Manual do usuário do joalheiro EN54 FireProtect (aquecimento/sonda)

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Revisão 1

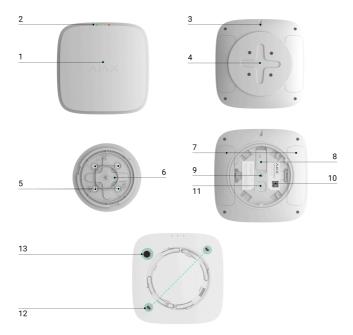


O EN54 FireProtect (Calor/Sonda) Jeweller é um detector de calor pontual endereçável sem fio, combinado com uma sirene de alarme de incêndio. Ele atende aos requisitos da norma EN 54-5 para detectores de calor das Classes A1, B e C, com tipos de resposta de taxa de elevação (R) e estática (S). O dispositivo detecta temperaturas perigosas e emite um alerta sonoro quando um alarme de incêndio é ativado nas instalações.

O EN54 FireProtect (Aquecimento/Som) Jeweller opera como parte de um sistema Ajax e se comunica com equipamentos de controle e indicação (CIE) por meio do protocolo de rádio seguro Jeweller. O alcance de comunicação com o CIE é de até 1.700 m em espaço aberto.

Compre EN54 FireProtect (Aquecimento/Som) Joalheiro

Elementos funcionais



- 1. Painel frontal do detector.
- 2. Indicadores LED: verde, amarelo e vermelho.
- 3. Furo para uma ferramenta especial usada para destravar a fechadura.
- **4.** Painel de montagem do SmartBracket. Para remover o painel, insira a ferramenta especial no orifício correspondente e gire o SmartBracket no sentido anti-horário. Se o dispositivo estiver desbloqueado, basta girar o SmartBracket no sentido anti-horário.
- **5.** Pontos de fixação para fixar o SmartBracket à superfície.
- 6. ↑↑ Assine no SmartBracket. Você pode usá-lo como ponto de referência para alinhar o dispositivo corretamente ao fixar o painel de montagem na superfície.
- **7.** Tampas do compartimento das pilhas. Para substituir as pilhas, abra as tampas.
- 8. Trava para proteger o dispositivo no SmartBracket (opcional).
- **9.** Botão antiviolação . Ele é acionado em caso de tentativa de remoção do dispositivo do painel de montagem.

- **10.** Código QR com o ID do dispositivo. É usado para adicionar o dispositivo ao CIE.
- 11. Botão liga/desliga.
- **12.** Termistores que detectam temperaturas perigosas.
- 13. Sondador.

CIEs e extensores de alcance compatíveis

O dispositivo requer o Ajax CIE com uma versão atualizada <u>do sistema</u> operacional Malevich .

Verifique a compatibilidade do dispositivo

Princípio de funcionamento

O EN54 FireProtect (Calor/Silenciador) Jeweller é um detector de incêndio sem fio com sensor de calor e sirene, projetado para instalação em ambientes internos. O detector está sempre ativo e responde a incêndios 24 horas por dia, 7 dias por semana, independentemente do modo de segurança do sistema.

O **sinalizador sonoro** emite um sinal de alarme de alto volume usando um padrão temporal compatível com EN 54-3.

Alertas sonoros são sincronizados em todos os dispositivos do sistema para garantir ativação simultânea. O dispositivo FireProtect (Aquecimento/Som) Jeweller, com certificação EN54, é alimentado por baterias pré-instaladas e não requer fonte de alimentação externa. O dispositivo monitora continuamente seu estado operacional e informa o sistema sobre falhas, caso ocorram.

O dispositivo EN54 FireProtect (Aquecimento/Som) Jeweller é equipado com um botão de violação que é acionado caso alguém tente remover o dispositivo do painel de montagem.

Sensor de calor

Dois termistores integrados detectam um aumento rápido de temperatura ou quando a temperatura excede o valor limite. Os termistores disparam um alarme quando um aumento rápido de temperatura ou temperatura estática é detectado. A temperatura limite, a taxa de aumento de temperatura e o tempo de resposta em que o detector emite um alarme dependem das **configurações** do detector e atendem aos requisitos da norma EN 54-5.

