# Aprilia Tuareg 660 · Travel manual

**Travel edition · A5 booklet** · For the road: data, roadside procedures and fault finding. Trip preparation, the packlist and the bike record are in the home edition.

For the 2022+ Tuareg 660. Sources appear once, in the data tables: **OM** = owner's manual page, **WS** = workshop manual page, **3P** = third-party, not in the Aprilia manuals (verify). Procedures follow the Aprilia manuals; where Aprilia gives none (tyre plug, chain link, jump start) they follow standard motorcycle practice.

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## 1 Data

### Tyres & wheels

| | Front | Rear | Src |
|---|---|---|---|
| Tyre | **90/90-21 M/C 54V** | **150/70 R18 M/C 70V** | OM 182 |
| Permitted alternative (max 170 km/h) | 90/90-21 54R M+S | 150/70-18 70R M+S | OM 182 |
| Rim (spoked, tubeless) | 2.15 × 21" | 4.25 × 18" | OM 182 |
| Pressure cold · solo | **2.0 bar · 29 psi** | **2.5 bar · 36 psi** | OM 182 |
| Pressure cold · 2-up | **2.2 bar · 32 psi** | **2.7 bar · 39 psi** | OM 182 |
| Pressure cold · off-road | **2.0 bar · 29 psi** | **2.0 bar · 29 psi** | OM 183 |
| Min. tread | 2 mm, or the local legal minimum | | OM 142 |
| Puncture limit | Replace the tyre if the hole in the tread is larger than 5 mm | | OM 141 |
| Rim runout max. | 0.8 mm radial and axial | | WS 169 |

## Fluids & capacities

| Fluid | Spec | Qty | Src |
|---|---|---|---|
| Engine oil | **SAE 10W-50 synthetic, API SL, JASO MA2** | **2.3 L**[1] | OM 178, 191 |
| Coolant | Ready-mixed red ethylene-glycol antifreeze, organic inhibitors (OAT) | 2.0 ± 0.2 L | OM 178, 191 |
| Brake fluid | **DOT 4** | — | OM 191 |
| Fuel | Unleaded 95 RON, max E10 | 18 L, reserve 2.7 | OM 108 |
| Chain lube | Spray lube safe for sealed (O-ring) chains | — | OM 174 |
| Fork oil | SAE 7.5W | — | OM 191 |
| Grease | Lithium-calcium, EP, water-repellent | — | OM 191 |

[1] Oil change including filter. The workshop procedure says 2.7 L (WS 40), apparently copied from the RS 660. Fill 2.3 L, then top up to MAX on the dipstick.

## Torques & tool sizes

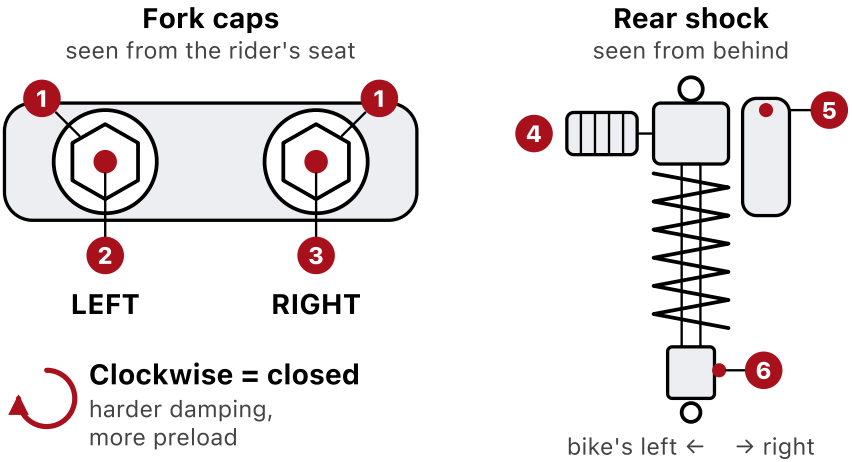
| Fastener | Nm | Tool | Src |
|---|---|---|---|
| Front axle | **65** | 17 mm hex | WS 8 · tool 3P |
| Front axle pinch screws ×2 | **10** | 5 mm hex or 10 mm² | WS 9 · tool 3P |
| Front caliper screws M10 ×4 | **50** | 13 mm | WS 9 · tool 3P |
| Rear axle nut M20×1.5 | **120** | 26 mm | **3P** |
| Chain adjuster lock nut / bolt | — | 10 + 13 mm | **3P** |
| Oil drain plug, new washer | **20** | — | **3P** |
| Mirror bases | 50 | — | WS 11 |
| Handguard screws | 4 | — | WS 10 |
| Anything else: M5 · M6 · M8 · M10 · M12 | 5.5 · 9.5 · 25 · 50 · 80 | — | WS 27 |

