



The A320 Panic Button

Common FMA & ECAM messages, in plain English

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A free companion to the upcoming book — The Ultimate Sim Guide: Airbus A320

Simplified explanations for home flight simulation only. Not for real-world aviation.

How to use this reference

Something on your PFD or ECAM you don't understand? Find it here, breathe, and keep flying. Every entry has two parts: **what it means**, and *what to do about it* (in italics). Nothing here is written for airline pilots — it's written for you, at home, mid-flight, wondering what the aircraft is trying to say.

The rule that beats panic

Read the FMA left to right: thrust · vertical · lateral · approach · autopilot status. The aircraft always announces what it's doing, column by column. Once you can read that strip, the A320 has no secrets.

What's inside

FMA modes (40) — The Flight Mode Annunciator — the strip across the top of your PFD. Read it left to right: thrust, vertical, lateral, approach, autopilot. It always tells you what the aircraft is doing.

Amber cautions (ECAM) (48) — Amber means: attention, but not an emergency. The aircraft is telling you something needs handling — calmly.

Red warnings (ECAM) (21) — Red means: act now. In the sim, that still means fly the aircraft first, then work the message.

Memos & status (27) — Green means normal, white is titles — and blue lines are actions still waiting for you. On the T.O. and LDG memos, each blue line turns green as you complete it.

Terms & acronyms (32) — The vocabulary that makes everything else make sense.

Living document

This covers the messages sim pilots most commonly meet — and it grows from reader requests. Saw something that isn't here? Tell us at ultimatesimguide.com/feedback and it'll likely appear within days. The always-current, searchable version lives at ultimatesimguide.com.

FMA modes

The Flight Mode Annunciator — the strip across the top of your PFD. Read it left to right: thrust, vertical, lateral, approach, autopilot. It always tells you what the aircraft is doing.

MAN TOGA

Thrust levers are in the TOGA detent — maximum takeoff/go-around power, under your manual control.

→ Normal for takeoff or a go-around. At thrust reduction altitude, bring the levers back to CL.

MAN FLX

Takeoff at FLEX (reduced) thrust using the assumed temperature you entered on the PERF page. Gentler on the engines.

→ Normal takeoff setting. At LVR CLB flashing, pull levers to CL.

THR CLB

Autothrust is commanding climb power. The levers sit in the CL detent while the computer manages actual thrust.

→ Nothing — this is the normal climb indication.

THR IDLE

Autothrust has pulled power to idle — normal in descent when the aircraft wants to go down and slow down.

→ Expected during descent. If it surprises you in level flight, check your selected altitude.

SPEED

Autothrust is holding the target airspeed with engine power. The workhorse cruise/approach thrust mode.

→ Nothing — this is exactly what you want in cruise and on approach.

MACH

Same as SPEED, but holding a Mach number instead of knots — normal at high altitude where Mach matters more.

→ Nothing. It swaps automatically around FL300.

LVR CLB

Flashing white: the aircraft is asking you to bring the thrust levers back to the CL (climb) detent so autothrust can take over.

→ Pull the levers back to CL now. Most-missed step in the entire A320 — the flash won't stop until you do.

LVR ASYM

One thrust lever is in a different detent than the other.

→ Look down: match both levers in the same detent (usually CL).

SRS

Speed Reference System — the takeoff/go-around pitch guidance that targets V2+10. The flight director bars know what pitch you need.

→ Follow the flight director. It ends automatically at acceleration altitude, replaced by CLB.

CLB

Managed climb toward the altitude in the FCU window, respecting any altitude constraints in your flight plan.

→ Nothing — normal climb mode.

OP CLB

Open climb: climbing to the FCU altitude and ignoring every constraint in the flight plan. You get this when you pull the ALT knob.

→ *Fine if that's what you meant. If you wanted the plan's constraints honored, push the knob instead of pulling.*

DES

Managed descent along the flight plan's calculated path, honoring constraints.

→ *Nothing — the aircraft is flying the descent it planned. Watch it like a hawk anyway.*

OP DES

Open descent: idle-power descent straight to the FCU altitude, ignoring flight plan constraints.

→ *Fine when ATC says 'descend now'. Not fine if you expected the arrival's altitude restrictions to be respected.*

ALT

Holding the altitude you captured. Green ALT = locked on.

→ *Nothing — you're level at the FCU altitude.*

ALT CRZ

Holding your cruise altitude — the one from the MCDU INIT page. The aircraft considers itself in cruise.

