

SUZUKI

DL 1000

SERVICE MANUAL

99500-39230-03E

(英)

IMPORTANT

All street-legal Suzuki motorcycles with engine displacement of 50 cc or greater are subject to Environmental Protection agency emission regulations. These regulations set specific standards for exhaust emission output levels as well as particular servicing requirements. This manual includes specific information required to properly inspect and service DL1000 in accordance with all EPA regulations. It is strongly recommended that the chapter on Emission Control, Periodic Servicing and FI SYSTEM be thoroughly reviewed before any type of service work is performed. Further information concerning the EPA emission regulations and U.S. Suzuki's emission control program can be found in the U.S. SUZUKI EMISSION CONTROL PROGRAM MANUAL/SERVICE BULLETIN.

FOREWORD

This manual contains an introductory description on the SUZUKI DL1000 and procedures for its inspection/service and overhaul of its main components. Other information considered as generally known is not included.

Read the GENERAL INFORMATION section to familiarize yourself with the motorcycle and its maintenance. Use this section as well as other sections to use as a guide for proper inspection and service. This manual will help you know the motorcycle better so that you can assure your customers of fast and reliable service.

* This manual has been prepared on the basis of the latest specifications at the time of publication. If modifications have been made since then, differences may exist between the content of this manual and the actual motorcycle.

* Illustrations in this manual are used to show the basic principles of operation and work procedures. They may not represent the actual motorcycle exactly in detail.

* This manual is written for persons who have enough knowledge, skills and tools, including special tools, for servicing SUZUKI motorcycles. If you do not have the proper knowledge and tools, ask your authorized SUZUKI motorcycle dealer to help you.

▲ WARNING

Inexperienced mechanics or mechanics without the proper tools and equipment may not be able to properly perform the services described in this manual. Improper repair may result in injury to the mechanic and may render the motorcycle unsafe for the rider and passenger.

GROUP INDEX

GENERAL INFORMATION

1

PERIODIC MAINTENANCE

2

ENGINE

3

FI SYSTEM

4

**COOLING AND LUBRICATION
SYSTEM**

5

CHASSIS

6

ELECTRICAL SYSTEM

7

SERVICING INFORMATION

8

**EMISSION CONTROL
INFORMATION**

9

WIRING DIAGRAM

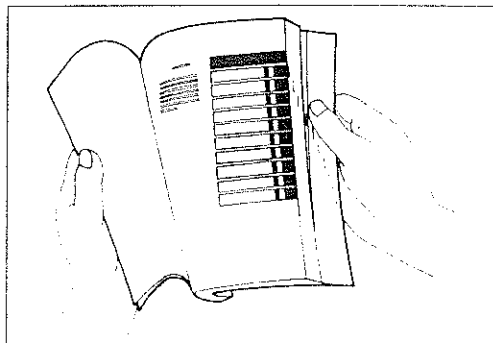
10

SUZUKI MOTOR CORPORATION

HOW TO USE THIS MANUAL

TO LOCATE WHAT YOU ARE LOOKING FOR:

1. The text of this manual is divided into sections.
2. The section titles are listed in the GROUP INDEX.
3. Holding the manual as shown at the right will allow you to find the first page of the section easily.
4. The contents are listed on the first page of each section to help you find the item and page you need.



COMPONENT PARTS AND WORK TO BE DONE

Under the name of each system or unit, is its exploded view. Work instructions and other service information such as the tightening torque, lubricating points and locking agent points, are provided.

Example: Front wheel




















① Brake disc
 ② Dust seal
 ③ Bearing
 ④ Center spacer
 ⑤ Coller
 ⑥ Front wheel
 ⑦ Tire valve

A Front axle
 B Brake disc bolt

ITEM	N-m	kgf-m	lb-ft
A	100	10.0	72.5
B	23	2.3	16.5

SYMBOL

Listed in the table below are the symbols indicating instructions and other information necessary for servicing. The meaning of each symbol is also included in the table.

SYMBOL	DEFINITION	SYMBOL	DEFINITION
	Torque control required. Data beside it indicates specified torque.		Use engine coolant.
	Apply oil. Use engine oil unless otherwise specified.		Use fork oil. 99000-99001-SS8
	Apply molybdenum oil solution. (Mixture of engine oil and SUZUKI MOLY PASTE in a ratio of 1 : 1)		Apply or use brake fluid.
	Apply SUZUKI SUPER GREASE "A". 99000-25030		Measure in voltage range.
	Apply SUZUKI MOLY PASTE. 99000-25140		Measure in current range.
	Apply SUZUKI BOND "1207B". 99104-31140		Measure in diode test range.
	Apply THREAD LOCK SUPER "1303". 99000-32030		Measure in continuity test range.
	Apply THREAD LOCK SUPER "1322". 99000-32110		Use special tool.
	Apply THREAD LOCK "1342". 99000-32050		Indication of service data.
	Apply THREAD LOCK SUPER "1360". 99000-32130		

