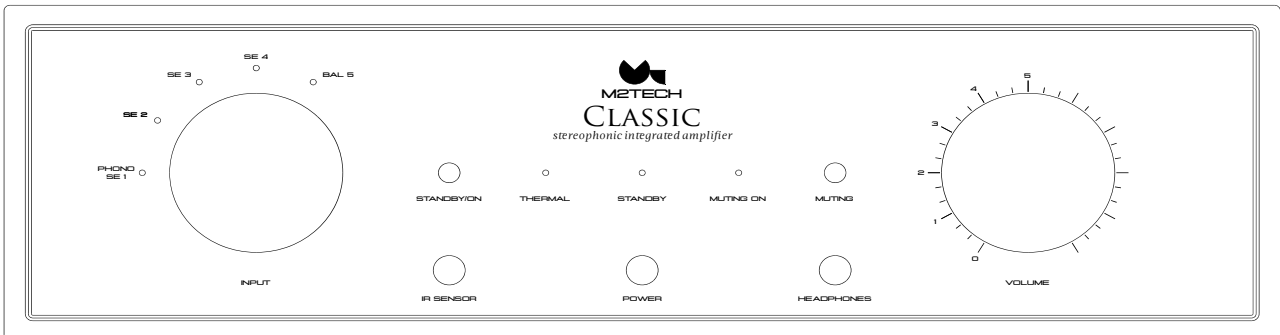




M2TECH

Classic Integrated Amplifier

User Manual



REV. PrB – 5/2024

Warning!

Modifications or alterations not authorized by the manufacturer may void compliance with CE regulations and making the appliance no longer suitable for use. The manufacturer declines all responsibility for damage caused to people or things as a result of improper use or malfunction of an appliance subject to unauthorized modifications.



This appliance complies with CE regulations: CEI EN 55022:2009 Class B (Radiated Emissions), CEI EN 55024:1999, CEI EN 55024:A2/2003, CEI EN 55024:IS1/2008 (Radio Frequency Electromagnetic Fields, Immunity Test to Magnetic Field 50Hz and Electrostatic Discharge – ESD).

For correct operation of this device, all connections to other devices in the system must be made with all devices turned off. Failure to comply with this rule may cause damage to the Classic Integrated Amplifier.



The label above, visible on the shell of the appliance, indicates that the product, at the end of its use, cannot be improperly managed as general waste, but must be treated as an electrical and electronic appliance by an adequate disposal system in accordance with regulations from the WEEE directive (or WEEE, Waste of Electrical and Electronic Equipment directive).

Once the product has been recycled appropriately, potential damage to the environment and human health, which could be caused by disposal as general waste, will be avoided. Appropriate reuse of materials also reduces resource waste. For more in-depth information on the disposal of this product, please contact M2Tech Srl.

WARNING: The information in this manual is believed to be reliable and accurate. M2Tech reserves the right to change or modify this information at any time, without notice. Dear customers, we invite you to ensure that you are consulting the most recent version of this manual.

Dear Customer,

Thank you for purchasing the Classic Integrated Amplifier. You are in possession of a very high quality stereo amplifier with numerous unique features, designed to achieve maximum performance together with other M2Tech products.

The Classic Integrated Amplifier implements a set of particular technological and functional solutions designed to maximize listening pleasure:

- a highly dynamic class AB power stage, capable of accommodating the most intense peaks of the musical signal and driving even the most difficult speakers;
- a wide range of inputs, including one balanced and one switchable between line, MM phono and MC phono, as is usually only found in products of a higher class and cost;
- a highly transparent preamplifier with dedicated output to drive an external power amplifier;
- a power supply equipped with a powerful high-dynamic toroidal transformer and low-noise regulation stages;
- trigger input and output for easy integration with other devices in the system or with multi-room controllers;
- a Wi-Fi interface for control via smartphone app.

The Classic Integrated Amplifier has been designed to provide absolutely excellent performance at an entry-level price.

