INSTALLATION GUIDE
## Maxiflex P3e-R CPU
M1267C

Introduction

*This Installation Guide is intended to aid the fitment of the M1267 CPU 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 Maxiflex P3e-R CPU is designed specifically for applications requiring PLC programming, offering industry standard IEC61131 programming capabilities combined with powerful industrial network communications features in a redundant configuration when paired with another M1267B P3e-R CPU.

It is always fitted into the CPU slot of a Maxiflex master base, next to the PSU module. See figure 1. It has one port which is a configurable serial port. This port has a DIP switch for address and parameter settings. The M1267B is equipped with an Ethernet based Network port for Supervisory communications, an additional Ethernet based Sync port for data synchronisation with the paired M1267B CPU, and serial port (RS232/485) and a programming port.

RAM is battery backed so that application program variables are not lost on power down, the battery will be connected if you have an Omniflex application loaded already. If you are starting with a fresh CPU from stock the battery will need to be connected.

Figure 1 : Module Positions
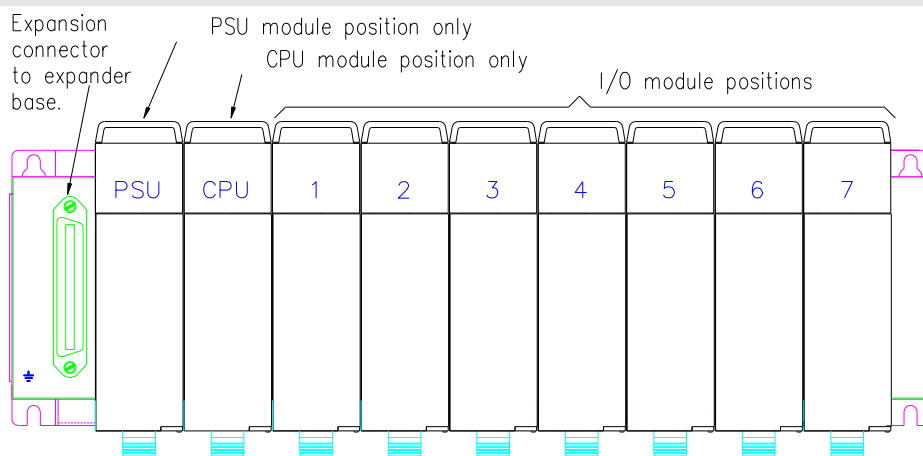
Note: The exact position of the I/O module will depend on the system configuration.

Hardware Installation Procedure

1. If the BATTERY is required then connect jumper located in the front of the module, just above the DB-9 serial port connector. Remove paper strip which says PULL TO CONNECT BATTERY. The Real time clock must then be set.

2. If the CPU is going to be programmed use Programming port cable M1831 which is available as an accessory (Model No. M1831).
3. Plug the CPU into the CPU slot (as per Figure 1).

Software Requirements
Omniset is the PC utility that is used to configure the unit.

Configuring the Realtime Clock(RTC)
1. Assemble the Maxiflex base as shown in Figure 1 with the M1267B fitted into the CPU slot and a suitable Maxiflex PSU in the PSU slot
2. Connect power to your system.
3. Connect the M1831 programming cable between the COM port of your PC/laptop and the programming port of the Maxiflex CPU.
4. Open Omniset and click on File->Connect->Maxiflex CPU TAB.

