

ADVISORY WIRE

You.
First.

REFERENCE NO:	AW700-34-0348, Rev. 02	INFORMATION TYPE:	Maintenance Operational
ATA:	34-61	EFFECTIVITY:	Global Express / XRS (9002 - 9312, 9314 - 9380, 9384 - 9429)
SUBJECT:	Control Display Unit (CDU-820) – Intermittent Blanking Display and No Fault Found Update		Global 5000 (9127 to 9383, 9389 to 9400, 9404 to 9431 and 9998)

1. REFERENCES:

- 1.1. Aircraft Maintenance Manual (AMM) procedure TASK 31-41-01-960-801 Integrated Avionics Computer (IAC), Replacement of the Internal Battery
- 1.2. Standard Practices Manual (SPM) - ATA 20 – Standard Practices – Wiring and ATA 51 – Standard Practices – Electrical Bonding Test
- 1.3. AW700-31-0473 Rev. 1 - Integrated Avionic Computer (IAC) – No Fault Found (NFF) investigation Conclusions, released July 29, 2015

2. INTRODUCTION:

This Advisory Wire (AW) Revision 2 is to provide an update on the Honeywell investigation results regarding the intermittent blanking display attributed to an impedance issue. This AW is also an update on previously released information on guidance to reduce No Fault Found (NFF) for the Flight Management System Control Display Unit (FMS CDU-820).

3. DESCRIPTION:

The FMS CDU-820 (PN 2888-03-1 or 2888-09-1) from Honeywell was part of the Top 10 NFF for the Global Express / XRS / 5000. It should be noted that information in this AW does not apply to the FMS CDU-810. The highest NFF rate for the FMS CDU-820 was 44%, while the current NFF rate has been reduced to approximately 20%. Consequently, the FMS CDU-820 was moved in a monitoring status on the Top 10 NFF back in 2014 and is now de-listed from the Top 10 NFF.

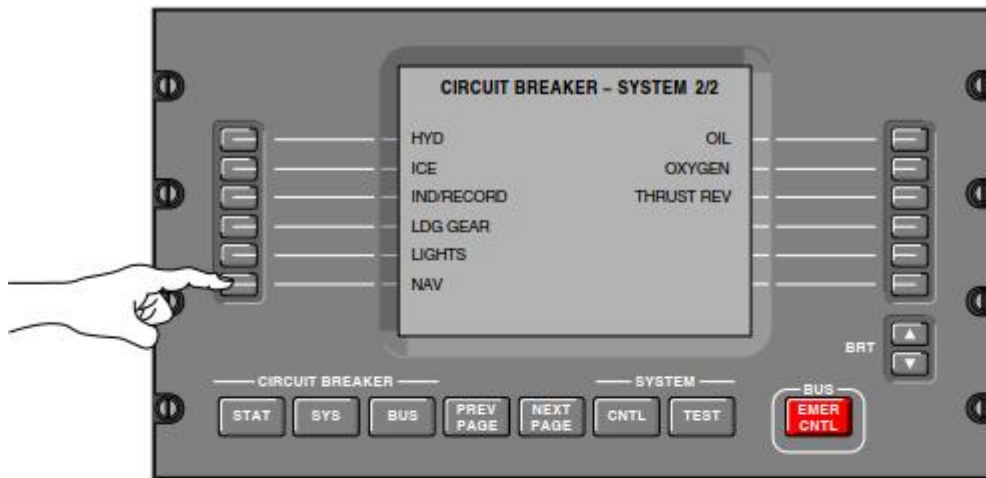
As part of the NFF initiative, Bombardier and Honeywell reviewed the details of all removals that were declared NFF to establish the trends and associated action plans.

The main trends identified were as follows:

1. Intermittent blanking of the display
2. Incorrect removal related to a FMS BATTERY MAINT REQD scratchpad message
3. Incorrectly identifying units by the supplier as NFF after repair
4. Missing information on the removal documentation

3.1. INTERMITTENT DISPLAY BLANKING:

The root cause was determined by Honeywell to be an impedance incompatibility present between some CDU-820 and Integrated Avionics Computers (IAC). Correction to this condition would require a CDU-820 hardware modification, however there is no plan at this time from Honeywell to develop a fix for this particular issue. As a work-around procedure in the event of CDU-820 blanking, it is recommended to cycle the power (OUT/IN) of affected display to regain normal operation as shown below.



CB - NAV SYSTEM 1/6			CB - NAV SYSTEM 4/6		
ADF 1	DC 1	IN	IRS 3 FAN	DC 1	IN
ADF 2	DC ESS	IN	IRS 3 PWR A	DC 1	IN
DME 1	DC 2	IN	IRS 3 PWR B	DC ESS	IN
DME 2	DC ESS	IN	LIGHTNING SENSOR	DC 1	IN
EVS (OPT)	CD 2	IN	MFD 1 CTLR	BATT	IN
FMS 1 CDU	BATT	IN	MFD 2 CTLR	DC 2	IN

CB - NAV SYSTEM 2/6			CB - NAV SYSTEM 5/6		
FMS 2 CDU	DC 2	IN	RAD ALT 1	DC 1	IN
FMS 3 CDU	DC 1	IN	RAD ALT 2	DC 2	IN
GPS 1	DC 1	IN	STBY ADI	AV BATT	CCBP IN
GPS 2	DC 2	IN	STBY ALT/ASI	DC ESS	IN
GPWS	DC 1	IN	STBY INSTR	AV BATT	CCBP IN
HUD	DC 2	IN	TCAS	DC ESS	IN

In this case, as it is an interface issue and not an actual CDU-820 problem, the CDU-820 should not be replaced as the unit will be NFF and the replacement unit may exhibit the same behavior. However, the CDU-820 should be replaced if the work around procedure does not restore normal operation.

