

# MAINTENANCE INFORMATION

## 1986 Isuzu Trooper II

1984-91 MAINTENANCE  
Isuzu Maintenance Information

1984-91 Trooper II  
1989-91 Trooper

### \* PLEASE READ THIS FIRST \*

NOTE: For scheduled maintenance intervals and the related fluid capacities, fluid specifications and labor times for major service intervals, see SCHEDULED SERVICES article below:

- \* SCHEDULED SERVICES - DIESEL
- \* SCHEDULED SERVICES - GASOLINE

Warranty information and specifications for fluid capacities, lubrication specifications, wheel and tire size, and battery type are covered in this article.

## MODEL IDENTIFICATION

### VIN LOCATION

The Vehicle Identification Number (VIN) is located on the left side of the dash panel at the base of the windshield. The VIN chart explains the code characters.

### VIN CODE ID EXPLANATION

Numbers preceding the explanations in the legend below refer to the sequence of characters as listed on VIN identification label. See VIN example below.

(VIN)	J	A	C	C	H	6	7	A	2	N	5	9	0	0	0	2	1
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17

#### 1 - Manufacturing Country

- J \* Japan
- L \* Taiwan
- 4 \* United States

#### 2 - Manufacturer

- A \* Isuzu Motors LTD., Japan
- M \* Sanfu Motor Ind. Co., Taiwan
- S \* Isuzu Automotive Inc., United States
- 8 \* Isuzu Motors LTD., Canada

#### 3 - Vehicle Type

- A \* Truck
- C \* MPV

#### 4 - GVWR Range

- C \* 4001-5000 lbs.
- D \* 5001-6000 lbs.

#### 5 - Line & Chassis Type

H \* Van, 4WD

6 - Series  
 1 \* 2-Seat Utility  
 5 \* 5-Seat

7 - Body Type  
 5 \* 2-Door Trooper  
 7 \* 2-Door Trooper (Short Wheel)  
 8 \* 4-Door Trooper (Long Wheel)

8 - Engine  
 A \* G200Z 1.9L FI  
 E \* 4ZE1 2.6L FI  
 L \* 4ZD1 2.3L  
 R \* V6 2.8L FI  
 U \* C223-T 2.2L Turbo Diesel

9 - VIN Check Digit  
 2 \* Manufacturer's Internal Code

10 - Vehicle Model Year  
 E \* 1984  
 F \* 1985  
 G \* 1986  
 H \* 1987  
 J \* 1988  
 K \* 1989  
 L \* 1990  
 M \* 1991

11 - Assembly Plant  
 5 \* Fujisawa, Japan  
 6 \* Sanfu, Japan  
 7 \* Fujisawa, Japan  
 8 \* Fujisawa, Japan

12-17 - Serial Number  
 \* Sequential Production Number

## MAINTENANCE SERVICE INFORMATION

### SEVERE & NORMAL SERVICE DEFINITIONS

Service is recommended at mileage intervals based on vehicle operation. Service schedules are based on the following primary operating conditions:

#### Normal Service

- \* Driven More Than 10 Miles Daily
- \* No Operating Conditions From Severe Service Schedule

#### Severe Service (Unique Driving Conditions)

- \* Short Trips (About 10 Miles) In Freezing Temperatures
- \* Towing Or Heavily Loaded
- \* Severe Dust Conditions
- \* Hot Weather, Stop-And-Go Driving
- \* Extensive Idling Conditions (Taxi Or Delivery Type Service)

### CAMSHAFT TIMING BELT

CAUTION: Failure to replace a faulty camshaft timing belt may result in serious engine damage.

The condition of camshaft drive belts should always be checked on vehicles which have more than 50,000 miles. Although some manufacturers do not recommend belt replacement at a specified mileage, others require it at 60,000-100,000 miles. A camshaft drive belt failure may cause extensive damage to internal engine components on most engines, although some designs do not allow piston-to-valve contact. These designs are often called "Free Wheeling".

Many manufacturers changed their maintenance and warranty schedules in the mid-1980's to reflect timing belt inspection and/or replacement at 50,000-60,000 miles. Most service interval schedules in this manual reflect these changes.

