

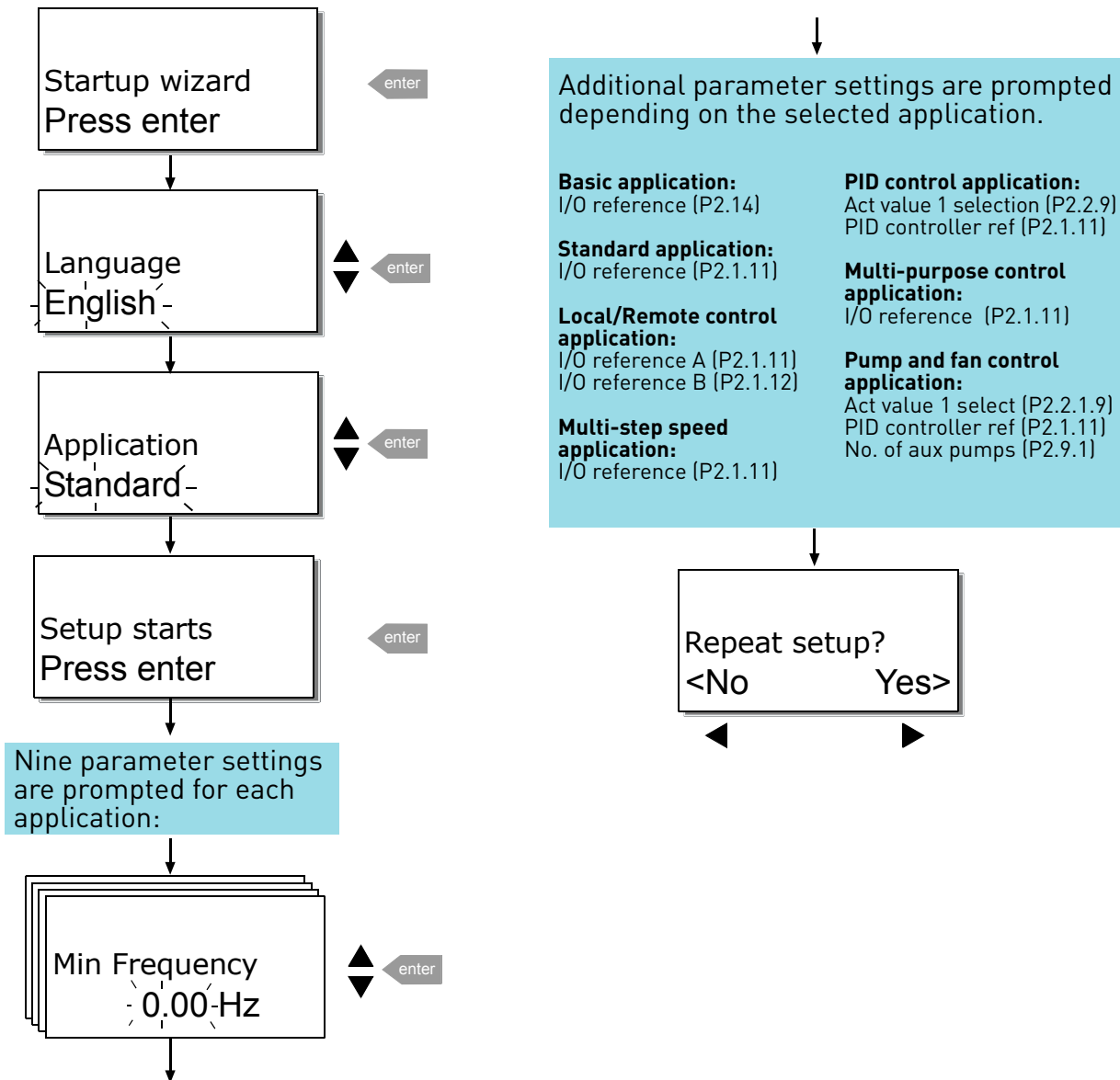
# VACON NX QUICK HELP

## Start-up wizard

The **Start Up Wizard** is activated when the power to the drive is turned on for the first time, or if the **Start Up Wizard** is activated from the System menu (P6.5.3) AND the power is turned OFF and back ON.

The **Start-up Wizard** is a feature on the control keypad to facilitate the commissioning of the frequency converter. If selected active (default), the Start-up Wizard prompts the operator for the **language** and **application** of his/her choice plus for the **values for a set of parameters** common to all applications as well as for a **set of application-dependent** parameters.

