

# VITRA

## USER MANUAL

VITRA  
SWEEPING BROOM

FEG1100/1300/1500

VERSION: ENGLISH V. 1.0



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MADE IN DENMARK  
..designed for the world

## DEAR CUSTOMER

### CONGRATULATIONS ON YOUR NEW ATTACHMENT FOR YOUR VITRA TOOL CARRIER

The Vitra tool carrier is designed to work with various attachments, mounted or retightened and is built for use in the three work areas exterior cleaning, green area care and winter service.

The machine may only be used with original Vitra attachments or attachments approved by Vitra. Vitra assumes no responsibility for damages or accidents using unapproved attachments.

### USER MANUAL

This user manual is developed in accordance with the requirements of ISO standard 3600: 1996 and 2006/42EG. It contains important information about operation, maintenance and servicing and must be read carefully before the machine is used and operated for the first time until sufficient understanding and knowledge has been obtained to carry out operation and the daily service and maintenance tasks properly.

It is recommended to always keep the manual easily accessible if questions arise during the use of the attachment. The user is advised to read the manual from time to time to update their knowledge of the attachment.

Should the manual be damaged or lost, a new one can be ordered from your local dealer. To order a copy of the user manual, please refer to part number: **KA5005**

### SERVICE

The daily service can be performed by the users themselves and if the instructions and the prescribed service and maintenance intervals are observed, an optimal and efficient yield of the attachment is ensured.

In some of the illustrations used in this manual, security panels and guards may be removed to clarify the illustration. The attachment must never be operated without these safety panels and guards fitted correctly.

If it is necessary to remove safety panels and guards to perform the daily service, these must therefore always be reassembled correctly before the attachment is used again.

To ensure the factory warranty, it is recommended that all service and maintenance tasks, except those that may be performed by the users themselves, always are performed by an authorized Vitra dealer. All service and maintenance tasks must be performed with original spare parts - When using non-original spare parts, all warranty is void.

### QUESTIONS

Your local dealer has prepared your new attachment before delivery and will be able to advise and instruct you on daily operating and maintenance instructions as well as correct and safe operation of the machine. Always contact your local Vitra dealer if questions arise after delivery of the machine.

### DISCLAIMER

Der er i udarbejdelsen af denne manual gjort alt for at give dig som ejer, så præcise og korrekte oplysninger som muligt, ude fra de informationer der har været tilgængelige på udgivelsestidspunktet.

Alle oplysninger, illustrationer og specifikationer, der er benyttet i denne manual, er baseret på de seneste oplysninger, som er til rådighed på tidspunkt for offentliggørelse af manualen.

Der forbeholdes retten til, til enhver tid, at kunne foretage ændringer, uden forudgående varsel.



### PLEASE NOTE

This manual only covers the Vitra FEG1100/1300/1500 Sweeping Broom and its functions.

When the attachment is used with your Vitra tool carrier or other machine, it is extremely important to always read and understand the manual or manuals that come with the individual machine before the attachment is mounted.

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## ATTACHMENT DATA

Below you will find relevant data on your new Vitra attachment.

Based on this data, your authorized Vitra dealer can quickly find all the necessary information about your attachment and thereby service both you and your Vitra in the best way.

Therefore, always state the data below when contacting your authorized dealer or service partner.

### ATTACHMENT DATA:

- Model: \_\_\_\_\_
- Serial Number: \_\_\_\_\_
- Start-up Date: \_\_\_\_\_
- Serviceinterval: \_\_\_\_\_ Hours

Should the above data unexpectedly not have been filled in upon receipt of the attachment, these must be filled in immediately in collaboration with the dealer who delivered the machine.

## SYMBOL OVERVIEW

The sections of this manual which require extra attention and where the necessary precautions must be taken to maintain safety are marked with the following symbols:



### **DANGER**

Indication of a direct hazard with a high risk and where death or serious physical injury may occur if the proper precautions are not taken.



### **WARNING**

Indication of a possible hazard with an average risk and where death or serious physical injury may occur if the proper precautions are not taken.



### **CAUTION**

Indication of a low-risk hazard where a minor to moderate physical injury or damage to property may occur if the proper precautions are not taken.



### **REMEMBER**

Indication of relevant information that should always be remembered to ensure the correct and efficient implementation of the ongoing use or servicing.



### **NOTE**

Indication of information that facilitates or provides more efficient and economical use of the machine, attachment or provides better working conditions for the operator.



### **ENVIRONMENTAL CONSIDERATIONS**

Indicates where special conditions must be taken to ensure an environmentally correct treatment, of e.g. drained liquids so that no safety or environmental risks arise.



### **PROPER DISPOSAL**

Indicates where special conditions must be taken to ensure a correct disposal of e.g. used spare part so that no safety or environmental risks arise.



