

**CAT/SR/MANUAL/V2**

**SR**

## WARNING - MATERIAL SPECIFIC FACTS

### TITANIUM Ti6Al4V

Short Round (SR) is C.A.T's Titanium 22LR Rimfire suppressor, optimized for bolt action and semi-auto firearms, with no barrel length restrictions for 22LR, as long as the projectile is properly stabilized. SR is capable of shooting 5.7x28mm ammunition but users must be aware that although effective, this ammunition type is not optimized. Full Auto or High Rates of Fire (HRF) (greater than 20 rounds per minute for 5.7x28) are expressly discouraged, unless in life threatening self-defense situations, as the SR is a lightweight, high performance suppressor dedicated to Low Rates of Fire (LRF), and the user should not exceed a maximum service temperature of approximately **752°F (400°C)**, and as high as **932°F (500°C)**, though with heavily reduced mechanical performance. Once the operating temperature threshold exceeds **800°F (427°C)**, C.A.T recommends a cooling down below operating temperature. Ti6Al4V has inherent material properties which give the material a lower heat conductivity rating, and the suppressor is susceptible to particle erosion and softening past operating temperature. If the user notices discoloration on the exterior discontinue use and allow it to cool down. **Do not dip the suppressor in water in an attempt to cool it down.**

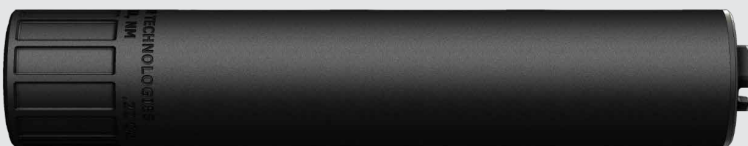
C.A.T recommends SR Ti6Al4V users invest in an infrared thermometer and create their own platform specific firing schedule, based on ammunition and barrel length. It is recommended to create a firing schedule by shooting five round groups, with one second intervals between rounds, then testing the temperature of the suppressor up to the operating temperature. The user should record the cool down time until the suppressor returns to **150°F (65°C)**, with an IR emissivity setting of between .87 and .89. At this operating temperature, the user should record the amount of time until the suppressor returns to 150°F (65°C).

This would become the baseline firing schedule based on the user's platform and ammunition type. C.A.T SR Titanium has a dedicated "waffle" style erosion interface at the end of the blast chamber. This is a sacrificial erosion wall, and users should not be concerned if they are seeing wear, this is designed to support the erosion caused by unburnt particulates (especially in short barrel platforms) and is designed to protect other internal areas inside of the suppressor.

Excessive white sparking may be noticed upon first use, this is due to microscopic Titanium dust from the Additive Manufacturing process. Over the course of use this white sparking will subside but will never fully disappear, particularly on short barrel platforms. Titanium white sparking is separate from flash and cannot be controlled by a flash hider or other methods, as it is a byproduct of Titanium being classed as a reactive metal.

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## CAT/SR/A1



### 1/2X28 DIRECT THREAD

**MODEL:** CAT/SR/A1  
**CALIBER:** .22 CAL  
**WEIGHT TITANIUM:** 3.3 OZ \*  
**OVERALL LENGTH:** 5.65"  
**DIAMETER:** 1.05"  
**MIN BARREL LENGTH:** NO RESTRICTION  
**OPTIMIZED VELOCITY:** 0 - 1200FT/S  
**TECHNOLOGY:** DIVERGE  
**RECOMMENDATION:** UP TO 5.7x28 (SEE MANUAL)  
**FINISH:** DLC  
**MOUNTING:** 1/2x28 DIRECT THREAD  
**PRICE TITANIUM:** \$585

# INSTALLATION

## STEP 1

Remove the magazine from the firearm, then visually and manually check and clear the action and chamber of the firearm. Ensure the host firearm is unloaded at all times.

