



# *Genesis 3*



## USER MANUAL



Original user manual  
Version: UM122.095.200EN-2518

Applies to:  
A122.095.200 Genesis 3

## EU – DECLARATION OF CONFORMITY



**We,**

Redexim B.V.

Kwekerijweg 8

3709 JA Zeist, The Netherlands

declare that this “EU - DECLARATION OF CONFORMITY” is issued under our sole responsibility and belongs to the following product:

**GENESIS SEEDER WITH MACHINE NUMBER AS INDICATED ON THE MACHINE AND IN THIS MANUAL,**

to which this declaration refers, complies with stipulation of:

**2006/42/EC** Machinery Directive

and with the standards:

- **ISO 12100-1:2010** Safety of machinery - General principles for design - Risk assessment and risk reduction
- **ISO 13857:2019** Safety of machinery - Safety distances to prevent hazard zones being reached by upper and lower limbs
- **ISO 4254-1:2015** Agricultural machinery - Safety - Part 1: General requirements
- **ISO 4254-9:2018** Agricultural machinery - Safety - Part 9: Seeders

Zeist, April 2025

A handwritten signature in blue ink, appearing to read 'C.H.G. de Bree', written over a horizontal line.

C.H.G. de Bree

Redexim B.V.

## FOREWORD

Congratulations on your Genesis seeder purchase. For safe and long-lasting operation of this machine, it is necessary to read and to understand this user manual. It is impossible to work safely with this machine without complete knowledge of the content of the user manual.

This machine does not operate independently! It is the user's responsibility to use the correct tractor or other towing vehicle. The user should check the combination of the towing vehicle and the machine with regard to various aspects, such as noise level and safety risks. In addition, the user should comply with the user instructions of the vehicle and spare parts that are used.

All information and technical specifications provided at the moment that this document is published are the most recent ones. Design specifications may be changed without prior notice.

You can contact your sales point or dealer if you have questions and/or if there are ambiguities in this manual or about the machine concerned.

## WARRANTY CONDITIONS

The warranty, which applies to this product, is described in the "General sales and warranty conditions" under article 12 "Warranties" and is available on the Redexim website. You can use the QR code or URL below for this purpose.



scan for general sales and delivery conditions

<https://www.redexim.com/general-sales-and-delivery-conditions/>

## PRODUCT REGISTRATION

Register your product for faster technical support, notifications, exclusive news, offers and much more.

Machine model	
Serial number	
Purchasing date	
Dealer Name	
Company Name Street Address City Post code Email Phone	
Remarks	



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## 1. SAFETY INSTRUCTIONS

This machine is designed for safe use. This can only be achieved if you completely follow the safety instructions described in this manual.

Read and understand the manual before you start using this machine.

If the machine is not used as described in this manual, this can result in injuries and/or damage to the machine.

This user manual lists instructions that are numbered in sequence. You should follow this sequence. A

 is an indication of a safety instruction. A  means a tip and/or note.

### 1.1. Obligations of the user

This machine is intended to sow fields with various crops. Any other use is improper. The manufacturer will not accept any liability for damage resulting from improper use. All risks occurring with this are entirely at the expense of the user.

All people assigned to operate, maintain and repair the machine by the owner must completely read and understand the operation manual and in particular the chapter of Safety Instructions.

Modifications to the machine that have a negative impact on the safety must be rectified immediately.

The user is obliged to check the machine for visible damage and defects before using the machine.

For safety reasons it is not permitted to make changes or adjustments to the machine (except those approved by the manufacturer). If modifications to the machine have been made, then the current CE-marking is cancelled. The person that has made these modifications has to apply for a new CE-marking himself.

Following the use, maintenance and repair instructions prescribed by the manufacturer is also considered proper use of this machine.

The user is responsible for the safe combination of the machine and the towing vehicle, which comply with the requirements as described in the Technical Data (see Chapter 2). This entire combination should be tested for noise, safety, risk and user friendliness. User instructions should also be drafted.

Dress appropriately during work activities with the machine. Wear sturdy shoes with steel toecaps, long trousers and tie up long hair. Do not wear loose clothing.

The general applicable health & safety regulations must also be followed in addition to the instructions in this user manual.

Relevant traffic regulations also apply in case of using public roads.

### 1.2. Maintenance, repairs and adjustments

Keep a record of the repair activities.

When unskilled people use, maintain or repair the machine, this could result in injuries to the user and to third parties. This should be avoided!

Use only original RTP parts for maintenance or repairs because of the safety of the machine and of the user.

Only authorized technical personnel may carry out repairs to the machine.

When carrying out maintenance, adjustments and repairs, it is necessary to block the machine in order to prevent it from sinking away, driving off and/or sliding off.

If a hydraulic installation is present, you should always make it pressure-free before working on this installation.

Used oil / grease is harmful to the environment. Dispose of these substances according to the regulations that apply in your location.



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### **1.3. Using the machine**

Attach the machine to the towing vehicle according to the regulations. Pay close attention to the risk of injury!

Never use the machine in the absence of protective guards and safety stickers.

Check the machine for loose bolts, nuts and components before every operation.

Check whether you have a clear field of vision – both close by and far away – before you start moving.

All people that are going to operate the machine must be familiar with all the functions and control elements of the machine before starting any work activities.

Never crawl under the machine! If necessary, tip over the machine to work at the bottom side.

If present, check the hydraulic hoses regularly and replace these when the hydraulic hoses are damaged or appear old.



## 2. TECHNICAL DATA

<u>Type</u>	<u>Genesis 3</u>
Working width	37.5" (0.95m)
Working depth	1/2" / 1" / 2" (13/25/51mm)
Seeding row distance	7-1/2" (190mm)
Working speed	Depending on the conditions and the required result A safe advisable operating speed is between 3-3.5 mph
Weight	1188 lbs (539 Kg)
Number of cutting discs	5
Seed hopper capacity	4.9 Bushels (175L)
Dimensions (LxWxH)	45.8" x 52.6" x 50.4" 1.16 x 1.34 x 1.28 m
Recommended vehicle	30HP with minimal lift capacity of 1870 lbs - 24" (850 Kg - 610mm) behind the lifting eyes.
Three-point connection	Cat. 1-2
Oil gearbox	Check parts manual for more details.
Options	<ul style="list-style-type: none"> <li>- Coulter knife kit</li> <li>- Wheel kit</li> <li>- Pump kit</li> <li>- Small seed box</li> <li>- Seed cover plates</li> <li>- Shallow seed kit</li> </ul>

## 3. GENERAL DESCRIPTION

The Genesis seeder is intended to sow fields with various crops.

## 4. SAFETY DECALLS

Safety decals are placed on the machine. These safety decals must always be clearly visible and legible and must be replaced if they have become damaged. (Fig.1)

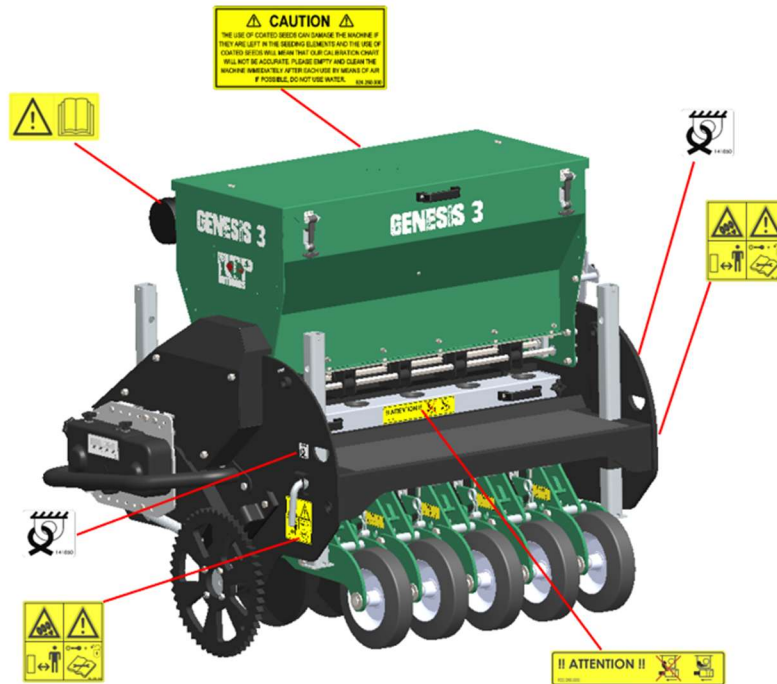


Fig. 1

<p><b>933.280.402</b></p>	<ul style="list-style-type: none"> <li>- In case of maintenance, adjustments and repair, always switch OFF the engine of the towing vehicle.</li> <li>- Keep a distance of minimal 13ft (4m) when the machine is used (except for the user).</li> <li>- No persons are allowed in the danger zone of the machine during its operation, because there is the risk of injury caused by rotating parts.</li> </ul>
<p><b>900.280.402</b></p>	<ul style="list-style-type: none"> <li>- Prior to using the machine, the operators of the machine must read the user manual carefully.</li> </ul>
<p><b>922.340.008</b></p>	<ul style="list-style-type: none"> <li>- Fixation point to secure the machine during transport (e.g., on a trailer)</li> </ul>
<p><b>922.280.000</b></p>	<ul style="list-style-type: none"> <li>- Close the gates <i>before</i> removing the funnel tray. The valves can become damaged if this is not done.</li> </ul>
<p><b>924.280.000</b></p>	<ul style="list-style-type: none"> <li>- Contamination of the seeding system can seriously damage the machine. Clean the machine thoroughly after each use, preferably using compressed air, not water.</li> </ul>



## 5. FIRST INSTALLATION

The machine should be prepared for use as follows: (Fig.2)

 **Make sure that the cable/crane/lift can lift at least 2x the weight of the machine.**

For the correct machine weight, see chapter 2 "Technical data".

 **Never crawl under the machine.**

1. Attach a cable to the lifting points (1) on both sides of the machine.
2. Lift the machine, including the pallet, about 4" (100mm) off the ground.
3. Remove the pallet by removing the bottom 3-point pins (2).
4. Turn the locking pins (3) half a rotation and remove them. Pull out the support legs (4) and replace the locking pins(3).
5. Lower the machine in a controlled and slow way until it is fully on the ground.

