

AR VISION PRO-BOX — QUICK START

Mounted once, calibrated once, **then forgotten**

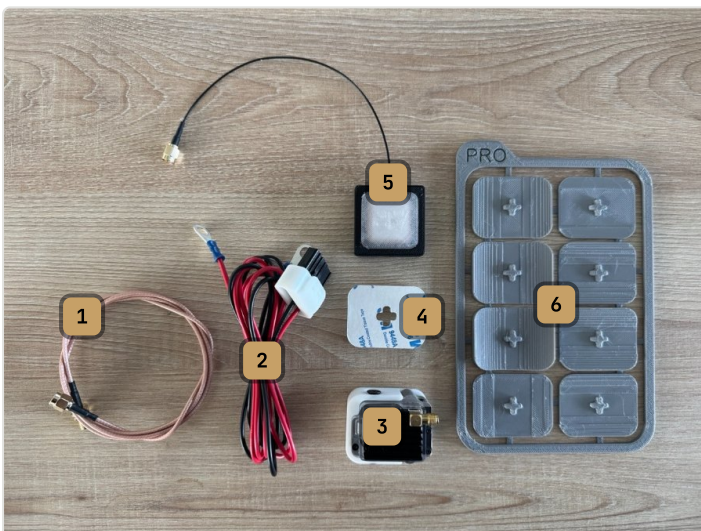
The Pro-Box is a sensor unit that bolts your motorcycle into the tracking system: its own motion sensors, its own satellite antenna, wired to the bike's battery. Fitted rigidly and calibrated properly, it makes the AR content sit where it belongs.



Read the whole guide before you start. Do not remove any adhesive backing or touch the motorcycle battery until you have planned every position and read the electrical-safety warning on page 03.

WHAT'S INCLUDED

CHECK ALL SIX BEFORE INSTALLATION



- 1 Antenna extension cable
- 2 Battery connection cable
- 3 **Pro-Box**
- 4 Double-sided adhesive tape
- 5 GNSS antenna — silver face up
- 6 Eight mounting pads on their frame

The Pro-Box and the antenna carry pre-applied adhesive — check the protective layer is intact. The tape is for the mounting pad (page 04).

NOT WATERPROOF

The Pro-Box must sit in a dry, protected place inside the motorcycle.

RIGID ONLY

It must not move relative to the frame — never on the handlebars.

ANTENNA FACES UP

The silver face points at the sky, with nothing permanently above it.

THE INSTALLATION, END TO END

1 • APP & PRO VEHICLE — P.02

2 • PLAN POSITIONS — P.02

3 • CONNECT POWER — P.03

4 • MOUNT — PP.04-05

5 • PAIR — PP.06-07

6 • VEHICLE RIDE — P.09

7 • MODEL TRAINING — P.09

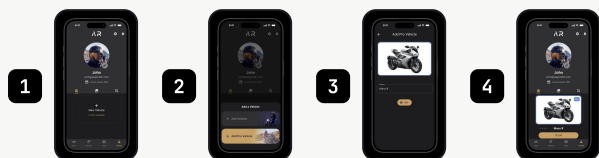
8 • SENSOR RIDE — P.10

9 • NORMAL SHUTDOWN — P.10

Prepare the app, plan the positions

STEPS 1 & 2

Software first, then a dry run of the whole installation. Choose every position and check both cables reach before any adhesive backing comes off.



The Pro vehicle in four taps: Profile → **New Vehicle** (1) → **Add Pro Vehicle** (2) → picture and name, **Add** (3) → the card lands in your garage with a PRO badge and a **SETUP** button (4), where pairing starts on page 07.

STEP 1 — APP, HELMET, PRO VEHICLE

1. Install or update to the latest **AR Vision Companion** app from the App Store or Google Play.
2. Connect your phone to the helmet, with the phone having internet so updates can be found.
3. Install any helmet software update and let the helmet restart.
4. In the app, add a **Pro vehicle** (strip above) and set it as the active vehicle.
5. Back on the Helmet page, install any further sensor or Pro-Box updates offered.

i One Pro vehicle = one motorcycle + one Pro-Box installation. Calibration learns both the bike and the exact orientation of the box.

