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# **XL-300** with *Enhanced Answer Back*

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## **Overview**

The XL-300 **Enhanced** Answer Back feature gives the user the ability to program an answer back message that the printer will send to the host computer. This can be useful when testing to see if the printer is available before transmitting a job. The method of programming the Answer Back message is the same functionally as the current DS-180 with answer back, hence, the user does not have to learn a new procedure. However, there are some enhancements to the XL-300 *Enhanced* Answer Back which will make programming the message easier. These enhancements include:

1. The ability to print the Answer Back message from the front panel allowing the user to verify what has been entered.
2. The user can now modify a message without having to re-program the entire message.

## **Entering an Answer Back Message**

The following examples illustrate the methods of entering and modifying answer back messages. Each example starts with the printer in what will be called the "Answer Back Program Mode". To get to this mode the printer must be powered ON and paper properly loaded (see the Operators Manual).

Step 1. Press the 'Off line' key (if not Off line).

Step 2. Press the 'Enter Setup' key (the Setup light will flash).

Step 3. Using the 'Display ▲' key, scroll through the features until feature '21' is shown in the display window.

Step 4. Press the 'Feature Value' key. The value of the first character of the message will now be displayed. If there is no message programmed, the value will be '0'.

## **Entering an Answer Back Message (cont.)**

Step 5. Using the 'Display ▲' and 'Display ▼' keys, increase or decrease the display until the desired character value is shown (Refer to Table A for character values).

Step 6. Press the 'Set' key to enter the value into the message. Pressing the 'Set' key advances to the next message location. Each time a character is entered, the bell will ring once. A '0' displayed in the window will always indicate the end of the answer back message. Any other value indicates the current character in that message location. The printer will beep twice if the user attempts to load the value '0'.

Step 7. Repeat steps 5 and 6 for all desired message characters (maximum of 32 characters). If more than 32 characters are entered, the printer will exit the 'Answer Back Program Mode' automatically and print the answer back message.

Step 8. When all characters are programmed, press the 'Exit Setup' key (see note below). The printer will exit the 'Answer Back Program Mode' and print the answer back message. The message is now entered and the printer will answer according to the "Answer Back Qualifications" listed in this document.

**NOTE:** The 'Exit Setup' key must be used when programming a new message or if changing the length of the current message. Pressing this key 'terminates' the answer back message at the current message location. (For further information, see "Key Definitions" in this document)

## **Modifying an Answer Back Message**

Step 1. Print the current message for easy reference (See Printing an Answer Back Message).

Step 2. Enter the 'Answer Back Program Mode'.

The display window will show the value of the first character in the answer back message. Use the 'Set' key and 'Clear' key to scroll forward and backward through the message. If a '0' is displayed (figure 2), the printer is at the end of the message and pressing the 'Set' key will cause the bell to ring twice. Also, if the bell rings twice when pressing the 'Clear' key, the printer is at the beginning of the message.

Step 3. Using the message printout as a reference, scroll to the character to be changed. This can be done by comparing the value displayed in the display window with the value on the print out. If you lose track of which character is currently displayed, press the 'Feature Number' key to return to the setup mode. Then press the 'Feature Value' key to re-enter the 'Answer Back Program Mode' and start at the beginning of the message.

Step 4. Using the 'Display ▲' and 'Display ▼' keys, increase or decrease the display until the desired character value is shown (Refer to Table A).

Step 5. Press the 'Set' key to change the value. The bell will ring once.

Step 6. Repeat steps 4 and 5 for any characters that need to be changed.

Step 7. When all modifications are complete, press the 'Feature Value' key to exit and print the message or press the 'Feature Number' key to return to the Setup mode.

**NOTE:** Using the 'Exit Setup' key to exit when modifying an existing message may truncate the message. This key is normally used to clear or change the length of an existing message.

## Clearing an Answer Back Message

There are two methods of clearing the answer back message.

1. a. Enter the 'Answer Back Program Mode'.  
b. Press the 'Exit Setup' key. The following message will print indicating the answer back message has been cleared.  
    Answer Back Message  
    No Answer Back Message Stored
2. a. Send the printer the following sequence (see Downline Programming for information on programming sequences):  
    <Esc>Z<0>

## Printing an Answer Back Message

Step 1. Enter the 'Answer Back Program Mode'.

Step 2. Press the 'Feature Value' key. The answer back message will print in the following format:

Value x = yyy - z

where 'x' is the current message character position 1 to 32, 'yyy' is the decimal value from Table A of the character at that position, and 'z' is the graphic character.

## Answer Back Qualifications

The following conditions are required for the printer to send the answer back message:

- Condition 1. Feature 78 set to '1' (Default setting). The printer will send the answer back message when an 'EQ' character (decimal 5) is sent to the printer in the data stream.
- Condition 2. Feature 79 set to '1' (Default setting). The printer will send the answer back message when pin 8 of the serial interface is toggled from an inactive to active state.
- Condition 3. This feature is only active in DS-180 mode (Feature 13 set to a value of 1) and DEC mode (Feature 13 set to a value of 8).

Additionally, the printer will not send the message if it is 'Off line' or in a 'Paper Out' condition.

