Simplewire Flex+ Quick Start

Get a stable first scan with Flex+ in 5-10 minutes.

Use the guide at the panel and go directly to the step-by-step process.

- What you have in your case
- Quick start
- Technical specifications
- Troubleshooting



OUTPUTS
10
numbered signal outputs in the same unit.

SIGNAL
95 kHz
On-Off Keying (OOK) as the active signal type.

DISTANCE
8-16 cm
typical scanning distance, depending on the environment and installation.

PROTECTION
IP5X
for dry environments with some dust, but without exposure to water.

What you have in your case

- Simplewire Flex+ device and scanner
- Signal clamps
- Signal Anchor
- USB-C cable and power supply
- Mounting hook
- Additional accessories when needed



The case contains both standard equipment and extra accessories. You do not need everything to get started.

1. Turn on the units and place Flex+ correctly

STEP 01

Turn on the units



Press the power button on both the Flex+ device and the scanner.

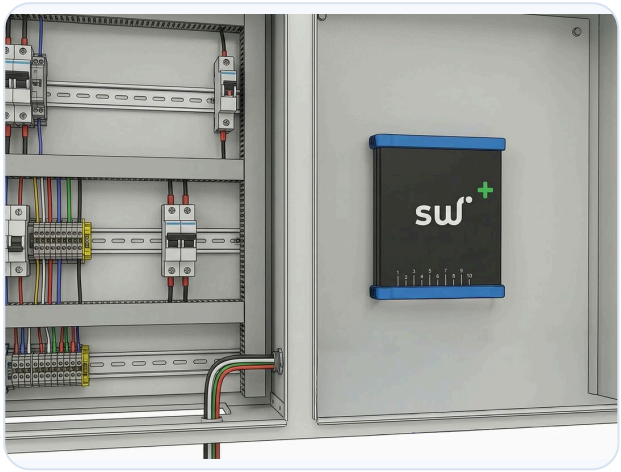
- A blue light and a short beep confirm that the device is ready.
- Make sure both the Flex+ and the scanner are active before continuing.

Low battery level

If the device beeps and flashes red, the battery level is too low for stable use. Charge it before scanning further.

STEP 02

Place Flex+ securely in the electrical panel



Mount the unit with the front facing outward and the back toward the panel.

- Use the built-in magnets or the mounting hook.
- Ensure that the device is secured and that the signal outputs are easily accessible.
- Make sure the device is not loose or obstructing your work on the board.

Good setup matters

A stable mounting position makes the rest of the setup faster and reduces mistakes when you begin attaching clamps and scanning.

Before you continue

- Both units are on.
- The battery level is sufficient.
- You have clear access to the conductors you want to connect.
- You already know whether the installation allows the entire cable, PE, L + N, or single-conductor measurement.

What you are aiming for

The rest of the setup is about choosing the strongest and most stable reference the installation allows. That decision often determines the quality of the first scan.

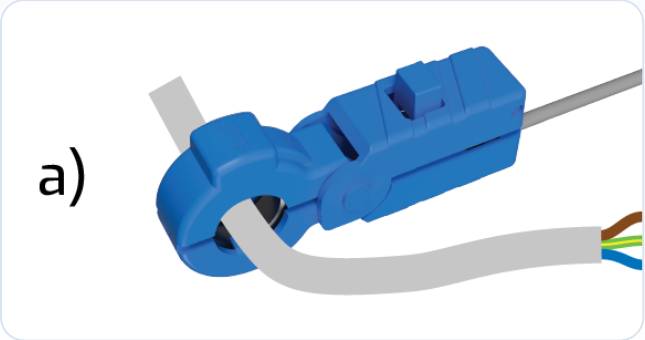
2. Choose the right clamping method

The key rule

Always start with the strongest method the installation allows, and only switch to a weaker method if you absolutely have to.

a) The entire cable

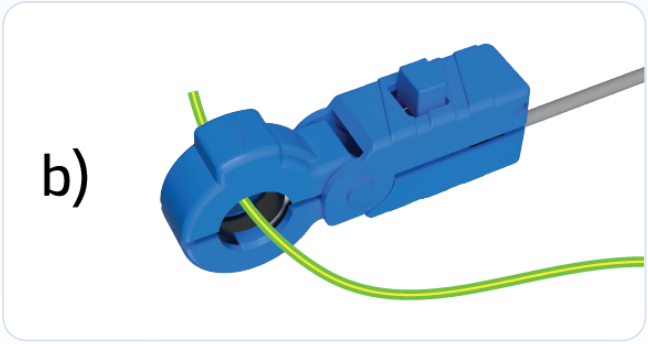
The best and most reliable option. Always use this first whenever possible.



