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### Introduction

#### INTRODUCTION

Congratulations on your decision to purchase or lease a Ford SVT Mustang Cobra. If you've owned or leased an SVT product in the past, we're glad you're back. If this is your first SVT vehicle, welcome to the SVT family! We are confident that our dedication to quality, craftsmanship, and customer service will ensure many miles of exhilarating, safe and comfortable driving in your new SVT Mustang Cobra.



Your choice of an SVT product is an intelligent and informed one. SVT strives to build engaging vehicles that involve the driver in every aspect of the driving experience. Although performance is at the heart of every SVT vehicle, we go much further. Our goal is to deliver a comprehensive, complete vehicle, sweating the details such as the sound of the exhaust, the quality of the interior materials, and the functionality and the comfort of the seats, to ensure that the driver enjoys not only exceptional performance, but an outstanding *driving environment* as well. In the SVT Mustang Cobra, that philosophy is expressed by a sophisticated powertrain, outstanding chassis dynamics and significant interior and exterior enhancements.

This supplement complements your Mustang Owner's Guide and provides information specific to SVT and the SVT Mustang Cobra. By referring to the pages listed in this supplement, you can identify those features, recommendations, and specifications unique to your new SVT Mustang Cobra.

If you have any questions, please call us at the SVT Info. Center from 8:30 a.m. to 6:00 p.m. EST at 1–800–FORD-SVT (1–800–367–3788).

#### SVT HISTORY

The Ford Special Vehicle Team (SVT) was established in 1991 to "Polish the Ford Oval" by creating low-volume, factory-produced vehicles designed for those select few whose idea of driving is a high-powered, passionate experience — not just a means of getting from point A to point B.

In a move to support this spirited enthusiasm, Ford Motor Company carefully integrated the wide array of talent in the company into a small, cross-functional group of engineers, product planners, and marketing people, housed together under one roof with a common mission: to create vehicles specifically designed to meet the unique needs and desires of the knowledgeable driving enthusiast.

Each of the over 100,000 SVT vehicles produced since the 1993 model year has been designed and developed with the four SVT Hallmarks in mind: Performance, Substance, Exclusivity and Value. These hallmarks have driven the SVT Mustang Cobra and the Cobra R, the SVT F-150 Lightning , the SVT Contour and the SVT Focus.

We are proud and passionate about what we do, and we're glad you have made us your choice.

#### SVT OWNERSHIP BENEFITS

- **SVT Authorized Dealers:** A network of specially trained and certified SVT dealers who are dedicated to maintaining a culture within their dealerships that understands the knowledgeable driving enthusiast.
- **SVT Premium Service\*:** As an owner or lessee of a 2003 model year SVT vehicle, you will be provided a complimentary loaner vehicle when your 2003 SVT vehicle is in for service (includes warranty work and routine maintenance, other than oil changes). The dealership will also wash and vacuum your vehicle upon request.
- SVT Owner's Association (SVTOA) One year membership: The SVT Owners Association (SVTOA) is a club dedicated to enhance the SVT

### Introduction

ownership experience through events and activities, as well as the camaraderie of spending time with other SVT enthusiasts. Your new vehicle purchase or lease entitles you to a free one-year membership.

- 10% discount at the Bob Bondurant School of High Performance Driving: The techniques learned at the Bob Bondurant School of High Performance Driving will enhance the overall driving experience through increased ability and confidence. The SVT discount is available to you for one year from the date of vehicle purchase. Contact the Bondurant School at 1–800–842–7223 for more information.
- **Certificate of Authenticity:** The certificate documents your SVT vehicle's date of production, vehicle identification number, final assembly plant, and production sequence number. Certificates are printed 60 to 90 days after model year production ends and are mailed to you automatically.
- **SVT Info. Center:** Have a question or want more information about your new SVT vehicle? Call the SVT Info. Center at 1–800–FORD-SVT. We'll handle your request or get you in touch with someone who can. The SVT Info Center is open from 8:30 a.m. to 6:00 p.m. EST Monday-Friday.
- **SVT website:** The official SVT website, www.svt.ford.com, will provide you with frequently updated information on products, events and many other areas of interest to SVT owners and enthusiasts.
- Official SVT merchandise: Show the world your enthusiasm for SVT! We have completely updated the SVT apparel lineup with higher quality, brand name merchandise and are constantly looking for and adding new items. To order direct, call 1–800–FORD-SVT.

