

ENGINE ELECTRICAL

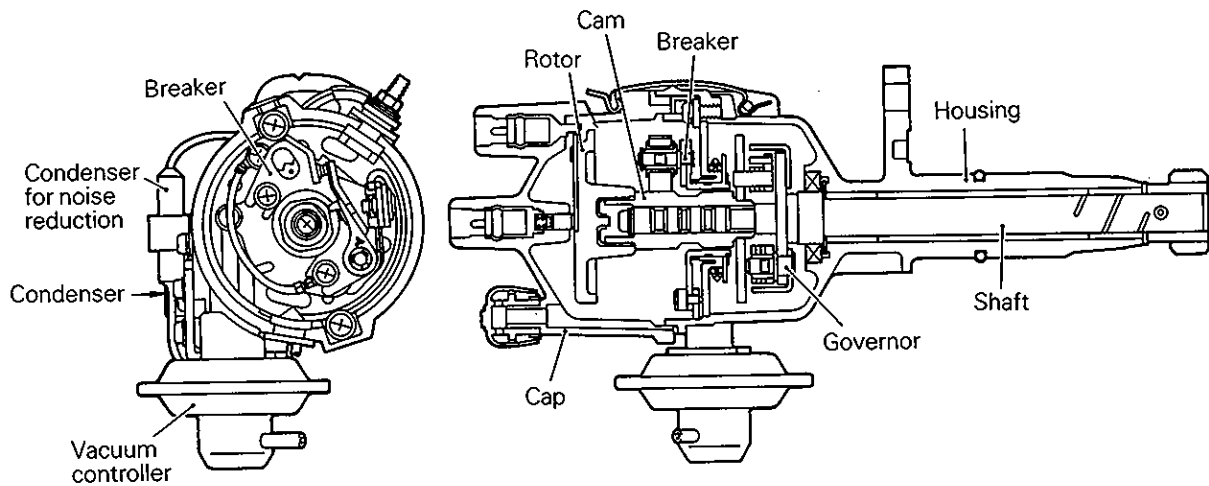
IGNITION SYSTEM

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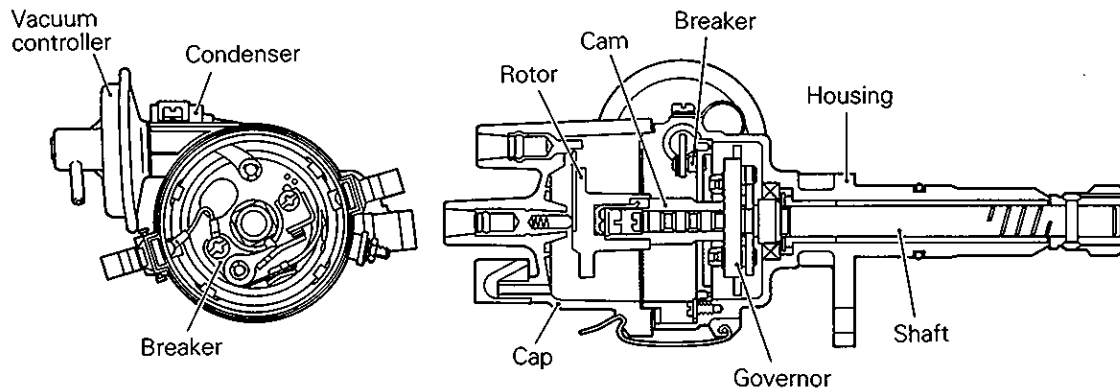
GENERAL INFORMATION

CONTACT POINT TYPE DISTRIBUTOR (MITSUBISHI TYPE)



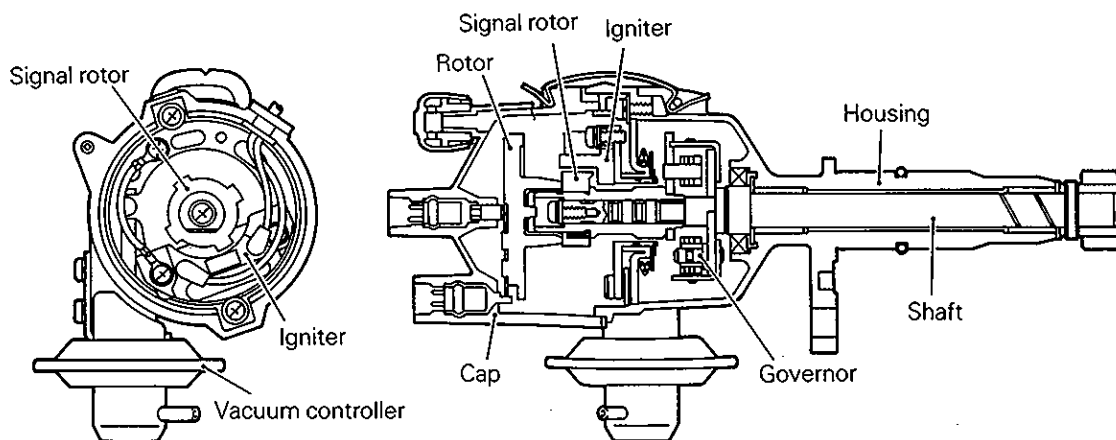
1EL073

CONTACT POINT TYPE DISTRIBUTOR (DENSO TYPE)



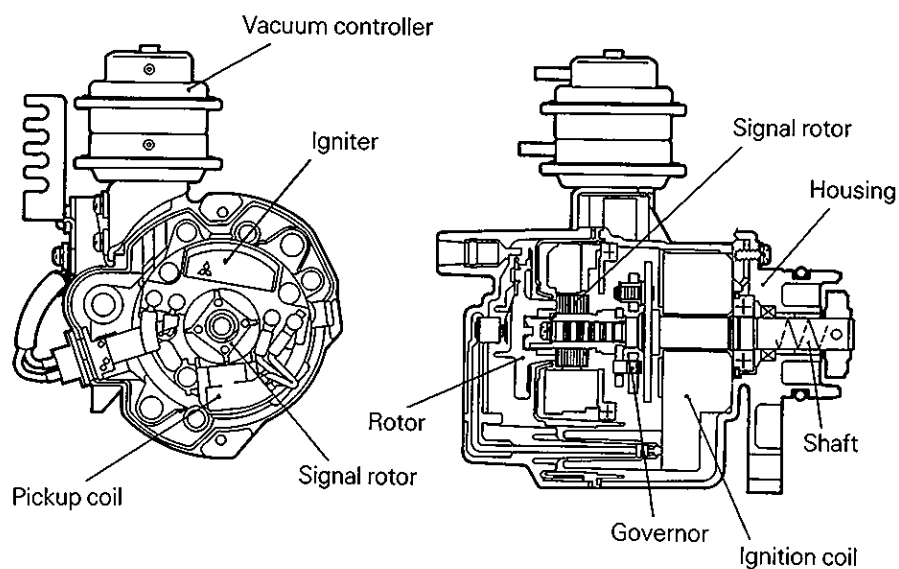
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CEI TYPE DISTRIBUTOR (MITSUBISHI TYPE)



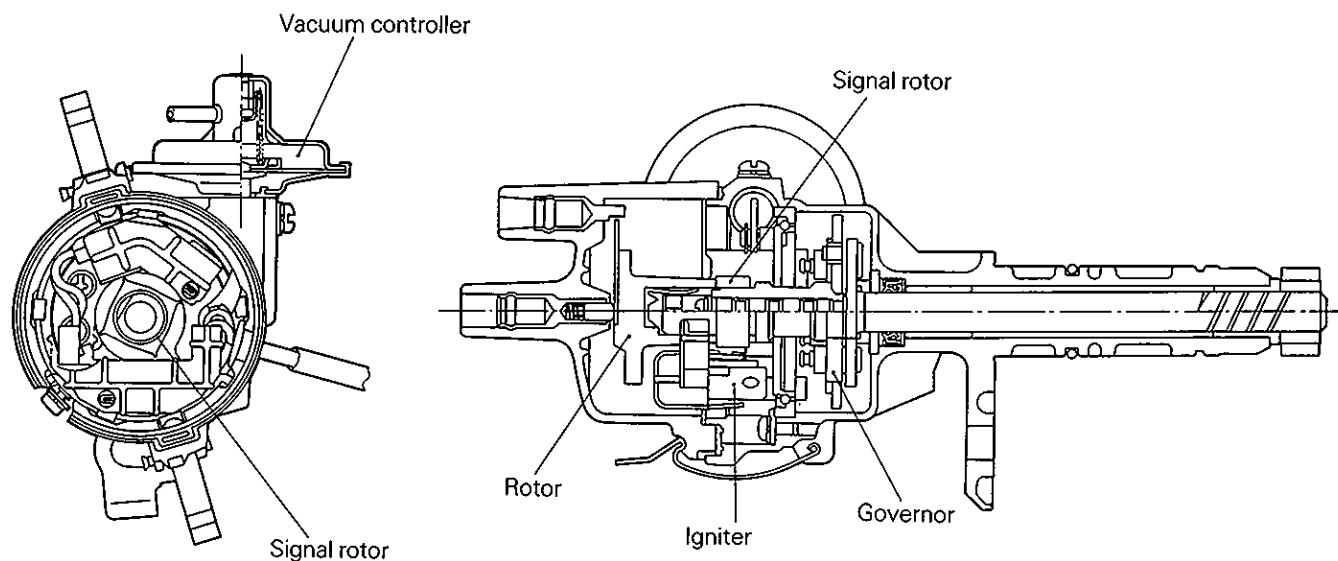
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CEI TYPE DISTRIBUTOR (MITSUBISHI TYPE WITH BUILT-IN IGNITION COIL)



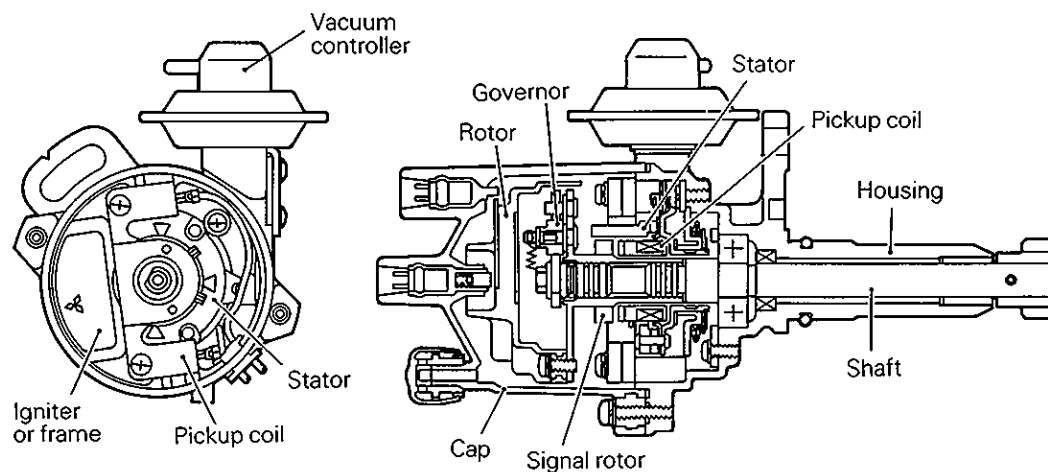
1EN0314

CEI TYPE DISTRIBUTOR (DENSO TYPE)



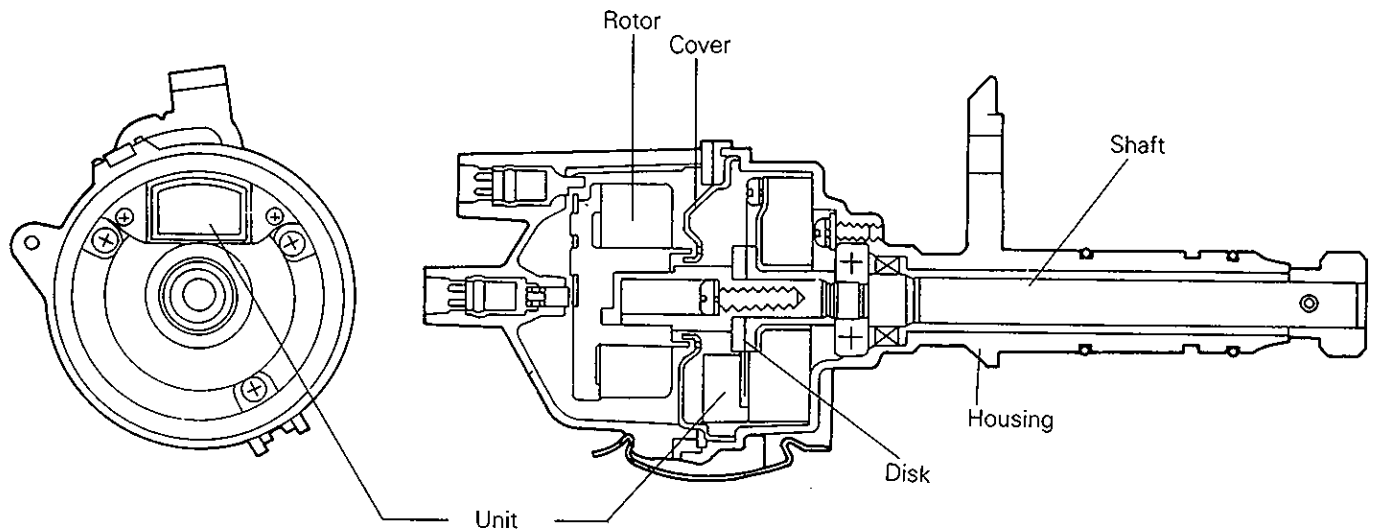
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HEI TYPE DISTRIBUTOR



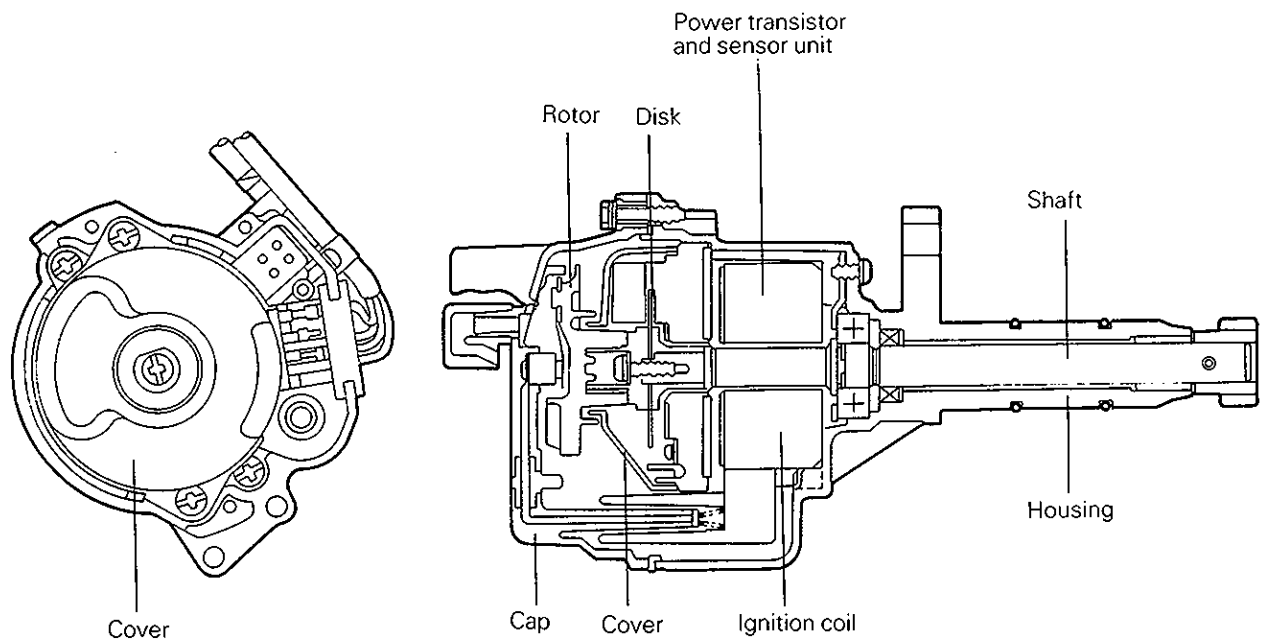
1EL080

ELECTRONIC ADVANCE CONTROL TYPE DISTRIBUTOR



1EL0008

**ELECTRONIC ADVANCE CONTROL TYPE DISTRIBUTOR
(WITH BUILT-IN IGNITION COIL)**



3EL0030

NOTES

1. SPECIFICATIONS

GENERAL SPECIFICATIONS

DISTRIBUTOR

Contact Point Type

Part No.	Identification No.	Timing control device	Diaphragm type	Point gap mm (in.)
FOR 4G3 SERIES ENGINE				
MD080606	T3T05787	Centrifugal and Vacuum	Single	0.45 – 0.55 (0.018 – 0.021)
MD108019	T3T05793	Centrifugal and Vacuum	Single	0.45 – 0.55 (0.018 – 0.021)
MD108231	T3T05794	Centrifugal and Vacuum	Single	0.45 – 0.55 (0.018 – 0.021)
FOR 4G5 SERIES ENGINE				
MD080608	T3T04591	Centrifugal and Vacuum	Single	0.45 – 0.55 (0.018 – 0.021)
MD142257	T1T12371	Centrifugal and Vacuum	Single	0.45 – 0.55 (0.018 – 0.021)
MD162593	T1T12372	Centrifugal and Vacuum	Single	0.45 – 0.55 (0.018 – 0.021)
FOR 4G63-SOHC ENGINE				
MD063632	029100-9420	Centrifugal and Vacuum	Single	0.40 – 0.50 (0.016 – 0.020)
MD100990	229100-3140	Centrifugal and Vacuum	Single	0.40 – 0.50 (0.016 – 0.020)
MD100991	229100-3130	Centrifugal and Vacuum	Single	0.40 – 0.50 (0.016 – 0.020)
MD100993	229100-3120	Centrifugal and Vacuum	Single	0.40 – 0.50 (0.016 – 0.020)
MD319948	429100-0230	Centrifugal and Vacuum	Single	0.40 – 0.50 (0.016 – 0.020)

CEI Type

Part No.	Identification No.	Timing control device	Diaphragm	Igniter	Air gap mm (in.)	Ignition coil resistance	
						Primary (Ω)	Secondary(kΩ)
FOR 4G1 SERIES ENGINE							
MD111972	T3T62978	Centrifugal and Vacuum	Single	Built-in type	0.8 (0.031)	—	—
MD120728	T3T62994	Centrifugal and Vacuum	Single	Built-in type	0.8 (0.031)	—	—
MD131664	T3T62995	Centrifugal and Vacuum	Single	Built-in type	0.8 (0.031)	—	—
MD131665	T3T62996	Centrifugal and Vacuum	Single	Built-in type	0.8 (0.031)	—	—
MD131666	T3T62682	Centrifugal and Vacuum	Single	Built-in type	0.8 (0.031)	—	—
MD159278	T6T87371	Centrifugal and Vacuum	Double	Built-in type	0.4 (0.016)	0.9 – 1.2	20 – 29
MD159279	T6T87372	Centrifugal and Vacuum	Double	Built-in type	0.4 (0.016)	0.9 – 1.2	20 – 29
MD159280	T6T87073	Centrifugal and Vacuum	Single	Built-in type	0.4 (0.016)	0.9 – 1.2	20 – 29

Part No.	Identification No.	Timing control device	Diaphragm	Igniter	Air gap mm (in.)	Ignition coil resistance	
						Primary (Ω)	Secondary(k Ω)
MD164457	T6T87075	Centrifugal and Vacuum	Single	Built-in type	0.4 (0.0016)	0.9 – 1.2	20 – 29
MD164458	T6T87373	Centrifugal and Vacuum	Double	Built-in type	0.4 (0.0016)	0.9 – 1.2	20 – 29
MD182221	T6T87081	Centrifugal and Vacuum	Single	Built-in type	0.4 (0.0016)	0.9 – 1.2	20 – 29
MD316388	T6T87378	Centrifugal and Vacuum	Single	Built-in type	0.4 (0.0016)	0.9 – 1.2	20 – 29
MD316389	T6T87377	Centrifugal and Vacuum	Single	Built-in type	0.4 (0.0016)	0.9 – 1.2	20 – 29
FOR 4G3 SERIES ENGINE							
MD079462	T3T61891	Centrifugal and Vacuum	Single	Built-in type	0.8 (0.031)	–	–
MD079764	T3T61898	Centrifugal and Vacuum	Single	Built-in type	0.8 (0.031)	–	–
MD084614	T3T62477	Centrifugal and Vacuum	Single	Built-in type	0.8 (0.031)	–	–
MD103419	T3T62979	Centrifugal and Vacuum	Single	Built-in type	0.8 (0.031)	–	–
MD107857	T3T62985	Centrifugal and Vacuum	Single	Built-in type	0.8 (0.031)	–	–
MD111261	T3T62980	Centrifugal and Vacuum	Single	Built-in type	0.8 (0.031)	–	–
MD111264	T3T62981	Centrifugal and Vacuum	Single	Built-in type	0.8 (0.031)	–	–
MD118065	T3T62987	Centrifugal and Vacuum	Single	Built-in type	0.8 (0.031)	–	–
MD125105	T3T62990	Centrifugal and Vacuum	Single	Built-in type	0.8 (0.031)	–	–
MD125559	T3T62991	Centrifugal and Vacuum	Single	Built-in type	0.8 (0.031)	–	–
MD125560	T3T62992	Centrifugal and Vacuum	Single	Built-in type	0.8 (0.031)	–	–
MD132021	T3T62998	Centrifugal and Vacuum	Single	Built-in type	0.8 (0.031)	–	–
MD132022	T3T62999	Centrifugal and Vacuum	Single	Built-in type	0.8 (0.031)	–	–
FOR 4G54 ENGINE							
MD111112	T3T65474	Centrifugal and Vacuum	Single	Built-in type	0.8 (0.031)	–	–
MD114245	T3T65475	Centrifugal and Vacuum	Single	Built-in type	0.8 (0.031)	–	–
MD127420	T3T65476	Centrifugal and Vacuum	Single	Built-in type	0.2 (0.008)	–	–
MD170455	T3T65477	Centrifugal and Vacuum	Single	Built-in type	0.8 (0.031)	–	–
MD315131	T3T65478	Centrifugal and Vacuum	Double	Built-in type	0.8 (0.031)	–	–