→ *Nothing. Enjoy cruise; do a fuel check.*

ALT*

Altitude capture star — you're in the process of leveling off at the target altitude right now.

→ *Nothing, but don't spin the ALT knob during capture or things get weird.*

V/S

Holding a specific vertical speed you selected — e.g. -1500 ft/min — regardless of speed consequences.

→ *Watch your airspeed: V/S mode will sacrifice speed to hold the rate. It's the mode most likely to quietly get you slow.*

EXP

Expedite — max-effort climb (green dot speed) or descent (Mach limit). Rarely used.

→ *Only if you meant it. Otherwise reselect a normal mode.*

G/S

Locked onto the ILS glideslope, riding the beam down.

→ *Nothing — gear and flaps on schedule, monitor the approach.*

G/S*

Glideslope capture in progress.

→ *Nothing. Gear down about now is a good idea.*

FINAL APP

Flying a non-precision (RNAV) approach using the FMS's own lateral and vertical path.

→ *Normal for RNAV approaches. Monitor — minimums still apply.*

NAV

Following the magenta line — the lateral flight plan in your MCDU.

→ *Nothing, as long as the magenta line goes where you actually want to go.*

HDG

Flying the heading selected on the FCU. The flight plan is temporarily not in charge.

→ *Normal when ATC gives vectors. To rejoin the plan, get on an intercept and push the HDG knob back to NAV.*

RWY

Tracking the runway centerline (localizer) during the takeoff roll.

→ *Nothing — keep it straight with gentle rudder.*

LOC

Locked onto the ILS localizer — lined up with the runway.

→ *Nothing. Next: arm APPR for the glideslope.*

LOC*

Localizer capture in progress — the aircraft is turning to line up.

→ *Nothing, just don't fight it.*

GA TRK

Go-around track — holding the track you were on when you pushed TOGA for a go-around.

→ *Normal in a go-around. Select NAV or HDG when ready to fly the missed approach.*

AP 1

Autopilot 1 is flying. (AP 1+2 appear together only during an autoland.)

→ *Nothing — George has the controls, you have the management.*

1FD2

Both flight directors are on — the guidance bars on each PFD. Normal.

→ *Nothing.*

A/THR

White: autothrust armed. Cyan/highlighted: actively controlling thrust.

→ *Nothing — this is the normal state for almost the whole flight.*

CAT 3 DUAL

The aircraft is capable of a full autoland on this approach with both autopilots.

→ *Nothing — informational. You may still land manually.*

LAND

Below ~400 ft on an ILS with the autopilot coupled — lateral and vertical guidance are locked for landing and can no longer be disengaged by mode changes.

→ *Nothing — the approach is committed to guidance. Monitor, and be ready to take over manually or go around.*

FLARE

Autoland flare mode — the autopilot is pitching gently up for touchdown.

→ *Nothing but supervision. Thrust goes to idle at RETARD; keep your hands lightly on stick and levers in case you need to take over.*

ROLL OUT

Autoland rollout — the autopilot is tracking the runway centerline after touchdown.

→ *Reverse and brakes are still yours to manage. Disconnect the AP as you slow to taxi speed.*

AP 1+2

Both autopilots engaged at once — this only happens during an autoland-capable approach, for redundancy.

→ *Nothing — it is the normal autoland configuration.*

CAT 2

The approach capability the aircraft can currently support — Category 2 minimums.

→ *Informational. If it downgraded from CAT 3, something in the redundancy chain dropped out — check the ECAM.*

CAT 3 SINGLE

Autoland capable with single-autopilot redundancy — one failure away from a downgrade.

→ *Fine for an autoland in the sim. DUAL is the belt-and-braces version.*

ALT CST

Holding an altitude constraint from your flight plan during a managed climb or descent — the aircraft will continue when the constraint no longer applies.

→ *Nothing — the plan is being followed. To break out of the constraint, use open climb/descent (pull the knob).*

ALT CST*

Capturing a flight-plan altitude constraint right now.

→ *Nothing — let it level.*

THR MCT

Thrust lever in the MCT detent — maximum continuous thrust, the engine-out setting.

→ *Correct after an engine failure. With both engines running, the lever is one notch too far — bring it back to CL.*

Amber cautions (ECAM)

Amber means: attention, but not an emergency. The aircraft is telling you something needs handling — calmly.

A. FLOOR

Alpha floor — the aircraft thinks you're dangerously slow and has commanded full TOGA thrust itself, overriding everything.

