

BMW Gxx to Fxx Steering Wheel Retrofit Adapter

Installation manual

Revision 1.0

03/2023

WARNING

Qualified personnel with experience in automotive electronics, who are conversant with safety measures related to the use of electrical equipment, and who are conversant with the contents of this manual are allowed to work with the adapter.



BEFORE INSTALLING THE ADAPTER, YOU MUST DISCONNECT THE POWER TERMINALS FROM THE CAR BATTERY (FOR YOUR SAFETY DURING INSTALLATION).

Any access to the internal part of the adapter, inside the case, will lead to the loss of the factory warranty. If your adapter needs repair, please contact us and we will assist you (**Our support contacts**).

The manufacturer is not responsible for damaged equipment during the installation of the adapter, or during the operation of the adapter, as well as material, moral damage or loss of health.

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1. Preface

This manual contains an adapter installation guide and will help you to install the BMW Gxx steering wheel in an Fxx vehicle.



Picture 1 The view of the interior of the car before replacing the steering wheel



Picture 2 The view of the interior of the car after replacing the steering wheel

1.1. Audience

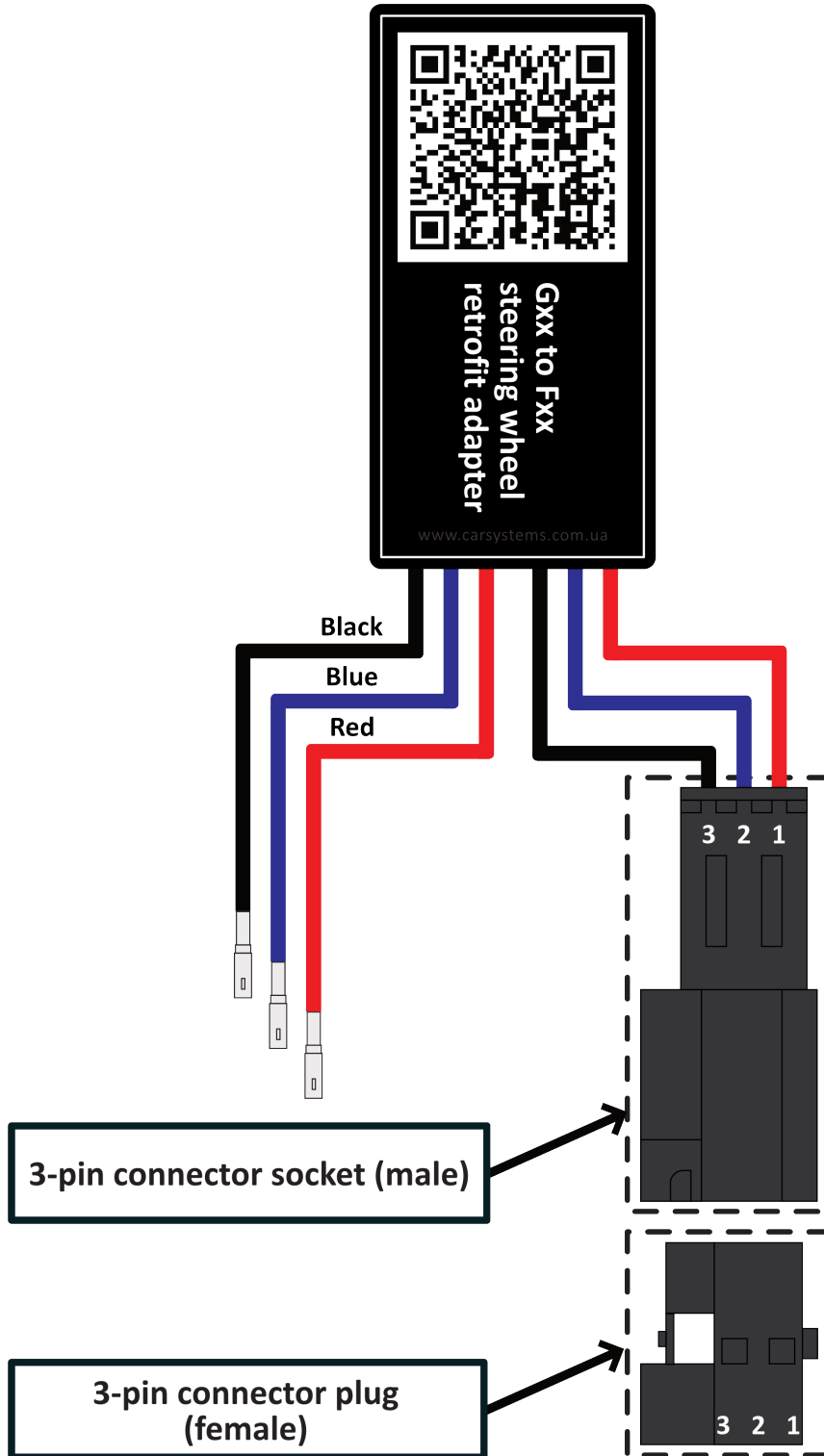
The document describes an installation procedure of the BMW Gxx to Fxx Steering Wheel Retrofit Adapter (hereinafter adapter) and is intended for customers, partners, and employees of CarSystems.

