

GASPARDO

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GENIUS

- IT** ISTRUZIONI USO E MONTAGGIO / PARTI DI RICAMBIO
- EN** USE AND ASSEMBLY INSTRUCTIONS / SPARE PARTS
- DE** GEBRAUCH UND MONTAGEANLEITUNGEN / ERSATZTEILE
- FR** INSTRUCTIONS EMPLOI ET DE MONTAGE / PIÈCES DÉTACHÉES
- ES** INSTRUCCIONES EMPLEO Y PARA EL MONTAJE / PIEZAS DE REPUESTO
- RU** РУКОВОДСТВО ПО ЭКСПЛУАТАЦИИ И МОНТАЖУ / ЗАПАСНЫЕ ЧАСТИ

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- *) Valid for EU member countries
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- *) Gilt für EU-Mitgliedsländer
- *) Válido para Países UE

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1.0 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. Regular operation depends on the correct use and adequate maintenance of the equipment. It is advisable therefore to observe scrupulously what is described in order to prevent any inconveniences that could prejudice proper operation and duration. The equipment must be used, maintained and repaired by trained personnel that have been instructed on the dangers arising from its incorrect use. All the safety regulations and provisions for technical safety, occupational medicine and the Highway Code must also be observed. The manufacturer is not liable for any damage to property or injury to persons due to modifications made to the equipment by the user. It is just as important to keep to what is described in this booklet since **the Manufacturer declines all responsibility due to negligence and non-observance of these rules**. At any rate the Manufacturer is available to assure immediate and accurate technical assistance and all that may be necessary for the improved operation and better performance of the equipment.

1.1 GUARANTEE

On delivery, check that the equipment has not been damaged during transport and that the accessories are integral and complete.

POSSIBLE CLAIMS MUST BE PRESENTED IN WRITING WITHIN EIGHT DAYS OF RECEIPT.

The purchaser will enforce his rights on the guarantee only when he has respected the conditions concerning the benefit of the guarantee, set out in the supply contract.

1.1.1 EXPIRY OF GUARANTEE

Besides what has already been set out in the supply contract, the guarantee expires:

- If the limits set out in the technical data table are overshot.
- If the instructions set out in this booklet have not been carefully followed.
- If the equipment is used badly, defective maintenance or other errors by the client.
- If modifications have been carried out without written authorization of the manufacturer and if non original spare parts have been used.

2.0 SAFETY REGULATIONS AND ACCIDENT PREVENTION

Carefully read all the instructions before using the equipment; if in doubt, contact the technicians of the Manufacturer's dealer. The manufacturer declines all responsibility for the non-observance of the safety and accident prevention regulations described below.

General norms

- The equipment is exclusively designed for a specific agricultural use. Any other use is considered improper.
- In the event of improper use, the Manufacturer declines all responsibility for any damage to persons and property. The risks created by improper use are the sole responsibility of the user of the equipment.
- Specific use also includes observance of the operating and maintenance conditions laid down in this manual.
- The relevant generally accepted accident-prevention regulations must be observed, in addition to the latest standards relative to safety measures, occupational medicine and the highway code.
- The Manufacturer declines all responsibility for unauthorized modifications made to the equipment.

Maintenance in safety

During work and maintenance operations, use suitable personal protection gear:



Overalls



Gloves



Shoes



Goggles



Helmets

- Before performing work on the electrical system, disconnect the battery.
- If welding operations need to be performed either on the tractor or on the mounted equipment, disconnect the battery power supply.
- Do not carry out maintenance or cleaning work before the engine has been switched off, the hand brake has been put on and the tractor has been blocked with a suitably sized stone under each wheel.
- All maintenance work, adjustments and preparation for operation, must be carried out with the power take-off of the tractor disconnected, the seeder on the ground on its supporting feet, the tractor not running, the wheels blocked and the key turned off.
- The spare parts must correspond to the manufacturer's specifications. **Use only original spares.**

3.0 DESCRIPTION


The system GENIUS is used to manage distribution of a specific product (seeds and/or fertilizers) and to simultaneously check correct operation of the main parts making up the seed dispensing mechanism. The main functions of this system are:

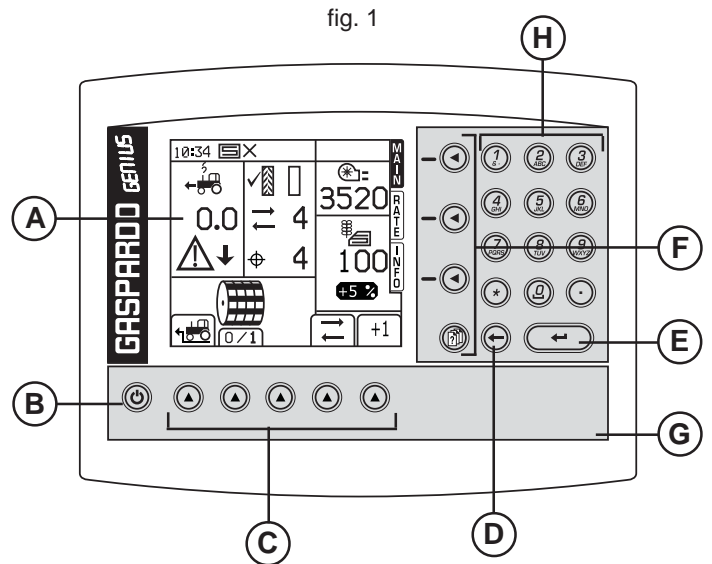
- setting and changing the quantity of product to be distributed;
- checking the rotation of cam shafts;
- checking the product level in the hopper;
- managing the TRAMLINING function – (only for CENTAURO and PA1 seed versions);
- checking the rotation of the cardan shaft in the rear rotating harrow (only for CENTAURO and PA1 seed versions);
- measuring and viewing the WORK SPEED;
- viewing the ROTATION SPEED of the FAN and corresponding min. and max. speed alarm;
- viewing the quantity of distributed product, the total and partial drilled hectares.

The system consists in a programming-control panel (GENIUS control unit), an electric motor which transfers rotary motion to the metering unit installed on the machine, a speed sensor and a set of alarm sensors (see diagrams on pages 8, 9, 10 and 11).

NOTE: - The electric system must be powered by the 12V battery of the tractor through the connection cable supplied.
 - We recommend installing the monitor facing the operator so that it is more user-friendly during operation.

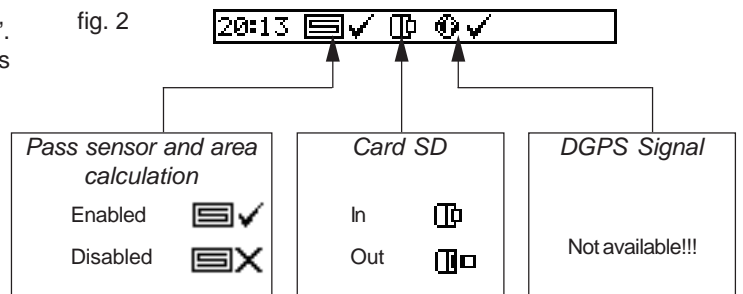
3.1 DESCRIPTION OF THE PANEL (Fig. 1)

- A) Screen
- B) ON/OFF button
- C) Buttons for function selection
- D) RETURN button
- E) ENTER button
- F) Buttons for menu selection:
 - SETUP** - programming menu  ;
 - MAIN** - main page used during operation;
 - RATE** - page for changing the quantity of product to be distributed;
 - INFO** - menu showing the drilled hectares and quantity of product distributed;
- G) Card SD reader;
- H) numeric keypad.



STATUS INDICATORS

The top part of the screen features a bar with "status indicators". This bar shows the time as well as a number of different icons (Fig. 2).



3.2 TECHNICAL SPECIFICATIONS

<p>Monitor GENIUS</p> <ul style="list-style-type: none"> - Voltage 10 to 30Vdc - Absorption 500 mA + outputs - LCD graphic display 160x128 pixel - Protection polarity inversion - EMC EEC 89/336 ISO 14982 - Protection level IP 54 - resistance to mechanical vibrations 5G @ 10 to 500Hz - Resistance to shocks 100G - Working temperature 0°C / +50°C - Storage temperature -30°C / +70°C 	<p>Radar TGSS-MKIII (where provided)</p> <ul style="list-style-type: none"> - Voltage 12Vdc - Absorption 150 mA - Micro wave frequency 24.125 GHz ± 25 MHz - Micro wave power 5 mW - Protection polarity inversion - Working temperature -30°C / +70°C - Storage temperature -40°C / +85°C - Speed range 0.3 to 62 km/h - Resolution 128.4 ppm - Electromagnetic compatibility CE, CSA, FCC
<p>Gear motor</p> <ul style="list-style-type: none"> - Voltage 12Vcc - Power 400 W - Gear ratio 50:1 - Encoder pulses 100 ppr 	<p>The technical specifications and models described above are not binding. We, therefore, reserve the right to change them without prior notice.</p>

3.3 IDENTIFICATION

Each single piece of equipment, is equipped with an identification plate (Fig. 3), which bears:

- 1) CE mark;
- 2) Manufacturers mark;
- 3) Serial number.

This information must always be quoted whenever assistance or spare parts are needed.

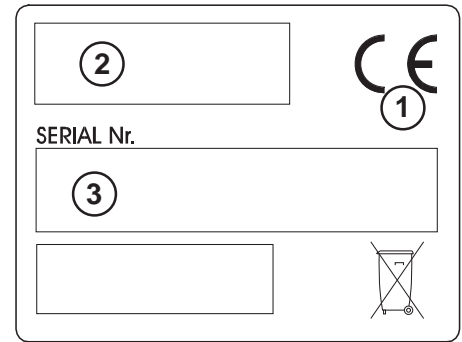


fig. 3

3.4 CONFIGURING THE SEED DISPENSING MECHANISM

The diagrams provided on pages 8, 9, 10 and 11 illustrate four single-motor solutions for distributing only one product (either seeds or fertilizers). Other possible solutions are summarised in Table 1 where a distinction is made between distribution of one or two products simultaneously (seeds and fertilizers).

IMPORTANT: the system GENIUS is configured according to purchase agreements and cannot be changed by the customer.

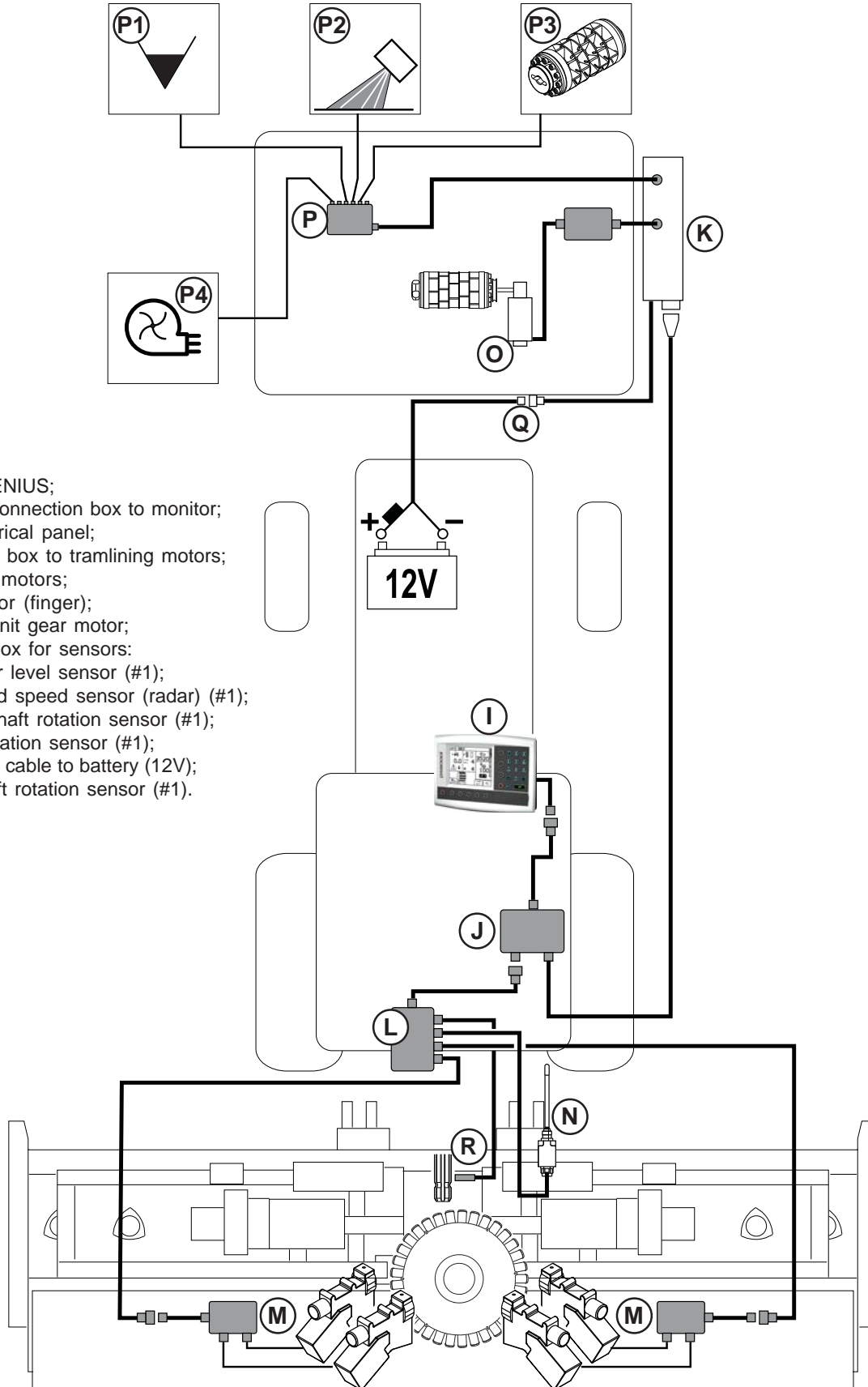
Tabella 1

Dispensed product	Setup	Motor/distributor configuration	Setup
#1 product (either seeds or fertilizer)		1 - Motor 1 - Distributor	
		1 - Motor 2 - Distributors	
		2 - Motors 2 - Distributors	
# 2 products (seeds and fertilizer)		Seeds 1 - Motor 1 - Distributor	
		Fertilizer 1 - Motor 1 - Distributor	
		Seeds 1 - Motor 2 - Distributors	
		Fertilizer 1 - Motor 2 - Distributors	