Modos de sensor de calor disponíveis:

- A1, A1R, A1S.
- B, BR, BS.
- C, CR, CS.
- Temperatura fixa.

Protocolos de transferência de dados de joalheiros

Jeweller é um protocolo de transferência de dados sem fio que fornece comunicação bidirecional rápida e confiável entre o CIE e os dispositivos. O dispositivo usa o Jeweller para transmitir comandos, alarmes e eventos.

Saber mais

Enviando eventos para a estação de monitoramento

Um sistema Ajax pode transmitir alarmes tanto para o aplicativo <u>Ajax PRO</u>

<u>Desktop</u> quanto para a estação de monitoramento nos formatos <u>SurGard</u>

(ID de contato), SIA (DC-09), ADEMCO 685 e outros protocolos.

O sistema com EN54 FireProtect (Heat/Sounder) Jeweller instalado pode transmitir os seguintes eventos:

1. Alarme de incêndio / recuperação após o alarme.

- 2. Falha/recuperação de hardware do sensor de calor.
- 3. Falha/recuperação de hardware do sonar.
- 4. A carga da bateria está baixa/OK.
- **5.** Alarme de violação/recuperação.
- **6.** Perda/recuperação de comunicação entre o joalheiro EN54 FireProtect (Heat/Sounder) e o CIE.

Quando um alarme é recebido, o operador da estação de monitoramento sabe exatamente o que aconteceu e onde. A capacidade de endereçamento dos dispositivos Ajax permite o envio de eventos para o Ajax PRO Desktop ou para o software de monitoramento, incluindo o tipo de dispositivo, seu nome, zona de incêndio, sala virtual e descrição do local. Observe que a lista de parâmetros transmitidos pode variar dependendo do software de monitoramento e do protocolo de comunicação selecionado para a estação de monitoramento.



Você pode encontrar o ID do dispositivo e o número da zona nos <u>estados</u> do dispositivo .

Selecionando o local de instalação



O detector foi projetado somente para instalação interna.

Siga as normas locais de segurança contra incêndio ao selecionar o local de instalação do dispositivo.

Ao escolher onde colocar o detector, considere os parâmetros que afetam seu funcionamento:

- Intensidade do sinal do joalheiro.
- Distância entre o dispositivo e o CIE.

• Presença de obstáculos à transmissão de sinal de rádio ou som.

Consider the placement recommendations when developing a system project. Only specialists may design and install Ajax systems. A list of recommended partners is available here.

Signal strength

The signal strength is determined by the number of undelivered or corrupted data packages over a certain period of time. The icon | | in the **Devices** tab in Ajax apps 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.

Note that if the signal strength is excellent, the device can automatically adjust the radio transmission power to reduce power consumption and radio interference.



Run the Jeweller signal strength test before final installation. The test checks the signal strength at the device's maximum transmission power. To comply with the EN 54 requirements, the signal strength between the device and the CIE must be three bars.

If the test shows the signal strength of one or zero bars, we do not guarantee the device will operate stably. Consider relocating the detector, as adjusting its position even by 20 cm or rotating it relative to the CIE can significantly improve the signal strength. If the signal remains poor or unstable after relocation, consider using an Ajax radio signal range extender (coming soon).

Refer to the <u>functionality testing</u> section to learn how to run the Jeweller signal strength test.

Where the device cannot be installed

- Outdoors. This can lead to detector failure.
- Indoors, where the temperature and humidity are outside the permissible limits. This may damage the detector.
- In places with fast air circulation. For example, near fans, vents, open windows, or doors. This may interfere with fire detection.
- Opposite any objects whose temperature changes rapidly, such as electric and gas heaters. This may cause false alarms.
- In the corners of the room. This may interfere with fire detection.
- In bathrooms, showers, or other areas where the temperature changes rapidly. This may cause false alarms.
- Near lighting fixtures, decorations, and other interior items that may interfere with the circulation of air on the premises. This may interfere with fire detection.
- On surfaces that are usually warmer or colder than the rest of the premises. For example, on skylights. Temperature fluctuations may interfere with fire detection.
- In places with low or unstable Jeweller signal strength. This may result in losing connection to the CIE.
- Closer than 1 m to the CIE or radio signal range extender.

