TELE Compass 2 4G

At-0003, At-0003e, LBC_4g v.2.3.2,
AT-0002, AT-0002e, LBC 2G v2.3.3

INSTALLATION MANUAL

AUTHOR ALARM

The installation environment of the product is dry and rainless. The installation location is inside the vehicle control box, and the installation method is wired installation.

Compass 2 4G is a cutting-edge search module that helps users monitor users' car's location and manage AUTHOR-ALARM'S security and service devices. Users can manage the module via the Author Connect mobile application or SMS commands. Its working distance is far than 20 cm from human body.

Dear Client,

To install AUTHOR-ALARM anti-theft equipment, please use authorized dealerships or certified installation centers **only**.

The developer and manufacturer cannot be held liable for any damage resulting from the use of equipment for other than its intended purpose, non-compliance with safety rules, or neglecting the requirements set out herein. AUTHOR-ALARM equipment installed by any other third parties or individuals is not subject to warranty and service maintenance.

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BACKGROUND INFORMATION

AUTHOR TELE COMPASS 2 (hereinafter referred to as COMPASS 2) is a universal telematic module that helps you monitor your car's location and manage AUTHOR-ALARM's security and service devices. You can manage the module via the Author Connect mobile application or SMS commands.

Key benefits:

- **A global GSM module** working in any 2G cellular network.
- **Built-in GSM and GPS modules** help to monitor your car's location in real time or by schedule.
- **Voice and SMS notifications** about alarm events.
- **The Tracking feature** helps you monitor your car's movement and organize information about trips.
- **An engine temperature sensor** for autostart as per temperature (if AUTOSTART is installed).
- **Handy Author Connect** to manage COMPASS 2 and devices that interact with it.
- **Two configurable outputs** for analog management of optional devices.
- **Control over** the **IGLA** anti-theft system and **AUTOSTART** system.
- **A configurable input** for connecting an external security sensor.
- **A USB port** for configuration via Author Config Tool.

ATTENTION!

- The manufacturer reserves the right, without any prior notice to the user, to introduce changes to the product design to improve its operation and technical specifications.
- These features may vary depending on the car's brand, model, equipment, and year of manufacture. For more details, please contact official dealerships[1], certified installation centers, or AUTHOR-ALARM's Technical Support.
- Do not keep the personal owner card and this manual inside the car.
- Do not disclose to third parties any information indicated in the personal owner card.
- Do not keep this manual inside the car.

GSM operation requirements

In order to manage COMPASS 2 via Author Connect or SMS:
- Keep a positive balance on the subscriber number of the SIM card installed in the module.
- Make sure the SIM card is connected to mobile Internet.

> *ATTENTION! The device's owner shall properly monitor and top up the balance of the SIM card installed in the module.*

1 Centers authorized to install AUTHOR-ALARM devices.

> ⚠️ *If there is not enough credit on the SIM card, the module management may be limited or impossible. To be able to manage the module again, just top up the balance as per your mobile operator's tariffs.*

> ⚠️ *If you are unable to manage the module due to lack of funds on the SIM card, this is neither a malfunction nor a reason for a warranty or post-warranty maintenance.*

INSTALLATION

> ⚠️ *Connect COMPASS 2 to the car only when ignition is off.*

> ⚠️ *It is recommended to use a fuse to protect the power circuit.*

Functionality of COMPASS 2 wires

1. **Black.** Ground "–".
2. **Red.** Permanent "+" (12V).
3. **Black/White.** Engine temperature sensor.
4. **Black/White.** Engine temperature sensor.
5. **Brown.** CAN-H.
6. **White.** CAN-L.
7. **Orange.** Configurable output no. 2 "–".
8. **Blue.** Configurable output no. 1 "–".
9. **Purple.** Input for alarm from an external device "–".
10. **Yellow.** Input "+" IGN1.

Insert or remove the SIM card only when the device is off.

For a detailed wiring diagram, please go to the service portal service.author-alarm.com, go to Documentation and files, and click on the device you wish to install.

External inputs and outputs of COMPASS 2 are used to connect optional devices. See Page 19.

To improve the satellite signal reception and increase the accuracy of detecting your car's location, install an external GPS antenna for the COMPASS 2 telematic module. For the antenna installation and configuration manual, see the service portal service.author-alarm.com.

The manufacturer cannot be held liable for potential consequences of failure to observe safety measures (including damage to the car or malfunction of standard electrical equipment).