3.5 SYSTEM DIAGRAM

SEED DISPENSING UNIT – PA1

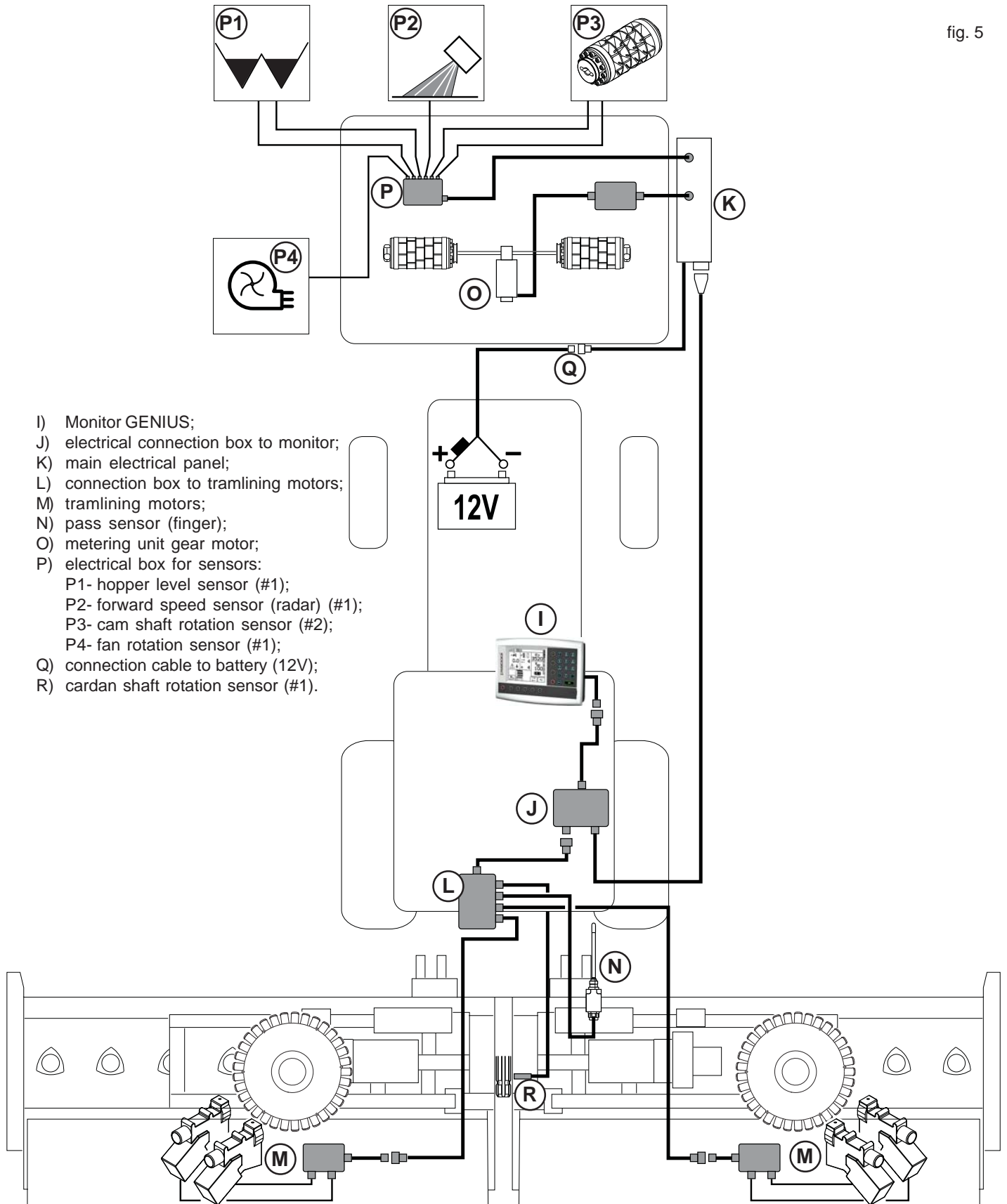
fig. 4



- I) Monitor GENIUS;
- J) electrical connection box to monitor;
- K) main electrical panel;
- L) connection box to tramlining motors;
- M) tramlining motors;
- N) pass sensor (finger);
- O) metering unit gear motor;
- P) electrical box for sensors:
 - P1- hopper level sensor (#1);
 - P2- forward speed sensor (radar) (#1);
 - P3- cam shaft rotation sensor (#1);
 - P4- fan rotation sensor (#1);
- Q) connection cable to battery (12V);
- R) cardan shaft rotation sensor (#1).

SEED DISPENSING UNIT - PA2 (CENTAURO)

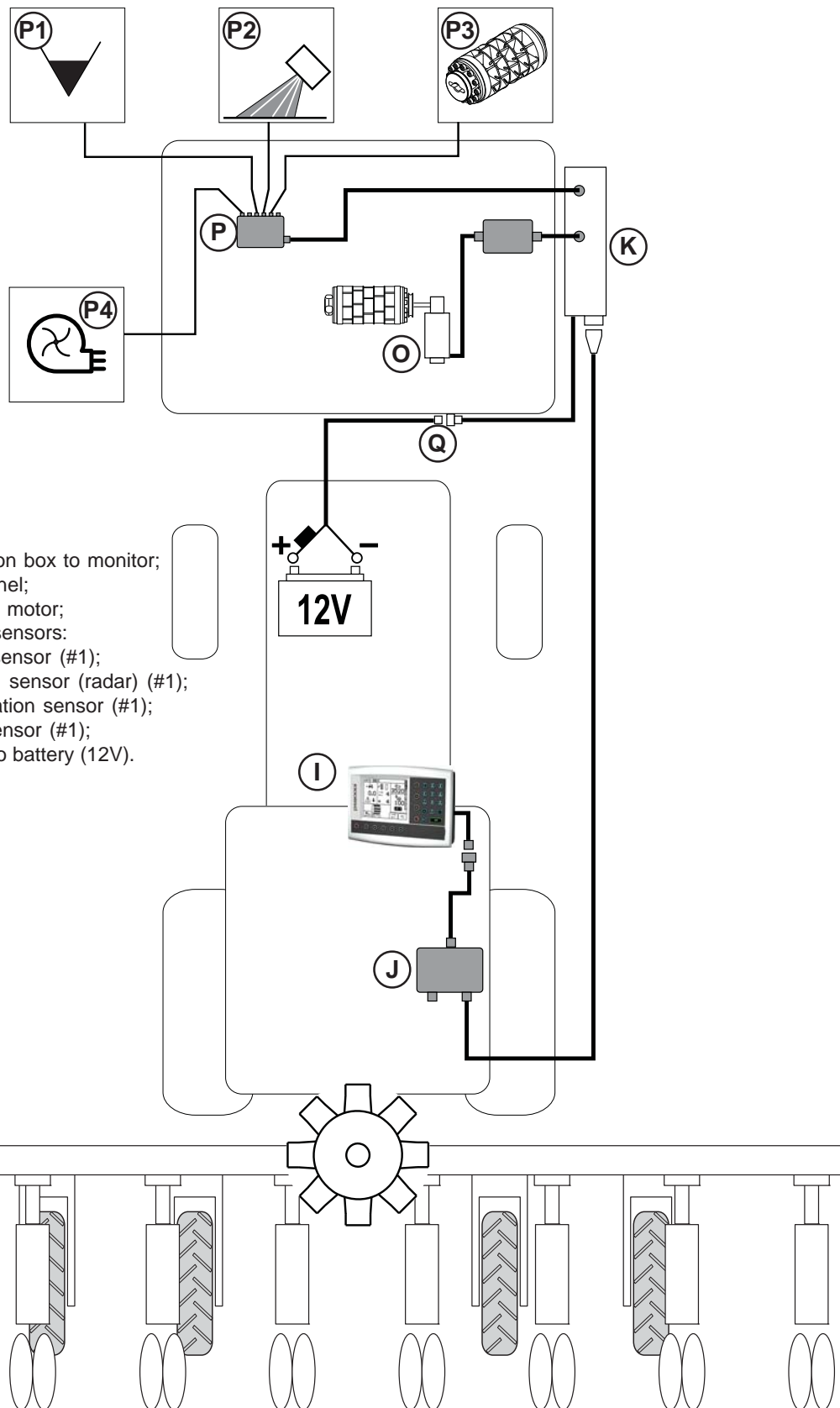
fig. 5



- I) Monitor GENIUS;
- J) electrical connection box to monitor;
- K) main electrical panel;
- L) connection box to tramlining motors;
- M) tramlining motors;
- N) pass sensor (finger);
- O) metering unit gear motor;
- P) electrical box for sensors:
 - P1- hopper level sensor (#1);
 - P2- forward speed sensor (radar) (#1);
 - P3- cam shaft rotation sensor (#2);
 - P4- fan rotation sensor (#1);
- Q) connection cable to battery (12V);
- R) cardan shaft rotation sensor (#1).

FERTILIZER DISPENSING UNIT - PA1

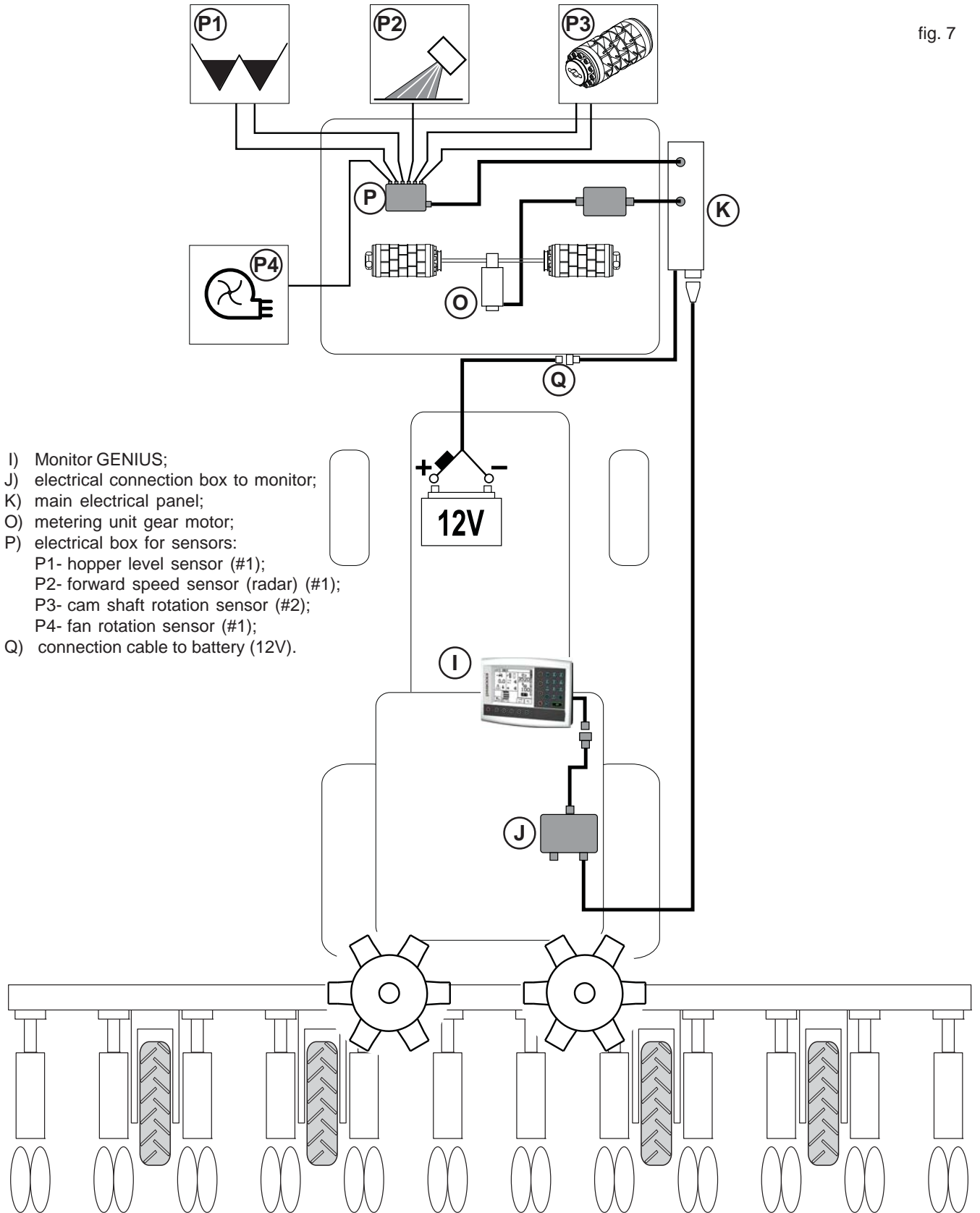
fig. 6



- I) Monitor GENIUS;
- J) electrical connection box to monitor;
- K) main electrical panel;
- O) metering unit gear motor;
- P) electrical box for sensors:
 - P1- hopper level sensor (#1);
 - P2- forward speed sensor (radar) (#1);
 - P3- cam shaft rotation sensor (#1);
 - P4- fan rotation sensor (#1);
- Q) connection cable to battery (12V).

FERTILIZER DISPENSING UNIT - PA2

fig. 7



- I) Monitor GENIUS;
- J) electrical connection box to monitor;
- K) main electrical panel;
- O) metering unit gear motor;
- P) electrical box for sensors:
 - P1- hopper level sensor (#1);
 - P2- forward speed sensor (radar) (#1);
 - P3- cam shaft rotation sensor (#2);
 - P4- fan rotation sensor (#1);
- Q) connection cable to battery (12V).