Always accept the value with the *Enter button*, scroll options or change values with the *Browser buttons* (up and down arrows). More information on the use of the control panel in Chapter 7 of the User's Manual.



## Monitoring values

Code	Signal name	Unit
V1.1	Output frequency	Hz
V1.2	Frequency reference	Hz
V1.3	Motor speed	rpm
V1.4	Motor current	A
V1.5	Motor torque	%
V1.6	Motor power	%
V1.7	Motor voltage	V
V1.8	DC-link voltage	V
V1.9	Unit temperature	°C
V1.10	Motor temperature	%
V1.11	Voltage input	V
V1.12	Current input	mA
V1.13	DIN1, DIN2, DIN3	
V1.14	DIN4, DIN5, DIN6	
V1.15	D01, R01, R02	
V1.16	Analogue output current	mA
M1.17	Multimonitoring items	

**NOTE!** Different All in One applications embody more monitoring values.

## Faults and fault codes

Fault code	Fault
1	Overcurrent
2	Overvoltage
3	Earth fault
5	Charging switch
6	Emergency stop
7	Saturation trip
8	System fault
9	Undervoltage
10	Input line supervision
11	Output phase supervision
12	Brake chopper supervision
13	Frequency converter under-temperature
14	Frequency converter overtemperature
15	Motor stalled
16	Motor overtemperature
17	Motor underload
18	Unbalance fault
22	EEPROM checksum fault
24	Counter fault
25	Microprocessor watchdog fault
26	Start-up prevented
29	Thermistor fault
31	IGBT temperature (hardware)
32	Fan cooling
34	CAN bus communication
35	Application fault
37	Device change
38	Device added
39	Device removed
40	Device unknown
41	IGBT temperature
42	Brake resistor overtemperature
43	Encoder fault
44	Device change (default param.)
45	Device added (default param.)
49	Division by zero (application)
50	Analogue input $I_{in} < 4\text{mA}$ (selected signal range 4-20 mA)
51	External fault
52	Keypad communication fault
53	Fieldbus fault
54	Slot fault
56	PT100 temperature fault

## Actual value special display

The *Actual value special display* parameters are used to convert and display the actual value signal in a form more informative to the user.

The Actual value special display parameters are available in *PID Control Application* and *Pump and Fan Control Application*:

Par ID	Parameter name	Parameter code in PID ctrl applic.	Parameter code in Pump&Fan ctrl applic.
ID1033	<i>Actual value special display minimum</i>	2.2.46	2.9.29
ID1034	<i>Actual value special display maximum</i>	2.2.47	2.9.30
ID1035	<i>Actual value special display decimals</i>	2.2.48	2.9.31
ID1036	<i>Actual value special display unit</i>	2.2.49	2.9.32

### Example:

The actual value signal sent from a sensor (in mA) represents the amount of waste water pumped from a tank per second. The signal range is 0(4)...20mA. Instead of receiving the level of the actual value signal (in mA) on the display, you wish to receive the amount of water pumped in m<sup>3</sup>/s. You then set a value for par. ID1033 to correspond to the minimum signal level (0/4 mA) and another value for par. ID1034 to correspond to the maximum signal level (20 mA). The number of decimals needed can be set with par. ID1035 and the unit (m<sup>3</sup>/s) with par. ID1036. The level of the actual value signal is then scaled between the set min and max values and displayed in the selected unit.

The following units can be selected (par. ID1036):

Value	Unit	On keypad
0	Not Used	
1	%	%
2	°C	°C
3	m	m
4	bar	bar
5	mbar	mbar
6	Pa	Pa
7	kPa	kPa
8	PSI	PSI
9	m / s	m/s
10	l / s	l/s
11	l / min	l/m
12	l / h	l/h
13	m <sup>3</sup> / s	m <sup>3</sup> /s
14	m <sup>3</sup> / min	m <sup>3</sup> /m

