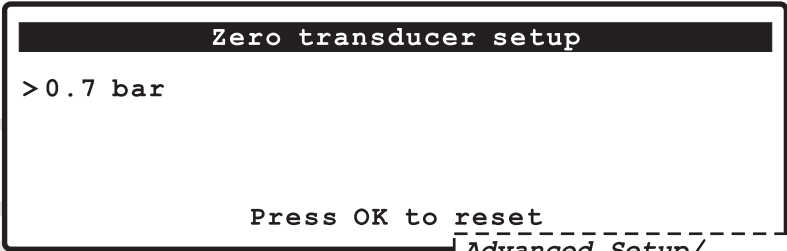


13.3 Zero transducer setup



- Access pressure sensor residual signal reset



Advanced Setup/
Pressure sensor
Type: xxx



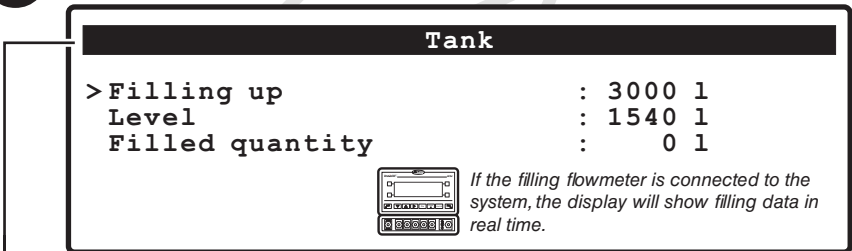
Signal out of range! Check transducer

This alarm appears when abnormal pressure values have been detected: check transducer for correct operation; if problem persists, check for residual pressure in the system.

13.4 Tank



- Tank filling control



If the filling flowmeter is connected to the system, the display will show filling data in real time.

- **Filling up**
BRAVO 300S shows the tank capacity set during the advanced setup procedure
- **Level**
BRAVO 300S shows the actual quantity of fluid in the tank
- **Filled quantity**
As soon as the tank is filled, BRAVO 300S shows the amount of fluid loaded



ATTENTION! Maximum level reached

Stop the filling pump: tank filled to capacity



Used to scroll data or edit values



Confirms access or change to data



Sets data to zero



Quits function or changes to data

13.5 Logger ON?



- Enable/disable application data logging



250 L/ha +10%  **21.0**

Logger ON?
Logger OFF?

User setting

User setting/
Data logger: ...sec.




13.6 User setting



- Access user setup parameters



250 L/ha +10%  **21.0** km/h

Logger ON?

User setting

Cap. 12
User setup



Used to scroll data or edit values



Confirms access or change to data




Sets data to zero



Quits function or changes to data

14 USE

14.1 Preliminary setup before application

When	Setting	User setup	Function key	 Par.
FIRST START-UP	Speed	•		12.1
	Job setup	•		12.2
	Nozzle setup	•		12.3
	Operating limits	•		12.4
	Rate correction factor	•		12.5
	User's preferences	•		12.6
	Date and time	•		12.7
	Data recorder	•		12.8
Setup logging to SD memory card	•		12.10	
BEFORE EACH APPLICATION	Type of wheel	•		12.1
	Rate correction factor	•		12.5
	Type of job		•	13.1
	Tank parameter		•	13.4
	Totalizer reset (at user's option)		•	13.2
	Work data logging (at user's option)		•	13.5

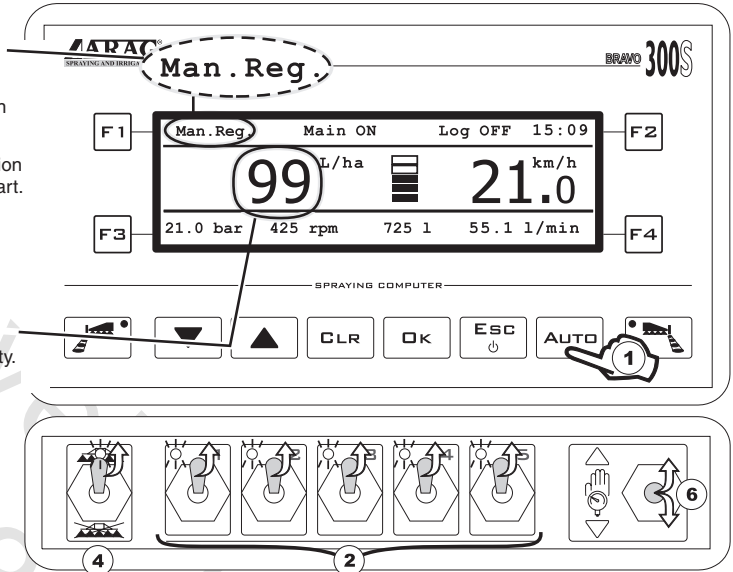
Tab. 13



When finished with the above settings, choose **MANUAL** or **AUTOMATIC** operation and begin application.

