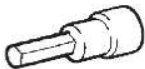


PREPARATION – 1GR-FE ENGINE CONTROL SYSTEM

PP-1

1GR-FE ENGINE CONTROL SYSTEM

RECOMMENDED TOOLS

	09040-00011	Hexagon Wrench Set	
	(09043-20080)	Socket Hexagon Wrench 8	
	(09043-20100)	Socket Hexagon Wrench 10	
	09043-50100	Bi-hexagon Wrench 10 mm	
	09082-00040	TOYOTA Electrical Tester	
	(09083-00150)	Test Lead Set	

PP

PP-2

PREPARATION – 1GR-FE ENGINE CONTROL SYSTEM

EQUIPMENT

Bar	
Ohmmeter	
Torque wrench	
Vernier caliper	
Voltmeter	
Dial indicator	
Wooden block	
Adhesive 1344	
Seal Packing 1282B	
Seal Packing Black	

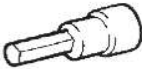
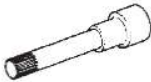
PP

PP-2

PREPARATION – 1GR-FE ENGINE MECHANICAL

1GR-FE ENGINE MECHANICAL

RECOMMENDED TOOLS

	09040-00011	Hexagon Wrench Set	
	(09043-20080)	Socket Hexagon Wrench 8	
	(09043-20100)	Socket Hexagon Wrench 10	
	(09043-20120)	Socket Hexagon Wrench 12	
	(09043-30140)	Straight Hexagon Wrench 14	
	09043-50100	Bi-hexagon Wrench 10 mm	

PP

PREPARATION – 1GR-FE ENGINE MECHANICAL**PP-3****EQUIPMENT**

Abrasive compound	
Brush	
Caliper gauge	
Carbide cutter	
V-block	
Pin hole grinder	
Piston ring compressor	
Piston ring expander	
CO/HC meter	
Compression gauge	
Connecting rod aligner	
Cylinder gauge	
Dial indicator	
Dye penetrant	
Pin punch	
Spring scale	
Feeler gauge	
Micrometer	
Precision straight edge	
Press	
Reamer	
Ridge reamer	
Soft brush	
Solvent	
Radiator cap tester	
Steel square	
Grinder	
Torque wrench	
"Torx" socket wrench	
Plastic hammer	
Valve guide bushing brush	
Vernier caliper	
Wire brush	
Dial indicator with magnetic base	
Deep socket wrench	
Magnetic finger	
Scraper	
Wooden block	
Chain block	
Spring tester	
Plastigage	
Heater	
Timing light	
Bar	
Pin hole grinder	
Seal Packing Black	
Seal Packing 1282B	
Adhesive 1324	

PP

PP-4

PREPARATION – 1GR-FE FUEL

1GR-FE FUEL

RECOMMENDED TOOLS

	09040-00011	Hexagon Wrench Set	
	(09043-20080)	Socket Hexagon Wrench 8	
	09082-00040	TOYOTA Electrical Tester	
	(09083-00150)	Test Lead Set	

PP

EQUIPMENT

Stopwatch	
Measuring flask	
Radiator cap tester	
Torque wrench	
Clip	

PP

1GR-FE EMISSION CONTROL

RECOMMENDED TOOLS

	09082-00040	TOYOTA Electrical Tester	
	(09083-00150)	Test Lead Set	

PP

PP-6

PREPARATION – 1GR-FE EMISSION CONTROL

EQUIPMENT

Ohmmeter	
Torque wrench	
Hand-held vacuum pump	
Adhesive 1344	

PP

PP-6

PREPARATION – 1GR-FE INTAKE

1GR-FE INTAKE

RECOMMENDED TOOLS

	09082-00040	TOYOTA Electrical Tester	
	(09083-00150)	Test Lead Set	

PP

PREPARATION – 1GR-FE INTAKE

PP-7

EQUIPMENT

Service Wire Harness	
Ohmmeter	
Hand-held Vacuum Pump	
3-way Connector	
Vacuum Gauge	

PP

1GR-FE EXHAUST

EQUIPMENT

Torque wrench	
Vernier calipers	
Wooden block	
plastic-faced Hammer	

PP

PP-8

PREPARATION – 1GR-FE COOLING

1GR-FE COOLING
EQUIPMENT

Torque wrench	
Radiator cap tester	
Thermometer	
Heater	
Vernier calipers	

PP

PREPARATION – 1GR-FE COOLING

PP-9

COOLANT

Item		Capacity	Classification
Engine coolant	Manual transmission	9.4 liters (9.9 US qts, 8.3 Imp. qts)	"TOYOTA SUPER LONG LIFE Antifreeze Coolant" or equivalent
	Automatic transmission	9.8 liters (10.4 US qts, 8.6 Imp. qts)	

PP

1GR-FE LUBRICATION

RECOMMENDED TOOLS

	09040-00011	Hexagon Wrench Set	
	(09043-20080)	Socket Hexagon Wrench 8	

PP

PP-10

PREPARATION – 1GR-FE LUBRICATION

EQUIPMENT

Feeler gauge	
Precision straight edge	
Torque wrench	
Vernier caliper	
Dial indicator with magnetic base	
Wooden block	
Seal Packing Black	
Seal Packing 1282B	
Adhesive 1344	

PP

PREPARATION – 1GR-FE LUBRICATION**PP-11****LUBRICANT**

Item	Capacity	Classification
Oil grade	-	ILSAC multigrade engine oil, SAE 5W-30
with Oil filter change	5.2 liter (5.5 US qts, 4.6 Imp. qts)	-
without Oil filter change	4.9 liter (5.2 US qts, 4.3 Imp. qts)	-
Dry fill	6.0 liter (6.3 US qts, 5.3 Imp. qts)	-

PP

PP-10

PREPARATION – 1GR-FE IGNITION

1GR-FE IGNITION

RECOMMENDED TOOLS

	09082-00040	TOYOTA Electrical Tester	
	(09083-00150)	Test Lead Set	
	09200-00010	Engine Adjust Kit	
	(09857-00031)	Spark Plug Gap Gauge	

