dataprobe



Web Enabled Power Switch

01/08/2013

Congratulations on purchasing the best network controlled power switch available. The iBoot-G2 provides you the ability to reboot crashed devices with the click of a mouse. Be sure to read up on all the features of the iBoot-G2 Including:

- Web Based setup and control
- Telnet setup and control
- Event Scheduling for real-time power control.
- **AutoPing:** Automatic monitoring and action for failed equipment.
- Management Utility: Easy Setup, Firmware upgrades and Reset to Factory Default
- Easy Software Integration: Use the DxP Protocol to build your own custom applications.



1. Table of Contents

1

2

3

4

6

8

10

- Table of Contents
 Important Safety Instructions
 General Description
 Hardware Installation
 Initial Configuration
- 6. Web Browser Operation
- 7. Web Setup

8.	Command Line Interface	15
9.	DxP Protocol	19
10.	Firmware Upgrades	19
11.	Troubleshooting	20
12.	Specifications	21
13.	Technical Support and Warranty	22

Dataprobe Inc 1 Pearl Court, Suite B Allendale New Jersey 07401 dataprobe.com/support 201-934-5111 tech@dataprobe.com

2. Important Safety Instructions

When using this product, basic safety precautions should always be followed to reduce the risk of fire, electric shock, and injury to persons, including the following:

- 1. Read and understand all instructions.
- 2. Follow all warnings and marked on the product.
- 3. Unplug this product from the wall outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning.
- 4. Do not use this product in an outdoor environment or near water, for example, near a bath tub, wash bowl, kitchen sink, or laundry tub, in a wet basement, or near a swimming pool.
- 5. Do not place this product on an unstable cart, stand, or table. The product may fall, causing serious damage to the product.
- 6. Slots and openings in this product and the back or bottom are provided for ventilation to protect it from overheating; these openings must not be blocked or covered. The openings should never be blocked by placing the product on the bed, sofa, rug, or other similar surface. This product should never be placed near or over a radiator or heat register. This product should not be placed in a built-in installation unless proper ventilation is provided.
- 7. This product should be operated only from the type of power source indicated on the marking label. If you are not sure of the type of power supply to your home, consult your dealer or local power company.
- 8. This product is equipped with a three wire grounding type plug, a plug having a third (grounding) pin. This plug will only fit into a grounding type power outlet. This is a safety feature. If you are unable to insert the plug into the outlet, contact your electrician to replace your obsolete outlet. Do not defeat the safety purpose of the grounding type plug. Do not use a 3-to-2 prong adapter at the receptacle; use of this type adapter may result in risk of electrical shock and/or damage to this product.
- 9. Do not allow anything to rest on the power cord. Do not locate this product where the cord will be abused by persons walking on it.
- 10. Do not overload wall outlets and extension cords as this can result in the risk of fire or electric shock.
- 11. Never push objects of any kind into this product through slots as they may touch dangerous voltage points or short out parts that could result in a risk of fire or electrical shock. Never spill liquid of any kind on the product.
- 12. To reduce the risk of electrical shock, do not disassemble this product, but take it to a qualified serviceman when some service or repair work is required. Opening or removing covers may expose you to dangerous voltages or other risks. Incorrect re-assembly can cause electric shock when the appliance is subsequently used.
- 13. Unplug this product from the wall outlet and refer servicing to qualified service personnel under the following conditions:
 - a) When the power supply cord or plug is damaged or frayed.
 - b) If liquid has been spilled into the product.
 - c) If the product has been exposed to rain or water.
 - d) If the product does not operate normally by following the operating instructions. Adjust only those controls that are covered by the operating instructions because improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the product to normal operation.
 - e) If the product has been dropped or has been damaged. If the product exhibits a distinct change in performance.
- 14. Avoid using a telephone (other than a cordless type) during an electrical storm. There may be a remote risk of electric shock from lightning.
- 15. Do not use the telephone to report a gas leak in the vicinity of the leak.
- 16. Do not exceed the maximum output rating of the auxiliary power receptacle.

Save These Instructions

3. General Description

The iBoot-G2 is a network attached, IP addressed, web controlled AC power switch. Anyone with a web browser can access iBoot-G2 to perform power On, Off or Power Cycle (Reboot or Power Burst). iBoot-G2 uses two levels of password for security.

iBoot-G2 features international standard IEC320 connections and is compatible with power mains worldwide. A simple Web browser interface makes it easy to control power from anywhere in the world with a click of a mouse. iBoot-G2 also supports Telnet for text commands, as well as Dataprobe's Exchange Protocol (DxP) for interfacing to a variety of Dataprobe products and custom software development.



3.1. Uses for iBoot

- Remote reboot of any device, routers, servers, kiosks, etc. The device to be rebooted need not be network attached.
- Secure sensitive devices by keeping them powered off when not in use. This prevents hackers from seeing them at all times.
- Power down equipment when not needed for power savings and to save on wear and tear.
- Power up alert devices like sirens, lamps, messages; or control environmental system like heaters, coolers pumps, etc.

3.2. Multiple Control Options

In addition to the Web control capabilities, iBoot-G2 features several other means to operate automatically or under computer control.

