



A330/A340
FLIGHT CREW
OPERATING MANUAL

PROCEDURES
ABNORMAL AND EMERGENCY PROCEDURES

AIR

[QRH] BLEED 1+2 FAULT (APU BLEED ON)

Ident.: PRO-ABN-AIR-00014558.0004001 / 27 FEB 18

Applicable to: ALL

Apply this procedure when both engine bleed supply systems are failed at the end of the **AIR ENG 1+2 BLEED FAULT** ECAM procedure and if the APU bleed supplies the aircraft.

- At ANY TIME of the procedure, if **CAB PR EXCESS CAB ALT** alert triggers: APPLY ECAM PROC

MONITOR CABIN PRESSURE

MAX FL: 220

AVOID ICING CONDITIONS

RCL pb..... PRESS

*This action enables to recover the subtitle (if any) associated with the **AIR ENG 1+2 BLEED FAULT** alert.*

- If no subtitle with **AIR ENG 1+2 BLEED FAULT** alert
and

If both engine bleeds lost NOT due to engine fire NOR Start Air Valve failed open:

PACK 1..... ON

PACK 2..... ON

ENG 1 BLEED..... ON

ENG 2 BLEED..... ON

APU BLEED..... OFF

- If no engine bleed recovered:

APU BLEED..... ON

- If PACK 1 available:
PACK 2..... OFF

ENG 1 BLEED..... OFF

ENG 2 BLEED..... OFF

WING A.ICE NOT AVAILABLE

- If **RIGHT LEAK** or **BLEED 2 NOT CLOSED** subtitle with **AIR ENG 1+2 BLEED FAULT** alert
or

If engine 2 bleed lost due to engine 2 fire or Start Air Valve 2 failed open:

PACK 1..... ON

ENG 1 BLEED..... ON

APU BLEED..... OFF

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[QRH] BLEED 1+2 FAULT (APU BLEED ON) (Cont'd)

- If engine 1 bleed not recovered:

APU BLEED.....ON

ENG 1 BLEED.....OFF

WING A.ICE NOT AVAILABLE



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AIR

[QRH] BLEED 1+2 FAULT (APU BLEED NOT AVAILABLE)

Ident.: PRO-ABN-AIR-00014559.0004001 / 27 FEB 18

Applicable to: ALL

Apply this procedure when both engine bleed supply systems are failed at the end of the [AIR ENG 1+2 BLEED FAULT](#) ECAM procedure and if the APU bleed is NOT available to supply the aircraft.

- At ANY TIME of the procedure, if [CAB PR EXCESS CAB ALT](#) alert triggers: APPLY ECAM PROC

MAX FL: 100 / MEA-MORA

AVOID ICING CONDITIONS

RCL pb..... PRESS

This action enables to recover the subtitle (if any) associated with the [AIR ENG 1+2 BLEED FAULT](#) alert.

- If no subtitle with [AIR ENG 1+2 BLEED FAULT](#) alert
and

If both engine bleeds lost NOT due to engine fire NOR Start Air Valve failed open NOR APU leak fed by engine:

PACK 1..... ON

PACK 2..... ON

ENG 1 BLEED..... ON

ENG 2 BLEED..... ON

- If no engine bleed recovered:

ENG 1 BLEED..... OFF

ENG 2 BLEED..... OFF

WING A.ICE NOT AVAILABLE

- When CAB PR ΔP < 1 psi:

RAM AIR..... ON

- If both engine bleeds lost due to any of the following failures: Bleed failure (indicated by either **LEFT LEAK** and/or **RIGHT LEAK** and/or **BLEED 1 NOT CLOSED** and/or **BLEED 2 NOT CLOSED** subtitles) or engine fire or Start Air Valve failed open or APU leak fed by engine:

NO ENGINE BLEED CAN BE RECOVERED

WING A.ICE NOT AVAILABLE

- When CAB PR ΔP < 1 psi:

RAM AIR..... ON

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[QRH] BLEED 1+2 FAULT (APU BLEED NOT AVAILABLE) (Cont'd)

