



TOUCHSCREEN USER MANUAL



1. STARTING

At starting the touchscreen shows the logo “Ferrari Costruzioni Meccaniche” for approximately twenty seconds, this time is necessary to load the operating system (**Fig.0**).



Fig. 0

A page with the logo Fastblock, the version of the loaded software on the device (ex: 3.1) and a loading bar (**Fig.1**) will appear.



Fig. 1

A) Software version.

Once loaded, the system starts the connection via CAN BUS with the control unit FPC: in case of communication problem with the control unit, the loading bar will constantly be shown, and when the connection will be correctly set up, the system will start the resetting procedure, this means that the planting units will be in the correct position to start working (**Fig.2**).



Fig. 2

2. WORK MENU

2.1 MAIN PAGE

Once the resetting procedure will be completed, the main work page will be shown (Fig.3).

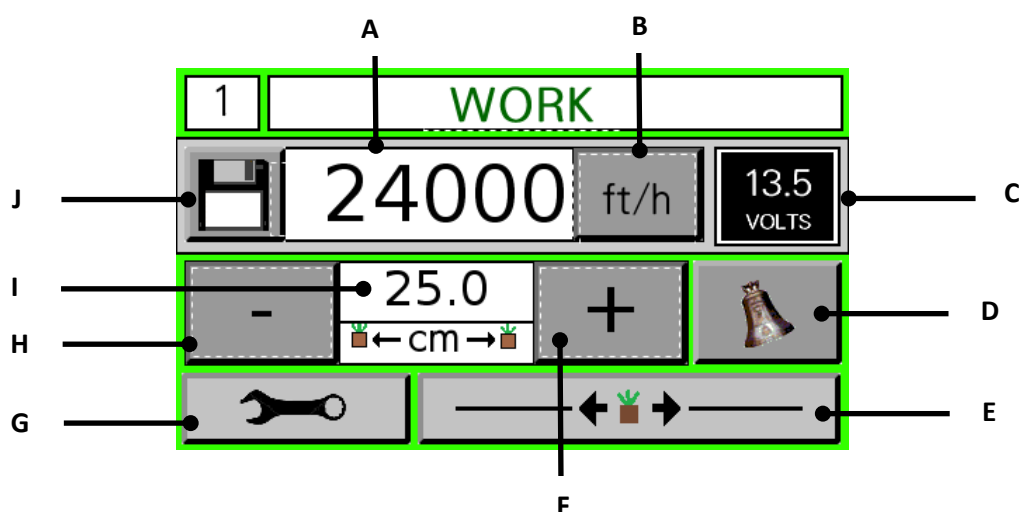


Fig. 3

- A) In this frame the work speed is shown in real time. The speed can be shown in “plants/hour” or in “meter/hour” (“yards/hour” if the Anglo-Saxon metric system has been selected). Alternatively it is possible to view the transplanted plants per hectare (since this data varies when the distance set in the row changes).
- B) Selection key of the data to be displayed on frame A).
- C) Indication of the electric supply tension.
- D) Access to the alarms control page.
- E) Access to the regulation of the position where the plant is placed inside the hole made through the mulching film (timing).
- F) Distance increase key.

- G) Access to the work parameter page.
- H) Distance decrease key.
- I) Transplanting distance.
- J) Access to the data archive page.

2.2 TIMING REGULATION

By pressing the key **E-Fig3** it is possible to enter the timing regulation page.

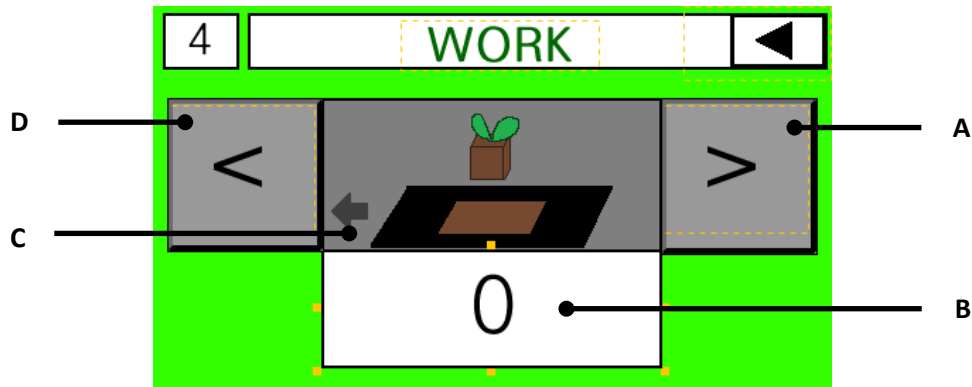


Fig. 3

In this page it is possible to set the timing value, this means the position where the plant is placed inside the hole made by the mulching film.

