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Instrument Amplifiers

V 1.1

**Operations Manual covers :
Full House-50 , Blackjack-21-II, Lucky 7-II, Four Aces
(heads/combo)**

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A Note from Annette,

First of all, *Thank You* for purchasing a Fuchs Audio Technology™ amplifier!

Due to player demand, Andy Fuchs redesigned the popular Lucky-& Blackjack series amps into a great new series of amps, to provide great ODS and TDS style tones at a lower price. Just like all our other amps and pedals, each amplifier is precision handmade by the staff at Fuchs Audio, and is built to the same high standards of excellence found in all Fuchs products, regardless of price. With over two decades experience in the service, manufacturing, and design of tube audio/music equipment, we at Fuchs Audio are extremely proud of the quality and tremendous musicality of this new series.

Please read this manual carefully. Although these amps were created to be simple amplifiers to operate they will perform to fullest glory by your full understanding of the contents of this manual.

Feel free to call or e-mail us (we prefer emails!) with comments & questions about your amp, or just to find out what's new here at Fuchs Audio.

Lastly, I recommend checking out our new web site: www.fuchsaudiotechnology.com, for product/user updates, cool links and other info benefiting our customers.

Sincerely,

Annette Fuchs

President

Fuchs Audio Technology®

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Table of Contents (by section)

- 1) Introduction to the Fuchs Audio Casino series amplifier
- 2) Please Read before powering up your amp
- 3) Diagrams- FRONT/REAR panels, Tube bias diagram
- 4) Front panel Controls, inputs & their functions
- 5) Rear Panel controls, inputs/outputs
- 6) Biasing power tubes & other technical info.
- 7) Warranty/repair information & mail-in warranty form

1 Introduction to the Fuchs Audio Casino series™ amplifiers



Representing a new direction for Fuchs Audio Technology, the Casino series™ brings the high build quality and awesome tones people expect of Fuchs products, to a new more affordable price range. These amps are based on a three 12AX7 preamp stage, and each model has it's own unique power stage. The 4-Aces By switching to a 6V6, you can reduce power to less than 5-watts. Unlike other amps in this price range, this series features two channels, a digital reverb, gain boost, and a ton of features unlike any other boutique D-style amp in this pricerange. They feature a full compliment of extremely flexible tone controls. A surprising amount of clean headroom is available before the output stage begins distorting with a sweet yet cutting rock edge.

The chassis (like all Fuchs products) is aircraft grade aluminum; our internal construction is mixed PC board and hard wired. On these models the preamp tubes and power supply circuitry are on the circuit card, while the power tubes and transformers are mounted on the chassis. A detachable power cord is standard. By using single point grounding, the amp is quiet and free of hum at all operating levels.

A single input and 3 speaker outputs for 4-8-16 ohms are provided. An effects patch jack is provided as is a dual footswitch jack for channel and gain boost via a dual LED footswitch.

Features:

¾" solid wood cabinet with durable tolex covering.

Anodized aluminum chassis with long lasting silk-screened labeling

Heavy duty Cliff brand jacks. Solid metal-shaft Alpha potentiometers.

Ultra-long-life fuse-lamp pilot lamp and heavy duty AC power and standby switches.

Simple user adjustable fixed output tube bias.

Specifications:

Size: 8" tall 10.5 inches deep 19" wide.

Weight varies by model.

Tube compliment: 4-Aces: 2-6SN7 power triode, 3 X 12AX7 preamp tubes, Lucky-7:1-EL-34 (or 6V6 with rebias) power tubes, 3-12AX7's, Blackjack-21: 2-6V6 power tubes, 3 x 12AX7, Full-House-50 2 x 6L6 and 3 x 12AX7.

Power output: 4-Aces: 4-watts into 4-8-16-Ohms Lucky-7: 7-Watts into 4-8-16-ohms

Blackjack-21: 20-watts into 4-8-16 ohms, Full-House-50 50-Watts into 4-8-16 ohms.

Input Impedance -1Meg.

2 Please read before powering up your amplifier.

Please see Panel Diagrams in next section 3 for assistance.

- 1) Inspect to make sure power & pre-amp tubes are intact & snugly seated in their sockets.
- 2) Make certain a speaker (load) is plugged into speaker input jack on the back of the amplifier. Failure to have a speaker connected to the amp will result in damage to the output tubes! Your amp is supplied with 4,8 and 16 ohm speaker output jacks, select the one which matches your speaker(s) impedance.
- 3) Reduce Front panel GAIN controls to moderate level.
- 4) Install instrument cable from guitar into front panel INPUT
- 5) Be sure both POWER switch (front panel) is in DOWN (Off) position and standby is in off (down) position.
- 6) Install power cord to amplifier (AC POWER IN) and to appropriate AC power source.
- 7) POWER UP amplifier by: 1) flipping POWER switch UP. Allow at least 30 seconds to 1 minute for tubes to heat up. Then switch amp to operate mode via standby switch.
- 8) The Amplifier is now fully on and ready to use. Feel free to adjust all controls as you see fit.
- 9) Provide adequate and unimpeded ventilation.
- 10) Do not expose the unit to drips or splashes.
- 11) Do not to place liquids on the unit.
- 12) Properly ground the unit (i.e. make sure the outlet used is grounded, and ground is not defeated between the outlet and unit).

