Never operate drive belts without guards.



## TROUBLESHOOTING

## 11. TROUBLESHOOTING

| Disturbance                    | Caused   | remedy  |
|--------------------------------|--|---|
|                                | No fuel in the tank.                                 | refueling.  |
|                                | Air filter dirty.                                    | Clean the air filter.   |
| Engine cannot be started.      | Recoil starter defective.                            | Repair recoil starter.  |
|                                | No engine oil.                                       | Refill engine oil.  |
|                                | Spark plug dirty.                                    | Clean the spark plug.   |
| Foreign stelle at high accords | Air filter dirty.                                    | Clean the air filter.   |
| Engine stalls at high speeds.  | Sweeping brush is slowed down by foreign substances. | Remove foreign matter from sweeping brush.                                  |
|                                | Cooling air system is restricted.                    | Clean air grille and cooling fins.  |
| Engine has too little power.   | Too little engine oil.                               | Refill engine oil.  |
|                                | Air filter dirty.                                    | Clean the air filter.   |
| Engine gets too hot.           | Sweeping brush is blocked by foreign objects.        | Remove foreign objects and check the sweeping brush for damage.             |
|                                | Bowden cable adjusted too loosely.                   | Adjust the Bowden cable.  |
| sweeping depth too low         | Sweeping brushes worn out.                           | Adjust the height of the sweeping brushes and replace the sweeping brushes. |

If these measures do not resolve the problem or if errors occur that are not listed here, have your device checked by a specialist.





#### 12. TECHNICAL DATA

| Model                              | KM-800                                   |  |
|------------------------------------|--|--|
| drive motor                        | LONCIN G200F, 4-stroke OHV engine        |  |
| engine power                       | 4.8 kW (at 3,600 rpm)                    |  |
| displacement                       | 196 cm <sup>3</sup>                      |  |
| power transmission                 | 5 forward gears<br>2 reverse gears       |  |
| driving speed, forward             | max. 3.0 km/h                            |  |
| sweeping width                     | 800 mm                                   |  |
| sweeping roller                    | Ø 350 mm                                 |  |
| speed of the brushes               | 320 rpm                                  |  |
| inclination of the sweeping roller | 15°                                      |  |
| Max. climbing ability              | 30°                                      |  |
| dirt absorption                    | approx. 53 liters in the waste container |  |
| Guaranteed sound power level LWA   | 104 dB(A)                                |  |
| hand and arm vibration             | not more than 2.5 m/s <sup>2</sup>       |  |
| whole-body vibration               | not more than 0.8 m/s <sup>2</sup>       |  |
| dead weight                        | 85 kg                                    |  |
|                                    |  |  |
| operating resources                |  |  |
| engine oil                         | SAE 10W-30 or 10W-40                     |  |
| fuel                               | Unleaded gasoline RON91 or higher        |  |

The values given are emission values and do not necessarily represent safe workplace values. Although there is a correlation between emission and immission levels, this cannot be used to reliably determine whether or not additional precautionary measures are necessary. Factors that influence the current immission level at the workplace include the nature of the work area, other noise sources, e.g. the number of machines and other adjacent work processes. The permissible workplace values can also vary from country to country. However, this information is intended to enable the user to make a better assessment of hazard and risk.

#### WARRANTY / CUSTOMER SERVICE

#### 13. WARRANTY / CUSTOMER SERVICE

#### warranty

The statutory warranty period is 2 years from the date of purchase. In the event of any defects in the product, please contact our customer service directly. For this purpose, we recommend that you carefully keep your purchase receipt.

The warranty is provided in such a way that defective parts are repaired or replaced with flawless parts free of charge at our discretion. Replaced parts become our property. Repairing or replacing individual parts does not extend the warranty period, nor does it start a new warranty period for the device. There is no separate warranty period for installed spare parts.

We do not accept any warranty for damage or defects to devices or their parts that occur due to excessive use, improper handling and maintenance. This also applies if the operating instructions are not followed and if replacement parts and accessories that are not listed in our range are installed. If anyone who is not authorized to do so intervenes in or makes changes to the device, the warranty will be void.

#### customer service

If you have any technical questions, information about our products or would like to order spare parts, our service team is available as follows:

Service time: Monday to Thursday from 7.30 a.m. to 12 p.m. and 1 p.m.

to 5 p.m. Friday from 7.30 a.m. to 12.30 p.m.

