StepRanger

Operating manual
& quick-start guide
Rev. 1 · 2026



60V electric micro-truck

The Pro 60V field guide

Operating manual & quick-start guide — for the StepRanger Pro 60V

Bigger than a wheelbarrow. Smaller than a truck.

Welcome aboard. Two of us built StepRanger because the alternatives weren't good enough. This guide covers everything you need to run yours safely and get the most out of it.

hello@stepranger.com · Call or text: 707-329-4442

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A working owner's guide — setup, daily operation, terrain, care, and support, in the order you'll need them. Keep it in the bed; that's what it's built for.

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CAUTION · FIVE THINGS TO KNOW FIRST

- **Off-road use only.** The Pro 60V is not for public roads or highways.
- **Keep weight toward the front.** Running empty raises the risk of front-wheel lift — add ballast if you're unloaded.
- **Start in Low gear, Low speed.** Get a feel for the controls before opening it up.
- **Confirm the battery switch is ON (up)** before you expect it to move.
- **Wake the throttle.** It stays locked until you squeeze and release the brake lever — and re-locks after 10 seconds without throttle input.

Start here

Before your first ride

00

Your StepRanger Pro 60V arrives fully assembled and charged to 80–100%, so you can put it to work right away.

Take five minutes with this guide first — it will save you time later and keep you safe.

WHAT'S IN THE BOX

- 1× StepRanger Pro 60V
- 1× 60V battery system (installed)
- 1× charger
- 2× keys



The Pro 60V, ready to work — rails up, bed clear, handlebars set.

HOW TO USE THIS GUIDE

Sections 03–07 cover the controls and the power system — read those before your first ride. Sections 08–11 cover terrain, braking, tires, and the bed. Sections 12–18 cover the MOLLE panel, care, fixes, warranty, accessories, and how to reach us.

What's new

The drive

The Pro 60V's biggest change isn't a number on the spec sheet — it's how it drives. An advanced motor controller sits between your throttle and the motor and manages power in real time. It's sealed and set at the factory — no app, no connection, nothing to update.

Controlled descent on hills

On a downhill the controller holds the truck back, so a loaded bed doesn't push you down the grade.

Smoother acceleration off the line

Power comes on progressively instead of all at once, so you don't lurch when you start moving.

More power with a softer throttle on demand

When you need it, there's more grunt available with a lighter throttle input.



Paired with the 1,200 W brushless motor and 60 V system, the controller makes the Pro 60V smoother to place and more controlled under load than any StepRanger before it.

The numbers that matter

01

The StepRanger Pro 60V is a 60 V electric micro-truck built for heavy hauling, land management, and work where a full-size truck won't fit.

Weight & capacity

Vehicle weight (single)	417 lb
Vehicle weight (dual)	488 lb
Cargo payload (plus operator)	1,000 lb
Frame structural capacity	~2,300 lb
Turning radius (outside)	~8 ft

Powertrain & range

Motor	1,200 W brushless
Controller	advanced motor controller
Drive	Rear-wheel
Top speed	~15 mph
Range, single battery	13–23 mi
Range, dual battery	23–43 mi
Max climb grade	30° (~58%)

Battery & charging

System voltage	60 V
Battery type	Sealed lead-acid (AGM/GEL)
Charging input	110 V outlet
Arrives charged	80–100%
Charger output	60 V / 3.6 A
Full charge	overnight

Wheels & tires

Stock tire size	16 × 4 in
Bolt pattern	4 × 4
Max tire pressure	62 PSI
Functional min (traction)	10–12 PSI

TIP · ONE PRODUCT, ONE VOLTAGE

The Pro 60V runs a 60 V system. If a spec or part you find online lists a different voltage or model name, check with us first — we'll confirm the right fit for your unit.

Controls at a glance

Everything you operate while driving sits on the handlebars. A few setup controls live elsewhere on the vehicle.



The handlebar cockpit — ignition, headlight, throttle, brake lever, and horn.