## SAFE OPERATION

### 1. HOW TO BE A SAFE OPERATOR

- 1.1. Before using the machine and attachments, it is important that the user obtains the necessary knowledge about construction and functions, by reading the associated manual before start-up and use.
- 1.2. Always only allow instructed persons to operate machine and implements.
- 1.3. Machines and attachments must never be operated by persons who:
  - Suffers from mental instability.
  - Cannot operate machine properly due to fatigue.
  - Cannot operate the machine properly due to illness, drowsiness from medication, etc.
  - Is too young to operate the machine legally.

Always be careful with your own health by taking necessary breaks from the work.

- 1.4. Wear appropriate clothing and necessary protective equipment during operation and maintenance.
- 1.5. Always use the necessary protective equipment to protect the respiratory tract, eyes and skin when handling toxic chemicals, dust or gases.
- 1.6. It is the owner's / tenant's responsibility to instruct other people who use the machine, and to ensure that they read the necessary manuals before use.

Always inspect and service machine and attachments correctly and in accordance with the instructions and regulations described in the manuals, to ensure safe use and long life.

### 2. BEFORE STARTING THE ENGINE

- 2.1. Always plan the work tasks so that you have the necessary time to complete the tasks. Hasty work can result in dangerous situations and unexpected accidents.
- 2.2. Inspect and service machine and attachments in accordance with the instructions in the manuals. This ensures safe use and long life of the machine and associated attachments.  
Be especially aware that the brake, driving and safety functions are functioning properly. This will significantly minimize the risk of an accident.  
If some safety precautions do not work properly, contact your local Vitra dealer immediately.
- 2.3. If it is necessary to remove safety measures and safety guards, in order to be able to perform servicing and maintenance, always ensure that the machine is switched off and the ignition key removed so that unintentional start-up is prevented.  
Safety measures and safety guards, must always be refitted before the machine or attachment is used again.
- 2.4. Always pay attention to the conditions around the machine to avoid damage to surrounding effects and people. Always exercise caution when operating!

### 3. DURING OPERATION

- 3.1. Always pay attention to the conditions around the machine and attachments to avoid damage to surrounding effects and people. Keep general distance to persons and animals as machine and attachments, or flying pieces from these, can cause personal injury.
- 3.2. Always make sure that there are no people between the machine and the attachment you want to mount and always be aware of potential emergencies when mounting attachments to the machine.
- 3.3. Make sure that the machine's parking brake is activated while the attachment is mounted on the machine.

- 3.4. Never place other persons on the machine or on attached attachments, unless the machine or attachment is fitted with a seat or platform which must be manned in order to perform the necessary work. Such a seat or platform may only be used during the execution of the work and not during transport.
- 3.5. Be careful not to make too sharp turns as this can cause the machine to tip over!  
When driving on sloping terrain, always drive at a reduced speed.  
When driving uphill, always make sure that the front wheels do not lift off the terrain.  
When driving downhill, never try to control the speed solely with the brakes.  
Use the engine brake effectively and pay attention to reduced stability when driving on slopes.
- 3.6. If the machine is fitted with an approved tow hitch, trailers without brakes or trailers with inertia brakes can be connected. For more information about the maximum permitted trailer weight on the different types of trailers, see the machine's type plate.  
In the case of trailers with inertia brake, its safety wire must always be attached to the tow hitch.  
Note that there is no brake assist system (brake pipe connection) for trailers.  
Therefore, do not connect trailers with brake assist system to the machine.

#### 4. LOADING OR UNLOADING FROM TRUCK OR TRAILER

- 4.1. When loading the machine or attachment on a truck or a trailer, always make sure that the engine is switched off on the truck and that the parking brake is applied. Otherwise, this may cause the truck or trailer to move during loading and cause damage to the machine or the attachment.
- 4.2. Always pay attention to the safety conditions around the machine when loading or unloading from truck or trailer to avoid damage or injury to effects and people around the machine.  
Never allow people to come near the machine during loading and unloading, so that the risk of person injury is minimized in the event of an accident. Always have a helper to observe at a proper distance.
- 4.3. Always use ramps with the same or better specifications than those mentioned below. If your machine is equipped with equipment that makes it deviate from the data below, ask your local Vitra dealer for advice.
- |                                     |           |  |
|-------------------------------------|-----------|--|
| <b>SPEVIFICATIONS OF THE RAMPS:</b> | LENGTH:   | At least 4 times the height of the truck or trailer bed. |
|                                     | WIDTH:    | At least 150 mm. wider than the width of the tire.       |
|                                     | CAPACITY: | At least 1700 kg. (Per ramp)                             |
- 4.4. The ramp must be equipped with a non-slip surface
- 4.5. Always drive carefully when driving the machine from the ramp to the truck or trailer.  
The angle of the ramps can suddenly change.

