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Disclaimer
Use of any information in this document is entirely at your own risk. Errors or unintentional omissions may exist. Some regulatory agencies prohibit the alteration of fuel and emissions equipment; check your local laws.

About This Document
This document pertains to '79-'93 (+'94 convertible) Saab 900s, with a special focus on '86+ cars equipped with 16-valve (16V) engines. Much of what is written here is based on my experience turbocharging an '86 900S, which has gone about 25,000 miles with the turbo.

I have limited experience with 8-valves (8V), but the conversion can be similarly achieved by fitting an 8V Turbo’s intake, exhaust, fueling, timing, and boost control components. (See “mmoe’s” 8V conversion at SaabCentral.com.)

Caution (8V): This document refers to specific boost levels that apply to 16V engines. Do not assume that references to boost limits in this document also apply to 8V engines.

Note (8V): Unless stated otherwise, all specifications discussed refer to 16V engines.

Note ('79-'80): It is possible that none of this document pertains to very early ('79-'80) c900s with B motors (not to be confused with the later H motors, which have the letter “B” in their name, e.g., B201, B202, B212). More information on turbocharging a B motor might be found on 99-oriented forums, which are populated with more people who are familiar with the old B motors.

For more information about converting your engine, beyond this document, see Appendix A: Resources.

A Note about International Market Variations
I am U.S.-based and therefore unaware of how c900s in other markets might differ with regard to some of the details discussed below. My own '86 conversion has a Jetronic LH2.2 fuel system. While I also own an '89 900 Turbo with LH2.4 (and briefly owned an LH2.4.2-equipped '92 S), there are nonetheless likely differences between LH2.2, LH2.4, and LH2.4.2 about which I am unaware. (I know next to nothing about Lucas-equipped c900 Turbos sold in Europe.) To the best of my knowledge, I have called attention to potential differences, especially with regard to Jetronic fuel system variants, but do not expect that I have caught everything.
INTRODUCTION

Tens of thousands of enthusiasts around the world have turbocharged their naturally aspirated (NA) cars, from complete, professionally-engineered bolt-on kits to ultra-low-buck DIY affairs with parts sourced from the nearest pull-a-part. Naysayers who admonish others not to try it on a Saab 900 are misinformed: it’s been done before, many times, and there are many who’ve done it to engines that aren’t half as stout as Saab’s slant-4 variants. And, yes, with similar compression ratios to the Saab NA 16V’s 10.1:1.

The guys shelling out big money for bolt-on turbo kits have it pretty easy: just lay down the Visa. But for the DIY’er, turbo conversions often require extensive custom work: exhaust manifold and muffler system; oil/water plumbing (often including drilling into the block or oil pan); intercooler fitment and plumbing; fueling and timing; and more.

However, turbocharging an NA Saab 900 requires no custom work at all: every single part bolts on, and was designed or specified by Saab. (Volvo 240 and 740 owners are similarly lucky.) This is the beauty of the conversion. Further, the Saab engine is extremely tough, so the bottom end requires nothing.

CAN I Do It?

The conversion requires decent mechanical ability and experience. If you have, say, changed a clutch, then you can probably turbocharge your NA. However, more important than your experience is your knowledge. If you do not understand how turbochargers work and how they affect your engine’s performance, then you probably should skip this project until you do. Or, at least, first learn more about turbos.

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1 For an example of inexpensively turbocharged naturally aspirated engines, see websites such as www.homemadeturbo.com and www.theturboforums.com. For turbo kits, see www.flyinmiata.com, or google integra turbo, mustang turbo, or BMW turbo. See also http://en.wikipedia.org/wiki/Callaway_Cars to read about one of the first turbo kit manufacturers.

The book “Street Turbocharging” is, in my opinion, currently the best-written, most useful book about turbocharging on the market. There are others, but if you’re going to buy just one, buy this one. In it you will learn the fundamental principles upon which all turbocharged engines are based. Even if you have no intention of turbocharging an NA but are merely interested in how turbocharged engines work, this is a good book to own.