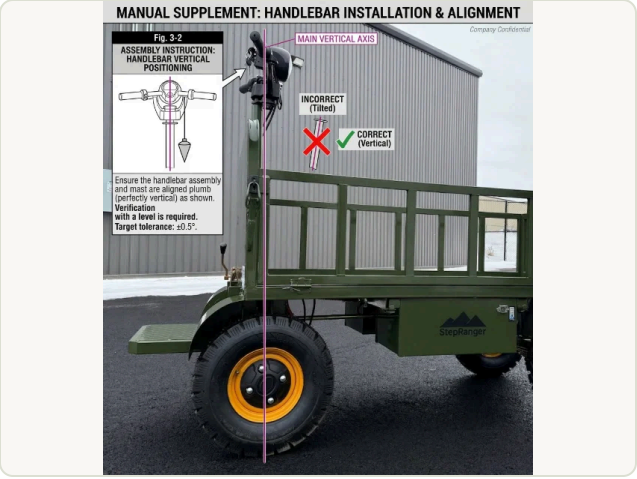
On the handlebars

Ignition key	1 click = daytime running light ring (driver's ring); 2 clicks = ring + full headlight. Both enable driving.
Throttle	Right grip.
Speed switch	Low / Medium / High, right cluster.
Brake lever	Left grip, with parking lock.
Horn	Button in the left-grip area.
Forward / Reverse	Rocker near the throttle.

Elsewhere on the vehicle

Gear selector	Brass lever, left of the operator at the rear axle. Low / High.
Charge port	On the left (battery) side. The Pro 60V dual-battery setup shares one charge port — see Dual-battery operation.
USB power outlet	Weather-capped USB-C (PD) + USB-A (QC3.0) fast-charge, on the control panel. Standard on every Pro 60V.
Battery switch	Left underside, outside the battery box. ON (up) to drive.
Side-rail latches	One per rail; rails fold and fully remove.
Rear step	Where you stand to drive.

Handlebar orientation



Bars sit vertical — plumb and parallel to the steering column — so steering feels even.



The cockpit set true — the handlebars sit square to the column.

The handlebars should sit vertical — plumb and parallel to the steering column.

If they ever sit off true — after a hard knock, or if the clamp bolts work loose — reset them before riding so steering feels even and predictable.

To adjust

1. Gently pull up on one side of the plastic column cover to unclip it, then the other side, and lift it off.
2. Loosen the four clamp bolts.
3. Set the bars to true vertical, then retighten the clamp bolts securely.
4. Snap the column cover back into place.

Battery & charging

Your StepRanger arrives charged to 80–100%. The battery system lives in the box on the left side, and the charge port is on that same left side.

To charge

1. Retrieve the charger from the storage box on the right side.
2. Plug it into the left-side charge port.
3. Connect to any standard 110 V household outlet.

Plug in at the end of the day and it's fully charged overnight — the charger's light shows when it's complete.

Battery switch. On the left underside (from the operator's seat), outside the battery box. It must be ON (up) before the unit will operate.



The outside of the battery box.

ON THE OUTSIDE OF THE BOX

- **Charge port** (top) — for the included 60V charger.
- **Breaker switch** (middle) — up is ON.
- **USB-C / USB-A** (bottom) — live whenever the breaker is on, even with the key off.

WHEN TO CHARGE

Charge at the end of any day you use it, whatever the gauge shows. Sealed lead-acid batteries prefer to be full rather than empty, so frequent charging is best — once at the end of the day, not on and off through the day. The battery gauge on the headlight is a simple voltage meter and won't always show the true charge left.

STORING LONG-TERM

A small ring light draws the batteries down very slowly. For long-term storage, flip the breaker **down (off)** — the USB outlet turns off with it.

