



M3

Mono Amplifier with Subwoofer Crossover



OWNER'S MANUAL

Safety Instructions

Symbols and Descriptions

Read the instructions. All the safety and operating instructions should be read before the product is used.

Follow instructions. All operating instructions and other guidelines should be observed.

Keep the instructions. The safety and operating instructions should be kept handy for future reference.

Observe all warnings. The warnings provided on the product and in the operating instructions should be heeded for the assurance of safety and performance.

Water and moisture: The product should not be used near water, for example near a bathtub, washbowl, kitchen sink, laundry tub, in a wet basement, near a swimming pool, etc.

Mounting in a wall or ceiling: The product should be installed strictly in accordance with the instructions, guidelines and recommendations provided by Proficient.

Ventilation: The product should be situated in such a place that its proper ventilation and performance are not hindered. For example, the product should not be situated on a bed, sofa, rug or similar surface that may block the ventilation openings; or placed in a built-in installation, such as a bookcase or cabinet that may impede the flow of air through the ventilation openings.

Heat: The product should be situated away from heat sources such as radiators, stoves, or other appliances that produce heat.

Power source: The product should be connected to a power supply only of the type described in the operating instructions or as marked on the product.

Power-cord protection: Power-supply cords should be routed so that they won't be walked on or pinched by items placed upon or against them. Pay special attention to cords at their plug ends and the points where they exit from the products.

Cleaning: The amplifier should be kept clean and relatively dust-free to ensure cool, reliable operation. Wipe it occasionally with a dry, lint-free cloth, using particular care around the back-panel connections.

Periods of non-use: The power cord should be unplugged from the outlet if the amplifier is to go unused for a long period of time.

Entry by objects/liquids: Care should be taken so that small objects and liquids are not allowed to enter the product. The entry of foreign substances could result in equipment malfunction and pose a risk of fire.

Carts and stands: The product should be used only with a cart or stand that is recommended by Proficient.

Damage requiring service: The amplifier should be serviced by qualified service personnel when:

- a. The power-supply cord or plug has been damaged.
- b. Objects have fallen onto the product or liquid has been spilled into it.
- c. The product has been exposed to rain.
- d. The product does not appear to be working normally or is showing significantly less performance.
- e. The product has been dropped, or the cabinet has been damaged.

Service: The end user should not attempt to service the product. All repairs should be handled by a qualified technician.

Grounding and polarity: Precautions should be taken so that the amplifier's grounding or polarization is not removed.

APPLICABLE FOR USA, CANADA OR WHERE APPROVED FOR USE.

CAUTION: TO PREVENT ELECTRIC SHOCK, MATCH THE WIDE BLADE OF THE PLUG WITH THE WIDE SLOT IN THE OUTLET, AND THEN INSERT THE PLUG FULLY.

ATTENTION: POUR EVITER LES CHOCS ELECTRIQUES, INTRODUIRE LA LAME LA PLUS LARGE DE LA FICHE DANS LA BORNE CORRESPONDANTE DE LA PRISE ET POUSSER JUSQU'AU FOND.



A lightning bolt with an arrowhead in a triangle, whether located on the product or in the manual, calls attention to the presence of non-insulated "dangerous voltage" within the product enclosure. Direct or indirect bodily contact with such voltage poses a risk of electric shock, injury or death.



An exclamation point within a triangle, either on the product or in the manual, calls attention to important operating and maintenance (servicing) instructions.

CAUTION: Do not remove the cover or rear panel from the amplifier. There are no user-serviceable parts inside. Instead, refer all repairs to a qualified technician. Observance of this precaution will dramatically reduce the risk of exposure to high voltages.

Congratulations on your purchase of the M3 Mono Amplifier with Subwoofer Crossover System from Proficient Audio. The M3 has been created to provide performance that is equal to the demands of today's home-theater and distributed-audio installations, and with proper use it will do so for many years to come. So, to get the very best from your M3 system, please read and understand the instructions given in this manual. Any further questions can be answered by contacting our specialists at 1-877-888-9004 or techsupport@proficientaudio.com.

Points on System Design

The M3 Mono Amplifier with Subwoofer Crossover can be used in the context of any home theater or distributed audio system and is optimized for use with the Proficient IWS10, inwall, passive subwoofer system. Accordingly, the M3 can be connected to any preamplifier or receiver that has low-level (line out), speaker (high-level) or LFE outputs. In addition, the M3 has a pass-through feature that allows the input signals to be fed out of the unit to other amplifiers or system components.

Installing & Operating the M3

Placement

- Place the amplifier with the feet resting on a level surface that is solid and free of obstructions.
- Place the amplifier in a well-vented area to provide proper cooling. If the place of installation has insufficient ventilation, such as close-fitting cabinet or rack, the installation of a small fan can ensure proper airflow around the amplifier.

Precautions on Use of the Amplifier

- Do not block the ventilation holes on the top and bottom panels of the amplifier. Never place the unit on carpeting or similar material.
- Do not place the amplifier in any orientation other than horizontal with its feet on the floor. Never place the amp on its side or resting against the rear panel, where the terminals are located.
- Do not place the amplifier near a heat source.
- Do not place the amplifier or in an area that is subject to water infiltration or excessive humidity.
- The power supply might cause an audible hum in some components if they are placed near or next to the amplifier.

