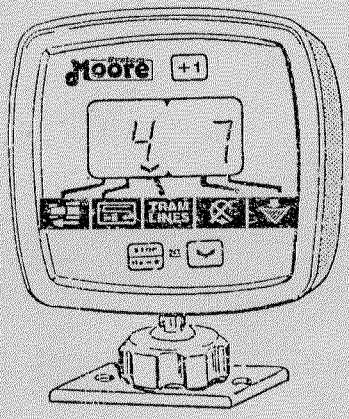
User's Manual

MOORE-TRONIC



System Moore

Use

The Moore-Tronic is designed to be used only with Moore seed drills.
Any other use will be considered as improper.
The manufacturer cannot be held responsible if modifications have been made to the unit without the manufacturer's express agreement.

Instructions

Before carrying out electrical instalation work, disconnect the battery circuit.
The same applies when carrying out welding on the tractor and the machine

Please note

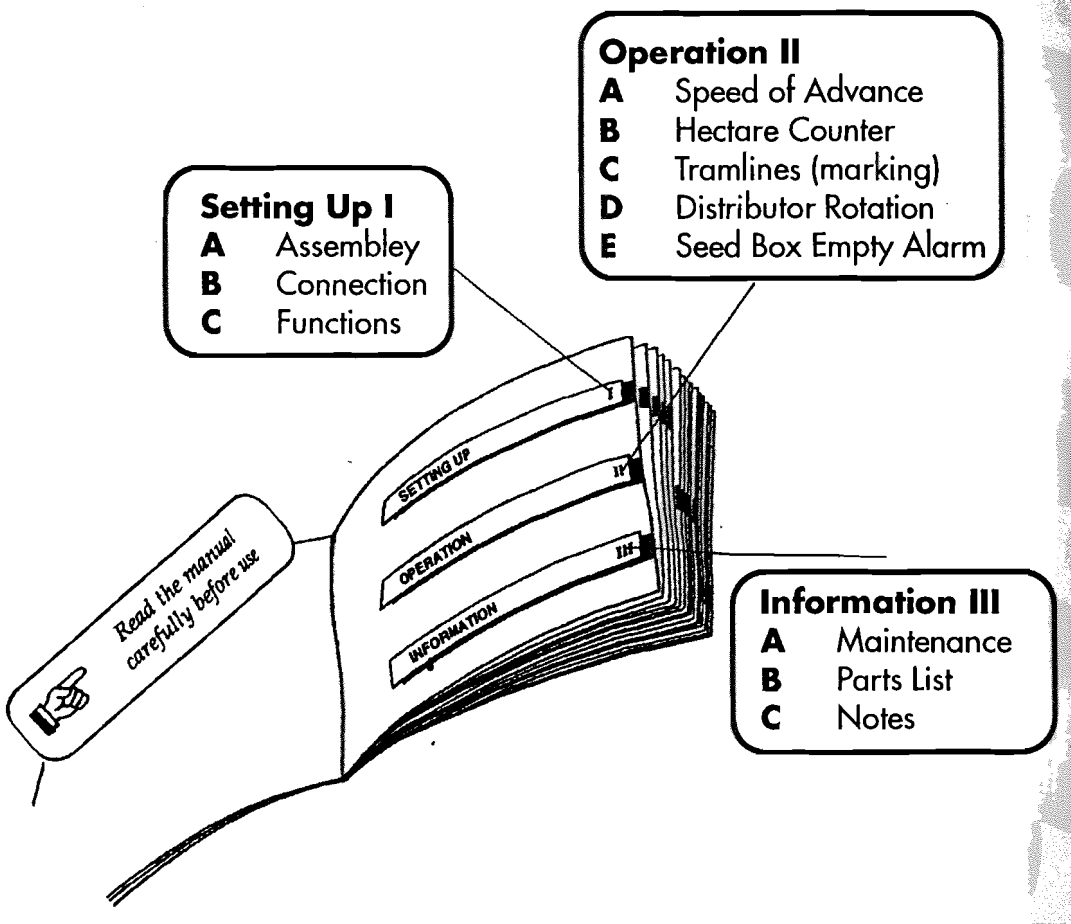
The 'km/h' on face of Moore-tronic meter is now replaced by this  symbol.

The 'Ha' is replaced by this  symbol

System Moore
Moore Uni-Drill Limited.,
Newhill House,
33 Kirk Road,
Ballymoney, Co. Antrim,
Northern Ireland.
BT53 6PP

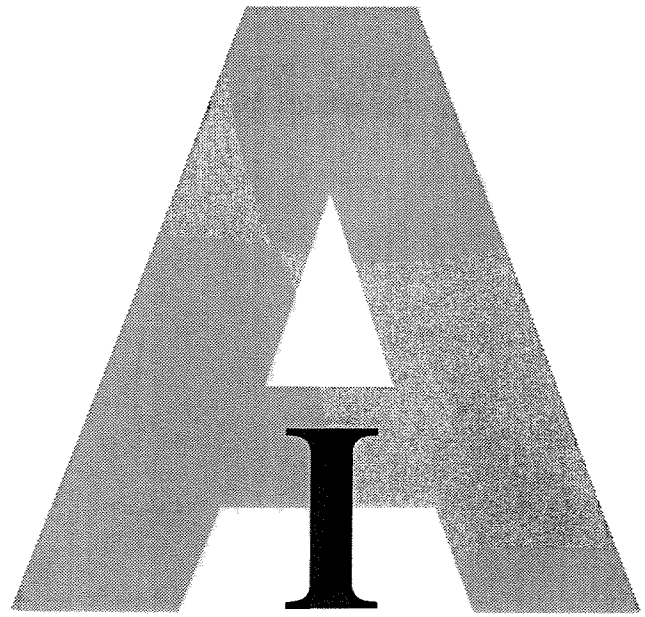
Telephone: (012656) 64444
Fax: (012656) 65696

Read the manual carefully before use



CONTENTS

ASSEMBLY



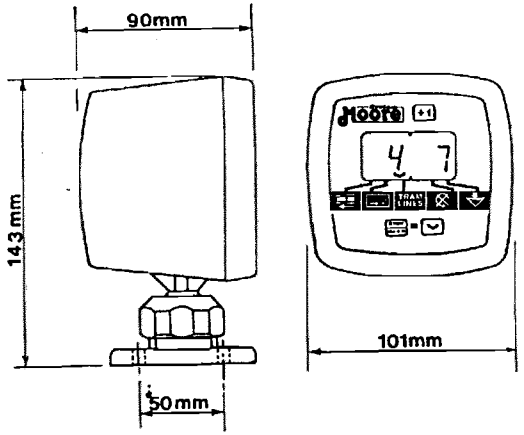
A 1 UNIT DIMENSIONS (see diagram)

