

USER MANUAL

Pfs 50 Litz

Handcrafted in Italy

MASTERSOUND

MADE IN ITALY

Welcome to MastersoundD

Congratulations on your choice and welcome to the MastersoundD world, where Italian craftsmanship and music meet to create an authentic listening experience.

Your MastersoundD product is the result of years of design, listening and hand-built construction in Italy. Each unit is assembled by skilled technicians using selected components, hand-built circuitry and carefully engineered tube designs developed to achieve natural musicality, tonal coherence and long-term reliability.

Designed according to MastersoundD's pure Class "A" philosophy and minimalist signal-path approach, every product is created for music lovers who appreciate:

- the warmth and presence of tube amplification
- the natural dynamics and musicality of Class "A" operation
- the pleasure of owning a product built to last, with a distinctive Italian character

Please read this manual carefully: it will help you install, use and take care of your MastersoundD product, so you can fully enjoy its performance for many years.

Enjoy your music,
MastersoundD

Luciano Sanavio

Antonio Ferro

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4. – IMPORTANT SAFETY INFORMATION



GENERAL WARNINGS

- Read these instructions carefully and keep them for future reference
- Follow all warnings and instructions marked on the product
- Do not use this apparatus near water, in damp environments or outdoors
- Clean only with a soft, dry cloth
- Do not block ventilation openings: install in accordance with the manufacturer's instructions
- Do not install near heat sources such as radiators, stoves, or other equipment (including amplifiers) that produce heat
- Use only attachments and accessories specified by the manufacturer
- Use only the supplied mains cable or a cable of equivalent quality
- Protect the power cord from being walked on or pinched, particularly at plugs and at the point where it exits from the apparatus
- Unplug this apparatus during lightning storms or when unused for long periods of time
- Refer all servicing to qualified service personnel

RISK OF ELECTRIC SHOCK

- Do not open the cabinet: no user-serviceable parts inside
- Inside the amplifier there are dangerous high voltages even after it has been switched OFF
- Servicing must be carried out only by qualified, authorized personnel
- Never remove or insert the AC plug when the unit is ON.

HOT SURFACES

- Tubes and transformers reach high temperatures during operation
- Do not touch the tubes, transformer covers or top cage while the amplifier is on or shortly after switch-off
- Allow at least 30 minutes for cooling before moving the unit

TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK

- Do not expose this apparatus to rain, moisture, dripping or splashing
- Do not place objects filled with liquids (vases, glasses, bottles) on the apparatus

5. – ELECTRICAL & ENVIRONMENTAL INFORMATION

| ELECTRICAL INFORMATION

Mains supply: 230 V ~ 50 Hz / 110-120 V ~ 60 Hz

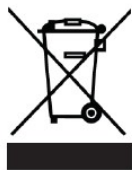
Maximum power consumption: 648 W

Protection class: Class I (earth connection required)

⚠ The unit is factory-set for the mains voltage of the destination country. External voltage converters are not recommended. Voltage conversion should be carried out only by qualified personnel.

| WEEE AND ENVIRONMENTAL INFORMATION

EU Directive 2012/19/EU



The symbol of the crossed-out wheeled bin on the product or its packaging indicates that this product must be collected separately from other waste at the end of its life. Please dispose of this product at dedicated collection points for electrical and electronic equipment, or return it to your dealer according to local regulations. Correct separate collection and recycling help prevent potential negative effects on the environment and human health and promote the reuse of materials.

This product complies with: Low Voltage Directive 2014/35/EU, EMC Directive 2014/30/EU, RoHS Directive 2011/65/EU.

Disposal outside the EU

This product must not be disposed of as unsorted municipal waste. Please dispose of the product at designated collection points for electrical and electronic equipment in accordance with local regulations in your country.

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6. – PACKAGE CONTENT

- 1 × Mastersound Pfs 50 Litz power amplifier
- 1 × complete set of selected tubes (usually already installed)
- 1 × mains power cable
- 1 × user manual

⚠ If any item is missing or damaged, please contact your dealer immediately.

