

Instruction Manual

AMAZONE

On board computer AMALOG⁺



MG944
DB2033GB 02.04
Printed in Germany



Before starting work
please carefully read
and adhere to this
instruction manual and
safety advice



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H. DREYER GmbH & Co. KG
D-49502 Hasbergen-Gaste
Germany
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AMAZONE-on board computers are quality products from the comprehensive range of implements from AMAZONEN-WERKE, H. Dreyer GmbH & Co. KG.

In order to ensure a trouble free operation, carefully read this instruction manual and accurately adhere to the advice given therein.

Keep this instruction manual so that it is always at hand. In case you sell the on board computer, pass on this instruction manual to the next owner.

As AMAZONE is always endeavouring to introduce improvements, we reserve the right for changes at any time without any engagement.

At the time of printing all data and indications are on their latest state.

Symbols in this instruction manual

In this instruction manual danger zones and hints are identified by the following symbols.

General danger symbol



The safety advice in this operation manual which may lead to a danger of persons when not being observed, are identified with the general danger symbol (Safety symbol according to DIN 4844-W9).

Attention symbol



The attention advice which may cause dangers for the machine and it's function when not being adhered to, are identified with the attention symbol.

Hint symbol



Hints regarding machine's specific functions which have to be adhered to for a faultless function of the machine are identified with the hint symbol.



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1 On receipt of the computer

On receipt of the computer, please check for transport damage or whether any parts are emitting. Only immediate claims to be filed with the forwarding agency may lead to replacement.

Scope of delivery **AMALOG+**:

1. Computer with fixing console
2. Connector socket 12V
3. 20-pole plug with cable tree.

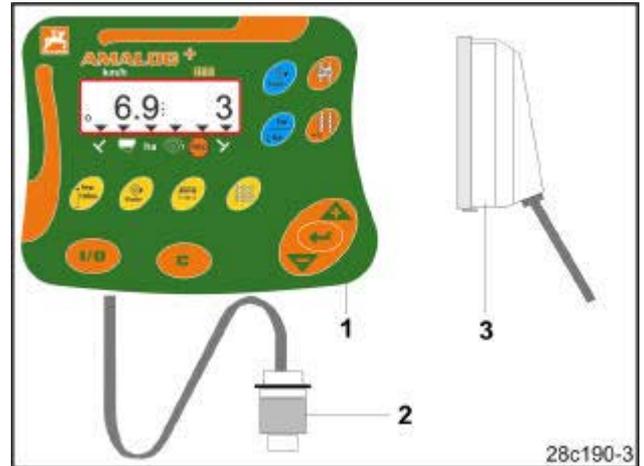


Fig. 1

2 Details about the implement

2.1 Identification

Please see type plate on the implement.

2.2 Manufacturer

AMAZONEN-Werke
H. Dreyer GmbH & Co. KG
P. O. Box 51, D-49202 Hasbergen-Gaste / Germany

2.3 Enquiries and ordering

When ordering special options and spare parts, please always indicate the type and serial number of the implement (see type plate on the **AMALOG+**-Terminal).

Please be aware, that any technical deviation from the original state of the implement may affect its safety. This does not only apply to unsuited spare parts but also for options which do not have our approval.

The safety relevant requirements are only fulfilled when in the case of repair original AMAZONE spare parts are used. The use of other spare parts may rule out the liability for resulting damage.

In cases where spare parts and options have been fitted which have not been approved by AMAZONE as well as any other arbitrary technical changes made to the implement, no liability will be accepted by AMAZONE for consequential losses or resulting damage.

2.4 Conformity declaration

AMALOG+ fulfils the requirements of the EC guide line machine 89/392/EWG and the corresponding additional guide lines.

2.5 Qualification of operator

The implement may only be operated, maintained and repaired by persons, who are acquainted with it and have been informed of the relevant danger.



2.6 Designed use

AMALOG+ has exclusively been designed for the usual operation as a display- and monitoring device for agricultural machinery.

Any use other than that stipulated is no longer considered as designed use. Therefore, the manufacturer will not and does not accept any responsibility for damage to persons and objects resulting from unaccepted use. The operator himself will carry the full risk.

Under "designed use" the operator must adhere to the manufacturer's prescribed operation-, maintenance and repair conditions and exclusively use original spare parts.

AMALOG+ may only be maintained and repaired by such persons who have been made acquainted with it and who have been advised about the dangers.

The relevant national and general operational safety and accident preventive advice of the authorised trade association are binding. When travelling on public roads, observe the traffic regulations in force in your country.

Claims regarding damage not having occurred on the on board computer **AMALOG+** itself will be rejected. This also applies to consequential damage due to sowing errors.

Arbitrary changes on the on board computer **AMALOG+** may result in consequential damage and therefore, the manufacturer does not accept liability for such damage.

3 Safety

This instruction manual contains basic hints which have to be adhered to when fitting, operating and maintaining the implement. Please ensure that this instruction manual has been read by the operator before he starts to operate the implement.

Please observe and adhere strictly to all safety advice in this instruction manual.

3.1 Dangers when not adhering to the safety advice

Not adhering to the safety advice

- may result in endangering persons, also the environment and the machine itself.
- may result in the loss of any claim for damage.

Not paying attention to the safety advice may cause the following risks:

- Failure of important functions of the machine
- Failure or prescribed measures for maintenance and repair
- Danger for persons by mechanical and chemical affects.
- Danger for the environment by leaking hydraulic oil.

3.2 Symbols in this instruction manual

In dieser Betriebsanleitung sind Gefahrenstellen und Hinweise durch folgende Symbole gekennzeichnet.

Attention symbol



The safety advice which may cause dangers for the machine and it's function when not being adhered to, are identified with the attention symbol.

