

VARIABLE SPEED DRIVE



MENUS & EXTRA CONFIGURATION

MODEL: VSC-7.5 | VSC1-10 | VSC1-12 FIRMWARE VERSION 5.1
CODE: 21897 | 24256 | 21903


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CONFIGURATION MENU

1. Install the pump according to the manufacture's specifications and installation instructions.
2. Once the pump has been installed with VSD and pressure tank connected, and the pump is correctly primed, plug the VSC drive into the appropriately rated electrical socket (10A or 15A) and switch on the device.

3. The display will flash  and the version of the controller (5.1 or 5.3)  .










4. Once this initialisation sequence has completed,  will flash with the preset value of 3 bar.

This can be altered by using the up and down arrows   to the desired set pressure. This set pressure should not exceed more than 80% of the rated pressure of the pump.

Please note for pressure boosting applications: Call 1800 807 604 to verify that the correct pump has been selected.

Set the SP value to the desired output pressure irrespective of the incoming mains pressure. Note that this value MUST NOT exceed the sum of the Incoming Mains pressure value plus (80% of the rated pressure of the pump). Be mindful, too, of the 500kPA limitation on household fittings.

5. The Current (A) setting and (FL) setting are preprogrammed according to the pump rating plate. This can be verified by going into the MENU settings as described below

	1. Press the push button MENU for a 3 second duration to start the configuration sequence.	
	2. Immediately when the A symbol appears, push the up or down arrow to select the current   . This value is located on the motor rating plate of the motor. Once entered, press the SET button to validate the value.	
	3. The FL value can be changed by using the up arrow  and can be set between 30Hz and 35Hz. The default value is 30Hz	





NB V5.1: To retain the SET POINT on power loss, after changing the SET POINT, push Set, then the Menu button on the user menu for 3secs, the unit will then retain the SET POINT on power loss. The rest of settings are always retained on power loss with exception of the Pr, which on power loss will revert Pr to 2. Because this setting is critical, and any incorrect setting of Pr could cause the system to become unstable. By our experience, the Pr=2 is a valid setting for all kinds of pumps/installations. See expert menu settings for Pr values.

On **V5.3**, all settings are retained on power loss except for Pr as above.

6. Once the settings have been verified, ensure that the pressure tank is pressurised according to the following suggested pressure settings, namely, 1 bar below set pressure.
7. The pump can now be initiated by selecting and pushing the START/STOP button for manual operation, or the "AUTO" Button on the front panel of the controller. The pump should initialise and start pumping water from an open outlet.

Information Displayed during the AUTOMATIC operation

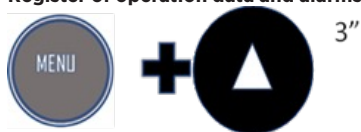
By pressing the up ▲ button, we can change the information displayed.

	1. - Instantaneous line pressure in bar (bar)
	3. - Instantaneous frequency (Hz)
	4. - Instantaneous current measurement (A)
	5. - Temperature of the power module (°C)

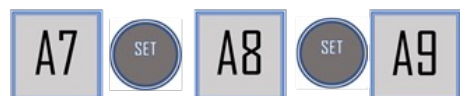
Please refer to the table below for relevant error codes that may be displayed.

ERROR CODE	DESCRIPTION	
A1	DRY RUN	Check pipework for leaks and or pump prime
A2	OVERCURRENT ALARM	
A3	DISCONNECTED PUMP	Check connections are firm to pump
A6	TEMPERATURE	Water Temperature
A7	SHORT CIRCUIT	Check that fan cover is not jammed onto fan
A8	OVERVOLTAGE	Check mains supply stable

Register of operation data and alarms (MENU +  or 3 second duration)



