



September 25, 2020

James C. Owens, Deputy Administrator
National Highway Traffic Safety Administration
West Building, Ground Floor, Room W12-140
1200 New Jersey Avenue, S.E.
Washington, D.C. 20590

Re: 49 C.F.R. Part 556 Petition for Inconsequential Noncompliance

Dear Deputy Administrator Owens:

On September 24, 2020, Tesla, Inc. ("Tesla" or the "Company") submitted a noncompliance report in accordance with 49 C.F.R. Part 573, notifying the National Highway Traffic Safety Administration ("NHTSA") that the digital speedometer on certain Model Year (MY) 2012-2020 Tesla vehicles does not conform with FMVSS 101, Section 5.2.1 (Table 1). Pursuant to sections 30118(d) and 30120(h) of the Motor Vehicle Safety Act (49 U.S.C. Chapter 301, et seq.) and applicable regulations thereunder, including 49 C.F.R. Parts 556 and 573, Tesla hereby petitions for an exemption from the notification and remedy requirements of 49 U.S.C. §§ 30119 and 30120 on the basis that this noncompliance is inconsequential to motor vehicle safety.

Tesla is a corporation organized and existing under the laws of the State of Delaware, with its principal offices located at 3500 Deer Creek Road, Palo Alto, California 94304.

Summary of Noncompliance

FMVSS 101, Section 5.2.1 (Table 1) requires that the speedometer display vehicle speed in either (i) miles-per-hour ("mph"); or (ii) kilometers-per-hour ("km/h") and mph. For the subject population, the vehicle operator can adjust the settings to display speed in either mph or km/h.

Subject Population

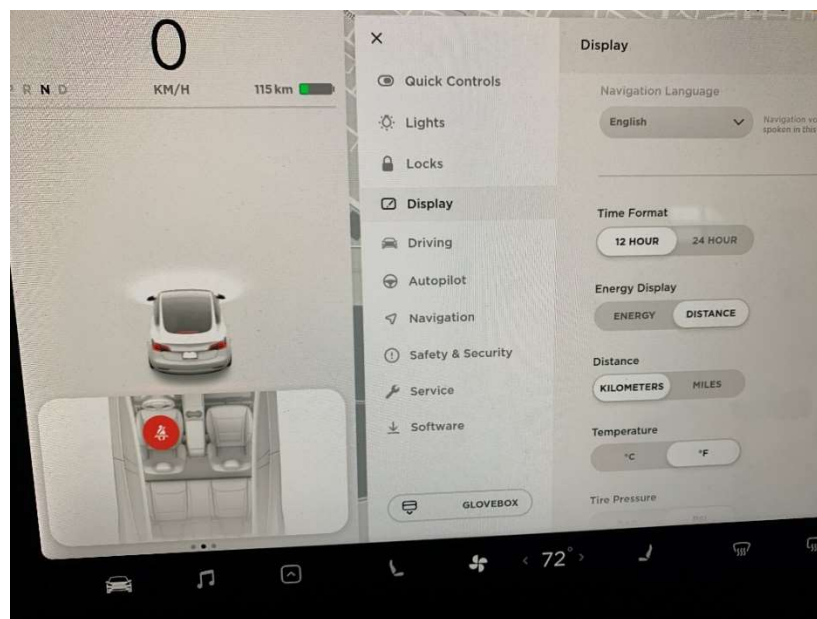
As described in Tesla's noncompliance report, the subject population is comprised of 612,065 vehicles equipped with a digital speedometer, including:



- MY 2012-2020 Tesla Model S, produced between December 1, 2011 and August 31, 2020;
- MY 2016-2020 Tesla Model X, produced between September 17, 2015 and August 31, 2020;
- MY 2017-2020 Tesla Model 3, produced between July 15, 2017 and August 31, 2020; and
- MY 2020 Tesla Model Y, produced between January 9, 2020 and August 31, 2020.

Tesla believes this issue is inconsequential to motor vehicle safety for the following reasons:

- All affected vehicles are originally configured to display speed in mph and are delivered for first sale in the United States market in a compliant state. Because distance is most commonly measured in the United States in Imperial units (including mph), the majority of owners will continue to operate their vehicle using the factory-configured unit displayed (i.e., with the speed displayed in mph) and are unlikely to ever attempt to change to metric units.
- Only through driver interaction within the display settings menu can the unit of measurement be changed from miles to kilometers. This change must be done intentionally and cannot be accomplished inadvertently. Below is an example of the display menu in a MY2019 Tesla Model 3, reflecting the distance setting as kilometers:



- When the display is set to kilometers, the indicated vehicle speed in km/h is 1.6 times greater than the speed in mph. As a result, if a vehicle operator changes the display to indicate km/h and later forgets or neglects to change the display back to mph, they (or a subsequent operator) would be more likely to travel at a slower speed rather than a faster speed. Moreover, because

the operator will be able to easily recognize that the vehicle is moving at a lower speed than intended, they will likely adjust their vehicle speed to match road and traffic conditions.