PP

EQUIPMENT

Ohmmeter	
Torque wrench	
Spark plug cleaner	



1GR-FE STARTING

RECOMMENDED TOOLS

	09082-00040	TOYOTA Electrical Tester	
	(09083-00150)	Test Lead Set	

PP

PP-12

PREPARATION – 1GR-FE STARTING

EQUIPMENT

Service wire harness	
V-block	
Ammeter	
Dial indicator with magnetic base	
Ohmmeter	
Torque wrench	
Vernier calipers	
Magnetic finger	

PP

PP-12

PREPARATION – 1GR-FE CHARGING

1GR-FE CHARGING

RECOMMENDED TOOLS

	09082-00040	TOYOTA Electrical Tester	
	(09083-00150)	Test Lead Set	

PP

EQUIPMENT

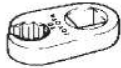
Service wire harness	
Ammeter	
Ohmmeter	
Torque wrench	
Vernier calipers	



PREPARATION – A750E AUTOMATIC TRANSMISSION

PP-13

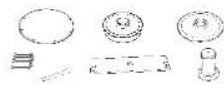
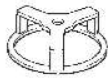
A750E AUTOMATIC TRANSMISSION**SST**

	09023-12701	Union Nut Wrench 17mm	
	09223-15020	Oil Seal & Bearing Replacer	
	09308-00010	Oil Seal Puller	
	09320-89010	Transfer Clutch Spring Compressor	
	09325-40010	Transmission Oil Plug	
	09350-30020	TOYOTA Automatic Transmission Tool Set	
	(09350-07020)	Oil Pump Puller	
	(09350-07040)	No.2 Piston Spring Compressor	
	(09350-07050)	No.3 Piston Spring Compressor	
	(09350-07060)	No.1 Snap Ring Expander	
	(09350-07070)	No.2 Snap Ring Expander	

PP

PP-14

PREPARATION – A750E AUTOMATIC TRANSMISSION

	(09350-07080)	Brake Reaction Sleeve Puller	
	(09350-07090)	Brake No.1 Piston Puller	
	(09350-07110)	Oil Seal Replacer	
	(09351-32140)	Oil Seal Replacer	
	09350-32014	TOYOTA Automatic Transmission Tool Set	
	(09351-32020)	Stator Stopper	
	09351-40010	Tool Set, TOYOTA Automatic Transmission	
	09387-00070	First & Reverse Brake Wrench	
	09710-30050	Suspension Arm Bushing Replacer	
	09843-18040	Diagnosis Check Wire No.2	
	09950-70010	Handle Set	
	(09951-07100)	Handle 100	

PREPARATION – A750E AUTOMATIC TRANSMISSION

PP-15

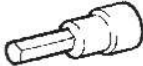
PP

	09992-00095	Automatic Transmission Oil Pressure Gauge Set	
	(09992-00231)	Adaptor C	
	(09992-00271)	Gauge Assy	

PP-16

PREPARATION – A750E AUTOMATIC TRANSMISSION

RECOMMENDED TOOLS

	09040-00011	Hexagon Wrench Set	
	(09043-20060)	Socket Hexagon Wrench 6	
	(09043-20100)	Socket Hexagon Wrench 10	
	09082-00040	TOYOTA Electrical Tester	
	(09083-00150)	Test Lead Set	

PP

EQUIPMENT

Feeler gauge	
Cylinder gauge	
Vernier calipers	
Dial indicator	
Micrometer	
Straight edge	
Torque wrench	
Angle gauge	
V-block	
Dial indicator or dial indicator with magnetic base	

PP

PP-18

PREPARATION – A750E AUTOMATIC TRANSMISSION

LUBRICANT

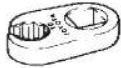
Item	Capacity	Classification
Automatic transmission fluid: (Dry fill)	10.4 liter (11 US qts, 9.2 Imp. qts)	ATF WS
Automatic transmission fluid: (Drain and refill)	3.0 liter (3.2 US qts, 2.6 Imp. qts)	ATF WS

PP

PREPARATION – A750F AUTOMATIC TRANSMISSION

PP-17

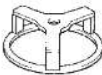
A750F AUTOMATIC TRANSMISSION**SST**

	09023-12701	Union Nut Wrench 17mm	
	09226-10010	Crankshaft Front & Rear Bearing Replacer	
	09320-89010	Transfer Clutch Spring Compressor	
	09350-30020	TOYOTA Automatic Transmission Tool Set	
	(09350-07020)	Oil Pump Puller	
	(09350-07040)	No.2 Piston Spring Compressor	
	(09350-07050)	No.3 Piston Spring Compressor	
	(09350-07060)	No.1 Snap Ring Expander	
	(09350-07070)	No.2 Snap Ring Expander	
	(09350-07080)	Brake Reaction Sleeve Puller	
	(09350-07090)	Brake No.1 Piston Puller	

PP

PP-18

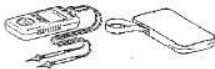
PREPARATION – A750F AUTOMATIC TRANSMISSION

	(09350-07110)	Oil Seal Replacer	
	(09351-32140)	Oil Seal Replacer	
	09350-32014	TOYOTA Automatic Transmission Tool Set	
	(09351-32020)	Stator Stopper	
	09351-40010	Tool Set, TOYOTA Automatic Transmission	
	09387-00070	First & Reverse Brake Wrench	
	09843-18040	Diagnosis Check Wire No.2	
	09992-00095	Automatic Transmission Oil Pressure Gauge Set	
	(09992-00231)	Adaptor C	
	(09992-00271)	Gauge Assy	

PREPARATION – A750F AUTOMATIC TRANSMISSION

PP-19

RECOMMENDED TOOLS

	09040-00011	Hexagon Wrench Set	
	(09043-20060)	Socket Hexagon Wrench 6	
	(09043-20100)	Socket Hexagon Wrench 10	
	09082-00040	TOYOTA Electrical Tester	
	(09083-00150)	Test Lead Set	