ABBREVIATIONS USED IN THIS MANUAL

A		E	
ABDC	: After Bottom Dead Center	ECM	: Engine Control Module
AC	: Alternating Current		: Engine Control Unit (ECU) (FI Control Unit)
ACL	: Air Cleaner, Air Cleaner Box	ECT Sensor	: Engine Coolant Temperature Sensor (ECTS), Water Temp. Sensor (WTS)
API	: American Petroleum Institute	EVAP	: Evaporative Emission
ATDC	: After Top Dead Center	EVAP Canister	: Evaporative Emission Canister (Canister)
ATM Pressure:	Atmospheric Pressure Atmospheric Pressure Sensor (APS)		
A/F	: Air Fuel Mixture		
B		F	
BBDC	: Before Bottom Dead Center	FI	: Fuel Injection, Fuel Injector
BTDC	: Before Top Dead Center	FP	: Fuel Pump
B+	: Battery Positive Voltage	FPR	: Fuel Pressure Regulator
		FP Relay	: Fuel Pump Relay
C		G	
CKP Sensor	: Crankshaft Position Sensor (CKPS)	GEN	: Generator
CKT	: Circuit	GND	: Ground
CLP Switch	: Clutch Lever Position Switch (Clutch Switch)	GP Switch	: Gear Position Switch
CMP Sensor	: Camshaft Position Sensor (CMPS)		
CO	: Carbon Monoxide	H	
CPU	: Central Processing Unit	HC	: Hydrocarbons
D		I	
DC	: Direct Current	IAP Sensor	: Intake Air Pressure Sensor (IAPS)
DMC	: Dealer Mode Coupler	IAT Sensor	: Intake Air Temperature Sensor (IATS)
DOHC	: Double Over Head Camshaft	IG	: Ignition
DRL	: Daytime Running Light	L	
		LCD	: Liquid Crystal Display
		LED	: Light Emitting Diode (Malfunction Indicator Lamp)
		LH	: Left Hand

M

MAL-Code : Malfunction Code
(Diagnostic Code)
Max : Maximum
MIL : Malfunction Indicator Lamp
(LED)
Min : Minimum

N

NOx : Nitrogen Oxides

O

OHC : Over Head Camshaft
OPS : Oil Pressure Switch

P

PCV : Positive Crankcase
Ventilation (Crankcase Breather)

R

RH : Right Hand
ROM : Read Only Memory

S

SAE : Society of Automotive Engineers
STC System : Secondary Throttle Control
System (STCS)
STP Sensor : Secondary Throttle Position
Sensor (STPS)
ST Valve : Secondary Throttle Valve (STV)
STV Actuator : Secondary Throttle Valve Actuator
(STVA)

T

TO Sensor : Tip Over Sensor (TOS)
TP Sensor : Throttle Position Sensor (TPS)

V

VD : Vacuum Damper

SAE-TO-FORMER SUZUKI TERM

This table lists SAE (Society of Automotive Engineers) J1930 terms and abbreviations which may be used in this manual in compliance with SAE recommendations, as well as their former SUZUKI names.

SAE TERM		FORMER SUZUKI TERM
FULL TERM	ABBREVIATION	
A		
Air Cleaner	ACL	Air Cleaner, Air Cleaner Box
B		
Barometric Pressure	BARO	Barometric Pressure, Atmospheric Pressure (APS, AP Sensor)
Battery Positive Voltage	B+	Battery Voltage, +B
C		
Camshaft Position Sensor	CMP Sensor	Camshaft Position Sensor (CMPS)
Crankshaft Position Sensor	CKP Sensor	Crankshaft Position Sensor (CKPS), Crank Angle
D		
Data Link Connector	DLC	Dealer Mode Coupler
Diagnostic Test Mode	DTM	—
Diagnostic Trouble Code	DTC	Diagnostic Code, Malfunction Code
E		
Electronic Ignition	EI	—
Engine Control Module	ECM	Engine Control Module (ECM) FI Control Unit, Engine Control Unit (ECU)
Engine Coolant Level	ECL	Coolant Level
Engine Coolant Temperature	ECT	Coolant Temperature, Engine Coolant Temperature Water Temperature
Engine Speed	RPM	Engine Speed (RPM)
Evaporative Emission	EVAP	Evaporative Emission
Evaporative Emission Canister	EVAP Canister	— (Canister)
Exhaust Control System	EXCS	EXC System (EXCS)
Exhaust Control Valve	EXCV	EXC Valve (EXCV)
Exhaust Control Valve Actuator	EXCVA	EXCV Actuator (EXCVA)
Purge Valve	Purge Valve	Purge Valve (SP Valve)
F		
Fan Control	FC	—
Fuel Level Sensor	—	Fuel Level Sensor, Fuel Level Gauge
Fuel Pump	FP	Fuel Pump (FP)

SAE TERM		FORMER SUZUKI TERM
FULL TERM	ABBREVIATION	
G		
Generator	GEN	Generator
Ground	GND	Ground (GND, GRD)
I		
Idle Speed Control	ISC	—
Ignition Control	IC	Electronic Spark Advance (ESA)
Ignition Control Module	ICM	—
Intake Air Temperature	IAT	Intake Air Temperature (IAT), Air Temperature
M		
Malfunction Indicator Lamp	MIL	LED Lamp Malfunction Indicator Lamp (MIL)
Manifold Absolute Pressure	MAP	Intake Air Pressure, Intake Vacuum
Mass Air Flow	MAF	Air Flow
O		
On-Board Diagnostic	OBD	Self-Diagnosis Function Diagnostic
Open Loop	OL	—
P		
Programmable Read Only Memory	PROM	—
Pulsed Secondary Air Injection	PAIR	Pulse Air Control (PAIR)
R		
Random Access Memory	RAM	—
Read Only Memory	ROM	ROM
S		
Secondary Air Injection	AIR	—
Secondary Throttle Control System	STCS	STC System (STCS)
Secondary Throttle Valve	STV	ST Valve (STV)
Secondary Throttle Valve Actuator	STVA	STV Actuator (STVA)
T		
Throttle Body	TB	Throttle Body (TB)
Throttle Body Fuel Injection	TBI	Throttle Body Fuel Injection (TBI)
Throttle Position Sensor	TP Sensor	TP Sensor (TPS)
V		
Voltage Regulator	VR	Voltage Regulator
Volume Air Flow	VAF	Air Flow