\* At participating dealerships only. SVT Premium Service is in effect throughout the standard warranty period. Some restrictions apply. See your dealer for details.

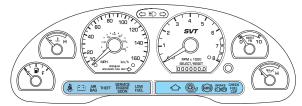
### Cobra unique standard features



- 4.6L DOHC 32V Supercharged V–8 Engine with Intercooler — 390 horsepower, 390 lb-ft torque
- T56 6 speed transmission
- Aluminum flywheel
- Engine oil cooler
- Power steering cooler
- Anti-lock Brake System with Traction Control
- Limited-slip independent rear suspension
- SVT-tuned suspension and brakes
- 17"x 9"cast aluminum wheels
- 275/40ZR17 BSW Performance Tires
- Specially tuned stainless steel exhaust system
- Decklid spoiler, hood, rocker moldings, front and rear fascia
- Round fog lamps
- Color keyed fold away mirrors
- Unique cloth top (convertible only)
- Interval wipers with aerodynamic wiper/blade
- Electroluminescent cluster with boost gauge
- Sport seats with adjustable driver bolsters and leather and preferred suede seating surfaces
- Sport pedals with aluminum covers
- Leather wrapped sport steering wheel

# Cobra unique standard features

#### SPORT INSTRUMENT CLUSTER

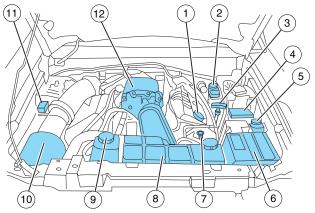


#### Upshift (if equipped)

Illuminates when it is best to shift to the next highest manual transmission gear for the maximum fuel economy.

# **Engine/Transmission**

#### 4.6L DOHC SUPERCHARGED V-8 ENGINE



- 1. Engine oil filler cap
- 2. Brake fluid reservoir
- 3. Engine oil dipstick
- 4. Power distribution box
- 5. Windshield washer fluid reservoir
- 6. Battery
- 7. Power steering fluid reservoir
- 8. Engine coolant reservoir
- 9. Intercooler reservoir
- 10. Air filter assembly
- 11. Auxiliary power distribution block
- 12. Supercharger

# Engine/Transmission

Item	Description	
Configuration	Longitudinally mounted, 90-degree V8, cast iron cylinder block and cast aluminum cylinder heads	
Bore x Stroke	90.2 x 90.0 mm (3.55 x 3.54 in)	
Displacement	4601 cc/280 cid	
Compression ratio	8.5:1	
Horsepower	239 kW @ 6000 rpm (390 HP @ 6000 rpm)	
Torque	430 Nm @ 4800 rpm (390 lbft. @ 4750 rpm)	
Redline	6500 rpm (fuel shut-off at 7000 rpm)	
Specific output	84.8 HP per liter	
Valvetrain	Dual overhead chain-driven cams, roller finger followers with hydraulic lash adjustment, ovate-wire valve springs, four valves per cylinder	
Fuel system	Sequential electronic fuel injection	
Mass air sensor	90 mm (3.54 in) diameter	
Throttle body	Twin 57 mm (2.24 in) diameter bore-simultaneously open	
Exhaust manifolds	Cast-high silicon, molybdenum iron	
Exhaust system	Dual-stainless steel	

#### DRIVETRAIN

Item	Description	
Rear axle	8.8 inch limited-slip differential with Independent Rear Suspension	
Driveshaft	Aluminum with hardened yoke	
Transmission	T56 6-speed manual with integral clutch housing	
Gear ratios	Gear	Ratio
	1st	2.66
	2nd	1.78
	3rd	1.30
	4th	1.00
	5th	0.80
	6th	.63
	Reverse	2.90

# Chassis

#### WHEELS AND TIRES

P275/40ZR17 Goodyear Eagle F1 performance tire
SVT-Signature style, 17 in x 9.0 in aluminum 5-spoke wheel, 26 mm offset

#### SUSPENSION

- Retuned Independent Rear Suspension (IRS) with improved geometry and unique bushing rates
- Limited slip axle
- 29 mm tubular front stabilizer bar
- 26 mm tubular rear stabilizer bar
- Retuned front control arm bushing rates
- Bilstein Montotube shocks and struts
- Spring rates:
- 600 lb/in front and rear (coupe)
- 500 lb/in front and 470 lb/in rear (convertible)

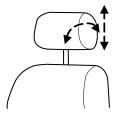
### Seating and energy management

#### 4-WAY HEAD RESTRAINTS

Your vehicle's seats are equipped with four-way adjustable head restraints. The purpose of these head restraints is to help limit head motion in the event of a rear collision. To properly adjust your head restraints, lift the head restraint so that it is located directly behind your head or as close to that position as possible. Refer to the following to raise and lower the head restraints.

