



ECAM WARNING / SYSTEM RESET

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Summary 05/2016

My thanks to all pilots supported this file
Any suggestions welcome

For private use only

21 – AIR CONDITION

NOTE: reset C/B's during 10 sec, at least, unless otherwise specific

ECAM WARNING	SYSTEM RESET
AIR	
PACK 1(2) FAULT or OVHT or OFF PACK 1 + 2 FAULT PACK 1(2) REGUL FAULT	OVHT temp's Pack outlet temp. $\geq 95^{\circ}\text{C}$ Pack compres. Outlet temp. $\geq 26^{\circ}\text{C}$ FAULT LIGHT goes out when OVHT disappears For all of these ECAM WARNING's (FAULTs) PACK 1 and 2 OFF. After 30 sec. reset C/B's during 2 min Pack 1 → X21, X22, Y18, Y19 Pack 2 → W21 W22, Y20, Y21 AUTO TEST 30 sec. PACK 1 and 2 ON
FWD CRG VENT FAULT (if installed) AFT CRG VENT FAULT (if installed)	C/B's: C7, T22 AUTO TEST 30 sec. C/B's: C7, S22 AUTO TEST 30 sec.
COND	
CKPT (FWD CAB) (AFT CAB) (FWD CRG) (if Installed) DUCT OVHT AFT CRG DUCT OVHT (if Installed)	OVHT Temp: Duct Temp. $\geq 80^{\circ}\text{C}$ FAULT LIGHT goes out when Duct temp. $< 70^{\circ}\text{C}$ and HOT AIR P/B reseted
HOT AIR FAULT	Wait 3 min. after PACK's ON before HOT AIR P/B be reseted. IF UNSUCCESSFUL, reset: C/B's: V17, V18, V19, V20 AUTO TEST 36 sec.
TRIM AIR SYS FAULT	If the warning and the message TRIM AIR HI PR are triggered when all Trim Air Valves are closed (during the first 30 sec. after the packs are selected ON or In flight If all zones heating demands are fulfilled), disregard them. If not: Reset HOT AIR P/B IF UNSUCCESSFUL reset: C/B's: V17, V18, V19, V20 AUTO TEST 36 sec.
ZONE REGUL FAULT	PACK 1 and 2 OFF. C/B's: V17, V18, V19, V20 AUTO TEST 36 sec. PACK 1 and 2 ON. Note: reset with engines running may triggered the msg. ENG 1 (2) FADEC, in STATUS page.
L + R CAB FAN FAULT LAV + GALLEY FAN FAULT	C/B's: LH → X18, X20 RH → W18, W20 C/B's: U19, U21

21 – AIR CONDITION (Cont.)

NOTE: reset C/B's during 10 sec, at least, unless otherwise specific

ECAM WARNING	SYSTEM RESET
FWD CRG ISOL VALVE (installed) AFT CRG ISOL VALVE (if installed) FWD CRG HEAT FAULT (it installed) AFT CRG HEAT FAULT (if installed)	C/B: T22 C/B's: C7, S22 C/B: T22 C/B's: C7, S22 AUTO TEST 28 sec.

CAB PR

EXCESS CAB ALT	
SYS 1 (2) FAULT SYS 1 + 2 FAULT	ADIRU 1,2,3 NAV Reset C/B's during 2 min C/B's: CPC1 → D09 CPC2 → Y22 MAN CTRL → Y23 Reset C/B's during 2 min C/B's: D09, Y22, Y23
LO DIFF PR	
OUTFLOW VALVE NOT OPEN	Try CAB PRESS MAN CONTROL MODE SEL - MAN MAN VS CTL- FULL UP It may take 10 sec. in man, mode before the crew notices a change of the outflow valve position. IF UNSUCCESSFUL PACK 1 land 2 - OFF
LDG ELEV FAULT SAFETY VALVE OPEN	Check FMGS destination data (ALT.) Try CAB PRESS MAN CNTROL

VENT

BLOWER FAULT EXTRACT FAULT SKIN VALVE FAULT AVNCS SYS FAULT	For all of these ECAM WARNIG's (FAULT'S) Pull C/B's: Y17, D05, D06 and AE2 Ckh *AVNCS SYS FAULT* appears on ECAM after 10 seg. Push C/B's and chk message disappears. AUTO TEST 85 sec If any message about VENT SYS still remains after reset C/B's, try DITCHING ON than OFF to reset inputs to AVIONICS SYS If a message persists on ECAM verify that the deactivation sw, in both valves (EXTRACT and BLOWER) are OFF. It must be ON - see Fig's. A, B and C on next page.
GND COOL FAULT (If installed)	

21 – AIR CONDITION (Cont.)

NOTE: reset C/B's during 10 sec, at least, unless otherwise specific

PARTIAL OPENING OF EXTRACT VALVE

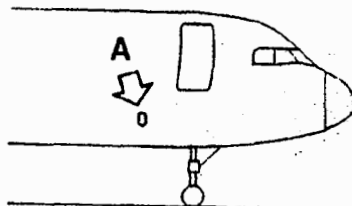


Fig. A

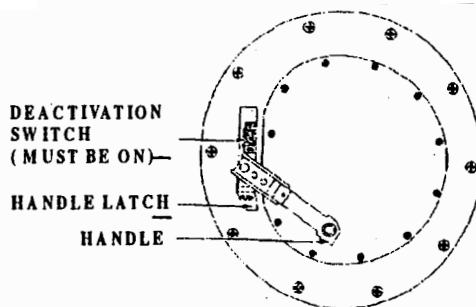


Fig. B

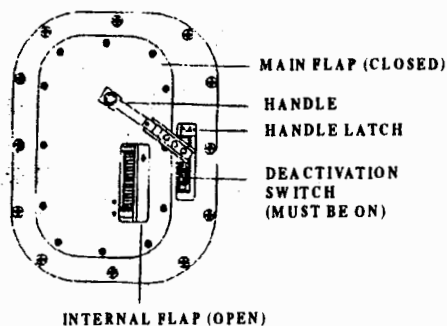


Fig. C

22 – AUTO FLIGHT

NOTE: reset C/B's during 10 sec, at least, unless otherwise specific

ECAM WARNING	SYSTEM RESET
AUTO FLIGHT	
AP OFF A/THR OFF	
YAW DAMPER 1(2) YAW DAMPER SYS RUD TRIM 1(2) FAULT ROD TRIM SYS RUD TRV LIM 1 (2) RUD TA V LIM S YS	Reset FAC 1(2) P/B On the ground, if unsuccessful, the C/B's of the affected FAC should be pulled with the yellow and green hyd. syst. pressurized and eng. stopped, and reseted after 10 sec. C/B's: FAC 1 → B3, B4 FAC 2 → M18, M19 AUTO TEST 90 sec.
FAC 1 (2) (1 + 2) FAULT	ENG 1 and 2 stopped C/B's: FAC 1 → B3, B4 FAC 2 → M18, M19 AUTO TEST 90 sec.
FCU 1 (2) (1 + 2) FAULT	Reset during 7 min. at least C/B's: FCU 1 → B5 FCU 2 → M21
WIND SHEAR	
DET FAULT (if installed) REAC W/S DET FAULT (if installed)	Reset both FAC's , one after the other C/B's: FAC 1 → B3, B4 FAC 2 → M18, M19 AUTO TEST 90 sec.

23 – COMMUNICATIONS

NOTE: reset C/B's during 10 sec, at least, unless otherwise specific

ECAM WARNING	SYSTEM RESET
COM	
CIDS1 +2 FAULT	SEE ANEX 1
VHF EMITTING	Check transmission key on ACP, side stick radio selector or hand mike selector or PTT switch is not In "transmit" position. In the other case, deselect the affected transmission for 1 sec. to reset the caution. If no selector / key is found in transmit position, reset the affected C/B: C/B's: VHF 1 → G9 VHF 2 → L4 VHF 3 → L5 (If installed) AUTO TEST 2 sec
HF EMITTING (if installed)	Check transmission key on ACP, side stick radio selector or hand mike selector or PTT switch is not in "transmit" position. In the other case, deselect the affected transmission for 1 sec. to reset the caution. If no selector / key is found in transmit position, reset the affected C/B: C/B's: HF 1 → HA14 HF 2 → (If installed)
ACARS FAULT (if Installed)	C/B: L6

24 – ELECTRICAL

NOTE: reset C/B's during 10 sec, at least, unless otherwise specific

ECAM WARNING	SYSTEM RESET
ELEC	
EMER CONFIG ESS BUSES ON BAT IDG 1(2) OIL PR/OVHT	
GEN 1(2) FAULT	C/Bs: GCU1 → T26 GCU2 → T27
GEN 1(2) OFF	
APU GEN FAULT	C/Bs: GCU APU → Y25
GEN 1 (2) or APU GEN OVERLOAD EMER GEN 1I LINE OFF BAT 1 (2) FAULT BAT 1 (2) OFF	
BCL 1 (2) FAULT	Reset P/B BAT OFF then ON
TR 1 (2) or ESS TR FAULT	Reset can be performed through CFDS (MCDU MENU → CFDS→ SYS REPORT AND TEST→ ELECT → TRs RESET)
STAT INV FAULT C/B TRIPPED AC BUS 1 FAULT AC BUS 2 FAULT AC ESS BUS FAULT AC ESS BUS SHED	
DC BUS 1 FAULT DC BUS 2 FAULT DC ESS BUS FAULT DC ESS BUS SHED DC BUS 1+2 FAULT DC EMER CONFIG DC BAT BUS FAULT	

26 – FIRE PROTECTION

NOTE: reset C/B's during 10 sec, at least, unless otherwise specific

ECAM WARNING	SYSTEM RESET
SMOKE	
AVIONICS SMOKE	Reset SDCU (Smoke Detection Control Unit) C/B's: SDCU 1 → C6 SDCU 2 → T18 AUTO TEST 10 sec.
LAVATORY SMOKE LAV + CRG DET FAULT LAVATORY DET FAULT CARGO SMOKE (If installed) FWD CRG DET FAULT (if installed) AFT CRG DET FAULT (if installed) FWD (AFT) BTL SQUIB FAULT (if installed)	See ANEX 1, PART II - B
ENG	
FIRE LOOP A (B) FAULT FIRE DET FAULT	C/B's: ENG 1 - LOOP A → A6 ENG 1 - LOOP B → Q38 ENG 2 - LOOP A → Q39 ENG 2 - LOOP B → A7 AUTO TEST 57 sec.
FIRE	
APU	
FIRE LOOP A (B) FAULT FIRE DET FAULT	C/B's: LOOP A → L43 LOOP B → L44 AUTO TEST 10 sec.
FIRE	

27 – FLIGHT CONTROLS

NOTE: reset C/B's during 10 sec, at least, unless otherwise specific

ECAM WARNING	SYSTEM RESET
F/CTL	
FLAPS / SLATS FAULT	C/Bs: FLAPS → B7, Q21 SLATS → B6, R21 AUTO TEST 2sec. SEE OEB 82/3
FLAPS / SLATS LOCKED SLATS and FLAPS FAULT in conf 0	SEE OEB 82/3
FLAP SYS 1(2) FAULT	C/Bs: SYS 1 → B7 SYS 2 → Q21 AUTOTEST 2 sec. SEE OEB 82/3
SLAT SYS 1(2) FAULT	C/Bs: SYS 1 → B6 SYS 2 → R21 AUTOTEST 2 sec.
FLAP TIP BRK FAULT SLAT TIP BRK FAULT FLAP ATTACH SENSOR	C/B's: B7, Q21 C/B's: B6, R21 C/B's: B7, Q21 AUTO TEST 2 sec. for all this resets
ELAC FAULT	HYD. Pres. → Zero P/B's ELAC 1, 2 → OFF then ON AUTOTEST - 8sec. If not recovered, reset C/B's: ELAC 1 → B11 ELAC 2 → R20 AUTO TEST - 8 sec. Switch ON the HYD. pumps only after the AUTO TEST it was triggered alter a flight, PITCH TRIM will be regulate
SEC FAULT	HYD. Pres. → Zero P/B's SEC 1, 2, 3 → OFF wait 5 sec. then ON AUTO TEST - 18 sec. If unsuccessful, reset C/B's during 5 sec.: SEC 1 → B8 SEC 2 → Q18 SEC 3 → Q19 AUTO TEST - 18 sec. Wait 45 sec. before switch ON the HYD. pumps
FCDC FAULT (Cant. next page)	HYD. Pres. → Zero Reset C/B's: FCDC 1 → B10 FCDC 2 → Q20 AUTO TEST - 3 sec. (Cont. next page)

27 – FLIGHT CONTROLS (Cont.)

NOTE: reset C/B's during 10 sec, at least, unless otherwise specific

ECAM WARNING	SYSTEM RESET
F/CTL	
FCDC FAULT	Switch ON the HYD. pumps only after the AUTO TEST The FCDC reset with HYD. pres. may triggered warning of LAF DEGRADED
ELAC 1 (2) PITCH FAULT L(H) SIDESTICK FAULT SIDESTICK PRIORITY	See reset of ELACs See reset of ELACs and SEC's See reset of ELACs
ALTN LAW	May be triggered during Eng. Start due to electrical transient. Switch OFF the G, Y and B HYD PUMPS (PARKING BRK at ON), wait 1 min. then reset ELAC 1 and 2 P/B. After 8 sec. (end of power up test indicated by disappearance of ALTN LAW warning) switch the G, Y and B HYD PUMPS at ON/AUTO position.
DIRECT LAW	
AIL SERVO FAULT ELEV SERVO FAULT AIL FAULT L(R) ELEV FAULT L + R ELEV FAULT STABILIZER JAM SPLR FAULT GND SPLR FAULT GND SPLR (1 + 2) (3 + 4) FAULT	For all of these ECAM WARNINGS, Try reset of the FLT CTL COMPUTER, according to the FLT CTL ARCHITECTURE publish in QRH pag. 5.03 (OPS DATA)
SPD BRK FAULT SPD BRK DISAGREE	See reset SEC's See reset SEC's
LAF ACCU FAULT [1] SPD BRK 2 (3 + 4) FAULT [1] [1] A320 only	See reset of ELAC's and SEC's See reset SEC's
CONFIG	
SLATS (FLAPS) NOT IN T.O. CONFIG L(R) SIDESTICK FAULT PITCH TRIM NOT IN T.O. RANGE SPEED BRK NOT RETRACTED RUD TRIM NOT IN TO. RANGE [2] [2] A319 only	See reset of ELACs and SEC's See reset of SEC's

28 – FUEL

NOTE: reset C/B's during 10 sec, at least, unless otherwise specific

ECAM WARNING	SYSTEM RESET
FUEL	
L(R) TK PUMP 1(2) LO PR L(R) TK PUMP 1 + 2 LO PR L(R) WING TK LO LVL L + R WING TK LO LVL	
L(R) XFR VALVE CLOSED or OPEN	To close XFR valves: Refueling sw - ON then OFF To open XFR valves: Pull C/B's: A10, A11, M22, M23, then Push C/B's: A10, A11, or M22, M23
ENG 1(2) LP VALVE OPEN APU LP VALVE FAULT XFEED VALVE FAULT L(R) INN ER (OUTER) - TK LO TEMP L(R) INNER (OUTER) - TK HI TEMP CTR TK PUMP 1(2) LO PR CTR TK PUMPS LO PR CTR 1K PUMPS OFF AUTO FEED FAULT (If Installed)	
FQI CH 1(2) FAULT	At exterior refuel panel: MODE SELECT - OFF At refuel coupling (if Installed): 2 P/Bs REFUEL - OFF Reset C/B's: FQI/CHAN 1 → A13 FOI/CHAN 2 → M27 FQI/CHAN 1 & 2 → L26 AUTO TEST 80 sec.

29 – HYDRAULICS

NOTE: reset C/B's during 10 sec, at least, unless otherwise specific

ECAM WARNING	SYSTEM RESET
HYD	
G(B)(Y) RSVR LO AIR PR	
G(Y)(B) RSVR OVHT	For Y RSVR OVHT see procedure Y ELEC PUMP OVHT described below
G(B)(Y) RSVR LO LVL	C/B: N32
G(B)(Y) (B+Y) (B+G) (Y+G) SYS LO PR	C/Bs: HYD. G → R34, R35 HYD. Y → N30, Q36, Q37 HYD. B → C12 HYD. XMTR → C11
Y ELEC PUMP OVHT	If the pump is continuously running and does not stop when selected OFF, it can be stopped by pulling C/B: DOORS CARGO - T12 (if cargo doors are open) OR Y HYD ELE PUMP → AB6 Y HYD ELE PUMP NORM → AB3 (See MEL 29-24)
Y ELEC PUMP LO PR B ELEC PUMP OVHT B ELEC PUMP LO PR G(Y) ENG 1(2) PUMP LO PR	
PTU FAULT	C/B: N34
RAT FAULT	C/B: P33

30 – ICE AND RAIN PROTECTION

NOTE: reset C/B's during 10 sec, at least, unless otherwise specific

ECAM WARNING		SYSTEM RESET																																					
ANTI ICE																																							
L(R) WINDOW L(R) WINDSHIELD L + R WINDSHIELD		Reset WHC C/B's during 5 sec. mln. WHC 1 → X13 WHC 2 → W13 AUTO TEST 5sec.																																					
CAPT (F/O) (STBY) PITOT CAPT (F/O) (STBY) L(R) STAT CAPT (F/O) (STBY) AOA CAPT (F/O) TAT CAPT (F/O) (STBY) PROBES		For all these ECAM WARNING's Reset the C/B's of PHC, during 5 sec. min. PHC 1 → D3 PHC 2 → Y12 PHC 3 → Y16 AUTO TEST 14 sec. Verify no ECAM WARNING If one warning persist, proceed according the message. Pull the C/B from the system with fault (see list below) and verify that will trigger the ECAM WARNING. Push the C/B. <table><tr><td>ECAM WARNING</td><td>SYST.</td><td>C/B'</td></tr><tr><td>CAPT AOA</td><td>AOA 1</td><td>→ D4</td></tr><tr><td>F/O AOA</td><td>AOA 2</td><td>→ Y13</td></tr><tr><td>STBY AOA</td><td>AOA 3</td><td>→ Z15</td></tr><tr><td>CAPT PITOT</td><td>PITOT 1</td><td>→ D2</td></tr><tr><td>F/O PITOT</td><td>PITOT 2</td><td>→ Y14</td></tr><tr><td>STBY PITOT</td><td>PITOT3</td><td>→ Z16</td></tr><tr><td>CAPT STATIC</td><td>STATIC 1</td><td>→ Z13</td></tr><tr><td>F/O STATIC</td><td>STATIC 2</td><td>→ Y11</td></tr><tr><td>STBY STATIC</td><td>STATIC 3</td><td>→ Z14</td></tr><tr><td>CAPT TAT</td><td>TAT1</td><td>→ Z12</td></tr><tr><td>F/O TAT</td><td>TAT2</td><td>→ Y15</td></tr></table> AUTO TEST 14 sec.		ECAM WARNING	SYST.	C/B'	CAPT AOA	AOA 1	→ D4	F/O AOA	AOA 2	→ Y13	STBY AOA	AOA 3	→ Z15	CAPT PITOT	PITOT 1	→ D2	F/O PITOT	PITOT 2	→ Y14	STBY PITOT	PITOT3	→ Z16	CAPT STATIC	STATIC 1	→ Z13	F/O STATIC	STATIC 2	→ Y11	STBY STATIC	STATIC 3	→ Z14	CAPT TAT	TAT1	→ Z12	F/O TAT	TAT2	→ Y15
ECAM WARNING	SYST.	C/B'																																					
CAPT AOA	AOA 1	→ D4																																					
F/O AOA	AOA 2	→ Y13																																					
STBY AOA	AOA 3	→ Z15																																					
CAPT PITOT	PITOT 1	→ D2																																					
F/O PITOT	PITOT 2	→ Y14																																					
STBY PITOT	PITOT3	→ Z16																																					
CAPT STATIC	STATIC 1	→ Z13																																					
F/O STATIC	STATIC 2	→ Y11																																					
STBY STATIC	STATIC 3	→ Z14																																					
CAPT TAT	TAT1	→ Z12																																					
F/O TAT	TAT2	→ Y15																																					
ENG 1(2) VALVE CLSD or OPEN ICE DETECTED SEVERE ICE DETECTED DETECT FAULT																																							
WING ANTI ICE																																							
L(R) VALVE OPEN OPEN ON GND SYS FAULT L(R) HI PR		OEB 45/4 (MSN 165- 191)																																					

31 – INDICATORS / RECORDING SYSTEMS

NOTE: reset C/B's during 10 sec, at least, unless otherwise specific

ECAM WARNING	SYSTEM RESET
EIS	
DMC FAULT	Indication of respective DU's with a cross white line C/B's: DMC 1 → E9, E11 DMC 2 → Q8, R8 DMC 3 → E7, E10, Q9 AUTO TEST 4sec.
FWS	
SDAC 1(2) (1 + 2) FAULT	C/B's: SDAC 1 → F2, F4, Q3, Q4 SDAC 2 → F3, Q2, Q5, Q6 SDAC 1 & 2 → F5 AUTO TEST 5sec.
FWC 1 (2) (1 + 2) FAULT	C/B's: FWC 1 → FI FWC 2 → Q7 AUTO TEST 50sec.
OEB/FWC DISCREPANCY (as installed)	
RECORDER	
DFDR FAULT	ENG. 1, 2 stopped C/B: K16 AUTO TEST 25 sec.
FDIU FAULT	ENG. 1,2 stopped C/B's: J17, J18 AUTO TEST 60 sec.

32 – LANDING GEAR

NOTE: reset C/B's during 10 sec, at least, unless otherwise specific

ECAM WARNING		SYSTEM RESET	
L/G			
SHOCK ABSORBER FAULT GEAR NOT UNLOCKED GEAR NOT DOWNLOCKED GEAR UPLOCK FAULT DOORS NOT CLOSED		Reset CIBs from LGCIUs (see below) Reset C/Bs from LGCIUs (see below)	
LGCIU 1 (2) FAULT		C/Bs: LGCIU 1 → C9, Q34 (for A320) LGCIU 1 → C9 (for A319) LGCIU 2 → Q35 AUTO TEST - 1 sec.	
SYS DISAGREE GEAR NOT DOWN BOGIE ALIGN FAULT (if Bogie gear Installed)			
WHEEL			
N/W STEER FAULT HYD SEL FAULT TYRE LO PR (if installed)		Reset C/Bs from BSCUs (see below) OEB 50/12 (MSN 185 - 395) C/B: M31 AUTO TEST 5 sec. (45 sec. if CFDS not available)	
CONFIG			
PARK BRAKE ON			
BRAKES			
HOT ANTI SKID FAULT ANTI SKID/NWS OFF AUTOBRK FAULT		Reset C/Bs from BSCUs (see below) Reset C/Bs from BSCU's (see below) OEB 50/12 (MSN 185 - 395)	
BSCU CH 1 (2) FAULT		A/C stopped - PARK BRAKE - ON A/SKID & NWS STRG - ON C/Bs: BSCU CH 1 → M33, M34 BSCU CH 2 → M35, M36 AUTO TEST 1 sec. OEB 50/12 (MSN 185 - 395)	

34 – NAVIGATION

NOTE: reset C/B's during 10 sec, at least, unless otherwise specific

ECAM WARNING	SYSTEM RESET
NAV	
HDG/ATT/ALTI DISCREPANCY	
ADR FAULT IR FAULT	At CDU of ADIRS select OFF the respective IR (1,2 or 3) during 15 sec., and then select NAV AUTO TEST - 5 sec. + Alignment IF UNSUCCESSFUL reset C/B's during 15 sec. C/B's: ADIRU 1 → F6, F7 ADIRU 2 → N5, N7, N9, N11 ADIRU 3 → N6, N8, N10 AUTO TEST 5 sec.
RA 1(2) FAULT	C/B's: RA 1 → K11 RA 2 → K12 AUTO TEST 5 sec.
ILS (MMR) 1(2) FAULT	C/B's: ILS (MMR) 1 → G12 ILS (MMR) 2 → K9 AUTO TEST 1 sec.
GPWS FAULT	C/B's: P6, P7 AUTO TEST 2 sec.
TCAS FAULT (if installed)	C/B: K10
OVER SPEED PRED W/S DET FAULT (if Installed) GPS 1(2) FAULT (if Installed) FM/GPS POS DISAGREE (if Installed) GPWS TEAR DET FAULT (if installed)	
F/CTL	
ADR DISAGREE IR DISAGREE	

36 – PNEUMATIC

NOTE: reset C/B's during 10 sec, at least, unless otherwise specific

ECAM WARNING	SYSTEM RESET
AIR	
BLEED 1(2) OFF	
ENG 1(2) BLEED FAULT	Reset C/Bs from BMC (see below) OEB 100/3 (MSN 185-395)
ENG 1(2) BLEED NOT CLSD	Reset C/B's from BMC (see below)
ENG 1(2) BLEED ABNORM PR	
APU BLEED FAULT	Reset C/B's from BMC (see below)
L(R) WING LEAK ENG 1(2) BLEED LEAK APU BLEED LEAK	
XBLEED FAULT ENG HP VALVE FAULT L(R) WING LEAK DET FAULT	Reset C/B's from BMC (see below) Reset C/B's from BMC (see below) Reset C/B's from BMC (see below)
ENG 1(2) (1 + 2) BLEED LO TEMP	
BLEED	
MONITORING FAULT	Reset the C/B's do BMC C/B's: BMC 1 → D11 BMC 2 → Z22, Z23 AUTO TEST 22sec.

49 – AUXILIAR POWER UNIT

NOTE: reset C/B's during 10 sec, at least, unless otherwise specific

ECAM WARNING	SYSTEM RESET
APU	
AUTO (EMER) SHUTDOWN	Reset ECB: APU stopped APU MASTER SW - OFF Reset C/B's L41, L42 AUTO TEST 3 seg.

52 – DOORS

NOTE: reset C/B's during 10 sec, at least, unless otherwise specific

ECAM WARNING	SYSTEM RESET
DOOR	
L(R) FWD (AFT) AVIONICS CABIN (EMER EXIT) (CARGO) STAIRS (if Installed)	

70 – ENGINES

NOTE: reset C/B's during 10 sec, at least, unless otherwise specific

ECAM WARNING	SYSTEM RESET
ENG	
FUEL FILTER CLOG OIL FILTER CLOG	Reset SDAC's Reset SDAC's
HP FUEL VALVE OIL LO PR	Reset C/Bs: ENG1 → A1 ENG 2 → A2 Reset C/Bs: ENG1 → N40 ENG 2→ N42
IGN FAULT	Reset C/Bs: ENG1 → P39, P41 ENG2→ P40, P42 unsuccessful reset FADEC'S (see procedure)
FUEL CTL FAULT REVERSER FAULT REV PRESSURIZED REV SWITCH FAULT REVERSE UNLOCKED EIU FAULT OIL HI TEMP N1/N2/EGT OVER LIMIT N1/N2/EGT/FF DISCREPANCY LOW N1 START VALVE FAULT START FAULT ENG DUAL FAILURE ENG FAIL ENG SHUT DOWN ONE TLA FAULT THR LEVER FAULT THR LEVER DISAGREE FLEX TEMP NOT SET ENG STALL COMPRESSOR VANE	For all of this messages reset FADECs (see procedure)

70 – ENGINES (Cont.)

NOTE: reset C/B's during 10 sec, at least, unless otherwise specific

ECAM WARNING	SYSTEM RESET
ENG	
OVSPD PROT FAULT	If the warning is triggered during eng. start, shutdown the eng. and restart. If the warning is still present, shutdown the eng. Before calling Maintenance, perform a reset of FADEC C/Bs during 2 min. and then make a third attempt. C/B's: ENG 1 FADEC A → A4 ENG 1 FADEC B → R41 ENG 2 FADEC A → A5 ENG 2 FADEC B → Q40
CTL VALVE FAULT [1] CTL VALVE FAULT [2] SENSOR/PROBES FAULT [1] CS-TNA, B, C, D and E [2] A31 9 and CS-TNG and ON	
BLEED STATUS FAULT	C/B's: BMC 1 → D11, D12 BMC 2 → Z22, Z23 AUTO TEST 10 sec.
FADEC A(B) FAULT FADEC FAULT	ENG. 1,2 stopped ENG GWD PWR 1, 2 P/B's - OFF Reset C/B's during 2 min.: C/B's: ENG 1 FADEC A → A4 ENG 1 FADEC B → R41 ENG 2 FADEC A → A5 ENG 2 FADEC B → Q40 AUTOTEST- 2 sec.
FADEC HI TEMP FADEC ALTERNATOR VIB SYS FAULT THRUST LOCKED [1] TYPE DISAGREE [1] A319 and CS-TNG and ON	

**Restore the clock on ND → Power DN / Power Up
Or 1.45.20 on CDFS if the main clock doesn't work**

ANNEX 1

CIDS

SYSTEM FUNCTION RESTORATION

In the event of misbehavior of one or more functions associated to the CIDS the actions described in the following pages are intended to assist in restoring the correct operation.

The majority of the troubles encountered can be classified as follows:

- LOSS OF CONTROL OF A FUNCTION
- SPURIOUS ACTIVATION OF A FUNCTION
- FAILURE OF A FUNCTION

1) The functions directly controlled by CIDS are:

In flight

- THE PASSENGER ADDRESS
- THE CABIN AND FLIGHT CREW INTERPHONE
- THE CALL SYSTEM
- THE PASSENGER LIGHTED SIGNS
- THE CABIN ILLUMINATION

On ground

- THE SERVICE INTERPHONE
- THE EXTENDED EMERGENCY LIGHT TEST

For any troubles on the above functions, please go directly to PART I which gives recommendations for resetting the CIDS.

2) The systems indicated or interfaced through the forward attendant panel (FAP) are:

- THE PRE RECORDED ANNOUNCEMENT AND BARDING MUSIC MODULE (PRAM)
- THE LAVATORY SMOKE INDICATION
- CIDS CAUTION LIGHT
- EVAC WARNING LIGHT

For any troubles on the above systems, please go directly to PART II for a system diagnostic and recovery procedure.

PART 1

RESET OF CIDS

Two procedures are given below:

PROCEDURE A - may be used on ground (engines running or not) or in flight is a simplified reset procedure which allows the reset of directors and odes not allow the reset of all other CIDS components (FAP,), however, it covers the majority of reported failures.

PROCEDURE B - may only be used on ground with both engines stopped Allows the full rest of all the system.

Note (1) for PROCEDURE A or B

The pulling of C/B's results in a reset of the CIDS and power up test during which time the system will not respond to any inputs or changes of commands (switches etc) until the power up test has finished. Times are indicated for each procedure

Note (2)

A reset function is provided on the menu of the PTP (programming and test panel). In the event of a malfunction of the CIDS the data bus link between the director(s) and the PTP may also be affected, therefore it is suggested to limit resets to the pulling of detailed C/B's, as a reset push button at the PTP, and initiates a power up test only if the ARINC communication link between the programming and test panel and director exists.

PROCEDURE A

NOTE: During POWER-UP TEST the CIDS remains out of service

Condition:

in flight or on ground (engine(s) running or not).

Procedure:

Pull the following C/B's:

Location	Panel
G2	49VU
N11	121VU
M5 (and M6 for A319)	121VU

Wait approximately **10 sec.** if doors are closed, or **30 sec.** if doors are open.

Re-engage the above C/B's

POWER-UP TEST - 50 sec. if doors are close
 120 sec. if doors are open

PROCEDURE A

Condition: on ground with both engines stopped.

Procedure: Pull the following C/B's in the order given below:

Location	Panel
G2	49VU
G3	49VU
G4	49VU
G5	49VU
N11	121VU
N12	121VU
N13	121VU
N14	121VU
M5	121VU
M6	121VU
M7	121VU
M8	121VU
M9	121VU
M10	121VU
M11	121VU
M12	121VU
M13	121VU
M14	121VU
Q14 (A319 only)	121 VU

Wait for **30 sec.** and re-engage the following C/Bs, in the order given below:

G3	49VU
G4	49VU
G5	49VU
N12	121VU
N13	121VU
N14	121VU
M6 (A320 only)	121VU
M7	121VU
M8	121VU
M9	121VU
M10	121VU
M11	121VU
M12	121VU
M13	121VU
M14	121VU
Q14 (A319 only)	121VU

Wait for **30 sec.** and re-engage the following C/Bs, in the order given below:

G2	49VU
N11	121U
M5	121VU
M6 (A3i9 only)	121VU

POWER-UP TEST - 50 sec. if doors are close
120 sec. if doors are open

PART 2

RESET OF SYSTEMS INDICATED OR INTERFACED THROUGH FORWARD ATTENDANT PANEL (FAP)

This section covers the following function

A - The Pre Recorder Announcement and Boarding Music Module (PRAM)

B - The Lavatory Smoke Indication

C - CIDS Caution Light

D - EVAC Warning Light

Note: Cabin illumination is directly controlled by CIDS but the interface is thought the FAP

The following procedures can be applied either in flight or on ground, engines running or not, regardless of whether the doors are open or not unless PROCEDURE A is applied

A - Procedure for restoring control of PRAM

- (1) Press STOP P/B
- (2) Press CLEAR P/B
- (3) Ensure all windows indicate programme 000 loaded, if not enter 000 in each memo
- (4) Load the numbers corresponding to the required announcement slowly and precisely to ensure correct recognition of command
- (5) Operate in usual manner

If the PRAM still fails to operate correctly it will be necessary to perform a reset of the pram by

- Pulling PRAM C/B 2RX on panel 2000 VU
- Wait approximately 10 seconds
- Pushing IN C/B 2RX
- Allow approximately 3 minutes for PRAM to initialize
- Enter data as in (4) above

The reset procedure described in PART 1 for resetting the CIDS to gain control of functions may also be used in the event of a loss of control of the FAP which is subsequently causing a loss of control of the PRAM in which case PROCEDURE A (Reset of the CIDS by C/B) should be inserted between point (b) and (c) of the previous procedure.

B - Procedure for extinguishing Incorrect or spurious Illumination of LAV SMOKE light on FAP

Subject to there being no genuine reason for the LAV SMOKE light to be illuminated (no smoke) after a check of the relevant toilets the light on the FAP and area call panels can be extinguished by the following procedure provided that the reporting smoke detection unit or controller is not faulty

- (1) - Press reset P/B on FAP
- (2) - Light the attendant handset in the area nearest to the reporting toilet smoke detector
- (3) - Replace handset

Note: if the signal was spurious the LAV SMOKE lamp will extinguish, if it illuminates again the above procedure may be tried only after a check of the relevant toilet area. Repetitive indications indicate further maintenance trouble on shooting on ground will be necessary.

C - CIDS Caution Light

The caution light should only illuminate in flight when there is some positive action to be taken by the cabin attendants or when there is some degradation of a system that they need to know of.

Procedure in the event the CAUTION LIGHT illuminated

- (1) - Push "DISPLAY ON" P/B on the programming and test panel
- (2) - Read message displayed on display of programming and test panel
- (3) - Take any necessary action as advised by message
- (4) - Reset caution light by pushing caution light front face

Note: The message on the PIT will disappear automatically after 5 minutes. The Caution Light will illuminate automatically after landing if the failure still exists

D - EVAC Light

If the EVAC warning goes off spuriously then the aural warning in the cabin can be cancelled by pressing the reset button on Forward Attendant Panel and/or Aft Attendant Panel. If the EVAC lamp is lit with no aural warning it will be necessary to activate the EVAC signal via the "comd" P/B on the FAP (provided the EVAC switch in the cockpit is in the CAPT + PURS position), or the EVAC switch in cockpit directly (which will generate a warning) and then cancel the warning by pressing the "comd" P/B or switching the EVAC switch.

Alternatively a reset of the CIDS would correct the situation, see PART 1.

ANEXO 2

VACUUM CONTROL

If the light SYSTEM INOP is ON and the NC is above 16000' the reset at C/B's does not result. The lavatories could be utilized in normal condition but we need pull the C/B VACUUM SYS on AFT GALLEY. The WASTE OTY indication will be lost. Below 16000' push the C/B in order to recover the VACUUM SYSTEM.

For reset the VACUUM SYSTEM pull the C/B's:

VACUUM SYS

LAVATORY POWER FWD

LAVATORY POWER AFT LH/RH

on the AFT GALLEY, during at least 30 sec.

TESTS AVAILABLE ON CDFS

AIR COND

- CPC1
- CPC2
- TEMP CTL
- AEVC
- AFT CHC(')
- FWD CHC(*)

AFS

- AFS
- LRU
- LAND
- WIND SHEAR

COMM

- AMU
- RMP 1
- RMP 2
- RMP 3(*)
- CIDS 1
- CIDS 2
- HF 1
- HF 2(*)
- VHF 1
- VHF 2
- VHF 3(*)
- ACARS MU(*)

ELEC

- AC GEN
- GCU EMER
- BCL 1
- BCL 2
- TR 1 (reset)
- TR 2 (reset)
- TR 3 (reset)

FIRE PROT

- FDU 1
- FDU 2
- FDU APU
- SDCU

F/CTL

- EFCS 1
- EFCS 2
- SFCC 1
- SFCC 2

FUEL

- NO TESTS

ICE & RAIN

- WHC 1
- W HC 2
- PHC 1
- PHC 2
- PHC 3
- ICE DET 1(*)
- ICE DET 2(*)
- WING ANTI ICE (CAB
- TEMP CONT)

INST

- ECAM 1 (no test)
- ECAM 2 (no test)
- FDIU
- CFDIU
- EIS 1
- EIS 2
- EIS 3
- DMU

TESTS AVAILABLE ON CDFS (Cont.)

L/G

- LGCIU 1
- LGCIU 2
- BSCU 1
- BSCU 2
- TPIS (*)

NAV

- ADR 1
- IR 1
- ADR 2
- IR 2
- ADR 3
- IR 3
- RA 1
- RA 2
- DME 1
- DME 2
- ILS 1

Next Page

- ILS 2
- VOR 1
- VOR 2
- RADAR 1
- RADAR 2
- ADF 1
- ADF 2
- ATC 1
- ATC 2
- MLS 1
- MLS 2

Next Page

- HUD
- GPWC
- GPSSU1 (*)
- GPSSU2 (*)
- TCAS

NEXT PAGE (OF CFDS)

PNEU

- BMC 1
- BMC 2

APU

- SELF TEST

ENG

- EIU
- FADEC 1A
- FADEC 2A
- EVMU
- EIU2
- FADEC 1B
- FADEC 2B

TOILET

(*) NOT INSTALLED

LIST OF CIRCUIT BREAKERS

AIR COND

	C/B	PANEL
AFT CARGO VENT CTL & MONG (notes 3, 4)	C7	49 VU
AFT CARGO VENT & HTG CTL & MONG (note2)	C7	49 VU
FWD CARGO VENT CTL & MONG	C8	49 VU
AFT CARGO VENT & HIG FAN (note 2)	S22	122 VU
AFT CARGO VENT FAN (notes 3, 4)	S22	122 VU
AVNCS VENT BLOWER FAN	AD10	123 VU
AVNCS VENT CTL	D5	49 VU
AVNCS VENT CTL	06	49 VU
AVNCS VENT EXTC FAN	AE2	123 VU
AVNCS VENT MONG	Y17	122 VU
CAB PRESS CTL 1	D9	49 VU
CAB PRESS CTL2	Y22	122 VU
CAB PRESS CTL MAN	Y23	122 VU
FLOW CTL & IND 1	D7	49 VU
FLOW CTL & IND 2	V21	122 VU
FLOW MIXER FLAP	V22	122 VU
FWD CARGO VENT FAN	T22	122 VU
LAV/GALLEY VENT CTL/EXTRACT FAN CTL	U21	122 VU
LAV/GALLEY VENT CTL/EXTRACT FAN SPLY	U19	122 VU
PACK TEMP CTL SYS 1 (115 VAC)	X22	122 VU
PACK TEMP CTL SYS 1 (28 VDC)	X21	122 VU
PACK TEMP CTL SYS 1/2 (115 VAC)	W22	122 VU
PACK TEMP CTL SYS 1/2 (28 VDC)	W21	122 VU
PACK TEMP CTL SYS 2/1 (115 VAC)	Y18	122 VU
PACK TEMP CTL SYS 2/1 (28 VDC)	Y19	122 VU
PACK TEMP CTL SYS 2/2 (115 VAC)	Y20	122 VU
PACK TEMP CTL SYS 2/2 (28 VDC)	Y21	122 VU
RAM AIR INLET	D10	49 VU
RECIRC FAN L CTL	X20	122 VU
RECIRC FAN L SPLY	X18	122 VU
RECIRC FAN R CTL	W20	122 VU
RECIRC FAN A SPLY	W18	122 VU
ZONE TEMP CTL (115 VAC SYS 1)	V17	122 VU
ZONE TEMP CTL (115 VAC SYS 2)	V18	122 VU
ZONE TEMP CTL (28 VDC SYS 1)	V19	122 VU
ZONE TEMP CTL (28 VDC SYS 2)	V20	122 VU

LIST OF CIRCUIT BREAKERS (Cont.)

AUTO FLT		
	C/B	PANEL
ATSU 1 (notes 3, 7)	L16	121 VU
ATSU 1 SWTH (notes 3, 7)	L15	121 VU
FAC 1 26 VAC	B3	49 VU
FAC 1 28 VDC	B4	49 VU
FAC 2(26 VAC)	M18	121 VU
FAC 2(28 VDC)	M19	121 VU
FCU 1	B5	49 VU
FCU 2	M21	121 VU
FMGC 1	B2	49 VU
FMGC2	M17	121 VU
MCDU 1	B1	49 VU
MCDU 2	N20	121 VU
RUDDER ARTF FEEL	N17	121 VU
RUDDER TRIM IND	M20	121 VU
STICK LOCK	N16	121 VU

Notes:

(1) A320	(2) for A320-211	(3) A320-214	(4) A319
(5) for A319 till CS-TTG	(6) for A319 till CS-TTL	(7) for A319 from CS-TTH	
(8) for A319 from CS-TTM			28

LIST OF CIRCUIT BREAKERS (Cont.)

COMMUNICATIONS

	C/B	PANEL
ACARS MU (note 2)	L6	121 VU
ACP AVNCS COMPT	M3	121 VU
ACP THIRD OCC PNT	M2	121 VU
AUDIO ACP CAPT	G6	49 VU
AUDIO ACP F/O	G7	49 VU
AUDIO FLT INTPH	G8	49 VU
CIDS DEU A ESS LINE 1	G4	49 VU
CIDS DEU A ESS LINE 2	G5	49 VU
CIDS DEU A NORM L. AFT (M12 for A320)	M13	121 VU
CIDS DEU A NORM L. FWD (M8 for A320)	M9	121 VU
CIDS DEU A NORM L. MID (M10 for A320)	M11	121 VU
CIDS DEU A NORM R. AFT (M13 for A320)	M14	121 VU
CIDS DEU A NORM A. FWD (M9 for A320)	M10	121 VU
CIDS DEU A NORM R. MID (M11 for A320)	M12	121 VU
CIDS DEU B ESS	G3	49 VU
CIDS DEU B NORM (M7 for A320)	M8	121 VU
CIDS DIR 1 & 2 ESS	G2	49 VU
CIDS DIR 1 & 2 NORM (note 1)	M5	121 VU
CIDS DIR NORM 1 (note 4)	M5	121 VU
CIDS DIR NORM 2 (note 4)	M6	121 VU
CIDS AND ATTND PNL (note 4)	Q14	121 VU
CIDS AND ATTND PNL (note 1)	M14	121 VU
CIDS PROG & 1ST PNL (note 4)	M7	121 VU
CIDS PROG & TST PNL (note 1)	M6	121 VU
CVR CTL	E13	49 VU
CVR SPLY	E14	49 VU
HF 1	HA14	49 VU
HORN SPLY	P9	121 VU
LOUD SPKR CAPT	F10	49 VU
LOUD SPKR F/O	P8	121 VU
RMP 1	G10	49 VU
RMP 2	L2	121 VU
AMP 3	L3	121 VU
SELCAL	M4	121 VU
VHF1	G9	49 VU
VHF2	L4	121 VU
VHF3	L5	121 VU

Notes:

- | | | | |
|--------------------------|--------------------------|--------------------------|----------|
| (1) A320 | (2) for A320-211 | (3) A320-214 | (4) A319 |
| (5) for A319 till CS-TTG | (6) for A319 till CS-TTL | (7) for A319 from CS-TTH | |
| (8) for A319 from CS-TTM | | | 29 |

LIST OF CIRCUIT BREAKERS (Cont.)

ELECTRIC	C/B	PANEL
101 PP SPLY	CD1	125VU
103 PP SPLY	CE1	125 VU
131 XP-A SPLY	AB12	123VU
202 PP SPLY	BG1	124 VU
204 PP SPLY	BF1	124 VU
206 PP/2	BE1	124 VU
AC BUS 1 CTL	V25	122 VU
AC BUS 2 CTL	V27	122 VU
AC BUS 8XP MONG	H11	49 VU
AC ESS BUS ON BUS 1	AC12	123VU
AC ESS BUS ON BUS 2	AC1	123 VU
AC POWER SVCE CTL	V29	122 VU
AFT GALLEY FEEDER A	AF4	123VU
AFT GALLEY FEEDER B	AD9	123 VU
AFT GALLEY FEEDER E	AF9	123 Vu
APU GCU	Y25	122 Vu
APU GEN EGIU 2 (115 VAC)	AA8	123 VU
BAT BUS 301 PP SPLY	CC1	125 VU
BUS 1 / 101 XP SPLY	AD11	123VU
BUS 1 / 103 XP SPLY	AB11	123 VU
BUS 1 / 110 XP SPLY	AF11	123 VU
BUS 2 / 202 XP SPLY	AD2	123VU
BUS 2 / 204 XP SPLY	AB2	123 VU
BUS 2 / 210 XP SPLY	AF2	123VU
BUS 2 / 212 XP SPLY	AD3	123 VU
BUS 2 / 231 XP-A SPLY	AB1	123 VU
CNTOR DC BUS TIE 1	W25	122 vu
CNTOR DC BUS TIE 1 FAULT	U24	122 vu
CNTOR ESS DC BUS TIE	W26	122 VU
DC SVCE 6 PP SPLY	BD1	124 VU
DC SVCE BUS	X24	122 VU
DC SVCE BUS ON TR 2	U30	122 VU
EMERG GEN AUTO 1	Z25	122 VU
EMERG GEN AUTO 2	Z26	122 VU
EXT PWR COCKPIT AVAIL LT	X28	122 VU
EXT PWR CTL	X29	122 VU
EXT PWR EGIU 1(115 VAC)	AA7	123 VU
EXT PWR LT CTL AVAIL	X31	122 VU
EXT PWR LT GIL NOT IN USE	X30	122 VU

Notes:

- | | | | |
|--------------------------|--------------------------|--------------------------|-----------|
| (1) A320 | (2) for A320-211 | (3) A320-214 | (4) A319 |
| (5) for A319 till CS-TTG | (6) for A319 till CS-TTL | (7) for A319 from CS-TTH | |
| (8) for A319 from CS-TTM | | | 30 |

LIST OF CIRCUIT BREAKERS (Cont.)

ELECTRIC	C/B	PANEL
FWD GALLEY FEEDER C	AE10	123 VU
FWD GALLEY FEEDER D	AD4	123 VU
FWD GALLEY FEEDER F	AC10	123 VU
GALLEY CNTOR	S28	122 VU
GALLEY CTL	S26	122 VU
GALLEY FAULT LT CTL	S25	122 VU
GALLEY GND/FLT LOGIC	S24	122 VU
GCU 1	T26	122 VU
GCU 2	127	122 VU
GEN 1 EGIU 1 (115 VAC)	AF12	123 VU
GEN 1 EXT PWR EGIU 1 (28 VDC)	Z30	122 VU
GEN 1 EXT PWR EGIU 1 (28 VDC)	Z31	122 VU
GEN 1 OFF/BTC 1 SPLY	T28	122 VU
GEN 1 OFF/BTC 2 SPLY	T30	122 VU
GEN 2 APU GEN EGIU 2 (28 VDC)	Y30	122 VU
GEN 2 APU GEN EGIU 2 (28 VDC)	Y31	122 VU
GEN 2 EGIU (115 VAC)	AF1	123 VU
GEN 2 OFF/BTC 1 SPLY	T29	122 VU
GEN 2 OFF/BTC 2 SPLY	T31	122 VU
GND PWR PROT	AB7	123 VU
GPCU	Y24	122 VU
IDG 1 DISC	T24	122 VU
IDG 2 DISC	T25	122 VU
LT CTL	H10	49 VU
REFLNG NORM	S27	122 VU
REFLNG ON BAT	U28	122 VU
RFL SPLY LOGIC	U29	122 VU
SHED BUS 210 PP / 212 PP SPLY (note 7)	BA1	124 VU
SHED BUS 218 XP / 220 XP SPLY (note 7)	AC2	123 VU
SVCE 601 PP / 602 PPSPLY	BB1	124 VU
SVCE BUS 2 / 212 XP SPLY	AB5	123 VU
SVCE BUS 2 / 214 XP SPLY	AA5	123 VU
TA 1 FAULT DC BUS TIE CONFIG	W29	122 VU
TR 1 MONG	X25	122 VU
TR 1 SPLY	AB10	123 VU
TR 2 CNTOR	BC1	124 VU
TA 2 FAULT DC BUS TIE CONFIG	W30	122 VU
TR 2 MONG	X26	122 VU
TR 1 CNTOR SPLY	CF1	125 VU
TR 2 / 214XPSPLY	AB4	123 VU
TR 2 / SVCE BUS 2 SPLY	AB8	123 VU

Notes:

- | | | | |
|--------------------------|--------------------------|--------------------------|----------|
| (1) A320 | (2) for A320-211 | (3) A320-214 | (4) A319 |
| (5) for A319 till CS-TTG | (6) for A319 till CS-TTL | (7) for A319 from CS-TTH | |
| (8) for A319 from CS-TTM | | | |

LIST OF CIRCUIT BREAKERS (Cont.)

EQUIPMENT

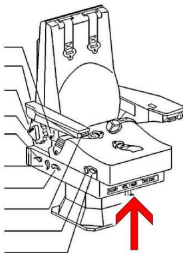
***	COCKPIT SEAT CTL CPT	C/B	PANEL
		U11	122 VU
***	COCKPIT SEAT CTL F/O	U14	122 VU

FIRE

CARGO FIRE EXTIG	C/B	PANEL
SDCU CHAN 1 (AFT CARGO VENT)	T19	122 VU
SDCU CHAN 2	C6	49 VU
	T18	122 VU

FLT CTL

ELAC 1 NORM SPLY	C/B	PANEL
ELAC 2 NORM SPLY	B11	49 VU
FCDC 1 SLPY	R20	121 VU
FCDC 2 SPLY	B10	49 VU
FLP CTL & MONG SYS 2	Q20	121 VU
FLP CTL & MONO SYS 1	Q21	121 VU
SEC 1 NORM SPLY	B7	49 VU
SEC 2 SPLY	B8	49 VU
SEC 3 SPLY	Q18	121 VU
SLT CTL & MONO SYS 1	Q19	121 VU
SLT CTL SYS 2	B6	49 VU
SLT FLP 1 POS IND	R21	121 VU
SLT FLP 2 POS IND	B12	49 VU
THS ACTR MOT 1	P16	121 VU
THS ACTR MOT 2	Q16	121 VU
THS ACTR MOT 3	B9	49 VU
WTB FLP SYS 1	Q17	121 VU
WTB SLT SYS 1	S7	122 VU
WTB SYS 2 FLP	S6	122 VU
WTB SYS 2 SLT	P20	121 VU
	P19	121 VU



Don't forget to check first before you call maintenance :-)
Check whether CB is in or/and reset.....

Notes:

- | | | | |
|--------------------------|--------------------------|--------------------------|----------|
| (1) A320 | (2) for A320-211 | (3) A320-214 | (4) A319 |
| (5) for A319 till CS-TTG | (6) for A319 till CS-TTL | (7) for A319 from CS-TTH | |
| (8) for A319 from CS-TTM | | | |

LIST OF CIRCUIT BREAKERS

FUEL	C/B	PANEL
CTR TK AUTO CTL	R27	121 VU
CTR TK PUMP 1 & 2 CTL & IND	R25	121 VU
CTR TK PUMP 1 & 2 CTL & IND	R26	121 VU
CTR TK PUMP 1 SPLY	P23	121 VU
CTR TK PUMP 2 SPLY	P26	121 VU
FQI CHAN 1	A13	49 VU
FQI CHAN 1 & 2	L26	121 VU
FQI CHAN 2	M27	121 VU
FWD LOW LVL WING L (note 5)	M22	121 VU
FWD LOW LVL WING A (note 5)	M23	121 VU
HI LVL SPLY	L25	121 VU
L WING TK PUMP 1 SPLY	N23	121 VU
L WING TK PUMP 1 STBY SPLY	AD12	123 VU
L WING TK PUMP 2 SPLY	N26	121 VU
LP VALVE MOT 1 ENG 1	A8	49 VU
LP VALVE MOT 1 ENG 2	A9	49 VU
LP VALVE MOT 2 ENG 1	M25	121 VU
LP VALVE MOT 2 ENG 2	M26	121 VU
PUMP 1 L CTL & R IND	R23	121 VU
PUMP 1 R CTL & L IND	R28	121 VU
PUMP 2 L CTL & R IND	R24	121 VU
PUMP 2 R CTL & L IND	R29	121 VU
R WING TK PUMP 1 SPLY	Q23	121 VU
R WING TK PUMP 1 STBY SPLY	AE12	123 VU
R WING TK PUMP 2 SPLY	Q26	121 VU
RFL / DFL SPLY	L24	121 VU
RFL / DFL XFR DEFUEL VALVE	L23	121 VU
SMOKE CONFIG PUMP CTL	A14	49 VU
X FEED VALVE MOT 1	A12	49 VU
X FEED VALVE MOT 2	M24	121 VU
XFR VALVE 1 WINGL	A11	49 VU
XFR VALVE 1 WINGR	A12	49 VU
XFR VALVE 2 WING L (notes 1, 7)	M22	121 VU
XFR VALVE 2 WING R (notes 1, 7)	M23	121 VU

Notes:

(1) A320

(2) for A320-211

(3) A320-214

(4) A319

(5) for A319 till CS-TTG

(6) for A319 till CS-TTL

(7) for A319 from CS-TTH

(8) for A319 from CS-TTM

LIST OF CIRCUIT BREAKERS (Cont.)

