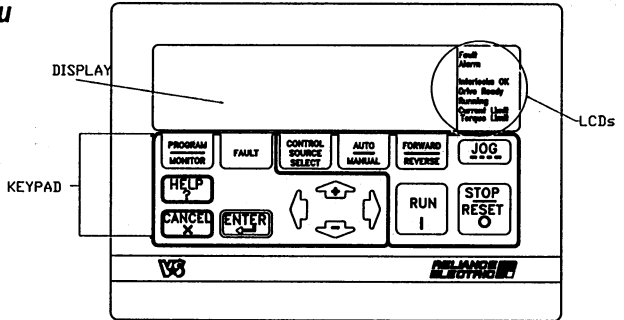


About This Guide

This guide is intended to provide an overview of the features available with the FlexPak 3000 Controller. Specifically, through a keypad and LCD display, the Operator Interface Module (OIM) allows you to control the motor exclusively, quickly setup the drive, tune the drive, scale inputs, save user configurations or restore to/from non-volatile memory, set drive limits, access fault/alarm logs and monitor several drive signals via the FlexPak 3000 Main Menu. A "memory save" is available to save changes to retentive memory to maintain setup information through power failure.

FlexPak 3000 Main Menu

- Quick Start
- Drive Reference
- Speed/Voltage Loop (SPD)
- Current Minor Loop (CML)
- Input/Output
- Field
- Diagnostics Configure
- Drive Information
- Operator Interface



About Quick Start

"Quick Start" is a main menu item that allows easy setup of the FlexPak 3000 Drive using a sequence of parameters/steps. The following table lists the sequence of the parameter/steps for Quick Start:

Table 1. Quick Start Parameters/Step Sequence.

1	● Top Speed
2	● Motor Rated Arm Amps
3	● Maximum Current
4	● Reverse Disable
5	● Feedback Select
6	● ANLG Tach Volts/1000
7	● Motor Rated Arm Volts
8	● Acceleration Rate
9	● Deceleration Rate
10	● Minimum Speed
11	● Maximum Speed
12	● Jog Accel/Decel Rate
13	● Jog Speed
14	● Positive Current Lim
15	● Negative Current Lim
16	● IR Compensation
17	● Jumper Display Information
18	● Self Tune (action item)

Note: "Quick Start" can be easily accessed as a main menu item when KEYPAD is selected as the control source.

About The Quick Start Exit Menu

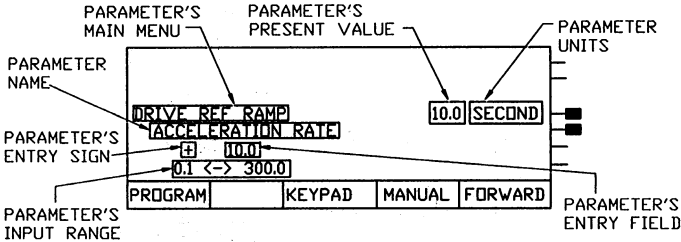
The Quick Start Exit Menu is displayed when CANCEL is pressed during Quick Start.

Repeatedly pressing CANCEL and selecting "Return to previous step" provides the user with the ability to step backwards in the Quick Start sequence.

Display

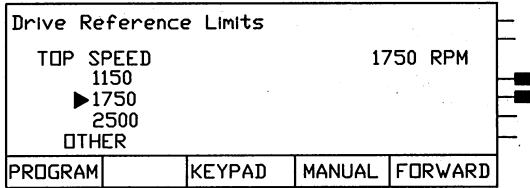
Value entry screens (Integer, Standard Choice Integer, Selector Switch or Boolean) allow the user to modify a single parameter's value or selection.

Integer Value Screen – Example



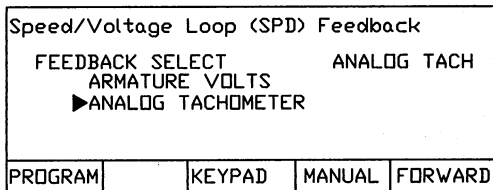
Setting is displayed as a numeric value. The value is entered (INPUTS only) by entering a numeric value within the specified limits of the range.

Standard Choice Integer Value Entry Screen – Example



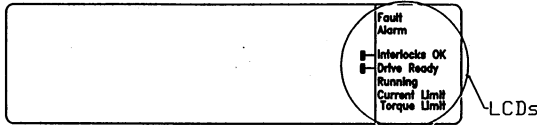
A numeric value is entered (INPUTS only) by selecting from 1 of several "standard" values, or instead, by selecting the "OTHER" option. OTHER allows a numeric value entry within the specified limits of the range.