- If **LEFT LEAK** or **BLEED 1 NOT CLOSED** subtitle with **AIR ENG 1+2 BLEED FAULT** alert

or

If engine 1 bleed lost due to engine 1 fire or Start Air Valve 1 failed open or APU leak fed by engine:

PACK 2.....ON

ENG 2 BLEED.....ON

- If engine 2 bleed not recovered:

ENG 2 BLEED.....OFF

WING A.ICE NOT AVAILABLE

- When CAB PR $\Delta P < 1$ psi:

RAM AIR.....ON

- If **RIGHT LEAK** or **BLEED 2 NOT CLOSED** subtitle with **AIR ENG 1+2 BLEED FAULT** alert

or

If engine 2 bleed lost due to engine 2 fire or Start Air Valve 2 failed open:

PACK 1.....ON

ENG 1 BLEED.....ON

- If engine 1 bleed not recovered:

ENG 1 BLEED.....OFF

WING A.ICE NOT AVAILABLE

- When CAB PR $\Delta P < 1$ psi:

RAM AIR.....ON



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AIR ABNORM BLEED CONFIG (X BLEED CLOSED)

Applicable to: MSN 1552-1693

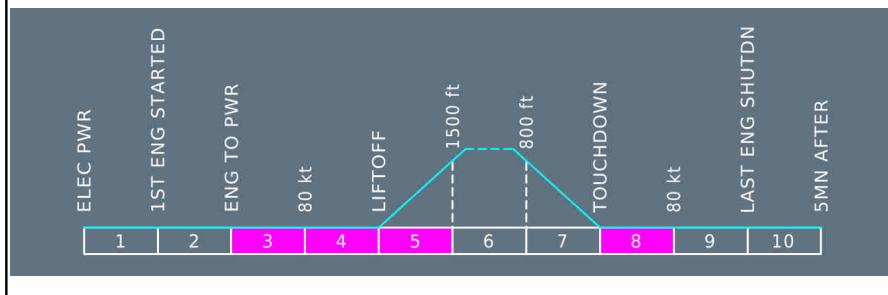
Ident.: PRO-ABN-AIR-E-00018720.0001001 / 21 MAR 16

ANNUNCIATIONS

Triggering Conditions:

- [2] This alert triggers when at least one engine bleed fails, is OFF, or is not supplied.

Flight Phase Inhibition:



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We make people fly

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AIR

AIR ABNORM BLEED CONFIG (X BLEED CLOSED) (Cont'd)

Ident.: PRO-ABN-AIR-E-00017700.0012001 / 06 JUL 21

- 1 ● If BLEED is abnormally selected OFF:

ENG 1(2) BLEED OFF

- IF BLEED NOT RECOVERED:

X BLEED.....CLOSE

L2 CLOSE, if:

- LEAK, or
- ENG FIRE (detected, or FIRE pushbutton pressed), or
- Engine start valve failed open, or
- Overpressure with the bleed valve failed open, or
- Overtemperature with the bleed valve failed open.

L1 ● In the case of engine bleed overtemperature and the associated engine bleed valve failed open:

PACK (AFFECTED SIDE).....OFF

WING A.ICE.....OFF

AVOID ICING CONDITIONS

- IF SEVERE ICE ACCRETION

MIN SPD.....VLS +10/G DOT

MANEUVER WITH CARE

Note: 1. Refer to PRO-ABN-COND [QRH] SINGLE PACK OPERATION.

2. APU BLEED pb-sw must not be used for wing anti-ice purpose, or after ENG 1 FIRE.

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AIR ABNORM BLEED CONFIG (X BLEED CLOSED) (Cont'd)

Ident.: PRO-ABN-AIR-E-00017701.0005001 / 12 JUL 18

2

L12

STATUS

AVOID ICING CONDITIONS

● IF SEVERE ICE ACCRETION

MIN SPD.....VLS + 10/G DOT

Note: *The speed must not be lower than :*

- G DOT, when in CONF 0
- VLS + 10 kt for other configurations.

