# HOW TO READ THIS MANUAL

Items 1 to 7 are described below.

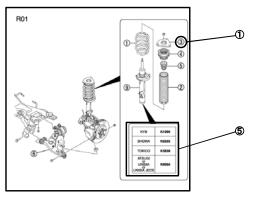
Manual(A-Type)

	Ø		<b>/2</b>	<b>/3</b>	Ø
				Illustration	
OPERATION	VARIATION	OPERATION NUMBER	REPAIR TIME	INCLUDES	
INTAKE AND EXHAUST VALVE SPRING [ALL], R&R	MZR 1.6	B04074/RX	8.3	◆Timing chain (B0210), B&R◆Cylinder head gasket (B0402), R&R	
INTAKE AND EXHAUST VALVE SPRING [ALL], R&R	SKYACTIV-G 1.5,PCM cover with standard bolts,Without i-stop	B0407GRX	10.4	◆Timing chain (B0210), R&R◆Cylinder head gasket (B0402), R&R	
INTAKE AND EXHAUST VALVE SPRING [ALL], R&R	[SKYACTIV-G 1.5,PCM cover with standard bolts,With i-stop]/[SKYACTIV-G 1.5,PCM cover with shear-off bolts,Without i-stop]	B0407BRX	10.5	◆Timing chain (B0210), R&R◆Cylinder head gasket (B0402), R&R     ◆Timing chain (B0210), R&R◆Cylinder head gasket (B0402), R&R	
INTAKE AND EXHAUST VALVE SPRING [ALL], R&R	SKYACTIV-G 1.5,PCM cover with shear- off bolts,With i-stop	B0407CRX	10.6	◆Timing chain (B0210), R&R◆Cylinder head gasket (B0402), R&R	
INTAKE AND EXHAUST VALVE SPRING [ALL], R&R	SKYACTIV-G 2.0,PCM cover with standard bolts,Without i-stop	B0407HRX	10.6	◆Timing chain (B0210), R&R◆Cylinder head gasket (B0402), R&R	
INTAKE AND EXHAUST VALVE SPRING [ALL], R&R	[SKYACTIV-G 2.0,PCM cover with standard bolts,With i-stop]/[SKYACTIV-G 2.5]	B0407DRX	10.7	◆Timing chain (B0210), R&R◆Cylinder head gasket (B0402), R&R	
INTAKE AND EXHAUST VALVE SPRING [ALL], R&R	SKYACTIV-G 2.0,PCM cover with shear- off bolts	B0407ERX	10.8	◆Timing chain (B0210), R&R◆Cylinder head gasket (B0402), R&R	
INTAKE AND EXHAUST VALVE SPRING [ALL], R&R	[SKYACTIV-D 1.5]/[SKYACTIV-D 2.2]	B0407FRX	14.3	◆Timing chain (B0210), D&C◆Camshaft (B0411), R&R	
VALVE ROCKER ARM AND/OR SHAFT [ALL], R&R	SKYACTIV-G 1.5,PCM cover with standard bolts	B0408ARX	3.0	◆Timing chain (B0210), D&C◆Camshaft (B0411), R&R	
VALVE ROCKER ARM AND/OR SHAFT [ALL], R&R	SKYACTIV-G 1.5,PCM cover with shear- off bolts	B0408BRX	3.1	◆Timing chain (B0210), D&C◆Camshaft (B0411), R&R	
CAMSHAFT, R&R F00 DIAGNOSIS	MZR 1.6,Intake camshaft	B0411ARX	1.5	♦Timing chain (B0210), D&C	
EGI SYSTEM, DRIVE MODE		F0009XDX	0.5		ľ
DTC READING BY DIAGNOSTIC TOOL		F9999XDX	0.2		
The labor operation for DIAGNOSTIC TOOLS usage (F9999*) can be applied only when the diagnosis requires the NGSWDS/PDS/IDS tester to read the Diagnostic Trouble Code for fuel and emission control system components.	<b>©</b>				

Manual(B-Type)

							, <b>D</b>	(2)	<b>3</b>	
									ILLUSTRATION	
OPERATION	VARIATION 1	VARIATION 2	VARIATION 3	VARIATION 4	VARIATION 5	OTHER VARIATION	OPERATION NUMBER	REPAIR TIME	INCLUDES	
INTAKE AND EXHAUST VALVE SPRING [ALL], R&R	SKYACTIV-D 1.8						B0407ARX	14.6	◆Timing chain (B0210), R&R◆Cylinder head gasket (B0402), R&R	
INTAKE AND EXHAUST VALVE SPRING [ALL], R&R	SKYACTIV-G 1.5	6AT					B0407BRX	10.5	◆Tining chain (B0210), R&R◆Cylinder head gasket (B0402), R&R	
INTAKE AND EXHAUST VALVE SPRING [ALL], R&R	SKYACTIV-G 1.5	6MT					B0407CRX	10.4	Timing chain (B0210), R&R♦Cylinder head gasket (B0402), R&R	
INTAKE AND EXHAUST VALVE SPRING [ALL], R&R	SKYACTIV-G 2.0	With Cylinder Deactivation					B0407DRX	10.9	◆Timing chain (B0210), R&R◆Cylinder head gasket (B0402), R&R	<b>-4</b>
INTAKE AND EXHAUST VALVE SPRING [ALL], R&R	SKYACTIV-G 2.0	With Cylinder Deactivation					B0407ERX	10.8	◆Timing chain (B0210), R&R◆Cylinder head gasket (B0402), R&R	
INTAKE AND EXHAUST VALVE SPRING [ALL], R&R	SKYACTIV-G 2.0	With Cylinder Deactivation					B0407FRX	10.7	◆Timing chain (B0210), R&R◆Cylinder head gasket (B0402), R&R	
INTAKE AND EXHAUST VALVE SPRING [ALL], R&R INTAKE AND EXHAUST VALVE SPRING	SKYACTIV-G 2.0	Without Cylinder Deactivation					B0407GRX	10.6	◆Timing chain (B0210), R&R◆Cylinder head gasket (B0402), R&R ◆Timing chain (B0210), R&R◆Cylinder	
[ALL], R&R INTAKE AND EXHAUST VALVE SPRING	SKYACTIV-G 2.0	Without Cylinder Deactivation Without Cylinder					B0407HRX	10.5	head gasket (B0402), R&R Cylinder head gasket (B0402), R&R ◆Timing chain (B0210), R&R Cylinder	
[ALL], R&R INTAKE AND EXHAUST VALVE SPRING	SKYACTIV-G 2.0	Deactivation					B0407JRX	10.5	head gasket (B0402), R&R Cylinder  head gasket (B0402), R&R  Timing chain (B0210), R&R  Cylinder	
[ALL], R&R INTAKE AND EXHAUST VALVE SPRING	SKYACTIV-G 2.5	6AT					B0407KRX	10.7	head gasket (B0402), R&R  ◆Timing chain (B0210), R&R  ◆Cylinder	
[ALL], R&R VALVE ROCKER ARM AND/OR SHAFT	SKYACTIV-G 2.5	6MT					B0407LRX	10.6	head gasket (B0402), R&R  ◆Timing chain (B0210), D&C◆	
[ALL], R&R VALVE ROCKER ARM AND/OR SHAFT	SKYACTIV-D 1.8						B0408ARX	4.0	Camshaft (B0411), R&R  ♦Timing chain (B0210), D&C♦	
[ALL], R&R VALVE ROCKER ARM AND/OR SHAFT	SKYACTIV-G 1.5	With Cylinder					B0408BRX	3.3	Camshaft (B0411), R&R  ♦Timing chain (B0210), D&C♦	
[ALL], R&R VALVE ROCKER ARM AND/OR SHAFT	SKYACTIV-G 2.0	Deactivation Without Cylinder					B0408CRX	3.4	Camshaft (B0411), R&R  ◆Timing chain (B0210), D&C◆	
[ALL], R&R VALVE ROCKER ARM AND/OR SHAFT	SKYACTIV-G 2.0	Deactivation					B0408DRX B0408FRX	3.3	Camshaft (B0411), R&R  ◆Timing chain (B0210), D&C◆	
[ALL], R&R CAMSHAFT, R&R	SKYACTIV-G 2.5	ALL					B0408ERX B0411ARX	3.4	Camshaft (B0411), R&R  ◆Timing chain (B0210), D&C	
F00 DIAGNOSIS	SKTACTIV-D 1.6	ALL					B0411AKA	4.0	▼Tilling Chair (B0210), D&C	
EGI SYSTEM, DRIVE MODE							F0009ADX	0.5		
DTC READING BY DIAGNOSTIC TOOL The labor operation for DIAGNOSTIC TOOLS usage (F9999*-*-*) can be applied only when							F9999ADX	0.2		
the diagnosis requires the	_						1			
NGS/WDS/PDS/IDS tester to read the	<b></b> 6						1			
Diagnostic Trouble Code for fuel and emissio	n						1			
control system components.										

# ILLUSTRATION



# ① KEY (Illustration Number)

Each illustration is provided with a number called a key (Illustration Number). The function of the key is to connect the illustration with the operation number and repair time, enabling technicians to find the operation number and repair time using the illustration.

Since illustrations shown in this manual are representative of targeted parts, they may differ from the actual vehicle. For detailed information such as installation position, refer to the Workshop Manual for the corresponding vehicle.

### 2 OPERATION NUMBER

The operation number is an 8-digit code made up of the four parts shown below:



The first 3 figures stand for the sub-section of the part to be serviced (ex. [B02]: engine front).

The last 2 figures stand for the part to be serviced (ex. [B0210]: timing chain replacement).

#### a PNC (Part Name Code)

The PNC indicates the part or component that is the subject of the operation.

It is central to the operation number and is classified according to functions such as engine, transmission, and brake.

This numbering system is applied to all models and model years.

#### **b** Specification Variation

This part indicates labor operations which may differ because of difference invehicle specifications.

#### c Operation type

The codes are as follows:

A ····· Adjust

B · · · · Body work

C ····· Check

D · · · · Diagnose

G · · · · Clean and Repack

H ····· Overhaul

M ····· Periodical inspection service, Machine

P · · · · · Pre-delivery inspection service, Color coat

R ····· Remove and Replace

T · · · · Tighten

### d Suffix

The codes are as follows:

T ····· Actual time (Refer to HOW TO CREATE OPERATION NUMBER - ACTUAL TIME)

X.1-9 · · · · Standard Repair

#### **3 REPAIR TIME**

Repair time under corresponding conditions is indicated. The time required for each repair item is given in hours and tenths of hours. For example, 0.1 in the table stands for 6 minutes, 0.3 for 18 minutes, and 1.2 for 1 hour 12 minutes.

# (4) INCLUDES

Work included in the repair procedures is described in categories such as removal/installation, inspection, and adjustment. For details, refer to the Workshop Manual for the corresponding vehicle.

# **5** VENDOR CODE

In the case of a part of the same part number being supplied by more than one vendor, the vendor mark and vendor code are given to the part in the illustration.

When filing a warranty claim against such a part, enter the vendor code shown in this manual along with the vendor mark.

### **6** NOTE

This indicates special instructions

#### (7) VARIATION

This indicates the applicable conditions of the repair time.

#### HOW TO REPAIR TIME FRAMEWORK

The repair time includes the following and is indicated using 0.1 hour (six minutes) as the time unit:.

#### 1. Repair time

(1) Each repair time includes all of the time required for making repairs, such as inspection, cleaning, and adjustment. All overhaul repair time includes the time required for removal and re-installation. (The procedures in the workshop manuals are basically followed)

# Example

# B0101X-H-X ENGINE, OH

I Includes time required for removing and reinstalling engine; cleaning and checking disassembled parts; adjusting ignition timing and idle speed.

(2) All painting time (SRT) includes the cost of materials and other expenses for a new panel.

#### 2. Allowance time

Allowance time includes the following operation time and contents:

- (1) Time required to move the vehicle in question (drive-in, drive-out, etc.)
- (2) Time required to assemble necessary tools and parts for work and to return the tools to storage.
- (3) Time required for testing after repair.
- (4) Variation resulting from difference in mileage and operating conditions of vehicles.

# HOW TO MEASURE REPAIR TIME

The repair times are determined based on the following conditions:

#### 1. Technician

A person equivalent to an average technician who has attended training in the repair of Mazda vehicles and one who is not a specialist familiar with only a portion of the repair work.

# 2. Parts

Genuine parts to be used.

# 3. Tools

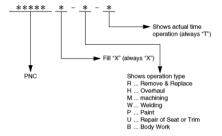
Recommended special service tools and tools normally used by technicians (including power tools).

# 4. Work procedure

Procedure in the relevant workshop manual or other service literature to be used.