- A) Shift back the laying point of the square block.
- B) Timing value (range from -10 to +10).
- C) The arrow indicates the work advancement way.
- D) Shift forward the laying point of the square block.

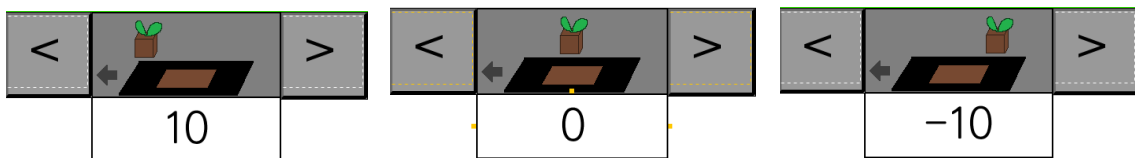


Fig. 4

2.3 DATA ARCHIVE PAGE

By pressing the key **J-Fig3** it is possible to enter the data archive page (**Fig.5**).

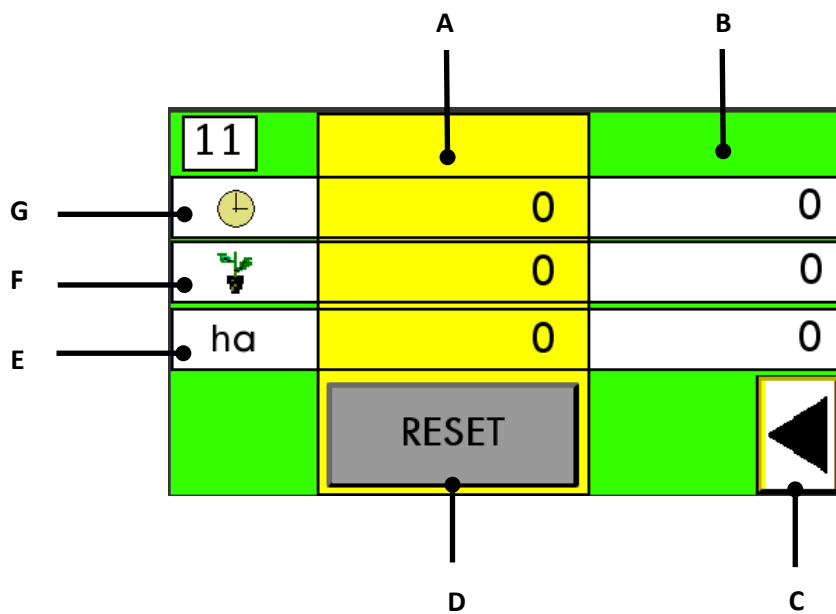


Fig. 5

- A) Partial data column
- B) Total data column
- C) Key to turn back to the main work page.
- D) Key RESET of the partial data: press to zero the partial data
- E) Work hectares (Acres if the Anglo-Saxon metric system has been selected)
- F) Transplanted plants
- G) Work hours

2.4 ALARMS SIGNAL

When an alarm comes up the icon background **(D)** of the work menu **(Fig. 1)** becomes red and intermittent acoustic signal starts.

With reference to **(Fig. 6)**:

- A) Alarm number indication.
- B) Go back to the main page of the work menu.
- C) Indication of the element number **(Row n.)** which has an anomaly (this information comes out if the alarm refers to a specific unit). In case of "multimaster" system, if the alarm refers to a specific frame, the indication **(Frame n.)** will be shown and the frame number related to the alarm.
- D) Access to the page of alarm starting/shut-off
- E) Alarm reference icon.

For the alarms description please refer to the chapter **"6. ALARMS"**.

