Unit 1

Exercises

Part I Spell out the abbreviations in English with the information given below.

1. **LED**（发光二极管）

2. **I/O** resistors（输入/输出电阻器）

3. **VSS** rotor（车速传感器转子）

4. **SDM**（传感和诊断模块）

5. Driver **SISM** diagnostic（驾驶员侧面碰撞传感模块诊断）

6. **EEPROM** write error（电可擦可编程只读存储器写入错误）

7. **MAP** senor, out of range（进气歧管绝对压力传感器超出范围）

8. **ECT** sensor, temperature high（发动机冷却液温度传感器温度过高）

9. **TP** sensor, voltage low（节气门位置传感器电压过低）

10. Front **HO_2S**, slow response（前加热式氧传感器响应过慢）

11. **EGR**, insufficient flow（废气再循环阀流量不足）

12. **PCM** program, fault（动力控制模块程序错误）

13. Engine **RPM**, signal fault(发动机**转速**信号错误)

14. **ECU** is defective(**电控单元**损坏)

15. **A/C** pushbutton control module(**空调**按钮式控制模块)

Part II Translate the following into English (abbreviation or English meaning).

1. 单点喷射
2. 手持式检测仪
3. 汽缸识别
4. 发动机识别号码
5. 低排放汽车
6. 原装设备生产厂
7. 车速传感器
8. 节气门位置传感器
9. 继电器模块
10. 儿童安全保护系统

Part III Translate the following into Chinese.

1. CPS
2. DLC
3. DTC
4. EPA
5. GPS
6. MIL
7. TBI
8. VIN
9. WOT
10. PCV

Part IV Translate the following sentences into Chinese.

1. The ABS works by measuring how fast the wheels are turning during braking and comparing their speeds.

2. Keep vehicle level, inspect ATF fluid level.

3. A/C system has two major parts.

4. The A/F sensor is similar to the oxygen sensor.

5. You can use ACC to turn on the radio without starting the engine.

6. The EGR temperature sensor is located in the EGR passage and measures the temperature of the exhaust gases.

7. The IAT detects the temperature of the incoming air stream.

8. On vehicles equipped with a MAP sensor, the IAT is part of the MAP sensor.

9. Motor oils are classified by SAE viscosity ratings.

10. The TPS is mounted on the throttle body and converts the throttle valve angle into an electrical signal.

Part V Vocabulary and structure.

1. _____ Susan gets onto the top of a tall building, she will feel very much frightened.
   A. Now that B. Even though C. Every time D. Only if
2. The chair looks rather unusual in shape, but it is very comfortable to sit _____.
   A. by B. on C. with D. at
3. _____ how to deal with the trouble of the computer, Martin had to ask his brother for help.
   A. Not know B. Not known C. Not to know D. Not knowing
4. It's said that the agreement _____ between the two companies last month will become effective from May 1st.

A. to sign B. signed C. to be signed D. signing

5. Many people have found _____ uncomfortable to hold the same position for a long time.
A. it B. this C. which D. that

6. He doesn't feel like _____ a picnic in the park this weekend, and he suggested watching the football match instead.
A. have B. to have C. having D. had

7. It was because I wanted to buy a dictionary _____ I went downtown yesterday.
A. but B. and C. why D. that

8. Though he _____ well prepared before the job interview, he failed to answer some important questions.
A. will be B. would be C. has been D. had been

9. The cost of traveling around the eight European countries can run as high _____ $2,000.
A. to B. as C. by D. for

10. This book is designed for the learners _____ native languages are not English.
A. whose B. which C. who D. what

Part VI Reading material.

High-End Nest for Pampered Empty Nesters

——2009 TOYOTA VENZA

A NEWBORN could have reached high school in the time — almost 14 years — it took Toyota to get the concept behind the 2009 Venza into dealerships. But Toyota customers seeking a fresh-feeling blend of style, comfort and practicality may find it was worth the wait.

The Venza comes with front-wheel drive or all-wheel drive, and with either a 4- or 6-cylinder engine. The only transmission is a 6-speed automatic.

