



CodeJet
Marking Solutions



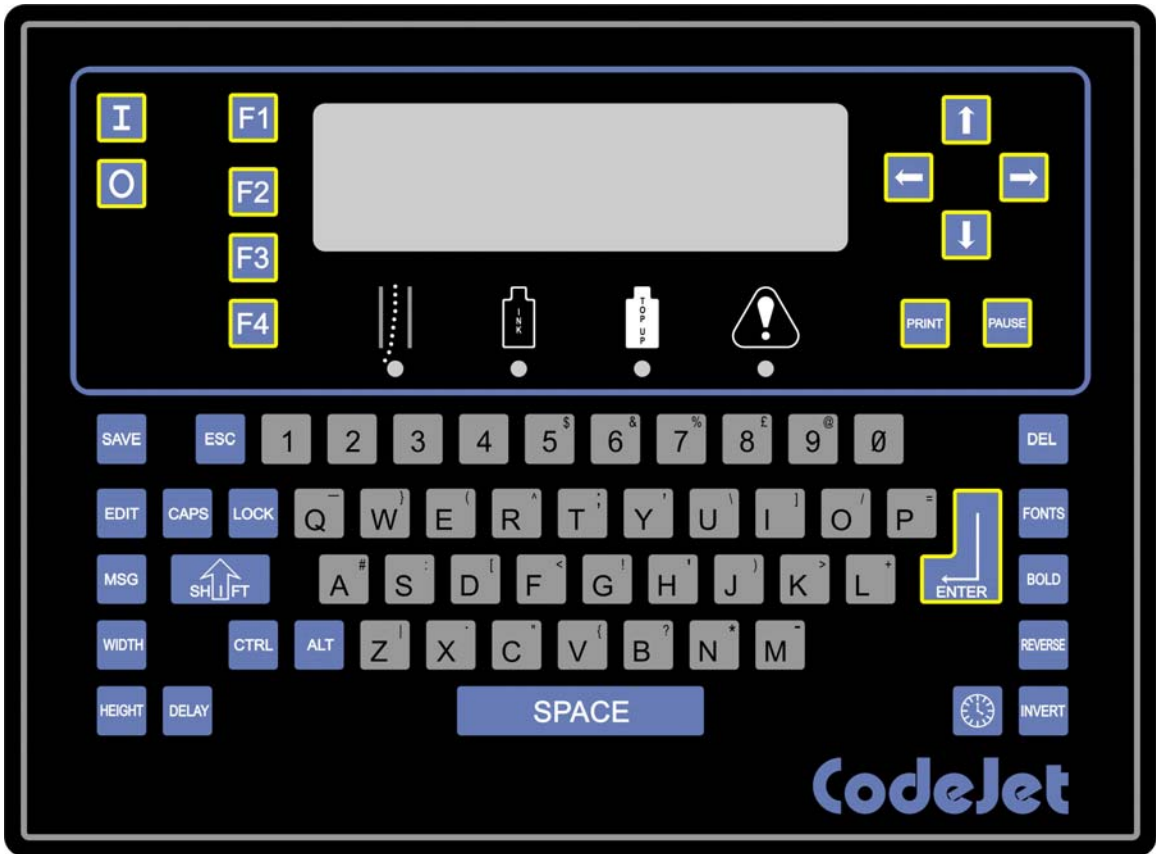
C-260

User Manual

CPUII



Revision 2.02 Software #V8_xx
01/01/2008



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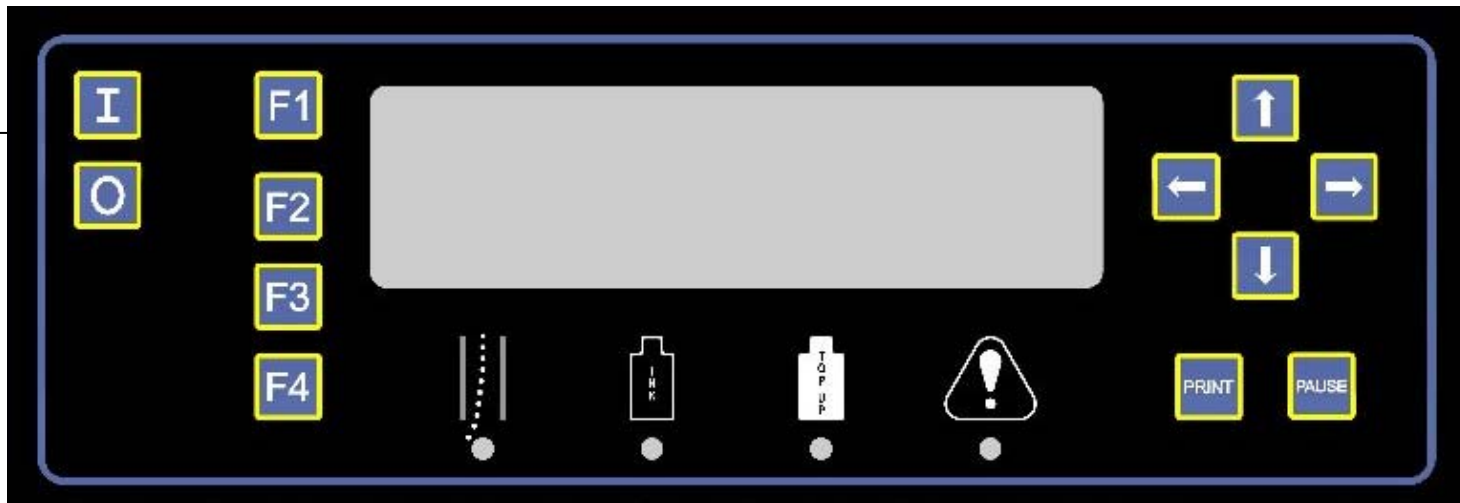
C160 KEYPAD DISPLAY



Main Power

Print Key
Gives a manual print go

Pause Key
Disables the print



PRINthead COVER ON/OFF
Indicates the status of printhead cover on/off
(turn on/off high voltage on deflector plates)

INK LOW LEVEL INDICATOR
Indicates an ink low condition (replace ink bottle)

TOP UP LEVEL INDICATOR
Indicates a top-up low condition (replace top up bottle)

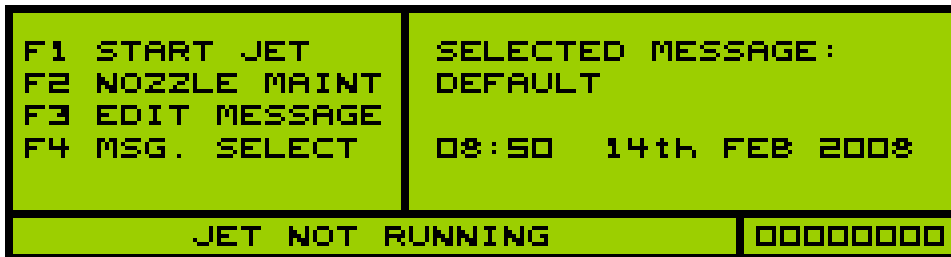
FAULT INDICATOR
Indicates a fault condition and is accompanied by a diagnosis on main screen of LCD



MAIN SCREEN FUNCTIONS

STARTING THE JET

Ensure that the coder is plugged into a power source and is switched On.
Push the main isolator switch on the left hand side of the coder to the On position.



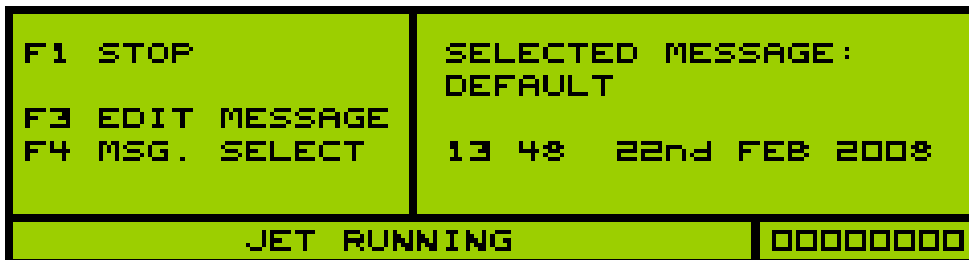
The following screen indicates that jet-starting procedure may proceed:

(Press) **F1**

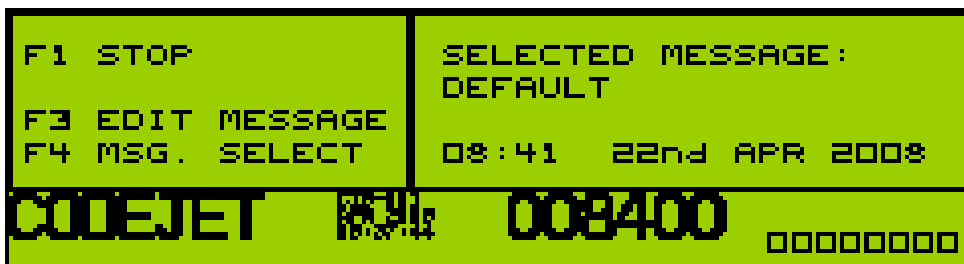


The pump will start, followed by the opening of the feed valve, the jet can be observed initially as a clear line from the nozzle to the gutter, the jet will turn black as all flushing solution is replaced by ink, a clicking sound will be heard as any air is purged out of the system, the start up procedure lasts approximately 30 seconds.

The following screen indicates a successful start up:



When the Print head cover is in place the screen will display the message being printed



Coding may now begin.



