

TAKE OFF LIMITATIONS	DEPTH	USE Contamination:	MAX X-WIND
DRY		DRY	38kts inclusive gusts
WET / DAMP		WET	
STANDING WATER		WET	
WET SNOW	<=3mm	WET	5kts
SLUSH			
AQUAPLANING			
WET with SAND or DUST			
STANDING WATER	>3-6 >6-13mm	WATER 1/2" 1/4"	15kts
WET SNOW	>3-6 >6-13mm		
SLUSH	>3-13 >13-25mm		
DRY SNOW (regardless of BA & FC)	<=15mm	WET	15kts
	>15-50 >50-100mm*	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 replaced 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

Alignment 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):

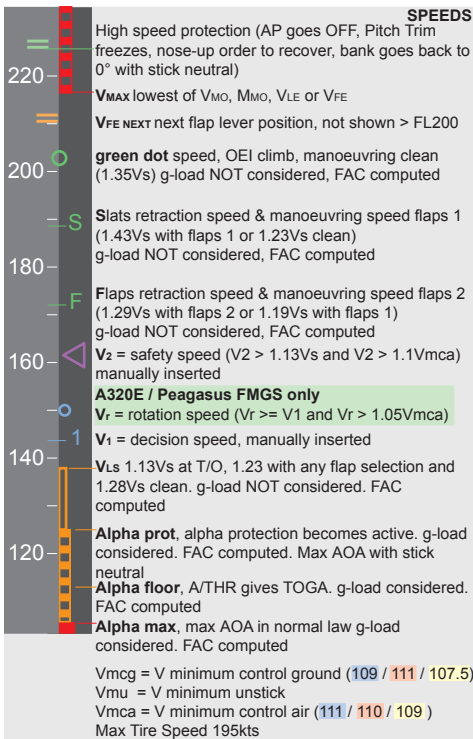
- In moderate to heavy freezing rain or ice pellets. (FZRA / +FZRA / PL / +PL)
- during heavy fall of wet snow (temperatures around 0°C)
- in any snow Pellets conditions (-GS / GS / +GS)
- if snow, ice or frost has accumulated on the aeroplane during taxiing.

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

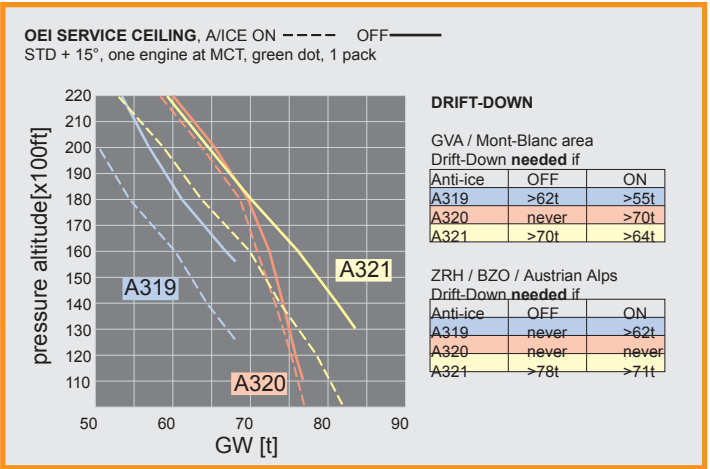
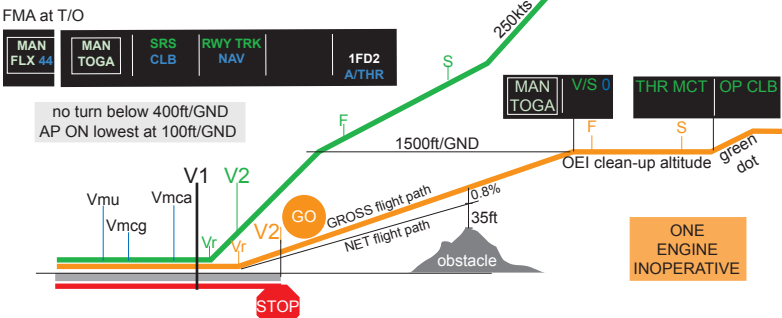
ENGINE FAILURE AFTER V1 (OM A 8.3 2.4.5)
 After V1 the take-off should be continued. The flight path shall be selected so as to achieve maximum terrain clearance as soon as possible following:

- 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.

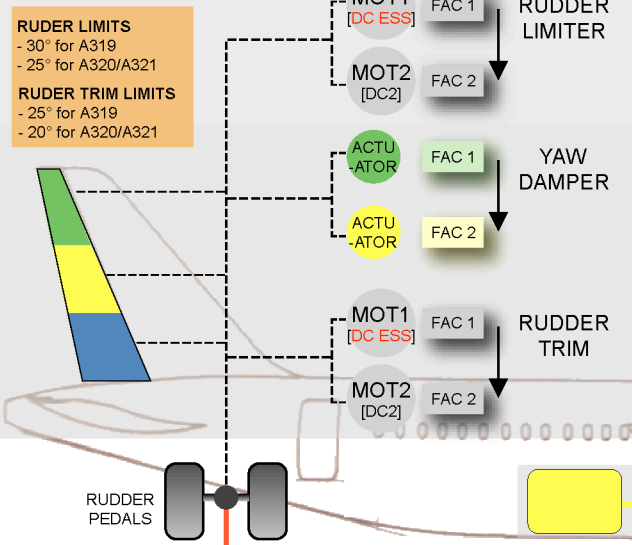
Note: If no EFCOP is published, the calculation is based on the standard EFCOP, straight 1500ft/GND then left (or right) turn towards the airport. **In this case the SID is not safe!!!**

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)



RUDDER

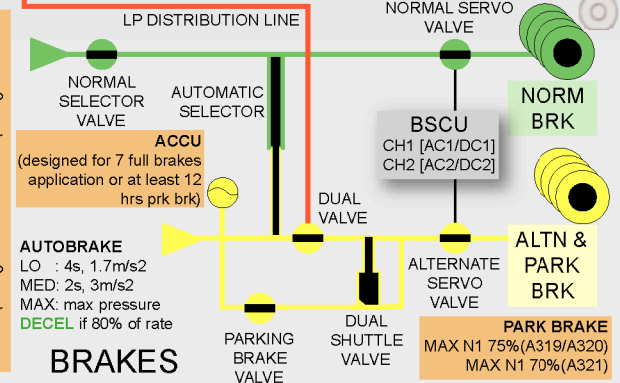


- RUDDER LIMITS**
 - 30° for A319
 - 25° for A320/A321
- RUDDER TRIM LIMITS**
 - 25° for A319
 - 20° for A320/A321

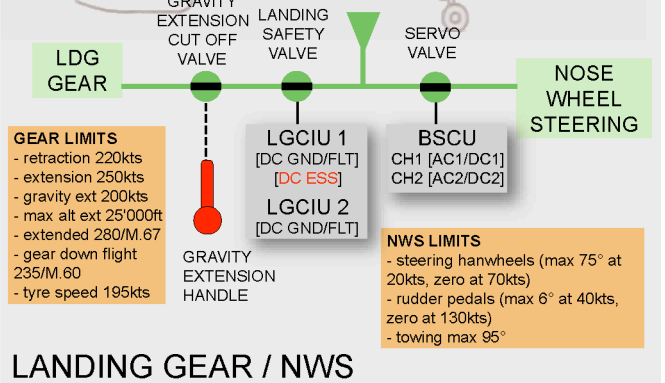
A320 FLT CONTROL LAWS

	PITCH	ROLL	PROTECTIONS
GND	Direct deflection	Direct deflection	Load factor +2.5g / -1g (clean) +2.0g / 0g (not clean) NORMAL
RA>50ft	Load factor demand	Roll rate	Pitch FLAPS 0-3: 30°, FULL: 25° ANU, any: 15° AND Bank 67°/33°(stick 0), 45° if AOA or hi spd prot active Side slip blue if eng failure High α, Vα prot, Vα floor, Vα max High speed bank 45°/0° (stick 0) Low energy warning Flaps 2,3 or FULL 100ft - 2000ft
FLT	Auto pitch Trim		
RA<50ft	Pitch attitude demand		
FLARE	50ft pitch to 2° AND in 8s		
	same as Normal	Roll direct Yaw alternate only damping +5° No turn coord.	Same as Normal except: ALTERNATE X no Pitch attitude & Low energy prot High α: LOST if VS1g computation failure Low speed, nose down demand 5-10kts > Stall warning High speed, light nose up demand, symbol disappears
GEAR DN	Direct control	Roll direct Yaw alternate	No protection except DIRECT Overspeed & Stall warning
	USE MAN PITCH TRIM	RUDDER ONLY Yaw by BYDU	MECHANICAL BACK-UP
	MAN PITCH TRIM ONLY		