3.5.1 COMPLETION OF THE MACHINE - (CENTAURO / PA1 SEED)

INSTALLING THE PASS SENSOR "FINGER"

Place the machine on the ground in work position (Fig. 8) before installing the switch (S).

Set the stop piece (U) against the lever (V) at a measure equal to the cylinder rod diameter plus 5mm (approx.).

IMPORTANT! The switch rod (S in Fig. 9) must be subjected to stresses exclusively when the equipment is lifted with the supplied lever (T in Figs. 9 and 10) at headland.

After installation, lift the equipment and check that the switch rod (S) is subjected to stress (Fig. 10).

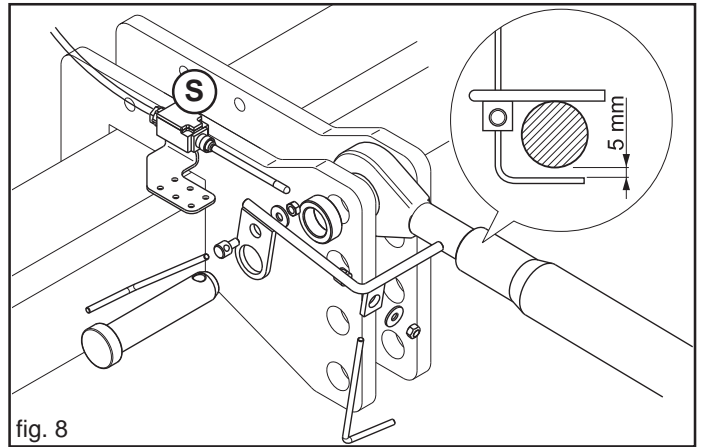


fig. 8

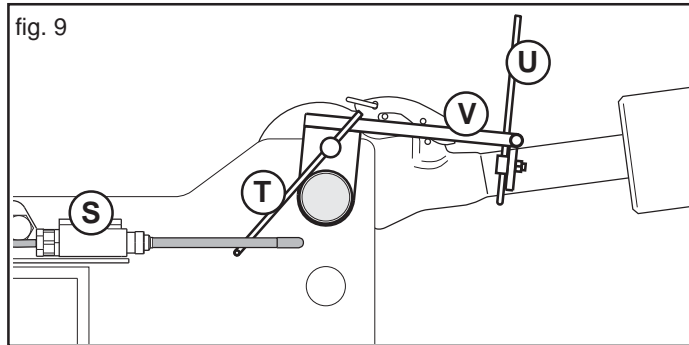


fig. 9

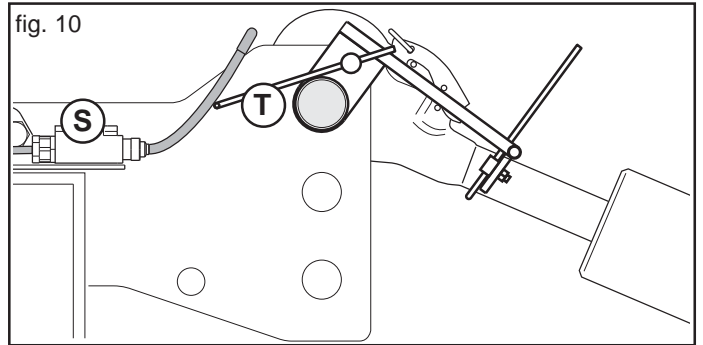


fig. 10

INSTALLING THE CARDAN SHAFT ROTATION SENSOR

Before installing this sensor (L in Fig. 11), disengage the PTO, place the equipment on the ground sitting on the supplied supports, turn the tractor off, make sure it cannot move and remove the ignition key.

WARNING: comply with the reading distance between the sensor and the cardan shaft indicated in the figure. Do not excessively tighten the two bolts holding the sensor in place.

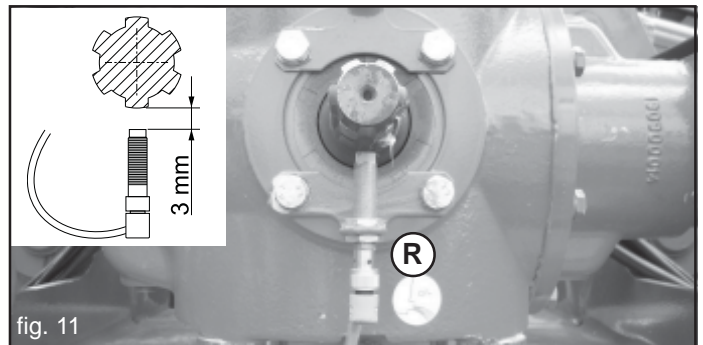


fig. 11

3.6 ELECTRICAL CONNECTION

First, hook up the rear and front equipment to the tractor following the instructions provided in the corresponding manuals. Then, connect to the electrical system (refer to the drawings on pages 8, 9, 10 and 11).

Connection to the electrical box of tramlining motors (only for seed versions).

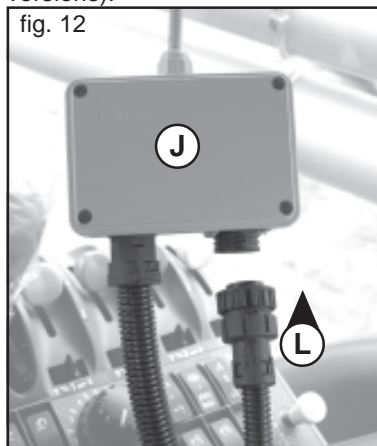


fig. 12

Connection to the main electrical panel.

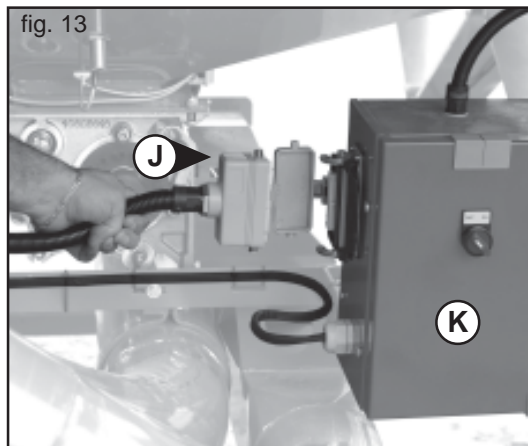


fig. 13

Connection of power cable to battery.

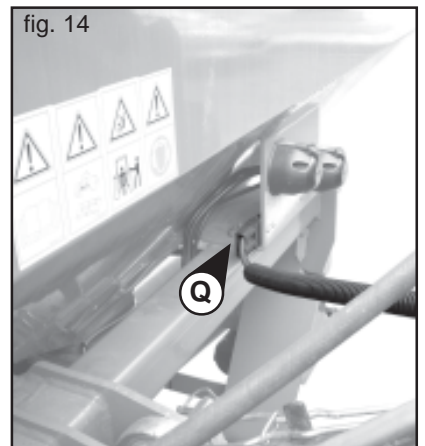


fig. 14

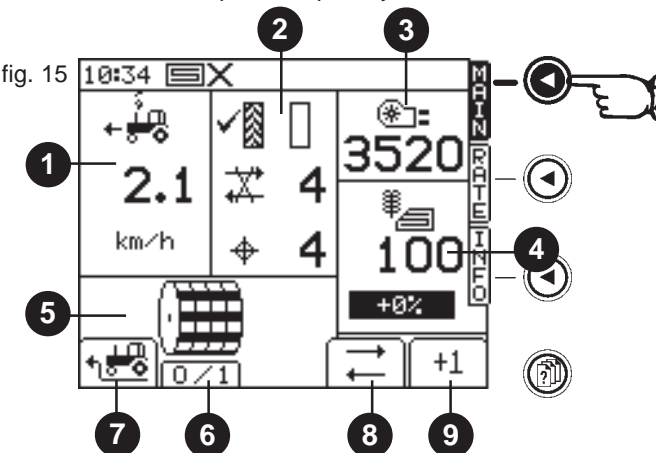
4.0 PROGRAMMING AND USE

When the monitor is switched on, it shows the MAIN page (Fig. 15), which is commonly used during operation. Use the buttons (F in Fig. 1) to view the following pages: RATE page where the quantity parameters of product to be distributed are set; SETUP page for programming purposes; INFO page for consulting the number of hectares drilled and the product quantity distributed.

4.1 MAIN PAGE

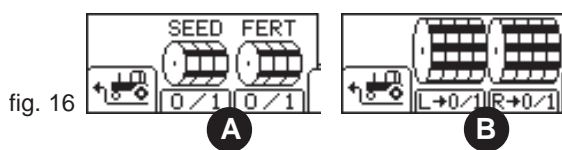
This page is divided into 5 areas where the following parameters are displayed (Fig. 15):

- 1) working speed;
- 2) status of TRAMLINING system;
- 3) fan rotation speed;
- 4) current metering (kg/ha);
- 5) motor operation;
- 6) motor ON/OFF: this parameter is used to manually stop or resume seed dispensing when required;
- 7) "pre-start" function: to prepare the equipment for the first metres of seed dispensing;
- 8) stop automatic count of passes for tramlining;
- 9) manual count of passes for tramlining.



Note! The motor operation parameters may change according to seed dispensing configurations (Fig. 16):

- A) two products (seeds-fertilizers) using two independent motors;
- B) one single product using two motors.



4.1.1 WORKING SPEED

The working speed displayed is the average speed calculated every 3 seconds.

The system is supplied with an alarm indicating low or high working speed:

- when the equipment is in work position and its speed is inferior to 0.5 km/h, a warning light blinks on the MAIN page (Figure 17), and a buzzer goes off;
- when the equipment is in work position and its speed exceeds the admissible dispensing speed range, a warning light blinks on the MAIN page (Figure 18), and a buzzer goes off.

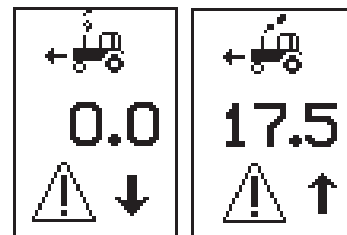


fig. 17

fig. 18

When a new metering value is set on the RATE page, the system calculates and shows the new max. working speed at which the machine can distribute the product (Fig. 19). Speed is calculated according to the quantity of product to be distributed, the drill width, the calibration and max. motor rotation speed.

The actual quantity of product that the pneumatic system on the machine can dispense depends on the drill width and the working speed as illustrated in the following diagrams (Table 2 and Table 3).

Note! Press the function key near the icon (A in Fig. 19) to go back to the RATE page.

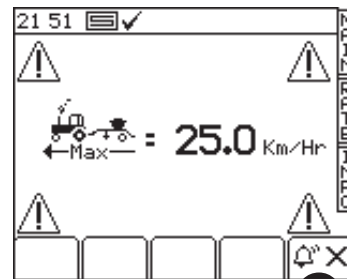


fig. 19

Table 2

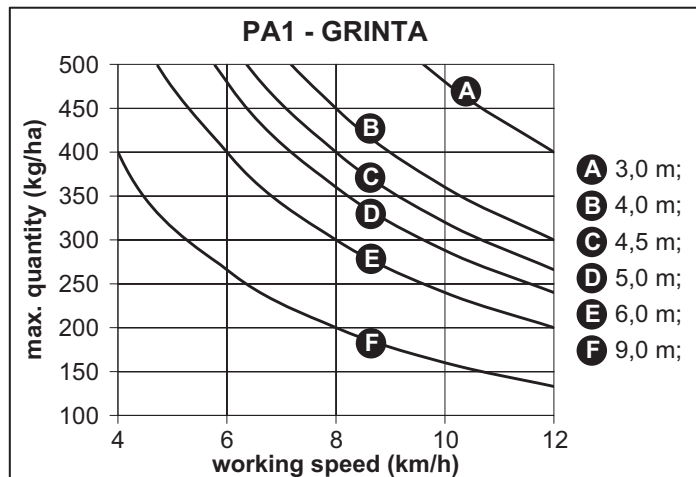
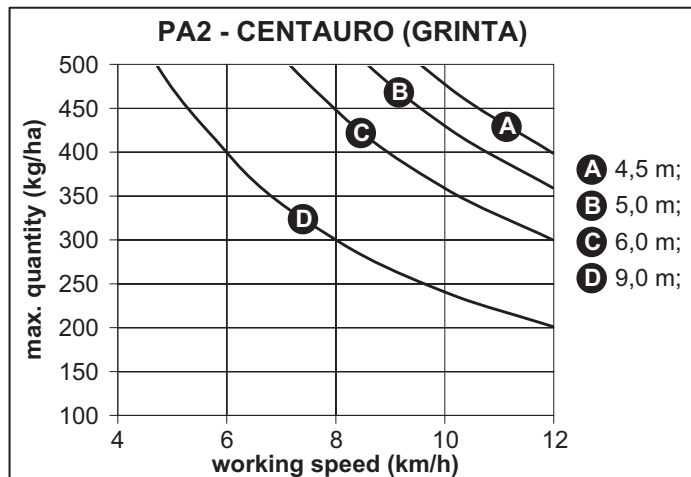
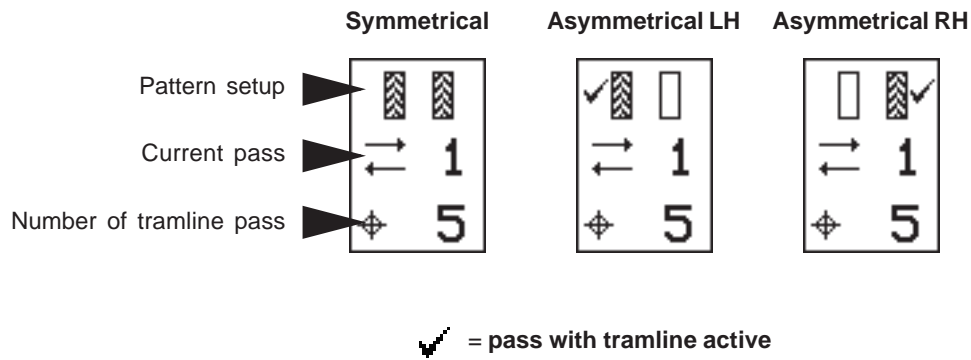


Table 3



4.1.2 TRAMLINING - (CENTAURO and PA1 seeds)

The MAIN page shows the status of the tramlining system:



MANUAL INCREASE OF “PASS NUMBER”

Press this button to manually change the current number of passes.