STOPPING THE JET

When stopping the jet for any reason, the Printer should always be shut down

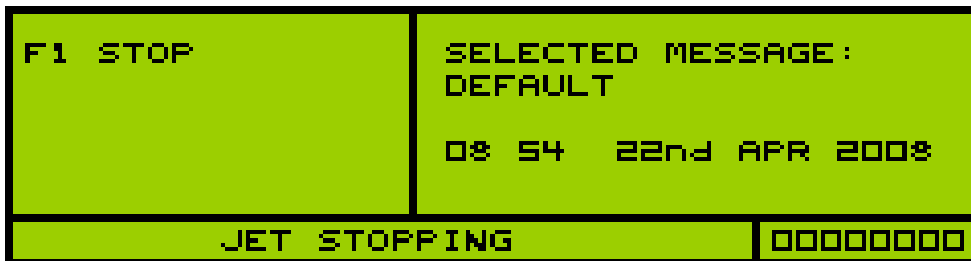
NEVER TURN OFF THE PRINTER AT THE MAIN SWITCH OR MAIN PLUG WHILE THE JET IS RUNNING.

The shutdown procedure is very important and should always be adhered to in order to avoid problems when restarting at the beginning of the next shift. This procedure takes approximately 5 mins .



STOP THE JET

A clean stop (Auto Shut Down) (Press) the jet will stop the printer will flush the lines and clear the gutter line in preparation for the next start, Wash Solvent can be applied to both the nozzle jewel plate and the gutter to aid the process this is also a good time to give the print head a general clean.



Wait for printer to display **JET NOT RUNNING** before turning power off.



ADJUSTING THE LCD CONTRAST

Either (Press) or keys until the display looks sharp. Do not hold down the key too long. Auto repeat will change speeds and change the contrast too quickly to be noticeable.

ENTERING AND EDITING MESSAGES



The Printer can print up to four lines of text in the following formats:

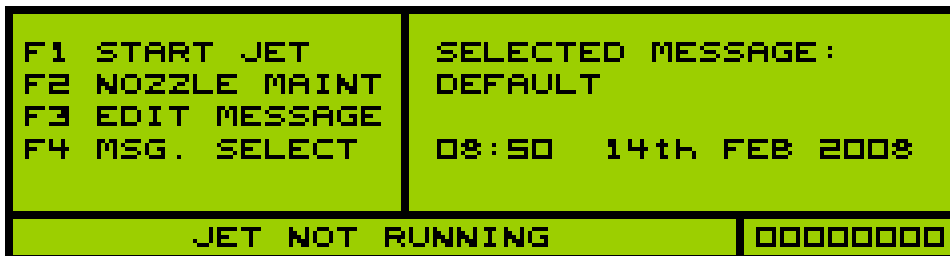
Fonts - Printed Dots

4 Lines of Text: 5 High 7 High

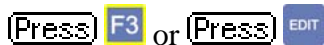
3 Lines of Text: 5 & 7 Plus 9 High

2 Lines of Text: 5, 7 & 9 Plus 11 High

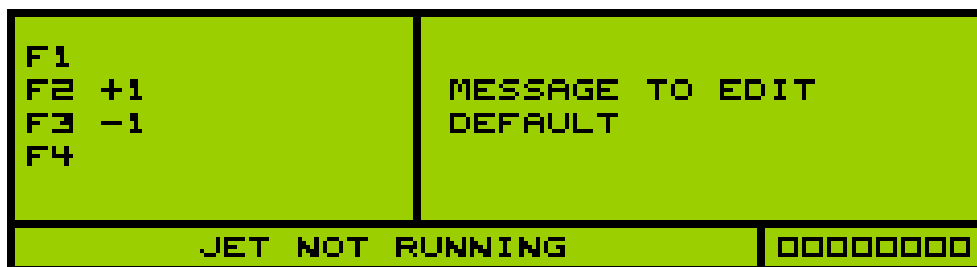
1 Line of Text: 5, 7, 9 & 11 Plus 15 High, 17 High, 24 High, 32 High



To edit an existing or enter a new message from the Main Screen:



Screen displays:

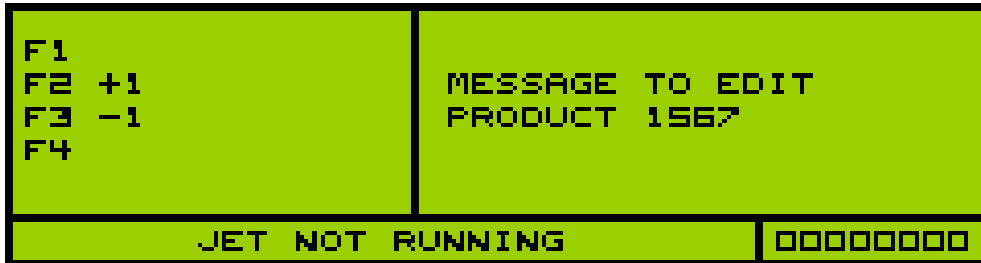





A message name can be entered or use UP and DOWN arrow to select an existing message.

EDIT

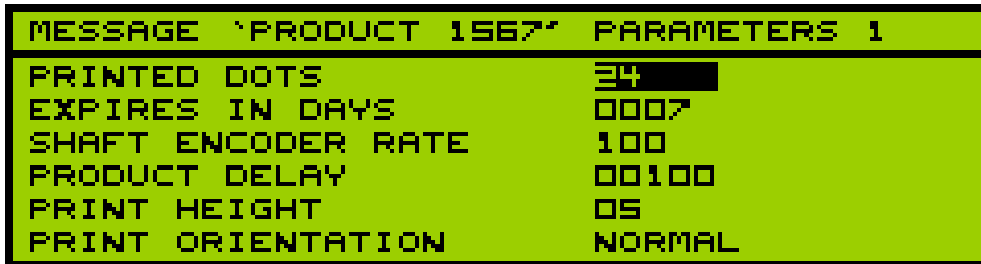
Message Names

Messages are stored using names up to 16 characters in length this can be made up of Alpha Numeric characters these can be selected by direct name entry or via the up and down arrow keys to the right of the screen.



(Press)  Enter the message name E.g. Product 1567 (Press) 
 (Press)  To backspace and retype the name.

The editor will permit changing the specific parameters for this message.



(Press)  and  to change the value.  and  to move between parameters. 
 Will skip both parameters pages and start editing the message.

Printed Dots is the maximum number of dots to use while printing the message. NOTE: Using more dots than necessary will degrade the print speed of the Printer.

Expires in Days is the expiration to apply within this message.

Shaft Encoder Rate this sets the width of print. It is the divisor to apply with a shaft encoder. This value is directly affected by Printed Dots.

Product Delay is the amount of time or encoder pulses to wait before printing the message.

Print Height is the amount of high voltage used to deflect a drop of ink.

Print Orientation is whether to print the message right side up (NORMAL) or up side down (INVERTED).

```

MESSAGE 'PRODUCT 1567' PARAMETERS 2
PRINT DIRECTION          NORMAL
RASTER REPEAT FACTOR    1
INTER CHARACTER GAP      1

```

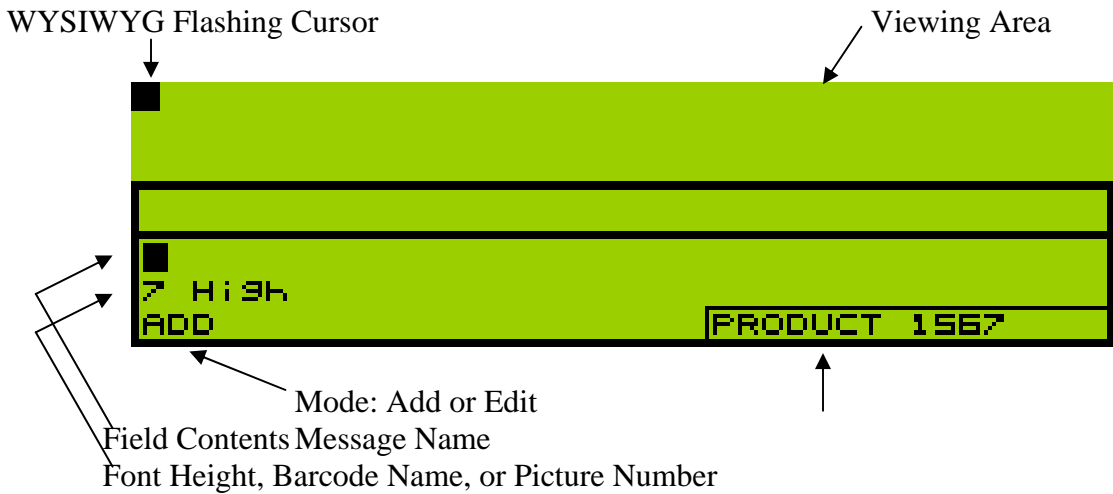
Print Direction is whether to print the message left to right (NORMAL) or right to left (REVERSE).




Raster Repeat Factor is a bolderization to be applied across the entire message.

Inter Character Gap is the number of dots to place between each printed character.

The Message Editor is WYSIWYG. Once the parameters have been filled, the display will show this screen.

If there is currently a message already programmed into the selected message number or name, the Screen will display that message.








To delete any letter from the text, position the cursor over the chosen character via the use of the  and  then **(Press)** 

For example:


```


BEST BEFORE END
27 03 2006
1959012 LP45 ZX7R
-----
1959012 LP45 ZX7R
7 HIGH
EDIT                                PRODUCT 1567
  
```

One **(Press)** on the  key would erase the letter R from third line; this could be replaced with the new required letter, then **(Press)**  to store the message.

(1) To erase an entire field: Position the cursor on the first letter, **(Press)** and hold  **(Press)** . The field would then be erased, the new code could be programmed in, and the  key pressed to store the changed message.