This document provides instructions and graphics needed to the install adapter.

1.2. Pre-installation skills

This document assumes that you are already familiar with automotive electronics, and have knowledge and experience in this field. Advanced car diagnostic skills are welcomed.

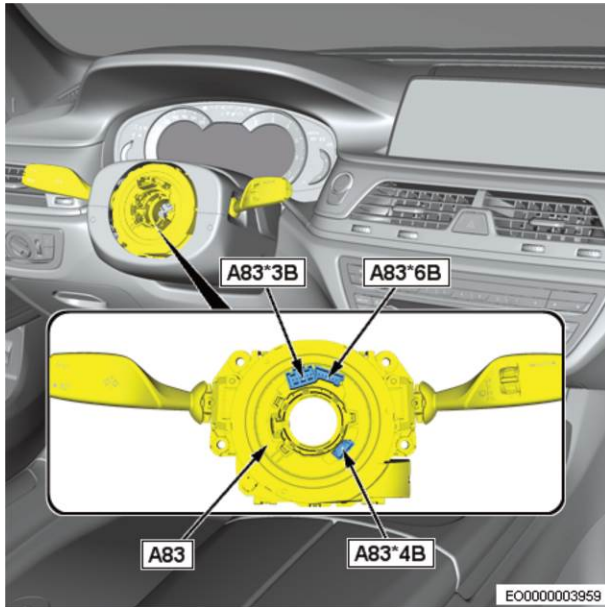
2. Delivery kit and appearance



Picture 3 Appearance

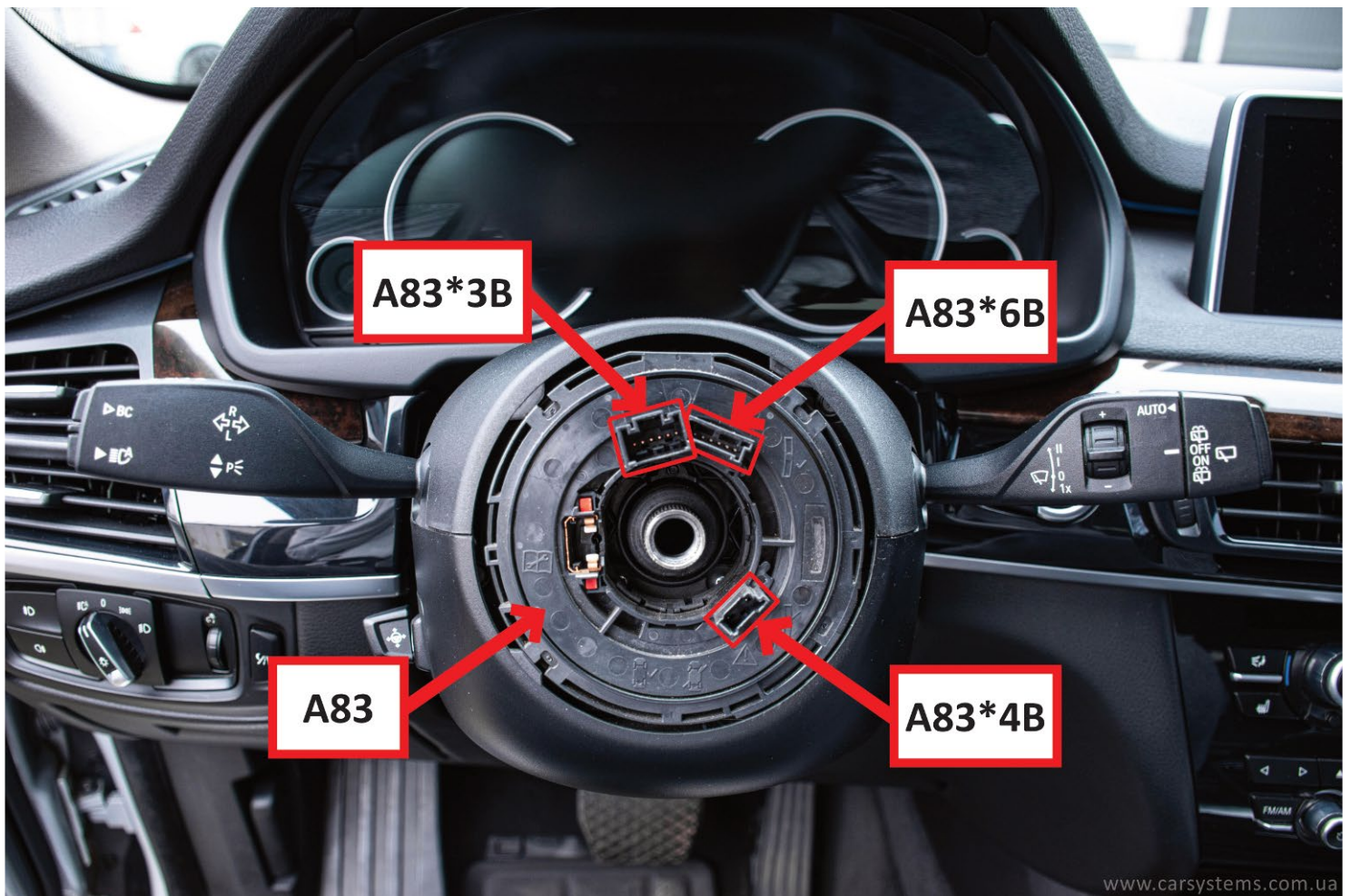
- Adapter (BMW Gxx to Fxx Steering Wheel Retrofit Adapter);
- 3-pin connector plug (female).