Belts or components should be inspected and replaced if any of the following conditions exist:

- \* Cracks Or Tears In Belt Surface
- \* Missing, Damaged, Cracked Or Rounded Teeth
- \* Oil Contamination
- \* Damaged Or Faulty Tensioners
- \* Incorrect Tension Adjustment

Replace camshaft timing belt at 60,000 mile intervals.

## SERVICE LABOR TIMES

SERVICE LABOR TIMES TABLE (HOURS)

Application	15,000 Mile Service	30,000 Mile Service
1.9L FI (G200Z)		
Automatic Transmission .....	2.8	7.7
Manual Transmission .....	3.0	7.9
2.3L FI (4ZD1)		
Automatic Transmission .....	2.8	7.7
Manual Transmission .....	3.0	7.9
2.6L FI (4ZE1)		
Automatic Transmission .....	3.6	7.7
Manual Transmission .....	3.8	7.9
2.8L FI (V6)		
Automatic Transmission .....	4.9	9.2
Manual Transmission .....	5.1	9.4
2.2L Turbo Diesel (C223-T)		
Manual Transmission .....	2.6	6.4

SERVICE LABOR TIMES TABLE (HOURS)

Application	45,000 Mile Service	60,000 Mile Service
1.9L FI (G200Z)		
Automatic Transmission .....	2.8	7.7
Manual Transmission .....	3.0	7.9
2.3L FI (4ZD1)		
Automatic Transmission .....	2.8	9.6
Manual Transmission .....	3.0	9.8
2.6L FI (4ZE1)		
Automatic Transmission .....	2.8	9.6

Manual Transmission .....	3.0	.....	9.8
2.8L FI (V6)			
Automatic Transmission .....	4.9	.....	9.2
Manual Transmission .....	5.1	.....	9.4
2.2L Turbo Diesel (C223-T)			
Manual Transmission .....	2.6	.....	9.1

## LUBRICATION SPECIFICATIONS

### LUBRICATION SPECIFICATIONS TABLE

Application	Fluid Specifications
Engine Coolant .....	50/50 Ethylene Glycol/Water Mix
Engine Oil	
Gasoline Engine	
Minimum Temperature	
Greater Than 0°F (-18°C) .....	SAE 10W-30 API SG/SH
Greater Than 20°F (-7°C) .....	SAE 20W-50 API SG/SH
Maximum Temperature	
Less Than 20°F (-7°C) .....	SAE 5W-30 API SG/SH
Diesel Engine	
Minimum Temperature	
Greater Than 14°F (-10°C) .....	SAE 10W-30 API SG/CD
Maximum Temperature	
Less Than 14°F (-10°C) .....	(1) SAE 5W-30 API SG/CD
Automatic Transmission .....	Dexron-IIIE ATF
Manual Transmission	
Temperature Range	
Less Than 90°F (32°C) .....,.....	SAE 5W-30 API SF/SG
Greater Than 90°F (32°C) .....,.....	SAE 40 API SF/SG
Manual Transmission with Transfer Case (1984-87)	
Temperature Range	
Less Than 90°F (32°C) .....	SAE 5W-30 API SF/SG
Greater Than 90°F (32°C) .....	SAE 40 API SF/SG
Transfer Case	
Automatic Transmission	
1988-89 .....	Dexron-IIIE ATF
1990-91 (2.6L) .....	Dexron-IIIE ATF
1990-91 (2.8L)	
Temperature Range	
Greater Than 90°F (32°C) .....	SAE 40 API SF/SG
Less Than 90°F (32°C) .....	SAE 5W-30 API SF/SG
Manual Transmission	
Temperature Range	
Greater Than 90°F (32°C) .....	SAE 40 API SF/SG
Less Than 90°F (32°C) .....	SAE 5W-30 API SF/SG
Front & Rear Axle Lubricant	
Temperature	
Less Than 50°F (10°C) .....	SAE 80W-90 API GL-5
Greater Than 50°F (10°C) .....	SAE 80W-140 API GL-5
Rear Axle Lubricant W/Limited Slip	
Temperature	
Less Than 50°F (10°C) .....	SAE 80W-90 API GL-5 LSD
Greater Than 50°F (10°C) .....	SAE 80W-140 API GL-5 LSD
Power Steering Fluid .....	Dexron-IIIE ATF
Brake Fluid .....	DOT-3 Brake Fluid

(1) - Not recommended for sustained high speed driving.

