Linx 10

Operating Manual

LINX

THINKING ALONG YOUR LINES

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Safety recommendation

Before attempting to use either the Linx 10 printer or its accessories, you must read the information contained in the Safety document supplied with the printer.

The information contained in this edition of the *Linx 10 Operating Manual* is applicable to Version 1.0.0 System Software or later, until it is superseded by a new edition of the guide.

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Contents

LINX

1 Set up the printer

1.1 First use

When you first use the Linx 10, you must select the required language and set the date and time at the end of the power-up process. The printer displays the **Language** screen. The screen shows a list of the languages that are available. Use the scroll bar to view all options, and then touch the required option to select that language.

The printer then displays the **Set Date** screen. The printer uses the information from the internal clock to display the current date in the format for the selected language (for example, dd/MM/yyyy). The first field of the current date (for example, the day) is highlighted. You can use the Scroll buttons to move the cursor to the required field. If the displayed date is not correct:

- Use the keypad to enter the correct day, month, or year.

- Use the plus and minus buttons to adjust the day, month, or year.

Touch the **Save** button to save your changes. The printer then displays the **Set Time** screen.

The printer uses the information from the internal clock to display the current time in the 24-hour format. The hour field of the current time is highlighted. You can use adjust the time (hours, minutes, and seconds) in the same manner as the date.

NOTE: The printer does not allow you to enter an invalid date or time.

The printer then displays a screen that requests information about the environment on the production line where the printer is installed. This information can be used by Linx Technical Support to diagnose any printer problems. Enter the following information:

- **Wet Environment**—whether the printer operates in wet conditions. Select **Yes** or **No**.

- **Humid Environment**—whether the printer operates in humid conditions. Select **Yes** or **No**.

- **Dusty Environment**—whether the printer operates in dusty conditions. Select **Yes** or **No**.

- **Temperature**—the average temperature on the production line. Enter a value in degrees Celsius (°C).

The printer then prompts you to select the required ink and solvent combination. The only combination currently available for the Linx 10 is L100/B100. Touch the name of that combination to select it. The printer then enters the 'guided setup' mode, where you can commission the printer, create a message that can be printed on a product, and set up a production line.

1.2 Guided setup

The printer guides you through the following steps:

1   **Commission the printer**—this step prepares the printer for first use. Follow the on-screen instructions to complete the commissioning process. The printer needs to be commissioned in order to operate fully.

2   **Setup a message**—this step guides you through the creation of a simple message that can be printed on a product (for example, 'Best Before 23/12/2017'). Follow the on-screen instructions to set up the message (see 'Create, edit, and manage messages' on page 10 for more information).

LINX

3   **Message position**—this step shows how to make sure that the message appears in the correct position on the product (see 'Print Delay' on page 53 for more information).

4   **Set up line**—this step guides through how to set up a production line for the printer (see 'Line and message settings' on page 38 for more information). It covers how to:

- Enter a name for the line.

- Select a method to measure the speed of the line.

- Set the type of event that triggers a print.

- Set the distance between the end of one message and the end of the next message.

- Set the direction in which the line travels.

- Set the height difference between the printhead and the printer.

When the above steps are complete, and you have commissioned the printer, you are now ready to print your first message (see 'Print your message' on page 15).

2 Printer user interface

This section describes standard printer screens, the printer keyboard, and printer users.

2.1 Printer display

The printer uses a touch screen display. You can touch most areas of the printer screens to access printer functions.

CAUTION: Touch screen damage. The surface of the user interface touch screen can be easily damaged if items like pens and other tools are used to activate the on-screen functions. To prevent damage, use only a finger to activate the functions. The use of incorrect items can cause scratches on the touch screen, which can make the screen less sensitive to touch.

2.2 Printer screens

2.2.1 Home screen
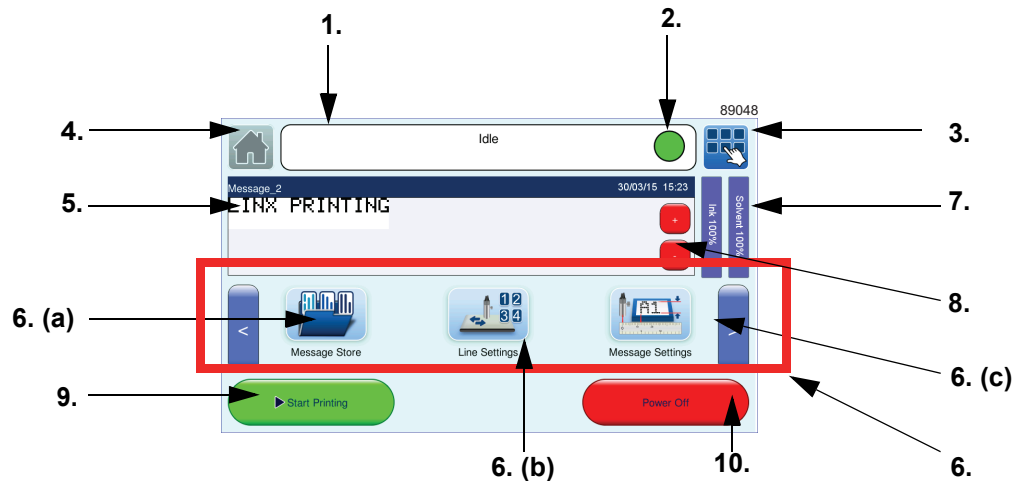
1. Printer status bar   6. (a) Message Store

2. Faults & Warnings status button   6. (b) Line Settings

3. Menu button   6. (c) Message Settings

4. Home button   7. Printer consumables status panel

5. Message preview (message name/date & time)   8. Zoom buttons

6. Carousel area   9. Print control button

    10. Power Off button

Figure 1. Home screen

The Home screen is displayed after you turn on the printer. It allows you to access common printer functions. You can review the status of the printer, start and stop the printer, change line and message settings, access menu options, and access the **Message Store** screen to create new messages and select saved messages.

1. Printer status bar

The printer status bar shows the current jet state of the printer (for example, "Jet Starting" or "Printing"). The colour of the printer status bar on the Home screen (and on other printer screens, except the **Faults & Warnings** notification screens) shows the jet state as shown in Figure 2.

Jet state	Printer status bar colour
Idle	White
Jet Starting	Light blue
Jet Running	Medium blue
Printing	Green
Jet Stopping	Light blue
Fault	Red
Jet Maintenance	Dark blue
Filling Up	Purple
Aborting	Brown

Figure 2. Jet state and printer status bar colours

See Figure 4 on page 6 for more information about which printer control buttons are available in each of these printer states.

The following information icons can also be displayed on the left side of the printer status bar.
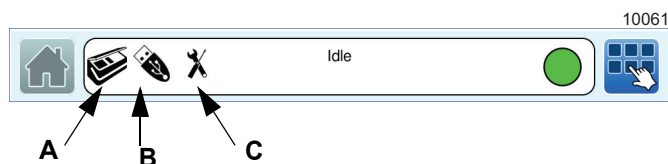
Figure 3. Printer status bar icons

A   The printer cover which allows access to the printer consumables (ink and solvent cartridges, and the service module) is open or not correctly closed. When the cover is correctly closed, the icon is no longer displayed. See 'Look after your printer' on page 79 for more information about printer consumables.

B   A valid USB memory device is inserted and recognized. See 'USB connection' on page 74 for more information about the printer USB connection.

C   The printer Service Module requires replacement. 'Look after your printer' on page 79 for more information about printer maintenance and service module replacement.

2. Faults & Warnings status button

This button displays visual information about the current state of the printer:

The printer is operating normally—there are no faults or warnings. The printer status bar reflects the jet state.

LINX

⚠️ Printer warnings—there are one or more current warnings, but no faults.

🔺 Printer faults—there are one or more current faults (warnings can exist, but faults take priority).

Touch the status button to open the **Current Faults and Warnings** screen to see information about current faults and warnings. You can also access information about cleared faults and warnings from this screen.

A warning refers to an event that does not prevent normal operation, but you must correct the problem as soon as possible. A fault prevents the printer from printing and you must correct the problem immediately. See 'Faults and Warnings screens' on page 87 for more information about faults and warnings.

3. Menu button

Touch this button to display the **Main Menu** screen. From this screen you can create and manage users, maintain the printer, change the printer setup, view printer information, and back up and restore printer data with a USB memory device. The **Main Menu** button is enabled on all printer screens, except the **Main Menu** screen.

4. Home button

All printer screens except the Home screen have the Home button in the top left corner of the screen enabled. Touch this button on other screens to return to the Home screen.

5. Message preview and message name

This area displays a preview of the message selected for printing. The name of the message appears at the top left of the message preview. The current date and time (in the format for the current locale) is displayed at the top right of the message preview. If there is no message selected, the printer displays "No Message Selected". If a product image is associated with a message (see 'Add Product Image' on page 13), the image is displayed to the left of the message preview.

6. Carousel area

The carousel area allows you to quickly access commonly used options on the printer. Touch the left or right arrow buttons to cycle through the options. You can add other options to the carousel and select the order in which they appear. See'Customise Home Screen' on page 31 for more information.

By default the carousel shows the following options:

- **Message Store**—touch this button to open the **Message Store** screen. See 'Create your message' on page 10 for more information.

- **Line Settings**—touch this button to view and change the production line settings for the selected message. You can select a production line to use, set the line speed and direction. See 'Line and message settings' on page 38 for more information about line settings.

  Some functions are not available when the printer status is "Printing".

- **Message Settings**—touch this button to view and change the message settings for the selected message. You can change the orientation of the message, the Print Width and Print Delay. See 'Line and message settings' on page 38 for more information about message settings.

- **Message Print Count**—shows you the number of prints done with the current selected message.

7. Printer consumables status panel

This panel shows information about printer ink and solvent levels. Touch the panel to display the **Consumables History** screen where you can find more information about printer consumables, including the printer service module. See 'Consumables History' on page 85 for more information.

8. Zoom buttons

Touch the Home screen within the message preview area to display the zoom buttons. These buttons allow you to increase or decrease the size of the previewed message. The buttons are displayed for a period of 10 seconds before they are dismissed, unless any screen activity is detected.

9. Print control buttons

You use these buttons to start and stop the jet, start printing, and pause and continue printing. The options after printer startup are shown in Figure 4.

Action	Jet state	Print control buttons available
Turn on the printer	Idle	**Start Printing**
Touch the **Start Printing** button	Jet Starting	**Stop Jet**
	Jet Running	**Stop Jet**
	Printing	**Pause Printing** and **Stop Jet**
Touch the **Pause Printing** button	Jet Running	**Start Printing** and **Stop Jet**
Touch the **Start Printing** button	Printing	**Pause Printing** and **Stop Jet**
Touch the **Stop Jet** button	Jet Stopping	None
	Idle	**Start Printing**
Fault	Fault	None

Figure 4. Jet state and print control buttons

10. Power Off button

This button allows you to safely power down the printer. See 'Shut down and turn off the printer' on page 17 for more information.

2.2.2 Main Menu screen

From the **Main Menu** screen you can access screens that allow you to do the following tasks.

Option	Description
Printer Setup	Access the printer settings options. For example, you can set the printer language and keyboard, set the date or time, and create and manage users. See 'Change the printer setup' on page 26 for more information.

LINX

Option	Description
User Login and Logout	Displays one of two options. If there is no user logged in to the printer, the printer displays the **User Login** button. Touch the **User Login** button to log in as a user on the printer. If there is a user logged in to the printer, the printer displays the **Logout** button with the name of the logged in user (for example, "SUPERVISOR"). Touch the **Logout** button to log out as that user.
Maintenance	Allows you to perform routine maintenance tasks on the printer. See 'Look after your printer' on page 79.
Backup & Restore	Allows you to transfer data between the printer and a USB memory stick. For example, you can copy messages, and save and restore line settings or other printer data. See 'Printer communications' on page 74 for more information.
Help	Get help for common printer functions and information about Faults and Warnings messages
System Information	Displays information about the printer. For example, software and hardware version numbers, printer serial number, and printhead information. This information is useful for maintenance purposes.

2.2.3 Option screens

From the **Main Menu** screen and the **Message Store**, **Line Settings**, and **Message Settings** options on the Home screen carousel area, you can access option screens that allow you to change printer settings and perform tasks on the printer. Some of these options (for example, the Date & Time option) require you to enter text or numeric values on text entry and numeric entry screens.

NOTE: Most numeric entry screens indicate the range of values that you can enter. The printer does not allow you to enter invalid values. Invalid values are highlighted in red.

2.2.4 Information screens

If the printer needs attention (for example, there is a problem with the printer), it displays an information screen:

Figure 5. Example information screen

An information screen contains a message about a system event and a **Need Help?** button for more information about the system event. A system event can be a Warning, a System Failure, a Print Failure, or an Information event. See 'Faults and Warnings screens' on page 87 for more information about information screens. To close an information screen, touch the **OK** button.

2.3 Printer users

Printer users have access to different printer functions. The Operator has access to basic printer functions (for example, to select a message to print). The Supervisor has access to advanced printer functions (for example, to change the printer setup). Access to these functions is controlled by security access rights protected by the user PIN code.

The three levels of security access rights are:

- No Rights—the user cannot access any of the related printer functions.

- Basic—the user can access some of the related printer functions.

- Advanced—the user can access all of the related printer functions.

To access these functions, you must log in to the printer as one of the users (as described in 'User Login and Logout' on page 7). You need a PIN code to log in as a user. See 'User Management' on page 28 for more information about user accounts and PIN codes.

NOTE: You must log in as a Supervisor (that is, a user with Advanced security access rights) to perform all of the tasks described in this guide.

If other persons use the printer and need to do tasks on the printer, you must create other users and assign a PIN code and security access rights for the required printer functions to these users. See 'Add User' on page 29 for more information about how to create a new printer user.

You can view which user is logged in on the **Main Menu** screen.

NOTE: You can use the **Remember Last Login after Restart** option on the **Security Options** screen to remember the last logged in user when you restart the printer. See 'Remember Last Login after Restart' on page 31 for more information.

2.4 Keyboards

The printer allows you to use a range of locale-specific keyboards. You can set the language defaults that the printer uses, the type of keyboard that is used, and the keyboard options. See 'Keyboard' on page 26 for more information about how to set these options.

2.4.1 Use the keyboard

The printer uses a touch screen keyboard for data entry. The keyboard operates in the same way as a standard computer keyboard.

2.4.2 Extended character sets

Touch the **Alt** button to access the extended character set for the current selected keyboard. This option allows you to enter characters like the Euro symbol ("€"). The **Alt** button is highlighted in this mode. Touch the **Alt** button to return to the current selected keyboard in the previous mode.

2.4.3 Primary and secondary keyboards

The primary keyboard for the printer is normally the same as the selected language. You can set a secondary keyboard that is different from the primary keyboard and change between the two keyboards (for example, to enter characters from another language).

If you set a secondary keyboard that is different from the primary keyboard, you can touch the **Toggle Keyboard** button to change between the selected primary and secondary keyboards.

LINX

See 'Keyboard' on page 26 for more information on how to set up primary and secondary keyboards.

2.5 Printer screen brightness

To reduce power usage, the brightness of the printer display is reduced to 10% of its normal level after 10 minutes if there is no touch screen activity (that is, activity occurs if the screen is touched). Display brightness returns to normal if touch screen activity is detected, or a Fault or Warning event occurs. When a Fault or Warning event occurs, the display appears at normal brightness for 10 minutes, but then enters a 'pulse' mode (where the display alternates between 2% and 30% brightness).

3 Create, edit, and manage messages

This chapter shows you how to create, save, and edit a simple message that contains a Text field, and then how to add a Date field (and an optional Time field) to that message. For information on how to add other types of field to your message, see 'Add other fields' on page 56.

3.1 Create your message

You use the Message Editor to create a message, and then save your message in the Message Store. A message can contain several parts. Each part is called a *field*. You can put several different types of field into your message. For example:

- Text—a simple field that contains characters that do not change.

- Date and Time—used to print a Date field or a Time field.

- Sequential Number—prints a value that increases or decreases with each printed message.

- Logo—used to print an image or pattern.

    1   On the Home screen, touch the **Message Store** button to display the **Message Store** screen.

Figure 6. Message Store screen

The number of messages in the store and the name of the selected message are shown in the printer status bar. If a product image has been associated with a message (see 'Add Product Image' on page 13), this is displayed to the left of the message preview.

    2   On the **Message Store** screen, touch the **Create** button. You can accept a default message style for the message or select a new style.

    NOTE: A message style allows you to create a message with a defined layout (for example, the number of lines in the message and the message height in ink drops). A message style defines the height of the lines in a message and their position. You can select Fixed or Flexible message styles.

    If you use a Fixed message style, you cannot move a message field outside the line boundaries of the style or change the size of the field. If you use a Flexible message style, you can move a message field to any position in the message and change the size of the field.

    The message style also defines the locale of the font used in the message. For example, the "2x7 Western Fixed" style is a two-line message, seven ink drops in height that uses Western fonts. To select message styles that use fonts for other locales (for example, Hindi or Chinese), see 'Select Message Styles' on page 34.

To select a message style:

- If the Force Default Style option is enabled (see 'Force Default Style' on page 34), a default style is automatically applied to the new message. Go to step **3**.

- If the Force Default Style option is not enabled, the printer displays the **Message Style** screen. You can use the default message style for your message or select another message style.

Touch the **Yes** button to select the default message style. If necessary, you can change the style later. Touch the **No** button to select another style from the **Select Font Size & Style** screen.

Touch the name of the message style you require to select that style.

3   The printer displays the **Editor** screen. The name of the selected message style is shown in the printer status bar.
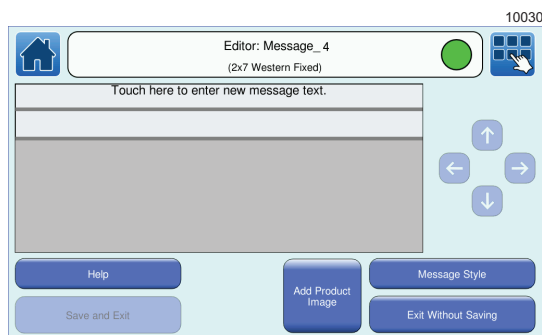
Figure 7. Editor screen

The area within the pale grey box with the label "Touch here to enter new message text." is known as the message area (this label is not part of the printed message). Touch the **Help** button for information about how to create a message.

If the message has more than one line, each line of the message is separated by a grey line (these lines are a guide and are not part of the printed message).

3.1.1 Add a Text field

1   Touch the position on a line where you need to create a new Text field. The printer displays the **Select Field Type** screen.

2   Touch the **Text** button to display the **Enter Text** screen. Use the keyboard to enter the characters for the Text field in the edit box.

3   When the text is complete, touch the **Enter** button to display the **Editor** screen with the entered Text field. The start of the field is inserted in the message at the point where you touched the screen. The selected field is highlighted in yellow.
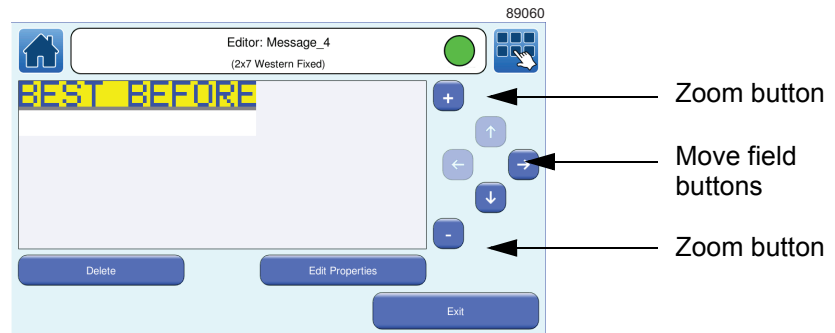
Figure 8. Editor screen: field selected

NOTE: If you use a Fixed message style, you cannot move fields across line boundaries. If you use a Flexible message style, you can place fields anywhere within the message area.

To add another field to your message, touch within the message boundary. See 'Edit a message' on page 17 for more information about how to edit a message.

Touch the **Delete** button to delete a highlighted text field. Touch the **Edit Properties** button to display the **Text Field Properties** screen to change the properties of the Text field (for example, Font Size).

3.1.2 Add a Date field

1   Touch the screen at the required insertion point. Make sure that the field does not overlap any existing field. The printer displays the **Select Field Type** screen (see Figure 2 on page 11).

2   On the **Select Field Type** screen, touch the **Date** button to display the **Select Date Format** screen with a list of available date formats.

3   Use the scroll bar to scroll through the list and find the required date format, or touch the **Find** button to search for a date format.

