

GPA Group plc

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MAY 20/09

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CHAPTER 74
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CHAPTER 74 - IGNITION

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74-CONTENTS

FAULT CODE	LOG BOOK REPORT	FAULT ISOLATION REFERENCE
74 11 01 __	(01=L,02=R) Engine no EGT rise during start attempt with ign selector in (IGN 1, IGN 2), start in BOTH was normal.	FIM 74-11-00/101, Fig. 103, Block 1
74 11 02 00	EICAS msg L IGN STBY BUS displayed.	FIM 74-11-00/101, Fig. 105, Block 1
74 11 03 00	EICAS msg R IGN STBY BUS displayed.	FIM 74-11-00/101, Fig. 105, Block 1
74 11 04 __	(01=L,02=R) Engine no EGT rise during start attempt with ign selector BOTH and fuel control switch RUN or RICH.	FIM 74-11-00/101, Fig. 104, Block 1
74 11 05 __	(01=L,02=R) Engine slow to light off, ____ sec.	Replace the two igniter plugs (AMM 74-21-02/401).

EFFECTIVITY

ALL

74-FAULT CODE INDEX

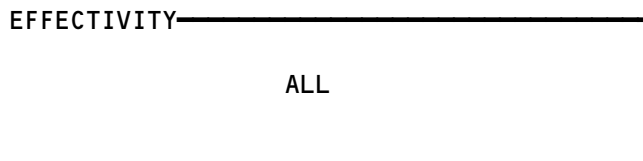
R02

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IGNITION POWER SUPPLY

COMPONENT	FIG. 102 SHT	QTY	ACCESS/AREA	REFERENCE
RELAYS - (31-01-36/101) LEFT AUTO IGN CONT, K10401 LEFT BUS POWER SENSE, K10329 TRANSIENT PRESSURE UNIT, K10550 RELAYS - (31-01-37/101) RIGHT BUS POWER SENSE, K10331 RIGHT ENG AUTO IGN CONT, K10402 TRANSIENT PRESSURE UNIT, K10549 UNIT - IGNITION 1, M10149	1	2	413AL, LEFT ENGINE FAN COWL, 423AL, RIGHT ENGINE FAN COWL	74-11-01
UNIT - IGNITION 2, M10150	1	2	413AL, LEFT ENGINE FAN COWL, 423AL, RIGHT ENGINE FAN COWL	74-11-01

Ignition Power Supply - Component Index
Figure 101



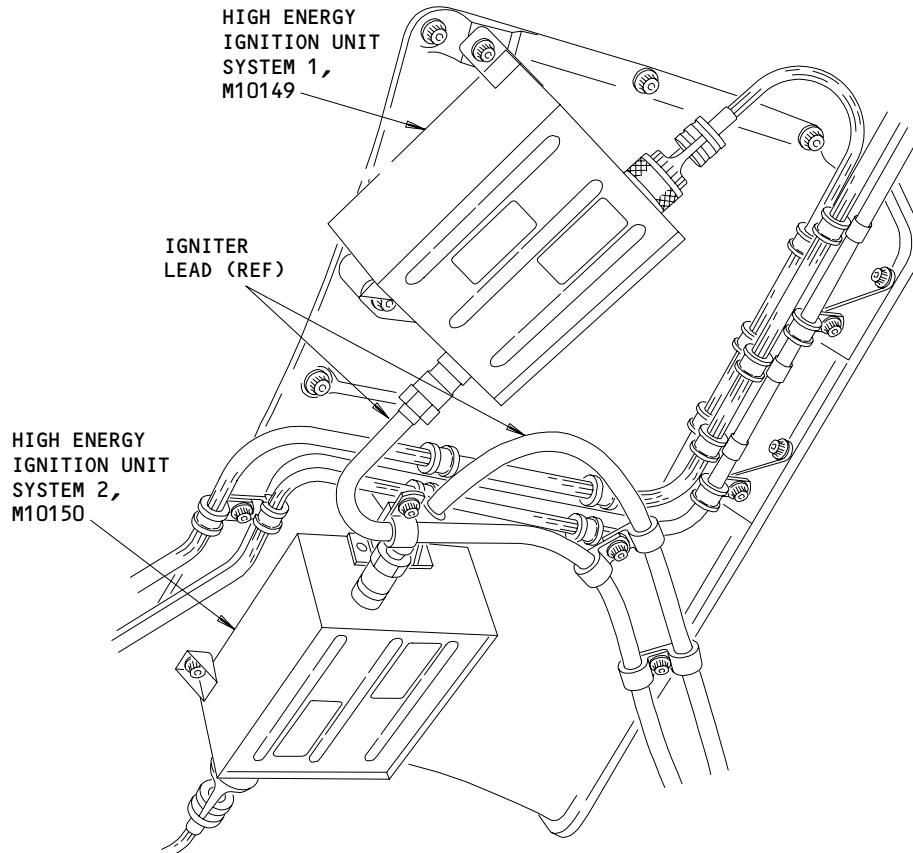
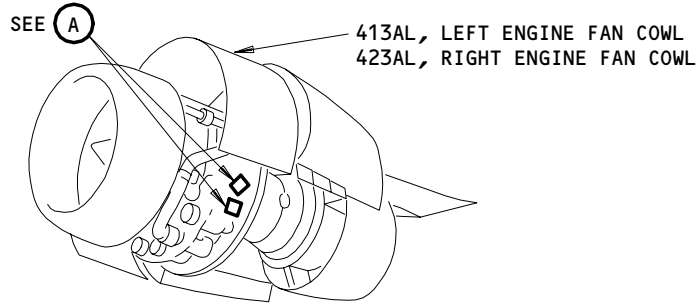
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NO. 1, NO. 2 HIGH ENERGY
IGNITION UNITS, M10149, M10150



