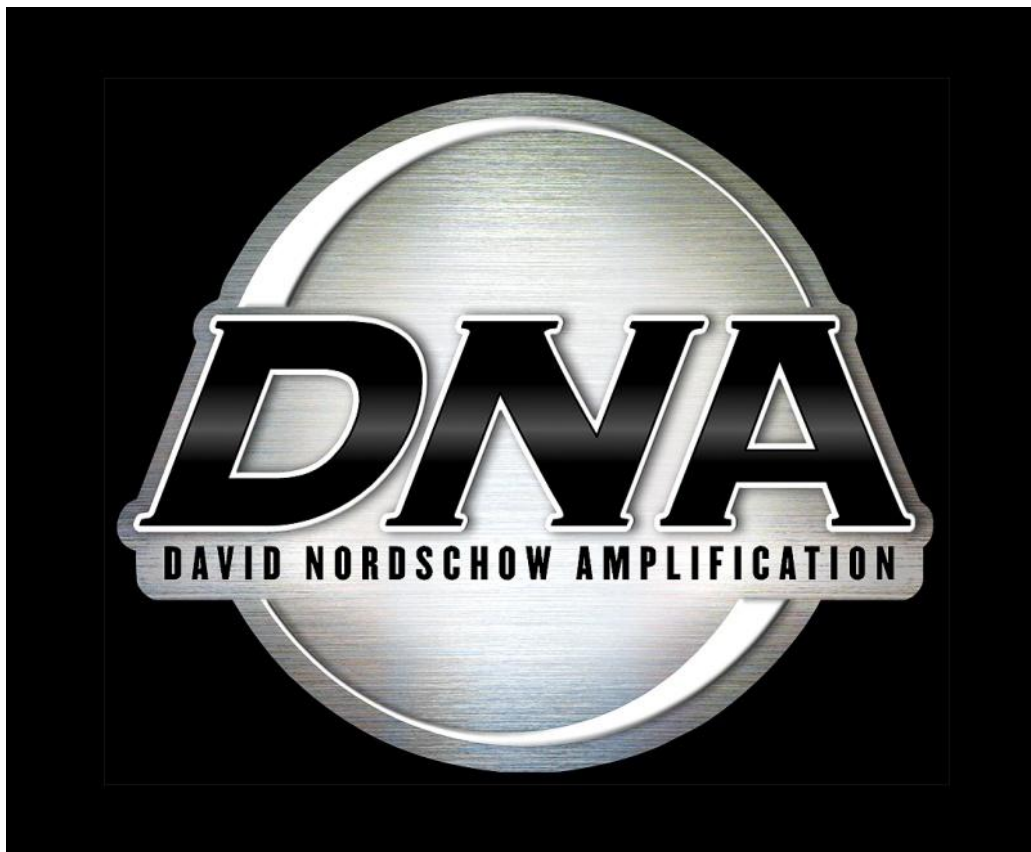


# David Nordschow Amplification

## User Manual For The DNA-1350 Bass Amplifier



DNA-1350

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## Foreword

Thank you for purchasing a David Nordschow Amplification bass guitar amplifier. We appreciate your faith in our ability to help to provide you with an outstanding Bass Guitar Amplifier, and have worked hard to give you the very best products available today. We design and build our amplifiers and electronics to give you outstanding performance and years of trouble-free service. However, should you ever need service or replacement parts for your equipment, we will do everything we can to assist you. To help us provide service equal to our designs, please take the time to review this manual in its entirety and to register online [www.dnaamps.com](http://www.dnaamps.com). If you prefer, you may instead send in the warranty registration card included in this manual.

As the market leader in High Performance Bass Amplification, we are proud of our notable lineage and the many industry breakthroughs made by our founder David Nordschow throughout his distinguished career. We design and engineer DNA products to work in concert with each other to achieve a true synergy in their performance. Our DNA series amplification systems feature, leading edge design, outstanding performance quality and superior components, to ensure that our clients receive the ultimate in tone, quality and long-term reliability, even under the most rigorous touring conditions.

