FIFE GUIDING SOLUTIONS

FIFE-500 / FIFE-500-XL

Quick Start Setup Manual

EN

For Narrow and Medium Web Guiding Systems

MI 2-268 1 A

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Copyright information

General information

The instructions contained in this Quick Start Setup Manual are written to support operation of the FIFE-500 and FIFE-500-XL Web Guiding Systems.

The FIFE-500 model number used throughout this document refers to both the FIFE-500 and the FIFE-500-XL, unless otherwise noted.

This Quick Start Setup Manual is intended to be used in addition to the User Manual for each model:

FIFE-500 User Manual, Figure Sheet 2-262 or

FIFE-500-XL User Manual, Figure Sheet 2-267,

each of which contain all safety warnings and complete customer service contact information.

Installation information for each model:

FIFE-500 Installation Manual, Figure Sheet 1-915

FIFE-500-XL Installation Manual, Figure Sheet 1-917

Language

These are the original instructions, written in English.

Display definitions

The FIFE-500 uses a QVGA Touchscreen for Operator command inputs and status displays. This Control Panel is divided into 5 sections of information for which a brief description is listed below.

Refer to Figure 1 for the button locations in the standard horizontal Control Panel. Also refer to your Web Guiding System User Manual for complete display definitions. (See page 1-1 for the document number.)

1. The vertical section on the left side contains the Operation Mode selection buttons (Automatic, Servo-Center, and Manual) and indicates the current Operation Mode selection by displaying the corresponding button in a green color. (Other buttons are blue).
2. The horizontal section located at the top contains the status bar, which displays a menu number on the right side and optionally shows other status or error icons.
3. The middle section indicates the current Operation Mode, the selected sensor signal level in a bar graph, and the level of Guidepoint Shift. This section also contains buttons for Guidepoint Shift and Guidepoint Reset.
4. The lower middle section contains the Left and Right Jog buttons.
5. The vertical section on the right side contains the Sensor Selection and Setup buttons. The Sensor Select button displays the symbol of the Sensor Mode currently selected.

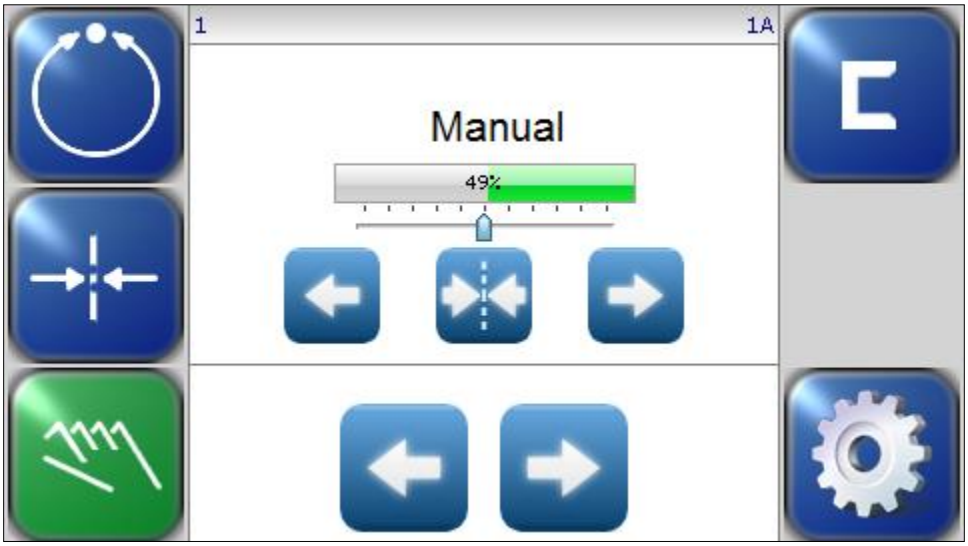


Figure 1
FIFE-500 CONTROL PANEL
(0° AND 180° ROTATION)

The Control Panel can also be configured in a vertical orientation. For the vertical orientation, the following display descriptions apply. Refer to Figure 2 for the button locations.