Additional information available can be viewed by following the steps below



REGISTER HOURS (HF):	Counter of total time that device has been operating
REGISTER PUMP HOURS (HP):	Counter of total time that pump has been operating
REGISTER STARTS (CF):	Number of cycles of operation, where cycle is a start and stop
ALARM COUNT DRY RUN (A1):	Number of dry-run alarms
ALARM COUNT I MAX (A2):	Number of overcurrent alarms
ALARM COUNT DISCONNECTED PUMP (A3):	Number of disconnected pump alarms
ALARM COUNT TEMP (A6):	Number of alarms for excessive temperature
ALARM COUNT SHORTCIRCUIT (A7):	Number of short circuit alarms
ALARM COUNT OVERVOLTAGE (A8):	Number of overvoltage alarms
ALARM COUNT UNDERVOLTAGE (A9):	Number of undervoltage alarms

EXPERT MENU (MENU+ ENTER)

1. Simultaneously press the MENU button and SET button for 3 seconds



2. PROPORTIONAL GAIN (Pr). Proportional gain, range 2-40, set desired value then press SET
3. ACCELERATION (A). Acceleration, range 2-20 (Hz/s), set desired value then press SET
4. DECELERATION (d). Deceleration, range 2-20 (Hz/s), set desired value then press SET.
5. If no changes to be made, then press set after each selection to get back to main menu



CALIBRATION MENU (FACTORY SETTINGS)

To alter the Factory settings, specifically after a loss of power event for the Pr setting as per Page 1 note, simultaneously press and hold the MENU button plus the Up Arrow for 3 seconds.



cL	Set to 0 and Press SET
F0	Set F0 for SPEEDMATIC EASY - VSC-10 & VSC1-12 SET F1 for EcoDrive - VSC1-7.5
3F	Set 1F for 1H motors Set 3F for 3PH motors
9A	Maximum current selection depending on model of controller 9A (1PH), 12A (1F) or 10A (3F) Press SET
CO	NB: Empty the hydraulic installation as it's essential to have zero pressure at this point. With Pressure at 0, press SET
FP	The pump will start and will display the line pressure in Bar. Close all taps to reach the maximum pressure of the pump. Press the arrow keys to adjust the value on the screen to the installation pressure

FACTORY SETTINGS

To view and or alter the factory settings, Push the three buttons simultaneously for a 3 second duration



Pu	1. -PU Pressure units; bA = bar Pi = PSI DON'T change it, Press SET
FM	2. - FM maximum output frequency Press SET
Ld	4. - LD Load default (Hard Reset) Changing this value to 1 and pressing SET will result in the unit loading the default values.

CONNECTION FOR MASTER & SLAVE COMMUNICATION

MASTER AND SLAVE OPERATION

Please note that VSC1-7.5 does not have MASTER-SLAVE compatibility.

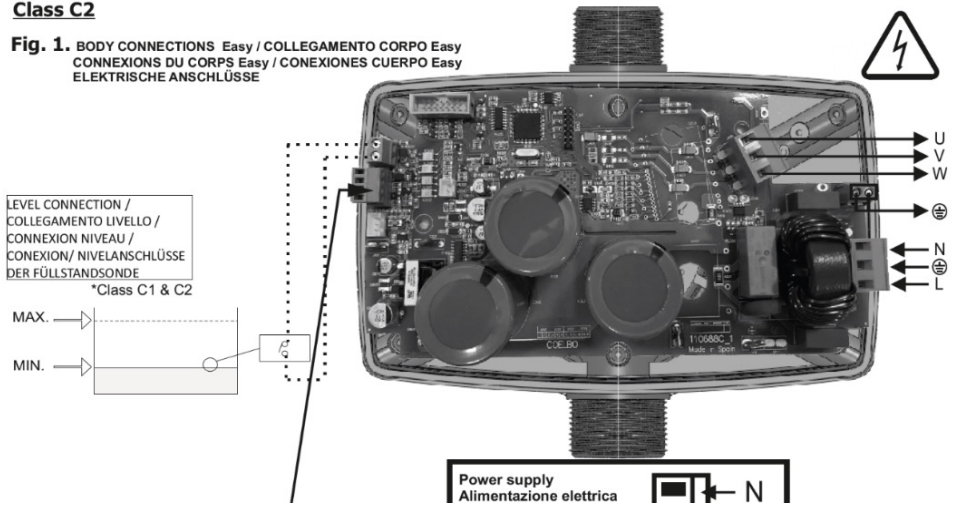
The group MASTER-SLAVE is constituted by two Controllers, one responsible for the group's control and the other Controller configured as SLAVE controlled by the master device. Due to the alternating sequence of operation, the VSC Controller configured as MASTER begins the first cycle as the MAIN device – its pump is the first to start – but in the next cycle it becomes SECONDARY meaning its pump is the second to start – and so on. Therefore, the fact that a device is configured as MASTER involves control of the group, but this fact does not avoid its work alternately as SECONDARY device.

