USER GUIDE

TRUE OBD

A companion for everything your car asks of you: the drives you make, the fuel and money they cost, the servicing that keeps it on the road, and what the engine is telling you, all in plain English.

Drives · Fuel and costs · Maintenance · Diagnostics

Works on Android 8.0 and newer.

Updated October 2026 · App version 2.12

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HOW TO READ IT

Read it straight through, or start at the section you need — each one stands on its own. The app's Help answers the same questions one at a time, in twenty languages.

SECTION 01

01 What TRUE OBD does

Most car apps show you a speedometer. TRUE OBD reads what your engine reports, records your drives and keeps the history, so every number it shows you comes with a date, a car and a reason.

THE SHORT VERSION

- ✓ Plug in any standard ELM327 adapter and, once you've allowed it, every drive records itself.
- ✓ If your car doesn't give a reading, you see it as missing, never as a zero.
- ✓ Your records live on your phone and back up to your own Google Drive.

Plug a standard ELM327 Bluetooth adapter into the OBD-II port under your dashboard, and from then on the app connects by itself whenever you drive. It gathers three kinds of information: what the engine is doing right now, what happened on each drive, and what the car costs you to keep on the road. Each of those feeds the next, and that, really, is the whole design.

THE ONE IDEA TO REMEMBER

TRUE OBD never makes up a reading. When your car doesn't answer a request, the app tells you so instead of showing a zero, because "not supported", "no answer" and "zero" mean three different things and only the last one is a measurement. You'll find that rule on every screen in this guide, and it's the reason you can act on the numbers.

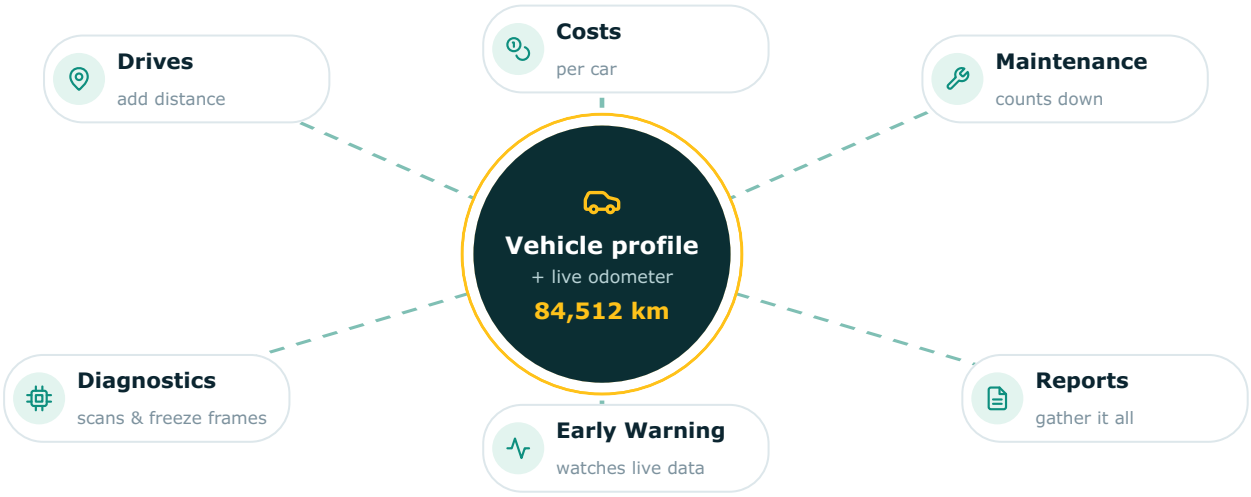


Four ways a figure can look. The same marks are used throughout this guide and across the app.

What makes it different

- **It learns your particular car.** As you drive, it learns how your car behaves — the throttle reading when you coast, when the engine cuts fuel, how far the speedometer is out — so its fuel and driving figures fit your car rather than a generic formula.
- **Missing is never shown as zero.** A reading it couldn't get is shown as unavailable, estimates are labelled as estimates, and a gap in a recording is shown as a gap.
- **It shows only what your car supports.** The app asks the engine which readings exist, and those are the ones you see.
- **Drives record automatically, once you've said yes.** Recording only starts after you've granted location access and paired the adapter or trigger device you choose. From then on, getting in and driving off is enough — and you can still start and stop a drive by hand.
- **A drive still counts without the adapter.** If the adapter isn't plugged in, the app can record the route, distance and driving events by GPS, and estimates fuel with a clear "estimated" label.
- **Your car's stereo can be the starting signal.** Set the stereo or hands-free kit you already pair with as a trigger, and the adapter connects and the drive begins the moment your phone links to it, without opening the app.

How it all ties together



Everything hangs off two things: your vehicle profile and its live odometer. Every drive you record, however short, adds its distance to that car's odometer automatically, and that odometer is what your service reminders count down against. So your maintenance stays accurate without you ever typing in mileage. While you're moving, the same live data powers your gauges and the Early Warning System.

Diagnostics feed the record too. Fault-code scans are saved to your Scan history, and when a code came with freeze-frame data, that snapshot stays with it, so the conditions at the moment the fault appeared are never lost.

Any of it can end up in a report. A report gathers whatever you have — vehicle details, service history, recent scans, drive summaries and running costs — into one professional PDF to save or share, and it gets richer the more you use the app. Because everything is attributed to the right car, all you do is connect and drive; the rest keeps itself up to date.

Free and Premium

FREE **Every plan**

- Connecting and viewing live data
- Backup of your records to your own Google Drive
- What the app learned about each car, restored

PREMIUM **The deeper tools**

- Trip recording and replay
- Full maintenance tracking
- Professional reports and AI insights
- Restoring the rest of a Drive backup onto a new phone

Connecting and viewing live data are free, and every plan backs your records up to your own Google Drive. Premium unlocks the deeper tools: trip recording and replay, full maintenance tracking, professional reports and AI insights. New users get a 14-day free trial of everything.

When a trial or a subscription ends, nothing is deleted. The Premium tools simply lock until you subscribe again, and everything you recorded is there waiting when you do.

SECTION 02

02 Getting connected

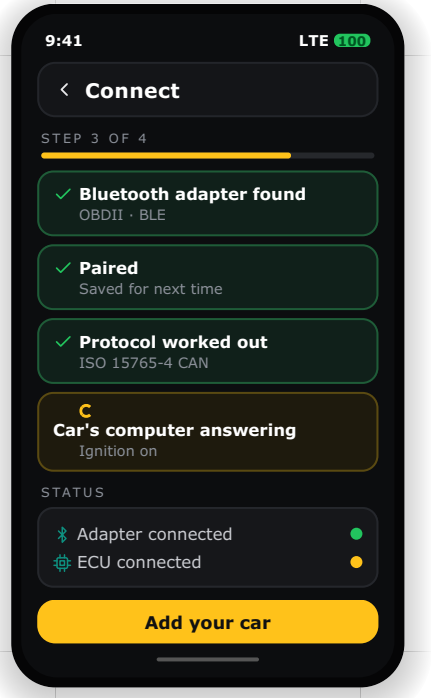
Allow about ten minutes, most of it spent waiting for the adapter to pair.

THE SHORT VERSION

- ✓ Any ELM327-compatible Bluetooth adapter will do.
- ✓ Connect once; after that the app reconnects on its own every time you drive.
- ✓ It adjusts the way it talks to suit whichever adapter you own.

All you need is an OBD-II Bluetooth adapter and this app. Almost every petrol or diesel car built since the early 2000s has an OBD-II port, and it's nearly always just under the dashboard on the driver's side.

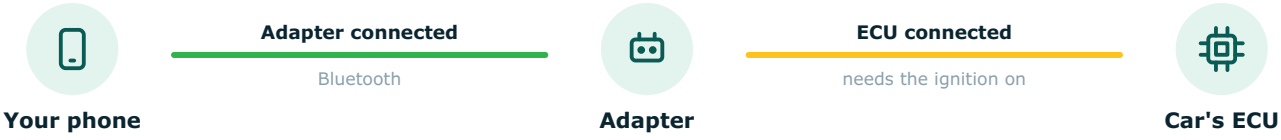
1. **Get an adapter.** Any ELM327-compatible Bluetooth OBD-II adapter works.
2. **Plug it in and pair it.** Turn the ignition on, plug the adapter in, and pair it in your phone's Bluetooth settings if it asks for a PIN (usually 1234 or 0000).
3. **Connect from the app.** Open TRUE OBD, tap Connect and choose your adapter. The app pairs with it, works out which protocol your car speaks, and confirms once the car's computer is answering. The first time takes a few seconds, and a short guided wizard walks you through it step by step.
4. **Add your car.** Give it a profile — make, model, engine, fuel and current odometer reading. Your servicing, costs and history all attach to this.
5. **Drive.** That's the whole setup. Next time you get in, the app reconnects on its own.



The connect wizard. Both lights green means live data can flow.

Two kinds of "connected"

The app shows two connections, and it helps to tell them apart. "Adapter connected" means your phone is talking to the Bluetooth dongle. "ECU connected" means the dongle is talking to your car's computer, which needs the ignition on. Live data only flows once the ECU is connected.



Why you never have to open the app first

Once you've paired an adapter, TRUE OBD wakes up by itself when you're back with your car, reconnects, and starts recording the drive in the background while your phone stays in your pocket. If the link drops mid-drive, it quietly tries the same adapter again before giving up, so a momentary bump doesn't end your trip. How quickly it finds you depends on the type of adapter (below), and a trigger device, covered in the next section, makes it practically instant. One tip: some phone brands put apps to sleep aggressively to save power, so you may need to allow TRUE OBD to run in the background.

Classic, BLE or dual-mode: what the type changes

All three give you exactly the same live data. What differs is how the app finds the adapter without your help.

BLE Low Energy

Advertises itself. The app keeps a low-power, filtered scan running for your saved adapter, so your phone notices it when you get in.

SPP Classic

Doesn't advertise. Once paired, the app knows its address and connects to it directly: when your trigger device connects, when motion detection says you're driving, and quietly about every 15 minutes.

DUAL Dual-mode

Claims both, but doesn't always advertise. The app treats it both ways: it listens for the signal and connects directly.

Whichever you have, opening the app and tapping Connect links straight away, and with any type a trigger device makes reconnection immediate.

GOOD TO KNOW

Adapters vary enormously in quality, and TRUE OBD adjusts to the one you have: how many readings it asks for at once, how long it waits for an answer, and how hard it retries. A slower adapter simply gets a gentler conversation, and you don't have to configure anything.

SECTION 03

03 Your cars, adapter and trigger

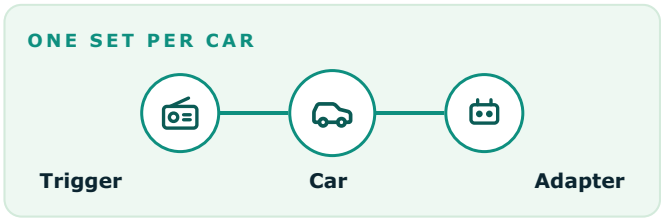
TRUE OBD keeps each car, its adapter and its trigger device linked as one set, so a drive is always credited to the right car.

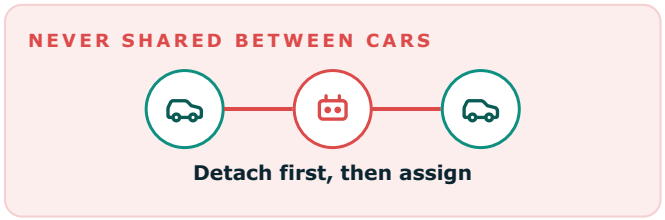
THE SHORT VERSION

- ✓ One set per car: the car, its adapter, and a trigger device if you use one.
- ✓ No device can belong to two cars at once.
- ✓ The adapter is the strongest proof of which car you're in, because it's the engine itself answering.

THE PART	WHAT IT IS
Car	The vehicle profile that owns your mileage, servicing, costs and history.
Adapter	The OBD dongle that reads that car's engine.
Trigger device	Optional. A Bluetooth device your phone connects to when you get in — usually the car stereo or a hands-free kit.

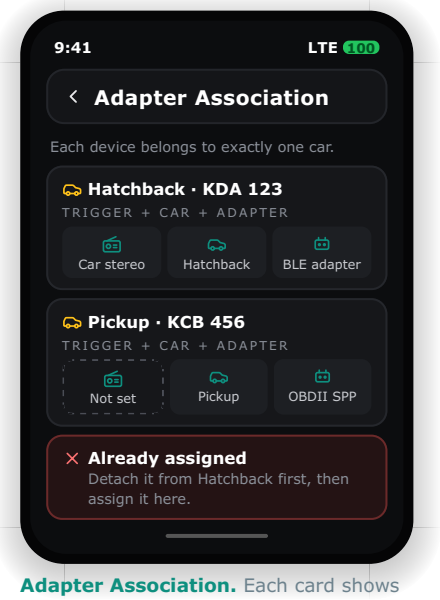
You don't need all three. An adapter on its own is fine, and so is a car with a trigger but no adapter — that's adapterless recording, which has a section of its own. You can add the vehicle profile later, and only the parts you've actually paired are held together.





The trigger device

Your phone already connects to something when you get in, most often the car stereo or hands-free kit. Set that as the trigger in the connection settings, and the instant your phone links to it, the app takes it as the cue to connect your OBD adapter and begin the drive. There's no app to open and no waiting. Because it reacts to a signal your phone receives anyway, it's instant and costs nothing in battery, and it's especially worthwhile with a Classic (SPP) adapter, where it turns a short wait into an immediate connection.



Adapter Association. Each card shows its whole set, with "Not set" for anything unpaired.

Why a device can only belong to one car

Each adapter and each trigger belongs to exactly one car. If one device could serve two vehicles, a drive could be recorded against the wrong one, and its distance, fuel and servicing would land on the wrong car — something that is very hard to notice and harder to undo.

