



Catalytic Converter Theft

What Can Be Done and How It's Affecting Your Insurance Premium

Robert D. Force
Director



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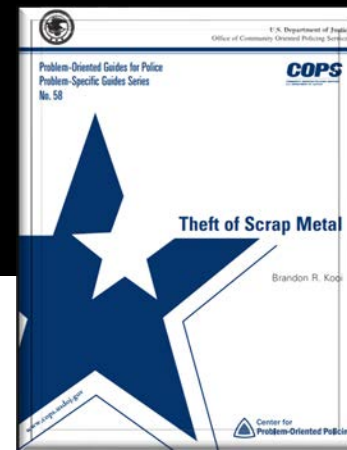
Catalytic Converter Theft

Challenges

- High incidence of theft
- Large economic impact upon insurance industry and victims
- Industry regulations are minimal
 - Theft of catalytic converters may or may not fall within the purview of “Commodity Metal Theft”
- Devices are difficult to track and identify as stolen
- Law enforcement has been challenged with staffing and call prioritization
- Many jurisdictions have minimal laws or regulations to address the problem



https://popcenter.asu.edu/sites/default/files/problems/pdfs/metal_theft.pdf



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Catalytic Converter Theft Claims

An exemplar from a large auto insurer

Claims

- July 1, 2019 to June 30, 2020 were slightly above 4,500
- July 1, 2020 to June 30, 2021 were more than 18,000 instances

In Terms of Payouts

- July 1, 2019 to June 30, 2020 were slightly below \$9 million
- July 1, 2020 to June 30, 2021 were more than \$33.7 million

Takeaway

Auto theft and theft of auto parts are a challenging trend for owners, auto insurers and public safety agencies.



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A Global Crimewave: Catalytic Converter Thefts



- Theft of catalytic converters has been an international concern since 2018
- According to claims data reviewed by the National Insurance Crime Bureau (NICB), thefts of catalytic converters increased a whopping 325% in 2020.
- NICB saw claims for 3,389 thefts in 2019 and 14,433 in 2020.
- These numbers only reflect instances where policyholders filed claims, as thefts of these parts are considered significantly under-reported.



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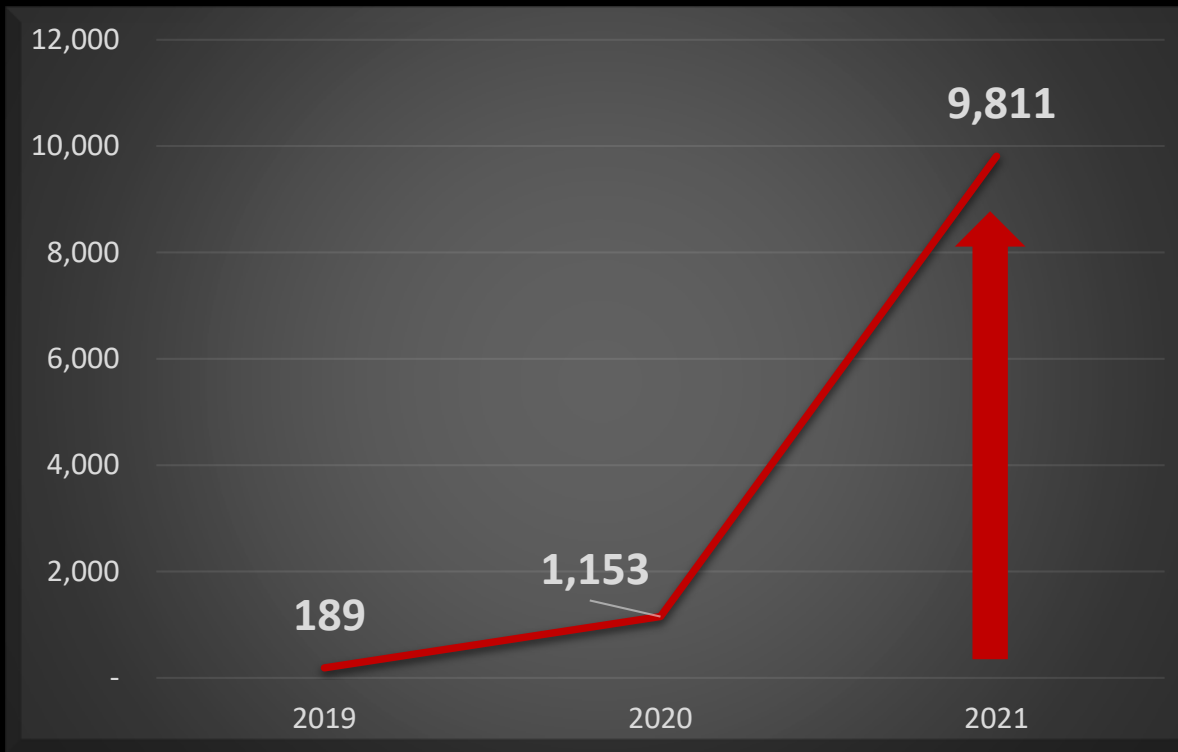
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2019-2021 Colorado Catalytic Converter Thefts