HIGH ENERGY IGNITION UNITS,
M10149, M10150

(A)

Ignition Power Supply - Component Location
Figure 102

EFFECTIVITY	
	ALL

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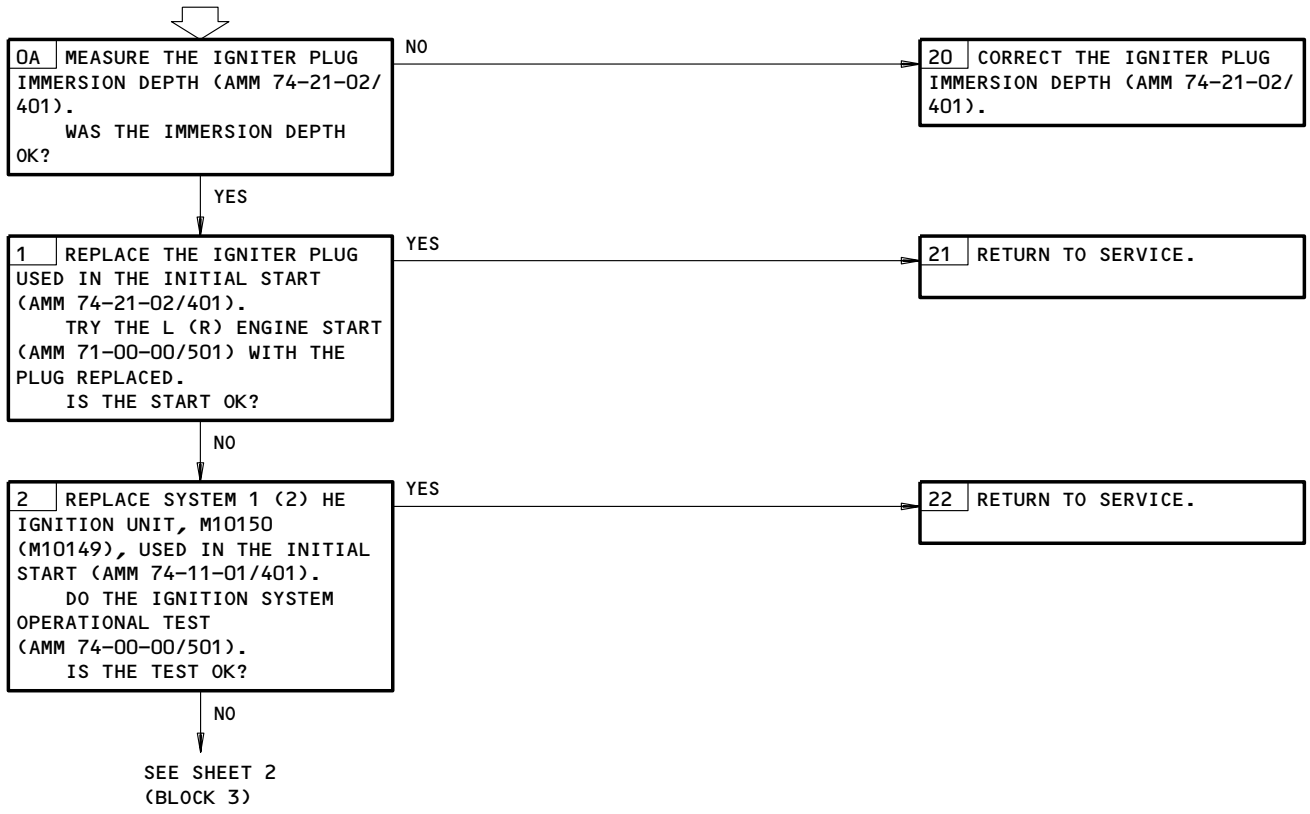
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ENGINE ROTATES BUT DOES NOT LIGHT-OFF. FUEL FLOW WAS INDICATED. LIGHT-OFF ACHIEVED WHEN "ALTERNATIVE" OR "BOTH" IGNITION SYSTEMS SELECTED