So to move a device, detach it first. Open **Settings → Adapter Association**, find the car that currently has it, detach it there, then assign it to the new car. If you try it the other way round, the app refuses and tells you exactly which car is holding the device. Each adapter card

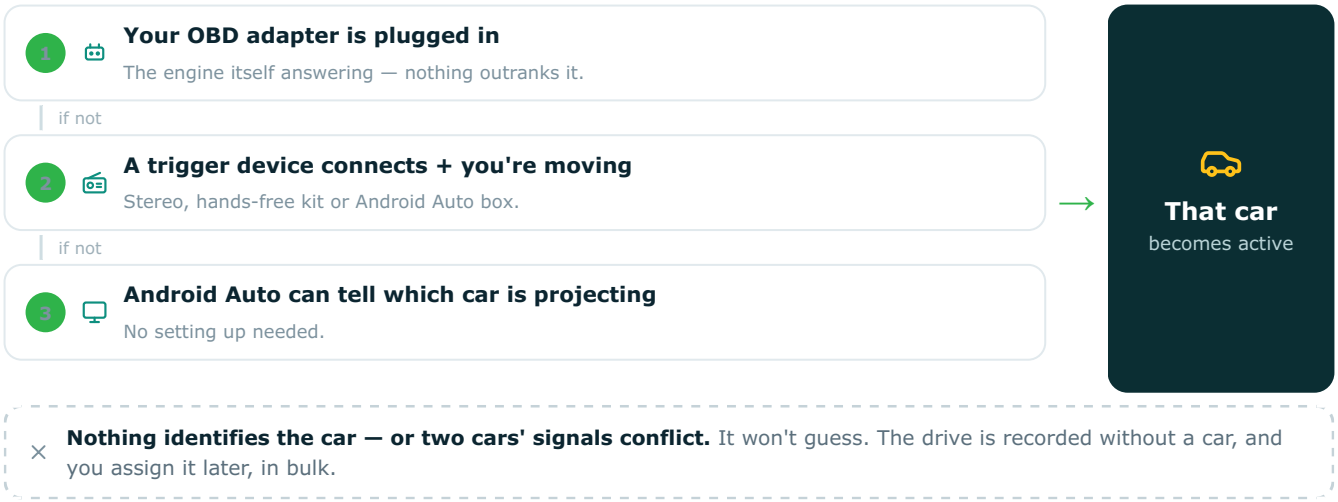
shows its whole set at a glance — Trigger → Car → Adapter — with "Not set" against anything you haven't paired yet.

More than one car

Give each car its own profile and its own adapter, and drives, mileage and diagnostics go automatically to whichever car you're connected to at the time. If you have two cars and one phone, either give the second car its own trigger, or move the trigger across when you swap.

How the app knows which car you're in

It looks for something that belongs to a car and follows it, trusting some signals more than others.



× **Nothing identifies the car — or two cars' signals conflict.** It won't guess. The drive is recorded without a car, and you assign it later, in bulk.

Movement matters for a trigger: a stereo can connect from the driveway, and standing next to your car isn't driving it, so the app switches to a trigger's car only once the phone confirms you're actually moving.

What it won't do is guess. If two of your cars are parked together with both stereos connected, or nothing identifies the car at all, it leaves your choice alone and records the drive without naming a car, rather than pick one and be wrong. You can assign those drives afterwards, in bulk, from your driving records.

So in a garage where each car has its own adapter or paired device, getting in and driving off is all it takes: the maintenance, the odometer, the running costs and the home screen all follow you into the car you're actually in. You can still switch cars yourself at any time, and doing so doesn't change which car an earlier drive was filed against.

SECTION 04

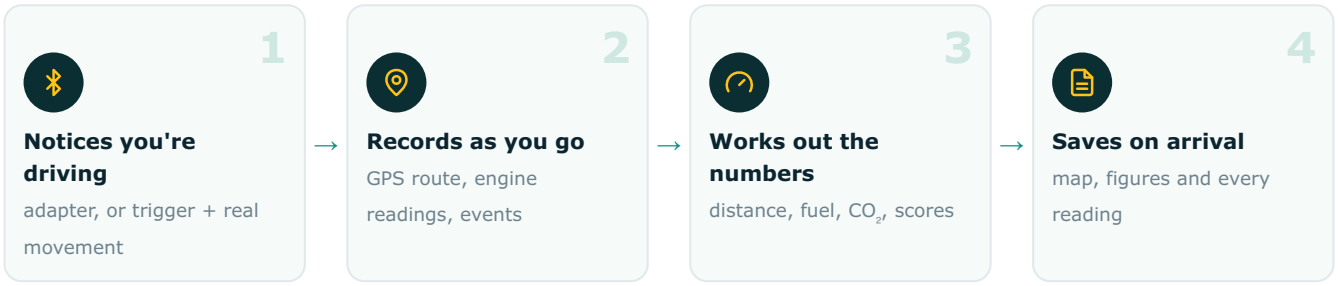
04 How drives are recorded

You don't start a drive. You just drive.

THE SHORT VERSION

- ✓ Recording starts and stops on its own.
- ✓ Each drive keeps its route, engine readings, events, fuel figures and scores.
- ✓ Motion detection can wake the connection sooner, but it never starts a drive by itself.

While you're connected and moving, the app records automatically, blending your phone's GPS route with live OBD data such as speed and RPM. You can also start and stop a drive by hand whenever you like.



1. **It notices you're driving.** The adapter connects — or your trigger device does and the phone confirms real movement — and recording begins.
2. **It records as you go:** the route from GPS, the readings from the engine, and the events worth knowing about, such as harsh acceleration, heavy braking and time spent idling.
3. **It works out the numbers:** distance, duration, average and top speed, fuel used, fuel economy, CO_2 and your driving scores.
4. **It saves the drive when you arrive,** with its map, its figures and every reading your car answered along the way.

The driving scores

Drives get a driving score out of 100: how smoothly you accelerate and brake, how often you speed, how you take corners, and — when an adapter measured the engine — how efficiently you drive and how much you idle. Drives with an adapter also get an economy score. The Driving Records screen shows how your scores trend over time, by week, fortnight or month, and every average is weighted by distance: a forty-kilometre drive says more about how you drive than a four-hundred-metre one. A drive recorded partly or wholly without the adapter is scored from what GPS witnessed, in its own way — see *Recording without an adapter*.



Driving records. Every drive with its distance, cost and scores, and how they trend.

Adapter or Adapterless, on the live drive

The pill on the live drive says what is recording right now: **Adapter** while the engine computer is answering, **Adapterless** when your phone is recording on its own. It changes the moment you unplug or reconnect. Once the drive is finished, a drive that was partly both shows its two parts with their shares.

While you drive

ADAPTER the engine computer is answering

ADAPTERLESS your phone is recording on its own

On the finished drive

ADAPTER 80% | ADAPTERLESS 20%

A drive that was partly both shows its two parts and their shares — never the word "Mixed".

What the pill means. Live: what is recording now. Afterwards: how the drive was recorded.

Why location has to be allowed all the time

So that GPS keeps following your route when the screen is off or the app is in the background. Without it, a drive can lose its map and its distance the moment you leave the app. You can still record using the distance the car itself reports over OBD; the route just won't be mapped.

How fuel economy is worked out

From live engine data — airflow, load, lambda, fuel trims and speed — rather than a rough guess, so it reflects how the car is really running. It reads "limited" while you're stopped and sharpens as you drive. How it becomes more accurate for your particular car is the subject of *How the app learns your car*.

Motion detection

Motion detection does one job. When your phone recognises that you've started driving, it prompts a connection attempt to the adapters you've already paired — and that's all. It never starts a drive, never decides which car you're in, never touches your odometer and never switches on location recording.

When it's worth turning on. If your adapter doesn't announce itself when you start the car, the app may not notice you're driving until you open it, and the drive is recorded from halfway through. Motion

detection closes that gap. If your stereo or hands-free kit already connects on ignition, you don't need it: that signal is earlier and more reliable, and the app skips motion for that vehicle automatically.

What it costs in battery. Very little. It uses Android's activity transition service, which the system runs anyway, so the app is told once when you start driving instead of polling. Connection attempts are limited to one every five minutes, so an adapter that refuses isn't retried for the whole journey.

The permission. It needs Physical activity recognition. Motion detection is off until you switch it on, and the permission is only requested at that point; turn it off any time and the app stops observing at once.

What it does

- Prompts a connection attempt to adapters you've already paired.
- Closes the gap when your adapter doesn't announce itself.
- At most one attempt every five minutes.

What it never does

- Start a drive.
- Decide which car you're in.
- Touch your odometer.
- Switch on location recording.

Passengers and buses

Riding as a passenger, or on a bus, records nothing. Motion only prompts an attempt to reach your adapter, and if it isn't there no drive begins.

SECTION 05

05 Recording without an adapter

A drive without the adapter is still a drive. TRUE OBD records what it can see, tells you plainly what it couldn't, and never quietly fills the difference with a guess.

THE SHORT VERSION

- ✓ Route, distance, speed and driving events are still measured, by GPS.
- ✓ Figures that only the engine can give are left blank, not shown as zero.
- ✓ Fuel and cost become labelled estimates, from the best consumption figure the app has.

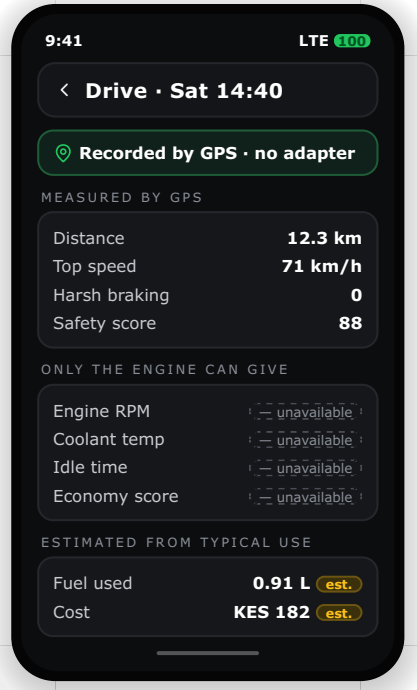
This works whenever the app can tell which car you're in. Pair your car's Bluetooth device — usually the stereo or hands-free kit — to a vehicle, and when that device connects, the app can record the drive using GPS. It's a fallback: the adapter is always tried first, and adapterless recording only begins once that attempt has failed.

What you still get, and what you don't

GPS still gives you the distance, the route and its replay, duration, speed and top speed, speeding exposure, harsh braking and acceleration, cornering, and the drive's contribution to that car's odometer. All of it is measured; none of it is guesswork. And drives finished since the October 2026 update get a driving score too, worked out only from what GPS can see.

What's missing is everything that comes from the engine computer: engine RPM, coolant temperature, fuel use, idle time and the economy score. With no adapter there's nothing to read them from, so they show as unavailable rather than 0. A zero would read as a measurement — "you idled for no time at all" — and that would be untrue.

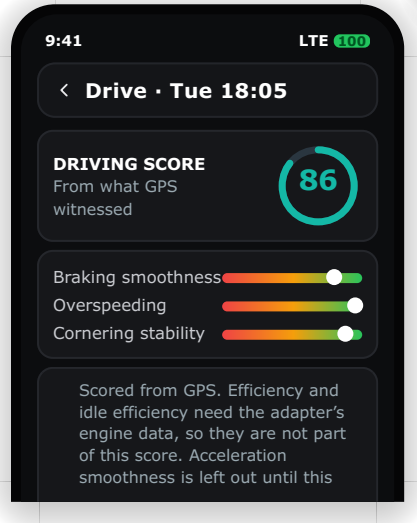
Fuel used, cost and economy are handled differently. When the app has a nominal consumption figure for your car, it works them out from your distance and labels every one of them "estimated". Without that figure they stay blank rather than showing a guess.



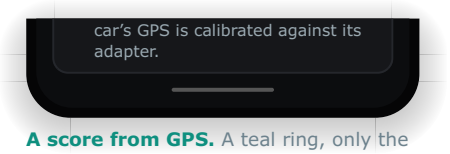
An adapterless drive. Measured, unavailable and estimated, each marked as what it is.

How a drive without the adapter is scored

It has its own way of being scored, from what GPS witnessed: speeding, cornering and braking, and acceleration once your car's GPS has been checked against its adapter. Braking is left out only if your car's GPS turns out unable to tell real hard stops from its noise, and anything GPS didn't actually judge on a drive — fixes too far apart to measure a stop, say — is left out of that drive's score rather than counted as perfect. Efficiency and idling need the engine, so they're left out rather than



guessed — never shown as a perfect score — and the drive's score card says exactly what was left out. These scores are drawn with a teal ring, so you can tell them from adapter scores at a glance.

