

USER MANUAL

# Link-Power Companion

The unofficial native iOS app for the PeakDo Link-Power family of portable power stations.

VERSION

**v1**

RELEASED

**May 6, 2026**

DEVICES

**LP1 · LP2 · LP+**

LICENSE

**MIT (open source)**

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[linkpower.app](#) · App Store ID 6762404390 · GitHub [anglinb/LinkPower-Companion](#)

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# 1 About Link-Power Companion

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**Link-Power Companion** is a native iPhone app for the PeakDo Link-Power family of portable power stations: **LP1**, **LP2**, and **LP+**. It connects directly to your device over Bluetooth Low Energy (BLE), gives you live battery telemetry, and lets you control DC output, USB-C power limits, and scheduled on/off behaviour from your phone.

PeakDo's official iPhone solution is a Web App you launch through a third-party browser called Bluefy, because Safari does not implement Web Bluetooth. Link-Power Companion replaces that workflow with a real native iOS app, and adds platform features the Web App can't — Live Activities, Lock Screen widgets, and reliable background reconnection.

The app is free, has no in-app purchases, no ads, no analytics, and no account system. The full source is published under the MIT license at [github.com/anglinb/LinkPower-Companion](https://github.com/anglinb/LinkPower-Companion).

**Unofficial.** This app is not affiliated with, endorsed by, or supported by PeakDo Tech, Inc. Use at your own risk. The protocol was reverse-engineered from PeakDo's publicly-distributed Web App.

## 2 Compatibility

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The app supports three Link-Power devices:

Device	Code	Model	Capabilities
Link-Power 1	LP1	BP4SL3V1	Battery, DC, USB-C, scheduled control, shutdown
Link-Power 2	LP2	BP4SL3V2	Battery, DC, USB-C, DC bypass, DC input
Link-Power+	LP+	BP4SL3	DC port control

Different models expose different feature sets. The app shows the controls available for the connected device only; unsupported features are hidden automatically.

**iOS requirements:** iPhone running iOS 17.0 or later. Bluetooth permission is required (the app will prompt on first use). The iOS Simulator does not support Bluetooth, so you must run on a real device.

### 3 Quick start

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Install **Link-Power Companion** from the App Store (search "Link-Power Companion" or tap the link on [linkpower.app](https://linkpower.app)).

Power on your Link-Power. Confirm the BLE icon is showing on its screen — if it's not, enable Bluetooth from the device's on-screen menu.

Open the app. Allow Bluetooth permission when prompted.

Tap **Scan**. Your device should appear within a few seconds; tap it to connect.

The dashboard now shows live battery state, DC and USB-C status, and remaining runtime.

**No device on hand?** Tap **Demo Mode** on the connect screen to explore the entire app with simulated battery data — no hardware required.

## 4 Connecting to your device

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### 4.1 First connection

On first launch, the app shows the **Connection** screen. Tap **Scan** to look for nearby Link-Power devices. Devices broadcast a BLE name based on their model — your LP2 will appear as something like "LP2-XXXX".

Tap your device in the list. The app pairs over BLE and transitions to the dashboard. Connection typically takes 2–4 seconds.

### 4.2 Auto-reconnect

After a successful first connection, the app remembers your device and reconnects automatically the next time both are powered on and in BLE range. CoreBluetooth's state restoration APIs handle reconnection in the background, so opening the app on a device you've paired before is usually instant.

### 4.3 Switching devices

To pair a different Link-Power, swipe down on the dashboard to disconnect, then tap **Scan** again. You can also tap the connection indicator in the top-left of the dashboard to bring up the device picker.

### 4.4 Demo Mode

Tap **Demo Mode** on the connect screen to simulate a connected battery. Demo Mode populates the dashboard with believable values, lets you toggle every control, and is useful for evaluating the app before buying hardware or for testing the UI.

**One client at a time.** The Link-Power firmware allows only one Bluetooth client to hold a connection at a time. If you previously used the PeakDo Web App through Bluefy, close Bluefy completely (swipe up to App Switcher and flick it away) before opening this app.

## 5 Reading the dashboard

The dashboard streams live data from BLE notifications, updated roughly once per second. Key fields:

Field	Meaning	Units
Battery level	State of charge as a percentage	%
Capacity	Remaining energy in the cells	Wh
Voltage	Battery pack voltage	V
Current	Net current — positive = charging, negative = discharging	A
Runtime	Estimated time to empty (when discharging) or full (when charging)	h:mm
DC power	Live wattage flowing through the DC port	W
USB-C power	Live wattage flowing through the USB-C port	W
Temperature	USB-C port temperature	°C

Above the data cards, a flow strip shows the dominant direction — green when charging, orange when discharging, grey when idle.

