PREVOST

XL Series Motorcoach
TECHNICAL INFORMATION

DIMENSIONS

SPECIFICATION	XL-40	XL-45
Overall length	40.0' (12 192 mm)	45.0' (13 716 mm)
Overall width	102" (2 591 mm)	102" (2 591 mm)
Overall height (over closed roof hatch(es))	130.7" (3 320 mm)	130.7" (3 320 mm)
Entrance door width	26" (660 mm)	26" (660 mm)
Headroom (Floor to ceiling)	76.5" (1 943 mm)	76.5" (1 943 mm)
Aisle width	14" (356 mm)	14" (356 mm)
Step height from ground	15" (381 mm)	15" (381 mm)
Other step height	8.5" (216 mm)	8.5" (216 mm)
Cabin floor height	48.5" (1 232 mm)	48.5" (1 232 mm)
Ground clearance	11" (279 mm)	11" (279 mm)
Wheel base (Front axle's center to drive axle's center)	280" (7 112 mm)	315" (8 001 mm)
Front overhang	69" (1 753 mm)	69" (1 753 mm)
Rear overhang	77.5" (1 969 mm)	102.5" (2 604 mm)
Front track	85.67" (2 176 mm)	85.67" (2 176 mm)
Drive track	76.5" (1 943 mm)	76.5" (1 943 mm)
Rear track (Tag axle)	82" (2 083 mm)	82" (2 083 mm)
Turning circle radius (Exterior front corner)	41.5' (12,65 m)	45.58' (13,89 m)

WEIGHTS

Dry weight (w/series 60 & World trans.)
XL-40 ..... 29 350 lbs (13 208 kg)
XL-45 ..... 30 850 lbs (13 882 kg)

Dry weight (w/series 50 & World trans.)
XL-40 ..... 28 940 lbs (13 023 kg)
XL-45 ..... 30 440 lbs (13 698 kg)

Gross vehicle weight rating
XL-40 ..... 42 690 lbs (19 211 kg)
XL-45 ..... 46 800 lbs (21 060 kg)

Gross axle weight rating
Front axle ..... 14 400 lbs (6 545 kg)
Drive axle ..... 20 400 lbs (9 270 kg)
Tag axle ..... 12 000 lbs (5 450 kg)

The Gross Vehicle Weight Rating (G.V.W.R.) and the Gross Axle Weight Ratings (G.A.W.R.) for front, drive and rear axles are listed on a certification plate located on the panel at the L.H. side of driver's seat, under the side control panel.

CAPACITIES

Engine oil (series 60)
Crankcase ..... 37 U.S. qts (35 liters)
Reserve tank ..... 10 U.S. qts (9,5 liters)

Engine oil (series 50)
Crankcase ..... 29.5 U.S. qts (28 liters)
Reserve tank ..... 10 U.S. qts (9,5 liters)

Fuel tank
XL-40 ..... 160 U.S. gal. (606 liters)
XL-45 ..... 208 U.S. gal. (787 liters)

Auxiliary fuel tank
(Optional) ..... 90 U.S. gal. (341 liters)

Cooling system ..... 24 U.S. gal. (91 liters)

Transmissions

Automatic transmission
(excluding external circuits) 10 U.S. gal. (38 liters)

Manual transmission
7 speed ..... 24 U.S. qts (22,7 liters)
6 speed ..... 20.5 U.S. qts (19,4 liters)
Differential oil ..... 13.7 U.S. qts (13 liters)

Power steering
reservoir ..... 4.0 U.S. qts (3,8 liters)

Windshield washer
reservoir ..... 5 U.S. gal. (18,9 liters)

Refrigerant
Driver's system (XL-40) ..... 6 lbs (2,7 kg)
Driver's system (XL-45) ..... 6.5 lbs (3 kg)
Driver's and central system ..... 24 lbs (11kg)

FUEL TYPE

ASTM specification D-975
Recommended grade 1-D
Acceptable grade 2-D

WHEELS AND TIRES

Steel wheels ..... 8.25 X 22.5
Inner drive axle ..... 8.25 X 22.5

Aluminum forged wheels ..... 9 X 22.5
Except inner drive axle (steel) ..... 8.25 X 22.5

Tires ..... 12 R 22.5

Maximum loading tire inflation pressure (cold)

Front axle ..... 115 psi (792 kPa)
Drive axle ..... 90 psi (620 kPa)
Tag axle ..... 95 psi (655 kPa)

NOTE: *It is recommended that all tires on coach be of the same type.*

CAUTION: *These tire pressures are established in accordance with the maximum allowable load on each axle. A lower pressure is recommended if the axle load is less than the above specifications. Weigh vehicle fully loaded and pressurize according to tire manufacturer's recommendations. For other tire and wheel*

specifications, see Prévost tire pressure tabulation in "Coach Final Record".

BELTS

Radiator fan drive (transfer) (series 60 only)
Make: .....Gates
Model: .....AX 74
Qty: 3

Radiator fan drive (transfer) (series 50 only)
Make: .....Gates
Model: .....AX 73
Qty: 3

Radiator fan drive (fan)
Make: .....Dayco
Model: ..... Multi-V, Poly rib, 51"
Qty: 1

Carrier compressor (central A/C system)
Make: .....Gates
Model: .....BX 97
Qty: 2

Alternator 24 V 270 amps
Make: ..... Detroit Diesel
Model: .....Poly-V, 12K 72"
Qty: 1

ENGINES

Detroit Diesel DDEC III Series 60, 12.7 liters inline 6 cylinders, 400 BHP.

Detroit Diesel DDEC III Series 60, 11.1 liters inline 6 cylinders, 325 BHP.

Detroit Diesel DDEC III Series 50, 8.5 liters inline 4 cylinders, 315 BHP.

TRANSMISSIONS

Automatic transmission
Allison six speed automatic World Transmission B500 or B500R with Electronic Control.

Gear	**Ratio**
1st	3.51
2nd	1.91
3rd	1.43
4th	1.00
5th	0.74
6th	0.64
Rev	4.80

Converter (Series 60, 12.7 liters)
prior 2P9L33402S1001468 .....1.58
from 2P9L33402S1001468 and including 2P9M33494S1001460.....1.79
Converter (Series 60, 11.1 liters and Series 50)
.....2.34
Output retarder.....(Optional)

NOTE: *Gear ratios do not include torque converter multiplication.*

Manual transmissions

Spicer PS145-7A, 7-speed

Gear	**Ratio**
1st	10.13
2nd	5.99
3rd	3.56
4th	2.57
5th	1.84
6th	1.33
7th	1.00
Rev	10.13

Spicer PS130-6B, 6-speed

Gear	**Ratio**
1st	8.53
2nd	4.87
3rd	3.00
4th	1.90
5th	1.33
6th	1.00
Rev	8.53

DRIVE AXLE RATIO

World transmission (Series 60) ..... 4.89:1 (std)
..... 4.56:1 (opt)

World transmission (Series 50) 4.89:1

Manual transmissions (Series 60) .....3.07:1 (std)
.....3.21:1 (opt)

Manual transmissions (Series 50) 3.21:1

BRAKES

- Air operated, disc type on front axle and tag axle, drum type on drive axle.
- Brake chamber type 30 on front axle, 30-36 on drive axle and 16/24 on tag axle.