#### 5. INSPECTION, SERVICE AND MAINTENANCE

- 5.1. Always place the machine and attachments on a firm and level surface, with adequate lighting, when performing servicing and maintenance. Always use good quality tools and protective equipment.  
Never perform servicing and maintenance on machine or attachments while these are in operation.  
This can lead to a high risk of accident and/or personal injury!
- 5.2. When servicing and maintaining, always follow the instructions below:
- Place any direction selector in neutral
  - Fully lower the front lift / attachment
  - Disable all PTO functions
  - Apply the parking brake
  - Stop the engine
  - Remove the ignition key
- 5.3. Engine, exhaust, radiator etc. have high temperatures during operation and for a while after.  
Therefore, always wait to work on the machine and attachments until the parts have cooled down.

- 5.4. Always use only original spare parts on the machine!  
If non-original spare parts are used, this means that all warranty is void.
- 5.5. If it is necessary to remove safety measures and safety guards, in order to be able to perform servicing and maintenance, these must always be refitted before the machine or attachments is used again.
- 5.6. Always be careful when working on and around the radiator.  
Never open the radiator cap while the engine is hot or running - wait until the engine has cooled down. Then carefully loosen the radiator cap and let pressure in the radiator leaks out before removing the cap.  
Careless and fast opening of the radiator cap can cause serious damage due to overheated water vapor. Never fill water in the radiator before it has cooled down, as this may damage the radiator and engine.
- 5.7. Always use the required protective equipment when checking the system for leaks.
- 5.8. Exercise extreme caution when working with pressurized fluids.  
Liquids under pressure can cause skin damage and cause serious person injury!  
If eyes or skin come in contact with liquids, rinse immediately with clean water.  
Then always consult a doctor immediately and state which fluids are involved.
- 5.9. If there is a need to lift the machine or attachment during servicing and maintenance, the lifted must always be supported with approved trestles or stands - Never only use a jack.  
Lifting the machine and attachment must always be done separately.  
Therefore, always disassemble any attachment before lifting either the machine or the attachment.  
Never attempt to lift the machine or attachment without the use of the correct equipment and knowledge. Instead, have your local Vitra dealer perform service where lifting of machine or attachment is required.
- 5.10. When replacing tires, never exceed the prescribed tire pressure, as this may result in an explosion, resulting in person injury and property damage. If a tire is damaged with deep scratches, cuts or puncture, this must be replaced immediately by qualified personnel!

ALWAYS CONSULT YOUR LOCAL VITRA DEALER IF THERE ARE QUESTIONS  
ABOUT SERVICE AND MAINTENANCE BEFORE STARTING THE WORK.

## 6. MAINTENANCE OF THE ELECTRICAL SYSTEM

- 6.1. Servicing of the electrical system may only be carried out to the extent described in the manual.  
Additional maintenance of the electrical system must always be performed by an authorized Vitra dealer.  
Defective or incorrectly fitted connections not only result in reduced electrical performance but also a high risk of short circuits, which can lead to damage to the machine or attachments and can in the worst case lead to fire - Defects in the electrical system must therefore always be repaired immediately!
- 6.2. Before servicing the electrical system, always follow the same procedure as described in section 5.2.  
Failure to follow the procedure can result in damage to the electrical system and accident or person injury!
- 6.3. Before disconnecting parts of the electrical system, always disassemble the ground cable (-) on the battery, otherwise there is a risk of short circuits and electric shocks - Info about handling the battery, see section 7
- 6.4. Keep the areas around the battery and terminals clean, as dirt and dust can pose a risk of fire.

## 7. HANDLING THE BATTERY

- 7.1 The battery should always be inspected before starting the engine.  
Before inspecting and handling the battery, always follow the same procedure as described in section 5.2.  
Failure to follow the procedure can result in damage to the electrical system and accident or person injury!
- 7.2 Check the battery acid level daily through the indicator on the battery, which should always be green.



- 7.3 When using non-maintenance-free batteries, it is necessary to remove the plugs on the top of the battery, to visually check the acid level.
- Always exercise extreme caution when handling battery acid!  
Battery acid is corrosive, so always wear eye protection and gloves and avoid direct contact.
- If eyes or skin come into contact with battery acid, immediately rinse thoroughly with clean water.  
Then always consult a doctor immediately and state which acid are involved.
- 7.4 When charging the battery, explosive hydrogen and oxygen gases are generated - Therefore always avoid open flames, embers and sparks near the battery and ensure good ventilation during charging.
- 7.5 When disassembling and installing batteries, great care must always be taken when loosening/tightening the battery terminals, as there is a great risk of a short circuit when using tools on and around the battery.
- Always disconnect the machine's main switch before removing the battery cables.
  - When disconnecting the battery, always disassemble the ground connection (-) first.
  - When reconnecting the battery, always connect the positive conductor (+) first.
- Be careful when mounting the poles - Careless handling can create sparks
- 7.6 The electrolyte (the liquid in the battery) in a fully charged battery freezes at about -70 °C  
In a fully discharged battery, the liquid can freeze at low freezing temperatures (0 to -5 °C)  
Therefore, always store the battery frost-proof or fully charged during winter storage.

