

2003-2004 Cobra Weight Reduction Recommendations

To reduce the amount of weight on the Cobra, the following items may be removed.

<u>2003-2004 Cobra</u>	<u>Weight Reduction</u>
Spare tire	-26.4 lbs
Jack/crow bar	-6.6 lbs
Trunk pad	-6.0 lbs!
Mott bar (under diff)	-7.8 lbs
Front sway bar/brackets	-12.4 lbs
Rear seat bottom	-11.0 lbs
Rear seat back	-25.6 lbs
Rear seat head rest	-5.6 lbs
High flow catted midpipe	-22.6 lbs (stocker=36.0, High flow=13.4)
Odyssey battery/bracket	-22.2 lbs (stocker=37.6, Odyssey=15.4)
Front 3.5" ProStars w/ ET Fronts	-49.6 lbs (stock chrome w/ F1's=49.8, Skinnies/spacers=25.0 each)
Rear Diamond R 16" w/ ET Streets	-10.8 lbs (stock chrome w/ F1's=49.8, Diamond Racing Wheels/ET Streets=44.4 each)
UPR K member kit	-65.0 lbs
Front Passenger Seat	-43.0 lbs
Total Reduction	- <u>314.6 lbs.</u>

To further reduce the amount of weight on the Cobra, the following items may be removed:

Rear seatbelts: 5 lbs

Supercharger pulley guard: 2.0lbs

Mach460 head unit: 5 lbs

Mach460 rear enclosure w/amps: 22 lbs

Mach460 front speakers: 5 lbs

Front driver seat: 62 lbs (replace with lightweight seat)

Front passenger seat: 43 lbs (replace with lightweight seat or just delete)

Lighter wheels: (maybe 25 lbs. for the street and 70 lbs. for the track)

You can pick and choose which weight reduction options best suit you. In most cases you will want to find a good balance between weight reduction and daily comfort. All but the dedicated weekend warriors would likely prefer to only remove what can be removed without detracting from the daily creature comforts like radio, A/C, full sound deadening, and pretty much everything that makes your car nice for the street.

Sprung and Unsprung Weight Explanation

As far as the rear suspension, there is much discussion about sprung* and unsprung* weight but the bottom line is that going to a solid rear will save another approximate 175 lbs.

The unsprung weight (or mass) has to do with the overall design/function of the suspension, and the materials used in the construction of suspension components. Solid rear suspensions, in which wheels on opposite sides are connected as a rigid unit, generally have greater unsprung weight than independent suspension systems, in which the wheels are suspended and allowed to move separately. Unsprung weight is brought up because how the two types of suspensions function (unsprung vs. sprung weight/mass) is as important as a weight savings. There are obviously tradeoffs with a solid rear that might negate the physical weight savings. And there are tradeoffs with the IRS if you're drag racing (wheel hop/weight transfer issues). Simply/generally stated (I am not anywhere near an expert in this area), sprung weight is everything from the springs up, and unsprung weight is everything from the springs down. Reducing unsprung weight is a key to increasing the car's performance, although the application factors in. I.e. drag racing vs. road racing. The greater the unsprung weight, the greater the inertia of the suspension, which will be unable to respond as quickly to rapid changes in the road surface, making an IRS setup more preferred for daily driving (driving on uneven road surfaces) or road racing. Here are a couple of interesting reads relative to sprung and insprung weight/mass.

- [Independent Suspension](#)
- [Unspring Weight](#)

Almo's (from SVTPerformance.com) 2003 Cobra is at around 3,075 pounds with a 1/4 tank of fuel. Here is some info he provided.

"I recently weighed my car without the delete kit and passenger side seat and it weighed in at 3,050 pounds. So it is safe to say.. the passenger seat and bracket with the delete kit weighs around 25. So again, car is most likely sitting at 3,075 pounds. Keep in mind this is with a steal 8 pt roll bar in the car as well. Before the roll bar it weighed in at 2,990... something like that. By the way, besides the rear amp/rack/speakers being out, everything else is still in my cab and works perfect... heater, AC, and all. I have been daily driving the car for the last week and could do so anytime when it isn't raining hard or snowing. I have also set the car up so that I can take it right off the street and run it at the track... usually just take the passenger side seat out, this is the only difference from me driving it on the street and running it at the track."

Almo's quick list of weight reduction:

- Door bars cut out
- Aluminum front/rear bumper supports
- All sound deadening scrapped up throughout the car
- Rubber rear wheel stops removed
- Windshield wipers removed (take these off at the track)
- Catback dumps installed (saves weight, no tailpipes)
- No sway bars (lightest anti-roll bar is a Steeda one which is on my car, 12 pounds)
- UPR K and arms
- Live axle
- Aluminum upper/lower control arms
- GT rotors and brakes all the way around (3,050 pounds were with the front Cobra brakes, so car might weigh a little less than stated above due to the GT brakes and rotors on the car now)
- Big and little's on the car
- Smaller battery
- Rear amp/rack/speakers removed
- HO Fibertrend hood

As of 9/24/07, Almo's 2003 Cobra makes 440rwhp and 419rwtq (SAE) at stock boost. It is currently the quickest and fastest stock upper/stock lower pulley, non-ported, and non-sprayed 2003-2004 Cobra in the country. His record time slip is 10.887 @ 118.29.