#### HOW TO CREATE OPERATION NUMBER - ACTUAL TIME

When there is no specified operation number in this manual, make an 8-digit operation number as follows:



When there is no available PNC for the applicable part, use the PNC of the component to which the part is attached. Do not use the D-code of the part or the last five digits of the part number. Refer to Section Y and use the appropriate PNC for a paint problem.

Regarding the following repairs, use the below special PNC.

Refer to section Y02 for an explanation of the coverage.

Refer to section Y05 for an explanation of the coverage.

# TROUBLE CODE (ALL)

#### SYMPTOM CODE

#### ENGINE

#### START / IDLE

- 01 ENGINE DOSE NOT START
- 02 ENGINE HARD START
- 03 ROUGH IDLE

#### DRIVEABILITY

- 04 ENGINE STALLS WHILE DRIVING WILL NOT RESTART
- 05 ENGINE STALLS WHILE DRIVING WILL RESTART
- 06 RPM DOES NOT INCREASE
- 07 RPM DOES NOT DECREASE
- 08 HESITATION / SURGING / MISFIRE
- 09 ENGINE OVERHEATS
- 10 ENGINE DOES NOT REACH OPERATING TEMP
- 11 ENGINE KNOCKING
- 12 ENGINE BACKFIRE / AFTERFIRE
- 13 RUN-ON / DIESELING
- 14 LACK OF POWER

#### FUEL & OIL CONSUMPTION

- 15 EXCESSIVE FUEL CONSUMPTION
- 16 EXCESSIVE OIL CONSUMPTION
- 17 BLACK SMOKE
- 18 WHITE SMOKE / BLUE SMOKE
- 19 FAILED EMISSION TEST / EXCEED EMISSION STANDARD

#### BATTERY CHARGE

- 20 UNDERCHARGING / DEAD BATTERY
- 21 OVERCHARGING

# CLUTCH, TRANSMISSION, DRIVELINE

#### MT, MTX

- 22 CLUTCH SLIPPING
- $23~\mathrm{JUMPS}$  OUT OF GEAR
- 24~HARD SHIFTING~/~NO SHIFTING~/~IMPROPER SYNCHRONIZATION~/~GEAR NOISE

#### AT, ATX

- 25 VEHICLE WILL NOT MOVE / NO SHIFT
- 26 SHIFT SHOCK
- 27 TRANSMISSION SLIPPING / INCORRECT SHIFT POINTS
- 28 WILL NOT LOCK UP (TORQUE CONVERTER)
- 29 IMPROPER LOCK UP POINT (TORQUE CONVERTER)

# STEERING, AXLE, CHASSIS

- $30\ STEERING$  WHEEL OFF CENTER
- 31 STEERING SHIMMY
- 32 POOR DRIVE STABILITY / DRIFT TO THE RIGHT OR LEFT
- 33 UNEVEN VEHICLE HEIGHT
- 34 UNUSUAL / UNEVEN TIRE WEAR

# BRAKE

- 35 SQUEAK
- 36 INSUFFICIENT BRAKING
- 37 BRAKES GRAB
- 38 BRAKES TOO SENSITIVE
- 39 UNEVEN BRAKING PERFORMANCE / PULL TO THE RIGHT OR LEFT
- $40~{\rm BRAKES~DRAG}$

# BODY

#### OPENING / CLOSING OPERATION

- 41 DOES NOT OPEN/DOES NOT UNLOCK
- $42\ \mathsf{DOES}\ \mathsf{NOT}\ \mathsf{CLOSE}\ /\ \mathsf{DOES}\ \mathsf{NOT}\ \mathsf{LOCK}$
- 43 DOES NOT STAY IN POSITION

### COLOR, PAINT, RUST

- 44 BLISTERS
- 45 PEELING / FLAKING
- 46 COLOR MISMATCH

```
47 GLAZING / HAIRLINE CRACKING
 48 DIRT / FOREIGN MATERIAL UNDER SURFACE
 49 FADED / DISCOLORED
 50 PAINT THIN
 51 RUNS / SAGS / OVER SPRAY
 52 CHIPPED / PAINT SURFACE DAMAGE
 53 RUST / CORROSION / PERFORATION
BODY ELECTRICAL
AUTO CRUISE
 54 UNSTABLE SPEED CONTROL
 55 MALFUNCTION
AUDIO
 56 POOR RECEPTION
 57 NOISE
 58 OTHER MALFUNCTION IN AUDIO SYSTEM
HEATER / AIR CONDITIONING
 59 INSUFFICIENT HEATING
 60 IMPROPER TEMPERATURE CONTROL
COMMON
MALFUNCTION
 61 DOES NOT SWITCH ON / NO INDICATION / NOPERATIVE / NO LIGHTING/NO WARNING
 62 DOES NOT SWITCH OFF / INDICATOR STAYS ON / OPERATION STAYS ON / LIGHT STAYS ON / WARNING LIGHT STAYS ON
 63 STOPS IN THE MIDDLE OF OPERATION
 64 IMPROPER OPERATION
 65 IMPROPER INDICATION
 66 SEIZED OR STUCK
 67\;CANNOT\;SET\,/\,WILL\;NOT\;RELEASE
 68 POOR WINDOW WIPING
 69 WEAK PUMPING / IMPROPER SPRAYING
 70 IMPROPER / CHANGING FREE PLAY
 71 NO/LATE RETURN TO THE ORIGINAL POSITION
 72 HARD TO OPERATE
 73 LOOSE
 74 POOR MANEUVERABILITY
LEAK, ENTERING & WATER DROP
 75 FUEL LEAK
 76 OIL LEAK / GREASE LEAK
 77 WATER LEAK / COOLANT LEAK
 78 AIR / EXHAUST GAS / DUST / LIGHT LEAK
 79 CONDENSATION
NOISE & VIBRATION
 80 EXCESSIVE OPERATING NOISE
 81 RESONANCE NOISE
 82 UNUSUAL NOISE (excl. ENGINE KNOCKING, BRAKE SQUEAKING, OPERATION NOISE, RESONANCE NOISE)
 83 UNUSUAL VIBRATION / CHATTER / JUDDER
ODOR, BURNT
 84 UNUSUAL ODOR
 85 BURNT / SMOKE
 86 BLOWN FUSE
APPEARANCE
 87 SPLIT / CUT / WARP
 88 POOR VISIBILITY / DOUBLE VISION / INDICATION NOT CLEAR
 89 OUT OF PROPER POSITION
OTHERS
 90 INTERFERE WITH OTHER PART
 91 FELL OFF
 92 BROKEN
 93 SEIZED
 94 PREMATURE WEAR
 95 INCORRECT PARTS INSTALLED AT FACTORY
 96 PART NOT INSTALLED AT FACTORY
 97 WIND NOISE
```

98 DIRT / STAIN / SOILED

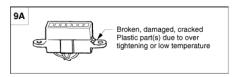
99 SPECIAL CODE

- USE THIS CODE ONLY WHEN MC INSTRUCTS

# DAMAGE CODE

#### MATERIAL

9A BROKEN, DAMAGED, CRACKED



9B BENT, KINKED, TWISTED, DISTORTED, WARPED, DEFORMED

9C WORN

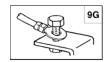
9D SCORED, GALLED, SCRATCHED, NICKED

9E DETERIORATED, WEAKENED, SOFTENED, FATIGUED

9F FOGGED, HAZY

#### WORKMANSHIP

9G IMPROPER ASSEMBLY, IMPROPER TORQUE, BOLTS / NUTS LOOSEN



9H IMPROPER ADJUSTMENT

9J OUT OF BALANCE

9K IMPROPER WELDING, POOR SEALING

9L THREAD FAILURE, FAULTY STITCHING, IMPROPER SEWING

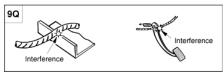
9M IMPROPER MACHINING

9N INCORRECT PARTS INSTALLED AT FACTORY

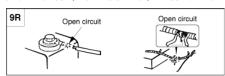
9P PARTS NOT INSTALLED AT FACTORY

#### ELECTRICAL

9Q SHORT CIRCUIT, DAMAGED INSULATION, SHORTED AGAINST BODY OR MOVING PARTS



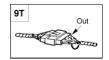
9R OPEN CIRCUIT, HIGH RESISTANCE, FATIGUE OPEN CIRCUIT DUE TO VIBRATION OF HARNESS



9S LOOSE COUPLER CONNECTION

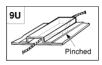


9T CONNECTION(S) CAME OUT OF COUPLER



### ELECTRICAL-Continued

9U PINCHED HARNESS



9V INCORRECT WIRING

9W INTERNAL FAILURE

#### COLOR, PAINT & RUST

 $9X\ PAINT\ FAILURE,\ FADED,\ DIRT,\ STAINED,\ TARNISHED$ 

# 9Y RUST, CORROSION

- 91 OIL / GREASE LEAK
- 92 SEIZED, BOUND, STUCK
- 93 FOREIGN MATERIAL, PLUGGED, CLOGGED, CARBON DEPOSIT, POOR CONTACT DUE O DIRT / RUST / DUST



- 94 PIN HOLE, POROUS, CASTING FLAW
- 95 AIR BUBBLES
- 96 BURNED, MELTED
- 97 IMPROPER CLEARANCE, OVER / UNDER SIZE
- 98 INTERFERE WITH BODY, RATTLING NOISE FROM COUPLER OR HARNESS
- 99 SPECIAL CODE
- USE UPON MC's INSTRUCTION ONLY

#### TROUBLE CODE (B section)

#### START / IDLE

- 01 ENGINE DOSE NOT START
- 02 ENGINE HARD START

# 03 ROUGH IDLE

#### DRIVEABILITY

- 04 ENGINE STALLS WHILE DRIVING WILL NOT RESTART 05 ENGINE STALLS WHILE DRIVING WILL RESTART
- 06 RPM DOES NOT INCREASE
- 07 RPM DOES NOT DECREASE
- 08 HESITATION / SURGING / MISFIRE
- 09 ENGINE OVERHEATS
- 10 ENGINE DOES NOT REACH OPERATING TEMP 11 ENGINE KNOCKING
- 12 ENGINE BACKFIRE / AFTERFIRE
- 13 RUN-ON / DIESELING 14 LACK OF POWER

#### FUEL & OIL CONSUMPTION

- 15 EXCESSIVE FUEL CONSUMPTION
- 16 EXCESSIVE OIL CONSUMPTION
- 17 BLACK SMOKE
- 18 WHITE SMOKE / BLUE SMOKE
- 19 FAILED EMISSION TEST / EXCEED EMISSION STANDARD HEATER / AIR CONDITIONING

59 INSUFFICIENT HEATING

#### MALFUNCTION

- 66 SEIZED OR STUCK
- 70 IMPROPER / CHANGING FREE PLAY

# 73 LOOSE LEAK, ENTERING & WATER DROP

- 76 OIL LEAK / GREASE LEAK
- 77 WATER LEAK / COOLANT LEAK 78 AIR / EXHAUST GAS / DUST / LIGHT LEAK

#### NOISE & VIBRATION

- 81 RESONANCE NOISE
- 82 UNUSUAL NOISE (excl. ENGINE KNOCKING, BRAKE SQUEAKING, OPERATION NOISE, RESONANCE NOISE) 83 UNUSUAL VIBRATION / CHATTER / JUDDER

#### ODOR, BURNT

- 84 UNUSUAL ODOR 85 BURNT / SMOKE

- 90 INTERFERE WITH OTHER PART 91 FELL OFF

- 93 SEIZED
- 95 INCORRECT PARTS INSTALLED AT FACTORY
- 96 PART NOT INSTALLED AT FACTORY

# DAMAGE CODE

### MATERIAL

- 9A BROKEN, DAMAGED, CRACKED
- 9B BENT, KINKED, TWISTED, DISTORTED, WARPED, DEFORMED
- 9C WORN
- 9D SCORED, GALLED, SCRATCHED, NICKED
- 9E DETERIORATED, WEAKENED, SOFTENED, FATIGUED

#### WORKMANSHIP

- 9G IMPROPER ASSEMBLY, IMPROPER TORQUE, BOLTS / NUTS LOOSEN
- 9H IMPROPER ADJUSTMENT
- 9J OUT OF BALANCE
- 9K IMPROPER WELDING, POOR SEALING
- 9M IMPROPER MACHINING
- 9N INCORRECT PARTS INSTALLED AT FACTORY
- 9P PARTS NOT INSTALLED AT FACTORY

- 9Q SHORT CIRCUIT, DAMAGED INSULATION, SHORTED AGAINST BODY OR MOVING PARTS
- 9R OPEN CIRCUIT, HIGH RESISTANCE, FATIGUE OPEN CIRCUIT DUE TO VIBRATION OF HARNESS
- 9S LOOSE COUPLER CONNECTION
- 9T CONNECTION(S) CAME OUT OF COUPLER
- 9U PINCHED HARNESS
- 9V INCORRECT WIRING
- 9W INTERNAL FAILURE

# COLOR, PAINT & RUST

9Y RUST, CORROSION

92 SEIZED, BOUND, STUCK

93 FOREIGN MATERIAL, PLUGGED, CLOGGED, CARBON DEPOSIT, POOR CONTACT DUE TO DIRT / RUST / DUST

94 PIN HOLE, POROUS, CASTING FLAW

97 IMPROPER CLEARANCE, OVER / UNDER SIZE

\* The codes on this page will cover most of the parts, components, or systems contained in this Section. However, if suitable codes cannot be found, refer to the complete code chart in TROUB CODE (ALL).