## Down line Programming

The answer back message may be programmed from the host computer by sending the following escape sequence and parameters:

<ESC>Zn1...n32<0>

where: <ESC> is the escape control code (decimal 27).

Z (decimal 90) indicates to the printer that an answer back load message follows.

n1...n32 represents each character to be loaded into the answer back message (maximum of 32 characters). Valid values are decimal 1 to 127 (see Note that follows)

<0> is the 'NULL' terminator character (decimal 0) which indicates to the printer that this is the end of the answer back message.

**Note: The following characters cannot be used as part of the answer back message when programming from down line:  $N_U$  (decimal 0)  $E_X$  (decimal 3) and  $E_Q$  (decimal 5)**

## Key Definitions

The following describes the keys used and their functions while **IN the 'Answer Back Program Mode'**.

- Display ▲ - This key increments the current answer back character value. The value is not stored.
- Display ▼ - This key decrements the current answer back character value. The value is not stored.
- Set - This key stores the value displayed into the current answer back character location and moves the message pointer to the next character location.
- Clear - This key stores the value displayed into the current answer back character location and moves the message pointer to the previous character location.
- Feature Number - This key returns the printer to the Setup mode.
- Exit Setup - This key returns the printer to the Off line condition, prints the answer back message, and terminates the message at the current message pointer location. This key is normally used to clear or shorten an answer back message.

Example: Assuming the current message is 'message', after entering the 'Answer Back Program Mode' the value displayed will be '109' representing the 'm'. Pressing the 'Exit Setup' key will terminate the message at this character location and clear the message. If the user had scrolled to the letter 'a' ('message'), pressing the 'Exit Setup' key would truncate the message leaving ('mess') as the message.

- Feature Value - This key returns the printer to the Off line condition and prints the answer back message. Any changes to the message are retained and the message is not terminated (ie. same number of characters in the message). This key is normally used when modifying an existing message.

**TABLE A**  
ASCII Character Table

00 - <sup>N</sup> U*	19 - <sup>D</sup> <sub>3</sub>	38 - &	57 - 9	76 - L	95 - ...	114 - r
01 - <sup>S</sup> <sub>H</sub>	20 - <sup>D</sup> <sub>4</sub>	39 - '	58 - :	77 - M	96 - `	115 - s
02 - <sup>S</sup> <sub>X</sub>	21 - <sup>N</sup> <sub>K</sub>	40 - (	59 - ;	78 - N	97 - a	116 - t
03 - <sup>E</sup> <sub>X</sub>	22 - <sup>S</sup> <sub>Y</sub>	41 - )	60 - <	79 - O	98 - b	117 - u
04 - <sup>E</sup> <sub>T</sub>	23 - <sup>E</sup> <sub>B</sub>	42 - *	61 - =	80 - P	99 - c	118 - v
05 - <sup>E</sup> <sub>Q</sub>	24 - <sup>C</sup> <sub>N</sub>	43 - +	62 - >	81 - Q	100 - d	119 - w
06 - <sup>A</sup> <sub>K</sub>	25 - <sup>E</sup> <sub>M</sub>	44 - ,	63 - ?	82 - R	101 - e	120 - x
07 - <sup>B</sup> <sub>L</sub>	26 - <sup>S</sup> <sub>B</sub>	45 - -	64 - @	83 - S	102 - f	121 - y
08 - <sup>B</sup> <sub>S</sub>	27 - <sup>E</sup> <sub>C</sub>	46 - .	65 - A	84 - T	103 - g	122 - z
09 - <sup>H</sup> <sub>T</sub>	28 - <sup>F</sup> <sub>S</sub>	47 - /	66 - B	85 - U	104 - h	123 - {
10 - <sup>L</sup> <sub>F</sub>	29 - <sup>G</sup> <sub>S</sub>	48 - 0	67 - C	86 - V	105 - i	124 -
11 - <sup>V</sup> <sub>T</sub>	30 - <sup>R</sup> <sub>S</sub>	49 - 1	68 - D	87 - W	106 - j	125 - }
12 - <sup>F</sup> <sub>F</sub>	31 - <sup>U</sup> <sub>S</sub>	50 - 2	69 - E	88 - X	107 - k	126 - ~
13 - <sup>C</sup> <sub>R</sub>	32 -	51 - 3	70 - F	89 - Y	108 - l	127 -
14 - <sup>S</sup> <sub>0</sub>	33 - !	52 - 4	71 - G	90 - Z	109 - m	
15 - <sup>S</sup> <sub>I</sub>	34 - "	53 - 5	72 - H	91 - [	110 - n	
16 - <sup>D</sup> <sub>L</sub>	35 - #	54 - 6	73 - I	92 - \	111 - o	
17 - <sup>D</sup> <sub>1</sub>	36 - \$	55 - 7	74 - J	93 - ]	112 - p	
18 - <sup>D</sup> <sub>2</sub>	37 - %	56 - 8	75 - K	94 - ^	113 - q	

\* The <sup>N</sup><sub>U</sub> character cannot be used in the answer back message.

**Note: The following characters cannot be used when programming from down line:**

<sup>E</sup><sub>X</sub> (decimal 3) and <sup>E</sup><sub>Q</sub> (decimal 5)