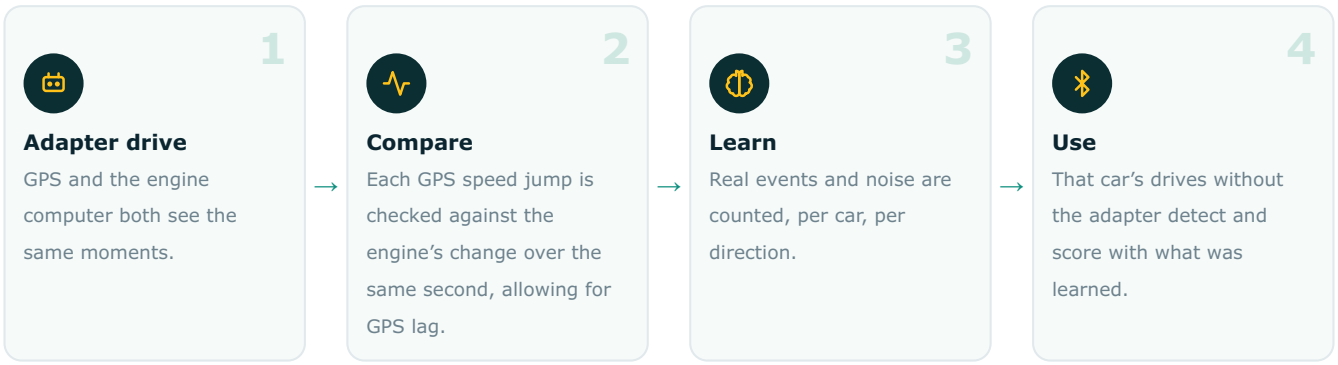


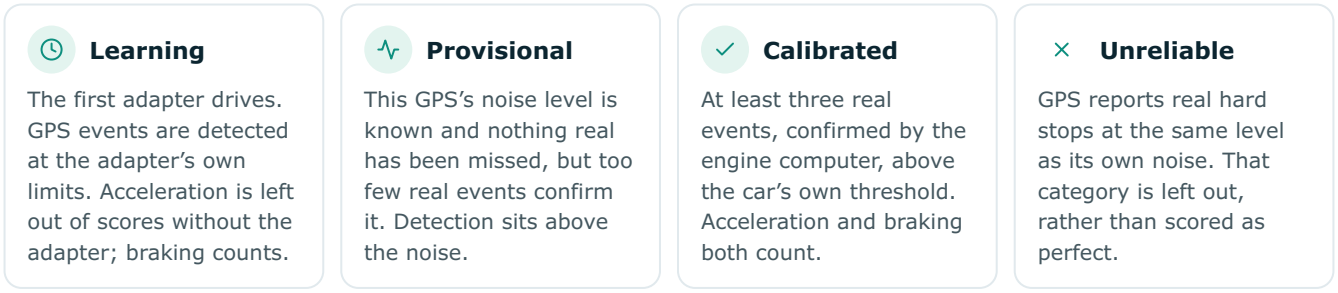
A score from GPS. A teal ring, only the rows GPS measured, and a line saying what was left out.

A drive that was partly with the adapter is scored by distance: the adapter's share as an adapter drive, with the fuel and idling the engine measured, and the rest from GPS. Drives recorded before the update keep no score; they aren't re-scored after the fact.

Your car's GPS learns what is real

GPS reads speed about once a second, and a sudden jump between two readings isn't always real. We checked: on our own test car, almost every GPS "harsh acceleration" was noise the engine computer never saw. So the app doesn't trust GPS blindly. On every drive with the adapter, it compares each GPS reading with what the engine computer measured over the same second — allowing for GPS lagging a little behind the wheels — and learns, for each car, which readings are real hard acceleration or braking and which are noise.





The four states of a car's GPS calibration. It moves between them by itself, drive by drive.

You don't do anything. It happens while you drive, keeps learning as the phone, its mount or the car change, and is backed up to Drive with the car. Until a car is calibrated, acceleration is left out of its scores without the adapter; if its GPS can't tell real hard stops from noise, braking is left out too. On drives with the adapter, the engine computer is the judge whenever its speed reading is fresh, and GPS only fills the moments it isn't.

On hold, and when it isn't

A drive is held for up to five minutes only when nothing can confirm which car it is: the adapter is gone and your trigger — the car's Bluetooth or Android Auto — isn't seen, or the engine computer stops answering with no trigger present. The card says which one went. While the trigger is there, the drive simply carries on, so a long stop in traffic or an adapter being reconnected counts nothing down. On a drive the adapter was part of, one missed reading isn't enough: the app checks again 30 seconds later before holding, so a brief Android Auto dropout causes no hold at all. And a trigger the app has stopped hearing from altogether — say adapterless recording was switched off mid-drive — no longer holds it: after two and a half minutes of silence the hold begins.

Trigger present

The drive carries on. A long stop in traffic, or the adapter being reconnected, counts nothing down.

Seen missing once

Checked again 30 seconds later. A brief Android Auto dropout causes no hold.

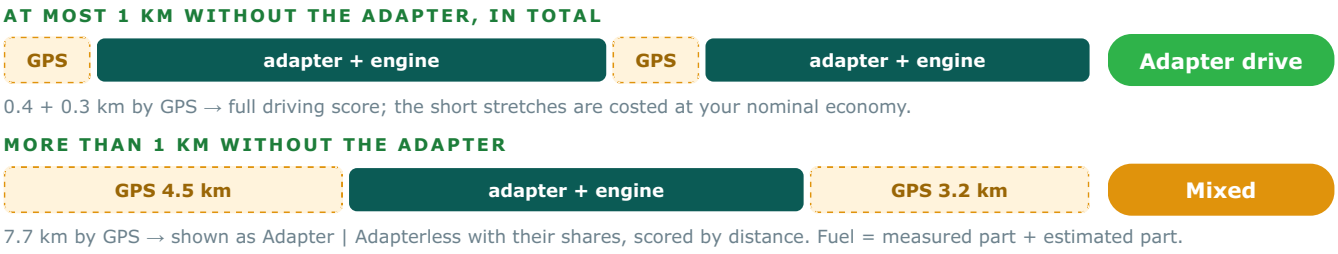
Still missing

On hold for up to five minutes. The card names what went: the adapter, the ECU, car Bluetooth or Android Auto.

When a drive goes on hold. Only when nothing can confirm which car it is.

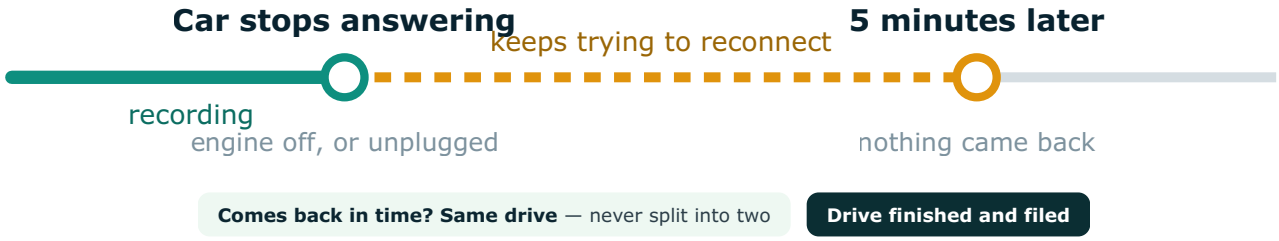
When the adapter is only there for part of the drive

If the adapter joins part-way, the drive carries on as one journey and is marked as partly covered. Distance comes from GPS throughout, because no engine reading spans the whole trip. Fuel is added up from both parts: measured by the engine for the stretch it saw, and estimated from your nominal consumption for the stretch it didn't. The total is marked "estimated", so you can tell it apart from a drive the engine measured end to end.



Short interruptions are forgiven. If the adapter is slow to connect as you set off, or drops out and reconnects during the journey, TRUE OBD keeps recording that stretch from your phone's location. As long as the distance covered without the adapter adds up to one kilometre or less in total — one mile or less if you use miles — the drive is still treated as an adapter drive. It shows your full driving score and fuel figures, and the short stretch is included in its distance, fuel and cost using your nominal fuel economy. Beyond that, the drive shows its two parts — Adapter and Adapterless, with their shares — and is scored by distance between the two, as described above.

Stopping with the engine off, or stepping away from the car, doesn't count as a gap. When the adapter or the car stops responding, the app keeps trying to reconnect throughout a five-minute grace period, and only starts recording distance without the adapter once the car is actually being driven without it.



Unplugging while you're still driving doesn't end the drive either. If the Bluetooth device that identifies the car is still connected and you're still moving, recording carries on without the engine, and the drive becomes partly covered. If that device has gone too, the app waits five minutes in case it or the adapter comes back, and only then finishes the drive and files it. A loose plug won't cost you a journey, and it won't split one drive into two.

Adapterless distance and your odometer

The distance is added to your odometer once, exactly as it would be for an adapter drive: nothing is counted twice and nothing is estimated. The only difference is what confirms it. With an adapter, the GPS distance is cross-checked against the car's own wheel counter before it's applied; without one, GPS stands alone. That's still a real measurement, so the app simply asks you to confirm your dashboard reading a little sooner, and re-bases from whatever you enter.

Fuel without an engine to ask

Fuel is the one figure a map can't give you. On an adapter drive, the app asks the ECU how much fuel actually went through the injectors; that's a measurement, and it's what adapter drives are costed from. Without an adapter there's nothing to ask. The phone knows where you went, how far and for how long, but nothing in it can know how much petrol the engine burned.

So for those drives the app combines the distance with your car's typical consumption to estimate what the drive cost. That's the only reason the figure exists: it's used solely for drives recorded *without* an adapter, and with the adapter plugged in it's ignored entirely, however wrong it might be. Wherever the app has estimated rather than measured, it says so.

Where the typical consumption comes from

The app always uses the best of four sources it has, best first:



1. **Learned from your own drives.** Once there are three adapter drives of over 15 km in the last 90 days, the app works out your real average from them and uses that. It's the most accurate figure there is, because it's your car, your roads and your right foot. Short trips are left out on purpose: cold starts and traffic dominate them, and they'd read far worse than your real average.
2. **Measured at the pump.** With "Work it out for me", the app tracks the distance between two fill-ups and divides it by the fuel you put in. That measures the whole car, including the parts an adapter never sees.
3. **Typed by you,** in whichever unit you've chosen — km/L, L/100 km or MPG. The field tells you which.
4. **Estimated,** when there's none of the above. The app first asks an online lookup about your exact make, model, engine size and fuel; if that's unavailable — no signal, or a car it doesn't recognise — it falls back to a built-in table of typical consumption for cars of that engine size, fuel and age.

So the figure is almost never blank. A brand-new car profile starts at the estimate and improves as better evidence arrives; only a car with too little detail for even the built-in table — no engine size, say — has none, and then its adapterless drives stay unpriced rather than guessed. An estimate only ever fills a gap — it never overwrites something you typed or measured, or what the app has learned from your drives. Your own drives, on the other hand, eventually refine anything: a figure you typed stays until at least three qualifying adapter drives made *after* you typed it give the app better evidence. The icon beside the figure tells you which of the four you're looking at, and tapping the refresh arrow asks for a fresh estimate.

The starting estimate

When you add a car, the lookup is sent four things and nothing else: make, model, engine size and fuel type. No registration, no VIN, no location, no identity, and nothing about your driving. The answer is shared — the first owner of a given specification pays for the lookup, and everyone else with the same car gets the identical figure — which keeps the cost down and the figure consistent.

It's a real-world figure, not the manufacturer's headline number; those are measured in laboratory conditions and are usually noticeably better than anyone achieves on the road. And there are two things it

won't do. It won't invent a car: if it doesn't recognise the model it says so, rather than produce a confident-looking number, and the app falls back to its built-in table. And if your car was never sold with the engine size you entered, it answers for the closest engine that model really had and tells you which, so you can correct the entry if it's yours. It's still an estimate, marked as one everywhere it appears, and every drive you record with an adapter makes it matter less.

How accurate fuel and cost are without an adapter

They're good estimates rather than exact figures. Real consumption moves with traffic, hills, air conditioning, load and driving style, so a single drive can differ from the estimate, sometimes noticeably. Every estimated figure is labelled “estimated”, so you can always tell it apart from one the engine measured. For the most accurate fuel and cost, drive with the adapter connected — and over time, those drives make the estimates for your other drives more accurate too.

SECTION 06

06 How the app learns your car

No two cars use fuel quite alike, not even two of the same model. TRUE OBD starts from the physics every engine obeys, then keeps measuring your particular car until the general figure has been replaced by yours.

THE SHORT VERSION

- ✓ While you drive with the adapter, the app quietly learns how your own car behaves.
- ✓ Each lesson must clear its own bar first, and the fuel-cut rule must also hold up on drives it wasn't learned from.
- ✓ What it learns is backed up per car, restored free, and renewed every 30 days or 5,000 km.

There's nothing to set up and nothing to press. Each car learns separately, in the background, and only while you drive it with the adapter connected.

Why learning is needed at all

A petrol engine burns about one part of fuel for every 14.7 parts of air, so once the app knows how much air went in, it knows how much fuel was burned. Most of the time that rule is excellent. There are three places where it isn't, and in each the app can only get it right by watching your car:

Coasting

Lift off the accelerator in gear and most engines stop injecting fuel altogether. Air still flows, so a calculation from air would keep counting fuel that was never used.

No airflow sensor

Many cars measure manifold pressure rather than airflow, so the air has to be worked out — a good estimate, but on any given car it tends to be off by a steady few percent.

Diesels

A diesel doesn't keep a fixed ratio of air to fuel, so air alone says very little about how much it used.

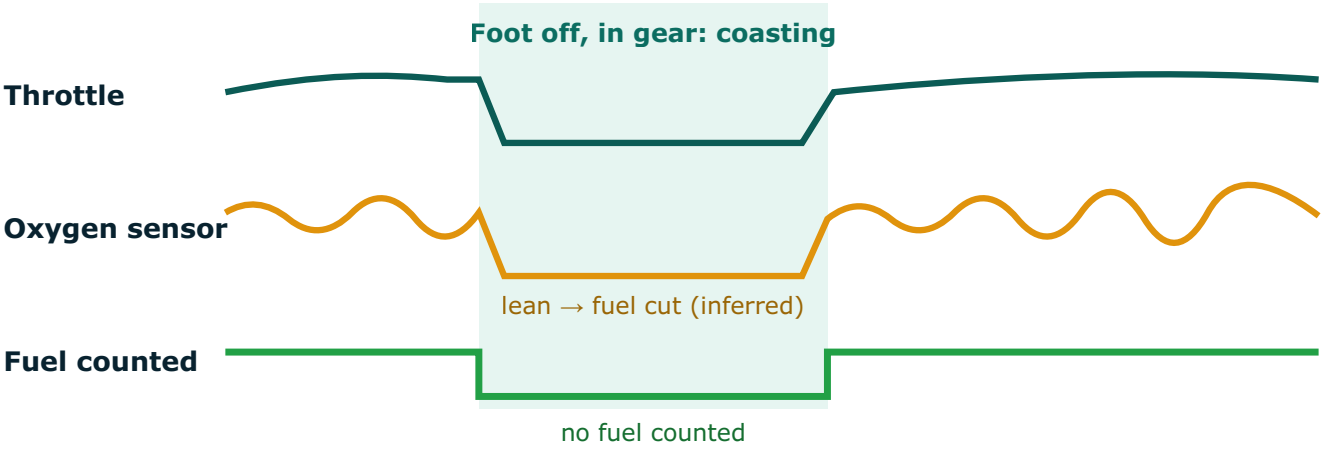
Your speedometer is a fourth, separate case. Almost every car's speed signal reads a little high, and by an amount particular to that car and its tyres.