- If the vehicle operator has set the display to kilometers, all functions relying on, or otherwise tied to, the speed limit (e.g., Traffic Aware Cruise Control and Speed Assist) will convert mapped data from mph to km/h, resulting in the vehicle speed automatically matching the appropriate speed limit even though the display is km/h.
- If the vehicle operator needs to change the display back from km/h to mph, the method for doing so can be easily located in the display menu and is not buried in sub-menus. See, e.g., the Model 3 display above.
- If the operator nevertheless has difficulty finding the menu to change the unit setting within the center display, instructions are available in the Owner's Manual. For example, in the chapter on Controls in the Model 3 Owner's Manual, there are instructions on how to navigate the menu and an explanation that within the "Display" menu, there is a "Distance" toggle that allows operators to "Choose to display miles or kilometers for range, speed, energy, trip meters, map searches and navigation routes."¹
- On September 1, 2020, factory firmware release 2020.28.102.2 was introduced in production, updating the speedometer units to display km/h and mph when the display distance is set to kilometers. The change was also included in firmware release 2020.36.11, which began rolling out to field vehicles on or about September 16, 2020, so all vehicles accepting the update (and future updates) will receive compliant speedometer units. As with all Tesla over-the-air updates, we expect a majority of vehicles will have the update completed within the next few weeks and expect nearly all vehicles to have completed the update within 6 months.
- To date, we have not received any reports of loss of control, collision, injury or fatality, property damage, or fire related to this issue.

Finally, Tesla notes that NHTSA has recently granted two petitions for inconsequential treatment involving speedometer unit display noncompliances, both of which involved a km/h display that did not also display mph. See, e.g., Volkswagen Group of America, Inc., Grant of Petition for Decision of Inconsequential Noncompliance, 85 Fed. Reg. 39675 (July 1, 2020); BMW of North America, LLC, Grant of Petition for

¹ See Model 3 Owner's Manual at pp. 136-138 available at: https://www.tesla.com/sites/default/files/model_3_owners_manual_north_america_en.pdf (last accessed September 24, 2020).

Decision of Inconsequential Noncompliance, 80 Fed. Reg. 61884 (Oct. 14, 2015). Because this issue is identical to the noncompliances in those cases, NHTSA should grant this petition for the same reasons.

* * *

Thank you for your attention to this matter. If you have any questions regarding this request, you may contact me at emykytiuk@tesla.com.

Sincerely,

A handwritten signature in black ink, appearing to read 'Elizabeth Mykytiuk', written in a cursive style.

Elizabeth Mykytiuk

Managing Counsel, Regulatory

Vehicle Report

Transaction ID: 20-0013781-25087-10 (Original Report)

Required fields indicated with *

Your report has been submitted. Your Transaction No. is 20-0013781-25087-10.

Manufacturer: Tesla, Inc.

3500 Deer Creek Road
Palo Alto CA 94304

[David Kim](#)
510-4742884,

This is a Noncompliance Report. Filing a petition pursuant to [49 CFR 556](#)

Vehicle Information

Tesla Model S 2012 - 2020

* **Model Yr. Start:** 2012 * **Model Yr. End:** 2020
* **Make:** Tesla
* **Model:** Model S

Type:
Body Style:
Powertrain:

Production Dates Begin: 12/01/2011
 End: 08/31/2020

Descriptive Information:

The subject population includes all Tesla models with a digital speedometer.

VIN Range(s): Begin: End:

Tesla Model X 2016 - 2020

* **Model Yr. Start:** 2016 * **Model Yr. End:** 2020
* **Make:** Tesla
* **Model:** Model X

Type:
Body Style:
Powertrain:

Production Dates Begin: 09/17/2015
 End: 08/31/2020

Descriptive Information:

The subject population includes all Tesla models with a digital speedometer.

VIN Range(s): Begin: End:

Tesla Model 3 2017 - 2020

* **Model Yr. Start:** 2017 * **Model Yr. End:** 2020
* **Make:** Tesla
* **Model:** Model 3

Type:
Body Style:
Powertrain:

Production Dates Begin: 07/15/2017
 End: 08/31/2020

Descriptive Information:

The subject population includes all Tesla models with a digital speedometer.

