

DeployNet™ DIY Kit

Installation Instructions



Estimated Installation Time: 15–30 Minutes

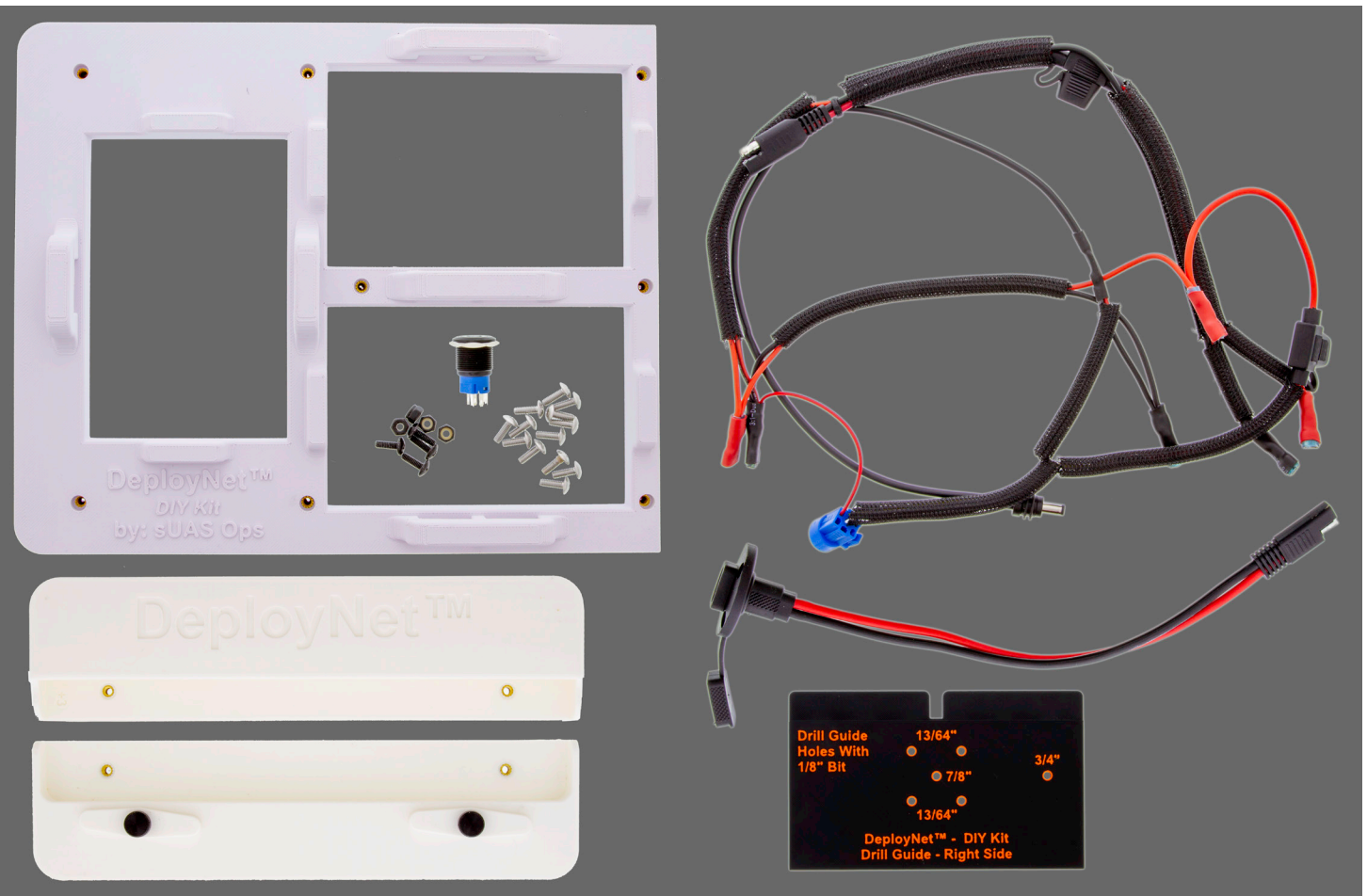
Difficulty Level: Easy to Moderate

Specialized Skills Required: None

The DeployNet™ DIY Kit is designed for straightforward installation using common hand tools. Most installations can be completed in approximately 15–30 minutes. Installation time may vary depending on experience and available tools.