## FLUID CAPACITIES

FLUID CAPACITIES TABLE (1)

Application	Quantity
A/C System R-12 Refrigerant Capacity .....	34 Ozs.
Cooling System	
1.9L 4-Cyl. ....	6.4 Qts. (6.0L)
2.2L Turbo Diesel .....	11.2 Qts. (10.6L)
2.3L 4-Cyl. ....	8.5 Qts. (8.0L)
2.6L 4-Cyl. ....	8.5 Qts. (8.0L)
2.8L V6 .....	10.6 Qts. (10.0L)
Engine Oil (3)	
1.9L .....	3.8 Qts. (3.6L)
2.2L Turbo Diesel .....	6 Qts. (5.7L)
2.3L .....	4.4 Qts. (4.2L)
2.6L .....	5.2 Qts. (4.9L)
2.8L .....	4.5 Qts. (4.3L)
Automatic Transmission	
2.6L Engine .....	12 Qts. (11.4L)
2.8L Engine .....	9.3 Qts. (8.8L)
Manual Transmission	
1988-91 .....	3.1 Qts. (2.95L)
Manual Transmission With Transfer Case (1984-87)	
1984-87 .....	2.6 Qts. (2.5L)
Transfer Case (1988-91)	
2.6L .....	1.2 Qts. (1.1L)
2.8L .....	1.5 Qts. (1.45L)
Differential	
1984-87	
Front Axle .....	1.06 Qts. (1.0L)
Rear Axle .....	1.6 Qts. (1.5L)
1988-91	
Front Axle .....	1.6 Qts. (1.5L)
Rear Axle .....	1.9 Qts. (1.8L)
Fuel Tank	
1984-85 .....	13.2 Gals. (50L)
1986-91 .....	21.9 Gals. (83L)

- (1) - Capacities are recommended or calculated levels. Always use dipstick (if available) to measure level.  
 (2) - Use of R12 in a R134a system will result in SEVERE DAMAGE.  
 (3) - Includes filter change.

## WHEEL & TIRE SPECIFICATIONS

Wheel and tire information can be found on the Gross Vehicle Weight Rating (GVWR) decal located on the driver's door.

WHEEL & TIRE SPECIFICATIONS TABLE

Wheel Size	Tire Size
1984-86	
15 x 6"JJ .....	P225/75R-15
1988-91	
15 x 6"JJ .....	P235/75R-15
15 x 7"JJ .....	31 x 10.50R-15

## INFLATION PRESSURES

Application	psi (kg/cm <sup>2</sup> )
1984-86	
P225/75R-15 .....	26 (1.8)
1987-91	
P235/75R-15 .....	35 (2.4)
31 x 10.50R-15 .....	28 (2.0)

## WHEEL TIGHTENING

Tighten wheel lug nuts to 58-87 ft. lbs. (80-120 N.m) for steel wheels and to 80-94 ft. lbs. (110-130 N.m) for aluminum wheels.

## CAUTIONS & WARNINGS

### DIESEL ENGINES

**CAUTION:** Using SAE 10W-40 oil, or any other viscosity other than those viscosities recommended by Isuzu may reduce engine life and affect warranty.

## WARRANTY INFORMATION

**CAUTION:** When battery is disconnected, vehicles equipped with computers may lose memory data. When battery power is restored, driveability problems may exist on some vehicles. These vehicles may require a relearn procedure. See COMPUTER RELEARN PROCEDURES article in the GENERAL INFORMATION Section.

If battery is replaced, new battery should be of the same group number as shown on the original battery's label.

