

BY - ToxicXzombieG

INTRO

The Boombox is a rail-mounted muzzle device available in multiple configurations, including **Suppressor**, **Compensator**, **Flash Suppressor**, and **Threaded Barrel (TB)** options. The files are separated into mounts and cores. Various mounts are available to suit different firearms, or you can create your own. The core, which serves as the muzzle device of your choice, is bolted onto the mount. Note that this is not the most effective suppressor, as it lacks a seal for gases, but it still performs better than having no suppressor. Even if it isn't an effective suppressor it is still a suppressor so all NFA rules apply. Be safe, follow all laws and don't be a retard. **WARNING:** This can damage your frame, especially if it's printed. There is only 1 OEM frame that's been damaged in testing; it was a Walther PPS. The Walther PPS has a very small rail and its very thin polymer, making it not suited for this. If your printed frame isn't strong enough, it may break part of the rail off. The mounts included in this release have not had this issue. There have not been any issues with Picatinny and Glock rail-based mounts reported.

ALIGNMENT PARTS

To ensure the core and mount combo is concentric to the barrel I included guide rods for .22, 5.7, 9, .40, 10, .45 and an alignment core that will work with or without threaded barrels.

MOUNTS

Each mount is designed for a specific frame and slide and is numbered solely for identification. If none of the provided mounts meet your needs, visit my <u>Odysee</u> page for beta and completed mount designs. Alternatively, a blank Picatinny rail mount is included, which can be more easily modified to suit your requirements. The quick disconnect (QDC) mechanism comprises the spring, locking bar, grips, and printed pins. Rigid mount parts are also available, utilizing an M4x50 countersunk screw and nut to secure the locking bar in place. At the end of this documentation will be a list of mounts made and more info.

CORES

The core is a muzzle device that attaches to the mount using three M4x35 countersunk screws. Suppressors are available in .22/5.7, 9mm, .40/10mm, and .45 calibers. Compensators and flash suppressors are multi-caliber. All cores have a threaded barrel (TB) version. A thread protector and TPU O-ring are available for use with TB cores to

enhance gas sealing for improved suppression. The TPU O-rings wear out quickly, so printing spares is recommended.

BOM

Printed parts

- 1x Mount
- 1x Core
- 1x Locking Bar
- 2x Grips
- 2x Pins
- 1x thread protector optional
- 1x tpu o-ring —---- optional

Purchased parts

- 5x M4x35mm Countersunk Bolts
- 1x M4x50mm Countersunk Bolt for rigid mount
- 5x M4 Nuts
 6x needed if using rigid mount
- 1x Spring (8mm OD, 30mm length, 0.8mm wire diameter)* MCMASTER

*Note: Ender bed springs will also work but they are quite stiff. The spring does not need to be exact, but it must be no larger than 9.5mm OD and at least 25mm long to fit and function properly. It should apply enough force to lock the mechanism. Insufficient locking pressure may cause the spring to compress, leading to the core and mount detaching or breaking under fire. If this occurs, use a longer or stiffer spring. Excessive spring tension will not cause harm but may make installation and removal of the mount more difficult. If your spring is too long you can cut it somewhere between 25 and 50mm to get it to work.

Reinforcement Options

- 3M casting tape 82003A (adding additional epoxy increases strength)
- Fiberglass or carbon fiber with epoxy

Optional Components

A thread protector and TPU O-ring are available for threaded barrels to help seal gases while allowing the barrel to tilt. The TPU O-ring, compatible with 95A TPU, melts quickly, so printing multiple spares is recommended. The thread protector should be printed using a high heat-resistant material, with PLA Pro/Plus as the minimum viable option.

NICE TO HAVE TOOLS

- GLOVES
- BOX CUTTER
- HAMMER
- SCREWDRIVER OR ALLEN KEYS

MATERIALS

PLA PRO/PLUS works but is not recommend

- CORE Allow it to cool before reaching ~40 rounds to prevent weakening and breaking.
- Mount No issues reported so far.
- LOCKING BAR Deforms from heat and pressure, lasting about 100 rounds of rapid fire.