In Colorado, converter thefts rose **5,091%** from 2019 -2021

These are reported thefts to law enforcement but may not include:

- Multiple converter thefts from a vehicle
- Other thefts where owners did not report the theft
- Converters taken from stolen vehicles

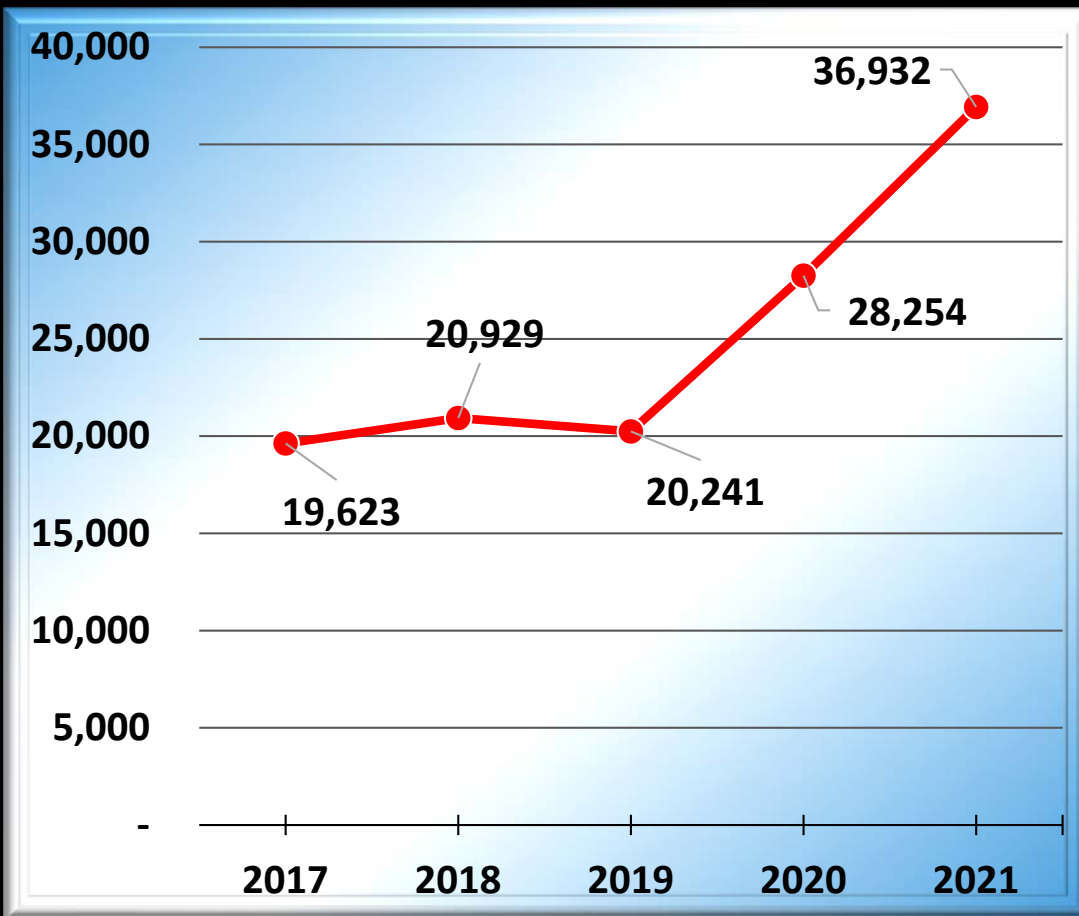


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2017-2021 Colorado Vehicle Thefts



In Colorado, vehicle thefts have risen rose **82%** from 2019 -2021

On average, **89%** of reported stolen vehicles are recovered.

Unlike Pre-2019 thefts, there is a growing concern of recovered vehicles missing the catalytic converter.



Federal Bureau of Investigation
Crime Data Explorer



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Targeted Vehicles

- Been Verified (2020)
 - Toyota Prius, Honda Element, Toyota 4Runner, Toyota Tacoma and Honda Accord
- Muffler Tech (2021)
 - 03-07 Honda Accord 4-cylinder, Generation 2 Prius 04-09, V-10 Gasoline Ford models, Honda Element, Honda Odyssey, Honda Pilot and Honda CRV, Nissan NV
- CDPHE & CO Task Forces (2022)
 - Hybrids, like Toyota Prius, are most often targeted because their converters contain the largest amount of those expensive metals.
 - Full-size SUV's and pickup trucks are also frequent targets, because the thief does not have to jack up the truck. The thief can just slide underneath with a saw.
 - Private owned, business fleet vehicles, commercial fleet vehicles