PP

PP-20

PREPARATION – A750F AUTOMATIC TRANSMISSION

EQUIPMENT

Feeler gauge	
Cylinder gauge	
Vernier calipers	
Dial indicator	
Micrometer	
Straight edge	
Torque wrench	
Angle gauge	
V-block	
Dial indicator or dial indicator with magnetic base	

PP

LUBRICANT

Item	Capacity	Classification
Automatic transmission fluid: (Dry fill)	10.4 litter (11 US qts, 9.2 Imp. qts)	ATF WS
Automatic transmission fluid: (Drain and refill)	3.0 litter (3.2 US qts, 2.6 Imp. qts)	ATF WS

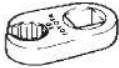
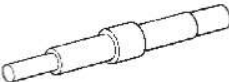


PP-20

PREPARATION – CLUTCH

CLUTCH

SST

	09023-00101	Union Nut Wrench 10 mm	
	09301-00220	Clutch Guide Tool	
	09333-00013	Universal Joint Bearing Remover & Replacer	

PP

RECOMMENDED TOOLS

	09082-00040	TOYOTA Electrical Tester	
	(09083-00150)	Test Lead Set	

PP

PP-22

PREPARATION – CLUTCH

EQUIPMENT

Vernier calipers	
Dial indicator with magnetic base	
Torque wrench	

PP

PREPARATION – CLUTCH

PP-23

LUBRICANT

Item	Capacity	Classification
Brake fluid	-	SAE J1703 or FMVSS NO. 116 DOT 3

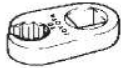
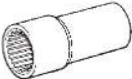
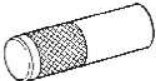
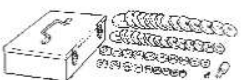
PP

PREPARATION – RA61F MANUAL TRANSMISSION

PP-21

RA61F MANUAL TRANSMISSION

SST

	09023-00101	Union Nut Wrench 10 mm	
	09308-00010	Oil Seal Puller	
	09308-14010	Replacer Pipe A	
	09309-37010	Transmission Bearing Replacer	
	09316-60011	Transmission & Transfer Bearing Replacer	
	(09316-00011)	Replacer Pipe	
	09556-16030	Differential Drive Pinion Holding Tool 28	
	09608-06041	Front Hub Inner Bearing Cone Replacer	
	09817-16011	Back-up Light Switch Tool	
	09950-00020	Bearing Remover	
	09950-60010	Replacer Set	

PP

PP-22

PREPARATION – RA61F MANUAL TRANSMISSION

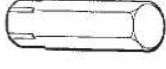
PP

	(09951-00300)	Replacer 30	
	(09951-00320)	Replacer 32	
	(09951-00470)	Replacer 47	
	(09951-00510)	Replacer 51	
	(09951-00540)	Replacer 54	
	(09951-00650)	Replacer 65	
	09950-60020	Replacer Set No.2	
	(09951-00790)	Replacer 79	
	09950-70010	Handle Set	
	(09951-07100)	Handle 100	
	(09951-07200)	Handle 200	
	(09951-07360)	Handle 360	

PREPARATION – RA61F MANUAL TRANSMISSION

PP-23

RECOMMENDED TOOLS

	09031-00040	Pin Punch .	
	09040-00011	Hexagon Wrench Set	
	(09043-20100)	Socket Hexagon Wrench 10	
	(09043-30240)	Straight Hexagon Wrench 24	
	09905-00012	Snap Ring No.1 Expander	
	09905-00013	Snap Ring Pliers	

PP

PP-24

PREPARATION – RA61F MANUAL TRANSMISSION

EQUIPMENT

Cylinder gauge	
Dial indicator	
Feller gauge	
Micrometer	
Torque wrench	
Vernier calipers	
Press	
V-block	

PP

LUBRICANT

Item	Capacity	Classification
Manual transmission oil	1.8 liters (1.9 US qts, 1.6 Imp. qts)	API GL-4 or GL-5 SAE 75W-90



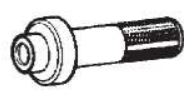
PP-24

PREPARATION – VF2A TRANSFER

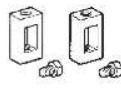
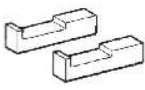
VF2A TRANSFER

SST

PP

	09223-15020	Oil Seal & Bearing Replacer	
	09223-46011	Crankshaft Front Oil Seal Replacer	
	09308-00010	Oil Seal Puller	
	09316-60011	Transmission & Transfer Bearing Replacer	
	(09316-00011)	Replacer Pipe	
	(09316-00031)	Replacer B	
	(09316-00071)	Replacer F	
	09330-00021	Companion Flange Holding Tool	
	09515-30010	Rear Wheel Bearing Replacer	
	09554-30011	Differential Oil Seal Replacer	
	09555-55010	Differential Drive Pinion Bearing Replacer	

PREPARATION – VF2A TRANSFER

	09612-65014	Steering Worm Bearing Puller	
	(09612-01030)	Claw C	
	(09612-01050)	Hanger Pin with Nut	
	09631-32020	Seal Ring Tool	
	09950-40011	Puller B Set	
	(09951-04020)	Hanger 200	
	(09952-04010)	Slide Arm	
	(09953-04030)	Center Bolt 200	
	(09954-04010)	Arm 25	
	(09955-04051)	Claw No.5	
	(09957-04010)	Attachment	
	(09958-04011)	Holder	

PP

PP-26

PREPARATION – VF2A TRANSFER

	09950-60010	Replacer Set	
	(09951-00320)	Replacer 32	
	(09951-00570)	Replacer 57	
	(09951-00590)	Replacer 59	
	09950-70010	Handle Set	
	(09951-00710)	Replacer 71	
	(09951-07100)	Handle 100	

