

BlueTube DP V2

Owner's Manual



0.1 Important Safety Instructions



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in this manual.



The lightning flash with arrowhead symbol within an equilateral triangle is intended to alert the user to the presence of uninsulated “dangerous” voltage within the product’s enclosure that may be of sufficient magnitude to constitute a risk of electric shock to humans.



CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE THE COVER. NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED PERSONNEL.



CAUTION: To reduce the risk of electric shock, do not expose this appliance to rain and moisture. The apparatus shall not be exposed to dripping or splashing liquids and no object filled with liquids, such as vases, shall be placed on the apparatus.



CAUTION: These service instructions are for use by qualified service personnel only. To reduce the risk of electric shock, do not perform any servicing other than that contained in the operation instructions. Repairs must be performed by qualified service personnel.

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this apparatus near water.
6. Clean only with dry a cloth.
7. Do not block any ventilation openings. Install in accordance with the manufacturer’s instructions.
8. Do not install near any heat sources, such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
9. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades, with one wider than the other. A grounding-type plug has two blades and a third grounding prong. The wide blade and the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
10. Protect the power cord from being walked on or pinched, particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
11. Use only attachments/accessories specified by PreSonus.
12. Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer or sold with this apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over. 
13. Unplug this apparatus during lightning storms or when unused for long periods of time.
14. Servicing is required when the apparatus has been damaged in any way, such as if a power-supply cord or plug is damaged; or liquid has been spilled, or objects have fallen, into the apparatus; or if the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped. All PreSonus products in the USA should be serviced at the PreSonus factory in Baton Rouge, Louisiana. If your StudioLive requires a repair, contact techsupport@presonus.com to arrange for a return-authorization number. Customers outside the USA should contact their local distributor. Your distributor’s contact information is available at www.presonus.com.
15. The apparatus shall be connected to a Mains power outlet with a protective grounding/earthing connection.
16. Where the Mains plug or an appliance coupler is used as the disconnect device, the disconnect device shall remain readily operable.

EU Directives on the Protection of the Environment and Other Euro Stuff

RoHS This product is compliant with the EU Directive 2002/95/EG for the Restriction of the use of Certain Hazardous Substances in Electrical and Electronic Equipment. No lead (Pb), cadmium (Cd), mercury (Hg), hexavalent chromium (Cr+6), PBB or PBDE is intentionally added to this device. Any traces of impurities of these substances contained in the parts are below the RoHS specified threshold levels.

REACH This product is compliant with the European Union Directive EC1907/206 for the Registration, Evaluation, Authorization, and Restriction of chemicals (REACH) and contains none or less than 0.1% of the chemicals listed as hazardous chemicals in the REACH regulation.

WEEE As with the disposal of all old electrical and electronic equipment, this product is not to be treated as regular household waste. Instead it shall be handed over to the applicable collection point for the recycling of electrical and electronic equipment.



CE This product complies with the European Union Council Directives and Standards relating to electromagnetic compatibility EMC Directive (2006/95/EC) and the Low Voltage Directive (2004/108/EC).

1**Overview and Features** **1**

Get the big picture with this summary of features and list of what's in the box.

2**Quick Start Guide** **4**

Follow these basic instructions to start using your BlueTube DP V2 right away. Basic hookup diagrams are on Pages 8 and 9.

3**Connections** **10**

Read the full anatomical breakdown of your BlueTube DP V2.

4**Resources** **14**

Read the BlueTube DP V2 technical specifications, information on troubleshooting and repairs, and limited warranty.

1.0 Overview

1.1 Introduction

Thank you for purchasing the PreSonus BlueTube DP V2. PreSonus Audio Electronics has designed it utilizing high-grade components to ensure optimum performance that will last a lifetime. The BlueTube DP V2 provides both solid-state clarity and tube warmth. Our high-headroom, Class A XMAX™ mic preamplifier greatly reduces the chances of input stage overloading and provides exceptional transparency, even at high gain settings. Need a little more warmth? Engage the 12AX7 vacuum-tube gain stage and add Tube Drive saturation to taste. You also get a high-pass filter, 20 dB pad, and more. In addition to being a versatile preamp, the BlueTube DP V2's separate instrument and microphone inputs make it a handy direct box for guitars and bass.

