

C - SPECIFICATIONS

Article Text (p. 2)

1993 Suzuki Swift

For 111

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Front	2.1 (2.0)
Rear	1.6 (1.5)
Sidekick	
Front	1.1 (1.0)
Rear	2.3 (2.2)
Man. Transaxle (SAE 75W-90 API GL-5 Gear Oil)	
Swift	2.5 (2.4)
Man. Transmission (SAE 75W-90 API GL-5 Gear Oil)	
Samurai	1.4 (1.3)
Sidekick	
2WD	2.0 (1.9)
4WD	1.6 (1.5)
Power Steering (Dexron-II)	
Swift	(1)
Transfer Case (SAE 75W-90 API GL-4 Gear Oil)	
Samurai	(2)
Sidekick	1.8 (1.7)

(1) - Capacity is 1.27-1.37 pts. (.60-.65L).

(2) - Capacity is 1.7 pts. (.8L).

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QUICK-SERVICE

SERVICE INTERVALS & SPECIFICATIONS

REPLACEMENT INTERVALS TABLE

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Component	Miles
Samurai & Sidekick	
Air Filter	30,000
Auto. Transmission Fluid	
Sidekick	
Normal Service	100,000
Severe Service (1)	15,000
Brake Fluid	60,000
Catalytic Converter (2)	100,000
Charcoal Canister	100,000
Coolant	30,000
Differential Oil	(3)
Distributor Cap & Rotor (2)	60,000
EGR System (2)	50,000
Fan Belt	60,000
Fuel Filter	30,000
Man. Transmission Oil	(3)
Oil & Filter	
Normal Service	7500
Severe Service (1)	3000
Oxygen Sensor	80,000
PCV Valve	50,000
Spark Plugs	30,000

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Spark Plug Wires	60,000
Timing Belt (2)	60,000
Transfer Case Oil	(3)
Swift	
Air Filter	30,000
Auto. Transaxle Fluid	
Normal Service	100,000
Severe Service (1)	15,000
Brake Fluid	60,000
Coolant	30,000
Man. Transaxle Oil	
Normal Service	15,000
Severe Service (1)	12,000
Oil & Filter	
DOHC	
Normal Service	5000
Severe Service (1)	3000
SOHC	
Normal Service	7500
Severe Service (1)	3000
Spark Plugs	30,000
Spark Plug Wires	60,000

- (1) - Severe service is driving on rough dusty roads, repeated short trips or towing a trailer.
- (2) - Inspect and replace if required.
- (3) - Change at 7500 miles and then every 30,000 miles under normal service. Under severe service, change at 7500 miles and then every 15,000 miles.

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ADJUSTMENT INTERVALS TABLE

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Application	Miles
Valve Clearance	
Samurai & Sidekick	15,000
Swift	
DOHC	(1)
SOHC	15,000

- (1) - Hydraulic lash adjusters are used and no adjustment is required.

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BELT ADJUSTMENT TABLE (NEW BELT)

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Application	(1) Deflection In. (mm)
Samurai	
Water Pump Belt	.24-.35 (6.1-8.9)
Sidekick	

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A/C Belt24-.35	(6.1-8.9)
Power Steering Belt24-.35	(6.1-8.9)
Water Pump Belt24-.32	(6.1-8.1)
Swift		
A/C Belt		
With Power Steering .....	.31-.39	(8-10)
Without Power Steering .....	.20-.22	(5-6.5)
Power Steering Belt .....	.31-.39	(8-10)
Water Pump Belt .....	.24-.32	(6.1-8.1)

(1) - Deflection is checked with 22 lbs. (10 kg) pressure applied
midway on longest belt run.

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MECHANICAL CHECKS

ENGINE COMPRESSION

COMPRESSION SPECIFICATIONS TABLE

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Application	Specification
Compression Ratio	
Samurai	9.5:1
Sidekick (MPI)	9.5:1
Sidekick (TBI)	8.9:1
Swift	
DOHC	10.0:1
SOHC	9.5:1
Compression Pressure	
Samurai & Sidekick	
Standard	199 psi (14.0 kg/cm ²)
Limit	(1) 170 psi (11.9 kg/cm ²)
Swift	
DOHC	
Standard	206 psi (14.5 kg/cm ²)
Limit	(1) 156 psi (10.9 kg/cm ²)
SOHC	
Standard	199 psi (14.0 kg/cm ²)
Limit	(1) 156 psi (10.9 kg/cm ²)

(1) - Maximum variation between cylinders is 14.2 psi (.9 kg/cm²).