Part No.	Identification No.	Timing control device	Diaphragm	Igniter	Air gap mm (in.)	Ignition coil resistance	
						Primary (Ω)	Secondary(kΩ)
FOR 4G63-SOHC ENGINE							
MD115142	100291-2070	Centrifugal and Vacuum	Single	Built-in type	0.2 (0.008) or more	—	—
MD115143	100291-2080	Centrifugal and Vacuum	Single	Built-in type	0.2 (0.008) or more	—	—
MD115846	100291-2130	Centrifugal and Vacuum	Single	Built-in type	0.2 (0.008) or more	—	—
MD122584	100291-2250	Centrifugal and Vacuum	Single	Built-in type	0.2 (0.008) or more	—	—
MD125049	100291-2300	Centrifugal and Vacuum	Double	Built-in type	0.2 (0.008) or more	—	—
MD132024	100291-2450	Centrifugal and Vacuum	Single	Built-in type	0.2 (0.008) or more	—	—
MD132025	100291-2460	Centrifugal and Vacuum	Single	Built-in type	0.2 (0.008) or more	—	—
MD170804	100291-3290	Centrifugal and Vacuum	Single	Built-in type	0.2 (0.008) or more	—	—
MD300094	T6T87871	Centrifugal and Vacuum	Single	Built-in type	0.4 (0.016)	0.9 – 1.2	20 – 29
MD314947	T2T86171	Centrifugal and Vacuum	Single	Built-in type	0.4 (0.016)	—	—
MD317312	T6T87872	Centrifugal and Vacuum	Double	Built-in type	0.4 (0.016)	0.9 – 1.2	20 – 29
MD317313	T2T86175	Centrifugal and Vacuum	Double	Built-in type	0.4 (0.016)	—	—
MD329349	T2T86177	Centrifugal and Vacuum	Single	Built-in type	0.4 (0.016)	—	—
MD338266	T2T86179	Centrifugal and Vacuum	Double	Built-in type	0.4 (0.016)	—	—
FOR 4G93-SOHC ENGINE							
MD179425	T6T87673	Centrifugal and Vacuum	Single	Built-in-type	0.4 (0.016)	0.9 – 1.2	20 – 29
MD193018	T6T87674	Centrifugal and Vacuum	Single	Built-in-type	0.4 (0.016)	0.9 – 1.2	20 – 29
MD314948	T2T86172	Centrifugal and Vacuum	Double	Built-in-type	0.4 (0.016)	—	—
MD315134	T2T86174	Centrifugal and Vacuum	Double	Built-in-type	0.4 (0.016)	—	—

HEI Type

Part No.	Identification No.	Timing control device	Diaphragm	Air gap mm (in.)
FOR 4G54 ENGINE				
MD109938	T4T63372	Centrifugal and Vacuum	Single	0.8 (0.031)
FOR 4G63 ENGINE				
MD109936	T4T62378	Centrifugal and Vacuum	Single	0.8 (0.031)

ELECTRONIC ADVANCE CONTROL TYPE DISTRIBUTOR

Part No.	Identification No.	Timing control device	Ignition coil resistance	
			Primary (Ω)	Secondary ($k\Omega$)
FOR 4G1 SERIES ENGINE				
MD122509	T3T64173	Electronic	—	—
MD153199	T6T57171	Electronic	0.9 – 1.2	20 – 29
MD156617	T6T57471	Electronic	0.9 – 1.2	20 – 29
FOR 4G37 ENGINE				
MD119306	T6T57071	Electronic	0.9 – 1.1	19 – 27
MD155852	T6T57371	Electronic	0.9 – 1.1	19 – 27
MD156252	T2T53371	Electronic	—	—
FOR 4G6 SERIES ENGINE				
MD104695	T3T64171	Electronic	—	—
MD125516	T3T64174	Electronic	—	—
MD143571	T1T42075	Electronic	—	—
MD147116	T1T42074	Electronic	—	—
MD156722	T2T53372	Electronic	—	—
MD168098	T1T42076	Electronic	—	—
MD188610	T6T58271	Electronic	0.9 – 1.2	20 – 29
MD190168	T6T58071	Electronic	0.9 – 1.2	20 – 29
MD314946	T2T56071	Electronic	—	—
MD329093	T2T60271	Electronic	0.5 – 0.7	21 – 30
FOR 4G9 SERIES ENGINE				
MD180936	T6T57671A	Electronic	0.9 – 1.2	20 – 29
MD183850	T6T58471	Electronic	0.9 – 1.2	20 – 29
MD309442	T2T58271A	Electronic	0.9 – 1.2	20 – 29
MD328420	T2T58272A	Electronic	0.5 – 0.7	21 – 30
MD338992	T2T58272B	Electronic	0.5 – 0.7	21 – 30
FOR 6G72 ENGINE				
MD148008	T5T42371	Electronic	—	—
MD149512	T5T42471	Electronic	—	—
MD163989	T5T42771	Electronic	—	—
MD334634	T5T43171	Electronic	—	—

CRANK ANGLE SENSOR

Part No.	Identification No.	Timing control device
MD121786	T1T49071	Electronic
MD148147	T1T49073	Electronic
MD148855	T1T49571	Electronic
MD152651	T1T49074	Electronic
MD180939	T1T49771A	Electronic

IGNITION COIL**Oil-Filled Type**

Part No.	Identification No.	Primary coil resistance (Ω)	Secondary coil resistance (k Ω)	External resistor resistance (Ω)
MD003820	LB-63	1.17 – 1.43	11.05 – 14.95	1.35 – 1.65
MD025703	E-019	1.13 – 1.38	9.35 – 12.65	–
MD069937	E-064	1.08 – 1.32	12.75 – 17.25	1.22 – 1.49
MD073079	E-089	1.08 – 1.32	14.88 – 20.13	1.22 – 1.49
MD073335	E-064	1.08 – 1.32	12.75 – 17.25	1.22 – 1.49
MD075000	E-064	1.08 – 1.32	12.75 – 17.25	1.22 – 1.49
MD080623	E-064	1.08 – 1.32	12.75 – 17.25	1.22 – 1.49
MD107925	LB-63	1.17 – 1.43	11.05 – 14.95	1.35 – 1.65
MD110164	E-064	1.08 – 1.32	12.75 – 17.25	1.22 – 1.49

Molded Type

Part No.	Identification No.	Primary coil resistance (Ω)	Secondary coil resistance (k Ω)	External resistor resistance (Ω)
MD102315	F-100	1.08 – 1.32	22.10 – 29.90	1.22 – 1.49
MD104696	F-088	0.72 – 0.88	10.29 – 13.92	–
MD107864	F-100	1.08 – 1.32	22.10 – 29.90	1.22 – 1.49
MD111950	F-088	0.72 – 0.88	10.29 – 13.92	–
MD114994	F-088	0.72 – 0.88	10.29 – 13.92	–
MD120167	F-100	1.08 – 1.32	22.10 – 29.90	1.22 – 1.49
MD120618	F-100	1.08 – 1.32	22.10 – 29.90	1.22 – 1.49
MD126461	F-089	0.77 – 0.95	10.29 – 13.92	–
MD131711	F-504	0.72 – 0.88	10.29 – 13.92	–
MD144172	F-088	0.72 – 0.88	10.29 – 13.92	–
MD149766	F-089	0.77 – 0.95	10.29 – 13.92	–
MD152648	F-608	0.67 – 0.81	11.31 – 15.30	–
MD158133	F-088	0.72 – 0.88	10.29 – 13.92	–
MD158409	F-608	0.67 – 0.81	11.31 – 15.30	–
MD158956	F-630	0.77 – 0.95	10.29 – 13.92	–
MD166146	F-504	0.72 – 0.88	10.29 – 13.92	–
MD179787	F-648	0.70 – 0.86	11.31 – 15.30	–
MD181477	F-608	0.67 – 0.81	11.31 – 15.30	–
MD303922	F-722	0.69 – 0.85	15.30 – 20.70	–
MD309455	FA-0004	1.08 – 1.32	22.10 – 29.90	–
MD309456	FA-0005	0.67 – 0.81	11.31 – 15.30	–
MD313604	F-608	0.67 – 0.81	11.31 – 15.30	–
MD346835	F-608	0.67 – 0.81	11.31 – 15.30	–

SPARK PLUG

NGK	ND	CHAMPION	Spark plug gap mm (in)
B7ES	K16P-U	N-9Y	0.7 – 0.8 (0.028 – 0.031)
BK5E	K20P-U	N-12Y	0.7 – 0.8 (0.028 – 0.031)
BK6E	W16EP	C-9YC	0.7 – 0.8 (0.028 – 0.031)
BP5ES	W20EP	C-12YC	0.7 – 0.8 (0.028 – 0.031)
BP6ES	W22EP	N-7YC	0.7 – 0.8 (0.028 – 0.031)
BP7ES	K20PR-U	N-9YC	0.7 – 0.8 (0.028 – 0.031)
BKR6E	W16EPR	N-11YC	0.7 – 0.8 (0.028 – 0.031)
BPR5ES	W20EPR	RN-7Y	0.7 – 0.8 (0.028 – 0.031)
BPR6ES	W22EPR	RN-9Y	0.7 – 0.8 (0.028 – 0.031)
BPR7ES	W16EX-U	RN-11Y	0.7 – 0.8 (0.028 – 0.031)
	W20EX-U	RC-9YC	0.7 – 0.8 (0.028 – 0.031)
		RN-7YC	0.7 – 0.8 (0.028 – 0.031)
		RN-9YC	0.7 – 0.8 (0.028 – 0.031)
	W20EP-U10		0.9 – 1.0 (0.035 – 0.039)
	W22EPR-U10		0.9 – 1.0 (0.035 – 0.039)
BK5E-11	K16P-U11	N-9Y	1.0 – 1.1 (0.039 – 0.043)
BK6E-11	K20P-U11	C-9YC4	1.0 – 1.1 (0.039 – 0.043)
BP5ES-11	W16EP-11	C-12YC4	1.0 – 1.1 (0.039 – 0.043)
BP6ES-11	W20EP-11	N-9YC4	1.0 – 1.1 (0.039 – 0.043)
BKR5E-11	K16PR-U11	RC-12YC4	1.0 – 1.1 (0.039 – 0.043)
BKR6E-11			1.0 – 1.1 (0.039 – 0.043)
BKR6ES-11	K20PR-U11	N-11YC4	1.0 – 1.1 (0.039 – 0.043)
BPR5ES-11	W16EPR-11	RN-9Y	1.0 – 1.1 (0.039 – 0.043)
BPR6ES-11	W20EPR-11	RC-9YC4	1.0 – 1.1 (0.039 – 0.043)
BPR7ES-11	W22EPR-11	RN-7YC4	1.0 – 1.1 (0.039 – 0.043)
BUR5EA-11	W16EPR-S11		1.0 – 1.1 (0.039 – 0.043)
BUR6EA-11		RN-9YC4	1.0 – 1.1 (0.039 – 0.043)
PFR5J-11	PK20PR-P11		1.0 – 1.1 (0.039 – 0.043)
*PFR6J-11	*P20PR-11	RN-11YC4	1.0 – 1.1 (0.039 – 0.043)
*PGR6A-11	*PK20PR-11		1.0 – 1.1 (0.039 – 0.043)
*PFR6B-11	*PK16PR-P11		1.0 – 1.1 (0.039 – 0.043)
*PFR7M			1.0 – 1.1 (0.039 – 0.043)

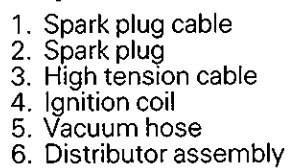
NOTE: * Platinum-tipped spark plug

TORQUE SPECIFICATIONS

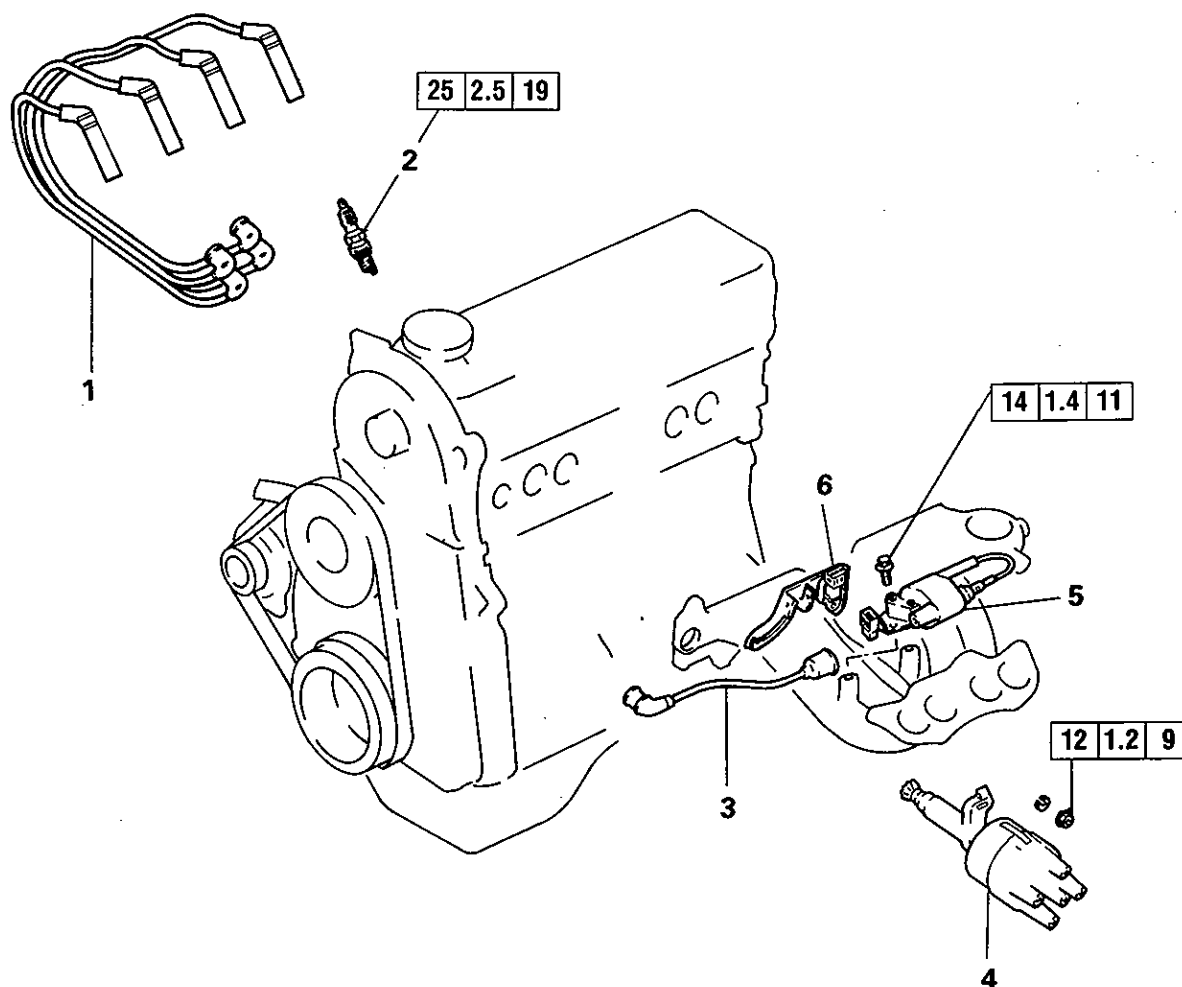
	Torque Nm	kgm	ft.lbs.
Cooling fan bolt	9	0.9	7
Fan clutch	11	1.1	8
Distributor bolt	13	1.3	9
Distributor mounting nut (except 6G72 engine)	12	1.2	9
(6G72 engine)	14	1.4	11
Spark plug	25	2.5	19
Crank angle sensor mounting nut	12	1.2	9
Throttle body stay bolt and nut	19	1.9	14
Ignition coil mounting bolt (Molded type)			
SOHC engine (except 4G6 16-valve and 4G9 16-valve engine for rear wheel drive and 6G72 engine)	14	1.4	11
(6G72 12-valve engine)	25	2.5	19
(4G6 and 4G9 16-valve engines for rear wheel drive vehicles).....	24	2.4	17
(6G72 24-valve engine)	13	1.3	10
DOHC engine (except 4G93, 6A12, 4G6 <from 1996 models> and 6G7 engines)	24	2.4	18
(4G93 and 4G63 <from 1996 models> engines)	14	1.4	11
(6G72, 6G73 and 6A12 engines: M8)	13	1.3	10
(6G72, 6G73 and 6A12 engines: M6)	10	1.0	7.2
(6G74 engine)	10	1.0	7.2
Power transistor mounting bolt			
(except 4G93, 4G6 <from 1996 models> and 6G7 engines)	11	1.1	8
(4G6 engine <from 1996 models>)	14	1.4	11
(4G93 engine)	3	0.3	2.2
(6G72-SOHC 12-valve, 6G72-DOHC and 6G73 engines)	13	1.3	10
(6G74 engine)	10	1.0	7.2
(6G72 SOHC 24-valve engine)	18	1.8	13
Power transistor bracket bolt	13	1.3	10
Center cover bolt	3	0.3	2.2
Camshaft position sensor bolt			
(6A1, 6G7 DOHC, 6G7 SOHC 24-valve and 4G6 <from 1996 models> engines)	9	0.9	7
Crankshaft position sensor bolt			
(6A1, 6G7 DOHC, 6G7 SOHC 24-valve, 4D68 with electronically controlled fuel injection system and 4G6 <from 1996 models> engines)	9	0.9	7
Camshaft position sensor support cover bolt	10	1.0	7.2
Camshaft position sensing cylinder bolt	21	2.2	16
Camshaft position sensor support bolt	14	1.4	11
Bracket nut.....	18	1.8	13
Bracket bolt	25	2.5	19

NOTES

REMOVAL AND INSTALLATION – FOR CARBURETOR ENGINE

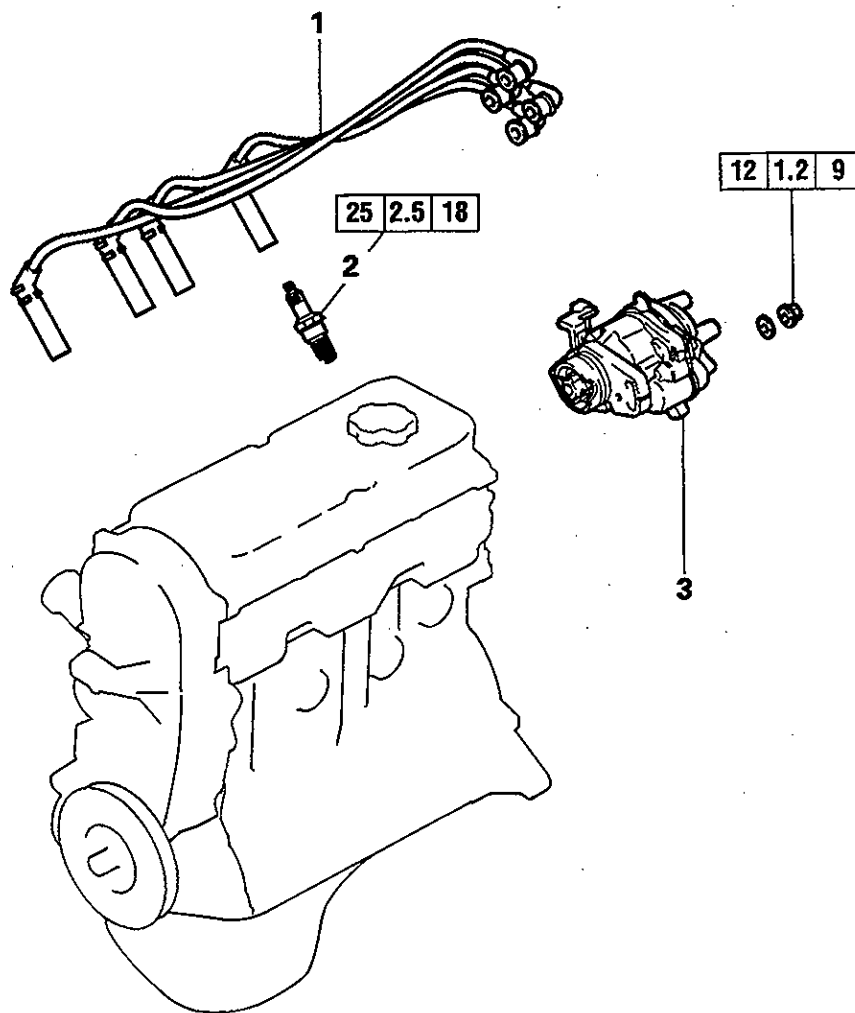


REMOVAL AND INSTALLATION – FOR FUEL INJECTION ENGINE

**Removal steps**

1. Spark plug cable
2. Spark plug
3. High tension cable
- ◆A◆ 4. Distributor assembly
5. Ignition coil
6. Power transistor