Installation





Before installing EN54 FireProtect (Heat/Sounder) Jeweller, ensure that you have selected the optimal location that complies with the requirements of this manual.

Only a professional must install this device.

To install the device:

- **1.** Remove the SmartBracket mounting panel from the device. To remove the panel, turn it counterclockwise.
- 2. Secure the SmartBracket panel to a surface using double-sided adhesive tape or other temporary fasteners. The \↑↑ sign on SmartBracket is for informational purposes only. It can help you align the device properly.











Use double-sided adhesive tape for temporary fixation only. The device secured by the adhesive tape can detach from the surface at any time, which may result in damage if it falls.

- 3. Add EN54 FireProtect (Heat/Sounder) Jeweller to the CIE.
- **4.** Place the device on the SmartBracket mounting panel.
- **5.** Run the device functionality testing.
- **6.** Remove the device from the mounting panel.
- **7.** Attach the SmartBracket panel to the surface using the bundled screws for all fixing points. When using other fasteners, make sure they do not damage or deform the mounting panel.
- **8.** To additionally secure the device on SmartBracket with the lock, move the locking mechanism to \bigcap position. In this case, you will need to insert a special tool into the corresponding hole to remove the mounting panel.



- **9.** Place the device on the SmartBracket mounting panel.
- **10.** Adjust the device position if necessary. The SmartBracket mounting panel allows the detector to be rotated up to 90°.

Adding to the system



on the region. We recommend purchasing and using Ajax devices in the same region. You can verify the range of operating radio frequencies with the <u>technical</u> support service.

Before adding the device

- 1. Install an Ajax app.
- 2. Log in to your account or create a new one.
- **3.** Select a **space** or create a new one.
- 4. Add at least one virtual room.
- **5.** Add a **compatible CIE** to the space. Ensure the CIE is switched on and has internet access via Ethernet, Wi-Fi, and/or mobile network.
- **6.** Check the states in the Ajax app to ensure the space is disarmed and the CIE is not starting an update.



Only a PRO or a space admin with the rights to configure the system can add the device to the CIE.

Types of accounts and their rights

Adding to the CIE

- 1. Open an Ajax app. Select a space to which you want to add the device.
- 2. Go to the **Devices** tab and tap **Add device**.
- **3.** Scan the QR code or enter the device ID manually. A QR code with the ID is placed on the device under the SmartBracket mounting panel. Also, it is duplicated on the device packaging.



- 4. Assign a name to the device.
- **5.** Select a fire zone and a virtual room.
- **6.** If necessary, specify the device location in the **Location** field.
- 7. Select Add device, and the countdown will begin.
- **8.** Switch on the device by holding the power button for 3 seconds.



Once added to the CIE, the device will appear in the list of CIE devices in the Ajax app. The update frequency for device states in the list depends on the **Jeweller** settings and is 36 seconds by default.

If the connection fails, try again in 5 seconds. If the maximum number of devices has already been added to the CIE, you will receive an error notification when you try to add more.



EN54 FireProtect (Heat/Sounder) Jeweller works with only one CIE. When added to a new CIE, the device stops sending events to the old one. After the device is added to a new CIE, it will not be automatically removed from the device list of the old CIE. This must be done through the Ajax app.

Functionality testing

An Ajax system provides several types of tests to help select the correct installation place for the devices. For EN54 FireProtect (Heat/Sounder) Jeweller, the following tests are available:

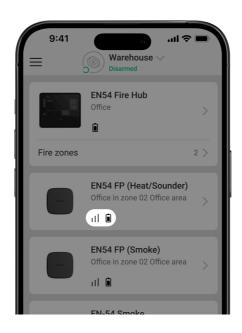
- Jeweller signal strength test to determine the signal strength and stability between the CIE (or the radio signal range extender) and the device via the wireless Jeweller data transfer protocol at the device installation site.
- Alarm annunciation test to check the audible alert and ensure that the fire alarm signal is clearly heard throughout the premises.

