

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.
- **iBoot Cloud Service:** Control all your iBoots from one web portal.



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2. General Description

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

iBoot-DC is compatible with DC voltages from 5 to 48VDC. Both Positive and Negative DC voltage sources are supported. A simple Web browser interface makes it easy to control power from anywhere in the world with a click of a mouse. iBoot-DC 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.

2.1. 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.

2.2. Multiple Control Options

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

URL Control: You can send a single URL to the iBoot-DC containing all the information necessary to query or change the power status. This makes it easy to create a single button on your desktop or embed into a batch file or script.

AutoPing: The AutoPing feature allows iBoot-DC 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-DC no longer detects a response from the address(es), the programmed power control function is actuated.

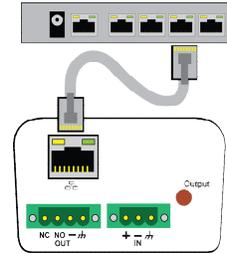
Telnet: iBoot's Command Line Interface (CLI) allows direct control and setup through Telnet.

Dataprobe Exchange Protocol: iBoot-DC 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-DC into custom applications. For more information about DxP, contact Dataprobe Applications Engineering and Support.

3. Hardware Installation

3.1. Ethernet Connections

iBoot-DC 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.



Connect 10/100 Ethernet

3.2. DC Power Connections

iBoot-DC uses screw terminal connections for the DC input and switched output connections. The screw terminals can be removed to facilitate connection and cable fabrication.



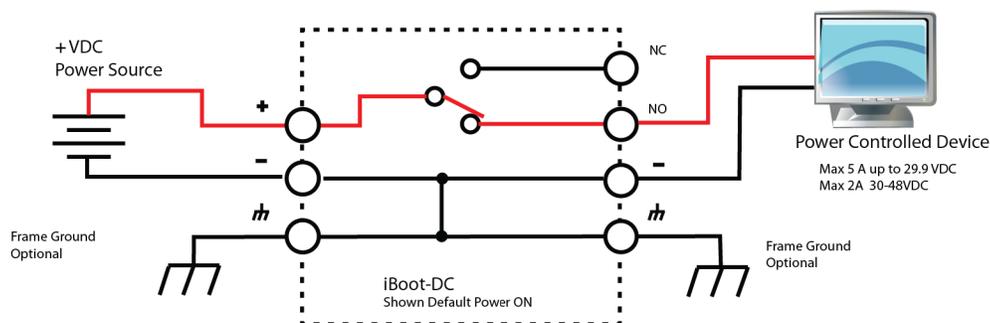
Maximum Operating Current

5.0 to 29.9 VDC	5 Amps
30.0 to 48.0 VDC	2 Amps

The Positive lead is switched. When ON, the power will be at the NO connection. When OFF, the power will be at the NC connection.

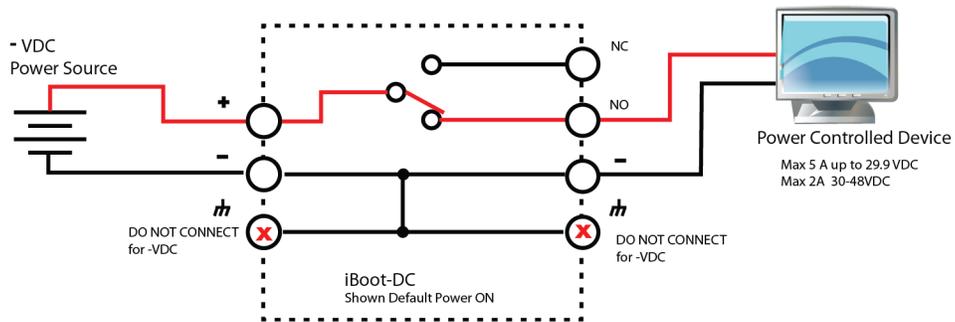
The chassis ground is optional and not switched.

An LED Indicator market Output will be on when the power to the NO connection is On.



3.3. Connecting Negative Voltages

iBoot-DC will accept a negative (relative to ground) power source i.e. -48VDC. Insure the power leads are connected so that "+" terminal voltage is positive RELATIVE to the "-" terminal voltage.



Do Not connect Chassis Ground when using -VDC Power.

3.4. Mounting Options

iBoot-DC 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-DC 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

1. Remove the four mounting screws from the underside of the unit.

Do not disassemble the unit.



DIN Rail Mounting

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.



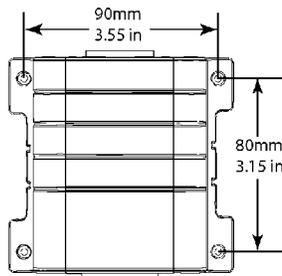
3. The unit is ready for wall mounting.



3. Ready for DIN rail mounting.



4. Use M3 or #4 screws (not included) for attachment to suitable surface



4. Initial Configuration

4.1. Auto-Configuration

If your network supports Dynamic Host Configuration Protocol (**DHCP**), the iBoot will be automatically assigned an IP Address and be ready to use. You can discover the IP Address through your Server/Router, or use Dataprobe's Device Management Utility (DMU).

