

# Crash Recovery System User Manual Virtual reality-APP





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# Chapter 1 Quest 2



# Tips.

- Sunlight can cause permanent damage to the lenses, therefore keep the headset away from windows and do not use it outdoors
- Do not use alcohol wipes to clean the headset as this may damage it. Instead, you can use nonalcoholic, antibacterial wipes.

#### How do I wear the headset?

- 1. Loosen the straps at the side and top.
- 2. Put on the headset.
  - Make sure the strap goes properly around the curve of your head.
  - If you wear glasses, plug them into the headset before putting it on.
- 3. Make sure the lenses on the inside of the glasses are properly positioned. It is important that the image is clear. The lenses can be slid to sit optimally in front of your eyes. To do so, physically move the lenses from left to right.
- Pull the side tight by moving the two sliders at the back. Make sure the image is clear. Then attach the top section. Make sure the straps are not too tight around your head. The glasses should feel comfortable and natural.



Watch the instructional video for wearing the headset and basic functions here.

# How do I set up a guardian?

Guardian lets you create borders in VR that appear when you get too close to the edge of the play area. If you are setting up Guardian with Quest for the first time, follow the on-screen instructions.



Watch the instructional video for setting up a guardian here.

#### Controllers

Oculus Quest's touch controllers are two controllers that are tracked by the headset to display the position of your hands. The left controller is the tablet containing the CRS information, while the right controller serves as the selection and pointing stick.

You can do the following with the buttons on the controller:

- B button and Y button: hold down and point with the stick, you will see a round spot light up on the ground. Releasing the button teleports you to this position.
- Oculus button: press to return to Oculus Home or press and hold to reset your controller position.
- Trigger button: press to use the pointer
- Menu button: press the menu button in Oculus Home to display the menu.
- Press any button to bring the controller out of sleep mode after you turn on the headset.





#### How do I connect the Quest to Wi-Fi?

The Oculus Quest must be connected to a Wi-Fi network to use and access most features and content.

Change the Wi-Fi network to which the Oculus Quest is connected from the Oculus Quest headset:

- 1. Switch on the Oculus Quest and put on the headset.
- 2. Select Settings from the lower toolbar menu.
- 3. Select Wi-Fi.
- 4. Select the Wi-Fi network you want to connect to.
- 5. When prompted, enter the password of the Wi-Fi network you want to connect to.
- 6. To connect to the Wi-Fi network, select Connect.

If you want to cast content from the VR glasses via the Oculus app, the device you want to cast to needs to be using the same Wi-Fi network as the glasses.



# Scenario 1 Tesla Model S and Opel Ampera accident



#### **Scenario description**

(i)

In this scenario, a collision has just taken place between a Tesla Model S and an Opel Ampera.

The following information is known:

While merging onto a provincial road, a Tesla Model S hit the Opel Ampera coming from the right. They are both electric vehicles. The occupants were not trapped and no airbag was deployed.

In this situation, the vehicles' propulsion systems will probably still be in operation. Both propulsion systems must therefore be deactivated in order to proceed safely.

Go through the deactivation procedure for each vehicle using the instructions at the top of the Crash Recovery System tablet. Refer to the 'deactivate' screen on the tablet and go through all the steps including viewing all the pictures to successfully deactivate the propulsion system.



### Tesla Model S and Opel Ampera accident

Close the scenario description on the blue screen by holding down any button on one of the controllers. Press and hold the button until the bar saying "Press and hold button to close" goes away.

1 Scenano 1: Welcome to the Moditech Rescue Solutions VR training environment. In this scenario a Tesla Model S and an Opel Ampera have just been involved in a crash. The following information is available: While merging onto a provincial road, a Tesla Model S hit the Opel Ampera coming from the right. These are two electric veh The occupants are not trapped and no airbag has been deployed. In this situation, the propulsion system of the vehicles will likely still be in operation. likely still be in operation. Both vehicles must therefore be deactivated in order to enable rescue personnel to work safely. Go through the deactivation procedure for each vehicle using the directions shown above the tablet with the Crash Recovery System. Refer to the "Deactivate" screen on the tablet for the steps necessary to successfully deactivate the propulsion system. Then navigate to the correct component in the vehicle and follow the necessary steps for deactivation. Have fun learning! 

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On the tablet attached to the left controller, there are now two vehicles. The Tesla Model S 2013-2016 and the Opel Ampera 2011-2016.

Click on the Tesla Model S (Go to page 19 for the Opel Ampera).

You do this by moving the coloured pointer to the name and pressing the right trigger button again.

	Crash Recovery System VR+
	Tesla Model S 2013 - 2016
	Opel Ampera 2011 - 2016
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The tablet attached to the left controller now shows a warning screen. Above the tablet a Step is outlined that you need to follow to proceed to the next Step in the scenario: 1/8.

#### Read the 'caution' warning screen.

Using the coloured pointer, move to the cross at the bottom right and close the message.

The next Step is now above the tablet: 2/10 "Activate CRS mode".

You can activate CRS mode by clicking the blue icon with "CRS mode" under the tablet with the coloured pointer and right trigger.

After this, the Step will be completed and you will proceed to Step 2/8. The vehicle is now in CRS mode.



The next Step is now above the tablet: 2/8 "Check for leaking liquids and any smoke."

Move to the Tesla and then move the coloured pointer over the large battery pack. While the battery pack is coloured press the trigger button on the right controller; the battery pack is now selected. This completes the step. The Tablet now reads: "The thermal imaging camera indicates that the battery has not warmed up (yet). No liquid leakage or smoke is visible."