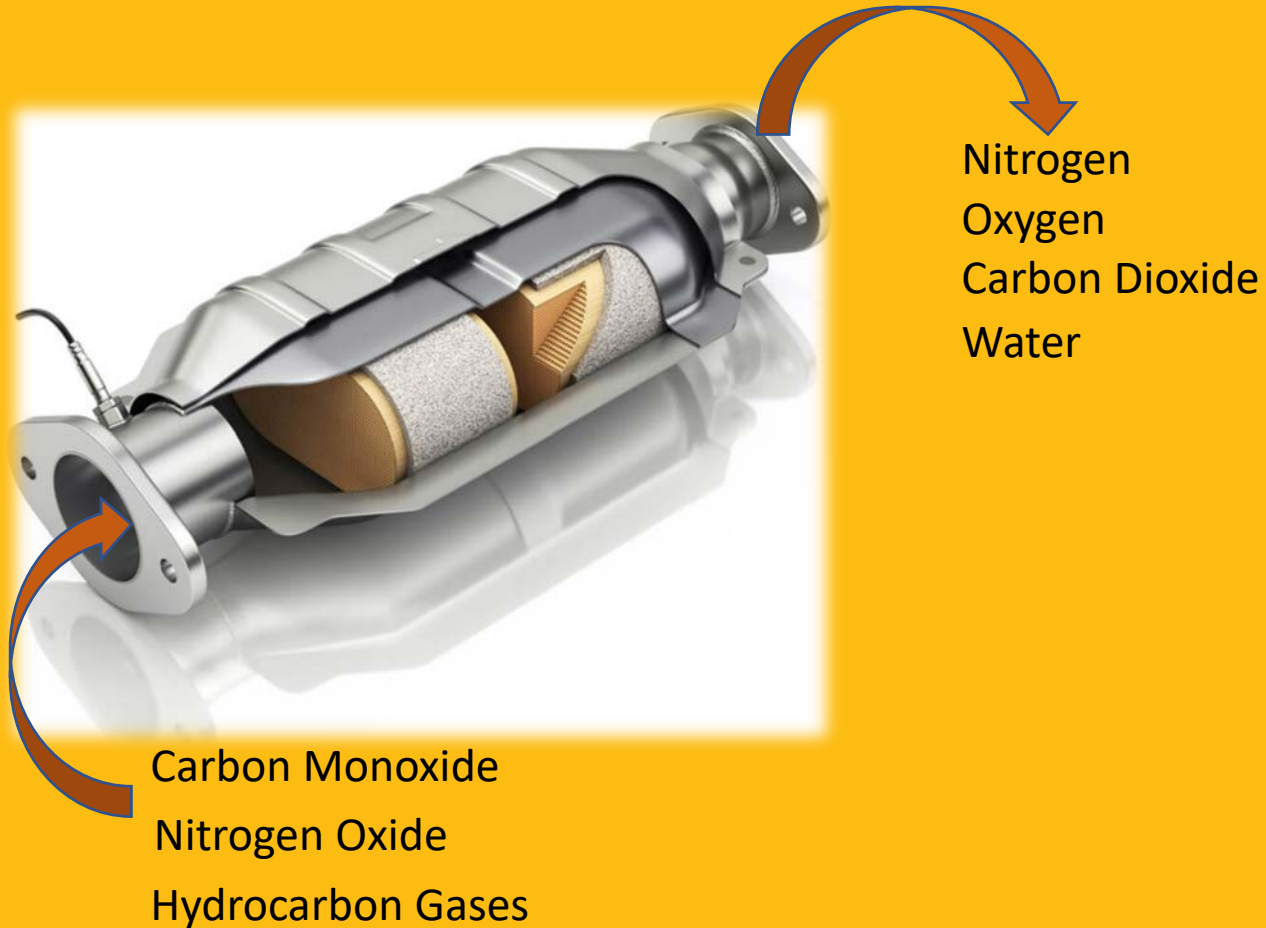


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What is a Catalytic Converter



- Since 1975, every vehicle produced in the U.S. is required to have one.
- It controls harmful emissions from a vehicle exhaust system
- Using precious metals, the device functions to cause a chemical reaction to convert harmful gases to less harmful gases.
- Catalytic converters use reduction and oxidation reactions to reduce harmful emissions.