The Rear Panel

The rear panel of the M3 amplifier, as shown in Diagram 1, contains all the necessary terminals for connection to the subwoofer and audio system.

Auto Sense Mode

The amplifier's Auto Sense mode allows it to turn on or off in response to audio signals from the receiver or preamp, which are received via its input connections.

NOTE: The amplifier's front power switch must be turned on for the Auto Sense mode to operate. Once the power is switched on, Auto Sense mode automatically is activated. The "Active" LED on the front of the amplifier will not light up until an audio signal is sensed. When a signal is received at the left/right line-level input jacks, the speaker input connectors or the LFE input jack, the amplifier turns on. When the signal stops, the amplifier turns off following a brief period of silence. If you are going to be away for an extended period, the main power switch should be turned off or the unit unplugged from the wall outlet.

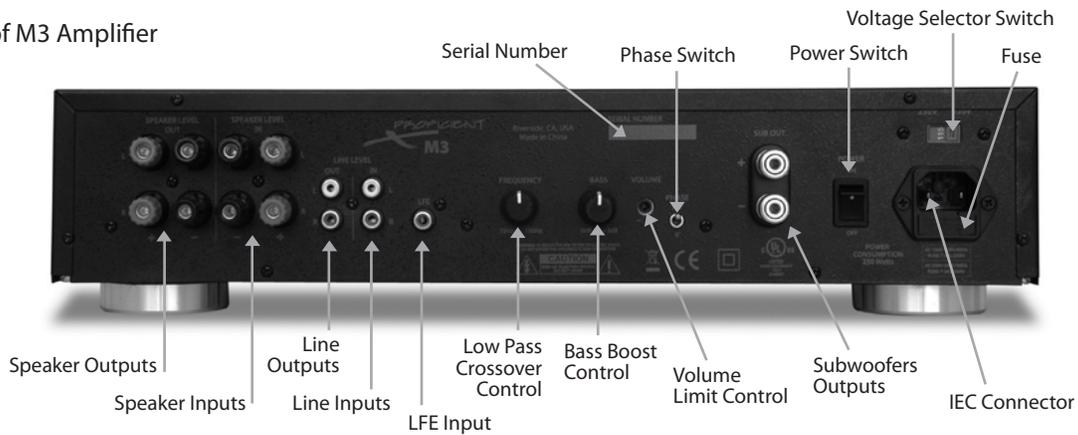
Connecting the Subwoofer to the Amplifier

CAUTION: Perform connections only when the amplifier is turned off.

NOTE: It is essential that a minimum of 14-gauge speaker wire be used.

There is one output on the amplifier labeled Subwoofer Output: a positive and a negative three-way binding-post on the back of the amplifier that facilitate connection in a variety of ways, including stripped wire, spade connectors, etc.

Diagram 1
Rear Panel of M3 Amplifier



Connecting the Audio Inputs

CAUTION: Only make connections when the amplifier is turned off.

- **Line-Level Inputs (Left/Right):** The line outputs from a preamplifier or receiver can be connected to the line-level inputs of the M3 amplifier using RCA cables. If the system has just one subwoofer output, simply plug it into either the left or right line inputs. Using these inputs will cross over the audio signals sent to the line outputs at a fixed high pass of 75Hz.
- **LFE (Low-Frequency Effects) Input:** If the preamplifier or receiver has an LFE output, you can connect it that way. However, the LFE input effectively bypasses the amplifier's low-frequency adjustable (low-pass) crossover. The Low-Pass crossover function will be handled by the preamplifier or receiver.
- **Speaker-Level Inputs (Left/Right):** These inputs can be used if the preamplifier or receiver does not have a subwoofer output or set of line output jack. Connect the left/right pair of main-speaker output wires from the main amplifier or receiver to the speaker-level input connectors on the M3 amplifier. Then connect a left/right pair of speaker wires from the M3 speaker output connectors to the main speakers.

Connecting the Audio Outputs

- **Line-Level Outputs (Left/Right):** Sources connected to the line-level inputs can be forwarded to other receivers or amplifiers line-level inputs. This allows a second component to make use of the signal as it's passed on. Connect RCA cables to the line-level output sections of the M3 and the line-level inputs of a receiver or amplifier. **Note:** The M3's high-pass crossover will be in effect, removing the audio below 75Hz to the connected component.
- **Speaker-Level Outputs (Left/Right):** Connect a left/right pair of speaker wires from the M3 speaker output connectors to your main speakers. This method will filter out the frequencies below 75Hz and send them to the subwoofer. The frequencies above 75Hz will be sent to the main speakers. The system's primary amplifier or receiver will still power the main speakers.

Connecting the AC Power

Plug the three-prong plug directly into a 120V AC 60Hz wall outlet.