HYDRAULIC			C/B	PANEL
B HYD ELEC PUMP			AB9	123 VU
B RSVR AIR PRESS XTMR (note 2)			P34	121 VU
G HYD PUMP ENG 1 CTL			R35	121 VU
G HYD PUMP ENG 1 MONG			R34	121 VU
HYD FIRE VALVE G ENG 1			C13	49 VU
HYD FIRE VALVE Y ENG 2			C14	49 VU
HYD POWER Y			N30	121 VU
HYD PRESS XMTR			C11	49 VU
HYD PWR B WARN & CTL			C12	49 VU
HYD QTY IND			P35	121 VU
LOW LVL IND			N32	121 VU
RAT CTL (note 2)			P32	121 VU
RAT EXTN SOL 1			P33	121 VU
SQL VALVES GJY PTU			N34	121 VU
SOL VALVES G / Y / B LEAK TST			N35	121 VU
Y HYD ELEC PUMP			AB6	123 VU
Y HYD ELEC PUMP NORM			AB3	123 VU
Y HYD PUMP ENG 2 CTL			Q36	121 VU
Y HYD PUMP ENG 2 MONG			Q37	121 VU

Notes:

- | | | | |
|--------------------------|--------------------------|--------------------------|----------|
| (1) A320 | (2) for A320-211 | (3) A320-214 | (4) A319 |
| (5) for A319 till CS-TTG | (6) for A319 till CS-TTL | (7) for A319 from CS-TTH | |
| (8) for A319 from CS-TTM | | | |

LIST OF CIRCUIT BREAKERS (Cont.)

ICE AND RAIN PROTECTION

	C/B	PANEL
ANTI-ICE ENG 1	X10	122 VU
ANTI-ICE ENG 2	W10	122 VU
ANTI-ICE L WSHLD	AF10	123 VU
ANTI-ICE PROBES AOA 1	D4	49 VU
ANTI-ICE PROBES PHC 1	D3	49 VU
ANTI-ICE PROBES PITOT 1	D2	49 VU
ANTI-ICE PROBES 1 STATIC	Z13	122 VU
ANTI-ICE PROBES 1 TAT	Z12	122 VU
ANTI-ICE PROBES 2 AOA	Y13	122 VU
ANTI-ICE PROBES 2 PHC	V12	122 VU
ANTI-ICE PROBES 2 PITOT	Y14	122 VU
ANTI-ICE PROBES 2 STATIC	Y11	122 VU
ANTI-ICE PROBES 2 TAT	Y15	122 VU
ANTI-ICE PROBES 3 AOA	Z15	122 VU
ANTI-ICE PROBES 3 PITOT	Z16	122 VU
ANTI-ICE PROBES 3 STATIC	Z14	122 VU
ANTI-ICE PROBES PHC 3	Y16	122 VU
ANTI-ICE R WSHLD	AF3	123 VU
FOOT WARMER (note 2)	X15	122 VU
RAIN RPLNT CAPT	D1	49 VU
RAIN RPLNT F/O	W11	122 VU
WHC 1	X13	122 VU
WHC2	W13	122 VU
WINDOWS L	X14	122 VU
WINDOWS R	W14	122 VU
WING CTL	C2	49 VU
WING MONG	C1	49 VU
WIPER CAPT	X12	122 VU
WIPER F/O	W11	122 VU

Notes:

- | | | | |
|--------------------------|--------------------------|--------------------------|----------|
| (1) A320 | (2) for A320-211 | (3) A320-214 | (4) A319 |
| (5) for A319 till CS-TTG | (6) for A319 till CS-TTL | (7) for A319 from CS-TTH | |
| (8) for A319 from CS-TTM | | | |

LIST OF CIRCUIT BREAKERS (Cont.)

EIS	C/B	PANEL
AIDS – DMU & DAR	K15	121 VU
CFDS – CFDIU BACK-UP	J17	121 VU
CFDS – CFDIU SPLY	J18	121 VU
CFDS TEST PLUG 1	J19	121 VU
CFDS TEST PLUG 2	J20	121 VU
CLOCK STBY SPLY	N3	121 VU
DATA LOADER SPLY (notes 3, 4)	J16	121 VU
DLS & DLBR SPL Y (notes3,7)	J15	121 VU
DMC 1SPLY	E11	49 VU
DMC 1 SWIG	E9	49 VU
DMC 2 SPLY	Q8	121 VU
DMC 2 SWTG	R8	121 VU
DMC 3 SPLY	Q9	121 VU
DMC 3 STBY SPLY	E10	49 VU
DMC 3 SWTG	E7	49 VU
ECAM CTL PNL	E12	49VU
ECAM DU LOWER SPLY	R11	121 VU
ECAM DU LOWER SWTG	R10	121 VU
ECAM DU UPPER SPLY	E5	49 VU
ECAM DU UPPER STIG	E6	49 VU
FWC 2 SPLY	Q7	121 VU
GPWS (115 VAC)	P7	121 VU
GPWS (28 VDC)	P6	121 VU
ND CAPT SPLY	E1	49 VU
ND CAPT SWTG	E2	49 VU
NDF/O	R4	121 VU
ND F/O SWTG	R6	121 VU
PFD CAPT SPLY	E3	49 VU
PFD CAPT SWTG	E4	49 VU
PFD F/O	R3	121 VU
PFD F/O SWTG	R5	121 VU
PTR SPLY	J21	121 VU
RCDR-ACCLRM	K18	121 VU
RCDR - DFDR	K16	121 VU
RCDR - FDIU & QAR	K17	121 VU
RLY BOX CAPT	E8	121 VU
RLY BOX F/O	R7	121 VU

Notes:

- | | | | |
|--------------------------|--------------------------|--------------------------|----------|
| (1) A320 | (2) for A320-211 | (3) A320-214 | (4) A319 |
| (5) for A319 till CS-TTG | (6) for A319 till CS-TTL | (7) for A319 from CS-TTH | |
| (8) for A319 from CS-TTM | | | |

LIST OF CIRCUIT BREAKERS (Cont.)

EIS (Cont.)

	C/B	PANEL
SDAC1 & 2 28 VDC ESS BUS	F5	49 VU
SDAC1 & 2 BUS 1	P4	121 VU
SDAC1 & 2 BUS 1	Q4	121 VU
SDAC1 & 2 BUS 2	P3	121 VU
SDAC1 & 2 BUS 2	Q3	121 VU
SDAC 1 & 2 DOOR DET AVNCS	P2	121 VU
SDAC 1 & 2 DOOR DET PAX	P5	121 VU
SDAC 1 SPLY	F4	49 VU
SDAC 2 BUS 1	Q5	121 VU
SDAC 2 BUS 2	Q2	121 VU
SDAC 2 SPLY	Q6	121 VU
SDAC 2 SYN CBUS	F3	49 VU

LANDING GEAR

	C/B	PANEL
BRAKING & STEERING SYS 1 CTL	M34	121 VU
BRAKING & STEERING SYS 1 IND & SPLY	M33	121 VU
BRAKING & STEERING SYS 2 SPLY (notes 3, 4)	M36	121 VU
BRAKING & STEERING SYS 2 CTL	M35	121 VU
BRK FAN CTL	M32	121 VU
BRK FAN WHEELS 1 & 2	L32	121 VU
BRK FAN WHEELS 3 & 4	L35	121 VU
BRK TEMP DET UNIT	M37	121 VU
LGCIU SYS 1	C9	49 VU
LGCIU SYS 1 GND SUPPLY	Q34	121 VU
LGCIU SYS 2	Q35	121 VU
PARK BRK CTL NORM	N36	121 VU
PARK BRK CTL STBY	N37	121 VU
TIRE PRESS (note 2)	M31	121 VU
Y BRK PRESS IND	C10	49 VU

Notes:

- | | | | |
|--------------------------|--------------------------|--------------------------|----------|
| (1) A320 | (2) for A320-211 | (3) A320-214 | (4) A319 |
| (5) for A319 till CS-TTG | (6) for A319 till CS-TTL | (7) for A319 from CS-TTH | |
| (8) for A319 from CS-TTM | | | |

LIST OF CIRCUIT BREAKERS (Cont.)

LIGHTS	C/B	PANEL
ANN LT SPLY XFMR BUS 1	X4	122 VU
ANN LT SPLY XFMR BUS 2	X5	122 VU
ANN LI SPLY XFMR STAT INV	X3	122 VU
AVNCS COMPT DOME	Z7	122 VU
AVNCS COMPT OUT (115 VAC)	Z9	122 VU
AVNCS COMPI OUT (28 VDC)	Z8	122 VU
BEACON LOWER	U3	122 VU
BEACON UPPER	U6	122 VU
CABIN EMER LT	V7	122 VU
CKPT DOME	Y6	122 VU
EMER LT CABIN	H5	49 VU
EMER LT CABIN	H6	49 VU
EMER LT CABIN	H7	49 VU
EMER LT CKPT DOME	H8	49 VU
EXT LT WING & ENG SCAN L	W2	122 VU
EXT LT WING & ENG SCAN R	W3	122 VU
FLOOD CAPT SIDE	Z5	122 VU
SDAC1 26VAC AC ESS	F2	49 VU
FLOOD CTR INST PNL	Z4	122 VU
FLOOD F/O SIDE	Z6	122 VU
INST LT MAIN INST GLARE SHLD	Y5	122 VU
INST LT MAIN INST OVHD PNL	Y3	122 VU
INST LT MAIN INST PNL & PED	Y4	122 VU
LANDING LT L CTL	T5	122 VU
LANDING LT L SPLY	T4	122 VU
LANDING LT R CTL	T7	122 VU
LANDING LT R SPLY	T6	122 VU
LOGO L	V3	122 VU
LOGO R	V2	122 VU
NAV 1 & LOGO LT	T3	122 VU
NAV 2 & LOGO LT	T2	122 VU
RWY TURN OFF L	W6	122 VU
RWY TURN OFF R	W5	122 VU
STBY COMP LT	H4	49 VU
TAXI & TAKE OFF - CTL	W9	122 VU
TAXI & TAKE OFF - TAXI	W8	122 VU
TAXI & TAKE OFF - TO	W7	122 VU
TST BOARD SPLY	X6	122 VU
WHL WELL LTG DOME	X8	122 VU
WHL WELL LTG OUT	X7	122 VU
WING STROBE	V5	122 VU
XFMR 115V.5V ESS BUS	H3	49 VU

Notes:

(1) A320 (2) for A320-211 (3) A320-214 (4) A319 (5) for A319 till CS-TTG
 (6) for A319 till CS-TTL (7) for A319 from CS-TTH (8) for A319 from CS-TTM

LIST OF CIRCUIT BREAKERS (Cont.)

NAV	C/B	PANEL
ADF 1	H14	49 VU
ADF 2 (note 1)	K2	121 VU
ADIRU 1 & AOA 1 26 VAC	F7	49 VU
ADIRU 1 (115 VAC)	F6	49 VU
ADIRU 2 (115 VAC)	N7	121 VU
ADIRU 2 (26 VAC & AOA)	N9	121 VU
ADIRU 2 (28 VDC)	N5	121 VU
ADIRU 2 PWR SHED	N11	121 VU
ADIRU 3 (115 VAC)	N6	121 VU
ADIRU 3 (26 VAC & AOA)	N8	121 VU
ADIRU 3 (28 VDC)	N4	121 VU
ADIRU 3 SWTG SPLY	F9	49 VU
ADIRU 3 SWTG SPLY	N10	121 VU
ATC 1	G11	49 VU
ATC 2	K7	121 VU
DME 1	G14	49 VU
DME 2	K6	121 VU
ILS 1 (notes 2, 4)	G12	49 VU
ILS 2 (notes 2, 4)	K9	121 VU
MMR 1 (notes 3, 4)	GI2	49 VU
MMR 2 (notes 3, 4)	K9	121 VU
RAD ALTM 1	K11	121 VU
RAD ALTM 2	K12	121 VU
RADAR 1	K13	121 VU
RADAR 2 (notes 3, 4)	K14	121 VU
STBY ALTM	F14	49 VU
STBY HORIZON	F12	49 VU
TCAS	K10	121 VU
VOR / ADF / DME RMI	F13	49 VU
VOR1	G13	49 VU
VOR2	K8	121 VU

Notes:

- | | | | |
|--------------------------|--------------------------|--------------------------|----------|
| (1) A320 | (2) for A320-211 | (3) A320-214 | (4) A319 |
| (5) for A319 till CS-TTG | (6) for A319 till CS-TTL | (7) for A319 from CS-TTH | |
| (8) for A319 from CS-TTM | | | |

LIST OF CIRCUIT BREAKERS (Cont.)

OXYGEN

	C/B	PANEL
CREW OXY SPLY	HA1	49 VU
PASSENGER ACTUATION	HA5	49 VU
PASSENGER ACTUATION	HA6	49 VU
PASSENGER ACTUATION	HA7	49 VU
PASSENGER ACTUATION	HA8	49 VU
PASSENGER CTL & WARN	HA2	49 VU
PASSENGER CTL & WARN	HA3	49 VU
PASSENGER CTL & WARN	HA4	49 VU

PNEU

	C/B	PANEL
AIR BLEED ENG 1 CTL	D12	49 VU
AIR BLEED ENG 1 MONG	D11	49 VU
AIR BLEED ENG 2 CTL	Z23	122 VU
AIR BLEED ENG 2 MONG	Z22	122 VU
X FEED VALVE BAT	D13	49 VU
X FEED VALVE NORM	Z20	122 VU

APU

	C/B	PANEL
APU CTL	L42	121 VU
APU OIL HTR SPLY (notes 3, 4)	K41	121 VU
AUTO EXTIG GND TEST	L40	121 VU
ECB SPLY	L41	121 VU
FIRE & OVHT DET LOOP A	L43	121 VU
FIRE & OVHT DET LOOP B	L44	121 VU
FIRE EXTIG SQUIB A	L38	121 VU
FIRE EXTIG SQUIB B	L39	121 VU
FIRE LP VALVE NORM	M42	121 VU
FIRE LP VALVE STBY	M41	121 VU
FUEL BLOW OFF CTL	K39	121 VU
FUEL BLOW OFF PUMP	B14	49 VU
FUEL LP VALVE CTL	M40	121 VU
FUEL LP VALVE SPLY	M39	121 VU
FUEL PUMP CTL	M38	121 VU

Notes:

- | | | | |
|--------------------------|--------------------------|--------------------------|----------|
| (1) A320 | (2) for A320-211 | (3) A320-214 | (4) A319 |
| (5) for A319 till CS-TTG | (6) for A319 till CS-TTL | (7) for A319 from CS-TTH | |
| (8) for A319 from CS-TTM | | | |

LIST OF CIRCUIT BREAKERS (Cont.)

DOORS

	C/B	PANEL
DOORS/CARGO	T12	122 VU
DOORS/PAX MONG (note 2)	T13	122 VU
SLIDES ARM & WARN FLT	P11	121 VU
SLIDES ARM & WARN GND	P10	121 VU

ENG

	C/B	PANEL
ENG 1 & 2 EVMU	R44	121 VU
ENG 1 & 2 FIRE EXTIG BTL 1 SQWIB A	Q43	121 VU
ENG 1 & 2 FIRE EXTIG BTL 1 SQWIB B	Q44	121 VU
ENG 1 & 2 FIRE EXTIG BTL 2 SQWIB A	Q41	121 VU
ENG 1 & 2 FIRE EXTIG BTL 2 SOWIB B	Q42	121 VU
ENG 1 & 2 IGN SYS A	A3	49 VU
ENG 1 FADEC A & EIU 1	A4	49 VU
ENG 1 FADEC B & EIU 1	R41	121 VU
ENG 1 FIRE DET LOOP A	A6	49 VU
ENG 1 FIRE DET LOOP B	Q38	121 VU
ENG 1 HP FUEL SOV	A1	49 VU
ENG 1 OIL CHIP DET (notes 3, 4)	N38	121 VU
ENG 1 OIL PRESS	N40	121 VU
ENG 1 OIL QTY	N39	121 VU
ENG 1 REV LOCK (notes 3, 4)	N44	121 VU
ENG 2 FADEC A & EIU2	A5	49 VU
ENG 2 FADEC B	Q40	121 VU
ENG 2 FIRE DET LOOP A	Q39	121 VU
ENG 2 FIRE DET LOOP B	A7	49 VU
ENG 2 HP FUEL SOV	A2	49 VU
ENG 2 OIL CHIP DET (notes 3, 4)	N43	121 VU
ENG 2 OIL PRESS	N42	121 VU
ENG 2 OIL QTY	N41	121 VU
ENG 2 REV LOCK (notes 3,4)	N45	121 VU
IGN ENG 1 SYS A BAT	P39	121 VU
IGN ENG 1 SYS B	P41	121 VU
IGN ENG 2 SYS A BAT	P40	121 VU
IGN ENG 2 SYS B	P42	121 VU

Notes:

- | | | | |
|--------------------------|--------------------------|--------------------------|----------|
| (1) A320 | (2) for A320-211 | (3) A320-214 | (4) A319 |
| (5) for A319 till CS-TTG | (6) for A319 till CS-TTL | (7) for A319 from CS-TTH | |
| (8) for A319 from CS-TTM | | | |

LIST OF CIRCUIT BREAKERS (Cont.)

FWD GALLEY	C/B	PANEL
AIR CONDT COMPT OUTLET	G8	CEILING
CABIN LIGHT POWER CEILING AFT	H7	CEILING
CABIN LIGHT POWER CEILING AFT	H8	CEILING
CABIN LIGHT POWER CEILING FWD	H5	CEILING
CABIN LIGHT POWER CEILING FWD	H6	CEILING
CABIN LIGHT POWER WINDOW AFT	H3	CEILING
CABIN LIGHT POWER WINDOW AFT	H4	CEILING
CABIN LIGHT POWER WINDOW FWD	H1	CEILING
CABIN LIGHT POWER WINDOW FWD	H2	CEILING
CONVERTIBLE SEATS	D3	CEILING
CONVERTIBLE SEATS	D5	CEILING
CONVERTIBLE SEATS	D8	CEILING
LAV FWD HOT WATER	F2	CEILING
LAV FWD OCCUPIED	F1	CEILING
LIGHT ATTND WORK	J3	CEILING
LIGHT CABIN ENTRY	J2	CEILING
LIGHT CARGO COMP AFT	J7	CEILING
LIGHT CARGO COMP FWD	J6	CEILING
LIGHT LAV	J1	CEILING
LIGHT LDG AREA	J8	CEILING
PASSENGER READING LIGHT	G1	CEILING
PASSENGER READING LIGHT	G2	CEILING
PASSENGER READING LIGHT	G3	CEILING
PASSENGER READING LIGHT	G4	CEILING
PASSENGER READING LIGHT	G5	CEILING
PASSENGER READING LIGHT	G6	CEILING
PES PVIS	C6	CEILING
PES VIDEO CABIN LH	C3	CEILING
PES VIDEO CABIN RH	C4	CEILING
PES VIDEO VCC CTL	C1	CEILING
PES VIDEO VCC CTL	C2	CEILING
POT / WASTE WIP DRAIN MAST FWD	B6	CEILING
POT / WASTE WIP HEATHER CTL	A1	CEILING
POT / WASTE WIP HEATHER LINE	A2	CEILING
PRAM	E1	CEILING
SEMI AUTO CLS FWD	E6	CEILING
SEMI AUTO CLS FWD	E8	CEILING
VACUUM CLEANER SOCKET CABIN Z222	F7	CEILING

Notes:

(1) A320	(2) for A320-211	(3) A320-214	(4) A319
(5) for A319 till CS-TTG	(6) for A319 till CS-TTL	(7) for A319 from CS-TTH	
(8) for A319 from CS-TTM			42

LIST OF CIRCUIT BREAKERS (Cont.)

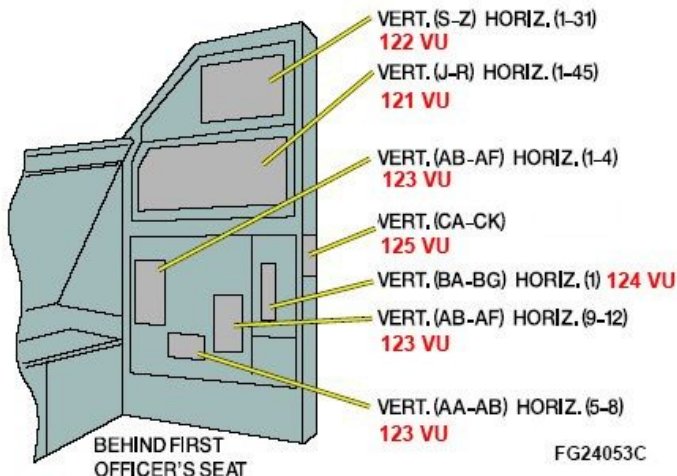
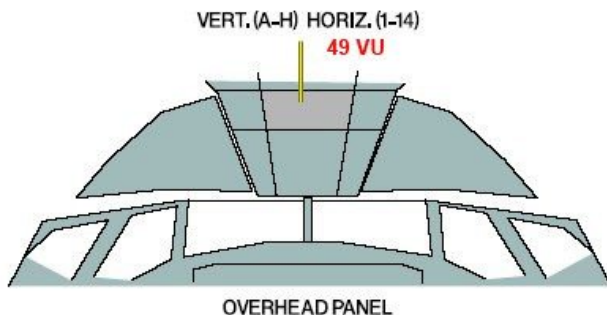
AFT GALLEY	C/B	PANEL
LAVATORY AFTER HOT WATER D	B2	CEILING
LAVATORY AFTER HOT WATER E	B3	CEILING
LAVATORY AFTER OCCUPIED	B4	CEILING
LAVATORY SHAVER SOCKET	B1	CEILING
LIGHT APU	E8	CEILING
LIGHT SEC19	E7	CEILING
POT WIP SVCE PANEL	D1	CEILING
SEMI AUTO CLS AFT	D6	CEILING
SEMI AUTO CLS AFT	D8	CEILING
VACUUM CABIN Z261	F6	CEILING
VACUUM GEN	A8	CEILING
VACUUM SYSTEM	A6	CEILING
VACUUM TOILET SYSTEM LAVATORY PWR	A2	CEILING
VACUUM TOILET SYSTEM LAVATORY PNR A	A1	CEILING
VACUUM TOILET SYSTEM LAVATORY PWR D	A3	CEILING
VACUUM TOILET SYSTEM LAVATORY PWR E	A4	CEILING
WASTE WIP DRAIN MASTE AFT	E1	CEILING
WATER SYST DRAIN	B5	CEILING

Notes:

(1) A320	(2) for A320-211	(3) A320-214	(4) A319
(5) for A319 till CS-TTG	(6) for A319 till CS-TTL	(7) for A319 from CS-TTH	
(8) for A319 from CS-TTM			43

Circuit breakers (C/Bs) are located in two areas of the cockpit, the aft portion of the overhead panel, and on the bulkhead behind the first officer.

C/Bs located on the aft portion of the overhead panel are associated with systems and components which are powered during the emergency electrical configuration.



C/Bs located on the bulkhead behind the first officer are associated with the remaining systems and components.

In addition, C/Bs are located on the ceiling of each galley area and on the first officer's side of the cockpit entry door frame.

COM procedures may require the pilot to locate a circuit breaker. Circuit breaker locations are described by letters (vertical reference) and numbers (horizontal reference).

**Please refer also to pages listed below.
Additional information, different style.**

CHAPTER 21: AIR CONDITIONINGRef Only

PACK TEMP CONT	PACK #1	122VU	X21	28VDC	30 SEC POWER-
		122VU	X22	115VAC	UP TEST
	PACK #2	122VU	W21	28VDC	30 SEC POWER-
		122VU	W22	115VAC	UP TEST

PACK TEMP CONT (NOTE 1)	PACK #1	122VU	Y19	28VDC	30 SEC POWER-
		REG FAULT 122VU	Y18	115VAC	UP TEST

(NOTE 1)	PACK #2	122VU	Y21	28VDC	30 SEC POWER-
		REG FAULT 122VU	Y20	115VAC	UP TEST

Flow

SYS #1	CTL/IND	49VU(122VU)	D7(V22)	(620-37)
SYS #2	CTL/IND	122VU	V21	
MIXER FLAP		122VU	V22(V23)	(620-37)
RAM AIR INLET		49VU	D10	

ZONE TEMP CONT (OK IN FLT)	SYS #1	122VU	V19	28VDC	36 SEC POWER-
		122VU	V17	115VAC	UP TEST
	SYS #2	122VU	V20	28VDC	36 SEC POWER-
		122VU	V18	115VAC	UP TEST

AEVC

VENT CONT		49VU	D5(D6)	(620-37)	85 SEC POWER-
VENT CONT		49VU	D6(D7)	(620-37)	UP TEST
VENT MONG	P/B OFF	122VU	Y17		
EXTRACT FAN		123VU	AE2		
BLOWER FAN		123VU	AD10		

PRESSURIZATION Do Not Reset in Flt!

CAB PRESS	CONT #1	49VU	D9	1 SEC POWER-
	CONT #2	122VU	Y22	UP TEST
	MANUAL	122VU	Y23	

CHAPTER 21: AIR CONDITIONINGRef Only**Recirc Fans**

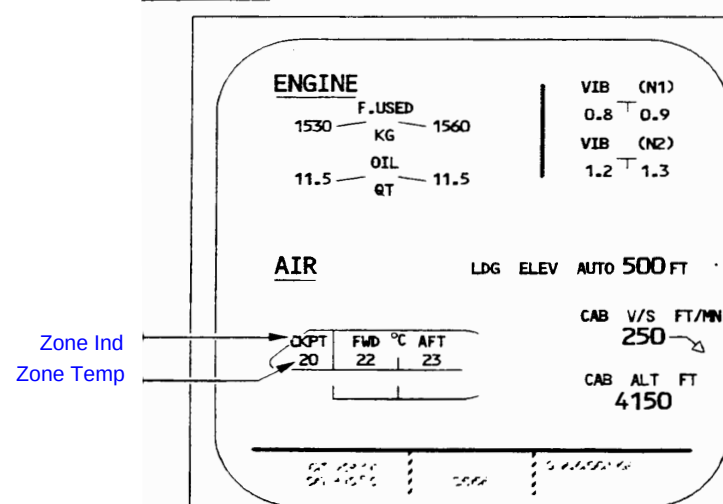
Left (FWD)	SPLY	122VU	X18
	CTRL	122VU	X20
Right (AFT)	SPLY	122VU	W18
	CTRL	122VU	W20

Lav/Galley Vent

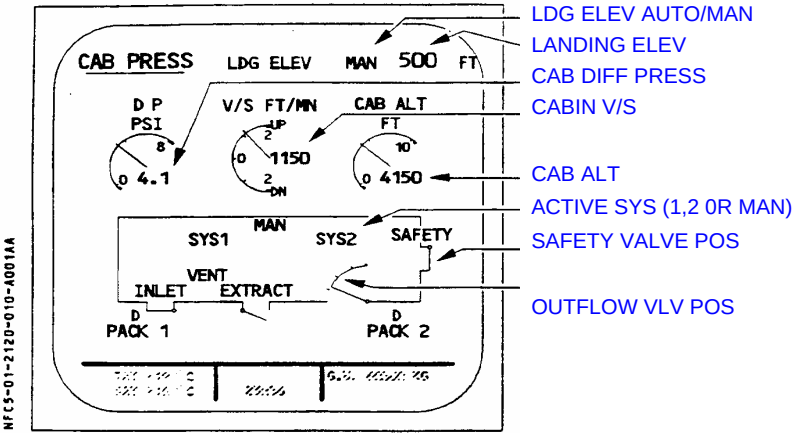
Extract Fan (Note 6)	SPLY	U19
	CTRL	U21

NOTES

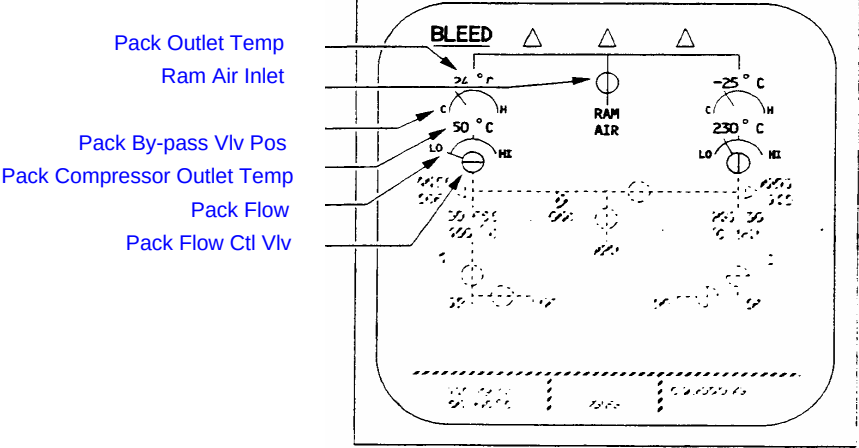
- 1) REG FAULTS CAUSE NO SYS DEGRADATION
SYS 1-RESET Y18 SYS 2-RESET Y20
- 2) DEICING PROBLEMS-NORMALLY RESETS VIA RESET OF Y17
AVIONICS VENT 122 VU Y17
IF NO HELP ACCOMPLISH CFDS AEVC TEST
- 3) TRIM AIR SYS CLASS I-RESET VENT MONG (122VU Y17)
- 4) HOT AIR-SELECT P/B OFF
RESET ALL FOUR ZONE TEMP CONT CBs
- 5) CABIN TRIM AIR VALVE RESET ALL 4 ZONE TEMP CTL CBs
- 6) LAV/GALLEY VENT-EXTRACT FAN FAULT-THERE WILL BE AN
ECAM ADVISORY MESS 'CABIN TEMP FIXED AT 75 DEGREES'
CFDS-SYS REPORT/TEST-AIR COND-AEVC-TEST

CRUISE PAGE

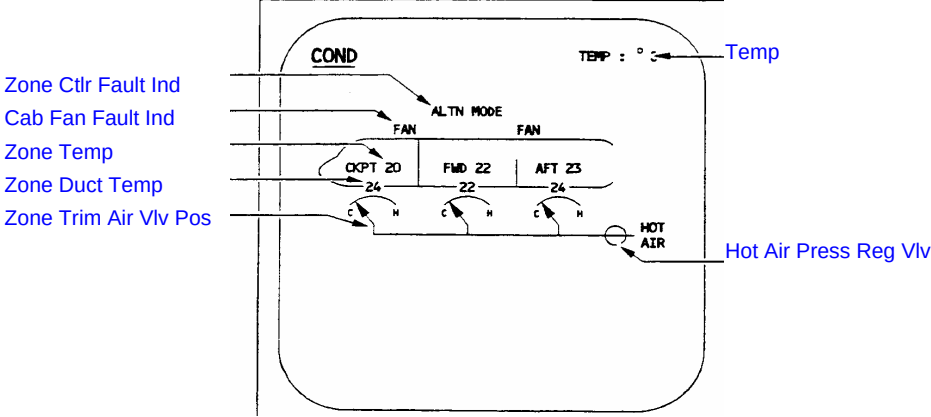
ECAM CAB PRESS PAGE



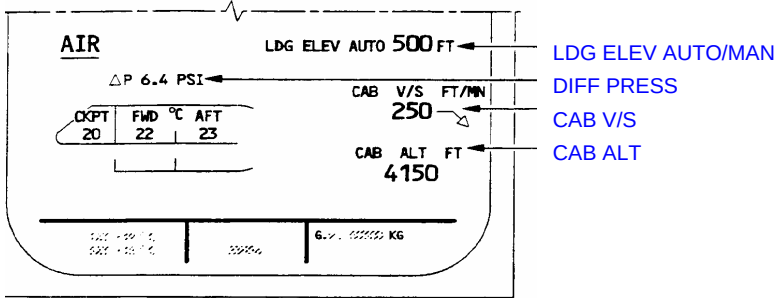
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PAGE



1 CRUISE PAGE



CHAPTER 22: AUTO FLIGHT SYSTEM

FAC (NOTE 4)	SYS #1	49VU	B3	28VDC	90 SEC POWER-
		49VU	B4	28VDC	UP TEST
	SYS #2	121VU	M18	28VDC	
		121VU	M19	28VDC	
FMGC*** (NOTE 6,7)	SYS #1	49VU	B2		2 MIN RESET AND 2 MIN
	SYS #2	121VU	M17		POWER-UP TEST
FCU	SYS #1	49VU	B5	BOTH SYSS PULLED-7 MIN RESET	
	SYS #2	122VU	M21	1 SYS PULLED-1 MIN RESET	
				10 SEC POWER-UP TEST	
MCDU (NOTE 8)	SYS #1	49VU	B1	45 SEC POWER-	
	SYS #2	121VU	N20	UP TEST	
RUDDER	RUDDER ATF FEEL	121VU	N17		
	RUDDER TRIM IND	121VU	M20		
STICK LOCK		121VU	N16		

Ref Only**CHAPTER 22: AUTO FLIGHT SYSTEM**Ref Only**FAULTS**

- 1) YAW DAMP** FAC P/B ON THEN OFF
- 2) WINDSHEAR** A/C STOPPED
SELECT FAC #1 OFF
PULL CB FOR FAC #1
WAIT 30 SEC-RESET CB AND FAC #1
- 3) BARO REF** BOTH FD OFF
PULL FCU SYS #1 CB FOR 10 SEC
- 4) FAC RESET** W/ ENG(s) RUNNING ONLY RESET 1 SYS AT A TIME.
- 5) AUTO PILOT 1(2) FAULT**-TYPICALLY CAUSED BY FMGC FAULT
- 6) FMGC**-VARIFY FMGC FAILURE: CHANGE RANGE ON NAV DISPLAYS.
IF "OFF SIDE RANGE MODE" IS DISPLAYED-RESET APPRPRIATE FMGC.
- 7) FMGC RESET**
 - 1ST TRY FDs OFF. PULL CBs FOR 10 SECs.
 - 2ND TRY
 - A) ENGs SHUT DOWN
 - B) STABLE POWER SOURCE FOR 3 MINs
 - C) BOTH FDs OFF
 - D) PULL FMGC AND MCDU CBs FOR 2 MIN
2 MIN PWR-UP TEST
(WAIT 1 MIN AFTER "PLEASE WAIT" ON MCDU.)
 - 3RD TRY POWER DOWN A/C
- 8) DUAL MCDU** LOCK UP-NORMALLY RESETS VIA MCDU
- 9) AUTO THRUST PROBLEM**- 1ST RESET FCU
2ND RESET FMGC
3RD TURN IRUs OFF AND REALIGN
- 10) DUAL CAT III MESSAGE**-RESET FAC CBs
(Results with loss of 1 FMGC)
- CFDS**-SYS REPORT/TEST-AFS-GND SCAN-GND REPORT
-ASF TEST-(TESTs FAC 1, FAC 2, FMGC 1 & 2)

CHAPTER 23-COMMUNICATIONSRef Only**CIDS (2-3 MIN PWR-UP TST)**

DIR 1&2 ESS	49VU	G2		
DIR 1&2 NORM	121VU	M5		
DIR 1&2 BATT	121VU	(N11)	(618,629-37,643-46,652-62)	
PTP	121VU	M6		
FAP	121VU	M14	(Q14)	(661,all 319s)
DEU B NORM	121VU	M7		
DEU A ESS	49VU	G3		
LINE 1	49VU	G4		
LINE 2	49VU	G5		
DEU A NORM				
L FWD	121VU	M8		
R FWD	121VU	M9		
L MID	121VU	M10		
R MID	121VU	M11		
L AFT	121VU	M12		
R AFT	121VU	M13		
VHF	SYS #1	49VU	G9	10 SEC P/U TEST
	SYS #2	121VU	L4	
	SYS #3	121VU	L5	*IF INSTALLED
ACP	#1 (CAPT)	49VU	G6	1 SEC P/U TEST
	#2 (FO)	49VU	G7	
	#3 (OCCUP)	121VU	M2	
	#4 (AVI COMP)	121VU	M3	*IF INSTALLED
RMP	#1 (CAPT)	49VU	G10	2 SEC P/U TEST
(NOTE 5)	#2 (FO)	121VU	L2	
	#3 (OCCUP)	121VU	L3	
FLT INTERPHONE		49VU	G8	
SELCAL		121VU	M14	
HF	#1	121VU	L10	
	#2-DEACTIVATED	121VU	L13	
EIS HORN		49VU	P09	
AMU/COM	AUDIO-FLT INT	49VU	G8	
	AUDIO-FO	49VU	G7	
	AUDIO-CAPT	49VU	G6	
	NAV/SELCAL	121VU	M4	
	NAV/ACP/3RD	121VU	M2	
PES COM SYS		2000VU	F06	
CABIN COM SYS	PRAM	2000VU	F07	

(2000VU LOCATED FWD GALLEY CEILING)

CHAPTER 23-COMMUNICATIONSRef OnlyNOTES:**1) DEU A-CONTROLS LIGHT, CALL SIGNS, SPEAKERS****DEU B-CONTROLS INTERPHONE, P/A, CALL, EVAC LITES****2) CIDS RESET A320****OPTION A**

PULL G2,M5 (N11 ON A/C 618,629-637,643-46,652-62)

CLOSE AFTER 30 SEC

OPTION B

G2-5,M5-M14, & (N11 ON A/C 618,629-637,643-46,652-62)

WAIT 30 SEC, CLOSE G3-5 AND M6-14

WAIT 30 SEC, CLOSE G2, M5 & (N11)

3) CIDS RESET A319

DIR ESS/1 49VU G01

DIR ESS/2 49VU G02

NORM & BATT 121VU M5,6,P13,14

4) PAX ENTERTAINMENT-RESET CABIN COM SYS PES CB ON

FWD OVERHEAD PANEL (200VU F6)

5) RMP FAULTS-TURN OFF AFFECTED RMP TO RESET**6) CFDS-SYS REPORT/TEST-**

COM-AUDIO-TEST-AMU ACP

-RMP 1(2,3)-TEST

-HF 1 (2)-TEST

-VHF 1 (2,3)-TEST

-CIDS 1(2)-TEST-DIR 1(2)

-CIDS BUS

-DEU A (B)

-NEXT PAGE-P&T PANEL

-CAM

-FWD ATT PNL

-AFT ATT PNL

-ATT IND PNL

-NEXT PAGE-LD SPKRS

-SIGN LTS

-PAX CALL LT

-AREA CALL PNLS

-READING/WRK LTS

-NEXT PAGE-EMER LIGHTING BATT

-DRAIN MASTS

-PES MUSIC

- 7) CIDS (PTP) SYS STS -** SLIDES PRESS LOW-(WILL IND WHICH SLIDE IS LO)
- CIDS OK
 - CONT-DRAIN MASKS OK
 - MAINTENANCE-CONT-CONT-GROUND SCAN
- SYS TEST-** DIR 1 (ACT)
- DIR 2
 - RESET
 - CONT-CIDS BUS
 - DEU A (B)
 - CONT-PROG AND TEST PNL
 - CAM
 - FWD ATT PNL
 - CONT-AFT ATT PNL
 - ATT IND PNLS
 - LOUD SPKRS
 - CONT-SIGN LTS
 - PAX CALL LTS
 - AREA CALL PNLS
 - CONT-READING/WORK LTS
 - EMER LITE BATT
 - DRAINMASTS
 - CONT-PES MUSIC

CHAPTER 24: ELECTRICAL		Ref Only		
GROUND POWER	GPCU	122VU	Y24	1 Sec Pwr-up Test
	GND PWR PROT	123VU	AB7	
	EGIU 1	122VU	Z31	
	EGIU 1	123VU	AA7	
AC BUS 1	CTL	122VU	V25	
	GEN 1 BTC 1 SPLY	122VU	T28	
	GEN 1 BTC 2 SPLY	122VU	T30	
AC BUS 2	CTL	122VU	V27	
	GEN 2 BTC 1 SPLY	122VU	T29	
	GEN 2 BTC 2 SPLY	122VU	T31	
AC ESS	AC BUS MONG	49VU	H11	
	ESS ON BUS 1	123VU	AC12	
	ESS ON BUS 2	123VU	AC1	
	ESS BUS MONG/SPLY	106VU	2XH	
	ESS NORM CNTOR/CTL	106VU	2XC	
	ESS EMER CNTOR/SPLY	106VU	15PC	
	ESS EMER CNTOR/CTL	106VU	5XE	
	ESS EMER CNTOR/CTL	106VU	5XC	
	EMER/STBY CNTOR/SPLY	106VU	10XE	
	SHED/CNTOR/SPLY	106VU	1PH	
	SHED/CNTOR/CTL	106VU	1XH	
	BUS TIE 1/CNTOR	122VU	W25	
DC BUS	BUS TIE 2/APU START	122VU	W31	
	BUS TIE 1 FAULT	122VU	U24	
	BUS 1 & 2 MONG	106VU	68WU	
	ESS BUS TIE CNTR	122VU	W26	REF ASM
AUXILLARY AC	BUS 1 110XP SPLY	123VU	AF11	24-58-03
	BUS 1 101XP SPLY	123VU	AD11	24-58-01
	BUS 1 103XP SPLY	123VU	AB11	24-58-02
	BUS 1 131XP SPLY	123VU	AB12	24-58-04
	BUS 2 210XP SPLY	123VU	AF2	24-58-07
	BUS 2 202XP SPLY	123VU	AD2	24-58-05
	BUS 2 212XP SPLY	123VU	AD3	24-58-08
	BUS 2 231XP SPLY	123VU	AB1	24-58-1-
	BUS 2 204XP SPLY	123VU	AB2	24-58-05
	SVCE BUS 2 SPLY 212XP	123VU	AB5	24-58-08
	SVCE BUS 2 SPLY 214XP	123VU	AA5	24-58-09
	101PP SPLY	125VU	CD	24-68-01
DC	103PP SPLY	125VU	CE	24-68-02
	202PP SPLY	124VU	BG	24-68-03
	204PP SPLY	124VU	BF	24-68-04
	206/208PP SPLY	124VU	BE	24-68-05/06
	601/602PP SPLY	124VU	BB	24-68-10/11
	SVCE BUS 8PP SPLY	124VU	BD	24-68-99

CHAPTER 24: ELECTRICAL		Ref Only		
CONTROL	GCU 1	122VU	T26	1 Sec Pwr-up Test
	GCU 2	122VU	T27	
	APU GCU	122VU	Y25	
	IDG 1 DISC	122VU	T24	
	IDG 2 DISC	122VU	T25	
TRU #1 (NOTE 1)	SPLY	123VU	AB10	
	MONG	122VU	X25	
	CNTOR SPLY	125VU	CF1	
TRU #2 (NOTE 1)	FAULT	122VU	W29	
	SPLY	123VU	AB4	
	MONG	122VU	X26	
ESS TR (TR #3) (NOTE 1 & 2)	CNTOR SPLY	125VU	BC	
	FAULT	122VU	W30	
	SPLY	106VU	4PE	
LIGHTS	CNTOR SPLY	106VU	5PE	
	LT CTRL	49VU	H10	115 VAC
EGIU #1 (Elec Generation Interface Unit)	EXT PWR LT CTRL	122VU	X29	28VDC
	COCKPIT AVAIL	122VU	X28	
	NOT IN USE	122VU	X30	
	AVAIL	122VU	X31	
	GEN 1	122VU	Z30	28VDC
	GEN 1	123VU	AF12	112VAC
	EXT PWR	122VU	Z31	28VDC
EGIU #2	EXT PWR	123VU	AA7	115VAC
	GEN 2	122VU	Y30	28VDC
	GEN 2	123VU	AF12	115VAC
	APU GEN	122VU	Y31	28VDC
	APU GEN	123VU	AA8	115VAC
	AC POWER/SERVICE	122VU	V29	
	DC SERVICE BUS	122VU	X24	
SERVICE BUS	DC BUS ON TR2	122VU	U30	
	TR2 SPLY FROM GND SVCE	123VU	AB8	
	CTRL	105VU	14XB	
STAT INV	SPLY	105VU	12XB	
	(701PP) HOT BUS SPLY	105VU	5PB1	
BAT BUS	(301PP) BAT BUS SPLY	105VU	12PB1	
		125VU	CC	
	BAT REF BCL 1	105VU	9PB1	
	BAT REF BCL 2	105VU	9PB2	
	BAT BUS REF BCL 1	105VU	8PB1	
	BAT BUS REF BCL 2	105VU	8PB2	
EMER	CSM/G EV AUTO	105VU	7XE	
	CSM/G EV MAN	106VU	4XE	
	GEN AUTO 1	122VU	Z25	
	GEN AUTO 2	122VU	Z26	

CHAPTER 24: ELECTRICAL

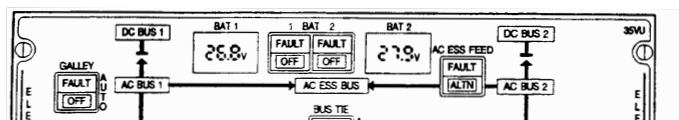
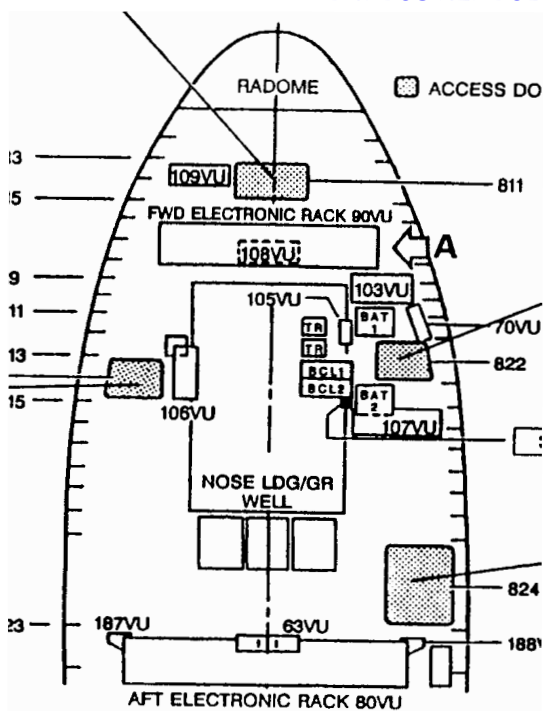
Ref Only

NOTES:

- 1) TRU NORMALLY WILL RESET VIA CFDS
CFDS:SYS REPORT/TEST-ELEC-TR1(2,3)-RESET
- 2) ESS TR (TR3)-IF CFDS NO RESET:
BLUE HYD ON
DEPRESS EMER GEN (OVERHEAD-BLACK GUARDED SW)
WHILE GEN IS SPOOLING UP-DEPRESS RED GUARDED
BUTTON ON 103VU TO RESET.
- 3) ENG 1(2) GEN ON LINE (GREEN LINE) AND/OR
PARAMETERS NOT SHOWN:
ENG MUST BE DOWN-RESET GCU 1(2) CB T26(T27)
- 4) NO "AVAIL" GREEN LEGEND DISPLAYED ON "EXT PWR" P/B SW:
ENG AND APU SHUT DOWN. GND PWR CONNECTED
RESET GPCU Y24.

5) BATTERY CHARGE LIMITER (BCL) 1(2) FAULT

- A) CYCLE APPROPRIATE BATTERY SW.
- B) IF NO HELP: RESET
BAT REF BCL 1 (105VU)
BAT BUS REF BCL1 (105VU)
BAT REF BCL 2 (105VU)
BAT BUS REF BCL 2 (105VU)



CHAPTER 24: ELECTRICAL

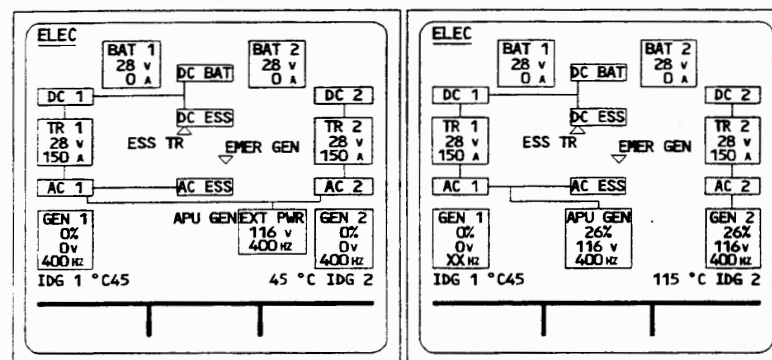
Ref Only

GALLEY

28 VAC ESS SPPLY	106VU	4XH
EMER/G REF	106VU	27WV
GND/FLT LOGIC	122VU	S24
FAULT LT CTL	122VU	S25
CTL	122VU	S26
GALLEY CNTR	122VU	S28
MAIN FWD FEEDER 'C'	123VU	AE10
MAIN FWD FEEDER 'E'	123VU	AC10
FWD FEEDER "D"	123VU	AD4
MAIN AFT FEEDER "A"	123VU	AF4
MAIN AFT FEEDER "E"	123VU	AF9
MAIN AFT FEEDER "B"	123VU	AD9

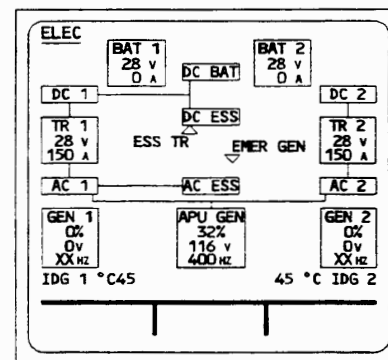
ON GROUND

Either the APU generator or external power may supply the complete system.

