

Scandinavian Airlines System

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CHAPTER 74 - IGNITION

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Component Location			
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EICAS Message IGN 1 (2) STBY BUS Displayed (Fig. 104)		107	
No Engine Lightoff with IGN 1, IGN 2 and Start Normal with BOTH (Fig. 103)		104	

FAULT CODE	1. LOG BOOK REPORT 2. FAULT ISOLATION REFERENCE
74 03 01 00	1. EICAS msg IGN 1 STBY BUS displayed. (Ref Chapter 31 for fault code diagram). 2. FIM 74-00-00/101, Fig. 104, Block 1
74 03 02 00	1. EICAS msg IGN 2 STBY BUS displayed. (Ref Chapter 31 for fault code diagram). 2. FIM 74-00-00/101, Fig. 104, Block 1
74 03 03 --	1. (01=L, 02=R) eng no lightoff during start with ign selector in (IGN 1, IGN 2). Second start in BOTH was successful. (Ref Chapter 71 for fault code diagram). 2. FIM 74-00-00/101, Fig. 103, Block 1

EFFECTIVITY

ALL

74-FAULT CODE INDEX

ENGINE IGNITION SYSTEM

COMPONENT	FIG. 102 SHT	QTY	ACCESS/AREA	REFERENCE
CABLE - LEFT ENGINE EXCITER-TO-IGNITER PLUG	2	2	416AR, THRUST REVERSER, LEFT ENGINE, COMPRESSOR SECTION	74-21-01
CABLE - RIGHT ENGINE EXCITER-TO-IGNITER PLUG	2	2	426AR, THRUST REVERSER, RIGHT ENGINE, COMPRESSOR SECTION	74-21-01
CIRCUIT BREAKERS -	1		FLT COMPT, P11	
ENGINES IGNITION 1L, C1430		1	11M1	*
ENGINES IGNITION 1R, C1432		1	11M2	*
ENGINES IGNITION 2L, C1431		1	11M28	*
ENGINES IGNITION 2R, C1433		1	11M29	*
ENGINE STBY IGN 1, C1434		1	11D7	*
ENGINE STBY IGN 2, C1435		1	11D8	*
LEFT ENGINE BUS PWR SENSE, C1439		1	11M29	*
RIGHT ENGINE BUS PWR SENSE, C1440		1	11M36	*
COMPUTERS - (31-41-00/101)				
EICAS L, M10181				
EICAS R, M10182				
DIODES -	--		119AL, MAIN EQUIP CTR, E1-2	
SYS L ISOLATION, R333		1		*
SYS R ISOLATION, R334		1		*
EXCITER - LEFT ENGINE IGNITION 1, M7196	2	1	416AR, THRUST REVERSER, LEFT ENGINE, MAIN GEARBOX	74-11-01
EXCITER - LEFT ENGINE IGNITION 2, M7197	2	1	416AR, THRUST REVERSER, LEFT ENGINE, MAIN GEARBOX	74-11-01
EXCITER - RIGHT ENGINE IGNITION 1, M7196	2	1	426AR, THRUST REVERSER, RIGHT ENGINE, MAIN GEARBOX	74-11-01
EXCITER - RIGHT ENGINE IGNITION 2, M7197	2	1	426AR, THRUST REVERSER, RIGHT ENGINE, MAIN GEARBOX	74-11-01
MODULE - (32-09-03/101)				
PSEU, M162				
MODULES - (73-21-00/101)				
L N2 ENG SPEEDCARD, M1093				
R N2 ENG SPEEDCARD, M1092				
MODULE - (80-11-00/101)				
ENG IGN AND START CONTROL, M49				
PLUG - IGNITER	2	2	416AR, THRUST REVERSER, LEFT ENGINE, COMPRESSOR SECTION	74-21-02
PLUG - IGNITER	2	2	426AR, THRUST REVERSER, RIGHT ENGINE, COMPRESSOR SECTION	74-21-02
RELAY - L BUS PWR SENSE 1, K158	1	1	FLIGHT COMPARTMENT, P11, RELAY RACK	*
RELAY - L BUS PWR SENSE 2, K607	1	1	FLIGHT COMPARTMENT, P11, RELAY RACK	*
RELAY - R BUS PWR SENSE 1, K159	1	1	FLIGHT COMPARTMENT, P11, RELAY RACK	*
RELAY - R BUS PWR SENSE 2, K608	1	1	FLIGHT COMPARTMENT, P11, RELAY RACK	*
RELAYS - (30-21-00/101)				
L ENG TAI CONT T/D, K650				
R ENG TAI CONT T/D, K649				
RELAYS - (76-11-00/101)				
L FUEL/IGN CONTROL, K168				
R FUEL/IGN CONTROL, K169				