We are sure that the Classic Integrated Amplifier will fully meet your expectations: your hi-fi system will show an incredible increase in its sonic performance, so get ready now for a totally new listening experience!

Marco Manunta, CEO

Please note the serial number and date of purchase of your Classic Integrated Amplifier below for future reference:

S/N: _____ Purchase date: _____

TABLE OF CONTENTS

1. Opening the Packaging and Positioning the Appliance.....	7
2. Front Panel.....	9
3. Back Panel.....	11
4. Remote Control.....	13
4. Connecting and Powering the Device.....	15
5. Cleaning the Appliance.....	15
6. Using the “Pre Out” output.....	17
7. Trigger.....	17
8. WiFi Interface.....	17
9. Precautions for Use.....	17
10. Technical Features.....	19

1. Opening the Packaging and Positioning the Appliance

Place the box on a table and open it with a cutter or knife, being careful not to damage the internal box. Take out the inner box and open it. The following items are included in the package:

- one Classic Integrated Amplifier;
- an infrared remote control;
- two AAA batteries;
- one power cord.

If one or more items are missing, contact your dealer.

Remove the Classic Integrated Amplifier from the stratocell and place it on a stable base, away from heat sources. Avoid direct sunlight. Leave ample space around the appliance to ensure adequate ventilation.

The Classic Integrated Amplifier is an amplifier capable of providing more than 200W continuous into 4 Ohms when operating at full power. Even if it doesn't work constantly at full power, this appliance can produce a lot of heat. Therefore, adequate air circulation around it is recommended.

Prevent smoke, humidity, dirt and water from reaching the appliance. Please note that any sign of abuse will void your warranty.

Do not place the appliance on thick carpets or inside a box or inside a mobile, or in close contact with curtains.

2. Front Panel

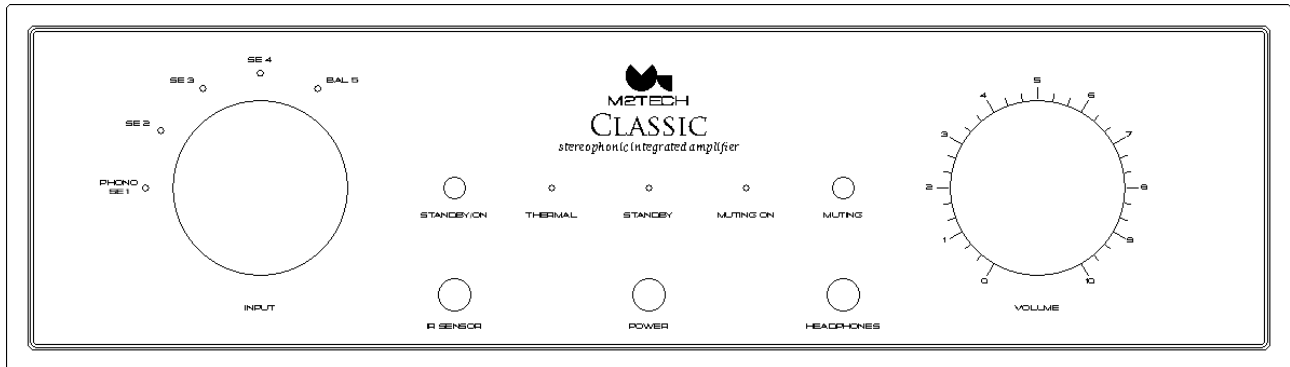


Figure 1

Input selection knob (left). Use this knob to select the input you want to listen to. The selected input is indicated by a lit amber LED.

Standby button. Using this button it is possible to put the device in standby (low absorption rest state) when not listening to it. When the appliance is in standby, it can be reactivated by pressing this button again or via the ON/OFF button on the supplied remote control or via the ON/OFF command of the smartphone app. If the appliance is completely turned off, this button has no effect.