In addition, Bombardier received feedback from an operator experiencing the blanking display issue where, in two cases, the condition was corrected by improving the CDU-820 bonding of the wiring shields, ground studs for signal returns and the associated IAC mechanical bonding of the tray to the structure in accordance with Standard Practices Manual (SPM) Standard Practices (Ref. 1.2). This procedure may not be successful on all aircraft due to wiring impedance variability.

Bombardier recommends that affected operators perform the improved bonding procedure detailed in attached Appendix A and report back the result, whether successful or not, via their local Bombardier Field Service Representative (FSR). See examples of FMS CDU-820 and IAC Wiring Manual in the attached Appendix B for a visual reference of the affected ground returns, ground studs and shields. Refer to the proper Wiring Manual in accordance to your specific Global version effectivity.

3.2. FMS BATTERY MAINT REQD SCRATCHPAD MESSAGE:

This message indicates that the batteries in the associated IAC have reached a low level. The IAC has a built-in battery monitor to detect a low battery condition at each power-up. A battery message will be display by way of a Central Aircraft Information Maintenance System (CAIMS) message on the AM-200 portable maintenance access terminal (PMAT) or on the FMS CDU-820 scratchpad. The AMM Task (Ref. 1.1) may be use to verify the battery voltage prior to suspecting a faulty IAC battery. More information is also available in SmartFix Plus tool in the Observed Faults for FMS scratchpad messages and in the AW700-31-0473 Rev. 1 (Ref. 1.3). The CDU-820 should not be replace for this condition.

3.3. INCORRECT CODING OF UNITS AS NFF AFTER REPAIR:

The CDU-820s were coded NFF when the unit actually came in for recertification only or the failure could not be reproduced, but incorporation of a service bulletin addressing this particular condition was performed. Honeywell has revised their process and repair facilities will only code the CDU-820 as NFF when appropriate

3.4. MISSING INFORMATION ON THE REMOVAL DOCUMENTATION:

The Removal Tag or the Material Return Authorization (MRA) does not contain the failure information required to support troubleshooting at the shop. As part of the overall NFF initiative, Bombardier and the customers have to follow the MRA processes by correctly recording all pertinent information (CAS message, cockpit effect, CB reset, etc.) on the removal tag or MRA to ensure proper fault reporting is provided to the repair facilities.

Additionally, this AW information is included in Bombardier Maintenance training programs to raise awareness on the CDU-820 blanking condition and associated initiatives to reduce NFF.

4. ACTION:

Operators should be familiar with the information in this AW and follow the recommendations for intermittent blanking of the display and FMS BATTERY MAINT REQD scratchpad message conditions.

In addition, Bombardier recommends that operators affected by the CDU-820 intermittent display blanking condition, perform the improved bonding procedure in Appendix A and report the result back to us, via their local Bombardier Field Service Representative (FSR).

Should you have any queries pertaining to this Advisory Wire (AW), please contact your Bombardier Field Service Representative (FSR) or the Customer Response Center (CRC).

APPENDIX A - CDU/IAC IMPROVED BONDING PROCEDURE

REFERENCES:

1. Standard Practices Manual - 20 - Standard Practices - Wiring.
2. Standard Practices Manual - 51 - Standard Practices - Bonding, SPM 51-80-00-760-801
3. Appendix B - Wiring manual example- CDU/IAC Improved Bonding Procedure

For the affected FMS CDU/IAC perform the following:

Record all bonding values for further comparison pre- and post-modification. Record all finding and repairs.

Report back with the above information, in all cases, whether successful or not in correcting the condition, via your local Bombardier Field Service Representative (FSR).

- For the CDU and the IAC, perform an electrical wiring continuity check of all ground returns and verify associated ground studs or modules for proper bonding.
- For the IAC only, redo the bonding surface between the tray and structure. Refer to procedures (Ref. 2) for preparation of the bonding surfaces: verify bonding surfaces cleanliness and perform a complete mechanical bonding check of the tray to structure.
- For the CDU and the IAC, perform a check of all wiring shields for condition and correct mechanical integrity.

All checks, inspections, cleaning and repairs previously mentioned should be performed in accordance with the Standard Practices Manual - 20 - Standard Practices - Wiring (Ref. 1) and Standard Practices Manual - 51 - Standard Practices - Bonding, SPM 51-80-00-760-801 - Electrical Bonding Test (Ref. 2).

Refer to Appendix B (Ref. 3) examples for FMS CDU and IAC Wiring Manual for a visual reference of the affected ground returns, ground studs and shields. Refer to the proper Wiring Manual in accordance to your specific Global version effectivity.

Select the proper following Appendix in accordance with the position of the CDU affected by the blanking issue and the Global type.

