CENTER FOR AUTO SAFETY

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Lydia B. Parnes, Director
Bureau of Consumer Protection
Federal Trade Commission (FTC)
600 Pennsylvania Avenue NW
Washington DC 20580

Dear Ms. Parnes:

Today auto companies have consumers by the keys. And none do so more than Mercedes Benz and Toyota which require some consumers to get a new computer to get a new key. With the advent of smart keys with embedded computer chips, the days of a consumer going to the local hardware store to get a replacement have all but vanished. Based on a survey of 50 makes and models, the Center for Auto Safety (CAS) found the average dealer price of a smart key to be over $150, more than 12 times the average dealer price of a mechanical key at $12. (Attachment A.) If one has to replace a computer to get a new smart key, the costs soars to $2,200 for a Toyota and $3,600 for a Mercedes.

Beginning in the late 1990's, auto companies took advantage of electronic control modules (ECMs) in vehicles to install readable computer chips in keys which the ECM would recognize. In the simplest case, the key chip would have a unique identifier number which would be read by an electronic control unit in the ignition. Others have both a unique key identifier number plus a rolling code that changes every time the key is used. Some systems utilize the primary ECM or computer in the vehicle to recognize the key. If the electronic codes in the key are not recognized, the ECM will not allow the vehicle to start even though the mechanical key will function. Some vehicles such as the Acura RL and Toyota Prius utilize an electronic key fob which has no mechanical key whatsoever, relying instead on an electronic communication between the fob and vehicle ECU.

Auto companies say they went to smart keys to reduce auto theft. Any advantage gained over thieves is only temporary. Already thieves have learned how to hack into the vehicle's electronic control system using laptop computers plugged into the OBD (On-Board Diagnostic) II system and reprogram the vehicle. Another technique used by thieves is to simply pop the hood and replace the factory ECM with another one modified to start the vehicle. (See "Thieves Outwit High-Tech Advances," Los Angeles Times, Feb. 8, 2006.) Less sophisticated thieves can simply put the vehicle on a flatbed truck and haul it off.

Although the auto companies have not outwitted the thieves, they have created a monopoly on replacement keys by not releasing the electronic key codes to locksmiths and aftermarket key suppliers. Although ebay has a limited market in replacement smart keys at http://stores.ebay.com/AUTO-KEY-STORE, it works only if the consumer can find the right key and then get the key programmed. Some keys cannot be found on ebay – see e.g., Acura and Volvo.

For those smart keys that can be found, there's a big problem. An independent locksmith or shop does not have the electronic codes and cannot program the keys. Most dealers cannot or will not program replacement keys bought in the aftermarket. Those that do charge an exorbitant price. Although some keys can be cloned from an existing master key, this cannot be done if the manufacturer has also programmed a rolling code into the electronic key system as exemplified by BMW, Mercedes and Acura..

A 1998-01 Mercedes ML 320 key can be bought on ebay for $12.95 but it's practically useless as it cannot be reprogrammed for another vehicle other than the vehicle it originally came with because the key contains both a fixed identification number and a rolling code. The consumer has no choice but to pay $260 to get a replacement key from Mercedes. A VW Jetta smart key retails for $153 from a dealer but goes for $54.95 on ebay. But then that key must be programmed. If the consumer can find a dealer to do it, the cost is $85 to $90.

Most dealers will only program a key bought from them and typically charge an hour of labor to do the programming, no matter how little time it takes. CAS did find an exemplary dealer in its survey – Passport BMW would program the key for free saying it's no big deal.[1] Several dealers passed the $100 mark for greed in programming with Fairfax Volvo topping the charts at $140. Including both the cost of a blank key and programming, the company with the most expensive keys in our survey was Toyota/Lexus at $264 for the Lexus RX 330, $290 for the Toyota Landcruiser and $278 for the Toyota Prius. The VW Beetle tied the Landcruiser for most expensive at $290.

The Cars With the Golden Keys – Mercedes and Toyota

CAS uncovered two manufactures whose models made all others pale in comparison because the price of getting a replacement key included a new computer – Mercedes and Toyota. What consumer buying a car would ever consider that replacing a key in the future would cost $2,000 to $4,000. And what consumer would ever consider that they would be deprived of their car for up to two months while waiting on a new computer to get a new key? The Owner's Manual which is used to convey operating information and warnings of all sort to the vehicle owner and operator contains no disclosure of the pitfall of the last key going bad or getting lost. If anything ever deserved a bold faced warning in the owner's manual, it's the hazard of the golden key. But given such a warning, the consumer may not buy the car.