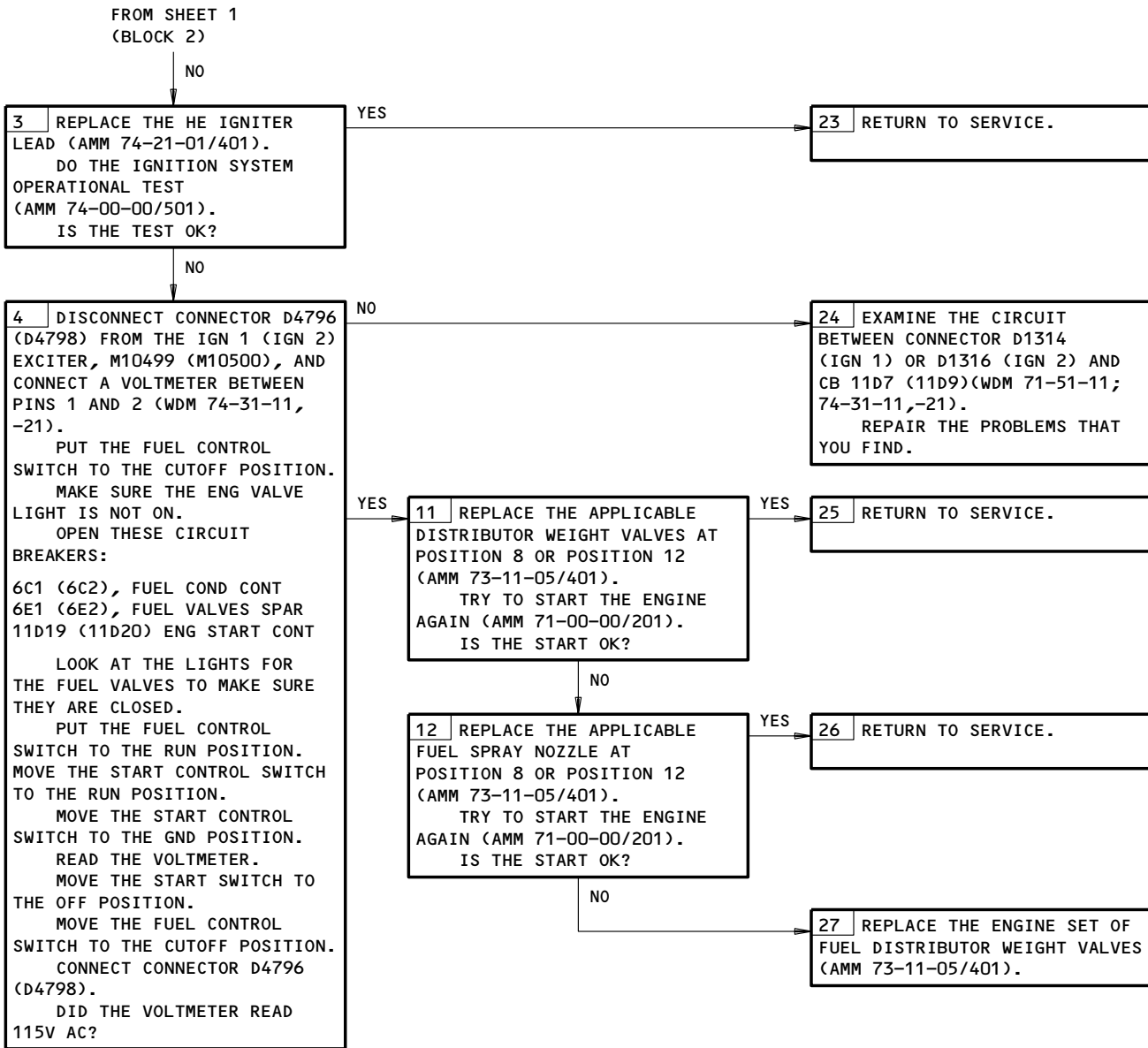
PREREQUISITES
MAKE SURE THESE CIRCUIT BREAKERS ARE OPEN AND ATTACH DO-NOT-CLOSE TAGS:
(LEFT ENGINE) 6C1,6E1,11D7,11D8,11D19,11L1
(RIGHT ENGINE) 6C2,6E2,11D9,11D10,11D20,11L28
MAKE SURE THE AIRPLANE IS IN THIS CONFIGURATION:
ELECTRICAL POWER IS ON (AMM 24-22-00/201)



