



SERIAL COMMUNICATION PROTOCOL FOR: AT SERIES **- Fast Upgrade**

The MS Display units can be linked to a computer through a serial communication RS232 using the following standard :

Baud Rate : 9600
Start Bit : 1
Stop Bit : 2
Parity : None
8 Bit ASCII Code compatible with IBM ASCII .

CONNECTING THE COMPUTER TO THE SIGN

Ensure that your computer has a RS232 serial port fitted.

Use a screened cable to link up the units.

In the computer side use a DIN 25 plug to fit into the computer serial port and in the sign, use DIN 5 Round Plug to fit into the socket in the sign.

Connect PIN 2 on the DIN 25 ("**Transmit Data**") to PIN 5 in the DIN 5.

Connect PIN 7 on the DIN 25 ("**Ground**") to PIN 4 in the DIN 5.

COMMUNICATION PROTOCOL

<u>Header</u>	<u>Description</u>	<u>Decimal Code</u>
Header	SYNC	00
	NOL	05
	ADDRESS	XX (1 – 127 "00" = ALL CALL)
	ETX	03
Message	Message (ASCII) See Details Below.	
	End Of Text	04
	CheckSum For This Transmission.	

*(The CHECKSUM is an Exclusive **OR** Function BIT by BIT, starting at the SYNC up to and including the "END OF TEXT" BYTE) .*

MESSAGE

The text will be made from ASCII characters.

Each line will start with Normal letters. The letters can be set as “*ENLARGE*” and /or ‘Flash’ Style (See Details Below).

To Update Only Part Of The Message:

Send the “*Escape*” command (Decimal Value 27) followed by 3 ASCII bytes, the BYTE number that the message will start from.

Using *ENLARGE* mode: To change the style of letters to *ENLARGE* Mode.

Send Control Code (Decimal Value 28) Followed by the letters “**E**”.
Repeat the same to return to normal letters.

Using Flash Mode: To Flash Parts of the message, send control Code (Decimal Value 28) followed by “**F**” .
Repeat the same to return to normal mode.

To Reset Flash and *ENLARGE* Mode: Send control code (Decimal Value 28) Followed by the letter “**D**”.
Return To Default Setting.

**For Further Info , Please Contact : Piers-Rogers (Electronics) Ltd.
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