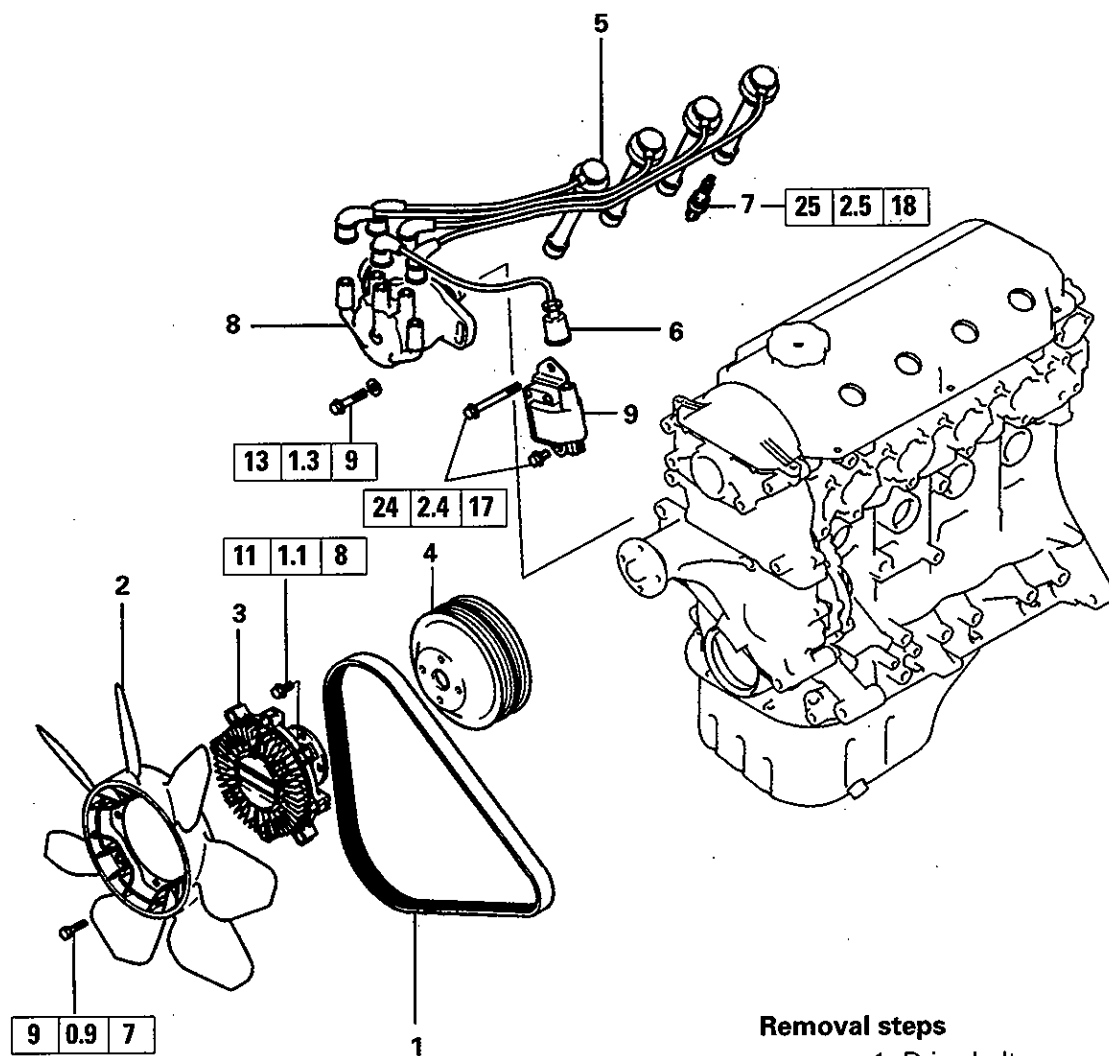
**REMOVAL AND INSTALLATION – FOR 4G13, 4G15 12-VALVE AND 4G9 SOHC
ENGINES FOR FRONT WHEEL DRIVE VEHICLES**



Removal steps

1. Spark plug cable
2. Spark plug
- ◆B◆ 3. Distributor

REMOVAL AND INSTALLATION – FOR 4G6 SOHC 16-VALVE AND 4G9 SOHC 16-VALVE ENGINES FOR REAR WHEEL DRIVE VEHICLES

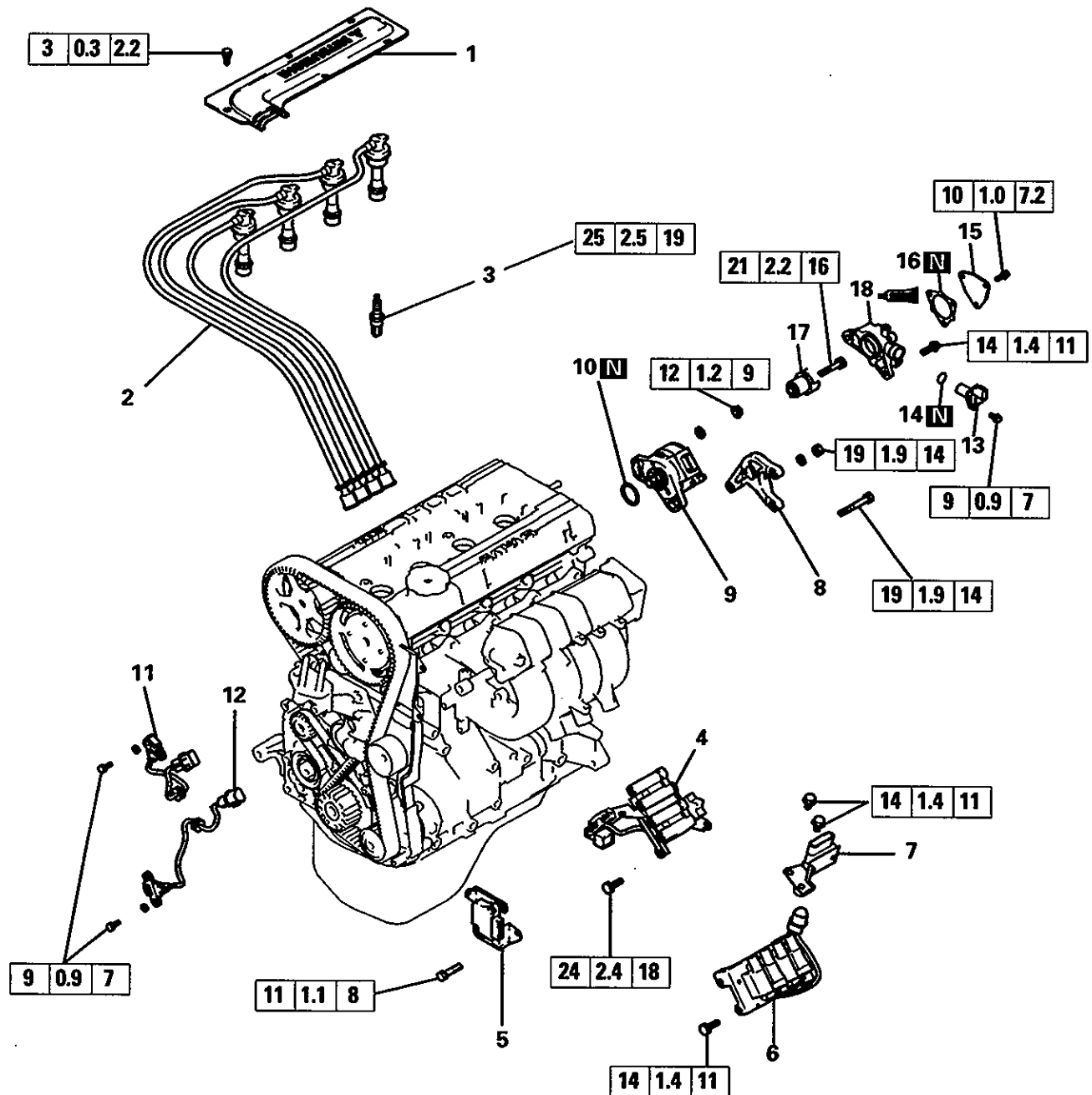


Removal steps

1. Drive belt
2. Cooling fan
3. Fan clutch
4. Fan pulley
5. Spark plug cable
6. High tension cable
7. Spark plug
8. Distributor
9. Ignition coil



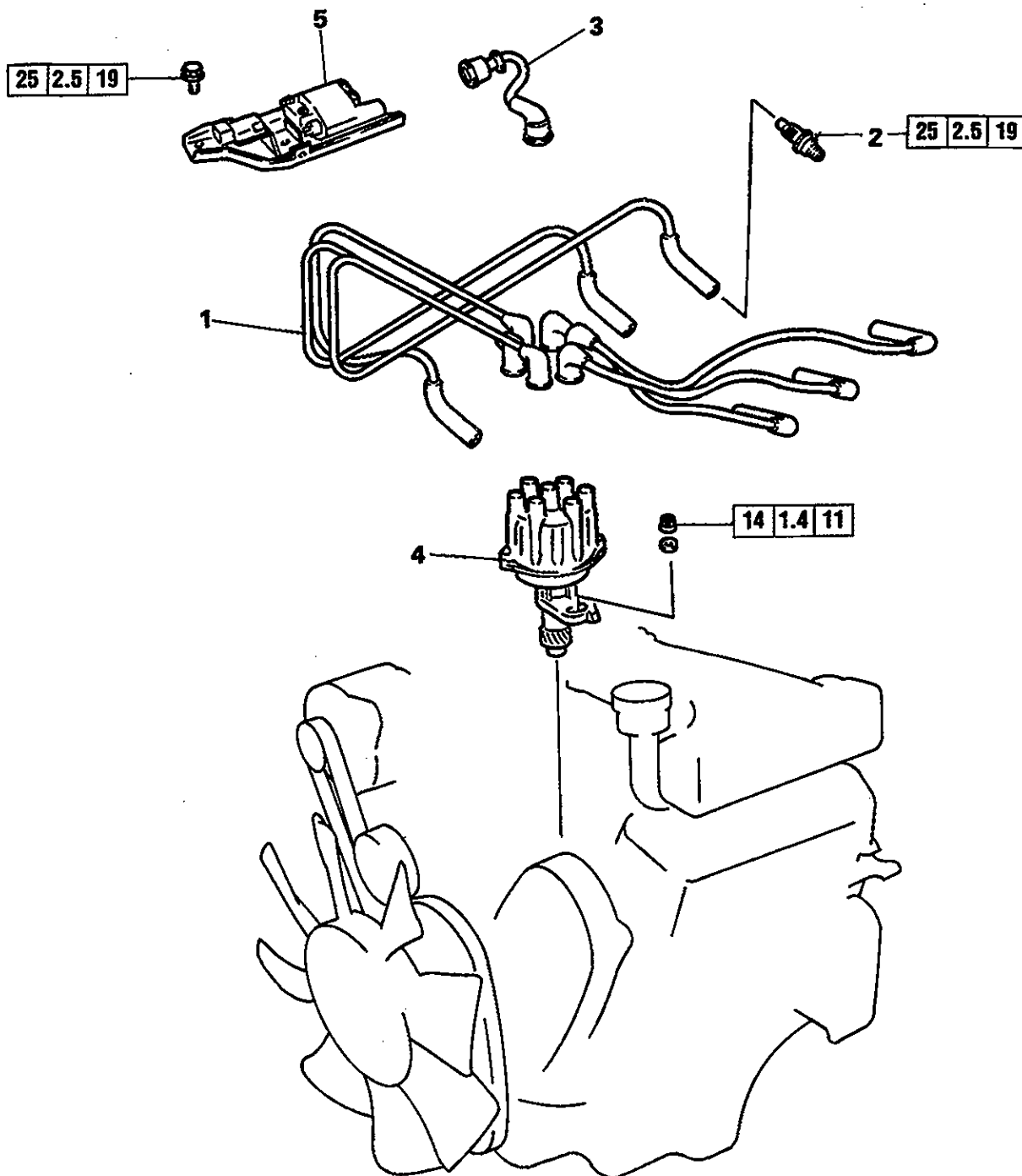
REMOVAL AND INSTALLATION – FOR 4G61 AND 4G63 DOHC ENGINES



Removal steps

1. Center cover
2. Spark plug cable
3. Spark plug
4. Ignition coil <Up to 1995 models>
5. Power transistor <Up to 1995 models>
6. Ignition coil <From 1996 models>
7. Power transistor <From 1996 models>
8. Throttle body stay <Up to 1995 models>
9. Crank angle sensor <Up to 1995 models>
10. O-ring <Up to 1995 models>
11. Camshaft position sensor <Up to 1996 models>
12. Crankshaft position sensor <From 1996 models>
13. Camshaft position sensor <From 1997 models>
14. O-ring <From 1997 models>
15. Camshaft position sensor support cover <From 1997 models>
16. Camshaft position sensor support cover gasket <From 1997 models>
17. Camshaft position sensing cylinder <From 1997 models>
18. Camshaft position sensor support <From 1997 models>

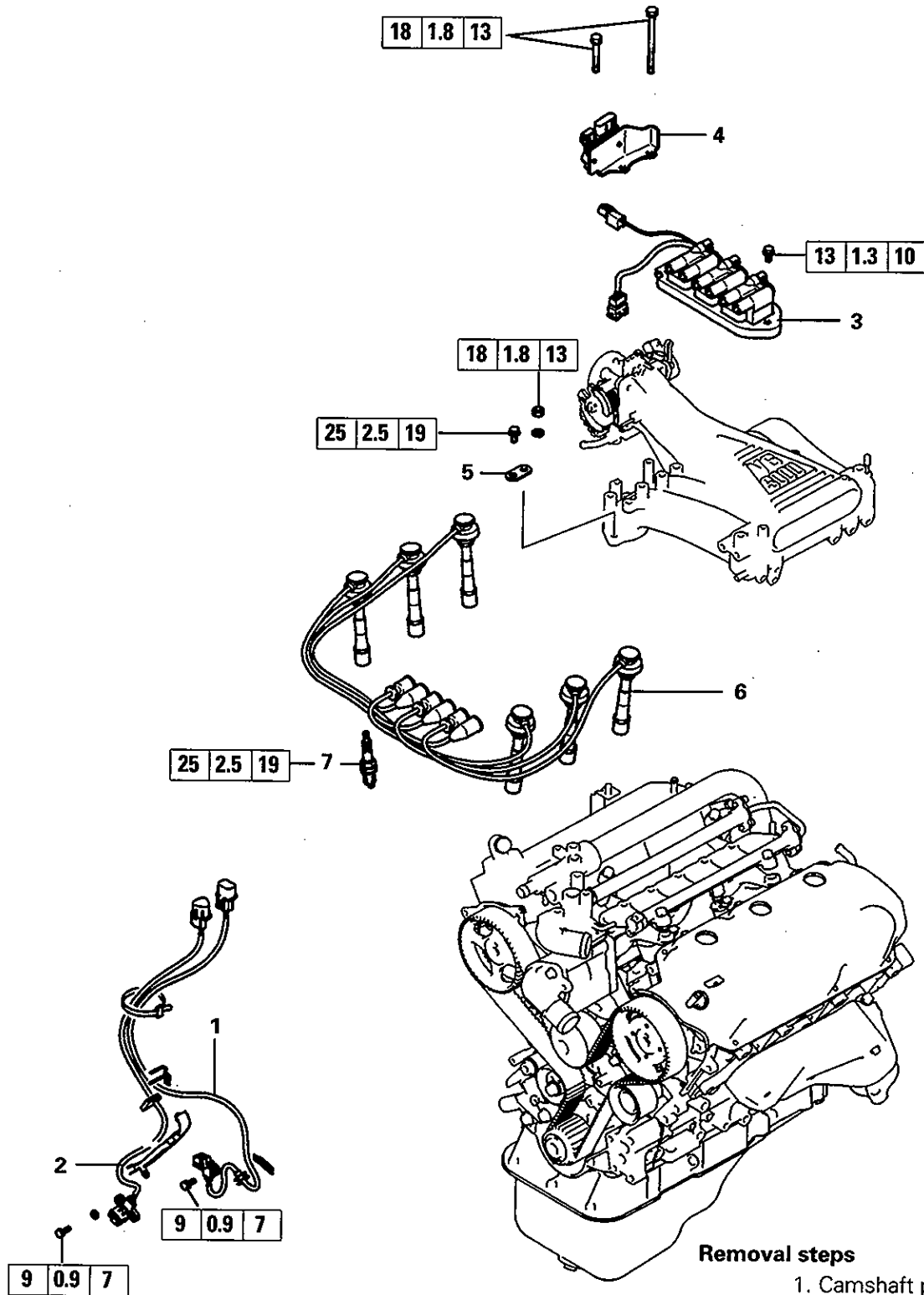
REMOVAL AND INSTALLATION - FOR 6G72 SOHC 12-VALVE ENGINE

**Removal steps**

1. Spark plug cable
2. Spark plug
3. High tension cable
4. Distributor assembly
5. Ignition coil assembly



REMOVAL AND INSTALLATION – FOR 6G72 SOHC 24-VALVE ENGINE

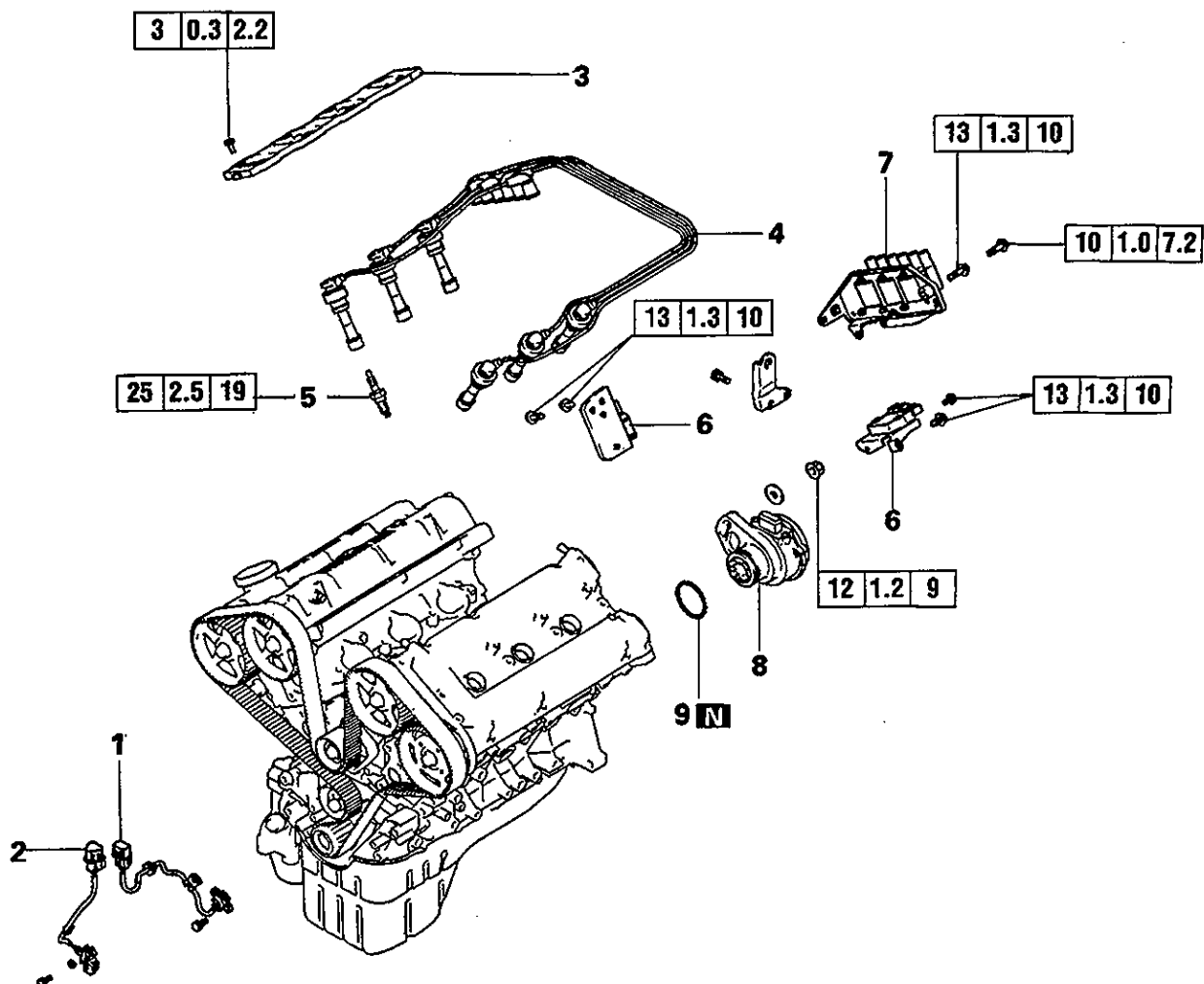


Removal steps

1. Camshaft position sensor
2. Crankshaft position sensor
3. Ignition coil
4. Power transistor
5. Bracket
6. Spark plug cable
7. Spark plug

REMOVAL AND INSTALLATION – FOR 6G72, 6G73 DOHC ENGINE

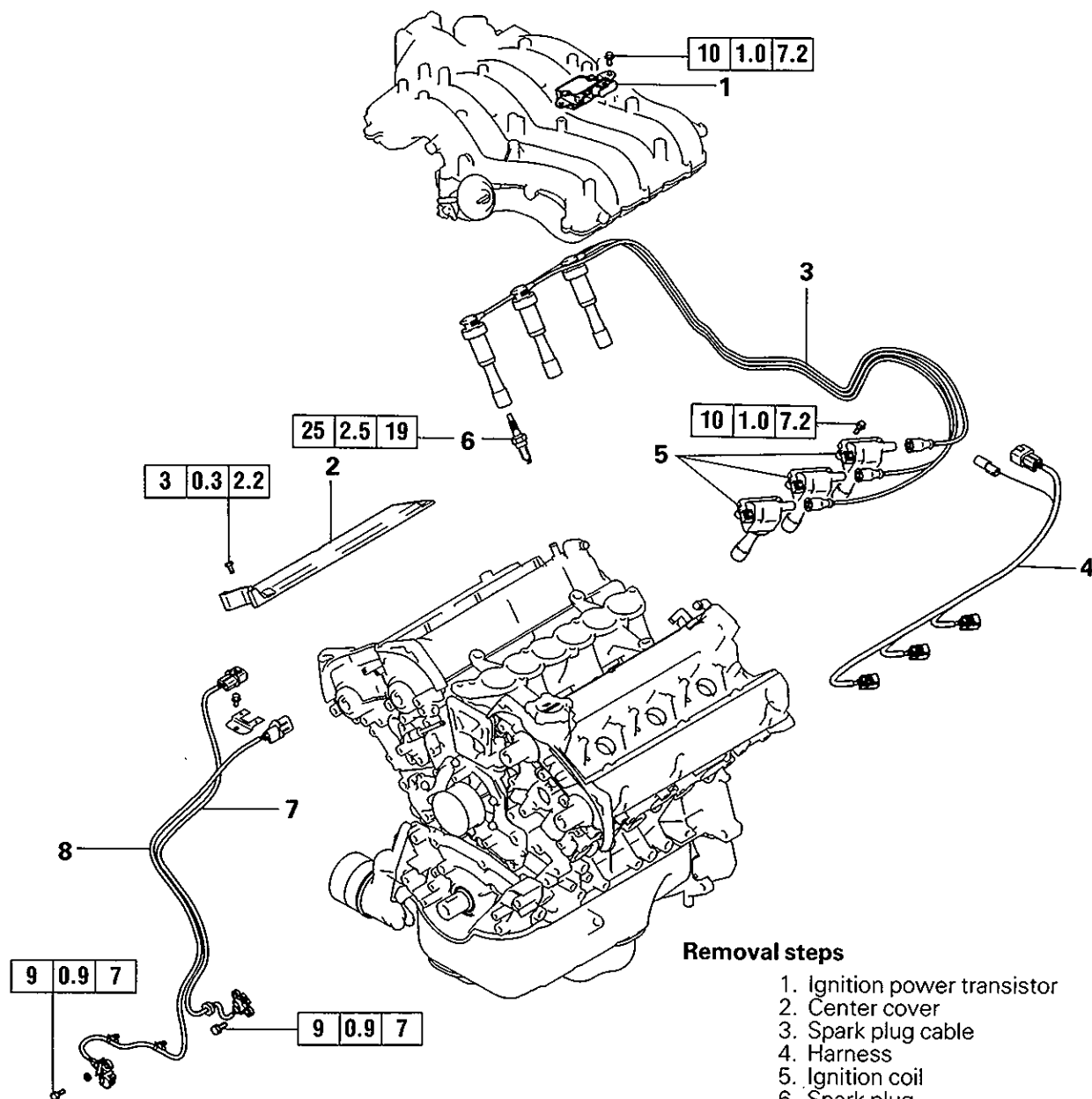
Up to 1992 model

**Removal steps**

1. Camshaft position sensor (From 1993 models)
2. Crankshaft position sensor (From 1993 models)
3. Centre cover
4. Spark plug cable
5. Spark plug
6. Power transistor
7. Ignition coil
8. Crank angle sensor (Up to 1992 models)
9. O-ring