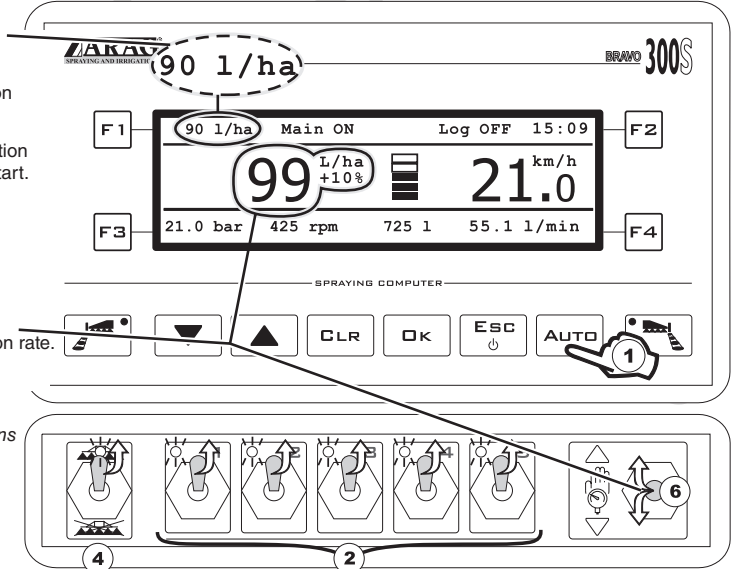
14.2 Manual operation

- 1 Enable manual operation.
- 2 Open the required section valves.
- 3 Drive tractor to field position where application is to start.
- 4 Set main switch to ON.
- 5 Begin application.
- 6 Use control valve switch to achieve desired quantity.



14.3 Automatic operation

- 1 Enable automatic operation.
- 2 Open the required section valves.
- 3 Drive tractor to field position where application is to start.
- 4 Set main switch to ON.
- 5 Begin application.
- 6 Use control valve switch to make temporary adjustments to application rate.



The computer maintains set system output



Chap. 9 - Controls and display

15 MAINTENANCE / DIAGNOSTICS / REPAIRS


15.1 Errors during operation

Go! The machine is stopped

99 L/ha +10%  21.0 km/h

21.0 bar 425 rpm 725 l 55.1 l/min

Tab. 14

	Alarm message	What do to
Par. 9.4	Disable spraying command! Main switch ON upon computer power-up	<ul style="list-style-type: none"> • Flip down main switch lever (set to OFF).
Par. 14.3	Go! The machine is stopped ONLY for automatic operation: Main switch ON with machine stopped	<ul style="list-style-type: none"> • Move off the machine. • Flip down main switch lever (set to OFF).
Par. 14.3	Start pump! No flowrate ONLY for automatic operation: Main switch ON, machine stopped, rate equals zero	<ul style="list-style-type: none"> • Start the pump and move off the machine.
Par. 12.3	Go slow! High pressure Pressure exceeds maximum level allowed for nozzle in use	<ul style="list-style-type: none"> • Slow down machine speed. • Set operating pressure to within the limits set for the nozzles in use. • Repeat the alarm setup procedure for nozzle minimum and maximum pressure alarms.
Par. 12.3	Go fast! Insufficient pressure Pressure below minimum level allowed for nozzle in use	<ul style="list-style-type: none"> • Increase machine speed. • Set operating pressure to within the limits set for the nozzles in use. • Repeat the alarm setup procedure for nozzle minimum and maximum pressure alarms.
Par. 12.2	Go slow! Insufficient flowrate Rate below minimum level required for application	<ul style="list-style-type: none"> • Slow down machine speed. • Verify correct setting of flow-meter constant.
Par. 12.2	Go fast! High flowrate Rate exceeds level required for application	<ul style="list-style-type: none"> • Increase machine speed. • Verify correct setting of flow-meter constant.
Par. 11.13	Reduce rotation speed! RPM exceeds maximum value allowed	<ul style="list-style-type: none"> • Reduce RPM of moving part.
Par. 11.13	Increase rotation speed! RPM below minimum value	<ul style="list-style-type: none"> • Increase RPM of moving part.
Par. 11.15	Stop immediately! Pump fault Pump oil level too low or water in oil	<ul style="list-style-type: none"> • Stop the machine and check pump condition.
Par. 11.8	Flowmeter out of range Rate outside limits allowed by flow-meter	<ul style="list-style-type: none"> • Set operating pressure to within the limits set for the nozzles in use. • Verify correct setting of flow-meter constant.
Par. 8.2 - 12.10	SD card not found! Memory card was not inserted correctly	<ul style="list-style-type: none"> • Shut down computer and check that memory card is correctly seated in its slot.
Par. 8.2 - 12.10	SD card write protected! Memory card is locked	<ul style="list-style-type: none"> • Shut down computer and unlock memory card.
Par. 12.10	SD card full! No space available on memory card	<ul style="list-style-type: none"> • Make space for new data: delete any files you don't need from the memory card.
Par. 12.10	SETUP.BIN: File not found! Computer setup was not saved	<ul style="list-style-type: none"> • Save data.
Par. 13.3	Signal out of range! Check transducer Abnormal pressure readings	<ul style="list-style-type: none"> • Verify pressure sensor condition and check for residual pressure in the system.