You can then close this notification by using the coloured pointer to go to the cross at the bottom right of this notification and clicking it with the trigger on the right controller.

The next Step is now above the tablet: 3/8 "Study the deactivation procedure for the propulsion system."

Move the coloured pointer to the red "Deactivation" button on the tablet. Press it with the trigger on the right controller.

The Step is now complete.



The next Step is now above the tablet: 4/8 "Examine the disconnection of the cable connection in the deactivation screen."

Move the coloured pointer to the red "Deactivation" button on the tablet. Press it with the trigger on the right controller.

On this screen entitled "Deactivation", you will see a text explanation followed by three red buttons. (Fig. 1, Link 1 and Link 2).

Move the coloured pointer to the red button at the bottom of the tablet screen that reads: "link 1" then use the trigger on the right controller to press this button.

Deactivation procedure: Tesla Model S 2013 - 2016 Examine the disconnection of the cable connection in the	I
Deactivation Screen.	
Deactivation         In case of a collision with airbag deployment, the propulsion system will be disabled.         Immobilize vehicle: - Block wheels and set parking brake (see fig. 1).         Deactivate propulsion system: - Disconnect the indicated cable connection (see link 1).         If front baggage compartment is not accessible: - Disconnect the indicated cable connection (see link 2).         If the deactivation method could not be performed use extreme caution when working around high voltage	
elect a vehicle Normal mode Lobby	

A screen appears with information about the emergency disconnect cable.

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The Step is now complete.

The next Step is now above the tablet: 5/8 "Investigate whether the emergency disconnect cable can be cut on the front right under the bonnet."

Move to the front right of the Tesla. Here is an icon with a pair of cutters (see image).

Move the coloured pointer to this icon. The icon will light up, then press the icon with the trigger on the right controller.



The tablet now displays a warning about the Lithium Ion (Li-Ion) battery pack:

"As a result of the accident, this part is not accessible. Investigate alternative deactivation methods."

The Step is now complete.





The next Step is now above the tablet: 6/8 "Explore the alternative deactivation methods."

Move the coloured pointer to the red "Deactivation" button on the tablet. Press it with the trigger on the right controller.

The screen: "Deactivation" appears. Move the coloured pointer to the red button at the bottom of the tablet marked: "link 2". Press it with the trigger on the right controller.

The Step is now complete.

		24
	ndura: Tesla Model S 2013 - 2016	
	Deactivation procedure: restance methods. 6/8	
-	Explore the alternative deactivation method	
1		- All
milling	Hide root	A COM
	Emergency disconnect cable The emergency disconnect cable should be used as part of the propulsion system deactivation (see Deactivation) Is located in the front baggage compartment as indicated (see fig. 1). Deactivate propulsion system: - Cut the indicated cable (see fig. 2).	
	Hg. 1 Hg. 2 Lobby	
	Select a vehicle Normal moue	Andrew

The next Step is now above the tablet: 7/8 "Check the Emergency Release Cable in the C-pillar."

Move to the rear right of the Tesla. Here, as on the front, there is an icon with a pair of cutters (see image). Move the coloured pointer to this icon. The icon will light up, then press the icon with the trigger on the right controller.

The Step is now complete.





The next Step is now above the tablet: 8/8 "Cut the Emergency disconnect cable in the C-pillar by viewing Figure 1"

Following Step 9 will bring up a screen on the tablet with information about the emergency disconnect cable.

At the bottom of this screen of the tablet is a red button: "Fig. 1" Move the coloured pointer to this button, then press it with the trigger on the right controller.

The image of the C-pillar appears. This completes the step.



Above the tablet, Step 8/8 reads "Procedure completed!"

This means the procedure for the Tesla Model S is now complete.

You can now proceed to the other vehicle by moving the coloured pointer to the blue button below the tablet with the text: "Select vehicle" and pressing it with the trigger on the right controller.

Also located here on the right side is a "Lobby" button that allows you to return to the scenario selection screen. Move the coloured pointer to the button and press it with the trigger on the right controller.





The first Step is now above the tablet: 1/5 "Activate the CRS mode."

You can activate CRS mode by clicking the blue icon with "CRS mode" under the tablet with the coloured pointer and right trigger.

After this, the Step will be completed and you will proceed to Step 2/5.

The vehicle is now in CRS mode.



The next Step is now above the tablet: 2/5 "Check for leaking liquids and any smoke."

Move to the Opel.

Then move the coloured pointer over the large battery pack. While the battery pack is coloured press the trigger button on the right controller; the battery pack is now selected.



This completes the step. The tablet now reads: "The thermal imaging camera indicates that the battery has not warmed up (yet). No liquid leakage or smoke is visible."

You can then close this notification by using the coloured pointer to go to the cross at the bottom right of this notification and clicking it with the trigger on the right controller. The Step is now complete.

The next Step is now above the tablet: 3/5 "Study the deactivation procedure for the propulsion system."

Move the coloured pointer to the red "Deactivation" button on the tablet. Press it with the trigger on the right controller.

The Step is complete.



The next Step is now above the tablet: 4/5 "Deactivate the propulsion system by turning off the combustion engine. To do this, go through all the steps at the symbol of the Start/stop button."

On this screen you will see a title "Deactivation" followed by a text explanation and three red buttons. (Fig. 1, Link 1 and Link 2).

Move the coloured pointer to the red button at the bottom of the tablet screen marked "link 1".

