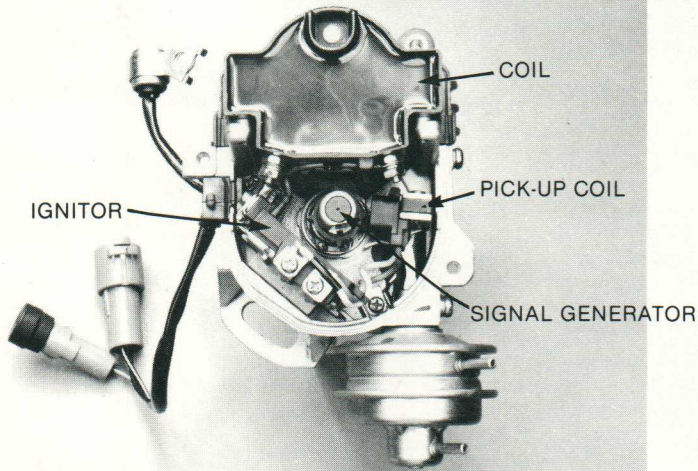


TOYOTA SERVICE NEWS

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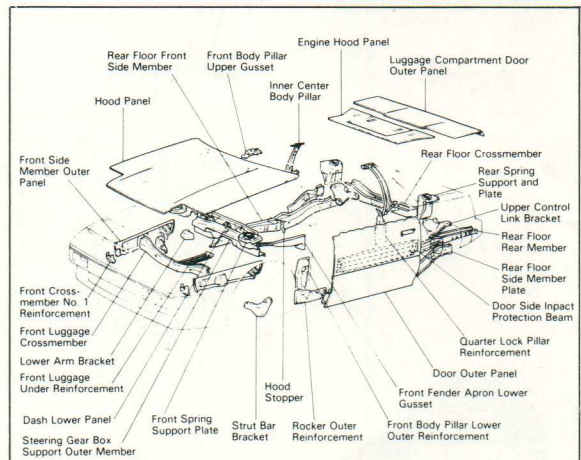
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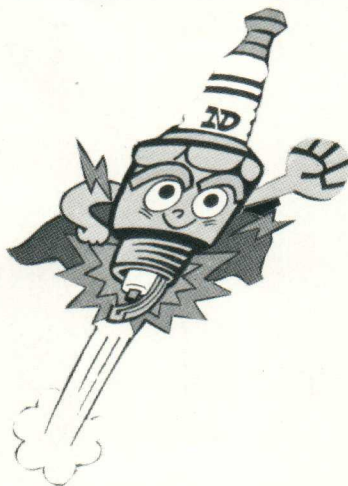
SURE-FIRE DIAGNOSIS FOR THE IIA IGN SYSTEM

1985 MR2

BODY REPAIR INFORMATION



ANALYZING SPARK PLUG CONDITIONS



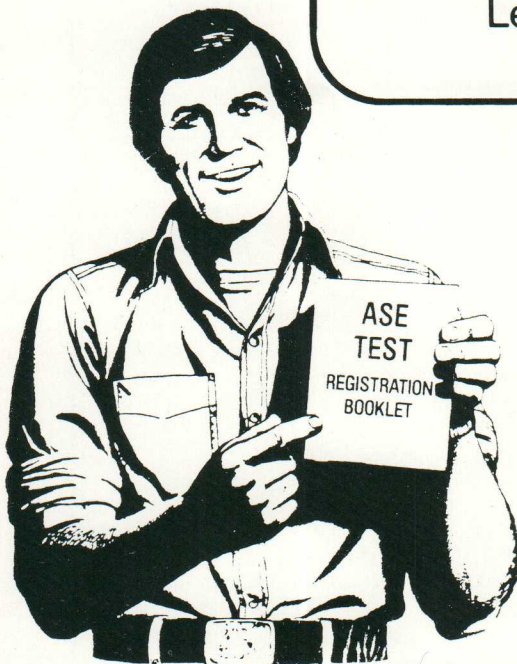
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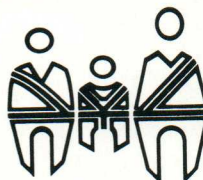
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Fall 1985

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WE REALLY  **ABOUT YOU**

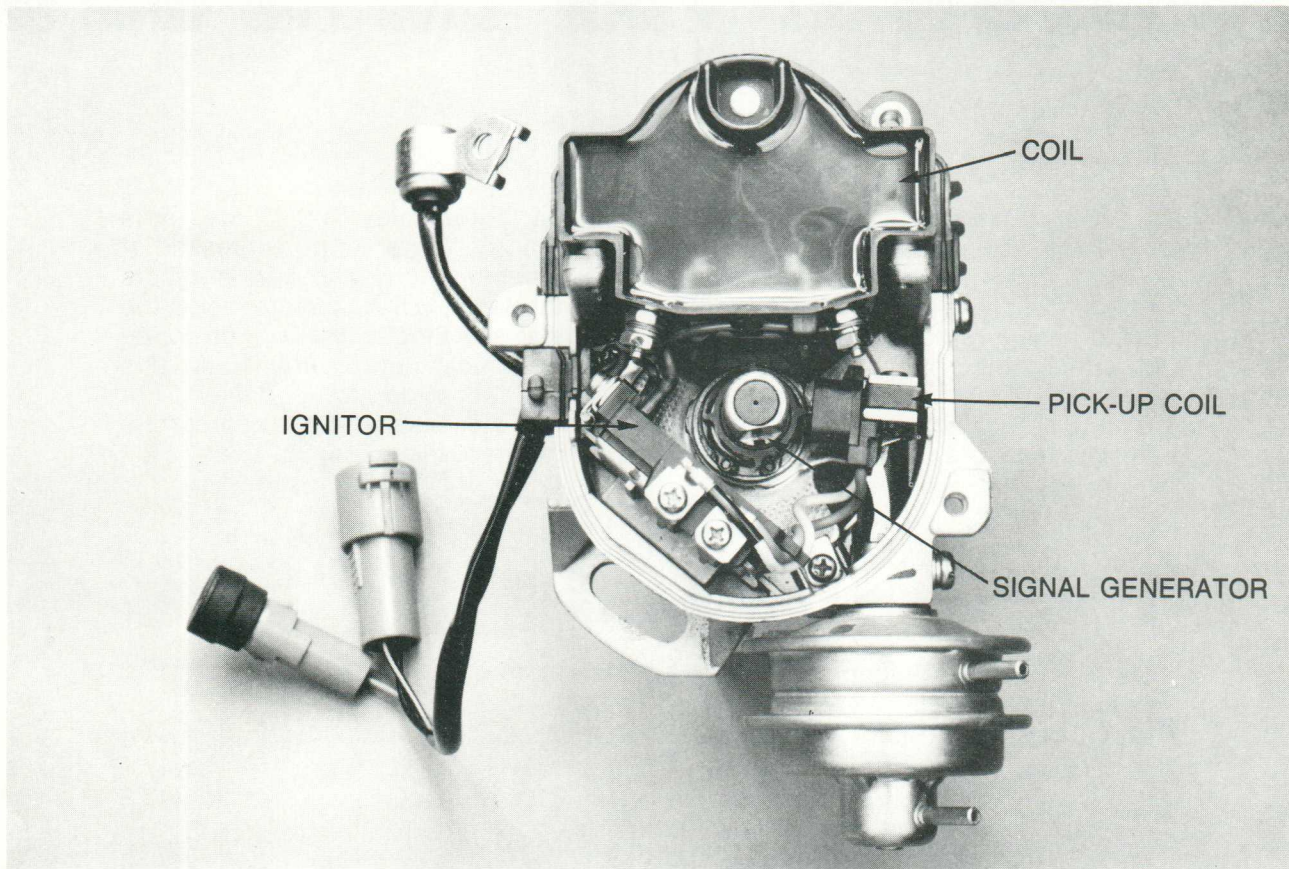


**PLEASE
BUCKLE UP**

TOYOTA
GENUINE PARTS
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A SURE-FIRE DIAGNOSIS FOR IIA IGN SYSTEM



After talking to many technicians, we get the impression that there is considerable frustration when it comes to diagnosing our IIA systems, due to the fact that after checking out everything in the system, the engine still does not perform correctly.

Well, sit back and relax while we tell you about a procedure that *always* works for us.

The first thing to consider is the *temperature* of the *components* we're going to test. — Are you in Miami, Florida, where the air temperature is 80°, or in Boulder, Colorado, where it's 20° below zero — and the car is parked out on the service line just waiting for you to draw the Repair Order to fix it?

If the outside temperature is somewhere between 60°F and where you have to brush three inches of snow off the car, bring the vehicle into the shop, park it with the hood open until everything warms to room temperature. Otherwise, there's no way we can expect reliable results from our tests.

Remember what happens to resistance values on many components as temperature is reduced? Right! It drops. Also, be aware that when a Repair Manual says to check when cold, that means 70°F.

All right, now that everything is at room temperature, get out the 10 meg ohm/volt digital multimeter, some test leads and a good 1.5V "D" cell (Radio Shack sells a neat holder with leads for 59¢), and let's test.