- Automatic slack adjuster.

- Two cylinder air compressor, engine gear driven, water-cooled and lubricated.

- Air dryer.

- Nylon color-coded air lines.

STEERING

- Tilt steering wheel and telescopic steering column.

- Integral hydraulic-assisted steering gear.

- System pressure 2000 psi (13 790 kPa).

ELECTRICAL SYSTEM

24 & 12 volt negative grounded

Alternator - 270 amps/24 volts

Four (4) model 1150, 12 volt maintenance-free batteries, each with a 625 cold cranking amp capacity.

Battery equalizer(s)
Wiring protection: fuses, manual and automatic resettable circuit breakers

12 volt and 24 volt main disconnect switch(es)

SOUND SYSTEM

Twelve (XL-40) or sixteen (XL-45) Hi-Fi speakers in passengers' area (standard)

Two Hi-Fi speakers in driver's area (optional)

Deluxe AM/FM cassette sound system (optional)

Compact disc player - 10 stacks (optional)

PA system with volume control (standard)

Microphone jacks (two standard)

Cellular phone antenna (optional)
CB antenna

VIDEO SYSTEM (optional)

TV converter ("Starcom 7V") with remote control "Panasonic" videocassette player with remote control model VHS AG-1000B with remote control

TV monitors (mounted under parcel racks) model ST-1001 (qty= 3 or 5)

TV receiver (with video system only)

SUSPENSION

Front axle
- 2 air springs
- 2 shock absorbers
- 3 longitudinal radius rods
- 1 transversal radius rod
- 1 height control valve
- 1 sway bar

Drive axle
- 4 air springs
- 4 shock absorbers
- 3 longitudinal radius rods
- 1 transversal radius rod
- 2 height control valves

Tag axle
- 2 air springs
- 2 shock absorbers
- 3 longitudinal radius rods
- 1 transversal radius rod

Extra lift and/or extra low suspension
Hi-Buoy system (optional)

Low-Buoy system (optional)

Kneeling system (optional)

ALIGNMENT

Front axle
Toe-in:..... 3/32" ± 1/32" (2,4 mm ± 0,8 mm)
Caster: ..... + 2 1/2° to + 4 3/4° (+ 3° desired)
Camber:.....- 1/8° ± 7/16°

Tag axle
Toe:..... 0" ± 1/16" (0 mm ± 1,6 mm)

HEATING AND AIR CONDITIONING

Driver's system

Refrigerant type:..... R-134a
Heating capacity:..... 37,800 Btu/hr.
Air flow: .....450 cfm (12,74 m^3/min.)

Central system

Air conditioning capacity: . 110 000 Btu/hr. (XL-45)
Air conditioning capacity: ... 98 000 Btu/hr. (XL-40)
Refrigerant type:..... R-134a
Heating capacity:..... 152,000 Btu/hr.
Air flow: .....2,700 cfm (76,45 m^3/min.)

A/C COMPRESSOR

Number of cylinders: 6
Operating speed:.....400 to 2,200 rpm
(1,750 rpm, nominal)
Minimum speed for lubrication:..... 400 rpm
Oil capacity: .....1.13 U.S. gal. (4,3 liters)
Approved oils:..... Castrol SW-68 (POE)
Mobil Artic 1 (POE)

NOTE: *The above oils are suitable for use with reciprocating compressors using refrigerant R-134a and with evaporator temperatures above -40°F (-40°C).*

OIL SPECIFICATIONS

Engine

Heavy-duty engine oil SAE 15W-40 meeting MIL-L-2104E or F specification.

Transmissions

Automatic

The transmission must be filled with DEXRON IIE or III automatic transmission fluid or any equivalent Class C4 fluids.

Manual

Same as engine oil.

Differential

Multigrade gear lubricants are recommended for use in drive axle. These lubricants perform well over broad temperature ranges, providing good gear and bearing protection in a variety of climates.

Two categories of multigrade gear lubricants may be used according to the climate in which you drive.

Climate	Lubricant
Northern	75W-90
Southern	80W-140

Fan gearbox

Synthetic oil Mobil SHC 634 is recommended for the fan gearbox.

Power steering reservoir

This reservoir must be filled with DEXRON IIE or III automatic transmission oil.

Wheel bearings

The front and tag axle wheel bearings must be filled to the level mark in the cap using SAE 90 oil.

Drive axle wheel bearings are lubricated by the differential oil. Maintain differential oil level to ensure adequate lubrication of drive axle wheel bearings at all times.

On vehicles equipped with grease-lubricated wheel bearings, pack with wheel bearing grease.

A/C compressor

Polyolester oil, HFC 134A compatible; Castrol SW-68 (POE) or equivalent.

Clutch master cylinder

This reservoir must be filled with DOT 3 heavy-duty brake fluid.

ANTILOCK BRAKING SYSTEM (ABS) (optional)

Components: Electronic Control Module (ECM)
Solenoid control valves
Sensors
Clamping bushes
Wiring harnesses

Electronic control module technical data

Voltage:.....24 ± 6 volts
Thermal operating range:..... -40 to 167 °F
(-40 to 75 °C)

Protection system for sealed multi-pin plug according to DIN 40050

Electrical connection is made through a 35 pin plug

Maintenance:..... none

Solenoid control valve technical data

Voltage:.....24 (+4.8, -2.4) volts
Current:..... DC
Rated current:..... 1.65 amps
Protection system according to DIN 40050
Maximum service pressure:.....10 bars (145 psi)
Thermal operating range: .....-40 to 176 °F
(-40 to 80 °C)
Electrical connector:..... 894 601 010 2
Maintenance:.....none

Sensor technical data

Two cored screened cable: ..... AWG 18 (1 mm^2)
Force needed to tear out lead: .....11.2 lbs (50 N)
Force needed to pull off shrink-fitted tube:
11.2 lbs (50 N)
Thermal operating range: .....-40 to 176 °F
(-40 to 80 °C)
Protection system according to DIN 40050

PREHEATING SYSTEMS (Optional)

ESPAR (EBERSPÄCHER)

Heater:.....Model D12W
Heating capacity: .....12 kW
Heating output:.....41,000 Btu/hr
Fuel type:..... Same as engine
Fuel consumption:.....0.44 U.S. gal.
(1,65 litres) / hour
Rated voltage:..... 24 ± 4 volts
Electric power consumption:..... 55 watts

WEBASTO

Heater:.....Model DBW2020
Heating capacity: ..... 23.3 kW
Heating output:.....80,000 Btu/hr
Fuel type:..... Same as engine
Fuel consumption:.....0.8 U.S. gal.
(3 litres) / hour
Rated voltage:..... 24 ± 4 volts
Electric power consumption:..... 120 watts

STORAGE VOLUME

Exterior baggage compartments:
XL-40..... 315 ft^3 / 8,9m^3
XL-45..... 407ft^3 / 11,5m^3
Parcel racks:
XL-40..... 75ft^3 / 2,13m^3
XL-45..... 86ft^3 / 2,43m^3

SEATS

Seating capacity:
XL-40 ..... 51 passengers
XL-45 ..... 55 passengers

Several seating layouts may be achieved through a combination of available equipment with the addition or removal of some items such as passenger seats, card table(s), galley, lavatory etc..