Everything it learns, at a glance

WHAT	LEARNED FROM	USED FOR	BEFORE IT IS USED
Closed-throttle reading	What the throttle reports when your foot is fully off the pedal	Recognising when you're coasting	Seen consistently over at least three warm drives
Fuel cut	Engine speed, throttle and road speed during coasts, checked against the oxygen sensor	Counting no fuel while injection is cut	Worked out on some drives, then confirmed on different ones
Fill-up correction	Fuel you pumped between two full tanks, against what the app calculated	Correcting the air estimate on cars without an airflow sensor	At least three closely agreeing comparisons, 30 litres between them, from your latest five
Engine load as a backup	Absolute engine load compared with the airflow sensor, on cars that have one	Standing in for the airflow sensor when its reading drops out	The two agreeing over at least three drives
Speedometer scale	Your car's speed against GPS while cruising steadily	Correcting acceleration and braking test results	At least three drives of steady readings, and a believable answer
Typical economy	Your own measured adapter drives	Pricing drives recorded by the phone alone	Enough measured drives to settle on a figure

Coasting and the fuel cut

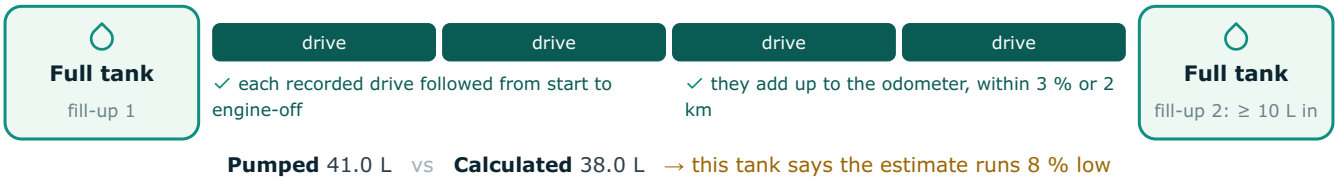
First the app learns what your throttle reads with your foot fully off the pedal, so it can tell when you're coasting. Then, during coasts, it watches the oxygen sensor: a lean reading is strong evidence that the fuel was cut — strong, but still an inference, which is why coasting figures are marked as limited. From those coasts it works out a rule for when your engine cuts fuel, and that rule is only used once it has been worked out on some drives and then confirmed on different ones. Until then, and straight away if later drives contradict it, coasting is counted the ordinary way.



Fill-ups as a correction

On a car without an airflow sensor, the app's fuel figure is an estimate built from other engine readings, and it can be off by a steady amount. Your fill-ups are how it finds out. Each time you log a fill-up, the app compares the fuel you actually pumped between two full tanks with what it calculated for the same driving. A comparison only counts if at least 10 litres went in, every drive the app recorded in between was followed with the adapter from start until the engine was switched off, and those drives add up to the

distance on your odometer, to within 3 % (or 2 km on a short tank). A drive the app never saw — the phone left at home, say — is only caught by that distance check, so a short one can slip inside it. Once at least three comparisons agree closely, the app corrects its estimate to match them. It only ever uses your five most recent comparisons, so the correction keeps pace with your car.



Cars with no airflow sensor

Without an airflow (MAF) sensor, the app works out how much air the engine draws. If your car reports absolute engine load, it uses that; otherwise it uses manifold pressure, intake temperature and engine speed. Either way the result is an estimate, and it's labelled as one. What makes it accurate is your fill-ups, described above: once a few full-to-full fills agree, the estimate is corrected to match the fuel you actually pumped.

Cars that do have an airflow sensor are measured directly. On those, the app also checks whether engine load matches the sensor over your drives. If it does, engine load becomes a trusted backup for the moments the sensor's reading drops out — on a slow adapter, for instance.

Your speedometer against GPS

Speedometers often read a little high, and different tyres move them further. While you cruise steadily, the app pairs your car's own speed reading with GPS speed and learns the difference for that car. Acceleration and braking tests use it to correct their speeds and distances.

Diesels: measured, or plainly not

A diesel burns very different amounts of fuel for the same air depending on how hard it's working, so air readings alone can't say how much it used. The app therefore measures a diesel's fuel only when its engine computer reports its own fuel rate. If it doesn't, the drive is shown as not measured rather than guessed. Once the app has confirmed, on at least two separate readings, that your diesel never reports a fuel rate, it estimates those drives from the car's typical economy and marks them as estimated.

The typical economy, and the order it's chosen in

This is the figure from *Recording without an adapter* that prices drives recorded by the phone alone. Its ladder, best first, is: learned from your own adapter drives; measured from your fill-ups; a figure you typed in; the published figure for your model; and an estimate for your type of car. A figure learned from your adapter drives always wins, without the app asking you. If you type in a new figure, that's used until enough new adapter drives refine it.

What a lesson has to pass before it is used

Learning is only worth having if it's right, so every lesson is held to the same rules as the rest of the app: absence is never health, and a guess is never a measurement.

- **Only your car teaches your car.** A drive counts only if the adapter linked to that car was connected and the engine was answering. A borrowed adapter, a drive filed under no car, a paused recording or a performance-test run teaches nothing.
- **Each lesson clears its own bar.** The closed-throttle reading, the speedometer scale and the engine-load check each need at least three drives that agree. The fuel-cut rule goes further: worked out on some drives, it must then hold on others, and is never confirmed by the drives it was built from.
- **No feedback loop.** The app never learns from its own corrected figure. The fill-up comparison, for instance, is always made against the uncorrected estimate.

- **Gaps disqualify.** A fill-up comparison is set aside rather than half-counted when the drives the app recorded don't add up to the odometer distance, when a drive in it wasn't followed from start to engine-off (the Bluetooth link dropped, a fault-code scan or performance test paused it, or the app restarted mid-drive), when a drive straddles the fill-up, or when there's too little fuel to judge.
- **A lesson that stops holding is withdrawn.** If later drives contradict a learned rule, it's suspended and the ordinary calculation comes back until the evidence settles again.

The life of a lesson

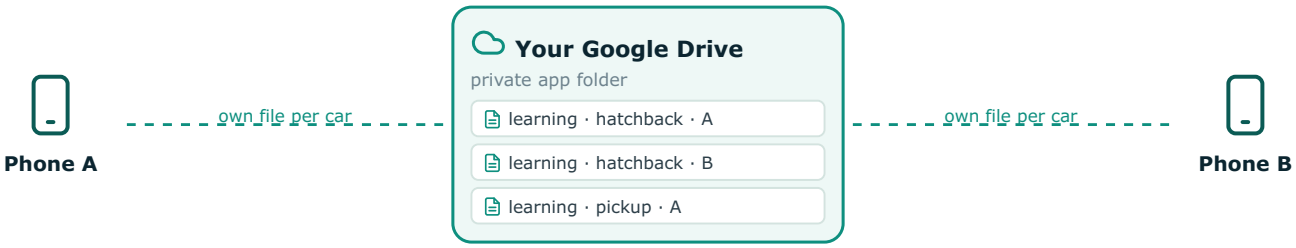


1. **The first drives** use the ordinary calculation. Nothing the app hasn't learned yet is assumed.
2. **Evidence gathers** over your normal driving, each reading kept with the drive it came from.
3. **The lesson goes into use** once it passes its tests, on new drives — and if Drive backup is on, it's saved to your Drive shortly after.
4. **A fresh round begins** after 30 days or 5,000 km (about 3,100 miles), whichever comes first. Cars change with wear, servicing, new tyres and the seasons, so the app starts learning the fuel cut and the speedometer again, alongside the lesson in use. The old lesson keeps working the whole time, so renewal never leaves a gap.
5. **The new replaces the old** once the fresh round passes the same tests. It's backed up for that car, and the clock starts again.

Fill-up corrections don't need a clock: they always use your five most recent comparisons, so an old fill-up simply drops out as a new one comes in.

Backup, restore and more than one phone

Every car you add gets its own permanent, unique identity, and everything learned about it is filed under that identity rather than its make or model. Two identical cars in the same household stay entirely separate, and never share or overwrite each other's learning. If Google Drive backup is on, each car's learning is saved a short while after it changes, to the same private app folder in your Drive as the rest of your records.



Results, not recordings. No raw readings, no routes.

- **Results, not recordings.** The backup holds what was learned — the closed-throttle reading, the fuel-cut rule and how sure the app is of it, the fill-up comparisons, the speedometer scale — not raw readings and not your routes.

- **Each phone keeps its own copy.** If you use TRUE OBD on two phones, each writes its own file for each car, so neither can overwrite what the other learned.
- **Restoring is automatic.** After a reinstall or on a new phone, once you sign in and connect Google Drive, the app restores each car's learning by itself, so your figures are accurate from the first drive. A backup only fills in what the phone hasn't learned yet, taking the newest result any phone's copy established. It then starts learning afresh in the background, and the restored lessons stay in use until the new ones are ready.
- **A phone's own learning is its own.** If you use TRUE OBD on two phones, each keeps and checks what it learned on its own drives; a backup never overrides it. Fill-up comparisons are shared between them, one per tank, and nothing is thrown away because one phone hadn't seen it.
- **Free for everyone.** Restoring the rest of a Drive backup is a Premium feature, but what the app learned about your cars comes back on the free app too, with or without Premium. It's used to record every drive accurately, so the figures you see when you subscribe should already be right.
- **Bound to your account.** If you sign in with a different Google account, what was learned under the previous one is removed from the phone, and nothing crosses between accounts.

What it does not do

Learning only reads; it never sends a command to the car. It doesn't go back and rewrite drives already saved — what you see for an old drive is what was calculated at the time. And it never counts a diesel's fuel from air readings — an estimate is always marked as one.

What helps

Nothing is required; it all happens while you drive. But on a car without an airflow sensor, logging your fill-ups and filling to full each time is the single most useful thing you can do.

SECTION 07

07 Electric cars and hybrids

An electric car keeps no fuel log for an adapter to read, and a hybrid's engine switches itself off in the middle of a drive. Both break assumptions a petrol car never tests, so TRUE OBD treats them as what they are — starting with what you tell it when you add the car.

THE SHORT VERSION

- ✓ An electric car's energy is always an estimate, from the car's typical use — never shown as measured.
- ✓ That typical use is your own figure first — measured from your charges or typed, whichever you did last — then an AI estimate, never a guess.
- ✓ Cold weather costs an electric car energy, so each drive is adjusted for its own outside temperature.
- ✓ A plug-in hybrid's electricity from the wall is priced too — from its battery, its engine-off drives, or the charges you log, never counted twice.

Telling the app what kind of car it is

When you add a car, choose its fuel. Pick **EV** for a battery electric car: the form stops asking for an engine size, and the transmission is set to **No transmission** and greyed out, because there's nothing to choose. For a hybrid, pick the hybrid type yourself — petrol hybrid, diesel hybrid or plug-in hybrid. The app never works this out on its own, because everything below depends on it and a wrong guess would quietly change every figure for that car.

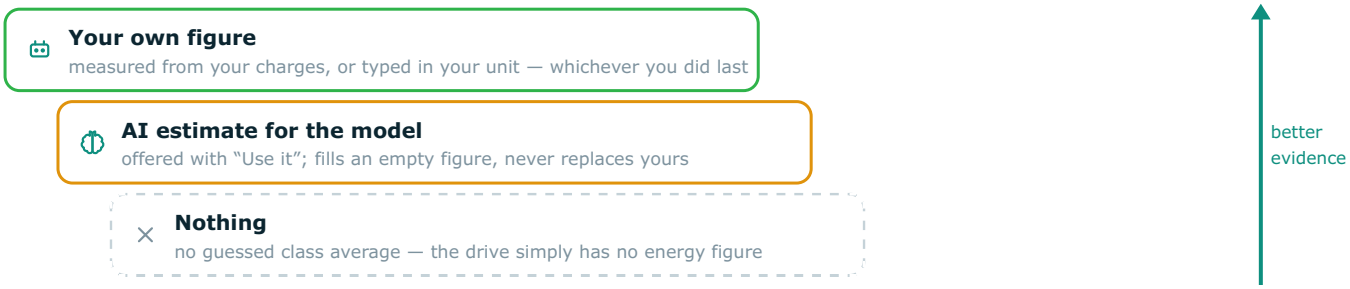
What an electric car does and doesn't tell the adapter

Plug an adapter into a petrol car and it can read how much air the engine draws, and from that how much fuel it burned. An electric car has no such reading in the standard set: nothing on the diagnostic port says how many kilowatt-hours a drive took. So TRUE OBD never shows an electric drive's energy as measured. Every kWh figure on an electric drive is an estimate, worked out from the car's typical energy use and the distance, and it's marked “estimated” wherever it appears.

The drive itself is recorded the usual way when it can be. If the car's computer reports its speed, the adapter records the drive exactly as it would a petrol car's. Some electric cars give the adapter nothing useful — a Tesla has no standard OBD port at all, and others only report their battery — and those drives are recorded from your phone and trigger device instead, as described in *Recording without an adapter*.