**Please read this manual** before operating your new equipment. Help us help you by taking a few minutes to learn how to properly set up and use your new 1350 Bass Guitar Amplifier. You'll be glad you did!

## **CAUTION!**

***This product, when used in combination with amplification and/or additional loudspeakers may be capable in certain situations of producing sound levels that could cause possible hearing damage or loss. DO NOT ever operate your products at high volume levels that are uncomfortable or dangerous to yourself or others. Follow good sound safety practices and use approved hearing protection if needed. If you experience discomfort or ringing in the ears and/or you suspect hearing loss, you should consult an audiologist immediately.***

*Please take the time to review this manual and to register*

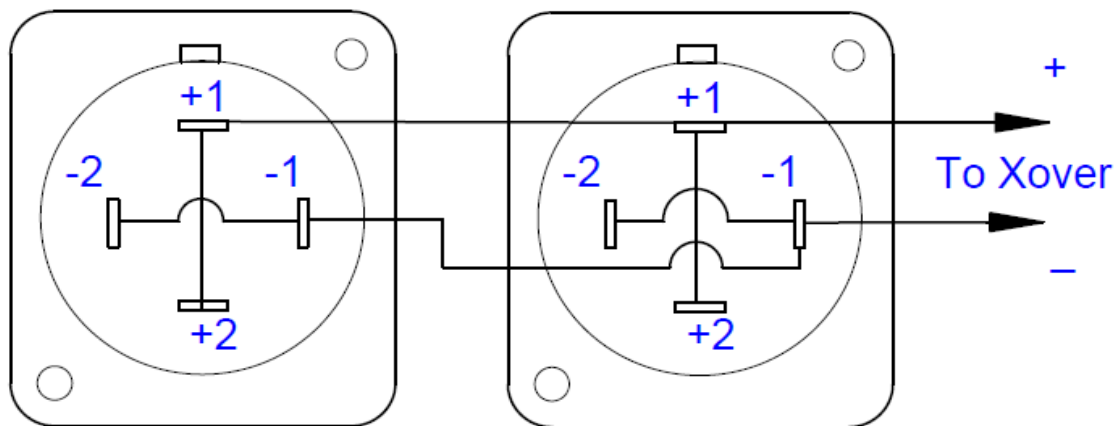
*your product with us online @ [www.dnaamps.com](http://www.dnaamps.com)*

## BASIC OPERATING INSTRUCTIONS

Your 1350 Amplifier has a smart switching supply that will automatically adjust to the local operating voltage from 90 VAC to 250VAC and frequencies from 50-60 Hz. You will need to have the correct type and style of AC power input cable connection for the country you are playing in.

Connect your DNA Series bass guitar amplifier and appropriate speaker of a similar power rating, using the NL-4 connectors on the rear of the amplifier chassis. The NL-4 connectors on both your amplifier and your DNA speaker cabinet are wired together in parallel (see below) Connect your amplifier using one connector and use the other one to connect another speaker cabinet if desired. Make certain that the total impedance of all speaker cabinets you are using is no lower than the minimum rated impedance (4  $\Omega$ ) of your amplifier. **Always make all speaker connections before turning your amplifier on.**

NL4 View from rear



### ***Connection Notes!***

**NEVER** connect two different amplifiers together, or two channels of the same amplifier, into one cabinet. This will be very likely to seriously damage your amplifier and possibly the speaker cabinet as well.

**IMPROTANT NOTE:** *DO NOT* use a light gage **shielded instrument type cable** to connect your amplifier and speaker together. This will cause very poor performance and may even cause the amplifier to oscillate and distort. Always use a good quality, heavy gauge speaker cable 16 gauge min. or preferably 12 - 14 gauge cables for the best results.

**Output connections:** We use NL-4 type connectors. NL-2 type and NL-4 type cables are both acceptable. Note that the +1/+2 pins are connected together as are -1/-2 on both the NL4 connectors in your cabinet. This is to allow you to get the lowest impedance possible in your cable connection for best bass response and peak power delivery. We also provide a ¼" connector for *temporary short term emergency use only*. The ¼ connector should not be used in place of the NL4 connections for normal operation. The ¼" jack cable has a much lower current rating and will not perform as reliably as the NL4 type connector.