The electronic control unit must be mounted so that it is clearly visible to the driver

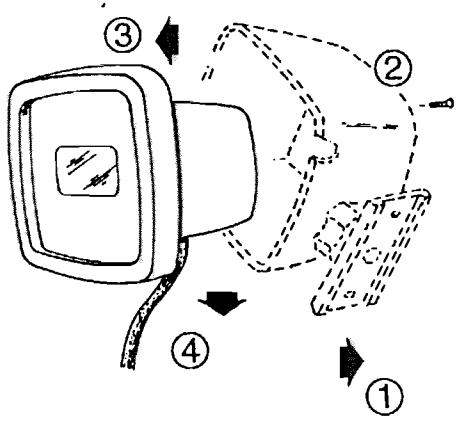
A 2 MOUNTING

- By dismantling the control unit casing, the control unit can be mounted in one of 4 positions relative to the display.
- Attach the foot of the unit by drilling mounting holes in the location desired: 2holes, distance between centres 50mm, diameter 5mm.

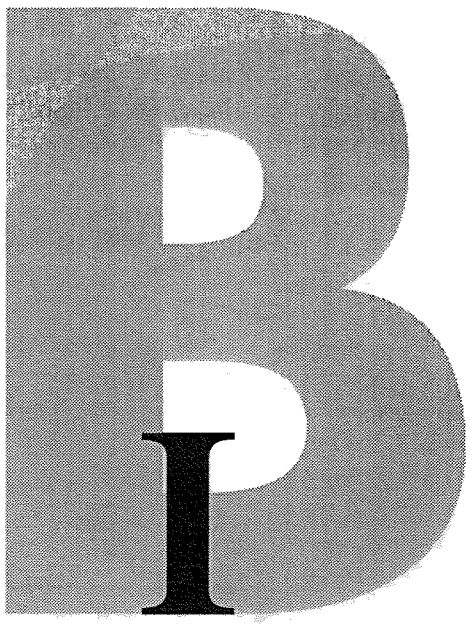
A1



A2



CONNECTION



B 1 ELECTRICAL CONNECTIONS

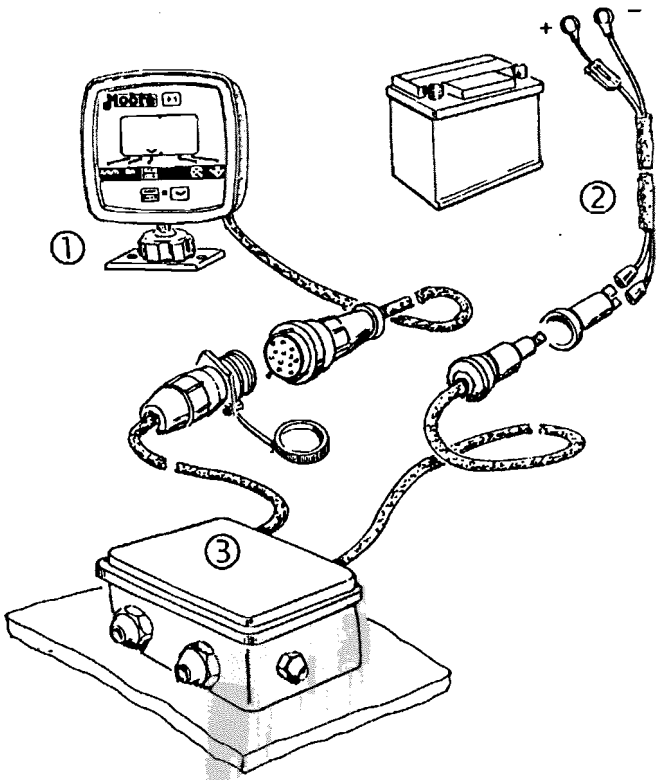
The unit must be connected directly to the 12 volt battery using the cable provided for this purpose.

As soon as it is plugged in, the unit shoul switch on.

The unit has an internal battery so that the data programmed in to it can be kept in memory.

B 2 CONNECTION BETWEEN SYSTEM COMPONENTS

① MOORE-TRONIC unit
② Power leads with 3amp fuse
③ Seed drill connection unit (supplementary information III3)

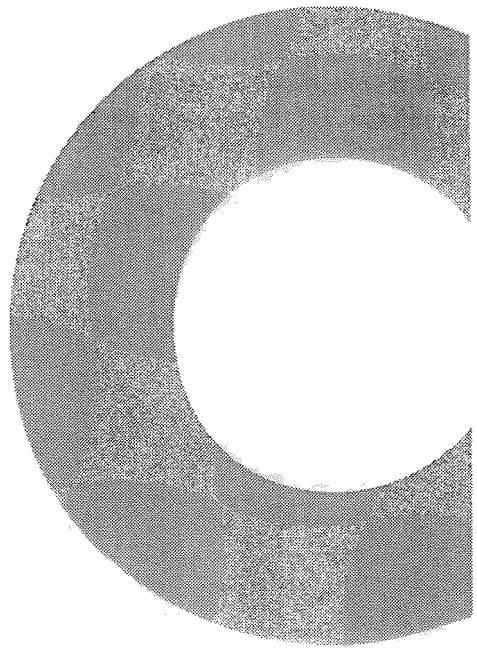


The unit must be protected by a 3A fuse (if not using the power leads provided).

FUNCTIONS

C 1 **Functions**

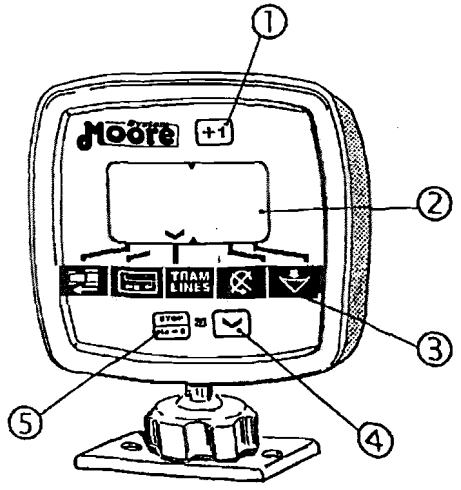
C 2 **Information**



C 1 FUNCTIONS

The main function of the unit is the TRAMLINES function. While working, the cursor returns to this function; use the ⌄ key to move the cursor on to other functions. In the event of any anomaly, the cursor automatically positions itself on the faulty function, accompanied by an audible signal.