Deactivation procedure: Opel Deactivate the propulsion system b engine. To do this, go through all th Stop button.	Ampera 2011 - 2016 by turning off the combustion he steps at the symbol of the Start / 4/5	T
Deactivation	Hide roof	
In case of a collision with rollover a deployment, the propulsion system	and/or airbag n will be disabled.	
Immobilize vehicle: - Block wheels brake. - Move the shift lever to P (park) pr Deactivate propulsion system: - Pr Start/Stop button for 5 seconds (se - Disconnect the 12 Volt battery (se or; - When the 'Ready' indicator in fig. 1 link 1 link 2	Hide seats Hide seats Hide body Leadivation Deactivation	
Select a vehicle Normal mode	Lobby	

Move to the Opel and select the icon with the key near the steering column.

Select the icon by moving the coloured pointer over it. The icon will light up; while the icon is lit, press the icon by using the trigger on the right controller.



When the icon is selected, information about the Start/Stop button appears on the tablet. At the bottom of this screen are two red buttons with "Fig. 1 and Fig. 2".

Move the coloured pointer to the first red button "Fig. 1". Using the trigger on the right controller, press the button.

An image appears. Close it via the cross icon at the bottom right of the image.

You will return to the previous screen.

Now move the coloured pointer to the second red button "Fig. 2". Using the trigger on the right controller, press the button.

An image appears and the Step is completed.

The next Step is now above the tablet: 5/5 "Then examine all the steps to switch off the 12V system by going through the various links by the 12V Battery symbol."

Move to the back of the Opel. Move the coloured pointer to the Battery icon (see image). Press it with the trigger on the right controller if the icon is lit.



An information screen about the Battery appears on the tablet.

At the bottom of this information screen are two red buttons "Fig. 1 and Fig. 2". Move the coloured pointer to the red button "Fig. 2" Press it with the trigger on the right controller. An information image appears on the tablet.

The Step is now complete and with it the procedure.

# Scenario 2 Motorway collision



#### **Scenario description**

In this scenario, a multi-car collision has just taken place on a motorway, just before a tunnel. The vehicles involved are a DAF truck, a Tesla Model S and an Opel Ampera.

The following information is known:

While overtaking on a motorway, the driver of a Tesla Model S belatedly notices the DAF truck in front of the tunnel entrance. As a result, the Tesla drives into the back of the DAF. The Tesla is then hit from behind by the Opel. Smoke is coming out of the vehicle. It is not known whether a fire has actually broken out.

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Go through the deactivation procedure for each vehicle using the instructions at the top of the Crash Recovery System tablet. Refer to the deactivation screen on the tablet for the steps required to successfully deactivate the propulsion system.

Then navigate to the appropriate component in the vehicle and follow all the steps including viewing associated pictures for successful deactivation.



#### Motorway collision

Close the scenario description on the blue screen by holding down any button on one of the controllers. Press and hold the button until the bar saying "Press and hold button to close" goes away.





The tablet attached to the left controller now shows three vehicles; the Tesla Model S 2013-2016, the DAF XF 2013-2019 and the Opel Ampera 2011-2016.

Click on the Tesla Model S (one of the other vehicles is also allowed, choose the Opel Ampera or the DAF XF). You do this by moving the blue pointer to the name and pressing the right trigger button again.

Crash Recovery System VR+	
Tesla Model S 2013 - 2016	
DAF XF 2013 - 2019	
Opel Ampera 2011 - 2016	



The tablet attached to the left controller now shows a warning screen. Above the tablet a Step is now outlined that you need to follow to proceed to the next Step in the scenario: Step 1/8.

Read the 'Caution' warning screen.

Using the coloured pointer, move to the cross at the bottom right and close the message. The next Step 1/8 "Activate the CRS mode" is now above the tablet.

Deactivation procedure: Tesla Model S 2013 - 2016 Activate the CRS mode.	
Cuttor: Aternative fueled vehicle   Electric vehicle (EV). Electric motor with battery nak.   Litium ion (Li-ion) battery pack.   Waways assume the vehicle is monobilized is immobilized is immobilized is immobilized is immobilized in high voltage component.   Never touch, cut, or open any orange high voltage now.   Waw is damage the battery pack, even if the gradient is gradient is deactivated.   Watter touch, cut, or open any orange high voltage now.   Watter touch, cut, or open any orange high voltage now.   Watter touch, cut, or open any orange high voltage now.   Watter touch, cut, or open any orange high voltage now.   Watter touch, cut, or open any orange high voltage now.   Watter touch, cut, or open any orange high voltage now.   Watter touch, cut, or open any orange high voltage now.   Watter touch, cut, or open any orange high voltage now.   Watter touch, cut, or open any orange high voltage now.   Watter touch, cut, or open any orange high voltage now.   Watter touch, cut, or open any orange high voltage now.   Watter touch, cut, or open any orange high voltage now.   Watter touch, cut, or open any orange high voltage now.   Watter touch, cut, or open any orange high voltage now.   Watter touch, cut, or open any orange high voltage now.   Watter touch, cut, or open any orange high voltage now.   Watter touch, cut, or open any orange high voltage now.   Watter touch, cut, or open any orange high voltage now.   Watter touch, cut, or open any orange high voltage now.	

You can activate CRS mode by clicking the blue icon with "CRS mode" under the tablet with the coloured pointer and right trigger.

After this, the Step will be completed and you will proceed to Step 2/8.

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The vehicle is now in CRS mode.

The next Step is now above the tablet: 2/8 "Check for any leaking liquids and possible smoke. What is causing this?"

Move to the Tesla and then move the coloured pointer over the large battery pack.

While the battery pack is coloured press the trigger button on the right controller; the battery pack is now selected.