7EN0688

REMOVAL AND INSTALLATION – FOR 6G74 DOHC ENGINE

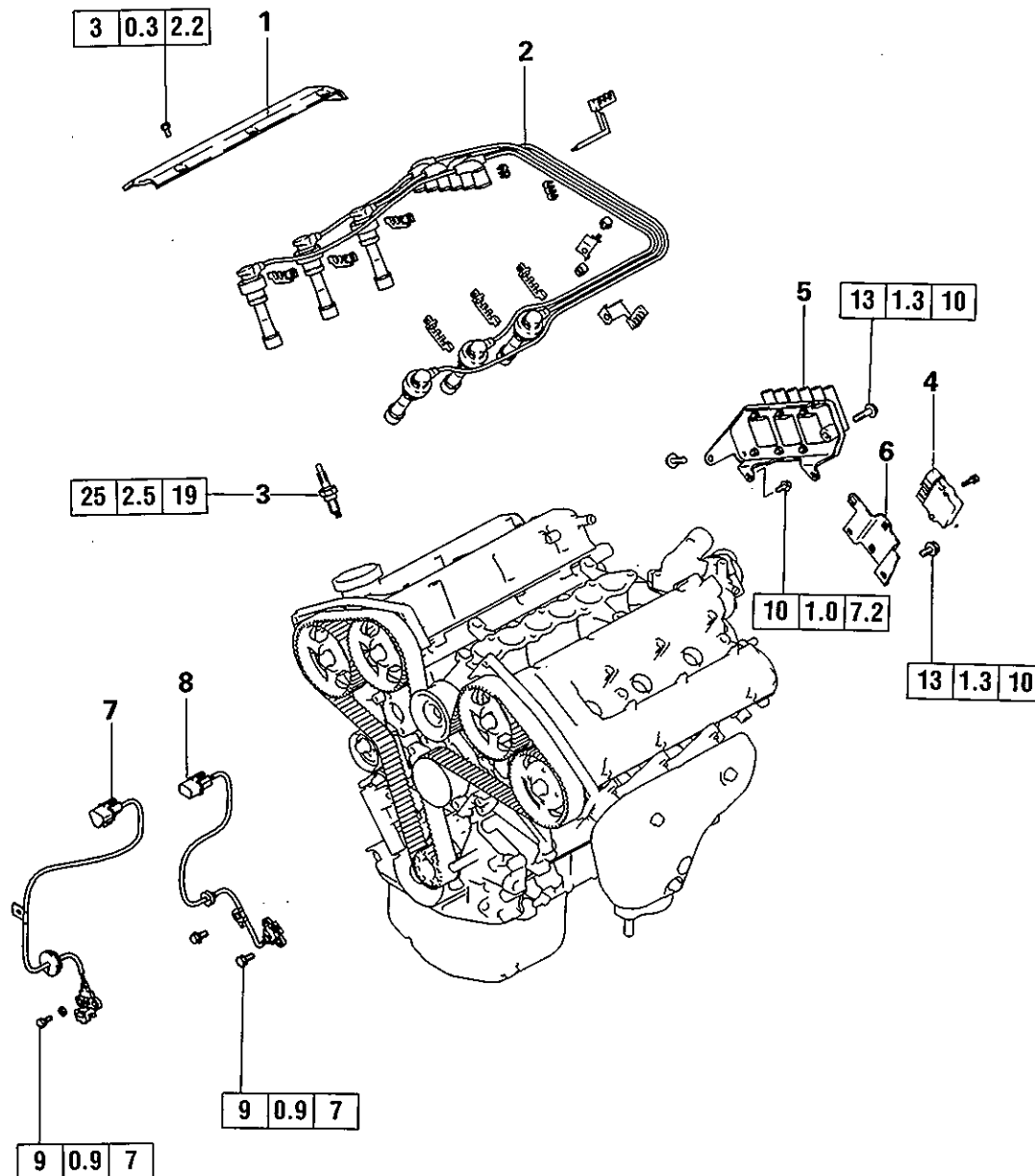


Removal steps

1. Ignition power transistor
2. Center cover
3. Spark plug cable
4. Harness
5. Ignition coil
6. Spark plug
7. Camshaft position sensor
8. Crankshaft position sensor

7EN0629

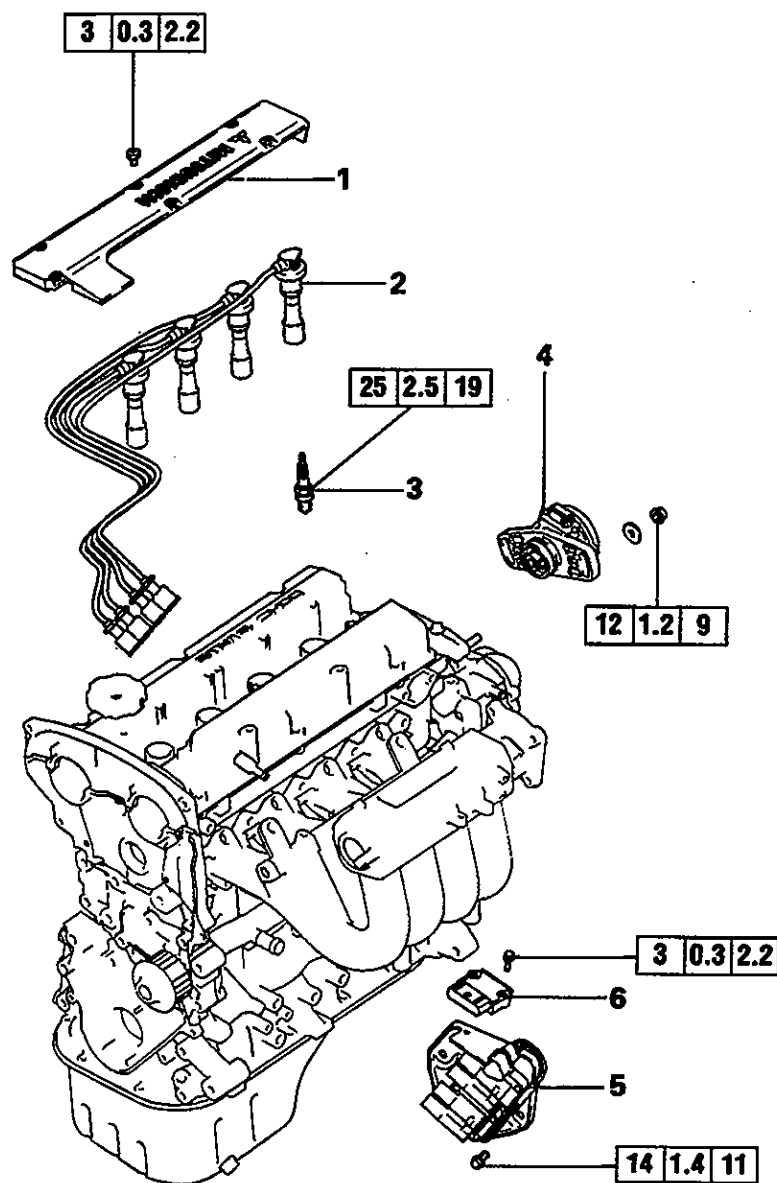
REMOVAL AND INSTALLATION – FOR 6A12 ENGINE

**Removal steps**

1. Center cover
2. Spark plug cable
3. Spark plug
4. Power transistor
5. Ignition coil
6. Power transistor bracket
7. Crankshaft position sensor
8. Camshaft position sensor

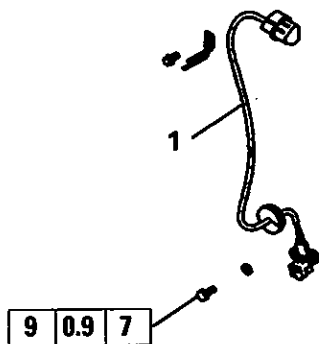
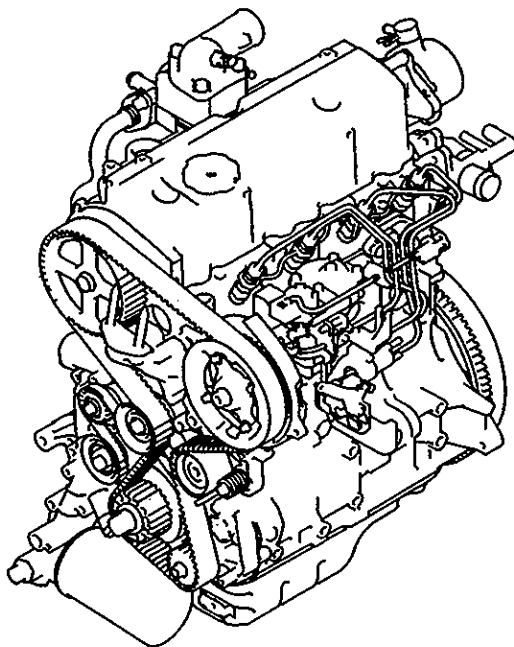
6AE0266

REMOVAL AND INSTALLATION – FOR 4G9 DOHC ENGINE



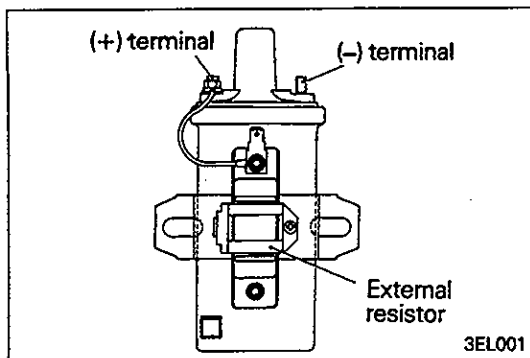
Removal steps

1. Centre cover
2. Spark plug cable
3. Spark plug
- ❖C❖ 4. Crankshaft position sensor
5. Ignition coil
6. Power transistor

REMOVAL AND INSTALLATION – FOR 4D68 with ELECTRONICALLY CONTROLLED FUEL INJECTION SYSTEM**Removal steps**

1. Crankshaft position sensor

Intentionally blank

**INSPECTION****IGNITION COIL (OIL-FILLED TYPE)**

- (1) Measure the resistance of the primary and secondary coils using a circuit tester. The coils are free from open or short circuits if the resistance is within the standard value.

Primary coil resistance (Ω) at 20°C (68°F)

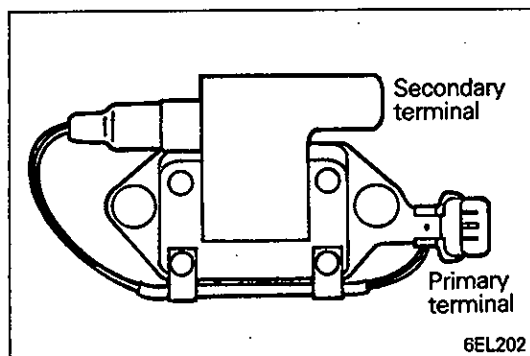
E-019	1.13 – 1.38
E-064, E-089	1.08 – 1.32
LB-63	1.17 – 1.43

Secondary coil resistance ($k\Omega$) at 20°C (68°F)

E-019	9.35 – 12.65
E-064	12.75 – 17.25
E-089	14.88 – 20.13
LB-63	11.05 – 14.95

External resistor resistance (Ω) at 20°C (68°F)

E-064, E-089	1.22 – 1.49
LB-63	1.35 – 1.65

**IGNITION COIL (MOLDED TYPE)**

Check the following and replace if faulty.

- (1) Measure the resistance of the primary and secondary coils using a circuit tester. The coils are free from open or short circuits if the resistance is within the standard limits.

Primary coil standard resistance (Ω) at 20°C (68°F)

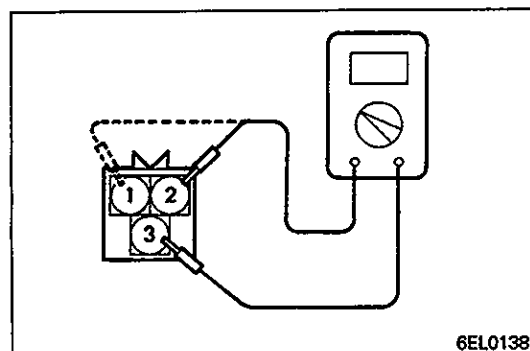
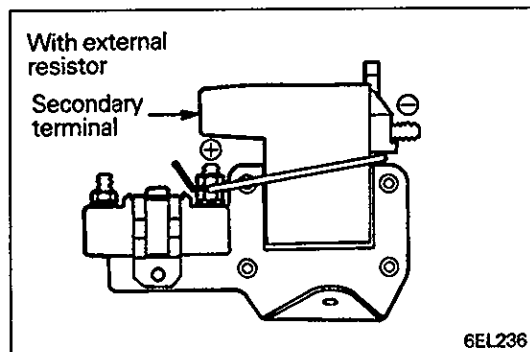
F-088, F-504	0.72 – 0.88
F-100, FA-0004	1.08 – 1.32
F-608, FA-0005	0.67 – 0.81
F-648	0.70 – 0.86

Secondary coil standard resistance ($k\Omega$) at 20°C (68°F)

F-088, F-504	10.29 – 13.92
F-100, FA-0004	22.10 – 29.10
F-608, F-648 and FA-0005	11.31 – 15.30

External resistor standard resistance (Ω) at 20°C (68°F)

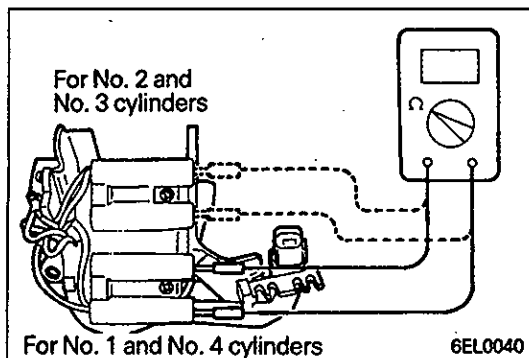
F-100	1.22 – 1.49
-------	-------------

**IGNITION COIL (MOLDED TYPE for 4G63 DOHC Engine)**

- (1) Measurement of primary coil resistance.

Measure the resistance between connector terminals ③ and ② (the coils at the No. 1 and No. 4 cylinder side) of the ignition coil, and between terminals ③ and ① (the coils at the No. 2 and No. 3 cylinder side).

Standard value: 0.77 – 0.95 Ω

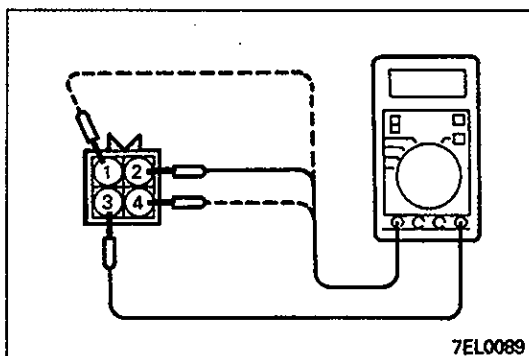


- (2) Measurement of the secondary coil resistance.
Measure the resistance between the high-voltage terminals for the No. 1 and No. 4 cylinders, and between the high-voltage terminals for the No. 2 and No. 3 cylinders.

Standard value: 10.29 – 13.92 k Ω

Caution

- Be sure, when measuring the resistance of the secondary coil, to disconnect the connector of the ignition coil.



IGNITION COIL (MOLDED TYPE for front wheel drive vehicles)

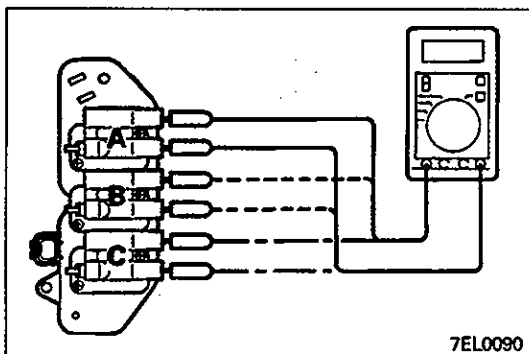
Primary Coil Resistance

Measure the resistance between connector terminals ③ (power) and each coil terminal.

Measuring point:

- Coil A (for No. 1 and No. 4 cylinder) ②-③
Coil B (for No. 2 and No. 5 cylinder) ①-③
Coil C (for No. 3 and No. 6 cylinder) ④-③

Standard value: 0.67 – 0.81 Ω



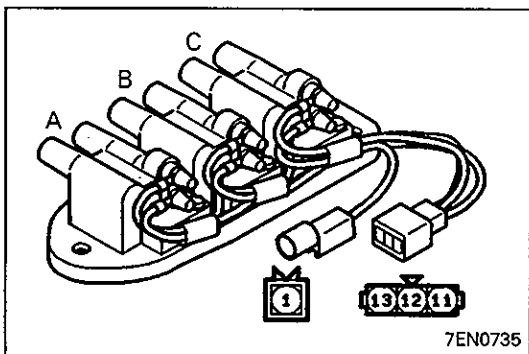
Secondary Coil Resistance

Measure the resistance between each coil high voltage terminals.

Measuring point:

- Coil A (for No. 1 and No. 4 cylinder)
Coil B (for No. 2 and No. 5 cylinder)
Coil C (for No. 3 and No. 6 cylinder)

Standard value: 11.3 – 15.3 k Ω



IGNITION COIL (MOLDED TYPE for rear wheel drive vehicles)

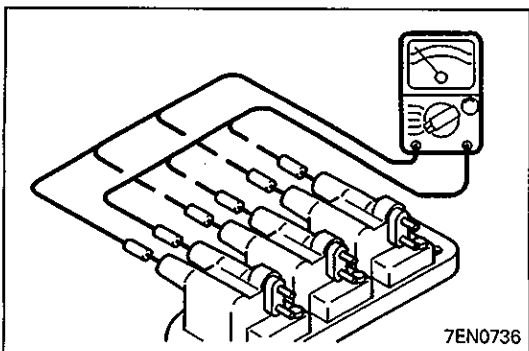
Primary Coil Resistance

Measure the resistance between terminal (1) of 1-pin connector (power) and each terminal of 3-pin connector.

Measuring point:

- Coil A (for No. 3 and No. 6 cylinder) ①-⑪
Coil B (for No. 1 and No. 4 cylinder) ①-⑬
Coil C (for No. 2 and No. 5 cylinder) ①-⑫

Standard value: 0.67 – 0.81 Ω

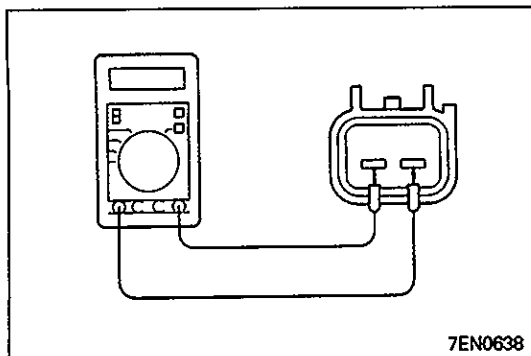


Secondary Coil Resistance

Measure the resistance between each coil high voltage terminals.

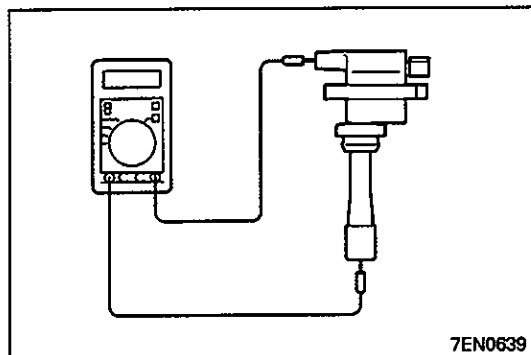
- Coil A (for No. 3 and No. 6 cylinder)
Coil B (for No. 1 and No. 4 cylinder)
Coil C (for No. 2 and No. 5 cylinder)

Standard value: 11.3 – 15.3 k Ω

**IGNITION COIL (6G74 DOHC ENGINE)****Measurement of Primary Winding Resistance**

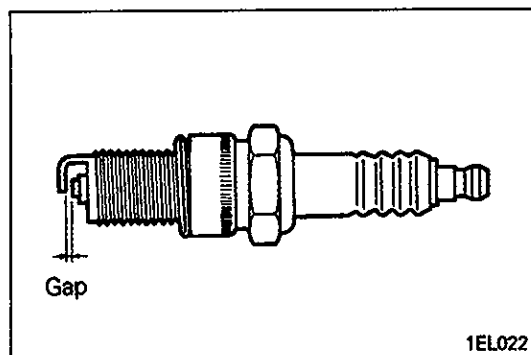
- (1) Measure the resistance across the terminals, shown in the illustration, of the ignition coil for each of three pairs of cylinders (No.1 – No.4, No.2 – No.5 and No.3 – No.6).

Standard value: 0.69 – 0.85 Ω

**Measurement of Secondary Winding Resistance**

- (2) Measure the resistance across the high-tension terminals, shown in the illustration, of the ignition coil for each of three pairs of cylinders (No.1 – No.4, No.2 – No.5 and No.3 – No.6).

Standard value: 15.3 – 20.7 k Ω

**SPARK PLUG (except platinum-tipped spark plug)**

- (1) Check the plug gap and adjust to specified value if necessary: (except platinum-tipped spark plug).

