

TOYOTA

TRD

RACING DEVELOPMENT



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TRD U.S.A., Inc., (the initials stand for Toyota Racing Development, which pretty well describes us), is a subsidiary of Toyota Technocraft (formerly Toyopet), which was established by Toyota Motor Corp. in 1954. Toyota Technocraft in turn created TRD Japan in 1965, just as the modern era of motorsports took off.

In Japan, Toyota utilizes Toyota Technocraft/TRD Japan to produce race cars such as the Group C car seen in the U.S. IMSA events in 1989 and in European competition prior to that. TRD Japan also produces a wide range of street performance and racing parts for Toyota vehicles, as well as producing modified versions of production Toyota cars and trucks for both street and track.

TRD U.S.A. was created in January, 1979. Since then, we have been providing access to those TRD Japan parts which are attuned to the U.S. market and, in addition, engineer and produce our own products.

TRD U.S.A. has a close working relationship with Toyota Motor Sports and, under contract, have developed and produced the Toyota Atlantic series engine and the IMSA GTP program turbocharged race engines.

Today, TRD U.S.A. offers the widest range of performance and racing products for Toyota cars, engines and driveline/suspension systems available anywhere. We make and sell products for no other vehicles. For

street performance, and for racing applications from autocross to IMSA GTP, Toyota Racing Development is the first and the last stop for Toyota owners.

Every product we offer is backed by the same engineering experience and quality that went into your Toyota car or truck. Where appropriate, our products have been competition-proven. Quality of fit and performance is assured at the design stage and in manufacturing.

In this catalog, we provide more than a simple listing of available parts, however. At the beginning of each product section, we provide tips on performance enhancement that are designed to prevent the selection of parts that won't meet your needs, and which will guide you to the parts that are right for your intended type of driving or racing. And before you get into the parts, we've provided information on each Toyota model with regard to racing suitability and recommended modification packages, including details right down to suspension alignment.

The combination of a broad body of racing experience, street performance modification expertise and the quality standards of a major auto manufacturer have put TRD U.S.A. at the forefront of import car modification. After racing through this catalog, we think you'll agree that Toyota performance begins and ends with TRD.

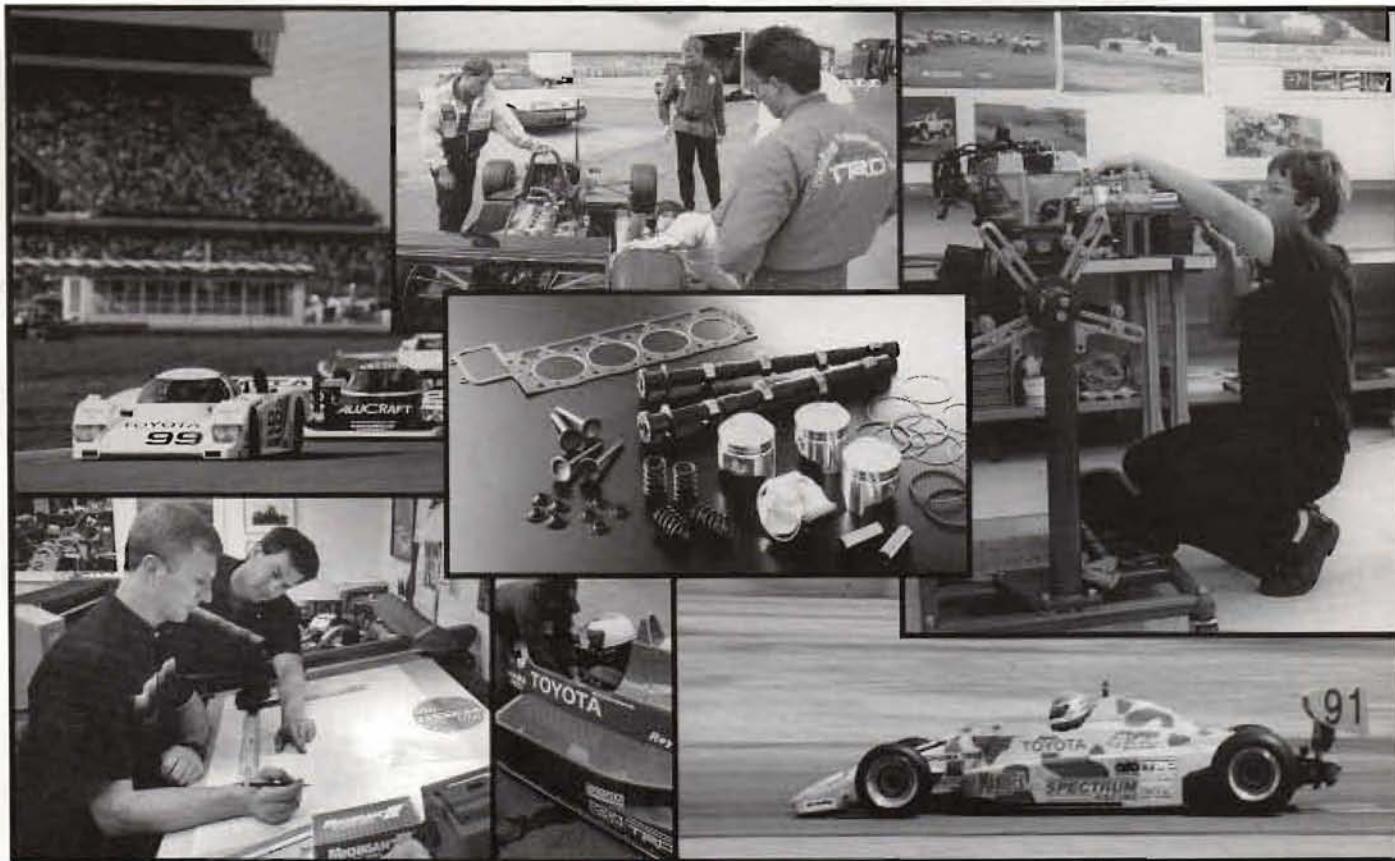


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Toyota Cars: Built to Perform

The following section provides information on individual Toyota models, including history, useful technical information and recommended modification packages for street and racing.

SUPRA

Introduced in 1979 (as model MA46), the Supra was initially sold as a top-of-the-line Celica. Until 1980, the 120-hp 2.6-liter 4ME engine was used. In 1981, the designation was changed to the MA47 and the engine was enlarged to 2.8 liters (the 5ME). The increased displacement and an improved fuel injection system raised horsepower to 130. These Supras ('79-'81) had four-wheel disc brakes, a unique W-52 trans and 7.5" differential.

The 4ME/5ME engine was designed for low-rpm torque rather than high-rpm horsepower and, in a heavy-for-its-size vehicle, offered limited performance potential. Few parts are available beyond suspension, limited-slip diffs and rear end gearsets.

In 1982, Toyota redesigned the Supra from the tires up. For the enthusiast, four-wheel independent suspension was added and an all-new 5MG engine was used. This beauty has dual overhead cams (DOHC), 2.759-liter displacement and produces 143 hp, upgraded in subsequent years to 160 hp. The MA60 model Supra thus produced is a world-class touring car, with a good factory balance between torque and horsepower, a high level of cornering grip and great occupant comfort. The chassis is exceptionally strong; we have customers with rattle-free examples after 200,000+ miles, one reason why they hold their resale value.

MA60 Supras used a 7.5" differential, with axle ratios varying from 3.70 to 4.38. The first letter of the code on the manufacturer's identification plate is the ring gear size (always an F on these cars); the next two digits give the gear ratio:

Code	Ratio
05	3.70
07	3.89
08	4.11
09	4.22
10	4.38

A wide range of performance parts is available for MA60s, concentrated in the suspension and drivetrain as the 5MG was never developed for racing. MA60s have top-three-places potential in the following SCCA (Sports Car Club of America) classes: ITA, SP2, ESP and GS.

The MA70 Supra, introduced as a 1986½ model, was again all-new from the tire footprint. A more aerodynamic body and even better ergonomics were created. Under the hood, an all-new 3-liter, 4-valves-per-cylinder, in-line six was developed, producing 200 hp. A year later, a turbo option was made available with 230 hp. Larger, ventilated discs were added, along with a new unequal-length A-arm independent suspension.



The turbo version of the 7MGT engine features an air-to-air intercooler, lower compression and oil cooled pistons aiding durability. Clutch and trans are beefier to handle the torque increase. Both engine versions are controlled by an on-board computer system which provides performance with remarkable driveability.

From the factory, turbo Supras are equipped with micro-processors that monitor a wide range of engine operating parameters. The computer adjusts boost pressure, fuel delivery, spark timing and other factors to provide both peak performance and driveability. The computer maintains a delicate balance—one required by any finely tuned engine—and simply

turning up the boost can cause spontaneous (and expensive) engine disassembly! TRD has developed performance modification systems for the Supra turbo engine which interface with the computer to increase power without a sacrifice in reliability. These include TRD's high-flow exhaust system, electronic boost control system, high-volume intercooler, fuel computer, and larger turbocharger.

MR2

Toyota engineering superiority is perhaps nowhere better demonstrated than in the design of the MR2. In addition to covering the basics—four-wheel independent suspension, excellent brakes, driver-friendly controls placement—it's mid-engine design places the major weight mass, the engine, as close as possible to the center of the wheelbase. The result is low **polar moment of inertia**. The reverse, or high polar moment, is created by placing weight masses at or near the ends of the car. As can be easily imagined, weight masses at the car's ends will lead to earlier loss of traction in cornering through a pendulum effect.



Instead of having the inertia of the major weight mass primarily affect one end of the car (leading to understeer in front-engined cars and oversteer in true rear-engined cars like the old Corvair) the MR2 engine's weight (and that of the driver) acts on both front and rear ends pretty much equally because of its central location. As a result, it is much easier to cause the MR2 to change directions and the car achieves more neutral handling and superior cornering G-levels in stock form. TRD suspension modifications can raise cornering levels to racing performance that is still street useable.

The power gains available are equally dramatic. The MR2, introduced in 1985, uses Toyota's 4AG engine, the same four-cylinder, DOHC, 16-valve powerplant we modify for Toyota Atlantic formula race cars. In naturally aspirated or supercharged form, the 4AG can produce the kind of power that demands respect both from its driver and its competition.

The MR2, properly prepared, can win in SCCA GT-3, IT (eligible from Jan. '90), Pro-Solo 'SP-3 and Solo II (CSP), D Stock and E Prepared classes.

CELICA

Since its introduction in 1971, the Celica has been available in a large variety of chassis, engine and body configurations, as shown in the adjacent chart. The original body resembled a ¾-scale fastback Mustang of mid-'60s vintage, and was followed by a more angular body (and the first Supra, essentially a 6-cylinder version of the Celica). The GT-S version was introduced in 1982 and offered slightly stiffer suspension, larger tires and wheels and wheel-well flares. Mechanically, it was the same as the standard model, with solid rear axle, drum brakes and the carbureted 22R engine.

In 1983, the GT-S received independent rear suspension (IRS) and in 1984 disc brakes were added to the rear axle as well. Also in 1983, the GT-S received the 22RE fuel injected engine, retained through the 1985 model year.

In 1986, the Celica went to front-wheel-drive and a new 2-liter, 16-valve engine, the 3SG, was introduced, which is still used. Specifications on the various Celica engines are provided in the adjacent chart. Note the use of iron and aluminum cased transmissions in different years; while the aluminum version is lighter, it is also weaker and not recommended for serious performance use. The S-53 trans is used in front-drive Celicas only.

All rear-drive Celicas had 6.7" differentials. Gear ratios may be determined by the four-digit axle code from the vehicle ID plate on the firewall. T prefix is for 6.7" diff. The next two digits identify the axle ratio:

Code	Ratio
05	3.70
07	3.90
08	4.11
09	4.22
10	4.375

Model Year	Model Code	Body Style	Engine Code	Trans Type
1971-75	RA20	Coupe	18R	W-50*
1975	RA22	Coupe	20R	W-50*
1976-77	RA24	Coupe	20R	W-50*
1976-77	RA29	L'back	20R	W-50*
1978-80	RA42	Coupe	20R	W-50*
1978-80	RA42	L'back	20R	W-50*
1981	RA43	Coupe	22R	W-50*
1981	RA43	L'back	22R	W-50*
1982-85	RA64	Coupe	22R	W-50*
1982-85	RA64	L'back	22R	W-50*
1982	RA64 (GT-S)	L'back	22R	W-50
1983-85	RA64 (GT-S)	L'back	22RE**	W-50
1983-85	RA64 (GT-S)	Coupe	22RE**	W-50
1986	ST161	Coupe	2SFE**	S-53
1987-89	ST161	Coupe	3SFE**	S-53
1986-89	ST162	L'back	3SGE**	S-53
1988-89	ST165 (All Trac)	L'back	3SGT***	E-50F2

* Iron case

** E stands for fuel injection

*** T stands for turbocharged

RA20 (1975-1977). The 18RC has limited potential and is not recommended for competition. For street use, the 18RG engine is a direct bolt-in replacement. Never imported into the U.S., the 18RG is readily available from a number of sources and yields outstanding performance. It is easily modified to produce in excess of 190 hp. TRD has a full line of parts for the 18RG.

Fortunately for early Celica owners, the 18RC engine was replaced, beginning in 1975, with the 20R and, later, a revised 22R version. The 20R displaces 2213 cc with bore and stroke equal at 89mm. The 22R was bored to 92mm (2365 cc), and was available in both carbureted and injected versions (22R, carbs; 22RE, injected), while the 20R was carbs only. Both engines have a single overhead cam (SOHC); the 20R and early 22R have a hemispherical combustion chamber and the later 22R has a swirl-type combustion chamber. All 22Rs, had re-designed intake ports for lower emissions.

The 20R head is superior and is a bolt-on replacement for pre-'85 22R heads and will increase compression ratio by 0.5 to 1.0. The 20R head will not interchange on 1985 and later 22R blocks.

Caution: 20R and 22R cams are interchangeable. However, several different materials have been used for cam followers, resulting in very short cam life with regrinds due to material incompatibility between cam lobe and cam followers. Use only new cams in these engines.



RA40 (1978-1981). Early RA40 Celicas use the 20R engine (through 1980), with later versions equipped with the 22R. See above.

RA60 (1982-1985). This includes a mixed bag of IRS and live-axle rear suspensions. The later ('84-85) GT-S is TRD's recommendation for street performance because it has the independent rear, fuel injection and four-wheel disc brakes. The coupe body style is both lighter and more rigid than the liftback. Due to the IRS, these models can corner and brake better than the live-axle cars at lower speeds, but require greater skill at higher speeds because the rear end has a tendency to kick out (oversteer) under trailing-throttle conditions.

ST16, ST165 Series (1986-1989). There has been little development of engine parts for the ST Celicas and the 2SFE/3SFE/3SGE engines used, due to their limited involvement in racing. High-flow exhaust systems are offered, along with suspension parts to upgrade handling.

The Celica AllTrac turbo, introduced in 1988, is essentially a Celica GT-S equipped with a turbocharged 3SG engine, rated at 190 hp. The All-Trac, developed for international rallying, has all-wheel drive and anti-lock brakes (ABS). With outstanding performance as delivered, more sophistication is available through the use of TRD performance parts, including a high-flow exhaust system, EVC, a fuel management computer and limited-slip differential.

COROLLA

There are more variations on the Corolla platform than on any other Toyota model. SR5 and GT-S versions are available, with the latter being top-of-the-line and having more powerful engines.



All Corollas are lightweight, well powered and relatively inexpensive, making them great platforms for performance modification. Even when extensively modified, they have proven extremely reliable and troublefree.

1976-79 Models

Available as both coupe (TE37) and sedan (TE51). The sedan is a better choice as it is both lighter and more rigid than the hardtop. The SR5 version offers the most potential because of its 5-speed trans and 6.7" differential (others have a 6.38" diff).

All models in these years have the great 2TC engine: 1588 cc displacement; hemispherical combustion chambers; 102 hp. Virtually indestructible bottom-end and the hemi cylinder head combine to tremendous performance potential...and of course TRD has the parts that let you realize that potential.

The 2TG DOHC engine, with 1600 cc displacement and 125 hp, is a bolt-in swap for the 2TC. Never offered in the U.S., the 2TG has incredible performance potential for modification and is readily available through importers. We have a wide range of parts for these engines.

In competition, Corollas have proven winning potential in the following classes: circle track; mini-stock; ITC; GT-4; Solo II; E Prepared; D Street Prepared; Pro-solo; and Sp3. They are a bit less competitive in H Stock.

1980-1983 Models. Even greater model selection is available in these years. We prefer the SR5 coupes, powered by the 3TC engine with 1770 cc and hemi head, rated very conservatively at 83 hp. The 2-door sedan is slightly lighter and is more rigid than the liftbacks.

The 2TG engine (see above), with its greater performance potential, is a bolt-in swap. Note, however, that the T-50 trans used in these years is not interchangeable with the early T-50, as the tailshaft is different. All years have the same differential, a 6.38" diameter unit.

Corolla models in these years have proven potential winners in circle track/ministock competition, and in SCCA classes including GT-4, ITB, Solo II, D Street Prepared, E Prepared, Pro-Solo (SP3).

1984-1987 Models. Again, a number of models were offered, with the SR5 and GT-S as standouts. The GT-S is the model of choice as it has the Toyota 4AG engine, which is also the basis of the TRD-developed Toyota Atlantic formula-car spec engine. This 16-valver has 1587 cc displacement and was rated at 114 hp. GT-S Corollas have 4-wheel discs (the SR5 has mixed disc/drum brakes) and use a 6.7" differential with a 4.30:1 ratio. SR5s have a 6.38" diff and 4.10 ratio.

Corolla models in these years have extensive performance potential

and they have been raced internationally, resulting largely from the great 4AG motor potential. As race car or rally car, Corolla has an international reputation and these years remain competitive. Race use has led to a large number of performance parts being offered by TRD. The Corolla is especially successful here in GT-3, GT-4 (SR5), ITA, Solo II (CSP, DS, and EP) and Pro Solo (SP3).

1988-1989 Models. An all-new, front-wheel-drive vehicle. The SR5 and GT-S models are again preferred, although the SR5 has the 4AF engine, for which no parts are available. The GT-S has the 4AG motor (see above) and accepts all engine parts for the same engine in other models, except exhaust system, right through to the clutch. The trans, of course, is not the same as used in other 4AG cars due to the front-wheel-drive feature.

These model year Corollas have proven effective in GT-3, Solo II (CSP) and DS classes.



ENGINE SPECIFICATIONS

The following are specs for stock engines. Engine code appears as first digits (before the dash) of the engine serial number cast into the block.

ENGINE CODE*	DISPLACEMENT (cc)	BORE (mm)	STROKE (mm)	C/R	ROD LENGTH (mm)	RATED HORSEPOWER
2T	1588	85	70	8.5:1	123	102
3T	1770	85	78	9:1	123	83
2TG	1588	85	70	9.8:1	123	125
2TGR	1588	85	70	9.2:1	123	120
2TGU	1588	85	70	8.7:1	123	115
2TGEU	1588	85	70	8.7:1	123	115
18R	1990	89	80	8.5:1	138	97
18RG	1990	89	80	9.7:1	138	140
18RGR	1990	89	80	9.2:1	138	130
18RGRU	1990	89	80	9.2:1	138	125
18RGU	1990	89	80	8.7:1	138	120
18RGEU	1990	89	80	8.3:1	138	120
20R	2213	89	89	8.4:1	148	96
22R	2365	92	89	9.0:1	148	100
22RE	2365	92	89	9.3:1	148	116
4AC	1586	81	77	9.0:1	122	70
4AG	1586	81	77	9.4:1	122	114
3SG	1998	86	86	9.3:1	138	135
5MG	2759	83	85	8.8:1	155	143
5MG	2759	83	85	8.8:1	155	160
7MG	2954	83	91	9.2:1	152	190
7MGT	2954	83	91	8.4:1	152	230

*Engine Codes: Letter suffix indicates fuel injection (E)
emissions system (U)
turbocharged (T)

Engine Theory/Selection

If you are selecting a Toyota for modification, the engine code above will help you determine which engine you want (and which one is in the vehicle). The following section on vehicle ID plates will help you determine what engine **should** be in the car.

As general rules, you can assume the following:

An "over-square" engine, one with a bore diameter greater than the stroke specification, will have greater rpm potential than one with a larger stroke than bore...and more horsepower. This is because horsepower is a function of engine speed.

When the stroke is greater than the bore, the engine will produce more torque than an over-square engine.

Torque is what overcomes inertia...it gets the car away from a stop light. Think of torque as bottom end power.

Horsepower is what gets a car from 55 mph to 65 mph. Think of horsepower as top end power.

Obviously many factors affect horsepower and torque besides bore/stroke ratio, including cam design, compression ratio, weight of moving parts like pistons, friction, intake/exhaust breathing and more. But the basics remain constant, and the information above can be used to evaluate the potential of an engine.

REAR AXLE RATIO/DIFFERENTIAL TYPE IDENTIFICATION

The vehicle ID plate, located on the firewall in the engine compartment, provides much information, as outlined above. If your car has been owned by someone else before you acquired it, the gear may have been changed. To verify the ratio, jack the rear of the car up until both rear wheels are off the ground. Mark the driveshaft (not an axle on IRS cars) with tape or chalk. Rotate one tire through one full revolution of the driveshaft and count the number of tire rotations. For a 3.300:1 axle ratio, the driveshaft should rotate 3.3 times for each complete tire revolution.

The rear axle code is four digits: a letter followed by three numbers (see earlier section on chassis ID plates). The first (letter) provides ring gear diameter; the second and third (numbers) indicate the ring and pinion ratio; and the last digit indicates the number of pinion gears and whether or not the diff has limited-slip.

NOTES ON 2TG and 18RG SERIES ENGINES

18RG	A great four-cylinder. Has 9.7:1 compression, no smog devices and 140 hp. Many parts available.
18RGR	Compression lowered to 9.2:1 and air injection added. Has 135 hp.
18RGU	Has air injection and EGR, Yamaha-designed head, an electronic distributor that should be replaced for performance use and un-rebuildable carbs. Yes, TRD has replacement carbs.
18RGEU	Adds electronic fuel injection, a Yamaha-designed head and 8.3:1 compression for 120 hp.
2TG	A very good four-cylinder with many parts available. Has 9.8:1 compression, no emissions system and 125 hp.
2TGR	As above, except egr injection and 9.2:1 compression. 120 hp.
2TGU	Compression lowered to 8.7:1, air injection, EGR, a Yamaha-designed head, electronic distributor which needs replacement for performance use and un-rebuildable carbs. We have distributors and carbs to upgrade. Has 115 hp.
2TGEU	Compression still lower at 8.3:1, but with electronic fuel injection and 115 hp.

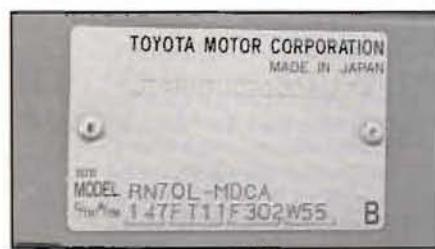
CYLINDER HEAD COMBUSTION CHAMBER VOLUMES

The following chart provides approximate combustion chamber volumes for various engine series. Note that volumes can vary ± 10 cc due to production variances, model changes and other factors. Decreasing volume increases compression ratio; increasing volumes lowers the C/R.

Engine	Chamber Volume	Engine	Chamber Volume
2T, 3T	68 cc	18RG	79 cc
2TG	62 cc	20R, 22R	83 cc

First Digit: Gear Diameter

Code	Ring Gear Dia.	Code	Ring Gear Dia.
A	138mm	M	12.5"
B	145mm	N	13.5"
C	6.25"	P	14"
D	6.62"	R	162mm
E	7.1"	S	6.38"
F	7.5"	T	6.7"
G	8"	U	6"
H	9"	V	10.6"
J	9.25"	W	15.5"
K	9.5"	X	142mm
L	10.5"	Y	158mm



Code: F302
 Ring Gear Diameter (F = 7.5")
 Gear Ratio (30 = 3.727)
 No. of Pinion Gears/Ltd. Slip
 (2 = 2 Pinions, No Ltd. Slip)

Second, Third Digits: Gear Ratio

Code	Gear Ratio	Code	Gear Ratio	Code	Gear Ratio
01	3.30	15	5.125	29	4.10
02	3.36	16	5.286	30	3.727
03	3.545	17	5.60	31	3.909
04	3.556	18	5.714	32	6.591
05	3.70	19	5.833	32	5.583
06	3.889	20	6.167	33	7.503
07	3.90	21	6.667	33	5.583
08	4.111	22	6.78	34	6.781
09	4.222	23	6.833	34	4.786
10	4.375	24	7.64	35	7.636
11	4.444	25	4.556	35	5.60
12	4.625	26	5.571	36	4.778
13	4.79	27	3.364	37	3.583
14	4.875	28	4.30	38	3.417

To determine which engine series was used in producing your Toyota, refer to the firewall Chassis Identification Plate, which incorporates a letter/number combination code. Products in this catalog which apply to

an engine, rather than to a chassis, are listed by engine code (4AG, 2TC, etc.) The chart below will allow you to determine which engine is in your car or truck.

Engine Code from Chassis ID Plate	Engine Series
RA20, RN12	8RC
RA21, RN14, RN22, RN27	18RC
RA22, RA24, RA29, RA42, RN23, RN28, RN32, RN42, RN37, RN47	20R
RA43, RA64, RN34, RN44, RN38, RN48, RN50, RN55, RN60, RN61, RN65, RN66, RN70, RN80, RN85, RN90	22R
RA64, RA65, RN50, RN55, RN60, RN61, RN65, RN66, RN70, RN85, RN90, RN101, RN106, RN110	22RE
RN55, RN61, RN66 RN80	22RTE 22RE

Engine Code from Chassis ID Plate	Engine Series
TE21, TE27, TE28, TE31, TE37, TE38, TE51, TE72	2TC 3T
SW12 VZN85, VZN90, VZN95, VZN100, VZN105, VZN110, VZN120, VZN130	3SG, 3SGT
AE82, AE86, AE92, AW11 AW11	3VZE
MA61 MA70	4AG 4AGZ
MA61 MA70	5MG 7MG, 7MGT

Performance Engine Modification

Entire books have been written on how to modify engines for street and track. What follows is not intended to compete with those books. We're not going to tell you what parts to shot-peen, how to magnaflux a weld, or the esoteric differences between static and dynamic balancing.

What we are going to do is try to pass on the basics of performance engine building in general, and those tips which are specific to Toyota vehicles. Our intent is to keep the first-time engine builder from making the mistakes that experienced engine builders have made. The difference between the two is simply that: the guy with experience has made his mistakes and learned from them.

For those of you for whom this isn't the first time, the Toyota-specific information should be of special significance and the general tips may refresh your memory and keep you from having to re-learn something you might have forgotten.

The most common mistake in street engine modification is the "bigger is better" syndrome. Too much carburetion, too much cam and too much rear gear lead inevitably to a car that is too much to drive on the street. A great race engine is a real horror on the street, because it won't make power down low in the rpm band, where most street driving is done.

What a street engine needs most is the kind of modest improvement that sharpens an engine's edge and delivers good, solid, tree-stump-pulling torque. You'll spend less time shifting gears when you're just driving around, yet the power will be there when you want it.

GEAR SELECTION

Take gear ratios, for example. Later Supras were produced with rear axle gear ratios from 3.70 to 4.38. If you have a 3.70:1 example, considering only the stock ratios available, you have substantial room for upgrading. As the gear number increases, you obtain what is called a lower gear ratio. Stepping up to a 4.11 will give much greater torque multiplication at low speeds, and the car will leave intersections with amazing speed. Step up to the 4.38, and the effect is even more dramatic. But the down-side is the fact that a given speed requires more rpm...and a 4.38 ratio will have your engine running at or near redline at highway speed. It may or may not be a problem, depending on how, and where you drive.

The factory has options you don't. If they change the rear gear to a lower ratio, they have the option of changing final gear in the trans to a more overdrive ratio, keeping engine speed down at highway rpm, while

still providing the low-end punch the gear change in the rear end provides.

In short, what we're talking about here is balance of the elements in a complex system. If you add a lower rear end gear, you can compensate with a taller tire which covers more distance per revolution due to its greater circumference. That will keep high vehicle speed rpms down, but will also reduce the effect of the gear ratio change. You have to obtain a balance.

BALANCED SYSTEM

The best example of balanced systems is the engine. You can change carburetors and camshafts to admit more fuel/air mix to the engine, but that can require larger intake valves so the charge doesn't back-up, in effect, in the intake manifold. And it also will require larger exhaust valves to flow the greater volume of waste products from combustion, a free-flowing header and larger-diameter exhaust tubing with a lower-restriction muffler. You can only pack in as much as you can get back out. Balance.

The first key to success in achieving that balance is to honestly analyze your performance requirements. How will the car be driven? Pure street? Autocross? Drive-it-to-the-races SCCA-class fun car? Serious, trailered race car? Is low-rpm power important? Or are you willing to slip the clutch to get away from stop signs in exchange for mid-range and top-end power? Nothing in life, as they say, is free. It's all trade-offs and compromises, but if they're your compromises...the ones that are suited to what you want your Toyota to be, they're only a negative to the parking lot attendant. It just proves, once again, that one man's vice is another's virtue.

Just be sure to think everything all the way through, and remember that you're making changes to individual elements that are part of overall systems. And that changes to one element will have an affect on (or a requirement of) other elements in that system.