# TROUBLE CODE (C section)

#### SYMPTOM CODE

#### START / IDLE

- 01 ENGINE DOSE NOT START
- 02 ENGINE HARD START
- 03 ROUGH IDLE

#### DRIVEABILITY

- 04 ENGINE STALLS WHILE DRIVING WILL NOT RESTART
- 05 ENGINE STALLS WHILE DRIVING WILL RESTART
- 06 RPM DOES NOT INCREASE
- 07 RPM DOES NOT DECREASE
- 08 HESITATION / SURGING / MISFIRE
- 09 ENGINE OVERHEATS
- 10 ENGINE DOES NOT REACH OPERATING TEMP
- 11 ENGINE KNOCKING
- 12 ENGINE BACKFIRE / AFTERFIRE
- 13 RUN-ON / DIESELING
- 14 LACK OF POWER

#### FUEL & OIL CONSUMPTION

- 15 EXCESSIVE FUEL CONSUMPTION
- 16 EXCESSIVE OIL CONSUMPTION
- 17 BLACK SMOKE
- 18 WHITE SMOKE / BLUE SMOKE
- 19 FAILED EMISSION TEST / EXCEED EMISSION STANDARD

#### HEATER / AIR CONDITIONING

59 INSUFFICIENT HEATING

# LEAK, ENTERING & WATER DROP

- 76 OIL LEAK / GREASE LEAK
- 77 WATER LEAK / COOLANT LEAK
- 78 AIR / EXHAUST GAS / DUST / LIGHT LEAK

# NOISE & VIBRATION

- 81 RESONANCE NOISE
- $82\ UNUSUAL\ NOISE\ (excl.\ ENGINE\ KNOCKING, BRAKE\ SQUEAKING, OPERATION\ NOISE, RESONANCE\ NOISE)$
- 83 UNUSUAL VIBRATION / CHATTER / JUDDER

# ODOR, BURNT

- 84 UNUSUAL ODOR
- $85\;BURNT\,/\,SMOKE$

#### OTHERS

- 90 INTERFERE WITH OTHER PART
- 91 FELL OFF
- 92 BROKEN
- 93 SEIZED
- 95 INCORRECT PARTS INSTALLED AT FACTORY
- 96 PART NOT INSTALLED AT FACTORY

#### DAMAGE CODE

# MATERIAL

- 9A BROKEN, DAMAGED, CRACKED
- $9 \hbox{B} \hbox{ BENT, KINKED, TWISTED, DISTORTED, WARPED, DEFORMED} \\$
- 9C WORN
- 9D SCORED, GALLED, SCRATCHED, NICKED
- 9E DETERIORATED, WEAKENED, SOFTENED, FATIGUED

### WORKMANSHIP

- 9G IMPROPER ASSEMBLY, IMPROPER TORQUE, BOLTS / NUTS LOOSEN
- 9H IMPROPER ADJUSTMENT
- 9J OUT OF BALANCE
- 9K IMPROPER WELDING, POOR SEALING
- 9M IMPROPER MACHINING
- 9N INCORRECT PARTS INSTALLED AT FACTORY

#### 9P PARTS NOT INSTALLED AT FACTORY

#### ELECTRICAL

- 9Q SHORT CIRCUIT, DAMAGED INSULATION, SHORTED AGAINST BODY OR MOVING PARTS
- 9R OPEN CIRCUIT, HIGH RESISTANCE, FATIGUE OPEN CIRCUIT DUE TO VIBRATION OF HARNESS
- 9S LOOSE COUPLER CONNECTION
- 9T CONNECTION(S) CAME OUT OF COUPLER
- 9U PINCHED HARNESS
- 9V INCORRECT WIRING
- 9W INTERNAL FAILURE

#### $\mathbf{COLOR}, \mathbf{PAINT} \ \& \ \mathbf{RUST}$

9Y RUST, CORROSION

- 92 SEIZED, BOUND, STUCK
- 93 FOREIGN MATERIAL, PLUGGED, CLOGGED, CARBON DEPOSIT, POOR CONTACT DUE TO DIRT / RUST / DUST
- 94 PIN HOLE, POROUS, CASTING FLAW
- 97 IMPROPER CLEARANCE, OVER / UNDER SIZE
- \* The codes on this page will cover most of the parts, components, or systems contained in this Section. However, if suitable codes cannot be found, refer to the complete code chart in <a href="TROUBLE CODE">TROUBLE CODE (ALL)</a>.

### TROUBLE CODE (D section)

#### SYMPTOM CODE

#### START / IDLE

- 01 ENGINE DOSE NOT START
- 02 ENGINE HARD START
- 03 ROUGH IDLE

#### DRIVEABILITY

- 04 ENGINE STALLS WHILE DRIVING WILL NOT RESTART
- 05 ENGINE STALLS WHILE DRIVING WILL RESTART
- 06 RPM DOES NOT INCREASE
- 07 RPM DOES NOT DECREASE
- 08 HESITATION / SURGING / MISFIRE
- 09 ENGINE OVERHEATS
- 10 ENGINE DOES NOT REACH OPERATING TEMP
- 11 ENGINE KNOCKING
- 12 ENGINE BACKFIRE / AFTERFIRE
- 13 RUN-ON / DIESELING
- 14 LACK OF POWER

#### FUEL & OIL CONSUMPTION

- 16 EXCESSIVE OIL CONSUMPTION
- 17 BLACK SMOKE
- 18 WHITE SMOKE / BLUE SMOKE
- 19 FAILED EMISSION TEST / EXCEED EMISSION STANDARD

#### HEATER / AIR CONDITIONING

59 INSUFFICIENT HEATING

#### MALFUNCTION

- 66 SEIZED OR STUCK
- 73 LOOSI

# LEAK, ENTERING & WATER DROP

- 76 OIL LEAK / GREASE LEAK
- 77 WATER LEAK / COOLANT LEAK
- 78 AIR / EXHAUST GAS / DUST / LIGHT LEAK

### NOISE & VIBRATION

- 81 RESONANCE NOISE
- $82\ UNUSUAL\ NOISE\ (excl.\ ENGINE\ KNOCKING,\ BRAKE\ SQUEAKING,\ OPERATION\ NOISE,\ RESONANCE\ NOISE)$
- 83 UNUSUAL VIBRATION / CHATTER / JUDDER

# ODOR, BURNT

- 84 UNUSUAL ODOR
- 85 BURNT / SMOKE

#### OTHERS

- $90\ \mathrm{INTERFERE}$  WITH OTHER PART
- 91 FELL OFF
- 92 BROKEN
- 93 SEIZED
- 95 INCORRECT PARTS INSTALLED AT FACTORY
- 96 PART NOT INSTALLED AT FACTORY

# DAMAGE CODE

# MATERIAL

- 9A BROKEN, DAMAGED, CRACKED
- $9B\ BENT, KINKED, TWISTED, DISTORTED, WARPED, DEFORMED$
- 9C WORN
- 9D SCORED, GALLED, SCRATCHED, NICKED
- 9E DETERIORATED, WEAKENED, SOFTENED, FATIGUED

# WORKMANSHIP

- 9G IMPROPER ASSEMBLY, IMPROPER TORQUE, BOLTS / NUTS LOOSEN
- 9H IMPROPER ADJUSTMENT
- 9J OUT OF BALANCE
- 9K IMPROPER WELDING, POOR SEALING

- 9M IMPROPER MACHINING
- 9N INCORRECT PARTS INSTALLED AT FACTORY
- 9P PARTS NOT INSTALLED AT FACTORY

#### ELECTRICAL

- 9Q SHORT CIRCUIT, DAMAGED INSULATION, SHORTED AGAINST BODY OR MOVING PARTS
- 9R OPEN CIRCUIT, HIGH RESISTANCE, FATIGUE OPEN CIRCUIT DUE TO VIBRATION OF HARNESS
- 9S LOOSE COUPLER CONNECTION
- 9T CONNECTION(S) CAME OUT OF COUPLER
- 9U PINCHED HARNESS
- 9V INCORRECT WIRING
- $9W\ INTERNAL\ FAILURE$

#### COLOR, PAINT & RUST

- 9Y RUST, CORROSION
- 92 SEIZED, BOUND, STUCK
- $93\,FOREIGN\,MATERIAL, PLUGGED, CLOGGED, CARBON\,DEPOSIT, POOR\,CONTACT\,DUE\,TO\,DIRT\,/\,RUST\,/\,DUST$
- 94 PIN HOLE, POROUS, CASTING FLAW
- 97 IMPROPER CLEARANCE, OVER / UNDER SIZE
- \* The codes on this page will cover most of the parts, components, or systems contained in this Section. However, if suitable codes cannot be found, refer to the complete code chart in TROUBLE CODE (ALL).

### **TROUBLE CODE (E section)**

#### SYMPTOM CODE

#### START / IDLE

- 01 ENGINE DOSE NOT START
- 02 ENGINE HARD START
- 03 ROUGH IDLE

#### DRIVEABILITY

- 04 ENGINE STALLS WHILE DRIVING WILL NOT RESTART
- 05 ENGINE STALLS WHILE DRIVING WILL RESTART
- 06 RPM DOES NOT INCREASE
- 07 RPM DOES NOT DECREASE
- 08 HESITATION / SURGING / MISFIRE
- 09 ENGINE OVERHEATS
- 10 ENGINE DOES NOT REACH OPERATING TEMP
- 11 ENGINE KNOCKING
- 12 ENGINE BACKFIRE / AFTERFIRE
- 13 RUN-ON / DIESELING
- 14 LACK OF POWER

#### HEATER / AIR CONDITIONING

59 INSUFFICIENT HEATING

#### MALFUNCTION

- 61 DOES NOT SWITCH ON / NO INDICATION / INOPERATIVE / NO LIGHTING/NO WARNING
- 62 DOES NOT SWITCH OFF / INDICATOR STAYS ON / OPERATION STAYS ON / LIGHT STAYS ON / WARNING LIGHT STAYS ON
- 63 STOPS IN THE MIDDLE OF OPERATION
- 64 IMPROPER OPERATION
- 73 LOOSE

#### LEAK, ENTERING & WATER DROP

- 76 OIL LEAK / GREASE LEAK
- 77 WATER LEAK / COOLANT LEAK
- 78 AIR / EXHAUST GAS / DUST / LIGHT LEAK

# NOISE & VIBRATION

- 80 EXCESSIVE OPERATING NOISE
- 81 RESONANCE NOISE
- 82 UNUSUAL NOISE (excl. ENGINE KNOCKING, BRAKE SQUEAKING, OPERATION NOISE, RESONANCE NOISE)
- $83\;UNUSUAL\;VIBRATION\,/\,CHATTER\,/\,JUDDER$

#### ODOR, BURNT

- 84 UNUSUAL ODOR
- 85 BURNT / SMOKE
- 86 BLOWN FUSE

#### OTHERS

- 90 INTERFERE WITH OTHER PART
- 91 FELL OFF
- 92 BROKEN
- 93 SEIZED
- 95 INCORRECT PARTS INSTALLED AT FACTORY
- 96 PART NOT INSTALLED AT FACTORY

# DAMAGE CODE

# MATERIAL

- 9A BROKEN, DAMAGED, CRACKED
- $9B\ BENT, KINKED, TWISTED, DISTORTED, WARPED, DEFORMED$
- 9C WORN
- 9D SCORED, GALLED, SCRATCHED, NICKED
- 9E DETERIORATED, WEAKENED, SOFTENED, FATIGUED

# WORKMANSHIP

- 9G IMPROPER ASSEMBLY, IMPROPER TORQUE, BOLTS / NUTS LOOSEN
- 9H IMPROPER ADJUSTMENT
- 9J OUT OF BALANCE
- 9K IMPROPER WELDING, POOR SEALING

- 9M IMPROPER MACHINING
- 9N INCORRECT PARTS INSTALLED AT FACTORY
- 9P PARTS NOT INSTALLED AT FACTORY

#### ELECTRICAL

- 9Q SHORT CIRCUIT, DAMAGED INSULATION, SHORTED AGAINST BODY OR MOVING PARTS
- 9R OPEN CIRCUIT, HIGH RESISTANCE, FATIGUE OPEN CIRCUIT DUE TO VIBRATION OF HARNESS
- 9S LOOSE COUPLER CONNECTION
- 9T CONNECTION(S) CAME OUT OF COUPLER
- 9U PINCHED HARNESS
- 9V INCORRECT WIRING
- $9W\ INTERNAL\ FAILURE$

#### COLOR, PAINT & RUST

9Y RUST, CORROSION

- 92 SEIZED, BOUND, STUCK
- $93\ FOREIGN\ MATERIAL,\ PLUGGED,\ CLOGGED,\ CARBON\ DEPOSIT,\ POOR\ CONTACT\ DUE\ TO\ DIRT\ /\ RUST\ /\ DUST$
- 94 PIN HOLE, POROUS, CASTING FLAW
- 97 IMPROPER CLEARANCE, OVER / UNDER SIZE
- \* The codes on this page will cover most of the parts, components, or systems contained in this Section. However, if suitable codes cannot be found, refer to the complete code chart in TROUBLE CODE (ALL).

