

# tech tip

## Fouled Focus Ignition Locks

By Richard McCuistian,  
Contributing Editor

**M**ost of us have experienced a jammed ignition lock cylinder: You insert the correct key, but the lock cylinder won't turn. However, it's not always necessary to send one of these to the locksmith.

Of all the vehicles in Ford's fleet, the relatively new Ford Focus seems to suffer most from this jammed lock problem.

The following procedure provides some guidance if a customer's Focus comes in on the hook with a jammed ignition lock.



1 Mark the lock cylinder with an 'X' exactly like this.



2 Drill at the X center to a depth of about 1 inch.

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INTRODUCING

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## Exhaust Manifolds

- Manifolds include hardware kits (studs, nuts, etc.), gaskets and heat shields or hot air stoves as needed.



- Original equipment manifolds are thinner and lighter than they used to be. Some are even tubular instead of cast iron. These manifolds are prone to failure (cracking) caused by thermal expansion, "hot spots" created by heat shields and the corrosive nature of exhaust gases.

- ATP exhaust manifolds are engineered, where possible, to help eliminate these inherent weaknesses.

## Harmonic Balancers

- Balancers include woodruff keys and mounting bolts (where necessary).
- Most balancers incorporate a rubber ring between the hub and outer ring. This rubber can deteriorate which causes the outer ring to slip out of the original alignment or separate. The balancer can also crack at the hub. Failures result in engine vibration, drive belt wear, engine can not be timed properly.
- ATP balancers are made to meet or exceed the original equipment quality and SAE material specifications.



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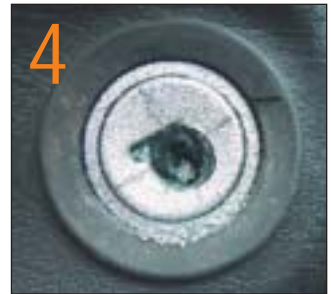
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## tech tips

(All photos: Richard McCuistian)



3 Enlarge the hole to  $\frac{3}{8}$  inch.



4 Use a pick tool to dislodge the lock bar that prevents the cylinder from turning.



5 Fish the lock bar out of the cylinder.



6 Turn the lock cylinder to the start position with a screwdriver. Note: Most of these vehicles are equipped with Ford's PATS system. You must hold the original key near the lock cylinder when the ignition is switched on or the vehicle won't start. With the ignition lock in the 'On' position, the release button can be released in the same fashion as other Ford models, and the cylinder can be removed.

**7** Using the instruction sheet and the tumblers provided with the new lock cylinder, build the new cylinder to match the original key.



Install the new lock cylinder.

*Richard McCuistian is an ASE-certified Master Auto Technician and was a professional mechanic at a Ford dealership for more than 25 years. Richard is now an auto mechanics instructor at Douglas MacArthur State Technical College in Opp, AL. E-mail Richard at rwm19@mail.com.*

## TSB NOTICE

*Editor's Note:* General Motors issued a TSB for 2002 Chevrolet, Oldsmobile and GMC S/T trucks last December. The bulletin is presented here in its entirety, because we thought you might like to contemplate how and why it became necessary.

### Bulletin No. 01-08-44-016

Travel Note Recorder Message Deletion During Pre-Delivery Inspection

To insure that no messages have been recorded on the system prior to vehicle delivery to a customer, it is necessary to clear the system and delete all messages during Pre-Delivery Inspection.

To delete all messages, press and hold the two buttons identified with a right arrow and a circle at the same time for approximately one second. To confirm deletion of all messages that may have been recorded, press the button identified with a right arrow and hold for approximately one second.

If any messages were not deleted, they will be played back at this time.

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by **atp**

## Timing Covers

- Aluminum timing chain covers often fail due to weak or lack of aluminum safe antifreeze, worn timing chains, or failed tensioners. Worn timing chains and tensioners will allow the chain to slap or rub, creating holes and grooves into the aluminum cover.
- ATP timing covers are manufactured to meet or exceed original equipment specifications.



## Front Bearing Retainers

- Smooth clutch engagement and release depend on the throwout bearing moving smoothly over the front bearing retainer. A worn retainer will cause a "notchy" feel as the throw-out bearing hangs up.
- ATP front bearing retainers are made to original equipment specifications.



## Transmission Pans

- Front wheel drive transmissions are low and up front where they can be damaged by parking lot stops, potholes, steep inclines.



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