## 8. HOW TO USE JUMP CABLES

Always follow the instructions below when using jump cables.

- 8.1 Always stop the engine of the assistant vehicle before connecting the jump cables.
- 8.2 Always use jump cables that are at least dimensioned for the battery's current (Amps)  
Using undersized cables can lead to heat generation and can therefore lead to a risk of fire.
- 8.3 First connect the positive connections - First with one end to the positive terminal (+) of the empty battery and then with the other end to the positive terminal (+) of the battery of the assisted vehicle.
- Then connect the ground cable - First with one end to the negative terminal (-) on the battery of the assisting vehicle and with the other end to the negative terminal (-) on the empty battery.
- For non-maintenance-free batteries, always remove the battery plugs before connecting the jump leads.

## 9. STORAGE

- 9.1 Never cover the machine or attachments before they have cooled down, otherwise there is a risk of fire.
- 9.2 If the machine is to be stored for a longer period, the main switch is disconnected and the battery cables are removed. Always store the battery frost-proof or fully charged, during winter storage.

Safe storage:

- Take appropriate safety precautions to prevent accidents.  
For example, by placing in a locked room or by proper covering.
- Always store fuel, gas cylinders and other flammable materials in a safe place.  
Label the location with "Avoid Fire" or "Fire Dangerous".
- Storage locations with gas cylinders and other cylinders under pressure must also be marked with "Pressure cylinders removed in case of fire"

## INFORMATION ABOUT POSSIBLE RISKS

During daily use and servicing of the machine, various risks may arise which must be taken into account in order to prevent dangerous and undesirable situations. This may include, but is not necessarily limited to:

### EXHAUST GASES

Never let the engine run in enclosed spaces as the exhaust gas contains toxic carbon monoxide. Inhaling exhaust gases is injurious to health and can lead to unconsciousness and death!

### REFUELING

Always exercise extreme caution when handling fuel as there is an increased risk of fire!

Never refuel near open flames, embers or sparks - Never smoke while refueling.  
Switch off the engine, remove the ignition key and apply the parking brake before refueling.

### DANGEROUS AREAS ON THE MACHINE

Always exercise extra caution when staying within the danger zones, as there is a significantly increased risk of jamming and personal injury in these zones. The dangerous areas are marked with warning labels.

### ACCIDENTAL MOVEMENT

Always apply the parking brake before leaving the machine, even if only for a short period of time.  
If the seat is left while the machine is on, without the parking brake being activated, an acoustic signal is activated.

### UNFIXED LOAD

Always fasten the load securely before driving.  
Failure to fasten entails a risk of personal injury and property damage.

### RAISED ATTACHMENTS

Never perform service on attachments raised only by the front lift of the machine. There is a risk of jamming.  
Always lower attachments, mounted on the machine, all the way to the ground when parking the machine.

### NOISE

Always close the cabin doors while driving, to maintain the least possible noise in the cabin.  
When using attachments with a larger noise emission, the use of hearing protection is recommended.

### OILS, GREASES AND OTHER CHEMICAL SUBSTANCES

Always exercise caution when handling oils, greases and other chemical substances (eg battery or sulfuric acid)!  
Always observe the applicable safety regulations for the product being handled.

### HOT MATERIALS AND SURFACES

Engine, exhaust, radiator etc. have high temperatures during operation and for a while after.  
Therefore, always wait to work on the machine and attachments until the parts have cooled down.  
Always exercise caution - There is a risk of burns and scalds!

Always use the required protective equipment, described in the individual sections.  
It may be, but is not necessarily limited to:



**EYE PROTECTION**



**HEARING PROTECTION**



**HELMET**



**GLOVES**



**SAFETY FOOTWEAR**

# TECHNICAL DATA

Specifications are subject to change without notice

## TECHNICAL DATA

## VITRA SWEEPING BROOM FE61100/1300/1500

### SWEEPING BROOM

Brush Diameter:	mm.	600
Mounting:		Standard A-Frame (Cat. 0 / 1)