Connect CAN-L and CAN-H wires to the CAN bus only if you plan to use COMPASS 2 together with the IGLA anti-theft system or AUTOSTART system.

If COMPASS 2 is not installed together with the IGLA anti-theft or AUTOSTART systems, you will have to connect the yellow wire (IGN1 "+") to the ignition circuit to make the Tracking feature work.

The place of installation must meet the following criteria:
- Availability of the CAN bus to which IGLA's CAN is connected to ensure the possibility of control.
- Availability of constant power supply circuits (+12V and the ground).
- It is recommended to install the module in accordance with the inscription "This side up".
- It is recommended to install the module at the distance of more than 5 cm from metal parts of the car's body to avoid shielding.
- When laying the GPS antenna, avoid sharp bends, strains, or pinching of the antenna cable.

Wiring notes

- Bundle the wires and protect them with an insulating tape or corrugated tubing.
- Do not allow wires to be pinched with lining boards of the car's interior.
- Do not bend wires over sharp edges of the car's metal parts.
- Use the car's standard places for laying wires or rubber lead-throughs.
- Use corrugations when passing from the car's stationary part to the moving one and when installing any optional devices.
- Use a wire of the same or larger cross-section if you need to extend another wire.
- To ensure stealthiness of operation, choose insulating materials similar to those used in the car.

Connect a temperature sensor

The temperature sensor can be supplied: separately from the device or as part of it — connected to the device with wires.

If it is not connected, connect the black and white wires of COMPASS 2 and the black wires of the sensor pairwise. The polarity does not matter.

If the temperature sensor is already connected to the device, in case of need (for example, to install the sensor in the engine compartment), cut the sensor wires, extend them to the required length, and connect them again.

AUTHOR CONNECT APPLICATION

To obtain control via Author Connect, create a user account or sign in to the existing one, and pair it with the module. Author Connect supports smartphones operated by iOS 10.2 and higher, or Android 5.0 and higher. You can download the application in App Store or Google Play.

Download Author Connect

For more details regarding installation and operation of the application, please see the relevant manual at help.author-alarm.com*.*

Create a new account

Follow these steps:
1. Open Author Connect.
2. Click **Create user account**.
3. Enter the details required to create an account:
   • First name and last name.
   • Your phone number, starting with the country code.
   • Password— from 8 to 64 characters without spaces (Latin letters, numbers, special characters).
4. Check the box I accept the agreement terms[1].
5. Click **Next**.
   This phone number will receive an SMS with a confirmation code.
6. Enter a 6-digit SMS code → click **Confirm**.
   If the code is correct, you will be forwarded to Add device to user account.

Add COMPASS 2 to account

Follow these steps:
1. Install the device as per the wiring scheme.
2. Open Author Connect.

1 Before using the application, it is recommended to read the terms of the License Agreement. If you do not accept the terms of the License Agreement in full, it will be impossible to complete the registration and use the application.

3. In Add device to user account, enter the **serial number**[1] **and code GSM1** → click **Next**.
   The phone number specified during registration will receive an SMS with a confirmation code.
4. Enter a 6-digit SMS code → click **Confirm**.
5. The application will display the Control screen. The device will be added to the account and ready for use. You will also see a window asking you to enter the device's SIM card number.

⚠ *Do not scratch or use the code GSM2 under the protective layer! It is designed to add the module to the car owner's account.*

⚠ *You can add only one COMPASS 2 module to your account.*

⚠ *Once you have installed and added COMPASS 2 to your account, you may see a message saying, "Communication with the device <device number> is unavailable". In this case, check if Internet settings are correct and the SIM card has a positive balance.*

DEVICE PAIRING

To gain access to IGLA or AUTOSTART functionality via Author Connect, pair the devices first.

⚠ *Before you start the pairing process, add COMPASS 2 to the car owner's account via Author Connect.*

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1 The first set of digits below the barcode on the personal owner card.

> ⚠ It is possible to pair COMPASS 2 only with one IGLA anti-theft system and one AUTOSTART system.

Pairing with IGLA

> ⚠ To pair the devices, connect the COMPASS 2 module's CAN bus to the car's CAN bus to which IGLA's CAN1 bus or CAN2 bus is also connected.