Select the GROUP Configuration->Ports->Realtime Data->Date/Time which is found in the left hand pane. Change the RTC settings by pointing the mouse to the ITEM you wish to change and clicking on the right mouse button and selecting the New Value option that pops up. Enter you new setting when prompted. Refer to screen grab below.
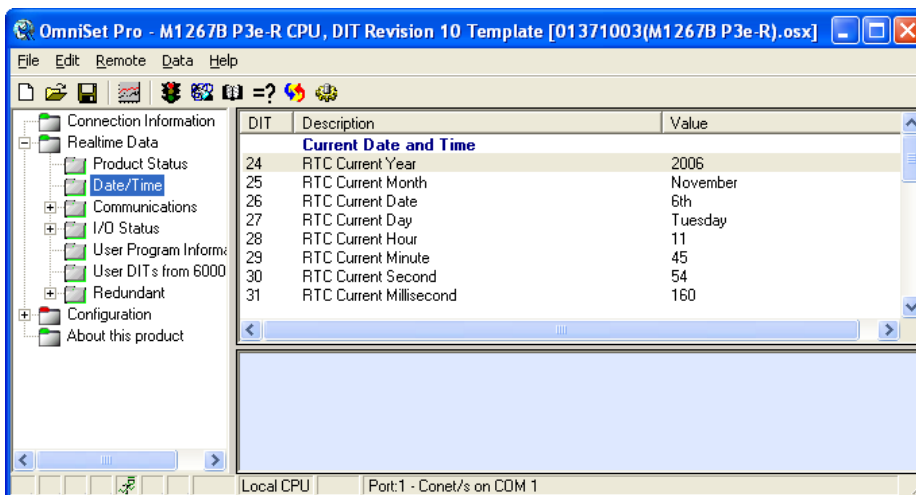
Table 1: P3e CPU Front Panel Diagnostics

LED Legend	LED Colour	Description
CPU OK	Green	ON - CPU is healthy OFF or Flashing – No power applied or CPU Faulty
I/O OK	Green	ON - I/O Module status healthy and I/O Manifest is configured. FLASHING – I/O Manifest is configured but disagrees with installed hardware. OFF – I/O Manifest is not configured.
RUN	Green	ON – user application software is running OFF – No user application software is running Flashing – Terminal interaction with CPU
BATT	RED	ON – Internal battery is LOW or not connected. OFF – Internal battery is good.
SERIAL Rx	YELLOW	ON – data is being received on serial port OFF – serial port receiver is idle

SERIAL Tx	RED	ON – serial data is being transmitted on serial port OFF – serial port transmitter is idle
NET LINK	GREEN	ON – Ethernet Network link established, blinking with Ethernet network communications. OFF – No Ethernet Link present.
NET 100	YELOW	ON – 100 BaseT Ethernet interface. OFF – 10 BaseT Ethernet interface.
SYNC LINK	GREEN	ON – Sync link established, blinking with sync link communications. OFF – No Sync Link present.
SYNC 100	YELOW	ON – 100 BaseT Ethernet interface. OFF – 10 BaseT Ethernet interface.

Table 2: Programming Port Pinout

Signal Name	DB-9	FCC-68 Pin No.
Rx Data from P3	2	4
Tx Data to P3	3	1
Ground Reference	5	2
All other pins are reserved and must not be connected.		

NOTE: This information is only necessary if you are making up your own programming cable. If you are using a M1831 Programming port cable, simply connect the programming cable between the CPU and PC as per the connectors of the programming cable.

Table 3: Switch 1 Set-up (Serial Port)

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

Switches 1-5: Conet 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 CPU up and running quickly and easily both on the test bench and in the field. In this case the Serial Port Dipswitch beneath the male, sub-miniature DB-9 connector has the above default configurations. The serial port is also software configurable using the Omniset utility or application program, but when switch 7or 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 4: Serial Port Pinout

The M1267B P3e CPU 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 CPU in either mode without making any hardware or software changes to the CPU.

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)

Serial Port Default Settings
1. The default Protocol is Conet/s.
1. The default Baud Rate is 19200.
2. The default Data Bits is 8.
3. The default Parity is None.
4. The default Stop bits is 1 Stop Bit.
5. The default DTR/CTS Handshaking is Off.
6. The default DTR/CTS Timeout (ms) is 0.

Changing Serial Port Settings
1. Assemble the Maxiflex base as shown in Figure 1 with the M1267B fitted into the CPU slot and a suitable Maxiflex PSU in the PSU slot
2. Connect power to your system.
3. Connect the M1831 programming cable between the COM port of your PC/laptop and the programming port of the Maxiflex CPU.
4. Open Omniset and click on File->Connect->Maxiflex CPU TAB.