CF/Gf NYLON any variety seems to be the ideal material

- CORE 3m tape wrapped POLYMAKER PA612CF has the highest round count so far, at roughly 500 rounds of 9mm before failing due to poor barrel alignment.
- MOUNT No issues reported so far.
- LOCKING BAR Outperforms PLA.

PRINT SETTINGS

These settings significantly improve layer adhesion and are strongly recommended for optimal results.

NOZZLE SIZE	LAYER HEIGHT	INNER WALL & INFILL LINE WIDTHS	WALLS	TOP & BOTTOM LAYERS	INFILL	SPEED
.4mm	.16mm	.52mm	12	9	99% GYROID OR RECTILINEAR	60mm/s
.6mm	.24mm	.8mm				30mm/s

Print at the maximum temperature your filament can withstand, as higher temperatures improve layer adhesion. If using a hardened steel nozzle, which conducts heat less efficiently than other materials, consider increasing the temperature by 10–20°C.

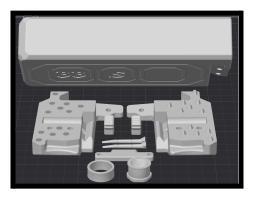
VOLUMETRIC FLOW 6mm³/s

In Orca, Bambu, Prusa, and Creality slicers, a filament-specific volumetric flow rate limit (in mm³/s) can be set to automatically regulate print speeds. To access this setting, enable the advanced settings option. Then, navigate to the filament settings, and locate the volumetric flow rate (or speed) setting at the bottom of the filament tab.

*If your slicer does not include the volumetric flow rate option, set the print speed to a maximum for your nozzle size.

PRINTING

The cores should be printed on the left 45° face. All STLs are pre-oriented in the slicer. For the mounts I included a flat cut mount and an uncut one. If you want to use the uncut mount follow the advanced instructions.





Standard

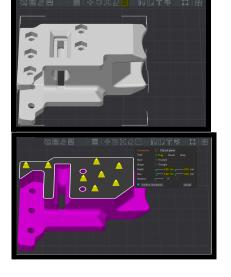
Use the flat cut mount.

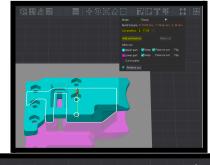
Advanced

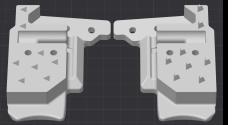
The mount must be cut in half (17.5mm) in the slicer. Optionally you can add connectors. Each mount is different, so you will need to determine the placement of the connectors. An example is shown in the pictures below. Once the mount is cut, lay both halves with the cut side facing up.

1

3







2

4

SUPPORTS

The mount should not require supports if cut.

The grips, locking bar, and pins do not need supports.

The cores will require supports.

The supported areas are highlighted in green and the face touching the build plate is blue.



INSTALL

Install video on odysee

You will need the bolts, nuts, spring, any core, any mount, two printed pins, two grips, and the locking bar.

1. Bolt the mount together with the holes behind the locking bar.



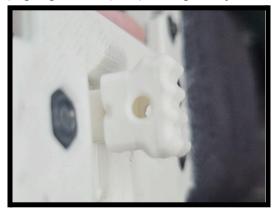
2. insert the spring into the hole.

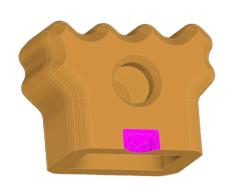


3. Use the locking bar to compress the spring while sliding it into place. Flat side facing forward.



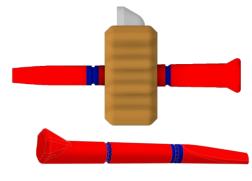
4. put the grip onto one side of the locking bar. the small cutout on the bottom (highlighted in pink) facing away from the core.





5. Insert the printed pin through the grip and bar, then hammer it until it sits between the two ridges on the pin (highlighted in blue).







