CombiProtect Fibra User Manual

Updated July 25, 2022



CombiProtect Fibra is a wired motion and glass break detector. Detects movement at a distance of up to 12 meters and glass break at a distance of up to 9 meters. Together with the IR sensor, it applies a radio-frequency scan that filters out thermal interference.

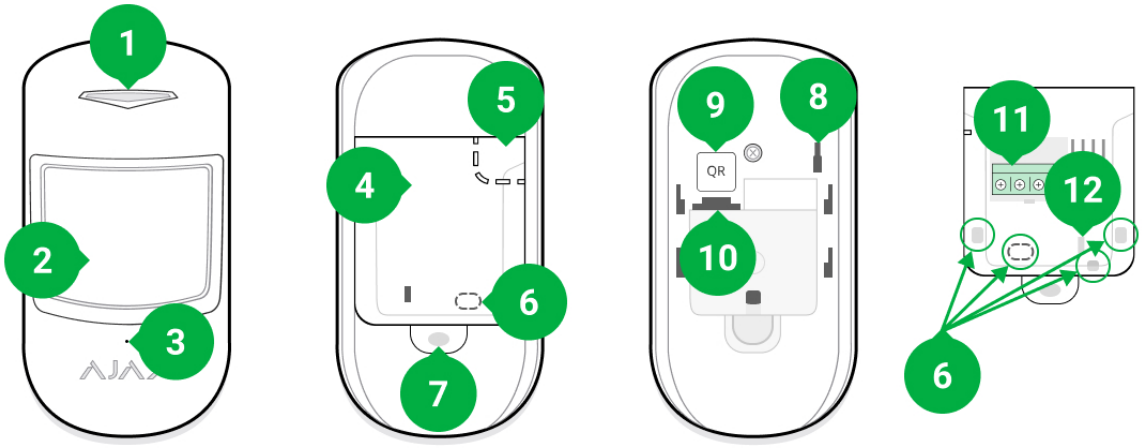
The detector is compatible with Hub Hybrid (2G) and Hub Hybrid (4G). Connection to other hubs, radio signal range extenders, ocBridge Plus, and uartBridge is not supported. Integration with other security systems is not provided

CombiProtect Fibra only works as a part of the Ajax security system, communicating with the hub via the secure Fibra protocol. The wired connection range is up to 2000 meters when connected via the twisted pair U/UTP cat.5.

CombiProtect Fibra is the device of the new Fibra wired product line. Such devices can only be purchased, installed and administered by accredited Ajax partners.

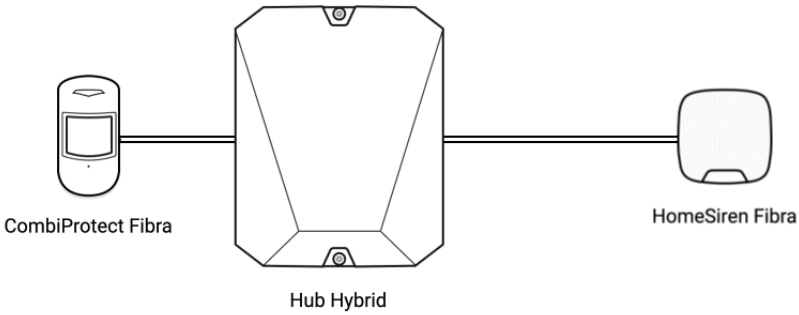
Buy CombiProtect Fibra

Functional elements



1. LED indicator.
2. Motion detector lens.
3. Break detector microphone.
4. SmartBracket mounting plate. To remove the plate, slide it down.
5. Perforated part of the mounting plate. Necessary for tamper triggering in case of any attempt to detach the detector from the surface. Do not break it off.
6. Perforated part for cable output.
7. The hole for attaching the SmartBracket mounting panel with a screw.
8. **Tamper button**. Triggers when an attempt is made to detach the detector from the surface or remove the mounting panel.
9. QR code. Used to connect the detector to the Ajax security system.
10. Terminal block connection socket.
11. Terminal block for detector connection.
12. A hole for fixing the wires with ties.

Operating principle



CombiProtect Fibra is a wired motion and glass break detector. In the armed mode, the detector instantly transmits an alarm signal to the hub when it detects movement or break. The hub, in turn, activates the sirens connected to the system, launches **scenarios**, and notifies users and the security company.

How Ajax notifies users of alerts

All CombiProtect Fibra alerts and events are recorded in the notification feed of the Ajax app. Users know exactly where motion or glass break is detected. The notifications contain the name of the hub (name of the guarded facility), the name of the device, the type of alert, and the **virtual room** to which the detector is assigned.

