

**BAD BOY**

# Xtreme N

## Installation and Operation Guide



# Xtreme MJ

**Hi-Power B/G/N Wi-Fi Antennas**



# IMPORTANT

## Before You Install Your System

**Serial Number:** \_\_\_\_\_

**Install Date:** \_\_\_\_\_

Your serial number will be found under the end cap of your Xtreme and is located under the bar code. You can also find it on the Status tab in Xtreme's management application. You may be asked to provide your serial number when requesting support assistance.

Your BAD BOY Wi-Fi system has been completely tested prior to shipment going through multiple individual and system verifications including Wi-Fi connectivity. Before cutting your cable or installing your system, take a few minutes to bench assemble your BAD BOY components. Use your computer to:

1. verify system operation,
2. familiarize yourself with its behavior when operating, and
3. learn what to expect after installation.

Because a BAD BOY system can be installed in locations not easily accessible, do not proceed with installation until you have verified that your system is operating correctly. Contact us for assistance.

System failures after installation are usually caused by applying too much corrosion inhibitor to the cable's connector and incorrect wiring of the Junction Box. Check that the cable's colour coded wires match up correctly in your Junction Box and that each wire is fully punched down. Your warranty may be affected.

### Declaration of Conformity

Bitstorm declares that this Bitstorm BAD BOY device is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC.

This device complies with Part 15 of the FCC rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference
2. This device must accept any interference received, including interference that may cause undesirable operation.

Record your management tool login credentials:

**Username:** \_\_\_\_\_

**Password:** \_\_\_\_\_

### Copyright & Trademarks

Specifications are subject to change without notice. Other brands and product names are trademarks or registered trademarks of their respective holders.

No part of the specifications may be reproduced in any form or by any means or used to make any derivation such as translation, transformation or adaption without permission from Bitstorm Inc. Copyright © 2015 Bitstorm Inc. All rights reserved.

## Package Contents

Please check and ensure that you have all of the following items:

- ✓ 1 BAD BOY Xtreme N or MJ High Power Wi-Fi Device
- ✓ 1 POE Injector with DC Power Cable, optional 100-250VAC Adapter
- ✓ 1 Antenna with Mounting Nut
- ✓ 1 Mount (Rail/Flat surface, 1-14 Adapter, Backstay or Pole)
- ✓ 1 75' (23m) Outdoor Rated, PVC Jacket, UV Protected Black Cable
- ✓ 1 10' (3m) Indoor Ethernet Gray Cable
- ✓ 1 Grommet - Xtreme N only (located under end cover)
- ✓ 1 Cable Compression Gland, Black - Xtreme MJ only
- ✓ 1 Packet of Connector Corrosion Inhibitor (located under base)
- ✓ 1 Cable Splicing Junction Box with Punch Down Tool
- ✓ This Installation and Operation Guide
- ✓ Quick Start Guide
- ✓ Bitstorm Contact Info Cards

**Note:** If any items are damaged or missing, please contact your reseller.

## Power Injector DUO

The Power Injector provides power to BAD BOY Wi-Fi devices via Power-over-Ethernet (PoE). This is a method of powering devices without the need of a separate power cable. The M-POE-DUO-S15.5 provides a regulated 15.5Vdc output and includes circuit protection for shorts, reversed polarity, overcurrent and thermal shutdown. There is also a reset button to remotely restore system to default settings. Refer to Appendix D.



## Chapter 1 - Bench Test

- Check off items as completed.

### Step 1

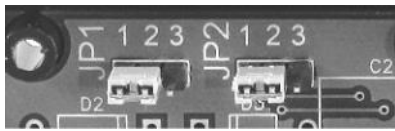
- Remove the protective cap from Antenna connector and attach to Xtreme. Finger tight is adequate. **Do not over tighten.**

### Step 2 (Do this step if an optional Unleashed is included)

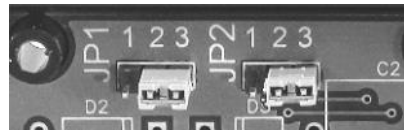
DUO comes pre-configured with Port 2 PoE disabled. If Unleashed is included, power injection must be enabled on Port 2. To enable Port 2 power:

- Open the case by removing the four screws from the back of the Power Injector DUO.
- Move **BOTH** jumpers **JP1** and **JP2** to position **1-2** to enable power on Port 2. Jumpers come factory configured to positions **2-3** which disables power on Port 2.