**Output power ratings:** The 1350 can put out a full **1350 watts RMS into 4 Ω load**. It will put out the same amount of total power into a 2 Ω load. Even though it will operate into that low an impedance load, *we do not recommend* a 2 Ω load for standard configuration. The 1350 is designed to work most efficiently and effectively into a 4 Ω to 8 Ω load configuration.

## Front Panel Controls and Features

Note: Level Controls go from what the incoming signal level is, down to off. Gain Controls can amplify the incoming signal level to a much higher level.

### ***Lower Control group***

#### **Main Signal Input Jack**

The Main signal input is located on the left side of the front panel. It is a standard ¼ jack configured for monaural operation. The input impedance is 500K Ohms. ***Please note:*** The rear input jack connection switches through the front input jack. They can each be used separately but not together at the same time.

#### **Mute To Tune**

The Mute to Tune switch is green in the normal on or (out) position. When pressed in (Mute is engaged) the switch will change color to red indicating the mute is engaged, and the audio signal is no longer going to the output amplifier. The Tuning Jack on the rear panel retains signal. The DI will not have signal present at its output when the Mute is engaged.

#### **Gain Control**

The Gain Control is used to match the amplifier to your bass and playing technique. Turn the Gain Control up to the point at which the green set level LED comes on and flashes on the stronger notes. That will set your signal level to be in the sweet spot in the gain chain. That will get you the best sound and lowest noise combination.

## **Shape Control**

The Shape Control is a complex curve that boosts low end, scoops out the low midrange and has a genteel rise toward the treble frequencies. It is very handy for enhancing the tone curve for popping or slapping. It also works well in the studio for giving you a quick way to change or shift to a different tone emphasis. Be careful not to over use it in live playing conditions as the mid scoop can make it difficult to cut through if you use too much of the effect.

## **Shape Bypass**

The shape bypass is available only by foot switch control. It allows you to set up the Shape Control for a specific tone character and then to bypass it. You can turn it on and off with the footswitch when you need that special tone without having to adjust the amplifiers controls each time. FT/SW (A) Jack. Switch (2).

## **4 Band Equalizer Set**

The Four Band Tone Equalizer Set in the 1350 is highly musical and very simple to use. The frequency centers are in the right places. The controls are fast and effective. All four controls interact smoothly, seamlessly, and musically.

## **Bass Control**

The Bass Control is set to increase or decrease the low bass frequencies. When the control is set to center, it is inactive. When turned to the left, it goes negative, and to the right it goes positive. It interacts smoothly with Low Midrange Control. This control is centered around 35 Hz. This control is helpful for providing a deeper and more solid bass tone when needed.

## **Low midrange Control**

The Low Midrange Control is inactive at the center position. It controls the bass frequencies from just above the low bass control range to the high midrange control. This control is centered around 500 Hz. This control range is useful, adding a little extra push or for scooping out the midrange area for getting that perfect tone balance while playing jazz and other similar music types.

## **High Midrange Control**

The High Midrange Control is inactive at the center position. It is set to interact smoothly with the Low Midrange Control and covers the upper midrange frequencies. It is centered at about 2K Hz. This range is useful for adding some cut to your sound for playing pop and rock.

## **Treble Control**

Treble Control goes from above the high midrange control out to the top of the normal audio range. It's used to enhance brightness and sharpness in the overall tone settings.

## **Equalizer Bypass Switch**

This is available only on the footswitch. FT/SW (A) Jack. Switch (1). This allows you to set up a special tone setting on the 4 band tone controls and then bring it in and out as needed by bypassing the tone setting back to straight wire flat.

## **Auxiliary Input Level Control**

This controls the mix level of the Auxiliary inputs from the back panel. It has 6dB of gain so you can properly mix your MP3 audio files, tunes, tracks or drum machine with your bass at normal live playing levels.

## **Master Level Control**

The Master Level Control is a level control, not a gain control. It is the final control before the amplifier input. Use this control to set your overall sound level for the room when you are playing.

