PLEASE READ BEFORE STARTING INSTALLATION!

RACE CHIP



Download the new RaceChip+ app

Download on the App Store

bit.ly/RCplus-iOS

GET IT ON Google Play

bit.ly/RCplus-android

RX

User Manual

Hyundai Ioniq Electric

Contents

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Overview and explanation of symbols

⚠ **Warnings** and important information – please read!

General information on installation and use

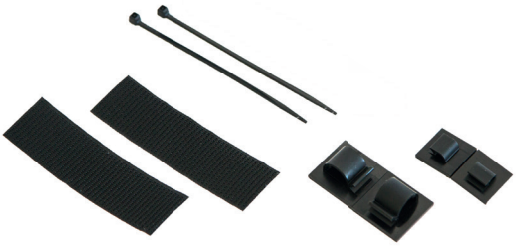
Tips to assist installation and use

1 Scope of delivery



*The **Brainbox***

Specifically modified to suit your car.



Fasteners

Material to fix the Brainbox in place.

2 Installation

Step 1 of 6 – Preparation

1. Open the driver's door as far as possible.

2. Remove any mats and move the driver's seat all the way back.

3. Switch the ignition off, remove the key.

4. Ensure the footwell is properly illuminated with an inspection lamp.

5. Wait about **10 minutes** before starting ***Step 2***, as all current consumers must have switched themselves off.

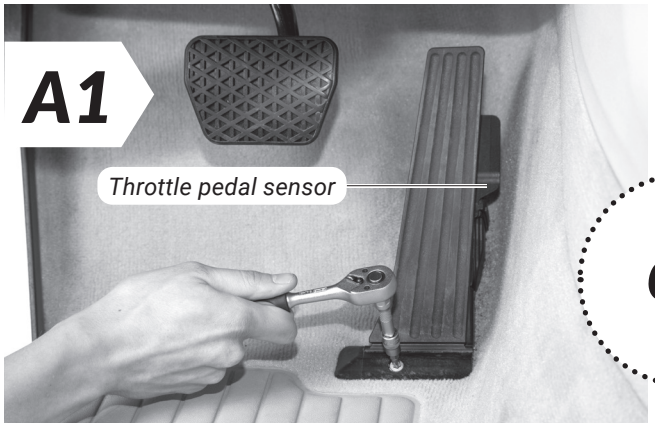
⚠	**Avoid installing the RaceChip RX while you are charging your car.**

2 Installation

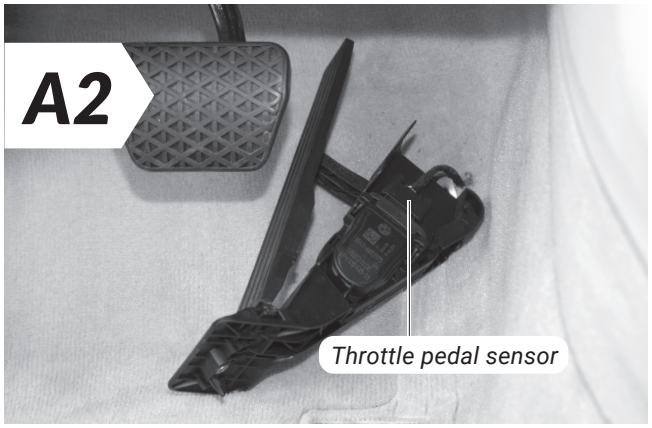
Step 2 of 6 – Disconnect throttle pedal sensor

There are two types of throttle pedal: **floor-mounted** or **hanging**. We'll explain how to disconnect the throttle pedal sensor for both types.

A. Floor-mounted throttle pedal



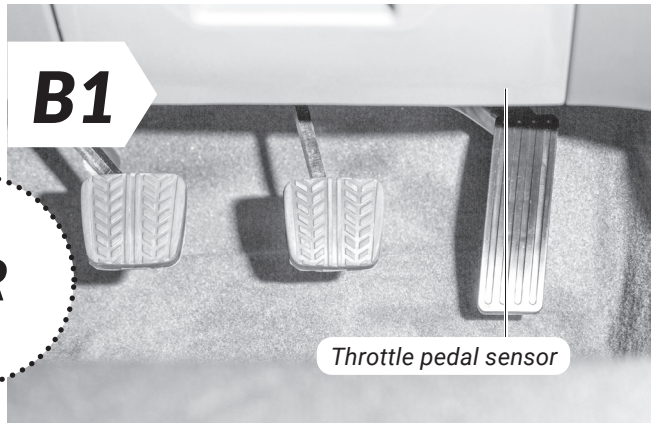
- Disassemble the throttle pedal with the appropriate tools.

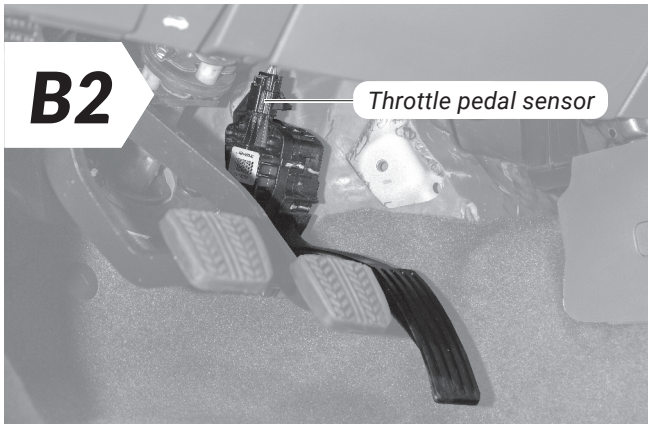


- The throttle pedal sensor is on the right-hand side of the throttle pedal. Carefully pull off the connector of the throttle pedal sensor.

OR

B. Hanging throttle pedal





- The throttle pedal sensor is at the top of the throttle pedal. Carefully pull off the connector of the throttle pedal sensor.

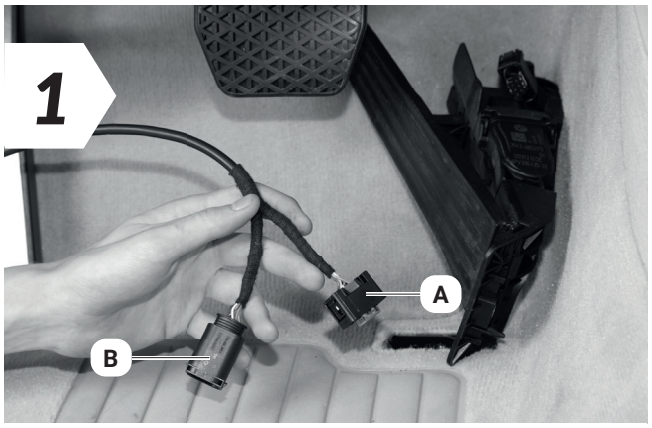
i	You might have to remove part of the trim to get to the connector.

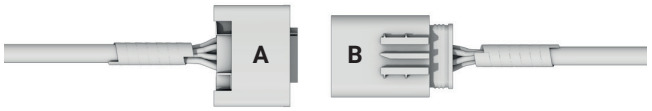
	If you need assistance in detaching the throttle pedal sensor connector: see the additional instructions **"Detaching the connector correctly".**

2 Installation

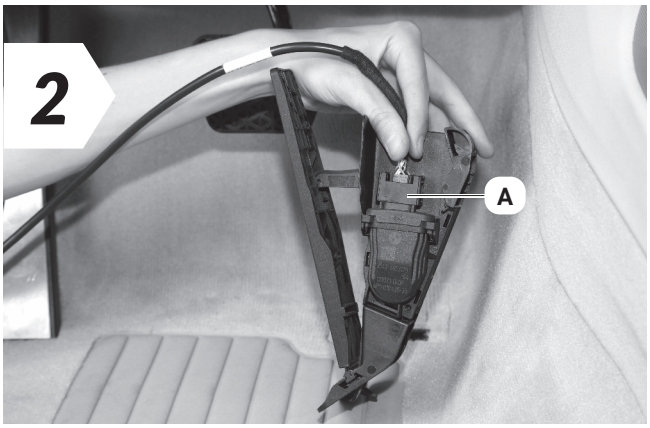
Step 3 of 6 – Connect the Brainbox

The car used to illustrate these instructions is for demonstration purposes only. The basic procedure is exactly the same even if the details of your car look different.



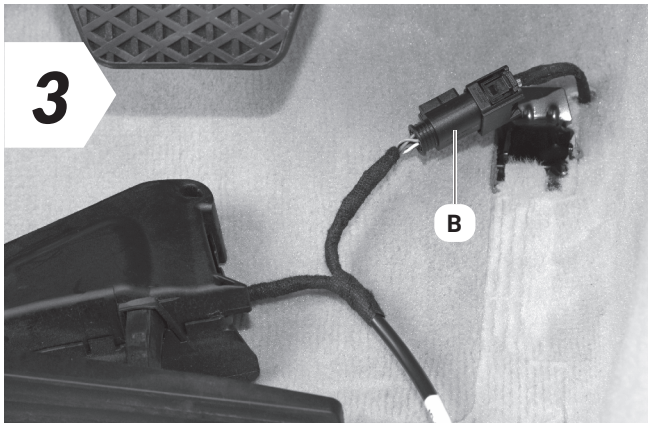


- The cable leading from the Brainbox has two connectors (marked **A** and **B**).



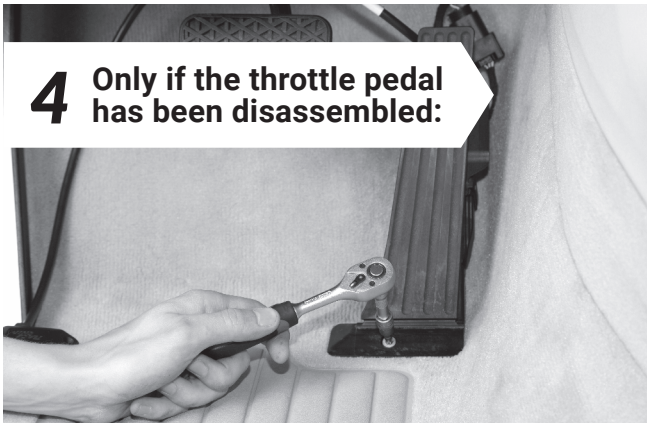
- Attach connector **A** from the Brainbox to the gas pedal sensor.

> ⚠ **A sharp click indicates that the retaining clip has engaged fully.**



- Now attach connector **B** to the connector you pulled off the gas pedal.

> ⚠ **A sharp click indicates that the retaining clip has engaged fully.**



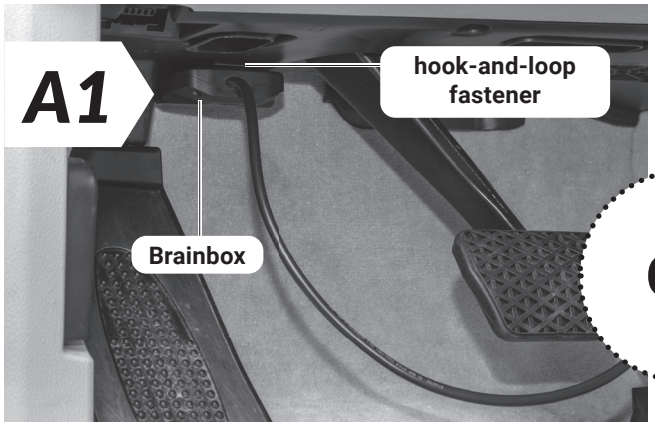
- Re-assemble the throttle pedal.
- Make sure the cable is not trapped and does not interfere with the pedals.
- Ensure the throttle pedal is firmly fixed in the proper position.

2 Installation

Step 4 of 6 – Fix the Brainbox

We recommend two places for fixing the Brainbox (although there may be other possibilities):

A. On the left of the footwell next to the footrest.



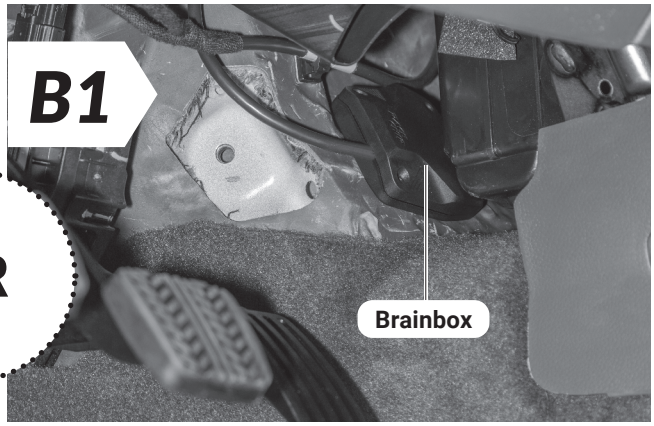
1x hook-and-loop fastener



- Fix one part of the hook-and-eye fastener tape to the bottom of the Brainbox.
- Fix the other part of the fastener tape to the site indicated in the footwell. Make sure the site is free of dust and grease first.
- Now press the two halves of the fastener together (see picture for Brainbox position).

OR

B. Under the trim on the centre tunnel

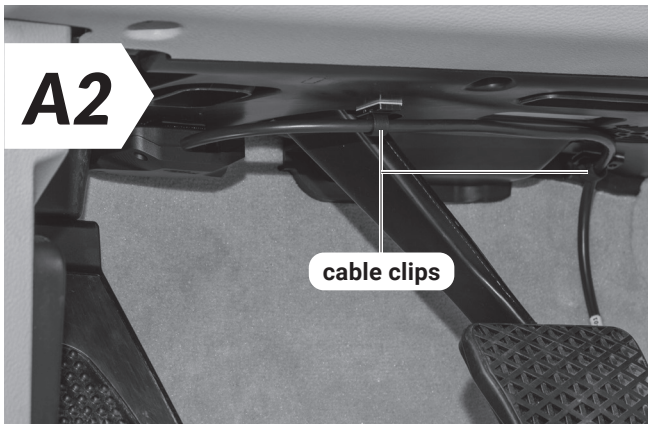


- First test carefully to see if the Brainbox will fit under the trim.
- If the Brainbox fits, slide it carefully under the trim into the position shown.