## BATTERY SPECIFICATIONS TABLE

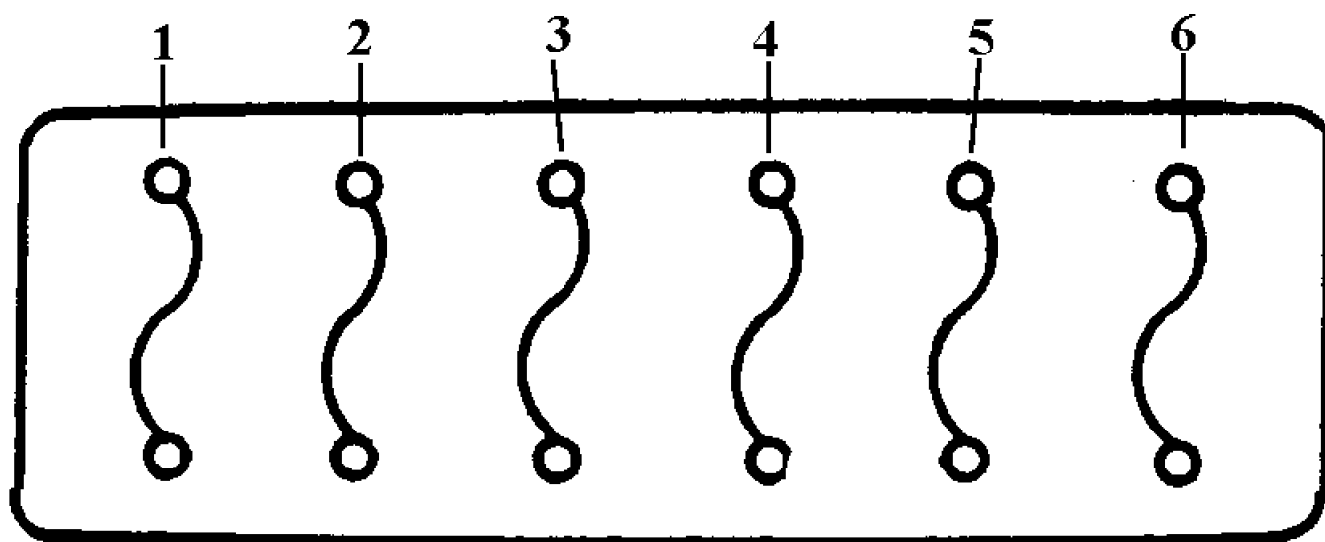
Application	BCI Group
1.9L Engine .....	24
2.3L Engine .....	25
2.6L Engine	
Manual Transmission .....	25
Automatic Transmission .....	24
2.8L Engine .....	25
2.2L Turbo Diesel .....	27

## FUSES & CIRCUIT BREAKERS

### FUSE PANEL LOCATION

The fuse box is located below the instrument panel on the driver's side. The fuse/relay box is located under the hood on the right side of engine compartment.

### FUSE PANEL IDENTIFICATION (1984-85)



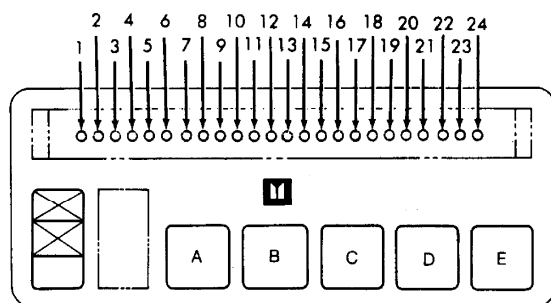
**93B45345**

Fig. 1: Fuse Panel Identification (1984-85)  
Courtesy of Isuzu Motor Co.

#### Fuse & Circuit Breaker Identification

- 1 - 15 Amp  
Taillights & Clearance Lights, License & Side Marker Lights,  
Instrument Cluster
- 2 - 25 Amp  
Air Conditioner, Heater
- 3 - 15 Amp  
Stoplight, Luggage Compartment Light, Horn, Hazard Warning  
Light
- 4 - 15 Amp  
Back-Up Lights, Turn Signal Lights, Indicator Lights, Gauges
- 5 - 15 Amp  
Ignition Coil, Auto-Choke, Regulator, Engine Speed Sensor
- 6 - 15 Amp  
Wiper & Washer, Radio

#### FUSE PANEL IDENTIFICATION (1986)



**93C45346**

Fig. 2: Fuse Panel Identification (1986)  
Courtesy of Isuzu Motor Co.