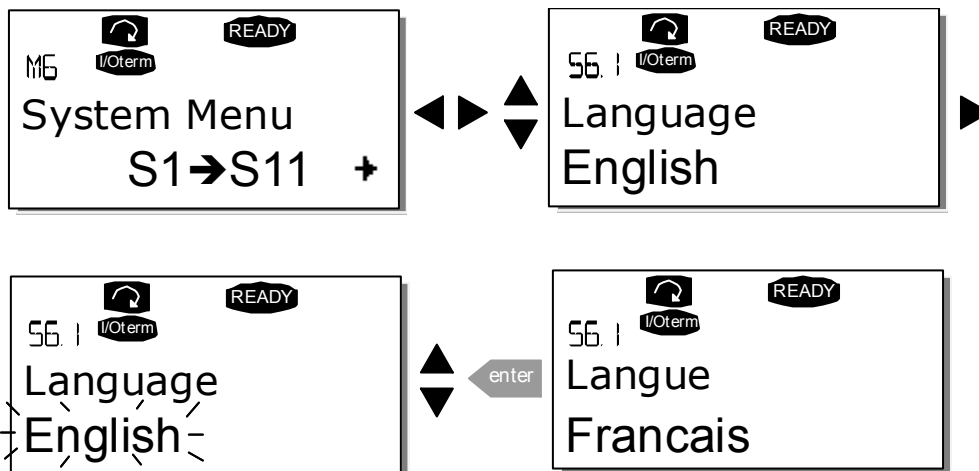
Value	Unit	On keypad
15	m <sup>3</sup> / h	m <sup>3</sup> /h
16	°F	°F
17	ft	ft
18	gal / s	GPS
19	gal / min	GPM
20	gal / h	GPH
21	ft <sup>3</sup> / s	CFS
22	ft <sup>3</sup> / min	CFM
23	ft <sup>3</sup> / h	CFH
24	A	A
25	V	V
26	W	W
27	kW	kW
28	Hp	Hp

NOTE: The maximum number of characters that can be shown on keypad is 4. This means that in some cases the display of the unit on the keypad does not comply with the standards.

## Selection of language

1. Find the System Menu (**M6**)
2. Enter the *Language selection page (S6.1)*.
3. Push the *Menu button right* to make the name of language blink.
4. Browse through the languages with the Browser buttons and select another language with the Enter button.

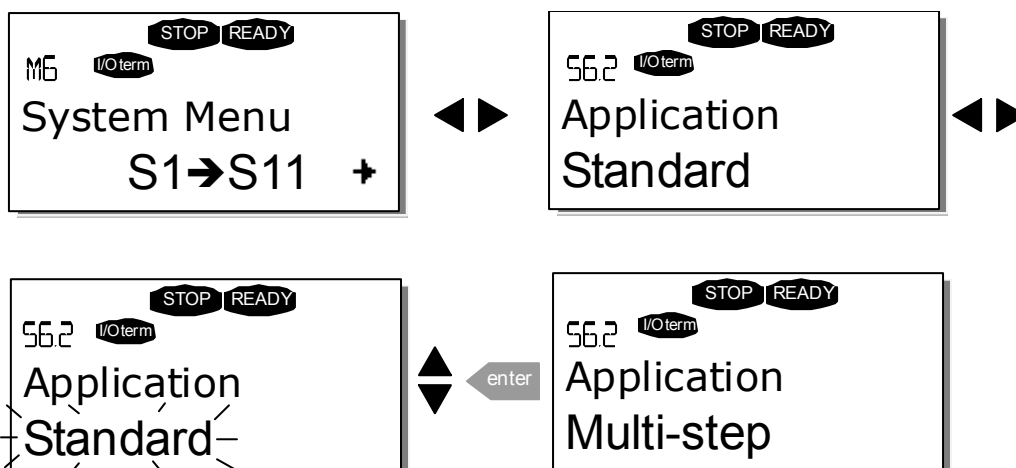
For closer information on language selection, see Chapter 7.3.6.



