



## Introduction

The Tesla Model Y is equipped with an Event Data Recorder (EDR). The EDR records data related to vehicle dynamics and safety systems when the system senses a crash or a crash-like situation, such as hitting a road obstacle. This data is stored in the vehicle’s Restraints Control Module (RCM).

This guide describes how to retrieve EDR data from a Tesla Model Y RCM.

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This guide and other Tesla EDR information can be found at <https://edr.tesla.com>.

There are two methods for connecting to the RCM:

1. A CAN Bus connection, which allows you to connect to the RCM through the Model Y CAN bus, without removing the center console or removing the RCM from the vehicle. This type of connection may not be possible if the vehicle has extensive damage. If a CAN Bus connection can be established, data is retrieved with less vehicle disassembly than when using a direct-to-module connection. For more information about in-vehicle retrieval, refer to “Connect to the CAN Bus,” on page 2.
2. Direct-to-RCM connection, which requires that you physically remove the Model Y center console to access the RCM, then connect cables directly to the RCM and retrieve data. For more information about direct-to-module retrieval, refer to “Establish a Direct-to-RCM Connection,” on page 12.

## Tools Required

To retrieve the data from the RCM, you will need the following special tools:

- PCAN-USB Adapter
- A Windows computer running the Tesla EDR Retrieval Program, which you can download at <https://edr.tesla.com/download>
- An appropriate data retrieval cable:



Retrieval Method	Required Cable	
In-vehicle connection	Tesla In-Vehicle EDR Retrieval Cable. Tesla part number 1131144	
Direct-to-module connection	Tesla Direct-To-Module EDR Retrieval Cable. Tesla part number 1492139.	

Table 1. Retrieval cable requirements

Required cables and software are available at <https://edr.tesla.com>.

## Connect to the CAN Bus

To connect to the RCM through the CAN bus:

1. Fully lower all door windows to avoid glass shatter and door lockout conditions.

2. Remove the RH A-Pillar lower trim:
  - a. Remove the RH instrument panel end cap.

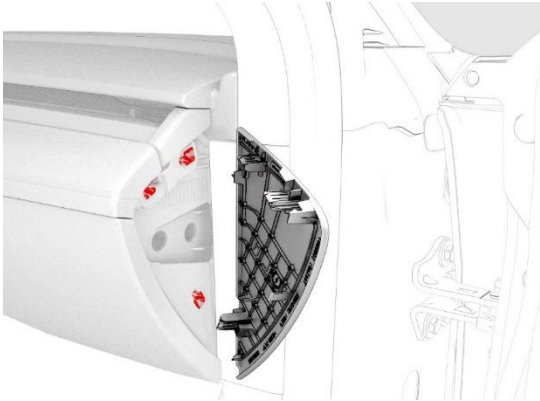


Figure 1. Removing the IP End Cap

- b. Release the upper clip that attaches the RH middle A-Pillar trim, and then pull out the trim to remove it from the vehicle.



Figure 2. Removing the A-Pillar Middle trim

- c. Release the topmost clip on the RH lower A-pillar trim.



Figure 3. Releasing the A-Pillar Lower trim

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- d. Pull the rearmost part of the RH lower A-pillar trim upward to release the clips and tabs, and then pull the entire trim rearward to remove the trim from the vehicle.

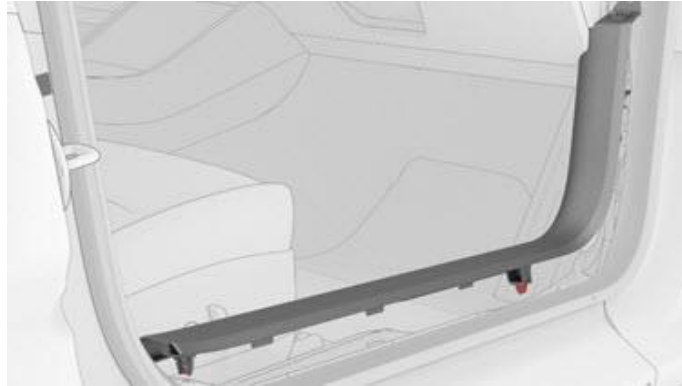


Figure 4. Removing the A-Pillar Lower trim

3. Detach the clip that secures the RH front passenger side carpet to the A-Pillar.



Figure 5. Detaching the RH passenger side carpet

4. Fold the top part of the passenger side carpet away from the A-Pillar and toward the center of the vehicle.
5. Locate the CAN bus connector.

**NOTE:** There should not be anything connected to this CAN bus connector.

**NOTE:** The CAN bus connector might be pushed behind the panel on the back side of the passenger side carpet, as shown below.