General danger symbol



The safety advice in this instruction manual which may lead to a danger for persons when not being observed, are identified with the general danger symbol (Safety symbol according to DIN 4844-W9).

Hint symbol



Hints regarding machine's specific functions, which have to be adhered to for a faultless function of the machine are identified with the hint symbol.



3.3 Safety advice when retrofitting electric and electronic devices and/or components

The function of electronic components and parts may be affected by electro magnetic transmittance of other implements. Such transmittance effects may cause danger for people when the following safety advice is not adhered to:

When retrofitting electric devices and/or components to the implement with connection to the on-board power supply, the user has to check for himself whether the installation may cause failure of the vehicle's electronic components or on other associated components.

Special attention has to be paid in order to ensure that the retrofitted electric and electronic parts correspond to the EMV guide line 89/336/EWG in its valid edition and that they bear the CE-sign.

For retrofitting mobile communication systems (e.g. radio, telephone) the following requirements have to be fulfilled:

Only install implements which have officially been authorised in your country.

Firmly install the implement.

The use of portable or mobile devices inside the tractor cab is only permissible with a connection to a firmly installed external antenna.

Install the transmitter spaced apart from the tractor's electronic.

When installing the antenna ensure an appropriate installation with proper earth connection between antenna and tractor earth.

For cabling and installation as well as for the maximum permissible current supply in addition adhere to the fitting instructions of the implement manufacturer.

3.4 Safety advice for repair work

Repair-, maintenance- and cleaning work as well as remedy of function faults should principally be carried out with a stopped drive, stopped engine and uncoupled hydraulic connections. Remove ignition key.

When doing maintenance work on the lifted machine make sure that it is secured by proper supports.

Before working on the electric system or carrying out any welding operations on the tractor or on the mounted implement, remove all connections with the on board computer **AMALOG+**.

4 Description of product

4.1 Operation with mechanic seed drills

AMALOG+

- controls the tramline device and the pre-emergence marker
- displays the position of the hydraulically actuated track markers
- displays the forward speed [km/h]
- monitors the seed level in the seed hopper
- determined the worked part area [ha]
- stores the worked total area [ha]
- monitors the drive of the counter shaft (tramline control).

4.2 Operation with pneumatic seed drills

AMALOG+

- controls the tramline device and the pre-emergence marker
- displays the position of the hydraulically actuated track markers
- displays the forward speed [km/h]
- monitors the seed level in the seed hopper
- determined the worked part area [ha]
- stores the worked total area [ha]
- monitors the tramline control inside the distributor head
- monitors the impeller speed.
If the pre-selected nominal rev. speed is exceeded or undercut by more than 10 % an audible alarm is released and simultaneously the rev. speed is shown on the display.

The on board computer **AMALOG+** is provided with a memory and a lithium battery.

All entered and determined values are stored for about 10 years even if the on-board power supply is switched off. At the next switching on all data are available again.



4.3 Functions

The **AMALOG+**-terminal with its 6 digit display (Fig. 2/1) shows in the operational position

- the forward speed [km/h] (Fig. 2/2)
- the position of the tramline counter (Fig. 2/3)
- the function control signs (triangle for symbol, Fig. 2/4).

AMALOG+ operates correctly which is indicated by the flicking circle symbol (Fig. 2/5) on the display, when **AMALOG+** receives impulses from the gearbox sensor during the operation.

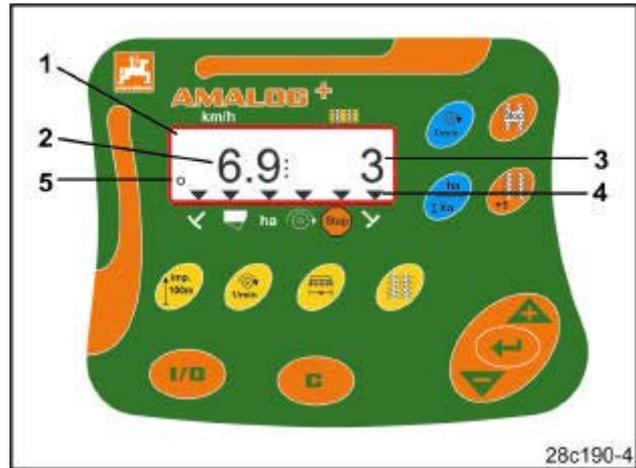


Fig. 2

4.3.1 Operational display

When receiving the first gearbox sensor impulse, the display shows the operational menu (Fig. 3).

Fig. 3 Nr.	Display and/or pilot signs	Sensor
1	Forward speed (km)	Impulses from gearbox sensor
2	Position tramline counter	Computer data
3 or 4	Function control sign track marker l.h. in operational position	Impulse e.g. from track marker-Sensor on the hydr. valve (Fig. 11)
	Pilot sign track marker r.h. in operational position	
automatic appearing display in case of system faults:		
5	Function control sign refill seed box	Impulses from filling level sensor
6	Function control sign Impeller rev. speed-deviation exceeds 10% (pneumatic seed drills)	Impulses from the impeller sensor
Displays recalled via functional keys:		
7	Function control sign finished area (ha)	Impulses from gearbox sensor
8	Function control sign locking of tramline counter	Manual input

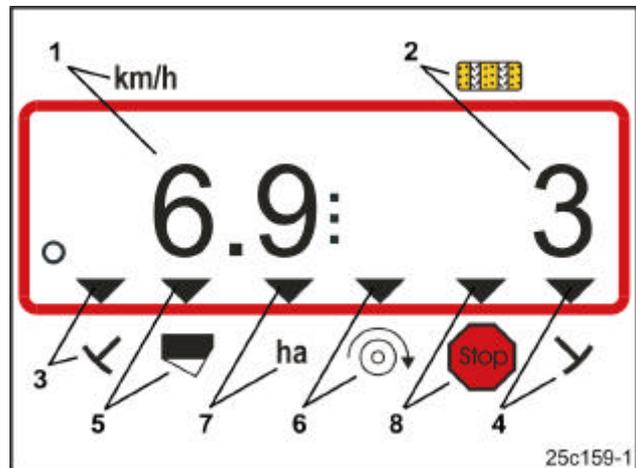


Fig. 3

5 Fitting instructions

5.1 Fitting the terminal

Fit console (Fig. 4/1) for fixing the terminal (Fig. 4/2) within reach and sight to the right hand of the operator. It must be free of vibrations and electrically conductive inside the tractor cab..