3. Location of connectors on the steering wheel column



- Description of the steering wheel column connectors A83 (pictures 4 and 5):
 - A83*3B – AirBag connector (**hereinafter AirBag connector**);
 - A83*6B – Steering wheel buttons connector (**hereinafter steering wheel buttons connector**);
 - A83*4B – Power connector for additional options such as steering wheel heating or driver assistants. This connector is optional, its availability depends on the equipment installed on the car (**hereinafter, the optional power connector for additional options**).

Picture 4 Steering wheel column connectors



Picture 5 Steering wheel column connectors

4. Installation process

4.1. Removing the Fxx steering wheel from the steering wheel column of the Fxx car



Important: the vehicle must be switched off, with the ignition key removed from the ignition switch, and battery terminals disconnected from the battery!

- To unlock AirBag latches press points (Picture 6).



Picture 6 AirBag latches location

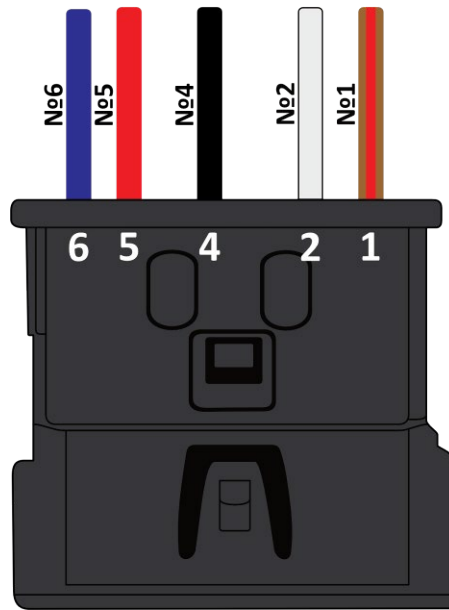
- Disconnect the plugs from the connectors of the Fxx steering column (Picture 5):
 - The AirBag plug;
 - The plug of the steering wheel buttons;
 - The plug of the optional power connector for additional options.
- Remove the Fxx steering wheel from the steering column of the Fxx car.

4.2. Installing the adapter

To connect the adapter to the steering wheel buttons connector plug, tools similar to those shown in Picture 7 are needed.



Picture 7 Tools needed for adapter installation



Picture 8 Steering wheel buttons connector plug

Table 1 Wire coloring scheme on different versions of the Gxx steering wheel

Pin number	Wire color				Signal description
	G05 steering wheel (leather variant)	G05 steering wheel	G11 steering wheel (leather variant)	G11 steering wheel	
1	Brown-red	Black	Brown	Yellow	HORN
2	White	Red	White	Black	SP_SIGN
3	None	None	None	None	None
4	Black	White	Black	Green	GND
5	Red	Yellow	Red	Blue	+12V
6	Blue	Grey	Blue	Red	LIN



Before starting the connection, you need to mark the wires located in contacts 4, 5, and 6 to avoid connection errors (the colors of the wires depend on the steering wheel you are installing). The coloring scheme used in this instruction is from the G05 steering wheel (leather variant).