→ Lower the nose, let speed build, then disconnect autothrust (press the A/THR pushbutton twice) to cancel the locked TOGA thrust.

TOGA LK

TOGA thrust is locked on after an alpha-floor event, even though the danger has passed.

→ Disconnect autothrust (instinct: press the red button on the thrust lever) then re-engage it with levers in CL.

MASTER CAUTION

Amber light + single chime: a real problem, but not an emergency. The ECAM has the details.

→ Fly first. Then read the ECAM message and work through the amber actions.

F/CTL ALTN LAW

Flight controls dropped from Normal Law to Alternate Law — some computer protections are gone. Usually follows other failures.

→ Fly smoothly; the aircraft can now stall like a conventional plane. Expect DIRECT LAW when the gear comes down. In the sim: gentle inputs, normal approach speeds.

F/CTL DIRECT LAW

Stick now commands control surfaces directly — no protections, no auto-trim. The A320 flies like a classic aircraft.

→ Small inputs, trim manually with the pitch trim wheel, fly a stabilized approach with extra care.

HYD G SYS LO PR

Green hydraulic system pressure low. The A320 has three systems (Green, Blue, Yellow) precisely so one loss is manageable.

→ Follow ECAM. Expect slower gear extension and some flight control redundancy loss — landing is still routine.

AUTO FLT A/THR OFF

Autothrust has disconnected. Thrust is frozen at its last value (see THR LK) until you take over with the levers.

→ Move the thrust levers to match the current thrust, then set what you need. Re-engage A/THR when things are stable.

THR LK

Thrust locked — autothrust dropped out while the levers were in the CL detent, so thrust is frozen at its last value.

→ Move the levers out of CL to take manual control of thrust. The message clears the moment you do.

AUTO FLT RUD TRV LIM SYS

The rudder travel limiter has a fault. It normally restricts rudder deflection at high speed.

→ Follow ECAM. Practically: be gentle with the rudder at high speed. Flight continues normally.

ELEC GEN 1 FAULT

Generator 1 has dropped offline. The other generator picks up the whole aircraft without drama.

→ ECAM actions: try one reset of the generator. If it stays failed, the APU generator is your spare — consider starting the APU.

ELEC IDG 1 LO PR

Low oil pressure in the drive unit that spins generator 1 — the generator may need to be disconnected.

→ Follow ECAM carefully: the IDG disconnect is one-way — it cannot be reconnected in flight. Only press it if ECAM says so.

ELEC BAT 1 FAULT

Battery 1 charging fault.

→ ECAM actions — usually battery off then back on. The aircraft runs on generators; batteries are backup.

ELEC AC BUS 1 FAULT

An entire electrical bus has failed — several systems on that bus drop out.

→ Work the ECAM top to bottom, then read the STATUS page for the INOP SYS list. Expect some screens or pumps to be lost.

HYD G ENG 1 PUMP LO PR

The engine-driven pump for the Green system has low pressure.

→ ECAM actions. The PTU and other systems cover for it — the A320's three hydraulic systems are why one failure is routine.

HYD B RSVR LO LVL

Blue system reservoir fluid is low — likely a leak; the system may be lost.

→ ECAM will have you switch the pump off to protect it. Note what the STATUS page says you've lost — usually manageable.

HYD PTU FAULT

The Power Transfer Unit — the pump that lets Green and Yellow back each other up — has failed.

→ ECAM actions. Systems still work; you've lost a layer of redundancy, not a system.

HYD G+Y SYS LO PR

TWO hydraulic systems down — serious. Expect Alternate law, slats/flaps slow or partial, and alternate braking.

→ Follow ECAM methodically, read STATUS fully, fly a stable early-configured approach with extra runway. Chapter 9 territory.

FUEL L TK PUMP 1 LO PR

A fuel pump in the left tank has failed or been switched off.

→ ECAM actions. The second pump in that tank carries on; even both lost, engines gravity-feed at lower altitudes.

FUEL AUTO FEED FAULT

The automatic center-tank feed sequencing has a fault.

→ Manage the center tank pumps manually per ECAM — burn center tank fuel before wing tanks.

FUEL L WING TK LO LVL

Left wing tank is low on fuel. If this surprises you, check for a leak or an imbalance.

→ ECAM: open the crossfeed as directed. Start thinking about the nearest sensible runway if totals are low.

FUEL IMBALANCE

One wing tank is significantly heavier than the other — it affects handling and has limits.

→ Balance it: X-FEED valve ON, then switch OFF the pumps in the LIGHTER tank so both engines drain the heavier one. Close it all when balanced.