METHODOLOGY

1. Unscrew the cover and loosen the PG located on its basis.

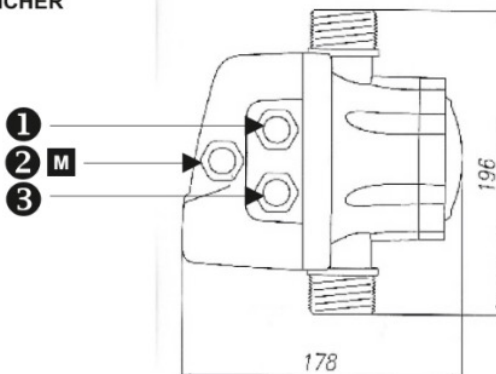
Class C2

Fig. 1. BODY CONNECTIONS Easy / COLLEGAMENTO CORPO Easy
CONNEXIONS DU CORPS Easy / CONEXIONES CUERPO Easy
ELEKTRISCHE ANSCHLÜSSE

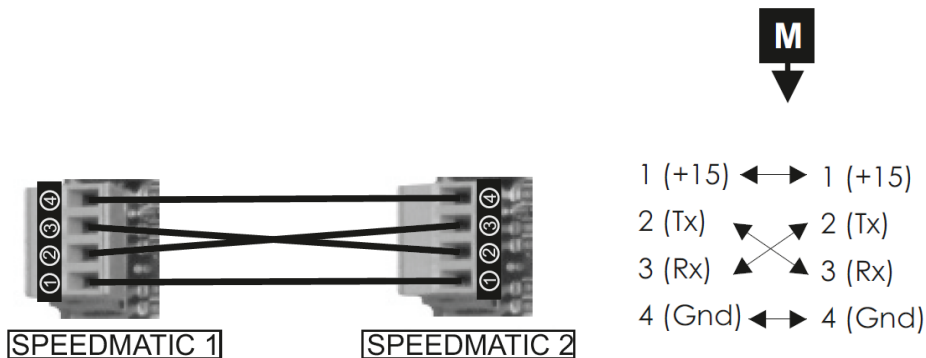


2. For connection of 2 devices (optional): use a communication cable 4 x 0.25 mm² and insert it through the PG cable gland located in the lateral section of the device as per the figure below (2M).

LATERAL CONNECTION - COLLEGAMENTO LATERALE CONNEXION LATÉRALE - CONEXION LATERAL SEITLICHER



- Remove the connector from its housing, indicated by the arrow in Figure 1 above.
- Set up the connection using the 4-core cable following the connections indicated in the figures below (Where Master is indicated by Speedmatic 1 and Slave by Speedmatic 2).



- Relocate the connectors on its housing in each controller. Screw the cover back onto the controllers and ensure that the gland is tightened.

WARRANTY

2 Year Warranty applies **

**All warranties subject to the current version of the Ascento Standard Terms & Conditions of Warranty which can be found by navigating to www.reefe.au and searching "Warranty"

ABN 20 527 073 843

37 Export St Lytton QLD 4178

PO BOX 650 Morningside QLD 4170

WWW.REEFE.COM.AU

07 3893 5000

CSV@ASCENTO.COM.AU

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