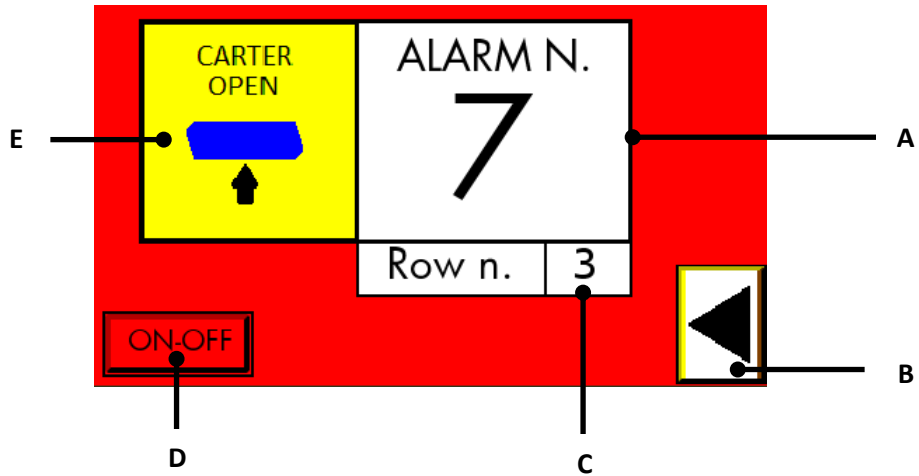


Fig. 6

Press the key **D-Fig.6** to enter the alarms starting/shut-off page (**Fig.7**), where it is possible to disable one or more than one alarms (except alarm n.3 that cannot be disabled because of safety reasons).

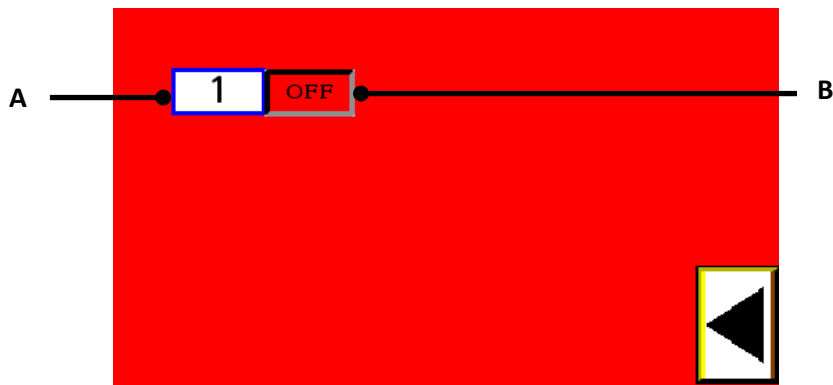


Fig. 7

- A) Alarm number.
- B) Alarm Rating/Disablement.

3. PROGRAM MENU

3.1 MAIN PAGE

Press the key **G-Fig3** to enter the program menu (**Fig.8**).

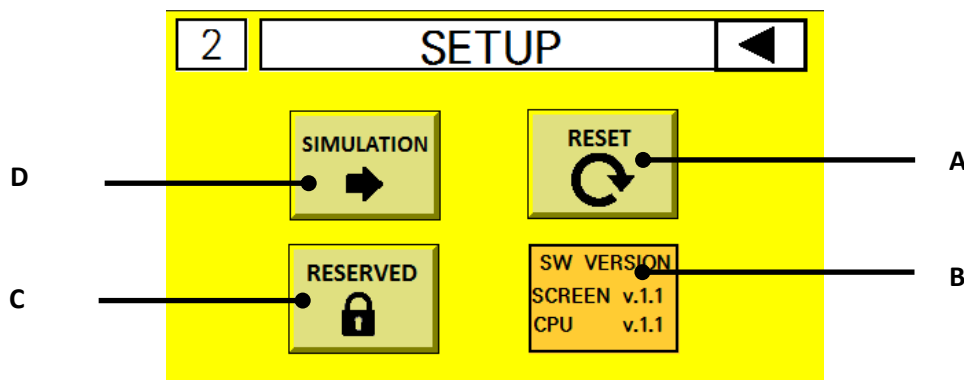


Fig. 8

- A) Reset key: by pressing the key reset an impulse is given to the transplanting units, so that they move to the correct position to start working.
- B) Software version: Screen (touchscreen OPUS A3) and CPU (control unit).
- C) Access key to the reserved menu.
- D) Access to the simulation page (vedi 3.2).

3.2 SIMULATION PAGE

Press the key **E-Fig7** to enter the simulation page (**Fig.9**).

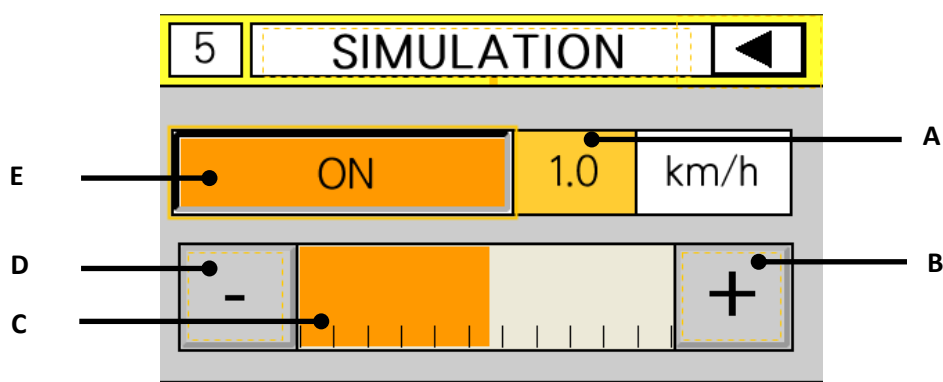


Fig. 9

- A) Simulation speed set.
- B) Speed increase key.
- C) Speed decrease key.
- D) Speed Bar graph.
- E) Selector Start/Shut-off Simulation

In the simulation page it is possible to simulate the machine advancement and so to activate the transplanting units movement. By means of the selector E) it is possible to activate or to deactivate the simulation, and by means of the keys B) and C) it is possible to increase or to decrease the simulated speed.