PP

EQUIPMENT

Dial indicator with magnetic base	
Micrometer	
Plastic-faced hammer	
Torque wrench	
Vernier caliper	



PP-28

PREPARATION – VF2A TRANSFER

LUBRICANT

Item	Capacity	Classification
Transfer oil	1.0 liters (1.1 US qts, 0.9 Imp. qts)	API GL-3 SAE 75W-90

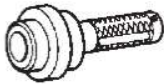
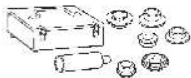
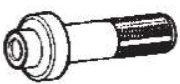
PP

PREPARATION – VF4B TRANSFER

PP-27

VF4B TRANSFER

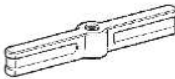
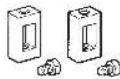
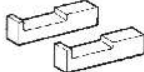
SST

	09223-15020	Oil Seal & Bearing Replacer	
	09223-46011	Crankshaft Front Oil Seal Replacer	
	09304-12012	Input Shaft Front Bearing Replacer	
	09308-00010	Oil Seal Puller	
	09316-60011	Transmission & Transfer Bearing Replacer	
	(09316-00011)	Replacer Pipe	
	(09316-00031)	Replacer B	
	(09316-00071)	Replacer F	
	09330-00021	Companion Flange Holding Tool	
	09515-30010	Rear Wheel Bearing Replacer	
	09554-30011	Differential Oil Seal Replacer	

PP

PP-28

PREPARATION – VF4B TRANSFER

	09555-55010	Differential Drive Pinion Bearing Replacer	
	09612-65014	Steering Worm Bearing Puller	
	(09612-01030)	Claw C	
	(09612-01050)	Hanger Pin with Nut	
	09631-32020	Seal Ring Tool	
	09950-40011	Puller B Set	
	(09951-04020)	Hanger 200	
	(09952-04010)	Slide Arm	
	(09953-04030)	Center Bolt 200	
	(09954-04010)	Arm 25	
	(09955-04051)	Claw No.5	
	(09957-04010)	Attachment	

PP

PREPARATION – VF4B TRANSFER**PP-29**

	(09958-04011)	Holder	
	09950-60010	Replacer Set	
	(09951-00320)	Replacer 32	
	(09951-00570)	Replacer 57	
	(09951-00590)	Replacer 59	
	09950-70010	Handle Set	
	(09951-07100)	Handle 100	

PP

PP-30

PREPARATION – VF4B TRANSFER

EQUIPMENT

Dial indicator with magnetic base	
Micrometer	
Plastic-faced hammer	
Torque wrench	
Vernier caliper	

PP

LUBRICANT

Item	Capacity	Classification
Transfer oil	1.4 liters (1.5 US qts, 1.3 Imp. qts)	API GL-5 SAE 75W-90



PP-30

PREPARATION – PROPELLER SHAFT

PROPELLER SHAFT

SST

	09325-40010	Transmission Oil Plug	
	09332-25010	Propeller Shaft Center Bearing Replacer	

PP

EQUIPMENT

Dial Indicator with magnetic base	
Torque wrench	

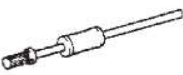


PREPARATION – DRIVE SHAFT

PP-31

DRIVE SHAFT

SST

	09240-00020	Wire Gauge Set	
	09520-01010	Drive Shaft Remover Attachment	
	09520-24010	Differential Side Gear Shaft Puller	
	(09520-32040)	Shocker Set	
	09521-24010	Rear Axle Shaft Puller	
	09527-10011	Rear Axle Shaft Bearing Remover	
	09628-62011	Boll Joint Puller	
	09950-00020	Bearing Remover	

PP

PP-32

PREPARATION – DRIVE SHAFT

RECOMMENDED TOOLS

	09040-00011	Hexagon Wrench Set	
	(09043-20050)	Socket Hexagon Wrench 5	
	09905-00012	Snap Ring No.1 Expander	

PP

EQUIPMENT

Torque wrench	
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PP-34

PREPARATION – DRIVE SHAFT

LUBRICANT

Item	Capacity
Front drive shaft outboard joint grease	260 to 270 g (9.2 to 9.5 oz.)
Front drive shaft inboard joint grease	231 to 241 g (8.1 to 8.5 oz.)

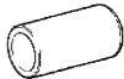
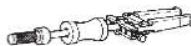
PP

PREPARATION – DIFFERENTIAL

PP-33

DIFFERENTIAL

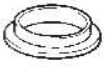
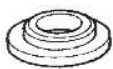
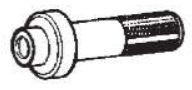
SST

	09223-00010	Cover & Seal Replacer	
	09223-15020	Oil Seal & Bearing Replacer	
	09308-00010	Oil Seal Puller	
	09308-10010	Oil Seal Puller	
	09316-60011	Transmission & Transfer Bearing Replacer	
	(09316-00011)	Replacer Pipe	
	(09316-00021)	Replacer A	
	(09316-00041)	Replacer C	
	09330-00021	Companion Flange Holding Tool	
	(09330-00030)	Pin	
	09350-20015	TOYOTA Automatic Transmission Tool Set	

PP

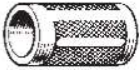
PP-34

PREPARATION – DIFFERENTIAL

	(09369-20040)	Piston Spring Compressor Set	
	09502-12010	Differential Bearing Replacer	
	09504-00011	Differential Side Bearing Adjusting Nut Wrench	
	09506-30012	Differential Drive Pinion Rear Bearing Cone Replacer	
	09550-00032	Replacer	
	09554-22010	Differential Oil Seal Replacer	
	09554-30011	Differential Oil Seal Replacer	
	09556-22010	Drive Pinion Front Bearing Remover	
	09564-32011	Differential Preload Adaptor	
	09608-32010	Steering Knuckle Oil Seal Replacer	
	09612-65014	Steering Worm Bearing Puller	
	(09612-01020)	Claw B	

