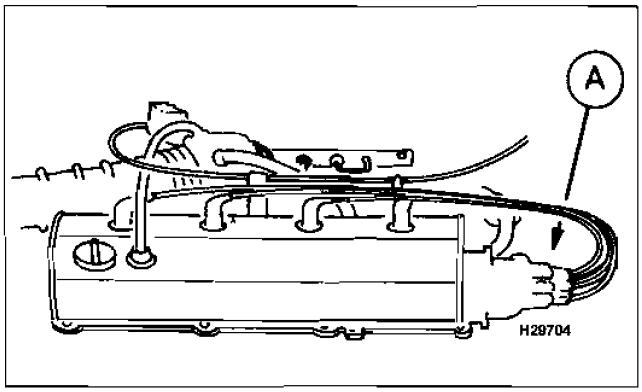
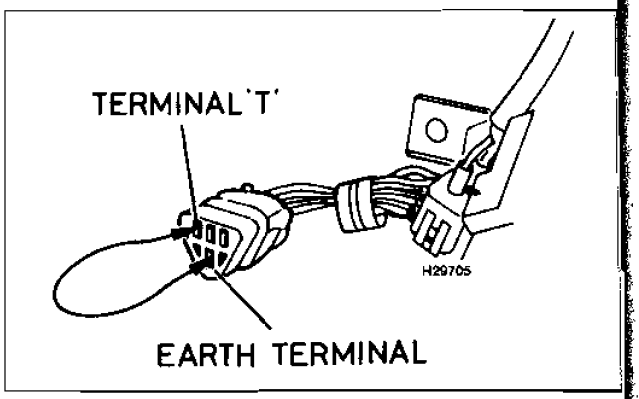


10.2 Location of SD connector for Applause 1989 to 1995 and Sportrak 1991 to 1996

A SD connector located near distributor



10.3 SD connector terminals for Charade 1987 to 1993

Applause 1.6i and Sportrak 1.6i

The SD connectors are located near the distributor **(see illustration 10.2)**, and are provided for manual retrieval of flash codes alone.

3 Retrieving fault codes without a fault code reader (FCR) - flash codes

Note: *During the course of certain test procedures, it is possible for additional fault codes to be generated. Care must be taken that any codes generated during test routines do not mislead diagnosis. All codes must be cleared once testing is complete.*

Charade models

1 Use a jumper lead to bridge terminals "T" and earth in the SD connector **(see illustration 10.3)**.

Applause and Sportrak models

2 Use a jumper lead to bridge terminals 5 and 6 in the SD connector **(see illustration 10.4)**.

All models

3 Switch on the ignition, but do not start the engine.

4 The codes are displayed on the SD warning light in the instrument panel. The flashing of the light indicates the 2-digit fault codes as follows:

a) A 4.5-second pause signals the beginning of the code transmission sequence.
b) The two digits are indicated by two series of flashes.
c) The first series of flashes indicates the multiples of ten, the second series of flashes indicates the single units.
d) Tens are indicated by a 0.5-second flash, while units are indicated by 0.5-second flashes separated by a 1.2-second pause.
e) A 2.5-second pause separates the tens from the units.
f) A 4.5-second pause separates the transmission of one code from another.
g) Code number "12" is indicated by one short (0.5-second) flash, followed by a 2.5-second pause and then two flashes of 0.5 seconds in quick succession.

5 Count the number of flashes in each series, and record each code as it is transmitted. Refer to the table at the end of the Chapter to determine the meaning of the fault code.

6 The fault codes are displayed in sequence, and then repeated after a 4.5-second pause.

7 Continue retrieving codes until all stored codes have been transmitted and recorded.

8 If the first transmitted code is "1" (repeated three times), no faults are stored.

9 Turn off the ignition and remove the jumper lead to end fault code retrieval.

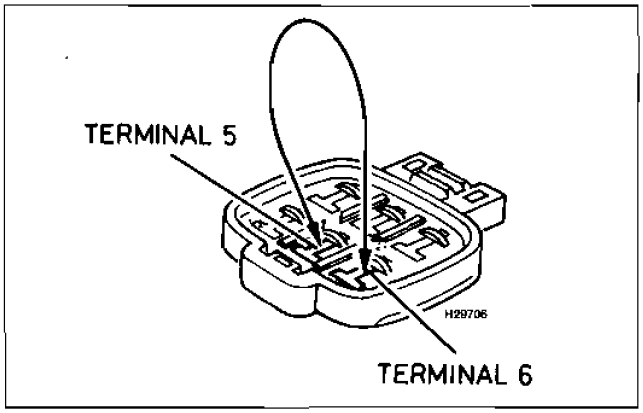
4 Clearing fault codes without a fault code reader (FCR)