- BRAKE TEMPERATURE A319/A320**
 - T/O BRK FAN ON 150°C
 - T/O BRK FAN OFF 300°C
 - maintenance action if (TEMP difference on same gear > 150°C) and (1 BRK > 600°C or < 60°C)
 - diff TEMP L-R 200°C
 - max TEMP 800°C
- A321**
 - T/O 260°C
 - maintenance action if (TEMP difference on same gear > 100°C) and (1 BRK > 425°C or < 60°C)
 - diff TEMP L-R 150°C



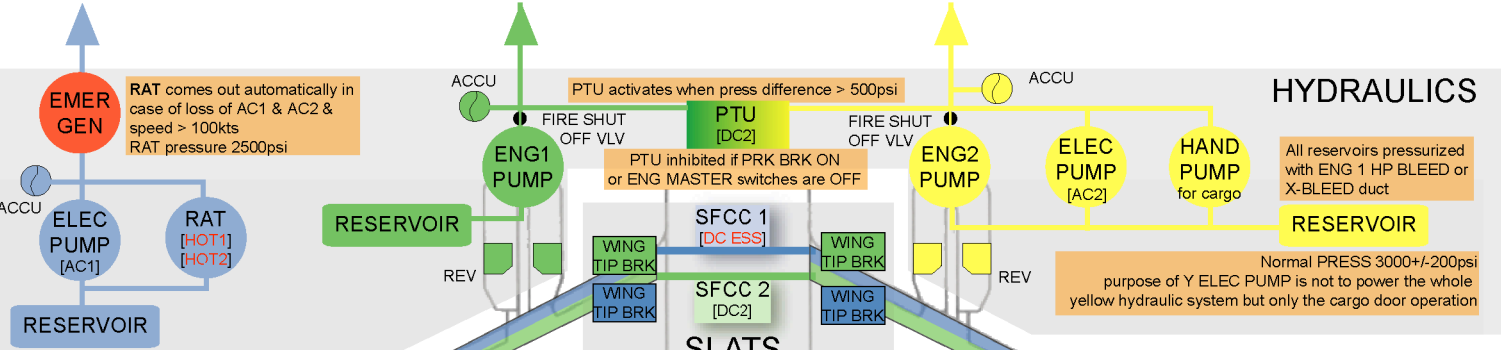
BRAKES



LANDING GEAR / NWS

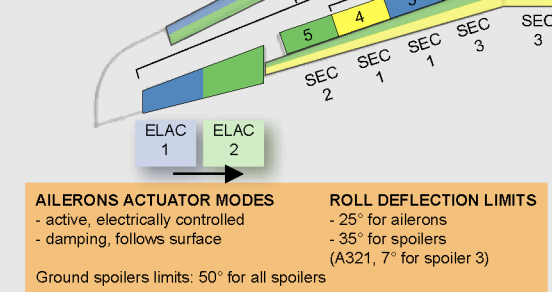
- GEAR LIMITS**
 - retraction 220kts
 - extension 250kts
 - gravity ext 200kts
 - max alt ext 25'000ft
 - extended 280/M.67
 - gear down flight 235/M.60
 - tyre speed 195kts

- NWS LIMITS**
 - steering hanwheels (max 75° at 20kts, zero at 70kts)
 - rudder pedals (max 6° at 40kts, zero at 130kts)
 - towing max 95°



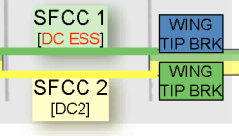
HYDRAULICS

AILERONS SPOILERS

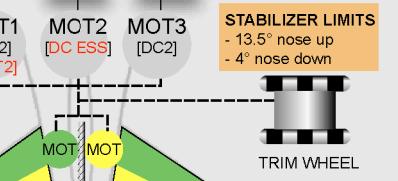


- AILERONS ACTUATOR MODES**
 - active, electrically controlled
 - damping, follows surface
- ROLL DEFLECTION LIMITS**
 - 25° for ailerons
 - 35° for spoilers (A321, 7° for spoiler 3)
- Ground spoilers limits: 50° for all spoilers

SLATS FLAPS



STABILIZER TRIM



- STABILIZER LIMITS**
 - 13.5° nose up
 - 4° nose down

FLAPS extension / max speed

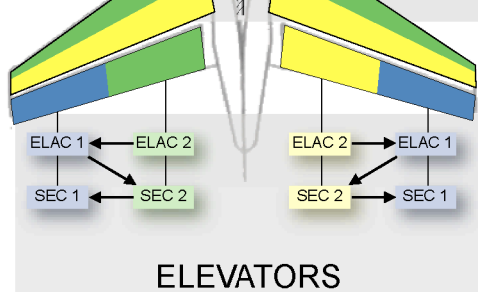
[slats]	A319	A320	A321
1 [18°]		0°/230	
1+F [18°]		10°/215	
2 [22°]	15°/200	15°/200	14°/215
3 [22°]	20°/185	20°/185	21°/195
Full [27°]	40°/177	35°/177	25°/190

No Flaps/Slats above 20'000ft

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



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

BATTERIES
2 x 28V 23 Ah, allow at least 20min in-flight PWR

BAT 1

BAT 2

HOT BUS 1

- FIRE ENG 1&2 BTL 1 SQUIB A, APU BTL SQUIB A
- FLT CTL ELAC 1, SEC 1
- FUEL APU LP VLV
- HYD RAT AUTO CTL
- LDG GEAR PARK BRK CTL
- NAV ADIRU 3 (5min if on NORM or F/O)

DC BUS 1

- COND PACK 1 PRIM, PACK 2 PRIM, ZONE CTL PRIM, AEVC
- COM VHF 3, SELCAL, 3rd ACP
- FUEL LEFT TK PUMP 1, RIGHT TK PUMP 1, CTR TK PUMP 1 (A319/A320), LEFT XFR VLV (A321)
- HYD ENG 1 PUMP CTL
- ICE ENG A/ICE CLOSURE VLV 1, WHC 1, STBY PHC, STBY & CAPT STATICS, CAPT TAT, CAPT WIPER
- LDG GEAR BSCU CH1
- LIGHTS L CONSOLE, R MAIN INST PNL, SUPP READ, PEDESTRAL, L READ, L BRIEF, L MAP, FLOOR
- NAV GPS 1, CFDS
- ENGINE ENG 1 OIL PRESS & QTY

DC BAT BUS

- COND CPC MAN CTL
- FIRE APU LOOP A & B, AUTO EXT, BTL1 SQUIB B, FWD & AFT CARGO BOTTLES
- FUEL APU PUMP, APU LP VLV
- APU ECB SUPPLY, STARTER MOT (via BAT only, available 3min with APU MASTER ON)
- DOORS DOORS & SLIDE CTL
- ENGINE ENG 1 FADEC CH B, ENG 1 EIU

HOT BUS 2

- COM EXTERNAL HORN
- FIRE ENG 1&2 BTL 1 SQUIB B
- FLT CTL ELAC 2, PITCH TRIM MOT 1
- HYD RAT MAN CTL
- NAV ADIRU 1 (back-up), ADIRU 2 (back-up 5min)
- DOORS DOORS AND SLIDES CTL (stby)

DC ESS

- COND RAM AIR INLET, CPC 1
- AUTO FLT FCU 1
- COM VHF 1, RMP 1, CAPT & F/O ACP, FLT INTERPHONE, CAPT LOUDSPEAKER, CIDS 1 & 2, DEU (A/B)
- FIRE ENG 1 LOOP A, ENG 2 LOOP B
- FLT CTL ELAC 1, SEC 1, PITCH TRIM MOT 2, RUD TRIM MOT 1, RUD TRAVEL LIM MOT 1, SFCC 1 FLAPS & SLATS
- FUEL L&R TANK PUMP 1, ENG 1&2 LP VLV MOT 1
- HYD ENG 1&2 FIRE SHUT OFF VLV, B ELEC PUMP CTL
- ICE CAPT PHC, CAPT REPELLENT
- EIS ECP (if bus lost, CLR & ALL still available)
- LDG GEAR LGCIU 1, SAFETY VLV, BRK PRESS INDIC
- LGT R DOME, L MAIN INST PANEL, STBY COMPASS & AIRSPEED, some CABIN LGT (stby)
- NAV STBY HORIZON
- ENG ENG 1&2 FADEC CH A, ENG 1&2 EIU, FUEL HP & LP VLV

DC BUS 2

- COND PACK 1 SEC, PACK 2 SEC, ZONE CTL SEC, PACK 2 VLV CLOSURE, CPC 2
- AUTO FLT FMGC 2, FCU 2
- COM VHF 2, RMP 2, F/O LOUDSPEAKER
- FIRE ENG 1 LOOP B, ENG 2 LOOP A, ENG 1&2 BTL 2 SQUIB A&B, SDCU CH 2
- FLT CTL ELAC 2, SEC 2 & 3, FAC 2, FCDC 2, PITCH TRIM MOTOR 1 & 3, RUD TRIM MOT 2 & INDIC, RUD TRAV LIMIT MOT 2, SFCC 2 SLATS & FLAPS
- FUEL FQI CH 2, LEFT TK PUMP 2, RIGHT TK PUMP 2, CTR TK PUMP 2 (A319/A320), XFEED VLV MOT 2, ENG 1&2 LP VLV MOT 2, XFR VLV L&R 2, REFUEL VLV, RIGHT CTR XFR VLV (A321)
- HYD ENG 2 PUMP CTL, Y ELEC PUMP CTL, PTU
- ICE ENG A/ICE CLOSURE VLV 2, WHC 2, F/O PHC, F/O STATICS, F/O TAT, F/O WIPER, F/O REPELLENT
- LDG GEAR BSCU CH 2, BRK FAN CTL
- LIGHTS R CONSOLE, R READ, R BRIEF, R MAP, ANNUNCIATOR LGT TEST/DIM, RWY TURN OFF CTL, TAXI & T/O CTL, LOGO CTL
- NAV GPS 2, CFDS
- BLEED BMC 2, ENG 2 HP & LP & FAN VLV
- ENG ENG 2 FADEC B & OIL PRESS & QTY

EMER GEN CONFIG
In case of loss of AC1 & AC2 busses, RAT comes out and EMER GEN comes online after ~8 seconds

When LDG GEAR down (A320 only) or when the RAT stalls or on GND with speed < 100kts (other types), the EMER GEN is no longer powered. BAT are feeding DC & AC ESS without the SHED busses.