PREPARATION – DIFFERENTIAL

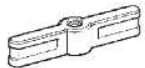
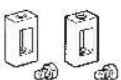
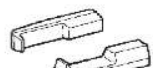
PP-35

	(09612-01050)	Hanger Pin with Nut	
	09636-20010	Upper Ball Joint Dust Cover Replacer	
	09930-00010	Drive Shaft Nut Chisel	
	09950-00020	Bearing Remover	
	(09951-00680)	Replacer 68	
	(09951-00890)	Replacer 89	
	09950-30012	Puller A Set	
	(09951-03010)	Upper Plate	
	(09953-03010)	Center Bolt	
	(09954-03010)	Arm	
	(09955-03030)	Lower Plate 130	
	(09956-03020)	Adapter 18	

PP

PP-36

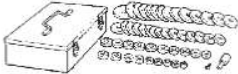
PREPARATION – DIFFERENTIAL

	(09956-03030)	Adaptor 20	
	09950-40011	Puller B Set	
	(09951-04010)	Hanger 150	
	(09951-04020)	Hanger 200	
	(09952-04010)	Slide Arm	
	(09953-04020)	Center Bolt 150	
	(09953-04030)	Center Bolt 200	
	(09954-04010)	Arm 25	
	(09955-04011)	Claw No.1	
	(09955-04061)	Claw No.6	
	(09957-04010)	Attachment	
	(09958-04011)	Holder	

PP

PREPARATION – DIFFERENTIAL

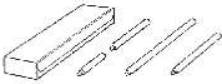
PP-37

	09950-60010	Replacer Set	
	(09951-00360)	Replacer 36	
	(09951-00380)	Replacer 38	
	(09951-00430)	Replacer 43	
	(09951-00470)	Replacer 47	
	(09951-00480)	Replacer 48	
	(09951-00510)	Replacer 51	
	(09951-00520)	Replacer 52	
	(09951-00550)	Replacer 55	
	(09951-00610)	Replacer 61	
	09950-60020	Replacer Set No.2	
	(09951-00680)	Replacer 68	

PP

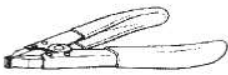
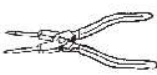
PP-38

PREPARATION – DIFFERENTIAL

	(09951-00810)	Replacer 81	
	09950-70010	Handle Set	
	(09951-00560)	Replacer 56	
	(09951-00570)	Replacer 57	
	(09951-07100)	Handle 100	
	(09951-07150)	Handle 150	
	09960-10010	Variable Pin Wrench Set	
	(09962-01000)	Variable Pin Wrench Arm Assembly	
	(09963-00700)	Pin 7	

PP

RECOMMENDED TOOLS

	09011-12301	Socket Wrench 30 mm	
	09031-00030	Pin Punch	
	09044-00010	Torx Socket E14	
	09905-00012	Snap Ring No.1 Expander	
	09905-00013	Snap Ring Pliers	

PP

PP-40

PREPARATION – DIFFERENTIAL

EQUIPMENT

Brass bar	
Chisel	
Dial indicator	
Feeler gauge	
Hammer	
Micrometer	
Needle nose pliers	
Plastic hammer	
Press	
Prussian blue	
Screwdriver	
Tape	
Torque wrench	
Vernier calipers	

PP

PREPARATION – DIFFERENTIAL

PP-41

LUBRICANT**Front differential**

Item	Capacity	Oil grade	Classification
w/ A.D.D.	1.45 to 1.55 liters (1.53 to 1.63 US qts, 1.27 to 1.36 Imp. qts.)	Hypoid gear oil APL GL-4 and GL-5	Above-18°C (0°F): SAE 90) Below-18°C (0°F): SAE 75W-90
w/o A.D.D.	1.35 to 1.45 liters (1.42 to 1.53 US qts, 1.18 to 1.27 Imp. qts.)	Hypoid gear oil APL GL-4 and GL-5	Above-18°C (0°F): SAE 90) Below-18°C (0°F): SAE 85W-90

Rear differential

Item	Capacity	Oil grade	Classification
w/ Differential lock	2.85 to 2.95 liters (3.01 to 3.12 US qts, 2.51 to 2.60 Imp. qts.)	Hypoid gear oil APL GL-5	Above-18°C (0°F): SAE 90) Below-18°C (0°F): SAE 85W-90
w/o Differential lock	2.95 to 3.05 liters (3.12 to 3.22 US qts, 2.60 to 2.68 Imp. qts.)	Hypoid gear oil APL GL-5	Above-18°C (0°F): SAE 90) Below-18°C (0°F): SAE 85W-90

PP

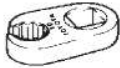
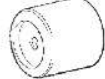
PP-40

PREPARATION – AXLE

AXLE

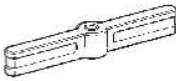
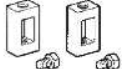
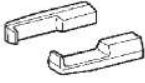
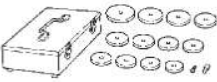
SST

PP

	09023-00101	Union Nut Wrench 10 mm	
	09308-00010	Oil Seal Puller	
	09318-12010	Transfer Bearing Adjusting Nut Wrench	
	09521-25011	Rear Axle Shaft Puller	
	09521-25021	Rear Axle Shaft Puller Attachment	
	09527-17011	Rear Axle Shaft Bearing Remover	
	09628-62011	Boll Joint Puller	
	09631-12090	Seal Ring Tool	
	09649-17010	Steering Knuckle Tool	
	09650-17011	Hub Bolt Remover	
	09710-30021	Suspension Bushing Tool Set	

PREPARATION – AXLE

PP-41

	(09710-03051)	Bushing Replacer	
	09726-40010	Lower Control Shaft Bearing Replacer	
	09930-00010	Drive Shaft Nut Chisel	
	09950-40011	Puller B Set	
	(09951-04020)	Hanger 200	
	(09952-04010)	Slide Arm	
	(09953-04020)	Center Bolt 150	
	(09954-04010)	Arm 25	
	(09955-04061)	Claw No.6	
	(09957-04010)	Attachment	
	(09958-04011)	Holder	
	09950-60020	Replacer Set No.2	