Passes are sensed automatically by a switch (finger) whenever the entire unit is lowered and lifted.

STOPPING THE COUNT OF “PASS NUMBER”

Press the function button to stop the automatic count of passes (e.g: whenever the equipment must be lifted and lowered to overcome an obstacle along the track).

The “count stopped” icon appears on the display.

Press the function button to resume the count.

4.2 RATE PAGE

The RATE page (Fig. 20) serves to set the quantity of product to be distributed.

During operation, this page is used to change the quantity of product to be distributed per hectare (Kg/Ha or grains/m²).

Note: the unit must be set on the SETUP page.

The RATE page shows the following:

- 1) the current metering value;
- 2) the metering setpoint;
- 3) the difference between current metering value and setpoint (in percentage);
- 4) the step set to change the metering quantity;
- 5) two function buttons + and - (C in Fig. 1) to manually change the metering value with the step setpoint (this value is set in the SETUP page, "Customise" menu);
- 6) the Reset button, which is used to reset the current metering value against the setpoint;
- 7) the max. working speed within which the current metering value is applicable.

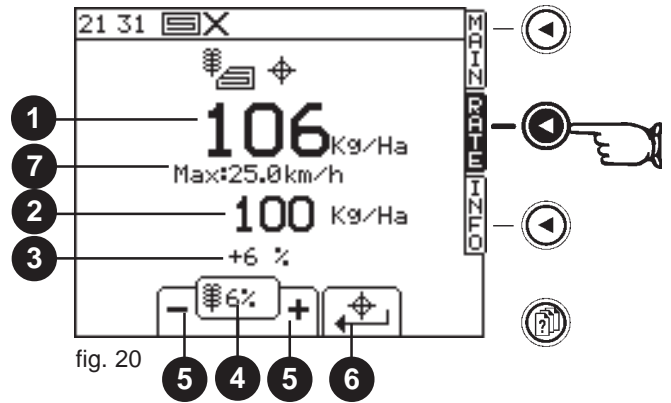


fig. 20

4.2.1 SETTING THE METERING VALUE

On the RATE page, enter the new value using the numeric keypad (H in Fig. 1). Then, press ENTER to confirm.

The display now shows the max. working speed allowed by the metering system.

WARNING: the actual quantity of product that the pneumatic system on the machine can dispense depends on the drill width and the working speed as illustrated in the diagrams on page 13 (Table 2 and Table 3).

Another possible solution for changing the metering value is the "step" (percentage increment) function. The increment value must be preliminarily set on the SETUP page.

Any changes of the metering value against the setpoint triggers a blinking light on the display.

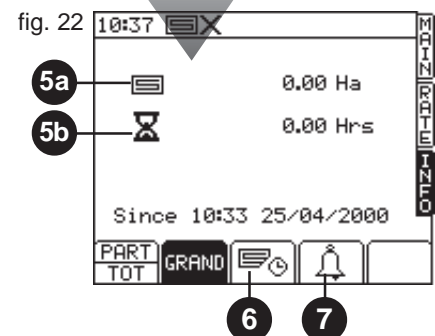
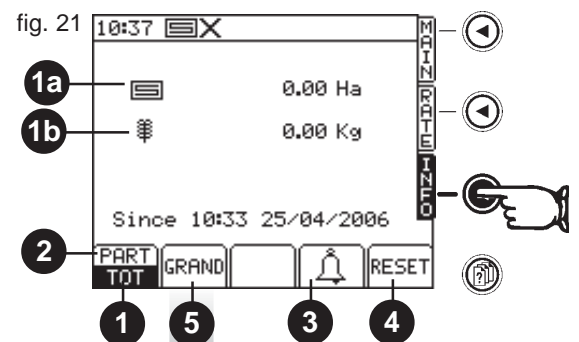
The new value also appears on the MAIN page, which is commonly used during operation.

Press the function button  to reset the metering setpoint.


4.3 INFO PAGE

This page shows the total quantity of product distributed as well as the partial and total drilled area during machine operation (Fig. 21 & 22).

- 1) "TOTAL" parameters:
 - 1a) total drilled area;
 - 2a) total number of distributed seeds;
- 2) "PARTIAL" parameters;
- 3) DISABLED;
- 4) reset button for both "TOTAL" and "PARTIAL" parameters: counters are reset from the corresponding screens;
- 5) non-resettable "TOTAL" parameters:
 - 5a) total drilled area;
 - 5b) total drill time;
- 6) DISABLED;
- 7) DISABLED.

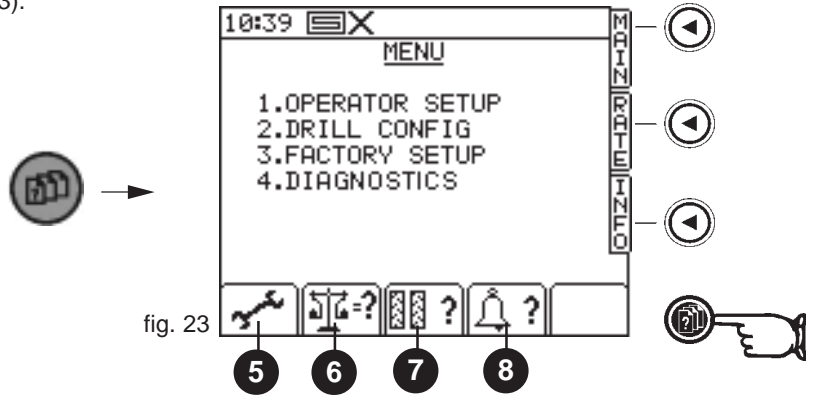


4.4 SETUP PAGE

This page is used to enter and program all the parameters required for correct system operation when the machine is not running. Press the button  to access the SETUP page (Fig. 23).

The SETUP page features the following menus:

- 1) OPERATOR SETUP;
- 2) DRILL CONFIG;
- 3) FACTORY SETUP;
- 4) DIAGNOSTICS;
- 5) Drill Setup;
- 6) Cal Check;
- 7) Tramline;
- 8) Alarms.



To select these menus, press the function buttons   followed by ENTER or directly key in the menu ID number using the keypad.



Table 4

1 st Level	2 st Level	Parameter	Setting [default]
1. OPERATOR SETUP	1. Display	Contrast	
		Brightness	
	2. Speed Sensor Factor	S.S.F. -----	[0,00778] m/pulse
		Auto-Cal Routine	
	3. Customise	Product -----	Seed / Fert
		Rate -----	[Kg/Ha] / Seed/m ²
		Step -----	[5 %]
4. Time / Date			
5. Helpline			
6. Language			
7. Drill Width			
2. DRILL CONFIG.		Menu protetto da codice PIN.	
3. FACTOR SETUP		Menu protetto da codice PIN.	
4. DIAGNOSTICS	1. Pro Series	} Informazioni utili al Servizio Assistenza per eventuale soluzione problemi.	
	2. Metering Unit		
	3. Tramline Module		
	4. History		

4.4.1 OPERATOR SETUP



Display (Fig. 24): this function is used to adjust the screen brightness and contrast.

Press the arrows   to select the option that needs to be changed.

Press the arrows   to adjust the intensity.

Press ENTER  to confirm or ESC to go back to the previous menu.

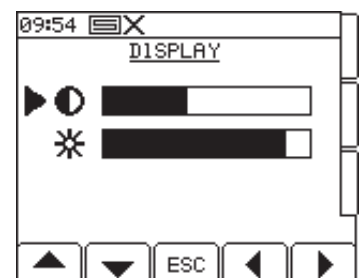


fig. 24

SETUP OPERATOR SETUP **Speed Factor**

Speed Factor (Fig. 25):

1. **SSF**= calibration factor of the working speed sensor (speed sensor factor). The control unit is set to factor **0.00778** m/pulse relating to the radar speed sensor fitted on the system (TGSS-MKIII). **Warning! DO NOT CHANGE the set value.**
2. **Auto-Cal**= a value calculated through automatic calculation of the speed factor (this test is described in section 4.4.2).

Press ESC or BACK (←) to go back to the previous menu.

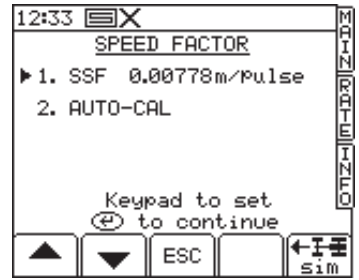


fig. 25

SETUP OPERATOR SETUP **Customise**

Customise (Fig. 26): is used to select the measurement unit for seed dispensing (Kg/Ha or seeds/m²) and to determine the percentage up/down value of the metering setpoint. **If the unit "grains/ml" is used, the system requires setting of the T.G.W. value (weight of 1000 seeds) in the "Drill Setup" menu.**

Press the arrows (↑/↓) to select the function that needs to be changed.

Press the arrows (←/→) to select the required value.

Press ENTER (↵) to confirm or ESC to go back to the previous menu.

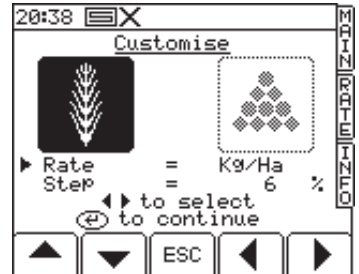


fig. 26

SETUP OPERATOR SETUP **Time/Date**

Time/Date (Fig. 27): is used to set the hour – minutes – day – month – year.

Press the arrows (↑/↓) to select the function that needs to be changed.

Enter the correct values using the numeric keypad (H in Fig. 1).

Press ENTER (↵) to confirm or ESC to go back to the previous menu.



fig. 27

SETUP OPERATOR SETUP **Helpline**

Help on-line (helpline) (Fig. 28): provides a set of useful references, may the need arise.



fig. 28

SETUP OPERATOR SETUP **Language**

Language (Fig. 29): is used to select the language.

Press the arrows (↑/↓) to select the language to be uploaded.

Press ENTER (↵) to confirm or ESC to go back to the previous menu.



fig. 29

SETUP OPERATOR SETUP **Drill width**

Drill width (Fig. 30): is used to set the drill width for the seed dispensing equipment.

Set the correct drill width using the numeric keypad (H in Fig. 1).

Press ENTER (↵) to confirm or ESC to go back to the previous menu.

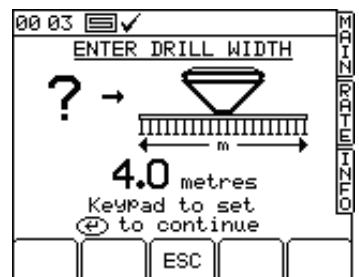


fig. 30



SETUP

OPERATOR SETUP

Drill Setup «»

If the operator knows the **Cal Factor** or **T.G.W.** values, he can enter them directly in the system in menu «» (Fig. 31) without undergoing the *Cal test*.

The display shows the following constant parameters (Fig. 32):

- **Cal Fact:** this is the product metering factor equal to the quantity (kg) of product obtained with one turn of the metering roller. If this value is known, enter it using the keypad. Press ENTER to confirm or run a “*cal test*” as instructed below.
- **T.G.W.** (“thousand grain weight”): this is the weight of 1000 seeds. Enter the actual weight of 1000 grains using the numeric keypad. Then, press ENTER to confirm. This parameter must only be set if “grains/ml” is the selected unit (see section 4.4.1 “Customise”).
- **Max Sp:** this is the max. working speed to guarantee correct seed distribution (it is automatically calculated by the system).
- : this procedure is used to correct the product metering factor (Cal Fact): it can be applied only after 1 ha of drilled area.
NOTE: this procedure IS NOT RECOMMENDED!!! Adhere to the procedures described below (section 4.5.1).
- : this procedure is used to correct the product metering factor (Cal Fact) with reference to a desired quantity of product set in the system.
According to this procedure, start the motor by pressing the ENTER button, and collect the set quantity of product in a container.
Stop the motor and weigh the collected product. Then, use the keypad to enter the net value of the product weight.
Press ENTER twice to confirm the parameter value. The display shows the test results, i.e. the previous and the new metering factor, the correction percentage and the new max. speed calculated.
Press ENTER to confirm or ESC to cancel the operation.

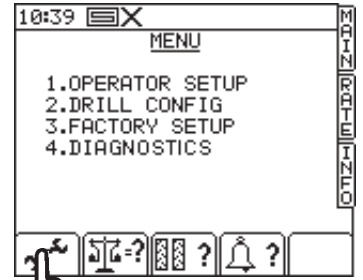


fig. 31

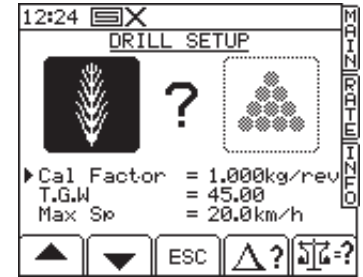


fig. 32

SETUP

OPERATOR SETUP

Cal Check «»

This procedure is used to correct the product metering factor (Cal Fact) (Fig. 33).
This is the same procedure as that described in the section “Drill Setup”.






fig. 33

SETUP

OPERATOR SETUP

Alarms «»

This menu is used to set the alarms regarding fan rotation and hopper level (Fig. 34 & 35). Enter the following parameters:
- alarm: min. threshold for fan rotation (see Table 5);
- alarm: max. threshold for fan rotation (see Table 5);
- alarm: hopper level: ON / OFF.

Press the buttons   to find the desired parameter. Enter the new values recommended in Table 5 using the keypad. Then, press ENTER  to confirm.