### DIMENSIONS

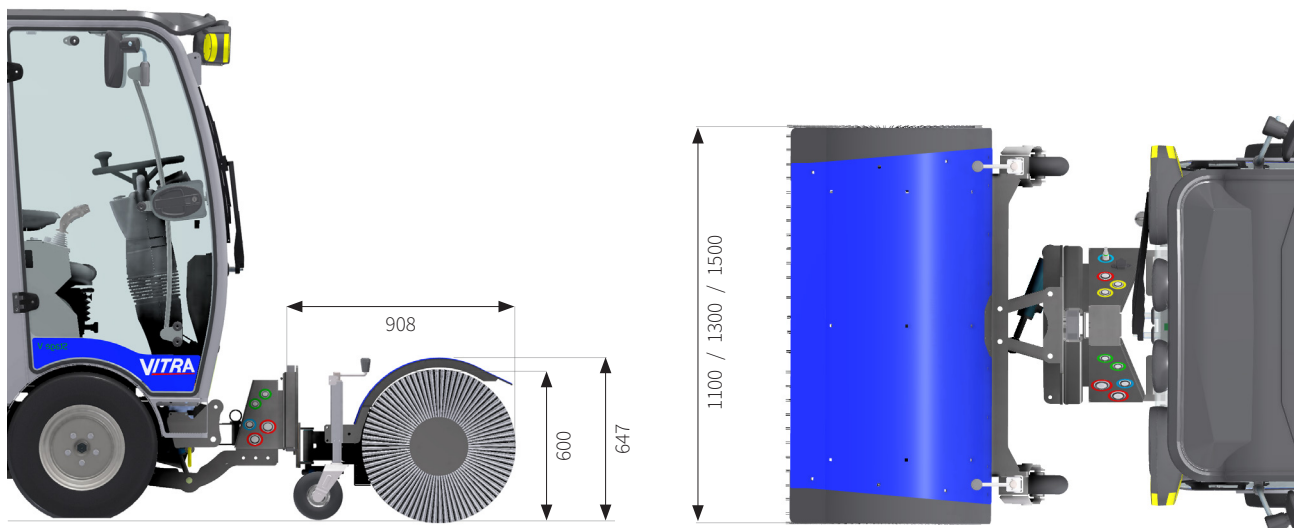
Total / Working width:	FE61100	mm.	1100
	FE61300	mm.	1300
	FE61500	mm.	1500
Hight:		mm.	647
Length:		mm.	908

### WEIGHT:

Weight:	FE61100	Kg.	160
	FE61300	Kg.	170
	FE61500	Kg.	180

### COLORS:

Cover:	RAL	5010
A-frame:	RAL	7021



## IDENTIFICATION PLATES

The attachment is installed with an type plate which contains relevant data about the attachment.



### 1. PRODUCTION YEAR:

Describes which year the attachment was produced.

### 2. TYPE / MODEL DESCRIPTION:

Describes the type designation of the attachment.

### 3. SERIAL NUMBER:

Each attachment has an identification number, also called serial number. Based on this number, different data about the attachment can be read.

#### Explanation of identification number:

**1:** Model **2:** Production month **3:** Production year **4:** Production number

When contacting your dealer or service center, the serial number should always be provided.

### 4. WEIGHT:

The weight of the attachment.

## SWEEPING BROOM



NO.	DESCRIPTION	NOTE
1	Lock for A-frame	
2	Hydraulic connections	
3	Adjustment handle	
4	Support wheel	
5	Cover	
6	Rubber edges	
7	Locking plate for brush rings	
8	Brush rings	
9	Storage support	

## MOUNTING THE SWEEPING BROOM

The sweeping broom is fitted with a standard A-frame and is easily mounted on the machine's front lift. For the Vitra C2.25 the broom is mounted with a Cat.0 A-frame and for the C3.55 and C3.75 a Cat.1 A-frame.



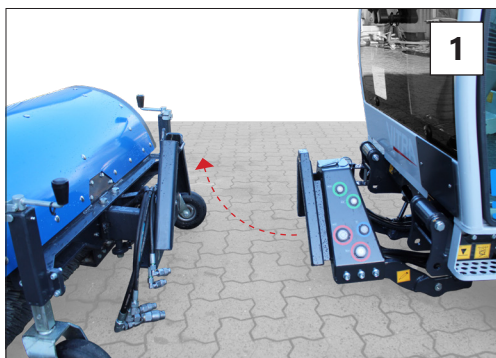
### WARNING

Always pay attention to the conditions around the machine and attachment to avoid damage to surrounding effects and people. Always exercise caution when operating and keep a good distance to people or animals during operation - There is a risk of injury.

### 1. PREPARATION

Place the sweeping broom on a level surface and check that the hydraulic hoses are positioned so that they are not damaged between the A-frame and the machine's front lift during assembly.

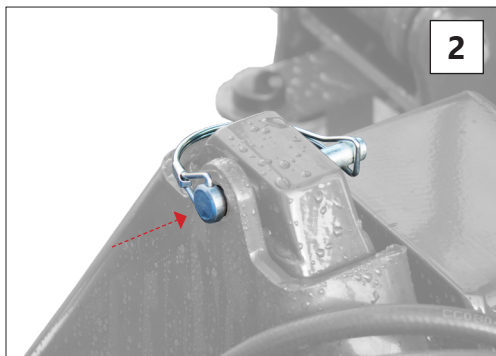
- 1.1 Drive the machine in front of the sweeping broom and raise the front lift **[1]** to fit the A-frame.



- 1.2 Drive forward so that the A-frame on the front lift goes into the correct notch with the counterpart on the sweeping broom and raise the front lift until the top of the front lift's A-frame is visible over the counterpart.