The runtime estimate uses the current draw at this moment. If your draw changes (e.g. Starlink Mini downloading vs. idle), the runtime estimate updates within a few seconds.

## 6 DC port control

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The DC card lets you toggle the DC port on or off, monitor live wattage, and (on LP2) enable DC bypass for direct input-to-output passthrough.

### 6.1 Toggling DC output

Tap the large power switch in the DC card. The change is sent to the device immediately over BLE; the live wattage reading reflects the new state within one second.

### 6.2 DC bypass (LP2 only)

DC bypass routes the DC input directly to the DC output without buffering through the battery. Useful when you're powered by a constant DC source (solar panel in direct sun, vehicle alternator) and don't want to cycle the battery cells unnecessarily.

DC bypass passes the input voltage directly. Make sure your output device tolerates the input voltage range before enabling.

## 7 USB-C monitoring

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The USB-C card shows the current charge/discharge state, live wattage, port temperature, and (on LP1/LP2) lets you enable or disable output.

### 7.1 Charging vs discharging

USB-C is bidirectional. The card displays an arrow — down for charging the battery, up for powering an external device. Wattage and temperature update live.

### 7.2 Output toggle

The output toggle disables USB-C output without affecting the battery's ability to charge from USB-C. Useful for preventing accidental drain when you're not actively using a connected device.

## 8 Power limits

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Configure global, input, output, and runtime power caps from 30W to 100W. Limits are stored on the Link-Power device itself and persist across connection drops.

Limit	Effect
Global	Maximum total wattage across all ports
Input	Maximum wattage the battery will accept while charging
Output	Maximum wattage delivered to a connected device on USB-C
Runtime	Auto-cuts power after the configured runtime, in hours

### 8.1 Setting a limit

Tap a limit row, drag the slider to the desired value, and tap **Save**. The value is sent to the device over BLE within one second and is enforced immediately.

**Why output limits matter.** If you're running gear that's sensitive to over-power (some small devices ship with USB-C PD that nominally requests higher wattage than the device actually wants), capping the output protects the device.

# 9 Scheduling DC on/off

Up to **6 active timers** per device, each executing a single action (DC port On or Off) at a scheduled time. The 6-timer limit is enforced by the Link-Power firmware.

## 9.1 Schedule types

**One-shot** — fires once at a specific date and time.

**Daily** — fires every day at the same time.

**Weekly** — pick days of the week.

**Monthly** — pick days of the month (1–31).

## 9.2 Creating a schedule

Tap the **DC Port** card on the dashboard.

Tap **Schedules**.

Tap **Add Schedule**.

Pick the type, set the time, choose the action (On / Off), and save.

## 9.3 Editing or deleting

Tap a schedule to edit; swipe left to delete. Changes sync to the device immediately.

**Schedules execute on the device, not your phone.** Once written, your phone can be miles away — the Link-Power's own micro-timer fires the schedule independently.

## 9.4 Common recipes

Use case	Schedule pair
Off-grid lighting	Daily 6:30pm On + Daily 12:00am Off
Starlink overnight cutoff	Daily 11:00pm Off + Daily 7:00am On
Weekly router reboot	Weekly Sun 3:00am Off + Weekly Sun 3:05am On
Heater overnight (one-shot)	One-shot 10pm tonight On + One-shot 6am tomorrow Off

# 10 Live Activities & widgets

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Live Activities and Lock Screen / Home Screen widgets are iOS-native features that the PeakDo Web App can't use. Both show live battery state without requiring you to open the app.

## 10.1 Lock Screen / Home Screen widgets

Long-press an empty area on your Lock Screen or Home Screen, tap **Customize** or **+ Add Widget**, search **Link-Power**, and pick a size. Widgets update via WidgetKit several times an hour, faster when the app has been recently active.

## 10.2 Live Activities

When enabled (Settings → Notifications → Link-Power Companion → Live Activities), the app pins a live battery card to your Lock Screen and Dynamic Island when you have an active session. Useful during long off-grid trips.

## 10.3 Color coding

**Green** — charging

**Orange** — discharging

**Grey** — idle

# 11 Date & time sync

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The Link-Power has its own internal clock that drives scheduled events. The app provides a one-tap sync that pushes your iPhone's current time and timezone to the device.