This completes the step. The tablet now reads: "The thermal imaging camera indicates that the battery has not warmed up (yet). No liquid leakage or smoke is visible."

You can then close this notification by using the coloured pointer to go to the cross at the bottom right of this notification and clicking it with the trigger on the right controller.

The next Step is now above the tablet: 3/8 "Study the deactivation procedure for the propulsion system."

Move the coloured pointer to the red "Deactivation" button on the tablet. Press it with the trigger on the right controller.

The Step is now complete.

Deactivation procedure: Tesla Study the deactivation procedure	a Model S 2013 - 2016 te for the propulsion system. 3/8
Lithium Ion (Li-Ion) battery pack Power supply for the high voltage of The battery pack has a max. voltage Is located under the vehicle as ind Caution! This vehicle is also equip battery. Caution! When fire is involved, co vehicle energized and approach to carefully. Always wear full PPE, it Do not extinguish with a small an fig. 1	Lobby

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The next Step is now above the tablet: 4/8 "Examine the disconnection of the cable connection in the deactivation screen."

Move the coloured pointer to the red "Deactivation" button on the tablet. Press it with the trigger on the right controller.

On this screen you will see a title "Deactivation" followed by a text explanation and three red buttons. (Fig. 1, Link 1 and Link 2).

Move the coloured pointer to the red button at the bottom of the tablet screen that reads "link 1" then use the trigger on the right controller to press this button.

A screen appears with information about the emergency disconnect cable.

The Step is now complete.



The next Step is now above the tablet: 5/8 "Cut the emergency disconnect cable under the bonnet."

Move to the front right of the Tesla. Here is an icon with a pair of cutters (see image).

Move the coloured pointer to this icon. The icon will light up, then press the icon with the trigger on the right controller.

The Step is now complete.



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The next Step is now above the tablet: 6/8 "Watch the video about cutting the Emergency disconnect cable."

Move the coloured pointer to the warning screen that appeared on the tablet after the previous step. Here at the bottom is a red "Video" button. Press this button by moving over this with the coloured pointer and pressing it with the trigger on the right controller.

Watch the video. The Step is now complete.

Deactivation procedure: Tesla Model S 2013 Watch the video about cutting the Emergency disc	2016 Donnect cable.
Emergency disconnect cable Caution! After deactivation, the high voltage circuit retains voltage for 2 minutes.	Hide roof Hide side
	Hide seats Hide body
Video	Deactivation
select a vehicle Normal mode Lobby	

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The next Step is now above the tablet: 7/8 "The propulsion system is deactivated. Explore alternative deactivation methods."

Move the coloured pointer to the red "Deactivation" button on the tablet. Press it with the trigger on the right controller.

On this screen you will see a title "Deactivation" followed by a text explanation and three red buttons. (Fig. 1, Link 1 and Link 2).

Move the coloured pointer to the red button at the bottom of the tablet screen that reads "link 2" then use the trigger on the right controller to press this button.

A screen appears with information about the emergency disconnect cable.



Press the "Fig. 1" button. The Step is complete.

Above the tablet, Step 8/8 reads "Procedure completed!"

This means the procedure for the Tesla Model S is now complete.

You can now move on to another vehicle by moving the coloured pointer to the blue button under the tablet that reads "Select vehicle" and pressing it with the trigger on the right controller.

Also located here on the right side is a "Lobby" button that allows you to return to the scenario selection screen. Move the coloured pointer to the button and press it with the trigger on the right controller.





The first Step is now above the tablet: 1/9 "Activate the CRS mode."

You can activate CRS mode by clicking the blue icon with "CRS mode" under the tablet with the coloured pointer and right trigger.

After this, the Step will be completed and you will proceed to Step 2/9.

The vehicle is now in CRS mode.


The next Step is now above the tablet: 2/9 "Study the deactivation procedure for the propulsion system."

Move the coloured pointer to the red "Deactivation" button on the tablet. Press it with the trigger on the right controller.

The Step is complete.

	Deactivation procedure: Opel Ampera 2011 - 2016 Study the deactivation procedure for the propulsion system	em. 2/9
	Caution: Alternative fueled vehicle Hybrid electric vehicle (HEV). Combustion engine combined with electric motor and battery pack. Lithium Ion (Li-Ion) battery pack. Always assume the vehicle is powered, even if it is silent! Make sure that the vehicle is immobilized and the propulsion system is deactivated (see Deactivation). Never touch, cut, or open any orange high voltage power cable or high voltage component. Do not damage the battery pack, even if the propulsion system is deactivated.	Hide sody Hide body Deactivation
-	Select a vehicle Normal mode	

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The next Step is now above the tablet: 3/9 "Deactivate the propulsion system by turning off the combustion engine. To do this, go through all the steps at the symbol of the Start/stop button."

On this screen you will see a title "Deactivation" followed by a text explanation and three red buttons. (Fig. 1, Link 1 and Link 2).

Move the coloured pointer to the red button at the bottom of the tablet screen marked "link 1".



Move to the Opel and select the icon with the key near the steering column.

Select the icon by moving the coloured pointer over it. The icon will light up; while the icon is lit, press the icon by using the trigger on the right controller.



When the icon is selected, information about the Start/Stop button appears on the tablet. The Step is complete.



The next Step is now above the tablet: 4/9 "Investigate an alternative deactivation method and go through the references to the various links in the Crash Recovery System."

Within the deactivation screen, move the pointer on the tablet to the button with the triangle (to the left of the button with the cross) to go to the next page.