MANEUVER WITH CARE

APPR PROC

● IF SEVERE ICE ACCRETION

FOR LDG.....USE FLAP 3

This line is replaced by "FOR LDG: USE FLAP 3" when CONF 3 is selected, as a reminder.

APPR SPD.....VLS + 10 KT

LDG DIST PROC.....APPLY

INOP SYS

WING A. ICE
ENG 1(2) BLEED
PACK 1(2)
FWD CRG TEMP



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AIR ABNORM BLEED CONFIG (X BLEED CLOSED)

Applicable to: MSN 1820-1832

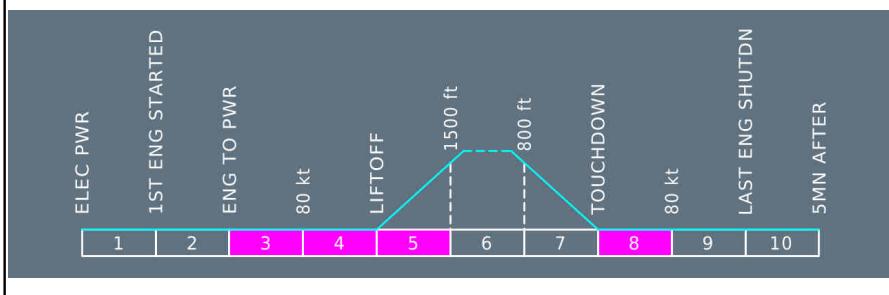
Ident.: PRO-ABN-AIR-E-00018720.0001001 / 21 MAR 16

ANNUNCIATIONS

Triggering Conditions:

- [2] This alert triggers when at least one engine bleed fails, is OFF, or is not supplied.

Flight Phase Inhibition:



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AIR ABNORM BLEED CONFIG (X BLEED CLOSED) (Cont'd)

Ident.: PRO-ABN-AIR-E-00017700.0006001 / 27 FEB 18

- If BLEED is abnormally selected OFF:

ENG 1(2) BLEED OFF

- IF BLEED NOT RECOVERED:

X BLEED.....CLOSE

[L2] CLOSE, if:

- LEAK, or
- ENG FIRE (detected, or FIRE pushbutton pressed), or
- Engine start valve failed open, or
- Overpressure with the bleed valve failed open, or
- Overtemperature with the bleed valve failed open.

[L1] ● In the case of engine bleed overtemperature and the associated engine bleed valve failed open:

PACK (AFFECTED SIDE).....OFF

WING A.ICE.....OFF

AVOID ICING CONDITIONS

- IF SEVERE ICE ACCRETION

MIN SPD.....VLS +10/G DOT

MANEUVER WITH CARE

[L2]

Note: APU BLEED pb-sw must not be used for wing anti-ice purpose, or after ENG 1 FIRE.

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AIR ABNORM BLEED CONFIG (X BLEED CLOSED) (Cont'd)

Ident.: PRO-ABN-AIR-E-00017701.0005001 / 12 JUL 18

3

L12

STATUS

AVOID ICING CONDITIONS

● **IF SEVERE ICE ACCRETION**

MIN SPD.....VLS + 10/G DOT

Note: The speed must not be lower than :

- G DOT, when in CONF 0
- VLS + 10 kt for other configurations.

INOP SYS

WING A. ICE
ENG 1(2) BLEED
PACK 1(2)
FWD CRG TEMP

MANEUVER WITH CARE

APPR PROC

● **IF SEVERE ICE ACCRETION**

FOR LDG.....USE FLAP 3

This line is replaced by "FOR LDG: USE FLAP 3" when CONF 3 is selected, as a reminder.