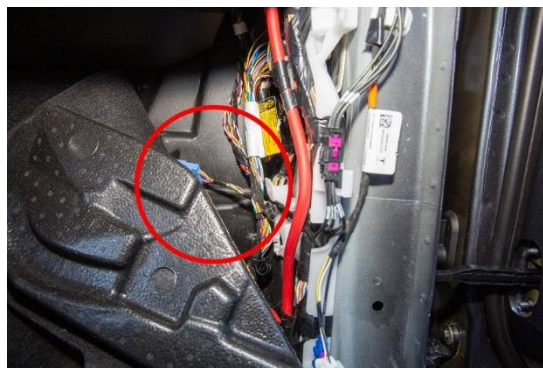


Figure 6. CAN bus connector location

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6. Position the CAN bus connector so that the In-Vehicle EDR Retrieval Cable connector can be attached.



Figure 7. The CAN bus connector in position

7. Insert the connector from In-Vehicle EDR Retrieval Cable into the CAN bus connector on the wire harness.



Figure 8. The In-Vehicle EDR Retrieval Cable connected to the CAN bus connector

8. Supply power to the RCM, as described in “Power Up the Vehicle.”

## Power Up the Vehicle

To power up the Model Y:

1. Sit in the driver's seat.
2. Scan the keycard by placing it on the card reader located to the rear of the cup holders in the center console.



Figure 9. Scanning the key card

3. Press and hold down the brake pedal until the center screen shows the P R N D icons (1). The airbag warning indicator (2) should flash on (and perhaps stay on) to indicate that the RCM is powered up.

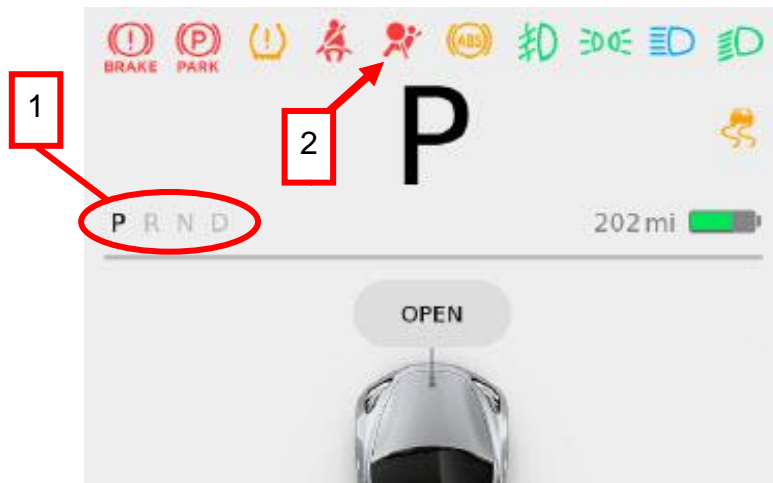


Figure 10. Scanning the key card

**NOTE:** If you do not press the brake pedal within two minutes of scanning the key card, the vehicle will not start. Rescan the key card and press the brake pedal within two minutes to start the vehicle.

If the vehicle powers up, proceed to “Prepare to Retrieve Data,” on page 11.

If the vehicle does not power up, rescan the key card and press the brake pedal within two minutes to start the vehicle. If, after the second attempt to power up the vehicle, it does not power up, you must supply external 12 volt power to the RCM, as described in “Supply External Power to the RCM.”

## Supply External Power to the RCM

To supply external 12V power to the RCM, you must use the First Responder Loop, which is a section of the vehicle wiring harness.

1. The front First Responder Loop is located under the front hood, near the windshield washer fluid reservoir.



Figure 11. Front First Responder Loop

2. Open the hood.
  - If the vehicle owner is present, use the mobile app to open the front trunk by touching the **Front Trunk** button.



Figure 12. Opening the hood using the mobile app

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- If the vehicle owner is not present, use the touchscreen to open the hood by touching **OPEN**.

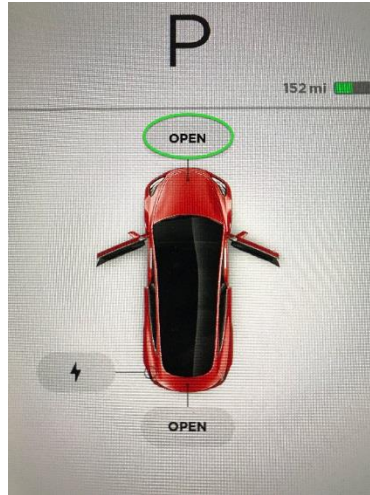


Figure 13. Opening the hood using the touchscreen

- If the Model Y has no 12V power, the hood cannot be opened using the touchscreen or the mobile app. Use the following procedure to open the hood when the vehicle has no 12V power:

**NOTE:** This procedure requires an external source of 12V power, such as a jump starter. Do not connect an automobile 12V battery to the Model Y.

**⚠ WARNING:** Follow all manufacturer's instructions for safe use of the external 12V power source.

- a. Release the tow eye cover on the front fascia by pressing firmly on the top right perimeter of the cover until it pivots inward.

