



## INSTALLATION GUIDE

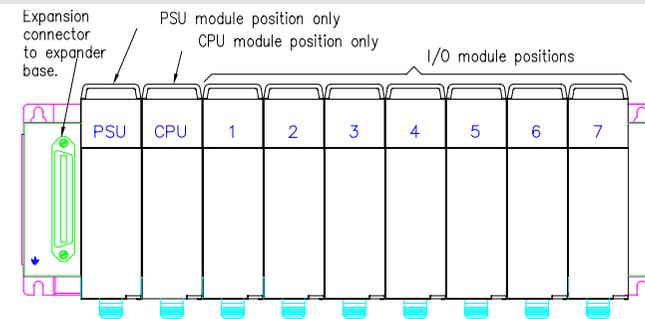
Maxiflex Serial NIM  
M1580A

### Introduction

*This Installation Guide is intended to aid the fitment of the M1580A in the field. For operating details of this product, refer to the Users' Manual. Please read this Installation Guide **first** before installing this unit.*

The M1580A NIM is a programmable device which is used for handling Network Communication off loading the Maxiflex System CPU from the task. It is always fitted to any I/O slot of the Maxiflex base. See figure 1. It has two configurable serial ports. Each port has a DIP switch for address and parameter settings. See Table 2.

Figure 1 : Module Positions

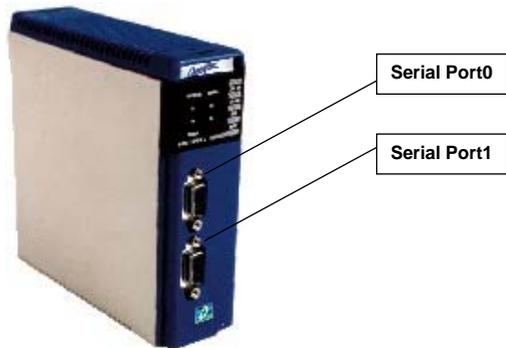


Note: The exact position of the I/O module will depend on the system configuration.

### Hardware Installation Procedure

1. If the NIM is going to be programmed use Programming port cable M1831 which is available as an accessory (Model No. M1831). Connect this cable into the programming port of the Maxiflex CPU.
2. Plug the NIM into the required I/O slot (as per Figure 1).

**Figure 2: Front Panel Layout of M1580A**



**Table 1: M1580A Front Panel Diagnostics**

LED Legend	LED Colour	Description
OK	Green	ON - NIM is healthy OFF or Flashing – No power applied or NIM Faulty
RUN	Green	ON – user application software is running OFF – No user application software is running Flashing – Terminal interaction with NIM
PORT0 Rx	YELLOW	ON – data is being received on serial port0 OFF – serial port0 receiver is idle
PORT0 Tx	RED	ON – serial data is being transmitted on serial port0 OFF – serial port0 transmitter is idle
PORT1 Rx	YELLOW	ON – data is being received on serial port1 OFF – serial port1 receiver is idle
PORT1 Tx	RED	ON – serial data is being transmitted on serial port1 OFF – serial port1 transmitter is idle

**Table 2: Switch 1 & 2 Set-up (Serial Port0 & Serial1)**

**Communications Protocol**

**Modbus Protocol (Slave device):**

Transmission Mode: ASCII  
Baud rate: 9600  
Data bits: 7  
Parity: none  
Stop bits: 1  
Address: see dipswitch

**Conet/s Protocol**

Transmission Mode: RTU  
Baud rate: 19200  
Data bits: 8  
Parity: none  
Stop bits: 1  
Address: see dipswitch

**Serial Port Dipswitch setting**

Switches 1-5: Modbus Slave ID  
Switches 6-8: Protocol  
Switch 8 ON = Modbus default



Switches 1-5: Conet/s ID  
Switches 6-8: Protocol  
Switch 7 ON = Conet/s default



The default operation is to use the serial port for standard communications allowing the user to get the NIM up and running quickly and easily both on the test bench and in the field. In this case the Serial Ports Dipswitch alongside the male, sub-miniature DB-9 connector has the above default configurations. The serial ports are also software configurable using the DITView/Omniset utility or application program, but when switch 7 or 8 of the dipswitch is turned ON, then the dipswitch setting overrides the software configuration. *To restore the settings to the software configuration, simply set switch 7 or 8 of the dipswitch OFF.*

**Table 3: Serial Port0 & Serial Port1 Pinout**

The M1580A DUAL SERIAL NIM allows jumperless conversion between RS232 and RS485 communications. By simply following the appropriate pinout of the serial port connector below it is possible to connect the NIM in either RS232 or RS485 mode without making any hardware or software changes to the NIM.

Pin number	Communication Standard	
	RS232	RS485
1	Do not connect	Rx Data + (In)
2	Rx Data (In)	Rx Data – (In)
3	Tx Data (Out)	Do not connect
4	Do not connect	Tx Data+ (Out)
5	Ground	Ground
6	Do not connect	Vcc
7	RTS (Out)	Do not connect
8	CTS (In)	Do not connect
9	Do not connect	Tx Data – (Out)