Investigate an alternative deactivation method and go the references to the various links in the Crash Recovery S	hrough the ystem 4/9
Deactivation	Hide roof
In case of a collision with rollover and/or airbag deployment, the propulsion system will be disabled.	Hide side
Immobilize vehicle: - Block wheels and set parking brake.	Hide seats
<ul> <li>Move the shift lever to P (park) position.</li> <li>Deactivate propulsion system: - Push and hold the Start/Stop button for 5 seconds (see fig. 1).</li> <li>Disconnect the 12 Volt battery (see link 1).</li> </ul>	Hide body Deactivation
or: - When the 'Ready' indicator in the instrument cluster fig. 1 link 1 link 2	

Once you have pressed this button, the next page will appear containing three buttons with a link to an alternative deactivation method.

To complete this step, select the first link and review the steps.

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The next Step is now above the tablet: 5/9 "Cut the emergency disconnect cable."

By looking at the images visible through the previous step, you can find out where the Emergency Disconnect Cable is located.

It is located on the left rear side of the vehicle. Using the pointer to select the cutters icon completes this step.





The next Step is now above the tablet: 6/9 "Watch the video about cutting the Emergency disconnect cable."

Use the pointer to go to the red "Video" button at the bottom right of the tablet. Press this button and watch the video, the Step is now complete.

Deactivation procedure: Opel Ampera 2011 - 2 Watch the video about cutting the Emergency discor	016 Innect cable.
Emergency disconnect cable Watch the video about cutting the Emergency disconnect cable.	Hide roof Hide side Hide seats Hide body Deactivation
Video X Select a vehicle Normal mode Lobby	



The next Step is now above the tablet: 7/9 "Investigate an alternative deactivation method."

With the coloured pointer, go to the red "Deactivation" button on the tablet. Then go to the 2nd page as in Step 4: move the pointer on the tablet within the deactivation screen to the button with the triangle to go to the next page.

Once you have pressed this button, the next page will appear containing three buttons with a link to an alternative deactivation method.

To complete this step, select the second link. The Step is now complete.



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The next Step is now above the tablet: 8/9 "Disconnect the battery cables by going through the various links at the symbol of the 12V Battery."

The page from the previous Step has the images on the tablet. Move the pointer to the two red buttons at the bottom of the tablet (Fig.1 and Fig. 2). Press them and watch. The Step is complete.

Dez	ctivation procedure: Opel Ampera 2011 - 2016
Disc	connect the battery cables by going through the various links
at th	the symbol of the 12V battery.
	Battery   Main power supply for the 12 Volt circuit.   Is located in the baggage compartment as indicated (see in the baggage compartment as indicated to a supply with a drain down time of approx. 1 min.   Prior to disconnection, consider utilizing the battery power to lower electrically operated windows, undok dors and/or operate interior components where practical.   To deactivate the electrical system turn the ignition off   Ing. 1   Ing. 2   Lobby

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The next Step is now above the tablet: 9/9 "The propulsion system is deactivated. Explore alternative deactivation methods."

#### Move the pointer to the icon in the car of the service/emergency release switch.

This button is located in the centre of the car between the driver and passenger seats. Selecting this icon completes the step.





Above the tablet, Step 9/9 reads "Procedure completed!"

So the procedure for the Opel Ampera is now complete.

You can now move on to another vehicle by moving the coloured pointer to the blue button under the tablet that reads "Select vehicle" and pressing it with the trigger on the right controller.

Also located here on the right side is a "Lobby" button that allows you to return to the scenario selection screen. Move the coloured pointer to the button and press it with the trigger on the right controller.





The first Step is now above the tablet: 1/5 "Activate the CRS mode."

You can activate CRS mode by clicking the blue icon with "CRS mode" under the tablet with the coloured pointer and right trigger.

After this, the Step will be completed and you will proceed to Step 2/5.

The vehicle is now in CRS mode.

Deactivation procedure: DAF XF 2013 - 2019 Activate the CRS mode.	1/5
Crash Recovery System VR+	Hide roof Hide side Hide seats Hide body Deactivation
Select a vehicle CRS mode Lobby	•

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The next Step is now above the tablet: 2/5 "Check whether the tractor unit is damaged. Deactivate the propulsion system by turning off the engine. To do this, go through all the steps by the Start/stop button symbol."

Move the pointer to the key icon in the DAF's cabin. When selecting it by pressing the trigger on the right controller, a new information page appears on the tablet.



At the bottom of this page on the tablet is a red button that reads Fig. 1. Pressing this button with the pointer and trigger on the right controller will complete this step.



The next Step is now above the tablet: 3/5 "Disconnect the battery anyway using the Battery Main Switch."

Move the pointer to the Main Switch icon at the rear of the DAF.

Pressing it with the trigger on the right controller then completes the step.





The next Step is now above the tablet: 4/5 "Examine the Emergency switch in the cabin. Please refer to the information in the Main switch battery symbol."

The previous Step means there is now information about the Main Switch Battery on the tablet. At the bottom of this information page on the tablet are three red buttons: Fig. 1, Fig. 2 and Fig. 3.

Move the pointer to the button in Fig. 2 and press it using the trigger on the right controller.

The Step is complete.

Deactivation procedure: DAF XF 2013 - 2019 Examine the Emergency switch in the cabin. Please refer to the information in the Main switch battery symbol.
Main battery switch   The vehicle is optionally equipped with a main battery   Commonly located at the right-hand side of the chassis   Commonly located at the right-hand side of the chassis   Cactivation by turning the switch to the left.   Catibor Component location may vary depending on   Micheles transporting hazardous substances   Carl-vehicles) are equipped with one or two manata   Carl-vehicles are the transporting hazardous the cabin on

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The next Step is now above the tablet: 5/5 "Examine the alternate Emergency switch on the passenger side. Please refer to the information in the Main switch battery symbol."