Standard value: See page 16C-1-6

SPARK PLUG (platinum-tipped spark plug)

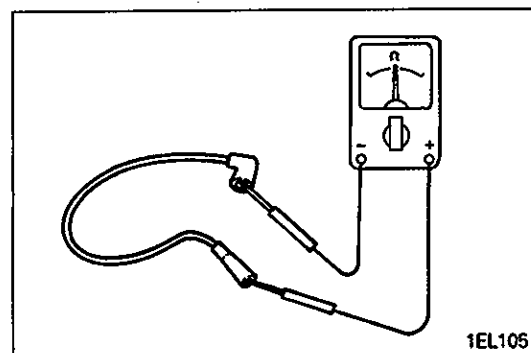
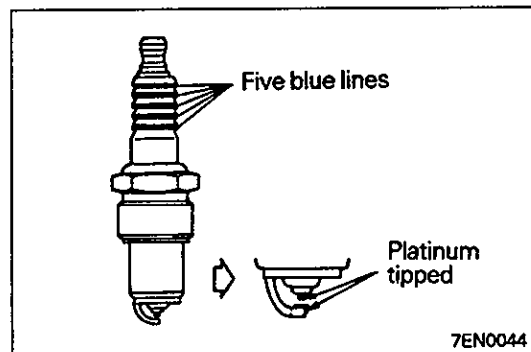
- (1) Check the plug gap. If it exceeds the limit, replace the spark plug.

Standard value: 1.0 – 1.1 mm (0.039 – 0.043 in.)

Limit: 1.3 mm (0.051 in.)

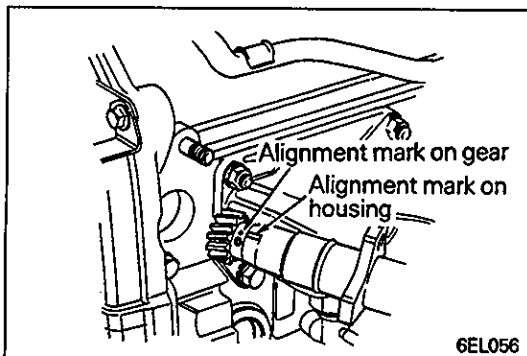
NOTE

- (1) No gap adjustment is made on platinum-tipped spark plugs.
- (2) Cleaning of platinum plugs may cause damage to the platinum tip. Therefore, if it is necessary to clean a sooty platinum-tipped spark plug, use a plug cleaner and finish cleaning within 20 seconds to protect the electrode. Never use a wire brush or the like.

**SPARK PLUG CABLE**

- (1) Check the boots and insulation for cracks.
- (2) Measure the resistance.

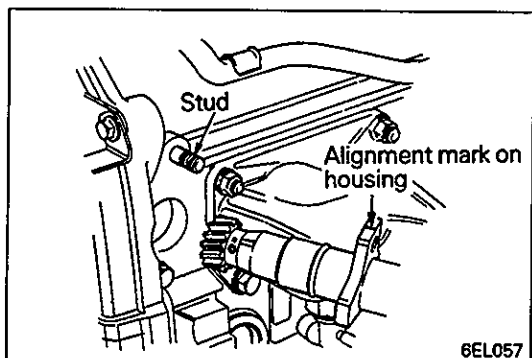
**Standard value: Approx. 16 k Ω /m (except 4G9-MVV)
Approx. 7 k Ω /m (4G9-MVV)**



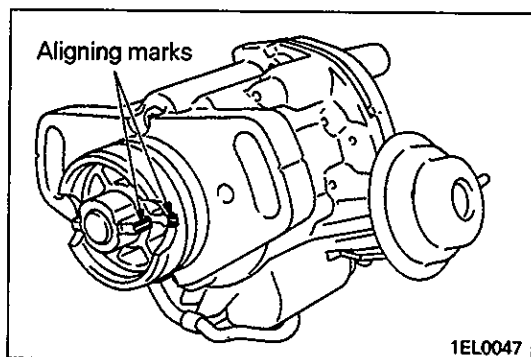
SERVICE POINTS OF INSTALLATION

◆A◆ INSTALLATION OF DISTRIBUTOR ASSEMBLY

- (1) Turn the crankshaft to bring the No. 1 cylinder to top dead center on the compression stroke.
- (2) Line up the alignment marks on the distributor housing and gear.

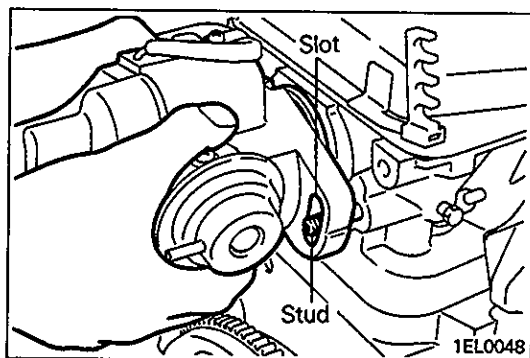


- (3) Install the distributor on the engine by lining up the line (depression or protrusion) on its flange with the center of the distributor mounting stud.

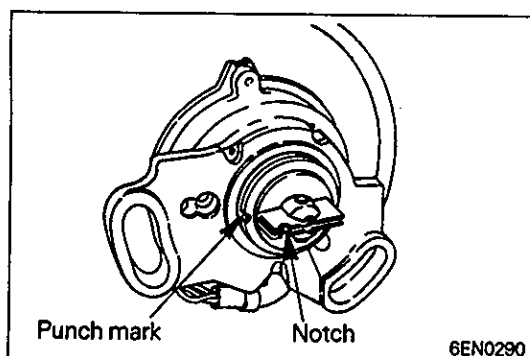


◆B◆ INSTALLATION OF DISTRIBUTOR ASSEMBLY

- (1) Turn the crankshaft to bring No. 1 cylinder to the top dead center on compression stroke.
- (2) Align the mark on the distributor housing with that of the coupling.

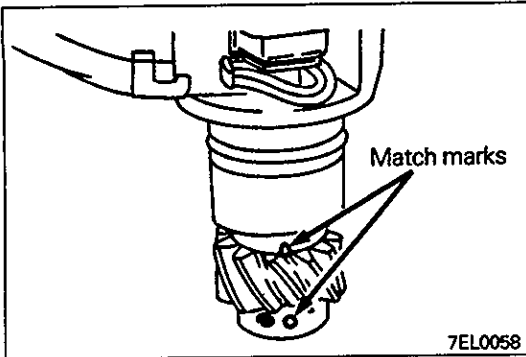


- (3) Install the distributor assembly on the engine while aligning the stud bolt used for securing the distributor with the slot in the mounting flange of the distributor.



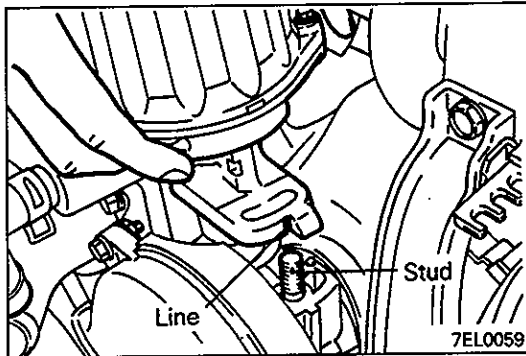
◆C◆ INSTALLATION OF CRANK ANGLE SENSOR

- (1) Turn the crankshaft so that the No. 1 cylinder is at top dead center.
- (2) Align the punch mark on the crank angle sensor housing with the notch in the plate.
- (3) Install the crank angle sensor on the cylinder head.

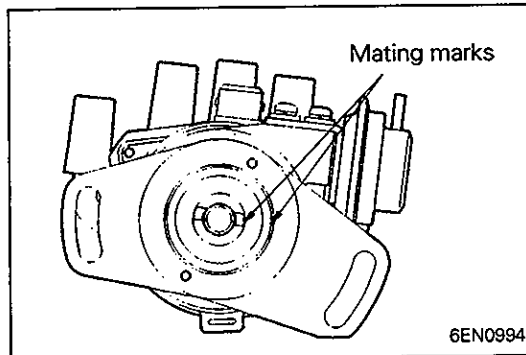


◆◆ INSTALLATION OF DISTRIBUTOR

- (1) Turn the crankshaft clockwise to place the piston in No. 1 cylinder at top dead center on the compression stroke.
- (2) Align the match mark on the distributor housing with that on the gear.

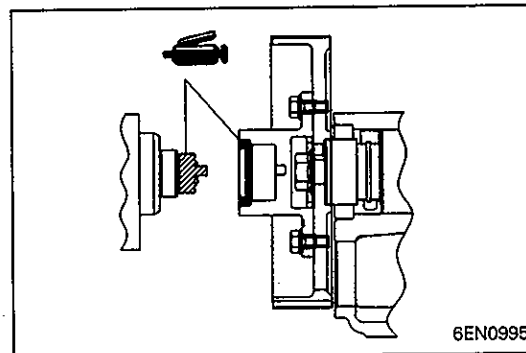


- (3) With the line marked on the distributor mounting flange and the center of the distributor mounting stud in alignment, install the distributor to the engine.



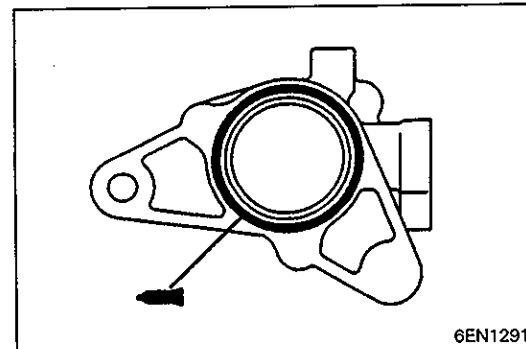
◆◆ DISTRIBUTOR INSTALLATION

- (1) Turn the crankshaft clockwise to set the No.1 position at the top dead center of the compression stroke.
- (2) Align mating marks on the distributor housing and the coupling.



- (3) Apply grease sufficiently on the distributor coupling and the entire circumference of the oil seal lip, and install the distributor.

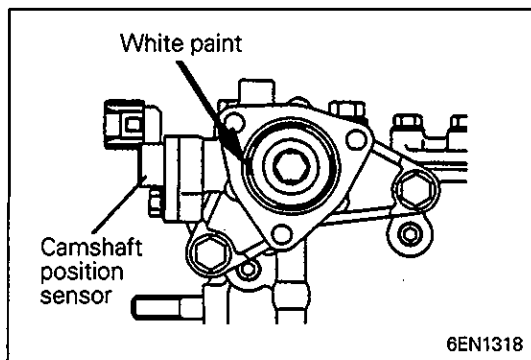
**Specified grease: Multipurpose grease
SAE J310 NLGI No.3**



◆◆ CAMSHAFT POSITION SENSOR SUPPORT INSTALLATION

- (1) Apply the liquid gasket (FIPG) with 3 mm diameter bead as shown in the illustration.

**Specified sealant:
Mitsubishi Genuine sealant Part No. MD970389 or
equivalent**



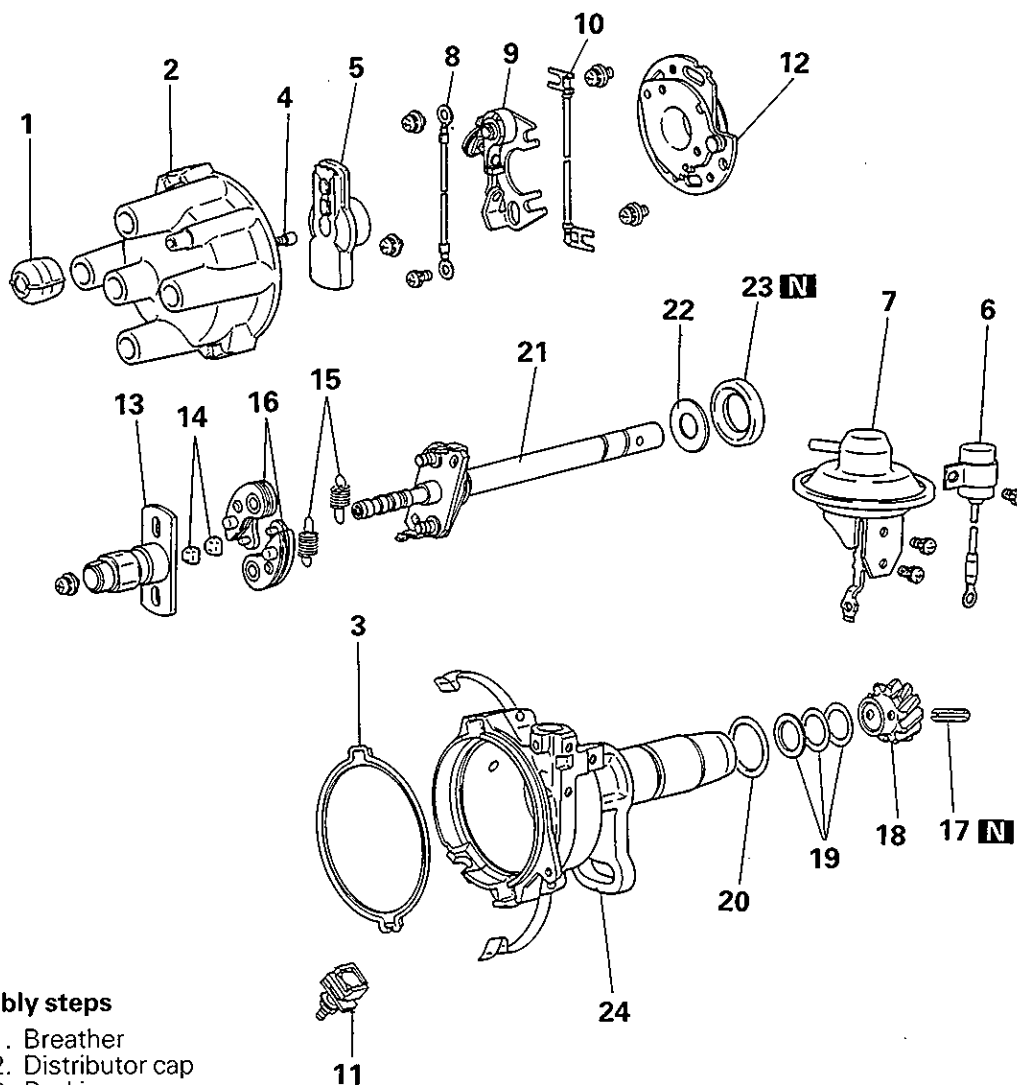
⚙️ CAMSHAFT POSITION SENSING CYLINDER INSTALLATION

- (1) Position the No. 1 cylinder piston at the top dead center of its compression stroke.
(In this condition, the dowel pin at the sprocket side of the exhaust camshaft is at the topmost position.)
- (2) Install the camshaft position sensing cylinder with its white painted mark directed as shown in the illustration.

NOTES

3. CONTACT POINT TYPE DISTRIBUTOR

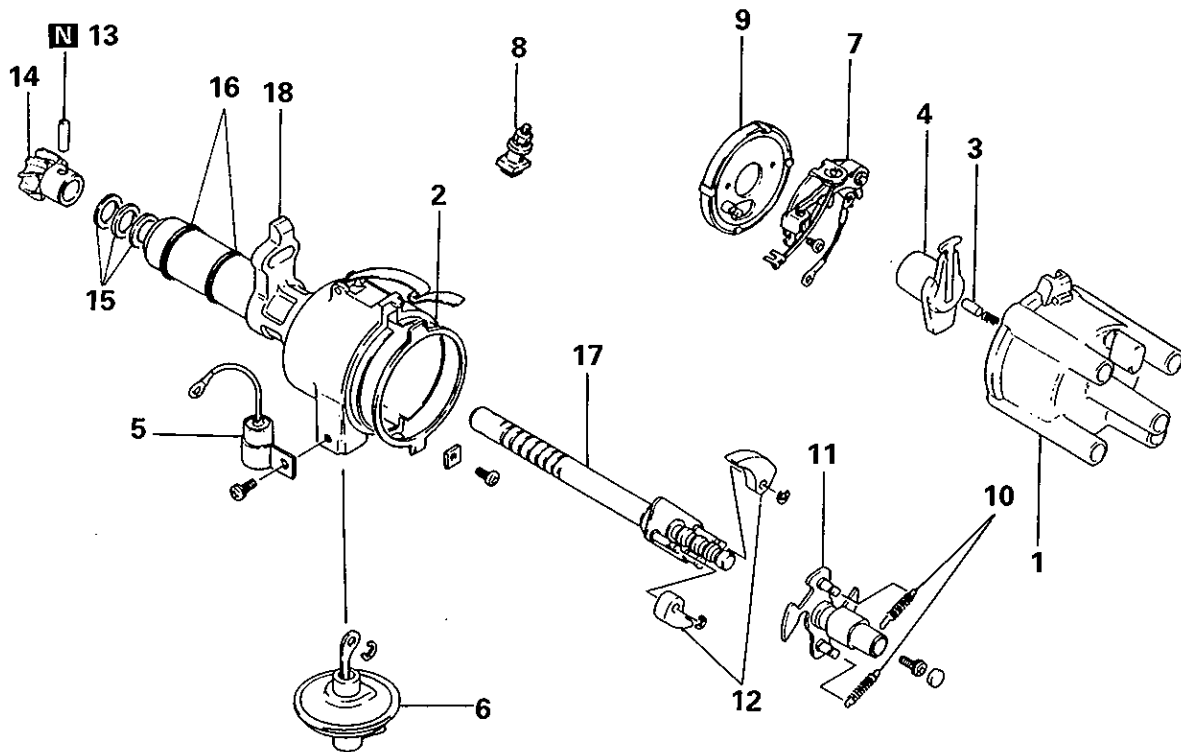
DISASSEMBLY AND REASSEMBLY – MITSUBISHI TYPE



Disassembly steps

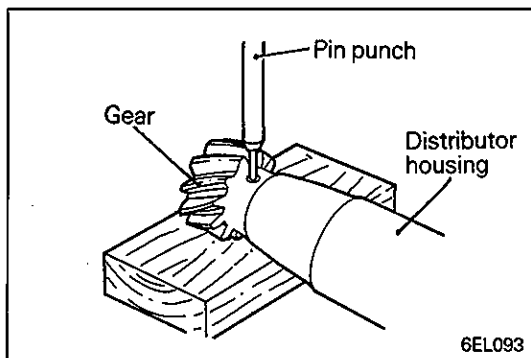
1. Breather
2. Distributor cap
3. Packing
4. Contact carbon
5. Rotor
6. Condenser
7. Vacuum control
8. Lead wire
9. Contact point
10. Lead wire
11. Terminal
12. Breaker plate
13. Rotor shaft
14. Spring retainer
15. Governor spring
16. Governor weight
17. Lock pin
18. Gear
19. Washer
20. O-ring
21. Distributor shaft
22. Washer
23. Oil seal
24. Distributor housing

DISASSEMBLY AND REASSEMBLY – DENSO TYPE



Disassembly steps

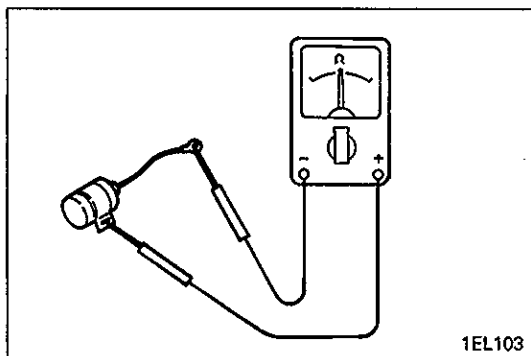
1. Distributor cap
2. Packing
3. Contact carbon
4. Rotor
5. Condenser
6. Vacuum control
7. Contact point
8. Terminal
9. Breaker plate
10. Governor spring
12. Governor weight
13. Lock pin
14. Gear
15. Washer
16. O-ring (only one piece on 4G32 engines for L200 for Europe)
17. Distributor shaft
18. Distributor housing



SERVICE POINTS OF REMOVAL

◀A▶ REMOVAL OF GEAR

- (1) Make an alignment mark on the distributor shaft and gear.
- (2) Place the gear on a wood block so that the lock pin can be removed.
- (3) Using a pin punch, remove the lock pin.



INSPECTION

CONDENSER

- (1) Check the condenser capacitance with a condenser tester.

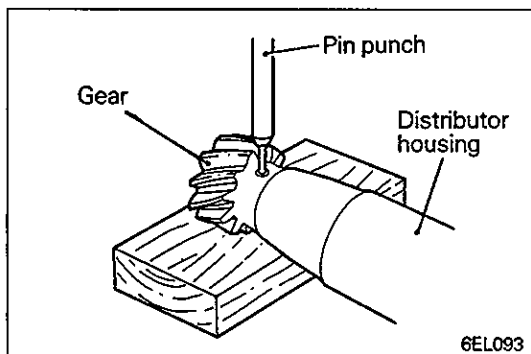
Standard value:

0.27 μ F MITSUBISHI TYPE

0.25 μ F DENSO TYPE

Caution

- Incorrect tester polarity will damage the condenser.



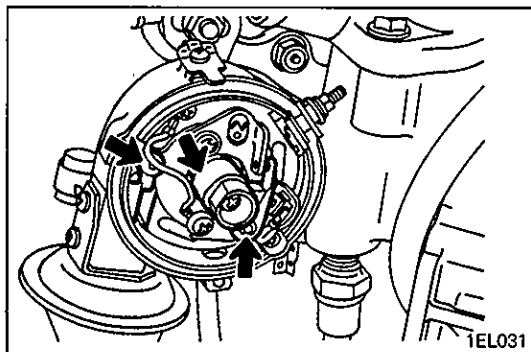
SERVICE POINTS OF INSTALLATION

▶A▶ INSTALLATION OF GEAR

- (1) Install the gear onto the distributor shaft, ensuring that the alignment marks line up.
- (2) Drive a new lock pin into position.

NOTE

When installing the lock pin, make sure that its slit is at right angles to the shaft.



LUBRICATING POINTS

- (1) Apply a small amount of grease to the cam surfaces and breaker arm spindle.
- (2) Apply a small amount of engine oil to the pin of vacuum control rod.