SUSPENSION

Suspension modification is another example. A rigid chassis (and we cover their relative rigidity in the vehicles section which follows) is probably worth more than up-rated shocks/struts and springs. If the chassis flexes, suspension alignment changes and those nice, wide tires don't stay flat on the ground, becoming skinny tires. (Lay a pencil on any flat surface. Then lift one end an eighth of an inch from the surface. How much of it is still in contact with the surface?) So maybe you should start with a weld-in roll cage. Looks great, provides safety and also makes the chassis much more rigid.

For suspension modifications, remember that an all-but-rigid suspension set-up is great on smooth race tracks, but will back the fillings out of your teeth on pot holes. Start with our bushing kits to take the slack out of everything. You'll find the car goes where you point it, predictably and consistently, and you'll stop having to make minor correcting steering inputs as you go through fast highway sweepers. Then add shocks/struts. They'll firm up the ride, but you won't grind the air dam off the front valance panel on every driveway. If, after that, you're still ready for more, step up to high spring-rate coil springs, lowered ride height and the potential (with good tires) of 1.0-g cornering levels...but don't forget wheelwell clearance for those plus-one or plus-two tires you've added. Again, balance the system and look at how one parts change will affect other parts of the system.

INCREASING FUEL FLOW—FLOW INJECTION/CARB MODIFICATIONS

On carbureted cars, it's relatively easy to provide the greater volume of fuel/air mix required by opening up the exhaust system and/or adding performance camshafts. Bigger carburetors and low-restriction air filters are available. They're all in this catalog. Just adding a free-flowing exhaust system will require a richer mixture to get all the bang you spent your exhaust system bucks to obtain.

On electronic fuel injected cars, it's somewhat more difficult.

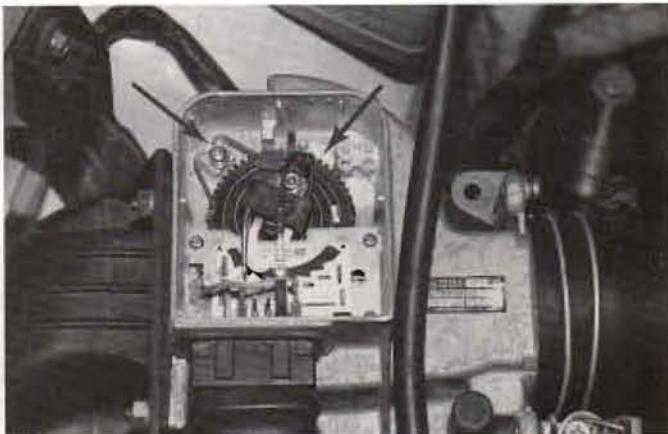
For racing, where emissions aren't a consideration, you can modify the air flow meter and the EGR valve (see below). For the street, we offer performance fuel management systems for turbocharged cars, along with variable boost controls and other devices.

RACING MODIFICATIONS TO AIR FLOW METER AND EGR VALVE

NOTE: The following modifications should only be performed on race cars and other vehicles not used on public roads. Both modifications are violations of U.S. Department of Transportation emissions standards. In addition, they will void your Toyota vehicle warranty protection. The air flow meter modification is especially easy to detect. Be certain to check race sanctioning body rules for your class to determine if these modifications are allowed.

Air Flow Meter Adjustment. Consult your factory shop manual to determine the location of the air flow meter. The adjustment will allow you to richen or lean the mixture from factory settings.

The air flow meter is a metal box with a black plastic lid, usually found on top of the air filter canister or, on Supras, on the intake manifold. Cut the silicone seal holding the black plastic lid in place. Use caution so plastic lid is not cut; a water-tight seal is critical as moisture wreaks havoc on the electrics. Gently pry the lid from the housing.



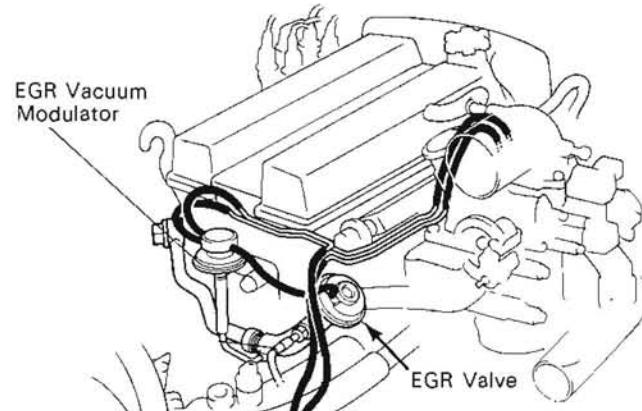
Air flow meter with plastic lid removed. Note gear and hold-down clamp set-screw (arrows). See text for modification.

To adjust, first mark the original location of the hold-down clamp on the gear wheel so you can return to stock setting if necessary. Loosen the clamp set-screw and rotate the gear wheel 3 to 5 teeth in either direction. Clockwise leans the mixture; counter-clockwise richens it. Providing a more rich mixture will generally increase top-end power at the expense of off-idle performance, a modification well suited to the race track. A 5-tooth adjustment will usually cause the motor to bog down between shifts.

Be careful to seal the plastic lid with silicone after adjustment.

EGR Modification. The Exhaust Gas Recirculation valve does just what the name implies: it diverts some exhaust gases back into the intake system at low engine speeds. This lowers combustion temperature to reduce NOx levels. It also reduces throttle response and bottom-end power.

Disabling the EGR valve is easy. Locate the valve and the EGR vacuum modulator valve (two gold-colored metal stampings, usually at the rear of the engine). The EGR valve has steel lines leading to it from the exhaust manifold. The EGR vacuum modulator has two vacuum lines between it and the intake manifold and a third vacuum (soft) line between the modulator and the EGR valve itself.



EGR valve (arrow) is shown adjacent to similar EGR vacuum modulator valve. EGR valve is connected to exhaust manifold with steel lines. Modulator has vacuum lines only.

Disconnect the vacuum line between the valve and modulator and place any solid object of appropriate size (dowel, etc.) in the line, then reconnect the line.

Again, these modifications should not be used on street-driven motor vehicles as it violates Federal and, probably, state laws. As we're required to say, "Not legal for sale or use in the State of California on any pollution controlled motor vehicle." And not recommended by TRD U.S.A., either.

1 Intake System

This section contains all TRD intake system parts, from air filters to manifolds. Turbocharger products are in Section 14.

TRD offers a full line of individual rebuild parts, in addition to the rebuild kits shown here.

In TRD's experience, the ideal set-up for Toyota four-cylinder engines is a pair of Mikuni sidedraft carburetors. We offer carbs alone as well as in engineered kits including all parts needed for installation. Two sizes are available: 40mm for otherwise unmodified, small-displacement engines like the 2TC and 3TC; others should use the 44mm carbs.

The Mikuni carbs listed, as well as the Weber units, are easily adapted

to varying engine requirements through jet and other changes, so they can "grow" with a series of engine modifications performed over a period of time.

Improved carburetions (and hotter cams and ignition) often require more fuel delivery to the carbs than the stock fuel pump can provide. TRD has high-volume pump and filter combos. We recommend from 2.5 to 4.0 lbs. of fuel pressure.

The more fuel your system can flow, the more air the engine requires; be sure to check out the K&N air filters, which are washable and thus reusable.

2TC/3TC Intake Manifold Kit

Complete, less carburetors. Includes two-carb manifold, insulators, gaskets, fuel line, clamps



2TC, 3TC Intake Manifold

Accepts any dual sidedraft carb set-up (40, 44 or 48mm). Features thicker-than-stock port walls for greater porting freedom. Includes the manifold, studs and insulators. Linkage may be

and is pre-studded for these engines. Just add carbs and labor. **Pt. No. 116-Z60-51100**

fabricated, or use TRD P/N 116-Z60-1001. No smog fittings; not street legal.

Pt. No. 17011-TE003



2TG Intake Manifold

Similar to above. Accepts any two sidedraft carbs (40, 44 or 48mm) and has the same thick ports for match porting. Includes manifold,

studs and insulators. Fabricate linkage or see TRD P/N 116-Z60-51100. No smog fittings; not street legal. **Pt. No. 17111-TA051**

20R Celica Intake Manifold Kit

Similar to P/N 116-Z60-51100, except for 20R engine.

Pt. No. 116-Z60-54710

20R Manifold Kit

Fits dual Mikuni sidedraft 40 or 44mm carbs, primarily for Celica. Includes manifold, insulators, gaskets, fuel lines, clamps and hardware.

Pre-studded. Complete less carbs and linkage. See TRD part numbers 116-Z44-541 and 116-Z60-54103. **Pt. No. 116-Z60-54110**



4AG Intake Manifold

As used in Toyota Altantic engines. Mounts two Weber, Dellorto, SK, Mikuni or Solex carbs. Manifold only; linkage can be fabricated or use TRD P/N 78022-001AE or 78022-AE801, or

Mikuni P/N 116-Z60-1001 linkage kits. Extra thick manifold runner walls are ideal for match porting. No smog fittings. **Pt. No. 17111-AE801**

4AG Intake Manifold Kit

As above, plus studs, linkage, insulators and gaskets, complete and ready for installation (less carbs). **Pt. No. 17111-AE001**

NOTE: Manifold for 4AG has worked well on Corolla GTS, FX16 and MR2. Conversion from fuel injection is a complex undertaking. Fuel

pump from FI engine produces approx. 40psi; carbs require only 2-3psi and electric fuel pump is required.



Mikuni Sidedraft Carburetor

Great street performance and racing carb. This 40mm carb has tapered barrel and replaceable inner and outer venturis. Versatile and inexpensive...best in TRD dyno testing.

Excellent replacement for 2TG, 18RG. No vacuum advance fitting. Combine with P/N 116-N40PHH-98 for two-carb use.

Pt. No. 116-N40PHH-97

Mikuni Sidedraft Carburetor

As above, but with vacuum distributor advance fitting. Use instead of carb above when using only one carb to retain advance.

Pt. No. 116-N40PHH-98

Mikuni Sidedraft Carburetor

Larger version of -97/8 carbs above in 44mm. Excellent for 2TG/18RG engines. Has tapered barrels and replaceable inner and outer venturis. Can be made to flow more fuel than the -97/98s and adapts to greater range of engine

mods. No vacuum fitting for distributor advance. Use with P/N 116-N44PHH-42 in two-carb set-ups or when no vacuum advance is required.

Pt. No. 116-44PHH-41

Mikuni Sidedraft Carburetor

As above, but with vacuum distributor advance fitting. Use instead of above when running one carb and vacuum advance.

Pt. No. 116-44PHH-42

Mikuni Racing Sidedraft Carb

For racing use only; has little bottom-end torque and no vacuum fitting. Fully adjustable with replacement parts for varying air/fuel flow capacity.

Pt. No. 116-N50PHH-27

Mikuni Racing Sidedraft Carb

As above, but with vacuum fitting for distributor advance.

Pt. No. 116-N50PHH-28

Weber Downdraft Carburetor

Synchronous DGES 38mm two-barrel (both barrels open at same time) that has proven successful in oval track racing. For engines 2000cc and over. Requires air filter

P/N 120-99217-400. For 20R/22R engines, must use adapter P/N 120-99004-222.

Pt. No. 120-18930-020

**Weber Downdraft Carburetor**

Same as above, except with water-operated choke instead of electric. Pt. No. 120-18930-032

Weber Sidedraft Carburetor

For racing only. A DCOE 40mm with no vacuum distributor advance fitting. Adaptable through replaceable venturis; full jet range available.

Carb only; can be mounted with any TRD manifold and Mikuni linkage kit (P/N 116-Z60-1001).
Pt. No. 120-19550.174

Weber Sidedraft Carburetor

For racing only. DCOE 48mm is similar to P/N 120-19550-174 above. Should be used with larger displacement race engines. Definitely not streetable.

Pt. No. 120-19630.0007

Weber Downdraft Carburetor

Progressive two-barrel DGV 32/36mm for street and mild race engines. Good torque suits it for 4x4 trucks. Mechanical secondaries.

Improved flow characteristics over stock carbs should increase fuel economy in moderate driving.
Pt. No. 120-22680-005

Weber Sidedraft Carburetor

For racing only. Weber DCOE 45mm with manual choke. Similar to P/N 120-19550-174.
Pt. No. 120-19600.060

**Carburetor Kits**

These kits provide everything need to change carburetors, including the carb(s), linkage, manifold and all hardware. Just add labor and

air cleaners. Kits are often cheaper (and certainly easier) than finding and buying individual parts.

Corolla 2TC, 3TC Dual Mikuni Kit

Two sidedraft Mikuni 40PHHs, plus linkage, manifold, hardware. Ideal for use with cam and headers. Use air cleaners P/N 107-56-1310

(1 3/4" tall) or P/N 107-56-1320 (3 1/4" tall).

Pt. No. 116-Z40-510

**2TC/3TC Dual Mikuni Kit**

Two sidedraft Mikuni 44PHHs, plus linkage, manifold, hardware. Same as kit above, air cleaners required.
Pt. No. 116-Z44-510

4AC Dual Mikuni Kit

As above, but with two Mikuni 40PHHs. See air cleaner recommendation, P/N 116-Z40-510 above.
Pt. No. 116-Z40-548

Celica/20R Dual Mikuni Kit

Two Mikuni 44PHHs. Complete as above. See air cleaner recommendation, P/N 116-Z40-510. Requires A/C Compressor Bracket P/N 1160-Z60-53000.
Pt. No. 116-Z44-541

Truck/20R Dual Mikuni Kit

Two Mikuni 44PHHs. Complete as above. See air cleaner recommendation, P/N 116-Z40-510. Requires A/C Compressor Bracket P/N 116-Z60-53000.
Pt. No. 116-Z44-542

Celica/22R Mikuni Kit

Two Mikuni 44PHHs. Complete as above. See air cleaner recommendation, P/N 116-Z40-510. Requires A/C bracket P/N 116-Z60-54310.
Pt. No. 116-Z44-546

Truck/22R Mikuni Kit

Two Mikuni 44PHHs. Complete as above. See air cleaner recommendation, P/N 116-Z40-510. Requires relocation Air Conditioning Bracket for compressor, P/N 116-Z60-54310.
Pt. No. 116-Z44-547

**20R Weber Kit**

Complete kit to mount one Weber 32/36 DGV (included). Not emissions legal. Includes all installation hardware, chrome air filter housing and filter element.
Pt. No. 120-K-746

20R Weber Kit

As above, except has adapter for stock air filter (no filter provided). Emissions legal...even in California.
Pt. No. 120-K-8746

20R Weber Kit

As above. Emissions legal for 20R engine.
Pt. No. 120-K-8747

Celica/Truck Weber Kit

As above for '81-'83 applications. Emissions legal.
Pt. No. 120-K-8748

4WD Truck/22R Weber Kit

As above for '81-'84 applications. Emissions legal.
Pt. No. 120-K-8749

2TC Weber Kit

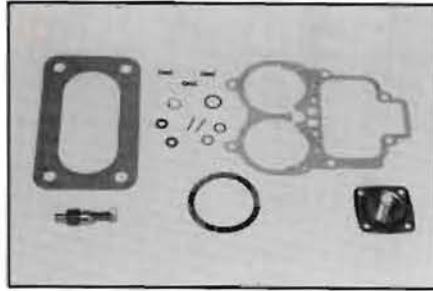
As above. Not emissions legal. For 2TC provided 6/74 or later.
Pt. No. 120-K-661

Carburetor Rebuild Kits**Stock 2TG/18RG Rebuild Kit**

Will not work on Type 5 Solex (with small triangular diaphragm next to jet cover or wires leading to choke). Contains all parts required

for rebuild, including gaskets, accelerator pump diaphragm and more.

Pt. No. 116-Z70-1002

**Carburetor Rebuild Kits**

NOTE: Following are gasket kits only. Hard parts rarely need replacement on these carbs, but are available from TRD if required. Request

free copy of Carburetor Parts Listing and Price List (supplied with all new carbs) from TRD.

Mikuni 40PHH Rebuild Kit Pt. No. 116-Z70-1040

Mikuni 44PHH Rebuild Kit Pt. No. 116-Z70-1044

Weber DGES Rebuild Kit Pt. No. 120-92-3235.05

Weber DGV Rebuild Kit Pt. No. 120-92-3237.05

Linkage Kits

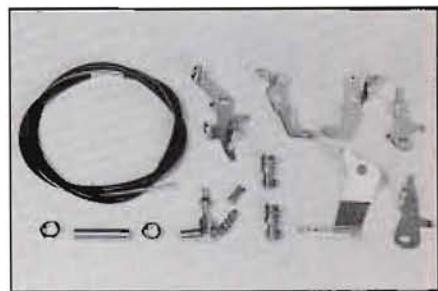
Experienced fabricators can have difficulty creating a carburetor linkage kit. TRD strongly recommends these kits to save time and, often, money.

2TG/18RG Conversion Linkage

A universal center-pull linkage kit for the 2TG/18RG engines, including cable, levers, brackets and all other hardware required when

installing these engines in any Celica, Toyota truck or other vehicle.

Pt. No. 116-Z60-1001

**Linkage Kit for 20R/Celica**

For converting 20R from stock single to dual carbs or replacing pre-'75 engines in Celicas with the 20R. Linkage fills gap between carb and gas pedal.

Pt. No. 116-Z60-54103

4AG/Corolla GTS Carb Linkage Kit

Developed by TRD for use on the 4AG engine in Group A racing. Ideal for use when installing our Toyota Atlantic manifold on 4AG engines in

the '85-'87 Corolla GTS. Complete kit.

Pt. No. 78022-AE801

20/22R Weber Downdraft Linkage Kit

For use with any downdraft Weber on the 20/22R engines. Includes brackets, cable, everything required for conversion except

adapter plate (below), gaskets and bolts.

Pt. No. 120-99004.170

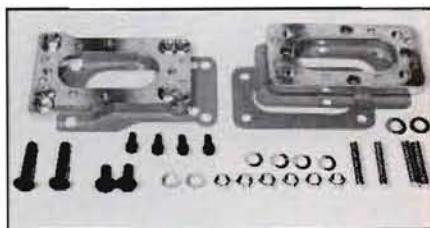
Universal Carb Linkage Kit

Adaptable to a wide range of dual-carb manifolds and vehicles. For following carburetors: DGV, DGAV or DGEV.

Pt. No. 120-99007.116

Carburetor Adapters

Provide an interface between stock manifolds and carburetors other than stock units.

**Weber Downdraft Adapter for 20R/22R**

Adapts any Weber downdraft to 20R/22R. All bolts and hardware included.

Pt. No. 120-99004-222

Weber Downdraft Adapter for 2TC

As above, except for 2TC engine.

Pt. No. 120-99004-250

**Stock Air Filter Adapter for DGV, DGES/DGAS Webers**

Adapts stock air filter to 40mm Weber synchronous downdrafts and 32/36mm DGV for 20R applications.

Pt. No. 120-99010-302

Stock Air Filter Adapter for 40mm Weber

As above, except for larger Weber synchronous downdrafts for 22R trucks only.

Pt. No. 120-99010-303

**K&N Air Filters**

TRD recommends K&N Filterchargers. They offer higher air flow yet require no jet changes. Will improve power and mileage. Reuseable

after washing every 50,000 miles. K&N million-mile warranty. Note the filter oil and cleaner at end of filter list.

Fuel Injection Truck Filter

For all EFI-equipped trucks

Pt. No. 17800-2009

Universal Sidedraft Filter (Short)

For all sidedrafts up to 45mm. Height: 1 1/4".

Pt. No. 17800-1310

Mikuni/Solex Sidedraft Filter (Long)

As above, except 3 3/4" tall.

Pt. No. 17800-1320

'85-'86 MR2 Filter

Stock replacement K&N filter.

Pt. No. 17800-E2485 *42.95*

Supra/Celica Filter

For '82-'86 Supra, '83-'85 Celica.

Pt. No. 17800-E2487

Supra/Cressida/MR2/Truck Filter

For '86½-90 Supra (including turbo), '87-88 Cressida, '87-89 MR2, 3VZN '88-90 trucks, '88-89 4Runner.
Pt. No. 17800-E2605

Corolla/Tercel Filter

For '83-87 4AC Corolla, '86-88 Tercel.
Pt. No. 17800-E2690

Celica/Truck Filter

For '75-88 20R/22R trucks w/carbs, and same engines in '83-85 Celica.
Pt. No. 17800-E2820

Weber Downdraft Filter

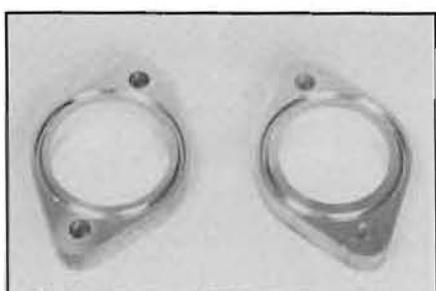
For all Weber downdraft carburetors with progressive action.
Pt. No. 120-99217.331

Synchronous Weber Downdraft Filter

For all Weber downdrafts with synchronous barrel operation.
Pt. No. 120-99217.400

Universal Sidedraft Filter

For any sidedraft carburetor except 50mm and larger. Washable element has lifetime warranty from manufacturer. Features chrome top and height is 3¾".
Pt. No. 107-56-1320

**K&N Filter Cleaner**

Cleaner and degreaser restores new performance. Wash off with water (biodegradeable). Will not harm paint, chrome, plastic or rubber. 32 oz. squirt bottle.
Pt. No. 17850-0621

K&N Filter Oil

For treating filter after cleaning.
Pt. No. 17850-0504

K&N Filter Care Kit

Cleaner and oil in oz. bottles.
Pt. No. 17850-5000

Carburetor Insulators

Serve as a heat sink to keep carburetor cool. Also reduces carburetor vibration. Easily installed between carb and manifold.

Mikuni Insulator

Nylon insulator provided with 40mm and 44mm Mikunis. See next part, below.
Pt. No. 116-Z70/050

Mikuni Insulator O-Ring

As supplied with carbs for use in insulator (see above).
Pt. No. 116-Z70/075

Bakelite Insulator for Mikuni/Weber

Stock item used on 2TG/18RG engines. Ideal for use with any 40mm or 44mm carburetor.
Pt. No. 21912-88210

Aluminum Carburetor Insulator

As above, except for 44 or 45mm carburetors.
Pt. No. 21912-SP002

A/C Compressor Relocation Adapters

Non-stock intake manifold use can cause interference with, or lack of mounting for air conditioning compressor, which must be relocated. These brackets do the job.

22R Celica/Truck A/C Adapter

For dual carb installation.
Pt. No. 116-Z60-54310

20R Celica/Truck A/C Adapter

As above, for the 20R engine.
Pt. No. 116-Z60-54300

Fuel Pump Block-Off Plate

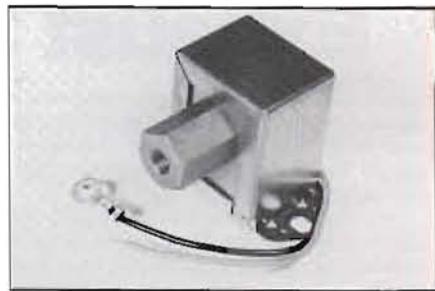
For all Toyota engines. Use to block hole when stock fuel pump is eliminated and replaced by electric fuel pump, below.
Pt. No. 11495-SP001

Facet Electric Fuel Pump for Cars

Replace stock mechanical fuel pump with this reliable, 4psi pump when converting from fuel injection to carbs. Stock pump provides too

much pressure for carbs. See plate above. No pressure regulator required.

Pt. No. 120-40105

**Replacement Brass Fuel Pump Fitting**

$\frac{5}{16}$ " straight fitting as used on pump above.

Pt. No. 120-479729

Fuel Pressure Regulator

Stock mechanical fuel pumps produce too much pressure (4-6psi) for carburetors, which need only 2-3psi. This CR ProFuel Regulator is

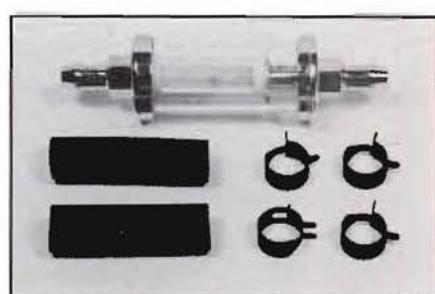
easily set to desired flow (from 1 to 5psi). For 8mm fuel line.

Pt. No. 120-99008.054

**Disposable-Element Fuel Filter**

Glass-bowl Fuel Filter with replaceable/disposable element. Visual inspection ensures fresh filter. In-line installation on 8mm fuel line.

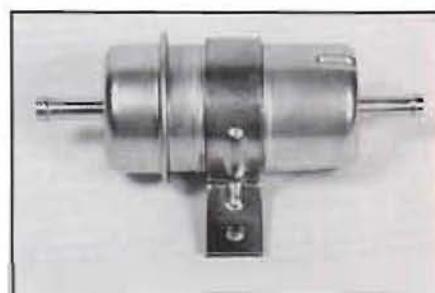
Pt. No. 120-99008.805

**Cannister-Style Fuel Filter**

Has standard nipple-type ends for hose-clamping flexible fuel hose. Ideal for street use due to high flow rate, improved-over-stock fil-

tration. Low cost. Install near fuel tank.

Pt. No. 23300-SP001

**Racing Fuel Pump**

Designed by TRD for use on Group A international racers. Rated at 7psi and requires fuel pressure regulator (see above) for street use.

Pt. No. 23100-SP001



2 Exhaust System

Adding a header and a larger-diameter exhaust system with low-restriction muffler to an otherwise stock engine should improve power output by 10 to 15 percent. And a good exhaust system will assure that you get the maximum performance gain from any other engine modification.

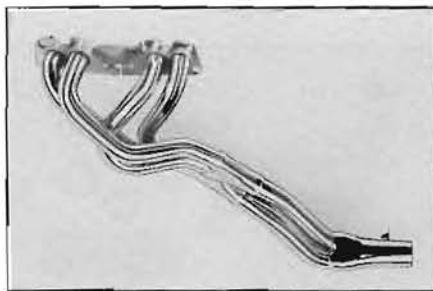
TRD headers are furnished complete with reducers, gaskets and installation instructions. They use 14-gauge tubing, $\frac{3}{8}$ " thick flanges to eliminate warpage and leaks and have durable nickel-chrome finish. Many are available without smog fittings for racing and pre-smog device applications.

HKS exhaust systems have large, 2.0 to 3.0" tubing, free-flowing

mufflers, twin polished stainless steel tips and a resonator which can replace the catalytic converter for racing use. These systems are compatible with all stock smog equipment, our headers and stock manifolds.

TRD Headers

TRD Headers are, unless noted, Tri-Y designs and will adapt easily to stock exhaust systems or HKS's performance exhaust systems. All required parts are supplied. Typically, headers bolt to either the stock catalytic converter or the cat-replacing resonator in HKS exhaust systems.



Celica, '75-'85

Strong bottom-end and mid-range torque make this ideal for the street where legal. No smog connections. On some models, steer-

ing rod may have to be disconnected during installation.

Pt. No. 128-502Y

Celica, '83-'85

As above, with oxygen sensor added. For fuel injected Celicas.

Pt. No. 128-502Y-O

Celica, '75-'80

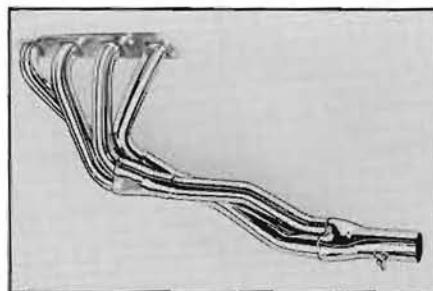
As above, with air injection fittings.

Pt. No. 128-502Y-S

Celica, '81-'85

Similar to 128-502Y above. Includes smog fittings and oxygen sensor. On some models, link between steering column and steering rack must be disconnected during installation.

Pt. No. 128-502Y-SO

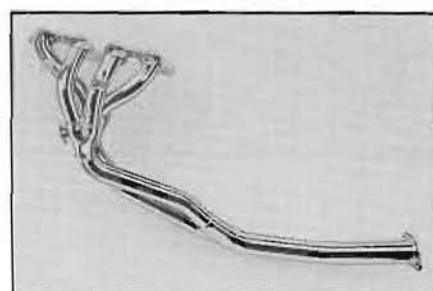


Corolla, '75-'83

Tri-Y design for the 2TC/2TG engine. Great bottom-end and mid-range torque for street/autocross/Solo use. May fit '74 and earlier. One of the best street headers available. Bolts

directly to catalytic converter and is street legal. Carries limited lifetime warranty.

Pt. No. 128-513Y



Corolla, '81-'83

Same as header above, but with oxygen sensor for later Corollas.

Pt. No. 128-513Y-O

Corolla GT-S '84-'87

Tri-Y design has oxygen sensor fitting. The collector bolts directly to catalytic converter.

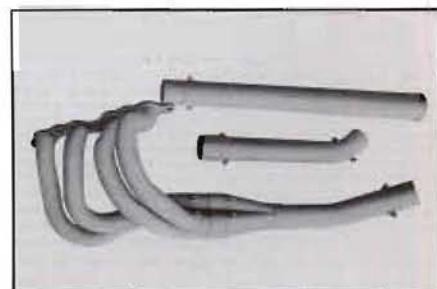
Pt. No. 128-586

Corolla, '84-87 Race Header

For racing use only (no oxygen sensor). Will cause engine to run rich and computer will not function properly in street applications. Devel-

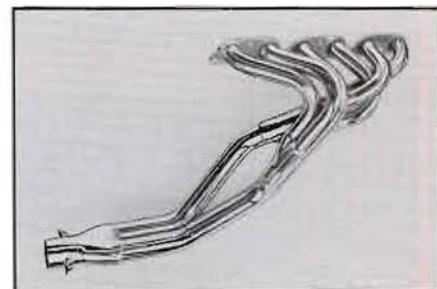
oped for Group A racing.