## **Amplifier Standby Switch**

This allows you to put the amplifier in the standby mode. This can be useful in the studio and other places where you want to run the preamplifier but do not need the amplifier to be operating.

## **Power On LED**

The power on (green) LED turns on when unit is powered up and stays on as long as unit is in normal operating condition. If the green power on LED is not on after you power on the main switch. The unit has a problem and is not in proper operating condition. If the green power on indicator will not illuminate, the unit has an operational problem and needs to be checked out by your dealer or authorized DNA service center.

## **Peak Level LED**

The amber colored Peak Level LED flashes briefly when your unit's output amplifier exceeds 0.01% total harmonic distortion. This function is basically a peak output indicator, though it comes on at well below the actual peak output of the amplifier.

## **System Protect LED**

Under normal circumstances, you should only see the red system protect LED come on when you're turning on or turning off your unit. It should extinguish after the start cycle or stop cycle is completed. If it remains on then there is a problem with the operating system or with the operating conditions of your amplifier that you will have to check. Typically, you would check the AC power condition and both the input and output cables to make sure everything is in good working order. Then turn off and restart the amplifier. That should normally resolve the problem. If the problem persists even with the inputs and outputs unplugged, and the protect LED remains lit. It is likely your unit has a board level electronic fault in needs to be serviced by a DNA dealer or service

center. If all three lights are flashing together this is also a system fault indicator and unit requires servicing to resolve the problem.

## ***Upper Control Group***

### **Input Pad**

Use this control switch to reduce the signal level of your bass if it is coming into your unit at too high a level to match up correctly with the input gain control. When this is engaged the Pad switch will change color from green to yellow

### **DI Level send**

The Front panel DI Level Send allows you to control the level of the DI signal going to the mixing or recording console. This control allows you to adjust from microphone level to low line level.

### **DI Pre/Post Switch**

The Pre/Post DI switch allows you to select either pre-tone or post tone single configuration to send to the DI output. This feature is only available from the front panel. When this is engaged to post, the switch will change from green to yellow

### **Compressor Threshold Control**

The Threshold Control sets the level at which the compressor begins to compress. This is also called the knee of the compressor. Turning the control to the right will allow the compressor to engage sooner. Turning the control more to the left it will let the compressor engage at a higher signal level or not at all.

### **Compressor Ratio Control**

The Compressor Ratio Control allows you to select the way the signal is compressed. When the control is set to the left side near zero, it will compress very gently, at a low compression ratio. As the control is turned to the right, the ratio will become higher until it becomes a hard limiter at the control's far right position.

### **Compressor bypass Switch**

The Compressor Bypass Switch allows you to preset the compressor to the desired level or effect in playing situations, and then to bypass the compressor, when you no longer want to use the compression effect. You can use both the panel control and the foot switch to engage the Compressor Bypass Switch. When this is engaged the switch will change from green to yellow. Note: The comp. Led will continue to blink while playing even when it is in the bypass mode. FT/SW (B) Jack. Switch (2).

### **Effects On/Off Switch**

The Effects On/Off Switch is used to turn on and turn off the effects loop. This feature is available both from the panel face and from the foot switch. When this is engaged the switch will change from green to yellow. FT/SW (B) Jack. Switch (1).

## **Back Panel Controls and Features**

### **AC Input**

The AC Input cable is connected to a standard IEC type input. The power supply will automatically adjust from 90 VAC to 150 VAC, and works with 50 or 60 Hz.

### **Mains Power switch**

The Mains Power Switch is located above the AC inlet. It is an illuminated red type switch. Pressing the ( | ) symbol at the top of the switch turns your unit on.

### **Fuses**

There are no user serviceable fuses inside the unit. Your 1350 amplifier contains a 10A fuse which is part of the power supply module. It is not user serviceable. In the event of a clear fuse failure or a total lack of amplifier power up of the please contact your dealer or service center for assistance.

### **Fan**

The low noise DC cooling fan in the 1350 is set to run continuously at a very low speed in order to make it as quiet as possible for recording and live playing situations.

### **Amplifier Output Jacks**

The Amplifier Output Jacks available on 1350 are configured as two NL4 type jacks (main), and one 1/4 inch phone jack for (emergency use).