 **Keep a safe distance. The machine turns / slides away during hoisting / lifting.**

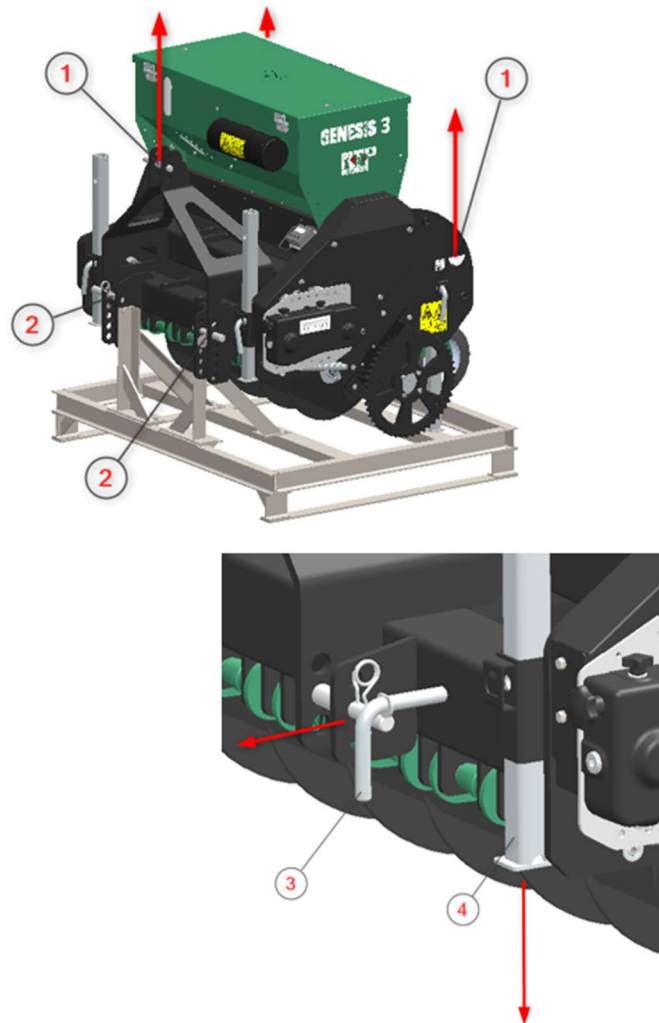


Fig. 2

6. Assemble the protection guard (1). (Fig.3)

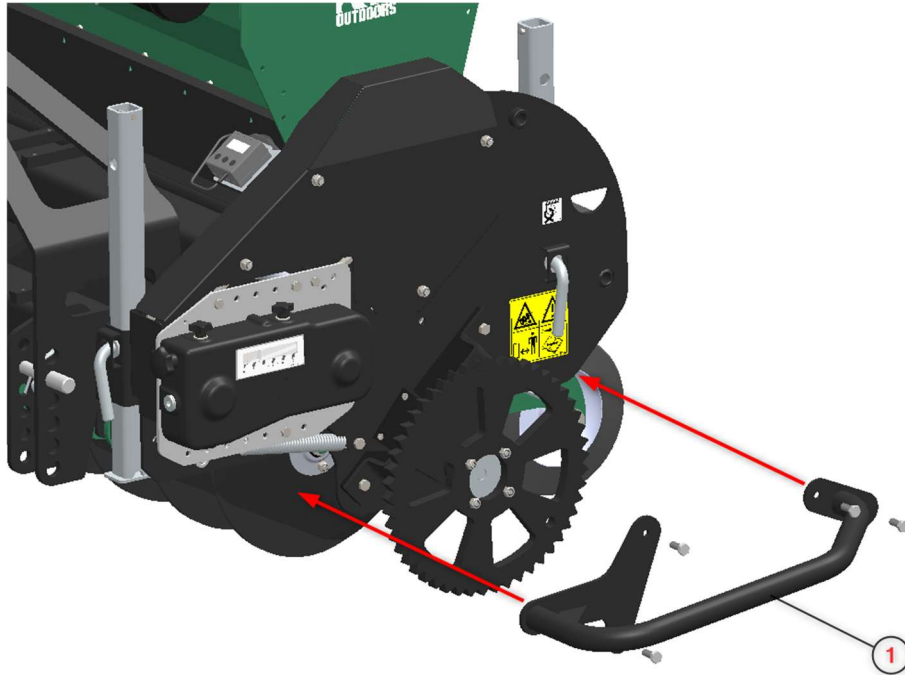


Fig. 3

## 6. ATTACH AND DETACH THE MACHINE BEHIND THE TRACTOR

Attaching and detaching the machine has to be done carefully. Follow the instructions below:



Fig. 4

## 6.1. Attach the machine

Check the machine before attaching on the following points:

- Check if the machine is undamaged and it is safe to attach and use the machine.
- Check if the fasteners are tightened properly.
- Check if all safety decals are present on the machine and are undamaged and easily readable.

The machine should be attached to the tractor in the following manner: (Fig. 4)

1. Remove the 3-point pins (1) from the machine.
2. Carefully drive the tractor backwards until the lifting arms (2) can be attached to the machine.



**Make sure that the tractor and machine is secured in place and cannot start moving.**



**Switch off the tractor engine before attaching the machine.**

3. Attach the lifting arms (2) to the machine using the 3-point pins. Lock the pins using the clips.
4. Set the stabilizer of the lifting arms (2) to 4" (100mm) lateral stroke.
5. Mount the top link (3) onto the tractor and attach it to the machine. Adjust the length of the top link until the machine is connected horizontal.



**Make sure that the 3-point pins are locked using the clips.**

6. Start the tractor and lift the machine.
7. Slide the support legs (4) upwards and secure them. (Fig.2)

## 6.2. Detach the machine

The machine should be detached in the following manner: (Fig. 4)

1. Take the attached machine to a dry storage location.



**Make sure the storage location has a stable level surface and can support the machine weight.**



**Make sure that the tractor and machine cannot move uncontrolled.**



**Switch off the tractor's engine and PTO before getting off the tractor.**

2. Lower the support legs (4) and secure them with the locking pins.(Fig.2)
3. Place the machine gently onto the surface.



**Check again if surface can support the machine weight.**

4. Disconnect the top link (3).
5. Disconnect the lifting arms (2).
6. Start the tractor and drive carefully away from the machine.

## 7. TRANSPORT

The user is responsible for transporting the machine on public roads. Verify the national legislation regarding the regulations. In view of the machine's weight, it is not advised to drive faster with the tractor than 12.5mph (20 km/h) with a raised machine. Higher speeds can lead to hazardous situations and result in damage to the machine and tractor.



**When the machine is raised off the ground, the front shaft of the tractor has to support minimum 20% of its weight.**



**If necessary, close the seeding element valve opening to prevent spilling seed.**

If the machine is not transported by the tractor, but for example on a trailer, the machine may be secured at the following points (Fig. 5):

1. Points for securing the machine.

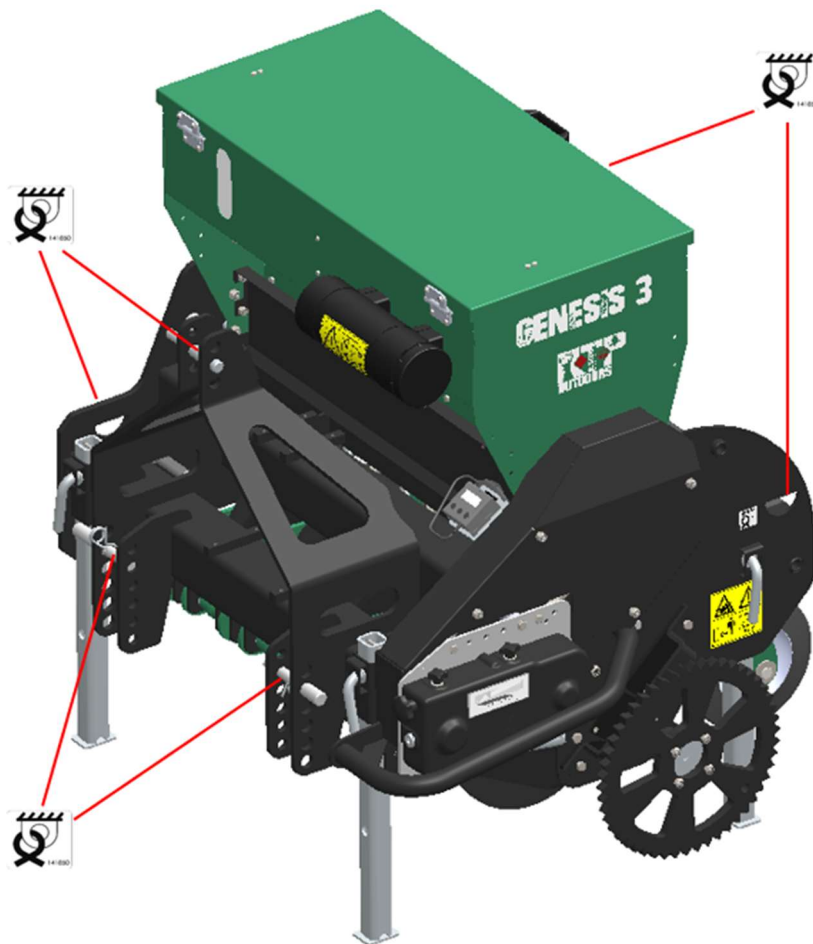


Fig. 5

## 8. MACHINE SETTINGS

The Genesis seeder has several options for setting the machine for an optimal working condition.

### 8.1 Adjusting the working depth

The working depth can be adjusted on 2 positions.

The coarse setting is done at the back of the machine by adjusting the pin (1) on the packer wheels. Remove the lower R-clip and pin (1) (Fig.6) and place the pin in the hole for the right depth 0.5" - 1" - 2". After that lock the pin with the R-clip.