1. The horizontal section located at the top contains the status bar, which displays a menu number on the right side and optionally shows other status or error icons.
2. The horizontal section near the top, just below the line, contains the Operation Mode selection buttons (Automatic, Servo-Center, and Manual) and indicates the current Operation Mode selection by displaying that button in a green color.
3. The section just below the Operation Mode buttons, indicates the current Operation Mode, the selected sensor signal level in a bar graph, and the level of Guidepoint Shift. This section also contains the Guidepoint Shift buttons and the Guidepoint Reset button.
4. The section below that, just above the Sensor Select and Setup buttons, contains the Left and Right Jog buttons.
5. The horizontal section along the bottom contains the Sensor Selection and Setup buttons. The Sensor Select button displays the symbol of the Sensor Mode currently selected.

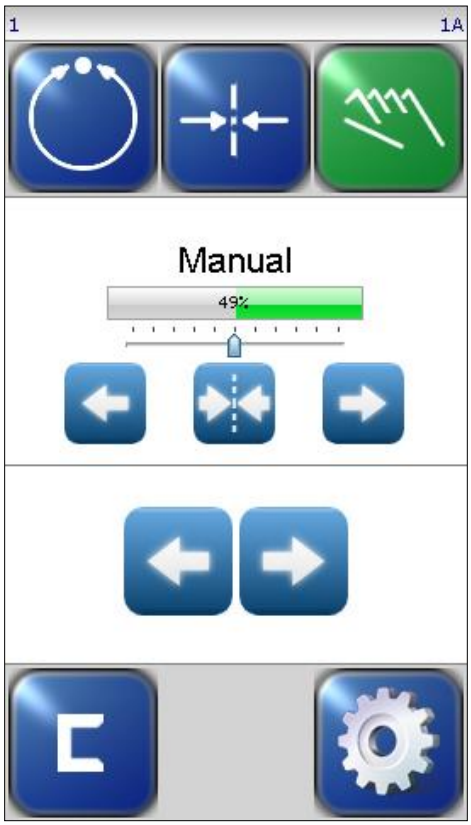


Figure 2
FIFE-500 CONTROL PANEL
(90° AND 270° ROTATION)

Button functions and definitions

The table below gives the name along with an operational function description of each button displayed on the FIFE-500 Web Guiding System.

AUTOMATIC This button initiates the Automatic mode. Correction is applied to the web by moving the guide in response to the output of the sensor(s) that have been selected.

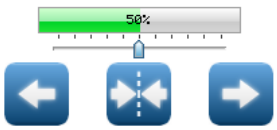
SERVO-CENTER This button initiates the Servo-Center mode. The guide is centered in its travel in response to the output of the internal Servo-Center transducer.

MANUAL This button initiates the Manual mode. No correction is applied to the guide.

SENSOR SELECTION This button is used to select the sensor(s) to be used for monitoring the web position when the system is in Automatic mode. Sensor selection is allowed in Manual and Servo-Center modes only.

SETUP This button is used to enter the Setup Menus for configuring and adjusting the guiding system.

ARROWS These buttons are used to jog the guide. The direction of guide movement is configurable.



GUIDEPOINT ADJUST The two arrow buttons near the bar graph are used to adjust the System Guidepoint while in Automatic Mode or Manual Mode. The button in the center is used to reset the System Guidepoint to the default value, which is 50% of the sensor bandwidth.

BACK This menu navigation button is used to return to the previous menu level.

HOME This button is used to return to the Operator Level screen.

MENU ARROWS These buttons are used in the menu system to page forward/backward when multiple pages of menu choices are available. The arrows will appear disabled (grayed-out) when no more choices are available in the respective direction.

ACCEPT This button is used to save a changed value and return to the previous screen.

REJECT This button is used to discard a changed value and return to the previous screen.

Status bar definitions

The status bar located horizontally across the top of the FIFE-500 Web Guide Operator Level screen remains visible at all times. The number on the left side of the status bar contains the numerical address of the connected motor controller. The number on the right side of the status bar indicates a hierarchical screen number. The first numerical value indicates the operation mode (1=Manual, 2=Servo-Center, 3=Automatic). The second alphabetic character indicates the sensor mode (A=S1, B=S2, C=S1-S2). This screen number uniquely identifies each screen of the FIFE-500 Web Guiding System. The status bar also displays various icons, which are described on the following pages.

OPERATION MODE One of these icons will appear to indicate the operation mode of the FIFE-500 Web Guiding System. These do not appear on the Operator Level screen since the mode buttons already indicate this information. These will only appear while in the setup screens.

SENSOR One of these icons will appear to indicate the currently selected sensor mode. These do not appear on the Operator Level screen since the SENSOR button already contains this information.

