# 🚀 Getting Started with Your RoamSat “MINI”

The Roamsat is a fully self-contained mobile power source for your Starlink or Starshield antenna. It provides up to 7 hours of runtime on the internal LiFePO4 battery and unlimited runtime when powered by an external DC source (using the supplied bypass cables) or AC power (using the included wall charger/power supply with the interface bypass adapter).

The unit includes an external ethernet port for direct hardwired connections to a computer, TV, router, or network switch. It also uses a 3-pin power port that accepts either the charging adapter or the bypass adapter, both included with each kit. The adapter you insert determines whether the port functions as a charging input or as a direct external power input.

The battery monitor illuminates when the Roamsat is powered on and displays battery data only when using the internal battery. **The red ON/OFF switch controls the internal battery only. It is not a master power switch and does not control external power operation.**

Do not modify the wiring, and do not connect AC power directly to the Roamsat. Always use the included Roamsat power supply and adapters.

## Important:

The red battery switch on the face of the unit activates the internal battery.
Use in the “ON” position **ONLY** when you intend to run the system from the internal battery.

For charging and all external power options (AC or DC), the red switch must remain OFF.
Running external power with the switch ON will backfeed the internal battery, which can disrupt cell balance, reduce capacity, and shorten battery life because of the mismatched voltages and chemistries.

*Follow these guidelines to ensure proper performance and long-term reliability of your Roamsat system.*

## Operating Your Roamsat Unit

Operating your Roamsat unit is simple. Place the unit outdoors with a clear, unobstructed view of the sky. If you are powering the system from the internal battery, switch the red ON/OFF button to the ON position. The display will illuminate, confirming the unit is powered.

The screen provides key battery information including:
• Battery percentage
• Remaining capacity (amp hours)
• Estimated runtime
• Battery voltage
• Current draw (amps)
• Power consumption (watts)

During startup, the antenna draws significantly higher power. This causes the estimated runtime to appear lower because the gauge is calculating based on the amperage at that moment. Once the system acquires satellites and stabilizes, the power draw decreases and the runtime estimate will recalibrate.

When the unit is powered OFF, the display receives no power. This prevents unnecessary battery drain during storage or long periods of inactivity.

When the system is powered using the bypass cable, both the internal battery and the ON/OFF switch are circumvented. This isolates the internal battery and allows the Roamsat to accept a wide range of external power sources from USB-C up to 30V DC. The display will still illuminate to show that the unit is powered on, although no battery parameters will be shown because the internal battery is not in use.

After powering ON with internal battery, allow the battery monitor a few minutes to fully calibrate based on the voltage and the parameters programmed into the system.

Within about 30 seconds, the WiFi network will appear on your device. For first-time use, the network will show as “STARLINK.” Once your service is activated, the system will come online and you will be connected to the internet.

To set your own WiFi name and password, open the Starlink app and connect to the STARLINK network. You will then be prompted to create a new network name and password.

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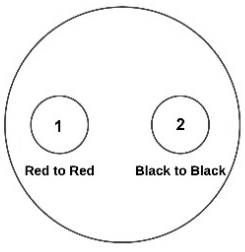
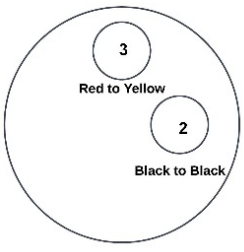
| 12V 12Ah lifepo4 battery pack | | |
|---|---|---|
| Voltage | Capacity(Ah) | Percentage |
| 13.6V | 11.81Ah | 100% |
| 13.1V | 11.74 | 99% |
| 13V | 11.68 | 98.90% |
| 12.9V | 11.56 | 97.90% |
| 12.8V | 9.15 | 77% |
| 12.7V | 6.27 | 53% |
| 12.6V | 3.91 | 33% |
| 12.5V | 2.63 | 22% |
| 12.4V | 1.91 | 16% |
| 12.3V | 1.24 | 10% |
| 12.2V | 0.81 | 7% |
| 12.1V | 0.6 | 5% |
| 12V | 0.49 | 4% |
| 11.9V | 0.41 | 3% |

**Battery Charging:**
Satiator, 12v Charger, Solar Panel




**Bypass Power:**
12v Cig, Jumper, Hubbell, 110v Power Supply, Bare




## Charging Your Battery

1. Standard 110-240v Wall Charger (Included) - Approximate charge time: 3.5 hours
   • Plug the charger into a wall outlet (110–240V AC)

• Connect the included charging adapter

• Insert the 3-pin charging plug into the RoamSat

• LED indicator on the wall charger:

o Green = power on or charging complete

o Red = actively charging

• NOTE: **The RoamSat screen does NOT illuminate while charging**

➤ To verify charge progress, briefly switch the battery ON and look for the screen's fade-in/fade-out. You will also note the voltage number in the lower left corner increasing.

**• When the battery is fully charged, you can press and hold the top arrow button on the display to reset the battery monitor to 100%.**

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## 12V DC Charger (Optional)

***(****Refer to the charging unit's manual for additional details.)*

• Designed for use with any external 12-24V battery to charge your RoamSat.

• Make the following connections:

**Input**: Select your preferred connector (cigarette plug, bare wire leads, or jumper clips) and attach to the red/black input wires.