4   Touch the name of the required date format (for example, dd/MM/yy). The printer displays the **Editor** screen and shows the content of your message with the field highlighted in yellow.
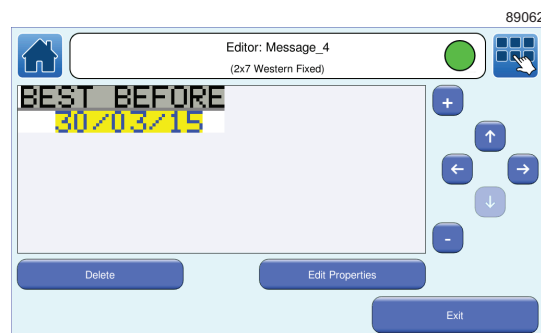
Figure 9. Message with Date field

3.1.3 Add a Time field

To add a Time field to your message:

1 Touch the screen at the required insertion point. Make sure that the field does not overlap any existing field. The printer displays the **Select Field Type** screen (see Figure 2 on page 11).

2 On the **Select Field Type** screen, touch the **Time** button to display the **Select Time Format** screen with a list of available time formats.

3 Touch the name of the required time format to insert a Time field in the selected format in your message (for example, HH:mm). The printer displays the **Editor** screen and shows the content of your message.

3.1.4 Add Product Image

The **Add Product Image** option allows you to associate a product image with a message for easy identification and message selection. Touch the button to display the **Product Image** screen.

Figure 10. Product Image screen

You can copy graphics to the printer from a USB memory device to use as product images (see 'USB connection' on page 74 for more information about how to copy image files to the printer). When you insert the memory device, any image files on the device appear on the **USB** tab on the **Product Image** screen.

Touch the name of a graphic to select that graphic. A preview of the image is displayed. Touch the **Help** button for information about how to resize the image and increase or decrease image magnification.

When the image is edited as required, touch the **Select** button. The selected graphic is set as the product image and is displayed to the left of the message preview on the Home, **Message Store**, and **Select Message** screens. If no product image is selected, the preview shows a placeholder image.

LINX

3.2 Save your message

To save your message, touch the **Exit** button to display the **Editor** screen. The message fields are highlighted in grey and you cannot edit the fields.

Option	Description
Save and Exit	Save your changes. The printer prompts you for a message name. Select the default name ('Message_1'), or enter a new name, and then touch **Enter**.
Exit Without Saving	Discard your changes and return to the **Message Store** screen.

3.3 Select a message

If a message is selected for printing, the Home screen displays a preview of the message and the message name at the top left of the message preview. If no message is selected, the printer displays "No message selected" in the message preview. Make sure that the Home screen displays the correct message.

- If the correct message is displayed, go to 'Print and pause printing' on page 16.

- If the correct message is not displayed, touch the **Message Store** button to go to the **Message Store** screen (see Figure 6 on page 10).

Scroll through the messages to find the message you require, and then touch the **Select** button to select the message for printing. To find a message from a long list of message names, touch the **Find** button to perform a search. Alternatively, you can touch the **List** button to display the **Select Message** screen with all the messages in the Message Store. You can toggle between the Grid Mode or List Mode options to display the messages.

(a)   (b)
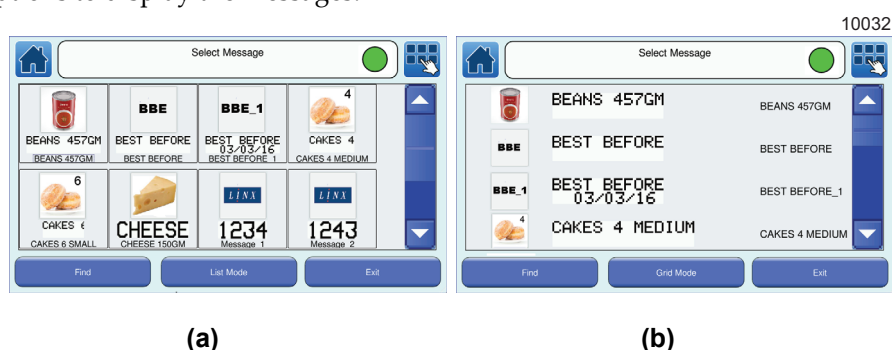
Figure 11. Message Store screen: Grid Mode (a) and List Mode (b)

In Grid mode or List mode, touch the required message to select that message for printing. A preview of any selected message is displayed on the Home screen.

3.3.1 Find option

To find a message from a long list of message names, touch the **Find** button. The printer displays the **Find Message** screen and keyboard with the first message name in the Message Store list highlighted.

Enter the first letter of the message name (for example, the letter "C"). The printer displays the first message name that starts with the letter entered, together with the letters entered and the number of messages in the store in the printer status bar. Use the up and down arrow buttons to move through the message list or continue to enter letters (for example, "H") until the required message name ("CHEESE 150GM") is highlighted. You can use the Backspace button to delete entered characters.

You can touch the **Cancel** button to return to the **Select Message** screen, or the Home button to return to the Home screen.

3.4 Print your message

3.4.1 Print trigger

You can use a product sensor or other device to trigger a print, or you can set the printer to print continuously. The **Print Trigger** option on the **Advanced Line Settings** screen controls the print actions of the printer (see 'Print Trigger' on page 43). In its default configuration the printer waits for a trigger signal before each message is printed.

3.4.2 Adjust the print position

This section shows you how to make sure that the printed message appears in the correct position on the product. Figure 12 helps you understand the print position. The large arrow shows the direction of the movement of the product. In this example, there is a fixed distance (C) between the printhead (A) and the sensor (B) that detects the edge of the product. This distance is the 'Trigger to Printhead Distance'. The distance is zero for some installations. The Trigger to Printhead Distance is a setting associated with a production line. The value is set during printer installation, but if necessary you can adjust the value on the **Line Settings** screen (see 'Trigger to Printhead Distance' on page 40)
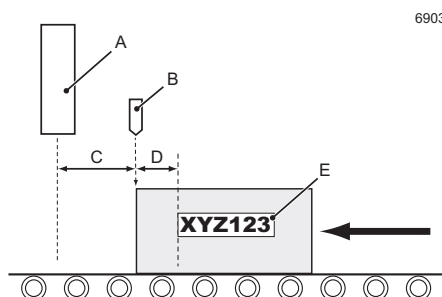
Figure 12. Print position

The trigger signal from the sensor occurs at the edge of the product, but the label (E) is not at the edge of the product. The distance between the sensor position (B) and the print position (E) is the Print Delay (D). The Print Delay is a setting associated with an individual message. You can adjust the value for each message to make sure that the printed message appears in the right position on the product.

3.4.3 Change the Print Delay

1   On the Home screen, touch the **Message Settings** button to display the **Message Settings** screen. The current Print Delay value is shown on the Print Delay button (see Figure 13):
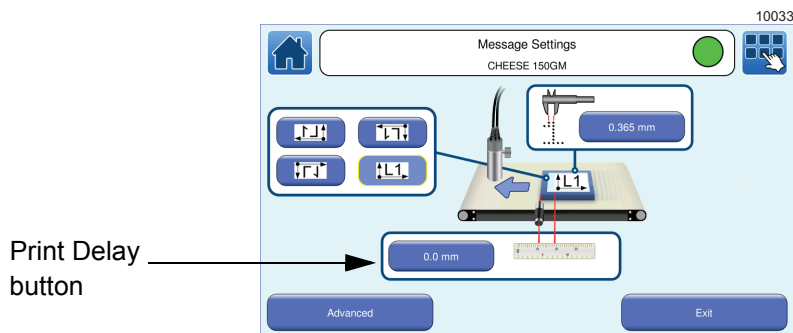
Figure 13. Message Settings screen: Print Delay

2   Touch the Print Delay button to display the **Enter Print Delay** screen.

3   Use the keypad to enter a new value or use the plus and minus buttons to increase or decrease the value, and then touch the **Save** button to return to the **Message Settings** screen. The new Print Delay value is shown on the Print Delay button. On the **Enter Print Delay** screen, touch the **Cancel** button to discard any changes and return to the **Message Settings** screen.

4   On the **Message Settings** screen, touch the **Exit** button to return to the Home screen.

3.5 Print and pause printing

To print a selected message:

Option	Description
Start Printing	The jet starts. A jet start takes approximately 2.5 minutes. The printer status bar displays a progress bar with the label "Jet Starting". When the jet startup is complete and a trigger signal is received, the printer starts printing the message. The printer status bar displays the message "Printing" and the **Pause Printing** button is enabled.

To pause printing:

Option	Description
Pause Printing	Printing stops but the jet is not stopped. The printer status bar displays the message "Jet Running". You can touch the **Start Printing** button to quickly restart the print, or you can select a different message to print. Use option to stop the print for a short time (for example, to change line and message settings). The **Pause Printing** button is available only when the printer is printing.

If the print job is completed and you need to turn off the printer, see 'Shut down and turn off the printer' on page 17.

NOTE: When you pause the print, the printer saves any changes to the message. For example, if you use a sequential number field, the print restarts at the correct position in the sequence.

3.5.1 Shut down and turn off the printer

If the jet is running

Option	Description
Stop Jet	The printer status bar displays a progress bar with the label "Jet Stopping". After approximately two minutes, the jet is stopped. The printer status bar indicates that the jet state is "Idle". Touch the **Power Off** button to turn off the printer. The printer displays a confirmation screen. Touch the **No** button to cancel the powerdown. Touch the **Yes** button to turn off the printer. If you select **Yes**, the printer displays a powerdown screen. When the powerdown screen disappears, the printer is safely turned off. If required, you can then disconnect the mains electrical supply cable of the printer.

NOTE: If you do not need to use the printer for more than a month, touch the **Into Storage** button. This option prepares the printer for an extended shutdown (that is, for a period of more than four weeks). Do not use this option for daily shutdowns.

If the jet is stopped ("Idle")

Option	Description
Power Off	The printer displays a powerdown screen. When the powerdown screen disappears, the printer is safely turned off. If required, you can then disconnect the mains electrical supply cable of the printer.

NOTE: The **Power Off** button is only available in the 'Idle' and 'Fault' states.

3.6 Edit a message

3.6.1 Change the message style

Each message style defines the number of lines of text in a message and the font size and style. A new message uses the default message style selected in the **Editor Settings** option (see 'Editor Settings' on page 34), but you can select a new message style for a message you create.

You can only change the current message style of a message to a style with the same, or greater, number of lines. When you change a message style (for example, from 2x7 Western Fixed to 1x5 Western Fixed), the size of any fields in the message change to reflect the new style.

If any message fields are not on the line boundaries when you change a message style, the fields can change position. To move a field to the required position, see 'Move a field' on page 23.

1   Select the required message on the **Message Store** screen.

2   Touch the **Edit** button to display the **Editor** screen with your selected message.

Figure 14. Editor screen: message selected

3   Touch the **Message Style** button to display the **Select Font Style & Size** screen and select the required message style (for example, "1x5 Western Fixed").

4   The **Message Style** screen displays your message with the new style applied. The printer adjusts the size of the message to fit the selected style. If necessary, you can use the plus and minus zoom buttons to adjust the size of the message preview.

Figure 15. Message Style screen

5   Touch the **OK** button to select the style and return to the **Editor** screen. Touch the **Cancel** button to discard your changes and return to the **Editor** screen. Touch the **Selected Message Style** button to select another font style and size.

6   Save or discard your changes.

7   On the **Message Store** screen, touch the **Exit** button to return to the Home screen.

3.6.2 Add a Text field

This section describes how to add a Text field to a saved message. The method you use to add a Date or Time field to a saved message is similar. To learn how you can add other types of field to your message (for example, a Sequential Number field), see 'Add other fields' on page 56.

1   On the Home screen, touch the **Message Store** button. Find and select the required message, and then touch the **Edit** button.

2   The printer displays the **Editor** screen, which shows the content of your selected message.
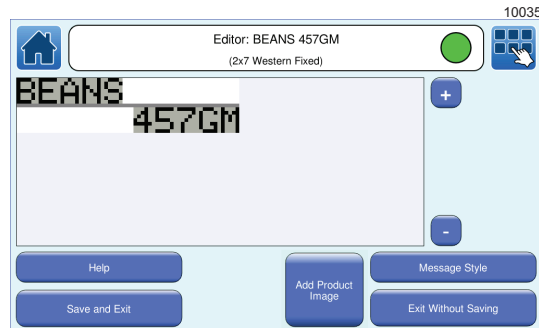
Figure 16. Editor screen: add text field

3   Touch the screen at the point where you want to put the new Text field. Make sure that the new field is outside the boundaries of other fields in the message. If necessary, you can use the scroll bar to put the new field to the right of current fields. The printer displays the **Select Field Type** screen.

4   Touch the **Text** button to display the **Enter Text** screen. Use the keyboard to enter the characters for the new Text field (for example, "WEIGHT") in the edit box.

5   When your changes are complete, touch the **Enter** button to display the **Editor** screen. The new text field is highlighted in yellow. You can edit the properties of the new field (see 'Edit a Text field' on page 20 for more information).

Figure 17. Editor screen: inserted field selected

6   Touch the **Exit** button to return to the **Editor** screen where you can save your message or discard the changes.

7   On the **Message Store** screen, touch the **Exit** button or the Home button to return to the Home screen.

LINX

Overlapping fields

If the new field touches an existing field, the printer highlights the overlap (item 'A' in Figure 18) in red.
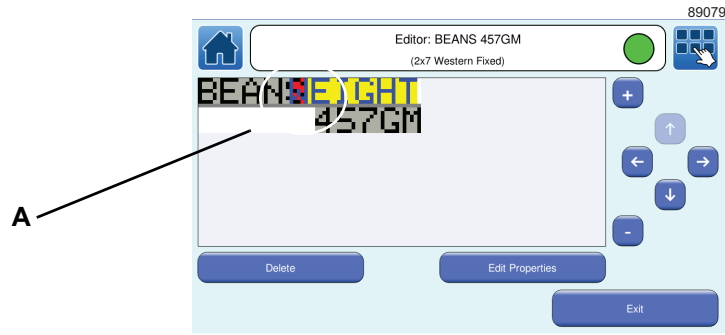
Figure 18. Field overlap

To correct the problem, you must move the new field (see 'Move a field' on page 23), or delete the field (see 'Delete a field' on page 23). If you move a field, make sure that the field is within the message boundary. In Figure 19, the arrows indicate the edge of the message boundary (the message area is in white). The grey area ('A') is outside the boundary:
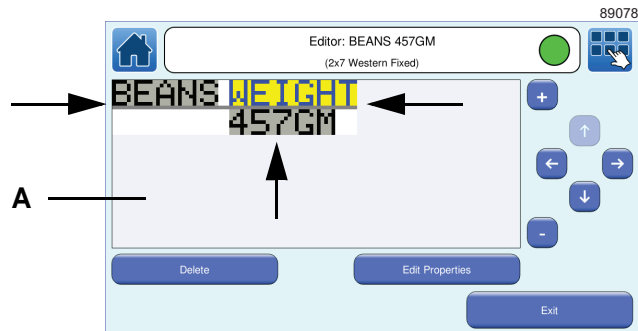
Figure 19. Message boundary

If a part of the field is outside the message boundary, that part of the field is not printed.

3.6.3 Edit a Text field

1 On the Home screen, touch the **Message Store** button. Find and select the required message.

2 Touch the **Edit** button to display the **Editor** screen, which shows the content of your message.

3   Touch the Text field that you want to edit. The selected field is highlighted in yellow.
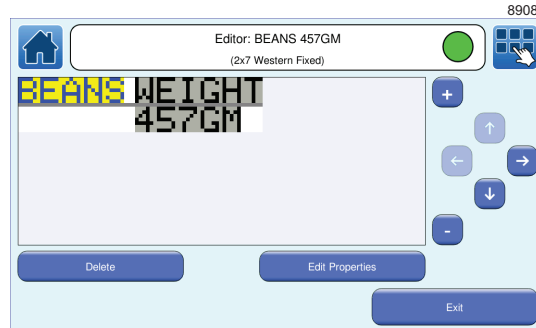
Figure 20. Edit a Text field

4   Touch the **Edit Properties** button to display the **Text Field Properties** screen (see below for more information about Field Properties options for other types of field). You can edit the following Text Field Properties:

- **Text**—displays the **Enter Text** screen where you can edit your entered text. Use the Scroll buttons to scroll through your entered text. Use the keyboard to insert a character, or touch the Backspace button to delete a character.

- **Font Name**—select the required font from the list. You must also select a font size.

- **Font Size**—select the required font size from the list.

NOTE: You cannot change the font size for fixed message styles.

- **Bold Factor**— select a value in the range x1 to x10.

- **Inter Character Gap**—allows you to specify an inter character gap of between 1 and 10 rasters for the field. If an inter character gap is set for a field, the field is printed with that number of rasters between the characters.

- **Character Rotation**—rotates the characters in the selected field by 0, 90, 180, or 270 degrees to the right.

- **Field Rotation**—rotates the selected field by 0, 90, 180, or 270 degrees to the right.

NOTE: If you rotate a field, the field can move outside the message area and will not print correctly. The printer applies a red highlight to indicate any field that is outside the message area. If necessary, you can adjust the font size to make sure that the field fits in the message area.

- **Prompt User**—enables Prompted fields functionality for the field. Prompted fields are fields within a standard Text field that, when the message is selected, require the user to enter or select text before the message is printed. See 'Add a Prompted field' on page 66 for more information about Prompted fields.

5   Select and set the options you require, and then touch the **Exit** button to return to the **Editor** screen.

6   When the changes to the field are complete, touch the **Exit** button to return to the **Editor** screen where you can add or edit other fields, and save or discard the changes to your message.

3.6.4 Edit a Date field

1   Select the required message, as described in 'Edit a Text field' on page 20.

2   On the **Editor** screen, touch the Date field to select the field. The field is highlighted in yellow. Touch the **Edit Properties** button to display the **Date Field Properties** screen. The following options are available:

- **Date Format**—displays the **Select Date Format** screen where you can change the selected Date Format.

- **Date Offset**—you can use this option to add or subtract a fixed number of days (or weeks or months or years) from the correct date to print a "Sell-by" date. If the correct date is December 29 and the date offset is +2 days, the date that is printed in the message is December 31. Enter the required offset on the **Enter Date Offset** screen and touch the **Save** button.

- **Date Offset Units**—if you use a Date Offset, you can use any of the following units:

  - ❒ Days

  - ❒ Weeks

  - ❒ Months

  - ❒ Years

- **Time Offset**—This option allows you to add or subtract a fixed time difference of between -23.59 and +23.59 hours/minutes from the current date/time. This is to maintain consistency with any offsets in a time field. The total offset applied to the date field is the date offset plus the time offset.

- **Positive/Negative Offset**—select either Positive or Negative.

- **Date Locale**—displays the **Language** screen. The printer uses the date format for the language selected on this screen. You can use this option to change the date format that the printer applies to the field.

- **Calendar**—select either Gregorian or Hijiri. If you select the date format, 'MMMM', the full month name is displayed in a message. For the Gregorian calendar, month names (January, February, and so on) are displayed in the language of the selected date locale. For the Hijiri calendar, the month name is displayed in Arabic text for Arab1 and Arab2 locales and in Latin versions for all other locales.

The other field options are the same as those for a Text field (see 'Edit a Text field' on page 20).

3   Select the required options and touch the **Exit** button to return to the **Editor** screen in edit mode.

4   Touch the **Exit** button again to return to the **Editor** screen where you can add other fields and save or discard the changes to your message.

3.6.5 Edit a Time field

1   Select the required message, as described in 'Edit a Text field' on page 20.

2   On the **Editor** screen, touch the Time field to select the field. The field is highlighted in yellow. Touch the **Edit Properties** button to display the **Time Field Properties** screen. The following options are available:

- **Time Format**—displays the **Select Time Format** screen where you can change the selected Time Format.

- **Time Offset**—you can use this option to add or subtract a fixed time difference (positive or negative) from the correct time. If the correct time is 16:00 and the time offset is –2 hours, the time that is printed in the message is 14:00. Use the keypad to enter a value, or use the plus and minus buttons to adjust the value.

- **Positive/Negative Offset**—select either Positive or Negative.

- **Time Locale**—displays the **Language** screen. The printer uses the time format for the language selected on this screen. You can use this option to change the time format that the printer applies to the field.

The other field options are the same as those for a Text field (see 'Edit a Text field' on page 20).

3   Select the required options and touch the **Exit** button to return to the **Editor** screen in edit mode.

4   Touch the **Exit** button to return to the **Editor** screen where you can add other fields and save or discard the changes to your message.