C 2 INFORMATION



① -TRAMLINES manual advance (counting)
- Selection of surface area
- Programming

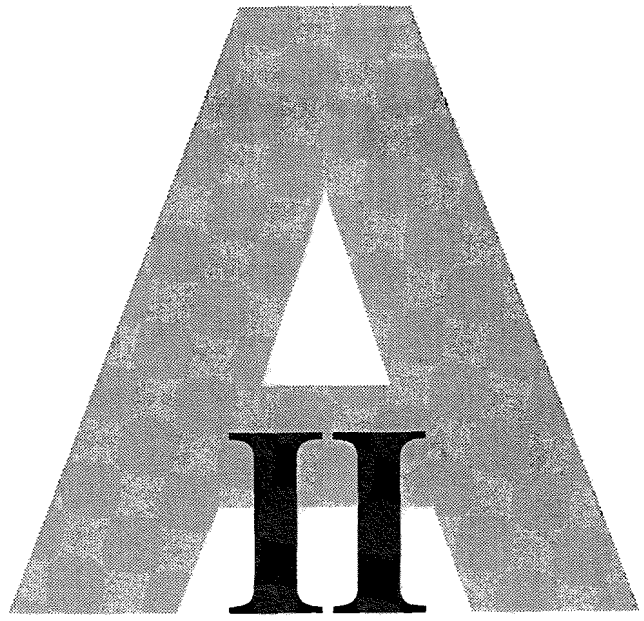
② - Illuminated display
- Cursor indicates the function selected

③ - Functions
3.1 Direct read-out of speed of advance in km/h
3.2 Hectare counter, direct two level read out
3.3 Marking, counting and selection of run
3.4 Distributor shaft rotation indicator
3.5 Seed box empty indicator

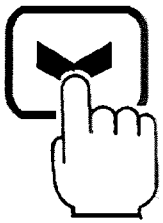
④ - Select function (move cursor)
- Programming

⑤ - Stop TRAMLINES counting
- Reset the two levels of the hectare counter
Total 1 Total 2

SPEED OF ADVANCE



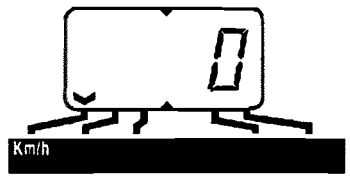
A 1 OPERATION



Press to move the cursor onto km/h.

When working, the speed of advance is displayed.

The unit only works for a speed of advance greater than 2km/h.



The unit is programmed with a coefficient of 3.333 so that the speed can be read off directly.

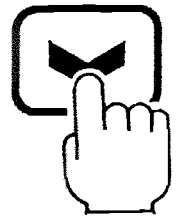
If you notice that the speed indicated is not correct:

a) **Check** that the coefficient is still stored in memory (pII3A-2.1)

b) **Recalibrate** the unit over a distance of 100m (pII4-A2.2)

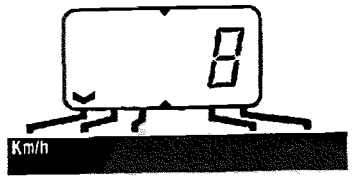
A 2 PROGRAMMING

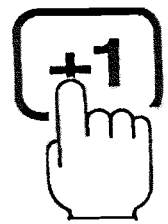
A 2.1 Checking the coefficient



1

Select the km/h function





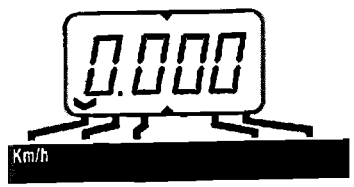
2

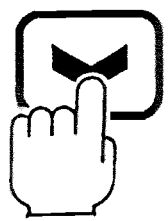
Press and Hold down:

The coefficient is displayed

if correct ➢ release

if incorrect ➢ keep pressed throughout programming (see 3)





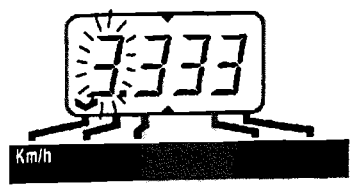
3

With your other hand:

Press to modify the figure which is flashing

Release when the required figure appears;

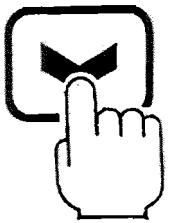
Repeat this operation for the other figures and for the location of the decimal point.



The coefficient should be «3.333»

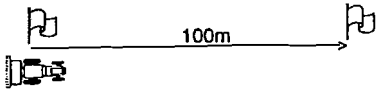
SAM MOORE

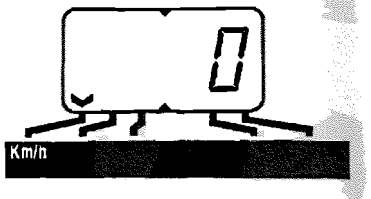
A 2.2 Calibration over 100 metres

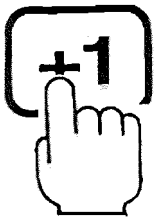


1 **Position the seed drill at the first marking point**

Select the km/h function

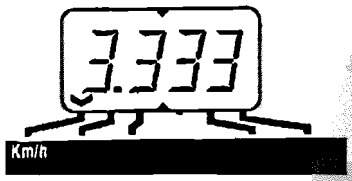






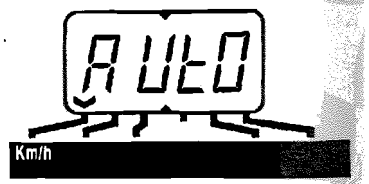
2 **Press and Hold down:**

The coefficient is displayed then **release** after operation 3.



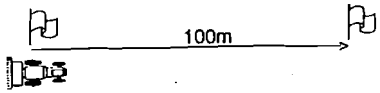
3 **With your other hand:**

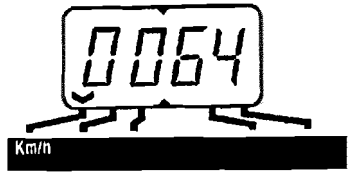
Press to start automatic programming.

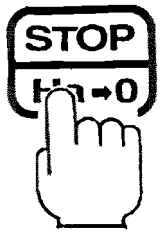


4 **Travel the distance of 100 metres**

The number of pulses is displayed.