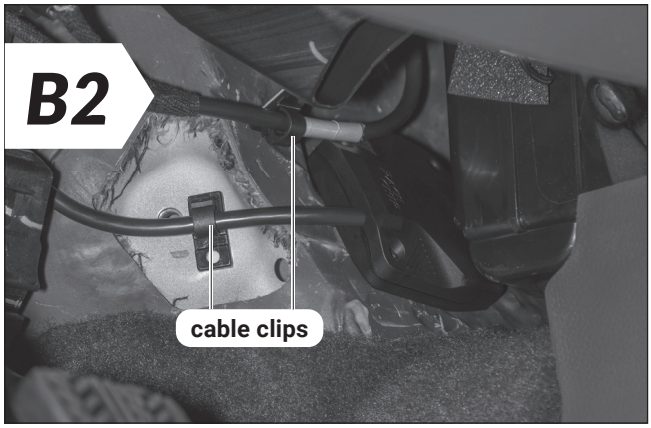
⚠ **Secure the Brainbox and its wiring so that they do not interfere with the pedals and cannot slide into the footwell.**

2 Installation

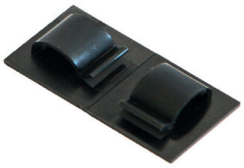
A. On the left of the footwell next to the footrest



B. Under the trim on the centre tunnel



2x cable clips



2x cable ties



- Use the cable clips and/or cable ties to secure the cable between the Brainbox and the throttle pedal, ensuring that nothing interferes with the pedals.

2 Installation

Step 5 of 6 – Pair RaceChip RX with your smartphone

According to your operating system (**Android** and **Apple**), the steps for connecting the RaceChip RX and your smartphone may vary. Please find the most important steps below. In general, you should follow the instructions given by your smartphone for the connection.

- The connection between the RaceChip and your smartphone is set up in the last step of the installation process.
- The RaceChip is fully functional even if there is no connection to a smartphone running the RaceChip+ app.
- The RaceChip RX is now in the factory setting **COMFORT** after first pairing.

1 Download the free **RaceChip+** app.

GET IT ON Google Play

Download on the App Store

2 Switch on the ignition of your car. **Do not** start the engine.

3 Activate the Bluetooth function of your smartphone.

4 Open the RaceChip+ app.

5 With opening the RaceChip+ app for the first time, the installation dialogue for chip tuning by RaceChip is shown. Touch **ADD PRODUCT** and follow the instructions given by your smartphone.



2 Installation

6 You can enter the serial number by hand (touch **MANUALLY**) or with the QR code scanner of the camera (touch). Confirm the entry with **NEXT**.

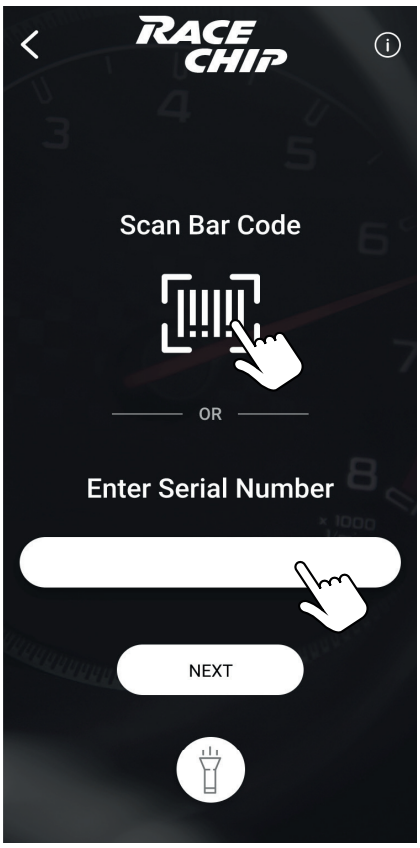
The 13-digit serial number is located on the backcover of the brainbox. The Bluetooth PIN consists of the last 6 digits of the serial number.

Example:

1234567 891234

Bluetooth-PIN

Serial number



Having trouble with connecting RaceChip RX and your phone's Bluetooth? Follow these steps one by one until the pairing is complete:

1. Check that the car's ignition is switched on.
2. Check that the Bluetooth function on your smartphone is fully activated.
3. Deactivate and then re-activate the Bluetooth connection. Check if RaceChip and your phone will pair now.
4. Re-start the RaceChip+ app.
5. Go to your smartphone's settings and view all discoverable Bluetooth devices. If your RaceChip (**RC RX**) is not visible, please contact our customer service.

7 As soon as the connection is set up, the app installation is completed.

2 Installation

Step 6 of 6 - Calibrate throttle pedal

After the connection, the throttle pedal must be calibrated. Please follow the instructions in the app:

1. Turn on the ignition (**do not start the engine**)
2. Do not press the throttle pedal pedal
3. Select minimum calibration in the app
4. When minimum is successfully calibrated, fully depress the throttle pedal. If there is a kickdown, activate it as well and hold it in this position.
5. Select maximum calibration in the app
6. After calibration is complete, release the throttle pedal
7. Calibration is complete.

i

- If the calibration is not performed successfully, not all functions of the RaceChip RX are available.
- We therefore recommend to calibrate the RaceChip RX directly after installation.

3 Trouble Shooting

If your RaceChip RX doesn't function as it should, here are some trouble shooting tips.

Description of problem	What to do
Check engine light  or EV system warning signal lights up permanently after installation when the engine is on	• Switch off the vehicle and leave the key outside of the vehicle. Check that all plugs are plugged in. • There may be a problem with the system caused by residual current in the gas pedal when you removed it. To reset the system, lock the vehicle and leave it for at least 30 minutes before trying to start it again. The vehicle must not be charged during these 30 minutes. If the engine still does not start, the vehicle's error memory must be reset (any specialist workshop can do this). You can then repeat the RX installation. Make sure the ignition is turned off, that the vehicle is not charging, and that you wait at least 10 minutes before starting it again. • If the problem persists after restarting the vehicle, contact our customer service.
No/poor throttle response	• Please uninstall the Brainbox of the RaceChip RX. • Restore the series condition of your car by reconnecting the series plugs of the gas pedal. • Check for correct throttle response, first at a standstill and then on an untraveled road. If the throttle response is still faulty, we recommend turning off the car. In this case, the problem is probably not caused by RaceChip RX, but by the malfunction of a component of the gas pedal. If so, please contact our customer service.
Jerking at a constant speed	• First, check whether jerking can be felt at all speed levels or whether this only occurs at certain speed levels. • Please contact our customer service with this information. The more precise your error description is, the better we can help you. • Please deactivate the RaceChip RX in your vehicle until we have found a solution (you can deactivate the RaceChip RX with our smartphone app RaceChip+)

3 Trouble Shooting

Description of problem	What to do
The car doesn't start anymore	• Switch off the vehicle and leave the key outside of the vehicle. Check that all plugs are plugged in. • Attempt to start the vehicle again. • If the problem occurs during the initial installation, please completely uninstall the RAceChip RX again. There may be an error in the system because there was still a residual current in the gas pedal sensor when you disconnected it. Lock your car, wait about 30 minutes and restart the engine. If the engine cannot be started, the car's error memory must be erased (any specialist workshop can do this). The installation can then be repeated. Make sure that the ignition is switched off, that the vehicle is not being charged and only disconnect the connector on the gas pedal after waiting for at least 10 minutes.
The plug does not engage properly during installation or does not fit	• Check that you tried to connect the right connectors together in the right direction. • The plug connections must be easy to connect to one another. • If the plugs really do not fit, please contact our customer service. Please take pictures of the plugs on the gas pedal of your car.
The RaceChip+ app does not establish a connection to the RaceChip RX	• Exit the RaceChip+ app (iOS: press the home button twice and close the RaceChip+ app; Android: open the task manager and close the RaceChip+ app) and start it again. • Please contact our customer service if the problem persists.

3 Trouble Shooting

Description of problem	What to do
The RaceChip+ app does not establish a connection to the RaceChip RX	• Please switch on your ignition first. - Check whether the Bluetooth function of your smartphone is fully activated. - Deactivate and reactivate the Bluetooth connection. Check that the RaceChip RX and your phone are now paired. - Deactivate the Bluetooth connection and close the RaceChip+ app completely (press the home button twice and close the RaceChip+ app; Android: open the task manager and close the RaceChip+ app). Activate the Bluetooth connection and open the RaceChip+ app again. - Go to your smartphone's settings and view all discoverable Bluetooth devices. Select "RC RX" to pair your smartphone with the RaceChip RX. If no connection is established, delete "RC RX" from the list of discoverable Bluetooth devices. Attempt pairing again. - Restart the installation dialog of the RaceChip+ app. Make sure you have entered the correct Bluetooth pin (see step 7 of the installation). - Please contact our customer service if the problem persists.

4 Contact



Our Customer Service is ready to help!

Find out how to contact us at:
www.racechip.com/service-support

Please have your customer details close by when you contact us.

Follow us on:

/racechipchiptuning

@racechipchiptuning

Legal notice

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Karl-Frasch-Str. 14
73037 Göppingen
Germany

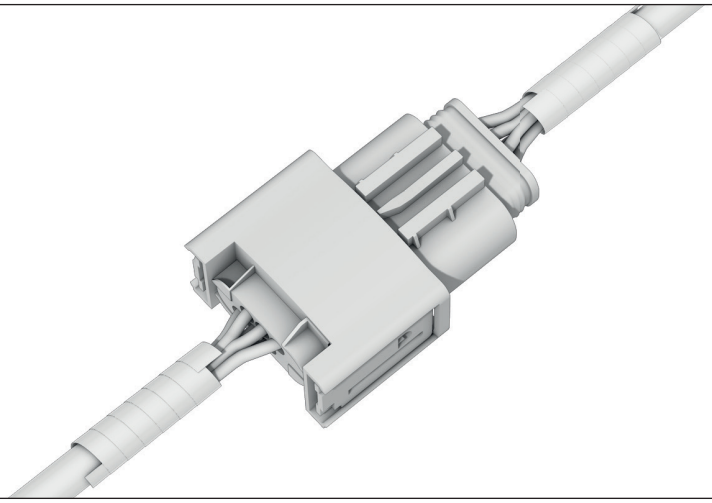
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Personally liable partner:
RaceChip Chiptuning Verwaltungs GmbH
Chief executives: Dirk Bongardt, Kai Döhler
Head office: Karl-Frasch-Str. 14, 73037 Göppingen, Germany
Registered at HRB District Court of Ulm: HRB 724254

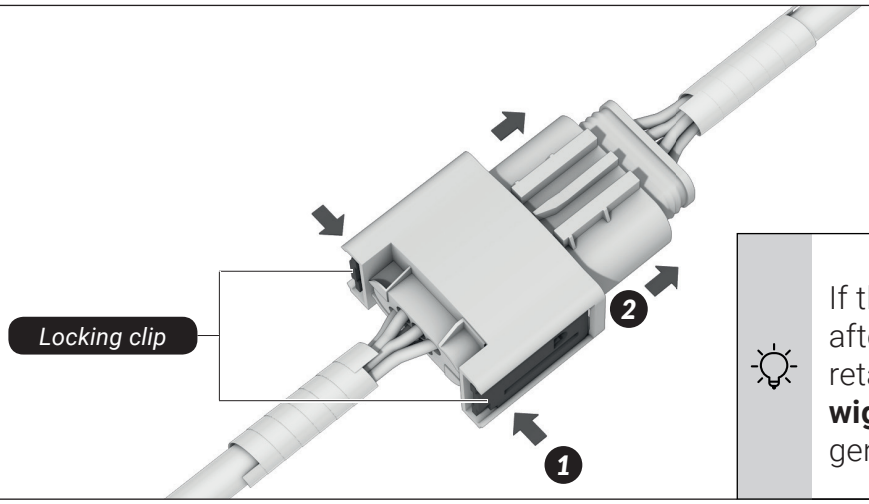
Detaching the connector correctly

Connector number CL-X-0101

1

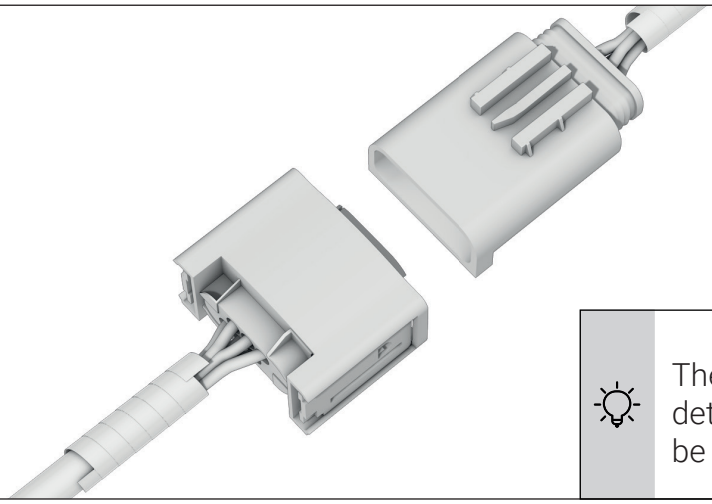


2



If the connector still sticks after you have released the retaining clip, you can **wiggle** the connector gently as you pull it.