# **TROUBLE CODE (F section)**

#### SYMPTOM CODE

#### START / IDLE

- 01 ENGINE DOSE NOT START
- 02 ENGINE HARD START
- 03 ROUGH IDLE

#### DRIVEABILITY

- 04 ENGINE STALLS WHILE DRIVING WILL NOT RESTART
- 05 ENGINE STALLS WHILE DRIVING WILL RESTART
- 06 RPM DOES NOT INCREASE
- 07 RPM DOES NOT DECREASE
- $08\;HESITATION\,/\,SURGING\,/\,MISFIRE$
- 09 ENGINE OVERHEATS
- 10 ENGINE DOES NOT REACH OPERATING TEMP
- 11 ENGINE KNOCKING
- 12 ENGINE BACKFIRE / AFTERFIRE
- 13 RUN-ON / DIESELING
- 14 LACK OF POWER

#### FUEL & OIL CONSUMPTION

- 15 EXCESSIVE FUEL CONSUMPTION
- 16 EXCESSIVE OIL CONSUMPTION
- 17 BLACK SMOKE
- 18 WHITE SMOKE / BLUE SMOKE
- 19 FAILED EMISSION TEST / EXCEED EMISSION STANDARD

#### HEATER / AIR CONDITIONING

59 INSUFFICIENT HEATING

### MALFUNCTION

- 61 DOES NOT SWITCH ON / NO INDICATION / INOPERATIVE / NO LIGHTING/NO WARNING
- $62\ DOES\ NOT\ SWITCH\ OFF\ /\ INDICATOR\ STAYS\ ON\ /\ OPERATION\ STAYS\ ON\ /\ LIGHT\ STAYS\ ON\ /\ WARNING\ MARNING\ M$
- 64 IMPROPER OPERATION
- 65 IMPROPER INDICATION
- 69 WEAK PUMPING / IMPROPER SPRAYING
- 70 IMPROPER / CHANGING FREE PLAY
- 71 NO/LATE RETURN TO THE ORIGINAL POSITION
- 73 LOOSE

#### LEAK, ENTERING & WATER DROP

- 75 FUEL LEAK
- 76 OIL LEAK / GREASE LEAK
- 77 WATER LEAK / COOLANT LEAK
- 78 AIR / EXHAUST GAS / DUST / LIGHT LEAK

#### NOISE & VIBRATION

- 80 EXCESSIVE OPERATING NOISE
- 81 RESONANCE NOISE
- 82 UNUSUAL NOISE (excl. ENGINE KNOCKING, BRAKE SQUEAKING, OPERATION NOISE, RESONANCE NOISE)
- 83 UNUSUAL VIBRATION / CHATTER / JUDDER

# ODOR, BURNT

- 84 UNUSUAL ODOR
- 85 BURNT / SMOKE

#### OTHERS

- 90 INTERFERE WITH OTHER PART
- 91 FELL OFF 92 BROKEN
- 93 SEIZED
- 95 INCORRECT PARTS INSTALLED AT FACTORY
- 96 PART NOT INSTALLED AT FACTORY

# DAMAGE CODE

#### MATERIAL

9A BROKEN, DAMAGED, CRACKED

- 9B BENT, KINKED, TWISTED, DISTORTED, WARPED, DEFORMED
- 9C WORN
- 9D SCORED, GALLED, SCRATCHED, NICKED
- 9E DETERIORATED, WEAKENED, SOFTENED, FATIGUED

#### WORKMANSHIP

- 9G IMPROPER ASSEMBLY, IMPROPER TORQUE, BOLTS / NUTS LOOSEN
- 9H IMPROPER ADJUSTMENT
- 9J OUT OF BALANCE
- 9K IMPROPER WELDING, POOR SEALING
- 9M IMPROPER MACHINING
- 9N INCORRECT PARTS INSTALLED AT FACTORY
- 9P PARTS NOT INSTALLED AT FACTORY

#### ELECTRICAL

- 9Q SHORT CIRCUIT, DAMAGED INSULATION, SHORTED AGAINST BODY OR MOVING PARTS
- 9R OPEN CIRCUIT, HIGH RESISTANCE, FATIGUE OPEN CIRCUIT DUE TO VIBRATION OF HARNESS
- 9S LOOSE COUPLER CONNECTION
- 9T CONNECTION(S) CAME OUT OF COUPLER
- 9U PINCHED HARNESS
- 9V INCORRECT WIRING
- 9W INTERNAL FAILURE

#### COLOR, PAINT & RUST

9Y RUST, CORROSION

- 92 SEIZED, BOUND, STUCK
- $93\,FOREIGN\,MATERIAL, PLUGGED, CLOGGED, CARBON\,DEPOSIT, POOR\,CONTACT\,DUE\,TO\,DIRT\,/\,RUST\,/\,DUST$
- 94 PIN HOLE, POROUS, CASTING FLAW
- 95 AIR BUBBLES
- 97 IMPROPER CLEARANCE, OVER / UNDER SIZE
- \* The codes on this page will cover most of the parts, components, or systems contained in this Section. However, if suitable codes cannot be found, refer to the complete code chart in TROUBLE CODE (ALL)

#### TROUBLE CODE (G section)

#### SYMPTOM CODE

#### START / IDLE

- 01 ENGINE DOSE NOT START
- 02 ENGINE HARD START
- 03 ROUGH IDLE

#### DRIVEABILITY

- 04 ENGINE STALLS WHILE DRIVING WILL NOT RESTART
- 05 ENGINE STALLS WHILE DRIVING WILL RESTART
- 06 RPM DOES NOT INCREASE
- 07 RPM DOES NOT DECREASE
- 08 HESITATION / SURGING / MISFIRE
- 09 ENGINE OVERHEATS
- 10 ENGINE DOES NOT REACH OPERATING TEMP
- 11 ENGINE KNOCKING
- 12 ENGINE BACKFIRE / AFTERFIRE
- 13 RUN-ON / DIESELING
- 14 LACK OF POWER

#### FUEL & OIL CONSUMPTION

- 15 EXCESSIVE FUEL CONSUMPTION
- 17 BLACK SMOKE
- 18 WHITE SMOKE / BLUE SMOKE
- 19 FAILED EMISSION TEST / EXCEED EMISSION STANDARD

#### BATTERY CHARGE

- 20 UNDERCHARGING / DEAD BATTERY
- 21 OVERCHARGING

#### MALFUNCTION

- 61 DOES NOT SWITCH ON / NO INDICATION / INOPERATIVE / NO LIGHTING/NO WARNING
- $62\ DOES\ NOT\ SWITCH\ OFF\ /\ INDICATOR\ STAYS\ ON\ /\ OPERATION\ STAYS\ ON\ /\ LIGHT\ STAYS\ ON\ /\ WARNING\ W$
- 63 STOPS IN THE MIDDLE OF OPERATION
- 64 IMPROPER OPERATION
- 65 IMPROPER INDICATION
- $\mathbf{69}\;\mathbf{WEAK}\;\mathbf{PUMPING}\,/\,\mathbf{IMPROPER}\;\mathbf{SPRAYING}$
- 71 NO/LATE RETURN TO THE ORIGINAL POSITION
- 73 LOOSE

#### LEAK, ENTERING & WATER DROP

76 OIL LEAK / GREASE LEAK

# NOISE & VIBRATION

- 80 EXCESSIVE OPERATING NOISE
- 81 RESONANCE NOISE
- $82\ UNUSUAL\ NOISE\ (excl.\ ENGINE\ KNOCKING, BRAKE\ SQUEAKING, OPERATION\ NOISE, RESONANCE\ NOISE)$
- 83 UNUSUAL VIBRATION / CHATTER / JUDDER

# ODOR, BURNT

- 84 UNUSUAL ODOR
- 85 BURNT / SMOKE
- 86 BLOWN FUSE

# OTHERS

- 90 INTERFERE WITH OTHER PART
- 91 FELL OFF
- 95 INCORRECT PARTS INSTALLED AT FACTORY
- $96\ PART\ NOT\ INSTALLED\ AT\ FACTORY$

# DAMAGE CODE

#### WORKMANSHIP

- 9G IMPROPER ASSEMBLY, IMPROPER TORQUE, BOLTS / NUTS LOOSEN
- 9H IMPROPER ADJUSTMENT
- 9K IMPROPER WELDING, POOR SEALING
- 9M IMPROPER MACHINING
- 9N INCORRECT PARTS INSTALLED AT FACTORY
- 9P PARTS NOT INSTALLED AT FACTORY

# ELECTRICAL

9Q SHORT CIRCUIT, DAMAGED INSULATION, SHORTED AGAINST BODY OR MOVING PARTS

9R OPEN CIRCUIT, HIGH RESISTANCE, FATIGUE OPEN CIRCUIT DUE TO VIBRATION OF HARNESS

9S LOOSE COUPLER CONNECTION

9T CONNECTION(S) CAME OUT OF COUPLER

9U PINCHED HARNESS

9V INCORRECT WIRING

9W INTERNAL FAILURE

\* The codes on this page will cover most of the parts, components, or systems contained in this Section. However, if suitable codes cannot be found, refer to the complete code chart in TROUBLE CODE (ALL).

# TROUBLE CODE (H section)

#### SYMPTOM CODE

#### DRIVEABILITY

05 ENGINE STALLS WHILE DRIVING - WILL RESTART

#### CLUTCH, TRANSMISSION, DRIVELINE

22 CLUTCH SLIPPING

24 HARD SHIFTING / NO SHIFTING / IMPROPER SYNCHRONIZATION / GEAR NOISE

#### MALFUNCTION

70 IMPROPER / CHANGING FREE PLAY

71 NO/LATE RETURN TO THE ORIGINAL POSITION

72 HARD TO OPERATE

73 LOOSE

# LEAK, ENTERING & WATER DROP

76 OIL LEAK / GREASE LEAK

#### NOISE & VIBRATION

81 RESONANCE NOISE

82 UNUSUAL NOISE (excl. ENGINE KNOCKING, BRAKE SQUEAKING, OPERATION NOISE, RESONANCE NOISE)

83 UNUSUAL VIBRATION / CHATTER / JUDDER

#### OTHERS

90 INTERFERE WITH OTHER PART

91 FELL OFF

92 BROKEN

93 SEIZED

94 PREMATURE WEAR

#### DAMAGE CODE

#### MATERIAL

9A BROKEN, DAMAGED, CRACKED

9B BENT, KINKED, TWISTED, DISTORTED, WARPED, DEFORMED

9C WORN

9D SCORED, GALLED, SCRATCHED, NICKED

# WORKMANSHIP

9G IMPROPER ASSEMBLY, IMPROPER TORQUE, BOLTS / NUTS LOOSEN

9H IMPROPER ADJUSTMENT

9J OUT OF BALANCE

9K IMPROPER WELDING, POOR SEALING

9M IMPROPER MACHINING

9N INCORRECT PARTS INSTALLED AT FACTORY

9P PARTS NOT INSTALLED AT FACTORY

# COLOR, PAINT & RUST

9Y RUST, CORROSION

#### OTHERS

92 SEIZED, BOUND, STUCK

 $93\,FOREIGN\,MATERIAL, PLUGGED, CLOGGED, CARBON\,DEPOSIT, POOR\,CONTACT\,DUE\,TO\,DIRT\,/\,RUST\,/\,DUST$ 

94 PIN HOLE, POROUS, CASTING FLAW

\* The codes on this page will cover most of the parts, components, or systems contained in this Section. However, if suitable codes cannot be found, refer to the complete code chart in TROUBLE CODE (ALL).