**Won’t I Blow Up My Engine?**

If you do your homework and don’t try to push things, no. Can it happen? You bet. You’ll need to learn about a turbocharged engine’s timing, fueling, and knock protection requirements, which are quite different from an NA’s. Again, read Street Turbocharging.

**Comparing Turbo and N.A. B202 (and B212) Engines**

The only differences between 16V NA (B202i) and turbocharged (B202T) engines are the pistons and the intake camshaft. On 2.1 liter (B212) engines (installed in ’91−’93 NAs in the U.S.), the block is fundamentally the same as a B202 but sized to fit larger pistons (93mm vs. 90mm on B201/B202), which is how Saab increased displacement. (All B201, B202, and B212 engines have the same 78mm stroke.)

**Note:** For nitpickers: Saab’s own nomenclature identifies turbocharged 16V c900 engines as B202L and not B202T; however, no one on Saab forums ever uses B202L, while B202T is often used. For convenience and familiarity, B202T will be used to refer to turbocharged B202 engines. Further, neither “i” nor “T” will be included when irrelevant, and since all B212s are NAs, the “i” is omitted.

**Naturally Aspirated vs. Turbo Blocks**

Saab lists different part numbers for NA vs. Turbo blocks in their electronic parts catalog (EPC); however, I have never been able to determine that there are actual differences and have been told in passing by a Saab repair shop owner that there are none. It may be that the only difference between a Turbo and NA block is the plug in the oil return line, in which case, the castings are, in fact, identical.

**Connecting Rods**

For a given year, the rods and crank are the same between NA and Turbo engines. For example, ’86 B202i and B202T engines will have the same crank and rods; however, the rod bolts may be different on, say, a ’93 B202T.

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3 Along with a Bentley repair manual, an EPC (on CD-ROM) is an invaluable resource for any c900 owner; however, because it only covers ’86 and newer 900s, there are gaps for earlier cars. Copies of the EPC are often sold on eBay or can likely be downloaded with torrent software as well.
Pistons and Camshafts
To vary the static compression ratio on NA and Turbo engines, Saab changed the pistons’ dish (the machined depression at the top); Turbo pistons have more dish than NA pistons.

The intake cam on Turbo engines closes later than the NA cam (56° ABDC vs. 44° ABDC, respectively), which decreases the trapped compression ratio. (Trapped compression ratio is unrelated to static compression ratio, which is determined solely by an engine’s physical dimensions.)

Note: Contrary to internet myth, Saab’s own parts catalog shows that all 1986-1993 16V c900 engines use the same exhaust cam (p/n 75 60 964), regardless of whether the engine is turbocharged, naturally aspirated, B202 or B212. (1985 16V Turbo cams are different.)

B212 Headgasket Issues
B212 engines suffer higher-than-average head gasket failure rates. There are a number of reasons why this is. Before deciding to convert a B212-equipped car, read this article at Townsend Imports.

Jetronic Fuel System Variants
Saab fitted all 16V engines with a Bosch LH Jetronic fuel system except for some (all?) '90+ European Turbos, which were fitted with a Lucas CU14 system. The Jetronic system comprises components whose explanation is beyond the scope of this document; however, for the purpose of a conversion, the relevant components are the electronic control unit (ECU), fuel injectors, and the fuel pressure regulator (FPR). While certain components are compatible across the Jetronic variants, importantly, ECUs, air mass meters, and automatic idle control (AIC) valves are not; therefore, it is not possible to buy, say, a 1989 donor Turbo with LH2.4 and simply plug its Jetronic components into a 1986 900 with LH2.2 unless the entire wiring harness is retrofitted as well. Whether this would even be necessary depends on how much boost the converted engine will run; more information about this is in the What Do I Need? section below. The following table summarizes the Jetronic variants.