For at least the 1998 and 1999 M-class, Mercedes programmed an absolute 8-key limit into each vehicle at the factory before going to a 24 key limit in 2000 or 2001. (Dialogue on BenzWorld.org, a website for Mercedes owners, indicates the problem is more widespread. Attachment B.) Roger Stephens of Park City UT found out the hard way when he bought a used 1998 Mercedes ML 320 SUV from Ken Garff Mercedes in Salt Lake City UT where the vehicle had lived its entire life. The keys on Mr. Stephens 1998 ML 320 simply wore out and stopped working. According to Mr. Stephens:

> Car won't start, computer won't recognize key. 8 keys have been issued to car so Mercedes can't make another. (computer pre set for only 8) Must replace all locks and computer system to get car to run. On 1998-2000 ML320 SUV system has only 8 keys that can be issued, then must replace system completely. (system designed changed later on, but not defect just improvement) I am told MB could reprogram/clear computer or maybe make duplicate keys but company policy forbids this On owner web site it shows others have had the same problem and same result. Parts department gave me copy of rejected key order from MB with circled words "all keys used order lock set" I was forced to order Lock set package of parts at $2,508.08 from MB. Labor will be over $1,000.00.

Because the computer had to be special ordered from Germany, Mr. Stephens' ML 320 set at the dealer for 8 weeks before the replacement computer arrived and his SUV was reprogrammed for new keys.

Janna Smith ran into a similar problem with her 2002 Toyota Highlander when she had to flee the New Orleans area in the face of Hurricane Katrina. She used her valet key to start the Highlander and

escape the flood when she did not have time to find her regular master keys. (The valet key has limited authority to open the driver door and start the engine. It cannot open other doors nor can it be cloned to create a duplicate. Realizing that she only had the valet key, Ms. Smith stopped at the first Toyota dealer in her evacuation path in San Antonio to get another master key. The dealer told her it would cost $2,200 for a new key because he would have to order a new computer to go with it. A replacement key for a Toyota could only be cloned from an original master key which in Ms. Smith's case had been destroyed by Hurricane Katrina.

Carefully guarding her valet key, Katrina refugee Jana Smith drove to her new temporary evacuation home in Washington DC where she found Jim Coleman Toyota in her new journey to get a master key at a reasonable price for her Highlander. Jim Coleman contacted Toyota and found that the company had just changed its policy to "the first computer is on us" and would provide a reprogrammed used computer for free but the consumer still had to pay for the new keys which would be $650 for the set. Given that she no longer had a home or a job, Jana Smith could not afford the $650 for new keys so Jim Coleman Toyota stepped up to the plate and said we will be pay for the new keys even though Toyota will not.

Conclusion

Whether it is a new smart key costing over $150 or a new computer/key system costing $2,000 to $4,000, auto companies have used smart keys to wring money from unsuspecting consumers who are not told that they face replacement key costs up to $300 or at least 10 to 15 times what they have paid for replacement keys in the past. In the worst case scenarios, consumers may have to buy a new computer to get a new key at a cost of 100 to 200 times what they have paid for replacement keys in the past. While they wait up to 8 weeks for a replacement computer, they have no use of their vehicle adding to the unforeseen cost imposed on the owner.

Mechanisms exist to allow auto companies to share smart key technology codes while maintaining whatever, if any, value smart keys have in preventing auto theft. Auto companies could release smart key technology to organizations such as the National Insurance Crime Bureau which was formed to prevent auto theft. Smart key information could then be made available only to consumer who prove proof of ownership such as vehicle registrations.

CAS respectfully petitions the FTC to investigate the practices of auto companies in not releasing programming information for smart keys and in charging exorbitant fees for nominal programming costs. These practices are unfair under Section 5 of the Federal Trade Commission Act. Mercedes failure to disclose consumers have to buy costly computers when keys fail is an even more egregious failure to disclose a known defect to consumers than the line of cases holding auto companies accountable for manufacturing defects because this is a intentional design defect engineered into the vehicle.[2] CAS requests the FTC to move immediately against any manufacturer such as Mercedes found to require consumers to purchase a new computer or ECM to get a replacement key. The specter of auto theft does not justify auto companies picking the pockets of consumers by charging hundreds of dollars more for replacement keys than they could in a competitive market.

Sincerely,

Clarence M. Ditlow
Executive Director

END NOTE TO MARCH 13, 2006 FTC PETITION

1. The fact that programming keys can be done quickly is demonstrated by Chrysler. On some models, owners can program blank keys in less than a minute on their own if they have two original keys and quick hands. To do so, the owner insert one original key in the ignition in the ON position for 3 to 15 seconds and removes it. Within 15 seconds, the owner must insert the second key and place it in the ON position for 10 seconds – a chime sounds and the Theft Alarm Light flashes. The blank key is inserted – another chime sounds after 10 seconds and the Theft Alarm Light goes off. Turn the Theft Alarm on for 3 seconds and the replacement key is programmed. The Owners Manual says that up to 8 keys can be programmed but does not say what happens after key #8. Whether this is another M-class limit is not known. 2006 Chrysler Pacifica Owners Manual, pp 14-15.