Pt. No. 17104-AE801

**Supra, '82-85**

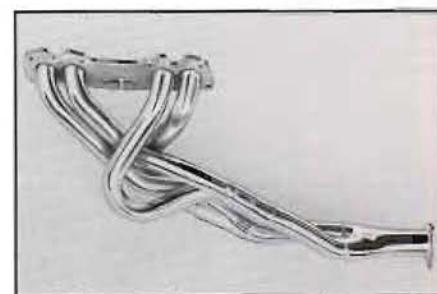
Delivers good bottom-end and mid-range torque increase for great performance driveability on the street. Has oxygen sensor fitting.

Pt. No. 128-530Y

**Truck, '75-88**

Non-smog-equipped Tri-Y design. Limited lifetime warranty.

Pt. No. 128-542Y

**Truck, '84½-87 EFI**

As above, but with oxygen sensor fitting for fuel injected trucks. Street legal. Limited lifetime warranty.

Pt. No. 128-542Y-O

Truck, '74-80

As above, but with air injection fittings. Street legal. Limited lifetime warranty.

Pt. No. 128-542Y-S

Truck, '81-85½

As above, but with air injection and oxygen sensor fittings. Limited lifetime warranty.

Pt. No. 128-542Y-SO

Truck, '84½-89

Similar to above. Has smog pump fittings plugged directly into the head through the manifold. Same as 128-550Y-O less oxygen sensor.

Pt. No. 128-550Y

Truck, '84½-89

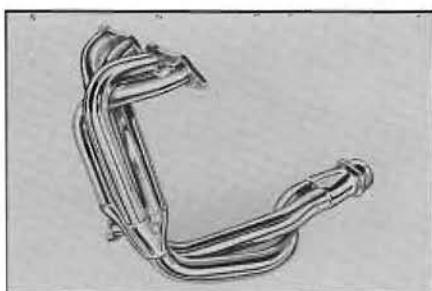
Same as above, but with oxygen sensor fitting added. For carbureted 2WD only.

Pt. No. 128-550Y-O

Truck, '88 4x4 EFI

For fuel injected '88 4x4 only. Same as 128-550Y, except oxygen sensor is placed in the collector.

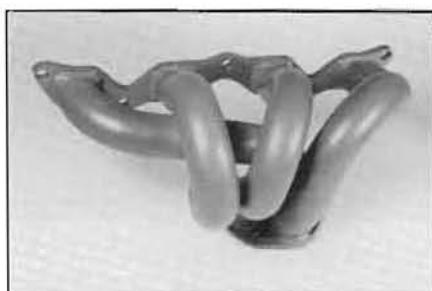
Pt. No. 128-555Y-O

**MR2, '85-'86**

A great street header for the two-seater. Has oxygen sensor fitting. Collector bolts directly to catalytic converter.

3/2.95

Pt. No. 128-590

**MR2 Supercharged, '88-'89**

Same as above, adapted to Supercharged engine version.

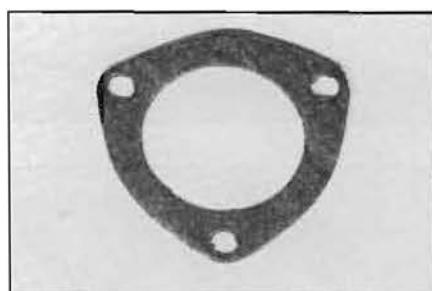
Pt. No. 128-591

18RG Racing Header

Only header available for this engine. Designed for racing Celica; adaptable to others. No head pipe provided, but uses stock part. Top section of header only: 4-into-2 pro-

vided; no 2-into-1 pipe. For all 18RG application. Must make head pipe to suit vehicle.

Pt. No. 17104-RA051

**2T/3T/2TG Racing Header**

Same as above.

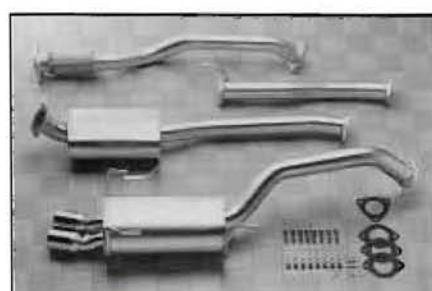
Pt. No. 17104-TA051

Header Flange Gasket

Replacement gasket for 3-bolt, 2½" header collector. Fits headers 128-502Y, 128-542Y, YS, YSO, YO, 128-550Y, YO, 128-555Y, 128-530Y,

128-513Y, YO, and 128-586.

Pt. No. 128-9005

**HKS Exhaust Systems**

All HKS Exhaust Systems feature aluminized steel tubing, aluminum coated for corrosion resistance. Supplied complete and ready for installation using stock hangers. Fully flanged, with resonator to replace catalytic converter for racing. Bolts to stock exhaust

manifold/converter or to header. Low-restriction muffler included in the system. Bolt-on installation can produce up to 15% horsepower increase, depending on engine state of tune.

Complete Systems:

- Celica GT-S, '86-'89, 50mm dia.
- MR2, '85-'88, 50mm dia.
- MR2 Supercharged, '88, 60 mm dia.
- MR2 Turbo, '91, 65mm dia.
- Corolla, '84-'87, 50mm dia.
- FX-16 GT-S, '86-'88, 50mm dia.
- Supra, '82-'84, 60mm dia.
- Supra, '85, 60mm dia.
- Supra, '86-'89, 60mm dia.
- Supra, '87-'90, 75mm dia.
- Supra Turbo, '87-'89, 65mm dia.
- Celica All-Trac, '88, 65mm dia.

- Pt. No. 2051XX-11227K
- Pt. No. 2051XX-11323J
- Pt. No. 2082XX-11333M
- Pt. No. 2068XX-11328P
- Pt. No. 2051XX-11423J
- Pt. No. 2051XX-11523L
- Pt. No. 2061XX-11024F
- Pt. No. 2061XX-11024J
- Pt. No. 2061XX-11025L
- Pt. No. 2078XX-11026L
- Pt. No. 2068XX-11026L
- Pt. No. 2068XX-11228M

SuperTrapp CD Mufflers

SuperTrapp is the best street and racing muffler system available. Patented diffusion discs can be added or removed to change the area of the exhaust opening. Adding discs (larger opening) increases horsepower, reduces backpressure and increases sound level. Reducing the number of discs increases torque, adds backpressure and cuts sound level. The tone is "throaty".

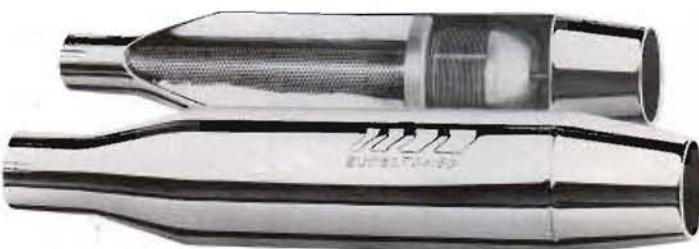
New SuperTrapp CD takes the diffusion discs that are the heart of the SuperTrapp design, combines them with a perforated core and replaceable fiberglass packing, and packs

the whole assembly into the stainless steel or Ceramicoat™ black-paint finish steel case with removable end-cap. (Disc adjustment is possible by removing the end-cap.)

Unlike past SuperTrapp mufflers, the new CD model (for concealed discs), has optional end-caps. The tapered-cone shown is standard, and there are slash-cut, short turn-out and long turn-out end-caps for sidepipe-style or under-vehicle exit. Also available is an in-line stub for mounting amidships just like any other muffler. Outlet is 2½" o.d., which fits many HKS exhaust systems.



Part No.	Description
447-20220	4" disc dia., 2" inlet, Ceramicoat black
447-22220	4" disc dia., 2¼" inlet, Ceramicoat black
447-25220	4" disc dia., 2½" inlet, Ceramicoat black
445-20220	4" disc dia., 2" inlet, stainless steel
445-22220	4" disc dia., 2¼" inlet, stainless steel
445-25220	4" disc dia., 2½" inlet, stainless steel
447-93330	Tapered cone end-cap, steel (standard w/above)
445-93330	As above, stainless steel
447-93550	Slash-cut end-cap, steel
445-93550	As above, stainless steel
447-93680	Short turn-out end-cap, steel
445-93680	As above, stainless steel
447-93612	Long turn-out, end-cap, steel
445-93612	As above, stainless steel
447-93450	In-line stub end-cap, 2½" o.d. outlet, steel
445-93450	As above, stainless steel



3 Ignition System

A quality high performance ignition can dramatically improve the power and "crispness" of an otherwise stock engine, and can deliver more of the power potential in other modifications. If you're adding better cams and improved carburetion, just as you need a free-flowing exhaust system to deal with the waste products of combustion, you'll need a hotter ignition

system to fire the more dense fuel/air mixture.

TRD offers its own electronic distributors, along with a selection of companion products from MSD. Our testing has shown MSD ignition components to be as solidly performing and durable as our own items.

TRD Electronic Distributor, 2TG/2T/3T

Ideal for switching from fuel injection to carburetors. As used in the Japanese home-market 2TG engine. Most powerful and accurate ignition available for these engines. Initial timing

should be set at 12 BTDC for mild (streetable) engines. Requires MSD-5, -6 or -6T ignitor.

Pt. No. 19100-88263



TRD Electronic Distributor, 18RG

For 18RG only; will not fit 18RGU. Same as above except for application. Pt. No. 19100-88271

MSD-5 Ignition Control Box

Engineered for stock or nearly stock engines. Use when no other engine modifications are planned. Provides increased mileage, better

performance, faster starts. For best output, combine with Blaster Coil, below.

Pt. No. 115-MSD-5200



MSD-6A Ignition Control Box

A multiple-spark discharge system for modified engines. Use with any points-type or electronic ignition. The MSD-6A replaces the stock ignitor and multiplies spark by 3-4 times. With electronic ignition, order P/N 115-MSD-8910 tach

adapter. Add a Blaster Coil (below) for a racing-level spark. Will improve performance and mileage...a "no negatives" system.

Pt. No. 115-MSD-6246

**MSD-6T Ignition Control**

Same as above, but with addition of a rev limiter output for use with the Soft Touch Rev Limiter below. Very successful in many forms of racing

and can be used on the street.

Pt. No. 115-MSD-6446

MSD Blaster 2 Coil

45,000-volt coil for use in any type of ignition system. Perfect for use with MSD-5/6 ignition controls.

Pt. No. 115-MSD-8202

**MSD Soft Touch Rev Control**

Inexpensive (by comparison) protection against over-revving. All it takes is a missed shift, a broken driveshaft or axle or a wet patch on the road to send rpm skyward and a rod into the pan. Computer circuitry drops one cylinder

at a time, firing it on the next cycle. Supplied with 6,000, 7,000 and 8,000 rpm modules, others available. For non-capacitive discharge systems.

Pt. No. 115-MSD-8728

MSD Soft Touch Rev Control

Same as above, but for capacitive discharge systems.

Pt. No. 115-MSD-8738

Chip Kit for Rev Limiter

Chip kit for the Soft Touch Rev Limiter: 7,000-7,800 rpm.

Pt. No. 115-MSD-8747

MSD RPM Module Selector

Plugs into all MSD Soft Touch Rev Controls and accessories. Twelve rpm limits can be set in 200-rpm increments by simply turning a knob.

Ranges from 6,000 to 8,200 rpm.

Pt. No. 115-MSD-8672

MSD RPM Module Selector

Same as above, except rpm range from 7,600 to 9,800 rpm.

Pt. No. 115-MSD-8673

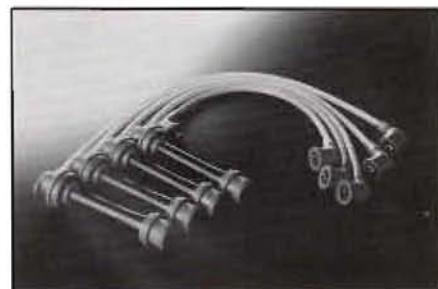
MSD Electronic Tach Module

Necessary when running MSD ignition with electronic tach. Prevents the tach from reading all the ignition pulses.

Pt. No. 115-MSD-8910

TRD Spark Plug Wire Sets, complete

Application	Part Number
Corolla, '75-'82/Ali 2T/3T engines	90919-TE751
Corolla, '85-'87	90919-AE851
Corolla GT-S, '88-'89	90919-AE901
Corolla 4AF, '87-'90	90919-AE911
FX16, '86-'88/MR2 '85-'89 Non-Supercharged	90919-AEA51 91.95
Supra, '82-'85/'84-'87 Cressida	90919-MZ151
All 18RG engines	90919-RA651
All 20R/22R engines	90919-RN451
All 2TG engines	90919-TA651



Nippodenso Spark Plugs

These are racing spark plugs only and cannot be used on the street.

Application	Part Number
W25EPG, for 2T/3T/2TG/18RG/20R/22R/22RE	10901-SP001-25
Q24PR-ZU, for 4AG/3SG/7MG/7MGT	10901-SP022-24
Q29, for 4AG/3SG/7MG/7MGT	10901-SP031-29
Q31, for 4AG/3SG/7MG/7MGT	10901-SP031-31

NOTE: Q29 and Q31 plugs good for engine speed beyond 8,000 rpm.



4 Valvetrain, Cams

Modification of an engine's valve timing and valve size is best approached with a degree of caution. TRD U.S.A. offers a wide range of cams and related components for Toyota engines and has performed extensive dyno testing to assure the accuracy of the recommendations provided for each cam.

For otherwise stock engines, the mildest cams listed should perform well. These will, however, perform best with improved carburetion (fuel flow in) and exhaust system (waste products out). Use of TRD Adjustable Timing Gears to advance or retard stock cams can deliver a modest performance increase (see Cam Timing, below).

The hotter TRD cams will require improved carburetion and exhaust systems, and the more radical cams require special pistons to provide valve clearance due to the greatly increased valve lift.

Please note that TRD cams are ground only from factory cam blanks. Reground cams have a reduced base circle which changes the valvetrain geometry, resulting in loss of power and very rapid wear. Use only cams ground from new blanks.

It is also important to note that a change of cam requires replacing the lifters (if so equipped) and the rocker arms, to assure compatibility between the metals. The alternative is, commonly, a 360-degree base circle and no lobe from almost instantaneous wear. Valve springs should not only be replaced, but upgraded to assure that the valves can follow the more radical cam lobe profile. TRD offers dual (inner and outer) valve springs which are ideal for performance cam use. These springs require special TRD Valve Seats and Spring Retainers, which are listed on the following pages. The combination of TRD valves, seats and retainers assures proper spring location, proper valve action and eliminates coil spring binding, which can cause serious damage to the valvetrain (see drawing).

TRD Valves are available in sizes from 1mm to 3mm larger than stock. They are made of a special steel alloy, stellite coated, and are both strong

and lightweight. All TRD Valves are lathe-contoured to maximize air flow and minimize weight.

CAM TIMING

Cam timing must be set whenever a TRD Cam is installed, the cylinder head is milled or the valvetrain is disassembled (timing belt removed). On twin-cam engines, cam timing is especially critical, as the overlap between intake and exhaust is affected.

Note that stock timing gears will not provide enough range of adjustment to obtain proper lobe centers with most TRD Cams. We offer Adjustable Timing Gears to solve the problem.

In general, advancing a camshaft increases bottom-end power; retarding a cam will increase top-end. On twin-cam engines, the lobe separation can be decreased to improve top-end or increased to improve bottom-end.

PERFORMANCE SPECS

We provide typical power band information for all of the cam-shafts listed, and other performance information. These are typical and provide a good idea of what you can expect from the cams. The actual performance of a given cam in your engine depends on several variables, including type of carburetion/fuel injection, type of exhaust system, valve springs used and more.

Please note as well that on some twin-cam engines, the intake and exhaust cams can be used interchangeably, providing a wide range of cams for these engines. Read the descriptions closely to help assure proper cam selection for your application. And remember, too much camshaft will make an engine run worse, not better, so be honest with yourself in evaluating what you want a cam to provide and also how you will be driving, in addition to considering the other engine modifications you intend to make.

TRD Camshafts

Listed by engine series, rather than car model. See Engine Codes, page 6.

20R/22R Street Performance Camshaft

A solid performer for the street. Pumps up the bottom-end, which improves street power and is very driveable.

Duration: 256°/284°. Lift: 7.0mm.

Pt. No. 13511-RN451





20R/22R Street/Track Camshaft

Also delivers good bottom-end power, with some increases in mid-range and top-end. Easy to drive on the street, but with healthy

power increase for Autocross/Solo use.

Duration: 280°/280°. Lift: 7.11mm.

Pt. No. 116-03-0104-01

20R/22R Racing Camshaft

Big increase in mid-range and top end with some sacrifice in bottom-end. Not the best street choice, but can be used.

Duration: 304°/304°. Lift: 7.16mm.

Pt. No. 13511-20R51A

CAMSHAFT INTERCHANGEABILITY FOR 2TG, 18RG ENGINES

Please note that intake and exhaust cams for the 2TG and 18RG engines can be interchanged, i.e. an intake cam can be used as an exhaust cam and vice versa. This pro-

vides a wider selection of cam grinds. Also note that this cannot be done on other twin-cam engines. See note at beginning of 4AG engine camshafts.

2TG Street/Track Intake Cam

Power band is 3,000 to 7,500 rpm with P/N13502-TA051. For more punch, combine with P/N13502-TA052 (below) to move power band to 4,200 to 8,000 rpm (our most popular cam pair for this engine on the street). Latter pair is also a good combination for most types of racing. This cam also combines with

P/N13502-88221 (below) exhaust cam for a 4,500 to 8,500 rpm power band. Last combination not streetable, however it's a great racing-only pairing. Requires TRD Pistons for valve clearance.

Duration: 304°. Lift: 10mm.

Pt. No. 13501-TA051

2TG Street Exhaust Cam

Combine with P/N13501-TA051 for 3,500 to 7,500 rpm power band.
Duration: 272°. Lift: 10.0mm.

Pt. No. 13502-TA051

2TG Street/Track Exhaust Cam

Combine with P/N13501-TA051 for 4,200 to 8,000 rpm power band. Streetable combination (our most popular for this engine).
Duration: 288°. Lift: 9.6mm.

Pt. No. 13502-TA052

2TG Racing Exhaust Cam

Combine with P/N13501-TA051 intake cam for 4,500 to 8,500 rpm power band. Not a streetable combination; has great power for racing applications. Requires increased compression

and pistons cut for valve relief/clearance.
Duration: 304°. Lift: 10.7mm.

Pt. No. 13502-88221

2TG Racing Int./Exh. Cam

As intakes and exhausts are interchangeable, this provides a big 320 degrees of duration when used on both sides. Power band is 5,000

to 8,500 rpm. For pro race engines only.
Duration: 320°. Lift: 10.7mm.

Pt. No. 13501-88221

18RG Street/Track Exhaust Cam

Power band is 3,000 to 7,500 rpm with P/N1327KX-10016X. For more punch, combine with P/N1327NX-10016X to move power band to 4,200 to 8,000 rpm. Latter pair is also a good combination for most types of racing. You can use two of these (as both intake and exhaust)

for a 4,500 to 8,500 rpm power band. This last combination is not streetable but is great for racing. Requires TRD pistons for valve clearance.

Duration: 304°. Lift: 10.5mm.

Pt. No. 1327TX-10016X

18RG Street/Track Exhaust Cam

Delivers a strong power increase in the 2,500 to 6,500 rpm range. A really good street cam is combination with P/N13502-RA051 listed below. No other modifications required. Pro-

vides more of the power available from fuel system and exhaust system improvements.
Duration: 288°. Lift: 10.5mm.

Pt. No. 1327NX-10016X

18RG Street/Track Exhaust Cam

A very flexible design suited to handling exhaust valves at several performance levels. Combine with P/N13502-RA052 (above) or

P/N1327TX-10016X (below).

Duration: 272°. Lift: 10.5mm.

Pt. No. 1327KX-10016X

2T/3T Street Performance Camshaft

Delivers solid bottom-end, good mid-range, modest top-end increases. A good performer on the street and for frequent Autocross

competition.
Duration: 280°/280°.

Pt. No. 135-TE280

2T/3T Street/Track Camshaft

Less bottom-end than P/N135-TE280, but more top-end. Still very driveable on the street. Good cam for Solo racing.

Duration: 286°/286°. Lift: 11.8mm.
Pt. No. 135-TE286

**4AG CAM INTERCHANGEABILITY**

On the 4AG engine, exhaust cams can be used as intake cams. Intake cams, however, cannot be used as exhaust cams as they have no distributor drive gear.

4AG EFI Street Performance Intake Cam

A proven performer for stock or near-stock engines with factory electronic fuel injection (EFI). Good bottom-end power for stop sign

getaway and plenty of mid-range for passing.
Duration: 256°. Lift: 7.6mm.
Pt. No. 1326BX-10023X

4AG EFI Street Performance Intake Cam

A proven performer for stock or near-stock engines with factory electronic fuel injection (EFI). Good bottom-end power for stop sign

getaways and plenty of mid-range for passing.
Duration: 256°. Lift: 7.6mm.
Pt. No. 1326BX-10023X

4AG EFI Street Performance Exhaust Cam

Matching cam for 1326BX-10023X. Improved exhaust system helps this pair reach full potential.
Duration: 264°. Lift: 7.6mm.
Pt. No. 1326FX-10023X

4AG Street/Track Intake Cam

Strong power increase from 3,500 to 6,000 rpm. Can be used with stock EFI, but best with upgrade to carburetors. Good cam for autocross, Solo, road racing or rally use. TRD

valvetrain recommended.
Duration: 272°. Lift: 7.5mm.
Pt. No. 13501-AE871

4AG Street/Track Exhaust Cam

Companion for 13501-AE871. Works with EFI; best with carbs.
Duration: 272°. Lift: 7.5mm.

Pt. No. 13502-AE871

4AG Street/Track Intake Cam

Very strong power increase from 4,000 to 7,000+ rpm. Has less bottom-end than 13501/02-AE871, and thus less streetable. Will

not work with EFI; requires carbs.
Duration: 288°. Lift: 7.5mm.
Pt. No. 13501-AE861

4AG Street/Track Exhaust Cam

Companion cam for 13501-AE861. Not EFI-compatible.
Duration: 288°. Lift: 7.5mm.

Pt. No. 13502-AE861

4AG Street/Track/Rally Intake Cam

Developed for Group A racing by TRD Japan. Power band is 4,500 to 7,000+ rpm. Requires TRD valvetrain, but no head modifications. Could be used on the street, but bottom-end is

not strong.
Duration: 304°. Lift: 7.5mm.
Pt. No. 13501-AE851

4AG Street/Track/Rally Exhaust Cam

Companion cam for 13501-AE851. Not EFI compatible. Will rev to 8,000 rpm. Can be used for both intake and exhaust.
Duration: 304°. Lift: 7.5mm.

Pt. No. 13502-AE851

4AG Street/Track/Rally Camshaft

A high-lift cam, requiring head modification to clear cam lobes. Has good bottom-end torque and strong mid-range. This is an exhaust cam that works well as both intake and exhaust.

Revs to 7,500 rpm.
Duration: 272°. Lift: 10.0mm.
Pt. No. 13502-AE831

4AG Race/Rally Camshaft

A high-lift cam with more mid-range and less bottom-end than 13502-AE831. Revs to 8,000 rpm, which is the limit of the 4AG. Requires head modifications to clear cam lobes. An

exhaust cam that works well as a matched pair for intake and exhaust use.
Duration: 288°. Lift: 10.0mm.
Pt. No. 13502-AE821

**4AG Race/Rally Intake Cam**

Our most potent 4AG cam. Excellent top end, with more peak power than 13502-AE821. Revs. to 8,000 rpm. Head modifications required to clear cam lobes.

Duration: 304°. Lift: 10.0mm.

Pt. No. 13501-AE801

4AG Race/Rally Exhaust Cam

Matching exhaust cam for 13501-AE801. Requires head modification to clear cam lobes. Duration: 304°. Lift: 10.0mm.

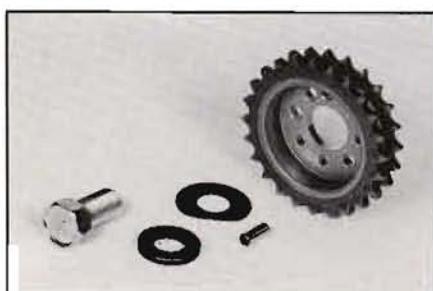
Pt. No. 13502-AE801

5MG Street/Track Intake and Exhaust Cam Set

Good bottom-end for street use with strong top end. No other modifications required, but upgraded exhaust will increase the power added by the cam.

Duration: 272°. Lift: 10.5mm.

Pt. No. 1330XX-10024X

**Adjustable Timing Gears**

Stock timing gears do not provide sufficient range of adjustment for degreeing TRD performance camshafts. The Adjustable Timing Gears listed below provide the greater adjustment range for degreeing, compensating for a milled cylinder head and engine builder preferences. A few degrees of cam timing advance increases bottom-end power at the expense of top-end; retarding cam timing increases top-

end at the expense of bottom-end. On twin-cam engines, lobe centers between the cams can be altered using these gears; increasing lobe separation will increase bottom-end, while a decrease in separation improves top-end power. Gears not marked for timing; installation requires same process as degreeing a camshaft.

Application	Part No.	Notes
4AG Engine	13523-AE901	
20R/22R Engine	13520-20R51	Four double chain only; 13 adjustment positions
18RG Engine	13520-RA051	8 positions
2TC/3TC Engines	13520-TE001	13 positions
2TG/18RG Engines	13523-88220	3 positions
2TG Engine	13523-TA001	8 positions

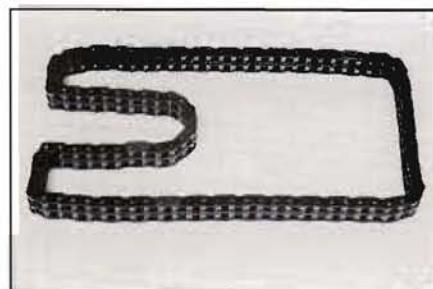
NOTE: See Oil Pump Drive Gears, page 27.

Timing Chains

Cam timing accuracy is critical to optimum performance, and it can only be achieved with a fresh timing chain. Always replace timing

chains when installing a new camshaft or performing a valve job (performance or stock).

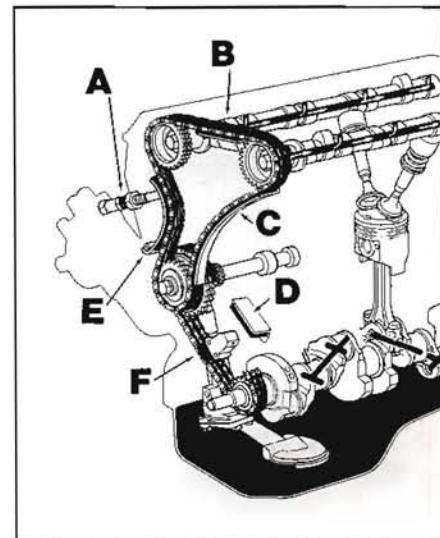
Application	Part No.	Description
2TG/2TC Engines	13506-25010	Lower chain; crank to cam
18RG/18RC Engines	13506-33010	Crank to oil pump drive
2TG/18RG Engines	13507-88210	Cam timing gears to cam drive gear



Chain Guides (Slippers, Dampers, Tensioners)

Description	Part No.	Drawing I.D.
2TG #2 Tensioner	13550-88210	A
2TG/18RG #2 Tensioner	13550-88270	A
2TG/18RG #2 Damper	13562-88280	B
2TG #3 Damper	13563-88220	C
18RG #3 Damper	13563-88250	C
2TG #1 Damper	13561-25010	D
18RG #1 Damper	13561-34010	D
2TG Slipper C	13559-88260	E
2TG/18RG Slipper C	13559-88270	E
18RG Tensioner A	13540-33014	F
2TG Tensioner A	13540-88221	F

A: #2 Tensioner D: #1 Damper
 B: #2 Damper E: Slipper 'C'
 C: #3 Damper F: Tensioner 'A'

**2TG/18RG Cam Gear Pin**

Stock replacement part.

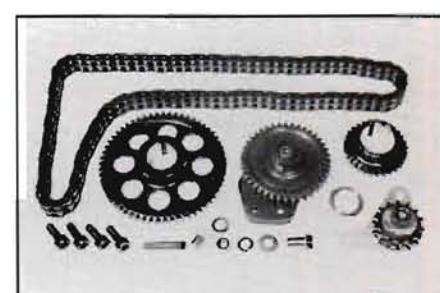
Pt. No. 90072-25005

2T/3T/2TG Camshaft Gear Drive Kit

Replaces stock chain and gears for direct gear-to-gear drive and greater valve timing accuracy. Ends progressive changes in cam timing

due to chain wear/stretch.

Pt. No. 1040XX-10014X

**2TG/18RG Cam Gear Oil Squirter**

Stock replacement part.

Pt. No. 90072-73103

Valves

TRD offers rugged steel valves with stellite-coated tips for longer wear. Both standard and oversize valves are available. Should be used

with TRD dual valve springs for optimum performance. Oversize valves should be used with TRD camshaft(s).