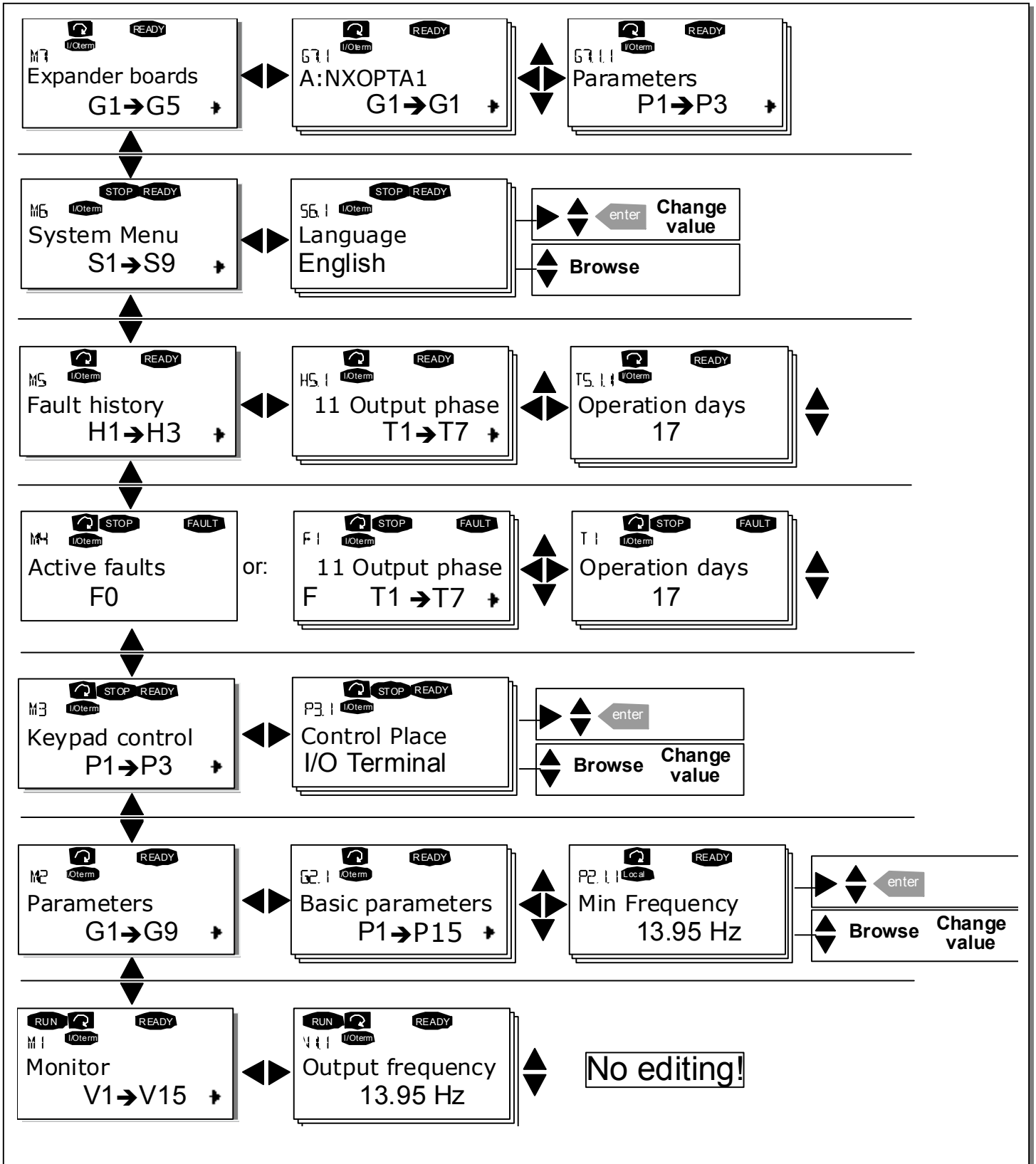
## Selection of application:

1. Find the System Menu (**M6**)
2. Enter the *Application selection page (S6.2)*.
3. Push the *Menu button right* to make the name of application blink.
4. Browse through the applications with the Browser buttons and select another application with the Enter button.


For closer information on application change, see Chapter 7.3.6.





## Control panel menus



**NOTE!** There are some special functions that can be performed when in the **M3** menu:


Select the keypad as the active control place by keeping the  button pushed down for 3 seconds **when the motor is running**. The keypad will become the active control place and the current frequency reference and direction will be copied to the keypad.

Select the keypad as the active control place by keeping the  button pushed down for 3 seconds **when the motor is stopped**. The keypad will become the active control place and the current frequency reference and direction will be copied to the keypad.

Copy the frequency reference set elsewhere (I/O, fieldbus) to the panel by keeping the  button pushed down for 3 seconds.

**Note that** if you are in any other than **M3** menu these functions will not work. If you are in some other than **M3** menu and try to start the motor by pressing the START button when the keypad is not selected as the active control place you will get an error message *Keypad Control NOT ACTIVE*.

**NOTE 2:**

By default, the motor can be stopped **at all times** by pushing the  button regardless of the selected control place. This default setting can be inactivated by giving parameter *Stop Button Activated* (P3.4 or P3.6) (menu **M3**) the value **0**. With this value given to the parameter, pushing the STOP button stops the motor **only when the keypad has been selected as the active control place**.