3

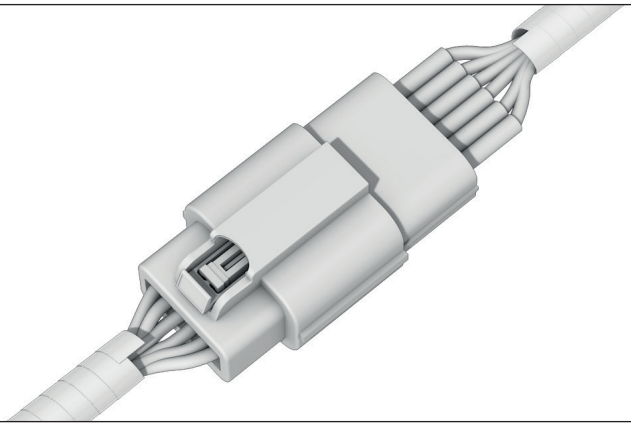


The connector should detach without needing to be forced too much.

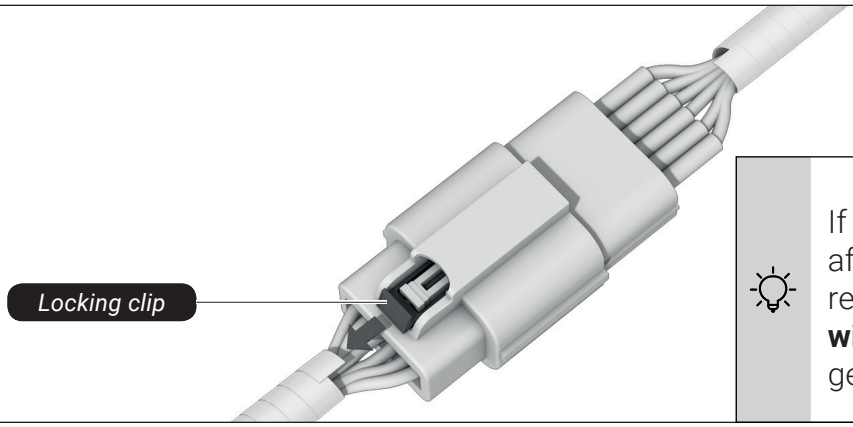
Detaching the connector correctly

Connector number CL-X-0201, CL-X-2201

1

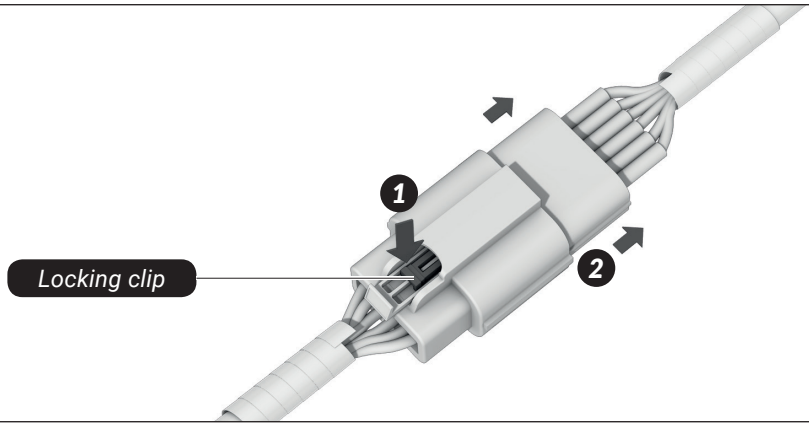


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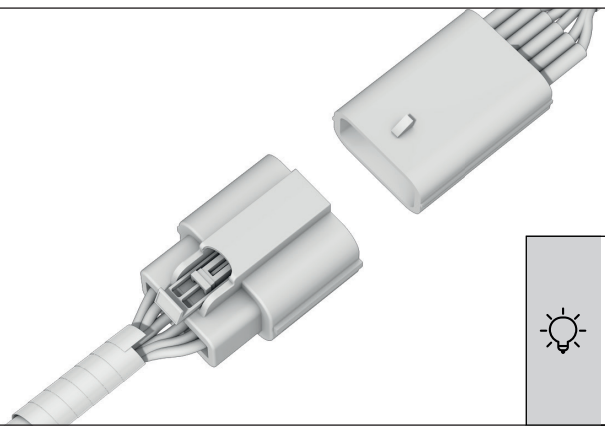


If the connector still sticks after you have released the retaining clip, you can **wiggle** the connector gently as you pull it.

3



4

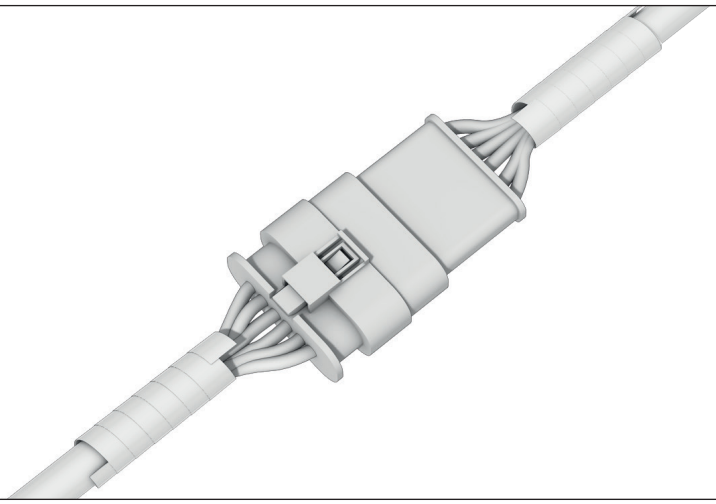


The connector should detach without needing to be forced too much.

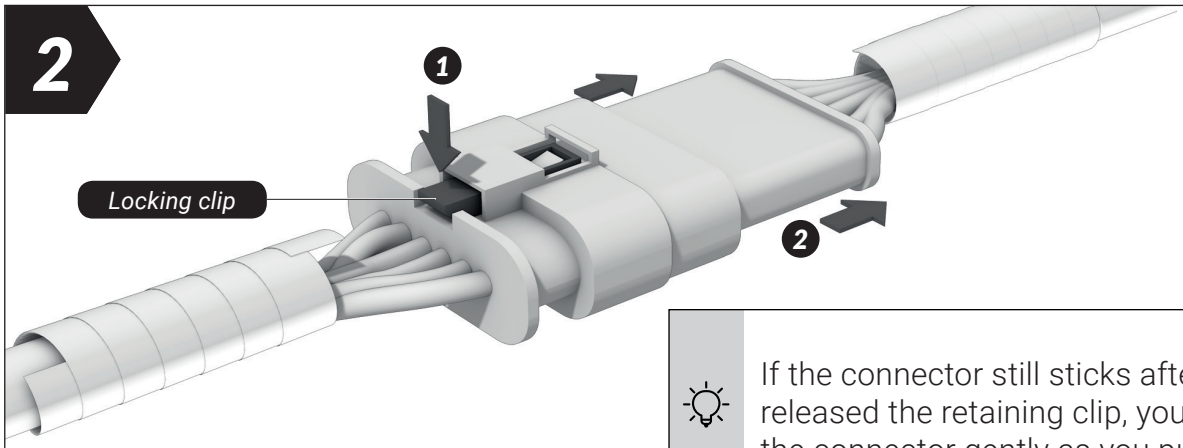
Detaching the connector correctly

Connector number CL-X-0301, CL-X-1201, CL-X-2801, CL-X-3101

1

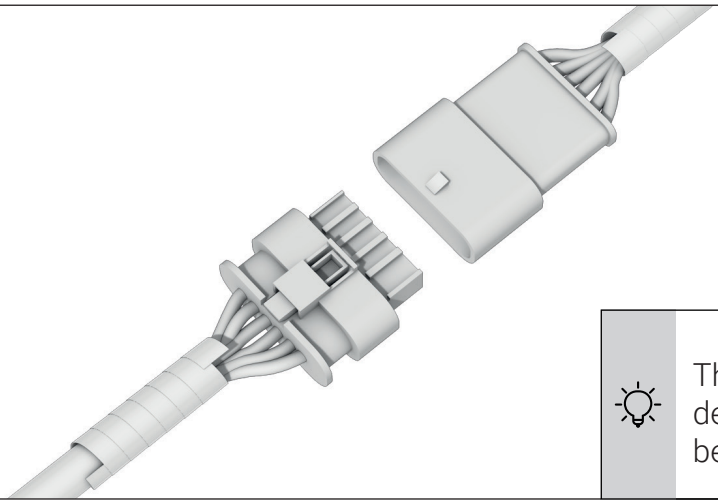


2



If the connector still sticks after you have released the retaining clip, you can wiggle the connector gently as you pull it.

3

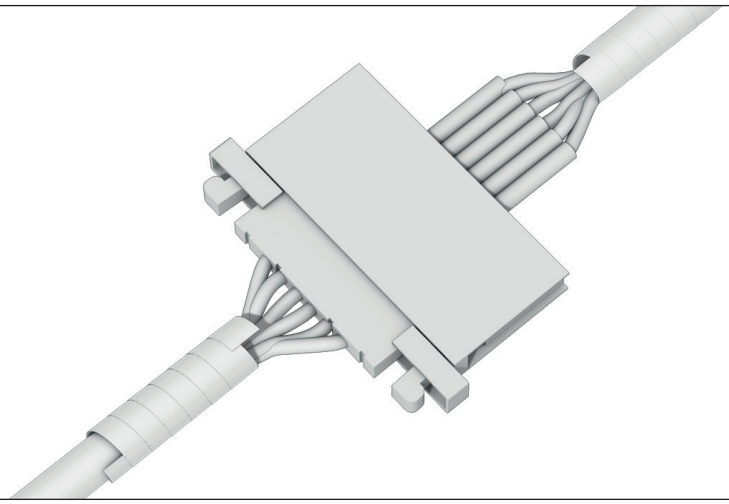


The connector should detach without needing to be forced too much.

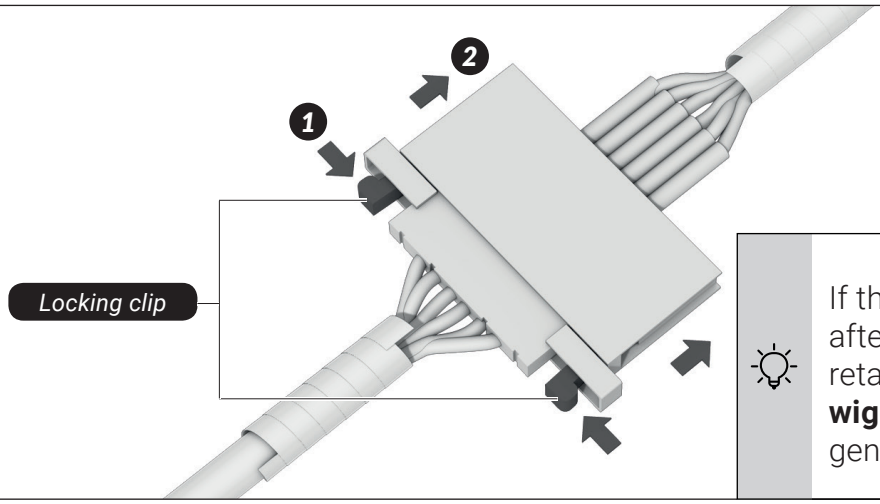
Detaching the connector correctly

Connector number CL-X-0401, CL-X-1301, CL-X-2701

1

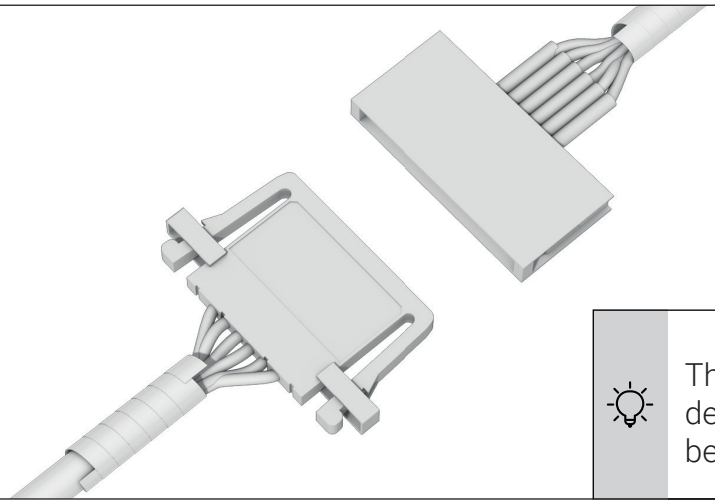


2



If the connector still sticks after you have released the retaining clip, you can **wiggle** the connector gently as you pull it.