Method 1

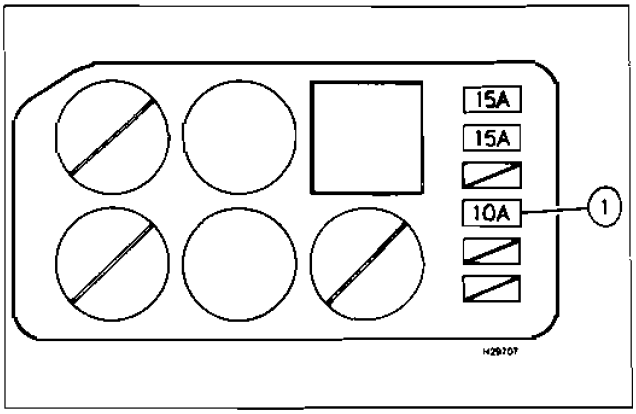
1 Remove the ECM back-up fuse for a minimum of 10 seconds **(see illustration 10.5)**.

Method 2

2 Turn off the ignition and disconnect the battery negative terminal for a period of at least 10 seconds.



10.4 SD connector terminals for Applause 1989 to 1995 and Sportrak 1991 to 1996



10.5 Location of ECM back-up fuse (1) in fusebox for Applause 1989 to 1995 and Sportrak 1991 to 1996

3 Reconnect the battery negative terminal.

Note: *The first drawback to this method is that battery disconnection will re-initialise all ECM adaptive values. Re-learning the appropriate adaptive values requires starting the engine from cold, and driving at various engine speeds for approximately 20 to 30 minutes. The engine should also be allowed to idle for approximately 10 minutes. The second drawback is that the radio security codes, clock setting and other stored values will be initialised, and these must be re-entered once the battery has been reconnected.*

Self-Diagnosis with a fault code reader (FCR)

FCR facilities were not available for the Daihatsu vehicles covered by this book at the time of writing.

6 Guide to test procedures

1 Manually gather codes as described in Section 3.

Codes stored

2 If one or more fault codes are gathered, refer to the fault code table at the end of this Chapter to determine their meaning.

3 If several codes are gathered, look for a common factor such as a defective earth return or supply.

4 Refer to the component test procedures in Chapter 4, where you will find a means of testing the majority of components and circuits found in the modern EMS.

5 Once the fault has been repaired, clear the codes and run the engine under various conditions to determine if the problem has cleared.

6 Check the ECM for fault codes once more. Repeat the above procedures where codes are still being stored.

7 Refer to Chapter 3 for more information on how to effectively test the EMS.

No codes stored

8 Where a running problem is experienced, but no codes are stored, the fault is outside of the parameters designed into the SD system. Refer to Chapter 3 for more information on how to effectively test the EMS.

9 If the problem points to a specific component, refer to the test procedures in Chapter 4, where you will find a means of testing the majority of components and circuits found in the modern EMS.

10

Fault code table

Daihatsu MPi/EFi

Flash code	Description
01	No faults found in the ECM. Proceed with normal diagnostic methods
02	Manifold absolute pressure (MAP) sensor or MAP sensor circuit
03	Ignition signal
04	Coolant temperature sensor (CTS) or CTS circuit
05	CO adjuster (non-catalyst models)
05	Oxygen sensor (OS) or OS circuit (alternative code)
06	Engine speed sensor (distributor)
07	Throttle position sensor (TPS) incorporating idling switch or TPS circuit
08	Air temperature sensor (ATS) or ATS circuit
09	Vehicle speed sensor (VSS) or VSS circuit
10	Starter signal
11	Switch signal idle, auto or A/C.05
12	Exhaust gas regulation (EGR) or EGR circuit
15	Oxygen sensor (OS) or OS circuit, voltage too low
16	Oxygen sensor (OS) or OS circuit, voltage too high