DC ESS SHED
available only with EMER GEN running

- COND PACK 1 VLV CLOSURE, AEVC
- AUTO FLT FMGC 1
- COM CVR CTL
- FIRE SDCU CH 1
- FLT CTL FAC 1, FCDC 1
- FUEL FQI CH 1, XFEED VLV MOT 1, L&R XFR VLV 1
- LGT STBY & METER ALTIMETER
- OXY CREW OXY CTL, PAX OXY AUTOCONTROL
- BLEED BMC 1, ENG 1 LP & HP & FAN VLV, X-BLEED MAN CTL 2

DC FLT/GND
can be powered via TR2 by EXT PWR

- COM CIDS 1 & 2, DEU (A/B)
- HYD LEAK MES VLV
- LDG GEAR LGCIU 1 & 2, PARK BRK CTL
- LGT L DOME
- WATER POTABLE WATER SYS, DRAINING, FLUSH CTL UNITS
- DOORS CARGO DOORS

TR 1
converts AC 115V into DC 28V max 200A

STATIC INVERTER
converts DC into AC
speed > 50kts & on batteries only: STAT INV activates regardless of BAT switch position

ESS TR
identical to TR1&2

EMER GEN
5kVA 115V 400Hz

RAT
BLUE HYD

TR 2
converts AC 115V into DC 28V max 200A

AC BUS 1

- COND PACK 1 PRIM, PACK 2 PRIM, ZONE CTL PRIM, CABIN FAN 1, AVIONIC FAN BLOWER, AFT CRG VENT FAN
- COM HF 1 (if installed), ACARS
- EQPMT CAPT SEAT, FOOT WARMER
- FUEL LEFT TK PUMP 1, RIGHT TK PUMP 1, CTR TK PUMP 1 (A319/A320)
- HYD HYD BLUE ELEC PUMP PWR
- ICE WINDOW HEAT L PWR, STBY PITOT HEAT, STBY AOA HEAT, ICE DETECT 1
- EIS DMC 3, FDIU
- LDG GEAR BSCU CHANNEL 1
- LIGHTS INST PNL INTEGRAL, some ANNUNCIATOR, L LDG, L RWY TURN OFF, L TAXI & T/O, L LOGO, UPPER BCN, L WING, some CABIN LGT
- NAV ADIRU 3, AOA RESOLVER 3, RA1, TCAS, WX RADAR, EGPWS
- ENGINE IGN B ENG 1, EVMU 1&2

AC ESS

- FLT CTL FAC 1
- ICE CAPT PITOT HEAT
- EIS CAPT PFD, E/W/D, DMC 1, DMC 3 (if CAPT on 3), FWC 1, SDAC 1
- NAV ADIRU 1, AOA 1, ILS 1 or MMR 1, VOR 1
- ENGINE IGN A ENG 1 & 2

AC ESS SHED
available only with EMER GEN running

- AUTO FLT MCDU 1
- COM CVR
- FUEL APU PUMP
- ICE WING A/ICE SHUT OFF VLV L&R, CAPT AOA HEAT
- EIS CAPT ND
- LDG GEAR INICATING PANEL
- NAV DME 1, ADF 1, ATC 1
- OXY PAX OXY CTL ACTUATION

AC STAT INV
(only available on BAT)

- LDG GEAR INDIC PANEL (GEN & EMER GEN not running)
- LGT some ANNUNCIATORS
- ENG IGN A

AC BUS 2

- COND PACK 1 SEC, PACK 2 SEC, ZONE CTL SEC, CABIN FAN 2, AVIONIC FAN EXTRACT
- AUTO FLT MCDU 2
- EQPMT F/O SEAT
- FIRE LAV SMOKE SDCU CH 2
- FLT CTL FAC 2
- FUEL LEFT TK PUMP 2, RIGHT TK PUMP 2, CTR TK PUMP 2 (A319/A320)
- HYD YELLOW ELEC PUMP PWR
- ICE R WINDOW HEAT PWR, F/O PITOT HEAT, F/O AOA HEAT, ICE DETECT 2
- EIS F/O PFD & ND, SD, DMC 2, FWC 2, SDAC 2
- LDG GEAR BSCU CHANNEL 2, BRK FANS
- LIGHTS some ANNUNCIATORS, R LDG, R RWY TURN OFF, R TAXI & T/O, R LOGO, LOWER BCN, STROBE, R WING, some CABIN LGT
- NAV ADIRU 2, AOA RESOLVER 2, ILS 2 or MMR 2, VOR 2, DME 2, RA 2, ATC 2
- WATER HEATER, PRESS SYS
- ENGINE IGN B ENG 2

AC FLT/GND
can be powered direct by EXT PWR

- LGT NAV, some CABIN LIGHTS

GEN 1
3-phase 90kVA 115V 400Hz max load 100%

EMER GENERATOR
3-phase 5kVA 115V 400Hz

SOURCE PRIORITY
1) ENG GEN
2) APU or EXT if switch ON

APU GEN

GPCU

GEN 2

LEGEND

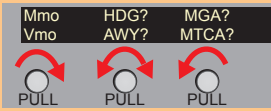
- normal PWR distribution
- PWR on BAT only
- PWR with EMER GEN
- alternate feeding lines

Busses in red are available in EMER ELEC config with EMER GEN running

EMERGENCY DESCENT

BY-HEART ITEMS

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



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



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 <input type="checkbox"/>	increment <input type="checkbox"/>
< 5000ft <input type="checkbox"/>	1500ft <input type="checkbox"/>
5000ft - 10000ft <input type="checkbox"/>	2000ft <input type="checkbox"/>
>10000ft <input type="checkbox"/>	10% + 1000ft <input type="checkbox"/>

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

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"

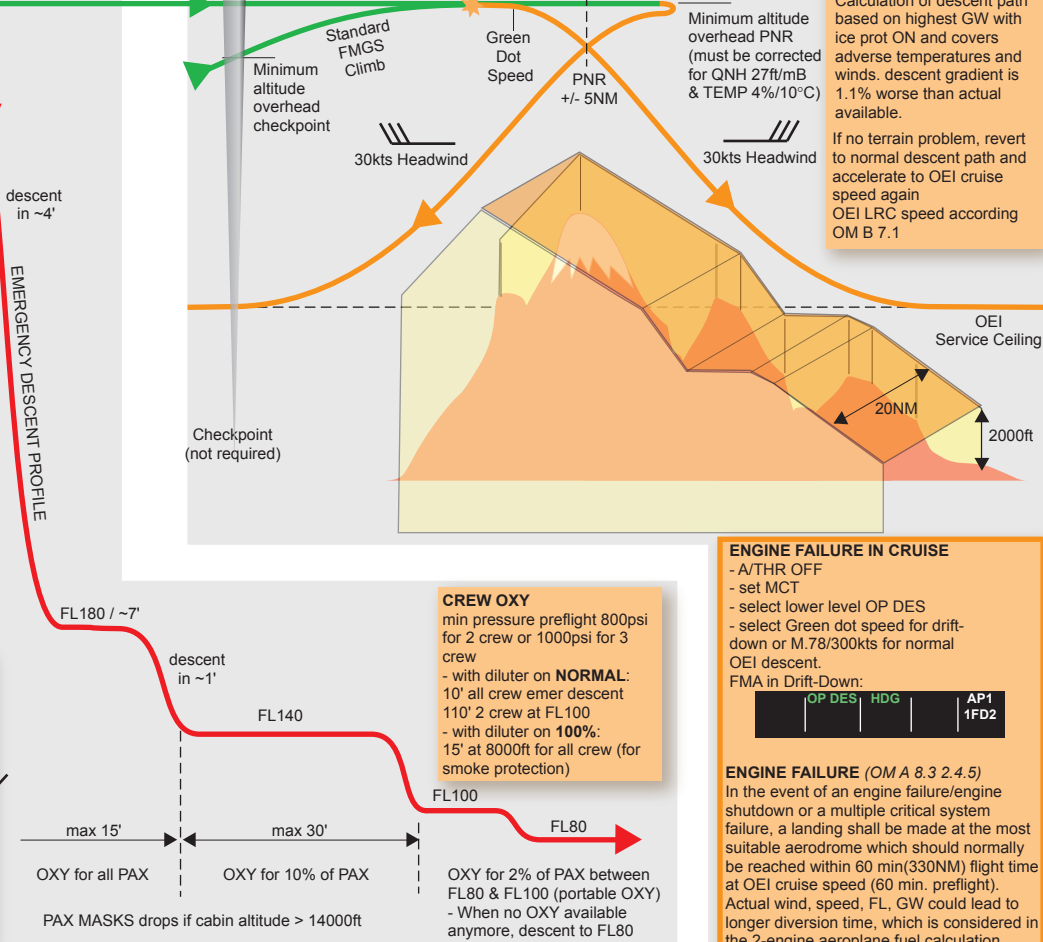
RVSM REQUIREMENTS (OM A 8.3 2.5.2)

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.

