

iMAC MODULE PROGRAMMING PROCEDURE

Monitoring and Control

Description

iMAC Modules typically need to be programmed (configured) when connected to the iMAC L1 Fieldbus communication line. The iMAC Controller is used to program the modules. Each module (data register) must be programmed with an address and up to three other parameters.

The parameters are used to control how a particular module behaves. The number of parameters which have to be programmed, and their functionality, is different for each type of iMAC module. For a list of each module's programmable parameters and descriptions of their function, refer to the module's datasheet.

When you purchase and install a Generation 2 module on your existing system, **you will not be able to Rollcall or configure** (read/write parameters) unless you have updated the Operating System on the iMAC/iMAC2 Controller to V4.1 or greater. The application SLP code must also be updated to display the Serial Number "Generation" on the Rollcall page. This guide assumes both of these have been updated. For more information on updating the iMAC/iMAC2 Controller for Gen 2 support, refer to IMACB177 iMAC Gen 2 Product News.



Procedure

The following is a step-by-step procedure for successfully programming an iMAC module:

Step 1

Press the **<MENU>** key on the controller keypad to reveal the main user menu. Use the **<DOWN ARROW>** key to reveal the "ROLLCALL PAGE" menu item (see note 1). Select this item by pressing one of the four functions keys, **<F1>** to **<F4>** that corresponds to the screen line displaying this message. The following page will be displayed, showing the first module found (see note 2):

F1	MAIN ROLLCALL PAGE	▶
F2	DI4 module	next>
F3	S/N: 45456	(Gen1)
F4	Address: 123,	read>

Step 2

Select the "...next>" menu item by pressing **<F2>**, to roll call the next module.

With each press of **<F2>**, the screen lines 2, 3 and 4 should change to indicate the type, Serial Number, Generation Number and Module Address of the next module roll called.

The module, which has just been roll called, will be indicating this via a two-flash of its status LED. If this module is not the desired module, simply

keep selecting "next>" by pressing **<F2>** until the desired module type, Serial Number, Generation Number and Module Address are displayed.

Step 3

Select the "Address 123, read>" menu item by pressing **<F4>**. The following page will be displayed:

F1	MAIN PROGRMING PAGE	▶
F2	iMAC ADDRESS: 123d	▶
F3	PARAM WORD2: 0000h	▶
F4	PARAM WORD3: 0000h	▶

Press the **<DOWN>** arrow key to reveal the off screen menu items

PARAM WORD4: 0000h
WRITE PARAMETERS ?

Step 4

Select the "iMAC ADDRESS 123d" menu item by pressing **<F2>**. A flashing cursor will appear so that the address may be changed. Press either the **<LEFT>** or **<RIGHT>** arrow keys to move the cursor over the digit to be changed. Increment or decrement to the desired value by pressing the **<UP>** or **<DOWN>** arrow keys. To confirm changes press **<F2>**, or at any time press the

<ESC> key to revert to the previous value. Note that the address is a decimal value from 0 to 255d.

Step 5

Select the "PARAM WORD 2: 0000h" menu item by pressing **<F3>**. Similarly, change to the desired value using the arrow keys and confirm using the appropriate function key or revert to the previous value using the **<ESC>** key. The parameters are hexadecimal values from 0000h to FFFFh.

Step 6

Select the "PARAM WORD 3: 0000h" menu item by pressing **<F3>**. Similarly, change to the desired value using the arrow keys and confirm using the appropriate function key or revert to the previous value using the **<ESC>** key. The parameters are hexadecimal values from 0000h to FFFFh.

Step 7

Press the **<DOWN>** arrow key twice to reveal the off screen menu items. Select the "PARAM WORD 4: 0000h" menu item by pressing **<F3>**.

Similarly, change to the desired value using the arrow keys and confirm using the appropriate function key or revert to the previous value using the **<ESC>** key. The parameters are hexadecimal values from 0000h to FFFFh.

Step 8

Once satisfied with the changes, select the "WRITE PARAMETERS ?" menu item by pressing **<F4>**. This writes the values to the module where they are stored in non-volatile memory. Note that the module will discontinue its two-flash rollcall indication and the new parameters will take effect immediately.

Step 9

Press **<ESC>** once to return to Step 2 for programming other iMAC modules.

Programming Tip

When editing a value, pressing **<SHIFT> + <DOWN>** keys will zero the value. Similarly, pressing **<SHIFT> + <UP>** will set the value to its maximum.

Notes

1. The ROLLCALL menu item may vary in description, as this is defined by custom application SLP code. In the majority of cases, the words 'Rollcall' or 'Program' or 'Programming' will be used.
2. The latest versions of Controller O.S. (v4.1 or greater) support four new generations of iMAC module serial numbers. In doing so, when you perform a rollcall, the automated sequence will first search for and display Generation 4 modules, then Generation 3, 2 and finally Generation 1 (considered legacy modules at time of this document update). Refer to IMACB177 iMAC Gen 2 Product News for more detail on module serial number Generations.

Examples of rollcall displays for each generation.

```
F1 MAIN ROLLCALL PAGE
F2 DI4 module      next>
F3 S/N: 45456      (Gen1)
F4 Address: 123,   read>
```

```
F1 MAIN ROLLCALL PAGE
F2 DI4 module      next>
F3 S/N: 45456-G3   (Gen3)
F4 Address: 123,   read>
```

```
F1 MAIN ROLLCALL PAGE
F2 DI4 module      next>
F3 S/N: 45456-G2   (Gen2)
F4 Address: 123,   read>
```

```
F1 MAIN ROLLCALL PAGE
F2 DI4 module      next>
F3 S/N: 45456-G4   (Gen4)
F4 Address: 123,   read>
```

DISCLAIMER

While every effort has been made to ensure the accuracy of this document at the date of issue, Ampcontrol assumes no liability resulting from any omissions or errors in this document, and reserves the right to revise content at any time.