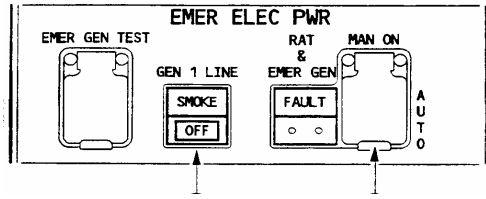
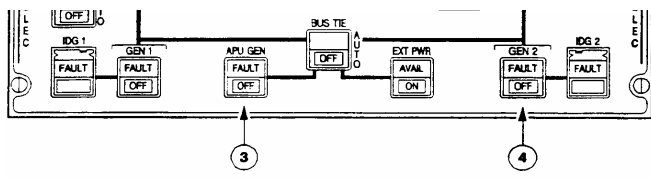


EXTERNAL POWER ONLY

APU GEN + GEN 2



APU GEN ONLY



CHAPTER 25: EQUIPMENT

Ref Only

PRAM

2000VU

F07

CB's OUT FOR AT LEAST 3 MIN

(Prerecorded Announ Module)

MUSIC TAPE REPRODUCER SYS

2000VU

CAB COM SYS VIDEO

CONT

2001VU

L CABIN

2001VU

R CABIN

2001VU

7 MIN PWR-UP TEST. ALSO

CIDS TESTING FOR 3 MIN

FOR DEUs, SEBs, PSUs X-CHK

PAX ENTR SYS T/S GUIDE

VACUUM CLEANER

CABIN

2000VU

CARGO

2001VU

LAV SHAVER SOCKET

2001VU

COCKPIT CREW SEATS

CTL CAPT

122VU

U11

CTL F/O

122VU

U14

(Additional CBs Located Under Each Seat on the Control Box)

NOTES:

2000VU LOCATED FWD GALLEY CEILING

2001VU LOCATED AFT GALLEY CEILING

CHAPTER 26: FIRE PROTECTIONRef Only

ENG #1 DET	LOOP A	49VU	A6	1 MIN PWR- UP TEST
	LOOP B	121VU	Q38	
ENG #2 DET	LOOP A	121VU	Q39	
	LOOP B	49VU	A7	
FIRE BOTTLE #1	SQUIB A	121VU	Q43	
	SQUIB B	121VU	Q44	
FIRE BOTTLE #2	SQUIB A	121VU	Q41	
	SQUIB B	121VU	Q42	
APU DETECTION	LOOP A	121VU	L43	
	LOOP B	121VU	L44	
APU BOTTLE	SQUIB A	121VU	L38	
	SQUIB B	121VU	L39	
AVIONIC SMOKE	AEVC	122VU	Y17 (MONG)	
		49VU	D6	
		49VU	D7	

NOTE: AVIONIC SMOKE DETECTION ACTIVATES GEN 1 SMOKE

LAV FIRE (SDCU)	CHAN 1	49VU	C6 (T17)	(620-637)
	CHAN 2	122VU	T18	

NOTES:

- 1) FWD & AFT CARGO DET MESSAGES-RESET SDCU CHAN 1 & CHAN 2.
- 2) LAV SMOKE DETECT-RESET SDCU CHAN 1 AND CHAN 2
- 3) SDCU RESETS IN FLT-RESET ONE AT A TIME SO THAT SMOKE DETECTION ABILITY IS NOT LOST.
 - A) PULL SDCU CHANNEL 1 FOR 5 SECS
 - B) RESET-WAIT 2 MIN
 - C) REPEAT FOR CHANNEL 2

CHAPTER 27: FLIGHT CONTROLS

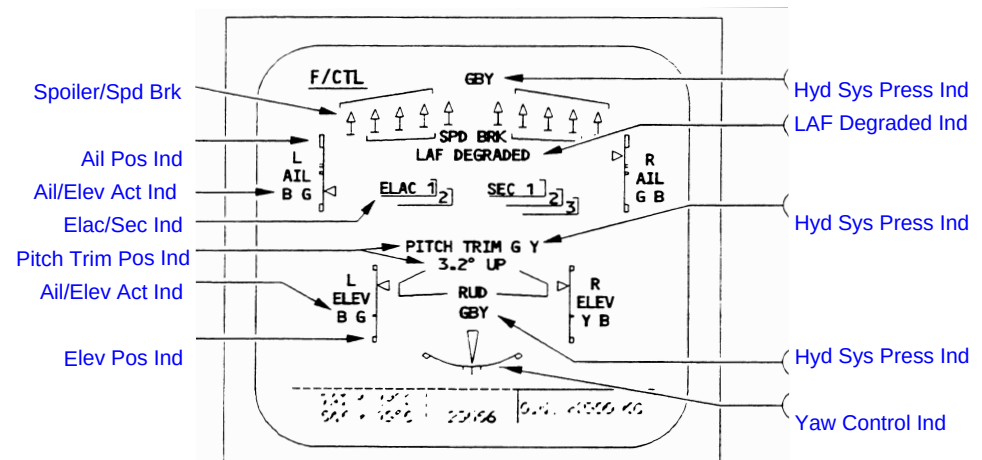
ELAC #1	NORM SPLY	49VU	B11
	STBY SPLY	*105VU	A02
ELAC #2	NORM SPLY	121VU	R20
	STBY SPLY	*105VU	A01
SEC #1 (HYD OFF)		49VU	B8
	STBY SPLY	*105VU	B01
SEC #2		121VU	Q18
SEC #3		121VU	Q19
FCDC #1		49VU	B10
FCDC #2	(MEL 27-95-01)	121VU	Q20
SFCC			
***SLATS	SYS 1 CTL/MONG	49VU	B6
	SYS 2 CTL/MONG	121VU	R21
***FLAPS	SYS 1 CTL/MONG	49VU	B7
	SYS 2 CTL/MONG	121VU	Q21
**** DO NOT RESET BOTH FLAP OR SLAT SYSs AT ONCE THIS WILL CAUSE WTB LOCK!			
SLT/FLP #1	POS IND	49VU	B12
SLT/FLP #2	POS IND	121VU	P16
THS	THS ACT MOT #1	121VU	Q16
	THS ACT MOT #2	49VU	B9
	THS ACT MOT #3	121VU	Q17
WTB	SYS #1 SLT	122VU	S6
	FLP	122VU	S7
	SYS #2 SLT	121VU	P19
	FLP	121VU	P20
RUDDER	TRIM IND	121VU	M20 (M22)
	TRAVEL	SEE AUTO FLIGHT-FAC1 (2)	

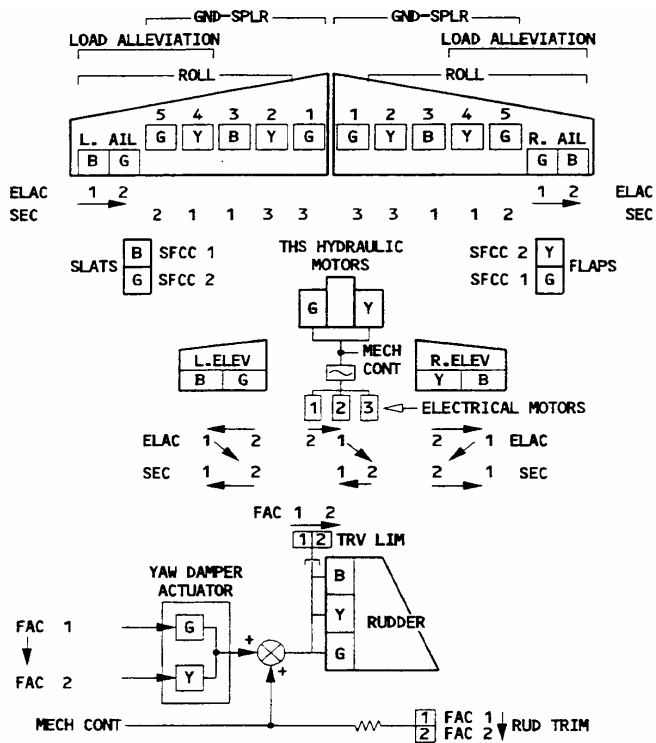
Ref Only

8 Sec Pwr-
up Test
*105VU LOCATED
FWD R TOP BY BATT
18 Sec Pwr-
up Test
20 Sec Pwr- (OK to Re-
up Test Set in Flt)

CHAPTER 27: FLIGHT CONTROLS**Ref Only****NOTES:**

- 1) #2 SFCC MEL 27-51-1 Will Cause CONT IGNITION and Hi IDLE of #2 ENG
- 2) YAW DAMPER 1(2) AND RTL 1 (2) - CYCLE FAC 1 (2) P/B
- 3) CLASS II YAW DAMP-RESET FAC 1 or 2 with HYD ON.
EITHER W/ PUSH BUTTONS OR CBs
(REF ATA 22 FOR CBs)
- 4) ELAC 1(2) PITCH FAULT (PRI ELEV CTL) IF OCCURS ON PWR XFER-RESET
ELAC 1(2) SW & PERFORM FLT CTL CK VIGOROUSLY FROM BOTH SIDES
- 5) ELAC PITCH FAULT (#1 CAN BE MEL) A) BOTH ELACS OFF. BACK ON.
BOTH SECS OFF. BACK ON.
B) SET PAKING BRAKE
HYDRAULICS OFF
RESET ELAC P/Bs
PRESSURIZE HYDRAULICS
- 6) PFR WARN MESSAGE: F/CTL SIDESTICK PRIORITY with
ASSOCIATED FAULT: CHECK PRIORITY WIRING
MAINTENANCE ACTION: RESET BOTH ELACS' CBs FOLLOWED
BY SIDESTICK PRIORITY TEST.
**PULL ALL 4 ELAC CBs (2 ARE ON 105VU)
- 7) SLATS USE B & G HYD
FLAPS USE Y & G HYD
- 8) FLT CTL LOCKED OUT-WING TIP BRAKE (WTB) RESET VIA CFDS
- 9) SLOW SLATS OR FLAPS-RESET APPROPRIATE SFCC CTL MONG CBs
1 AT A TIME! IF BOTH PULLED SAME TIME WILL LOCKOUT WTB.
(#1 PROVIDES AMBER UPPER ECAM IND-RESET SYS 1)
IF GREEN-RESET SYS 2)
- 10) FLT CTL MESS W/ L(R) AIL-LAF DEGRADE MESS-RESET ELAC 1(2) CBs
- 11) AMBER SPOILERS ON FLT CTL PAGE WITH NO SEC FAILURES
PRESSURIZE ALL THREE HYD SYS (SHOULD CLEAR)
CYCLE SIDE STICK TO VERIFY.





CHAPTER 28: FUEL

FQI	CHANNEL 1	49VU	A13	PULL L26 FIRST
	CHANNEL 2	121VU	M27	RESET LAST. 80
	CHANNEL 1 & 2	121VU	L26	Sec Pwr-up Test
	* IF BOTH CHANNELS RESET AT THE SAME TIME, OUTBD XFER VLVS WILL OPEN AND SLIGHT AMOUNT OF FUEL WILL XFER. VLV OPERATION CAN BE MONITORED ON ECAM FUEL PAGE			
PUMPS				
L WING	PUMP 1 STBY SPLY	123VU	AD12	
	CONT 1L	121VU	R23	
	CONT 2L	121VU	R24	
	IND	121VU	R28 & R29	
	PUMP 1 SPLY	121VU	N23	
	PUMP 2 SPLY	121VU	N26	
R WING	PUMP 1 STBY SPLY	123VU	AE12	
	CONT 1R	121VU	R28	
	CONT 2R	121VU	R29	
	IND	121VU	R23 & R24	
	PUMP 1 SPLY	121VU	Q23	
	PUMP 2 SPLY	121VU	Q26	
CENTER	CONT & IND	121VU	R25 & R26	
	AUTO CTL	121VU	R27	
	PUMP 1 SPLY	121VU	P23	
	PUMP 2 SPLY	121VU	P26	
	MOT 1	49VU	A12	
	MOT 2	121VU	M24	
X-FEED				
X-FER	VALVE 1 LEFT	49VU	A10	
	VALVE 2 LEFT	121VU	M22	
	VALVE 1 RIGHT	49VU	A11	
	VALVE 2 RIGHT	121VU	M23	
ENG #1 LP VLV	MOT 1	49VU	A8	
	MOT 2	121VU	M25	
ENG #2 LP VLV	MOT 1	49VU	A9	
	MOT 2	121VU	M26	

Ref Only

CHAPTER 28: FUEL

REFUEL/DEFUE	XFER DEFUEL VLV	121VU	L23
	SPLY	121VU	L24
	HI LEVEL SPLY	121VU	L25
	SMOKE CONFIG PUMP CTL	49VU	A14
MISC.	REFUEL ON BAT	122VU	U28
	REFUEL SPLY LOGIC	122VU	U29
	DC SVC BUS ON TR2	122VU	U30
	REFLG NORM	122VU	S27

Ref Only

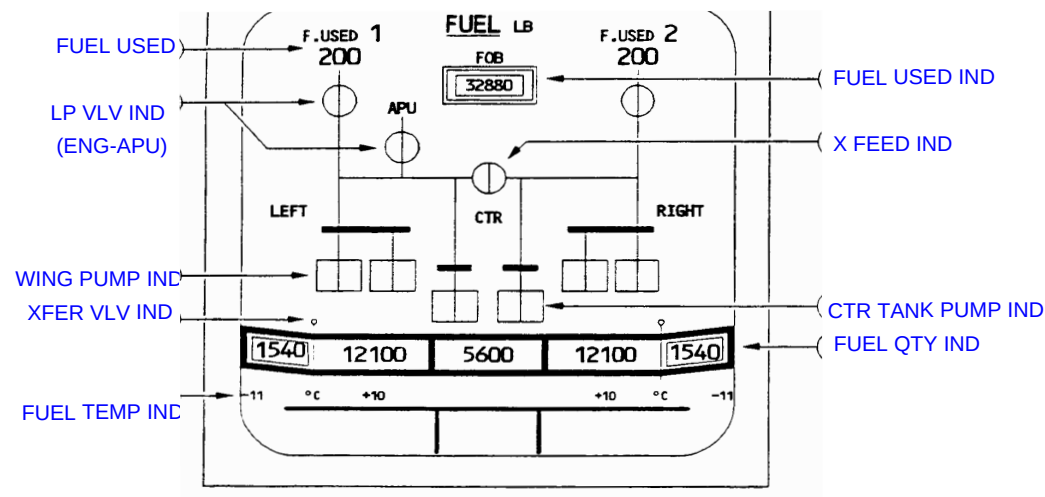
NOTES:

1) FUEL: AUTO FEED FAULT

The fault is indicated if either wing tank quantity becomes less than 11023 lbs when the center tank quantity is above 550 lbs.

2) FUEL BURN SEQUENCE:

- 1ST) CTR TANKS (GREATER CTR PUMP OUTPUT PRESS)
- 2ND) INNER WING TANKS
- 3RD) AT APPROX 1700 IN EITHER INNER TANK- ALL 4 XFER VLVs OPEN AND OUTER WING TANK FUEL FLOWS TO INNER TANKS FOR CONSUMPTION



CHAPTER 29: HYDRAULIC SYSTEMRef Only**GREEN**

G ENG 1 PUMP	MONG	121VU	R34
	CTL	121VU	R35
	FIRE VLV E1	49VU	C13

YELLOW (NOTE 1)

Y ENG 2 PUMP	MONG	121VU	Q37
	CTL	121VU	Q36
	FIRE VLV E2	49VU	C14
Y ELEC PUMP	NORM	123VU	AB3
		123VU	AB6
		121VU	N30

BLUE (NOTE 5)

B ELEC PUMP	123VU	AB9
AIR PSI XMITTER	121VU	P34

(620-37) HYD PWR B WARN & CTL 49VU C12(D14)

PTU (NOTES 2,3) G/Y PTU 121VU N34

INDICATION (620-37) PSI XMITTER 49VU C11(D13)

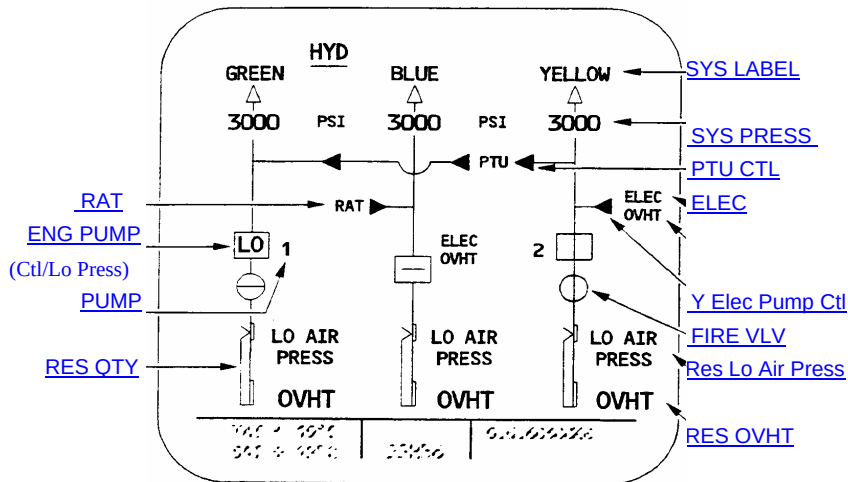
QTY IND	121VU	P35
LOW LVL IND	121VU	N32

RAT CTL 121VU P32

EXTN SOL 1 (MAN) 121VU P33

EXTN SOL 2 (AUTO) SDAC

MISC G/Y/B TEST 121VU N35

**CHAPTER 29: HYDRAULIC SYSTEM**Ref Only**NOTES:****1) YELLOW HYD SYS NEEDS SERVICED-CLOSE CARGO DOORS****2) PTU FAULT (ENGINES RUNNING)****1ST) YELLOW ELEC PUMP "ON"**

WAIT 2 SEC

TURN Y ELEC PUMP "OFF"

2ND) SET BRAKES

BOTH ENG PUMPS "OFF"

Y ELEC PUMP "ON"

PTU P/B "OFF" THEN TO "AUTO"

Y ELEC PUMP "OFF"

ENG PUMPS "ON"

3) PTU FAULT **CAN BE CAUSED BY CARGO DOOR

OPERATION AFTER ENG START

IF NOT RESET G/Y PTU VLV (N34)

PTU FAULTS CAUSED BY CARGO DOOR OPERATION WITHIN

30 SECS AFTER 2ND ENG START AND PTU ECAM FAILURE MESS.

****THIS PROCEDURE WILL NOT RESET REAL PTU**

FALIURES OR HIDE FAULTS THAT DO EXIST IN

THE PTU SYS.

RESET W/ENGs RUNNING

A)RESET MESSAGE USING MASTER CAUTION P/B SW(s)

B) SELECT HYDRO PAGE ON ECAM

C) Y HYD ELEC PUMP ON THEN OFF

D) WAIT MINIMUM OF 30 SECS

E) CYCLE PTU SW ON-OFF-ON.

F) ENG 1 G HYD PUMP OFF

PTU SHOULD OPERATE Y TO G

G) ENG 1 G HYD PUMP ON

H) ENG 2 Y HYD PUMP OFF

PTU SHOULD OPERATE G-Y

I) ENG 2 Y HYD PUMP ON

J) ECAM SHOULD BE NORMAL

4) HYD RES LO PRESS MESSAGE

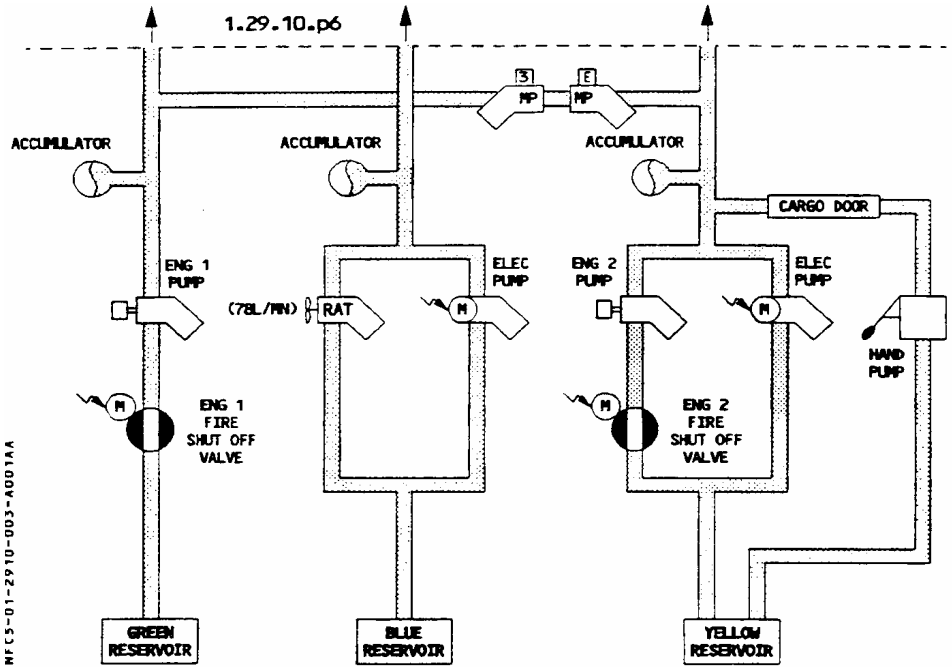
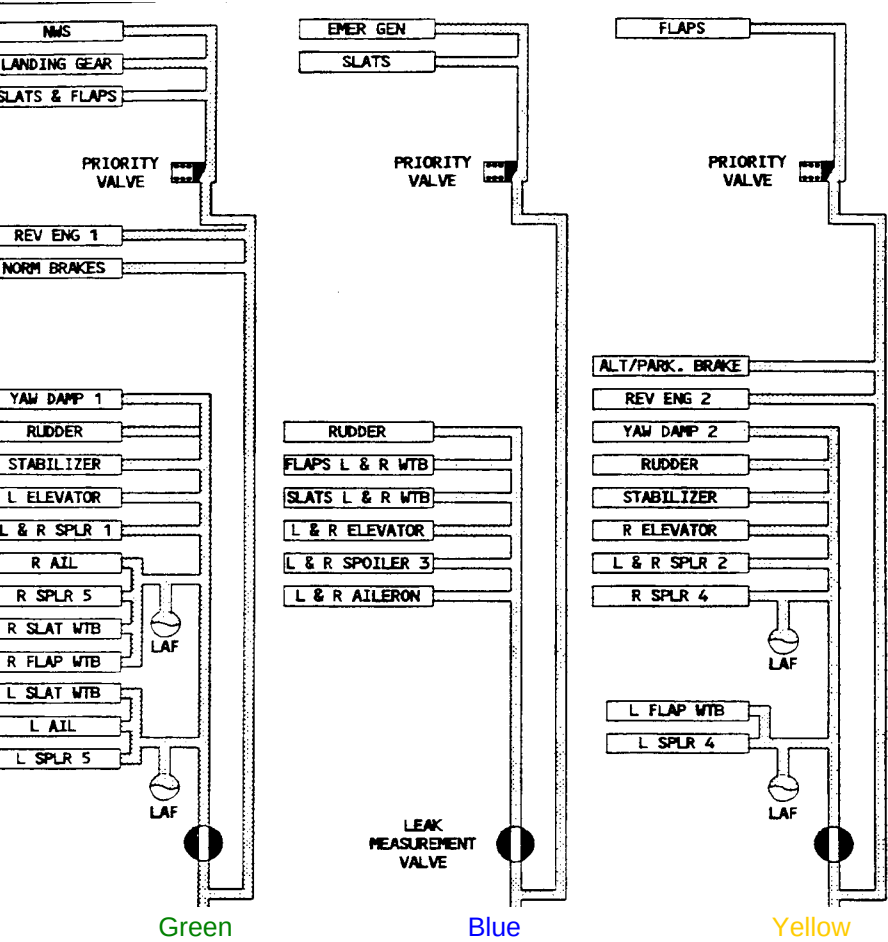
RUN ENG TO PRESS RES (PROBLEM

OCCURS AFTER WORKING HYD SYS)

5) HYD LO PRESS WARNING-ALL 3 SYSs NORM PRESS SWsARE SET AT 37 PSI. THE **BLUE SYS** HAS AN ADDITIONAL

PRESS SW SET AT 45PSI DISPLAYED ON GND ONLY

SYSTEM USERS



CHAPTER 30: ICE & RAINRef Only**CHAPTER 30: ICE & RAIN**Ref Only**PROBES (NOTE 3)**

SYS #1 CAPT	PHC 1	49VU	D3	2 Sec Pwr-
	PITOT 1	49VU	D2	up Test
	AOA 1 (NOTE 1)	49VU	D4	
	TAT 1	122VU	Z12	
	STATIC 1	122VU	Z13	
SYS #2 FO	PHC 2	122VU	Y12	2 Sec Pwr-
	PITOT 2	122VU	Y14	up Test
	AOA 2 (NOTE 1)	122VU	Y13	
	TAT 2	122VU	Y15	
	STATIC 2	122VU	T11	
SYS #3 STBY	PHC 3	122VU	Y16	2 Sec Pwr-
	PITOT 3	122VU	Z16	up Test
	AOA 3 (NOTE 1)	122VU	Z15	
	STATIC 3	122VU	Z14	
ENG-TAT	ENG 1 P2/T2	122VU	Z10	
	ENG 2 P2/T2	122VU	Y10	
	ENG 1 COWL	122VU	X10	
	ENG 2 COWL	122VU	W10	
ENG-A/I	ENG 1	122VU	X10	
	ENG 2	122VU	W10	
WING A/I	CTL	49VU(122VU)	C1 (V15)	(620-37)
	MONG	49VU(122VU)	C2 (V14)	(620-37)
WINDOW (NOTE 2)	WHC #1	122VU	X13 (3)	5 Sec Pwr-
	WINDOWS L	122VU	X14 (2)	up Test
	A/I WSHLD L	123VU	AF10 (1)	RESET
	WHC #2	122VU	W13 (3)	ORDER
	WINDOWS R	122VU	W14 (2)	
	A/I WSHLD R	123VU	AF3 (1)	
RAIN	WIPER CAPT	122VU	X12	
	REPELLANT CAPT	49VU	D1	
	WIPER FO	122VU	W12	
	REPELLANT FO	122VU	W11	
WATER/WASTE	AFT DRAIN MAST	2001VU	D01	18 Sec Pwr-
	FWD DRAIN MAST	2000VU	D04	up Test
	WASTE H2O LINE HEAT	2000VU	1DW	
	WASTE H2O LINE HEAT CTL	2000VU	2DW	
MISC	FOOT WARMER	122VU	X15	

NOTES

- 1) **AOA FAULT-RESET ALL 5 CBs ASSOCIATED W/WHC SYS 1(2)**
- 2) **WINDOW HEAT FAULTS- PULL AND RESET**
CBs IN ORDER AS INDICATED FOR RESET.
- 3) **ANTI ICE PROBE MESSAGES-IF PROBE RESETS DO NOT RESOLVE:**
RESET ADIRU CBs

Ref Only

EIS				
DMC #1	SPLY	49VU	E11	4 Sec Pwr-Up Test
	SWTG	49VU	E9	
DMC #2	SPLY	121VU	Q8	" "
	SWTG	121VU	R8	" "
DMC #3	SPLY	121VU	Q9	" "
	SWTG	49VU	E7	" "
	STBY SPLY	49VU	E10	" "
ECAM CTL PNL		49VU	E12	
ECAM DU-UPPR	SPLY	49VU	E5	10 Sec Pwr-Up Test
	SWTG	49VU	E6	
ECAM DU-LWR	SPLY	121VU	R11	" "
	SWTG	121VU	R10	" "
PFD CAPT	SPLY	49VU	E3	" "
	SWTG	49VU	E4	" "
ND CAPT	SPLY	121VU	Q11	" "
	SWTG	121VU	Q12	" "
PFD FO	SPLY	121VU	R3	" "
	SWTG	121VU	R5	" "
ND FO	SPLY	121VU	R4	" "
	SWTG	121VU	R6	" "
FWS	FWC #1	49VU	FI (E2:620-37)	50 Sec Pwr-Up Test
	FWC #2	121VU	Q7	
MCDU	#1	49VU	B1	45 Sec Pwr-Up Test
	#2	121VU	N20	

8) DISPLY UNIT -DIAGONAL LINE
SELECT DMC3

CHAPTER 32: LANDING GEAR

LGCIU	SYS #1	49VU	C9	1 Sec Pwr-
	SYS #2	121VU	Q35	Up Test
	SYS 1 GND SPLY	121VU	Q34	

BRAKE/STEERING

BSCU SYS #1	IND & SPLY	121VU	M33
	CTL	121VU	M34
BSCU SYS #2	CTL	121VU	M35
	SPLY	121VU	M36

**DO NOT RESET IN FLT: POSSIBLE LOSS OF ANTI-SKID PROTECTION
AT TOUCH DOWN!**

PARK BRAKE CTL	NORM	121VU	N36
	STBY	121VU	N37
YELLOW BRAKE	PSI IND	49VU	C10
	CTL	121VU	M32
BRAKE FAN	WHL 1&2	121VU	L32
	WHL 3&4	121VU	L35
BRAKE TEMP	DET UNIT	121VU	M37

Ref Only**CHAPTER 32: LANDING GEAR**Ref Only

NOTES: 1) T/O WARNING CONFIG HORN WILL SOUND WHEN BTMU IS ON MEL. T/O NOT ALLOWED WITH HOT BRAKES. MEL REQUIRES REMOVING CANNON PLUG FOR AFFECTED WHEEL BTMU ERRONEOS INDICATIONS ARE EXTREME HI TEMPS OR AMBER XXXs.

2) IF LGCIU MESSAGE IS LATCHED-RESET FWC AFTER LGCIU

3) BSCU-NOSE WHEEL STEERING PROBLEMS

A) CYCLE NOSE WHEEL STEERING SW

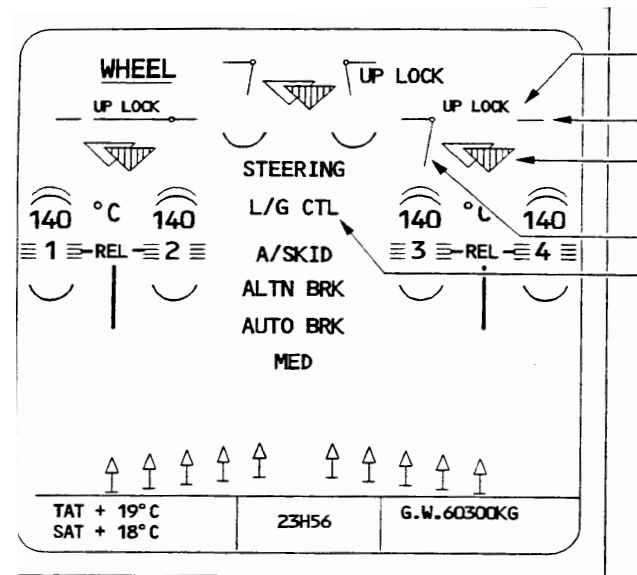
B) IF NOSE WHEEL STEERING SW DOES NOT FIX TRY TO RECYCLE CBS

4) BSCU FAULTS-IF A/C NOT MOVING

TURN NWS SW AND ANTI-SKID SW OFF THEN ON.

IF NO HELP RESET BSCU CBS

5) LGCIU FAULTS-ONLY LGCIU 1 POWERS REMOTE PANEL (STBY INDICATIONS)



CHAPTER 33: LIGHTS		Ref Only	
WING/ENG SCAN	LEFT	122VU	W2
	RIGHT	122VU	W3
RUNWAY TURN-OFF	LEFT	122VU	W6
	RIGHT	122VU	W5
TAXI & T/O	T/O	122VU	W7
	TAXI	122VU	W8
	CTL	122VU	W9
LOGO	RIGHT	122VU	V2
	LEFT	122VU	V3
WING STROBE		122VU	V5
ANTI-COLL BEACON	LOWER	122VU	U3
	UPPER	122VU	U6
NAV LITE	NAV (1)/ LOGO LT	122VU	T3
	(NAV 2/LOGO LT)	122VU	T2 (604-5,38-9,42,47-62,801-10,12-22)
LANDING	L SPLY	122VU	T4
	CTL	122VU	T5
	R SPLY	122VU	T6
	CTL	122VU	T7
PAX READING		2000VU	G2
		2000VU	G3
		2000VU	G4
		2000VU	G5
		2000VU	G6
		2000VU	G7
EMER CABIN	MAIN ON/ARM	49VU	H5 28VDC
	EXIT SIGNS	49VU	H6 28VDC
	LAVS	49VU	H7 28VDC
	CAB EMER LITE	122VU	V7 115VAC
COCKPIT	DOME SRVCE	122VU	Y6
	DOME ESS	49VU	H8
FLOOD	CAPT	122VU	Z5
	FO	122VU	Z6
	CNTR	122VU	Z4

NOTES: 1) 2000VU LOCATED FWD GALLEY CEILING
2) 2001VU LOCATED AFT GALLEY CEILING

CHAPTER 33: LIGHTS		Ref Only	
ANN LT TEST	XFMR BUS 1	122VU	X4
	XFMR BUS 2	122VU	X5
	XFMR ESS SHEDBL	49VU	H3
	XFMR ESS EMER STAT	122VU	X3
	TEST BOARD SPLY	122VU	X6
INST LT	OVERHEAD	122VU	Y3
	PNL & PED	122VU	Y4
	GLARESHIELD	122VU	Y5
STBY COMPASS	(ICE &) STBY COMP LT	49VU	H4
AVIONICS COMP	DOME	122VU	Z7
	OUTLET	122VU	Z8 28VDC
	OUTLET	122VU	Z9 115VAC
WHEEL WELL	DOME	122VU	X8
	OUTLET	122VU	X7
CARGO COMP	FWD	2000VU	B4
	AFT	2000VU	B5
	LOADING	2000VU	B6
MISC	APU COMP	2001VU	E8
	HELL HOLE (SEC 19)	2001VU	E7
	AIR COND OUTLET	2000VU	B8
CABIN LITE PWR			
WINDOW	FWD	2000VU	H1
		2000VU	H2
	AFT	2000VU	H3
		2000VU	H4
CEILING	FWD	2000VU	H5
		2000VU	H6
	AFT	2000VU	H7
		2000VU	H8
CABIN ENTRY		2000VU	J4
ATTND WORK		2000VU	J5
LAV OCCUPIED	FWD	2000VU	C8
	AFT	2001VU	C7
CEILING		2000VU	1LQ

CHAPTER 34: NAVIGATION SYSTEMSRef Only

ADIRU 1 (NOTE 1)	ADIRU 1	49VU	F6	115 VAC	5 Sec Pwr-
	ADIRU 1	105VU	C2	28VDC	Up Test
	AOA	49VU	F7	26 VAC	For ADIRUs
ADIRU 2	ADIRU 2	121VU	N6 (N7)	(605,19-28,38-42,47-51)	
	ADIRU 2	121VU	N4 (N5)	(605,19-28,38-42,47-51)	
	AOA	121VU	N8 (N9)	(605,19-28,38-42,47-51)	
	PWR SHED	121VU	N10 (N11)	(605,19-28,38-42,47-51)	
ADIRU 3	ADIRU 3	121VU	N5 (N6)	(605,19-28,38-42,47-51)	
	ADIRU 3	121VU	N3 (N4)	(605,19-28,38-42,47-51)	
	AOA	121VU	N7 (N8)	(605,19-28,38-42,47-51)	
	SWTG SPLY	121VU	N9(N10)	(605,19-28,38-42,47-51)	
	SWTG SPLY	49VU	F9		
ADF	ADF 1	49VU	H14	2 Sec Pwr-Up Test	
	(ADF 2)	(121VU)	(K2)	(604-5,18, 20-39,42-51)	
	(RMI)	(121VU)	(K4)	(640-41)	
DME	DME/RMI	49VU	F13		
	DME 1	49VU	G14		
	DME 2	121VU	K6		
ATC	ATC 1	49VU	G11		
	ATC 2	121VU	K7		
VOR	VOR 1	49VU	G13		
	VOR 2	121VU	K8		
RAD ALT	R/A 1	121VU	K11		
	R/A 2	121VU	K12		
ILS	ILS 1	49VU	G12		
A/C 604-Reset MMRs	ILS 2	121VU	K9		
STBY	HORIZ IND	49VU	F12		
	ALTM	49VU	F14		
WX RADAR (618,20-37,43-46) (NOTE 5)	R/T 1	121VU	K13	30 SEC Pwr-	
	(R/T 2)	(121VU)	(K14)	Up Test	
TCAS		121VU	K10	5 Sec Pwr-Up Test	
GPWS (NOTE 3)		121VU	P7	115 VAC	2 Sec Pwr-
		121VU	P6	28VDC	Up Test
MULTI-MODE RXs (NOTE 6,7)	MMR1	49VU	G12	For A/C 604,47-51	
	MMR2	121VU	L7(K9)	604 (647-51)	

CHAPTER 34: NAVIGATION SYSTEMSRef Only

- NOTES:** 1) IF ALL 3 ADIRUs WILL NOT TAKE ALIGN AFTER ENG START/
PWR XFER-TRY: A) MAN REALIGN- IF NO HELP
AFTER 2 ATTEMPTS
B) PULL ADIRU #1,2,3 CBs FOR 30
SEC WITH RESET/REALIGN
- 2) WINDSHEAR FAULT-RESET FACs ON OVERHEAD
- 3) GPWS INOP: A) NAV RELATED-RESET #1 ILS (OK IN FLT)
B) RESET RAD ALT #1
- 4) AUTO TUNE INOP: A) TRY DIFF STA-POSS BAD NAV DATA
B) ON RMP-VERIFY THAT THE "NAV ON" SW IS OFF
(PLASTIC GUARDED SW)
- 5) WX RADAR MAY BE LOST IF AEVC COMP HAS FAILED AND
BOTH SKIN VLVs IN OVERBOARD
- 6) MMRs-POST SB 34-1147 FOR A/C 647-51
- 7) 'GPS Primary' IN WHITE IS NORMAL OPERATION
THIS IS STATING THAT GPS IS THE
PRIMARY MODE OF OPERATION. THE 'CLEAR'
BUTTON ON THE MCDU WILL ERASE THIS
MESSAGE.

CHAPTER 35: OXYGEN

Ref Only

CREW 02	CREW SPLY	49VU	C1
PAX 02	CTL & WARN	49VU	C2
		49VU	C3
		49VU	C4
	ACTUATION	49VU	C5
		49VU	C6
		49VU	C7
		49VU	C8

NOTES: **CREW O2 LO PRESS MSG-** VERIFY THE O2 SUPPLY SW IS ON
AND BOTTLE IS TURNED ON. (SW IS ON OVERHEAD PANEL
AND O2 BOTTLE IN FWD LEFT EQUIPMENT BAY)

CHAPTER 36: PNEUMATIC SYSTEM

BLEED (ENG 1)	BMC 1 MONG	49VU	D11	10 Sec Pwr-
	CONT	49VU	D12	Up Test
BLEED (ENG 2)	BMC 2 MONG	122VU	Z22	10 Sec Pwr-
	CONT	122VU	Z23	Up Test
X-FEED VLV	NORM	122VU	Z20	
	BATT	122VU	Z21	

NOTES:

1) AIR BLEED MX STATUS MESSAGE

- A) BMC RESET-IF NO HELP
- B) APU AIR ON/OFF/ON-IF NO HELP
- C) CK FOR FAULTS (BMC/APU SELF TEST)
- D) THEN TRY FWC 1 & 2

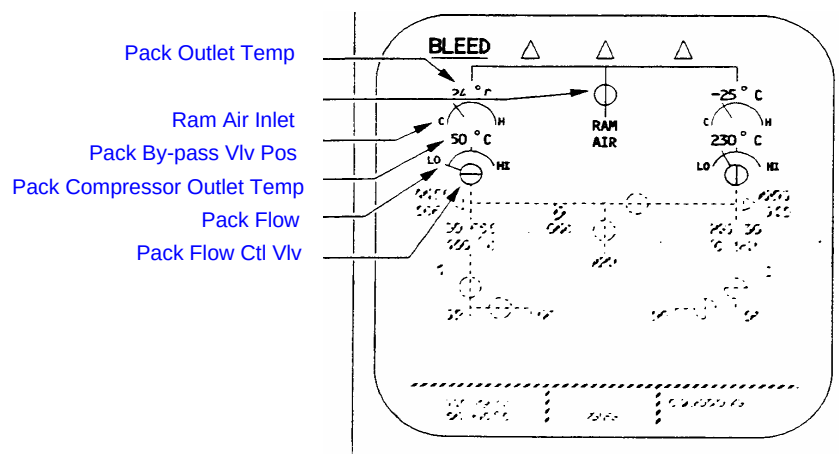
2) IT IS **NOT POSSIBLE** TO HAVE AN **ERRONEOUS AIR BLEED WING LEAK**

MESSAGE. IF ECAM MESSAGE IS DISPLAYED THEN TWO INDEPENDENT LOOPS DETECTED THE LEAK AND TRANSMITTED THEIR RESPECTIVE SIGNALS TO TWO INDEPENDENT BMCs. BOTH BMCs MUST WITNESS THE LEAK BEFORE THE MESSAGE IS DISPLAYED.

Ref Only

CHAPTER 36: PNEUMATIC SYSTEM

Ref Only



CHAPTER 38: WATER AND WASTERef Only

WATER	WATER SYS	2001VU	1MP
	WATER SYS	2000VU	1MA
HOT H2O	FWD	2000VU	1MB
	(LAV)		7MB
	AFT	2001VU	2MB
	(LAV)		9MB
DRAIN MAST	FWD	2000VU	1DU
	AFT	2001VU	11DU
WATER SYS	ICE PROT-HTR	2000VU	1DW
	CTL	2000VU	2DW
LAVS	FWD FLUSH	2001VU	32MG
	R AFT FLUSH	2001VU	34MG
	L AFT FLUSH	2001VU	39MG
	VACUUM GEN	2001VU	33MG
	VACUUM SYS	2001VU	35MG
LAV/GALLEY VENT			
EXTRACT FAN	SPLY	122VU	U19
	CTL	122VU	U21

CHAPTER 38: WATER AND WASTERef Only

- NOTES:**
- 1) **2000VU** LOCATED FWD GALLEY CEILING
 - 2) **2001VU** LOCATED AFT GALLEY CEILING
 - 3) **LAVS** NOT FLUSHING
LAV NOT PLUGGED
CAUTION LITE ILLUM ON FAP
A) PULL VACUUM SYS CB 35MG
B) PUSH BUTTON TO CYCLE FLUSH VALVE
C) RESET CB 35MG.
 - 4) **LAV** NOT FLUSHING
A) PULL INDIVIDUAL LAV CB (2001VU)
B) FLUSH LAV
C) RESET CB
 - 5) **LAV DOOR** REMOVED CDL 52-01
REMOVE AND STOW DOOR SW C/P AND
WIRE PANEL ACCESS HANDLES CLOSED
 - 6) **GALLEY H2O SYS NOISE**-RESET CK VALVE
A) REMOVE AFT GALLEY RT COFFEE MAKER
B) PLACE FINGER TIP OVER DRAIN TUBE
(THIS RESETS THE CK VLV)

CHAPTER 49: AUXILIARY POWER UNIT

CONTROL	ECB SPLY	121VU	L41
	APU SPLY	121VU	L42

Ref Only
APU STOPPED,
MASTER SW ON
3 Sec Pwr-Up Test

FUEL			
LP VLV	SPLY	121VU	M39
	CTL	121VU	M40
	STBY	121VU	M41
	NORM (FIRE)	121VU	M42
PUMP	CTL	121VU	M38
FUEL BLOW-OFF PUMP		121VU	M39
		49VU	B14
FIRE & OVERHEAT			
DET	LOOP A	121VU	L43
	LOOP B	121VU	L44
EXTING	SQUIB A	121VU	L38
	SQUIB B	121VU	L39

- NOTES:**
- 1) AFTER SHUT DOWN OF APU WITH APU MASTER SW OFF-CLASS I FAULT "**APU AUTO (EMER) SHUT DOWN**"
NO ASSOC FAULTS: SDAC
 - 2) **APU BLEED FAULTS**-SHUT DOWN APU THEN RESET:
VU121 L41 ECB SPLY
VU121 L42 APU CTL
 - 3) **APU WILL NOT SHUT DOWN**-RESET VU121 L42 APU CTL.
IF NO HELP: OPEN VU121 L41 ECB SPLY
 - 4) APU ELEC **NO VOLTS OR FREQS:** SELECT APU ELEC OFF
 RESET VU122 Y25 ELEC APU GCU
- CFDS**
- APU MASTER SW** MUST BE '**ON**' TO BITE CFDS
- SYS REPORT/TEST-NEXT PAGE-AIR BLEED**
- APU-SYS SELF TEST
 - APU DATA/OIL (GIVES HRS,CYCs AND LEVEL "OK")
 - NEXT PAGE-SHUT DOWNS(GIVES SHUT DOWNS, EX: OVERSPEED)

CHAPTER 52: DOORS

DOOR DET PAX

DOOR DET AVNCS

EIS SLIDES ARM & WARN GND

CARGO DOOR CTL

Ref Only

121VU P5

(**THRU SDAC)

121VU P2

(**THRU SDAC)

121VU P10

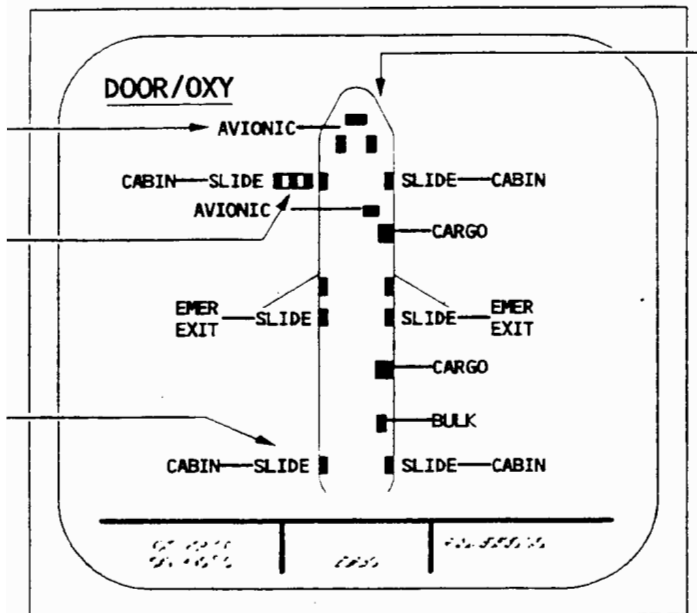
122VU T12

NOTES:

RISIDUAL PRESS WARN ON CABIN DOORS

TFU 52.70.00.002. FAULT BY PRESS SW

PN 1266-100. REF MEL 25-60-06.



CHAPTER 70: POWER PLANT

Ref Only

ENG 1	FADEC A/EIU 1	49VU	A4	2 SEC Pwr-
	FADEC B/EIU 1	121VU	R41	Up Test
****SHUT DOWN ENG PRIOR TO RESET****				
ENG 2	FADEC A/EIU 2	121VU	Q40	
	FADEC B/EIU 2	49VU	A5	
****SHUT DOWN ENG PRIOR TO RESET****				
EVMU	E1 & E2	121VU	R44	

NOTES: ALL ENG ECAM WARNINGS ARE FOUND IN CAATS CHAP 77

1) DUAL ENG 1 (2) EIU FAULTS

- DO FADEC 1/2 A/B BITES
- SELECT START CYCLE ROTARY SW FROM NORM TO CRANK
- WAIT 15 SEC
- RETURN TO NORM-WAIT 5 MIN
- THEN PULL ENG 1 & 2 OIL PRESS CBs
- RESET AFTER 5 SECS

ENGINES MAY NOT START WITH EITHER EIU MSG LATCHED

2) FADEC ALT FAULT-DEDICATED ALTERNATOR OR EEC FAIL

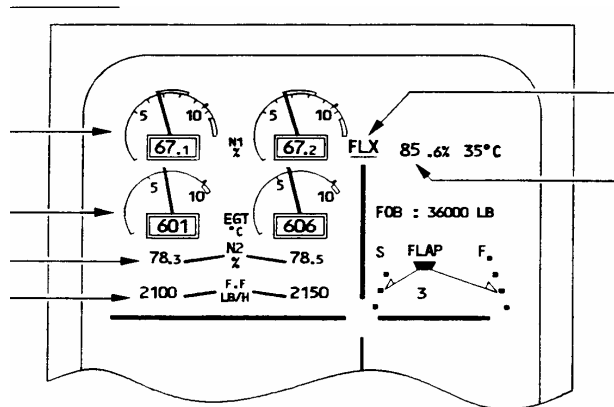
RETURN A/C TO GATE

3) ENG 1(2) SENSOR FAULT-RETURN TO GATE: A) CLEAN SENSOR LINE

B) CLEAN SCREEN

If problem persists

C) CHANGE EEC

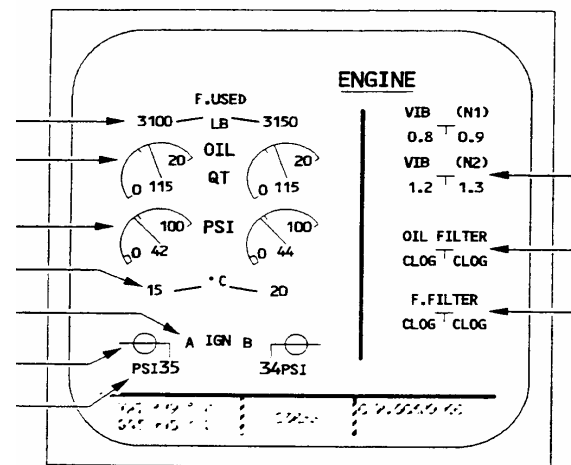
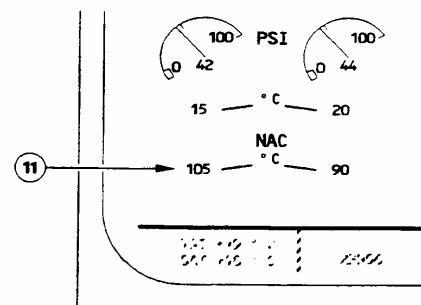
**CHAPTER 70: POWER PLANT**

Ref Only

- NOTES: 4) ON -5 MOTORS, IF HUNG START (W/O OBVIOUS MSG)-DISCONNECT FUEL TEMP SENSOR C/P, START ENG AND RECONNECT
- 5) ENG 1 (2) AIR HEAT EXCHANGER FAULT-

CFDS

- USE OVERHEAD FADEC POWER UP P/Bs TO PERFORM BITE (AFTER ENG SHUT DOWN)
- SYS REP/TEST- NEXT PAGE- ENG-EIU 1(2)
FADEC 1(2)A(B)
EVMU

SECONDARY PARAMETERS-START CONFIGURATION**IT CONFIGURATION**

CHAPTER 74: IGNITION

Ref Only

SYS A	E1 & E2	49VU	A3
	E1 BAT	121VU	P39
	E2 BAT	121VU	P40
SYS B	E1	121VU	P41
	E2	121VU	P42

NOTE: **ENG 1(2)** **IGN FAULT-** IGNITER SYSTEM FAULTS DURING ENG START.
ENG AUTO-SHUTDOWN
MAN RESTART
DPI FAILED IGN SYS.