4.2. Device Management Utility

The DMU is available online at dataprobe.com/support_iboot-dc.html, provides the easiest means to find and configure your iBoot-DC for use. It can:

- Discover all the iBoots on your network,
- Display the current IP address of each
- Allow setting of an IP address
- Reset to Factory Defaults
- Upgrade the Firmware of the iBoot-DC

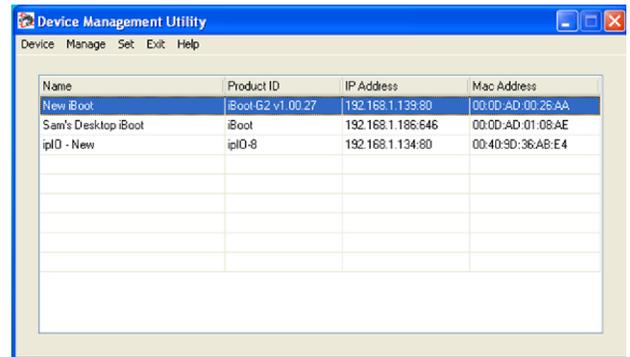
Obtain and use the DMU:

1. Download the latest version of the DMU at dataprobe.com/support_iboot-dc.html
2. Run DMUSetup.exe
3. Run the DMU

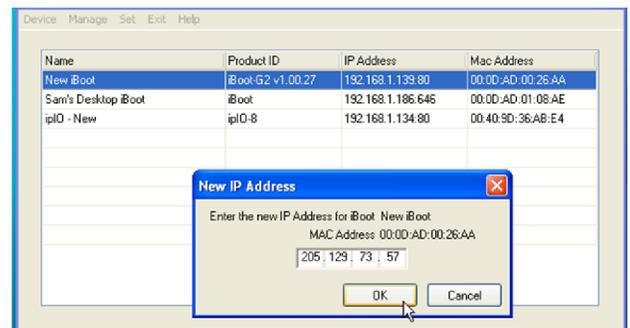
Note: The IP address can only be set within the first two minutes of powering up the iBoot-DC or pressing the reset button (see Section 11). The Setup Utility will only work with iBoots on the same physical subnet as the PC.

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-DC** and have the factory default IP address of **192.168.1.254**, or as set by **DHCP**.

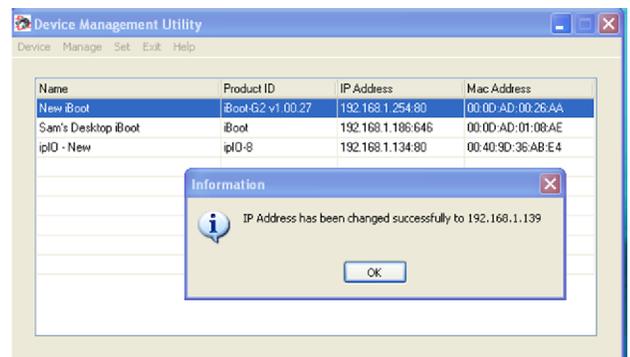
The IP address field also indicates the port for web access that is used by the iBoot. The standard port for web browser control is factory default Port 80.



DMU Discovers Dataprobe Devices on your Network



Enter New IP Address for iBoot



IP Address Successfully Set

Change the IP Address

1. Click on the row containing the iBoot-DC 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-DC can be set up. Click on Discover again to refresh the display, highlight the desired iBoot-DC and click on Manage | Launch Browser. See Section 6 to configure the iBoot.

The DMU can also be used to return an iBoot-DC to its Factory Default condition. This can be used to recover an iBoot-DC with a lost password. Highlight an iBoot-DC 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.

4.3. Other ways to set the IP Address

1. Web Browser via the Set-up Page – See Section 6.2
2. Command Line Interface See Section 8

5. Web Browser Operation

5.1. Password Protection

iBoot-DC 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 6.8.

Default Credentials:

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



Enter Username and Password

Open your browser and enter the IP address of iBoot-DC 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.

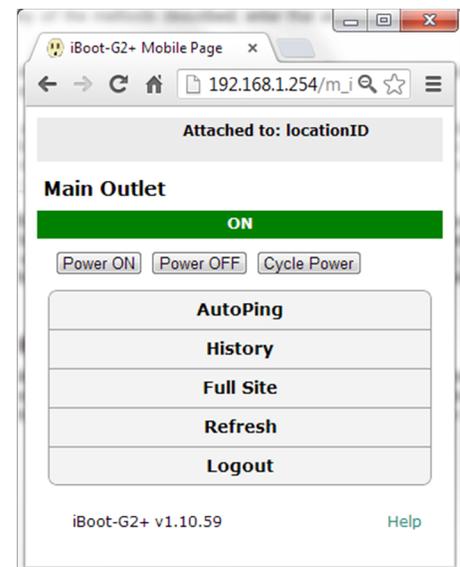
iBoot-DC uses an inactivity timer for security. This timeout is user selectable from 0 to 99 minutes. Setting to zero disables the timeout feature. When there is no activity for the set time in minutes, the user is automatically logged out and the username and password will need to be entered again for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



As the iBoot-DC 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-DC via Telnet and reboot the unit, or press the reset button (see Section 11).