VIN Range(s): Begin: End:

Tesla Model Y 2020

* **Model Yr. Start:** 2020 * **Model Yr. End:** 2020
* **Make:** Tesla
* **Model:** Model Y

Type:
Body Style:
Powertrain:

Production Dates Begin: 01/09/2020
 End: 08/31/2020

Descriptive Information:

The subject population includes all Tesla models with a digital speedometer.

VIN Range(s): Begin: End:

Number potentially involved: 612065

Estimated percentage of involved with defect: 100%

Defect / Noncompliance Description

For this Defect/Noncompliance:

*** Describe the defect or noncompliance:**

When switching the distance display setting from miles to kilometers, the speedometer displays vehicle speed in kilometers-per-hour (km/h) only. FMVSS 101, S5.2.1 (Table1) requires that speed be displayed in either miles-per-hour (mph) or in both km/h and mph.

If a noncompliance, provide the applicable FMVSS:

101 - Control and displays

If applicable, provide any further FMVSS affected:

Describe the cause:

*** Describe the safety risk:**

Tesla believes there is no risk to motor vehicle safety and will file a petition for inconsequential treatment under 49 CFR Part 556.

Identify any warning which can precede or occur:

This Recall affects all vehicles.

If applicable, identify the manufacturer of the defective or noncompliant component. If the manufacturer of the component is unknown, provide the information for the company that supplied the subject component.

Component manufacturer

Company Information

Company Name:

Country:

Address 1:

Address 2:

City:

State:

Zip/Postal Code:

Company Contact Information

First Name:

Last Name:

Position:

Email:

Phone:

Involved Components

If the defect or noncompliance involves a specific component(s), identify that component(s) below.

Chronology of Defect / Noncompliance Determination

Provide the chronology of events leading up to the defect decision or test data for the noncompliance decision.:

In or about February 2020, a Tesla employee reported that his Model 3 vehicle was capable of displaying speed in only km/h and he escalated the topic to the Homologation department. Thereafter, Tesla conducted an investigation, including to confirm the condition, evaluate FMVSS compliance, and determine affected scope. On September 18, 2020, Tesla made the determination that a noncompliance exists, but that it is inconsequential to motor vehicle safety.

Identify the Remedy

Describe the defect/noncompliance remedy program, including the manufacturer's plan for reimbursement.

N/A

Describe what distinguishes the remedy component from the recalled component.

N/A

Identify and describe how and when the recall condition was corrected in production.

Factory firmware release 2020.28.102.2, which corrects the display to show speed in either mph or km/h and mph, was introduced in production on September 1, 2020.

Identify the Recall Schedule

Describe the recall schedule for notifications.:

Planned Dealer Notification Begin Date:

Planned Dealer Notification End Date:

Planned Owner Notification Begin Date:

Planned Owner Notification End Date:

Manufacturer's identification code for this recall (if applicable):

Please be reminded that owner notification letters must be mailed no more than 60 days from submission of this report.

Manufacturer Comments to NHTSA Staff

Document Upload

There are 0 documents associated with this report.

1200 New Jersey Avenue, SE, West Building Washington DC 20590 USA 1.888.327.4236 TTY 1.800.424.9153
This application works best in IE9 and above and recent versions of Firefox, Chrome and Safari



October 23, 2020

James C. Owens, Deputy Administrator
National Highway Traffic Safety Administration
West Building, Ground Floor, Room W12-140
1200 New Jersey Avenue, S.E.
Washington, D.C. 20590

Re: 49 C.F.R. Part 556 – Supplement to Petition for Inconsequential Noncompliance

Dear Deputy Administrator Owens:

On September 25, 2020, pursuant to 49 U.S.C. 30118(d) and 30120(h) and 49 C.F.R. Part 556, Tesla, Inc. ("Tesla" or the "Company") submitted a petition to the National Highway Traffic Safety Administration ("NHTSA") seeking an exemption from the notification and remedy requirements of 49 U.S.C. §§ 30119 and 30120. The petition related to a noncompliance report filed by the Company on September 24, 2020, which NHTSA has since designated as Recall No. 20V583. The report notified NHTSA of a noncompliance with FMVSS 101, Section 5.2.1 (Table 1), which requires that the speedometer display vehicle speed in either (i) miles-per-hour ("mph"); or (ii) kilometers-per-hour ("km/h") and mph. For the subject population of Tesla vehicles, the operator can adjust the settings to display speed in either mph or km/h. This letter supplements the petition and provides additional information in its support.