# **TROUBLE CODE (J section)**

#### SYMPTOM CODE

#### CLUTCH, TRANSMISSION, DRIVELINE

23 JUMPS OUT OF GEAR

24~HARD~SHIFTING~/~NO~SHIFTING~/~IMPROPER~SYNCHRONIZATION~/~GEAR~NOISE

26 SHIFT SHOCK

#### MALFUNCTION

73 LOOSE

#### LEAK, ENTERING & WATER DROP

76 OIL LEAK / GREASE LEAK

#### NOISE & VIBRATION

81 RESONANCE NOISE

82 UNUSUAL NOISE (excl. ENGINE KNOCKING, BRAKE SQUEAKING, OPERATION NOISE, RESONANCE NOISE)

83 UNUSUAL VIBRATION / CHATTER / JUDDER

#### OTHERS

90 INTERFERE WITH OTHER PART

91 FELL OFF

92 BROKEN

#### DAMAGE CODE

#### MATERIAL

9A BROKEN, DAMAGED, CRACKED

9B BENT, KINKED, TWISTED, DISTORTED, WARPED, DEFORMED

9C WORN

9D SCORED, GALLED, SCRATCHED, NICKED

9E DETERIORATED, WEAKENED, SOFTENED, FATIGUED

#### WORKMANSHIP

9G IMPROPER ASSEMBLY, IMPROPER TORQUE, BOLTS / NUTS LOOSEN

9H IMPROPER ADJUSTMENT

9J OUT OF BALANCE

9M IMPROPER MACHINING

 $9\mathrm{N}$  INCORRECT PARTS INSTALLED AT FACTORY

9P PARTS NOT INSTALLED AT FACTORY

# COLOR, PAINT & RUST

9Y RUST, CORROSION

# OTHERS

92 SEIZED, BOUND, STUCK

 $93\ FOREIGN\ MATERIAL, PLUGGED, CLOGGED, CARBON\ DEPOSIT, POOR\ CONTACT\ DUE\ TO\ DIRT\ /\ RUST\ /\ DUST$ 

94 PIN HOLE, POROUS, CASTING FLAW

97 IMPROPER CLEARANCE, OVER / UNDER SIZE

\* The codes on this page will cover most of the parts, components, or systems contained in this Section. However, if suitable codes cannot be found, refer to the complete code chart in <a href="TROUBLE CODE">TROUBLE CODE (ALL)</a>.

# TROUBLE CODE (K section)

#### SYMPTOM CODE

#### CLUTCH, TRANSMISSION, DRIVELINE

- 22 CLUTCH SLIPPING
- 25 VEHICLE WILL NOT MOVE / NO SHIFT
- 26 SHIFT SHOCK
- 27 TRANSMISSION SLIPPING / INCORRECT SHIFT POINTS
- 28 WILL NOT LOCK UP (TOROUE CONVERTER)
- 29 IMPROPER LOCK UP POINT (TORQUE CONVERTER)

#### MALFUNCTION

- $61\ DOES\ NOT\ SWITCH\ ON\ /\ NO\ INDICATION\ /\ INOPERATIVE\ /\ NO\ LIGHTING/NO\ WARNING$
- $62\ DOES\ NOT\ SWITCH\ OFF\ /\ INDICATOR\ STAYS\ ON\ /\ OPERATION\ STAYS\ ON\ /\ LIGHT\ STAYS\ ON\ /\ WARNING\ LIGHT\ STAYS\ ON\ WARNING\ W$
- 64 IMPROPER OPERATION
- 72 HARD TO OPERATE

#### LEAK, ENTERING & WATER DROP

76 OIL LEAK / GREASE LEAK

#### NOISE & VIBRATION

- 81 RESONANCE NOISE
- 82 UNUSUAL NOISE (excl. ENGINE KNOCKING, BRAKE SQUEAKING, OPERATION NOISE, RESONANCE NOISE)
- 83 UNUSUAL VIBRATION / CHATTER / JUDDER

#### OTHERS

- 90 INTERFERE WITH OTHER PART
- 91 FELL OFF
- 92 BROKEN

### DAMAGE CODE

#### MATERIAL

- 9A BROKEN, DAMAGED, CRACKED
- 9B BENT, KINKED, TWISTED, DISTORTED, WARPED, DEFORMED
- 9C WORN
- 9D SCORED, GALLED, SCRATCHED, NICKED
- 9E DETERIORATED, WEAKENED, SOFTENED, FATIGUED

#### WORKMANSHIP

- 9G IMPROPER ASSEMBLY, IMPROPER TORQUE, BOLTS / NUTS LOOSEN
- 9H IMPROPER ADJUSTMENT
- 9J OUT OF BALANCE
- 9M IMPROPER MACHINING
- 9N INCORRECT PARTS INSTALLED AT FACTORY
- 9P PARTS NOT INSTALLED AT FACTORY

# ELECTRICAL

- 9Q SHORT CIRCUIT, DAMAGED INSULATION, SHORTED AGAINST BODY OR MOVING PARTS
- 9R OPEN CIRCUIT, HIGH RESISTANCE, FATIGUE OPEN CIRCUIT DUE TO VIBRATION OF HARNESS
- 9S LOOSE COUPLER CONNECTION
- 9T CONNECTION(S) CAME OUT OF COUPLER
- 9U PINCHED HARNESS
- 9V INCORRECT WIRING
- 9W INTERNAL FAILURE

#### COLOR, PAINT & RUST

9Y RUST, CORROSION

- $92~\mathrm{SEIZED},$  BOUND, STUCK
- 93 FOREIGN MATERIAL, PLUGGED, CLOGGED, CARBON DEPOSIT, POOR CONTACT DUE TO DIRT / RUST / DUST
- 94 PIN HOLE, POROUS, CASTING FLAW
- 97 IMPROPER CLEARANCE, OVER / UNDER SIZE
- \* The codes on this page will cover most of the parts, components, or systems contained in this Section. However, if suitable codes cannot be found, refer to the complete code chart in <a href="TROUBLE CODE">TROUBLE CODE (ALL)</a>.

# TROUBLE CODE (L section)

#### SYMPTOM CODE

#### MALFUNCTION

73 LOOSE

#### LEAK, ENTERING & WATER DROP

76 OIL LEAK / GREASE LEAK

#### NOISE & VIBRATION

81 RESONANCE NOISE

82 UNUSUAL NOISE (excl. ENGINE KNOCKING, BRAKE SQUEAKING, OPERATION NOISE, RESONANCE NOISE)

83 UNUSUAL VIBRATION / CHATTER / JUDDER

# OTHERS

90 INTERFERE WITH OTHER PART

91 FELL OFF

# DAMAGE CODE

#### MATERIAL

9A BROKEN, DAMAGED, CRACKED

9B BENT, KINKED, TWISTED, DISTORTED, WARPED, DEFORME

9E DETERIORATED, WEAKENED, SOFTENED, FATIGUED

#### WORKMANSHIP

9G IMPROPER ASSEMBLY, IMPROPER TORQUE, BOLTS / NUTS LOOSEN

9J OUT OF BALANCE

9P PARTS NOT INSTALLED AT FACTORY

# COLOR, PAINT & RUST

9Y RUST, CORROSION

\* The codes on this page will cover most of the parts, components, or systems contained in this Section. However, if suitable codes cannot be found, refer to the complete code chart in TROUBLE CODE (ALL).

# TROUBLE CODE (M section)

#### SYMPTOM CODE

#### STEERING, AXLE, CHASSIS

- 31 STEERING SHIMMY
- 32 POOR DRIVE STABILITY / DRIFT TO THE RIGHT OR LEFT
- 33 UNEVEN VEHICLE HEIGHT
- 34 UNUSUAL / UNEVEN TIRE WEAR

#### MALFUNCTION

73 LOOSE

#### LEAK, ENTERING & WATER DROP

76 OIL LEAK / GREASE LEAK

#### NOISE & VIBRATION

- 81 RESONANCE NOISE
- 82 UNUSUAL NOISE (excl. ENGINE KNOCKING, BRAKE SQUEAKING, OPERATION NOISE, RESONANCE NOISE)
- 83 UNUSUAL VIBRATION / CHATTER / JUDDER

#### OTHERS

- 90 INTERFERE WITH OTHER PART
- 91 FELL OFF
- 92 BROKEN

#### DAMAGE CODE

#### MATERIAL

- 9A BROKEN, DAMAGED, CRACKED
- 9B BENT, KINKED, TWISTED, DISTORTED, WARPED, DEFORMED
- 9C WORN
- 9D SCORED, GALLED, SCRATCHED, NICKED

#### WORKMANSHIP

- 9G IMPROPER ASSEMBLY, IMPROPER TORQUE, BOLTS / NUTS LOOSEN
- 9H IMPROPER ADJUSTMENT
- 9J OUT OF BALANCE
- 9M IMPROPER MACHINING
- $9\mathrm{N}$  INCORRECT PARTS INSTALLED AT FACTORY
- 9P PARTS NOT INSTALLED AT FACTORY

#### ELECTRICAL

- 9Q SHORT CIRCUIT, DAMAGED INSULATION, SHORTED AGAINST BODY OR MOVING PARTS
- 9R OPEN CIRCUIT, HIGH RESISTANCE, FATIGUE OPEN CIRCUIT DUE TO VIBRATION OF HARNESS
- 9S LOOSE COUPLER CONNECTION
- 9T CONNECTION(S) CAME OUT OF COUPLER
- 9U PINCHED HARNESS
- 9V INCORRECT WIRING
- 9W INTERNAL FAILURE

# COLOR, PAINT & RUST

9Y RUST, CORROSION

- 92 SEIZED, BOUND, STUCK
- $93\,FOREIGN\,MATERIAL,\,PLUGGED,\,CLOGGED,CARBON\,DEPOSIT,\,POOR\,CONTACT\,DUE\,TO\,DIRT\,/\,RUST\,/\,DUST$
- 94 PIN HOLE, POROUS, CASTING FLAW
- 97 IMPROPER CLEARANCE, OVER / UNDER SIZE
- \* The codes on this page will cover most of the parts, components, or systems contained in this Section. However, if suitable codes cannot be found, refer to the complete code chart in <a href="TROUBLE CODE">TROUBLE CODE (ALL)</a>.

# **TROUBLE CODE (N section)**

#### SYMPTOM CODE

#### STEERING, AXLE, CHASSIS

30 STEERING WHEEL OFF CENTER

31 STEERING SHIMMY

32 POOR DRIVE STABILITY / DRIFT TO THE RIGHT OR LEFT

#### MALFUNCTION

61 DOES NOT SWITCH ON / NO INDICATION / INOPERATIVE / NO LIGHTING/NO WARNING

70 IMPROPER / CHANGING FREE PLAY

72 HARD TO OPERATE

73 LOOSE

#### LEAK, ENTERING & WATER DROP

76 OIL LEAK / GREASE LEAK

78 AIR / EXHAUST GAS / DUST / LIGHT LEAK

#### NOISE & VIBRATION

82 UNUSUAL NOISE (excl. ENGINE KNOCKING, BRAKE SQUEAKING, OPERATION NOISE, RESONANCE NOISE)

83 UNUSUAL VIBRATION / CHATTER / JUDDER

#### APPEARANCE

87 SPLIT / CUT / WARP

#### OTHERS

90 INTERFERE WITH OTHER PART

91 FELL OFF

92 BROKEN

#### DAMAGE CODE

#### MATERIAL

9A BROKEN, DAMAGED, CRACKED

9B BENT, KINKED, TWISTED, DISTORTED, WARPED, DEFORMED

9C WORN

9D SCORED, GALLED, SCRATCHED, NICKED

#### WORKMANSHIP

 $9G\ IMPROPER\ ASSEMBLY, IMPROPER\ TORQUE, BOLTS\ /\ NUTS\ LOOSEN$ 

9H IMPROPER ADJUSTMENT

9J OUT OF BALANCE

9M IMPROPER MACHINING

9N INCORRECT PARTS INSTALLED AT FACTORY

9P PARTS NOT INSTALLED AT FACTORY

# ELECTRICAL

9Q SHORT CIRCUIT, DAMAGED INSULATION, SHORTED AGAINST BODY OR MOVING PARTS

9R OPEN CIRCUIT, HIGH RESISTANCE, FATIGUE OPEN CIRCUIT DUE TO VIBRATION OF HARNESS

9S LOOSE COUPLER CONNECTION

9T CONNECTION(S) CAME OUT OF COUPLER

9U PINCHED HARNESS

9V INCORRECT WIRING

9W INTERNAL FAILURE

# COLOR, PAINT & RUST

9Y RUST, CORROSION

#### OTHERS

91 OIL / GREASE LEAK

92 SEIZED, BOUND, STUCK

 $93\,FOREIGN\,MATERIAL, PLUGGED, CLOGGED, CARBON\,DEPOSIT, POOR\,CONTACT\,DUE\,TO\,DIRT\,/\,RUST\,/\,DUST\,ARROW, CONTACT\,DUE\,TO\,DIRT\,/\,RUST\,/\,DUST\,ARROW, CONTACT\,DUE\,TO\,DIRT\,/\,RUST\,/\,DUST$ 

94 PIN HOLE, POROUS, CASTING FLAW

97 IMPROPER CLEARANCE, OVER / UNDER SIZE

\* The codes on this page will cover most of the parts, components, or systems contained in this Section. However, if suitable codes cannot be found, refer to the complete code chart in TROUBLE CODE (ALL).

