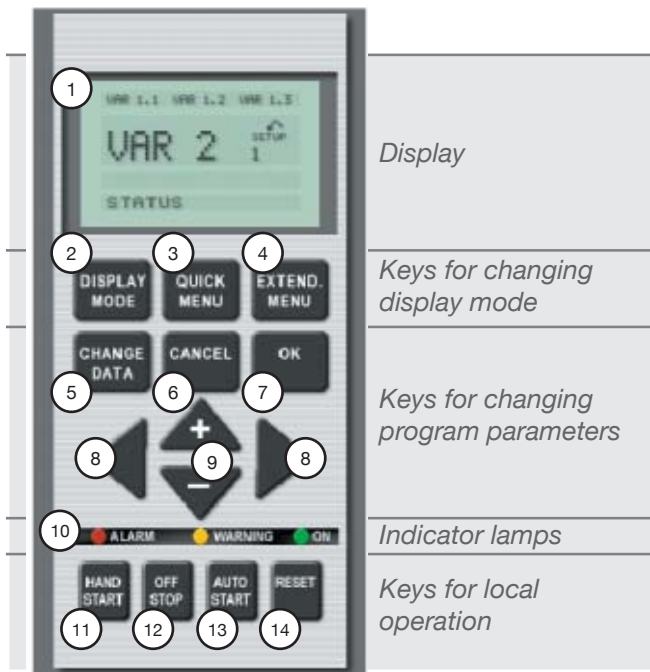


Local Control Panel for Danfoss VLT[®] 6000 HVAC



6 **[CANCEL]** is used if a change of the selected parameter is not to be carried out.

7 **[OK]** is used for confirming a change of the parameter selected.

8 **[< >]** is used when selecting a parameter group and for moving the cursor when changing numerical values.

9 **[+/-]** is used for selecting parameters and for changing a chosen parameter. These keys are also used to change the local reference.

In addition, the keys are used in Display mode to switch between operation variable readouts.

10 **Indicator lamps**

A red alarm lamp, a yellow warning lamp and a green voltage LED.

If certain threshold values are exceeded, the alarm and/or warning lamp is activated, and a status or alarm text is displayed.

NB! The voltage indicator lamp is activated when the VLT frequency converter receives voltage.

11 **[HAND START]** is used if the VLT frequency converter is to be controlled via the control unit. The VLT frequency converter will start the motor, since a start command is given by means of [HAND START].

On the control terminals, the following control signals will still be active when [HAND START] is activated:

- Hand start - Off stop - Auto start
- Safety Interlock
- Reset
- Coasting stop inverse
- Reversing
- Setup select lsb - Setup select msb
- Jog
- Run permissive
- Lock for data change
- Stop command from serial communication

NB! If parameter 201 Output frequency low limit fMIN is set to an output frequency greater than 0 Hz, the motor will start and ramp up to this frequency when [HAND START] is activated.

12 **[OFF/STOP]** is used for stopping the connected motor. Can be selected as Enable [1] or Disable [0] via parameter 013. If the stop function is activated, line 2 will flash.

13 **[AUTO START]** is used if the VLT frequency converter is to be controlled via the control terminals and/or serial communication.

When a start signal is active on the control terminals and/or the bus, the VLT frequency converter will start.

NB! An active HAND-OFF-AUTO signal via the digital inputs will have higher priority than the control keys [HAND START]-[AUTO START].

14 **[RESET]** is used for resetting the VLT frequency converter after an alarm (trip). Can be selected as Enable [1] or Disable [0] via parameter 015 Reset on LCP.

1 **Display window**

1st line shows up to 3 measurements continuously in normal operating status or a text which explains the 2nd line.

2nd line shows a measurement with related unit continuously, regardless of status (except in the case of alarm/warning).

3rd line is normally blank and is used in the menu mode to show the selected parameter number or parameter group number and name.

4th line is used in operating status for showing a status text or in data change mode for showing the value of the selected parameter.

The left part of the status line indicates the control element of the VLT frequency converter that is active.

The centre part of the status line indicates the reference element that is active.

The last part of the status line indicates the current status, for example "Running", "Stop" or "Alarm".

An arrow indicates the direction of rotation of the motor. Furthermore, the Setup which has been selected as the Active Setup is shown. When programming another Setup than the Active Setup, the number of the Setup which is being programmed will appear to the right. This second Setup number will flash.