Kit Contents

- Installation Instructions
- Switch and Charging Port Drill Guide
- 2-Piece Starlink Mini Mounting Bracket Set
- Battery Retention Plate
- 3 Hook-and-Loop Battery Retention Straps
- 13 Silver Stainless Steel #8-32 × 1/2" Truss-Head Phillips Machine Screws (12 required for installation + 1 spare)
- 4 Black Oxide Stainless Steel #8-32 × 1/2" Truss-Head Phillips Machine Screws (for Charging Port installation)
- Waterproof Latching 12V ON/OFF Push-Button Switch
- SAE Quick-Disconnect Charging Port Harness
- Wiring Harness with 2 replaceable 15A fuses for input and output circuit protection



Tools Needed

- Electric Drill
- 1/8" Drill Bit
- 13/64" Drill Bit
- Step Drill Bit with 3/4" Step
- Step Drill Bit with 7/8" Step
- 11/32" Wrench or Socket
- 22 mm Wrench (adjustable wrench may also be used)
- #2 Phillips Screwdriver

Customer-Supplied Components

- Harbor Freight Apache 3800 Case
- Starlink Mini
- 2 or 3 12V LiFePO₄ batteries meeting the following requirements:
 - F2 (0.250" / 6.35 mm) male blade terminals
 - Maximum dimensions per battery: 5.93" L × 3.90" W × 4.10" H
 - Battery capacity (Ah) may vary
 - Use identical 12V LiFePO₄ batteries of the same make, model, voltage, and capacity (Ah).
 - Do not mix different battery models, capacities, ages, or chemistries.
 - Before connecting multiple batteries, make sure they are at approximately the same state of charge.
 - Batteries with screw, bolt, or threaded terminals are not compatible with the supplied Wiring Harness
- Compatible LiFePO₄ battery charger with SAE quick-disconnect connector

Important Safety & Electrical Requirements

READ BEFORE BEGINNING INSTALLATION

The DeployNet™ DIY Kit requires the installer to make electrical connections between multiple batteries and the supplied Wiring Harness. Carefully observe all battery polarity and compatibility requirements.

Battery Polarity

Always verify battery polarity before making any electrical connection.

- Red to positive (+)
- Black to negative (–)

Do not rely solely on the physical position or orientation of the battery terminals. Locate and verify the + and – markings on each individual battery before connecting the Wiring Harness.



WARNING — REVERSED POLARITY: Reversing battery polarity may damage the Starlink Mini, Wiring Harness, switch, or other connected equipment and may create a fire hazard.

Battery Compatibility

- Use only 12V LiFePO₄ batteries
- Use identical batteries of the same make, model, voltage, and capacity (Ah)
- Batteries should be at approximately the same state of charge before being connected together
- Do not mix battery chemistries
- Do not connect batteries with significantly different states of charge

Do not use any battery that is damaged, swollen, leaking, excessively hot, or otherwise shows signs of deterioration.

Fuse Protection

The supplied Wiring Harness incorporates two replaceable 15A fuses to help protect the system's input and output circuits. If a fuse requires replacement, replace it only with a 15A fuse of the same type and rating. Never replace a fuse with one having a higher amperage rating.

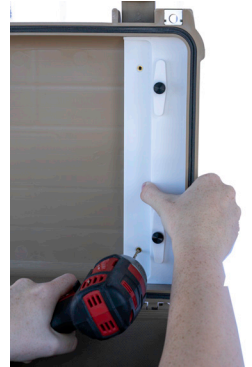
Installation Instructions

Step 1 — Prepare the Case

Remove all foam from the case, including the foam from inside the lid.