Dual-battery operation

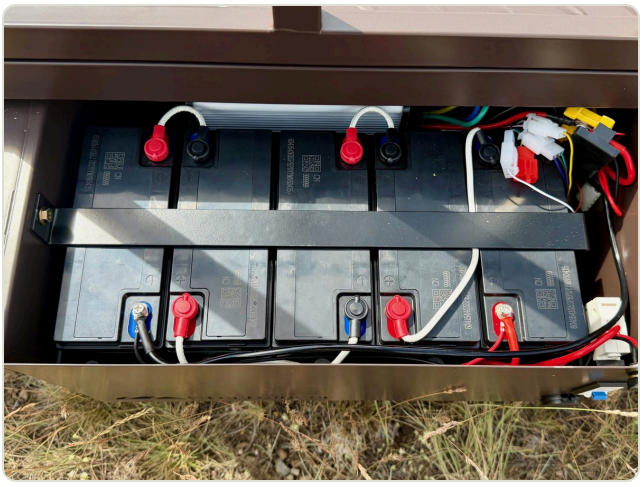
If you ordered the dual-battery upgrade, a second 60V pack — a string of five 12V batteries — comes installed in the second box, wired in parallel with the first.

One system, one port

The bank uses a single shared charge port for both battery boxes. Wired in parallel, the two strings stay matched to the same level on their own — charging one charges both. You run and charge the bank as one system; there's nothing to switch between.

Caring for a dual bank

Two sealed-lead-acid strings last longest treated as a matched pair — see the notes at right.



The 60V battery box — five 12V sealed batteries in series. A dual unit adds a second, matched box wired in parallel.

TIP · MATCH THE SET, KEEP IT CHARGED

- **Match the set.** Add or replace both battery strings as a matched set of the same age — never pair a fresh set with a worn one.
- **Keep it charged.** For long-term storage, charge to full first, then top up periodically rather than leaving the pack sitting low. These sealed packs self-discharge slowly on the shelf — roughly 10% over 3 months and 20% over 6 months at room temperature (~77°F), and faster in heat.

CAUTION · USE THE SUPPLIED CHARGER ONLY

It has the correct profile for these sealed batteries. Never use an 'equalize' or high-voltage setting — that damages AGM/GEL packs.



Driving controls

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Throttle & speed

- Throttle is on the right handlebar grip.
- Speed switch (Low / Medium / High), right cluster — adjustable while driving. **High** is full speed (~15 mph); Low and Medium cap it lower for finer control.

THROTTLE SAFETY LOCK

For safety the throttle is disabled at power-on, and any time the truck sits idle for 10 seconds or more. To wake it, **squeeze and release the brake lever**. It stays armed while you drive; after 10 seconds without throttle input it locks again, so squeeze the brake once more. It's a fixed safety feature — nothing to adjust. Good habit: squeeze the brake once right before you pull away.

Forward / Reverse

- Switch near the throttle (F / R).
- **Change direction only when fully stopped.**

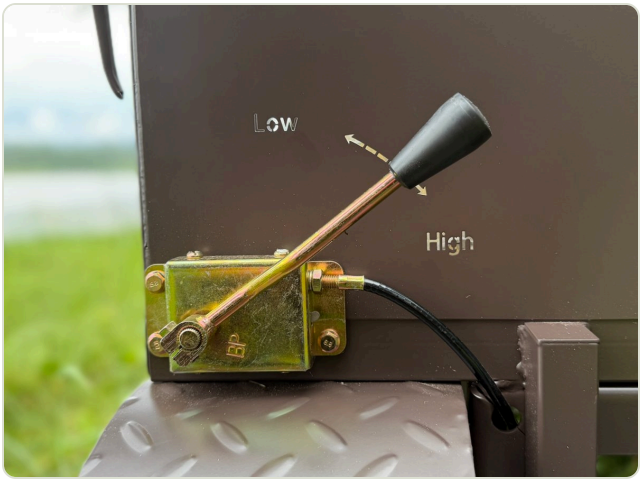
Gear selector

Brass lever on the left of the operator, at the rear axle:

- **High** — lever toward operator · normal driving.
- **Low** — lever away · a slower, higher-torque gear for climbing and hauling.



