

SEEDERS & TRANSPLANTERS CONTROL SYSTEM

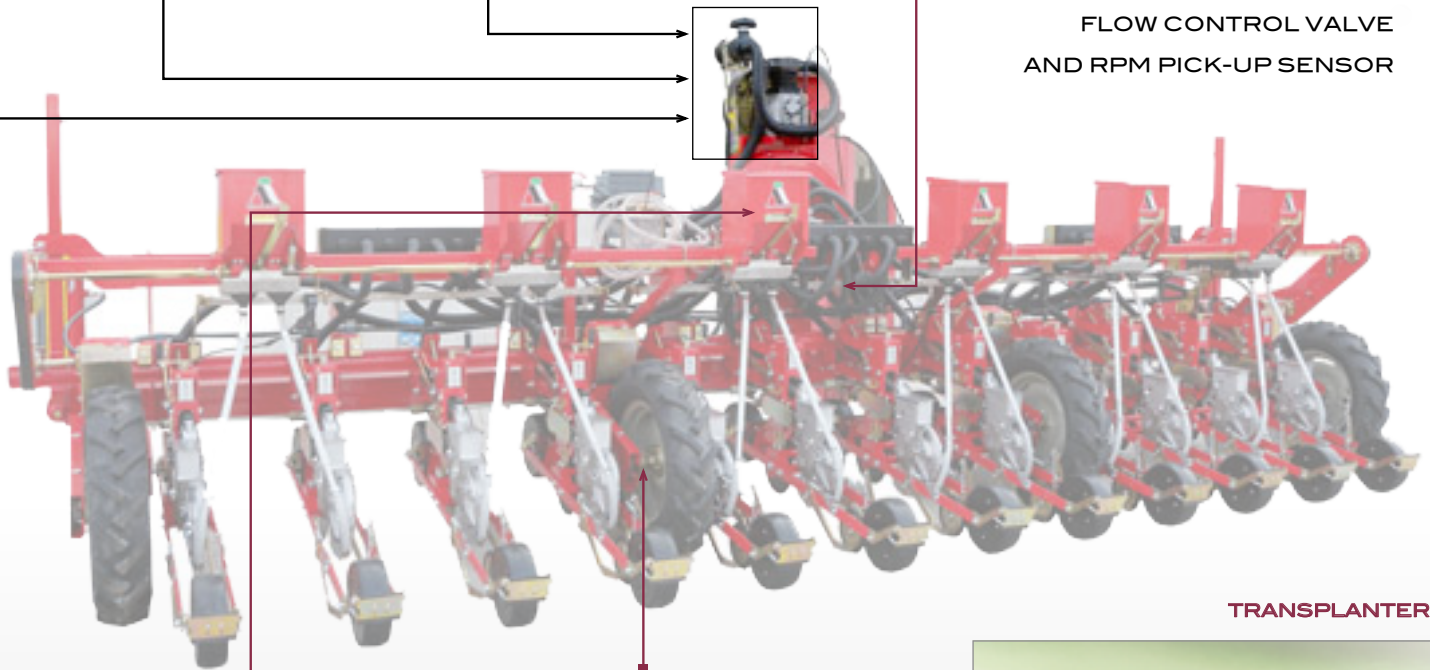


IN-CABIN DIGITAL DISPLAY CONTROL UNIT

- BUILT-IN ELECTRONICS
- GROUND-SPEED ORIENTED SOWING DISTANCE CONTROL



HYDRAULIC MOTOR WITH
PROPORTIONAL
FLOW CONTROL VALVE
AND RPM PICK-UP SENSOR



TRANSPLANTERS



WIRING HARNESS



ENCODER
SPEED SENSOR



AMON
ELECTRO-HYDRAULIC CONTROLS

The Customizing Attitude

SEEDERS & TRANSPLANTERS CONTROL SYSTEM

OPERATIONS

The display includes the complete Electronic Control Unit (ECU). The ECU reads the machine's speed by means of an encoder located on the pulled wheel.