**NOTE: Both jumpers must be positioned identically.**



Port 2 Power Enabled



Port 2 Power Disabled

- Close case and refasten four screws on back.

### Step 3

- Connect power to Power Injector DUO using either AC or DC.

**AC** Plug in an AC Adapter (optional) and insert barrel plug into power connector.

**DC** Connect the Power Cable (included) to an appropriate power source. Connect the red (or white striped) wire to positive(+) and the solid black wire to negative(-). Insert barrel plug into power connector.

Verify that the Green LED is lit on Port 1 (and Port 2 if enabled in Step 2).

**Note: If Yellow Power Fault LEDs illuminate, it indicates a reverse polarity connection. In this condition, circuit protection will prevent power being applied to Xtreme and Unleashed when connected to Port 1 and Port 2.**

## Step 4

- Unscrew bottom from Xtreme and plug in 75 ft (23m) black cable. Plug other end of cable into POE Adapter Port 1. See illustration on Page 3 for location. Note: Xtreme requires power to operate and should be connected to Port 1 which always supplies power.

**Caution: Since Port 1 is energized with 15.5VDC, do not connect anything other than Bitstorm BAD BOY devices to Port 1.**

## Step 5

- Plug patch cable (included) into Port 2 of the DUO. Connect other end to computer, networking devices or optional Unleashed. For Xtreme N (and Unleashed if included) observe that the green LAN LED(s) illuminate. Note: There are no LEDs on Xtreme MJ.

**Note: If using a computer or other networking device, ensure Power Injector's Port 2 green power LED is NOT lit.**



## Chapter 2 - Installation

- Ensure power is disconnect.
- Determine the best location for the unit. It can be any place convenient or suitable with better being higher and away from obstructions. Your installation choices will vary depending on the mount included.
- Using the items included with your mount, attach the mount such that the antenna will be vertical.



**Note:** Not all parts supplied may be needed. Depending on your setup, different screws, anchors, etc. may be required. When installing at the top of a mast with a wind vane, ensure that the installation will not interfere with wind vane rotation.

**Note for Xtreme MJ 1-14 mounting:** The base is used as the 1-14 adapter mount. The cable gland is then not used. The base attaches to the body with reverse threads. To mount, start base on body 1-2 turns, place base on 1-14 post and turn base to tighten both mount and body at the same time. This eliminates cable twists.



**Note for Xtreme N:** If installing at masthead, rotate Xtreme N such that its LEDs face toward the mast thus hiding them. At night, its bright LEDs may be misinterpreted and cause confusion for others.

### Some remaining steps may not be required

- Estimate the amount of cable needed to get from the mounting location to the deck transit location (the place where the cable will go through the deck) and then to a convenient place for splicing below deck. Ensure that sufficient cable length is remaining for the distance to where the Power Injector is to be located. If no through deck fitting will be used or if it is large enough to allow the cable connector to pass through, no cutting may be required. Otherwise, the cable can then be cut.

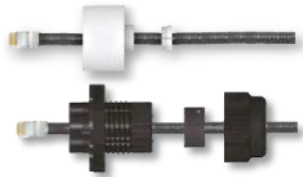
**Note:** Do not use excessive force when pulling the cable through conduits, etc. Avoid pulling the cable's connector through conduit. Do not make sharp bends in the cable. When changing direction, bends should never be sharper than the round edge of a standard screw driver handle. Avoid the use of a staple gun – if the insulation is pierced, the cable can be rendered useless. The cable transfers digital data, so there is no need to remove excess cable. Bitstorm recommends coiling and simply securing and stowing excess cable.