Where the typical energy use comes from

The app takes the best evidence it has, in a fixed order, and tells you which one it's using:

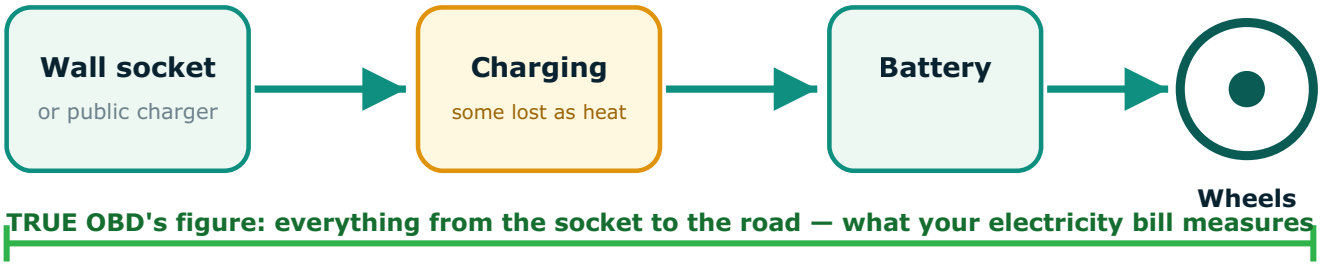


Notice the last rung. A petrol car with no other evidence falls back to an estimate for its type of car; an electric car doesn't. Electric cars differ too much — a small city car can use half what a large SUV does —

for a class average to be anything but a confident-looking guess. With nothing better, the drive simply has no energy figure, and says so.

The AI estimate is asked for your car's make and model. It appears as a suggestion with a **Use it** button; it fills an empty figure, but it never replaces one you typed or measured. If it doesn't recognise the model, it says so rather than invent one. Tap the refresh icon to ask again.

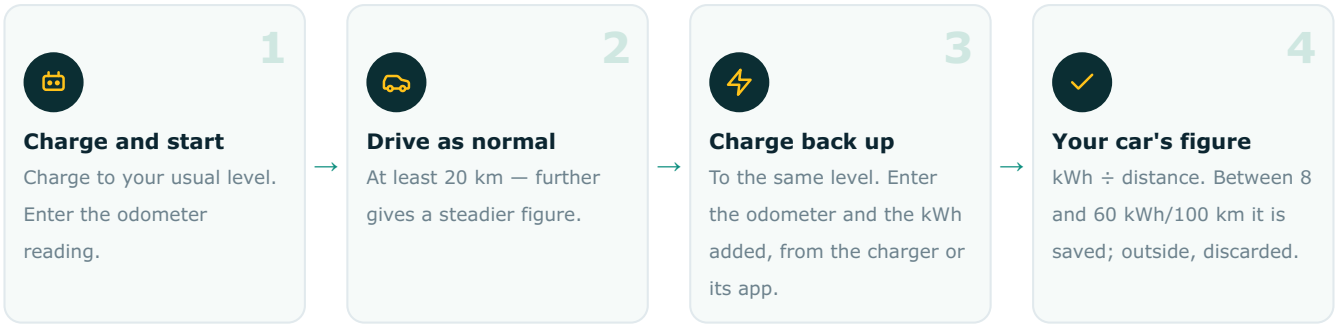
Measured from the socket, not the battery



Every figure on the ladder means the same thing: energy drawn from the charger per distance, with the energy lost while charging included. That's the number your electricity bill measures, so it's the right one for working out what a drive cost. It's a little higher than the figure some cars show on their own dashboard, which often counts only what left the battery.

Measuring your own car from its charges

The most trusted figure is your own, and the most accurate way to get it is from two ordinary charges. A measured figure and a typed one are equals: whichever you did last is the one used. In **Unit preferences**, under **Electric car energy**, choose **Work it out from my charges**:



Charging back to the *same* level is what makes this work: whatever the charger put in is then exactly what the drives took out. The kWh figure comes from the charger's display or its app. A result outside 8 to 60 kWh per 100 km is something no production car does — usually a mistyped reading — so it is thrown away and nothing is saved; check the numbers and try again.

What an electric drive costs

Set your electricity price in **Unit preferences**. While an electric car is the active car, the fuel price card there becomes **Charging cost**, and that's where the price goes. Each drive is then priced like this:

Distance 42 km × **Typical use** 17.8 kWh/100 km × **Your price** 25 per kWh = about 187 est.

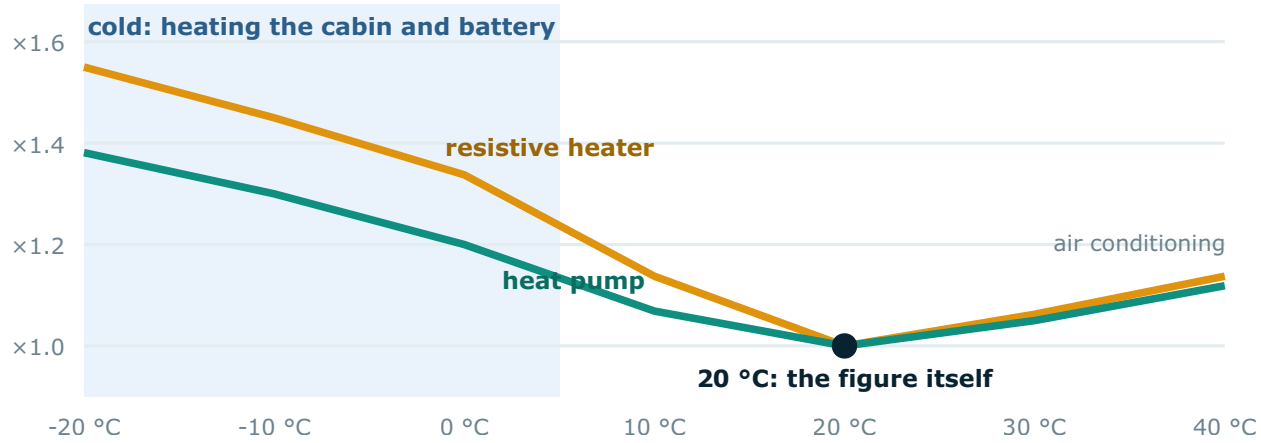
How an electric drive is priced. Every figure is an estimate and is labelled as one: an electric car never tells the adapter how much energy it used.

- **Always marked estimated.** The energy is an estimate, so the cost is too.
- **Called what it is.** Reports, the export and the AI drive summary call it electricity or charging, never fuel — a monthly report for an electric car will never tell you about your fuel bill.

- **No price, no cost.** Without an electricity price the drives are left unpriced rather than counted as free, and the Costs screen asks you for one, with a button that takes you straight to it.

Cold days cost more

An electric car feels the weather. In the cold it spends energy keeping you and its battery warm, and a cold battery works less efficiently, so the same trip takes noticeably more. Hot days cost a little too, for the air conditioning. TRUE OBD now takes this into account, drive by drive.



How much more energy a drive takes, by outside temperature. An illustration: the AI answers each model with its own curve, for its battery and heater. At 20 °C the factor is 1 — a typed or AI figure is taken as true there. A heater is the big difference in the cold; the battery type moves it a few points.

When the app asks the AI for your model's typical energy use, it also asks how that changes with the outside temperature — a short curve, answered for your car's battery and heater. Each drive is then adjusted for its own outside temperature. The figure you typed, or the AI's, is taken as true on a mild 20 °C day; a cold drive is scaled up from there.

Typical use 16.0 kWh/100 km *at 20 °C* × **Today, 0 °C** ×1.30 = 20.8 kWh/100 km for this drive est.

Measured in winter?

A figure worked out from your charges remembers the temperature of those drives. Measured at 0 °C, a 0 °C drive is not adjusted for the cold again: the cold is already in it. A 20 °C drive gets *less*.

No temperature, or no curve?

The drive keeps the plain figure. Nothing is guessed, and nothing is adjusted by a curve the app doesn't have.

In real cold, a drive can also include a small one-off amount for warming the car up. And if there's no temperature for a drive, or no curve for your car, the drive simply keeps the plain figure — the app never makes up a temperature, or a curve it wasn't given.

Battery and heater: two optional questions

For an electric car or a plug-in hybrid, the car's profile has two extra, optional fields. They're there because they change how much the cold costs, and they're sent along with the make and model so the AI's answer fits your car rather than an average one.

Heater — the big one

Heat pump or **Resistive (PTC)**. A heat pump warms the cabin with far less energy, so in the cold it matters most.

Battery — the small one

LFP, **NMC** or **NCA**. An LFP battery loses a few points more in the cold.

Not sure?

Leave **Not sure**. The estimate assumes what's usual for the model. Change either later and the app asks again.

You'll rarely wait for an answer. Answers are kept and shared: a car with the same make, model, battery and heater as one already asked about gets that answer straight away, with no new AI request.

Same make & model + **same battery & heater** = one shared answer, no new AI request

Where the outside temperature comes from

1

The car's own sensor

If the car reports outside air temperature, its readings are averaged over the drive.

→

2

Otherwise, the weather

After the drive is saved: Open-Meteo, for the start time and place. The place is rounded to about 1 km first.

→

3

Otherwise, none

The plain figure is kept. The weather never overrides the car.

The car's own reading always wins. Only when the car doesn't report one does the app look up the weather, and only for a car whose figures it would actually change. Your location is rounded to about a kilometre before it's sent. While you drive an electric car, its live card shows the outside temperature and how much it's changing the energy use.

Units, and the settings that don't apply

Choose how an electric car's energy use reads under **Fuel economy** → **Battery EV** in **Unit preferences**. Reports, the export and every drive use the same choice.

UNIT	THE SAME CAR	KIND	READING IT
kWh/100 km	17.8	consumption	lower is better
kWh/100 mi	28.6	consumption	lower is better
km/kWh	5.62	efficiency	higher is better
mi/kWh	3.49	efficiency	higher is better

One figure, four ways to read it. Stored once, as kWh/100 km, and converted only for display — so changing the unit never changes the figure. Efficiencies are the reciprocal: 17.8 kWh/100 km is 5.62 km/kWh.

Electric car active

The fuel-volume unit and the combustion economy unit are greyed: this car never uses them. The fuel price card isn't greyed — it becomes **Charging cost**, where you set your electricity price.

Petrol, diesel or hybrid active

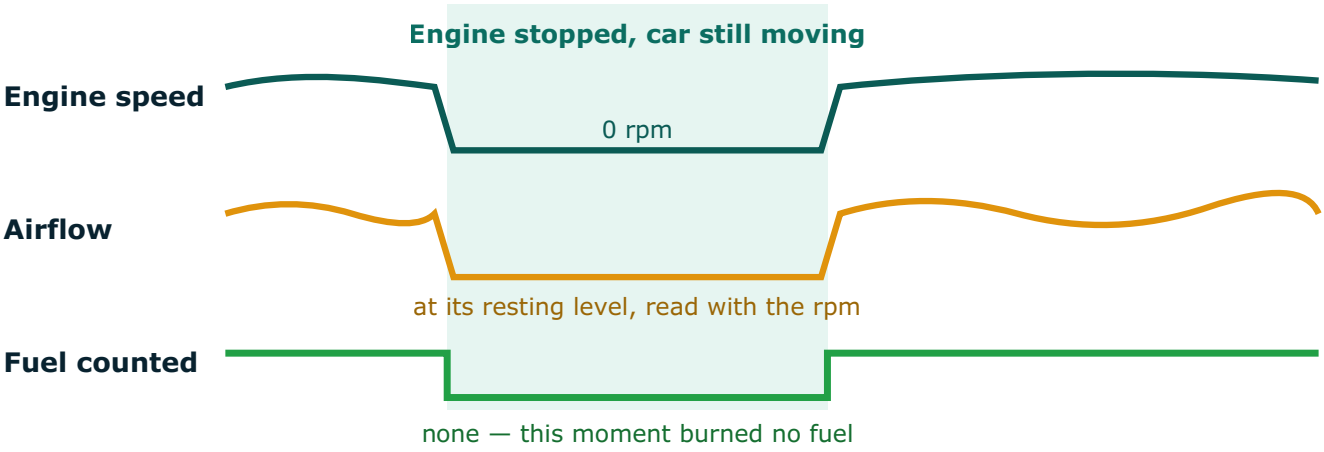
The EV unit is greyed: a car that never plugs in has no use for it. A plug-in hybrid keeps both.

Your other cars

Greyed settings still apply to them. Switch the active car and they light up again.

Hybrids: an engine that stops mid-drive

A hybrid's engine stops and restarts on its own — at lights, in traffic, coasting downhill — while the car keeps moving on its electric motor. Counted the ordinary way, those stretches would either look like fuel burned or like the adapter losing the car. TRUE OBD handles both:

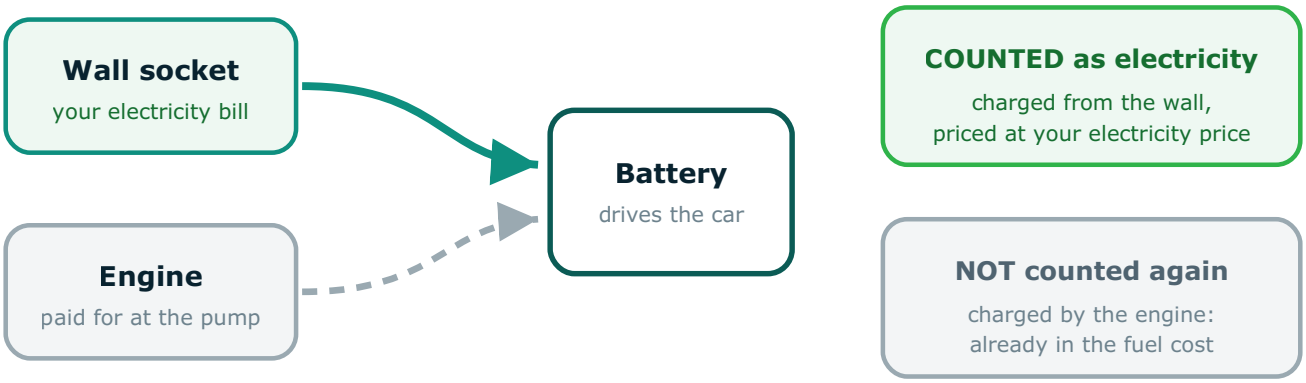


- **An engine at rest burns nothing.** When the engine reads 0 rpm and the airflow is at its resting level, that moment is counted as no fuel.
- **Read together.** On a car declared as a hybrid, engine speed is read alongside every airflow reading, so a stopped engine is never mistaken for a running one — or the other way round.
- **Several modules, one answer.** Some hybrids report engine speed from more than one module. The engine counts as running as soon as any of them says it is; it's only counted as stopped when none do.
- **A quiet engine is not a lost car.** The engine stopping isn't taken for the adapter losing the car.