Overheating alarm LED (“THERMAL”, red). When the temperature of the Classic Integrated Amplifier's power transistors exceeds 100°C, the internal controller puts the amplifier into standby and flashes this LED. Normal operation will automatically resume when the transistors' temperature will be lower than 70°C.

Standby LED. It is lit when the Classic Integrated Amplifier is in standby.

Mute LED (“MUTE ON”). It is lit when the Classic Integrated Amplifier is muted.

Muting button (“MUTING”). Pressing this button mutes the amplifier without needing to touch the volume knob. This is useful when you need to temporarily stop the music, for example to answer the phone, but you don't want to alter the optimal listening level setting. Pressing the button again restores the previously set listening level.

Volume knob (right). Use this knob to adjust the music listening level.

Remote control receiver (“IR SENSOR”). Do not cover this porthole to avoid obstructing the reception of commands from the infrared remote control supplied.

Power switch (“POWER”). Press to turn on the appliance. Press again to turn it off.

Socket for listening with headphones (“HEADPHONES”). Connect the 6.35mm jack connector of stereo headphones to this socket for headphone listening. When you insert a connector into this jack, the speaker output is automatically turned off.

3. Back Panel

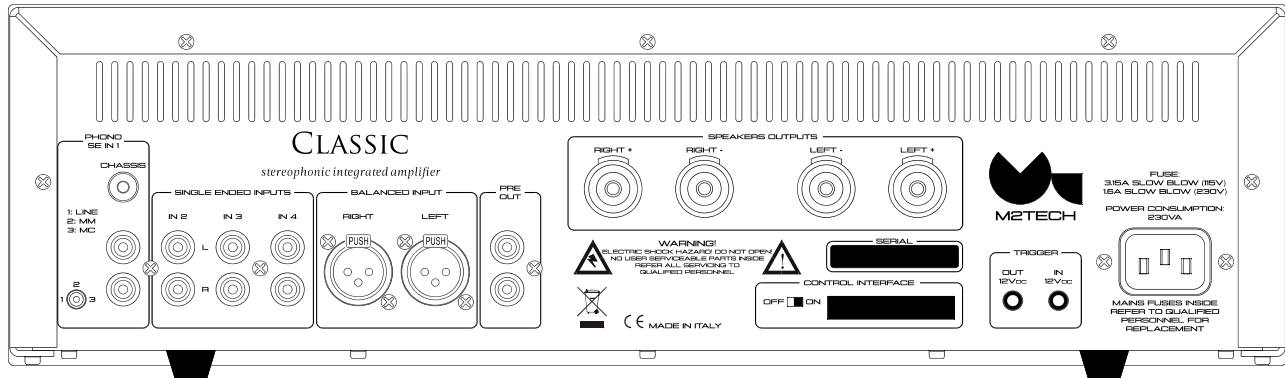


Figure 2

IPhono/Line 1 input. This input can be configured to accept the signal from a high level source (CD player, radio...) or from the head of a turntable. In this case, it is possible to connect both a high output moving magnet (MM) and a low output moving coil (MC) cartridge. The mode of use is selected via the switch to the left of the input connectors. The clamp located above the connectors is used to connect the ground cable of the turntable to eliminate hum. RCA female.

Single-ended inputs. Connect high-level sources with single-ended outputs to these inputs. RCA female.

Balanced input. Connect a high-level source equipped with balanced outputs to this input. XLR female.

Preamplifier output (“PRE OUT”). It allows you to send the same signal to an external power amplifier that is applied to the internal power stage of the amplifier. This is useful when you want to use an external power amplifier that is more powerful than the internal one, or to bi-amp your speakers, for example using both the internal power amplifier of the Classic Integrated Amplifier and an M2Tech Classic Power Amplifier power amp.

Speaker terminals. Connect the speakers to these terminals using a power cable of suitable section. The terminals accept both stripped wire and banana, spade or spade terminals.