You can close the image from the previous Step by pushing it away using the cross located at the bottom right of the image.



You will then return to the page with information about the main switch battery on the tablet. At the bottom of this information page are three red buttons: Fig. 1, Fig. 2 and Fig. 3. Move the pointer to the button in Fig. 3 and press it using the trigger on the right controller.

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The Step is complete. And with it, the procedure.

# Scenario 3 Tesla on a bollard in residential area



#### **Scenario description**

(i)

There has been a single-vehicle accident involving a Tesla Model S.

The following information is known:

A Tesla Model S crashed into a concrete pole as a result of a sudden evasive manoeuvre to avoid children playing. The driver is still in the vehicle and police and ambulance have been alerted. There may be an (incipient) vehicle fire, as the detector indicates smoke coming from the vehicle.

Go through the deactivation procedure for each vehicle using the instructions at the top of the Crash Recovery System tablet. Refer to the deactivation screen on the tablet for the steps required to successfully deactivate the propulsion system.

Then navigate to the appropriate component in the vehicle and follow the necessary steps including viewing all pictures for deactivation.



Close the scenario description on the blue screen by holding down any button on one of the controllers. Press and hold the button until the bar saying "Press and hold button to close" goes away.

The tablet attached to the left controller now shows one vehicle, the Tesla Model S 2013-2016.

Click on the Tesla Model S on the tablet. You do this by moving the coloured pointer to the name and pressing the right trigger button.



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The first Step is now above the tablet: 1/9 "Activate the CRS mode."

You can activate CRS mode by clicking the blue icon with "CRS mode" under the tablet with the blue pointer and right trigger.

After this, the Step will be completed and you will proceed to Step 2/9.

The vehicle is now in CRS mode.



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The next Step is now above the tablet: 2/9 "Check for any leaking liquids and possible smoke. What is causing this?"

Move to the Tesla and then move the coloured pointer over the large battery pack. While the battery pack is coloured press the trigger button on the right controller; the battery pack is now selected.



This completes the step. The Tablet now reads: "The thermal imaging camera indicates that the battery has not warmed up (yet). There has since been no smoke development"

You can then close this notification by using the coloured pointer to go to the cross at the bottom right of this notification and clicking it with the trigger on the right controller. The Step is complete.



The next Step is now above the tablet: 3/9 "Study the deactivation procedure for the propulsion system."

Move the coloured pointer to the red "Deactivation" button on the tablet. Press it with the trigger on the right controller.

The Step is now complete.



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The next Step is now above the tablet: 4/9 "Investigate the deactivation of the cable connection in the deactivation screen."

Move the coloured pointer to the red "Deactivation" button on the tablet. Press it with the trigger on the right controller.

On this screen you will see a title "Deactivation" followed by a text explanation and three red buttons. (Fig. 1, Link 1 and Link 2).

Move the coloured pointer to the red button at the bottom of the tablet screen that reads "link 1" then use the trigger on the right controller to press this button.

A screen appears with information about the emergency disconnect cable.

The Step is now complete.



The next Step is now above the tablet: 5/9 "Cut the emergency disconnect cable on the front right under the bonnet."

Move to the front right of the Tesla. Here is an icon with a pair of cutters (see image).

Move the coloured pointer to this icon. The icon will light up, then press the icon with the trigger on the right controller.



The Step is complete.

The next Step is now above the tablet: 6/9 "Watch the video about cutting the Emergency disconnect cable."

After selecting the cutters icon from the previous step, a new page appears on the tablet.

Move the coloured pointer to the red button that reads "Video" at the bottom of the tablet and press it with the trigger on the right controller. Watch the video.

	eactivation procedure: Tesla Model S 2013 - 20 /atch the video about cutting the Emergency discont	016 nect cable. 6 / 9
	Watch the video about cutting the emergency disconnect cable.	Hide root Hide side
		Hide body
	Video	
Se	lect a vehicle Norm. I mode Lobby	A A A A A A A A A A A A A A A A A A A

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The Step is complete.

The next Step is now above the tablet: 7/9 "The propulsion system is deactivated. Explore the alternative deactivation methods."

Move the coloured pointer to the red "Deactivation" button on the tablet. Press it with the trigger on the right controller.

On this screen you will see a title "Deactivation" followed by a text explanation and three red buttons. (Fig. 1, Link 1 and Link 2).

Move the coloured pointer to the red button at the bottom of the tablet screen that reads "link 2" then use the trigger on the right controller to press this button.

A screen appears with information about the emergency disconnect cable.

	Deactivation procedure z	I
	The propulsion system is deactivated. Explore the alternative deactivation methods.	
MIT		
	Hide side	
	Hide seats	
	Hide body	
	Deactivation	
÷	Loppy	
	Select a vehicle Normal mode	
A GOALET AND A COMPANY		

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The Step is now complete.

The next Step is now above the tablet: 8/9 "Check the Emergency Release Cable in the C-pillar."

Move to the rear left of the Tesla. Here is an icon with a pair of cutters (see image).

Move the coloured pointer to this icon. The icon will light up, then press the icon with the trigger on the right controller.



The Step is now complete.



The next Step is now above the tablet: 9/9 "Cut the Emergency disconnect cable in the C-pillar by looking at Figure 1"

Following Step 10 will bring up a screen on the tablet with information about the emergency disconnect cable.