- Appendix A-1: Wirings shields and bonding of the associated ground studs for the ground returns to be checked - CDU No. 1/IAC No. 1 Global Express.
- Appendix A-2: Wirings shields and bonding of the associated ground studs for the ground returns to be checked - CDU No. 2/IAC No. 2 Global Express.
- Appendix A-3: Wirings shields and bonding of the associated ground studs for the ground returns to be checked - CDU No. 3/IAC No. 3 Global Express.
- Appendix A-4: Wirings shields and bonding of the associated ground studs for the ground returns to be checked - CDU No. 1/IAC No. 1 Global Express XRS.
- Appendix A-5: Wirings shields and bonding of the associated ground studs for the ground returns to be checked - CDU No. 2/IAC No. 2 Global Express XRS.
- Appendix A-6: Wirings shields and bonding of the associated ground studs for the ground returns to be checked - CDU No. 3/IAC No. 3 Global Express XRS.
- Appendix A-7: Wirings shields and bonding of the associated ground studs for the ground returns to be checked - CDU No. 1/IAC No. 1 Global 5000.
- Appendix A-8: Wirings shields and bonding of the associated ground studs for the ground returns to be checked - CDU No. 2/IAC No. 2 Global 5000.
- Appendix A-9: Wirings shields and bonding of the associated ground studs for the ground returns to be checked - CDU No. 3/IAC No. 3 Global 5000.

APPENDIX A-1 CDU No. 1/IAC No. 1 BONDING GLOBAL EXPRESS

FMS No. 1

Reference Wiring Manual, 34-61-00-01

Ground Studs GS21, GS1114, GS1115

Wiring Shields for CDU 1 to FMS 1 RS422 Data (H)
Wiring Shields for CDU 1 to FMS 1 RS422 Data (L)
Wiring Shields for FMS 1 to CDU 1 RS422 Data (H)
Wiring Shields for FMS 1 to CDU 1 RS422 Data (L)
Wiring Shields for CDU 1 to FMS 1 RS422 Data DTR (H)
Wiring Shields for CDU 1 to FMS 1 RS422 Data DTR (L)
Wiring Shields for FMS 1 to CDU 1 RS422 Data DTR (H)
Wiring Shields for FMS 1 to CDU 1 RS422 Data DTR (L)
Wiring Shields for CDU 1/FMS 1 or FMS1/CDU 1 RS422 CLK (H)
Wiring Shields for CDU 1/FMS 1 or FMS1/CDU 1 RS422 CLK (L)

IAC No. 1

Reference Wiring Manual, 31-41-00-01

Ground Studs GS221, GS222, GS223 and Ground Module GM77

Wiring Shields for the +5V IAC CONFIG MOD PWR RTN
Wiring Shields for IAC 1 FMS A429 Bus No.1 (H)
Wiring Shields for IAC 1 FMS A429 Bus No.1 (L)
Wiring Shields for IAC 1 FMS A429 Bus No.2 (H)
Wiring Shields for IAC 1 FMS A429 Bus No.2 (L)
Wiring Shields for CDU 1 to FMS 1 RS422 Data (H)
Wiring Shields for CDU 1 to FMS 1 RS422 Data (L)
Wiring Shields for FMS 1 to CDU 1 RS422 Data (H)
Wiring Shields for FMS 1 to CDU 1 RS422 Data (L)
Wiring Shields for CDU 1 to FMS 1 RS422 Data DTR (H)
Wiring Shields for CDU 1 to FMS 1 RS422 Data DTR (L)
Wiring Shields for FMS 1 to CDU 1 RS422 Data DTR (H)
Wiring Shields for FMS 1 to CDU 1 RS422 Data DTR (L)
Wiring Shields for CDU 1/FMS 1 or FMS1/CDU 1 RS422 CLK (H)
Wiring Shields for CDU 1/FMS 1 or FMS1/CDU 1 RS422 CLK (L)

APPENDIX A-2 CDU No. 2/IAC No. 2 BONDING GLOBAL EXPRESS

FMS No. 2

Reference Wiring Manual, 34-61-00-01

Ground Studs GS23, GS1114 or GS1126, GS1115 or GS1133
Wiring Shields for CDU 2 to FMS 2 RS422 Data (H)
Wiring Shields for CDU 2 to FMS 2 RS422 Data (L)
Wiring Shields for FMS 2 to CDU 2 RS422 Data (H)
Wiring Shields for FMS 2 to CDU 2 RS422 Data (L)
Wiring Shields for CDU 2 to FMS 2 RS422 Data DTR (H)
Wiring Shields for CDU 2 to FMS 2 RS422 Data DTR (L)
Wiring Shields for FMS 2 to CDU 2 RS422 Data DTR (H)
Wiring Shields for FMS 2 to CDU 2 RS422 Data DTR (L)
Wiring Shields for CDU 2/FMS 2 or FMS 2/CDU 2 RS422 CLK (H)
Wiring Shields for CDU 2/FMS 2 or FMS 2/CDU 2 RS422 CLK (L)