CHAPTER 77: ENGINE INDICATIONS

Ref Only

EVMU 1 & 2 121VU R44

NOTES: 1) DUAL ENG 1 (2) EIU FAULTS

- A) DO FADEC 1/2 A/B BITES
- B) SELECT START CYCLE ROTARY SW FROM NORM TO CRANK
- C) WAIT 15 SEC
- D) RETURN TO NORM-WAIT 5 MIN
- E) THEN PULL ENG 1 & 2 OIL PRESS CBs
- F) RESET AFTER 5 SECS

ENGINES MAY NOT START WITH EITHER EIU MSG LATCHED

2) "FADEC ALT" FAULT-DEDICATED ALTERNATOR OR EEC FAIL

RETURN A/C TO GATE

3) ENG 1(2) SENSOR FAULT-RETURN TO GATE: A) CLEAN SENSOR LINE

B) CLEAN SCREEN

If problem persists

C) CHANGE EEC

4) ON -5 MOTORS, IF HUNG START (W/O OBVIOUS MSG)-DISCONNECT

FUEL TEMP SENSOR C/P, START ENG AND RECONNECT

CHAPTER 79: ENGINE OIL

Ref Only

ENG 1	QTY	121VU	N39
	PRESS	121VU	N40
ENG 2	QTY	121VU	N41
	PRESS	121VU	N42

Computer resets

for information only

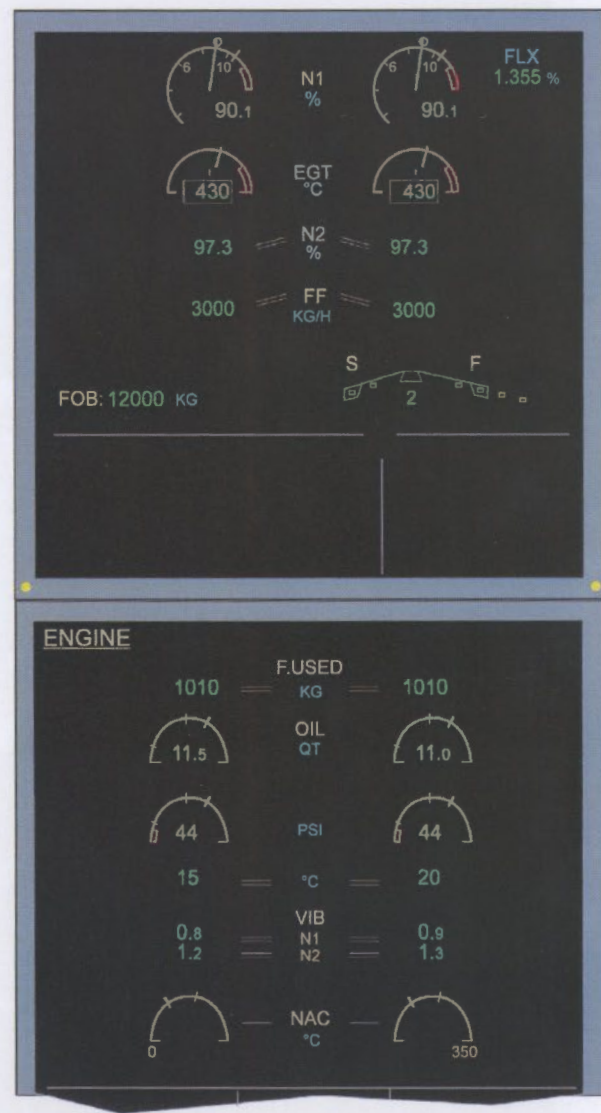
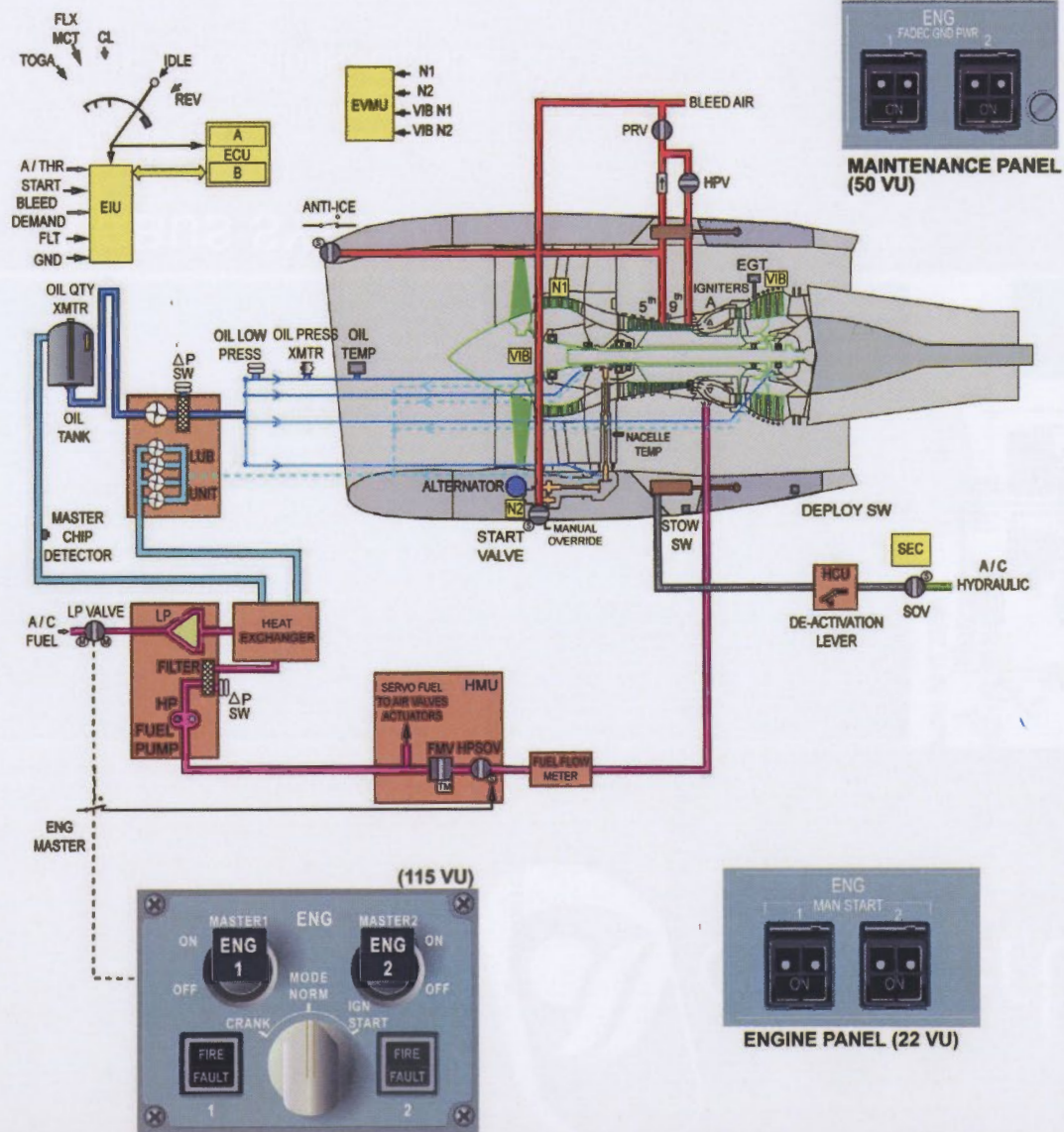
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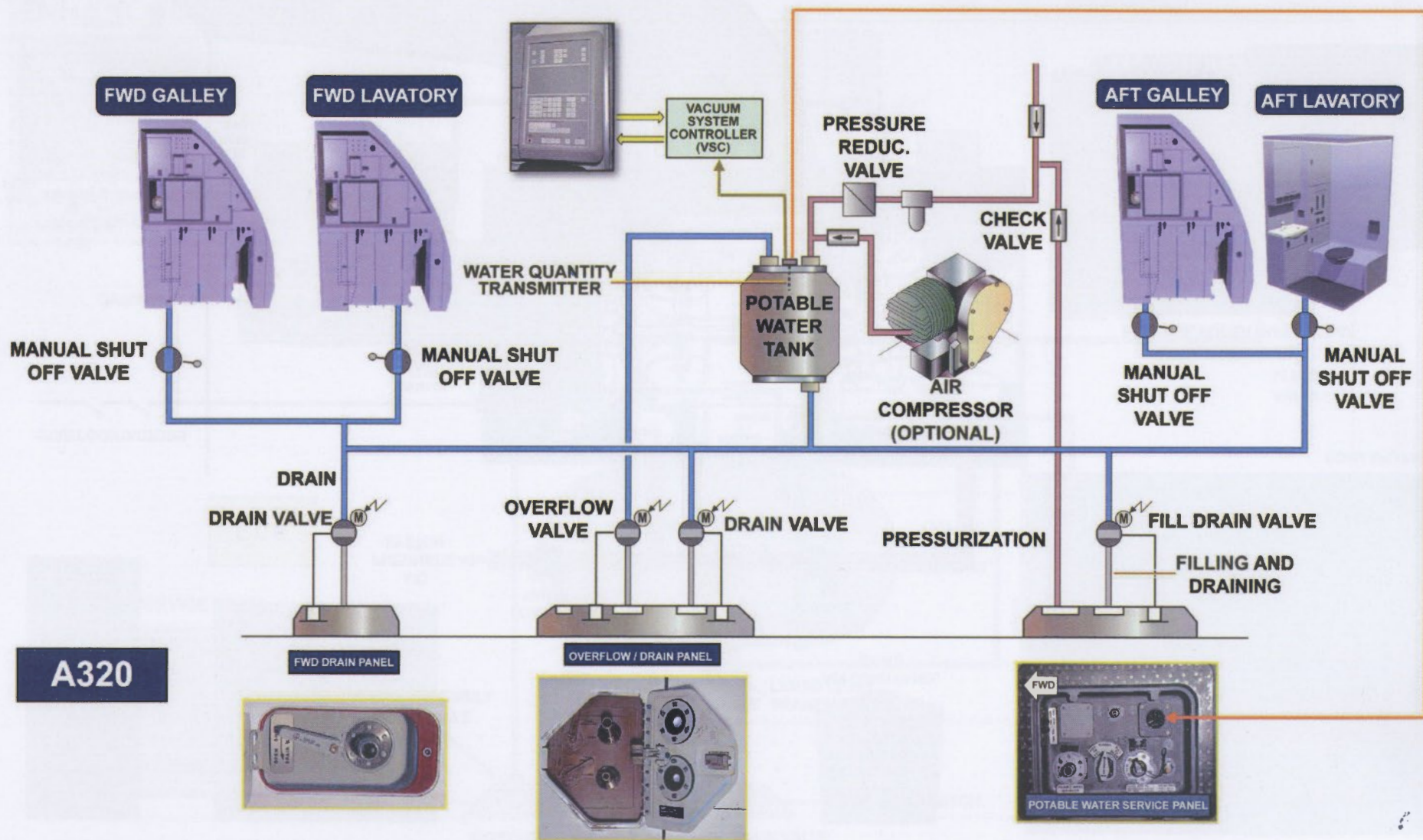
Computer	C/B.	C/B pulled	Power-up test
ACP	Cpt. G06, FO G07	1 sec	1 sec
ADF	1: H 14	2 sec	2 sec
ADIRU	N 04-10, F 06-09	>20 sec	5 sec
AVEC	D 05/06 Y 17	1 sec	85 sec
ATC	1: G11, 2: K07	1 sec	3 sec
BMC	In Avionic comp.	1 sec	22 sec
BSCU	M 32-36	>30ms	1,6 sec
CFDIU	J 17/18	>3 sec	60 sec
CIDS	G01/02/(3-5), M5-7/(8-14)	10 sec	180 sec
CPC	1: D09 2: Y22	>2 sec	1 sec
DMC	1: E11, 2: Q8 3: E10/Q9	>1 sec	4 sec
DMCU	???????	1 sec	10 sec
DME	1: G14, 2: K6	2 sec	2 sec
DMU (AIDS)	K 15	1 sec	40 sec
DU	1: E1-4, 2: R3-6, ECAM E5/6+R10/11	>6 sec	bis 20 sec
ECB	L41	> 250 ms	bis 3 sec
EIU	1: A4+R41, 2: A5+Q40	>200 ms	3 sec
ELAC	1: B11, 2: R20	30 ms or P/B off-on	
EVMU	R44	> 140 ms	bis 100 sec
FAC	1: B3/4 2: M18/19	>5 sec	90 sec
FADEC	Eng.1: A6+R41, Eng.2: A4+Q40	1 sec	2 sec
FCDC	1: B10, 2: Q20	>3 sec	3 sec
FCU	1: B5, 2: M21	> 7 min	10 sec
DIU	K17	1 sec	25 sec
FDU	Eng1 A6/Q38, Eng2 A7/Q39, APU L43/44	200 ms	57 sec
FMGC	1: B2, 2: M17 (FD's OFF) + MCDU C/B	> 5 sec	120 sec
FQIC (320)	Chan1 A13, Chan2 M27	>2 sec	80 sec
FQIC (321)	Chan1 A13, Chan2 M27	> 8 sec	150 sec
FWC	1: F1, 2: Q7	> 1 sec	50 sec
GCU	1: T26, 2: T27, APU Y25	15 ms	30 ms
GPCU	Y 24	NONE	35 ms
GPWS	P6/7	1 sec	2 sec
ILS	1: G12, 2: K9	1 sec	1 sec
LGCIU	1 GND: Q34, 1: C9, 2: Q35	> 3 sec	210 ms
MCDU	1: B1, 2: N20	> 200 ms	45 sec
Pack Contr.	1: X21/22 W21/22, 2: Y18-21	2 ms	30 sec

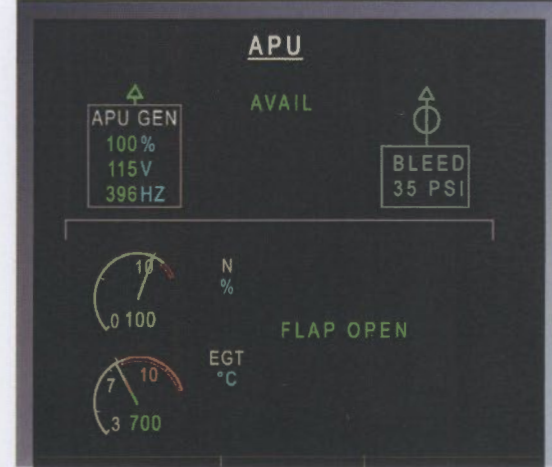
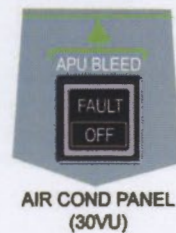
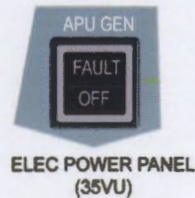
SEITE 2 von 2

PHC	1: D3, 2: Y12, 3: Y16	3 sec	9 sec
RAD ALT	1: K11, 2: K12	2 sec	3 sec
RADAR	K13	1 sec	15-30 sec
RMP	1: G10, 2: L2, (3: L3 not used)	2 sec	2 sec
SDAC	F2-5 + P2-5 + Q2-6	> 1 sec	5 sec
SDCU	Chan1: C6, Chan2: T18	200 ms	70 sec
SEC	1: B8, 2: Q18, 3: Q19	5 sec	18 sec
SFCC (320)	FLP: B7/Q21 SLT: B12/P16	> 200 ms	< 2 sec
SFCC	FLP: B7/Q21 SLT: B12/P16	> 50 ms	65 sec
VHF / HF	1: G9, 2: L4, 3: L5	1 sec	10 sec
VOR	1: G13, 2: K8, RMI F13	3 sec	3 sec
WHC	1: X13, 2: W13	5 sec	5 sec
Zone Contr.	1: V17/19, 2: V18/20	200 ms	36 sec

KEINE GEWÄHR FUER DIE RICHTIGKEIT DER ANGABEN

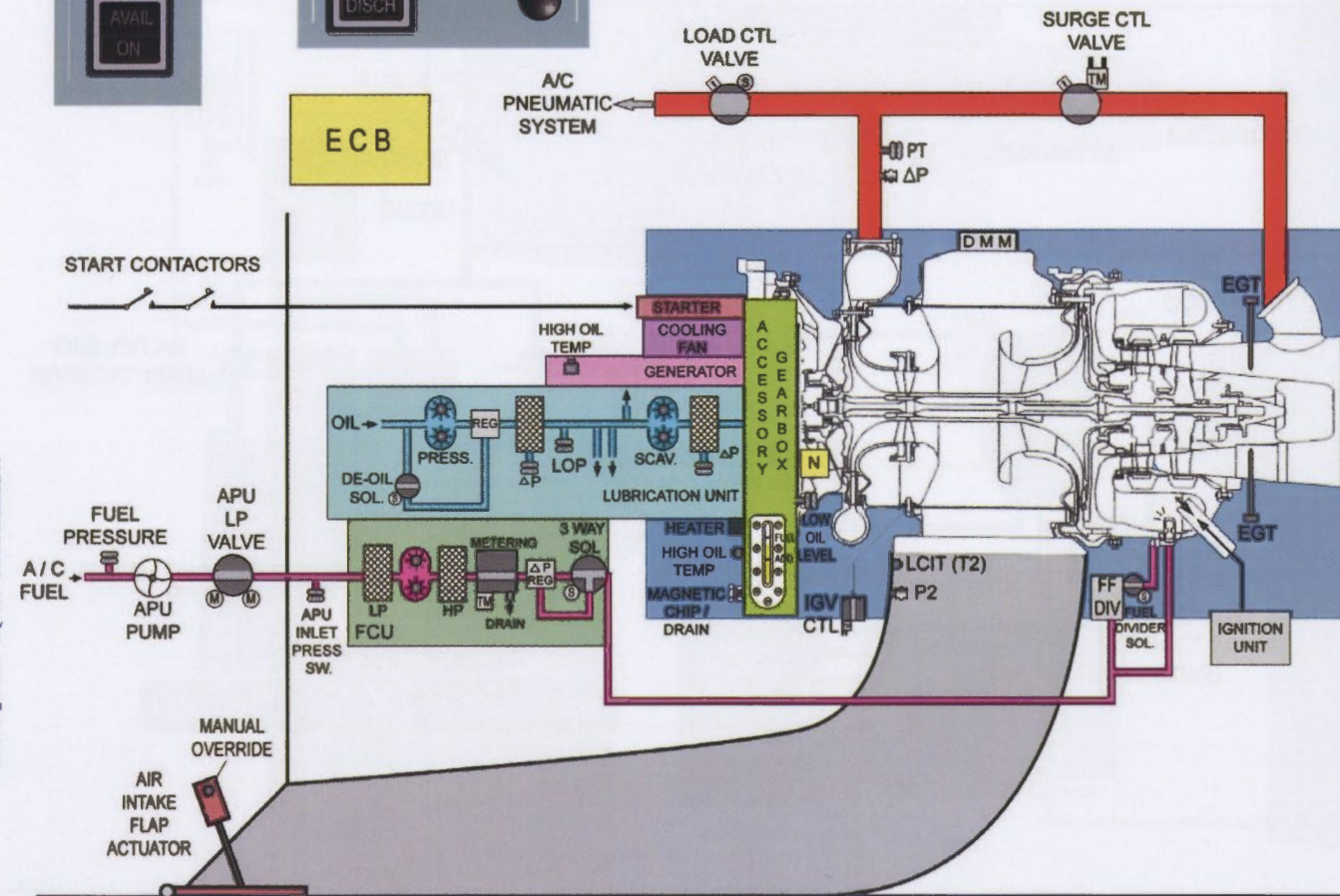






ECAM APU PAGE

EXTERNAL POWER PANEL (108VU)



ENHANCED SYSTEM



FLIGHT ATTENDANT
PANEL (FAP)

CIDS

1

2



VACUUM
SYSTEM
CONTROLLER

CLASSIC SYSTEM

AFT LAVATORY UNITS

FLUSH
SWITCH

FLUSH
CONTROL
UNIT

POTABLE
WATER

RINSE VALVE

FLUSH
VALVE

FWD LAVATORY UNITS

WATER
SEPARATOR

WASTE
HOLDING
TANK

LIQUID
LEVEL
SENSOR

VACUUM
GENERATOR

LIQUID LEVEL
TRANSMITTER

TOILET SERVICE PANEL



NIPPLE ASSEMBLY
DRAIN VALVE

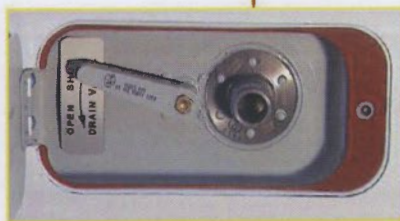
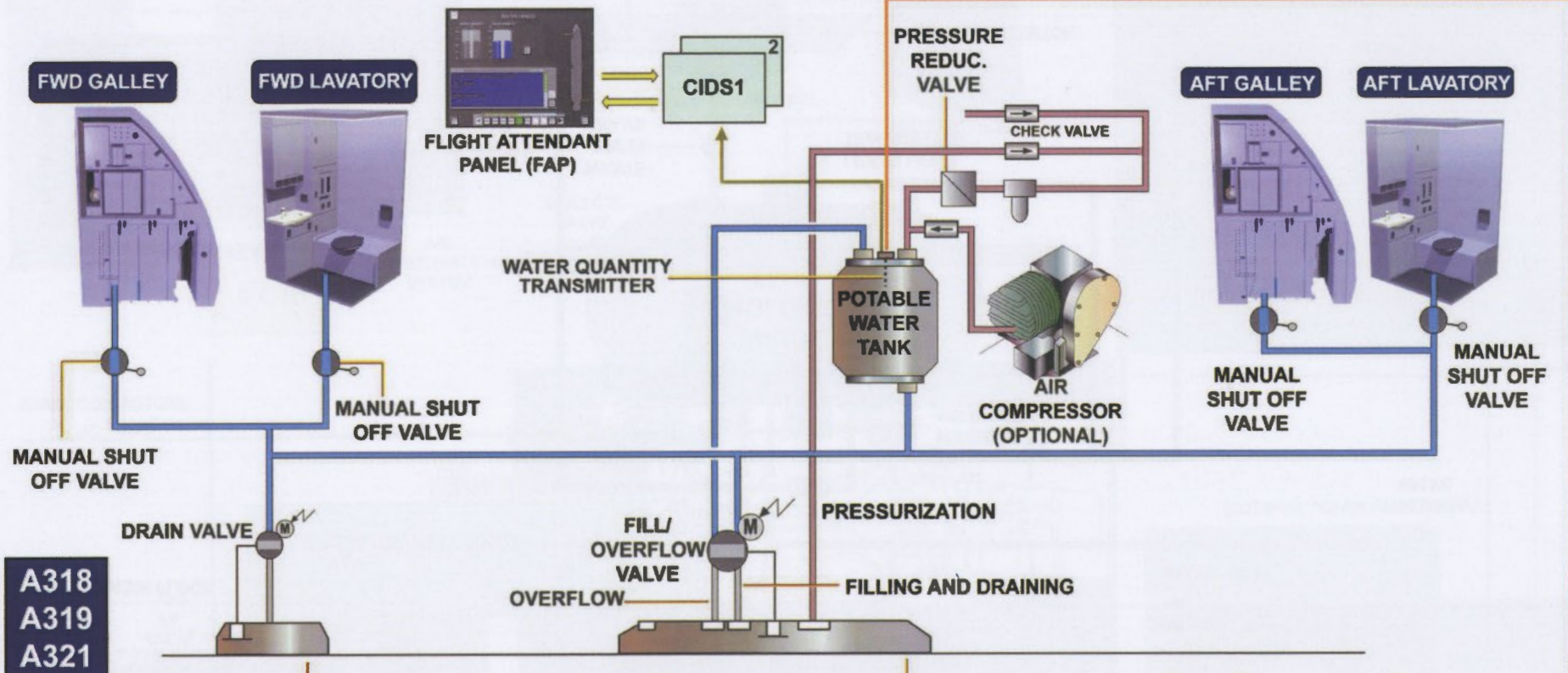
WASTE
DRAIN
VALVE

DOOR LIMIT SWITCH

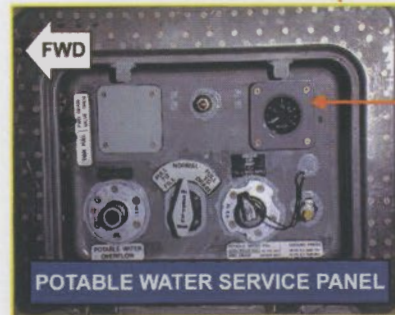
CONTROL
HANDLE

WASTE LINE DRAIN VALVE

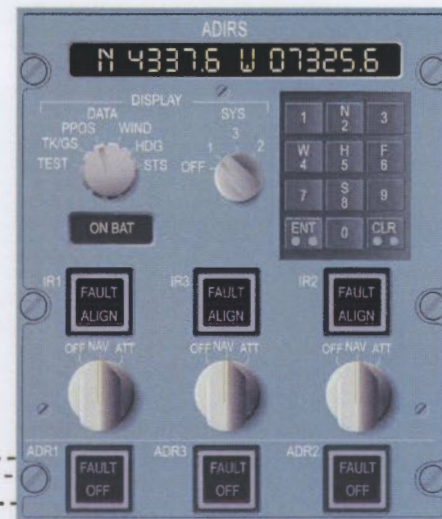
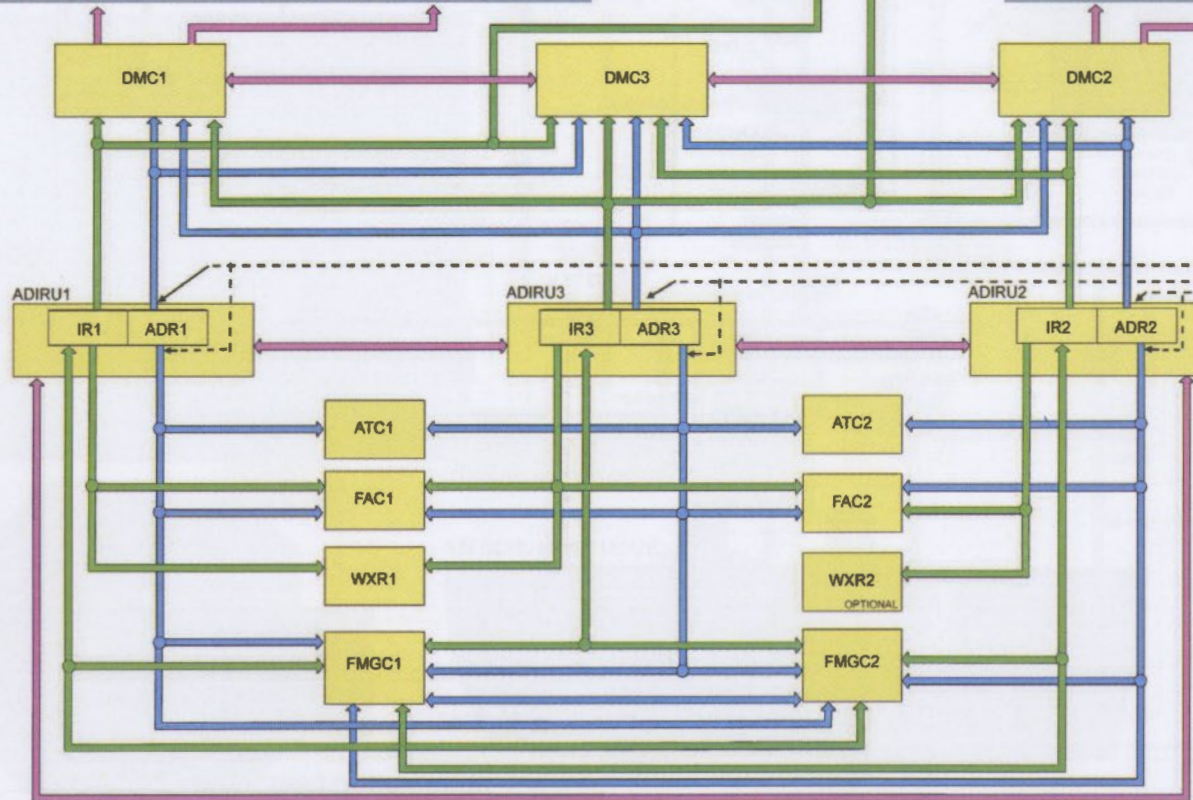
FUSELAGE SKIN



DRAIN SERVICE PANEL



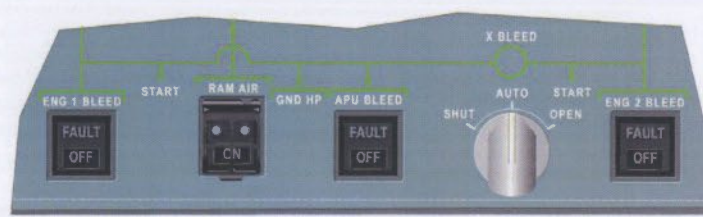
POTABLE WATER SERVICE PANEL



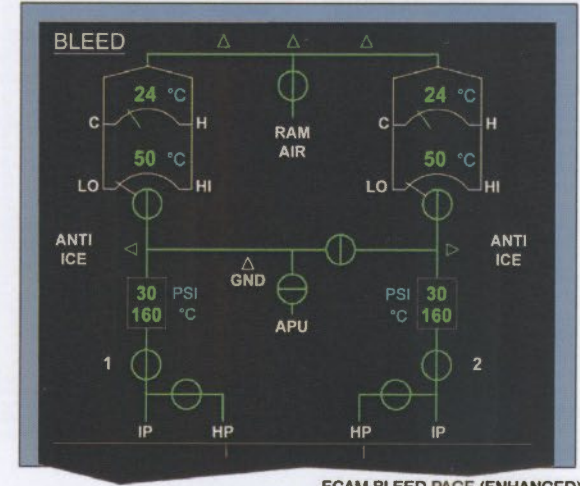
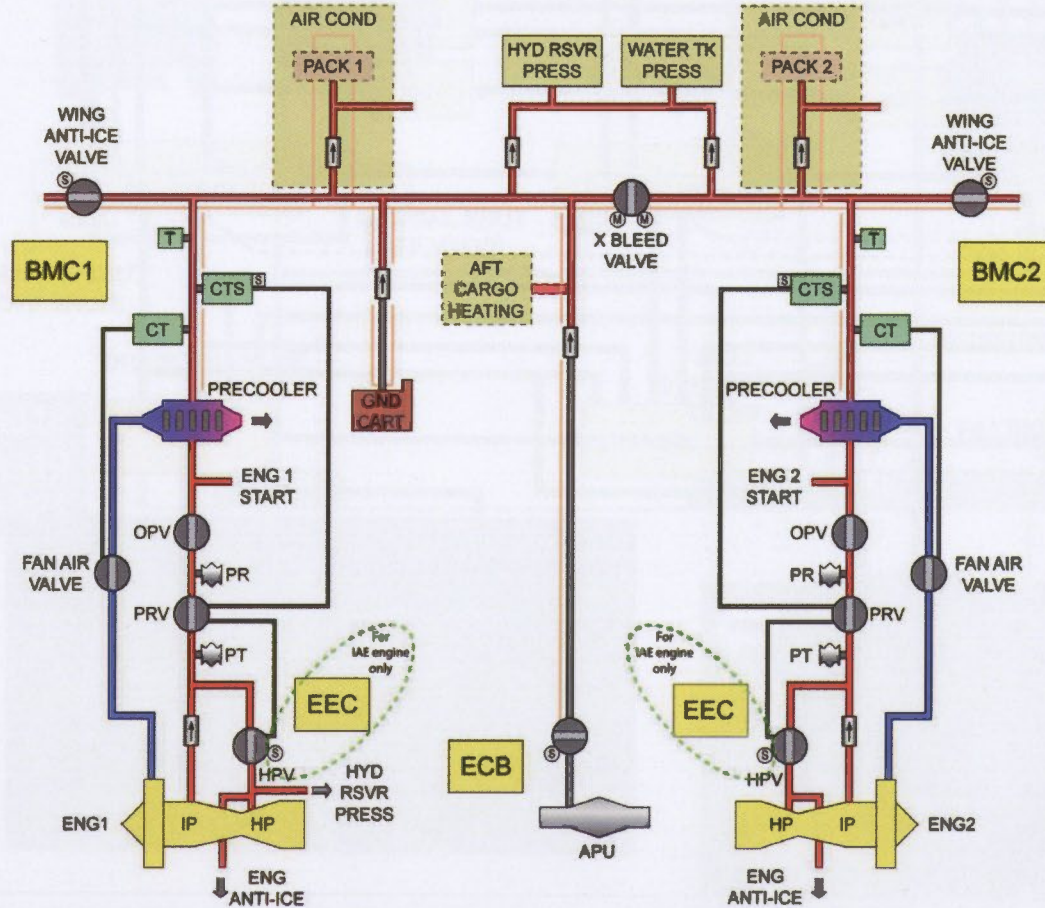
ADIRS CONTROL AND DISPLAY UNIT



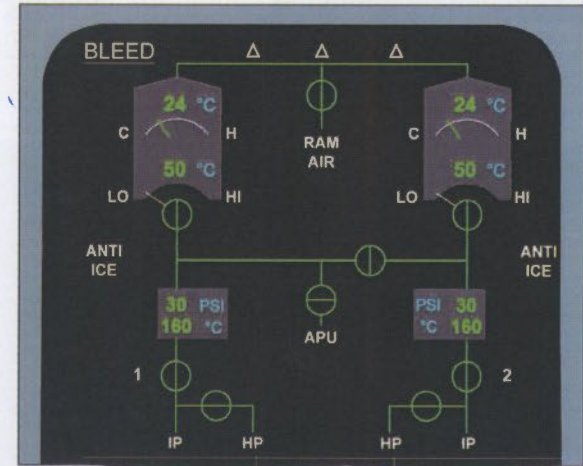
(25VU)



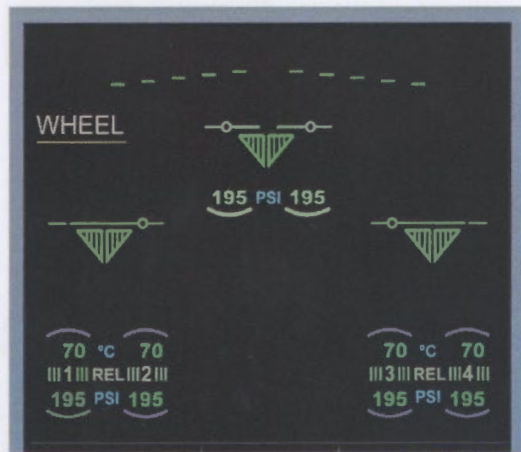
AIR COND PANEL (30VU)



ECAM BLEED PAGE (ENHANCED)

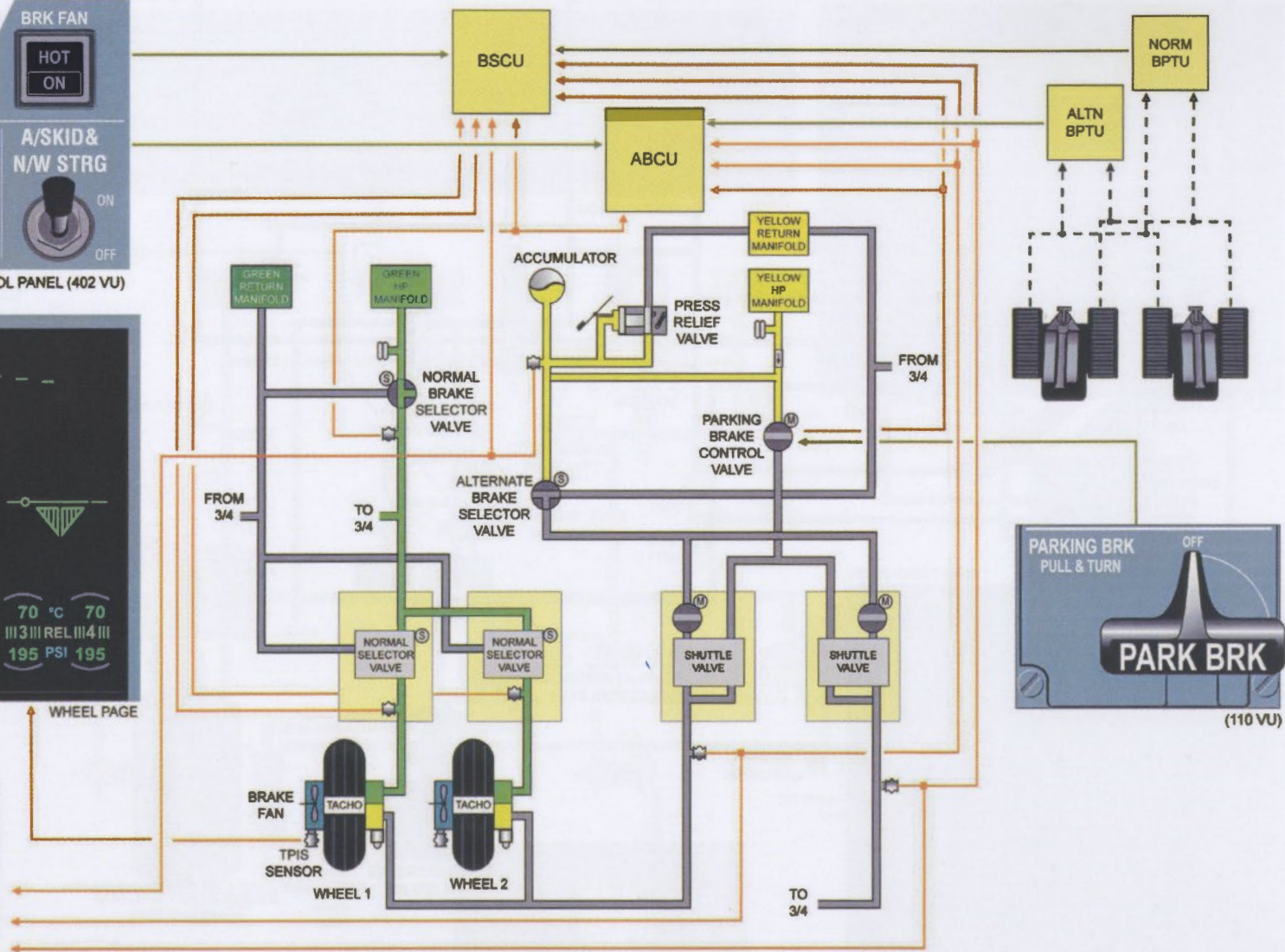


ECAM BLEED PAGE



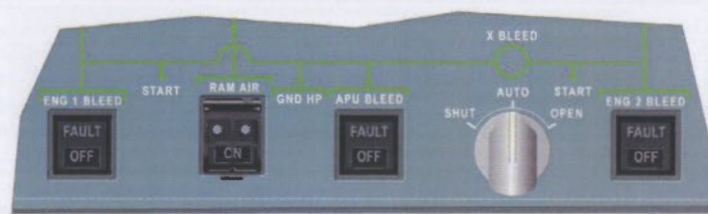
TRIPLE PRESSURE INDICATOR (400 VU)

WHEEL PAGE

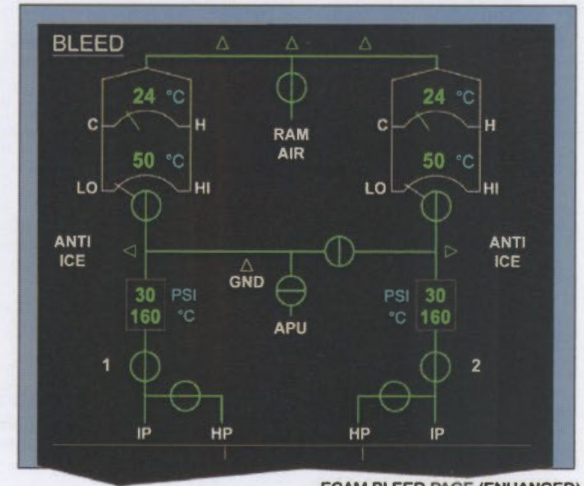
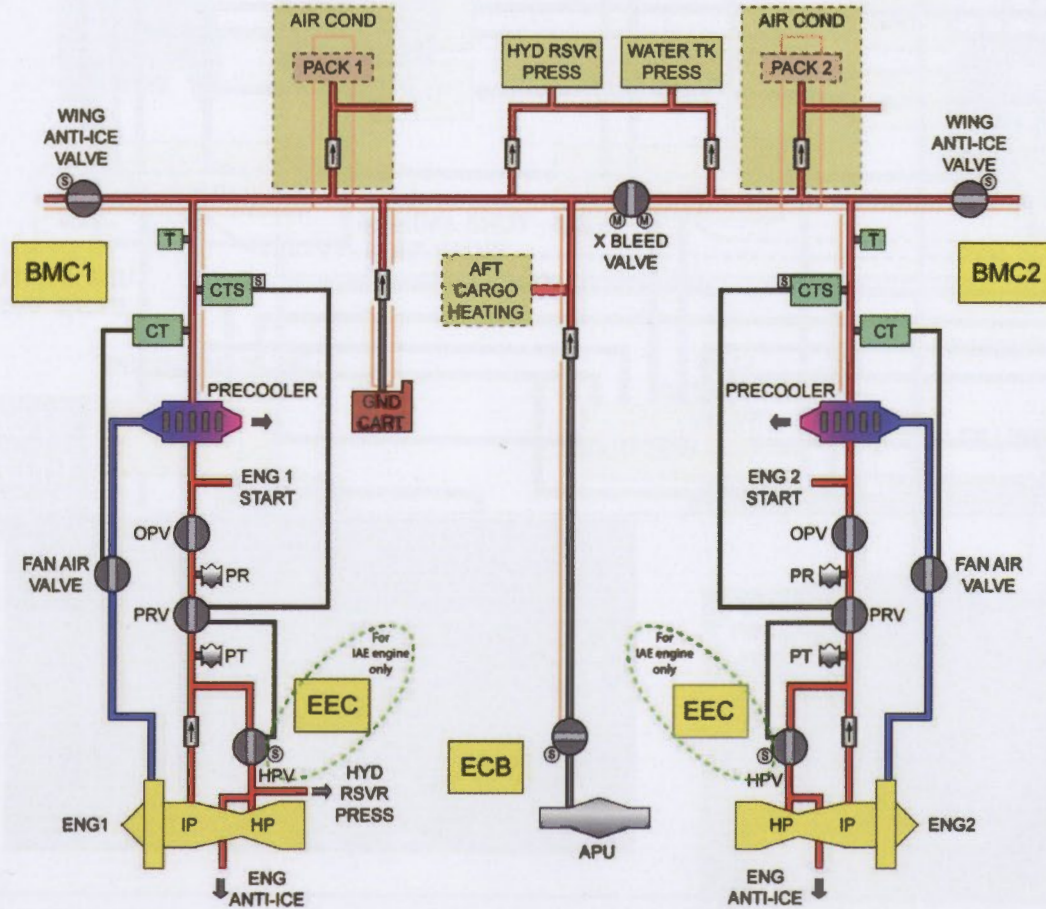




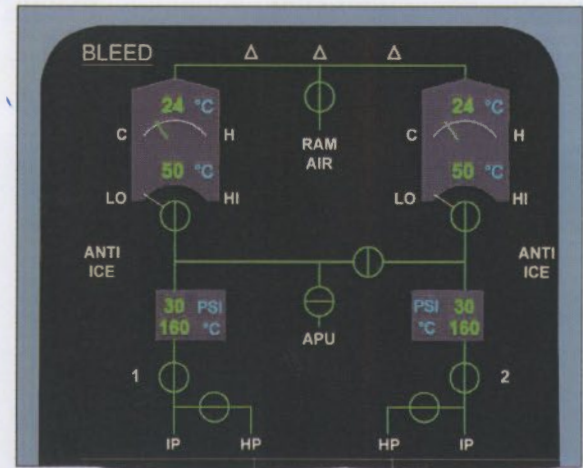
(25VU)



AIR COND PANEL (30VU)

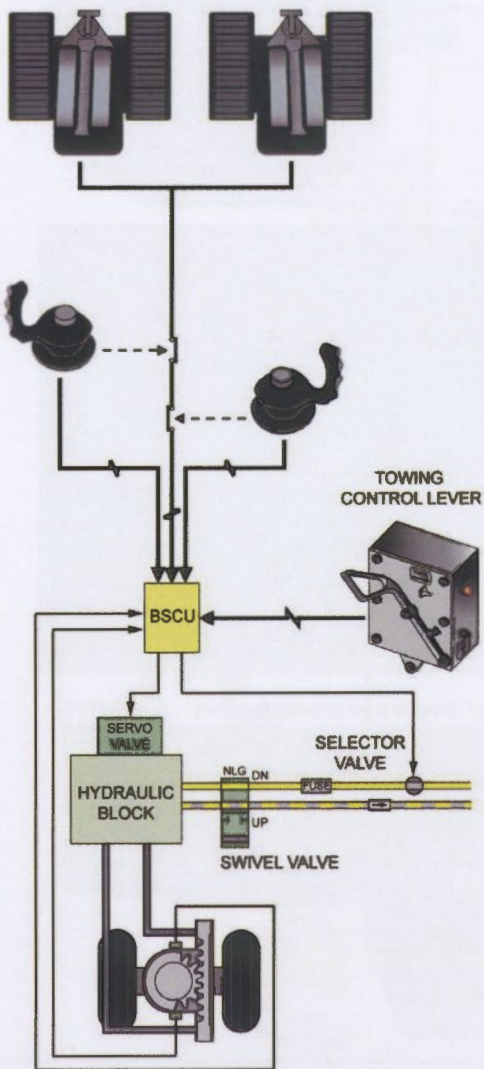


ECAM BLEED PAGE (ENHANCED)

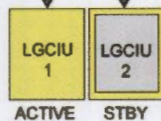
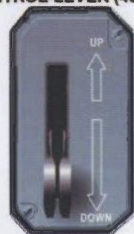


ECAM BLEED PAGE

STEERING



LANDING-GEAR CONTROL-LEVER (400VU)



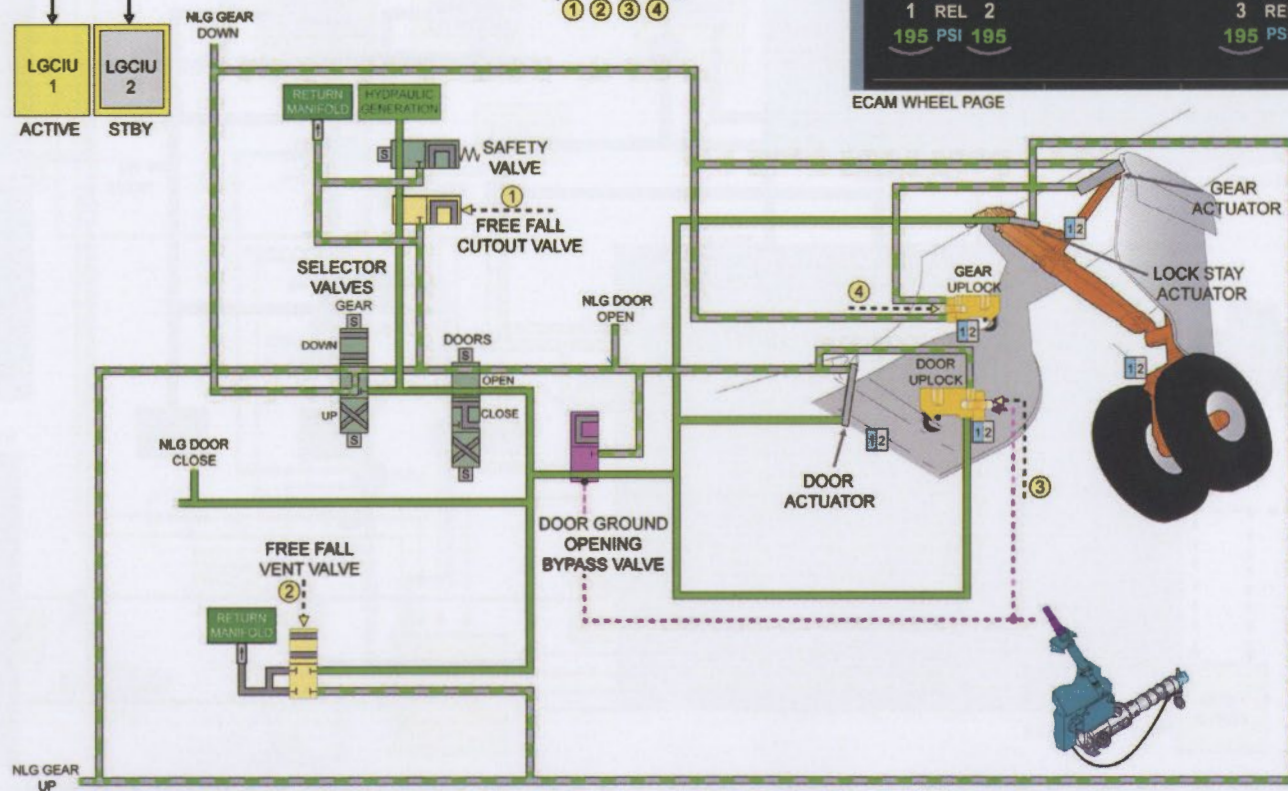
GRAVITY GEAR EXTENSION HANDLE



PROXIMITY SENSOR

FREE FALL EXTENSION SEQUENCE OF OPERATIONS

1 2 3 4

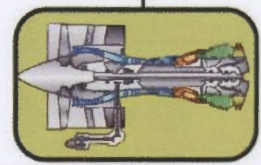


WHEEL



ECAM WHEEL PAGE

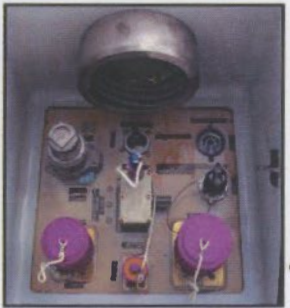
MAINTENANCE
PANEL (50VU)



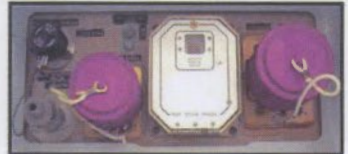
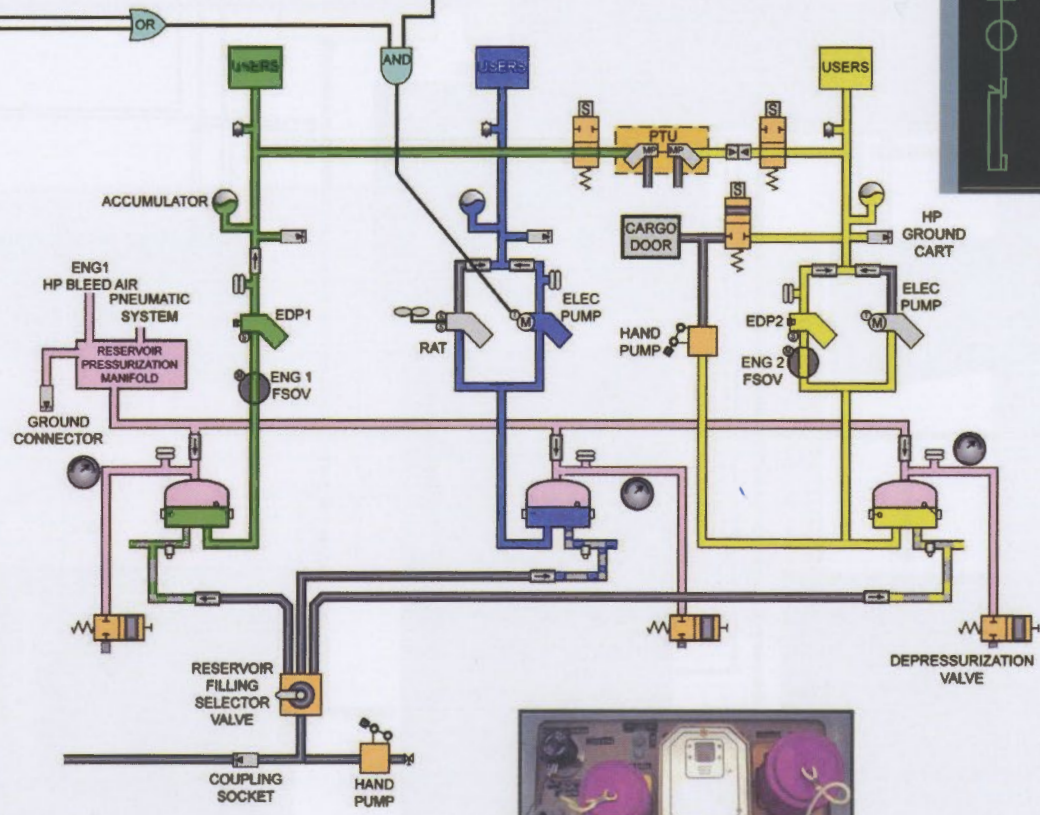
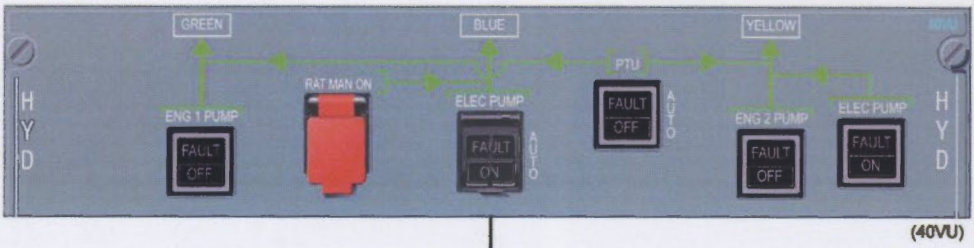
ENGINE RUNNING



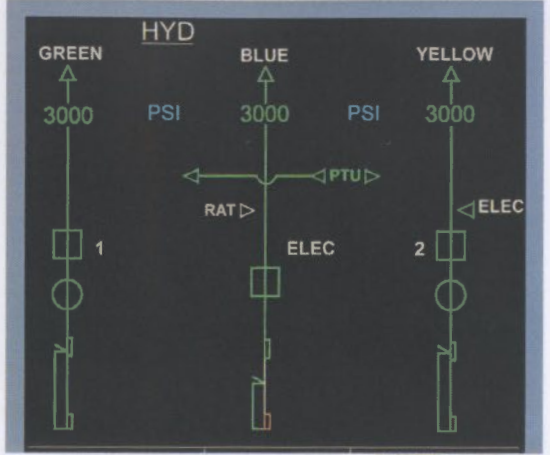
RESERVOIR AIR
PRESSURE GAGE



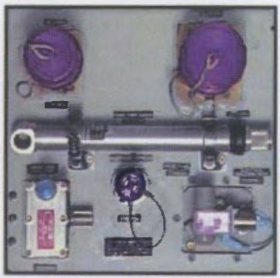
GREEN SERVICING
PANEL



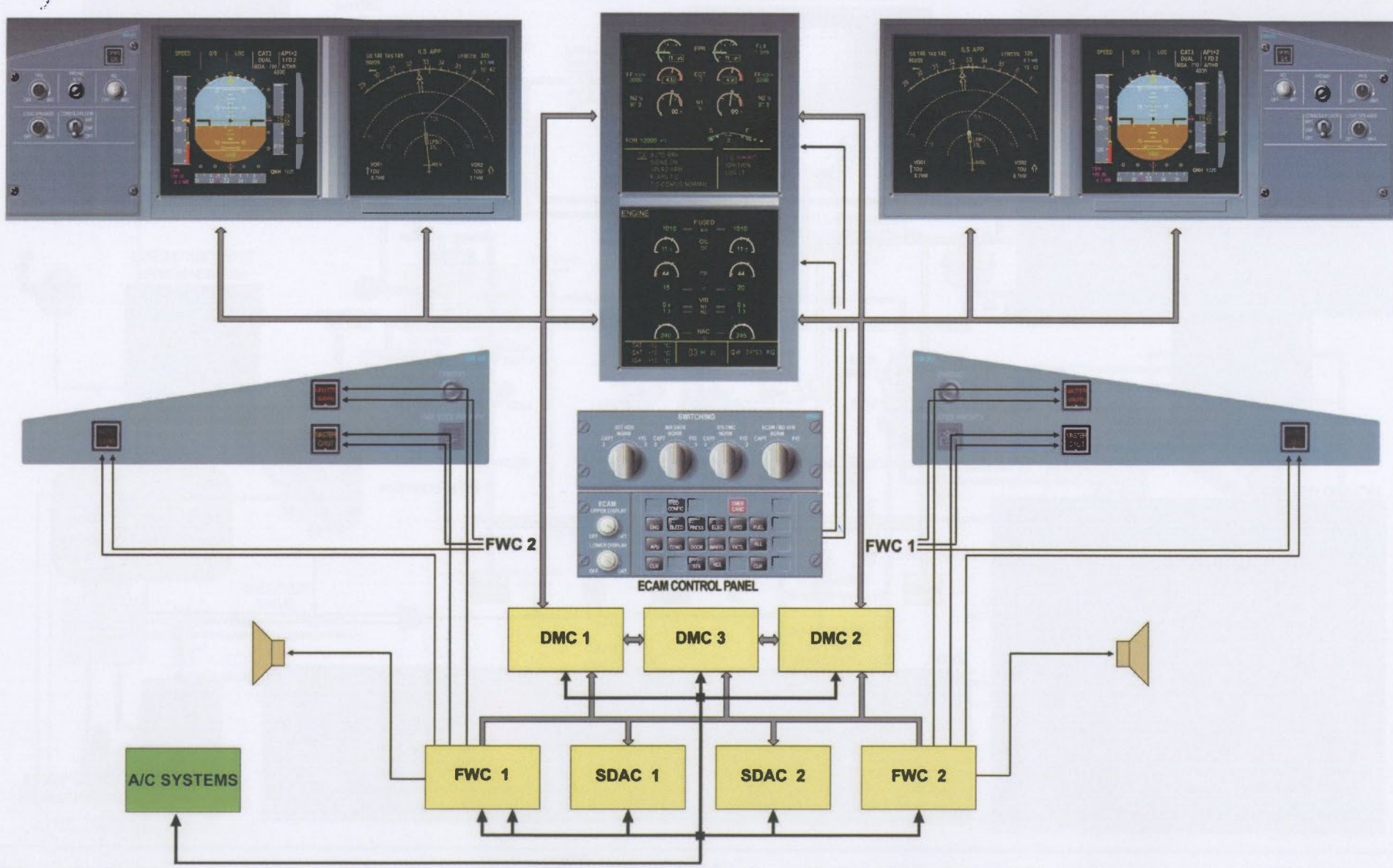
BLUE SERVICING PANEL



RESERVOIR DIRECT
READING GAGE



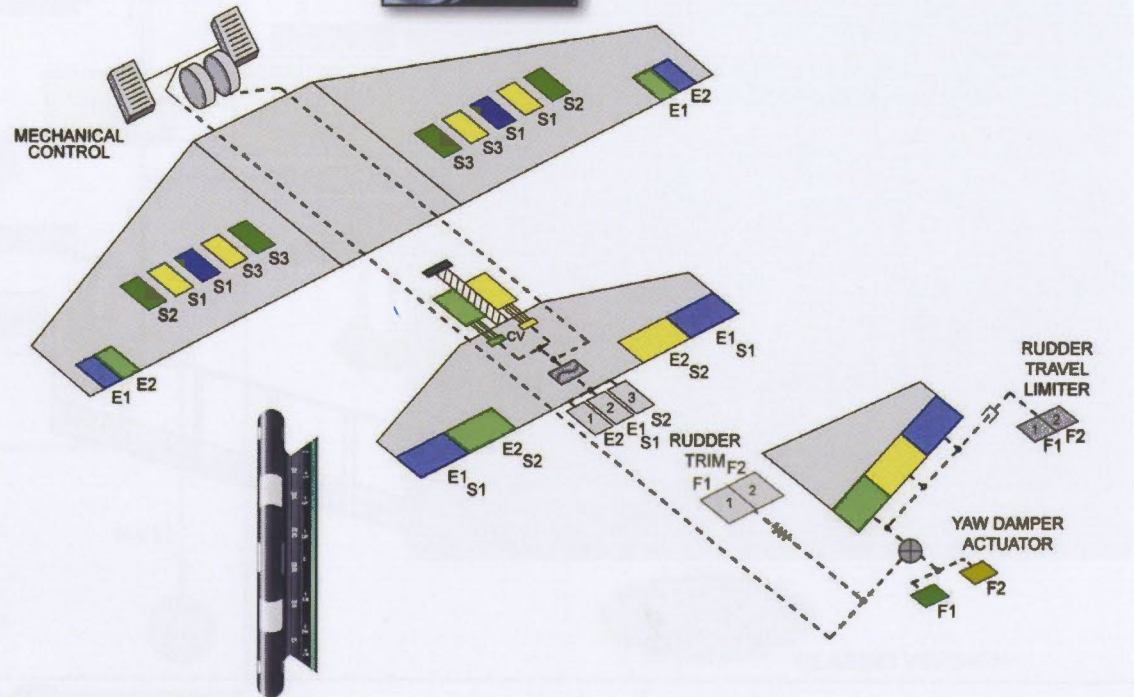
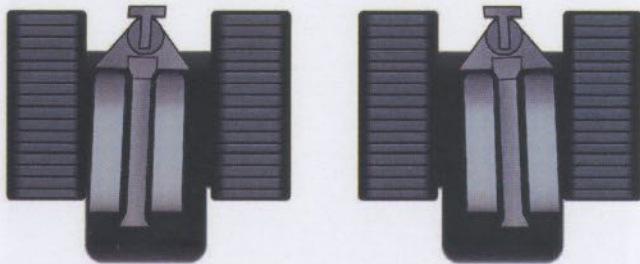
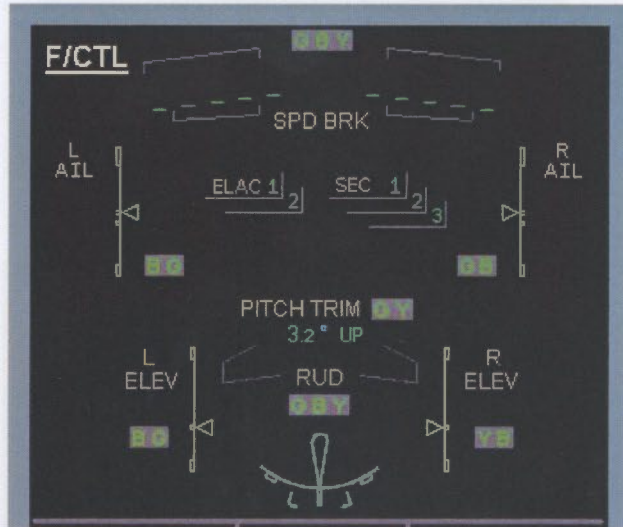
YELLOW SERVICING
PANEL