DDEC III DIAGNOSTIC CODES

To read codes:

Use a diagnostic data reader plugged in receptacle on L.H. side control panel (item #18 on page 2-4) or momentarily depress the Stop engine "OVERRIDE" switch (located on the L.H. lower switch panel) with the ignition on, engine at idle or not running. Active codes will be flashed on the stop engine telltale (located on central dashboard), followed by the inactive codes being flashed on the check engine telltale (located on central dashboard). The cycle repeats until the operator depresses again the Stop engine "OVERRIDE" switch. A code "43" consists of four flashes, followed by a short pause, then three flashes in quick succession.

DDC Code Number (Flashed)	Description	DDC Code Number (Flashed)	Description
11	Variable speed governor sensor voltage low	12	Variable speed governor sensor voltage high
13	Coolant level circuit failed low	14	Intercooler temperature circuit failed high
14	Coolant temperature circuit failed high	14	Oil temperature circuit failed high
15	Intercooler temperature failed low	15	Coolant temperature circuit failed low
15	Oil temperature circuit failed low	16	Coolant level circuit failed high
17	Bypass position circuit failed high	18	Bypass position circuit failed low
21	EFPA circuit failed low	22	EFPA circuit failed low

DDC Code Number (Flashed)	Description	DDC Code Number (Flashed)	Description
23	Fuel temperature circuit failed high	24	Fuel temperature circuit failed low
25	Reserved for "no codes"	26	Aux. shutdown #1 active
26	Aux. shutdown #2 active	27	Air temperature circuit failed high
28	Air temperature circuit failed low	31	Aux. output #3 open circuit (high side)
31	Aux. output #3 short to ground (high side)	31	Aux. output #4 open circuit (high side)
31	Aux. output #4 short to ground (high side)	32	SEL open circuit
32	SEL short to battery	33	Turbo boost pressure circuit failed high
34	Turbo boost pressure circuit failed low	35	Oil pressure circuit failed high
36	Oil pressure circuit failed high	37	Fuel pressure circuit failed high
38	Fuel pressure circuit failed low	41	Too many SRS (missing TRS)
42	Too few SRS (missing SRS)	43	Coolant level low
44	Intercooler temperature high	44	Coolant temperature high
44	Oil temperature high	45	Oil pressure low
46	Battery voltage low	47	Fuel pressure high
48	Fuel pressure low	52	A/D conversion fail
53	Nonvolatile checksum incorrect	53	EEPROM write error
54	Vehicle speed sensor fault	55	J1939 data link fault
55	Proprietary link fault (master)	55	Proprietary link fault (receiver)
56	J1587 data link fault	57	J1922 data link fault
58	Torque overload	61	Response time long
62	Aux. output #1 short to battery	62	Aux. output #1 open circuit
62	Aux. output #2 short to battery	62	Aux. output #2 open circuit
62	Aux. output #5 short to battery	62	Aux. output #5 open circuit

DDC Code Number (Flashed)	Description	DDC Code Number (Flashed)	Description
62	Aux. output #6 short to battery	62	Aux. output #6 open circuit
62	Aux. output #7 short to battery	62	Aux. output #7 open circuit
62	Aux. output #8 short to battery	62	Aux. output #8 open circuit
63	PWM #1 short to battery	63	PWM #1 open circuit
63	PWM #2 short to battery	63	PWM #2 open circuit
63	PWM #3 short to battery	63	PWM #3 open circuit
63	PWM #4 short to battery	63	PWM #4 open circuit
64	Turbo speed circuit failed	65	Reserved for air filter differential pressure circuit failed high
65	Reserved for air filter differential pressure circuit failed low	66	Reserved for oil filter differential pressure circuit failed high
66	Reserved for oil filter differential pressure circuit failed low	67	Coolant pressure circuit failed high
67	Coolant pressure circuit failed low	68	Idle validation circuit fault (grounded circuit)
68	Idle validation circuit fault (open circuit)	71	Injector response time short
72	Vehicle overspeed	72	Reserved for vehicle overspeed (absolute)
73	Reserved for air differential pressure high	74	Oil differential pressure high
75	Battery voltage high	76	Engine overspeed with engine brake
77	All other faults not listed	81	Timing actuator (dual fuel) failed high
81	Oil level circuit failed high	81	Crankcase pressure circuit failed high
82	Timing actuator (dual fuel) failed low	82	Oil level circuit failed low
82	Crankcase pressure circuit failed	83	Oil level high

DDC Code Number (Flashed)	Description	DDC Code Number (Flashed)	Description
	low		
83	Crankcase pressure high	84	Oil level low
84	Crankcase pressure low	85	Engine overspeed
86	Pump pressure circuit failed high	86	Barometric pressure circuit failed high
87	Pump pressure circuit failed low	87	Barometric pressure circuit failed high
88	Coolant pressure low	--	CEL short to battery
--	CEL open circuit	--	Clock Module failure
--	Clock module abnormal rate		

WORLD TRANSMISSION (WT) DIAGNOSTIC CODES

Diagnostic code memory

Diagnostic codes are logged in a list in memory (sometimes referred to as the queue), positioning the most recently occurring code first and containing up to five codes. The codes continued in the list have the information recorded as shown in the chart below. Access to the code list position, main code, sub code and active indicator is through either the shifter display or the Pro-Link Diagnostic Datareader (DDR). Access to the ignition cycle counter and event counter is through the DDR only.

Code List Position	Main Code	Sub Code	Active Indicator	Ignition Cycle Counter	Event Counter
d1	21	12	YES	00	10
d2	41	12	YES	00	04
d3	23	12	NO	08	02
d4	34	12	NO	13	01
d5	56	11	NO	22	02

Displayed on shifter display and DDR	YES= ACTIVE= "MODE ON"	Ignition cycle counter and event counter are not available on shifter display

NOTE: *All information is available with a DDR.*

The following paragraphs define the different parts of the code list.

Code list position:

The position 1 through 5 which a code occupies in the code list in memory. Positions are shown as "d1" (Diagnostic Code #1) through "d5."

Main code

The general condition or area of fault detected by ECU.

Sub Code

The specific area or condition under the main code in which the condition was detected.

Active Indicator

Will be turned "on" when a fault condition is active (shifter will display "MODE ON" or the DDR will display "YES"). Will be set to "off" when conditions exist to indicate fault condition is gone.

Ignition cycle counter

Used to clear diagnostic codes that are inactive from the code list in memory. Counter is incremented each time a normal ECU powerdown occurs following clearing of the Active Indicator. Code will be cleared from the list when the counter exceeds 25.