Use the NL4 jacks for normal operation. The main speaker jacks are wired +1 and +2 together and -1 and -2 together. The unit will accept both the NL2 or NL4 type cable connections. The configuration is designed to give you the best connection possible your speaker cabinet. This will give you the best quality sound, power output, and the deliver maximum available current to the loudspeakers.

### **DI Output XLR Jack**

The DI Output Jack is a balance line XLR type configured with pin (2) hot or plus. The signal is very low noise and is studio quality. The output is protected to handle phantom power voltages if they are accidentally applied to the DI output. It is recommended that you turn off phantom voltage to this jack before using the unit. The specialized THAT chip that drives this output is configured as an electronic transformer and is fully balanced.

### **Ground lift**



The ground the switch is located next to the DI output XLR. It allows you to reconfigure the ground reference for pin one of the XLR. In the normal condition pin one of the output jack is connected directly to the main chassis ground. When the ground is lifted by engaging the ground lift switch, a small resistor is placed in series with the ground connection. This is useful for eliminating or reducing ground loops and unwanted hum and noise in the systems.

## Auxiliary Input jacks

The AUX IN as an RCA input Jack set that features actively summed left and right inputs. It has six dB of voltage gain. It provides a high-quality input that can take an Ipad, auxiliary device or drum machine and amplify it to the proper level to mix with the live bass guitar signal.

## Foot switch control jack A

Switch connection Jack (A). Switch one and two control the tone equalizer bypass and the shape bypass functions. These features are only available on the foot switch.

**EQ. Bypass** FT/SW (A) Switch (1). **Shape Bypass** FT/SW (A). Switch (2).

## Foot switch control jack B

Switch connection Jack (B) switch one and two allow you to control both the effects on/off, and the compressor bypass function from this foot switch. Both the FX on off in the compressor bypass are available both from the front panel and the foot switch.

**FX On/Off** FT/SW (B) Switch (1) **Comp Bypass** FT/SW (B) Switch (2)

## Slave Output Connection

The slave output connection is used to link other amplifiers to your amplifier, making your amplifier final volume control the master control for the system.

## Slave Input Connection

This input jack allows you to connect your unit's amplifier as a powered slave to another preamplifier. This connection bypasses the main input jack, preamp and all controls on your unit.

## Side Chain Loop

The side chain effects loop is a useful feature that allows you to connect a special effect in parallel with your normal tone controls. This lets you blend the effects signal with the normal signal. You thereby maintain the best possible signal-to-noise ratio and overall sound quality possible while using a special effect.

## Effects Loop

The main effects are a standard serial effects loop. The return jack set breaks the signal chain and results in 100% of the signal going through the effects loop before coming back to the rest of the signal chain. The send can also be used as an extra signal output if the return jack is not used.

## **Tuner Output**

This Jack provides a slightly amplified and buffered signal that can be connected to the tuner input of your choice.

## **Rack Access Rear Input Jack**

This Jack provides an alternative input access for plugging in things like wireless receivers or any input that needs to be connected from inside the rack or to the back of the unit. When you operate the rear panel input jack you cannot operate the front panel input jack. They are configured to be either or.

## **Operations**

### **Turning on your amplifier**

Before turning on your amplifier please make sure you read the manual and understand it. Make the connections your loudspeaker before powering on the amplifier. Switch on amplifier by pressing the mains power switch ( | ) emblem on the top of the switch. All the amplifier management lights on the front panel will come on momentarily. Then the red and yellow lights will turn off leaving only the green light glowing steadily. This is the normal condition and indicates your amplifier is in good condition and ready to operate.

### **Turning off the amplifier**

Press the ( 0 ) emblem on the mains power switch to turn off the unit. It is located on the back panel. All the lights on the amplifier management group will light up momentarily but after few seconds they will all go off.

### **What to expect if your amplifier goes into the protect mode**

Your 1350 amplifier has a very sophisticated 1 cycle monitoring system for the power supply and amplifier. If the system detects a short circuit or a dangerous condition such as, over temperature, excessive amounts of clipping, excessive current usage, or improper power configuration conditions the amplifier may go into the protect mode for safety.