<u>AutoPing</u>: The AutoPing feature allows iBoot-G2 to automatically detect failed equipment and perform a timed reboot or other power control function (like turning on an indicator or siren). You set 1 or 2 IP addresses to be periodically pinged. When iBoot-G2 no longer detects a response from the address(es), the programmed power control function is actuated.

<u>Telnet:</u> iBoot's Command Line Interface (CLI) allows direct control and setup through Telnet.

<u>Dataprobe Exchange Protocol:</u> iBoot-G2 supports the Dataprobe Exchange Protocol (DxP) This protocol allows Dataprobe products to communicate across networks, and allows developers to design custom applications to integrate iBoot-G2 into custom applications. For more information about DxP, contact Dataprobe Applications Engineering and Support.

4. Hardware Installation

4.1. Ethernet Connections

iBoot-G2+ supports 10/100 Ethernet using the cable supplied, or other suitable unshielded twisted pair (Cat 5) cabling. Activity (green) and 100Mb (amber) LEDs on the network connector indicate when the network connection is properly established and when the connection is 100 Mbit/s.

4.2. AC Power Connections

Connect the device to be powered ON and OFF to the IEC receptacle marked A/C Output. An IEC 320 to North American (NEMA 5-15) power cord is included for connecting the iBoot-G2 outlet to the device to be controlled.

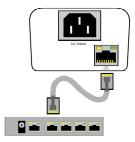
If a cord with a different terminating receptacle is required, be sure it is properly rated and meets all the required local electrical standards. If the device to be powered uses an IEC320 receptacle and detachable power cord, an IEC to IEC extension cord can be used.

The iBoot-G2 can be connected to a power strip to allow simultaneous control of multiple devices.

Make sure that the combined load of all controlled devices does not exceed 12 Amps for 105-125VAC or 10 Amps for 210-240VAC.

An LED Indicator next to the Switched Outlet will be On to indicate that the power is On at that outlet. This LED will turn Off to indicate that the power is Off to the outlet.

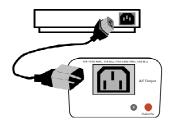
Connect the supplied power cord to the connector labeled A/C Input, and the other end to your AC source. If a power cord with a different terminating plug is required, be sure it is properly rated and meets all the required local electrical standards.



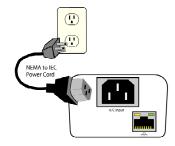
Connect 10/100 Ethernet



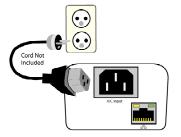
Outlet Cord for North America Included



Source Additional Power Cords Locally



Power Cord for North America Included



Source Additional Outlet Cables Locally

4.3. Mounting Options

iBoot-G2 is suitable for desktop or shelf mounting. A mounting kit for wall and DIN rail mounting is available. Order part:

1920034 Mounting Kit for iBoot-G2 G2 Series

Remove all cables from the unit prior to installing or removing any mounting hardware.



1920033 Mounting Kit iBoot G2 Series

Installing the Wall Mounting Kit	DIN Rail Mounting
 Remove the four mounting screws from the underside of the unit. Do not disassemble the unit. 	1. Install the Wall Mounting Kit as shown.
2. Install the wall mounting ears to the unit using the screws removed in Step 2	2. Install the DIN rail clips using the four screws provided.
3. The unit is ready for wall mounting.	3. Ready for DIN rail mounting.
4. Use M3 or #4 screws (not included) for attachment to suitable surface	

•

0

5. Initial Configuration

The Device Management Utility (DMU), available online at <u>http://dataprobe.com/support/iboot.html</u>, provides the easiest means to find and configure your iBoot-G2 for use. It can discover all the iBoots on your network, display the current IP address of each, and allow setting of a valid IP address.

Install and run the Device Management Utility:

- 1. Download DMUSetup.exe
- 2. Run DMUSetup.exe
- 3. Run the DMU

Note: The IP address can only be set within the first two minutes of powering up the iBoot-G2 or pressing the reset button (see Section 11). The Setup Utility will only work with iBoots on the same physical subnet as the PC.

Once the DMU is run, click on Device | Discover to display all the iBoots on your network. The DMU will display the Location Name of the iBoot, The product ID and Version Number, the current IP Address, and the MAC Address. Factory defaulted iBoots will display with the name **New iBoot-G2** and have the factory default IP address of **192.168.1.254**. If the IP address was assigned by a DHCP server, no changes to the IP Address are required.

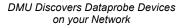
The IP address field also indicates the port for web access that is used by the iBoot. The standard port for web browser control is factory default Port 80.

Change the IP Address

- 1. Click on the row containing the iBoot-G2 to be set. The row will become highlighted.
- 2. From the menu select Set | IP Address
- 3. Enter the new IP Address into the form. Click OK when done.
- 4. A confirmation box is displayed. Click OK to clear the box.

Once the IP Address is set, other all other operational features of the iBoot-G2 can be set up. Click on Discover again to refresh the display, highlight the desired iBoot-G2 and click on Manage | Launch Browser. See Section 7 to configure the iBoot.