The right cluster — the speed switch (L / M / H) above forward / reverse (F / R).



The brass gear lever — High (toward operator) or Low.

TIP · IF THE BATTERY DIES MID-USE

The StepRanger can be pushed. If it's in gear you'll feel slight resistance — nudge the brass gear lever to its middle (neutral) position for resistance-free rolling.

Steering limit bolts

Two adjustable bolts set how far the wheels can turn, so the steering reaches a firm, even stop in each direction.

They sit on the **front of the front axle**. Each bolt limits the turn to the *opposite* side:

- The bolt on the **operator's right** limits how far the wheels turn **left**.
- The bolt on the **operator's left** limits how far the wheels turn **right**.

To adjust

1. Loosen the lock nut on the bolt.
2. Turn the bolt in or out until the wheels stop at the travel you want — and the stop is the same to both sides.
3. Retighten the lock nut securely.



A steering limit bolt on the front of the front axle.

TIP · CHECK BOTH SIDES

The stop should feel firm and reach the same travel turning left and right. Recheck the bolts if the steering ever feels uneven or loose.

Slope & terrain performance

The StepRanger Pro 60V climbs grades up to 30° (roughly a 58% grade). Its 1,200 W brushless rear-wheel drive and Low gear give it strong low-speed torque for hauling uphill.

Climbing

- Always use **Low gear** to climb — it's the high-torque, low-speed climbing gear.
- The Pro 60V distributes its weight better than earlier models when running empty, so it climbs unloaded with more composure. On the steepest grades, still add weight up front — ballast (sand, gravel, or steel shot) or a load in the front box — to keep the front planted.
- Build up to it: get a feel for the machine on gentler grades before taking on the steepest ones. The Pro 60V is very capable, and it is the operator's responsibility to understand both their own limits and the machine's.
- If one drive wheel spins, shift your weight on the rear step toward the slipping wheel.

SEE IT WORK

Montana slope torture-test

Scan the code, or visit youtu.be/87clIMmomZI.

Descending

Control descents with the left-hand brake lever (dual disc brakes) — effective even with a heavily loaded bed. Its parking lock holds the unit when stopped. **In Low (L on the right-hand rocker switch), the motor brakes for you:** with the throttle released it slows and holds a low speed downhill. If it comes to a stop, gently twist the throttle to move again, then ease off to let the motor slow it once more — used this way it can reduce, or even remove, the need for the brake. Always stay ready to brake: a heavy load or steep grade can outrun the motor.

Suspension & surface

A front coil spring on a pivoting axle soaks up terrain up front; the rear axle is rigid — good on mild-to-moderate ground. Packed gravel grips best; wet grass, loose dirt, mud, and snow cut traction, so run Mud/Snow tires there.



Braking & safety

Brake & parking lock

- Brake lever — left handlebar grip, operating dual disc brakes.
- A built-in parking lock disables the throttle for safety. Engage it whenever you park or step away.
- Pull the brake lever to release the lock.

HOLDING ON A SLOPE

While it's switched on, the Pro 60V uses the motor to resist rolling on a slope — it holds, or creeps at most, until you wake the throttle, which makes pulling away uphill easier. **It is not a parking brake.** Always set the brake and engage the parking lock when you stop or step away — don't rely on the motor hold in their place.

WARNING · OPERATE SAFELY

- **Off-road use only.** Not for public roads or highways.
- **Load toward the front.** Without a front load, the front wheels can lift and lose traction.
- **No passengers** in the cargo bed or any unintended area.
- **Never operate impaired** by alcohol, drugs, or medication.



Brake lever and parking lock, left grip.

SAFE-OPERATION CHECKLIST

- Start slowly in the lowest gear and speed until you're comfortable.
- Wear protective gear — helmet and appropriate footwear.
- Stay in control at safe speeds, especially on uneven or sloped ground.
- Add ballast when unloaded — steel shot, sand, or gravel in the empty front box improves handling.
- Match operator to vehicle — the age, size, strength, and skill to control it safely.