* SEE THE WDM EQUIPMENT LIST

Engine Ignition System - Component Index
Figure 101

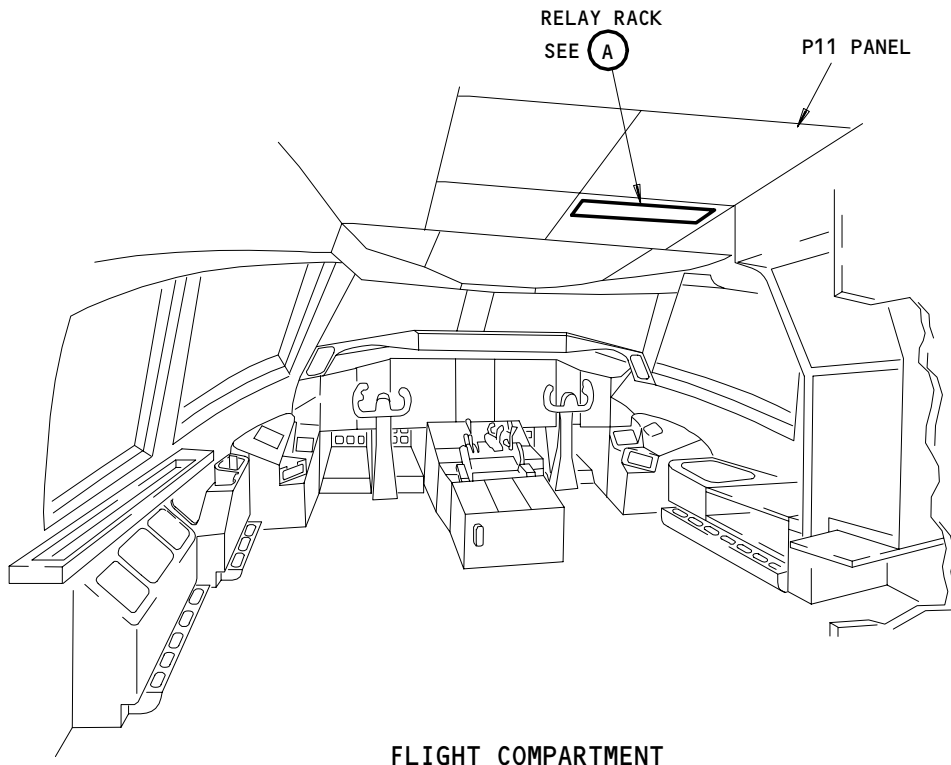
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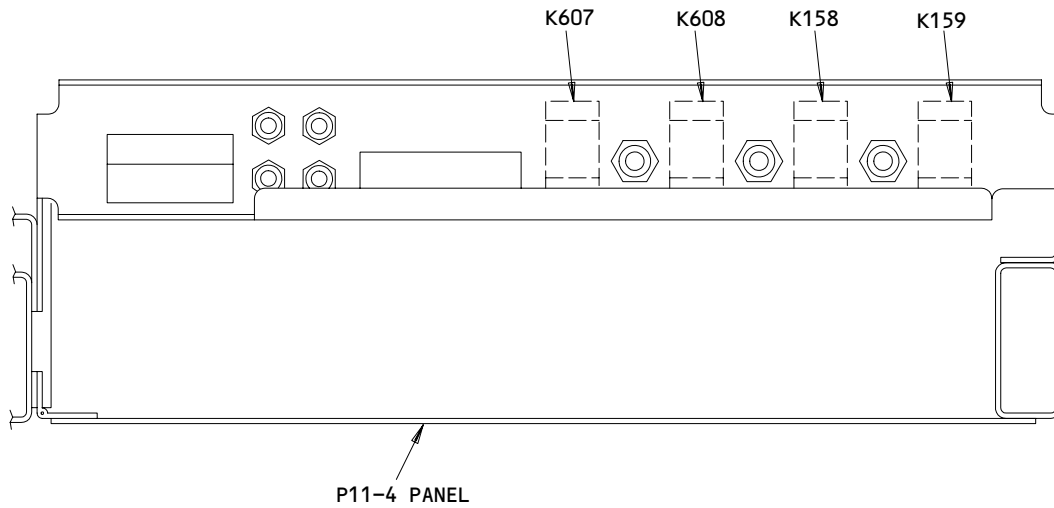
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FLIGHT COMPARTMENT