The distance from a radio transmitter or an antenna should at least be 1 m.



Make sure that the terminal receives via the console an electrically conductive connection to the tractor chassis.

If necessary scratch off all paint from the fitting surfaces.



Fig. 4

Provide the terminal with the pendant (Fig. 5/1), push into the console and fix using a thumb bolt (Fig. 5/2).

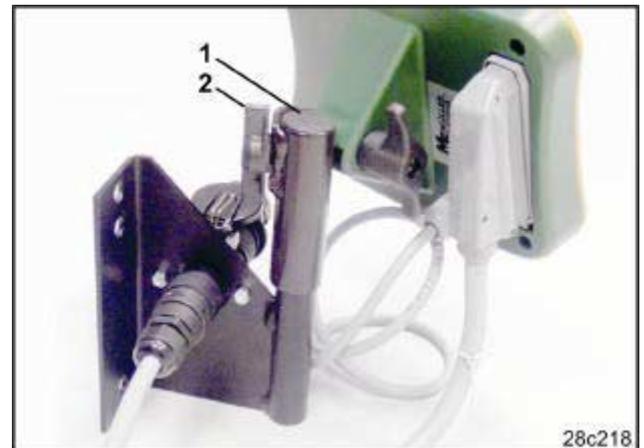


Fig. 5

5.2 Plug connections

Plug power supply cable (Fig. 6/1) into the console and into the 12V-tractor socket.

Connect console and terminal with the power supply cable (Fig. 6/2).

Couple the seed drill on to the tractor. Lead the seed drill cable with implement plug (Fig. 6/3) into the tractor cab and insert the implement plug in the terminal.

Secure the implement plug against unintended loosening with the aid of a spring loaded lever. Before removing the implement plug actuate the lever.

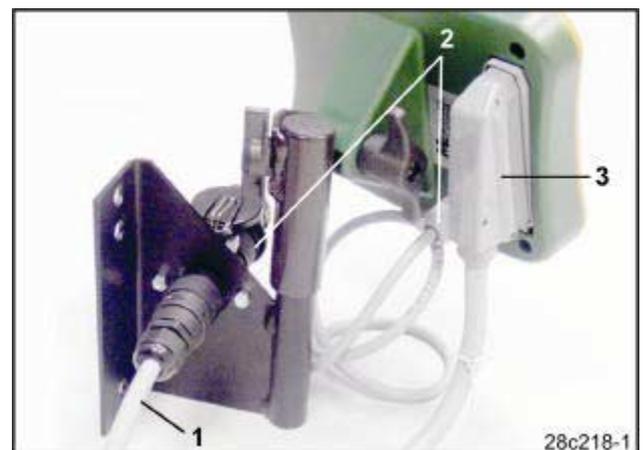


Fig. 6

5.3 Key pad layout

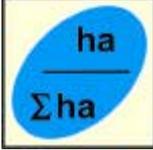
Key	Key function	Key	Key function
	AMALOG⁺ switching on/off		Indicates impeller rev. speed
	Correction key		Indicates finished part area, finished total area (and back to the operational display)
	Increase of indicated value		Interrupts counting of tramline counter
	Reduction of indicated value		Shift on tramline counter
	Data input confirmation		
	Indication or input of the ground related impulse figure of a measuring distance of 100 m		
	Input / indication of impeller required rev. speed		
	Input / indication working width [m]		
	Input switching rhythm		

Fig. 7

6 On / off switching

AMALOG+ by pressing key  switch on and off.

Enter the machine specific data once as described in para. 7. They will be available when the computer is switched on again.

When **AMALOG+** is used with a seed drill of another type, enter the relevant machine specific data.

Whenever the computer is switched on the software version of the computer briefly appears.

If the supply voltage drops below 10 volt, e.g. when starting the tractor, the computer switches off.



7 Entering the machine data

7.1 Mode 1

In mode 1 (Fig. 8/1) always adjust Code 1 (Fig. 8/2).

Open mode:

Press key  keep pressed and simultaneously press .

Press key  to open mode 1.

Adjust the coding:

Adjust coding 1 by using the keys  and .

Storage:

 press and store the selected value.

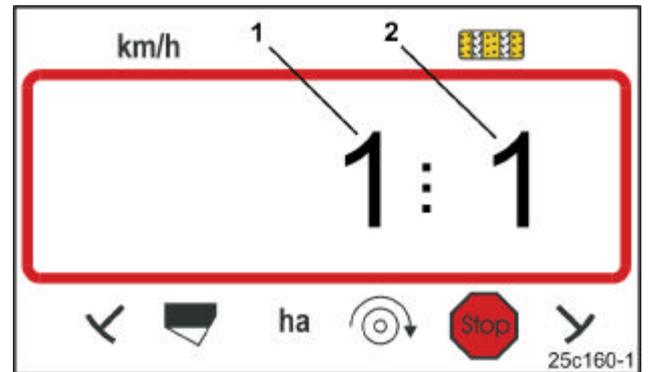


Fig. 8

The first figure shows mode 1
the second figure shows code 1

7.2 Mode 2

In mode 2 enter the number of the track marker sensors on the seed drill in coded manner.

