



TELOS USER MANUAL

Please read safety instructions before operating this amplifier!

1. Features:

- Hand-wired single channel all tube design
- Single high impedance input
- Schizo 6 pos. rotary gain and tone structure selector
- Single multi stage full range Gain control
- High Transparent dual volume controls, selectable with foot controller
- Bass, middle, treble and presence controls
- Tube buffered series fx loop with return level control
- Tube rectified dual 6L6 power amp, 5 preamp tubes
- 3 position Standby switch incorporates 40 or 20 watt operation
- Speaker impedance selector for 16, 8 or 4 ohm
- Linear line out with level control
- Foot controller for volume, boost and fx loop
- Available as head or 112 open back combo with Celestion Creamback speaker

DIMENSIONS and WEIGHTS: Are subject to change anytime, Please measure *your* amp carefully if a Custom Case is being made. *Add 3/4 inch for each, handle and rubber feet on the combo, head handle about half!*

Head: 8.25" height	20.50" width	8.25" depth	30 pounds
112 combo: 19.50" height	20.75" width	9.75" depth	50 pounds

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

ac power connector – back panel

Make sure the power and standby switches are 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 amps 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 have already a speaker cabinet or similar load connected as well as the foot controller plugged in.

standby switch

At this point you must connect a speaker cabinet to not risk any damage to the output transformer. Please make sure it is connected and the impedance is correctly set. Next, turn the power switch on but wait a few minutes before engaging the standby switch to either 20 or 40 watts.

inputs

Standard high impedance instrument input



quick set up

Set gain, bass, middle, treble and presence to 12 o'clock, select schizo position b, keep volume down until you have the amp off standby. Turn volume up to desired level. You can now step through the schizo positions. Keep in mind everything is interactive, make use of all controls to achieve the sound and feel you want. Each schizo position has unique gain and eq voicings that offer a huge range of tones. In addition, you should experiment adjusting the gain and eq controls to explore how they alter and effect each schizo position.

detailed set up

The Telos is a single channel all tube amplifier with switch-able volumes and boost settings. Unique design and unconventional circuit approaches have been given to the gain and volume controls. The gain control adjusts levels at two different gain stages simultaneously to make it more usable throughout the entire range for a vast variety of clean and overdriven sounds. The transparent volume control has been put after the loop in a low impedance circuit where it has little effect on the tone and feel, and retains liveliness at low settings. The schizo switch controls a matrix of 11 parameters within the entire circuit to give this single channel amp true multiple sonic personalities.

bass, middle and treble

These are your classic 3 band eq controls and adjust the frequency as labeled

presence

Controls the high frequency response of the power amp, turn up for tighter feel with brighter sound and down for softer feel with mellow high frequencies.

gain

Sets the amount of gain from "clean to scream"

schizo - gain and tone structure

As mentioned before, position b is a good voicing to start with as it has a balanced level. Because of the gain controls wide range, each of these positions can work for clean, crunch and overdriven sounds. Some positions differ more at higher gain settings, positions b, c and e can sound similar at very low gain settings.

- a: has lowest level, scooped midrange for a more blackface type sound
- b: good balanced sounds
- c: bright channel, bassman /JTM, think classic rock bright open chords
- d: normal channel, bassman /JTM to cream era fat singing sounds
- e: narrow EQ for classic 67 bright channel plexi tones
- f: narrow EQ with more gain and a fatter sound

volume a and b

Sets desired volume; volume b can only be engaged via the footswitch. For most clean headroom, set the volume not higher then 8, otherwise power-amp b



boost

The boost can only be engaged via the footswitch. A little toggle switch on the footswitch itself lets you choose between either a more conventional low (“L”) boost or an adjustable high (“H”) boost setting which adds an entire gain stage. This boost is very useful at lower volumes where the power amp is not yet saturating. To adjust the amount of boost for the “H” setting we’ve included a trim-pot on the top of the chassis that can be accessed once the back panel is removed. Looking at the back of the amp this trim-pot is located on the left front corner, on the side where the input jack is.

fx loop & return level control – back panel

The Telos has a tube buffered series effects loop located after the schizo and gain control but before the volume and tone controls.

Connect the send to the input of the effects unit and the return to the output.

The send level is determined by the selected schizo position and the amount of gain, the range of level is kept low so it works well with pedals. The effect signal coming back into the Telos can be adjusted by the level control next to the return input.

The loop can be engaged via the momentary push button switch on the back panel or via the foot controller. Powering the amp off will default the loop to the off status.

speaker outputs – back panel

Set the impedance selector to the matching value of your cabinet and connect your cabinet via a speaker cable to the “use first” output. If you use two cabinets make sure they have matching impedance and set the selector to half the value, for example: two 16 ohm cabinets select 8 ohm.

Make sure the selector clicks properly into position, otherwise it is just as having no speaker cable connected!

foot controller output – back panel

Connect the supplied foot controller here preferable before you turn the amp on. If the amp is on already, plug the cable first into the controller and use care to plug the other end into the amp. The cable has the same connector on both ends and has an alignment notch; the plug only fits in one way.

Each function is done via momentary action; once you turn the amp off, all functions will reset to off! The little toggle switch labeled “L” and “H” next to the boost is explained in the boost description, it’s setting is permanent to the toggles position even after the amp was powered off.

rectifier tube

The Telos has a 5AR4 rectifier tube. A few important notes; tube rectifiers have bigger tolerances than solid state rectifiers, so an amp can sound and feel different even just between two of the same type and brand. It’s worth while to experiment with different brands. Tube rectifiers can often be the cause of micro phonic rattle in combos.

Tube rectifiers are not as stable as solid state rectifiers and add therefore a nice sagging loose feel. Your Telos is shipped with an accessory plug in solid state rectifier which can be used instead of the rectifier tube. This can come in handy when the rectifier tube fails or if you want the amp to sound tighter with more clean headroom and a quicker picking attack.

Looking at the back the rectifier tube is the one on the far right, a bigger tube but slightly smaller than the power tubes. The tube can be very hot. Swapping the tube should only be done with the amp turned off!

pre-amp tubes

The Telos comes equipped with five 12AX7 (ECC83) preamp tubes of the same brand and type. You can experiment with other brands as well as lower gain types like 12AY7 or 12AT7 (ECC81,82)

Starting with the tube closest to the input jack, V1 is for the high gain boost stage, V2 and V3 are used for the preamp and also drive the fx loop, V4 is fx loop recovery and V5 is the phase inverter.



power-amp tubes

The Telos comes with a matched pair of JJ 6L6GC. Power amp tubes should be always matched and need a readjustment of the bias even if they are the same brand and type!

fuses – back panel

There is a mains and a high tension (h.t.) fuse, both are 3AG slow blow type. 120 volt Telos models use a 3A mains and 220-240 volt models use a 2A mains fuse. The h.t. fuse is 1/2A for all models. 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 be done only by knowledgeable Technicians!! Always make sure your Cables, Guitars, Effects and Extension Cabinets are working and hooked up correctly. If you think something is wrong with your Amp, play straight into the Amp with nothing else hooked up other than a Guitar. That way you make sure it is the Amp. If you own a combo unplug the internal speaker and hook up an external speaker cabinet to make sure it's only the amp which is faulty. For noise check the appropriate preamp tubes (refer to f). Tubes are delicate and have a limited live span depending on operating time, temperature and mechanical influences. 99% of all sound and noise problems come from preamp tube failure. 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 glass housing and delicate little plates inside them it happened that they got 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 call, email or check out our website
bogneramplification.com