Name	Product ID	IP Address	Mac Address
New iBoot	iBoot-G2 v1.00.27	192.168.1.139.80	00:0D:AD:00:26:AA
Sam's Desktop iBoot	iBoot	192.168.1.186:646	00:0D:AD:01:08:AE
pl0 · New	ipIO-8	192.168.1.134:80	00:40:9D:36:AB:E4



Name	Product ID	IP Address	Mac Address
New iBoot	iBoot-G2 v1.00.27	192.168.1.139:80	00:0D:AD:00:26:AA
Sam's Desktop iBoot	iBoot	192.168.1.186:646	00:0D:AD:01:08:AE
pl0 - New	ipIO-8	192.168.1.134:80	00:40:9D:36:AB:E4
	Enter the new IP Addre	ess for iBoot New iBoot	
	м	AC Address 00:0D:AD:00:2	26:AA
	205	. 129 . 73 . 57	

Enter New IP Address for iBoot

	Product ID	IP Address	Mac Address
New iBoot	iBoot-G2 v1.00.27	192.168.1.254:80	00:0D:AD:00:26:AA
Sam's Desktop iBoot	iBoot	192.168.1.186:646	00:0D:AD:01:08:AE
ipl0 · New	ipIO-8	192.168.1.134:80	00:40:9D:36:AB:E4
	IP Address has b		
	IP Address has b		

IP Address Successfully Set

The DMU can also be used to return an iBoot-G2 to its Factory Default condition. This can be used to recover an iBoot-G2 with a lost password. Highlight an iBoot-G2 from the display and select Set | Factory Defaults. This must be done within the first two minutes of powering up the iBoot or pressing the reset button.

5.1. Other ways to set the IP Address

- 1. Automatically from a DHCP Server
- 2. Web Browser via the Set-up Page
- 3. Command Line Interface (Telnet)

iBoot-G2 comes with factory installed IP address 192.168.1.254.

Setting the IP address from a DHCP Server

A DHCP server will automatically assign an IP address (dynamic address) as well as Subnet Mask and Gateway to the iBoot-G2. If you reboot the iBoot-G2 with the IP Mode set for DHCP, the DHCP server will be able to assign an IP address. Once an IP address is assigned, you must check the DHCP server or use the iBoot-G2 DUM to see what address is assigned to the iBoot. You can lock the iBoot-G2 to the current address, by selecting IP Mode = Static without changing the addresses. Set the IP Mode either by using the web setup page, or via Telnet commands.

Setting the IP address using Web Browser

To set the IP address using a Web Browser, connect the Ethernet connection to your local network and apply power to iBoot.

Open your browser and access iBoot-G2 by entering the default (192.168.1.254) or current IP address into your browser's Address window. Enter the administrator credentials, click on Setup and follow the instructions on Page 10.

6. Web Browser Operation

6.1. Password Protection

iBoot-G2 uses two username/password credential sets, one for power control only (User) and one that also provides access to the setup functions (Admin). This configuration can be changed to require Administrator credentials at all times or allow unsecured User level control. See section 7.12.

Default Credentials:

Role	Username (fixed)	Password (settable)
Administrator	admin	admin
User	user	user

Connect to 192	2.168.1.181	? 🛛
		G
iBoot		
User name:	£	~
Password:	••••	
	Remember my	password
	Ск	Cancel

Open your browser and enter the IP address of iBoot-G2 into the address bar. If you have changed the IP address by any of the methods described, enter that address, otherwise, use the default IP address 192.168.1.254

Enter the username and password when prompted. When the proper username/password is received the Control and Status Page is displayed.

iBoot-G2 uses an inactivity timer for security. This timeout is user selectable from 0 to 99 minutes. Setting to zero disables the timeout feature. When there is no activity for the set time in minutes, the user is automatically logged out and the username and password will need to be entered again for access. This is to prevent accidental lockout by leaving the user logged in.



As the iBoot-G2 allows only one Web user logged in at any time, use caution when disabling the timeout feature, as it is possible to lock out other users by forgetting to logout. Closing the browser will not log the user out and will lock out web access. If you do become locked out, access the iBoot-G2 via Telnet and reboot the unit, or press the reset button (see Section 11).

6.2. Mobile Browser Support

The standard web pages illustrated in this manual are for screen sizes 700 pixels wide and greater. For devices with screen widths below 700 pixels, the iBoot-G2 uses a set of mobile browser pages. The iBoot-G2 automatically detects the screen size and redirects automatically to the mobile pages. The mobile pages do not support the setup functions. To access the setup functions, or to view the full desktop site, click on the Full Site button.

🕐 iBoot-G2+ Mobile Page 🗙 📃	• X
← → C ♠ 🗋 192.168.1.254/m_i G	☆ =
Attached to: locationID	
Main Outlet	
ON	
Power ON Power OFF Cycle Power	
AutoPing	
History	
Full Site	
Refresh	
Logout	
iBoot-G2+ v1.10.59	Help

Enter Username and Password

6.3. Control and Status Page

Once the user is validated, the Control and Status page is displayed. (Only one person can be connected to the iBoot-G2 at a time.).

This page provides automatic updates every 1 second.