NOTE

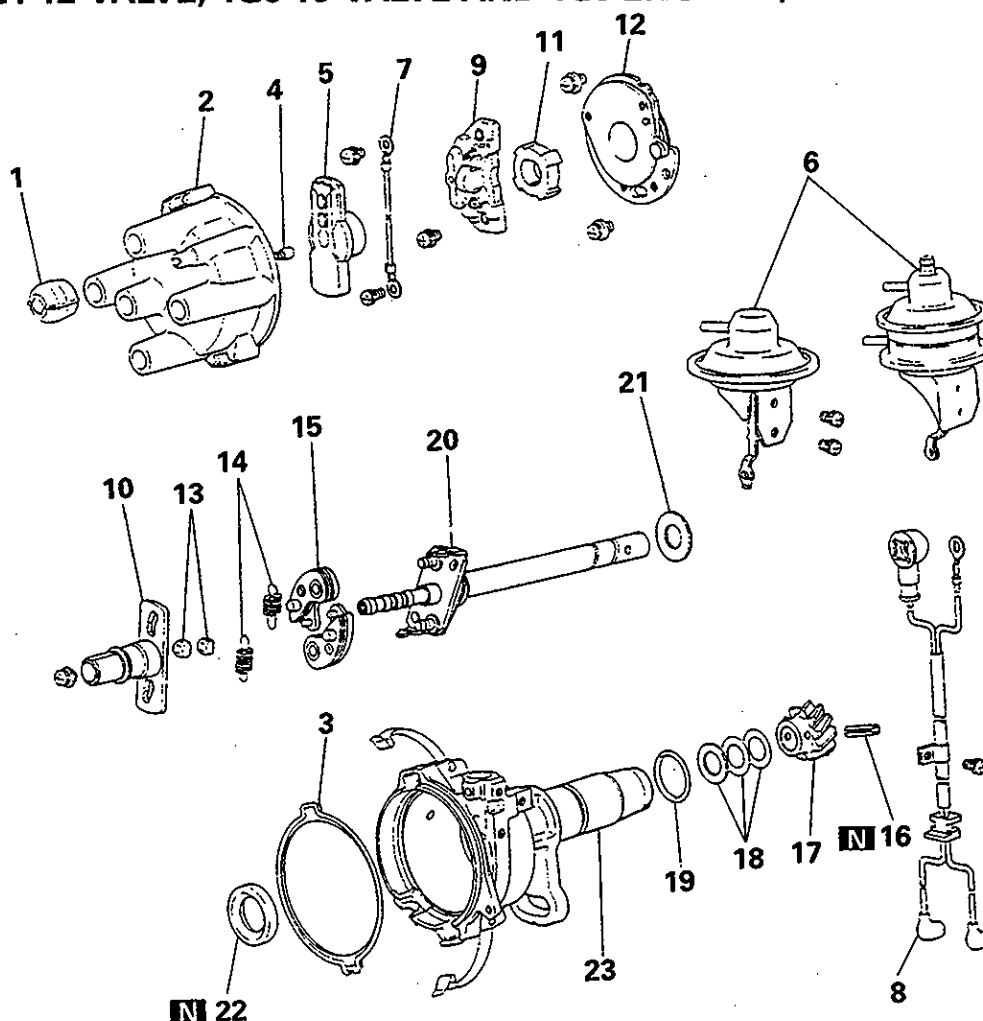
Excess grease or oil can be thrown around the inside of the housing and onto the points, which will result in trouble.

NOTES

4. CEI TYPE DISTRIBUTOR (MITSUBISHI TYPE)

DISASSEMBLY AND REASSEMBLY

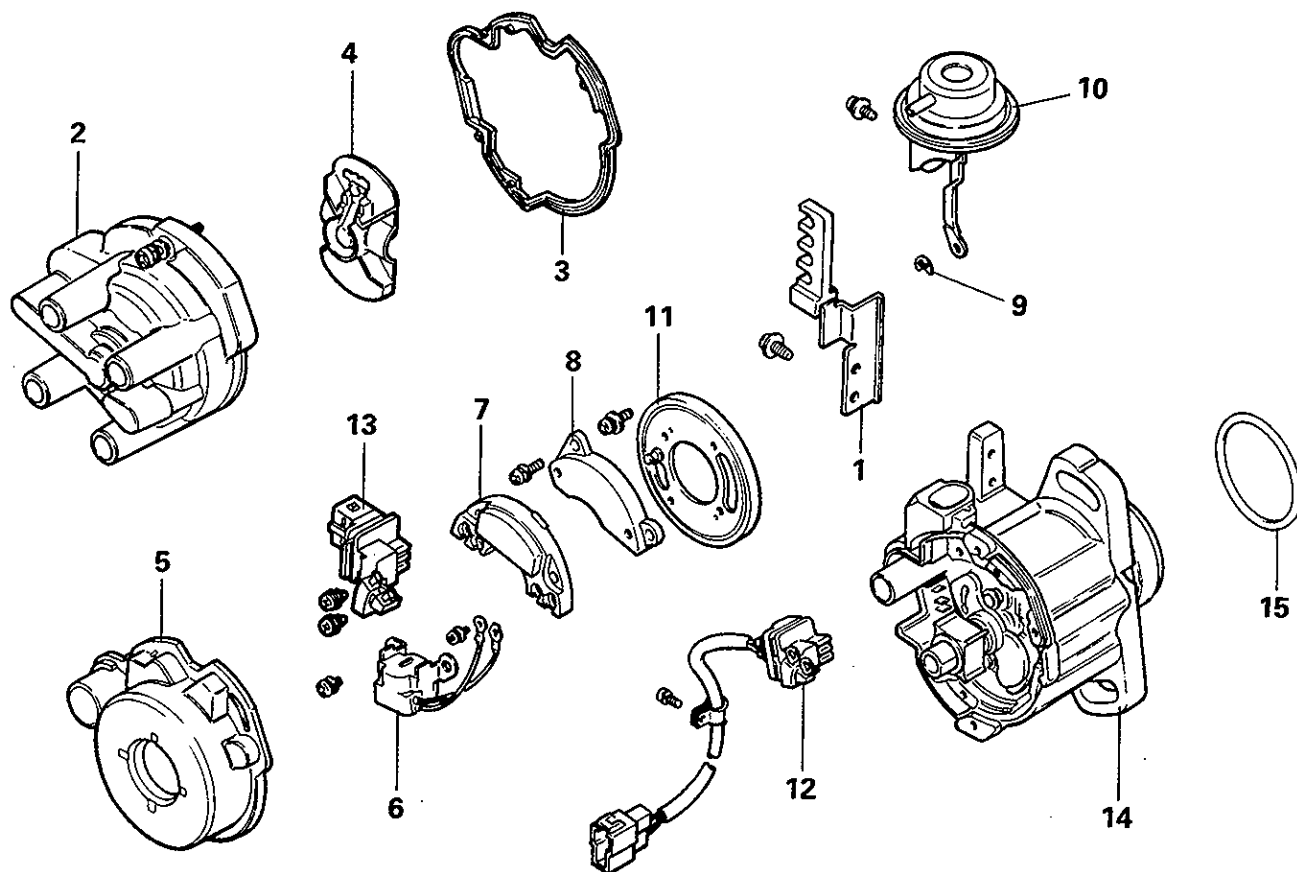
(EXCEPT 4G1 12-VALVE, 4G6 16-VALVE AND 4G9 ENGINES)



Disassembly steps

1. Breather
2. Distributor cap
3. Packing
4. Contact carbon
5. Rotor
6. Vacuum control
7. Grounding wire
8. Lead wire
9. Igniter
10. Rotor shaft
11. Signal rotor
12. Breaker plate
13. Spring retainer
14. Governor spring
15. Governor weight
16. Lock pin
17. Gear
18. Washer
19. O-ring
20. Distributor shaft
21. Washer
22. Oil seal
23. Distributor housing

DISASSEMBLY AND REASSEMBLY (FOR 4G1 12-VALVE ENGINE, 4G6 16-VALVE AND 4G9 ENGINE FOR FRONT WHEEL DRIVE VEHICLES)



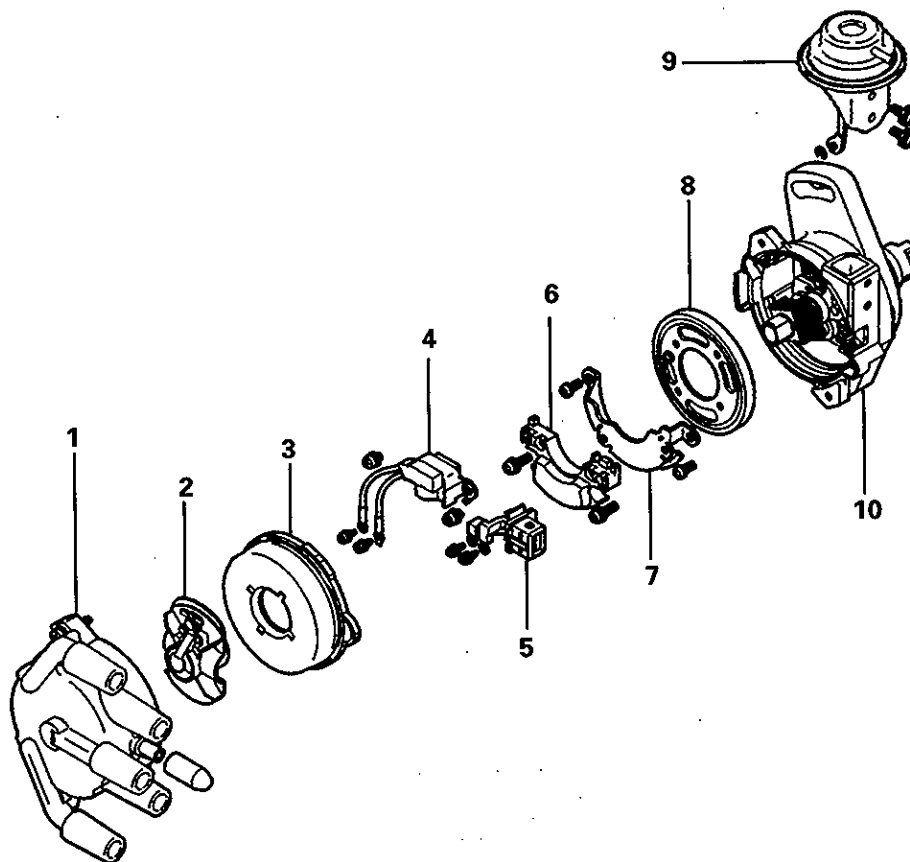
Disassembly steps

- | | |
|--|---|
| 1. Cable clamp (For 4G1-12 valve engine) | 9. Snap ring |
| 2. Cap | 10. Vacuum control |
| 3. Packing | 11. Breaker plate |
| 4. Rotor | 12. Harness (For 4G1 12 valve engine) |
| 5. Cover | 13. Connector assembly |
| ◆E◆ 6. Pick up assembly | (For 4G9 engine for front wheel drive vehicles) |
| 7. Igniter | 14. O-ring |
| 8. Heat sink | 15. Housing assembly |

1EN0313

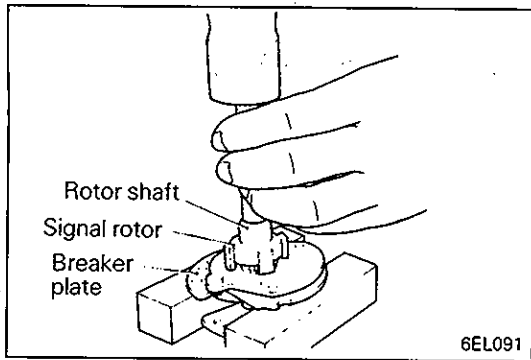
DISASSEMBLY AND REASSEMBLY

(FOR 4G6 16-VALVE AND 4G9 ENGINES FOR REAR WHEEL DRIVE VEHICLES)

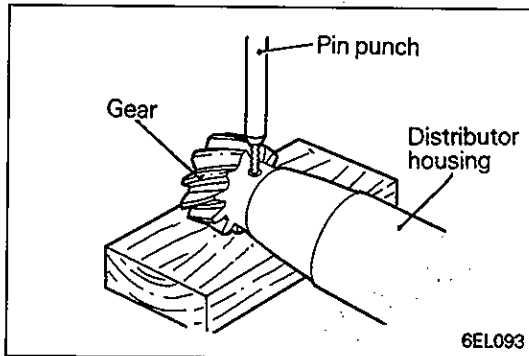


Disassembly steps

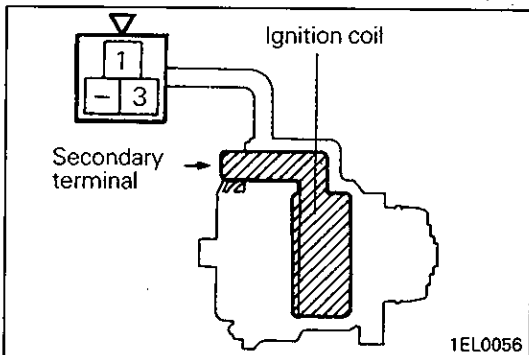
1. Cap
2. Rotor
3. Cover
- ◆E◆ 4. Pickup assembly
5. Connector
6. Igniter
7. Heat sink
8. Breaker plate
9. Vacuum control
10. Housing assembly

**SERVICE POINTS OF DISASSEMBLY****◊A◊ REMOVAL OF SIGNAL ROTOR SHAFT / SIGNAL ROTOR**

- (1) Remove the signal rotor shaft from the signal rotor.

**◊B◊ REMOVAL OF GEAR**

- (1) Put alignment marks on the distributor shaft and gear.
- (2) Place the gear on a soft bed (wood block) so that the lock pin may be removed.
- (3) Drive out the lock pin using a pin punch.

**INSPECTION****IGNITION COIL (for 4G1 12-valve, 4G6 16-valve and 4G9 engines for front wheel drive vehicles)**

- (1) Use a tester to measure the primary and secondary coil resistance.

Primary coil resistance (between terminals ① and ③)

Standard value: 0.9 – 1.2 Ω

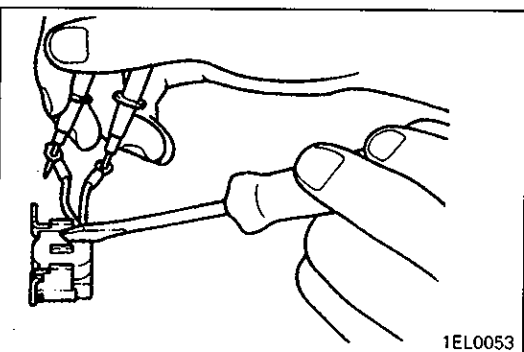
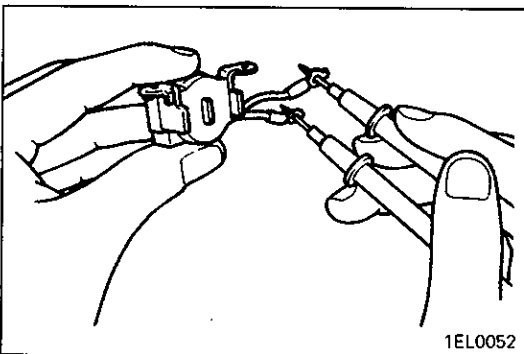
Secondary coil resistance (between terminals ① or ③ and secondary terminal)

Standard value: 20 – 29 k Ω

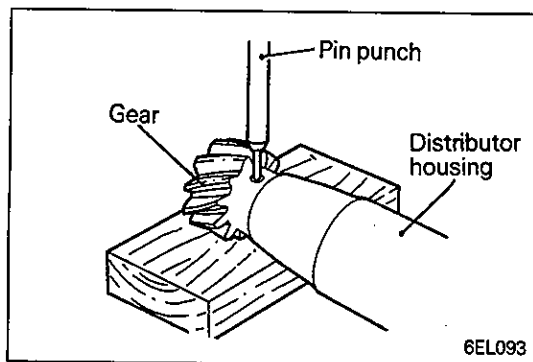
PICKUP ASSEMBLY (for 4G1 12-valve 4G6 16-valve and 4G9 engines)

- (1) Use a tester to measure pickup coil resistance.

Standard value: 420 – 540 k Ω



- (2) Make sure that when a screwdriver is passed near the iron core of the pickup assembly, the needle of the tester deflects.



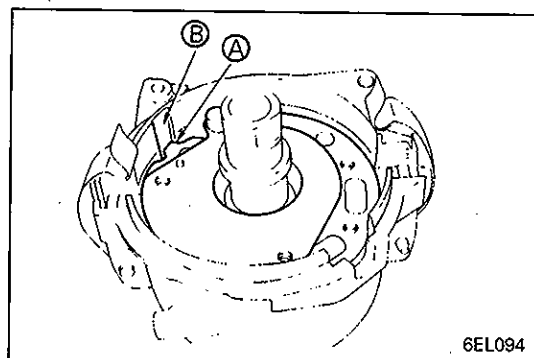
SERVICE POINTS OF REASSEMBLY

◆A◆ INSTALLATION OF GEAR

- (1) Lining up the marks made at the time of disassembly, install the gear onto the distributor shaft. Then, drive in a new lock pin.

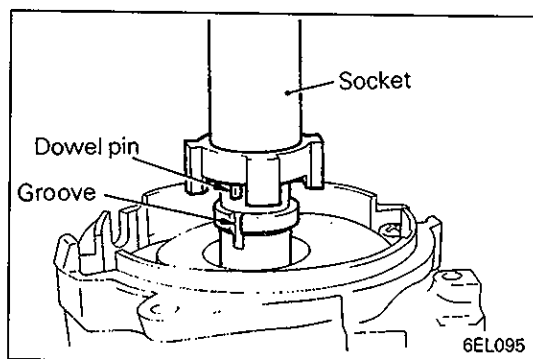
Caution

- Insert the lock pin with its slit at right angles to the shaft.



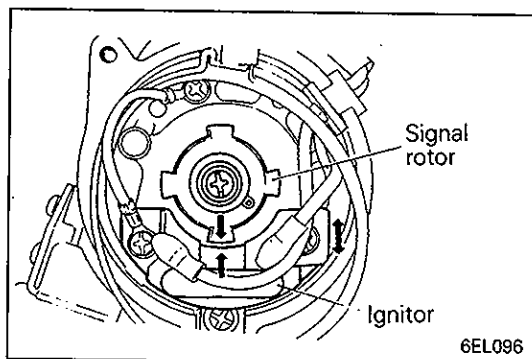
◆B◆ INSTALLATION OF BREAKER PLATE

- (1) Install the breaker plate with its projection (A) seated in groove (B).



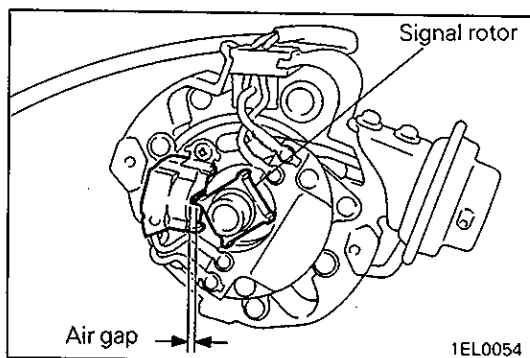
◆C◆ INSTALLATION OF SIGNAL ROTOR

- (1) Install the signal rotor over the rotor shaft, making sure that the rotor dowel pin is seated in the groove.



◆D◆ INSTALLATION OF IGNITER

- (1) Adjust the signal rotor-to-igniter pickup air gap.
Standard value: 0.8 mm (0.031 in.)



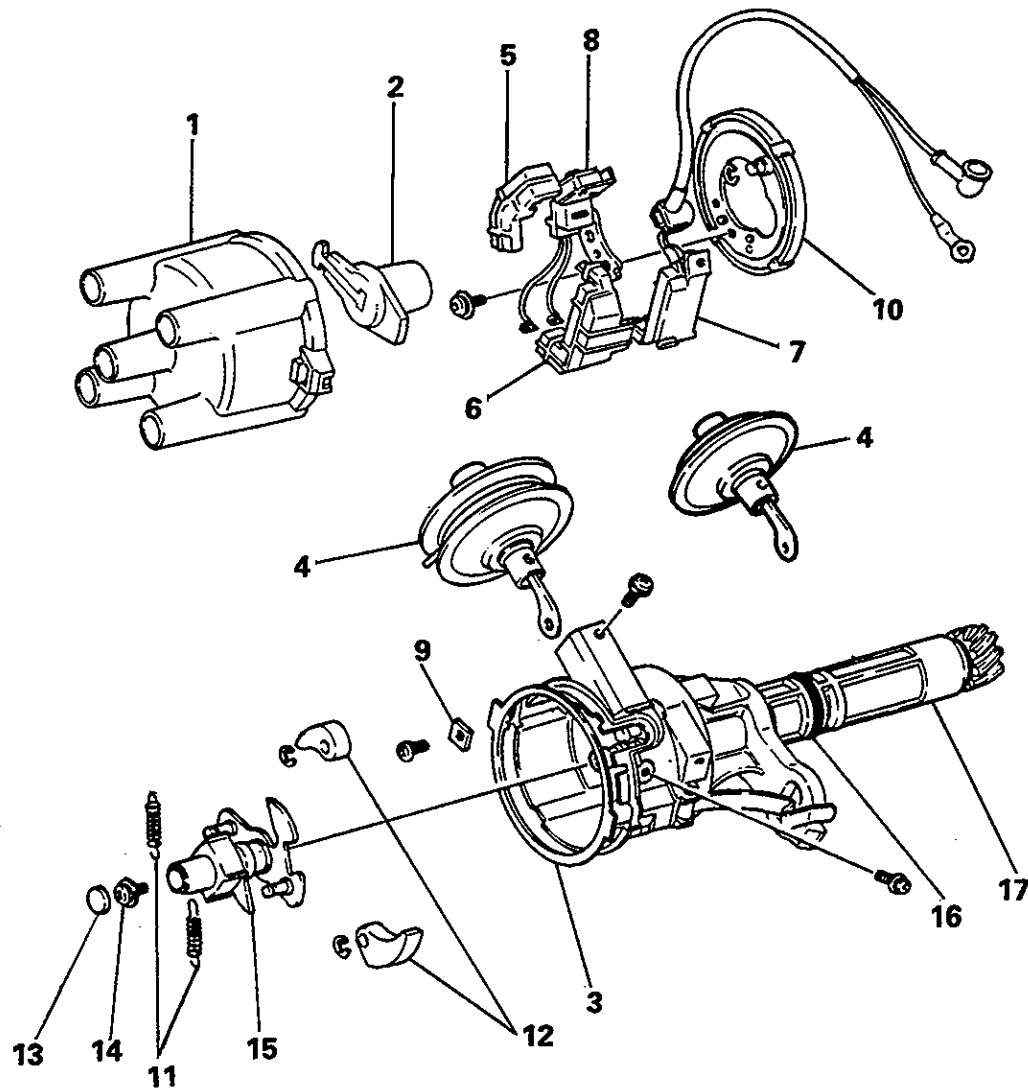
◆E◆ INSTALLATION OF PICKUP ASSEMBLY

- (1) Adjust the gap between the signal rotor and the pickup assembly.
Standard value: 0.4 mm (0.016 in.)