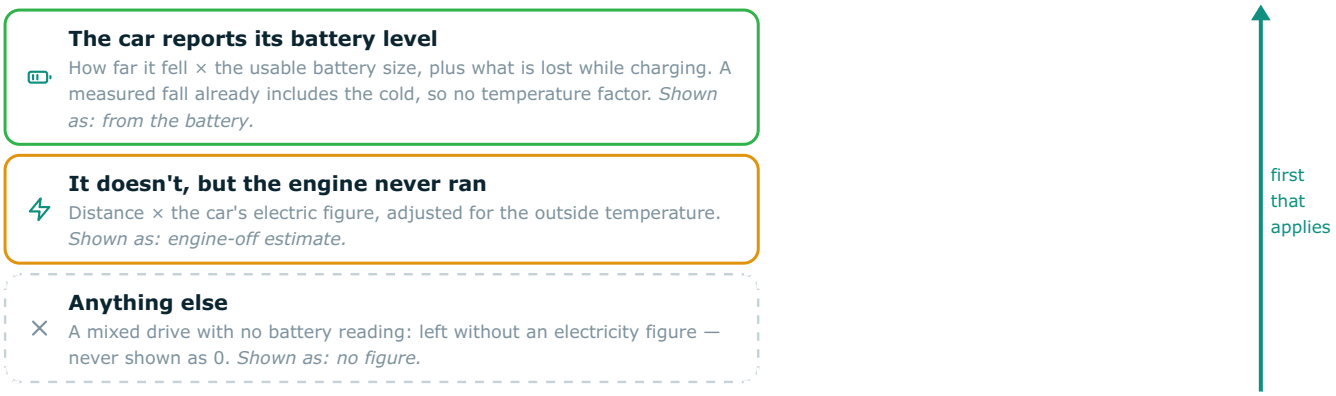
A **plug-in hybrid** adds one more case. A drive on which it burned no fuel at all is shown as electric only. Its typical economy is learned from all the fuel over all the distance, so the more you drive on electricity, the better its economy reads — which is the honest figure for what it costs you in fuel.

A plug-in hybrid's electricity

A plug-in hybrid has two ways to fill its battery, and only one of them is a new cost. Electricity from the wall shows up on your electricity bill. Electricity the engine makes on the move was already paid for at the pump, and the drive's fuel cost includes it — counting it again would charge you twice.



So TRUE OBD counts only wall electricity, and works it out the most direct way the car allows:



The usable battery size and the energy lost while charging come from the AI's answer for your model. Each drive is priced at your electricity price from **Unit preferences**, and its summary shows the line **Electricity** together with how it was worked out.

Logging your charges

If you'd rather count what you actually paid, log your charges. In the Cost Analyser, with the plug-in selected, tap **Log a charge** and enter the kWh added, the amount you paid, or both. A charge with only kWh is priced at your electricity price. Charges are backed up and synced like the rest of your records.

September

- Logged charge — 18 kWh, 4.50
- Logged charge — 22 kWh, 5.50
- ~~Drive estimates — 31 kWh~~

Counted: the two charges, 10.00. The estimates are left out.

October

- Drive estimate — 6 kWh
- Drive estimate — 9 kWh
- × No charge logged

Counted: the drive estimates, marked estimated.

Never both, per car and month. One logged charge makes that month's electricity your charges alone — the drives' estimates of the same kWh would count it twice.

Logged charges are the real money, so they win: in any month where you've logged a charge for a car, that month's drive estimates are left out. A month without a single logged charge falls back on the drive estimates, clearly marked as estimated.

Maintenance follows the fuel

The service plan is built from the car's fuel type, so an electric car's plan has none of the engine work and gets the services that apply to it instead:

Not on an electric car's plan

- Engine oil and oil filter
- Spark plugs
- Engine air filter
- Severe-service mode (everything it shortens is an engine service)

What it gets instead

- Reduction gear oil
- High-voltage cable and battery case inspections
- Thermal system check
- Inverter coolant, cabin filter, tyres, brakes, brake fluid and the rest

Severe-service mode isn't offered for an electric car, because every interval it shortens belongs to an engine. If you change a car's fuel type later, the plan follows, and the services you've already logged are kept.

SECTION 08

08 Live data and dashboards

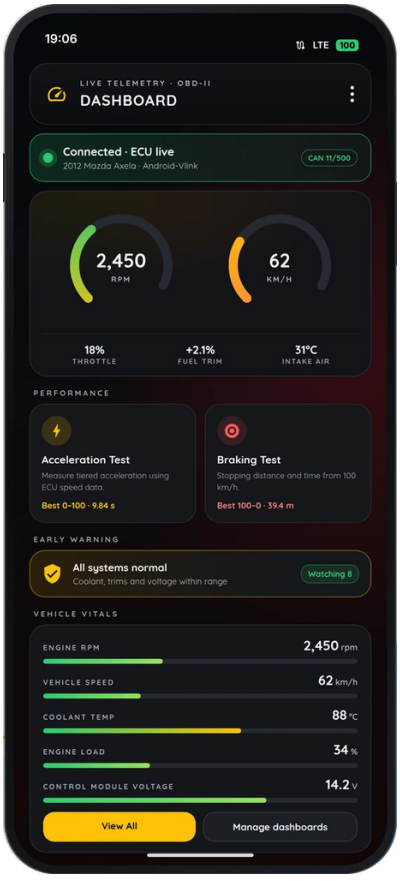
While you're connected, watch the readings your car supports — engine speed, coolant and intake temperatures, load, throttle, fuel trims, oxygen sensors, pressures and more — as they happen.

THE SHORT VERSION

- ✓ Gauges for glancing, a monitor for numbers, graphs for how readings relate.
- ✓ Build up to three dashboards of your own.
- ✓ Every screen shows only what your particular car answers.

The Dashboard and the Live Monitor

The Dashboard shows your car's live vitals — speed, RPM, temperatures, voltages and more — as gauges that update in real time. When you want to watch particular values closely, the Live Monitor gives you the detailed read-out: the same sensors as raw numbers, including speed, RPM, coolant, load, fuel economy and many more.



The Dashboard. Live vitals as gauges, with Early Warning and the performance tests a tap away.

Graphing and logging several sensors at once

To see how readings move together, plot several of them on the live multi-parameter graph. You can also record a PID log of the session, then replay it, export it as CSV or back it up — ideal for chasing an intermittent problem.

Your own dashboards

Build dashboards with exactly the readings you care about. You can keep up to three and set one as your default.

SECTION 09

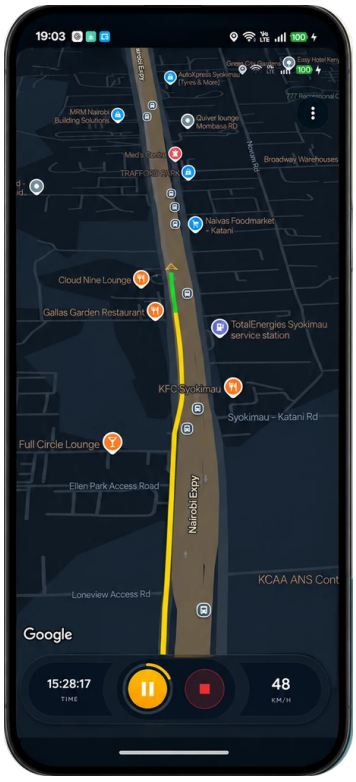
09 Drive charts and Explain this drive

Every drive keeps the readings your car actually answered, drawn against the clock: one chart per reading, with gaps shown as gaps rather than smoothed over.

THE SHORT VERSION

- ✓ Replay the route on a map with the readings beside it.
- ✓ Charts need a real journey behind them — at least a kilometre of unbroken recording.
- ✓ Explain this drive hands the whole recording to an assistant app of your choice.

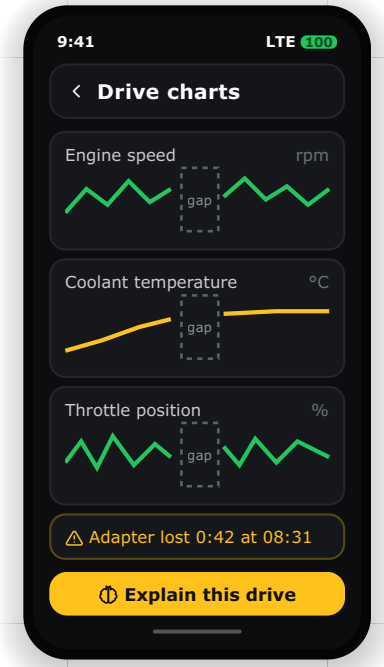
Open any saved drive to replay its route on a map alongside the telemetry recorded with it, so you can see exactly what happened, and where.



Replay. The route on the map, played back.



Drive charts. One chart per reading, against the clock.



Drive charts. A dropped connection is drawn as a gap, not bridged with a line.

When a drive shows no charts

The charts are drawn from what your adapter read, so a drive recorded without one has nothing to show. Beyond that, three things have to be true:

- The adapter followed at least 1 km — or 1 mile, if you read miles — of driving without a break. Shuffling out of a parking space isn't a journey yet.
- If the adapter joined part-way through, one unbroken stretch covers at least half the drive, so the charts describe the journey rather than one corner of it.
- Each reading has at least two samples, so it can be drawn as a line. A reading your car answered only once is shown as figures instead.

When a drive falls short, the screen tells you which of these it was rather than showing an empty page. Drives under 200 m aren't saved at all.

Drive and period summaries

An optional, plain-English summary of a drive or a period, written from metrics that have already been totalled. GPS locations, routes, the VIN and raw trip samples are left out. The Privacy Policy explains the cloud processing and security metadata involved.

Explain this drive

On the charts screen, **Explain this drive** prepares a written brief of the whole journey — the figures, the fault-code status, the gaps, and every recorded sample — and hands it to whichever assistant app you choose from the share sheet, or to your clipboard. The reading happens in the app you picked, on your own account; TRUE OBD's part is preparing data worth reading. The brief carries no VIN, number plate or route.

SECTION 10

10 Performance tests

Measure what the car actually does, with the same refusal to flatter it that runs through the rest of the app.

THE SHORT VERSION

- ✓ Tiered acceleration and braking distance, from your car's own speed signal.
- ✓ A run that wasn't clean is marked invalid, not quietly counted.
- ✓ On a track or a clear private road only — never in traffic.

The performance tools measure tiered acceleration (such as 0–100) and braking distance and time, using your car's own speed data rather than the phone's, so the numbers reflect the vehicle. A live, speed-reactive animation plays as you go, and results are saved so you can compare runs. The tests follow your chosen units (km/h or mph) and need a solid ECU connection for accurate speed data.

SAFETY FIRST

Only run a test on a track or a clear, legal private road — never in traffic. Confirm the safety prompt, then drive the run.

The tiers

One run measures several speed bands back to back — for example 0–100, 100–160 and 160–240 km/h (or 0–60 and 60–100 mph). Each band is timed on its own, so a single pull gives you several splits. A band completes when your speed crosses its upper boundary cleanly, and the fastest completed band becomes your headline result.

Starting and stopping cleanly

A 0–100 time only means something from a genuine standstill. If you start the test already rolling — faster than about 3 km/h (1.5 mph) — the launch point is fuzzy, so the app waits for you to come to a stop first. Braking is the mirror image: it arms only once you reach the target speed.



Acceleration. Each band timed on its own, with a ± figure and a confidence rating.



One pull, several splits. A spoiled band is dropped; the clean ones still count.

Why a band can come back invalid

A band only counts if the pull through it was clean. Two things spoil one: lifting off mid-band (easing the throttle so speed drops back), or crossing a boundary too coarsely to time precisely, usually on a slower adapter that can't report speed often enough right at the split. When that happens the digits turn red with a short note. Just keep accelerating into the next band, or come back to a stop to retry from 0; only the affected band is dropped, and clean bands still count. In a braking run, if your speed rises again before you stop, the run is invalidated, and you simply accelerate back to the target to try again.

How accurate the numbers are

As accurate as an OBD test can be, and honest about it. Your car reports speed in whole km/h steps, so TRUE OBD samples faster around each split point (such as 100 km/h) and fits several readings together for a cleaner crossing. For braking it also cross-checks with GPS and, on phones with a gyroscope, with the phone's motion sensor, to pin down the exact moment you stop. Every result carries a small ± figure and a High, Medium or Low confidence rating, so you can see how tightly it was measured instead of trusting a bare number.



Braking. Stopping distance and time from 100 km/h.

Eyes on the road: the buzz and the watch



You don't need to watch the screen during a run. You'll feel a rising buzz the moment a split begins (crossing into 0–100, say) and a firmer one when it's captured, then the same again for the next split. The numbers are waiting for you once you've stopped.

With the Wear companion and a Premium subscription, your watch has its own Acceleration and Braking screens. While a test is running on your phone the watch mirrors it live, and when nothing is running it shows your last successful run's times, distance and confidence. Your wrist buzzes as each split begins and ends, too. Tests are always started from the phone; the watch is your glanceable read-out.

Sharing a result

A completed test can be turned into a shareable poster with a QR code. Anyone who scans it lands on a TRUE OBD page confirming the result is genuine, with the time, your car and the date. Only the result, your car's make and model and the date are shared — never your trips, location or account — and the app tells you exactly that before you share. Unfinished tests can't be shared. Your saved tests also back up to your Google Drive and come back automatically if you reinstall.

SECTION 11

11 Fault codes and freeze frame

When the check-engine light comes on, the car has already written down why. A scan is how you read it, and a freeze frame tells you what the car was doing at that moment.

THE SHORT VERSION

- ✓ One scan reads stored, pending and permanent codes in a single pass.
- ✓ Each code comes with its meaning, how serious it is, and its usual causes.
- ✓ Clearing is guarded by real safety checks — and clearing a code isn't repairing it.