To control the power, click on the appropriate button. During power cycling, the Power Status bar will indicate the temporary status, with a blue background. Once the cycle is complete, the status bar will revert to its original condition. To abort a power cycle, click on either Power On or Power Off buttons.

iBoot	Attached t	o: New iBoot			As of: 01/02/2013 15:1
Refresh Logout Setup	Power S	ON			
	Auto Pin Stat	us	Trigger Counter		
		OK Fail	26 R	eset	
	History -	Last 5 Event	5		
	Outlet	Action	Source	User	Time-Date
	Main	On	Web	User	01/02/2013 15:15:48
	Main	Off	Web	User	01/02/2013 15:15:37
	Main	Cycle	AutoPing	Auto	01/02/2013 15:09:16
	Main	On Off	Web Web	Admin Admin	01/02/2013 15:08:11 01/02/2013 15:08:08
	Main				

If the AutoPing feature is in use, the page will

also display the current status, OK or Failed, for each AutoPing in use, with a counter of how many times action was triggered. If connecting with the Admin credentials, reset buttons for the Trigger counter is provided.

If the iBoot-G2 is connected to a time server (see Section 7.5), The Home page will also show the five most recent history events, including the Outlet, Action, User and Time/Date of each event. The iBoot-G2 holds the last 32 events in memory. The user can access a complete history webpage, download the history in a .csv file, or clear the history.

Navigation Buttons:

<u>Refresh:</u> Use the Refresh button to obtain the latest status of iBoot. Using your browser's refresh button can lead to inadvertent power switching. If an NTP server is being used, the time of the last refresh will be shown in the upper right corner.

<u>Setup:</u> To access the Setup page, the administrator credentials are required. When logged in as User, the challenge for Administrator credentials will be displayed.

Logout: When you are finished with iBoot, click on Logout. A Goodbye page will be displayed. This page has a URL link to re-connect with the iBoot. The linkback URL is user settable. If no linkback is set, the hyperlink will be the unit's IP Address.

() iBoot Web Power Switc	h ×	X
← → C fi 🗋 1	92.168.1.254/logout.html	९ ☆ ≡
i <mark>B</mark> oot ر	Attached to: New iBoot	
	Goodbye To log in click here 192.168.1.254:80	
	iBoot-G2 v1.10.59	<u>Help</u>

7. Web Setup

iBoot-G2 setup section consists of several pages. Access any page via the buttons on the left of the page. Each time a setting is changed click on the Save button for that page to save the changes before moving to the next page.

7.1. **Device Settings**

Location ID: Set a 20 Character name to be displayed on the top of the Home page. This assists in identifying which iBoot-G2 is being accessed.

Cycle Time: 1 to 999 seconds power cycle time. This is the length of time the power will be off during a reboot, or on during a power burst.

Initial State:	The outlet can be set to the state it
will assume	when the iBoot-G2 is powered up or

iBoot-G2 v1.10.59

🨲 iBoot Web Power Switch 🛛 🗙 🚺

iBoot

Device

Network

AutoPing

Schedule

Passwords

Home

← → C 🔺 🗋 192.168.1.254/set_device.html

Attached to: New iBoot

New iBoot

Last 💌

20

Seconds

Minutes

Device Settings

Location ID:

Cycle Time:

Initial State:

Auto Logout:

Upgrade Enable:

Save Reset Reboot

reset. The choices are: On, Off and Last, meaning the state it was in when the power was removed or reset commenced.

Upgrade Enable: Check this box to allow remote firmware upgrades of the iBoot-G2. When this box is unchecked, firmware upgrades will not be allowed.

Auto Logout: This setting sets the automatic logout for inactivity on both the web and telnet users. It can be set from 0 to 99 minutes. 0 disables the Auto Logout feature.



As the iBoot-G2 allows only one Web user logged in at any time, use caution when disabling the timeout feature, as it is possible to lock out other users by forgetting to logout. Closing the browser will not log the user out and will lock out web access. If you do become locked out, access the iBoot-G2 via Telnet and reboot the unit, or press the reset button.

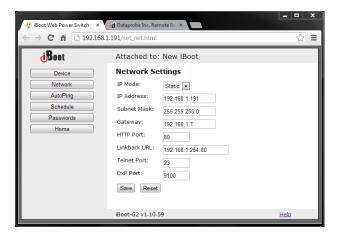
7.2. Network Settings

IP Mode: Select Static to set the IP address using the fields below, or DHCP to allow a DHCP server to set the IP Address.

IP address: Enter a static IP address. This will be automatically set if using DHCP

Subnet Mask: Enter the Subnet Mask. This will be automatically set if using DHCP

Enter the Gateway. This will be Gateway: automatically set if using DHCP



HTTP Port: This setting is used to allow access to iBoot-G2 on a port other than the Web standard Port 80. If the port is changed, you will need to identify the port number when you enter iBoot's IP address into your browser. If the new port is 8080 then use the address http://192.168.1.254:8080.

Q. 22 Ξ <u>Linkback URL</u>: This setting allows control of the hotlink displayed on the Goodbye page. It allows use of the public IP address or DNS name instead of the internal IP Address of the iBoot-G2, which is the default setting. If this setting is left blank, the hotlink will be the IP Address of the unit. Enter up to 128 characters.

Telnet Port: This setting is used to allow access to the iBoot-G2 via telnet by ports other than standard 23.

<u>DxP Port:</u> This setting is used to allow access to the iBoot-G2 via Dataprobe Exchange Protocol (DxP) via ports other than standard 9100.

Note: All of the TCP/IP Settings require a reboot of the iBoot-G2, after clicking Save. A Reboot button will appear at the bottom of the page. The new settings will not take effect until the unit is rebooted. Reboot will not affect the power position of the iBoot-G2. Upon Clicking Reboot, the Googbye page is displayed with a link to re-login.