STEP 2A — WHERE THE PRO-BOX GOES

Protected and dry — inside the bodywork, typically beneath the rider or passenger seat. It is not waterproof.

Rigid — a part that does not move relative to the frame. Never the handlebars.

Toward the rear where practical, **with clearance** for both connectors and for the seat to close fully.

In cable reach of the battery and the antenna, without strain.

STEP 2B — WHERE THE ANTENNA GOES

Silver face upward — the silver cover must point at the sky (page 05).

Clear sky view — no bodywork, luggage or gear permanently above it.

Cable protected — never crushed by the seat, kinked, pinched, pulled or bent sharply at the connector.

THE ONE-WAY DECISION

The Pro-Box's position and angle become part of the calibration — a few degrees of change costs performance

Test-fit, then commit. Moving it later means the full calibration again (page 11).

— THE DRY RUN — DO ALL OF THIS BEFORE ANY ADHESIVE COMES OFF

STEP 2C

A Hold both parts in place, work steering through their range, and check the seat closes with the connectors clear.

C Clean both surfaces with a product compatible with the motorcycle's materials, then let them dry completely.

B Lay out both cable runs and confirm each reaches without tension at either end.

Next: connect the battery, then mount both parts → pages 03–05

⚡ Connect power, then mount

STEPS 3 & 4



ELECTRICAL SAFETY

A motorcycle battery can deliver enormous current. Battery work can cause short circuits, sparks, fire, injury and damage. **Follow your motorcycle manufacturer's battery-service instructions.** If you are not trained and confident, have a qualified motorcycle installer make the connection. This guide deliberately does not give a universal terminal sequence — requirements differ by motorcycle.

STEP 3 — BATTERY POWER

1. Switch the motorcycle off and follow the manufacturer's procedure for reaching and working on the battery.
2. Route the supplied battery cable from the battery to the planned Pro-Box position.
3. Connect the red and black leads to the correct terminals, per the manufacturer's instructions and the cable markings.
4. Secure the cable clear of sharp edges, heat, steering and suspension movement, and anything that could crush it.
5. Push the grey power connector into the Pro-Box and confirm it is fully seated.



Releasing the grey connector: press the latch on its underside — the side marked with the AR symbol — and pull the connector body straight out. Never pull the wires.

STEP 4 — MOUNT BOTH PARTS • DETAIL ON PAGES 04-05

1. Clean both mounting surfaces with a product compatible with the motorcycle's materials, and let them dry completely.
2. Test-fit the Pro-Box, antenna, connectors, cable routing **and the seat** before exposing any adhesive.
3. Choose the mounting pad that matches the surface, stick the Pro-Box onto its flat side, then fix the assembly to the bodywork — **page 04**.
4. Mount the antenna with its **silver face toward the sky** and its view of the sky clear — **page 05**.
5. Connect the antenna directly or through the extension cable — hand-seat the connectors, never twist or force them.
6. Secure all cables and refit the seat carefully.

— POWER CHECK

BEFORE ANYTHING IS STUCK DOWN

- ✓ Grey connector seated → the LEDs run a green sweep, left to right and back, for about two seconds: the boot sequence.
- ✓ That is the wiring proven while everything is still in reach. Leave the connector in.

- ✓ A new Pro-Box then usually blinks rapidly white — pairing mode. If a single LED walks instead, page 06 shows the button.

- ✗ No LEDs at all → stop. Re-check the connection following the manufacturer's guidance before going on.

WHEN TO CALL AN INSTALLER

You are not confident working on a live battery, or your motorcycle's battery is awkward to reach.

Your motorcycle's manual calls for a specific terminal or fuse arrangement you cannot verify.

Any doubt at all about polarity, fusing or cable protection. A qualified motorcycle installer will do this in minutes.