3.6.6 Move a field

Sometimes you must move a field within a message. For example, if you add a new field that overlaps an existing field, you must move the new field to correct the problem.

1   On the Home screen, touch the **Message Store** button. Find and select the required message.

2   Touch the **Edit** button to display the **Editor** screen, which shows the content of your message.

3   Touch the field that you want to move to display the **Editor** screen. The selected field is highlighted in yellow.

4   You can use the arrow buttons to move the selected field, or touch and drag the field, within the limits set by the selected message style (see 'Change the message style' on page 17).

5   When your changes are complete, press the **Exit** button to display the **Editor** screen.

6   Save or discard the changes.

3.6.7 Delete a field

1   On the Home screen, touch the **Message Store** button. Find and select the required message.

2   Touch the **Edit** button to display the **Editor** screen, which shows the content of your message.

3   Touch the field that you want to delete. The selected field is highlighted in yellow on the **Editor** screen.

4   Touch the **Delete** button. The field is removed from the message preview.

5   On the **Editor** screen, save your message or discard the changes.

3.7 Manage messages

You can manage the messages that are stored in the printer. You can make a copy of a message and use the copy as a base for a new message. You can change the name of a message or delete messages that are not needed.

LINX

NOTE: You can use the USB connection of the printer to save messages from the printer to a USB memory device, and transfer messages to the printer from a memory device. See 'USB connection' on page 74 for more information.

On the Home screen, touch the **Message Store** button, and then touch the **Manage** button to display the **Manage Messages** screen. Select the required message from the message list.

Figure 21. Manage Messages screen

Option	Description
Copy Message	The printer asks you to enter a name for the copied message. Enter the new message name and touch the **Enter** button to create a copy of the message.
Rename Message	The printer asks you to enter a new name for the message. Enter the new message name and touch the **Enter** button to rename the message.
Delete Message	The printer displays a confirmation screen. Touch the **Yes** button to delete the message. Touch the **No** button to cancel the operation and return to the **Manage Messages** screen.
Delete All Messages	The printer displays a confirmation screen. Touch the **Yes** button to delete all messages. Touch the **No** button to cancel the operation and return to the **Manage Messages** screen

NOTE: When you copy or rename a message, you cannot use the name of an existing message or the name of a different type of field that exists in the printer. For example, the name of an existing logo or sequential number.

The **Rename Message**, **Delete Message**, and **Delete All Messages** options are not available for the current printed message when the printer is in the "Printing" state.

3.8 Other Message Store options

3.8.1 Store

The options on the **Store** screen allow you to manage logos, graphics, and test messages that are stored on the printer. On the **Message Store** screen, touch the **Store** button to display the **Store** screen.

Delete Logo

NOTE: You cannot create logos or graphics on the printer. You must copy logos or graphics from a
USB memory device to the printer. See 'USB connection' on page 74 for more information.

You can delete logos or graphics copied to the printer with a USB memory device. To delete a logo or
graphic, touch the **Delete Logo** button to display the **Delete Logo** screen.

The printer displays a list of logos and graphics stored on the printer. Touch the name of a logo or
graphic to delete that file. The printer displays a confirmation screen. Touch the **Yes** button to delete
the logo or graphic. Touch the **No** button to cancel the operation and return to the **Delete Logo**
screen. Touch the **Exit** button to return to the **Message Store** screen.

Create Test Messages

When the printer is installed, the Message Store contains a set of test messages that you can use to test
the quality of print. You can delete these messages if they are not required (see 'Manage messages' on
page 23). To restore these test messages, touch the **Create Test Messages** button. The messages are
copied to the Message Store and appear in the list of messages stored in the printer.

3.8.2 Properties

Touch the **Properties** button to display information about the current selected message. The
following information is displayed:

- Height (in dots)

- Width (in rasters)

- Message Style

- Number of Printed Dots—the number of printed dots in the message.

- Number of Prints per 500 ml Ink Cartridge—the calculated number of prints that can be made
from one ink cartridge.

LINX

4 Change the printer setup

4.1 Printer Setup screen

4.1.1 Locale

Option	Description
Language	Sets the language that the printer software uses in all of the screens that are displayed. For example, menus, dialog boxes, and system messages. To set the printer language, make sure that the printer is not in the 'Printing' state. The printer uses the date and time formats for the selected language.
Keyboard	Tells the printer which touch screen keyboard to use and controls the characters that appear when you press a key on the keyboard. See ''Keyboards' on page 8 for more information about keyboards.
Units of Measurement	The printer uses the default units of measurement (either Metric or Imperial) for the selected language and keyboard options. You can use this option to override this default.
Secondary Keyboard	Allows you to select a secondary keyboard layout that is different from the primary keyboard. For example, you can change between an English (United Kingdom) keyboard and a Japanese keyboard, which allows you to use an English (United Kingdom) keyboard to generate Japanese characters. See ''Primary and secondary keyboards' on page 8 for more information about secondary keyboards.

4.1.2 Date & Time

NOTE: To set the date and time, make sure that the printer is not in the 'Printing' state.

Touch the **Date & Time** button to display the **Date & Time** screen.

Change the Time or Date

Touch the **Time** or **Date** button to display the **Set Time** or **Set Date** screen. The printer displays the current time in 24-hour format. The hour field of the current time is highlighted. You can use the Scroll buttons to move the cursor to the required field.

The printer displays the current date in the format for the selected language (for example, dd/MM/yyyy). The first field of the current date (for example, the day) is highlighted. You can use the Scroll buttons to move the cursor to the required field.

To enter a new time or date:

• Use the keypad to enter the time or date.

• Use the plus and minus buttons to adjust the time or date.

Touch the **Save** button to save your changes and return to the **Date & Time** screen. Touch the **Cancel** button to discard any changes and return to the **Date & Time** screen.

NOTE: The printer does not allow you to enter invalid values in Date and Time fields.

Linx 10

Time Zones

The **Time Zone** option allows you to set a local time zone for the printer and, if required, a Daylight Saving Time (DST) adjustment for your locale. This adjustment is in the form of an offset from the Coordinated Universal Time (UTC) value always used by Linx printers. For example, a country in the UTC+3 time zone is three hours ahead of UTC, while a country in the UTC-8 time zone is eight hours behind UTC.

Set a time zone

Touch the **Time Zone** button to display the **Time Zone** screen.
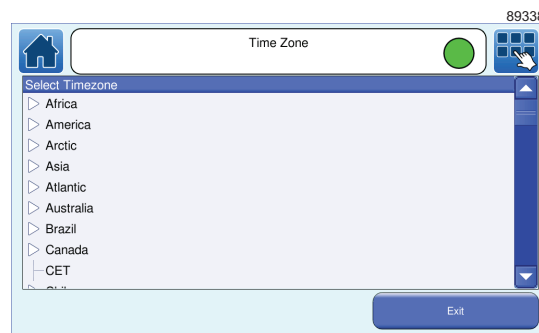
Figure 22. Time Zone screen

The printer displays a list of global time zones by geographic name (for example, Canada) and time zone name (for example, Pacific Standard Time (PST)).

To set the time zone for the printer, select the time zone name for your locale (for example, CET). The printer applies the selected time zone (without a DST adjustment) and returns to the **Date & Time** screen.

Enable DST adjustment

Touch any right arrow by a geographic time zone name to display further local options within the selected geographic time zone. To enable a DST adjustment, select the geographic name closest to your current location from the list (for example, for Toronto in Canada this would be Eastern).
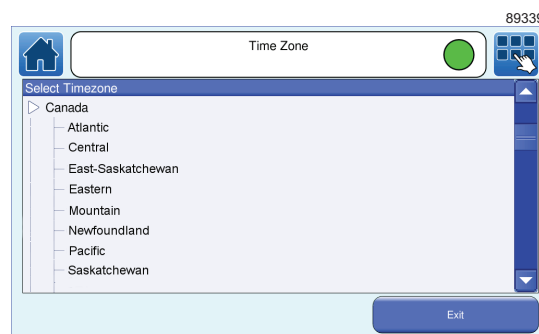
Figure 23. Time Zone screen: enable DST

The printer displays a confirmation screen. Touch the **OK** button. The correct DST adjustment for that locale is automatically applied.

NOTE: If you select a geographic time zone name to enable DST adjustment, you cannot change the printer date or time during the two time periods in the year when the transition to and from DST occurs.

Disable DST adjustment

To set a time zone for your locale without a DST adjustment applied, select the official time zone name with an offset value that is closest to your locale. For example, for London this would be GMT+1.

4.1.3 Installation

| Option	Description
Ink/Solvent	Shows the ink and solvent type used by the printer. This option is for display only. You cannot select the option or change the type.
Printer Serial Number	Shows the serial number of the printer. This option is for display only. You cannot select the option or change the serial number.
Printer Name	The default name for the printer. You can use the **Printer Name** option to enter another name to identify the printer (for example, to identify back-ups of printer data that you use on other printers). Enter a name for the printer, and the touch the **Enter** button. The printer displays the Installation screen with your entered printer name displayed on the **Printer Name** button.

4.1.4 User Management

This option allows you to add, edit, and delete user accounts, and change user passwords. You can assign each user different levels of access to common printer functions. See 'Printer users' on page 8 for more information about printer users.
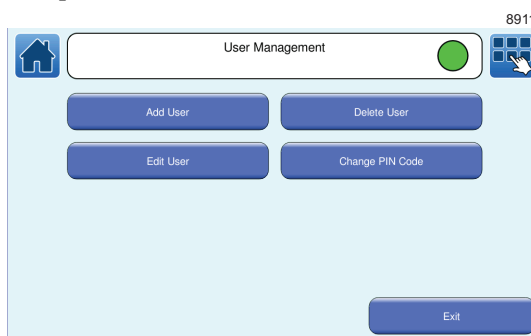
Figure 24. User Management screen

You can control access to the following printer functions:

Option	Description
Print Control	Allows access to message selection and allows you to start and stop the printer.
Maintenance	Allows access to the Maintenance screens.
Message Store	Allows access to the Message Store to create, edit, and delete messages.
Message Settings	Allows access to the Message Settings screens.
Line Settings	Allows access to the Line Settings screens.

LINX

Option	Description
Printer Settings	Allows access to the Printer Setup screens.
Security Settings	Allows access to the User Management screens to create, edit, and delete users, and allows access to the Security Options screens.
Data Backup	Allows you to back up, and restore, messages, graphics, and printer settings with a USB memory stick.

You can assign the following levels of security access rights to users:

- No Rights—the user cannot access any of the related printer functions.
- Basic—the user can access some of the related printer functions.
- Advanced—the user can access all of the related printer functions.

Add User

1 Touch the **Add User** button to display the **Enter User Name** screen.

2 Enter a name for the user and touch the **Enter** button to display the **Enter PIN Code** screen. Enter a PIN code for the user.

NOTE: A PIN code for an Operator must have a minimum of four digits. A PIN code for a Supervisor must have a minimum of six digits. A user that can create other users (with Advanced security access rights for Security Settings) must have a PIN code with a minimum of six digits.

3 Touch the **Save** button to display the **Confirm PIN Code** screen. Enter the PIN code again, and then touch the **Save** button.

4 The printer displays the **Printer Functions** screen for the user.

Figure 25. Printer Functions screen

LINX

You can set a level of user access for each printer function. Touch the name of a printer function (for example, "Message Store") to set security access rights for that function. The printer displays the **Available Levels** screen.
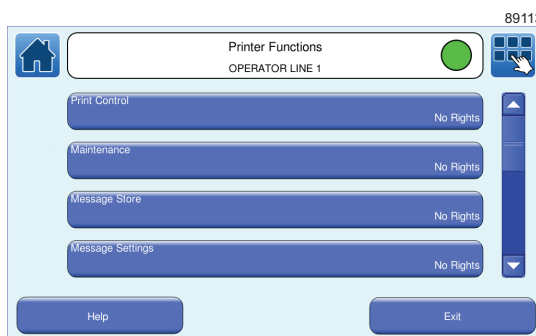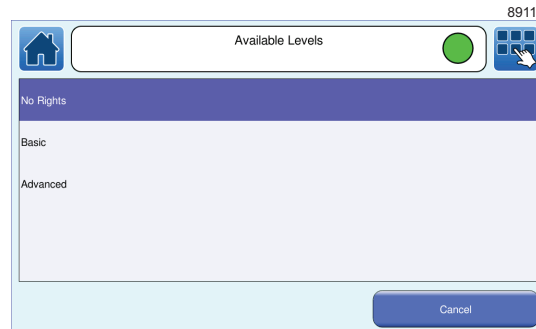

Figure 26. Available Levels screen

NOTE: Touch the **Help** button on the **Printer Functions** screen to display information about the security access rights for each printer function.

5 Touch the name of the level of security access rights to set the access right and return to the **Printer Functions** screen.

6 Repeat steps **4** and **5**, as required, to add security access rights for other printer functions.

7 On the **Printer Functions** screen, touch the **Exit** button to return to the **User Management** screen.

Delete User

To delete a user, touch the **Delete User** button. The printer displays the **Delete User** screen with a list of users. Touch the name of the user to delete. The printer displays a confirmation screen. Touch the **Yes** button to delete the user. Touch the **No** button to return to the **Delete User** screen.

Edit User

To edit security access rights for an existing user, touch the **Edit User** button to display the **Select User** screen with a list of users. Touch the name of the user to edit. The printer displays the **Printer Functions** screen. You can edit security access rights as shown in 'Add User' on page 29.

Change PIN Code

To change a PIN code for a user, touch the name of the user to edit. The printer displays the **Enter New PIN Code** screen. Enter the new PIN code for that user, and then touch the **Save** button to display the **Confirm New PIN Code** screen. Enter the new PIN code again, and then touch the **Save** button. The printer displays a message to confirm that your PIN code is changed. Touch the **OK** button to return to the **Change PIN Code screen**.

4.1.5 Change Your PIN Code

This option allows you to change the PIN code of the logged in user. Touch the **Change Your PIN Code** button to display the **Enter Current PIN Code** screen. Enter your current PIN code, and then touch the **Save** button to display the **Enter New PIN Code** screen. Enter your new PIN code, and then touch the **Save** button to display the **Confirm New PIN Code** screen. Enter the new PIN code again, and then touch the **Save** button. The printer displays a message to confirm that your PIN code is changed. Touch the **OK** button to return to the **Printer Setup** screen.

4.1.6 Security Options

These options allow you to control access to the printer functions to prevent use that is not authorised. The following options are available.

Option	Description
Remember Last Login after Restart	Select either **Enabled** or **Disabled**. If this option is enabled, the last user is automatically logged in when you restart the printer. The option is enabled by default. If the option is disabled, you must use the **User Login** option on the **Main Menu** screen to log in.
Inactivity Logout	Select either **Enabled** or **Disabled**. If this option is enabled, the printer logs out the current user and displays the Home screen if the printer is not active for a set time. You can use the **Inactivity Timeout** option to set this value.
Inactivity Timeout	If the **Inactivity Timeout** option is enabled, this option allows you to set a time, between 1 and 60 minutes. When this period expires, the printer logs out the current user and displays the Home screen. You must use the **User Login** option on the **Main Menu** screen to log in again.

4.1.7 User interface settings

Customise Home Screen

This option allows you to configure the option buttons that appear in the carousel area on the Home screen. The **Message Store**, **Line Settings**, and **Message Settings** options are always displayed on the carousel. You cannot remove these options. The **Message Print Count** options is displayed by default, but you can remove it if required.

Option	Description
Message Store	Opens the Message Store screen.
Line Settings	View and change the production line settings for the selected message. See 'Line and message settings' on page 38.
Message Settings	View and change the message settings for the selected message. See 'Line and message settings' on page 38.
Message Print Count	Shows the number of prints done with the current selected message

NOTE: Some functions are not available when the printer status is "Printing".

LINX

You can select six other options to assign to the buttons on the carousel. Touch the **Customise Home Screen** button to display the **Customise Home Screen** screen.
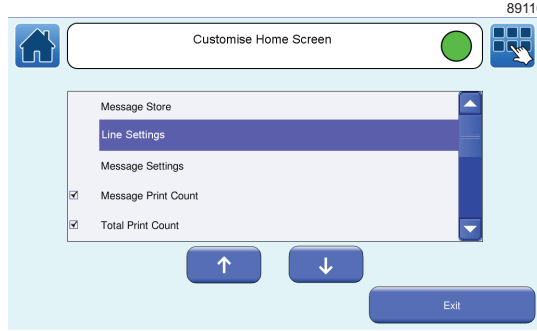
Figure 27. Customise Home Screen screen

The available options are as follows. Touch the box to the left of the option name to select or deselect that option. Touch the **Exit** button when you have made your selections.

Option	Description
Message Print Count	The message print count for the current message is displayed on the option button on the carousel. Select this option to enable you to edit from the carousel the number of prints that the printer made with the current message. You can use any value from 0 to 4,294,967,295.
Total Print Count	The total print count for the printer is displayed on the option button on the carousel. This value is the total of the Print Count values for all messages. You cannot change this value.
Batch Print Count	The current batch print count is displayed on the option button on the carousel. Select this option to enable you to edit from the carousel the total number of prints made by the printer for this message in the interval since you last set the Batch Print Count.
Print Delay	The current Print Delay is displayed on the option button on the carousel. Select this option to enable you to set the Print Delay for the current message from the carousel.
Manual Trigger	Enables the Manual Trigger button to allow you to manually trigger a print from the carousel. See ''Print Trigger' on page 43 for more information about print triggers.
Update Message	Allows you to update from the carousel all prompted fields in the current message if a message that contains prompted fields is printing. See 'Add a Prompted field' on page 66 for more information
Reset Sequential Numbers	Allows you to reset from the carousel any sequential number fields for the current message to the start of their sequences. See ''Add a Sequential Number field' on page 56 for more information.

Option	Description
Frozen Date	If enabled, a button appears in the carousel area on the printer Home screen. Touch the **Frozen Date** button to enable this option. A screen is displayed to confirm that the option is turned on and an icon is then displayed on the printer status bar. When enabled, any date fields in the current selected message are frozen at the current date (including any date offset values for the fields). Touch the **Frozen Date** button to disable this option. A screen is displayed to confirm that the option is turned off. Any date field in the current selected message revert to the current date (including any date offset values for the field). Any messages in a production schedule use the frozen date that corresponds to when the schedule was created and the frozen date enabled.
Print Delay for All Users	If enabled, the **Print Delay** option is accessible from the carousel area on the Home screen at all user levels, even if no user is logged in. If not enabled, the **Print Delay** option is only available to users with sufficient security access rights. If both options (**Print Delay** and **Print Delay for All Users**) are enabled, the **Print Delay** button is also displayed on the carousel area.

To change the order in which the options appear in the carousel area, touch the required option to highlight it, and then use the up and down arrow buttons to move the item within the list. The first item in the list on the **Customise Home Screen** screen appears as the first option on the Home screen carousel area.

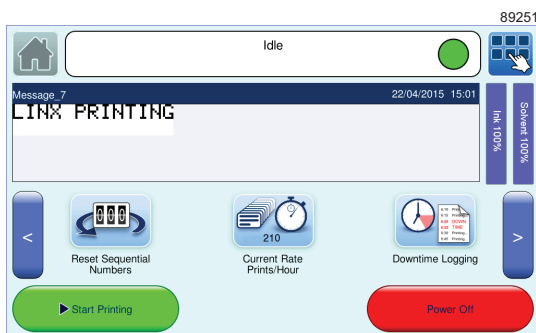Figure 28 shows the carousel area with additional options selected.

Figure 28. Home screen: carousel area

Editor Settings

This option allows you to select the settings used to create a new message.

Option	Description
New Message Settings	Allows you to apply settings to any new message you create: **Use current message settings**—any new message you create uses the settings associated with the current selected message. **Use default settings**—any new message you create uses the default message settings for the printer. See 'Basic message settings' on page 51 for more information about message settings.
Select Message Styles	Allows you to change the message styles that you use to create messages. For example, with the styles for your current locale, you can also select Hindi or Simplified Chinese message styles. Touch the box to the left of a message style to select that style for use. Touch the **OK** button to return to the **Editor Settings** screen. Touch the **Exit** button on the **Select Message Styles** screen to cancel any changes.
Force Default Style	Select **Yes** or **No**. If you select **Yes**, any new message automatically uses the default message style. You do not have the option to select another message style when you create a message. See 'Default Message Style' on page 43 for more information about default message styles.
Start Day	Allows you to specify a start day for the week. The start day defines which day of the week is day number one when the 'd1-7 (Day number of week)' date format is used in a date field.
Date Offset Limits Settings	Allows you to define minimum and maximum values for the date offset options on the **Date Field Properties** screen. The following options are available: **Offset Limits Enabled**—set this option to **Yes** to enable offset limits. **Allowed Offset Units**—use this option to select the offset units for which to set limits (Days, Weeks, Months, or Years). **Date Offset Limits**—use this option to enter the minimum and maximum values for each selected offset unit. Your selected values are displayed on the relevant **Enter Date Offset** screens when you select an offset.
Print Delay for All Users	If this option is enabled, the **Print Delay** option is accessible from the carousel area on the Home screen at all user levels, even if no user is logged in. If not enabled, the **Print Delay** option is only available to users with sufficient security access rights. If both options (**Print Delay** and **Print Delay for All Users**) are enabled, the **Print Delay** option is also displayed on the carousel area.