Cruise level (MAX 390)



DESCENT PATH
Calculation of descent path based on highest GW with ice prot ON and covers adverse temperatures and winds. descent gradient is 1.1% worse than actual available.
If no terrain problem, revert to normal descent path and accelerate to OEI cruise speed again
OEI LRC speed according OM B 7.1

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:

OP DES	HDG	AP1
		1FD2

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.

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 <input type="checkbox"/> <input type="checkbox"/> +41 33 333 33 33	R/O	First number
SWISS MEDICAL <input type="checkbox"/> +41 43 812 68 35	#	Push to desired number
		Initiate call

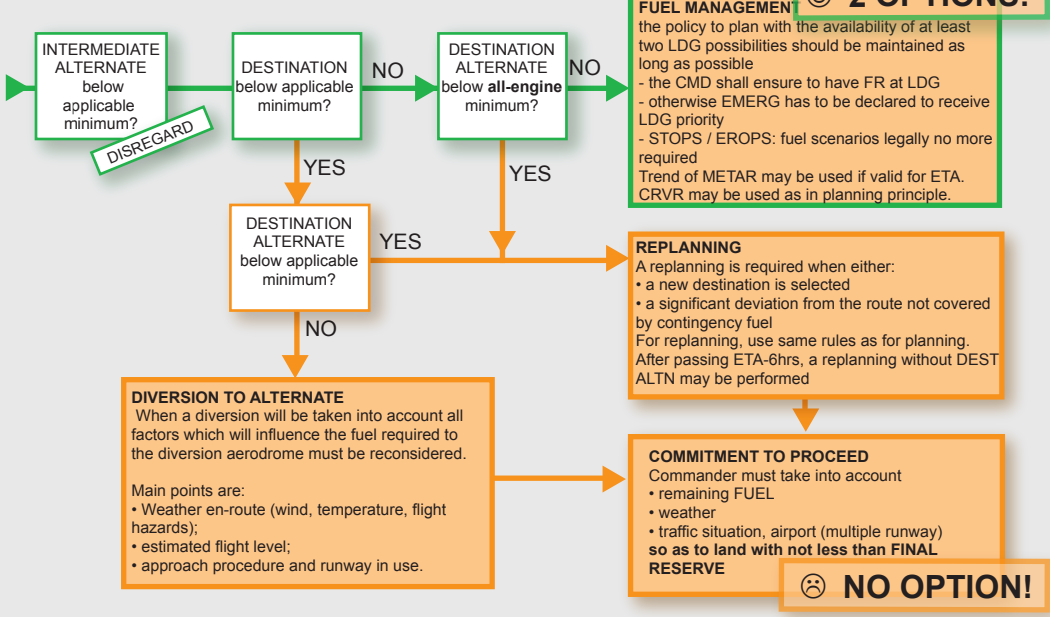
DECLARE EMERGENCY in case of

- Visible smoke of unknown origin
- Fire on board
- Structural damage
- Dual hydraulic failure
- total loss of electrical power
- total loss of navigation systems
- total loss of ice protection systems in icing conditions
- incapacitation
- Fuel qty drops below final reserve

EMERGENCY FREQUENCIES

VHF (MHz)	121.50 (main)
	123.40(backup)
	126.90(backup)
HF (kHz)	2182
	4125

INFLIGHT MANAGEMENT



CHAPTER 21: AIR CONDITIONING

Ref 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 CONDITIONING

Ref Only

Recirc Fans

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

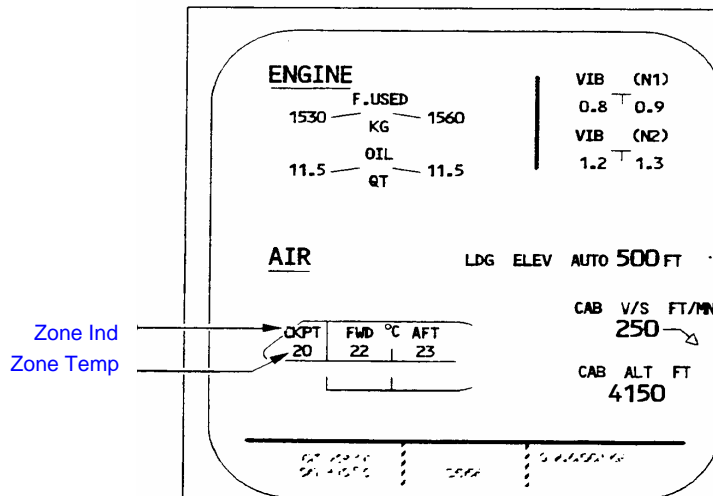
Lav/Galley Vent

Extract Fan	SPLY	U19
(Note 6)	CTRL	U21

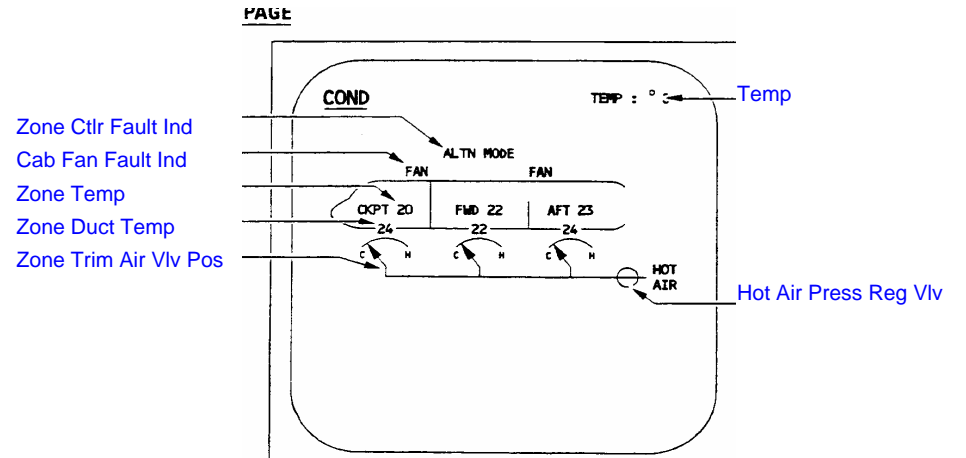
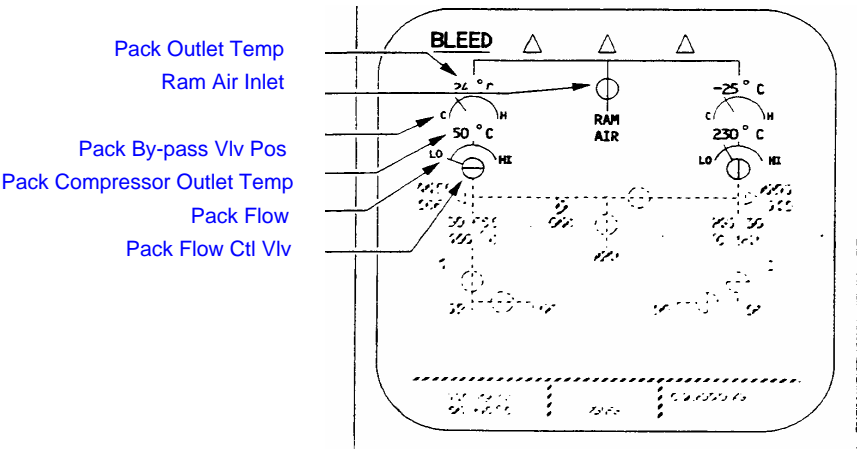
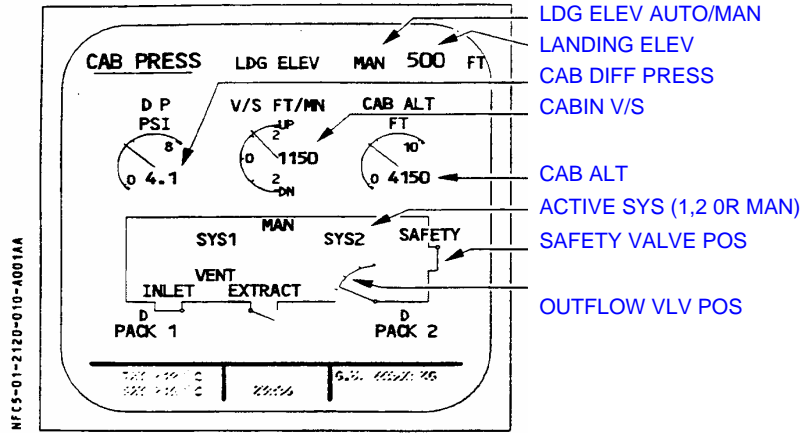
NOTES