Motion detector

Using IR (infrared) sensors, CombiProtect Fibra identifies intrusions by detecting moving objects with temperatures close to that of the human body.

The digital SmartDetect algorithm eliminates false alarms, relieving users from unnecessary anxiety, and security companies — from false calls of patrols.

In the armed mode, the detector constantly reads the infrared sensor signals. When motion is detected, CombiProtect Fibra transmits an alarm to the hub and signals it by flashing the LED indicator (if indication is enabled).

More about Ajax motion detectors

Break detector

Glass break detection is provided through an electret microphone. To register a break, the detector must record a dull (low-frequency) sound of an impact sound and then a ringing (high-frequency) sound of falling fragments in 1.5 seconds.

The digital algorithm eliminates false alarms by verifying the break using two-factor verification. Therefore, the detector does not respond to the barking of dogs or cars passing by the protected facility.

CombiProtect Fibra will not respond to a break if a film is glued to the glass: anti-shock, sun-protective, decorative, or other. To detect the break of such glass, we recommend using detectors with a shock sensor: DoorProtect Plus or DoorProtect Plus Fibra

More about Ajax break detectors

The detector doesn't go into armed mode instantly. The time it takes to switch to armed mode depends on two factors: exit delays (specified in the detector settings) and the hub — detector ping interval (Fibra settings, the default value is 36 seconds). In the first case, the delay is set by a user or a PRO with administrator rights. In the second case, it takes one ping interval for the hub to notify the detector about the transition to armed mode

Fibra data transfer protocol

The detector uses Fibra technology to transmit alarms and events. This is a two-way wired data transfer protocol that provides fast and reliable communication between the hub and the rest of the devices. Using the bus connection method, Fibra delivers alarms and events instantly, even if 100 detectors are connected to the system.

Fibra supports floating key block encryption and verifies each communication session with devices to prevent sabotage and forgery. The protocol requires regular polling of detectors by the hub with a predetermined frequency to monitor communication and display the status of the system devices in real time in the Ajax apps.

More about Fibra protocol (in progress)

Pet immunity

CombiProtect Fibra does not react to animals up to 50 centimeters tall and weighing up to 20 kilograms when properly installed and configured.

The detector is installed 2.4 meters above the ground in a place without any obstruction to its view. For example, in a corner where the view will not be blocked by a closet or other furniture on which a pet can climb.

Correct setting requires the accurate choice of the detector sensitivity:

- High — the detector does not respond to cats (up to 25 cm tall).
- Medium — it does not respond to small dogs (up to 35 cm tall).
- Low — it does not respond to animals up to 50 cm tall.

When indoor motion detectors are installed below the recommended height, animals move in the hypersensitive zone. If a shepherd walks on its hind legs or even a small spaniel playson a chair, the detector can raise an alarm. The detector will also raise an alarm if the animal is able to jump to the level of the detector or move near it.

Why detectors react to animals and how to avoid this

How to install CombiProtect Fibra correctly

Temperature compensation

The detector perceives people and other objects as heat spots. The device monitors these heat spots and, if they move, detects an alarm. CombiProtect Fibra reacts to the movement of heat spots whose temperature is close to the human body.

When the ambient temperature is about the temperature of the human body, the correct operation of the detector is not guaranteed unless temperature compensation is applied. It is used in all Ajax motion detectors. With temperature compensation, the detector recognizes motion across the entire operating temperature range.

More on temperature compensation

Sending events to the monitoring station

The Ajax security system can transmit alarms to the **Ajax PRO Desktop** monitoring app as well as the central monitoring station (CMS) in the formats of the **SurGard (Contact ID)**, **ADEMCO 685, SIA (DC-09),** and other proprietary protocols. A complete list of supported protocols is **available here**.

Which CMSs can the Ajax security system be connected to

CombiProtect Fibra can transmit the following events through the hub to the CMS:

1. Motion alarm.
2. Glass break alarm.
3. Tamper alarm/recovery.
4. Loss/restoration of hub connection.
5. Temporari deactivation / activation of the detector.
6. Unsuccessful attempt to arm the security system (with **Integrity Check** enabled).

When an alarm is received, the operator of the security company monitoring station knows exactly what happened and where to send the fast response team. Addressability of each Ajax device allows you to send not only events but also the type of the device, the name assigned to it, and the room to the PRO Desktop or to the CMS. Note that the list of transmitted parameters may differ depending on the type of the CMS and the selected protocol for communication with the monitoring station.

The device ID, the loop (zone) number, and the bus number can be found in device states in the Ajax app.