[2] The aftermarket tool kits disagree; check your bike. Screws with pre-applied threadlocker must be replaced once loosened (WS 28).

## Limits, settings & parts

| Item | Value | Src |
|---|---|---|
| Chain slack | **≈ 48 mm total, 320 mm in front of the rear axle, side stand** | OM 172 |
| Chain | Regina 520 ZRA, 120 links, riveted master link · sprockets 15/42 | OM 179 |
| Chain wear, 8 pitches taut | new 127.0 mm · **replace at ≥ 130.8 mm** (3 %) | WS 201 · mm calc. |
| Brake pads | **Replace at ≈ 1.5 mm** friction material, all pads on that axle | OM 165 |
| Brake disc min. thickness | front 4.0 mm · rear 4.5 mm | WS 245, 247 |
| Rear pedal free play | 1.5 mm | WS 54 |
| Idle speed | 1400 ± 100 rpm | OM 176 |
| Battery | BS BSLi-04 lithium, 12 V 48 Wh · alternative Yuasa YT12A-BS lead-acid | OM 183 |
| Charging voltage | Never above 15 V | WS 117 |
| Spark plug | NGK IR MR9DI-7, gap 0.7-0.8 mm | OM 183 |
| Oil filter | OEM 857187 · Hiflofiltro HF138 | 3P |
| Due on the road | Oil + filter 10 000 km / 12 months · chain check 1000 km · off-road: halve chain and air filter | OM 188 |