Step 2 — Install the Right Starlink Mini Mounting Bracket

Position the Starlink Mini mounting bracket with the locking lever against the right inside edge of the case lid. Make sure the bracket remains flush against the right-hand side of the lid. Using a 1/8" drill bit, drill 2 pilot holes through the lid, using the brass heat-set threaded inserts in the bracket as drilling guides.



Step 3 — Install the Left Starlink Mini Mounting Bracket

Position the Starlink Mini mounting bracket with the "DeployNet™" text against the left inside edge of the case lid. Make sure the bracket remains flush against the left-hand side of the lid. Using a 1/8" drill bit, drill 2 pilot holes through the lid, using the brass heat-set threaded inserts in the bracket as drilling guides.



Step 4 — Secure the Starlink Mini Mounting Brackets

Remove all drilling debris. Using 4 of the supplied silver stainless steel screws, secure both Starlink Mini mounting brackets to the lid.



Step 5 — Position and Drill the Battery Retention Plate

Place the Battery Retention Plate into the bottom of the case and push it firmly against the left side of the case.

Using the brass heat-set threaded inserts in the Battery Retention Plate as drilling guides, drill 8 holes through the bottom of the case using a 1/8" drill bit.

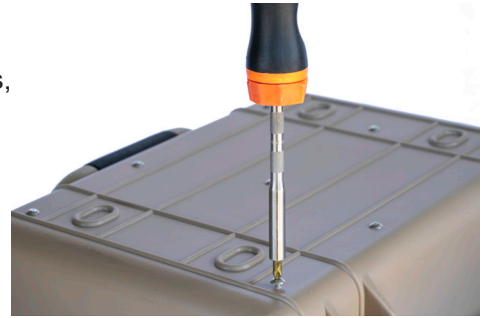
Tip: An extra-long 1/8" drill bit is helpful for this step and makes it easier to drill straight through the threaded inserts.

CAUTION: The drill bit will pass completely through the bottom of the case. Support the case over an open area or place it on a suitable sacrificial work surface to prevent damage to your workbench, table, or other surface.



Step 6 — Secure the Battery Retention Plate

Remove all drilling debris. Using 8 of the supplied silver stainless steel screws, secure the Battery Retention Plate to the bottom of the case.



Step 7 — Position the Drill Guide

Position the supplied **Switch and Charging Port Drill Guide** on the outside of the **right side of the case**. The slot at the top of the guide fits around the support beneath the case lip. Insert the upper lip of the guide into the slot underneath the case lip so the guide is properly seated and aligned.

Hold the guide firmly in position. Using a **1/8" drill bit**, drill through the case at **all six marked pilot-hole locations**.



Step 8 — Remove the Drill Guide

Remove the Switch and Charging Port Drill Guide.

Step 9 — Drill the Charging Port Opening

Using a **7/8" step drill bit**, enlarge the center pilot hole in the 5-hole cluster to **7/8"**.



Step 10 — Drill the Switch Opening

Using a **3/4" step drill bit**, enlarge the remaining single pilot hole to **3/4"**.



Step 11 — Enlarge the Charging Port Mounting Holes

Using a 13/64" drill bit, enlarge the 4 pilot holes surrounding the 7/8" opening.



Step 12 — Clean the Drilled Openings

Remove all drilling debris and plastic shavings from the inside and outside of the case. Carefully remove any burrs from the drilled openings before proceeding.

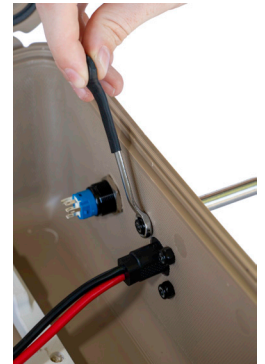
Step 13 — Install the ON/OFF Switch

Remove the panel mounting nut from the Waterproof Latching 12V ON/OFF Push-Button Switch. Insert the switch through the 3/4" hole from the outside of the right side of the case. From inside the case, reinstall the panel mounting nut and tighten it using a 22 mm wrench. A small amount of removable thread locker may be applied to the threads to help prevent the mounting nut from loosening.