- Clean only with a soft wet cloth.
- DO NOT use detergents or aggressive products.
- DO NOT aim water jets directly at the computer.

15.2 Troubleshooting

FAULT	CAUSE	REMEDY
Display will not turn on	Power supply missing	• Check power supply cable connections.
	Computer is OFF	• Press the ON button.
Section valve controls take no effect	Valves not connected	• Connect the connectors.
One valve will not open	No power supply to valve	• Check wiring connection and valve operation.
Display does not show speed	Wrong setup	• Check wheel constant setting (par. 12.1).
	No signal from speed sensor	• Check connections to speed sensor.
Speed readout inaccurate	Wrong setup	• Check wheel constant setting (par. 12.1).
Volume sprayed readout inaccurate	Wrong setup	• Check boom width setting (par. 11.8).
		• Check flow-meter constant setting (par. 11.10).
		• Check wheel constant setting (par. 12.1).
		• Check section valve type setting (par. 11.9).
Covered area count displayed does not match actual covered area	Wrong setup	• Check boom width setting (par. 11.8).
	Covered area count not reset	• Check wheel constant setting (par. 12.1).
Distance travelled count displayed does not match actual distance covered	Wrong setup	• Check connections to speed sensor.
	Distance travelled count not reset	• Reset counter.
Dispensed fluid count displayed does not match litres/gpm actually dispensed	Wrong setup	• Check wheel constant setting (par. 12.1).
	Distance travelled count not reset	• Check connections to speed sensor.
	Three-way section valves in use, but no backflow calibration	• Reset counter.
Time count displayed does not match actual time worked	Work time count not reset	• Perform calibration.
		• Reset counter.
Spray volume set for automatic operation cannot be achieved	Wrong setup	• Check application rate setting (par. 12.2).
	System not adequately sized to provide required rate	• Check boom width setting (par. 11.8).
	Control valve malfunction	• Check maximum pressure valve setting.
Instantaneous pressure readout inaccurate	Wrong setup	• Make sure control valve is adequate for specific system.
	Pressure sensor not calibrated	• Check valve operation.
	Pressure sensor improperly installed	• Check pressure sensor full scale setting.
Instantaneous pressure not displayed	Wrong setup	• Perform calibration (par. 13.3).
	Computer receives no signals from speed sensor	• Check connections to pressure sensor.
	Pressure sensor improperly installed	• Check connections to pressure sensor.
RPM readout inaccurate	Wrong setup	• Check connections to pressure sensor.
RPM not displayed	Wrong setup	• Check RPM sensor constant setting (par. 11.15).
	Computer receives no signals from RPM sensor	• Check RPM sensor constant setting (par. 11.15).
Pump failure alarm permanently active	RPM sensor improperly installed	• Check connections to RPM sensor.
	Computer receives no signals from Pump Protector sensor	• Check connections to RPM sensor.
	Computer receives no signals from Pump Protector sensor	• Check connections to Pump Protector sensor.