4.1.8 Warnings

This option allows you to prevent selected printer overspeed warnings from being reported when they occur. Touch the **Warnings** button to display the **Warnings** screen with a list of all printer overspeed warnings. By default all the warnings are enabled. Touch the button for the required warning to disable that warning. Touch the button again to enable the warning.

4.1.9 Power Down

This option allows you to configure the printer for automatic powerdown under certain conditions.

The **After Jet Shutdown** option is set to **Yes** by default. All other options are set to **No** by default. If no options are set to **Yes**, the printer will never automatically power down.

NOTE: If printer faults exist, the printer will not automatically power down.

Option	Description
After Jet Shutdown	The printer automatically powers down once the jet shuts down.
Delayed on Idle	If there is no activity (see below) during the powerdown delay time, and the printer is in the 'Idle' state, the printer automatically powers down.
Delayed on Jet Running	If there is no activity during the powerdown delay time, and the printer is in the 'Jet Running' state, a normal jet shutdown is performed followed by automatic powerdown.
Delayed on Printing	If there is no activity during the powerdown delay time, and the printer is in the 'Printing' state, printing is stopped and a normal jet shutdown is performed followed by automatic powerdown.
Delay	Allows you to change the powerdown delay time. The delay time is the time, in minutes, during which there must be no activity before the powerdown sequence can begin. If any activity occurs during the delay time the delay period is restarted. Touch the **Delay** button to enter the required delay time on the **Delay** screen. The minimum delay value is 1 minute and the maximum delay value is 1440 minutes (24 hours). The default delay value is 60 minutes.

NOTE: The values selected for these options are retained after a printer restart or software upgrade.

When auto powerdown is activated, a confirmation screen is displayed for a period of 10 seconds. Touch the **Cancel** button to cancel the auto powerdown. Otherwise, if no printer activity is detected, the printer powers down after this period has expired.

For the delayed powerdown options, any printer activity resets the delay period to its original value. Printer activity is defined as any one of the following:

- Any events that cause the printer to print.

- Touchscreen activity (that is, if the screen is touched).

LINX

4.1.10 Screen Saver

If the screensaver option is enabled, a screensaver is displayed if the printer is inactive for a set period. You can select your own image for the screen saver (for example, a picture of the product being printed).

NOTE: The screensaver is only displayed when you are on the Home or **Main Menu** screens.

To dismiss the screensaver, touch the screen.

- **Screen Saver**—you can use this option to enable or disable the screensaver. When this option is enabled, the **Screen Saver Settings** screen is displayed (see below).

- **Screen Saver Timeout**—this option is enabled if the **Screen Saver** option is enabled. Enter a timeout period of between 10 seconds and 180 seconds. After this timeout period, the screensaver is displayed. The default timeout period is 120 seconds.

- **Settings**—select this option to display the **Screen Saver Settings** screen.

Screen Saver Settings

- **Default**—if this option is set to enabled, any graphic selected as a screensaver image on the **Screen Saver Image** screen (see below) is set as the screensaver. If this option is disabled, no image is used as a screensaver, even if the **Screen Saver** option is enabled.

  NOTE: At least one screensaver graphic must exist on the printer for this option to be enabled.

- **Alarms**—if this option is set to enabled (and alarms have been configured), when an alarm condition exists, a warning is displayed on the screensaver screen. See 'Alarm setup' on page 50 for more information about alarms. This screensaver overrides any default screensaver.

- **Image**—select this option to display the **Screensaver Image** screen.

Figure 29. Screensaver Image screen

You can copy graphics to the printer from a USB memory device to use as default screensaver images (see 'USB connection' on page 74). When you insert the memory device, any image files on the device appear on the **USB** tab on the **Screensaver Image** screen. Any image files that are copied to the printer from a USB memory device appear on the **Default** tab. Touch the name of a graphic to select that graphic. A preview of the image is displayed. Touch the **Help** button for information about how to resize the image and increase or decrease image magnification. When the image is edited as required, touch the **Select** button. The selected graphic is set as the default screensaver image.

- **Ink and Solvent Levels**—if this option is enabled, the printer displays a screensaver that shows current ink and solvent fluid levels after a selected period of printer inactivity. A yellow warning triangle is displayed if ink or solvent fluid levels are low, if the cartridge has expired, or the wrong fluid cartridge has been fitted.

5 Line and message settings

5.1 Basic line settings

The **Line Settings** screen allows you to create and manage production lines for the printer. A production line is where messages are printed on products.

For information about advanced line settings, see 'Advanced Line Settings' on page 42.

On the Home screen, touch the **Line Settings** button to display the **Line Settings** screen.

Speed Mode

Set Line Speed/ Encoder Pitch button

Line Direction buttons

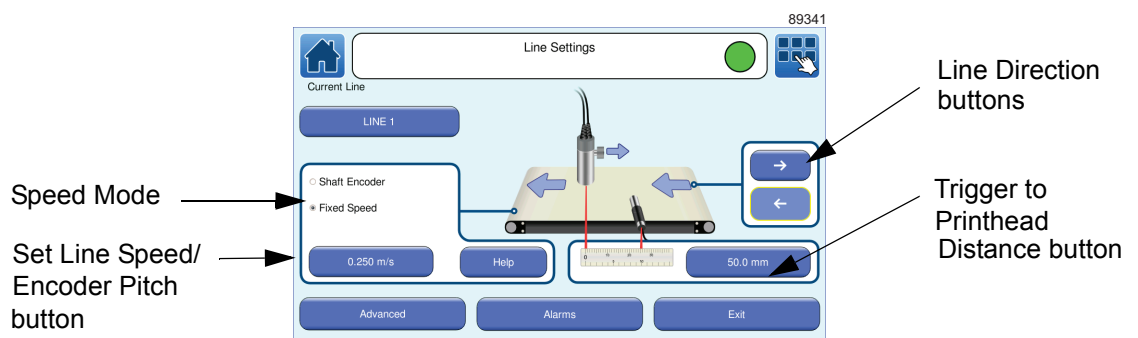**Trigger to Printhead Distance button**

Figure 30. Line Settings screen

If the **Line Sensor** option is selected (see 'Line Sensor' on page 41), the **Line Settings** screen appears as shown in Figure 31.
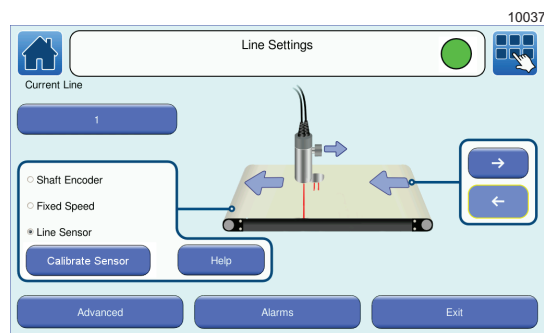
Figure 31. Line Settings screen: Line Sensor option selected

The following options are available in the 'Idle' state and the 'Jet Running' state, but not in the 'Printing' state.

5.1.1 Current Line

The printer allows you to configure up to a maximum of four production lines, so that each line can have different name and settings. Touch the Current Line button to display the **Line List** screen in 'selection' mode.

Figure 32. Line List screen: selection mode

Select and create lines

In 'selection' mode you can select the current line for the printer and create new lines. To select an existing line, touch the name of the required line. The **Line Settings** screen is displayed with the name of the line shown on the Current Line button.

To create a new line, touch the **New** button on the **Line List** screen, and then enter a name for the line on the displayed text entry screen. Touch the **OK** button to return to the **Line List** screen. The new line is displayed in the list of available lines. Line settings for the new line default to those of the current selected line, but you can edit them, as described below.

Manage lines

Touch the **Manage** button to open the **Line List** screen in 'manage' mode, where you can copy, rename, and delete lines.

Figure 33. Line List screen: manage mode

To copy a line, select the required line and then touch the **Copy** button. Enter a name for the copied line, and then touch the **OK** button. The copied line is added to the list of available lines.

To rename a line, select the required line, and then touch the **Rename** button. Enter a new name for the line, and then touch the **OK** button. The renamed line is added to the list of available lines.

To delete a line, select the required line, and then touch the **Delete** button.

To delete all lines, touch the **Delete All** button. All existing lines are deleted and a new default line ('Line 1') is added to the list.

Touch the **Exit** button to return to the **Line List** screen in 'selection' mode. Touch the **Exit** button again to return to the **Line Settings** screen.

5.1.2 Line Direction

The Line Direction buttons allow you to define the direction in which the line moves (right to left, or left to right). Select the line direction that you require. The picture of the production line on the screen changes to show the line direction that is selected. The selected line direction button is highlighted.

5.1.3 Trigger to Printhead Distance

NOTE: This option is not available if you select the **Line Sensor** option.

The Trigger to Printhead Distance button allows you to specify the distance between the trigger and the printhead (see 'Print Trigger' on page 43 for more information about print triggers). If the printhead and sensor do not move, the Trigger to Printhead Distance is the same for all products printed on the selected line. The distance is zero if the printhead and the sensor are in the same position. If the sensor position is changed, you can change the value.

Change the Trigger to Printhead Distance

Touch the Trigger to Printhead Distance button to display the **Enter Trigger to Printhead Distance** screen.

To change the Trigger to Printhead Distance:

- Use the keypad to enter a new trigger to printhead distance value.

- Use the plus and minus buttons to increase or decrease the Trigger to Printhead Distance value.

Touch the **Save** button to save the selected value and return to the **Line Settings** screen. Touch the **Cancel** button to discard any changes and return to the **Line Settings** screen.

5.1.4 Speed Mode

This option gives you three methods to set the speed of the line. If you do not know the line speed or the encoder pitch, see 'Calculate Line Speed/Calculate Encoder Pitch' on page 42 for information about how to calculate the values. Touch the **Shaft Encoder**, **Fixed Speed**, or **Line Sensor** button to select the method you require.

Shaft Encoder

If the speed of the line is not known, this option allows you to use a shaft encoder to measure the speed of the line. The shaft encoder generates a pulse for a fixed distance of product movement in millimetres. The encoder pitch is the number of pulses per millimetre of product movement. Touch the Set Line Speed/Encoder Pitch button to display the **Enter Encoder Pitch** screen.

To enter the encoder pitch:

- Use the keypad to enter the required encoder pitch.

- Use the plus and minus buttons to make small adjustments to the encoder pitch.

NOTE: The printer does not allow you to enter invalid values in the encoder pitch field. Invalid values are highlighted in red.

Touch the **Save** button to save your changes and return to the **Line Settings** screen. Touch the **Cancel** button to discard any changes and return to the **Line Settings** screen.

NOTE: If you do not know the encoder pitch, the printer allows you to calculate the value. See 'Calculate Line Speed/Calculate Encoder Pitch' on page 42 for information about how to calculate the value.

Fixed Speed

If the speed of the selected line is known, this option allows you to enter a fixed speed for the line. Touch the Set Line Speed/Encoder Pitch button to display the **Enter Line Speed** screen.

To enter the line speed:

- Use the keypad to enter the required line speed.

- Use the plus and minus buttons to make small adjustments to the line speed.

NOTE: The printer does not allow you to enter invalid values in the line speed field. Invalid values are highlighted in red.

Touch the **Save** button to save your changes and return to the **Line Settings** screen. Touch the **Cancel** button to discard any changes and return to the **Line Settings** screen.

NOTE: If you do not know the line speed, the printer allows you to calculate the value. See 'Calculate Line Speed/Calculate Encoder Pitch' on page 42 for information about how to calculate the value.

Line Sensor

You can use this option to set the correct speed for your production line if the optional line sensor accessory has been fitted to the line. If selected, the **Line Settings** screen appears as shown in Figure 31 on page 38. Touch the **Calibrate Sensor** button to display the **Calibrate Line Sensor** screen.
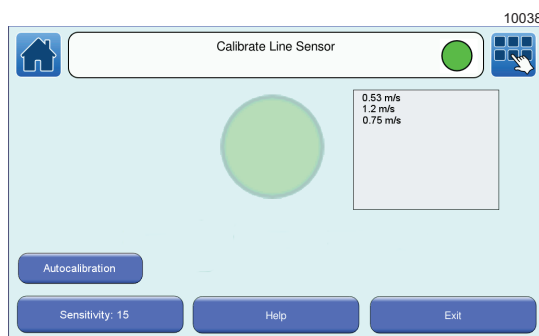
Figure 34. Calibrate Line Sensor screen

The green circle on the screen flashes every time an object on the production line passes the sensor and is detected. The calculated line speed is displayed in the box to the right of the circle.

The printer allows you to automatically detect and set the line speed. Touch the **Autocalibration** button and follow the on-screen instructions.

If an object is still not being detected or the line speed is incorrect, you can use the **Sensitivity** option to manually adjust the threshold at which the sensor detects an object. Touch the button and enter a value between 1 and 128 (where 1 represents the lowest sensitivity and 128 the highest sensitivity). Adjust the value until the object is detected and the line speed is correct.

Touch the **Help** button to display information about line sensor calibration.

LINX

5.1.5 Help

Touch the **Help** button to display information about line settings options. Touch the **Exit** button to return to the **Line Settings** screen.

5.1.6 Advanced

Touch the **Advanced** button to display the **Advanced Line Settings** screen. See 'Advanced Line Settings' on page 42 for information about the options available on this screen.

5.1.7 Alarms

Touch the **Alarms** button to configure the external alarm options for the printer. See 'Alarm setup' on page 50 for information about alarm options.

5.2 Advanced Line Settings

Accessed from the **Line Settings** screen, the **Advanced Line Settings** screen contains the following options:

NOTE: The following options are available in the 'Idle' state and the 'Jet Running' state, but not in the 'Printing' state.

5.2.1 Trigger to Printhead Distance

This option allows you to set the Trigger to Printhead Distance for a line. See 'Trigger to Printhead Distance' on page 40.

NOTE: This option is not available if you select the **Line Sensor** option.

5.2.2 Speed Mode

Touch this button to select either **Fixed Speed**, **Shaft Encoder, or Line Sensor**. See 'Speed Mode' on page 40.

5.2.3 Line Speed/Encoder Pitch/Calibrate Line Sensor

NOTE: The option shown on this button (either **Line Speed**, **Encoder Pitch**, or **Calibrate Line Sensor**) depends on the option selected with the **Speed Mode** button on the **Line Settings** screen.

If the encoder pitch is known, touch the button to enter an encoder pitch for the line. See 'Line Speed/Encoder Pitch/Calibrate Line Sensor' on page 42.

If the line speed is known, touch the button to enter a fixed speed for the line. See 'Line Speed/Encoder Pitch/Calibrate Line Sensor' on page 42.

If the **Line Sensor** option is selected, touch the button to calibrate the line sensor. See 'Line Sensor' on page 41.

5.2.4 Calculate Line Speed/Calculate Encoder Pitch

NOTE: The option shown on this button depends on the option selected on the **Speed Mode** button on the **Line Settings** screen, either **Calculate Line Speed** or **Calculate Encoder Pitch**. It is not available if you select the **Line Sensor** option.

If the speed of the line is not known, this option allows you to use the printer to calculate the speed of the line. Touch the button to display the **Calculate Line Speed** screen. See 'How to Calculate Line Speed/Encoder Pitch' on page 45.

If the encoder pitch is not known, this option allows you to use the printer to calculate the pitch. Touch the button to display the **Calculate Encoder Pitch** screen. See 'How to Calculate Line Speed/ Encoder Pitch' on page 45.

5.2.5 Print Trigger

NOTE: This option is not available if you select the **Line Sensor** option.

A trigger is a signal that tells the printer to print or update a message. Touch this button to display the **Print Trigger** screen with a list of the trigger types that are available.

Option	Description
Leading Edge Primary	The printer prints or updates the message when the product sensor detects the leading edge of a product.
Trailing Edge Primary	The printer prints or updates the message when the product sensor detects the trailing edge of the product.
Active Primary (Level)	The printer continuously prints or updates the message while the product sensor detects the presence of a product (the signal is active).
Inactive Primary (Level)	The printer continuously prints or updates the message while the product sensor does not detect the presence of a product (the signal is not active).
Continuous	This mode does not use an external trigger signal for printing and the printer prints the message continuously. The Inter-Print Distance option (see 'Inter-Print Distance' on page 44) controls the rate of printing.
Manual	The printer prints or updates the message when you touch the Manual Trigger button on the carousel area of the Home screen. See 'Customise Home Screen' on page 31 for more information on how to configure the carousel options.

Touch the name of the required print trigger to select that trigger and return to the **Advanced Line Settings** screen.

5.2.6 Default Message Style

This option allows you to select a default message style for the line. This message style is applied to all messages that you create for the selected line.

A default message style defines the number of lines in the message, the message height (in number of ink drops) and the character set used (for example "Western" or "Chinese"). For example, a 1 x 25 Western message style has one line of message, a message height of 25 drops and uses the Western character set.

Touch the **Default Message Style** button to display the **Select Default Style** screen.

Use the scroll bar to move through the available styles. Each style has a graphic for information. Touch the name of the default message style you require to select that style for your selected line.

5.2.7 Photocell Type

NOTE: This option is not available if you select the **Line Sensor** option.

This option allows you to specify the type of photocell used to trigger a print (either NPN or PNP). Touch the **Photocell Type** button to display the **Photocell Type** screen. Touch the name of the required type to select that type.

5.2.8 Photocell Deadtime

NOTE: This option is not available if you select the **Line Sensor** option.

This option allows you to set a delay period for a photocell during which the photocell does not respond to any trigger signals. This allows the printer to filter out any potential false trigger signals caused by, for example, printing on a reflective substrate. You can set the deadtime period to 0 ms, 1 ms, or 5 ms.

5.2.9 Primary Photocell

NOTE: This option is not available if you select the **Line Sensor** option.

This option allows you to set the **Photocell Type** and **Photocell Deadtime** options for a primary photocell on a printer (see above).

5.2.10 Secondary Photocell

NOTE: This option is not available if you select the **Line Sensor** option.

This option allows you to set the **Photocell Type** and **Photocell Deadtime** options for a secondary photocell on a printer (see above).

5.2.11 Inter-Print Distance

NOTE: This option is not available if you select the **Line Sensor** option.

The Inter-Print Distance is the distance between the end of one message and the end of the next message—the dimension "A" in Figure 35.

Figure 35. Inter-Print Distance

The Inter-Print Distance is used only for continuous printing. (For continuous printing, set the Print Trigger option to Continuous). Touch this button to display the **Enter Inter-Print Distance** screen, and then enter the required value.

5.2.12 Maximum Line Speed

This option is only visible when the Shaft Encoder speed mode is selected on the **Line Settings** screen.

The printer needs a minimum time to generate the characters and print each character on the product. The time that is needed depends on the message style. The printer displays the maximum line speed for the message style of the current message and you cannot change the value.

If the line speed is greater than the maximum line speed, the printer prints characters that are wider than the recommended Print Width.

5.2.13 Line Direction

The Line Direction option allows you to define the direction in which the line moves (right to left, or left to right). Select the line direction you require. The graphic of the line on the **Line Settings** screen changes to show the line direction that is selected. The orientation of the graphic of the printhead changes.

5.2.14 Printhead Height

The printhead height is the height difference between the printhead and the cabinet. The difference is measured from the base of the feet of the printer to the end of the printhead, as shown below.
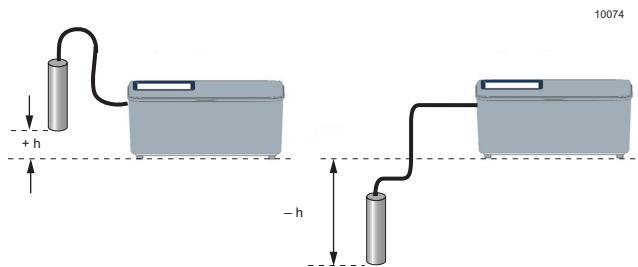

Figure 36. Printhead height measurement

Touch the **Printhead Height** button and enter the required printhead height. Touch the **Save** button to save the changes.