At the bottom of this screen of the tablet is a red button: "Fig. 1". Move the coloured pointer to this button, then press it with the trigger on the right controller.

The image over the C-pillar appears and the Step is completed.



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Above the tablet, Step 9/9 reads "Procedure completed!"

This means the procedure for the Tesla Model S is now complete, and with it the scenario.

You can now move on to another scenario.

Also located here on the right side is a "Lobby" button that allows you to return to the scenario selection screen. Move the coloured pointer to the button and press it with the trigger on the right controller.





# Scenario 4 Collision involving Hyundai Xcient and Opel Ampera



#### **Scenario description**

(i)

In this scenario, a collision has just taken place between a Hyundai Xcient lorry and an Opel Ampera.

The following information is known:

A lorry has driven into a sudden traffic jam at the entrance of a tunnel. It drove quite fast into the rear of a passenger car. The load in the lorry, including the pallet truck, started shifting and probably damaged the hydrogen tanks. A driver and passenger are in the vehicle and they are slightly injured. The emergency services were alerted because there are victims in the vehicle.

Go through the deactivation procedure for each vehicle using the instructions at the top of the Crash Recovery System tablet. Refer to the deactivation screen on the tablet for the steps required to successfully deactivate the propulsion system.

Then navigate to the appropriate component in the vehicle and follow the necessary steps including viewing all pictures for deactivation.



# Collision involving Hyundai Xcient and Opel Ampera

Close the scenario description on the blue screen by holding down any button on one of the controllers. Press and hold the button until the bar saying "Press and hold button to close" goes away.

	Section			-	
Scenario 4		Rad	in a		
A truck has driven into a sudde load in the truck, including the are in the vehicle and they are t	en traffic jam at the entr pallet truck, started shif slightly injured. The emo	ance of a tunnel. It drove ting and probably damag argency services were ale	quite fast into the rear of ed the hydrogen tanks. A rted because there are vi	a passenger car. The driver and passenger ctims in the vehicle.	- AND
				1	
0	-	-			
	Pres	s and hold button to close			1



# Collision involving Hyundai Xcient and Opel Ampera

The tablet attached to the left controller now shows a beeper notification.

Read this notification and then close it by using the blue pointer to click the cross to the right below the notification with the right trigger button.



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The tablet attached to the left controller now shows two vehicles; the Hyundai XCient and the Opel Ampera 2011-2016.

Click on the Hyundai Xcient (Opel Ampera also possible, continue to page 81). You do this by moving the blue pointer to the name and pressing the right trigger button again.

35.00	àn in	1-1-
	Crash Recovery System VR+ Hyundai XCient Opel Ampera 2011 - 2016	
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The tablet attached to the left controller now shows a warning screen. Above the tablet a Step is now outlined that you need to follow to proceed to the next Step in the scenario: Step 1/10.

Read the 'Caution' warning screen and select the 4 most important rules. Continue after each line by clicking on the cross.

Using the blue pointer, move to the cross at the bottom right and close the first line. Continue until you have done all four and the Step is completed.

When the Step is completed, you will hear a bell and the next Step will appear above the tablet.

	Fuel Cell Vehicle (FCV). Fuel cell and battery pack combined with electric motor. Compressed hydrogen targe.       Hide root         Lithium Ion Nickel Manganese Cobalt Oxide (NMC) battery pack.       Hide side         Always assume the vehicle is powered, even if it is sint!       Hide body         Make for a hydrogen release or fire fixed cutting into the hydrogen vent stack (see Hydrogen vent stack).       Hide body         Nake eura that the vehicle is immohilized and the Keet eura the vehicle is immohilized and the Keet eura the vehicle is immohilized and the Keet eura the vehicle is immohilized and the Keet europe eur	
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The next Step is now above the tablet: 2/10 "Activate the CRS mode."

You can activate CRS mode by clicking the blue icon with "CRS mode" under the tablet with the coloured pointer and right trigger.

After this, the Step will be completed and you will proceed to Step 3/10.

The vehicle is now in CRS mode.

Dead Activ	ctivation procedure: Hyun ate the CRS mode.	dai XCient	2/	10
	Crash Recovery Syste	m VR+	Hide roof Hide side Hide seats Hide body Deactivation	
Sele	ect a vehicle CRS mode	Lobby		



The next Step is now above the tablet: 3/10 "Activate the CRS mode and search for a possible hydrogen fire with the thermal imaging camera. You can select the thermal imaging camera by operating the protruding joystick on the right controller with your thumb."

Use the right joystick to operate the selection menu and select the thermal imaging camera icon.





As a result, you now have the thermal imaging camera in your right hand. Move the camera over the vehicle until the Step is completed. The area to be scanned is about 60% of the vehicle area. Make sure you scan the vehicle both longitudinally and vertically.

After this, the Step will be completed and you will proceed to Step 4/10.





The next Step is now above the tablet: 4/10 "Search for a possible hydrogen gas leak using the H2 gas meter. You can select the H2 gas meter by operating the protruding joystick on the right controller with your thumb."

Use the right joystick to operate the selection menu and select the H2 gas meter icon.



You now have the H2 gas meter in your right hand. Then move towards the vehicle to measure where the leakage is coming from. You really need to be next to the leak so that the value on the H2 gas meter becomes high enough to complete the step.


The H2 gas meter:





The next Step is now above the tablet: 5/10 "Follow the deactivation procedure and start stabilising the vehicle by locking the wheels. To activate the pointer, use your thumb on the protruding joystick on the right controller again."