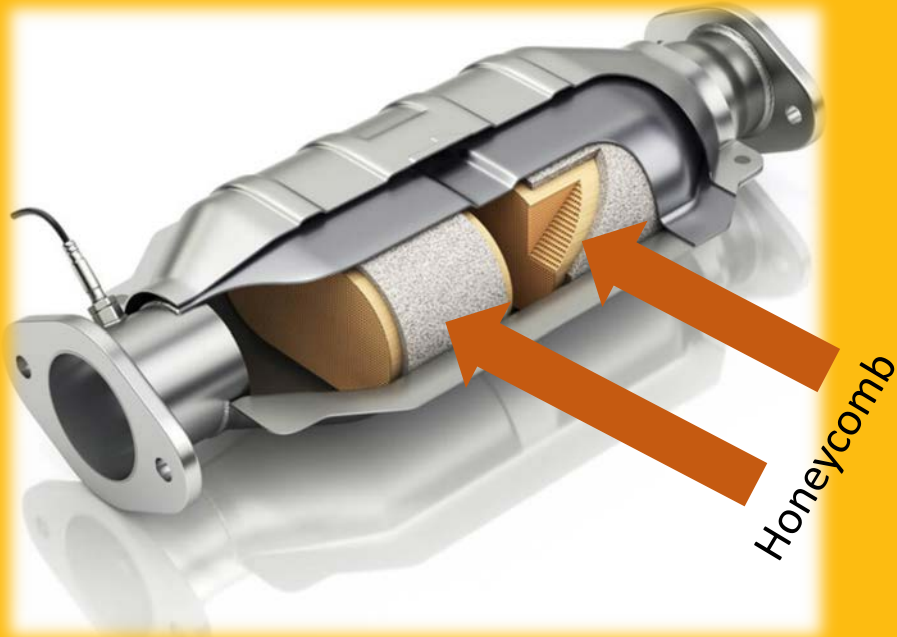


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What is a Catalytic Converter



- Inside the Catalytic Converter is a honeycomb.
- The honeycomb structure is coated with traces of platinum, palladium, rhodium, which are precious metals
- The precious metals act as the catalyst and aids in the conversion of gasses – thus catalytic converter



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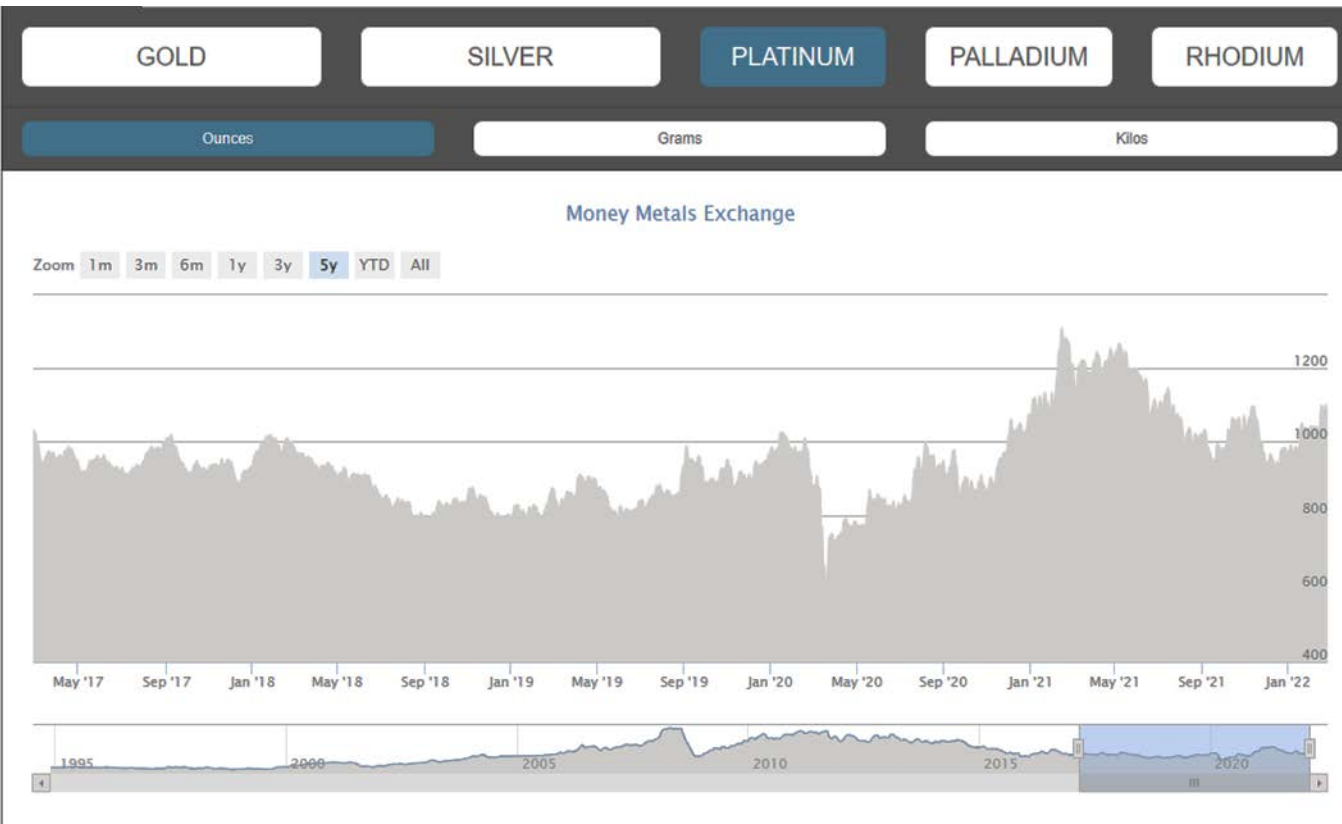
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Platinum (Melting Point 3,215 °F)

- August 2018 \$834.00
- August 2019 \$935.00
- August 2020 \$1,001.00
- August 2021 \$1,064.00
- February 2022 \$1,069.20

Money Metals Per Ounce

(<https://www.moneymetals.com/>)