5.2. 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-DC uses a set of mobile browser pages. The iBoot-DC 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.



5.3. 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-DC at a time.)

This page provides automatic updates every 5 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.

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.

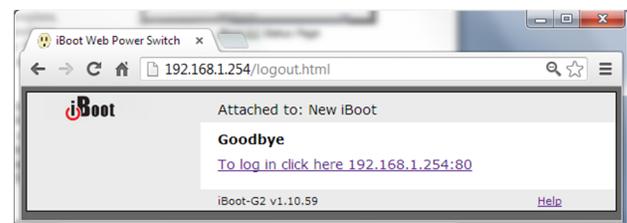
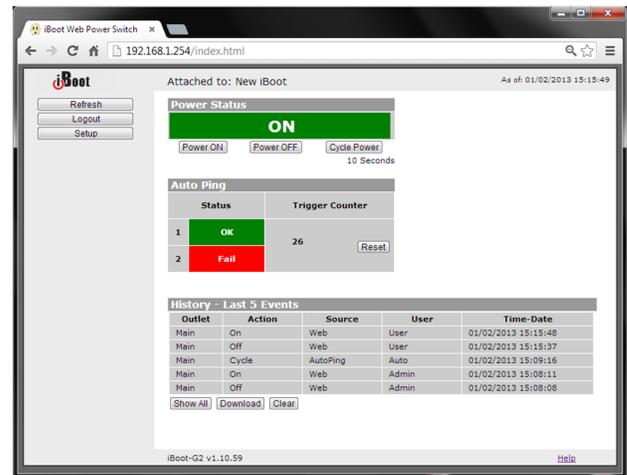
If the iBoot-DC is connected to a time server (see Section 6.3), The Home page will also show the five most recent history events, including the Outlet, Action, User and Time/Date of each event. The iBoot-DC holds the last 32 events in memory. The user can access a complete history webpage, download the history in a .csv file, or clear the history.

Navigation Buttons:

Refresh: 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.

Setup: 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.



5.4. URL Control

iBoot-DC can be controlled directly by sending a completely formed URL through a browser window or HTTP command. The URL syntax for control is:

`http://<address>?s=<status>&t=<time>&u=<user>&p=<password>`

Where:

`<address>` = the IP Address of the device, or DNS name that resolves to the IP Address, Including any HTTP Port if not standard 80

`<status>` = The status to change the outlet to:
0 = Off
1 = On
2 = Query only, no outlet change

`<time>` = The amount of time to cycle

`<user>` = user or admin depending on password used

`<password>` = password associated with user

Syntax notes:

- The order of the variables is not significant.
- The user and password are not required when Auto-Login feature is enabled (see Section 6.8 for security options).

Examples:

<http://192.168.1.254?s=1&u=user&p=user>

Turn the outlet on for the default user.

<http://192.168.1.254?s=0&t=5>

Reboot for 5 seconds with Auto-Login

<http://192.168.1.254:8080?s=2&u=admin&p=admin>

Return status using http port 8080

URL Command Responses

iBoot-DC will return an response to a URL command as follows:

`<location id> <status>`

The full http response is

```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN"
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">
<html xmlns="http://www.w3.org/1999/xhtml">
<head>
<meta http-equiv="Content-Type" content="text/html; charset=utf-8" />
<title>iBoot Status</title>
</head>
<body>
<locationID>iBoot-DC</locationID>
<status>OFF</status>
</body>
</html>
```

6. Web Setup

iBoot-DC 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.

6.1. 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-DC 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.

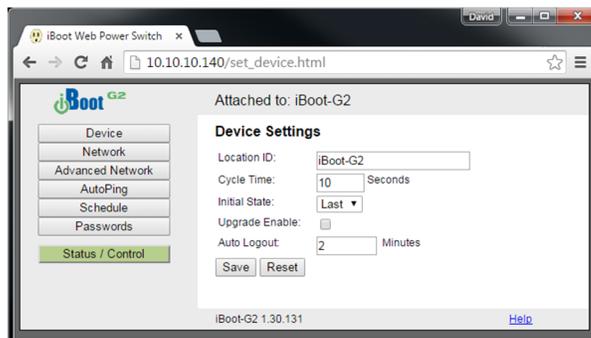
Initial State: The outlet can be set to the state it will assume when the iBoot-DC is powered up or reset. The choices are: On, Off and Last, meaning the state it was in when the power was removed or reset commenced.

Upgrade Enable: Check this box to allow remote firmware upgrades of the iBoot-DC. 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-DC 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-DC via Telnet and reboot the unit, or press the reset button.