Engine Rotates but Does Not Light-Off. Fuel Flow was Indicated.
Light-Off Achieved when ALTERNATIVE or BOTH Ignition Systems Selected
Figure 103 (Sheet 1)

EFFECTIVITY	ALL
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Engine Rotates but Does Not Light-Off. Fuel Flow Was Indicated.
 Light-Off Achieved When ALTERNATIVE or BOTH Ignition Systems Selected
 Figure 103 (Sheet 2)

EFFECTIVITY	ALL
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ENGINE WOULD NOT
START, FUEL FLOW
INDICATED, IGNITION
SWITCH SELECTED TO
"BOTH"

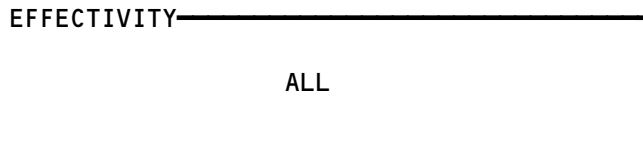


PREREQUISITES

MAKE SURE THESE CIRCUIT BREAKERS ARE OPEN AND ATTACH
DO-NOT-CLOSE TAGS:
(LEFT ENGINE) 11D7,11D9,11L1
(RIGHT ENGINE) 11D8,11D10,11L28

1 REPLACE THE ENGINE START/RAT CONTROL PNL, M10468 (WDM 74-31-11,-21). IF THE PROBLEM CONTINUES,
REPLACE THE TWO IGNITER PLUGS (MM 74-21-02/401).

Engine Would Not Start, Fuel Flow Indicated, Ignition Switch Selected to BOTH
Figure 104



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R01

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EICAS MSG "L (R)
IGN STBY BUS"
DISPLAYED

PREREQUISITES

MAKE SURE THESE CIRCUIT BREAKERS ARE CLOSED:
(LEFT ENGINE) 11D7,11L1
(RIGHT ENGINE) 11D9,11L28

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

1 | DOES THE "L (R) IGN STBY
BUS" MESSAGE REMAIN ON AFTER
THE PREREQUISITES ARE
SATISFIED?

YES

NO

2 | THE SYSTEM IS OK.

21 | REPLACE THE L (R) BUS PWR
SENSE RLY, K10329 (K10331)
(WDM 74-31-11,-21).
IF THE PROBLEM CONTINUES,
REMOVE THE L (R) EICAS
COMPUTER, M10181 (M10182)
(AMM 31-41-02/401).
EXAMINE THE CIRCUIT FROM
CONNECTOR D4306 (D4228),
PIN A2, TO THE EICAS,
CONNECTORS D321B, PIN H15
(D3198, PIN K2).
REPAIR THE PROBLEMS THAT
YOU FIND.
INSTALL THE EICAS
COMPUTER.