Follow these steps:
1. Install both devices as per the wiring schemes.
2. Switch IGLA into the PIN Change mode by entering a PIN code. For more details regarding this algorithm, see the IGLA manual.
   The service indication signal will be repeating once every 3 seconds.
3. Launch Author Connect and sign in.
4. Click 🔘 → **Engineer settings** → confirm the action by clicking **Yes, continue**.
5. In Manage optional devices, click on the IGLA status (Not paired) → the process will start.
   If successful, 2 service indication signals will follow. In Settings and Engineer settings, Author Connect will update the device pairing status (Paired).
6. Turn off ignition.

Pairing with IGLA C

> ⚠ IGLA C is paired with COMPASS 2 via the CAN1 bus.

Connect COMPASS 2 to the same CAN bus to which IGLA C is connected.

Follow these steps:
1. Install both devices as per the wiring schemes.
2. Apply power "+" to IGLA C's gray and red wires **simultaneously**.
3. Turn on ignition.
4. Launch Author Connect and sign in.
5. Click ⊙ → **Engineer settings** → confirm the action by clicking **Yes, continue**.
6. In Manage optional devices, click on the IGLA C status (Not paired) → the process will start.
    If successful, 2 service indication signals will follow. In Settings and Engineer settings, Author Connect will update the device pairing status (Paired).
7. Turn off ignition.
8. Disconnect IGLA C's red and gray wires from "+" to get restarted.
9. Connect the red wire to the "+" power supply circuit. Do not connect the gray wire.

Pairing with AUTOSTART

Connect COMPASS 2 to the same CAN bus to which AUTOSTART is connected.

Follow these steps:
1. Install both devices as per the wiring schemes.
2. Switch AUTOSTART into the Firmware Update mode. For more details regarding this algorithm, see the AUTOSTART manual.

3. Launch Author Connect and sign in.
4. Click 🎯 → **Engineer settings** → confirm the action by clicking **Yes, continue**.
5. In Manage optional devices, click on the AUTOSTART status (Not paired) → the process will start.
   If successful, 2 service indication signals will follow. In Settings and Engineer settings, Author Connect will update the device pairing status (Paired).
6. Turn off ignition.

⚠ *You can pair the devices via an SMS command. See Page 18.*

MANAGE AND CONFIGURE VIA SMS

You can manage and configure the module by sending SMS commands to the phone number of the module's SIM card.

General view of an SMS command: [password] [text]

⚠ *The default password is 1234.*

⚠ *The phone number of the SIM card is indicated in the personal owner card, which is part of the complete set.*

⚠ *If COMPASS 2 operates in the Beacon mode, commands are accepted and executed only when the device goes online.*

To configure and manage the module, follow these steps:
1. Send an SMS command to the phone number of the module's SIM card.
    Example: 1234 set APN+[1]
2. An SMS response will follow, confirming execution of the command or reporting an error.
    Example: APN is set to auto mode

For the full list of SMS commands for COMPASS 2, please go to *help.author-alarm.com*.

⚠ *Some SMS commands require joint connection and pairing of COMPASS 2 with the IGLA anti-theft system and/or AUTOSTART system.*

Firmware update

Update the firmware in time for a better device operation and new features. COMPASS 2 allows to update firmware remotely, so you do not have to uninstall the device.

⚠ *It is not recommended to send other commands or request the device's coordinates before the firmware update process is completed.*

⚠ *To update the firmware correctly, ensure stable connection throughout the entire process. It is not recommended to update the firmware in indoor or underground parking lots or while driving.*

1 The example shows the command to configure APN automatically.

To update the firmware, follow these steps:

1.   Send the SMS command: **[password] fwupdate**.
2.   Four SMS messages will follow:
     2.1 FW UPDATE Download OK, start flashing...
     2.2 FW UPDATE OK v.[old firmware version] -> v.
         [new firmware version] (new)
     2.3 Updating audio files...
     2.4 Audio files updated
3.   Firmware will finally be updated upon receipt of the
     fourth SMS message. If an error occurs, it is recom-
     mended to repeat the firmware update procedure
     once again.

If the latest firmware is already installed, a reply message
saying "No firmware updates are available" will follow.

Access point configuration (APN)

After replacing your SIM card that was part of the set
with a card of another mobile operator, configure access
point (APN) parameters. To configure access point param-
eters automatically, send the SMS command: **[password]
set APN+**.

If automatic configuration is unavailable, set access point
parameters manually. To that end, send the SMS com-
mand: **[password] [access point name], [login], [pass-
word]**. You can clarify APN parameters with your mobile
operator on its official website.

