



DI Plus



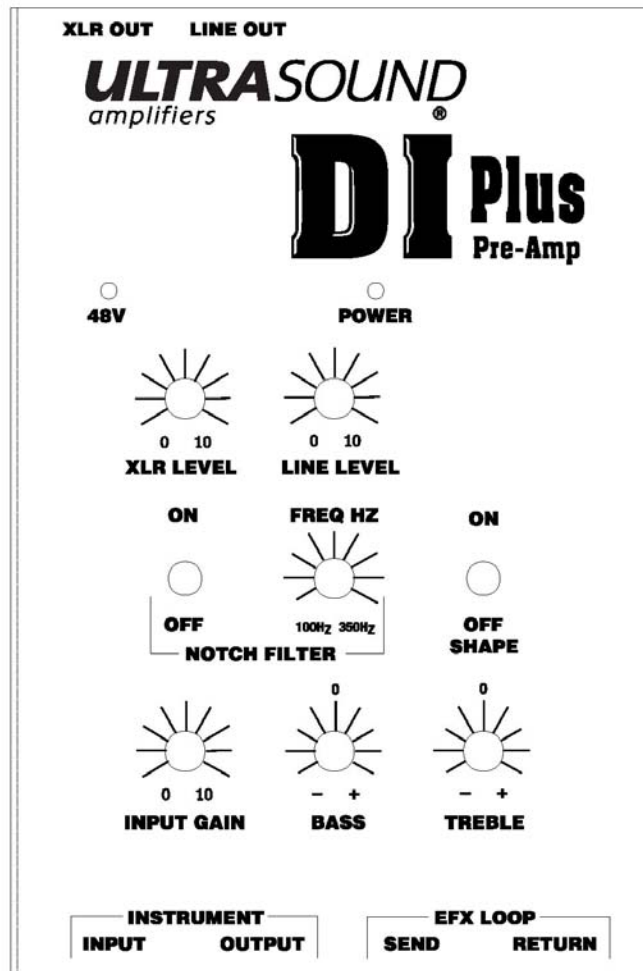
OPERATING GUIDE

ULTRASOUND AMPLIFIERS
2150 DELAVAN DR. #11
WEST DES MOINES, IA 50265
PHONE: 515-282-1650
FAX: 515-282-1680

www.UltraSoundAmps.com
E-MAIL: Info@UltraSoundAmps.com

CUSTOMER / TECHNICAL SUPPORT:
E-MAIL:
Support@UltraSoundAmps.com
TOLL FREE 1-888-993-5091

DI Plus CONTROL PANEL



Description:

Don't let the name fool you, this is not only a DI but a full featured preamp designed after our famous AG-series amps. Whether at a local open mic night or at a major concert venue, you will be able to dial in the clear natural acoustic sound that our amplifiers are known for, and route it to the stage PA through a balanced XLR output. Sound engineers will appreciate the versatile controls and the optional 48-volt phantom power operation. (No more wall warts or batteries if your mixer has phantom power.)

Getting Started:

As a rule of thumb for all of our products, begin with all of the controls at the mid point (12:00 o'clock) with the "NOTCH" and "SHAPE" switches "OFF". This is a medium gain setting with FLAT frequency response.

The "INPUT GAIN" control will be the first control that you will want to dial in. The "INPUT GAIN" is not a volume control, rather this control sets the level of amplification applied to the input signal to boost it to a useable level. The reason this is adjustable is to accommodate a wide range of pickup devices. For instance if you are using a high output active pickup system you will want to use a lower setting on the "INPUT GAIN" than say if you are using a passive type pickup system. You will want to use the highest "INPUT GAIN" setting you can without overdriving or distorting the signal. To achieve this, while playing, slowly turn the "INPUT GAIN" up (clockwise) until you begin to hear some distortion, then back the "INPUT GAIN" down (counter-clockwise) until the distortion disappears. This will give the **DI PLUS** the most signal to work with and the best signal to noise ratio. Once you have determined the best setting for the "INPUT GAIN" we recommend that you take note of this setting and also the settings on your guitar controls for future reference.