Number of track marker-sensors	Sensor fixing	Code
2	Avant-sowing combinations with front tank can be equipped with 2 track marker sensors (see Fig. 10).	0
1	Track marker sensor, on the hydraulic valve or on the marker change over (see Fig. 11 and Fig. 12).	1
0	Machines without track marker and without track marker sensor (see hint on the r.h. side)	2 to 99

Hint

On seed drills without track markers and without track marker sensor the figures 2 to 99 represent the period (sec.) between stop (standstill of the gearbox) an counting going on of the tramline counter.

On seed drills without track marker sensor the tramline counter is shifted on as soon as the preset period has expired after the standstill of the gearbox, e.g. after lifting the machine when turning at the headlands.

At a brief stop within the time set, the tramline counter does not go on counting.

Open mode:

Press key  keep pressed and simultaneously press .

By using key  open mode 2.

Setting the coding:

Set the code via the keys  and .

Storage:

Press key  and store the coding.

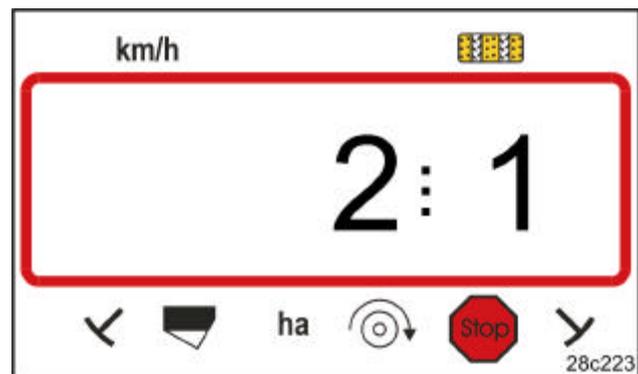


Fig. 9

The first figure shows mode 2
the second figure shows code 1

Code 0:

Seed drill with
two track marker sensors (Fig. 10/1).

**Fig. 10****Code 1:**

Seed drill with
one track marker sensor (Fig. 11/1)
e.g. on the hydraulic valve.

**Fig. 11****Code 1:**

Seed drill with
one track marker sensor (Fig. 12/1)
e.g. on the marker change over.

**Fig. 12**

7.3 Mode 3

Use mode 3 to set the seed drill type.

Code 0: mechanic seed drill

Code 1: pneumatic seed drill.

Open mode:

Press key  keep pressed and simultaneously press .

By using key  open mode 3.

Setting the coding:

Via the keys  and  set the coding 0 or 1 (type of seed drill).

Storage:

Press key  and store the coding.

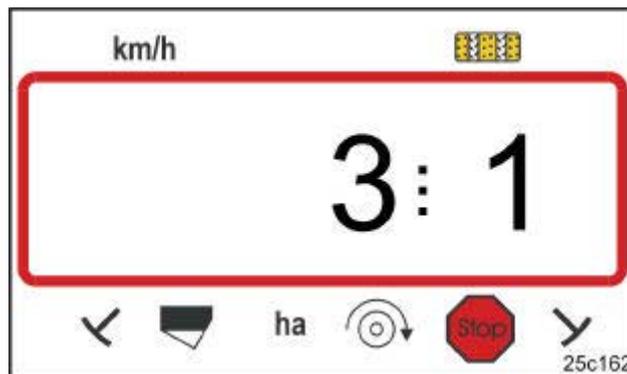


Fig. 13

The first figure shows mode 3
the second figure shows code 1

7.4 Mode 4 (Option)

In mode 4 set the time between a contact fault of the tramline or a fault on the counter shaft and the alarm release. The release of the alarm can be switched off as well.

- Code 00: Switch off the release of the alarm
- Code 10: Period (sec.) pneumatic seed drill
- Code 22: Period (sec.) mechanic seed drill

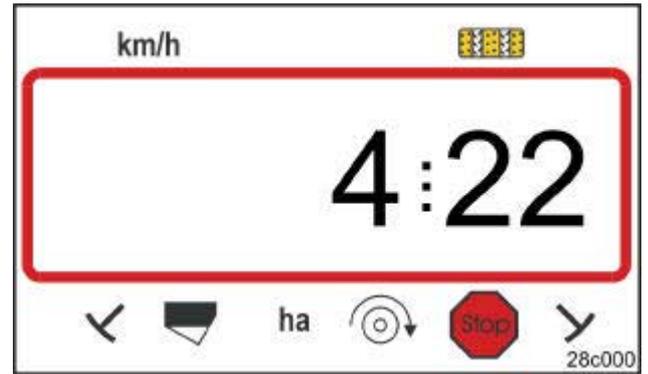


Fig. 14

The first figure shows mode 4
the second figure shows the code 22

In the factory the coding 00 has been set, e.g. the alarm is switched off.

On pneumatic seed drills
set the coding 10 (sec.).

On mechanic seed drills
set the coding 22 (sec.).

Open mode:

Press key  keep pressed and
simultaneously press .

By using key  open mode 4.

Setting the coding:

Via the keys  and 
set the coding 00, 10 or 22.

Storage:

Press  and store the coding.

Indication (Fig. 15) with an audible signal in case of a tramline error.