Bosch LH Jetronic Variants in 16V Saab 900s

<table>
<thead>
<tr>
<th>Jetronic Variant</th>
<th>Year</th>
<th>Engine</th>
</tr>
</thead>
<tbody>
<tr>
<td>LH2.2</td>
<td>'85-'87</td>
<td>B202i</td>
</tr>
<tr>
<td></td>
<td>'85-'88</td>
<td>B202T</td>
</tr>
<tr>
<td>LH2.4</td>
<td>'88-'90</td>
<td>B202i</td>
</tr>
<tr>
<td></td>
<td>'89-'93</td>
<td>B202T</td>
</tr>
<tr>
<td>LH2.4.2</td>
<td>'91-'93</td>
<td>B212</td>
</tr>
</tbody>
</table>
Turbocharging a Naturally Aspirated Saab 900  
1979-1993 (+’94 Conv.)

What Do I Need?

You basically need a donor 900 Turbo. On Craigslist, find one with a bad transmission or terminal rust for a couple hundred dollars. Purchase a donor Turbo that’s got the same head as the NA you wish to turbocharge; that is, buy a 16V Turbo to convert a 16V NA. (This is because of exhaust and fuel system incompatibilities.) If you plan on running more than ~5 psi, then you’ll need a donor Turbo with the same Jetronic variant as your NA because the complete Turbo fuel system, including the ECU, will need to be installed. If you are looking for an ’88+ donor, then try to find one with the same transmission type as your car. (See the Oil and Water Plumbing section on Page 5 for details.)

Note ('85-'86 donors): ’85 and some ’86 Turbos suffered from poor-quality wiring insulation that degraded from heat. Often, such problems will have since revealed themselves and been repaired; however, not always. If you are going to be running full stock boost (details below), then ensure that the APC and ignition system wiring insulation in your donor car is not completely trashed.

Note ('90): The ECU in EGR-equipped ’90 Turbos will not run the engine properly without the EGR equipment; therefore, if purchasing a ’90 donor car AND planning to run full, stock boost, a non-EGR LH2.4 ECU will need to be fitted. That said, the EGR systems often failed (and, in fact, were recalled by Saab) so check the ECU first to determine whether it is even the original. Search “EGR recall” on Saabnet’s c900 board for more information on ’90 ECUs.

Note ('91+): For U.S. ’91+ cars (LH2.4.2), if you are going to be running full stock boost (11 PSI), then you might have to purchase an LH2.4-equipped Turbo from ’89-’93 (+’94 Conv.) and convert your car to LH2.4. More details below.

Why not use LH2.2? You can, but while the harness plugs for LH2.4 and LH2.4.2 are the same, they are different than LH2.2, thereby making the conversion much more involved. In addition, LH2.2 is simply not as refined as LH2.4, which has better cold-start and idling, cleaner emissions, and more durable air mass meters. LH2.2 is an unnecessary, involved step backward.

From the donor car you’ll need the following components:

1. Intake Tract
   Take the entire intake tract, from snorkel to throttle.

   Note ('91+): If converting a B212 AND you want to run more than modest amounts of boost (~5 PSI), then you may also need to convert your car’s LH2.4.2 system to the donor’s LH2.4, in which case you’ll need to fit the donor Turbo’s throttle, which has a different throttle position switch that cannot simply be bolted to a B212 throttle. An LH 2.4.2 throttle switch is incompatible with an LH2.4 Turbo ECU.

   According to Larry West’s LH Parts page, Saab did, in fact, fit LH2.4.2 ECUs to some 9000 Turbos; however, for U.S.-market cars, it appears that 1991 was the only year, and it was for a 2.3 liter engine. If you wish to run full stock boost levels (~11 PSI), and you don’t want to seek out a ’91 9000 ECU, then you would need to convert your LH2.4.2 harness to run an LH2.4 Turbo ECU.