It is possible to set a distance in km/h (from 0 to 2 km/h) and the transplanting elements will move as fast as to ensure the distance set in the main menu.

4. RESERVED SETUP MENU

Press the key **A-Fig7** and enter the password to ask to Ferrari Costruzioni Meccaniche to enter the reserved program menu. It is important not to modify the parameters contained in this section without the supervision of a technician of Ferrari Costruzioni Meccaniche.

4.1 RESERVED SETUP 1

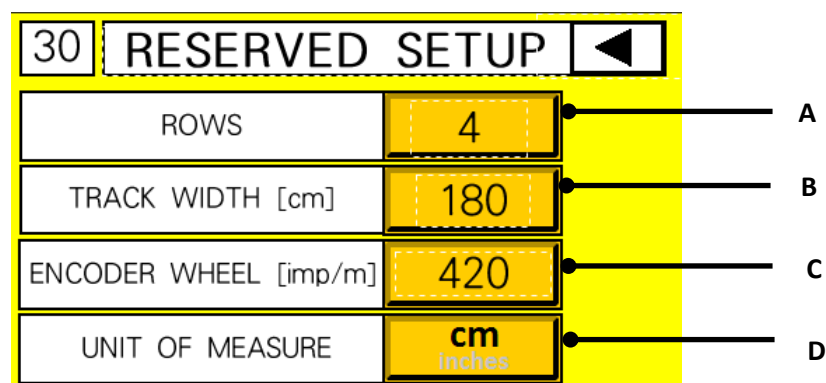


Fig. 10

- A) ROWS: number of machine transplanting elements.
- B) TRACK WIDTH: machine working width (in centimetres).
- C) ENCODER WHEEL [imp/m]: number of pulses per metre of the encoder that measures the machine travel speed.
- D) UNIT OF MEASURE [cm/inches]: selection of unit of measure to be used. By selecting "cm" the measurements in the work menu will be expressed in centimetres and hectares; by selecting "inches" the measurements in the work menu will be expressed in inches and acres.

5. REPLACEMENT

TOUCHSCREEN/CENTRAL UNIT

In case of breakage, damage or bad functioning of the Touchscreen or of the motherboard (central unit) the broken device must be immediately replaced. Once the damaged device has been removed, a copy of the parameters is saved inside the functioning device. After the replacement, when the machine is started, the page on **fig. 22** is shown.

Press the key **(C)** to copy the memory of the Touchscreen on the new motherboard (CPU) installed, while press the key **(A)** to copy the memory of the motherboard on the new Touchscreen installed. Press the key **(B)** to enter a detailed list of the data saved on both devices.

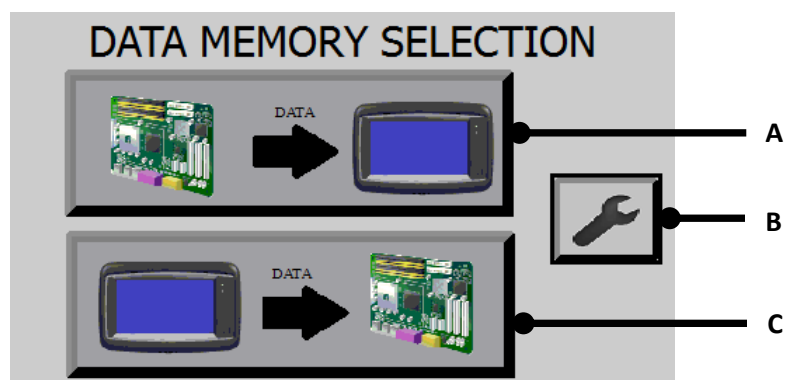
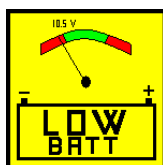


Fig.11

6. ALARMS

ALARM N.1: INCORRECT ELECTRICAL SUPPLY



Make sure that the electrical connections are well fastened, especially that the battery clamps are not oxidised and that the alternator work properly.

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