To run the test:

- 1. Open an Ajax app. Select a space with the added device.
- **2.** Go to the **Devices a** tab.
- 3. Select EN54 FireProtect (Heat/Sounder) Jeweller.
- 4. Go to Settings .
- 5. Select Jeweller signal strength test or Alarm annunciation test.

Additionally, the **Alarm annunciation test** can be run on the CIE touch screen.

Icons

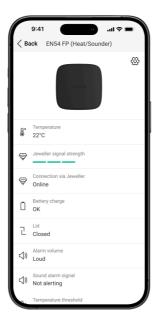


Icons in an Ajax app display some of the EN54 FireProtect (Heat/Sounder) Jeweller states. You can check the icons in the **Devices** tab.

Icon	Meaning
ıIİ	Jeweller signal strength. It displays the signal strength between the CIE or the range extender and the device. The recommended value is 3 bars. Learn more
Î	Battery charge level of the device. Learn more
RE	The device operates via the radio signal range extender. Learn more
23	The detector has detected a rapid temperature rise.
¶°	The detector has detected that the temperature threshold has been exceeded.
< The state of the st</th <th>The device is emitting a sound.</th>	The device is emitting a sound.
۲	The device is silenced.

\triangle	EN54 FireProtect (Heat/Sounder) Jeweller has a fault. The list of faults is available in the device states .
≣	The device test is in progress.
×	EN54 FireProtect (Heat/Sounder) Jeweller is completely or partially disabled.
Offline	The device has lost connection to the CIE, or the CIE has lost connection to the Ajax Cloud server.
Not transferred	The device has not been transferred to the new CIE. Learn more

States



The states include information about the device and its operating parameters. You can find the states of EN54 FireProtect (Heat/Sounder) Jeweller in Ajax apps:

- 1. Go to the **Devices** tab.
- 2. Select EN54 FireProtect (Heat/Sounder) Jeweller from the list.

Parameter	Meaning
Alarm	The device has detected a fire. Tapping on (i) opens detailed information about the fire location. The field is displayed only if a fire is detected.
Data import	Displays the error when the data is being transferred to the new CIE: • Failed — the device has not been transferred to the new CIE. Learn more
Fault	The device has faults. Tapping on (i) opens the list of EN54 FireProtect (Heat/Sounder) Jeweller faults. The field is displayed only if a fault is detected.
Disabled	The device or some of its functions are disabled. It does not respond to the alarm or notify users and the monitoring station. Tapping on (i) opens a list of disabled device functions. The field is displayed only if the device is completely or partially disabled.

Temperature	Air temperature on the premises where the device is installed. Measured in degrees Celsius or Fahrenheit, depending on the app settings. In the normal state, the temperature value is displayed in black. When the temperature rises, the field is highlighted in red.
Jeweller signal strength	Jeweller signal strength between the device and the CIE (or the radio signal range extender). The recommended value is 3 bars. Jeweller is a protocol for transmitting commands, events, and alarms.
Connection via Jeweller	The connection state via the Jeweller channel between the device and the CIE (or the range extender): • Online — the device is connected to the CIE (or the range extender). Normal state. • Offline — the device is not connected to the CIE (or the range extender). Check the device connection.
<pre><range extender="" name=""> (coming soon)</range></pre>	 The connection state between the device and the radio signal range extender. Online — the device is connected to the range extender. Offline — the device is not connected to the range extender. The field is displayed if the device operates via the radio signal range extender.
Battery charge	The device's battery charge level. Three states are available:

	• OK.
	Battery low.
	• Error.
	When the batteries need to be replaced, users and the monitoring company will receive appropriate notifications.
	Learn more
	The state of the device tamper that responds to the detachment or opening of the device enclosure:
Lid	 Open — the device is removed from the SmartBracket mounting panel or its integrity is compromised. Check the device mounting.
Liu	 Closed — the device is installed on the SmartBracket mounting panel. The integrity of the device enclosure and the mounting panel is not compromised. Normal state.
	Learn more
	Volume level in case of alarm:
	• Quiet
Alarm volume	• Loud
	Very loud
Sound alarm signal State of the device's audible alert:	
	 Not alerting — the system is not in alarm mode. The device is not emitting a sound.
	 Alerting — the system is in alarm mode. The device is emitting a sound.