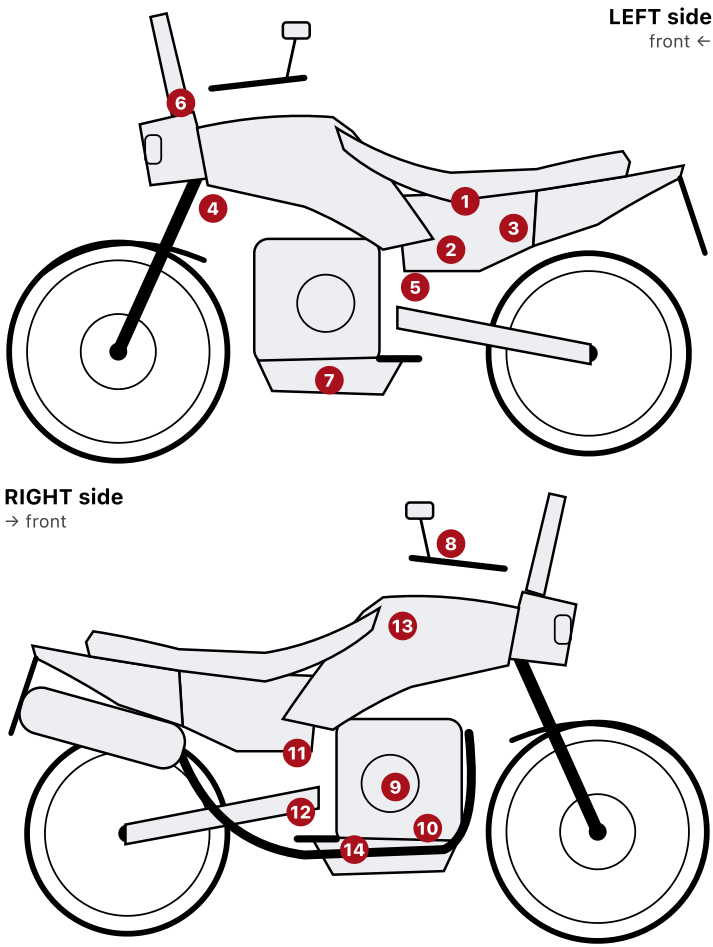
## Suspension settings



| # | Adjuster | Solo | Loaded |
|---|---|---|---|
| 1 | Fork preload, nut on both legs (set equal) | **6 mm out** | **7 mm out** |
| 2 | Fork compression, left cap | **8 clicks out** | **3 clicks out** |
| 3 | Fork rebound, right cap | **8 clicks out** | **7 clicks out** |
| 4 | Shock preload knob, left | **10 clicks in from fully open** | **26 clicks in** |
| 5 | Shock compression, reservoir, right | **2 turns out** | **2 turns out** |
| 6 | Shock rebound, bottom of shock, right | **1.5 turns out** | **1 turn out** |

OM 110-116 · "out" = counted from fully clockwise (closed) · loaded = passenger and/or luggage

## Where things are




Positions approximate. Numbers match the table.

| # | What | Where · access | Src |
|---|---|---|---|
| 1 | Battery, auxiliary fuses | Under the rider seat. Passenger seat off first, then rider seat; battery cover 2 screws | OM 21, 149, 155 |
| 2 | Main fuse 30 A + spare | Behind the left side panel: 4 screws, unhook the front, unplug the connector | OM 21, 158 |
| 3 | Seat lock | Ignition key clockwise; press the seat's middle-rear, lift and slide back | OM 22, 98 |
| 4 | Coolant expansion tank | Left side, under the steering head | OM 144 |
| 5 | Shock preload knob | Left side, top of the shock | OM 111 |
| 6 | USB socket 5 V, 1 A | Left of the dash | OM 99 |
| 7 | Sump guard | Under the engine: 2 front screws, then 2 rear | OM 22 · WS 292 |
| 8 | Front brake reservoir | Right handlebar; cover 2 screws | OM 22, 146 |
| 9 | Oil filler cap + dipstick | Right side of the engine | OM 22 |
| 10 | Oil filter | Right side, front of the engine, low | OM 22 |
| 11 | Rear brake reservoir · shock compression adjuster | Right side, next to the shock; reservoir screw cap | OM 22, 111, 147 |
| 12 | Shock rebound adjuster | Right side, bottom of the shock at the linkage | OM 112 |
| 13 | Air filter | Under the fuel-tank upper cover; airbox cover 4 screws | OM 22 · WS 41 |
| 14 | Rear brake pedal | Free-play adjuster behind the right frame cover | OM 22 · WS 54 |
|  | Clutch cable in-line adjuster | Right side of the bike | WS 55 |
|  | Frame / engine number | Frame crossbar under the seat / rear of the crankcase near the shock | OM 100 |

## 2 Daily check

- ☐ **Tyres:** pressure (cold), cuts, embedded objects, tread.
- ☐ **Spokes:** tap each with a screwdriver. Even ring = OK; a dull note = loose.
- ☐ **Brakes:** lever and pedal feel, fluid level, pads, leaks.
- ☐ **Oil** level (warm, upright) · **coolant** level (cold).
- ☐ **Chain:** slack, lube, no tight spots.
- ☐ **Throttle** snaps back · **clutch** free play, cable not frayed.
- ☐ **Steering** free lock to lock, no play, no notches.
- ☐ **Side stand** springs back; the engine cuts if you select a gear with it down.
- ☐ **Fasteners:** axles, calipers, racks, sump guard, mirrors.
- ☐ **Lights, horn, indicators, brake light**; warning LEDs light for 3 s at key-ON.
- ☐ **ABS tone wheels** clean (mud causes ABS/ATC faults) · **fuel**, cap locked.

Dust or off-road: check the air filter every few days and the chain daily.