Next: mount the Pro-Box on its pad, then the antenna → pages 04-05



Mount the Pro-Box — on a pad

STEP 4A

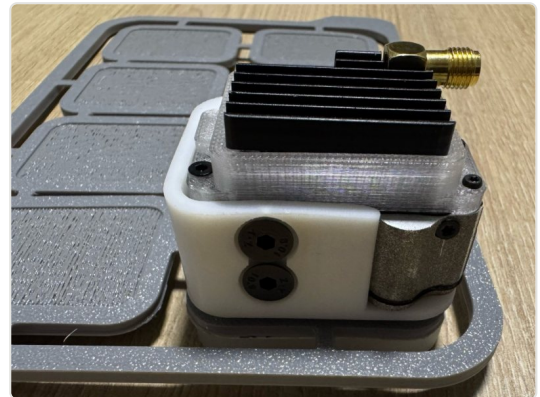
The Pro-Box must sit rigidly on the bodywork — and bodywork is rarely flat. The kit includes **eight grey mounting pads with different curvatures**. Pick the one that matches the surface, and the Pro-Box gets a flat, solid seat wherever you put it.

THE MOUNTING PADS



A · Overview — the Pro-Box, one pad with its tape fitted, and the frame of pads.

EIGHT CURVATURES • ONE FRAME



B · The Pro-Box seated on its pad — the remaining pads still on their frame behind.



C · Eight pads, eight curvatures, on a frame marked PRO. One shown with its double-sided tape.

CHOOSING AND FITTING A PAD

1. Hold the pads against the planned spot one by one. Keep the one that **sits flush** — no rocking, no gap at the edges.
2. Twist that pad off the frame and trim the remaining tab flush.
3. Fit the double-sided tape to the pad, lining its cut-out up with the cross.
4. Peel the protective backing from the Pro-Box's adhesive strip and press the Pro-Box **firmly** onto the flat part of the pad, as shown in image B. Then peel the protective backing from the pad's tape and press the assembly onto the cleaned bodywork.



Flat side to the Pro-Box, curved side to the motorcycle. The pad only adapts shape — the rigid, dry, protected position rules from page 02 still apply.

THE PAD IS PART OF THE CALIBRATION

Once the vehicle calibration ride is done, the pad's shape and angle are baked into the model. Swapping pads later, or re-seating the Pro-Box on its pad, counts as moving the Pro-Box — a new Pro vehicle and the full calibration again (page 11).

PADS AND ADHESIVE DO THE DAMPING

The pad and its double-sided adhesive are the complete mounting layer — they adapt to the bodywork and damp vibration at the same time. Nothing else goes between the Pro-Box and the motorcycle.

Do not add tape, foam or spacers of your own: anything extra changes the Pro-Box's height and angle, and means a **full recalibration** (page 11).



Mount the antenna — silver face up

STEP 4B

The antenna receives the satellite signal through its **silver face**. The black base underneath carries the adhesive and goes on the motorcycle. Get this one orientation right, and the rest is cable routing.

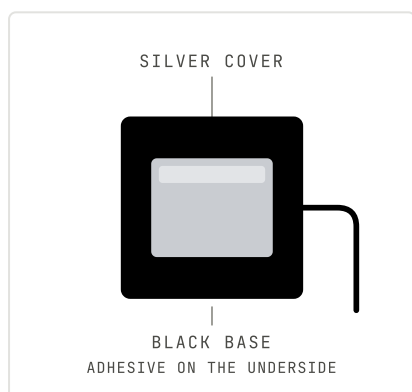
THE ONE RULE

Silver to the sky — **always**

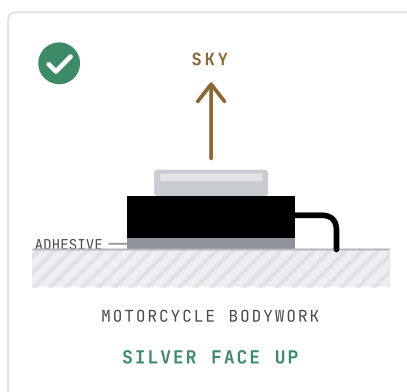
If you can see the silver cover when you look down at the mounted antenna, it is right. If you see the black base, or you cannot see it at all, it is wrong.