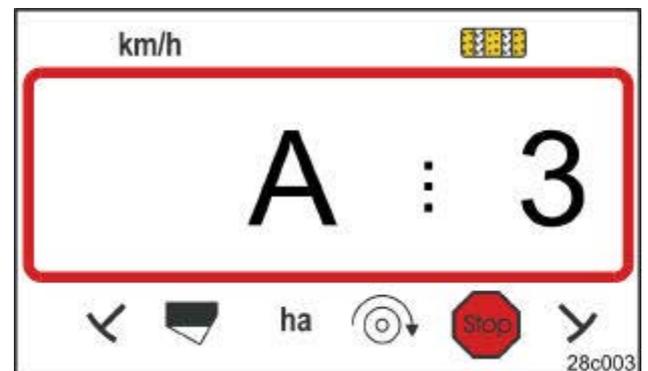


Fig. 15

Indication tramline fault

7.5 Mode 5 (Option)

In mode 5 set the interval, which may occur without releasing the alarm, e.g.

- on mechanic seed drills between the order for the creation of tramlines and the standstill of the counter shaft
- on pneumatic seed drills between the order for the creation of tramlines and the closing of the outlets.

The factory set Code 00 (0 sec.) should be changed to:

Code 10: pneumatic seed drills (10 sec.)

Code 22: mechanic seed drills (22 sec.).

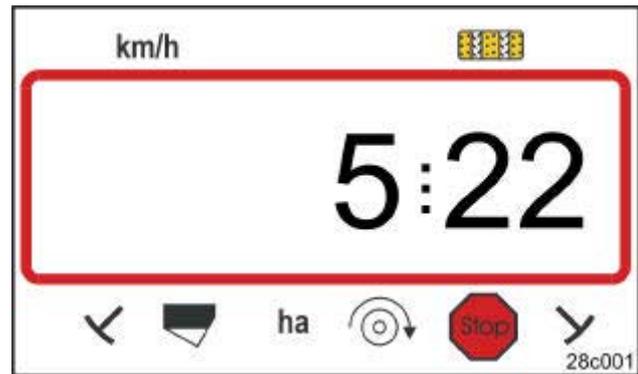


Fig. 16

The first figure shows mode 5
the second figure shows the code 22

Open mode:

Press key  keep presses and simultaneously press .

By using key  open mode 5.

Setting the code:

Via the keys  and  set Code 00, 10 or 22.

Storage:

Press  and store the coding.

Indication (Fig. 17) with an audible signal when a tramline error occurs.

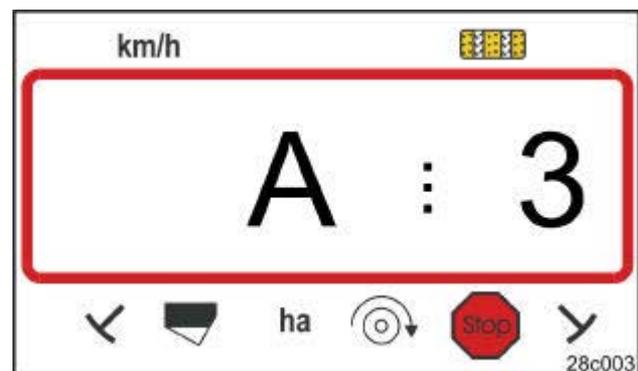


Fig. 17

Indication tramline error

7.6 Entering the working width

For the determination of the finished area enter the working width of the seed drill.

Press key .

Set the working width [m] by using the keys 

and , e.g. 3.00 for 3 m working width.

Store the value by using key .

The stored value can be checked by using key .



Fig. 18

Indication working width [m]



7.7 Entering the tramline rhythm

The tramline distance depends on the working widths of

- seed drill
- husbandry implements (fertiliser spreader/field sprayer).

Example:

Seed drill:	3 m working width
Fertiliser spreader and/or field sprayer:	24 m working width = 24 m tramline spacing

Take the required tramline rhythm from the seed drill instruction manual, chapter. „Seed wheel tramline control“. Check according to table (Fig. 22) whether the desired switching rhythm can be adjusted with **AMALOG+**

In our example (3 m/24 m working width) the switching rhythm 8 (see Fig. 19 and Fig. 22) should be set.