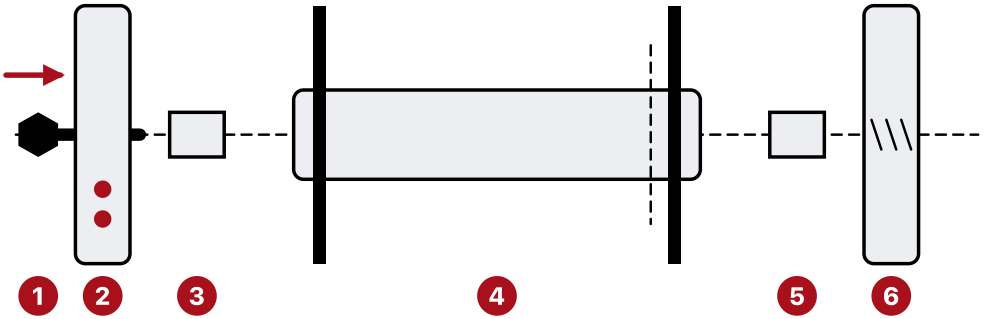
# 3 Tyres & wheels

## Tubeless puncture plug

1. Find the leak (soapy water), mark it, pull the object out.
2. Ream the hole, several strokes.
3. Load a string plug in the needle (cement if supplied). Push in until ⅓ is left outside, pull the needle straight out.
4. Trim to about 5 mm, inflate, leak-test.
5. Ride gently and keep checking the pressure. A plug gets you home: have the tyre repaired properly or replaced.

## Front wheel out & in

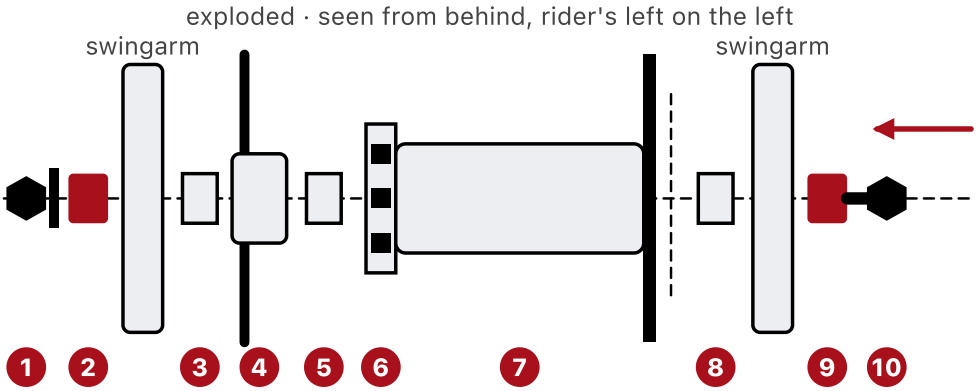
exploded · seen from behind, rider's left on the left




**1.** Axle, 17 mm hex: in and out on the left
**2.** Left fork leg: pinch clamp, 2 screws
**3.** Left spacer
**4.** Hub, a disc each side; ABS tone ring on the right
**5.** Right spacer
**6.** Right fork leg: the axle threads in here

1. Lift the front wheel: jack under the sump guard, bike strapped so it can't tip.
2. Remove both calipers (2 screws each) and hang them up. Don't pull the brake lever while they are off.
3. Loosen the 2 pinch screws (2), unscrew the axle (1) and pull it out to the left.
4. Take the wheel out. The spacers (3, 5) come loose: keep each with its side.
5. Refit: wheel with both spacers, axle from the left. Tighten the **axle to 65 Nm** first, then the **pinch screws to 10 Nm**.
6. Calipers **50 Nm**. Pump the lever until firm, spin the wheel.