2. Exhaust System
   You’ll also need everything from the exhaust manifold back to the tail-pipe.

   Unless the donor car has a relatively decent exhaust system, it’s probably simpler to purchase a new one. In the U.S., you can get a new cat-back system
for about $160 from eEuroparts. This system is OE-quality Starla, and comes with decent clamps and new rubber hangers.

**Caution:** Use new exhaust manifold studs only, and be careful when removing the old ones. The c900 studs are well-known for snapping and you are tempting fate by cheating out and re-using them. Because the block is at a 45° angle, extracting broken studs can be especially difficult.

**Note:** '86-'90 NAs have 3-bolt catalytic converters that are incompatible with Turbo exhaust systems. Cars with B212 engines have the same 4-bolt catalytic converter as all Turbos, so if you have a B212 and your donor car doesn’t have a cat, no problem.

**Note:** ('91+): Because '91+ cars with B212 engines have the same 4-bolt catalytic converters as Turbos, it may be possible to retain the exhaust from the cat back and simply install the Turbo downpipe; I do not know for certain, though. Also note that the Turbo does not attenuate sound as well as the NA system because the turbocharger also cuts down on sound. I do not know if this difference also means that the Turbo system is less restrictive, however.

### 3. Oil and Water Plumbing
You’ll need any associated water and oil plumbing, too, including the oil cooler, lines, and oil filter boss.

**Note ('88+):** For water-cooled turbos ('88+), you’ll need the lower radiator hose. Also note that the metal hard-line from this hose to the turbo is different for manuals and automatics. A line from a manual is incompatible with an automatic (I don’t know if it works the other way around) and there is no part number on them that I have found, which makes it hard to find one unless you are able to hold it. Therefore, if possible, find a donor with the same transmission type if you are converting to a water-cooled turbo.

**Note:** I have read about a couple conversions that skip the oil cooler; if I recall correctly, they are not running full stock boost (11 psi) and are using synthetic oil as a precaution.

### 4. Fuel System Components
The fuel components you install depend upon how much boost you wish to run.

**Caution:** Regardless of how much boost you run, use premium fuel ONLY. Failure to run premium fuel can damage or destroy your engine. See Street Turbocharging or search the internet for more information on fuel octane and turbocharging.

- **For Modest Boost Levels (~5 PSI)**
  For modest boost levels (~5 psi), you can run without the Turbo ECU, intercooler, APC, and distributor. Install the Turbo injectors.

  **Caution:** Do not install the Turbo fuel pressure regulator, which is 2.5 bar (vs. stock NA 3.0 bar) and will cause the injectors to deliver ~10% less fuel at wide-open-throttle (WOT), increasing the risk of detonation. (Leaving the stock 3.0 regulator in will not affect fuel economy on a well-maintained engine because the oxygen sensor signal will trigger the ECU to trim the injector pulsewidth except during warm-up and WOT.)

  **Note ('86-'90):** For '86-'90 conversions, confirm that the throttle position switch works. A failed switch will prevent LH2.2 or LH2.4 Jetronic systems from running extra fuel during WOT conditions, which can damage or destroy the engine. (U.S. ’91+ cars with LH2.4.2 have a different kind of throttle switch.)
• **Full, Stock B202T Boost Levels (~11 psi)**

To run more boost, install the following components:

- **Turbo Injectors**

In the U.S., you can have them cleaned inexpensively at places like cruzinperformance.com. Regardless of who cleans them, it’s cheap insurance to do so.

- **Stock NA Fuel Pressure Regulator**

Keep your NA’s stock 3.0 bar fuel pressure regulator.

<table>
<thead>
<tr>
<th>Caution:</th>
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<tbody>
<tr>
<td>Do not install the Turbo fuel pressure regulator, which is 2.5 bar (vs. stock NA 3.0 bar) and will cause the injectors to deliver ~10% less fuel at WOT, increasing the risk of detonation. (Leaving the stock 3.0 regulator in will NOT affect fuel economy on a well-maintained engine.)</td>
</tr>
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</table>

- **Intercooler**

The stock intercooler is plenty good for this project.