#### Relay Identification

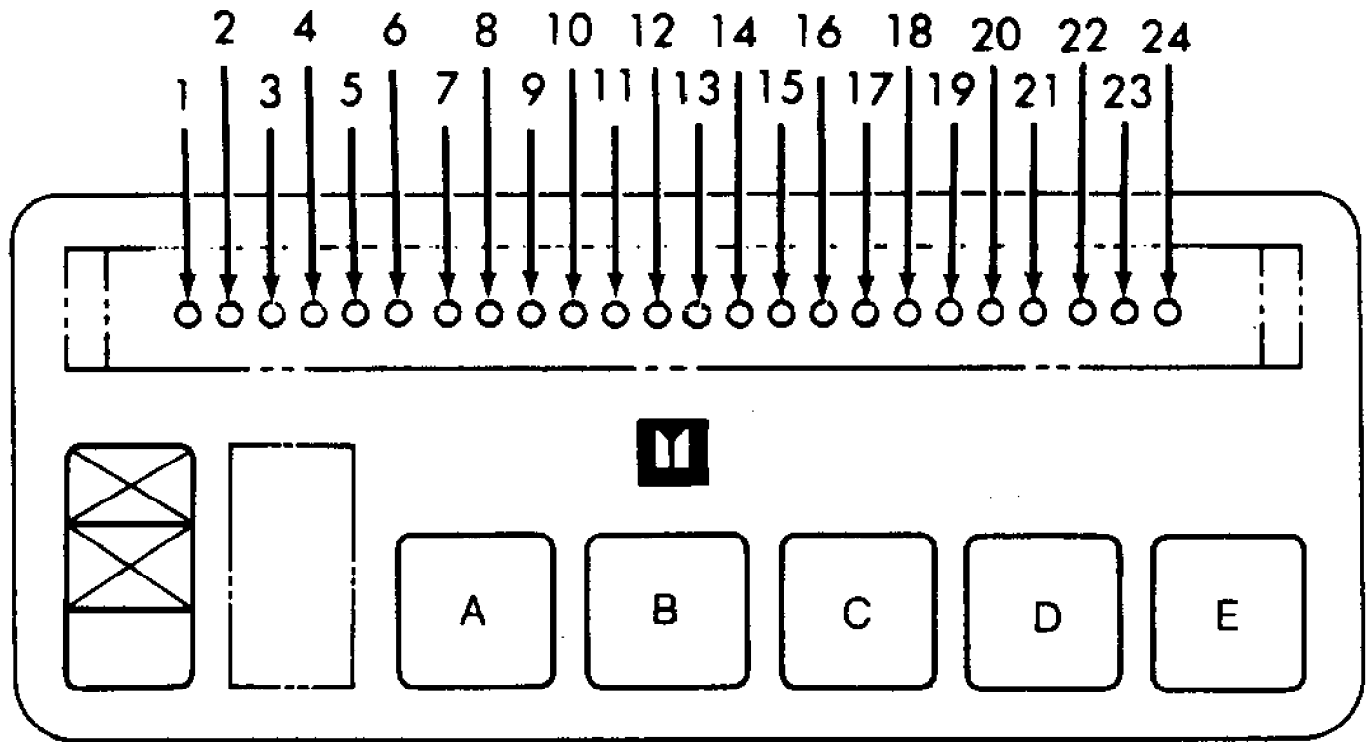
- A - Blank
- B - Blank
- C - Rear Defogger
- D - Main Engine Relay
- E - Starter

#### Fuse & Circuit Breaker Identification

- 1 - 10 Amp  
Taillights & Clearance Lights, License & Side Marker Lights,  
Instrument Cluster, Clock
- 2 - 10 Amp  
Horn, Luggage Compartment Light, Key Buzzer
- 3 - 15 Amp  
Foglights (If Equipped)
- 4 - 10 Amp  
Hazard Lights
- 5 - 10 Amp  
Stoplights
- 6 - 10 Amp  
Rear Heater, Rear Defogger Relay Coil, A/C Coil, EDE Heater  
Relay Coil (Gasoline Engine)
- 7 - 10 Amp  
A/C Compressor, Fast Idle, Compressor Relay Coil (Diesel  
Engine), Compressor Cut Relay Coil (Gasoline Engine)
- 8 - 5 Amp  
Clock, ECM Controller
- 9 - 20 Amp  
Rear Defogger
- 10 - 5 Amp  
Charging System, A/C Generator
- 11 - 15 Amp  
Auto-Choke (Gasoline Engine), Vent, Fuel Filter Heater  
(Diesel Engine)
- 12 - 10 Amp  
Meter, Warning Indicators, Clock, ECM Controller Relay Coil,  
VSV, Duty Solenoid, Engine Speed Controller, Glow Light  
(Diesel Engine)
- 13 - 10 Amp  
Seat Heater (If Equipped)
- 14 - 10 Amp  
Turn Indicator Light
- 15 - 15 Amp  
Ignition Coil, Slow Cut, Fuel Cut, ACG, QOS Controller,  
Glow Relay Coil
- 16 - 5 Amp  
Engine Relay Coil
- 17 - 15 Amp  
Front Wiper & Washer
- 18 - 15 Amp  
Cigarette Lighter
- 19 - 15 Amp  
Rear Wiper & Washer
- 20 - 10 Amp  
Radio
- 21 - 10 Amp  
Right Headlight Low Beam
- 22 - 10 Amp  
Right Headlight High Beam
- 23 - 10 Amp  
Left Headlight Low Beam
- 24 - 10 Amp  
Left Headlight High Beam