- Route the remaining cable to the location where the Power Injector will be.
- To prevent connector contact corrosion, apply corrosion inhibitor (included under base cover) sparingly to the contacts of the Xtreme cable end con-

nector. **Note: A thin coating of corrosion inhibitor is all that is needed. Too thick may result in floating connector pins and poor connections.**

- Xtreme N:** Put the cable end through bottom cover and plug into Xtreme N. If possible, verify that Power LED lights.

**Xtreme MJ:** Separate gland parts. Fit cable through compression nut, find seal gland and add around cable, and then fit through gland body and plug cable into bottom of Xtreme MJ.



- Xtreme N:** Screw the bottom cover on just snug. **Note: Do not over tighten.** Seal the cable opening in the bottom cover using the white grommet (included) which is split to allow it to be added onto the cable. Check that the grommet is seated fully to ensure a weather tight seal.

**Xtreme MJ:** Screw gland body onto Xtreme MJ. Then tighten compression nut until gland is tightly sealed around cable for water tight seal.

- If cable was cut, locate the included Junction Box. Using the included tool, strip back about 1 inch (2.5cm) of the outer jacket from both cable ends. Rotate the tool around the cable to make a clean cut. Leave shield exposed to aid in shield connection. There is no need to strip the insulation from the individual wires. Refer to photo.

- Connect the wires to the spade terminals using the tool's metal tip. Lay the wire onto the spade and push down with the tool. The spade will pierce the insulation thus making electrical contact. Ensure that both cables have the same colour wire connected to the same pin number on both left and right sides. Pin numbers may be found on the actual block or on the cover. If the Junction Box has wire colours shown next to the spades, these can be used as a guide as well. Refer to photo. **Note:** Junction Box may not be exactly as shown. A suggested wiring order is:



- |                |               |
|----------------|---------------|
| 1 Orange/White | 5 Blue/White  |
| 2 Orange       | 6 Green       |
| 3 Green/White  | 7 Brown/White |
| 4 Blue         | 8 Brown       |



- To prevent stress, secure the cable to the Junction Box using included tie wraps. With shielded cable, strip back the outer jacket and ensure that the tie wraps are securely contacting the foil shielding of the cable. Connect the bare drain wire to PCB screws. Snapping cover on.

- Connect to a power source: AC Adapter or DC Power Cable. For Power Cable: red (or white stripe) is positive(+) and solid black is negative(-). Refer to your included Power Adapter for input voltage requirements. Confirm that the green LED is lit on Port 1. **NOTE: If Port 1 and Port 2 yellow LEDs are lit, the DC Power Cable connections are reversed.**



- Plug the Xtreme's cable into Port 1. Power LED on Xtreme N should light.
- Plug one end of a patch cable (included) into Power Adapter Port 2 and the remaining end into your computer or Unleashed. Green LAN LED on Xtreme N (and Unleashed if included) should light.
- Continue to Chapter 3 Operation and verify everything is working correctly.

**Congratulations - you should now be surfing the web.**

## Chapter 3 - Operation

### Step 1

Power up the BAD BOY system. It will take about 30 seconds after power is applied for the system to become fully operational.

#### ***If you DO NOT have the Unleashed option installed:***

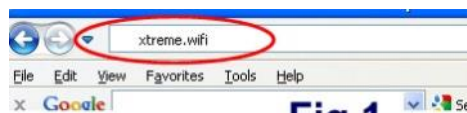
Turn off Wi-Fi devices in your computer to prevent multiple simultaneous networking connections. Refer to your computer's manual for how to do this. Ensure that your computer's Ethernet port is set to use DHCP. Refer to your computer's manual or Appendix E - Computer Ethernet Port Settings for help regarding how to check settings.

#### ***If you DO have the Unleashed option installed:***

Connect computer to Unleashed via computer's built-in wireless. Refer to Unleashed guide for more information on connecting your computer to Unleashed.

### Step 2

Open a browser and disregard any errors that may appear. Enter '**http://badboy.xtreme**' in the address bar and press 'Enter'. Alternatively, the following can also be used: '**http://xtreme.wifi**' or '**http://10.20.30.1**'. See Fig 1. When the login screen appears, enter the default **Username: 'badboy'** and **Password: 'badboy'** (without the quotes) and select the country you are in. Selecting the proper country ensures that Xtreme is configured correctly and conforms to local wi-fi regulations and requirements. Note: The Username and Password can be changed on the System tab.