(2) To program in a complete new message with expiration date:

From the main screen, **(Press)** 

Type **PRODUCT 1567**, then **(Press)**  twice to accept the current parameters

Type **BEST BEFORE END**, then **(Press)** 


(Press) and hold  **(Press)**  **(Press)** 

Type **1959012 LP45 ZX7R**, then **(Press)**  twice to accept the current parameters.

Type E, **(Press)** , type e, **(Press)** , type F, **(Press)**  type f, **(Press)** , type 20G, **(Press)** , type g.

```

BEST BEFORE END
Ee Ff 20Ggmm/Dd/Yy
1959012 LP45 ZX7R
-----
Ee Ff 20Ggmm/Dd/Yy
7 HIGH
EDIT                                PRODUCT 1567
  
```

(Press)  until y has been erased, as indicated in the field contents.


(Press) and hold  (Press)  to refresh the screen with translated time fields.



The screenshot shows a terminal window with a green background. The text displayed is as follows:













```
BEST BEFORE END
27 03 2006
959012 LP45 ZX7R
```

Below this is a horizontal line. Underneath the line, the text "7 High" is visible on the left, and "ADD" is on the right. To the right of "ADD", the text "PRODUCT 1567" is displayed within a rectangular box.

(Press) the  key to Store the message.



PRINTING SPECIAL FONTS

The message editor permits dot addressable field positioning. The following key combinations can be used to move the cursor around the print area.


-  **Right Arrow** moves the cursor one dot to the right.
-  **Left Arrow** moves the cursor one dot to the left.
-  **Up Arrow** moves the cursor one dot up.
-  **Down Arrow** moves the cursor one dot down.
-  **Ctrl Right Arrow** moves the cursor eight dots to the right.
-  **Ctrl Left Arrow** moves the cursor eight dots to the left.
-  **Ctrl Up Arrow** moves the cursor eight dots up.
-  **Ctrl Down Arrow** moves the cursor eight dots down.
-  **Alt Right Arrow** moves the cursor to the end of the message.
-  **Alt Left Arrow** moves the cursor home (top left of message).
-  **Enter** move the cursor to the next line based on the font height and the left position of the field above.
-  **Font** key is used to select a font. The font selection is rotary where the choices are by fit capability.

Create a new message and name it LESSON1.

The Key sequences are:

 , L, E, S, S, O, N, 1, 

Move the Cursor to the right by eight dots  and hold   



Select the 24 High font by pressing the  five times.





Type the numbers 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 0.
Did you notice the screen scroll to show the last number that was typed?


(Press)  one time. The cursor will be blinking on the last zero (0).
(Press) and hold  (Press) .




The text field became a UPC Barcode. Note the font name changed to UPC/EAN.
(Press) and hold  (Press) , you can scroll through all of the barcodes that are in the Printer.

(Press) the  twice to move past the barcode.


(Press) the  key to select 5 High.

Type 'THIS IS A'. (Press) the  key.


(Press) the  key to select 7 High.

Type 'UPC BARCODE'. (Press) the  key.

(Press) the  key to select 9 High.

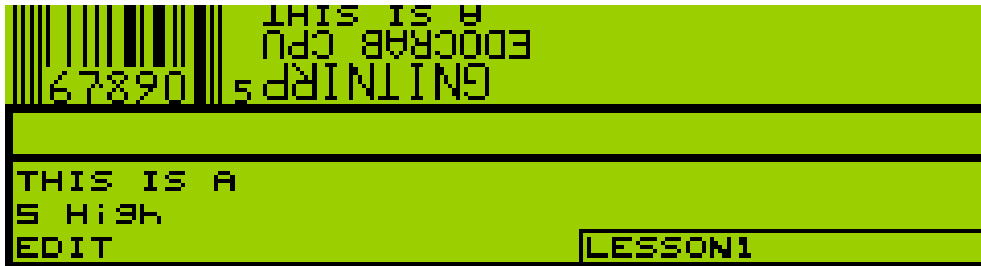
Type 'PRINTING'. (Press) the  key.


Notice that the cursor moved to the top line.

Press the  key. The text doubles in width. The bolderization will increase up to a magnification of 5 then roll back to 1.

Press the  key. Notice the text field inverts and prints upside down.

Press the  key. Notice the characters in the text field reverses and prints back to front.



Press the  key to Store the message.

NOTE: Bolding or double dotting a character, word or message will increase the overall appearance and visibility, but will also increase the message in length, making it more difficult to fit into small target areas on the product to be coded.

5 DOT HIGH SINGLE DOT
5 DOT HIGH DOUBLE DOT

7 DOT HIGH SINGLE DOT
7 DOT HIGH DOUBLE DOT


12 DOT HIGH SINGLE DOT
12 DOT HIGH DOUBLE DOT





16 DOT HIGH SINGLE DOT
16 DOT HIGH DOUBLE DOT

24 DOT HIGH SINGLE DOT
24 DOT HIGH DOUBLE DOT

PRINTING REAL TIME CLOCK INFORMATION




All date, time, Julian, and expiration utilize the real time clock in the Printer. The information is retrieved using the  key.

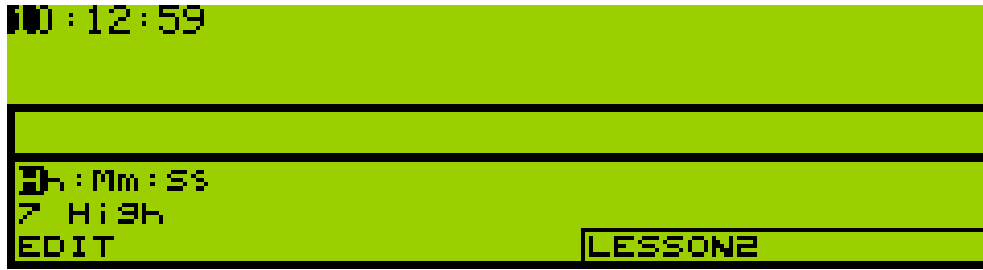
When editing Time, Date, or Julian fields  and hold    to refresh the screen with the actual translated values.

Create a new message and name it LESSON2.

The Key sequences are:

  L, E, S, S, O, N, 2, 

(Press)  Notice that the current time is automatically entered as Hour, Minutes, and Seconds.



Notice the field contents are Hh:Mm:Ss. Here are all of the translated characters for a time field.






TIME

- H – Tens of hours
- h – Unit of hours (CAPS + H)
- M – Tens of minutes
- m – Units of minutes (CAPS + M)
- S – Tens of seconds
- s – Units of seconds (CAPS + S)
- Z - Shift Code character

Characters, which do not appear in this list, will be printed as entered.

Press  to advance down one line.

Press  and hold  (Press ) Notice that Month, Day, and Year are entered automatically.



Notice the field contents are Mm/Dd/Yy. Here are all of the translated characters for a date field.




DATE

M- Tens of month of year
m – Units of month of year
D – Tens of day of month
d – Units of day of month
Y – Tens of year number
y – Units of year number
W,w – Day of week (Sun= 1)
A,a – 1st character of alpha month
B,b- 2nd character of alpha month
C,c- 3rd character of alpha month
F - Tens of month of Expiration*
f - Units of month of Expiration*
E - Ten of day of Expiration*
e - Units of day of Expiration*
G - Tens of year of Expiration*
g - Units of year of Expiration*
Z - Shift Code character

* NOTE See Message Parameters Screen 1, Expires in Days.

Characters, which do not appear in this list, will be printed as entered.

 Press  to advance down one line.

 Press  and notice that Julian Day of Year is entered automatically.

```
Hh : Mm : Ss
Mm / Dd / Yy
xyz
-----
xyz
7 HIGH
EDIT LESSONE
```



Notice the field contents are xyz. Here are all of the translated characters for a Julian field.



JULIAN DATE

- W – Tens of week number
- w - Units of week number
- X,x – Hundreds of Julian day of year
- Y,y – Tens of Julian day of year
- z – Units of Julian day of year
- E - Tens of European Julian week, The first full week of the year is '01'.
- e - Units of European Julian week
- I - Tens of ISO Julian week, The first day of the year is '01' until Sunday, then it is week '02'.
- i - Units of ISO Julian week
- N - Tens of Non-Standard Julian week, Every seven days is a week.
- n - Units of Non-Standard Julian week
- Z - Shift Code character

Characters, which do not appear in this list, will be printed as entered.

 Press the  key to Store the message.

PRINTING BARCODES

Most barcodes can support data from multiple field types. The following walk through will guide you into the complex means of printing multiple data type in a single barcode.


Barcodes in the editor work a little strange to the previous method. When you take a closer look, the criteria are exactly the same.


The barcodes which are available:
 UPC or EAN barcodes.
 Interleaved 2 of 5 2:1 aspect ratio.
 Interleaved 2 of 5 3:1 aspect ratio.
 Interleaved 2 of 5 5:2 aspect ratio.
 Code39 2:1 aspect ratio.
 Code39 3:1 aspect ratio.
 Code128 Self Compression.
 Code128 subset B.
 Code128 subset C.





Create a new message and name it LESSON3.