## Rear wheel out & in

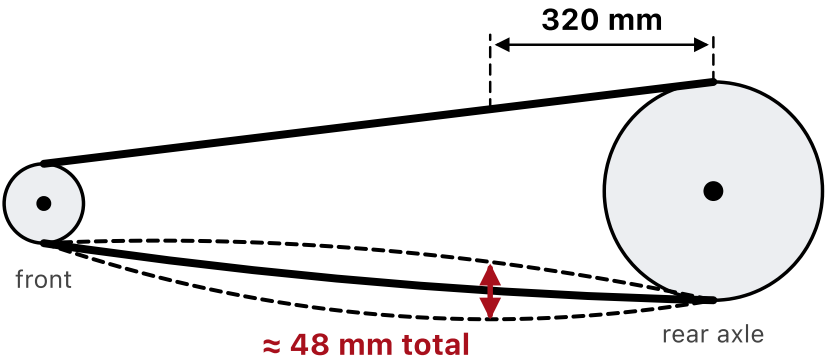



1. Nut 26 mm + washer
2. Left adjuster block
3. Outer spacer, in the sprocket carrier
4. Sprocket carrier + sprocket (comes out with the wheel)
5. Inner spacer, between carrier and hub flange
6. Cush rubbers in the hub flange
7. Hub; disc and ABS tone ring on the right
8. Right spacer
9. Right adjuster block
10. Axle: in and out on the right

1. Rear stand, or the sump guard on a solid block so the wheel hangs free.
2. Both sides: loosen the adjuster lock nuts and back the adjusters off.
3. Remove the axle nut and washer (1).
4. Support the wheel and pull the axle (10) out to the right; the adjuster blocks (2, 9) come free.
5. Push the wheel forward, lift the chain off the sprocket and roll the wheel out; the disc slides out of the caliper. Don't press the brake pedal while the wheel is out. Keep the loose spacers (3, 5, 8) with the wheel.
6. Refit: cush rubbers (6), inner spacer (5), carrier (4) and both outer spacers (3, 8) in place. Wheel in, disc between the caliper pads, chain on.
7. Axle in from the right with the right adjuster block; then the left block, washer and nut, finger-tight.
8. Set the chain slack (next chapter), tighten the lock nuts, then the **axle nut to 120 Nm**.
9. Pump the brake pedal, spin the wheel, recheck the slack.

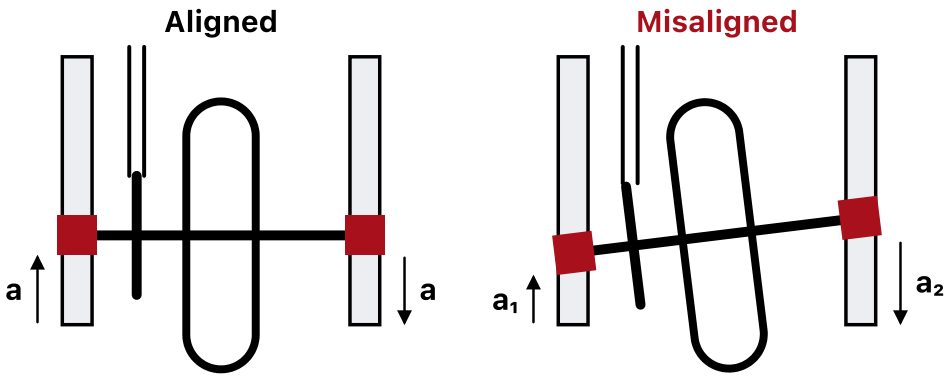
## 4 Drive chain

### Check slack




1. Engine off, side stand, neutral.
2. At 320 mm in front of the rear axle, push the bottom run up, then pull it down. Total travel ≈ 48 mm.
3. Roll the bike and repeat at several points. If the slack varies, links are kinked or seized: replace the chain.

### Adjust




Seen from above, front at the top. a = adjuster block to the rear end of the swingarm.

1. Rear stand. Loosen the axle nut, then the lock nuts on both sides.
2. Turn both adjuster bolts by the same amount. Keep the marks level on both sides and measure that the block-to-swingarm-end distance is the same left and right.
3. Tighten both lock nuts, then the **axle nut to 120 Nm**.
4. Recheck on the side stand. Never set it tighter than spec: the chain tightens as the suspension compresses.