RELAY RACK
 (A)

Engine Ignition Systems - Component Location
 Figure 102 (Sheet 1)

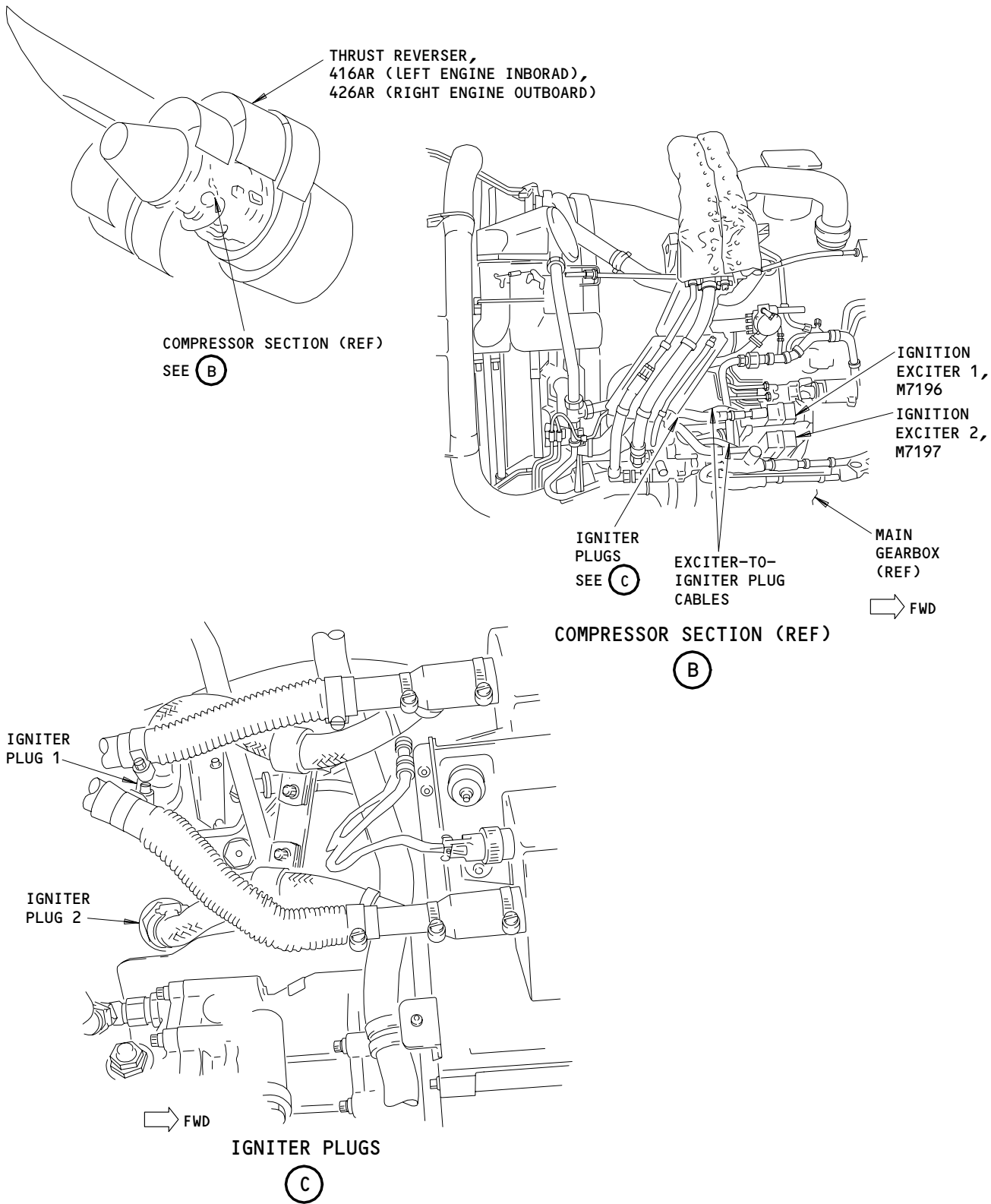
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Engine Ignition Systems - Component Location
 Figure 102 (Sheet 2)