7.3. AutoPing

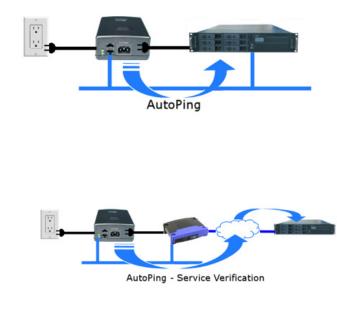
The AutoPing feature allows iBoot-G2 to automatically detect failed equipment and perform a timed reboot or other power control function (like turning on an indicator or siren). You set one or two IP addresses to be periodically pinged. When iBoot-G2 no longer detects a response from these addresses, the programmed power control function is actuated. The two addresses can be AND or OR linked so that both (AND) or either (OR) need to fail in order to take the selected action.

Examples:

Use AutoPing as server monitor: iBoot-G2 is installed with the device it monitors and automatically reboots if there is no response. Ideal for: Kiosks & Servers

Use Auto-Ping as service monitor: iBoot-G2 is installed with the device to be rebooted, but pings a remote host to test the communication channel. Ideal for: DSL & Cable Modem Verification.

iBoot-G2 monitors network device and powers up alarm or redundant system when there is no response Ideal for: Hot Standby Servers, Environmental Control, Alert for any Network Failure.





7.4. AutoPing Settings

IP Address Enter the IP address of the device to be pinged.

Ping Frequency: Enter 1 to 999 seconds. The ping will go out to the selected device this often.

Fail Count: Enter 1-999 times the ping needs to fail consecutively before the selected action is taken. When the fail count has been reached, the AutoPing action will be triggered.

A/B Logic: (AutoPing 1 only) Select from A Only, A AND B, A OR B. With AND, both AutoPings need to

exceed their fail count to trigger the Action. With OR, the Action will be triggered if either AutoPing fails.

Control: Select Main for the internal power outlet, or Exp1, Exp2 for either of the two expansion ports.

→ C ♠ [] 19	02.168.1.254/set_ap.html	Q 🖧
(Boot	Attached to: New iBoot	
Device Network AutoPing Schedule Passwords Home	AutoPing Settings IP Address: 102.108.1.1 Frequency: 10 Fail Count: 3 Mode: And A Action: Cycle Cycle 1 Wait: 2 Save Reset Rebot	AutoPing 2 192.188.0.222 1
	iBoot-G2 v1.10.59	Help

Action: Select from

None	AutoPing will not take any action upon Fail.
Power On – Latch	Upon triggering, iBoot-G2 will power on and remain so until changed via the web, telnet, DxP, etc.
Power On – Follow	Upon triggering, iBoot-G2 will power on. When the ping response returns, iBoot-G2 will power off.
Power Off – Latch	Upon triggering, iBoot-G2 will power off and remain so until changed via the web, telnet, DxP, etc.
Power Off – Follow	Upon triggering, iBoot-G2 will power off. When the ping response returns, iBoot-G2 will power on.
Power Cycle Times	Upon triggering, iBoot-G2 will cycle the power. If Power Cycle does not result in the ping response the iBoot-G2 can cycle again. The number of times the iBoot-G2 will cycle is set by the Times setting. To have the iBoot cycle power 3 times to get the system to respond again, set the Times to 3.

<u>Wait:</u> This is the length of time the iBoot-G2+ allows for a response to a ping.

With AutoPing operational, the main iBoot-G2 page will display the current status of this feature. The status will be OK to indicate that iBoot-G2 is receiving responses to the ping, or that the fail counter has not yet been exceeded.

If the fail count has been exceeded, the status will change to FAIL. The Trigger Counter indicates the number of times the AutoPing action has been triggered. A counter reset button is provided.

Note: All of the AutoPing Settings require a reboot of the iBoot-G2, after clicking Save. A Reboot button will appear at the bottom of the page. The new settings will not take effect until the unit is rebooted. Reboot will not affect the power position of the iBoot-G2. Upon Clicking Reboot, the Goodbye page is displayed with a link to re-login.

7.5. Event Scheduling

iBoot-G2 can schedule up to eight reoccurring power events. Set the starting date and time, plus the action to be taken and any repeat cycle for each.

To enable the time scheduling function:

Enter an accessible Network Time Server and check the Enable box. A list of public time servers is available at <u>http://www.ntp.org/</u> Set your local time zone relative to GMT.

Attached to	: New iBoot			As of: 01/02/2013 1
vice Schedule 5 work Enable: Ping Time Server: edule Date 01/02/2013 01/03/2013	Image: 0.182.55 Time 17:00 06:15 Image: 0.15 Image: 0.15 <	Time Zone: Repeat 1 Day(s) 0 Day(s)	Off Off Off Off On On	3 401 Clear 401 Clear 401 Clear 401 Clear 401 Clear 401 Clear 401 Clear 401 Clear 401 Clear

Once the time server is active, scheduled events can occur. Up to eight independent scheduled events can be programmed.

Date: Set the initial date for the event. The format for the date is mm/dd/yyyy.

<u>Time:</u> Set the initial time for the event. The format for the time is hh:mm with hours in 24 hour format.

