



HELIOS ECLIPSE USER MANUAL

Please read safety instructions before operating this amplifier!

1. Features:

- Point to point, hand wired, three channel all tube design
- Single instrument input
- Ch1: volume control and 3 position mode switch
- Ch2: independent gain and volume controls
- Pre EQ switch for plexi bright, normal and light bright
- Voicing switch for Hot, 80's or eclipse mode
- Ch3: independent gain and volume controls
- Voicing switch for Hot, 80's or eclipse + mode
- Shared presence control
- Shared bottom control with punch switch for low end response
- Tube buffered series fx loop with return level control
- Variac Switch
- Foot-controller connector
- 100 watt EL34 power amp

DIMENSIONS and WEIGHTS: Are subject to change anytime, Please measure *your* amp carefully if a Custom Case is being made. *Add ¼ inch for handle and ¾ inch rubber feet.*

Head: 9.25" height 26.25" width 8.25" depth 43 pounds

Please make sure you read this manual to fully understand how to operate the amplifier!

ac power connector – back panel

Make sure the power and standby switch is in the off position and that your amplifier is made for the correct power voltage of your location. Plug the supplied power cable into the amp's connector first, before you plug it into your ac outlet.

power switch

Before you turn the power on, make sure the standby switch is off and the power cord is connected. It is also wise to already have a speaker cabinet, or similar load connected.

standby switch

At this point, in order to prevent any damage to the output transformer, you must have a speaker cabinet connected and match the impedance of the two. Please allow a few minutes for the tubes to heat up, before taking the amp off standby, to prevent unnecessary stress on them and possibly increase tube life.

inputs

Connect your instrument here,



channel 1

This is a simple clean channel with just a volume control and a 3 position mode switch. Please note the presence and bottom control on the back panel also affect the channel.

volume 1

Sets desired clean level, loudness.

mode switch

The middle position, “N” is the neutral setting, when toggled to the left, “B” will give you a brighter tone and to the right, “S” a mid scooped sound, reminiscent of the 60’s blackface amplifiers.

channel 2 & 3

These are your two dirty channels; each one can be set via its own set of voicing switches for a variety of medium to high gain overdriven tones. The channels are very similar, with channel 3 having a slight bass cut for a more focused, tighter sound. It’s best to use ch3 for the highest gain settings.

gain 2 & 3

Here you individually control the amount of overdrive for each channel.

pre eq switch 2 & 3

These 3 position switches work in conjunction with their designated gain control, the middle is a neutral position much like the dark channel on a plexi. Toggled to the left, you have the bright channel of a plexi, and towards the right you have just a slightly brighter, more open sound. The higher the gain control is set, the switch becomes less effective.

Hot / 80’s / Eclipse (+) voicing switch

Hot is considered the standard mode, which gives you the “hot” input, second channel of the original Helios. Set to 80’s, the preamp gets more compression, which can also result in a volume drop, depending on the overall level. If necessary adjust the volume to compensate. On channel 2, the “eclipse” mode adds two more gain stages. For channel 3 you have the “eclipse +” mode, which adds the two gain stages, with the addition of the 80’s mode compression circuit, this is the maximum gain you can achieve.

bass, middle and treble

These are your typical 3 band eq controls which are shared by both dirty channels and control the frequency as labeled.

volume 2 & 3

Sets the individual loudness of each of the two overdrive channels.

channel select – back panel

This momentary push button switch lets you step through each channel. The default at power up is channel 3, sequence from there on is 1, 2 and back to 3. The switch does not lose it’s function with the foot-controller connected.

fx loop switch – back panel

This momentary push button switch lets you engage the fx loop. The switch does not lose it’s function with the foot-controller connected.



fx loop & return level control – back panel

The Eclipse has a buffered series effects loop with a return level control. It has been optimized for pedal level.

Connect the send to the input of the effects unit and the return to the output. When the loop is engaged you can use the return level control to set the volume, most common is to set unison volume when loop is on or off.

If you do not use any effects in the loop you can use it as a switch-able volume boost. Plug a standard instrument cable between the send and return, once the loop is engaged you can set a different volume level via the return level control.

bottom control & punch switch – back panel

Lets you dial in the low end response of the power-amp, to accommodate the speaker cabinet used, as well as to adjust to the room situation. Turn up for a fuller sound at lower volumes but use conservatively at higher volumes and band situations when you want you guitar to be heard within the music. The punch switch will become active as the bottom control is turned up, the higher the control is set, the more difference you hear. Engaging the switch will bring the sound more in your face, punchier mids.

presence control – back panel

Sets overall brightness for all channels

speaker outputs – back panel

There is no impedance selector and no shunt tip ground protection, therefore it is very important to have a speaker cabinet hooked up before you flip the standby switch on. There are two 4 and two 8, as well as one 16 ohm speaker outputs. Use the one which matches your cabinet, a 16 ohm cabinet into the 16 and so forth. If you want to hook up two cabinets they must have identical impedance and they must be hooked up to half the value, two 16 ohm cabinet will need to be hooked up to the two 8 ohm outputs.

variac switch – back panel

This switch does the same thing as if you connect the amp to a variac and reduce the input voltage by about 15-20%. Less input voltage means the power is reduced. This results in richer harmonics with a softer feel. For maximum clean headroom and tightness, leave the variac switch in the off position.

foot controller – back panel

This is where the foot controller is connected. The supplied cable is uni-directional and the connector is the same on both ends. Make sure the plug is aligned properly and then push in until the release latch clicks in, to secure the connection to both the amplifier and the foot-controller. The foot controller gives you direct access to any of the three channels, as well as the effects loop.

tubes

The Helios Eclipse comes with a matched quartet of JJ EL34's. Replacing worn or faulty power tubes should be done by a Technician, as the amp needs to be biased correctly. Five JJ ECC83s are used in the pre-amp. You can use different brands and any compatible preamp tubes available. This can change the sound, gain and feel. V1, closest to the input jack affects all three channels, V2 is only used if ch2 and or ch3 set to eclipse mode, V3 is always used for ch2 and ch3. V4 is for the loop and V5 is the phase inverter which is already part of the power amp.



fuses – back panel

There is a main and a high tension (h.t.) fuse, both are 3AG “slow blow” type. The 120 volt Helios Eclipse models use a 4A “main”, the 220-240 volt models a 3A main fuse. The “h.t.” fuse is 1A. It is always good to check fuses with an ohm meter to verify they are blown.

troubleshooting

Make sure you read and understand the safety instructions!! Repairs should only be done by knowledgeable Technicians!! Always make sure your cables, guitars, effects and extension cabinets are working and connected correctly. If you think something is wrong with your Amp, play straight into it with nothing else connected other than a guitar. That way you can make sure it is the amp. If you own a combo, unplug the internal speaker and connect an external speaker cabinet to make sure it's only the amp that is faulty. For noise check the appropriate tubes. Micro phonic feedback usually comes from the preamp tubes but is normal at certain levels of gain. Tubes are delicate and have a limited life span depending on operating time, temperature and mechanical influences. 99% of all sound and noise problems come from preamp tube failure. A blown “h.t.” fuse indicates one or more bad power tubes. We let our amps run for at least two days before we ship them to make sure that the tubes work properly but since they have a glass housing and delicate little plates inside they can be damaged during shipping. Please don't feel discouraged. We don't manufacture tubes and can only retest them to make sure they're okay.

There you have it! It's all up to you now, be creative and push your musical imagination...For Questions check out our website or send an email to info@bogneramplification.com

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