Tires & wheels

Stock tires are 16 in diameter × 4 in wide on a standard 4 × 4 bolt pattern.

CAUTION · TIRE PRESSURE — READ THIS

The tires are rated for a **maximum of 62 PSI** — a ceiling, not a target. Most operators are comfortable in the **25–35 PSI** range for a good balance of ride and grip, and you can go as low as **10–12 PSI** for the roughest terrain. The sidewall reads 116 PSI — that is the tire's raw rating, **NOT** the StepRanger spec; never inflate to the sidewall number.

TIRE OPTIONS

Option	Best for	Notes
Stock All-Terrain	Mixed ground, general use	Included. 16 × 4 in.
Mud / Snow	Loose dirt, mud, snow, hills	Strongest grip. Best for off-camber or low-traction work.
High-Flotation Turf	Flat, sensitive turf	Spreads weight on lawns. Widens unit to ~34 in. Not a traction tire — not for hills.
Solid (airless)	Puncture-prone sites	Heavier, rougher ride. Choose only where flats are a real risk.



High-flotation turf · 18 in. Spreads weight on lawns. Not a traction tire.



Mud / Snow · 16 in. Strongest grip for loose dirt, mud, snow, and hills.

TIRE CHAINS

We offer tire chains sized for the stock Pro 60V tires (16 in × 4 in). Contact us to add a set.

AFTERMARKET WHEELS

Offset rims are required so the wheels clear the brake calipers. 16–17 in tires fit well; 18 in depends on tread depth; anything larger can rub the flatbed.

Bed setup & flatbed mode

Hauling oversized loads

The side rails are extremely strong when closed and locked upright. Oversized items — plywood, 2×4s, 4×8 dock sections, even large furniture — can ride across the closed rails, strapped down.

Flatbed mode (removing the rails)

1. Press the locking button on the quick-release hinge pin and slide the pin out — no tools needed. If a pin doesn't slide free, set a screwdriver tip against its end and tap it out with a few light hammer blows.
2. Lift the rail away.
3. To reinstall, slide the pin back through until the locking button clicks.

TIP · ENCLOSING THE BED

For loose material like mulch or gravel, we offer stainless brackets that mount to the side rails so you can panel in the bed. Contact us for current fitment and pricing.



Oversized loads ride across the closed rails, strapped down — or strip the rails for a flat deck.



Panel the bed with wood using the stainless bracket kit to hold loose material like mulch or gravel.

WARNING · DON'T DRIVE WITH RAILS FOLDED DOWN

Folded-down rails hang past the body and restrict the front wheels in turns. Either keep the rails locked upright or remove them entirely for flatbed mode.

MOLLE accessory panel

The wall between the bed and the operator is a MOLLE-compatible panel — a grid of square slots for attaching pouches, bags, and gear right where you can reach them.

It's cut to standard PALS/MOLLE — 1 in slots, 1.5 in horizontal pitch, 1 in vertical pitch, so common off-the-shelf MOLLE/PALS pouches and straps fit.

What it's for

- Keep tools, tie-down straps, a first-aid kit, water, or a phone secure and within reach — not loose in the bed.
- Add or move pouches and accessories without drilling or extra hardware.

How to attach

Weave the pouch's straps down through one row of slots and back up through the next (standard PALS strap-weave), then pull each strap snug so the pouch sits flat against the panel. Off-the-shelf MOLLE clips work too.



The MOLLE-compatible panel on the rear cargo divider — standard PALS spacing fits common pouches.

Maintenance & storage

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The StepRanger is built to be low-maintenance. A few quick checks keep it running safely and protect its life.

Interval	Check
Before each use	Tires look and feel firm · brake and parking lock work · load is secured · nothing is obviously loose.
Weekly	Tire pressure with a gauge · wheel lug nuts tight · battery connections tight · general fasteners.
Monthly	Full walk-around · clean the unit · touch up any exposed metal.

