Oldfield Amplifiers User Guide

6750
6750-JC
67100
67100-JC

Thank You

Welcome to the Oldfield family and thank you for putting your trust in Oldfield Amplifiers. We value that trust as much as we feel confident you will enjoy your new Oldfield amplifier.

Your new Oldfield amplifier is built to provide you with the best tonal experience and durability available in a guitar amplifier. As with all Oldfield's, it is hand built with you, the player, as the central focus of our efforts. By using the highest grade components, point-to- point vacuum tube circuitry and fine craftsmanship, your amplifier will inspire many hours of musical satisfaction and lasting enjoyment.

Thanks,
The Oldfield Team

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Important Safety Instructions

Δ For your safety read, retain, and follow all instructions. Heed all warnings.

Δ Only connect the power supply cord to an earth-grounded AC receptacle. This amplifier is designed to operate on standard North American 115V AC and should only be plugged in to a receptacle meeting those specifications.

Δ **WARNING:** To prevent damage, fire or shock hazard, do not expose this unit to rain or moisture.

Δ Unplug the power supply cord before cleaning the unit exterior (use a damp cloth only). Wait until the unit is completely dry before reconnecting it to power.

Δ Maintain at least 6 inches (15.25 cm) of unobstructed air space behind the unit to allow for proper ventilation and cooling of the unit.

Δ This product should be located away from heat sources such as radiators, heat registers, or other products that produce heat.

Δ This product may be equipped with a polarized plug (one blade wider than the other) or a three-prong grounded plug. This is a safety feature. If you are unable to insert the plug into the outlet, contact an electrician to replace your obsolete outlet. Do not defeat the safety purpose of this plug.

Δ Protect the power supply cord from being pinched or abraded.

Δ This product should only be used with a cart or stand that is recommended by the manufacturer.

Δ The power supply cord of this product should be unplugged from the outlet when left unused for a long period of time, or during electrical storms.

Δ This product should be serviced by qualified service personnel when: the power supply cord or the plug has been damaged; or objects have fallen, or liquid has been spilled onto the product; or the product has been exposed to rain; or the product does not appear to operate normally or exhibits a marked change in performance; or the product has been dropped, or the enclosure damaged.

Δ Do not drip or splash liquids, nor place liquid filled containers on the unit.

Δ **CAUTION:** No user serviceable parts inside, refer servicing to qualified personnel only. Do not expose the circuit of the amplifier under any circumstances.

Δ **CAUTION:** By nature vacuum tubes get very hot during operation. Do not touch vacuum tubes until they have sufficiently cooled.

Δ Oldfield amplifiers are capable of producing very high sound pressure levels which may cause temporary or permanent hearing damage. Use care when setting and adjusting volume levels during use.

Δ Failure to comply with any of these safety precautions could result in damage to the amplifier and in worst cases bodily harm. Non-compliance with any safety precaution may void any stated warranties.

Overview

Congratulations on your purchase of a new Oldfield amplifier.

This amplifier is all tube and hand-wired using the best quality components available for guitar amplification. It is built to last a lifetime and give the owner countless hours of enjoyment whether on stage, in the studio, or in the home.