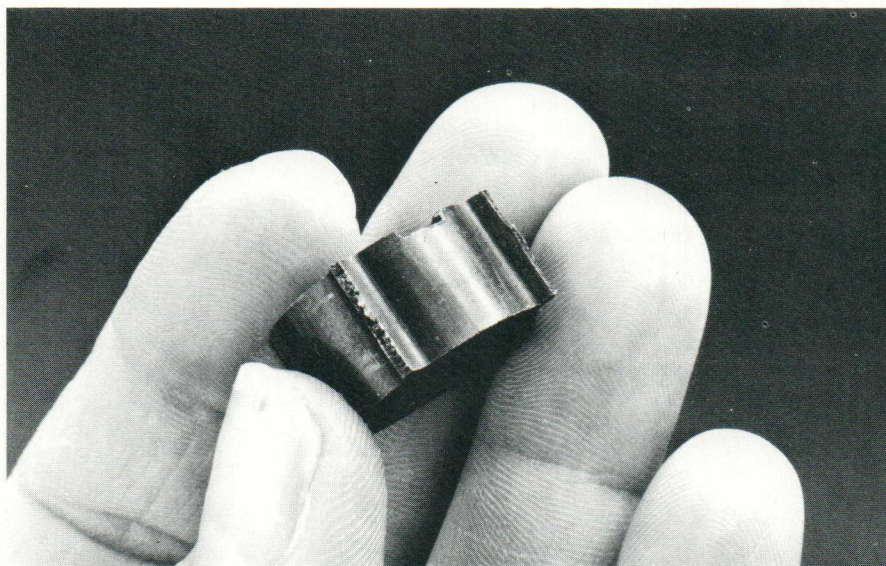
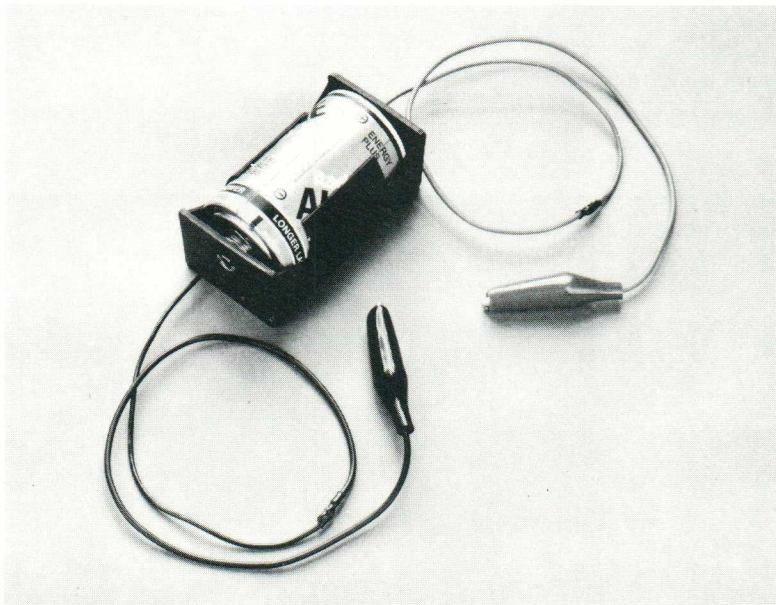
First, with the ignition off, measure the resistance between positive and negative terminals of coil. Your Reading should be between **0.38-0.46 Ω**. (Now you see why we need a high impedance, digital meter). Next, measure resistance between the positive and high tension terminals of coil. Readings should be **7.7-10.4k Ω**.

Now for the part that can get a bit tricky — inspection of the igniter and its power transistor. First, *accurately* measure the battery voltage, then turn the ignition switch ON and measure line voltage between the coil positive terminal (red and brown wires) and body ground. Meter reading should be within **0.5V** of battery voltage.

Next, leaving the body ground connected, switch the tester positive probe to the negative side of the coil. The reading you get here *must* be between **0.3-0.75V** less than battery voltage.

At this point, you should have your 1.5V battery in its holder, with alligator clips attached ready to go, right next to you. Leaving the meter hooked up exactly as in the

A SURE-FIRE DIAGNOSIS FOR IIA IGN SYSTEM (Cont.)



previous test and placed close to the distributor where you can read it easily, hook up the dry cell positive lead to the pink wire on the igniter, and the negative lead to the white wire and read the meter. This reading must be between **8.75-10.75V**. A word of caution is in order here. Don't leave the dry cell hooked up for more than five seconds or you'll probably blow the power transistor. Let's assume that all components checked out within these specs but you know the engine will still stall out after driving awhile because you couldn't "fix" anything. Let's check the coil resistance with everything at operating temperature. The primary resistance should be **0.70-078 Ω** and secondary resistance should be **9.5-11.2k Ω** .

Whether the engine is hot or cold, be sure to check that the pick up coil has between **130-190 Ω** of resistance,

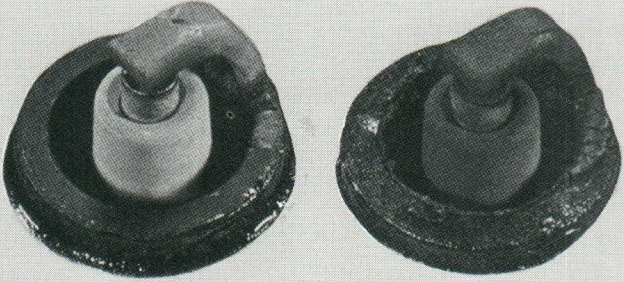


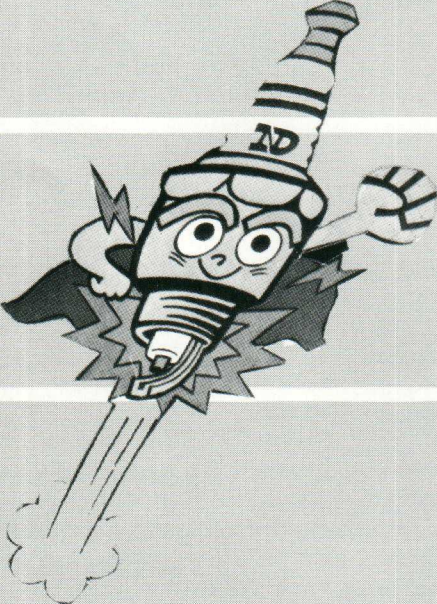
and that the air gap is set (with brass feeler gauge) between **.008-.016**. Don't believe your buddy who tells you that "IIA's work better with 18 to 20 thou gap." The engine will run, of course, but gaps *wider* than 16 thousandths will *reduce* secondary voltage by 3-5k volts, reducing spark efficiency.

There you have it. An easy procedure (five minutes or less) that will indicate which component is responsible for the no-start or intermittent engine stall condition. And, remember: (1) this is a pass/fail test only, and if any component is outside of these specs (high or low side), replace that component; (2) each component (coil, igniter, pick-up coil, etc...) is replaceable separately; and (3) if each component is within the specs given here, the IIA is okay and you'd best look elsewhere for the problem.

ANALYZING SPARK PLUG CONDITIONS

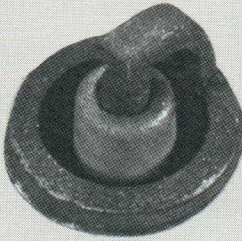

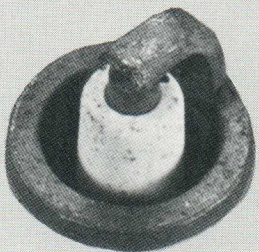

Spark plug appearance is an indicator of engine operating conditions. By inspecting your plugs, you can obtain a clear idea of engine performance and pinpoint trouble before it becomes serious.

Seven of the most common spark plug conditions are shown here. Compare with your spark plugs for an indicator of possible engine problems.

NORMAL	CARBON FOULING	OIL FOULING
		
<p>APPEARANCE Insulator looks tan or gray. Only slight electrode wear. If unleaded gasoline is used, the plug may appear white or grayish, but this is normal.</p>	<p>Insulator and electrodes are covered with dry, fluffy carbon deposits.</p>	<p>Wet, oily deposits on insulator and electrodes. Shiny black appearance from fuel, lubricating oil.</p>
<p>ENGINE CONDITION Good engine starting and performance in high or load speed driving.</p>	<p>Engine starts poorly, runs unevenly at low speeds. Eventually stalls, acceleration is adversely affected. Almost 90% of engine trouble caused by plugs is due to carbon or oil fouling.</p>	
<p>POSSIBLE CAUSES</p> 	<ol style="list-style-type: none"> 1. Incorrect heat range. 2. Long idling or driving at low speeds. 3. Over-rich mixture. 4. Clogged air cleaner. 5. Choke not open. 6. Delayed ignition. 	<ol style="list-style-type: none"> 1. Worn piston rings, valve guides; oil buildup from worn cylinders. 2. Over-rich mixture.
<p>REMEDY</p>	<p>For 1 and 2, choose a hotter plug or adjust your idling. For 3 to 6, perform necessary servicing and/or adjustments.</p>	<ol style="list-style-type: none"> 1. Plugs may be oily with a new or overhauled engine until oil control normalises from driving. Just degrease, clean and reinstall plugs. With other engines an overhaul is usually required. 2. Adjust carburetor.