Engine	Description	Part No.
4AG	32.2mm intake (1.5mm o'size)	13711-AE801
20R/22R	44mm intake (1mm o'size)	13711-20R51
18RG	46mm intake (std. size)	13711-88212
18RG	47mm intake (1mm o'size)	13711-RA051
2TG	44mm intake (std. size)	13711-88224
2TG	45mm intake (1mm o'size)	13711-TA001
2TC/3TC	43.5mm intake (3.5mm o'size)	13711-TE002
4AG	27.5mm exhaust (1.5mm o'size)	13715-AE801
20R/22R	37mm exhaust (1mm o'size)	13715-20R51
18RG	40.5mm exhaust (1mm o'size)	13715-RA052
2TG/18RG	37.5mm exhaust (std. size)	13715-88222
2TG	38.5mm exhaust (1mm o'size)	13715-TA001
2TC/3TC	38.5mm exhaust (3.5mm o'size)	13715-TE002

**Valve Seats for Oversize Valves**

For use with TRD oversize valves only. For stock-diameter TRD valves, use stock Toyota valve seats.

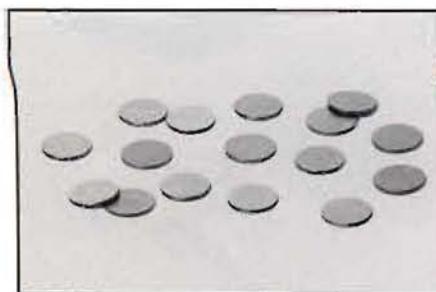
Engine	Part No.
4AG intake	11131-AE851
4AG exhaust	11135-AE851
2TC/3TC int.	11131-TE001
2TC/3TC exh.	11135-TE001



Valve Guides

TRD Valve Guides are sintered bronze for low friction. Guides have stock outside diameter; inside diameter is sized for TRD Valves.

Engine	Part No.
4AG, intake	11121-AE801
4AG, exhaust	11125-AE801
2TG/18RG	11122-88250



Valve Locks (Keepers), 18RG/2TG

These are Toyota replacement valve locks, not available through U.S. dealer network.

Pt. No. 90913-03022

Valve Adjusting Shims

Precision-machined to exacting tolerances for accurate valve lash setting, TRD shims are available for the 2TG/18RG engines, and can be used on the 4AG engine when equipped with TRD springs, seats and retainers. TRD offers 63 shim thicknesses, from 1.2mm to

4.30mm. Part Number is 90072-_____, with the last five digits denoting the shim thickness. For example, a 1.2mm-thick shim would be Part No. 90072-01200; a 4.30mm-thick shim would be Part No. 90072-04300. See price list for the 63 thicknesses available.

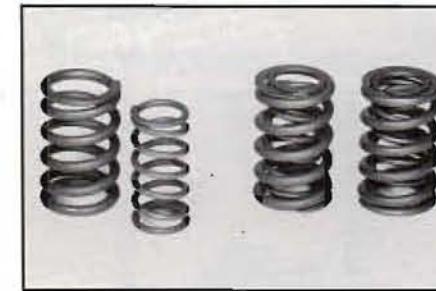


Valve Lifters

We offer two, one for the 4AG when using a complete TRD valve train (shims, springs, spring retainers, spring seats, etc.) and one for

the 18RG/2TG (stock Toyota item, not available through U.S. dealers).

Engine	Part No.
4AG	13751-AE851
2TG/18RG	13751-88210-01



Valve Springs

TRD Valve Springs are specially designed for use with TRD performance camshafts. Their spring pressure has been designed to assure accurate following of the cam lobe profiles. TRD Valve Spring require use of TRD Valve Seats and Retainers, listed following the springs. Springs other than TRD, even if rated

for "performance" use, may coil-bind (a situation which can be very expensive).

NOTE: TRD Valve Springs are dual springs (separate inner and outer coil springs). They must be used as a pair, although they are listed separately for replacement convenience. Part number is for one spring (not a set; not a pair).

Engine	Inner Spring Part No. (ea.)	Outer Spring Part No. (ea.)
20R/22R	90502-20R51	90501-20R51
2TG/18RG	90502-TA001	90501-TA001
2TC/3TC	90502-TE751	90501-47540
4AG (single spring)*		90501-AE801
4AG (Atlantic)*	26946-FT002*	26945-FT002*

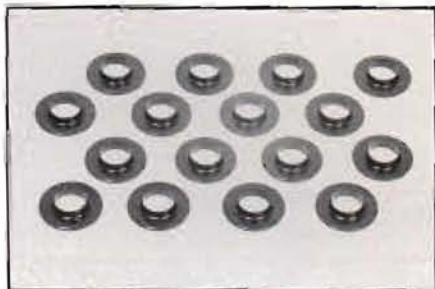
*4AG Engine. Single spring listed is proven to work well with all TRD cams for this engine. If you still want to run dual springs, we provide those used in Toyota Atlantic racing engines, which require special valve seats (P/N13735-FT001) and retainers (P/N13741-FT001).

Valve Spring Seats

Specially designed for use with TRD dual valve springs (except 4AG engine, for which

single and duals are offered). Required when using TRD springs.

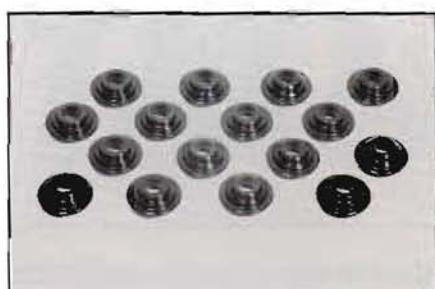
Engine	Part No.
4AG (single)	13743-16010
4AG (dual)	13735-FT001
20R/22R	13734-20R52
2TG/18RG	13734-TA001
2TC/3TC	13734-TE001

**Valve Spring Retainers**

Specially designed TRD Retainers are for use with TRD dual valve springs only, where they are required. Note special retainer for 4AG

Engine	Part No.
4AG (single)	13741-AE801
4AG (dual)	13741-FT001
20R/22R	13741-20R51
2TG/18RG	13741-TA001
2TC/3TC	13741-TE751

single valve spring retainer and Toyota Atlantic retainer for use with 4AG dual valve springs (P/N26945/26946-FT002).



5 Short Block Parts

All of the parts which fit inside, or attach to the engine block are shown here. This includes crankshafts, pistons, rods, oil pumps and windage

tray. Main and connecting rod bearings are included here; all short block gaskets are in the following section.

Piston Sets

TRD offers our specially designed oversize forged piston sets for increased displacement. Enlarging the bore while retaining stock stroke typically increases top-end power more than bottom-end and increases the rpm potential

peak, especially when using a TRD performance cam. Sets include rings and installation information, such as ring end gap. Except as noted, pistons accept stock rods and wrist pins.

Engine	Compression Ratio	Final Displacement	Overbore	Part No.	Notes
4AG	12.0:1	1650 cc	0.5mm	198-3189CX-0	1
4AG	12.0:1	1597 cc	Standard	198-3189XC	
2TG, 3T	10.5:1	2000 cc	4mm	198-6094PS	2
2T	10.5:1	1750 cc	4mm	198-6100PS	
18RG	10.5:1	2000 cc	3.5mm	198-6096PS	
20R/22R	10.5:1	2400 cc	4mm/0.5mm	198-6101PS	Cyl 1 & 3
20R/22R	10.5:1	2400 cc	4mm/0.5mm	198-6102PS	Cyl 2 & 4

NOTES:

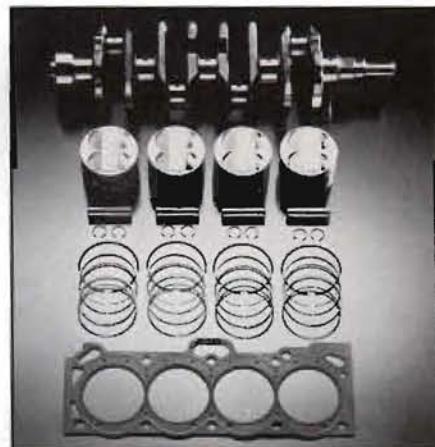
1. Requires Carrillo rods, part no. 104-CARR4AG, and large dia. wrist pins, as used on all '87 and later 4AG (MR2) engines, or you can use stock '87 and later 4AG rods and wrist pins.
2. Hollow piston dome for lower weight, increased rpm.

4AG Stroker Kit

Maximum safe displacement (1711cc) for the 4AG engine is achieved by using this stroker kit, which includes a forged, long-stroke crankshaft, cast 10.5:1 pistons with valve relief pockets, and piston rings. Use either stock '85-86 4AG rods and 18mm wrist pins, or

Carrillo rods (our part no. 104-CARR4AG). Rod big-end bearings should be part no. 13281-AE801-01, 02 or 03, listed following. This stroker kit makes a major improvement in bottom-end power.

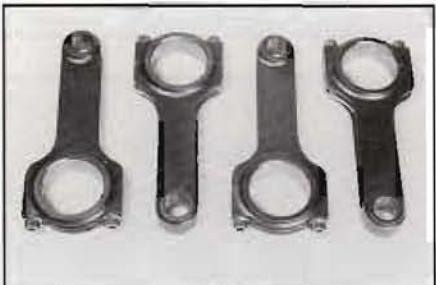
Pt. No. 1029JD-10023X



Piston Ring Sets

Specially engineered for maximum compression sealing on the piston listed. These are complete ring sets for one piston only.

Application	Part No., Ring Set
For piston 198-3189XC-0	198-3208XC
For piston 198-6094PS & 198-6100PS	198-3504XC
For piston 198-6096PS	198-3622XC
For piston 198-6101PS & 198-6102PS	198-3642XC



Carrillo Rods

Machined from steel billet, these rods are both rugged and light weight, made to stand up

under the strains of higher-than-stock power outputs and rpm.

Application	Weight	Big-End Bore	Small-End Bore	Part Number
4AG '85-'86	450 grams	1.6930"	.7097"	13201-CA4AG
4AG '87-up	450 grams			13201-FT001
18RG	676 grams	2.205"	.8672"	13201-CA18RG
2TG/2TC/3TC	569 grams	2.008"	.8645"	13201-CA2TG
20R/22R/thru '84	689 grams	2.205"	.8672"	13201-CA20R



Connecting Rod Bolts, Nuts

Aircraft quality high-tensile-strength bolts engineered for high-rpm applications. Max stretch is .006" to .008". When using stock

rods, shot-peening and polishing is recommended for added rod strength.

Fits Rod	Rod Bolt Pt. No.	Nut Pt. No.
4AG '85-'86 stock	13265-AE801	13266-AE801
4AG '87-up stock	13265-AE802	13266-AE802
All Carrillo rods	13265-FT001	Not required
2TC/3TC/2TG stock	13265-TA052	13266-TA052

Main Bearings for 4AG

TRD's special tri-metal main bearings are softer than stock bearing material, so any debris in the oil is embedded in the bearing, instead of the crank journal (bearings are cheaper to replace than the crankshaft). Each part number is for pair of bearings.

Part No.	Thickness Range	No. Required
11701-AE801-01	1.996mm-1.992mm	5
11701-AE801-02	2.000mm-1.996mm	5
11702-AE801-03	2.004mm-2.000mm	5
11702-AE801-04	2.008mm-2.004mm	5

Rod Bearings for 4AG

The same material as our 4AG main bearings, listed above. Protects rods from debris in

oil. Each part number is for one half of a set for an individual rod (two per rod required).

Part No.	Thickness Range	No. Required	Application
13281-AE801-01	1.486mm-1.482mm	8	'85-'86 4AG
13281-AE801-02	1.490mm-1.486mm	8	'85-'86 4AG
13281-AE801-03	1.494mm-1.490mm	8	'85-'86 4AG
13281-AE801-04	1.498mm-1.494mm	8	'85-'86 4AG
13281-AE901-01	1.486mm-1.482mm	8	'87-up 4AG
13281-AE901-02	1.490mm-1.486mm	8	'87-up 4AG
13281-AE901-03	1.494mm-1.490mm	8	'87-up 4AG
13281-AE901-04	1.498mm-1.494mm	8	'87-up 4AG



High Volume Oil Pumps

Specially designed for high performance street and racing applications, these pumps are precision manufactured and engineered to deliver a substantially higher volume of oil to

aid engine durability during high-rpm use. The 4AG pump is the same pump used on the Supercharged MR2; others are made exclusively by TRD.

Application Part No.

4AG	15100-19025
18R/18RG	15100-RA051
2TC/3TC/2TG	15100-TA051*

*Requires 'dimpling' pan for clearance.

Oil Pump Gearset for 4AG

Hardened steel gears replace the stock items inside the oil pump to increase volume of oil available to prevent engine damage at high

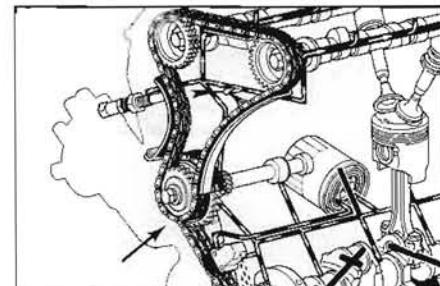
rpm. Used in Japan for race and rally applications by TRD factory teams.

Pt. No. 15103-AE852

18RG Oil Pump Drive Gears

Replacement oil pump drive gears (mount to pump driveshaft in back of cam drive) not available from U.S. dealers. Often referred to

as a timing gear. See timing gear on page 22.
Pt. No. 13515-88211

**2TG, 18RG Crankshaft Gear**

Stock replacement for the crankshaft nose gear. Not available from U.S. dealerships.

Pt. No. 13521-33010

2TG, 18RG, 18RC Oil Pump Drive Gear

Stock replacement for the original gear. Not available from U.S. dealerships.

Pt. No. 13522-33010

2TG, 18RG Idler Gear

Stock replacement for the idler gear (between crank and cam gears). Not available from U.S. dealerships.

Pt. No. 13528-33010

Crankcase Vent/Filter

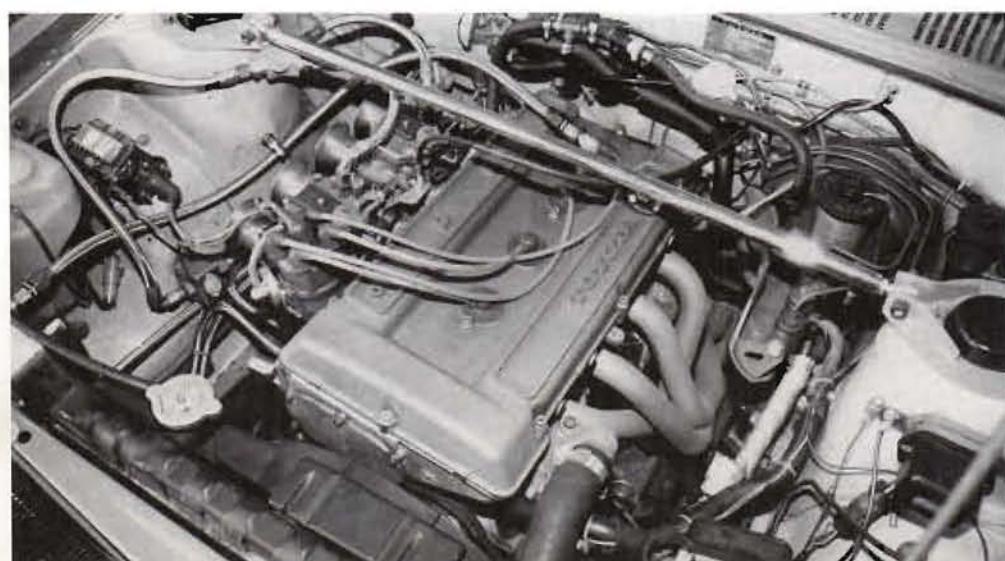
A rugged, steel-base vent and filter to relieve pressure in the crankcase. Has 2" diameter and $\frac{5}{8}$ " hose-fitting threaded coupling. Height is $1\frac{1}{2}$ ".

Pt. No. 107-62-1020

**Clamp-On Crankcase Vent/Filter**

Similar to above, but clamp-on instead of threaded fitting. For $\frac{5}{8}$ " hose (to be secured with hose clamps). Filter is 2" diameter with $1\frac{1}{2}$ " height.

Pt. No. 107-62-1340



Conversion from 3TC to 2TG in '75 through '82 Corolla chassis is a popular swap. The Japan-only 2TG has more performance potential.



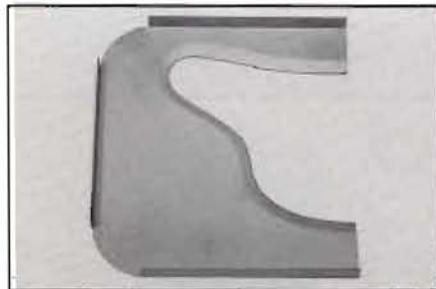
Engine Mounts

These are rubber, or rubber and steel motor mounts using much higher durometer (stiffer) rubber than stock mounts. Reduces engine movement from torque and helps stiffen front of chassis for greater suspension alignment com-

pliance during cornering. Used in racing in Japan, but suitable for street use as well. Some are more complex than others; most are inexpensive.

Application

Application	Part No.
Corolla, '85-'87, front	12361-AE851
Corolla, '88-'90, front	12361-AE901
Corolla, '88-'90, right	12362-AE901
Corolla, '88-'90, left	12372-AE901
Corolla, '88-'90, center	12363-AE901
Corolla, '88-'90, right rear	12371-AE901
MR2, thru '89, front	12361-AW101
MR2, '86 Aug.-'87 July, right	12362-AW101
MR2, '87 July-'89, right	12362-AW111
MR2, thru '89, non-superch'd. rear	12371-AW101
MR2, thru '89, non-superch'd, left	12372-AW101
MR2 thru '89, Supercharged, rear	12371-AW111
MR2, thru '89, Supercharged, left	12373-AW101
FX16, front (1 pc.)	12361-AEA01
FX16, rear	12371-AEA01
FX16, left	12372-AEA01
FX16, right	12362-AEA01
2TG, 3T, 2TG, front	12361-TA051
AllTrac, right	12362-STA01
AllTrac, left	12372-STA01
AllTrac, rear	12371-STA01
AllTrac, front	12361-STA01



2TC, 3TC, 2TG Windage Tray

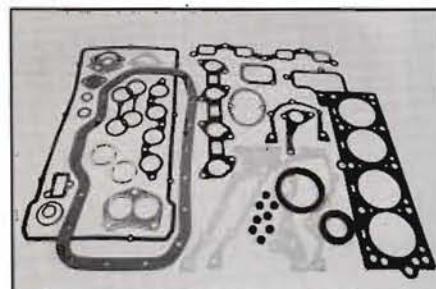
Weld-on baffle fits between block and oil pan. Keeps oil from moving away from pick-up during braking, cornering and acceleration. Also

prevents crankshaft from passing through oil, oil froth, for power increase, easier revving through lower friction. Pt. No. 12121-TE051

6 Gaskets

All engine gaskets, from carburetor gaskets to oil pan are contained here. We have full engine rebuild gasket sets, as well as individual gaskets. All gaskets have been proven by our in-house engine building

department, with many having been used in the Toyota Atlantic and IMSA GTP engines we build.



Engine Overhaul Gasket Sets

These are complete Toyota factory overhaul gasket sets, many not available from U.S. deal-

erships. Semi-circular plugs not included (see below).

Application

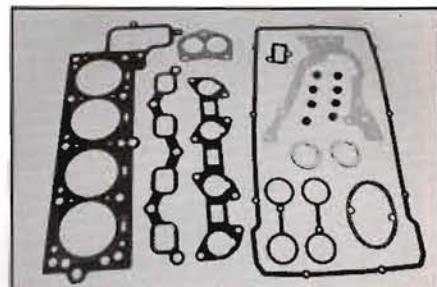
Application	Part No.
2TG	04111-27034
18RG	04111-34075
4AG	04111-16024

Top-End Overhaul Gasket Sets

Also factory sets, not available from U.S. Toyota dealers. Commonly called 'valve job gasket sets,' they include everything needed

Application	Part No.
2TG	04112-27033
18RG	04112-34037

when doing a valve job/cylinder head installation except semi-circular plugs listed below.



Semi-Circular Plugs

Not included in gasket sets above; not available from U.S. dealerships.

Application	Part No.
2TG	11183-88210
18RG	11183-88260

Cam Cover, Spark Tower Gaskets

Factory made and not available from U.S. Toyota dealers.

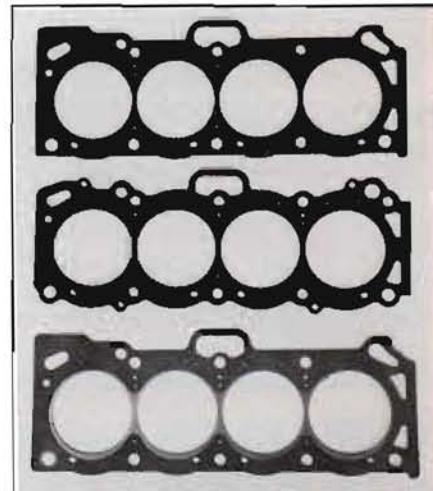
Application	Part No.
2TG Cam Cover Gasket	11213-88260
18RG Cam Cover Gasket	11213-88270
2TG Spark Tower Gasket	11214-88260
18RG Spark Tower Gasket	11214-88270

Cylinder Head Gaskets

TRD offers a wide range of materials, thicknesses and bore diameters (standard and overbore). Thin gaskets raise compression.

Application	Bore Dia.	Thickness	Material	Part No.
20R, 22R*	92.5mm	1.4mm	Asbestos	11115-20R51
20R, 22R	93.5mm	1mm	Steel	1392ZD-10018X
2TG	85mm	1.4mm	Asbestos	11115-88221
2TG	88.5mm	1.4mm	Asbestos	11115-TA001
2TG	90mm	1mm	Steel	1392VA-10014X
2TG	90mm	2mm	Steel	1396VA-10014X
2TC	90mm	1mm	Steel	1392VA-10012X
2TC	90mm	2mm	Steel	1396VA-10012X
2TC, 3TC	88.5mm	1.25mm	Asbestos	11115-TE051
18RG	92mm	1mm	Steel	1392YA-10016X
18RG	92mm	2mm	Steel	1396YA-10016X
18RG	88.5mm	1.25mm	Asbestos	11115-RA001
22R	93.5mm	2mm	Steel	1396ZD-10018X
7MG	86mm	2.5mm	Metal	1397PA-10025X
4AG	81mm	1.1mm	Carbon	11115-AE801
4AG	81mm	1.2mm	Asbestos	11115-AE851
4AG	82mm	1mm	Steel	1392KA-10023X
4AG	81mm	0.8mm	Steel	11115-AE811
5MG	86mm	2mm	Steel	1396PA-10024X

*Standard bore for 22R, overbore for 20R



Intake, Exhaust Manifold Gaskets

These are factory Toyota gaskets, not available from U.S. dealerships.

Application	Part No.
2TG, intake	17177-88220
18RG, intake	17177-88270
2T, 3T, 2TG exhaust	17173-88220
18RG exhaust	17173-88250
20R, 22R for header*	128-9542
5MG for header*	128-9530

*Omits metal ring around port.

Valve Stem Oil Seals for 2TG, 18RG

Rubber seals not available from U.S. dealerships. Included in o'haul, valve job gasket sets. Part no. is for one seal, not complete set.

Pt. No. 90072-72206

Carburetor Gaskets

Base gaskets, fit between carb and manifold.

Application	Part No.
Weber DGV	120-99005.068

7 Drivetrain, Gears

All performance products from the back of the crankshaft through the differential and its gear are included here.

TRD aluminum flywheels will dramatically improve engine response, especially at low engine speeds, as the engine has to work less hard to spin the much lighter flywheel. While a light-alloy flywheel has benefits throughout the rpm range, it makes a street car much more enjoyable to drive in stop-and-go traffic and when getting underway from a dead start.

The pressure plates listed are dual purpose and can be used for street or street/race or pure race applications. The metallic clutch discs are preferred for racing, and their sprung hubs allow use on the street, but flywheel wear will be accelerated and some clutch chatter is unavoidable. The Ferodo discs are better for the street and have good lock-up at any rpm.

**Street, Racing Flywheels**

Lightweight flywheels require less engine power to 'spin up.' The effect is most noticeable when making a standing start, accelerating

from a cruise speed and other situations when throttle demand is increased suddenly.

Application	Part No.	Description/Clutch Type
ALUMINUM: RACE-H-D STREET		
2T, 3T, 2TG	130-50-503	Weighs 10 lbs. Has replaceable heat shield (facing). Use std. clutch.
18RG	130-50-504	Weighs 12 lbs. Uses std. type clutch. Great for Autocross; can be used on street.
20R, 22R	130-50-505	Same as above (No. 504)
STEEL: RACE-AUTOCROSS		
4AG	13451-AE851	Weighs 9 lbs. Racing, Autocross. Takes std. size clutch, accepts metallic, Ferodo and stock discs.
STEEL: AUTOCROSS-STREET-DRAG		
2TC, 3TC, 2TG	13405-TA001	Weighs 12.12 lbs. For street, drag or road racing. Accepts all clutch combos.
18RG	13405-RA051	Weighs 15.5 lbs. Street, drag, road race. Takes metallic, Ferodo or std. clutch discs.
4AG non-superchg'd.	13451-AE862	Weighs 13.4 lbs. Street, drag, road race, Autocross. Uses std. size discs; metallic, Ferodo or stock.
STEEL: STREET-AUTOCROSS		
Following 'wheels are high-tensile-strength ductile iron. Up to three times the strength of stock, yet very light weight. Ideal for street performance and Autocross cars. Balanced. Standard-type clutch.		
Application	Part No.	Description
2T, 2TG, 3T 18RC, 18RG 20R, 22R 4AG: Corolla, '85-7; MR2, '85 & up; Corolla, FX16, '87 5MG: non-turbo Supra, '83-89	7020XX-10014X 7020XX-10016X 7020XX-10017X 7020XX-10023J 7020XX-10024X	Weighs 9.7 lbs. Weighs 10.5 lbs. Weighs 10.2 lbs. Weighs 11.5 lbs. Weighs 10.0 lbs.

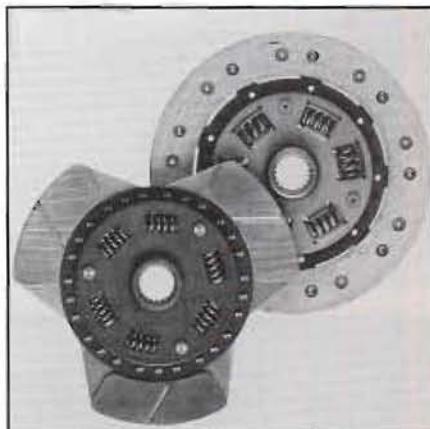
NOTE: For comparison, typical stock Toyota flywheel weights are 25 to 28 lbs. for cars and 30 to 35 lbs. for trucks.

Clutch Discs

Specially designed and manufactured by TRD for Toyota applications. An engine is only as good as the clutch's ability to transmit its power without slippage. Choice of friction

materials: metallic with sprung hub, essentially for racing and Autocross and can be run on the street; Ferodo discs are better for street performance and have good high-rpm lock-up.

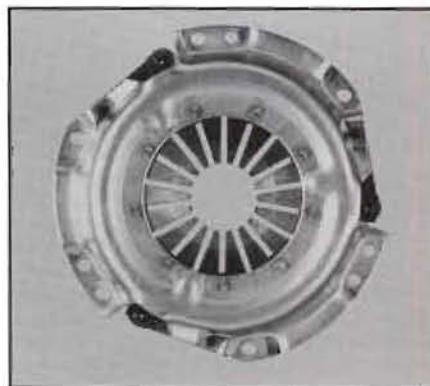
Application	Part No.	Material/Diameter
2T, 3T, 2TG	31250-TE761	Metallic/190x132mm
2T, 3T, 2TG	31250-TE004	Ferodo/190x132mm
18RG, 20R, 22R	31250-RA661	Metallic/224x160mm
18RG, 20R, 22R	31250-RA001	Ferodo/224x160mm/Good for trucks
4AG non-superchg'd.	31250-AE851	Ferodo/200x140mm
4AG non-superchg'd.	31250-TA461	Metallic/200x150mm
4AG superchg'd.	31250-AW151	Ferodo/212x140mm
4AG superchg'd.	31250-GA661	Metallic/224x150mm
AllTrac	31250-STA61	Metallic/236x150mm
AllTrac	31250-STA51	Ferodo/236x150mm



Pressure Plates

These clutch covers are diaphragm-type, except as noted. Covers are 40% stiffer than stock and matched to the clutch hydraulic system.

Application	Part No.
Corolla, '75-82; all w/2T, 3T, 2TG engine; 190x132mm	31210-TA053
Corolla, '85-89; MRs, '85-86; FX16, '86-88; 200x140mm	31210-AE851
Celica, '86-89 (3SG); 224x150mm	31210-GA752
Celica/Truck w/18RG, 20R, 22R engine; 224x160mm	31210-RA051
MR2, '88-89 non-super; 212x140mm	31210-AW151
MR2 Supercharged; 224x150mm	31210-AW161
AllTrac, '88-89	31210-STA51



Supra Complete Clutch Assembly

Clutch disc and pressure plate. Fits '83-89 non-turbocharged models.

Pt. No. 7010XX-10024X

Quick Shift

Developed for Corolla and MR2 by TRD Japan. Cuts shift throws (at the knob) by 75% for 'flick-of-the-wrist' shifts.

Application	Part No.
Corolla (AE92)	30301-AE901
MR2, thru '89	30301-AW101

97.95



Transmission Gearsets

These are close-ratio gearsets designed for racing developed by TRD Japan. All have

lower-than-stock first gear; some have underdrive top gear.