<u>Repeat:</u> Set the repeat multiplier, if desired. Set the number from 0 to 999 and either Days, Hours, or Minutes. To have the schedule repeat every two days, set this number to 2.

Action: Set the event Action; On, Off or Cycle.

Hold/Run: Click Hold to pause the scheduled event. Click Run to re-start the scheduled event.

Delete: Delete the scheduled event.

Click Save to save the current settings. Click Reset to delete any unwanted changes.

7.6. Password Settings

The iBoot-G2 supports three modes of user and password operation.

Login Required: This mode supports both User and Admin users. Each user has a settable password.

<u>Auto Login:</u> This mode does not require a username of password for the User level operation. No login challenge will be required for any mode of operation, until any setup function is requested. The Admin username and password is required for any admin functions.

• iBoot Web Power Switch × ← → C ☆ ☆ □ 192.10		■ ■ ×
i Boot	Attached to: New iBoot	
Device Network AutoPing Schedule Passwords Home	Password Settings User Rights Management User Old Password New Password Confirm Password Save Reset Reboot	Admin Admin
	iBoot-G2 v1.10.59	Help

<u>User Disabled:</u> There is no User account. The Admin username and password will be required for operation and setup functions across all modes of operation. This is the factory default mode.

Two passwords are used by iBoot. In the Login Required mode, The User Password allows access to the control of iBoot, but not to the Setup functions. Clicking on the Setup button allows the Administrator to log in. Passwords can be up to 20 characters long and are case sensitive.

Enter the current password then the new password twice to confirm.

Default Credentials

Role	Username (fixed)	Password (user set)
Administrator	admin	admin
User	user	user

8. Command Line Interface

The iBoot-G2 Command Line Interface (CLI) provides a text based method for communicating with the iBoot. The syntax of the CLI uses a basic Set (change a variable) and Get (retrieve a variable). The CLI is accessed either through the Telnet protocol, which requires a Telnet client program, or via USB which requires a serial communications program like Hyperterminal. Dataprobe also provides a simple terminal program (EZ Term) at http://dataprobe.com/support/iboot.html.

8.1. CLI Access

Via Telnet

Open the Telnet client and connect to the IP address set for the iBoot.

The CLI uses the same security options as the web browser. See section 7.12 for an explanation of the options for user setup and security.

When connection is successful, the User> prompt is displayed. Enter user or admin and press Enter. The prompt will change to Password>. Enter the admin or user password and press Enter. The prompt will change to iBoot>. This indicates successful login. Enter commands as needed. When done, enter the logout command.

8.2. iBoot-G2 CLI Syntax

Command	Description	Factory Default
Control Commands	These commands are used to monitor and control the ou	tlet.
set outlet <on cycle="" off="" =""></on>	This command controls the outlet.	
get outlet	This command returns the current status of the outlet.	

Device Commands	These commands are available to the administrator only	
get location	This command returns the iBoot-G2's location ID.	New Boot
set location <20 char. max>	This command is used to set the iBoot-G2's location ID.	
set cycle <1-999>	This command is used to set the cycle time, in seconds	10
get cycle	This command returns the current cycle time	
set upgrade enable <yes no="" =""></yes>	Enables or disables the ability to upload new firmware to the iBoot-G2.	No
get upgrade enable	This command displays the upload enable status.	
login	Prompts for admin credentials when logged in as user	
logout	Terminates the session	
reboot	This command reboots the iBoot-G2.	

Network Commands	All set commands require a reboot before they take effect. The are only available to the administrator.	se commands
get network	This command will return all the network settings as shown below:	
	Mode: Static IP Address: 192.168.1.254 Subnet: 255.255.255.0 Gateway: 192.168.1.7 HTTP Port: 80 Linkback URL: 192.168.1.254:8080 Telnet Port: 23 DxP Port: 9100 Timeout: 20	
set ipmode <static dhcp="" =""></static>	This command sets the ip address setting mode. Static mode locks the address as set, dhcp mode allows DHCP server to assign address.	
set ipaddress <dotted decimal></dotted 	This command is used to set the iBoot-G2's ip address.	192.168.1.254
set subnet <dotted decimal=""></dotted>	This command is used to set the iBoot-G2's subnet mask.	255.255.255.0
set gateway <dotted decimal=""></dotted>	This command is used to set the Gateway	192.168.1.1
set http port <0-65535>	This command sets the port that the iBoot-G2's web server listens for incoming connections on. When set to 0 the web server is disabled.	80
set telnet port <0-65535>	This command sets the port that the iBoot-G2's Telnet server listens for incoming connections on. When set to 0 the Telnet server is disabled	23
set dxp port <0-65535>	This command sets the port that the iBoot-G2's DxP protocol service listens for incoming connections on. When set to 0 the Protocol service is disabled. Note: At least one of the above MUST NOT be 0. The CLI will protect against all 3 from being set to 0.	9100
set linkback <url></url>	This command sets the linkback URL displayed on the logout page.	192.168.1.254
set timeout <0-999>	This command sets the automatic network timeout in minutes	2

