

# JBM Electronics

## Gateway Model C250

Thank you for purchasing The Gateway C250. The C250 connects asynchronous, or Ethernet devices to a GSM cell network.

### UNPACKING INSTRUCTIONS

1. Unpack the C250
2. Verify the following components are enclosed (*Figure A*)

**Figure A Package Contents**



*Note: Non-US power supplies require customer-supplied power cord to connect power supply to AC power outlet.*

3. If any items are missing, please contact **JBM** at **1-800-489-7781**.

### CABLING

#### 9-Pin Female DCE Console (LMI) Port (*Table A*)

Table A lists the required RS-232C pin descriptions used in cable connection from the 9-Pin Female Console Port (ttyS0) located on the back of the C250. A standard straight-wired 9 to 9 Pin male to female cable is used for console connection.

#### 25-Pin Female DCE Async RS-232 Port (*Table B*)

Table B lists the required async RS-232 pin descriptions used in cable connection from the 25-Pin Female DCE Port (*Port 1*) located on the front of the C250. (DTE with G50 Adapter)

<b>TABLE A 9-Pin Female DCE Console (LMI) Port</b>			
PIN	INBOUND	OUTBOUND	DESCRIPTION
1		*	Data Carrier Detect
2		*	Receive Data
3	*		Transmit Data
4	*		Data Terminal Ready
5			Signal Ground
6		*	Data Set Ready
7	*		Request To Send
8		*	Clear To Send
9		*	Ring Indicator
Console connection to PC ( <i>Back</i> )			

<b>TABLE B 25-PIN RS-232 DCE PORT</b>			
PIN	INBOUND	OUTBOUND	DESCRIPTION
1			Chassis Ground
2	*		Transmit Data
3		*	Receive Data
4	*		Request to Send
5		*	Clear to Send
6		*	Data Set Ready
7			Signal Ground
8		*	Data Carrier Detect
20	*		Data Terminal Ready
22		*	Ring Indicator
Connects to an asynchronous device such as a modem ( <i>Front</i> )			

**G50 Adapter** (*Table C*)

Table C lists the required RS-232 pin assignment used in the G50 Adapter to convert the C252's RS-232 port to DTE.

**Ethernet Cables** (*Tables D&E*)

Tables D&E list the required pins used in the Straight (*Table D*) and Crossed-wired (*Table E*) 10/100BaseT cable

<b>TABLE C GW50 ADAPTER DTE</b>		
MALE PIN	DIRECTION	FEMALE PIN
1	Ground	1
2	←	3
3	→	2
4	←	8
5	→	20
7	Ground	7
8	→	4
9	Not applicable	9
10	Not applicable	10
12	Not applicable	12
13	Not applicable	13
18	Not applicable	6
19	Not applicable	19
20	←	5
21	Not applicable	21
* 22	Not applicable	15
23	Not applicable	17
24	Not applicable	24
25	Not applicable	25
For async DTE		

<b>TABLE D STRAIGHT 10/100BASET</b>	
PIN	DESCRIPTION
1	TD+
2	TD-
3	RD+
4	-
5	-
6	RD-
7	-
8	-
Used for HUB or Switch	

<b>TABLE E CROSSED 10/00BASET</b>	
CONNECTOR A	CONNECTOR B
1	3
2	6
3	1
-	-
-	-
6	2
-	-
-	-
Used for direct PC connection	

\* Driven Low

**CONFIGURATION**

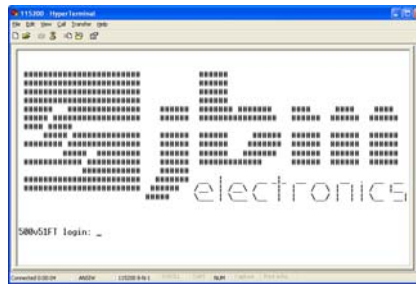
1. Collect information about the configuration setup.
2. Complete Configuration Setup Worksheets. Worksheets located at: <http://www.jbmelectronics.com/tech/workdir.htm>
3. Attach the power supply connector to C250 and connect power supply plug to an AC power outlet.
4. Verify the PWR (yellow) LED is lit to indicate that the unit is receiving power.