The Venza is the same length as the Camry. Despite the extra ground clearance, you can get into the Venza without having to climb up S. U. V. -style. The Venza has a little more legroom in the rear than the Camry and a little less up front, but there's enough room for four six-foot adults to be comfortable. The wide front seats are clearly designed for big American bottoms.

All Venzas get important safety gear including antilock brakes; electronic stability control, which works to prevent skids; and brake assist, which helps to assure maximum braking in an emergency.

There are also air curtains for head protection (front and rear) in a side-impact crash. Up front, seat-mounted side air bags provide torso protection in a side impact.

On two-lanes through the White Mountains the Venza was a surprisingly eager companion. It headed into a turn without the stubborn delay found in many all-wheel-drive vehicles that carry a lot of weight up front.

The steering is nicely weighted and the driver can pick a line through a curve and be certain the Venza will follow it without requiring fiddly corrections.

Toyota also did a good job of controlling body lean while still providing a comfortable ride, even on bad roads.

The 2.7-liter 4-cylinder engine is rated at 182 horsepower at 5,800 r. p. m. and 182 pound feet of torque at 4,200 r. p. m. This is a new Toyota engine making its debut in the Venza.

Refined and unobtrusive, the six-speed automatic transmission is a typical Toyota creation. It can be shifted manually, which is helpful in mountain driving or when the driver simply wants more control.

Unit 2

Exercises

Part I Choose the best answer from the following choices according to the text.

1. The _____ tells you how many miles (kilometers) per hour your vehicle is moving.
   A. odometer B. trip meter C. speedometer D. tachometer
2. The _____ tells you the total number of miles (kilometers) your vehicle has been driven.
   A. odometer B. trip meter C. speedometer D. tachometer
3. The _____ tells you how many miles (kilometers) your car has been driven since the last reset.
   A. odometer B. trip meter C. speedometer D. tachometer
4. The _____ shows you the engine speed in revolutions per minute (rpm).
   A. odometer B. trip meter C. speedometer D. tachometer
5. To protect the engine from damage, never drive with the tachometer needle in the _____.
   A. white mark B. red zone C. blue mark D. yellow zone
6. The _____ displays how much fuel you have in the fuel tank.
   A. oil pressure gauge B. fuel gauge
   C. water temperature gauge D. ammeter
7. Temperature gauge shows the temperature of the engine's _____.
   A. oil B. coolant C. incoming air D. exhaust
8. Engine oil pressure warning light indicates the engine _____, not the oil level.
   A. low fuel B. oil pressure C. temperature D. overheating
9. Turn the ignition switch _____ and check that the parking brake warning light lights up.
   A. on B. off C. go out D. come on
10. Should the temperature drop below 3 ℃, it produces an acoustic warning signal to alert the driver of the danger of _____ on the road surface.
    A. water B. ice C. oil D. mud

Part II Translate the following into English.

1. 线束
2. 组合仪表总成
3. 连接器
4. 燃油液位警告灯
5. 蜂鸣器
6. 机油压力警告灯
7. 接线柱(端子)
8. 负极导线
9. 燃油表
10. 平地

Part III Translate the following into Chinese.

1. speedometer tester
2. disconnect
3. external temperature
4. on board computer
5. brake fluid level
6. warning light
7. tail light switch
8. overheat
9. shut off
10. regardless of
11. ground
12. instrument panel

Part IV Translate the following sentences into Chinese.

1. Using a speedometer tester, inspect the speedometer for allowable indication error and check the operation of the odometer.

2. Check the deflection width of the speed meter indicator.

3. Tire wear and tire over or under inflation will increase the indication error.

4. Fluctuation from 10 V to 14 V or less is repeated 7 times within 1 sec.

5. Disconnect the connector from the sender gauge.

6. Ground terminal 2 is on the wire harness side, check the water temperature receiver gauge needle which should indicate "hot".

7. Disconnect the connector from the parking brake switch and ground terminal on the wire harness side connector. Turn the ignition switch ON and check that the warning light lights up.

8. Do not operate the engine again, if the light is on, regardless of the oil level.

9. While connecting the terminal of wire harness side connector and ground, check the warning low oil pressure warning light.