### Clean, lube, repair

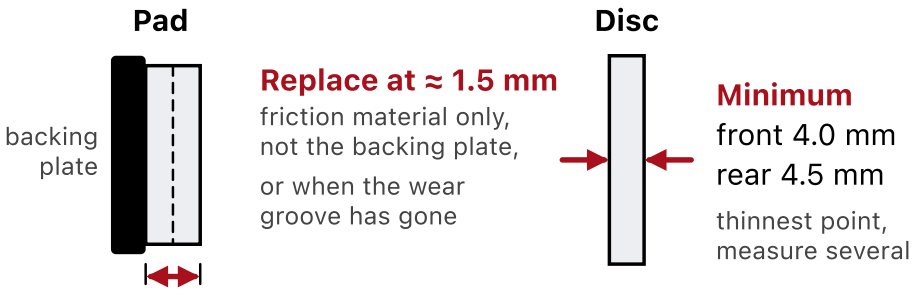
- **Clean & lube:** light water jet, chain cleaner (no petrol or harsh solvents: they kill the O-rings), let it dry, spray the inside of the lower run, let it set. After every wash and after rain.
- **Worn** (limit in the Data table), damaged rollers, loose pins, missing O-rings or hooked teeth: replace chain and both sprockets together.
- **Broken chain:** fit a 520 master link (a clip link gets you home, a rivet link is permanent) with a chain breaker/riveter. Don't over-press the side plate; the link must move freely.

## 5 Brakes

### Fluid level & top-up

- **Front:** turn the bars until the reservoir is level and read the sight glass. Top up: 2 screws, cover, gasket.
- **Rear:** bike upright; screw cap and gasket off; top up with a syringe to between MIN and MAX.
- With worn pads, top up only to just above MIN, or it will overflow when new pads push the pistons back.
- DOT 4 absorbs water and strips paint: close it quickly, cover nearby paint. A slow fall is pad wear; a sudden drop is a leak.

### Pads




1. Pull the split pin, slide out the pad pin, take out the pads.
2. Don't touch the lever or pedal while the pads are out.
3. Clean the pistons and push them back gently; watch the reservoir level.
4. New pads, pad pin, new split pin. Pump until firm **before riding**.
5. Brake gently for the first ~100 km to bed them in.

Front: always replace the pads in both calipers together.

### Bleeding

**1 Pump** the lever or pedal several times, then hold it → **2 Open** the bleed nipple ¼ turn → **3 Close** it before the lever bottoms → **4 Release** the lever ↻ back to 1

- Bike level, clear hose from the nipple into a bottle. Keep the reservoir above MIN the whole time.
- Repeat until no bubbles come out. Front: bleed both calipers. Then top up and refit the caps.
- Still spongy: air is trapped in the ABS unit, which needs the dealer's diagnostic tool.

### Lever & pedal

- **Front lever reach:** push the lever forward and turn the adjuster; anticlockwise brings it closer.
- **Rear pedal free play:** remove the right frame cover, loosen the lock nut, turn the pushrod pin, re-lock.

## 6 Oil, coolant, air filter

### Oil level

1. Engine warm from about 15 km of riding (not idling). Switch off and wait a few seconds.
2. Level ground, bike upright on both wheels, not on the side stand.
3. Unscrew the dipstick, wipe it, put it back **without screwing it in**, pull it out and read.
4. Aim for about MAX. Never below MIN or above MAX. Top up only with the specified oil.

### Oil & filter change

1. Warm engine. Remove the sump guard (2 front screws, then 2 rear while supporting it).
2. Container of at least 3 L underneath. Drain plug out, then the filler cap; let it drain for several minutes.
3. Unscrew the old filter. Oil the new filter's seal, pre-fill it about ⅓, screw it in by hand.
4. Drain plug with a new aluminium washer, **20 Nm**.
5. Fill **2.3 L**, run the engine a few minutes, switch off, wait 30 s, top up to MAX.
6. Check the plug and filter for leaks, refit the sump guard.

### Coolant

- Check **cold**, bike upright: the level must be between MIN and MAX. Don't ride below MIN.
- Top up through the expansion tank cap to halfway between MIN and MAX.
- **Never open it hot**: the system is pressurised.
- No coolant to hand: clean water gets you to a workshop. Replace it with the correct mix soon, especially if frost is possible.