WHICH WAY IS UP

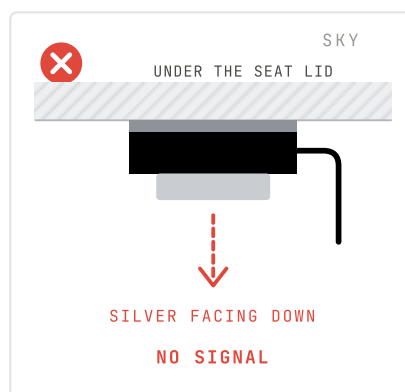
SIDE VIEW • NOT TO SCALE



IDENTIFY — a black square base with a silver cover in the middle. The adhesive is on the underside of the base.



CORRECT — silver cover toward the sky, adhesive on the bodywork, cable leaving the base smoothly.



WRONG — stuck under the seat lid or behind a panel: the silver faces down and the sky is blocked.

WHERE IT GOES — AND DOESN'T

The clearest practical view of the sky — no bodywork, luggage or gear permanently above it.

Sheltered where possible; avoid needless prolonged exposure to severe weather.

It may be moved later without recalibration, as long as the Pro-Box itself stays put (page 11).

CONNECTING THE ANTENNA

Connect it to the Pro-Box directly, or through the extension cable when the distance calls for it.

Hand-seat the gold connectors — never twist or force them.

Route the cable where the seat cannot crush or pinch it, with no kinks and no sharp bend at the connector.

FINAL MOUNTING CHECK

BEFORE YOU GO FURTHER

- ✓ The Pro-Box is rigid, dry and immovable on its pad.
- ✓ The antenna cable leaves its connector smoothly.
- ✓ Silver face up, sky view clear, nothing above it.
- ✓ Nothing is crushed, kinked, loose or hot; nothing fouls steering, suspension or the seat latch.

Put the Pro-Box into pairing mode

STEP 5A

A Pro-Box fresh from the factory usually wakes straight into pairing mode. Many do not — they were tested before shipping and remember it. So the default is simple: **power on, read the LEDs, and if they are not blinking rapidly white, press the button.**

WHERE THE BUTTON IS, AND HOW TO PRESS IT

RECESSED • NEEDS A THIN TOOL



A • The button sits at the bottom of a small hole in the finned heatsink — not the larger hole nearer the antenna socket.



B • Press straight down with a thin screwdriver or a SIM tool.

WHAT YOU NEED

A thin flat screwdriver, a SIM-eject tool or a straightened paper clip — anything slim enough to reach the bottom of the hole. Fingers will not do it.

Press **gently, straight down**. You will feel a faint click; the LEDs react immediately, so watch them while you hold.

Do this **before** the seat goes back on — once mounted under the seat, the button is out of reach.

THE BUTTON SEQUENCE — WATCH THE LEDs

1 • POWERED, LEDS ON



A single white LED walking along the bar means powered, not paired. Pairing mode needed.



2 • PRESS AND HOLD • 3 S+



Keep the tool pressed. The bar fills green from the left, one LED at a time.



3 • ALL FIVE GREEN → RELEASE



Lift the tool off. The Pro-Box reboots — do not press again while it does.



4 • RAPID WHITE BLINKING



All five blink fast: pairing mode. Go to the app — page 07.



Pairing mode starts only after you release. Released too early — before all five were green? Nothing happens; simply hold again, longer.

ALREADY BLINKING RAPIDLY WHITE AT POWER-ON?

It woke into pairing mode by itself. Skip the button and go straight to the app.

ONE WHITE LED WALKING SLOWLY?

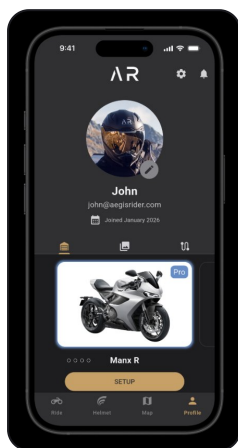
Powered, but waiting for a helmet it already knows. Press the button as above.



Connect from the app

STEP 5B

With the Pro-Box blinking rapidly white, bring the helmet to the motorcycle, open **AR Vision Companion**, and follow the six screens below. The LED strip under each screen shows what the Pro-Box itself does at that moment.