7. – TECHNICAL SPECIFICATIONS

Main features

- Tube power amplifier
- Parallel Single-Ended Class “A”
- Output power: $2 \times 48 \text{ W}$
- Tubes: $4 \times 845\text{B}$, $4 \times 6\text{SN7GTB}$
- Automatic adjustable bias (service adjustment only)
- MastersoundD proprietary Litz-wire output transformers (see pg. 12)
- Global negative feedback: 0 dB

Inputs

1 $\times$ Line XLR

1 $\times$ Line RCA

Electrical

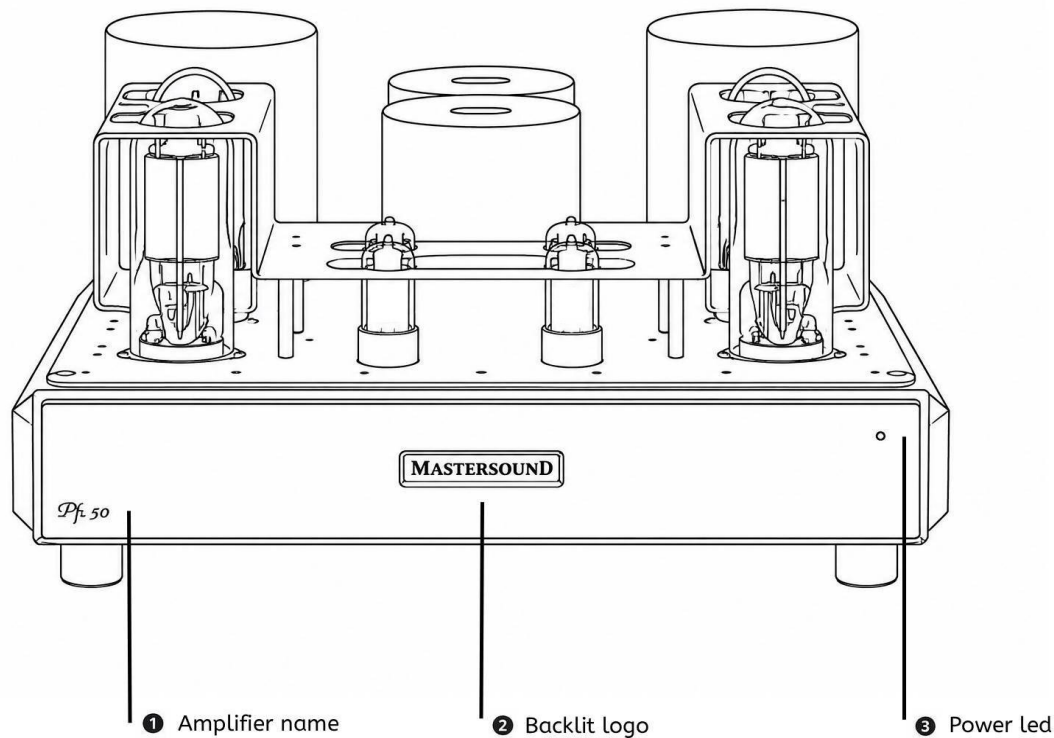
- Input impedance: 50 k Ω
- Input sensitivity: 1 V
- Speaker outputs: 4 Ω / 8 Ω
- Frequency response: 16 Hz – 39 kHz (0 dB)
- Power consumption: 648 W
- Tube protection fuse: 125 mA / 250 V (slow)
- Mains fuse holder (8 A slow)

Mechanical

- Dimensions (W $\times$ D $\times$ H): 54 $\times$ 47 $\times$ 27 cm
- Weight: 54,5 kg

Due to continuous research and development, specifications may change without notice.

8. – FRONT PANEL



The front panel of the Pfs 50 Litz has been designed to be simple, intuitive and reliable for everyday use.