PP

PP-42

PREPARATION – AXLE

	(09951-00770)	Replacer 77	
	09950-70010	Handle Set	
	(09951-07100)	Handle 100	
	(09951-07150)	Handle 150	
	09951-01000	Replacer 100	
	09951-01100	Replacer 110	

PP

RECOMMENDED TOOLS

	09905-00012	Snap Ring No.1 Expander	
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PP

PP-44

PREPARATION – AXLE

EQUIPMENT

Dial indicator with magnetic base	
Torque wrench	

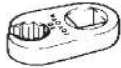
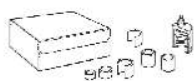
PP

PREPARATION – SUSPENSION

PP-43

SUSPENSION

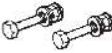
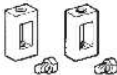
SST

	09023-00101	Union Nut Wrench 10 mm	
	09502-12010	Differential Bearing Replacer	
	09613-26010	Steering Worm Bearing Cone Remover	
	09628-00011	Ball Joint Puller	
	09628-62011	Ball Joint Puller	
	09631-12090	Seal Ring Tool	
	09631-32020	Seal Ring Tool	
	09710-22021	Front Suspension Bushing Tool Set	
	(09710-01031)	Upper Arm Bushing Replacer	
	(09710-01071)	Lower Arm Bushing Remover	
	(09710-01081)	Lower Arm Bushing Replacer	

PP

PP-44

PREPARATION – SUSPENSION

	09710-26010	Rear Suspension Bushing Tool Set	
	(09710-05061)	Replacer	
	09727-00060	Arm Set C	
	09727-30021	Coil Spring Compressor	
	(09727-00010)	Bolt Set	
	(09727-00031)	Compressor	
	09950-00020	Bearing Remover	
	09950-40011	Puller B Set	
	(09951-04010)	Hanger 150	
	(09952-04010)	Slide Arm	
	(09953-04020)	Center Bolt 150	
	(09954-04010)	Arm 25	

PREPARATION – SUSPENSION

PP-45

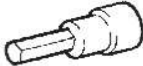
PP

	(09955-04011)	Claw No.1	
	(09957-04010)	Attachment	
	(09958-04011)	Holder	
	09950-60010	Replacer Set	
	(09951-00470)	Replacer 47	
	(09951-00520)	Replacer 52	

PP-46

PREPARATION – SUSPENSION

RECOMMENDED TOOLS

	09040-00011	Hexagon Wrench Set	
	(09043-20060)	Socket Hexagon Wrench 6	

PP

EQUIPMENT

Alignment tester	
Angle gauge	
Camber-caster-kingpin gauge	
Tire pressure gauge	
Toe-in gauge	
Wheel balancer	
Dial indicator with magnetic base	
Torque wrench	
Drill	

PP

PP-46

PREPARATION – TIRE AND WHEEL

TIRE AND WHEEL
EQUIPMENT

Dial indicator with magnetic base	
Wheel balancer	

PP

BRAKE CONTROL

RECOMMENDED TOOLS

	09040-00011	Hexagon Wrench Set	
	(09043-20050)	Socket Hexagon Wrench 5	
	09082-00040	TOYOTA Electrical Tester	
	(09083-00150)	Test Lead Set	

PP

PP-48

PREPARATION – BRAKE CONTROL

EQUIPMENT

Torque wrench	
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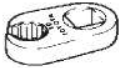
PP

PP-48

PREPARATION – BRAKE

BRAKE

SST

	09023-00101	Union Nut Wrench 10 mm	
	09709-29018	LSPV Gauge Set	

PP

RECOMMENDED TOOLS

	09031-00030	Pin Punch	
	09040-00011	Hexagon Wrench Set	
	(09043-20050)	Socket Hexagon Wrench 5	

PP

PP-50

PREPARATION – BRAKE

EQUIPMENT

Torque wrench	
Ruler	
Micrometer	
Dial indicator with magnetic base	

PP

PREPARATION – BRAKE

PP-51

LUBRICANT

Item	Capacity	Classification
Brake fluid	-	SAE J1703 or FMVSS No. 116 DOT3

PP

PARKING BRAKE
EQUIPMENT

Torque wrench	
Brake drum gauge	
Ruler	
Feeler gauge	
Ohmmeter	

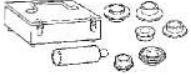
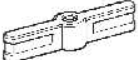
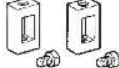
PP

PP-50

PREPARATION – STEERING COLUMN

STEERING COLUMN

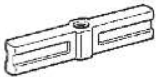
SST

	09316-60011	Transmission & Transfer Bearing Replacer	
	(09316-00051)	Replacer D	
	09921-00010	Spring Tension Tool	
	09950-40011	Puller B Set	
	(09951-04010)	Hanger 150	
	(09952-04010)	Slide Arm	
	(09953-04020)	Center Bolt 150	
	(09954-04010)	Arm 25	
	(09955-04061)	Claw No.6	
	(09958-04011)	Holder	
	09950-50013	Puller C Set	

PREPARATION – STEERING COLUMN

PP-51

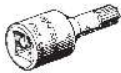
PP

	(09951-05010)	Hanger 150	
	(09952-05010)	Slide Arm	
	(09953-05020)	Center Bolt 150	
	(09954-05021)	Claw No.2	

PP-52

PREPARATION – STEERING COLUMN

RECOMMENDED TOOLS

	09031-00030	Pin Punch	
	09042-00010	Torx Socket T30	
	(09043-20060)	Socket Hexagon Wrench 6	
	09904-00010	Expander Set	
	(09904-00050)	No. 4 Claw	

PP

EQUIPMENT

Torque wrench	
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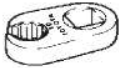
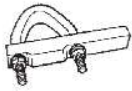
PP-52