Tesla's petition stated that the noncompliance is inconsequential to motor vehicle safety for the following reasons:

- All affected vehicles are originally configured to display speed in mph, they are delivered for first sale in the United States market in a compliant state, and it is unlikely that operators will ever attempt to change displayed speed to km/h.
- Only through intentional driver interaction within the display settings menu can the unit of measurement be changed from miles to kilometers.
- When the display is set to kilometers, the indicated vehicle speed in km/h is 1.6 times greater than the speed in mph, so a vehicle operator would ultimately be more likely to travel at a slower speed rather than a faster speed.



Tesla, Inc.
1333 H Street, N.W., 11th Floor West, Washington, D.C. 20005

- If the vehicle operator has set the display to kilometers, all functions relying on, or otherwise tied to, the speed limit (e.g., Traffic Aware Cruise Control and Speed Assist) will automatically convert mapped data from mph to km/h.
- If the vehicle operator needs to change the display back from km/h to mph, the method for doing so can be easily located in the display menu, and instructions are readily available in the Owner's Manual.
- The display setting has been corrected in production, as of September 1, 2020.
- We have not received any reports of loss of control, collision, injury or fatality, property damage, or fire related to this issue.
- In similar situations, NHTSA has granted petitions for inconsequential noncompliance relating to the subject requirement of FMVSS 101. *See, e.g.*, Volkswagen Group of America, Inc., Grant of Petition for Decision of Inconsequential Noncompliance, 85 Fed. Reg. 39675 (July 1, 2020); BMW of North America, LLC, Grant of Petition for Decision of Inconsequential Noncompliance, 80 Fed. Reg. 61884 (Oct. 14, 2015).

On October 20, 2020, Transport Canada ("TC") notified Tesla that it had evaluated information supplied by Tesla in connection with a Notice of Noncompliance submitted to TC involving the same facts that gave rise to the Part 573 noncompliance report that is subject of this petition. TC concluded that "there is no real or implied degradation to motor vehicle safety" presented by the noncompliance with CMVSS 101 and indicated that no further notification or remedy action is required in Canada. A copy of TC's letter is attached for your reference.

Finally, as noted in the petition, even though Tesla's position is that the noncompliance is inconsequential to motor vehicle safety, the Company nevertheless included the speedometer display update in firmware release 2020.36.11, which began rolling out to field vehicles on or about September 16, 2020. As such, all vehicles accepting the update (and future updates) will receive compliant speedometer units. To date, more than 75% of affected U.S. vehicles have accepted the update.

For the reasons stated above and for those outlined in Tesla's September 25, 2020 submission, this petition should be granted.

* * *

Thank you for your attention to this matter. If you have any questions regarding this request, you may contact me at emykytiuk@tesla.com.

Sincerely,

A handwritten signature in black ink, appearing to read 'Elizabeth Mykytiuk', written in a cursive style.

Elizabeth Mykytiuk

Managing Counsel, Regulatory



Transport
Canada

Transports
Canada

Safety and Security

Sécurité et sûreté

Your file Votre référence

Motor Vehicle Safety
330 Sparks Street
7th Floor
Ottawa ON K1A 0N5

Sécurité des véhicules automobiles
330, rue Sparks
7^e étage
Ottawa ON K1A 0N5

Our file Notre référence
ASF 3293-9845

October 20, 2020

Ms. Elizabeth Mykytiuk
Managing Counsel, Regulatory
Tesla, Inc.

Subject: 2012-2020 MY Tesla Model S, 2016-2020 MY Tesla Model X, 2018-2020 MY Tesla Model 3 and 2020 MY Tesla Model Y non-compliance to CMVSS 101(4), speedometer display in mph only

Dear Ms. Mykytiuk,

This is in response to your notice of non-compliance sent September 2, 2020 in which you advise Transport Canada of a non-compliance to Canada Motor Vehicle Safety Standard (CMVSS) 101 – *Location and Identification of Controls and Displays* involving 2012 – 2020 Tesla Model S, 2016-2020 Tesla Model X, 2018-2020 Tesla Model 3 and 2020 Model Y vehicles.

Contrary to the requirements of CMVSS 101(4), it is possible to change the speedometer display such that it shows the speed in miles-per-hour (mph) only on the affected vehicles. The standard requires the speedometer to display the speed in either km/h or km/h and mph.