<table>
<thead>
<tr>
<th>Note:</th>
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<tbody>
<tr>
<td>The intercooler mounting piece at the bottom of the intercooler is absent on NAs and, if memory serves, is riveted to Turbo models. I run my car without having installed it; it seems to work fine.</td>
</tr>
</tbody>
</table>

- **APC System**

<table>
<thead>
<tr>
<th>Note:</th>
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<tbody>
<tr>
<td>The APC is basically standalone, requiring 12V and tach signal only. Contrary to what’s been written on the internet, converting the car to a Turbo wiring harness is unnecessary.</td>
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</table>

<table>
<thead>
<tr>
<th>Note:</th>
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<tbody>
<tr>
<td>For conversions to '88 and newer cars (LH2.4 and LH2.4.2) you’ll need a long bolt to secure both the EZK’s knock sensor and the APC’s knock sensor. Mount them one on top of each other and pay attention to the torque spec -- see your Bentley repair manual.</td>
</tr>
</tbody>
</table>

- **Turbo Intake Camshaft**

The Turbo intake cam lowers trapped compression a little.

- **Jetronic ECU from a Turbo Engine**

<table>
<thead>
<tr>
<th>Note (LH 2.2):</th>
</tr>
</thead>
<tbody>
<tr>
<td>If you are converting an NA car equipped with LH2.2 (‘86–‘88) to run full boost, then you will need to convert the EZK timing system to a Turbo system. This is because LH2.2 Turbo ECUs do not output a load signal to the EZK, which cannot control timing without it.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Note (LH2.4 &amp; 2.4.2):</th>
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<tbody>
<tr>
<td>According to “ludichris001” on SaabCentral, LH2.4 c900 Turbo ECUs do have a load signal, so you can more easily convert an LH2.4-equipped NA. According to a knowledgeable Saaber, LH2.4.2-equipped cars (U.S. ‘91+) can supposedly be converted to LH2.4 without too much trouble; however, I don’t have details on the conversion.</td>
</tr>
</tbody>
</table>
5. Ignition System

The ignition system you use depends upon how much boost you wish to run.

**Caution:** Regardless of how much boost you run, install NGK BCP7ES spark plugs. If your engine has NGK BCP6ES spark plugs (or any other spark plugs that are not the same heat range as BCP7ES), replace them with BCP7ES, which is a cooler plug that is less likely to promote detonation.

If you are running modest boost levels only (~5 PSI), then you can keep the existing EZK system. If you are running full, stock 900 Turbo boost (~11 PSI), then you'll need to provide some timing retard during boost conditions, in which case you'll need the following:

- **Distributor from the Turbo donor**

  **Note (LH 2.2):** If you are converting an LH2.2-equipped NA car to run full boost pressure with a Turbo ECU, then simply install the Turbo distributor as-is and convert the EZK wiring to run a Turbo ignition system. As noted above, LH2.2 Turbo ECUs do not output a load signal to the EZK; therefore, the Turbo ignition system must be used. EZK and Turbo ignition control modules are incompatible: you must use the Turbo module when converting to the Turbo ignition system.

  **Note (LH2.4 & 2.4.2):** If you are converting an LH2.4- or LH2.4.2-equipped NA to full pressure with a Turbo ECU, then you'll need to defeat the advance portion of the Turbo distributor's vacuum module (see Appendix A on Page 11) and re-wire the crank sensor wiring to the distributor, as you'll no longer be using the crank sensor. (The signals from both the crank sensor and the distributor-mounted Hall sensor are the same.) This is how I ran my '86 for several years (using a Volvo Turbo Jetronic ECU, which has a load signal).

  That said, for an LH2.4- and EZK-equipped NA, I don’t conclusively know whether it will sufficiently retard timing under full boost (I suspect it does not). A stock Turbo’s ignition timing is retarded to 11° BTDC at full boost, so if you are able to measure the EZK’s signal and confirm that it can do the same at greater than about 5 PSI, then it’s probably okay to skip fitting a Turbo distributor with advance defeated and retard functional. See Larry West’s [LH Parts page](https://www.saabparts.com/lhparts) for part number information.