Change SMS password

To change the default password, send the SMS command:
[password] pass [new password]. The password must contain only figures and be exactly 4 characters long.

Emergency reset of SMS password

Follow these steps:
1. Scratch off the **Emergency reset** field of the personal owner card to learn the emergency code.
2. Send an SMS with the code to the phone number of the module's SIM card.
3. In response, you will receive an SMS with the text "+" to confirm that the password has been reset to default (1234).

Choose an operating mode

To select an operating mode, send one of the following SMS commands:
*   To enable Beacon mode, send the SMS command: **[password] set mode beacon**.
*   To enable Tracker mode, send the SMS command: **[password] set mode track**. Set by default.

For more details, please see Page 23.

Pairing via SMS

To pair COMPASS 2 with IGLA, follow these steps:
1. Install both devices as per the wiring schemes.
2. Turn on ignition but do not start the engine.
3. Switch IGLA into the PIN Change mode by entering a PIN code. For more details regarding this algorithm, see the IGLA manual.
    The service indication signal will be repeating once every 3 seconds.
4. Send the SMS command: **[password] set can immo+**.
    If successful, pairing will be confirmed with a reply message saying "Immobilizer pairing successful" and 2 service indication signals. In Settings and Engineer settings, Author Connect will update the device pairing status (Paired).
5. Turn off ignition.

To pair COMPASS 2 with AUTOSTART, follow these steps:
1. Install both devices as per the wiring schemes.
2. Turn on ignition but do not start the engine.
3. Switch AUTOSTART into the Firmware Update mode. For more details regarding this algorithm, see the AUTOSTART manual.
4. Send the SMS command: **[password] set can as+**.
    If successful, pairing will be confirmed with a reply message saying "Autostart pairing successful" and 2 service indication signals. In Settings and Engineer settings, Author Connect will update the device pairing status (Paired).
5. Turn off ignition.

Choose the data source

The data on any changes in the status of the car's circuits and systems that are displayed by Author Connect depend on devices:
- If COMPASS 2 is connected jointly with IGLA **or** AUTOSTART, the connected device (IGLA or AUTOSTART) will act as the CAN data source.
- If COMPASS is 2 connected jointly with IGLA **and** AUTOSTART, IGLA will act as the CAN data source.

Assign a priority device to manage the central lock

This setting helps you assign the priority device in order to manage the central lock via the CAN bus by using Author Connect. IGLA is the priority device by default.

> ⚠ *To assign the priority device, the firmware version of COMPASS 2 must be at least 2.0.*

- To assign AUTOSTART as the priority device, send the SMS command: **[password] set doorlock dest 2**.
- To assign IGLA as the priority device, send the SMS command: **[password] set doorlock dest 1**.

Connect optional devices

Outputs 1 and 2 (a blue wire and an orange wire respectively) are designed to connect and manage optional devices. The control is carried out by sending a signal with negative potential on the car owner's command.

- To activate an output, send the SMS command: **[password] out[output no.: 1 or 2] on**.
- To deactivate an output, send the SMS command: **[password] out[output no.: 1 or 2] off**.
- To set the run duration of the external output in the range from 1 to 1,000 seconds, send the SMS command: **[password] out[output number 1 or 2] on [run duration]**.

Configure alerts about alarm events

The external input of COMPASS 2 gets activated upon detection of an alarm event. When a signal is received from an external device connected to an auxiliary input with the negative potential[1], the module sends the owner an SMS alert coupled with the car's current location data.

To configure the alert text, send the SMS command: **[password] intext [alert text]**.

Change the central lock management algorithm

If your car does not support central lock control via CAN bus with IGLA or AUTOSTART, you can use analog circuits.
1. **Blue wire**. Output 1 "–". Pulse to shut the central lock.
2. **Orange wire**. Output 2 "–". Pulse to open the central lock.

1 For example, the status of ignition on, limit switches for doors, baggage compartment, or hood.

- To enable control via analog circuits, send the SMS command: **[password] set doorlock mode 1**.
- To enable control via the CAN bus with help of IGLA or AUTOSTART, send the SMS command: **[password] set doorlock mode 2**.

Tracking settings

The feature allows to track your car's trips and organize information about them. If the feature is on, the history will save all the trips made with COMPASS 2 installed.