Detector placement

When choosing the installation place of CombiProtect Fibra, consider the parameters that affect the proper operation of the detector: Fibra signal strength, the length of the detector connection cable, and the motion or break detection zone.

Consider the placement recommendations when designing your facility's security system. The security system should be designed and installed by professionals. The list of authorized Ajax partners is **available here**.

Design and preparation

For the system to work correctly, it is important to properly design the project and install all devices correctly. Failure to follow the basic installation rules and recommendations of this manual may result in detector malfunction, false alarms, or loss of connection with already installed devices.

When designing the layout scheme of the detectors, consider the wiring diagram of the power cables laid on the site. Signal cables must be laid at a distance of at least 50 cm from the power cables when lying parallel, and, if they intersect, it must be at a 90° angle. Detectors are connected in sequence if you connect multiple devices on the same bus.



The maximum number of connectable devices for the Hub Hybrid is 100 at the default settings.

How to calculate the number of connectable detectors (in progress)

For facilities that are under construction or renovation, cables are laid after the main wiring of the facility. Use protective tubes to route system cables to organize and secure them; ties, clips, and staples can be used to secure the cables.

When laying cables externally (without mounting them inside the walls), use an electric channel raceway. Raceways should be no more than half-filled with cables. Do not allow cables to sag. The raceway should be hidden from view if possible — for example, behind furniture.

We recommend installing cables inside walls, floors, and ceilings. This will provide greater security – the cables will not be visible, and it will be impossible for an intruder to access them.

When selecting a cable, consider the length of the connection lines and the number of detectors to be connected; these parameters affect the signal strength. We recommend using shielded copper cables with a high-quality insulation layer.

Observe the bend radius when installing. It is specified by the manufacturer in the cable specifications. Otherwise, you risk damaging or breaking the conductor.

Be sure to check all cables for bends and physical damage before installation. Perform the installation in a way that minimizes the possibility of damage to the cables from the outside.

Signal strength and cable length

The Fibra signal level is determined by the number of undelivered or corrupted data packages over a certain period. The icon on the **Devices** tab indicates the signal strength:

- Three bars — excellent signal strength.
- Two bars — good signal strength.
- One bar — low signal strength, stable operation is not guaranteed.
- Crossed out icon — no signal.

The signal strength is influenced by the following factors: the number of devices connected to one bus, the length and type of cable, and the proper connection of the wires to terminals.

Check the Fibra signal strength before final installation of the detector. If the signal strength is as low as one or zero bars, we cannot guarantee stable operation of the device.

The maximum permissible cable length depends on its type, material, and the method of connecting the devices. When connected via the **beam connection** using the U/UTP cat.5 (4×2×0.51) twisted pair, the wired connection length can reach up to 2,000 meters.

When detectors are connected via the **ring connection method**, the maximum cable length is 500 meters in case of using a twisted pair.

How to calculate the wire connection length (in progress)

Connecting devices using the **ring connection** method will be available with future OS Malevich updates. Hardware update of Hub Hybrid won't be required.

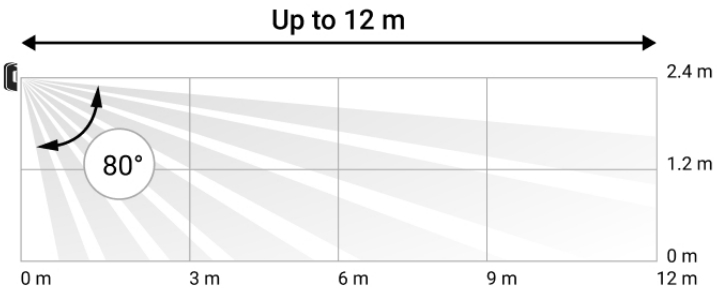
How OS Malevich updates

Detection zone

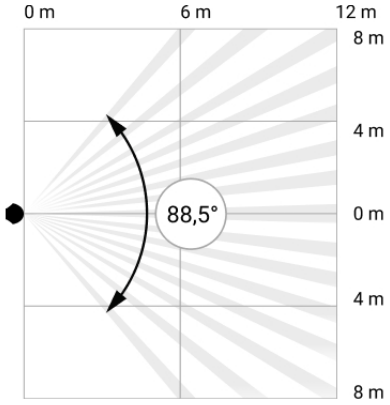
When choosing where to place the detector, perform the **Add a detector to the system** to check the operation of the device and accurately determine the sector in which the detector registers motion.

The location of the detector determines the area to be monitored and the effectiveness of the security system. When choosing the installation location, consider the direction of the detector lens, its viewing angles, and the presence of obstacles to the view of the lens.

The direction of the detector lens should be perpendicular to the intended path of entry into the room.