### 2. MOUNTING AND CONNECTION

- 2.1 When the top of the front lift's A-frame is visible over the counterpart on the sweeping broom, the locking pin **[2]** is mounted so that it passes through both of the two A-frames.



- 2.2 Now connect quick couplings from the sweeping broom to the corresponding couplings on the left **[3]** side of the machine's A-Frame and - Raise the front lift, and remove the storage support from the sweeping broom.



## ADJUSTING THE SWEEPING BROOM

Adjustment must be done so the brushes have the correct inclination.  
Correct adjustment is necessary for the broom to achieve the optimum performance.

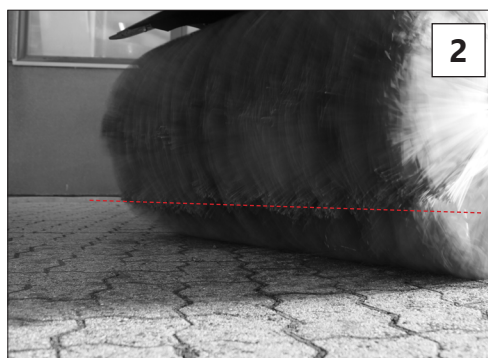
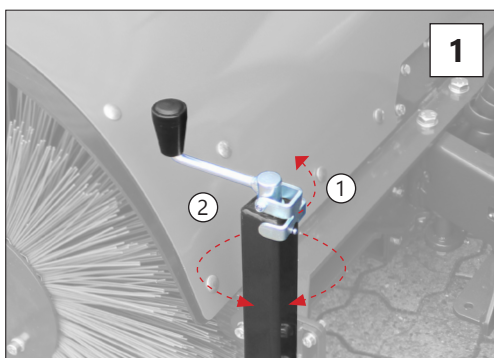


### **DANGER**

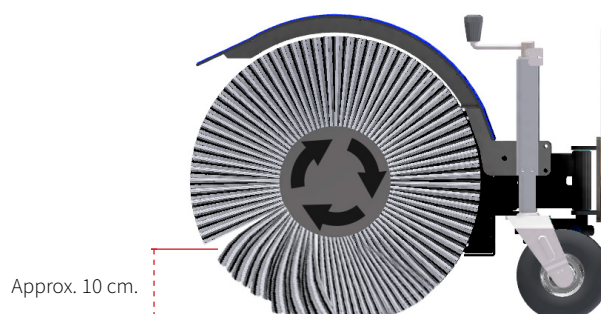
Never let the engine run in enclosed spaces as the exhaust gas contains toxic carbon monoxide. Inhaling exhaust gases is injurious to health and can lead to unconsciousness and death!

### **1. HEIGHT ADJUSTMENT**

- 1.1 Place the machine on a flat and dry surface with the parking brake activated. Activate the PTO system and adjust engine speed to normal operation.
- 1.2 Put the front lift in floating position so that the broom is lowered against the ground
- 1.3 Now adjust the height of the support wheels in booth sides, by turning the two handles [1]  
Remember to unlock the handle before turning it.



- 1.4 For optimal sweeping results, the brush must be lowered so far that when it runs, a “notch” occurs in the brush rings, of approx. 10 cm. over the substrate.



# THE FIRST 50 HOURS

## BEFORE THE FIRST START-UP

Before the first start-up is a detailed instruction necessary.

The first-time instruction must be given by a specialist from your authorized VITRA dealer.

In addition to the instruction, the user must obtain the necessary understanding and knowledge to operate the attachment safely and properly by reading and understanding the user manual before using the attachment.

Also remember to read the manual for the machine on which the attachment is mounted.



### WARNING

The first 50 operating hours are crucial for the further performance and durability of the attachment.

Proper treatment of the engine is always crucial for both the engine and the attachment's performance.

Therefore, it is always recommended to follow the guidelines below, but especially the first fifty hours of operation it is necessary to ensure a good maintenance basis for the engine and the attachment.

- Always make sure the engine has full operating temperature before running at max rpm.
- Avoid excessive load of the PTO system, the first 50 operating hours.
- Check the coolant level and the engine- and hydraulic oil level daily. Watch for possible leaks.
- Check and if necessary tighten wheel bolts, bolts and nuts to the correct torque.
- Always keep the areas around filling covers and filter housings clean.

Proper maintenance of the attachment is essential to ensure trouble-free and safe operation

Therefore, always follow and observe the prescribed service and maintenance instructions carefully.

# BEFORE DAILY START-UP

## BEFORE OPERATION

To ensure the optimum safety and working conditions as well as the efficiency of the attachment, points in the following section must be reviewed and checked daily before the attachment is used.

Before a new user has to use a attachment for the first time, he must always obtain the necessary understanding and knowledge to operate the attachment safely and properly by reading and understanding the user manual.



### DANGER

Never let the engine run in enclosed spaces as the exhaust gas contains toxic carbon monoxide. Inhaling exhaust gases is injurious to health and can lead to unconsciousness and death!