USER CONTROLS

INSTRUMENT INPUT: This input is designed for all passive and active type pickup signals. When a plug is inserted, the 9V battery is switched on. Be sure to unplug from the **GUITAR INPUT** when the **DI PLUS** is not in use to conserve the battery life. It is recommended that you turn down your amp or mixers input before plugging/unplugging from the **GUITAR INPUT** jack. This will protect your speakers from loud pops.

INSTRUMENT OUTPUT: This is a "parallel" jack which can be used to send the "guitar/instrument signal" to an external tuner, guitar amp or other device which can use an instrument level signal..

EFX LOOP: This is a real world "**EFX LOOP**". In an effort to save room, most of our competition use a TRS jack (tip, ring, sleeve) and Y cable type system. We provide you with two 1/4" jacks, one for "**SEND**" and one for "**RETURN**". Since the **EFX LOOP** interrupts the signal path it can be used as an insert point for a volume pedal, compressor, or tuner, if the tuner is equipped with a bypass switch.

SEND:

The signal on the **SEND** jack is post input gain and pre EQ. This means that you can use the **SEND** signal as an auxiliary unbalanced direct output. This signal is not affected by any of the panel controls with exception of the "**INPUT GAIN**" control.

RETURN:

A plug inserted into the **RETURN** jack will interrupt the signal path. The signal on the tip of the plug inserted into the **RETURN** jack will be the signal that the **DI PLUS** will process.

XLR OUT: Plug a standard XLR cable from your PA or recording console into this low impedance balanced output. Use the "**XLR LEVEL**" control to set the output level which matches up best with your PA or recording gear and gives you the least amount of noise. If your board provides 48V phantom power on the XLR cables, the **DI PLUS** will run from this and save the battery. It is suggested that you keep a battery in the unit as a backup when using the phantom power. If the phantom power drops, the **DI PLUS** will automatically switch to battery power.

LINE OUT: This is a standard unbalanced line level output signal. Use the "**LINE LEVEL**" control to adjust the signal level on this jack. This output can be used simultaneously with the **XLR OUT** jack for some creative signal routing. Plug a standard instrument cable from this output to a stage monitor amp or unbalanced Mic input on a mixer.

INPUT GAIN: Please see Getting Started section for a full description of the **INPUT GAIN** control.

BASS: This is an "Active" control. The **BASS** control adjusts the amount of cut or boost in the low frequency (150HZ) range.

TREBLE: This is an "Active" control. The **TREBLE** control adjusts the amount of cut or boost in the high frequency (5kHz) range.

NOTCH FILTER: ON/OFF - Enables or disables the **NOTCH FILTER** control.

FREQ. HZ - Sets the frequency (100-350HZ) of the 18db cut **NOTCH FILTER** that is used to control resonant feedback.

SHAPE: ON/OFF - This toggle switch enables or disables the **SHAPE** control. This control is a mid dip control. In the **ON** position, the mid frequencies will be cut and the high and low frequencies will be boosted.

XLR LEVEL: This control adjusts the amount of signal sent to the **XLR OUT** jack.

LINE LEVEL: This control adjusts the amount of signal sent to the **LINE OUT** jack.

48V: (Phantom Power) This LED lights when there is 48V Phantom Power present on the **XLR OUT** jack. No battery drain will occur when Phantom Power is present.

POWER: This LED indicates the **DI PLUS** is ready to operate. The **POWER** LED will illuminate when:

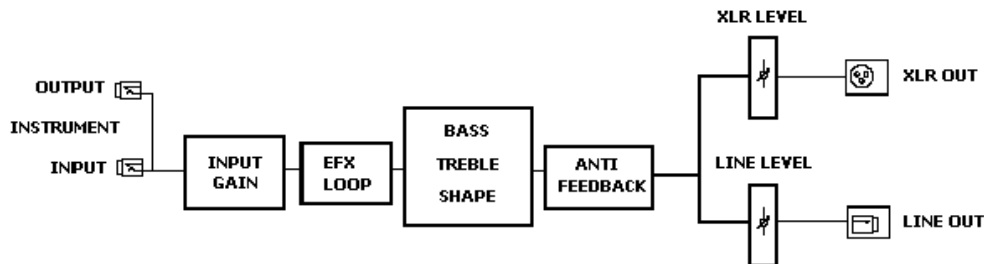
- A. A plug is inserted into the **INPUT** jack and there is a fresh battery installed in the **DI PLUS**.
- B. A 9VDC adapter (Wall Wart) is plugged into the power jack.
- C. There is 48V phantom power on the XLR cable plugged into the **XLR OUT** jack. (The **48V** LED and the **POWER** LED will both be illuminated.)