4.2.1. Adapter connection

Wiring diagrams and photos before and after upgrade are shown on pictures 9...12.

Coloring scheme is shown in Table 1.

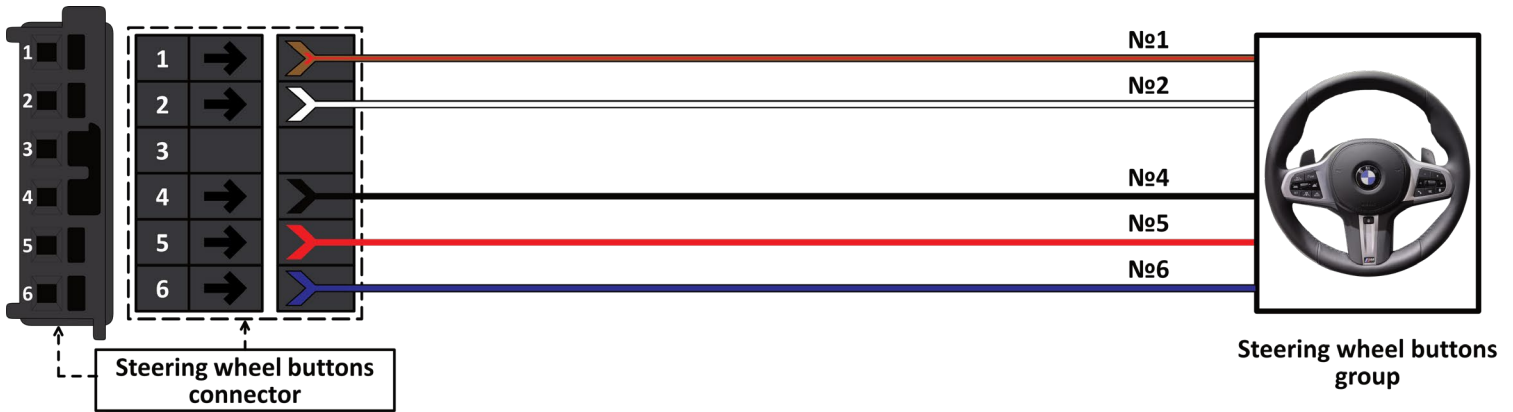
- Remove the wires from the steering wheel buttons connector plug and insert them in the 3-pin connector plug:

Steering wheel buttons connector plug	3-pin connector plug
Pin 4	Pin 1
Pin 5	Pin 3
Pin 6	Pin 2