Event counter

Used to count the number of occurrences of a diagnostic code that occur prior to the incident being cleared from the code list. The most recent code will be in position "d1". If the most recent code is one which is already in the code list, that code will be moved to position "d1", the Active Indicator will be turned "on" (shifter will display "MODE ON" or the DDR will display "YES"), the Ignition Cycle Counter is cleared and "1" is added to the Event counter.

Clearing the Active Indicator and code records from the Code list in memory:

If the conditions causing a diagnostic code to be set are cleared, the Active Indicator can be manually cleared by holding the "MODE" button down continuously for 3 seconds until a tone is heard from the shifter. To clear code records from the list, hold the "MODE" button down continuously for ten seconds until a second tone sounds. All diagnostic records in the list that are not active will then be cleared and the remaining records will then be moved up the list.

Code reading and code clearing procedures

Diagnostic codes can be read and cleared by two methods: by using the Pro-Link 9000 DDR plugged in receptacle located on L.H. lateral console or by using the shifter display. The use of the Pro-Link 9000 DDR is described in the instruction manual furnished with each tool. The method of reading and clearing codes described

in this section refers to only entering the Diagnostic Display Mode by the proper button.

The Diagnostic Display Mode may be entered for viewing of codes at any speed. Codes can only be cleared when the output speed = 0 and no output speed sensor failure is active.

The following descriptions explain how to use the shifter to read and clear codes:

Reading Codes:

1. Enter the diagnostic display mode by pressing the "↑" and "↓" (upshift and downshift arrows) buttons at the same time on the pushbutton shifter.

NOTE: *If a "DO NOT SHIFT" condition is present at this time, the lever should be in the same position as it was at time of code detection. If not, this shifter tone will sound continuously.*

NOTE: *If an oil level sensor is present, then oil level will be displayed first. Diagnostic code display is achieved by depressing the upshift and downshift arrows or display mode button a second time.*

2. Read the first code in the first of five code positions on the digital display of the shifter. For example, we will read code 25 11 in the first position. The display will change every two seconds as follows:

a. Code list position --"d1"
b. Main code --"25"
c. Sub code --"11"
d. Display will repeat cycle of a., b. and c. above

3. Press the "MODE" button momentarily to view the second position (d2) in the same way as 2. above.

4. To view the third, fourth and fifth positions (d3,d4 and d5), momentarily press the "MODE" button as explained above.

5. Pressing the "MODE" button momentarily after the fifth position is displayed will cause the sequence of code positions to start over with the first position.

6. Any code which is active will be indicated by the "MODE ON" indicator (active indicator) being turned on while in that code position (while in the normal operating mode, the "MODE ON" indicator is turned on to indicate "ECONOMY" mode operation, (refer to "Function of the mode button", on page 2-7)).

7. Any code position in the list which does not have a diagnostic code logged will display "- -" for both the main and sub code displays. All positions after a code position without any code will also not contain any codes.

Clearing Codes:

1. Clearing of the active indicator is automatically done at ECU powerdown on all but code 69 34 (see code list, page 5-14).

2. Some codes will clear the active indicator automatically when the condition causing the code is no longer detected by the ECU.

3. Manual clearing is possible while in the diagnostic display mode and after the condition causing to code is corrected (output speed must be zero).

a. To clear all active indicators, hold the "MODE" button down continuously for 3 seconds until the shifter tone sounds for 0.5 seconds.

b. Release the "MODE" button to return to normal operating mode. If the condition causing the code was not active at the time, the active indicator will turn off.

CAUTION: *If clearing a code while locked in a Forward or Reverse position (fail-to-range), the transmission will still be in Drive or Reverse when the clearing procedure is completed. Neutral must be manually selected.*

Exiting the diagnostic display mode:

The diagnostic display mode can be exited by any of the following procedures:
1. Press the "↑" and "↓" (upshift and downshift) buttons at the same time on the pushbutton shifter.

2. Press any range button, "D", "N" or "R", on the pushbutton shifter (the shift will be commanded if it is not inhibited by an active code).

3. Do nothing and wait until the calibrated time (approximately 10 minutes) has passed and the system automatically returns to the normal operating mode.

4. Turn off power to the ECU (turn off the vehicle at the ignition switch).

5. After the clearing the active indicator procedure described above has been performed.

Clearing records from the code list in memory

If the requirements for Manual Clearing the Active Indicator have been satisfied, and the "MODE" button is held down continuously for ten seconds while in the display mode until a tone sounds, all diagnostic records in the code list that are not active will be cleared and the remaining records will be moved up in the code list.

Abbreviation found in the code chart

The following responses are used throughout the following chart to command safe operation when diagnostic codes are set.

• **DNS** (**D**o **N**ot **S**hift) Response

- Turn off lockup clutch and inhibit lockup operation.

- Inhibit all shifts.
- Turn on *DO NOT SHIFT* light.

- Pulse the tone generator for 8 seconds when the condition is first detected.

- Blank the select digit in the display.

- Ignore any range selection inputs and disable the button feedback tone for the pushbutton shifter.

• **SOL OFF** (**Sol**enoid **Off**) Response

- All solenoids are commanded off (turning solenoids "A" and "B" off electrically causes them to be on hydraulically).

• **RPR** (**R**eturn to **P**revious **R**ange) Response

- When the ratio or C3 pressure switch tests associated with a shift are not passed, the ECU commands the same range as commanded at the beginning of the shift.

• **NNC** (**N**eutral **N**o **C**lutches) Response

- When certain ratio or C3 pressure switch tests are not passed, the ECU commands a neutral condition with no clutches applied.

Diagnostic code list and description

MAIN CODE	SUB CODE	DESCRIPTION	DO NOT SHIFT LIGHT	INHIBITED OPERATION DESCRIPTION
12	12	Oil level, low	No	No upshift above a calibration range
12	23	Oil level,high	No	No upshift above a calibration range
13	12	ECU input voltage, low	Yes	DNS, SOL OFF (Hydraulic default)
13	13	ECU input voltage, medium low	No	None: Shift adaptive feature will not function.
13	23	ECU input voltage, high	Yes	DNS, SOL OFF (Hydraulic default)
14	12	Oil level sensor, low	No	None
14	23	Oil level sensor, high	No	None
21	12	Throttle position sensor, low	No	Use Throttle default value
21	23	Throttle position sensor, high	No	Use Throttle default value
22	14	Engine speed sensor reasonableness test	No	Use default engine speed
22	15	Turbine speed sensor reasonableness test	Yes	DNS, Lock in current range
22	16	Output speed sensor reasonableness or rapid decel test	Yes	DNS, Lock in current range
23	12	Primary Shifter or RSI Link Fault	No	Hold in last valid direction
23	13	Primary Shifter Mode Function Fault	No	Mode change not permitted
23	14	Secondary Shifter or RSI Link Fault	No	Hold in last valid direction
23	15	Secondary Shifter Mode Function Fault	No	Mode change not permitted
24	12	Sump oil temperature, cold	Yes	DNS
24	23	Sump oil temperature, hot	No	No upshifts above a calibration range
25	00	Output speed reasonableness test, detected at 0 speed, (L)	Yes	DNS, Lock in current range (L)