The head restraints can be moved in four directions:

- · up and down
- forward or backward



#### POWER LUMBAR, ADJUSTABLE BOLSTERS AND SEAT ADJUSTMENT

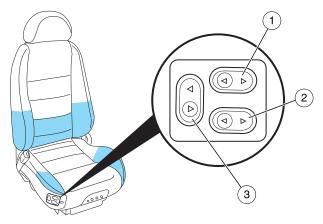
Your driver seat is equipped with 6 way power seat adjustment, power lumbar and power adjustable bolster controls. These features allow the driver to adjust the seat location, the amount of lumbar support and the fit of the seat.



# Seating and energy management

#### Lumbar and adjustable bolster controls

The lumbar and adjustable bolster controls are located on the front right corner of the driver seat. The power lumbar feature creates lower back support for the driver and may be adjusted to increase or decrease the support. The seat back and seat cushion bolsters inflate or deflate, allowing the driver to create a firmer or more loose fitting seat. Before adjusting these features, ensure that the seat is in the driving position, then:



 Seat back bolsters — Press ◀ to deflate (decrease firmness), press ► to inflate (increase firmness).

2. Seat cushion bolsters— Press  $\blacktriangleleft$  to deflate (decrease firmness), press  $\blacktriangleright$  to inflate (increase firmness).

3. Lumbar controls — Press  $\blacktriangleleft$  to inflate (increase lumbar support), or  $\blacktriangleright$  to deflate (decrease lumbar support.)

For maximum ease of vehicle ingress/egress, the seat cushion and seat back bolsters should be completely deflated.

# Seating and energy management

#### ENERGY MANAGEMENT FEATURE

- This vehicle has a seat belt system with an energy management feature at the front outboard seating positions to help further reduce the risk of injury in the event of a head-on collision.
- This seat belt system has a retractor assembly that is designed to pay out webbing in a controlled manner. This feature is designed to help reduce the belt force acting on the occupant's chest.

After any vehicle collision, the seat belt system at all outboard seating positions (except driver, which has no "automatic locking retractor" feature) must be checked by a qualified technician to verify that the "automatic locking retractor" feature for child seats is still functioning properly. In addition, all seat belts should be checked for proper function.

BELT AND RETRACTOR ASSEMBLY MUST BE REPLACED if the seat belt assembly "automatic locking retractor" feature or any other seat belt function is not operating properly when checked.

Failure to replace the Belt and Retractor assembly could increase the risk of injury in collisions.

# Maintenance

#### MOTORCRAFT PART NUMBERS

Component	4.6L DOHC Supercharged V8 engine
Air filter element	FA-1632
Fuel filter	FG-800A
Battery	BXT-59
Oil filter	FL-820S
PCV valve	EV-153
Spark plugs*	AGSF-12FM1

\* Refer to Vehicle Emissions Control Information (VECI) decal for spark plug gap information.

Fluid	Ford Part Name	Capacity
Brake fluid	Motorcraft High Performance DOT 3 Motor Vehicle Brake Fluid	Fill to line on reservoir
Engine oil (includes filter change)	Motorcraft SAE 5W-20 Super Premium Motor Oil	5.7L (6.0 quarts)
Engine coolant <sup>1</sup>	Motorcraft Premium Engine Coolant (green-colored) or Motorcraft Premium Gold Engine Coolant (yellow-colored)	15.2L (16.1 quarts)
Power steering fluid	Motorcraft MERCON <sup>®</sup> ATF	Fill to between MIN and MAX lines on reservoir
Rear axle lubricant	Motorcraft SAE 75W-140 High Performance Synthetic Rear Axle Lubricant	1.4L (2.9 pints)
Fuel tank	N/A	59.4L (15.7 gallons)

#### **REFILL CAPACITIES**

Fluid	Ford Part Name	Capacity
Intercooler coolant	Motorcraft Premium Engine Coolant (green-colored) or Motorcraft Premium Gold Engine Coolant (yellow-colored)	3.75L (3.96 qts)
Transmission fluid <sup>3</sup>	Refer to the label on your transmission	3.9L (8.2 pints) <sup>4</sup>
Windshield washer fluid	Ultra-Clear Windshield Washer Concentrate	3.8L (4.0 quarts)

<sup>1</sup>Add the coolant type originally equipped in your vehicle.