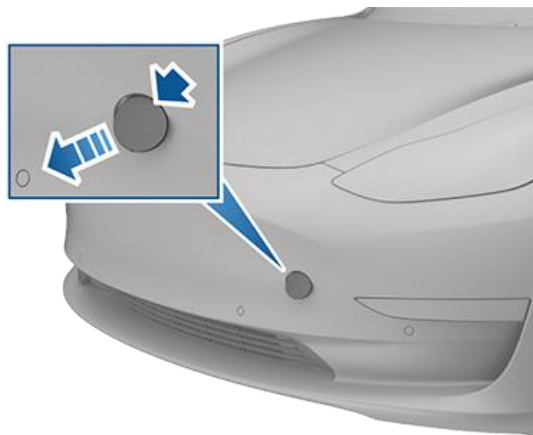


Figure 14. Remove the tow eye cover

**NOTE:** The tow eye cover is connected to a cable that connects to the vehicle's 12V battery positive (+) terminal.



- b. Gently pull the raised section forward outward to expose the terminals at the end of the Model Y positive and negative cables.

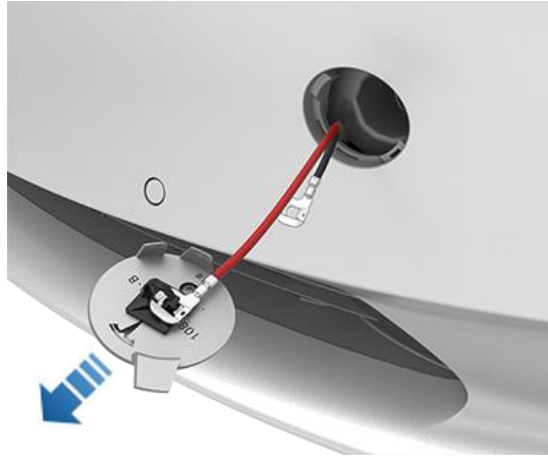


Figure 15. Extracting the cables

**NOTE:** The positive cable (red) is approximately 6 inches longer than the negative cable (black). The negative cable appears only after the positive cable has been partially pulled out of the tow eye opening.

- c. Connect the 12V power supply's positive (+) cable to the Model Y positive (+) terminal (on the red cable), and connect the 12V power supply negative (-) cable to the Model Y negative (-) terminal (on the black cable).

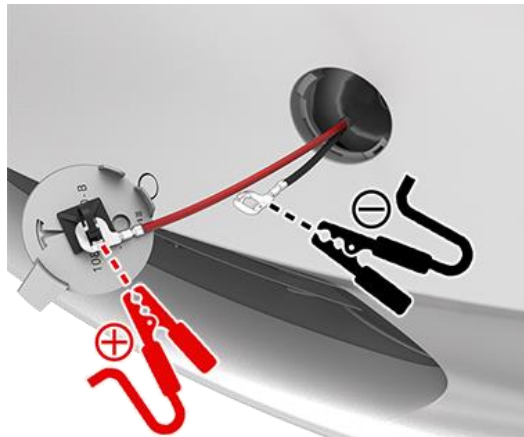


Figure 16. Connecting external 12V power to the Model Y positive and negative terminals

- d. Turn on the external power supply (refer to the manufacturer's instructions). The hood latches should release immediately.

**NOTE:** Applying external 12V power to these terminals only releases the hood latches. You cannot charge the 12V battery using these terminals.

3. Cut the First Responder Loop in the area shown.

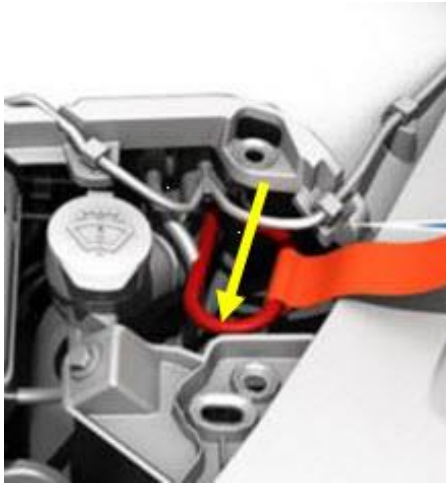


Figure 17. Cut the Front First Responder Loop

4. Remove enough of the harness sheathing from each side of the cut to expose approximately 2 inches of the wires in the harness.
5. Separate the yellow wire from the other three wires.
6. Strip ½ inch of wire from the end of the yellow wire indicated by the green arrow:

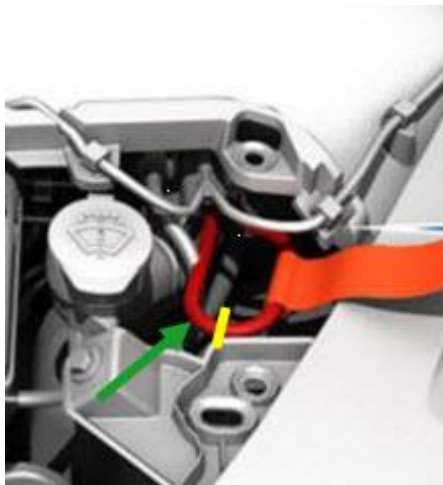


Figure 18. Front First Responder Loop

7. Use an alligator clip to connect the ground/negative output of the external 12V power supply to the vehicle frame.
8. Use an alligator clip to connect the positive output of the external 12V power supply to the bare portion of the yellow wire.
9. Turn on the external power supply.
10. Prepare to connect the computer to the RCM, as described in “Prepare to Retrieve Data.”