*Listen to What Your
Plugs are Telling You*



LEAD FOULING	INSULATOR SPLIT TIP	OVERHEATING	PRE-IGNITION
			
<p>Insulator color may vary from a powdery white to yellow, brown or black. Better to judge by the engine condition in this case.</p>	<p>Insulator is split lengthwise. Looks like a case of overheating or lead fouling.</p>	<p>Insulator portion appears bleached, electrodes are burned and look white or purplish. Fast electrode wear.</p>	<p>Electrodes are burned away. If the tip is gone, the insulator can also be burned away.</p>
<p>No trouble at low speeds. Car knock phenomenon, as at sudden acceleration or as if pulling a heavy load up a hill.</p>	<p>No power or speed in continuous high-speed driving, long hill-climbing or heavy hauls.</p>		<p>As overheating progresses the temperature in the combustion chamber rises sharply, damaging not only the spark plugs but the pistons too.</p>
<p>4 ethyl lead added to increase antiknock index of gas, using carbon deposit at low speeds, causes leaded deposit buildup on insulator from high temperature at detonation.</p>	<ol style="list-style-type: none"> 1. Incorrect heat range. 2. Spark is too advanced (timing). 3. Failure in cooling system. 4. Mixture too thin. 	<ol style="list-style-type: none"> 1. Incorrect heat range. 2. Using low octane gasoline. 3. Spark is too advanced (timing). 4. Insufficient cooling. 5. Mixture too thin. 	
<p>Employing a hotter plug is effective, but not a complete remedy. (This phenomenon does not occur with cars using unleaded gas.)</p>	<ol style="list-style-type: none"> 1. Use a colder plug. 2. Adjust ignition timing. 3. Check cooling system. 4. Adjust carburetor. 	<ol style="list-style-type: none"> 1. Use a colder plug. 2. Use high octane gas. 3. Adjust ignition timing. 4. Check cooling system. 5. Adjust carburetor. 	

TOYOTA ND SPARK PLUG CONVERSION CHART

TOYOTA	TOYOTA ND	CHAMPION	AC	MOTORCRAFT	AUTOLITE	BOSCH	NGK
● STANDARD TYPES							
90098-16645	W16FS-U	L89CM, L86 L88A	45F,44F, M45FF S45F, S44F	AE4, AE4X, AV4	415, 2656, 535	W8A	B5HS
90098-20505	W20ES-U	N5	44XL, 46N, 43N 43XL, C44N, C43N S44XL, S43XL	AG3, AG3X	394, 2616	W7C, W5C	B6ES
90098-22505	W22ES-U	N4	42XL, C42N, S42XL	AG2, AG2X, AG1X	393, 2615	W4C2	B7ES
90098-24505	W24ES-U	N3		AG901X		W4C1, W4C3 W3CO, W3C	B8ES
● STANDARD TYPES (Projected Type)							
90098-16775	W16P-U	J12Y, J11Y	C44S, 44S	A42, AT42	75, 175	W8F	BP5S
90098-09815	W9PR-U	RJ18Y	R47S, R46S	AR82	87	WR10F	
90098-09825	W9PR-U15	RJ18Y6	R47SX, R46SZ	AR82-6	847	WR10FY	
90098-14815	W14PR-U	RJ14Y	R45S	AR52	86	WR9F	BPR4S
90098-16815	W16PR-U	RJ12Y, RJ11Y	R44S	AR42	85	WR8F	BPR5S
90098-20515	W20FP-U	L87Y	43FS	AE32	274	W7B, W6B	BP6HS
90098-66001	W16EP-U10						
90098-70001	W20EP-U10						
90098-70004	W20EPR-U11	RN10Y4, RN9YC4					BPR6ES-11
90919-01056	W14EX-U	N14Y	45XLS, 45NS	AG52	56	W9D	BP4ES
90919-01059	W16EX-U	N12Y, N11Y	44XLS, 44NS C44NS	AG42	55	W8D	BP5ES BP5EA-L
90919-01094	W16EX-U11	N11YC4				W8DX	BP5ES-11 BP5EA-L11
90098-16615							
90919-01083	W20EX-U	N10Y, N9Y	43XLS	AG32A	54	W7D, W6D, W6D1	BP6ES
90098-20595							
90098-20615	W20EX-U11	N10Y4, N9YC4				W7DX	BP6ES-11
90919-01065	W14EXR-U	RN14Y	R45XLS, R45NS	AGR52	66	WR9D	BPR4ES, BPR4EY
90098-14665	W14EXR-U11		R45NSX				
90919-01064	W16EXR-U	RN12Y, RN11Y	R44XLS, R44NS	AGR42	65	WR8D	BPR5ES, BPR5EY BPR5EA-L
90098-01091	W16EXR-U11	RN11YC4					BPR5ES-11 BPR5EY-11 BPR5EA-L11
90098-20425	W20EXR-U	RN10Y, RN9Y	R43XLS, R43NS	AG32	64	WR7D, WR6D	BPR6ES
90098-20665	W20EXR-U11	RN10Y4, RN9YC4					BPR6ES-11
● TAPER SEAT TYPES							
90098-16145	MA16P-U	F11Y	85TS, C85TS 84TS	BF82, BF42 BTF42	36, 35, 156	D8B	AP5FS
90098-20145	MA20P-U	F9Y, F7Y	83TS	BF32, BF22	34, 33	D7B	AP6FS
90098-09735	MA9PR-U	RF14Y		BF92	747	DR10B, DR9B	
90098-16735	MA16PR-U	RF11Y	R85TS, R84TS	BRF82, BRF42, BSF82, BSF42, BTRF42	46, 45, 746 745, 166	DR8B	APR5FS
90098-16575	MA16PR-U11		R84TSX				APR5FS-11
90098-20735	MA20PR-U	RF9Y	R83TS	BRF32	44		APR6FS
90098-16705	T16P-U	BL13Y	45TS, 44TS	AF52, AF42	16, 15	H10B, H9B, H8B	BP5FS
90098-14785	T14PR-U	RBL17Y, RBL16Y	R46TS	ARF62	27	HR10B	BPR4FS
90098-14805	T14PR-U15	RB17Y6	R46TSX	ARF62-6	667	HR10BY	BPR4FS-15
90098-16785	T16PR-U	RBL15Y, RBL13Y	R45TS, R44TS	ARF52, ARF42, ASF52, ASF42	26, 25 726, 725	HR9B, HR8B	BPR5FS
90098-16795	T16PR-U11	RBL15Y4	R45TSX, R44TSX				BPR5FS-11
90098-16805	T16PR-U15	RBL15Y6 RBL13Y6	R45TSX, R44TSX	ARF52-6 ARF42-6	666, 665	HR9BY, HR8BY	BPR5FS-15
90098-20785	T20PR-U	RBL11Y, RBL9Y	R43TS, R42TS	ARF32, ARF22 ASF32	24, 23, 724	HR6B	BPR6FS

NOTE: This chart is to be used as a guide only. Spark plug design and manufacturing processes between manufacturers may vary in heat range.

TOYOTA ND SPARK PLUGS CONVERSION CHART (Continued)

TOYOTA	TOYOTA ND	CHAMPION	AC	MOTORCRAFT	AUTOLITE	BOSCH	NGK
● TAPER SEAT TYPES (Continued)							
90098-20795	T20PR-U11		R43TSX				
90098-16865	T16R-U	RBL12	R46T, R45T, R44T	ARF8, ARF6	147, 146	HR10A, HR9A, HR8A	BR5FS
90098-16875	T16R-U15	RBL12-6	R46TX, R44TX	ARF8-6	687	HR10AY, HR9AY, HR8AY	BR5FS-15
30098-20865	T20R-U	RBL8	R43T, R42T	ARF4, ARF3	145, 144		BR6FS
90098-16895	T16EPR-U	RBN12Y	R46LTS, R44LTS	AGRF52, AWRWF42 AGRF42, AWSF42	106, 865 105, 765	HR9D	BPR5EFS
90098-20895	T20EPR-U	RBN9Y	R43LTS	AGRF32, AWRWF32 AGRF22, AWSF32	104, 864 103, 764		BPR6EFS
● SPECIAL TYPES							
90919-01089	W20ET-S						BP6EK-A
90919-01113	J16AR-U11						BRE527Y-11
90919-01123	J16BR-U11						BRE529Y-11
90919-01115	P16R						BPR5EP11
90098-20455	W20ES-L						B6EB
90098-20655	W20ES-L11						B6EB-11
90098-22455	W22ES-L						B7EB
90098-22655	W22ES-L11						B7EB-11
90089-20915	W20ESR-L11						BR6EB-11
90098-21915	W21ESR-L11						BR6EB-L11
90098-OM200	W22EB						B7ET
90098-OM100	W25EDR14						BR8EQ-14

NOTE: This chart is to be used as a guide only. Spark plug design and manufacturing processes between manufacturers may vary in heat range.

IDENTIFYING TOYOTA ND SPARK PLUGS

The sales symbol is composed of a "Heat Range" number, together with prefix and suffix letters, to indicate major features of the plug design. Each letter has a definite meaning.