### FUSE PANEL IDENTIFICATION (1987-91)



**93C45346**

Fig. 3: Fuse Panel Identification (1987-91)  
Courtesy of Isuzu Motor Co.

#### Relay Identification

- A - ECM (Gasoline Engine)
- B - Power Windows
- C - Main Engine Relay (2.6L)  
Warning Light (2.8L)
- D - Starter (2.6L)  
Fuel Pump Back-Up (2.8L)
- E - A/C Compressor Cutoff

#### Fuse & Circuit Breaker Identification

- 1 - 10 Amp  
Taillights & Clearance Lights, License & Side Marker Lights,  
Instrument Cluster, Heater Controller (1988-90), Clock
- 2 - 10 Amp  
Luggage Compartment Light, Horn, Buzzer
- 3 - Blank
- 4 - 10 Amp  
Hazard Light
- 5 - 10 Amp  
Stoplight, Auto Cruise Controller (1988-90), ECT Cont (A/C)  
(1988-90)
- 6 - 10 Amp  
Clock, Radio, ECM Control, ECT Cont (A/T) (1988-90), Buzzer  
Control (1989)
- 7 - 20 Amp

Door Lock Controller, Door Lock  
 8 - 10 Amp  
 Air Compressor, Fast Idle, VSV, Air Compressor Relay &  
 Solenoid, Compressor Cut Relay Coil, Heat Relay Coil  
 9 - 10 Amp  
 QOS Controller (1987), Glow Relay Coil (Diesel), Engine Relay  
 Coil (1990-91 2.6L Engine)  
 10 - 10 Amp  
 Charge Indicator Light  
 11 - 10 Amp  
 Rear Heater, Rear Defogger Relay Coil, A/C Relay Coil,  
 EFE Heater Relay Coil (1987)  
 12 - 10 Amp  
 Auto Choke (1987), Vent Switching Valve (1987), Fuel Filter  
 Heater (1987 Diesel), Fuel Pump Relay Coil (2.6L Engine)  
 13 - 10 Amp  
 Dash Gauges, Warning Indicators, ECM Controller Relay Coil  
 (1987), Vent Switching Valve (1987), Duty Solenoid (1987),  
 Engine Speed Controller (1987), Auto Cruise Controller  
 (1988-91), Auto Cruise Relay Coil (1988-91), ECT Cont (A/T)  
 (1988-91), Buzzer Controller (1991)  
 14 - 15 Amp  
 Ignition Coil, Main Relay Coil, QOS Controller (1987), Glow  
 Relay Coil (Diesel)  
 15 - 10 Amp  
 Turn Signal Indicator, Back-Up Lights, Turn Signals, ECT  
 Controller (A/T) (1988-91)  
 16 - 10 Amp  
 Headlight Washer Controller, Power Window  
 17 - Blank  
 18 - 15 Amp  
 Rear Wiper & Washer  
 19 - 10 Amp  
 Radio & Clock  
 20 - 10 Amp  
 Starter Relay Coil (1990 2.8L Engine), Blank (1991)  
 21 - 15 Amp  
 Front Wiper & Washer  
 22 - 15 Amp  
 Cigarette Lighter  
 23 - 20 Amp  
 Fuel Pump (2.6L Engine), ECM Controller (1988-91)  
 24 - 20 Amp  
 Fuel Pump (1988-91)