10. While the driver side door is open, insert the ignition key, set the ignition switch to OFF and check for the buzzer sound whether it is intermittent.

Part V Complete the questions based on the graphs below.

Now, most of the freshmen often can not read a variety of indicator lights on instrument panel. There are some indicator lights as follows (See Fig. 2 – 1 ~ Fig. 2 – 4). Please depict their purposes respectively.

Fig. 2 – 1

Fig. 2 – 2

Fig. 2 – 3

Fig. 2 – 4

Part VI Read the following passage, then complete the following questions.

Inspection of the Common Fault

The faults of vehicle information displaying system generally appear in the sensors, connectors, wires, individual instruments and displays. Before inspection, the circuits should be disconnected or removed firstly, then check them one by one with the detecting equipment.

1. Inspection of sensors

Disconnecting or removing the circuits of the sensor, detect them one by one with the special equipment. Usually the method of measuring resistance is used to detect the resistive sensor, i. e. to compare the stated value of standard resistance with the measured value of resistive sensor. If the measured resistance value is less than the stated value, it indicates that there is an inner short circuit of the sensor; if the measured resistance value is greater than the stated value, it indicates that there is open circuit or bad contact in the inner of the sensor; if the measured resistance value is within the extent of the stated value, it indicates that the sensor works well. Sensors can't be dismantled and maintained, so they should be replaced when damaged.

2. Inspection of connectors

Use the method of looking and hand touching during the detection. The devices of the connector should be complete and in good condition; the plugs should contact well and have no corrosion. When we touch the connector while the instruments are working, we should not get obvious sense of the temperature. If the temperature is too high, it means that the connector's connection is bad. Find out the reasons and obviate the problems.

Questions:

1. What should be noticed before you inspect the faults of vehicle information displaying system?

2. How to measure resistance usually?

3. Could the sensor be dismantled and maintained? If not, what should we do when it is damaged?

4. If the connector's temperature is too high while the instruments are working, what does it mean?

Part VII Vocabulary and structure.

1. To protect the engine _____ damage, never drive with the tachometer needle in the red zone.
   A. to B. from C. however D. consequently
2. Compare the test _____ tachometer indications.
   A. with B. and C. to D. that
3. The fuel gauge indicator may vary slightly while the vehicle is in motion. This is the _____ fuel movement within the tank.
   A. result of B. result in C. because D. result
4. During normal operation, the pointer should rise from the bottom blue mark to about the middle _____ the gauge.
   A. in B. to C. of D. on
5. _____ his surprise, the manager found nobody in the meeting room.
   A. At B. For C. To D. With
6. This company has two branches: one in Paris and _____ in New York.
   A. another B. the other C. one other D. other
7. _____ to find the proper job, he decided to give up job-hunting in this city.
   A. Failed B. To fail C. Being failed D. Having failed
8. The proposal _____, we'll have to make another decision about when to start the project.
   A. accepted B. to accept C. accepting D. be accepted
9. We don't deny that your products are superior in quality to _____ of Japanese make.
   A. the one B. these C. that D. those
10. It is required that anyone applying for a driver's license _____ a set of tests.
    A. take B. took C. takes D. will take

Part VIII Read the passage with appreciation.

1. Valentine's Day

(1) The thing you do, the joy you bring, the liveliness you show just make you special and such a joy to know.

(2) You are always on my mind, I miss you.

(3) Your kind and living way, the thoughtful things you do and say, every gentle smile, make my life worthwhile.

(4) Love is smiling on the inside and out.

(5) The moon sees me missing you.

(6) Wherever you go, whatever you do, I will be right here waiting for you.

(7)Hi, what are you doing now, close your eyes, I will be here by your side, missing you day and night!

2. Mid-Autumn Festival

The Mid-Autumn Festival is near, let's face the full moon in the sky to say Hi to each other.

"Raising my head, I look at the bright moon;

Bending my head, I think of my old home."