Control interface. It is a Wi-Fi interface that allows you to control the amplifier via a smartphone app provided free of charge by M2Techsia for iPhone and Android. If it is not used, it can be deactivated by operating the slide switch next to it.

Trigger input and output. Through the trigger input it is possible to turn on the amplifier thanks to the activation voltage sent from another component of the system. Similarly, via the trigger output it is possible to turn on another component of the system using the voltage sent by the Classic Integrated Amplifier. This function is useful, for example, when using the Classic Power Amplifier to bi-amplify the speakers: when you turn on the Classic Integrated Amplifier, the Classic Power Amplifier automatically turns on too. 3.5mm jack.

Power input. Connect the supplied power cable to this connector.

4. Remote Control

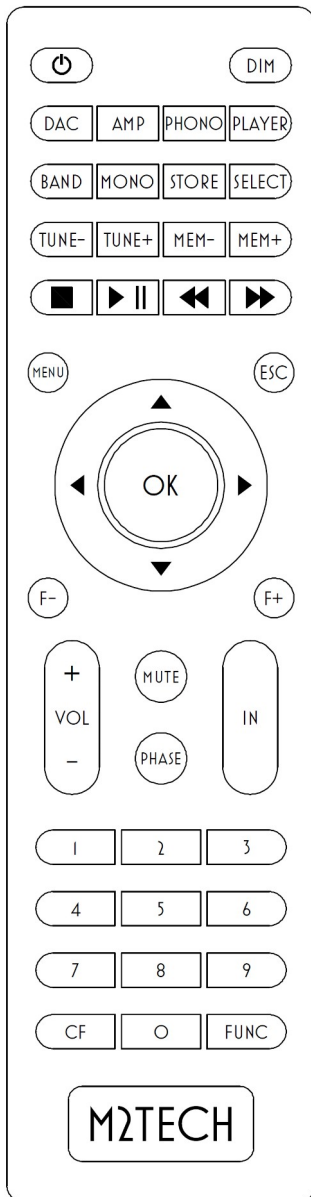


Figure 3

The Classic Integrated Amplifier comes with a versatile remote control that allows you to adjust all its controls, as well as control other M2Tech Classic Series and Rockstars Series products.

Note that when a command is sent to the Classic Integrated Amplifier the “AMP” button flashes green. However, if one of the “DAC”, “PHONO” or “PLAYER” buttons flashed, the Classic Integrated Amplifier would not receive the command. In this case, press the “AMP” button to select the correct control codes for the Classic Integrated Amplifier.

Below is a brief description of the buttons used for the Classic Integrated Amplifier.

Standby button: allows you to send the Classic Integrated Amplifier to standby (long press) and activate it.

DIM: LED brightness adjustment.

AMP: instructs the remote control to send commands using the phono code.

IN+/IN-: input selection.

VOL+/VOL-: adjustment of the listening volume.

MUTE: activating and deactivating mute.

Numeric keypad: with keys 1 to 5 you have direct access to the input with the same number.

4. Connecting and Powering the Device

WARNING: All connections between the Classic Integrated Amplifier and other devices in the system must be made with all devices turned off. Failure to observe this rule may cause damage to the Classic Integrated Amplifier or other equipment.

WARNING: to ensure compliance with European standards for electromagnetic compatibility, use connection cables no longer than 2m, both between the sources and the Classic Integrated Amplifier and between it and the speakers.

Refer to chapter 2, “Back Panel”.

Connect the speaker cables to the output terminals of the Classic Integrated Amplifier.

WARNING: never connect the positive (red) output terminals to ground. This could cause overloading of the final stage and damage to the amplifier.

If you have one, connect a turntable to the Classic Integrated Amplifier's phono input. Set the phono input operating mode selector to “MM” or “MC” depending on the type of cartridge mounted on the turntable. If you don't have a turntable, you can connect a high-level source (CD player, streamer, tuner, recorder) to this input by setting the operating mode to “LINE”.