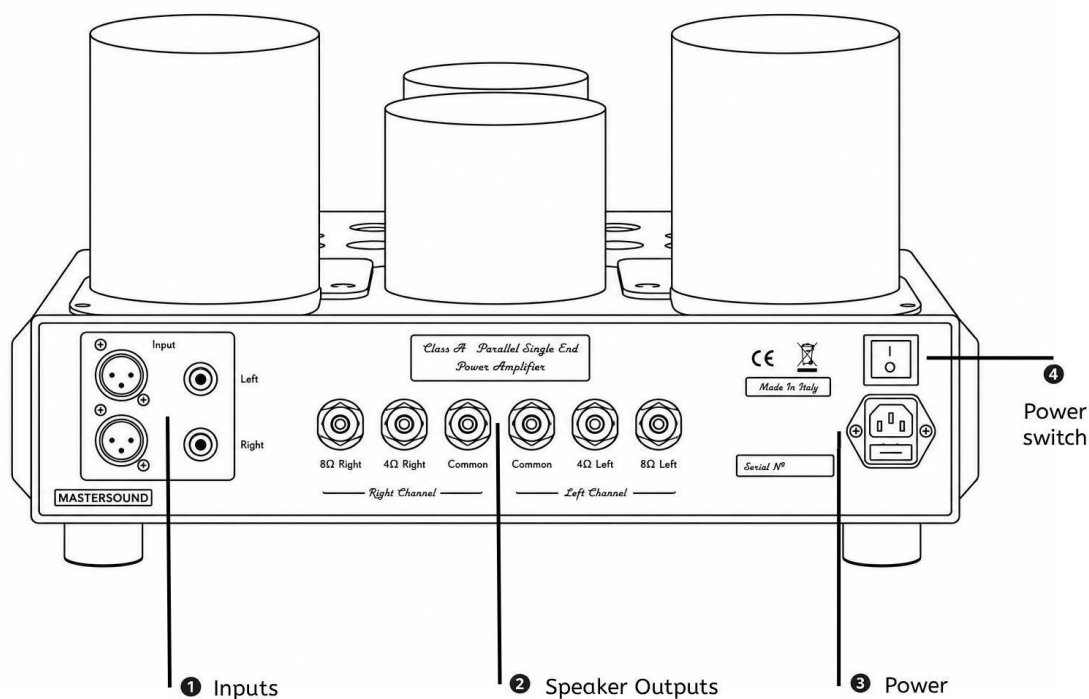
The minimal layout ensures a very short signal path and an immediate, distraction-free operation.

1. Amplifier name

3. Power LED
lights up at power-on

2. Illuminated LOGO
lights up at power-on

9. – REAR PANEL



The Pfs 50 Litz features high-quality connectors to guarantee reliable contacts and maximum versatility.

1. Input

Line RCA (unbalanced input)
Line XLR (balanced input)

3. Power

IEC mains inlet with fuse holder (8 A slow)

2. Speaker outputs

Right channel: $4\ \Omega \cdot 8\ \Omega$
Left channel: $4\ \Omega \cdot 8\ \Omega$

4. Power switch (ON/OFF)

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10. – QUICK START

Safe Handling and Transport

Due to the transformer weight, the unit is heavier on one side. Handle the packaging carefully and preferably with two people.

ON/OFF

1. Place the amplifier on a solid and flat surface, away from heat sources and in a well-ventilated area. Ensure at least 20 cm of free space above the unit and avoid installing it inside closed cabinets without proper airflow.
2. Make sure all connections are completed (speakers and input).
3. Press the rear Power switch: the red LED and the LOGO light up and the tubes start to warm up.

We recommend allowing the amplifier to warm up for at least 5–10 minutes before listening; optimal performance is reached after about 20 minutes.

⚠ Do not connect RCA and XLR inputs simultaneously.

To switch the unit OFF:

1. Lower the volume to a moderate level.
2. Press the Power switch to OFF, then switch OFF the other components in the reverse order of the signal path.
3. If you will not use the amplifier for a long time, also switch OFF the mains switch or unplug the power cord.

⚠ Always switch OFF the amplifier before connecting or disconnecting any signal or loudspeaker cables.

⚠ The amplifier requires a break-in period to reach optimal performance.

11. – OPERATION

Recommended Operating Practices

For optimum performance, we recommend using a preamplifier with low output impedance and adequate current delivery capability to ensure proper driving of the power amplifier input stage. Mastersound preamplifiers are specifically designed with these characteristics in mind. Their low output impedance and dedicated drive architecture provide excellent signal transfer, allowing Mastersound power amplifiers to perform at their full potential.

To protect the loudspeakers, always switch ON the source components first, followed by the preamplifier, and finally the power amplifier. When switching the system OFF, follow the reverse sequence: power amplifier, preamplifier and, lastly, the source components.

Outputs

Connect your loudspeakers to the output (4 Ω or 8 Ω) that best matches their nominal impedance. A lower impedance output generally provides better loudspeaker control (higher damping factor) with difficult loads, while a higher impedance output may produce a slightly more open sound with lower damping. If your loudspeakers have a nominal impedance of 6 Ω , or an impedance curve that varies significantly with frequency, either output may be suitable. We recommend selecting, by listening, the connection that provides the best overall performance in your system.

⚠ Never operate the amplifier without a proper loudspeaker load connected.

⚠ For optimal performance, we recommend using speakers with appropriate sensitivity and impedance.

12. – LITZ WIRE

MastersoundD proprietary Litz-Wire design

Why Litz-Wire?