MENU TIMEOUT The menu screens in the FIFE-500 Web Guiding System close automatically after 3 minutes of touch screen inactivity. The inactivity timeout option and the timeout value are configurable. The clock icons will appear during stages of the timeout process as the inactivity timer counts down. If a timeout occurs, the respective menu will abort any changes applied and return to the Operator Level screen. Some service-related screens are immune from the timeout option and are indicated by the presence of the orange clock icon.

LOGIN AUTHORIZATION LEVEL When security has been configured, one of these icons will appear to indicate the authorization level of the current user. Security is disabled in the factory default configuration so these icons will not be displayed. All menu screens are accessible when security is disabled.

READ ONLY MENU When security is enabled, options are available to make menus “read only”, allowing an operator to view the settings but not change them. This icon will appear when the active menu is a “read only” menu.

DIGITAL INPUT COMMAND This icon appears when a valid digital input command is present. Depending on the command, some touch panel controls may be disabled during this time. A red arrow in the DOWN direction indicates digital input influence is disabled. A red arrow in the UP direction indicates the digital outputs are disabled.

GUIDEPOINT CHANGED This icon appears when a new System Guidepoint has been applied. This icon will appear on the status bar until the System Guidepoint remains unchanged for approximately 20 seconds.

EXTERNAL LOCK This icon indicates the acceptance of the "External Lock" digital input command. Automatic guide movement is prohibited while in this state.

ASC ON Automatic Sensor Control (ASC) is enabled for the current sensor mode. For more information, see the menu description for ASC in the complete User Manual. (See page 1-1 for the document number.)

ASC ACTIVE Automatic Sensor Control (ASC) is enabled and the ASC state has been triggered. Automatic guide movement is prohibited. For more information, see the menu description for ASC in the complete User Manual. (See page 1-1 for the document number.)

MOTOR BLOCKED This icon indicates the motor is stalled.

COMMUNICATION ERROR This error icon indicates communication is not working between the operator interface and the motor controller.

VOLTAGE ERROR This error icon appears when the input voltage, motor rail voltage, or internal 12 volt power is outside acceptable range.

NETWORK ERROR This icon appears when the operator interface is unable to gain network control.

LINKED MODE This icon appears when the "linked mode" is active. Linked mode is used in networked systems to send the Automatic, Manual, and Servo-Center commands to all network devices simultaneously.

MOTOR TYPE FAULT This icon appears when there is no motor type configured.

COMMUNICATION FAULT This icon appears when a problem is detected with the communication signals. This can be caused by hardware or an addressing conflict in a networked system.

LINE SPEED ZERO This icon appears when line speed control is enabled and the sensed line speed is zero. Guide correction is inhibited in Automatic mode under these conditions.

MCP-05 SEEK If the MCP-05 option has been enabled, this icon will blink while a seek operation is in progress.

MOTOR ENCODER FAULT This icon appears when a problem is detected with the encoder signals from the motor.

MOTOR HALL STATE FAULT This icon appears when a problem is detected with the motor magnetic field sensor state transitions.

System setup

Setup screens

Figure 3
FIFE-500 CONTROL PANEL
LEVEL 1 SETUP SCREEN

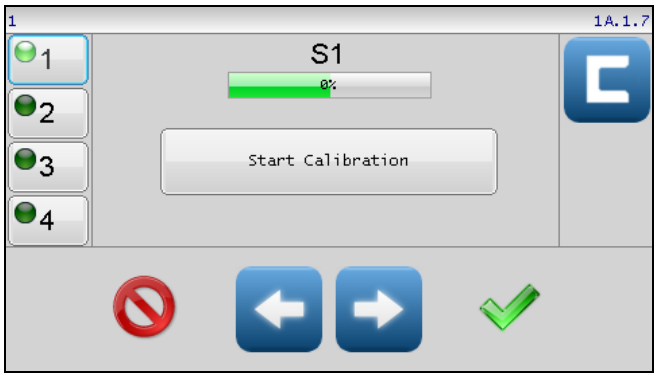


Figure 4
FIFE-500 CONTROL PANEL
SENSOR CALIBRATION SCREEN

1. Connect +24 VDC Power to the input receptacle, located on the top side of the Base Assembly. Refer to your Installation Instructions, which are supplied with each system. (See page 1-1 for the document number.)
2. Apply the proper power to the system.