EICAS Msg L (R) IGN STBY BUS Displayed
Figure 105

EFFECTIVITY	ALL
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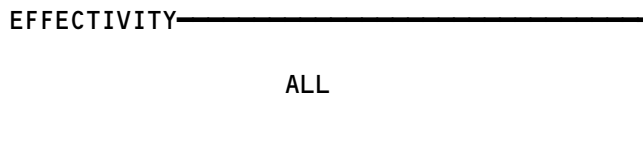
74-11-00

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HIGH TENSION DISTRIBUTION

COMPONENT	FIG. 102 SHT	QTY	ACCESS/AREA	REFERENCE
LEAD - IGNITER	2	4	413AL,423AL,414AR,424AR, FAN COWL	74-21-01,02
PLUG - IGNITER	2	4	415AL,425AL,416AR,426AR, THRUST REVERSER	74-21-01,02

High Tension Distribution - Component Index
Figure 101

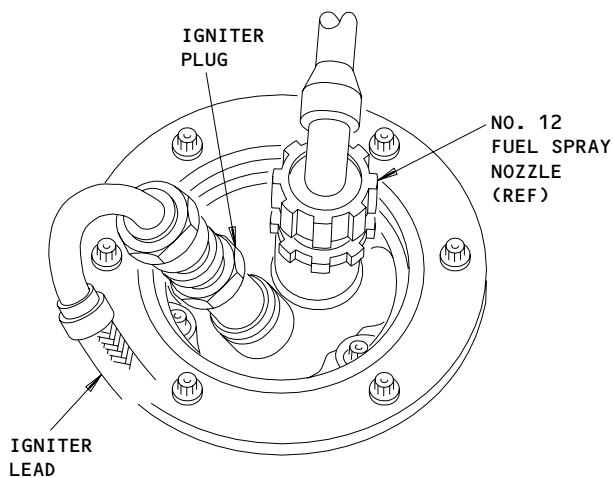
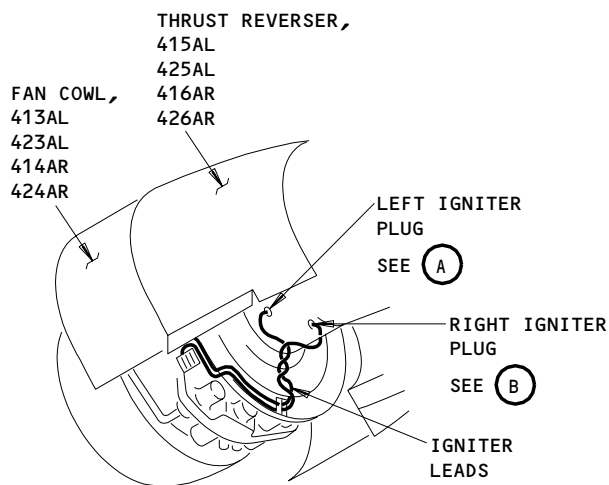


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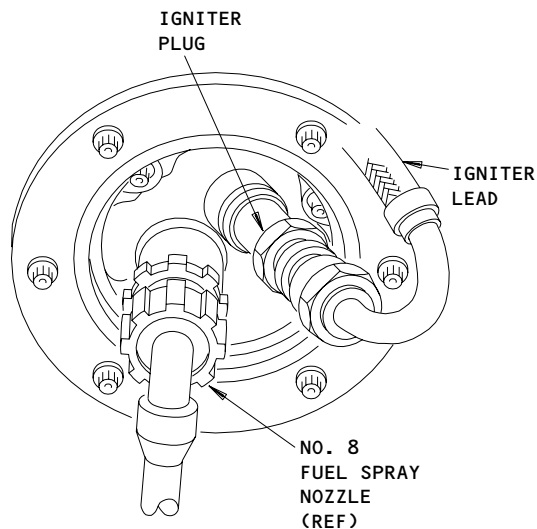
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LEFT IGNITER PLUG

(A)



RIGHT IGNITER PLUG

(B)