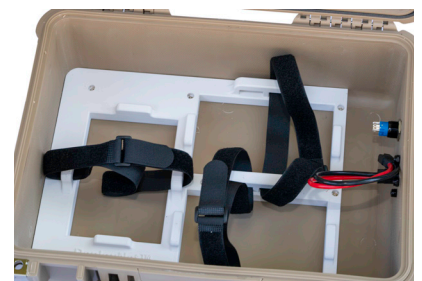
Step 14 — Install the SAE Charging Port

Insert the SAE Quick-Disconnect Charging Port Harness through the 7/8" opening from the outside of the case. Position the charging port with the hinge of the protective cover facing upward. Using the 4 supplied black screws and nuts, secure the charging port to the case. Tighten the screws using a #2 Phillips screwdriver and 11/32" wrench or socket until the screw threads just begin to extend beyond the nylon locking insert in each nut.



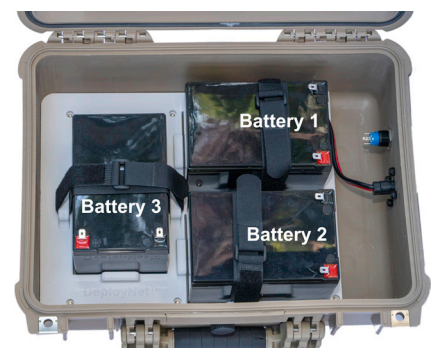
Step 15 — Install the Battery Retention Straps

Make sure the inside of the case is free of all drilling debris and plastic shavings. Thread the 3 Hook-and-Loop Battery Retention Straps through the Battery Retention Plate as shown in the installation photo. Leave the straps loose at this time.



Step 16 — Position the Batteries

Place 2 or 3 compatible batteries onto the Battery Retention Plate. Refer to the installation photo for the correct positioning of the batteries and the orientation of the F2 electrical spade terminals. Make sure each battery is positioned with its terminals oriented exactly as shown in the photo before proceeding. Correct battery and terminal orientation will help ensure that the Wiring Harness reaches each battery properly and can be routed and secured as intended. Do not tighten the battery retention straps yet.



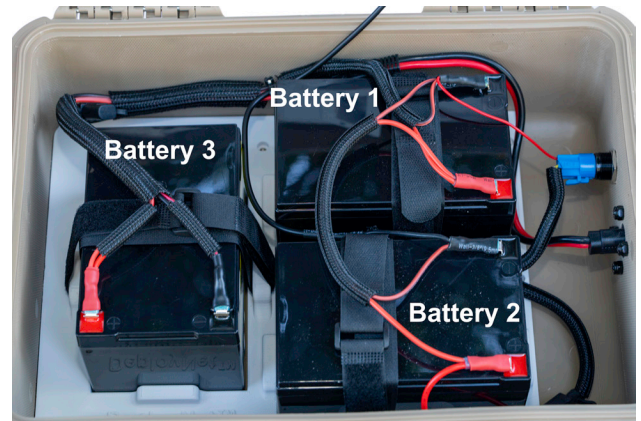
Step 17 — Connect the Wiring Harness to the Batteries

This is the most important electrical step of the installation. Carefully verify battery polarity before making any connections.

Connect the Wiring Harness to the batteries, using the labels on the harness to identify which set of terminals connects to each battery, and carefully observe the polarity markings:

- Red = Positive (+)
- Black = Negative (–)

Locate and verify the + and – markings on each individual battery before attaching either connector.



