

Debug gateway issues

This guide helps support agents and technicians at site to troubleshoot Gateway issues based on its LED status. It outlines common scenarios and provides corresponding solutions for consistent and efficient troubleshooting.

Gather initial information

Before diving into technical details, gather necessary context from the customer. This will save time and ensure you're addressing the correct issue.

Review the Customer's Request: Carefully assess the customer's request. Did they provide enough information to begin troubleshooting? Is the reported problem clearly understood? Ask clarifying questions if needed.

Clarify Expectations: Confirm that the customer's expectations align with the product's functionality. Understand their intended use case and how they've set up the gateway. This helps avoid misinterpretations.

Describe the Setup: Understand the customer's on-site setup, including network configuration and connected assets. Are there any specific conditions or limitations that could interfere with the gateway's operation (e.g., firewall settings, network restrictions)?

Understand the LED indicators

The gateway uses LED indicators to communicate its status. The Power LED indicates the overall status, while the Ethernet LEDs reflect the network connection status. Understanding these indicators is crucial for effective troubleshooting.

gridBox - Status LED (Troubleshooting scenarios)

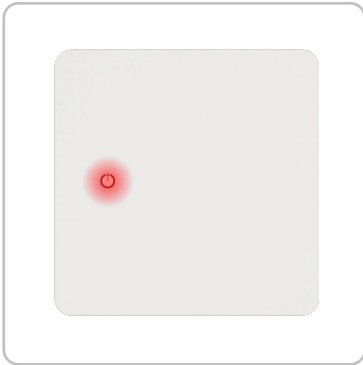
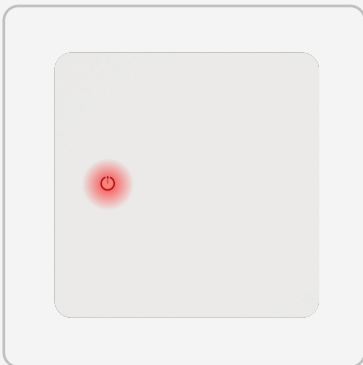
The following scenarios cover common gateway issues and their solutions. For each scenario, follow the suggested steps in order.

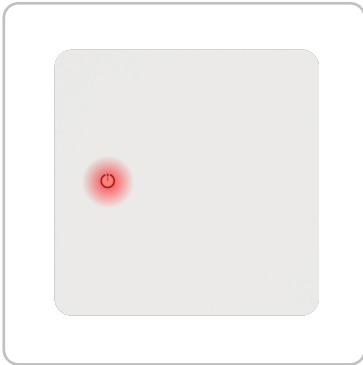
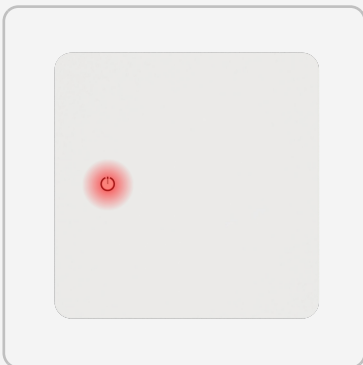


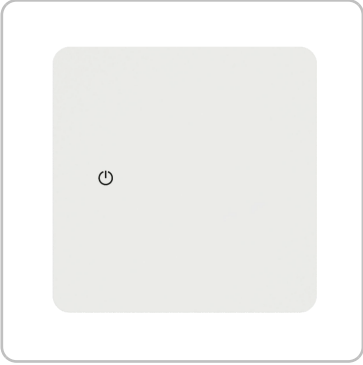
TIP

Typically, it takes a few seconds for the status LED on the gridBox to indicate a status change. If no special conditions are detected (scan, connection problems, etc.), the LED may display light blue breathing temporarily.