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NO ENGINE LIGHT OFF
WITH "IGN 1, IGN 2"
AND START NORMAL
WITH "BOTH"



PREREQUISITES

MAKE SURE THESE CIRCUIT BREAKERS ARE CLOSED:
 (LEFT ENGINE) 11D7, 11D8, 11M1, 11M28
 (RIGHT ENGINE) 11D7, 11D8, 11M2, 11M29

MAKE SURE THE AIRPLANE IS IN THIS CONFIGURATION:
 ELECTRICAL POWER IS ON (AMM 24-22-00/201)

EQUIPMENT:
 VOLTMETER

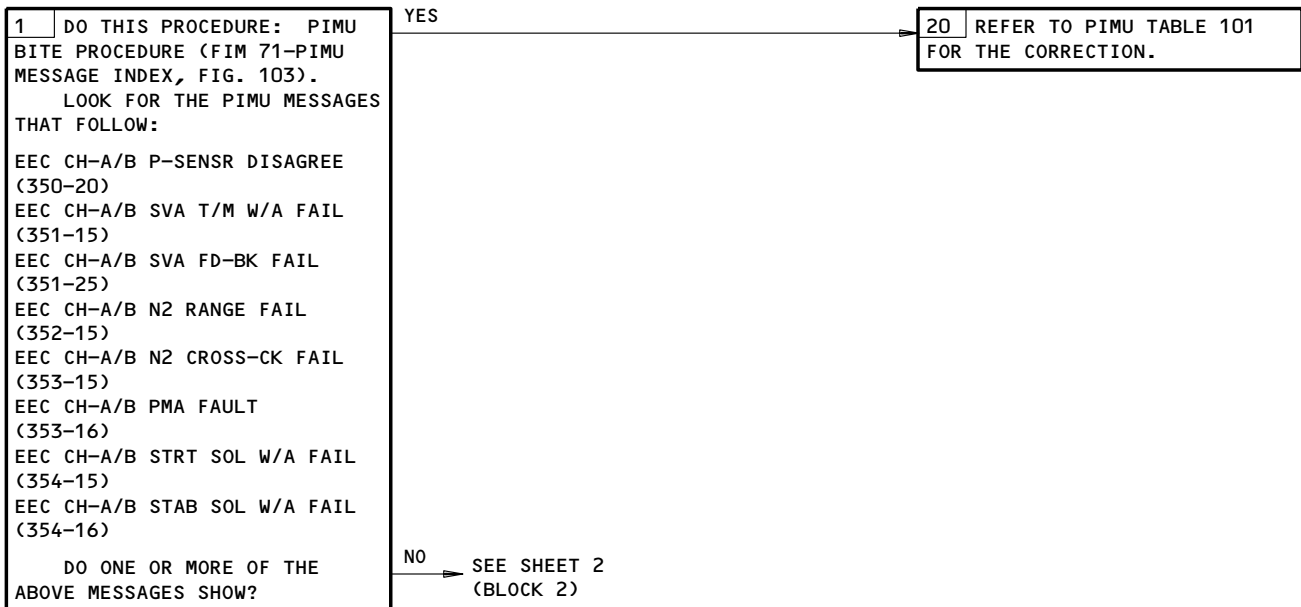
DESCRIPTION:

ENGINE START IS NOT SUCCESSFUL WITH THE IGNITION SELECT SWITCH TO IGN 1 OR IGN 2, BUT IS SUCCESSFUL WITH THE IGNITION SELECT SWITCH TO BOTH. FUEL FLOW WAS AVAILABLE.