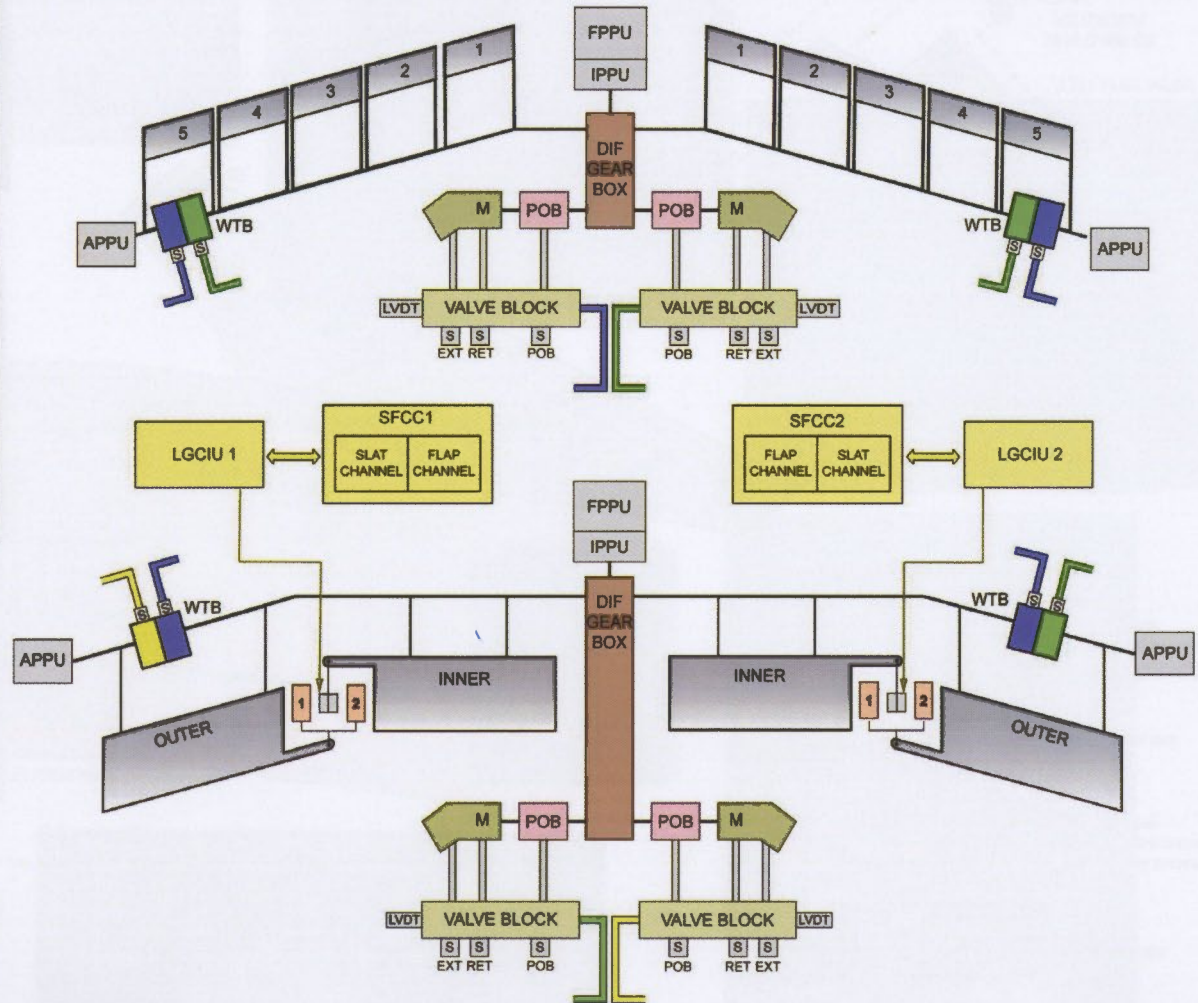
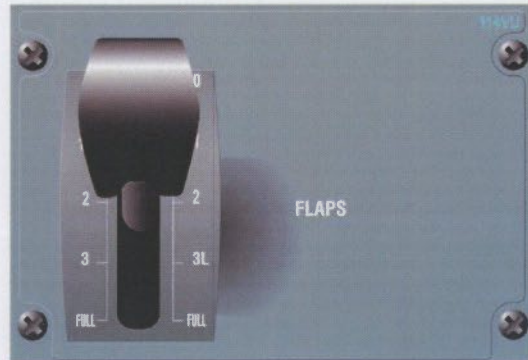


(23VU)

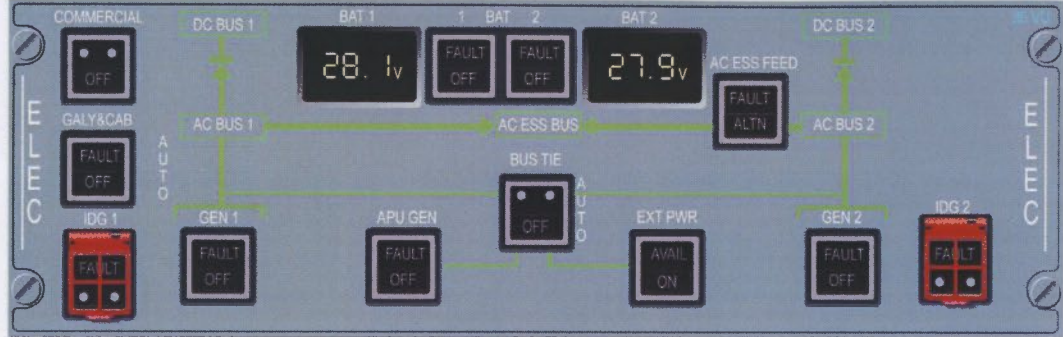
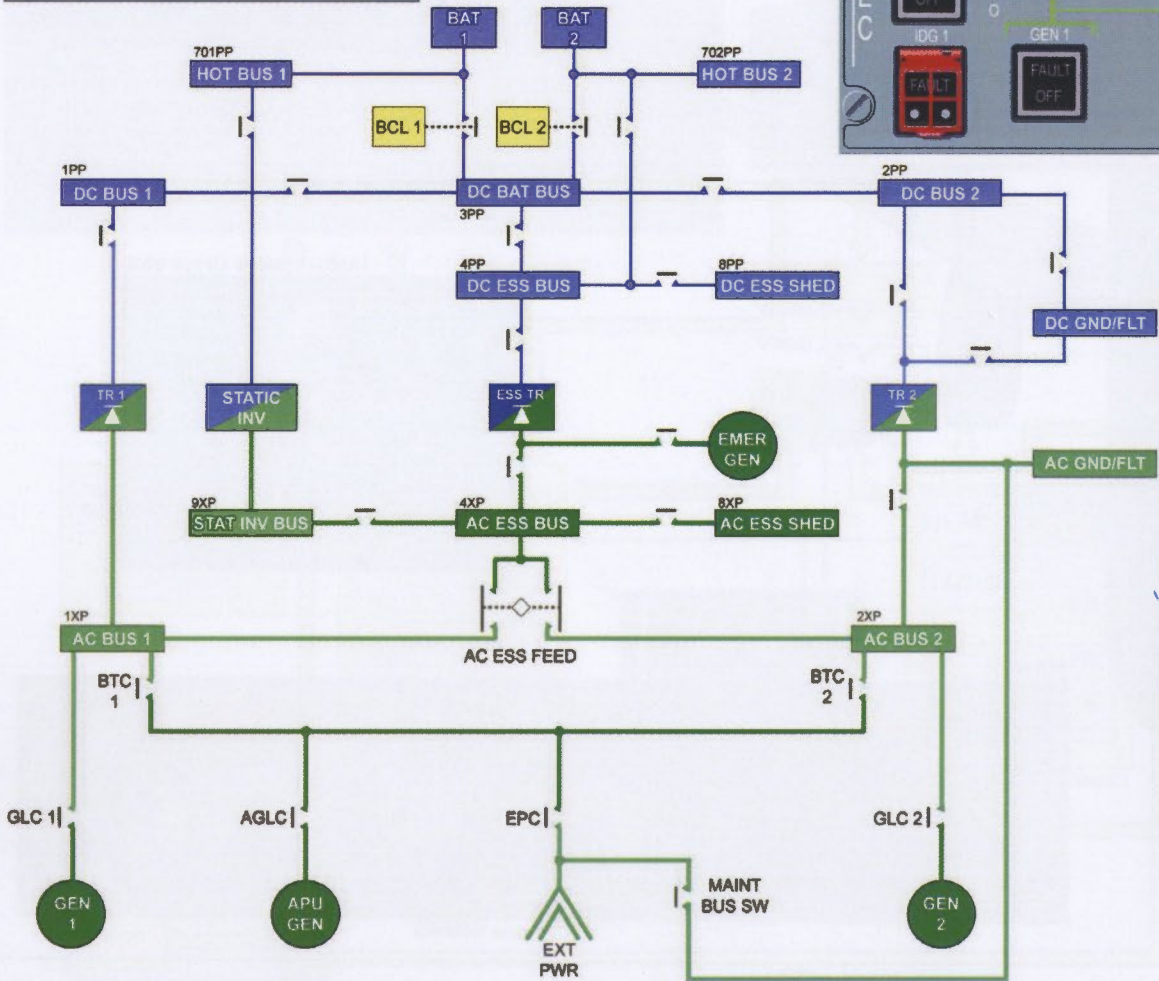


(24VU)

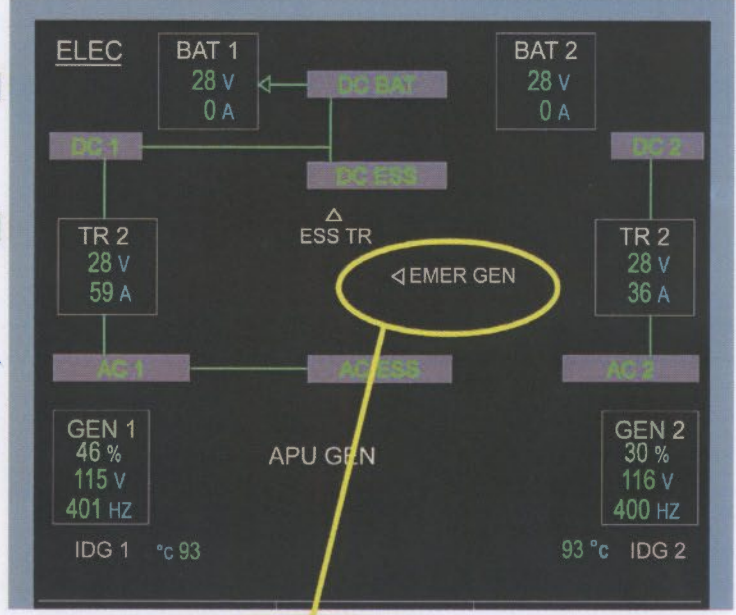




(21 VU)

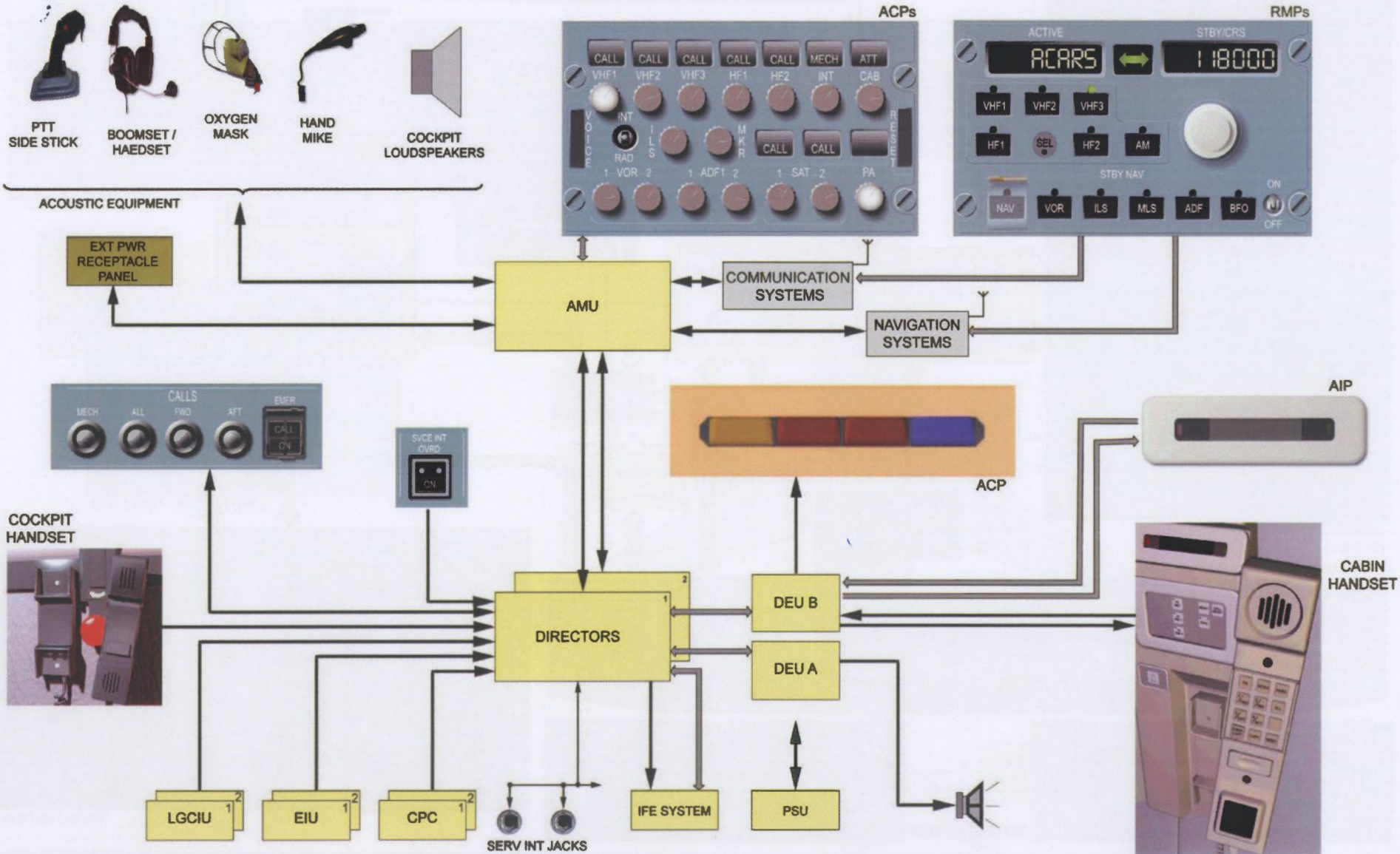


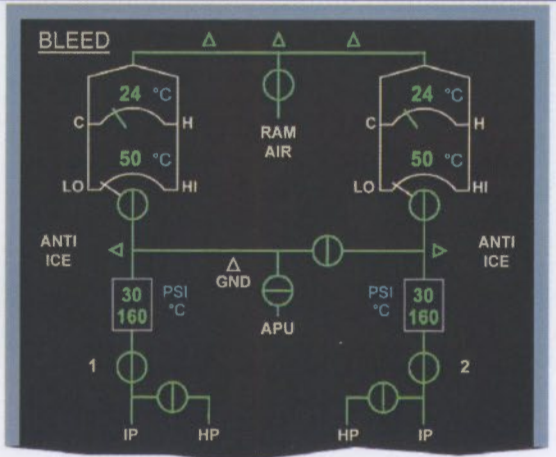
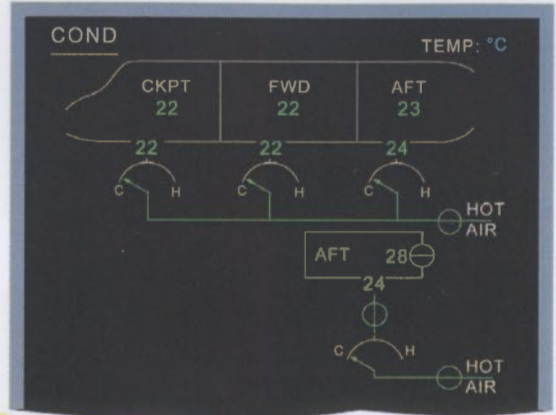
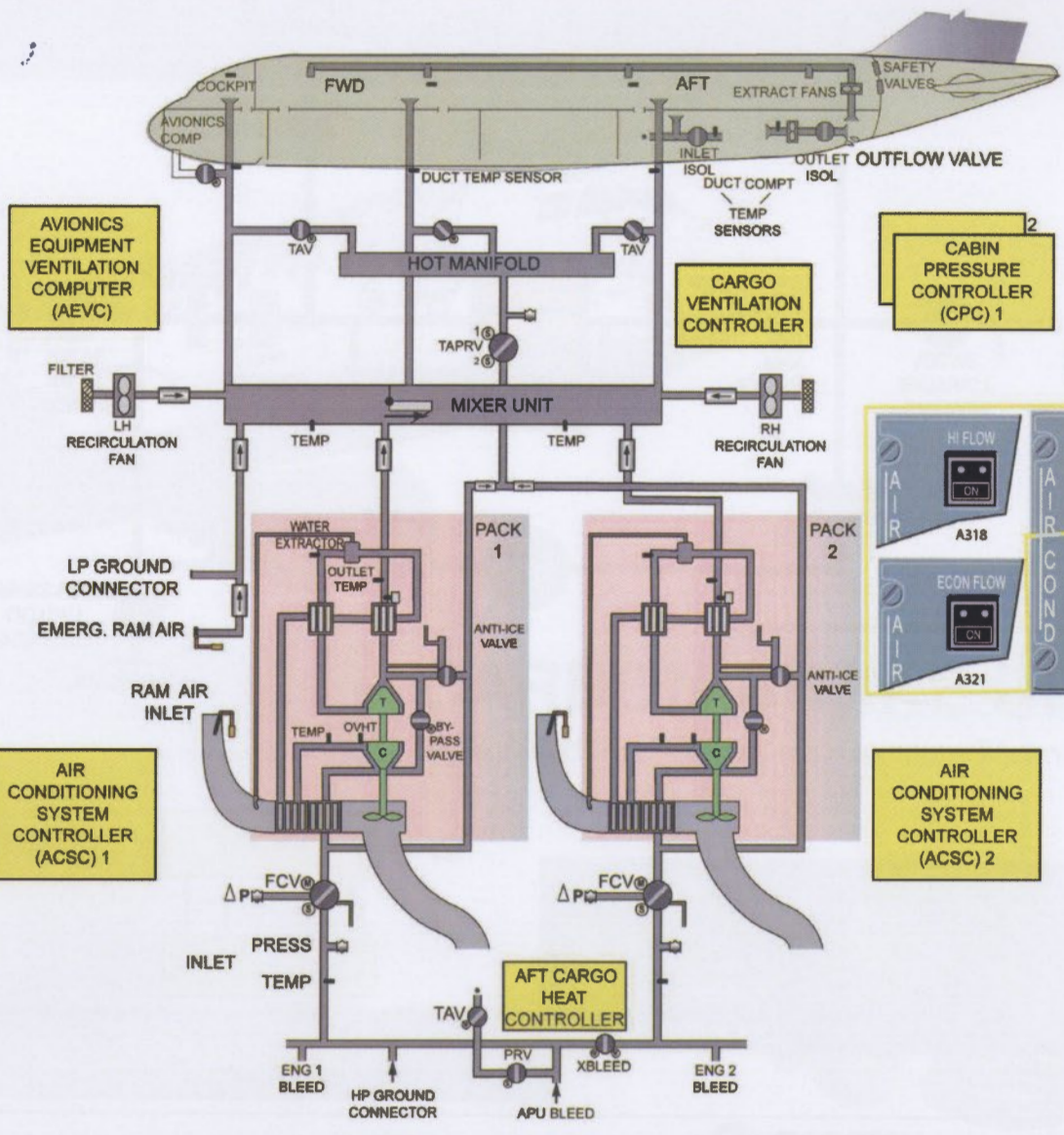
ECAM SYSTEM DISPLAY

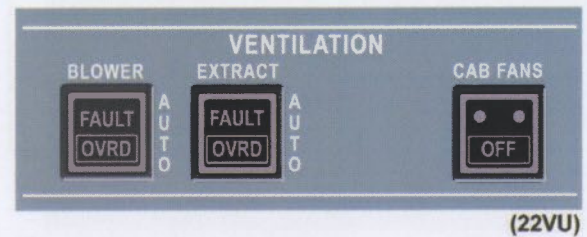
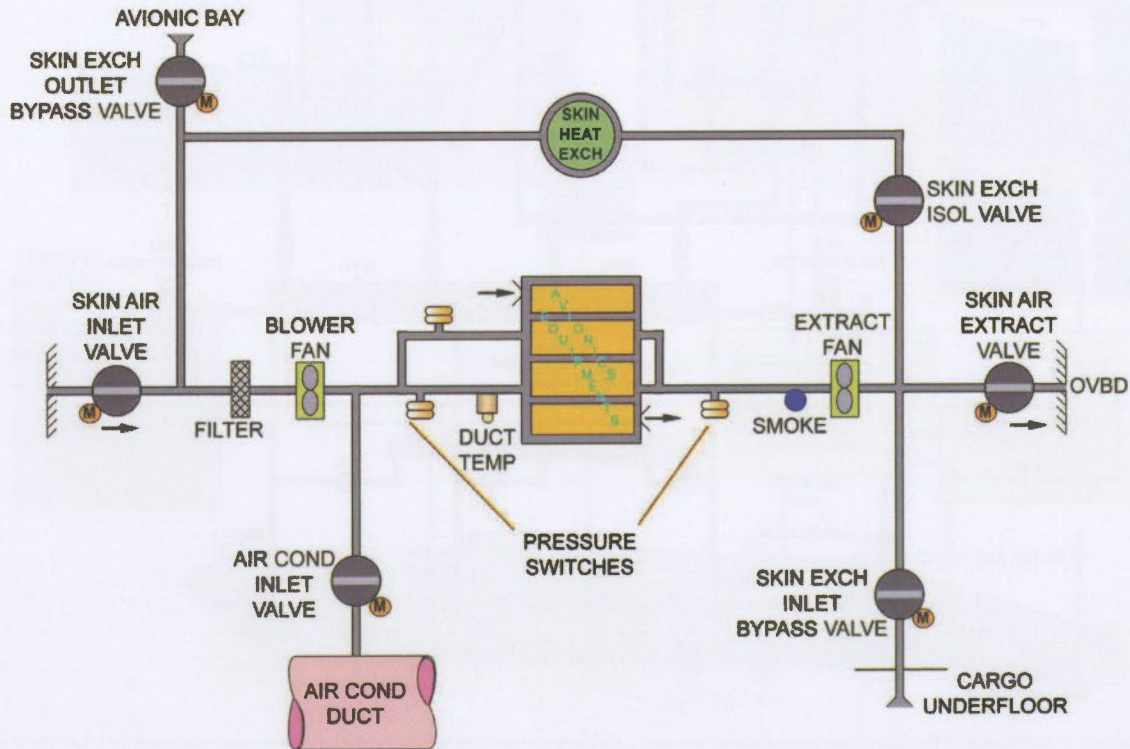
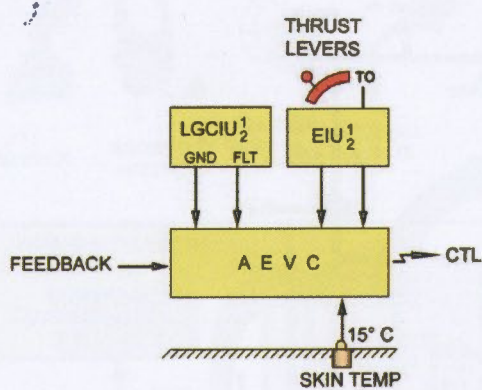


EMER GEN

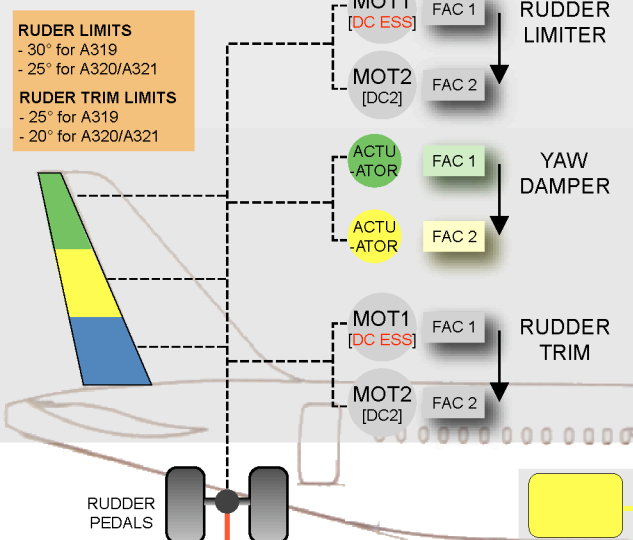
CLASSIC VERSION



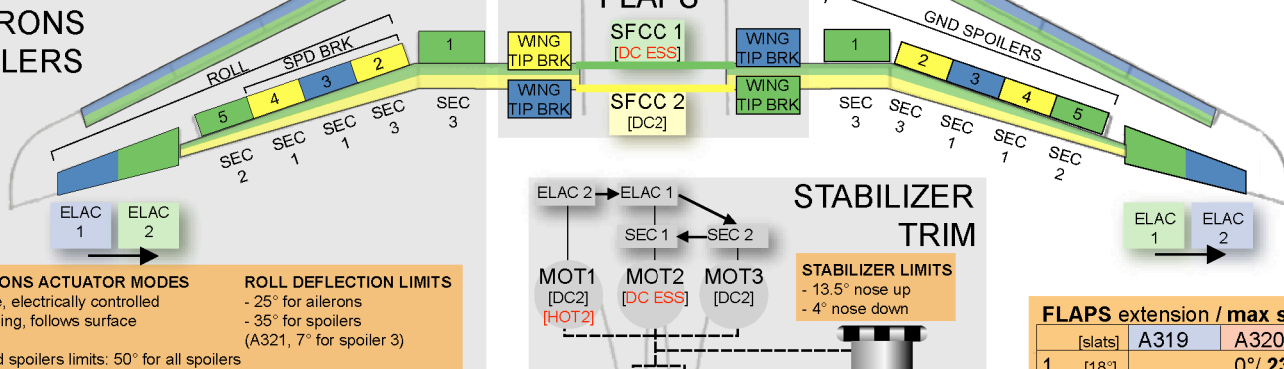
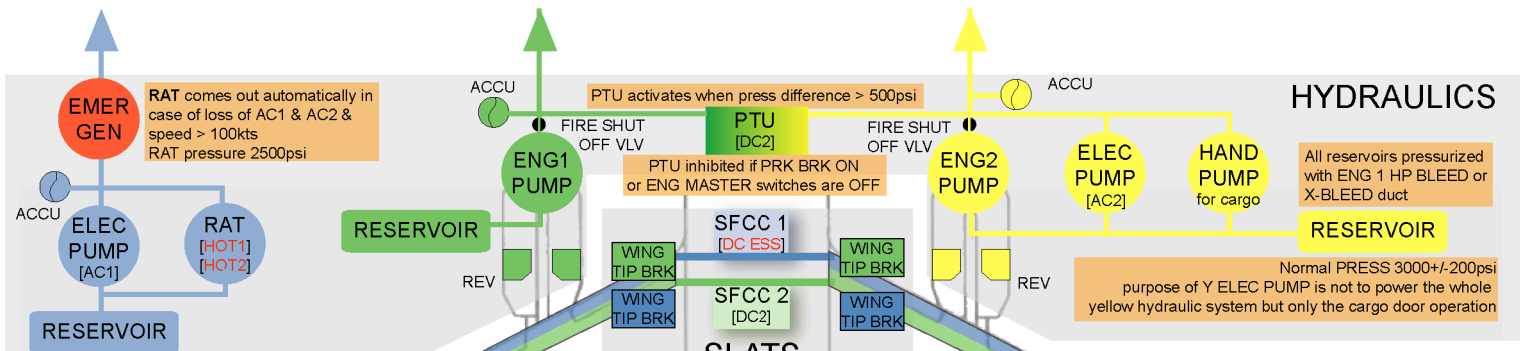
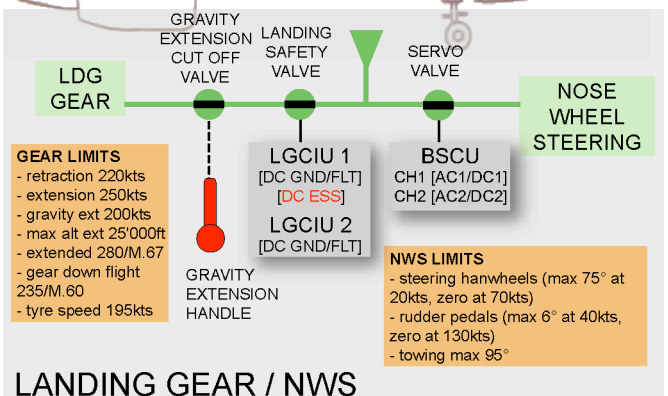
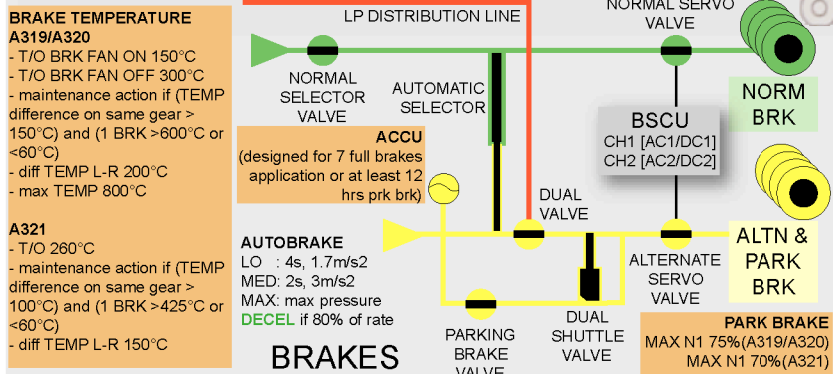
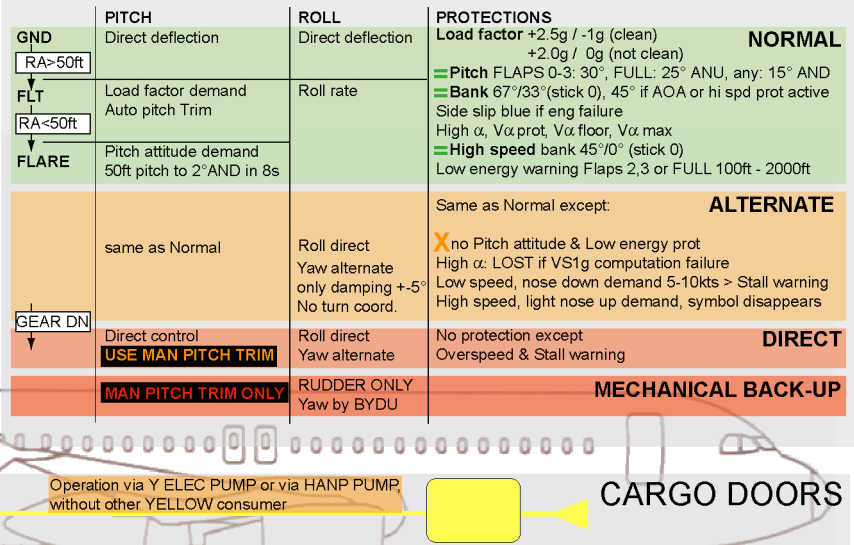




RUDDER



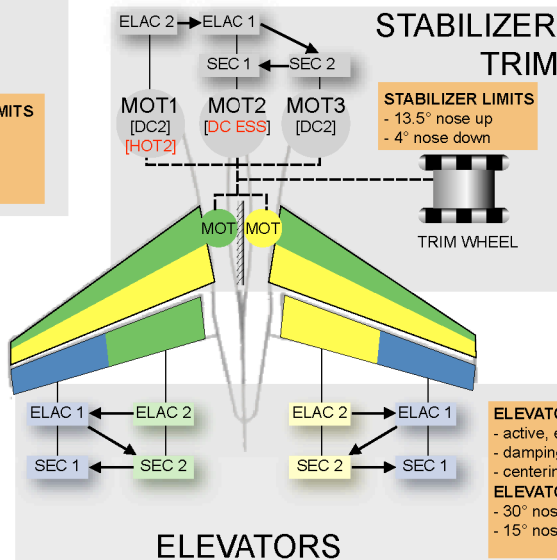
A320 FLT CONTROL LAWS



ELECTRICAL SUPPLY FLIGHT CONTROL COMPUTERS

	MAIN	STBY
ELAC 1	DC ESS	HOT1
ELAC 2	DC2	HOT2
SEC 1	DC ESS	HOT1
SEC 2	DC2	
SEC 3	DC2	
FAC 1	AC ESS	DC SHED
FAC 2	AC2	DC2
FCDC 1	DC SHED	
FCDC 2	DC2	

BUS in red are available in ELEC EMER config



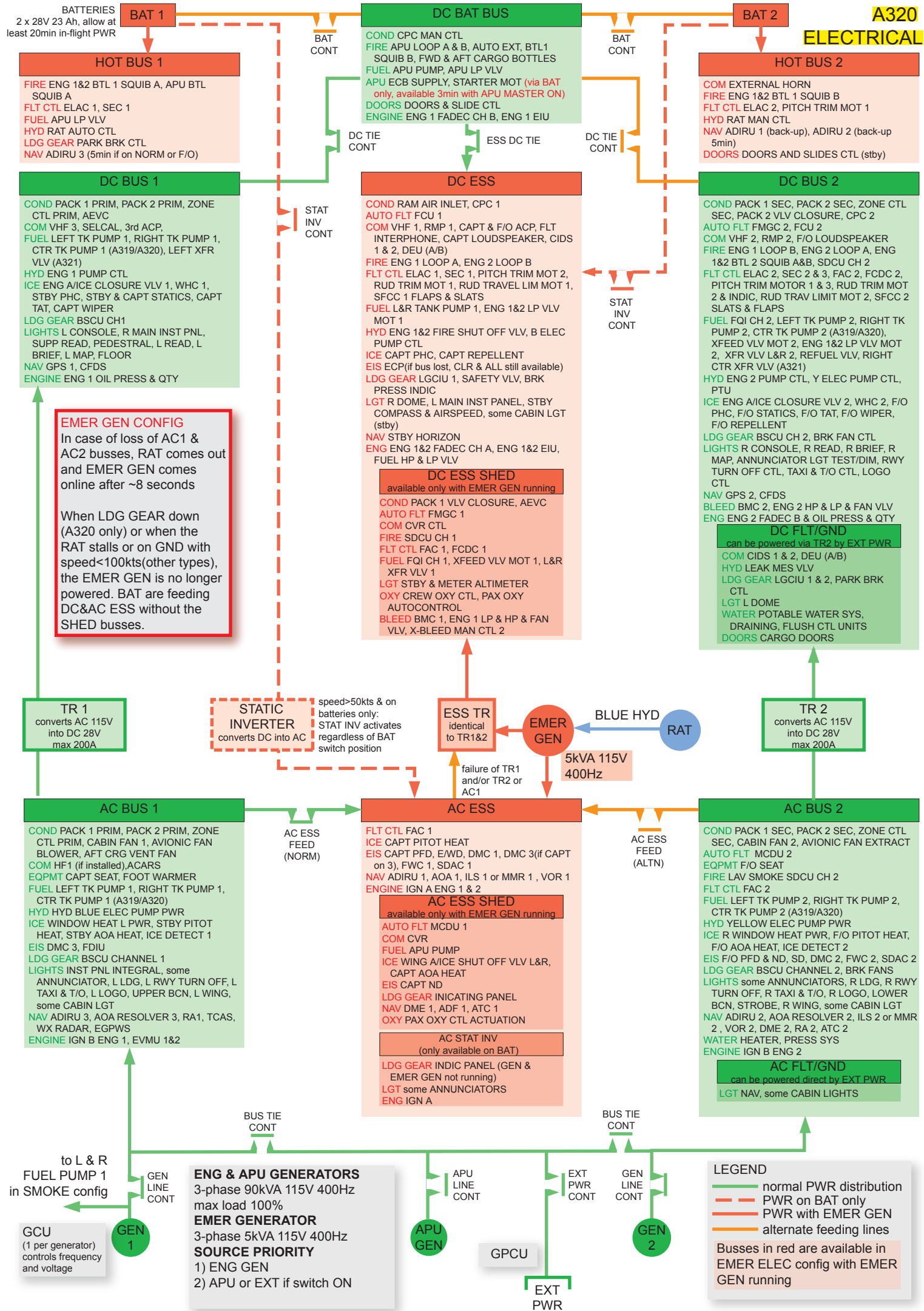
FLAPS extension / max speed

[slats]	A319	A320	A321
1 [18°]		0°/ 230	
1+F [18°]		10°/ 215	
2 [22°]	15°/ 200	15°/ 200	14°/ 215
3 [22°]	20°/ 185	20°/ 185	21°/ 195
Full [27°]	40°/ 177	35°/ 177	25°/ 190

No Flaps/Slats above 20'000ft

ELEVATOR ACTUATOR MODES

- active, electrically controlled
 - damping, follows surface
 - centering, hydraulically maintained in neutral
- ### ELEVATOR DEFLECTION LIMITS
- 30° nose up
 - 15° nose down



Correct usage assures two factors:

- Protection against fire (due to high brake temperatures)
- Brake wear and life

At this two major parameters are involved:

- **Number of brake applications**
- **Brake temperature**

Airbus Design Philosophy

1. **A BRAKE HOT warning renders the probability of a fire of hydraulic origin extremely remote when L/G is retracted**
2. **The indicated temperature (e.g. 300°C) corresponds to about 400°C in the hottest part of the brake**
3. **400°C ensures an adequate margin with the auto ignition temperature of all hydraulic fluids allowed to be used**

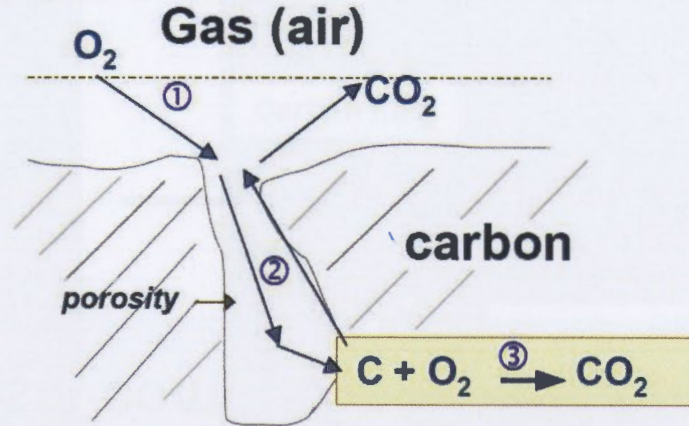
Main purpose of the BRAKE HOT warning is to prevent fire in the L/G bay in case of hydraulic leakage when L/G is retracted.

Carbon brake wear is a complex physical process

Steps of reaction with unprotected C/C

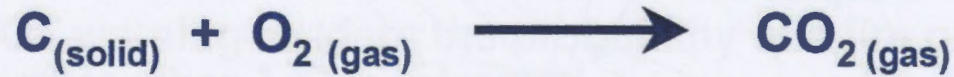
Theory of carbon oxidation

- A process changing carbon into carbon oxides because of the addition of oxygen
 - An heterogeneous reaction, powered by heat



- A combination of :
 - Oxygen diffusion from air to the disk surface
 - Oxygen diffusion inside the carbon porosity
 - Chemical reaction carbon/oxygen

Carbon brake wear is a complex physical process

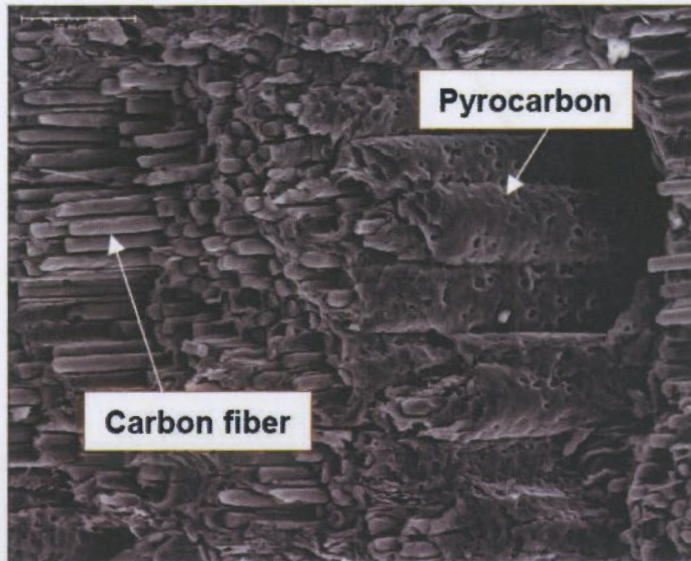


- ☑ Exothermic reaction
- ☑ Occurs at a temperature of 400°C or more
- ☑ More severe at temperatures greater than 650°C

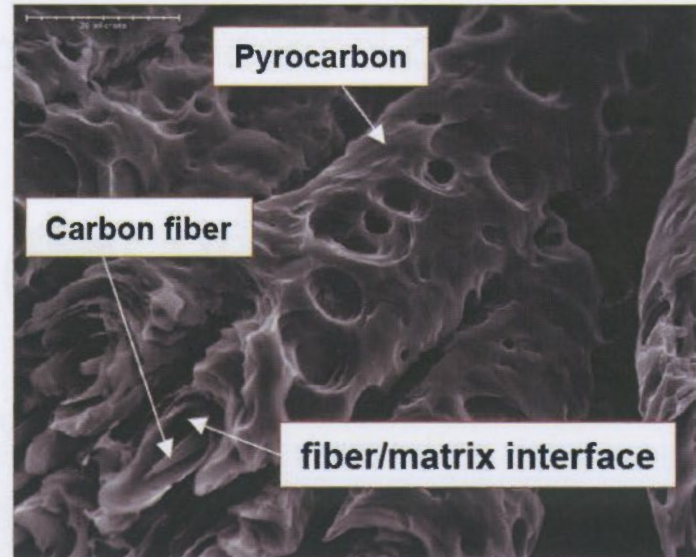


Carbon brake wear is a complex physical process

Microphotograph of oxidized C/C (650°C)



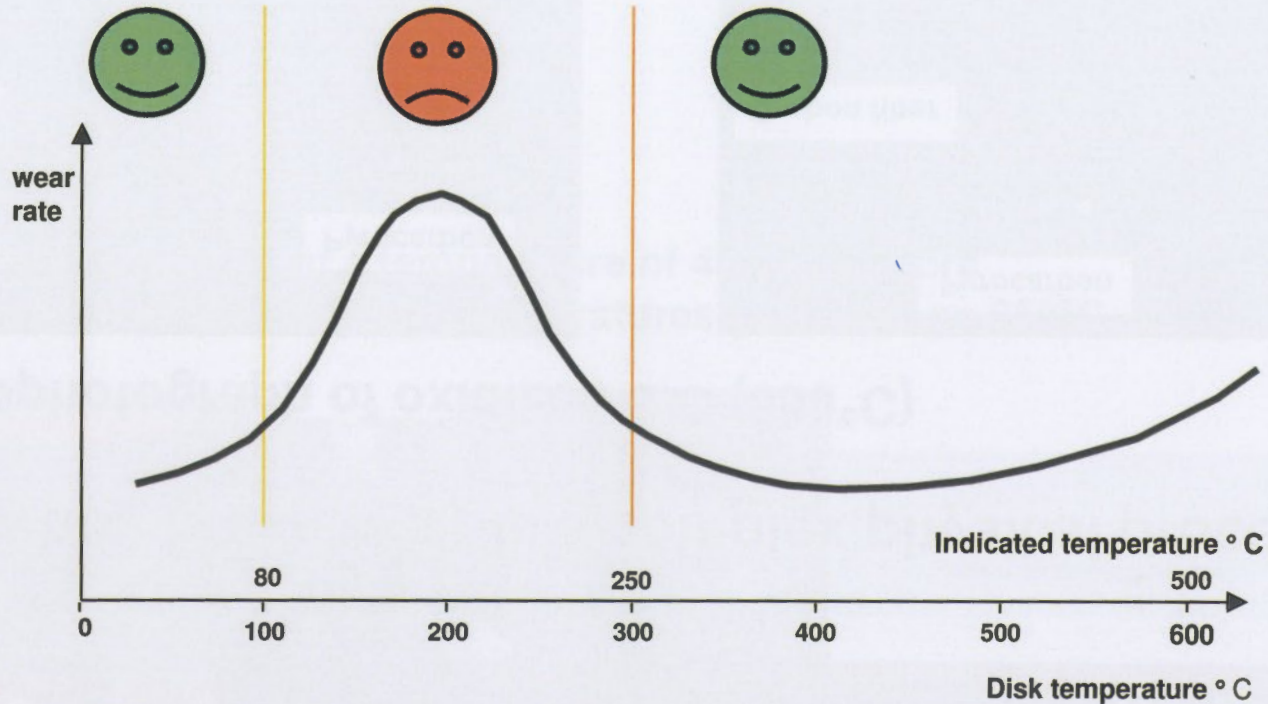
Weight loss 3% (2 hours)



Weight loss 10% (7 hours)

- ☑ Chemical reaction with oxygen causes structural damage of C/C composite (fiber/matrix)
- ☑ It increases the contact surface between oxygen and carbon

Brake Wear related to Brake Temperature



Brake Manufacturers Recommendations

- **Brake temperature management is not easy**
Up to 150 °C difference between brakes in normal operation
- **Good tool: Brake cooling fans**
- **Taxi-In: keep the brakes hot – at least 5 min !**
- **Taxi out:**
 - Messier-Bugatti states: “below 80 °C”
 - **Use the Brake Fan if necessary**

We actually have an OXIDATION PROBLEM !!
MEANING - Too many HOT TEMP FLASHS
- Poor PARKING BRAKE handling

Usage of Autobrake

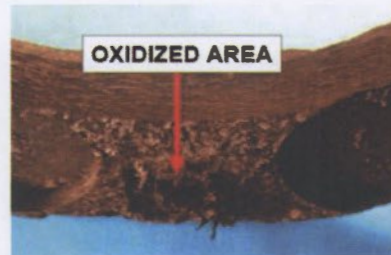
- **Recommended when need of brake application is foreseen:**
 - On short or evenly contaminated runways: LO (or MED)
 - On long and dry runways: LO
 - Autobrake usage reduces BRAKE DIFF TEMP
- **Reduce the number of brake applications to one!**
- **Use of Autobrake increases brake temperature to adequate values for taxi in!**

Usage of Parking Brake

Regular use of Parking Brake requires additional maintenance action and may lead to dragging brakes* !

Hot carbon dust from braking does settle on the extended cylindrical hydraulic brake compression stamps and solidifies with cooling to an extremely hard deposit.

Removal of this deposit is costly in terms of time as it is very laborious and requires additional manpower.

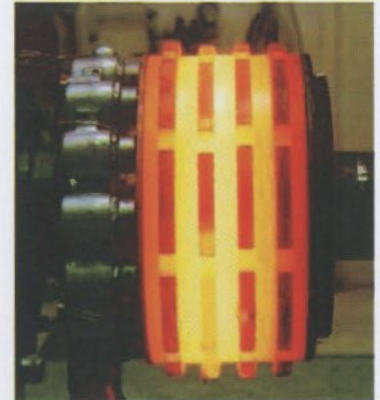


Usage of Parking Brake

- **Brake temperature > 300 °C (150 °C fans ON)**
 - Release parking brake at the gate after chocks are in place
- **Brake temperature > 500 °C (350 °C fans ON)**
 - Avoid parking brake application, unless operationally necessary

Usage of Brake Cooling Fans

- **Taxi out:**
 - Fans ON when temperature $>100^{\circ}\text{C}$ (arc on ECAM)
- **Before takeoff:**
 - If temperature $>150^{\circ}\text{C}$ (fans ON), delay takeoff (except ABS)
 - Fans OFF when temperature $<150^{\circ}\text{C}$
- **Taxi in:**
 - Normal operation:
 - Fans selection delayed for 5 minutes or at the gate
 - Short turnaround or temperature likely to exceed 500°C
 - Select fans (forget oxidation)
- **Parking:**
 - Fans OFF if temperature $< 100^{\circ}\text{C}$ (no arc on ECAM)



Recommendations

- **Reduce the number of brake applications**

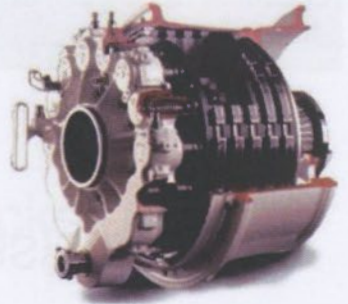
- Reduce applications during taxi in and out
- Do not "ride" the brakes
- Alternate left and right braking when taxiing slowly
- Use autobrake for landing

- **Optimize brake temperature**

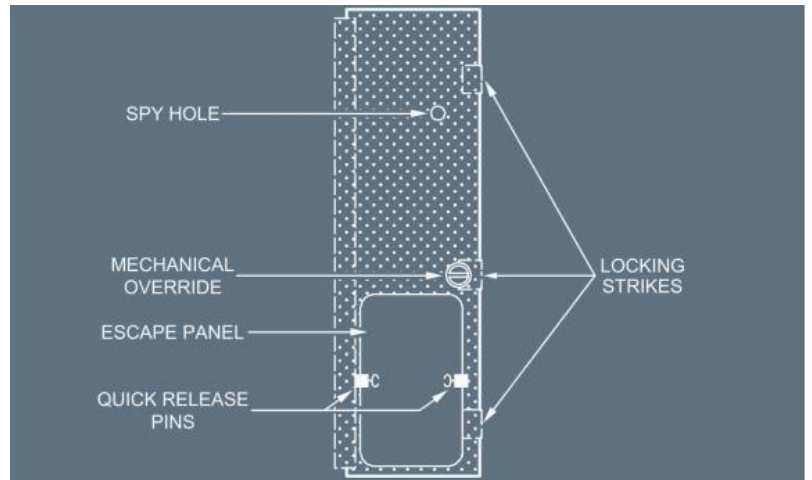
- Operate the brakes in temperature ranges where carbon brake wear is minimum
- Strategic use of Brake Cooling Fans recommended

- **Observe limitations**

- **No repeated operation $>500^{\circ}$**
- **Keep brakes cool during taxi**
- **No use of brake fans during temperature rise (wait 5 min)**
- **Release Parking brake when possible (Assure Chocks in place!)**



How to open the cockpit door without code in an emergency situation from the galley



- 1) Built a tower in front of the door to center a catering box more or less in a height of "quick release pins" (white arrows)



1

- 2) Put the catering box on top of the tower.



3

- 3) Use a fully loaded trolley from a distance of 3-4 meters (business class) with full speed to crash against the catering box.



If nothing works it is a chance, never give up.



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12.8 Memory Items

(Source: A320 FCOM, 3.02.01)

The following procedures are to be applied without referring to paper:

- Windshear
- Windshear ahead
- TCAS
- EGPWS
- Loss of braking
- Beginning of emergency descent
- Beginning of unreliable speed indication

12.8.1 Windshear

(Source: A320 FCOM, 3.02.80)

Before V_1 :

- The takeoff should be rejected only if significant airspeed variations occur below indicated V_1 and the pilot decides that there is sufficient runway remaining to stop the airplane.

After V_1 :

- | | |
|------------------|--------|
| • THR LEVERS | TOGA |
| • REACHING V_R | ROTATE |
| • SRS ORDERS | FOLLOW |

In flight:

- | | |
|-------------------|--------|
| • THR LEVERS | TOGA |
| • AP (if engaged) | KEEP |
| • SRS ORDERS | FOLLOW |
- (This includes full back stick, if demanded)

Note:

- do not change configuration (flaps, slats gear)
- closely monitor flight path and speed
- If AP engaged the AP disengages when α is greater than α_{prot}
- If FD is not available use an initial pitch attitude up to 17.5° . If necessary to minimize the loss of height, increase this pitch attitude.

12.8.2 Windshear ahead (PWS)

(Source: A320 FCOM, 3.02.80)

The "W/S AHEAD" message is displayed on each PFD. The color of the message depends on the severity and location of the windshear.

12.8.2.1 W/S AHEAD red



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The W/S AHEAD warning is associated with an aural synthetic voice "WINDSHEAR AHEAD, WINDSHEAR AHEAD".