Tab. 15

16 TECHNICAL DATA

16.1 Data and units

• Advanced menu

Datum	Description	Min.	Max.	UM	Notes
Language	Display language	--	--	--	Languages available: Italian, English, Spanish, Portuguese, French, German, Czech, Polish, Russian
Unit of measurement	Measurement unit displayed	--	--	--	Possible settings: Metric, US
Section valves number	Number of section valves installed in the system	--	--	--	Possible settings: 1 ÷ 7
Boom setup	Width of each boom section	0,0	99,99	Metric: m US: ft	Data item is displayed when width of each boom section is set
	Boom section				Possible settings: 2-way - no calibrated backflow 3-way - calibrated backflow
	Automatic shutoff				Possible settings: No (P mode) Yes (M mode)
Valves	Pressure control	--	--	--	Possible settings: 2-way 3-way
	Main				Possible settings: 2-way 3-way None
	Type of flow-meter	--	--	--	Possible settings: Disabled, Orion 462xxAxxxxx, Other...
Flowmeter	Min rate alarm	Disabled	999,9	Metric: l/min US: gal/min	Minimum rate for correct flow-meter operation
	Max rate alarm	Disabled	999,9	Metric: l/min US: gal/min	Maximum rate for correct flow-meter operation
	Flow-meter constant	1	32000	Metric: pls/l US: pls/gal	Data required for rate calculation
Pressure sensor	Type	--	--	--	Possible settings: Disabled, 466112.200, 466112.500, Other...
	Max pressure	0,1 1	50,0 2200	Metric: bar US: psi	Data required to determine instantaneous pressure
Delivery cal. sensor	Sensor used to calculate output	--	--	--	Possible settings: Flowmeter, Pressure, Either
Tank	Tank capacity	1	10000	Metric: l US: gal	
	Tank reserve value	0 0	1998 528	Metric: l US: gal	Below this value, the computer triggers an alarm message with a warning sound
Filling flowmeter	Type	--	--	--	Possible settings: Disabled, Orion 462xxAxxxxx, Other...
Rev counter	Rev counter constant	Disabled	999	Metric - US: pls/turn	
	Minimum speed alarm	No	10000	Metric - US: pls/turn	Below this value, the computer triggers an alarm
	Maximum speed alarm	No	10000	Metric - US: pls/turn	Above this value, the computer triggers an alarm
Foam marker	Foam marker operation	--	--	--	Possible settings: Automatic, Semi-autom., Manual
Pump Protector	Pump diaphragm failure alarm	--	--	--	Possible settings: Enabled, Disabled

Tab. 16

• User programming

Datum	Description	Min.	Max.	UM	Notes
Speed	Source	--	--	--	Possible settings: Wheel sensor, GPS
	Selected wheel type	--	--	--	Up to three wheel types can be stored
	Wheels setting	--	--	--	Includes the following submenus: Constant calculation, Wheel constant
	Constant calculation	--	--	--	Possible setting: Manual, Automatic
	Wheel constant	0,01	150	Metric: cm/pls US: inches/pls	Number of constant to be set: 1 ÷ 3
	Reference distance	20	1000	Metric: m US: feet	Distance to be travelled during automatic constant calculation
	Available job selection	60	3000	--	Possible setting: 01 ÷ 14
Jobs setup	Application rate	Disabled	9999	Metric: l/ha US: gpa	Supports "Varying application rate"
	Nozzle	--	--	--	Possible settings: ISO 01 ÷ 20, Type A ÷ E
Nozzles setup	Flowrate	0,01	99,99	Metric: l/min US: gpm	Value can ONLY be edited for custom-made nozzles
	Pressure	0,1	99,9	Metric: bar US: psi	
	Minimum pressure alarm	Disabled	99,9	Metric: bar US: psi	Value can be edited for custom-made and ISO nozzles
	Maximum pressure alarm	Disabled	99,9	Metric: bar US: psi	
Working limits	Nozzle wear monitoring	Disabled	50	Metric / US: %	
	Min spraying speed	Disabled	999,9	Metric: km/h US: mph	
	Regulation lockout type	--	--	--	Includes the following options: Disabled, Min. regulation speed, Min. regulation pressure
	Min regulation speed	0,1	99,99	Metric: km/h US: mph	
	Min regulation pressure	0,1	99,9	Metric: bar US: psi	
Flowrate correct. factor	0,1	10,0	--		

Tab. 17

CONTINUES

*Only use original ARAG accessories and spare parts, to maintain safety conditions foreseen by the constructor.
Always refer to the ARAG spare parts catalogue.*

Cleveland Alliances
01361883418

10/2009

D20154_GB-m03



42048 RUBIERA (Reggio Emilia) - ITALY
Via Palladio, 5/A

Tel. 0522 622011

Fax 0522 628944

<http://www.aragnet.com>

info@aragnet.com