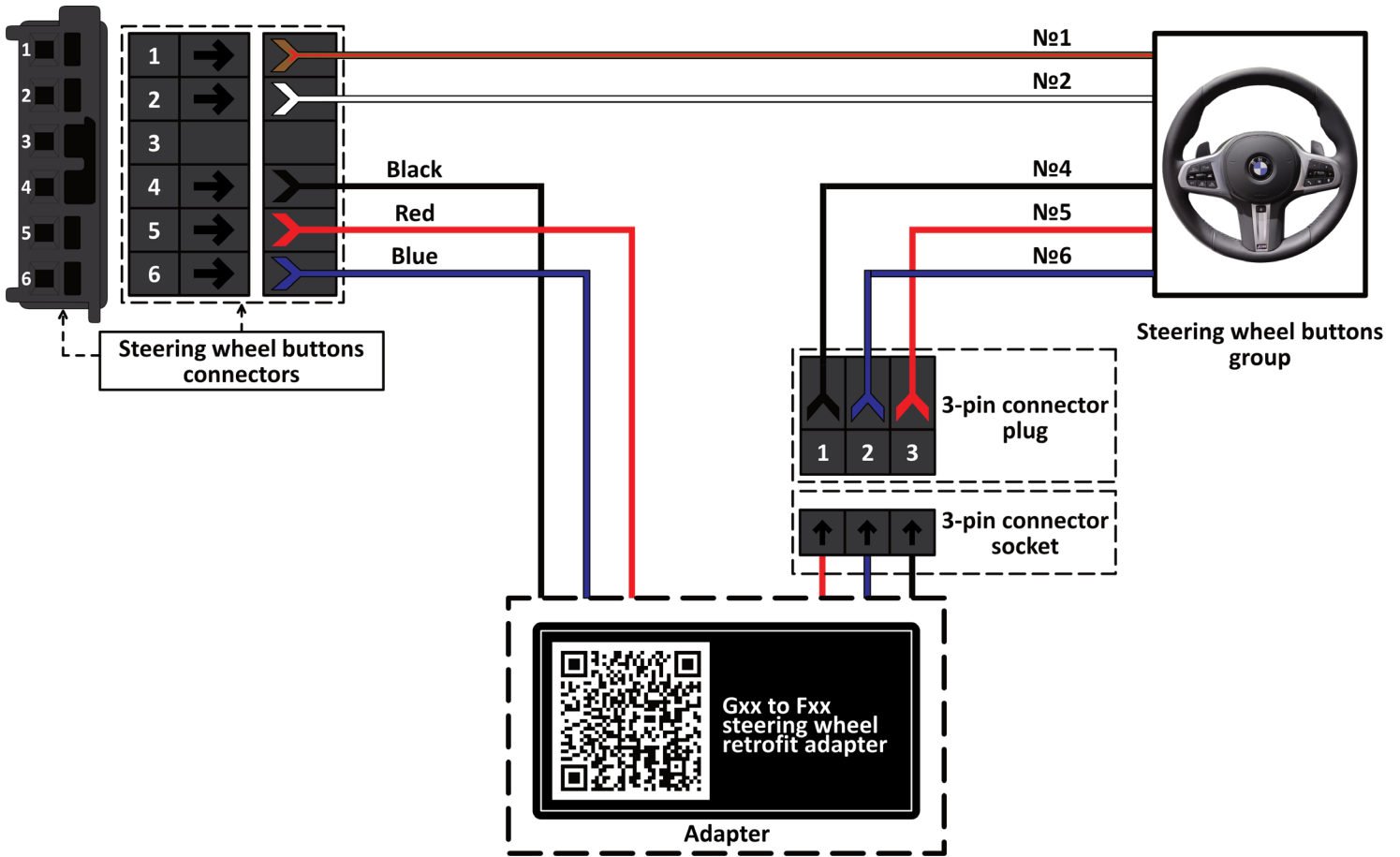
- Three wires from the adapter need to be fixed in the plug of the steering wheel buttons connector:

Adapter wires	Steering wheel buttons connector plug
Black	Pin 4
Red	Pin 5
Blue	Pin 6

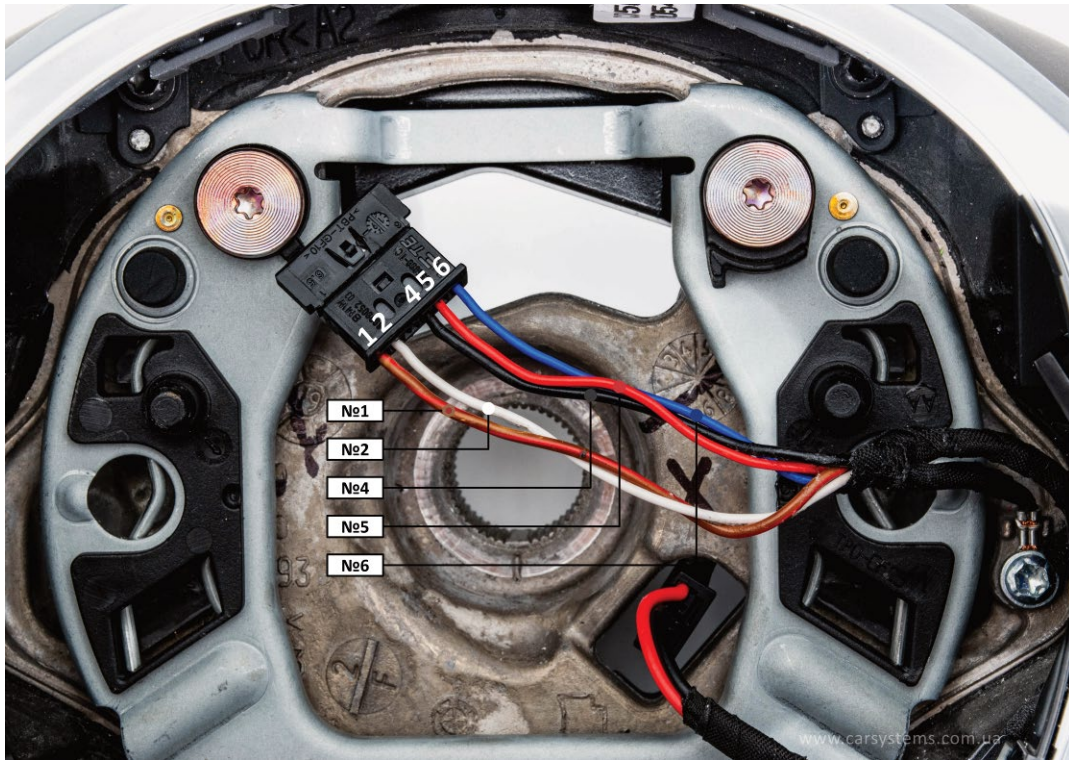
- Lock the plug of the 3-pin connector into the 3-pin connector socket.