Unit 2

译文

汽车信息显示系统及检修

汽车信息显示系统是汽车系统中一个重要的部分。司机能够了解汽车,特别是发动机的各种工作参数是否正常,以便采取适时措施来防止人身和机械故障的发生。

传统仪表广泛使用组合式模拟显示仪表,各种测量仪表均安装在驾驶员座椅前方的仪表板上。不同汽车仪表板的仪表不尽相同,如图 2 – 1 所示为典型的组合式汽车仪表板(图略)。

常用的仪表有车速表、发动机转速表、机油压力表、水温表、燃油表、电流表等。大部分仪表通过传感装置获得被监测对象的状态变化而直接表述出来。

随着汽车电子技术的发展,多功能、高精度、读数直观的电子数字显示及图像显示的仪表已不断应用于汽车上。

丰田卡罗拉维修手册

1. 速度表

速度表根据汽车类型显示每小时行驶的千米数或每小时的英里[①]数。

1) 检查速度表

(1) 用车速表测试仪,检测车速表的允许指示误差,并检查里程表的工作状况。

标准示值(km/h)	允许范围(km/h)
20	21 – 25
40	41.5 – 46
60	62.5 – 67
80	83 – 88
100	104 – 109
120	125 – 130.5
140	145.5 – 151.5
160	166 – 173

(2) 检查速度表指针的误差范围:低于 0.5 km/h。

① 1 英里 = 1.609 3 千米。

注意:轮胎磨损和轮胎过分充气或充气不足均会增加示值误差。

2）检测车速信号的输出

以 10 km/h 的车速行驶,检查组合仪表总成连接器端子 C11 –9 与 C11 –1 之间的电压。电压值从 10 V 到 14 V 或更小之间波动,每秒钟内重复 7 次。

注意:要在点火开关在 ON 位置、连接器连接上的情况下,检查输出信号。

2. 转速表

转速表显示发动机每分钟的转速。驾驶时,不要使转速表的指针指向红色区,以免发动机受到损伤。

检测转速表

（1）连接校准测试转速表,启动发动机。

（2）比较测试值和转速表显示值:直流电压 13.5 V,在 25 ℃。

标准示值(r/min)	允许范围(r/min)
700	630 – 770
1 000	900 – 1 100
2 000	1 850 – 2 150
3 000	2 800 – 3 200
4 000	3 800 – 4 200
5 000	4 800 – 5 200
6 000	5 750 – 6 250
7 000	6 700 – 7 300

如果检查数据正常,替换组合仪表板;否则就修理或替换电线和连接器。

3. 燃油表

燃油表可大约显示油箱中现存的油量。

注意:加油前点火开关须在“关”(OFF)位置,燃油表才可正常显示。行车时油量表有少许摆动是由于油箱内燃油波动的缘故。当汽车在平坦路面时,油量读数较精确。

检查燃油表(注:此处原教材上应改为检查燃油表)

（1）从发送仪表上断开连接器。

（2）将点火开关扭至 ON 位置,然后检查燃油表指针的位置是否处于“空”状态。

（3）将线束侧连接器端子 2 和 3 连接,并将点火开关扭至 ON 位置,然后检查燃油表指针的位置是否处于“满”状态。

检查燃油液位警告灯(注:此处原文在主教材的 P10:6.)

（1）从发送仪表上断开连接器。

（2）将点火开关扭至 ON 位置,检查燃油液位指针是否指示 EMPTY(空),燃油液位警告灯是否点亮。

4. 温度表

这个表显示发动机冷却剂的温度。正常驾驶时,表的长针应从表中蓝色标记下端指到大

约中间的位置上。在恶劣的驾驶条件下,例如在非常炎热的天气里或长时间爬坡过程中,表的指针会指向上面的白色范围内。如果指针指向红色(热)范围内,发动机就会过热,从而损坏发动机(教材中缺此句,应加上)。

若发动机过热:

(1) 尽快安全地停在路边。

(2) 关闭发动机。

(3) 让发动机冷却。

(4) 请根据有关检查及加注发动机冷却剂说明,检查冷却剂液面,参照“索引”中的“发动机冷却剂”。

检查水温表警告灯

(1) 从发送仪表上断开连接器。

(2) 将点火开关扭至 ON 位置,检查水温表指针的位置,应指示“冷态”。

(3) 将线束侧端子 2 接地,然后检查水温表指针的位置,应指示“热态”。

5. 发动机油压警告灯

油压警告灯显示发动机油压,而不是机油液位。然而,发动机机油液位低,将会影响油压。每次点火钥匙扭至 ON 或 START 位置时,油压警告灯亮,发动机启动时应该熄灭。如果警告灯持续亮或发动机运转时仍亮着,则表明汽车油压过低,如果继续工作将会给发动机带来严重的损害。

