

Non-cranking Mercedes E220 CDI

A 2017 Mercedes E220 CDI was recovered and dropped at our garage, Clarke's Garage in Annagharnet, Co. Cavan. The owner of the Mercedes had driven a short distance to Kingscourt, Co. Cavan, where she had been out shopping. After her first stop, the engine started up without any difficulty or hesitation. At her second stop, the engine refused to start up again, it would not crank at all.

The battery had more than enough power to start the engine, and a scan revealed that there weren't any fault codes. A Mercedes technician had told me once that this vehicle was known for having problems in the wiring and connections to the starter, in the area between the engine and the firewall. The wiring was examined, but there was no corrosion present on the connectors and nothing was out of place.

My next step was to look up any known problems for this particular make and model on Diagnose Dan's Technical Service Bulletins (DDTSB).

One of the bulletins that I discovered for this Mercedes E220 referred to a fault within the ECU that prevented the starter from engaging or starting the engine. The fault was due to the ECU wrongly thinking that the vehicle had been involved in a collision.

If the ECU mistakenly believed that the car has been involved in a crash, it may prevent the starter from engaging. The technical service bulletin stated that in order to overcome this problem, a full factory reset

of the operating software will have to be performed.

I contacted a service which can remotely connect and scan and reset the software remotely. We were required here in our garage to perform physical tasks such as turning on or off various components.

After the Mercedes was connected to this service, I eventually received a request

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BULLETIN

MAKE / MODEL	YEAR	ENGINE CODE
Mercedes-Benz	2015-	All

SUBJECT / SYMPTOM / TROUBLE CODE:
Engine will not start, ignition turns on but starter motor does not activate, one or more fault codes stored.
U014387 - Communication with the Multifunction Control Unit has a Malfunction. The Message is Missing
U122262 - The Signal Line to Component 'Control Unit 'Combustion Engine'' is Defective

SOLUTION:
Possible causes:
The car has been involved in an accident or mistakenly "believes" that it has been involved in one.
Possible solutions:
Start prohibition clearing via diagnostic tool.
This function often requires OE diagnostic tool.

Problem description:
We have learned that the problem has occurred even though the car has in no way been involved in an accident.

Troubleshooting procedure:
If necessary, start the diagnosis by checking the possibilities for start prohibition annulment via diagnostic tool.

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A Diagnose Dan Technical Service Bulletin (DDTSB) provided the possible problem that was preventing the Mercedes from starting and a possible solution



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from the remote diagnostic technician to attempt to start the engine. The engine started without any problem, and could be shut down and restarted at will.

I rang the remote diagnostic service to inform them that the engine was now running and the problem had been cured. The remote service was surprised, as they had only performed an initial scan, and had only started a reset of the software.

At this point the Mercedes would start and drive normally, except that the radio screen was blank and the radio was not functioning. This fault was short lived, and the screen and the radio return to functioning normally. After several weeks, the car has continued to work without any hint of trouble..

The main conclusion that I can draw from this experience is that we have entered a time when complex vehicle systems are encountering problems that are not caused by a physical fault, but are caused by software glitches. A thorough diagnostic process, covering all of the basics is still important. If everything checks out, it is possible that the controlling software is malfunctioning. When you reach this point, speciality knowledge and scanning tools will be required.