Application	Ratios 1st/2nd/3rd/4th/5th	Part No.
T-50 Trans, Corolla, '83-87	2.341/1.607/1.195/1.00/.886	33030-AE811
T-50 Trans, Corolla, '83-87	2.630/1.891/1.384/1.00/.861	33030-AE851
C-50 Trans, MR2 non-supercharged	2.438/1.944/1.600/1.364/1.167	33030-AE901
C-52 Trans, Corolla FWD; FX16; MR2 non-superchg'd.	2.929/2.176/1.700/1.364/1.167	33030-AEA11



Supra Automatic Trans Kit

Valve body springs and clutch package to modify your transmission, providing much more positive shifts, shift points moved closer to

power curve, reduced slippage.

Pt. No. 7060XX-11026L



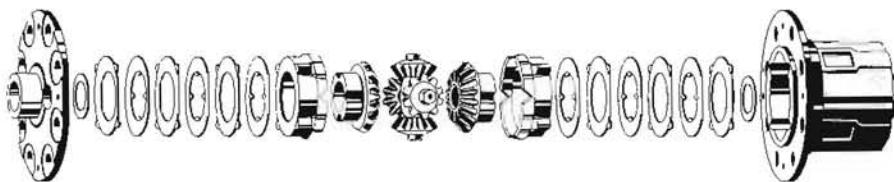


Limited-Slip Differentials

These are TRD-manufactured clutch-type limited-slips. Ideal for street/ Autocross/ drag/road racing. Not stock limited-slips.

Application	Part No.	Ring Gear Dia./Notes
Corolla GTS, '86-'87	41301-AE801	6.7"
Corolla* w/6.38", non-SR5, to '79, all '80-'83, SR5 '84-'87 except GTS	41301-TE003	6.3"
Corolla SR5, to '79; Celica RWD to '85; all straight axle to '86 w/6.7" ring gear*	41301-TA004	6.7"
Celica, '86-'88	41301-ST601	Racing only
MR2 non-super, FX16	41301-AW001	
MR2 Supercharged	41301-AW002	Cannot use 41201-AEA01, 51 gears
Supra, '86½-'89	41301-MZ201	See 41201-19555 (4.55:1) gear
AllTrac, '88-'89	41301-AE802	Requires 41309-STA01 stub axles
Trucks, 4WD to '88	41301-RN001	8"; Fits 2WD if using 4WD center housing
Trucks, all V-6	41301-VN001	8"
Trucks, 4WD, Indep. front suspension, 2WD, Supra '79-early '86	61-RA002	7.5"; with side-case bearings P/N 90368-50024

*Check axle code for ring gear diameter; see page 6.



Limited-Slip Diff Clutch Packs

Replacement clutch package, complete, for limited-slip differential service.

Application	Part No.
6.7" Ring Gear Diffs	40107-TA003
7.5" Ring Gear Diffs	40107-RA002
8" Ring Gear Diffs	40107-RN001



Ring & Pinion Gearsets

Engineered for use with either stock or TRD limited-slip differentials. Ratios over 4.8 for cars are racing sets which require close-ratio gearset; these are too low for street use, as you

run out of first gear in about six feet! Check ring gear diameter spec against vehicle axle code (see page 6).

Ring Gear Diameter	Gear Ratio	Part No.	Notes
6.38"	4.30	41201-19495	Non-SR5 Corolla to '84, SR5, '80-'87
6.7"	4.10	41201-29197	Same as above
6.7"	4.30	41201-29207	SR5 Corolla; '74-'79, GTS, '85-'87; Celica straight axle to '85
6.7"	4.55	41201-29625	Same as above
6.7"	5.125	41201-TA003*	Same as above; race, need close-ratio
6.7"	5.38	41201-AE851*	Same as above; race, need close-ratio
7.5"	4.375	41201-39405	4WD front axle, '86-'88; 2WD trucks with 7.5" ring gear dia.
7.5"	4.515	41201-39735	Same as above
7.5"	4.875	41201-39745	Same as 41201-39405
8.0"	4.375	41201-39426	4WD trucks to '88; some 2WD trucks
8.0"	4.515	41201-29536	4WD; matching gear for 41201-39735
8.0"	4.55	41201-19555	Supra, '86½ and later
8.0"	4.875	41201-39696	4WD trucks to '88; some 2WD trucks; requires ring gear spacer
8.0"	5.25	41201-39HO1	Same as above; requires gear spacer
8.0"	5.70	41201-20HO7	Same as above; requires gear spacer
MR2, FX16	3.526	41201-AEA01	Non-supercharged only
MR2, FX16	4.667	41201-AEA51	Non-supercharged only

*Special order.

Ring Gear Spacer

8mm spacer required with ring & pinions 41201-39696, -39HO1 and -20HO7, above.

Pt. No. 40109-RN002

Side Case Bearing for 7.5" Diff

Pt. No. 90368-50024

Limited-Slip Gear Oil Additive

Prevents clutch chatter in TRD limited-slip differentials. 9 oz. bottle provides one treatment.
Pt. No. 41900-OIL

8 Suspension System

Improving a car's handling is one of the most popular types of car modification, and with good reason. Cost is modest, and the improvement is easily felt from the driver's seat. Also, it's more practical to use better roadhandling than it is to find a place where you can use a 430 hp engine to its fullest. In addition to increasing cornering force capability, suspension mods add an element of safety by reducing braking distances and providing a greater margin for evasive action in an emergency.

There are six areas you can consider in modifying suspensions: tire pressure, alignment settings, replacement bushings, sway (or anti-roll) bars, shock absorbers/struts and springs. All are important. Let's take them in order.

TIRE PRESSURES

First, check the sidewall of your tires. Read the small print on the sidewall and you'll find a maximum load rating and related tire pressure. We do not recommend exceeding the tire pressure listed for safety reasons. Increasing pressure up to that limit often pays handling dividends, however.

A practical method of setting ideal tire pressure is to make chalk marks on the sidewalls, at 90-degree intervals, running from the wheel outward to the beginning of the tread. Drive the car in the manner you intend to use it, then inspect the sidewalls of all four tires. Contact with the ground will have rubbed off some chalk. Adjust pressure until the chalk line remains to the point where the sidewall and the tread edge meet. If pressure is too low, you'll rub off chalk on the sidewall. Don't be surprised if you wind up with a pressure setting as much as 10 psi over stock. This should be repeated after each step of suspension modification, as new pieces will change the pressure requirement for optimum tire use.

Front Springs

We offer three types. "Race" springs are stiff enough for road racing or Autocross and can be used on the street, although ride will be highly affected. Ride height is lowered approximately one inch. "Rally" springs are designed purely for rally competition. They are softer (lower spring rate) than Race springs and raise

ground clearance by approximately one inch. "Progressive Rate" springs get progressively stiffer as they are compressed and are ideal for street performance. Ride is not too adversely affected by minor bumps and potholes, but spirited driving causes them to provide stiffer response

ALIGNMENT SETTINGS

There's more to the story than keeping all four tires on the ground; you want them to maintain the proper angle to the pavement so the contact patch of rubber is as large as possible. That's what proper wheel alignment does.

Simply changing the alignment settings can make a dramatic improvement in grip. What to change, and what the change will produce, requires a brief explanation of some terms with which you may well be familiar. If so, skip down a couple of paragraphs.

A car's basic handling characteristics, when pushed hard, fall into one of three types: understeer, oversteer or neutral.

Understeer is the condition when the front end has less grip than the rear. If pushed beyond its limits of adhesion, the car's front end will slide before the rear tires lose grip. In oval track racing, it's known as "push."

Oversteer is the condition when the rear end has less grip than the front. Pushed to the limit, a car with oversteer will have its rear tires break traction in cornering while the front stays stuck.

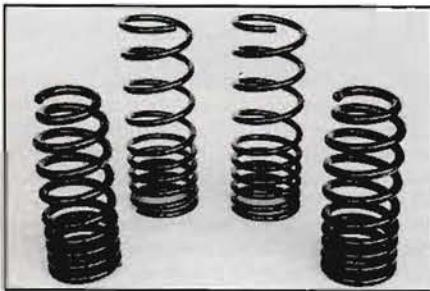
Neutral, of course, is when the whole car slides at the limit. If you achieve this, have the car bronzed; it doesn't occur often in the real world. Ideally, you want a little understeer, because it is both more predictable (you can feel it coming) and because, when all else fails, you're usually better off leaving the pavement front end first. You have more time to close your eyes and duck!

Remember, finally, that we are talking about handling characteristics at the **limit**. Handling below the limit is more a function of driving technique than suspension geometry or spring rate.



Application	Part No. (2 required)
Race Springs, Front	
Corolla, '80-81	48131-002TE
Corolla, '82-83	48131-001TE
Corolla, '84-87	48131-AE801
Corolla, '88-89	48131-ST601
FX16, '86-88	48131-ST601
Celica, '71-77	48131-TA002
Celica, '78-81	48131-RA401
Celica, '82-85	48131-001RA
Celica, '86-89	48131-ST601
Supra, '79-81	48131-RA401
Supra, '82-85	48131-061MA
Supra, '86½-89	48131-MA701
MR2, '85-88	48131-AW101
39.95	
Rally Springs, Front	
Corolla, '75-78	48131-TE353
Corolla, '80-81	48131-TE051
AllTrac, '88-89	48131-STA51-40

Application	Part No. (2 required)
Race Springs, Rear	
Corolla, '80-87	48231-AE801-43 (road race)
Corolla, '80-87	48231-AE801-39 (autocross)
Corolla, '88-89	48231-ST601
FX16, '86-88	48231-ST601
Celica, '71-77	48231-TA002
Celica, '78-81	48231-RA401
Celica, '82-85	48231-061MA
Celica, '86-89	48231-ST601
Supra, '79-81	48231-RA401
Supra, '82-85	48231-061MA
Supra, '86½-89	48231-MA701
MR2, '85-89	48231-AW101
AllTrac, '88-89	48231-STA51-36
Rally Springs, Rear	
Corolla, '80-81	48231-TE051
Celica, '82-85	48231-001RA
Progressive Rate Front & Rear Matched Spring Sets	
Corolla, FX16 '86-87	48100-AE820
Corolla, RWD, '85-87	48100-AE860
Corolla, FWD, '88-90	48100-AE920
MR2, '85-90	48100-AW100
Lexus, LS400i, '89-90	48100-LS400
Supra, '82-85	48100-MA600
Supra, '86½-89	48100-MA700
Cressida, '85-88	48100-MX700
Cressida, '89-90	48100-MX800
Celica, '82-85 (Solid Axle)	48100-RA600
Celica, '82-85 (I.R.S.)	48100-RA650
Celica, '86-89	48100-ST160
Celica, '90-91 (N/A)	48100-ST180
Camry, '87-90	48100-SV200
MR2, '91	48100-SW200



Negative Roll Blocks, Corolla

When fitting springs which lower the front end on '75-87 Corollas, front end geometry is altered adversely. To correct it, TRD developed these blocks which are fitted to the lower con-

trol arm/strut junction. Reduces tendency to exhibit 'bump steer' and increases high-speed stability. Highly recommended.

Pt. No. 43200-AE801



Supra TEMS By-Pass Control

Locks the dash-adjustable suspension on '86½-90 Supras in the stiffest mode.

Pt. No. 84160-14060

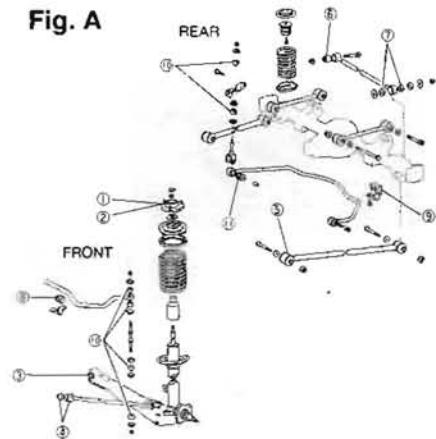
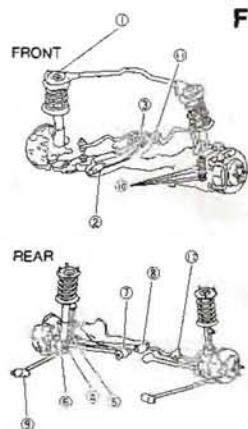
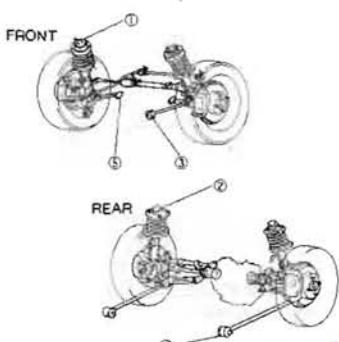
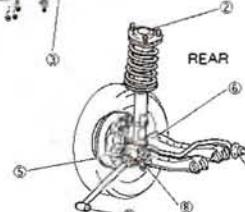
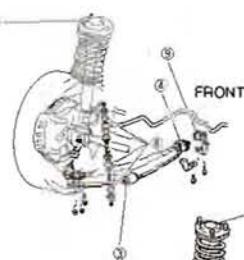


Suspension Bushings

Consult appropriate drawing for part identification. These are high-durometer (stiff) rubber bushings to replace those used on stock

suspension components. Order number of pieces (pcs) indicated in description; part number is for one bushing

Application	Bushing Description	Fig. No.	Part I.D. No.	Part No.
Corolla, '80-87	Lower control arm (2 pcs)	A	3	48654-AE851
	Tension rod (4 pcs)	A	4	48674-TA451
	Control arm (8 pcs)	A	5	48702-AE851
	Lateral control rod	A	6	48706-TA451
	Lateral control rod (2 pcs)	A	7	48745-AE851
	Sway bar (2 pcs)	A	8	48815-TE051
	Sway bar (2 pcs)	A	9	40819-AE851
	Sway bar link (8 pcs f.; 4 pcs r.)	A	10	48817-AE851
	Sway bar (2 pcs)	A	11	40818-AE851
Corolla GT-S, '88-90	Control arm no. 1 (2 pcs)	B	2	48654-AE951
	Control arm no. 2 (2 pcs)	B	3	48655-AE951
	Axle carrier no. 1 (2 pcs)	B	4	48715-AE951
	Axle carrier no. 1 (2 pcs)	B	5	48715-AE951
	Axle carrier no. 3 (2 pcs)	B	6	48715-AE961
	Suspension arm no. 1 (2 pcs)	B	7	48725-AE951
	Suspension arm no. 2 (2 pcs)	B	8	48725-AE961
	Control arm (2 pcs)	B	9	48715-AEA51
	Sway bar link (8 pcs)	B	10	48817-AE851
	Sway bar (2 pcs)	B	11	48815-AE951
	Sway bar (2 pcs)	B	12	48818-AE951-14
FX16, '86-89	Control arm (2 pcs)	C	3	48654-AEA51
	Control arm (2 pcs)	C	4	48655-AEA51
	Axle carrier no. 1 (2 pcs)	C	5	48715-AE951
	Axle carrier no. 2 (2 pcs)	C	6	48715-AE971
	Tension rod (2 pcs)	C	7	48715-AEA51
	Sway bar link (12 pcs)	C	8	48817-AE851
	Sway bar (2 pcs)	C	9	48815-AEA51
	Sway bar (2 pcs)	C	10	48818-AEA51-16
MR2, '86-89 85	Tension rod (4 pcs) 8	D	3	48674-TA451
	Tension rod (2 pcs)	D	4	48715-AW151
	Suspension arm (4 pcs)	D	5	48654-AW151
Celica, '78-80	Control arm (8 pcs)			48702-TA451
	Sway bar (2 pcs)			48815-TA451
Celica, '86-89	Lower arm (2 pcs)			48655-ST651
	Lower arm (2 pcs)			48654-AW151
AllTrac, '88-89	Rear control arm (2 pcs)			48725-STA51
	Rear suspension arm no. 2 (2 pcs)			48725-STA61
	Lower arm (2 pcs)			48655-ST651
	Tension rod (4 pcs)			48674-TA451
	Lower arm (2 pcs)			48654-AW151
	Sway bar (2 pcs)			48815-ST651-26
	Rear sway bar (2 pcs)			48818-ST651-16

**Fig. A****Fig. B****Fig. D****Fig. C**

Select Sales

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Springs
Struts
Bushings

14 bushings 160.00
2 steering 30.00
4 struts 46.95 F
49.95 R



Strut Support Assembly

Replaces the stock rubber McPhearson strut mount in engine compartment with a high-durometer (stiffer) TRD-designed unit. Pre-

vents strut from moving under cornering forces to maintain proper alignment geometry.

Application

	Part No.
Corolla, '85-'87, right side	48603-AE851
Corolla, '85-'87, left side	48609-AE851
Corolla, '88-'89, 2 required	48609-AE951
MR2, '85-'89, 2 required	48609-AW151 <i>49.95</i>
Celica, '86-'89, 2 required	48609-ST651
AllTrac, '88-'89, 2 required	48609-ST651



Struts, Cartridges and Shocks

TRD offers a wide range of strut cartridges (think of them as shock inserts for the struts on McPhearson-type suspensions) and shock absorbers for Toyota applications. In addition, we have rebuildable strut housings to replace the stock non-rebuildable struts where needed (cartridges available for them separately). Low pressure shocks and cartridges are ideal for street and for stock class Autocross; high pres-

sure is best for prepared classes in Autocross and for road racing. We also offer rally struts for the AllTrac, with adjustable ride height.

For best results, low pressure shocks/struts/cartridges should be matched with progressive rate or 'race' springs. High pressure shocks/struts/cartridges should be used with 'race' springs.

TRD Front Strut Cartridges, Gas

Application	Part No.	Notes
Corolla, '75-'79	48511-TE362	High pressure racing/autocross
	48511-MX061	High Pressure street/race
Corolla, '80-'83	48511-TE061	High Pressure racing/autocross
	48511-TE091	Low Pressure street/autocross
Corolla, '84-'87	48511-AE891	Low pressure street/autocross
	48511-AE862	High pressure racing/autocross
Corolla GTS, '88	48511-AE981	Low pressure street/autocross
FX16 GTS, '86-'88	48511-AEA91	Low pressure street/autocross
Celica, '70-'75	48511-TA161	High pressure racing/autocross
Celica, '75-'77	48511-TA491	Low pressure street/autocross
Celica, '76-'77	48511-TA461	High pressure racing/autocross
Celica, '78-'81	48511-RA491	Low pressure street/autocross
Celica, '82-'85	48511-RA661	High pressure racing/autocross
	48511-RA691	Low pressure street/autocross
MR2, '85-'88	48511-AW191	Low pressure street/autocross
Supra, '78-'81	48511-RA491	Low pressure street/autocross
Supra, '82-'85	48511-MZ061	High pressure racing/autocross; see P/N 48531-MZ061 shocks <i>75.95</i>
	48511-MZ091	Low pressure street/autocross; see P/N 48531-MZ091 shocks
AllTrac, '88-'89	48511-STA91	Rally
	48511-STA61	Rally; adjustable ride height



TRD Strut/Cartridge Units

Application	Part No.	Notes
Celica, '86-'89	48530-ST691	Right rear; not rebuildable; lo-press; see P/N 48511-AEA91 front cart.
	48540-ST691	Left rear; as above
Supra, '86½-'89	48530-MZ282	Rear (l or r); not rebuildable; with or w/o TEMS*
	48510-MZ282	Front; rebuildable; high press.**
AllTrac, '88-'89	48530-STA91	Right rear; not rebuildable; see P/N 48510-STA91 front cart.
	48540-STA91	Left rear; as above
Camry, '87-'90	48530-STA91	Right rear; not rebuildable
	48540-STA91	Left rear; not rebuildable
FX16, '86-'88	48531-AEA91	Low pressure street/autocross
MR2, '85-'86	48531-AW191	Low pressure street/autocross
MR2, '87-'89	48511-AEA91	Low pressure street/autocross
Cressida, '89	48511-MX891	Front L or R; remove spring perches and mount on new struts; see P/N 48130-MX801 springs (recommended) <i>74.95</i>

*Works with TEMS on Supras so-equipped; on non-TEMS, adjustable at top of strut without disassembly or spring compression.

**Adjustable

Rebuildable Strut Housings

NOTE: Stock units not rebuildable; these accept replacement cartridges listed for the applications.

Application	Part No.	Notes
Corolla SR5/GTS, '88-'89	48508-AE951	Right rear
FX16, '86-'88	48509-AE951 48509-AEA51	Left rear Left or right

TRD Rear Shock Absorbers

Application	Part No.	Notes
Corolla, '75-'79	48531-TE481 48531-TE561	Rear, adjustable High pressure racing/autocross
Corolla, '80-'83	48531-TE061 48531-TE081 48531-TE091	High pressure racing/autocross Adjustable Low pressure street/autocross
Corolla, '84-'87	48531-AE861 48531-AE881 48531-AE891 48531-AE892 48531-AE941	High pressure racing/autocross Adjustable Low pressure street/autocross Low pressure; adjustable; street Low pressure street/autocross
Celica, '70-'77 Celica, '75-'85 Celica, '76-'77 Celica, '78-'81 Celica, '78-'85	48531-TA181 48531-TA462 48531-TA063 48531-TA481 48531-TA491	Adjustable High pressure racing/autocross High pressure racing/autocross Adjustable Low pressure street/autocross
Celica GTS, '82-'85 Celica GTS, '83-'85 AllTrac, '88-'89	48531-RA661 48531-RA691 48530-STA91 48540-STA91	High pressure racing/autocross Low pressure street/autocross Low pressure; right Low pressure; left
Supra, '79-'81	48531-TA462 48531-TA491	High pressure racing/autocross Low pressure street/autocross
Supra, '82-'85 Cressida Cressida, '89	48531-MZ061 48531-MX791 48531-MX891	High pressure racing/autocross Low pressure street/autocross Adjustable

**Corolla Front Strut Brace**

A steel brace that links the top of the two strut towers. Greatly stiffens front end of car. Helps maintain proper suspension alignment geome-

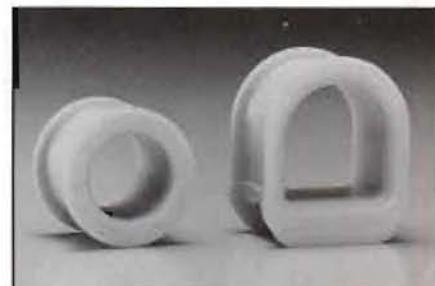
try during hard cornering. For '84-'87 models.
Part No. 40812-AE851

**Steering Rack Bushings**

Makes steering much more positive. Makes turn-in to corners a one-steering-input task without mid-corner corrections on constant-radius corners. Takes slack out of the system

with higher-durometer bushings. Low cost and very noticeable in all driving conditions. Two part numbers required (left and right).

Application	Part No.
Corolla GTS, '85-'87	45516-AE851 45517-AE851
Corolla GTS FWD, '88-'90; FX16, '86-'88	45516-AEA01 45517-AEA01



Anti-Sway Bars

Reduces body roll during cornering without affecting ride quality. Adding (or increasing the size/stiffness of) a rear bar reduces understeer (front-end washing out in cornering). Adding (or increasing size/stiffness) of a front bar reduces oversteer (rear end comes around during

cornering). Adding or stiffening front bar can eliminate trailing-throttle oversteer, the condition when rear-end steps out (slides) if you abruptly lift-off gas pedal or hit brakes in a corner. See suspension section introduction (page 33).

Application	Front Dia.	Rear Dia.	Notes	Part No.
Corolla GTS, '85	1"	3/4"	Live axle/no IRS	240-SB5065
Celica, '76-81 '82-85	1"	3/4"	Live axle/no IRS	240-SB5066
'82-85 GTS	1"	3/4"	IRS only	240-SB5061
'86-88	1"	5/8"	Not for AllTrac	240-SB5068
'86-89			Front wheel drive	127-BX-073C
Supra, '82-85	1 1/8"	3/4"		240-SB5060
'86-90	1 1/8"	15/16"		240-SB5059
Cressida, '85-86	1"	3/4"		240-SB5067
MR2, '85-89, Super, non-super MR2, Superchd. Truck, 2WD, '84-87			Adjustable, see mounting kit Adjustable Mtg. kit below	240-SB5064 127-B-07881-FA 127-BX-E69

Mounting Kits for Sway Bars

MR2, '86-87	Rear bar mounting kit, hardware, required	240-AK5064
Truck, 2WD, '84-88	Mounting kit	127-KA-E6906-R

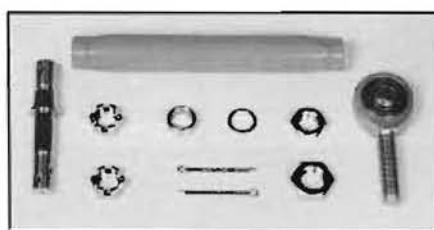


Lower Control Arm for Autocross, Racing

Lower a car (or raising one for rallying) changes the angle of the lower control arms and alters camber. To restore proper alignment geometry, TRD offers special lower control

arms which push the lower ball-joint outward. These were developed for international rally and Group A competition, but have been popular in Autocross.

Application	Description	Part No.
Corolla, '85-87	Right side, std. length, tubular fabricated control arm	48068-AE801
	Same as above, left side	48069-AE801
Corolla GTS, '85-87	Stamped steel control arm, right side, + 10mm	48068-AE851-10
	Same as above, left side, + 10mm	48069-AE851-10
	Same as above, right side, + 15mm	48068-AE851-15
	Same as above, left side, + 15mm	48069-AE851-15
Corolla, '75-79	Same as above, right side, + 20mm	48068-TE351-A
	Same as above, left side, + 20mm	48069-TE351-A
Corolla, '80-83	Stamped steel control arm, right side, + 20mm	48068-TE751-A
	Same as above, left side, + 20mm	48069-TE751-A



Tie Rod for Long Control Arms

When using TRD lengthened Lower Control Arms, you will need longer steering tie rods. Two are required, together with one each of the

rod-end nuts listed. These will fit Corolla and Celica.

Description	Part No.
Lengthened tie rod	45461-TE351
Rod end nut, right side	94300-SP009
Rod end nut, left side	94300-SP010



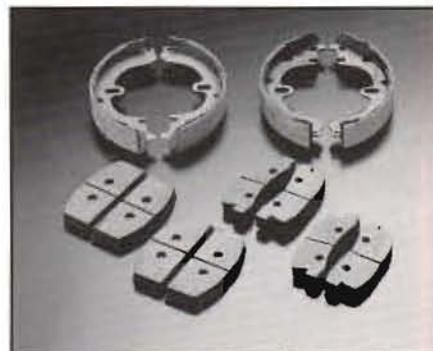
9 Brake Components

Brake Pads and Shoes

TRD provides disc brake pads in two compositions: semi-metallic/asbestos for racing and bronze metallic for street, light road racing and autocross. The racing pads are strictly for racing; they must be heated to reach their normal operating temperatures and could be dangerous on the street. Race pads do not fade

under repeated maximum-force braking. Bronze metallic pads will shorten brake distances considerably over stock pads, but wear at a higher rate.

We also offer rear brake shoes for racing Corolla, which are a good match for the 04491-TA001 front disc pads.



Application	Street Front	Street Rear	Racing Front	Racing Rear
Corolla, '71-87				04495-TA001 (brake shoes)
'75-79	04491-D305M		04491-TA001	
'80-83	04491-D176M		04491-TE001	04495-TE001 (brake shoes)
'84-87	04491-D375M	04492-D557M	04491-AE801	04492-AE801
'88-90			04491-AEA01	04492-AEA01
FX16, '87-88	04491-D507M		04491-AEA01	04492-AEA01
Celica, '71-75	04491-D159M			
'76-80*	04491-D246M			
'76-80*	04491-D247M			
'79-81	04491-D338M	04492-D344M		
'81				
'82	04491-D349M			
'83-85	04491-D537M		04491-RA601	
'86-89rwd	04491-D579M		04491-AEA01	
'86-89fwd	04491-D507M	04492-D558M (GTS only)		
*P/N 04491-D246M, cars with brake sensor; -D247M, cars without sensor.				
Supra, '76-79	04491-D246M			
'79-81	04491-D247M	04492-D344M		
'82	04491-D349M	04492-D504M		
'83-85	04491-D537M	04492-D571M	04491-MZ001	04492-MZ001
'86½-90	04491-D579M	04492-D556M		
MR2, '85-89	04491-D507M	04492-D551M	04491-AEA01	04492-AW101
AllTrac, '88-89 Mfg. before 7/87			04491-STA02	04492-AEA01

58.95 87.95 241.95 244.95

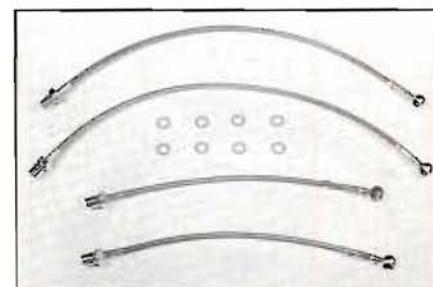
TRD Braided Steel Brake Hose Kits

TRD brake lines feature a teflon inner hose and a braided stainless steel hose outer wrap. These lines give much faster brake response and are ideal for racing or street use. Hose will withstand pressures to 12,000 psi and are

tested at 4,000 psi. Other applications available; contact TRD for information. Other applications available in late 1990. Call or write them for information.

Application Part No.
MR2, '85-88 04490-AW151

74.95



10 Race, Engine Manuals

RACE Preparation Manuals

Prepared by TRD Japan for building the 4AG engine to Group A rally and racing specifications. Detailed, step-by-step prep manual

Application	Part No.
Corolla GTS, '85-87	00400-AE86
Corolla GTS, '88-90	00400-AE92

with tolerances and specifications—pages, softcover.