如果油压过低:

(1) 尽快安全地停在路边。

(2) 立即关闭发动机。如果未尽快停止发动机,发动机将发生严重损伤。

(3) 依照用户指南中检查和添加发动机机油的说明,检查发动机机油液面。为了精确读数,请将汽车停在平坦路面。

(4) 如果液面过低,在再次启动发动机之前,请按需求添加机油。不要溢出。油压警告灯亮时,无论液面怎样,都不要再次启动发动机。

检查油压警告灯

(1) 从油压过低警告灯开关上断开连接器。

(2) 将点火开关扭至 ON 位置。

(3) 连接线束侧连接器端子并接地,然后检查油压过低警告灯。

6. 检查制动警告灯(注:原文 6 已合并到 3)

1) 检查驻车制动警告灯

从驻车制动开关上断开连接器,并将线束侧连接器端子接地。将点火开关扭至 ON 位置,检查警告灯能否点亮。

2) 检查制动液液位警告灯

断开制动液液位警告灯开关上的连接器,并连接线束侧连接器端子。将点火开关扭至 ON 位置,检查警告灯能否点亮。

7. 检查钥匙开锁警告蜂鸣器

1）检查工作情况

当驾驶员侧门开时，插入点火钥匙，将点火开关扭至 OFF 位置并且检查蜂鸣器声音是否间歇。

2）检查功能

拆下组合仪表。将蓄电池正极（ + ）导线连接至端子 5，负极（ – ）导线连接至端子 1 和 2。将负极（ – ）导线连接至端子 16 和 17，检查蜂鸣器声音是否间歇。蜂鸣器发出响声时，将蓄电池正极端子与端子 4 相连，并检查蜂鸣器声音是否停止。

注意：当未锁警告和灯自动关闭报警同时输出时，未锁警告优先。

8. 检查灯自动关闭蜂鸣器

1）检查工作情况

使尾灯开关位于 ON 并且在驾驶员侧门打开时，取下点火钥匙，检查蜂鸣器声音是否连续。当蜂鸣器发出声音时，执行下列操作：

（1）将尾灯开关扭至 OFF 位置；

（2）关闭驾驶员侧门；

（3）将点火钥匙插入锁芯。

如果没有蜂鸣器声音，更换组合仪表板。

2）检查功能

拆下组合仪表。将蓄电池正极（ + ）导线连接至端子 5，负极（ – ）导线连接至端子 1 和 2。将蓄电池正极（ + ）导线连接至端子 18，负极（ – ）导线连接至端子 16 和 17，检查蜂鸣器声音是否连续。当蜂鸣器发出声音时，将蓄电池正极导线连接至端子 4，检查蜂鸣器声音是否停止。

宝马车载电脑屏幕

车载电脑屏幕能使您迅速、便捷地总览主要行程信息，并即时对遇到的危险驾驶条件示警，如图 2 – 2 所示（图略）。

数字控制系统、导航系统以及汽车上的各种传感器不断地为车载电脑提供最新数据。根据当前燃油消耗的比率，车载电脑计算出汽车直到再次添加所需燃油还能行驶多远。使用平均速度和导航系统计划航线的数据，能估计出到达目的地的时间。此外，车载电脑屏幕显示当前时间、日期和车外温度。如果温度下降至低于 3 ℃，车载电脑将会产生一个听觉警示信号，以警告驾驶员注意路面的结冰危险。

清晰呈现的和有用的信息变动给旅行计划提供了方便，使您在宝马汽车上的每一次旅行成为轻松愉悦的经历。通过安装在转向管柱上的操纵杆的按键或者使用控制器来控制完成各种功能。仪表板或显示监视器上显示出这些信息。