## Prepare to Retrieve Data

1. Connect the Tesla In-Vehicle EDR Retrieval Cable to the PCAN-USB adapter.



Figure 19. Connecting the EDR retrieval cable to the PCAN

2. Connect the PCAN-USB adapter to the computer used for data retrieval.



Figure 20. Connecting the PCAN to the computer

3. Proceed to “Retrieve Data” on page 23 to complete the data retrieval procedure.

## Establish a Direct-to-RCM Connection

If the CAN Bus connection procedure is unsuccessful, you might be able to connect directly to the RCM and establish a direct-to-module connection. The RCM is located forward of the center console, below the instrument panel and center screen.



Figure 21. Model Y RCM location

To directly access the RCM, you must remove the center console. Once the center console has been removed, the RCM can be accessed in-place, or it can be removed from the vehicle.

To connect to the RCM while it is still in the Model Y:

1. Move both front seats fully rearward.
2. Remove the front floor mats from the vehicle.
3. Release the clips and tabs that attach the center console LH side panel carpet to the center console, and then remove the side panel from the vehicle.

**NOTE:** Use a trim tool to release the top clips first and then pull from the bottom edge of the carpet to release the remaining clips.



Figure 22. Center console side panel clip locations

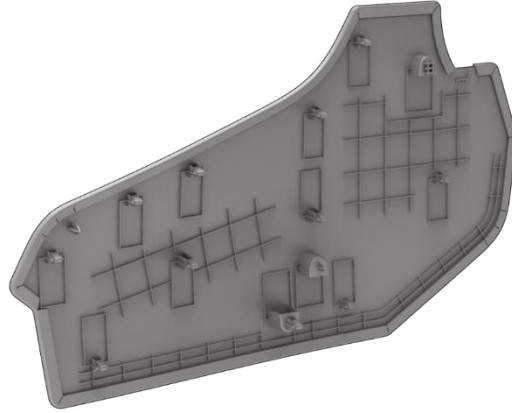


Figure 23. Center console side panel (rear view)

4. Repeat step 3 to remove the center console RH side panel carpet.
5. Remove the bolts that attach the LH and RH front of the center console to the body.

**NOTE:** Use the following tool(s):

- 10 mm socket
- 4 in extension
- ¼ in std ratchet

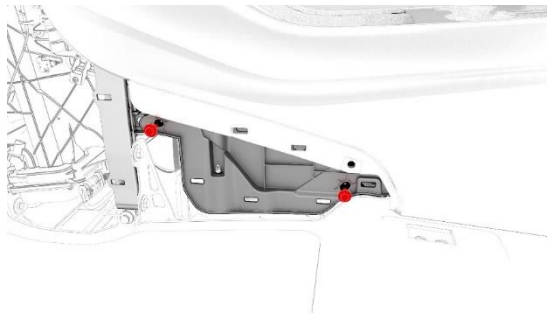


Figure 24. Center console LH front attachment bolt

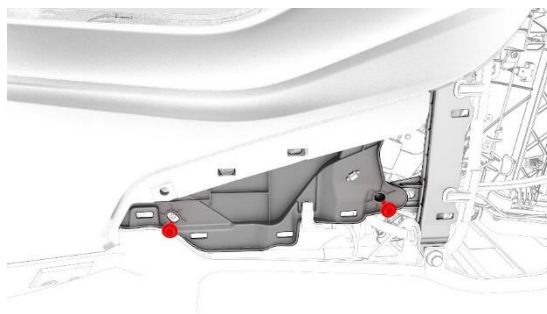


Figure 25. Center console RH front attachment bolt

6. Release the clips that secure the center console lower rear panel to the center console, and remove the panel from the console.