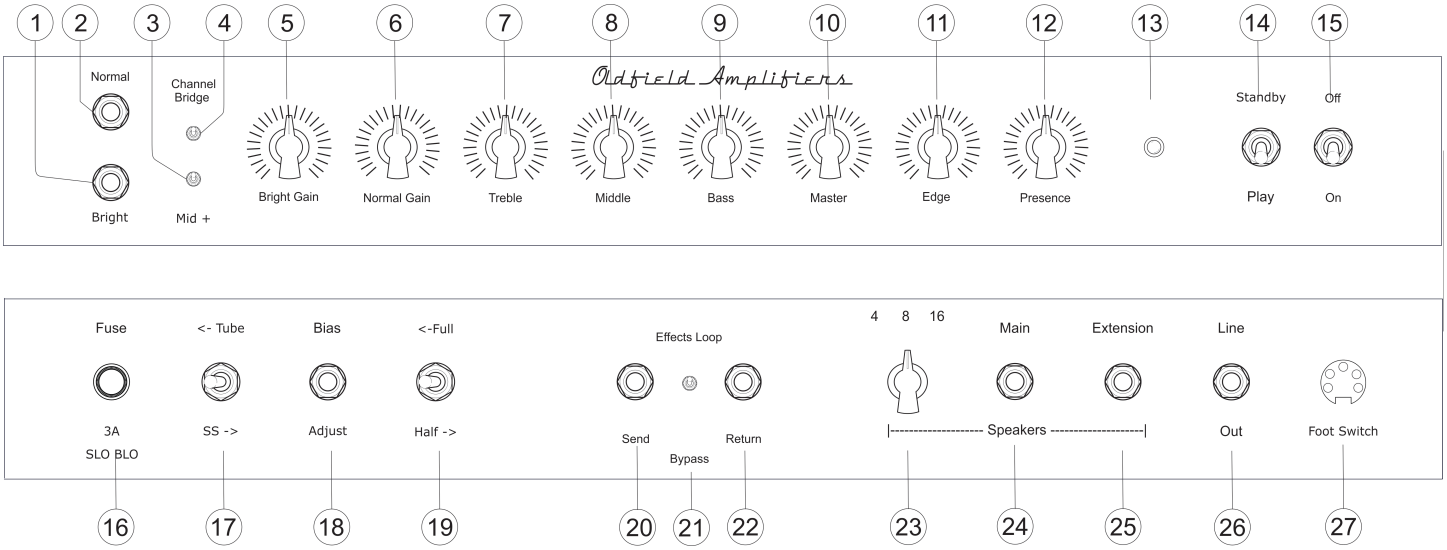
The 6750, 6750-JC, 67100 and the 67100-JC models are designed to deliver classic late 60's British voiced tones as well as a more modern high gain tone depending on set up.

The amplifier features two channels (Bright And Normal), full tone stack, master volume, the ability to bridge channels, a mid boost function and a half power function.

Feature summary:

- Preamp: 3 x 12AX7
- Phase Inverter: 12AX7 (LTP)
- Power: 6750 - 2 x EL34, 67100 - 4 x EL34, 6750-JC - 2 x 6CA7, 67100-JC - 4 x 6CA7
- Bias: Fixed
- Rectifier: Solid State on 100 watt models and GZ34 / Solid State selectable on the 50 watt amplifiers.
- Bright And Normal Channels
- Channel Bridge Function (Panel switch and foot switch controllable)
- Mid Boost Function (Panel switch and foot switch controllable)
- 1/2 power function

Controls And Features



1 - **Amplifier Input - Bright Channel:** Connect your instrument with a high quality instrument cable to the Bright jack to use the Bright channel of the amplifier only. (Note - Bridged channel mode will not work if the instrument is plugged into the Bright channel jack.)

2 - Amplifier Input - Normal Channel: Connect your instrument with a high quality instrument cable to the Normal jack to use the Normal channel of the amplifier or to use the amplifier in “bridged channel” mode.

3 - Mid+ Switch: The mid+ switch is used to boost the middle frequencies of the amplifier’s tone. With the switch engaged (Up Position) the volume will become slightly louder and the tone will become warmer. This function is great for solos and is controllable through the foot switch as well as the front panel. The panel switch must be in the up position in order for the foot switch to function correctly

4 - Channel Bridge Switch: With the channel bridge switch engaged the guitar signal is sent to the normal channel and the bright channel simultaneously. The result is a slightly elevated volume and the tonal characteristics of each channel contribute to the overall amplifier tone. The instrument must be plugged into the normal channel jack in order for channel bridging to work.

5 - Bight Channel Volume: This control determines the overall volume of the Bright channel. Rotating the control clockwise will increase volume and increase the harmonic distortion of the amplified guitar signal.

6 - Normal Channel Volume: This control determines the overall volume of the Normal channel. Rotating the control clockwise will increase volume and increase the harmonic distortion of the amplified guitar signal.

7 - Treble: This control determines the amount of treble frequencies present in the amplifier tone. At the max setting the amplifier is at its brightest. This control also adds a bit of bite to the amplifier tone as it is turned towards max.

8 - Middle: This control determines the amount of mid frequencies present in the amplifier tone. It should also be noted that as the middle control is turned towards the maximum setting the player will notice that the treble and bass controls have less effect on the overall tone.

9 - Bass: The bass control determines the amount of bass frequencies present in the tone. Turning this control too far towards maximum could result in the overall tone becoming too muddy or boomy.