Continued next page

System setup

3. Verify the system is in Manual Mode by pressing the MANUAL button on the Control Panel.

4. Switch the system to Servo-Center Mode by pressing the SERVO-CENTER button.

5. Thread the web/strip to be used, through the system and pull proper tension, if possible.

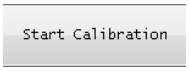
6. Switch the system to Manual Mode by pressing the MANUAL button.

7. Perform Sensor Calibration on the sensor(s) that will provide position feedback for the web/strip. If two sensors are being used, they must be calibrated independently. Refer to Figures 3 and 4 shown on page 3-1. Be sure to use the web to be guided to calibrate the sensor(s).

a. Press the SETUP button to enter the Setup menus.

b. Press the SENSOR SETUP icon to enter the Sensor Calibration menu.

c. Select the desired sensor by pressing the SENSOR SELECTION button.



d. Press the 'Start Calibration' button to begin the calibration.

e. The Jog buttons at the bottom of the screen may be used to move the web material in and out of the sensor as needed during calibration.

f. Follow the instructions displayed on the Control Panel.

g. When prompted to save the calibration, select YES or NO.

h. Repeat this procedure for each sensor, if two sensors are to be used.

i. Once this procedure has been completed, Press the ACCEPT (√) button to save the changes.


j. Press the BACK or HOME button to return to the Operator Level screen. In simulation, these buttons are not available.

Once this procedure has been performed once for each sensor, it does not need to be repeated, unless the web/strip opacity has changed.

Auto setup configuration

NOTE: If Manual Configuration is desired, go to page 3-5.

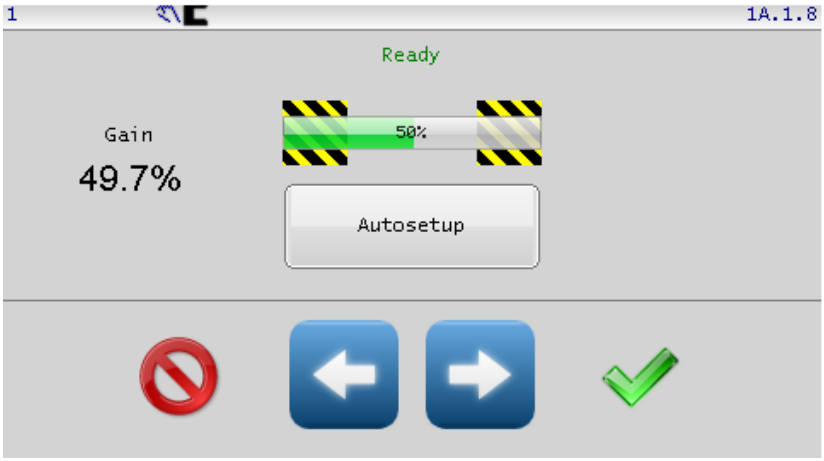


Figure 5
FIFE-500 CONTROL PANEL
AUTOSETUP SCREEN

1. Place the web/strip in the proper position and then position the sensor(s) to align the center of the sensor(s) bandwidth with the edge of the web/strip to be guided.

2. Verify the system is in Manual Mode by pressing the MANUAL button. Refer to Figure 1 on page 2-1.

Continued next page

Auto setup

3. Perform Auto Setup to automatically determine the proper polarity and gain for the system. If two sensors are being used, Auto Setup must be performed independently, in each sensor mode. Refer to Figure 3 on page 3-1 for button locations.

a) Select the desired sensor mode by pressing the SENSOR SELECTION button.

b) Press the SETUP button to enter the Setup menus.

c) Press the AUTOSETUP icon to enter the AUTOSETUP menu.

d) Position the web edge near the center of the sensor proportional band as indicated in Figure 5 on previous page.

e) Press the Autosetup button to start. The guide will move a short distance and indicate the result as shown in Figure 6 below.

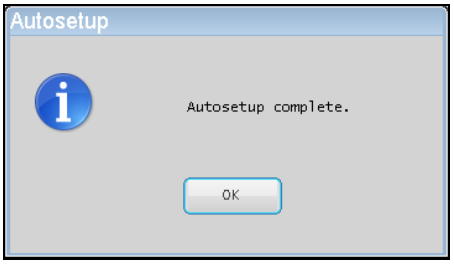


Figure 6
FIFE-500 CONTROL PANEL
SUCCESSFUL AUTOSETUP COMPLETION

4. Press the ACCEPT button to save the setting.

5. Press the BACK or HOME button to return to the Operator Level Screen.

6. Repeat this procedure for each sensor mode that will be used.

7. Switch the system to Automatic Mode by pressing the AUTO button. This initiates the guiding function of the system.

Once this procedure has been performed once for each sensor mode, it does not need to be repeated.