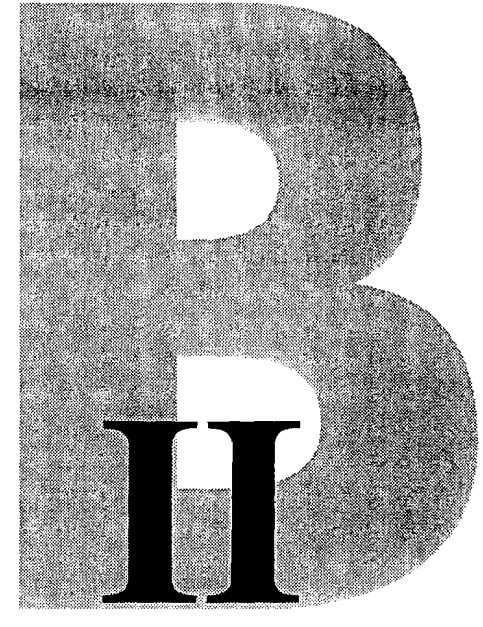


5 **At the end of the 100 metres:**

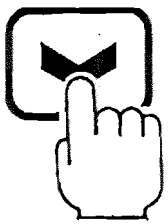
Press STOP, the coefficient is then displayed.

The unit stores this coefficient in memory and cancels the previous value.

HECTARE COUNTER



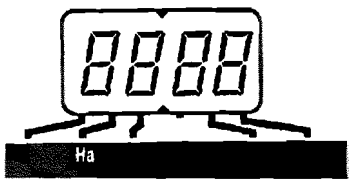
B 1 OPERATION

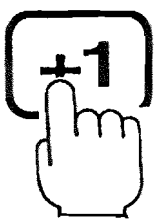


Select the hectare function (Ha)

1 Maximum 9999, read-out in hectares and tenths of a hectare

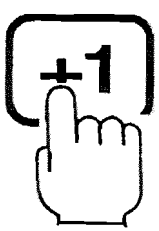
Note: When sowing over a 1/2 width, the counter calculates the width sown.





Press

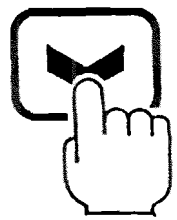
2 The first total is displayed.



Press

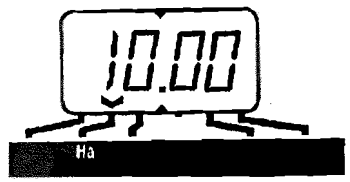
3 The second total is displayed.

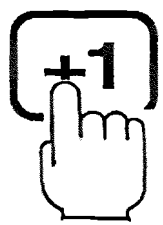
B 2 PROGRAMMING
Checking the programmed working width



Select the hectare function

1



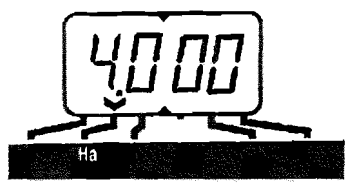


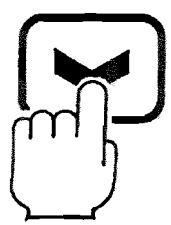
Press and Hold down:

2 The width appears

if it is correct ➢ release

if it is incorrect ➢ keep held down throughout programming



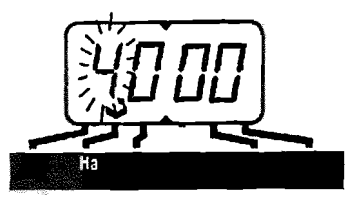


With your other hand:

3 **Press** to modify the figure which is flashing

Release when the required figure appears;

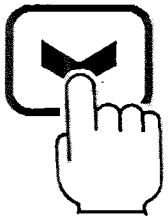
Repeat this operation for the other figures and for the location of the decimal point.



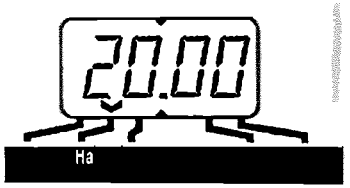
4m seed drill: **«4.000»**

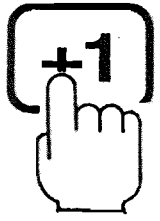
3.5m seed drill: **«3.500»**

3m seed drill: **«3.000»**



1 **Select the Ha function**

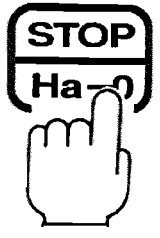




2 **Press to select the total to be reset**

total 1 or total 2

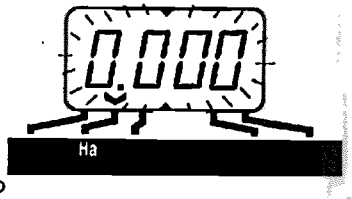
Release



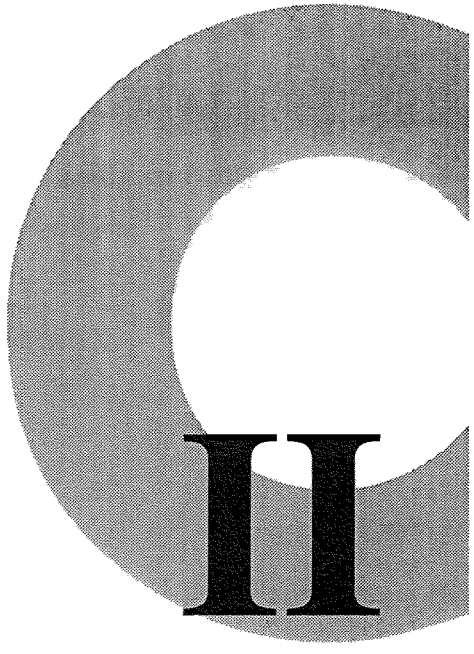
3 **Press and hold down for over 5 seconds**

The unit beeps 5 times before clearing the surface area value

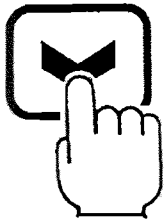
Total 1 and total 2 enable you to have 2 hectare counter levels (1 daily total and 1 per season for example)



MARKING OUT (Tramlines)



C 1 OPERATION

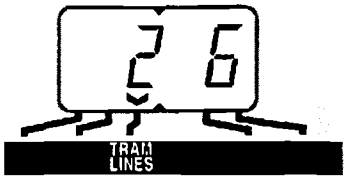


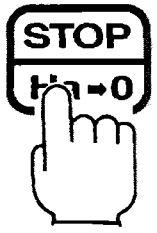
Select the TRAMLINES function

Left hand figure ➢ counting

Right hand figure ➢ programmed figure

Counting takes place by reversal of row markers. The unit indicates the start of disengagement of the distributors by means of an audible signal.