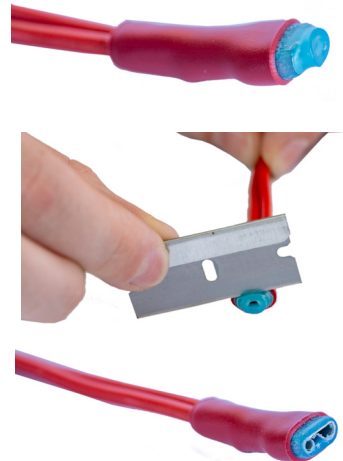
WARNING — BATTERY POLARITY: Incorrect battery polarity can cause serious equipment damage and may create a fire hazard. Verify the polarity of each battery at least twice before attaching the Wiring Harness connectors. Never assume terminal polarity based solely on battery position or orientation.

The Wiring Harness supports up to 3 batteries. If installing 2 batteries, install them in the positions 1 & 2 as shown in the installation photo, leaving battery position 3 empty.

The third-battery spade connectors, position 3 are supplied with blue heat-shrink protective insulation over their ends. This insulation is intentionally installed to help prevent the unused connectors from accidentally shorting. If installing a third battery, carefully remove the blue protective insulation from the third-battery spade connectors immediately before making the battery connections. If operating the system with only 2 batteries, do not remove the blue protective insulation from the unused third-battery connectors.

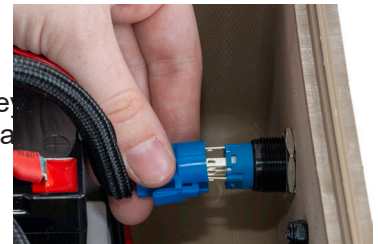
Before proceeding, inspect all battery connections one final time and confirm:

- Red connectors are connected to positive (+)
- Black connectors are connected to negative (–)
- All connectors are fully seated
- No exposed connectors can contact each other or another conductive object



Step 18 — Connect the Wiring Harness to the ON/OFF Switch

Connect the blue Wiring Harness connector to the ON/OFF switch. The connector is keyed for one orientation. Do not force the connector. Push it firmly into place until the retaining latch is engaged.



Step 19 — Connect the Charging Port Harness

Connect the SAE Quick-Disconnect Charging Port Harness to the matching SAE connector on the Wiring Harness. Make sure the connection is fully seated.



Fuse Protection Reminder

The Wiring Harness incorporates two replaceable 15A fuses to help protect the system's input and output circuits. If a fuse requires replacement, replace it only with a 15A fuse of the same type and rating. Never install a higher-amperage fuse.

Step 20 — Dress the Wiring

Arrange the wiring as shown in the installation photo. Keep excess wiring positioned alongside or below the battery tops and away from areas where it may interfere with the Starlink Mini or lid. Do not leave excess wiring above the batteries, as this may prevent the case lid from closing properly. Make sure no wires are pinched, sharply bent, stretched, or positioned where they may be damaged when the case is closed.

Step 21 — Secure the Batteries and Wiring

Position the batteries securely against the guides on the Battery Retention Plate. Route the Wiring Harness under the battery retention straps as shown in the installation photo to help keep the wiring securely in place. Tighten all 3 Hook-and-Loop Battery Retention Straps. Verify that the batteries cannot move within the case, the Wiring Harness is securely retained, no wiring is pinched or under excessive tension, and no electrical connectors can contact one another or another conductive object.