### Air filter (dust)

Remove the fuel-tank upper cover and the 4 airbox cover screws, lift out the filter. It is paper: tap it out gently from the clean side; never wash or oil it. Replace it if it stays clogged.

## 7 Battery, fuses, lights

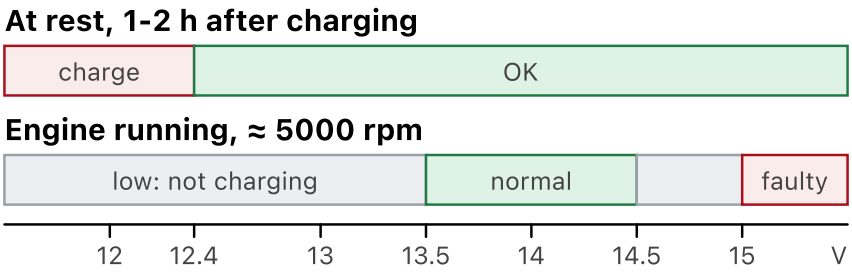
### Battery

- **Remove:** key OFF, seats off, cover off. Disconnect **– first**, then +. Refit **+ first**, then –, with a little grease on the terminals.
- **TEST button** on the battery: 5-6 bars ready · 3-4 charge recommended · 1-2 charge needed · 0 faulty.
- **Cold:** the lithium battery works from 0 to 40 °C. Below 0 °C, make short repeated start attempts; each one warms it. For long use outside that range fit the lead-acid alternative.

| Charging | Normal | Quick |
|---|---|---|
| Lithium (standard) | 2.0 A · 2 h | 8 A · 0.5 h |
| Lead-acid (alternative) | 1.0 A · 8-10 h | 10 A · 1 h |

OM 152-153

Use a lithium charger, or a plain 12 V charger with **no desulphation or pulse mode**, never above 15 V. Stop if the battery gets warm.

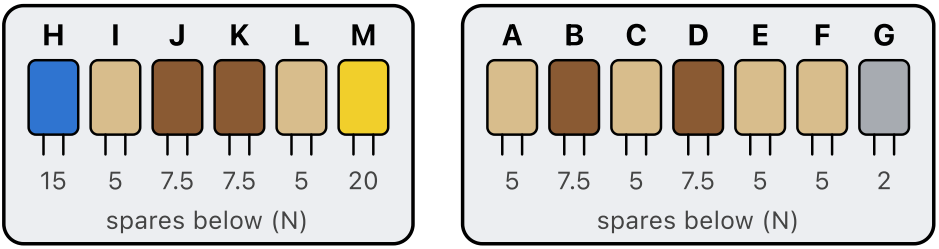



**Jump start:** donor car's engine **off**. + to +, then – to bare metal on the engine or frame. Start, disconnect in reverse order. Never use a booster above 15 V.

### Fuses

Key OFF. Check the smallest ratings first and the main fuse last. Replace only with the same rating, and find the cause: a fuse that blows again means a short. Pulling the main fuse resets the clock and trip.

Under the rider seat · rating in A




Colours follow the standard blade-fuse code. The box with the blue 15 A and yellow 20 A fuses is H-M. Main fuse O (30 A) is separate, behind the left side panel.

| Fuse | A | Circuit |
|---|---|---|
| A | 5 | Running lights, number-plate light, horn |
| B | 7.5 | Instrument panel, indicators, heated grips |
| C | 5 | Key-on: ECU, ABS, dash, left switches, **starter relay** |
| D | 7.5 | ECU permanent feed |
| E | 5 | Key-on: AMP, OBD, anti-theft |
| F | 5 | Headlamp |
| G | 2 | USB socket |
| H | 15 | **Engine:** fan relay, ECU, fuel pump relay, lambda, injectors, coils, air valve |
| I | 5 | Anti-theft provision, OBD |
| J / K | 7.5 | Right / left radiator fan |
| L | 5 | Fog lights (if fitted) |
| M | 20 | ABS |
| O | 30 | **Main:** battery charging, everything |

OM 156-159 · A-M under the rider seat, O behind the left side panel

### Lights & headlight aim

All lights are LED: no bulbs to carry, a failed module means a new unit.