ENG 1 EGT OVERLIMIT

Exhaust gas temperature exceeded limits — the engine ran too hot, often after a demanding takeoff.

→ Reduce thrust on that engine per ECAM and monitor. If it stays hot at low power, plan a precautionary shutdown.

ENG 1 STALL

Compressor stall — bangs, flames from the tailpipe, EGT spikes. Alarming, rarely instantly fatal to the engine.

→ Throttle that engine back per ECAM and see if it stabilizes. If it keeps stalling, shut it down.

AIR ENG 1 BLEED FAULT

Engine 1's bleed air supply has closed. That side's pack loses its air source.

→ ECAM: crossbleed feeds both packs from the good engine. There may be an altitude restriction — check STATUS.

AIR PACK 1 FAULT

Air conditioning pack 1 has failed. The remaining pack pressurizes the aircraft alone.

→ ECAM actions, and expect a cruise altitude limit (typically FL310 area on one pack).

AIR ENG 1 BLEED LEAK

Hot bleed air is leaking from the ducting — detected by temperature sensors along the wing/pylon.

→ ECAM shuts that bleed off. Same follow-on as a bleed fault: crossbleed, possible altitude limit.

CAB PR SYS 1 FAULT

Pressurization controller 1 failed. Controller 2 takes over automatically.

→ Usually nothing beyond the acknowledgment — redundancy doing its job. Both failed = manual pressurization mode.

CAB PR LDG ELEV FAULT

The system can't set landing elevation automatically from the FMS.

→ Set the landing field elevation manually with the knob on the CAB PRESS panel, per ECAM.

SEVERE ICE DETECTED

The ice detectors are seeing significant icing.

→ Wing and engine anti-ice ON per ECAM, and consider leaving the icing layer — change altitude.

ANTI ICE L WING FAULT

Left wing anti-ice has a fault — that wing may be unprotected.

→ ECAM actions, exit icing conditions, and expect a speed/handling margin note on STATUS.

F/CTL ELAC 1 FAULT

One of the two ELAC flight control computers has failed. Full protections usually remain via redundancy.

→ ECAM may offer a reset (the pushbutton off/on once). If it stays failed, note the STATUS page — often no practical change.

F/CTL SEC 1 FAULT

A spoiler/elevator computer (SEC) has failed — you may lose some spoiler pairs.

→ ECAM actions and a reset attempt. Roll response slightly reduced; landing normal.

F/CTL FLAPS LOCKED

The flaps have jammed at their current position — wing-tip brakes fired to protect the mechanism.

→ No reset for this one. Plan the approach at the ECAM-corrected speed for your locked configuration; longer runway preferred.

F/CTL SPD BRK STILL OUT

You've applied thrust but the speedbrakes are still extended — the aircraft is fighting itself.

→ Speedbrake lever down. This one is almost always just a forgotten lever.

NAV ADR 1 FAULT

Air Data Reference 1 (speed/altitude source) has failed.

→ ECAM: switch the affected display to ADR 3. Cross-check speeds between sides for the rest of the flight.

NAV IR 1 FAULT

Inertial Reference 1 has failed — attitude/position source lost on that side.

→ ECAM: ATT HDG selector to the backup. PFD comes back; carry on with cross-checks.

NAV ADR DISAGREE

The air data sources disagree — one of your airspeed indications is lying. The classic 'unreliable speed' scenario.

→ Fly pitch + thrust from memory (around 5° and CLB at low level gets you safe), then work out which ADR is wrong by cross-checking all three. One of aviation's most valuable drills — the book walks it through.

NAV TCAS FAULT

Traffic collision avoidance has failed.

→ ECAM acknowledgment. On VATSIM: extra eyes out; offline it changes little.

BRAKES HOT

Brake temperature is high — from heavy braking or a short taxi after landing.

→ On the ground: delay takeoff until cooler (brake fans if fitted). In flight: leave the gear down a bit longer to cool.

DOOR FWD CABIN

A cabin door isn't closed and locked.

→ On the ground: close/lock it (in the sim, your ground services menu). This blocks pressurization — fix before takeoff.

APU AUTO SHUT DOWN

The APU protected itself and shut down — oil, overspeed, or fire logic.

→ ECAM: APU master off. Wait, then attempt one restart if you need it. Repeated shutdowns: leave it off.

USE MAN PITCH TRIM

You are in Direct law — automatic trim is gone and the PFD is reminding you the trim wheel is now your job.