We encourage you to contact us with questions or comments regarding this product. You can reach us by email at techsupport@presonus.com or call us at 1-225-216-7887 between 9 a.m. and 5 p.m. Central Time (GMT -06:00). PreSonus Audio Electronics is committed to constant product improvement, and we value your suggestions highly. We believe the best way to achieve our goal of constant product improvement is by listening to the real experts: our valued customers. We appreciate the support you have shown us through the purchase of this product.

Please use this manual to familiarize yourself with the features, applications, and correct connection procedure for the BlueTube DP V2 before connecting it to your recording or P.A. system.

1.2 Summary of Features

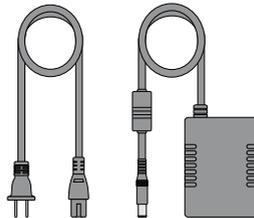
- 2 input channels, each with:
 - High-headroom, Class A XMAX™ mic preamplifier
 - Dual path, 12AX7 vacuum tube and solid-state gain stages
 - Solid-state Gain control
 - Tube Drive tube-saturation control
 - 48V phantom power
 - 80 Hz high-pass filter
 - -20 dB pad
 - Polarity-reverse switch
 - Illuminated analog VU input-level meter
- 2 balanced combo mic/unbalanced instrument inputs
- 2 balanced, XLR main (L/R) line outputs
- 2 unbalanced, ¼-inch main (L/R) line outputs
- Compact 1/2U rack-mount chassis
- External 12 VDC power supply

1.3 What's In the Box

In addition to this manual, your PreSonus package contains the following:



- PreSonus BlueTube DP V2



- 12 VDC, 1A Power Supply

2.0 Quick Start Guide

This Quick Start Guide is designed to help you connect your BlueTube DP V2 to your system as quickly as possible. The following step-by-step instructions are based on a common studio environment. Your setup may differ based on your needs and applications.

2.1 Getting Started

Connect the Power

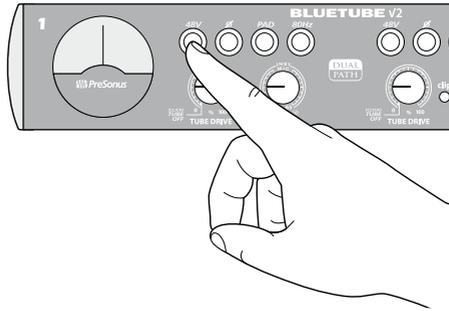
1. Turn every knob on the front panel of the BlueTube DP V2 completely counterclockwise (left).
2. Connect the included power supply to the BlueTube DP V2 and plug it in to a wall socket, power strip, or surge protector.

Connect Your Input Sources

1. Turn down the main output volume on your audio interface or mixer to its lowest position.
2. Grab a microphone and a mic cable and plug them into Mic Input 1 on the BlueTube DP V2.



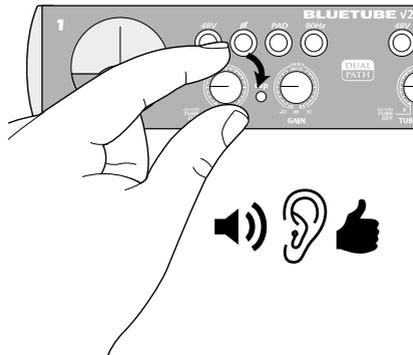
3. Connect Output 1 (TRS or XLR) of your BlueTube DP V2 to a line input on your audio interface or mixer. For the best sound quality, PreSonus recommends using balanced cables whenever possible.
4. If your microphone requires phantom power, press the 48V button for Input 1 on the front panel of the BlueTube DP V2.



5. Speak into the microphone while watching the VU meter on the front panel and slowly turning the BlueTube DP V2 Input 1 Gain knob clockwise.



6. Set the input level on your audio interface or mixer, using the recommended level-setting procedure for that device.
7. Speak into the microphone while monitoring the BlueTube DP V2, again following the monitoring instructions for your audio interface or mixer.
8. To use the tube gain stage, turn the Input 1 Tube Drive knob clockwise until the desired effect is achieved.