**Aim** (after loading luggage): bike 10 m from a wall on level ground, rider seated, low beam on. The cut-off should sit at 0.9 × the headlight's height above the ground: headlight at 90 cm → cut-off at 81 cm.

Low beam: two adjusters behind the fairing (left and right), **clockwise lowers**. High beam: Phillips screw underneath, **clockwise raises**.

## 8 Suspension & clutch

### Adjusting the suspension

Settings and adjuster positions: see Suspension settings in the Data chapter. Turn each adjuster fully clockwise first, then count out. Never force an adjuster past its stop, set both

fork legs the same, and add rebound damping when you add preload.

### Clutch

Adjust if it slips, drags (the bike creeps or stalls in gear) or bites too late.

- **Fine:** the adjuster at the lever; clockwise increases free play.
- **Coarse:** the in-line adjuster on the right side; loosen the nut, turn, re-lock.
- **Test:** engine running, 1st gear, clutch pulled: no creep, no stall. No slip under acceleration.

## 9 Fault finding

### Won't start

| | |
|---|---|
| **Dash lights at key-ON?** | **No →** battery terminals · TEST button · main fuse O · key |
| yes ↓ | |
| **Starter turns?** | **No →** kill switch at RUN · neutral, or clutch pulled with the stand up · brake held · side-stand switch (its pin must sit in the stand's hole) · fuse C · battery charge |
| yes ↓ | |
| **Engine fires?** | **No →** fuel · fuel pump buzzes at key-ON? If not, fuse H · immobilizer asking for the user code · cold lithium battery: short repeated attempts |
| yes ↓ | |
| **Dies when you select a gear?** | **Yes →** side stand still down, or its switch is faulty |

## Dashboard alarms

| Message | Action |
|---|---|
| **ALARM OIL PRESSURE**, flashing | **Stop the engine now.** Check the oil level; don't ride on. |
| ALARM OIL SENSOR, steady | Sensor fault. Check the level; dealer soon. |
| Temperature flashing | Overheating (115 °C): stop, cool down, see Other faults. |
| **ALARM URGENT SERVICE**, fast flash | Limp mode (less torque, fixed idle, or about 3000 rpm). Ride gently to a dealer. |
| ALARM SERVICE | Stored fault; dealer when practical. |
| ALARM CAN ECU DISCONNECTED | Hazards flash until you signal right. Pull over; check fuses C and D. |
| ALARM CAN BUS OFF / CAN HLU | Wiring fault (HLU = headlamp). Ride carefully to a dealer. |
| ATC alarm | Traction control off. Clean the tone wheels and sensors. |
| BRAKE STUCK | A brake has been on for over 30 s: foot on the pedal, or a sticking lever or pedal. |
| Code request | Immobilizer fault: enter your 5-digit user code to start. |

OM 33-37, 97

## Other faults

| Symptom | Check |
|---|---|
| Overheating | Coolant level (cold) · both fans running, else fuses J/K, H · radiator blocked with mud: rinse from behind, low pressure |
| Battery warning | Terminals tight and clean · measure the voltage (scale under Battery) |
| ABS / ATC light after mud | Clean tone wheels and sensors, cycle the ignition. If it stays on, ABS is off: brake gently. |
| Spongy brake | Fluid level, leaks, then bleed. After a long descent: let it cool, use engine braking. |
| Clutch slips or drags | Adjust free play; cable frayed or kinked? |
| Vibration, weave | Tyre pressure, loose spokes, axles, chain tight spots, wheel bearings, steering-head play, luggage too high or too far back |
| No lights or horn | Fuses A, F, B |

## After a drop

- Fuel and oil leaks · levers, pedals and pegs (bend back slowly) · bar alignment.
- Side-stand switch and spring · radiator and hoses · mirror and handguard bolts.
- Stand it upright a minute or two before restarting, then check the oil level.
- **Recovery:** transport upright, strapped, in 1st gear, mirrors folded. Aprilia advises against towing.