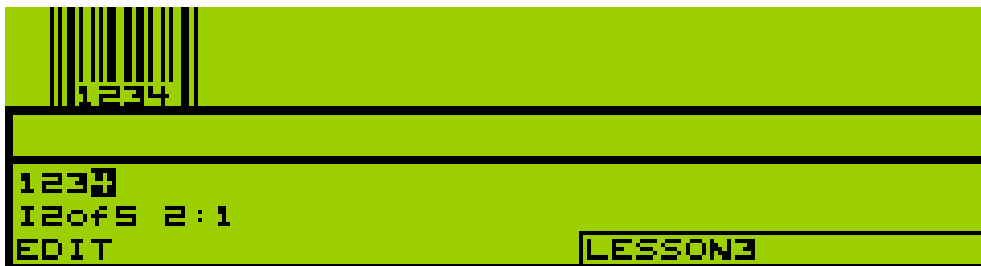
The Key sequences are:













  , L, E, S, S, O, N, 2, 

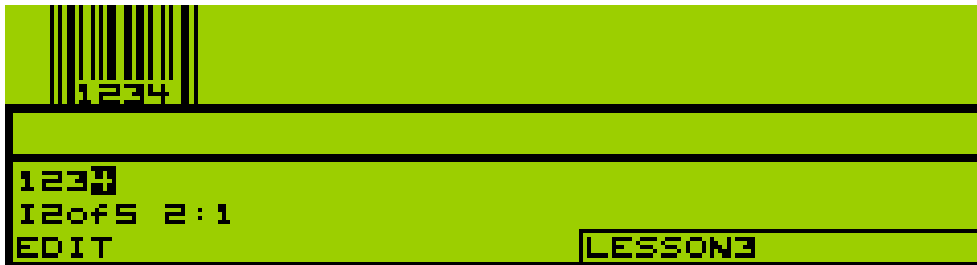
Press the  key five times to select 24 High. Selecting a font size does not create a field. Some information must be typed before the new font becomes our desired barcode height.






Type '1234', then press  the cursor must be on a character in the field to convert it into a barcode.

 and hold    key twice. I2of5 2:1 will be selected.





- (Press)  to begin appending the barcode with the variable fields.
- (Press)  key to add the current time.
- (Press)  until the ':' (colon) is highlighted, then (Press) .
- (Press)  until the next ':' (colon) is highlighted, (Press)  three times.
- (Press)  once to append another variable field.
- (Press) and hold  (Press)  notice that the incrementing number has been initialized to '0001'. It will start counting at one and add one on every print.
- (Press)  six times to append one more field.
- (Press) and hold  (Press) .




- (Press)  until the first '/' (slash) is highlighted, (Press) .
- (Press)  until the next '/' (slash) is highlighted, (Press) .
- (Press)  until the last 'D' is highlighted, type a 'Z'.



Now you have an I2of5 barcode with a constant '1234', Hour, Minute, Incrementing number, Month, Day, Year, and Shift Code.

(Press) and hold  (Press)  now the barcode contains the current time and variable information.



(Press) the  key to Store the message.

PRINTING INCREMENTING & DECREMENTING NUMBERS



Incrementing Numbers

(Press) and hold **ALT** **(Press)** **L** (+) key.

A typical Incrementing code would be shown on the editor screen as:

0001

The Printer would print an incrementing number for ex: 0001 and on subsequent prints

0002 0003



Decrementing Numbers

(Press) and hold **ALT** **(Press)** **M** (-) key.

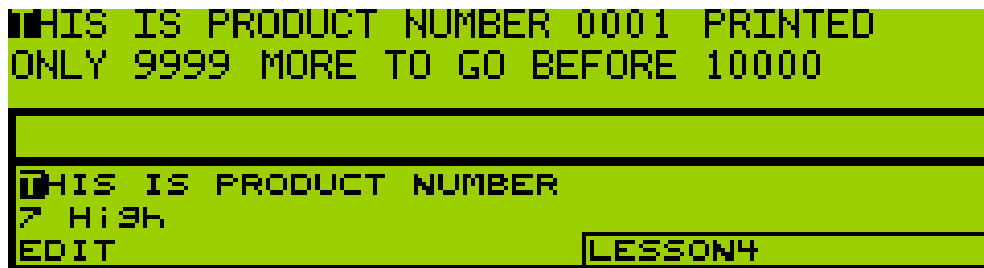
A typical Decrementing code would be shown on the editor screen as:

9999

The Printer would print an decrementing number for ex: 9999 and on subsequent prints

9998 9997

The view inside of the WYSIWYG editor:



SERIAL BUFFER



Serial buffers are for variable data that comes from a computer. There are ten buffers of thirty-four characters in length. In referencing a serial buffer, the format must indicate which buffer to use and how many characters.

In order to be able to print using the RS232 serial Buffer use the following procedure.

(Press) and hold ALT (Press) S



Notice the field content has the two digit buffer number, followed by text, which does not appear in the WYSIWYG. Serial Buffer number 1 does not contain any characters. The text dimensions the number of characters to 21.

LOGOS and PICTURES



Logos must be downloaded via the serial port as described in the Programming Manual. Once downloaded, the logo can be printed in a message.

(Press) and hold ALT (Press) P



The editor automatically creates a picture field, selecting Logo number 1 (01). Logos and Pictures are numbered 01 to 99. In this example we have downloaded a picture to Number 10. This makes it easy to edit by typing a 1.



The editor has located and displayed Picture #10. As you notice, the extra "1" is displayed after the logo. (Press) → once then (Press) DEL to eliminate the extra digit.



To select the Picture field (Press) →.



Notice that the Font type displays PICT 10, indicating that the Field is Picture number 10.

MAIN SCREEN FUNCTIONS CONTINUED



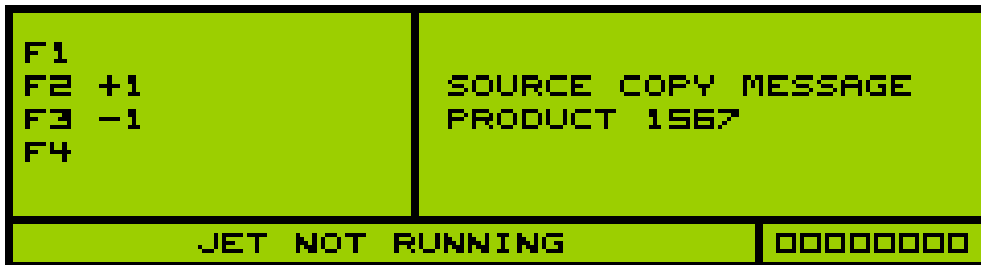
COPY AND PASTE MESSAGE

The CodeJet C-160 can copy and paste a message.

Press and hold **ALT** **Press** **MSG**

Select the source message using the Function keys, Arrows keys, or typing the name.

Press 



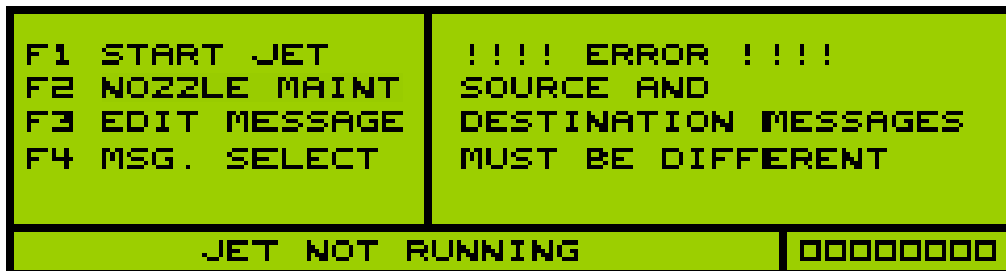
Select the destination message by typing the new name.

Press 



The message will now be copied including the message parameters

If the Source and Destination are the same, the printer will display this message





SELECTING A MESSAGE TO PRINT

The Printer has the ability to store a minimum of 63 different messages of 4000 characters per message as standard. The maximum depends upon the actual number of characters in each message.

From the Main Screen:

```
F1 START JET      SELECTED MESSAGE :
F2 NOZZLE MAINT  DEFAULT
F3 EDIT MESSAGE
F4 MSG. SELECT   08:50  14th FEB 2008

JET NOT RUNNING  00000000
```

To select the required message:

(Press) **F4** the screen will display the following information:

```
F1
F2 +1
F3 -1
F4

SELECTED MESSAGE
DEFAULT

JET NOT RUNNING  00000000
```

The new message can be selected by the use of directly typing the name.

or (Press) **F2** **F3** **↑** **↓** to scroll through the list of messages..

```
F1
F2 +1
F3 -1
F4

SELECTED MESSAGE
LESSON1

JET NOT RUNNING  00000000
```

When the required message name is displayed, (Press) **ENTER** to select the message, or

(Press) **ESC** to abandon the selection.

The main screen will show the new message number as selected.

```
F1 START JET      SELECTED MESSAGE :
F2 NOZZLE MAINT  DEFAULT
F3 EDIT MESSAGE
F4 MSG. SELECT   08:50  14th FEB 2008

JET NOT RUNNING  00000000
```

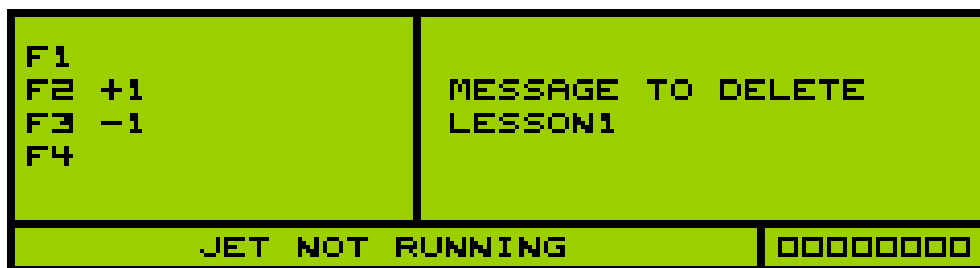


DELETING A MESSAGE





The message storage area can become filled to capacity. To remove an old message,

(Press) and hold  (Press) 

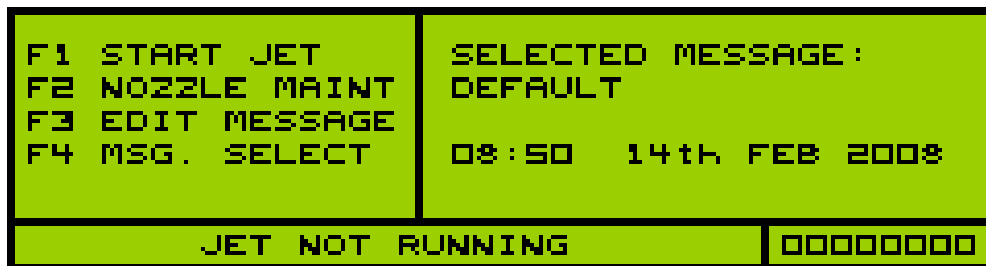
The main screen will ask for which message to delete by displaying the current selected message. If the current selected message is deleted, DEFAULT is automatically selected. If DEFAULT does not exist, Print is disabled until a valid message is selected and Printing is manually re-enabled.