POSSIBLE CAUSES:

1. FUEL/IGN CONTROL RELAY IS BAD (WDM 74-31-11, -21).
2. CIRCUIT FROM APPLICABLE ENGINE IGN 1 OR IGN 2 IS BAD (WDM 74-31-11, -21).
3. IGNITION SELECT SWITCH, S3, ON THE ENGINE IGNITION AND START CONTROL MODULE, M49, ON P5 IS BAD (WDM 74-31-11, -21).
4. EXCITER-TO-IGNITER PLUG CABLES ARE BAD (AMM 74-21-01/401).
5. IGNITER PLUG IS DAMAGED (AMM 74-21-02/401).
6. IGN 1 OR IGN 2 EXCITER IS BAD (AMM 74-11-01/401).
7. IGNITER PLUG GUIDE IS GONE (AMM 74-21-02/801).
8. BORESCOPE THE 1ST-STAGE HPT BLADES (AMM 72-00-00/601).
9. IGNITER PLUG IMMERSION DEPTH IS INCORRECT (AMM 74-21-02/601).

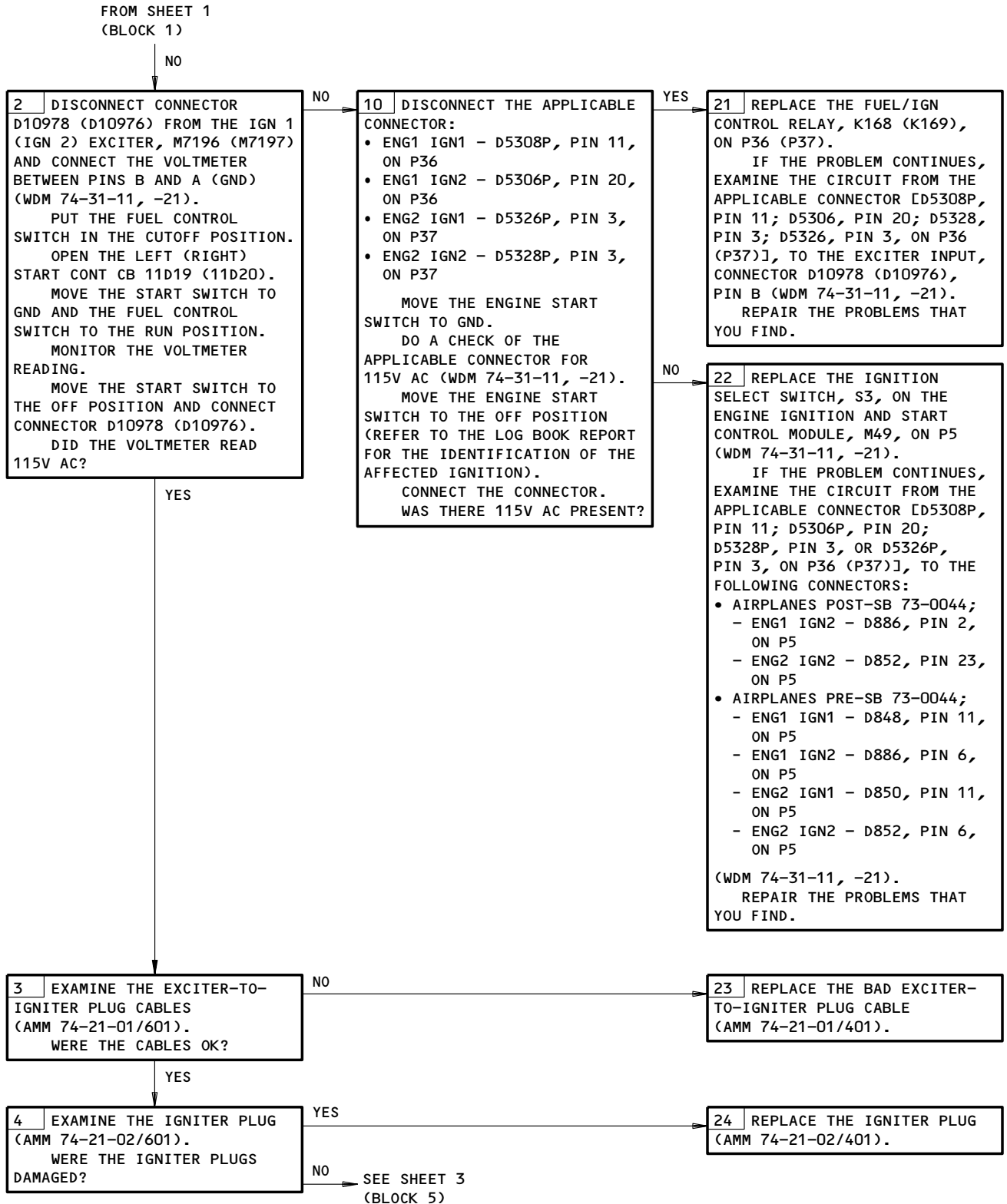
FAULT ISOLATION:



No Engine Lightoff with IGN 1, IGN 2 and Start Normal with BOTH
Figure 103 (Sheet 1)

EFFECTIVITY	ALL
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74-00-00



No Engine Lightoff with IGN 1, IGN 2 and Start Normal with BOTH
Figure 103 (Sheet 2)

EFFECTIVITY

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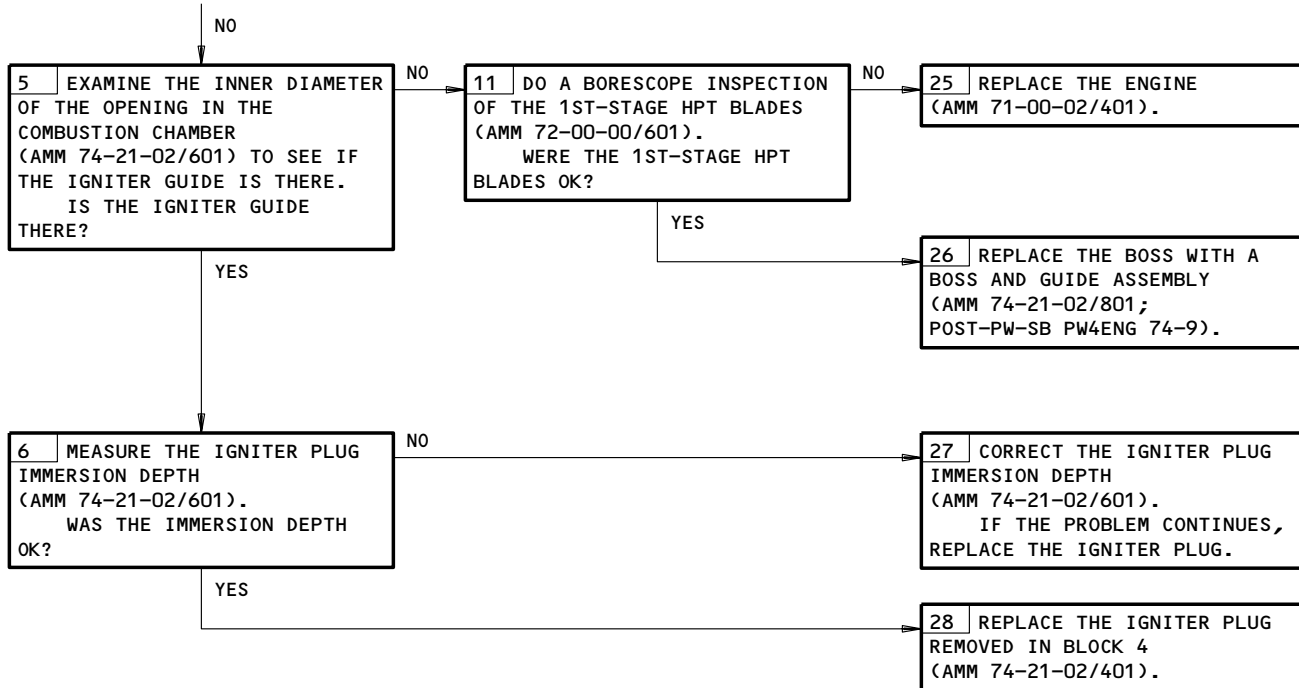
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FROM SHEET 2
(BLOCK 4)