<sup>2</sup>Rear axle lubricants do not need to be checked or changed unless a leak is suspected, service is required or the axle assembly has been submerged in water. The axle lubricant should be changed any time the rear axle has been submerged in water. Fill 6 mm to 14 mm (1/4 inch to 9/16 inch) below bottom of fill hole. Add 118 ml (4 oz.) of Additive Friction Modifier C8AZ-19B546-A or equivalent meeting Ford specification EST-M2C118–A for complete refill of Traction-Lok axles.

<sup>3</sup>The TTC T56 6 Speed transmission on your SVT Mustang Cobra uses automatic transmission fluid. Ensure the correct automatic transmission fluid is used as indicated in the label on your transmission.

<sup>4</sup>Service refill capacity is determined by filling the transmission to the bottom of the filler hole with the vehicle on a level surface.

### Maintenance

#### OCTANE RECOMMENDATIONS

Your vehicle is designed to use "Premium" unleaded gasoline with an (R+M)/2 octane



rating of 91 or higher for optimum performance. The use of gasolines with lower octane ratings may degrade performance. We do not recommend the use of gasolines labeled as "Premium" in high altitude areas that are sold with octane ratings of less than 91.

If your engine knocks under most driving conditions while you are using fuel with the recommended octane rating, see your dealer or a qualified service technician to prevent any engine damage.

#### **CHECKING ENGINE COOLANT**

The concentration and level of engine coolant should be checked at the mileage intervals listed in the scheduled maintenance guide. The coolant concentration should be maintained at 50/50 coolant and water, which equates to a freeze point of -36° C (-34° F). Coolant concentration testing is possible with a hydrometer or antifreeze tester (such as the Rotunda Battery and Antifreeze Tester, 0014–R1060). The level of coolant should be maintained at the "cold full" of "cold fill range" level in the coolant reservoir. If the level falls below, add

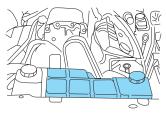
coolant per the instructions in the Adding Engine Coolant section.

Your vehicle was factory-filled with a 50/50 engine coolant and water concentration. If the concentration of coolant falls below 40% or above 60%, the engine parts could become damaged or not work properly. **A 50–50 mixture of coolant and** water provides the following:

- freeze protection down to -36° C (-34° F).
- boiling protection up to 129° C (265° F).
- protection against rust and other forms of corrosion.

# • an accurate temperature readout from the engine coolant gauge.

When the engine is cold, check the level of the engine coolant in the reservoir.



- The engine coolant should be at the "cold fill level" as listed on the engine coolant reservoir.
- Refer to the scheduled maintenance guide for service interval schedules.
- Be sure to read and understand *Precautions* when servicing your vehicle in this chapter.

If the engine coolant has not been checked at the recommended interval, the engine coolant reservoir may become low or empty. If the reservoir is low or empty, add engine coolant to the reservoir. Refer to *Adding engine coolant* in this chapter.

**Note:** Automotive fluids are not interchangeable; do not use engine coolant, antifreeze or windshield washer fluid outside of its specified function and vehicle location.

#### Adding engine coolant

When adding coolant, make sure it is a 50/50 mixture of engine coolant and distilled water. Add the mixture to the coolant reservoir, **when the engine is cool**, until the appropriate fill level is obtained.

Do not add engine coolant when the engine is hot. Steam and scalding liquids released from a hot cooling system can burn you badly. Also, you can be burned if you spill coolant on hot engine parts.

### Maintenance

Do not put engine coolant in the windshield washer fluid container. If sprayed on the windshield, engine coolant could make it difficult to see through the windshield.

The cooling system in your vehicle is filled with either green-colored Motorcraft Premium Engine Coolant meeting Ford specification ESE-M97B44–A or yellow-colored Motorcraft Premium Gold Engine Coolant meeting Ford Specification WSS-M97B51–A1. To determine your vehicle's coolant type (color), check your coolant reservoir.