IAC No. 2

Reference Wiring Manual, 31-41-00-01

Ground Studs GS224, GS247, GS431 and Ground Module GM79
Wiring Shields for the +5V IAC CONFIG MOD PWR RTN
Wiring Shields for IAC 2 FMS A429 Bus No.1 (H)
Wiring Shields for IAC 2 FMS A429 Bus No.1 (L)
Wiring Shields for IAC 2 FMS A429 Bus No.2 (H)
Wiring Shields for IAC 2 FMS A429 Bus No.2 (L)
Wiring Shields for CDU 2 to FMS 2 RS422 Data (H)
Wiring Shields for CDU 2 to FMS 2 RS422 Data (L)
Wiring Shields for FMS 2 to CDU 2 RS422 Data (H)
Wiring Shields for FMS 2 to CDU 2 RS422 Data (L)
Wiring Shields for CDU 2 to FMS 2 RS422 Data DTR (H)
Wiring Shields for CDU 2 to FMS 2 RS422 Data DTR (L)
Wiring Shields for FMS 2 to CDU 2 RS422 Data DTR (H)
Wiring Shields for FMS 2 to CDU 2 RS422 Data DTR (L)
Wiring Shields for CDU 2/FMS 2 or FMS 2/CDU 2 RS422 CLK (H)
Wiring Shields for CDU 2/FMS 2 or FMS 2/CDU 2 RS422 CLK (L)

APPENDIX A-3 CDU No. 3/IAC No. 3 BONDING GLOBAL EXPRESS

FMS No. 3

Reference Wiring Manual, 34-61-00-01

Ground Studs GS931, GS1116, GS1117

Wiring Shields for CDU 3 to FMS 3 RS422 Data (H)

Wiring Shields for CDU 3 to FMS 3 RS422 Data (L)

Wiring Shields for FMS 3 to CDU 3 RS422 Data (H)

Wiring Shields for FMS 3 to CDU 3 RS422 Data (L)

Wiring Shields for CDU 3 to FMS 3 RS422 Data DTR (H)

Wiring Shields for CDU 3 to FMS 3 RS422 Data DTR (L)

Wiring Shields for FMS 3 to CDU 3 RS422 Data DTR (H)

Wiring Shields for FMS 3 to CDU 3 RS422 Data DTR (L)

Wiring Shields for CDU 3/FMS 3 or FMS 3/CDU 3 RS422 CLK (H)

Wiring Shields for CDU 3/FMS 3 or FMS 3/CDU 3 RS422 CLK (L)

IAC No. 3

Reference Wiring Manual, 31-41-00-01

Ground Studs GS98, GS451

Wiring Shields for the +5V IAC CONFIG MOD PWR RTN

Wiring Shields for IAC 3 FMS A429 Bus No.1 (H)

Wiring Shields for IAC 3 FMS A429 Bus No.1 (L)

Wiring Shields for IAC 3 FMS A429 Bus No.2 (H)

Wiring Shields for IAC 3 FMS A429 Bus No.2 (L)

Wiring Shields for CDU 3 to FMS 3 RS422 Data (H)

Wiring Shields for CDU 3 to FMS 3 RS422 Data (L)

Wiring Shields for FMS 3 to CDU 3 RS422 Data (H)

Wiring Shields for FMS 3 to CDU 3 RS422 Data (L)

Wiring Shields for CDU 3 to FMS 3 RS422 Data DTR (H)

Wiring Shields for CDU 3 to FMS 3 RS422 Data DTR (L)

Wiring Shields for FMS 3 to CDU 3 RS422 Data DTR (H)

Wiring Shields for FMS 3 to CDU 3 RS422 Data DTR (L)

Wiring Shields for CDU 3/FMS 3 or FMS 3/CDU 3 RS422 CLK (H)

Wiring Shields for CDU 3/FMS 3 or FMS 3/CDU 3 RS422 CLK (L)

APPENDIX A-4 CDU No. 1/IAC No. 1 BONDING GLOBAL EXPRESS XRS

FMS No. 1

Reference Wiring Manual, 34-61-01-1

Ground Studs GS21, GS1114, GS1115

Wiring Shields for CDU 1 to FMS 1 RS422 Data (H)

Wiring Shields for CDU 1 to FMS 1 RS422 Data (L)

Wiring Shields for FMS 1 to CDU 1 RS422 Data (H)

Wiring Shields for FMS 1 to CDU 1 RS422 Data (L)

Wiring Shields for CDU 1 to FMS 1 RS422 Data DTR (H)

Wiring Shields for CDU 1 to FMS 1 RS422 Data DTR (L)

Wiring Shields for FMS 1 to CDU 1 RS422 Data DTR (H)

Wiring Shields for FMS 1 to CDU 1 RS422 Data DTR (L)

Wiring Shields for FMS1/CDU 1 RS422 CLK (H)

Wiring Shields for FMS1/CDU 1 RS422 CLK (L)

IAC No. 1

Reference Wiring Manual, 31-41-04-1

Ground Studs GS221, GS222, GS223 and Ground Module GM77

Wiring Shields for the +5V IAC CONFIG MOD PWR RTN

Wiring Shields for IAC 1 FMS A429 Bus No.1 (H)

Wiring Shields for IAC 1 FMS A429 Bus No.1 (L)

Wiring Shields for IAC 1 FMS A429 Bus No.2 (H)

Wiring Shields for IAC 1 FMS A429 Bus No.2 (L)

Wiring Shields for CDU 1 to FMS 1 RS422 Data (H)