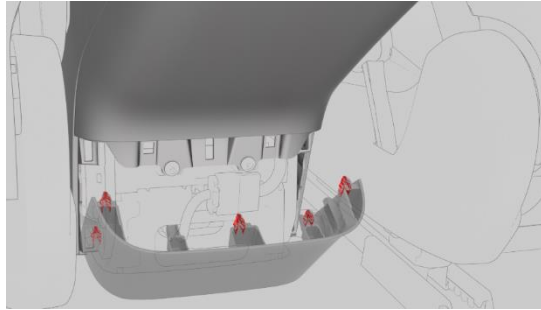


Figure 26. Center console lower rear panel

7. Remove the bolts that attach the LH and RH rear of the center console to the body.

**NOTE:** Use the following tool(s):

- 10 mm socket
- 4 in extension
- ¼ in std ratchet

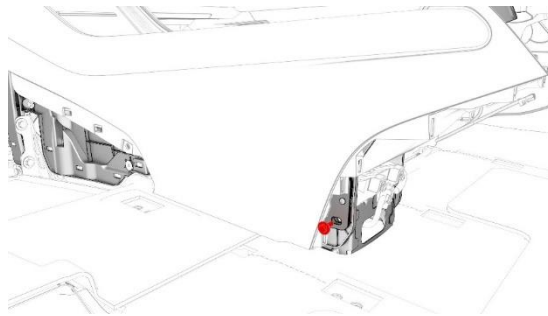


Figure 27. Center console LH front attachment bolt

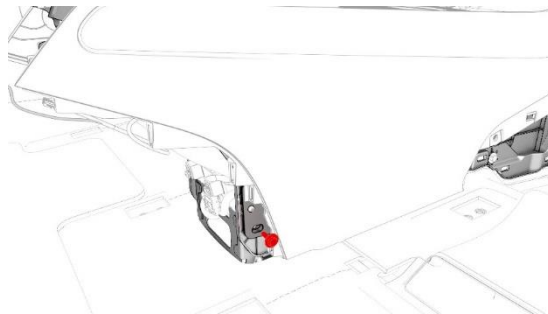


Figure 28. Center console RH front attachment bolt

8. On the touchscreen, select **Control > Safety & Security > Vehicle Power > Power Off** to power off the vehicle.

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9. Disconnect 12V power.
  - a. Fully lower all door windows to avoid glass shatter and door lockout conditions.
  - b. Open the hood:
    - If the vehicle owner is present, use the mobile app to open the front trunk by touching the **Front Trunk** button.



Figure 29. Opening the hood using the mobile app

- If the vehicle owner is not present, use the touchscreen to open the hood by touching **OPEN**.

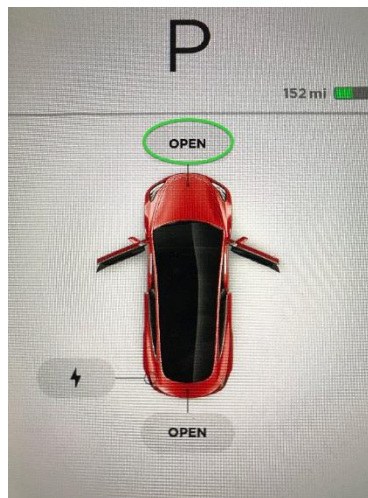


Figure 30. Opening the hood using the touchscreen

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- If the Model Y has no 12V power, the hood cannot be opened using the touchscreen or the mobile app. Use the following procedure to open the hood when the vehicle has no 12V power:

**NOTE:** This procedure requires an external source of 12V power, such as a jump starter. Do not connect an automobile 12V battery to the Model Y.

**⚠ WARNING:** Follow all manufacturer's instructions for safe use of the external 12V power source.

- a. Release the tow eye cover on the front fascia by pressing firmly on the top right perimeter of the cover until it pivots inward.

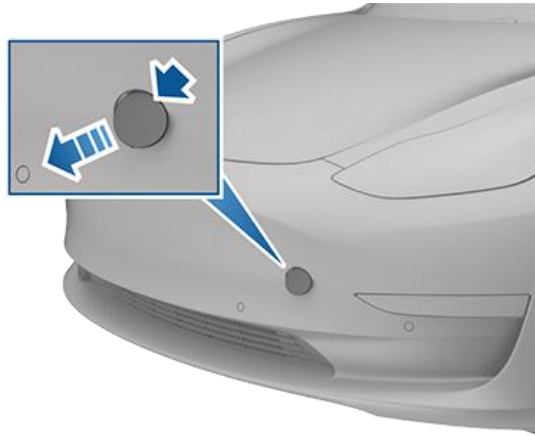


Figure 31. Remove the tow eye cover

**NOTE:** The tow eye cover is connected to a cable that connects to the vehicle's 12V battery positive (+) terminal.

- b. Gently pull the raised section forward outward to expose the terminals at the end of the Model Y positive and negative cables.

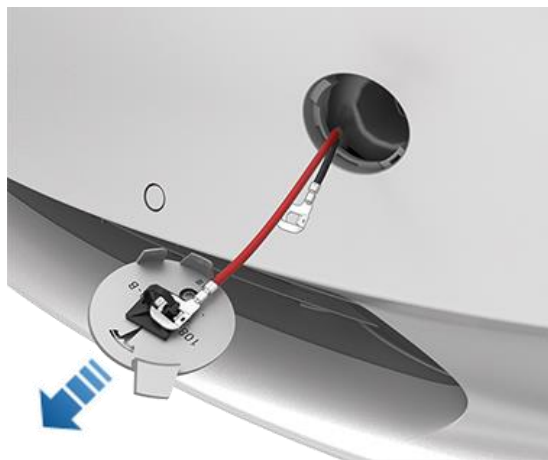


Figure 32. Extracting the cables



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**NOTE:** The positive cable (red) is approximately 6 inches longer than the negative cable (black). The negative cable appears only after the positive cable has been partially pulled out of the tow eye opening.