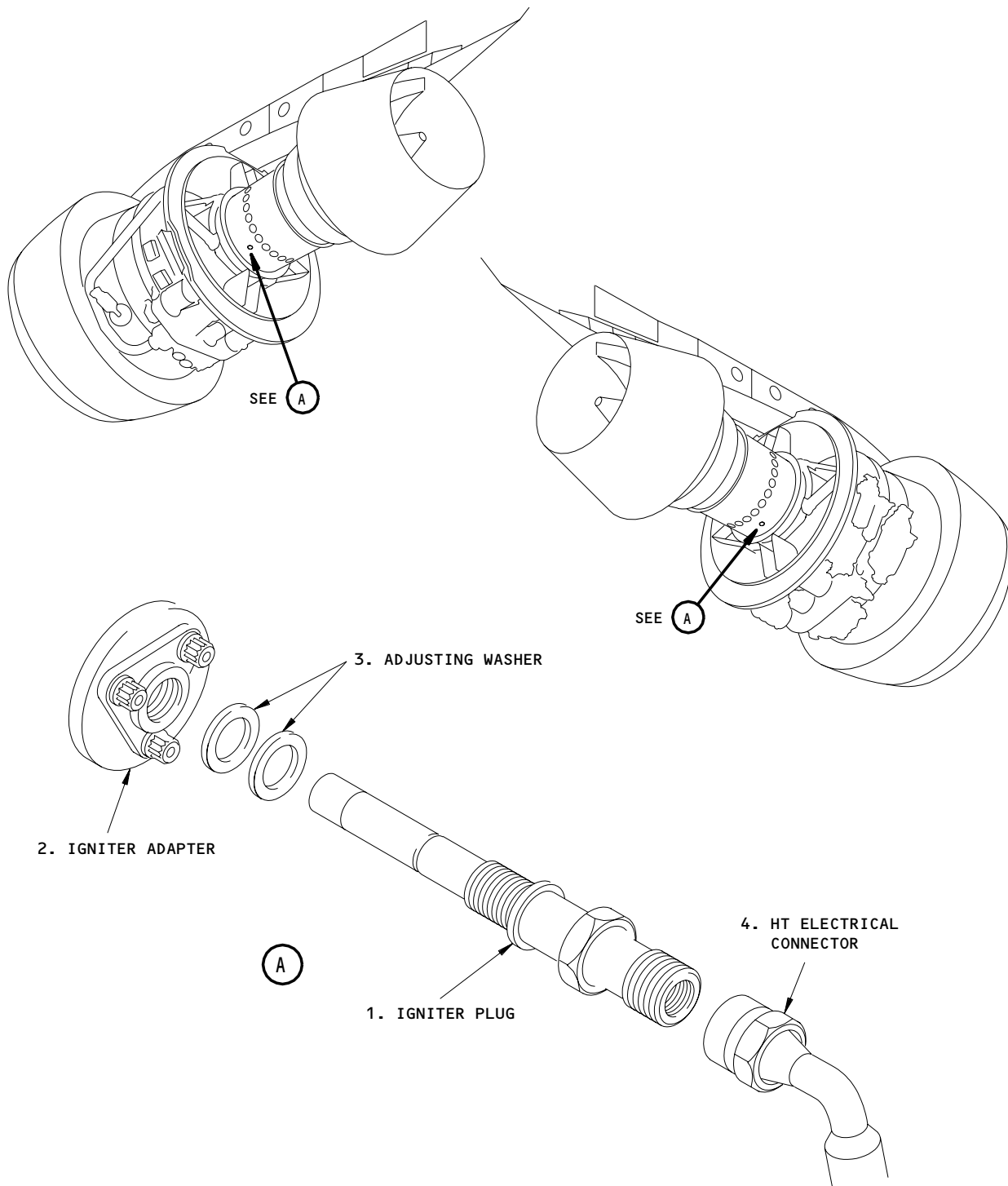
High Tension Distribution - Component Location
Figure 102 (Sheet 1)

EFFECTIVITY
RB211-535C, RB211-535E4 AND
RB211-535E4-B ENGINES PRE-RR-SB 72-C230
(PHASE II COMBUSTOR)

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High Tension Distribution - Component Location
Figure 102 (Sheet 2)

EFFECTIVITY
RB211-535E4 AND RB211-535E4-B ENGINES
POST-RR-SB 72-C230 (PHASE V COMBUSTOR);
RB211-535E4-C ENGINES

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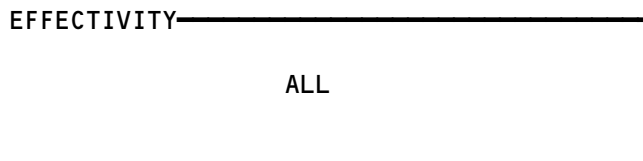
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ENGINE IGNITION CONTROL