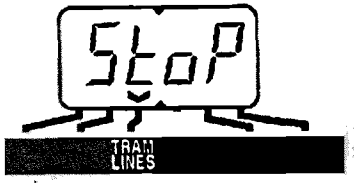


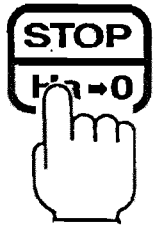
Stopping the counting

1 For reversal of row markers in the middle of the plot of land

When the Tramlines is not used

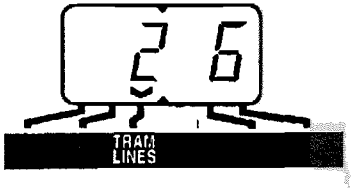
Press



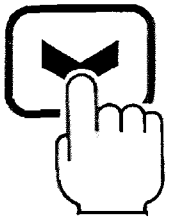


2 **Restart counting**

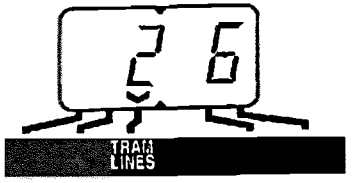
Press

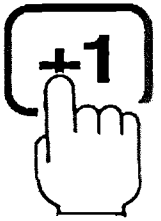


C 2 PROGRAMMING



1 **Select the TRAMLINES function**





2 **Press and hold down throughout programming**

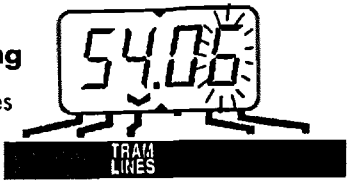
The right hand figure flashes

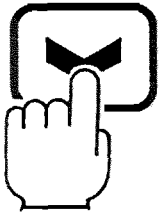
Tramlines mode selected displayed on the left

(A5 Asymmetrical)

('54 Symmetrical)

(p. II16 - 17 - 18)

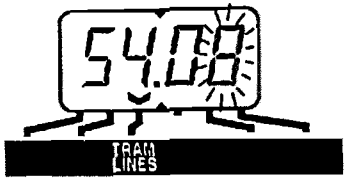




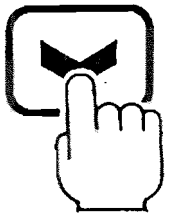
3 **With your other hand:**

Press to modify the figure which is flashing

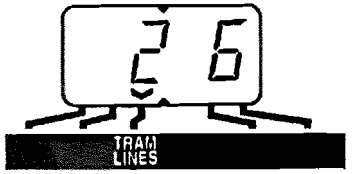
Release when the required figure appears.

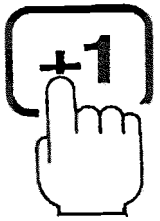


C 3 MANUAL COUNTER ADVANCE



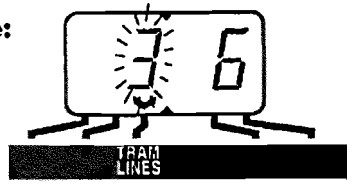
1 **Select the TRAMLINES function**





2 **Press to modify the figure:**

To start the plot of land at the correct run number



C 4 PROGRAM VALUE

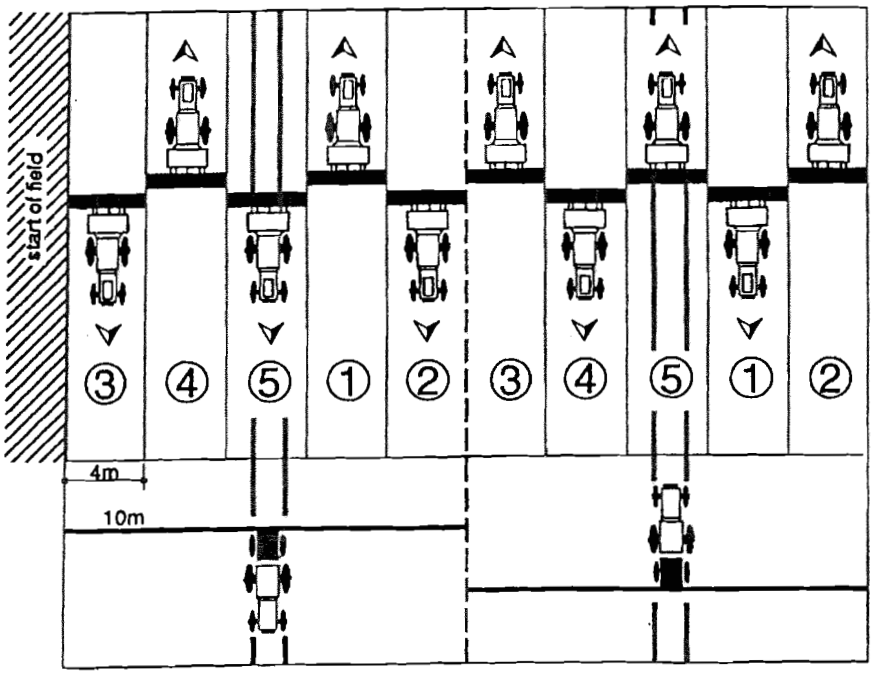
C 4.1 Table of settings (direct reading of marking passages)

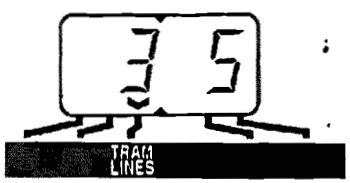
Seed drill	Boom width in metres	1/2 drill to start plot	MOORE TRONIC UNIT	
			Programming	Passage indicator (start of fields)
3m	9	No	3	2
	12	Yes (No)	4 (A5• 4)	2 (3)
	15	No	5	3
	18	Yes (No)	6 (A5• 6)	3 (4)
	21	No	7	4
	24	Yes (No)	8 (A5• 8)	4 (5)
3.5m	21	Yes (No)	6 (A5• 6)	3 (4)
	28	Yes (No)	8 (A5• 8)	4 (5)
4m	12	No	3	2
	16	Yes (No)	4 (A5• 4)	2 (3)
	20	No	5	3
	24	Yes (No)	6 (A5• 6)	3 (4)
	28	No	7	4
	32	Yes (No)	8 (A5• 8)	4 (5)
	36	No	9	5

(Value for asymmetric marking A5)

C 4.2 MARKING AT THE CENTRE OF THE SEED DRILL (Symmetrical)

a) Odd multiple of boom width (for example: 20m, seed drill 4m)