**Fig 1**

### Step 3

Refer to Fig 2. On the Link Setup tab, if not already done, select the country that you are in [1]. Select a hotspot from the list [2] or enter an access point name into the Hotspot Name field [3]. Enter security key if required [3]. Finish by clicking 'Apply' at the bottom [4]. A progress bar



will appear at the top of the screen.

For secure hotspots, Xtreme remembers Preshared Keys that are entered. When selecting a hotspot from the list, any previously entered Preshared Key will be retrieved. Any changes made to the Key value will be saved. A 'Forget Hotspot' button allows a saved Preshared Key to be discarded.

**Note:** With the **Auto Connect** button, Xtreme will automatically connect to the strongest unsecured hotspot (Access Point) that it finds. Keep in mind that the strongest signal may not be your best internet connection choice.

**Note:** Hotspots generally announce themselves typically every two minutes. Pressing **Refresh List** will add those hotspots that have announced themselves since the list was last populated.

#### Step 4

When Apply has completed, the Status tab will be displayed. Connec-

The screenshot displays the Bitstorm Xtreme N web interface. At the top, there are logos for 'bitstorm', 'BAD BOY', and 'Xtreme N'. Below the logos are navigation tabs: 'Link Setup', 'Status', and 'System', along with a 'Logout' button. The main content area is divided into two sections: 'REGULATORY COMPLIANCE' and 'WIRELESS HOTSPOT (ACCESS POINT)'. In the 'REGULATORY COMPLIANCE' section, the 'Current Country' is set to 'United States' and 'EIRP' is '36 dBm'. A 'Power (dB)' slider is set to '28'. In the 'WIRELESS HOTSPOT (ACCESS POINT)' section, a list of hotspots is shown with signal strength indicators. The selected hotspot is 'One Zone\_High Speed Internet sunshine'. Below the list, the 'Hotspot Name' is 'sunshine', 'Security' is 'WPA-TKIP', and the 'Preshared Key' is masked with dots. There are buttons for 'Refresh List', 'Auto Connect', and 'Apply'. Red circles and numbers 1 through 4 highlight specific elements: 1 points to the Country and EIRP fields, 2 points to the hotspot list, 3 points to the Hotspot Name, Security, and Preshared Key fields, and 4 points to the Apply button.