Press the button   to enable (ON) or disable (OFF) the hopper level alarm.



fig. 34



fig. 35

Table 5

	FAN ROTATION SPEED (rpm)	
	Min.	Max.
Standard seeds	3700	3900
Fine seeds	2500	3000
Fertilizer (up to 200 Kg/Ha)	3500	3700
Fertilizer (over 200 Kg/Ha)	3700	3900

SETUP OPERATOR SETUP Tramline « ? »

This menu is used to set the number of passes required for tramlining and determine the sequence (symmetrical or asymmetrical) (Fig. 36). The control unit offers multiple combinations depending on the drill width of the seed drill and SPRAY bar (Fig. 37). The drill width of the seed drill is set as instructed in section 4.4.1.

The definition **Right (RH)** or **Left (LH)** applies from the machine back.

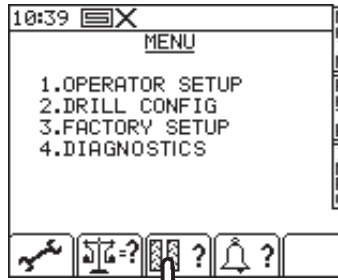


fig. 36

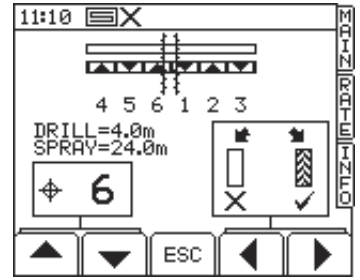


fig. 37

TRAMLINE SEQUENCE: SYMMETRICAL

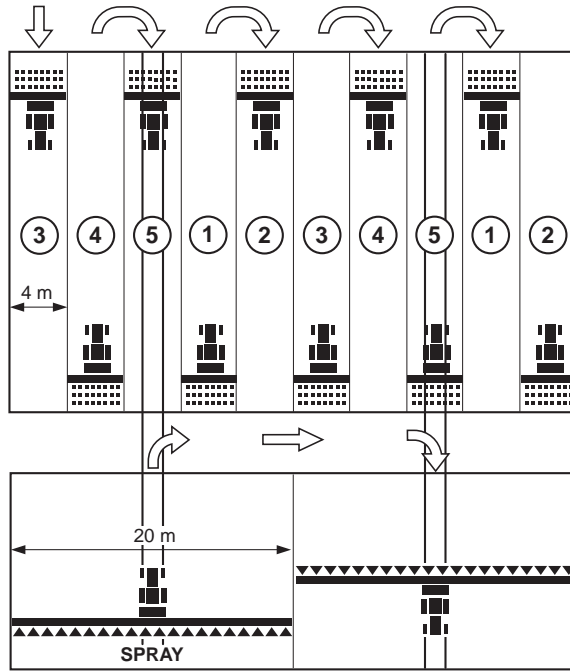


fig. 38

TRAMLINE SEQUENCE: "ASYMMETRICAL and LEFT (LH)"

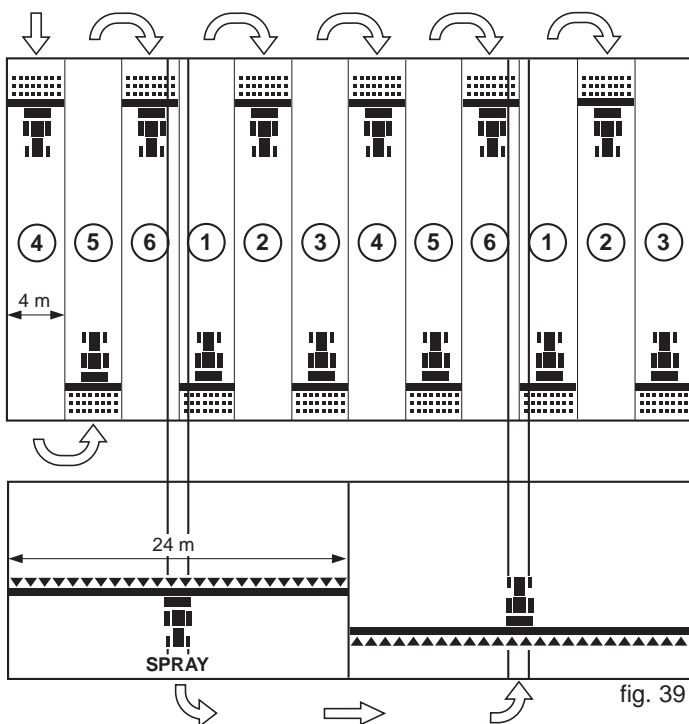


fig. 39

TRAMLINE SEQUENCE: "ASYMMETRICAL and RIGHT (RH)"

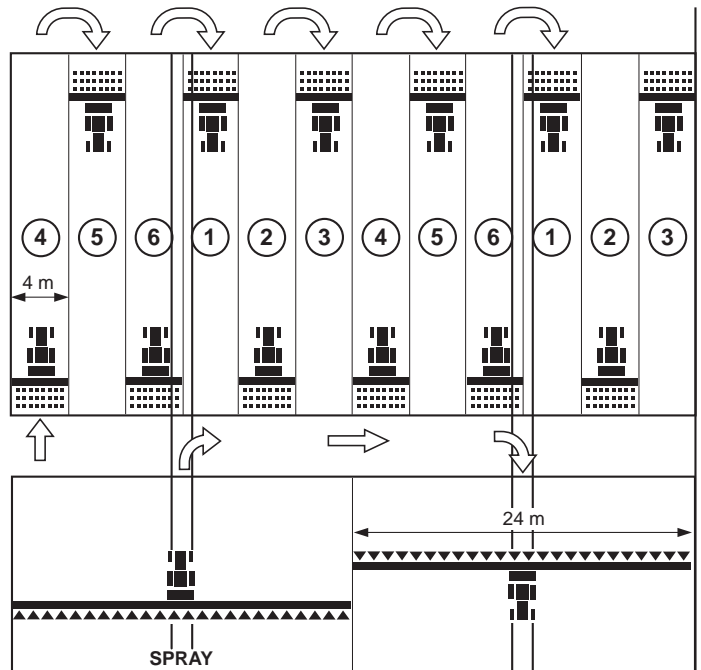
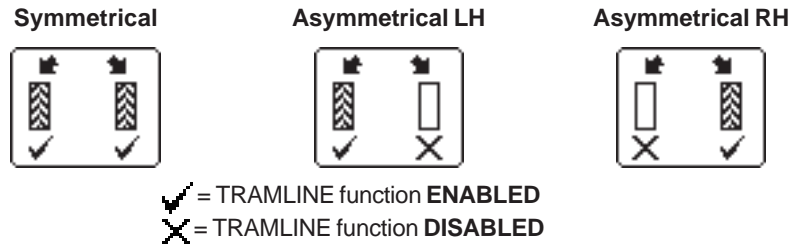


fig. 40

Use the buttons to select the number of passes desired.
Press the buttons to select the required sequence:



For easier reading of the programming functions, the display shows the default work conditions already set in the system (Fig. 41 & 42).

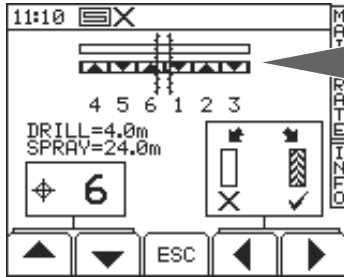


Fig. 41: example of tramline - asymmetrical RH

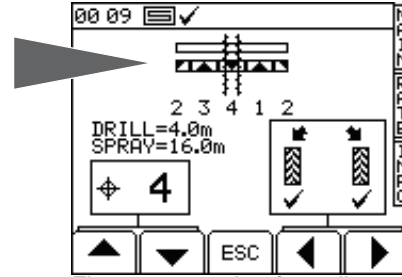


Fig. 42: example of tramline - symmetrical

The control unit shows a default number of 10 passes as well as a set of special combinations according to which the sequence is defined, and cannot be changed (Table 6). Table 7 illustrates the possible tramline sequences (**R** = right; **L** = left).

Table 6

Type	Seed drill (m)						
	3,5	4,0	4,5	5,0	6,0	9,0	12,0
8-pass	9,3	10,7	12,0	13,3	16,0	24,0	32,0
10-pass	8,8	10,0	11,3	12,5	15,0	22,5	30,0
10-pass	11,7	13,3	15,0	16,7	20,0	30,0	40,0
14-pass	16,3	18,7	21,0	23,3	28,0	42,0	56,0
16-pass	18,7	21,3	24,0	26,7	32,0	48,0	64,0
18-pass	15,8	18,0	20,3	22,5	27,0	40,5	54,0
22-pass	25,7	29,3	33,0	36,7	44,0	66,0	88,0
	Sprayer (m)						

Table 7

Passes	8-pass	10-pass	10-pass	14-pass	16-pass	18-pass	22-pass
1							
2	R	R	L				
3				L	R	L	
4	L	L					L
5	L		R				
6			R				
7	R	L		R		R	
8				R	L		
9		R	L		L		
10							
11							R
12				L		R	R
13							
14					R		
15							
16						L	
17							
18							
19							L
20							
21							
22							

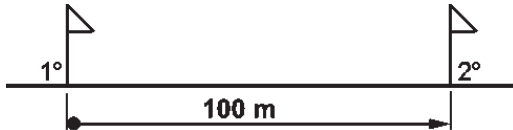
Press ESC to exit the menu.

4.4.2 AUTOMATIC CALCULATION OF THE SPEED FACTOR "AUTOCAL"

SETUP OPERATOR SETUP Speed Factor **AUTO-CAL**

The SSF is best calibrated using the "Autocal" function. This function is used to automatically calculate the factor by detecting the pulses when the equipment (seed drill, monitor, sensors, etc.) is in real work conditions.


- 1) Position two signal emitting devices 100 metres (328 feet) from one another. Choose a reference point on the tractor or equipment and use it as the start and finish point.



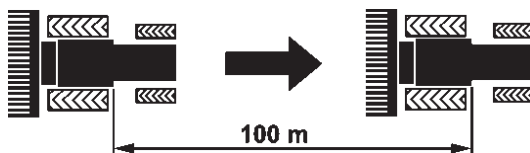
- 2) Place the tractor in such a way that the reference point is at the same height as the first signal.


- 3) Press SETUP , on the panel. Then, select the following path:


- > 1. Operator Setup;
- > 2. Speed Sensor Factor;
- > 2. Auto-Cal (Fig. 43).

- 4) Press ENTER  to start the "Auto-cal" process.

- 5) Let the tractor travel along the selected path (100 m or 328 feet) and stop it when the reference point on the tractor reaches the second signal.



- 6) Press ENTER  to complete the "Auto-cal" process. The system calculates the new calibration factor of the speed sensor and shows it on the display (Fig. 44).

- 7) Acknowledge the suggested value by pressing ENTER . Alternatively, press ESC to cancel the process (Fig. 45). The panel goes back to the "Speed Factor" menu.

- 8) After acknowledging the value, the "Speed Factor" menu updates the SSF value (m/pulses) with the value calculated during the "Auto-cal" process.

The auto-cal process may be cancelled at any time by pressing ESC.



fig. 43

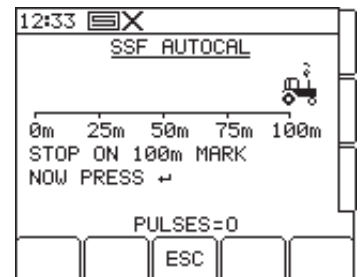


fig. 44

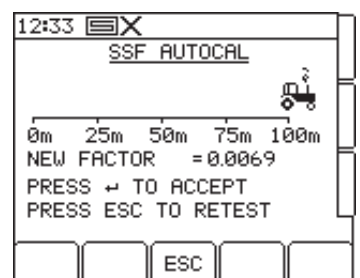


fig. 45

4.5 CAL TEST

This test is aimed at calculating the quantity of product that is distributed at each metering roller turn.



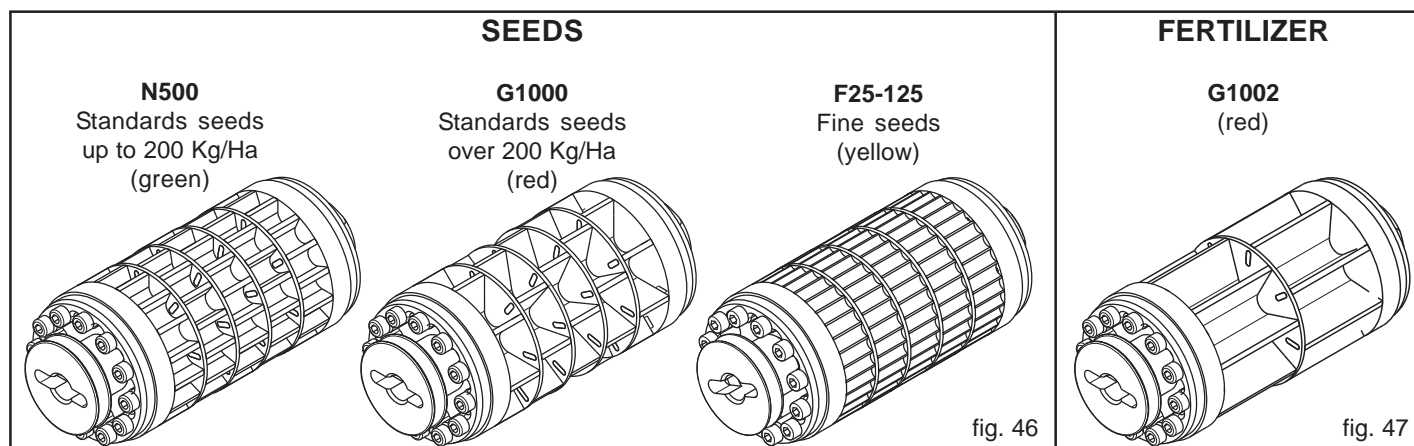
WARNING
Moving parts!