Protective Circuitry

If the amplifier's protective circuit is activated, it indicates one of the following situations:

- The amplifier has detected that the subwoofer is in danger of overheating and has temporarily shut down to protect the woofer. The amplifier will return to active status without user intervention.
- There is a fault in the wiring, speaker or amplifier. If the amplifier remains off, turn the power button off and then on again. If the amplifier returns to the protective mode, turn the amplifier off and refer to the "Troubleshooting" section of this manual.

Diagram 2
Front-Panel of M3 Amplifier



Front-Panel Volume Control

The volume control on the amplifier's front panel can be used to blend the subwoofer output with that of the main speakers in the system. The best approach is to audition the unit with various audio selections before choosing a setting. Start with the volume control at "Off" (fully counterclockwise), and then raise it gradually. (This will prevent woofer damage that might occur if the system is run too "hot.") Very little movement of the knob is needed.

CAUTION: If a popping sound (clipping) is heard through the subwoofer, it is being overdriven. To prevent speaker damage, reduce the volume at the amplifier.

Rear-Panel Controls

The following controls allow you to blend the output from the M3 subwoofer with the sound from the main speakers:

Power Switch

The power switch on the amplifier's rear panel activates/deactivates all amplifier circuitry and, in the "Off" position, overrides Auto Sense mode.

Low-Frequency (Low-Pass) Crossover

Use this control to adjust the upper frequency limit of the M3 system. The purpose is to control the overlap of the M3's upper frequencies and the lowest frequencies of the main speakers. However, this control will not affect the fixed 75HZ setting when the built-in high-frequency (high-pass) crossover is used by connecting speakers to the speaker output connectors on the M3 amplifier.

Bass Boost Control

This control lets you adjust the audio response centered around 40Hz, to optimize subwoofer performance in the environment into which it is installed. A boost of up to 3dB at 40Hz is provided.

Polarity Control

Depending upon placement of the subwoofer and the main speakers, and the environment in which they are placed, the Polarity, or phase, of the M3 needs to be optimized. While the system is playing, set the switch to "180°" and then back to "0°" in order to determine which setting feels louder, tighter and more controlled. The significance of this control will vary according to subwoofer, main speaker placement, and room acoustics.

Volume-Limit Control

Use this control to adjust the maximum volume setting of the M3 system. With the volume-limit control and front-mounted volume control turned down all the way (counterclockwise), turn on the subwoofer and play audio through the system. Turn the system up to the highest level that can be heard comfortably without distortion. Next, turn up the subwoofer volume on the front panel of the M3 amplifier all the way. (There should still be no bass output at this point.) Then, gradually turn up the volume-limit control until the subwoofer plays as loudly as possible without distortion. Finally, return the levels to normal. Now it's possible for anyone to turn up the subwoofer all the way without risking system damage.

Troubleshooting

The M3 Subwoofer System is designed for trouble-free operation when installed properly and operated correctly. Therefore, any problem that might occur is usually due to operator error. If you have a problem, please check the troubleshooting list first. If the problem persists, contact Proficient Technical Support at 1-877-888-9004 or e-mail us at techsupport@proficientaudio.com.

The following symptoms should be handled in accordance with the instructions in the event of a system abnormality:

There is an audible hum or buzzing sound.

The sound may be due to a ground loop in the system. Try to eliminate this by reversing the AC plugs of other components in the system. Try plugging the amplifier into another outlet. Other causes may include faulty cables.

The amplifier will not turn on.

The amplifier must be plugged into a live outlet. The power switch on the rear panel must be on. A signal must be playing into the input jacks or the speaker inputs.

The protective circuit cuts in momentarily and then turns off.

The circuitry in the amplifier has determined that the amplifier and/or subwoofer is in danger of overheating. Normally, this would occur infrequently and only briefly. If it persists, the amplifier might not be located in an area that allows sufficient ventilation. Move the amplifier to a location that is cooler or better ventilated. **NOTE:** The amplifier's housing may feel cool to the touch but still be overheating. Do not use the temperature at the top of the cabinet as a means to gauge the unit's actual temperature.

The protective circuit activates but does not deactivate.

There may be a fault in the wiring, the speaker or the amplifier. Turn the power switch off and then on again. If the amplifier immediately returns to the protective mode, turn it off and check all of the wiring, including the connections at the amplifier, subwoofer and wall.

No sound is heard.

Audio cable to the amplifier is not connected properly or the cable is bad. Use another cable that you know is good. Check all speaker wire connections and plugs.

Specifications

M3 Amplifier

Type: Mono Class A-B dedicated subwoofer amplifier

Power output: 180 watts per channel

Crossovers: Variable low-pass crossover 35Hz to 150 Hz, fixed high-pass crossover at 75Hz

THD @ 10 Watts: 0.1%

Input sensitivity: 8.6 mv

Input impedance: 33 kOhms

Auto-off time: > 15 minutes

Auto-on sensitivity: 2.5 mv

S/N ratio: > 70dB

Dimensions: H 4" x W 17 1/8" x D 12 5/8"

Weight: 18 lbs.

Limited Two-Year Warranty

Proficient warrants exclusively to the original retail purchaser that the M3 Amplifier will be free from defects in materials and workmanship for a period of two years, provided that the product has been purchased from an authorized Proficient dealer.



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