3 Diagrams of FRONT & REAR Panels, Tube Bias Diagram

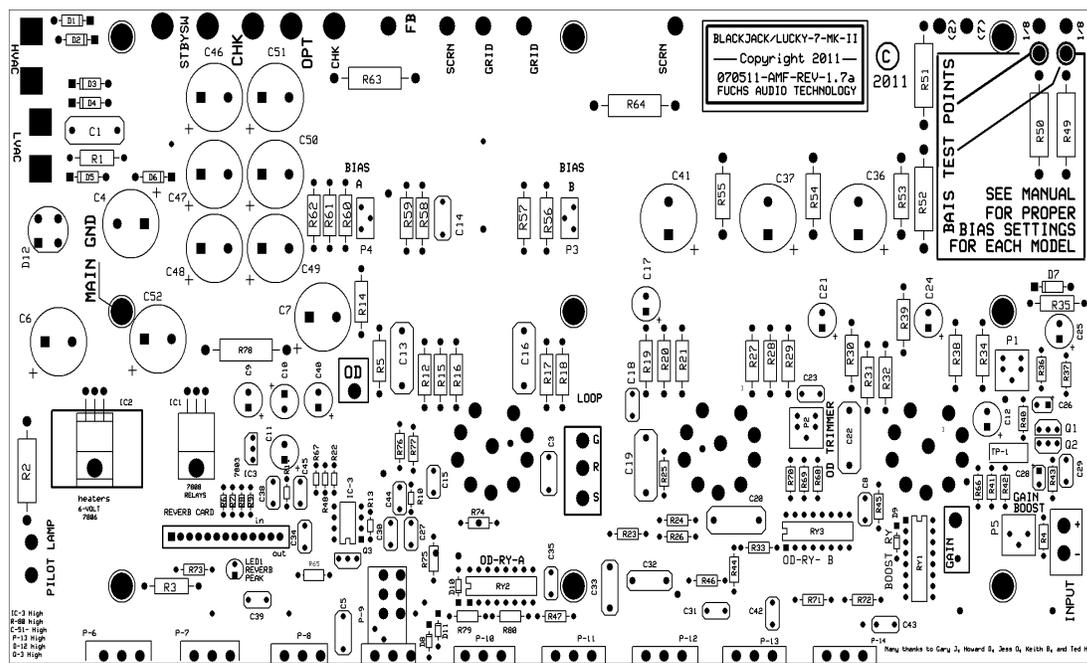
Front Panel



Rear Panel



Tube Bias diagram



Biasing for various models:

See diagram above for location of bias trimmers and test points

4-Aces: Set bias controls for .020 volts on each test point (20-Ma per 6SN7 Class AB-1)

Lucky-7: Set for .05 volts on one test point (50-Ma for single EL-34 Class-A)

Blackjack-21: Set for .02 volts on each test point (20-Ma per tube Class-AB-1)

Full-House-50: Set for .036 volts on each test point (36 ma per tube Class AB-1)

PREAMP TUBES AND THEIR FUNCTIONS:

V-1 12AX7 (nearest to input jack). Main input preamp, first clean and overdrive preamp (premium tube recommended)

V-2 12AX7 (middle tube) Overdrive only preamp.

V-3 12AT7 Phase inverter/driver tube

4 Front Panel Controls, inputs & Their Functions

Input Jack:

Input jack is a 1/4" phone plug, designed for 1-Meg impedance, guitar-level signal. This input will readily accept pedals/effects without any loss in performance. Pedals/effects input is also inserted to this input in series with your guitar.

Clean Gain Control:

The gain control sets the overall gain/volume for the amplifier in the clean (channel-1) mode. Adjust to volume /tone taste.

High Control:

Adjust the high control to taste, it controls adjusts the high frequency spectrum of your amplifier.

Mid Control:

Adjust the Mid control to taste, it controls adjusts the mid frequency spectrum of your amplifier.

Low Control:

Adjust the Low control to taste, it adjusts the low frequency spectrum of your amplifier.

OD-Gain:

The OD-gain control sets the amount of drive in the gain channel. This channel is accessed by the left footswitch button, or by pulling the Overdrive Master control knob out. This control will adjust how much gain and distortion you will have in channel-2.

OD-Master:

The OD-Master controls the volume of the amp in channel-2 (overdrive) mode. The Overdrive gain (above) sets the amount of distortion, and the Overdrive master sets the volume at which the drive channel operates.

OD-tone:

The OD tone control is a simple high cut control which allows you to go from “woman tone” (full counter clockwise), to D-style (center 30% range), to rock/English tones (full clockwise).