Optional manual configuration

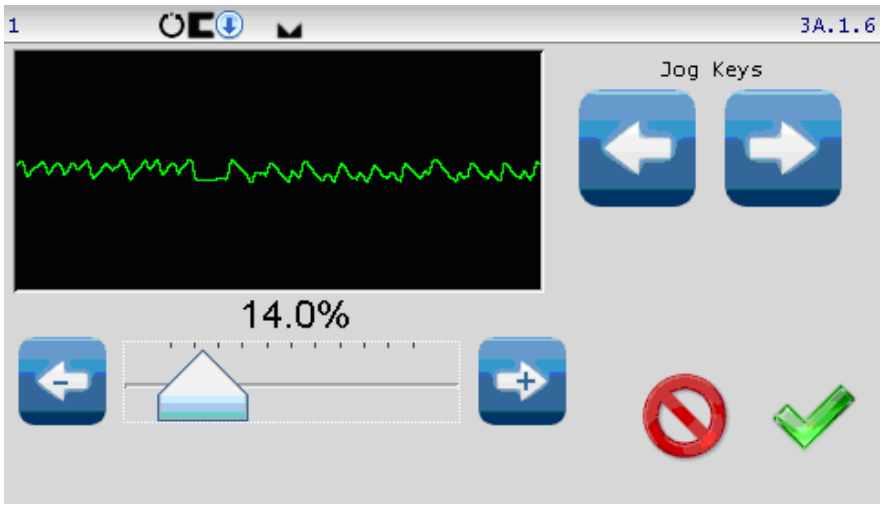


Figure 7
FIFE-500 CONTROL PANEL
SYSTEM GAIN SETUP SCREEN

Setting the gain

1. Press the SETUP button to enter the Setup menus.

2. Press the GAIN icon to enter the Gain menu.

3. Use the + and - ARROW buttons, or use the slider control to adjust the Gain to the desired level. (The display indicates the sensor signal stability to assist in the Gain adjustment).

4. Press the ACCEPT (√) button to save the new Gain value.

5. Press the BACK or HOME button to return to the Operator Level screen.

Optional manual configuration

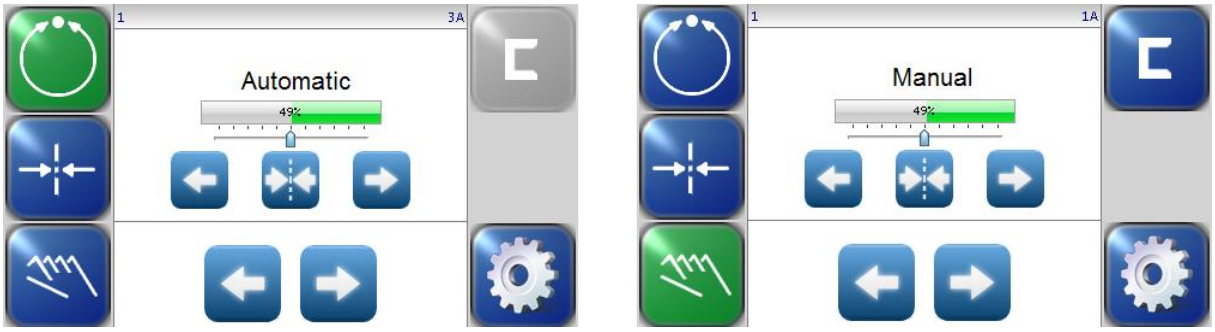


Figure 8
FIFE-500 CONTROL PANEL
GUIDEPOINT SETUP SCREENS

Changing the guidepoint while in automatic or manual mode

The arrow controls shift the Guidepoint within the active sensor bandwidth. Press the right arrow button move the Guidepoint toward the right sensor. Press the left arrow button to move the Guidepoint toward the left sensor.

Press the center button near the bar graph to reset the Guidepoint to the default of 50%.

Note: If the Guidepoint is changed while in Automatic Mode, the change is effective immediately, but if the Guidepoint is changed while in Manual Mode or Servo-Center modes, the change is effective when Automatic Mode is initiated.

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