- c. Connect the 12V power supply's positive (+) cable to the Model Y positive (+) terminal (on the red cable), and connect the 12V power supply negative (-) cable to the Model Y negative (-) terminal (on the black cable).

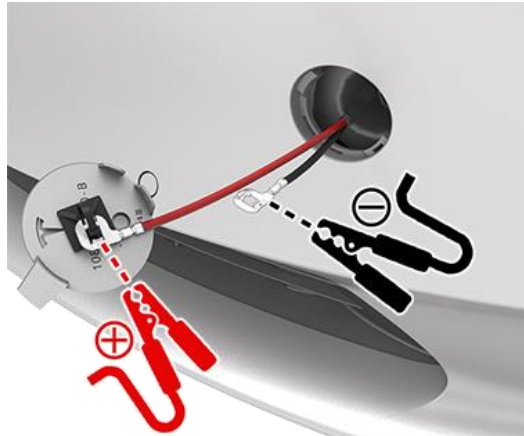


Figure 33. Connecting external 12V power to the Model Y positive and negative terminals

- d. Turn on the external power supply (refer to the manufacturer's instructions). The hood latches should release immediately.

**NOTE:** Applying external 12V power to these terminals only releases the hood latches. You cannot charge the 12V battery using these terminals.

10. Open the hood to access the front trunk area.
11. Disconnect both cables, beginning with the black negative (-) cable.
12. Starting from the RH side, lift the underhood apron. Release the clips (x12) that attach the rear underhood apron to the vehicle, and then remove the apron from the vehicle.



Figure 34. Rear underhood apron

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13. On the touchscreen, touch Controls > Safety & Security > Vehicle Power > Power Off.
14. Loosen the nut that attaches the 12V battery negative cable to the battery, and then disconnect the cable from the battery.

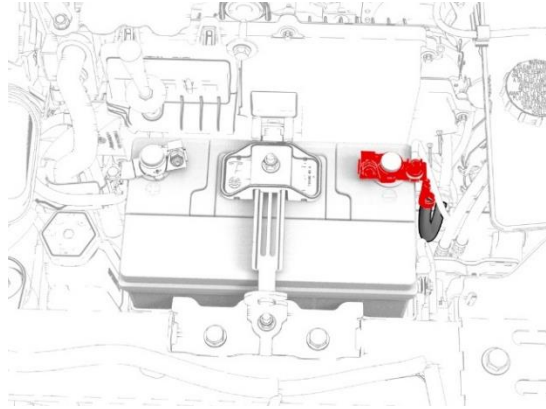


Figure 35. 12V battery negative cable

15. Disconnect the electrical connector from the rear of the center console.

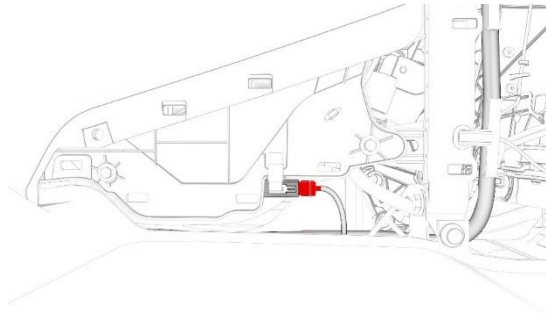


Figure 36. Center console rear electrical connector

16. Disconnect the electrical connector located at the RH front of the center console.

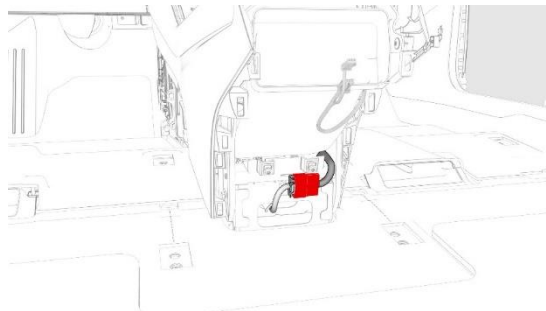


Figure 37. Center console front electrical connector

17. Close the center console rotating lid to prevent it from getting stuck on the center display upon removal of the center console from the vehicle.

18. With an assistant, remove the center console from the vehicle as follows:
  - a. Tilt the rear of the center console upwards.
  - b. Pull the center console towards the rear of the vehicle.
  - c. Tilt the front of the center console upwards.
  - d. Remove the center console through the passenger front door.



Figure 38. Center console

19. Release the harness clip (x1) and tabs (x4) that attach the center console support bracket to the vehicle, and then carefully slide the bracket forward to remove it from the vehicle.