A scan reads your car's trouble codes in all three states, each with a plain-English explanation of what it means and how serious it is, so a cryptic code like P0300 actually tells you something.

STORED

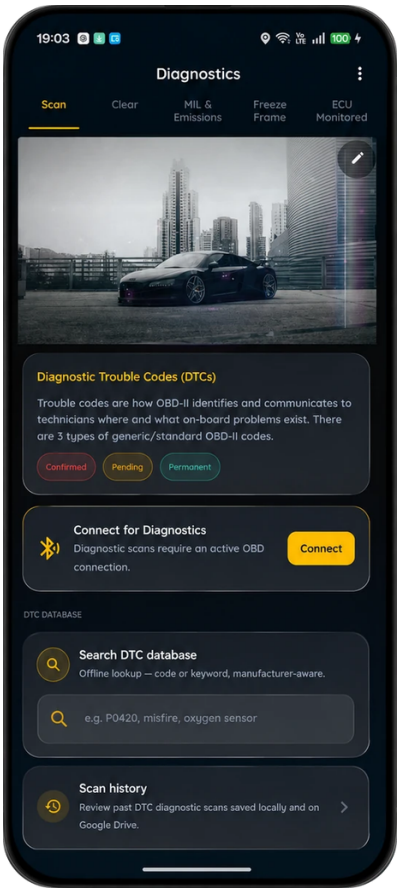
A confirmed fault. The car has seen it enough times to be sure, and this is usually what turns the check-engine light on.

PENDING

Seen once, not yet confirmed. Often the first warning you get, before any light appears.

PERMANENT

Set by the car and clearable only by the car, once it has satisfied itself the fault is gone. No app and no garage tool can erase these.



Diagnostics. Every code with its meaning, severity and usual causes.

Freeze-frame data

When a fault is set, the car takes a snapshot of engine conditions at that exact moment — speed, RPM, temperature and more. It's a huge help in understanding what triggered a code.

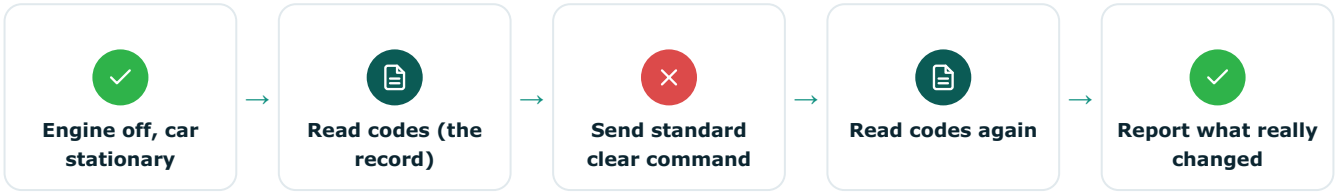
Freeze frame · P0300

the instant the fault was set

Engine speed **2,480 rpm**	Speed **61 km/h**	Coolant **88 °C**
Load **71 %**	Short trim **+11 %**	Fuel system **Closed loop**

Clearing codes

You can clear stored codes and reset the check-engine light, but bear in mind that clearing doesn't fix the underlying problem. If the fault is still there, the code comes back.



A car that simply answers “OK” while the codes stay put is never reported as cleared.

CLEARING IS NOT REPAIRING

Clearing erases the evidence and resets the emissions monitors. TRUE OBD refuses to clear unless the engine is off and the car is stationary. It reads the codes first, so there's a record of what was there, and reads them again afterwards to confirm what actually changed. A car that simply answers "OK" while the codes stay put is never reported as cleared.

TRUE OBD Labs

An optional, experimental area for manufacturer-specific, read-only diagnostics. A built-in safety guard keeps it strictly read-only, so it never writes anything to your car and is safe to explore.

SECTION 12

12 MIL and emissions readiness

Before an emissions test, the readiness monitors tell you whether the car has finished its own self-checks. This tab turns that into an answer you can act on.

THE SHORT VERSION

- ✓ The light, the fault count and readiness, read together rather than separately.
- ✓ A monitor becomes ready after a drive cycle — a set of conditions, not a distance.
- ✓ Recently cleared codes can look like good health; the app tells you when that might be the case.

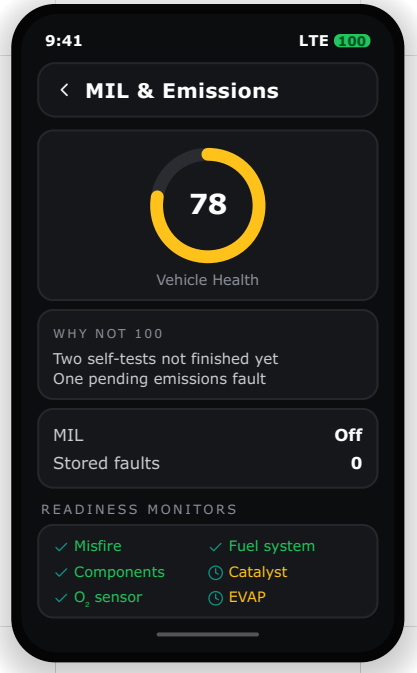
The MIL & Emissions tab puts your car's emissions health in one calm place. It reads the check-engine light (technically the "MIL"), how many emissions faults are reported, and which of the car's self-tests have finished, then turns all of that into a plain-English picture of how the car is doing and what to do next. Like the rest of Diagnostics, it only reads; it never changes anything on your car.

The Vehicle Health score

A single 0–100 summary, with the reasons shown right beside it. It starts at 100 and takes points off for real issues — the check-engine light on, faults reported, self-tests not finished, or a result that has gone stale — so the number is never a mystery.

What readiness means for an inspection

The tab reports two different things. **Strict OBD readiness** needs the MIL off, no stored emissions DTCs, and every supported monitor complete. **Legal inspection eligibility** is a separate question: local programmes can allow specific incomplete monitors depending on location, model year and fuel type. Without those local rules, TRUE OBD doesn't claim your car is eligible.



MIL & Emissions. The score, the reasons behind it and every monitor's state.

Strict OBD readiness

- MIL off
- No stored emissions DTCs
- Every supported monitor complete

The app can tell you

Legal inspection eligibility

- Some monitors may be allowed incomplete
- Depends on location, model year, fuel
- Needs your local programme's rules

Not claimed without local rules

Drive cycles, and why a monitor stays "not ready"

A drive cycle is the set of conditions the manufacturer says the ECU needs before it can run a self-test, not simply a distance. A monitor may need a cold soak, a full warm-up, a particular fuel level or outside temperature, steady cruising, idling, changes in load, safe throttle-off deceleration, a key-off soak, or more

than one trip. Switching the engine off ends the “this drive cycle” tracking in PID 41, but it doesn't erase a monitor already completed in PID 01 (“since DTC reset”). Normally only clearing diagnostic information or resetting the ECU's memory erases that cumulative readiness. Follow the procedure for your exact vehicle, and do every road step safely and legally.

“Codes may have been cleared recently”

A gentle heads-up, never an accusation. If the light is off and nothing looks wrong, but several self-tests are mysteriously unfinished, that's the classic fingerprint of a recent battery disconnect or code clear, so the “all clear” may not be the full picture yet. Take the car for a drive and check again. It's especially handy before buying a used car.

Whether a repair actually held

After you clear codes, the tab quietly keeps watch. The next time you run a check, it tells you whether the repair “likely” held — the light stayed off, no faults came back and the self-tests completed — or whether the fault has returned and you should run a full-spectrum scan. It says “likely” on purpose: strong evidence, not a guarantee.

SECTION 13

13 The Early Warning System

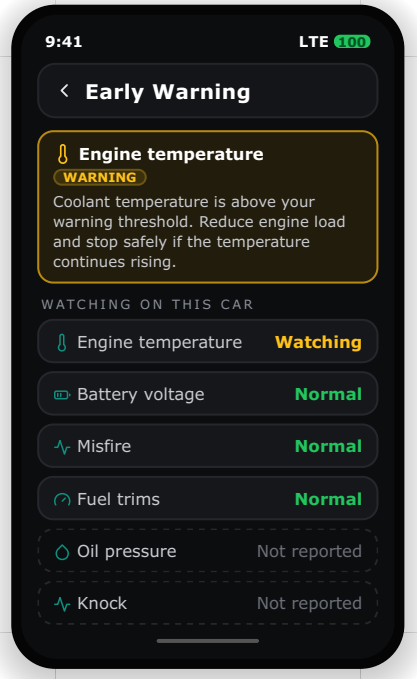
The most useful fault is the one you hear about before it strands you.

THE SHORT VERSION

- ✓ It watches live readings while you drive and flags a trend going wrong.
- ✓ It can only watch what your particular car reports over OBD.
- ✓ Alerts reach you on screen, by notification, and by voice if you want.

The Early Warning System is a watchful layer over your live engine data. While you drive, it looks for a problem forming and flags it before it becomes a breakdown or a dashboard light.

On supported vehicles, it can warn you about things like an overheating engine, abnormal battery voltage, high oil temperature, low oil pressure or level, a misfire, unusual fuel trims, a possible vacuum or exhaust leak, and prolonged engine knock, each rated by how urgent it is.



Early Warning. What it's watching on this car, and what the car doesn't report.

IT DEPENDS ON YOUR CAR

The system can only watch what your car actually reports over OBD, and that varies a lot by manufacturer, model and year. It monitors the readings your ECU provides and stays quiet about the rest. The screen shows exactly what it can watch on your vehicle; anything your ECU doesn't report simply won't appear. Think of it as a helpful early heads-up on supported vehicles, never a guaranteed diagnosis.

How it reaches you

With an on-screen card, a notification and, if you turn them on, spoken voice alerts and haptics, so you know without looking at the phone. You choose which warnings are active, and how loudly they speak, in the Notifications & Alerts settings.

- **On-screen card**
- **Notification**
- **Voice alerts**
- **Haptics**

SECTION 14

14 Maintenance, costs and reports

The part that saves you money rather than just showing you numbers.

THE SHORT VERSION

- ✓ Your drives keep the odometer up to date, and the odometer drives every service countdown.
- ✓ Insurance, licences and expenses live here too, with reminders before they're due.
- ✓ Any of it can become a PDF report, built on your phone.

How service tracking works

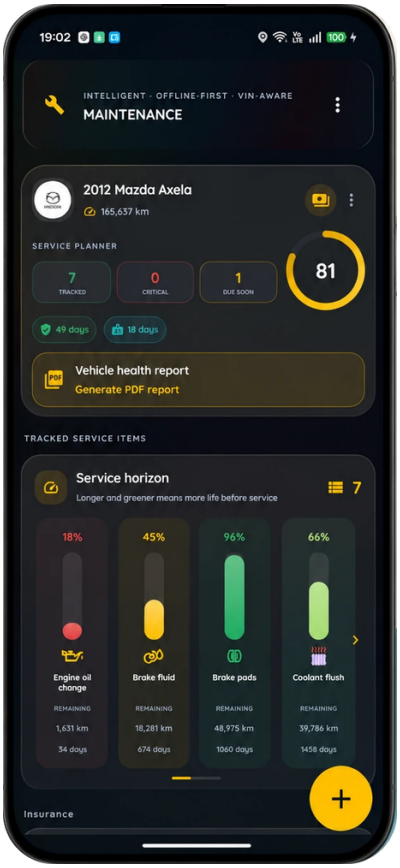
Add the services your car needs — oil, filters, brakes and so on — each with its interval in distance, time or both, whichever comes first. The app counts down against your live odometer and the calendar, and flags each item as due or overdue before it sneaks up on you. If you drive hard, tow, or do mostly short cold trips, turn on **Severe service mode** for that vehicle and the intervals tighten to the manufacturer's severe schedule.

When the work is done, tap **"Serviced it?"** on the item. That restarts its countdown from your current odometer and logs the service in the item's history, so the previous cycle stays on record.

Where your odometer reading comes from

It starts from the reading you enter when you add the car, then grows automatically with every drive you record. You can adjust it by hand at any time, in km or miles.

Service intervals are only as good as the odometer behind them, and recorded distance drifts slightly from the dashboard over thousands of kilometres. So every so often the app asks you to confirm the real reading, and re-bases from there. Distance recorded without an adapter brings that check forward a little, because the car's own wheel counter wasn't there to verify it — though the distance itself is still added once, exactly as measured.



Maintenance. Each item counts down against the odometer and the calendar.

Every drive
adds its distance

→

Live odometer
84,512 km

→

Service countdowns
distance or time

Now and then: confirm the dashboard reading. The app re-bases from what you enter.

Choose how the odometer looks

The odometer on the home screen can look like the mechanical counter of an older car. In **Settings**, just under **Color scheme**, pick an **Odometer style**:

Rolling drum — the default

Each digit sits on a turning drum, shaded like the counter of an older car. The last drum turns smoothly as you drive.

Flat

The digits stay still and the last one changes when a whole km or mile passes.

A little fun

Drag or tap a rolling drum: it ticks like a combination lock and springs back. Only the picture moves — your reading never changes.



When the app opens, each drum counts up to its digit, left to right, and springs into place — all in under 2 seconds.