The message can be selected by the use of directly typing the name.

or (Press)     to scroll through the list of messages..

If the message to delete does not exist, the following error message is displayed.



ENABLE OR DISABLE PRINTING

ENABLE PRINTING

(Press) 



DISABLE PRINTING

(Press) 





Enable Disable Menu

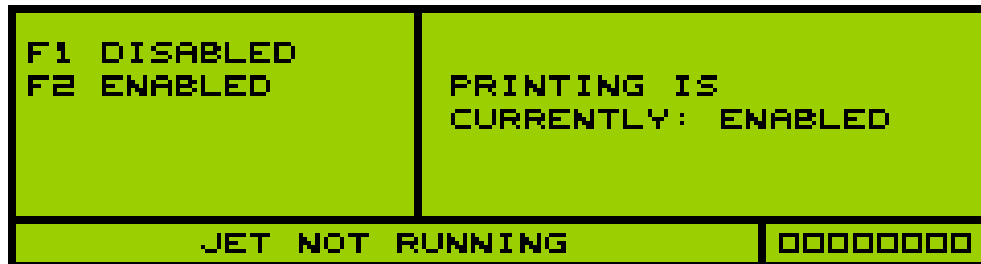
(Press) and hold  (Press) 





When changing messages during the traversing of products before the Printer it may become necessary to disable printing. To disable or enable printing,

(Press)  to disable or (Press)  to enable,

Or use (Press) and hold  (Press)  use  or  to toggle



When printing is disabled, the  key MUST BE PRESSED before it will be disabled. Printing is enabled immediately when  is pressed.

INDUCE A MANUAL PRINT TRIGGER



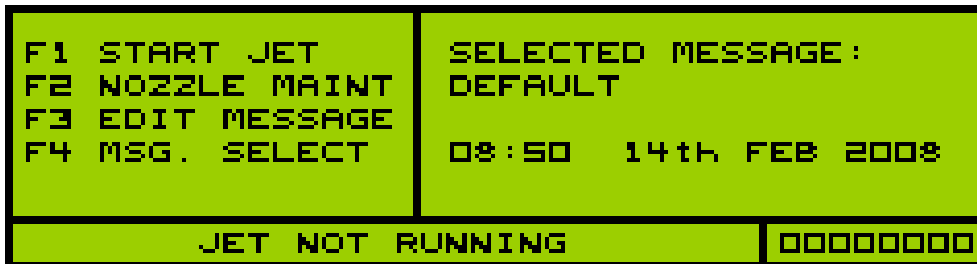
A manual print trigger can be induced (Press)  if the print is enabled, When the Jet is running, the product counter will increment for each induction. If latched repeat print is enabled, it will start continuous printing.

TEMPORARILY ADJUSTING MESSAGE HEIGHT

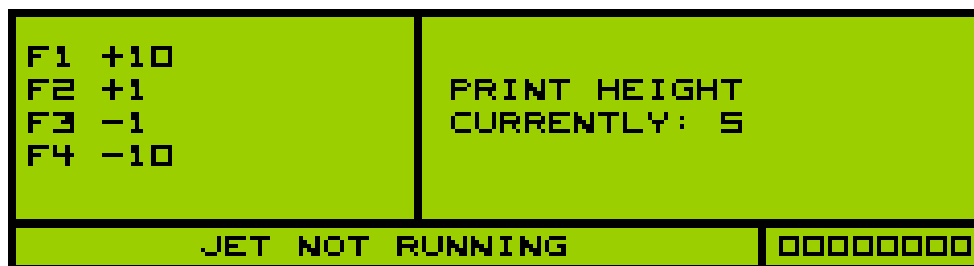
HEIGHT





The height of the print can be adjusted and affects the vertical distance between printed dots.

From the Main Screen:





Press 






The screen will display the current height setting; this can be adjusted up and down with direct number entry or the use of   or via the  or  to the right of the screen.

The range is one (1) to ten (10).

When the required setting is obtained   key to set.

Note:

The printed character height can also be altered by moving the printhead closer to the substrate to reduce the height or further away to increase the height. Minimum distance 5mm – maximum 15mm (Optimum distance 10mm).

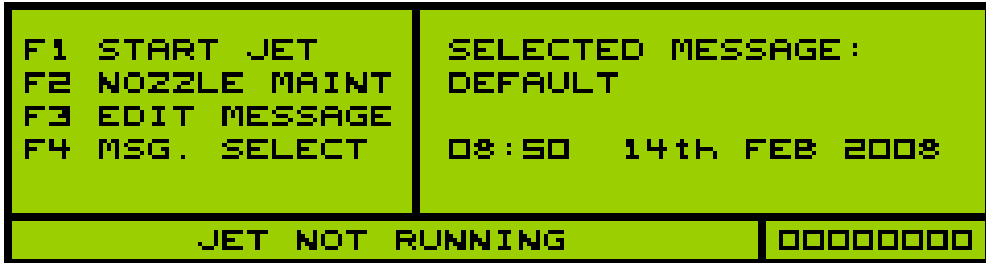
To save the changes permanently, reselect the same message.   then .



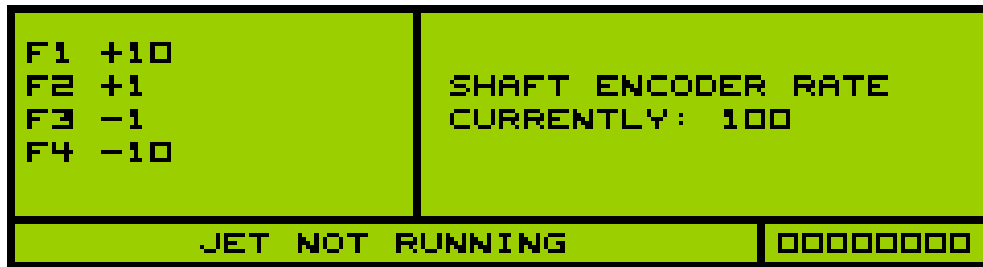
TEMPORARILY ADJUSTING THE PRINT WIDTH

The length of a message depends on the width of the characters. The larger the number of the width setting, the wider the gap between the columns of every character.

From the Main Screen:



Press WIDTH



The screen will display the current width setting, this can be adjusted up or down with direct number entry or the use of **F1** **F2** **F3** **F4** or via the **↑** or **↓** to the right of the screen.

The faster the speed of the product to be coded, the lower the required width setting.

The range is one (1) to two hundred fifty five (255).

When the required setting is obtained **Press** **ENTER** key to set.

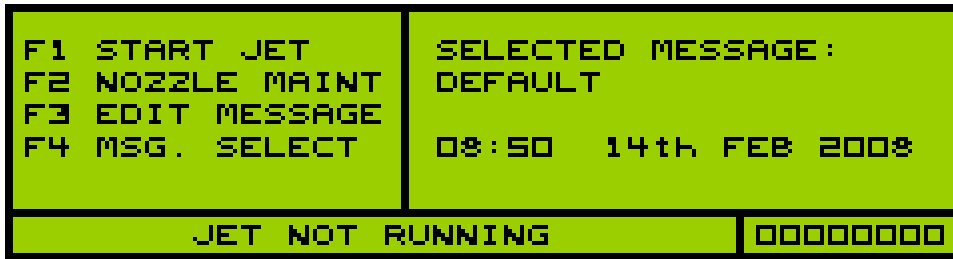
Note: To save the changes permanently, reselect the same message. **Press** **MSG** then **ENTER**



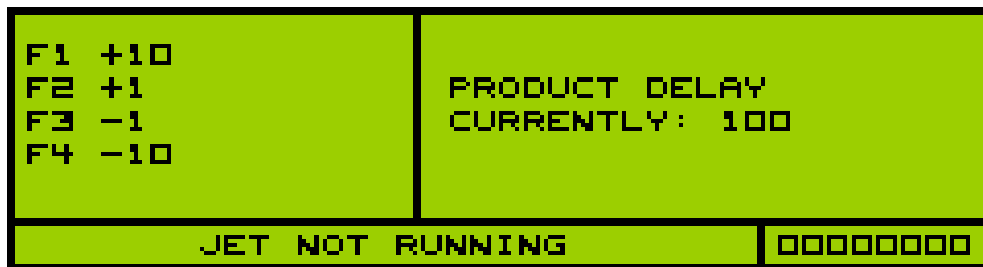
TEMPORARILY ADJUSTING PRODUCT DELAY

A message may be delayed so that printing starts at a fixed interval after the product sensor has been triggered in order to hit a specific target area of the product.

From the main screen:



Press



The screen will show the current delay setting, this can be adjusted up and down with direct number entry or the use of the or via the or to the right of the screen.

Minimum setting being 10, maximum being 10,000.

When the required setting is obtained key to set.

Note:

The printed character Delay can also be altered by moving the product detector closer, further away from, before of after printhead.