6.2. Network Settings

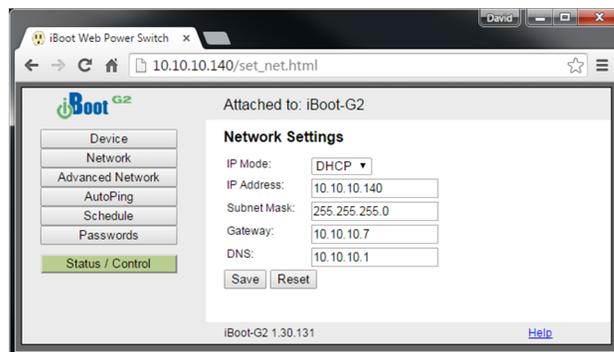
IP Mode: Select Static to set the IP address using the fields below, or DHCP to allow a DHCP server to set the IP Address.

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

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

DNS: Enter the Domain Name Server address. This will be automatically set if using DHCP.



6.3. Advanced Network Settings

HTTP Port: This setting is used to allow access to iBoot-DC 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>.

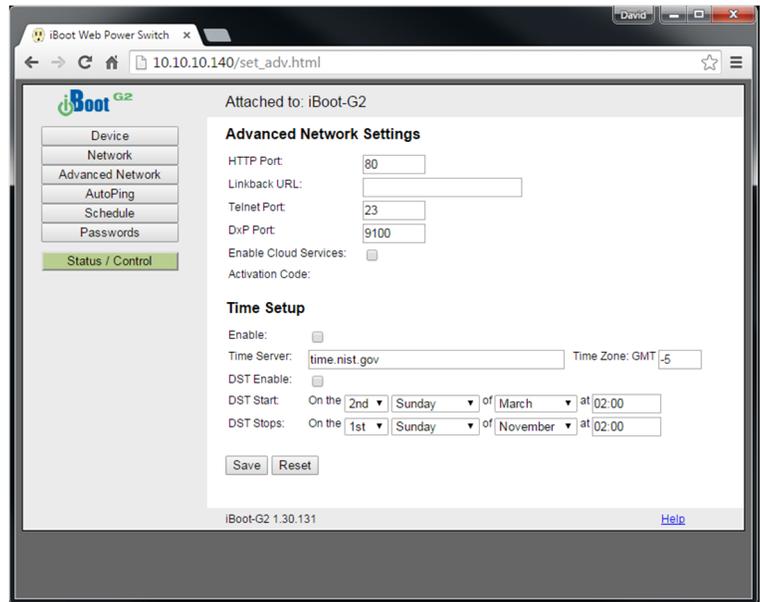
Linkback URL: This setting allows control of the hotlink displayed on the Goodbye page. It allows use of the public IP address or DNS name instead of the internal IP Address of the iBoot-DC, which is the default setting. If this setting is left blank, the hotlink will be the IP Address of the unit. Enter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

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

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

Enable Cloud Services: This setting enables the iBoot for iBoot Cloud Services (iBCS). iBCS allows the iBoot to be monitored and controlled from a web portal from any browser. It allows multiple iBoots to be managed from a single portal. For a complete description of iBCS and setup instructions, see Section 7.

Note: All of the TCP/IP Settings require a reboot of the iBoot-DC, 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-DC. Upon Clicking Reboot, the Goodbye page is displayed with a link to re-login.



6.4. Time Setup

The Advanced Network Setup page also allows setup of the Time server, required for Scheduling and Logging functions.

Enable: Enable or Disable the use of the Time Server with this checkbox

Time Server: Enter the Time Server. The default is **time.nist.gov**

Time Zone: Enter the Time Zone (-12 to +12) relative to GMT

DST Enable: Enable or Disable the use of Daylight Savings Time with this checkbox

DST Start / Stop: Enter the start and stop parameters of Daylight Savings Time here.

6.5. AutoPing

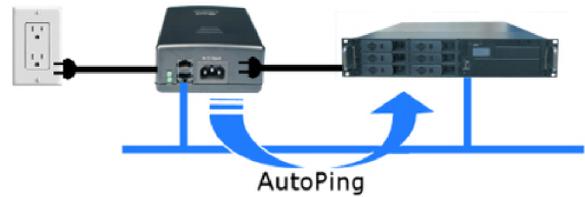
The AutoPing feature allows iBoot-DC to automatically detect failed equipment and perform a timed reboot or other power control function (like turning on an indicator or siren). You set one or two IP addresses to be periodically pinged. When iBoot-DC no longer detects a response from these addresses, 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-DC 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-DC 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-DC 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.



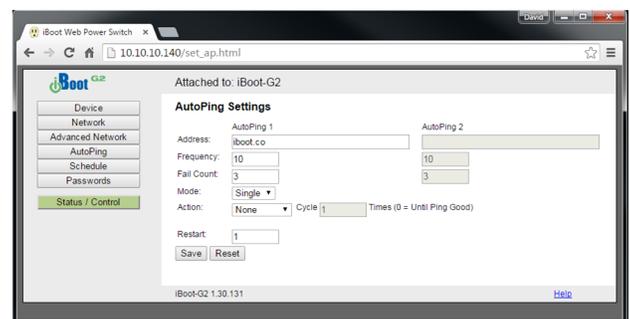
6.6. AutoPing Settings

Address: Enter the IP address of the device, or domain name to be pinged. To enter the second address and settings, select AND or OR for the A/B Logic.