Factory Engine Manuals

Often hard to find, these are original Toyota factory engine manuals, with rebuilding how-to and much other useful information.

Application	Part No.
21R/22R	00400-36056E
20R	00400-98116E
18R/18RG	00400-98196E
2TG/2TC/3TC	00400-98311E

11 Interior Accessories



Bolt-In Roll Bars

We have SCCA-approved, bolt-in roll bars for Celica and Corolla, featuring 2" dia. steel tubing with .120" wall thickness. These are rugged designs with cross brace and seat-back brace and have 4-point bolt-in. Also available, are street-use roll bars, with 1 3/4" tubes of .120" wall.

Street roll bars do not have the cross brace. On street bars, use Grade 8 nuts and bolts to secure, and we recommend having a steel reinforcing plate welded to the bottom of the chassis for through-bolting of the roll bar.

Part No.	Application
51100-6024	Celica, '78-81, race
51100-6052	Celica, '74, race
51100-6046	Corolla, '84-85, race
51100-6078	Corolla, '75-82, race
51100-6124	Celica, '78-81, street
51100-6146	Corolla, '84-85, street
51100-6150	MR2, '85-88, street

209.95

Autopower SCCA/IMSA Rollcages

Approved by both IMSA and the SCCA for racing, these perimeter rollcages have 1 3/4" tubing with .120" wall thickness. They have

cross braces, seatback braces and door braces. These are 6-point bolt-ins engineered for fit and protection.

Part No.	Application
51100-8347	Celica, '86
51100-8350	MR2, '85-88 499.95

Autopower U-Weld Roll Cage Kit

A kit made to individual car dimensions. You must supply us with car model and year, including body style. These are made for us by Autopower, a respected name in the business.

Application
U-Weld Cage Kit (specify year, model, body style)

You have to weld the kit together (instructions are good) and modifications to car interior will probably be required. Welds to chassis; not a bolt-in.

Pt. No.
51100-UWELD

Sabelt FIA Racing Harness

Full competition 4-point safety harness by Sabelt. FIA/FISA approved. Requires anti-submarine belt, listed separately.

Application	Pt. No.
4-Point Harness	00001-SP033
Anti-Submarine Belt	00001-SP034

*Product***Simpson Racing Harnesses, Seat Belts**

Premium quality racing harnesses legal for all forms of U.S. racing.

Description	Pt. No.
Floor Mount Seat Belt. 52" adjusts down to 25". Hardware included. 3" belts. Pull-down adjustment.	123-29020 R (red) 123-29020 B (blue) 123-29020 X (black)
5-Way Cam-Lock Harness. 52" adjusts down to 25". 3" belts. Bolt-in mount. Pull-down adjust.	123-29110 R (red) 123-29110 B (blue) 123-29110 X (black)
6-Way Cam-Lock Harness. Same as above except no lap belt adjusters; install at correct belt length.	123-29114 R (red) 123-29114 B (blue) 123-29114 X (black)
Shoulder Harness. Latch type. Pair of belts attaches to any latch-type harness. Adjust to 48" length. Mount bolt-in or wrap-around style.	123-30002 R (red) 123-30002 B (blue) 123-30002 X (black)
Bolt-In Anti-Submarine Belt. 27" long. Semi-adjustable. Bolt-in mounting.	123-31012 R (red) 123-31012 B (blue) 123-31012 X (black)
Eye-Bolt Belt Mount. 7/16" NF thread fits stock seat belt mount holes (1 1/2" shank). Includes large washer, nut.	123-31018

Halon Fire Extinguishers

For all automotive fire situations, including fuel and electrical.

Description	Pt. No.
Extinguisher, 1 lb. 7 oz.	18-10001
Extinguisher, 2 lb. 4 oz.	18-344
Mtg. bracket for 18-10001	18-401
Mtg. bracket for 18-344	18-817B

TRD Leather Steering Wheel

An attractive and functional addition to any Toyota interior, TRD's 14-inch diameter black leather steering wheel features a hand-filling

grip that is both relaxing to hold for extended driving and aids control.

Description	Pt. No.
Leather Steering Wheel Adapters:	45111-SP151
Corolla, '79-82 & '85-87; FX16, '86-88; MR2, '85-89	45112-AE801
Corolla, '88-89; Celica, '86-89; AllTrac, '88-89; Supra, '86-89	45112-ST601
Corolla, '72-74	45112-TE304





TRD Driving/Race Seats

TRD makes two styles, one with integral headrest and holes for a four-point restraint system, the other a lower backrest model with holes for a shoulder harness. The high-back seat (71100-SP001-01 and -02) comes in black-and-grey, with or without a rainbow center stripe in yellow-orange-red, and has large

shoulder bolsters for lateral support of the upper body. The deep bucket has wear-resisting inserts on the lower side bolsters. The low-back seat is available in yellow or black. All covers are cloth over a firm-but-comfortable padding on fiberglass buckets. Bolts to stock seat mounting.

Model

	Pt. No.
High-back seat, black, no stripe	71100-SP001-01
High-back seat, black, with stripe	71100-SP001-02
Low-back seat, yellow	71100-TA001
Low-back seat, black	71100-TA001-A

12 Tools



Carburetor Float Level Gauge

Set floats to optimum level faster and easier with this handy tool. For all carburetors (sidedraft and downdraft) through 48mm.

Pt. No. 09240-27010



2TG/18RG Camshaft Timing Tool

A stamped steel tool that indexes on the camshafts to assure proper relationship (or a 0-degree base from which to advance or retard camshaft timing.)

Pt. No. 09248-27010



Cam Degree Wheel

Stamped steel for durability. A necessary tool for advancing or retarding camshafts.

Pt. No. 113-70W



Carburetor Synchronometer

For synchronizing carburetors in multiple-carb set-ups. Synchronization of carbs is essential to maximum performance and fuel efficiency.

Pt. No. 120-STE-SK

Tokico Spring Compressor

A reliable, easy to use spring compressor we use in the TRD shops. Required for changing springs, struts or strut cartridges.

Pt. No. 240-HPSC-1

13 Instrumentation

TRD recommends Autometer gauges, known for their accuracy and durability. In addition to the recognized quality, they are an attractive addition to any Toyota interior.

Some of the Autometer gauges are liquid-filled, the liquid providing dampening of the needle to reduce mechanism vibration and false initial/peak readings.

Autometer Tachometers

Part No.	Description
115-2300	8,000 rpm. 3 3/4" dia. w/steering column mounting bracket. For any points-based or electronic ignition and any 4, 6 or 8 cylinder. Simple connection/instructions included. Black bezel. 12-volt lighting included.
115-2301	Same as above, but chrome bezel.
115-5160	Pro-Comp Tach. 10,000 rpm. In-dash mounting; 5" face diameter. For any points-based or electronic ignition and any 4, 6 or 8 cylinder. Includes 12-volt lighting, mounting hardware and instructions. Matching speedometer, see 115-5154.
115-6801	Pro-Comp 2 Tach. Similar to above, except has memory feature. See matching speedometer 115-5154.

**Autometer Mechanical Speedometer**

Part No.	Description
115-5154	160 mph. Matched companion to tach 115-5160 or 115-6801. In-dash mounting. All hardware and instructions included. Combine with either Pro-Comp Tach for a dash transformation.

Autometer Pro-Control Rev Limiter

This rpm-based unit provides protection against expensive engine over-revving. You pre-set to desired rpm peak (500-rpm increments from 6,000 to more than you'll need). Convenient half-set-speed test function. Pro-

vides maximum power right up to pre-set speed, then interrupts ignition momentarily. Also can be used to trigger nitrous system at pre-set rpm.

Pt. No. 115-5301

**Autometer Liquid-Filled Gauges**

Premium quality in both performance and appearance. Trim bezel is 2 1/8"; mounting hole for dash mounting is 2 5/8". Over/under

dash mount cups listed below. Chrome bezels, red needles, white numbers, black background.



Part No.	Description
115-5401	Turbo Boost. Reads to 20 psi. Supplied with nylon hose and fittings.
115-5410	Fuel Pressure. Reads to 15 psi. Comes with fuel isolator for safe use in car interior.
115-5421	Oil Pressure. 6 to 100 psi. Includes 6 feet nylon tubing and 1/8" and 1/4" NPT fittings. Requires adapter to metric thread: 115-2269.
115-5426	Brake Pressure. 120 to 2,000 psi. Has 1/8" and 1/4" NPT fittings. Requires approved brake line, not included.
115-5433	Water Temperature. 100°F to 240°F. Has 1/2" NPT fitting and 12 feet capillary tubing. Requires adapter 115-2268.
115-5441	Oil Temperature. 100°F to 340°F. Has 1/2" NPT fitting and 6 feet capillary tubing.
115-5471	Vacuum. 0-30 inches. Includes 6 feet nylon tubing and hardware.

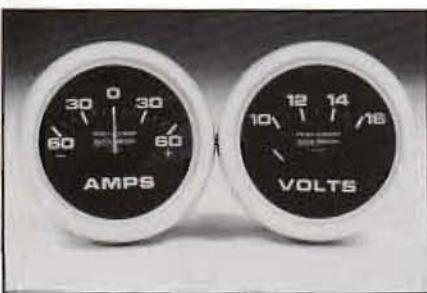


Autometer Gauges

The same quality as Autometer's liquid-filled gauges, but without the mechanism/needle dampening provided by liquid. Over/under

dash-mount cups listed below. Chrome bezels, white needles and numbers on black face. Has $2\frac{1}{16}$ " bezels; $2\frac{5}{8}$ " mtg. hole.

Part No.	Description
115-3401	Reads from 30 in. Hg. (vacuum) to 20 psi (boost). Includes 6 feet nylon tubing, $\frac{1}{8}$ " and $\frac{1}{4}$ " NPT fittings.
115-3411	Fuel Pressure. 15 psi. Requires flared copper tubing (or stainless steel), not included. Must be mounted outside of car (no fuel isolation).
115-3421	Oil Pressure. 100 psi. Includes 6 feet nylon tubing and $\frac{1}{8}$ ", $\frac{1}{4}$ " NPT fittings. Requires adapter 115-2269.
115-3431	Water Temperature. 100°F to 280°F. Includes 6 feet capillary tubing, $\frac{1}{8}$ " NPT fitting. Requires adapter 115-2268.
115-3441	Oil Temperature. 100°F to 340°F. Includes 6 feet capillary tubing, $\frac{1}{8}$ " NPT fitting.



Autometer Ammeter, Voltmeter

Designed to match the liquid-filled gauges (red needle, etc.) but also looks good in combination with the standard gauges. Same bezel and mounting hole dimensions.

Part No.	Description
115-5481	Ammeter. 60-0-60 amps. Requires wiring kit 115-2215.
115-5491	Voltmeter. 10-16 Volts. Requires wiring kit 115-2214.

Autometer Accessories, Mounting

Part No.	Description
115-2268	Water Temperature Adapter. $\frac{1}{8}$ " to metric.
115-2269	Oil Pressure Adapter. $\frac{1}{8}$ " to metric.
115-3201	Mounting Cup, chrome, standard $2\frac{5}{8}$ " gauges
115-3202	Mounting Cup, black, standard $2\frac{5}{8}$ " gauges
115-5201	Mounting Cup, chrome, liquid-filled $2\frac{5}{8}$ " gauges
115-5202	Mounting Cup, black, liquid-filled $2\frac{5}{8}$ " gauges

14 Turbo/Supercharger



Turbocharger systems offer a wealth of opportunities for performance improvement. Like all other car manufacturers, Toyota builds a conservative-boost system because of warranty requirements. Power gains with the products listed below can be dramatic...up to 415 hp on Supra Turbo models!

It is important to note that stuffing more fuel/air mix into an engine with turbo system modifications requires a free-flowing exhaust system, such as those TRD offers on page 16. The stock exhaust system, with its small-diameter tubing and restrictive mufflers, is the 'cork in the bottle.' You can't burn it if you can't get the waste products out efficiently.

Improving a turbocharged engine should be

done in a logical progression of steps. As indicated above, the exhaust system upgrade should come first. Taking the Supra Turbo (230 hp stock) as an example, adding a 2.5" dia. exhaust system will add 28 hp; adding our 3" systems provides 35 hp. With the exhaust installed, a Variable Boost Control adds 20 hp, while the electronic EVC adds 30 hp to the exhaust system gain. Then, adding the intercooler gives an additional 15 hp, and use of the fuel management system gives 30 hp more. Depending on exhaust diameter and type of boost control, that's a gain of from 93 up to 110 hp! And, of course, the full Turbo System Kit delivers 415 hp in the Supra.

Turbo Boost Controls

Allows the engine to reach maximum boost levels, as limited by the stock computer. Supra cars will run to a max of about 7 lbs. and AllTrac will hit around 6 lbs., significantly higher than standard. These controls defeat the stock activation of the wastegate. Two types are offered:

VBC for variable boost control and EVC for electronic valve (wastegate) control. The EVC is superior in performance, easier to adjust and easier to install. Requires HKS exhaust system (page 16).



Part No.	Description
3040XX-11026L	VBC for Supra Turbo, all
3040XX-11228M	VBC for AllTrac, '88-'89
3040XX-12721J	VBC for 4Runner Turbo, all
3050XX-90000X	EVC for Supra Turbo, all
3050XX-12721J	EVC for AllTrac, '88-'89
3052XX-90000X	EVC for Supra w/Stage V Turbo Kit only

Fuel Management System

Bypasses fuel cut defenser to maintain air/fuel ratio at boost levels up to 15psi. Engine will run more rich, so engine power will be increased only slightly unless exhaust system is upgraded (page 16). Should also use a Boost Control (above). This is a basic turbo modification and will increase the power

gained from any other engine performance modification. Wiring harness plugs into stock fuel computer and fuel cut defenser. Easily installed; clear instructions. Addition of an intercooler will not only increase performance gain, but will increase engine reliability.

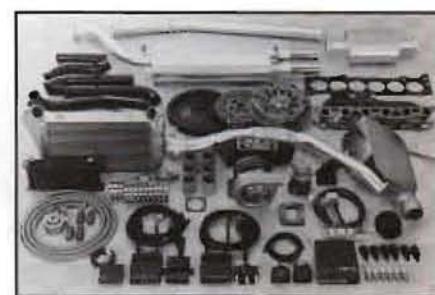
Part No.	Application
4012XX-11026L	Supra Turbo, '87-'88
4012XX-11026N	Supra Turbo, '89
4012XX-11228M	AllTrac, '88-'89
4012XX-12721J	4Runner Turbo, all



Turbo System Kits

These are kits designed to make a major increase in power from factory Toyota turbocharger system on Turbo Supras, or to add a turbo system to non-turbo Supras or to MR2s. For non-turbo cars, the systems include the turbo, exhaust manifold, intercooler, exhaust system, oil cooler, clutch, boost control (vari-

able), fuel computer, larger fuel injectors, P-ROM and all installation hardware and detailed, easy-to-follow instruction manual. These are kits engineered by HKS, and our customers have been highly satisfied both with installation ease and power output.



Part No.	Application/Description
6016XX-11025L	Supra (non-turbo), '86½-'89. Produces approximately 360 hp. As described above.
6017XX-11323J	MR2 (non-supercharged), '85-'86. Produces approximately 185 hp. As described above.
6047XX-11026L	Supra Turbo, through '89. Includes larger Garrett T04E turbo with water-cooled center housing, exhaust manifold, external wastegate, larger fuel injectors, 3" head pipe, different P-ROM and all installation hardware, detailed instructions. Not recommended for automatic transmissions (too much power). Produces approximately 415 hp! Test times: 0-60 mph in 5.41 sec., ¼-mile at 12.82 and 112.8 mph. Requires 23807-42010 fuel rail (below) and 3052XX-90000X EVC Boost Control (above).

Intercooler Kits

As a turbocharger compresses air into a smaller volume, the act of compression heats the air. And the cooler the air, the more power the engine makes. An intercooler is, in effect, a radiator for the air, placed between the turbocharger exit and the engine's fuel injection/plenum/intake manifold. These are air-to-air heat exchangers, using fresh airflow over

the intercooler to cool the charge air flowing through the intercooler. Intercoolers make a significant increase in power available from a turbo'd engine, in some cases as much as a 15% gain. These intercoolers come complete with all the parts needed for installation and instructions are included. California street-legal.



Part No.	Application
5010EC-11026L	Supra Turbo, '87-'89
5010XX-12221J	Truck Turbo, 2WD, all
5010XX-12721J	Truck Turbo, 4WD, all
5010XX-12821J	4Runner Turbo, all

Supra Turbo System Fuel Rail

Required when installing Supra turbo system 6047XX-11026L, listed above.

Pt. No. 23807-42010



HKS Turbo Timer

The alternative to having to sit in your turbocharged car at idle after driving to prevent the turbo from cooking oil on the shaft bearings and bearing races. This nifty device lets you lock up and walk away as soon as you stop; the timer keeps the engine running at idle for a pre-set amount of time, letting fresh oil flow cool the bearings and center section. Connects easily (with harness listed) to the ignition switch circuit and to the hand brake sensor. For safety, the timer is disabled after two or three seconds if the parking brake is not engaged within that time. The harness makes installation virtually plug-in. A good way to prevent premature (and expensive) turbo rebuild or replacement.

Part No.

4078XX-9000AX

Description

Turbo Timer, all Toyota factory turbos

4076XX-1000AX

Turbo Timer Harness, all Toyota turbos



HKS Boost, Exhaust Temp Gauges

Attractive and important turbo monitoring gauges. Turbo Boost gauge reads from .30 in/Hg (vacuum) to 20 lbs. boost. Exhaust Gas Temp measures temps up to 2,200°F. If exhaust temp is too high, engine is too lean. Exhaust Gas Temp gauge has to be plumbed into

exhaust system, as near to the engine as possible. All hardware included, plus instructions. Both gauges available with either white or orange numerals and needle and 12 Volt lighting.

Part No.

4080XX-9000X

Description

Turbo Boost Gauge (orange)

4081XX-9000X

Turbo Boost Gauge (white)

4090XX-9000X

Exhaust Gas Temperature Gauge (orange)

4091XX-9000X

Exhaust Gas Temperature Gauge (white)

4086XX-9000X

Boost Gauge Mounting Cup

4085XX-9000X

Exhaust Temp Gauge Mounting Cup



MR2 Supercharger Overdrive Pulley

Replaces the stock drive pulley to increase the supercharger speed in relation to engine speed, increasing boost pressure to 10 psi for a substantial gain in power at all engine speeds.

Easily installed (uses stock drive belt), but instructions must be followed closely.

Pt. No. 1342XX-11333M

15 Nitrous Systems

Nitrous Oxide Systems

These are the legendary NOS systems. A 35–40% power increase is just a push-button away. All systems include enough aircraft quality tubing or braided stainless steel hose to allow trunk mounting of the nitrous bottle,

detailed installation instructions, tuning tips and all required mounting/installation hardware. These are complete systems, with nothing else required except tools and labor.

Part No.	Application/Description
117-02516	All Toyota Turbos, 2.5 to 3.0 liters. Includes 10-lb. bottle, adjustable nozzles, 14 feet of braided stainless steel tube, plumbing, etc. Eliminates turbo lag by providing 35–40% more power from idle through turbo spool-up.
117-05030	All Toyota 4-cyl. w/carburetors. Includes 10-lb. bottle, 14-foot aircraft feed line. This is a port injection system; $\frac{1}{16}$ " tap provided is used to fit one each nitrous and fuel lines into each intake port runner (manifold). Requires 4–8 psi fuel pressure (see TRD fuel pumps, page 13).
117-05030-03	Same as above, but with 5-lb. bottle.
117-05118	All Toyota 4-cyl. EFI to 2.2 liters. Includes 10-lb. bottle, Hi-Flo valve, 14-foot feed line, Power Shot solenoid (flows enough fuel for 200hp at 6psi nitrous, works to 250 psi). Color coding for easy installation.
117-05148	As above, for Supra EFI, '85–89

CSI Wheels

TRD is proud to offer CSI one-, two- and three-piece alloy wheels for all Toyota applications. CSI is a major Japanese manufacturer of premium-quality wheels, recently introduced into the U.S. These are ideal for Plus-One and Plus-Two upgrades to larger-than-stock diameter and are available in widths up to 9 inches!

Precision manufacturing assures that the rims are concentric with

the hubs for maximum tire performance and tire life. In fact, accurate machining in all dimensions is a CSI hallmark. And the styles speak for themselves.

When ordering, specify Style number, car model and wheel size desired, as well as color finish.



Series 15

1-Piece

Colors: Black, Silver, White

Series 17

1-Piece

Colors: Black, Silver, White

Series 21

2-Piece

Colors: Chrome forged center disc w/Anthracite accents

Series 30

3-Piece

Colors: Black, Gold, Silver, White



Series 32

3-Piece

Colors: Black, Gold, Silver, White

Series 35

3-Piece

Colors: Black, Gold, Silver, White

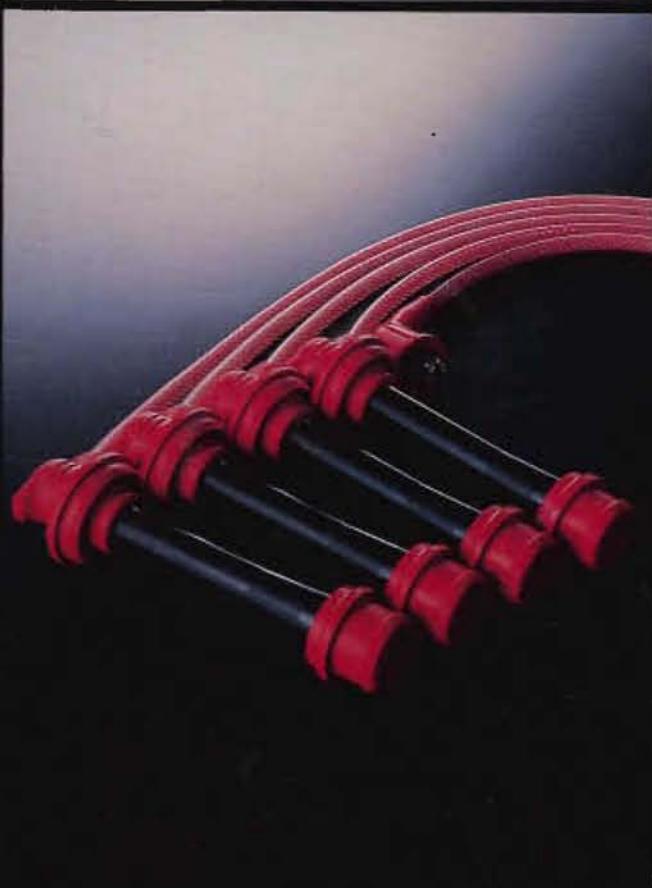
Series 39

3-Piece

Colors: Machine finish & clear coat

Application	Style	Sizes
Camry; Celica FWD; Corolla FWD; MR2 thru '90; FX16	15	14x6.0; 15x6.5; 16x7.0
	17	14x6.0; 15x6.5
	21	15x6.5
	30	15x6.5
	32	15x6.5; 16x7.0
	35	15x6.5; 16x6.5; 16x7.0
MR2, '91	15	15x6.5; 16x7.0
	17	15x6.5
	21	15x6.5
	30	15x6.5
	32	15x7.0; 16x7.0; 16x8.0
	35	15x7.0; 16x7.0; 16x8.0
AllTrac, '90 Turbo	15	15x6.5; 16x7.0; 17x7.0
	17	15x6.5
	21	15x6.5
	30	15x7.0; 16x7.0
	32	15x7.0; 16x7.0; 16x8.0
	35	15x7.0; 16x7.0; 16x8.0

Application	Style	Sizes
Cressida	15	15x6.5; 16x7.0; 17x7.0
	17	15x6.5
	21	15x6.5
	30	15x7.0; 16x7.0
	32	15x7.0; 16x7.5
	35	15x7.0; 16x7.5
Celica, Supra, both pre-'86	32	15x7.0; 16x7.0; 16x8.0
	35	15x7.0; 16x7.0; 16x8.0
Supra, '86½ on	15	16x7.0; 16x8.0; 17x8.0
	30	16x7.0
	32	16x7.0; 16x8.0; 17x8.0; 17x9.0
	35	16x7.0; 16x8.0; 17x8.0; 17x9.0
Truck, 2WD/4WD; 4Runner; LandCruiser	39	15x7.0; 15x8.0



TOYOTA
TRD
RACING DEVELOPMENT

TRD U.S.A., Inc.
18240 S. Western Ave.
Gardena, CA 90248
213-532-1232

TOYOTA RACING DEVELOPMENT PRICE SHEET

ITEM	DESCRIPTION	RETAIL
00400-3SGTE	ENGINE MANUAL, 3SGTE RACE/GROUP A	\$42.95
00400-98116E	SERVICE MANUAL, 20R ONLY	\$17.95
00400-98196E	SERVICE MANUAL, 18R/18RG	\$20.95
00400-98311E	SERVICE MANUAL, 2TG/2TC/3TC	\$21.95
00400-AE86	MANUAL, COROLLA AE86 RACE/GROUP A	\$42.95
04111-27036	GASKET KIT, 2TG OVERHAUL	\$171.95
04111-34075	GASKET KIT, 18RG OVERHAUL	\$200.95
04112-27034	GASKET KIT, 2TG TOP OVERHAUL	\$101.95
04112-34037	GASKET KIT, 18RG TOP OVERHAUL	\$100.95
04490-AW110	STEEL BRAKE LINE KIT, MR2 85-89	\$74.95
04490-MA700	STEEL BRAKE LINE KIT, SUPRA 86-91	\$74.95
04490-RN001	STEEL BRAKE LINE KIT, TRUCK 4WD 88	\$70.95
04490-RN002	STEEL BRAKE LINE KIT, TRUCK 2WD 88	\$70.95
04491-AE801	BRAKE PAD SET, COROLLA 85-87 DS11	\$148.95
04491-AE871	BRAKE PAD SET, COROLLA 85-87 METAL	\$210.95
04491-AE971	BRAKE PAD SET, COROLLA 89-91 METAL	\$210.95
04491-AEA01	BRAKE PAD SET, FX16/MR2 85-90 FERODO	\$241.95
04491-AEA51	BRAKE PAD SET, AE82/92, AW11, ST162	\$85.95
04491-D176M	BRAKE PAD SET, COROLLA 80-83 METAL	\$45.95
04491-D247M	BRAKE PAD SET, CELICA 76-81 METAL	\$60.95
04491-D375M	BRAKE PAD SET, COROLLA 84-87 METAL	\$79.95
04491-D507M	BRAKE PAD SET, MR2, AE82, AE92, ST162	\$58.95
04491-D537M	BRAKE PAD SET, CELICA/SUPRA 83-85 ME	\$83.95
04491-D579M	BRAKE PAD SET, SUPRA 86-91 METAL	\$81.95
04491-STA02	BRAKE PAD SET, ALLTRAC 8/87-89 DS11	\$222.31
04491-SW201	BRAKE PAD SET, MR-2 91+ (DS-11)	\$211.95
04492-AE801	BRAKE PAD SET, COROLLA 85-87 DS11	\$167.95
04492-AE851	BRAKE PAD SET, COROLLA 80-87 FERODO	\$79.95
04492-AE871	BRAKE PAD SET, COROLLA 85-87 METAL	\$210.95
04492-AE971	BRAKE PAD SET, COROLLA 89-91 METAL	\$210.95
04492-AEA01	BRAKE PAD SET, FX16/MR2 85-90 DS11	\$214.95
04492-AW101	BRAKE PAD SET, MR2 85-89 DS11	\$214.95
04492-D504M	BRAKE PAD SET, CELICA/SUPRA 82-85	\$67.95
04492-D551M	BRAKE PAD SET, MR2 85-90 METAL	\$87.95
04492-D556M	BRAKE PAD SET, SUPRA 86-91 METAL	\$61.95
04492-D557M	BRAKE PAD SET, COROLLA 85-87 METAL	\$63.95
04492-EL301	BRAKE PAD SET, TERCEL 89-90 DS11	\$193.95
04492-STB01	BRAKE PAD SET, CELICA 90-91 DS11	\$214.95
04495-AE901	BRAKE SHOE SET, COROLLA 88-91 FERODO	\$83.95
04495-TA001	BRAKE SHOE SET, COROLLA 75-87 FERODO	\$85.95
08150-16010	AERODYNAMIC PACKAGE, PASEO	\$1,239.95
08154-16010	FRONT AIR DAM, PASEO	\$413.95
08155-16010	SIDE SKIRT SET, PASEO	\$688.95
08157-16010	REAR SKIRT, PASEO	\$275.95
08220-TRD01	TRD BANNER 29 3/4 X 60	\$22.95
08230-TRD01	TRD STICKER (SMALL) 1-1/2X3"	\$0.95
08230-TRD02	TRD STICKER (MEDIUM) 4X81/4	\$2.95
08230-TRD03	TRD STICKER (LARGE) 6X12	\$2.95
08230-TRDD1	TRD DIECUT STICKER 2 COLOR (SMALL)	\$2.95
08230-TRDD2	TRD DIECUT STICKER 2 COLOR (LARGE)	\$3.95
08231-SP014	TRD DOOR LETTERING SET	\$28.95
08231-SP032-D1	TRD CLEAR STICKER (SMALL)	\$2.95