2 **[DISPLAY / STATUS]** is used for selecting the indication mode of the display or when returning to the Display mode from either the Quick menu or the Extend menu mode.

3 **[QUICK MENU]** gives access to the parameters used for the Quick menu. It is possible to switch between the Quick menu and the Extend menu modes.

4 **[EXTEND MENU]** gives access to all parameters. It is possible to switch between the Extend menu and the Quick menu modes.

5 **[CHANGE DATA]** is used for changing a setting selected either in the Extend menu or the Quick menu mode.

Display modes

The Display modes of the Display are changed by pressing the [DISPLAY MODE] button on the Control Panel



Display mode I

Standard after starting up or after initialization. In this display mode, reference and control are determined via the control terminals.

The text in line 1 gives the operating variable shown in line 2.

Line 2 gives the current output frequency and the active Setup.

Line 4 says that the VLT frequency converter is in Auto mode with remote reference, and that the motor is running.



Display mode II

Press the [DISPLAY MODE] button to change to Display mode II.

In this mode, data values for four operating values are shown at the same time, giving the related unit, cf. table.

In the example, Reference, Current, Motor Power and Frequency are selected as variables in the first and second line.



Display mode III

This display mode can be held as long as the [DISPLAY MODE] key is pressed. When the key is released, the system switches back to Display mode II, unless the key is pressed for less than approx. 1 sec.

This is where parameter names and units for operating variables in the first line are given - operating variable 2 remains unchanged.



Display mode IV

This display mode is only generated in connection with local reference.

In this display mode, the reference is determined via the [+/-] keys and control is carried out by means of the keys underneath the indicator lamps. The first line indicates the required reference.

The third line gives the relative value of the present output frequency at any given time in relation to the maximum frequency. The display is in the form of a bar graph.

General programming instructions



The parameters used to control the frequency converters may be easily programmed by the user. The **[QUICK MENU]** button provides a list with some of the most common parameters. The **[EXTEND. MENU]** button allows the user to program all parameters.

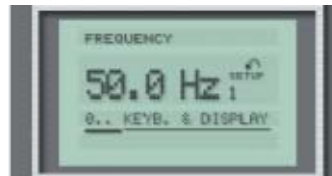
Johnson Pump Horticulture provides you with this Quick Start guide for optimizing your pump performance.

This guide assumes you are using the Display in *Display mode II*.

Entering programming mode



Press the **[EXTEND. MENU]** key, which produces the following read-out on the display



Line 3 on the display shows the parameter group number and name.

Selection of parameters



Selection of parameter group is effected by means of the **[< >]** keys.

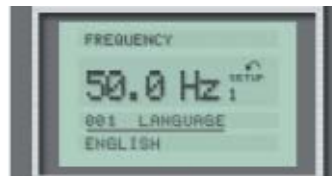
The parameters are divided into groups according to their function. The first digit of the parameter number (from the left) indicates the group number of the parameter in question.

The following parameter groups are accessible:

Group no.	Parameter group
1	Operation & Display
2	Load & Motor
3	Reference & Limits
4	Inputs & Outputs
5	Special functions
6	Serial communication
7	Technical functions



When the desired parameter group has been selected, each parameter can be chosen by means of the **[+/-]** keys:



The 3rd line of the display shows the parameter number and name, while the status/value of the selected parameter is shown in line 4.

General programming instructions, continued

Changing / entering data



Pressing the **[CHANGE DATA]** key gives access to changing the selected parameter, following which the underlining in line 4 will flash on the display.

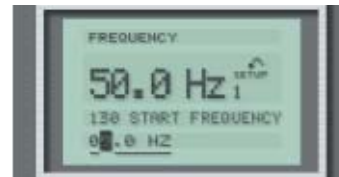
Changing / entering text data

If the selected parameter is a text value, the text value is changed by means of the **[+/-]** keys. The bottom display line shows the text value that will be entered (saved) when you verify the change **[OK]**.



Changing / entering numerical data

If the chosen parameter represents a numeric data value, a digit is first selected by means of the **[< >]** keys. Then the chosen digit is changed infinitely variably by means of the **[+/-]** keys. The chosen digit is indicated by the digit flashing. The bottom display line shows the data value that will be entered (saved) when you verify the change **[OK]**.



Validating / saving changes



Press the **[OK]** button to verify and save your parameter settings.