



## CONTROLLER SET-UP



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Server Racks Australia is a trading name of  
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**Before using your iPAMM it is suggested that the latest firmware and documentation be obtained from the SRA website at <http://www.server-racks-australia.com.au>**

# Configuration

## Terminal Emulator

The iPAMM is able to be configured using the serial port on a computer running a terminal emulator such as HyperTerminal (Windows), TeraTerm(Windows), Minicom (Linux) or iTerm (MAC OSX). To do this the following parameters are to be used for configuring the terminal emulator. It is also recommend that characters be echoed locally.

The below example is for HyperTerminal (Windows).

1. In Windows, to setup a HyperTerminal, click on **start - All Programs - Accessories - Communications - HyperTerminal**

Alternatively, click on **start - Run** - type in **"hypertrm.exe"** (without quotation marks).

The following screen will be displayed.

1. Type a name in the **Name filed**, eg **iPAMM**. Select an icon and click on **OK**.
1. Select the COM port in the **Connect using** drop down list (the port varies on different computers, see appendix I for how to change COM port) and click on **OK**.
1. In the **COM Properties** dialog box, choose the options as detailed in the screen shot below and click on **OK**.
1. To change the Properties for the Terminal, click on **File** on the HyperTerminal main interface, choose **Properties**.
1. Choose the **Settings** tab.
1. Setup all the properties as detailed in the screen shot below.
1. Click on **Terminal Setup** on **iPAMM Properties**, setup all the properties as detailed in the screen shot below and click on **OK**.
1. Click on **Input Translation** on **iPAMM Properties**, choose **Standard JIS** in the **Host System Encoding Method** window.
1. Click on **ASCII Setup** on **iPAMM Properties**. Setup all the properties as detailed in the screen shot below and click on **OK**.

## Changing the COM port

If the iPAMM configuration screen does not appear a different COM port may need to be selected. The following details the procedure to change the COM port.

1. Ensure HyperTerminal is disconnected. To do this, click on **Call - Disconnect** in the HyperTerminal window.
1. Click on **File - Properties**
1. Under **Connect using** change the COM port and select **OK**.

## iPAMM Configuration

The Serial Communication Cable should remain connected to the three pin or RJ 45 connector on the Controller and remain in the bottom of the rack. Connect the Serial Communication Cable to the COM port on the computer. Open and connect the terminal emulator. When the terminal emulator is first connected, the screen may need to be refreshed. To reset the iPAMM and the terminal, press 'space' followed by '6'. The iPAMM status screen which can be seen below will be displayed.

iPAMM v1.6		
Controller A	Controller B	Configuration
Temperature = 18.8	Temperature = 18.7	Min Temperature = 25
Fan Speed = 0	Fan Speed = 0	Max Temperature = 30
Fan Duty Cycle = 0.0%	Fan Duty Cycle = 0.0%	Min Duty Cycle = 0.0%

*Press space to enter the configuration menu.*

The information displayed can be placed into two categories. These are discussed below.

## Fan Controller Status

- These values are specific to each controller.
- Temperature – This shows the exhaust air temperature in degrees Celsius.
- Fan Speed – This shows the speed of the fan connected to the controller.
- Fan Duty Cycle – This shows how much of the fan's power is being used.

# Configuration Parameters

- Min Temperature – This is the temperature at which the fan will turn on. This is also known as the Full-Speed Temperature.
- Max Temperature – This is the temperature at which the fan will be running at full speed. This is also known as the Fan-Off Temperature.
- Min Duty Cycle – This is the minimum percentage of the fan's power that will be applied to the fan.

To configure the iPAMM, press the 'space bar' while the status screen is shown. The following screen will then be displayed.

## iPAMM Management Console

1: Change Turn-On and Full-Speed temperatures.

2: Change minimum fan power.

3: Change the number of fans connected.

4: Reset Remote Monitoring System configuration.

5: Display System Information.

6: Save, Quit and Reset.

### Enter a menu choice (1-6):

By pressing a menu number (1 – 6), the iPAMM will display the appropriate menu choice. These are discussed below.

1. On selecting the first menu option the following screen is displayed:

Enter a menu choice (1-6): 1

The existing Turn-On Temperature is 20 degrees Celsius.

Enter a value between 0 and 30. 25

The existing Full-Speed Temperature is 30 degrees Celsius.

Enter a value between 30 and 100. 45

The Turn-On Temperature value can be set between 0°C and Full-Speed temperature (including 0°C and Full-Speed temperature).

In the example above the existing setting for Turn-on Temperature is 20°C and Full-Speed Temperature is 30°C. Therefore, the range for the Turn-on Temperature is 0°C to 30°C. 25°C is entered as the new Turn-on Temperature.

The Full-Speed Temperature can be set between 0 and 100 but must be greater than the Turn-On Temperature.

Pressing 'Enter' after the numbers have been entered will confirm the choice. If the change has been accepted, the Main Menu will be displayed. If the changes were invalid, an error message will be shown.

2. On selecting the second menu option, the following is displayed:

Enter a menu choice (1-6): 2

Existing Minimum Fan Power is: 0.

Enter a value between 0 and 1023.

By entering a value that is larger than or equal to 0 and less than or equal to 1023 the Minimum Fan Power will be changed. Note that the range 0 – 1023 maps linearly to 0% – 100%. Pressing 'Enter' after the numbers have been entered will confirm the choice. If the change has been accepted, the Main Menu will be displayed. If the changes were invalid, an error message will be shown.

It should be noted that the minimum fan duty cycle that will allow the fans to turn on is 15%. This limit is enforced automatically. As such a duty cycle between 0% and 15% will always be increased to 15%.

- On selecting the third menu option, the following is displayed:

Enter a menu choice (1-6): 3

The current number of fans connected is: 0.

Enter a value between 0 and 2.

The number of fans can be selected as either 0, 1 or 2. These numbers relate to the number of fans present in the cassette ie 0 represents the iPAMM Ready, 1 represents the iPAMM and 2 represents the iPAMM Plus.

- On selecting the fourth menu option, the following is displayed:

Enter a menu choice (1-6): 4

Do you want to reset the Remote Monitoring System  
to the default configuration?

(Y/N)Y

Selecting 'Y' for Yes will reset the Remote Monitoring System to the default configurations.

- On selecting the fifth menu option, the following information is displayed.

Enter a menu choice (1-6): 5

System Information

iPamm Software Version : 1.6

Bootloader Version : 1.1

Current System Up-Time : 0d 0h 0m 3s

Cumulative System Up-Time : 21d 17h 25m 55s

Cumulative Fan A On-Time : 1h 53m

Cumulative Fan B On-Time : 1h 48m

Press Enter to continue...

The information displayed is the system information for the iPAMM ie the software version numbers and duration of usage.

- By selecting the sixth menu option, the system will save the configuration parameters and reset.