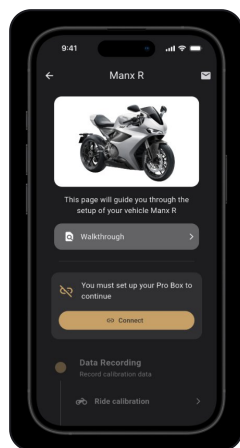
SETUP



RAPID WHITE

1

Profile → your Pro vehicle → Setup. Make sure this vehicle is the active one.



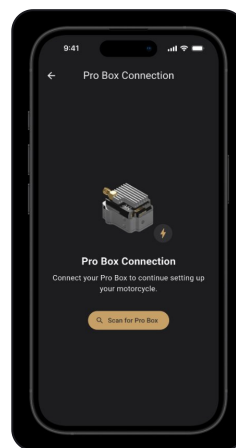
CONNECT



RAPID WHITE

2

Connect. The setup page asks for the Pro-Box first. Asked for the helmet instead? Connect it on the Helmet tab, come back.



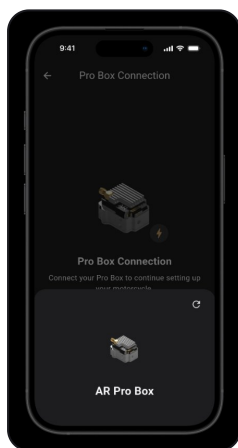
SCAN



RAPID WHITE

3

Scan for Pro Box. Nothing found? Check the LEDs still blink rapidly white and tap the refresh arrow.



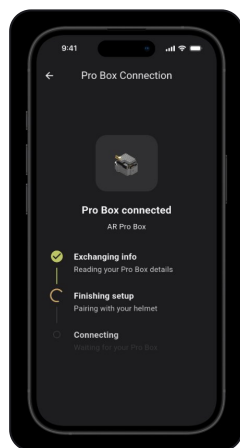
FOUND



RAPID BLUE

4

Tap AR Pro Box. The LEDs turn rapid blue while phone, helmet and Pro-Box exchange details — keep all three close.



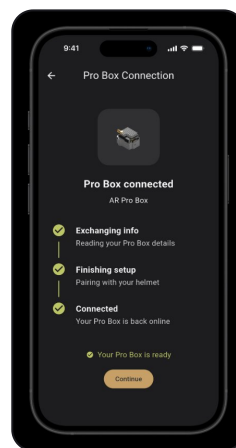
SETTING UP



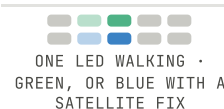
RAPID GREEN → REBOOT

5

Wait. Exchanging info → Finishing setup → Connecting. On success the LEDs flash rapid green and the Pro-Box reboots by itself.



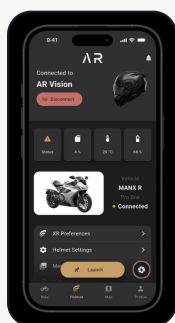
READY



ONE LED WALKING · GREEN, OR BLUE WITH A SATELLITE FIX

6

Your Pro Box is ready → Continue. After the reboot a single LED walks the bar — green, or blue once it has a satellite fix; the Helmet tab shows Connected.



CONFIRM

CONFIRM BEFORE YOU GO ON

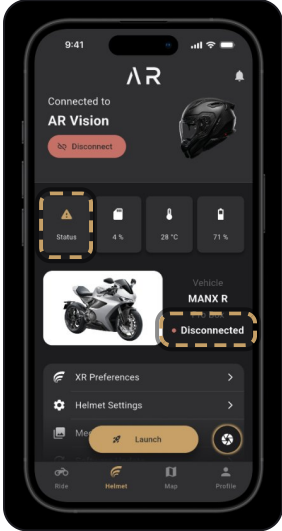
Open the **Helmet** tab. Under the vehicle card it must read **Pro Box · Connected**. The Status tile still shows a warning — that is expected until the model is installed (page 08). Once the connection is confirmed, start the vehicle calibration ride even though the Status tile still shows a warning; it cannot use a Pro-Box that is not connected.

Still not connected after a minute? Re-run the button sequence on page 06 and scan again. Several Pro-Boxes in pairing mode nearby confuse the scan — move away from the others.