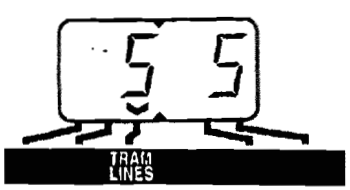




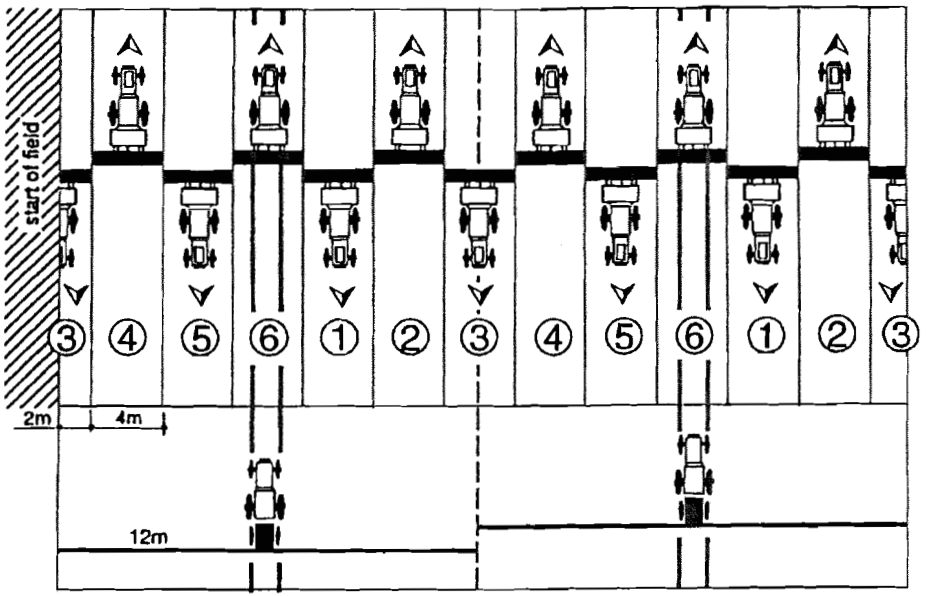
5 x 4 metres

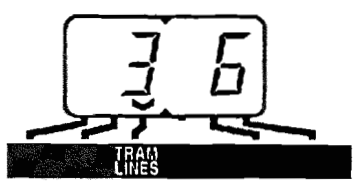
③ ④ ⑤ ① ②

1 x 20 metres



b) Even multiple of boom width (for example: 24m, seed drill 4m)

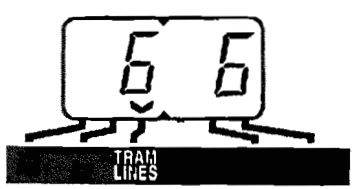




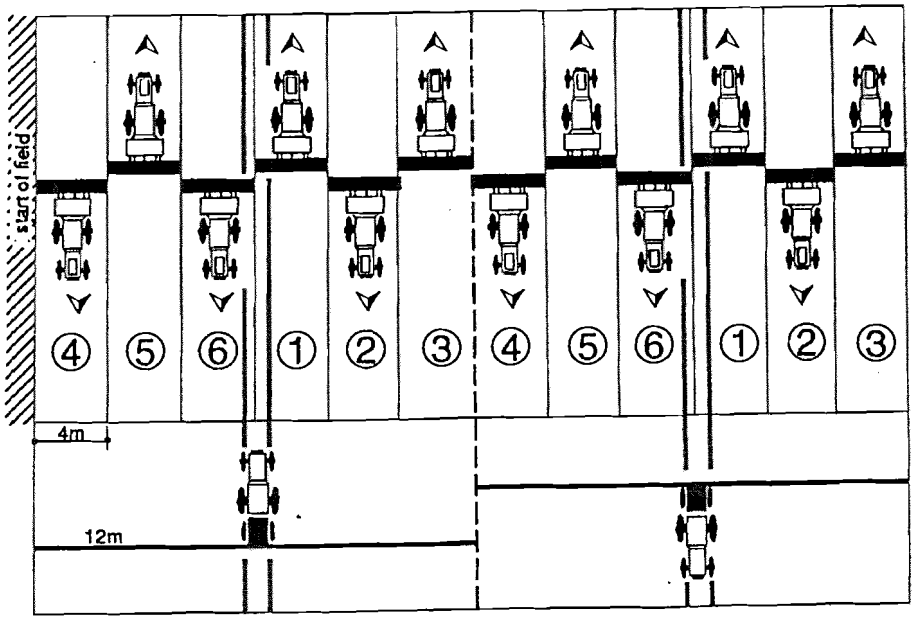
2 x 2 metres / 5 x 4 metres

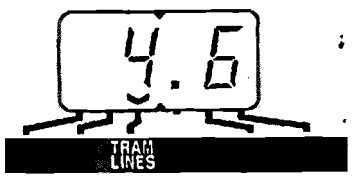
③ ④ ⑤ ⑥ ① ② ③

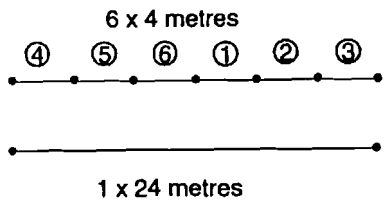
1 x 24 metres

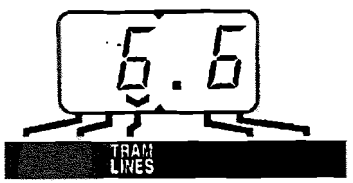


C 4.3 MARKING OVER A TWO WAY TRIP OF THE SEED DRILL
(Asymmetrical)
(for example: boom 24m, seed drill 4m)