W 16 E X -U 11

● **WIDE GAP**
 9: 0.9 mm (.035")
 10: 1.0 mm (.040")
 11: 1.1 mm (.044")
 13: 1.3 mm (.050")
 15: 1.5 mm (.060")

● **THREAD AND HEX**

Letter	Seat	Thread Size	Hex
M		18 mm	25.4mm
L		18 mm	22.0 mm
MA	Taper Seat	18 mm	20.6 mm
T	Taper Seat	14 mm	16.0 mm
W		14 mm	20.6 mm
WA	Taper Seat	14 mm	16.0 mm
X		12 mm	18.0 mm
U		10 mm	16.0 mm
J		14 mm	20.6 mm
SF		14 mm	20.6 mm

● **SPECIAL DESIGN**

Letter	Description	Example
-GU	Gold palladium with U electrode	W24ES-GU
-U	With U-grooved ground electrode	X24ES-U
-V	Fine center electrode	X24ES-V
-S	Special type for MITSUBISHI	W20EP-S11
-L	Special type: • for Honda CVCC Engines • Extra projected type for mopeds	W20ES-L W14FP-L

● **SPECIAL DESIGN**

Letter	Description	Example
A	Dual ground electrodes	W22EA
B	Triple ground electrodes	W22EB
D	4 ground electrodes	W27EDR14
LM	Compact type (for Lawn Mower Engines)	W14LM-U
M	Compact type	W20M-U
N	Racing type (Nickel ground electrode)	W27EN
Pt	Racing type (Platinum ground electrode)	W27EPt
P	Projected type	W16EP-U
R	Resistor type	W16EPRU-U
S	Regular type-copper cored center electrode	W24ES-U
T	Dual ground electrodes (for Toyota)	W20ET-S
X	Extra projected type	W16EX-U

● **HEAT RANGE**

HOT	COLD
9 14 16 20 22 24 25 27 29 31 34 37	

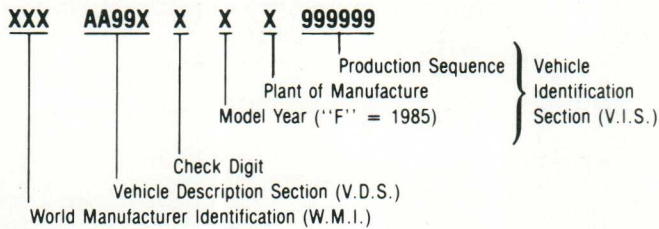
● **THREAD REACH**

A, B, E: 19.0 mm (3/4")
F: 12.7 mm (1/2")
L: 11.2 mm (7/16")
None: 12.0 mm (15/32") 18 mm Thread
None: 9.5 mm (3/8") 14 mm Thread

NOTE: These charts are to be used as a guide only. Spark plug design and manufacturing processes between manufacturers may vary in heat range.

SPARK GAP	inch									
	.020	.024	.028	.032	.035	.040	.044	.050	.060	.080
mm	0.5	0.6	0.7	0.8	0.9	1.0	1.1	1.3	1.5	2.0

VEHICLE IDENTIFICATION NUMBERS (VIN) - 1985



FORMAT: X = Alphabetic or Numeric Characters
 A = Alphabetic Characters only
 9 = Numeric Characters only

The sections of the V.I.N. have been separated for description purposes; however, the actual V.I.N. on the vehicles will not have any spaces between the sections.

The 17 digit V.I.N. is displayed in three separate locations on each vehicle.

- Name plate within engine compartment. (MR2 — front compartment)
- V.I.N. plate on top left dashboard.
- Certification plate on left door or door post.

The section of the V.I.N. used to translate to the Series Prefix/Japan Model Code is the vehicle description section identified under the column heading V.D.S.

1985 VEHICLES

USA MODEL #	V.D.S.	SERIAL/PREFIX JAPAN MODEL	BODY STYLE	TRANSMISSION	USA MODEL #	V.D.S.	SERIAL/PREFIX JAPAN MODEL	BODY STYLE	TRANSMISSION
-------------	--------	---------------------------	------------	--------------	-------------	--------	---------------------------	------------	--------------

TERCEL

1352	AL32W	AL25LG-ZWHDC	4x4 Wagon Dlx.	3 Spd. Automatic
1356	AL35W	AL25LG-ZWFQCA	4x4 Wagon SR5	6 Spd. Manual
1362	AL32V	AL21LG-ZWHDC	5 Dr. Wagon Dlx.	3 Spd. Automatic
1365	AL32V	AL21LG-ZWMDCA	5 Dr. Wagon Dlx.	5 Spd. Manual
1381	AL31G	AL21L-ZGKRCA	3 Dr. L/B Std.	4 Spd. Manual
1382	AL32G	AL21L-ZGHDC	3 Dr. L/B Dlx.	3 Spd. Automatic
1385	AL32G	AL21L-ZGMDC	3 Dr. L/B Dlx.	5 Spd. Manual
1392	AL32H	AL21L-ZHDC	5 Dr. L/B Dlx.	3 Spd. Automatic
1395	AL32H	AL21L-ZHMDC	5 Dr. L/B Dlx.	5 Spd. Manual

CRESIDA

3123	MX73E	MX73L-XEMGFA	Luxury Sedan	5 Spd. Manual
3125	MX73E	MX73L-XEPGFA	Luxury Sedan	4 Spd. Automatic
3164	MX72W	MX72LG-XWPGFA	Luxury Wagon	4 Spd. Automatic

VAN

5122	YR22V	YR21LG-PDEA	Deluxe	4 Spd. Automatic
5125	YR22V	YR21LG-MDEA	Deluxe	5 Spd. Manual
5132	YR26V	YR21LG-PDEA	LE	4 Spd. Automatic
5135	YR26V	YR21LG-MDEA	LE	5 Spd. Manual
5522	YR27V	YR27LV-PREA	Cargo	4 Spd. Automatic
5525	YR27V	YR27LV-MREA	Cargo	5 Spd. Manual

COROLLA/COROLLA SPORT

1702	AE82E	AE82L-EEMDCA	4 Dr. Sedan Dlx.	5 Spd. Manual
1703	AE82E	AE82L-EEHDC	4 Dr. Sedan Dlx.	3 Spd. Automatic
1705	AE83E	AE82L-EEMNCA	4 Dr. Sedan LE	5 Spd. Manual
1706	AE83E	AE82L-EEPNCA	4 Dr. Sedan LE	4 Spd. Automatic
1707	AE84E	AE82L-EEPECA	4 Dr. Sedan LE Ltd.	4 Spd. Automatic
1712	AE82L	AE82L-ELMDCA	5 Dr. Liftback Dlx.	5 Spd. Manual
1713	AE82L	AE82L-ELHDC	5 Dr. Liftback Dlx.	3 Spd. Automatic
1717	AE83L	AE82L-ELPNCA	5 Dr. Liftback LE	4 Spd. Automatic
1743	CE82E	CE80L-EEHDC	4 Dr. Sedan Dlx.	3 Spd. Automatic
1752	CE82L	CE80L-ELMDCA	5 Dr. Liftback Dlx.	5 Spd. Manual
1785	AE86S	AE86L-ESMXCA	Sport Coupe SR5	5 Spd. Manual
1787	AE86S	AE86L-ESPXCA	Sport Coupe SR5	4 Spd. Automatic
1788	AE88S	AE86L-ESMQFA	Sport Coupe GT-S	5 Spd. Manual
1795	AE86C	AE86L-ECMXCA	Sport L/B SR5	5 Spd. Manual
1798	AE88C	AE86L-ECMQFA	Sport L/B GT-S	5 Spd. Manual

TRUCK

8107	RN50S	RN50L-MSEA3	1/2 Ton Std. Bed SR5	5 Spd. Manual
8137	RN55S	RN55L-MSEA3	1/2 Ton Long Bed SR5	5 Spd. Manual
8163	RN56D	RN55L-PDCA3	1/2 Ton Std. Bed Xtrcab Dlx.	4 Spd. Automatic
8164	RN56D	RN55L-MDCA3	1/2 Ton Std. Bed Xtrcab Dlx.	5 Spd. Manual
8167	RN56S	RN55L-MSCEA3	1/2 Ton Std. Bed Xtrcab SR5	5 Spd. Manual
8168	RN56S	RN55L-PSCEA3	1/2 Ton Std. Bed Xtrcab SR5	4 Spd. Automatic
8178	RN59G	RN55L-PGCA3	1/2 Ton Std. Bed X/C SR5 (Turbo)	4 Spd. Automatic
(8200)	RN50R	RN50L-KRA	1/2 Ton Std. Bed	4 Spd. Manual
(8201)	RN50R	RN50L-MRA	1/2 Ton Std. Bed	5 Spd. Manual
(8202)	RN50R	RN50L-PRA	1/2 Ton Std. Bed	4 Spd. Automatic
(8231)	RN55R	RN55L-MRA	1/2 Ton Long Bed	5 Spd. Manual
(8232)	RN55R	RN55L-PRA	1/2 Ton Long Bed	4 Spd. Automatic
(8234)	RN55D	RN55L-MDA	1/2 Ton Long Bed Dlx.	5 Spd. Manual
(8235)	RN55D	RN55L-PDA	1/2 Ton Long Bed Dlx.	4 Spd. Automatic
(8294)	RN55E	RN55L-MRHEA	1 Ton Long Bed	5 Spd. Manual
(8295)	RN55F	RN55L-PDHEA	1 Ton Long Bed	4 Spd. Automatic
8334**	LN55D	LN56L-MDA3	1/2 Ton Long Bed Dlx.	5 Spd. Manual
8336*	LN58D	LN56L-MDXA3	1/2 Ton Long Bed Dlx. (Turbo)	5 Spd. Manual
8364**	LN56D	LN56L-MDCA3	1/2 Ton Std. Bed Xtrcab Dlx.	5 Spd. Manual
8366*	LN59D	LN56L-MDCXA3	1/2 Ton Std. Bed X/C Dlx. (Turbo)	5 Spd. Manual
8501	RN60R	RN60L-MRA3	1/2 Ton 4x4 Std. Bed	5 Spd. Manual
8507	RN60S	RN60L-MSEA3	1/2 Ton 4x4 Std. Bed SR5	5 Spd. Manual
8534	RN65D	RN65L-MDA3	1/2 Ton 4x4 Long Bed Dlx.	5 Spd. Manual
8535	RN65P	RN65L-PDEA3	1/2 Ton 4x4 Long Bed Dlx.	4 Spd. Automatic
8537	RN65S	RN65L-MSEA3	1/2 Ton 4x4 Long Bed SR5	5 Spd. Manual
8563	RN66P	RN65L-PDCEA3	1/2 Ton 4x4 Xtrcab Dlx.	4 Spd. Automatic
8564	RN66D	RN65L-MDCA3	1/2 Ton 4x4 Xtrcab Dlx.	5 Spd. Manual
8567	RN66S	RN65L-MSCEA3	1/2 Ton 4x4 Xtrcab SR5	5 Spd. Manual
8734**	LN68D	LN65L-MDXA3	1/2 Ton 4x4 Lg. Bd. Dlx. Dsl. (Turbo)	5 Spd. Manual
8930	RN55R	RN55L-KREA3W	Commercial Cab/Chassis	4 Spd. Manual
8933	RN55D	RN55L-KDEA3W	Camper Cab/Chassis	4 Spd. Manual
8935	RN55D	RN55L-PDEA3W	Camper Cab/Chassis Dlx.	4 Spd. Automatic

*California only **Not available in California

NOTE: () Model Number for truck with Japan installed bed.