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VALVE CLEARANCE

VALVE CLEARANCE SPECIFICATIONS TABLE

AA

Application	In. (mm)
Samurai, Sidekick (TBI) & Swift SOHC	
Engine Cold	

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Intake005-.007	(.13-.18)
Exhaust006-.008	(.15-.20)
Engine Hot		
Intake009-.011	(.23-.28)
Exhaust010-.012	(.25-.30)
Sidekick (MPI)		
Engine Cold		
Intake & Exhaust .....	.003-.005	(.08-.12)
Engine Hot		
Intake & Exhaust .....	.005-.006	(.12-.16)
Swift DOHC		(1)

(1) - Hydraulic valve lash adjusters are used and no adjustment is required.

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VALVE ARRANGEMENT

NOTE: Right and left sides refer to engine, as viewed from flywheel.

Right Side - All intake.

Left Side - All exhaust.

IGNITION SYSTEM

IGNITION COIL

IGNITION COIL RESISTANCE TABLE - Ohms @ 68°F (20°C)

AA

Application	Primary	Secondary
Samurai .....	.90-1.10	10,200-13,800
Sidekick72-.88	10,200-14,000
Swift		
DOHC72-.88	10,200-14,000
SOHC	1.13-1.38	11,500-15,500

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DISTRIBUTOR SENSORS

PICK-UP COIL AIR GAP TABLE

AA

Application	In. (mm)
Samurai	(1)
Sidekick	(1)
Swift	
DOHC (2)008-.012 (.20-.30)
SOHC008 (.20)

(1) - Not adjustable.

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IGNITION TIMING & DISTRIBUTOR ROTATION

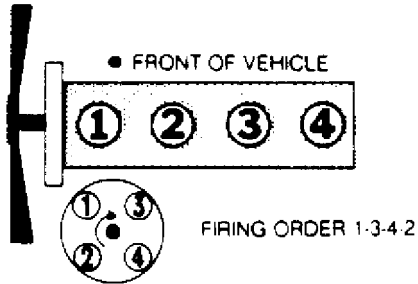
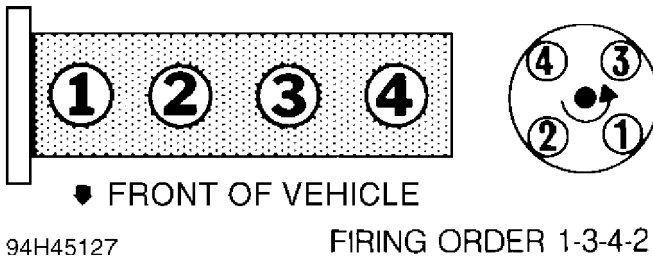


Fig. 1: Firing Order & Distributor Rotation (Samurai & Sidekick)



94H45127
Fig. 2: Firing Order & Distributor Rotation (Swift)

IGNITION TIMING

IGNITION TIMING TABLE (Degrees BTDC @ RPM) (1)

Application	Man. Trans.	Auto. Trans.
Samurai	(2) 7-9 @ 800	Not Used
Sidekick		
MPI	(2) 4-6 @ 800	(2) 4-6 @ 800
TBI	(2) 7-9 @ 800	(2) 7-9 @ 800
Swift		
DOHC	(3) 5-7 @ 800-900	(3) 5-7 @ 800-900
SOHC	(3) 4-6 @ 750	(3) 4-6 @ 850

(1) - See Fig. 3 for timing mark location.

(2) - With jumper wire installed between "C" and "D" terminals of test connector, located near battery.

(3) - With jumper wire installed between "D" and "E" terminals of test connector, located near ignition coil.

NOTE: Ensure ignition timing advances as engine speed increases.

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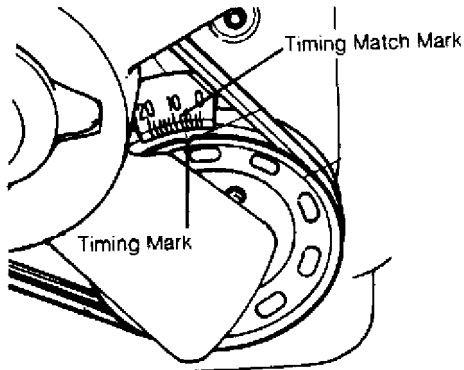


Fig. 3: Identifying Ignition Timing Mark (Typical)
Courtesy of Suzuki of America Corp.

FUEL SYSTEM

FUEL PUMP

NOTE: Fuel pump performance is a measurement of fuel pressure availability, not regulated pressure.

FUEL PUMP PERFORMANCE TABLE

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Application		(1) psi (kg/cm ²)
Samurai & Sidekick (TBI)	(2)	34.1-39.8 (2.4-2.8)
Sidekick (MPI)	(3)	35.6-42.7 (2.5-3.0)
Swift		
DOHC	(3)	35.5-38.4 (2.5-2.7)
SOHC	(4)	22.7-29.9 (1.6-2.1)

- (1) - Key on and engine off.
- (2) - Pressure should maintain at least 21.3 psi (1.5 kg/cm²) for one minute after fuel pump is turned off.
- (3) - Pressure should maintain at least 25.6 psi (1.8 kg/cm²) for one minute after fuel pump is turned off.
- (4) - Pressure should maintain at least 12.8 psi (.9 kg/cm²) for one minute after fuel pump is turned off.