The Red Protect light will come on to alert you that the unit is in the protect mode. Determine what is causing the unit to go into protect mode. After you resolve that problem, you will need to shut off and then restart your amplifier. *Whenever the amplifier goes into the protection mode it will be necessary to shutdown and then restart the amplifier to clear the safety function lockout and restore the unit to normal operating conditions.* A damaged speaker cable, intermittent AC connections, excessively high

temperatures and unusually high current demands that exceed the systems normal parameters can potentially cause the system to go into protect mode.

## **Output Peak Indicator**

The output limit indicator is the yellow LED. It will flash briefly anytime the amplifier output distortion exceeds 0.01%. This normally occurs as the amplifier nears full power.

This light flashing is an indication that you are getting close to the full power limits of the amplifier. ***It is not a clipping indicator.*** It is okay for the light to be flashing periodically, but it should not be on continuously.

## **3 Year Warranty Terms**

### **DNA LIMITED WARRANTY**

DNA LLC warrants the product you have purchased to be free of defects in materials and workmanship in normal use for a period of (3) years from the date of original purchase. This warranty shall be to the original purchaser when purchased from an Authorized DNA Dealer. The manufacturer warrants the speakers for period of (3) years. Defective parts found during the warranty period will be replaced or repaired without charge with a proof of purchase if the complete product is returned to DNA LLC or any Authorized DNA Service Center within the U.S.A.

DNA LLC reserves the right to use materials readily available at the time of the repair. All Warranty service requires a Proof of Purchase (sales receipt) to be presented at time of service request. Any repair or service performed by any person or entity other than the DNA factory, or an Authorized DNA Service Center is not covered by this limited warranty. The customer is responsible to pay transportation to and from The DNA LLC Authorized Service Center, if the required service cannot be performed at the Authorized DNA Service Center the unit must be returned the DNA factory for that service.

### **What is covered against manufacturing defects**

Parts and Labor to correct any defect in original materials and or workmanship.

### **WHAT IS NOT COVERED**

Products whose serial numbers have been altered or removed or have had their RFID chips removed. Normal wear and tear from use is not covered. Damage to the units finish due to misuse. Operations that are outside of the specified ratings, neglect or accident.

Shipping Damage is not covered under the warranty. Report damage upon receipt of item to the carrier (i.e. UPS). The freight carrier must be notified upon receipt of items to insure a freight damage claim resolution. Shipping damage not filed with carriers within (48) hrs upon receipt will not be covered under warranty. Report any shipping damage

within (48) hrs of receipt to your DNA Dealer. Keep all original documents and packing materials to insure freight damage claim resolution. Any merchandise that has been altered, or modified from its original OEM condition. DNA LLC is not responsible for any items left in protective covers or cases, (We strongly advise that all personal items such as chords, cables, tuners, etc. be removed!) freight charges to and from the factory or an Authorized service center on customer owned goods, any and all charges incurred from priority service requests (Rush Service) or priority shipping for replacement parts. Any and all charges if no problem is found.

## **Factory Service Terms**

### **Return Authorization**

All items being returned for any reason must have a Return Merchandise Authorization number. This RMA # must be placed on the outside of the carton of the item being returned or the carton will be refused upon delivery. Please contact your local dealer for a return merchandise authorization number in the event your equipment is in need of factory service. Dealer stock items that cannot be repaired on site will be returned to the dealer freight prepaid.

### **Field Service Terms**

An Authorized DNA Warranty Service Center must perform any and all field warranty service work. Customer will not pay for parts and/or labor provided the problem found is within warranty guidelines. Proof of purchase must be provided at the time of service request. Transportation charges to and from the Authorized Warranty Service Center are the responsibility of the customer. Rush service charges and special freight charges for required parts are not covered under warranty and are also the responsibility of the customer. If a unit is not easily transported to an authorized service center, the customer is responsible for technician travel charges. Any charges for labor or processing when no problem is found are also not covered under warranty. Any charges incurred for work performed by an unauthorized service center are the responsibility of the customer.

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