No Engine Lightoff with IGN 1, IGN 2 and Start Normal with BOTH
Figure 103 (Sheet 3)

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74-00-00

EICAS MESSAGE "IGN
1 (2) STBY BUS"
DISPLAYED



PREREQUISITES

MAKE SURE THESE CIRCUIT BREAKERS ARE CLOSED:
(LEFT ENGINE) 11M9
(RIGHT ENGINE) 11M36

MAKE SURE THE AIRPLANE IS IN THIS CONFIGURATION:
ELECTRICAL POWER IS ON (MM 24-22-00/201)

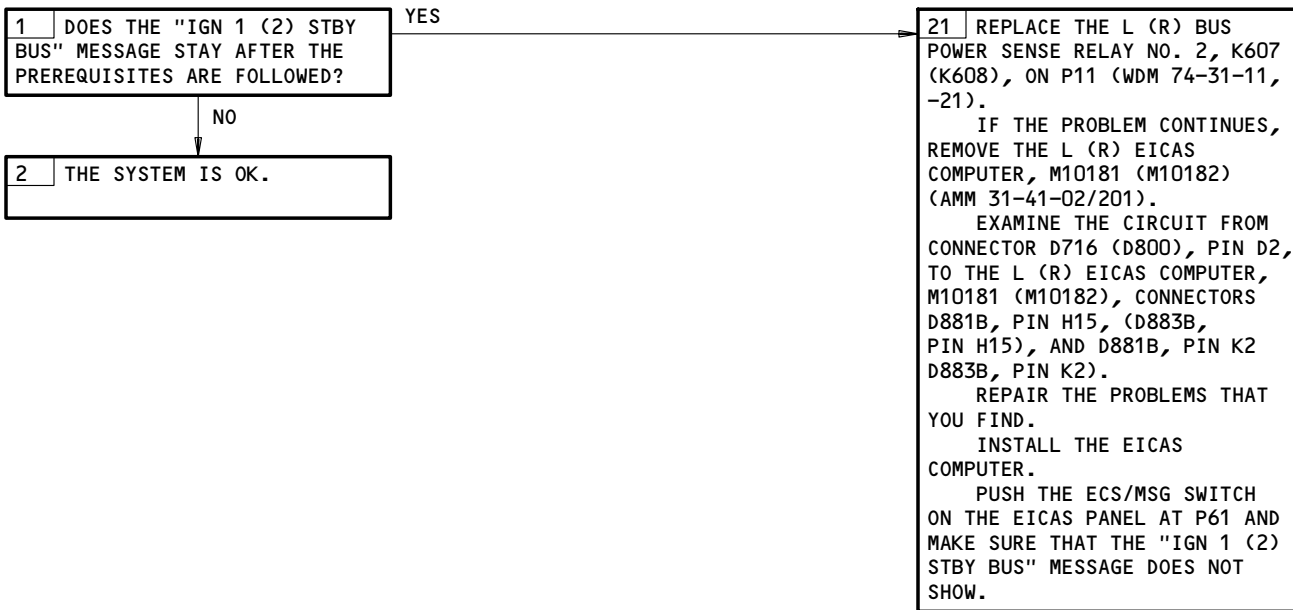
DESCRIPTION:

EICAS SHOWS THAT IGN 1 OR IGN 2 STANDBY BUS IS BEING USED.

POSSIBLE CAUSES:

1. AIRPLANE IS IN A DIFFERENT CONFIGURATION (AMM 24-22-00/201).
2. THE LEFT OR RIGHT BUS POWER SENSE RELAY NO. 2 IS DEFECTIVE (WDM 74-31-11,-21).
3. CIRCUIT BETWEEN CONNECTOR D716 AND THE LEFT OR RIGHT EICAS COMPUTER IS DEFECTIVE (AMM 31-41-02/401).

FAULT ISOLATION:



EICAS Message IGN 1 (2) STBY BUS Displayed
Figure 104

EFFECTIVITY	ALL
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74-00-00