- Before operating the equipment check that there are no persons, especially children, or pets around the machine, and that there is good visibility.
- Before the cal test, make sure that there is no foreign matter inside the hopper and metering units.



IMPORTANT

Make sure that the correct metering roller is installed.



- 1) Fit the equipment with the correct metering roller, suitable with the type of product selected.
- 2) Position the required containers under the two metering units and open the spouts for product discharge (Fig. 48).
- 3) Put product in the hopper.
- 4) Turn the switches in the main electrical panel to ON (W in Fig. 49).

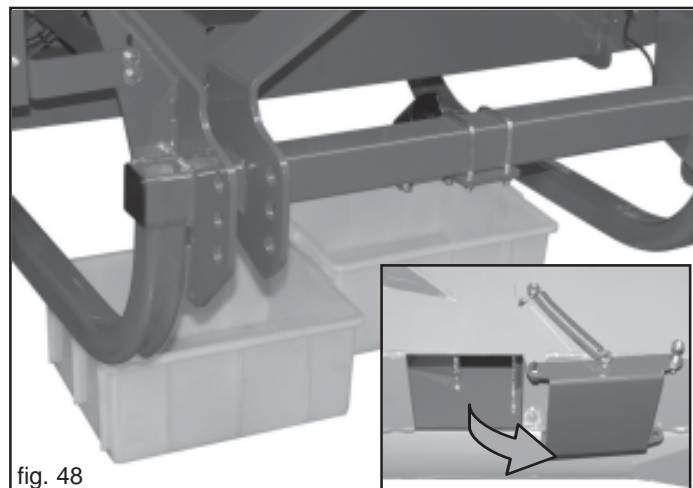


fig. 48



fig. 49

- 5) Switch on the panel (Fig. 50) and wait until the initialization process is completed (approx. 8 to 10 seconds).
- 6) Fill the metering rollers with product before starting the cal test. Press the "CAL TEST" button (Z in Fig. 49) and hold it pressed for approx. 5 seconds. Then, release the button and empty the containers from product. Finally, position the containers back under the metering units.
Now, the equipment is ready for the cal test.

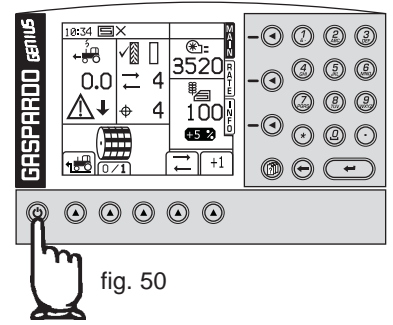


fig. 50

- 7) Press the "CAL TEST" button (Z in Fig. 49) and hold it pressed for the time required to collect the necessary quantity of product:
10 to 15 kg – standard seeds and fertilizer;
3 to 5 kg – fine seeds.

During this operation, the display shows the image of the metering roller moving and a simulation of product dropping into the containers (Fig. 51).

NOTE: during the test, motor rotation CANNOT be stopped and resumed. When the test button is released, the cal test can be stopped, or resumed from step 7 after emptying the containers.

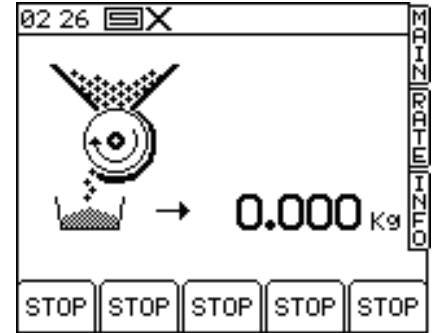


fig. 51

- 8) Release the "CAL TEST" button (Z in Fig. 49) to stop the motor.
The panel display shows the image of the metering roller not running and a quantity of product in the containers (Fig. 52). It also shows a theoretical quantity calculated according to the set parameters.

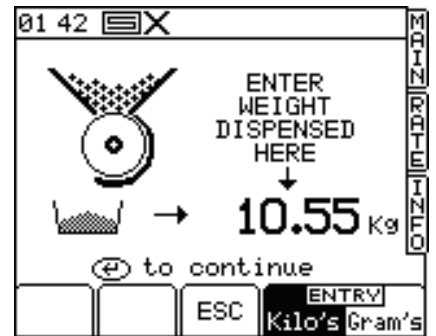


fig. 52

- 9) Weigh the collected product and use the numeric keypad to enter the net value of the product weight in the panel (Fig. 53).
WARNING! Use the correct unit (Kg or gr) and pay attention to the position of the decimal point (8.35 Kg = 8350 gr).

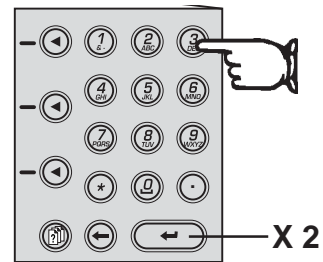


fig. 53

- 10) Press ENTER (←) twice to confirm the parameter value.
The display shows the test results (Fig. 54):
- previous cal factor;
- new cal factor;
- correction percentage;
- new max. speed calculated.

- 11) Press ENTER (←) to confirm and update the system with the new product cal factor or ESC to cancel the operation.

The display goes back to the SETUP menu for further cal checks (see section 4.5.1). Press MAIN to go back to the main page.









fig. 54

WARNING: after the test, close the spouts (Fig. 48).

4.5.1 CAL CHECK

The product cal factor can be checked and corrected, if needed, by trying to distribute a user-defined quantity of product.

The check consists in the following steps.

- 1) Position the required containers under the metering units and open the spouts for product discharge (Fig. 48).
- 2) Turn the switch in the main electrical box to ON (W in Fig. 49).
- 3) Switch on the panel and wait until the initialization process is completed (approx. 8 to 10 seconds).
- 4) Press the button SETUP  followed by "Drill Setup"  first and "Cal Check" , then.
- 5) Use the numeric keypad to enter the quantity of product to be distributed for the check (Fig. 55).
- 6) Start the check by pressing the ENTER button  in the panel. Collect the distributed quantity of product in a container.
- 7) The motor stops automatically when the set quantity is reached. Weigh the collected product and use the keypad to enter the net value of the product weight.
- 8) Press ENTER  twice to confirm the parameter value. The display shows the test results (Fig. 56):
 - previous cal factor;
 - new cal factor;
 - correction percentage;
 - new max. speed calculated.
- 9) Press ENTER  to confirm or ESC to cancel the operation.
- 10) The display goes back to the SETUP menu. Press MAIN to go back to the main page.

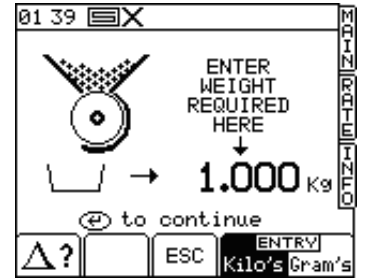


fig. 55



fig. 56

WARNING: after the test, close the spouts (Fig. 48).

PARAMETER TABLE

Table 6 can be used to write down the results of the cal tests according to the type of product used for the test (seeds or fertilizer) and its specific weight.

Table 8

PRODUCT FEATURES			TEST RESULTS	
No.	PRODUCT type (seed/fertilizer)	Specific weight (Kg/dm ³)	Cal Factor (Kg/turn)	T.W.G. (gr/1000 grains)
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				




4.6 SPECIAL FUNCTIONS

4.6.1 "SIMULATED SPEED" FUNCTION

If the speed sensor does not work properly, the system can be programmed with a simulated speed so as to prevent stopping production.

In this mode, the speed of the tractor must be kept as close as possible to the programmed simulated speed value.

WARNING: if the tractor travels at higher speed than programmed speed, the amount of product distributed per hectare will be smaller, and vice versa.

- 1) Manually disable the rotation of the metering units (Fig. 57).
- 2) Press SETUP , on the panel. Then, select the following path:
 - > 1. Setup Operator;
 - > 2. Speed Sensor Factor;
 - >  Simulated speed (Fig. 58).
- 3) Enter the simulated working speed value using the numeric keypad (Fig. 59).
- 4) Press ENTER  to start the "simulated speed" process.

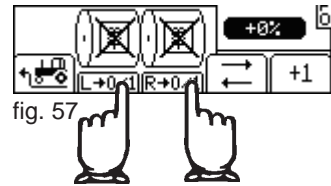


fig. 57

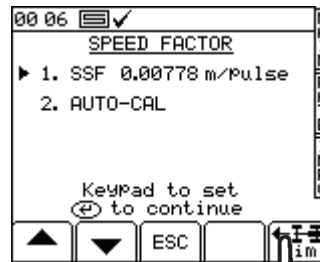


fig. 58

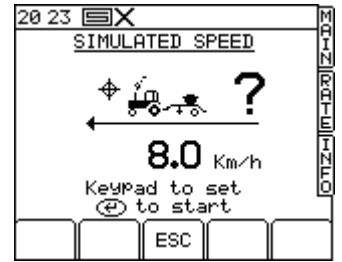




fig. 59

NOTE: when "simulated speed" is enabled, the "working speed" field blinks in the display (Fig. 60).

To exit "simulated speed" mode, press the SETUP button , on the panel followed by the function button "sim-OFF" .

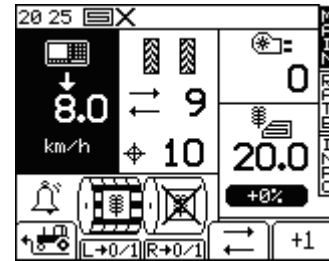



fig. 60

4.6.2 "PRE-START" FUNCTION

If the hopper is installed at the front of the tractor, the "pre-start" function is very useful to prevent leaving non-drilled headland areas. At the beginning of a pass with the machine not running, the control unit engages the motors before time, so that the metering rollers and tubes are filled with product. This enables dispensing product in the first meters also.

This function is enabled by pressing the corresponding button  in the MAIN page. The motor is engaged at a fixed speed for a max. preset time (approx. 5 seconds) or until the system detects a working speed over 2 Km/h, thus switching back to proportional control.

If the working speed detected after 5 seconds does not exceed 2 km/h, the motor stops automatically.

4.6.3 "HALF WIDTH" FUNCTION

Sometimes, the working width required is half that of the equipment. For instance:

- first pass at the beginning of the work cycle;
- last pass at the end of the work cycle;
- finishing operations at headland.

When the machine is configured with 1 motor and 2 distributors, one distributor can be disabled to supply half of the product. Mechanically disable the transmission of one distributor as instructed in the relevant manual.

When work is resumed, no pulses are sent to the control unit by the disabled distributor, which causes an alarm message to appear and warn the operator about an error (Fig. 61) in one of the two distributors (*right or left*).

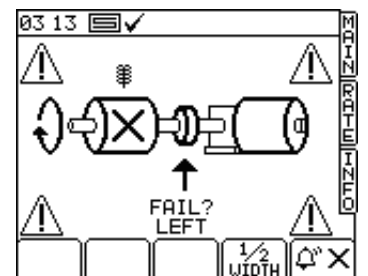



fig. 61

Press the function button  to confirm the new configuration.

Use this configuration during operation to enable the Genius system to half the count of drilled hectares.

To restore full width configuration, connect the transmission of the disabled distributor. The control unit senses the distributor rotation pulses and automatically resets standard configuration.

4.7 ALARM MESSAGES

If the system is not working properly, the following checks can be carried out to understand whether service is required. If the problem persists even after the recommended checking, address the local dealer and report the problem to the Manufacturer using the "Report form" in the last page of this manual.




WARNING

The use of mobile phones, HAM radio systems or work near magnetic fields (high voltage electricity pylons) may jeopardise correct system operation.

Figure 62 illustrates the screen which appears when an alarm triggers.

The operator is warned about a problem through a message on the alarm screen, where useful information is also displayed.

Press the function button  to clear the displayed alarm and reset the display to the original status, or to move on to another alarm, if more than one alarm has triggered.

There are three alarm levels according to priority:

- HIGH PRIORITY**
 - 1 -Module offline;
 - 2 -Module temperature;
 - 3 -Module overload.
- MEDIUM PRIORITY**
 - 1 -Motor speed;
 - 2 -Shaft confirmation;
 - 3 -Encoder failure.
- LOW PRIORITY**
 - 1 -Low/High fan speed;
 - 2 -Cardan speed;
 - 3 -Hopper level low.

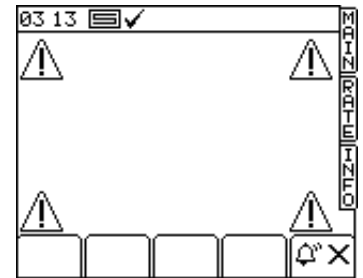
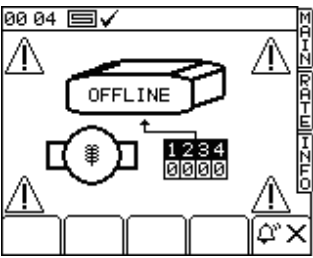
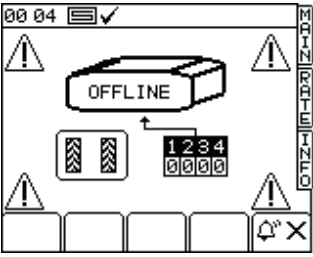
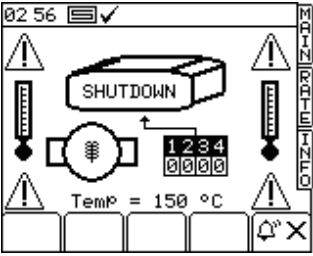
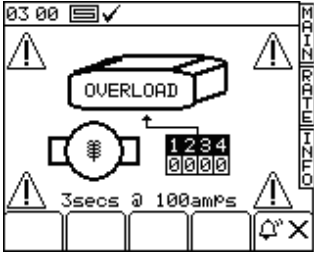
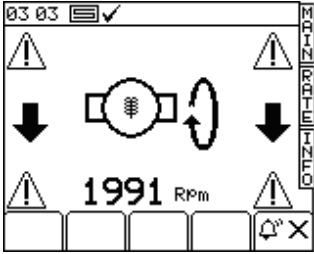
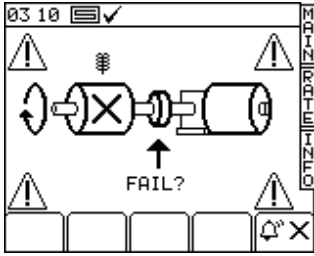
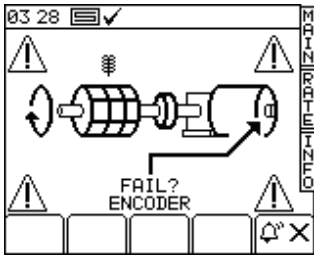
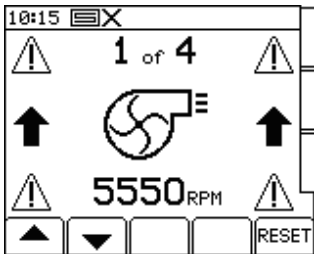
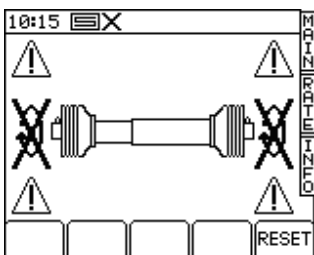
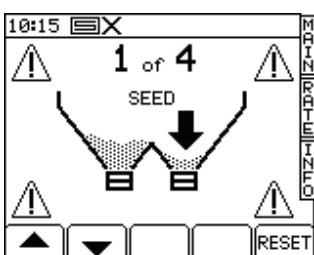


fig. 62

NOTE: if several alarm trigger simultaneously, they are displayed according to priority level.