## **Settings → Sync date & time**

Sync after a timezone change (e.g. you flew to a different country and your existing schedules need to fire at the new local time). The device does not track timezone independently — schedules are interpreted as local time relative to whatever clock you last synced.

## 12 Expert & Dev modes

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Expert and Dev modes expose advanced controls. They are hidden by default; enable them in **Settings** → **Advanced**.

### 12.1 Restart

Soft-restart the Link-Power. The device reboots its controller while preserving battery state.

### 12.2 Shutdown (LP1 only)

Fully shut the device down. Wakes via the physical power button.

### 12.3 Factory mode

Resets all firmware-stored settings (power limits, schedules, BLE PIN). Battery cells and firmware version are preserved.

Factory reset is irreversible from the app. Take a screenshot of your schedule list before triggering it.

### 12.4 BLE PIN

Optionally set a 6-digit PIN that the device will require on every BLE pairing. Useful in shared environments. PIN verification happens once per connection — once paired, you don't re-enter it.

# 13 Troubleshooting

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## 13.1 Device doesn't appear during scan

Confirm the BLE icon is visible on the device's screen.

Confirm Bluetooth is on in iOS Settings.

Confirm no other client (Bluefy, another phone) is currently connected — only one client at a time.

Move within ~5 meters of the device while pairing for the first time.

Force-quit the app (App Switcher → swipe up) and re-open.

## 13.2 Connection drops randomly

Range — BLE drops past ~10 meters or through walls. Move closer.

Interference from other 2.4 GHz devices (microwaves, baby monitors).

Device firmware needs a restart — try Expert Mode → Restart.

## 13.3 Schedules aren't firing

Check the device clock is correct — re-sync via **Settings** → **Sync date & time**.

Confirm the schedule is shown as "active" in the schedules list.

If you've changed time zone recently, schedules fire in the device's last-synced timezone — sync again.

## 13.4 Live Activity didn't appear

Settings → Notifications → Link-Power Companion → Live Activities must be ON.

Live Activities can be silenced by Focus modes.

iOS limits the number of simultaneous Live Activities; close others if needed.

## 13.5 Widget shows stale data

WidgetKit on iOS limits how often a widget can update. Open the app to force a refresh — the widget reads the latest cached state on next paint.

## 14 Frequently asked questions

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### **Is this the official PeakDo app?**

No. PeakDo's official iOS solution is a Web App you launch through Bluefy. This app is an independent, community-built native iOS alternative.

### **What data leaves my phone?**

None. The app speaks BLE directly to the Link-Power. There are no servers, no analytics SDK, no crash reporter, and no account system.

### **Is the source available?**

Yes — MIT licensed at [github.com/anglinb/LinkPower-Companion](https://github.com/anglinb/LinkPower-Companion). You can audit the BLE protocol, build your own version, or contribute fixes.

### **Why is the iOS Simulator unsupported?**

iOS Simulator does not implement Bluetooth. Run on a real iPhone.

### **Can I run this and the PeakDo Web App at the same time?**

No. Only one Bluetooth client can hold a connection to a Link-Power at a time. Close Bluefy fully before opening this app.

### **Will my settings transfer if I switch from Bluefy?**

All firmware-stored settings (power limits, schedules, device clock, BLE PIN) live on the Link-Power itself, so they're visible to either client. There is nothing to migrate.

## 15 Privacy & open source

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Link-Power Companion is privacy-first by design:

No accounts. Nothing to sign up for.

No servers. The app speaks BLE directly to the device.

No analytics SDK. No event tracking.

No crash reporter calling home.

All settings are stored either on your iPhone (locally) or on the Link-Power device (firmware).

The full source is published under the **MIT license**. Audit, fork, contribute, or ship your own version. See [github.com/anglinb/LinkPower-Companion](https://github.com/anglinb/LinkPower-Companion).

## 16 Support

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Bug reports, feature requests, and questions are welcome on GitHub:

[github.com/anglinb/LinkPower-Companion/issues](https://github.com/anglinb/LinkPower-Companion/issues)

For PeakDo hardware questions (the device itself, not the app), please contact PeakDo support at [peakdo.com](mailto:peakdo.com).

Because this app is unofficial, we cannot help with warranty, returns, firmware updates pushed by PeakDo, or any hardware issue. App-side issues — connection bugs, UI problems, missing features — are absolutely in scope.



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