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Palladium (Melting Point 2,831 °F)



- August 2018 \$918.00
- August 2019 \$1,485.00
- August 2020 \$2,236.00
- August 2021 \$2,693.00
- February 2022 \$2,373.65

Money Metals Per Ounce

(<https://www.moneymetals.com/>)



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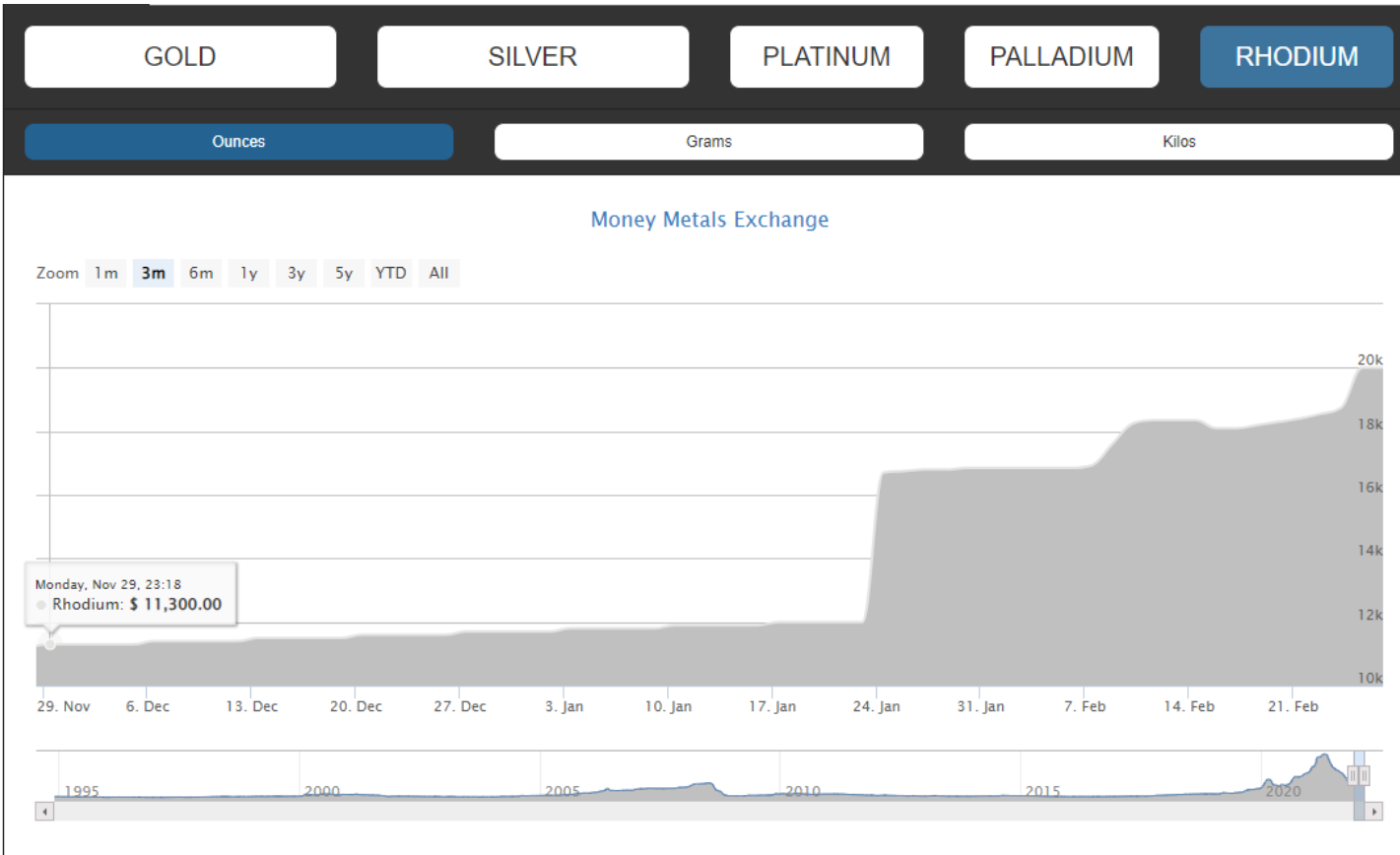
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Rhodium (Melting Point 3,567 °F)

- August 2018 \$2,335.00
- August 2019 \$3,660.00
- August 2020 \$12,500.00
- August 2021 \$17,850.00
- February 2022 \$20,000.00

Money Metals Per Ounce

(<https://www.moneymetals.com/>)

