



Quick Installation Guide

The MOS Series is Matrix Orbital's newest line of displays that offer high quality at a lower cost. For those who are budget-minded, the MOS Series is more economically friendly, however, it offers many features of its LCD, VFD and PLED predecessors.

- Built-in font with provision for up to 8 user defined characters
- 9600bps or 19.2 Kbps
- Software controlled:
 - 32 levels of contrast in MOS Series LCD's
 - 4 levels of brightness in MOS Series VFD's
 - 32 levels of brightness in MOS Series PLED's
- Communication over RS232 or TTL
- Ability to add customized splash/startup screen
- Configurable time-out setting up to 90 minutes
- 3 GPO's for a variety of applications
- Horizontal or vertical graphs and medium sized digits
- Extended temperature models available

List of Materials Required:

- Breadboard Cable
- Parallax Board of Education Development Board
- Matrix Orbital MOS Series Compatible Display
- Power Supply

Steps for Installation:

STEP 1:

With the MOS Series you will need to connect the display to the development board via the breadboard cable. The 4 pin connector will be connected to the display accordingly. As this connector has a locking header there is only one way in which it fits properly. The remaining 4 connections will be connected to the Parallax development board accordingly:

Figure 3: Description of Breadboard Cable Connections



Breadboard Cable	Development Board
Red (+5V)	Vdd
Yellow (Tx)	P0
Green (Rx)	P1
Black (Grnd)	Vss

STEP 2:

Once all connections have been properly installed, the development board may be powered up. At power up you will notice a start up screen on the display. It will have a Matrix Orbital Logo, followed by the part number in which you have ordered. The MOS Series has been set to 9600 baud and in TTL mode by factory default for Parallax. If you would like to change the default settings, please see the manual for further instructions.

STEP 3:

You are ready to communicate to the display! Using the Basic Stamp editor, a simple “Hello World” program may be written to the display to test functionality. Please see the following program below for communication:

```
'{$STAMP BS2}  
SEROUT 1, 84, [ "HELLO WORLD" ]
```

In this example, HELLO WORLD will be displayed.

SEROUT : is the command to send serial information out

1 : is P1 on the development board

84 : is the speed at which the information is sent at, in our case 9600bps.

Please consult your owners manual for further information or feel free to visit our forums at www.lcdforums.com/forums for further reference. Programming examples are also available and our technical support staff is more than happy to help with an questions or concerns you may have with this product.