MAIN CODE	SUB CODE	DESCRIPTION	DO NOT SHIFT LIGHT	INHIBITED OPERATION DESCRIPTION
25	11	Output speed reasonableness test, detected at 0 speed, (1st)	Yes	DNS, Lock in current range (1 st)
25	22	Output speed reasonableness test, detected at 0 speed 2nd	Yes	DNS, Lock in current range (2nd)
25	33	Output speed reasonableness test, detected at 0 speed, 3rd	Yes	DNS, Lock in current range (3rd)
25	44	Output speed reasonableness test, detected at 0 speed, 4th	Yes	DNS, Lock in current range (4th)
25	55	Output speed reasonableness test, detected at 0 speed, 5th	Yes	DNS, Lock in current range (5th)
25	66	Output speed reasonableness test, detected at 0 speed, 6th	Yes	DNS, Lock in current range (6th)
25	77	Output speed reasonableness test, detected at 0 speed, R	Yes	DNS, Lock in current range (R)
32	00	C3 pressure switch open, L range	Yes	DNS, Lock in current range (L)
32	33	C3 pressure switch open, 3rd range	Yes	DNS, Lock in current range (3rd)
32	55	C3 pressure switch open, 5th range	Yes	DNS, Lock in current range (5th)
32	77	C3 pressure switch open, R range	Yes	DNS, Lock in current range (R)
33	12	Sump oil temperature sensor, low	No	Use default value of 200ø F (93ø C)
33	23	Sump oil temperature sensor, high	No	Use default value of 200ø F (93ø C)
34	12	EEPROM, factory cal. compatibility number wrong	Yes	DNS, SOL OFF (Hydraulic default)
34	13	EEPROM, factory calibration block checksum	Yes	DNS, SOL OFF (Hydraulic default)
34	14	EEPROM, Power Off Block checksum	Yes	Use previous location, or factory calibration and reset adaptive

MAIN CODE	SUB CODE	DESCRIPTION	DO NOT SHIFT LIGHT	INHIBITED OPERATION DESCRIPTION
34	15	EEPROM, Diagnostic Queue Block Checksum	Yes	Use previous location, or clear diagnostic queue
34	16	EEPROM, Real Time Block Checksum	Yes	DNS, SOL OFF (Hydraulic default)
35	00	Power interruption (Code set after power restored)	No	NONE (Hydraulic default during interruption)
35	16	Real Time EEPROM Write Interruption	Yes	DNS, SOL OFF (Hydraulic default)
36	00	Hardware/Software not compatible	Yes	DNS, SOL OFF (Hydraulic default)
41	12	Open or short to ground, A solenoid circuit	Yes	DNS, SOL OFF (Hydraulic default)
41	13	Open or short to ground, B solenoid circuit	Yes	DNS, SOL OFF (Hydraulic default)
41	14	Open or short to ground, C solenoid circuit	Yes	DNS. SOL OFF (Hydraulic default)
41	15	Open or short to ground, D solenoid circuit	Yes	DNS, SOL OFF (Hydraulic default)
41	16	Open or short to ground, E solenoid circuit	Yes	DNS, SOL OFF (Hydraulic default)
41	21	Open or short to ground, F solenoid circuit	No	Lock-up inhibited
41	22	Open or short to ground, G solenoid circuit	Yes	DNS, SOL OFF (Hydraulic default)
41	23	Open or short to ground, H solenoid circuit	No	Retarder allowed, differential lock inhibited
41	24	Open or short to ground, J solenoid circuit	No	Low and 1st inhibited
41	25	Open or short to ground, K solenoid circuit	No	K solenoid operation inhibited
41	26	Open or short to ground, N solenoid circuit	No	Low and 1st inhibited

MAIN CODE	SUB CODE	DESCRIPTION	DO NOT SHIFT LIGHT	INHIBITED OPERATION DESCRIPTION
42	12	Short to battery, A solenoid circuit	Yes	DNS, Lock in a range
42	13	Short to battery, B solenoid circuit	Yes	DNS, Lock in a range
42	14	Short to battery, C solenoid circuit	Yes	DNS, Lock in a range
42	15	Short to battery, D solenoid circuit	Yes	DNS, Lock in a range
42	16	Short to battery, E solenoid circuit	Yes	DNS, Lock in a range
42	21	Short to battery, F solenoid circuit	No	Lock-up inhibited
42	22	Short to battery, G solenoid circuit	Yes	DNS, Lock in a range
42	23	Short to battery, H solenoid circuit	No	Retarder allowed, differential lock inhibited
42	24	Short to battery, J solenoid circuit	No	Low and 1st inhibited
42	25	Short to battery, K solenoid circuit	No	K solenoid operation inhibited
42	26	Short to battery, N solenoid circuit	No	Low and 1st inhibited
43	21	Low side driver, F solenoid circuit	No	Lock-up inhibited
43	25	Low side driver, K solenoid circuit	No	K solenoid operation inhibited
43	26	Low side driver, N solenoid circuit	No	Low and 1st inhibited
44	12	Short to ground,A solenoid circuit	Yes	DNS, SOL OFF (Hydraulic default)
44	13	Short to ground,B solenoid circuit	Yes	DNS, SOL OFF (Hydraulic default)
44	14	Short to ground,C	Yes	DNS, SOL OFF

MAIN CODE	SUB CODE	DESCRIPTION	DO NOT SHIFT LIGHT	INHIBITED OPERATION DESCRIPTION
		solenoid circuit		(Hydraulic default)
44	15	Short to ground,D solenoid circuit	Yes	DNS, SOL OFF (Hydraulic default)
44	16	Short to ground,E solenoid circuit	Yes	DNS, SOL OFF (Hydraulic default)
44	21	Short to ground,F solenoid circuit	No	Lock-up inhibited
44	22	Short to ground,G solenoid circuit	Yes	DNS, SOL OFF (Hydraulic default)
44	23	Short to ground,H solenoid circuit	No	Retarder allowed. differential lock inhibited
44	24	Short to ground,J solenoid circuit	No	Low and 1st inhibited
44	25	Short to ground,K solenoid circuit	No	K solenoid operation inhibited
44	26	Short to ground,N solenoid circuit	No	Low and 1st inhibited
45	12	Open circuit,A solenoid circuit	Yes	DNS, SOL OFF (Hydraulic default)
45	13	Open circuit,B solenoid circuit	Yes	DNS, SOL OFF (Hydraulic default)
45	14	Open circuit,C solenoid circuit	Yes	DNS, SOL OFF (Hydraulic default)
45	15	Open circuit,D solenoid circuit	Yes	DNS, SOL OFF (Hydraulic default)
45	16	Open circuit,E solenoid circuit	Yes	DNS, SOL OFF (Hydraulic default)
45	21	Open circuit,F solenoid circuit	No	Lock-up inhibited
45	22	Open circuit,G solenoid circuit	Yes	DNS, SOL OFF (Hydraulic default)
45	23	Open circuit,H solenoid circuit	No	Retarder allowed differential lock inhibited