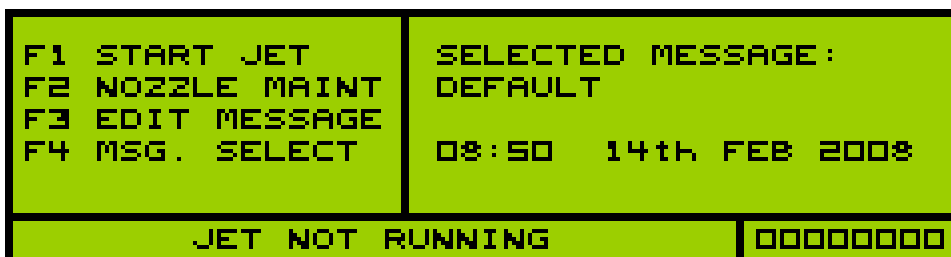
To save the changes permanently, reselect the same message. then



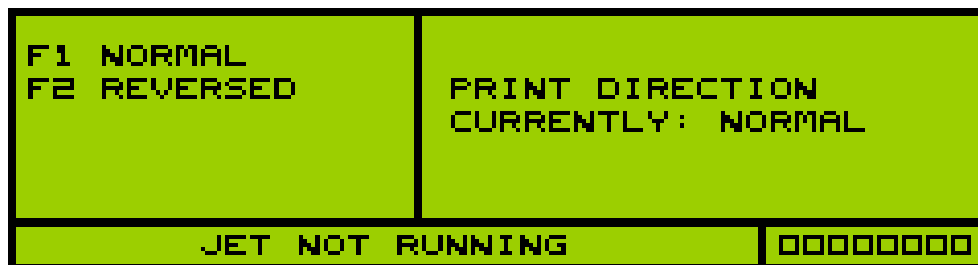
TEMPORARILY REVERSING THE MESSAGE

The printed characters can be reversed to suit a product traveling left to right or vice versa.

From the main screen:



(Press)



The screen will display the current orientation; this is altered to the other state via the keys

When the desired state is displayed, press key to set

Note:

A change in reverse mode can invariably affect the invert status resulting in the need to change the invert to its other state

The reversal of the printed characters can also be attained by spinning the printhead 180 degrees.

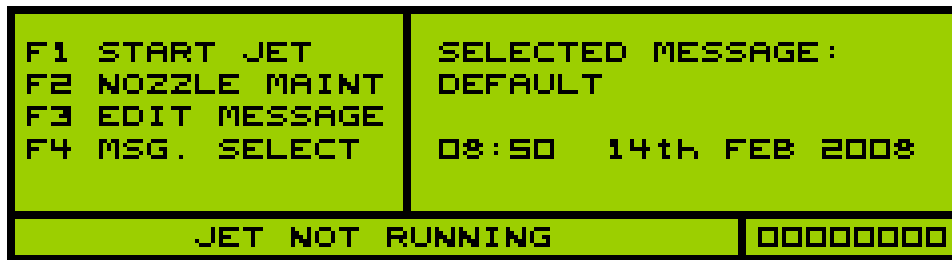
To save the changes permanently, reselect the same message. (Press) then .

TEMPORARILY INVERTING THE MESSAGE

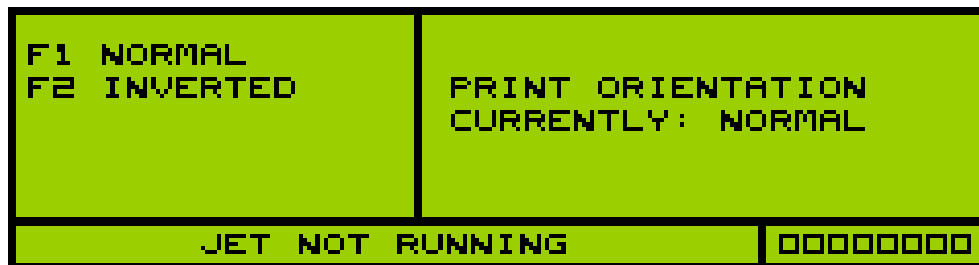


The printed characters can be inverted (turned upside down), to suit a product traveling left to right or vice versa.

From the main screen:



(Press)



The screen will display the current orientation; this is altered to the opposite state via the keys

When the desired state is displayed, (Press) key to set.

Note:

A change in invert mode can invariably affect the reverse status resulting in the need to change the reverse to its other state.

Spinning the printhead 180 degrees can also attain the inverting of the printed characters.

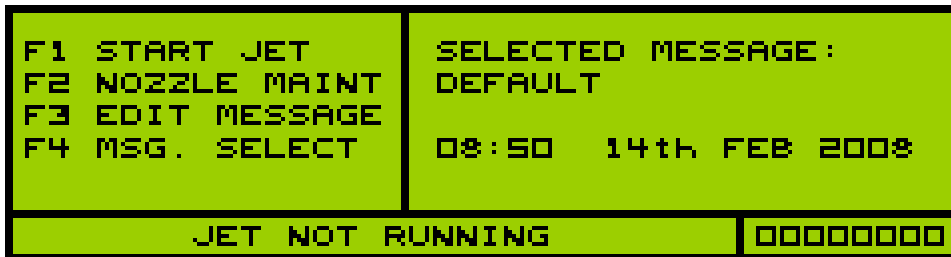
To save the changes permanently, reselect the same message. (Press) then

TEMPORARY INTERCHARACTER GAP



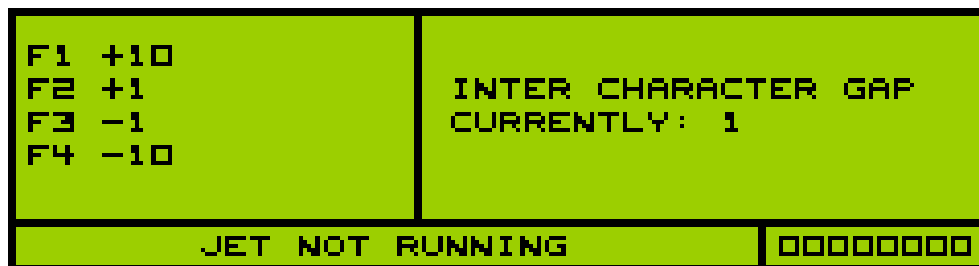
There is a standard 1-column gap between characters, which may be increased up to 9 columns.

From the Main Screen:



Press and hold **Press**

The screen will now show the following:



The inter character gap can be adjusted via direct number entry or the F2 and F3 keys or via the up or down arrow keys to the right of the screen.

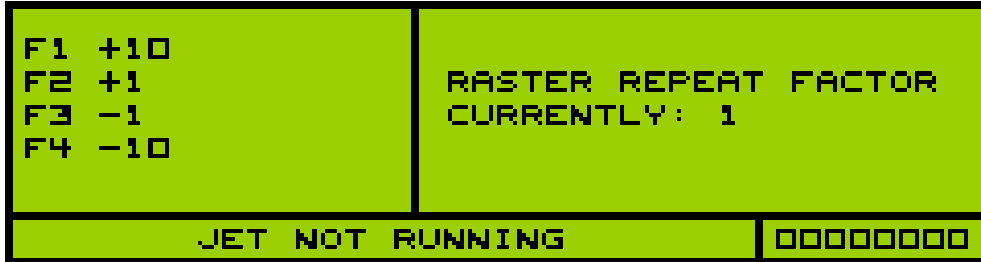
When the required gap setting is displayed, **Press** key to set.

Note: To save the changes permanently, reselect the same message. **Press** then

BOLD

TEMPORARY BOLDERIZATION

The Bolderization of the entire message can be changed temporarily (Press) **BOLD**



The bolderization can be adjusted via direct number entry, the **F1 F2 F3 F4** or via the **↑** or **↓** to the right of the screen.

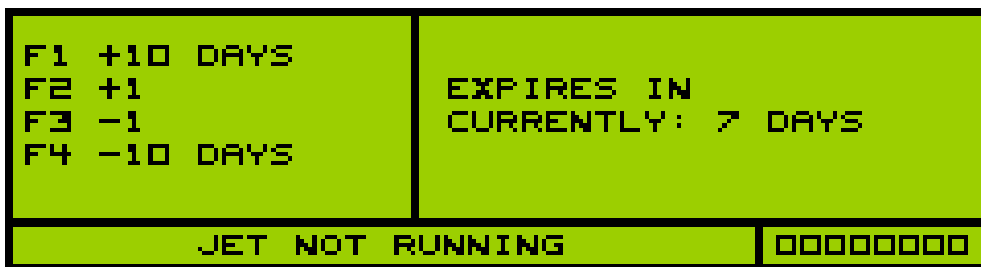
When the required bolderization is displayed, (Press) **ENTER** key to set.

Note: To save the changes permanently, reselect the same message. (Press) **MSG** then **ENTER**.

CTRL **E**

TEMPORARY EXPIRATION

The Expiration (in days) of the current message can be changed temporarily by holding (Press) and hold **CTRL** (Press) **E** on the Main Screen.



The expiration can be adjusted via direct number entry, the **F1 F2 F3 F4** or via the **↑** or **↓** to the right of the screen.

When the required expiration is displayed, (Press) **ENTER** key to set.

Note: To save the changes permanently, reselect the same message. (Press) **MSG** then **ENTER**.