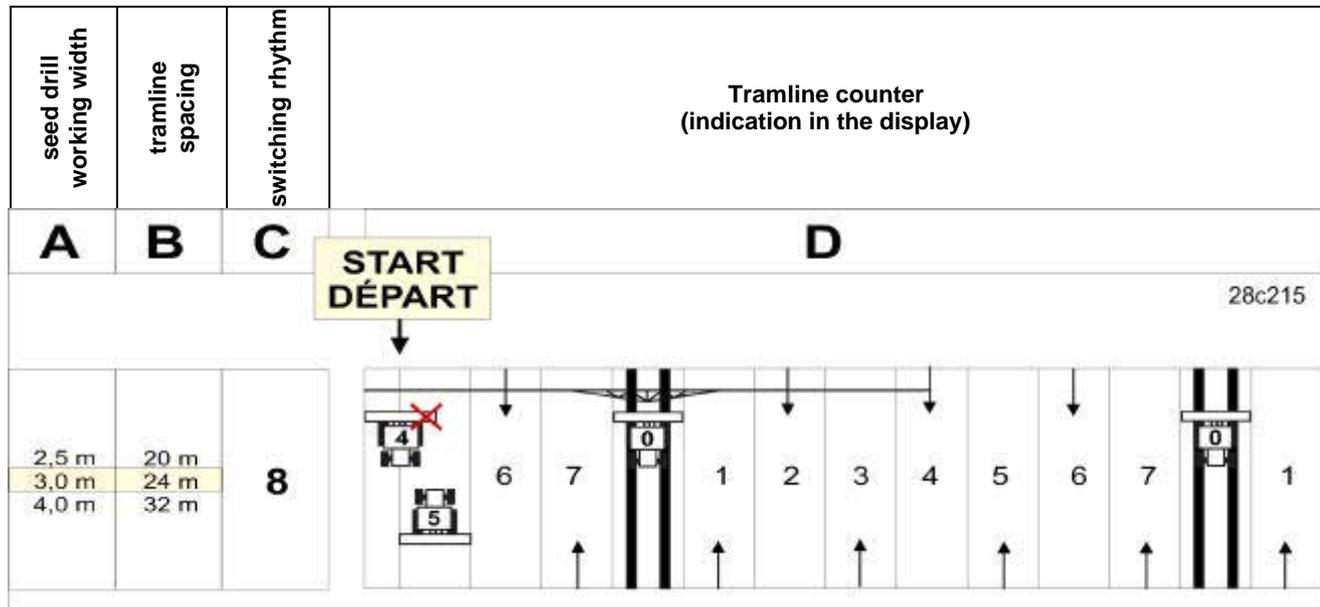


Fig. 19

Set switching rhythm 8.

Press key .

The adjusted switching rhythm, e.g. 4, will appear in the display.

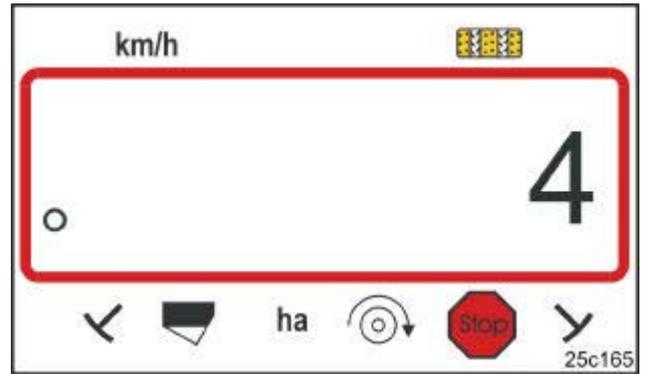


Fig. 20

Switching rhythm indication

Set the switching rhythm 8 by using the keys 
and .

Store the value by using key .

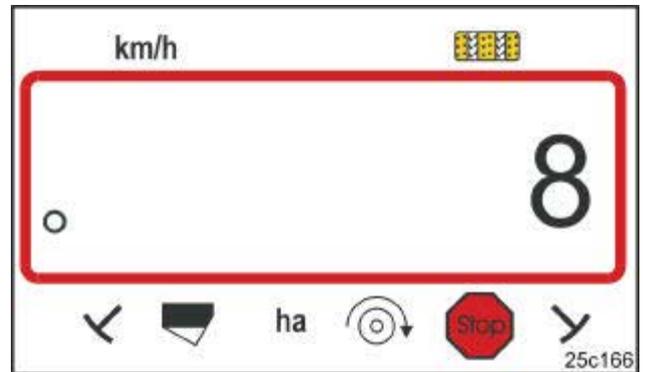


Fig. 21

Switching rhythm indication



Tramline rhythms	1	2	3	4	5	6	7	8	9	10	11	12	13	14
tramline counter controlled by the on board computer and indicated	0	0	0	0	0	0	0	0	0	1	1	0	0	0
	1	0	1	1	1	1	1	1	1	2	0	1	1	1
		1	2	2	2	2	2	2	2	3	3	2	2	2
		2		3	3	3	3	3	3	0	4	3	3	3
					4	4	4	4	4	5	5	4	4	4
						5	5	5	5	6	6	5	5	5
							6	6	6	0	7	6	6	6
								7	7	8	8	7	7	7
									8	9	0	8	8	8
										10	10	9	9	9
												10	10	10
													11	11
														12
														13

tramline rhythms	15*	16	17	20	21	22	23	26	32					
tramline counter controlled by the on board computer and indicated	1	0	0	0	0	0	0	0	0					
		1	1	1	0	0	0	1	0					
		2	2	2	1	1	1	2	1					
		3	3	3	2	2	2	3	2					
		4	4	4	3	3	3	4	3					
		5	5	5	4	4	4	5	4					
		6	6	6		5	5	6	5					
		7	7	7		6	6	7	6					
		8	8	8			7	8	7					
		9	9	9			8	9	8					
		10	10					10	9					
		11	11						10					
		12	12											
		13	13											
		14	14											
		15	15											
		16												

* No tramlines are created

Fig. 22

8 Start of operation in the field

8.1 Calibration value

For the determination of the forward speed and for registration of the worked area t **AMALOG+** required the impulses from the drive wheel on a measuring distance of 100 m (calibration value-Imp./100m“).



The calibration value "Imp./100m" should not be smaller than 250, as otherwise **AMALOG+** will not operate properly.

The calibration value "Imp./100m" can be taken from the tables (Fig. 24 and Fig. 25) and entered into the terminal when the calibration test has been carried out with the values indicated in the tables.



The calibration value "Imp./100m" depends on the type of seed drill and the prevailing soil conditions.

The actual impulses may deviate from the values in the table. This results in wrong forward speed indications and area measuring.

When operating on a different soil (e.g. from heavy to light soil), the slip of the seed drill drive wheel may change and thus also the impulses (Imp./100m).

Therefore it is recommended to determine the impulses (calibration value "Imp./100m“) by driving down a measured distance.

8.1.1 Enter the calibration value "Imp./100m", if known

When the calibration value "Imp./100m" is known or when the value is taken from the tables (Fig. 24 and

Fig. 25) press key  with a stopped machine. Set the calibration value "Imp./100m"

by using the keys  and .

Use key  to store the calibration value.

Use key  to show the stored calibration value shown in the display.