# **TROUBLE CODE (P section)**

#### SYMPTOM CODE

#### BRAKE

35 SQUEAK

36 INSUFFICIENT BRAKING

37 BRAKES GRAB

38 BRAKES TOO SENSITIVE

39 UNEVEN BRAKING PERFORMANCE / PULL TO THE RIGHT OR LEFT

40 BRAKES DRAG

#### MALFUNCTION

61 DOES NOT SWITCH ON / NO INDICATION / INOPERATIVE / NO LIGHTING/NO WARNING

64 IMPROPER OPERATION

70 IMPROPER / CHANGING FREE PLAY

71 NO/LATE RETURN TO THE ORIGINAL POSITION

72 HARD TO OPERATE

73 LOOSE

#### LEAK, ENTERING & WATER DROP

76 OIL LEAK / GREASE LEAK

78 AIR / EXHAUST GAS / DUST / LIGHT LEAK

#### NOISE & VIBRATION

82 UNUSUAL NOISE (excl. ENGINE KNOCKING, BRAKE SQUEAKING, OPERATION NOISE, RESONANCE NOISE)

83 UNUSUAL VIBRATION / CHATTER / JUDDER

#### ODOR, BURNT

84 UNUSUAL ODOR

#### OTHERS

90 INTERFERE WITH OTHER PART

91 FELL OFF

94 PREMATURE WEAR

# DAMAGE CODE

### MATERIAL

9A BROKEN, DAMAGED, CRACKED

9B BENT, KINKED, TWISTED, DISTORTED, WARPED, DEFORMED

OC WORN

9D SCORED, GALLED, SCRATCHED, NICKED

9E DETERIORATED, WEAKENED, SOFTENED, FATIGUED

#### WORKMANSHIP

9G IMPROPER ASSEMBLY, IMPROPER TORQUE, BOLTS / NUTS LOOSEN

9H IMPROPER ADJUSTMENT

9J OUT OF BALANCE

9K IMPROPER WELDING, POOR SEALING

9L THREAD FAILURE, FAULTY STITCHING, IMPROPER SEWING

9M IMPROPER MACHINING

9N INCORRECT PARTS INSTALLED AT FACTORY

 $9P\,PARTS\,NOT\,INSTALLED$  AT FACTORY

#### ELECTRICAL

9Q SHORT CIRCUIT, DAMAGED INSULATION, SHORTED AGAINST BODY OR MOVING PARTS

 $9R\ OPEN\ CIRCUIT, HIGH\ RESISTANCE, FATIGUE\ OPEN\ CIRCUIT\ DUE\ TO\ VIBRATION\ OF\ HARNESS$ 

9S LOOSE COUPLER CONNECTION

9T CONNECTION(S) CAME OUT OF COUPLER

9U PINCHED HARNESS

9V INCORRECT WIRING

9W INTERNAL FAILURE

# COLOR, PAINT & RUST

9Y RUST, CORROSION

# OTHERS

91 OIL / GREASE LEAK

92 SEIZED, BOUND, STUCK

 $93\,FOREIGN\,MATERIAL,\,PLUGGED,\,CLOGGED,\,CARBON\,DEPOSIT,\,POOR\,CONTACT\,DUE\,TO\,DIRT\,/\,RUST\,/\,DUST\,ARBON\,DEPOSIT,\,POOR\,CONTACT\,DUE\,TO\,DIRT\,/\,RUST\,/\,DUST\,ARBON\,DEPOSIT,\,POOR\,CONTACT\,DUE\,TO\,DIRT\,/\,RUST\,/\,DUST\,ARBON\,DEPOSIT,\,POOR\,CONTACT\,DUE\,TO\,DIRT\,/\,RUST\,/\,DUST\,ARBON\,DEPOSIT,\,POOR\,CONTACT\,DUE\,TO\,DIRT\,/\,RUST\,/\,DUST\,/\,DUST\,ARBON\,DEPOSIT,\,POOR\,CONTACT\,DUE\,TO\,DIRT\,/\,RUST\,/\,DUST\,$ 

# 94 PIN HOLE, POROUS, CASTING FLAW

95 AIR BUBBLES

97 IMPROPER CLEARANCE, OVER / UNDER SIZE

\* The codes on this page will cover most of the parts, components, or systems contained in this Section. However, if suitable codes cannot be found, refer to the complete code chart in <a href="TROUBLE CODE">TROUBLE CODE (ALL)</a>.

# TROUBLE CODE (Q section)

#### SYMPTOM CODE

#### STEERING, AXLE, CHASSIS

31 STEERING SHIMMY

32 POOR DRIVE STABILITY / DRIFT TO THE RIGHT OR LEFT

33 UNEVEN VEHICLE HEIGHT

34 UNUSUAL / UNEVEN TIRE WEAR

#### MALFUNCTION

73 LOOSE

74 POOR MANEUVERABILITY

#### LEAK, ENTERING & WATER DROP

78 AIR / EXHAUST GAS / DUST / LIGHT LEAK

# NOISE & VIBRATION

81 RESONANCE NOISE

82 UNUSUAL NOISE (excl. ENGINE KNOCKING, BRAKE SQUEAKING, OPERATION NOISE, RESONANCE NOISE)

83 UNUSUAL VIBRATION / CHATTER / JUDDER

#### ODOR, BURNT

84 UNUSUAL ODOR

#### APPEARANCE

87 SPLIT / CUT / WARP

#### OTHERS

90 INTERFERE WITH OTHER PART

91 FELL OFF

92 BROKEN

95 INCORRECT PARTS INSTALLED AT FACTORY

96 PART NOT INSTALLED AT FACTORY

#### DAMAGE CODE

#### MATERIAL

9A BROKEN, DAMAGED, CRACKED

9B BENT, KINKED, TWISTED, DISTORTED, WARPED, DEFORMED

9C WORN

9D SCORED, GALLED, SCRATCHED, NICKED

# WORKMANSHIP

9G IMPROPER ASSEMBLY, IMPROPER TORQUE, BOLTS / NUTS LOOSEN

9H IMPROPER ADJUSTMENT

9J OUT OF BALANCE

9M IMPROPER MACHINING

9N INCORRECT PARTS INSTALLED AT FACTORY

9P PARTS NOT INSTALLED AT FACTORY

# COLOR, PAINT & RUST

9Y RUST, CORROSION

#### OTHERS

92 SEIZED, BOUND, STUCK

94 PIN HOLE, POROUS, CASTING FLAW

97 IMPROPER CLEARANCE, OVER / UNDER SIZE

\* The codes on this page will cover most of the parts, components, or systems contained in this Section. However, if suitable codes cannot be found, refer to the complete code chart in TROUBLE CODE (ALL).

#### TROUBLE CODE (R section)

#### SYMPTOM CODE

#### STEERING, AXLE, CHASSIS

- 31 STEERING SHIMMY
- 32 POOR DRIVE STABILITY / DRIFT TO THE RIGHT OR LEFT
- 33 UNEVEN VEHICLE HEIGHT
- 34 UNUSUAL / UNEVEN TIRE WEAR

#### MALFUNCTION

- 61 DOES NOT SWITCH ON / NO INDICATION / INOPERATIVE / NO LIGHTING/NO WARNING
- 62 DOES NOT SWITCH OFF / INDICATOR STAYS ON / OPERATION STAYS ON / LIGHT STAYS ON / WARNING LIGHT STAYS ON
- 63 STOPS IN THE MIDDLE OF OPERATION
- 64 IMPROPER OPERATION
- 73 LOOSE

# LEAK, ENTERING & WATER DROP

- 76 OIL LEAK / GREASE LEAK
- 78 AIR / EXHAUST GAS / DUST / LIGHT LEAK

#### NOISE & VIBRATION

- 81 RESONANCE NOISE
- 82 UNUSUAL NOISE (excl. ENGINE KNOCKING, BRAKE SQUEAKING, OPERATION NOISE, RESONANCE NOISE)
- 83 UNUSUAL VIBRATION / CHATTER / JUDDER

#### OTHERS

- 90 INTERFERE WITH OTHER PART
- 91 FELL OFF
- 92 BROKEN

#### DAMAGE CODE

### MATERIAL

- 9A BROKEN, DAMAGED, CRACKED
- 9B BENT, KINKED, TWISTED, DISTORTED, WARPED, DEFORMED
- 9C WORN
- 9D SCORED, GALLED, SCRATCHED, NICKED
- 9E DETERIORATED, WEAKENED, SOFTENED, FATIGUED

#### WORKMANSHII

- 9G IMPROPER ASSEMBLY, IMPROPER TORQUE, BOLTS / NUTS LOOSEN
- 9H IMPROPER ADJUSTMENT
- $9\mathrm{J}\ \mathrm{OUT}\ \mathrm{OF}\ \mathrm{BALANCE}$
- 9M IMPROPER MACHINING
- 9N INCORRECT PARTS INSTALLED AT FACTORY
- 9P PARTS NOT INSTALLED AT FACTORY

# ELECTRICAL

- 9Q SHORT CIRCUIT, DAMAGED INSULATION, SHORTED AGAINST BODY OR MOVING PARTS
- 9R OPEN CIRCUIT, HIGH RESISTANCE, FATIGUE OPEN CIRCUIT DUE TO VIBRATION OF HARNESS
- 9S LOOSE COUPLER CONNECTION
- 9T CONNECTION(S) CAME OUT OF COUPLER
- 9U PINCHED HARNESS
- 9V INCORRECT WIRING
- 9W INTERNAL FAILURE

#### COLOR, PAINT & RUST

9Y RUST, CORROSION

- $91~OIL\,/\,GREASE~LEAK$
- 92 SEIZED, BOUND, STUCK
- $93\,FOREIGN\,MATERIAL, PLUGGED, CLOGGED, CARBON\,DEPOSIT, POOR\,CONTACT\,DUE\,TO\,DIRT\,/\,RUST\,/\,DUST\,ARROW, CONTACT\,DUE\,TO\,DIRT\,/\,RUST\,/\,DUST\,ARROW, CONTACT\,DUE\,TO\,DIRT\,/\,RUST\,/\,DUST\,ARROW, CONTACT\,DUE\,TO\,DIRT\,/\,RUST\,/\,DUST\,$
- 94 PIN HOLE, POROUS, CASTING FLAW
- 97 IMPROPER CLEARANCE, OVER / UNDER SIZE
- \* The codes on this page will cover most of the parts, components, or systems contained in this Section. However, if suitable codes cannot be found, refer to the complete code chart in TROUBLE CODE (ALL).