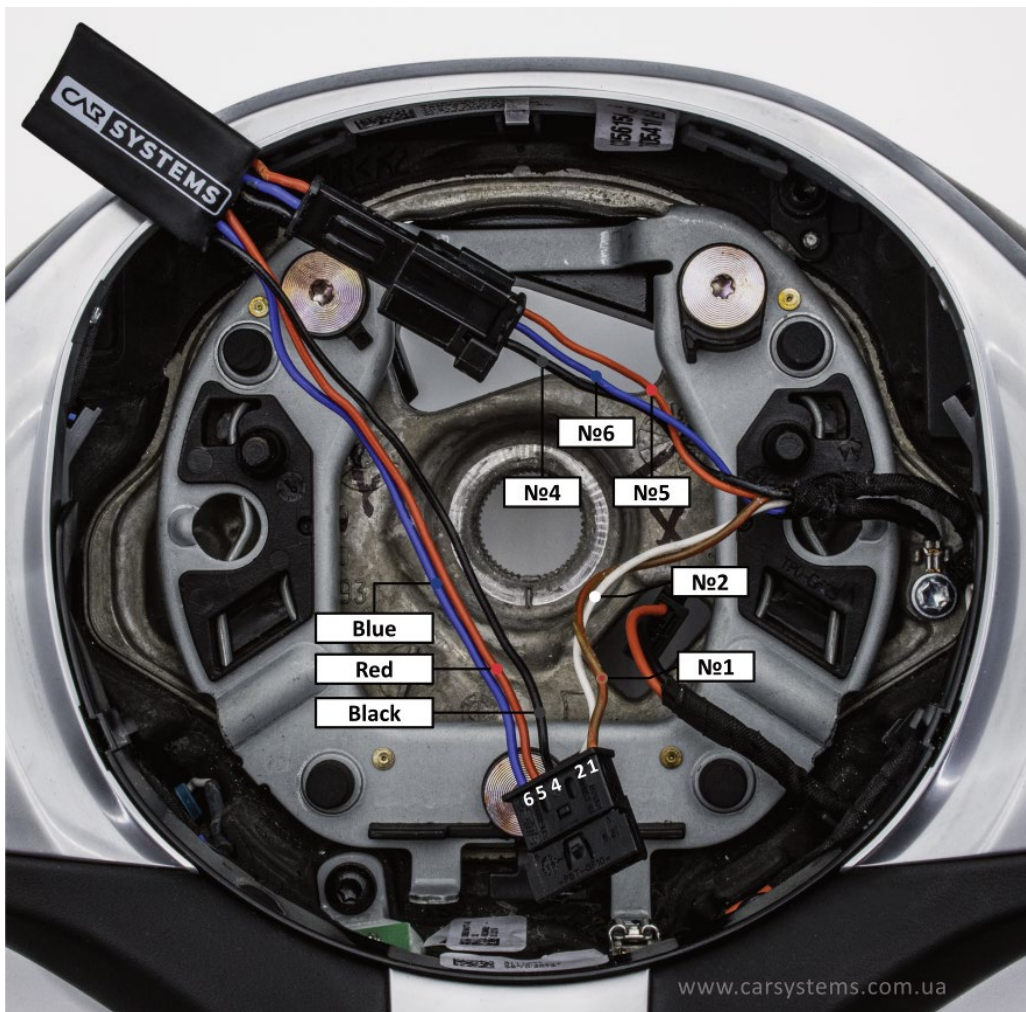
Picture 9 Wiring diagram of the steering wheel buttons connector before the adapter was connected



Picture 10 Connection diagram of the steering wheel buttons connector, after the adapter has been connected