	Silenced — the system is in alarm mode. The device is silenced.		
	Alarm state if a temperature threshold is exceeded:		
	 Not exceeded — normal state; the detector does not detect a temperature threshold being exceeded. 		
Temperature threshold	Alarm — the detector has detected that a temperature threshold has been exceeded.		
	If a temperature threshold exceedance is detected, the text field is highlighted in red.		
	Learn more		
	Alarm in case of a rapid temperature rise:		
	 Not detected — normal state; the detector does not detect a rapid temperature rise. 		
Rapid temperature rise	Alarm — the detector has detected a rapid temperature rise.		
	If a rapid temperature rise is detected, the text field is highlighted in red.		
	Learn more		
Fire zone	The number and name of the fire zone to which the device is assigned.		
Room	The name of the room to which the device is assigned.		
Location	The detailed device location description.		
Firmware	Device firmware version.		
Device ID	The EN54 FireProtect (Heat/Sounder) Jeweller ID. It is also available on the QR code on the device enclosure and on its packaging.		

Settings



To change EN54 FireProtect (Heat/Sounder) Jeweller settings, in an Ajax app:

- 1. Go to the **Devices** tab.
- 2. Select EN54 FireProtect (Heat/Sounder) Jeweller from the list.
- 3. Go to Settings .
- **4.** Set the required settings.
- **5.** Tap **Back** to save the new settings.

Settings	Meaning
Name	Name of the device. It is displayed in the list of CIE devices, SMS text, and notifications in the event feed.

To change the device name, tap on t field.		
	The name can contain up to 24 Latin characters or up to 12 Cyrillic characters.	
	Selecting the fire zone to which EN54 FireProtect (Heat/Sounder) Jeweller is assigned.	
Fire zone	The fire zone is displayed in the text of SMS and notifications in the event feed.	
_	Selecting the virtual room to which EN54 FireProtect (Heat/Sounder) Jeweller is assigned.	
Room	The room name is displayed in the text of SMS and notifications in the event feed.	
	The detailed location of the device. It is displayed next to the room in the event feed notifications.	
Location	The location text can contain up to 24 Latin or Cyrillic characters.	
	The device responds to system alarms with the selected volume level:	
Alarm volume	• Quiet	
	LoudVery loud	
Heat sensor mode	Selecting the heat sensor mode depending on the installation site:	
	• A1	
	• A1R	
	• A1S	

	• B
	• BR
	• BS
	• c
	• CR
	• cs
	• Fixed temperature — selecting the temperature threshold from +45 °C to +85 °C. The default temperature is +60 °C.
	Switching the device to the Jeweller signal strength test mode.
Jeweller signal strength test	The test allows you to check the signal strength between the CIE (or the radio signal range extender) and the device via the wireless Jeweller data transfer protocol to select the optimal installation site.
	Learn more
	Switching the device to the Alarm annunciation test mode.
Alarm annunciation test	The test allows you to check audible alerts and ensure that fire alarm signals are clearly heard throughout the premises.
	The test lasts up to 10 minutes and can be stopped manually at any time.
User guide	Opening the EN54 FireProtect (Heat/Sounder) Jeweller user manual in an Ajax app.
Device disablement	The option allows for deactivating the device or its specific functions.
	The device remains within the system but no longer detects signs of fire or raises an

	alarm.
Delete device	Unpairing the device, disconnecting it from the CIE, and deleting its settings.