Autoping Commands	These commands require a reboot before they will take e commands are available to the administrator only.	ffect. These
get autoping	This command returns all of the AutoPing settings as shown below.	
	AutoPing 1 AutoPing 2 IP Address: 192.168.233.254 192.168.233.154 Frequency: 10 10 Fail Count: 3 3 Mode: Single Action: Cycle Once	
set autoping <1 2> ipaddress <dotted decimal=""></dotted>	This command is used to set the IP address of AutoPing 1 or AutoPing 2	0.0.0.0
set autoping <1 2> frequency <1-999>	This command is used to set the frequency (how often the iBoot-G2 sends the ping) for each of the AutoPings.	10
set autoping <1 2> failcount <1-999>	This command is used to set the number of consecutive failures the AutoPings must detect before the AutoPing considers the pinged device to be failed.	3

set autoping mode <single <br="">and or></single>	Sets single AutoPing (AutoPing 1) or two AutoPing relationship And or Or.	Single
set autoping action <none on-<br="" ="">latch on-follow off-latch off- follow cycle></none>	This command is used to set the action that the iBoot-G2 will perform when the autoping triggers.	None
set autoping cycle <0-999>	This command sets the maximum number of power cycles when the AutoPing triggers. 0 = Unlimited	1
set autoping wait <1-999>	This command sets the time, in seconds for the device to respond to a ping.	2

User Commands	These commands are only available to the administrator.	
set user account <yes no="" =""></yes>	This command sets whether or not a user account is used. If <n> only the administrator account is active</n>	n
set login required <yes no="" =""></yes>	This command sets whether or not a login is required for user level operation. A login is always required for admin functions.	У
set password <user admin="" =""> <old> <new> <repeat></repeat></new></old></user>	This command is used to set the password of either the user or administrator.	user admin

Event Commands	These commands are only available to the administrator.	
get events	This command displays all scheduled events as shown below. I Date Time Repeats Action 1. $01/13/2013$ 16:00 every 1 Day(s) On Run 2. $01/13/2013$ 16:15 every 0 Day(s) On Run 3. $01/15/2013$ 17:00 every 1 Hour(s) Cycle Run 4. $02/16/2014$ 12:00 every 1 Day(s) Off Run 5. $02/16/2014$ 12:10 every 1 Day(s) On Run 6. $02/17/2013$ 01:05 every 0 Day(s) On Run 7. $02/18/2013$ 01:00 every 0 Day(s) On Run 8. $03/18/2014$ 01:00 every 0 Day(s) On Run	Example:
set time enable <yes no="" =""></yes>	This command enables or disables the use of the time server and scheduled events. Note: When Adding new events through the CLI. Set this to no to prevent unintended power switching	No
set time server <dotted decimal=""></dotted>	This command is used to set the IP Address of a network time server.	69.90.182.55
get time	Displays the current time and time server Current Time: 16:10:41 01/27/2010 Server: 64.90.182.55	
set event <1-8> <run hold="" =""></run>	This command is used to all the event to run, or put the event on hold	run

Г

set event <1-8> date <mm dd="" yyyy=""></mm>	This command is used to set the scheduled action's start date.	
set event <1-8> time <hh:mm></hh:mm>	This command is used to set the time the scheduled action will occur in 24 hour format.	
set event <1-8> action <on <br="">off cycle></on>	This command is used to set the scheduled action.	
set event <1-8> repeat <day <br="">hour minute></day>	This command is used to set how often the scheduled action will repeat.	
set event <1-8> mult <0-999>	This command sets how often the event will repeat, the number of increments (as set by the command above) before the next event.	
del event <1-8>	This command deletes the specified event	

Prompts	The CLI will use the following prompts:	
User>	This prompts the user to enter his user name (user or admin). This is the first prompt that the user is presented with.	
Password>	This prompts the user to enter his password.	
iBoot >	This is the prompt that will be displayed after the user has successfully logged in.	
iBoot Reboot Required>	This is the prompt that will be displayed whenever there have been changes made that require a reboot. This prompt will remain the active prompt until the iBoot-G2 has been rebooted.	

9. DxP Protocol

iBoot-G2 supports the Dataprobe Exchange Protocol (DxP) for inter device communications and to allow software developers to integrate Dataprobe product into custom applications. Through the DxP protocol, the developer can:

- Turn on and off power to the Outlet
- Pulse the Power On or Off for a specified about of time.
- Read the status of the Outlet

The DxP Protocol, as well as example code and scripts in a variety of languages are available at http://dataprobe.com/support/iboot.html

10. Firmware Upgrades

The iBoot-G2 can be field upgraded. Find the latest version or special purpose versions at http://dataprobe.com/support/iboot.html



Upgrading the firmware with a minor upgrade (i.e. 1.01.xx to 1.01.yy) will not alter the user defined settings. Major upgrades may or may not reset the iBoot-G2 to factory defaults. Check the release notes for the upgrade before making changes to you iBoot-G2.

- 1) Insure that the Upgrade Enable checkbox is checked in the Network Setup web page of the iBoot-G2
- 2) Run the Device Management Utility, available at the link above. If the iBoot-G2 you would like to upgrade is not visible in the list box, either

Select Device | Discover from the menu to locate iBoot-G2 units on the local network, or Select Device | Add from the menu to add the IP address of the iBoot-G2.