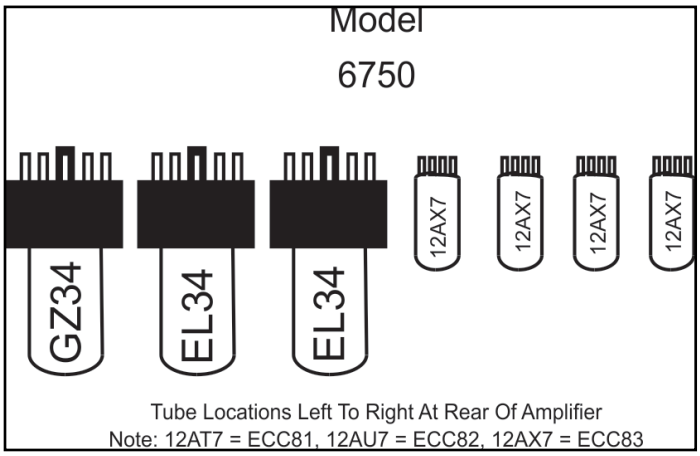
Controls And Features (Continued)

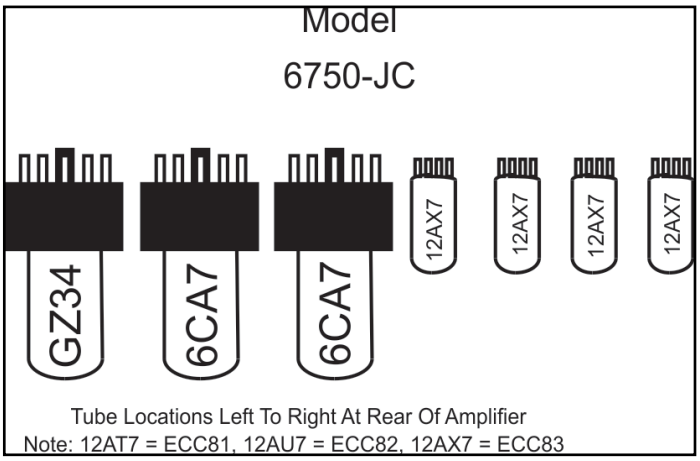
10 - Master Volume: This control determines the overall volume of the amplifier Rotating the control clockwise will increase volume and increase the harmonic distortion of the amplified guitar signal.
11 - Edge: The Edge control is technically a variable negative feedback control. Please refer to the operation notes for a complete explanation of how to use this control.
12 - Presence: The presence control adds high frequencies to the guitar tone. Rotating the control clockwise increases the tone's high frequencies.
13 - Pilot Light: Illuminated when Power Switch is moved to the "on" position.
14 - Standby Switch: When moved to the play position the amp is ready to play. When in the "standby" position the tubes remain heated but no sound passes through the amplifier.
15 - Power Switch: The power switch allows the flow of AC voltage from the power source to the amplifier. Move to the "on" position to power on the amplifier and to the "off" position to power it down.
16 - Fuse: Replace only with a 3A slo-blo fuse. Never install a larger fuse than specified. Failure to install the properly rated fuse could result in damage to the amplifier. Fuses provide a critical safeguard for the amplifier and a blown fuse could be an indication of a much bigger problem either with the amplifier or the power source. See a service technician if the amplifier is repeatedly blowing fuses.
17 - Rectifier Selection Switch (Not available for 67100 or 67100-JC): Your amplifier has the ability to operate on either a tube rectifier or from a solid state rectifier and the Rectifier Selection Switch determines the mode of operation. The tube rectifier will be a bit warmer with a softer feel while the solid state rectifier will provide the player with a bit more volume, immediacy, and edge. The amp must be in Standby mode before changing the position of this switch.
18 - Bias Adjust Control: This control allows either the end user or a qualified technician to set the idle current of the power tubes. Approximately 35ma should be used to set the bias. Your amplifier may have test jacks installed that can be used with a multimeter to set the bias. If available they will either be located next to the tubes on the bottom of the chassis or on the back panel. Red jack for positive lead and black jack for negative lead.
19 - Half Power Switch: Your amplifier is capable of reducing output using the Half Power switch. On the 6750 and the 6750-JC this is accomplished by running the power tubes in triode mode. When using this option on those amplifiers you will need to adjust you tone controls to approximate the tone at full power. This is not as much of an issue with the 67100 and the 67100-JC.
Effects Loop
20 - Send: Connect this jack to the input of your effects chain.
21 - Bypass: This switch is a true bypass switch for the effects chain. When the effects loop circuitry is engaged there will be a slight increase in white noise
22 - Return: Connect the return jack to the output of your effects chain.
23 - Speaker Impedance Selector: Position the selector switch to match the amplifier speaker load.
24/25 - Main And External Speaker Jacks: Connect a speaker to either of these jacks. Both jacks can be used at the same time to drive multiple cabinets. Do not connect a combined speaker load less than 4ohms or greater than 16ohms. IMPORTANT: A speaker load must be connected to the amplifier at all times during amplifier operation. Failure to do so will result in output transformer failure very quickly and will not be covered under warranty. It is a good practice to get in the habit of listening for normal amp noise as soon as the standby switch is moved into the play position. If no noise is heard the amplifier should be turned off immediately and the speaker connections checked.