Before takeoff

- Delay takeoff, or select the most favorable runway.

During the takeoff run

- Reject takeoff.
Note: Predictive windshear alerts are inhibited above 100 knots until 50 feet.

When airborne

- THR LEVERS TOGA

As usual, the slat/flap configuration can be changed, provided the windshear is not entered.

- SRS ORDERS FOLLOW
Note: If AP engaged the AP disengages when α is greater than α_{prot}

Landing

The W/S AHEAD warning is associated with an aural synthetic voice "GO AROUND, WINDSHEAR AHEAD".

Note : If a positive verification is made that no hazard exists, the warning may be considered cautionary.

- THR LEVERS TOGA
- ANNOUNCE "GO AROUND-FLAPS"
- FLAPS RETRACT ONE STEP
- L/G UP SELECT

Note:

- This includes the use of full back stick, if demanded.
- If AP engaged the AP disengages when α is greater than α_{prot}
- If FD is not available use an initial pitch attitude up to 17.5°. If necessary to minimize the loss of height, increase this pitch attitude.



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12.8.2.2 W/S AHEAD amber

(Source: A320 FCOM, 3.02.80 & FCOM 3.4.91)

Apply precautionary measures, as indicated in the SUPPLEMENTARY TECHNIQUES 3.04.91.

Before takeoff

- Delay takeoff until conditions improve.
- Evaluate takeoff conditions using observations, experience and checking weather conditions.
- Select the most favorable runway (considering location of the likely windshear).
- Use the weather radar or the predictive windshear system before commencing takeoff to ensure that the flight path clears any potential problem areas.
- Select TOGA thrust.
- Monitor closely airspeed and airspeed trend during the takeoff run for early signs of windshear.

During approach

- Delay landing or divert to another airport until conditions are more favorable.
- Evaluate condition for a safe landing by Using observations, experience and checking weather conditions.
- Use the weather radar.
- Select the most favorable runway, considering also which has the most appropriate approach aid.
- Select FLAPS 3.
- Use managed speed in the approach phase.
- Check both FDs engaged in ILS, FPA or V/S.
- Engage the autopilot, for a more accurate approach and earlier recognition of deviation from the beam, when ILS is available.

Note :

- When it is using the GS mini-function, associated with managed speed, the system will carry extra speed in strong wind conditions.
- If downburst is expected, increase V_{app} displayed on the MCDU up to a maximum of $V_{LS} + 15$ knots.



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12.8.3 TCAS

(Source: A320 FCOM, 3.2.34, QRH 1.15)

Traffic advisory, TA ("traffic")

- Attempt to see the traffic

Corrective resolution advisory, RA ("climb" or "descent" or "monitor vertical speed" or "maintain vertical speed, maintain" or "adjust vertical speed"):

- AP (if engaged) OFF
- BOTH FD OFF
- Adjust the vertical speed, as required, to that indicated on the green area of the vertical speed scale.
- Respect all GPWS or wind shear warnings
- Attempt to see the traffic
- Notify ATC
- When "clear of conflict" is announced, resume normal navigation in accordance with ATC-clearance.

Note :

- Avoid excessive maneuvers, while keeping the vertical speed outside the red area of the VSI and within the green area. If necessary, use the full speed range between V_{max} and V_{max} .
- GO AROUND procedure must be performed when a RA "CLIMB" or "INCREASE CLIMB" is triggered on final approach. (Resolution Advisories (RA) are inhibited below 900 feet.)



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12.8.4 EGPWS

(Source: A320 FCOM, 3.2.34, QRH 1.14)

12.8.4.1 Hard warnings

MWL and synthetic voice "PULL UP" or "TERRAIN, TERRAIN PULL UP" or "TERRAIN AHEAD PULL UP" or "AVOID TERRAIN"

- **During night or in IMC apply the procedure immediately. Do not delay reaction for diagnosis.**
- During daylight and VMC conditions, with terrain and obstacles clearly in sight, the alert may be considered cautionary. Take positive corrections.

Reaction:

- | | |
|--|-----------------------|
| • AP | OFF |
| • PITCH | PULL UP |
| Pull up to full back stick and maintain. | |
| • THRUST LEVERS | TOGA |
| • SPEED BRAKE | CHECK RETRACTED |
| • BANK | WINGS LEVEL or ADJUST |
-
- When flight path is safe and EGPWS warning ceases, decrease pitch and accelerate.
 - When speed is above V_{LS} and V/S is positive, clean up aircraft as required.

12.8.4.2 Soft warnings

MCL and synthetic voice "TERRAIN TERRAIN" or "TERRAIN AHEAD" or "TOO LOW TERRAIN" or "SINK RATE" or "GLIDE SLOPE" etc.)

- Take positive corrections.



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12.8.5 Loss of braking

(Source: A320 FCOM, 3.2.32, QRH 1.13)

If autobrake selected:

- BREAK PEDALS PRESS

If no braking available:

- REV MAX
- BRAKE PEDALS RELEASE
Brake pedals should be released when the A/SKID & N/W STRG selector is switched OFF, since the pedal force or displacement produces more braking action in alternate mode than in normal mode.
- A/SKID & N/W STRG OFF
Braking system reverts to alternate mode.
- BRAKE PEDALS PRESS
Apply brake with care, since initial pedal force or displacement produces more braking action in alternate mode than in normal mode.
- MAX BRK PR 1000 PSI
Monitor brake pressure or BRAKES PRESS indicator. Limit brake pressure to approximately 1000 psi and, at low ground speed, adjust brake pressure as required.

If still no braking :

- PARKING BRAKE USE
Use short successive parking brake applications to stop the aircraft. Brake onset asymmetry may be felt at each parking brake application. If possible, delay the use of the parking brake until low speed, to reduce the risk of tire burst and lateral control difficulties.



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12.8.6 Emergency descent

12.8.6.1 Beginning of Emergency descent

(Source: A320 FCOM, 3.02.80, QRH 1.25)

Immediate Actions:

- OXY MASK ON
- Descend with autopilot engaged
- ALT selector knob turn and pull
- HDG selector knob turn and pull
- Target SPD/MACH adjust
- THR LEVERS (if A/THR not engaged) IDLE
- SPEED BRAKES FULL

Extension of the speed brakes will significantly increase V_{LS} . To avoid autopilot disconnection and automatic retraction of the speed brakes, due to possible activation of the angle of attack protection, allow the speed to increase before starting to use the speed brakes.

12.8.6.2 Points of considerations

- When the oxygen masks are on, establish communication
- When selecting an altitude, it should be above MORA/MOCA. A quick way to determine the MORA is to select CSTR and check the lower left of the ND for the value (remember that it is the Grid MORA).
- When selecting a new HDG ensure that it makes sense. For example, flights to and from LEPA from Germany pass over mountainous regions – don't turn towards high terrain. Another example; TCAS may also be used to choose a HDG that doesn't pose a risk to other traffic.
- After the beginning actions executed by memory, refer to the QRH for further actions.

12.8.7 Unreliable speed indication

(Source: A320 FCOM, 3.2.34)

12.8.7.1 General

Unreliable speed indication may be due to radome damage, or due to air probe failure or obstruction. The indicated altitude may also be affected, if static probes are affected. Unreliable speed cannot be detected by the ADIRU. The flight control and flight guidance computers normally reject erroneous speed/altitude source(s), provided a significant difference is detected.

However, they will not be able to reject two erroneous speeds or altitudes that synchronously and similarly drift away. In this remote case, the aircraft systems will consider the remaining correct source as being faulty and will reject it. Consequently, the flight control and flight guidance computers will use the remaining two wrong ADRs for their computation.

Therefore, in all cases of unreliable speed situation, the pilots must identify the faulty ADR(s) and then switch it (them) OFF. During this failure identification time, since the flight control laws may be affected, it is recommended to maneuver the aircraft with care until the ADR(s) is (are) switched OFF.

Unreliable speed indications may be suspected, either by

- Speed discrepancies (between ADR 1, 2, 3, and standby instruments).
- Fluctuating or unexpected increase/decrease/permanent indicated speed, or pressure altitude.
- Abnormal correlation of the basic flight parameters (speed, pitch attitude, thrust, climb rate).
- Abnormal AP/FD/ATHR behavior.
- Stall warning, or overspeed warnings, that contradicts with at least one of the indicated speeds.
- Rely on the stall warning that could be triggered in alternate or direct law. It is not affected by unreliable speeds, because it is based on angle of attack.
- Depending on the failure, the overspeed warning may be false or justified. Buffet, associated with the overspeed V_{FE} warning, is a symptom of a real overspeed condition.
- Inconsistency between radio altitude and pressure altitude.
- Reduction in aerodynamic noise with increasing speed, or increase in aerodynamic noise with decreasing speed.
- Impossibility of extending the landing gear by the normal landing gear control.

How to apply the procedure

- If the wrong speed or altitude information does not affect the safe conduct of the flight, first apply the ADR CHECK procedure to identify the faulty ADR(s) and switch it (them) OFF. If necessary, enter the unreliable speed procedure, or severe turbulence table (if in cruise), to set the pitch and thrust corresponding to the current flight phase. Check the resulting speed indicated on the table with all the indicated speeds/altitudes (from ADR 1, 2, 3 and standby instruments) to positively identify the faulty ADR(s).
- If the safe conduct of the flight is affected (all the speed indications are unreliable, or the wrong speed indication cannot not be positively identified)
- Immediately apply the memory items : AP/FD/ATHR OFF, and fly the memory pitch – thrust settings.
- Then, once stabilized, refer to the QRH in order to determine the pitch and thrust settings required by the current flight phase.
- Determine the faulty ADR(s) once the aircraft is stabilized, by comparing all of the indicated speeds/altitudes (from ADR 1, 2, 3 and standby instruments) with the expected

speed, as per the table ; use ground speed and GPS speed/altitude variations for reasonableness considerations.

- In the extreme case where the faulty ADR(s) cannot be identified and all speed indications remain unreliable, apply the proper pitch-thrust settings for each flight phase until landing and refer to ground speed and GPS speed/altitude variations for assistance.

12.8.7.2 Beginning of Unreliable Speed Indication

(Source: A320 FCOM, 3.2.34)

- | | |
|----------------|-------------------------|
| • AP / FD | OFF |
| • A/THR | OFF |
| • FLAPS | MAINTAIN CURRENT CONFIG |
| • SPEED BRAKES | CHECK RETRACTED |
| • L/G | UP |

Below thrust reduction altitude

- | | |
|------------------|------|
| • THRUST LEVER | TOGA |
| • PITCH ATTITUDE | 15° |

Above thrust reduction altitude

- | | |
|------------------------------|-----|
| • THRUST LEVER | CLB |
| • PITCH ATTITUDE below FL100 | 10° |
| • PITCH ATTITUDE above FL100 | 5° |

Note:

- Respect the stall warning, if in alternate law.
- Ground speed variations can provide valuable short-term information at low altitude.
- The FPV is unreliable, if altitude information is affected. In other cases, it is a valuable aid in establishing a safe flight path.

After the beginning actions executed by memory, refer to the QRH for further actions.



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12.8.8 Rejected T/O / Emergency Evacuation

(Source: A320 FCOM, 3.02.10 & 3.02.80)

12.8.8.1 General

The decision to reject the takeoff and the stop action is made by the captain.

Therefore the captain should keep his hand on the thrust levers until V1 is reached whether he is PF or PNF. As soon as he decides to abort, he calls "stop", takes over, and performs the stop actions.

It is impossible to list all the factors that could lead to the decision to abort the takeoff, but in order to help in the decision process, the ECAM inhibits the warnings that are not paramount from 80 knots to 1500 feet (or 2 minutes after lift-off, whichever occurs first).

Rejected takeoffs have sometimes been hazardous even though the performance was correctly calculated, based on flight tests.

This may be due to the following :

- Delay in initiating the stopping procedure
- Tires damaged
- Brakes worn or not working correctly, initial temperature higher than normal
- Brakes not fully applied
- Runway friction coefficient lower than expected
- Error in gross weight determination
- Runway line-up not considered.

The aircraft is certificated according to FAR amendment 25-42, which allows 2 seconds between decision and action, thus improving the safety margin.

Above 100 knots, rejecting the takeoff becomes a serious action that may lead to a hazardous situation. Therefore, as speed approaches V1, the pilot should be "go-minded" if none of the main failures cited below ("Above 100 knots and below V1") has occurred.

12.8.8.2 Decision management

Below 100 knots :

- The decision to reject the takeoff may be taken at the captain's discretion, depending on the circumstances
- Although we cannot list all the causes, the captain should seriously consider discontinuing the takeoff, if any ECAM warning is activated.

Note: The speed of 100 knots is not critical: It was chosen in order to help the captain make his decision, and to avoid unnecessary stops from high speed.

Above 100 knots and below V_1 :

- Rejecting the takeoff at these speeds is a more serious matter, particularly on slippery runways. It could lead to a hazardous situation, if the speed is approaching V_1 . Very few situations should lead to the decision to reject the takeoff. The main ones are:
 - o Fire warning or severe damage.
 - o Sudden loss of engine thrust.
 - o Malfunctions or conditions that give unambiguous indications that the aircraft will not fly safely. ECAM warnings such as:
 - ENG or APU FIRE
 - ENG FAIL
 - CONFIG. (MAIN WARNINGS ONLY)
 - ENG OIL LO PR
 - ENG REV UNLOCKED
 - L + R ELEV FAULT
- Nose gear vibration should not lead to an RTO above 100 knots.
- In case of tire failure between V_1 minus 20 knots and V_1 : Unless debris from the tires has caused serious engine anomalies, it is far better to get airborne, reduce the fuel load, and land with a full runway length available.
- The V_1 call has precedence over any other call.

Above V_1 :

Takeoff must be continued, because it may not be possible to stop the aircraft on the remaining runway.

12.8.8.3 Procedure during a rejected takeoff

12.8.8.3.1 Phase 1

CMD:

- “stop” CALL
 - THRUST LEVERS MAX REVERSE
- Full reverse may be used until coming to a complete stop. But, if there is enough runway available at the end of the deceleration, it is preferable to reduce reverse thrust when passing 70 knots.

FO:

- | | |
|-------------------|----------|
| • BREAK RESPONSE | MONITOR |
| • REVERSE | CONFIRM |
| • “70 kt” | CALL OUT |
| • ANY WARNING | CANCEL |
| • ATC | INFORM |
| • ON GND EVAC C/L | LOCATE |



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Note:

- If the brake response does not seem appropriate for the runway condition, full manual braking should be applied and maintained. If in doubt, take over manually. Do not attempt to clear the runway, until it is absolutely clear that an evacuation is not necessary and that it is safe to do so.
- If the autobrake is unserviceable, the Captain simultaneously reduces thrust and applies maximum pressure on both pedals.
- The aircraft will stop in the minimum distance, only if the brake pedals are maintained fully pressed until the aircraft comes to a stop.
- If normal braking is inoperative, immediately switch the A/SKID & NOSE WHEEL switch OFF and modulate brake pressure, as required, at or below 1000 PSI.
- If the brake pedals were fully pressed when switching the A/SKID & NOSE WHEEL switch OFF, full pressure would be applied to the brakes.
- After a rejected takeoff, if the aircraft comes to a complete stop using autobrake MAX, release brakes prior to taxi by disarming spoilers.

12.8.8.3.2 Phase 2

CMD:

- | | |
|-------------------------------|------|
| • PARKING BRAKE | ON |
| • PA "cabin crew at stations" | CALL |
| • "ECAM actions" | CALL |

FO:

- | | |
|----------------|----------|
| • ECAM ACTIONS | INITIATE |
|----------------|----------|

12.8.8.3.3 Evacuation Phase

- If required, refer to the ON GROUND EMER/EVACUATION Checklist for evacuation.
- Inform ATC of intention and required assistance.

TAKE-OFF

TAKE OFF LIMITATIONS	DEPTH	USE Contamination:	MAX X-WIND
DRY		DRY	38kts inclusive gusts
WET / DAMP		WET	
STANDING WATER			
WET SNOW	<=3mm	WET	5kts
SLUSH			
AQUAPLANING			
WET with SAND or DUST			
STANDING WATER	>3-6 >6-13mm	WATER 1/2" 1/4"	5kts
WET SNOW			
SLUSH			
DRY SNOW (regardless of BA & FC)	<=15mm	WET	15kts
		WATER 1/2" 1/4"	
COMPACTED SNOW	RUSSIA		
GOOD FC > 0.4	FC >= 0.42	WET	25kts
MEDIUM-GOOD 0.39 to 0.36	0.40 to 0.42	COMPACTED SNOW	20kts
MEDIUM 0.35 to 0.30	0.37 to 0.39	COMPACTED SNOW	15kts
MEDIUM-POOR 0.29 to 0.26	0.35 to 0.36	COMPACTED SNOW	10kts
POOR 0.25 to 0.20	0.31 to 0.34	COMPACTED SNOW	5kts

*It is NOT recommended to take-off from a runway covered with more than 50mm dry snow
TAILWIND LIMIT: 10kts
STANDING T/O Vis/RVR close to min, contaminated RWY, TOW close to RTOW (RWY or OBSTACLE)

RWY REQUIREMENTS (OM A 8.1 5.2.3)
For all FLIGHTPLANNING purposes apply at least wet corrections in case of WET or Contaminated RWY.
Further corrections may be applied at CMD's discretion.

WEATHER & MINIMAS
At least REDL & RENL for night OPS (H or L). If no RVR reported, use Vis but never CRVR

T/O MINIMAS(Vis/RVR)	
500m	nil
250m	REDL or centerline markings + low vis
200m	REDL and RCLL + low vis
150m	above + multi RVR
125m	above + H RCLL 15m + H REDL 60m +no contamination + 90m from cockpit

WHICH RVR?
At least 2 RVR, 1st replacved by pilots assesment + mid or stop-end as to cover accelerate-stop distance. If RVR

TAKE-OFF BELOW OEI MINIMA
Take-off alternate must be available with:
- WX above OEI minima
- DIST 60min OEI flight (330NM).
- APP, LDG & G/A OEI o.k.
- Enroute terrain & WX OEI o.k.
- Overmass shall be considered

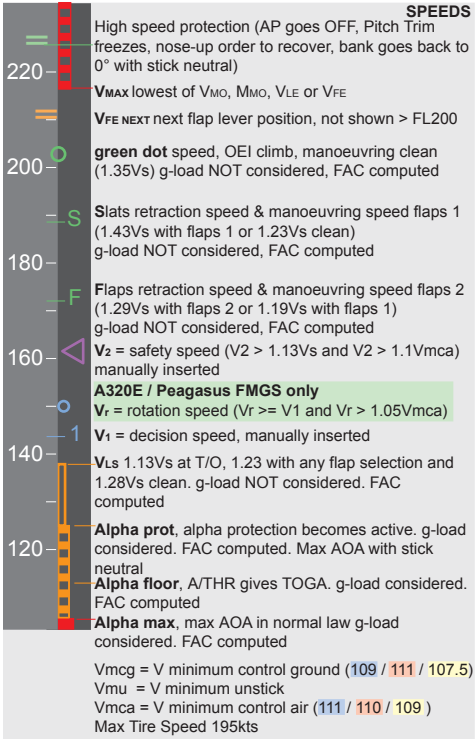
OEI MINIMA are:
- CAT3A 50ft/200m
- or overmass: CAT1 200ft / 550m

LPC calculation
Alignement distance:
GO case: 19m
STOP case: A319 29m / A320(E) 31m / A321 35m
DRY:
No Reversers / Screen Height 35ft / Obstacle 35ft
WET and CONTAMINATED:
With Reversers / Screen height 15ft / Obstacle 35ft

TAKE-OFF IS NOT AUTHORISED (OM A 8.3 8.3.3):

- In moderate to heavy freezing rain or ice pellets. (FZRA / +FZRA / PL / +PL)
- during heavy fall of wet snow (temperatures around 0°C)
- in any snow Pellets conditions (-GS / GS / +GS)
- if snow, ice or frost has accumulated on the aeroplane during taxiing.

For take-off, the use of the longest runway available, considering all factors such as braking action, is recommended, in spite of possible ATC requests to take off from an intersection, e.g. due to noise abatement. Before starting take-off, trim tabs, stabiliser and controls must be operated both ways to check that they have not frozen.
Take-off should immediately be abandoned if the aeroplane does not seem to accelerate properly.
In case of directional problems during a rejected take-off, modulated use of wheel brakes is an effective means to regain cornering capability and thereby directional control, but will increase the stopping distance. This method might also be useful on wet or slippery runways (e.g. due to rubber deposits).
After take-off in slush it may be advisable to delay gear retraction since the vibrations caused by the rotating wheels may help to remove the slush (see OM B for special instructions). The aerodynamic heat-up of the aeroplane caused by high air speed may be a very effective means to get rid of ice or frozen snow on any part of the aeroplane which has accumulated during take-off or initial climb.



WINDSHEAR WARNING & GUIDANCE
- available from lift-off to 1300ft/GND
- **WINDSHEAR** on PFD
- aural "WINDSHEAR" for at least 15sec
- guidance available if at least 1 AP/FD engaged in SRS mode keeps positive rate if speed o.k. or let speed drop to AOA protection

PROCEDURE
"Windshear - Go Thrust", TOGA, if AP not o.k. then switch it OFF and follow FD in SRS (or 17.5°ANU). Use protection down to ALPHA MAX.

EGPWS
Soft warnings
"TERRAIN / TOO LOW TERRAIN / TERRAIN AHEAD / SINK RATE / DON'T SINK / TOO LOW GEAR / TOO LOW FLAPS / GLIDE SLOPE"

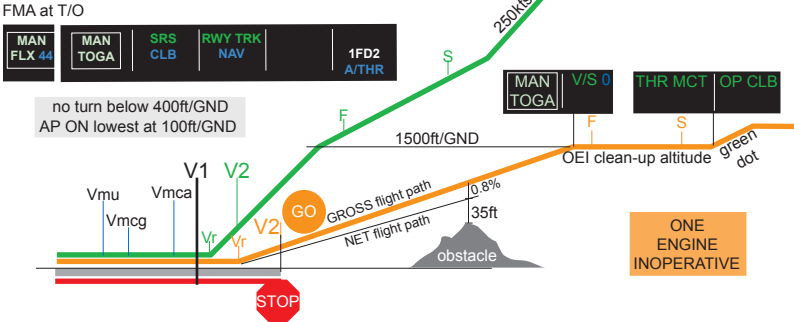
HARD WARNINGS
"... PULL-UP" or "GLIDE SLOPE" (louder)

PROCEDURE
"PULL UP - Go Thrust", TOGA, AP OFF, full stick back, wings level (if TERRAIN AHEAD consider turn). PNF checks TOGA, spd brk, path, spd & RA

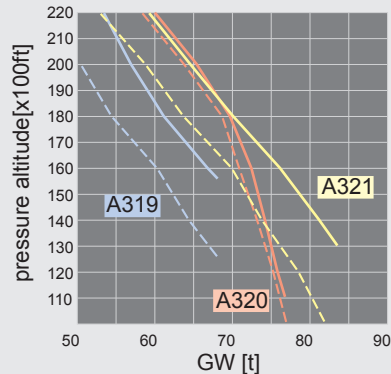
ENGINE FAILURE AFTER V1 (OM A 8.3 2.4.5)
After V1 the take-off should be continued. The flight path shall be selected so as to achieve maximum terrain clearance as soon as possible following:
• The OEI procedure if published (EFCOP), as it guarantees obstacle clearance up to the limiting take-off mass. OEI procedures if published are to be found either in OM C or in OM B
• The SID if deemed appropriate; however SID's do not guarantee OEI climb obstacle clearance. Published gradients and the obstacle situation must be carefully evaluated
• Any obstacle-free route at CMD discretion.
Note: If no EFCOP is published, the calculation is based on the standard EFCOP, straight 1500ft/GND then left (or right) turn towards the airport. **In this case the SID is not safe!!!**

UNRELIABLE AIRSPEED

AP/FD.....	OFF
A/THR.....	OFF
PITCH / THRUST	
< THR RED.....	15° / TOGA
> THR RED.....	10° / CLB
> FL100.....	5° / CLB
FLAPS.....	MAINTAIN
SPD BRK.....	CHECK RETRACT
L/G.....	UP
• When at MSA / circuit alt:	
LEVEL OFF	(~6° ANU / ~66 N1)



OEI SERVICE CEILING, A/ICE ON - - - - OFF - - - -
STD + 15°, one engine at MCT, green dot, 1 pack



GVA / Mont-Blanc area Drift-Down needed if		
Anti-ice	OFF	ON
A319	>62t	>55t
A320	never	>70t
A321	>70t	>64t

ZRH / BZO / Austrian Alps Drift-Down needed if		
Anti-ice	OFF	ON
A319	never	>62t
A320	never	never
A321	>78t	>71t

CRUISE

EMERGENCY DESCENT

BY-HEART ITEMS

CREW OXY MASK ☐ ON
DESCENT ☐ INITIATE
THR LEVERS (if no A/THR) ☐ IDLE
SPD BRK ☐ USE
SPEED ☐ MAX

Mmo

Vmo

HDG?

AWY?

MGA?

MTCA?

1st loop: basic, FL180 / HDG R/L / Mmo
2nd loop: Terrain? / AWY? / Speed?

SPD

BRK

FULL

THR IDLE

(if no A/THR)

Decompression (OM A 8.3 2.4.5)
The flight plan has to allow at any point either a descent along the planned track or a diversion via an escape route in such a way that beyond 120 NM after initiation of an emergency descent the highest MOCA does not exceed 14,000 ft for 30 min. flight time. This altitude may be maintained for over 30 min. as long as supplemental oxygen for ten percent of the passengers is available. After that time or the time specified in the OM B the maximum flight altitude is 10,000 ft

MINIMUM ALTITUDES

MGA MINIMUM GRID ALTITUDE (102)

highest point ☐	increment ☐
< 5000ft ☐	1500ft ☐
5000ft - 10000ft ☐	2000ft ☐
>10000ft ☐	10% + 1000ft ☐

MTCA MINIMUM TERRAIN CLEARANCE ALT (78)
10NM each side of AWY, 2000ft above terrain without man-made obstacles. Shown from 7000ft up

MEA MINIMUM ENROUTE ALTITUDE (FL90)
lowest usable enroute cruising altitude

AWY654 78
FL90 78

TCAS (OM A 8.3 6)

Stall and GPWS warnings have precedence over ACAS advisories.
The infringement of an ATC clearance based on information/advisory conveyed by ACAS lies within the authority of the CMD.

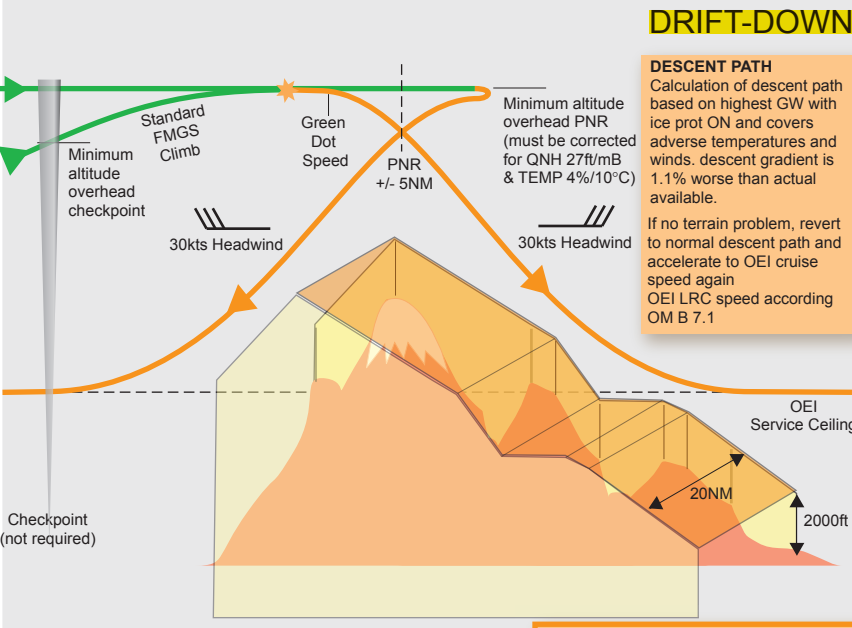
PROCEDURE
TA, TRAFFIC ADVISORIES "TRAFFIC, TRAFFIC"
PF select appropriate range, call out position of intruder, prepare for RA and stay on instruments.
PNF select appropriate range, in VMC look out for intruder, in IMC stays on the instruments

RA, RESOLUTION ADVISORIES
PF: AP OFF, FD OFF, fly into the vertical speed green range.
PNF monitors aircraft performance, looks out & advise ATC "...TCAS CLIMB / DESCENT"

RVSM REQUIREMENTS (OM A 8.3 2.5.2)
Two independent altitude measurement systems each equipped with:
• Cross-coupled static/source system with ice protection in areas subject to ice accretion;
• display of the computed pressure altitude to the flight crew;
• digital encoding of the displayed altitude;
• signals referenced to a pilot selected altitude for automatic altitude control and alerting;
• static source error correction;
• one SSR transponder with altitude reporting in use;
• an altitude alerting system;
• an automatic altitude control system;

NAVIGATION REQUIREMENTS (OM A 8.3 2.3.2)
• B-RNAV: Basic RNAV is used in the ECAC countries for enroute navigation. The necessary equipment (RNAV) ensuring RNP5 has to be carried and to be operative in these countries above certain levels (see OM C NAV);
• RNP: The Required Navigation Performance is defined as a statement of the navigational accuracy required for operation in a defined area of airspace. The level of accuracy is expressed as a single parameter and it defines the distance from the aeroplane's intended position within which the aeroplane must be maintained for at least 95% of the total flying time.
• RNP4 will normally be applied in continental areas in which the route structure is based on VOR/DME.
• RNP5 is the level of accuracy required in European airspace.

DRIFT-DOWN



Cruise level (MAX 390)

descent in ~1'
descent in ~4'
EMERGENCY DESCENT PROFILE

FL180 / ~7'

descent in ~1'

FL140

FL100

FL80

max 15'

max 30'

OXY for all PAX

OXY for 10% of PAX

OXY for 2% of PAX between FL80 & FL100 (portable OXY)
- When no OXY available anymore, descent to FL80

PAX MASKS drops if cabin altitude > 14000ft

CREW OXY
min pressure preflight 800psi for 2 crew or 1000psi for 3 crew
- with diluter on **NORMAL**:
10' all crew emer descent
110' 2 crew at FL100
- with diluter on **100%**:
15' at 8000ft for all crew (for smoke protection)

ENGINE FAILURE IN CRUISE

- A/THR OFF
 - set MCT
 - select lower level OP DES
 - select Green dot speed for drift-down or M.78/300kts for normal OEI descent.
- FMA in Drift-Down:

ENGINE FAILURE (OM A 8.3 2.4.5)
In the event of an engine failure/engine shutdown or a multiple critical system failure, a landing shall be made at the most suitable aerodrome which should normally be reached within 60 min(330NM) flight time at OEI cruise speed (60 min. preflight). Actual wind, speed, FL, GW could lead to longer diversion time, which is considered in the 2-engine aeroplane fuel calculation.

OP DES

HDG

AP1

1FD2

TCAS (OM A 8.3 6)

Stall and GPWS warnings have precedence over ACAS advisories.
The infringement of an ATC clearance based on information/advisory conveyed by ACAS lies within the authority of the CMD.

PROCEDURE
TA, TRAFFIC ADVISORIES "TRAFFIC, TRAFFIC"
PF select appropriate range, call out position of intruder, prepare for RA and stay on instruments.
PNF select appropriate range, in VMC look out for intruder, in IMC stays on the instruments

RA, RESOLUTION ADVISORIES
PF: AP OFF, FD OFF, fly into the vertical speed green range.
PNF monitors aircraft performance, looks out & advise ATC "...TCAS CLIMB / DESCENT"

RVSM REQUIREMENTS (OM A 8.3 2.5.2)
Two independent altitude measurement systems each equipped with:
• Cross-coupled static/source system with ice protection in areas subject to ice accretion;
• display of the computed pressure altitude to the flight crew;
• digital encoding of the displayed altitude;
• signals referenced to a pilot selected altitude for automatic altitude control and alerting;
• static source error correction;
• one SSR transponder with altitude reporting in use;
• an altitude alerting system;
• an automatic altitude control system;

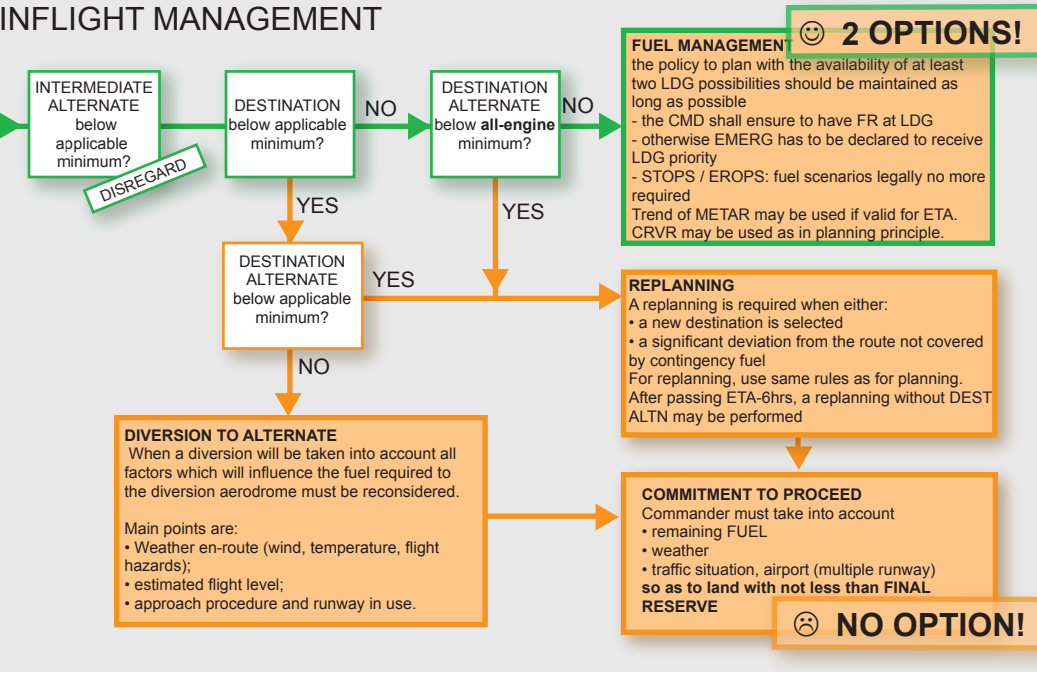
NAVIGATION REQUIREMENTS (OM A 8.3 2.3.2)
• B-RNAV: Basic RNAV is used in the ECAC countries for enroute navigation. The necessary equipment (RNAV) ensuring RNP5 has to be carried and to be operative in these countries above certain levels (see OM C NAV);
• RNP: The Required Navigation Performance is defined as a statement of the navigational accuracy required for operation in a defined area of airspace. The level of accuracy is expressed as a single parameter and it defines the distance from the aeroplane's intended position within which the aeroplane must be maintained for at least 95% of the total flying time.
• RNP4 will normally be applied in continental areas in which the route structure is based on VOR/DME.
• RNP5 is the level of accuracy required in European airspace.

DISTRESS
"MAYDAY MAYDAY MAYDAY"
Condition of being threatened by serious imminent danger / emergency or requiring immediate assistance

URGENCY
"PANPAN PANPAN PANPAN"
condition concerning safety of a/c or vehicle or person on board which does not require immediate assistance

SATCOM A320

0	0	+ national code + number + #	*	0	1	Show prerecorded numbers
REGA		+41 33 333 33 33	R/O			First number
SWISS MEDICAL		+41 43 812 68 35	#			Push to desired number
						Initiate call



AIRCRAFT MAINTENANCE MANUAL

FDIU PARAMETER LIST REMARKS:

*1 Seconds: Bits 12-17; Minutes: Bits 18-23;

Hours : Bits 24-28

*2 If no Pin-Programming is done, the FDIU will send "SPACE".

*3 For detailed characteristic see FDIU specification

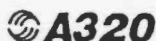
R = Resolution

W = Wordrange

(1) = Significant Data Digits

ALPHA CALL-UP LIST (IAE)

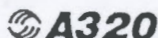
ALPHA CALL-UP	PARAMETER NUMBER	NAME	UNIT
ACID	17.1.301.00	A/c TAIL NUMBER WORD #1	
	17.1.302.00	A/c TAIL NUMBER WORD #2	
	17.1.303.00	A/c TAIL NUMBER WORD #3	
	17.1.304.00	A/c TYPE/FLEET IDENT/	
ACW1	0D.1.070.01	APU CONTROL WORD #1	
ACW2	0D.1.070.10	APU CONTROL WORD #2	
ACW3	0D.1.070.11	APU CONTROL WORD #3	
ACW4	0D.1.070.00	APU CONTROL WORD #4	
ACYC	0D.1.133.11	APU STRT CYC COMPUTED	
ACYI	7A.1.133.01	START CYCLES (APU)	
ADW1	7A.1.037.01	DISCRETE STATUS WORD #1 (APU)	
AHRI	7A.1.132.01	OPERATING HOURS (APU)	hrs
AHRS	0D.1.132.01	APU OP HRS COMPUTED (APU)	
AIL	6C.1.310.01	AILERON POSITION LEFT	Deg
	6C.2.310.10		
	6C.1.330.01	AILERON POSITION RIGHT	Deg
	6C.2.330.10		
ALT	06.1.203.01	ALTITUDE (1013.25mb)	ft
	06.2.203.10		
ALTR	01.1.365.00	ALTITUDE RATE (VZBI)	ft/sec
	01.2.365.00		
AMW1	7A.1.353.01	MAINTENANCE WORD #1 (APU)	
AMW2	7A.1.351.01	MAINTENANCE WORD #2 (APU)	
AMW3	7A.1.352.01	MAINTENANCE WORD #3 (APU)	
AOA	06.1.241.01	CORRECTED ANGLE OF ATTACK	Deg
	06.2.241.10		
AP	0D.1.274.01	AP Status	
	0D.2.274.01		
ASN	7A.1.050.01	APU SERIAL NUMBER	
	7C.2.335.10		
BAF	7C.1.335.01	2.5 BLEED ACTUATOR FEEDBACK	X
	7C.2.335.10		



AIRCRAFT MAINTENANCE MANUAL

ALPHA CALL-UP LIST (IAE)

ALPHA CALL-UP	PARAMETER NUMBER	NAME	UNIT
BLST	0D.1.071.00	Bleed status	
BNR	A1.1.103.01	SELECTED AIR SPEED	Kts
	A1.1.104.01	SELECTED VERTICAL SPEED	Ft/min
	A1.1.106.01	SELECTED MACH	Mach
	A1.1.214.01	FLEX T.D.TEMP.	Deg C
BVP	26.1.031.01	ENG1 SCAVENGE VLV OPEN	
	26.2.031.01		
	26.1.031.10	ENG2 SCAVENGE VLV OPEN	
	26.2.031.10		
CAC	06.1.206.01	COMPUTED AIRSPEED	Kts
	06.2.206.10		
CG	02.1.077.00	LONG CENTER OF GRAVITY	X
	02.2.077.00		
CNT	0D.1.051.00	Report count + previous report number	
COT	8E.1.123.11	PACK COMPR. OUTLET TEMP.	Deg C
	8E.2.123.00		
DA	04.1.321.01	DRIFT ANGLE	Deg
	04.2.321.10		
DMU	0D.1.053.00	DMU software version	
	0D.1.054.00	OBRM1 software version	
	0D.1.055.00	OBRM2 software version	
ECW1	0D.1.063.01	ENGINE CONTROL WORD #1 ENG 1	
	0D.1.063.10	ENGINE CONTROL WORD #1 ENG 2	
ECW2	0D.1.064.01	ENGINE CONTROL WORD #2 ENG 1	
	0D.1.064.10	ENGINE CONTROL WORD #2 ENG 2	
ECW3	0D.1.065.01	ENGINE CONTROL WORD #3 ENG 1	
	0D.1.065.10	ENGINE CONTROL WORD #3 ENG 2	
ECW4	0D.1.066.01	ENGINE CONTROL WORD #4 ENG 1	
	0D.1.066.10	ENGINE CONTROL WORD #4 ENG 2	
ECW5	0D.1.067.01	ENGINE CONTROL WORD #5 ENG 1	
	0D.1.067.10	ENGINE CONTROL WORD #5 ENG 2	
ECYC	0D.1.061.01	Start cycles Eng 1	
	0D.1.061.10	Start cycles Eng 2	
EGT	7C.1.345.01	SELECTED T49.5-EGT Actual	Deg C
	7C.2.345.10		
EGTA	7A.1.175.01	EGT (APU)	Deg C
EGTP	0D.1.074.00	EGT APU PEAK	
EGTR	0D.1.100.01	EGT REFERENCE PH 5.1	
EHRS	0D.1.060.01	Flight Hours Eng 1	
	0D.1.060.10	Flight Hours Eng 2	
ELEV	6C.1.314.01	ELEVATOR POSITION LEFT	Deg
	6C.2.314.10		
	6C.1.334.01	ELEVATOR POSITION RIGHT	Deg



AIRCRAFT MAINTENANCE MANUAL

ALPHA CALL-UP LIST (IAE)

ALPHA CALL-UP	PARAMETER NUMBER	NAME	UNIT
	6C.2.334.10		
EPR	7C.1.340.01	EPR ACTUAL	
	7C.2.340.10		
EPRC	7C.1.341.01	EPR COMMAND	
	7C.2.341.10		
EPRT	7C.1.342.01	EPR TAKEOFF	
	7C.2.342.10		
ERT	7C.1.050.01	ENGINE RUNNING TIME	hrs
ESN	7C.1.046.01	ENGINE S/N (LAST HALF)	
	7C.2.046.10	IAE ENGINE	
	7C.1.047.01	ENGINE S/N (FIRST HALF)	
	7C.2.047.10	IAE ENGINE	
EVM	3D.1.035.01	EVM DISCRETE WORD ENG 1	
	3D.1.035.10	EVM DISCRETE WORD ENG 2	
FF	7C.1.244.01	FUEL FLOW	pph
	7C.2.244.10		pph
FLAP	1B.1.137.01	FLAP ACTUAL POSITION	Deg
	1B.2.137.10		
FLT	01.1.233.00	FLIGHT NUMBER	
	01.2.233.00		
	01.1.234.00	FLIGHT NUMBER	
	01.2.234.00		
	01.1.235.00	FLIGHT NUMBER	
	01.2.235.00		
	01.1.236.00	FLIGHT NUMBER	
	01.2.236.00		
FPA	04.1.322.01	FLIGHT PATH ANGLE	Deg
	04.2.322.10		
FPAC	04.1.323.01	FLIGHT PATH ACCEL	"
	04.2.323.10		
FRT0	01.1.040.00	CITY PAIR FROM	
	01.2.040.00		
	01.1.041.00	CITY PAIR FROM/TO	
	01.2.041.00		
	01.1.042.00	CITY PAIR TO	
	01.2.042.00		
FT	5A.2.177.10	FUEL TEMPERATURE LH INNER CELL	Deg C
	5A.2.201.10	FUEL TEMPERATURE RH INNER CELL	Deg C
GLA	29.1.100.00	APU GEN LOAD	%
	29.2.100.00		
GLE	29.1.077.01	GEN1 LOAD	%
	29.2.077.01		
	29.1.077.10	GEN2 LOAD	%

ALPHA CALL-UP LIST (IAE)

ALPHA CALL-UP	PARAMETER NUMBER	NAME	UNIT
	29.2.077.10		
GLS	25.1.174.01	ILS1 GLIDESLOPE DEVIATION	DDM
	25.2.174.01		
	25.1.174.10	ILS2 GLIDESLOPE DEVIATION	DDM
	25.2.174.10		
GS	04.1.012.01	GROUND SPEED	Kts
	04.2.012.10		
GW	02.1.075.00	GROSS WEIGHT (lbs)	lbs
	02.2.075.00		
"	7C.1.330.01	ACC FEEDBACK	X
	7C.2.330.10		
IGV	7A.1.130.01	IGV POSITION (APU)	Deg
INST	7E.1.155.00	A320 CONFIGURATION WORD	
IVV	04.1.365.01	INERTIAL VERTICAL SPEED	ft/sec
	04.2.365.10		
K	0D.1.072.01	Actual K for Diverg. Rep.	
IATG	04.1.332.01	BODY LATERAL ACCEL.	g
	04.2.332.10		
LATP	04.1.010.01	PRESENT POSITION LATITUDE	Deg
	04.2.010.10		
LCDT	7A.1.074.01	BLEED AIR TEMP (APU)	Deg C
LCIT	7A.1.110.01	LOAD COMPRESSOR INLET TEMPERATUR (APU)	Deg C
LGDW	6D.1.021.01	LGCIU DISCRETE WORD #2	
	6D.2.021.10		
LOC	25.1.173.01	ILS1 LOCALIZER DEVIATION	DDM
	25.2.173.01		
	25.1.173.10	ILS2 LOCALIZER DEVIATION	DDM
	25.2.173.10		
LONG	04.1.331.01	BODY LONGITUDINAL ACCEL.	g
	04.2.331.10		
LONP	04.1.311.01	PRESENT POSITION LONGITUDE	Deg
	04.2.311.10		
MDMU	0D.1.350.00	MAINTENANCE WORD #1	
MFDI	17.1.350.00	MAINTENANCE WORD #1	
MH	04.1.014.01	MAGNETIC HEADING	Deg
	04.2.014.10		
MN	06.1.205.01	MACH	Mach
	06.2.205.10		
MW1	7C.1.350.01	MAINTENANCE DATA #1	
	7C.2.350.10		
MW2	7C.1.351.01	MAINTENANCE DATA #2	
	7C.2.351.10		

AIRCRAFT MAINTENANCE MANUAL
ALPHA CALL-UP LIST (IAE)

ALPHA CALL-UP	PARAMETER NUMBER	NAME	UNIT
MW3	7C.1.352.01	MAINTENANCE DATA #3	
	7C.2.352.10		
MW4	7C.1.353.01	MAINTENANCE DATA #4	
	7C.2.353.10		
	7C.2.354.10		
MW6	7C.1.355.01	MAINTENANCE DATA #6	
	7C.2.355.10		
MW7	7C.1.356.01	MAINTENANCE DATA #7	
	7C.2.356.10		
MW8	7C.1.357.01	MAINTENANCE DATA #8	
	7C.2.357.10		
N1	7C.1.346.01	SELECTED N1 ACTUEL	
	7C.2.346.10		
N1L	7C.1.337.01	N1 LIMIT	% rpm
	7C.2.337.10		
N2	7C.1.344.01	SELECTED N2 ACTUAL	% rpm
	7C.2.344.10		
NA	7A.1.176.01	RPM APU	% rpm
NPA	0D.1.075.00	N APU PEAK	
OIK	0D.1.071.01	Oil quant corrected Eng 1	Quart
	0D.1.071.10	Oil quant corrected Eng 2	
OIP	26.1.317.01	ENG 1 OIL PRESSURE	PSI
	26.2.317.01		
	26.1.317.10	ENG 2 OIL PRESSURE	PSI
	26.2.317.10		
OIQ	29.1.073.00	ENG 2 OIL QUANTITY	Quart
	29.2.073.00		
	29.1.073.11	ENG 1 OIL QUANTITY	Quart
	29.2.073.11		
OIQH	0D.1.062.01	Oil consumpt prev. flight eng1	Quart/Hour
	0D.1.062.10	Oil consumpt prev. flight eng2	
OIT	26.1.316.01	ENG 1 OIL TEMPERATURE	Deg C
	26.2.316.01		
	26.1.316.10	ENG 2 OIL TEMPERATURE	Deg C
	26.2.316.10		
OTA	7A.1.247.01	APU OIL SUMP TEMP	Deg C
OVP	5C.1.153.01	OUTFLOW VALVE POS	%
	5C.2.153.10		
P125	7C.1.257.01	P12.5 (FAN EXIT PRESSURE)	psia
	7C.2.257.10		
P2	7C.1.131.01	P2 (FAN EXIT PRESSURE)	psia
	7C.2.131.10		
P25	7C.1.262.01	P2.5 (LPC EXIT PRESSURE)	psia

ALPHA CALL-UP LIST (IAE)

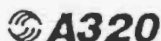
ALPHA CALL-UP	PARAMETER NUMBER	NAME	UNIT
	7C.2.262.10		
P2A	7A.1.112.01	INLET PRESSURE (APU)	bar
P3	7C.1.264.01	PB BURNER PRESSURE	psia
	7C.2.264.10		
P49	7C.1.132.01	LPT EXIT PRESSURE P 4.9	psia
	7C.2.132.10	(LOW PRESSURE TURBINE)	
PBV	8E.1.112.11	PACK BYPASS VALVE POSITION	%
	8E.2.112.00		
PCSW	5C.1.057.01	STATUS + FAULT INFO	
	5C.2.057.10		
PD	6F.1.142.01	PRECOOLER ENG 2 INLET PRESS	PSI
	6F.2.142.10		
	6F.1.143.01	PRECOOLER ENG 1 INLET PRESS	PSI
	6F.2.143.10		
PDC	5C.1.144.01	CABIN DIFF. PRESS	PSI
	5C.2.144.10		
PF	8E.1.126.11	PACK FLOW	kg/sec
	8E.2.126.00		
PFAD	7A.1.004.01	PERFORMANCE ADJUSTMENTS (APU)	
PH	0D.1.050.00	Flight Phase (DMU)	
PHA	3D.1.226.01	N 1 PHASE OF UNBALANCE ENG 1	Deg
	3D.1.226.10	N 1 PHASE OF UNBALANCE ENG 2	Deg
PO	7C.1.114.01	SELECTED PO	psia
	7C.2.114.10		
PSB	26.1.320.01	ENG 1 no 4 bearing pressure	psia
	26.2.320.01		
	26.1.320.10	ENG 2 no 4 bearing pressure	psia
	26.2.320.10		
PSW1	8E.1.062.11	DISCRETE DATA WORD	
	8E.2.062.00		
PT	7A.1.166.01	BLEED AIR PRESSURE (APU)	bar
PTCH	04.1.324.01	PITCH ANGLE	Deg
	04.2.324.10		
PTCR	04.1.326.01	BODY AXIS PITCH RATE	Deg/sec
	04.2.326.10		
RAC	7C.1.055.01	ROT. ACT. CLEAR. CONTR.	%
	7C.2.055.10		
RALR	0D.1.077.00	RADIO ALTITUDE RATE	
RALT	25.1.164.01	RADIO HEIGHT (R/A1)	ft
	25.2.164.01		
	25.1.164.10	RADIO HEIGHT (R/A2)	ft
	25.2.164.10		
RI	8E.1.130.11	PACK RAM AIR INLET POSITION	%

ALPHA CALL-UP LIST (IAE)

ALPHA CALL-UP	PARAMETER NUMBER	NAME	UNIT
RO	8E.2.130.00 8E.1.124.11 8E.2.124.00	PACK RAM AIR OUTLET POSITION	%
ROLL	04.1.325.01 04.2.325.10	ROLL ANGLE	Deg
ROLR	04.1.327.01 04.2.327.10	BODY AXIS ROLL RATE	Deg/sec
RSP2	6C.1.362.01 6C.2.362.10 6C.1.372.01 6C.2.372.10	LH SPL 2 POSITION RH SPL 2 POSITION	Deg
RSP3	6C.1.363.01 6C.2.363.10 6C.1.373.01 6C.2.373.10	LH SPL 3 POSITION RH SPL 3 POSITION	Deg
RSP4	6C.1.364.01 6C.2.364.10 6C.1.374.01 6C.2.374.10	LH SPL 4 POSITION RH SPL 4 POSITION	Deg
RSP5	6C.1.365.01 6C.2.365.10 6C.1.375.01 6C.2.375.10	LH SPL 5 POSITION RH SPL 5 POSITION	Deg
RUDD	29.1.312.00 29.2.312.00	RUDDER POSITION	Deg
RUDT	0A.1.313.00 0A.2.313.00	RUDDER TRIM	Deg
SAT	06.1.213.01 06.2.213.10	STATIC AIR TEMPERATURE (BNR)	Deg C
SC1	29.1.242.01 29.2.242.01	SELECTED CKPT COMPT TEMP	Deg C
SC2	29.1.244.01 29.2.244.01	SELECTED FWD CAB COMPT TEMP	Deg C
SC3	29.1.245.01 29.2.245.01	SELECTED AFT CAB COMPT TEMP	Deg C
SDMU	0D.1.270.00	DMU STATUS WORD	
SDS1	29.1.001.01 29.2.001.01	DISCRETE STATUS WORD	
SDS2	29.1.001.10 29.2.001.10	DISCRETE STATUS WORD	
SLAT	1B.1.127.01 1B.2.127.10	SLAT ACTUAL POSITION	Deg
SLP	0A.1.226.01	Estimd Sideslip	Deg

AIRCRAFT MAINTENANCE MANUAL
ALPHA CALL-UP LIST (IAE)