APPR SPD.....VLS + 10 KT

LDG DIST PROC.....APPLY



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AIR ABNORM BLEED CONFIG (X BLEED CLOSED)

Applicable to: MSN 1926-1987

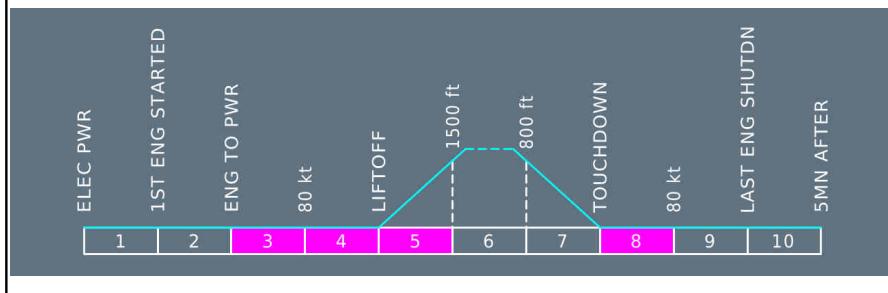
Ident.: PRO-ABN-AIR-E-00018720.0001001 / 21 MAR 16

ANNUNCIATIONS

Triggering Conditions:

- [2] This alert triggers when at least one engine bleed fails, is OFF, or is not supplied.

Flight Phase Inhibition:



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AIR ABNORM BLEED CONFIG (X BLEED CLOSED) (Cont'd)

Ident.: PRO-ABN-AIR-E-00017700.0007001 / 01 OCT 19

- If BLEED is abnormally selected OFF:

ENG 1(2) BLEED OFF

- IF BLEED NOT RECOVERED:

X BLEED.....CLOSE

[L2] CLOSE, if:

- LEAK, or
- ENG FIRE (detected, or FIRE pushbutton pressed), or
- Engine start valve failed open, or
- Overpressure with the bleed valve failed open, or
- Overtemperature with the bleed valve failed open.

[L1] ■ In the case of engine bleed overtemperature and the associated engine bleed valve failed open:

PACK (AFFECTED SIDE).....OFF

■ If wing leak or pylon leak and PACK FLOW is not set to HI:

PACK FLOW.....HI

WING A.ICE.....OFF

AVOID ICING CONDITIONS

● IF SEVERE ICE ACCRETION

MIN SPD.....VLS +10/G DOT

MANEUVER WITH CARE

[L2] Note: APU BLEED pb-sw must not be used for wing anti-ice purpose, or after ENG 1 FIRE.

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AIR ABNORM BLEED CONFIG (X BLEED CLOSED) (Cont'd)

Ident.: PRO-ABN-AIR-E-00017701.0005001 / 12 JUL 18

4

L12

STATUS

AVOID ICING CONDITIONS

● IF SEVERE ICE ACCRETION

MIN SPD.....VLS + 10/G DOT

Note: The speed must not be lower than :

- G DOT, when in CONF 0
- VLS + 10 kt for other configurations.

MANEUVER WITH CARE

APPR PROC

● IF SEVERE ICE ACCRETION

FOR LDG.....USE FLAP 3

This line is replaced by "FOR LDG: USE FLAP 3" when CONF 3 is selected, as a reminder.

APPR SPD.....VLS + 10 KT

LDG DIST PROC.....APPLY

INOP SYS

WING A. ICE
ENG 1(2) BLEED
PACK 1(2)
FWD CRG TEMP



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AIR

AIR ABNORM BLEED CONFIG (X BLEED OPEN)

Applicable to: MSN 1552-1693

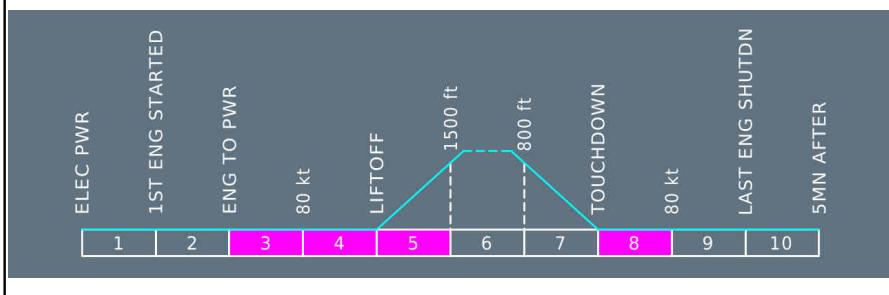
Ident.: PRO-ABN-AIR-D-00018721.0001001 / 21 MAR 16

ANNUNCIATIONS

Triggering Conditions:

- [2] This alert triggers when at least one engine bleed fails, is OFF, or is not supplied.