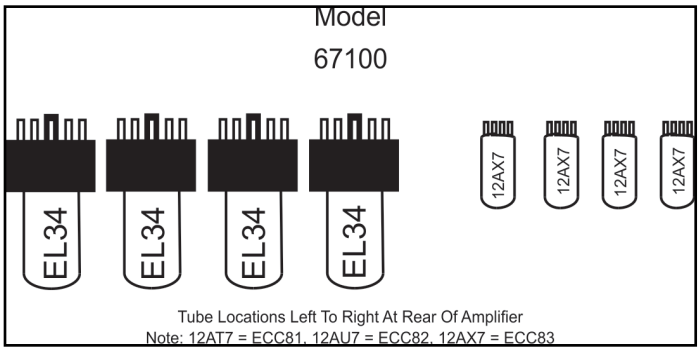
Controls And Features (Continued)

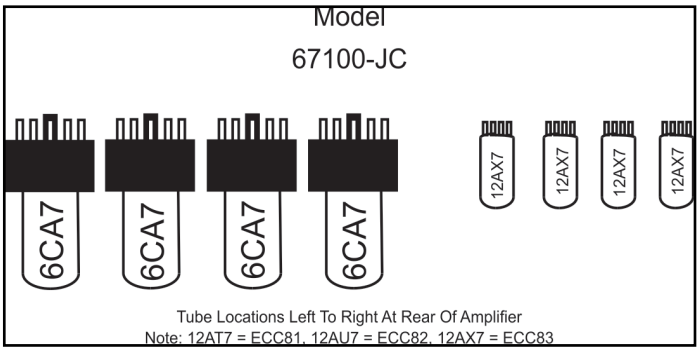
26 - Line Out: The Line Out jack supplies an unbalanced signal identical to what is being sent to the speakers. Speakers must remain connected when using this jack.
27 - Foot Switch Jack: Connect the supplied foot switch to this jack with a 5 pin midi cable.

Tube Layout









Tube locations left to right when viewing from the rear of the amplifier.

Rectifier Tube: GZ34. Replace only with high quality GZ34 (or compatible) tube. Only used on the 6750 and 6750-JC.

Power Tubes: 6750 - 2 x EL34, 6750-JC 2 x 6CA7, 67100 - 4 x EL34 , 67100-JC - 4x 6CA7 Replace only with a high quality matched sets of power tubes. A re-bias will be necessary when replacing power tubes.

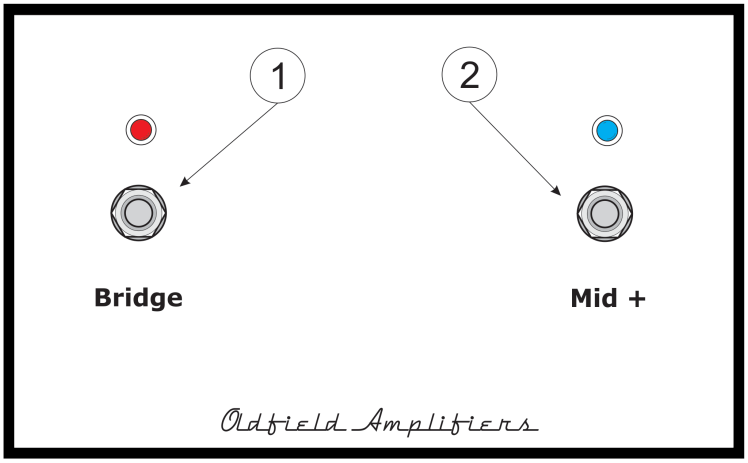
Phase Inverter: Replace with any high quality, low noise 12AX7 tube.

Cathode Follower: Replace with any high quality, low noise 12AX7 tube.

Normal Channel Driver Tube: Replace with any high quality, low noise 12AX7 tube.

Bright Channel Driver Tube: Replace with any high quality, low noise 12AX7 tube.

Foot Switch Controller



1. **Bridge Selector**: Stomp the Bridge foot switch to engage the channel bridge function. When the bridge function is engaged the indicator light is turned on. The amplifier panel switch must be engaged in order for the foot switch to work.
2. **Mid+ Selector**: Stomp the Mid+ foot switch to engage the amplifier's mid boost function. When the mid boost function is engaged the indicator light is turned on. The amplifier panel switch must be engaged in order for the foot switch to work.