NOTES

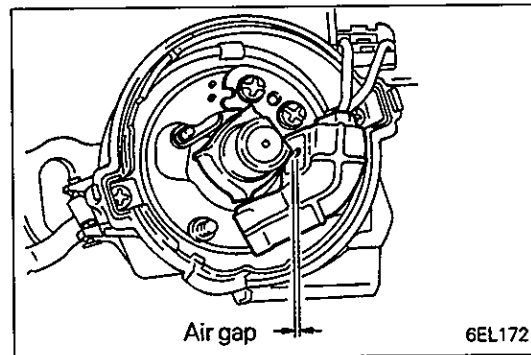
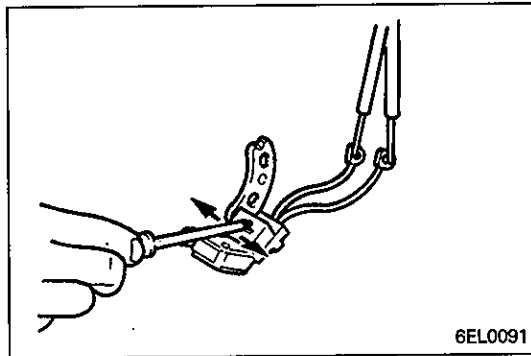
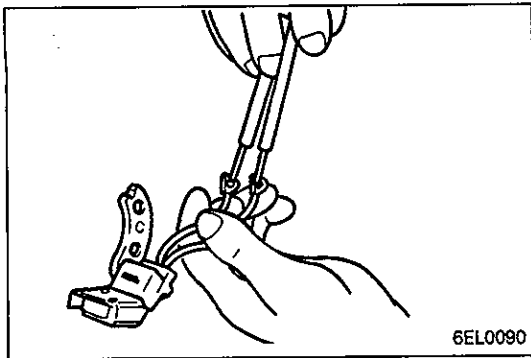
5. CEI TYPE DISTRIBUTOR (DENSO TYPE)

DISASSEMBLY AND REASSEMBLY



Disassembly steps

1. Cap
2. Rotor
3. Packing
4. Vacuum controller
5. Dust proof cover for signal generator
6. Dust proof cover for igniter
7. Igniter
8. Signal generator
9. Washer plate
10. Breaker plate
11. Governor spring
12. Governor weight
13. Cap
14. Screw
15. Signal rotor shaft
16. O-ring
17. Housing



INSPECTION

SIGNAL GENERATOR

- (1) Use a circuit tester to measure the resistance of the signal generator.

Standard value: 140 – 180 Ω

- (2) Make sure that when a screwdriver is passed near the iron core of the signal generator, the needle of the circuit tester deflects.

SERVICE POINTS OF REASSEMBLY

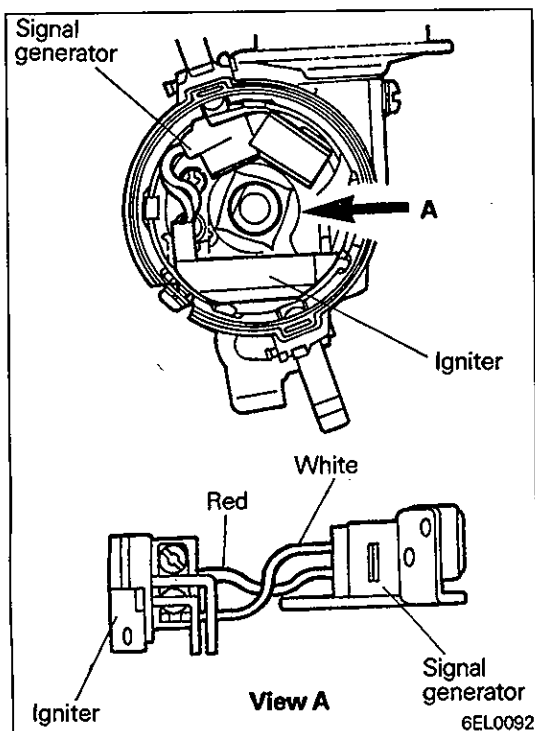
◆A◆ INSTALLATION OF SIGNAL GENERATOR

- (1) Adjust the air gap between signal rotor and signal generator

Standard value: 0.2 mm (0.008 in.) or more

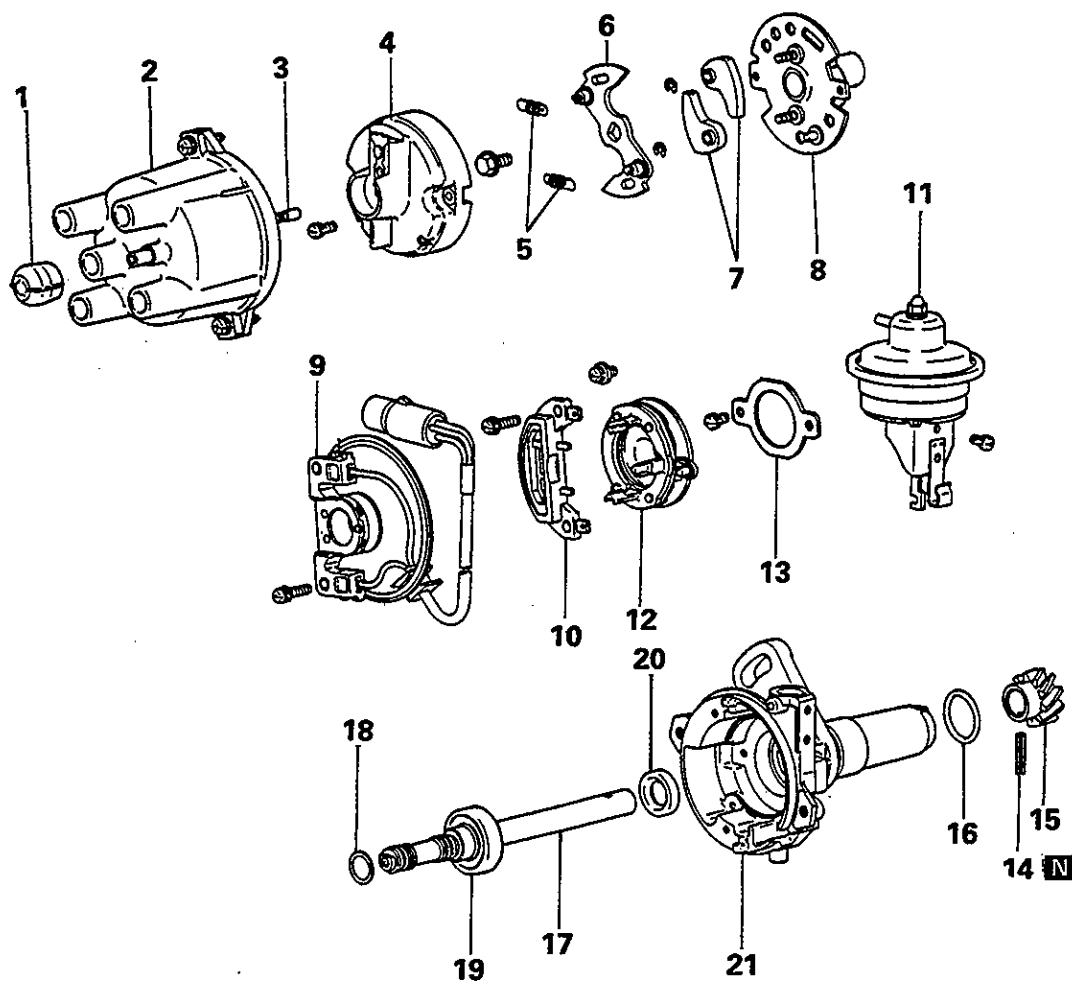
◆B◆ INSTALLATION OF IGNITER

- (1) Install the igniter and signal generator with the white lead wire toward you as viewed from direction of arrow A.



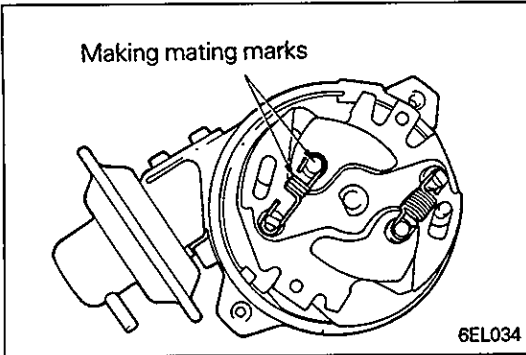
6. HEI TYPE DISTRIBUTOR

DISASSEMBLY AND REASSEMBLY

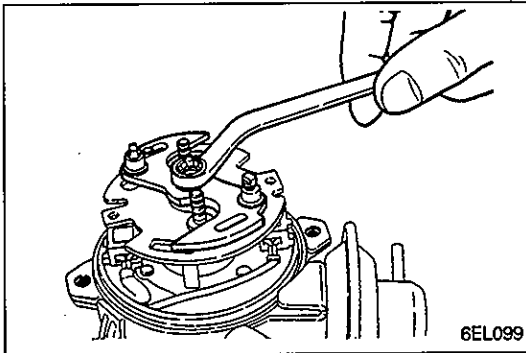


Disassembly steps

1. Breather
2. Distributor cap
3. Contact carbon
4. Rotor
- ◇A◇ 5. Governor spring
- ◇B◇ 6. Governor plate
7. Governor weight
- ◇C◇ 8. Governor base and signal rotor assembly
- ◇C◇ 9. Pickup coil
- ◇C◇ 10. Frame or igniter
11. Vacuum control
- ◇D◇ ◇B◇ 12. Breaker
13. Plate
- ◇E◇ ◇A◇ 14. Spring pin
- ◇E◇ ◇A◇ 15. Gear
16. O-ring
- ◇E◇ ◇A◇ 17. Distributor shaft
18. Washer
19. Bearing
20. Oil seal
21. Distributor housing

**SERVICE POINTS OF DISASSEMBLY****◀A▶ REMOVAL OF GOVERNOR SPRING**

- (1) Make marks on either one of the governor pin and spring combinations for reference at reassembly. Remove both governor springs.

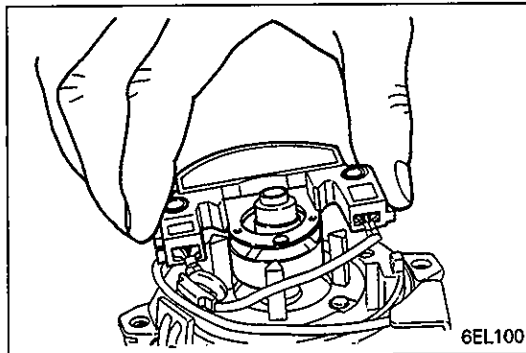
**◀B▶ REMOVAL OF GOVERNOR PLATE**

- (1) Remove retaining bolt, then the governor plate.

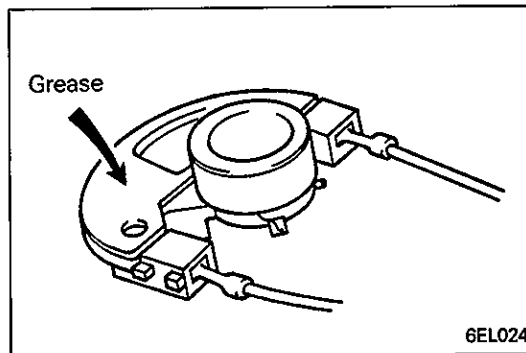
Caution

- Be very careful when loosening the retaining bolt, because it is coated with screw-lock cement.

- (2) Remove governor base and signal rotor assembly.

**◀C▶ REMOVAL OF PICKUP COIL / FRAME OR IGNITER**

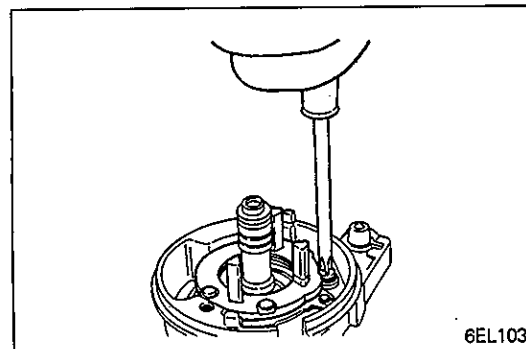
- (1) Remove two retaining screws and remove igniter unit or pickup coil unit.



- (2) When igniter is removed, do not wipe away the grease from the reverse side of the igniter and housing.

Caution

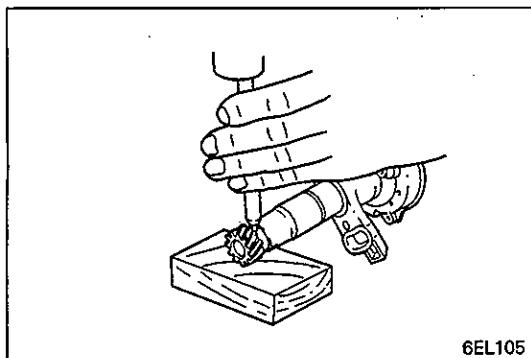
- This grease is required for radiation of igniter.

**◀D▶ REMOVAL OF BREAKER PLATE**

- (1) Remove the two breaker assembly retaining screws and remove the breaker assembly from housing.

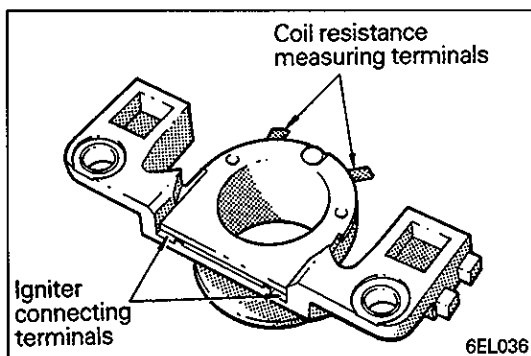
Caution

- When the breaker assembly has been removed, be sure that it is not placed in an area where it might attract iron filings or other iron debris.



REMOVAL OF GEAR / DISTRIBUTOR SHAFT

- (1) Mark the location of gear on distributor shaft.
- (2) Place gear on soft base (wooden block) so that roll pin can be removed.
- (3) Using a pin punch, remove roll pin.
- (4) Remove gear from shaft.
- (5) Remove distributor shaft from housing.



INSPECTION

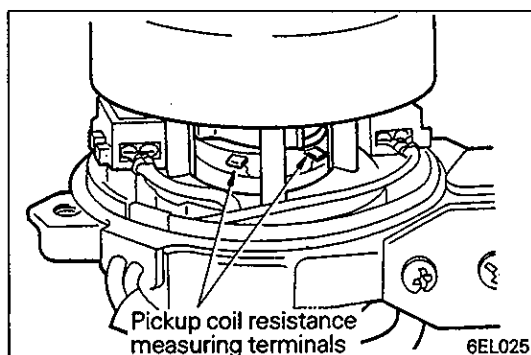
PICKUP COIL

- (1) Using a circuit tester, measure the pick-up coil resistance.

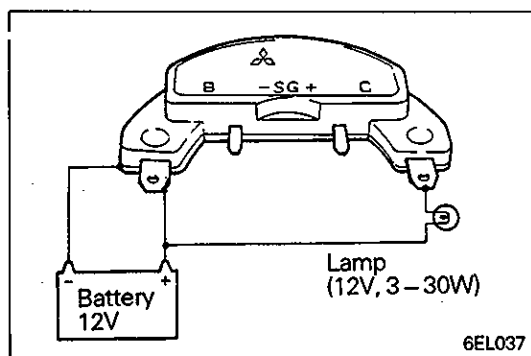
Pickup coil resistance: 1,000 – 1,100 Ω

Caution

- Do not insert tester probe into igniter connecting terminals, as damage to terminals could result.

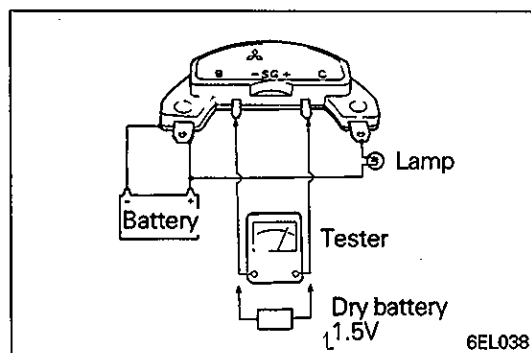


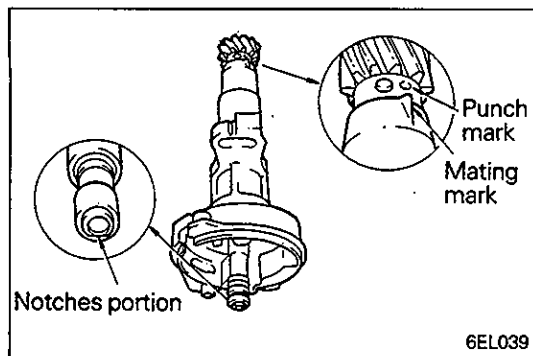
- (2) When the coil resistance is to be measured without disassembling distributor assembly, insert tester probes through the portions shown in the illustration.



IGNITER

- (1) Connect igniter, lamp (12V, 3 to 30 W) and battery (12V) as shown.
- (2) Apply voltage (signal) to signal input and output terminals of igniter, using a dry battery (1.5V) or circuit tester. When a circuit tester is used, select the ohm range. When a dry battery or tester is connected, polarity may be disregarded.
- (3) If the lamp comes on when signal is applied and if it goes out when signal is removed, then the igniter is good. If the lamp does not light when signal is applied or if the lamp lights without a signal, then the igniter is defective. Even if this simple test shows that the igniter is good, you cannot definitely say that the igniter is good in all other respects.

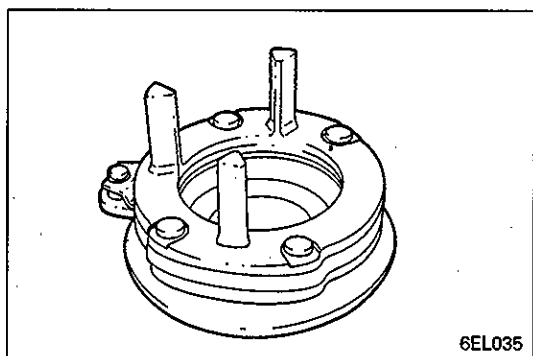




SERVICE POINTS OF REASSEMBLY

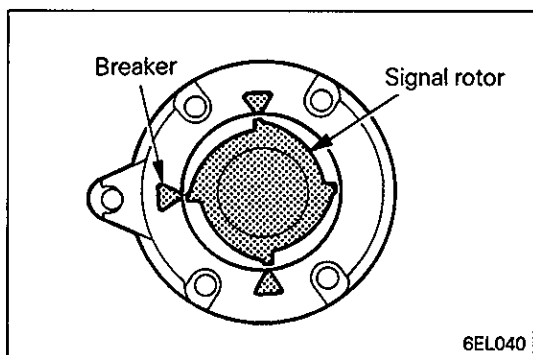
▶A▶ INSTALLATION OF DISTRIBUTOR SHAFT / GEAR

- (1) When the gear is assembled onto the shaft, align the punch mark on the gear with the mating mark on the housing, check to ensure that the notched portion of the shaft end is positioned as shown, and then install the pin to secure the gear to the shaft.



▶B▶ INSTALLATION OF BREAKER

- (1) Before the breaker is installed, check to ensure that there are no iron filings or iron debris on the breaker. Clean them off thoroughly if there are any.

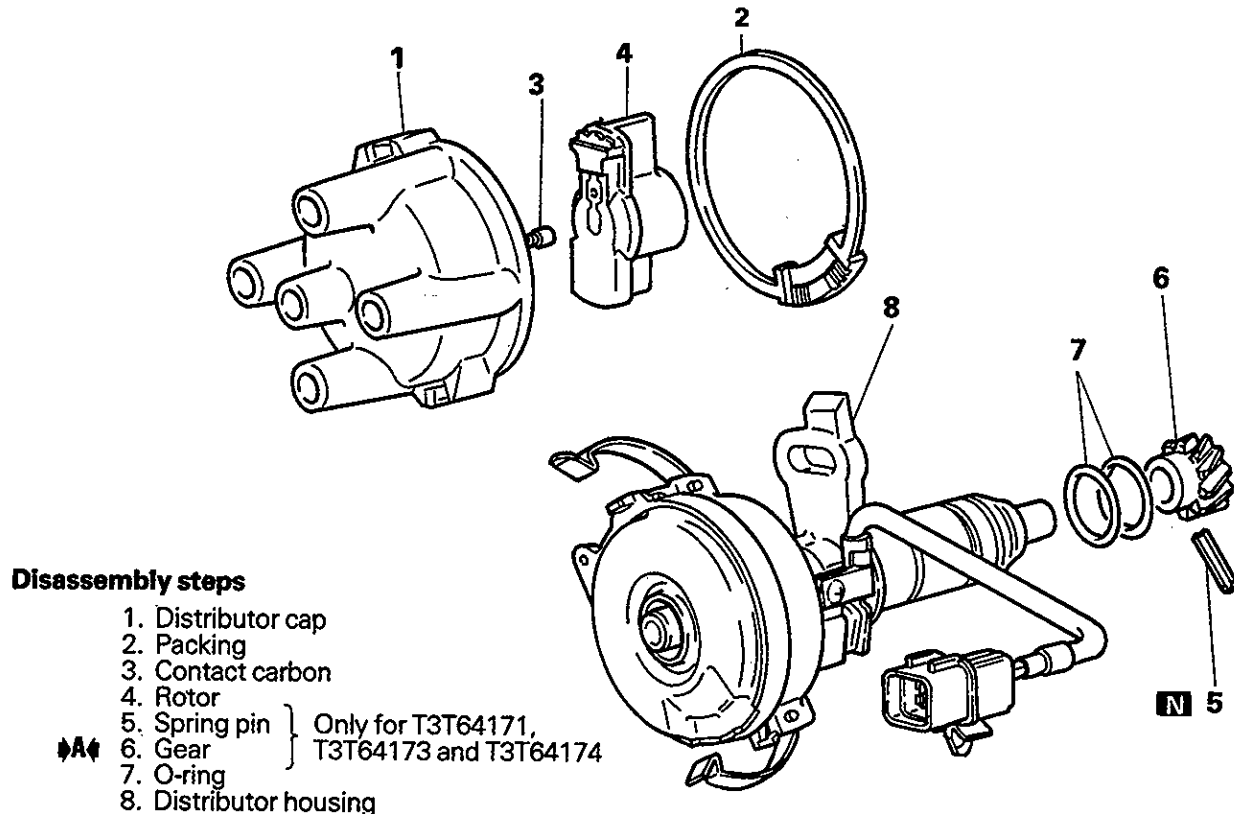


▶C▶ INSPECTION OF SIGNAL ROTOR

- (1) After the governor assembly has been installed, turn the shaft to confirm that projection of signal rotor does not touch the breaker.