DI Plus SPECIFICATIONS

- **Input**
 - Impedance: 1 Meg
- **EQ: (Active)**
 - Bass: +/- 12db @ 150HZ
 - Treble: +/- 12db @ 5kHZ
- **Shape**
 - +5db @ 3kHZ
 - -5db @ 1500HZ
 - +5db @ 100HZ
- **Notch (Feedback Elimination)**
 - Range: 100 to 350HZ
 - Attenuation: -18db
- **Output Impedance**
 - 600 Ohm (XLR OUT)
 - 680 Ohm (LINE OUT)
- **Power Supply**
 - 9V Alkaline Battery
 - 9VDC Regulated Power Supply (500mA) (2.1MM DC Power Plug , Center +)
 - 48V Phantom Power

Dimensions

Weight: 2.25 Lbs.
Width: 5"
Length: 7.5"
Depth: 2"



IMPORTANT SAFETY INSTRUCTIONS

WARNING: When using electric products, basic cautions should always be followed, including the following:

1. Read all safety and operating instructions before using this product.
2. All safety and operating instructions should be retained for future reference.
3. Obey all cautions in the operating instructions and on the back of the unit.
4. All operating instructions should be followed.
5. This product should not be used near water, i.e., a bathtub, sink, swimming pool, wet basement, etc.
6. This product should be located so that its position does not interfere with its proper ventilation. It should not be placed flat against a wall or placed in a built-in enclosure that will impede the flow of cooling air.
7. This product should not be placed near a source of heat such as a stove, radiator, or another heat producing amplifier.
8. Connect only to a power supply of the type marked on the unit adjacent to the power supply cord.
9. Never break off the ground pin on the power supply cord.
10. Power supply cords should always be handled carefully. Never walk or place equipment on power supply cords. Periodically check cords for cuts or signs of stress, especially at the plug and the point where the cord exits the unit.
11. The power supply cord should be unplugged when the unit is to be unused for long periods of time.
12. If this product is to be mounted in an equipment rack, rear support should be provided.
13. Metal parts can be cleaned with a damp rag. The vinyl covering used on some units can be cleaned with a damp rag or an ammoniabased household cleaner if necessary. Disconnect unit from power supply before cleaning.
14. Care should be taken so that objects do not fall and liquids are not spilled into the unit through the ventilation holes or any other openings.
15. This unit should be checked by a qualified service technician if:
 - a. The power supply cord or plug has been damaged.
 - b. Anything has fallen or been spilled into the unit.
 - c. The unit does not operate correctly.
 - d. The unit has been dropped or the enclosure damaged.
16. The user should not attempt to service this equipment. All service work should be done by a qualified service technician.
17. Exposure to extremely high noise levels may cause a permanent hearing loss. Individuals vary considerably in susceptibility to noise induced hearing loss, but nearly everyone will lose some hearing if exposed to sufficiently intense noise for a sufficient time. The U.S. Government's Occupational Safety and Health Administration (OSHA) has specified the following permissible noise level exposures.

Duration Per Day In Hours	Sound Level dBA, Slow Response
8	90
6	92
4	95
3	97
2	100
1 1/2	102
1	105
1/2	110
1/4 or less	115

According to OSHA, any exposure in excess of the above permissible limits could result in some hearing loss. Ear plugs or protectors in the ear canals or over the ears must be worn when operating this amplification system in order to prevent a permanent hearing loss if exposure is in excess of the limits as set forth above. To ensure against potentially dangerous exposure to high sound pressure levels, it is recommended that all persons exposed to equipment capable of producing high sound pressure levels such as this amplification system be protected by hearing protectors while this unit is in operation.

SAVE THESE INSTRUCTIONS!