**!! Please note that all packer wheels are adjusted to the same depth before working with the machine. !!**

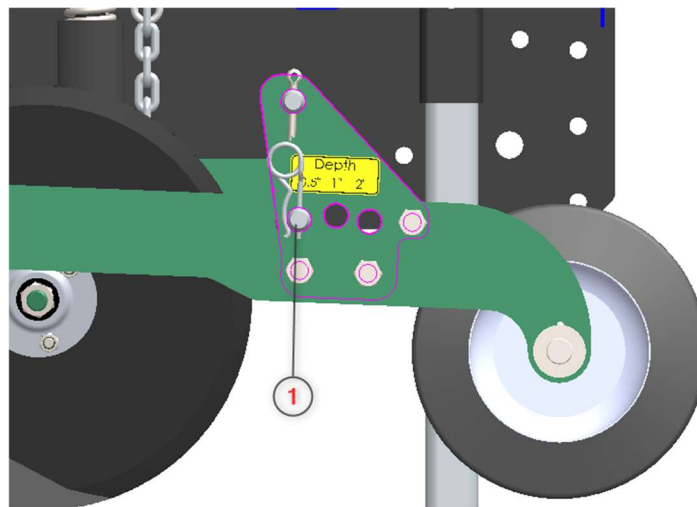


Fig. 6

For the fine setting you need to change the length of the top link (1). (Fig.7)

- Lengthen the top link = Shallower.
- Shorten the top link = Deeper.

If there is not enough adjustment in the top link you need to change the coarse packer wheel setting.

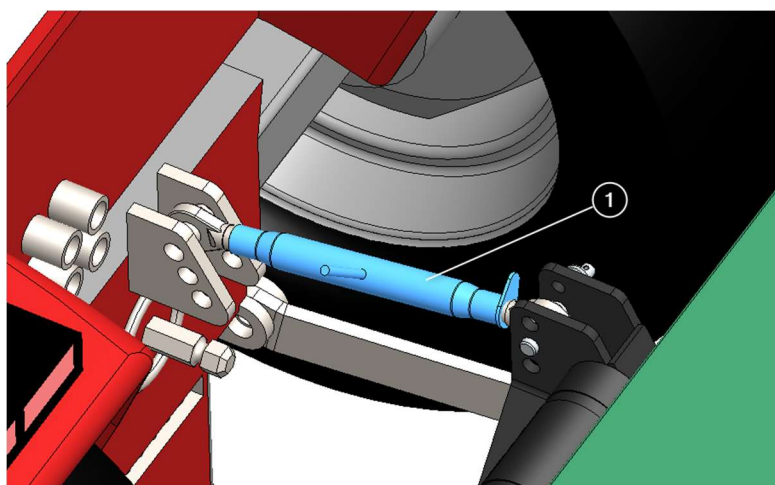


Fig. 7

## 8.2 Gate setting

The machine is suitable for sowing different types of seeds. To adjust the machine to the various factors, the machine's sowing installation must be adjusted to the correct setting. One of the settings is the gate valve opening. The function of the gate valve (Fig.8):

1. If the gate is closed, no seeds can flow out of the hopper when the machine is idle (e.g., during transport).
2. To empty the hopper after sowing, the gate can be opened so that the seeds can run out of the hopper.
3. The gate can be adjusted according to the size of the seeds that will be sown. In case of fine seeds, the element valve must be closed completely. Then the gear wheel grabs the seeds. In the case of larger seeds, the space between the gear wheel and the gate valve is not large enough to let the seeds pass. Therefore, the gate valve needs to be opened more for larger seeds. Adjusting the size of the opening can be done using the gate adjustment handle. The handle can be adjusted by loosening the knob (1), selecting the required position by means of the indication on the guide (2), and retightening the knob.



**Consult the Seed Settings Chart in this manual for an indication of the required gate opening.**



Fig. 8

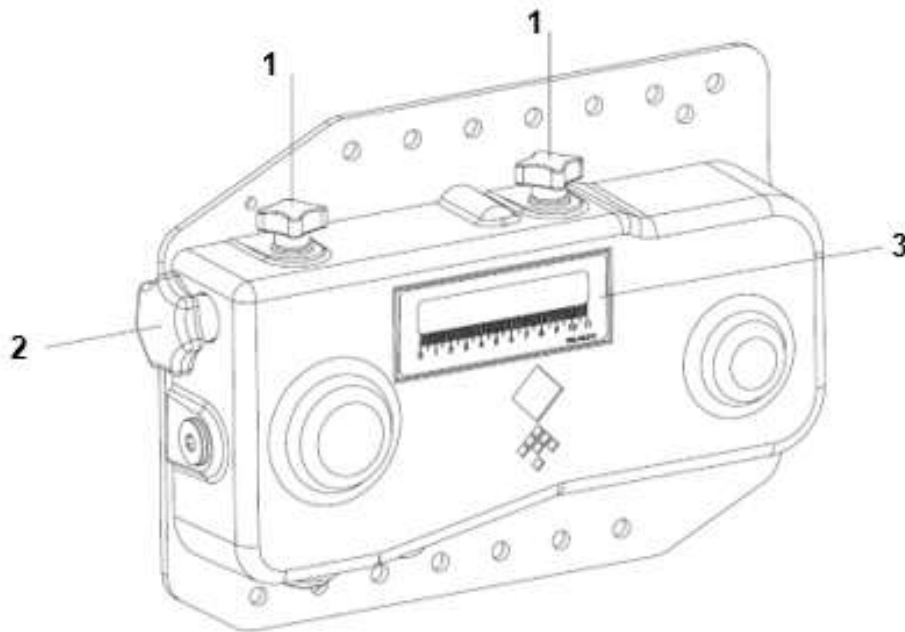
### 8.3 Setting seed-quantity using the variable clutch or gearbox

By affecting the setting of the rotational speed of the seed elements, the delivery of seeds can be set to more or fewer seeds. Each seed element contains a rotor that transports the seeds. By affecting the speed of the rotors, the quantity of seeds can be adjusted. The variable clutch / gearbox can continuously variable adjust the speed. Do the following to adjust the quantity of the seeds:



**Consult the Seed Settings Chart in this manual for an indication of the required quantity.**

1. Loosen the knobs (1) (see Fig. 9).
2. Rotate the knob (2) to change the settings. You can see the settings on the decal (3).
3. Retighten the knobs (1).



**Fig. 9**



## 8.4 Calibration test

The quantity of seeds should be adjusted for the correct operation of the Genesis seeder.



**Consult the Seed Settings Chart in this manual for an indication of the required quantity.**

To calibrate your machine follow the instructions below:



**!! Make sure that the Genesis seeder is placed on its support legs and is detached from the tractor (see Section 6.2) !!**

You will need the following accessories for adjusting the quantity of seeds:

1. A scale
2. A bin for weighing the seeds
3. Enough seeds to fill the hopper for a minimum of 30%

The procedure is as follows (see ):

1. Close the gates (Position 0) (Fig.8)
2. Fill the hopper with seeds and make sure that these are evenly spread throughout the hopper.
3. Loosen the knobs and slide the calibration tray (1) out of the machine.
4. Rotate the calibration tray 180° and slide it back into the machine.
5. Set the gate to the appropriate seed size. (Chapter 8.2)
6. Turn the wheel (2) 26 rotations counter-clockwise.



**!! Attention !! If the gearbox is set on a high output, it may cause the release of a large quantity of seeds. Then divide the 26 rotations in several smaller steps!**

7. Remove the calibration tray (1) out of the machine and collect the seed in the bin.
8. Weigh the seeds in lbs and multiply the value with 127.3

The result is the weight of the seeds in pounds that are seeded per acre.

**(Seed Weight in lbs) X (Multiplier) = Pounds per Acre**

9. When finished return the calibration tray in its original position and secure with the knobs.



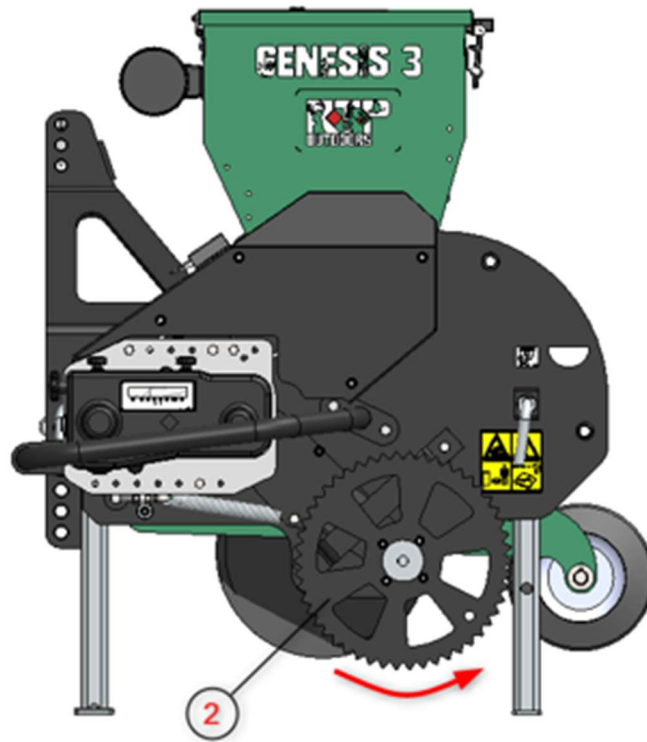
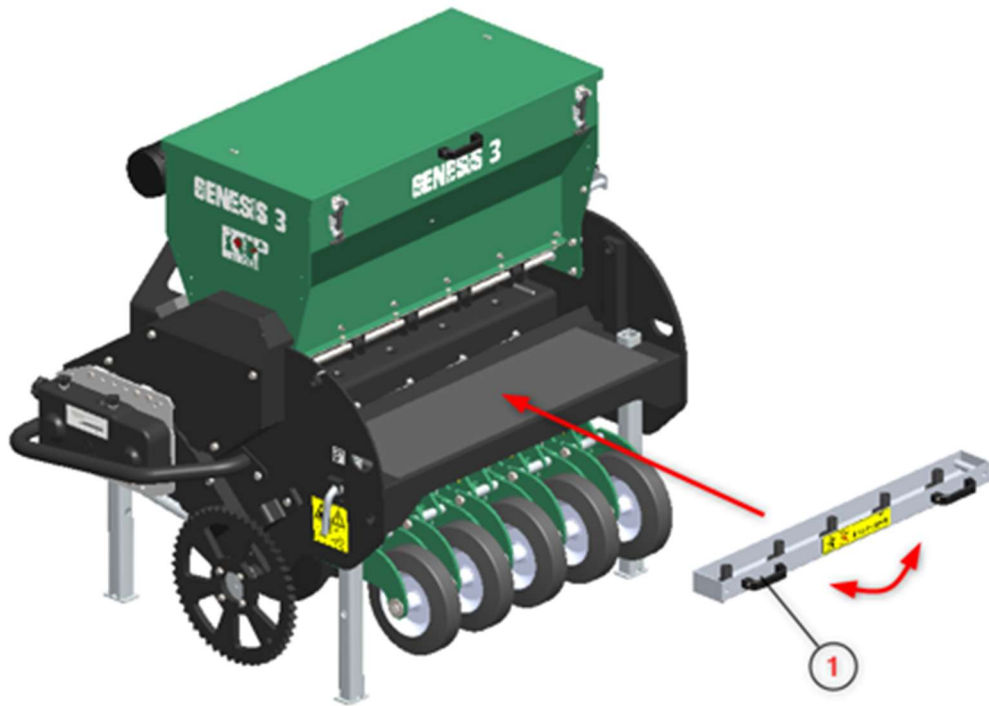