MR2

3088	AW15C	AW11L-WCMQFA	2 Dr. Coupe	5 Spd. Manual
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CAMRY

2521	SV12E	SV11L-UEMNEA	4 Dr. Sedan Dlx.	5 Spd. Manual
2522	SV12E	SV11L-UEPNEA	4 Dr. Sedan Dlx.	4 Spd. Automatic
2532	SV16E	SV11L-UEPEEA	4 Dr. Sedan LE	4 Spd. Automatic
2542	SV12H	SV11L-UHPNEA	5 Dr. Liftback Dlx.	4 Spd. Automatic
2552	SV16H	SV11L-UHPPEA	5 Dr. Liftback LE	4 Spd. Automatic
2582	CV12E	CV10L-UEPNXA	4 Dr. Sedan Dlx.	4 Spd. Automatic

4RUNNER

8611	RN61D	RN60LV-MDEA	Truck Type Dlx.	5 Spd. Manual
8612	RN61D	RN60LV-PDEA	Truck Type Dlx.	4 Spd. Automatic
8617	RN65W	RN60LG-MSEA	Car Type SR5	5 Spd. Manual
8618	RN62W	RN60LG-PDEA	Car Type Dlx.	4 Spd. Automatic

LAND CRUISER

6153	FJ60G	FJ60LG-KA	4 Door Wagon	4 Spd. Manual
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VEHICLE DESCRIPTION SECTION (V.D.S.)

PASSENGER VEHICLES — JT2

- V.D.S. FORMAT _____ **A** **L** **3** **1** **G**
- Engine _____
 - A** — 3A-C (Tercel), 4A-LC (Corolla)
4A-C (Corolla Sport), 4A-GEC (Corolla Sport, MR2)
 - C** — 1C-LC (Corolla), 1C-TLC (Camry)
 - M** — 5M-GE (Supra, Cressida)
 - R** — 22R-EC (Celica)
 - S** — 2S-ELC (Camry)
 - Line _____
 - A** — Celica/Supra
 - E** — Corolla/Corolla Sport
 - L** — Tercel
 - V** — Camry
 - W** — MR2
 - X** — Cressida
 - Toyota Model Code _____
 - 1** — Camry, MR2
 - 3** — Tercel
 - 6** — Celica/Supra
 - 7** — Cressida
 - 8** — Corolla
 - Series (Grade) _____
 - 1** — Standard (Tercel, MR2)
 - 2** — Deluxe (Tercel, Corolla, Camry), Luxury Wagon (Cressida)
 - 3** — LE (Corolla), ST (Celica), Luxury Sedan with IRS (Cressida)
 - 4** — LE Limited (Corolla), GT (Celica)
 - 5** — SR5 (Tercel), GT-S with IRS (Celica)
 - 6** — SR5 (Corolla), LE (Camry)
 - 7** — Supra
 - 8** — GT-S (Corolla Sport)
 - Body Type/Restraint System _____
 - C** — Coupe (Celica, MR2), Liftback (Corolla Sport)
 - E** — Sedan (Corolla, Camry, Cressida)
 - G** — 3 Door Liftback (Tercel)
 - H** — 5 Door Liftback (Tercel, Celica)
 - L** — Liftback (Corolla, Celica, Supra)
 - S** — Coupe (Corolla Sport)
 - V** — Wagon 2WD (Tercel)
 - W** — Wagon 4WD (Tercel), Wagon (Cressida)

NOTE: The Cressida is produced with passive restraint system, all other models have active restraint systems.

TRUCKS — JT4

- V.D.S. FORMAT _____ **R** **N** **5** **0** **R**
- Engine _____
 - L** — 2L, 2L-T
 - R** — 22R, 22R-EC, 22R-TEC
 - Y** — 3Y-EC
 - Line _____
 - N** — Truck
 - R** — Van (Cargo)
 - Drive Train Type _____
 - 2** — 4x2 Van (Cargo)
 - 5** — 4x2
 - 6** — 4x4
 - Cab Type/Chassis Type _____
 - 0** — 2 Dr. Pickup/Short Wheelbase
 - 1** — 2 Dr. Pickup/Short Wheelbase, 4Runner
 - 5** — 2 Dr. Pickup/Long Wheelbase
 - 6** — 2 Dr. Pickup Xtra Cab/Long Wheelbase
 - 7** — Van (Cargo)
 - 8** — 2 Dr. Pickup/Long Wheelbase
 - 9** — 2 Dr. Pickup Xtra Cab/Long Wheelbase
 - Series (Grade)/Brake Type _____
 - D** — Deluxe, 1/2 Ton/Hydraulic
 - E** — Deluxe, 1 Ton/Hydraulic
 - G** — SR5 (Turbo), 1/2 Ton/Hydraulic
 - F** — Deluxe, 1 Ton/Hydraulic
 - P** — Deluxe, 1/2 Ton/Hydraulic
 - R** — Standard, 1/2 Ton/Hydraulic
 - S** — SR5, 1/2 Ton/Hydraulic
 - V** — Van (Cargo)/Hydraulic
 - G.V.W.R. (All Digits Significant)

LN55S — 4400	RN55F — 5500	RN65D — 4800
LN56D — 4400	RN55R — 4400	RN65P — 4800
LN58D — 4400	RN55S — 4400	RN65S — 4800
LN59D — 4400	RN56D — 4400	RN66D — 4800
LN68D — 5080	RN56S — 4400	RN66P — 4800
RN50R — 4400	RN59G — 4400	RN66S — 4800
RN50S — 4400	RN60D — 4800	YR27V — 4500
RN55D — 4400	RN60S — 4800	
RN55E — 5500	RN61D — 4800	

MULTI-PURPOSE PASSENGER VEHICLES — JT3

- V.D.S. FORMAT _____ **Y** **R** **2** **2** **V**
- Engine _____
 - F** — 2F
 - R** — 22R-EC
 - Y** — 3Y-EC
 - Line _____
 - J** — Landcruiser
 - N** — Truck
 - R** — Van
 - Toyota Model Code _____
 - 2** — Van
 - 6** — 4Runner
 - 60** — Landcruiser 4 Door Wagon
 - Series (Grade) _____
 - 2** — Deluxe (Van, 4Runner)
 - 5** — SR5 (4Runner)
 - 6** — LE (Van)
 - Body Type _____
 - G** — 4 Door Wagon (Landcruiser)
 - V** — Van
 - W** — Wagon
 - G.V.W.R. (3rd, 4th & 5th Digits) _____
 - 22V** — 4500
 - 26V** — 4500
 - 60G** — 5360
 - 62W** — 4800
 - 65W** — 4800

INCOMPLETE VEHICLES — JT5

- V.D.S. FORMAT _____ **R** **N** **5** **5** **R**
- Engine _____
 - R** — 22R, 22R-EC
 - Line _____
 - N** — Truck
 - A** — Celica
 - Drive Train Type _____
 - 5** — 4x2 (Truck)
 - 6** — 4x2 (Celica . . . Cnvt.)
 - Cab Type/Chassis Type _____
 - 5** — 2 Dr. Truck/Long Wheelbase
GT-S w/IRS (Celica . . . Cnvt.)
 - Series (Grade)/Brake Type _____
 - D** — Deluxe/Hydraulic (Truck)
 - K** — Coupe/Hydraulic (Celica . . . Cnvt.)
 - R** — Standard/Hydraulic (Truck)
 - G.V.W.R. (All Digits Significant)
 - RN55D** — 5500
 - RN55R** — 5500