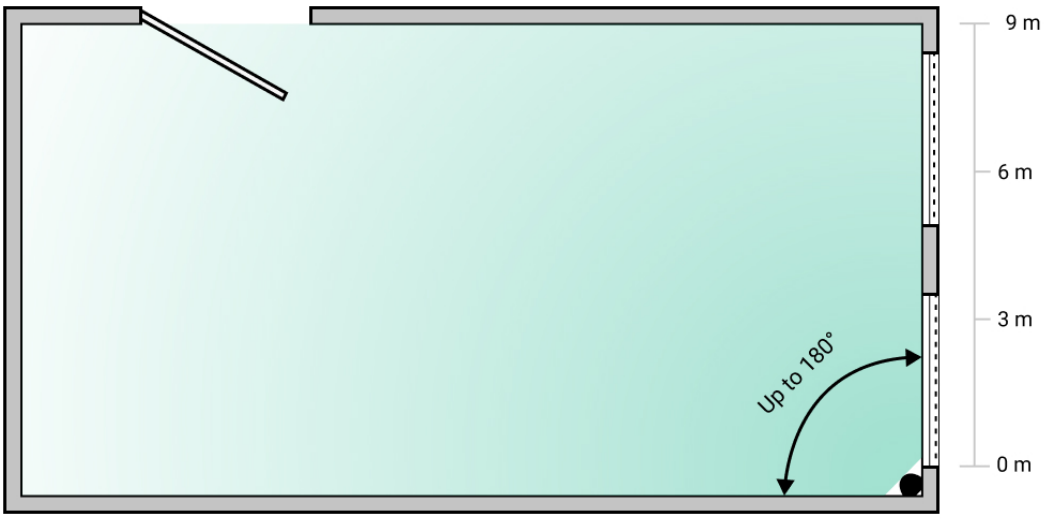


Horizontal detector viewing angle



Vertical detector viewing angle

The microphone of the detector identifies glass breaks at a distance of up to 9 meters. To detect a break, the detector should be positioned at an angle of no more than 90 degrees to the windows.



Detection angle of the break detector

Do not install the detector

1. Outdoors. This can lead to false alarms and detector failure.
2. Close to sirens and annunciators. This can lead to false alarms of the break detector.
3. Facing the window to avoid direct sun rays hitting the detector lens. This can lead to false alarms of the motion detector.
4. Opposite any objects with rapidly changing temperature — like any electric or gas heater. This can lead to false alarms of the motion detector.

5. Opposite any moving objects with a temperature close to that of the human body, e.g., swaying curtains above a radiator. This can lead to false alarms of the motion detector.
6. In places with fast air circulation — for example, near fans, open windows, or doors. This can lead to false alarms of the motion and break detectors.
7. In places where objects and structures can block the view of the detector — for example, behind a flower or a column. This can prevent the detector from identifying movement and break.
8. In places where glass structures may block the detector's view; it doesn't register movement behind glass.
9. Inside premises with temperature and humidity outside the permissible limits. This could damage the detector.

Installation and connection

Before installing CombiProtect Fibra, make sure that you have selected the optimal location and that it meets the conditions of this manual. Cables must be hidden from view and located in a place that is difficult for intruders to access to reduce the likelihood of sabotage.

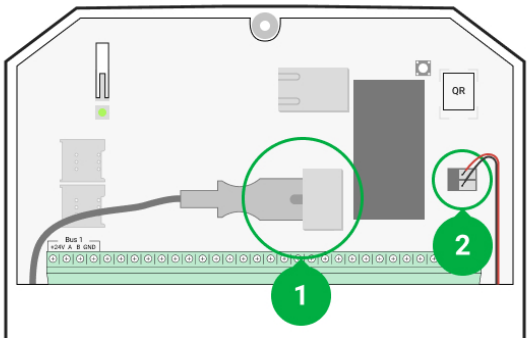
Ideally, mount the cables in the walls, floor, or ceiling. Before the final installation, conduct tests of the

detection zone and the **Fibra signal strength**.