ITEM	DESCRIPTION	RETAIL
08231-SP032-D2	TRD CLEAR STICKER (LARGE)	\$3.95
08231-SP033	TRD WINDSHEILD VISOR STICKER	\$39.95
08232-SP012	TRD PATCH	\$7.95
08235-SP012	TRD PLATE KEY RING 88 (GOLD)	\$19.95
08235-SP013	TRD PLATE KEY RING 88 (SILVER)	\$19.95
08294-TRD0L	TRD T-SHIRT (WHITE) LARGE	\$12.95
08294-TRD0M	TRD T-SHIRT (WHITE) MEDIUM	\$12.95
08294-TRD0S	TRD T-SHIRT (WHITE) SMALL	\$12.95
08294-TRD0X	TRD T-SHIRT (WHITE) X-LARGE	\$12.95
08294-TRD1L	TRD TANK TOP (WHITE) LARGE	\$12.95
08294-TRD1M	TRD TANK TOP (WHITE) MEDIUM	\$12.95
08294-TRD1S	TRD TANK TOP (WHITE) SMALL	\$12.95
08294-TRD1X	TRD TANK TOP (WHITE) X-LARGE	\$12.95
08294-TRD2L	TRD SWEATSHIRT (WHITE) LARGE	\$33.95
08294-TRD2M	TRD SWEATSHIRT (WHITE) MEDIUM	\$33.95
08294-TRD2S	TRD SWEATSHIRT (WHITE) SMALL	\$33.95
08294-TRD2X	TRD SWEATSHIRT (WHITE) X-LARGE	\$33.95
08294-TRD3L	TRD POLO SHIRT (WHITE) LARGE	\$44.95
08294-TRD3M	TRD POLO SHIRT (WHITE) MEDIUM	\$44.95
08294-TRD3S	TRD POLO SHIRT (WHITE) SMALL	\$44.95
08294-TRD3X	TRD POLO SHIRT (WHITE) X-LARGE	\$44.95
08294-TRD3XX	TRD POLO SHIRT (WHITE) XX-LARGE	\$44.95
08295-TRDBL	TRD SUPLEX JACKET (BLACK) LARGE	\$159.95
08295-TRDBM	TRD SUPLEX JACKET (BLACK) MEDIUM	\$159.95
08295-TRDBS	TRD SUPLEX JACKET BLACK (SMALL)	\$159.95
08295-TRDBX	TRD SUPLEX JACKET BLACK (X-LARGE)	\$159.95
08295-TRDBXX	TRD SUPLEX JACKET (BLACK) XX-LARGE	\$159.95
08295-TRDRL	TRD SUPLEX JACKET (RED) LARGE	\$159.95
08295-TRDRM	TRD SUPLEX JACKET RED (MEDIUM)	\$159.95
08295-TRDRS	TRD SUPLEX JACKET RED (MEDIUM)	\$159.95
08295-TRDRX	TRD SUPLEX JACKET (RED) X-LARGE	\$159.95
08295-TRDRXX	TRD SUPLEX JACKET (RED) XX-LARGE	\$159.95
08298-TRD01	TRD BASEBALL CAP (BLACK WOOL)	\$23.95
08298-TRD02	TRD BASEBALL CAP (BLACK NYLON)	\$16.95
09240-27010	FLOAT LEVEL GUAGE	\$12.95
10901-SP031-31	SPARK PLUG,Q31 (RACE)	\$21.95
11115-03ST6	CYLINDER HEAD GASKET,3SG 0.6mm	\$105.95
11115-88221	CYLINDER HEAD GASKET,2TG	\$17.95
11115-AE801	CYLINDER HEAD GASKET,4AG	\$55.95
11115-AE811	CYLINDER HEAD GASKET,4AG METAL TAC	\$21.95
11115-AE851	CYLINDER HEAD GASKET,4AG	\$35.95
11115-EP701	CYLINDER HEAD GASKET,2E/3E 0.6mm	\$32.95
11115-EP751	CYLINDER HEAD GASKET,2E/3E 1.0mm	\$19.95
11115-RA001	CYLINDER HEAD GASKET,18RG	\$17.95
11115-ST651	CYLINDER HEAD GASKET,3SG 1.2mm META	\$42.95
11115-TA001	CYLINDER HEAD GASKET,2TG O/S	\$21.95
11115-TE051	CYLINDER HEAD GASKET,2TC/3TC O/S	\$33.95
11121-AE801	INTAKE VALVE GUIDE,4AG	\$15.95
11122-88250	VALVE GUIDE,2TG/18RG	\$9.95
11125-AE801	EXHAUST VALVE GUIDE,4AG	\$18.95
11131-AE851	INTAKE VALVE SEAT,4AG	\$4.25
11131-TE001	INTAKE VALVE SEAT,2TC/3TC	\$19.95

ITEM	DESCRIPTION	RETAIL
11135-AE851	EXHAUST VALVE SEAT, 4AG	\$3.49
11135-TE001	EXHAUST VALVE SEAT, 2TC/3TC	\$19.95
11183-88210	SEMI-CIRCULAR PLUG, 2TG	\$5.19
11183-88260	SEMI-CIRCULAR PLUG, 18RG	\$4.79
11213-88260	VALVE COVER GASKET, 2TG	\$13.95
11213-88270	VALVE COVER GASKET, 18RG	\$15.95
11214-88260	SPARK TOWER GASKET, 2TG	\$3.89
11214-88270	SPARK TOWER GASKET, 18RG	\$4.19
11495-SP001	FUEL PUMP BLOCK OFF PLATE, ALL	\$7.29
116-03-0104-01	CAMSHAFT, 20/22R 280/280 10.67mm	\$183.95
116-N40PHH-97	CARBURETOR, MIKUNI 40PHH	\$242.95
116-N40PHH-98	CARBURETOR, MIKUNI 40PHH	\$242.95
116-N44PHH-41	CARBURETOR, MIKUNI 44PHH	\$262.95
116-N44PHH-42	CARBURETOR, MIKUNI 44PHH	\$262.95
116-N50PHH-27	CARBURETOR, MIKUNI 50PHH	\$405.95
116-N50PHH-28	CARBURETOR, MIKUNI 50PHH	\$405.95
116-Z40-510	CARBURETOR KIT 40PHH, COROLLA 2T/3T	\$590.95
116-Z40-548	CARBURETOR KIT 40PHH, TERCEL 3A/4A	\$685.95
116-Z44-510	CARBURETOR KIT 44PHH, COROLLA 2T/3T	\$610.95
116-Z44-541	CARBURETOR KIT 44PHH, CELICA 20R	\$665.95
116-Z44-542	CARBURETOR KIT 44PHH, TRUCK 20R	\$645.95
116-Z44-546	CARBURETOR KIT 44PHH, CELICA 22R	\$725.95
116-Z44-547	CARBURETOR KIT 44PHH, TRUCK 22R	\$705.95
116-Z60-1001	CARBURETOR LINKAGE KIT, ALL	\$61.95
116-Z70-1002	CARB REBUILD KIT, 2TG/18RG	\$36.95
116-Z70-1040	CARB GASKET KIT, 40PHH MIKUNI	\$9.95
116-Z70-1044	CARB GASKET KIT, 44PHH MIKUNI	\$12.95
11701-AE801-01	CRANKSHAFT BEARING, 4AG TAC	\$11.25
11701-AE801-02	CRANKSHAFT BEARING, 4AG TAC	\$11.25
11701-AE801-03	CRANKSHAFT BEARING, 4AG TAC	\$11.25
11701-AE801-04	CRANKSHAFT BEARING, 4AG TAC	\$11.25
120-40105	FUEL PUMP (!)	\$61.95
120-STE-BK	CARBURETOR SYNCHROMETER, 48-50mm (!)	\$77.95
120-STE-SK	CARBURETOR SYNCHROMETER, 40-45mm (!)	\$77.95
12121-TE051	OIL PAN BAFFLE, 2TC/3TC/2TG	\$23.95
12361-AE851	INSULATOR, ENG.MOUNT FRONT COROLLA	\$27.95
12361-AE901	INSULATOR, ENG.MOUNT FRONT COROLLA	\$53.95
12361-AEA01	INSULATOR, ENG.MOUNT FRONT FX16	\$51.95
12361-AW101	INSULATOR, ENG.MOUNT FRONT MR2	\$62.95
12361-STA01	INSULATOR, ENG.MOUNT FRONT ALLTRAC	\$36.95
12361-SW211	INSULATOR, ENG.MOUNT FRONT MR2 TURBO	\$69.95
12361-TA051	INSULATOR, ENG.MOUNT FRONT 2T/3T/2TG	\$30.95
12362-AE901	INSULATOR, ENG.MOUNT RIGHT COROLLA	\$68.95
12362-AEA01	INSULATOR, ENG.MOUNT RIGHT FX16	\$12.95
12362-AW101	INSULATOR, ENG.MOUNT RIGHT MR2	\$80.95
12362-AW111	INSULATOR, ENG.MOUNT RIGHT MR2	\$81.95
12362-STA01	INSULATOR, ENG.MOUNT RIGHT ALLTRAC	\$90.95
12362-SW211	INSULATOR, ENG.MOUNT RIGHT MR2 TURBO	\$100.95
12363-AE901	INSULATOR, ENG.MOUNT CENTER COROLLA	\$96.95
12371-AE901	INSULATOR, ENG.MOUNT REAR COROLLA	\$49.95
12371-AEA01	INSULATOR, ENG.MOUNT REAR FX16	\$49.95
12371-AW101	INSULATOR, ENG.MOUNT REAR MR2	\$58.95

ITEM	DESCRIPTION	RETAIL
12371-AW111	INSULATOR,ENG.MOUNT REAR MR2-SC	\$69.95
12371-EP701	INSULATOR,ENG.MOUNT REAR STARLET	\$44.95
12371-STA01	INSULATOR,ENG.MOUNT REAR ALLTRAC	\$80.95
12371-SW211	INSULATOR,ENG.MOUNT REAR MR2 TURBO	\$51.95
12372-AE901	INSULATOR,ENG.MOUNT LEFT COROLLA	\$98.95
12372-AEA01	INSULATOR,ENG.MOUNT LEFT FX16	\$11.95
12372-AW101	INSULATOR,ENG.MOUNT LEFT MR2	\$68.95
12372-AW111	INSULATOR,ENG.MOUNT LEFT MR2-SC	\$68.95
12372-EP701	INSULATOR,ENG.MOUNT LEFT STARLET	\$40.95
12372-STA01	INSULATOR,ENG.MOUNT LEFT ALLTRAC	\$51.95
12372-SW211	INSULATOR,ENG.MOUNT LEFT MR2 TURBO	\$88.95
128-502Y	HEADER,CELICA 75-85 (NON SMOG)	\$227.95
128-502Y-0	HEADER,CELICA 83-85 (02)	\$245.95
128-502Y-S	HEADER,CELICA 75-80 (AIR INJ.)	\$278.95
128-502Y-S0	HEADER,CELICA 81-85 (02/AIR INJ.)	\$298.95
128-513Y	HEADER,COROLLA 75-83 2TC/2TG	\$227.95
128-513Y-0	HEADER,COROLLA 81-83 3TC (02)	\$245.95
128-530Y	HEADER,SUPRA 82-85	\$412.95
128-542Y	HEADER,TRUCK 75-84 (NON SMOG)	\$227.95
128-542Y-0	HEADER,TRUCK 84.5-87 EFI(02)	\$245.95
128-542Y-S	HEADER,TRUCK 75-84.5 AIR INJ.)	\$278.95
128-542Y-S0	HEADER,TRUCK 75-84.5 (AIR INJ/02)	\$298.95
128-550Y	HEADER,TRUCK 84.5-88 (AIR/02)	\$298.95
128-550Y-SP	HEADER,TRUCK 84.5-88 (NO SMOG) (*)	\$298.95
128-555Y-0	HEADER,TRUCK 88-90 EFI ONLY	\$298.95
128-586	HEADER,COROLLA GTS 84-87 AE86	\$261.95
128-590	HEADER,MR2 85-86	\$312.95
128-591	HEADER,MR2 SUPERCHARGED 88-89	\$312.95
128-9005	GASKET,FLANGE 2-1/2" (3 BOLT)	\$2.59
128-9530	EXHAUST MANIFOLD GASKET,5MG	\$24.95
128-9542	EXHAUST MANIFOLD GASKET,20/22R	\$12.95
13011-3208XC	RING SET,4AG 81.5mm (WISECO)	\$26.95
13012-3228XC	RING SET,4AG 82mm O/S (WISECO)	\$39.95
13012-3504XC	RING SET,2T/3T/2TG 89mm O/S (WISECO)	\$26.95
13012-3622XC	RING SET,18RG 92mm O/S (WISECO)	\$26.95
13012-3642XC	RING SET,20/22R 92.5mm O/S (WISECO)	\$26.95
13101-3189XC	PISTON W/RING,4AG 81.0mm (WISECO)	\$99.95
13102-3208XC	PISTON W/RING,4AG 81.5mm O/S WISECO	\$99.95
13102-3229XC	PISTON W/RING,4AG 82mm O/S WISECO	\$99.95
13102-3425XC	PISTON W/RING,3SG 3.425" WISECO	\$99.95
13102-6094XC	PISTON W/RING,2TG 89mm 2.0L O/S	\$99.95
13102-6096XC	PISTON W/RING,18RG 92mm O/S WISECO	\$99.95
13102-6100XC	PISTON W/RING,2TG 89mm 1.750CC (*)	\$99.95
13102-6101XC	PISTON W/RING,20/22R 92.5mm RH O/S	\$99.95
13102-6102XC	PISTON W/RING,20/22R 92.5mm LH O/S	\$99.95
13102-8103XC	PISTON W/RING,4AG 81.3mm O/S WISECO	\$99.95
13201-CA18RG	CONNECTING ROD,18RG (CARRILLO)	\$330.95
13201-CA20R	CONNECTING ROD,20/22R (CARRILLO)	\$330.95
13201-CA2TG	CONNECTING ROD,2T/3T/2TG (CARRILLO)	\$330.95
13201-CA4AG	CONNECTING ROD,4AG SMALL JOURNAL	\$330.95
13265-AE801	CONNECTING ROD BOLT,4AG	\$50.95
13265-AE802	RONNECTING ROD BOLT,4AG	\$39.95

ITEM	DESCRIPTION	RETAIL	
13265-TA052	CONNECTING ROD BOLT,2TC/3TC/2TG	\$20.95	
13266-AE801	CONNECTING ROD NUT ,4AG	\$7.95	
13266-TA052	CONNECTING ROD NUT,2TC/3TC/2TG	\$1.79	
13281-AE901-01	CONNECTING ROD BEARING,4AG TAC	\$5.63	
13281-AE901-02	CONNECTING ROD BEARING,4AG TAC	\$5.63	
13281-AE901-03	CONNECTING ROD BEARING,4AG TAC	\$5.63	
13281-AE901-04	CONNECTING ROD BEARING,4AG TAC	\$5.63	
13500-70W	CAMSHAFT DEGREE WHEEL (ISKY)	\$17.95	
13501-88221	INTAKE CAMSHAFT,2TG 320 11.0mm	\$277.95	
13501-AE801	INTAKE CAMSHAFT,4AG 304 10.0mm	\$292.95	
13501-AE811	INTAKE CAMSHAFT,4AG 320 10.0mm	\$292.95	
13501-AE851	INTAKE CAMSHAFT,4AG 304 7.5mm	\$292.95	
13501-AE861	INTAKE CAMSHAFT,4AG 288 7.5mm	\$292.95	
13501-AE871	INTAKE CAMSHAFT,4AG 272 7.5mm	\$292.95	
13501-AE891	INTAKE CAMSHAFT,4AG 304 10.7mm	\$292.95	
13501-AE901	INTAKE CAMSHAFT,4AG 312 10.9mm	\$292.95	
13501-AE951	INTAKE CAMSHAFT,4AG 304 10.9mm	\$292.95	
13501-EP701	INTAKE CAMSHAFT,2E/3E 300/300 11.0	\$688.36	
13501-EP761	INTAKE CAMSHAFT,2E/3E 280/280 11.0	\$688.36	
13501-MA272	INTAKE CAMSHAFT,5MG 272	\$361.95	
13501-TA051	INTAKE CAMSHAFT,2TG 304 10.0mm	\$266.95	
13502-88221	EXHAUST CAMSHAFT,2TG 304 10.7mm	\$278.95	
13502-AE801	EXHAUST CAMSHAFT,4AG 304 10.0mm	\$370.95	
13502-AE811	EXHAUST CAMSHAFT,4AG 300 10.0mm	\$370.95	
13502-AE821	EXHAUST CAMSHAFT,4AG 288 10.0mm	\$397.95	
13502-AE831	EXHAUST CAMSHAFT,4AG 272 10.0mm	\$370.95	
13502-AE851	EXHAUST CAMSHAFT,4AG 304 7.5mm	\$370.95	
13502-AE861	EXHAUST CAMSHAFT,4AG 288 7.5mm	\$370.95	
13502-AE871	EXHAUST CAMSHAFT,4AG 272 7.5mm	\$370.95	
13502-AE901	EXHAUST CAMSHAFT,4AG 304 10.9mm	\$370.95	
13502-AE951	EXHAUST CAMSHAFT,4AG 296 10.9mm	\$370.95	
13502-MA272	EXHAUST CAMSHAFT,5MG 272	\$361.95	
13502-TA051	EXHAUST CAMSHAFT,2TG 272 10.0mm	\$256.95	
13502-TA052	EXHAUST CAMSHAFT,2TG 288 9.6mm	\$266.95	
13506-25010	NO.1 CAM CHAIN,2TG & 2TC	\$47.95	
13506-33010	NO.1 CAM CHAIN,18RG & 18RC	\$48.95	
13507-88210	NO.2 CAM CHAIN,2TG/18RG	\$86.95	
13511-20R51-A	CAMSHAFT,20/22R 304 7.16mm	(!)	\$197.95
13511-20R51-C	CAMSHAFT,20/22R 288 6.76mm	(!)	\$197.95
13511-RA274	CAMSHAFT,20/22R 274/274 10.66mm		\$215.95
13511-RN451	CAMSHAFT,20/22R 254 7.10mm EFI		\$187.95
13511-TE214	CAMSHAFT,2T/3T 214/306 .429		\$187.95
13511-TE280	CAMSHAFT,2T/3T 280/280		\$187.95
13511-TE286	CAMSHAFT,2T/3T 286/286 11.8mm		\$187.95
13511-TE308	CAMSHAFT,2T/3T 308/318 .560/544 NOS		\$187.95
13520-20R51	CAMSHAFT TIMING GEAR,20R/22R		\$54.95
13520-RA051	CAMSHAFT TIMING GEAR,18RG/2TG	(*)	\$66.95
13520-TE001	CAMSHAFT TIMING GEAR,2TC/3TC	(*)	\$139.95
13521-33010	CRANKSHAFT GEAR,2TG/18RG		\$20.95
13522-33010	LAYSHAFT DRIVE GEAR,2TG/18RG		\$31.95
13523-88220	CAMSHAFT TIMING GEAR,2TG/18RG		\$44.95
13523-AE801	CAMSHAFT TIMING PULLEY,4AG TAC		\$21.95

ITEM	DESCRIPTION	RETAIL
13523-AE901	CAMSHAFT TIMING PULLEY, 4AG	\$21.95
13523-ST651	CAMSHAFT TIMING PULLEY, 3SG/3SGT	\$394.95
13528-33010	INTERMEDIATE DRIVE GEAR, 2TG/18RG	\$17.95
13540-33014	NO.1 CHAIN TENSIONER, 18RG	\$30.95
13540-88221	NO.1 CHAIN TENSIONER, 2TG	\$31.95
13550-88210	NO.2 CHAIN TENSIONER, 2TG	\$82.95
13550-88270	NO.2 CHAIN TENSIONER, 2TG/18RG	\$82.95
13559-88260	NO.2 CHAIN SLIPPER, 2TG	\$32.95
13559-88270	NO.2 CHAIN SLIPPER, 18RG	\$34.95
13561-25010	NO.1 CHAIN DAMPER, 2TG	\$6.69
13561-34010	NO.1 CHAIN DAMPER, 18RG	\$13.95
13562-88280	NO.2 CHAIN DAMPER, 2TG/18RG	\$17.95
13563-88220	NO.3 CHAIN DAMPER, 2TG	\$31.95
13563-88250	NO.3 CHAIN DAMPER, 18RG	\$48.95
13711-20R51	INTAKE VALVE, 20R/22R	(*)
13711-88212	INTAKE VALVE, 18RG	\$28.95
13711-88224	INTAKE VALVE, 2TG	\$28.95
13711-TA001	INTAKE VALVE, 2TG	(*)
13711-TE002	INTAKE VALVE, 2TC/3TC	(*)
13715-20R51	EXHAUST VALVE, 20R/22R	(*)
13715-88222	EXHAUST VALVE, 2TG/18RG	\$36.95
13715-RA052	EXHAUST VALVE, 18RG	(*)
13715-TA001	EXHAUST VALVE, 2TG	(*)
13715-TE002	EXHAUST VALVE, 2TC/3TC	(*)
13734-20R52	VALVE SPRING SEAT, 20R/22R	\$7.29
13734-TA001	VALVE SPRING SEAT, 2TG/18RG	\$6.99
13734-TE001	VALVE SPRING SEAT, 2TC/3TC	\$6.99
13741-20R51	VALVE SPRING RETAINER, 20R/22R	\$14.95
13741-AE801	VALVE SPRING RETAINER, 4AG	\$15.95
13741-TA001	VALVE SPRING RETAINER, 2TG/18RG	\$14.95
13741-TE751	VALVE SPRING RETAINER, 2TC/3TC	\$14.95
13751-88210-01	VALVE LIFTER, 2TG/18RG	\$24.95
13751-AE851	VALVE LIFTER, 4AG TAC	(*)
15100-19025	HIGH VOLUME OIL PUMP, 4AG	\$124.95
15100-RA051	HIGH VOLUME OIL PUMP, 18RG	\$183.95
15100-TA051	HIGH VOLUME OIL PUMP, 2TC/3TC/2TG	\$183.95
15103-AE852	OIL PUMP GEAR SET, 4AG	(*)
17011-AE901	INTAKE MANIFOLD, 4AF	(!)
17011-TE003	INTAKE MANIFOLD, 2TC/3TC	(!)
17104-AE801	HEADER, TRD COROLLA 84-87	\$647.95
17104-RA051	HEADER, TRD 18RG	\$494.95
17104-TA051	HEADER, TRD 2T/3T/2TG	\$494.95
17111-TA051	INTAKE MANIFOLD, 2TG	(!)
17173-88220	EXHAUST MANIFOLD GASKET, 2T/3T/2TG	\$1.59
17173-88250	EXHAUST MANIFOLD GASKET, 18RG	\$5.19
17173-AE801	EXHAUST MANIFOLD GASKET, 4AG TAC	\$9.19
17177-88220	INTAKE MANIFOLD GASKET, 2TG	\$4.99
17177-88270	INTAKE MANIFOLD GASKET, 18RG	\$4.39
17177-AE801	INTAKE MANIFOLD GASKET, 4AG TAC	\$5.69
17800-1020	VENT FILTER, CRANKCASE PUSH-IN	\$15.95
17800-1310	AIR FILTER, SIDEDRAFT 1-3/4"	\$40.95
17800-1320	AIR FILTER, SIDEDRAFT 3-3/4"	\$43.95

ITEM	DESCRIPTION	RETAIL
17800-1340	VENT FILTER,CRANKCASE CLAMP-ON	\$15.95
17800-1350	AIR FILTER,SIDEDRAFT 3 1/4 HORN OK	\$44.95
17800-2009	AIR FILTER,VAN/TRUCK 22R (EFI)	\$40.95
17800-2030	AIR FILTER,ALLTRAC/CELICA 86-89	\$51.95
17800-2533	AIR FILTER, CAMRY V-6	\$41.95
17800-E2485	AIR FILTER,MR2 85-86	\$42.95
17800-E2487	AIR FILTER,SUPRA 82-85/CELICA 83-85	\$47.95
17800-E2605	AIR FILTER,MA70/ST162/AW11/MX60	\$44.95
17800-E2690	AIR FILTER,4AC 83-85, 80-84 TERCEL	\$33.95
17800-E2820	AIR FILTER,TRUCK 20R (CARB)	\$32.95
17850-0504	AIR FILTER OIL 6oz.	\$3.95
17850-0621	AIR FILTER CLEANER 32fl.oz.	\$8.95
17850-5000	AIR FILTER SERVICE CARE KIT	\$7.95
19100-88263	DISTRIBUTER ASSY,2TG	\$272.95
19100-88271	DISTRIBUTER ASSY,18RG	\$264.95
20-1000	TRD LICENSE PLATE FRAME	\$3.95
21912-88210	CARB INSULATOR,40/44mm	\$14.95
21912-SP002	CARB INSULATOR,44-45mm	\$23.95
30301-AE801	QUICK SHIFT,COROLLA 85-87 (AE86) RH	\$134.95
30301-AE901	QUICK SHIFT,COROLLA 88-90 (AE92)	\$87.95
30301-AW101	QUICK SHIFT,MR2 85-90 (AW11)	\$97.95
30301-STB01	QUICK SHIFT LEVER, ALL TRAC	\$84.95
31200-AE001	CLUTCH SET, 85-87 COROLLA	\$285.95
31200-AW001	CLUTCH SET, 85-6 MR-2	\$301.95
31200-RA001	CLUTCH SET, 18RG/20R/22R .	\$286.95
31200-TE001	CLUTCH SET, 2T/3T/2TG	\$279.95
31210-AE852	CLUTCH COVER,COROLLA 85-90/MR2 85	\$233.95
31210-AE951	CLUTCH COVER,COROLLA 89.5-90	\$206.95
31210-AW151	CLUTCH COVER,MR2 86-88 4AG	\$244.95
31210-AW161	CLUTCH COVER,MR2 88-89 SUPERCHARGED	\$260.95
31210-GAT52	CLUTCH COVER,CELICA 86-89 3SG	\$225.95
31210-RA051	CLUTCH COVER,CELICA/TRUCK,18RG/20R	\$229.95
31210-STA61	CLUTCH COVER,ALLTRAC/MR2 TURBO	\$287.95
31210-TA053	CLUTCH COVER,COROLLA 2T/3T/2TG	\$215.95
31250-AE851	CLUTCH DISC,COROLLA 85-89/MR2 85	\$137.95
31250-AE951	CLUTCH DISC,COROLLA 89.5-90	\$122.95
31250-AW152	CLUTCH DISC,MR2 SUPERCHARGED 88-89	\$133.95
31250-GA661	CLUTCH DISC,MR2 4AGZE METAL	\$266.95
31250-RA001	CLUTCH DISC,CELICA/TRUCK 18RG/20R	\$132.95
31250-RA661	CLUTCH DISC,CELICA 18RG/20R METAL	\$266.95
31250-STA51	CLUTCH DISC,ALLTRAC 88-89/MR2 3SGT	\$146.95
31250-STA61	CLUTCH DISC,ALLTRAC 88-89 METAL	\$708.95
31250-STB61	CLUTCH DISC,ST185/SW20 TURBO METAL	\$342.95
31250-TA461	CLUTCH DISC,COROLLA/MR2 4AG METAL	\$254.95
31250-TE005	CLUTCH DISC,COROLLA 2T/3T/2TG	\$135.95
31250-TE761	CLUTCH DISC,COROLLA 2T/3T/2TG METAL	\$240.95
33030-AE811	TRANS GEAR SET,T-50 83-87 (!)	\$1,610.95
33030-AE901	TRANS GEAR SET,COROLLA/FX16/MR2	\$1,859.95
33030-ST601	TRANS GEAR SET,CELICA (ST162)	\$3,393.95
40107-RA002	REPAIR KIT,LSD (7.5)	\$138.95
40107-RN001	REPAIR KIT,LSD (8.0)	\$121.95
40107-TA003	REPAIR KIT,LSD (6.7)	\$118.95