Connect the foot switch to the amplifier with a quality 5 pin midi cable.

Operation Tips

Using the Master Volume Control - The master volume control determines the overall volume of the amplifier. That part may seem obvious. The master volume also controls other, more subtle aspects of your amplifier's tone. As you turn the master volume up the tone will become sonically fuller with more pronounced high and low frequencies. As you turn the master down the harmonic distortion created in the preamp will become the overall driver of tone character with the preamp gains playing more of a prominent role.

Pre-Amp Gain Controls - There is quite a bit of gain on tap with your amplifier if you choose to use it. Use the pre-amp gain controls to feed just the right amount of harmonic content to the power section.

Tip - Use the pre-amp gain controls for distortion content and the master volume control for amplifier volume. It is more complicated than that but that concept is a good place to start.

Channel Bridging - When using the channel bridge function on your amplifier the guitar is fed into both channels simultaneously. This is similar to what happens when you jumper the channels on a 4 input Marshall style amplifier. When in channel bridge mode, both gain controls are active and can be used to the player's advantage. It is very easy to add a little girth to the tone by turning up the normal gain and turning down the bright gain. The same operation can be used to roll off some of the high frequencies when running the gain controls at high levels if some fizziness starts to creep into the tone character. Use the opposite approach for tone that might become a little boomy.

Tip - For that late sixties British invasion tone run the pre-amp gains low and the master high. For a more modern distortion tone run the pre-amp gains high and the master low.

Tone Controls - Start with the controls all at the 12 o'clock position and find a setting on the gain and master that yields a fairly clean tone. Try to rotate these controls one at a time while playing to understand the impact that each control has on the overall tone. You should find that turning up the treble will subtly turn down the bass and mids. Turning up the mids will subtly remove the treble and bass. Reducing the bass frequencies with the bass control is very important to keep the amplifier tight a high volumes. Don't be afraid to turn the knobs.

Edge Control - The edge control is a variable feedback control. Quite simply, global negative feedback (GNFB) is a concept used within the circuit design to keep the amplifier stable and has been a part of guitar amplification for decades. The edge control allows the player regulate the amount of GNFB. With the control rotated to the off position the maximum amount of GNFB is present in the circuit and the tone will be smooth and warm. Turning the control up will give the tone an edgier feel with more highs being introduced and a noticeable increase in volume. Remember that GNFB is your friend and not enough can turn the tone sour in some cases.

Presence Control - The presence control bleeds highs from the GNFB loop to ground. As you turn the control up fewer high frequencies are bled to ground and more off them appear in the overall amplifier tone. The presence control is essentially a post master volume top cut control.

Tip - Using the edge control and the presence control together can be tricky since they both have an effect on high frequencies. When setting these two up together try turning them both to zero and

Operation Tips - Continued

concentrating on the edge first. Turn that control up until you get the right amount of effect you want before using the presence. You may find that no presence is needed with certain edge control settings. When turning up the presence concentrate on the effect it has with both high frequencies and low frequencies to get the tone you desire.

Warranty

The following warranties apply to the original owner of the amplifier. All warranty work must be performed by Oldfield or an authorized technician for the warranty to be in effect. Warranties do not cover normal wear and tear or abuse. Failure to comply with the safety precautions outlined earlier in the owner's manual will void all warranties.

Rectifier and Power Tubes: Guaranteed for thirty days after date of purchase. If a failure occurs Oldfield will replace any rectifier or power tube during this period free of charge

Preamp Tubes: Guaranteed for ninety days after date of purchase. If a failure occurs Oldfield will replace any preamp tube during this period free of charge.

Power Transformer, Output Transformer And Choke: These items are guaranteed for one year after date of purchase against manufacturer's defects. If a failure occurs due a defect in manufacturing Oldfield will replace any of these items during this period free of charge. Warranties on these items are void if the owner uses any type of power soak or attenuator in conjunction with the operation of the amplifier or fails to connect a speaker load to the amplifier while in operation.

Defects Due To Workmanship: Oldfield guarantees the amplifier to be free from workmanship defects for five years.

Circuit Components: Any failed circuit component will be replaced at Oldfield's discretion for a period of five years after the purchase date.

In every case Oldfield guarantees to work with the customer to remedy any situation in a timely manner and to the satisfaction of the amplifier owner.