3

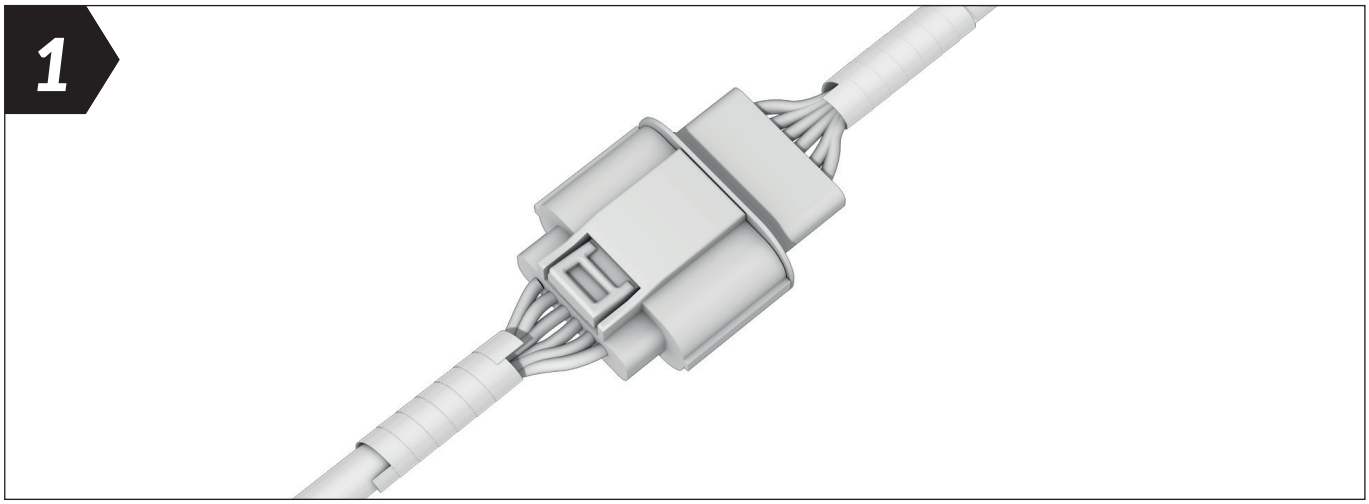


The connector should detach without needing to be forced too much.

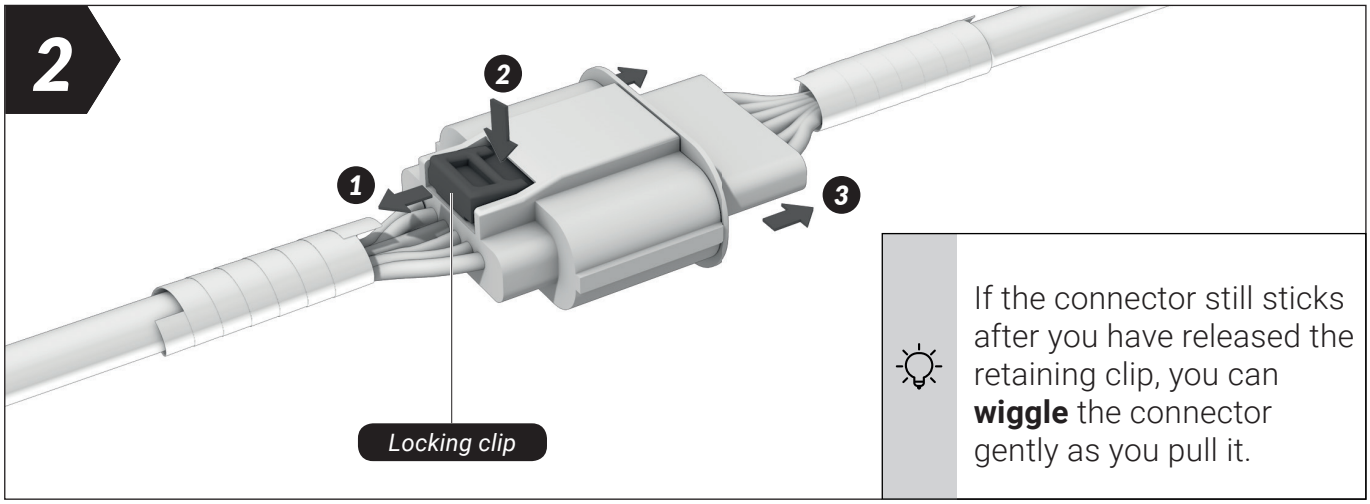
Detaching the connector correctly

Connector number CL-X-0501

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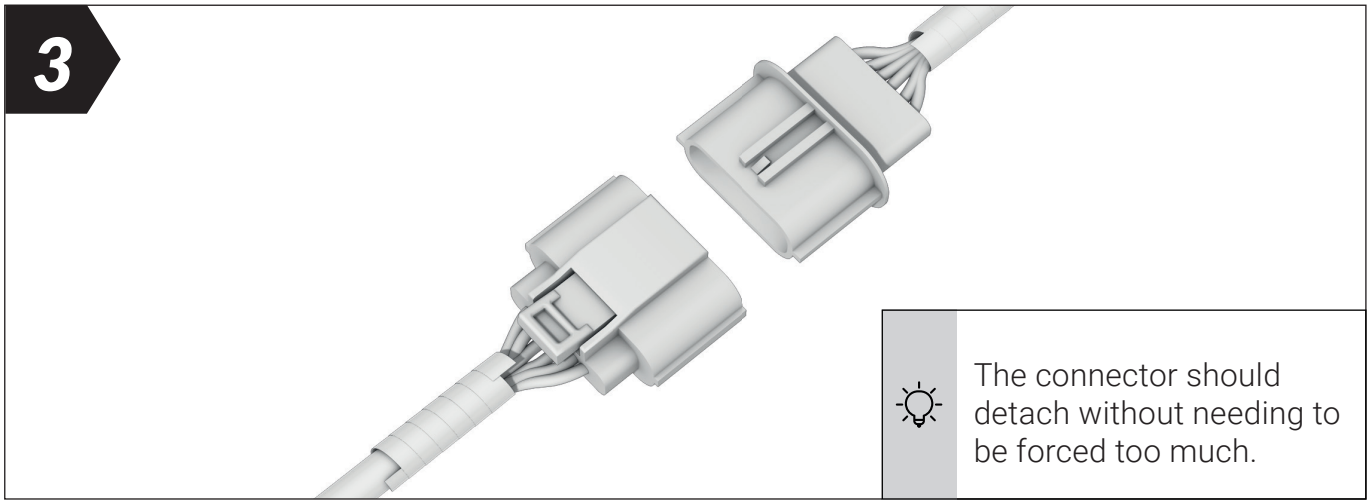


2



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3

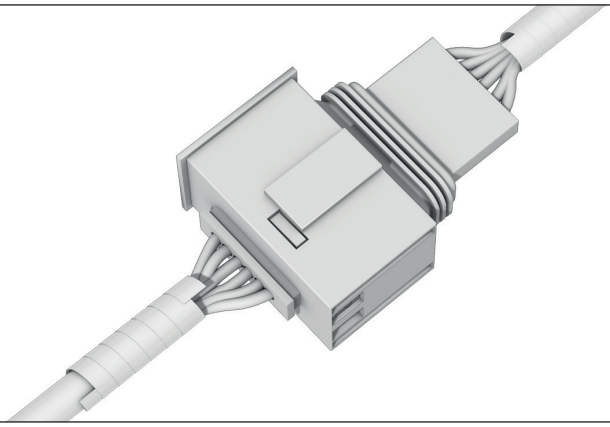


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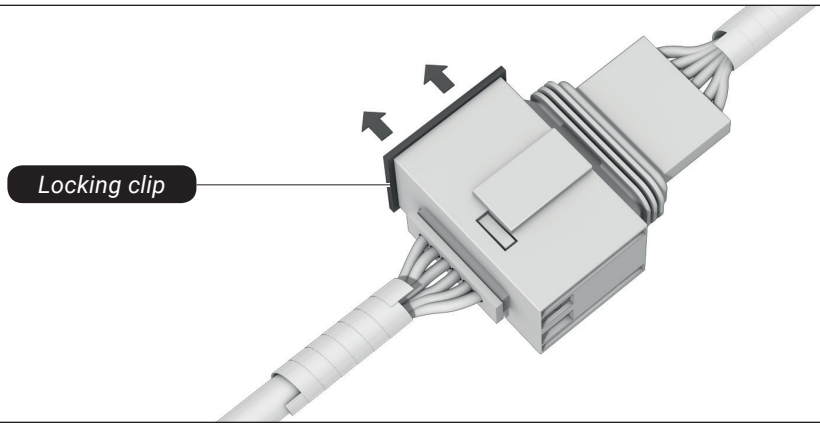
Detaching the connector correctly

Connector number CL-X-0701, CL-X-2301, CL-X-3201

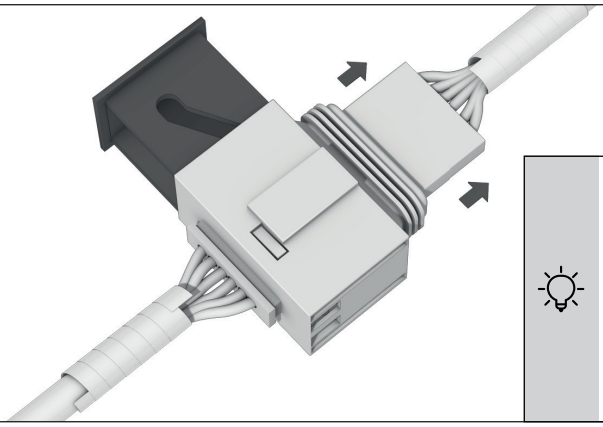
1



2

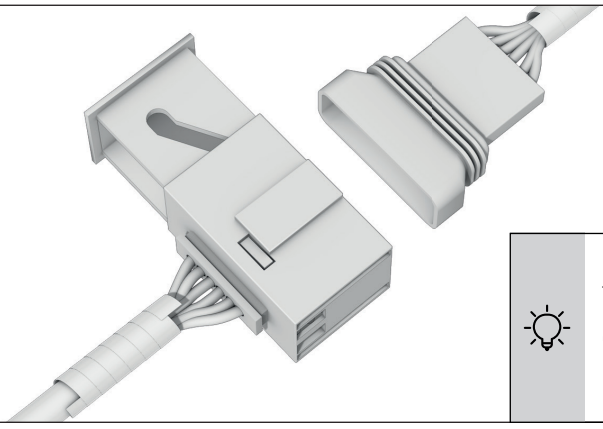


3



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4

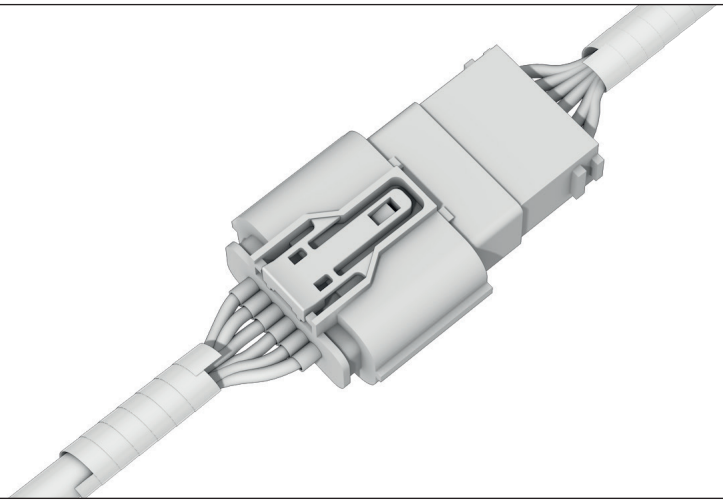


The connector should detach without needing to be forced too much.

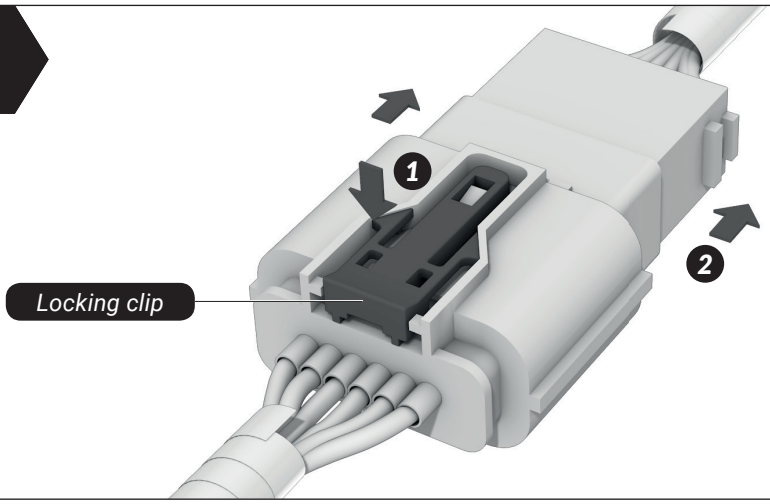
Detaching the connector correctly

Connector number CL-X-0801

1

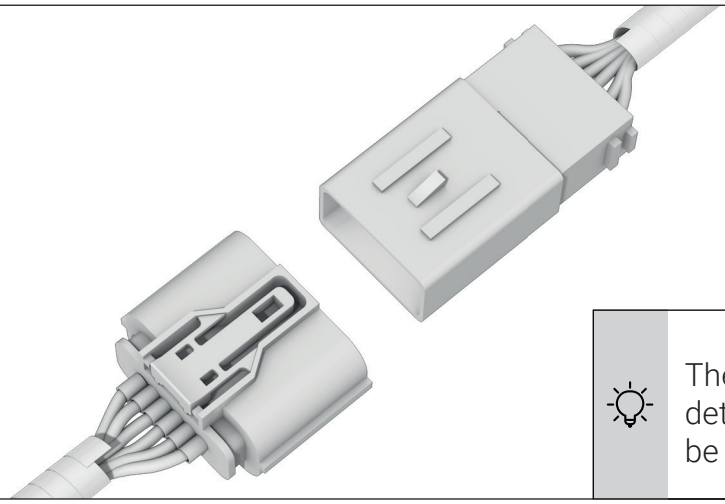


2



If the connector still sticks after you have released the retaining clip, you can **wiggle** the connector gently as you pull it.