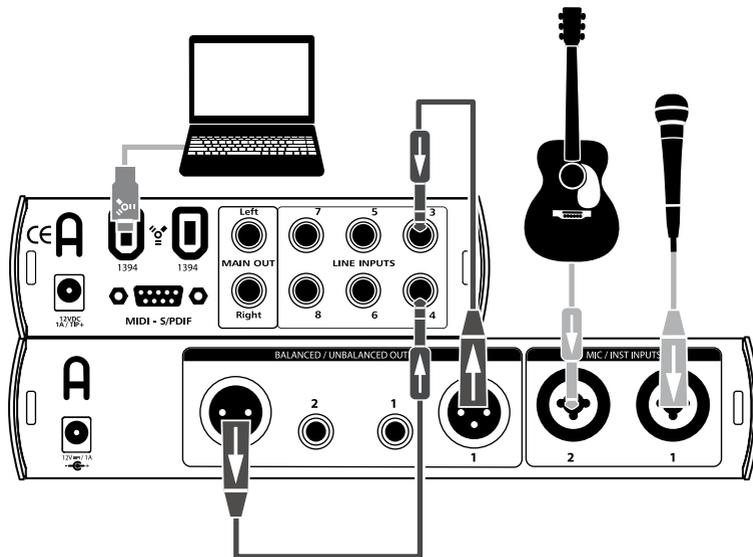
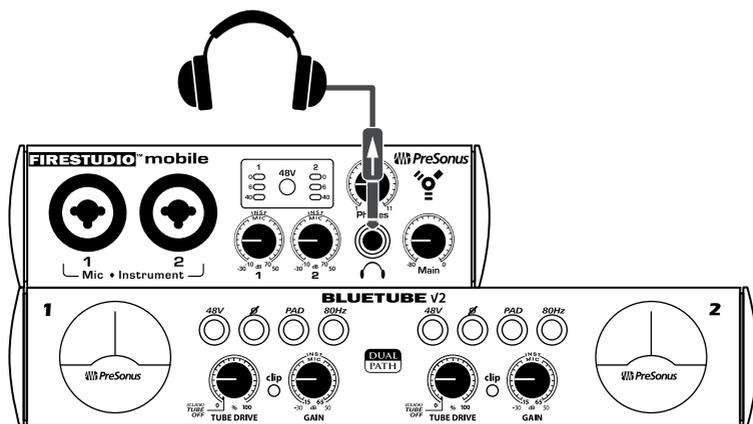
Your BlueTube DP V2 is now ready to use!

2.2 Using Your BlueTube DP V2 with an Audio Interface.

Most audio interfaces offer built-in microphone preamps; for instance, PreSonus FireStudio™-series and AudioBox™ VSL-series interfaces feature XMAX solid-state preamps. However, each preamp model sounds a bit different, and the versatile BlueTube DP V2 enables you to create sounds that your interface's preamp can't match.

When using the BlueTube DP V2 as a front end for a recording device, it is important to watch its output levels. Turning up the Gain and Tube Drive too high could overload the inputs of your recording device, and if your recording interface is digital, this will overload the analog-to-digital converters. While analog distortion can be desirable, no one wants to hear digital distortion. By adjusting the output level of your BlueTube DP V2 and the input level of your recording device so that your recording input is not clipping, you will achieve the best possible sound.

2.3 Hookup Diagram: Connecting to an Audio Interface



3.0 Hardware

3.1 Front-Panel Layout



VU Meter. The analog VU displays the output level of your BlueTube DP V2.



48 Volt Phantom Power. This button enables phantom power to the XLR input. Here is the XLR connector wiring for phantom power:

- Pin 1 = GND**
- Pin 2 = +48V**
- Pin 3 = +48V**



Phase Reverse. Reverses the polarity of the signal. Use Phase Reverse to combat phase cancellation between microphones.



-20 dB Pad. This button attenuates (lowers) the input signal by 20 dB. The pad can be used to keep a hot signal from overdriving the microphone preamp.



80Hz Roll-off. The 80Hz button is a low-end roll-off filter. When depressed, this button causes all frequencies below 80 Hz to be attenuated (dropped) by 12 dB. This filter can be handy in live and studio applications. For example, the 80Hz filter can help to reduce the “boominess” or “muddiness” of a vocal and can improve the overall clarity.