- 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

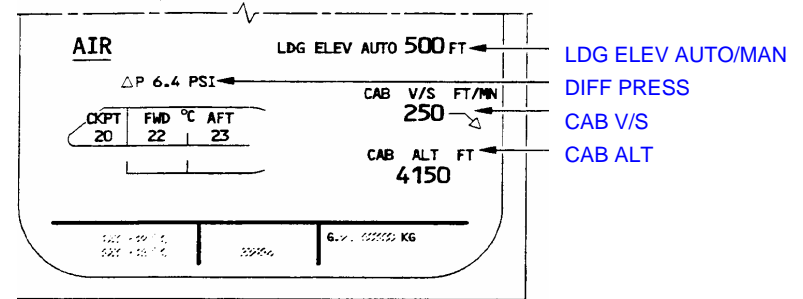
CRUISE PAGE



ECAM CAB PRESS PAGE



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 APPROPRIATE 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-COMMUNICATIONS

Ref 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-COMMUNICATIONS

Ref Only

NOTES:

- 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

CHAPTER 23-COMMUNICATIONS

Ref Only

- 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

			<u>Ref Only</u>		
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		
AC BUS 2	GEN 1 BTC 2 SPLY	122VU	T30		
	CTL	122VU	V27		
AC ESS	GEN 2 BTC 1 SPLY	122VU	T29		
	GEN 2 BTC 2 SPLY	122VU	T31		
	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		
DC BUS	SHED/CNTOR/CTL	106VU	1XH		
	BUS TIE 1/CNTOR	122VU	W25		
	BUS TIE 2/APU START	122VU	W31		
	BUS TIE 1 FAULT	122VU	U24		
	BUS 1 & 2 MONG	106VU	68WU		
AUXILLARY AC	ESS BUS TIE CNTR	122VU	W26	REF ASM	
	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	
	DC	101PP SPLY	125VU	CD	24-68-01
		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

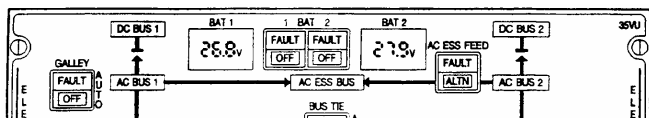
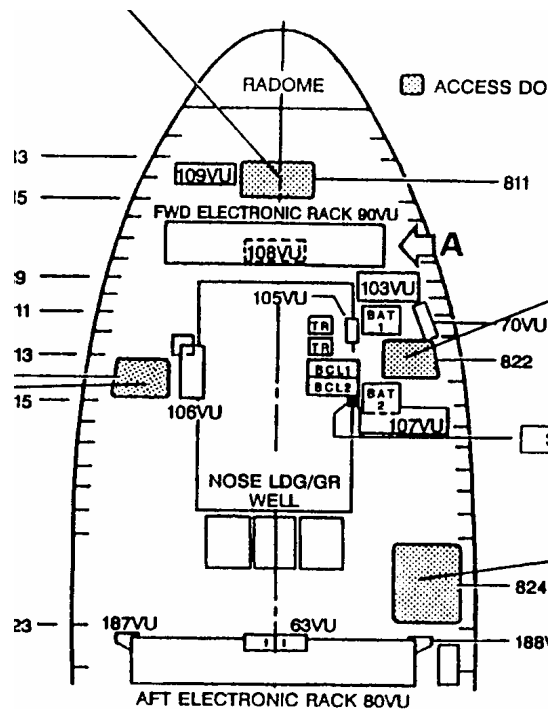
			<u>Ref Only</u>		
CONTROL	GCU 1	122VU	T26	1 Sec Pwr-up Test	
	GCU 2	122VU	T27		
	APU GCU	122VU	Y25		
	IDG 1 DISC	122VU	T24		
	IDG 2 DISC	122VU	T25		
TRU #1 (NOTE 1)	SPLY	123VU	AB10		
	MONG	122VU	X25		
	CNTOR SPLY	125VU	CF1		
TRU #2 (NOTE 1)	FAULT	122VU	W29		
	SPLY	123VU	AB4		
	MONG	122VU	X26		
TRU #3 (NOTE 1 & 2)	CNTOR SPLY	125VU	BC		
	FAULT	122VU	W30		
	SPLY	106VU	4PE		
ESS TR (TR #3) (NOTE 1 & 2)	CNTOR SPLY	106VU	5PE		
	LT CTRL	49VU	H10	115 VAC	
	EXT PWR LT CTRL	122VU	X29	28VDC	
	COCKPIT AVAIL	122VU	X28		
	NOT IN USE	122VU	X30		
LIGHTS	AVAIL	122VU	X31		
	GEN 1	122VU	Z30	28VDC	
	EGIU #1 (Elec Generation Interface Unit)	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	
SERVICE BUS	AC POWER/SERVICE	122VU	V29		
	DC SERVICE BUS	122VU	X24		
	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		
	CC	125VU	CC		
	BAT REF BCL 1	105VU	9PB1		
	BAT REF BCL 2	105VU	9PB2		
	BAT BUS REF BCL 1	105VU	8PB1		
EMER	BAT BUS REF BCL 2	105VU	8PB2		
	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)



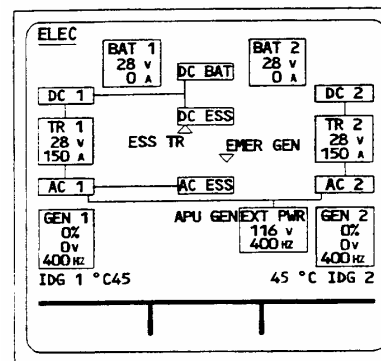
CHAPTER 24: ELECTRICAL

Ref Only

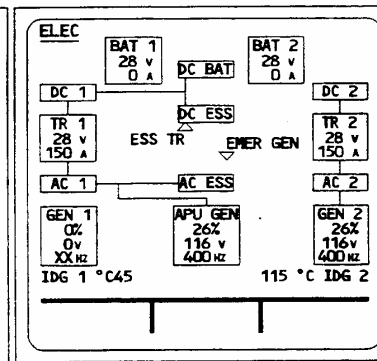
28 VAC ESS SPPLY	106VU	4XH
EMER/G REF	106VU	27WV
GALLEY	122VU	S24
GND/FLT LOGIC	122VU	S25
FAULT LT CTL	122VU	S26
CTL	122VU	S28
GALLEY CNTR	123VU	AE10
MAIN FWD FEEDER 'C'	123VU	AC10
MAIN FWD FEEDER 'E'	123VU	AD4
FWD FEEDER "D"	123VU	AF4
MAIN AFT FEEDER "A"	123VU	AF9
MAIN AFT FEEDER "E"	123VU	AD9

ON GROUND

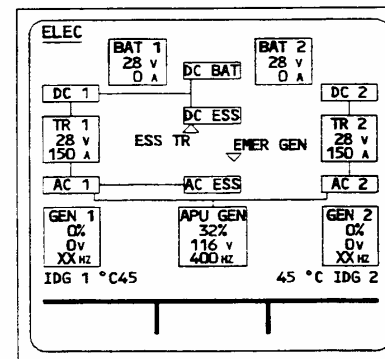
Either the APU generator or external power may supply the complete system.