  If you want to run EZK but find that it insufficiently retards timing under boost, then it may not be difficult to modify it if you are electronically inclined. See Volvo forum [Turbobricks](https://www.turbobricks.com), which has a lot of information on modifying EZKs on their Performance board. In my experience, being able to run EZK is much better than a Turbo ignition system, which is crude by comparison.

6. Other Components

In addition to the above-noted systems, add the following components to complement your conversion:
• Turbo Fuel/Temp/Boost Gauge

Note ('90+): For '90 and newer cars, the boost/fuel gauge must also come from a '90+ donor because the later fuel sender is incompatible with earlier gauges (you'll fry the gauge). Also note that the gauge graphics changed in '91, so a boost/fuel gauge from a '90, while compatible with a '91+ fuel sending unit, will have slightly different graphics.

• Turbo Battery Tray (10mm bolts from below), Battery, Battery Shield, Positive Battery Cable

Caution: Do not run a converted car without the Turbo battery heat shield. The battery can melt because it is so close to the downpipe elbow.

Note: NA batteries are wider than Turbo batteries and may come in contact with the downpipe after installing the Turbo battery tray. In a pinch, you may be able to run the NA battery with the heat shield without installing the turbo battery tray. This worked on my '86 so long as I put a small block of wood beneath the battery.

• New Gaskets

From memory, you’ll need the following gaskets:

- Oil filter boss gasket (can probably use Loctite 518 anaerobic sealer)
- Turbo oil inlet and outlet gaskets

Note: You can re-use the rubber gasket at the oil return line where it mates to the block if it is in decent condition (not cracked). The return line should fit tightly into the block; getting it installed can be somewhat difficult.

- Turbo water gaskets??
- Exhaust manifold gasket and studs

Note: As of October 2009 or thereabouts, eEuroparts has been selling a cheap aftermarket exhaust manifold gasket. If possible, seek out the higher-quality OE type that has metal around the outlet holes and a metal backing piece. I have also broken a brand new aftermarket stud at less than specified torque. If you are paranoid, consider OEM.

Note: The stock steel gasket between the turbo inlet and manifold is high quality. According to a Saab tech, aftermarket ones tend to be cheap and don’t last (they burn through). Unless yours is completely trashed, re-use it.

- Intake manifold vacuum fitting rubber grommets

**SET-UP NOTES**

Once all of the components are installed, take it easy on the engine at first to confirm that everything is working properly. If running an APC, confirm that it is functional before laying into the boost. (It’s probably worth running base boost for a while before hooking up the APC.) If you are not running an APC and hear ANY knock, get off the gas -- you have a timing or fueling issue.
APPENDIX A: RESOURCES

Forums and individuals:

- Saabcentral: Gorper, mmoe, Alex??, Jared (in Canada - Saskatchewan??)
- Saabnet: Wasaab, Patprice, Beaudreau, Brad
- C900 page??

Reference:

- Jetronic part number list:  

- Part numbers for Jetronic and many other Saab components (heads, turbos, APCs, etc.):  

- Conversion from the early 2000s:  
  [http://beaudreau.50megs.com/SAAB/NATurbo.html](http://beaudreau.50megs.com/SAAB/NATurbo.html)

- LH2.2 to LH2.4 conversion, by Justin VanAbrahams:  
APPENDIX B: MODIFYING A TURBO DISTRIBUTOR FOR USE WITH A TURBOCHARGED N.A.

Introduction
You can get boost retard by using a Turbo distributor with the advance portion of the capsule defeated. People who turbocharge NA cars that aren't Saabs often have to buy an aftermarket retard timing controller such as the MSD BTM or reprogram their computer-controlled ignition system, if that's possible.