BATTERY & ELECTRICAL

Keep batteries securely seated and all connections tight. If anything feels loose or intermittent, see Troubleshooting.

STORAGE & LAY-UP

Charge to 100% before any extended lay-up and store somewhere dry. Top up the charge periodically so the batteries don't sit depleted. For long-term lay-up, flip the battery-box breaker off so the standby ring light doesn't slowly drain the packs.

CHARGE RETAINED IN STORAGE

Sealed AGM / gel · stored at ~77°F (25°C)



Approximate, measured at room temperature. Warmer storage drains the pack faster; cool, dry storage slows the loss. Charge to full before a long lay-up, flip the battery-box breaker off, and top up every so often — don't leave the pack sitting low.

Troubleshooting

Most issues are quick fixes you can do yourself. Work through the matching row, top to bottom — if it's still not resolved, reach us and we'll take it from there.

If this…	Try this
Won't power on / no response to the key	Confirm the battery switch is ON (up) → check whether the switch feels loose or lacks a firm click (a faulty breaker) → open the battery box and check the small blue fuse and its holder → check the wire connections on the breaker (top and bottom) → still nothing, contact us.
Throttle doesn't respond	Squeeze and release the brake lever to wake the throttle → it locks at power-on and after 10 seconds without throttle input — a safety feature, not a fault → in Low, the motor also limits speed downhill when you're off the throttle.
Moves slowly or loses power	Check the charge level on the handlebar display → confirm the gear selector is in High (lever toward operator) → confirm the speed switch is on H.
Steering feels off or uneven	Check the steering limit bolts are set symmetrically → confirm tire pressure is even side to side.
Battery dies while in use	Push it home — nudge the brass gear lever to neutral (middle) so the wheels roll freely.



The main breaker on the battery box — up is ON. If the truck won't power on, confirm it's fully up with a firm click.

WE'RE HANDS-ON WITH SUPPORT

A quick photo or short video helps us diagnose fast — send one to hello@stepranger.com and we'll often hop on a video call. We stock every component, and in over two years we have yet to see a motor or differential failure.

Finish, touch-up & minor dents

Built for strength and heavy use, with a finish designed to protect against the elements rather than provide an automotive-grade appearance.

Each unit is powder-coated — an electrostatic polyester powder, oven-cured — for a durable, outdoor-grade finish.

Normal cosmetic variations

- Small paint chips or scuffs, especially on edges and latches.
- Visible grinder marks on the rear panel where the steering column is welded (present on all units).
- Minor ripples or surface texture from welding and paint.
- Light dents to the frame or fenders from freight handling.

Why this happens

Your StepRanger travels long distances crated on a freight pallet, transferred many times between trucks and depots. Even well packaged, contact with straps, forklifts, or other freight can leave light wear.



Color-matched touch-up paint (2 oz, integrated brush) — available on our website.

TOUCHING UP PAINT

1. Lightly sand the area to remove loose paint.
2. Wipe clean with a dry cloth.
3. Apply outdoor metal touch-up paint — we sell color-matched 2 oz bottles with an integrated brush.

FIXING MINOR DENTS

- **Fenders:** bend back by hand with even pressure, or use a rubber mallet with light, controlled taps.
- **Frame:** work the dent out with a padded wood block and light hammer taps; protect the painted surface.
- Touch up any exposed metal to keep corrosion out.

CAUTION · KNOWN WEAR ITEM: LATCHES

The bed-rail latches (rubber cover and hook) are a known wear part. If one cracks or breaks, email us — we'll replace it under warranty at no charge. Spare 4-packs are $4 on our site.

2-year warranty

Our warranty covers defects in materials and workmanship, as well as damage that affects performance or safety. Minor cosmetic imperfections — including small dents that can be remedied using the steps in Finish, touch-up & minor dents — are considered normal for freight-shipped utility equipment and are not classified as defects.

Covered

- Defects in materials and workmanship.
- Damage that affects performance or safety.
- Component support — we stock every part.