Display	LEDs	Diagnosis	What to do
	<ul style="list-style-type: none"> • Power LED: breathing light blue • Ethernet LEDs: lit 	<ul style="list-style-type: none"> • This indicates a normal operating state. • The gateway is powered on and has established an internet connection. 	<ul style="list-style-type: none"> • No troubleshooting is required. • You can now commission the gridBox.
	<p>v6 and higher:</p> <ul style="list-style-type: none"> • Power LED: solid green • Ethernet LEDs: lit 	<ul style="list-style-type: none"> • This indicates a normal operating state. • The gateway is powered on and has established an internet connection. 	<ul style="list-style-type: none"> • No troubleshooting is required. • You can now commission the gridBox.
	<ul style="list-style-type: none"> • Power LED: breathing green • Ethernet LEDs: lit 	<p>This indicates a scan, update or the gateway is running maintenance.</p>	<ul style="list-style-type: none"> • No troubleshooting is required. • Usually this state should not take more than 30 minutes.
	<ul style="list-style-type: none"> • Power LED: solid red • Ethernet LEDs: lit 	<p>This indicates software failure.</p>	<ul style="list-style-type: none"> • Contact your support.

Display	LEDs	Diagnosis	What to do
	<p>until v6:</p> <ul style="list-style-type: none"> • Power LED: breathing red • Ethernet LEDs: lit 	The gridBox is not yet commissioned.	<ul style="list-style-type: none"> • Proceed with commissioning.
	<ul style="list-style-type: none"> • Power LED: flashing red (1x) • Ethernet LEDs: not lit 	This indicates a problem with the physical Ethernet connection between the gateway and the router.	<p>Possible causes:</p> <ul style="list-style-type: none"> • Defective Ethernet cable • Not properly connected Ethernet cable • Defective gateway Ethernet port • Defective router Ethernet port <p>Possible solutions:</p> <ul style="list-style-type: none"> • Check if the Ethernet cable is properly connected to the router and the gateway. • Replace the Ethernet cable with a known working cable. • Test with another device: Connect another device to the same Ethernet port on the router to rule out a router port issue. <p>Support:</p> <p>If the LED pattern does not change, even with a known working cable and router port, contact your dedicated support team. The gateway itself may be defective.</p>

Display	LEDs	Diagnosis	What to do
	<ul style="list-style-type: none"> • Power LED: flashing red (2x) • Ethernet LEDs: lit 	<p>This indicates that no IP address has been assigned to the gateway, most likely due to a problem with the router</p>	<p>Possible causes:</p> <ul style="list-style-type: none"> • No router within the network • Wrong router settings • Router is not DHCP-enabled <p>Possible solutions:</p> <ul style="list-style-type: none"> • Connect the gateway directly to the router without any switches in between. • Restart the router to refresh the connection. • Check the DHCP settings of the router. <p>Support:</p> <p>Check the manual of the router on how to change DHCP settings, or contact the support of the router vendor.</p>
	<ul style="list-style-type: none"> • Power LED: flashing red (3x) • Ethernet LEDs: lit 	<p>This indicates a problem with the connection between the backend and the gateway.</p>	<p>Possible causes:</p> <ul style="list-style-type: none"> • Router settings can prevent the gridBox from establishing the backend connection • The router itself does not have an Internet connection <p>Possible solutions:</p> <ul style="list-style-type: none"> • Check the router settings: <ul style="list-style-type: none"> • Make sure that the firewall settings do not block the connection • Check for other active restrictions that could block the connection • Make sure that outgoing connections on TCP port 443 are allowed • Check if the router has an Internet connection: <ul style="list-style-type: none"> • Check whether the router itself indicates Internet connection issues via its user interface • Check if other devices connected to the same rout-

Display	LEDs	Diagnosis	What to do
	<ul style="list-style-type: none"> • Power LED: not lit • Ethernet LEDs: not lit 	<p>The gateway is not receiving power.</p>	<p>er can reach the Internet</p> <p>Support:</p> <p>Contact the Internet service provider.</p> <p>Possible causes:</p> <ul style="list-style-type: none"> • Power supply cable not plugged in correctly • Defective power socket • Defective gateway power supply <p>Possible solutions:</p> <ul style="list-style-type: none"> • Check power connections: Ensure the power supply cable is securely plugged into both the gateway and the power outlet. • Try a known working power socket to rule out a faulty outlet. <p>Support:</p> <p>If the gateway still doesn't power on, contact your dedicated support team. The power supply unit or the gateway itself may be defective.</p>