### TROUBLE CODE (S section)

#### SYMPTOM CODE

#### OPENING / CLOSING OPERATION

- 41 DOES NOT OPEN/DOES NOT UNLOCK
- 42 DOES NOT CLOSE / DOES NOT LOCK
- 43 DOES NOT STAY IN POSITION

#### MALFUNCTION

- 61 DOES NOT SWITCH ON / NO INDICATION / INOPERATIVE / NO LIGHTING/NO WARNING
- 63 STOPS IN THE MIDDLE OF OPERATION
- 64 IMPROPER OPERATION
- 68 POOR WINDOW WIPING
- 69 WEAK PUMPING / IMPROPER SPRAYING
- 71 NO/LATE RETURN TO THE ORIGINAL POSITION
- 72 HARD TO OPERATE
- 74 POOR MANEUVERABILITY

#### LEAK, ENTERING & WATER DROP

- 77 WATER LEAK / COOLANT LEAK
- 78 AIR / EXHAUST GAS / DUST / LIGHT LEAK
- 79 CONDENSATION

#### NOISE & VIBRATION

- 81 RESONANCE NOISE
- 82 UNUSUAL NOISE (excl. ENGINE KNOCKING, BRAKE SQUEAKING, OPERATION NOISE, RESONANCE NOISE)
- 83 UNUSUAL VIBRATION / CHATTER / JUDDER

#### APPEARANCE

- 87 SPLIT / CUT / WARP
- 88 POOR VISIBILITY / DOUBLE VISION / INDICATION NOT CLEAR
- 89 OUT OF PROPER POSITION

#### OTHERS

- 90 INTERFERE WITH OTHER PART
- 91 FELL OFF
- 92 BROKEN
- 95 INCORRECT PARTS INSTALLED AT FACTORY
- 96 PART NOT INSTALLED AT FACTORY
- 97 WIND NOISE
- 98 DIRT / STAIN / SOILED

#### DAMAGE CODE

#### MATERIAL

- 9A BROKEN, DAMAGED, CRACKED
- 9B BENT, KINKED, TWISTED, DISTORTED, WARPED, DEFORMED
- 9C WORN
- 9D SCORED, GALLED, SCRATCHED, NICKED
- 9E DETERIORATED, WEAKENED, SOFTENED, FATIGUED
- 9F FOGGED, HAZY

# WORKMANSHIP

- 9G IMPROPER ASSEMBLY, IMPROPER TORQUE, BOLTS / NUTS LOOSEN
- 9H IMPROPER ADJUSTMENT
- 9J OUT OF BALANCE
- 9K IMPROPER WELDING, POOR SEALING
- 9L THREAD FAILURE, FAULTY STITCHING, IMPROPER SEWING
- 9M IMPROPER MACHINING
- 9N INCORRECT PARTS INSTALLED AT FACTORY
- 9P PARTS NOT INSTALLED AT FACTORY

# ELECTRICAL

- 9Q SHORT CIRCUIT, DAMAGED INSULATION, SHORTED AGAINST BODY OR MOVING PARTS
- 9R OPEN CIRCUIT, HIGH RESISTANCE, FATIGUE OPEN CIRCUIT DUE TO VIBRATION OF HARNESS
- 9V INCORRECT WIRING

#### COLOR, PAINT & RUST

 $9X\ PAINT\ FAILURE,\ FADED,\ DIRT,\ STAINED,\ TARNISHED$ 

9Y RUST, CORROSION

- 91 OIL / GREASE LEAK
- 92 SEIZED, BOUND, STUCK
- $93\,FOREIGN\,MATERIAL, PLUGGED, CLOGGED, CARBON\,DEPOSIT, POOR\,CONTACT\,DUE\,TO\,DIRT\,/\,RUST\,/\,DUST$
- 94 PIN HOLE, POROUS, CASTING FLAW
- 95 AIR BUBBLES
- 96 BURNED, MELTED
- 97 IMPROPER CLEARANCE, OVER / UNDER SIZE
- \* The codes on this page will cover most of the parts, components, or systems contained in this Section. However, if suitable codes cannot be found, refer to the complete code chart in TROUBLE CODE (ALL).

# TROUBLE CODE (T section)

#### SYMPTOM CODE

#### OPENING / CLOSING OPERATION

41 DOES NOT OPEN/DOES NOT UNLOCK

42 DOES NOT CLOSE / DOES NOT LOCK

#### COLOR, PAINT, RUST

49 FADED / DISCOLORED

53 RUST / CORROSION / PERFORATION

#### AUTO CRUISE

54 UNSTABLE SPEED CONTROL

55 MALFUNCTION

#### AUDIO

56 POOR RECEPTION

57 NOISE

58 OTHER MALFUNCTION IN AUDIO SYSTEM

#### MALFUNCTION

61 DOES NOT SWITCH ON / NO INDICATION / INOPERATIVE / NO LIGHTING/NO WARNING

 $62\ DOES\ NOT\ SWITCH\ OFF\ /\ INDICATOR\ STAYS\ ON\ /\ OPERATION\ STAYS\ ON\ /\ LIGHT\ STAYS\ ON\ /\ WARNING\ WARNING$ 

63 STOPS IN THE MIDDLE OF OPERATION

64 IMPROPER OPERATION

65 IMPROPER INDICATION

66 SEIZED OR STUCK

67 CANNOT SET / WILL NOT RELEASE

68 POOR WINDOW WIPING

69 WEAK PUMPING / IMPROPER SPRAYING

70 IMPROPER / CHANGING FREE PLAY

71 NO/LATE RETURN TO THE ORIGINAL POSITION

73 LOOSE

#### LEAK, ENTERING & WATER DROP

76 OIL LEAK / GREASE LEAK

77 WATER LEAK / COOLANT LEAK

78 AIR / EXHAUST GAS / DUST / LIGHT LEAK

### NOISE & VIBRATION

82 UNUSUAL NOISE (excl. ENGINE KNOCKING, BRAKE SQUEAKING, OPERATION NOISE, RESONANCE NOISE)

 $83\;UNUSUAL\;VIBRATION\,/\,CHATTER\,/\,JUDDER$ 

#### ODOR, BURNT

85 BURNT / SMOKE

86 BLOWN FUSE

#### APPEARANCE

87 SPLIT / CUT / WARP

88 POOR VISIBILITY / DOUBLE VISION / INDICATION NOT CLEAR

89 OUT OF PROPER POSITION

#### OTHERS

90 INTERFERE WITH OTHER PART

91 FELL OFF

92 BROKEN

95 INCORRECT PARTS INSTALLED AT FACTORY

96 PART NOT INSTALLED AT FACTORY

# DAMAGE CODE

# MATERIAL

9A BROKEN, DAMAGED, CRACKED

 $9B\ BENT, KINKED, TWISTED, DISTORTED, WARPED, DEFORMED$ 

9C WORN

9D SCORED, GALLED, SCRATCHED, NICKED

 $9 \hbox{E DETERIORATED, WEAKENED, SOFTENED, FATIGUED} \\$ 

# WORKMANSHIP

9G IMPROPER ASSEMBLY, IMPROPER TORQUE, BOLTS / NUTS LOOSEN

9N INCORRECT PARTS INSTALLED AT FACTORY

#### 9P PARTS NOT INSTALLED AT FACTORY

#### ELECTRICAL

- 9Q SHORT CIRCUIT, DAMAGED INSULATION, SHORTED AGAINST BODY OR MOVING PARTS
- 9R OPEN CIRCUIT, HIGH RESISTANCE, FATIGUE OPEN CIRCUIT DUE TO VIBRATION OF HARNESS
- 9S LOOSE COUPLER CONNECTION
- 9T CONNECTION(S) CAME OUT OF COUPLER
- 9U PINCHED HARNESS
- 9V INCORRECT WIRING
- 9W INTERNAL FAILURE

#### $\mathbf{COLOR}, \mathbf{PAINT} \ \& \ \mathbf{RUST}$

9Y RUST, CORROSION

- 93 FOREIGN MATERIAL, PLUGGED, CLOGGED, CARBON DEPOSIT, POOR CONTACT DUE TO DIRT / RUST / DUST
- 96 BURNED, MELTED
- 97 IMPROPER CLEARANCE, OVER / UNDER SIZE
- 98 INTERFERE WITH BODY, RATTLING NOISE FROM COUPLER OR HARNESS
- \* The codes on this page will cover most of the parts, components, or systems contained in this Section. However, if suitable codes cannot be found, refer to the complete code chart in <a href="TROUBLE CODE">TROUBLE CODE (ALL)</a>.

### TROUBLE CODE (U section)

#### SYMPTOM CODE

#### DRIVEABILITY

05 ENGINE STALLS WHILE DRIVING – WILL RESTART

#### HEATER / AIR CONDITIONING

59 INSUFFICIENT HEATING

60 IMPROPER TEMPERATURE CONTROL

#### MALFUNCTION

61 DOES NOT SWITCH ON / NO INDICATION / INOPERATIVE / NO LIGHTING/NO WARNING

 $62\ DOES\ NOT\ SWITCH\ OFF\ /\ INDICATOR\ STAYS\ ON\ /\ OPERATION\ STAYS\ ON\ /\ LIGHT\ STAYS\ ON\ /\ WARNING\ LIGHT\ STAYS\ ON\ WARNING\ W$ 

64 IMPROPER OPERATION

72 HARD TO OPERATE

73 LOOSE

# LEAK, ENTERING & WATER DROP

76 OIL LEAK / GREASE LEAK

77 WATER LEAK / COOLANT LEAK

78 AIR / EXHAUST GAS / DUST / LIGHT LEAK

79 CONDENSATION

#### NOISE & VIBRATION

 $80\ \mathsf{EXCESSIVE}\ \mathsf{OPERATING}\ \mathsf{NOISE}$ 

82 UNUSUAL NOISE (excl. ENGINE KNOCKING, BRAKE SQUEAKING, OPERATION NOISE, RESONANCE NOISE)

83 UNUSUAL VIBRATION / CHATTER / JUDDER

#### ODOR, BURNT

84 UNUSUAL ODOR

#### OTHERS

90 INTERFERE WITH OTHER PART

91 FELL OFF

92 BROKEN

95 INCORRECT PARTS INSTALLED AT FACTORY

96 PART NOT INSTALLED AT FACTORY

# DAMAGE CODE

### MATERIAL

9A BROKEN, DAMAGED, CRACKED

9B BENT, KINKED, TWISTED, DISTORTED, WARPED, DEFORMED

9C WORN

9D SCORED, GALLED, SCRATCHED, NICKED

9E DETERIORATED, WEAKENED, SOFTENED, FATIGUED

# WORKMANSHIP

9G IMPROPER ASSEMBLY, IMPROPER TORQUE, BOLTS / NUTS LOOSEN

9J OUT OF BALANCE

9K IMPROPER WELDING, POOR SEALING

9N INCORRECT PARTS INSTALLED AT FACTORY

9P PARTS NOT INSTALLED AT FACTORY

#### ELECTRICAL

9Q SHORT CIRCUIT, DAMAGED INSULATION, SHORTED AGAINST BODY OR MOVING PARTS

9R OPEN CIRCUIT, HIGH RESISTANCE, FATIGUE OPEN CIRCUIT DUE TO VIBRATION OF HARNESS

9S LOOSE COUPLER CONNECTION

9T CONNECTION(S) CAME OUT OF COUPLER

9U PINCHED HARNESS

9V INCORRECT WIRING

#### COLOR, PAINT & RUST

 $9W\ INTERNAL\ FAILURE$ 

9Y RUST, CORROSION

# OTHERS

92 SEIZED, BOUND, STUCK

 $93\ FOREIGN\ MATERIAL,\ PLUGGED,\ CLOGGED,\ CARBON\ DEPOSIT,\ POOR\ CONTACT\ DUE\ TO\ DIRT\ /\ RUST\ /\ DUST$ 

94 PIN HOLE, POROUS, CASTING FLAW

96 BURNED, MELTED

# 97 IMPROPER CLEARANCE, OVER / UNDER SIZE

\* The codes on this page will cover most of the parts, components, or systems contained in this Section. However, if suitable codes cannot be found, refer to the complete code chart in <a href="TROUBLE CODE">TROUBLE CODE (ALL)</a>.

# TROUBLE CODE (Y section)

#### SYMPTOM CODE

#### COLOR, PAINT, RUST

- 44 BLISTERS
- 45 PEELING / FLAKING
- 46 COLOR MISMATCH
- 47 GLAZING / HAIRLINE CRACKING
- 48 DIRT / FOREIGN MATERIAL UNDER SURFACE
- 49 FADED / DISCOLORED
- 50 PAINT THIN
- 51 RUNS / SAGS / OVER SPRAY
- 52 CHIPPED / PAINT SURFACE DAMAGE
- 53 RUST / CORROSION / PERFORATION

# LEAK, ENTERING & WATER DROP

- 77 WATER LEAK / COOLANT LEAK
- 78 AIR / EXHAUST GAS / DUST / LIGHT LEAK

#### DAMAGE CODE

#### MATERIAL

- 9A BROKEN, DAMAGED, CRACKED
- 9B BENT, KINKED, TWISTED, DISTORTED, WARPED, DEFORMED
- 9C WORN
- 9D SCORED, GALLED, SCRATCHED, NICKED
- 9E DETERIORATED, WEAKENED, SOFTENED, FATIGUED

#### WORKMANSHIP

- 9G IMPROPER ASSEMBLY, IMPROPER TORQUE, BOLTS / NUTS LOOSEN
- 9H IMPROPER ADJUSTMENT
- 9K IMPROPER WELDING, POOR SEALING
- 9N INCORRECT PARTS INSTALLED AT FACTORY
- 9P PARTS NOT INSTALLED AT FACTORY

#### COLOR, PAINT & RUST

- 9X PAINT FAILURE, FADED, DIRT, STAINED, TARNISHED
- 9Y RUST, CORROSION

- 97 IMPROPER CLEARANCE, OVER / UNDER SIZE
- \* The codes on this page will cover most of the parts, components, or systems contained in this Section. However, if suitable codes cannot be found, refer to the complete code chart in TROUBLE CODE (ALL).