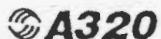
ALPHA CALL-UP	PARAMETER NUMBER	NAME	UNIT
	0A.2.226.10		
STA	0D.1.076.00	APU START TIME	
STAB	6C.1.315.01	STABILIZER POSITION #1	Deg
	6C.2.315.10		
SW1	7C.1.270.01	ECU STATUS WORD #1	
	7C.2.270.10		
SW2	7C.1.271.01	ECU STATUS WORD #2	
	7C.2.271.10		
SW3	7C.1.272.01	ECU STATUS WORD #3	
	7C.2.272.10		
SW4	7C.1.273.01	ECU STATUS WORD #4	
	7C.2.273.10		
SW5	7C.1.274.01	DISCRETE STATUS WORD #5	
	7C.2.274.10		
SW6	7C.1.275.01	DISCRETE STATUS WORD #6	
	7C.2.275.10		
SW7	7C.1.276.01	DISCRETE STATUS WORD #7	
	7C.2.276.10		
SW8	7C.1.277.01	DISCRETE STATUS WORD #8	
	7C.2.277.10		
SW9	7C.1.278.01	DISCRETE STATUS WORD #9	
	7C.2.278.10		
SVA	7C.1.325.01	STATOR VANE ACTUATOR FEEDBACK	%
	7C.2.325.10		
T12	7C.1.130.01	T12 (FAN INLET TEMP)	Deg C
	7C.2.130.10		
T25	7C.1.263.01	T2.5 (LPC EXIT TEMPERATURE)	Deg C
	7C.2.263.10		
T2	7C.1.130.01	T2 (FAN INLET TEMP)	Deg C
	7C.2.130.10		
T3	7C.1.265.01	HPC EXIT TEMPERATURE	Deg C
	7C.2.265.10		
TAT	06.1.211.01	TOTAL AIR TEMPERATURE (BNR)	Deg C
	06.2.211.10		
THDG	04.1.044.01	TRUE HEADING	Deg
	04.2.044.10		
TLA	7C.1.133.01	SELECTED TLA	Deg
	7C.2.133.10		
TN	26.1.322.01	ENG 1 NACELLE TEMPERATURE	Deg C
	26.2.322.01		
	26.1.322.10	ENG 2 NACELLE TEMPERATURE	Deg C
	26.2.322.10		
TNR	0D.1.100.1C	TN REFERENCE PH 5.1	Deg C



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ALPHA CALL-UP LIST (IAE)

ALPHA CALL-UP	PARAMETER NUMBER	NAME	UNIT
TP	8E.1.121.11	PACK OUTLET TEMPERATURE	Deg C
	8E.2.121.00		
TPO	6F.1.140.01	PRECOOLER ENG 2 OUTLET TEMP	Deg C
	6F.2.140.10		
	6F.1.141.01	PRECOOLER ENG 1 OUTLET TEMP	Deg C
	6F.2.141.10		
TRA	7C.1.133.01	TRA (THROTTLE RESOLVER ANGLE)	Deg C
	7C.2.133.10		
TRP	7C.1.137.01	THRUST REVERSER POS	X
	7C.2.137.10		
TW	8E.1.111.11	PACK WATER EXTR. TEMPERATURE	Deg C
	8E.2.111.00		
UTC	17.1.150.00	UTC (UNIVERSAL TIME COORDINATED BNR)	hour/min/sec
V3	0A.1.263.00	V 3 (MIN SPEED FLAPS RETR.)	Kts
	0A.2.263.00		
V4	0A.1.264.00	V 4 (MIN SPEED SLATS RETR.)	Kts
	0A.2.264.00		
VA	5D.2.220.10	CAB TEMP REG VLV POS GROUP 3	X
VACC	04.1.364.01	VERTICAL ACCEL	g
	04.2.364.10		
VB1	3D.1.135.01	N1 VIBRATION ENG 1	
	3D.1.135.10	N1 VIBRATION ENG 2	
VB2	3D.1.136.01	N2 VIBRATION ENG 1	
	3D.1.136.10	N2 VIBRATION ENG 2	
VF	5D.2.206.10	CAB TEMP REG VLV POS GROUP 1	X
VLS	0A.1.245.00	VLS (MIN AIRSPEED)	Kts
	0A.2.245.00		
VMAN	0A.1.265.00	V Man (MANEUVERING SPEED)	Kts
	0A.2.265.00		
VMAX	0A.1.207.00	V Max (MAX.ALLOW.AIRSPEED)	Kts
	0A.2.207.00		
VRTG	04.1.333.01	BODY NORMAL ACCEL	g
	04.2.333.10		
VSCB	5C.1.150.01	CABIN V/S	ft/min
	5C.2.150.10		
VW	5D.2.207.10	CAB TEMP REG VLV POS GROUP 2	X
WARN	26.1.126.00	DISCRETE STATUS WORD	
	26.2.126.00		
WB	7A.1.123.01	BLEED AIR FLOW (APU)	Kg/sec
WD	04.1.016.01	WIND DIRECTION - TRUE	Deg
	04.2.016.10		
WFQ	5A.2.257.10	FUEL QUANTITY - LH INNER CELL	Lbs



AIRCRAFT MAINTENANCE MANUAL

ALPHA CALL-UP LIST (IAE)

ALPHA CALL-UP	PARAMETER NUMBER	NAME	UNIT
	5A.2.261.10	FUEL QUANTITY - RH INNER CELL	Lbs
WS	04.1.015.01	WIND SPEED	Kts
	04.2.015.10		
YAW	04.1.330.01	BODY AXIS YAW RATE	Deg/sec
	04.2.330.10		
ZCB	5C.1.151.01	CABIN ALTITUDE	ft
	5C.2.151.10		
ZDW1	5D.2.060.10	DISCRETE DATA WORD	
ZLD	5C.1.163.01	LANDING ELEVATION	ft
	5C.2.163.10		

ABBR

TITLE

ΔP	Differential Pressure
\$	Dollar, Hexadecimal Address
%	Percent (Symbol)
bar	10 ⁵ kPa
c	Equal Margin
cu	Cubic
daN	Load (DecaNewton)
dB	Decibel
dB(A)	A-Weighted Decibel
ft	Feet, Foot
ft/mn	Feet per Minute
g	Earth Acceleration (Symbol)
g	Gram
gal	Gallon
h	Height
h	Hour
hbar	Stress (Hectobar)
in	Inch
kg	Kilogram
kg/m ³	Kilograms/Cubic Meter
kPa	Kilo Pascal
kW	Kilowatt
lb	Pound
lbf/in ²	Pounds force per square inch
m	Meter
mbar	Millibar
mile/h	Miles per Hour
min	Minute
ml	Milliliter
mm	Millimeter
mm ²	Square Millimeter
mm ³	Cubic Millimeter
mr/hr	Milliroentgens per Hour
mmrem/hr	Millirems per hour
m ³	Cubic Meter
n	Load Factor
phi	Bank Angle
phi N	Nominal Bank Angle
pH	Acidity or Alkalinity
qt	Imperial quart or United States quart
r/min	Revolutions per Minute
rem/hr	Rems per Hour
μ	Microprocessor
°C	Degrees Celsius
°C	Degrees Centigrade
°F	Degrees Fahrenheit

ABBR	TITLE
*K	Degrees Kelvin
*R	Degrees Rankine
S	Second
t	Equivalent Runway Thickness
t	Rivet Spacing
t	Tonne
	Pitch Attitude
A	Air
A	Alternate
A	Amber
A	Ampere
A	Area
A.ICE	Anti-ice, Anti-icing
A.ICE	Anti-ice, Anti-Icing
A/BRK	Autobrake
A/C	Aircraft
A/COLL	Anti-Collision
A/D	Analog to Digital Converter (conversion)
A/D	Analog/Digital
A/DC	Analog-to-Digital Converter
A/F	Auto Flight
A/G	Air to Ground
A/N	Alphanumeric
A/N SIZE	Alpha Numeric Size
A/R	Audio Reproducer
A/S	Airspeed
A/S	Auto Stabilization
A/SKID	Anti-Skid
A/STAB	Auto Stabilizer
A/T	Adjustment/Test
A/THR	Autothrust
A/XFMR	Autotransformer
AA	Arithmetical Average
AAAH	Airbus Approved Abbreviations Handbook
AADC	Analog Air Data Computer
AAL	Above Aerodrome Level
AAP	Additional Attendant Panel
ABBR	Abbreviation
ABCD	Airbus Collective Data Dictionary
ABD	Airbus Directives
ABM	Abeam
ABM	APU Build-up Manual
ABNORM	Abnormal
ABRN	Airborne
ABS	Autobrake System
ABS VAL	Absolute Value

ABBR	TITLE
ABSORB	Absorber
ABV	Above
AC	Airplane Characteristics for Airport Planning
AC	Alternating Current
ACARS	Aircraft Communication Addressing and Reporting System
ACC	Active Clearance Control
ACC	Area Control Centre
ACCEL	Acceleration/Accelerate
ACCESS	Accessory
ACCLRM	Accelerometer
ACCU	Accumulator
ACD	Airframe Certification Document
ACE	Airbus Concurrent Engineering
ACE	Altimeter Control Equipment
ACFT	Aircraft
ACFU	Aircraft Check Follow Up
ACIA	Asynchronous Communications Interface Adaptor
ACK	Acknowledge
ACM	Abbreviated Component Maintenance Manual
ACM	Aircraft Conversion Manual
ACMM	Abbreviated Component Maintenance Manual
ACMP	Airframe Condition Monitoring Procedure
ACMR	Aircraft Configuration Management Rules
ACMS	Aircraft Condition Monitoring System
ACN	Aircraft Classification Number
ACOB	Automatic Call Out Box
ACOC	Air Cooled Oil Cooler
ACP	Altimeter Check Point
ACP	Area Call Panel
ACP	Audio Control Panel
ACQ	Acquire
ACQN	Acquisition
ACS	Access
ACS	Alternating Current Supply
ACT	Active
ACT	Activity
ACT	Additional Center Tank
ACTD	Actuated
ACTG	Actuating
ACTN	Action
ACTR	Actuator
ACTVT	Activate
ACU	Antenna Coupler Unit
ACVR	Alternating Current Voltage Ratio
AD	Aerodrome
AD	Airplane Datum

ABBR	TITLE
AD	Airworthiness Directive
ADAU	Auxiliary Data Acquisition Unit
ADB	Area Distribution Box
ADC	Air Data Computer
ADD	Addition, Additional
ADD	Aircraft Description Data Base
ADD BY	Added By
ADF	Automatic Direction Finder
ADG	Air Driven Generator
ADI	Attitude Director Indicator
ADIRS	Air Data/Inertial Reference System
ADIRU	Air Data/Inertial Reference Unit
ADJ	Adjust
ADJMT	Adjustment
ADM	Air Data Module
ADPM	Aircraft Deactivation Procedures Manual
ADPTN	Adaptation
ADPTR	Adapter
ADR	Advisory Route
ADR	Air Data Reference
ADRS	Address
ADS	Air Data System
ADU	Align Display Unit
ADV	Advisory
AEB	Airline Engineering Bulletin
AECMA	Assoc. Europ(enne des Constructeurs de Mat. A(ronautique
AEEC	Airlines Electronic Engineering Committee
AERO	Aviation Routine Weather Report
AEVC	Avionics Equipment Ventilation Computer
AEX	Access Authorized
AF	All Freighter
AF	Audio Frequency
AF	DME Arc to Fixed Waypoint
AFB	Antifriction Bearing
AFC	Automatic Frequency Control
AFCS	Automatic Flight Control System
AFECU	Automatic Fire Extinguishing Control Unit
AFR	Airframe
AFS	Automatic Flight System
AFTN	Aeronautical Fixed Telecommunication Network
AFU	Artificial Feel Unit
AGB	Accessory Gearbox
AGC	Automatic Gain Control
AGE	Aircraft Ground Equipment
AGG	Airbus General Guide
AGL	Above Ground Level

ABBR	TITLE
AGMT	Augment
AGW	Actual Gross Weight
AH	Ampere Hour
AHRS	Attitude and Heading Reference System
AHRU	Attitude and Heading Reference Unit
AI	Anti-Icing
AIB	Airbus Industrie
AIC	Access Illustration Cards
AID	Aircraft Installation Delay
AIDS	Aircraft Integrated Data System
AIG	Accident Investigation
AIL	Aileron
AIM	Aircraft Integrated Maintenance
AIM-FANS	Airbus Interoperable Modular-Future Air Navigation Sys
AIMS	Airbus Inventory Management System
AIP	Aeronautical Information Publication
AIP	Attendant Indication Panel
AIQI	Airbus Industrie Quality Instruction
AIR	Aircraft Inspection Report
AIRCOND	Air Conditioning
AIS	Aeronautical Information Service
AIS	Audio Integrated System
AISI	American Iron and Steel Institute
ALERFA	Alert Phase
ALF	Aft Looking Forward
ALHP	Airframe Life-History Program
ALIGN	Alignment
ALPHA	Angle-of-Attack
ALPHANUM	Alphanumeric
ALS	Approach Light System
ALT	Altitude
ALT ACQ	Altitude Acquire
ALT TO	Alternate To
ALTM	Altimeter
ALTN	Alternate, Alternative
ALTU	Annunciator Light Test Unit
ALU	Arithmetic and Logic Unit
AM	Amplitude Modulation
AMB	Ambient
AMC	Acceptable Means of Compliance
AMM	Aircraft Maintenance Manual
AMM	Ammeter
AMP	Amperage
AMP	Ampere
AMPL	Amplifier
AMS	Aeronautical Material Specifications

ABBR
TITLE

AMS	Aerospace Material Specification
AMS	Aircraft Modification Status
AMTSS	Aircraft Maintenance Task Oriented Support System
AMU	Audio Management Unit
AN	Air Navigation
ANCE	Announce
AND	Aircraft Nose Down
ANI	Analog Input
ANLG	Analogic
ANN	Annunciator
ANN LT	Annunciator Light
ANNCE	Announce
ANNMCT	Announcement
ANO	Analog Output
ANPT	Aeronautical National Taper Pipe Threads
ANSI	American National Standards Institute
ANT	Antenna
ANU	Aircraft Nose Up
AO	Access Opening
AOA	Angle-Of-Attack
AOAS	Angle of Attack Sensor
AOC	Airline Operational Control
ADG	Aircraft On Ground
ADHX	Air/Oil Heat Exchanger
ADM	Aircraft Operating Manual
AP	Airborne Printer
AP	Autopilot
AP/FD	Autopilot/Flight Director
APASHE	Aircraft Publication Automated Shipping Expedite
APC	Area Positive Control
APLC	Aircraft Power Line Conditioner
APM	Aircraft Performance Monitoring Program
APM	Airport Planning Manual
APM	ARINC Processing Module
APP	Appearance
APP	Approach Control - Approach Control Office
APP	Approach Control-Approach Control Office
APPR	Approach
APPROX	Approximately
APPU	Asymmetry Position Pick Off Unit
APS	Aircraft Prepared for Service
APS	Auxiliary Power Supply
APU	Auxiliary Power Unit
APU AFE	APU Automatic Fire Extinguishing Control Unit
AR	As Required
ARG	Arresting Gear or Hook

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PAGE 6
ABBR
TITLE

ARINC	Aeronautical Radio Incorporated
ARM	Aircraft Recovery Manual
ARMD	Armed
ARMG	Arming
ARMT	Armament
ARND	Around
ARO	After Receipt Order
ARP	Aerodrome Reference Point - Airport Reference Point
ARP	Aeronautical Recommended Practice
ARPT	Airport
ARR	Arrival, Arriving
ART	Active Repair Time
ARTCC	Air Route Traffic Control Centre
ARTCLD	Articulated
ARTF	Artificial
AS	Airscoop
ASA	All Speed Aileron
ASAP	As soon as possible
ASCII	American Standard Code for Information Interchange
ASD	Accelerate Stop Distance
ASDC	Airline Service Data Collection
ASE	Airborne Support Equipment
ASF	Amperes per Square Foot
ASI	Airspeed Indicator
ASIC	Application Specific Integrated Circuits
ASM	Aircraft Schematics Manual
ASM	American Society for Metals
ASN	Aerospatiale Norme (Standard)
ASP	Audio Selector Panel
ASR	Airport Surveillance Radar
ASSY	Assembly
ASYM	Asymmetric(al)
AT	Autothrottle
AT	Autothrust
ATA	Air Transport Association of America
ATAM	Airbus Take-off Analysis Module
ATB	ATA 100 Breakdown
ATC	Air Traffic Control
ATCA	Air Traffic Control Board
ATCDB	Aircraft Technical Characteristics Data Base
ATCH	Attach(ment)
ATCI	Air Traffic Control and Information
ATCK	Attack
ATCRB	Air Traffic Control Radar Beacon
ATCSS	Air Traffic Control Data Link Signalling System
ATD	Aircraft Technical Definition

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ABBR

TITLE

ATE	Automatic Test Equipment
ATEC	Automatic Test Equipment Complex
ATI	Air Transport Indicator
ATIMS	Air Traffic and Information Management System
ATLAS	Abbreviated Test Language for All Systems
ATLAS	Abbreviated Test Language for Avionics Systems
ATM	Air Traffic Management
ATM	Aircraft Transportability Manual
ATM	Available Ton-Mile
ATMS	Advanced Text Management System
ATN	Aeronautical Telecommunications Network
ATR	Austin Trumbull Radio
ATRCSS	Automatic Turbine Rotor Clearance Control System
ATS	Air Traffic Service
ATS	Airbus Technical Specification
ATS	Autothrottle System
ATS	Autothrust System
ATSU	Air Traffic Service Unit
ATT	Attitude
ATT	Attitude Reference
ATTEN	Attenuation
ATTND	Attendant
ATZ	Aerodrome Traffic Zone
AUD	Audio
AUDSWTGSYS	Audio Switching System
AUDSWTGUNIT	Audio Switching Unit
AUTH	Authorize
AUTO	Automatic
AUTOCAL	Autocalibration
AUTOLAND	Automatic Landing
AUM	All-Up Weight
AUX	Auxiliary
AVAIL	Available
AVG	Average
AVIONICS	Aviation Electronics
AVNCS	Avionics
AVRS	Audio/Video Recording System
AWB	Air Waybill
AWG	American Wire Gage
AWG	Audible Warning Generator
AWL	Aircraft Wiring List
AWLS	All Weather Landing System
AWM	Aircraft Wiring Manual
AWS	American Welding Society
AWY	Airway
AX	Access Authorized

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ABBR

TITLE

AX	Longitudinal Acceleration
AY	Lateral Acceleration
AZ	Azimuth
AZ	Vertical Acceleration
AZFW	Actual Zero Fuel Weight
B	Blue
B/B	Back-Beam
B/D	Bottom of Descent
BAABI	Basic Approved ATA Breakdown Index
BAF	Baffle
BAFO	Best and Final Offer
BAL	Basic Assembly Language
BARC	Barometric Altitude Rate Computer
BARO	Barometric
BAT	Battery (Electrical)
BBRG	Ball Bearing
BC	Baggage Container Train
BCD	Binary Coded Decimal
BCDS	BITE Centralized Data System
BCL	Battery Charge Limiter
BCN	Beacon
BCU	Brake Control Unit
BOLI	Bundesverband der Deutschen Luft-und Raumfahrt Industrie
BEL CRK	Bellcrank
BER	Beyond Economical Repair
BETW	Between
BEV	Bevel
BEW	Basic Empty Weight
BFDAS	Basic Flight Data Acquisition System
BFE	Buyer Furnished Equipment
BFO	Beat Frequency Oscillator
BFR	Buffer
BG	Build Group (Assembly Group)
BGC	Build Group Component
BGM	Boarding Music
BGS	Build Group Stack-Up
BH	Block Hours
BHD	Bulkhead
BIST	Build-In Self Test
BITE	Build-In Test Equipment
BIU	BITE Interface Unit
BL	Black
BL UP	Back Up
BL	Bleed
BLC	Basic Lines Catalog
BLK	Black

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ABBR IN SEQUENCE

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ABBR	TITLE
BLK	Block
BLKT	Blanket
BLOW	Blower
BLST	Ballast
BLT	Bolt
BLV	Bleed Valve
BLW	Below
BM	Beam
BMC	Bleed Monitoring Computer
BMS	Bulletin M t o Sp cial
BND	Bonded
BNDG	Bonding
BNDRY	Boundary
BNR	Binary
BNR	Binary Words
BO	Blocking Oscillator
BO	Body Odour
BOH	Brake-Off Weight
BOT	Begin of Tape
BOT	Bottom
BP	Bottom Plug
BR	Brown
BRC	Brace
BRD	Braid
BRDG	Bridge
BRG	Bearing
BRK	Brake
BRKNG	Braking
BRKR	Breaker
BRKS	Brakes
BRKT	Bracket
BRT	Bright, Brightness
BSCU	Braking/Steering Control Unit
BSHG	Bushing
BT	Bus Tie
BTC	Bus Tie Contactor
BTB	Bottle
BTMU	Brake Temperature Monitoring Unit
BTN	Button
BTR	Bus Tie Relay
BTU	British Thermal Unit
BU	Battery Unit
BUS	Busbar
BYDU	Back-Up Yaw Damper Unit
BYP	Bypass
C	Celsius, Centigrade

ABBR	TITLE
C	Clear
C	Close
C	Cold (Electric Point)
C	Comparator
C	Convertible
C	Cyan
C-MOS	Complementary Metal Oxide Semiconductor
C/B	Circuit Breaker
C/L	Check List
C/M	Command/Monitor
C/M	Crew Member
C/O	Change Over
C/S	Call Sign
C/SSR	Cost/Schedule Status Report
CI	Curie
CombL	Combustible Liquid
Cor.M	Corrosive Material
CA	Cable
CAA	Civil Aviation Authority
CAB	Cabin
CAB PRESS	Cabin Pressurization
CAD	Computer Aided Design
CAG	Circulation Aérienne Generale
CAGE	Commercial and Government Entity
CAI	Combustion Area Inspection
CAL	Calibration, Calibrated
CALC	Cargo Acceptance and Load Control
CAM	Cabin Assignment Module
CAM	Computer Aided Manufacturing
CAN	Canopy
CANC	Cancel
CANTIL	Cantilever
CAO	Cargo Aircraft Only
CAOA	Corrected Angle Of Attack
CAOM	Cabin Attendant Operating Manual
CAP	Capacitor
CAPLTY	Capability
CAPT	Captain
CAR	Cargo
CAR	Civil Aviation Requirements
CARE	Continuing Airframe - Health Review and Evaluation
CARP	Carpet
CAS	Calculated Air Speed
CAS	Calibrated Air Speed
CAS	Collision Avoidance System
CAS	Computed Air Speed

ABBR	TITLE
CAT	Category
CAT	Clear Air Turbulence
CAUT	Caution
CAUT LT	Caution Light
CBAL	Counterbalance
CBMS	Circuit Breaker Monitoring System
CBMU	Circuit Breaker Monitoring Unit
CBO	Cycles between Overhaul
CBORE	Counterbore
CBR	California Bearing Ratio
CBSV	Cycles Between Scheduled Visits
CC	Current Comparator
CCC	Component Change Card
CCC	Crash Crew Chart
CCCP	Compressor Cavity Control Pressure
CCG	Cabin Configuration Guide
CCITT	Consultative Committee International Telegraphy & Teleph
CCQ	Crew Cross Qualification
CCR	Customer Change Register
CCS	Cabin Communications System
CCW	Counter Clockwise
CD	Cold Drawn
CD	Control Display
CD	Count Drag
CD-ROM	Compact Disc - Read Only Memory
CD-WD	Component Data Working Document
CDDS	Component Documentation Data System
CDE	Consumption Data Exchange Card
CDIM	Component Data Instruction Manual
CDL	Configuration Deviation List
CDP	Compressor Discharge Pressure
CDS	Cold Drawn Steel
CDS	Component Documentation Status
CDU	Center Drive Unit
CDU	Control and Display Unit
CECAM	Centralized Cabin Monitoring
CED	Cooling Effect Detector
CEL	Component Evolution List
CEV	Clutch Electro Valve
CF	Course to a Fixed Waypoint
CFDIU	Centralized Fault Display Interface Unit
CFDS	Centralized Fault Display System
CFE	Customer Furnished Equipment
CFH	Cubic Feet per Hour
CFM	Cable Fabrication Manual
CFM	Cubic Feet per Minute

ABBR	TITLE
CFMI	CFM International
CFR	Code of Federal Regulations
CFRP	Carbon Fiber Reinforced Plastic
CFS	Cold Finished Steel
CG	Center of Gravity
CGCS	Center of Gravity Control System
CGM	Computer Graphics Metafile
CH	Centre Hatrack
CH	Character
CH	Charge
CHAM	Chamfer
CHAN	Channel
CHAS	Chassis
CHG	Change
CHM	Chime
CHMBR	Chamber
CHRG	Charge
CHRO	Chronometer
CI	Cast Iron
CI	Conversion Instruction
CI	Course to an Intercept
CICS	Customer Information Control System
CICS/VS	Customer Information Control System/Virtual Storage
CIDS	Cabin Intercommunication Data System
CIM	Continuous Image Microfilm
CIN	Change Identification No.
CIT	Compressor Inlet Temperature
CK	Check
CKD	Checked
CKPT	Cockpit
CKT	Circuit
CL	Center Line
CL	Check List
CL	Clip
CL	Clutch
CLB	Climb
CLD	Closed
CLOB	Component Location Data Bank
CLG	Ceiling
CLG	Centerline Landing Gear
CLK	Clock
CLM	Component Location Manual
CLN	Clinometer
CLNG	Ceiling
CLOG	Clogging
CLP	Clamp

ABBR	TITLE
CLPR	Clapper
CLR	Clear
CLR ALT	Clearance Altitude
CLRD	Cleared
CLS	Cargo Loading System
CLS	Cargo Loading System Manual
CLSD	Closed
CLSG	Closing
CLTM	Component Location Training Manual
CLV	Clevis
CM	Call Maintenance
CM	Centimeters
CM	Collective Modification
CM	Conversion Manual
CM	Crew Member
CMC	Central Maintenance Computer
CMD	Command
CMFLR	Cam Follower
CML	Consumable Material List
CMM	Calibration Memory Module
CMM	Component Maintenance Manual
CMMM	Component Maintenance Manual Manufacturer
CMP	Customer Maintenance Program
CMPLRY	Complementary
CMPNT	Component
CMPS CPLR	Compass Coupler
CMPTG	Computing
CMPTR	Computer
CMRLR	Cam Roller
CMS	Cabin Management System
CMS	Central Maintenance System
CMS	Code Matière Soci��
CMS	Code Matière Soci�� t��
CMS	Component Maintenance Sheet
CNA	Common Nozzle Assembly
CNCT	Connect
CNCTD	Connected
CNCTN	Connection
CNCTR	Connector
CNCTRC	Concentric
CNCV	Concave
CND	Conduit
CNTNR	Container
CNTOR	Contractor
CNTR	Counter
CNTRTR	Concentrator

ABBR	TITLE
CO	Company
CO	Cut-Off
CO RTE	Company Route
COC	Customer Originated Change
COHO	Coherent Oscillator
COL	Column
COM	Common
COM	Communication
COML	Commercial
COMP	Compass
COMP	Compensator
COMPSN	Compensation
COMPT	Compartment
COMPT TEMP	Compartment Temperature
COMPTR	Comparator
COMTN	Commutation
COND	Conditioned, Conditioning
CONDN	Condition
CONDTR	Conditioner
CONFIG	Configuration
CONT	Continue, Continuous
CONT	Contour
CONT	Controller
CONV	Converter
COOL	Cooling, Cooler
COORD	Coordinate
COPI	Copilot
CORA	Customer Order Administration
CORCTD	Corrected
CORR	Correct
CORR	Corrugate
CORR	Corrugation
COS	Cosine
COT	Cotter
COUNT	Counter
COV	Cover
COWL	Cowling
CP	Clock Pulse
CPC	Cabin Pressure Controller
CPCS	Cabin Pressure Control System
CPCU	Cabin Pressure Control Unit
CPL	Couple
CPLD	Coupled
CPLG	Coupling
CPLR	Coupler
CPMS	Cabin and Passenger Management System

ABBR	TITLE
CPMU	Cabin Passenger Management Unit
CPRSR	Compressor
CPT	Capture
CPU	Central Processing Unit
CR	Cold Rolled
CRC	Camera Ready Copy
CRC	Continuous Repetitive Chime
CRC	Crew Rest Compartment
CRC	Cyclic Redundancy Check
CRE	Corrosion-Resistant
CRES	Corrosion-Resistant Steel
CRG	Cargo
CRI	Certification Review Item
CRK	Crank
CRL	Collar
CRS	Cold Rolled Steel
CRS	Course
CRSM	Corrosion
CRT	Cathode Ray Tube
CRU	Card Reader Unit
CRZ	Cruise
CS	Cabin Cleaners Steps
CS	Call Switch
CS	Center Spar
CS	Centistokes
CSD	Constant Speed Drive
CSE	Course Set Error
CSF/L	Continuous Safe Flight/Landing
CSI	Cycles Since Installation
CSK	Countersink
CSKH	Countersunk Head
CSL	Console
CSM	Computer Software Manual
CSM/G	Constant Speed Motor/Generator
CSN	Catalog Sequence Number
CSTG	Casting
CSTR	Constraint
CSU	Command Sensor Unit
CSV	Cycles Since Last Shop Visit
CT	Center Tape
CT	Current Transformer
CTA	Control Area
CTF	Central Test Facilities
CTF.P	Central Test Facility Response
CTF.Q	Central Test Facility Questions
CTK	Capacity Tonne Kilometre

ABBR	TITLE
CTL	Central
CTL	Control
CTR	Center
CTR	Contour
CTR	Control Zone
CTRD	Centered
CTSK	Countersunk
CTWT	Counterweight
CU	Control Unit
CUDU	Current Unbalance Detection Unit
CUR	Current
CVL	Configuration Variation List
CVR	Cockpit Voice Recorder
CVT	Center Vent Tube
CVU	Crypto Voice Unit
CW	Clockwise
CWG	Cockpit Working Group
CWS	Control Wheel Steering
CWY	Clearway
CY	Calendar Year - Current Year
CY	Cycle
CYL	Cylinder
D/A	Digital to Analog
D/D	Engine Out Drift Down Point
D/O	Description and Operation
DA	Drift Angle
DABS	Discrete Address Beacon System
DAC	Digital to Analog Converter
DAC	Drawing Aperture Card
DADC	Digital Air Data Computer
DADS	Digital Air Data System
DAF	Damping Augmentation Function
DAR	Digital Aids Recorder
DAR	Digital ACMS Recorder
DAR	Digital AIDS Recorder
DAS/STC	Designated Alteration Station/Supplemental Type Certific
DB	Data Base
DB	Decibel
DBBS	Data Base Bulletin Service
DBD	Data Basis for Design
DBLR	Doubler
DC	Direct Current
DCD	Data Control and Display
DCD	Decode
DCD	Double Channel Duplex
DCDR	Decoder

ABBR
TITLE

DCDU	Data Control and Display Unit
DCS	Designated Certification Specialist
DCS	Direct Current Supply
DCU	Double Channel Simplex
DCV	Direction Control Unit
DCVR	Directional Control Valve
DDA	Direct Current Voltage Ratio
DDCU	Digital Differential Accumulation
DDI	Dedicated Display and Control Unit
DDI	Design Drawing Instruction
DDM	Documentary Data Insert
DDM	Difference in Depth of Modulation
DDP	Digital Data Module
DDRM1	Declaration of Design and Performance
DDTS	Digital Distance and Radio Magnetic Indicator
DDV	Digital Data Technology Standards
DEC	Direct Drive Valve
DECL	Declination
DECEL	Decelerate
DECR	Decrease
DEDP	Data Entry and Display Panel
DEF	Definition
DEFDARS	Digital Expandable Fit Data Acquisition & Recording Sys
DEFL	Deflect
DEG	Degree
DEL	Delay Message
DEL	Delete
DEL BY	Deleted by
DELTA P	Differential Pressure
DEM	Digital Electronic Module
DEMOD	Demodulator
DEP	Data Entry Panel
DEPLD	Deployed
DEPRESS	Depressurization
DEPT	Department
DES	Descent
DES	Digital Equipment Simulator
DEST	Destination
DET	Detection, Detector
DETNG	Determining
DEU	Decoder/Encoder Unit
DEV	Deviation
DEVN	Deviation
DEW	Delivery Empty Weight
DEX	Access Demanded
DF	Direction Finder

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ABBR
TITLE

DFA	Delayed Flaps Approach
DFAU	Digital Flight Data Acquisition Unit
DFDR	Digital Flight Data Recorder
DFDRS	Digital Flight Data Recording System
DFT	Drift
DG	Directional Gyro
DGAC	Direction Generale de l'Aviation Civile
DGI	Digital Input
DGO	Digital Output
DGTL	Digital
DH	Decision Height
DI	Data Input
DI	Deicing
DIA	Diameter
DIAPH	Diaphragm
DIFF	Differential
DIM	Dimension
DIM	Dimming
DIM	Direction Input Module
DIPLEXR	Diplexer
DIR	Direct, Direction, Director
DIR	Direction, Direct, Director
DIR TO	Direct to
DIS-IN	Discrete Input
DISC	Disconnect, Disconnected
DISCH	Discharge, Discharged
DISCTN	Disconnection
DISRMD	Disarmed
DIST	Distance
DISTR	Distribute, Distribution, Distributor
DITCH	Ditching
DITS	Digital Information Transfer System
DIU	Digital Interface Unit
DLC	Direct Lift Control
DLK	Data Link
DLOAD	Data Loading
DLRB	Data Loader Routing Box
DLS	Data Loader Selector
DLY	Delay
DMA	Direct Memory Access
DMC	Design Modification Committee
DMC	Direct Maintenance Cost
DMC	Display Management Computer
DMOLTR	Demodulator
DME	Distance Measuring Equipment
DMP	Display Management Processor

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ABBR
TITLE

CMR	Comer
CMU	Com Management Unit
DN	Down
DNI	Drawing Numerical Index
DNLK	Downlock
DO	Data Output
DO	Design Office
DOC	Direct Operating Cost
DOC.DATA	Documentary Data
DOW	Dry Operating Weight
DP	Data Processing
DP	Differential Protection
DPDT	Double Pole/Double Throw
DPI	Differential Pressure Indicator
OPM	Design Progress Meeting
DR	Dead Reckoning
DR	Door
DRIP	Design Response Intended for Playback
DRM	Duct Repair Manual
DRMI	Distance Radio Magnetic Indicator
DRVG	Driving
DRVN	Driven
DRVR	Driver
DSAPP	Disappearance
OSCRM	Discriminator
DSCRT	Discrete
DSCS	Doors and Escape Slides Control System
OSDL	Dedicated Serial Data Link
DSENGD	Disengaged
DSI	Discrete Input
DSO	Discrete Output
QSPL	Display
DSTRK	Desired Track
DSUG	Drawing Set User Guide
DTD	Document Type Definition
DTG	Distance to Go
DTMF	Dual Tone Multiple Frequency
DTMS	Damage Tolerance Monitoring System
DTMU	Damage Tolerance Monitoring Unit
DU	Display Unit
DUM	Dummy
DWG	Drawing
DX	Access Demanded
DYNAMTC	Dynamometric
E	East
E/T	Electrical Trim

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ABBR
TITLE

Etio.Ag.	Etio logic Agent
ExpI.	Explosive
EADI	Electronic Attitude Director Indicator
EAROM	Electrically Alterable Read Only Memory
EAS	Equivalent Airspeed
EAT	Expected Approach Time
EBS	Engine Build Specification
EBU	Engine Build-up Unit
EC	Engine Control
ECAM	Electronic Centralized Aircraft Monitoring
ECAM	ECAM Data Book
ECB	Electronic Control Box
ECDB	Equipment Central Data Bank
ECM	Engine Condition Monitoring
ECM	Engineering Coordination Memo
ECMS	Electrical Contactor Management System
ECMU	Electrical Contactor Management Unit
ECN	Engineering Change Note
ECON	Economic
ECON	Economy
ECP	ECAM Control Panel
ECS	Electronic Cooling System
ECS	Environmental Control System
ECSB	Embedded Computer System Bus
ECU	Electronic Control Unit
ECUCV	Electronic Control Unit Cooling Valve
ED	Edge Distance
EDB	ECAM Data Book
EDMC	Engineering Drawing Microfilm Card
EDP	Electronic Data Processing
EDP	Engine Driven Pump
EDTA	Ethylenediamine Tetraacetate
EE	Electrical and Electronic
EEC	Electronic Engine Control
EEC	Engine Electronic Controller
EEPROM	Electrically Erasable Programmable Read Only Memory
EFCC	Electronic Flight Control Computer
EFCS	Electrical Flight Control System
EFU	Electrical Flight Control Unit
EFDARS	Expandable Flight Data Acquisition and Recording Systems
EFF	Effective, Effectivity
EFF	Effective, Effectivity
EFIS	Electronic Flight Instrument System
EFIS CP	EFIS Control Panel
EFIS SGU	EFIS Symbol Generator Unit
EFOB	Estimated Fuel on Board

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ABBR	TITLE
EG	For Example
EGIU	Electrical Generation Interface Unit
EGT	Exhaust Gas Temperature
EHSI	Electronic Horizontal Situation Indicator
EIS	Electronic Instrument System
EIS	Entry into Service
EIU	Engine Interface Unit
EIVMU	Engine Interface and Vibration Monitoring Unit
EL	Equipment List
ELA	Electrical Load Analysis
ELAC	Elevator Aileron Computer
ELAPS	Elapsed Time
ELC	Electronic Library Computer
ELEC	Electric, Electrical, Electricity
ELEK	Electronic
ELEKS	Electronics
ELEV	Elevation, Elevator
ELS	Electronic Library System
ELT	Emergency Locator
ELV	Elevation
EM	Engine Manual
EMC	Electromagnetic Compatibility
EMDB	Electrical Main Data Bank
EMER	Emergency
EMI	Electromagnetic Interference
EMISN	Emission
EMLS	Emergency Lighting System
EMP	Empennage
EMS	Equipment Modification Sheet
EMU	Engine Maintenance Unit
ENBL	Enable
ENCD	Encode
ENCDR	Encoder
ENCL	Enclosure
END	Endurance
ENG	Engine
ENG OUT	Engine Out
ENGD	Engaged
ENGR	Engineer
ENP	Estimated Normal Payload
ENRGZ	Energize
ENT	Entry
ENTR	Entrance
ENV	Envelope
EO	Engine Out
EO	Engineering Order

ABBR	TITLE
EO ACCEL ALT	Engine Out Acceleration Altitude
EO THR RED SPD	Engine Out Thrust Reduction Speed
EOC	Engineering Order Change
EOP	End of Part
EOSID	Engine Out Standard Instrument Departure
EOSID	Engine Out SID
EOT	End of Tape
EOT	End Of Tape
EP	Entry Panel
EPC	External Power Contactor
EPD	Extended Principle Diagram
EPGS	Electrical Power Generation System
EPLD	Electronically Programmable Logic Device
EPPT	Electronic Performance
EPR	Engine Pressure Ratio
EPR	Exhaust Pressure Ratio
EPR.D	EPR Descent
EPR.L	EPR Latch
EPROM	Erasable Programmable Read Only Memory
EPSU	Emergency Power Supply Unit
EPU	Emergency Power Unit
EQPT	Equipment
ER	Elevator Rib
ER	Error Report
ER	Extended Range
ERECT	Erection
ERL	Economic Repair Life
EROM	Electronic Readout Machine
ERR	Error
ERS	Erase
ERS	Erased
ERU	Engine Relay Unit
ESC	Escape
ESD	Electro Sensitive Device
ESD	Electro Static Discharge
ESD	Electronic System Display
ESDB	Element Standard Data Bank
ESDN	Extended System/Structure Description Note
ESLB	ECAM System Logic Book
ESP	Electrical Standard Practices
ESS	Essential
EST	Estimated
ESWL	Equivalent Single Wheel Load
ET	Elapsed Time
ETA	Estimated Time of Arrival
ETO	Estimated Time of Departure

ABBR

TITLE

ETE	Estimated Time En Route
ETO	Estimated Time Over
ETOPS	Extended Range Twin Engine Aircraft Operations
ETP	Equal Time Point
ETS	Equipment Technical Specification
EUPB	Electronic Unit Protection Box
EV	Electro Valve
EVAC	Evacuation
EVNU	Engine Vibration Monitoring Unit
EWD	Engine/Warning Display
EWS	Electronic Warning System
EXC	Excitation, Excite
EXCD	Excited
EXCESS	Excessive
EXCG	Exciting
EXCN	Excitation
EXH	Exhaust
EXP	Expansion
EXT	Extend, Extension
EXT	Exterior, External
EXTC	Extract
EXTCD	Extracted
EXTCG	Extracting
EXTG	Extending
EXTIG	Extinguishing
EXTIN	Extinction
EXTING	Extinguishing, Extinguish
EXTIR	Extinguisher
EXTN	Extension
EXTR	Extractor
EXTR	Extrusion
EXTRACT	Extraction, Extractor
EZ	Electrical Zero
F	Fahrenheit
F	Minimum Flap Retract Speed (EFIS)
F-PLAN	Flight Plan
F-PLN	Flight Plan
F/C	First Class
F/CTL	Flight Controls
F/E	Flight Engineer
F/O	First Officer
F/S	Fast/Slow
F/U	Follow-Up
F/W	Failure Warning
Fla.G	Flammable Compressed Gas
Fla.L	Flammable Liquid

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ABBR

TITLE

Fla.S	Flammable Solid
FA	Course from a Fixed Waypoint to an Altitude Termination
FAA	Federal Aviation Administration
FAC	Flight Augmentation Computer
FACS	Flight Augmentation Computer System
FADEC	Full Authority Digital Engine Control
FAF	Final Approach Fix
FAIL	Failed, Failure
FAIR	Fairing
FANS	Future Air Navigation System
FAOM	Flight Attendant Operating Manual
FAP	Forward Attendant Panel
FAR	Federal Aviation Regulations
FAS	Flight Augmentation System
FAV	Fan Air Valve
FAWP	Final Approach Waypoint
FBS	Fixed Base Simulator
FBW	Fly-by-wire
FC	Course from a Fixed Waypoint to a Changeover Point
FC	Freight Container Train
FC	Fully Closed
FCC	Flight Control Computer
FCCS	Flight Control Computer System
FCCU	Flight Control Computer Unit
FCD	Full Color Display
FCDC	Flight Control Data Concentrator
FCD55	Full Color Display 5 inch x 5 inch
FCMC	Fuel Control and Monitoring Computer
FCMS	Fuel Control Monitoring System
FCOM	Flight Crew Operating Manual
FCPC	Flight Control Primary Computer
FCPI	Flight Control Position Indicator
FCR	Flight Crew Report
FCRC	Flight Crew Rest Compartment
FCSC	Flight Control Secondary Computer
FCST	Forecast
FCTN	Function
FCU	Flight Control Unit
FCU	Flammable Control Unit
FCU	Fuel Control Unit
FCV	Flow Control Valve
FD	Course from a Fixed Waypoint to a DME Distance
FD	Flight Director
FD	Fuselage Datum
FDAU	Flight Data Acquisition Unit
FDB	Floor Disconnect Box

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ABBR	TITLE
FDBK	Feedback
FDEP	Flight Data Entry Panel
FDIU	Flight Data Interface Unit
FDSU	Flight Data Storage Unit
FDU	Fire Detection Unit
FE	Flight Envelope
FEC	Flight Envelope Computer
FEDR	Feeder
FEKV	Fan Exit Guide Vane
FET	Field Effect Transistor
FEW	Fleet Empty Weight
FF	Fuel Flow
FFCC	Forward Facing Crew Cockpit Concept
FFCC	Forward Facing Crew Cockpit Configuration
FFCCV	Fan Frame Compressor Case Vertical
FFCCV	Forward Flange Compressor Casing Vibration
FFL	Flip Flop Latch
FFP	Fixed Firm Price
FFS	Full Flight Simulator
FG	Flight Guidance
FGN	Foreign
FGS	Flight Guidance System
FH	Flight Hours
FIDS	Fault Isolation and Detection System
FIFO	First Input/First Output
FIG	Figure
FIL	Filament
FIL	Fillet
FIL H	Filliciter Head
FILG	Filling
FIM	Fault Isolation Manual
FIN	Functional Item Number
FIR	Full Indicator Reading
FIS	Flight Information Service
FIX	Fixed
FL	Flight Level
FL	Flood
FL	Floor
FL	Flow
FL	Fluid
FLC	Feel and Limitation Computer
FLD	Field
FLDK	Flight Deck
FLEX	Flexible
FLG	Flange
FLH	Flat Head

ABBR	TITLE
FLIP	Flight Plan Computation Program
LLT	Flashing Light
FLMPRF	Flameproof
FLP	Flap
FLSA	Fuel Level Sensing Amplifier
FLSCU	Fuel Level Sensing Control Unit
FLT	Flight
FLT CTL	Flight Control
FLTR	Filter
FLXTO	Flexible Take-Off
FM	Course from a Fixed Waypoint with a Manual Termination
FM	Fan Marker
FM	Flight Management
FM	Flight Manual
FM	Frequency Modulation
FMA	Flight Mode Annunciator
FMC	Flight Management Computer
FMCS	Flight Management Computer System (FMC and CDU)
FMCU	Flight Management Computer Unit
FMEA	Failure Mode Effect Analysis
FMGC	Flight Management and Guidance Computer
FMGEC	Flight Management Guidance and Envelope Computer
FMGES	Flight Management Guidance and Envelope System
FMGS	Flight Management and Guidance System
FMS	Flight Management System (FMCS and AFS sensors)
FMS	Fuel Manifold Staging
FMU	Fuel Metering Unit
FMV	Fuel Metering Valve
FNA	Final Approach
FNCP	Flight Navigation Control Panel
FNSG	Flight Navigation Symbol Generator
FO	Flight Order
FO	Fully Open
FOB	Fuel On Board
FOC	Fuel/Oil Cooler
FOD	Foreign Object Damage
FOD	Fuel Over Destination
FOR DET	For Detail
FOT	Flight Operation Telex
FPA	Flight Path Angle
FPEEPS	Floor Proximity Emergency Escape Path Marking System
FPM	Feet per Minute
FPPU	Feedback Position Pick-off Unit
FPRM	Fuel Pipe Repair Manual
FPT	Flight Path Target
FPV	Flight Path Vector

ABBR	TITLE
FQ	Fuel Quantity
FOI	Fuel Quantity Indicating/-ion/-or
FOIC	Fuel Quantity Indicating/Indication/Indicator
FR	Fuel Quantity Indication Computer
FREQ	Frame
FREX	Frequency
FRM	Support Repercussion Sheet
FRT	Fault Reporting Manual
FRU	Front
FRV	Frequency Reference Unit
FS	Fuel Return Valve
FS	Front Spar
FSCM	Fuselage Station
FSN	Fasten Seat Belts
FST	Federal Supply Code for Manufacturers
FSTNR	Fleet Serial Number
FTB	Fire/Smoke/Toxicity
FTG	Fastener
FTI	For the time being
FTK	Fitting
FTMS	Flight Test Installation
FTR	Freight Tonne Kilometre
FTRNG	Fuel Tank
FTS	Flight Test Management System
FU	Flight Test Request
FUSLG	Feathering
FV	Frame Time Select
FW	Feedback Unit
FW	Fuel Used
FWC	Fuselage
FWD	Flux Valve
FWL	Failure Warning
FWS	Firewall
FWS	Flight Warning Computer
FWS	Forward
FWS	Firewall
FWS	Flight Warning System
FWS	Flight Warning and System Display
FY	Fiscal Year
G	Galley
G	Green
G	Grid
G	Gyro
G/A	Ground-to-Air
G/G	Ground Guidance
G/S	Glide Slope

ABBR	TITLE
GA	General Application
GA	Go-Around
GAD	General Assembly Drawing
GAIR	General Assembly Inspection Report
GALV	Galvanize
GALY	Galley
GAMMA-A	Slope
GAMMA-T	Potential Slope
GATE	Glossary of Airbus Terms and Expressions
GATT	General Agreement on Tariffs and Trade
GCA	Ground-Controlled Approach System
GCR	Generator Control Relay
GCU	Generator Control Unit
GDE	Guide
GDNC	Guidance
GDS	GSE Data Sheet
GE	General Electric
GEM	Ground Equipment Manual
GEN	Generator
GENL	General
GFTM	General Familiarization Training Manual
GIC	General Instruction Card
GIDOCA	Gestion Informatique de la Documentation Avion
GIE	Groupeement d'Intérêt Economique
GIM	General Introduction Manual
GIPSY	General Integrated Publication System
GLC	Generator Line Contactor
GLM	General List of Modifications
GLR	Generator Line Relay
GMC	General Modifications Committee
GMR	Ground Movement Radar
GNT	Greenwich Mean Time
GNTBF	Guaranteed Mean Time Between Failure
GND	Ground
GMLU	GNSS Navigation and Landing Unit
GNSS	Global Navigation Satellite System
GP	Glide Path
GPCU	Ground Power Control Unit
GPM	General Processing Module
GPS	Global Positioning System
GPSSU	Global Positioning System Sensor Unit
GPU	Ground Power Unit
GPWC	Ground Proximity Warning Computer
GPWS	Ground Proximity Warning System
GR	Gear
GRC	Glass Reinforced Composite

ABBR	TITLE
GRFC	Global RFC
GRP	Geographic Reference Point
GRP	Glass-Reinforced Plastic
GRP	Ground Reference Point
GRP	Ground/Geographical Reference Point
GRU	Ground Refrigeration Unit
GRV	Groove
GRVTY	Gravity
GS	Ground Speed
GSE	Ground Support Equipment
GSHLD	Glareshield
GSM	General Structure Manual
GTA	General Terms Agreement
GTHRG	Gathering
GTI	Ground Test Instructions
GW	Gross Weight
GWR	General Working Rules
GY	Grey
GYRO	Gyroscope
H	Hot (Electrical Point)
H	Runway Thickness
H NAV	Horizontal Navigation
Hpa	Hecto Pascal
HA	Holding Pattern to an Altitude Termination
HADC	Hybrid Air Data Computer
HARN	Harness
HAS	Heading and Attitude System
HB	Brinell Hardness Test Value
HCU	Hydraulic Control Unit
HD	Head
HOG	Heading
HOG/S	Heading Selected
HDL	Handle
HDLG	Handling
HDST	Headset
HDWHL	Handwheel
HEGS	Hydraulic Electrical Generating System
HEX	Hexadecimal
HF	High Frequency
HF	Holding Pattern to a Fixed Waypoint
HHL	Horizontal Hinge Line
HI	High
HIL	Hold Item List
HK	Knoop Hardness Test Value
HL	High Level
HLAC	High Level AC Voltage

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ABBR	TITLE
HLCL	Helical
HLD	Hold
HLDC	High Level DC Voltage
HLDR	Holder
HLTY	Healthy
HM	Holding Pattern with a Manual Termination
HMC	Hydromechanical Control
HMU	Hydromechanical Unit
HNG	Hinge
HOLD	Holding
HORIZ	Horizontal
HOT	High Oil Temperature
HP	High Pressure
HPC	High Pressure Compressor
HPC	Rear Compressor Rotor and Stator Assembly
HPT	High Pressure Turbine
HPT	Rear Compressor Drive Turbine Rotor Assembly
HPTACC	High Pressure Turbine Active Clearance Control
HPTC	High Pressure Turbine Clearance
HPTR	High Pressure Turbine Rotor
HPV	HP Bleed Valve
HR	Hot Rolled
HR	Hour
HR(X)	Rockwell Hardness Test Value
HR/XXX)	Rockwell Superficial Hardness Test Value
HRS	Hot Rolled Steel
HRS	Hours
HS	High Speed
HSG	Housing
HSI	Horizontal Situation Indicator
HSI	Hot Section Inspection
HSMU	Hydraulic System Monitoring Unit
HSS	High Speed Steel
HT	Heat
HT TR	Heat Treat
HTD	Heated
HTG	Heating
HTP	Horizontal Tail Plane
HTR	Heater
HUO	Head Up Display
HUOC	Head Up Display Computer
HV	High Voltage
HV	Vickers Hardness Test Value
HVDF	High and Very High Frequency Direction - Finding Station
HVPS	High Voltage Power Supply
HWBPT	Hardware Breakpoint

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ABBR

TITLE

HYD	Hydraulic
HZ	Hertz
I	Inertial
I	Invoice Card
I/I	Inspection/Interval
I/O	Input/Output
I/P	Input
I/P	Intercept Point
I/P	Intercept Profile
Irr.M	Irritating Material
IAE	International Aero Engines
IAF	Initial Approach Fix
IAS	Indicated Airspeed
IATA	International Air Transport Association
IAW	In Accordance with
IAWP	Initial Approach Waypoint
IBN	Identification Beacon
IC	Integrated Circuit
IC	Invoice Control Card
ICAO	International Civil Aviation Organisation
ICCAIA	Inter Co-ordinating Council of Aerospace Industries Asso
ICD	Interface Control Document
ICE	In Circuit Emulation
ICU	Isolation Control Unit
ICY	Interchangeability
ID	Inside Diameter
ID PL	Identification Plate
IDC	Instrument Display Catalog
IDENT	Identification, Identifier, Identify
IDG	Integrated Drive Generator
IDP	Integrated Data Processing
IDU	Interactive Display Unit
IF	Initial Fix
IF	Intermediate Frequency
IFP	In Flight Performance Computation Program
IFR	Instrument Flight Rules
IFTB	In flight Turn back
IGB	Inlet Gear Box
IGN	Ignition
IGV	Inlet Guide Vane
IIPD	Illustrated Initial Provisioning Document
ILLUM	Illumination
ILLUMD	Illuminated
ILS	Instrument Landing System (LOC and G/S)
IM	ILS Inner Marker
IMC	Indirect Maintenance Cost

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ABBR

TITLE

IMM	Immediate
IMU	Inertial Measurement Unit
IN	Inch
IN HG	Inches of Mercury
IN-LBS	Inch-pounds
INA	Initial Approach
INB	Inbound
INBD	Inboard
INCLG	Including
INCR	Increase
INCR	Increment
IND	Indicator
INDG	Indicating
INFO	Information
INHIB	Inhibit
INHIB	Inhibit, Inhibited, Inhibition
INIT	Initial(ization)
INOP	Inoperative
INP	Input
INR	Inner
INRTL	Inertial
INS	Inertial Navigation System
INSP	Inspection
INST	Instinctive
INST	Instrument
INSTL	Installation
INSTLLD	Installed
INSTM	Instrumentation
INSUL	Insulate, Insulation, Insulator
INT	Interrupt
INT	Intersection
INTCON	Interconnection
INTCP	Intercept
INTEG	Integral
INTEN	Intensity
INTERCOM	Intercommunication
INTFC	Interface
INTG	Integral
INTGT	Integrate, Integrating
INTL	Internal
INTLK	Interlock
INTMO	Intermediate
INTMT	Intermittent
INTPH	Interphone
INTR	Interior
INTRG	Interrogate, Interrogator