COMPONENT	FIG. 102 SHT	QTY	ACCESS/AREA	REFERENCE
CIRCUIT BREAKERS -	--		FLT COMPT, P11	
ENGINE IGN 1 LEFT, C1430		1	11L1	*
ENGINE IGN 1 RIGHT, C1432		1	11L28	*
ENGINE STBY IGN LEFT 1, C1434		1	11D7	*
ENGINE STBY IGN LEFT 2, C1435		1	11D8	*
ENGINE STBY IGN RIGHT 1, C1437		1	11D9	*
ENGINE STBY IGN RIGHT 2, C1438		1	11D10	*
ENGINE START CONT LEFT, C1510		1	11D19	*
ENGINE START CONT RIGHT, C1511		1	11D20	*
COMPUTERS - (31-41-00/101)				
EICAS L, M10181				
EICAS R, M10182				
MODULES - (27-50-01/101)				
FSEU 2, M10332				
L FSEU 1, M10331				
R FSEU 3, M10333				
MODULE - (30-21-00/101)				
WING/ENGINE ANTI-ICE, M10397				
MODULE - ENGINE START/RAM AIR TURBINE CONTROL, M10468	--	1	FLT COMPT, P5	*
SWITCH - IGNITION SELECTOR, S2	--	1	FLT COMPT, P5, ENG START/RAM AIR TURBINE CONTROL MODULE, M10468	

* SEE THE WDM EQUIPMENT LIST

Engine Ignition Control - Component Index
Figure 101



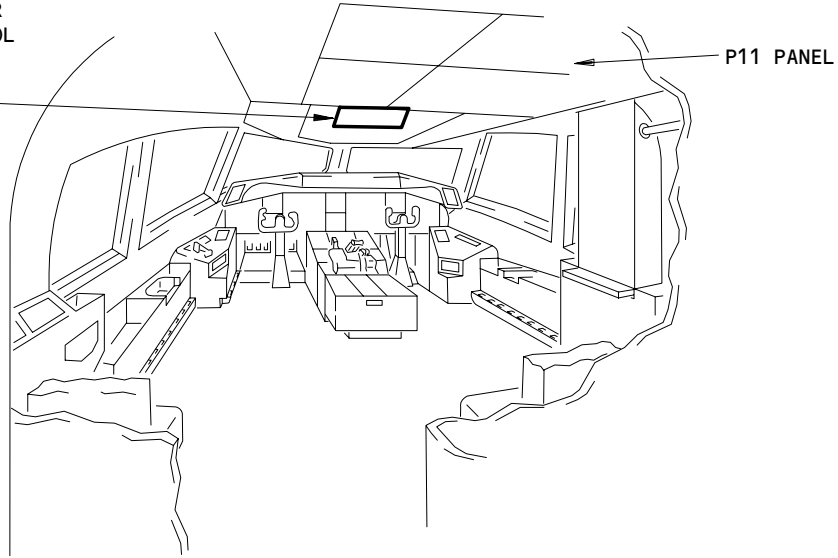
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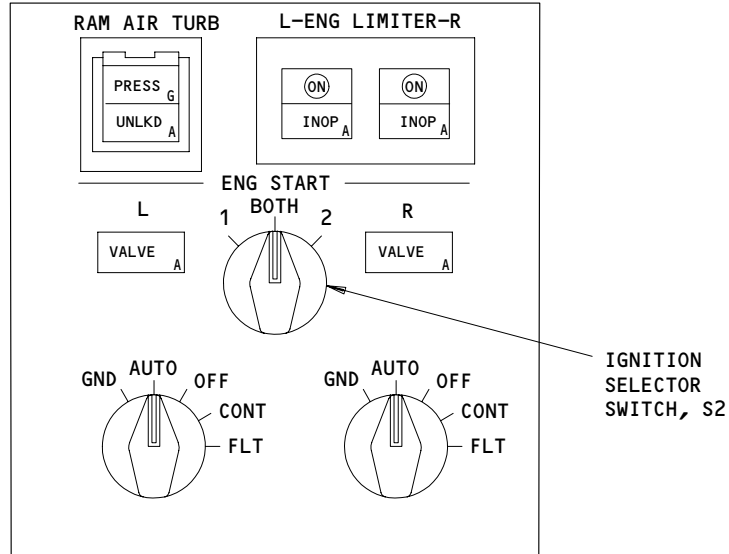
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ENGINE START/RAM AIR
TURBINE (RAT) CONTROL
MODULE, M10468

SEE (A)



FLIGHT COMPARTMENT



ENGINE START/RAM AIR TURBINE (RAT)
CONTROL MODULE, M10468

(A)

Engine Ignition Control - Component Location
Figure 102

EFFECTIVITY	
	ALL

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