- Add Motorcraft Premium Engine Coolant (green-colored), VC-4–A (U.S.) or CXC-10 (Canada) or Motorcraft Premium Gold Engine Coolant (yellow-colored), VC-7–A, depending on the type of coolant originally equipped in your vehicle. If you are unsure which type of coolant your vehicle requires, check your coolant reservoir or contact your local dealer.
- Do not add/mix an orange-colored, extended life coolant such as Motorcraft Speciality Orange Engine Coolant, VC-2 (US) or CXC-209 (Canada), meeting Ford specification WSS-M97B44–D with the factory-filled coolant. Mixing Motorcraft Speciality Orange Engine Coolant or any orange-colored extended life product with your factory filled coolant can result in degraded corrosion protection.
- A large amount of water without engine coolant may be added, in case of emergency, to reach a vehicle service location. In this instance, the cooling system must be drained and refilled with a 50/50 mixture of engine coolant and distilled water as soon as possible. Water alone (without engine coolant) can cause engine damage from corrosion, overheating or freezing.
- Do not use alcohol, methanol or brine or any engine coolants mixed with alcohol or

**methanol antifreeze (coolant).** Alcohol and other liquids can cause engine damage from overheating or freezing.

- Do not add extra inhibitors or additives to the coolant. These can be harmful and compromise the corrosion protection of the engine coolant.
- Do not mix with recycled coolant unless from a Ford-approved recycling process (see Use of Recycled Engine Coolant section).

To avoid personal injury, make sure the engine is cool before unscrewing the coolant pressure relief cap. The cooling system is under pressure; steam and hot liquid can come out forcefully when the cap is loosened slightly.

If you must remove the pressure relief cap or radiator cap (depending upon engine application), follow these steps to avoid personal injury:

1. Before you remove the cap, turn the engine off and let it cool.

2. When the engine is cool, wrap a thick cloth around the cap. Slowly turn cap counterclockwise until pressure begins to release.

3. Step back while the pressure releases.

4. When you are sure that all the pressure has been released, use the cloth to turn it counterclockwise and remove the cap.

#### Engine coolant refill procedure

The following procedure should be used when refilling the cooling system after it has been drained or become extremely low.

1. Remove the pressure relief cap from the engine coolant reservoir as previously outlined.

2. Slowly add a **50/50 mixture** of engine coolant and distilled water to the engine coolant reservoir until the coolant level is at the "cold fill level" as listed on the reservoir.

# Maintenance

3. Reinstall the pressure relief cap.

4. Start and idle the engine until the upper radiator hose is warm (this indicates the thermostat is open and coolant is flowing through the entire system).

5. Shut the engine off and let it cool.

6. Remove the pressure relief cap from the engine coolant reservoir as previously outlined.

7. Add a **50/50 mixture** of engine coolant and distilled water to the engine coolant reservoir until the coolant level is at the "cold fill level" as listed on the reservoir.

8. Reinstall the pressure relief cap.

9. Check the coolant level in the reservoir before you drive your vehicle the next few times (with the engine cool).

10. If necessary, add a **50/50 mixture** of engine coolant and distilled water to the engine coolant reservoir until the coolant level is at the "cold fill level" as listed on the reservoir.

After any coolant has been added, check the coolant concentration (refer to *Checking Engine Coolant*). If the concentration is not 50/50 (protection to  $-34^{\circ}$  F/ $-36^{\circ}$  C), drain some coolant and adjust the concentration. It may take several drains and additions to obtain a 50/50 coolant concentration.

Whenever coolant has been added, the coolant level in the coolant reservoir should be checked the next few times you drive the vehicle. If necessary, add enough 50/50 concentration of engine coolant and distilled water to bring the liquid level to the proper level.

If you have to add more than 1.0 liter (1.0 quart) of engine coolant per month, have your dealer check the engine cooling system. Your cooling system may have a leak. Operating an engine with a low level of coolant can result in engine overheating and possible engine damage.

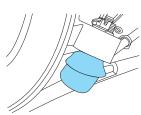
#### Steering linkage lubrication

The front and rear tie rod ends on this vehicle have high temperature seals with greaseable fittings. The fittings must be lubricated at regular maintenance intervals as indicated in the Scheduled Maintenance Guide using Ford recommended ESA M1C 92A grease to ensure proper function and extended service life.