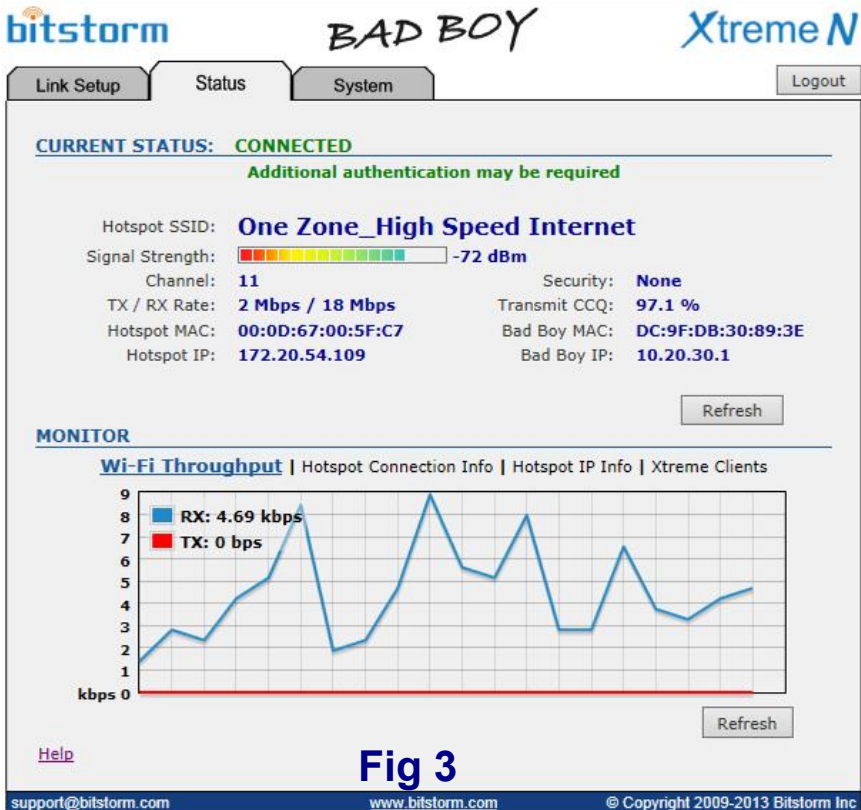
**Fig 2**

support@bitstorm.com      www.bitstorm.com      © Copyright 2009-2013 Bitstorm Inc.

tion progress will be reported. You may see status of 'Connecting', 'Authenticating', 'Obtaining IP Address', etc. See Fig 3.

**Note:** If connecting to an unsecured hotspot, additional authentication after connection may be required by the hotspot. To determine this after connecting to the hotspot, simply try to open a web page and see whether an additional authentication is presented by the hotspot. That page may include a request for payment for internet access.

**Note:** On the System tab, backups of Preshared Keys can be saved. It is required to do this prior to using the firmware Upgrade or Reset to Defaults buttons since using these features will erase any previous remembered Preshared Keys values. The restore feature allows previously backed up Preshared Keys values to be reloaded into Xtreme. This ability to backup and restore is also handy when moving Preshared Keys from one Xtreme device to another.



## Appendix A - Specifications

Output Power with Antenna:	Up to 36 dBm (4W) EIRP max
Receiver Sensitivity:	up to -96 dBm
Typical Wireless Range:	Line-Of-Sight, >5 miles (>8 km)
Operating Temperature:	-40°F to +176°F (-40°C to +80°C)
Operating Humidity:	5 to 95% Condensing
Environmental Rating:	Xtreme N - IP65, Xtreme MJ - IP67
Outdoor Installation:	Yes
Voltage Input (DUO-S15.5):	5-30 Vdc, Max 5A
Power Method:	PoE (pairs 4 & 5: +V, 7 & 8: return)
Power Consumption:	Typical: 3W (~250mA), Max: 7W (~650mA)
Xtreme N Device Size:	6.5" x 1.5" (16.5cm x 4.0cm)
Xtreme MJ Device Size:	8.5" x 1.6" (22.4cm x 4.1cm)
RoHS:	Compliant
Shock and Vibration:	ETSI300-019-1.4
Wireless Approvals:	FCC Part 15.247, IC RS210
Controlled via:	Web Browser (no software installation needed)
Radome Size:	16" x .6" (41cm x 1.6cm)
Outdoor Cable Type:	75' (23m), shielded, black, UV protected, PVC jacket
Security:	WEP, WPA, WPAPSK, WPA2, WPA2PSK
Upgradeable:	Yes - Firmware
Operating System:	All - Windows / Mac / Linux / etc.
PCB Conformal Coating:	Xtreme N - Acrylic, Xtreme MJ - None
Wireless Modes:	Wireless Modes B / G / N

## Appendix B - Xtreme N LED Indicators

### Signal Strength:

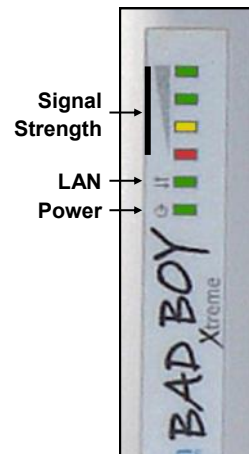
Displays the signal strength of a hotspot when connected to it.

### LAN:

Illuminates when a communications link is established via the cable. May blink indicating LAN activity. For possible causes of failure associated with this indicator, see Appendix F - Troubleshooting.

### Power:

Indicates that power is being applied. Does not provide any other indications of device operation.