Enter a negative height if the printhead is lower than the base of the printer. The range for the height difference is –1.3 metres to +1.3 metres. It is not necessary to enter the '+' sign for positive numbers. Always make sure that the printhead height setting is correct because the printer uses this value to calculate the correct internal pressures.

5.2.15 Encoder Voltage

If you use a shaft encoder, this option allows you to select the voltage used by the encoder. Touch either the **5 Volts** or **24 Volts** option to select that voltage.

5.3 How to Calculate Line Speed/Encoder Pitch

NOTE: These options are available in the 'Idle' state and the 'Jet Running' state, but not in the 'Printing' state.

If you do not know the speed of your production line or the encoder pitch, you can calculate the correct values as follows:

Calculate Line Speed

1　Set the printer to Fixed Speed mode (see 'Speed Mode' on page 42).

2　On the **Line Settings** screen, touch the **Advanced** button and then select the **Calculate Line Speed** option from the **Advanced Line Settings** screen. The printer displays the **Calculate Line Speed** screen.
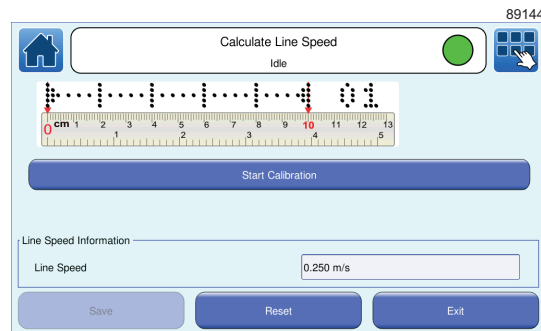

Figure 37. Calculate Line Speed: Start Calibration screen

3　Stop the production line.

4　Put a sheet of paper or a sample product on the production line. Touch the **Start Calibration** button to begin to measure the line speed.

　　NOTE:　You may need to adjust the position of the printhead if you do not print on a sample product.

If the printer is in the 'Idle' state, the printer enters the 'Jet Starting' state, and then the 'Jet Running' state. When the printer is in the 'Printing' state, the **Print Calibration Message** button is enabled. The current line speed is shown in the "Line Speed Information" box.
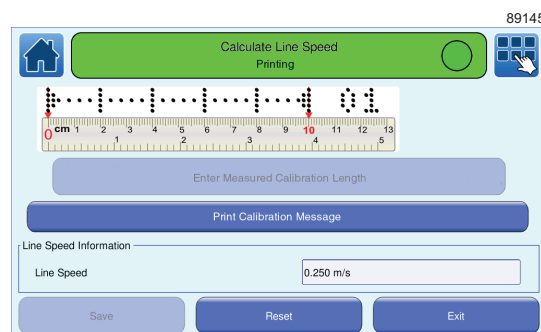
Figure 38. Calculate Line Speed: Print Calibration Message screen

5　Start the production line. When the paper or product moves under the printhead, touch the **Print Calibration Message** button. The **Enter Measured Calibration Length** button is enabled and the printer prints a calibration message.

　　NOTE:　You may have to create a minimum of three calibration messages to calculate an accurate line speed. The number at the end of the calibration message shows the number of messages printed.

6   Measure the length of the printed calibration message. This value is the distance between the outer edges of the end arrows, shown by the red dots in Figure 37 on page 46. For reference, when the length of the calibration message is 100 mm (plus or minus 1 mm), the line speed is accurate.

7   Touch the **Enter Measured Calibration Length** button to display the **Measured Calibration Length** screen.

Figure 39. Measured Calibration Length screen

8   Enter the measured calibration length (for example 75 mm) and touch the **Save** button. The printer calculates the line speed from the entered measurement and displays the **Calculate Line Speed** screen. The printer displays the calculated line speed in the "Line Speed Information" box.
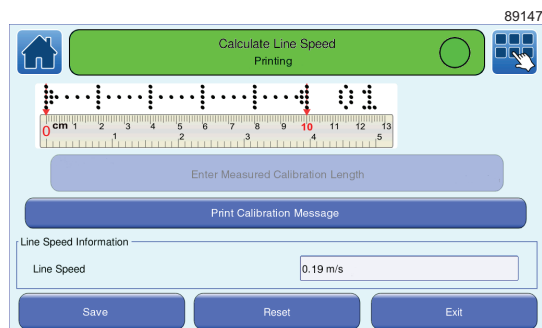
Figure 40. Calculate Line Speed: line speed calculated screen

9   Touch the **Stop** button to pause the print or touch the **Reset** button to return to the previous line speed value. Touch the **Save** button to save the new calculated line speed.

Calculate Encoder Pitch

NOTE: Make sure that a shaft encoder is installed on the production line and the encoder is connected to the printer.

1   Set the printer to Shaft Encoder mode (see 'Speed Mode' on page 42).

2 On the **Line Settings** screen, touch the **Advanced** button and select the **Calculate Encoder Pitch** option from the **Advanced Line Settings** screen. The printer displays the **Calculate Encoder Pitch** screen.

Figure 41. Calculate Encoder Pitch: Start Calibration screen

3 Stop the production line.

4 Put a sheet of paper or sample product on the production line. Touch the **Start Calibration** button to begin to measure the encoder pitch.

NOTE: You may need to adjust the position of the printhead if you do not print on a sample product.

If the printer is in the 'Idle' state, the printer enters the 'Jet Starting' state, and then the 'Jet Running' state. When the printer is in the 'Printing' state, the **Print Calibration Message** button is enabled. The current encoder pitch is shown in the "Encoder Pitch Information" box.
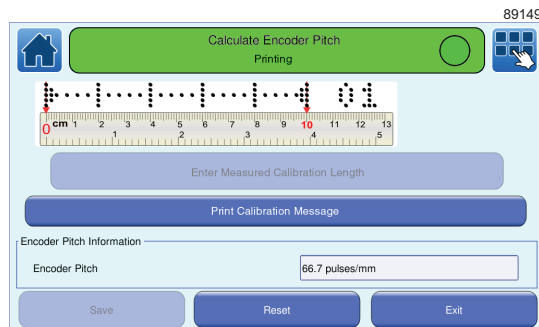
Figure 42. Calculate Encoder Pitch: Print Calibration Message screen

5 Start the production line. When the paper or product moves under the printhead, touch the **Print Calibration Message** button. The **Enter Measured Calibration Length** button is enabled and the printer prints a calibration message.

NOTE: You may have to create a minimum of three calibration messages to calculate an accurate encoder pitch. The number at the end of the calibration message shows the number of messages printed.

6 Measure the length of the printed calibration message. This value is the distance between the outer edges of the end arrows, shown by the red dots in Figure 41 on page 48. For reference, when the length of the calibration message is 100 mm (plus or minus 1 mm), the encoder pitch is accurate.

7   Touch the **Enter Measured Calibration Length** button to display the **Measured Calibration Length** screen (see Figure 39 on page 47).
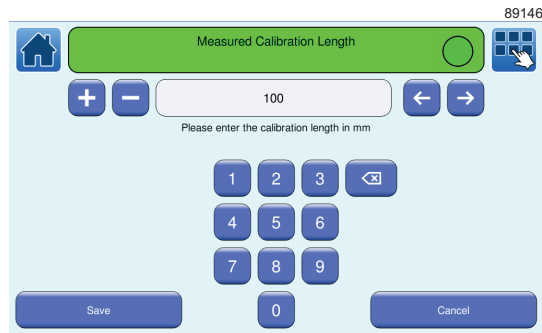
8   Enter the measured calibration length (for example 75 mm) and touch the **Save** button. The printer calculates the encoder pitch from the entered measurement and displays the **Calculate Encoder Pitch** screen. The printer displays the calculated encoder pitch in the "Encoder Pitch Information" box.
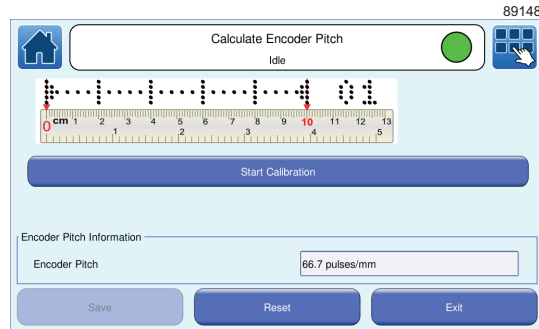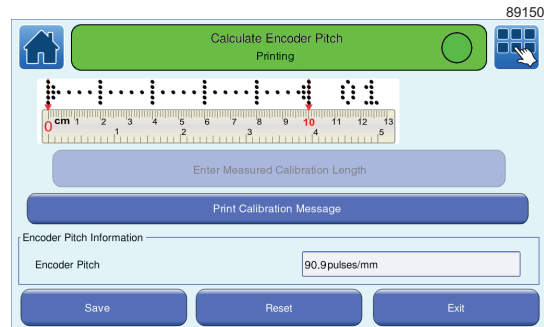

Figure 43. Calculate Encoder Pitch: encoder pitch calculated screen

9   Touch the **Stop** button to pause the print or touch the **Reset** button to return to the previous encoder pitch value. Touch the **Save** button to save the new calculated encoder pitch.

5.4 24 V alarm

The printer can use a 24 V alarm connection The alarm controls internal alarm tones and alarm output signals. You can use the alarm output signals to control external alarm beacons.

You can use the 24 V alarm to indicate a range of system events, for example, Faults and Warnings. The alarm operates in one of the following modes:

- **Continuous**—the alarm is turned on and remains on until the alarm condition is cleared.

- **Pulsed Continuous**—the alarm pulses continuously until the alarm condition is cleared.

- **Pulsed**—the alarm pulses twice if an alarm condition occurs.

- **None**—no alarm is set.

You can use any of the alarm indication modes to indicate any alarm condition.

5.4.1 Alarm setup

To access the alarm setup screen, touch the **Alarm** button on the **Line Settings** screen to display the **Alarm Setup** screen for your selected line.
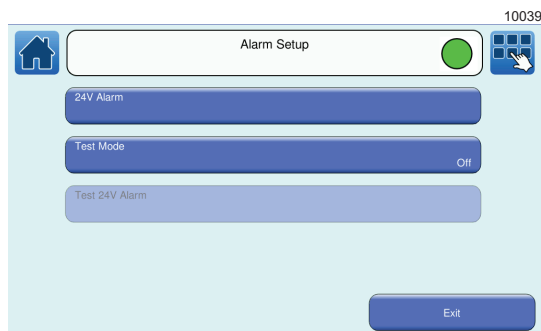
Figure 44. Alarm Setup screen

1   Set the 24 V Alarm options

2   On the **Alarm Setup** screen, touch the **24V Alarm** button to display the **Alarm Setup: 24V Alarm** screen for your selected line. The printer displays a list of system events.
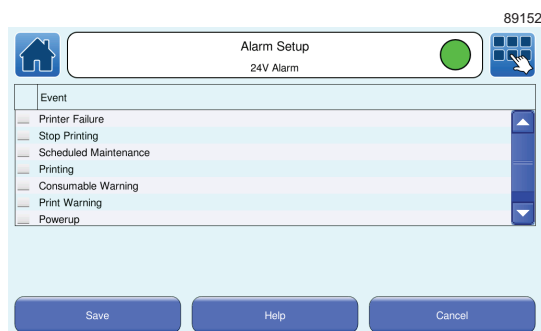
Figure 45. Alarm Setup: 24V Alarm screen

3   To select an alarm mode for a system event, touch the name of the system event you require (for example, "Printer Failure"). The printer displays a list of alarm modes with information graphics. Touch the name of the alarm mode to use for that system event (for example, "Continuous"). The radio button to the left of the name of the alarm mode is selected.
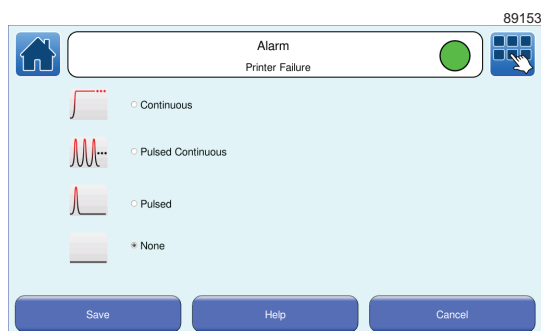
Figure 46. Alarm: Printer Failure screen

Each alarm mode has a different priority—a Continuous alarm has the highest priority, followed by a Pulsed Continuous alarm, then a Pulsed alarm. If an alarm is active, and an event occurs with a higher-priority alarm type, the higher-priority alarm becomes active. For example, if a Continuous alarm and a Pulsed Continuous alarm are both active, the printer generates a Continuous alarm.

NOTE: The default alarm mode for all system events is None.

4   Touch the **Save** button to confirm your selection. The printer displays the **Alarm Setup** screen with the selected alarm mode for the system event.
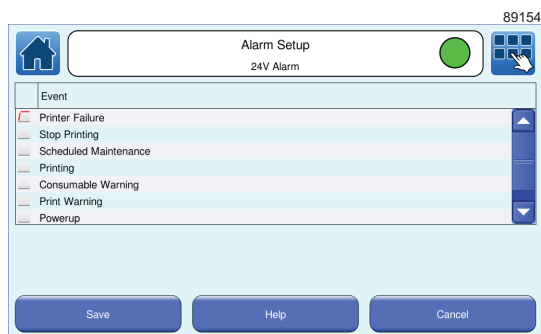
Figure 47. Alarm Setup: alarm mode selected screen

5   Touch the **Save** button to save your changes and return to the **Line Settings** screen.

6   Repeat steps **2** to **5** to set the alarm options for other system events.

NOTE: You can touch the **Help** button for more information about the alarm setup and alarm modes.

5.4.2 Test Mode

This option enables you to test the 24 V alarm outputs to an alarm beacon fitted to the printer. If set to **Yes**, the following option is enabled.

5.4.3 Test 24V Alarm

Set this option to **On** to test the alarm output from the 24 V alarm. The alarm beacon behaves as configured in 'Alarm setup' on page 50.

5.5 Basic message settings

The **Message Settings** screen allows you to adjust basic message settings (for example, Print Delay, Print Height, and Print Width) for a selected message. You can change advanced settings like Message Print Count on the **Advanced Message Settings** screen. See 'Advanced message settings' on page 54 for more information.

To change message settings, touch the **Message Settings** button on the Home screen. The printer displays the **Message Settings** screen.
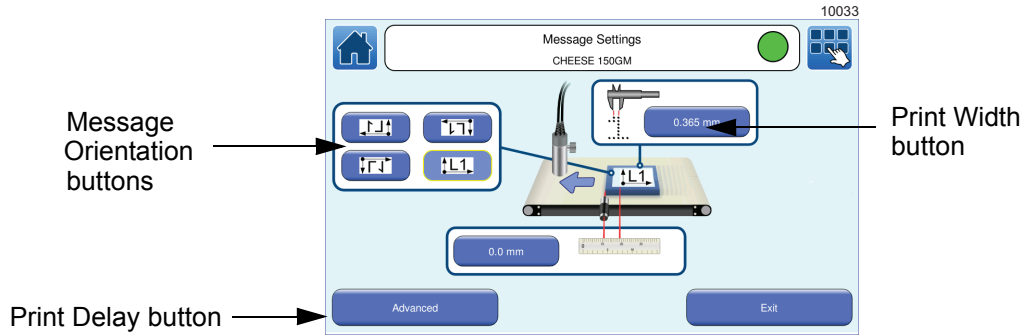
Figure 48. Message Settings screen

NOTE: The **Message Settings** screen is not available unless a message is selected.

5.5.1 Message Orientation

The printer allows you to print a message in a different direction with a horizontal or vertical, or horizontal and vertical flip. You can use the four Message Orientation buttons to change the orientation of the printed message. You can select any of the following four orientations:

- Normal:

 button

- Horizontal flip:

 button

- Vertical flip:

 button

- Horizontal + vertical flip:

 button

This option is available in the 'Idle' state and the 'Jet Running' state, but not in the 'Printing' state.

NOTE: When you change the setting, the change only applies to the selected message. You can use a different setting for each message.

Change Message Orientation

To change the message orientation, touch the Message Orientation button you require. The selected button is highlighted.
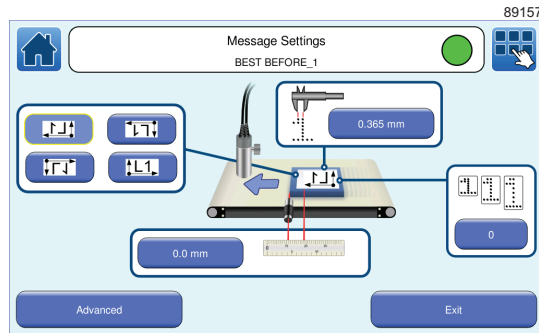
Figure 49. Message Orientation with Horizontal Flip selected

5.5.2 Print Delay

The Print Delay is the horizontal distance (in inches or millimetres) between the printhead and the start of the message on the product, measured when the print triggers. You can change the Print Delay to make sure that the printed message appears in the correct position on the product.

Change the Print Delay

Touch the Print Delay button to display the **Enter Print Delay** screen. To change the Print Delay:

• Use the keypad to enter a new Print Delay value.

• Use the plus and minus buttons to increase or decrease the Print Delay value.

Touch the **Save** button to save the selected value and return to the **Message Settings** screen. Touch the **Cancel** button to discard any changes and return to the **Message Settings** screen.

5.5.3 Print Width

The Print Width setting is the horizontal distance between the drops in the message characters. To maintain good print quality, the vertical distance between drops in the message must be equal to the horizontal distance between drops. You can use the Print Width option to adjust the horizontal distance between drops in the message characters.
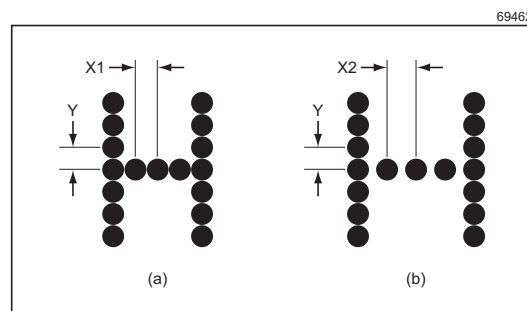
Figure 50. Distance between drops in a message

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In Figure 50(a) the letter "H" is printed at an ideal Print Width—the horizontal spacing (X1) is equal to the vertical spacing (Y). In Figure 50(b), the Print Width is larger than the ideal Print Width—the horizontal spacing (X2) is larger than the vertical spacing (Y).

You can apply the Print Width value and test the result while you are printing.

NOTE: When you change the value, the change applies only to the selected message. You can use a different value for each message.

The values that are allowed depend on the message style and other factors.

Change the Print Width

Touch the Print Width button to display the **Enter Print Width** screen. To change the Print Width:

- Use the keypad to enter a new Print Width value.

- Use the plus and minus buttons to increase or decrease the Print Width value.

Touch the **Save** button to save the selected value and return to the **Message Settings** screen. Touch the **Cancel** button to discard any changes and return to the **Message Settings** screen.

5.6 Advanced message settings

The **Advanced Message Settings** screen contains the following options:

5.6.1 Print Width

This option allows you to set the Print Width for a message. See 'Print Width' on page 53.

5.6.2 Print Delay

This option allows you to set the Print Delay for a message. See 'Print Delay' on page 53.

5.6.3 Message Print Count

This option shows the number of prints that the printer has made with the current message. You can use this option to change the Print Count for the current message. You can use any value from 0 to 4,294,967,295. This option is not available in the 'Printing' state.

Touch the **Message Print Count** button to display the **Enter Print Count** screen. To change the Message Print Count:

- Use the keypad to enter a new print count value.

- Use the plus or minus buttons to increase or decrease the print count value.

Touch the **Save** button to save the entered value and return to the **Advanced Message Settings** screen. Touch the **Cancel** button to discard any changes and return to the **Advanced Message Settings** screen.

5.6.4 Horizontal Flip and Vertical Flip

These options correspond to the **Message Orientation** buttons on the **Message Settings** screen (see 'Message Orientation' on page 52) and are not available in the 'Printing' state. The orientation options are as follows:

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Horizontal Flip

- **No**, as shown below.

TEST [6109]

- **Yes**, the message is reversed, as shown below.

TƧƎT [6110]

Vertical Flip

- **No**, as shown below.

TEST [6109]

- **Yes**, the message is inverted as shown below.

⊥ƐⱭ⊥ [6111]

You can use a combination of the options to apply a Horizontal Flip and Vertical Flip to a message, as shown below.

⊥ƧƐ⊥ [6113]

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6 Add other fields

6.1 Add a Logo field

NOTE: You cannot create logos or graphics on the printer. You must copy logos or graphics from a USB memory device to the printer. See 'Copy graphics to or from USB' on page 76 for more information.