Tesla, Inc. asserts that the non-compliance condition described is inconsequential to safety as the affected vehicles are originally configured to display in km/h and are delivered for first sale in a compliant state. Only through driver interaction within the display settings can the unit of measurement be changed from kilometres to miles, thereby affecting the speedometer display.

The company has received no reports of loss of control, collision, injury or fatality, property damage or fire related to this issue. On September 1, 2020, the non-compliance condition was corrected in production. The change in software was also rolled out to field vehicles on or about September 16, 2020. The company has requested a determination of inconsequential non-compliance in their submitted notice of non-compliance.

The Compliance Engineering, Vehicle and Equipment Testing Division has reviewed your submission and concurs that in this particular and limited situation, there is no real or implied degradation to motor vehicle safety. We will therefore accept your above referenced notice of non-compliance sent to Transport Canada, as meeting your obligation for notification under the Canada Motor Vehicle Safety Act.

Sincerely,

Matthew Coons, P.Eng.
A/Director, Motor Vehicle Regulations Enforcement
Multimodal and Road Safety Programs

Canada

Part 573 Safety Recall Report

20V-583

Manufacturer Name : Tesla, Inc.**Submission Date :** SEP 24, 2020**NHTSA Recall No. :** 20V-583**Manufacturer Recall No. :** NR**Manufacturer Information :**

Manufacturer Name : Tesla, Inc.

Address : 3500 Deer Creek Road
Palo Alto CA 94304

Company phone : 650-413-4000

Population :

Number of potentially involved : 612,065

Estimated percentage with defect : 100 %

Vehicle Information :

Vehicle 1 : 2012-2020 Tesla Model S

Vehicle Type :

Body Style :

Power Train : NR

Descriptive Information : The subject population includes all Tesla models with a digital speedometer.

Production Dates : DEC 01, 2011 - AUG 31, 2020

VIN Range 1 : Begin : NR End : NR ☐ Not sequential

Vehicle 2 : 2016-2020 Tesla Model X

Vehicle Type :

Body Style :

Power Train : NR

Descriptive Information : The subject population includes all Tesla models with a digital speedometer.

Production Dates : SEP 17, 2015 - AUG 31, 2020

VIN Range 1 : Begin : NR End : NR ☐ Not sequential

Vehicle 3 : 2017-2020 Tesla Model 3

Vehicle Type :

Body Style :

Power Train : NR

Descriptive Information : The subject population includes all Tesla models with a digital speedometer.

Production Dates : JUL 15, 2017 - AUG 31, 2020

VIN Range 1 : Begin : NR End : NR ☐ Not sequential

Vehicle 4 : 2020-2020 Tesla Model Y

Vehicle Type :

Body Style :

Power Train : NR

Descriptive Information : The subject population includes all Tesla models with a digital speedometer.

Production Dates : JAN 09, 2020 - AUG 31, 2020

VIN Range 1 : Begin :

NR

End : NR

☐ Not sequential

Description of Noncompliance :

Description of the Noncompliance : When switching the distance display setting from miles to kilometers, the speedometer displays vehicle speed in kilometers-per-hour (km/h) only. FMVSS 101, S5.2.1 (Table1) requires that speed be displayed in either miles-per-hour (mph) or in both km/h and mph.

FMVSS 1 : 101 - Control and displays

FMVSS 2 : NR

Description of the Safety Risk : Tesla believes there is no risk to motor vehicle safety and will file a petition for inconsequential treatment under 49 CFR Part 556.

Description of the Cause : NR

Identification of Any Warning that can Occur : NR

Involved Components :

Component Name 1 : NR

Component Description : NR

Component Part Number : NR

Supplier Identification :

Component Manufacturer

Name : NR

Address : NR

NR

Country : NR

Chronology :

In or about February 2020, a Tesla employee reported that his Model 3 vehicle was capable of displaying speed in only km/h and he escalated the topic to the Homologation department. Thereafter, Tesla conducted an investigation, including to confirm the condition, evaluate FMVSS compliance, and determine affected scope. On September 18, 2020, Tesla made the determination that a noncompliance exists, but that it is inconsequential to motor vehicle safety.

Description of Remedy :

Description of Remedy Program : N/A

How Remedy Component Differs
from Recalled Component : N/A

Identify How/When Recall Condition
was Corrected in Production : Factory firmware release 2020.28.102.2, which corrects the display to show speed in either mph or km/h and mph, was introduced in production on September 1, 2020.

Recall Schedule :

Description of Recall Schedule : NR

Planned Dealer Notification Date : NR - NR

Planned Owner Notification Date : NR - NR

* NR - Not Reported