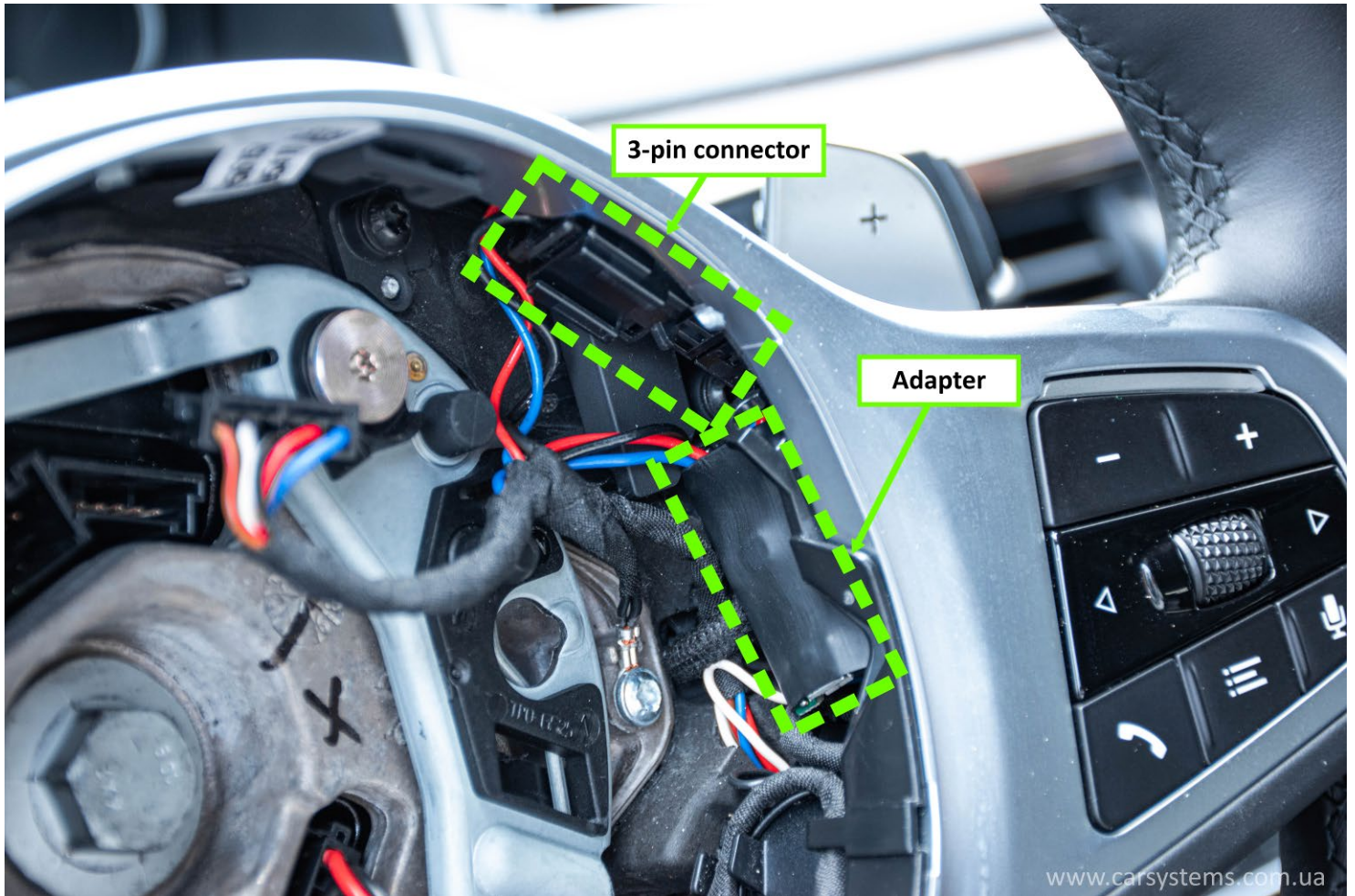
Picture 11 Steering wheel buttons connector plug, before connecting the adapter