Wiring Shields for CDU 1 to FMS 1 RS422 Data (L)

Wiring Shields for FMS 1 to CDU 1 RS422 Data (H)

Wiring Shields for FMS 1 to CDU 1 RS422 Data (L)

Wiring Shields for CDU 1 to FMS 1 RS422 Data DTR (H)

Wiring Shields for CDU 1 to FMS 1 RS422 Data DTR (L)

Wiring Shields for FMS 1 to CDU 1 RS422 Data DTR (H)

Wiring Shields for FMS 1 to CDU 1 RS422 Data DTR (L)

Wiring Shields for FMS1/CDU 1 RS422 CLK (H)

Wiring Shields for FMS1/CDU 1 RS422 CLK (L)

APPENDIX A-5 CDU No. 2/IAC No. 2 BONDING GLOBAL EXPRESS XRS

FMS No. 2

Reference Wiring Manual, 34-61-02-1

Ground Studs GS23, GS1126, GS1133

Wiring Shields for CDU 2 to FMS 2 RS422 Data (H)

Wiring Shields for CDU 2 to FMS 2 RS422 Data (L)

Wiring Shields for FMS 2 to CDU 2 RS422 Data (H)

Wiring Shields for FMS 2 to CDU 2 RS422 Data (L)

Wiring Shields for CDU 2 to FMS 2 RS422 Data DTR (H)

Wiring Shields for CDU 2 to FMS 2 RS422 Data DTR (L)

Wiring Shields for FMS 2 to CDU 2 RS422 Data DTR (H)

Wiring Shields for FMS 2 to CDU 2 RS422 Data DTR (L)

Wiring Shields for FMS 2/CDU 2 RS422 CLK (H)

Wiring Shields for FMS 2/CDU 2 RS422 CLK (L)

IAC No. 2

Reference Wiring Manual, 31-41-05-1

Ground Studs GS224, GS247, GS431 and Ground Module GM79

Wiring Shields for the +5V IAC CONFIG MOD PWR RTN

Wiring Shields for IAC 2 FMS A429 Bus No.1 (H)

Wiring Shields for IAC 2 FMS A429 Bus No.1 (L)

Wiring Shields for IAC 2 FMS A429 Bus No.2 (H)

Wiring Shields for IAC 2 FMS A429 Bus No.2 (L)

Wiring Shields for CDU 2 to FMS 2 RS422 Data (H)

Wiring Shields for CDU 2 to FMS 2 RS422 Data (L)

Wiring Shields for FMS 2 to CDU 2 RS422 Data (H)

Wiring Shields for FMS 2 to CDU 2 RS422 Data (L)

Wiring Shields for CDU 2 to FMS 2 RS422 Data DTR (H)

Wiring Shields for CDU 2 to FMS 2 RS422 Data DTR (L)

Wiring Shields for FMS 2 to CDU 2 RS422 Data DTR (H)

Wiring Shields for FMS 2 to CDU 2 RS422 Data DTR (L)

Wiring Shields for FMS 2/CDU 2 RS422 CLK (H)

Wiring Shields for FMS 2/CDU 2 RS422 CLK (L)

APPENDIX A-6 CDU No. 3/IAC No. 3 BONDING GLOBAL EXPRESS XRS

FMS No. 3

Reference Wiring Manual, 34-61-03-1

Ground Studs GS931, GS1116, GS1117
Wiring Shields for CDU 3 to FMS 3 RS422 Data (H)
Wiring Shields for CDU 3 to FMS 3 RS422 Data (L)
Wiring Shields for FMS 3 to CDU 3 RS422 Data (H)
Wiring Shields for FMS 3 to CDU 3 RS422 Data (L)
Wiring Shields for CDU 3 to FMS 3 RS422 Data DTR (H)
Wiring Shields for CDU 3 to FMS 3 RS422 Data DTR (L)
Wiring Shields for FMS 3 to CDU 3 RS422 Data DTR (H)
Wiring Shields for FMS 3 to CDU 3 RS422 Data DTR (L)
Wiring Shields for FMS 3/CDU 3 RS422 CLK (H)
Wiring Shields for FMS 3/CDU 3 RS422 CLK (L)

IAC No. 3

Reference Wiring Manual, 31-41-06-1

Ground Studs GS98, GS451
Wiring Shields for the +5V IAC CONFIG MOD PWR RTN
Wiring Shields for IAC 3 FMS A429 Bus No.1 (H)
Wiring Shields for IAC 3 FMS A429 Bus No.1 (L)
Wiring Shields for IAC 3 FMS A429 Bus No.2 (H)
Wiring Shields for IAC 3 FMS A429 Bus No.2 (L)
Wiring Shields for CDU 3 to FMS 3 RS422 Data (H)
Wiring Shields for CDU 3 to FMS 3 RS422 Data (L)
Wiring Shields for FMS 3 to CDU 3 RS422 Data (H)
Wiring Shields for FMS 3 to CDU 3 RS422 Data (L)
Wiring Shields for CDU 3 to FMS 3 RS422 Data DTR (H)
Wiring Shields for CDU 3 to FMS 3 RS422 Data DTR (L)
Wiring Shields for FMS 3 to CDU 3 RS422 Data DTR (H)
Wiring Shields for FMS 3 to CDU 3 RS422 Data DTR (L)
Wiring Shields for FMS 3/CDU 3 RS422 CLK (H)
Wiring Shields for FMS 3/CDU 3 RS422 CLK (L)