When connecting to the detector terminals, do not twist the wires together; solder them. The ends of the wires that will be inserted into the detector should be tinned or crimped with special tips. This will ensure a reliable connection. **Follow safety procedures and regulations for electrical installation work.**

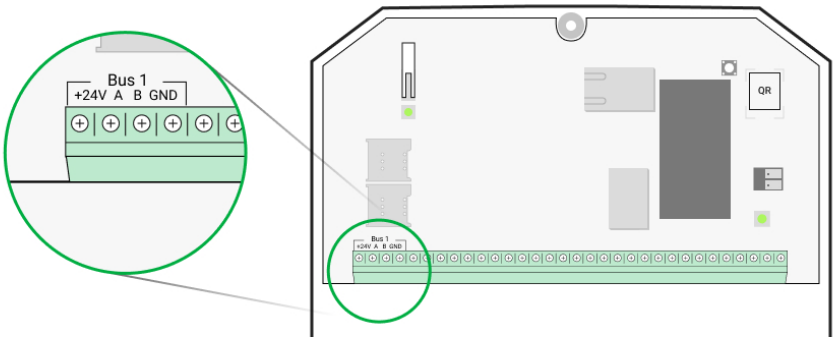
In order to mount a detector:

1. Turn off the hub. Disconnect the hub external power supply and the backup battery.



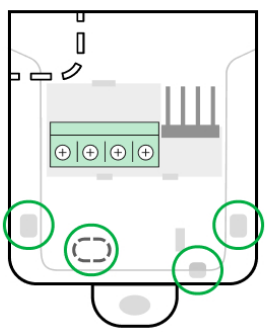
1 — External power supply
2 — Backup battery

2. Run the detector connection cable into the hub body and connect the wires to the bus.



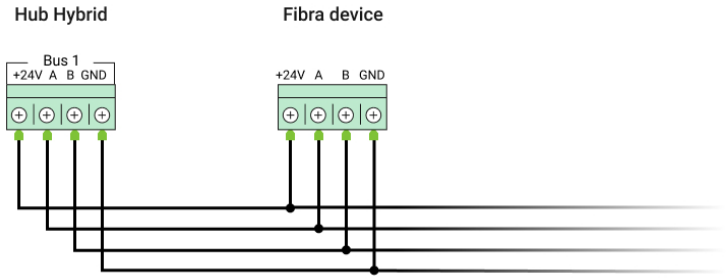
+24V — power supply input
A, B — signal terminals
GND — ground

3. Remove the SmartBracket mounting panel from the detector and carefully break out the perforated part to lead the cable out. If you need to lead the cable out from below or from the side, use a drill to make a hole in the places indicated in the diagram.



4. Run the cable from the hub into the detector's enclosure through the hole made.

5. Connect the wires to the terminals according to the scheme below. Follow the polarity and connection order of the wires. Securely fasten the wires to the terminals. Secure the cable with ties



+24V — power supply input
A, B — signal terminals
GND — ground

6. If the detector is not the last device in the connection line, prepare a second cable in advance. The ends of the wires of the first and second cables, which will be inserted into the detector terminals, must be tinned and soldered together, or crimped with special tips.

7. If the detector is the last in the line and the **beam connection** is used, install a terminating resistor by connecting it to the signal terminals of the device. When the **ring connection method** is used, a terminating resistor is not needed.

More about connection methods (in progress)

We recommend using the **ring connection method** (hub – detector – hub). If the ring is broken, not a single device will be disabled. In this case, two beams are formed, which will continue to operate normally and transmit events to the hub. If the ring is broken, the users and security company receive notification.





8. Temporarily secure the SmartBracket mounting panel using double-sided tape or other temporary fasteners at the chosen installation place. The recommended installation height is 2.4 meters. This is necessary to test the detector to determine the correct installation location.

9. Turn on the hub to supply the connected detector with power. When power is applied, an LED will notify that the detector is turned on.

10. **Add CombiProtect Fibra to the system**.

11. Perform the Fibra signal strength test. The recommended signal strength is two or three bars. Otherwise, check the connection and the condition of the cable.

12. Perform the **Detection zone test**. The maximum range for motion detection is 12 meters, and 9 meters for break detection. If the detector does not respond to motion and/or break during the test in 5 out of 5 cases, it should be installed in a different location.
    How to test the performance properly

13. Attach the SmartBracket mounting panel with at least two fixation points using bundled screws. Use one of them on the perforated part of the mount above the tamper. When using other fasteners, make sure they do not damage or deform the mounting panel.

> Double-sided adhesive tape can only be used for temporary fastening, as the device can come unglued from the surface at any time. As long as the device is taped, the tamper will not be triggered when the detector is detached from the surface.

14. Put the detector on the SmartBracket and secure it with a screw.

Adding to the system

The detector is only compatible with Hub Hybrid (2G) and Hub Hybrid (4G). Adding and configuring Fibra devices is only possible through the Ajax PRO app by a user with administrator rights.