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.

Mode: Select from Single, AND, OR. 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.



Action: Select from

None	AutoPing is paused. No Ping tests will be performed.
Power On – Latch	Upon triggering, iBoot-DC will power on and remain so until changed via the web, telnet, DxP, etc.
Power On – Follow	Upon triggering, iBoot-DC will power on. When the ping response returns, iBoot-DC will power off.
Power Off – Latch	Upon triggering, iBoot-DC will power off and remain so until changed via the web, telnet, DxP, etc.
Power Off – Follow	Upon triggering, iBoot-DC will power off. When the ping response returns, iBoot-DC will power on.
Cycle Cycle Times	Upon triggering, iBoot-DC will cycle the power. If Power Cycle does not result in the ping response the iBoot-DC can cycle again. The number of times the iBoot-DC will cycle is set by the Cycle Times setting. To have the iBoot cycle power 3 times to get the system to respond again, set the Cycle Times to 3.

Restart: This setting delays the restart of the AutoPing tests after the Action is completed. This setting allows time for the boot sequence of the failed device to complete.

With AutoPing operational, the main iBoot-DC page will display the current status of this feature. The status will be OK to indicate that iBoot-DC 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-DC, 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-DC. Upon Clicking Reboot, the Goodbye page is displayed with a link to re-login.

6.7. Event Scheduling

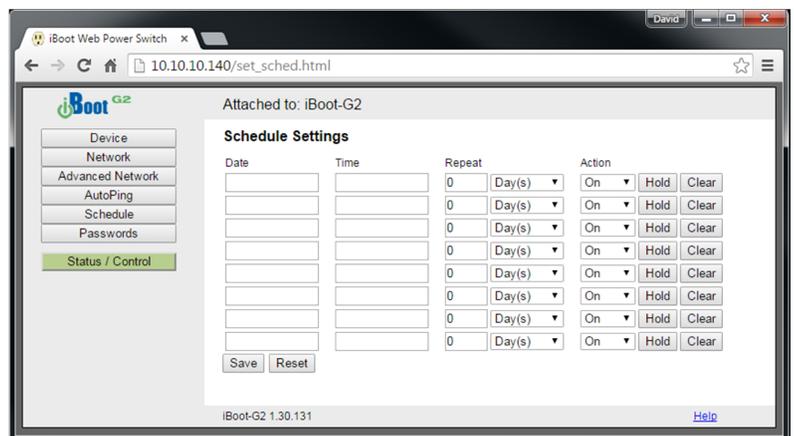
iBoot-DC can schedule up to eight reoccurring power events. Set the starting date and time, plus the action to be taken and any repeat cycle for each.

To enable the time scheduling function set the network time server in Advanced Network Setup, Section 6.3:

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.

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



Repeat: 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.

Clear: Delete the scheduled event.

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

6.8. Password Settings

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

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

Auto Login: This mode does not require a username or 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.

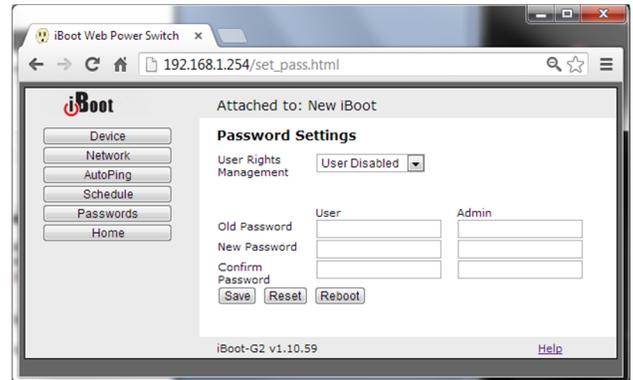
User Disabled: There is no User account. The Admin username and password will be required for operation and setup functions across all modes of operation. This is the factory default mode.

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.