Picture 12 Steering wheel buttons connector plug, after connecting the adapter

4.3. Adapter location

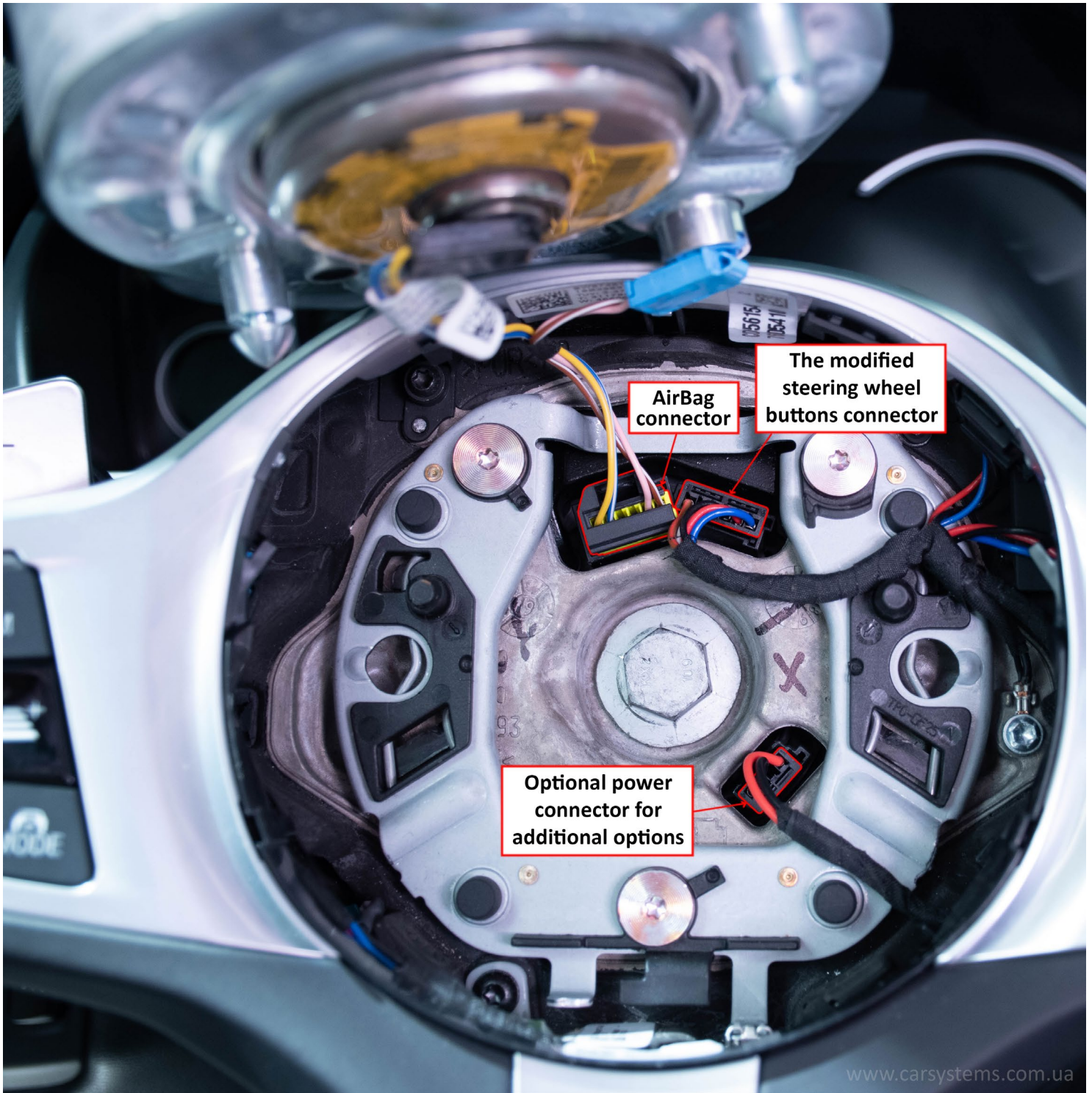
On the picture below shows recommended location of the adapter.



Picture 13 Recommended location of the adapter

4.4. Installation of the Gxx steering wheel in the Fxx car with adapter

Install the Gxx steering wheel with adapter to the Fxx steering column (Picture 14).



Picture 14

- Plug the optional power connector for additional options (A83*4B) in its location (Picture 14);
- Plug the modified steering wheel buttons connector (A83*6B) in its location (Picture 14);
- Plug the AirBag connector (A83*3B) in its location (picture 14);

- Lock the AirBag in the steering wheel (To fasten AirBag, press to AirBag until you hear a click).



Picture 15 The final look of the Fxx interior with Gxx steering wheel

5. Our contacts



Email: support@carsystems.com.ua



Phone: [+38 \(096\) 809-00-11](tel:+380968090011)



Skype: [carsystems.support](https://www.skype.com/people/carsystems.support)



Viber: [+38 \(096\) 809-00-11](tel:+380968090011)



Telegram: [@CarSystems_Support](https://www.telegram.com/@CarSystems_Support)

We provide technical support during working hours: From Monday to Friday (except public holidays). From 10:00 to 19:00 (UTC +2:00).

Due to the increase in the number of unsolicited e-mails, we have strengthened our protection against spam. If your letter has not been delivered, please contact us via Skype or via the request form on our website <https://carsystems.com.ua/contacts/>.

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