APPENDIX A-7 CDU No. 1/IAC No. 1 BONDING GLOBAL 5000

FMS No. 1

Reference Wiring Manual, 34-61-01-1

Ground Studs GS21, GS1114, GS1115

Wiring Shields for CDU 1 to FMS 1 RS422 Data (H)

Wiring Shields for CDU 1 to FMS 1 RS422 Data (L)

Wiring Shields for FMS 1 to CDU 1 RS422 Data (H)

Wiring Shields for FMS 1 to CDU 1 RS422 Data (L)

Wiring Shields for CDU 1 to FMS 1 RS422 Data DTR (H)

Wiring Shields for CDU 1 to FMS 1 RS422 Data DTR (L)

Wiring Shields for FMS 1 to CDU 1 RS422 Data DTR (H)

Wiring Shields for FMS 1 to CDU 1 RS422 Data DTR (L)

Wiring Shields for FMS1/CDU 1 RS422 CLK (H)

Wiring Shields for FMS1/CDU 1 RS422 CLK (L)

IAC No. 1

Reference Wiring Manual, 31-41-04-1

Ground Studs GS221, GS222, GS223 and Ground Module GM77

Wiring Shields for the +5V IAC CONFIG MOD PWR RTN

Wiring Shields for IAC 1 FMS A429 Bus No.1 (H)

Wiring Shields for IAC 1 FMS A429 Bus No.1 (L)

Wiring Shields for IAC 1 FMS A429 Bus No.2 (H)

Wiring Shields for IAC 1 FMS A429 Bus No.2 (L)

Wiring Shields for CDU 1 to FMS 1 RS422 Data (H)

Wiring Shields for CDU 1 to FMS 1 RS422 Data (L)

Wiring Shields for FMS 1 to CDU 1 RS422 Data (H)

Wiring Shields for FMS 1 to CDU 1 RS422 Data (L)

Wiring Shields for CDU 1 to FMS 1 RS422 Data DTR (H)

Wiring Shields for CDU 1 to FMS 1 RS422 Data DTR (L)

Wiring Shields for FMS 1 to CDU 1 RS422 Data DTR (H)

Wiring Shields for FMS 1 to CDU 1 RS422 Data DTR (L)

Wiring Shields for FMS1/CDU 1 RS422 CLK (H)

Wiring Shields for FMS1/CDU 1 RS422 CLK (L)

APPENDIX A-8 CDU No. 2/IAC No. 2 BONDING GLOBAL 5000

FMS No. 2

Reference Wiring Manual, 34-61-02-1, 34-61-02-2

Ground Studs GS23, GS1126, GS1133

Wiring Shields for CDU 2 to FMS 2 RS422 Data (H)

Wiring Shields for CDU 2 to FMS 2 RS422 Data (L)

Wiring Shields for FMS 2 to CDU 2 RS422 Data (H)

Wiring Shields for FMS 2 to CDU 2 RS422 Data (L)

Wiring Shields for CDU 2 to FMS 2 RS422 Data DTR (H)

Wiring Shields for CDU 2 to FMS 2 RS422 Data DTR (L)

Wiring Shields for FMS 2 to CDU 2 RS422 Data DTR (H)

Wiring Shields for FMS 2 to CDU 2 RS422 Data DTR (L)

Wiring Shields for FMS 2/CDU 2 RS422 CLK (H)

Wiring Shields for FMS 2/CDU 2 RS422 CLK (L)

IAC No. 2

Reference Wiring Manual, 31-41-05-1

Ground Studs GS224, GS247, GS431 and Ground Module GM79

Wiring Shields for the +5V IAC CONFIG MOD PWR RTN

Wiring Shields for IAC 2 FMS A429 Bus No.1 (H)

Wiring Shields for IAC 2 FMS A429 Bus No.1 (L)

Wiring Shields for IAC 2 FMS A429 Bus No.2 (H)

Wiring Shields for IAC 2 FMS A429 Bus No.2 (L)

Wiring Shields for CDU 2 to FMS 2 RS422 Data (H)

Wiring Shields for CDU 2 to FMS 2 RS422 Data (L)

Wiring Shields for FMS 2 to CDU 2 RS422 Data (H)

Wiring Shields for FMS 2 to CDU 2 RS422 Data (L)

Wiring Shields for CDU 2 to FMS 2 RS422 Data DTR (H)

Wiring Shields for CDU 2 to FMS 2 RS422 Data DTR (L)

Wiring Shields for FMS 2 to CDU 2 RS422 Data DTR (H)

Wiring Shields for FMS 2 to CDU 2 RS422 Data DTR (L)

Wiring Shields for FMS 2/CDU 2 RS422 CLK (H)

Wiring Shields for FMS 2/CDU 2 RS422 CLK (L)