ATTENTION: to avoid switching noises that could damage the amplifier and/or the speakers, operate the phono input operating mode selector when the Classic Integrated Amplifier is turned off.

Connect other sources to the other single-ended inputs and/or, if you have a source with balanced outputs, to the balanced input.

If you want the Classic Integrated Amplifier to be triggered by another device or multi-room controller, connect a mono cable equipped with 3.5mm jack connectors between the trigger input of the Classic Integrated Amplifier and the trigger output of the other device. Similarly, if you need to send the trigger signal to another device, connect a mono cable equipped with 3.5mm jack connectors between the trigger output of the Classic Integrated Amplifier and the trigger input of the other device.

NOTE: The trigger input operates in parallel with the main power switch, so the main power switch must not be operated if you want the trigger to turn the Classic Integrated Amplifier on and off at mains power level. If the Classic Integrated Amplifier's main power switch is pressed, the trigger will affect the amplifier's standby state.

Connect the supplied power cable to the Classic Integrated Amplifier's power socket and to a power outlet.

Operate the front panel power switch or the incoming trigger signal to turn on the Classic Integrated Amplifier.

5. Cleaning the Appliance

The Classic Integrated Amplifier should be cleaned with a soft, slightly damp cloth. Do not use alcohol or other cleaners to avoid damaging the unit.

Be careful not to let the liquid drip inside the appliance. Dripping of any liquid into the appliance will void the warranty.

Be careful not to scratch the aluminium front panel and not to damage the silk-screen printing.

6. Using the “Pre Out” output

The Classic Integrated Amplifier delivers a minimum power of 60Wrms per channel into 8 Ohm speakers and 100Wrms per channel into 4 Ohm speakers. In addition, its dynamic performance (short-term power output) allows it to deliver up to 150Wrms into 8 Ohms and 240Wrms into 4 Ohms. This is sufficient for realistic listening in an average-sized room with medium- or high-range speakers. high efficiency. On the other hand, installations with low efficiency diffusers, especially in large rooms furnished with curtains, rugs or carpets, may require higher powers.

For this purpose, the Classic Integrated Amplifier is equipped with an output that makes the internal preamplifier signal available to drive an external power amplifier with greater power than the integrated one. When using this option, the speakers are connected to the external amplifier. The integrated power amplifier of the Classic Integrated Amplifier remains active but, as it is not loaded by speakers, it does not consume power and does not heat up.

Another way in which the “Pre Out” output can be used is for passive bi-amplification of the speakers if they have separate input terminals for the high and low channels. In this configuration, a second power amplifier is driven by the "pre out" output of the Classic Integrated Amplifier and each pair of terminals of each speaker is connected to the output of the same channel of each power amplifier. Generally, if the external amplifier is more powerful than the one integrated into the Classic Integrated Amplifier, the low way terminals of the speakers will be connected to it, while the high way terminals will be connected to the one integrated into the Classic Integrated Amplifier. Vice versa if the external amplifier is less powerful than the integrated one. If you use the Classic Power Amplifier, which is structurally the same as the power amplifier integrated in the Classic Integrated Amplifier, it is still advisable to have the former drive the low ways of the speakers.

7. Trigger

The Classic Integrated Amplifier accepts 12V_{DC} trigger signals. It is possible to use a trigger signal to automatically activate the Classic Integrated Amplifier by another device (a source or a multi-room or home automation controller), so that the entire system is turned on and off via the control of turning on the object that generates the trigger signal.

The trigger signal operates a relay placed in parallel with the main power switch, so the Classic Integrated Amplifier will still be turned on if there is a trigger signal on its input, regardless of whether the main power switch is on or off. less activated.

The only difference in the case in which the main power switch is activated and the trigger signal is applied and then removed is that, when the trigger signal disappears the Classic Integrated Amplifier will go into standby as if the relevant switch had been pressed. button and, when the trigger signal is applied again, it will exit standby.