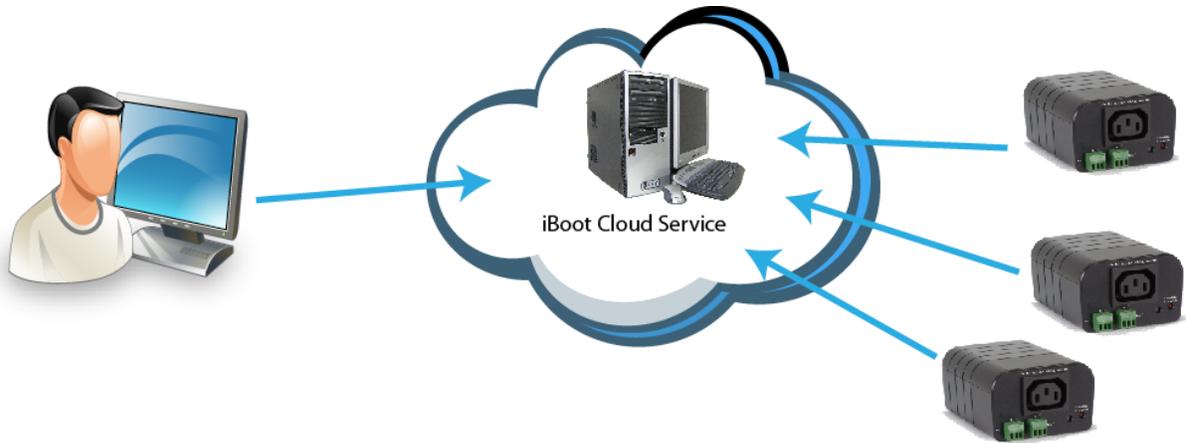
Default Credentials

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



7. iBoot Cloud Service

iBoot Cloud Service (iBCS) allows customers with iBoot to access and control multiple iBoots in multiple locations from a single portal with a single sign-on.



iBCS will not only make using iBoots easier, by consolidating all units into one sign-on and interface, it will also enhance the number of situations where iBoot can be deployed.

- Customers with Dynamic IP addressing will always be able to access their iBoot from any location.
- Customers that do not allow in-bound connections can access their iBoots.
- Service providers can manage multiple customer accounts with diverse security configurations

iBoot Cloud service is currently in development and is made available to our current users free of charge. Please note that as at this beta stage, service interruptions may occur or new versions of the iBoot firmware may be made available and necessary to keep current with the cloud development. The full Terms of Service of the iBoot Cloud Service is [available here](#).

While the Cloud Service is in Beta stage, the firmware in the iBoot is fully tested and released by Dataprobe. If you do not enable the cloud capabilities of the iBoot, you can expect continuous and dependable operation.

7.1. iBoot Cloud Users Forum

Dataprobe has established a special users' forum for iBoot Cloud Service Beta. Please use this forum to post any questions, comments and ideas about the iBoot Cloud Service. Registration is required to post to the forum. Find the iBoot Cloud Users Forum [here](#).

7.2. iBCS Setup & Operation

Use of the iBoot Cloud Services requires the iBoot to be configured to access the Internet. Please review the installation and configuration procedures to insure proper setup.

a. Establish Account with iBoot Cloud Server

- Visit <http://iboot.co> from your browser
- Click on Register
- Complete the information
- Confirm Registration by clicking on the link provided in the email.

b. Insure Proper iBoot-DC Firmware

iBoot Cloud Service requires version iBoot-DC Firmware version 1.21.99 or greater. Check the bottom of any web page of the iBoot for the firmware version. If needed, download and install the proper iBoot Firmware from dataprobe.com/support_iboot-dc.html and install as instructed in Section 11

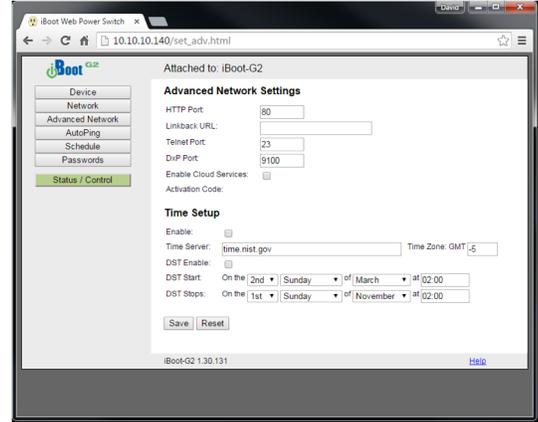
c. Enable Cloud Services on iBoot

Log into the iBoot with Administrator rights

Go to the Advanced Network Setup page
Click on the checkbox Enable Cloud Services:

Within 30 seconds, an 8 character activation code will appear.

This code is also a hotlink to the Cloud Service.

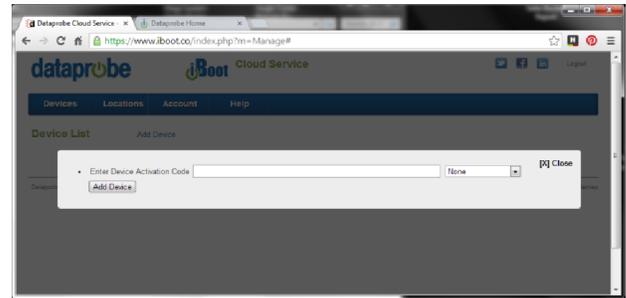


d. Register iBoot with Cloud Account

Click on the Activation code to register the iBoot with the Service.

You will be re-directed to the Service. Log-in with your account and the iBoot will be automatically registered with your account.

Alternatively, you can log in to the Service and click on Add Device and enter the activation code in the field provided.



