



Introduction	4	Chapter 9: Body and Interior Modifications	75
Chapter 1: Neon History	13	Gauges	75
First-Generation Cars: 1995-'99	14	Cockpit Comforts	77
Second-Generation Cars: 2000-'05	15	Weight Reduction	78
Neon Racing Legacy	16	Steering Wheels	80
The SRT-4	18	Exterior Modifications	81
The Future of the Neon	20	Body Kits	82
Chapter 2: Suspension and Handling	21	Functional Body Modifications	83
Bigger Bars and Heavier Springs	22	Chapter 10: Turbocharging, Supercharging, and Nitrous	85
Sway Bars	23	Turbocharging	85
Struts	24	Superchargers	89
Strut Tower Bars	24	Nitrous Oxide	89
Final Suspension Tweaking	25	The SRT-4	90
Corner Weighting	25	Chapter 11: Transaxle Tech	93
Alignment	30	Neon Transmissions	93
Chapter 3: Wheels and Tires	32	Aftermarket Clutches	95
Street Wheels	32	Lightened Flywheels	96
Tires for the Street	34	Limited-Slip Differentials	96
Autocrossing	35	Gear Oil	98
Racing Slicks	39	Chapter 12: Engines	99
Road Racing	40	First-Generation Powerplants:	
Drag Racing	40	1995-1999	99
Tire Pressures	42	Second-Generation Powerplants:	
Chapter 4: Braking	44	2000-2005	100
Road Racing	46	Blocks	102
Autocrossing	47	PCM Tech	102
Cars With Boost	47	First-Generation Swaps	103
Engine Transplants and NWHSS	47	Second-Generation Swaps	104
Aftermarket Brake Pads and Rotors ..	48	SRT-4 Swaps Into non-SRT-4 Neons ..	105
Brake Fluids	49	Underdrive Pulleys	105
Chapter 5: Intake System	51	Motor Mounts	105
Throttle Bodies	55	Engine Care and Lubrication	107
Porting, Polishing, Extrude Honing ...	57	Chapter 13: Modifications on a Budget	109
Chapter 6: Exhaust System	59	Dual Duty	111
Headers	61	Full Race	116
Chapter 7: Ignition and Fuel	64	Where Do We Go From Here?	118
Ignition Systems	64	Chapter 14: Don't Just Sit There – Go Racing!	119
Wires and Plugs	66	Solo II Autocross	119
It's a Matter of Time – Understanding		Solo I Hillclimbing, Track Events,	
Advance and Retard	67	and Driver's Schools	123
Electronic Fuel Injection Tips	69	Road Racing – Improved Touring ...	124
Chapter 8: Camshafts and Heads	71	SCCA National Road Racing	125
SOHC Neons	72	Driver's Schools	125
DOHC Neons	73	Drag Racing	125
SRT-4	73	Source Guide	127
Cam Timing	73		
Cylinder Heads	74		



BODY AND INTERIOR MODIFICATIONS

We all spend a great deal of time in our cars. Whether you're driving to work, or just cruising around, it's important to be comfortable in the cockpit. No matter how nice your car looks on the outside, you can't admire it when you're behind the wheel.

From a racer's point of view, a dent in the side of the car is a battle scar that tells a story of how you overcame adversity to eventually win the race against the non-Neon-driving competitors. Many racers don't care as much how their car looks from the outside, but the interior is another thing. Just like a fighter pilot, the racecar driver relies on gauges to help determine how the car is running and the proper driving position to be comfortable. Road racers who remain behind the wheel lap after lap will tell you how much of a workout it is. The constant g-forces wear down even the best athlete. Even Solo I, II, and drag racing can take a lot out of you. It's important that your cockpit is comfortable, and driving position is essential to success. If you aren't in the proper position to turn the wheel and perform multiple upshifts and downshifts or heel/toe braking, you probably won't be on the podium at the end of the day.

Most of us have spent a great deal of time and money on performance enhancements and engine modifications. Even though Neons and SRT-4s have



At Speednation, we're racers and tuners and mainly interested in functional modifications, but we can still appreciate a cool-looking Neon. By the time their owners are finished, some Neons don't even look like Neons anymore.

well-equipped dashboards, we often need more information about how our car is performing than what the factory has provided. Let's face it – the majority of people who buy Neons are not gear heads. We've all heard the story about the driver who heard a funny noise coming from the engine compartment and dealt with it by turning the stereo up louder. In any event, the standard warning lights and gauges on Neons are not

adequate to meet the needs of most of us hop-up types. Depending on how you use your car, there's certain information you need to know.

Gauges

Neons are missing one critical gauge that helps avoid engine damage: the oil pressure gauge. Those of you who have driven other people's cars that are simi-



An oil-pressure gauge is a must-have for modified engines.

lar to yours have surely noticed that all temperature gauges are not created equal. Some register a normal operating temperature by moving the indicator halfway between cold and danger. While others, even though they are the same make, model, and year, record “normal” as being about one quarter of the way to the top of the scale.

And then there’s the tach. Who did they have in mind when they designed the factory tach? Certainly not us gear heads. Even the larger aftermarket tachs



The owner of this SRT-4 has added some essential gauges. From left to right: a boost gauge, a wide-band air/fuel ratio gauge, and a shift light. (Photo courtesy Chris Malluege)

are only useful if you can sneak a look at them before you shift. Drag racers, Solo I racers, and road racers don’t always have time to watch the tach, which is why the shift light is one of the best inventions to date. When racing in time trials or at the drag strip, there is no room for error. If you make even the slightest mistake that results in lost time, that run is ruined. I prefer to use a shift light that is so bright,

I can still see it even if my eyes are closed. Shift lights are also very beneficial to road racers, but they spend so much time behind the wheel, they can probably tell you exactly what tone corresponds to 6,500 rpm. That is, if they can hear the engine. Even unmuffled Neons are quiet compared to a Mazda RX-7 with a straight pipe. Not only can you not hear your own engine when passing an unmuffled rotary car, you can barely even think. From a distance, it’s a beautiful sound, but up close, it can make your ears bleed. For those occasions, a shift light becomes invaluable. In my last race, I was trying to pass a first-generation RX-7. I never had to look at my tach more in my life (no shift light, unfortunately). But with all the fuel this RX-7 was spilling out of its fill nozzle onto the road in front of me, I needed to concentrate completely on the track to keep from slipping on the mess. I didn’t get to check my tach as much as I would have liked until the RX-7 was in my rearview mirror.

If you’ve added a turbo, you’ll require additional gauges, such as a boost gauge. With a boost gauge, you’ll be able to tell if your engine is making too much, or too little boost. It’s also imperative that you install an exhaust temperature gauge. Since turbocharged



The SRT-4 gauge array is both functional and informative. All turbo engines should have a boost gauge, and the SRT-4 comes with one from the factory (right). Besides showing you how much boost you’re making, boost gauges also show you the boost you don’t have (when something breaks!).