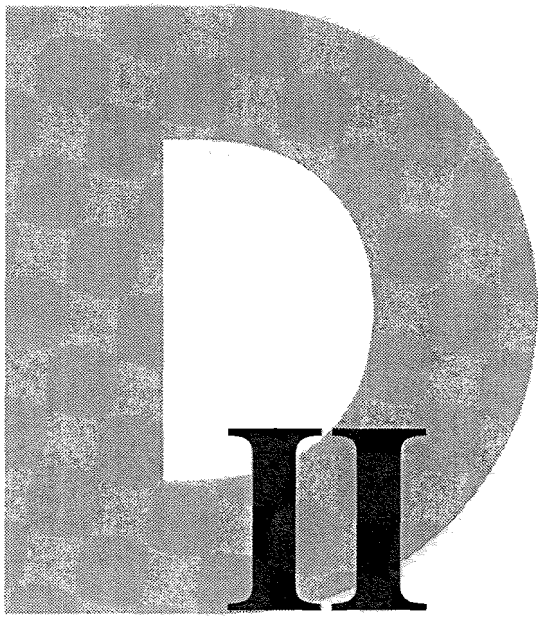


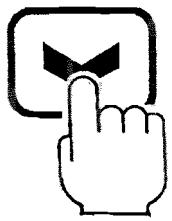




DISTRIBUTOR ROTATION

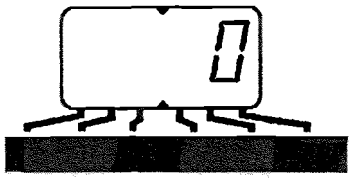
D ..... **Operation**





Selection of the distributor shaft rotation function

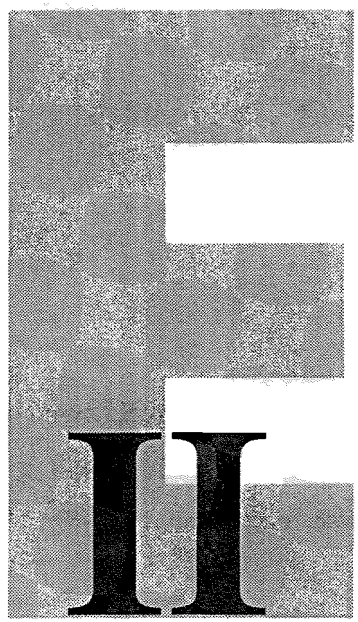
1 The figure shown is the pulse number when the shaft rotates



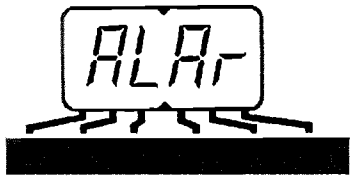
If the distributor shaft is not rotating, the cursor automatically moves onto this function, and this is followed by an audible signal.

HOPPER EMPTY ALARM

E ..... **Operation**



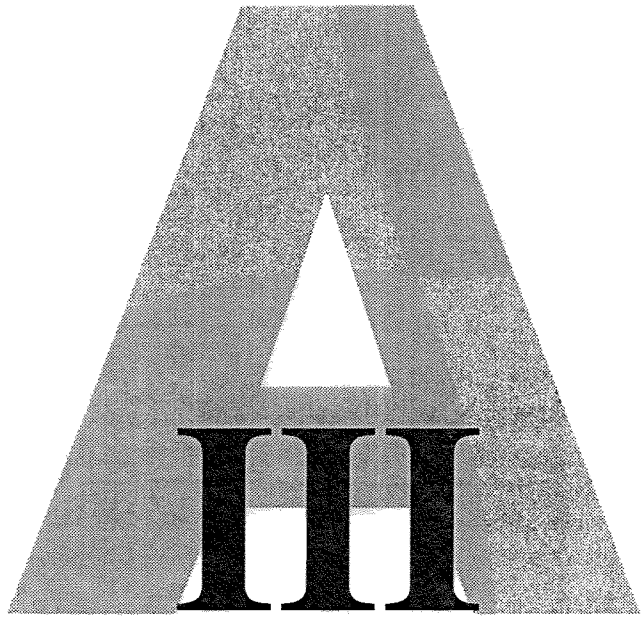
This issues a warning just before the seed box is completely empty.



The cursor moves onto this function.

The screen displays ALAr and the unit produces an audible signal.

INFORMATION



A 1 MAINTENANCE

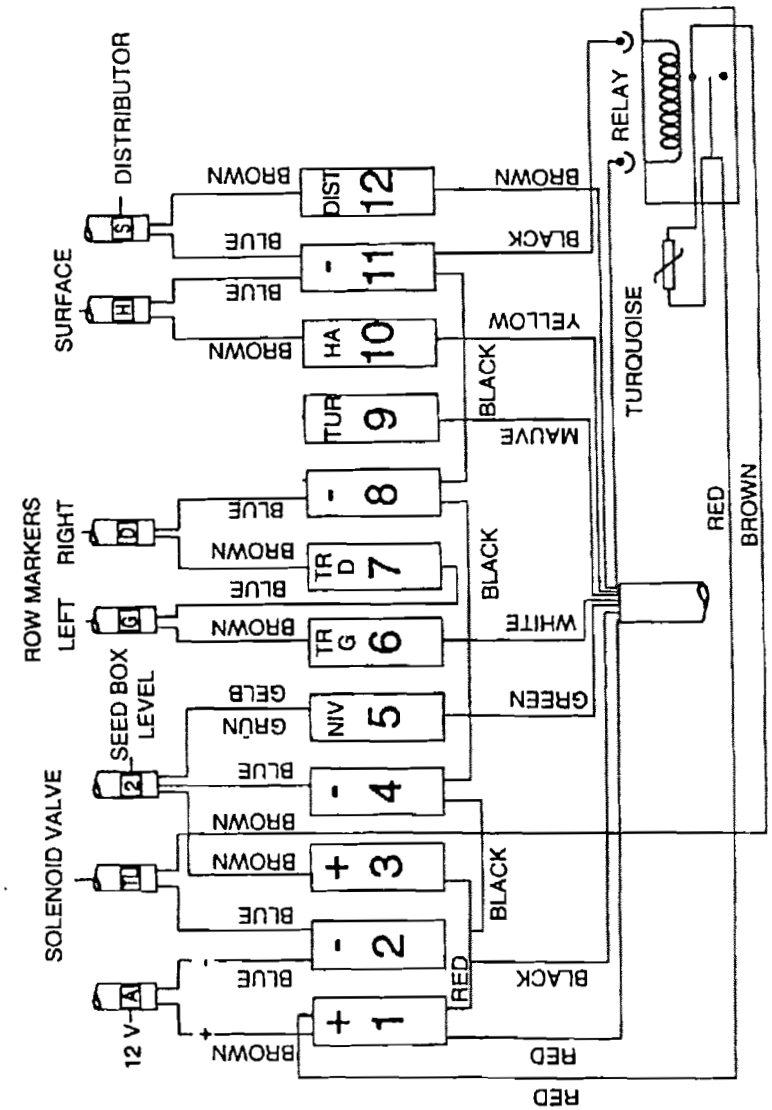
ELECTRONIC CONTROL UNIT

- The unit requires no maintenance
- It must however be kept in a dry place in winter

SENSORS

- The inductive sensors require no maintenance; how ever, care should be taken to avoid subjecting them to shock, since this could upset their positioning.