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REGULATED FUEL PRESSURE TABLE

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Application		psi (kg/cm ²)
Samurai	(1) (2)	24.2-29.9 (1.7-2.1)
Sidekick		
MPI	(1) (3)	29.8-37.0 (2.1-2.6)
TBI	(2) (4)	34.1-39.8 (2.4-2.8)
Swift		
DOHC	(1) (3)	25.6-29.9 (1.8-2.1)

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SOHC (1) (5) 12.8-20.0 (.9-1.4)

- (1) - Engine idling.
- (2) - Pressure should maintain at least 21.3 psi (1.5 kg/cm²) for one minute after fuel pump is turned off.
- (3) - Pressure should maintain at least 25.6 psi (1.8 kg/cm²) for one minute after fuel pump is turned off.
- (4) - Key on and engine off.
- (5) - Pressure should maintain at least 12.8 psi (.9 kg/cm²) for one minute after fuel pump is turned off.

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INJECTOR RESISTANCE

INJECTOR RESISTANCE SPECIFICATIONS TABLE

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Application	Ohms
Samurai8-1.8
Sidekick	
MPI	12.0-17.0
TBI8-1.8
Swift	
DOHC	1.5-2.2
SOHC5-1.5

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IDLE SPEED

IDLE SPEED SPECIFICATIONS TABLE (1)

AA

Application	Idle RPM
Samurai	
With A/C Off	750-850
With A/C On	(2) 950-1050
Sidekick	
With A/C Off	750-850
With A/C On	(3) 950-1050
Swift	
DOHC	
With A/C Off	800-900
With A/C On	(2) 850-950
SOHC	
With A/C Off	
Auto. Transaxle	800-900
Man. Transaxle	700-800
With A/C On	
Auto. Transaxle (4)	(2) 800-900
Man. Transaxle (4)	(2) 700-800
Auto. & Man. Transaxles (5)	850-950

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- (1) - Transaxle or transmission in Neutral or Park.
- (2) - A/C idle speed is adjusted by rotating adjusting screw on A/C Vacuum Switching Valve (VSV).
- (3) - With auto. transmission in gear, idle RPM is 750-850.
- (4) - When ECM part number ends with "0".
- (5) - When ECM part number ends with number other than "0".

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IAC DUTY AT SPECIFIED IDLE SPEED TABLE (1)

AA

Application	Percent
Samurai & Sidekick	50
Swift	
DOHC	30-40
SOHC (2)	25-35

- (1) - See IDLE SPEED SPECIFICATIONS table.
- (2) - With A/C turned off (if equipped).

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THROTTLE OPENER

THROTTLE OPENER SPECIFICATIONS TABLE

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Application	(1) RPM
Samurai	2150-2250
Sidekick (TBI)	2100-2300

- (1) - Transaxle or transmission in Neutral or Park with vacuum hose disconnected and plugged at throttle opener.

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THROTTLE POSITION SENSOR (TPS)

THROTTLE POSITION SENSOR (TPS) RESISTANCE TABLE (1)

AA

Application	Ohms
Samurai	
Between Terminals "C" & "D"	
With .008" (.20 mm) Clearance At Stop Screw	0-550
With .016" (.41 mm) Clearance At Stop Screw	Infinity
Between Terminals "A" & "D"	3500-6500
Between Terminals "B" & "D"	
At Idle (2)	0-2000
At Wide Open Throttle	(3) 2000-6500
Sidekick (MPI)	
Between Terminals "A" & "B"	
With .020" (.50 mm) Clearance At Stop Screw	0-500
With .031" (.80 mm) Clearance At Stop Screw	Infinity