Fig. 10

## 9. PUTTING THE MACHINE INTO OPERATION

### 9.1. Safety

Before starting to use the machine, check the following:

1. Are there loose objects in the field? First remove these objects.
2. Are there slopes? The maximum slope is 20 degrees for this machine. Always go from top to bottom.
3. Are there hard objects in the ground? If so, use the Genesis seeder at a lower speed.
4. Is there danger that distract the attention of the operator? If so, the Genesis seeder **CANNOT** be used.
5. Is there danger of sinking / sliding away? If so, postpone the work activities.
6. If the soil is frozen or very wet, postpone the activities until conditions improve.
7. Check whether the seed hopper is not too damp. Dampness can cause the seeds to stick to each other and this leads to a poor result.
8. Do **NOT** make sharp curves when the Genesis seeder is in the ground.

### 9.2. Working speed

The maximum working speed of the machine depends on the desired result and the situation of the environment.

A safe general recommended working speed to operate the machine is between 3-3.5 mph.

Always be aware of the situation where you are working with the machine and adjust your speed to the given circumstances



**When the soil is hard and contains rocks or other hard elements it can harm the machine and reduce its lifespan.**

**Reduce the working speed below 3 mph to avoid breakdowns.**

### 9.3. General remarks for using the Genesis seeder

- A field can be treated two or three times in different directions in order to obtain a higher sowing density.
- Do **NOT** make sharp curves and preferably drive in straight lines to prevent damage to the machine and the ground.
- If a hard object in the ground is hit, the knives can get damaged. In that case, try to file the burrs or replace the knives.
- If the sowing discs get damp, seeds can stick to each other and accumulate between the knives.
- **NEVER** drive backwards when the machine stands on the ground.

### 9.4 Start / stop procedure

The start procedure is very important. If this procedure is not executed as described below, it might result in serious damage to the machine.

Before starting to sow, check the machine on the following points:



**Make sure that the Genesis seeder and tractor cannot move during adjustment.**



**Switch off the tractor engine.**

- Check that the shaft that drives the seed cups rotates smoothly.

When the hopper is empty, the shaft (1) must be able to rotate with a wrench without too much force. Rotate the shaft in the direction indicated by the arrow. (Fig.11)

If a heavy point during the rotation is found, first check where it comes from and fix it.

An indication to start with is checking for contamination of the sowing system and clean the system.



**Attention!** If the shaft turns too heavily, a damaging overload of the gearbox can be the result.

- Check that the seed passage (2) is not blocked.
- Check that the machine is not damp, especially the sowing system.
- Check the cutting discs (3) for damage and repair if necessary.

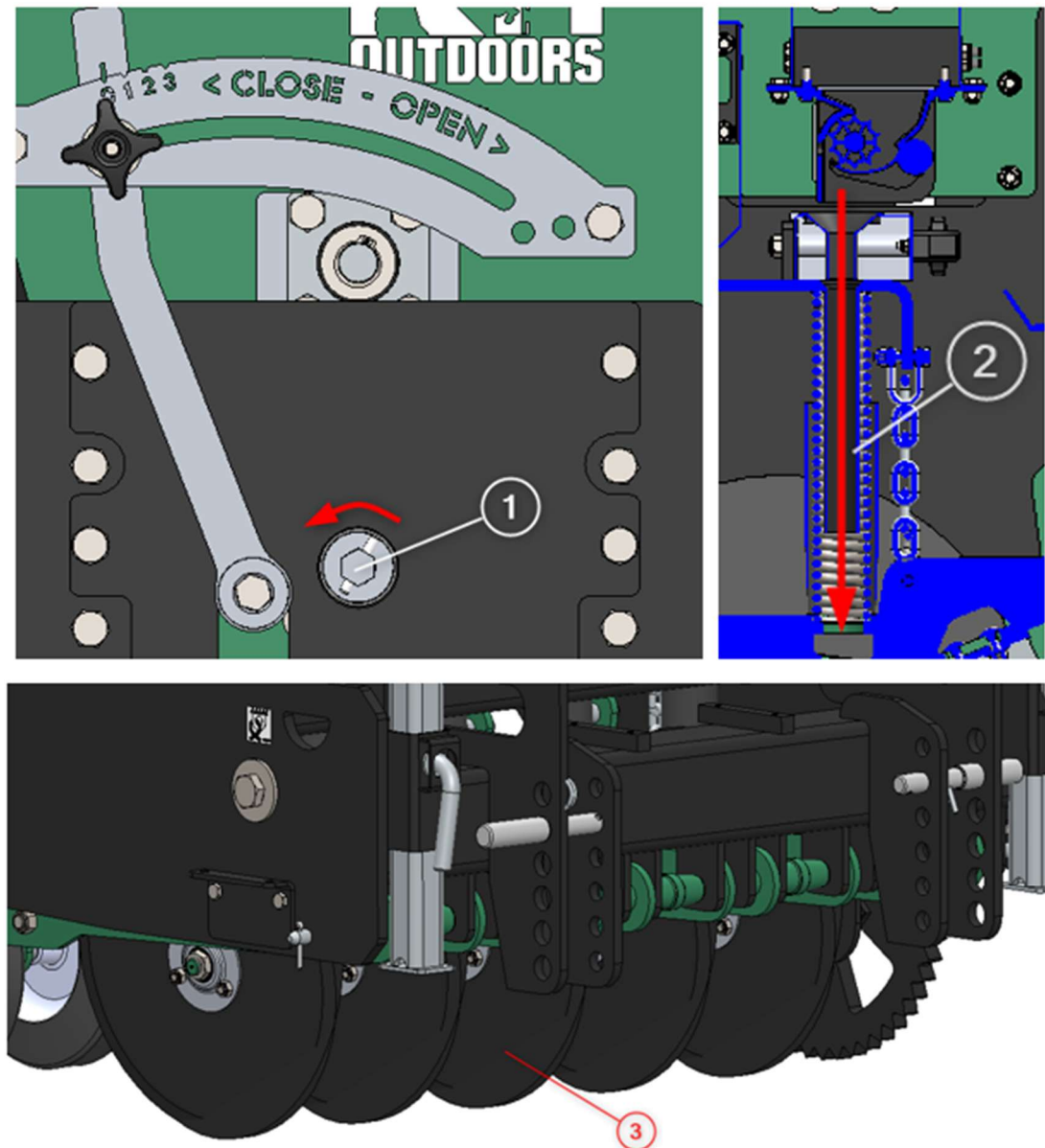


Fig. 11



## START SOWING

The start procedure is VERY important. If this procedure is not executed as described below, it might result in serious damage to the machine. The procedure is as follows:



**Make sure that the Genesis seeder and tractor cannot move during adjustment.**



**Switch off the tractor engine.**

1. Put seeds in the seed hopper.
2. Set the required seed quantity.
3. Set the required working depth.
4. Drive to the location where you want to start.
5. Start at a speed of approx. 1.9 mph (3 km/h).
6. While driving, lower the machine gently and in a controlled manner, until the sowing elements cut into the ground.
7. Increase the speed until the correct drive speed is achieved.
8. Move forward for about 10'-15' (3-5m) and stop and inspect the seeding depth and if the seeds are in the seed cut.  
If required make adjustments to get the desired results.

## STOP SOWING

1. Decrease the driving speed to approx. 1.9 mph (3 km/h).
2. While driving, lift the machine off the ground.
3. Go to the next location and start again as described above.



**Before transporting the machine, close the seeding element valve opening to prevent spilling seed.**



**It is absolutely necessary to work according to the described procedures. If the machine is put into the ground in a non-operating position, serious damage to the machine might occur.**



**While driving, lower the machine carefully and in a controlled manner during treatment.**



**NEVER drive backwards when the machine stands on the ground.**

## 10. MAINTENANCE

### 10.1. Maintenance schedule

Timeline	Checkpoint	Method
Before <b>every</b> usage	Check if the shaft that drives the seed cups rotates smoothly.	If the shaft rotates heavily, check for contamination and clean the seeding system.
	Check that the machine is not damp, especially the seeding system.	Dry the machine, use compressed air.
	Check for loose bolts/nuts.	Tighten the loose bolts/nuts to the correct torque.
	Presence and legibility of the safety decals.	Replace if not present/damaged.
After <b>every</b> usage	Clean the machine and especially the seeding mechanism and hopper.	Clean the seeding mechanism with compressed air only.  Do <b>not</b> use water to prevent problems with seeds and residue clumping resulting in blockages.
	Store the machine in a dry environment.	
After the <b>first</b> 20 working hours. (new or repaired)	Check for loose bolts/nuts.	Tighten the loose bolts/nuts to the correct torque.
	Lubrication the drive chains.	Use a chain spray.
After <b>every</b> 100 hours	Check the oil level of the variable clutch / gearbox.	Fill up till the prescribed level. Check the parts manual for details
	Lubrication the drive chains.	Use a chain spray.
	Check the drive chain tension.	Adjust the tensioner of the chain.
	Check the seeding mechanism on pollution/ damage.	Clean the seeding mechanism or replace parts if necessary.
	Check the seeding discs.	File away burrs or replace.
	Check the bearings of the seeding discs.	Replace the bearings if necessary.
	Check the bearings of the packer wheels.	Replace the bearings if necessary.