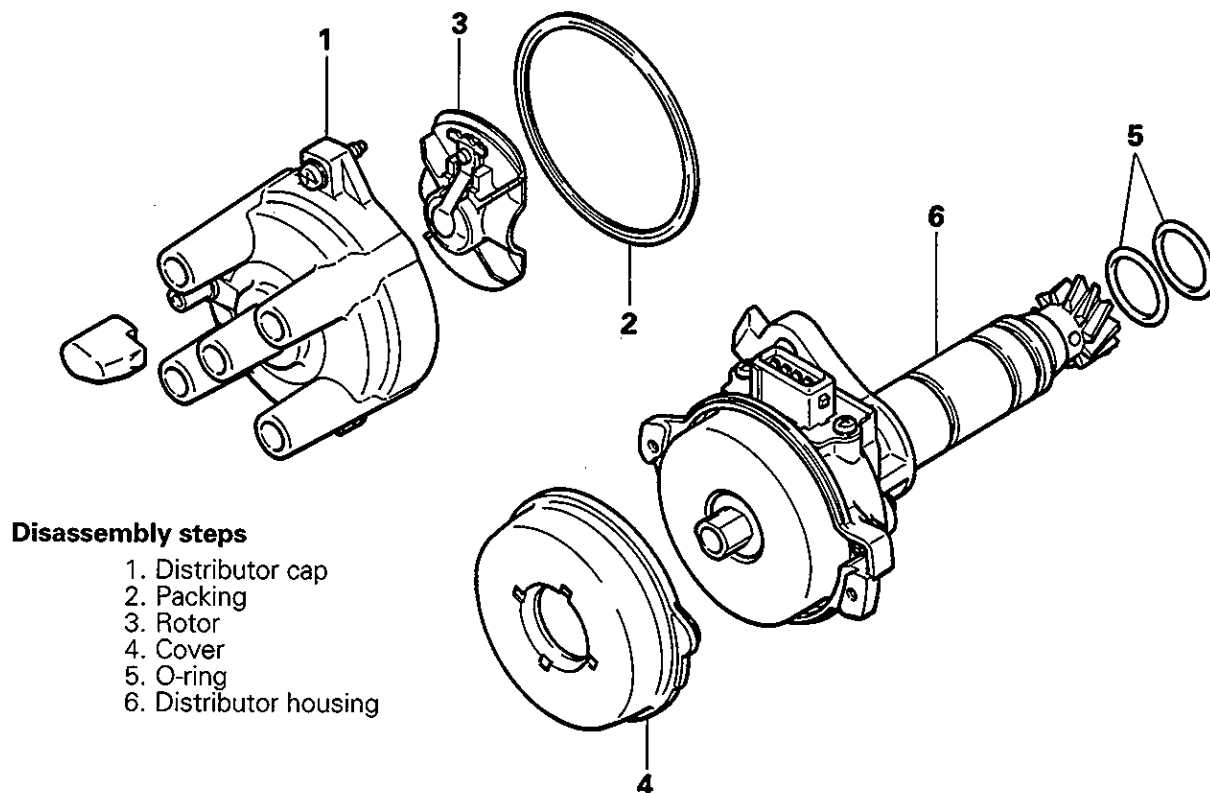
7. ELECTRONIC ADVANCE CONTROL TYPE DISTRIBUTOR

DISASSEMBLY AND REASSEMBLY – 4G15 8 VALVE, 4G63 8-VALVE AND 4G64 8-VALVE ENGINE



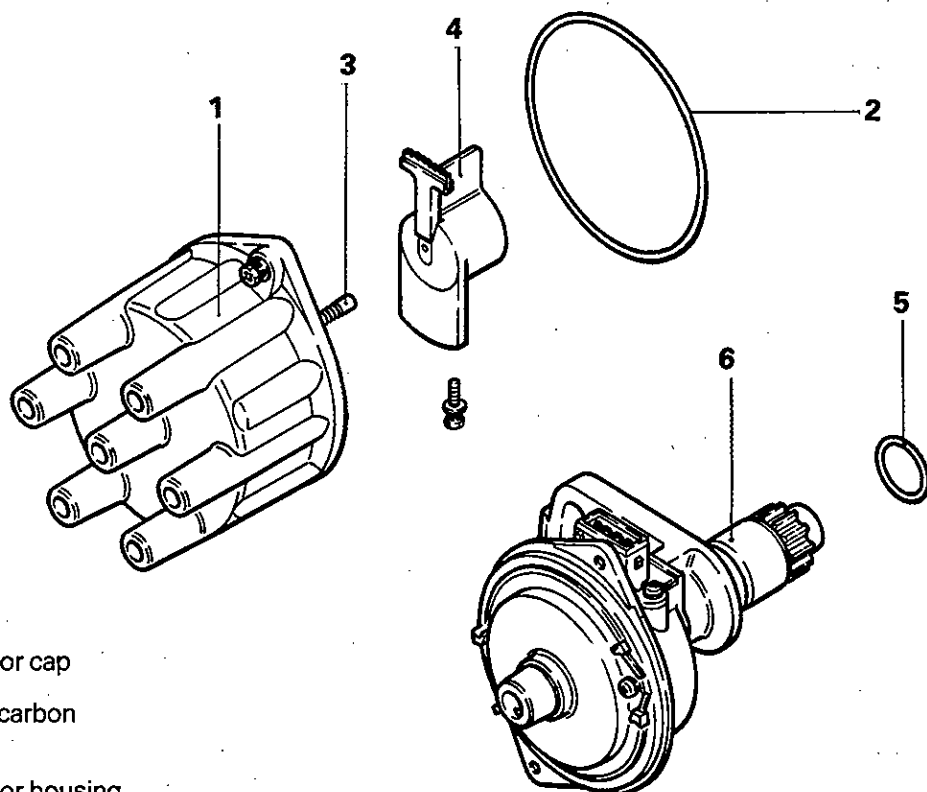
6EL0109

DISASSEMBLY AND REASSEMBLY – 4G37 AND 4G63 8-VALVE ENGINE



3EL0054

DISASSEMBLY AND REASSEMBLY – 6G72 ENGINE



Disassembly steps

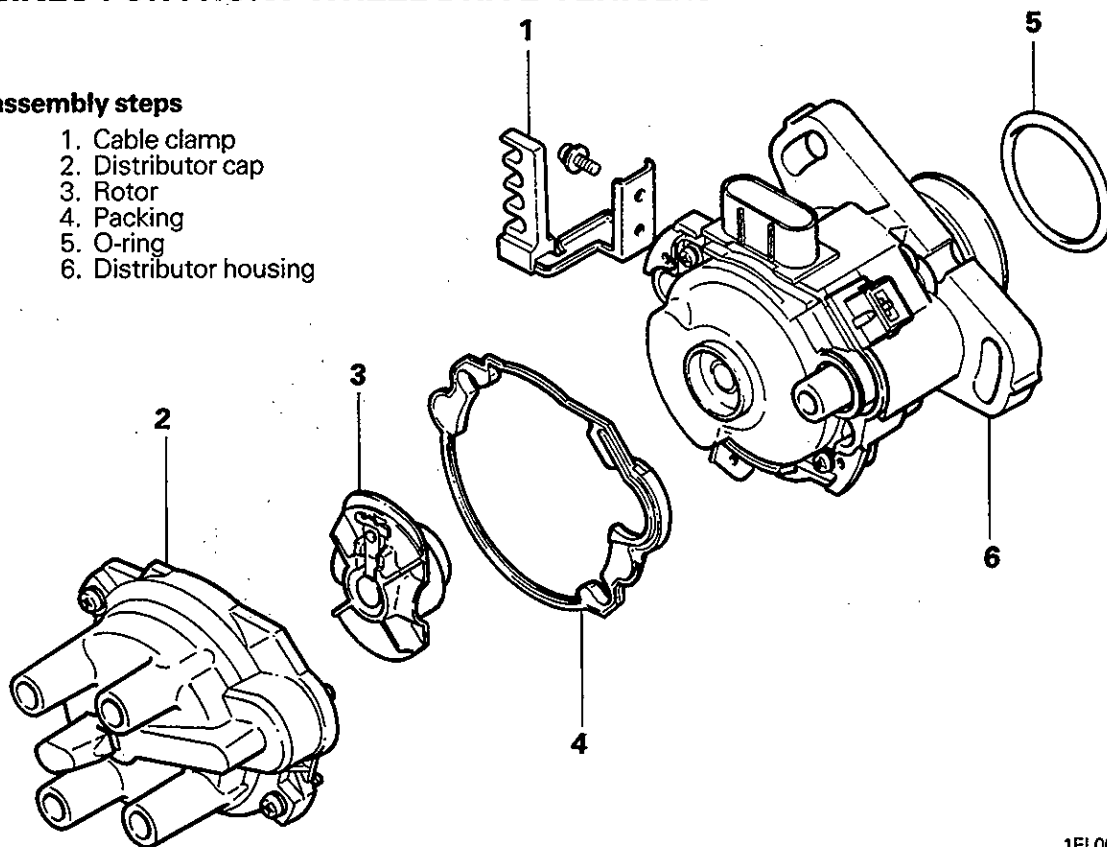
1. Distributor cap
2. Packing
3. Contact carbon
4. Rotor
5. O-ring
6. Distributor housing

7EL0083

DISASSEMBLY AND REASSEMBLY – 4G1 12-VALVE ENGINE AND 4G9 AND 4G6 16-VALVE ENGINES FOR FRONT WHEEL DRIVE VEHICLES

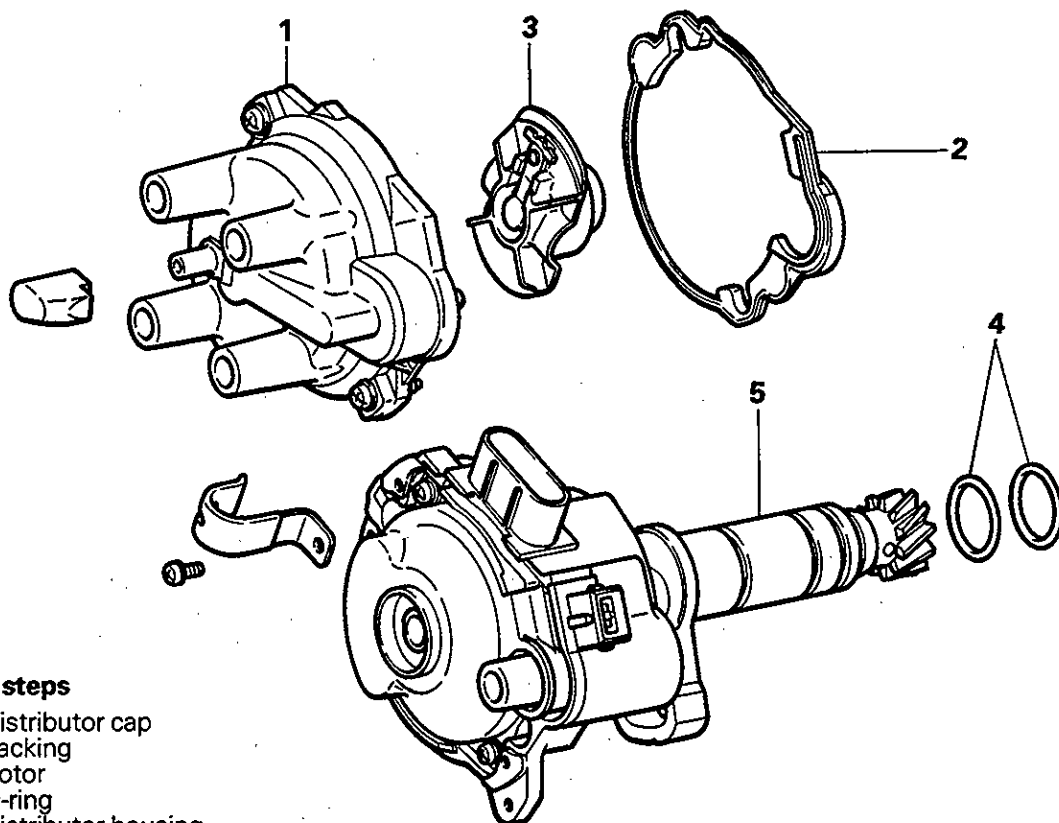
Disassembly steps

1. Cable clamp
2. Distributor cap
3. Rotor
4. Packing
5. O-ring
6. Distributor housing



1EL0055

DISASSEMBLY AND REASSEMBLY – 4G37 (BUILT-IN IGNITION COIL TYPE)

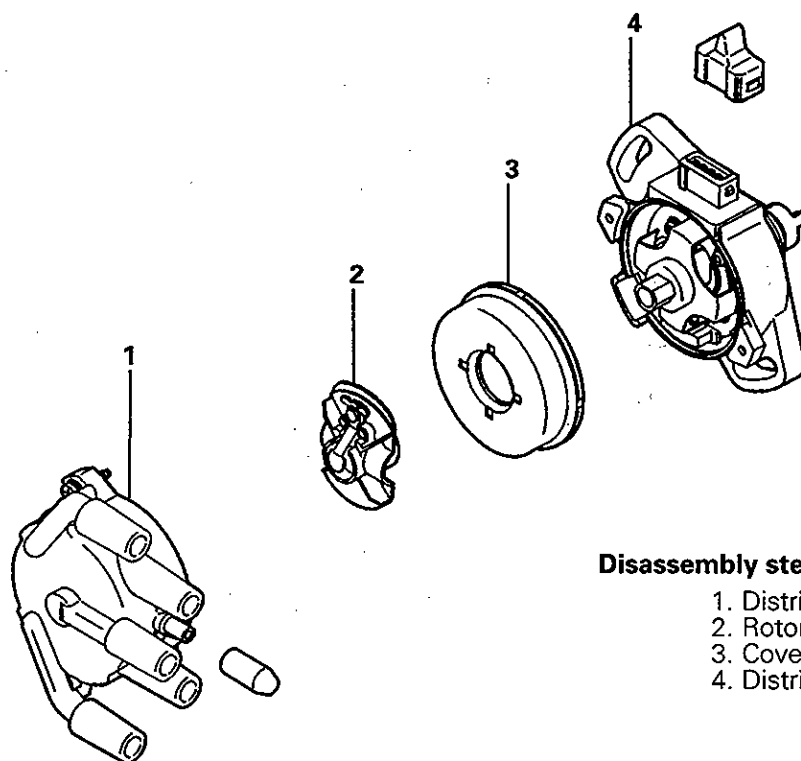


Disassembly steps

1. Distributor cap
2. Packing
3. Rotor
4. O-ring
5. Distributor housing

3EL0055

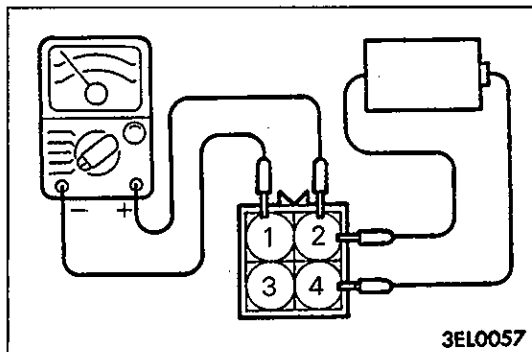
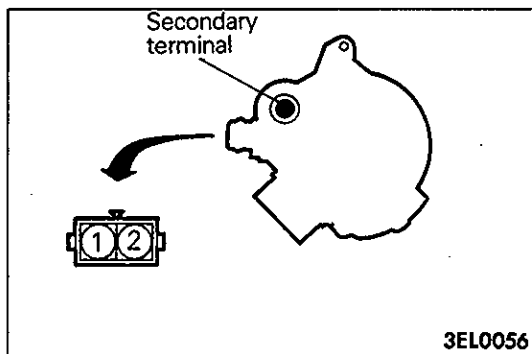
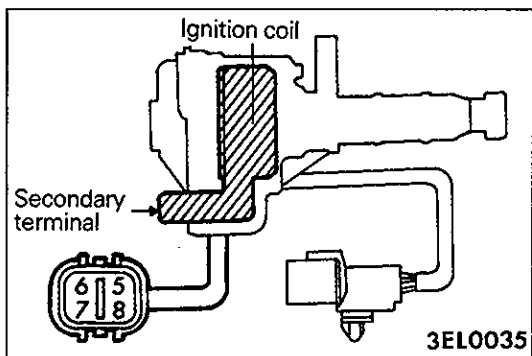
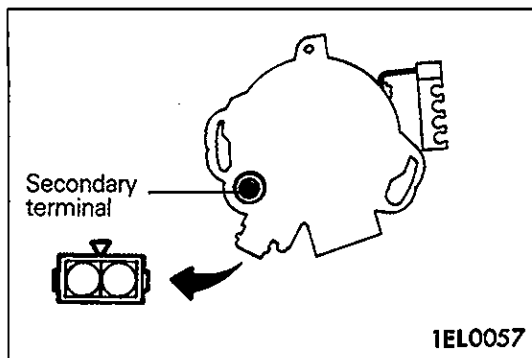
DISASSEMBLY AND REASSEMBLY – 4G6 16-VALVE ENGINE FOR REAR WHEEL DRIVE VEHICLE



Disassembly steps

1. Distributor cap
2. Rotor
3. Cover
4. Distributor housing

6EN1070



INSPECTION

IGNITION COIL – 4G1 12-VALVE, 4G9 AND 4G6 16-VALVE ENGINES FOR FRONT WHEEL DRIVE VEHICLES

- (1) Measurement of primary coil resistance
Measure the resistance of the positive ① terminal and negative ② terminal of the ignition coil.

Standard value: 0.9 – 1.2 Ω

- (2) Measurement of secondary coil resistance
Measure the resistance of the ① terminal and the secondary terminal.

Standard value: 20 – 29 k Ω

IGNITION COIL – 4G37 (1990 MODEL)

- (1) Measurement of primary coil resistance
Measure the resistance of the positive ⑥ terminal and negative ⑦ terminal of the ignition coil.

Standard value: 0.9 – 1.1 Ω

- (2) Measurement of secondary coil resistance
Measure the resistance between the ignition coils positive ⑦ terminal and secondary terminal.

Standard value: 19 – 27 k Ω

IGNITION COIL – 4G37 (1991 MODEL)

- (1) Measurement of primary coil resistance
Measure the resistance of the positive ① terminal and negative ② terminal of the ignition coil.

Standard value: 0.9 – 1.1 Ω

- (2) Measurement of secondary coil resistance
Measure the resistance between the ignition coils positive ① terminal and secondary terminal.

Standard value: 19 – 27 k Ω

POWER TRANSISTOR – 4G37 (1990 MODEL)

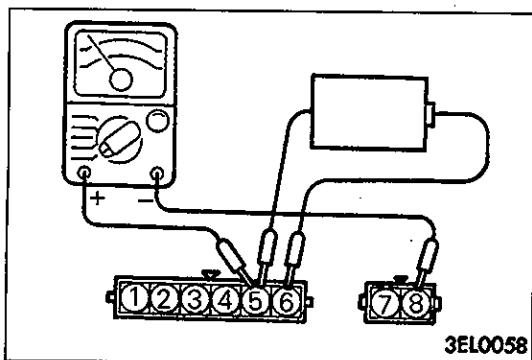
- (1) Connect the negative (–) terminal of a 1.5V power supply to terminal ② of the power transistor; then check whether there is continuity between terminal ① and terminal ② when terminal ④ and the positive (+) terminal are connected and disconnected.

Terminal ④ and (+) terminal	Terminal ① and terminal ②
Connected	Continuity
Unconnected	No continuity

NOTE

Connect the negative (–) probe of the tester to terminal ① of the power transistor.

- (2) Replace the power transistor if there is a malfunction.



POWER TRANSISTOR – 4G1 (12- VALVE), 4G37 (1991 AND SUBSEQUENT YEAR MODELS) AND 4G9

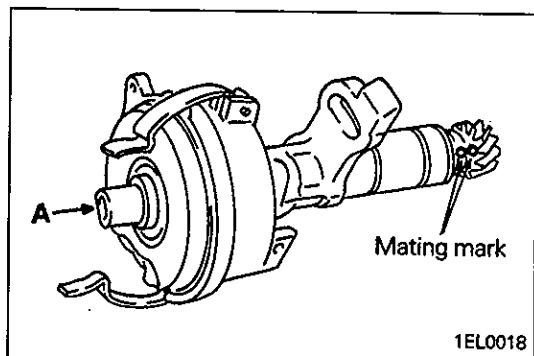
- (1) Connect the negative (–) terminal of a 1.5V power supply to terminal ⑤ of the power transistor; then check whether there is continuity between terminal ⑤ and terminal ⑥ when terminal ⑥ and the positive (+) terminal are connected and disconnected.

Terminal ⑥ and (+) terminal	Terminal ⑤ and terminal ⑥
Connected	Continuity
Unconnected	No continuity

NOTE

Connect the negative (–) probe of the tester to terminal ⑤ of the power transistor.

- (2) Replace the power transistor if there is a malfunction.



SERVICE POINTS OF REASSEMBLY

Take out and clean the disassembled parts. Do not use cleaning solvent or similar products for cleaning.

◆A◆ REASSEMBLY OF GEAR

- (1) When aligning the gear's mating mark and the housing's mating mark, make the combination so that notch (or threaded hole) "A" at the shaft end is at the position shown in the figure, and then align the spring pin hole and drive in a new spring pin.

Caution

- Drive in the spring pin so that the slit is at right angles relative to the shaft.

NOTES