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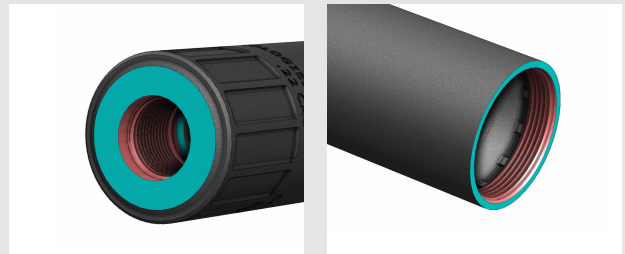
## STEP 2

Always ensure the barrel threads and shouldering surfaces are clean and free of debris. (PINK surfaces)



## STEPS 3 & 4

Prior to installing the CAT SR onto the barrel, inspect the CAT SR threads and the shouldering surfaces and ensure those critical surfaces are clean and free of debris (RED surfaces - pay special attention to making sure the BLUE shouldering surfaces are clean and free of debris).



## STEP 5

Prior to installing the CAT SR onto the barrel, ensure the front cap threads and shouldering surface are clean and free of debris. Ensure the front cap is firmly installed by using a 1/2" wrench or socket to screw it in CLOCKWISE (right hand to tighten).



## STEP 6

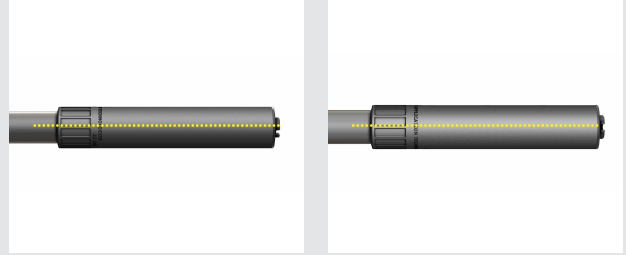
To install the CAT SR, slide it over the barrel threads and screw it on CLOCKWISE (right hand to tighten) and tighten the CAT SR strongly by hand to the barrel like you don't want it to come off, tightening the CAT SR fully against its shouldering surface.



# INSTALLATION

## STEPS 7 & 8

Visually inspect that the CAT SR is properly installed on the barrel and that it's mounted straight to the centerline of the bore. Ensure the silencer isn't canted in any way and that the CAT SR is fully shouldered against the barrel shouldering surface.



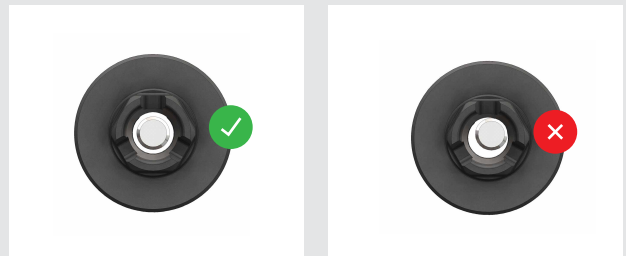
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**\*NOTE - Barrel threads longer than .630" will utilize the internal shouldering surface, shouldering against the muzzle face, which will create a visible gap externally. While rare, it should be kept in mind.**

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## STEP 9

When the host firearm allows for it, use a properly made, purpose built silencer alignment rod to ensure the silencer is properly mounted and concentric to the bore line.



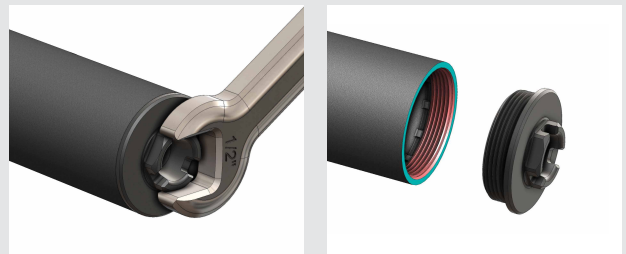
## STEP 10

To remove the CAT SR from the host firearm, wait for the silencer to cool after use, ensure the firearm is completely unloaded and safe, then unscrew the silencer COUNTER-clockwise (left hand to loosen) until removed from the barrel.



## STEP 11

To remove the CAT SR front cap for cleaning, unscrew the front cap COUNTER-clockwise (left hand to loosen) using a 1/2" wrench or socket.



**\*NOTE - NEVER use CAT 206 cleaning solution to clean the FRONT CAP. Because the front cap is aluminum, CAT 206 will destroy the front cap. Only use CAT 206 on the CAT SR core and ensure all CAT 206 is removed from the CAT SR core PRIOR to re-installing the front cap.**