Reverb Level:

The Reverb level control adjusts the amount of reverb return to the amp.

Reverb Decay:

The Reverb decay adjusts the time it takes for the reverb signal to decay. Counterclockwise is the shortest decay, and turning all the way clockwise increases the decay time.

5 REAR Panel Controls, inputs/outputs**AC power cord input:**

Using a standard IEC power cord. Connect to AC POWER IN on the amplifier and to AC power source. Please note the voltage on the chassis, and make sure you are supplying the correct AC voltage to the unit. Damage from incorrect voltages is not covered by warranty.

AC power Fuse:

This fuse protects the amplifier if any malfunction occurs. Use ONLY the stock fuse rating as supplied by factory and shown on the rear panel for the voltage and current in your location.

Speaker outputs:

4, 8, 16 ohm outputs. Use the same impedance as the speaker you are using for maximum power and performance.

Standby/Play switch:

Up is play mode. When amp is not being used, but being warmed up, place amp into standby mode.

Effects Loop Patch jack:

This is a stereo ¼". The tip is the return to the power amp. The ring is the send from the preamp. This may be used with an outboard effect loop like the Plush Tube FX loop, or various other aftermarket devices for this purpose. Depending on the outboard unit you

are using, an effects loop device may not be needed. You can try any unit you like, and see if the tone and performance is acceptable to you without damage to the unit.

Footswitch Jack:

This is a stereo ¼" phone plug. The tip is overdrive select, and the ring activates a gain boost, which does not disable tone controls, and works on both clean and dirty channels.

6 Biasing the amplifier power tubes & other technical info

The circuit board is shown earlier in the manual with the chassis sitting on its transformers, and front panel facing you. There are exposed high-voltages in this chassis, even with the amplifier shut-off! If you are not familiar with tube amplifiers and/or high voltages, do not attempt to remove the chassis from its cabinet or to attempt to service this amplifier. Refer servicing to the factory or to someone with experience servicing these types of amplifiers.

DISCLAIMER: There are exposed high-voltages within this amplifier. Do not attempt to service, repair or conduct tube biasing unless you are qualified to do so. Please contact Fuchs Audio beforehand with questions in this regard. Fuchs Audio takes no responsibility or shall be held liable for any personal harm caused or damage to this amplifier as a result of unauthorized service, repair or internal adjustments made to this amplifier.

FCC COMPLIANCE STATEMENT: This equipment has been tested and found to comply with the limits of Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.



DISCLAIMER:

ΔRead, retain, and follow all instructions. Heed all warnings.

ΔOnly connect the power supply cord to an earth grounded AC receptacle in accordance with the voltage and frequency ratings listed under INPUT POWER on the rear panel of this product.

ΔWARNING To prevent damage, fire or shock hazard, do not expose this unit to rain or moisture.

ΔUnplug 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.

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

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

ΔThis product may be equipped with a polarized plug (one blade wider than the other). 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.

ΔProtect the power supply cord from being pinched or abraded.

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

ΔThe 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.

ΔThis 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.

ΔDo not drip nor splash liquids, nor place liquid filled containers on the unit.

ΔCAUTION: No user serviceable parts inside, refer servicing to qualified personnel only.

ΔFuchs® amplifiers and loudspeaker systems 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.



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7 Warranty Information

The Fuchs Audio Technology™ Amplifier Warranty

In the United States, Fuchs Audio Technology® guarantees our products to be free from defective workmanship or material failure for a period of FIVE years (tubes excluded) from date of new purchase to the original purchaser. This excludes tubes, which are covered for 90 days by

Fuchs, and whatever period the manufacturer of the tube provides. Outside of the United States, the warranty is based on each country's local laws and distributor's policies. Contact your local dealer or distributor for details.

This does not apply to Fuchs amplifiers that have been tampered with, damaged by shipping carriers, reverse engineered, or modified. Your warranty form/information must be returned to Fuchs Audio Technology® within 30 days of purchase, or your warranty will not be in effect. Fuchs Audio Technology® reserves the right to suspend or terminate the above warranty at our sole discretion, should damage from any of the above limitations and or exclusions be detected upon examination.

*Keep the information on this page for your records.
Please mail-in warranty form on next page*

FUCHS MODEL : _____

SERIAL NUMBER: _____

OPTIONS INCLUDED: _____

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WARRANTY REGISTRATION FORM

This completed form must be returned to Fuchs Audio Technology within 30 days of purchase along with a copy of your receipt from your authorized dealer.

Please fill in all requested information on this form so we may register you for future warranty repairs or future upgrades, should they become available.

Purchasers Name: _____

Address: _____

City: _____ State: _____ Zip: _____ Country: _____

Phone Number: _____ E-Mail address: _____

Model: _____ Serial Number: _____

Date of Purchase: _____

Dealer Name: _____

Comments:

Please return this form to:
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