



## Fetle Pre Amplifier Owner's manual



## Important Safety Information

**WARNING:** There are no user serviceable parts inside. Refer all servicing to qualified service personnel.

**WARNING:** To reduce the risk of fire or electric shock, be sure that the apparatus shall not be exposed to dripping or splashing and that no objects filled with liquids, such as vases, shall be placed near or on the apparatus.

**Do not allow foreign objects to get into the enclosure. If the unit is exposed to moisture, or a foreign object gets into the enclosure, immediately disconnect the power cord from the wall. Take the unit to a qualified service person for inspection and necessary repairs.**

Read all the instructions before connecting or operating the component. Keep this manual so you can refer to these safety instructions. Heed all warnings and safety information in these instructions and on the product itself. Follow all operating instructions.

Clean the enclosure only with a dry cloth or a vacuum cleaner. Clean the enclosure only when power is off. Stainless steel also can be cleaned with special stainless steel polish, mostly available at your local do-it-yourself stores, or at [www.pinkfaun.com](http://www.pinkfaun.com).

**You must allow a minimum of 10 cm or 4 inches of unobstructed clearance around the unit.**

Some parts in this amplifier will get hot, do not place any flammable material, like wood, plastic, cloth or anything else, directly above the amplifier. Place the unit on a fixed, level surface strong enough to support its weight. Do not place it on a moveable cart that could tip over. The amplifier chassis can be placed directly on top of the power supply chassis or vice versa

Do not place the unit on a bed, sofa, rug, or similar surface that could block the ventilation slots. If the component is placed in a bookcase or cabinet, there must be ventilation of the cabinet to allow proper cooling. Keep the component away from radiators, heat registers, stoves, or any other appliance that produces heat.



The unit must be connected to a power supply only of the type and voltage specified on the rear panel of the unit. Connect the amplifiers to the power outlet only with an earthed IEC power supply cable or an exact equivalent.

Do not attempt to defeat grounding and/or polarization provisions. Do not use extension cords. Do not route the power cord where it will be crushed, pinched, bent at severe angles, exposed to heat, or damaged in any way. Pay particular attention to the power cord at the plug and where it exits the back of the unit.

Immediately unplug and stop using the component and have it inspected and/or serviced by a qualified service agency if:

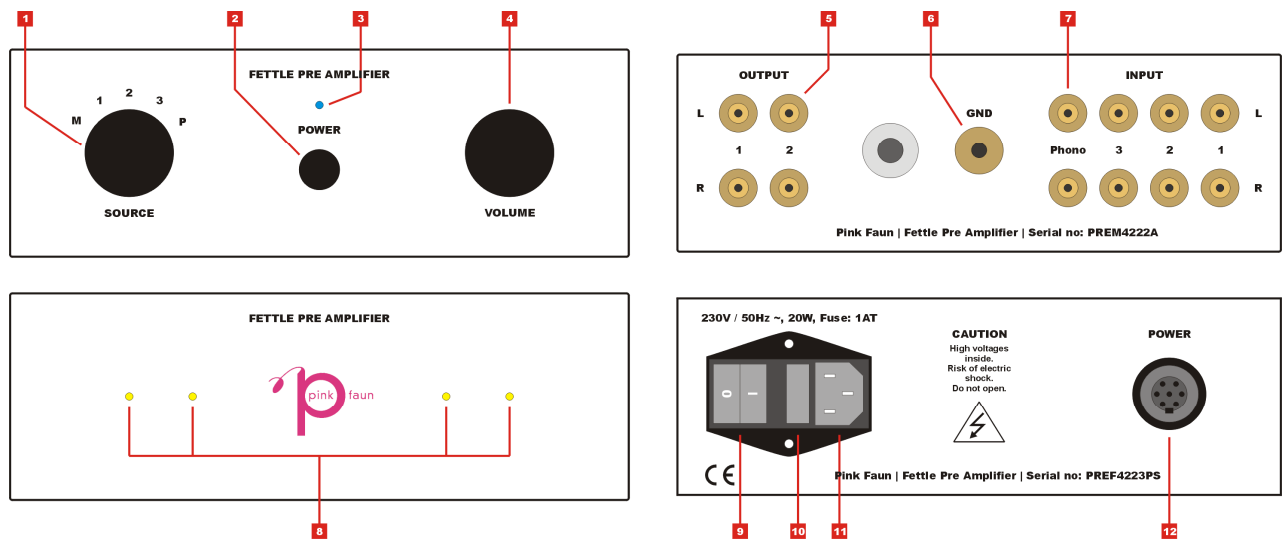
- The power supply cord or plug has been damaged.
- Objects have fallen or liquid has been spilled into the unit.
- The unit has been exposed to rain.
- The unit shows signs of improper operation
- The unit has been dropped or damaged in any way



Pink Faun products are designed and build to comply as good as technically possible with international directives on the Restriction of Hazardous Substances (RoHS) in electrical and electronic equipment and the disposal of Waste Electrical and Electronic Equipment (WEEE). The products must be appropriately recycled or processed in accordance with these directives.