A 2 SEED DRILL CONNECTION BOX CIRCUIT DIAGRAM

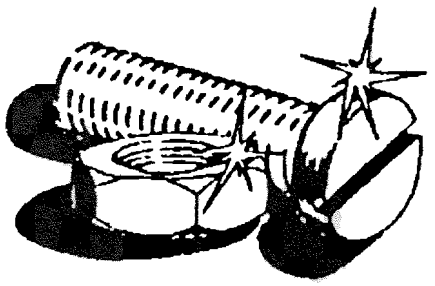


A 3 CORRECTING FAULTS

FAULT	REMEDY
The unit does not switch on	• Check the connection to the 12 V dc • Check the 3A fuse
The unit switches on, then switches off	• Check the polarity +/–
The speed information is incorrect	• Check the speed coefficient • Check the positioning of the sensor on the shaft
The hectare count is incorrect	• Check the speed coefficient • Check programmed working width • Check the positioning of the sensor on the shaft
The automatic counting for the marking out no longer works (counting twice instead of once)	• Check the positioning of the sensor at the level of the row marker reversal mechanism For COMPACT (with the cylinder out, the sensor should be opposite the magnet). • Check the mounting of the sensors at the joint of the tracers for SPI

NB: refer to the corresponding chapter

MOORE TRONIC

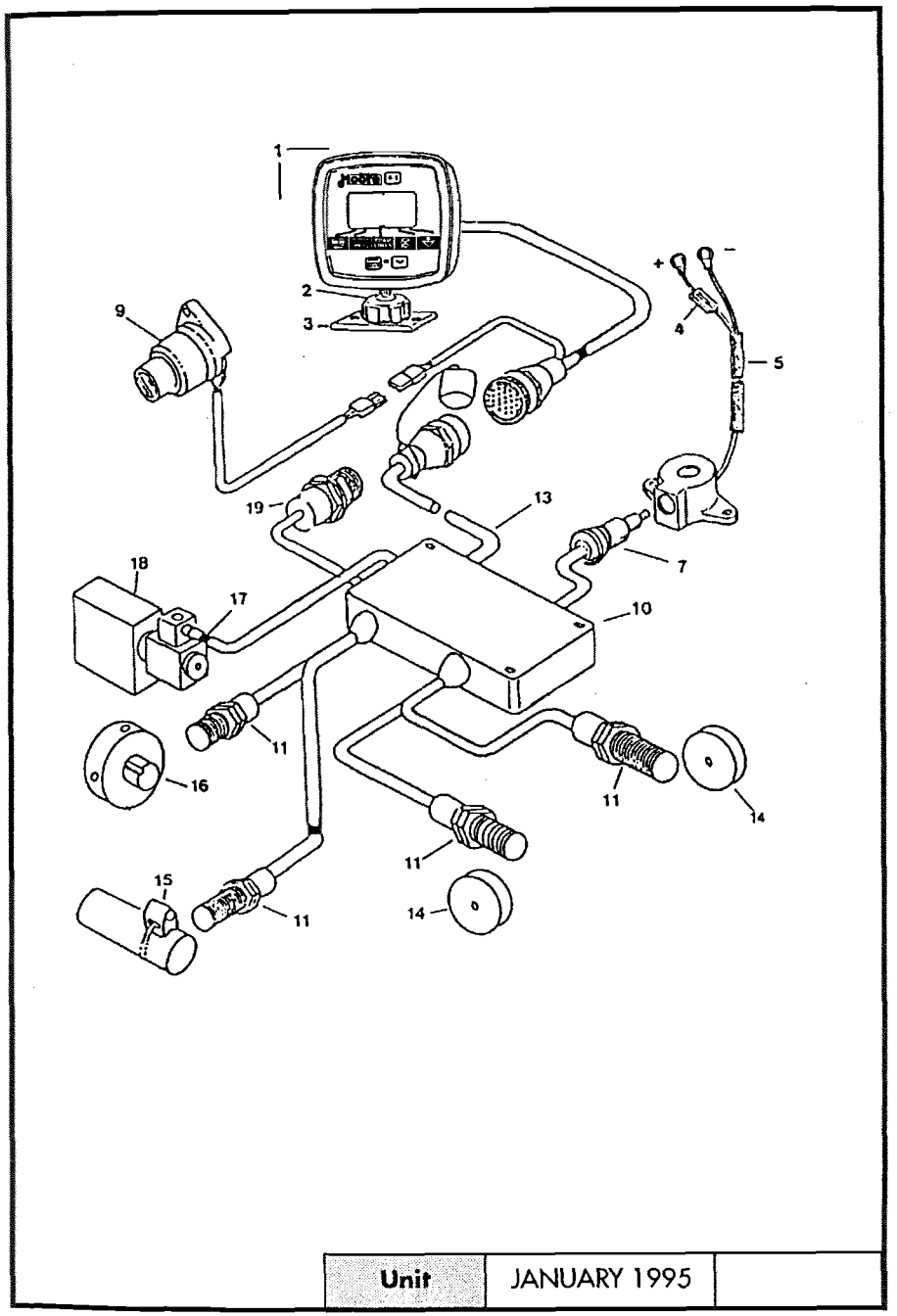


Spare Parts CATALOGUE

B

III

Nr	CODE	ITEM
1	983606	Complete unit
2	962088	Thumbwheel and unit casing
3	951193	Support
4	983907	Fuse holder
5	983802	Set of power leads
6	983908	Female connector
7	983909	Male connector
9	983910	Alarm
10	971021	Complete connection box
11	983912	Sensor and cable 3.10 m
13	983805	Signal harness 4.4 m
14	983914	Tramlines magnet
15	983915	Surface area magnet
16	983916	Distributor magnet
17	983804	Solenoid valve connection
18	795722	Solenoid valve
19	983917	Seed box empty sensor



Notes

GENERAL GUARANTEE CONDITIONS

Provided that the enclosed certificate is returned by the user on the exact delivery date, the equipment is guaranteed against all material defects for one year from this date.

The guarantee is limited to the repair or free replacement of the part recognised defective according to the manufacturer's instructions. It does not cover damage resulting from abnormal use, defective maintenance or operator error.

The guarantee does not apply to any machine having undergone modifications without written authorization, or if original parts have been replaced by parts of other origin. The tyres, and parts not produced by us, are excluded from the guarantee.

The guarantee does not cover labour and shipment costs, and the equipment is carried at the recipient's risk. The guarantee is expressly limited to the above conditions; in particular it does not in any circumstances apply as a result of accidents to persons or property.

As part of its policy of constant improvement to its equipment, Moore reserves the right to modify characteristics at anytime and without notice.

Remember to make a note of the serial number of your Moore equipment, which is engraved on the identification plate. It must be quoted in any correspondence with the factory (by telephone or in writing).

The characteristics given are not contractual.

Use original Moore parts to ensure that your machine maintains conformity with its original specifications.