You can configure and manage the Tracking feature via Author Connect and SMS.

- To get information about the current settings, send the SMS command: **[password] set track ?**.
- To enable the feature, send the SMS command: **[password] set track mode 2**.
- To disable the feature, send the SMS command: **[password] set track mode 0**.

To streamline the feature, you can configure such parameters as the frequency of detecting and sending coordinates to the server. The more often the device requests your car coordinates, the more accurately and smoothly the route will be displayed on the map. The default values are optimal and can be changed if necessary.

The frequency of detecting and sending coordinates affects traffic consumption.

- To set the coordinate detection frequency in the range from 1 to 60 seconds, send the SMS command: **[password] set track period [period from 1 to 60]**.
- To set the frequency with which coordinates are sent to the server in the range from 1 to 60 seconds, send the SMS command: **[password] set track pack [period from 1 to 60]**.

CONFIGURATION VIA AUTHOR CONFIG TOOL

A microUSB port enables you to change COMPASS 2 settings via Author Config Tool. You can carry out configuration right after connecting the module to a PC, without the need to apply any +12V power supply.

> *The tool supports only personal computers operated by Windows 7 or higher.*

To carry out the configuration, follow these steps:
1. Download the archive containing the tool from the service portal *service.author-alarm.com*.
   Documentation and files — Files — Author Config Tool — config_tool_64.7z
2. Go to the folder containing the archive.
3. Extract the archive to a local folder with write rights.
4. Connect COMPASS 2 to your PC via microUSB.
5. Go to the folder and launch config_tool_x64.
6. In the window that opens, click **Connect**. The tool will detect all connection parameters automatically.
7. Change the required settings.

OPTIONS OF USE

Configure COMPASS 2 to work as per the options of use below. Each of the options provides a different functionality, so you can efficiently monitor and control your car's movements.

1. COMPASS 2 as a GPS beacon

In the Beacon mode, COMPASS 2 is mostly offline — the thieves will be unable to detect it with a GSM device scanner. It transmits the car's coordinates by schedule. With its flexible settings, you can set two independent schedules for convenient use.

⚠️ *In the Beacon mode, COMPASS 2 supports control via SMS only.*

The module resumes operation by schedule or when the following events occur:
- An SMS command received for managing the module.
- The negative potential occurs on the purple wire (a configurable input).
- An alarm event occurs[1]:
  - Engine blocking triggered.
  - Standard alarm triggered.
  - Anti-carjacking triggered.
  - Switching into the Service mode.
  - Reprogramming of standard keyfobs attempted.

1 It is available subject to joint installation and pairing with IGLA or AUTOSTART.

2. COMPASS 2 as a tracker

In the Tracking mode, COMPASS 2 is always online and it is constantly informing the owner of the car's location via Author Connect. The module keeps the history of movements and stopping points, so you have a detailed picture of your car's trips. In this mode, COMPASS 2 is constantly online with the server, so the module is ready to execute commands sent via Author Connect or SMS.

! *The Tracker mode is set by default.*

3. COMPASS 2 as an add-on module

COMPASS 2 can serve as an add-on module for IGLA and AUTOSTART. This enables you to enjoy extra features provided by COMPASS 2 and to manage and configure the IGLA and AUTOSTART systems via Author Connect and SMS.

! *For this option of use, select the Tracker mode.*

Feature	IGLA	AUTOSTART
Alarm notifications	+	+
SOS numbers	+	+
Remote control over engine blocking	+	–
Management and configuration of AUTOSTART	–	+
Service mode	+	+

Feature	IGLA	AUTOSTART
Central lock control	+	+
Car status control	+	+
Event feed and push notifications	+	+

SPECIFICATIONS

Operating voltage	8-15.5V
Operating temperature	-40°C up to +80°C
Current consumption	
In the Beacon mode	Not over 1.5mA
In the Stand-by mode	Not over 20mA
In the Data Transfer mode	Up to 200mA
Load capacity of configurable outputs	Up to 250mA

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CE

Manufactured by AUTHOR-ALARM
E20*10R06/01*004548*00

author-alarm.com

Version as of 29 January 2024

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Any Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:
-Reorient or relocate the receiving antenna.
-Increase the separation between the equipment and receiver.
-Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
-Consult the dealer or an experienced radio/TV technician for help.
-This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

The installation environment of the product is dry and rainless. The installation location is inside the vehicle control box, and the installation method is wired installation.