**FIGURE 1:** Front and back of the Fettle pre amplifier, controls and connections



- 1) **Source selector.** This switch selects the source to play with. M means mute, or zero signal, P stands for phono input. Phono input only is available on the full version Fettle. The Phono only Fettle does not have the input selector.
- 2) **Standby/On switch.** This button switches the amplifier between standby and on during normal operation.
- 3) **Power indicator led.** Red led means the amplifier has main power switched on and is ready to play. Blue led means the amplifier is in operation. The led flashes one time when starting up to indicate startup sequence. After about 10 seconds the pre amplifier is ready for music.
- 4) **Volume control.** Controls the output level of the pre amplifier.
- 5) **Output.** Two parallel outputs to drive multiple amplifiers or an amplifier and subwoofer.
- 6) **GND.** Ground connection for Phono input, only available when phono is installed.
- 7) **Input RCA connector.** Apply input of line sources at these inputs. Phono input is use for MM phono cartridges, or MC cartridges when the MC step-up transformer is installed.
- 8) **Battery status leds.** Leds will light up when the batteries are fully loaded, when the amplifier is in standby status
- 9) **Main power switch.** Switch for main socket power. Always switch off here when the amplifier is not used for a long time.
- 10) **Fuse holder.** Fuse should be placed in the lower holder. The other holder can be used for a spare fuse. Always use a fuse with a value as specified on the back of the amplifier.
- 11) **Mains IEC connector.** Place mains power cord at this connector. The amplifier is optimized such that lowest leakage voltage will be generated by the transformers when phase is applied to the upper pin of the connector.
- 12) **Power line connector.** The power line attached to the amplifier chassis should be connected here. Do not apply force, the connectors should fit easy. Find the lock in point by turning the plug in the socket and seal with the screwing lock on the plug.

**IMPORTANT NOTES:** Although the pre amplifier has soft start, it always is recommended to turn off all the components in the system before hooking up any components, including loudspeakers. Turn off all components in the system before changing any of the connections to the system. It is also recommended that you turn the volume control of the pre amplifier or controlled source all the way down before the amplifier is turned on or off.

When you have any questions about our amplifiers, please contact us at [info@pinkfaun.com](mailto:info@pinkfaun.com) with serial number stated at the back of the amplifier. We will reply to you as soon as possible.

## About Pink Faun

Pink Faun is a trading name of Machmat tube and audio parts sales. With Machmat we have gained a lot of experience in trading audio parts, DIY kits, modifications, restoring of equipment and custom design. People liked the sound of our DIY equipment very much and more and more we got questions if we couldn't build these designs commercially. This is how Pink Faun emerged.

Pink Faun does not aim on high volume and high profit, we just want to deliver great sound at normal prices. Great advantage of small volume is that we can use the best parts available, mostly they are only found in smaller quantities. Pink Faun products do not need any modifications, this already is done in advance for you. If you have any questions or comments about our products please mail us at [info@pinkfaun.com](mailto:info@pinkfaun.com). We like to have contact as personal as possible. This is the only way we are able to keep delivering the high quality and service we stand for.

We like to thank you for purchasing our product. We are sure it will give you many years of listening enjoyment.

## Getting started

The Fettle pre amplifier is a top level class A single-ended JFET audio pre amplifier on battery power supply. It is capable of high output voltages with almost no distortion. This gives the pre amplifier a lot of headroom and a lot of ease when playing. This amplifier has battery power supply to ensure a very clean supply and pitch black background.

### Operating features

- Single-ended Class A JFET pre amplifier.
- Battery power supply
- Discrete volume control.
- Special parts used like Allen Bradley resistors, paper oil and low loss.

### A few precautions

Please read this manual carefully. In addition to the installation and operating instructions it gives more information about how to use these amplifiers optimal in your stereo system. Please contact your Pink Faun dealer, or Pink Faun directly at [info@pinkfaun.com](mailto:info@pinkfaun.com), if you have any questions or comments about our products.

Be sure to keep the original sales receipt of your amplifier. It is your best record of the date of purchase, which you will need in the event warranty service is ever required. When you have any problems with our equipment, please always let us know the serial number which can be found on the backside of the amplifiers.

### Placement

Some parts inside this pre amplifier can get hot. The ventilation slots of the pre amplifier are designed to dissipate this heat. Any obstruction of this dissipation can result in amplifier damage, or damage to devices near the amplifiers. There should be at least 10 cm or 4 inches of clearance around the amplifier. Do not place any flammable material, like wood, plastic, cloth or anything else, directly above the amplifier. Take care there is enough space for air to freely flow around the amplifier modules. The amplifier chassis can be placed on top of the power supply chassis, and vice versa.

Remember this pre amplifier is quite heavy, take care the shelf or cabinet the amplifiers are placed in are stable and capable of supporting this weight. The amplifiers have spikes build inside their feet. However additional damping with rubber or cork sometimes improves the performance of the amplifier.