From the measured speed and the operator's setting for the distance between plants, the ECU calculates the setting for the rotation speed of the hydraulic motor. The ECU applies a controlled current to a proportional solenoid valve and reads the hydraulic motor's speed through a sensor. This is then a closed-loop control of the transplanting distance, which results independent of variations in load, flow, operating temperature, power supply voltage.

The display is large and allows easy access to system's parameters such as the diameter of the pulled wheel, type of encoder (number of pulses) or mechanical ratio. Specific menus with access control are available for these settings.

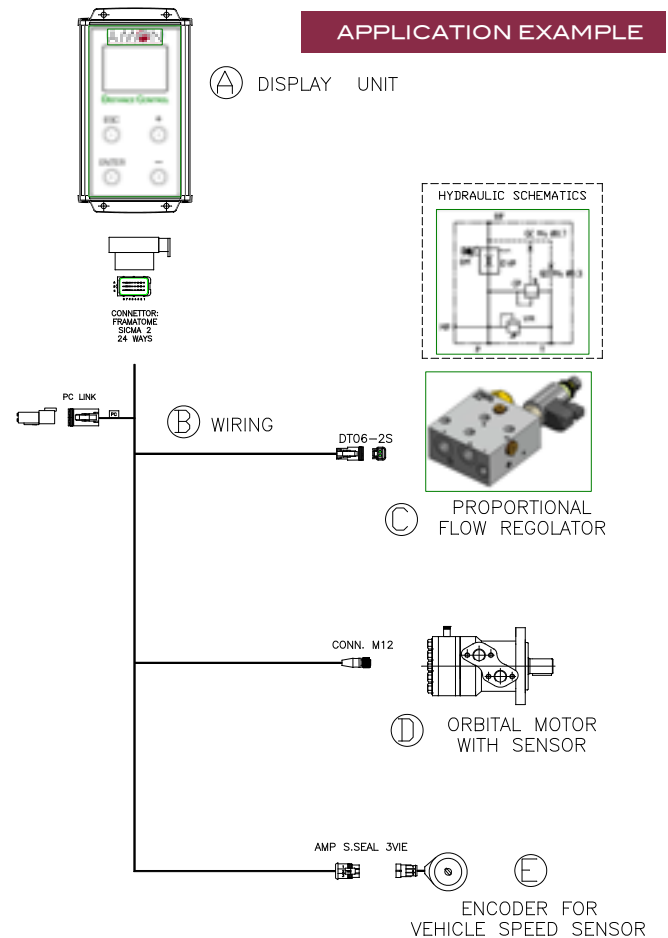
The system is equipped with an additional PC Port for connecting the ECU to a computer. By means of this serial line access it is possible to upload data of the events history, such as working hours, number of transplanted plants per day, number of alarms and timestamp thanks to a Real Time Clock that keeps the date and time updated even when the display is disconnected from the electrical power supply.

By means of the PC port, using any fixed PC or laptop in any Country, it is possible to update the ECU's software for customers that require a personalization or the implementation of dedicated functions.

DIAGNOSTICS

The display can manage and provide to the operator - by either graphics or acoustics - information of the working state of various components:

- Oil filter obstructed.
- Insufficient oil flow.
- State of the machine's speed sensor (encoder).
- State of the hydraulic motor's rotation speed sensor.



TECHNICAL SPECIFICATIONS

- **Electrical Power Supply:** 12-24Vdc
- **Current consumption:** max 1.5 A @ 12Vdc
- **Minimum transplanting distance:** 10 cm
- **Maximum transplanting distance:** 150 cm
- **Minimum increment/decrement:** 1 cm
- **Resolution:** 5mm
- **Minimum machine's speed:** 50 m/h
- **Maximum machine's speed:** 8 Km/h
- **Minimum oil flow at input port:** 16 l/min
- **Maximum oil flow at input port:** 60 l/min
- **Maximum operating pressure:** 250 bar
- **Manual operator:** yes