Tube Drive. Tube Drive controls volume being routed through the 12AX7 vacuum tube, unlike the Input Gain which controls the overall volume. The effect achieved ranges from subtle to extreme, depending on the setting being used. The more signal being sent to the tube, the more distortion you will hear. While you won't always want to use tube drive, it can be a great choice for guitar, bass, and even vocals.

Using tube drive with the output gain can create some very desirable effects:

- **Warming up the sound.** This is achieved by adding a small amount of tube drive (30% or less). It is especially desirable for vocals and electric bass. The resulting sound is richer and sweeter.
- **Overdriven tube sound.** This effect is achieved by adding 30 to 100% tube drive. The more tube drive you add, the more overdriven the sound will be. This sound is extremely useful for creating distorted guitar, and it's great for an authentic "blues harp" harmonica sound.

When the Tube Drive knob is turned fully counter-clockwise, it will click. This switches the preamp to the solid-state gain stage.



Clip LED. The Clip LED will illuminate if your input signal exceeds +20 dBu. Clipping the input produces very unpleasant distortion. If you want good-sounding distortion, increase the tube drive control while lowering the output gain.



Input Gain Control. This knobs provide the following gain structure:

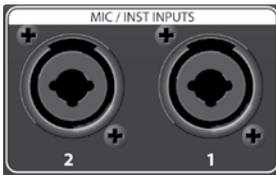
- **XLR Microphone.** 80 dB of variable gain (-15 dB to +65 dB)
- **Instrument/High-Impedance Input.** 80 dB of variable gain (-30 dB to +50 dB)

3.2 Back-Panel Layout



Microphone Inputs. Your BlueTube DP V2 is equipped with PreSonus XMAX microphone preamplifiers for use with all types of microphones.

Both channels of the BlueTube DP V2 have Mic/Instrument combo jacks. This convenient connector accepts either a 1/4-inch phone plug or an XLR plug.

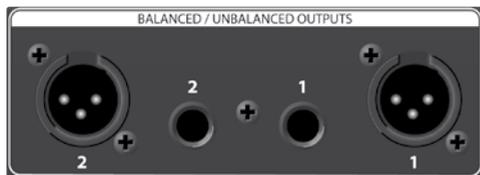


Instrument Inputs. The 1/4-inch TS connectors on Channels 1 and 2 are for use with instruments (guitar, bass, etc.). When an instrument is plugged into the instrument input, the mic preamp is bypassed, and the BlueTube DP V2 becomes an instrument preamplifier.

Power User Tip: An active instrument has an internal preamp and should be plugged into a line input rather than an instrument input. Plugging a line-level source into the Instrument inputs on the BlueTube DP V2 risks damage to these inputs and results in a very loud and often distorted audio signal.



As with any audio input device, plugging in a microphone or an instrument, or turning phantom power on or off, will create a momentary spike in the audio output of your BlueTube DP V2. Because of this, we highly recommend that you turn down the channel trim before changing connections or turning phantom power on or off. This simple step will add years to life of your audio equipment.



Outputs. Each channel of the BlueTube DP V2 features both unbalanced 1/4-inch TS and balanced XLR outputs for greater ease of connectivity.

***Power User Tip:** Both outputs can always be used simultaneously. The 1/4-inch output can be connected to an amplifier on stage, while the XLR output could be connected to the P.A. system or monitoring mixer. In this way, your BlueTube DP V2 can be used as a direct box in both live and recording situations.*



Power Supply Connector. This is the connection for your external power supply.

4.0 Resources

4.1 Vacuum Tube Care and Maintenance

The BlueTube DP V2 is equipped with a 12AX7 vacuum tube. This tube works well in a wide variety of situations; however, some owners may wish to experiment with other compatible vacuum tubes to explore additional tonal possibilities. There are many different 12AX7 tube brands from which to choose but you must use a 12AX7.

Tube life and performance are affected by how often the tube is used and how hard the tube is driven while in use. Poor performance and microphonics (noise caused by mechanical vibration of the elements of an electron tube, component, or system) are the most common signs of wear. Periodic replacement of the vacuum tube is recommended. There is no predetermined time for replacement. If you notice that the sound quality in your BlueTube DP V2 has deteriorated, it is most likely that a worn-out tube is to blame.