Select the GROUP Configuration->Ports->Serial Port which is found in the left hand pane. Change your Serial Port settings by pointing the mouse to the ITEM you wish to change and clicking on the right mouse button and selecting the New Value option that pops up. Enter you new setting when prompted. Refer to screen grab below.
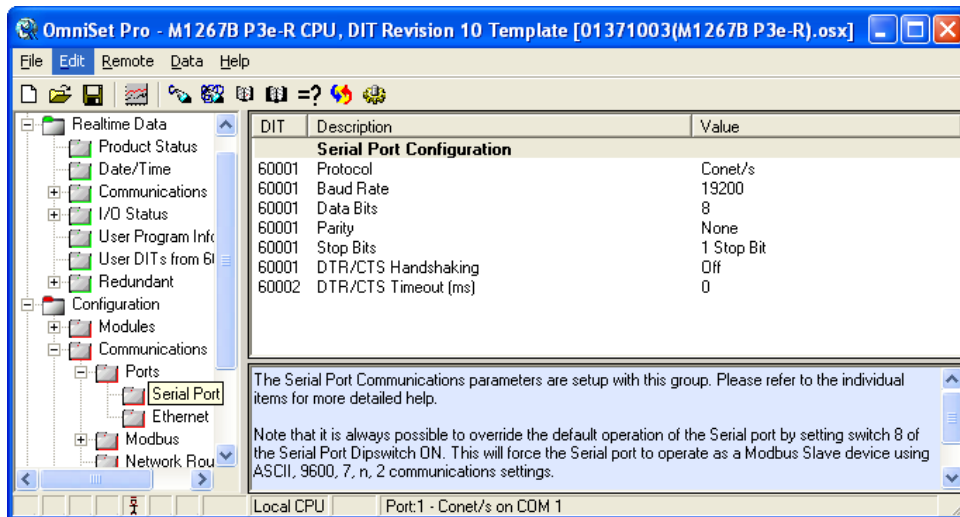
| | Network Port | |

Network Port Default Settings
NOTE: These settings refer to the Network port of the CPU and is not to be confused with the Sync port. Below is a list of

5. The default IP Address is 192.168.0.100.
6. The default Subnet Mask is 255.255.255.0
7. The default Gateway Address is 0.0.0.0
8. The default Modbus TCP Port Number is 502, this must not be changed.
9. The default Conet/e Port Number is 1300, this must not be changed.
10. The default Local ID is 2.

Changing Ethernet Settings
11. Assemble the Maxiflex base as shown in Figure 1 with the M1267B fitted into the CPU slot and a suitable Maxiflex PSU in the PSU slot
12. Connect power to your system.
13. Connect the M1831 programming cable between the COM port of your PC/laptop and the programming port of the Maxiflex CPU.
14. Open Omniset and click on File->Connect->Maxiflex CPU TAB.
15. Select the GROUP Configuration->Ports->Ethernet Port which is found in the left hand pane. Change your Ethernet settings by pointing the mouse to the ITEM you wish to change and clicking on the right mouse button and selecting the New Value option that pops up. Enter you new setting when prompted. Refer to screen grab below.

OmniSet Pro - M1267B P3e-R CPU, DIT Revision 10 Template [01371003(M1267B P3e-R).osx]

File   Edit   Remote   Data   Help

DIT	Description	Value
	Ethernet Port Configuration	
6000...	IP Address	192.168.0.100
6000...	Subnet Mask	255.255.255.255
6000...	Gateway Address	0.0.0.0
60009	Modbus TCP Port Number	502
60010	Conet/e TCP/UDP Port Number	1300
60013	Local ID	2

Tree (left panel):
- Realtime Data
  - Product Status
  - Date/Time
  - Communications
  - I/O Status
  - User Program Info
  - User DITs from 6I
  - Redundant
- Configuration
  - Modules
  - Communications
    - Ports
      - Serial Por
      - Ethernet
    - Modbus
    - Network Rou

Local CPU   Port:1 - Conet/s on COM 1