Figure 39. Center console support bracket clip

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Figure 40. Center console support bracket tabs

20. Remove the electrical connectors from the RCM.

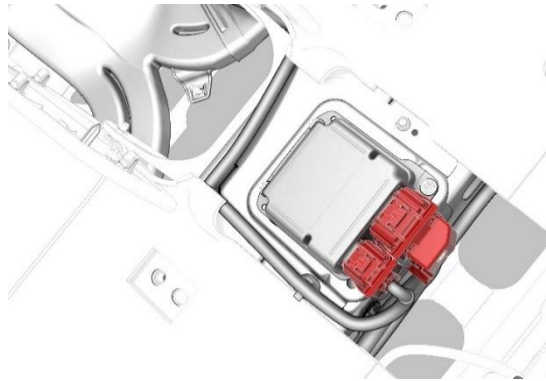


Figure 41. RCM electrical connectors

a. Release the locking lever on each connector.

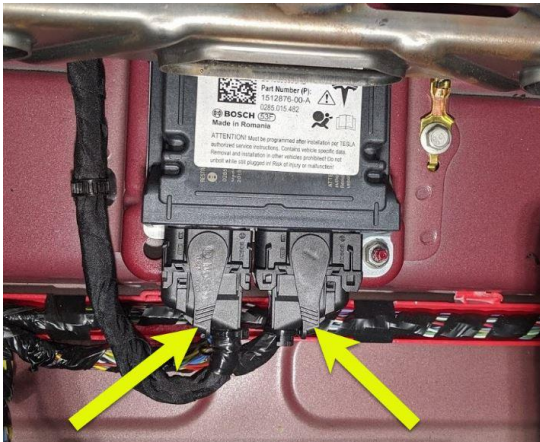


Figure 42. Release the RCM connectors

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- b. Remove each of the connectors from the RCM by grasping the connector and pulling it away from the RCM.

**NOTE:** When removing the connectors, grasp the connector, not the wires.

### 21. Optionally, to remove the RCM from the Model Y:

- a. Remove the nuts that attach the restrain control module to the body.

**NOTE:** Use the following tool(s):

- 10 mm socket
- 2 in extension
- ¼ in std ratchet

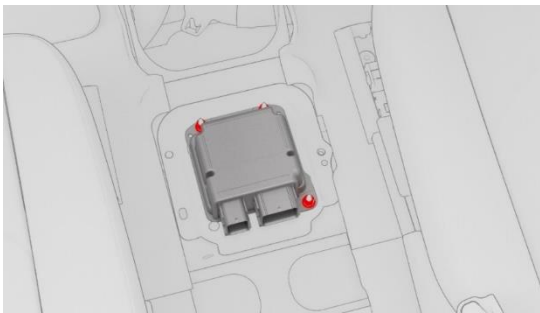


Figure 43. RCM ready for removal

- b. Remove the RCM from the vehicle.



Figure 44. RCM removed from the vehicle and ready for connection

### 22. Connect the Tesla Model Y Direct-To-Module EDR Retrieval Cable to the RCM.

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23. Connect the Tesla Model Y Direct-To-Module EDR Retrieval Cable to the PCAN-USB adapter.



Figure 45. Connecting the EDR retrieval cable to the PCAN

24. Connect the PCAN-USB adapter to the computer used for data retrieval.



Figure 46. Connecting the PCAN to the computer

25. Connect 12V power to the Tesla Model Y Direct-To-Module EDR Retrieval Cable.

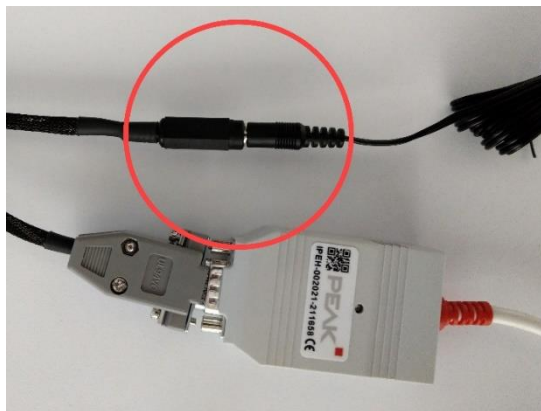


Figure 47. Connecting 12V power to the EDR retrieval cable

26. Proceed to “Retrieve Data” on page 23 to complete the data retrieval procedure.

## Retrieve Data

Open the Tesla EDR Retrieval Program. The program automatically attempts to connect to the RCM.

- When connected properly, a green circle and the message “Connected to RCM” displays on the bottom left corner of the window (Figure 48).