Considered normal (not a defect)

- Small paint chips, scuffs, grinder marks near welds.
- Light freight-handling dents to frame or fenders.
- Surface texture from welding and paint.

Coverage period: 2 years from delivery. Keep your order confirmation as proof of purchase.

MAKING A CLAIM

Email **hello@stepranger.com** with your order confirmation and a photo or short video of the issue. We stock every component, so most fixes are quick — often resolved by phone or a video call, with parts shipped straight to you.

Accessory installation

The Pro 60V's pre-drilled rear step accepts a bolt-on tow hitch — no drilling. The StepRanger Rear Step Hitch bolts straight on and turns the truck into a tow vehicle for a mower, trailer, or cart.

RECOMMENDED HITCH

StepRanger Rear Step Hitch

Scan to order it at stepranger.com. 6 mm steel; takes a pin hitch or a ball mount. Mounting hardware is included.

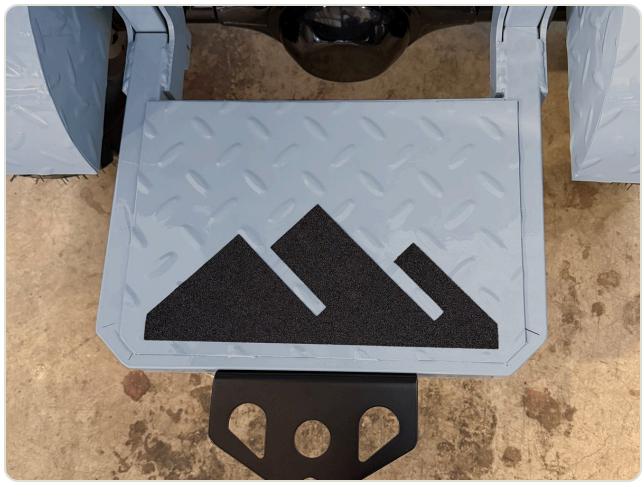
HARDWARE

Mount it with the **supplied hardware** through the two pre-drilled holes in the rear step.

1. Line the hitch plate up with the two pre-drilled holes in the rear step.
2. Pass a supplied bolt through each hole; add the washer and nut underneath and start them by hand so they thread straight.
3. Tighten both until secure — snug, not overtightened. Connect a mower or cart with a hitch pin, or fit a ball mount for a trailer.



The pre-drilled rear step — two holes sized for the hitch's mounting bolts.



The StepRanger Rear Step Hitch, mounted on the rear step.

TIP · PULL POINTS AT BOTH ENDS

The Pro 60V also has an integrated 2" front receiver under the front platform, so you have a pull point at the front as well as the rear.

FAQ & support

› How long does charging take?

Plug in at the end of the day and it's fully charged overnight. Charging after every day of use is best for sealed lead-acid batteries — they prefer to be full rather than empty. Go by the charger's light, which shows when it's complete; the gauge on the headlight is a simple voltage meter and won't always show the true charge left.

› Will it work on sand or the beach?

On firm or damp sand it does well; loose, dry sand is hard going for any small wheeled vehicle. Mud/Snow tires and slightly lower pressure improve flotation. Send us photos of your terrain and we'll give you an honest read.

› Do you stock replacement parts?

Yes — every component. Most issues are resolved by phone or video, and in over two years we've yet to see a motor or differential failure.

› Can I use tire chains?

Stock tires are 16 in × 4 in. Small-equipment chains may fit — verify your chain dimensions first.

› Can I remove the side rails?

Yes. Press the quick-release hinge pins and slide them out — see Bed setup & flatbed mode.

› Do you offer fleet or commercial pricing?

Yes. For multi-unit or commercial orders, reach out and we'll take care of you directly.

› What does the warranty cover?

Two years on defects and anything affecting performance or safety — see Warranty.

We're here to help.

Thanks for choosing StepRanger — now go put it to work.



EMAIL

hello@stepranger.com

CALL OR TEXT

707-329-4442

Bigger than a wheelbarrow. Smaller than a truck.