3

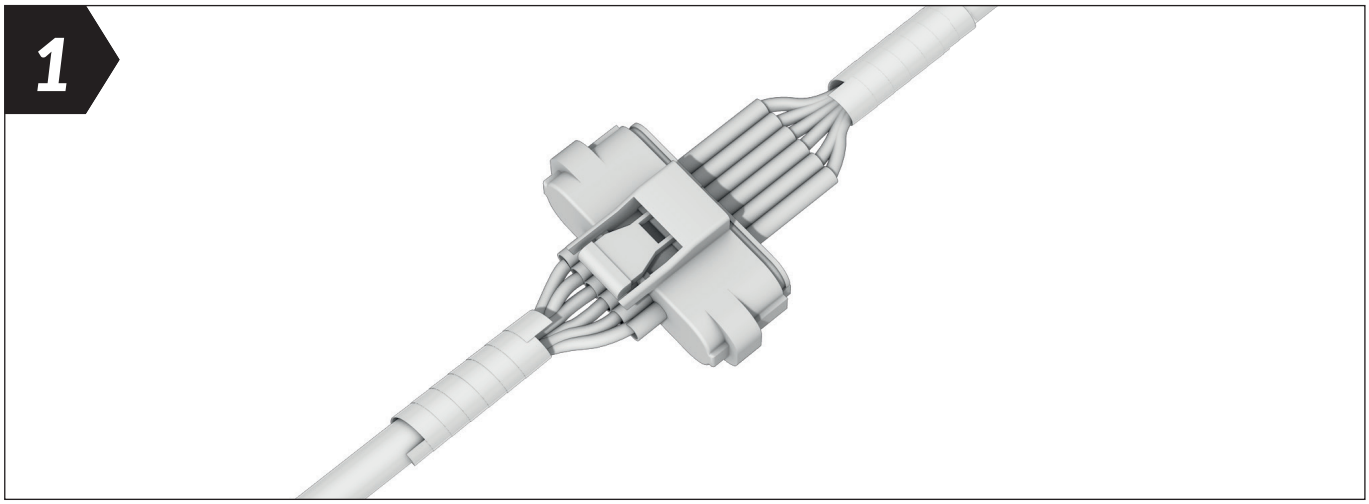


The connector should detach without needing to be forced too much.

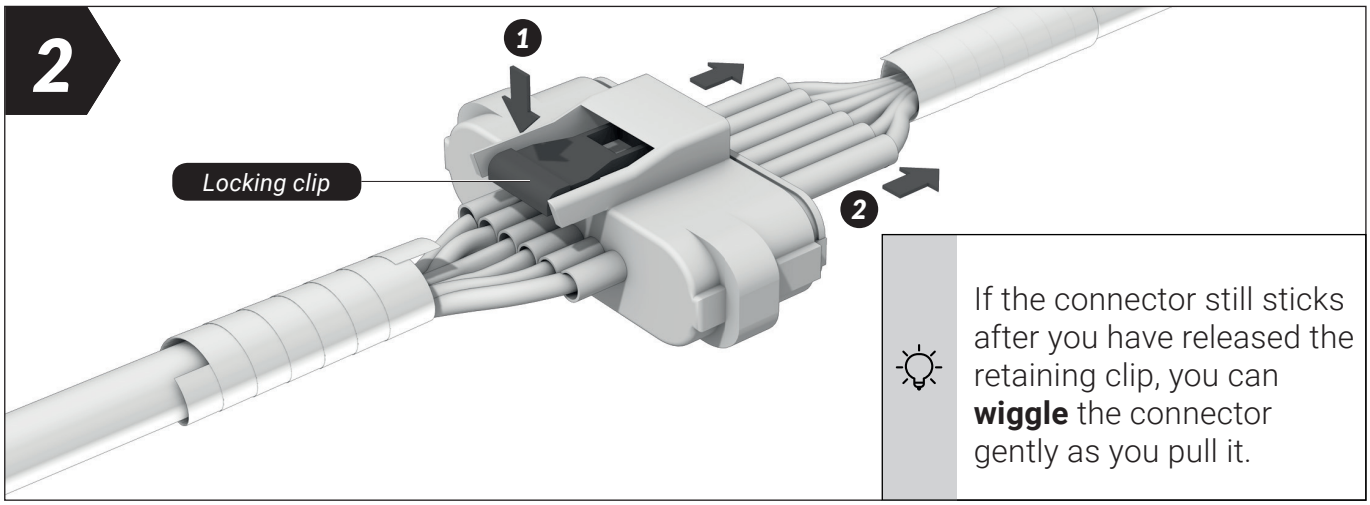
Detaching the connector correctly

Connector number CL-X-0901-1501

1

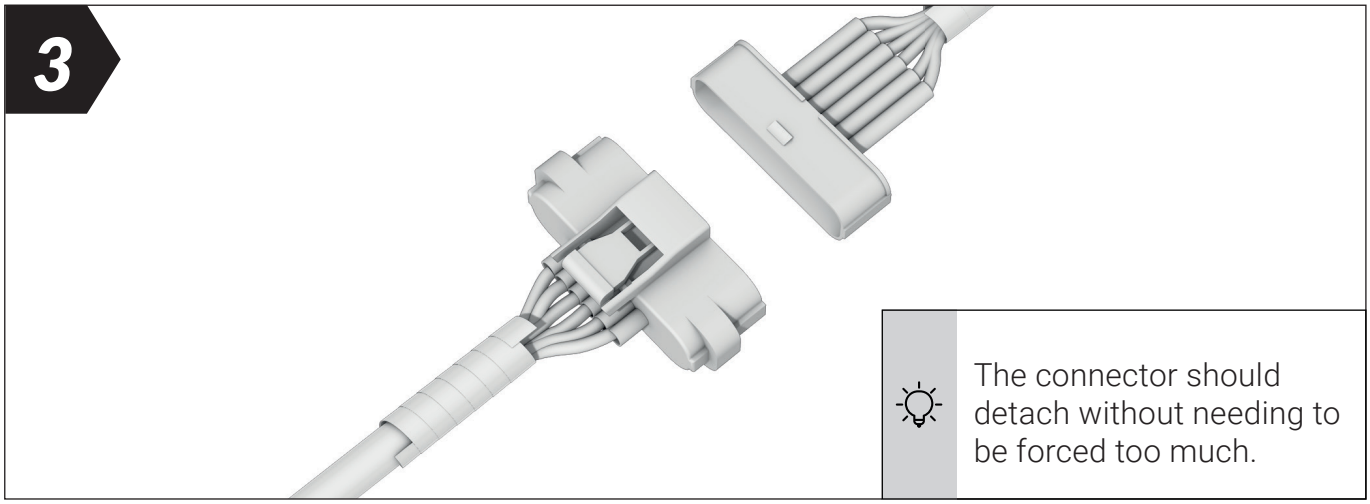


2



If the connector still sticks after you have released the retaining clip, you can **wiggle** the connector gently as you pull it.

3

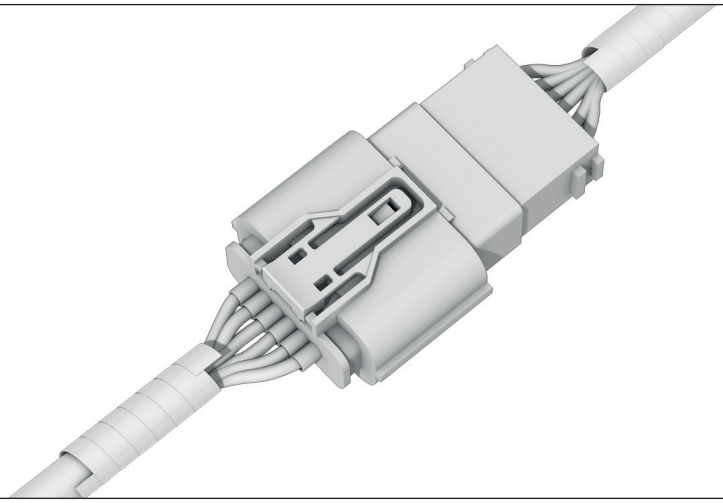


The connector should detach without needing to be forced too much.

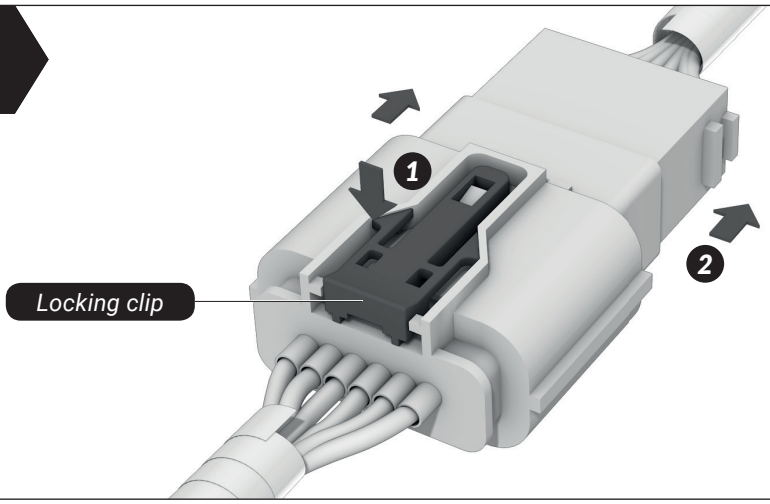
Detaching the connector correctly

Connector number CL-X-1001, CL-X-2101, CL-X-2401, CL-X-3001

1

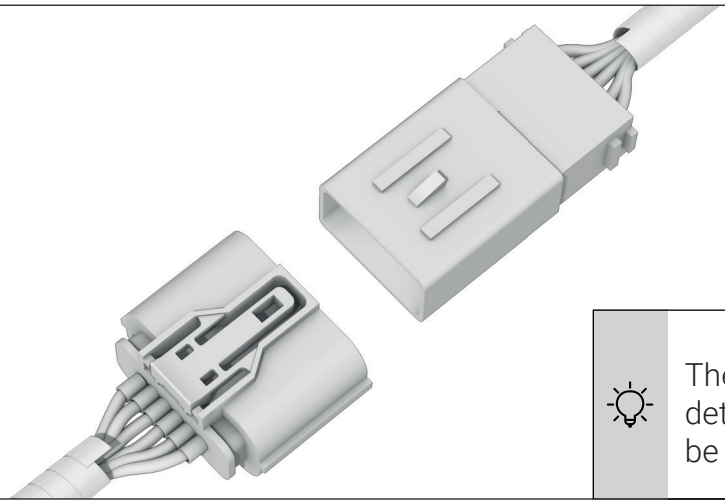


2



If the connector still sticks after you have released the retaining clip, you can **wiggle** the connector gently as you pull it.

3

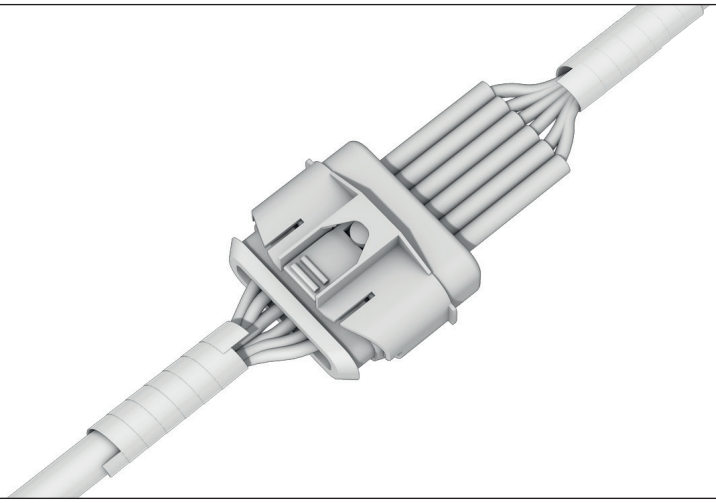


The connector should detach without needing to be forced too much.

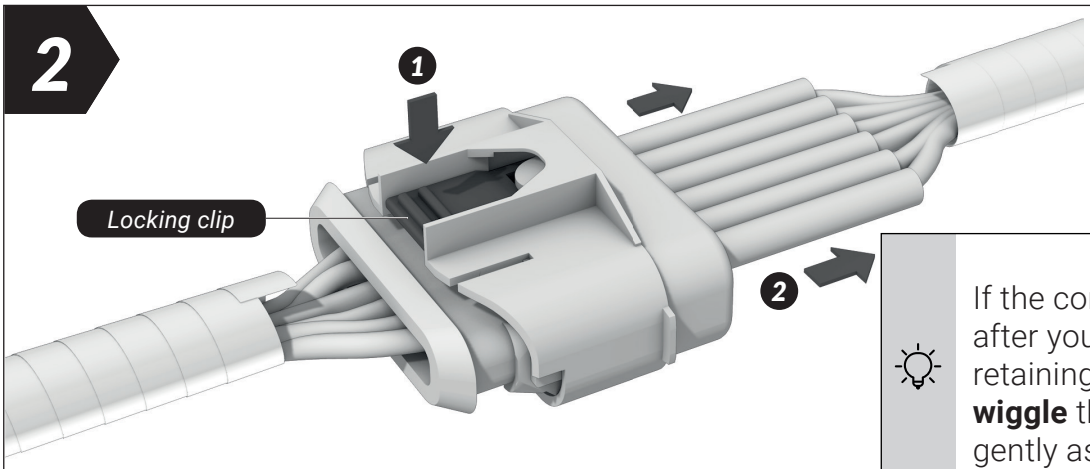
Detaching the connector correctly

Connector number CL-X-1101

1

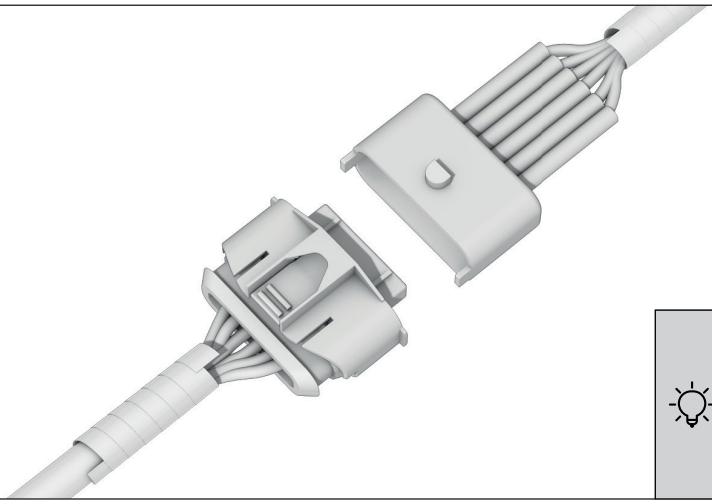


2



If the connector still sticks after you have released the retaining clip, you can **wiggle** the connector gently as you pull it.