MAIN CODE	SUB CODE	DESCRIPTION	DO NOT SHIFT LIGHT	INHIBITED OPERATION DESCRIPTION
45	24	Open circuit,J solenoid circuit	No	Low and 1st inhibited
45	25	Open circuit,K solenoid circuit	No	K solenoid operation inhibited
45	26	Open circuit,N solenoid circuit	No	Low and 1st inhibited
51	10	Offgoing ratio test (during shift), 1 to L	Yes	Low and 1st inhibited
51	12	Offgoing ratio test (during shift), 1 to 2	Yes	DNS, RPR
51	21	Offgoing ratio test (during shift), 2 to 1	Yes	DNS, RPR
51	23	Offgoing ratio test (during shift), 2 to 3	Yes	DNS, RPR
51	43	Offgoing ratio test (during shift), 4 to 3	Yes	DNS, RPR
51	45	Offgoing ratio test (during shift), 4 to 5	Yes	DNS, RPR
51	65	Offgoing ratio test (during shift), 6 to 5	Yes	DNS, RPR
52	01	Offgoing C3PS test (during shift), L to 1	Yes	DNS, RPR
52	08	Offgoing C3PS test (during shift), L to N1	Yes	DNS, NNC
52	32	Offgoing C3PS test (during shift), 3 to 2	Yes	DNS, RPR
52	34	Offgoing C3PS test (during shift), 3 to 4	Yes	DNS, RPR
52	54	Offgoing C3PS test (during shift), 5 to 4	Yes	DNS, RPR
52	56	Offgoing C3PS test (during shift), 5 to 6	Yes	DNS, RPR
52	71	Offgoing C3PS test (during shift), R to 1	Yes	DNS, NNC

MAIN CODE	SUB CODE	DESCRIPTION	DO NOT SHIFT LIGHT	INHIBITED OPERATION DESCRIPTION
52	72	Offgoing C3PS test (during shift), R to 2	Yes	DNS, NNC
52	78	Offgoing C3PS test (during shift), R to N1	Yes	DNS, NNC
52	79	Offgoing C3PS test (during shift), R to 2 (R to NNC to 2)	Yes	DNS, NNC
52	99	Offgoing C3PS test (during shift), N3 to N2	Yes	DNS, RPR
53	08	Offgoing speed test (during shift), L to N1	Yes	DNS, NNC
53	18	Offgoing speed test (during shift), 1 to N1	Yes	DNS, NNC
53	28	Offgoing speed test (during shift), 2 to N1	Yes	DNS, NNC
53	29	Offgoing speed test (during shift), 2 to N2	Yes	DNS, RPR
53	38	Offgoing speed test (during shift), 3 to N1	Yes	DNS, NNC
53	39	Offgoing speed test (during shift), 3 to N3	Yes	DNS, RPR
53	48	Offgoing speed test (during shift), 4 to N1	Yes	DNS, NNC
53	49	Offgoing speed test (during shift), 4 to N3	Yes	DNS, RPR
53	58	Offgoing speed test (during shift), 5 to N1	Yes	DNS, NNC
53	59	Offgoing speed test (during shift), 5 to N3	Yes	DNS, RPR
53	68	Offgoing speed test (during shift), 6 to N1	Yes	DNS, NNC
53	69	Offgoing speed test (during shift), 6 to N4	Yes	DNS, RPR
53	78	Offgoing speed test (during shift),	Yes	DNS, NNC

MAIN CODE	SUB CODE	DESCRIPTION	DO NOT SHIFT LIGHT	INHIBITED OPERATION DESCRIPTION
		R to N1		
53	99	Offgoing speed test (during shift), N2 to N3 or N3 to N2	Yes	DNS, RPR
54	01	Oncoming ratio test (after shift), L to 1	Yes	DNS, RPR
54	07	Oncoming ratio test (after shift), L to R	Yes	DNS, NNC
54	10	Oncoming ratio test (after shift), 1 to L	Yes	DNS, RPR
54	12	Oncoming ratio test (after shift), 1 to 2	Yes	DNS, RPR
54	17	Oncoming ratio test (after shift), 1 to R	Yes	DNS, NNC
54	21	Oncoming ratio test (after shift), 2 to 1	Yes	DNS, RPR
54	23	Oncoming ratio test (after shift), 2 to 3	Yes	DNS, RPR
54	27	Oncoming ratio test (after shift), 2 to R	Yes	DNS, NNC
54	32	Oncoming ratio test (after shift), 3 to 2	Yes	DNS, RPR
54	34	Oncoming ratio test (after shift), 3 to 4	Yes	DNS, RPR
54	43	Oncoming ratio test (after shift), 4 to 3	Yes	DNS, RPR
54	45	Oncoming ratio test (after shift), 4 to 5	Yes	DNS, RPR or SOL OFF (Hydraulic default)
54	54	Oncoming ratio test (after shift), 5 to 4	Yes	DNS,RPR
54	56	Oncoming ratio test (after shift), 5 to 6	Yes	DNS,RPR
54	65	Oncoming ratio test (after shift),	Yes	DNS,RPR

MAIN CODE	SUB CODE	DESCRIPTION	DO NOT SHIFT LIGHT	INHIBITED OPERATION DESCRIPTION
		6 to 5		
54	70	Oncoming ratio test (after shift), R to L	Yes	DNS,NNC
54	71	Oncoming ratio test (after shift), R to 1	Yes	DNS,NNC
54	72	Oncoming ratio test (after shift), R to 2	Yes	DNS,NNC
54	80	Oncoming ratio test (after shift), N1 to L	Yes	DNS,RPR
54	81	Oncoming ratio test (after shift), N1 to 1	Yes	DNS,RPR
54	82	Oncoming ratio test (after shift), N1 to 2	Yes	DNS,RPR
54	83	Oncoming ratio test (after shift), N1 to 3	Yes	DNS,RPR
54	85	Oncoming ratio test (after shift), N1 to 5	Yes	DNS,RPR
54	86	Oncoming ratio test (after shift), Nl to 6	Yes	DNS, RPR
54	92	Oncoming ratio test (after shift), R to 2 (R to NNC to 2)	Yes	DNS, NNC
54	92	Oncoming ratio test (after shift), N1 to 2 (N1 to NNC to 2)	Yes	DNS, RPR
54	92	Oncoming ratio test (after shift), N2 to 2	Yes	DNS, RPR
54	93	Oncoming ratio test (after shift), N3 to 3	Yes	DNS, RPR
54	95	Oncoming ratio test (after shift), N3 to 5	Yes	DNS, RPR
54	96	Oncoming ratio test (after shift), N4 to 6	Yes	DNS, RPR
54	97	Oncoming ratio test (after shift), 2 to	Yes	DNS, NNC