APPENDIX A-9 CDU No. 3/IAC No. 3 BONDING GLOBAL 5000

FMS No. 3

Reference Wiring Manual, 34-61-03-1

Ground Studs GS931, GS1116, GS1117
Wiring Shields for CDU 3 to FMS 3 RS422 Data (H)
Wiring Shields for CDU 3 to FMS 3 RS422 Data (L)
Wiring Shields for FMS 3 to CDU 3 RS422 Data (H)
Wiring Shields for FMS 3 to CDU 3 RS422 Data (L)
Wiring Shields for CDU 3 to FMS 3 RS422 Data DTR (H)
Wiring Shields for CDU 3 to FMS 3 RS422 Data DTR (L)
Wiring Shields for FMS 3 to CDU 3 RS422 Data DTR (H)
Wiring Shields for FMS 3 to CDU 3 RS422 Data DTR (L)
Wiring Shields for FMS 3/CDU 3 RS422 CLK (H)
Wiring Shields for FMS 3/CDU 3 RS422 CLK (L)

IAC No. 3

Reference Wiring Manual, 31-41-06-1, 31-41-06-2

Ground Studs GS98, GS451
Wiring Shields for the +5V IAC CONFIG MOD PWR RTN
Wiring Shields for IAC 3 FMS A429 Bus No.1 (H)
Wiring Shields for IAC 3 FMS A429 Bus No.1 (L)
Wiring Shields for IAC 3 FMS A429 Bus No.2 (H)
Wiring Shields for IAC 3 FMS A429 Bus No.2 (L)
Wiring Shields for CDU 3 to FMS 3 RS422 Data (H)
Wiring Shields for CDU 3 to FMS 3 RS422 Data (L)
Wiring Shields for FMS 3 to CDU 3 RS422 Data (H)
Wiring Shields for FMS 3 to CDU 3 RS422 Data (L)
Wiring Shields for CDU 3 to FMS 3 RS422 Data DTR (H)
Wiring Shields for CDU 3 to FMS 3 RS422 Data DTR (L)
Wiring Shields for FMS 3 to CDU 3 RS422 Data DTR (H)
Wiring Shields for FMS 3 to CDU 3 RS422 Data DTR (L)
Wiring Shields for FMS 3/CDU 3 RS422 CLK (H)
Wiring Shields for FMS 3/CDU 3 RS422 CLK (L)