3

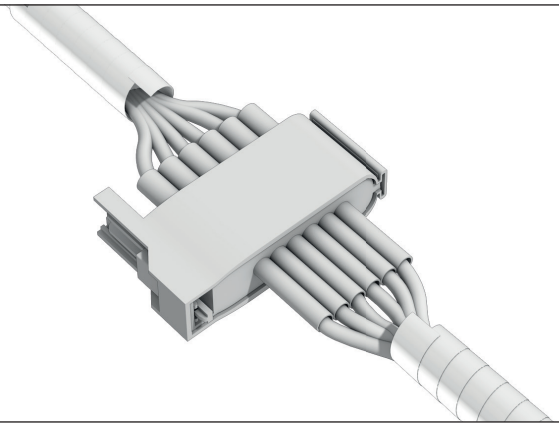


The connector should detach without needing to be forced too much.

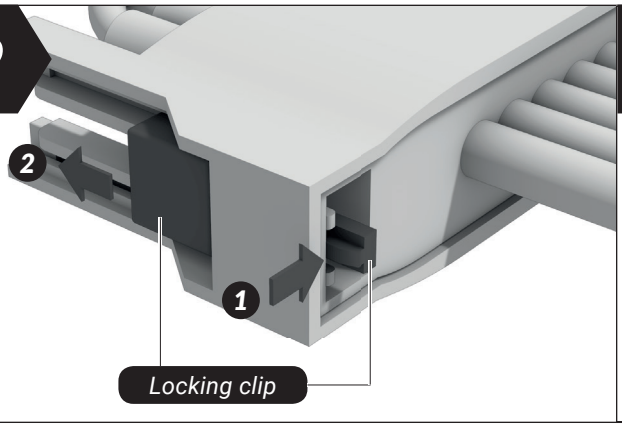
Detaching the connector correctly

Connector number CL-X-1401, CL-X-1801

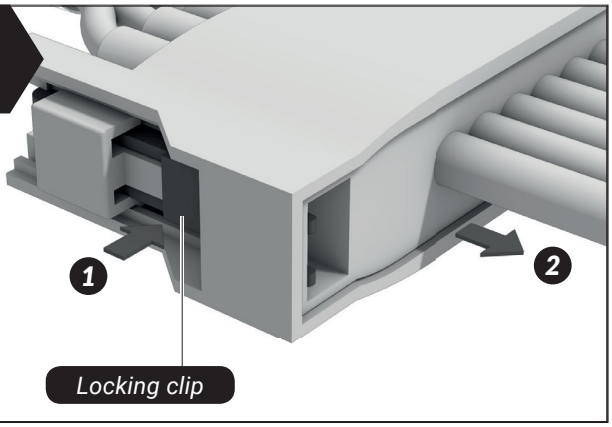
1



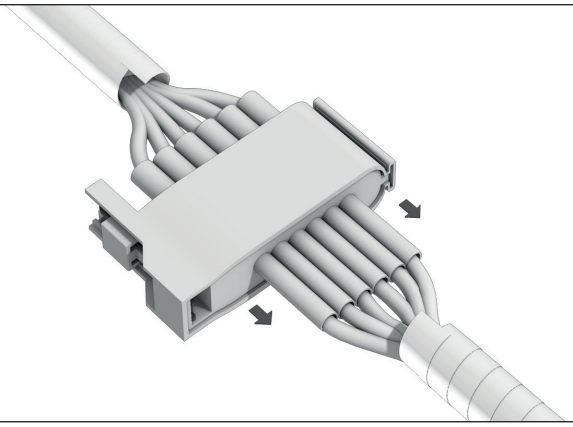
2



3

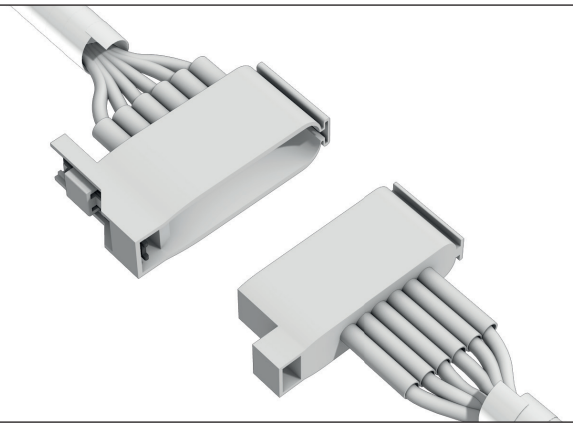


4



If the connector still sticks after you have released the retaining clip, you can **wiggle** the connector gently as you pull it.

5

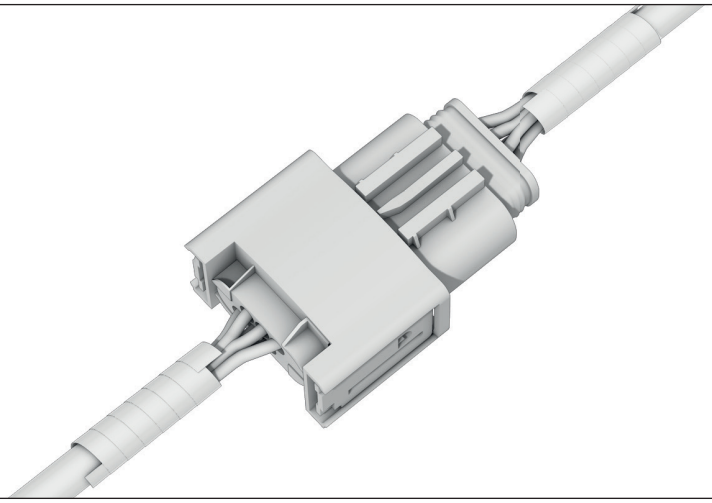


The connector should detach without needing to be forced too much.

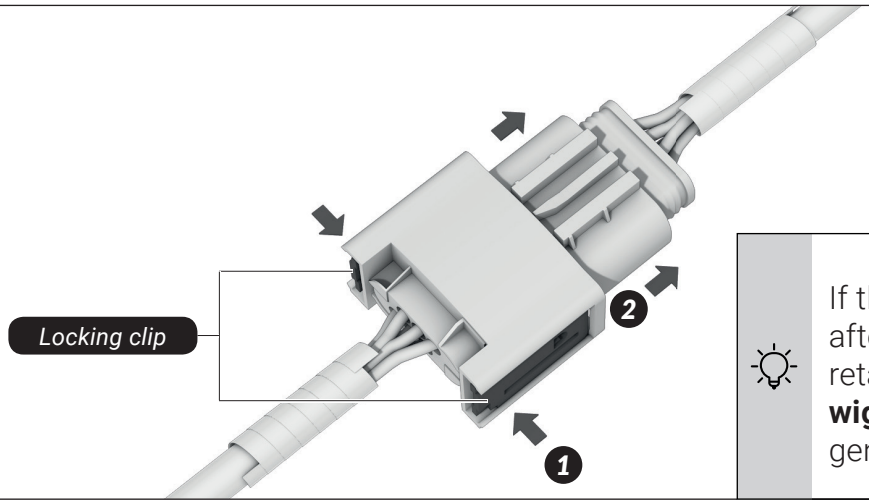
Detaching the connector correctly

Connector number CL-X-1601

1

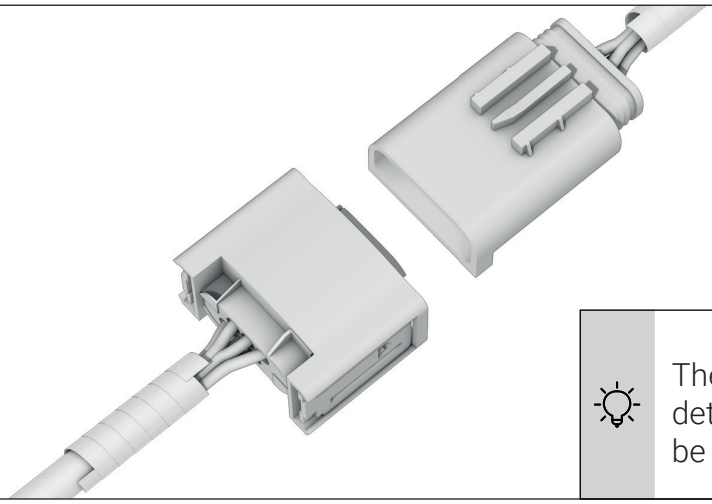


2



If the connector still sticks after you have released the retaining clip, you can **wiggle** the connector gently as you pull it.

3

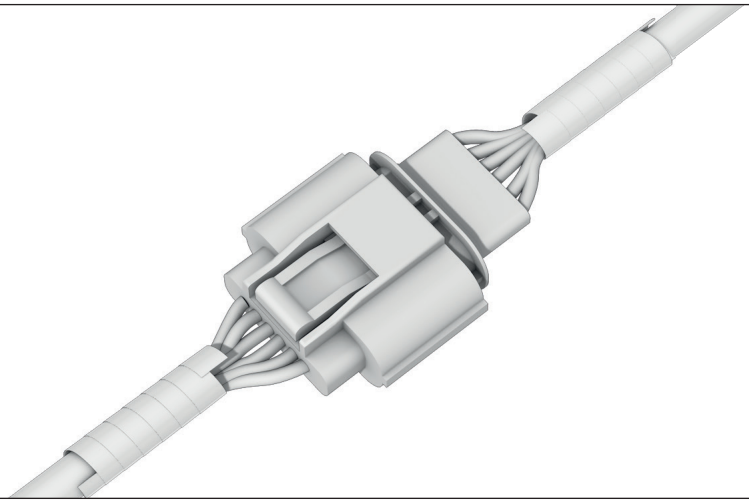


The connector should detach without needing to be forced too much.

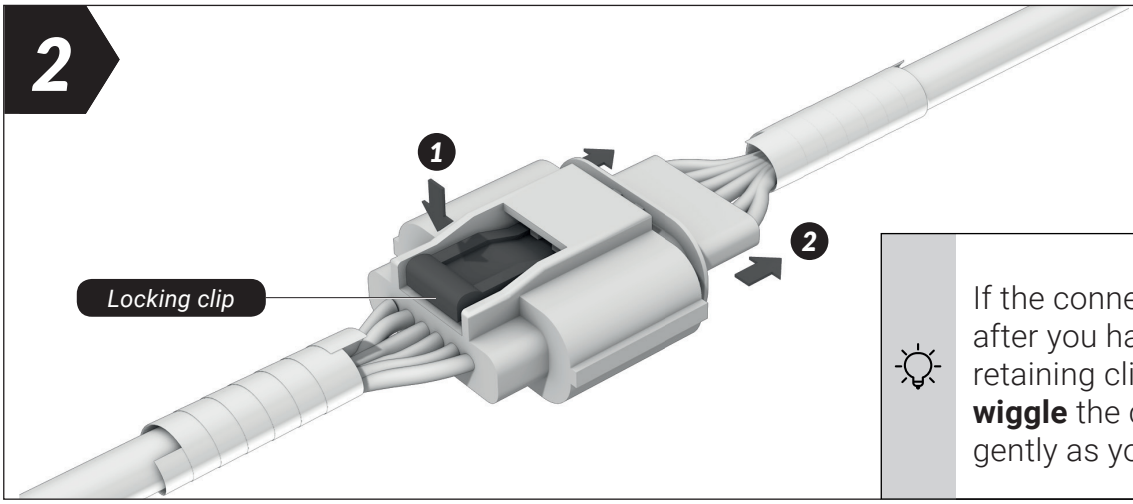
Detaching the connector correctly

Connector number CL-X-1701

1

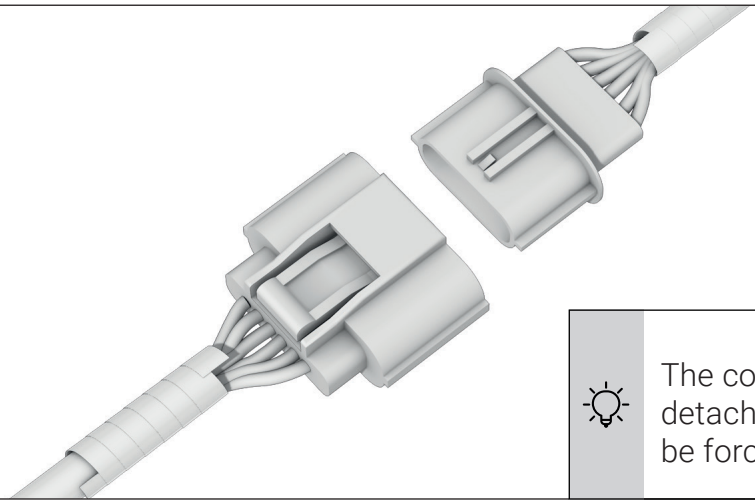


2



If the connector still sticks after you have released the retaining clip, you can **wiggle** the connector gently as you pull it.