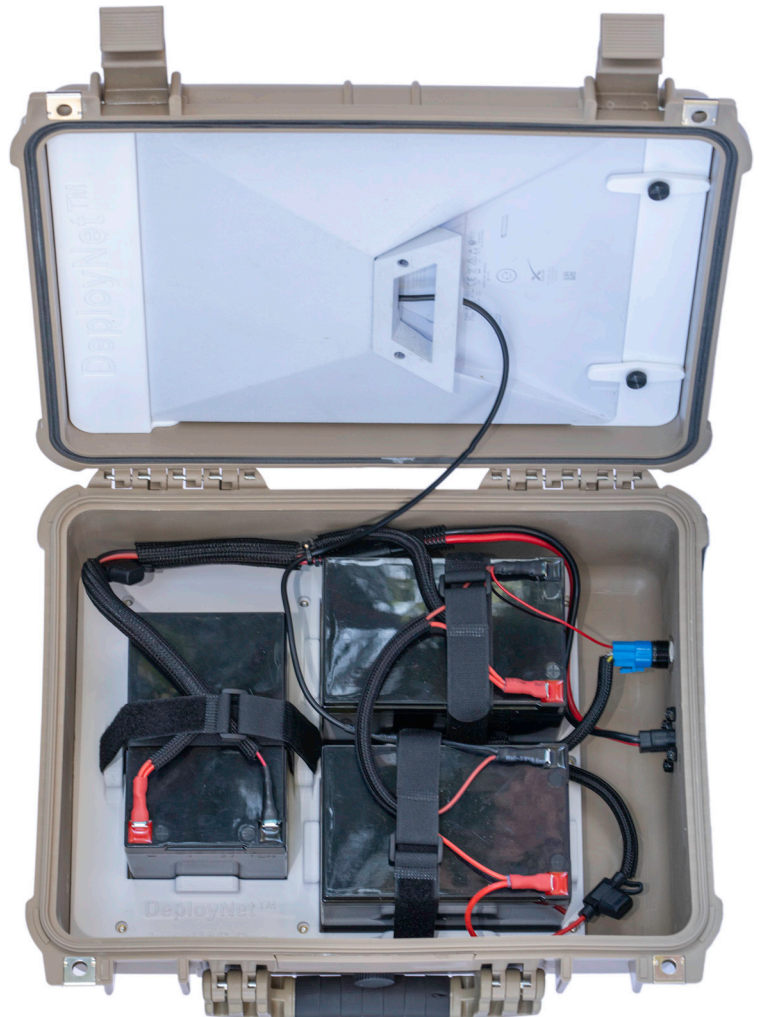
Step 22 — Install the Starlink Mini

Install the Starlink Mini into the mounting brackets in the lid with the power port facing to the right. Loosen the thumb screws on both locking levers. Rotate the locking levers into position so they securely retain the Starlink Mini, then tighten both thumb screws. Verify that the Starlink Mini is securely held in place before proceeding.

Step 23 — Connect and Test the Starlink Mini

Connect the Starlink Mini power connector from the Wiring Harness to the Starlink Mini. Before applying power, perform one final visual check of all battery connections and verify correct polarity. Carefully close the case, making sure the Starlink Mini power cord is properly routed and is not pinched between the lid and the case. Close and latch the case.

Place the DeployNet™ on the ground with an unobstructed view of the sky. Press the ON/OFF switch to turn the system on. The switch will illuminate when power is on. Allow the Starlink Mini time to establish its satellite connection and verify normal operation.



IMPORTANT: Immediately turn the system OFF if you observe excessive heat, smoke, unusual odors, melting, electrical arcing, or any other abnormal condition. Disconnect the batteries before inspecting or servicing the system.

Step 24 — Final Inspection

After verifying proper operation, turn the system OFF and perform a final inspection. Verify that:

- All mounting hardware is secure
- All electrical connectors are fully seated
- Battery polarity is correct
- The batteries are securely retained
- No wiring is pinched, under tension, or positioned where it may be damaged
- Unused electrical connectors remain properly insulated
- No exposed electrical terminals or connectors can contact each other or another conductive object
- The Starlink Mini power cord is properly routed and is not pinched between the lid and the case
- The case closes and latches without placing pressure on the batteries, Wiring Harness, or Starlink Mini

Your DeployNet™ DIY Installation Is Now Complete

Your DeployNet™ DIY system is now ready for use. Periodically inspect the batteries, Wiring Harness, electrical connectors, mounting hardware, and retention straps for signs of wear, looseness, damage, or overheating.

Do not operate the system if a battery, wire, connector, fuse holder, switch, or other electrical component appears damaged, swollen, melted, excessively hot, or otherwise compromised.

Use only compatible 12V LiFePO₄ batteries and a compatible LiFePO₄ battery charger with an SAE quick-disconnect connector.