APPENDIX B

Wiring manual example

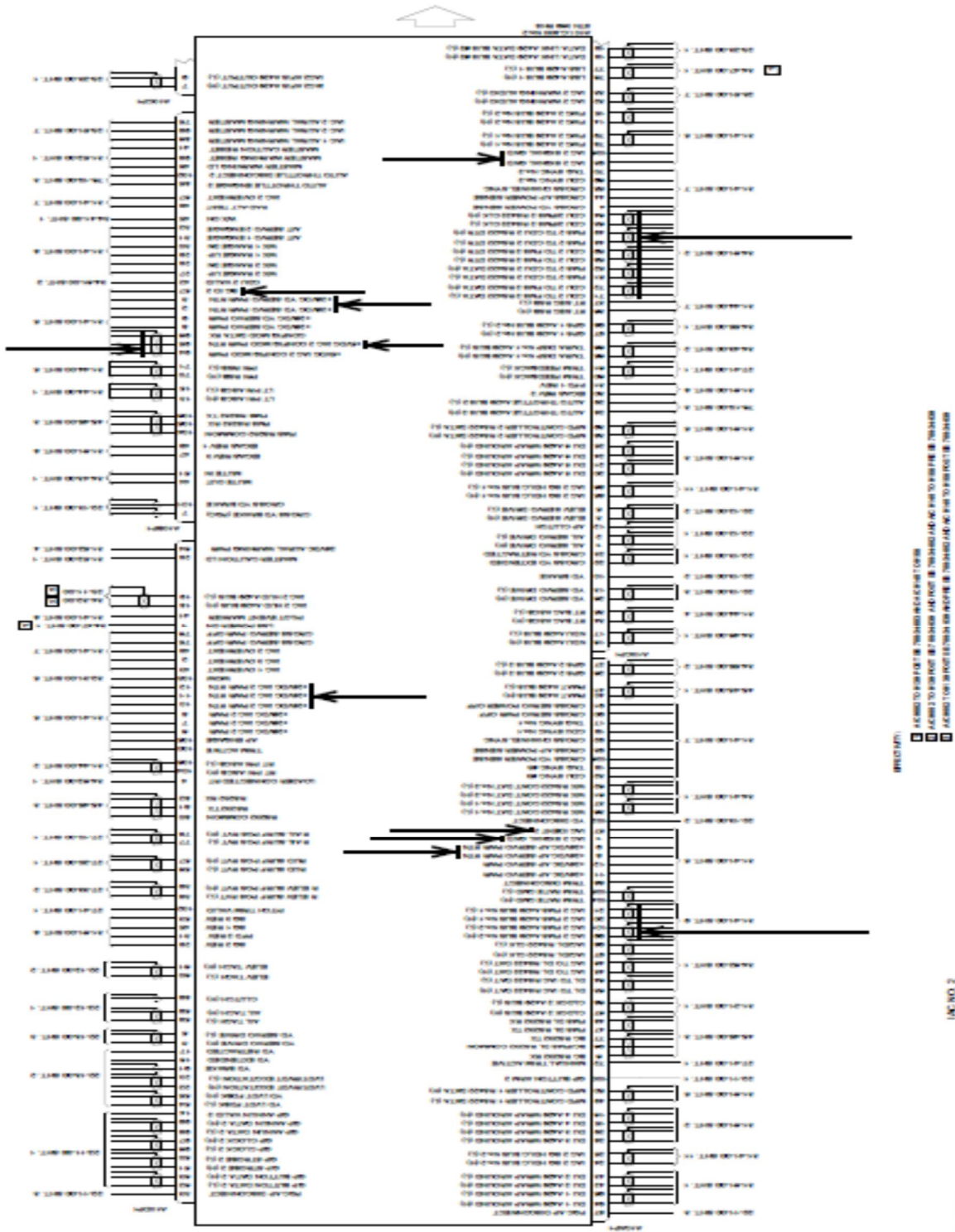
CDU/IAC Improved Bonding Procedure

Examples of the FMS CDU and IAC Wiring Manual are inserted for visual reference only of the affected ground returns, ground studs and shields.

Refer to the proper Wiring Manual in accordance to your specific Global version effectivity.

ADVISORY WIRE

You.
First.



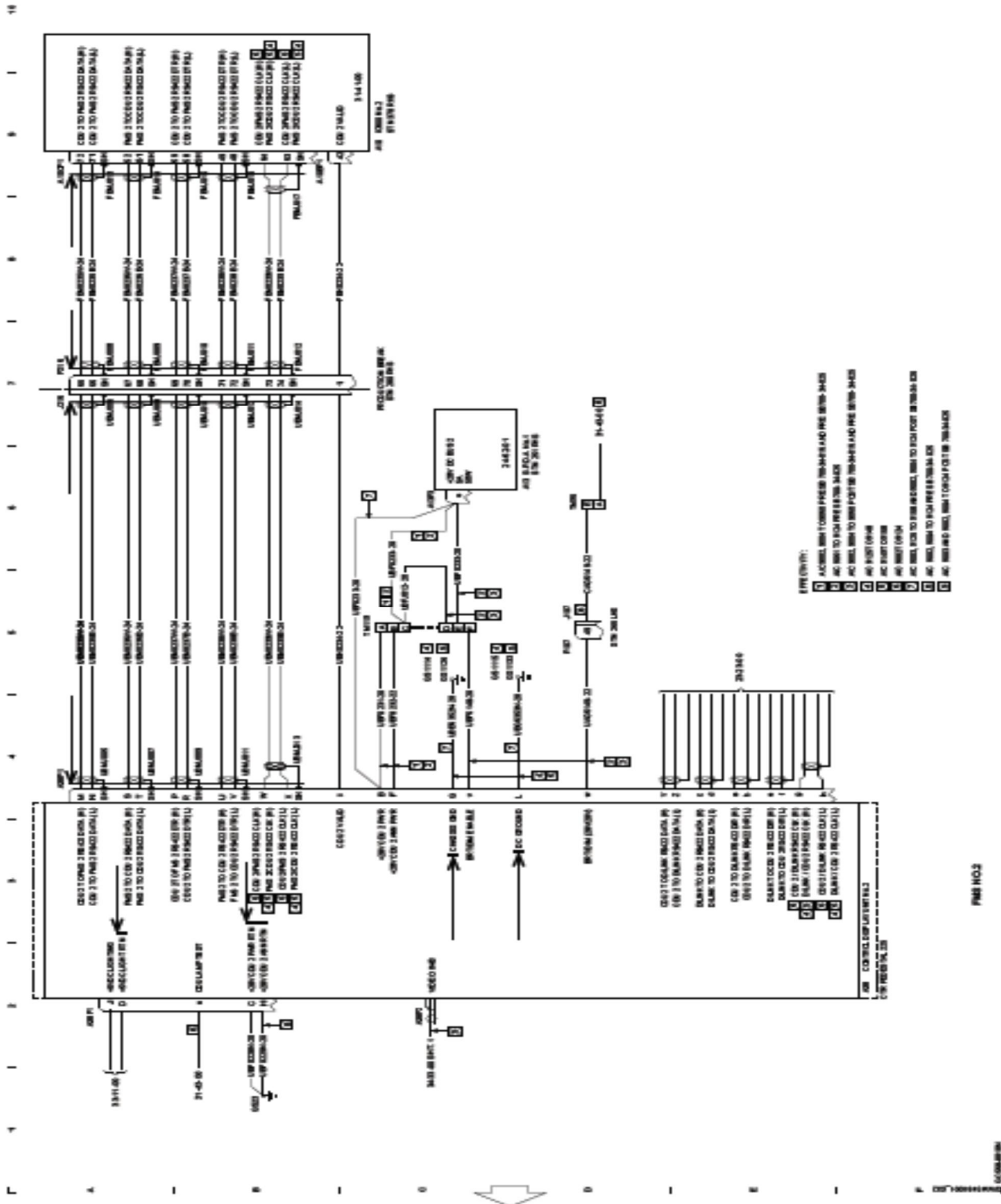
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ENGINE INDICATION AND CREW
ALERTING SYSTEM (EICAS) INTEGRATED
AVIONICS COMPUTER (IAC) SYSTEM

EFFECTIVITY: ALL

ADVISORY WIRE

You.
First.



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EFFECTIVITY: ALL

FLIGHT MANAGEMENT SYSTEM (FMS)