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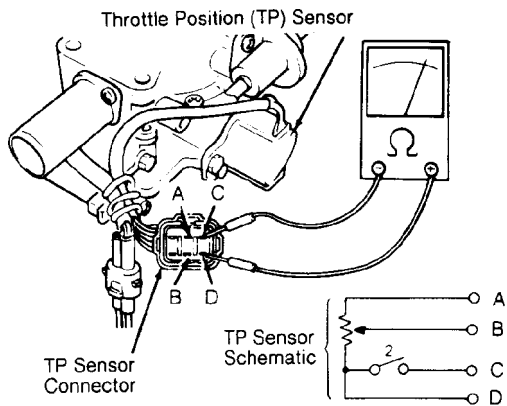
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Between Terminals "A" & "D"	3500-6500
Between Terminals "A" & "C"	
At Idle	300-2000
At Wide Open Throttle	(3) 2000-6500
Sidekick (TBI)	
Between Terminals "C" & "D"	
With .012" (.3 mm) Clearance At Stop Screw	0-500
With .020" (.5 mm) Clearance At Stop Screw	Infinity
Between Terminals "A" & "D"	3500-6500
Between Terminals "B" & "D"	
At Idle	(2) 300-2000
At Wide Open Throttle	(3) 2000-6500
Swift (DOHC)	
Between Terminals "C" & "D"	
With .012" (.30 mm) Clearance At Stop Screw	0-500
With .035" (.89 mm) Clearance At Stop Screw	Infinity
Between Terminals "C" & "A"	3500-6500
Between Terminals "C" & "B"	
At Idle	0-2000
At Wide Open Throttle	3500-6500
Swift (SOHC)	
Between Terminals "A" & "B"	
With .012" (.30 mm) Clearance At Stop Screw	Less Than 5000
With .035" (.89 mm) Clearance At Stop Screw	Infinity
Between Terminals "A" & "D"	4370-8130
Between Terminals "A" & "C"	
At Idle	240-1140
At Wide Open Throttle	3170-6600

- (1) - See Fig. 4, 5 or 6 for terminal identification.
- (2) - To obtain idle position, apply 19 in. Hg vacuum to throttle opener.
- (3) - There should be more than 2000 ohms difference between idle and wide open throttle resistance.

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Fig. 4: Throttle Position Sensor Terminal ID (Samurai & Sidekick TBI)
 Courtesy of Suzuki of America Corp.

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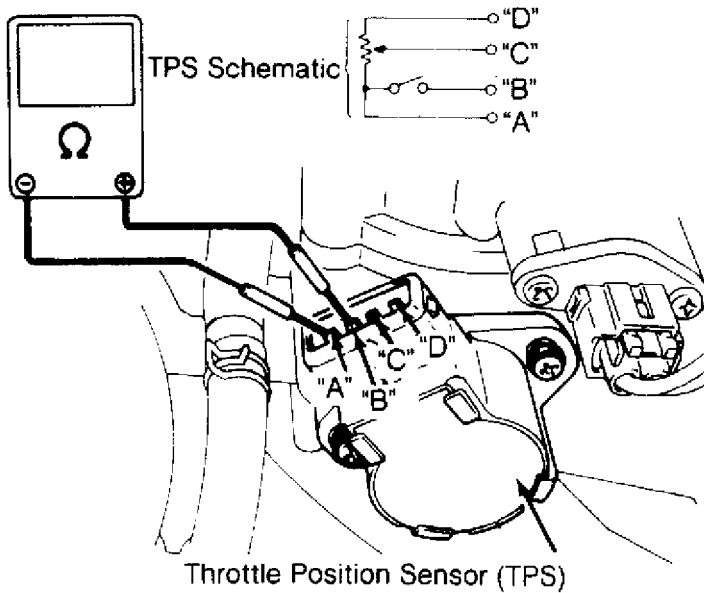


Fig. 5: Throttle Position Sensor Terminal ID (Sidekick MPI & Swift SOHC)

Courtesy of Suzuki of America Corp.

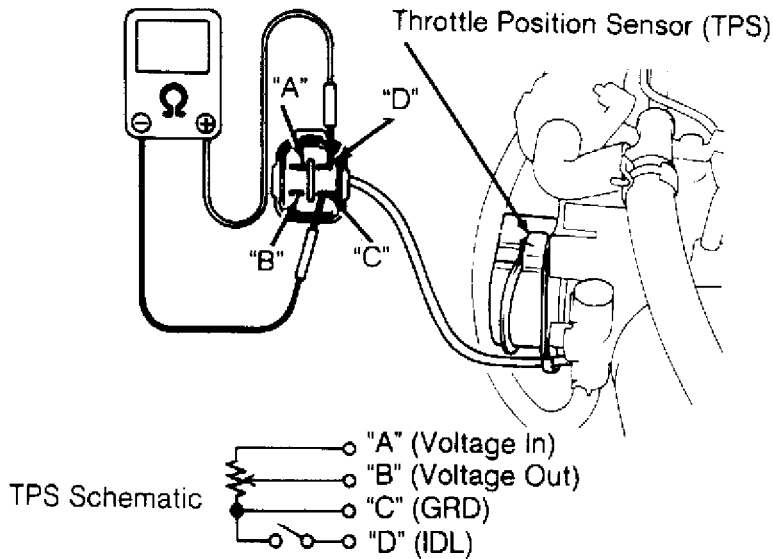


Fig. 6: Throttle Position Sensor Terminal ID (Swift DOHC)

Courtesy of Suzuki of America Corp.

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