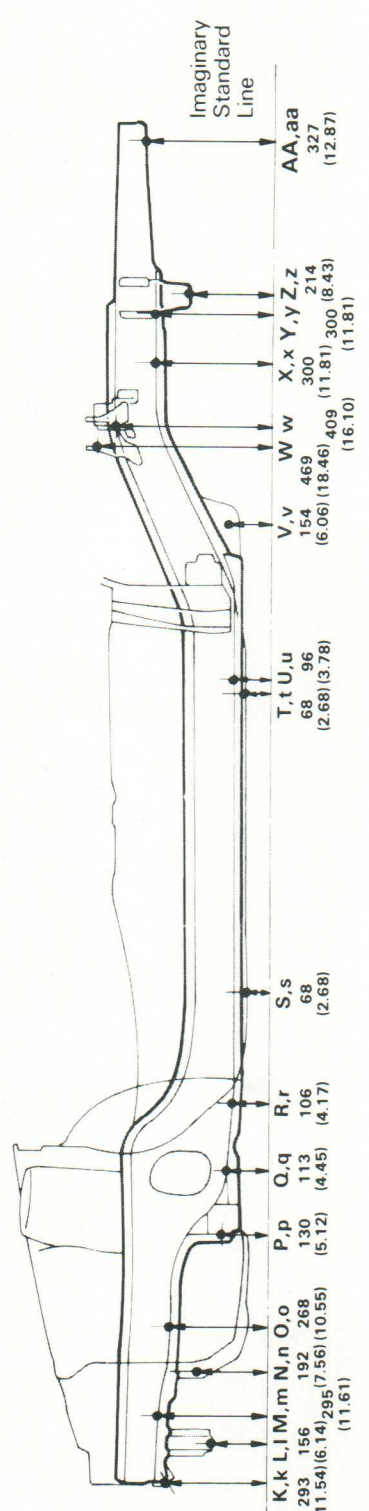
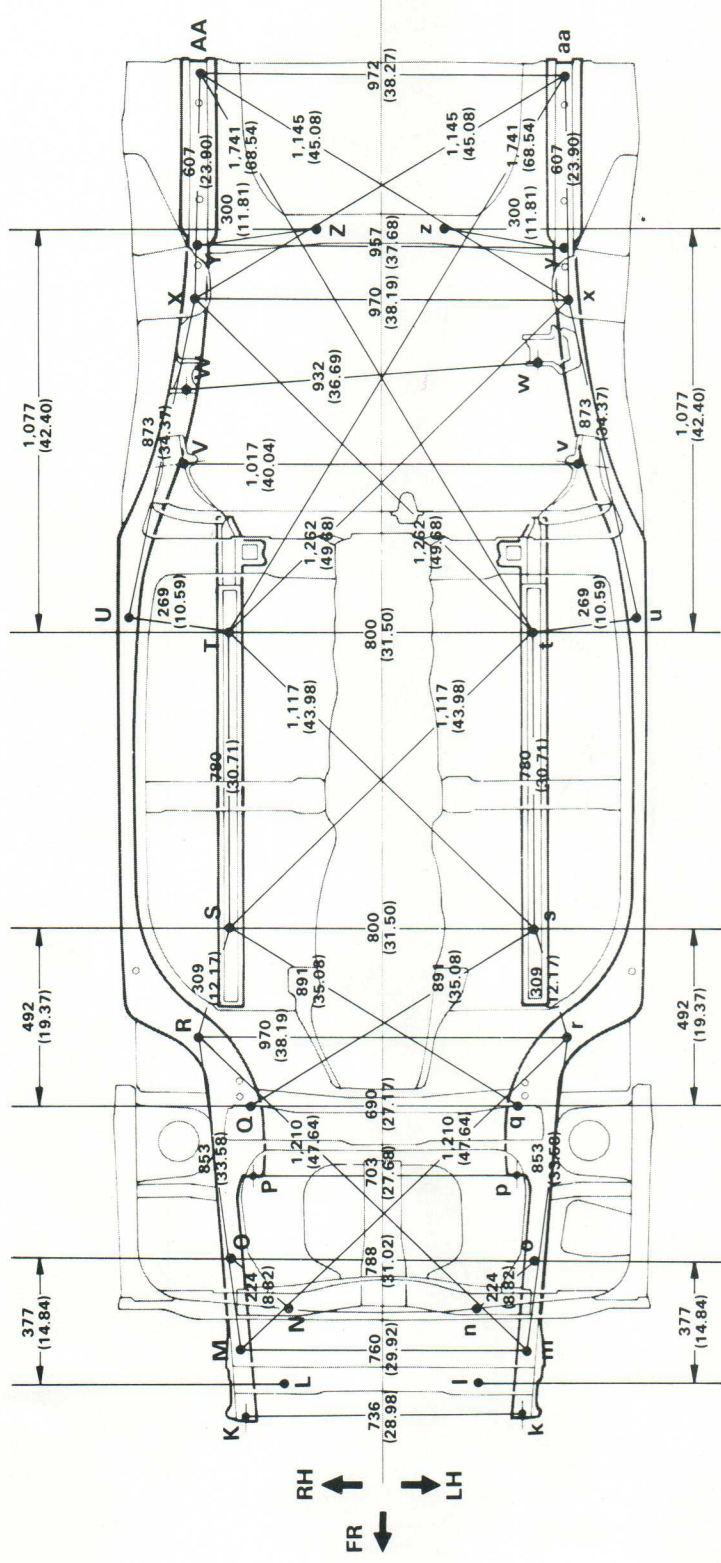
MR2 BODY DIMENSION DRAWINGS

Symbol	Nomenclature	Hole dia. (mm)
A, a	Fender Installation Nut-Front	6 ϕ
B, b	Front Spring Support Hole-Inner	9.5 ϕ
C, c	Fender Installation Nut-Rear	6 ϕ
D	Cowl Top Panel Center Mark	—
E, e	Front Side Member Bumper Installation Hole	RH 13 x 11 LH 11 ϕ
F, f	Front Side Member Working Hole	15 ϕ
G, g	Front Side Member Working Hole	15 ϕ
H, h	Radiator Support Upper Installation Nut	6 ϕ
I, i	Radiator Support Upper Installation Nut	6 ϕ
J, j	Cowl Top Side Panel Standard Hole	9 ϕ
K, k	Front Side Member Bumper Installation Nut	12 ϕ
L, l	Front Crossmember Working Hole	15 ϕ
M, m	Front Side Member Standard Hole	13 ϕ
N, n	Strut Bar Bracket Installation Nut-Front Side Inner	10 ϕ
O, o	Strut Bar Bracket Installation Nut-Rear Side Rear	10 ϕ
P, p	Lower Arm Installation Hole	13 ϕ
Q, q	Lower Control Link Support Installation Nut	10 ϕ
R, r	Front Side Member Standard Hole	13 ϕ
S, s	Front Floor Under Reinforcement Working Hole	15 ϕ
T, t	Front Floor Under Reinforcement Working Hole	15 ϕ
U, u	Rear Floor Side Member Standard Hole	13 ϕ
V, v	Strut Bar Installation Hole-Inner	12 ϕ
W, w	Engine Mounting Bracket Hole-Front	12.5 ϕ
X, x	Rear Floor Side Member Standard Hole	13 ϕ
Y, y	Rear Suspension Arm Bracket Installation Nut-Outer Side Rear	10 ϕ
Z, z	Rear Suspension Arm Bracket Installation Nut-Inner	10 ϕ
AA, aa	Rear Floor Side Member Bumper Installation Hole	13 ϕ
BB	Upper Back Panel Center Mark	1.5R
CC, cc	Upper Back Panel Standard Hole	12 ϕ
DD, dd	Rear Spring Support Hole-Front	9.5 ϕ
EE, ee	Luggage Door Hinge Installation Hole	11 ϕ
FF, ff	Trim Board Installation Hole	7 ϕ
GG, gg	Rear Bumper Installation Hole	RH 18 x 11 LH 18 x 15

BODY DIMENSION DRAWINGS (Cont.)

1985 TOYOTA MR2

Under Body



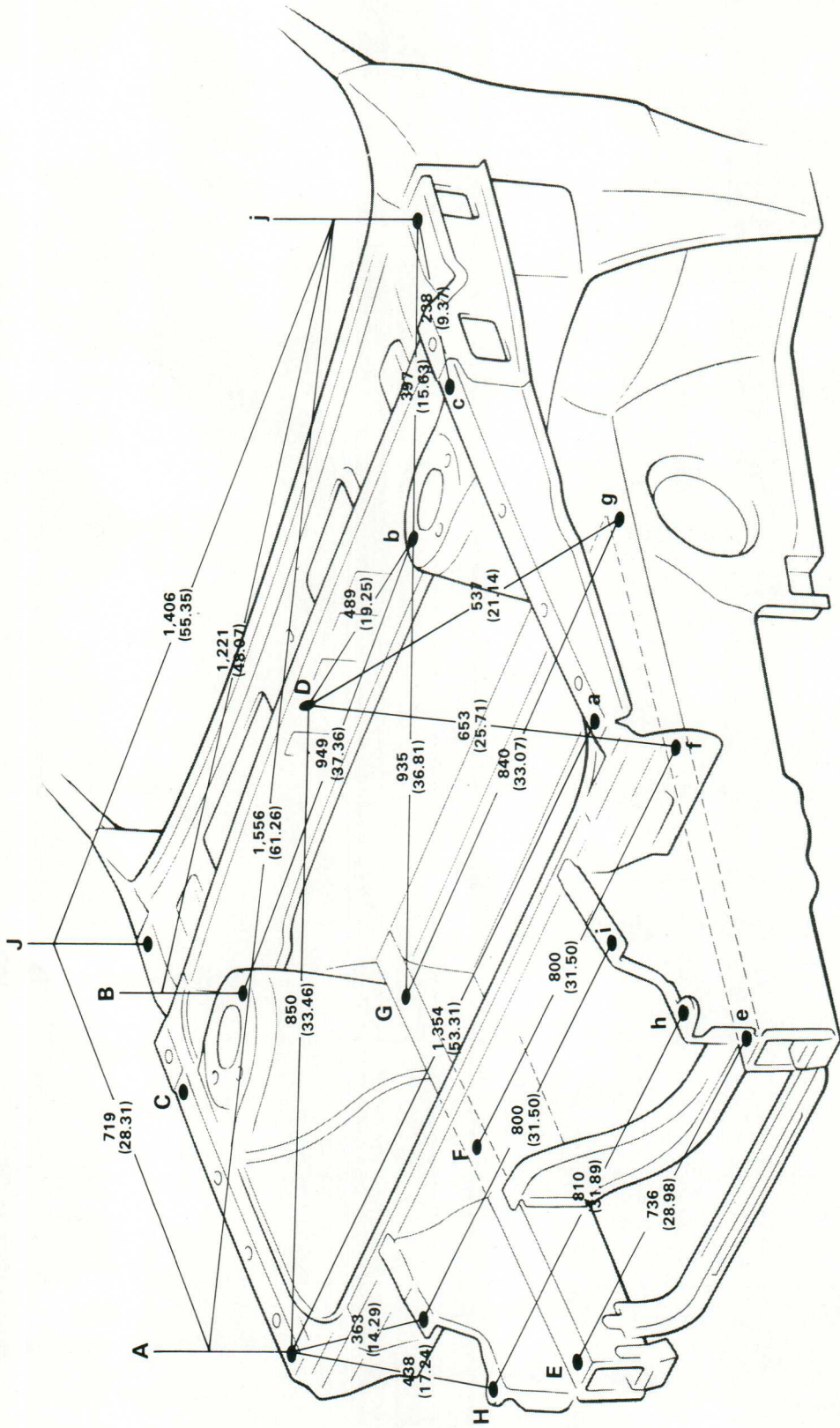
mm (in.)