MAIN CODE	SUB CODE	DESCRIPTION	DO NOT SHIFT LIGHT	INHIBITED OPERATION DESCRIPTION
		R (2 to NNC to R)		
55	17	Oncoming C3PS test (after shift), 1 to R	Yes	DNS, NNC
55	27	Oncoming C3PS test (after shift), 2 to R	Yes	DNS, NNC
55	80	Oncoming C3PS test (after shift), N1 to L	Yes	DNS, RPR
55	87	Oncoming C3PS test (after shift), N1 to R	Yes	DNS, RPR
55	97	Oncoming C3PS test (after shift), 2 to R or NVL to R (2 to NNC to R)	Yes	DNS, NNC
56	00	Range verification test, L	Yes	DNS, 1st, Low, or SOL OFF (Low)
56	11	Range verification test, 1st	Yes	DNS, 6th
56	22	Range verification test, 2nd	Yes	DNS, 6th or 5th
56	33	Range verification test, 3rd	Yes	DNS, 5th or SOL
56	44	Range verification test, 4th	Yes	DNS, 3rd or 5th
56	55	Range verification test, 5th	Yes	DNS, SOL OFF (5th) or 3rd
56	66	Range verification test, 6th	Yes	DNS, 5th, 3rd, or SOL OFF (3rd)
56	77	Range verification test, R	Yes	DNS, N2 or N3
57	11	Range verification C3PS test, 1st	Yes	DNS, SOL OFF (3rd)
57	22	Range verification C3PS test, 2nd	Yes	DNS, 3rd
57	44	Range verification C3PS test, 4th	Yes	DNS, 5th or SOL OFF (3rd)
57	66	Range verification C3PS test, 6th	Yes	SOL OFF (5th), DNS
57	88	Range verification C3PS test, N1	Yes	DNS, N3
57	99	Range verification C3PS test, N2 or N4	Yes	DNS, N3
61	00	Retarder oil temperature, hot	No	None
62	12	Retarder oil temperature sensor, low	No	None

MAIN CODE	SUB CODE	DESCRIPTION	DO NOT SHIFT LIGHT	INHIBITED OPERATION DESCRIPTION
62	23	Retarder oil temperature sensor, high	No	None
63	00	Special function input	No	Depends on special function
64	12	Retarder modulation request sensor, low	No	Retarder operation inhibited
64	23	Retarder modulation request sensor, high	No	Retarder operation inhibited
65	00	Engine rating too high	Yes	DNS
66	00	Serial communications interface fault	No	Use default throttle values
69	12	ECU, A solenoid driver open	Yes	DNS, SOL OFF (hydraulic default)
69	13	ECU, B solenoid driver open	Yes	DNS, SOL OFF (hydraulic default)
69	14	ECU, C solenoid driver open	Yes	DNS, SOL OFF (hydraulic default)
69	15	ECU, D solenoid driver open	Yes	DNS, SOL OFF (hydraulic default)
69	16	ECU, E solenoid driver open	Yes	DNS, SOL OFF (hydraulic default)
69	21	ECU, F solenoid driver open	No	Lock-up inhibited
69	22	ECU, G solenoid driver open	Yes	DNS, SOL OFF (Hydraulic default)
69	23	ECU, H solenoid driver open	No	Retarder allowed, differential lock inhibited
69	24	ECU, J solenoid driver open	No	Low and 1 st inhibited
69	25	ECU, K solenoid driver open	No	K solenoid operation inhibited
69	26	ECU, N solenoid driver open	No	Low and 1st inhibited
69	32	ECU, SPI communications link fault	No	Hold in last valid direction
69	33	ECU, Central Operating Processor (COP) timeout	Yes	Reset ECU, Shutdown ECU on 2nd occurrence (power

MAIN CODE	SUB CODE	DESCRIPTION	DO NOT SHIFT LIGHT	INHIBITED OPERATION DESCRIPTION
				loss: hydraulic defaults)
69	34	ECU, EEPROM write timeout	Yes	DNS, SOL OFF (Hydraulic default)
69	35	ECU, EEPROM checksum	Yes	Induce COP timeout (reset ECU)
69	36	ECU, RAM self test	Yes	Induce COP timeout (reset ECU)
69	41	ECU, I/O ASIC addressing test	Yes	Induce COP timeout (reset ECU)
70	12	Software, minor loop overrun	Yes	Induce COP timeout (reset ECU)
70	13	Software, illegal write to address $0000	Yes	Induce COP timeout (reset ECU)
70	14	Software, major loop overrun	Yes	Induce COP timeout (reset ECU)

LIGHT BULB DATA

APPLICATION	PREVOST PART NO.	TRADE OR SAE NUMBER	WATTS OR CANDLE POWER	VOLTS	QTY XL-40	QTY XL-45
EXTERIOR LIGHTING						
Headlight Hi/Lo	930291	9004	65 W/45 W	12	2	2
Fog (Optional)	561882	H3(Osram)	55 W	12	2	2
License plate (sealed)	930266	---	12 W	12	2	2
Side directional	561917	1893	2 cp	12	12	12
Side marker	561917	1893	2 cp	12	12	12
Identification	562059	194	2 cp	12	6	6
Clearance	562059	194	2 cp	12	8	8
Front directional (hazard & marker)	562135	3057	32/3 cp	12	2	2

LIGHT BULB DATA

APPLICATION	PREVOST PART NO.	TRADE OR SAE NUMBER	WATTS OR CANDLE POWER	VOLTS	QTY XL-40	QTY XL-45
Rear directional	560589	1156	32 cp	12	8	8
Stop	560589	1156	32 cp	12	8	8
Back-up	560589	1156	32 cp	12	4	4
Center stop	560589	1156	32 cp	12	2	2
Tail	560123	67	4 cp	12	8	8
Exterior compartment (except engine)	562278	6429 (78207)	10 W	24	12	12
Engine compartment	560601	456	2 cp	24	8	6
INTERIOR LIGHTING						
Check engine	562048	E-9 (Norma)	2 W	12	1	1
Stop engine	562048	E-9 (Norma)	2 W	12	1	1
Flasher indicator	562048	E-9 (Norma)	2 W	12	2	2
Other indicator - 1/unit	562049	(Osram)	2 W	24	AR	AR
Speedometer	560145	1829	1 cp	24	2	2
Pyrometer (Opt)	560601	456	2 W	24	1	1
Tachometer	560145	1829	1 cp	24	2	2
Turbo boost (Opt)	561167	3899 (Osram)	3 W	24	1	1
Tachograph (Opt)	561006	1-405-804	1.2 cp	24	3	3
Other instrument - 1/unit	560144	1820	1.6 cp	24	AR	AR
Step	562278	6429 (78207)	10 W	24	3	3
Driver's area	561553	78236	10 W	24	4	4
Lavatory	561553	78236	10 W	24	2	2
Lavatory night light	560601	456	2 cp	24	2	1
Lavatory “Occupied”	560702	1843	0.2 cp	24	2	2
Parcel racks	560144	1820	1.6 cp	24	14	12

LIGHT BULB DATA

APPLICATION	PREVOST PART NO.	TRADE OR SAE NUMBER	WATTS OR CANDLE POWER	VOLTS	QTY XL-40	QTY XL-45
"Emergency exit"	560601	456	2 cp	24	20	14
Aisle	560141	1251	3 cp	24	7	6
Switch 1/unit	561123	2741 (Osram)	1 W	24	AR	AR
Reading	562033	961-4940	8 W	24	AR	AR
Fluorescent	830102	F15T8 CW	15 W	---	27	21
Destination sign	560125	16911F	15 W	24	4	4
Parcel rack front neon	830108	PL7	7 W	---	16	14
Rear roof	561553	78236	10 W	24	2	2
R.H. lateral console	562278	6429 (78207)	10 W	24	1	1

DATA PLATE & CERTIFICATION

Data plate

The main components of the vehicle such as engine, transmission, axles and chassis are identified by different serial numbers. It may be necessary to locate these numbers for warranty purposes.