- Reduced skin and proximity effects
- Lower high-frequency losses
- More uniform current distribution
- Greater transformer efficiency
- Wide bandwidth and low distortion

The output transformer is one of the most critical components in a tube amplifier, directly influencing bandwidth, efficiency and energy transfer from the output valves to the loudspeaker.

In selected MastersoundD models, the output transformers are wound using Litz wire, a conductor made of many individually insulated strands woven together in a precise pattern.

Compared with conventional solid or stranded conductors, Litz wire helps reduce high-frequency losses caused by skin and proximity effects. This contributes to maintaining a more uniform current distribution throughout the winding, particularly at higher frequencies.

Combined with MastersoundD's proprietary transformer design and handcrafted construction, this technology contributes to wide bandwidth, low distortion and the natural musical presentation that characterize these amplifiers.

13. – TUBES

The Pfs 50 Litz is supplied with:

- 4 × 6SN7GTB – input/driver stage
- 4 × 845B – parallel single-ended output stage

All tubes are selected and matched to work optimally with MastersoundD circuits.

Tube lifespan

Under normal use, tubes typically last 5,000–10,000 hours.

The actual life varies with usage and mains quality.

Signs that tubes may need replacement:

- loss of dynamics or clarity
- increased background noise or hum
- distortion at usual listening levels

For replacement, we recommend:

- using high-quality, matched tubes
- contacting your dealer or MastersoundD service for testing and advice

⚠ Never operate the amplifier without all tubes correctly installed.

14. – MAINTENANCE & CLEANING

Always switch off the amplifier and unplug the mains cable before any cleaning.

Allow the unit to cool down completely before touching the tubes or metal covers.

Clean the metal and wooden parts with a soft, slightly damp cloth and dry immediately.

Do not use alcohol, solvents, abrasive or ammonia-based cleaners.

Keep ventilation openings free from dust.

⚠ There are no user-serviceable parts inside.

⚠ For internal maintenance or tube replacement, contact your dealer or an authorized Mastersound service centre.

15. – TROUBLESHOOTING

Problem	Possible cause	Solution
Amplifier does not power ON	No mains power or incorrect power connection.	Verify that the mains cable is correctly connected, the mains outlet is supplying power and the Power switch is set to ON.
Power LED is ON but there is no sound	No signal from the preamplifier or incorrect input connection.	Verify that the preamplifier is switched ON, the volume is not set to minimum or mute, and the correct input (RCA or XLR) is connected. Do not use RCA and XLR inputs simultaneously.
No sound from one channel	Faulty cable, incorrect connection or defective tube.	Check all input and loudspeaker connections. Swap the left and right input cables to identify whether the problem originates from the source or the amplifier. Check the condition of the tubes.
Hum or unwanted noise	Ground loop, cable routing or external interference.	Verify that all equipment is properly grounded. Keep signal cables away from mains cables and transformers. Switch OFF or move nearby electronic devices that may cause interference.
Distorted sound	Incorrect speaker connection, worn tubes or excessive input level.	Verify that the loudspeakers are connected to the appropriate 4 Ω or 8 Ω output. Check the tubes and reduce the source output level if necessary.
One or more tubes do not illuminate or behave abnormally	Tube fault or internal malfunction.	Switch OFF the amplifier immediately and contact your authorized dealer or Mastersound service centre.
Amplifier becomes excessively hot	Insufficient ventilation or excessive ambient temperature.	Ensure adequate ventilation around the amplifier and keep it away from external heat sources.

⚠ If the problem cannot be solved following these steps, disconnect the unit and contact your dealer.

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16. – WARRANTY & SERVICE

Your Mastersound Pfs 50 Litz, except for the tubes, is covered by a 5-year limited warranty against defects in materials and workmanship from the date of purchase shown on your sales invoice.

During the warranty period, repairs or replacement of defective parts will be carried out free of charge, excluding transport costs when applicable.

The warranty is void if:

- The serial number has been removed, altered or is illegible
- The amplifier has been opened, modified or repaired by unauthorized personnel
- Tubes of a different type or with unsuitable specifications have been installed
- The amplifier has been operated without loudspeakers correctly connected
- Damage is due to misuse, accident, negligence, incorrect installation, or abnormal mains supply

For any service request, please contact your authorized dealer or distributor first, or:

Mastersound S.r.l.

Via Galileo Galilei 2/2

36057 Arcugnano (Vicenza) – Italy

Email: info@mastersoundsas.it

Web: www.mastersoundsas.it

⚠ Please keep the original packaging: it is the safest way to ship the unit if service is required.