6. Snip off the excess pin; it should be flush with the grip.



- 7. Repeat steps 4, 5, and 6 for the other side.
- 8. Slide the core in and bolt it together.



REINFORCEMENT

Reinforcement is recommended for all cores, but it can work without if you can print strong enough. Bare PLA lasted roughly 50 rounds of 9mm rapid fire with no reinforcement. 3M tape-wrapped PLA survived over 100 rounds of rapid fire with no breaks. Unreinforced PLA doesn't work for everyone; it is highly dependent on layer adhesion. To ensure durability, wrap it.

3M CASTING TAPE WRAPPING

The casting tape is a fiberglass tape with water-activated resin. It comes rolled up in small packs. For the Boombox, you can use one full roll per core. Begin at the angled face under the bore and tightly wrap the entire core with about a 1.5-inch overlap with each wrap. When you reach the mount side, start wrapping back to the end. Continue this process until you run out.



To activate the resin, run the wrapped core under water for roughly 1 minute. For an even stronger reinforcement, you can apply epoxy: coat the outside of the core with epoxy, then apply the tape. While wrapping, add more epoxy until run out of tape. The 3M tape will take at least 24 hours to fully cure. With epoxy added, it will take 48–72 hours to cure completely. After wrapping, cut any excess where the core interfaces with the mount and for the compensator and flash suppressor, you must cut out the ports on the front and top to allow the gas to exit.









For video of the boombox watch the install video wrapping the core starts at 6:50.

These are videos for the FTN suppressors, but the same process is used.

https://odysee.com/@Plaboi:2/strongest3M:4 https://odysee.com/@Plaboi:2/My-Movie-51:3

ALIGNMENT TESTING

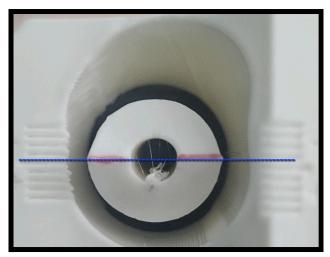
It is recommended to check the alignment of the barrel and core before use. Included in the files are alignment test rods and an alignment core, which are needed to confirm alignment. There is a scale on the core that provides a measurement of how concentric the barrel is to the bore of the core. The long line indicates the center of the core's bore. Above it is a minus sign, and below it is a plus sign, indicating the direction the barrel needs to be moved in the CAD. The rods have two angled faces that form an edge that aligns with the center point of the barrel.

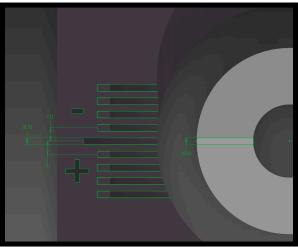
To test alignment:

- 1. Attach the alignment core to the mount you plan to use.
- 2. Insert the alignment rod into the barrel, ensuring the edge is horizontal.



- 3. Slide the mount with the test core onto the firearm and confirm it is securely locked into the rail. If it moves forward or backward, the locking bar position can be adjusted to reduce that play. Look at the modifying mount section for more details
- 4. Look straight down the bore and take a picture. After taking the picture, draw a line from the center of the rod to the scale on either the right or left side. Alternatively, you can use a flat object to estimate the measurement by eye. When drawing a line parallel to the rod and the core, it should align with the long line that indicates the center point of the core. It won't be perfectly aligned, but as long as it's closer to the center of that line than to the other lines, it will be good enough to work. If it doesn't align, the mount needs to be modified.





MODIFYING A MOUNT

If you need to move the locking bar position forward or backward, you must also move the QDC mechanism forward or backward. To adjust the bore alignment you will need to move both the QDC mechanism and rail up or down accordingly using the alignment cores scale to get the measurement. Once you've made these adjustments, perform an alignment test to confirm everything lines up and locks up properly. For short or long rails, you will need to modify the length of the rail and the trigger guard area to fit that frame. If there's play, once it's locked with a core attached in you will likely have to change the tolerance on the rail or move the locking bar position. you want it as tight as you can get it while it is still able to be put on and off easily. The locking bar you want it to have as far forward as you can get it while still locking into the strongest rail position. Have any questions on how to modify it please message me.