**Output**: Connect the yellow/black output wires → 10 ft extension cable → RoamSat "charging" adapter (supplied with AC wall charger/power supply).

• LED indicator on the charger:

o Green = connected

o Red = actively charging

• The RoamSat power switch must remain OFF while charging only.

• The power switch may be turned ON only if you are actively operating the RoamSat outdoors while it is being charged.

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## 2. Using Auxiliary Power (Bypass Mode)

🔺 IMPORTANT: Keep the red battery switch OFF when using any auxiliary power cables.

1. DC Power (12–30V Input)

• Use the 12 ft bypass cable and attach your chosen adapter (cigarette plug, jumper clips, or

bare-wire leads)
• Insert the 3-pin auxiliary cable into the RoamSat.
• The display will illuminate immediately, confirming the unit is powered from the external DC source

2. AC Power (110–240V)
• Requires the included AC wall charger/power supply together with the Bypass Adapter.
• Connection order:
  Wall Charger / Power Supply → Short Interface Cable → Auxiliary Bypass Cable
• The unit will power ON and the display will illuminate using regulated 14.6V output

⚠️ Do NOT connect AC power directly to the RoamSat. Use the included power supply only.

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3. USB-C Power (Minimum 65W Output)
   • Use the RoamSat 100W USB-C cable
   • Compatible with:
     o Wall USB-C power adapters
     o High-capacity power banks
     o USB-C PD ports (65W or higher)

   NOTE: *Voltage on the RoamSat screen should read 19V in the lower-left corner when using USB-C PD. Anything lower will not properly power the Starlink antenna.*

• Powerpole to USB-C Cable
  Best for remote power where the USB-C outlet is not near the unit.
  USB-C end connects to the auxiliary bypass cable.
  Approx. total length: ~18 ft OAL

• XLR to USB-C Cable
  Best for portable power banks placed next to the unit
  Approx. total length: ~6ft OAL

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## Mounting the RoamSat

Option 1: Rubber anti-skid feet (Default)

- Your Roamsat comes with Rubber anti-skid feet to prevent it from sliding around and scratching the mounting surface

Option 2: Vacuum Mounts

- Unscrew rubber anti skid feet, thread in vacuum mounts (¼-20 thread)
- Clean surface + apply water to rubber pad (helps create suction)
- Press unit down and pump plunger until orange band disappears.
- To release, lift the tabs.

Option 3: Magnets

- Just set RoamSat on a magnetic surface.

Option 4: Semi-Permanent

- Use rubber isolator bushings to bolt it down via ¼-20 holes.

Option 5: Adjustable Rod Holder Mount

- Great for maritime applications where non skid deck surface prevents the use of vacuum mounts

Option 6: Tie Down Rings

- These 316ss D rings mount to the existing lid hardware and provide an attachment point for straps, cables, etc.  No drilling or modifications required.

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# Need Help?

**Scan the QR below code or visit our website to access:**

## Most Common FAQ:

**"My unit is not charging, and it has been plugged in all day."**

- **The 12V cigarette adapter is *not* a charger.**
  All auxiliary power cables (cigarette lighter, jumper clips, etc.) are for *powering the unit only*, not charging the battery.
- **Charging requires the dedicated charger and "charging" adapter cable.**
  The RoamSat power supply *only* functions as a charger when connected using the "Charging" adapter cable (not the auxiliary bypass harness).
- **Cycle Satiator displays "Connect to Battery" but is plugged in to the Roamsat?**
  This likely means the battery is fully drained.
  To recover:
    - Press and hold the down button on the Satiator charger for a few seconds to "force start" charging.

**"My unit only lasts a couple hours on battery" or "Gauge shows 100% but keeps shutting off."

- Your **battery percentage calibration is likely off**.
- To reset:
    1. Fully **charge the unit**.
    2. Hold the **top arrow button** for **2–3 seconds** to reset calibration.
- For more accurate monitoring, reference the **battery voltage** in the **lower-left corner** of the display and compare it to the voltage chart below.

## Voltage Chart for RoamSat 12v

| Battery Level | Voltage (Approx.) | Status |
|---|---|---|
| 100% | 13.1V – 13.4V | Full |

| Battery Level | Voltage (Approx.) | Status |
|---|---|---|
| 75% | 12.8V – 13.0V | High |
| 50% | 12.4V – 12.7V | Medium |
| 25% | 12.0V – 12.3V | Low |
| 0% | < 11.9V | Empty / Shutdown Required |

- **Battery voltage too low?**
  The unit will not operate below 12.0 V.
  The front battery display must show a minimum of 12.0V to power on.

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### 🪫 Other Common Issues

- Battery Indicator Not Illuminating
  - Possible causes:
    - Dead battery
    - Faulty or insufficient power source (e.g. blown fuse or low-output outlet)
- Battery Indicator ON, but No WiFi
  - Cause: The antenna is not receiving power
  - Check the DC barrel connector inside the unit (plugged into the antenna).
  - Once the antenna powers on, the WiFi network should appear on your device.
- WiFi is Present, but No Internet
  - Causes:
    - The unit may be obstructed (trees, buildings, etc.)
    - You may be outside coverage based on your selected Starlink service plan.

We are available during normal business hours 9-6 pst and often after hours via email.

877-887-2611 or info@roamsat.com