Table 1

## 10.2. Lubrication points

The only external lubrication points on the Genesis seeder are the drive chains (1) which are situated behind the covers of the machine. (Fig.12)

Check the maintenance table for the intervals.



**The bearings in the packer wheels are sealed and maintenance free. They are replaceable when worn.**

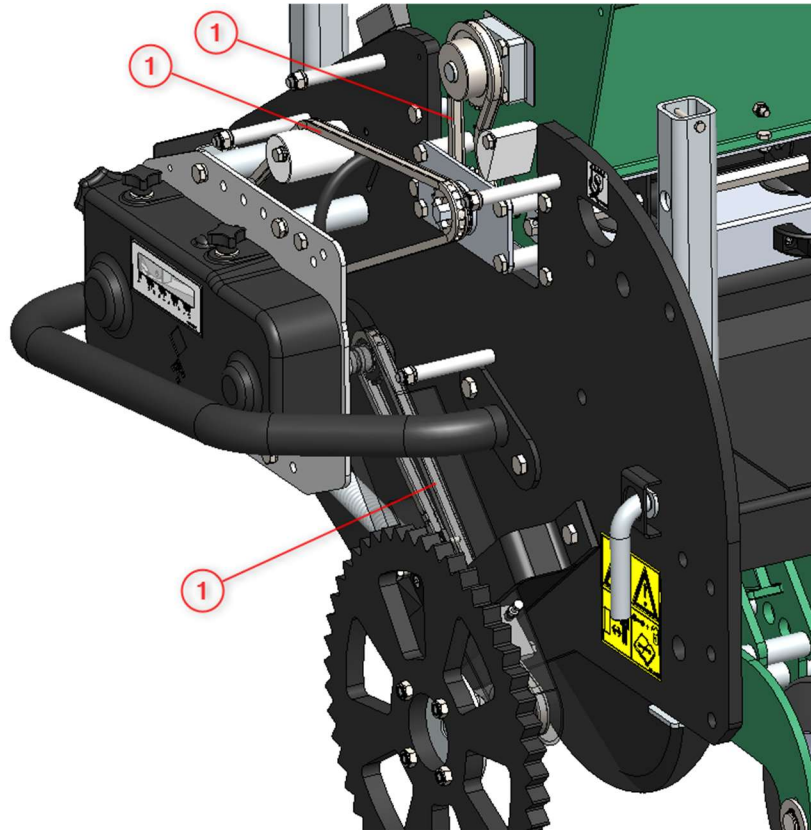


Fig. 12

## 10.3. Cleaning

A high-pressure water cleaner may **ONLY** be used to clean the outside of the machine.



**To clean the seeding mechanism and seed hopper it is recommended to use compressed air to prevent that the mechanism becomes wet. If the seeds and seed residue become wet it will clump and clog the seed passage and lock the seeding elements with a possible malfunction of the machine as a result.**

When cleaning the outside of the machine with a high-pressure cleaner observe the following rules:

- Do not use aggressive cleaning agents that can affect the machine.
- Maximum water pressure: 1015 PSI (70 Bar)
- Maximum water temperature: 122°F (50°C)
- Do not aim the jet of the high-pressure nozzle directly at the seeding mechanism, the bearings, oil seals, lubrication points and decals.
- Keep a minimum distance of 1.6 ft (0.5m) between the head of the high-pressure cleaner and the surface you want to clean.

### 10.4. Adjusting spring tension side wheel

When the side wheel (1) is leaving marks or has not enough grip to drive the Genesis seeder it is possible to adjust the spring (2) its tension to gain the right results. (Fig.13)

Adjust the eye bolt (3) to the desired fine setting, if the eye bolt is set to its max the base can also be re-posit-ed in a coarse way by placing it in another hole.

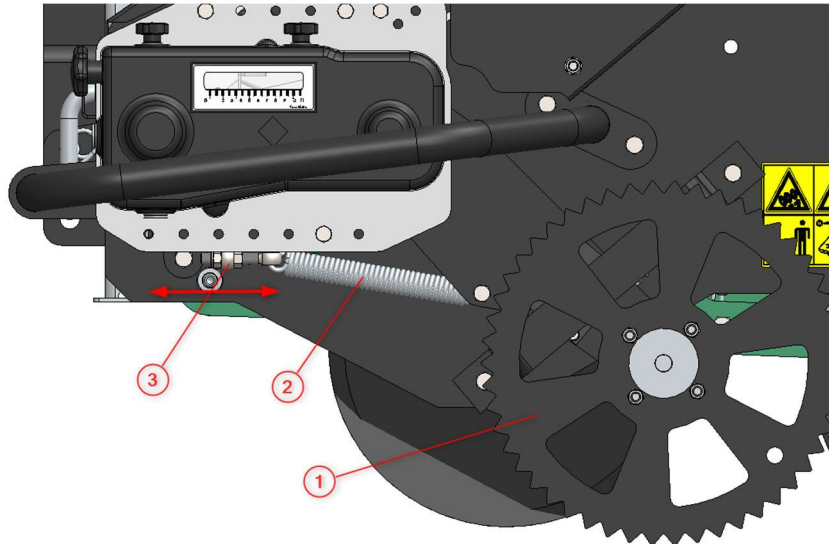


Fig. 13

### 10.5. Acreage counter settings which

The machine is equipped with a digital acreage counter which can be used to read various data such as the sown area, distances, hours of work, etc. (Fig.14)

For the explanation of the operation of this acreage counter, a separate manual is attached.

If the settings of the surface meter have disappeared from memory, these are the specific parameters to be filled in:

Machine	Parameter "C" Pulses of the speed sensor (Chapter 8.2 Acreage counter manual) Setting UN=1 (imperial)	Parameter "L" Working width (Chapter 8. Acreage counter manual)
Genesis 3	74	3.125

Table 2

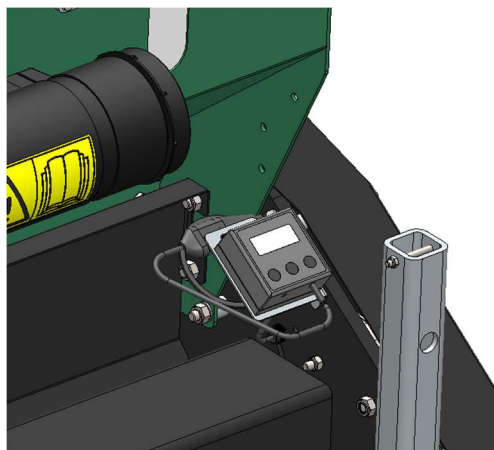


Fig. 14

## 11. TROUBLESHOOTING

Problem	Possible cause	Solution
No seeds come out of the machine.	The seeds are damp and stick to each other.	Clean the seeding mechanism and use dry seeds.
	Sowing pipes / funnels are blocked / dirty.	Rectify / clean and remove the blockage.
	Problems with the drive of the machine.	Check the chain drive / variable clutch.
	Side wheel is not driving.	Adjust the spring tension of the side wheel. Check drive chains.
	The seed quantity is set incorrect.	Set the variable clutch / gearbox to the correct setting. Set the gate correct. Use the seed setting chart as a guidance.
	No seeds in the seed hopper.	Check and fill the seed hopper.
Too many seeds come out of the machine.	The gate is set incorrect.	Adjust the gate to the correct setting. Use the seed setting chart as a guidance.
	Variable clutch / gearbox setting is too high.	Set the gearbox to the correct setting. Use the seed setting chart as a guidance.
The seeds are not in the seeding cut / Machine does not reach the required depth.	Cutting discs are worn.	Rectify the discs / remove burrs or replace the cutting discs.
	Wrong working depth	Adjust the working depth of the machine.
	Soil is too wet.	Postpone the treatment until the conditions are better.
	Soil is too hard.	Loose soil / irrigate and/ or postpone till the conditions become better.
	Tensile angle of the tractor is too low.	Put the lift arms of the tractor in a higher position on the lower 3-point connection of the machine. This will result in a better to the surface directed tensile force.
	Too much vegetation in the top layer of the field.	Remove the vegetation, add more weight to the machine or use the optional coulter knife kit.

Table 3



<b>Problem</b>	<b>Possible cause</b>	<b>Solution</b>
Seeding cuts are shaped poorly.	Cutting discs are worn.	Rectify the discs / remove burrs or replace the cutting discs.
	Cutting discs do not rotate / are stuck.	Check the bearings of the cutting discs.
	Wrong working depth	Adjust the working depth of the machine.
	Poor soil conditions	Decrease the working depth. Loose soil / irrigate and/ or postpone till the conditions become better.
	Too much vegetation in the top layer of the field.	Remove the vegetation, add more weight to the machine or use the optional coulter knife kit.
Seeding cuts are not closed.	Seeding cuts are too wide.	Reduce the working depth.
	Ground is too hard.	Aerate or give water and postpone sowing until later.
	Packer wheels are not closing the seeding cuts.	Make sure the packer wheels are able to follow the soil undulations.

**Table 4**

## 12. OPTIONS

### 12.1. Coulter knife kit

To help the genesis seeder to cut through the vegetation more easily, an coulter knife can be placed in front of the cutting discs. The coulter knife cuts the soil to make it easier for the seeding discs to get to the desired seeding depth. (Fig.15)

The knife kit is an assembly containing all the parts used for 1 section and available under article number 222.153.016.

For the Genesis 3 machine you need 5 pieces of the article 222.153.016 equip the complete machine:

For assembly instructions and parts consult the parts manual or ask your dealer.