Turbo and supercharger services

Turbocharged and supercharged engines need a few things an ordinary engine doesn't. Those services are now in the catalogue for every car with an engine:

Seven services, under Specialized

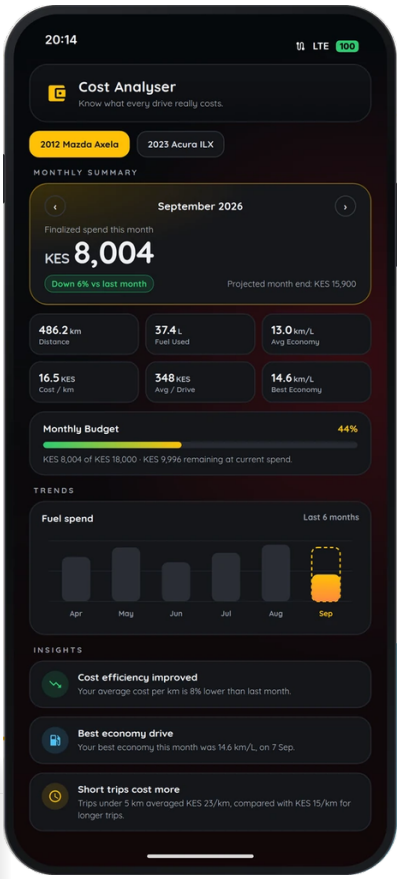
- **Turbo & boost system inspection** — shaft play, oil seepage, wastegate, blow-off valve, boost leaks
- **Intercooler & boost hoses** — cracks, oil and loose joints in the charge-air pipes
- **Turbo oil feed & return lines** — leaks and restriction; seals renewed whenever the turbo comes off
- **Supercharger drive belt** — replaced; some engines use the accessory belt instead
- **Supercharger oil** — where the maker specifies a serviceable unit
- **Supercharger pulley & coupler** — bearing and isolator checked for play — a worn one rattles like marbles at idle
- **Intercooler coolant** — a water-cooled intercooler's own circuit, changed with the engine coolant

Why every engine car sees them

The diagnostic port doesn't say whether an engine is turbocharged or supercharged, so the app offers them rather than guess. Each name says which cars it's for — add only the ones yours has. The intervals come from published maker and parts-supplier schedules.

Beyond servicing: insurance, licences and expenses

Keep insurance, licences and compliance dates here, with reminders before they expire, along with your spending — costs, receipts, parts and labour — all per vehicle. Costs come from what you enter when you log a service or an expense, in your own currency; nothing is estimated or filled in for you.



Costs. Monthly spend, cost per km and where the money went.

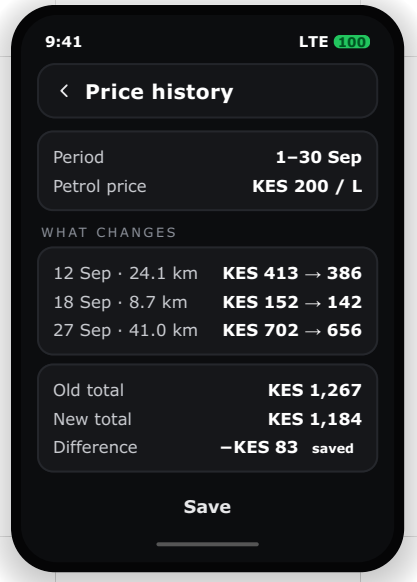
Two phones, one set of records

Each phone writes its own change log to your Google Drive and reads the others', so two phones can edit the same vehicle without overwriting each other. A record is never deleted just because one phone hasn't seen it yet; an entry only disappears when you actually delete it.

Forgot to update your fuel price?

Prices change, and it's easy to forget to tell the app. Tap **Forgot to update prices?** — under the price pills on Drives, on the Prices card in Unit preferences, or in the Cost Analyser — then choose the dates and the price you actually paid. Before anything is saved you see every affected drive with its old and new cost, and the totals with the difference.

Saving re-costs every drive in that period at the new price, along with tariff charges for plug-in hybrids, and the change reaches your other phones. A range in the past doesn't touch today's price; a range covering today does. Petrol and diesel keep their own prices, and a monthly reminder can prompt you to check them.



Reviewing a backdated price. Every affected drive, its old and new cost, and the totals — before you save.

Drivetrain services

Besides gearbox, differential and transfer-case fluids, four newer items can be tracked, each with its own icon and an interval from typical maker schedules. They're offered only for drivetrains that have them, and never for an electric car. Pick them from **Select item to service**.

Transfer-case filter

AWD and 4WD cars.

LSD fluid

Limited-slip differentials; a shorter interval under severe use.

Active differential fluid

Electronic or torque-vectoring differentials.

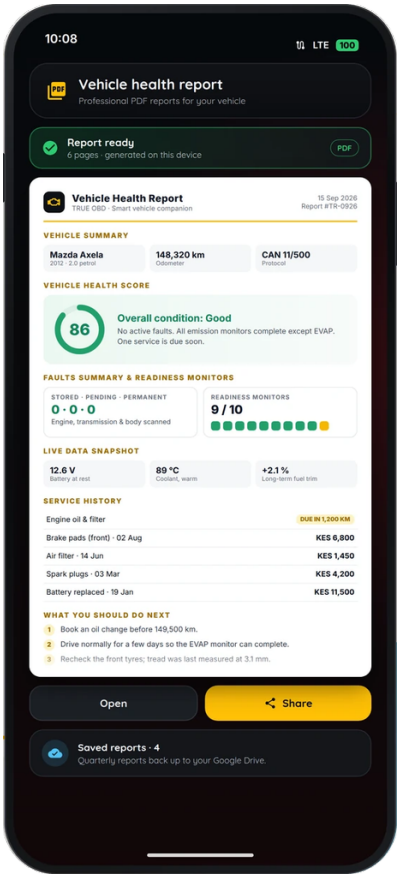
AWD coupling filter

AWD couplings.

Four drivetrain items. Offered only for drivetrains that have them, never for electric cars.

Reports

Open Reports, pick the vehicle and generate. The PDF is built right on your phone from the data you already have, and you choose whether to save it or share it. A clear, dated report speaks for itself when you're selling the car, handing it to a mechanic, making an insurance or warranty claim, or simply keeping a tidy record.



Vehicle health report. A dated PDF, built on the phone.

SECTION 15

15 Watch, car screen and widgets

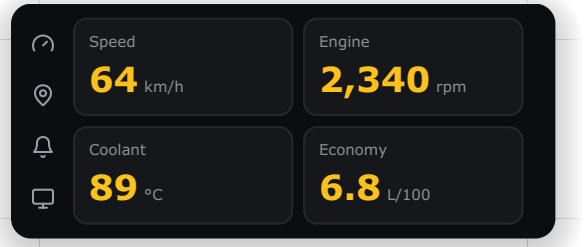
The app follows you out of your pocket.

THE SHORT VERSION

- ✓ A Wear OS companion for your wrist, and Android Auto for the car's screen.
- ✓ Five home-screen widgets, from the live drive to what's due next.
- ✓ Twenty languages, every screen, translated by hand.

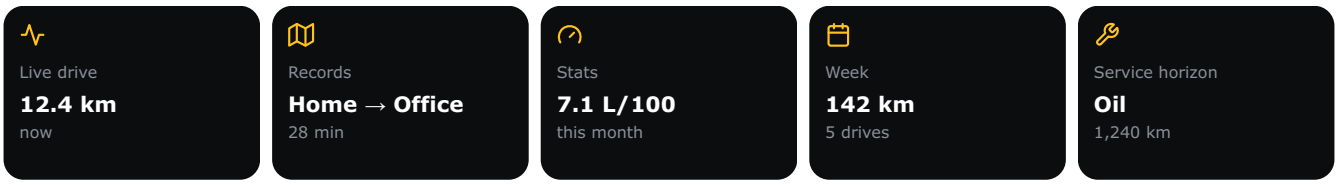
On your watch and your car's screen

Key live metrics can appear on Wear OS and on Android Auto. On the car's screen they stay glanceable and display-only, for safety.



Android Auto. Large, glanceable, display-only tiles.

On your home screen



WIDGET	SHOWS
Live drive	The drive happening right now, updating as you go.
Driving records	Your recent drives, one card at a time.
Driving stats	Distance, economy and score over your chosen period.
Weekly drive summary	How the week broke down.
Service horizon	What's due next, and how far away it is.

In your language

Every screen — including every explanation of what a sensor reading means — is translated by hand into twenty languages, not by machine. You can set the app's language separately from your phone's if you prefer.

SECTION 16

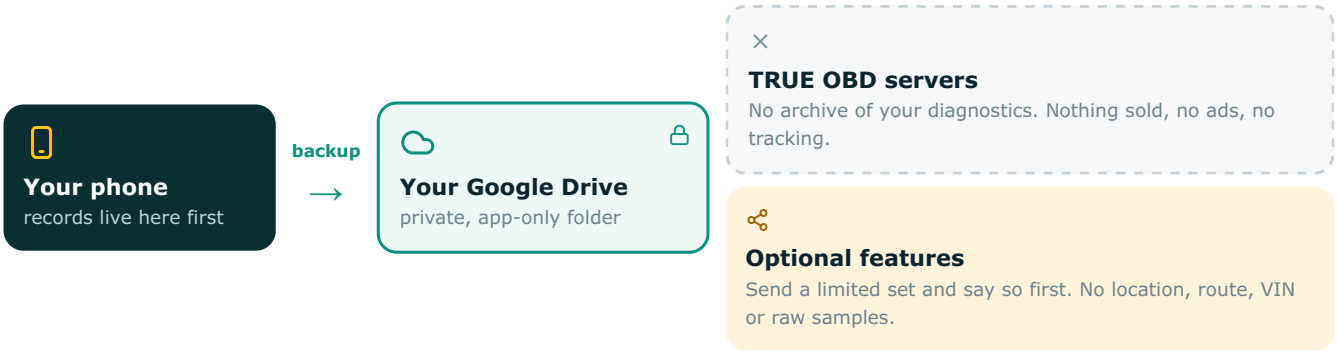
16 Your privacy and your backup

Your car's data lives on your phone and, if you choose, in your own Google Drive.

THE SHORT VERSION

- ✓ Records are created and kept on your phone first.
- ✓ Backup goes to an app-private folder in your own Google Drive.
- ✓ Nothing is sold, and there's no server-side archive of your diagnostics.

That's a core promise. Your drives, diagnostics and vehicle profiles are created and stored on your device. Nothing is kept on TRUE OBD's servers — there's no server-side copy of your diagnostics — and your data is never sold: no ads, no advertising ID, no tracking. If you'd rather not have an account at all, guest mode lets you use the app entirely offline.



How Google Drive backup works

Sign in with Google and turn backup on, and your records are copied to a private, app-only folder in **your own** Google Drive — not ours — where only you can see them. That's what lets them survive a reinstall or a move to a new phone. Backup works on the free app. Restoring onto a new phone is a Premium feature, with one exception: what the app has learned about each car is restored for everyone.

The parts that do leave the device

A few optional features send a limited set of data, and say so before they run. Where an assistant is involved — the freeze-frame explanation, the drive or period summary, or **Explain this drive** — location, route, VIN and raw trip samples are left out, and with **Explain this drive** the data goes straight from your phone to the assistant app you chose, never through our servers. The full detail is in the privacy policy at **trueobd.app/privacy**.

> **MOVING TO A NEW PHONE**
>
> Sign in with the same Google account and restore from your Drive backup. Your cars, drives, servicing history and expenses come back with their dates and figures intact.

SECTION 17

17 The words on the screen

OBD-II is full of initials. These are the ones you'll meet in the app, in roughly the order you'll meet them.

TERM	WHAT IT MEANS
OBD-II	The diagnostic standard every petrol or diesel car has carried since the early 2000s, and the socket under your dashboard.
ECU	The engine control unit: the computer that runs the engine and answers the app's questions.
Adapter (ELM327)	The Bluetooth dongle in the socket. It translates between your phone and the car; it doesn't measure anything itself.
PID	Parameter ID: the number for one reading, such as engine speed or coolant temperature. Which PIDs exist is up to your car, not the app.
DTC	Diagnostic trouble code — the P0300-style code a fault is recorded under.
MIL	Malfunction indicator lamp: the check-engine light itself.
Freeze frame	The snapshot of conditions the car saved at the instant a fault was set.
Readiness monitor	One of the car's own self-tests. An inspection wants these finished, not merely passed.
Drive cycle	The conditions a monitor needs before it can run — temperature, speed, load, idle, a key-off soak. Not a distance.
Fuel trim	How far the ECU is correcting the fuel mixture. Short-term reacts now; long-term is what it has learned.
Lambda / O_2 sensor	The exhaust sensors that tell the ECU whether the mixture was right, and so drive the trims.
MAF / MAP	Airflow and manifold-pressure sensors. Fuel calculations rely on whichever your car has.

SECTION 18

18 Questions & troubleshooting

The things that tend to go wrong first, and what they usually mean.

? The adapter won't connect.

Turn the ignition on, since many adapters have no power otherwise. Unplug it for ten seconds and plug it back in. If your phone has paired with it before, make sure nothing else — another phone, or a second app — is holding the connection, because these adapters accept only one at a time.

? It connects, but some readings are missing.

Your car decides which readings it publishes, and no car publishes all of them. TRUE OBD only shows what yours actually answers, so a missing reading means the engine didn't offer it, not that the app failed.

? A drive didn't record.

Check that TRUE OBD is allowed to run in the background and is exempt from battery optimisation; some phone brands are aggressive about putting apps to sleep. A trigger device makes starting far more reliable, and motion detection helps when the adapter is slow to announce itself.

? The distance doesn't match my odometer exactly.

GPS and the car's own counter always disagree slightly. TRUE OBD keeps your odometer from your drives, and only lets a reading from the engine correct it when the drive is long enough for that correction to mean something — which is also why it occasionally asks you to check the dashboard figure.

? Can I clear a code to pass an emissions test?

No. Clearing resets the readiness monitors, and a test centre will see incomplete monitors and fail the car. Fix the fault, then drive until the monitors complete.

? Is it safe for my car?

TRUE OBD reads. The only thing it ever writes is the standard clear-codes command, and only under the conditions described in *Fault codes and freeze frame*. It never sends calibration or actuator commands.

Where to find things

IF YOU WANT TO…	GO TO
see what the engine is doing now	Dashboard, or Live Monitor for raw numbers
look at a drive you've already taken	Driving records → the drive → replay and charts
find out why the light is on	Diagnostics → scan, then the code and its freeze frame
know whether the car will pass an inspection	MIL & Emissions
see what service is due	Maintenance, or the Service horizon widget
know what the car is costing you	Costs
hand everything to a mechanic or a buyer	Reports

Still stuck, or found something wrong? Write to **densmac06@gmail.com** or use the contact form at **trueobd.app**. Tell us the car, the adapter and what you saw; it helps more than you'd think.