5. Attach the female end of console cable to PC and male end of console cable to console port on the back of C250.
6. Locate Hyper Terminal instructions at: <http://www.jbmelectronics.com/tech/hyperterm.pdf>

*Note: Communications with the console is through an async terminal emulation program. The following instructions are for Hyper Terminal, a standard Windows component. Other emulation programs can also be used.*

7. View Figure B to see the Gateway Login Screen.

**FIGURE B - GATEWAY LOGIN SCREEN**



## GATEWAY LOGIN

Log into the Gateway through the 9-Pin Console Port (*back*), using **root** for the user name and the **six-digit serial number of the unit** for the password. Both entries are case sensitive and must be entered in lower case.


*Note: The JBM Gateway comes with two predefined Linux accounts with same default passwords. The first is **root**, which has full Administration rights, and the second is **jbmgatew**, which is a user account. Telnet by default uses the **jbmgatew** account. After login type "su -" then root password for Admin. Rights.*

For best security practices we recommend the following procedure:

- Change the default **root** user password.
  - a. Type **passwd** and press **Enter**.
  - b. Select a new password by following the onscreen instructions.
- Change the default **jbmgatew** user password.
  - a. Type **passwd jbmgatew** and press **Enter**.
  - b. Select a new password by following the onscreen instructions.

For further information, please refer to the following:

- Ethernet Setup: <http://www.jbmelectronics.com/tech/niccfg.pdf>
- Lightbar Information: <http://www.jbmelectronics.com/tech/lightbar.htm>
- FCC Information: <http://jbmelectronics.com/general/fcc.htm>
- Warranty Information: <http://jbmelectronics.com/general/warren.htm>

HARDWARE STATUS LEDS		
<b>Power:</b>	<b>Yellow – Power Connection Status (PWR)</b>	
	ON	Power is being received by the C250
<b>Ethernet:</b>	<b>Green – LAN Connection Status (LINK)</b>	
	ON	C250 is connected to LAN
	<b>RED – Data Transmit Activity Status (T)</b>	
	ON-OFF-ON (Flickering)	C250 is transmitting packets
	<b>Green – Data Receive Activity Status (R)</b>	
	ON-OFF-ON (Flickering)	C250 is receiving packets
<b>RS-232:</b> (Async)	<b>Green – Data Receive Activity Status (RD)</b>	
	ON-OFF-ON (Flickering)	C250 is receiving packets
	<b>Red – Data Transmit Activity Status (TD)</b>	
	ON-OFF-ON (Flickering)	C250 is transmitting packets
<b>GSM Modem:</b> (Wireless)	<b>Green – Data Carrier Detect Signal (DCD)</b>	
	ON	C250 is on call
	<b>RED – Data Transmit Activity Status (TD)</b>	
	ON-OFF-ON (Flickering)	C250 is transmitting packets
	<b>Green – Data Receive Activity Status (RD)</b>	
	ON-OFF-ON (Flickering)	C250 is receiving packets
	<b>Green LED Bar – Signal Strength</b>  The purpose of the light bar is to assist in antenna placement. If the signal is low reposition the antenna.	
1 To 4 LEDs lit	1= fair 2 = good 3 = very good 4 = excellent	

SPECIFICATIONS		
<b>Console Port:</b>	Baud Rate:	110-115,200 bps
	Interface:	One Female DE-9, RS-232C DCE
<b>Ethernet Port:</b>	Mbps:	10/100BaseT
	Interface:	Female RJ-45 connector
<b>RS-232 Port:</b> (Async)	Baud Rate:	110-115,200 bps
	Interface:	One Female DB-25 connector, async, DCE (DTE with G50 Adapter)
<b>GSM Modem:</b> (Wireless)	Interface:	SMA-Connector, EGSM, GSM
	Band:	EGSM 850: Rx 869 ~ 894 MHz / Tx 824 849 MHz GSM 1900: Rx 1930 ~ 1990 MHz / Tx 1850 ~ 1910
<b>Operating System</b>	Linux 2.4 Kernel	
<b>Management:</b>	Console Port:	CLI Access through async connection
	IP Protocol	SNMP, HTTP/S, Telnet, SSH
<b>Power:</b>	12V DC (External) 120 VAC 60Hz or 120-240 VAC 50/60Hz	
<b>Physical:</b>	Size:	7" W x 2.5" H x 8" L
	Weight:	2 pounds
<b>Processor:</b>	486DX-100	
<b>Memory:</b>	32 MB RAM, 16MB Flash	
<b>Warranty:</b>	1 Year Parts and Labor	