There is also a parametric Inventor file that all you have to do is update the parameter table with your measurements using the key below. You will most likely need to modify it further but this will get you close.



FAQ

Q: What are the TB cores?

A: They are threaded barrel versions of the core. They have a larger entrance and have geometry inside that allows the barrel to tilt.

Q: Will this work on (insert handgun here)?

A: If your handgun is equipped with a Picatinny rail, a compatible mount can be created. Check the available mounts listed here or on my Odysee page. If a suitable mount is not available, a new mount will need to be designed.

Q: Can this be put on (insert rifle/pcc here)?

A: If the firearm has a Picatinny rail near the muzzle, a mount can be created, but this system is primarily designed for handguns.

Q: My unreinforced boombox blew up :(

A: Ensure you print using the recommended settings, as these improve layer adhesion and increase the likelihood of a successful print. If the print still fails despite using these settings, reinforce the part to enhance its durability, as either your material choice or printer can't get the layer adhesion needed.

Q: I can't get the bottom bolt to line up with the nut on the mount.

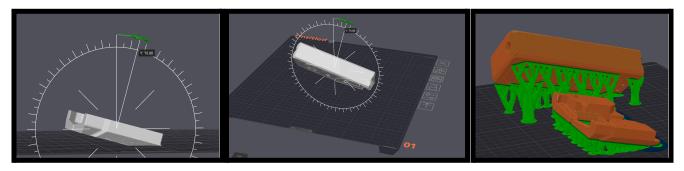
A: You may have some support material still on your print, or something may have warped slightly. Check the alignment of the parts with this issue. If it is still in alignment, it should still work with just the top 2 bolts installed. If you are still worried about it, reprint it.

Q: The core keeps on warping.

A: Tilt the core 10–15° with the mount side facing down and add supports to the bottom side.

Q: The mount keeps on warping.

A: Tilt the mount 10–15° with the core side facing up and add supports to the bottom side.



Q: how long will this last?

A: The highest round count reported was ~500 out of the 9mm suppressor core in polymaker pa612cf with a 3m tape reinforcement highest unreinforced round count reported has been ~200 out of the 9mm suppressor core in bambu PAHT-CF

LIST OF MOUNTS

The mounts here have all been tested and are working. I will have updated, new and beta mounts on my odysee.

MOUNT-0 OEM GLOCK 19

This will work on gen3,4,5 oem glock 19 and glock45.

MOUNT-5 POLYMER 80 GLOCK 19

This will work with polymer80 glock 19 frames. There is an alternate mount that will only work the advantage arms slide. You could get a baffle strike if you use the wrong slide with the wrong mount.

MOUNT-24 LONEWOLF TIMBERWOLF 19

This works with lonewolfs timberwolf 19.



MOUNT-25 OEM GLOCK 44

This works with the oem glock 44 in 22lr.

Printed frame mounts (PF)

PF MOUNT-1 AND MOUNT-7
NEUTRON NICK STRIKE 43X

PF MOUNT-1 works with the g48 slide and this frame. PF MOUNT-7 works with a 43x slide and this frame.

PF MOUNT-3 CHAIRMANWON SPACEMINI 26X

PF MOUNT-3 will work with the chairmanwon spacemini 26x.

PF MOUNT-4 <u>BROKEN BULLETS BB19</u>

PF MOUNT-4 will work with the bb19 series frames.

SPECIAL THANKS

A big thanks to Plai_boi, Nikolai_Romanov, UnseenKiller, Uberclay, Felony Collector, Titus.arms, nextlvlroy, Revo, Decimal, and everyone who helped test and provide feedback. Thank you all for making this possible!

Have any issues, suggestions, need a mount made message me somewhere

Twitter/X -@ToxicZombieG

Odysee -@ToxicXzombieG

Reddit -u/ToxicXzombieG

Rocket chat - ToxicXzombieG

Element - ToxicXzombieG

ongoing development will continue in my

Element room

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