

## Western Telematic NBB Series Boot Bar

### Introduction

The Boot Bar is an intelligent power strip that provides a user the ability to remotely control any one of its five power outlets when the unit is accessible through the internet or a phone line. Devices that are plugged into the unit can be power-cycled from anywhere.

Communication with the boot bar is possible over the internet via a web browser or telnet application, or serial port using a terminal application such as cu or Hyperterm through a landline, cellular, or wireless (Intuicom) modem.

The power-up sequence and timing between outlets can be user-defined.

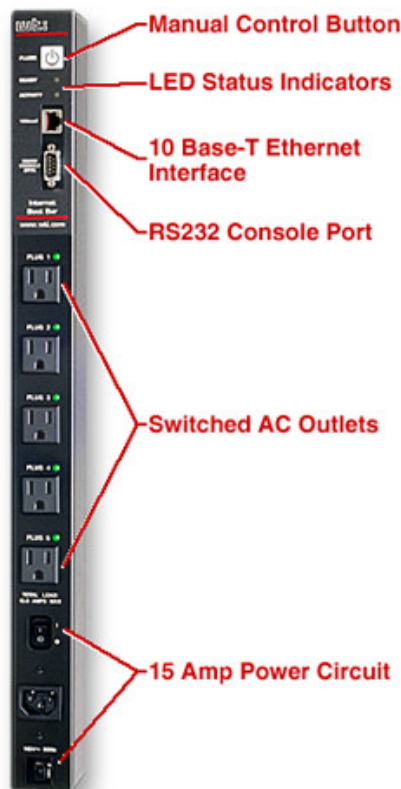
Two mode operation:

*System mode:* full access to all functions and screens, system configuration

*User mode:* access to status screens, basic control of power outlets

For security measures, the boot bar can be configured to require a password for each level of access.

The boot bar configuration is completely menu driven.



## Setting up for initial configuration:

### 1) Establish a serial connection

Serial communications can be established with a direct connection to the serial port using a null-modem cable. The default settings are:

9600 8N1.

You may change the baud rate and other serial parameters to suit. The changes will not take effect until the session is restarted.

All commands are displayed in the help screen. To access the help screen, type **/H**.

To change the baud rate, access the General Parameters screen (**/G**) and choose baud rate from the menu (option **6**) and select the appropriate setting.

Next, configure the ethernet port (RJ-45) for net access. From the main screen, type **/N** then choose from the menu and enter the info accordingly. Only IP, Gateway, and Subnet mask are needed.

To save all parameters, type **/E**. From this point you may choose to continue using the serial interface to configure the boot bar or use the web interface over a network.

## 2) Setting up the boot bar

### 1) Plugs

Each plug (1-5) can be assigned a different name. There are three options to control each outlet independently: On, Off, and Boot. The Boot option, when selected, will briefly turn off, then turn on again the chosen plug to cycle power.

To change the plug's parameters, type `/P n`, where *n* is a number **1 – 5** (plug ID). You will be able to give the plug a name (e.g., computer, gps, or monitor), select a power-up delay time, and set password protection.

Password protecting a plug will allow for different levels of security access. The password is entered upon initial login to the boot bar. The password will allow access to all plugs matching the entered password. For those that do not match only the status can be viewed. The plug passwords will not provide access to general configuration functions.

To manually control the plugs:

<code>/OFF 1</code>	or
<code>/OFF computer</code>	
<code>/ON 1:3</code>	turns on 1 through 3
<code>/ON computer monitor gps</code>	
<code>/OFF 1+4+5</code>	
<code>/BO *</code>	boot all plugs (*)
<code>/BO 1+2</code>	boot plugs 1 and 2

The power-up delay time is the time the plug will wait to turn on during a boot sequence. For example, if you choose to turn on plugs 1 – 3, the delay time is the time plug 2 will wait before turning on after plug 1 turns on, etc. By default, each plug will wait 5 seconds from the time the previous plug turned on. For an individual plug, the boot delay determines how long you have to wait to turn it on after turning it off.