PREPARATION – POWER STEERING

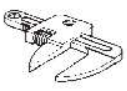
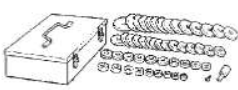
POWER STEERING

SST

PP

	09023-12701	Union Nut Wrench 17mm	
	09023-38201	Union Nut Wrench 12mm	
	09612-00012	Rack & Pinion Steering Rack Housing Stand	
	09616-00011	Steering Worm Bearing Adjusting Socket	
	09628-62011	Boll Joint Puller	
	09630-00014	Power Steering Gear Housing Overhaul Tool Set	
	(09631-00132)	Vane Pump Bracket	
	09631-00350	Steering Rack Cover 35	
	09631-12071	Steering Rack Oil Seal Test Tool	
	(09633-00010)	Packing	
	09631-20120	Cylinder End Stopper Nut Wrench	

PREPARATION – POWER STEERING**PP-53**

	09640-10010	Power Steering Pressure Gauge Set	
	(09641-01010)	Gauge Assy	
	(09641-01030)	Attachment B	
	(09641-01060)	Attachment E	
	09922-10010	Variable Open Wrench	
	09950-60010	Replacer Set	
	(09951-00280)	Replacer 28	
	09950-70010	Handle Set	
	(09951-07100)	Handle 100	
	(09951-07200)	Handle 200	

PP

PP-54

PREPARATION – POWER STEERING

EQUIPMENT

Dial indicator with magnetic base	
Feeler gauge	
Micrometer	
Vernier caliper	
Torque wrench	
Vernier caliper	
Wooden block	

PP

LUBRICANT

Item	Capacity	Classification
Power steering fluid	-	ATF "DEXRON" II or III



PREPARATION – AIR CONDITIONING

PP-55

AIR CONDITIONING

SST

	07110-58060	Air Conditioner Service Tool Set	
	(07117-58080)	Quick Disconnect Adapter	
	(07117-58090)	Quick Disconnect Adapter	
	(07117-78050)	Refrigerant Charging Gauge	
	(07117-88060)	Refrigerant Charging Hose	
	(07117-88070)	Refrigerant Charging Hose	
	(07117-88080)	Refrigerant Charging Hose	
	09870-00015	A/C Quick Joint Puller No.1	
	09870-00025	A/C Quick Joint Puller No.2	
	09960-10010	Variable Pin Wrench Set	
	(09962-01000)	Variable Pin Wrench Arm Assembly	

PP

PP-56

PREPARATION – AIR CONDITIONING

	(09963-00500)	Pin 5	
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PP

RECOMMENDED TOOLS

	09082-00040	TOYOTA Electrical Tester	
	(09083-00150)	Test Lead Set	
	95146-00180	Halogen Leak Detector DENSO Part No.	

PP

PP-58

PREPARATION – AIR CONDITIONING

EQUIPMENT

Voltmeter	
Ohmmeter	
Vacuum pump	
Vinyl tape	
Dial indicator or dial indicator with magnetic base	
Torque wrench	
Service wire harness	
Radiator cap tester	

PP

PREPARATION – AIR CONDITIONING**PP-59****LUBRICANT**

Item	Capacity	Classification
Compressor oil	-	ND-OIL8 or equivalent
When replacing No. 1 cooler evaporator	40 cc (1.35 fl. oz.)	ND-OIL8 or equivalent
When replacing cooler condenser	40 cc (1.35 fl. oz.)	ND-OIL8 or equivalent

PP

SUPPLEMENTAL RESTRAINT SYSTEM

SST

	09082-00700	SRS Airbag Deployment Tool	
	09082-00750	Airbag Deployment Wire Sub-harness No.3	
	09082-00760	Airbag Deployment Wire Sub-harness No.4	
	09082-00780	Airbag Deployment Wire Sub-harness No.6	
	09082-00802	Airbag Deployment Wire Sub-Harness No. 8	
	(09082-10801)	Wire A	
	(09082-30801)	Wire C	
	09843-18060	SRS Check Wire	

PP

PP-58

PREPARATION – SUPPLEMENTAL RESTRAINT SYSTEM

RECOMMENDED TOOLS

	09042-00010	Torx Socket T30	
	09082-00040	TOYOTA Electrical Tester	
	(09083-00150)	Test Lead Set	

HINT:
Torx is a registered trademark of Textron Inc.

PP

PREPARATION – SUPPLEMENTAL RESTRAINT SYSTEM**PP-59****EQUIPMENT**

Torque wrench	
Ohmmeter	
Bolt Length: 35.0 mm (1.378 in.) Diameter: 6.0 mm (0.236 in.) Pitch: 1.0 mm (0.039 in.)	Airbag disposal
Tire Width: 185 mm (7.28 in.) Inner diameter: 360 mm (14.17 in.)	Airbag disposal
Tire with disc wheel Width: 185 mm (7.28 in.) Inner diameter: 360 mm (14.17 in.)	Airbag disposal
Plastic bag	Airbag disposal
Battery	Airbag disposal
Knife	Airbag disposal
Service-purpose wire harness	Airbag disposal
Shop rag or piece of cloth	Airbag disposal
Service wire	Airbag disposal

PP

SEAT BELT

SST

	09082-00700	SRS Airbag Deployment Tool	
	09082-00770	Airbag Deployment Wire Sub-harness No.5	

PP

PP-60

PREPARATION – SEAT BELT

RECOMMENDED TOOLS

	09082-00040	TOYOTA Electrical Tester	
	(09083-00150)	Test Lead Set	

PP

PREPARATION – SEAT BELT

PP-61

EQUIPMENT

Battery	
Knife	
Ohmmeter	
Plastic bag	
Service-purpose wire harness	
Service wire harness	
Tire with wheel	
Torque wrench	

PP

PP-60

PREPARATION – CRUISE CONTROL

CRUISE CONTROL
RECOMMENDED TOOLS

	09082-00040	TOYOTA Electrical Tester	
	(09083-00150)	Test Lead Set	

PP

EQUIPMENT

Ohmmeter	
Vinyl tape	
Torque wrench	



LIGHTING

RECOMMENDED TOOLS

	09042-00010	Torx Socket T30	
	09082-00040	TOYOTA Electrical Tester	
	(09083-00150)	Test Lead Set	