EXTERNAL POWER ONLY

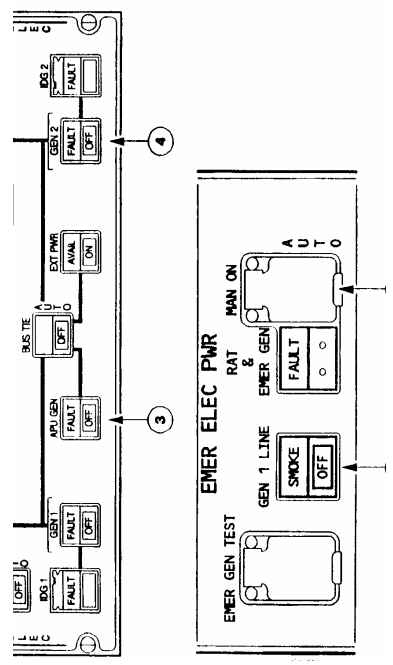


APU GEN + GEN 2



APU GEN ONLY

FCS-01-24.10-007-4001AA



CHAPTER 25: EQUIPMENTRef 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 7 MIN PWR-UP TEST. ALSO
L CABIN 2001VU CIDS TESTING FOR 3 MIN
R CABIN 2001VU 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

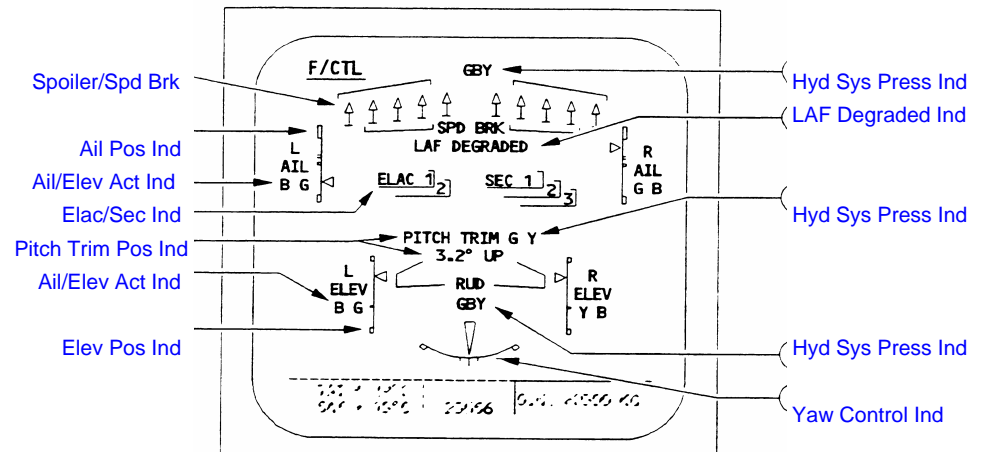
ELAC #1	NORM SPLY	49VU	B11
	STBY SPLY	*105VU	A02
ELAC #2	NORM SPLY	121VU	R20
	STBY SPLY	*105VU	A01
SEC #1		49VU	B8
(HYD OFF)	STBY SPLY	*105VU	B01
SEC #2		121VU	Q18
SEC #3		121VU	Q19
FCDC #1		49VU	B10
FCDC #2	(MEL 27-95-01)	121VU	Q20
SFCC			
****SLATS	SYS 1 CTL/MONG	49VU	B6
	SYS 2 CTL/MONG	121VU	R21
****FLAPS	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)	

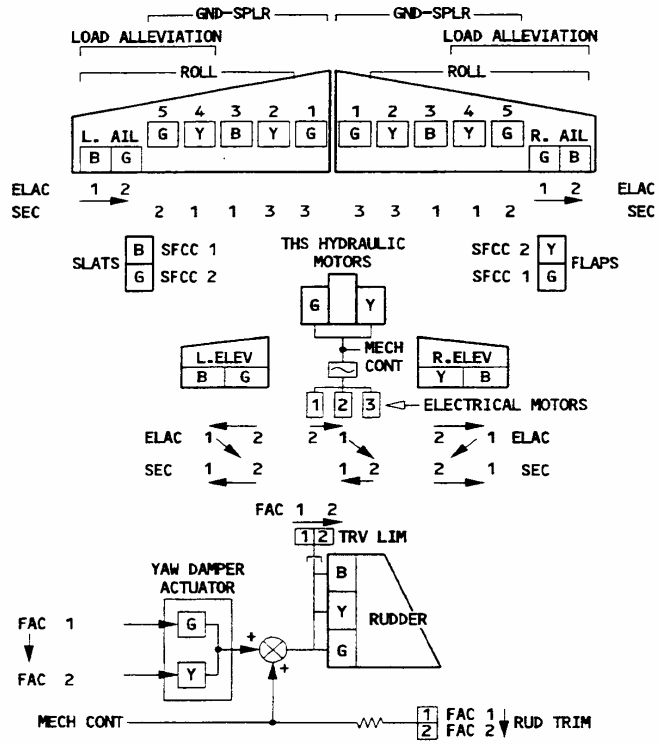
Ref Only

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:**

- #2 SFCC MEL 27-51-1** Will Cause CONT IGNITION and Hi IDLE of #2 ENG
- YAW DAMPER 1(2) AND RTL 1(2) - CYCLE FAC 1(2) P/B**
- CLASS II YAW DAMP-RESET FAC 1 or 2 with HYD ON.**
EITHER W/ PUSH BUTTONS OR CBs
(REF ATA 22 FOR CBs)
- 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
- 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
- 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)
- SLATS USE B & G HYD
FLAPS USE Y & G HYD**
- FLT CTL LOCKED OUT-WING TIP BRAKE (WTB)** RESET VIA CFDS
- 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)
- FLT CTL MESS W/ L(R) AIL-LAF DEGRADE** MESS-RESET ELAC 1(2) CBs
- 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	
	X-FEED	MOT 1	49VU	A12
		MOT 2	121VU	M24
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**

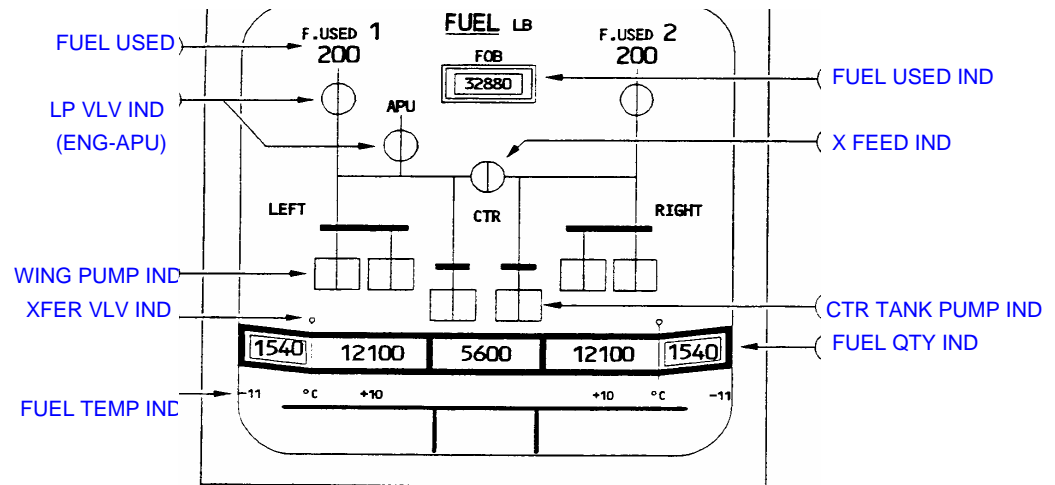
REFUEL/DEFUE	XFER DEFUEL VLV	121VU	L23	
	SPLY	121VU	L24	
	HI LEVEL SPLY	121VU	L25	
	MISC.	SMOKE CONFIG PUMP CTL	49VU	A14
		REFUEL ON BAT	122VU	U28
	REFUEL SPLY LOGIC	122VU	U29	
DC SVC BUS ON TR2	122VU	U30		
REFLG NORM	122VU	S27		