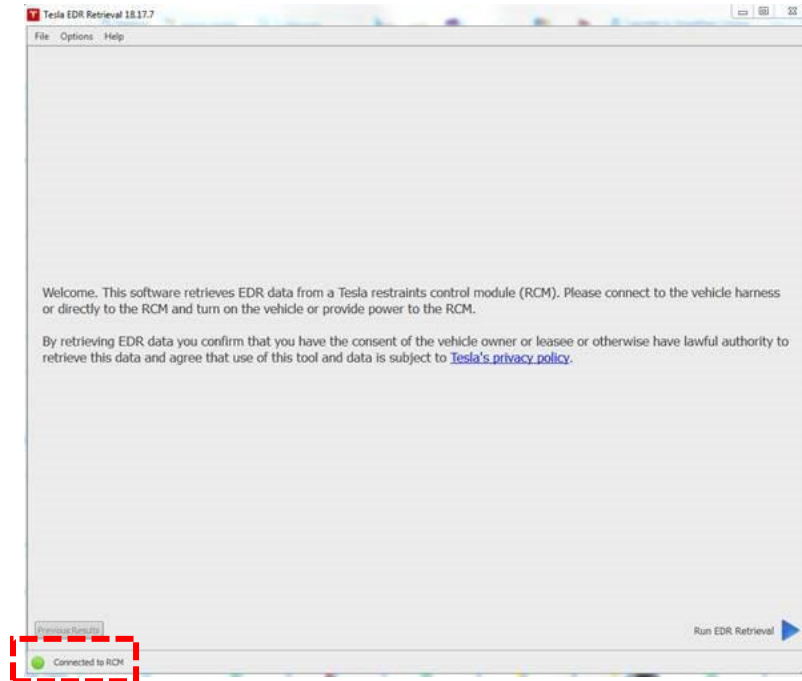


Figure 48. EDR program successful connection

- If the Tesla EDR Retrieval Program is not communicating with the PCAN-USB adapter, a message displays “Not Connected to PCAN.” Check the connection to the PCAN-USB adapter.

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- If the Tesla EDR Retrieval Program is communicating with the PCAN-USB adapter, but is not communicating with the RCM, a message displays “Not Connected to RCM” (Figure 49)

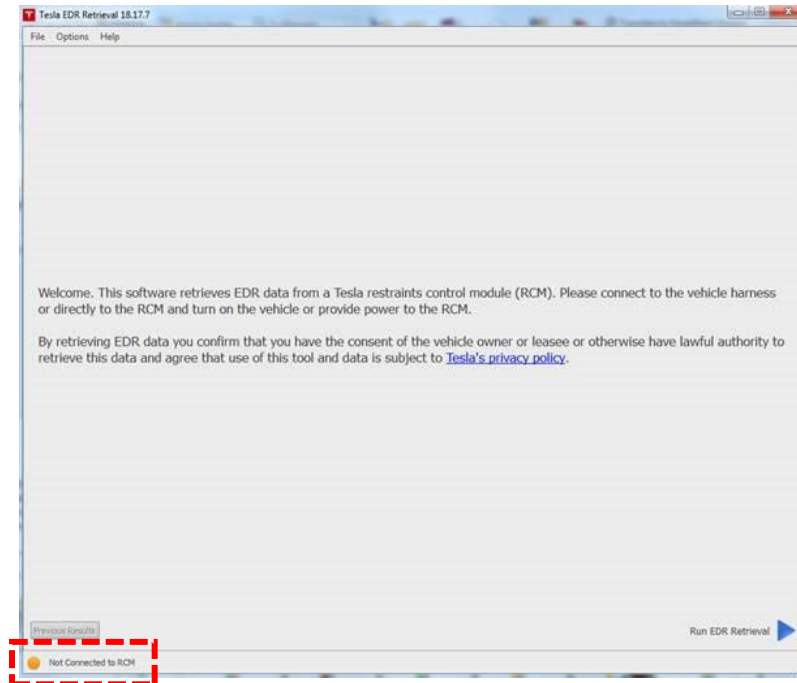


Figure 49. EDR program not successfully connected

Try the following steps to establish communication:

- If power is being supplied by the vehicle 12V system, check the connection to the vehicle harness.
- If power is being supplied by an external 12V power supply, check the connections to the power supply. If the power supply connections are correct:
  - a. Turn off the external power supply.
  - b. Disconnect the positive output of the external 12V power supply from the bare portion of the yellow wire.



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- c. On the First Responder Loop you are using to power the RCM, strip ½ inch of wire from the unused end of the yellow wire (indicated by the green arrow).



Figure 50. Front First Responder Loop

- d. Use an alligator clip to connect the ground/negative output of the external 12V power supply to the vehicle frame.
- e. Use an alligator clip to connect the positive output of the external 12V power supply to the bare portion of the yellow wire.
- f. Turn on the external power supply.
- g. Open the Tesla EDR Retrieval Program. The program automatically attempts to connect to the RCM.
  - If a connection is established, proceed to the next step.
  - If a connection cannot be established, connect to the RCM using the procedure described in “Establish a Direct-to-RCM Connection” on page 12.

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2. Once connected to the EDR, click “Run EDR Retrieval” and follow the on-screen prompts to retrieve and save EDR data.



Figure 51. Retrieving data using the Tesla EDR retrieval program

The retrieved \*.edr data file can be used to generate a Tesla EDR Report at <https://edr.tesla.com>.

## For Further Assistance

For technical support, please contact the exclusive Tesla EDR hardware distributor, Crash Data Group:

Email: [crash@crashdatagroup.com](mailto:crash@crashdatagroup.com)

Phone: (951) 252-9254

Toll Free: (800) 280-7940