→ Trim manually with the pitch trim wheel until stick-neutral flight. Re-trim after every configuration or speed change.

SPEED SPEED SPEED

Low-energy warning — speed is decaying toward a dangerous level with the current thrust.

→ Thrust up now. If on approach and unstable, go around.

SINK RATE

Ground proximity warning: descending too fast for this height above terrain.

→ Reduce the descent rate immediately. If it escalates to PULL UP, full escape maneuver.

DONT SINK

Ground proximity warning: you are descending after takeoff or go-around when you should be climbing.

→ Positive climb — pitch up, check thrust, gear up. Usually caused by chasing the flight director through a mismanaged go-around.

GLIDESLOPE

You have sunk below the ILS glideslope.

→ Correct back up to the beam — reduce descent rate, add a touch of thrust. Repeated callouts on one approach are a sign to go around.

BANK ANGLE

Bank is excessive for this phase of flight.

→ Roll wings level-ish. Often heard hand-flying a windy final.

DUAL INPUT

Both sidesticks are being moved at once — the inputs sum, which is never what anyone wants. In the sim this usually means two controllers or an axis conflict.

→ Real technique: one pilot presses the takeover button. Sim reality: check for a second bound controller or a drifting axis in your settings.

Red warnings (ECAM)

Red means: act now. In the sim, that still means fly the aircraft first, then work the message.

MASTER WARNING

Red light + continuous chime: something needs attention NOW. The ECAM shows what and lists actions.

→ *Press the light to silence it, fly the aircraft first, then read the ECAM actions top to bottom.*

ENG 1 FAIL

Engine 1 has failed. The aircraft yaws toward the dead engine; the A320 flies fine on one.

→ *Rudder to keep it straight, thrust up on the live engine, follow ECAM actions, plan a single-engine landing. Chapter 9 of the book walks through it calmly.*

ENG 1 FIRE

Fire detected in engine 1.

→ *ECAM actions in order: thrust idle, master off, fire pushbutton, agent. Then land. The procedure works — follow it line by line.*

CAB PR EXCESS CAB ALT

Cabin altitude too high — pressurization has failed. The one that requires immediate action.

→ *Masks on, emergency descent to 10,000 ft or minimum safe altitude, then troubleshoot.*

CONFIG

Takeoff configuration warning — you pushed the thrust up but something (usually flaps or trim) isn't set for takeoff.

→ *Idle thrust, stop, check flaps against the PERF page, check pitch trim, spoilers in. Then try again.*

LAND ASAP

Red on the ECAM: the failure combination is serious enough that you should land at the nearest suitable airport.

→ *Pick the nearest sensible runway and go there. Not the destination — the nearest.*

AP OFF

Autopilot disconnected. If you pressed the sidestick button, this is normal — the 'cavalry charge' sound and red warning just want acknowledgment. If it disconnected itself, something upset it.

→ *Press the sidestick takeover button again to cancel the warning. If involuntary: fly the aircraft manually first, then figure out why.*

ELEC EMER CONFIG

Both generators lost — the aircraft is on emergency electrical power. The RAT (a small wind turbine) drops out to power essentials.

→ *The serious one. Fly the aircraft, follow ECAM, attempt generator resets, land as soon as possible. Screens shrink to essentials — that's by design.*

ENG 1 REVERSER UNLOCKED

A thrust reverser may not be locked — the nightmare version is deployment in flight.

→ *Follow ECAM exactly: affected engine to idle. Land normally with reduced power on that side. In the sim, treat it with full respect.*

ENG 1 OIL LO PR

Engine 1 oil pressure is critically low — the engine is about to hurt itself.

→ ECAM will lead you to shut it down before it fails dramatically. Single-engine flight is well within the A320's ability.

ENG DUAL FAILURE

Both engines lost. The RAT powers essentials; you're now flying a 70-tonne glider — which the A320 does surprisingly well (~2.5 nm per 1,000 ft).

→ Fly green dot speed, follow ECAM relight attempts, pick your field. The ultimate sim challenge — practice it on purpose.

L/G GEAR NOT DOWN

You're close to the ground and the gear isn't locked down.

→ If on approach: go around, then extend properly (gravity extension if normal fails). This warning exists to save the fuselage.

APU FIRE

Fire detected in the APU compartment. On the ground the APU usually shuts itself down and fires the extinguisher automatically.

→ ECAM: APU master off, fire pushbutton, agent if needed. On the ground, this is fast and contained.