- Clamp around the entire cable, including the ground wire.
- The PE must be connected to a proper ground.
- On shielded cables, place the clamp after the shield's ground connection.

b) Protective conductor (PE)

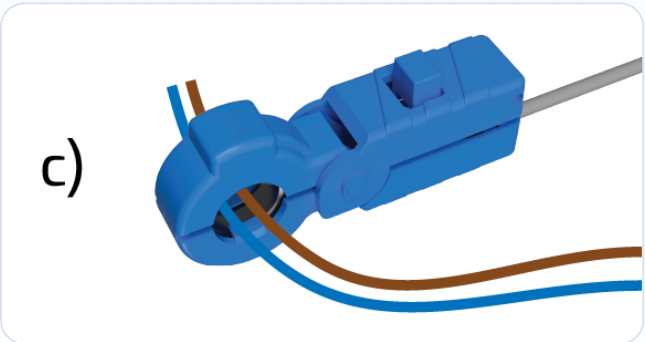
Works reliably when the PE has a proper ground connection. Use only if the entire cable is not possible.



- Clamp around the PE wire alone.
- Use this when running the entire cable is not possible.
- Broken or loose PE can cause weak and unpredictable signals.

c) Phase and neutral together (L + N)

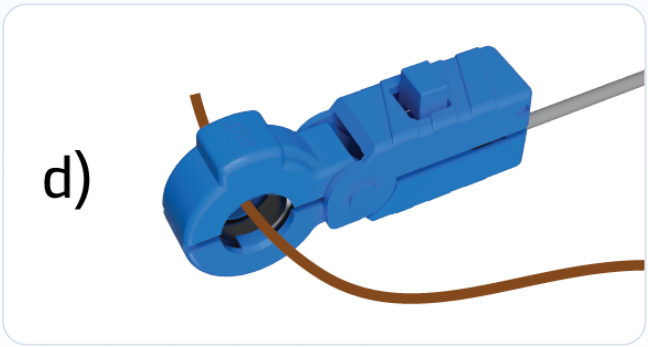
It is a reliable method, but it does not work when the circuit breaker or switch is turned off.



- Clamp around N + L or N + L1-L3.
- This is the next-best method when the entire cable is not possible.
- The signal will not work if the circuit breaker or switch is turned off.

d) Phase only or neutral only

Weakest method. Requires signal anchors and is more sensitive to load and reference errors.



- Only L or only N is more prone to errors and may cause cross-talk or weak signals.
- Signal Anchor must be used.
- At loads above approximately 4 A, the signal may weaken significantly. At 6 A, it may disappear entirely.

3. Perform the first scan and use a signal anchor when necessary



SCANNER DISPLAY

Point the yellow scanner tip at the object you want to check, and hold down the metal button to start scanning.



Look for the strongest, most stable signal. A clear signal appears as a prominent bar on the screen.

How to read the signal

- If the reading is weak or fluctuates, you should typically check the reference, battery, or measurement method.
- When a signal is detected, a signal bar appears. The clearer the reading, the closer the scanner tip is to the correct part of the installation.
- To clear the scan history, press the yellow button on the scanner.

When to use a signal anchor



Use a signal anchor when measuring only the phase or neutral.

- Connect neutral (N) and the phases (L1-L3) as close to the panel as possible to establish a reference.
- The signal will not work if the circuit breaker or switch is turned off.
- At loads exceeding approximately 4 A, the signal quality may deteriorate significantly. At 6 A, it may disappear entirely.