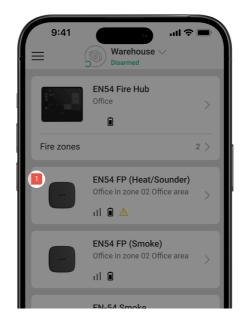
Indication

The EN54 FireProtect (Heat/Sounder) Jeweller sounder and LED indicators inform about alarms, faults, and other device states.

Event	Sound indication	System LED indication	Note
Alarm.	The sounder beeps according to the selected tone type.	The red LED lights up for 1 second, then goes off for 1 second constantly.	The device stops alarming as soon as the fire alarm is reset. Also, you can mute the alarm by tapping the Silence alarm button on the CIE touch screen or in an Ajax app.
Turning on the device.	No.	The green, yellow, and red LEDs light up in turn and then go off.	Press the power button until the green LED lights up.
Turning off the device.	No.	The green, yellow, and red LEDs light up simultaneously and then go off in reverse order.	Press the power button until the red LED goes off.
Adding to the CIE is in progress.	No.	The green LED is permanently on.	The indication turns off after the detector is added to the CIE.
The device has been removed from the	No.	The green LED flashes 6 times in a	The indication turns on when the

CIE.		row.	detector receives information that it has been removed from the CIE.
The battery is completely discharged.	No.	The yellow LED constantly flashes.	The battery needs to be replaced.
Turning off the device when the battery is completely discharged.	No.	The green, yellow, and red LEDs light up simultaneously and then go off in reverse order.	The battery needs to be replaced.
Tamper alarm. The device has been removed from the SmartBracket mounting panel.	No.	The yellow LED lights up for 1 second.	
The device is installed on the SmartBracket mounting panel.	No.	The green LED lights up for 1 second.	
Performing the Jeweller signal strength test.	No.	The indication depends on the signal strength: • 3 bars — the green LED lights up continuously; • 2 bars — the yellow LED lights up continuously; • 1 bar — the red LED lights up continuously; • 0 bar — the red LED flashes rapidly.	

Faults



When an EN54 FireProtect (Heat/Sounder) Jeweller fault is detected, an Ajax app displays a fault counter on the device icon. All faults are indicated in the device states. Fields with faults are highlighted in yellow. Also, faults are displayed in the **Control** tab of the CIE display. More details about the fault can be found in the **Event center** or **Fire zones** tabs of the CIE.

A fault of the EN54 FireProtect (Heat/Sounder) Jeweller is displayed if:

- The device is removed from the SmartBracket mounting panel, or its integrity is compromised (a tamper button has been triggered).
- There is no connection to the CIE or radio signal range extender (coming soon) via Jeweller.
- The device battery is low.
- The device has a hardware fault (failure of one or more device components).

Maintenance

Regularly check the device operation. Clean the device enclosure from dust, cobwebs, and other contaminants as they emerge. Use soft, dry wipes suitable for equipment maintenance. Do not use substances that contain alcohol, acetone, gasoline, and other active solvents to clean the device.

The pre-installed batteries provide up to 5 years of autonomous operation with the standard Jeweller settings (the polling interval is 36 seconds). If the batteries are low, the system will send an appropriate notification.

We recommend replacing the batteries immediately upon receiving the notification. It is advisable to use **Huiderui CR123A**, **3 V**, **1,600 mAh**, **LiMnO**₂ batteries.



Ensure the batteries are installed with the correct polarity. The polarity is marked inside the enclosure. After replacing the batteries, run the <u>functionality test</u> to ensure the device operates properly.

How long Ajax devices operate on batteries, and what affects this

Technical specifications

All technical specifications

Compliance with standards

Warranty

Warranty for the Limited Liability Company "Ajax Systems Manufacturing" products is valid for 2 years after the purchase.

If the device does not operate properly, we recommend contacting Ajax Technical Support first. In most cases, technical issues can be resolved remotely.

Warranty obligations

User agreement

Contact Technical Support:

- e-mail
- Telegram

Manufactured by "AS Manufacturing" LLC