Types of accounts and their rights

Before adding a device

1. Install the **PRO version of the app**. Log in to a PRO **account** or create a new one if you don't have it yet. Add a detector-compatible hub to the app, set the necessary settings, and create at least one **virtual room**.
2. Make sure that the hub is turned on and has Internet access via Ethernet and/or mobile network. You can check the connection in the Ajax app or by looking at the LED on the hub board: it should light up white or green if the hub is connected to the network.
3. Make sure the hub is disarmed and does not start updates by checking its status in the Ajax app.
4. Make sure the detector is physically connected to the hub.

How to add CombiProtect Fibra

There are two ways to add devices via **Ajax apps**: manually and automatically.

To add a detector manually:

1. Open the **PRO version of the app**. Select the hub you want to add CombiProtect Fibra to.
2. Go to the **Devices** tab and click **Add device**.
3. Name the detector, scan or type in the QR code (placed on the detector enclosure and the packaging), select a room and a group (if the **group mode** is enabled).
4. Click **Add**.

To have the detector added automatically:

1. Open the **PRO version of the app**. Select the hub you want to add CombiProtect Fibra to.
2. Go to the **Devices** tab and click **Add device**.
3. Select **Add Bus Devices**. The hub will scan all buses. After scanning, a list of all devices physically connected to the hub that have not yet been added to the system will appear on the screen. The detectors are sorted by the buses they are physically connected to.

After scanning the buses, the detectors will be displayed in the **Devices** tab. The order of the devices will depend on which bus they are connected to.

By default, the device name includes the detector name and its identifier. To connect detectors to a hub, edit their name, and assign a room and a group to the device (if the group mode is activated in the hub settings).

To check which specific detector you want to add, we have provided two methods: LED indication and detector triggering.

Method 1: Via LED indication

In the list of available devices to add, click on any option. The LED of this detector will start blinking after you press it. This way, you'll know exactly which detector you're adding, how to name it, and which room and group it should be assigned to.

To add a detector:

1. Click on the device in the list.
2. Create a name.
3. Specify the room and the security group (if enabled).
4. Click **Save**.

If the detector is connected to the hub successfully, it will disappear from the list of available detectors.

Method 2: By detector alarm

Enable the **Add Detectors by Alarm** option above the list of detectors.

Trigger an alarm by walking past the motion detector. When triggered, the detector will move to the top of the list to the **Recently triggered devices** category. The detector will stay in this category for 5 seconds, after which it will be moved back to the bus category.

To add a detector:

1. Click on the device in the list.
2. Create a name.
3. Specify the room and the security group (if enabled).
4. Click **Save**.

If the detector is connected to the hub successfully, it will disappear from the list of available detectors.

Device status updates depend on the Fibra settings; the default value is 36 seconds.

If the connection fails, check the accuracy of the wired connection and try again. If hub already has the maximum number of devices added (for Hub Hybrid, the default is 100), you will get an error notification when you add one.

CombiProtect Fibra only works with one hub. When connected to a new hub, the detector stops exchanging commands with the old one. Once added to a new hub, CombiProtect Fibra is not removed from the list of devices of the old hub. This must be done through the Ajax app.

Malfunctions

When a detector identifies a malfunction (for example, there is no connection via the Fibra protocol), the Ajax app displays a malfunction counter in the upper left corner of the device icon.

All faults can be seen in the detector states. Fields with malfunction will be highlighted in red.

Malfunction is displayed if:

- The detector temperature is out of acceptable limits.
- The detector enclosure is open (tamper is triggered).
- There is no connection with the hub via the Fibra protocol.

Icons

The icons display some of CombiProtect Fibra states. You can view them in the Ajax app on the **Devices** tab.

Icon	Meaning
	Fibra signal strength — displays the signal strength between the hub and the detector. The recommended value is 2—3 bars. Learn more (in progress)
	The detector operates in the **Always Active** mode. **Learn more**
 	Entry and/or exit delay is enabled. **Learn more**
	CombiProtect Fibra will work when the **Night Mode** is enabled. **Learn more**
	CombiProtect Fibra has detected motion. The detector identifies motion only in the armed mode.
	CombiProtect Fibra has detected a glass break. The detector identifies glass break in the armed mode only.
	CombiProtect Fibra has been temporarily deactivated by a user or PRO with administrator rights. **Learn more**

	CombiProtect Fibra has been disabled due to exceeding the number of alarms. **Learn more**
	CombiProtect Fibra has tamper triggering events temporarily deactivated by a user or PRO with administrator rights. **Learn more**

States

The states include information about the device and its operating parameters. CombiProtect Fibra states can be found in the Ajax app:

1. Go to the **Devices** tab.
2. Choose CombiProtect Fibra from the list.

Parameter	Meaning
Malfunction	Clicking on opens a list of malfunctions of CombiProtect Fibra. The field is displayed if a malfunction is detected.
Temperature	Detector temperature — it is measured on the processor and changes gradually. Acceptable measurement error between the value in the app and the room temperature: 2–4°C. The value is updated as soon as the detector identifies a temperature change of at least 1°C.
Fibra Signal Strength	Signal strength between the hub and CombiProtect Fibra. Recommended values — 2—3 bars. Fibra — protocol for transmitting CombiProtect Fibra events and alarms Learn more (in progress)

Connection via Fibra	Status of the connection between the hub and the detector: • **Online** — the detector is connected to the hub. • **Offline** — the detector is not connected to the hub. Check the detector connection to the bus.
Bus Voltage	Bus voltage value. TBC
Lid	The status of the tamper that responds to demountor opening of the enclosure: • **Open** — the detector is removed from its SmartBracket mounting plate. • **Closed** — the detector is mounted. Learn more
Delay When Entering, sec	Delay time when entering (5 to 120 seconds). Delay when entering (alarm activation delay) is the time the user has to disarm the security system after entering the secured area. Learn more
Delay When Leaving, sec	Delay time when leaving (5 to 120 seconds). Delay when leaving (arming delay) is the time the user has for leaving the secured area after arming. Learn more
Night Mode Delay When Entering, sec	Delay time when entering in the Night mode. Delay when entering (alarm activation delay) is the time the user has to disarm the security system after entering the secured area. Learn more

Night Mode Delay When Leaving, sec	Delay time when leaving in the Night mode. Delay when leaving (arming delay) is the time the user has for leaving the secured area after arming. **Learn more**
Motion Detector Sensitivity	Sensitivity level of the motion detector: • **Low** — it does not respond to animals up to 50 cm tall. • **Medium** (by default) — it does not respond to small dogs (up to 35 cm tall). • **High** — the detector does not respond to cats (up to 25 cm tall).
Motion Detector Always Active	If enabled, the detector is always in armed mode and detects motion. **Learn more**
Glass Break Detector Sensitivity	Sensitivity level of the microphone installed inside the detector: • **Low** • **Medium** (by default) • **High** The sensitivity level is selected based on the results of the **Detection zone test**. If during the test the detector doesn't react to break in 5 cases out of 5, the sensitivity should be increased.
Glass Break detector is always active	If active, the detector is always in armed mode and detects break. **Learn more**
Temporary Deactivation	Shows the status of the device temporary deactivation function:

	• **No** — the device operates normally and transmits all events. • **Lid only** — the hub administrator has disabled notifications about triggering on the device tamper. • **Entirely** — the hub administrator has excluded the detector from the system. The device does not execute system commands and does not report alarms or other events. • **By number of alarms** — the device is automatically disabled when the number of alarms is exceeded (specified in the **Devices Auto Deactivation** settings). **Learn more**
Firmware	Detector firmware version.
ID	Detector ID — Also available on the detector enclosure and the packaging.
Device №	Number of the detector loop (zone).
Bus №	The number of the hub bus the detector is connected to.

Settings

To change the detector settings in the Ajax app:

1. Go to the **Devices** tab.
2. Choose CombiProtect Fibra from the list.
3. Go to **Settings** by clicking on the gear icon.
4. Set the required parameters.
5. Click **Back** to save the new settings.

Settings	Meaning
First field	Detector name. Displayed in the list of hub devices, SMS text, and notifications in the event feed.

	To change the detector name, click on the pencil icon . The name can contain up to 12 Cyrillic characters or up to 24 Latin characters.
Room	Selecting the virtual room to which CombiProtect Fibra is assigned. The room name is displayed in the text of SMS and notifications in the event feed.
Delay When Entering, sec	Selecting the delay time when entering. Delay when entering (alarm activation delay) is the time the user has to disarm the security system after entering the premises. **What Is Delay When Entering**
Delay When Leaving, sec	Selecting the delay time when leaving. Delay when leaving (arming delay) is the time the user has to leave the premises after arming. **What Is Delay When Leaving**
Arm in the Night Mode	When this option is enabled, the detector will enter arming mode when the system is set to **Night mode**. **What is Night mode**
Night Mode Delay When Entering, sec	Delay time when entering in the **Night mode**. Delay when entering (alarm activation delay) is the time the user has to disarm the security system after entering the premises. **What Is Delay When Entering**
Night Mode Delay When Leaving, sec	Delay time when leaving in the **Night mode**. Delay when leaving (arming delay) is the time the user has to leave the premises after arming.