BO0885

BODY DIMENSION DRAWINGS (Cont.)

1985 TOYOTA MR2

Front Body



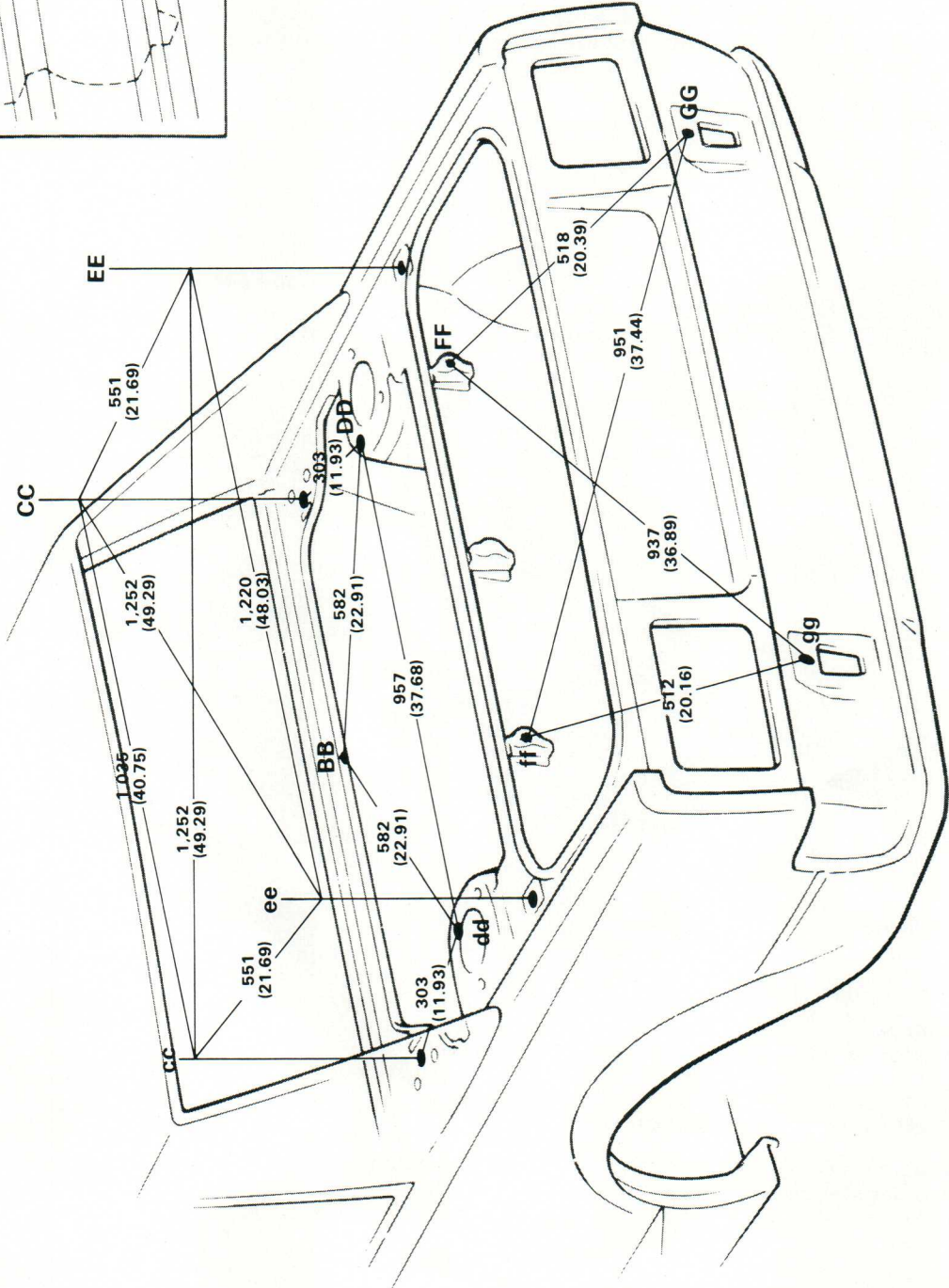
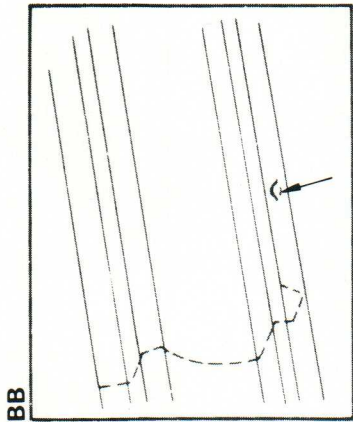
800884

BODY DIMENSION DRAWINGS (Cont.)

1985 TOYOTA MR2

mm (in.)

Rear Body



800886

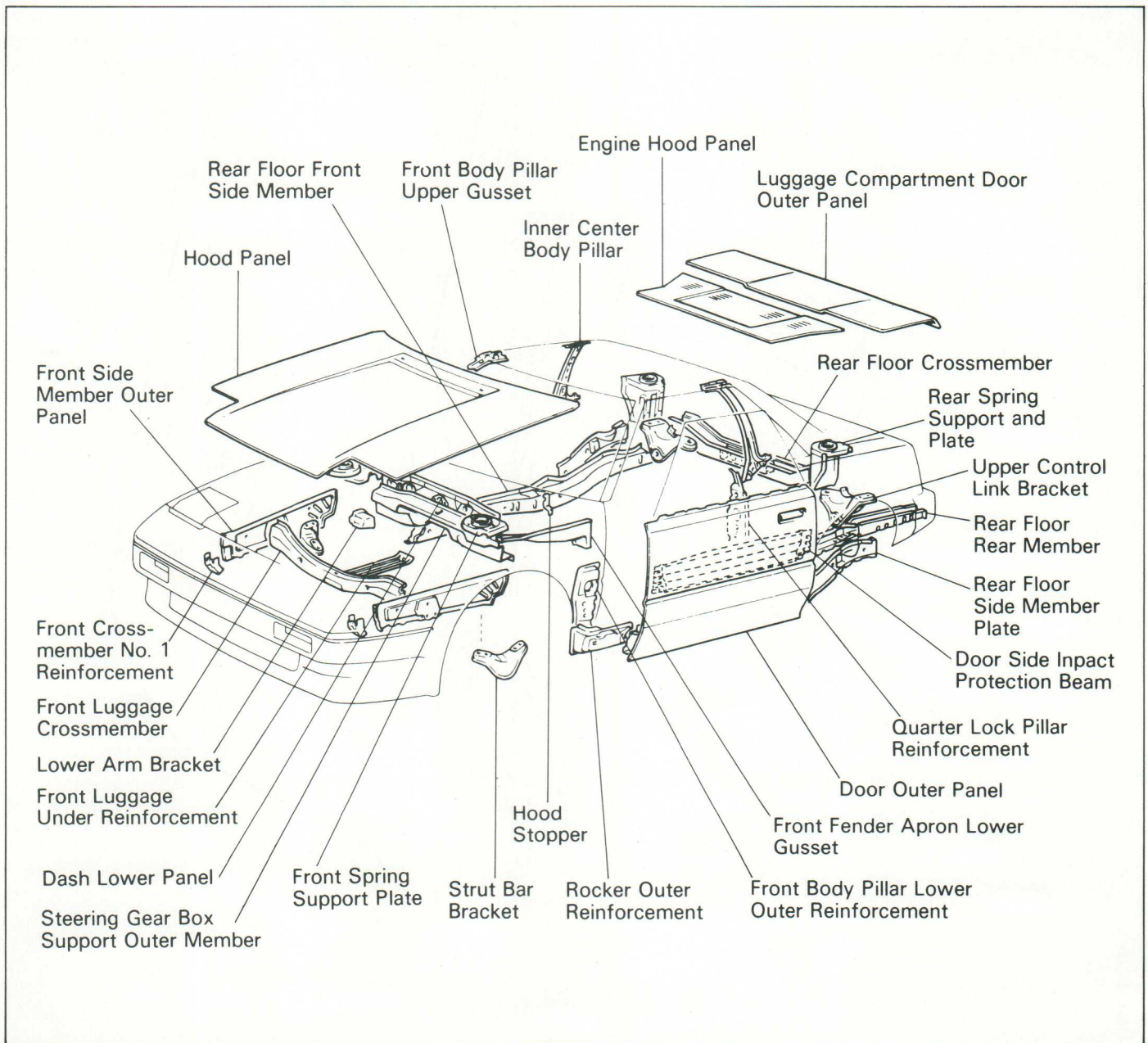
HIGH STRENGTH STEEL (HSS)

High Strength Steel (HSS) that is used in Toyota Vehicles is characterized as being very light weight and having a tensile strength of at least 50,000 pounds per square inch. (PSI).