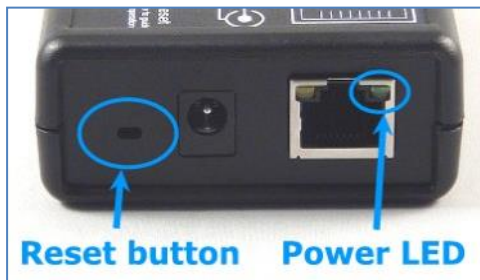
## Appendix C - Power Injector DUO Specifications

<b>M-POE-DUO-S15.5</b>	
Injector Power Input:	5-30 Vdc
Injector Power Output:	15.5 Vdc, 1A max
Output Ripple:	< 80 mV
Output Short Circuit Protected:	Yes – protection circuit limited to 5A max
Power Reverse Polarity Protection:	Yes – yellow LED indication
Thermal Shutdown:	Yes
Efficiency:	up to 90%
Port 2 Power Injecting (PoE):	Yes – enabled / disabled by jumpers
Port PoE Pins:	Positive(+) 4 & 5, Negative(-) 7 & 8
Startup Delay:	approx. 2 to 4 seconds
AC Adapter:	Optional, 100-250 Vac
DC Power Cable:	Included
Dimensions:	3.6" x 2.6" x 1.1" (9.2cm x 6.6cm x 2.8cm)
Remote Reset:	Yes - Button on side

## Appendix D - Remote Reset

A reset causes settings to be restored to a known state. For example, this can be useful to restore username or password to default values. To perform a Reset operation, do the following (read all instructions first):

- 1) The DUO will send a signal to perform a remote reset to all connected devices. Unplug the cables of any device that you do **NOT** want to have reset. Leave connected the device(s) that you wish to have reset.
- 2) Power on and ensure devices have had enough time to fully start.
- 3) Using a small screw driver or other flat ended, **non sharp** object, insert it into the slot until you feel and hear a click. **Note: Do not use force!**
- 4) Hold the reset button depressed for at least 45-60 seconds and then release. Disregard any LED patterns displayed on connected devices. Note: If the button becomes unpressed during this operation, power the system off, then back on and wait 30 seconds before starting again.
- 5) Power off. Tip: You can simply remove the barrel power plug from DUO. Verify that the Port's green power LED turns off.
- 6) Reconnect power and wait sufficient time for the devices to fully restart. Your device(s) should now be restored to original default settings.



## Appendix E - Computer Ethernet Port Settings

Note: Exact naming of buttons and fields may change. Refer to your computer's user manual as required.

**XP:** 'Start' > 'Control Panel' > 'Network Connections'. Right click your adapter, select 'Status'. Click 'Properties' then scroll the list, select 'Internet Protocol (TCP/IP)' and then click 'Properties'. Ensure that the 'Obtain an IP address automatically' and 'Obtain DNS server address automatically' radio buttons are selected.

**Vista:** 'Start' > 'Control Panel' > 'View network status and tasks' under 'Network and Internet' > 'View Status' > 'Properties' then scroll the list, select 'Internet Protocol Version 4 (TCP/IPv4)' and then click 'Properties'. Ensure 'Obtain an IP address automatically' and 'Obtain DNS server address automatically' radio buttons are selected.

**Windows 7, 8.x:** 'Start' > 'Control Panel' > 'View network status and tasks' under 'Network and Sharing Center' > 'Change adapter settings'. Right click on 'Local Area Network' > 'Properties' then scroll the list, highlight 'Internet Protocol Version 4 (TCP/IPv4)' and then click 'Properties'. Ensure that the 'Obtain an IP address automatically' and 'Obtain DNS server address automatically' radio buttons are selected.

**Linux:** 'System' > 'Preferences' > 'Network Connections'. On the 'Network Connections' screen, select the adapter and click 'Edit'. Select the 'IPv4 Settings' tab and ensure that 'Automatic (DHCP)' is selected.

**Mac OS X:** From the Apple menu, select 'System Preferences'. Click 'Network' icon. In the Location drop-down list, select 'Automatic'. In the 'Show' drop-down list, select Built-in Ethernet. Select the TCP/IP tab. Configure TCP/IP to use DHCP. (Mac OS X v10.2: In the 'Configure' drop-down list, select 'Using DHCP', Mac OS X v10.3: In the 'Configure IPv4' drop-down list, select 'Using DHCP'). Click 'Apply' button.