#### 1. READ THE MACHINE USER MANUAL

Follow the steps in the section “Before daily start-up” in the machine’s user manual.

#### 2. MOVING PARTS

Check all moving parts on the attachment and lubricate if necessary.

For more info, see the section: *Lubrication*

#### 3. MANEUVERING FUNCTIONS

Make sure that all maneuvering functions work properly.

For more info, see the section: *Control*

#### 4. LOCK FITTINGS

Check that all locking fittings on both the sweeping unit and the container is securely locked.

For more info, see the section: *Mounting the sweeping broom*

#### 5. ADJUSTMENT

Check that the broom is correctly adjusted to achieve optimal sweeping results.

For more info, see the section: *Adjusting the sweeping broom*

## CHECK BEFORE STARTING



### **DANGER**

Never let the engine run in enclosed spaces as the exhaust gas contains toxic carbon monoxide. Inhaling exhaust gases is injurious to health and can lead to unconsciousness and death!

Always exercise extra caution when staying within the danger zones marked with warning labels. In these zones there is an increased risk of trapping and personal injury which can be life threatening!



### **WARNING**

Driving speed must always be adjusted to the surrounding conditions and to the loads to which the machine and attachment are exposed. Avoid sudden turns when driving up or downhill or across slopes. There is a risk of the machine tipping over, resulting in damage to property and personal injury.

Drive with especial care and caution on embankments, on slippery ground, snow or ice. There is a risk that the machine slip, resulting in damage to property and personal injury.

The machine is generally not suitable or approved for the transport of hazardous, flammable or explosive liquids and materials - However, there may be exceptions in connection with different types of attachments.

Engine, exhaust, radiator etc. have high temperatures during operation and for a while after. Therefore, always wait to work on the machine and attachments until the parts have cooled down.



### **WARNING**

The illuminated maximum slope is only indicative, since the center of gravity and thus the stability of the machine are dependent on several factors.

Including, among others:

- Which attachment mounted on the machine.
- The driver's weight and movement
- Fuel and hydraulic oil level in the tanks
- Amount of material in container or truck bed.

Always use common sense and pay attention to the surroundings in which you drive so dangerous situations can be avoided.

## **IF THE MACHINE OVERTURNS**

If it should happen, that the machine tips over, it is important not to try to jump out of the machine. This can cause danger and risk of crushing under the machine.

Instead hold the steering wheel and push your body back in the seat - Always use the safety belt!

## CONTROL - VITRA C2 SERIES

The sweeping broom is available for both the Vitra C2 and C3 series, but is operated differently depending on which model series it is fitted to. If the sweeper is mounted on a Vitra C2 series, operate it as described below.



### WARNING

Always pay attention to the conditions around the machine and attachment to avoid damage to surrounding effects and people. Always exercise caution when operating and keep a good distance to people or animals during operation - There is a risk of injury.

## 1. START-UP

- 1.1 Before start-up and use it must be ensured that the sweeping broom is correctly and securely mounted. For more info, see the section: *Mounting the sweeping broom*
- 1.2 Follow the start-up procedure for the machine and drive to the work area - Do not start-up the sweeping broom until you have reached your destination and are ready to start work.
- 1.3 Adjust the engine speed to approx. 1,500-2,000 rpm. and activate the sweeping broom by activating the PTO system with the PTO switch **[1]** located on the left side of the instrument panel.



To activate the broom, activate the PTO button **"B1"**

If the machine is equipped with a reversible PTO, the broom can also run in the opposite direction of rotation.

To activate the opposite direction of rotation, the PTO button **"B1"** is deactivated and the button **"B2"** is activated instead.

The rotation speed of the sweeper can be adjusted by increasing or decreasing the engine speed.

## 2. MANEUVER

After start-up, the system is operated with the machine's joystick.

No.	Movement	Function
1	Forward	Front lift in floating position
2	Backward	Raise the front lift
3	Left	Turn the broom to the left
4	Right	Turn the broom to the right



# CONTROL - VITRA C3 SERIES

The sweeping broom is available for both the Vitra C2 and C3 series, but is operated differently depending on which model series it is fitted to. If the sweeper is mounted on a Vitra C3 series, operate it as described below.



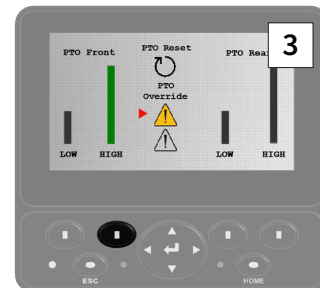
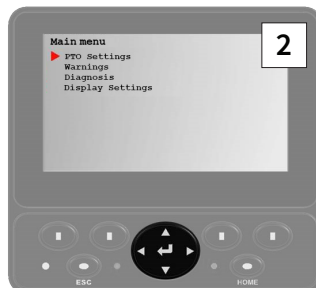
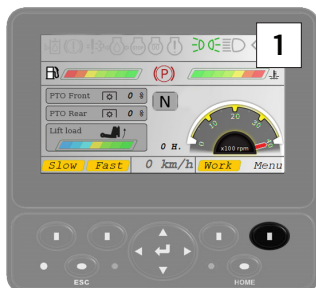
## WARNING

Always pay attention to the conditions around the machine and attachment to avoid damage to surrounding effects and people. Always exercise caution when operating and keep a good distance to people or animals during operation - There is a risk of injury.