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 SYSTEM

Ref 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

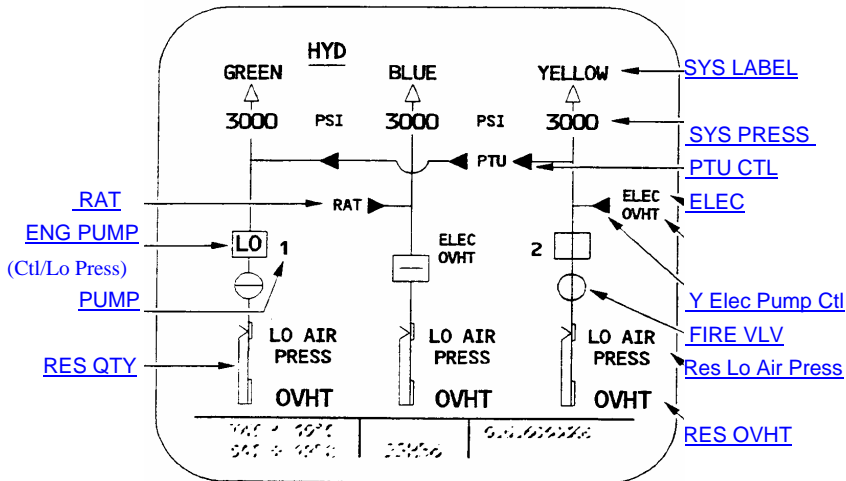
4) HYD RES LO PRESS MESSAGE

RUN ENG TO PRESS RES (PROBLEM

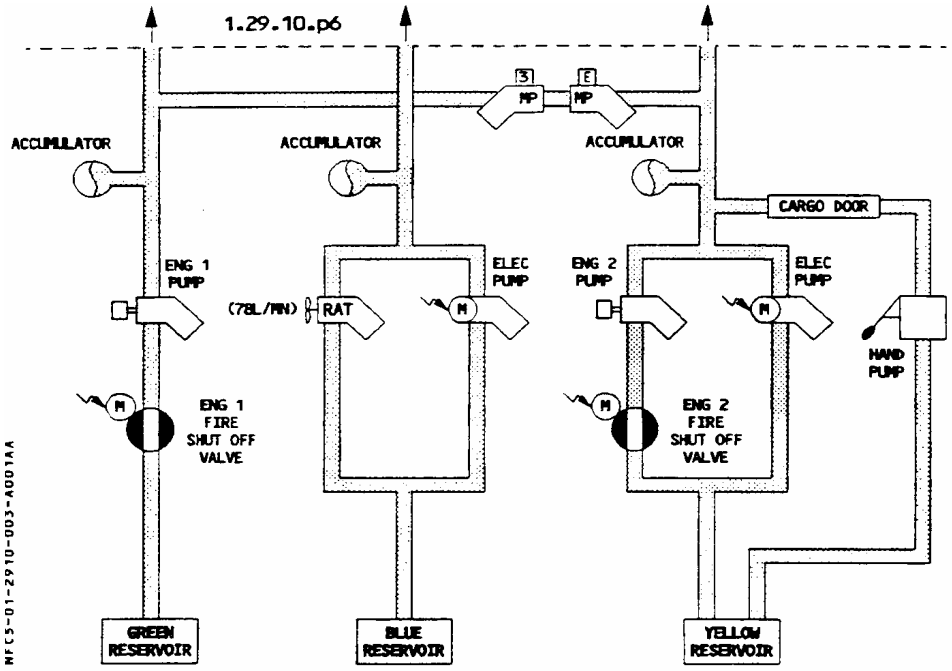
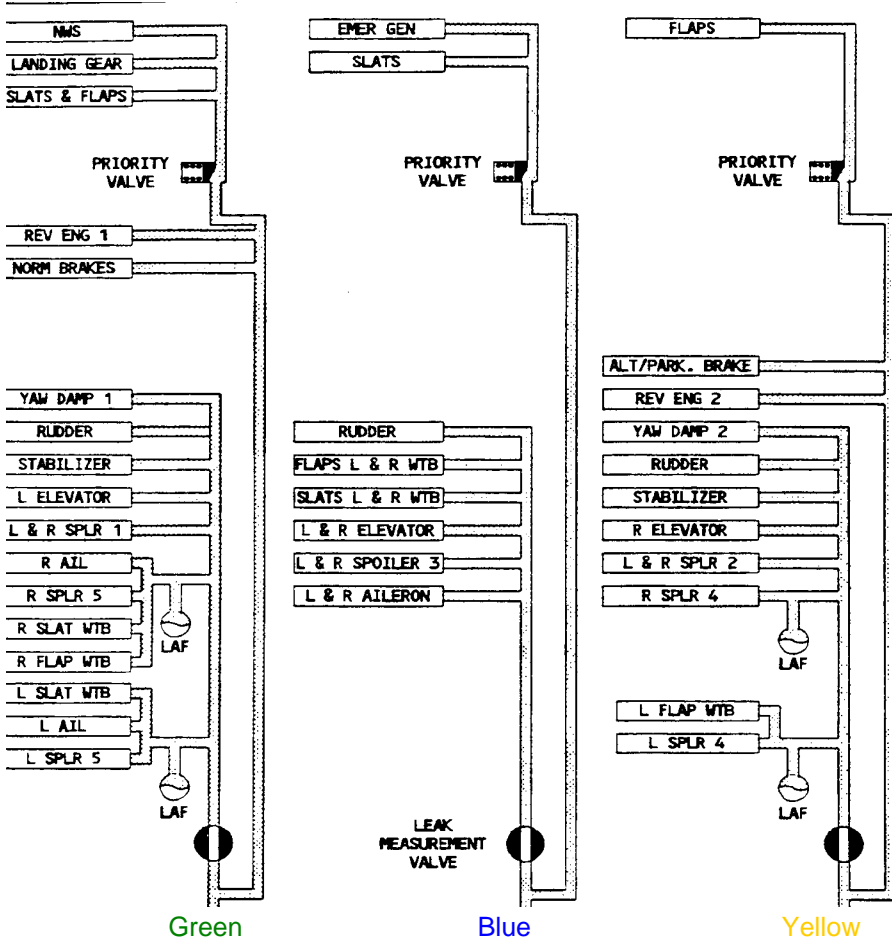
OCCURS AFTER WORKING HYD SYS)

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**PROBES (NOTE 3)**

SYS #1 CAPT	PHC 1	49VU	D3	2 Sec Pwr- up Test	
	PITOT 1	49VU	D2		
	AOA 1 (NOTE 1)	49VU	D4		
	TAT 1	122VU	Z12		
	STATIC 1	122VU	Z13		
SYS #2 FO	PHC 2	122VU	Y12	2 Sec Pwr- up Test	
	PITOT 2	122VU	Y14		
	AOA 2 (NOTE 1)	122VU	Y13		
	TAT 2	122VU	Y15		
	STATIC 2	122VU	T11		
SYS #3 STBY	PHC 3	122VU	Y16	2 Sec Pwr- up Test	
	PITOT 3	122VU	Z16		
	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- up Test	
	WINDOWS L	122VU	X14 (2)		
	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- up Test	
	FWD DRAIN MAST	2000VU	D04		
	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

CHAPTER 30: ICE & RAINRef Only

CHAPTE 31: INDICATING/RECORDING SYSTEMS

SDAC #1	SPLY	49VU	F4	5 Sec Pwr-
	BUS #1 SYNC AC	121VU	Q4	Up Test
	BUS #2 SYNC AC	121VU	Q3	" "
	BUS #1 VDC	121VU	P3	" "
	BUS #2 VDC	121VU	P4	" "
	ESS VDC	49VU	F5	" "
SDAC #2	ESS AC #1	49VU	F2	" "
	SPLY	121VU	Q6	5 Sec Pwr-
	BUS #1 SYNC AC	121VU	Q5	" "
	BUS #2 SYNC AC	121VU	Q2	" "
	BUS #1 VDC	121VU	P3	" "
	BUS #2 VDC	121VU	P4	" "
RELAY BOX	ESS VDC	49VU	F5	" "
	ESS AC #1	49VU	F3	" "
	CAPT	49VU	E8	
CFDS	FO	121VU	R7	
	CFDIU	SPLY	121VU	J18
PRINTER	BACK-UP	121VU	J17	60 Sec Pwr-
	TEST PLUG 1	121VU	J19	Up Test
	TEST PLUG 2	121VU	J20	" "
		121VU	J21	" "
AIDS-DMU	SPLY	121VU	J21	
RECORDERS	DMU & DAR	121VU	K15	40 Sec Pwr-
	DFDR	121VU	K16	Up Test
	FDIU	121VU	K17	25 Sec Pwr-
	ACCELEROMETERS	121VU	K18	Up Test
	CVR CTL	49VU	E13	
	CVR SPLY	49VU	E14	
CLOCK	NORM SPLY	49VU	F11	
(NOTE 4)	STBY SPLY	121VU	N3	
LOUDSPEAKERS	CAPT	49VU	F10	
	FO	121VU	P8	
	HORN SPLY	121VU	P9	

Ref Only

CHAPTE 31: INDICATING/RECORDING SYSTEMS

Ref Only

EIS	DMC #1	SPLY	49VU	E11	4 Sec Pwr-
		SWTG	49VU	E9	Up Test
DMC #2		SPLY	121VU	Q8	" "
		SWTG	121VU	R8	" "
DMC #3		SPLY	121VU	Q9	" "
		SWTG	49VU	E7	" "
ECAM CTL PNL		STBY SPLY	49VU	E10	" "
			49VU	E12	
ECAM DU-UPPR		SPLY	49VU	E5	10 Sec Pwr-
		SWTG	49VU	E6	Up Test
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-
		FWC #2	121VU	Q7	Up Test
MCDU		#1	49VU	B1	45 Sec Pwr-
		#2	121VU	N20	Up Test

NOTES:

- 1) TO BITE FWC & FADEC-USE OVERHEAD FADEC POWER P/Bs
- 2) #1 FWC FAULT-PULL FWC 1&2 CBs
RESET #1-WAIT 1 MIN
RESET #2
- 3) FDIU FAULT-MEL DFDR 31-30-02 C1 APPLIES (FDIU IS PART OF DFDR SYS)
- 4) CLOCK PROBLEMS NORMALLY RESET VIA CFDIU SUPPLY CB (J18)
- 5) PRINTER WILL NOT STOP PRINTING-PULL K15 (AIDS/DMU)
- 6) **DMC 1(2,3) FAULTS-**
 - A) "EIS DMC 1(2,3) RESET: 49VU E11 EIS DMC 1 SPLY (SYS 1)
121VU Q8 EIS DMC 2 SPLY (SYS 2)
121VU Q9 EIS DMC 3 SPLY (SYS 3)
49VU E10 EIS DMC 3 STBY SPLY (SYS 3)
 - B) DMCs WILL NOT SW-RESET: 49VU E9 EIS DMC 1 SWTG (SYS 1)
(OR STWG MESSAGE) 121VU R8 EIS DMC 2 SWTG (SYS 2)
49VU E7 EIS DMC 3 SWTG (SYS 3)
- 7) UNABLE TO SW DU: RESET APPLICABLE SWTG CB
- 8) **DISPLY UNIT -DIAGONAL LINE**
SELECT DMC3

