		Tesla, Inc. Service Bulletin	Media Control Unit 8GB eMMC Warranty Adjustment Program	
SB-20-21-002 November 11, 2020		R1		
Classification		Section/Group		Mobile Service
Repair Bulletin		21 - Infotainment		Cannot Perform
Model Year	Model	Country/Region		Version
2012 - 2018	Model S, Model X	All		All
The model(s) and model year(s) listed are a general approximation of the affected VIN list. Refer to the VIN/Bulletin Tracker or Customer/Vehicle profile to determine applicability of this bulletin for a particular vehicle.				

Repair Bulletin: This repair bulletin provides instructions on addressing a noted condition or possible customer concern regarding the operation of Tesla vehicles. These instructions should only be performed by trained professionals.

This Service Document supersedes SB-20-21-002, dated November 9, 2020. Each content change is marked by a vertical line in the left margin. Discard the previous version and replace it with this one.

Condition

For some Model S and Model X vehicles built before March 2018, an 8GB embedded MultiMediaCard (“8GB eMMC”) in the Media Control Unit (MCU) might malfunction due to accumulated wear. This could result in a blank or intermittently blank touchscreen, or an alert on the touchscreen indicating that a memory storage device has degraded and to contact Service.

Correction

Determine the vehicle’s eligibility for rectification under the Warranty Adjustment Program. After confirming eligibility, provide rectification.


Correction Description	Correction	Time
Determine Eligibility, Replace VCM Through Warranty Adjustment Program (Model S)	S012021002	1.15
Determine Eligibility, Replace VCM Through Warranty Adjustment Program (Model X)	S022021002	1.45

Parts, Special Tools, and Shop Supplies

Parts, special tools, and shop supplies required are listed in [SI-20-21-010](#).

Determine Eligibility

- Determine the date the vehicle was first put into use (i.e., first vehicle delivery date) and current odometer value.

 **NOTE:** Confirm the original delivery date from the beginning date of either the HV Battery Limited Warranty or the Drive Unit Limited Warranty.


- If the original delivery date is older than 8 years, or the odometer reading is greater than 100,000 miles (160,000 km), continue to “**Vehicle Ineligible**”.
 - If the delivery date is within 8 years and the odometer is less than 100,000 miles (160,000 km), continue to the next step.
- Log in to Garage, provide the VIN, click **VITALS > UI**, scroll down to eMMC Vitals, and record the values to the right of Name and Reserved Blocks.
 - If the name is not “H8G2d”, “Hynix” or “S0J58x”, continue to “**Vehicle Ineligible**”.
 - If the name is either “H8G2d”, “Hynix” or “S0J58x”, continue to the next step.

3. If the eMMC name is “H8G2d”, determine if the filesystem malfunctioned due to wear.
 - If alerts “MCU_w088_eMMCNeedsReplacement” or “MCU_w085_eMMCEOL” are actively asserted, recently asserted, or present in vehicle logs, continue to “**Provide Rectification**”.
 - If alert “MCU_w031_cidSquashfsError” is actively asserted, recently asserted, or present in vehicle logs, AND there are fewer than 65 reserve blocks remaining, continue to “**Provide Rectification**”.
 - If neither of the above is true, the eMMC filesystem has not malfunctioned due to wear, continue to “**Vehicle Ineligible**”.
4. If the eMMC name is “Hynix”, determine if the filesystem malfunctioned.
 - If alert “MCU_w031_cidSquashfsError” is actively asserted, recently asserted, or present in vehicle logs, continue to “**Provide Rectification**”.
 - If alert “MCU_w031_cidSquashfsError” is not present, the eMMC filesystem has not malfunctioned, continue to “**Vehicle Ineligible**”.
5. If the eMMC name is “S0J58x”, determine if the filesystem malfunctioned due to wear.
 - If alerts “MCU_w088_eMMCNeedsReplacement” or “MCU_w085_eMMCEOL” are actively asserted, recently asserted, or present in vehicle logs, continue to “**Provide Rectification**”.
 - If neither alert is present, the eMMC filesystem has not malfunctioned due to wear, continue to “**Vehicle Ineligible**”.

Provide Rectification

The eMMC is a component on the VCM daughterboard within the MCU. Tesla can replace the VCM daughterboard with one that has an enhanced 64GB eMMC, free of charge. The replacement VCM will be covered for the same condition due to wear as long as the vehicle remains eligible for the Warranty Adjustment Program.

- Use [SI-20-21-010](#) for the replacement procedure, required parts, special tools, and shop supplies.
- Select the “Adjustment Program” pay type to document the replacement performed under this program.
- For Model S vehicles, use correction code S012021002.
- For Model X vehicles, use correction code S022021002.

 **NOTE:** As a condition of this Warranty Adjustment Program, the removed VCM daughterboard must be returned to MRB through the standard process.

Repair Reimbursement

If the vehicle owner had previously paid for a repair for the specific part and condition covered under this program, the owner might be entitled to reimbursement of the amount paid subject to certain terms and conditions. The reimbursement process is not yet available at this time. Affected owners will be notified shortly with details about the requirements for eligibility and process to submit a claim.

Vehicle Ineligible

If it has been more than 8 years since the original delivery date, the vehicle has an odometer reading greater than 100,000 miles (160,000 km), the eMMC name is other than “Hynix”, “H8G2d”, or “S0J58x”, or the vehicle is not experiencing an 8GB eMMC or replacement eMMC malfunction due to accumulated wear, then the vehicle is ineligible for this Warranty Adjustment Program.

Cancel this bulletin activity so that it remains available for a possible future application. Create a new service activity and follow standard procedures to determine the cause, resolution, and payment, as appropriate, for the vehicle issue.