PP

PP-62

PREPARATION – LIGHTING

EQUIPMENT

Protective tape	
Ohmmeter	
Service wire harness	
Voltmeter	
Torque wrench	

PP

PP-62

PREPARATION – WIPER AND WASHER

WIPER AND WASHER
RECOMMENDED TOOLS

	09042-00010	Torx Socket T30	
	09082-00040	TOYOTA Electrical Tester	
	(09083-00150)	Test Lead Set	

PP

EQUIPMENT

Battery	
Ohmmeter	
Protective tape	
Brush	
Vinyl tape	
Service wire harness	
Torque wrench	

PP

DOOR LOCK

RECOMMENDED TOOLS

	09042-00010	Torx Socket T30	
	09082-00040	TOYOTA Electrical Tester	
	(09083-00150)	Test Lead Set	

PP

PP-64

PREPARATION – DOOR LOCK

EQUIPMENT

Protective tape	
Ohmmeter	
Service wire harness	
MP grease	
Torque wrench	

PP

SSM

Toyota Genuine Adhesive 1324, Three Bond 1324 or the equivalent	
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PP

PP-64

PREPARATION – METER

METER

RECOMMENDED TOOLS

	09082-00040	TOYOTA Electrical Tester	
	(09083-00150)	Test Lead Set	

PP

PREPARATION – METER

PP-65

EQUIPMENT

Torque wrench	
Tape	To avoid surface damage

PP

AUDIO / VISUAL

RECOMMENDED TOOLS

	09082-00040	TOYOTA Electrical Tester	
	(09083-00150)	Test Lead Set	

PP

PP-66

PREPARATION – AUDIO / VISUAL

EQUIPMENT

Battery	
Clip remover	
Ohmmeter	
Protective tape	
Service wire harness	
Torque wrench	

PP

PP-66

PREPARATION – PARK ASSIST / MONITORING

PARK ASSIST / MONITORING

RECOMMENDED TOOLS

	09082-00040	TOYOTA Electrical Tester	
	(09083-00150)	Test Lead Set	

PP

EQUIPMENT

Battery	
Ohmmeter	
Service wire harness	
Torque wrench	



HORN

RECOMMENDED TOOLS

	09082-00040	TOYOTA Electrical Tester	
	(09083-00150)	Test Lead Set	

PP

PP-68

PREPARATION – HORN

EQUIPMENT

Battery	
Ohmmeter	
Service wire harness	
Torque wrench	

PP

PP-68

PREPARATION – OTHER SYSTEM

OTHER SYSTEM
EQUIPMENT

Battery	
Ohmmeter	
Protective tape	
Voltmeter	
Service wire harness	
Torque wrench	

PP

WINDSHIELD / WINDOWGLASS

RECOMMENDED TOOLS

	09041-00020	Torx Driver T25	
	09082-00040	TOYOTA Electrical Tester	
	(09083-00150)	Test Lead Set	

PP

PP-70

PREPARATION – WINDSHIELD / WINDOWGLASS

EQUIPMENT

Ohmmeter	
Service wire harness	
Ammeter	
MP grease	
Knife	
Piano wire	
Suction cup	
Plastic sheet	
Brush	
Sponge	
Sealer gun	
Wooden block	
Voltmeter	
Tin foil	
Masking tape	
Torque wrench	

PP

PREPARATION – WINDSHIELD / WINDOWGLASS

PP-71

SSM

Toyota Genuine Windshield Glass Adhesive or the equivalent	
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PP

PP-70

PREPARATION – MIRROR

MIRROR
EQUIPMENT

Protective tape	
Service wire harness	
Ohmmeter	
Torque wrench	

PP

**INSTRUMENT PANEL
EQUIPMENT**

Torque wrench	
Tape	To avoid surface damage



PP-72

PREPARATION – SEAT

SEAT

EQUIPMENT

Clip remover	
Hog ring pliers	
Protective tape	
Torque wrench	

PP

ENGINE HOOD / DOOR

SST

	09812-00010	Door Hinge Set Bolt Wrench	
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PP

PP-74

PREPARATION – ENGINE HOOD / DOOR

RECOMMENDED TOOLS

	09042-00010	Torx Socket T30	
	09042-00020	Torx Socket T40	

PP

EQUIPMENT

Protective tape	
MP grease	
Metal saw	
Torque wrench	



PP-76

PREPARATION – ENGINE HOOD / DOOR

SSM

Toyota Genuine Adhesive 1324, Three Bond 1324 or the equivalent	
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PP

PP-74

PREPARATION – EXTERIOR

EXTERIOR

RECOMMENDED TOOLS

	09070-20010	Moulding Remover	
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PP

PREPARATION – EXTERIOR**PP-75****EQUIPMENT**

Bamboo scraper	
Cardboard	
Clip remover	
Industrial dryer	
Infrared light	
Non- residue solvent	
Paddle	
Piano wire	
Protective tape	
Sealer gun	
Shop rag or piece of cloth	
Squeegee	
Tape removal disc	
Torque wrench	
Wooden block	

PP

PP-76

PREPARATION – EXTERIOR

SSM

Toyota Genuine Windshield Glass Adhesive or the equivalent	
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PP

INTERIOR
EQUIPMENT

Clip remover	
Double-sided tape	
Protective tape	
Torque wrench	



PP-76

PREPARATION – MULTIPLEX COMMUNICATION

MULTIPLEX COMMUNICATION
RECOMMENDED TOOLS

	09082-00040	TOYOTA Electrical Tester	
	(09083-00150)	Test Lead Set	

PP

CAN COMMUNICATION
RECOMMENDED TOOLS

	09082-00040	TOYOTA Electrical Tester	
	(09083-00150)	Test Lead Set	

PP