CARGO SMOKE

Smoke detected in a cargo compartment — one of the most serious warnings there is.

→ ECAM: fire agent into the compartment, then land at the nearest suitable airport. LAND ASAP means exactly that.

PULL UP

The ground proximity system predicts terrain impact. This is not advice, it's an order.

→ Full back stick, TOGA thrust, wings level, speedbrakes in. Do not sink. Climb until the warning stops plus margin.

WINDSHEAR

The aircraft has detected performance-robbing windshear — a microburst can eat 40 knots in seconds.

→ TOGA thrust, follow the SRS pitch guidance, keep the configuration until clear. Do not chase the speed trend.

STALL STALL

In Alternate or Direct law the aircraft can genuinely stall — this callout means the wing is running out of lift.

→ Pitch down to reduce angle of attack, thrust as needed, level the wings, recover altitude second. Protections are gone — this one is on you.

MAN PITCH TRIM ONLY

Elevator control is lost — pitch is available only through the horizontal stabilizer trim wheel. A genuinely grave failure.

→ Small, slow trim inputs; control speed with thrust; plan a long, shallow, stable approach. One of the hardest scenarios a sim can throw at you.

TOO LOW TERRAIN

Ground proximity: too close to the ground for your position and configuration.

→ Climb immediately. If in doubt, treat it as a PULL UP.

T00 LOW GEAR

Low to the ground without the landing gear down.

→ *If landing was the plan: gear down now and consider a go-around to redo the approach properly.*

T00 LOW FLAPS

Low to the ground without landing flap set.

→ *Set landing configuration or go around. Usually a missed item on a rushed approach.*

Memos & status

Green means normal, white is titles — and blue lines are actions still waiting for you. On the T.O. and LDG memos, each blue line turns green as you complete it.

T.O INHIBIT

Between thrust-up and 1,500 ft the ECAM suppresses non-critical alerts so nothing distracts you during takeoff.

→ *Nothing — it's protecting your attention. LDG INHIBIT does the same on landing.*

LDG INHIBIT

Non-critical ECAM alerts are suppressed below 800 ft on approach so you can focus on landing.

→ *Nothing — informational.*

APU AVAIL

The APU is running and ready to supply electricity and bleed air.

→ *Nothing — it's telling you your backup power source is good to go.*

APU BLEED

APU air is feeding the pneumatic system — used for engine start and air conditioning on the ground.

→ *Normal before engine start. Turn it off after both engines are running.*

SEAT BELTS

The seat belt signs are on. The ECAM lists active systems as memos — green means 'this is on', not 'this is wrong'.

→ *Nothing — memos are reminders, not problems.*

GND SPLRS ARMED

Ground spoilers are armed and will deploy automatically on touchdown (or a rejected takeoff).

→ *Nothing — that's exactly what you want before landing.*

AUTO BRK MAX

Autobrake is armed at MAX — standard for takeoff, so a rejected takeoff gets full braking instantly.

→ *Nothing. For landing you'd typically use LO or MED instead.*

IRS IN ALIGN

The inertial reference system is still aligning. It needs the aircraft parked and still.

→ *Wait it out (~10 min). Don't move the aircraft — motion restarts the alignment.*

RETARD

The automated voice at 20 ft telling you to close the thrust levers to idle for touchdown.

→ *Pull both levers to idle and flare. It's an instruction, not commentary on your flying.*

AUTO BRK OFF

The autobrake has disarmed — normal once you take over the brakes on rollout, or after a failure.

→ *On rollout with your feet on the pedals: expected. Uncommanded before landing: re-arm it.*

NW STRG DISC

Nosewheel steering is disconnected — the pushback pin is in. Green memo during pushback; it becomes amber if it stays after engine start.

→ *During pushback: normal. After the tug leaves: ground crew removes the pin and it disappears. Amber and stuck = that pin is still in.*

MINIMUMS

Decision height/altitude reached — the moment of choice on an instrument approach.

→ *Runway in sight and stable: continue and land. Not in sight: go around, no negotiation. Deciding this before the callout is the whole trick.*

HUNDRED ABOVE

One hundred feet above your minimums — the heads-up before the decision.

→ *Eyes transition outside; be ready to call it either way at MINIMUMS.*

TRIPLE CLICK

The three rapid clicks are the Airbus attention-getter: the autoflight system just downgraded or reverted a mode on its own.

→ *Read the FMA immediately, left to right — something changed and the aircraft is telling you where.*

PARK BRK

Parking brake is set.