Selector Switch or Boolean Value Entry Screen – Example










Analogous to a multi-position switch; an input parameter may be set to 1 of 2, or several, possible positions. The selection is changed from a list of alternative switch positions.

LCD Indicators



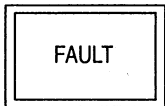
LCDs are used to indicate drive status and for servicing the drive. LCDs are located near the upper right side of the OIM. Each LCD has a label to the right of it for identification. When  is present, the LCD is "ON"; "OFF" when extinguished.

-  Fault = the drive stopped or is prevented from running.
-  Alarm = a condition exists which could cause a fault.
-  Interlock OK = all interlocks are closed.
-  Drive Ready = Interlock OK () + Fault (OFF).
-  Running = the motor armature is energized.
-  Current (Torque) Limit = the motor is operating in current limit.

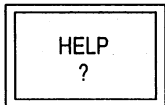
Keypad Controls



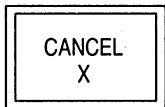
This key cycles the OIM between the Program mode and the two Monitor modes. The state of this key (PROGRAM or MONITOR) is shown on the LCD directly above the key.



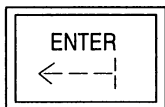
Review and clear logs (fault and alarm), reset faults, clear the alarm indicator, display fault history and diagnostic information for servicing the drive. The state of this key (FAULT, ALARM or DIAGS) is shown on the LCD directly above the key. Use the PROGRAM/MONITOR key to return to the menu/monitor.



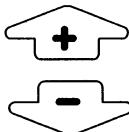
Menu and Parameter HELP are available. Access Menu or Parameter HELP by pressing the HELP key when the cursor is at the particular menu or parameter of interest. In the Monitor mode, pressing HELP displays status indicators in the selected language.



The CANCEL key is used to return to a previous menu, exit a parameter modification (value entry) screen, clear a fault or an alarm message, etc.



Displays the menu selected, accepts a change made to a parameter value, or selects an item (standard choice, selector, boolean) from a pick list. In the Monitor mode, ENTER saves the keypad setpoint.



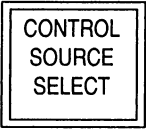
Scrolls through the menu and parameter listings and changes parameter values when in the Program mode. Increases or Decreases drive speed reference when in Monitor mode with AUTO/MANUAL set to MANUAL.



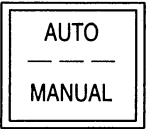
Moves the cursor left or right in parameter modification (value entry) screens to allow column selection for parameter value setting.

Left (◀) accesses the Language Selection menu at any menu level but not at parameter modification screens.

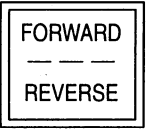
Right (▶) accesses the Contrast Adjustment screen at any menu level.



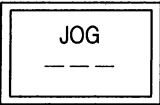
Selects one of the two control sources for the drive ("KEYPAD" – OIM operation or "TERMBLK" – Control Terminal Block devices). The state of this key (TERMBLK or KEYPAD) is shown on the LCD directly above the key.



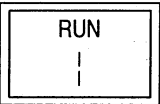
Active only when the CONTROL SOURCE SELECT (CSS) is set to KEYPAD. The selection, AUTO or MANUAL, determines which drive reference will be used. The state of this key (AUTO or MANUAL) is shown on the LCD directly above the key.



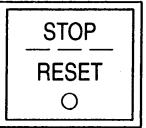
Active while in KEYPAD control. Preselects the forward or reverse direction of motor rotation. It also affects the direction of rotation for Jog. Fixed to FORWARD when the REVERSE DISABLE parameter is set to ON. The state of this key (FORWARD or REVERSE) is shown on the LCD directly above the key.



Active only when in KEYPAD control. When pressed, the drive reference ramps up to JOG SPEED at the JOG ACCEL/DECCEL rate; when released, the drive reference ramps to zero at the same rate.



Active only when in KEYPAD control. When pressed, the drive applies power to the motor. The speed reference advances to the setpoint by following the programmed acceleration rate.



Active at all times. Depressing the STOP/RESET key with the drive running causes the drive to stop in the selected stop mode (Coast/DB, ramp stop or current limit stop) as set by STOP MODE SELECT.

Resets drive faults if pressed while NOT running and the drive is under KEYPAD control.

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NOTE: This material is not intended to provide operational instructions. Appropriate Reliance Electric Industrial Company instruction manuals and precautions should be studied prior to installation, operation or maintenance of equipment.

Reliance Electric / 24701 Euclid Avenue / Cleveland, Ohio 44117 / 216-266-7000

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