ZEROING THE PRODUCT COUNT

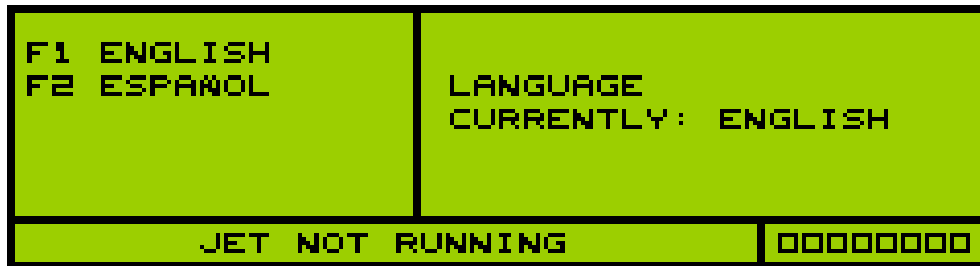


The product count on the Main screen can be reset to Zero
(Press) and hold CTRL (Press) Z the count is reset without a dialog or question.

SELECTING AN ALTERNATE LANGUAGE



The language for the prompts and date can be selected by (Press) and hold CTRL (Press) L

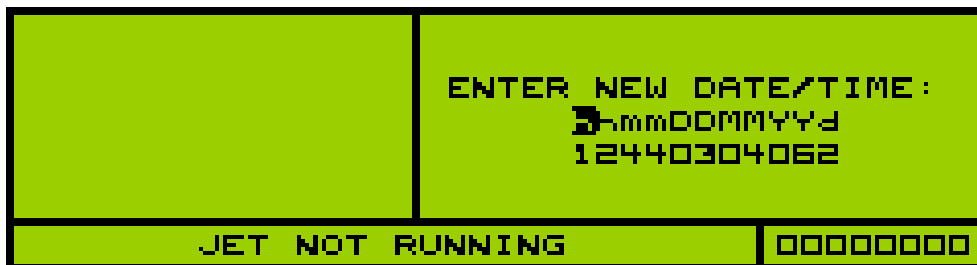


The current languages at the time of this manual are English and Spanish.
(Press) F1 to select English or F2 for Spanish. F3 F4 for future languages

CHANGE CURRENT DATE AND TIME



The current date and time are changed by (Press) key.



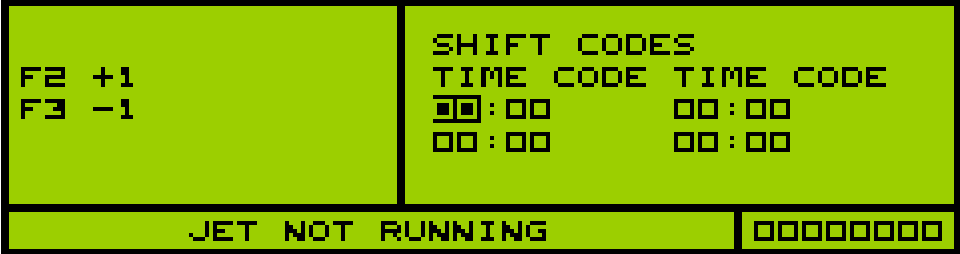
Type the current hour (hh), minute (mm), day of month (DD), month (MM), year (YY), and day of week (d). Day of week is 1 for Sunday to 7 is Saturday.

(Press) ENTER to accept the changed time or (Press) ESC to abandon.



SHIFT PERIODS AND CODES

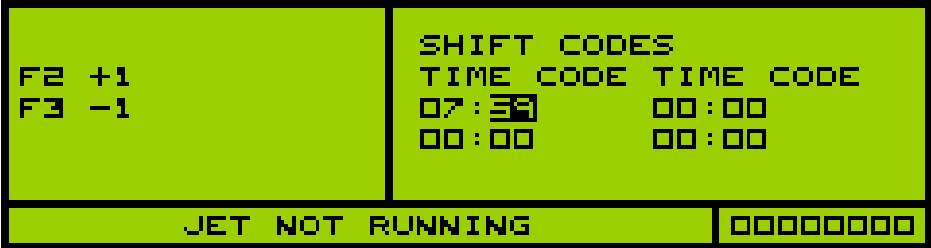
From the main screen, **(Press)** and hold **CTRL (Press) S** the following screen will display



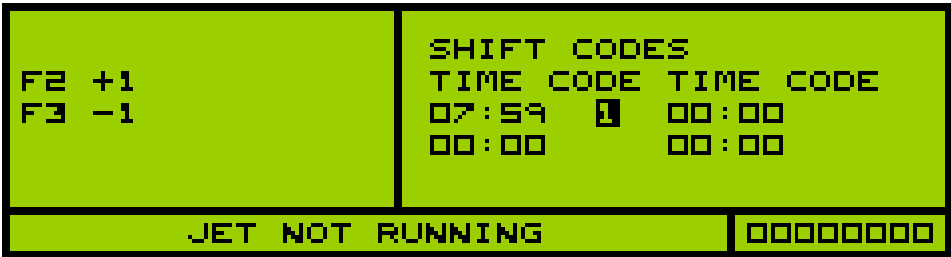
Four periods are displayed, sorted by time.

As shown above, the periods have not been defined. The default is 06:00 with a letter of 'A' and 15:00 with a letter of 'B' (two shifts).

To define the first shift at 7:59, type **0, 7, (Press) ↓** type **5, 9**.



To define the letter for the shift as 1; press **(Press) ↓** type the number one (**1**). With only one shift defined, the Printer will always print a one.



(Press) ↓ to move the second shift.

Type **1, 9, Down Arrow, 5, 9, (Press) ↓ C**. to define the second shift at 19:59 with a letter of C.

Between 07:59:00 and 19:58:59 the Printer will print the letter 1. Between 19:59:00 and 07:58:59 the Printer will print the letter C.

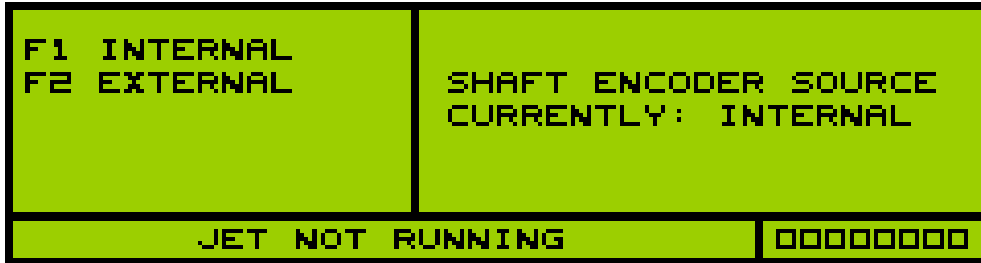
When defining shift codes the **(Press) ENTER** key will save and sort the shifts. The **ESC** key will abandon any changes. A **SPACE** in the shift letter will remove the shift and ignore the time for start of shift.

SHAFT ENCODER SOURCE

CTRL

WIDTH

The Printer has two sources for the shaft encoder. To change the source, (Press) and hold CTRL (Press) WIDTH

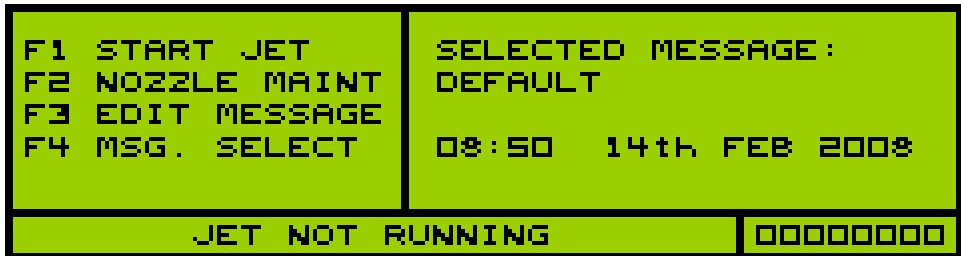


(Press) F1 to select the internal shaft encoder (timer) or (Press) F2 to select the external shaft encoder and wheel.

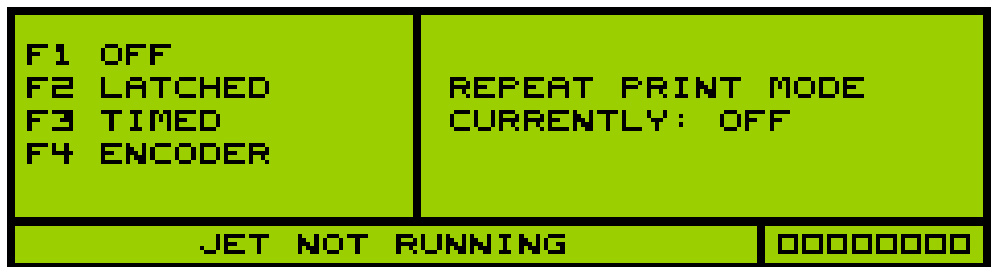
OPERATING IN CONTINUOUS PRINT MODE

This feature is for applications where the Printer is required to print onto a continuous substrate or extrusion. When configured to operate in this mode the Printer prints automatically and at regular intervals, the duration of which is programmable. The duration of the interval between prints can be set in two ways, either as a measure of time (Timed) or as a measure of distance (Encoder).

From the main screen:



Press and hold ALT Press WIDTH



The screen will display the current status; this can be altered via the F1 F2 F3 F4 keys.

When the required mode is selected Press ENTER key to set.

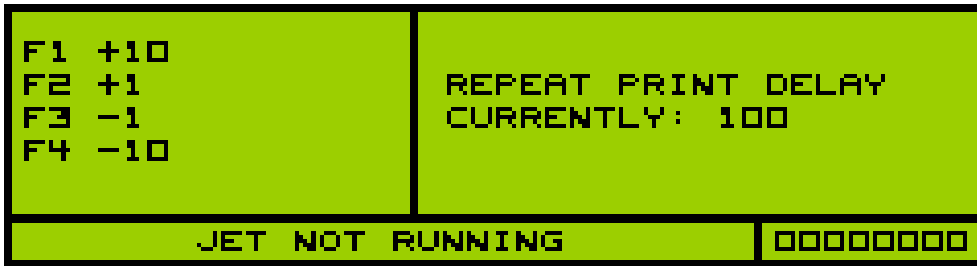
KEY	MODE	FUNCTIONALITY
F1	OFF	The photocell must be triggered for each print.
F2	LATCHED	the photocell must be triggered once to continuous print. Uses Repeat Print Delay.
F3	TIMED	the photocell must be blocked for continuous print. uses the full product delay.
F4	ENCODER	the photocell must be blocked for continuous print. uses 1/10 th of the product delay.