Tabella 9

ALARM	DESCRIPTION	SOLUTION
	<p>ALARM: MODULE MCM OFFLINE Indicates that the control unit does not sense connection of module MCM.</p>	<ul style="list-style-type: none"> - Check the electrical connections of the system and inside the main electrical panel.
	<p>ALARM: MODULE HBM OFFLINE Indicates that the control unit does not sense connection of module HBM.</p>	<ul style="list-style-type: none"> - Check the electrical connections of the system and inside the main electrical panel.
	<p>ALARM: MODULE MCM TEMPERATURE Indicates that the temperature of the motor control module is excessively high.</p>	<ul style="list-style-type: none"> - Check that the metering units and/or motor turn freely. - Module MCM may be malfunctioning. - The motor may be malfunctioning.

ALARM	DESCRIPTION	SOLUTION
	<p>ALARM: MODULE MCM OVERLOAD Indicates that the current absorption of the motor exceeds the safety limit.</p>	<ul style="list-style-type: none"> - Check that the metering units and/or motor turn freely. - Module MCM may be malfunctioning. - The motor may be malfunctioning.
	<p>ALARM: LOW/HIGH MOTOR SPEED Indicates that the gear motor fails to reach the rotation speed required for dispensing the necessary quantity of product.</p>	<ul style="list-style-type: none"> - Reduce or increase the travel speed. - Check that the metering roller is suitable for the type and quantity of product to be dispensed.
	<p>ALARM: SHAFT CONFIRMATION Indicates that the motor is running, but the rotation sensor is not receiving pulses.</p>	<ul style="list-style-type: none"> - The metering unit is stuck. - The aluminium pin connecting the axis and metering unit is sheared. - The sensor detecting metering unit rotation is malfunctioning, disconnected or out of position.
	<p>ALARM: ENCODER FAILURE Indicates that the motor encoder does not sense any rotation pulse.</p>	<ul style="list-style-type: none"> - The encoder may have failed. - The encoder connection may be broken.
	<p>ALARM: LOW/HIGH FAN SPEED Indicates that the fan speed is higher or lower than the min./max. threshold set in the system.</p>	<ul style="list-style-type: none"> - Reduce or increase the fan speed. - Check that the min./max. alarm threshold is set correctly (see section 4.3.1).
	<p>ALARM: CARDAN SPEED Indicates that the sensor installed on the harrow does not sense any rotation pulse. <i>This message appears exclusively when the machine is in work position and the travel speed is >2Km/h.</i></p>	<ul style="list-style-type: none"> - The PTO is not connected. - The safety device on the cardan shaft has tripped (harrow blocked).
	<p>ALARM: HOPPER LEVEL LOW Indicates that the product level inside the hopper has dropped below the sensor detection point.</p>	<ul style="list-style-type: none"> - The hopper is running out of product.

5.0 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.).

5.1 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.

ATTENTION

Store the equipment in a dry and indoor place. Should this not be possible, it is RECOMMENDED to cover it with a rubber cloth paying attention to the electric devices.

5.1.1 HOW TO PROTECT THE MAIN CONNECTOR

If the GENIUS System is not used for prolonged periods, disconnect the main connector of the wiring and the supply cable. It is advisable to protect the connectors with Nylon coverings.

6.0 DEMOLITION AND DISPOSAL

This operation is to be carried out by the customer.

Before demolishing the machine, you are advised to carefully check its physical condition and ascertain whether there are any parts of the structure that may be susceptible to structural collapse or breakage during demolition.

The customer should operate in compliance with the environment protection laws in force in his/her country.



CAUTION

The machine demolition operations should be carried out by skilled personnel only, equipped with suitable protective clothing (safety footwear and gloves) and auxiliary tools and equipment. All the disassembly operations for demolition should be carried out with the machine stopped and detached from the tractor.

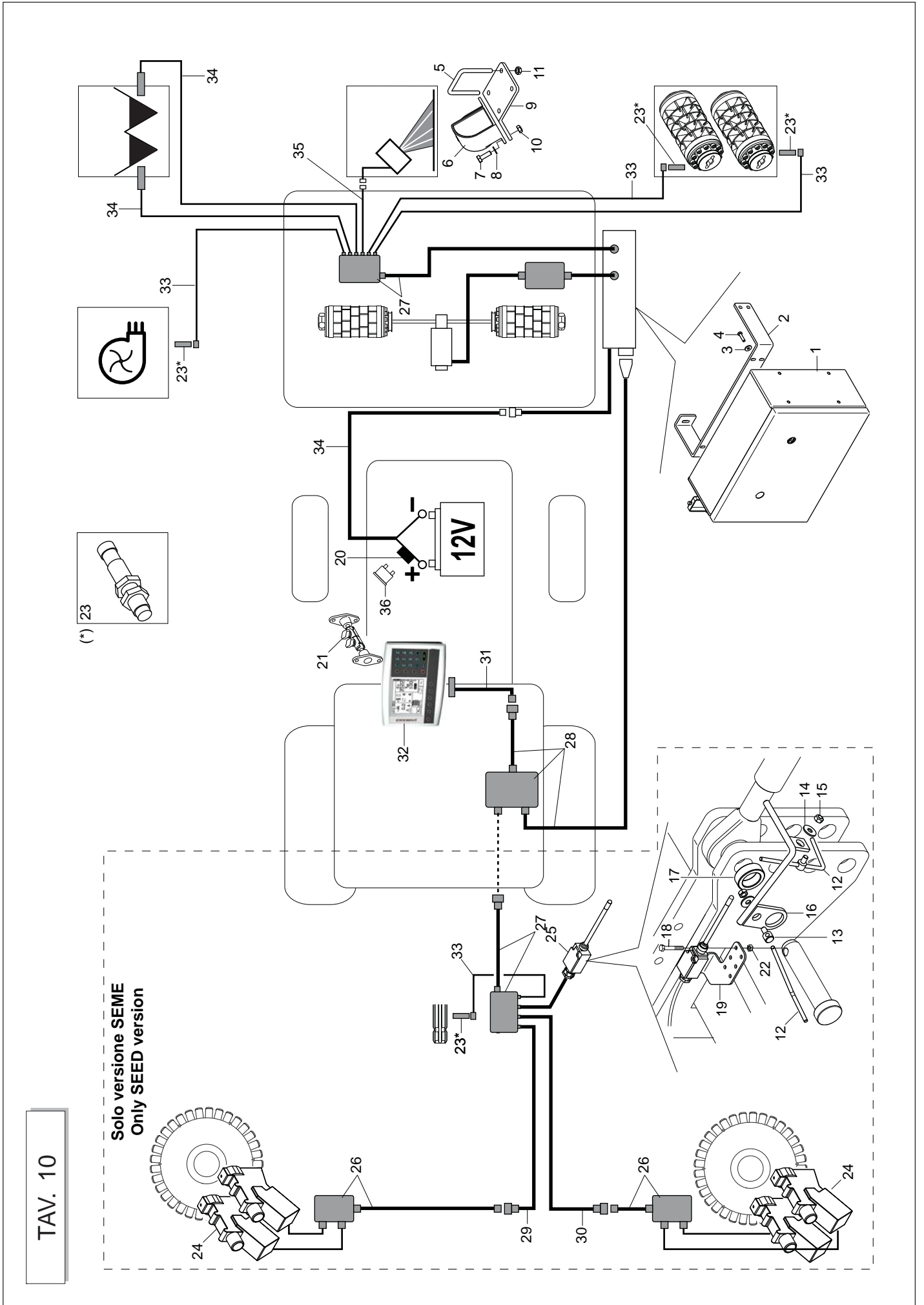
Before demolishing the machine, you are advised to render harmless all the parts that may be a source of danger and therefore:

- scrap the structure using specialized firms,
- remove any electrical apparatus according to the laws in force,
- collect oils and greases separately, to be disposed of through specialized firms, in accordance with the regulations of the country in which the machine was used.

When the machine is demolished the CE mark should be destroyed together with this manual.

Finally, we remind you that the manufacturer is always available for any and all necessary assistance and spares.

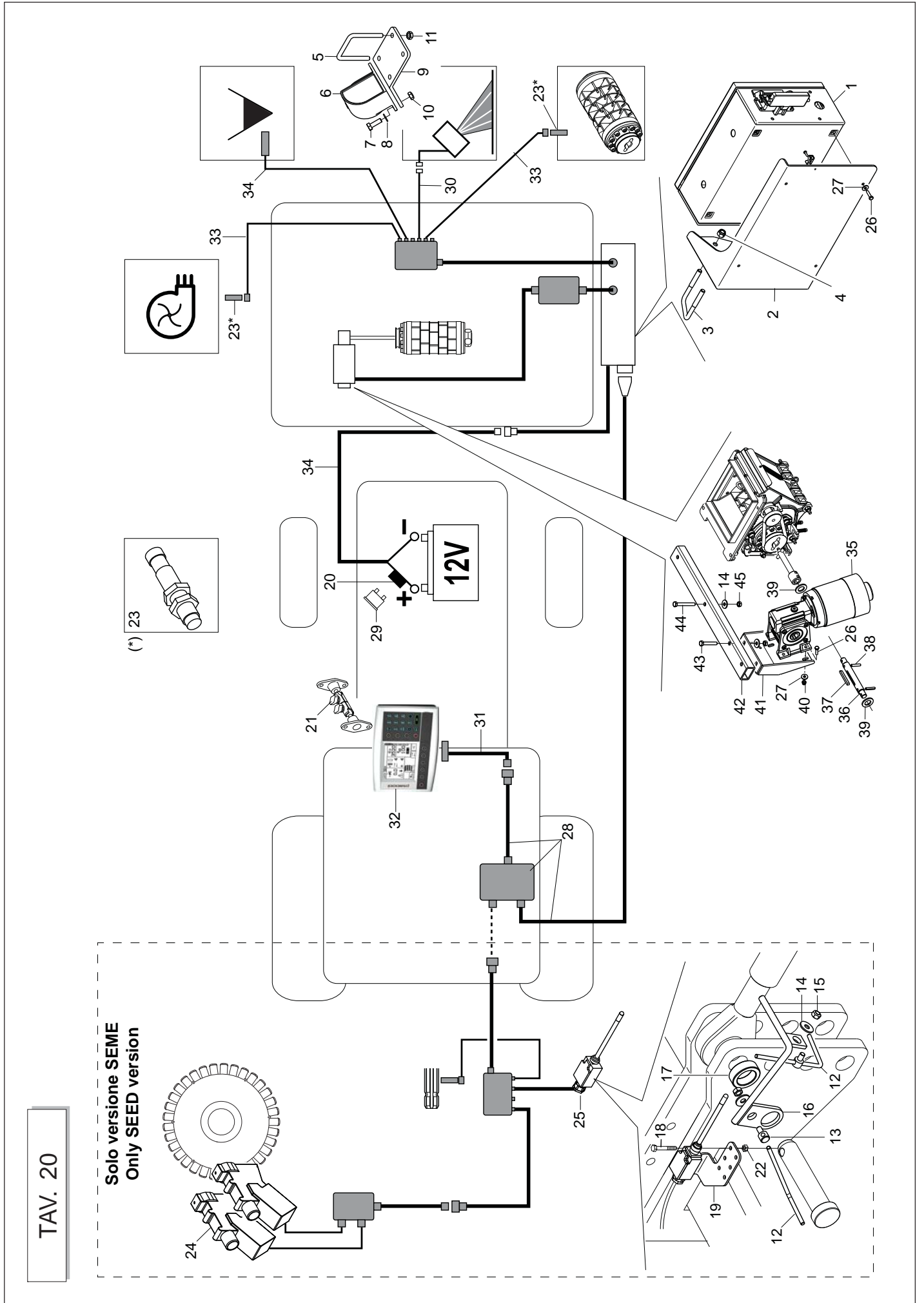
PARTI DI RICAMBIO
SPARE PARTS
ERSATZTEILE
PIECES DETACHEES
PIEZAS DE REPUESTO
ЗАПАСНЫЕ ЧАСТИ