 **Important to assemble the coulter knife perfectly in line with the cutting discs of the Genesis seeder.**

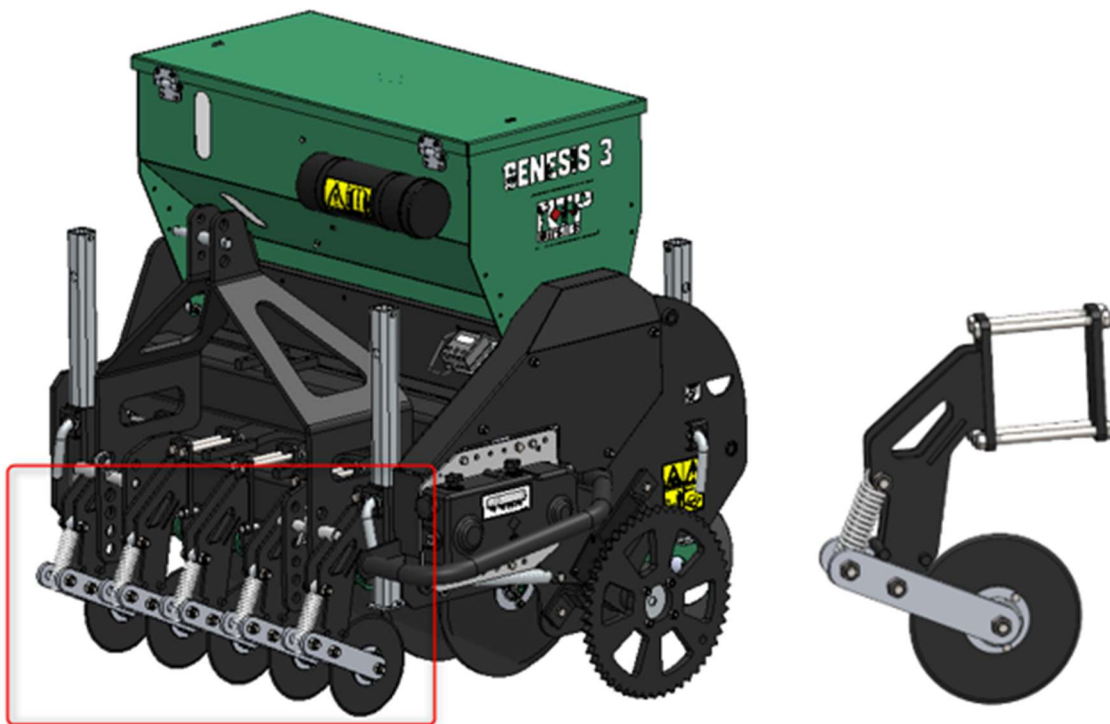


Fig. 15

### 12.2. Wheel Kit

If the tractor is not able to lift the Genesis seeder, or the machine needs to be towed by an utv the machine can be equipped with a wheel kit.

The wheel kit contains in general a hydraulic actuated lifting beam with wheels and a towing beam. The machine is trailed behind the tractor and connected to the tractor hydraulics to lift the machine for transport. (Fig.16)

The wheel kit is available under the article number 222.095.200

For assembly instructions and parts consult the parts manual or ask your dealer.



Fig. 16

### 12.3. Pump kit

If there is no hydraulic output available on the towing vehicle to lift the wheel kit an optional pump kit is available. The pump kit needs to be connected to the battery of the vehicle or can be connected to a battery placed on the Genesis seeder. (Battery pack excluded) (Fig.17)

The pump kit is available under article number 222.095.202

For assembly instructions and parts consult the parts manual or ask your dealer.

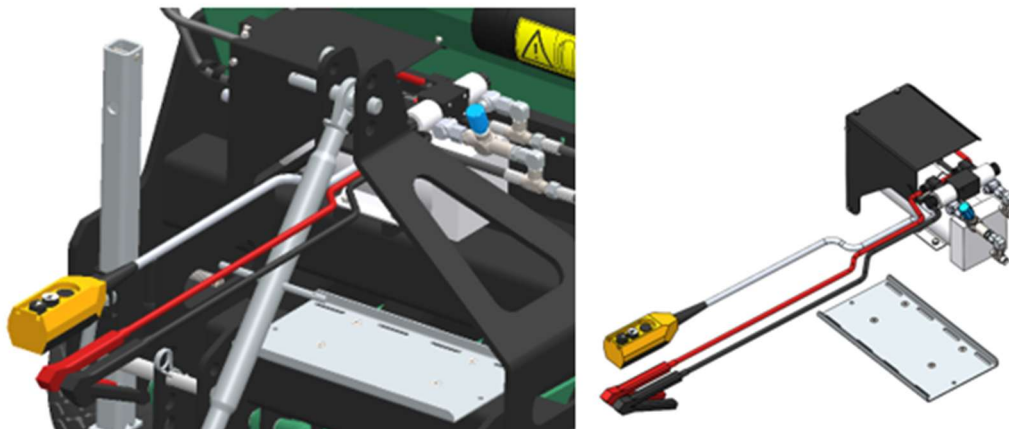


Fig. 17

#### 12.4. Small seed box

For the seeding of fine seeds a small seed box is available. The small seed box has a balanced seed dosing element specially built to process small seeds and can be mounted on the rear side of the Genesis seeder. The small seed box has a separate dosing system to set the correct amount of seed output. (Fig.18)

The small seed box is available under the article number 222.095.006

For assembly instructions and parts consult the parts manual or ask your dealer.

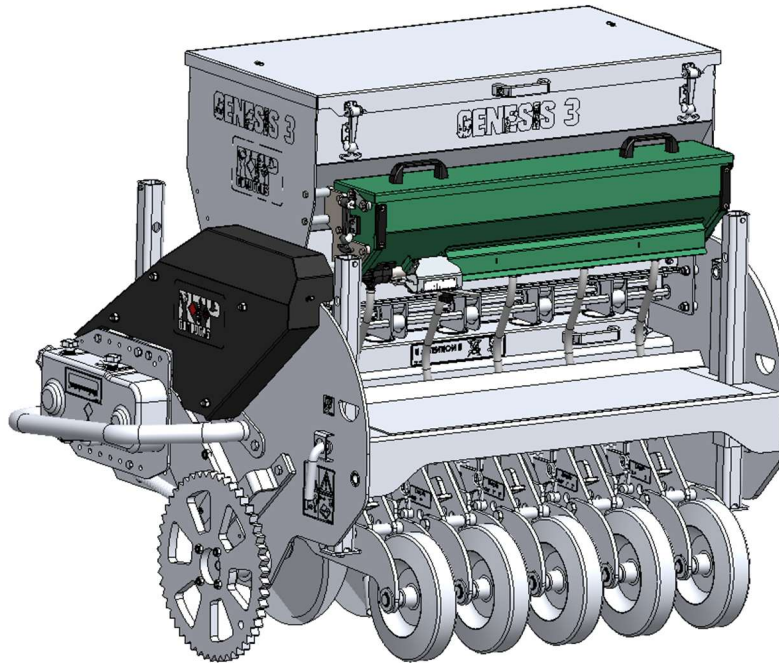


Fig. 18

#### 12.5. Seed cover plates

If there is a need to sow with wider spacing than the original 7-1/2" width seeding elements can be shut off by covering the input of the seeding element in the seed hopper with a seed cover plate. (Fig.19)

The seed cover plates are available under article number: 468.049.136. (Quantity 1)

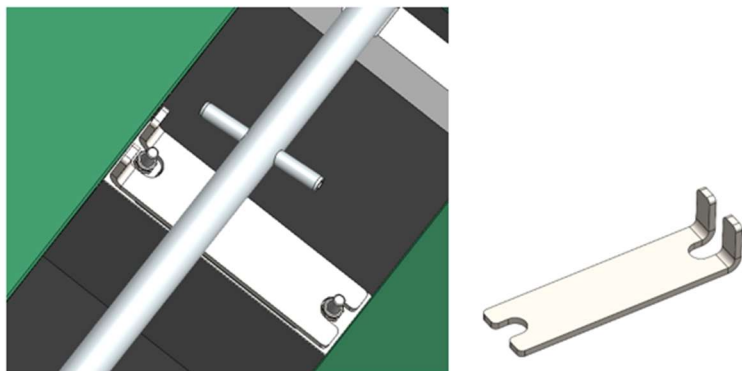


Fig. 19

### 12.6. Shallow seed kit

If there is a desire to adjust the Genesis seeder to a shallower seeding depth the machine can be equipped with a shallow seed kit which changes the seeding depth set at the packer wheels. (1)

The kit is available under the following article number 222.153.020: (Fig.20)

For the Genesis 3 machine you need 5 pieces of the article 222.153.020 equip the complete machine.

For assembly instructions and parts consult the parts manual or ask your dealer.

Bush diameter	Packer wheel depth setting / depth setting after applying bush		
	1/2"	1"	2"
Ø1-27/64" (36mm)	1/4"	3/4"	1-3/4"
Ø1-3/32" (28mm)	3/8"	7/8"	1-7/8"

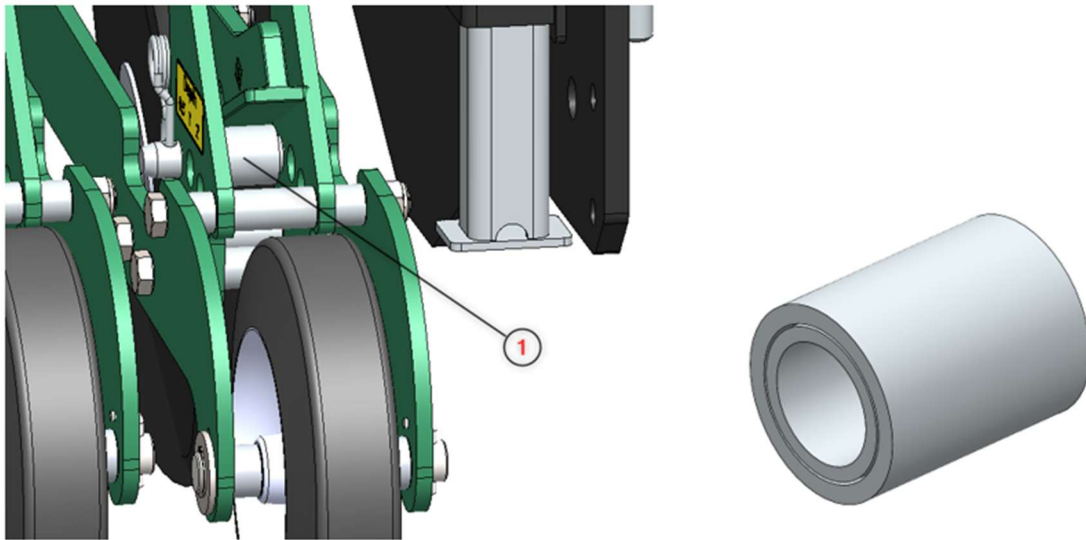


Fig. 20



### 13. SEED SETTINGS CHART

The seeding chart described in this document are an indication of the amount that the machine can sow at the given types of seed and machine settings.