Reading the Pro-Box status

HELMET TAB • FOUR STATES

From here on, the **Helmet** tab is your instrument panel. Two things tell you where the Pro-Box stands: the **Status tile** in the top row — a warning triangle or a green tick — and the **Pro Box line** under the vehicle card. Together they form four states. Only the last one means ride.

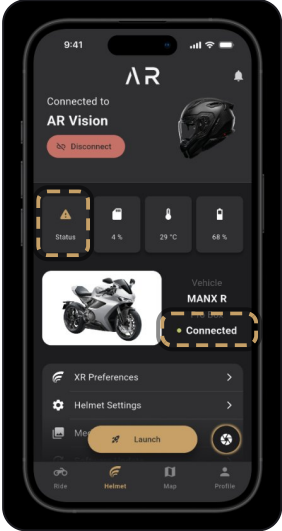


1 • DISCONNECTED

⚠ Status tile: **Warning**

● Pro Box: **Disconnected**

The Pro-Box is asleep, unpowered, or not paired to this helmet. Wake it with a tap on the bodywork; if it stays disconnected, run the pairing on pages 06–07.

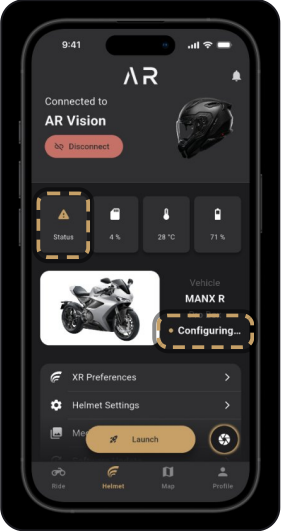


2 • CONNECTED • WARNING

⚠ Status tile: **Warning**

● Pro Box: **Connected**

Paired and talking to the helmet, but the vehicle model is not installed yet. This is the state you want **before** the calibration ride (page 09) — and what you will see while the model trains.

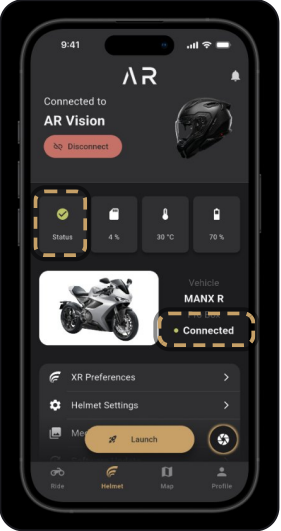


3 • CONFIGURING

⚠ Status tile: **Warning**

● Pro Box: **Configuring...**

The helmet is pushing the finished model to the Pro-Box. Takes a moment, then the Pro-Box reboots by itself. **Do not cut power or disconnect** until the line changes.



4 • CONNECTED • READY

✔ Status tile: **Ready**

● Pro Box: **Connected**

Model installed, Pro-Box configured for its mounting orientation. Everything is in place: do the sensor calibration ride (page 10), then ride as you like.

THE TILE ROW, LEFT TO RIGHT

STATUS Warning until the model is installed, then a green tick.

STORAGE Space used on the helmet for recordings.

°C Helmet temperature.

BATTERY Helmet battery. Only the Status tile speaks for the Pro-Box — the other three are the helmet's own values.

A warning is not a fault. States 2 and 3 are normal stages of setup. Only **Disconnected** during a ride means something needs your attention.

The LEDs on the box say the same thing in their own language — one LED walking green or blue is **Connected**. Full reference on page 12.



Vehicle calibration ride

STEPS 6 & 7 • 5-10 MIN + ~2 H

Two calibrations follow, and they are not the same thing. This one teaches the system **your motorcycle and the exact orientation of the Pro-Box**: a short ride, then cloud training that builds a model for your bike.

STEP 6 – THE RIDE

5-10 MINUTES

1. Move the motorcycle outdoors, to a safe area with a clear view of the sky.
2. Confirm in the app that the Pro-Box is **awake and connected**. If it has gone to sleep, a firm **tap on the seat or bodywork** near the Pro-Box wakes it — let the two-second boot finish.
3. In **Vehicle Setup**, start the calibration ride for the active Pro vehicle.
4. Ride 5-10 minutes, performing the varied dynamic manoeuvres the app asks for. Obey traffic law and ride safely first.
5. Finish the ride, download the recorded data from the helmet, and upload it for training as the app directs.