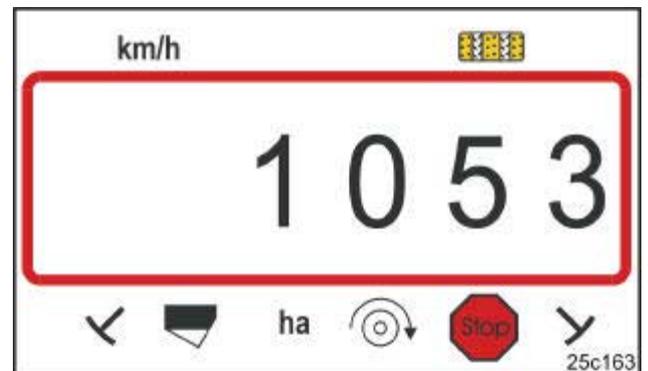


Fig. 23

Indication calibration value



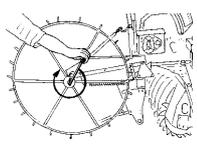
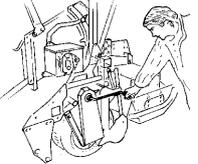
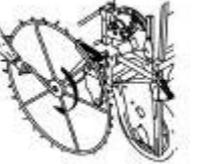
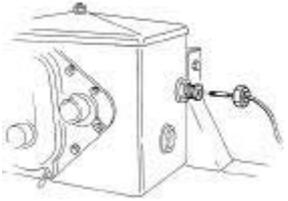
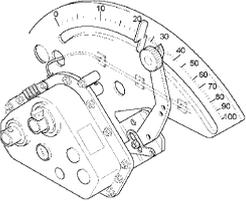
 Pneumatic mounted-seed drills AD-P02	 Pneumatic tyre packer Pack Top-seed drills RP-AD-P02	 Pneumatic Pack Top - seed drills AD-P03 Special	 Pack Top-seed drills AD03	 Tyre packer Pack Top seed drills RP-AD03	
					Crank turns on 1/40 ha
Working width 	on the star wheel Ø 1,18	on the intermediate drive	on the star wheel	on the intermediate drive	
2,5 m	27,0	59,0	-	27,0	
3,0 m	22,5	49,0	38,5	22,5	
4,0 m	17,0	37,0	29,0	17,0	
4,5 m	15,0	33,0	26,0	15,0	
Sensor-fixing on the gearbox					
	calibration value „Imp./100m“				
	1053	1175	1409	617	672

Fig. 24

  Tyres	Working width D9 Super D9 Special 	 Crank turns at 1/40 ha on the wheel	Calibration value "Imp./100m"
10.0/75 - 15	3,0 m	37,0	711
	4,0 m	28,0	
31x15.5 – 15 Mitas	3,0 m	37,0	711
	4,0 m	28,0	

Fig. 25

8.1.2 Determining calibration value "Imp./100m"

On varying soils the calibration value "Imp./100m" should be determined by driving a measured distance.

Accurately measure out in the field a calibration distance of 100 m. Mark the starting and ending point of the calibration distance.

Bring tractor in start position (Fig. 26) and seed drill into operational position (if necessary stop the seed metering).

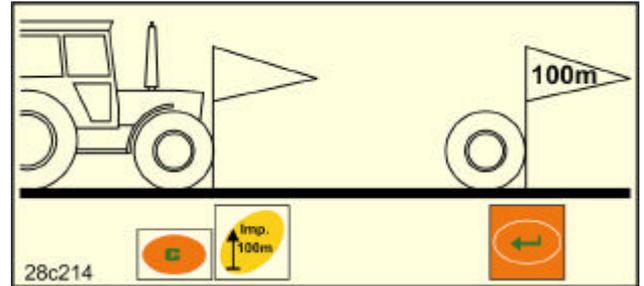


Fig. 26

Press key  keep pressed and simultaneously press key , the value 0 appears.

When starting the counter jumps on to 1. On the display the determined impulses are indicated.

Do not press any key during the calibration travel.

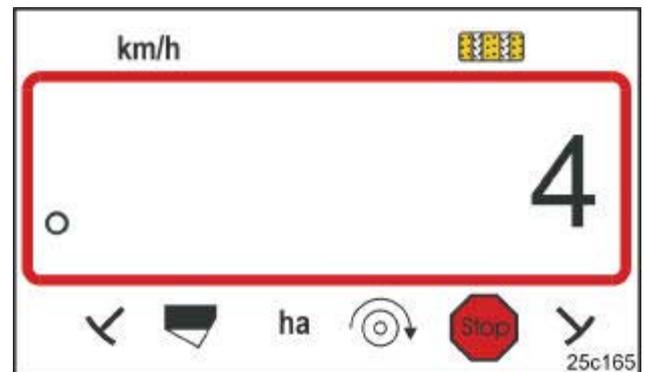


Fig. 27

Indication during calibration

Stop after accurately 100 m. On the display appears the determined number of impulses (e.g. 1005)

Press key  and store the indicated calibration value (Imp./100m).

Use key  to show the stored calibration value on the display.

If you intend to recall the determined calibration value at a later date, take down the value in table (Fig. 29).



Fig. 28

Calibration value indication



If the calibration value has been determined by driving down a calibration distance and if the calibration value deviates from the values mentioned in tables (Fig. 24 and Fig. 25), also the crank turns for the calibration according to para. 8.1.2.1 have to be newly calculated and entered into the table (Fig. 29).

With the aid of the calculated number of crank turns (newly) determine the gearbox position or the seed rate.