The data was obtained by performing a calibration test under factory conditions.

The result may therefore differ slightly from your machine due to other circumstances such as, for example, differences in seed mixture, climate conditions, wear of the components of the machine, etc.

It is therefore advisable to do a calibration test before starting so that you know what the output of the machine is under the prevailing conditions.

The seed quantity given in the chart are in pounds per Acre

Seed type	Gate Setting	Variable Clutch / Gearbox setting												
		0	1	2	3	4	5	6	7	8	9	10		
4S Advanced Wildlife Solutions harvest advantage	1.5									76.4				
4S Advanced Wildlife Solutions record buck beans	2					50.9								
4S Advanced Wildlife Solutions summer success	1			22.9										
Alfalfa	0			15.9										
Ani-Logics Pro Brassica blend	0		7.5	18.7										
Ani-Logics Pro Clover	0		7.5	18.7										
Ani-logics Pro Holy clover	0		7.5	18.7										
Ani-Logics Pro Perfect 10	1.5				32.8	42.1								
Ani-Logics Pro Sugar beets	0.5		7.5	18.7										
Antlerking Barricade	0.5		11.5											
Antlerking Booner buffet	0		12.1											
Antlerking Honey hole	0		5.8											
Antlerking Red zone	2				38.4									
Antlerking Trophy clover	0		5.1											
Austrian Winter peas	1					42.1	51.5							
Clover	0	1.0	5.1	16.8										
Corn	2		5.4	11.4	20.7	27.8								
Corn (22 1/2 Rows)	2			16.8										
Eagle seeds Broadside	2					58.0	79.5	88.9	112.3					
Eagle Seeds Buffalo blend	1.5					58.0	79.5	88.9	112.3					



Seed type	Gate Setting	Variable Clutch / Gearbox setting										
		0	1	2	3	4	5	6	7	8	9	10
Eagle Seeds Fall blend	1				28.1							
GreenCover Spring release	1.5						56.1	68.3				
GreenCover Fall release	1.5						60.8	70.2				
GreenCover Winter triticale	1							93.6				
GreenCover Brassica plus release	0		5.6	18.7								
GreenCover Buckwheat (Mancan)	1.5					32.8	42.1					
GreenCover Cereal Rye (Elbon)	1							93.6				
GreenCover Chickory (Endure)	0		5.6	18.7								
GreenCover Common Vetch	1.5			23.4								
GreenCover Early start Release	0.5			18.7								
GreenCover Foxtail millet	0		7.5	18.7								
GreenCover Screen mix	1			18.7								
GreenCover Southern clover release	0		7.5	18.7								
GreenCover Spring oats (Goliath)	1.5							93.6				
GreenCover Summer release	2				37.4							
GreenCover Sun hemp	1			18.7								
GreenCover Sunflower (Black oil)	1.5				18.7							
Harper's Blend	1					44.5						
Imperial Whitetail oats plus	1.5							47.2	57.8		90.1	
Purple Top Turnips	0		4.7	14.0								
Real World Deadly dozen	1					42.1	51.5					
Sorghum (22 1/2 Rows)	0		6.6	15.4								
Soybean	2					50.5	63.6	89.8	111.4			
Switchgrass	0	1.4	5.2	13.5								
Whitetail Institute Alpha rack	0		5.1									



Seed type	Gate Setting	Variable Clutch / Gearbox setting										
		0	1	2	3	4	5	6	7	8	9	10
Whitetail Institute Beets & greens	1		7.5									
Whitetail Institute Chick magnet	0		2.5									
Whitetail Institute Destination	2				33.1							
Whitetail Institute Extreme	1				21.5							
Whitetail Institute Fusion	0		5.1									
Whitetail Institute Imperial clover	0		7.6									
Whitetail Institute Power plant	2			22.5								
Whitetail Institute Pure attraction	1.5						36.5	46.8	58.0	89.8		
Whitetail Institute Ravish radish	0.5		11.5									
Whitetail Institute Tail tine tubers	0		5.6									
Whitetail Institute Vision	0		6.6									
Whitetail Institute Winter greens	0		7.6									
Whitetail Institute Winter peas plus	2.5				35.6							

## 14. ACREAGE COUNTER ADDITIONAL MANUAL





UC 300

UNIVERSAL COUNTER



NR.1111-EN

**USER'S MANUAL**





This product complies with EMC requirements as defined by Directives 2004/108/CE and successive modifications in accordance with standard EN ISO 14982 applied

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**Manual code** : 1111-EN  
**Issued** : November 2011  
**Edition** : April 2014

*MC elettronica S.r.l. is not obliged to give notice of any further modifications of the product. The information given in this manual does not allow unauthorized personnel to tamper the product in any way. The guarantee on the equipment will no longer be valid if tampering should be detected.*

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# 1. Rules and general warning

## 1.1 Introduction

This manual gives all the specific information that you need for a proper use of the equipment.

After buying the instrument, read the manual carefully and refer to it any time you have doubts on how to use the equipment or when you have to carry out maintenance operations.

Keep the manual on the machine. If this is not possible, keep it ready to hand.

ALL RIGHTS RESERVED. THIS MANUAL IS INTENDED FOR CUSTOMERS ONLY. ANY OTHER USE IS FORBIDDEN.

## 1.2 Terms of guarantee

**SUBJECT OF THE GUARANTEE:** the guarantee is applied to the product and to those parts which are marked with the serial number or any other identification number used by *MC elettronica*;

**HOW LONG THE GUARANTEE IS EFFECTIVE:** *MC elettronica S.r.l.*

guarantees the UC 300 for a period of **1 year** from the manufacturing date (printed on the identification label which is to be found on the rear side of the equipment) and also accessories.

The guarantee covers the product and any repair carried out within the agreed terms.

This guarantee does not apply in the event of:

accidental damage;

improper use;

modifications which haven't been agreed upon, improper installation (or setting);

damage caused when a non-*MC elettronica* equipment, which is mechanically or electrically connected to our instruments, breaks or does not function properly;

act of God (lightning, floods, fire or other causes which do not depend from *MC elettronica*).

Repairs under guarantee, which must be carried out in the laboratories of our authorized centres, are entirely free of charge provided the equipment is directly transported to said laboratories or sent free port. Transport charges and risks are entirely borne by the Customer.

The above-mentioned guarantee is valid unless otherwise stated between *MC elettronica* and the Customer.



### **Warning**

*Mc elettronica* declines any liability for damages or direct or indirect charges, as a consequence of improper use or inability of the Customer to use the equipment separately and/or together with other instruments.

## 1.3 Service

Service is available in all the countries where the equipment is officially supplied by *MC elettronica* (during and after the guarantee period).

Any kind of operation that is to be carried out on the UC 300 must be done in accordance with the instructions stated in this manual or as agreed with *MC elettronica*. If not, the relative terms of guarantee might become void.

## 2. General description

The UC 300 Universal Counter is powered by a rechargeable battery and stores all the main functions of a hectare counter in a small container which can be installed easily on any public works vehicle. You can choose between metric and imperial units of measurement to calculate area, distance and speed. The UC 300 Universal Counter can also count the working hours when the machine is running. Displayed on the screen are:

- 1) independent total counter for surface area (in hectares or acres, in units of 10 m<sup>2</sup> or 0.001 acres)
- 2) independent partial counter for surface area (in hectares or acres, in units of 10 m<sup>2</sup> or 0.001 acres)
- 3) speed of travel (in km/h or mph, in units of 0.1 km/h or 0.1 mph)
- 4) counter of distance covered (in metres or feet, in units of 1 metre or 1 foot)
- 5) working hour counter (in units of 0.1 hours)

Provided with the UC 300 are a battery charging cable, a magnetic sensor and a magnet of reference: the code for the complete kit is 00KIT-0014;

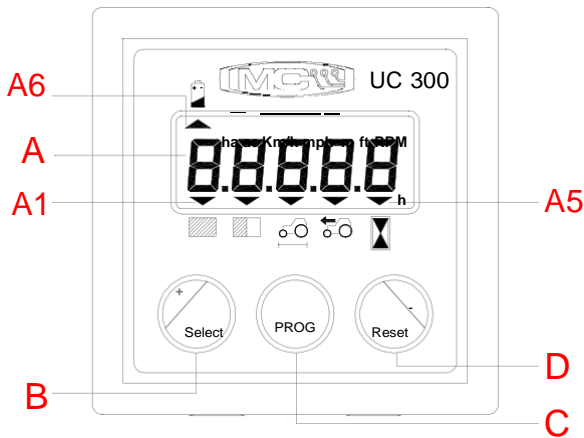
When the battery is running low, this is signalled on the display (refer to the section "Operation"). The user can connect the charging cable to the battery of the tractor and continue working during the charging process, or disconnect the sensor and charge the monitor separately.

Inside the connector of the magnetic sensor is a jumper for powering the UC 300: disconnecting the sensor turns off the monitor, saving on battery power. PLEASE NOTE: it is advisable to disconnect the sensor only when the machine is at standstill to avoid the partial loss of data of the totalizes; the programmable parameters, however, remain saved.

Essential requirements for the Universal counter:

- a) Powered by 3.6V internal rechargeable batteries
- b) Nominal battery charge voltage: 12V (16V max)
- c) Maximum dimensions: 78 mm in width, 78 mm in height and 38 mm in depth.
- d) 5-digit display + indicators, not backlit
- e) External application (IP66).