4.1.1 How to Replace the Tube

1. Unplug the unit. Proceed with caution, as the tube could be hot.
2. Remove the two screws from the top and the two screws from the bottom of the unit, located near the side panels.
3. Remove both side panels.
4. Remove the two screws from each of the XLR connections (inputs and outputs) on the back of your Blue Tube DP V2.

4.1 Vacuum Tube Care and Maintenance

5. Remove the screw located in the middle of the ¼" TRS jacks.
6. Remove the black chassis by sliding it to the rear, away from the blue front panel.
7. The tube socket is located in the middle of the main circuit board, with the tube pointing toward the left side. While supporting the tube socket daughterboard, gently grasp the tube and pull to remove it. The tube should come completely out.
8. Align the pins on your replacement tube and push it in while supporting the tube socket daughterboard. Make sure that the tube is completely seated in the receptacle.
9. Put your BlueTube DP V2 back together. To begin, slide the chassis over the main circuit board and align the rear-panel connectors into the chassis. The chassis front edge should mate on the outside of the front panel.
10. Replace the screws in the XLR connectors and ¼" TRS jack.
11. Slide the side panels back into position through the locking slot in the rear of the chassis.
12. Replace the screws in the top and bottom of the chassis.

Congratulations! Your BlueTube DP V2 is now ready to be enjoyed again!

4.2 Specifications

INPUTS:**Mic Input:**

Connector Type	XLR, female, balanced
EIN	-131 dB, 20kHz BW, max gain, $R_s=40\Omega$, A-wtd -128 dB, 20kHz BW, max gain, $R_s=40\Omega$, unwttd
Frequency Response	20 Hz - 20 kHz, -0.3 dB, +4 dBu, unity gain 5 Hz - 120 kHz, -3 dB, +4 dBu, unity gain
THD+N	0.01%, -10 dBu, 1kHz, unity gain, 20kHz BW, unwttd
Dynamic Range	115 dB, 1kHz, unity gain, 20kHz BW, A-wtd 107 dB, 1kHz, unity gain, 20kHz BW, unwttd
Input Impedance	1.3 k Ω
Phantom Power	+48 VDC, 10mA

Instrument Input:

Connector Type	¼" TS, female, unbalanced
Input Impedance	1 M Ω

OUTPUT:**Analog Output:**

Connector Types	XLR, male, balanced ¼" TS, female, unbalanced
Maximum Output	+20 dBu
Output Impedance	51 Ω

Tube Stage:

Type	12AX7
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POWER:

Type	+12 VDC, 1000 mA, center pin positive
PSU Barrel Dimensions	5.5mm O.D., 2.1mm I.D., 9.5mm length

NOTE: As a commitment to constant improvement, PreSonus Audio Electronics, Inc., reserves the right to change any specification stated herein at any time, without notification.

4.3 Troubleshooting and Repairs

If you experience problems with your BlueTube DP V2, please try the following before contacting PreSonus Customer Support:

1. Check our Web site at www.presonus.com for answers to frequently asked questions and for troubleshooting techniques specific to the BlueTube DP V2.
2. Make sure your BlueTube DP V2 and all equipment connected to it are powered on.
3. Disconnect/reconnect your BlueTube DP V2 power supply.
4. Check your connection cables and audio sources.
5. Check your microphone.
6. Isolate the problem by disconnecting any extraneous equipment in your signal chain.

To submit a tech-support request, visit our Web site at <http://support.presonus.com/home> or call us at 1-225-216-7887 between 9 a.m. and 5 p.m. Central Time (GMT -06:00). Please note that you must register your product at www.presonus.com before contacting Customer Service. Customers outside of the United States should check first with their regional PreSonus distributor for technical support and repairs.

When contacting technical support, please have the following information at hand:

- A brief description of the connections to and from your BlueTube DP V2.
- A description of the problem that you are encountering.
- Your BlueTube DP V2 serial number (located on the bottom of the unit).