REPEAT PRINT DELAY



Repeat print delay is used in the Latched repeat print mode. When the photocell is triggered, the Product delay is used, and then each subsequent print uses Repeat Print Delay.

To alter the spacing between each reprint, **(Press)** and hold **ALT (Press) DELAY**



The repeat print delay can be adjusted via direct number entry, or **F1 F2 F3 F4** keys, or the **↑** or **↓** keys to the right of the screen.

When the repeat print delay is displayed, **(Press) ENTER** key to set.

EXTENDED FONTS IN CHARACTER GENERATORS

<u>ALT + 3 DIGIT</u>	<u>CHARACTER</u>	<u>NAMED</u>
128	¡	Inverted !
129	¿	Inverted ?
130	«	Spanish Left Quote mark
131	»	Spanish Right Quote mark
132	¶	Pilcrow
133	¢	Cent
134	£	Pound
135	¤	Currency
136	¥	Yen
137	€	Euro-Currency
138	₤	COLON
139	₧	CRUZEIRO
140	₣	FRENCH FRANC
141	₺	Lira
142	₮	NAIRA
143	₱	Philippine PESO
144	₹	India RUPEE
145	₩	Korea WON
146	₪	Isreal SHEQEL
147	₫	Vietnam DONG
148	€	EURO
149	₧	Spain PESETA
150	₴	Russian RUBEL
151	À	A with Grave
152	Á	A with Acute
153	Â	A with Circumflex
154	Ã	A with Tilde





























<u>ALT + 3 DIGIT</u>	<u>CHARACTER</u>	<u>NAMED</u>
155	Ä	A with Diaeresis
156	Å	A with Ring
157	Æ	Latin AE
158	Ç	C with Cedilla
159	È	E with Grave
160	É	E with Acute
161	Ê	E with Circumflex
162	Ë	E with Diaeresis
163	Ì	I with Grave
164	Í	I with Acute
165	Î	I with Circumflex
166	Ï	I with Diaeresis
167	Ð	Capital Eth, D with Stroke
168	Ñ	N with Tilde
169	Ò	O with Grave
170	Ó	O with Acute
171	Ô	O with Circumflex
172	Õ	O with Tilde
173	Ö	O with Diaeresis
174	Ø	O with Stroke
175	Œ	Latin OE
176	Ù	U with Grave
177	Ú	U with ACUTE
178	Û	U with Circumflex
179	Ü	U with Diaeresis
180	Ý	Y with Acute
181	Þ	Capital Thorn
182	ß	Sharp S (B)
183	à	a with Grave












<u>ALT + 3 DIGIT</u>	<u>CHARACTER</u>	<u>NAMED</u>
184	á	a with Acute
185	â	a with Circumflex
186	ã	a with Tilde
187	ä	a with Diaeresis
188	å	a with Ring
189	æ	Latin ae
190	ç	c with Cedilla
191	è	e with Grave
192	é	e with Acute
193	ê	e with Circumflex
194	ë	e with Diaeresis
195	ì	i with Grave
196	í	i with Acute
197	î	i with Circumflex
198	ï	i with Diaeresis
199	ð	Small Eth
200	ñ	n with Tilde
201	ò	o with Grave
202	ó	o with Acute
203	ô	o with Circumflex
204	õ	o with Tilde
205	ö	o with Diaeresis
206	ø	o with Stroke
207	œ	Latin oe
208	ù	u with Grave
209	ú	u with Acute
210	û	u with Circumflex
211	ü	u with Diaeresis
212	ý	y with Acute

<u>ALT + 3 DIGIT</u>	<u>CHARACTER</u>	<u>NAMED</u>
213	þ	Small Thorn
214	ÿ	y with Diaeresis
215	č	C with Caron
216	ć	C with Acute
217	š	S with Caron
218	ž	Z with Caron
219	ő	O with Double Acute
220	ű	U with Double Acute
221	č	c with Caron
222	ć	c with Acute
223	đ	d with Stroke
224	š	s with Caron
225	ž	z with Caron
226	ő	o with Double Acute
227	ű	u with Double Acute
228	Ą	A with Ogonek
229	Ę	E with Ogonek
230	Ł	L with Stroke
231	Ż	Z with Dot
232	Ğ	G with Caron
233	Ş	S with Cedilla
234	ą	a with Ogolek
235	ę	e with Ogolek
236	ł	l with Stroke
237	ż	z with Dot
238	ğ	g with Caron
239	ş	s with Cedilla
240	Ẁ	W with Grave
241	Ẃ	W with Circumflex




























<u>ALT + 3 DIGIT</u>	<u>CHARACTER</u>	<u>NAMED</u>
242	Ŵ	W with Diaeresis
243	Ỳ	Y with Grave
244	Ŷ	Y with Circumflex
245	ÿ	Y with Diaeresis
246	Ẁ	w with Grave
247	Ẃ	w with Circumflex
248	Ẅ	w with Diaeresis
249	ỳ	y with Grave
250	ÿ	y with Circumflex

EDIT MODE FUNCTIONS




<u>KEY</u>	<u>FUNCTION</u>	<u>CATEGORY</u>	
	ESC	Abandon, Do not Save	User
	SAVE	Save & Exit	User
	DEL	Delete Character under Cursor	User
	 ALT DEL	Delete to text to end of field	User
	 CTRL DEL	Delete Field	User
	BOLD	Make Text Bolder	User
	INVERT	Invert Field(s)	User
	REVERSE	Reverse Field(s)	User
	FONTS	Select Font	User
	 ALT FONTS	Select Barcode	User
	CLOCK	Time Field	User
	 ALT CLOCK	Date Field	User
	 CTRL CLOCK	Expiration or Julian Field	User
	 ALT L (+)	Incrementing Field	User
	 ALT M (-)	Decrementing Field	User
	 ALT P	Logo or Picture Field	User
	 ALT S	Serial Buffer Field	User
	 ALT V	Refresh WYSIWYG	User

<u>KEY</u>	<u>FUNCTION</u>	<u>CATEGORY</u>	
	Left Arrow	Move Cursor left one dot	User
	Right Arrow	Move Cursor right one dot	User
	Up Arrow	Move Cursor up one dot	User
	Down Arrow	Move Cursor down one dot	User
	CTRL Right Arrow	Move Cursor left eight dots	User
	CTRL Left Arrow	Move Cursor right eight dots	User
	CTRL Up Arrow	Move Cursor up eight dots	User
	CTRL Down Arrow	Move Cursor down eight dots	User
	ALT Right Arrow	Move Cursor to home	User
	ALT Left Arrow	Move Cursor to the end of Message	User
	ENTER	Move Cursor to next Line	User

MAIN SCREEN FUNCTIONS

<u>KEY</u>	<u>FUNCTION</u>	<u>CATEGORY</u>
	PRINT	Start Jet User
	PAUSE	Quickly Stop Jet User
 	ALT STOP	Cleanly Stop Jet User
	MSG	Select message to Print User
	LEFT Arrow	Contrast Adjustment User
	RIGHT Arrow	Contrast Adjustment User
	EDIT	Message Editor User
 	ALT MSG	Copy Message User
 	ALT DEL	Delete Message User
 	CTRL D	Disable Printing User
 	CTRL P	Induce a manual print trigger User
 	CTRL S	Set Shift periods and Codes User
 	CTRL WIDTH	Shaft Encoder Source User
 	ALT WIDTH	Repeat Print Mode User
 	ALT DELAY	Repeat Print Delay User
	CLOCK	Set the current Date and Time User
	HEIGHT	Temporary EHT Level User
	INVERT	Temporary Message Inversion User

KEY FUNCTION CATEGORY

REVERSE	REVERSE	Temporary Message Reversal	User
CTRL	CTRL E	Temporary Expiration in Days	User
WIDTH	WIDTH	Temporary Shaft Encoder Divisor	User
BOLD	BOLD	Temporary Raster Repeat Count	User
DELAY	DELAY	Temporary Print Delay	User
ALT	 ALT G	Temporary Inter Character Gap	User
CTRL	 CTRL Z	Zero Product Counter	User
ALT	 ALT L	Select Language	User

KEY FUNCTION CATEGORY

ALT	D	ALT D	Diagnostic Mode	Service/User
ALT	PRINT	ALT PRINT	System-Warm Up Mode	Service/User
CTRL	PRINT	CTRL START	Nozzle Flush	Service/User
CTRL	PAUSE	CTRL PAUSE	Umbilical Purge	Service/User
ALT	HEIGHT	ALT HEIGHT	EHT Trip Level Set	Service
ALT	P	ALT P	Default Pump Pressure	Service
CTRL	M	CTRL M	Modulation Level	Service
ALT	Q	ALT Q	Phase Voltage Level	Service
ALT	C	ALT C	Phase Control Disable/Enable	Service
CTRL	C	CTRL C	Charge Error Shutdown Disable/Enable	Service/User
ALT	E	ALT E	Photocell Edge Select	Service
CTRL	V	CTRL V	Viscosity Set point	Service
ALT	V	ALT V	Viscosity Warm Up Time	Service
CTRL	DEL	CTRL DEL	Delete All Messages	Service

ALT	D	ALT	F1	Alt D Alt F1	Calibration Menu	Service
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