

FEB 28 1986

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Mr. Kenichi Kato
General Manager, Toyota Motor Corporation
U.S. Office
9 West 57th Street, Suite 4550
New York, NY 10019

REF-12 Ch
EAB5-045

Dear Mr. Kato:

This is in reference to my letter of September 20, 1985, and your response dated December 5, 1985, concerning alleged sudden acceleration of certain Toyota Cressida vehicles. The purpose of this letter is to request that the Toyota Motor Corporation (Toyota) conduct a voluntary safety recall campaign on 1982 and 1983 Cressida vehicles.

This office has reviewed all available information pertaining to the alleged sudden acceleration on Cressida vehicles. As a result of our review it is apparent that when the cruise control computer fails, the actuator in certain 1982 and 1983 Cressida vehicles can, under some conditions, automatically engage if the main cruise control switch is turned on and the engine is started. The actuator engagement can cause sudden vehicle acceleration without the driver's input. This is evidenced in part by the inspection and testing of a defective cruise control computer witnessed by Toyota personnel at our Vehicle Research and Test Center, as shown in Attachment IX-4 of your letter of December 5, 1985. Although the cause of the defect in the cruise control computer has not been determined, sudden acceleration was produced and duplicated on a 1982 and a 1983 Cressida, equipped with the defective cruise control computer. This condition occurred from a standstill as well as at cruising speeds. Furthermore, malfunction of the defective cruise control computer appears to be intermittent.

Based on our review of component modifications, it appears that Toyota was aware of inadequacy of fail-safe protection of the cruise control system to the 1982 and 1983 Cressida vehicles equipped with the microprocessor

speed control computer. To improve the fail-safe operation, Toyota added one circuit to the stop lamp switch assembly in March 1983. This assures cancellation of cruise control operation when the brake pedal is depressed. Additionally, Toyota added a circuit to the cruise control computer assembly for improving its fail-safe function in January 1984.


A review of a total of 40 Corssida sudden acceleration complaints shows that over 87 percent (35) of complaints were received from 1982 and 1983 Corssida owners, and over 12 percent (5) reported failure or malfunction of the cruise control system.

We are concerned that a large percentage of the 74,000 1982 and 1983 Corssida vehicles, equipped with a cruise control assembly without the latest fail-safe protection are still on the road. In case of failure or malfunction of its cruise control computer, sudden vehicle acceleration can result.

Based on our findings, we are recommending that Toyota conduct a voluntary safety recall of the potentially affected vehicles to provide total fail-safe protection for the cruise control assembly in accordance with the National Traffic and Motor Vehicle Safety Act. If Toyota does not take appropriate corrective action, I may recommend that a formal Defect Investigation be opened which includes issuing a press release. It is requested that Toyota notify this office in writing within 15 working days from receipt of this letter advising what action Toyota intends to take on this matter.

If you have any technical questions, please contact Dr. George Chiang of my staff at (202) 426-2347.

Sincerely,

 Philip W. Davis

Philip W. Davis
Director
Office of Defects Investigation
Enforcement

cc:
Mr. Teiji Iida
Washington, DC Office

Mr. Dan H. Koda
California Office

Attachment IX - 4

Investigation Report (at VRTC)

REPORT OF TOYOTA'S OBSERVATION OF
SUDDEN ACCELERATION PROBLEM ON THE
1982 TOYOTA CRESSIDA MODEL

In accordance with the suggestion of NHTSA to observe the NHTSA test vehicle with the failed cruise control computer installed, which was recovered from the 1982 Cressida owned by Mr. Malowski, we observed the alleged sudden acceleration problem and checked the vehicle and related components.

Following are our observations and findings on the matter:

1. Date

October 16, 1985 (1 p.m. - 3 p.m.)

2. Location

Vehicle Research & Test Center (VRTC) at East Liberty, Ohio

3. Items and Results

3-1. Observation of NHTSA test vehicle with the failed cruise control computer installed

(Test Vehicle) VIN; JT2MX62E0C0035028 (Oct. '81
production - 1982 year model)
Mileage; 18,087

(Computer) Production No.; 67023N158

(1) Vehicle Standing Still Condition (Shift Lever: N range)

a. With cruise control main switch "ON", immediately after turning on the ignition, engine speed went up to above 5000 rpm.

b. Same results are observed when starting the engine while applying the foot brake and/or pulling the parking brake lever.

(2) Vehicle Driving Condition (Shift Lever: D range)

a. When the vehicle speed approached 15-20 mph, cruise control main switch was turned on. The vehicle gradually picked up speed and kept accelerating, but the engine speed remained approximately 3000 rpm.

- b. When the vehicle speed reached approximately 60 mph, the foot brake was applied. The vehicle stopped, however, the engine was still racing at about 3000 rpm.

(3) Cruise Control System Components Check

- a. Voltage applied to the actuator and movement of actuator cable was checked by disengaging the actuator cable from the bellcrank.
- b. When the ignition was switched on with the cruise control main switch "ON", the actuator cable was pulled in full throttle position. At the same time, the voltage between each actuator solenoid valve (release and control) and body ground was found to be 9-9.5 V. (See Figure 1 for voltage check results)
- c. 30-40 seconds after leaving the vehicle as it was (both ignition and main switch "ON"), the actuator cable spontaneously returned to the idling position and, at the same time, the voltage dropped to 0 V.
- d. However, after approximately 5 minutes passed, the same phenomena as described in 3-1-(3)-b were observed. Also, this series of phenomena (b thru d) were found to be duplicatable by repeating the above described procedure.

(4) Others

There were no abnormalities found in the throttle linkage system of the vehicle and appearance of the cruise control computer installed.

3-2. Observation of Toyota brought-in vehicle with the failed cruise control computer installed

The same results as described in 3-1 were observed when the failed computer was installed on the following vehicle which Toyota brought in.

VIN; JT2MX63E9D0006482 (Sep. '82 production - 1983 year model)
Mileage; 44,980

Note: Because of slight wiring diagram difference between '82 and '83 model year vehicles, the wiring of the above vehicle was modified so that the wiring of both models were identical.

4. Conclusion

1. As described above, we were able to observe and duplicate the alleged problem on both vehicles. (NHTSA test vehicle and Toyota brought-in vehicle)
2. The cruise control computer could be the cause of this problem, however, what was wrong with the computer was not identified.

We recommend that the computer be sent back to Japan for further detailed analysis.

3. Since the engine speed goes up to more than 5000 rpm immediately after the engine is started and a noticeable engine racing noise can be heard, it is not conceivable that drivers shift the transmission into D or R position under this condition.