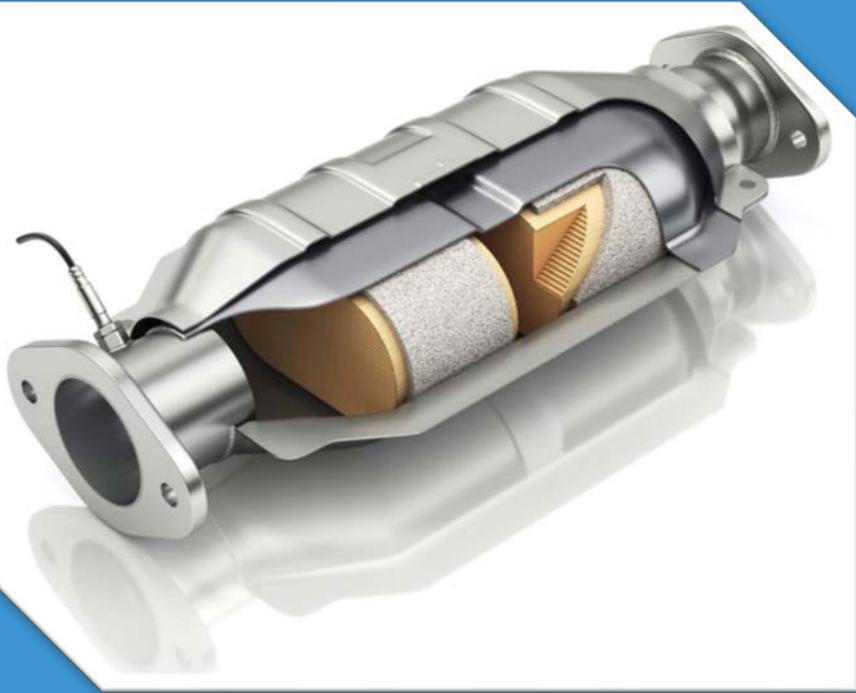


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Why Steal a Catalytic Converter



- Demand for these metals has increased as emission rules have tightened
- Supply of precious metals has dropped based on mining operations
- They are very easy to steal
- They are typically easy to transact
- Recyclers pay \$50 to \$250 per catalytic converter (Hybrid vehicles \$800 - \$1500)
- Private Sales (Internet) can acquire optimum pricing (\$700)
- Regulations on transactions are typically minimal

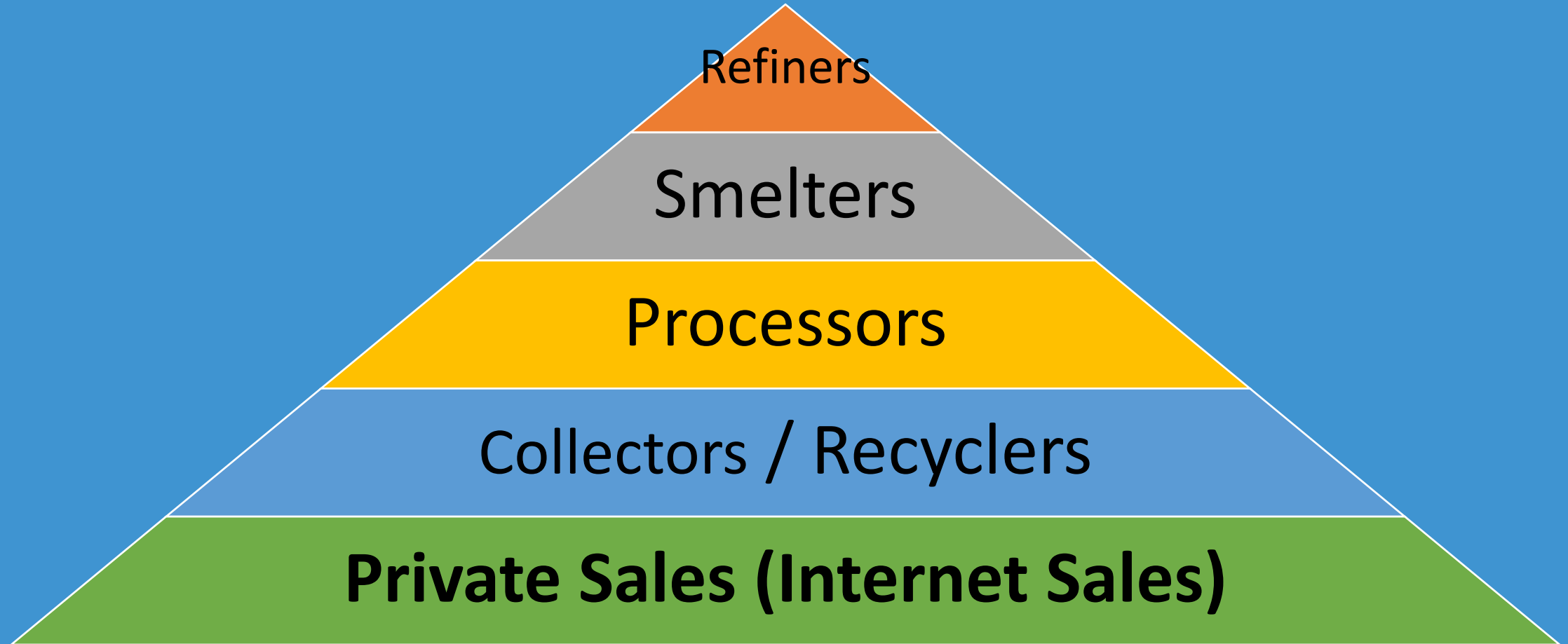


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What Happens to a Used Converter