## 2) Boot bar network access – security

You can restrict unauthorized IP access to the boot bar. By default, the boot bar will accept all incoming connections. To implement IP security, go to the Network Parameters menu (/N) and select option 5.

There are 5 security masks, with #5 being the highest priority. You can enter in a range or individual IP addresses to deny. 255 is a wildcard.

Examples:

To deny all but one incoming IP address:

Security Mask #1: 255.255.255.255	denies all
Security Mask #2: 69.44.87.165	permit

Security Mask #2 supercedes #1, therefore allows the one address over Mask #1.

To deny a range of incoming IP addresses:

Security Mask #1: 255.255.255.255	denies all
Security Mask #2: 69.44.86.255	permit

Security Mask #2 accepts all IPs coming from the 69.44.86 subnet.

## Summary of Basic Commands

### Misc.

/H help  
/G general parameters menu  
/N network settings menu  
/E save all changes

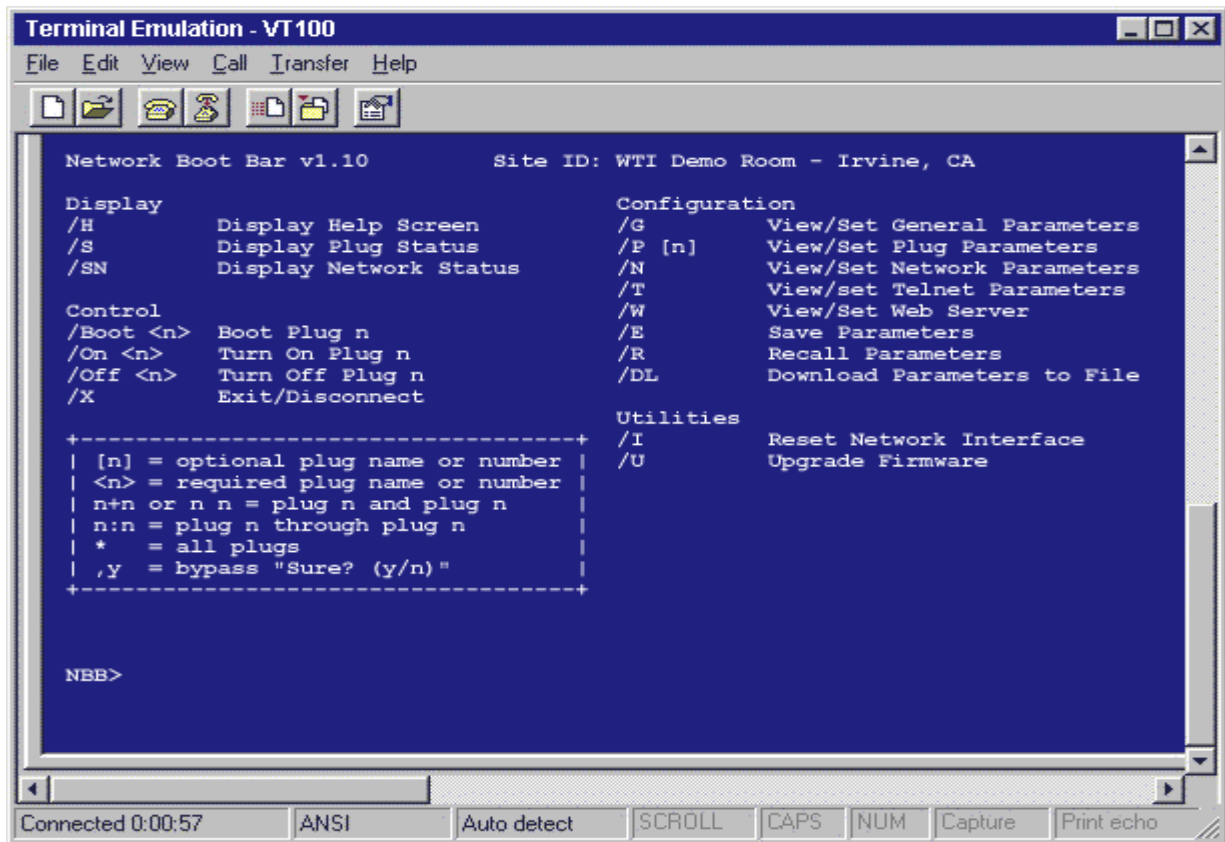
### Plug control:

The plug control commands listed below accept all of the following list formats:

*name1 name2 nameN... , 1+3+5, \* (all), 1:4 (1 through 4)*

/ON turn plug on  
/OFF turn plug off  
/BO cycle plug power (time delay from off to on)

Most commands can be seen in the screenshot shown below:



The screenshot shows a terminal window titled "Terminal Emulation - VT100". The window contains the following text:

```
Network Boot Bar v1.10          Site ID: WTI Demo Room - Irvine, CA

Display
/H      Display Help Screen
/S      Display Plug Status
/SN     Display Network Status

Control
/Boot <n>  Boot Plug n
/On <n>   Turn On Plug n
/Off <n>  Turn Off Plug n
/X       Exit/Disconnect

-----+-----
| [n] = optional plug name or number |
| <n> = required plug name or number |
| n+n or n n = plug n and plug n   |
| n:n = plug n through plug n      |
| * = all plugs                     |
| ,y = bypass "Sure? (y/n)"        |
+-----+-----

Configuration
/G      View/Set General Parameters
/P [n]  View/Set Plug Parameters
/N      View/Set Network Parameters
/T      View/set Telnet Parameters
/W      View/Set Web Server
/E      Save Parameters
/R      Recall Parameters
/DL     Download Parameters to File


Utilities
/I      Reset Network Interface
/U      Upgrade Firmware

NBB>
```

At the bottom of the window, there is a status bar with the following information: Connected 0:00:57, ANSI, Auto detect, SCROLL, CAPS, NUM, Capture, Print echo.

WTI - Network Boot Bar - Microsoft Internet Explorer

File Edit View Favorites Tools Help



## NETWORK BOOT BAR

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LOCATION: WTI Demo Room - Irvine Ca

SWITCH PANEL Firmware Version: 1.10

Plug	Name	Status	On	Off	Boot
1	Server_1	ON	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2	Server_2	ON	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3	Router	ON	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4	Ethernet_Switch	ON	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5	DSU/CSU	OFF	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>All Plugs</b>			<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Boot bar web interface showing status of plugs.

Setup Parameters - Microsoft Internet Explorer

File Edit View Favorites Tools Help

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**wti** **NETWORK BOOT BAR**

LOCATION: WTI Demo Room - Irvine, CA

**SETUP**

General Parameters
Plug Parameters
Network Parameters
Telnet Parameters
Web Server Parameters
Save Parameters
Switch Panel
Log Out

**GENERAL PARAMETERS:**

System Password:

Confirm System Password:

User Name:

Site ID:

Serial Port Mode:

Modem Init. String:

Baud Rate:

Command Echo:

Inactivity Timeout:

Command Confirmation:

Automated Mode:

Manual Switch Button:

General Parameters window.

Setup Parameters - Microsoft Internet Explorer

File Edit View Favorites Tools Help

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**wbi** **NETWORK BOOT BAR**

LOCATION: Wii Demo Room - Irvine, CA

**SETUP**

General Parameters
Plug Parameters
<b>Network Parameters</b>
Telnet Parameters
Web Server Parameters

Save Parameters
Switch Panel
Log Out

**NETWORK PARAMETERS:**

IP Address:

Subnet Mask:

Gateway Address:

Send MSS:

Security #1

Mask:

Action:

Security #2

Mask:

Action:

Security #3

Mask:

Action:

Security #4

Mask:

Action:

Security #5

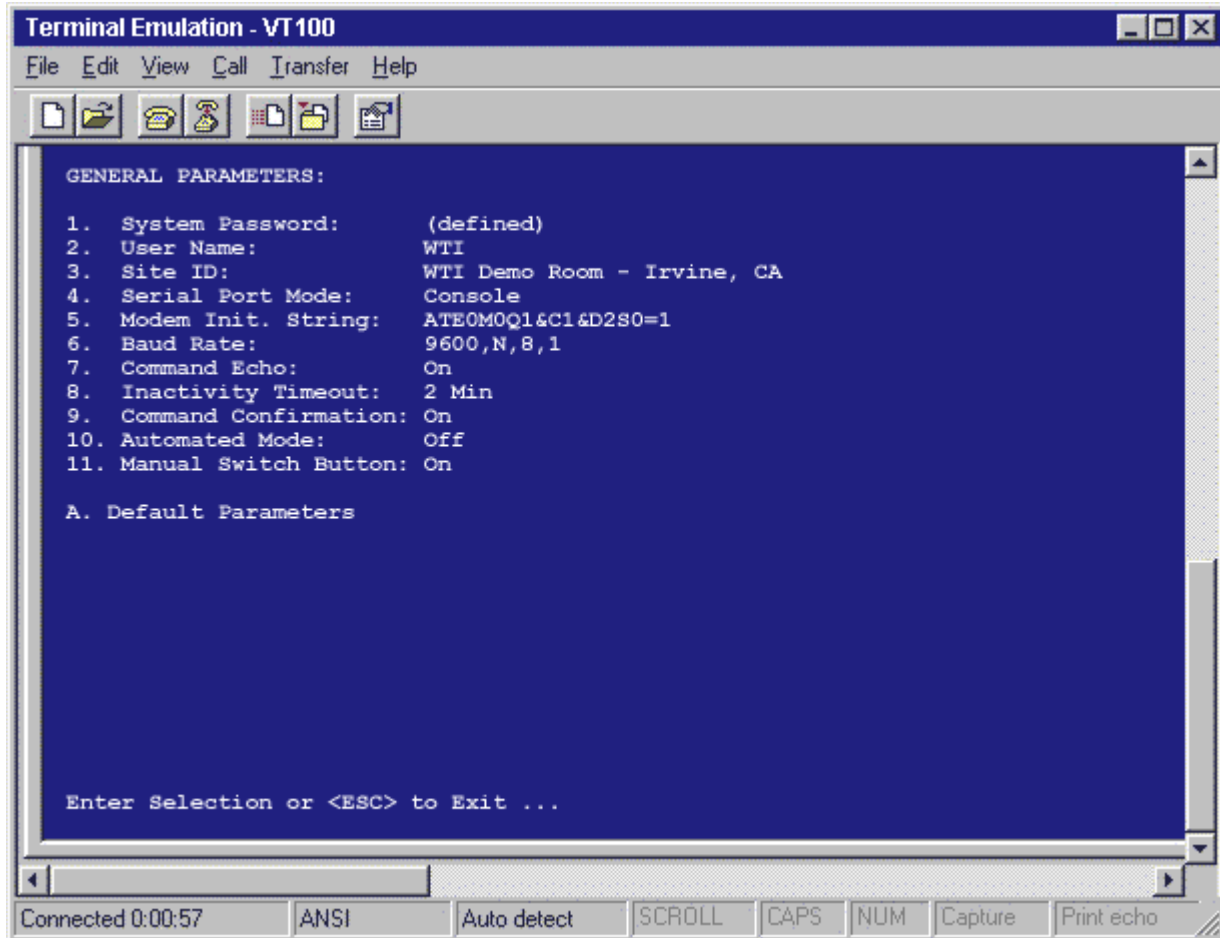
Mask:

Action:

Network parameters.



## Terminal Windows



Boot bar accessed via Hyperterm, showing main screen.

