

Farnell Order Codes 654-632 and 882-884

Function

The unit is designed to interface between an RS232 port and a standard LCD display module based on the Hitachi HD44780 controller. Control codes are interpreted while standard ASCII characters are passed through to the display.

Control Codes

^A 01h CLEAR DISPLAY
^Bn 02h CLEAR LINE n (where n = 0 to 3 represents lines 1 to 4)
^Cxx 03h LINE 1 POSITION
^Dxx 04h LINE 2 POSITION
^Exx 05h LINE 3 POSITION
^Fxx 06h LINE 4 POSITION

where xx is the position on the line and is decoded from the ASCII table below

ASCII	0	1	2	3	4	5	6	7	8	9	:	;	<	=	>	?
Hex	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
Position	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

Remembering the cursor starts at 0, the following examples illustrate line positioning
e.g. to position the cursor at the start of line 1 send ^C00
to position the cursor at position 5 on line 2 send ^D04
to position the cursor at position 12 on line 3 send ^E0;
(; = 12)
to position the cursor at position 20 on line 4 send ^F13 (10 = 17) + 3 = 20

^H 08h CURSOR ON
^I 09h CURSOR OFF

Interface

J1 - data link and power feed

3 RS232 data in
5 0V
9 +12v power feed

J4 - power feed

1 0V
2 0V
3 from pin 9 of J1
4 +9-18V power feed

* if power is to be fed via the RS232 lead, link pins 3&4 of J4 and feed from the host end of the cable

The module is not designed for use with the 4x40 displays.

Switch Settings

Switch settings are read on power up only.

1	2	3	4	5	6	7	8	Function
1	1							600 baud
0	1							1200 baud
1	0							2400 baud
0	0							2400 baud
		1	1					1 line
		0	1					2 lines
		1	0					4 lines
		1	1					4 lines
				1	1	1		8+8 characters
				0	1	1		8 characters
				1	0	1		16 characters
				0	0	1		20 characters
				1	1	0		24 characters
				0	1	0		32 characters
				1	0	0		40 characters
				0	0	0		test mode

Test mode shows "Farnell" on line 1 and "654-632" on line2

LCD connections

Pin	Function
1	Vss
2	Vdd
3	Contrast
4	RS
5	R/W
6	E
7	DB0
8	DB1
9	DB2
10	DB3
11	DB4
12	DB5
13	DB6
14	DB7

Other Products

LCD MC 654-632
LCD MC x 10 882-884
Developers Pack 942-698
Includes Assembler, Source Code, 2 x PICless 654-632 Boards

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NOTE Some LCD modules have slower response times than normal. This leads to irregular characters being displayed. If this occurs, increase the delay time