→ *Expected at the gate. Not expected at 100 knots — release before the takeoff roll.*

SPEED BRK

The speedbrakes are extended.

→ *Fine in a descent. Retract before adding climb thrust — or meet F/CTL SPD BRK STILL OUT.*

FUEL X FEED

The fuel crossfeed valve is open — both engines can draw from either side.

→ *Normal during fuel-balancing or engine-out procedures. Close it when finished.*

ENG A.ICE

Engine anti-ice is on.

→ *Correct in icing conditions (roughly: visible moisture below 10°C TAT). Off when clear — it costs a little performance.*

WING A.ICE

Wing anti-ice is on.

→ *Use in actual or expected icing. It draws significant bleed air — off when not needed.*

IGNITION

Continuous ignition is selected — the igniters are firing constantly as insurance against flameout.

→ *Standard in heavy rain or turbulence. Selector back to NORM afterwards.*

LDG LT

Landing lights are on.

→ *On below 10,000 ft, off above — the memo is just reflecting the switch.*

CTR TK FEEDG

The center tank is feeding the engines — burned before the wing tanks, by design.

→ *Nothing — the fuel system doing its sequence.*

OUTR TK FUEL XFRD

Fuel from the outer wing cells has transferred inboard — an automatic event as the inner cells empty.

→ *Nothing — expected late in a longer flight.*

STS

STATUS reminder at the bottom of the upper ECAM — the STATUS page on the lower screen has content after your failures: approach corrections and inoperative systems.

→ *Press STS on the ECAM control panel and actually read it before the approach. It's the aircraft's summary of what you're now flying.*

INOP SYS

The 'inoperative systems' list on the STATUS page — everything you've lost as a consequence of your failures.

→ *Read it as your new aircraft definition. Anything relevant to landing (spoilers, brakes, flaps) shapes your approach plan.*

T.O. MEMO

The takeoff memo on the upper ECAM — your final configuration check, appearing about two minutes after the second engine start. Each line shows BLUE while the action is still to be done and turns GREEN once completed: AUTO BRK MAX, SIGNS ON, CABIN READY, SPLRS ARM, FLAPS T.O., T.O. CONFIG NORM.

→ *Work the list until every line is green. All green = configured for takeoff. A stubborn blue line is the aircraft telling you exactly what you forgot.*

LDG MEMO

The landing memo — same color logic as takeoff: BLUE lines are actions still waiting, GREEN means done: LDG GEAR DN, SIGNS ON, CABIN READY, SPLRS ARM, FLAPS LDG. It appears on final approach.

→ *All green before landing. A blue LDG GEAR DN on short final is a go-around, not a debate.*

Terms & acronyms

The vocabulary that makes everything else make sense.

FPA

Flight Path Angle — the alternative FCU mode (HDG-V/S becomes TRK-FPA) where you command a descent angle instead of a rate, flown with the 'bird' symbol on the PFD.

→ *Superb for non-precision approaches: set the published angle (like -3.0°) and fly the bird to the runway.*

DECEL

The magenta DECEL point on the ND — where the aircraft plans to begin slowing for approach, and where the approach phase activates in managed descent.

→ *If it passes and you are still doing 250 kt with APPR phase inactive, activate it manually on the PERF page.*

EWD

Engine/Warning Display — the upper ECAM screen: engine gauges, fuel on board, and the warnings, cautions, and memos.

→

SD

System Display — the lower ECAM screen: system pages (HYD, ELEC, FUEL and friends), plus the STATUS page after failures.

→ *Cycle it with the buttons on the ECAM control panel — it auto-shows the page relevant to a new fault.*

QRH

Quick Reference Handbook — the paper backup of procedures for when ECAM guidance is not enough or not available.

→ *In simming, the equivalent muscle: knowing where to look things up. That is partly why this site exists.*

GPWS

Ground Proximity Warning System — the voice shouting SINK RATE, TOO LOW GEAR, and PULL UP before you meet the scenery.

→ *Every GPWS callout deserves an immediate response first and analysis second.*

TOGA

Take-Off / Go-Around — the maximum thrust detent, all the way forward.

→ *Use for takeoff (or FLEX instead) and any go-around.*

FLEX

Reduced takeoff thrust computed from an 'assumed temperature' you enter in the MCDU. Saves engine wear; standard airline practice.

→ *Enter the flex temp on the PERF TAKEOFF page and use the FLX detent.*

MCDU

Multipurpose Control & Display Unit — the keyboard-and-screen box on the pedestal where you program the flight (route, performance, everything).