3

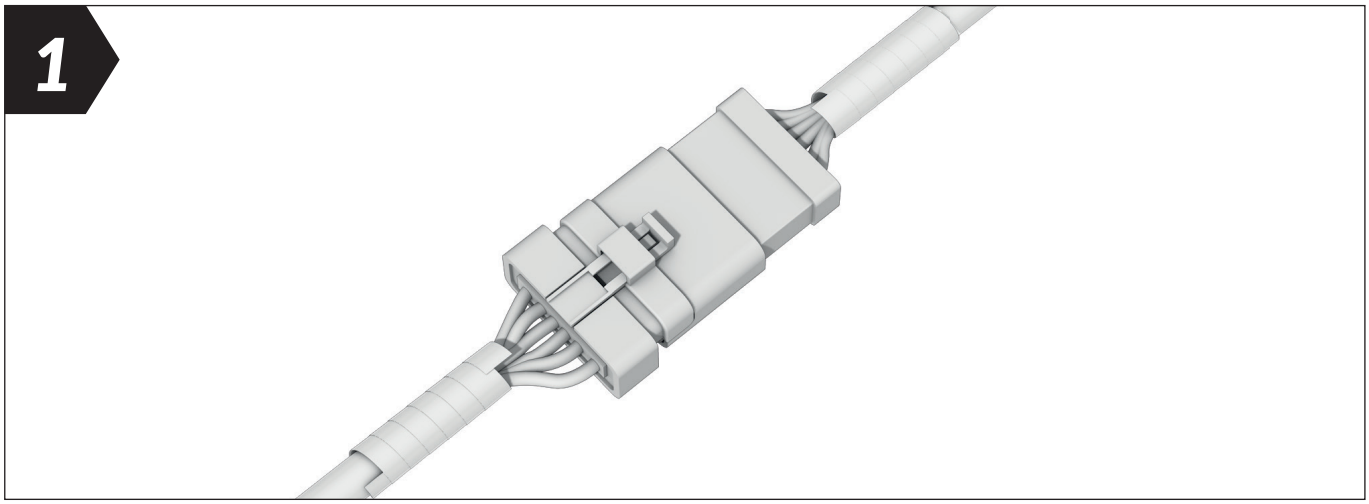


The connector should detach without needing to be forced too much.

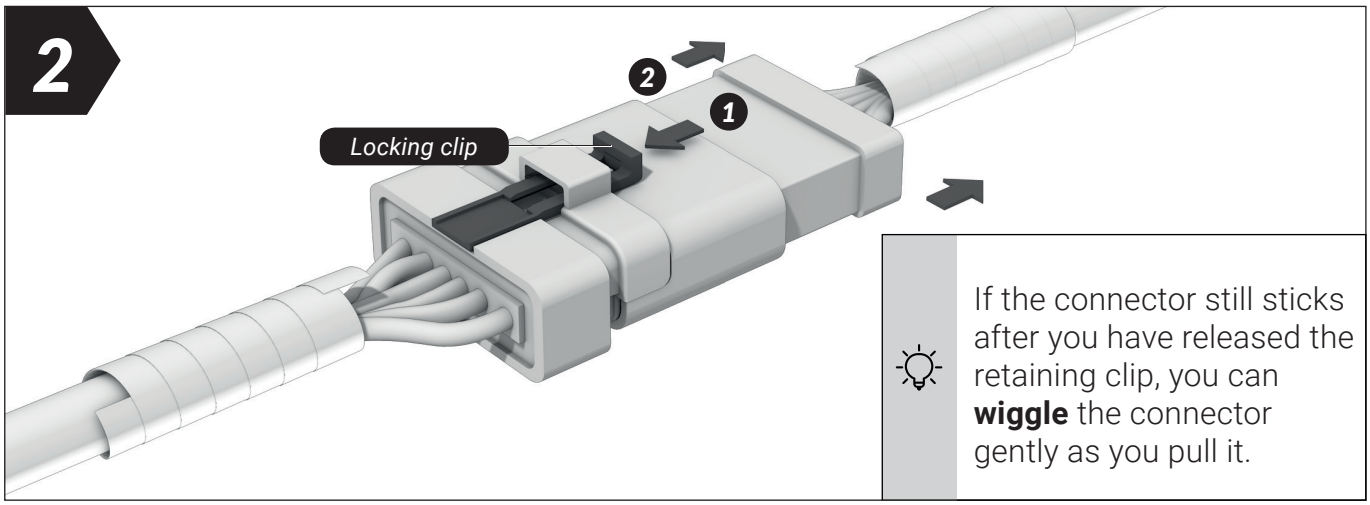
Detaching the connector correctly

Connector number CL-X-1901

1

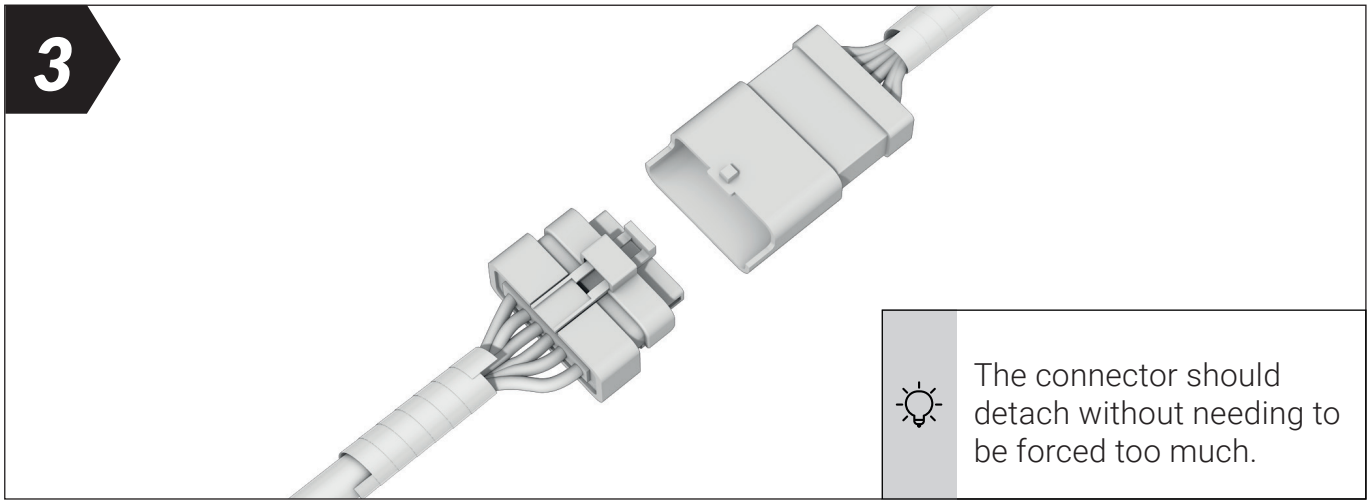


2



If the connector still sticks after you have released the retaining clip, you can **wiggle** the connector gently as you pull it.

3

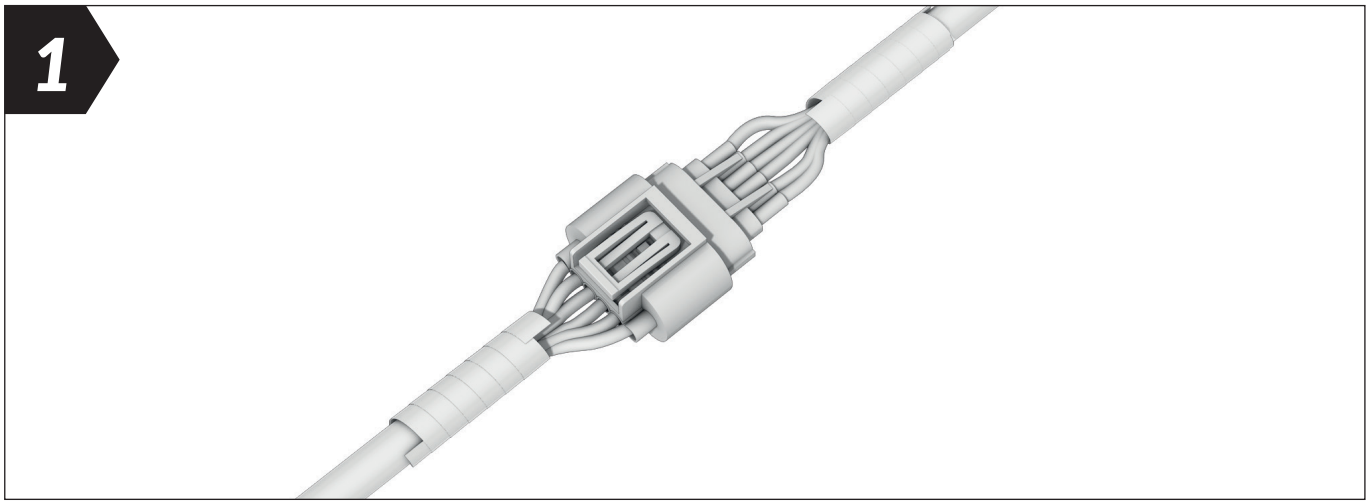


The connector should detach without needing to be forced too much.

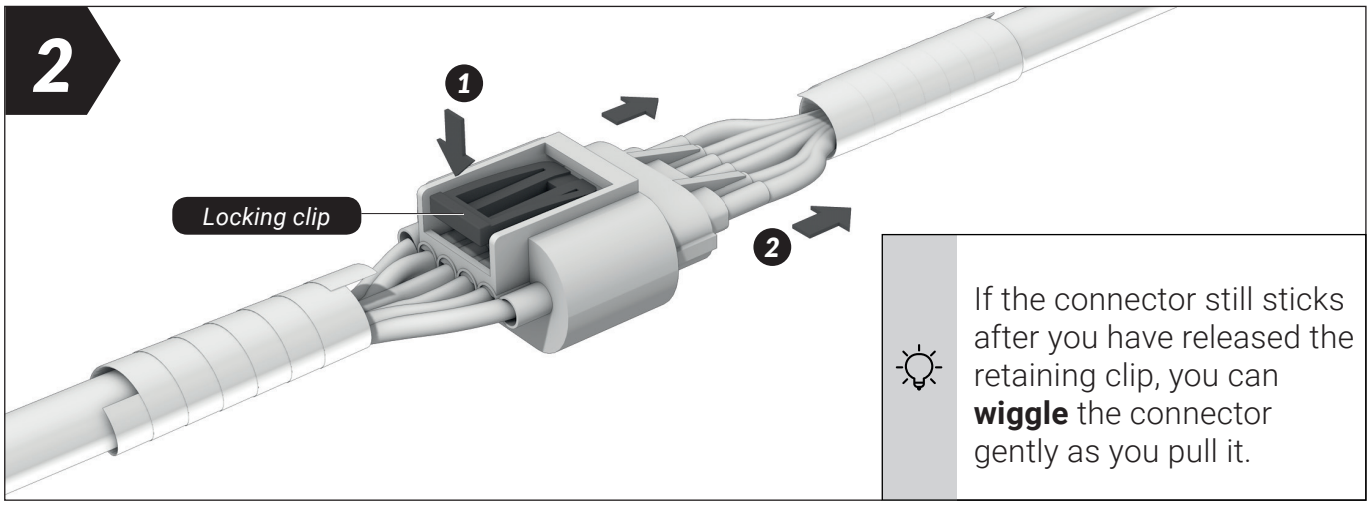
Detaching the connector correctly

Connector number CL-X-2001, CL-X-2601

1

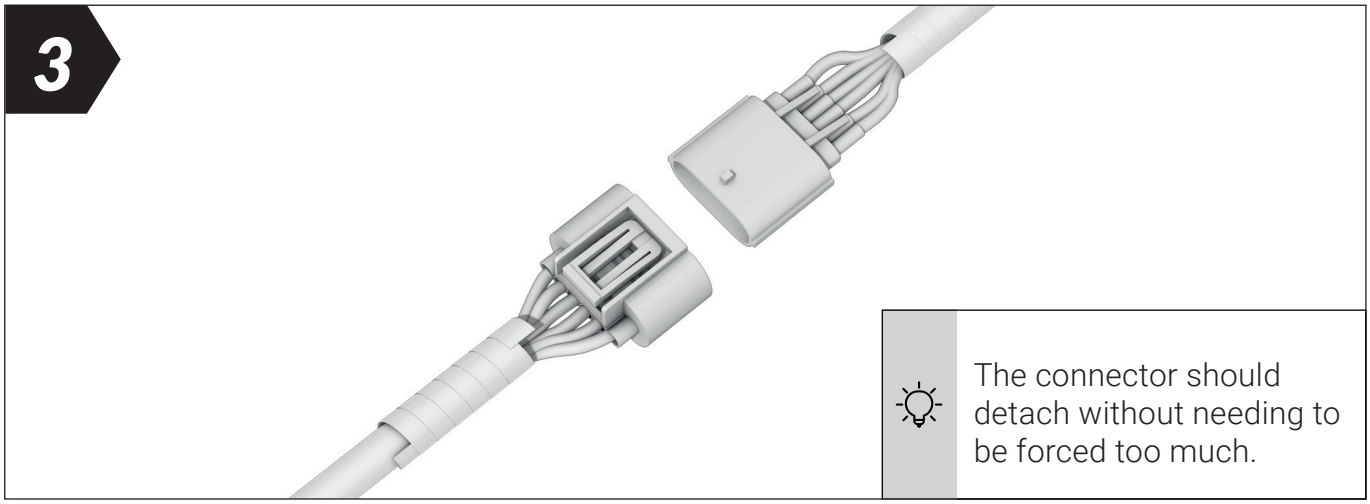


2



If the connector still sticks after you have released the retaining clip, you can **wiggle** the connector gently as you pull it.