**Mac OS 8, 9:** From the Apple menu, select 'Control Panel'. Select 'TCP/IP'. If a window opens with the message "TCP/IP is currently inactive", click the 'Yes' button. In the 'Connect Via' drop-down list, select 'Ethernet'. In the 'Configure' drop-down list, select 'Using DHCP Server'. Close the TCP/IP(LAN) window. Click 'Save' button.

## Appendix F - Troubleshooting

### **LAN LED Not Illuminating**

1. Also no Power LED. Ensure that power is being applied.
2. Cable seating. Check that both ends of the cable are fully inserted into Xtreme and your computer or Unleashed.
3. Ethernet port disabled (if optional Unleashed is not being used). Check that your computer's Ethernet port is turned on. Refer to your specific operating system guide on how to do this.
4. Connector pin float. Too much corrosion inhibitor applied on the connector.
5. Junction Box incorrectly wired (if used). Check to ensure that all wire colours are matched correctly.
6. See **Testing Cable With An Ohm Meter**

### **My Browser Reports An Error When I Open It**

1. Cable not connected. Refer to 'LAN LED Not Illuminating'.
2. No internet connection. Your Xtreme has a built in web server that delivers the management application to your computer through a browser. Enter the Xtreme URL address into the browser's address bar. Refer to Chapter 3 - Operation.
3. Multiple Wi-Fi devices. If system does not include optional Unleashed, ensure the computer's built-in Wi-Fi is turned off. Refer to your computer's manual.
4. Incorrect Xtreme URL address entered (i.e. <http://badboy.xtreme>).

### Unable To Connect To Xtreme's Management Application

1. No power. Refer to 'LAN LED Not Illuminating'.
2. Cable not connected. Refer to 'LAN LED Not Illuminating'.
3. Can't find server. If system does not include optional Unleashed, ensure the computer's built-in Wi-Fi is turned off. Refer to your computer's manual.
4. Incorrect IP address. If system does not include optional Unleashed, ensure your computer's Ethernet port is using DHCP.
5. Incorrect UID and PWD entered. Check that the user ID and password you are using are correct.

### LAN LED Blinks At A High Rate

1. Cabling issue. If Junction Box was used, ensure that all of the wires are punched down to the very bottom of each contact
2. Too much corrosion inhibitor applied to connector.
3. Incomplete electrical connection. Also refer to **LAN LED Not Illuminating**

### Settings Are Not Being Retained

1. Low DC input voltage.
2. Not clicking 'Apply'. Ensure that when a new hotspot is selected or setting changes are made that the 'Apply' button is clicked.

### Weak Signal Strength

1. Weak hotspot. Check that the signal being connected to is strong. Obstructions can temporarily get into the line-of-sight to the hotspot.
2. Antenna connector loose. Check that the antenna N-Female connector is securely connected to Xtreme. Do not over tighten.

### Testing Cable With An Ohm Meter

Ensure that power is off and computer (or Unleashed) is unplugged from cable.

#### With Xtreme Connected

Check the following for a reading of <20 Ohms:

Blue to Blue/White

Brown to Brown/White

Any combination of Green, Green/White, Orange and Orange/White

Check the following combinations for a reading of ~5K Ohms:

Green, Green/White, Orange and Orange/White to Brown and Brown/White

#### With Xtreme Unplugged

Check the following for a reading of <20 Ohms:

Blue to Blue/White

Brown to Brown/White

Check the following for open circuit reading:

Green, Green/White, Orange and Orange/White to any other wire

Blue and Blue/White to Brown and Brown/White

If any value is outside what is indicated, investigate as to cause and correct.

### Reset Button Located On Xtreme

The Reset button on the bottom of Xtreme next to the connector is a multi-function button and should not be used except under the direction of support staff. Improper use of this button could render your device inoperative. If this occurs, you may be required to return your Xtreme to Bitstorm for correction. The results of improper use or physical damage to the reset button and PCB is not covered under warranty.