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ABBR	TITLE
INTPT	Interrupt
INU	Inertial Navigation Unit
INW	Inverter
INWP	Intermediate Waypoint
IOC	Indirect Operating Cost
IOR	Immediate Operational Requirement
IP	Intermediate Pressure
IP	Invoice Packing Card
IPC	Illustrated Parts Catalog
IPC	Intermediate Pressure Bleed Check Valve
IPCT	Initial Provisioning Coordination Team
IPD	Illustrated Provisioning Document
IPD	Initial Provisioning Data
IPL	Illustrated Parts List
IPPU	Instrumentation Position Pick-off Unit
IPS	Incorrect Phase Sequence
IPT	Inadvertent Power Transfer
IPV	Indicator Para Visual
IR	Inertial Reference
IRAN	Inspection and Repair As Necessary
IRQ	Interrupt Request
IRS	Inertial Reference System
IRU	Inertial Reference Unit
ISA	Inertial Sensor Assembly
ISA	International Standard Atmosphere
ISB	Inter-System Bus
ISOU	Inertial Sensor Display Unit (IRS)
ISG	Instrument Symbol Generator Unit
ISO	International Standardization Organisation
ISOL	Isolation
ISS	Inertial Sensor System
ISU	Inertial Sensor Unit
ISWL	Isolated Single Wheel Load
IT	Interruption
IV	Isolation Valve
IVS	Inertial Vertical Speed
JAA	Joint Airworthiness Authorities
JAM	Jammed, Jamming
JAMG	Jamming
JAR	Joint Aviation Requirements
JB	Junction Box
JCT	Junction
JEMTOSS	Jet Engine Maintenance Task Oriented Support System
JIC	Job Instruction Card
JK	Jack
JOG	Joggle

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ABBR IN SEQUENCE

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ABBR	TITLE
K	Degree Kelvin
K	Subgrade Reaction Modulus
K	1024
KeV	Thousand Electron Volts
KB/s	Kilo Bits per Second
KHZ	Kilohertz
KIAS	Knots Indicated Airspeed
KRUG	Krueger
KT	Knot(s)
KV	Kilo Volt
KVA	Kilovolt Ampere
L	Left
L	Length
L	Litre or Liter
L	Radius of Relative Stiffness
L ECAM DU	Left ECAM Display Unit
L-x	Lavatory - X
L/D	Lift/Drag
L/G	Landing Gear
LA	Linear Accelerometer
LAF	Load Alleviation Function
LAG	Lagging
LAM	Laminate
LAN	Local Area Network
LAP	List of Applicable Publications
LAT	Lateral
LAT	Latitude
LAU	Linear Accelerometer Unit
LAV	Lavatory
LB	Pounds
LB-FT	Pound - Force - Foot (Torque)
LB-IN	Pound - Inch
LBA	Luftfahrt Bundes Amt
LBP	Left Bottom Plug
LC	Labour Cost
LCC	Life Cycle Cost
LCD	Liquid Crystal Display
LCOT	Load Compressor Discharge Temperature
LCH	Latch
LCHG	Latching
LCIT	Load Compressor Inlet Temperature
LCL	Line Check List (Maintenance)
LCN	Load Classification Number
LCSD	Line Check Support Data
LCTR	Locator
LD	Left Display

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ABBR
TITLE

LD	Load
LD	Lower Deck
LDA	Localizer-type Directional Aid
LDCC	Lower Deck Cargo Compartment
LDG	Landing
LDG GR	Landing Gear
LDI	Landing Direction Indicator
LDMCR	Lower Deck Mobile Crew Rest
LE	Leading Edge
LE	Log Entry
LED	Light Emitting Diode
LEL	Lower Explosive Limit
LEP	List of Effective Pages
LF	Low Frequency
LFR	Low Frequency Radio Range
LGCUI	Landing Gear Control and Interface Unit
LGND	Legend
LH	Left Hand
LIM	Limit, Limitation, Limiter, Limiting,
LIM	Limit, Limitation, Limiting, Limiter
LIMG	Limiting
LIPPLE	Lowest Intelligible Phone Power Level
LIQD	Liquid
LIS	Localizer Inertial Smoothing
LKD	Locked
LKG	Locking
LKR	Locker
LKSHFT	Lockshaft
LL	Latitude/longitude
LL	Latitude/Longitude
LL	Low Level
LLAC	Low Level AC Voltage
LLDC	Low Level Direct Current
LLDC	Low Level DC Voltage
LLI	Long Lead Time Item
LLS	Left Line Select Key
LLS	Low-Level Solid Radioactive Material
LL1	Waypoint from Waypoint List Abbreviated
LMC	Least Material Condition
LMM	Compass Locator at Middle Marker
LMP	Left Middle Plug
LMP	Line Maintenance Part
LMS	Leakage Measurement System
LMT	Local Mean Time
LNA	Label Not Available
LNG	Long

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ABBR
TITLE

LNR	Linear
LO	Local Oscillator
LO	Low
LO PR	Low Pressure
LOC	List of Overhaulable Components
LOC	Localizer
LOG	Logic
LOGO	Logogram
LOM	Compass Locator at Outer Marker
LONG	Longitude
LONG	Longitudinal
LONGCL	Longitudinal
LONGN	Longeron
LOP	Low Oil Pressure
LORAN	Long Range Aid to Air Navigation
LP	Low Pressure
LP VALVE	Low Pressure Valve
LPC	Low Compressor Rotor and Stator Assembly
LPC	Low Pressure Compressor
LPE	Laissez-Passer Exceptionnel
LPFEV	Long Power Failure Event
LPT	Front Compressor Drive Turbine Rotor Assembly
LPT	Low Pressure Turbine
LPTACC	Low Pressure Turbine Active Clearance Control
LPTC	Low Pressure Turbine Clearance
LPTR	Low Pressure Turbine Rotor
LRE	List of Radioactive and Hazardous Elements
LRI	Line Replaceable Item
LRM	Line Replaceable Module
LRRA	Low Range Radio Altimeter
LRU	Line Replaceable Unit
LS	Landing System
LS	Line Select Key
LS	Loudspeaker
LS	Low Speed
LSA	Low Specific Activity Radioactive Material
LSA	Low Speed Aileron
LSB	Least Significant Bit
LSC	Least Significant Character
LSI	Large Scale Integrated/Integration/Integrator
LSP	Low Speed
LSR	Last Significant Bit
LSR	Load Shedding Relay
LT	Light
LT	Teleloading
LTD	Limited

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ABBR	TITLE
LTG	Lighting
LTK	Load Tonne Kilometre
LTM	Livestock Transportation Manual
LTP	Left Top Plug
LTS	Lights
LV	Low Voltage
LVDT	Linear Variable Differential Transducer
LVL	Level
LVL/CH	Level Change
LVR	Lever
LVR	Louver
LW	Landing Weight
LWR	Lower
M	Mach
M	Mach Number
M	Magenta
M	Maneuvering Speed (EFIS)
M	Mode
Mag.M	Magnetized Material
Mn	Mach Number
MA	Maintenance Annunciator
MA	Milli-Ampere
MAA	Maximum Authorized IFR Altitude
MAAP	Members and Associated Partners
MAC	Maintenance Action Classification
MAC	Mean Aerodynamic Chord
MADAR	Malfunction Detection Analysis and Recording Subsystem
MAG	Magazine
MAG	Magnetic
MAG DEC	Magnetic Declination
MAG VAR	Magnetic Variation
MAGN	Magnetron
MAIOS	Multipurpose Automatic Inspection and Diagnostic System
MAIN MUX	Main Multiplexer
MAINT	Maintenance
MALS	Medium Intensity Approach Light System
MALSR	Medium Intensity Approach Light System with Runway Align
MAN	Manual
MAP	Ground Mapping
MAP	Master Annunciator Panel
MAP	Missed Approach Segment
MAPSP	Master Attendant Passenger Service Panel
MAS	Milli-Ampere/Seconds
MAS	Modification Approval Sheet
MASI	Mach Airspeed Indicator
MAWP	Missed Approach Waypoint

ABBR	TITLE
CLB	Maximum Climb
MAX DES	Maximum Descent
MAX END	Maximum Endurance
MB	Millibars
MC	Master Change
MC	Material Cost
MCi	MilliCurie
MCA	Minimum Crossing Altitude
MCBF	Mean Cycles between Failures
MCC	Modification Customer Chart
MCDU	Multipurpose Control & Display Unit
MCL	Maximum Climb
MCR	Manufacturer Change Request
MCR	Maximum Cruise
MCT	Maximum Continuous Thrust
MCU	Modular Concept Unit
MCUR	Mean Cycle Between Unscheduled Removals
MCVL	Manual Configuration Variation List
MCW	Modulated Continuous Wave
MDA	Minimum Decision Altitude
MDA	Minimum Descent Altitude
MDAU	Modular Data Acquisition Unit
MDCC	Main Deck Cargo Compartment
MDDU	Multipurpose Disk Drive Unit
MDF	Medium Frequency Direction Finding Station
MDL	Module
MDU	Multipiler Divider Unit
MEA	Minimum En Route IFR Altitude
MEAS	Measurement
MEASRG	Measuring
MEC	Main Engine Control
MECH	Mechanic, Mechanical, Mechanism
MED	Medium
MEL	Minimum Equipment List
MEM	Memory
MES	Main Engine Start
MET	Metereological
MEV	Main Electro Valve
MEV	Million Electron-Volts
MEW	Manufacturer's Empty Weight
MF	Medium Frequencies
MFA	Memorized Fault Annunciator
MFD	Multifunction Display
MFG	Manufacturing
MFP	Maintenance Facility Planning

ABBR
TITLE

MFP	Mixed Fission Products
MFR	Manufacturer
MFR IDENT	Manufacturer Identification
MFTW	Maximum Design Fuel Transfer Weight
MFW	Maximum Design Flight Weight
MGT	Management
MHSU	Magnetic Heading Sensor Unit
MHZ	Megahertz
MI	Magnetic Indicator
MIC	Microphone
MICBAC	Micro-system Bus Access Channel
MICBAC	Micro-System Bus Access Channel
MID	Middle
MIDU	Multi-Input Interactive Display Unit
MIN	Minimum
MIN FUEL	Minimum Fuel
MIN TIME	Minimum Time
MIP	Maintenance Information Printer
MIPO	Manually Issued Purchase Order
MIPS	Maintenance Information and Planning System
MISC	Miscellaneous
MKGS	Markings
MKR	Marker (radio) Beacon
MLA	Maneuver Load Alleviation
MLD	Molded
MLG	Main Landing Gear
MLI	Magnetic Level Indicator
MLIH	Magnetic Level Indicator Housing
MLS	Microwave Landing System
MLW	Maximum Design Landing Weight
MM	Maintenance Manual
MM	Middle Marker
MMC	Maximum Material Condition
MMDB	Mechanical Main Data Bank
MMEL	Master Minimum Equipment List
MMH/FH	Maintenance Man Hours per Flight Hour
MHI	Manual Magnetic Indicator
MMO	Mach Max Operating Speed
MMO	Maximum Operating Mach
MMR	Multi-Mode Receiver
MMFOLD	Manifold
MOCA	Minimum Obstruction Clearance Altitude
MOD	Modification
MOD	Modulator
MOD/V	Modulating Valve
MODLTR	Modulator

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ABBR
TITLE

MON	Monitor, Monitoring, Monitored
MONG	Monitoring
MORA	Minimum Off Route Altitude
MOS	Metal Oxide Semiconductor
MOS	Metal Oxide Semiconductor
MOT	Motor, Motorized
MP	Main Processor
MP	Maintenance Practices
MP	Modification Proposal
MPA	Maximum Power Assurance
MPB	Micro Processor Bipolar
MPD	Maintenance Planning Document
MPDS	Maintenance Planning Data Support
MPL	Maximum Permitted Life
MPR	Multipurpose Register
MPS	Maximum Performance Specifications
MPS	Multiplex Power Supply
MPU	Magnetic Pickup
KPU	Modem Processor Unit
MOPB	Minimum Quantity Price Break
MRA	Minimum Reception Altitude
MRB	Maintenance Review Board
MRBD	Maintenance Review Board Document
MRIU	Maintenance & Recording Interface Unit
MRS	Malfunction Reporting Systems
MRW	Maximum Ramp Weight
MS	AI Maintenance Schedule
MS	Military Standard
MSA	Minimum Safe Altitude
MSB	Most Significant Bit
MSC	Maintenance Steering Committee
MSCN	Manufacturer Specification Change Notice
MSG	Maintenance Steering Group
MSG	Message
MSI	Maintenance Significant Item
MSI	Medium Scale Integrated
MSL	Maintenance Significant Item List
MSL	Mean Sea Level
MSN	Manufacturer Serial Number
MSTR	Master
MSU	Magnetic Sensor Unit
MSU	Mode Selector Unit (IRS)
MSW	Microswitch
MT	Mount
MTBD	Mean Time Between Defects
MTBF	Mean Time Between Failure

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ABBR	TITLE
MTBI	Mean Time Between Inspection
MTBIFS	Mean Time Between In Flight Shut-down
MTBPR	Mean Time Between Premature Removals
MTBR	Mean Time Between Removals
MTBT	Mean Time Between Trouble
MTBUR	Mean Time Between Unscheduled Removals
MTE	Manual Test Equipment
MTG	Mounting
MTGC	Mounting Center
MTI	Multi Tank Indicator
MTN	Motion
MTQ	Maximum Take-Off
MTQ	M(t)o
MTQGW	Maximum Takeoff Gross Weight
MTOP	Maintenance Task Operating Plan
MTOW	Maximum Design Takeoff Weight
MTP	Maintenance and Test Panel (AFS)
MTR	Meter
MTS	Maintenance Training Simulator
MTTF	Mean Time to Failure
MTTR	Mean Time to Repair
MTTUR	Mean Time to Unscheduled Removal
MTUR	Mean Time Between Unscheduled Removals
MTW	Maximum Design Taxi Weight
MTXW	Maximum Taxi Weight
MU	Management Unit
MUX	Multiplex, Multiplexer
MV	Multivibrator
MVT	Movement
MWARN	Master Warning
MWC	Master Warning Computer
MWG	Maintenance Working Group
MWP	Master Warning Panel
MWS	Master Warning System
MXR	Mixer
MZFCG	Maximum Zero Fuel Center of Gravity
MZFW	Maximum Design Zero Fuel Weight
N	Neon
N	Newton
N	Normal
N	North
N MOS	N-Channel Metal Oxide Semiconductor
N MOS	Negative Metal Oxide Semiconductor
N/A	Not Applicable
N/P	Next Page
N/W	Nose Wheel

ABBR	TITLE
N/WS	Nose Wheel Steering
Nm	Moment (Newtonmeter)
No	Number
NonflaG	Non-Flammable Compressor Gas
NAC	Nacelle
NAC STA	Nacelle Station
NAI	Nacelle Anti-Icing
NAS	Navy and Army Standard
NATS	North American Telephone System
NAV	Navigation
NAVAID	Navigation Aid
NBPT	No Break Power Transfer
NBS	National Bureau of Standards
NC	Normally Closed
NCD	No Computed Data
NCU	Navigation Computer Unit
NCV	Nacelle Cooling Valve
ND	Navigation Display
NDB	Non-Directional Beacon
NDB	Non-Directional Radio Beacon
NDM	Noise Definition Manual
NDT	Non-Destructive Test
NEG	Negative
NFC	Not Fully Closed
NFO	Not Fully Open
NHA	Next Higher Assembly
NLA	Non Listed Assembly
NLG	Nose Landing Gear
NM	Nautical Mile
NMI	Non Maskable Interrupt
NO	Normal Operation
NO	Normal Operation in SSM
NO	Normally Open
NOPT	No Procedure Turn Required
NORM	Normal
NORM ALIGN	Normal Alignment
NOTAM	Notice to Airmen
NOVOLRAM	Non-volatile Random Access Memory
NOVOLRAM	Non-Volatile Random Access Memory
NP	Non Procurable
NPN	Negative-Positive-Negative
NPT	National Taper Pipe (Thread)
NPV	Net Present Value
NRP	Navigation Reference Point
NRZ	Non Return To Zero
NS	No Smoking

ABBR	TITLE
NSA	Norme Sud Aviation
NSCM	NATO Supply Code for Manufacturers
NSDW	Non Specific Design Work
NTM	Non-Destructive Testing Manual
NTM	Nondestructive Testing Manual
NTWK	Network
NUM	Numerical
NVM	Non Volatile Memory
NVM	Non-Volatile Memory
N1	Engine Fan Speed
N1	Low Pressure Rotor Speed
N1.D	N1 Descent
N1.L	N1 Latch
N2	High Pressure Rotor Speed
O	Open
O	Orange
O/C	Open Circuit
O/P	Output
Org Per	Organic Peroxide
Oxy M	Oxidizing Material
OAT	Outside Air Temperature
OBDM	On Board Replaceable Module
OBS	Omni Bearing Selector
OBSV	Observation
OBSVR	Observer
OC	On Condition
OC	Open Circuit
OC	Order Card
OC	Overcurrent
OCCPD	Occupied
OCCPNT	Occupant
OCL	Obstacle Clearance Limit
OCS	Obstacle Clearance Surface
OD	Outside Diameter
OEB	Operating Engineering Bulletin
OEW	Operational Empty Weight
OF	Overfrequency
OFFR	Off/Reset
OFST	Offset
OGV	Outlet Guide Vane
OH	Opposite Hand
OHSC	Overhead Stowage Compartment
OHU	Optical Head Unit
OIT	Oil Inlet Temperature
OIT	Operator Information Telex
OK	Correct

ABBR	TITLE
OLIVER	Output Level Intended for Very Excellent Reproduction
OLMS	Operational Loads Monitoring System
OLW	Operational Landing Weight
OM	ILS Outer Marker
OM	Outer Marker
OM	Overhaul Manual
OMM	Overhaul Manual Manufacturer
OMS	Onboard Maintenance System
OMTBF	Observed Mean Time between Failure
OMV	Overhaul Manual Vendor
ONS	Omega Navigation System
OOT	Oil Outlet Temperature
OP	Opalescent
OP	Operational
OPAL	Order Processing Automated Line
OPER	Operative/Operation/Operating
OPNG	Opening
OPP	Opposite
OPS	Operation
OPS	Operations
OPT	Optimum
OPT	Optional
OPTL	Optional
OPU	Overspeed Protection Unit
OPV	Overpressure Valve
ORF	Orifice
ORM	Onboard Replaceable Module
ORZ	Omni Range Zero
OSC	Oscillator
OSG	Overspeed Safety Governor
OTOW	Operational Take-Off Weight
OUT	Outlet
OUT	Output
OUTB	Outbound
OUTBD	Outboard
OUTR	Outer
OV	Over
OVBD	Overboard
OVF	Over Frequency
OVFL	Overflow
OVHD	Overhead
OVHT	Overheat
OVLO	Overload
OVPRESS	Overpressure
OVRO	Override
OVSP	Overspeed

ABBR	TITLE
OVSTEER	Oversteer
OVV	Overvoltage
OW	Outer Wing
OWE	Operating Weight Empty
OXY	Oxygen
OZ	Ounce
O2	Oxygen (Symbol)
P	Pressure
P	Purple
P	Roll Rate
P.ALT	Profile Altitude
P.CLB	Profile Climb
P.DES	Profile Descent
P.EPR	Profile EPR
P.MACH	Profile Mach
P.N1	Profile N1
P.SPD	Profile Speed
P(-+ OFF)	Polarity (minus, plus, off)
P/B	Pushbutton
P/BSW	Pushbutton Switch
P/C	Printed Circuit
P/L	Payload
P/P ROM	Preprocessor ROM
Pa	Pascal
PA	Passenger Address
PA	Public Address
PA AMP	Passenger Address Amplifier
PAL	Programmable Array Logic
PAR	Precision Approach Radar
PARAM	Parameter
PARK	Parking
PAS	Pitch Attitude Sensor
PATS	Passenger Air-to-Ground Telephone System
PAX	Passenger
PAX	PAX Announcement Entertainment & Service Multiplex Sys
PB	Policy Board
PBM	Power Plant Build-up Manual
PBSW	Pushbutton Switch
PC	Pack Controller
PC	Packing Card
PCA	Portland Cement Association
PCA	Positive Control Airspace
PCB	Printed Circuit Board
PCD	Performance Compliance Document
PCE	Personal Consumption Expenditures
PCF	Passenger Cum Freighter

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ABBR	TITLE
PCM	Power Conditioning Module
PCM	Pulse Code Modulation
PCT	Percent
PCU	Passenger Control Unit
PCU	Power Control Unit
PCU	Power Controller Unit
PD	Pitch Diameter
PD	Principle Diagram
PDC	Panel Display Catalog
PDC	Procurement Data Card
PDDC	Provisioning Descriptive Data Card
PDM	Post Delivery Modification Material
PDO	Power Door Opening
PDRG	Procurement Data Reference Card
PDU	Power Drive Unit
PE	HP Stage Air Pressure
PED	Pedestal
PEF	Pylon Extension Fairing
PEM	Performance Engineers Manual
PEP	Performance Engineers Programs
PERC	Percussion
PERF	Performance
PERM	Permanent
PES	Passenger Entertainment (System)
PES	Passenger Entertainment System
PES	Production Engineering Specification
PESAR	Passenger Entertainment System Audio Reproducer
PESMMUX	Passenger Entertainment System Main Mux
PF	Pilot Flying
PF	Power Factor
PFD	Primary Flight Display
PFEV	Power Failure Event
PFIN	Power Failure Interrupt
PG	Page
PG BUS	Program Bus
PH	Phase
PHA	Preliminary Hazard Analysis
PHC	Probe Heat Computer
PHR	Pounds per Hour
PI	Procedure Turn to an Intercept
PIA	Peripheral Interface Adapter
PIA	Programmable Interface Adapter
PIH	Pressure Interstage Hydraulic (PW eng)
PIN PROG	Pin Programming
PIPC	Power Plant Illustrated Parts Catalog
PIR	Pressure Interstage Return

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ABBR IN SEQUENCE

PAGE 47

ABBR	TITLE
PIREP	Pilot Reports
PIU	Passenger Information Unit
PIX	Picture
PK	Pink
PL	Plate
PL	Plug
PLATF	Platform
PLCRD	Placard
PLS	Pulse
PLT	Pilot
PLYWD	Plywood
PM	Phase Modulation
PM	Pounds per Minute
PMA	Parts Manufacturing Approval
PMA	Permanent Magnet Alternator
PMC	Power Management Control, Controller
PMC	Power Management Control, controller
PMC	Process Material Control
PMDB	Production Management Data Base
PMG	Permanent Magnet Generator
PMP	Performance Monitoring Program
PMP	Primary Maintenance Process
PMP	Pump
PMR	Performance Maintenance Recorder
PMS	Process and Material Specification
PMUX	Power Plant Multiplexer
PMUX	Propulsion Multiplexer
PN	Part Number
PNEU	Pneumatic
PNF	Pilot Non Flying
PNL	Panel
PNP	Positive-Negative-Positive
PO	Pickoff
PO	Purchase Order
POB	Pressure-Off Brake
POR	Point of Regulation
POS	Position
POST	Power on Self Test
POT	Potentiometer
PPB	Provisioning Parts Breakdown
PPBU	Power Plant Build Up
PPC	Phosphor Protection Circuit
PPDC	Provisioning Procurement Data Card
PPDES	Product Performance Data Exchange Specifications
PPI	Plan Position Indicator
PPIPC	Power Plant IPC

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PAGE 48

ABBR	TITLE
PPM	Parts per Million
PPM	Performance Programs Manual
PPM	Pulse Position Modulation
PPOS	Present Position
PPU	Position Pickoff Unit
POAS	Program Quality Assurance System
PR	Power Ready Relay
PR	Pressure
PR	Progress Meeting
PR	Regulated Pressure (downstream of bleed valve)
PRAM	Prerecorded Announcement and Music
PRB	Probe
PRCSG	Processing
PRCSR	Processor
PREAMP	Preamplifier
PRECOOL	Precooler
PRED	Prediction
PREREC	Prerecorded
PRES POS	Present Position
PRESEL	Preselection, Preselector
PRESS	Pressure, Pressurization, Pressurize
PREV	Previous
PRF	Interrogation Rate
PRGM	Program
PRI	Priority
PRIM	Primary
PRL	Parallel
PROC	Procedure
PROC T	Procedure Turn
PROF	Profile
PROG	Program, Programming
PROG	Progress
PROJ	Projector
PROM	Programmable Read Only Memory
PROS	Present Position
PROT	Protection
PROX	Proximity
PRPHL	Peripheral
PRR	Power Ready Relay
PRSRZ	Pressurize
PRSRZG	Pressurizing
PRV	Pressure Regulating Valve
PS	Process Solution
PSCU	Proximity Switch Control Unit
PSDU	Power Supply Decoupling Unit
PSI	Pound per Square Inch

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ABBR	TITLE
PSIA	Pounds per Square Inch Absolute
PSIC	Proximity Sensor Interface Card
PSIG	Pounds per Square Inch Gage
PSIU	Passenger Service Information Unit
PSNR	Positioner
PSS	Passenger Services System
PSU	Passenger Service Unit
PSU	Power Supply Unit
PSUD	Passenger Service Unit Decoder
PSV	Planned Shop Visit
PT	Point
PT	Switching Pressure of HP Valve
PT CODE	Part Code
PTC	Positive Temperature Coefficient
PTDC	Provisioning Technical Data Card
PTM	Performance Training Manual
PTP	Programming and Test Panel
PTR	Printer
PTR	Push to Reset
PTT	Push to Test
PTT	Push-to-Talk
PTT	Push-to-Test
PTU	Power Transfer Unit
PTU	Power Transformer Unit
PU	Panel Unit
PU	Parts Usage
PU	Pick Up
PURS	Purser
PVC	Polyvinyl Chloride
PVD	Para Visual Director
PVI	Paravidual Indicating
PVIS	Passenger Visual Information System
PW	Pratt & Whitney
PW	Pratt and Whitney
PWR	Power
PYL	Pylon
Q	Pitch Rate
QA	Quality Assurance
QAD	Quick-Attach-Detach
QAR	Quick Access Recorder
QAT	Quadruple ARINC Transmitter
QC	Quality Control
QC	Quick Change
QDR	Magnetic Heading to a Station
QEC	Quick Engine Change
QFE	Baro Pressure Setting for Airfield Altitude

ABBR	TITLE
QFE	Field Elevation Atmospheric Pressure
QFE	Pressure Setting for Airfield Altitude
QFU	Runway Heading
QNE	Sea Level Standard Atmosphere Pressure
QNH	Baro Pressure Setting for en Route Altitude
QNH	Pressure Setting for En Route Altitude
QNH	Sea Level Atmospheric Pressure
QNH	Sea Level Pressure
QPL	Qualified Products List
QRH	Quick Reference Handbook
QSR	Quality Survey Report
QT	Quart (US)
QTE	True Heading to a Station
QTY	Quantity
QTZ	Quartz
QUJ	True Radial from a Station
R	Radius
R	Rankine
R	Red
R	Resistor
R	Right
R	Yaw Rate
R&D	Research and Development
R/hr	Roentgens per Hour
R/AD	Retro/Adaptation Drawing
R/C	Rate of Climb
R/D	Rate of Descent
R/H	Radar Height
R/I	Radio/Inertial
R/I	Removal/Installation
R/L	Reading Light
R/T	Radio Transmit
R/T	Receiver Transmitter Unit
RadM	Radioactive Material
RA	Radio Altimeter, Radio Altitude
RA	Redundancy Assurance
RA	Resolution Advisory
RAC	Rotor Active Clearance
RAC	Rules of the Air and Air Traffic Control
RACC	Rotor Active Clearance Control
RACON	Radar Beacon
RACSB	Rotor Active Clearance Start Bleed
RAD	Radio
RAD	Roll Anticipation Distance
RADCON	Radar Data Converter
RADVR	Random Access Digital Video Reproducer

ABBR

TITLE

RAIL	Runway Alignment Indicator Light System
RALTU	Reprogrammable Annunciator Light Test Unit
RAM	Random Access Memory
RAPCON	Radar Approach Control
RAT	Ram Air Temperature
RAT	Ram Air Turbine
RAX	Random Access Transfer Memory
RBN	Radio Beacon
RBP	Right Bottom Plug
RC	Reference Chord
RC	Repetitive Chime
RCC	Remote Charge Converter
RCCB	Remote Control Circuit Breaker
RCCU	Remote Calibration Control Unit
RCDG	Recording
RCDR	Recorder
RCL	Recall
RCLM	Runway Center Line Marking
RCLS	Runway Center Line Light System
RCP	Reverse Current Protection
RCPT	Receptacle
RCPTN	Reception
RCVR	Receiver
RCVY	Recovery
RD	Retro Drawing
RD	Right Display
RDDMI	Radio Dual Distance Magnetic Indicator
RDNG	Reading
RDY	Ready
RECIRC	Recirculate, Recirculation
RECOG	Recognition
RECONF	Reconfiguration
RECT	Rectifier
RED	Reduction
REDCR	Reducer
REDUND	Redundancy
REF	Reference
REF ALIGN	Reference Alignment
REFLNG	Refueling
REFR	Refrigerator
REFUEL	Refueling
REG	Register
REG	Regulator
REIL	Runway End Identification Lights
REL	Release
REL	Reluctance

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ABBR

TITLE

REP	Reporting Point
REPL BY	Replaced by
RES	Resistance
RET	Return
RETR	Retract
RETRD	Retracted
RETRG	Retracting
RETRN	Retraction
REV	Reverse
REV	Revise, Revision
RF	Radio Frequency
RFC	Request for Change
RFI	Radio Frequency Interference
RFI	Request for Information
RFP	Request for Proposal
RFS	Reason for Selection
RFS	Regardless of Feature Size
RFW	Request for Work
RGLRD	Regulated
RGLTG	Regulating
RGLTN	Regulation
RGTR	Register
RH	Right Hand
RHEO	Rheostat
RHL	Rudder Hinge Line
RJB	Radio Junction Box
RK	Rack
RLA	Reverser Lever Angle
RLG	Ring Laser Gyro
RLS	Remote Light Sensor
RLS	Right Line Select Key
RLSED	Released
RLTD	Related
RLY	Relay
RM	Radio Magnetic
RMCU	Remote Magnetic Compensation Unit
RMI	Radio Magnetic Indicator
RMO	Request for Modification Order
RMO	Retrofit Modification Offer
RMO	Retrofit Modification Order
RMP	Radio Management Panel
RMP	Right Middle Plug
RMS	Root Mean Square
RMT	Remote
RMU	Radio Management Unit
RNAV	Area Navigation

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ABBR
TITLE

RNG	Range
RNI	Radio Navigation Indicator
ROLR	Roller
ROM	Read Only Memory
ROTG	Rotating
RPDR	Reproducer
RPG	Report Program General
RPLNT	Repellent
RPM	Revolution per Minute
RPTG	Repeating
RPTR	Repeater
RPU	Receiver Processor Unit
RQ	Recommended Quantity
RQRD	Required
RR	Low or Medium Range Frequency Radio Range Station
RR	Rolls Royce
RR	Rudder Rib
RS	Rear Spar
RS	Repeating Stroke
RSA	Request for Service Allowance
RSP	Responder Beacon
RSR	Route Surveillance Radar
RSS	Root Sum Square
RST	Reset
RSU	Raster Shading Unit
RSV	Reserve
RSVR	Reservoir
RTA	Receiver Transmitter ARINC
RTC	Real Time Clock
RTCA	Radio Technical Commission for Aeronautics
RTE	Route
RTF	Radio Telephony
RTG	Rating
RTK	Revenue Tonne Kilometre
RTL	Rudder Travel Limiting
RTN	Return
RTNR	Retainer
RTD	Rejected Takeoff
RTP	Right Top Plug
RTRSW	Rotary Switch
RTRY	Rotary
RTS	Return to Seat
RTU	Rate of Turn Unit
RUD	Rudder
RVDT	Rotary Variable Differential Transducer
RVR	Runway Visual Range

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ABBR
TITLE

RVS	Reverse
RVSN	Reversion
RVT	Rivet
RVT	Rotary Variable Transformer
RWDS	Rearwards
RWK	Rework
RWY	Runway
RZ	Return to Zero
S	Minimum Slat Retract Speed (EFIS)
S	South
S/C	Step Climb
S/D	Step Descent
S/H	Sample and Hold
S/MECH	Shortening Mechanism
SA	Single Aisle
SA	Stress Analysis
SAD	Spares Advance Data
SAD	Stress Analysis Data
SADF	Spares Advance Data Form
SAE	Society of Automotive Engineers
SAF	Safety
SAFD	Safetied
SALS	Short Approach Light System
SAM	Stress Analysis Manual
SAT	Static Air Temperature
SATCOM	Satellite Communication
SAV	Starter Air Valve
SB	Service Bulletin
SBOB	Service Bulletin Data Base
SBEW	Standard Basic Empty Weight
SBI	Service Bulletin Index
SBL	Symbol
SBS	Service Bulletin Effectivity Schedule
SC	Scale
SC	Single Chime
SC	Source Code
SCAV	Scavenge
SCE	Source
SCFM	Standard Cubic Feet Minute of Gaseous Airflow
SCG	System Configuration Guide
SCM	Schematic
SCN	Specification Change Notice
SCO	Section Control
SCO	Section Controller
SCR	Screw
SCR	Specification Change Request

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ABBR	TITLE
SCS	Single Channel Simplex
SCU	Supplemental Control Unit
SCUP	Scupper
SD	System Display
SDAC	System Data Acquisition Concentrator
SDAC	System Data Analog Converter
SDAU	Special Data Acquisition Unit
SDB	Signals Data Base
SDCU	Smoke Detection Control Unit
SDI	Source Data Identifier
SDI	Source/Destination Identifier
SDN	System Description Note
SDOF	Single Degree of Freedom
SDTM	Structure Description Training Manual
SDW	Specific Design Work
SE	Section
SE	Simplified English
SEB	Seat Electronic Box
SEB	Service Evaluation Bulletin
SEC	Secondary
SEC	Spoiler Elevator Computer
SECT	Section
SEG	Segment
SEL	Select, Selected, Selection, Selector
SEL	Select, Selected, Selector, Selection
SELCAL	Selective Calling System
SENS	Sensitivity
SEP	Separator
SEQ	Sequence, Sequential
SER	Serial
SER/PRL	Serial to Parallel
SERNO	Serial Number
SES	Support Equipment Summary
SET	Setting
SF	Spot Face
SFC	Specific Fuel Consumption
SFCC	Sideways Facing Crew Cockpit
SFCC	Sideways Facing Crew Configuration
SFCC	Slat Flap Control Computer
SFE	Seller Furnished Equipment
SFPI	Slats/Flaps Position Indicator
SFPM	Surface Feet per Minute
SG	Stroke Generator
SGML	Standard Generalized Markup Language
SGP	Stroke Generator Processor
SGU	Symbol Generator Unit

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ABBR	TITLE
SH	Sheet
SH ABS	Shock Absorber
SHADE	Schedules Airbus Data Exchange
SHDBL	Sheddable
SHED	Sheddable, Shedding
SHKR	Shaker
SHLD	Shield, Shielding
SHN	Scratch Hardness Number
SHPNG	Shipping
SHR PN	Shear Pin
SHRO	Shroud
SHT	Short
SI	Slip Indicator
SI	Systeme International
SIAP	Structural Inspection Adjustment Program
SIC	System Isolation Contactor
SID	Standard Instrument Departure
SIF	Selective Identification Feature
SIF	Spares Information File
SIG	Signal
SIL	Service Information Letter
SIL	Speech Interference Level
SIM	Simulation
SIN	Sine
SIS	Spares Investment Study
SIV	Standard Item Variations
SKT	Socket
SL	Sea Level
SL	Service Letter
SLD	Slide, Sliding
SLP	Space Limited Payload
SLS	Side Lobe Suppression
SLT	Slat
SLV	Sleeve
SM	Standards Manual
SMART	Standard Modular Avionics Repair and Test
SMK	Smoke
SMIL	SB Modification Crossreference List
SMD	Stabilized Master Oscillator
SN	Serial Number
SNGL	Single
SNIF	Sensitivity for Normal Interface
SNSG	Sensing
SNSR	Sensor
SO	Shutoff
SOL	Solenoid

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ABBR	TITLE
SOP	Standard Operating Procedure
SOS	Self or Scrap
SOTM	System Operation Training Manual
SOV	Shut-off Valve
SOV	Shut-Off Valve
SOW	Statement of Work
SP	Sampling
SP	Space
SPAD	Scratchpad
SPASE	Single Point Audio System Earth
SPATIAL	System for Acquisition and Processing of ARINC and Logic
SPC	Spare Parts Classification
SPD	Speed
SPD/M	Speed-Mach
SPE	Seller Purchased Equipment
SPEC	Specification
SPF	Specific Pathogen Free
SPFK	Specific
SPKR	Speaker
SPL	Sound Pressure Level
SPLC	Splice
SPLR	Spoiler
SPLY	Supply
SPM	Signal Processing Module
SPMC	Service Process Material Control
SPMG	Shorted Permanent Magnet Generator
SPOP	Service Process Operation Procedure
SPR	Service and Performance Report
SPRT	Support
SPS	Service Process Solution
SPS/B	Superseded by
SPST	Single Pole Single Throw
SQ	Squelch
SQ-FT	Square-Feet
SQW	Square Wave
SR	Senior
SRD	Shorted Rotating Diode
SRE	Surveillance Radar Element of GCA
SRKM	Structural Repair Kit Manual
SRM	Structural Repair Manual
SRS	Speed Reference System
SRU	Shop Replaceable Unit
SS	Sky/Shading
SSA	System Safety Assessment
SSALS	Simplified Short Approach Light System
SSALSR	Simplified Short Approach Light System Runway Alignment

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ABBR IN SEQUENCE

PAGE 58

ABBR	TITLE
SSB	Single Side Band
SSC	Single Stroke Chime
SSEC	Static Source Error Correction
SSFDR	Solid State Flight Data Recorder
SSG	System Configuration Guide
SSI	Structural Significant Item
SSM	Sign Status Matrix
SSM	Solid State Memory
SSP	Significant In-Service Problems
SSP	System Specification
SSR	Secondary Surveillance Radar
SSTU	Side Stick Transducer Unit
STA	Station
STA	Straight-in-Approach
STAB	Stabilizer
STAR	Standard Terminal Arrival Route
STARTG	Starting
STAT	Static
STBY	Standby
STC	Supplemental Type Certificate (FAA)
STD	Standard
STDY	Steady
STG	Stage
STGR	Stringer
STIF	Stiffener
STL	Steel
STL WARN	Stall Warning
STOM	System Operation Training Manual
STRG	Steering
STRK	Stroke
STRL	Structural
STRUCT	Structure
STS	Alignment Status
STS	Status
STWG	Stowage
STYPPLE	Sensitive Typical Phone Power Level
SUBMUX	Submultiplexer
SUCNL ACTN	Successional Action
SUM	Summing
SUPPR	Suppressor
SUPSD BY	Superseded by
SURF	Surface
SURV	Surveillance
SV	Servo Valve
SVA	Stator Vane Actuator
SVCE	Service

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ABBR

TITLE

SVMTR	Servomotor
SVO	Servo
SW	Switch
SWG	Switching
SWY	Stopway
SYM	Symmetry
SYN REF	Synchro Reference
SYNC	Synchro, Synchronise
SYNTHR	Synthesizer
SYNTHR	Synthesizer
SYS	System
T	Thickness
T	Time
T	Trim
T	True
T	Turn
T-P	Turn Point
T-R	Transmitter-Receiver
T/C	Top of Climb
T/C	Type Certificate
T/D	Top of Descent
T/F	Track of a Fixed Waypoint
T/R	Thrust Reverser
TA	Traffic Advisory
TA	Twin Aisle
TAB	Tabulation and Interpolation Program
TAB	Test and Bite Panel
TACAN	Ultra-high Frequency Tactical Air Navigation Aid
TACH	Tachometer
TACT	Tactical
TAP	Transient Acoustic Propagation
TAR	Terminal Area Surveillance Radar
TAS	True Airspeed
TAT	Total Air Temperature
TB	Terminal Block
TBC	To Be Confirmed
TBD	To be determined
TBO	Time Between Overhauls
TBSV	Time Between Scheduled Visits
TBU	Time Base Unit
TC	HP Turbine Case Pressure
TC	Takeoff Charts
TC	Thermocouple
TCAS	Traffic Alert and Collision Avoidance System
TCC	Thrust Control Computer
TCC	Turbine Case Cooling

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ABBR

TITLE

TCC	Turbine Clearance Control
TCCS	Thrust Control Computer System
TCFN	Two's Complement Fractional Notation
TCM	Technical Coordination Meeting
TCP	Takeoff Charts Computation Program
TCU	Throttle Control Unit
TD	Technical Dossier
TD	Time Delay
TOC	Time Delay Closing
TDCR	Type Design Change Request
TDD	Technical Design Directive
TDO	Time Delay Opening
TDP	Touchdown Point
TDS	Technical Data Sheet
TDSC	Technical Data Steering Committee
TDU	Time Display Unit
TDY	Temporary Duty
TDZL	Touchdown Zone Lights
TE	HP Stage Air Temperature
TE	Trailing Edge
TEC	Turbine Exhaust Case
TED	Tool and Equipment Drawing
TEDB	Tool and Equipment Data Bank
TEI	Tool and Equipment Index
TEL	Telephone
TEM	Illustrated Tool and Equipment Manual
TEMP	Temperature
TEMP	Test and Evaluation Master Plan
TEO	Engine Oil Temperature
TEST SIG	Test Signal
TFR	Trouble and Failure Report
TFTS	Terrestrial Flight Telephone System
TFTS	Terrestrial Flight Telephone System
TFU	Technical Follow-up
TGB	Transfer Gearbox
TGL	Touch-and-Go Landing
TGT	Target
THD	Thread
THERAP	Therapeutic
THMS	Thermistor
THR	Thrust
THRM	Thermal
THRMST	Thermostat
THROT	Throttle
THROT PUSH	Throttle Pusher
THS	Trimmable Horizontal Stabilizer

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ABBR	TITLE
TI	Technical Instruction
TI	Track to an Interrupt
TIA	Type Inspection Authorization
TIC	Turbine Impingement Cooling
TID	Technical Information Document
TIR	Technical Incident Report
TIR	Type Inspection Report
TIT	Turbine Inlet Temperature
TK	Ground Track Angle
TK	Tank
TKE	Track Angle Error
TKE	Track Error
TL	Transmittal Letter
TLA	Throttle Lever Angle
TLB	Technical Log Book
TLC	Takeoff and Landing Chart Computation Program
TLMC	Aircraft Time Limits/Maintenance Checks
TLS	Transcowl Locking System
TLU	Travel Limitation Unit
TM	Terminal Module
TM	Torque Motor
TM	Transportability Manual
TMA	Terminal Control Area
TMG	Timing
TMR	Timer
TN	Technical Note
TO	Takeoff
TO/APPR	Takeoff/Approach
TOC	Table of Contents
TOD	Takeoff Distance
TOGA	Takeoff/Go Around
TOGW	Takeoff Gross Weight
TOIL	Toilet
TOL	Tolerance
TOR	Takeoff Run
TOT	Total
TOW	Takeoff Weight
TOW	Towing
TP	Test Point
TP	Top Plug
TPG	Technical Publications Guide
TPIB	Technical Publications Illustration Bank
TPIC	Tire Pressure Indicating Computer
TPIS	Tire Pressure Indicating System
TPMM	Technical Publication Management Meeting
TPOP	Technical Publications Output Planning

ABBR	TITLE
TPPP	Technical Publications Production Planning
TPRD	Technical Publications Reference Document
TPWD	Technical Publication Work Sharing Document
TR	Regulated Temperature (Downstream of precooler)
TR	Temporary Revision
TR	Thrust Reverser
TR	Transformer Rectifier
TR	Transistor
TR	Truss
TR	Turn Radius
TRA	Throttle Resolver Angle
TRACON	Terminal Radar Control
TRANS	Transition
TRANSF	Transfer
TRC	Thrust Rating Computer
TRDV	Thrust Reverser Directional Valve
TRF	Turbine Rear Frame
TRIG	Trigger
TRK	Track
TRK	Track (angle)
TRLY	Trolley
TROPO	Tropopause
TRP	Thrust Rate Panel - Thrust Rating Panel
TRPV	Thrust Reverser Pressurizing Valve
TRQE	Torque
TRQR	Torquer
TRS	Technical Repercussion Sheet
TRT	Turn Round Time
TRU	Transformer Rectifier Unit
TRV	Travel
TS	Trim Sheet
TSO	Trouble Shooting Data
TSDB	Trouble Shooting Data Base
TSFC	Thrust Specific Fuel Consumption
TSH	Trouble Shooting Handbook
TSI	Time Since Installation
TSLSV	Time Since Last Shop Visit
TSM	Trouble Shooting Manual
TSO	Technical Service Order (FAA)
TSO	Technical Standard Order
TSO	Time Since Overhaul
TST	Test
TT	Switching Temperature of HP Valve
TT	Total Time
TT	Trim Tank
TTG	Time to Go

ABBR	TITLE
TTL	Transistor Transistor Logic
TTR	Technical Trouble Report
TTS	Trim Tank System
TURB	Turbine
TURB	Turbulence, Turbulent
TVBC	Turbine Vane and Blade Cooling
TVOR	Short Range VOR
TVOR	Very High Frequency Terminal Omirange Station
TW	Twisted
TWR	Aerodrome Control Tower
TWY	Taxiway
TX	Transmission (TCAS to Transponder)
TYP	Typical
TYPPL	Typical Phone Power Level
T2C	HP Compressor Inlet Temperature
T54	Low Pressure Turbine Inlet Temperature
U/FLOOR	Underfloor
U/S	Unserviceable
UAC	Upper Area Control Centre
UART	Universal Asynchronous Receiver Transmitter
UD	Document Unit ("Unit Documentaire")
UDC	Upper Deck Cargo
UDCC	Upper Deck Cargo Compartment
UDL	Unit Detail Listing
UF	Underfrequency
UHF	Ultra High Frequency
ULB	Underwater Locator Beacon
ULD	Unit Load Device
UNBAL	Unbalance, Unbalanced
UNCPLG	Uncoupling
UNCRCTD	Uncorrected
UND	Under
UNIV	Universal
UNLK	Unlock
UNLKD	Unlocked, Unlocking
UNSD	Unused
UPR	Upper
UR	Utilization Rate
US	Under Speed
US	United States
UTA	Upper Control Area
UTC	Universal Time Coordinated
UUT	Unit Under Test
UV	Ultra-Violet
UV	Under Voltage
UVEROM	Ultra Violet Erasable Read Only Memory

ABBR	TITLE
UWY	Upper Airway
V	Valve
V	Violet
V	Volt, Voltage
V/L	VOR/LOC
V/S	Vertical Speed
Vc	Calibrated Airspeed
Vm	Minimum Recommended Maneuvering Speed
Vm	Recommended Maneuvering Speed
Vmax	Maximum Operating Speed
Vmin	Minimum Operating Speed
VA	Design Maneuvering Speed
VA	Heading with an Altitude Termination
VAC	Voltage Alternating Current
VACBI	Video and Computer Based Instruction
VACU	Vacuum
VALDN	Validation
VAP	Visual Approach Procedure
VAR	Variable, Variation
VAR	Visual-Aural Radio Range
VAR LEV HTY	Variable Lever Healthy
VASIS	Visual Approach Slope Indicator System
VB	Design Speed for Maximum Gust Intensity
VBV	Variable Bleed Valve
VC	Design Cruising Speed
VC	Ventilation Controller
VCO	Voltage Controlled Oscillator
VCTREND	Airspeed Tendency
VCU	Video Control Unit
VD	Design Diving Speed
VD	Heading to a DME Distance
VDC	Voltage Direct Current
VDEV	Vertical Deviation
VDF	Very High Frequency Direction Finding Station
VDFMDF	Demonstrated Flight Diving Speed
VEL	Velocity
VENT	Ventilation
VERT	Vertical
VERT REV	Vertical Revise
VF	Design Flap Speed
VFCMFC	Maximum Speed for Stability Characteristics
VFE	Maximum Flap Extended Speed
VFEN	Predictive VFE at next flap/slat position
VFR	Visual Flight Rules
VFTO	Final Takeoff Speed
VG	Vertical Gyro

ABBR
TITLE

VH	Maximum Speed in Level Flight with Maximum Continuous Po
VHF	Very High Frequency
VHV	Very High Voltage
VI	Heading to an Intercept
VIB	Vibration
VL CAPT	VOR/LOC Capture
VLE	Maximum Landing Gear Extended Speed
VLF	Very Low Frequency
VLLDC	Very Low Level DC Voltage
VLO	Maximum Landing Gear Operating Speed
VLOF	Lift-off Speed
VLS	Lower Selectable Speed
VLV	Valve
VM	Heading with a Manual Termination
VM	Maneuvering Speed
VM	Voltmeter
VMAN	Maneuvering Speed
VMAX	Maximum Allowable Airspeed
VMC	Minimum Control Speed with One Engine Inoperative
VMC	Visual Meteorological Conditions
VMCA	Minimum Control Airspeed
VMO	Maximum Operating Speed
VMO/MMO	Maximum Operating Limit Speed
VMS	Minimum Selectable Speed
VMU	Minimum Unstick Speed
VNE	Never-Exceed Speed
VNO	Maximum Structural Cruising Speed
VOL	Volume
VOR	Very High Frequency Omnidirectional Range
VOR	Very High Frequency Omnidirectional and Radio Range
VOR	Very High Frequency Omnidirectional Station
VOR	VHF Omnidirectional Range
VOR-D	VOR-DME
VORTAC	Visual Omni-Range Tactical Air Navigation
VOT	Voter
VR	Rotation Speed
VR	Voltage Regulator
VR-HDG	Heading to a Radial
VREF	Landing Reference Speed
VRMS	Volt Root Mean Square
VS	Min Steady Flt Spd at which Airplane is Controllable
VS	Stalling Speed at which Airplane is Controllable
VSBN	Vendor Service Bulletin Number
VSBT	Vendor Service Bulletin Title
VSC	Vacuum System Controller
VSCF	Variable Speed Constant Frequency

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ABBR
TITLE

VSD	Vertical Situation Display
VSEL	Autothrottle Selected - Approach Speed
VSI	Vertical Speed Indicator
VSO	Stalling Speed or Minimum Steady Flight Speed in the Lan
VSS	Stick Shaker Speed
VSV	Variable Stator Vane
VSVA	Variable Stator Vane Actuator
VSW	Stall Warning Speed
VSWR	Voltage Standing Wave Ratio
VS1	Min Steady Flt Spd obtained in a Specified Configuration
VS1	Stalling Speed obtained in a specified Configuration
VT	Vertical Tail
VTSS	Takeoff Safety Speed for Category A Rotorcraft
VTP	Vertical Tail Plane
VWM	Vendor Warranty Manual
VX	Speed of Best Angle of Climb
VY	Speed for Best Rate of Climb
V1	Critical Engine Failure Speed
V1	Decision Speed
V2	Takeoff Safety Speed
V2min	Minimum Takeoff Safety Speed
V3	Flap Retraction Speed
V4	Slat Retraction Speed
W	Watt
W	Weight
W	West
W	White
W	Wire
W/V	Wind Direction and Speed
WA	Wind Angle
WAI	Wing Anti-Ice
WARN	Warning
WASG	World Airlines and Suppliers Guide
WATOG	World Airlines Technical Operations Glossary
WBC	Weight & Balance Computer
WBM	Weight and Balance Manual
WBS	Weight and Balance System
WBS	Work Breakdown Structure
WC	Wording Change
WCR	Weight and Balance Compliance Report
WD	Warning Display
WD	Wing Datum
WD	Wiring Diagram
WDB	Wall Disconnect Box
WDI	Wind Direction Indicator
WDM	Wiring Diagram Manual

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ABBR	TITLE
WDO	Window
WG	Wave Guide
WG	Wing
WG	Working Group
WGD	Windshield Guidance Display
WGDC	Windshield Guidance Display Computer
WGDS	Windshield Guidance Display System
WHC	Window Heat Computer
WHL	wheel
WIPCU	Water Ice Protection Control Unit
WIPDU	Water Ice Protection Data Unit
WIRC	Warning - Inhibition - Recall - Clear
WLDP	Warning Light Display Panel
WLP	Weight Limited Payload
WM	Wattmeter
WM	Wiring Manual
WMAXOP	Maximum Operational Speed
WO	Wash-out
WOR	Wear Out Rate
WPT	Waypoint
WR	Weather Radar
WR	Weighing Report
WRG	Wiring
WRK	Work, Working
WS	Wind Speed
WSCP	Warning and System Control Panel
WSDP	Warning and System Display
WSHLD	Windshield
WSR	Weekly Service Report
WSSG	Warning System Symbol Generator
WT	Weight
WTB	Wing tip brake
WTR	Water
WUC	Work Unit Cost
WX	Weather Mode (ND)
WXR	Weather Radar
X	Cross
X	Trans
X BLEED	Crossbleed
X FEED	Crossfeed
X LINE	Crossline
X VALVE	Cross Valve
X-TALK	Cross-talk
XARM	Cross Arm
XBAR	Crossbar
XCVR	Transceiver

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ABBR	TITLE
XDCR	Transducer
XFMR	Transformer
XFR	Transfer
XLTR	Translator
XMSN	Transmission
XMTR	Transmitter
XPDR	Transponder
XPDR	Transponder
XREF	Crossreference
XSEC	Extra Section
XT	Reception (Transponder to TCAS)
XTAL	Crystal
XTK	Cross Track Deviation
XTK	Cross Track Distance
XTK	Cross Track Error
Y	Yellow
YC	Tourist Class
YCF	Economy Class-Front
YCL	Economy Class Front
YCR	Economy Class-Rear
YE	Year
YES	Yankee Escape System
Z	Greenwich Mean Time
Z	Zone
Zp	Pressure Altitude
Zp1	Indicated Pressure Altitude
ZC	Zone Controller
ZFCG	Zero Fuel Center of Gravity
ZFW	Zero Fuel Weight
3D	Three Dimensional (Lat, Long, Alt)
3D	Three Dimensional (Lat, Long, Alt)
4D	Four Dimensional (Lat, Long, Alt, Time)

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