2. See e.g., In the Matter of Ford Motor Co., 96 FTC 362 (1980).

Attachment A

COST OF REPLACEMENT KEYS

Make, Model & Year	Key	Program	Total	Dealer
SMART KEYS WITH EMBEDDED COMPUTER CHIPS				
2004 Acura TL	55	94	149	Tischer Acura Nissan
2004 Audi A6	160	100	260	Criswell Audi
2004 BMW 330i	150	free	150	Passport BMW
2004 Buick Park Avenue	60	122	182	King Pontiac Buick GMC
2004 Cadillac CTS	40	40	80	Capitol Cadillac
2004 Cadillac Escalade EXT	34	50	84	Jim Coleman Cadillac
2004 Chevrolet Cobalt	28	52	80	Darcars Chevrolet
2004 Chrysler 300M	45	50	95	Prince Federick Chrysler Jeep
2004 Chrysler PT Cruiser	130	65	195	Country Chrysler Jeep
2004 Dodge Durango	70	47	117	Reed Brothers Dodge
2004 Ford Explorer	35	90	125	Ourisman World of Ford
2004 Ford Focus	35	92	127	Ourisman Ford Montgomery Mall
2004 Ford F-150	43	90	133	Koons Ford of Rockville
2004 GMC Envoy XUV SLE	8	45	53	Farrish Pontiac GMC & Oldsmobile
2004 Honda Accord EX	65	92	157	Landmark Honda
2004 Honda CR-V	44	90	134	Landmark Honda
2004 Hyundai Elantra	9	85	94	Alexandria Hyundai
2004 Infiniti G35	114	90	204	Passport Infiniti
2004 Jeep Grand Cherokee Laredo	56	45	101	Farrish Jeep
2004 Jeep Liberty Sport	35	35	70	Jerry's Jeep
2004 Kia Spectra LX5-SP	54	96	150	Cherner Jia
2004 Lexus IS300	285	50	335	Pohanka Lexus
2004 Lexus RX330	214	50	264	Lindsay Lexus of Alexandria
2004 Lincoln Towncar Signature Series	30	65	95	Cherner Lincoln
2004 Mazda 3	65	93	158	Darcars Mazda
2004 Mazda 6	50	50	100	Darcars Mazda
2004 Mercedes E320	216	included	216	Euro Motorcars
2004 Mercury Grand Marquis	33	80	113	King Lincoln Mercury
2004 Mitsubishi Gallant	60	90	150	Stohlman Mitsubishi
2004 Nissan Altima	55	100	155	Passport Nissan
2004 Nissan Pathfinder	70	90	160	Passport Nissan of Alexandria
2004 Pontiac Grand Prix	37	50	87	Capitol Buick Pontiac GMC
2004 Saab 9-3	90	50	140	VOB Auto Sales
2004 Scion xB	45	95	140	Ourisman Farifax Toyota
2004 Subaru Outback	30	80	110	Fitzgerald Subaru
2004 Suzuki Verona	16	45	61	Ourisman Suzuki
2004 Toyota Corolla	50	50	100	Koons Arlington Toyota
2004 Toyota Landcruiser	240	50	290	Darcars Toyota
2004 Toyota Prius	200	78	278	Beltway Toyota
2004 Volkswagen Beetle	200	90	290	Wes Greenway's Alexandria Vw
2004 Volkswagen Jetta	153	85	238	Fairfax VW
2004 Volvo XC70	50	140	190	Farfax Volvo
Average Smart Key Cost	82	70	152	
MECHANICAL KEY WITHOUT COMPUTER CHIP				
2004 Chevrolet Aveo	8	-0-	8	Curtis Chevrolet
2004 Chevrolet Impala	25	-0-	25	Ourisman Chevrolet of Bowie
2004 Chevrolet Silverado	8	-0-	8	Darcars Chevrolet
2004 Dodge Neon	11	-0-	11	Ralph's Dodge Chrysler
2004 Kia Rio	15	-0-	15	Cherner Kio
2004 Saturn VUE	5	-0-	5	Saturn of Fairfax
2004 Suzuki Aerio	13	-0-	13	Fitzgerald's Suzuki
2004 Toyota Echo	13	-0-	13	Alexandria Toyota
Average Mechanical Key Cost	12	0	12	