GESTIONE ELETTRICA DELLA DISTRIBUZIONE - PA2 Seme (CENTAURO) / Concime

TAV. 10

Pos.	Cod.	Descrizione	Description	Benennung	Description
1	G19900010	MONTOQUADRO TRASMELETT GENIUS			
2	G17321360	STAFFA FISSAGGIO QUADRO COMAN.			
3	F01420036	ROS.M6 6.4X 18X 2 U6593 ZN	FLAT WASHER 6-6X 18X2 6593 ZN	SCHHEIBE 6-6X 18X2 6593 ZN	ARAND. PLANA 6-6X 18X2 6593 ZN
4	F01020406	VITE M 6X 1X 25 U5739 8.8 ZN	BOLT M6X25	SCHRAUBE M 6X25	TORNILLO M6X25
5	F20110745	CAV.Q.M12X1,75X.35 83X.96 ZN	U-BOLT M12 X PIPE 70X70	BSGELBOLZEN M12 F5R ROHR 70X70	PERNO ENU M12 X TUBO 70X70
6	F05010487	RADAR RDS TGSS (MK III)			
7	F01020476	VITE M10X 1,5X30 U5739 8.8 ZN	BOLT M 10X30	SCHRAUBE M 10X30	TORNILLO M10X30
8	F01410064	ROS.M10 10,5X 20X 2 U6592 ZN	WASHER 10,5X21	SCHEIBE 10,5X21	ARANDELA 10,5X21
9	G17321350	STAFFA SUPPORTO RADAR			
10	F01220033	DADO M10X 1,5 D980 8 ZN	NUT M10X 1,5 D980 8 ZB	MUTTM10X 1,5 D980 8 ZB	TUER.M10X 1,5 D980 8 ZB
11	F01220048	DADO M12X1,75 D980 8 ZN	SELF LOCKING NUT M12X1,75 980V	SIEHE 00553312	DADO AUTOBL. M12X1,75 980-V
12	G07002444	FERMO ZN	GALVANIZED STOP	FESTSTELLVORRICHTUNG ZN	BLOQUEO ZN
13	G22230190	MORSETTO COPRISMEZ ZINC.	GALVAN. SEED COVER CLAMP	KLEMME SAMENABDECKER VERZINKT	SUJETADOR CUBRESEMILLAS ZINC.
14	F01420048	ROS.M8 8,4X 24X 2 U6593 ZN	PLANE WASHER D.8	SCHEIBE D.8	ARANDELA D.8
15	F01200244	DADO M 8X1,25 U5588 6.8 ZN	NUT M8	MUTTER M8	DADO M8
16	G17917080	ATTIVAZIONE FINGER ZN			
17	G18803060	BOCCOLA 32,5 X48,3 X16 ZN			
18	F01020024	VITE M 5X0,8X 40 U5737 8.8 ZN	BOLT 5X40 5737 8.G GALVANIZED	SCHRAUBE 5X40 5737 8.G ZN	TORNILLO 5X40 5737 8.G ZN
19	G17330290	LAMA SUPPORTO FINGER ZN			
20	F05010021	PORTAFUSIBILE MAXI STAGNO			
21	F05010512	STAFFA PER MONITOR GENIUS			
22	F01220200	DADO M 5X 0,8 D980 8 ZN	NUT TRISTOP M 5	MUTTER TRISTOP M 5	TUERCA TRISTOP M 5
23	F05010396	SENSORE IND.NBN4-12GM50-EO-V1			
24	F05010486	DISPLETTTR.ESCL.FILE WUK-97S			
25	G19900150	FINGER CON CAVO L.0,6MT			
26	G19900080	SCATOLA DERIV.ESCLUSORI FILE			
27	F05010490	SCATOLA DI DERIVAZIONE RDS			
28	G19900090	COLL.QUADRO-MONITOR GENIUS			
29	G19900070	CAVO COLLESC. SX-SCATOLA DER			
30	G19900060	CAVO COLLESC. DX-SCATOLA DER			
31	F05010511	CAVO PER MONITOR GENIUS			
32	F05010510	MONITOR GENIUS			
33	F05010494	PROLUNGA SENS.INDUTT.CONN.90°			
34	G19900100	CAVO BATTITRASMELETT.GENIUS			
35	G19900050	CAVO COLLEGAM.RADAR RDS 2,0MT			
36	F05010022	FUSIBILE AUTO MAXI 30A VERDE			



TAV. 20

Solo versione SEME
Only SEED version

GESTIONE ELETTRICA DELLA DISTRIBUZIONE - PA1 Seme / Concime

TAV. 20

Pos.	Cod.	Descrizione	Description	Benennung	Description
1	G19900010	MONTQUADRO TRASMELETT GENIUS			
2	G17330670	SUPPORTO QUADRO COMANDO GENIUS			
3	F20110745	CAV.Q.M12X1,75X35 83X 96 ZN	U-BOLTM12X PIPE 70X70	BsGELBOLZEN M12 F5R ROHR 70X70	PERNO ENU M12 X TUBO 70X70
4	F01230059	DADO M12X1,75 D982 8 ZN	NUT M12X1,75 D982 8 ZB	ECROU M12X1,75 D982 8 ZB	TUER.M12X1,75 D982 8 ZB
5	F20110745	CAV.Q.M12X1,75X35 83X 96 ZN	U-BOLTM12X PIPE 70X70	CAVALIER M12 POUR TUBE 70X70	PERNO ENU M12 X TUBO 70X70
6	F05010487	RADAR RDS TGSS (MK III)			
7	F01020476	VITE M10X 1,5X30 U5739 8.8 ZN	BOLT M 10X30	SCHRAUBE M 10X30	TORNILLO M10X30
8	F01410064	ROS.M10 10,5X 20X 2 U6592 ZN	WASHER 10,5X21	RONDELLE 10,5X21	ARANDELA 10,5X21
9	G17321350	STAFFA SUPPORTO RADAR			
10	F01220033	DADO M10X 1,5 D980 8 ZN	NUT M10X 1,5 D980 8 ZB	ECROU M10X 1,5 D980 8 ZB	TUER.M10X 1,5 D980 8 ZB
11	F01220048	DADO M12X1,75 D980 8 ZN	SELF LOCKING NUT M12X1,75 980V	ECROU AUTOBL. M12X1,75 980-V	DADO AUTOBL. M12X1,75 980-V
12	G07002444	FERMO ZN	GALVANIZED STOP	ARRET ZN	BLOQUEO ZN
13	G22230190	MORSETTO COPRISME ZINC.	GALVAN. SEED COVER CLAMP	BORNE COUVRE-GRAINES ZING.	SUJETADOR CUBRESEMILLAS ZINC.
14	F01420048	ROS.M8 8,4X 24X 2 U6593 ZN	PLANE WASHER D.8	RONDELLE D.8	ARANDELA D.8
15	F01200244	DADO M 8X1,25 U5588 6.8 ZN	NUT M8	ECROU M8	DADO M8
16	G17917080	ATTIVAZIONE FINGER ZN			
17	G18803060	BOCCOLA 32,5 X48,3 X16 ZN			
18	F01020024	VITE M 5X0,8X40 U5737 8.8 ZN	BOLT 5X40 5737 8.G GALVANIZED	VIS 5X40 5737 8.G ZN	TORNILLO 5X40 5737 8.G ZN
19	G17330290	LAMA SUPPORTO FINGER ZN			
20	F05010021	PORTAFUSIBILE MAXI STAGNO			
21	F05010512	STAFFA PER MONITOR GENIUS			
22	F01220200	DADO M 5X 0,8 D980 8 ZN	NUT TRISTOP M 5	ECROU TRISTOP M 5	TUERCA TRISTOP M 5
23	F05010396	SENSORE IND.NBN4-12GM50-EO-V1			
24	F05010486	DISPLETTTR.ESCL.FILE WUK-97S			
25	G19900150	FINGER CON CAVO L0,6MT			
26	F01020406	VITE M 6X 1X 25 U5739 8.8 ZN	BOLT M 6X25	SCHRAUBE M 6X25	TORNILLO M 6X25
27	F01420036	ROS.M6 6,4X 18X 2 U6593 ZN	FLAT WASHER 6-6X 18X2 6593 ZN	ROND. PLATE 6-6X 18X2 6593 ZN	ARAND. PLANA 6-6X 18X2 6593 ZN
28	G19900090	COLL.QUADRO-MONITOR GENIUS			
29	F05010022	FUSIBILE AUTO MAXI 30A VERDE			
30	G19900050	CAVO COLLEGAM.RADAR RDS 2,0MT			
31	F05010511	CAVO PER MONITOR GENIUS			
32	F05010510	MONITOR GENIUS			
33	F05010494	PROLUNGA SENS.INDUTT.CONN.90°			
34	G19900100	CAVO BATTI TRASMELETT.GENIUS			
35	F05010491	MOTORIDUTTORE 12V-450W/30:1			
36	G17330660	ASSEMOTORE			
37	F02150040	LINGUETTA 6X 6X 55 U6604A	TAB 06X6X55 UNI 6604/A	FEDERKEIL .06X6X55 UNI 6604/A	LENGS ETA 06X6X55 UNI 6604/A
38	F02100114	SPINA E.P. 6X 30 U6873 C70 BR	ELASTIC PIN 6X30	GOUJON ELASTIQUE 6X30	ESPIÑA ELÁSTICA 6X30
39	F01410112	ROS.M18 19X 34X 3 U6592 ZN	PLANE WASHER D.18	RONDELLE D.18	ARANDELA D.18
40	F01220011	DADO M 6X 1 D980 8 ZN	SELF LOCKING NUT M6	ECROU AUTOBL. M6	DADO AUTOBL. M6
41	G17321550	STAFFA SUPPORTO MOTORE			
42	G17330680	TUBO R. 50X 30X 4X 490 4FD.10			
43	F01020452	VITE M 8X1,25X50 U5739 8.8 ZN	BOLT M 8X50	VIS M 8X50	TORNILLO M 8X50
44	F01020082	VITE M 8X1,25X65 U5737 8.8 ZN	BOLT M 8X65	VIS M 8X65	TORNILLO M 8X65
45	F01220022	DADO M 8X1,25 D980 8 ZN	SELF LOCKING NUT M8X1,25 980V	ECROU AUTOBL. M8X1,25 980-V	DADO AUTOBL. M8X1,25 980-V

Da compilare a cura del Concessionario

To be completed by the Dealer - À remplir par le Concessionnaire - Vom Konzessionär auszufüllen - Espacio reservado para el Concesionario

<p>① Concessionario Client - Dealer Händler</p> <div style="border: 1px solid black; height: 80px; width: 100%; text-align: center; margin-top: 10px;"> <p>Timbro</p> </div> <p>② Tipo Accessorio Type Accessories Zubehörtyp _____</p> <p>③ Matricola /anno N° de série /date - Serial nr./date Maschinen-Nr./Baujahr _____</p> <p>④ Data/Nr. fattura acquisto Facture date/n° - Invoice date/nr Rechnung-Nr./Datum _____</p>	<p>⑤ Cliente finale Utilisateur _____ Owner - Endkunde _____</p> <p>⑥ Data consegna Accessorio Date de livraison - Delivered date Auslieferdatum des Zubehör _____</p> <p>⑦ Data dell'inconveniente Date de défaillance - Date inconv. Beanstandungs-Datum _____</p> <p>⑧ Ore o ettari d'impiego N° d'heures ou hectares - Hours/ha Geleistete Stunden oder Hektar _____</p>
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Segnalazione

Report - Signalisation - Meldung - Indicación

Quaisiasi modifica apportata all'accessorio senza autorizzazione della scrivente e l'utilizzo di ricambi non originali, fanno decadere la garanzia. In tal caso, la MASCHIO GASPARDO S.p.A. si riserva di addebitare al cliente le spese di riparazione e/o spedizione. La MASCHIO GASPARDO S.p.A. si riserva di respingere tale segnalazione, qualora non fosse debitamente compilato, in tutte le sue parti, il presente modulo.

Any modifications made to the accessory without the writer's authorization as well as the use of non-original spare parts, automatically render the guarantee null and void. In this event, MASCHIO GASPARDO S.p.A. reserves the right to refuse this report if the form is not correctly completed in all of its parts.

Toute modification apportée à l'accessoire sans l'autorisation de la société soussignée et l'utilisation de pièces de rechange non originales entraînent la déchéance de la garantie. Dans ce cas, MASCHIO GASPARDO S.p.A. se réserve de débourser les frais de réparation et/ou d'expédition au client. MASCHIO GASPARDO S.p.A. se réserve de refuser cette signalisation dans le cas où le présent module n'est pas dûment rempli dans sa totalité.

Ohne Genehmigung des Verfassers durchgeführte Änderungen an der Ausrüstung sowie die Verwendung von anderen als den Original-Ersatzteilen haben den Verfall der Garantie zur Folge. Die MASCHIO GASPARDO S.p.A. behält sich vor, dem Kunden in einem solchen Fall Reparatur- und/oder Versandkosten zu verrechnen. Die MASCHIO GASPARDO S.p.A. behält sich vor, eine Meldung zurückzuweisen, wenn das vorliegende Formular nicht vollständig ausgefüllt wurde.

Cualquier modificación realizada en el accesorio, sin previa autorización por parte del fabricante y el uso de recambios no originales, invalidan la garantía. En tal caso, "MASCHIO GASPARDO S.p.A." se reserva el derecho de adeudar al cliente los gastos por reparaciones y/o envíos. "MASCHIO GASPARDO S.p.A." se reserva el derecho de rechazar dicha indicación en caso de que no se rellena adecuadamente el presente modulo en todas sus partes.

Data

Firma del Concessionario

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**USATE SEMPRE RICAMBI ORIGINALI
ALWAYS USE ORIGINAL SPARE PARTS
IMMER DIE ORIGINAL-ERSATZTEILE VERWENDEN
EMPLOYEZ TOUJOURS LES PIECES DE RECHANGE ORIGINALES
UTILIZAR SIEMPRE REPUESTOS ORIGINALES
ВСЕГДА ИСПОЛЬЗУЙТЕ ОРИГИНАЛЬНЫЕ ЗАПЧАСТИ**

GASPARDO

Servizio Assistenza Tecnica - After Sales Service

Servizio Ricambi - Spare Parts Service

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MASCHIO-GASPARDO CINA
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