Connection is required. The calibration cannot use the Pro-Box unless it is awake and connected **before** the ride begins.

STEP 7 – TRAIN AND INSTALL THE MODEL

UP TO ~2 HOURS

1. Wait for training to finish — it can take up to about two hours. You do not need to stay with the motorcycle.
2. When notified, download the completed vehicle model.
3. Install the model on the helmet as the app directs.
4. The next time the helmet connects, the Pro Box line reads **Configuring...** while it pushes the model to the Pro-Box. **Let the Pro-Box reboot completely** — do not cut power.
5. When the Status tile turns to a **green tick** and the line reads **Connected** (state 4, page 08), go on to the initial sensor calibration ride.

2

RIDES

Why two. The vehicle calibration ride learns the **geometry** — where the Pro-Box sits on this particular motorcycle. The initial sensor calibration ride, on page 10, lets the sensors themselves settle into their operating state. Both are needed, and in this order.

WHAT HAPPENS, AND HOW LONG EACH PART TAKES

MOSTLY WAITING

5-10 MIN

You ride the manoeuvres the app asks for.



MINUTES

Data downloads from the helmet and uploads for training.



UP TO ~2 H

The model trains in the cloud. Walk away — you are not needed.



MINUTES

You download the model and install it on the helmet.



~2 S

Pro Box: Configuring... — then it reboots and the tick turns green.



Sensor calibration ride

STEPS 8 & 9 · 10–30+ MIN

This ride lets the sensor system learn its operating state and biases: good satellite reception, varied normal motion, a few stationary pauses — and a proper shutdown afterwards to save the result.

STEP 8 – THE RIDE

10–30 MINUTES OR LONGER

1. Start **outdoors under open sky** — not beneath a roof, dense tree cover or tall buildings, where you have the choice.
2. Let the Pro-Box initialize before you move off, then **start gently**.
3. Ride normally for at least 10–30 minutes. A longer ride can improve the calibration.
4. Include smooth acceleration, braking, cornering and varied normal riding. Avoid unusually aggressive inputs on this first ride.
5. Include occasional stationary stops of **about 30 seconds or longer**, where safe and legal.



STEP 9 – DO NOT UNPLUG IMMEDIATELY

The Pro-Box refines its internal sensor parameters continuously and writes those learned values to long-term memory during a **controlled shutdown**. After the ride, switch off and leave the motorcycle undisturbed — **wait 5–10 minutes before disconnecting Pro-Box power**. Cutting power too soon loses the values and can reduce performance on your next ride.



Every ride from now on

THE 15-SECOND ROUTINE

BEFORE

Where practical, park with a clear view of the sky. Start the motorcycle — or give the seat a firm tap — and check in the app that the Pro-Box is **on and connected**.

INITIALIZE – ~15 S

Allow about 15 seconds before riding; up to 30 in poorer conditions. Putting on helmet and gloves fills the time nicely.

AFTER

Ride normally. When you stop, let the Pro-Box complete its normal shutdown before any power is disconnected.

SLEEP, AND HOW TO WAKE IT

Left still, the Pro-Box drops into a deep sleep; its LEDs go dark. It wakes on motion — usually when you start the engine or swing a leg over. Still asleep in the app? **Give the seat or bodywork near it a firm tap or slap** — a nudge is not enough. Then let the two-second boot finish.

WHY THE 15 SECONDS MATTER

On power-up the Pro-Box finds satellites and settles its sensors before it can report motion accurately. Ride off too early and the first stretch runs on an unsettled state. Fifteen seconds parked is cheap accuracy — **up to 30** when the sky view is poor or the bike has been stored.

A GOOD SKY VIEW

- ✓ Open forecourt, driveway or street with sky overhead.
- ✗ Car parks, closed garages, dense tree cover, tall buildings.

Storage, transport, and changes

WHEN LIFE INTERRUPTS

Motion that is unlike normal riding — a trailer, a van, months in the garage — can unsettle the sensor state. None of it is damage; it just needs the right routine to come back.

LONG-TERM STORAGE

Wait the normal 5–10 minutes after the last ride, then disconnect the grey power connector if you want to rule out any battery drain.

