

CD-24-17-001

This document provides information to safely install the Alcohol Interlock for the European market to the On-Board Diagnostics (OBD) port II of 2024+ Model 3, 2021+Model S, 2021+Model X, and Model Y (HW4) vehicles. The Onboard Diagnostics Port can be used as third-party CAN bus connector. It is located under the instrument panel on the left-hand side of the vehicle (Figure 1).



Figure 1

WARNING: Modifications can affect vehicle performance and behavior and might compromise vehicle safety. Tesla does not guarantee the usability, functionality, or reliability of the modification, nor will Tesla bear any responsibility to the consequences of the modification.

CAUTION: Installing and removing unapproved components might be detrimental and incur damage to the vehicle. Tesla does not endorse the use of third-party equipment and does not accept any responsibility for any damage incurred from installing and removing non-OEM equipment. Service to rectify any damage caused by the installation and removal of unapproved components is not covered by any warranty.

NOTE: Tesla employees are not permitted to install, or assist with the installation of, third-party equipment.

NOTE: All devices connected to the OBD port II share the same power supply. Make sure the total current consumption does not exceed the maximum current capability on the port (8A).

NOTE: The following procedures are for LH drive vehicles. For RH drive vehicles, the procedures are similar.

1. Power off the Vehicle

The vehicle must be powered off before the Alcohol Interlock can be installed. Refer to the appropriate Service Manual procedure for instructions to power off the vehicle.

Model	Procedures
2024+ Model 3	LV Battery - 16V Li-lon (Disconnect and Connect)
Model Y	12V/LV Power (Disconnect and Connect)
2021+ Model S	LV Power (Disconnect and Connect)
2021+ Model X	LV Power (Disconnect and Connect)

2. Accessing the OBD Diagnostic Port II

Refer to the appropriate Service Manual procedure for instructions to remove the driver footwell cover assembly to access the OBD diagnostic port.

Model	Procedures
2024+ Model 3	Dash Panel - Driver Footwell Cover Assembly (Remove and Replace)
Model Y	Cover - Footwell - Driver (Remove and Replace)
2021+ Model S	Cover - Footwell - Driver (Remove and Replace)
2021+ Model X	<u>Cover - Footwell - Outboard - Driver (Remove and Replace)</u>

3. Removing the Central Console

Refer to the following steps to remove the central console.

Model	Procedures
2024+ Model 3	<u>Center Console - Center Console, Assembly</u> (<u>Remove and Replace)</u>
Model Y	Center Console (2.0) (Structural Pack) (Remove and Install)
2021+ Model S	Center Console Assembly (Remove and Install)
2021+ Model X	Center Console Assembly - 1st Row (Remove and Install)

NOTE: As the all the components have been removed, it is ok to start connecting the OBD port.

4. Connector OBD-II Connection Pinout and Considerations

$\left[\right]$	1	2	3	4	5	6	7	8	/
	9	10	13 11 /R	12	13	14	15	16	

Figure 2. OBD-II connector pinout (Vehicle connector mating end view)

	Table 1 Interface of the vehicle				
	Function	Cable or Pin	Position of connection		
1	Battery feed, 12V	Pin 16 0,5 mm ²	Pin 16 (Figure 2) in OBD-II diagnostic port, OBD-II diagnostic port is under the dashboard on the left front side of the vehicle.		
2	Ground	Pin 5 0,5 mm ²	Pin 5 (Figure 2) in OBD-II diagnostic port, OBD-II diagnostic port is under the dashboard on the left front side of the vehicle.		
3	Data bus connection	CAN HIGH: Pin 6 0,35 mm ²	Pin 6 (Figure 2) in OBD-II diagnostic port, OBD-II diagnostic port is under the dashboard on the left front side of the vehicle.		
4	Data bus connection	CAN LOW: Pin 14 0,35 mm ²	Pin 14 (Figure 2) in OBD-II diagnostic port, OBD-II diagnostic port is under the dashboard on the left front side of the vehicle.		

CAUTION: Do not hold the harness by a connector when stripping the wire. This can damage the crimped terminals inside the connector. Ensure the strong and stable attachment is a must.

CAUTION: Make sure not to damage the OBD port during this procedure.

NOTE: Hold the wire near the cut area while stripping the end of the wire so that there is enough exposed conductor.

5. Reinstalling the Center Control Console and Driver Footwell Cover Assembly

Model	Procedure
Model 3 2024+	Center Console - Center Console, Assembly (Remove and Replace)
Model Y	Center Console (2.0) (Structural Pack) (Remove and Install)
Model S 2021+	Center Console Assembly (Remove and Install)
Model X 2021+	Center Console Assembly - 1st Row (Remove and Install)

1. Refer to the following steps to reinstall the central control console.

2. Refer to the following steps to reinstall the drive footwell cover assembly.

Model	Procedure
Model 3 2024+	Dash Panel - Driver Footwell Cover Assembly (Remove and Replace)
Model Y	Cover - Footwell - Driver (Remove and Replace)
Model S 2021+	Cover - Footwell - Driver (Remove and Replace)
Model X 2021+	<u>Cover - Footwell - Outboard - Driver (Remove and Replace)</u>

6. Changing Vehicle Configuration

1. Refer to the following steps to connect a laptop with Toolbox 3 to the vehicle.

Model	Procedures
Model 3 2024+	Toolbox 3 (Connect and Disconnect)
Model Y	Toolbox 3 (Connect and Disconnect)
Model S 2021+	Toolbox 3 (Connect and Disconnect)
Model X 2021+	Toolbox 3 (Connect and Disconnect)

NOTE: If you do not have access to Toolbox, you can purchase a subscription by going to <u>service.tesla.com</u>, and then clicking on **Diagnostics** > **Diagnostics** Software (Figure 3).



Figure 3

2. In Toolbox, click the Actions tab, type "PROC_ICE_X_SAFE-SET-VEHICLE-CONFIGS" (Figure 4).

< PROC_ICE_X_SAFE-SET-VEHICLE-CONFIGS			
Articles Actions Dashboards			
System Y Task Type Y Clear All × Set Vehicle Configs with safe gateway and ce reboot	Help Center		
Path: PROC_ICE_X_SAFE-SET-VEHICLE-CONFIGS System: Infotainment Description: Sets gateway configuration with a	Tutorials Learn how to make use of your diagnosti	c tools and become a Toolbox expert	
	Toolbox Learn about the knowledge-	Articles Learn how articles can guide	Q Search Learn how to s

Figure 4

3. Enter [{"configid":192,"data":"01"}], as the **configParams**, leave the other inputs as default, click "**Run**" (Figure 5).

NOTE: The touchscreen will reboot, and Toolbox will disconnect.

	Set Vehicle Configs with safe gateway and ice reboot	>
Sets gateway configuration with a	safe gateway reboot.	
Customer Facing Impact The infotainment system and gateway	will reset if the display state is off.	
configParams The configid and data list. NOTE this input mi	ust be a Python dictionary, configid is of decimal type, data is hexadecimal. For example - [(*configid"	41,"data"."20")]
[{"configid":192,"data":"01"}]		
configs_require_ice_reboot List of configids that require a CID reboot to t	take effect. Values are of decimal type	
ignore_display_state Ignore display state if the display is on. 1	NARRING - This may cause customer facing effects if they are in the vehicle	
skip_gtw_state_checks Skip Gateway state checks		
		Run

Figure 5

NOTE: After completing the installation process and the configuration changes, the vehicle is ready to work with the Alcohol Interlock device. The driver will not be able to shift into gear without passing a breath analysis.