→ *Master the INIT → F-PLN → PERF flow and the aircraft does what you meant.*

FCU

Flight Control Unit — the glareshield panel with the speed, heading, altitude and V/S knobs.

→ Remember: PUSH a knob = the aircraft manages it. PULL = you take control of that value.

FMA

Flight Mode Annunciator — the strip at the top of your PFD announcing what the autoflight system is doing: thrust · vertical · lateral · approach · AP status.

→ Read it left to right after every mode change. It is the single most important instrument on the Airbus.

PFD

Primary Flight Display — attitude, speed tape, altitude tape, FMA. The screen directly in front of you.

→

ND

Navigation Display — the map. Route, waypoints, weather radar, the TOD arrow, traffic.

→

ECAM

Electronic Centralized Aircraft Monitor — the two center screens: engine/warning display on top, systems pages below. The aircraft's way of talking to you.

→ When something fails, ECAM shows the checklist. Read top to bottom, do what the blue text says.

FADEC

Full Authority Digital Engine Control — the computer that manages each engine. It handles starts, protects limits, and translates your lever position into thrust.

→ Trust it — it's why the A320 start sequence is two switches.

MANAGED MODE

The aircraft follows the MCDU flight plan (push the FCU knob — dots appear next to the value). Opposite of selected mode.

→ Managed = the plan flies. Selected (pulled knob) = your knob value flies.

SELECTED MODE

You pulled an FCU knob and the aircraft now follows that knob value — heading, speed, or altitude — instead of the flight plan.

→ Normal for ATC vectors. Push the knob to hand control back to the plan.

GREEN DOT

The green circle on the speed tape: best lift-to-drag speed with flaps up. Your clean-configuration reference speed.

→ Engine failure or holding? Green dot is your friend.

VAPP

Final approach speed, computed on the PERF APPR page — landing reference speed plus corrections for wind.

→ The speed you should see crossing the threshold, give or take.

V1

Decision speed on takeoff. Before V1 you can stop; after V1 you fly, whatever happens.

→ Hands come off the thrust levers at V1 — you're committed.

VR

Rotation speed — when to smoothly pull back and lift the nose.

→ *Rotate at ~3°/sec toward 12.5° pitch.*

V2

Takeoff safety speed — the minimum safe climb speed if an engine fails.

→ *SRS guidance targets V2+10 on a normal takeoff.*

QNH

The local pressure setting that makes your altimeter read altitude above sea level.

→ *Set it below transition level on arrival, and before takeoff. On STD at cruise.*

STAR

Standard Terminal Arrival Route — a published, named path from the airway system down to the approach (like IRMN2 into KLAX).

→ *Pick the STAR that matches your arrival direction; the MCDU ARRIVAL page lists them.*

SID

Standard Instrument Departure — a published departure path from the runway to the airway system.

→ *Selected on the MCDU DEPARTURE page (like WESLA5 out of KSFO).*

ILS

Instrument Landing System — radio beams (localizer + glideslope) that guide you to the runway in any weather.

→ *Tune/select it, arm APPR, capture LOC then G/S, and monitor.*

RNAV

Area navigation — GPS-based procedures flown by the FMS rather than ground radio beams.

→ *Flown in NAV/FINAL APP modes. Accuracy comes from the database, so keep it updated.*

OFP

Operational Flight Plan — the airline paperwork (SimBrief makes real ones) with route, fuel, weights, and times.

→ *Overwhelmed by 20 pages? Our MCDU Guide pulls out the lines you actually need.*

CG

Center of gravity, as % MAC (mean aerodynamic chord). Where the aircraft balances — it sets your takeoff trim.

→ *From your loadsheet/SimBrief; enter the matching trim on the PERF TAKEOFF page.*

ZFW

Zero Fuel Weight — aircraft + payload, without fuel. The MCDU INIT B page wants it.

→ *Take it straight from SimBrief; the FMS computes the rest.*

TRANSITION ALTITUDE

The altitude where you switch from local pressure (QNH) to standard (STD) climbing out — 18,000 ft in the US, lower most elsewhere.

→ *Climb: QNH → STD passing it. Descent: STD → QNH passing transition level.*

BLUE ON ECAM

Cyan/blue text anywhere on the ECAM means an action for you to carry out or a limitation to respect — not a fault. In the T.O. and LDG memos, blue lines turn green as you complete each item.

→ *The color code in one breath: blue = do it, green = done/normal, white = titles, amber = attention, red = act now.*