Store the motorcycle and components dry, and keep the Pro-Box away from water.

On the first ride after storage: reconnect power, find a clear sky view, and allow a longer initialization.

Expect the first **10–30 minutes** of smooth, varied riding — with a few safe stops — to restore the best state.

TRANSPORT — TRAILER, VAN, RAIL

Transport exposes the Pro-Box to motion nothing like riding, and vibration may wake it en route.

Where practical, wait for the normal shutdown and disconnect Pro-Box power before transport.

Afterwards, reconnect and give it a careful open-sky initialization before you ride.

Begin gently; expect performance to settle over the first 10–30 minutes of varied normal riding.



MOVING OR REINSTALLING — RECALIBRATION REQUIRED

Moving, rotating, loosening or remounting the Pro-Box invalidates its learned mounting orientation — **even when the change looks small.**

— STARTING OVER, IN ORDER

1 • REMOUNT

Fix the Pro-Box rigidly in its final new position.



2 • NEW PRO VEHICLE

Create one for the new installation and set it active.



3 • PAIR AGAIN

Pages 06–07, from the start.



4 • BOTH RIDES

Vehicle calibration, model, then sensor calibration.



The antenna is the exception. It may be relocated without recalibration, as long as the Pro-Box itself does not move, the silver face stays upward, the sky view stays clear and the cable stays protected.

IT WON'T CONNECT BEFORE A RIDE

It is probably asleep. Wake it with a firm tap or slap on the seat or bodywork near the Pro-Box — starting the engine works too.

Wait for the boot sequence, then look for one LED walking — green or blue — and the app's connected status.

Check the **intended Pro vehicle** is the active one.

THE LEDS ARE COMPLETELY DARK

Deep sleep is the usual cause. Slap the seat or bodywork near the Pro-Box firmly and allow a few seconds to boot.

If it stays dark, **do not dismantle the unit** — have the power connection checked per the manufacturer's guidance.

Power present but still unresponsive? Contact support.



LED reference & what to do

FIVE LEDS, EIGHT STATES

	Green sweep, left to right and back	Boot sequence, about 2 seconds	Wait for boot to finish.
	All five blinking rapidly, white	Pairing mode	Open the app — page 07.
	All five blinking rapidly, blue	Pairing / configuration in progress	Keep phone, helmet and Pro-Box close.
	All five blinking rapidly, green	Configuration successful	Wait for the automatic reboot.
	One white LED walking slowly	Powered, not connected	Bring the active helmet near; check the app — or press the button, page 06.
	One green LED walking slowly	Connected — ready for setup or riding	Nothing to do.
	One blue LED walking slowly	Connected, with a satellite fix	Nothing to do — this is riding-ready.
	No LEDs at all	Deep sleep, no power, or a fault	Tap the bodywork near it to wake it; if still dark, check power and contact support.

A **walking** pattern is one LED lit at a time, moving along the bar — the faint one behind it has just gone out. **Blinking** is all five, together. Patterns can be brief during automatic restarts; treat the app's connection status as the primary confirmation.

IT WON'T APPEAR WHEN PAIRING

Check the helmet is nearby, the right Pro vehicle is active, and all updates are installed.

Repeat the button sequence (page 06): hold 3 s+, release on all five green, wait for the reboot.

Move away from any other Pro-Box in pairing mode and search again.

SPEED OR MOTION JUMPS AFTER BUMPS

Stop relying on those values for riding decisions and **contact support**.

Check the Pro-Box is still rigidly attached and has not changed orientation.

If advised, re-seat the Pro-Box on a better-matching pad, secure it in its final orientation, and repeat the complete calibration.

Before every ride, and always



The Pro-Box is secure and dry · the antenna faces upward, unobstructed · cables and connectors are undamaged · the seat closes without pinching · the app shows the right Pro vehicle, connected. **Never operate the app or inspect LEDs while riding** — stop safely first. Do not open, drill, cut, splice or repair any part of the kit, and never treat Pro-Box data as a substitute for your own judgement.



Contacting support: tell us the app status, the LED pattern, your motorcycle model, and whether the Pro-Box was recently moved, stored or transported — support@aegisrider.com.