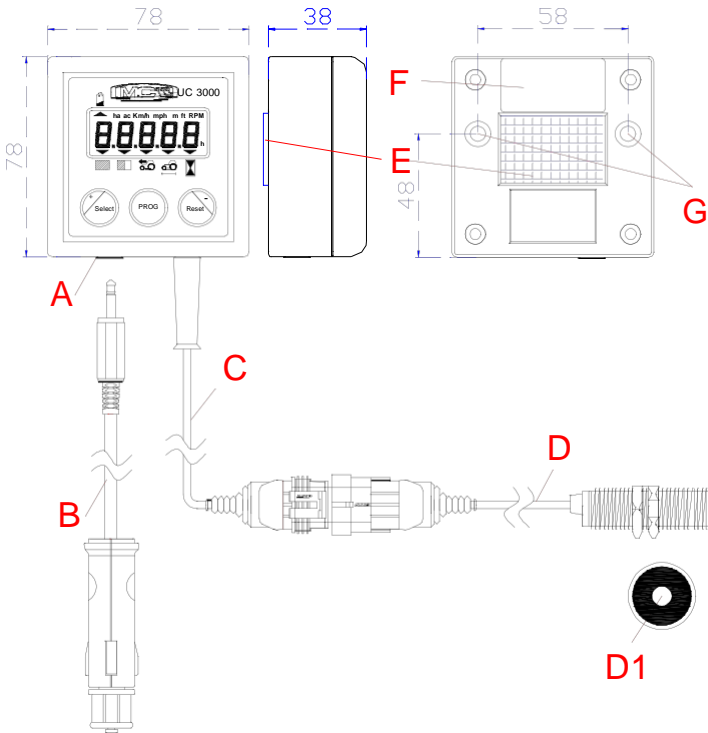
### 3. Description of the panel and electrical connections



Rif.	Description	signal Type INput/OUTput	Pin connector S.SEAL 4-way
A	LCD Display:		
	A1-A5: arrows indicating the size selected A6: arrow indicating low battery	-	-
B	Selection key size and "-" in programming	-	-
C	Programming key: allows you to enter the phase of programming parameters	-	-
D	Selection key size and "-" in programming	-	-
	Input magnetic sensor (*)	IN NPN NO	4
	Mass for the magnetic sensor	OUT GND	1
	Pin for bridge power monitor	-	2 e 3

(\*) = Maximum input frequency 35Hz magnetic sensor

## 4. Overall dimensions

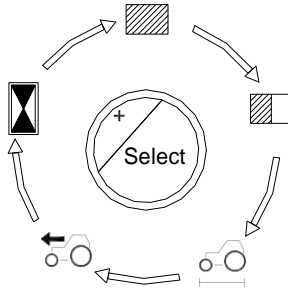


<b>A</b>	3.5 jack connector panel for battery charging
<b>B</b>	Cable 50 cm with cigarette lighter plug for charging battery (supplied) cod. CAV-0017
<b>C</b>	cable 20 cm with conn. s.seal 4-way for connection the magnetic sensor
<b>D</b>	sens. magnetic supplied cable and magnet diam.20mm (D1)
<b>E</b>	3M DUAL LOCK for removable mechanical attachment
<b>F</b>	label with identification parameters
<b>G</b>	M5 threaded inserts for mechanical fixing to panel



## 5. Operation

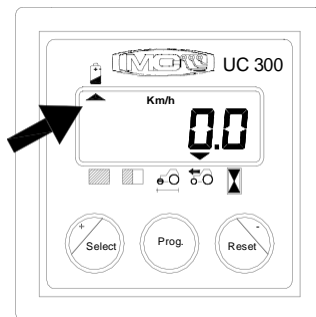
When the counter is started up for the first time (or after the battery is charged after having run down completely), the total area counter is shown on the display. The UC 300 is set by default to show metric measurements: the area is given in hectares, the speed in km/h and the distance covered in metres. The initial sequence is, therefore: Pressing the “select” button during operation shows the next measurement on the display, as follows



After selecting a measurement it is possible to reset it by pressing and holding the "reset" button for 3 seconds (with the exception of the speed of travel, which is instantaneous data).

## 6. Low battery warning

When the battery is nearly run down, the arrow under the battery symbol in the top left-hand corner lights up;



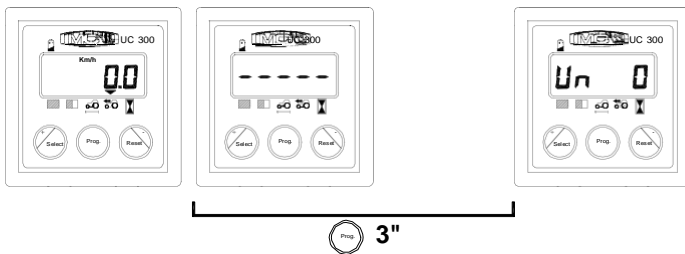
the residual autonomy of the UC 300 before it turns off completely is limited and will depend also on use. If the battery runs down completely and the UC 300 turns off, some of the data may be lost (refer to the previous section); to charge the battery, connect the cable with the jack connector (provided) to a 12V battery: **Do NOT use car battery charging devices.** The charging process generally takes about 10 hours, while the autonomy between a charging cycle and the next is about 2.5 years (although this depends on the extent and conditions of use); it is not necessary for the speed sensor to be connected while the battery is charging.

## 7. Standby mode

To save on energy and increase the autonomy of the batteries, the UC 300 automatically goes into standby after 5 minutes if it does not receive any pulses from the speed sensor and none of the buttons are pressed. In standby mode, power consumption is less than 30 $\mu$ A and the last data remains on the display without any other information. The UC 300 exits standby mode when the next pulse is received from the speed sensor or when you press any button for at least 1 second.

## 8. Programming

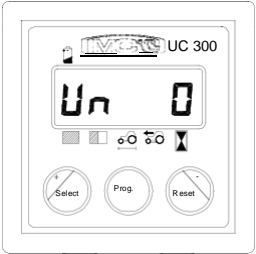
As with the totalizers, either metric or imperial units of measurement can be used for the programmable speed and area parameters. To access the programming phase with the UC 300 turned on, press the "Prog" button for 3 seconds and five horizontal dashes appear on the display. The first programmable parameter, "Un", then appears as shown below;



During the programming phase, you can use the "+" and "-" buttons to edit the value of the parameter, then press the "Prog" button to confirm your changes and move on to the next parameter;

## 8.1 Programming the “Un” (unit of measurement) parameter


Programming of this parameter is very important to the work in hand and to the programmable parameters. You need to select either the metric or imperial unit of measurement; you then only need to program the parameters of the UC 300 for the chosen unit of measurement.


	Name of parameter:	Un
	Description:	selection of unit of measurement
	Programmable range:	0 (=metric units) or 1 (=imperial units)
	Default value:	0

## 8.2 Manual programming of parameter “C” (pulses of the speed sensor)

This parameter represents the number of pulses emitted by the speed sensor after each 100 linear metres (or 328 feet) covered by the public works machine;

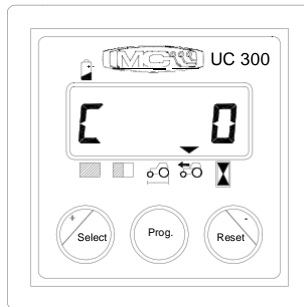
Enter the programming phase as described above and edit the value with the “+” and “-” buttons; pressing and holding either button will speed up the editing process. After setting the required value, press “Prog” to confirm and move on to the next parameter.

<p>with “Un” = 0</p> 	Name of parameter:	C
	Description:	Pulses of the speed sensor after every 100m covered by the machine
	Programmable range:	20 to 999 Steps of 1 pulse
	Default value:	200

<p>with "Un" = 1</p> 	Name of parameter:	C
	Description:	Pulses of the speed sensor after every 330 feet covered by the machine
	Programmable range:	20 to 999 Steps of 1 pulse
	Default value:	200

### 8.3 Automatic programming of parameter "C" (pulses of the speed sensor)

It is possible to program parameter C automatically: after entering the programming phase as instructed above, and with "C" shown on the display followed by the value currently programmed, press both the "+" and "-" buttons at the same time and the following appears on the display





At this point, travel 100 metres (or 330 feet) in the machine and the number will increase automatically on the display. After covering this distance, press the "Prog" button to confirm the data. It is advisable to repeat this operation at least twice.

If you try to acquire a value of less than 20 pulses, "Err" appears on the display and the UC 300 retains the last valid value to have been saved.

### 8.4 Programming parameter “L” (working width)

This parameter is the working width of the machine in metres (or feet).

Enter the programming phase as described above and edit the value with the “+” and “-” buttons; pressing and holding either button will speed up the editing process. After setting the required value, press “Prog” to confirm and exit the programming phase.

<p>with “Un” = 0</p> 	Name of parameter:	L
	Description:	Working width in metres
	Programmable range:	00.10 to 30.00 Steps of 0.01m
	Default value:	1.50
<p>with “Un” = 1</p> 	Name of parameter:	L
	Description:	Working width in feet
	Programmable range:	00.32 to 98.40 Steps of 0.01 feet
	Default value:	4.92

## 9. Maintenance

This chapter gives instructions on how to carry out ordinary and extraordinary maintenance.

**Ordinary maintenance** refers to those operations which must be carried out periodically. As they do not require specific skills, they can be carried out by the users (operators etc.).

**Extraordinary maintenance** refers to unforeseeable operations due to mechanic or electric failures. They require specific technical skills, so they should be exclusively carried out by qualified personnel (maintenance personnel etc.)

### 9.1 Ordinary maintenance

Ordinary maintenance consists in cleaning the instrument. Clean the instrument with a wet cloth and mild detergent to avoid erasing the serigraphs on the panel.



#### **Warning**

*Do not use pressure water jets.*

*Do not use abrasive products, solvents or alcohol.*

*Do not press on the keyboard with pointed or hard objects in order to avoid damaging the polyester film, thus endangering the impermeability of the keyboard.*

#### 9.1.1 How to protect the main connector

In case of an extended use of the Monitor it is advisable to disconnect the main signal connector from the harness. It is advisable to insulate both the connectors (of the Monitor and of the Harness) by using a Nylon protection.

If the connectors of the monitor and of the harness are NOT disconnected no protection is needed.

### 9.2 Extraordinary maintenance



#### **Warning**

*Extraordinary maintenance must be carried out by authorized personnel only.*

## 10. Technical data

Power supply voltage	3.6 Vdc (internal batteries)
Max. energy consumption in stand by	< 50 $\mu$ A
Protection degree	IP 65
Range of operating temperature	-20 / +70 °C
Range of storage temperature	-25 / +85 °C
Mechanic vibrations resistance	2 g random