## 1. START-UP

- 1.1 Before start-up and use it must be ensured that the sweeping broom is correctly and securely mounted. For more info, see the section: *Mounting the sweeping broom*
- 1.2 Follow the start-up procedure for the machine and drive to the work area - Do not start-up the sweeping sbroom until you have reached your destination and are ready to start work.
- 1.3 Put the machine in **WORK** mode as described in the machine's manual, in the section: *Automativ Driving System* In this mode, the engine revolutions during driving can be adjusted independently of the driving speed.

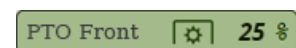
- 1.4 Now activate the PTO outlet in the front, from the main menu of the multi-display. To access the main menu, press the button [1] below **MENU** on the display.  
In the main menu [2] select the **PTO SETTINGS** menu with the  $\blacktriangleleft$ -keys and confirm by pressing  $\blacktriangleright$   
The PTO outlet in the front is activated here, by pressing the button [3] below **HIGH**



## 2. ADJUSTMENT OF ROTATION SPEED

When the PTO outlet is activated, the rotation speed of the sweeping broom can be adjusted with the PTO potentiometers in the maneuver panel.

- 2.1 When the PTO outlet is activated, the indicator changes to green. The oil quantity will now be read as a percentage in the indicator bar.
- 2.2 The amount of oil in the PTO outlet at the front is adjusted with the upper potentiometer [4] located to the right of the multi-display.
  - If the potentiometer is turned clockwise, the rotation speed increases.
  - If the potentiometer is turned anti-clockwise, the rotation speed is lowered.





Continued from previous page ..

### 3. MANEUVER

After start-up, the system is operated with the machine's "Joystick I".  
"Joystick I" is located on the left of the maneuver panel.

No.	Movement	Function
<b>1</b>	Forward	Lower the front lift
<b>1A</b>	Full forward	Front lift in floating position
<b>2</b>	Backward	Raise the front lift
<b>3</b>	Left	Turn the broom to the left
<b>4</b>	Right	Turn the broom to the right



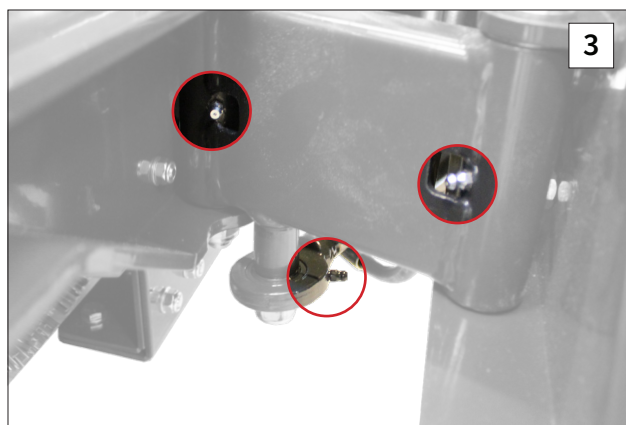
## LUBRICATION

The sweeping broom is fitted with ten grease nipples.  
All grease nipples can be accessed without the use of tools.

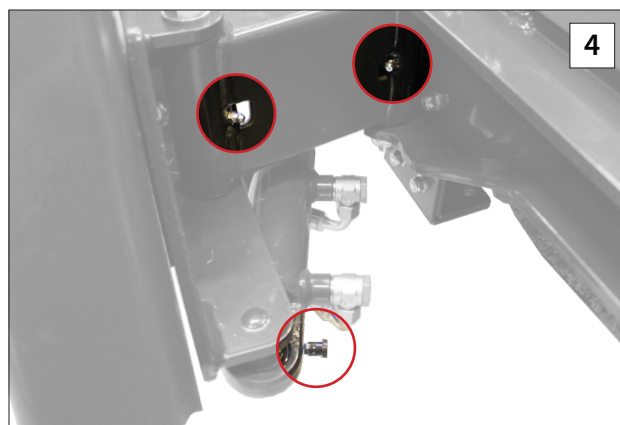
**All grease nipples must be lubricated at least once a week.**



Adjustment lever - Support wheel



Crank and Swing Cylinder - Left



Crank and Swing Cylinder - Right

Handwriting practice area with 20 horizontal lines.



MADE IN DENMARK  
..designed for the world

# USER MANUAL

VITRA SWEEPING BROOM  
FEG1100/1300/1500



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*Your local Vitra dealer:*