CHAPTER 32: LANDING GEAR

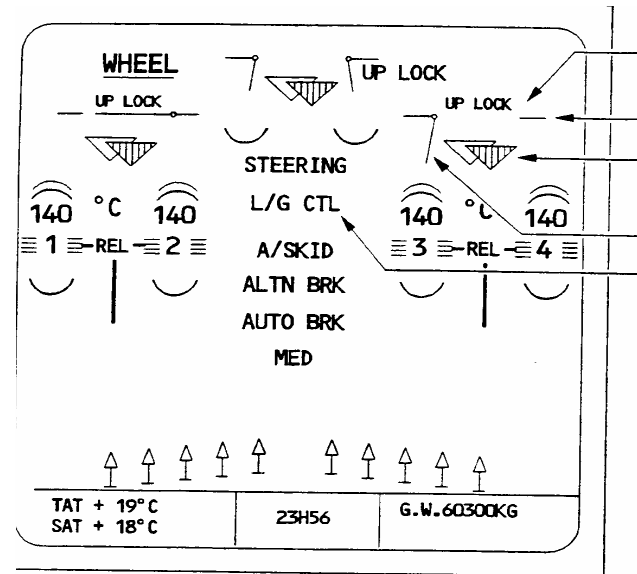
LGCIU	SYS #1	49VU	C9
	SYS #2	121VU	Q35
	SYS 1 GND SPLY	121VU	Q34
BRAKE/STEERING			
BSCU SYS #1	IND & SPLY	121VU	M33
	CTL	121VU	M34
BSCU SYS #2	CTL	121VU	M35
	SPLY	121VU	M36
DO NOT RESET IN FLT: POSSIBLE LOSS OF ANTI-SKID PROTECTION AT TOUCH DOWN!			
PARK BRAKE CTL	NORM	121VU	N36
	STBY	121VU	N37
YELLOW BRAKE	PSI IND	49VU	C10
	BRAKE FAN	CTL	121VU
BRAKE TEMP	WHL 1&2	121VU	L32
	WHL 3&4	121VU	L35
	DET UNIT	121VU	M37

Ref Only

1 Sec Pwr-
Up Test**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
 - A) TURN NWS SW AND ANTI-SKID SW OFF THEN ON.
 - B) IF NO HELP RESET BSCU CBs
 - 5) LGCIU FAULTS-ONLY LGCIU 1 POWERS REMOTE PANEL (STBY INDICATIONS)



CHAPTER 33: LIGHTSRef 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	
		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: LIGHTSRef 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 SYSTEMS

ADIRU 1	ADIRU 1	49VU	F6	115 VAC	5 Sec Pwr-
(NOTE 1)	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	R/T 1	121VU	K13	30 SEC Pwr-	
(618,20-37,43-46)	(R/T 2)	(121VU)	(K14)	Up Test	
(NOTE 5)					
TCAS		121VU	K10	5 Sec Pwr-Up Test	
GPWS		121VU	P7	115 VAC	2 Sec Pwr-
(NOTE 3)		121VU	P6	28VDC	Up Test
MULTI-MODE RXs	MMR1	49VU	G12	For A/C 604,47-51	
(NOTE 6,7)	MMR2	121VU	L7(K9)	604 (647-51)	

Ref Only**CHAPTER 34: NAVIGATION SYSTEMS****Ref 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: OXYGENRef Only

CREW O2	CREW SPLY	49VU	C1
PAX O2	CTL & WARN	49VU	C2
		49VU	C3
		49VU	C4
		49VU	C5
	ACTUATION	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

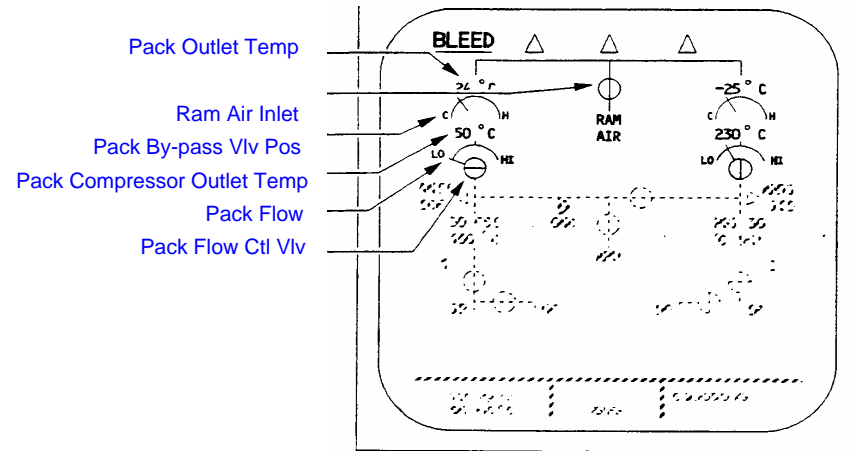
2) IT IS NOT POSSIBLE TO HAVE AN ERRONEOUS AIR BLEED WING LEAK

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 UNITRef Only

CONTROL	ECB SPLY	121VU	L41
	APU SPLY	121VU	L42

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,CYC_s
 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

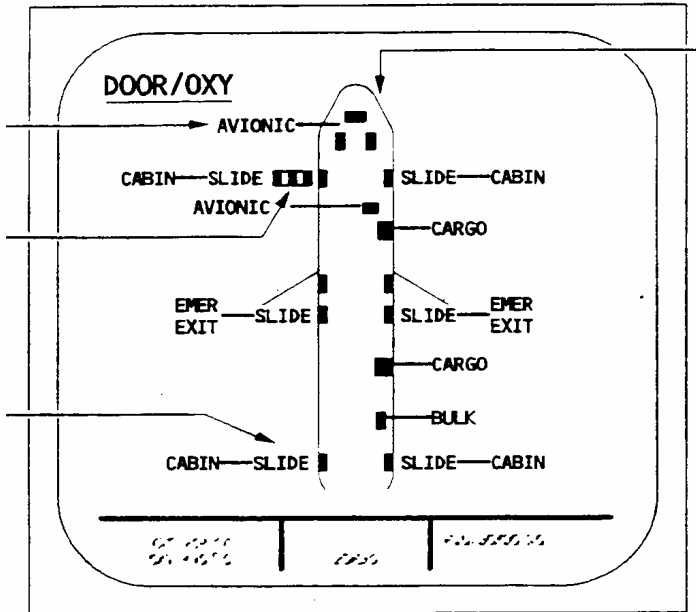
122VU T12

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

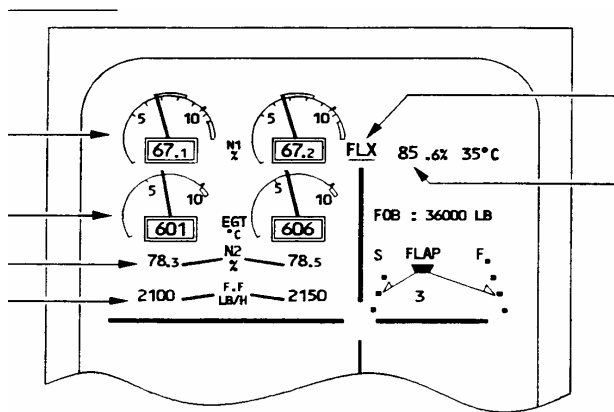
RETURN A/C TO GATE

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

B) CLEAN SCREEN

If problem persists

C) CHANGE EEC

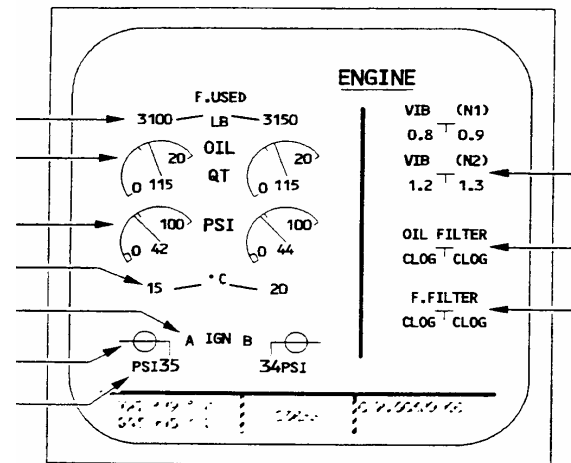
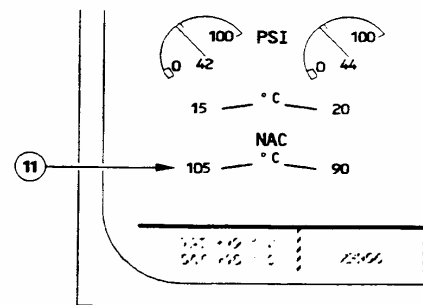
**CHAPTER 70: POWER PLANT**

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: IGNITIONRef 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



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