Congratulations. You are now on the cloud.



e. iBCS Main Page

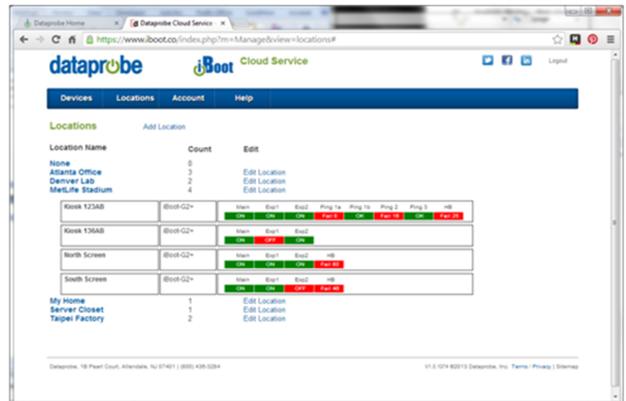
The iBCS main web page provides a menu bar with the following options:

Devices: List all registered iBoot units, ordered by their Name. Click on any iBoot line to manage that unit.

Locations: Group all iBoots by location. Click on any location to display or hide all the iBoots at that location.

Account: Display and edit account information and obtain account access history.

Help: Links to the iBoot Cloud Forum and Dataprobe support pages.



f. Control Power from the Cloud

The status screen will detail all the iBoots registered with the cloud. You can add locations and group iBoots by location.

Each iBoot displays the power status and AutoPing if configured.

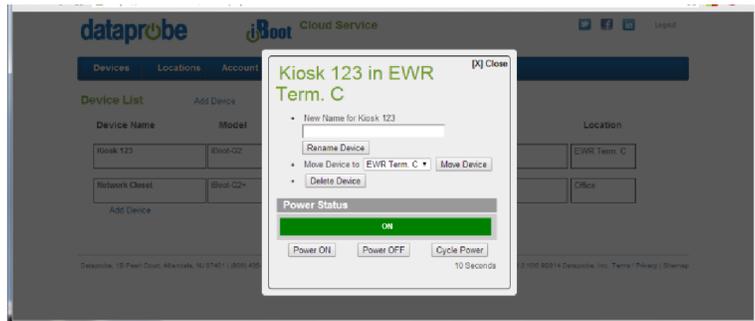
Click on the box that holds the Activation Code for the device you just entered. A modal box will

appear with options to rename the device, move the device to a defined location or delete the device.

Give the device a name, and Click Rename Device.

The remainder of the modal is very similar to the iBoot web page.

Select Power ON, Power OFF or Cycle Power.



g. Assign Names and Locations

You can establish multiple locations and assign each iBoot to a location. You can also name each iBoot independently from the Device Name that is displayed on the iBoot web page. To add locations, click on the Locations button on the menu bar, and then click Add Location. Name the location and click the Add Location button.



8. Command Line Interface

The iBoot-DC 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. Dataprobe provides a simple Telnet Client program (EZ Term) at dataprobe.com/support_iboot-dc.html.

8.1. CLI Access

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 6.8 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.

Note: The telnet session will auto-disconnect if there is no activity. The maximum auto-disconnect time is 8 minutes. If the Auto-Logout setting is shorter than 8 minutes, that setting will apply. To avoid this and use a longer auto-disconnect time, use a telnet client that periodically sends a No Operation (NOP) command, like [Dtelnet](#).

8.2. iBoot-DC CLI Syntax

Command	Description	Factory Default
<u>Control Commands</u>		
These commands are used to monitor and control the outlet.		
set outlet <on off cycle>	This command controls the outlet.	
get outlet	This command returns the current status of the outlet.	
<u>Device Commands</u>		
These commands are available to the administrator only		
get location	This command returns the iBoot-DC's location ID.	iBoot-DC
set location <20 char. max>	This command is used to set the iBoot-DC'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>	Enables or disables the ability to upload new firmware to the iBoot-DC.	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-DC.	

<u>Network Commands</u>	All set commands require a reboot before they take effect. These commands are only available to the administrator.	
get network	This command will return all the network settings as shown below: <pre> Mode: DHCP IP Address: 192.168.1.254 Subnet: 255.255.255.0 Gateway: 192.168.1.1 DNS: 8.8.8.8 HTTP Port: 80 Linkback URL: Telnet Port: 23 DXP Port: 9100 Timeout: 20 </pre>	
set ipmode <static dhcp>	This command sets the ip address setting mode. Static mode locks the address as set, dhcp mode allows DHCP server to assign address.	DHCP
set ipaddress <dotted decimal>	This command is used to set the iBoot-DC's ip address.	192.168.1.254
set subnet <dotted decimal>	This command is used to set the iBoot-DC's subnet mask.	255.255.255.0
set gateway <dotted decimal>	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-DC'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-DC'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-DC'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>	This command sets the linkback URL displayed on the logout page.	
set timeout <0-999>	This command sets the automatic network timeout in minutes 0 = Timeout not used.	2

<u>Autoping Commands</u>	These commands require a reboot before they will take effect. These commands are available to the administrator only.	
get autoping	This command returns all of the AutoPing settings as shown below. <pre> AutoPing 1 AutoPing 2 Address: 192.168.233.254 iboot.co Frequency: 10 10 Fail Count: 3 3 Status: OK OK Trig Count: 0 0 ----- Mode: single Action: cycle once wait: 2 Restart: 0 </pre>	
set autoping <1 2> address <dotted decimal or name>	This command is used to set the address of AutoPing 1 or AutoPing 2. Use IP Address or domain name.	
set autoping <1 2> frequency <1-999>	This command is used to set the frequency (how often the iBoot-DC 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 and or>	Sets single AutoPing or two AutoPing relationship And or Or.	Single
set autoping action <none on-latch on-follow off-latch off-follow cycle>	This command is used to set the action that the iBoot-DC 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 restartwait <1-999>	This command sets the time, in seconds for the device to respond to a ping.	2
set autoping <1-999>	Sets the delay in seconds to restart AutoPing tests after ActionThis command sets the time, in seconds for the device to respond to a ping.	0