The Classic Integrated Amplifier is also equipped with a trigger output which makes a 12V_{DC} voltage available to drive the trigger input of another device (for example, the Classic Power Amplifier or another external power amplifier), so that the latter turns on when you turn on the Classic Integrated Amplifier. This voltage is turned on when the Classic Integrated Amplifier is turned on or put out of standby and is turned off when the Classic Integrated Amplifier is turned off or put into standby.

8. WiFi Interface

The Classic Integrated Amplifier is equipped with a WiFi interface through which you can connect it to your home's WiFi network to control it via the smartphone app available on iOS and Android platforms. In the event of a lack of local WiFi network, the Classic Integrated Amplifier interface functions as an access point, generating its own network to which the user's smartphone can connect. This option is active when the device is first turned on and can be recalled at any time by holding down the “MUTING” button when turning it on. Once the smartphone is connected it is possible, when the wifi network is present, to enter the

connection data to that network and then order the Classic Integrated Amplifier to reset the interface to connect to the network. Pressing the “STANDBY” button when switching on causes the interface to be reset if it is necessary to connect it to a different network.

When the interface is not used it can be deactivated using the appropriate switch located near it on the rear panel.

9. Precautions for Use

Please pay close attention to the following instructions to safeguard the appliance and for the safety of those who use it.

Never short-circuit the red terminals of the speakers together or with the black terminals: it is very likely that in this way the fuses protecting the final stage will blow or that the final transistors will be damaged.

Never turn the volume knob to maximum when listening to music if speakers are not connected or when listening with headphones, or when a 3.5mm to 6.35mm headphone jack adapter is inserted into the headphone jack : maintaining this condition for prolonged periods can damage the final stage.

Never connect the amplifier to a socket with a different voltage than that indicated on the amplifier packaging label: the power supply protection fuses could blow or the amplifier could be damaged.

Never cover the ventilation slots of the amplifier cabinet, as the final stage could overheat. Although the amplifier is protected against overheating, its operation would be prevented by the continuous intervention of the thermal protection.

Do not insert any metal objects into the amplifier through the ventilation slots.

Be careful not to spill liquids inside the amplifier.

After moving the amplifier from a very cold and humid environment to a warmer one (for example, from the trunk of your car to your living room), wait for the amplifier to reach room temperature before turning it on.

If you suspect that one of the internal fuses of the appliance is blown, avoid working on the appliance yourself and contact a qualified technician to replace the fuse and inspect the appliance: very often, the fuses trip following damage more or less visible to the appliance circuits.

9. Technical Features

Output power:.....	60W _{rms} p.c. (1kHz @ 8 Ohm) 100W _{rms} p.c. (1 kHz @ 4 Ohm) 155W _{rms} (10ms, 1 kHz @ 8 Ohm) 240W _{rms} (10ms, 1 kHz @ Ohm)
Residual noise:.....	30uVrms (20Hz-20kHz, A weighted)
SNR:.....	105dB (line, A weighted) 80dB (phono MM, A weighted) 72dB (phono MC, A weighted)
Sensitivity:.....	500mV _{rms} (line) 5mV _{rms} @ 1kHz (Phono MM) 0,5mV _{rms} @ 1kHz (Phono MM)
THD+N:.....	0,02% (1W _{rms} 4 Ohm)
TIM:.....	0,04% (1W _{rms} 4 Ohm)
Mains voltage:.....	110-130V _{AC} or 220-240V _{AC} (internally set) 100V _{AC} (version for Japanese market) 50/60Hz
Power consumption:.....	225VA
Mains fuses:.....	2,5A (230V _{AC}) or 5A (115V _{AC}) slow blow
Mains inlet:.....	IEC socket
Size:.....	420x120x300mm (w x h x d)
Weight.....	14kg (device and ancillaries) 16kg (packed)