

# LCD mini message board with backlight and enclosure.

**Velleman Kit**  
**Legen Heirweg 33**  
**9890 Gavere**  
**Belgium**

The unit starts displaying the default message when it is first activated (unplug the adapter and wait a while before plugging it in again if the display remains blank or displays garbage).

Press the UP (SW1) or DOWN (SW3) button repeatedly to scroll through the menu options :

↶ **SET SPEED – POWER OFF – EDIT MESSAGE – SHOW MESSAGE** ↷

Press ENTER (SW4) to select a menu option.

## **SET SPEED :**

- The user can set the scrolling speed.
- Press UP to increase the scrolling speed or DOWN to decrease it
- Confirm with ENTER.

## **POWER OFF :**

- Turns off the unit. Your message and the speed setting are saved and protected by the EEPROM memory, even when the batteries are removed.
- Press ENTER to turn on the unit.

## **EDIT MESSAGE :**

- Enables the user to modify a message
- Messages can be 124 characters long.
- Press UP or DOWN to scroll through the character table.
- Press ENTER to confirm a character and move to the next one
- There are 2 preassigned characters : ← adds a scrolling pause → indicates the end of a message.
- Press SPACE (SW2) to choose between a space, the letter 'a\*', the letter 'A\*', the pause character or the 'end-of-message' character.
- (\*This is convenient because it saves you from scrolling through the entire character set to locate the desired character)
- Exit the EDIT mode : press ENTER repeatedly until you reach the 'end-of-message' character or hold ENTER for 2 seconds. The unit starts displaying the current message.



**HINT :** Put an 'end-of-message' character in front of the first character of the current message to restore the default message.

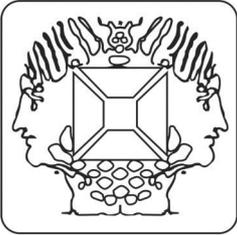
## **SHOW MESSAGE :**

- Starts displaying the current message.

## **ADVANCED OPTIONS :**

- Hold 'UP' at startup for RS232-terminal mode
- Hold 'DOWN' at startup to upload a message from your PC to the MK158

Please check [www.velleman.be](http://www.velleman.be) for more info and free software



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## USE OF THE BUILT-IN RS232 INTERFACE

The MK158 features a built-in RS232 interface you can use for uploading and displaying messages. The terminal settings are : 2400 / N / 8 / 1 no handshaking.

### Uploading a message :

Hold 'DOWN' while turning on the unit.

The display will read **RS232 → MK158**

The unit is now ready to receive ASCII text via the serial port.

You can type in your message via a terminal program or you can use the Visual Basic program that can be downloaded from our website at no charge.



#### Hint :

- The end-of-message character is added and the unit starts displaying the message if you enter CHR\$(13) (the 'ENTER' button).
- The 'pause'-character is added if you enter CHR\$(196) (ALT 196).

### Displaying a message :

- Hold the 'UP' key while turning on the unit (if desirable, you can bridge the 'UP' button (SW1) permanently with a wire-jumper so the unit will remain in this mode).
- The display blanks.
- The unit is now ready to receive ASCII text via the serial port.
- You can type in your message via a terminal program or you can use the Visual Basic program that can be downloaded from our website.
- The text appears on the screen and scrolls from right to left while you are typing the words.



**Hint :** The display blanks if you enter CHR\$(13) (the 'ENTER' button).