If you think that your power supply has failed, rather than the BlueTube DP V2 itself, please let the Customer Service representative know. If your BlueTube DP V2 is still under warranty, a replacement power supply will be provided to you free of charge. If your BlueTube DP V2 is no longer under warranty, you may purchase a replacement at www.presonus.com/store.

4.4 PreSonus Limited Warranty

PreSonus Audio Electronics, Inc., warrants this product to be free of defects in material and workmanship for a period of one year from the date of original retail purchase. This warranty is enforceable only by the original retail purchaser. To be protected by this warranty, the purchaser must complete and return the enclosed warranty card within 14 days of purchase. During the warranty period PreSonus shall, at its sole and absolute option, either repair or replace, free of charge, any product that proves to be defective on inspection by PreSonus or its authorized service representative. To obtain warranty service, the purchaser must first call or write PreSonus at the address and telephone number printed below to obtain a Return Authorization Number and instructions of where to return the unit for service. All inquiries must be accompanied by a description of the problem. All authorized returns must be sent to the PreSonus repair facility postage prepaid, insured, and properly packaged. PreSonus reserves the right to update any unit returned for repair. PreSonus reserves the right to change or improve the design of the product at any time without prior notice. This warranty does not cover claims for damage due to abuse, neglect, alteration, or attempted repair by unauthorized personnel and is limited to failures arising during normal use that are due to defects in material or workmanship in the product. Any implied warranties, including implied warranties of merchantability and fitness for a particular purpose, are limited in duration to the length of this limited warranty. Some states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you. In no event will PreSonus be liable for incidental, consequential, or other damages resulting from the breach of any express or implied warranty, including,

among other things, damage to property, damage based on inconvenience or on loss of use of the product, and, to the extent permitted by law, damages for personal injury. Some states do not allow the exclusion of limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you. This warranty gives you specific legal rights, and you may also have other rights, which vary from state to state. This warranty only applies to products sold and used in the United States of America. For warranty information in all other countries, please refer to your local distributor.

PreSonus Audio Electronics, Inc.

7257 Florida Blvd.

Baton Rouge, LA 70806 USA

www.presonus.com

Added bonus: PreSonus' previously Top Secret recipe for...

Jambalaya

Ingredients:

- 5 lbs link andouille sausage
- 3 lbs boneless chicken
- 2 lbs ground beef
- 3 lbs onions (yellow or purple)
- 2 stalks of celery
- 1 lb bell peppers (green or red)
- 1 batch green onions
- 3 lbs rice
- Tony Chachere's Cajun Seasoning
- 1 bottle chicken stock concentrate (or 3 cubes chicken bullion)
- 1 can Rotel tomatoes with chilies, diced (regular hot)
- Tabasco sauce

Cooking Instructions:

1. In a 16 qt. pot or larger, slice link sausage and pan-fry until brown.
2. Add ground beef and brown.
3. Do not remove from pot Add diced onions, celery, and bell peppers, 1 can Rotel Original diced tomatoes w/chilies, 3 oz concentrate chicken stock, ½ teaspoon of Cajun seasoning, 1 teaspoon of Tabasco hot sauce (or more...maybe lots more).
4. Cook until onions are translucent.
5. Add chicken and cook until it turns white.
6. Add diced green onions, 1 tsp. salt, ½ gallon water and bring to a boil.
7. Add rice and bring to a boil. Cook on high for 8 minutes, covered, stirring every 2 minutes
8. Cook covered on low for 10 minutes, stirring only once.
9. Turn off and let sit for 30 minutes.
10. Serve and enjoy!

Serves 20

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BlueTube DP V2

Owner's Manual

EMC Statement:

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and the receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

CAUTION: Changes or modifications to this device not expressly approved by PreSonus Audio Electronics could void the user's authority to operate the equipment under FCC rules.

This apparatus does not exceed the Class A/Class B (whichever is applicable) limits for radio noise emissions from digital apparatus as set out in the radio interference regulations of the Canadian Department of Communications.

ATTENTION — Le présent appareil numérique n'émet pas de bruits radioélectriques dépassant les limites applicables aux appareils numériques de class A/de class B (selon le cas) prescrites dans le règlement sur le brouillage radioélectrique édicté par les ministere des communications du Canada.



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