Using the Turbo distributor is a somewhat crude solution, but it is cheap and easy to do, and seems to work well on my car.

Description of Vacuum/Boost Capsule
The Turbo distributor advances timing during high-vacuum and retards it during boost by means of pneumatically controlled device called a vacuum/boost capsule (photo at right). On Turbo distributors, timing is controlled exclusively by this capsule; there are no centrifugal weights in the distributor.

Contained inside the capsule is a flexible diaphragm sandwiched between two springs. During off-boost conditions, vacuum is applied via the manifold to the nipple at the top of the capsule, causing the diaphragm to be pulled up against the upper spring, which controls the timing advance curve. Conversely, when there is positive pressure (boost) in the manifold, it pushes the diaphragm down; the spring below the diaphragm controls the timing retard curve.

The diaphragm is attached to an arm that protrudes down out of the bottom of the capsule (see the bottom of the photo above) and which is attached to the Hall sensor inside the distributor. When the diaphragm moves up or down, the arm, in turn, moves the Hall sensor back and forth with respect to the shutter wheel windows. During advance conditions, the sensor is moved so the shutters pass through the sooner; during retard, the sensor is moved so the shutters pass later.

Modification Overview
The photo at right shows the bottom of an unmodified capsule. Note the notch (circled) in the arm just above the base of the capsule. During high vacuum conditions,
the arm is pulled up against the base, its travel limited by the notch, and with it the maximum advance. By modifying the capsule so that the arm cannot move up to advance timing under vacuum—the EZK will continue to electronically control advance (which it does better than the Turbo’s vacuum capsule)—the boost retard portion is left functional.

**Modification Instructions**

1. Before modifying the capsule, test the diaphragm to ensure that it is not torn. Apply vacuum or pressure to it with your MityVac tool or similar. If it’s good, it will hold vacuum/pressure.

2. Remove the distributor from the head and then the capsule from the distributor. The Hall sensor connector plug is fragile; take care not to damage it.

3. Find a washer whose diameter is slightly larger than the inside of the L-shaped bracket attached to the bottom of the capsule and whose thickness is exactly the same as the distance between the base of the capsule and the notch. See installed washer at right, noting flush fitment between the base and the arm notch.

4. Grind a slot into the washer perpendicular to the edge and through to the center, like taking a bite out of a donut (see photo at right). This is done so that the washer may be slid behind the arm.

5. Next, grind the edges of the washer so it will press-fit up under the base of the capsule.

6. Re-install the capsule onto the distributor, taking care to ensure that the hole at the end of the arm is properly attached to the Hall sensor inside the distributor.

7. LH2.4 and 2.4.2 cars only: Unplug the
connector at the crank sensor and modify the wiring to fit the plug on the distributor. When fitting a Turbo distributor to LH2.4 and 2.4.2 cars, the distributor-mounted Hall sensor must be used; do NOT use the crank sensor, as the distributor will not retard timing. (The signals from both the distributor- and crank-mounted Hall sensors are the same.)

8. Manually set the base timing to 14° BTDC. (This is the stock setting for 16V LH2.2-equipped NA cars, which have distributor-mounted Hall sensors.)

Miscellaneous Details
'86 and '87 non-turbo (LH2.2) cars have a distributor with the Hall sensor inside; '88+ cars have a crank-mounted hall sensor. If you are turbocharging an '86-'87, then Turbo distributors from '85-'88 are plug-and-play, as those years are also LH2.2, with the same oval connector plug as your car. An '89+ Turbo (LH2.4) distributor will also work, but the plug is different (square) so the connector on the car’s wiring harness will need to be re-wired.

For '88+ NA cars with LH2.4, you can use any c900 Turbo distributor, but you'll need to customize the Hall sensor wiring to connect it. You do NOT use the crank-mounted sensor; you use the sensor in the Turbo distributor.

LH2.4 distributors have a slightly more robust plug than the earlier style; however, they are both somewhat fragile.