	What Is Delay When Leaving
Alarm LED indication	When off, the detector's LED will not alert you about an alarm and a tamper triggering.
Motion Detector	If active, CombiProtect Fibra detects movement when in the armed mode.
Motion Detector Sensitivity	Sensitivity level of the motion detector. The choice depends on the type of the object, the presence of probable sources of false alarms, and the type of the protected area: • **Low** — it does not respond to animals up to 50 cm tall. • **Normal** (by default) — it does not respond to small dogs (up to 35 cm tall). • **High** — the detector does not respond to cats (up to 25 cm tall). **Why motion detectors react to animals and how to avoid it**
Motion Detector Always Active	If active, the detector is always in the armed mode and detects motion. **Learn more**
Glass Break Detector	If active, CombiProtect Fibra detects break when in the armed mode.
Glass Break Detector Sensitivity	Sensitivity level of the microphone installed inside the detector: • **Low** • **Normal** • **High** The sensitivity level is selected based on the results of the **Detection zone test**. If during the test the detector doesn't react to break in 5 cases out of 5, the sensitivity should be increased.

Glass Break Detector Always Active	If active, the detector is always in armed mode and detects break. **Learn more**
Alert with a siren if motion detected	If active, **sirens** added to the system activate when motion is detected by the CombiProtect Fibra detector.
Alert with siren if the glass break detected	If active, **sirens** connected to the system are activated when break is detected by the CombiProtect Fibra detector.
Fibra Signal Strength Test	Switches the detector to the Fibra signal strength test mode. The test allows you to check the signal strength between the hub and the detector over the Fibra wired data transfer protocol to determine the optimal installation location. Learn more (in progress)
Detection Zone Test	Switches the detector to the detection zone test mode. The test enables the user to check the detector's reaction to the movement and determine the optimal installation location. **Learn more**
User Guide	Opens CombiProtect Fibra User Manual in the Ajax app
Temporary Deactivation	Allows to disable the device without removing it from the system. Two options are available: • **Entirely** — the device will not execute commands or participate in automation scenarios. The system will ignore device alarms and other notifications. • **Lid only** — the system will ignore notifications about the tamper triggering. **Learn more**

	The system can also automatically deactivate devices when the set number of alarms is exceeded. Learn more
Unpair Device	Unpairs the detector, disconnects it from the hub, and deletes its settings.

Indication

Indication	Event	Note
When power is connected, it lights up green once.	The detector is on.	
Lights up green for 1 second.	Motion alarm / tamper triggering.	The detector records movement once every 5 seconds.
Smoothly lights up and goes out after an alarm or a tamper trigger.	Low bus voltage.	A voltage of 7 V and below is considered low.

Functionality testing

The Ajax security system provides several types of tests that help you make sure that installation points of devices are selected correctly. CombiProtect Fibra tests do not start straight away but begin no later than a single hub-detector ping period (36 seconds with a default hub settings). You can change the ping period of devices in the **Fibra** menu of the hub settings.

To run a test in the Ajax app:

1. Select the hub if you have several of them or if you are using the PRO version of the app.
2. Go to the **Devices** menu.
3. Select CombiProtect Fibra.
4. Go to **Settings**.
5. Select a test:

- Fibra Signal Strength Test.
- Detection zone.

6. Launch and conduct a test.

To check the motion detector, run the detection zone test and walk around the room in its visibility zone, watching the reaction of the LED.

To test the break detector:

1. Start a detection zone test.
2. Hit the glass (without breaking it) or another surface with your fist. If the detector microphone catches a low-frequency sound, the LED will blink.
3. Within 1.5 seconds after the first impact, simulate the high-frequency sound of glass breaking by tapping a metal object against a glass or by dropping keys onto floor tiles. As soon as the detector reads the sound, it will turn off the LED for a second. This means that a break alarm has been detected.

You can also play this **audio file** to check the break detector.

Maintenance

Check the functioning of the detector on a regular basis. The optimal frequency of checks is once every three months. Clean the detector body from dust, cobwebs, and other contaminants as they emerge. Use a soft dry cloth suitable for equipment care.

Do not use substances that contain alcohol, acetone, gasoline, or other active solvents to clean the detector. Wipe the lens gently as scratches may impair the detector sensitivity.

Technical specifications

Learn more

Compliance with standards

Complete set

1. CombiProtect Fibra.
2. SmartBracket mounting panel.
3. Installation kit.
4. Quick Start Guide.

Warranty

Warranty for the AJAX SYSTEMS MANUFACTURING Limited Liability Company products is valid for 2 years after the purchase.

If the device does not function correctly, please contact the Ajax Technical Support first. In most cases, technical issues can be resolved remotely.

Warranty obligations

User Agreement

Contact Technical Support:

- **e-mail**
- **Telegram**

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