Even though high strength steel has many properties which are similar to mild cold rolled steel, the following precautions should be observed.

1. **Panel Hammering:** Because HSS is thinner than mild steel, care should be taken to avoid warping during hammering operations.
2. **Removing Spot Welds:** Because HSS is tougher than mild steel, damage will occur more easily to a regular drill. Therefore, an HSS Spot Cutter is recommended. Also, use a high-torque drill at low speed, and supply grinding oil to the drill during use.
3. **Panel Welding:** Panel welding procedures for HSS should be done with a MIG welder. Do not gas weld or braze panels at areas other than specified.
4. The use of high strength steel for Toyota autobody has been increasing rapidly in recent years and we predict that future models will use a larger percentage of this type of steel.

The following illustration indicates the location of High Strength Steel components on the 1985 Toyota MR2.



1985 TOYOTA

FACTORY PREPARED SERVICE MANUALS

FEATURING REPAIR INFORMATION FOR THE FOLLOWING SYSTEMS:

- Engine
- A/C System and Compressor
- Chassis/Body
- Service Specifications
- Emission Control
- Maintenance Procedures
- Automatic Transmission
- Electrical Wiring Diagrams
- Collision Repair

These are the same manuals used at Toyota Dealerships throughout the U.S. Some procedures may indicate the use of Special Service Tools (SST's) which are available through your local Toyota Dealer.

1985 APPLICABILITY LIST

YEAR	MODEL	OWNER'S	ENGINE	CHASSIS	BODY	EMISSION CONTROL	AUTO TRANS.	A/C SYSTEM	A/C COMPRES.	SERVICE SPEC.	MAINT. PROCED.	ELECT. WIRING DIAG.	ELECT. WIRING REPAIR	SEAT BELT SYSTEM	COLLISION REPAIR										
COROLLA	Diesel CE82E.L	12429U											36702A	—	36434-E										
	FWD AE82,83,84															36240A (4A-LC,1C-LC)									
	RWD AE86.88	36241A (4A-C, 4A-GEC)																							
CELICA	RA63,64,65	14433U														36704A	—	36182							
CELICA CONV.	RA63,64,65	37746-S															36704A		36182						
TERCEL	STD. AL3#G,AL3#H	16419U																	36431-E						
	4x4: AL3#V,AL3#W	16420U																	36432-E						
CRESSIDA SEDAN	MX72,73	22413U																	36441-E						
	CRESSIDA S/W		MX72,73																	36442-E					
SUPRA	MA67	14432U																	36707A†	—	36182				
CAMRY	STD. SV12,16	32412U																		36243A (5M-GE)		36705A	—	36182	
	Diesel CV12		36244A (2S-ELC,1C-TLC)																		36706A	—	36433-E		
MR2	AW11																			36254A (4A-GE)		36709A		36440A	
VAN	YR22,26,27	28406U																		36248A (3Y-E)		36708A	—	—	
PICKUP	STD Diesel: LN50,55, 56,58,59	35426U																		36247A (2L,2L-T)			—	—	—
	4x4 Diesel: LN68	35427U																							
	STD: RN50,55,56	35426U																							
	4x4: RN60,65,66	35427U																			36246A (22R,22R-E)			—	—
4Runner: RN61,62,65																									
LAND CRUISER	FJ60	60416U	36104 (2F)	36044		36043	—	00015	00401	—	36783-A	36679A	—	—	—										

See your local Toyota Star Dealer for order details.

NOW IT'S YOUR TURN!

TO TELL US WHAT ARTICLES YOU WOULD LIKE TO SEE IN TOYOTA SERVICE NEWS

GENERAL REPAIR

- Engine Repair (— Gas — Diesel)
- Transmission/Transaxle Repair
- Brake Repair
- Suspension and Steering
- Electrical Systems
- Heating and Air Conditioning Repair
- (Other) _____

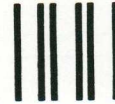
COLLISION REPAIR

- Refinishing Information
- Corrosion Protection Restoration
- High Strength Steel Locations
- Underbody Dimensions
- Welding Procedures
- Electrical Diagrams
- (Other) _____

PLEASE CIRCLE
PRIMARY TYPE
OF BUSINESS HERE

TYPE	
A — Brake Shops	E — Body Shops
B — Garages (General Repair Shops)	F — Radiator Repair Shops
C — Gasoline Service Stations	G — Parts Stores
D — Muffler Shops	H — Transmission Repair Shops

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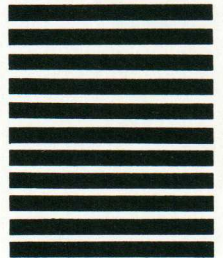
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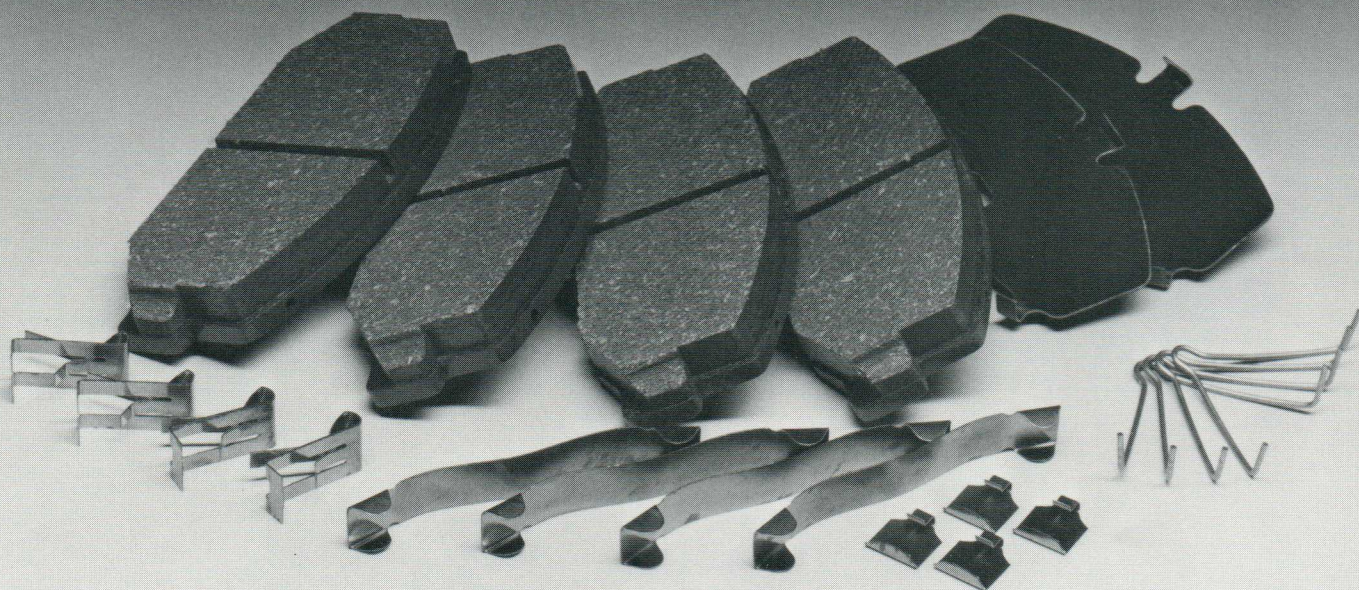
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P.O. BOX 2991
TORRANCE, CA 90509-9987



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THE ORIGINAL CHOICE.



Brakes are probably the most important automotive part when it comes to driver safety. In a critical traffic situation, if the brakes don't work, your customer is in trouble. How important then, to use the best...to install genuine Toyota disc pads when replacing worn-out parts.

And we believe Toyota disc pads are the best. We start with a steel backing, add a high quality asbestos lining, and then treat the surface with

metallic particles. The result is a pad that has fade resistance, water resistance, gives long term performance, silences squeals, and won't damage the rotor.

Why let your reputation and your customers ride on imitation parts that may not perform as well. Install genuine Toyota brakes...the original source for the complete pad kit (pads, shims, and retention clips). Bring your customers back to factory specs with the original choice.

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GENUINE PARTS

The Real Stuff
The Right Price.

**Fire
Power**



PUT IT TO WORK AT YOUR SHOP!

TOYOTA
GENUINE PARTS
WHOLESALE

**TAKE ADVANTAGE OF LOW
PRICES ON TOYOTA GENUINE
SPARK PLUGS TODAY!**