Use the right joystick to operate the selection menu and select the hand icon to activate the pointer.

Move the pointer towards the wheels of the vehicle. This will colour the edges of the wheels. When the wheels are coloured, press the trigger button on the right controller to lock the wheels. The wheels now have a white outline and the Step is complete.



# **〈** 74 **〉**

The next Step is now above the tablet: 6/10 "Deactivate the propulsion system by going through the steps at the Start/Stop button symbol."

Move the coloured pointer to the red Deactivation button on the tablet. This will light up; press the button by using the trigger on the right controller.



The deactivation procedure is then initiated. Read the text carefully and go through the corresponding steps.

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See Figure 2 from Link 1.

The next Step is now above the tablet: 7/10 "Deactivate the electrical system by disconnecting or cutting both battery cables following the steps at the battery symbol."

In CRS mode, move the pointer to the battery pack:



Select this battery pack and view the accompanying three images on the tablet.



The next Step is now above the tablet: 8/10 "You have deactivated the propulsion system. However, the leak in the pipe after the valve is still audible. Has the vehicle been secured?"

Read the text on the tablet, and answer "No" by moving the pointer to the "No" button on the tablet and using it with the trigger on the right controller.





The next Step is now above the tablet: 9/10 "Check how you can still secure the hydrogen system through the safety valve."

Move the pointer to the hydrogen system and select the safety valves.



Information about the safety valves appears on the tablet. Read through this and view Figure 1 to complete the step.



The next Step is now above the tablet: 10/10 "Close all 7 tank valves through the 7 shut-off valve symbols."

Move the pointer to the hydrogen system and select the safety symbol.

Deactivation procedure: Hyundai XCient Close all 7 tank valves through the 7 shut-off valve symbols.	10 / 10
Safety valve Hide roof   Valve block with several safety functions located at the gas tank. Hide side   An electromagnetic valve will normally be closed when: - The ignition is switched to 'OFF' position. Hide seats   - An inertia switch detects a high acceleration. Hide sode   - Disconnect the 24 Volt battery (see link 1). Hide sode   A shut-off valve is located at the valve block and can be closed manually (see fig. 1). Deactivation   It's recommended closing all 7 tank valves for safety It's recommended closing all 7 tank valves for safety   Itnk 1 fig. 1 fig. 2	

Information about the safety valves appears on the tablet. Read through this and view Figure 2 to complete the step.



Above the tablet, Step 10/10 reads "Procedure completed!"

The procedure for the Hyundai Xcient is now complete.

You can now move on to the other vehicle by moving the coloured pointer to the blue button under the tablet that reads "Select vehicle" and pressing it with the trigger on the right controller.

Also located here on the right side is a "Lobby" button that allows you to return to the scenario selection screen. Move the coloured pointer to the button and press it with the trigger on the right controller.





The first Step is above the tablet: 1/5 "Activate the CRS Mode and check for leaking fluids and any development by checking the HV battery pack."

The CRS mode can be activated by clicking the blue icon with "CRS mode" under the tablet with the coloured pointer and right trigger on the controller.

When the vehicle is in CRS mode, move over the battery pack with the coloured pointer.

Select it by pressing the trigger on the right controller.



The Step is complete.

**〈** 81 **〉** 

The next Step is now above the tablet: 2/5 "Study the deactivation procedure for the propulsion system."

Move the coloured pointer on the tablet to the red button called "Deactivation".

Then press this button with the trigger on the right controller.

Peactivation procedure: Opel Ampera 2011 - 2016 study the deactivation procedure for the propulsion system.
Lithium ton (Li-Ion) battery pack   Power supply for the high voltage circuit.   The battery pack has a max. voltage of 360 volt.   Is located under the vehicle as indicated.   Do not damage the battery pack, even if the propulsion is deactivated.   Caution! When fire is involved, consider the entire vehicle energized and approach the vehicle very carefully. Always wear full PPE, including a SCBA.   Do not extinguish with a small amount of water. Always   Image: Construct the vehicle water.   I

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The next Step is now above the tablet: 3/5 "Start the deactivation procedure by locking the wheels."

Move the coloured pointer to the wheels of the Opel. The moment these light up after touching them with the pointer, you can lock the wheels by pressing the trigger on the right controller.



The next Step is now above the tablet: 4/5 "Deactivate the propulsion system by turning off the combustion engine and going through the steps at the Start/Stop button symbol."

Move the coloured pointer to the key icon. This is located in the middle of the Opel's dashboard.

Select it by pressing the trigger of the right controller.

A new page with information about the Start/Stop button will now appear on the Tablet.

There are two red buttons at the bottom of the page: Fig. 1 and Fig. 2. Press both buttons one at a time and view the image.



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The next Step is now above the tablet: 5/5 "The Ready indicator remains active. The battery cables cannot be disconnected because the battery is not accessible due to the impact. As a result, the Service/ Emergency disconnect cable is also inaccessible. Use the Opel."

Move the coloured pointer to the Service/emergency switch icon. This is located in the centre of the vehicle between the driver and passenger seats.

Press the button with the trigger on the right controller.



Above the tablet, Step 5/5 reads "Procedure completed!"

So the procedure for the Opel Ampera is now complete.

You can now move on to the other vehicle by moving the coloured pointer to the blue button under the tablet that reads "Select vehicle" and pressing it with the trigger on the right controller.

Also located here on the right side is a "Lobby" button that allows you to return to the scenario selection screen. Move the coloured pointer to the button and press it with the trigger on the right controller.







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