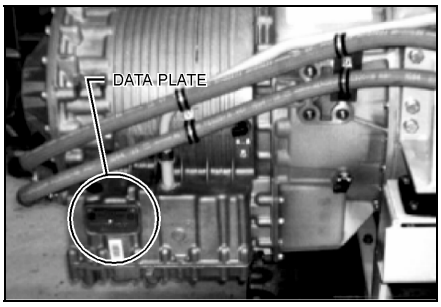
Engine

The engine serial number is stamped on the cylinder block under the exhaust manifold (oil filter side) close to the water pump.

In addition, four plates are located on the rocker cover (oil filter side). Contents of the plates include the engine serial and model numbers and a list of the optional equipment on the engine. The information is primarily used when ordering replacement parts.

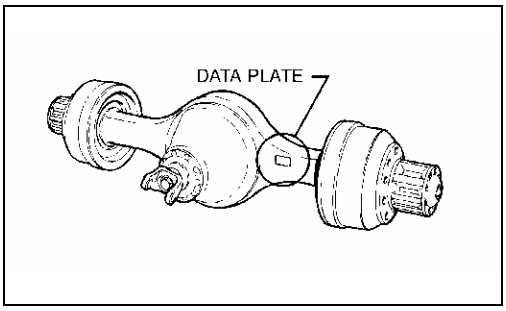
01012

Transmission



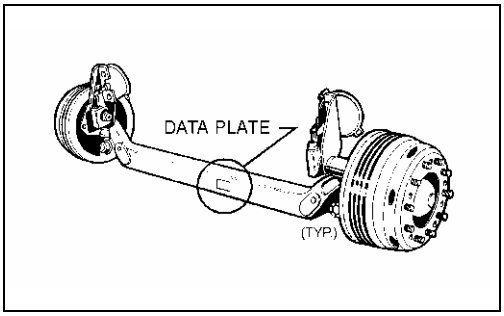
07003

Drive axle



11004

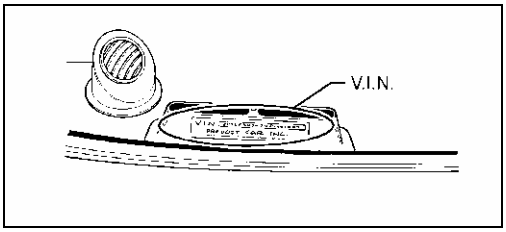
Front axle



10003

Vehicle identification number (V.I.N.)

The vehicle identification number is stamped on a plate located on dashboard louver (entrance door side), so that it is visible from the outside through the windshield. It is extremely important to give the correct vehicle identification number when ordering replacements parts. Use of these numbers will prevent delay and errors in obtaining the correct material.



18041

Coach final record

This is a complete and detailed record of all data pertaining to the assembly of the vehicle. This information sheet is included in the technical publication box delivered with the new vehicle and should be kept in vehicle where it will be readily available for reference.

Safety attestation

All the components on this vehicle meet the government requirements:

- Material and parts conform to ASTM and/or SAE standards in effect at time of manufacturing.

- Welding is in accordance with Canadian and US standards.

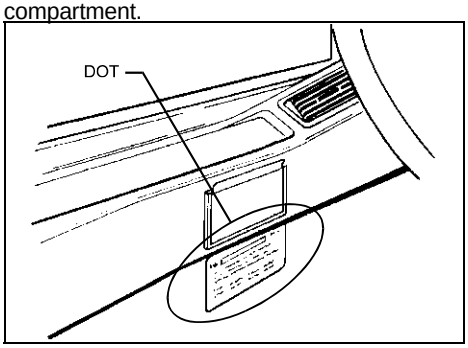
- All factory-installed interior materials meet F.M.V.S.S. 302 on fire resistance.

- Certified according to Provincial, State and Federal Safety standards (Can. & US) B.M.C.S.S., F.M.V.S.S., C.M.V.S.S.

Other certification labels are affixed to the specific components on the vehicle.

DOT certification label

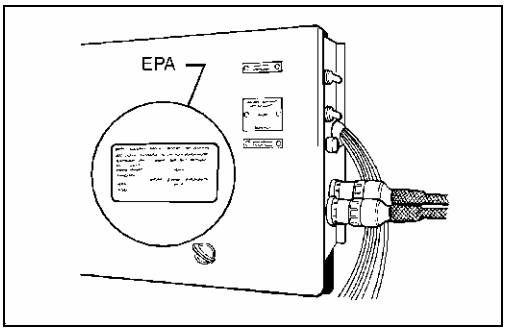
This is your assurance that your new vehicle complies with all applicable Federal Motor Vehicle Safety Standards which were in effect at the time the vehicle was manufactured. You can find this label affixed below L.H. Side Control Panel in driver's
compartment.



18042

EPA engine label

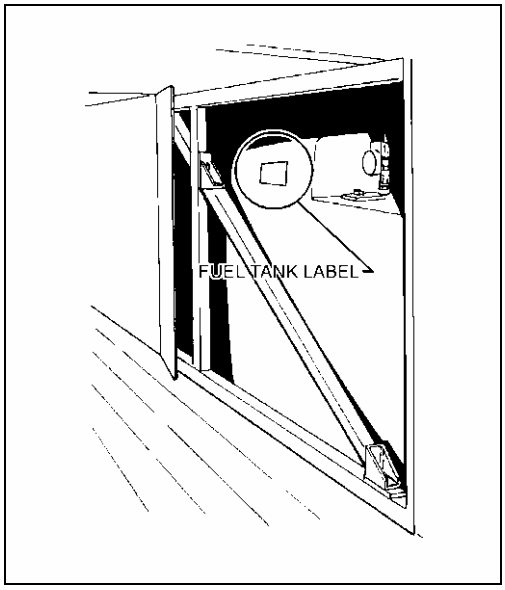
The exhaust emission certification label affixed on the lower R.H. side corner of the rear junction box certifies that the engine conforms to federal and any state exhaust emission regulations. It gives the operating conditions at which certification was made.



01011

Fuel tank label

The fuel tank label is affixed on side of fuel tank. To read this label, open the last baggage compartment door, locate the fuel tank access panel then remove it by unscrewing the Phillips head retaining screws.



03003

NOTE: *Optional auxiliary fuel tank has a label affixed to the side of the tank and can be easily read by opening the second baggage compartment door.*

03002

NOTE: It is strongly recommended that you take note of all the serial numbers on the vehicle and supply them to your insurance company. They may be useful.