# AC Power and Control

## AC power input

The Pink Faun Fettle has a standard IEC power inputs. Be sure to only use high quality power cables with the same connectors. There can be a large difference in sound between power cables, tuning them will improve the amplifiers performance. Pink Faun PC-2 power cables are recommended.

The transformers of the Fettle have been checked for polarity, and are connected such that with the phase connected to the upper IEC connector pin the residual transformer leakage voltage is minimum. This can be very important when installing high-end equipment. If all devices are tuned for the lowest residual leakage voltage, sound will get more open en detailed. There are polarity checkers commercially available to find out the best plug/socket orientation.

When used for the first time, be sure both the standby/on switch at the front and the power switch on the back are in the off position. In this position the switch on the front aligns with the front plate and the switch on the back is pressed at the "0" side. Plug in the power cable from the amplifier part in the power socket (Figure 1, position 12) of the amplifier part. Plug in the power cord in the IEC connector (Figure 1, position 11) and the other end in an appropriate AC outlet.

The Fettle is configured for the proper AC outlet voltage and frequency of the country where it is purchased. This is 120Vac/60Hz for the USA and 230Vac/50Hz for Europe. The AC configuration is noted at the back of the amplifier. Do only use the amplifier if you are sure the voltage and frequency matches with the AC voltage and frequency coming from you AC outlets.

Should you move your amplifier to a country with other voltages, it is possible to reconfigure the amplifiers to these voltages. This is described in the service manual. Do not attempt this change of configuration yourself, unless you are qualified. Inside the Fettle are lethal high voltages, which only must be handled by fully qualified personnel.

If you are away for a long time it is a sensible precaution to put the amplifiers off with the backside power switch and/or by unplugging the AC cables.

## Standby/off and error indicators

When the power switch at the back (Figure 1, position 9) is switched to position "1", the amplifier is in standby operation. After some time the battery indicator leds should all light up. The amplifier is switched on with the standby/on switch (Figure 1, position 2). When this switch is pressed the amplifier turns on, the led will flash in blue color one time and then turns on continuously. The pre amplifier output protection is set in about 15 seconds. When this switch is pressed again, the amplifier will turn back to standby mode.

## Batteries

The pre amplifier can play about 40 hours on its batteries. When the battery gets low, the on/off led will start flashing about 1 time each second for two hours. After that the Fettle will shut itself off and the on/off led will turn red. This mode only can be reset by putting the amplifier off with the main power switch. It is strongly recommended to put the pre amplifier off at the end of each day, so the batteries can be charged again during the night.

**WARNING:** Deep charging batteries result in battery damage. When the blue led is flashing it is recommended to put off the pre amplifier and take care the batteries are charged again. This will take about 10 hours for a full charge.

At Pink Faun we deliver a service to check your pre amplifier once every year for free at our company, if you can get them over here.

## **Input signal**

The amplifier has a standard RCA cinch unbalanced input connector. The connector should be connected to standard line sources. Always use a high quality interconnector for optimum sound performance, preferable Pink Faun IL-1. These are optimized in sound using the same equipment.

The phono input takes standard MM cartridges, 5mV 47k impedance and 100pF capacitance. When the MC step up transformer is installed, the Fettle is configured for 0.5 mV, 47k cartridges. Other impedances need to be installed on demand.

## **Polarity and Phase**

The Fettle pre amplifier is inverting. This means a positive swing at the input results in a negative swing at the output. Speakers should be connected with inverse polarity to maintain absolute phase.

## **Trouble Shooting**

Most problems in audio systems are the result of poor or wrong connections, or improper control settings. Below are some common failures. If you encounter another problem, or the below solutions do not solve the problems, please contact your dealer, or contact us directly at [info@pinkfaun.com](mailto:info@pinkfaun.com).

### **Front power indicator LED is not lit**

There is no main power on the amplifier. Check if the power switch at the back is put in position "1". Check if mains cables and power cables are plugged in.

### **There is no sound from the pre amplifier**

When the tubes are burning orange and there is no sound, check the RCA input and speaker connections. Always put the amplifier off before checking, if there is a bad contact it can result in speaker or amplifier damage. Check if the proper source is selected and the volume control is not fully closed.

## Specifications

Input impedance:	100k
Gain:	10 times (+20 dB)
Output impedance:	600 Ohms
Max output:	6Vrms with 10 mA
Frequency range:	12 Hz - 120 kHz, zero feedback
Distortion THD% at 1 kHz:	0.07% 2nd, 0.00% 3rd at 1 Vrms output
Noise:	About -100 dB
Power input:	220-230Vac/50Hz, power consumption in operation about 20W, standby 3W. 110-120Vac/60Hz version is deliverable on request
Dimension (including tubes):	244 (9.6") x 330 (13.0") x 82 (3.2") mm (W x D x H) for the amplifier and supply each. Amplifier and supply chassis are seperated with a 1.5 meter long shielded power cable
Net weight each monoblock:	18 kg (39.6 lbs)

All specifications are accurate at the time of printing of this manual. Pink Faun reserves the right to make improvements at any time without notice.