To add a Logo field to an existing message:

1   Edit the message, as described in 'Edit a message' on page 17.

2   On the **Select Field Type** screen, touch the **Logo** button to display the **Logos** screen.

3   Use the scroll bar to scroll through the list to find the required logo.

4   Touch the image of the required logo to insert the logo in your message. The printer displays the **Editor** screen and shows the content of your message.

5   Touch the **Exit** button to return to the **Editor** screen where you can save or discard the changes to your message.

6.2 Add a Sequential Number field

A Sequential Number field is a field that contains a number that is updated automatically. A Sequential Number field contains a number that increments or decrements automatically. The printer updates the number at each occurrence of a user-defined trigger event. The number can contain both numerals (0 to 9) and letters (a to z, or A to Z). The number can contain Western, Arabic, and Hindi numerals.

6.2.1 Sequential Number ranges

A Sequential Number normally contains a single range. The range can include numbers or letters, or a mixture of numbers and letters. Table 6-1 shows some examples of acceptable ranges for a Sequential Number field.

Range	How the Sequential Number field changes
000 to 999	001, 002, 003, …, …, 998, 999, 001, 002, …
5001 to 10000	5001, 5002, 5003, …,, …, 9999, 10000, 5001, …
A0a to Z9z	A0a, A0b, A0c, …, , …, Z9y, Z9z, A0a, …
0#01 to 9#99	0#01, 0#02,... ...9#98, 9#99,...0#01

Table 6-1. Example Sequential Number ranges

The four example ranges shown in Table 6-1 are of a different size:

- There are 999 numbers in the first example range.
- There are 5000 numbers in the second example range.
- There are 26×10×26 (6760) numbers in the third example range.
- The fourth example range contains a format character ('#') that does not move or change.

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The Sequential Number field changes at each occurrence of the trigger event. In the examples shown in Table 6-1, the Sequential Number field changes by an interval of 1 for each trigger event. See 'Step' on page 58 to set the printer to use a different interval.

6.2.2 Format characters

You can insert a space or other character that is not a numeral or letter. For example:

/ = < > + . * @

You can put these characters in any position to format the printed number. When the number is updated, these characters do not move or change. For example, the following sequence of 999 numbers contains the "#" symbol:

0#01, 0#02,... ...9#98, 9#99

1   Edit the message, as described in 'Create, edit, and manage messages' on page 10.

2   On the **Select Field Type** screen, touch the **Sequential Number** button to display the **Sequential Number Field** screen.
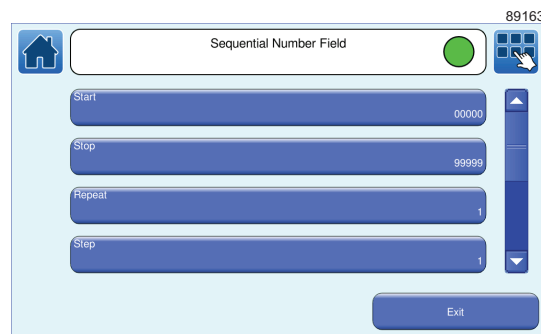
Figure 51. Sequential Number Field screen

You can select the following properties. At each option screen, use the keypad to enter the required value, or use the plus and minus buttons to adjust the value. Touch the **Save** button to save your changes, or touch the **Cancel** button to discard your changes.

Start—use this option to enter the first item in the range. The Start item and the Stop item have the same number of characters. To create a range that starts at 1 and ends at 999, enter "001" in the Start item. If you need any format characters, insert these characters in the Start item. The printer does not change lower case letters to upper case letters (for example "a" to "A"), or upper case to lower case.

Stop—use this option to enter the last item in the range. The printer uses the Start item to calculate the Stop item automatically, but you can change the Stop item if necessary. If the Start item contains any format characters, the printer always inserts these characters into the same positions in the Stop item.

NOTE: If you set a Stop item value that is less than the Start item value, the Sequential Number count decreases.

Current Value—this option allows you to set the current sequential number value. The number must be in the current range. The printer does not accept a value that does not match the format of the items in the current range.

Repeat—this option controls how many prints occur for each change in the number. The following examples show how the Repeat value changes the count sequence for numbers and letters.

Repeat	Numbers	Letters
1	1, 2, 3,...	a, b, c,... d,...
2	1, 1, 2, 2, 3,... 3,...	a, a, b, b,... c, c,... g,...
3	1, 1, 1, 2, 2, 2, 3, 3, 3,...	a, a, a, b, b, b, c, c, c,...

Step—the Step value is the size of the increase (or decrease) in the field value at each print. The following examples show how the Step value changes the count sequence for numbers and letters.

Step	Numbers	Letters
1	1, 2, 3, 4,...	a, b, c,...
2	1, 3, 5, 7,...	a, c, e,...
3	1, 4, 7, 10,...	a, d, g,...

Current Repeat—the Current Repeat value shows the remaining number of times that the Current Value will be printed (this value is less than or equal to the Repeat value and greater than zero).

Field Rotation—rotates the selected field by 0, 90, 180, or 270 degrees to the right.

NOTE: If you rotate a field, the field can move outside the message area and will not print correctly. The printer applies a red highlight to indicate any field that is outside the message area. If necessary, you can adjust the font size to make sure that the field fits in the message area.

Field Justification—you can set the justification of any text in a field to either right justified or left justified. The default justification is Left.

Leading Zeros—if you set this option to **Yes**, leading zeros are allowed in the sequential number. If set to **No**, and the first characters in the number are zeros, the printer does not print these zeros. For example:

- "0008" is changed to "8".

- "0010" is changed to "10" (the third zero is not changed).

NOTE: This option is not available if any range in the Sequential Number includes a character that is not a number. This option is not available if the Sequential Number contains more than one range.

Character Range—selects the numeric system used for the user interface and message text. The options are Latin Numeric, Arabic Numeric, or Hindi Numeric.

LINX

3   Select the required options on the **Sequential Number Field** screen, and then touch the **Exit** button to return to the **Editor** screen in edit mode. A sequential number field with the selected start number is inserted in the message.
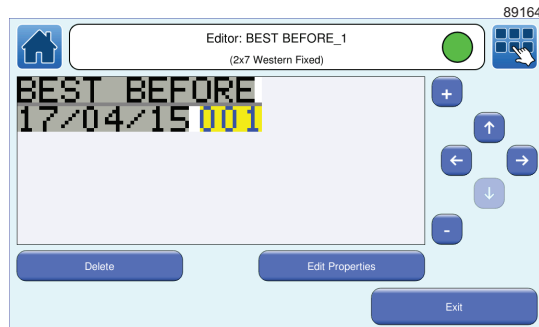
Figure 52. Message with Date and Sequential Number field

4   Touch the **Exit** button to return to the **Editor** screen where you can save or discard the changes to your message.

6.2.3 Edit Sequential Number field properties

When you have created the Sequential Number field you can edit the following additional field properties:

- **Font Name**—select the required font from the list. You must also select a font size.

- **Font Size**—select the required font size from the list.

- **Bold Factor**—select a value in the range x1 to x10.

- **Character Rotation**—rotates the characters in the selected field by 0, 90, 180, or 270 degrees to the right.

6.3 Add a Shift Code field

A shift code records the time or the day of the week during which a message was printed. You can use the shift code to help you identify each batch of products. You can insert multiple shift code fields in a message. Shift codes are individual to each message. If you need to use a shift code again, you can copy a message and then edit it, or create a new message. The printer can generate two types of shift code field—Daily or Weekly. These types are described below.

6.3.1 Examples

The two types of shift code are shown in the examples that follow.

Example 1: Daily shift code

This type of shift code is repeated each day and indicates the time during which a message was printed. Table 6-2 shows an example.

Time	Shift code
06:00 to 14:00	"AAA"
14:00 to 22:00	"BBB"
22:00 to 06:00	"CCC"

Table 6-2. Daily shift codes

The start time of each period defines the end of the previous period.

Example 2: Weekly shift code

This type of shift code is repeated each week and indicates the day on which a message was printed. Table 6-3 shows an example.

Day and time	Shift code
Monday 00:00 to Friday 23:59	"AAA"
Saturday 00:00 to Saturday 23:59	"BBB"
Sunday 00:00 to Sunday 23:59	"CCC"

Table 6-3. Weekly shift code

When you create a Weekly shift code, you can set the time at which the code changes on each day. The start day and time of each period defines the end of the previous period.

6.3.2 Create a shift code field

To add a shift code field to a message:

1 Create and select a message, or find and select an existing message, as described in 'Create, edit, and manage messages' on page 10.

2 Touch the **Edit this Message** button.

3 Touch the screen at the required insertion point. Make sure that the field does not overlap any existing field. The printer displays the **Select Field Type** screen.

4 Touch the **Shift Code** button to display the **Shift Code Properties** screen. The **Shift Cycle** button shows the current type of shift cycle (**Daily** or **Weekly**).

89165
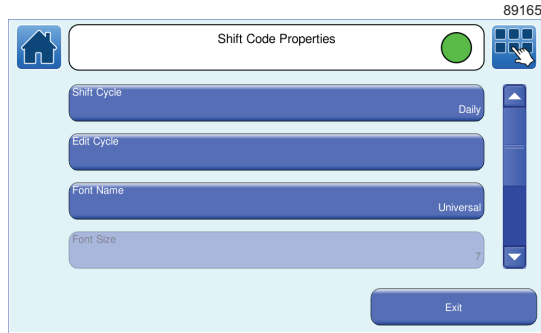
Figure 53. Shift Code Properties screen

5 Touch the **Shift Cycle** button to display the **Shift Cycle** screen. Touch either the **Daily** or **Weekly** option to select that option and return to the **Shift Code Properties** screen.

89166

Figure 54. Shift Cycle screen

6 Touch the **Edit Cycle** button to display the **Shift List** screen. If shifts already exist, this screen shows a list of the shift names. If there are no shifts, you need to create them, as shown in step **7** onwards.

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Figure 55. Shift List screen: no shifts

7   To insert the first item in the shift code, touch the **Add** button to display the **Shift Entry** screen.
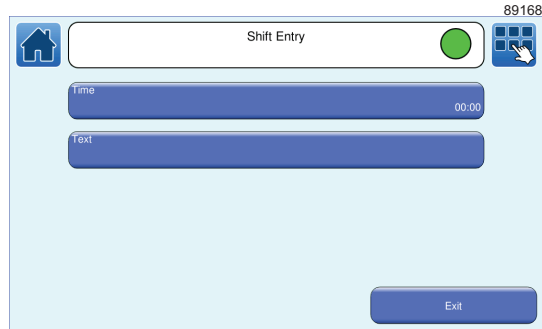
Figure 56. Shift Entry screen: Daily cycle

If you selected a Weekly shift code, the **Day of Week** button is available, as shown in Figure 57.
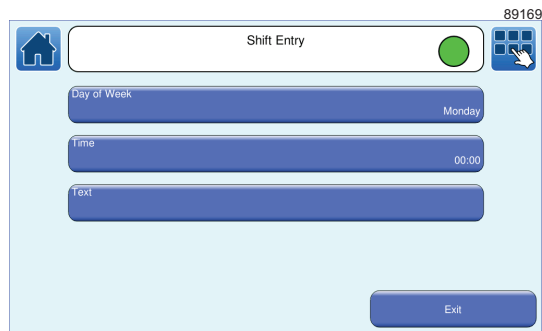
Figure 57. Shift Entry screen: Weekly cycle

NOTE: You cannot change the shift cycle type after you add an item to the shift code.

8   For a weekly shift code, touch the **Day of Week** button to display the **Day of Week** screen.
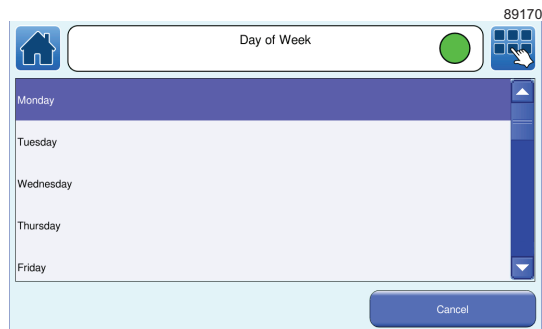
Figure 58. Day of Week screen

In Example 2 on page 60, the first day of the week is Monday. Touch the required day of the week to select that day and return to the **Shift Entry** screen.

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9   To set the time at which the shift begins, touch the **Time** button to display the **Enter Shift Start Time** screen. For the 'Daily' example on page 60, the first start time is '06:00'.
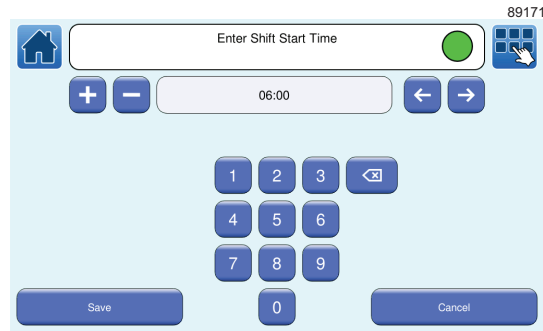
Figure 59. Enter Shift Start Time screen

Enter the start time, and then touch the **Save** button to return to the **Shift Entry** screen.

NOTE: When you create a new Daily shift entry, the default time automatically increments by 8 hours from the last entry in the list up to a time of 23:59 that same day. When you create a Weekly shift entry, the default time automatically increments by 8 hours from the last entry in the list. If necessary, this changes the day of the shift item.

10   To enter the text for the shift code, touch the **Text** button to display the **Enter Text** screen.

For both examples, the text for the first item is "AAA". Enter these letters *without* the quotation marks, and then touch the **Enter** button to return to the **Shift Entry** screen.

11   Touch the **Exit** button to display the **Shift List** screen. The **Shift List** screen shows the information you entered for the first item. The screen for the Daily shift cycle is as follows. The title bar shows the number of shifts in the list.

Figure 60. Shift List screen: Daily shift code

The screen for the Weekly shift cycle is as follows. The title bar shows the number of shifts in the list.
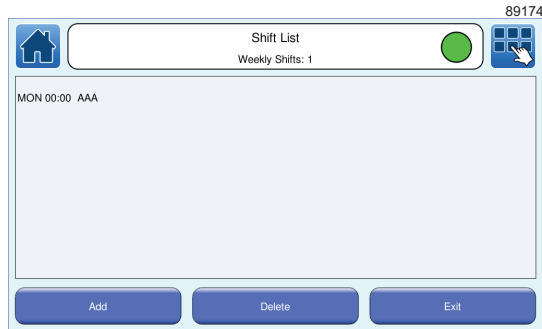
Figure 61. Shift List screen: Weekly shift cycle

12 Touch the **Exit** button to return to the **Shift Code Properties** screen.

13 Repeat steps **7** to **12** to add the next two items. The **Shift List** screen for the Daily shift cycle shows the three items in the shift list. Again, the title bar shows the number of shifts in the list.

Figure 62. Shift List screen: Daily shift cycle (2)

The **Shift List** screen for the Weekly shift cycle shows the three items in the shift list. Again, the title bar shows the number of shifts in the list.

Figure 63. Shift List screen: Weekly shift cycle (2)

14 Touch the **Exit** button to return to the **Editor** screen in edit mode.

15 Touch the **Exit** button again to return to the **Editor** screen where you can add other fields and save or discard changes to your message.

6.3.3 Edit a shift code field

To edit an existing shift code:

1   Find and select the message that contains the shift code field, as described in the 'Select a message' on page 14.

2   Touch the **Edit this Message** button.

3   At the **Editor** screen, touch the shift code field in the message to highlight the field. The field is highlighted in yellow.

4   Touch the **Edit Properties** button. The printer displays the **Shift Code Properties** screen (see Figure 53 on page 61).

5   Touch the **Edit Cycle** button to add items to the shift code, as shown in 'Create a shift code field' on page 60. The printer places the new item in the correct position in the list. For a Daily shift code, the position depends on the start time of the new item. For a Weekly shift code, the position depends on the day of the week and the start time.

6   Touch the **Exit** button to return to the **Shift Code Properties** screen.

You can also edit the following properties of the shift code field:

- **Font Name**—select the required font from the list. You must also select a font size.

- **Font Size**—select the required font size from the list.

NOTE: You cannot change the font size for fixed message styles.

- **Bold Factor**—select a value in the range x1 to x10.

- **Inter Character Gap**—allows you to specify an inter character gap of between 1 and 10 rasters for the field. If an inter character gap is set for a field, the field is printed with that number of rasters between the characters.

- **Character Rotation**—rotates the characters in the selected field by 0, 90, 180, or 270 to the right.

- **Field Rotation**—rotates the selected field by 0, 90, 180, or 270 degrees to the right.

NOTE: If you rotate a field, the field can move outside the message area and will not print correctly. The printer applies a red highlight to indicate any field that is outside the message area. If necessary, you can adjust the font size to make sure that the field fits in the message area.

- **Field Justification**—you can set the justification of any text in a field to either right justified or left justified. The default justification is Left.

7   Touch the **Exit** button to return to the **Editor** screen where you can save or discard changes to your message.

6.3.4 Delete a shift code item

If any shift code items exist, the **Delete** button is enabled on the **Shift List** screen (see Figure 62 on page 64). To delete an item within a shift code:

1 Touch the **Delete** button to display the **Select Item to Delete** screen.
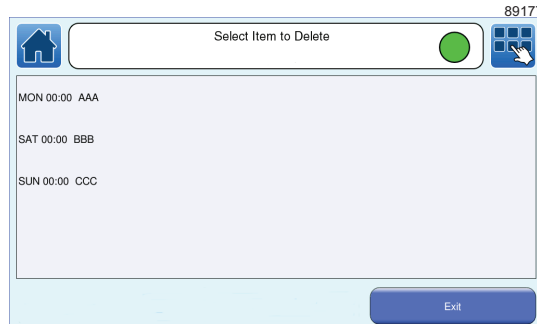
Figure 64. Select Item to Delete screen

2 Touch the shift code item that you wish to delete to highlight that item.
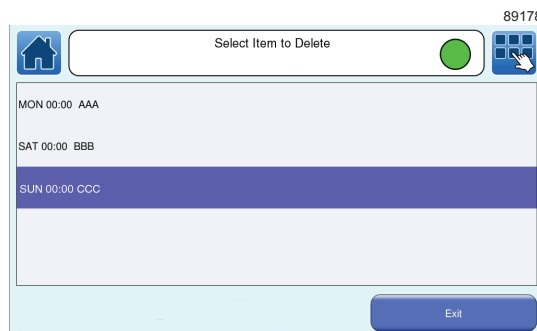
Figure 65. Select Item to Delete screen: item selected

3 Touch the **Delete** button. The selected shift code item is deleted.

4 Touch the **Exit** button to return to the **Shift List** screen.

6.4 Add a Prompted field

Prompted fields are fields within a standard Text field that, when the message is selected, require the user to enter or select text before the message is printed. They reduce the need to edit a message and make sure that all message data is entered before a message is printed. Prompted fields also allow you to reuse message content between messages. For example, you can copy messages, and then edit the prompted fields that they contain.

Prompted fields are a property of the standard Text field that you can enable from the **Text Field Properties** screen. You can turn multiple Text fields in a message into prompted fields.

When you have created a message with one or more prompted fields, you can select that message to print. When you select the message, the printer displays one or more screens that prompt you to accept the default field text, enter text, or select an entry from a list. You must respond to each of these prompts before the message can be printed. For more information about how prompted fields work, see 'Use prompted fields' on page 71.

6.4.1 Create a prompted field

1 Create a Text field in a message as described in 'Create your message' on page 10. The text that you enter in the field becomes the default text for the prompted field. You can edit this text later.

2   At the **Editor** screen in edit mode, touch the field to select it. The field is highlighted in yellow.

3   Touch the **Edit Properties** button to display the **Text Field Properties** screen.

4   Scroll down to the **Prompt User** button. By default this option is set to **No**. To enable prompted fields, touch the **Prompt User** button. The option is now set to **Yes** and the **Prompt Setup** button is available.
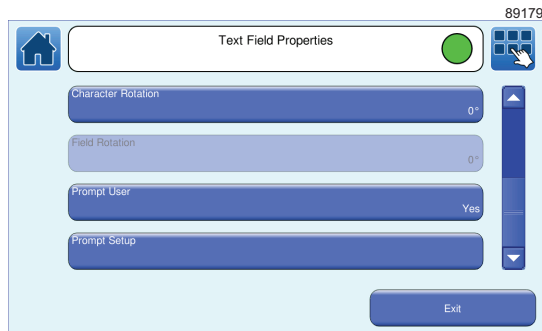
Figure 66. Text Field Properties screen: prompted fields enabled

NOTE: When prompted fields are enabled, the **Text** option button on the **Text Field Properties** screen is disabled.