Field	Calibration value Imp./100 m	Crank-turns

Fig. 29

8.1.2.1 Calculate the crank turns for the calibration test

Example:

Seed drill type: AD-P03 Special
 Working width: 3,00 m
 Imp./100m (measured): 1339
 Imp./100m (according to table Fig. 24 / Fig. 25): 1409
 Crank turns (according to table Fig. 24 / Fig. 25): 38,5

Conversion factor	=	$\frac{\text{Imp./100m (actual)}}{\text{Imp./100m (from Fig. 24 and Fig. 25)}}$
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Conversion factor = $\frac{1339}{1409} = 0,95$

Crank turns (actual)	=	Crank turns (from Fig. 24 and Fig. 25)	x	Conversion factor
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Crank turns (actual) = 38,5 x 0,95 = 36,6

8.2 Start of operation

Prior to any operation in the field, carry out the above mentioned settings.

Bring tramline counter into the start position by



pressing the key (e.g. 4, see example para. 7.7 and figure [Fig. 19]) underneath the writing START).

Tramline control and track marker control are coupled. Therefore ensure that the correct track marker is lowered after the tramline counter has been set. If necessary switch through the track marker once more.



Fig. 30

Indication at stationary shifting on: the first figure shows the forward speed (km/h), the second figure shows the tramline counter 4

Immediately before starting operation

Press key  keep pressed and simultaneously

press .

In this way the part area counter is returned to 0.

After starting to drive the forward speed [km/h] (Fig. 31/1), the position of the tramline counter (Fig. 31/2) and the position of the track marker (Fig. 31/3 or Fig. 31/4, if existing) are shown in the operational display.

An audible signal sounds at track marker change.

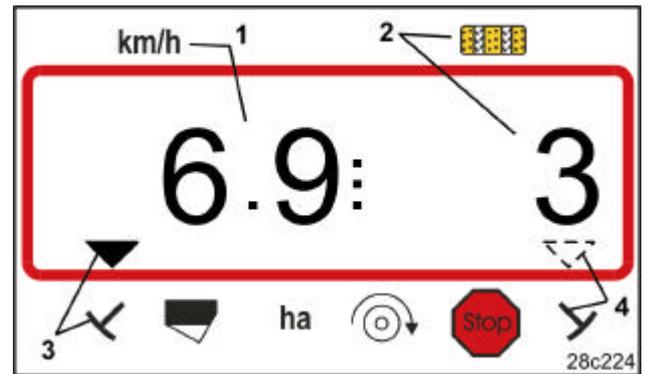


Fig. 31

Operational display

8.3 Indication during operation

During the sowing operation the following data can be indicated by pressing the function keys for approx. 10 seconds.

8.3.1 Hectare counter – part area

The areas are counted only then when the seed drill is operating, not when it is lifted out of work.

By pressing key  the part area [ha] is indicated, which has been worked after actuation of the start function.

The counter will be deleted as described in para. 8.2



Fig. 32

Indication part area 10,5 ha

8.3.2 Hectare counter – total area

By pressing once again (see para. 8.3.1)

key  the worked total area [ha] is indicated.

This counter cannot be deleted.

By pressing key  again the operational display appears.



Fig. 33

Indication total area 105,1 ha



8.3.3 Indication of impeller rev. speed of the pneumatic seed drill

By pressing key  the impeller rev. speed (Fig. 34) is indicated.



Fig. 34

Indication impeller rev. speed 3600 1/min.

8.3.4 Switching on / off the alarm in case of deviations from the required rev. speed

AMALOG+ monitors the impeller rev. speed. The rev. speed monitoring is only in action when the seed drill is operating. If the actual rev. speed deviates more than 10% from the required rev. speed, an audible signal sounds and the function control sign flicks (triangle, Fig. 35) above the rev. speed symbol.



Fig. 35

The function control sign flicks at a deviation of 10% from the required rev. speed

Enter required rev. speed

After pressing key  the display shows the required rev. speed set.

Change the required rev. speed by using the 

and 

Use key  to store the value.

Switch off rev. speed monitoring

After pressing key  the display shows the required rev. speed set.

Return the required rev. speed by using key  to 0.

By using key  store the value.

The rev. speed monitoring is switched off.

8.4 Shifting on the tramline counter prevent/block

AMALOG+ counts the tramlines at seed drills

- with track markers
when the track markers pass the sensors (Fig. 10) or when the hydr. valve is actuated (Fig. 11) or the marker change over (Fig. 12)
- without track markers
at a standstill of the seed drill, e.g. when lifting the machine at the field's end when the sensor inside the gearbox does not receive impulses any more, however also when stopping in the field.

If it is intended that the tramline counter does not continue to count, e.g. when stopping in the field or when lifting the track marker at an obstacle, press

key .

The counting of the tramline counter is blocked when the tramline counter flicks in the display (Fig. 36/1).

Before continuing to work press key  to activate the tramline counter again.

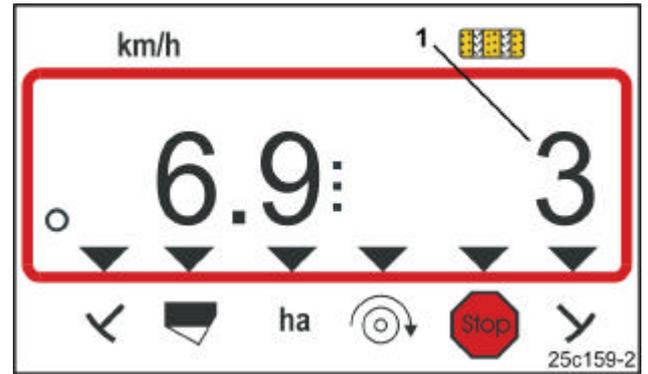


Fig. 36

Indication after pressing the Stop-key.
The tramline counter flicks in the display.









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