• location of the front tie rod



• location of the rear tie rod



#### USING THE RIGHT BULBS

Function	Trade Number
Luggage compartment lamp	S211
High-mount brake lamp (Service as complete assembly)	See your Dealer
Fog lamp	9145

#### WINTER DRIVING

For winter driving, it is recommended to install radial winter tires.

Winter tires are designed to improve traction in adverse winter weather conditions.

**Note:** Use of tire cable/chains are restricted on this vehicle due to the potential damage to body and/or suspension components.

# Maintenance

When installing winter tires:

- Only radial ply winter tires may be installed.
- For a recommended wheel and tire package, ask your SVT dealer or call the SVT Info. Center at (800) FORD-SVT.
- Winter tires of the same size and type must be mounted on all four wheel positions.
- Winter tires must have the same load capacity as the vehicle's original equipment tires.



Do not exceed 75 miles per hour in a vehicle equipped with winter tires.

Winter tires available for your vehicle will likely have a maximum speed rating which is less than the maximum speed of your vehicle. Driving faster than the maximum speed for which tires are rated and approved may lead to sudden tire failure. This can cause loss of vehicle control and lead to an accident and personal injury.



Adjust your driving and speed to prevailing road and traffic conditions.



Observe the specified tire inflation pressures.

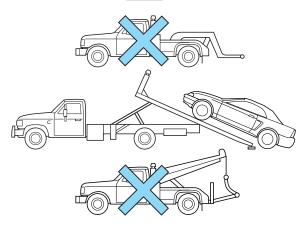


Have the wheel and tire assemblies balanced every time the tires are dismounted.

The use of snow cables or chains on the vehicle (vehicle specific tire size) tire is not recommended for this vehicle, as damage to your vehicle may occur.

# **Roadside Emergencies**

### WRECKER TOWING



If you need to have your vehicle towed, contact a professional towing service or, if you are a member, your roadside assistance center.

It is recommended that your vehicle be towed only with flatbed equipment and that 4x4 blocks must be used when loading/unloading your vehicle. Do not tow with a wheel lift or a slingbelt. Ford Motor Company has not approved a slingbelt towing procedure.

# If the vehicle is towed by other means or incorrectly, vehicle damage may occur.

Ford Motor Company produces a towing manual for all authorized tow truck operators. Have your tow truck operator refer to this manual for proper hook-up and towing procedures for your vehicle.

#### Auxiliary power distribution block

Cobra vehicles have an auxiliary power distribution block that is located by the air cleaner assembly.

Fuse Amp Rating	Power Distribution Box Description
30A CB	High-speed fan
Full ISO Relay	Intercooler Pump

Please refer to your owner's guide for complete fusing information.

### A word about warranty coverage

#### A WORD ABOUT WARRANTY COVERAGE

The SVT Mustang Cobra carries the same New Vehicle Limited Warranty as other Ford Mustang models. This information is covered in its entirety in the Ford Motor Company Warranty Guide.

Warranty service for the SVT Mustang Cobra or any SVT vehicle can be obtained at any Ford Lincoln Mercury dealer nationwide.

SVT does not recommend modifying or racing SVT vehicles, as they are designed and built to be driven as delivered from the factory. The Ford Motor Company Warranty Guide discusses vehicle usage and the installation of aftermarket parts and their effect on warranty coverage as follows:

Repairs are not reimbursable under warranty when damage is caused by:

- misusing the vehicle, such as driving over curbs, overloading, racing, or using the vehicle as a stationary power source.
- altering or modifying the vehicle including the body, chassis, or components after the vehicle leaves Ford's control.
- non-Ford parts installed after the vehicle leaves Ford's control, including, but not limited to, cellular phones, alarm systems, and automatic starting systems.

Please see the Warranty guide for complete information.

### A word about warranty coverage

In the event the vehicle is intended for track use, and the loss of warranty coverage is not of concern, the following modifications are recommended:

- install front and rear racing compound brake pads (Ford Racing Performance part #M-2001–A).
- Install rear differential cooler (Ford Racing Performance Part #M-4000–K). Permanent damage to the rear differential will result if the vehicle is subjected to competition conditions without installation of a differential cooler.

Making these noted modifications and subjecting your SVT Mustang Cobra to competition conditions will render repairs non-reimbursable under the New Vehicle Limited Warranty.