Phone: 0049 / (0)8571 / 92 556-0 Fax: 0049 / (0)8571 / 92 556-19 E-mail: info@lvg-maschinen.de

Around 90% of all complaints are due to operating errors and can be resolved if you contact our service hotline. We therefore ask you to use this hotline before returning your device to your dealer. You will receive quick help without having to travel.

#### **Important NOTE:**

Please do not send your device to our address without being asked to do so by our service team. The costs and risk of loss for unsolicited deliveries are borne by the sender. We reserve the right to refuse to accept unsolicited deliveries or to return the corresponding goods to the sender carriage forward or at the sender's expense.

The following components are not covered by the warranty: Tires air filter spark plug



### **FC DECLARATION OF**

#### 14. FC DECLARATION OF CONFORMITY

In accordance with the provisions of the EC directives

- Electromagnetic Compatibility 2004/108/EC
- Machinery Directive 2006/42/EC
- Outdoor Directive 2000/14/EC 2005/88/EC

the company declares:

LVG Hartham GmbH Robert-Bosch-Ring 3 D-84375 Kirchdorf/Inn

Telephone: 0049 / (0)8571 / 92 556-0 Fax: 0049 / (0)8571 / 92 556-19

that the product

Device type: sweeper
Device type: KM-800

complies with the essential protection requirements of the above-mentioned EC Directives.

Person authorized to compile the technical documentation: Gabriele Denk EN 13019:2001+A1 7FK 01 4-08/11 11

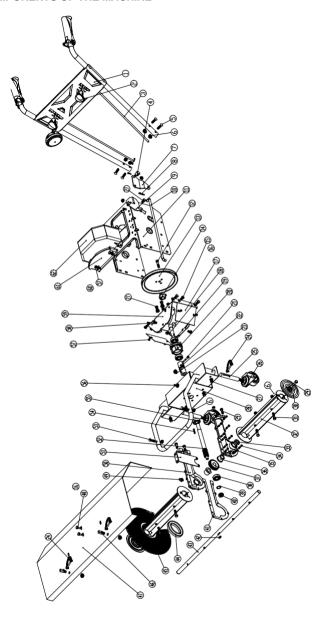
The declaration of conformity refers only to the machinery in the condition in which it was placed on the market; it does not take into account any parts and/or interventions subsequently fitted by the end user

Kirchdorf, April 22, 2013 Manfred Weißenhorner, Managing

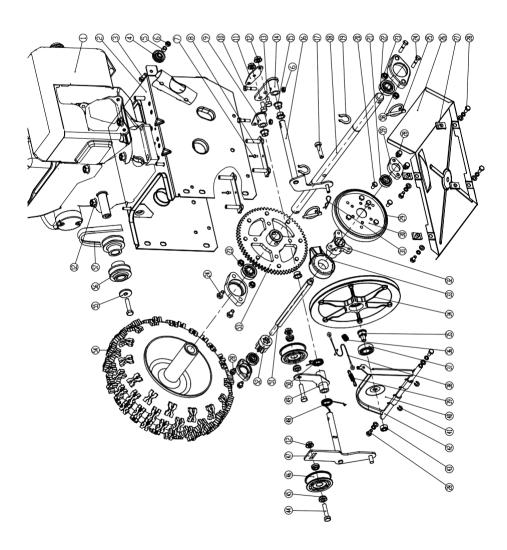
Place, distributor, authorized

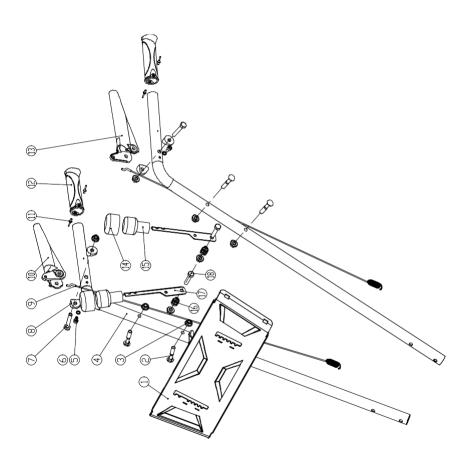
# COMPONENTS OF THE

## 15. COMPONENTS OF THE MACHINE











LVG Hartham GmbH Robert-Bosch-Ring 3

D-84375 Kirchdorf am Inn

0

Telephone: +49 (0)85 71 / 92 556 -Fax: +49 (0)85 71 / 92 556 - 19

Status: 08/2013 -