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What Happens to a Used Converter



- **Most catalytic converters are not marked.**
- **When detached, it is extremely difficult to identify if the article is stolen or not**
- **A catalytic converter is not considered a major component part in many states**



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Complicating Factors

- Few states provide for laws to regulate the commerce of stolen catalytic converters such as possession of multiple devices, transactions at metal recyclers and salvage businesses
- Some states have adopted “Regulation 20” which requires a catalytic converter to pass emissions standards adopted by the California Air Resource Board (CARB) emissions standards.
- Supply Lines for replacement parts were delayed or depleted during the Pandemic
- Automotive Repair Shops have had difficulty in locating OEM replacement parts
- Internet services provide ease for thieves to market their stolen goods with little to no detection
- Owners have difficulty in protecting or safeguarding the device – as ‘guards’ are typically costly

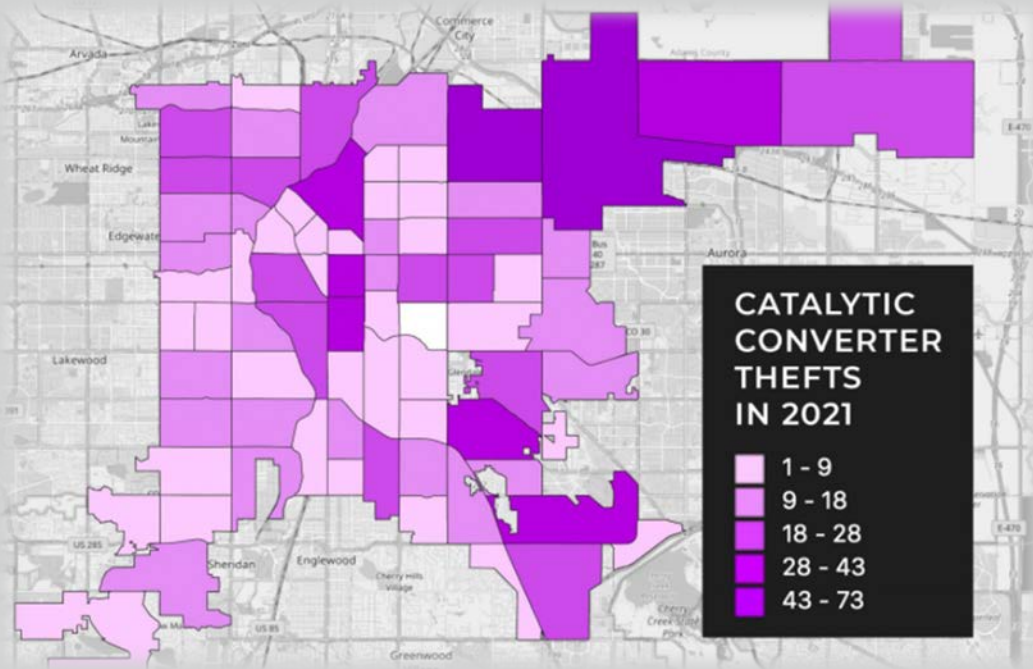


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Who Are the Thieves



- Drug Offenders (to support/barter)
- Criminal Gangs
- Criminal Profiteers (which later set up LLC)
- Organized Crime
- Colorado Courts
 - 93% of offenders had prior charges of auto theft
 - As theft rose in 2019-2021, the number of charged offenders did not
 - Indicates there are not more thieves, just the same thieves being more prolific



Prevention Techniques

Promote prevention messages

Advise customers about switching to comprehensive coverage or other coverage they may not have, and that your company may offer, to assist victims in case of theft.



AVOID BECOMING A VICTIM:

- 1 Park in a garage or in a secured parking area
- 2 Install a bright, motion sensor light to dissuade potential thieves
- 3 Park fleet vehicles in secured, alarmed, and well-lit yards
- 4 Always lock vehicle and set alarm
- 5 Install an anti-theft device



NICB
NATIONAL INSURANCE CRIME BUREAU



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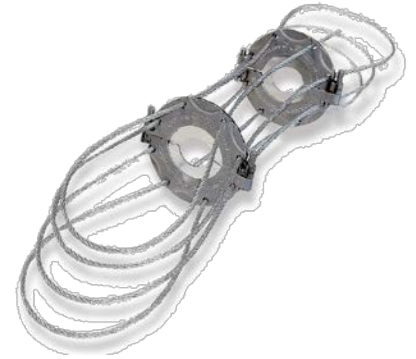


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Prevention Techniques

Mechanical Cables/Clamps

- Typically universal size but can be made for the year, make & model
- Aftermarket installation
- Many made out of stainless steel/galvanized metal
- Costs vary from ~\$200 up to ~\$750
- Typically requires several hours of installation (additional mechanical costs)



https://catclamp.com/shop/?utm_content=61030397



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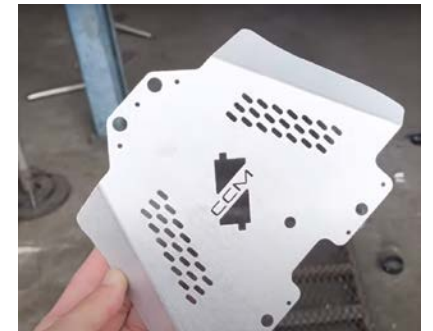