# TROUBLE CODE (Z section)

#### SYMPTOM CODE

#### START / IDLE

- 01 ENGINE DOSE NOT START
- 02 ENGINE HARD START
- 03 ROUGH IDLE

#### BATTERY CHARGE

20 UNDERCHARGING / DEAD BATTERY

#### MALFUNCTION

- 64 IMPROPER OPERATION
- 65 IMPROPER INDICATION

# NOISE & VIBRATION

82 UNUSUAL NOISE (excl. ENGINE KNOCKING, BRAKE SQUEAKING, OPERATION NOISE, RESONANCE NOISE)

# ODOR, BURNT

- 84 UNUSUAL ODOR
- 85 BURNT / SMOKE
- 86 BLOWN FUSE

#### OTHERS

92 BROKEN

#### DAMAGE CODE

#### MATERIAL

9A BROKEN, DAMAGED, CRACKED

#### WORKMANSHIP

9G IMPROPER ASSEMBLY, IMPROPER TORQUE, BOLTS / NUTS LOOSEN

#### ELECTRICAL

- 9Q SHORT CIRCUIT, DAMAGED INSULATION, SHORTED AGAINST BODY OR MOVING PARTS
- 9R OPEN CIRCUIT, HIGH RESISTANCE, FATIGUE OPEN CIRCUIT DUE TO VIBRATION OF HARNESS
- 9S LOOSE COUPLER CONNECTION
- 9T CONNECTION(S) CAME OUT OF COUPLER
- 9U PINCHED HARNESS
- 9V INCORRECT WIRING

- 93 FOREIGN MATERIAL, PLUGGED, CLOGGED, CARBON DEPOSIT, POOR CONTACT DUE TO DIRT / RUST / DUST
- 98 INTERFERE WITH BODY, RATTLING NOISE FROM COUPLER OR HARNESS
- \* The codes on this page will cover most of the parts, components, or systems contained in this Section. However, if suitable codes cannot be found, refer to the complete code chart in TROUBLE CODE (ALL).

# LOCATION CODE (ALL)

#### S section

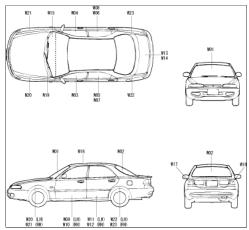
#### DUST ENTERING / AIR LEAK / WATER LEAK

SPECIAL PART NUMBERS

DUST OR AIRLEAK 5555-AU-001

WATER LEAK 5555-WA-001

These numbers should be used in accordance with the distributor's instructions.



W01 WINDOW-FRONT

W02 WINDOW-REAR

W03 WINDOW-LH FRONT DOOR

W04 WINDOW-RH FRONT DOOR

W05 WINDOW-LH REAR DOOR

W06 WINDOW-RH REAR DOOR

W07 WINDOW-LH SIDE

W08 WINDOW-RH SIDE

W09 DOOR-LH FRONT W10 DOOR-RH FRONT

W11 DOOR-LH REAR

WII DOOK-LII KEAK

W12 DOOR-RH REAR

W13 TRUNK LID

W14 REAR GATE

W15 DASH

W16 SUNROOF

W17 COMBINATION LAMP-LH

W18 COMBINATION LAMP- RH

W19 COWL PLATE

W20 WHEEL HOUSE-LH FRONT

W21 WHEEL HOUSE-RH FRONT

W22 WHEEL HOUSE-LH REAR

W23 WHEEL HOUSE-RH REAR LHD-LEFT

RHD-RIGHT

FRT-FRONT

RER-REAR

LFR-LEFT FRONT

RFR-RIGHT FRONT

LRR-LEFT REAR

RRR-RIGHT REAR

LWR-LOWER

UPR-UPPER

# Y section

### ${\bf PAINT\,/\,RUST\,/\,CORROSION\,/\,PERFORATION}$

Note: Prior authorization is required for repairs to paint or for correction of rust/corrosion/perforation.

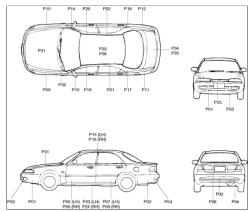
SPECIAL PART NUMBERS

PAINT 5555-PT-001

# RUST 5555-RS-001

# PERFORATION 5555-EN-001

These numbers should be used in accordance with the distributor's instructions.



P01 BUMPER-FRONT

P02 BUMPER-REAR

P03 SKIRT-FRONT

P04 SKIRT-REAR

P05 DOOR-LH FRONT

P06 DOOR-RH FRONT

P07 DOOR-LH REAR

10, Book Ell KEI

P08 DOOR-RH REAR

P09 FENDER-LH FRONT

P10 FENDER-RH FRONT

P11 FENDER-LH REAR

P12 FENDER-RH REAR

P13 PILLAR-LH FRONT P14 PILLAR-RH FRONT

P15 PILLAR-LH CENTER

P16 PILLAR-RH CENTER

P17 PILLAR-LH REAR

P18 PILLAR-RH REAR

P19 DOOR WINDOW FRAME-LH FRONT

P20 DOOR WINDOW FRAME-RH FRONT

P21 DOOR WINDOW FRAME-LH REAR

P22 DOOR WINDOW FRAME-RH REAR

P23 BODY SILL-LH

P24 BODY SILL-RH

P25 PANEL-FRONT

P26 PANEL-REAR

P31 HOOD

 ${\rm P32~COWL~PANEL}$ 

P33 ROOF

P34 TRUNK LID

P35 TAILGATE

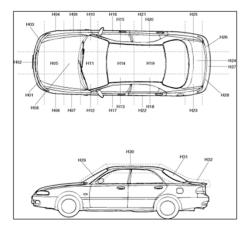
P36 FLOOR PANEL

P38 WHOLE SURFACE

P39 SLIDING SUNROOF

# Z section

WIRING HARNESS REPAIRS



H01 SHROUD-LH FRONT

H02 SHROUD-CENTER

H03 SHROUD-RH

H04 WHEEL APRON-RH FRONT

H05 ENGINE FRONT

H06 WHEEL APRON-LH FRONT

H07 WHEEL APRON-LH DASHBOARD SIDE

H08 ENGINE-DASHBOARD SIDE

H09 WHEEL APRON-RH DASHBOARD SIDE

 $\rm H10\,DASHBOARD$  & RH INSTRUMENT PANEL-RH

H11 DASHBOARD & RH INSTRUMENT PANEL-CENTER

H12 DASHBOARD & RH INSTRUMENT PANEL-LH

H13 FLOOR-LH FRONT

H14 FLOOR-CENTER FRONT

H15 FLOOR-RH FRONT

 ${\rm H}16\,{\rm DOOR\text{-}RH}\,{\rm FRONT}$ 

H17 DOOR-LH FRONT

H18 FLOOR-LH REAR

H19 FLOOR-CENTER REAR

H20 FLOOR-RH REAR

H21 DOOR-RH REAR

H22 DOOR-LH REAR

H23 TRUNK-LH FRONT

H24 TRUNK-CENTER FRONT

H25 TRUNK-RH FRONT

H26 TRUNK-RH REAR

H27 TRUNK-CENTER REAR

H28 TRUNK-LH REAR

H29 FRONT PILLAR

H30 ROOF

H31 REAR WINDOW

H32 TRUNK LID

LHD-LEFT

RHD-RIGHT

FRT-FRONT

RER-REAR

LFR-LEFT FRONT

RFR-RIGHT FRONT

LRR-LEFT REAR

RRR-RIGHT REAR

LWR-LOWER

UPR-UPPER

# **LOCATION CODE (S section)**

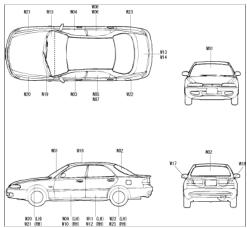
# DUST ENTERING / AIR LEAK / WATER LEAK

SPECIAL PART NUMBERS

DUST OR AIRLEAK 5555-AU-001

WATER LEAK 5555-WA-001

These numbers should be used in accordance with the distributor's instructions.



W01 WINDOW-FRONT

W02 WINDOW-REAR

W03 WINDOW-LH FRONT DOOR

W04 WINDOW-RH FRONT DOOR

W05 WINDOW-LH REAR DOOR

W06 WINDOW-RH REAR DOOR

W07 WINDOW-LH SIDE

W08 WINDOW-RH SIDE

W09 DOOR-LH FRONT

W10 DOOR-RH FRONT

W11 DOOR-LH REAR

W12 DOOR-RH REAR

W13 TRUNK LID

W14 REAR GATE

W15 DASH

W16 SUNROOF

W17 COMBINATION LAMP-LH

W18 COMBINATION LAMP- RH

W19 COWL PLATE

W20 WHEEL HOUSE-LH FRONT

W21 WHEEL HOUSE-RH FRONT

W22 WHEEL HOUSE-LH REAR

W23 WHEEL HOUSE-RH REAR

LHD-LEFT

RHD-RIGHT

FRT-FRONT RER-REAR

LFR-LEFT FRONT

RFR-RIGHT FRONT

LRR-LEFT REAR

RRR-RIGHT REAR

LWR-LOWER

UPR-UPPER

# **LOCATION CODE (Y section)**

# PAINT / RUST / CORROSION / PERFORATION

Note: Prior authorization is required for repairs to paint or for correction of rust/corrosion/perforation.

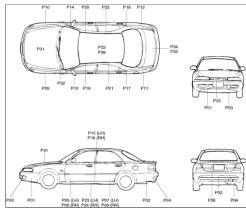
SPECIAL PART NUMBERS

PAINT 5555-PT-001

RUST 5555-RS-001

PERFORATION 5555-EN-001

These numbers should be used in accordance with the distributor's instructions.



P01 BUMPER-FRONT

P02 BUMPER-REAR

P03 SKIRT-FRONT

P04 SKIRT-REAR

P05 DOOR-LH FRONT

P06 DOOR-RH FRONT

P07 DOOR-LH REAR

P08 DOOR-RH REAR

P09 FENDER-LH FRONT

P10 FENDER-RH FRONT

P11 FENDER-LH REAR

P12 FENDER-RH REAR

P13 PILLAR-LH FRONT

P14 PILLAR-RH FRONT

P15 PILLAR-LH CENTER

P16 PILLAR-RH CENTER

P17 PILLAR-LH REAR

P18 PILLAR-RH REAR

P19 DOOR WINDOW FRAME-LH FRONT

P20 DOOR WINDOW FRAME-RH FRONT

P21 DOOR WINDOW FRAME-LH REAR

P22 DOOR WINDOW FRAME-RH REAR

P23 BODY SILL-LH

P24 BODY SILL-RH

P25 PANEL-FRONT

P26 PANEL-REAR

P31 HOOD

P32 COWL PANEL

P33 ROOF

P34 TRUNK LID

P35 TAILGATE

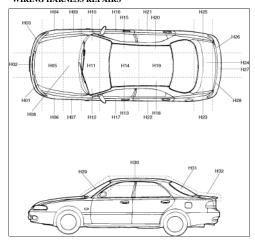
P36 FLOOR PANEL

P38 WHOLE SURFACE

P39 SLIDING SUNROOF

# **LOCATION CODE (Z section)**

# WIRING HARNESS REPAIRS



H01 SHROUD-LH FRONT

H02 SHROUD-CENTER

H03 SHROUD-RH

H04 WHEEL APRON-RH FRONT

H05 ENGINE FRONT

H06 WHEEL APRON-LH FRONT

H07 WHEEL APRON-LH DASHBOARD SIDE

H08 ENGINE-DASHBOARD SIDE

H09 WHEEL APRON-RH DASHBOARD SIDE

H10 DASHBOARD & RH INSTRUMENT PANEL-RH

H11 DASHBOARD & RH INSTRUMENT PANEL-CENTER

 $\ensuremath{\mathsf{H}12}$  DASHBOARD & RH INSTRUMENT PANEL-LH

 ${\rm H}13~{\rm FLOOR\text{-}LH}~{\rm FRONT}$ 

H14 FLOOR-CENTER FRONT

 ${\rm H}15~{\rm FLOOR\text{-}RH}~{\rm FRONT}$ 

H16 DOOR-RH FRONT

H17 DOOR-LH FRONT

H18 FLOOR-LH REAR

H19 FLOOR-CENTER REAR

H20 FLOOR-RH REAR

H21 DOOR-RH REAR

H22 DOOR-LH REAR H23 TRUNK-LH FRONT

H24 TRUNK-CENTER FRONT

H25 TRUNK-RH FRONT

H26 TRUNK-RH REAR

H27 TRUNK-CENTER REAR

 ${\rm H28~TRUNK\text{-}LH~REAR}$ 

H29 FRONT PILLAR

H30 ROOF

H31 REAR WINDOW

 ${\rm H32\ TRUNK\ LID}$ 

LHD-LEFT

RHD-RIGHT

FRT-FRONT

RER-REAR

LFR-LEFT FRONT

RFR-RIGHT FRONT

LRR-LEFT REAR

RRR-RIGHT REAR

LWR-LOWER

UPR-UPPER