Do not use signal clamps if the clamp is already attached to the entire cable or to the PE conductor. If the magnetic probes do not fit, other accessories can be connected via the banana plugs.

4. The key limitations and technical details

Intended use

- Flex+ and Core are designed for signaling from sub-panels throughout the installation.
- Other use cases may work in practice, but there is no guarantee.
- Using a clamp around the entire cable is still the preferred method when the installation allows it.

PE and shielded cables

- Methods 1 and 3 require a PE with a proper ground connection.
- A broken or loose PE can result in weak and unpredictable signals.
- When you clamp the entire cable, the PE conductor must be included in the cable.
- On shielded cables, the clamp must be installed downstream of the shield's ground connection.

When the signal becomes unpredictable

- Ground loops matter: the signal is only detected where a ground loop is formed.
- Branches without the ground loop may show no signal even though they are electrically connected.
- Mixing N or L terminals between circuits results in unpredictable behavior.
- In rare cases, noise or grounded objects may interfere with the signal.

Other use cases and Fuse Finder

- Ethernet cables, main distribution boards, DC installations, and control systems have been proven effective in practice, but are not guaranteed.
- Fuse Finder is designed to trace the circuit backward from the outlet to the fuse.
- Scanning inside the electrical panel is the only method guaranteed to work.
- Use Delta mode to see where the signal is strongest.

Quick technical reference

Signal type

On-Off Keying (OOK), 95 kHz.

Typical scanning distance

8-16 cm, depending on the environment and installation.

Flex+ battery

5200 mAh Li-ion.

Scanner battery

1850 mAh Li-Po.

Operating hours

Approximately 10 hours for both Flex+ and the scanner.

Charging

USB-C. Charge at room temperature. Recommended range: 5°C to 40°C.

Protection class

IP5X for dry environments with some dust, but no water.

Scope of delivery

Flex+, Scanner, USB-C cable, Mounting hook, Power Supply, and Quick Guide. Accessories include Fuse Finder, Signal Clamps, Magnetic Probes, Signal Anchor, and Alligator Clip.

5. Expanded FAQ and the mistakes that most often ruin the first scan

No scan or no clear signal

- Make sure that both the Flex+ and the scanner are turned on.
- Make sure the batteries are sufficiently charged.
- Make sure the signal terminals are completely closed around the conductor.
- Check whether you are measuring only the phase or only the neutral without a signal reference.

The signal is weak or fluctuates too much

- Start by checking that the clamp is attached to the correct conductor.
- Make sure the reference configuration matches your measurement method.
- Check whether the PE conductor is properly grounded.
- Check whether grounded objects or noise in the installation are interfering with the signal.

I measure only the phase or only the neutral

- Use signal anchors.
- Connect N and L1-L3 as early as possible in the panel, and then repeat the scan.
- The signal will not work if the automatic circuit breaker is turned off.
- The signal may become weaker if there is a high load on the circuit.

I'm not getting a signal in all the branches

- When a ground loop is formed, the signal follows only the path where the ground loop is established.
- Other branches may therefore appear to have no signal if the ground loop occurs in a different branch.

What do I need to know about Fuse Finder?

- Fuse Finder is designed to trace the circuit backward from the outlet to the fuse.
- The guaranteed scan takes place in the electrical panel.
- Scanning directly on cables can be more difficult.
- Interference in the electrical panel is common. Use Delta mode to find the strongest signal.

Contact Support

- If the problem persists after performing the checks above, email support@simplewire.io.
- Describe how you connected the clamps.
- State whether you are using a signal anchor.
- State whether the device is showing a low battery.

SIGNAL

Incorrect reference

Measuring only the phase or only the neutral without a signal reference, PE without a true ground, or mixed N/L often yields unclear and unpredictable results.

BATTERY

Battery charge too low

A red flashing light or repeated beeps indicate that you should recharge the device before continuing.

ENVIRONMENT

Moisture, noise, or shading

Flex+ is intended for use in dry environments only. In rare cases, noise or grounded objects may also interfere with the signal.

SERVICE

Unauthorized intervention

Do not open the device or attempt to repair it yourself. Doing so increases the risk of injury and may void the warranty.