3

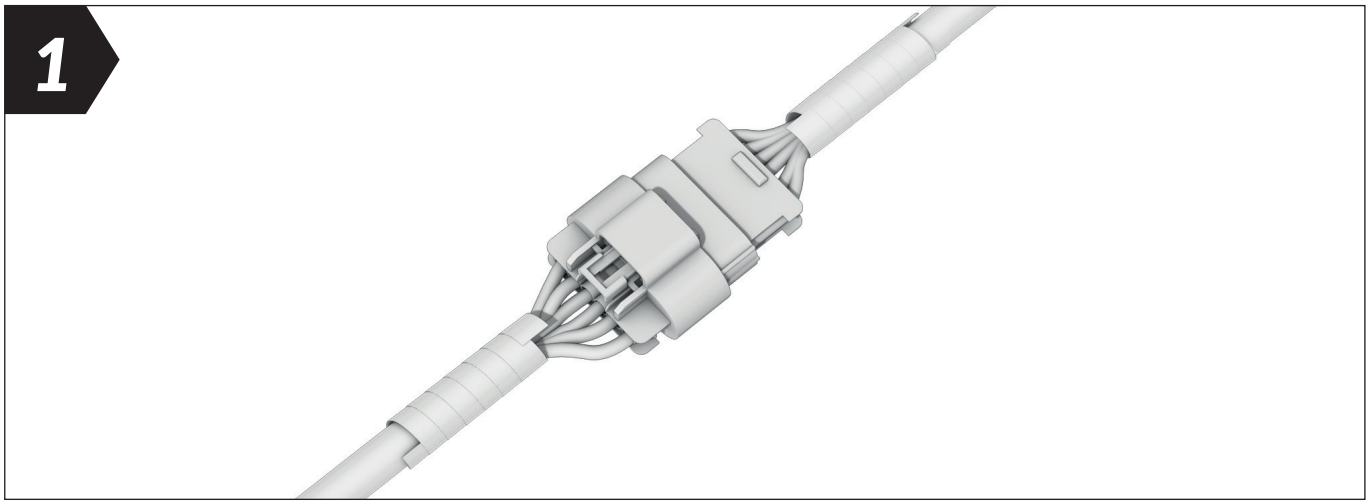


The connector should detach without needing to be forced too much.

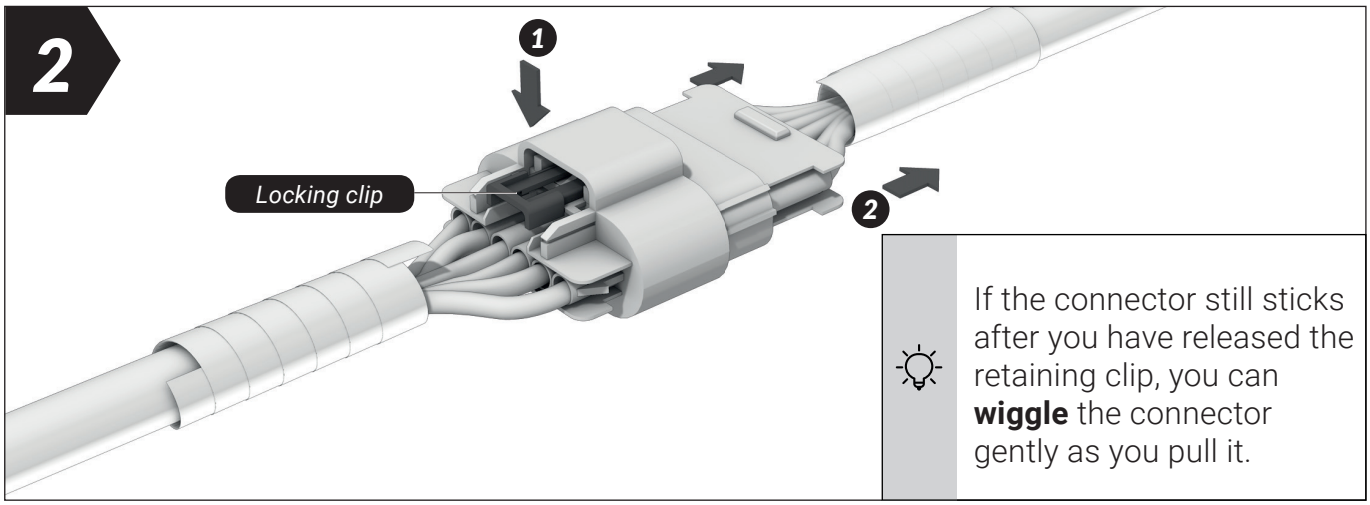
Detaching the connector correctly

Connector number CL-X-2501

1

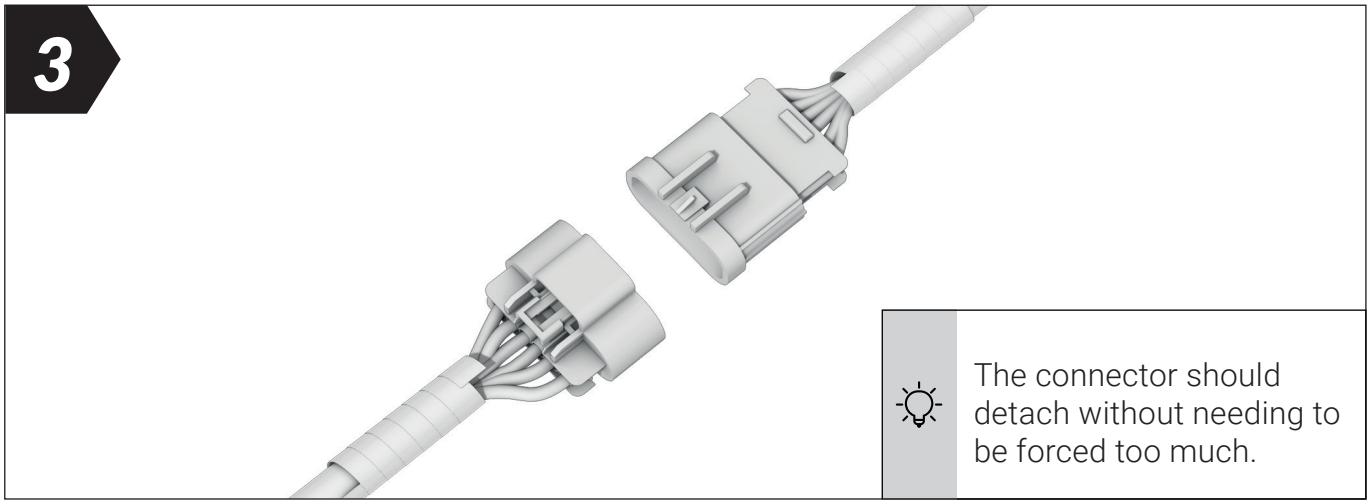


2



If the connector still sticks after you have released the retaining clip, you can **wiggle** the connector gently as you pull it.

3

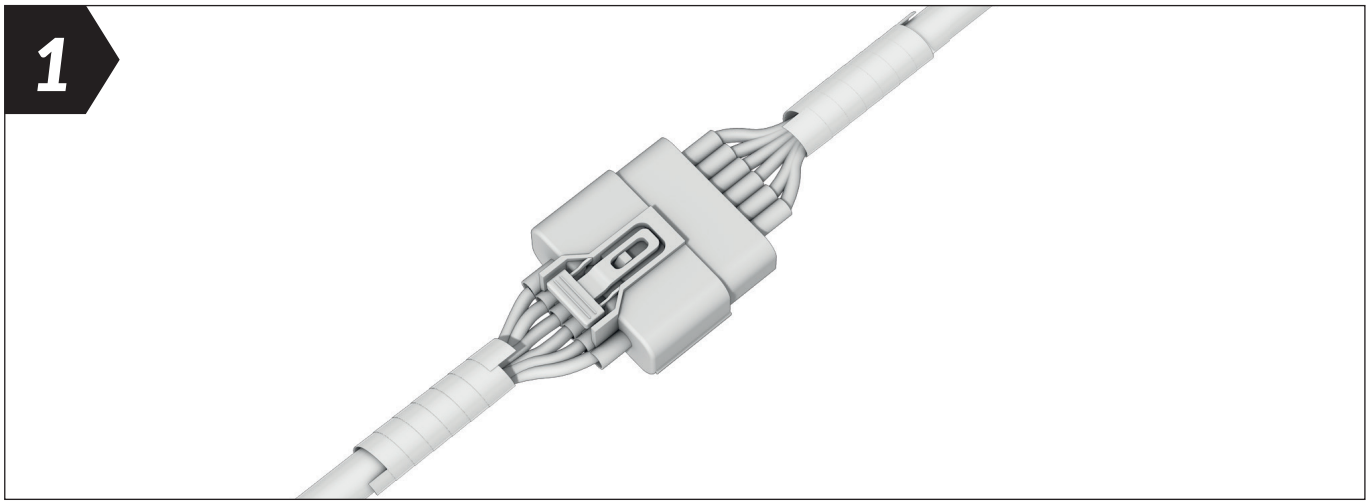


The connector should detach without needing to be forced too much.

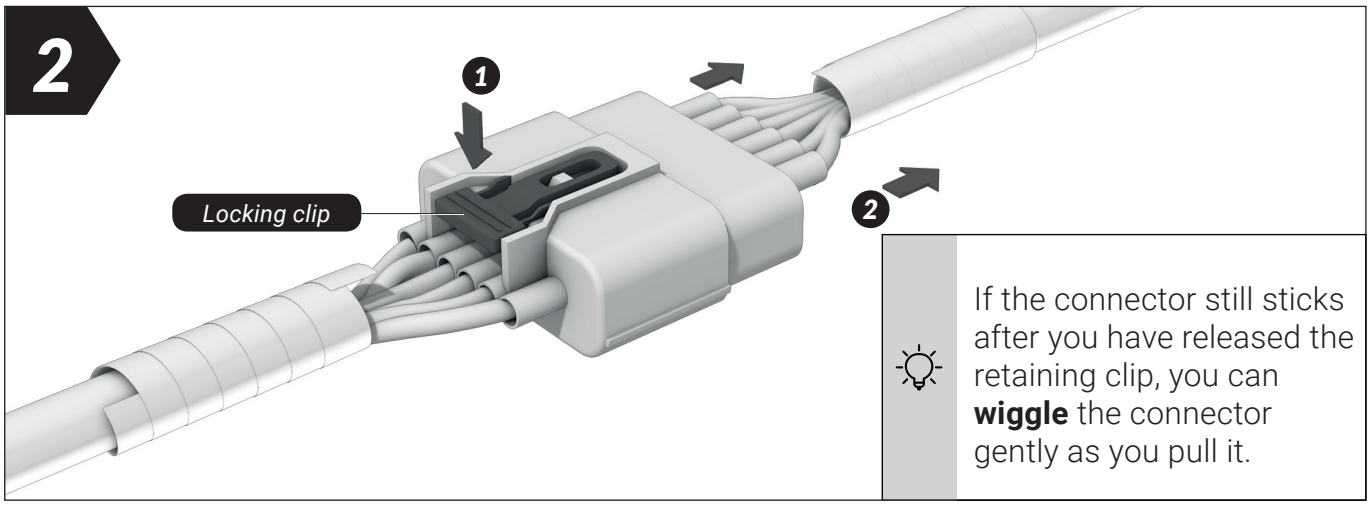
Detaching the connector correctly

Connector number CL-X-2901

1

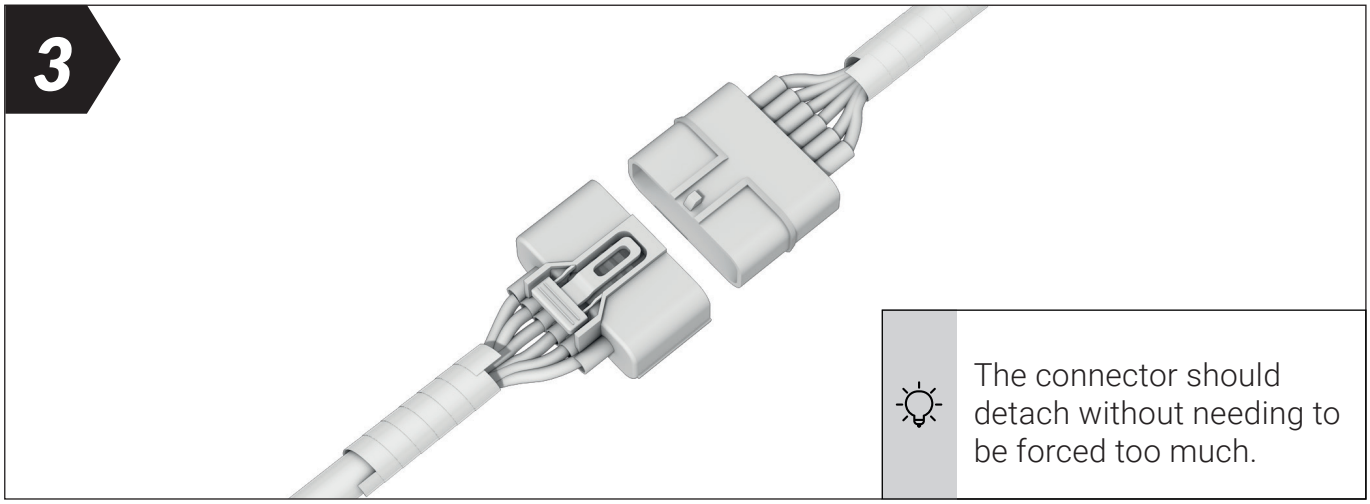


2



If the connector still sticks after you have released the retaining clip, you can **wiggle** the connector gently as you pull it.

3



The connector should detach without needing to be forced too much.