## Warranty

1. All Bitstorm products are warranted against defects in material and workmanship for a period of one year from date of purchase under normal use. **Warranty does not cover damage caused as a result of improper installation or operation.**
2. The customer is responsible for delivering the defective product to the designated RMA address for repair or replacement.
3. At its discretion, Bitstorm will repair or replace a product that was found to be defective by Bitstorm during the warranty period.
4. This warranty does not cover labor cost for removing and reinstalling the device for repair nor for any expendable parts that are readily replaced in normal use.
5. The sole responsibility of Bitstorm under this warranty shall be limited to repair of this product, or replacement thereof, at the sole discretion of Bitstorm.
6. All RMA items shipped to Bitstorm must be freight prepaid. Bitstorm will pay the return freight via a service of Bitstorm's choice. Customer is responsible for payment of any shipping upgrades.

## **Limitation of Warranty**

This warranty does not apply if product:

- a. has been opened and/or altered, except by Bitstorm technical personnel,
- b. has been painted in way, shape or form,
- c. **has been damaged due to errors or defects in customer provided cabling,**
- d. has been subjected to abnormal physical or electrical stress, including lightning strike, misuse, negligence or accident,
- e. **has been improperly installed, including wiring errors or damage to cable during installation,**
- f. failure to apply supplied corrosion inhibitor to Xtreme's cable connector,
- g. has had removal of MAC address label (if one was affixed),
- h. has been loaded with incorrect firmware or attempted to have incorrect firmware loaded, or
- i. is inoperable due to improper use of the Reset button.

## **What information will be required?**

1. Customer name, contact information, and shipping information.
2. Date and location of purchase (we may request a copy of the invoice as proof of purchase in certain limited circumstance).
3. Problem description.
4. Serial number or MAC address of each unit (if available).
5. Troubleshooting actions taken so far.

## **\*\*\* International Customers \*\*\***

1. Customer to use their own shipping account when sending products back to Bitstorm.
2. When sending back RMA, the commercial invoice must declare "Return For Repair" and "NO Commercial Value". The total value of the commercial invoice cannot exceed \$10.00USD. If these steps are not followed, the RMA will not be accepted or fulfilled.

## Contact Us

address: **Bitstorm Inc.**  
**33 University Ave., Suite 1407**  
**Toronto, Ontario, Canada M5J 2S7**

web: **www.bitstorm.com**  
phone: **1-647-724-8328**  
skype: **bitstorm.inc**  
email: **sales@bitstorm.com**  
**support@bitstorm.com**

hours: **Monday to Friday, 8:30am to 5pm EST**

**IMPORTANT: If you are experiencing difficulties, please contact us first with any issues before returning this product to the retailer.**



## Options For Your **Xtreme N / MJ**

### Standard Marine 1-14 Adapter Mount →

The 1-14 Standard Antenna Adapter allows **Xtreme N** to be mounted onto a standard 1" x 14 pitch threaded antenna fitting. Satin finish anodized aluminum. Integral with **Xtreme MJ**.



[bitstorm.com](http://bitstorm.com)

### ← Backstay Mount

Mount **Xtreme N / MJ** onto a backstay.

The angle of backstays does not vary significantly, so **Xtreme** can be added on any rig. Can be used with sloops, ketches, yawls, cutters, schooners, catamarans, trimarans, etc. Polished stainless steel finish with stainless steel screws, flat washers and stainless steel nylon inserted locking nuts.

## Unleashed N is the perfect addition to **Xtreme N / MJ**

You've got your **Xtreme** installed and are connected. You take your laptop out to the cockpit dragging a cable along. You wish that you could cut that tether, that umbilical cord, that ball and chain. You want to be... **Unleashed!** Ideally suited where cables are undesirable or just not possible. It rebroadcasts the Wi-Fi connection from **Xtreme** creating your own private hotspot.

- ✓ Go completely wireless - no trailing cables
- ✓ Connect multiple computers and devices simultaneously
- ✓ No software to install - works with any computer, any operating system
- ✓ Supports all Wi-Fi enabled devices - laptops, tablets, TVs, etc.
- ✓ Creates your own hotspot area up to several hundred feet