ITEM	DESCRIPTION	RETAIL
40812-AE851	FRONT STRUT BRACE,COROLLA 84-87	\$265.80
40812-SW200	STRUT BRACE F/R SET,MR2 91-UP	\$574.95
40818-AE851	BUSHING,STABILIZER LINK AE86	\$1.95
40819-AE801	BUSHING,STABILIZER REAR AE86	\$21.95
40819-AE851	BUSHING,STABILIZER REAR AE86/AE82	\$3.99
41201-19495	RING & PINION,6.38" (4.30)	\$305.95
41201-29197	RING & PINION,6.7" (4.10)	\$332.95
41201-29207	RING & PINION,6.7" (4.30)	\$335.95
41201-29625	RING & PINION,6.7" (4.55)	\$314.95
41201-AE851	RING & PINION,6.7" (5.375) (!)	\$712.95
41201-AEA01	RING & PINION,MR2/FX16 (3.526)	\$640.95
41201-AEA51	RING & PINION,MR2/FX16 (4.667)	\$829.95
41201-TA001	RING & PINION,6.7" (4.625) (!)	\$767.95
41201-TA003	RING & PINION,6.7" (5.125) (!)	\$767.95
41300-RA002	LIMITED SLIP DIFF KIT,7.5"	\$696.95
41301-AE801	LIMITED SLIP DIFF,6.7" COROLLA 86-87	\$584.95
41301-AE802	LIMITED SLIP DIFF,6.7" ALLTRAC 88-89	\$641.95
41301-AW002	LIMITED SLIP DIFF,AE86/AE92/AW11	\$823.95
41301-AW102	LIMITED SLIP DIFF,SW20/AW11(4AGZ)	\$742.95
41301-MZ201	LIMITED SLIP DIFF,8.0" SUPRA 86-89	\$730.95
41301-RA002	LIMITED SLIP DIFF,USE # 41300-RA002	\$758.95
41301-RN001	LIMITED SLIP DIFF,8.0" TRUCKS	\$659.95
41301-ST601	LIMITED SLIP DIFF,CELICA 86-88	\$793.95
41301-TA004	LIMITED SLIP DIFF,6.7" COROLLA	\$653.95
41301-TE003	LIMITED SLIP DIFF,6.38" COROLLA TE	\$748.95
41301-VN001	LIMITED SLIP DIFF,8.0" V6 TRUCKS	\$712.95
41309-STA01	DIFF SIDE GEAR SHAFT,6.7" ALLTRAC	\$94.95
41900-OIL	LIMITED SLIP DIFF OIL ADDITIVE	\$8.49
41910-14010	DIFFERENTIAL OIL PUMP ASSY	\$462.95
41930-14010	DIFFERENTIAL OIL FILTER(AN FITTING)	\$52.95
43200-AE801	NEGATIVE ROLBLOCK,COROLLA 75-87(*)	\$107.95
45461-TE351	STEERING TIE ROD,COROLLA/CELICA	\$18.95
45516-AE851	GROMMET,RACK HOUSING NO.1 AE86	\$37.95
45516-AEA01	GROMMET,RACK HOUSING NO.1 AE82/AE92	\$18.95
45516-EP701	GROMMET,RACK HOUSING NO.1 EP71	\$16.95
45517-AE851	GROMMET,RACK HOUSING NO.2 AE86	\$26.95
45517-AEA01	GROMMET,RACK HOUSING NO.2 AE82/AE92	\$27.95
45517-EP701	GROMMET,RACK HOUSING NO.2 EP71	\$13.95
48068-AE851-10	LOWER CONTROL ARM RIGHT +10mm	\$191.95
48068-AE851-15	LOWER CONTROL ARM RIGHT +15mm	\$188.95
48068-TE351-A	LOWER CONTROL ARM RIGHT +20mm (*)	\$193.95
48068-TE751-A	LOWER CONTROL ARM RIGHT +20mm (*)	\$174.95
48069-AE851-10	LOWER CONTROL ARM LEFT +10mm	\$191.95
48069-AE851-15	LOWER CONTROL ARM LEFT +15mm	\$191.95
48069-TE351-A	LOWER CONTROL ARM LEFT +20mm (*)	\$193.95
48069-TE751-A	LOWER CONTROL ARM LEFT +20mm (*)	\$174.95
48100-AE820	SPRING SET,COROLLA FX16 86-87	\$249.95
48100-AE860	SPRING SET,COROLLA 85-87	\$249.95
48100-AE920	SPRING SET,COROLLA 88-90	\$249.95
48100-AW100	SPRING SET,MR2 85-90	\$269.95
48100-LS400	SPRING SET,LEXUS LS400 89-90	\$419.95
48100-MA600	SPRING SET,SUPRA 82-85	\$289.95

ITEM	DESCRIPTION	RETAIL
48100-MA700	SPRING SET,SUPRA 86.5-89	\$289.95
48100-MX700	SPRING SET,CRESSIDA 85-88	\$289.95
48100-MX800	SPRING SET,CRESSIDA 89-90	\$289.95
48100-RA600	SPRING SET,CELICA ST/GT 82-85	\$269.95
48100-RA650	SPRING SET,CELICA GTS 82-85	\$269.95
48100-ST160	SPRING SET,CELICA 86-89	\$269.95
48100-ST180	SPRING SET,CELICA 90-91	\$289.95
48100-ST185	SPRING SET,ALLTRAC 90-91	\$329.95
48100-SV200	SPRING SET,CAMRY 87-90	\$269.95
48100-SW200	SPRING SET,MR2 91	\$299.95
48100-VN130	SPRING SET,4RUNNER 90-91 (REAR)	\$189.95
48131-AE801	FRONT SPRING,COROLLA 85-87 (*)	\$42.95
48131-AE851	FRONT SPRING,COROLLA 84-87 RALLY	\$41.95
48131-AE861	FRONT SPRING,COROLLA 84-87 RALLY	\$39.95
48131-AW101	FRONT SPRING,MR2 85-89	\$29.95
48131-EP701-55	FRONT SPRING,TERCEL 89-90 RACE	\$36.95
48131-EP762-35	FRONT SPRING,TERCEL 89-90 RALLY	\$31.95
48131-MA701	FRONT SPRING,SUPRA 86-89	\$22.95
48131-ST601	FRONT SPRING,COROLLA/CELICA/FX16	\$50.95
48131-STA51-40	FRONT SPRING,ALLTRAC 88-89	\$52.95
48131-STB51-43	FRONT SPRING,ALLTRAC 90-91	\$55.95
48131-SW261-28	SPRING, FRONT COIL MR-2 91+	\$29.95
48231-AE801-39	REAR SPRING,COROLLA 80-87	\$33.95
48231-AE801-43	REAR SPRING,COROLLA 80-87	\$36.95
48231-AE851	REAR SPRING,COROLLA 80-87 RALLY	\$35.95
48231-AE861	REAR SPRING,COROLLA 84-87 RALLY	\$40.95
48231-AW101	REAR SPRING,MR2 85-89	\$42.95
48231-EP701-40	REAR SPRING,TERCEL 89-90 RACE	\$29.95
48231-EP762-25	REAR SPRING,TERCEL 89-90 RALLY	\$23.95
48231-MA701	REAR SPRING,SUPRA 86-89	\$23.95
48231-ST601	REAR SPRING,COROLLA/CELICA/FX16	\$34.95
48231-STA51-36	REAR SPRING,ALLTRAC 88-89	\$44.95
48231-STB51-33	REAR SPRING,ALLTRAC 90-91	\$35.95
48231-SW261-50	SPRING, REAR COIL MR-2 91+	\$48.95
48508-AE951	REAR RIGHT SHELL ASSY,COROLLA AE92	\$30.95
48508-AEA51	REAR SHELL ASSY,FX16 AE82	\$38.95
48509-AE951	REAR LEFT SHELL ASSY,COROLLA AE92	\$30.95
48510-AE991	FRONT RIGHT STRUT,COROLLA AE92	\$223.95
48510-EP891	FRONT SHOCK, PASEO RIGHT	\$116.95
48510-MZ282	FRONT STRUT,SUPRA 86-90	\$133.95
48510-STA91	FRONT STRUT,ALLTRAC 88-89	\$133.95
48510-STB81	FRONT STRUT,ALLTRAC 90-91	\$426.95
48511-AE862	FRONT STRUT,COROLLA 84-87	\$101.95
48511-AE891	FRONT STRUT,COROLLA 84-87	\$82.95
48511-AE941	FRONT STRUT,COROLLA GTS 88	\$85.95
48511-AE981	FRONT STRUT,COROLLA 88-UP AE92	\$182.95
48511-AEA91	FRONT STRUT,CELICA/REAR MR2 87~88	\$90.95
48511-AW191	FRONT STRUT,MR2 85-88	\$75.95
48511-EP741	FRONT STRUT,STARLET EP71	\$83.95
48511-EP791	FRONT STRUT,TERCEL 89-90	\$76.95
48511-GX881	FRONT STRUT,CRESSIDA 89-90	\$161.95
48511-MX791	FRONT STRUT,CRESSIDA/SUPRA 82-85	\$73.95

ITEM	DESCRIPTION	RETAIL
48511-MX891	FRONT STRUT, CRESSIDA 89	\$177.95
48511-MZ091	FRONT STRUT, SUPRA 82-85	\$73.95
48511-RA491	FRONT STRUT, CELICA/SUPRA 78-81	\$72.95
48511-RA661	FRONT STRUT, CELICA 82-85	\$81.95
48511-RA691	FRONT STRUT, CELICA 82-85	\$83.95
48511-STA61	FRONT STRUT, CELICA 86-89	\$283.95
48511-SW281	FRONT STRUT, MR-2 (ADJUSTABLE)	\$169.95
48511-SW292	FRONT STRUT, MR2 91- (STREET)	\$109.95
48511-TA161	FRONT STRUT, CELICA 70-75	\$73.95
48511-TA461	FRONT STRUT, CELICA 76-77	\$87.95
48511-TA491	FRONT STRUT, CELICA 75-77	\$71.95
48511-TE061	FRONT STRUT, COROLLA 80-83	\$81.95
48511-TE091	FRONT STRUT, COROLLA 80-83	\$76.95
48511-TE362	FRONT STRUT, COROLLA 75-79	\$81.95
48520-AE991	FRONT LEFT STRUT, COROLLA AE92	\$223.95
48520-EP891	FRONT SHOCK, PASEO LEFT	\$116.95
48530-AE981	REAR STRUT, COROLLA 88-90 RH	\$257.95
48530-EL381	REAR STRUT, TERCEL 89-90	\$121.95
48530-EP741	REAR STRUT, STARLET EP71	\$85.95
48530-EP891	REAR SHOCK, PASEO	\$87.95
48530-GX881	REAR STRUT, CRESSIDA 89-90	\$150.95
48530-MZ282	REAR STRUT, SUPRA 86-90	\$133.95
48530-STA91	REAR STRUT, ALLTRAC 88-89 RH	\$93.95
48530-STB81	REAR STRUT, ALLTRAC 90-91 RH	\$384.95
48531-AE861	REAR STRUT, COROLLA 84-87	\$65.95
48531-AE881	REAR STRUT, COROLLA 84-87	\$102.95
48531-AE891	REAR STRUT, COROLLA 84-87	\$43.95
48531-AE892	REAR STRUT, COROLLA 84-87	\$63.95
48531-AE941	REAR STRUT, COROLLA 88 (NEED SHELL)	\$85.95
48531-AEA91	REAR STRUT, FX16(SHELL) CAMRY 88-90	\$77.95
48531-AW191	REAR STRUT, MR2 85-86	\$74.95
48531-MX791	REAR STRUT, CRESSIDA	\$42.95
48531-MX891	REAR STRUT, CRESSIDA 89	\$126.95
48531-RA661	REAR STRUT, SUPRA/CELICA 82-85 GTS	\$51.95
48531-RA691	REAR STRUT, CELICA 83-85 GTS	\$40.95
48531-SW281	REAR STRUT, MR-2 (ADJUSTABLE)	\$169.95
48531-SW292	REAR STRUT, MR2 91- (STREET)	\$109.95
48531-TA063	REAR STRUT, CELICA 76-77	\$53.95
48531-TA161	REAR STRUT, CELICA	\$52.95
48531-TA462	REAR STRUT, CELICA 78-85/SUPRA 79-81	\$53.95
48531-TA481	REAR STRUT, CELICA 78-81	\$102.95
48531-TA491	REAR STRUT, CELICA 78-85/SUPRA 79-81	\$48.95
48531-TE061	REAR SHOCK, COROLLA 80-83	\$51.95
48531-TE091	REAR SHOCK, COROLLA 80-83	\$48.95
48531-TE362	REAR SHOCK, COROLLA 75-76	\$52.95
48531-TE561	REAR SHOCK, COROLLA 75-79	\$52.95
48540-AE981	REAR STRUT, COROLLA 88-90 LH	\$257.95
48540-STA91	REAR STRUT, ALLTRAC 88-89 LH	\$92.95
48540-STB81	REAR STRUT, ALLTRAC 90-91 LH	\$384.95
48603-AE851	SUPPORT, FRONT SUSPENSION RIGHT AE86	\$40.95
48609-AE851	SUPPORT, FRONT SUSPENSION LEFT AE86	\$42.95
48609-AE951	SUPPORT, FRONT SUSPENSION AE92	\$40.95

ITEM	DESCRIPTION	RETAIL
48609-AEA51	SUPPORT, FRONT SUSPENSION AE82	\$49.95
48609-AW151	SUPPORT, FRONT SUSPENSION AW11	\$49.95
48609-EP752	SUPPORT, FRONT SUSPENSION EL31/EP71	\$45.95
48609-ST651	SUPPORT, FRONT SUSPENSION ALL ST160	\$47.95
48609-SW251	SUPPORT, FRONT SUSPENSION SW20	\$49.95
48654-AE851	BUSHING, LOWER ARM AE86	\$11.95
48654-AE951	BUSHING, LOWER ARM NO.1 AE92	\$17.95
48654-AEA51	BUSHING, LOWER ARM NO.1 AE82	\$18.95
48654-AW151	BUSHING, LOWER ARM AW11	\$15.95
48654-EP751	BUSHING, LOWER ARM NO.1 EL31/EP71	\$18.95
48654-ST651	BUSHING, LOWER ARM NO.1 ST162/ST165	\$15.95
48654-STB51	BUSHING, LOWER ARM NO.1 ST185	\$15.95
48654-SW251	BUSHING, LOWER ARM SW20	\$15.95
48655-AE951	BUSHING, LOWER ARM NO.2 AE92	\$16.95
48655-AEA51	BUSHING, LOWER ARM NO.2 AE82	\$16.95
48655-EP751	BUSHING, LOWER ARM NO.2 EL31/EP71	\$15.95
48655-ST651	BUSHING, LOWER ARM NO.2 ST162/165	\$32.95
48655-STB51	BUSHING, LOWER ARM NO.2 ST185	\$15.95
48674-SW251	BUSHING, STRUT ROD SW20	\$6.49
48674-TA451	BUSHING, STRUT ROD TE71/AE86/AW11	\$3.19
48680-KP651	SUPPORT, FRONT SUSPENSION KP61	\$36.95
48702-AE851	BUSHING, CONTROL ARM AE86	\$12.95
48702-TA451	BUSHING, CONTROL ARM RA40	\$12.95
48706-TA451	BUSHING, LATERAL CONTROL ARM AE86	\$9.19
48715-AE951	BUSHING, AXLE CARRIER NO.1 AE92	\$15.95
48715-AE961	BUSHING, AXLE CARRIER NO.3 AE92	\$17.95
48715-AEA51	BUSHING, REAR STRUT ROD AE86	\$10.95
48715-AW151	BUSHING, REAR STRUT ROD AW11	\$10.95
48715-SW251	BUSHING, REAR STRUT ROD SW20	\$12.95
48725-AE951	BUSHING, REAR SUSPENSION ARM NO.1	\$12.95
48725-AE961	BUSHING, REAR SUSPENSION ARM NO.2	\$12.95
48725-AEA51	BUSHING, AXLE CARRIER NO.1 AE82	\$10.95
48725-EL351	BUSHING, REAR SUSPENSION ARM EL31	\$17.95
48725-STA51	BUSHING, REAR SUSPENSION ARM NO.1	\$17.95
48725-STA61	BUSHING, REAR SUSPENSION ARM NO.2	\$15.95
48740-AE801	LATERAL CONTROL ROD ASSY AE86	\$626.95
48745-AE851	BUSHING, LATERAL CONTROL ROD AE86	\$3.19
48745-EP751	BUSHING, LATERAL CONTROL ROD EL31	\$2.39
48750-AE901	SUPPORT, REAR SUSPENSION RIGHT AE92	\$397.95
48750-AEA51	SUPPORT, REAR SUSPENSION AE82/ST165	\$40.95
48750-AW151	SUPPORT, REAR SUSPENSION AW11	\$38.95
48750-EP751	SUPPORT, REAR SUSPENSION EP71	\$38.95
48750-SW251	SUPPORT, REAR SUSPENSION SW20	\$45.95
48760-AE901	SUPPORT, REAR SUSPENSION LEFT AE92	\$397.95
48787-SW251	BUSHING, REAR STRUT BAR SW20	\$6.49
48801-AEA01-23	STABILIZER BAR, FRONT AE82	\$209.95
48811-EL310	STABILIZER BAR, FRONT EL31	\$60.95
48812-AE801-16	STABILIZER BAR, REAR AE86 16mm (!)	\$322.95
48815-AE801	BUSHING, FRONT STABILIZER AE86	\$24.95
48815-AE951	BUSHING, FRONT STABILIZER AE92	\$4.39
48815-AEA51	BUSHING, FRONT STABILIZER AE82	\$3.69
48815-ST651-26	BUSHING, FRONT STABILIZER ST165	\$4.39

ITEM	DESCRIPTION	RETAIL
48815-STB51-28	BUSHING, FRONT STABILIZER ST185	\$5.39
48815-TA451	BUSHING, STABILIZER TE71/AE86	\$2.69
48815-TE051	BUSHING, FRONT STABILIZER TE71/AE86	\$2.69
48817-AE851	BUSHING, FRONT STABILIZER AE86/AE92	\$5.59
48818-AE951-14	BUSHING, FRONT STABILIZER AE92	\$20.95
48818-AE951-15	BUSHING, REAR STABILIZER AE92	\$20.95
48818-AEA51-16	BUSHING, REAR STABILIZER AE82	\$6.29
48818-ST651-16	BUSHING, REAR STABILIZER ST165	\$4.59
48819-EL310	BOLT, FRONT STABILIZER EL31	\$3.49
48824-EL310	STABILIZER BRACKET, FRONT EL31	\$21.95
51100-6024	ROLLBAR RACE, CELICA 78-81 (!)	\$259.95
51100-6027	ROLLBAR RACE, CELICA/SUPRA 82-85 (!)	\$259.95
51100-6046	ROLLBAR RACE, COROLLA 84-87 (!)	\$259.95
51100-6047	ROLLBAR RACE, CELICA 86-88 (!)	\$259.95
51100-6050	ROLLBAR RACE, MR2 85-89 (!)	\$259.95
51100-6051	ROLLBAR RACE, FX16 86-88 (!)	\$259.95
51100-6052	ROLLBAR RACE, CELICA 71-77 (!)	\$259.95
51100-6053	ROLLBAR RACE, SUPRA 86-90 (!)	\$259.95
51100-6078	ROLLBAR RACE, COROLLA 75-82 (!)	\$259.95
51100-6124	ROLLBAR STREET, CELICA 78-81 (!)	\$209.95
51100-6127	ROLLBAR STREET, CELICA/SUPRA 82-85 (!)	\$209.95
51100-6146	ROLLBAR STREET, COROLLA 85-87 (!)	\$209.95
51100-6147	ROLLBAR STREET, CELICA 86-88 (!)	\$209.95
51100-6149	ROLLBAR STREET, COROLLA 73-74 (!)	\$209.95
51100-6150	ROLLBAR STREET, MR2 85-89 (!)	\$209.95
51100-6151	ROLLBAR STREET, FX16 86-88 (!)	\$209.95
51100-6152	ROLLBAR STREET, CELICA 71-77 (!)	\$209.95
51100-6153	ROLLBAR STREET, SUPRA 86-90 (!)	\$209.95
51100-6178	ROLLBAR STREET, COROLLA 75-82 (!)	\$209.95
51100-8303	ROLLCAGE KIT, MR2 91- BOLT-IN (!)	\$702.95
51100-8341	ROLLCAGE KIT, TRUCK 84-88 BOLT-IN (!)	\$499.95
51100-8347	ROLLCAGE KIT, CELICA 86-88 BOLT-IN (!)	\$499.95
51100-8350	ROLLCAGE KIT, MR2 85-89 BOLT-IN (!)	\$499.95
51100-8351	ROLLCAGE KIT, FX16 86-88 BOLT-IN (!)	\$499.95
51100-C6024	ROLLCAGE U-WELD, CELICA 78-81 (!)	\$199.95
51100-C6046	ROLLCAGE U-WELD, COROLLA 85-87 (!)	\$199.95
51100-C6051	ROLLCAGE U-WELD, FX16 86-88 (!)	\$199.95
51100-C6078	ROLLCAGE U-WELD, COROLLA 75-82 (!)	\$199.95
71100-SP001-01	RACE SEAT, HIGH BACK (BLACK&GREY) (!)	\$831.95
71100-SP001-02	RACE SEAT, HIGH BACK (TRD STRIPE) (!)	\$831.95
71100-TA001	RACE SEAT, LOW BACK (YELLOW) (!)	\$418.95
71100-TA001-A	RACE SEAT, LOW BACK (BLACK) (!)	\$418.95
75400-TRD01	TRD LOGO EMBLEM PLATE (3 COLOR)	\$5.95
84160-14060	SUPRA TEMS BYPASS SWITCH	\$27.95
90072-01200	VALVE ADJUST SHIM 1.200mm	\$3.95
90072-01250	VALVE ADJUST SHIM 1.250mm	\$3.95
90072-01300	VALVE ADJUST SHIM 1.300mm	\$3.95
90072-01350	VALVE ADJUST SHIM 1.350mm	\$3.95
90072-01400	VALVE ADJUST SHIM 1.400mm	\$3.95
90072-01425	VALVE ADJUST SHIM 1.425mm	\$3.95
90072-01450	VALVE ADJUST SHIM 1.450mm	\$3.95
90072-01500	VALVE ADJUST SHIM 1.500mm	\$3.95

ITEM	DESCRIPTION	RETAIL
90072-01525	VALVE ADJUST SHIM 1.525mm	\$3.95
90072-01550	VALVE ADJUST SHIM 1.550mm	\$3.95
90072-01600	VALVE ADJUST SHIM 1.600mm	\$3.95
90072-01650	VALVE ADJUST SHIM 1.650mm	\$3.95
90072-01675	VALVE ADJUST SHIM 1.675mm	\$3.95
90072-01700	VALVE ADJUST SHIM 1.700mm	\$3.95
90072-01725	VALVE ADJUST SHIM 1.725mm	\$3.95
90072-01750	VALVE ADJUST SHIM 1.750mm	\$3.95
90072-01775	VALVE ADJUST SHIM 1.775mm	\$3.95
90072-01800	VALVE ADJUST SHIM 1.800mm	\$3.95
90072-01825	VALVE ADJUST SHIM 1.825mm	\$3.95
90072-01850	VALVE ADJUST SHIM 1.850mm	\$3.95
90072-01875	VALVE ADJUST SHIM 1.875mm	\$3.95
90072-01900	VALVE ADJUST SHIM 1.900mm	\$3.95
90072-01950	VALVE ADJUST SHIM 1.950mm	\$3.95
90072-01975	VALVE ADJUST SHIM 1.975mm	\$3.95
90072-02000	VALVE ADJUST SHIM 2.000mm	\$3.95
90072-02025	VALVE ADJUST SHIM 2.025mm	\$3.95
90072-02050	VALVE ADJUST SHIM 2.050mm	\$3.95
90072-02075	VALVE ADJUST SHIM 2.075mm	\$3.95
90072-02100	VALVE ADJUST SHIM 2.100mm	\$3.95
90072-02150	VALVE ADJUST SHIM 2.150mm	\$3.95
90072-02175	VALVE ADJUST SHIM 2.175mm	\$3.95
90072-02200	VALVE ADJUST SHIM 2.200mm	\$3.95
90072-02250	VALVE ADJUST SHIM 2.250mm	\$3.95
90072-02275	VALVE ADJUST SHIM 2.275mm	\$3.95
90072-02300	VALVE ADJUST SHIM 2.300mm	\$3.95
90072-02350	VALVE ADJUST SHIM 2.350mm	\$3.95
90072-02400	VALVE ADJUST SHIM 2.400mm	\$3.95
90072-02425	VALVE ADJUST SHIM 2.425mm	\$3.95
90072-02450	VALVE ADJUST SHIM 2.450mm	\$3.95
90072-02475	VALVE ADJUST SHIM 2.475mm	\$3.95
90072-02500	VALVE ADJUST SHIM 2.500mm	\$3.95
90072-02525	VALVE ADJUST SHIM 2.525mm	\$3.95
90072-02550	VALVE ADJUST SHIM 2.550mm	\$3.95
90072-02575	VALVE ADJUST SHIM 2.575mm	\$3.95
90072-02600	VALVE ADJUST SHIM 2.600mm	\$3.95
90072-02625	VALVE ADJUST SHIM 2.625mm	\$3.95
90072-02650	VALVE ADJUST SHIM 2.650mm	\$3.95
90072-02675	VALVE ADJUST SHIM 2.675mm	\$3.95
90072-02700	VALVE ADJUST SHIM 2.700mm	\$3.95
90072-02725	VALVE ADJUST SHIM 2.725mm	\$3.95
90072-02750	VALVE ADJUST SHIM 2.750mm	\$3.95
90072-02775	VALVE ADJUST SHIM 2.775mm	\$3.95
90072-02800	VALVE ADJUST SHIM 2.800mm	\$3.95
90072-02825	VALVE ADJUST SHIM 2.825mm	\$3.95
90072-02850	VALVE ADJUST SHIM 2.850mm	\$3.95
90072-02875	VALVE ADJUST SHIM 2.875mm	\$3.95
90072-02900	VALVE ADJUST SHIM 2.900mm	\$3.95
90072-02925	VALVE ADJUST SHIM 2.925mm	\$3.95
90072-02950	VALVE ADJUST SHIM 2.950mm	\$3.95
90072-02975	VALVE ADJUST SHIM 2.975mm	\$3.95

ITEM	DESCRIPTION	RETAIL	
90072-03000	VALVE ADJUST SHIM 3.000mm	\$3.95	
90072-03025	VALVE ADJUST SHIM 3.025mm	\$3.95	
90072-03050	VALVE ADJUST SHIM 3.050mm	\$3.95	
90072-03075	VALVE ADJUST SHIM 3.075mm	\$3.95	
90072-03100	VALVE ADJUST SHIM 3.100mm	\$3.95	
90072-03150	VALVE ADJUST SHIM 3.150mm	\$3.95	
90072-03200	VALVE ADJUST SHIM 3.200mm	\$3.95	
90072-03250	VALVE ADJUST SHIM 3.250mm	\$3.95	
90072-03300	VALVE ADJUST SHIM 3.300mm	\$3.95	
90072-03350	VALVE ADJUST SHIM 3.350mm	\$3.95	
90072-03400	VALVE ADJUST SHIM 3.400mm	\$3.95	
90072-03425	VALVE ADJUST SHIM 3.425mm	\$3.95	
90072-03450	VALVE ADJUST SHIM 3.450mm	\$3.95	
90072-03500	VALVE ADJUST SHIM 3.500mm	\$3.95	
90072-03550	VALVE ADJUST SHIM 3.550mm	\$3.95	
90072-03600	VALVE ADJUST SHIM 3.600mm	\$3.95	
90072-03650	VALVE ADJUST SHIM 3.650mm	\$3.95	
90072-03700	VALVE ADJUST SHIM 3.700mm	\$3.95	
90072-03750	VALVE ADJUST SHIM 3.750mm	\$3.95	
90072-03800	VALVE ADJUST SHIM 3.800mm	\$3.95	
90072-03825	VALVE ADJUST SHIM 3.825mm	\$3.95	
90072-03850	VALVE ADJUST SHIM 3.850mm	\$3.95	
90072-03900	VALVE ADJUST SHIM 3.900mm	\$3.95	
90072-03950	VALVE ADJUST SHIM 3.950mm	\$3.95	
90072-04000	VALVE ADJUST SHIM 4.000mm	\$3.95	
90072-04025	VALVE ADJUST SHIM 4.025mm	\$3.95	
90072-04075	VALVE ADJUST SHIM 4.075mm	\$3.95	
90072-04100	VALVE ADJUST SHIM 4.100mm	\$3.95	
90072-04175	VALVE ADJUST SHIM 4.175mm	\$3.95	
90072-04200	VALVE ADJUST SHIM 4.200mm	\$3.95	
90072-04225	VALVE ADJUST SHIM 4.225mm	\$3.95	
90072-04275	VALVE ADJUST SHIM 4.275mm	\$3.95	
90072-04300	VALVE ADJUST SHIM 4.300mm	\$3.95	
90072-25005	CAM GEAR PIN, 2TG/18RG	\$0.89	
90072-72206	VALVE STEM OIL SEAL, 2TG/18RG	\$4.39	
90250-05121	CAMSHAFT TIMING GEAR PIN, 4AG TAC	\$0.59	
90501-20R51	OUTER VALVE SPRING, 20R/22R	(!)	\$9.95
90501-47540	OUTER VALVE SPRING, 2TC/3TC	(!)	\$3.29
90501-AE801	OUTER VALVE SPRING, 4AG	(*)	\$29.95
90501-EP702	OUTER VALVE SPRING, 2E/2ET/3E	(!)	\$3.89
90501-TA001	OUTER VALVE SPRING, 2TG/18RG	(!)	\$4.39
90502-20R51	INNER VALVE SPRING, 20R/22R	(!)	\$6.39
90502-TA001	INNER VALVE SPRING, 2TG/18RG	(!)	\$3.89
90502-TE751	INNER VALVE SPRING, 2TC/3TC	(!)	\$6.39
90913-03022	VALVE LOCK, 18RG/2TG	\$0.79	
90919-AE851	SPARK PLUG WIRE SET, COROLLA 85-87	\$80.95	
90919-AE901	SPARK PLUG WIRE SET, COROLLA 88-90	\$92.95	
90919-AE911	SPARK PLUG WIRE SET, COROLLA 4AF	\$59.95	
90919-AEA51	SPARK PLUG WIRE SET, FX16/MR2 4AG	\$91.95	
90919-EP752	SPARK PLUG WIRE SET, 2E/2ET/3E	\$82.95	
90919-MZ151	SPARK PLUG WIRE SET, SUPRA/CRESSIDA	\$117.95	
90919-RA651	SPARK PLUG WIRE SET, 18RG	\$82.95	

ITEM	DESCRIPTION	RETAIL
90919-RN451	SPARK PLUG WIRE SET 20/22R	\$69.95
90919-TA651	SPARK PLUG WIRE SET,2TG	\$72.95
90919-TE751	SPARK PLUG WIRE SET,COROLLA 75-82	\$61.95
90948-EL310	RETAINER,STABILIZER BUSHING EL31	\$1.95
94300-SP009	NUT,TIE-ROD END TE351 (M14X1.5 RH)	\$0.49
94300-SP010	NUT,TIE-ROD END TE351 (M14X1.5 LH)	\$1.95