Flight Phase Inhibition:



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AIR ABNORM BLEED CONFIG (X BLEED OPEN) (Cont'd)

Ident.: PRO-ABN-AIR-D-00017704.0006001 / 06 JUL 21

5

- If BLEED is abnormally selected OFF:

ENG 1 (2) BLEED OFF

- IF BLEED NOT RECOVERED:

X BLEED.....OPEN

- [L2] OPEN, if all of the following are applicable:

- No LEAK
- No ENG FIRE (detected, or FIRE pushbutton pressed)
- No engine start valve failed open
- No overpressure with the bleed valve failed open
- No overtemperature with the bleed valve failed open.

- [L1] ● If WING A.ICE OFF, and no engine failed:

PACK FLOW.....LO

- [L2] Pack flow is limited to 80 %.

- [L1] FWD CRG COOLING <=.....OFF

- If WING A.ICE ON or one engine failed:

PACK (AFFECTED SIDE IF OPPOSITE PACK HEALTHY).....OFF

Note: Refer to PRO-ABN-COND [QRH] SINGLE PACK OPERATION.

Ident.: PRO-ABN-AIR-D-00017706.0001001 / 21 MAR 16

STATUS

INOP SYS

ONE PACK ONLY IF WAI ON

ENG 1(2) BLEED
FWD CRG TEMP <=.....
PACK 1(2) (If selected OFF)



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AIR ABNORM BLEED CONFIG (X BLEED OPEN)

Applicable to: MSN 1820-1987

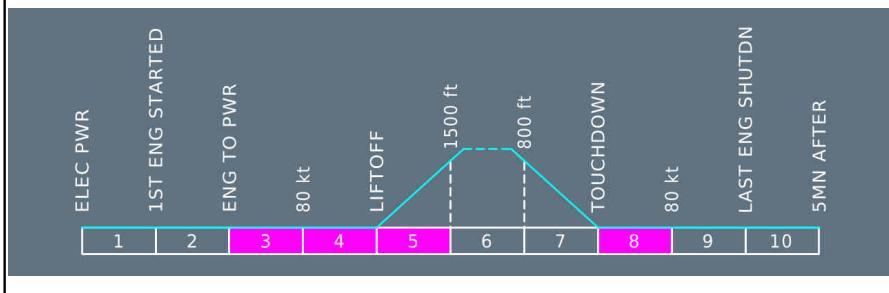
Ident.: PRO-ABN-AIR-D-00018721.0001001 / 21 MAR 16

ANNUNCIATIONS

Triggering Conditions:

- [2] This alert triggers when at least one engine bleed fails, is OFF, or is not supplied.

Flight Phase Inhibition:



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AIR

AIR ABNORM BLEED CONFIG (X BLEED OPEN) (Cont'd)

Ident.: PRO-ABN-AIR-D-00017704.0003001 / 26 OCT 18

- If BLEED is abnormally selected OFF:

ENG 1 (2) BLEED OFF

- IF BLEED NOT RECOVERED:

X BLEED.....OPEN

[L2] **OPEN**, if:

- No LEAK, and
- No ENG FIRE (detected, or FIRE pushbutton pressed), and
- No engine start valve failed open, and
- No overpressure with the bleed valve failed open, and
- No overtemperature with the bleed valve failed open.

[L1] ● If WING A.ICE OFF, and no engine failed:

PACK FLOW.....LO

[L2] **Pack flow is limited to 80 %.**

[L1] **FWD CRG COOLING <=.....OFF**

- If WING A.ICE ON or one engine failed:

PACK (AFFECTED SIDE IF OPPOSITE PACK HEALTHY).....OFF

Ident.: PRO-ABN-AIR-D-00017706.0001001 / 21 MAR 16

STATUS

INOP SYS

ONE PACK ONLY IF WAI ON

ENG 1(2) BLEED
FWD CRG TEMP <=
PACK 1(2) (If selected OFF)