5   Touch the **Prompt Setup** button to display the **Prompt Setup** screen. The options on this screen allow you to set user-prompt text and prompt type.
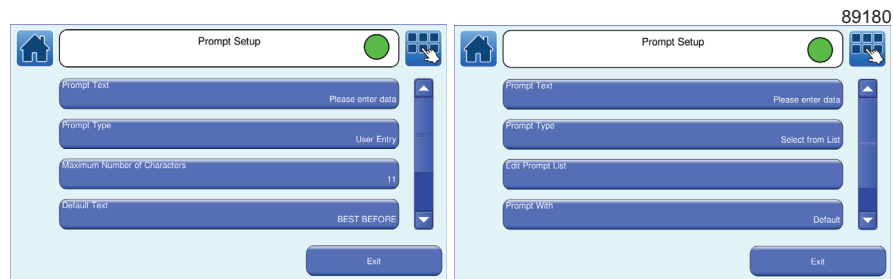
(a)   (b)

Figure 67. Prompt Setup screen—Prompt Type: (a) User Entry option and (b) Select from List option

LINX

6 Touch the **Prompt Text** button to display the **Enter Prompt Description** screen. This screen allows you to enter the text that is displayed as a prompt when a message is selected. The default text is "Please enter data", but you can enter your own prompt description. For example, "ENTER PRODUCT NAME". Enter your text and touch the **Enter** button to return to the **Prompt Setup** screen.

Figure 68. Enter Prompt Description screen

7 Touch the **Prompt Type** button and select either **User Entry** or **Select from List** from the **Prompt Type** screen:

- The **User Entry** option can be used to prompt the user to enter text up to a maximum number of characters, specified by the **Maximum Number of Characters** option. See 'User Entry option' on page 68 for more information.

- The **Select from List** option can be used to prompt the user to select existing text from a list, which you can edit via the **Edit Prompt List** option. See 'Select from List option' on page 69 for more information.

8 If necessary, repeat steps **1** to **7** to create additional prompted fields in your message.

6.4.2 Configure prompted fields

User Entry option

To configure a prompted field created with the **User Entry** option:

1 At the **Editor** screen in edit mode, touch the field to select it. The field is highlighted in yellow.

2 Touch the **Edit Properties** button to display the **Text Field Properties** screen, and then touch the **Prompt Setup** button to display the **Prompt Setup** screen.

3 Touch the **Maximum Number of Characters** button to enter the maximum number of characters that can be entered in the prompted field. The default value is 10 characters.

4 Touch the **Default Text** button to edit the default text. This option sets the default text for the prompted field that appears in the edit box of the **User Entry** prompt screen (see Figure 73 on page 72). This text is originally the text entered in the field you created in step **1** on page 66, but you can edit the text that you entered (for example, you can change the default text to "BISCUITS").

5   Touch the **Prompt With** button to display the **Prompted Value** screen, where you can select which text appears in the edit box of the **User Entry** prompt screen for the prompted field.

89183

Prompted Value

Default

Current Value

Empty

Cancel

Figure 69. Prompted Value screen

The following options are available when a message that contains a prompted field is selected for printing:

- **Default**—the text in the edit box of the **User Prompt** screen defaults to the text entered in the **Default Text** option. For example, you can touch the **Enter** button at the "ENTER PRODUCT NAME" prompt to accept the text "BISCUITS".

- **Current Value**—the text in the edit box of the **User Prompt** screen defaults to the last text used in the field. If the prompted field has been used before, you can touch the **Enter** button at the "ENTER PRODUCT NAME" prompt to accept the text last used in the field. If no text has been entered before, the Default Text is used in the field.

- **Empty**—no text appears in the edit box of the **User Prompt** screen. You are prompted to enter text at the "ENTER PRODUCT NAME" prompt. You must enter at least one character before the **Enter** button is enabled.

6   When you have selected your required options, touch the **Exit** button to return to the **Text Field Properties** screen.

7   Touch the **Exit** button again to return to the **Editor** screen in edit mode, where you can add other fields and save or discard your changes to the message.

Select from List option

To configure a prompted field created with the **Select from List** option:

1   At the **Editor** screen in edit mode, touch the field to select it. The field is highlighted in yellow.

2   Touch the **Edit Properties** button to display the **Text Field Properties** screen, and then touch the **Prompt Setup** button to display the **Prompt Setup** screen.

3   Touch the **Edit Prompt List** button to display the **Prompt List** screen. This screen allows you to create and manage a list of text items for use in prompted fields. The list item text defaults to the text entered in the field you created in step **1** on page 66, but you can edit the text that you originally entered. For example, for the prompt "ENTER PRODUCT QUANTITY", you can create and select from the list items "50 PACKS" or "25 PACKS".

LINX

The number of entries in the list is shown in the status bar.

89184

Figure 70. Prompt List screen

4   To create a prompt list item:

(a) At the **Prompt List** screen, touch the **Add** button to display the **Prompt List Entry** screen.

89185
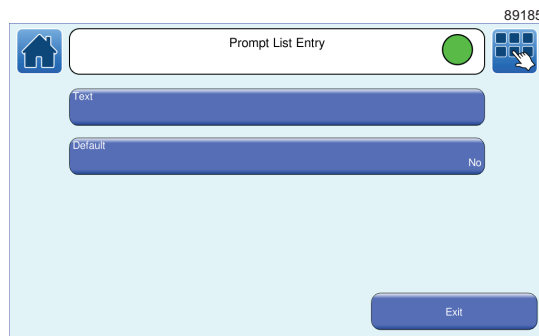
Figure 71. Prompt List Entry screen

(b) Touch the **Text** button to enter the required text (for example, "50 PACKS"), and then touch the **Enter** button to return to the **Prompt List Entry** screen.

(c) You can use the **Default** option to make a prompt list item the default option for the prompted field when you use the **Default** option on the **Prompt Value** screen (see step **7**). Touch the **Default** button to toggle between **Yes** and **No**. The current default prompt list item is labelled "(default)".

NOTE: There can be only one default entry in the prompt list. If you create a new default option, the "(default)" label is removed from the existing entry.

(d) Touch the **Exit** button to return to the **Prompt List** screen.

5   To edit a Prompt List item, touch the name of the item to display the **Prompt List Entry** screen. You can then edit the text and default option as described above.

6   To delete a prompt list item:

(a) At the **Prompt List** screen, touch the **Delete** button to display the **Select Item to Delete** screen.

(b) Touch the name of the item to be deleted. The item is highlighted.

(c) Touch the **Delete** button. The item is removed from the list.

(d) Touch the **Exit** button to return to the **Prompt List** screen.

7   Touch the **Prompt With** button to display the **Prompted Value** screen (see Figure 69 on page 69) where you can select which text appears in the prompted field.

The following options are available when a message that contains the prompted field is selected for printing:

- **Default**—the text in the prompt list for the field defaults to the default prompt list item selected at the **Prompt List Entry** screen (see Figure 70 on page 70). For example, you can touch the **Enter** button at the "ENTER PRODUCT QUANTITY" prompt to accept the text "25 PACKS".

- **Current Value**—the text in the prompt list for the field defaults to the last prompt list item used in the field. If the prompted field has been used before, you can touch the **Enter** button at the "ENTER PRODUCT QUANTITY" prompt to accept the last prompt list item used in the field. If no item has been used before, the Default entry from the **Prompt List** screen is used in the field.

- **Empty**—you are prompted to select an item from the prompt list at the "ENTER PRODUCT QUANTITY" prompt. This option overrides any current default prompt list item selected at the **Prompt List** screen.

8   When you have selected your required options, touch the **Exit** button to return to the **Text Field Properties** screen.

9   Touch the **Exit** button again to return to the **Editor** screen in edit mode, where you can add other fields and save or discard your changes to the message.

6.4.3 Use prompted fields

When you have created a message that contains one or more prompted fields, you can select that message for printing as described in 'Select a message' on page 14.

When you select the message for printing, the printer displays a sequence of one or more prompt screens, which depends on how many prompted fields the message contains. At each screen, you must choose to accept the default text, enter text, or select text from the prompt list.

NOTE: If the current message contains prompted fields, when you turn off, and then turn on the printer, you are prompted to enter field information when you touch the **Start Printing** button.

Prompted fields example sequence

This example uses a message (message name "PROMPTED FIELDS") that contains two fields with the text "BISCUITS" and "25 PACKS". The first field has a User Entry prompt type with the **Default** option selected at the **Prompt With** screen. The second field has a Select from List prompt type with the **Empty** option selected at the **Prompt With** screen.

1   At the **Message Store** screen, touch the **Message List** button to display the **Select Message** screen.

2 Find the message "PROMPTED FIELDS" and touch the message name to preview the message on the **Message Store** screen.

Figure 72. Message Store screen: "PROMPTED FIELDS" message preview

3 Touch the **Select** button to select the message for printing. The printer displays the User Entry prompt-type screen with the message name and prompt text ("ENTER PRODUCT NAME") in the status bar.

Figure 73. User Entry prompt-type screen with default text

The default text for the field, entered in step **4** on page 68 ("BISCUITS"), is displayed. If necessary, you can change the default text.

4 Touch the **Enter** button to select the default text. The printer displays the Select from List prompt-type screen with the message name and prompt text ("ENTER PRODUCT QUANTITY") in the status bar. Because the **Empty** option is selected at the **Prompt Value** screen, you must select a prompt list item.

Figure 74. Select from List prompt-type screen with list items

5   Touch the required list item (for example, "25 PACKS") to select that item. The printer displays the Home screen with the message ready to print.
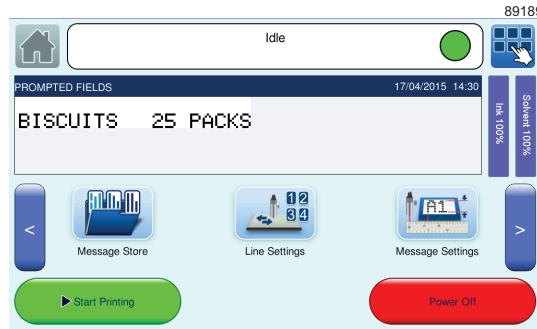
Figure 75. Message with prompted fields ready for printing

NOTE: You can touch the **Cancel** button on a prompt screen to cancel the prompt sequence and message selection.

Update Message button

If a message that contains prompted fields is printing, you can touch the **Update Message** button on the carousel area on the Home screen to update all fields in the message.

See 'Customise Home Screen' on page 31 for more information about how to enable the **Update Message** option on the Home screen carousel area.
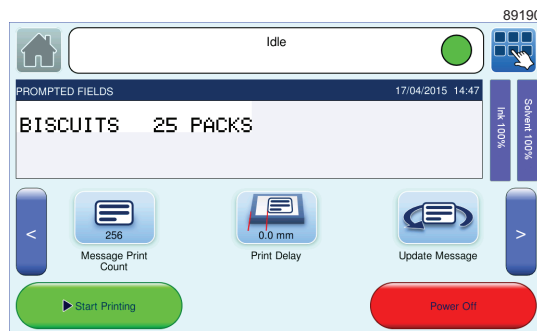
Figure 76. Carousel area: Update Message option

The printer displays each prompt screen in sequence. For example, as shown in 'Prompted fields example sequence' on page 71. When all prompted fields have been completed, the fields are loaded into the current message, and the message is printed at the next print trigger. If there is only one prompted field in a message, the **Update Current Message** button shows the prompt text for that field.

7 Printer communications

7.1 USB connection

You can use the USB connection of the printer to save messages, graphics, and line settings from the printer to a USB memory device and transfer messages, graphics, and line settings to the printer from a memory device. This chapter also describes how to use the USB connection to make a backup of the printer settings to a memory device. You can restore the settings to the same printer, or transfer the settings to another printer.

NOTE: The copy, backup and restore functions are available in the 'Idle' state. Copy functions are also available in the 'Jet Running' state. These functions are not available in the 'Printing' state. You must insert a memory device into the USB connector at the side of the printer before you can perform any of these functions.

Linx recommends that you use a memory device of 512 MB to 32 GB capacity to save and copy messages, and back up and restore printer settings. Do not use a memory device that is near its memory capacity. A memory device that becomes full during a save and copy operation, or back up and restore operation, can cause the operation to fail.

You need Advanced security access rights to copy messages, graphics, line settings, and fields from one printer to another printer.

When you insert a USB memory device, the USB icon is displayed in the printer status bar, as shown in Figure 77.
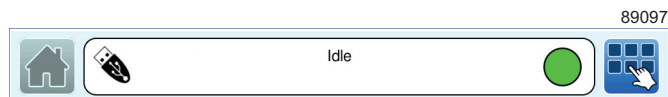
Figure 77. Home screen printer status bar with USB icon

7.2 Copy messages, line settings, and graphics

IMPORTANT: Make sure that you read and understand the information above before you start.

NOTE: You can copy messages, graphics, and line settings created on a Linx CJ400 or 8900 Series printer to the Linx 10 printer. For example, message data from these other models of printer is saved to the USB memory device in the **\Linx\CJ400\Messages** or **\Linx\8900\Messages** directories. Message data for messages created on the Linx 10 is saved in the **\Linx\Linx_10\Messages** directory.

Fields that are not supported on the Linx 10 (for example, Sequential Text fields) are disabled when any messages that contain them are copied to the printer. A warning is displayed if a message with these fields is selected.

7.2.1 Copy messages to or from USB

To copy messages from the printer to a memory device or from a memory device to the printer:

1   On the **Home** screen, touch the **Menu** button to display the **Main Menu** screen, and then touch the **Backup & Restore** button. The **Backup & Restore** screen is displayed.

2   Touch the **Copy Messages to USB** or the **Copy Messages from USB** button to display either the **Copy Messages to USB** or the **Copy Messages from USB** screen. The printer displays a list of messages that are saved in the printer or memory device.

3   To select messages to copy:

- Touch the name of the required message in the list. The printer displays a confirmation screen. Touch the **Yes** button to select that message and return to the **Copy Messages to USB** or the **Copy Messages from USB** screen. Touch the **No** button to cancel the selection. A check mark appears in the box to the left of the message name if the message is selected.

or:

- Touch the box to the left of the name of the required message. A check mark appears in the box to the left of the message name to show that the message is selected. To deselect a message, touch the box to the left of the name of the required message. The check mark in the box to the left of the message name is removed.

- To select all messages, touch the box labelled "Select all files for Copy". Check marks appear in all the boxes to the left of all the message names. To deselect all messages, touch the box labelled "Select all files for Copy" again. The check marks in all the boxes to the left of the message names are removed.

The **Copy** button is enabled when any message is selected. The **Copy** button is disabled if there are no messages selected.

4   Touch the **Copy** button to copy the selected messages to the memory device or to the printer. If the memory device or printer contains a file that has the same name, you can do one of the following:

- Overwrite the file on the memory device or printer (touch the **Yes** button on the confirmation screen. To cancel the copy operation for that file, touch the **No** button).

- Overwrite all files on the memory device or printer (select the "Remember my decision for existing files" box and then touch the **Yes** button on the confirmation screen. To cancel the copy operation for all files, select the "Remember my decision for existing files" box, and then touch the **No** button).

If a copy operation fails for any other reason (for example, if the operation is cancelled by the operator or if the memory device becomes full), the printer displays an information message. Touch the **Exit** button to return to the **Copy Messages to USB** screen.

When the copy operation is complete, the printer displays a confirmation screen.

5   Touch the **Exit** button to return to the **Copy Messages to USB** or the **Copy Messages from USB** screen.

7.2.2 Copy line settings to or from USB

To copy line settings from the printer to a memory device or from a memory device to the printer:

1   On the **Home** screen, touch the **Menu** button to display the **Main Menu** screen, and then touch the **Backup & Restore** button. The **Backup & Restore** screen is displayed (see Figure 2 on page 75).

2   Touch the **Copy Line Settings to USB** or the **Copy Line Settings from USB** button to display the **Copy Line Settings to USB** or the **Copy Line Settings from USB** screen.

The available lines on the printer are displayed. You use the same method to select and copy line settings as you do for messages (see page 75 for more information).

7.2.3 Copy graphics to or from USB

To copy graphics (for example, logos) from the printer to a memory device or from a memory device to the printer:

1 On the **Home** screen, touch the **Menu** button to display the **Main Menu** screen, and then touch the **Backup & Restore** button. The **Backup & Restore** screen is displayed (see Figure 2 on page 75).

2 Touch the **Copy Graphics to USB** or the **Copy Graphics from USB** button to display the **Copy Graphics to USB** or the **Copy Graphics from USB** screen. The printer displays a list of graphics that are saved in the printer or memory device

You use the same method to select and copy graphics as you do for messages (see page 75 for more information).

7.3 Back up and restore printer settings

IMPORTANT: Make sure that you read and understand the following information before you back up or restore printer settings.

CAUTION: Printer Software Damage. DO NOT remove the memory device until a backup and restore operation is complete. If you remove the memory device before an operation is complete, you can cause permanent damage to your printer software.

You can use a memory device to make a backup of the printer settings. You can restore the printer settings to the same printer, or transfer printer settings to another printer.

You can back up printer settings from more than one printer to the same memory device. A backup is saved to the memory device and identified by a name that shows the date and time of the backup in the format 'YYYY-MM-DD at HH.MM: SS'. For example, '2015-07-29 at 10:29:03'.

The printer identifies a backup from another printer with the default printer name from the **Installation** screen (see 'Installation' on page 28 for more information), and then the date and time of the backup. The default printer name is 'LINX10_', followed by the UNIC code of the printer (for example, 'LINX10_000012bebf90'). You can change the printer name used to identify backups on the **Installation** screen. See 'Installation' on page 28 for more information.

You can back up the following printer settings:

• All messages and fields

• System parameters, including shaft encoder configuration and print counts

• Logos

• Date formats

• Trigger events

• Printhead parameters (for each supported printhead)

• Message orientations

• Sequential number fields

• User interface configuration

- Printer configuration code

- Security level passwords, security configuration and current security level

- Printer consumables logs.

You can restore the full range of printer settings shown in the preceding list to a printer with the same serial number code as the backup.

If the printer has a different serial number code than the backup, you cannot restore the following printer settings to that printer from the backup:

- Print count

- Printhead parameters (for each supported printhead)

- Printer configuration code

- Maintenance times

See 'Restore a printer from a memory device' on page 77 for more information.

NOTE: When you restore messages, graphics, and line settings you must make sure that these files are in the correct folder. For messages, for example, this is the **\Linx\Linx_10\Messages** folder.

7.3.1 Back up a printer to a memory device

To back up printer settings from a printer to a memory device:

1 On the **Home** screen, touch the **Menu** button to display the **Main Menu** screen, and then touch the **Backup & Restore** button. The **Backup & Restore** screen is displayed (see Figure 2 on page 75).

2 Select the **Backup Printer to USB** option and touch the **Start** button to begin the backup.

A progress bar shows the progress of the operation.

If necessary, you can touch the **Stop** button to cancel the backup operation. A confirmation screen confirms that the backup failed.

Touch the **Exit** button to return to the **Backup & Restore** screen.

When the backup operation is complete, the printer displays a confirmation screen.

3 Touch the **Exit** button to return to the **Backup & Restore** screen.

4 Touch the **Restore Printer from USB** button to show a list of backups from the current printer. Touch the **Other Printer** button to show a list of current backups from other printers.

If a backup operation fails for any other reason (for example, if the memory device becomes full), the printer displays an information message. The backup is identified on the memory device as not complete and you cannot restore that backup to the printer.

7.3.2 Restore a printer from a memory device

IMPORTANT: When you restore a printer from a memory device, all previous printer settings on the printer are overwritten.

See page 76 for more information about which printer settings you can restore from backups.

To restore printer settings from a memory device to a printer:

NOTE: You must restart the printer after a restore operation to apply any changes.

1   On the **Home** screen, touch the **Menu** button to display the **Main Menu** screen, and then touch the **Backup & Restore** button. The **Backup & Restore** screen is displayed (see Figure 2 on page 75).

2   On the **Backup & Restore** screen, select the **Restore Printer from USB** option to display the **Restore Printer from USB** screen.

The screen shows a list of the backups that are saved from the current printer. The backups are shown in order of date and time (oldest backup first). Touch the **Other Printer** button to show any backups that are saved from other printers.

The printer displays a list of backups from other printers. Each backup is identified by the name of the printer used to save the backup (see page 76). The backups are shown in order of date and time (oldest backup first).