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Prevention Techniques

Mechanical Shields

- Typically custom made for the year, make & model
- Aftermarket installation
- Many made out of stainless steel
- Shield costs vary from ~\$200 up to ~\$500
- Typically requires several hours of installation (additional mechanical costs)



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Prevention Techniques

Catalytic Converter Alarm

- Using smart sensors to activate an audible alarm
- Aftermarket installation
- Costs vary from ~\$25 up to ~\$150
- Typically requires several hours of installation (additional mechanical costs)



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Prevention Techniques

Marking Catalytic Converter – Spray Paint

- Use some high-temperature (1,300 to 2,000 OF), automotive exhaust spray paint in a bright color, and spray a generous amount onto the converter.
- The theory behind spray-painting catalytic converters is that **it may prevent theft**
- Spray-painting may negatively affect the resale value of the part, thus making thieves less interested in cutting them out of a car.
- A similar program is being tested in St. Paul, Minnesota which began in April 2021, but results are pending.
- Cost is ~6.00 per spray paint can (plus labor costs)



https://www.youtube.com/watch?v=_AyiST6JxUA



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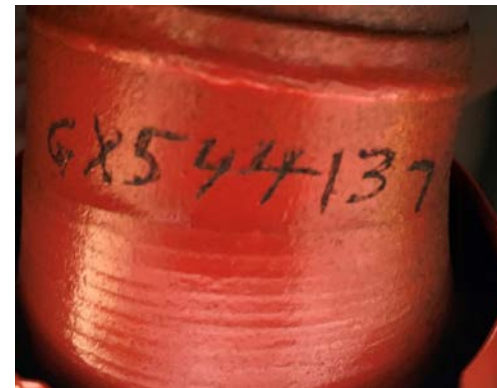
Prevention Techniques

Marking Catalytic Converter – Mechanical Etching

- Etching a marking **may prevent theft**
- The question for etching is: What is etched?
- Law enforcement recommends the VIN, but this requires 17 alphanumeric characters to be etched.
- Etching may or may not be useful for recovery or identification purposes when detached
- Combining painting and etching seems to be a better method.
- Cost is ~\$25.00 for the engraver
(Plus engraving/etching labor costs)



<https://www.youtube.com/watch?v=SPcMgNOImFM>



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Prevention Techniques

ISR CatEtch

- Unique identifier heat-resistive label
- Ultra-destruct labels, laser cut, will break into pieces if attempt is made to remove them
- Provides etching onto the converter when a fluid is applied during installation
- Upon registration, the vehicle's VIN is linked to the unique identifier number
- When reported stolen, activates a nationwide alert in the National Crime Information Center
- Provides identification for recovery
- Antidotal reporting that thieves have stopped theft when seeing the label
- Cost is ~\$10.00 each (plus installation labor costs)



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Prevention Techniques

Colorado Experience with CatEtch (May 2021 – Present)

- In-progress for distribution of 13,000 labels statewide
- Over 7,000 labels have been distributed
 - AAA Colorado, Automotive Repair Shops, Local Police Departments, VIN Inspectors, Small Businesses
 - Working on distribution to State Fleet Management, Department of Revenue, Colorado Independent Dealers Association, etc.
- Registrations are geocoded and tracked for stolen status
- As of 02/25/2022, 14 catalytic converters have been stolen
- Survey responses
 - 30% wanted the label because they knew someone who had their catalytic converter stolen
 - 8% had their catalytic converter stolen
 - 98% recommended the product
 - 96% believe their insurance company should recommend this type of product
 - Respondents would be willing to pay an average of \$35.71 for the product



AAA Colorado & CATPA



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Prevention Techniques

Working in Collaboration for Stronger Public Policy

1. Identify with certainty the person selling the detached catalytic converter.
2. Identify with certainty the vehicle from which the detached catalytic converter was removed.
3. Require a traceable payment and prohibit cash transactions.
4. Require records of detached catalytic converter transactions be maintained and made accessible to law enforcement upon request.
5. The penalty for not meeting the above requirements needs to be a sufficient deterrent.



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The Affect on Insurance Premiums

The Perfect Storm

- More than one in 10 of drivers have upped their deductible amounts during the pandemic, according to a J.D. Power U.S. Insurance Shopping Survey (no longer covering loss of a converter >\$500)
- Increases may not take immediate affect, and may not be dramatic, as losses from auto theft and converter thefts are far lower than payments made on liability expenses such as medical bills.
- Rates will likely increase, as we've seen a significant rise in vehicle theft, catalytic converter theft, riskier driving, repair costs, replacement parts, labor costs, catastrophic losses (fires, floods, hail, etc.) which have impacted vehicle policies.



Questions

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