Once the device is displayed in the list, highlight it

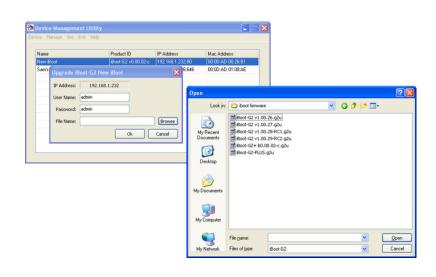
3) Select Manage | Upgrade Firmware

Enter User Name admin and the Password for the Administrator.

Enter the filename of the firmware, or click Browse and find the file of the firmware file to be used. iBoot-G2 firmware uses the extension .g2u If you don't see any files of that type, make sure the 'Files of type' box is set for iBoot-G2 or All Files.

Click OK when all the details are entered.

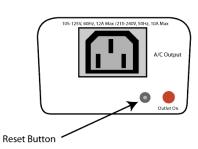
- 4) The upload will begin, and a progress bar will be displayed.
- 5) When the firmware upload is completed, the iBoot-G2 will automatically reset and be ready for use.



11. Troubleshooting

The iBoot-G2 has a recessed pushbutton switch in the event the unit is not performing as expected. Use the pushbutton as follows:

Action	Result
Momentary	Soft Reset. Will not change outlet status.
5 Seconds push	Reset to Factory Defaults. Hold the button in until the Outlet LED is blinking, then release.
Hold in while and Power up the iBoot	Recovery Mode. Allows upload of new firmware to the current IP Address. Will recover to the Factory default IP Address 192.168.1.254 if the database has been corrupted.



12. Specifications

12.1. Physical

Height	2.0" 60mm
Width	3.2" 82mm
Depth	4.2" 107mm
Weight	8.6 oz 244g
MTBF	360,000 hours
Temperature	0 – 50 degrees C

12.2. AC

Input	IEC 320 C14	
Input Cord	16AWGX3C 10A 250 UL/CSA/VDE Rated (1.25mm2X3C)	
Voltage Range	Auto Sensing 105-240 VAC	
Switched Receptacle	IEC 320 C13	
Capacity	12 A Max at 105-125 VAC, 10 A Max at 210-240 VAC	

12.3. Compliance

UL/cUL	UL60950 Listed I.T.E File No. E225914		
CE	Directives 89/336/EEC, 92/31/EEC and 93/68/EEC EN 60950: 3rd Edition EN 55022: 1998 Class B		
FCC	Part 15 Class B		
CULISTED US CE ROHS			

12.4. Network

Dual 10/100 Unshielded Twisted Pair Ethernet Jacks.	
IP Addressed, DHCP assigned or Static	
Internal HTTP Web Server	
Forms Processing Browser required	
Telnet Server	

User Settings Record your Setup here for reference

Location:	HTTP Port:	
MAC Address:	Auto-Ping Address:	
IP Address:	Auto-Ping Port:	
Subnet Mask:	Heartbeat Port:	
Gateway:		

13. Technical Support and Warranty

Dataprobe Technical Support is available 8:30AM to 5:30PM ET to assist you in the installation and operation of this product. To obtain Technical Support call 201- 934-5111, or Email us at tech@dataprobe.com. Please have the following information available when you call:

- Model of Product
- Lot and Version Numbers
- Data of Purchase
- Name of Seller (if other than Dataprobe)

If you purchased this product through an Authorized Dataprobe Reseller, you should contact them first, as they may have information about the application that can more quickly answer your questions.

13.1. WARRANTY

Seller warrants this product, if used in accordance with all applicable instructions, to be free from original defects in material and workmanship for a period of One Year from the date of initial purchase. If the product should prove defective within that period, Seller will repair or replace the product, at its sole discretion.

Service under this Warranty is obtained by shipping the product (with all charges prepaid) to an authorized service center. Seller will pay return shipping charges. Call Dataprobe Technical Service at (201) 934-5111 to receive a Return Materials Authorization (RMA) Number prior to sending any equipment back for repair. Include all cables, power supplies and proof of purchase with shipment.

THIS WARRANTY DOES NOT APPLY TO NORMAL WEAR OR TO DAMAGE RESULTING FROM ACCIDENT, MISUSE, ABUSE OR NEGLECT. SELLER MAKES NO EXPRESS WARRANTIES OTHER THAN THE WARRANTY EXPRESSLY SET FORTH HEREIN. EXCEPT TO THE EXTENT PROHIBITED BY LAW, ALL IMPLIED WARRANTIES, INCLUDING ALL WARRANTIES OF MERCHANT ABILITY OR FITNESS FOR ANY PURPOSE ARE LIMITED TO THE WARRANTY PERIOD SET FORTH ABOVE; AND THIS WARRANTY EXPRESSLY EXCLUDES ALL INCIDENTAL AND CONSEQUENTIAL DAMAGES.

Some states do not allow limitations on how long an implied warranty lasts, and some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitations or exclusions may not apply to you. This warranty gives you specific legal rights, and you may have other rights which vary from jurisdictions to jurisdiction.

WARNING: The individual user should take care to determine prior to use whether this device is suitable, adequate or safe for the use intended. Since individual applications are subject to great variation, the manufacturer makes no representation or warranty as to the suitability of fitness for any specific application.

Dataprobe Inc.

Dataprobe Inc 1 Pearl Court, Suite B Allendale New Jersey 07401 Technical Support tech@dataprobe.com 201-934-5111 www.dataprobe.com/support 201-934-9944