Touch the **This Printer** button to return to the list of backups from the current printer.

3   If necessary, use the scroll bar to move down the list to find the required backup, and then touch the name of the backup to display the **Restore Printer from USB** screen.

4   Touch the **Start** button to restore the printer. Touch the **Exit** button to cancel the restore operation and return to the **Restore Printer from USB** screen.

A progress bar shows the progress of the operation.

If necessary, you can touch the **Stop** button to cancel the restore operation. A confirmation screen confirms that the restore failed.

If a restore operation fails for any other reason, the printer displays the same information message. Touch the **Exit** button to return to the **Restore Printer from USB** screen.

When the restore operation is complete, the printer displays a confirmation screen. You are asked to restart the printer to complete the changes.

5   Restart the printer to complete the changes. Touch the **Yes** button to restart the printer. Touch the **No** button to restart the printer at a later time.

When the printer restarts after a restore operation, the printer displays an information screen to confirm that the printer was updated after a restore operation.

6   Touch the **OK** button on the information screen to display the Home screen.

7.3.3 Diagnostic Log

You may be asked to use this option by your local Linx Distributor to diagnose any problems with the printer.

8 Look after your printer

The Linx 10 printer is a durable and reliable machine. However, you can help to keep it working at peak efficiency by performing some routine tasks. This chapter describes how you can help to keep your printer in good condition.

⚠️

WARNING: SAFETY. DO NOT ATTEMPT TO OPERATE THIS PRINTER UNLESS YOU HAVE READ AND UNDERSTOOD ALL THE INFORMATION IN THE 'SAFETY' DOCUMENT SUPPLIED WITH THE PRINTER, AND YOU ARE SURE OF YOUR ABILITY TO OPERATE THIS PRINTER SAFELY.

DO NOT ATTEMPT TO OPERATE THIS PRINTER UNLESS YOU KNOW HOW TO STOP IT IN AN EMERGENCY, AS DESCRIBED IN 'EMERGENCY SHUTDOWN PROCEDURE' IN THE 'SAFETY' DOCUMENT SUPPLIED WITH THE PRINTER.

The printer needs minimal maintenance to operate without problems. The routine maintenance requirement is shown in the following table.

Part	Examine	Clean	Replace or refill
Printer cabinet	Daily or each time used, for general cleanliness	Weekly or as necessary	Not applicable
Touch screen display	Not applicable	As necessary	Not applicable
Printhead	Monthly	Monthly	Not applicable
Ink and solvent	Check the ink and solvent cartridge levels from the Home screen consumables status panel.	Not applicable	Replace ink or solvent cartridges when the printer displays the "3.77 Ink Cartridge Empty" or "3.78 Solvent Cartridge Empty" Warning message.
Service module	Not applicable	Not applicable	Replace when the printer displays the "3.40 Service Module Requires Replacement" Warning message.

Table 8-4. Printer routine maintenance

You can access other maintenance options from the **Maintenance** screen (Home > Main Menu > Maintenance). On the **Maintenance** screen you can find instructions on how to clean the printhead and flush and clear the nozzle.

LINX

8.1 Clean the printer

WARNING: HAZARDOUS SUBSTANCES. THE INK USED WITH THIS PRINTER IS SOLVENT-BASED AND CAN BE HAZARDOUS. IT IS HIGHLY FLAMMABLE, AND THE VAPOUR OR SPRAY CAN BE IRRITATING TO THE EYES AND RESPIRATORY SYSTEM.

YOU MUST WEAR SAFETY GLASSES AND SOLVENT-RESISTANT PROTECTIVE GLOVES WHEN YOU HANDLE INKS AND SOLVENTS, WHEN YOU WORK ON THE PRINTER, AND WHEN YOU CLEAN IT.

IF YOU IGNORE THIS SAFETY WARNING, YOU COULD EXPERIENCE SEVERE IRRITATION AND TEMPORARY (REVERSIBLE) DAMAGE TO THE EYES, AND NON-ALLERGIC CONTACT DERMATITIS.

WARNING: FLAMMABLE LIQUIDS. THE INK AND SOLVENT USED WITH THIS PRINTER ARE HIGHLY FLAMMABLE.
KEEP INKS AND SOLVENTS AWAY FROM SOURCES OF IGNITION. DO NOT SMOKE OR USE OPEN FLAMES NEAR THE PRINTER, OR INK AND SOLVENT STORAGE CONTAINERS. USE INKS AND SOLVENTS, AND OPERATE THE PRINTER, IN AN AREA WITH GOOD VENTILATION.
THERE IS A RISK OF FIRE OR EXPLOSION IF THIS SAFETY WARNING IS IGNORED.

8.1.1 Printer cover

Use a clean, soft, lint-free cloth and the same solvent type that is used in the printer to clean ink spills from the printer cabinet. Observe the safety precautions when you handle the solvent.

Do not use abrasive materials, which can damage the equipment.

Use a lint-free cloth to prevent any contamination of the printhead.

8.1.2 Clean the touch screen display

If the printer is turned off, use a clean, soft, lint-free cloth and cleaning solution to clean the touch screen. If the printer is turned on, use the **Clean Touch Screen** button (see 'Clean Touch Screen' on page 83) to lock the touch screen, and then clean the touch screen.

8.1.3 Clean the printhead

Touch the **Help** button on the **Main Menu** screen, and then touch the **Clean Printhead** option for instructions on how to clean the printhead.

Before you start, make sure that you read the 'Safety' document supplied with the printer.

8.2 Replace the ink or solvent cartridges

WARNING: HAZARDOUS SUBSTANCES. THE INK USED WITH THIS PRINTER IS SOLVENT-BASED AND CAN BE HAZARDOUS. IT IS HIGHLY FLAMMABLE, AND THE VAPOUR OR SPRAY CAN BE IRRITATING TO THE EYES AND RESPIRATORY SYSTEM.

YOU MUST WEAR SAFETY GLASSES AND SOLVENT-RESISTANT PROTECTIVE GLOVES WHEN YOU HANDLE INKS AND SOLVENTS, WHEN YOU WORK ON THE PRINTER, AND WHEN YOU CLEAN IT.

IF YOU IGNORE THIS SAFETY WARNING, YOU COULD EXPERIENCE SEVERE IRRITATION AND TEMPORARY (REVERSIBLE) DAMAGE TO THE EYES, AND NON-ALLERGIC CONTACT DERMATITIS.

WARNING: FLAMMABLE LIQUIDS. THE INK AND SOLVENT USED WITH THIS PRINTER ARE HIGHLY FLAMMABLE.
KEEP INKS AND SOLVENTS AWAY FROM SOURCES OF IGNITION. DO NOT SMOKE OR USE OPEN FLAMES NEAR THE PRINTER, OR INK AND SOLVENT STORAGE CONTAINERS. USE INKS AND SOLVENTS, AND OPERATE THE PRINTER, IN AN AREA WITH GOOD VENTILATION.
THERE IS A RISK OF FIRE OR EXPLOSION IF THIS SAFETY WARNING IS IGNORED.

☞ IMPORTANT: Use only the correct combination of Linx ink and solvent for your printer (as shown in Table 8-5). Always read the instructions on the ink or solvent cartridge before use.

Ink type	Solvent type
Black multi-purpose ink L100	B100

Table 8-5. Ink and solvent combination

The consumables status panel on the Home screen shows the level of fluid that remains in the printer ink and solvent cartridges. When the level in a cartridge reaches zero, the printer displays the "3.77 Ink Cartridge Empty" or "3.78 Solvent Cartridge Empty" Warning screen. You must now replace the cartridge. Touch the **Need Help?** button for on-screen instructions about how to replace the ink and solvent cartridges.

CAUTION: **Make sure that you do not apply excessive force when you insert the ink or solvent cartridges.**

8.3 Flush the nozzle

NOTE: Before you perform a Nozzle Flush, refer to the instructions on the **Main Menu** screen (Home > Main Menu > Help > Nozzle Flush).

The printer automatically cleans the printhead, but if necessary you can use the Nozzle Flush sequence to clean the nozzle of dry ink that can obstruct or stop the ink jet.

A Nozzle Flush uses the pump pressure to create a flow of solvent through the nozzle. The solvent returns to the ink system through the gutter.

LINX

NOTE: The Nozzle Flush option is not available unless the jet is stopped. Touch the **Stop Jet** button on the Home screen to stop the jet.

NOTE: The Nozzle Flush sequence can correct an incorrect nozzle alignment. If the procedure is not successful, use the **Nozzle Clear** option to correct the problem.

8.4 Clear the nozzle

WARNING: HAZARDOUS INK AND SOLVENT. SAFETY GLASSES AND SOLVENT-RESISTANT PROTECTIVE GLOVES MUST BE WORN THROUGHOUT THE FOLLOWING PROCEDURE. IGNORING THIS SAFETY WARNING COULD RESULT IN SEVERE EYE IRRITATION AND TEMPORARY (REVERSIBLE) EYE DAMAGE, AND NON-ALLERGIC CONTACT DERMATITIS.

SOLVENT JET HAZARD. THE USE OF THE NOZZLE FLUSH FUNCTION MUST NOT BE CONFUSED WITH THE NOZZLE CLEAR FUNCTION. WHEN THE NOZZLE FLUSH SEQUENCE IS IN OPERATION, THE PRINTHEAD MUST BE DIRECTED DOWN INTO A SUITABLE RECEPTACLE IN ORDER TO CONTAIN THE SOLVENT.

NOTE: Before you perform a Nozzle Clear, refer to the instructions on the **Main Menu** screen (Home > Main Menu > Help > Nozzle Clear).

The Nozzle Clear sequence creates a vacuum in the nozzle while you apply solvent to the nozzle. The vacuum pulls the solvent into the nozzle. The reversed solvent flow can clear a blockage behind the nozzle. The Nozzle Clear sequence takes approximately 25 seconds.

NOTE: The Nozzle Clear option is not available unless the jet is stopped. Touch the **Stop Jet** button on the Home screen to stop the jet.

8.5 Replace the service module

The printer service module contains disposable components that include the main ink filter. You can replace the service module for quick and easy printer maintenance.

NOTE: You cannot replace the service module unless the jet is stopped. If necessary, touch the **Stop Jet** button on the Home screen to stop the jet.

You must normally replace the service module after a maximum of 12 months of use (the period depends on the printer jet run times). The **Service Module Life** option (see 'Consumables History' on page 85) shows the service module status (for example, "Service Module OK"). The option also shows the jet run time in months, and the equivalent in hours, that remain before you must replace the service module.

When one month of the service module replacement time remains, the printer displays the "3.45 Service Module Replacement Due Within One Month" Warning screen.

Touch the **OK** button to acknowledge the Warning message. The **Service Module Life** option on the **Consumables History** screen (see 'Consumables History' on page 85) displays the message "Replacement due within 1 month", which confirms that service module replacement is due.

When the service module replacement time reaches zero, the printer displays the "3.40 Service Module Requires Replacement" Warning screen. You must now replace the service module. Touch the **Need Help?** button, and then touch the **Resolve** button to display instructions on the screen about how to replace the service module.

NOTE: Each service module has an Easi-Change® Service Key supplied with the module. You must insert the Easi-Change® Service Key when requested during the Replace Service Module sequence.

When you replace the service module, the service module life and the jet run times (see 'Maintenance Times' on page 83) are reset.

8.6 Clean Touch Screen

This option locks the touch screen to allow you to clean it (see 'Clean the touch screen display' on page 80). When you touch the **Clean Touch Screen** button, the touch screen is locked for a period of 30 seconds. The screen displays the time that remains before the touch screen is unlocked. When the operation is complete, the printer returns to the **Maintenance** screen.

8.7 Maintenance Times

The printer maintains a record of the times during which the printer is used or turned on. This record allows the printer to calculate the date of the next service module replacement, for example. The **Maintenance Times** screen shows you the information in the record. The menu options on this screen are for display only. You cannot select the options or change the values. Use the scroll bar to see all options.

Option	Description
Power On Time (Total)	The total number of hours and minutes that the printer power was turned on (from the date of the printer installation).
Power On Time (Present)	The number of hours and minutes that have passed after the last time that the printer power was turned on.
Jet Run Time (Total)	The total number of hours and minutes during which the jet was active (from the date of the printer installation).
Jet Run Time (Present)	The total number of hours and minutes during which the jet was active (from the last time that the printer power was turned on).
Maintenance Due Within	The number of whole hours that remain before the next scheduled maintenance.
Maintenance Due By	The date of the next scheduled maintenance.

Table 8-6. Maintenance Times options

LINX

8.8 Jet Functions

The **Jet Functions** screen contains options to start and stop the jet and print, which can help with fault diagnosis.

Option	Description
Jet Test - Start	Allows you to perform a quick jet start to help with fault diagnosis. The option is only available when the printer is in the 'Idle' state.
Jet Test - Stop	Allows you to perform a quick jet stop to help with fault diagnosis. The option is only available when the printer is in the 'Jet Running' state.
Start Print	Changes the printer state from 'Jet Running' to 'Printing' (that is, the option does not start the jet) to help with fault diagnosis. The option is only available when the printer is in the 'Jet Running' state.
Stop Print	Changes the printer state from 'Printing' to 'Jet Running' (printing is disabled, but the jet continues to run) to help with fault diagnosis. The option is only available when the printer is in the 'Printing' state.
Test Print	Allows you to generate and print a test message to help with fault diagnosis. The option is only available when the printer is in the 'Printing' state.
Jet Monitor	Displays the **Jet Monitor** screen. This screen allows you to review information about the state of the printer jet (for example, jet pressure and Time of Flight). You can use this information to diagnose problems with the printer.
Nozzle Clear	Allows you to perform a Nozzle Clear sequence. See ''Clear the nozzle' on page 82 for more information.

Table 8-7. Jet Functions options

8.9 From Storage

This option prepares the printer for operation after an extended shutdown (that is, after a period of more than four weeks). Do not use this option for daily startups.

8.10 Into Storage

This option prepares the printer for an extended shutdown (that is, for a period of more than four weeks). Do not use this option for daily shutdowns. You can also access this option when you power off the printer. See 'Shut down and turn off the printer' on page 17 for more information.

NOTE: When you use the printer after an extended shutdown, you must use the **From Storage** option to restart the printer.

8.11 Valve Reset

This option operates all of the valves on the printer to reset them. You will not need to use this option unless asked to by your local Linx Distributor.

8.12 Consumables History

The **Consumables History** screen contains information about current and historical printer ink and solvent levels and usage, and service module life. The menu options on this screen are for display only. You cannot select the options or change the values. Use the scroll bar to see all options.

Option	Description
Ink Level	Shows the status of the printer ink cartridge. When the cartridge ink level shown on the consumables status panel is above zero, this option displays the message "Ink OK". When the cartridge ink level reaches zero, this option displays the message "Cartridge Empty REPLACE CARTRIDGE" and the hours and minutes of estimated printing time that remain.
Solvent Level	Shows the status of the printer solvent cartridge. When the cartridge solvent level shown on the consumables status panel is above zero, this option displays the message "Solvent OK". When the cartridge solvent level reaches zero, this option displays the message "Cartridge Empty REPLACE CARTRIDGE" and the hours and minutes of estimated printing time that remain.[1]
Service Module Life	Shows the service module status and jet run time in months, and the equivalent in hours, that remain before you must replace the service module. If service module replacement is not due, this option displays the message "Service Module OK". If service module replacement is due, this option displays the message "Replacement due within 1 month".

1. If the printer ink or solvent system becomes empty, the above options display the message "Ink System Empty REPLACE CARTRIDGE" or "Solvent System Empty REPLACE CARTRIDGE". If a cartridge is removed, the relevant option displays the message "Cartridge Removed".

Table 8-8. Consumables History options

Option	Description
Ink Cartridges Used	This item shows the number of ink cartridges used since the printer was first commissioned. This information is also displayed on the **System Information** screen.
Solvent Cartridges Used	This item shows the number of solvent cartridges used since the printer was first commissioned. This information is also displayed on the **System Information** screen.
Recent Ink Cartridges	This item shows the volume of ink (in the number of 500 ml cartridges that were used per 28-day period) used since the consumables history statistics were last reset. This allows you to track usage over a set period of time. To allow an accurate calculation of usage, the value is not displayed during the first seven days (a hyphen is displayed instead). This value provides an indication of fluid costs, printer usage, and efficiency.[1]
Current Ink Usage	This item shows the calculated ink usage in ml per hour. The usage is measured when a message is being printed. A value is only displayed when ink consumption is stable and an accurate calculation is possible. Until then, a hyphen is displayed. This value provides an indication of the printer efficiency in the current application.[2]

1. You cannot reset this value at Supervisor level. Please contact your local Linx Distributor for more information.
2. The ink usage varies according to the ambient temperature, the solvent type, and the period of time that the printer is in the 'Jet Running' or 'Printing' state. The value displayed is based on average usage during the previous 28 days. If the printer was commissioned, or if the consumables history was reset within the last 28 days, the current usage is based on the time since those events.

Table 8-8 Consumables History options (Continued)

LINX

9 Faults and Warnings screens

The Linx 10 printer should operate without problems, but the printer can require attention. The Faults and Warnings screens provide information about problems with the printer and how to correct these problems.

9.1 Warnings

Warnings are events that are not serious enough to stop the printer, but give notice of potential problems. You can continue to use the printer after the printer displays a Warning message.

9.2 Faults

Faults are events that are serious enough to stop the printer. You cannot continue to use the printer after the printer displays a Fault message. You must correct the Fault before you can continue printing.

9.3 Faults and Warnings notification

When a Fault or Warning occurs, the printer displays a notification screen that shows information about the event and a timestamp which shows the date and time that it occurred (see Figure 78). Each event has a unique code number, which identifies the type and source of the event, followed by a short description, for example.
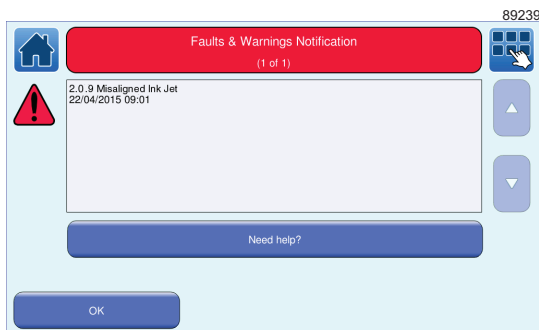
Figure 78. "2.09 Misaligned Ink Jet" Fault notification screen

If more than one Fault or Warning occurs, you can touch the up and down arrow buttons to scroll through the messages in chronological order.

Touch the **Need help?** button to display more information and instructions on the screen about how to clear the Fault or Warning. See 'Clear a Fault or Warning' on page 88. Touch the **OK** button to acknowledge the message and return to the Home screen.

The printer displays a Warning or Fault icon on the right side of the printer status bar to indicate that a Warning or Fault condition exists.
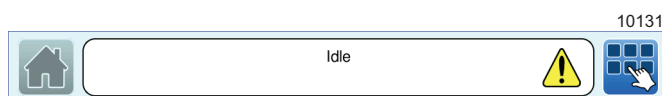
Figure 79. Printer status bar: Warning condition

LINX

If a Fault condition exists, the printer status bar is highlighted in red and the print control button is disabled.
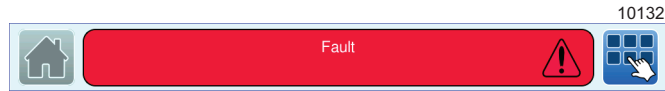

Figure 80. Printer status bar: Fault condition

Touch the status bar to display the **Current Faults and Warnings** screen. See 'Current Faults & Warnings screen' below.

NOTE: If there are no current Faults or Warnings, you can still touch the printer status bar to display the **Current Faults and Warnings** screen.

9.4 Clear a Fault or Warning

You can touch the **Need Help?** button on any **Faults and Warnings Notification** screen to display information about how to clear a Fault or Warning.

Follow the instructions on the screen to correct the problem, or touch the **Exit** button to return to the **Faults and Warnings Notification** screen.

An example is shown in Figure 81.

Figure 81. Fault help screen

9.5 Current Faults & Warnings screen

This screen shows a list of current Fault, Warning, and Information messages in order of severity, with Faults displayed first, followed by Warnings.

Touch an entry in the list to display more information about the Fault or Warning. Touch the **Exit** button to return to the Home screen, or touch the **History** button to display the **Faults and Warnings History** screen.

9.6 Faults & Warnings History screen

This screen shows a list of current and past Fault, Warning, and Information messages. Touch an entry in the list to display more information about the entry. Touch the **Exit** button to return to the Home screen, or touch the **Current** button to display the **Current Faults and Warnings** screen.