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

<u>Event Commands</u>	These commands are only available to the administrator.	
get events	This command displays all scheduled events as shown below. Example:	
	<pre> 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 </pre>	
set time enable <yes no>	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>	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 settings:	
	<pre> Current Time: 07/30/2015 10:41:05 Timezone: -5 DST: Enabled Starts the 2nd Sunday of March at 2:00 Stops the 1st Sunday of November at 2:00 Server: time.nist.gov </pre>	
set event <1-8> <run hold>	This command is used to all the event to run, or put the event on hold	run

set event <1-8> date <mm/dd/yyyy>	This command is used to set the scheduled action's start date.	
set event <1-8> time <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 off cycle>	This command is used to set the scheduled action.	
set event <1-8> repeat <day hour minute>	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	

<u>Prompts</u>	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-DC has been rebooted.	

9. DxP Protocol

iBoot-DC 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 dataprobe.com/support_iboot-dc.html

10. Firmware Upgrades

The iBoot-DC can be field upgraded. Find the latest version or special purpose versions at dataprobe.com/support_iboot-dc.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-DC to factory defaults. Check the release notes for the upgrade before making changes to you iBoot-DC.

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

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

Once the device is displayed in the list, highlight it

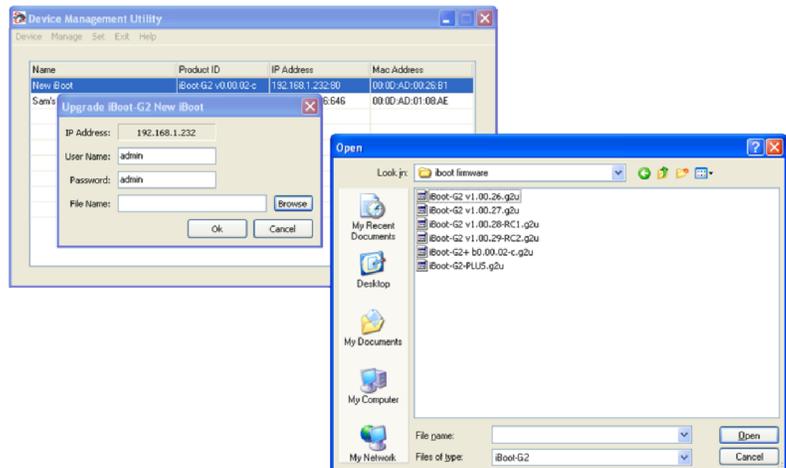
- 3) Select Manage | Upgrade Firmware

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-DC 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-DC or All Files.

Click OK when all the details are entered.

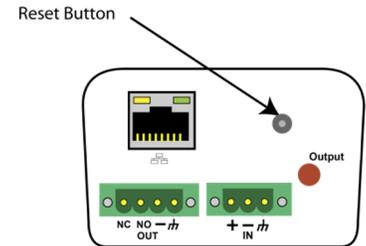
- 4) The upload will begin, and a progress bar will be displayed.
- 5) When the firmware upload is completed, the iBoot-DC will automatically reset and be ready for use.



11. Troubleshooting

The iBoot-DC 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.



Factory reset – excluding basic network settings can be done using the Device Management Utility (DMU) See Section 4.2.

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

12.1. DC

Input	Screw Terminals
Voltage Range	Auto Sensing 5-48VDC
Switched Receptacle	Screw Terminals
Current Capacity	5.0 – 29.9 VDC 5 Amps Max 30.0 – 48VDC 2 Amps Max

12.2. Compliance

FCC	Part 15 Class B
  	

12.3. 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

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 **Three Years** 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. Repairs may be made with new or refurbished components and replacements may be new or refurbished at the Sellers sole discretion. Repaired or replaced units shall be warranted for the balance of the original warranty, or 90 days, whichever is greater.

If Purchased from Dataprobe Inc.; Service under this Warranty is obtained by shipping the product (with all charges prepaid) to the address below. Seller will pay return shipping charges within the United States. Call Dataprobe Technical Service to receive a Return Materials Authorization (RMA) Number prior to sending any equipment back for repair. Include all cables, power supplies, accessories and proof of purchase with shipment.

If purchased from an Authorized Dataprobe Reseller; Service under this Warranty is obtained by contacting your Authorized Dataprobe Reseller.

THIS WARRANTY DOES NOT APPLY TO NORMAL WEAR OR TO DAMAGE RESULTING FROM ACCIDENT, MISUSE, ABUSE OR NEGLIGENCE. 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.

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