ENGINE - FUEL AND CONTROL - REPLACE THE DATA ENTRY PLUG WITH ONE THAT HAS A REVISED WIRING SCHEME - CATEGORY CODE 3 - MOD.ENG-73-0055

1. Planning Information

A. Effectivity

(1) Aircraft: Airbus A320, A321

(2) Engine: (Condition 1) V2527-A5 Engine Serial Nos. V10013, V10016, V10017, V10019, V10020, V10023, which are configured to the EPR Modifier No. 09 and variant No. 30 configuration.

(Condition 2) V2527-A5 Engine Serial No. V10024, V10060 and V10063 which are configured to the EPR Modifier No. 07 and variant No. 30 configuration.

(Condition 3) V2527-A5 Engine Serial Nos. V10012, V10015, V10021, V10027, V10030, V10043 and V10049 which are configured to the EPR Modifier No. 08 and variant No. 30 configuration.

(Condition 4) V2530-A5 Engine Serial No. V10037 which is configured to the EPR Modifier No. 09 and variant No. 10 configuration.

(Condition 5) V2530-A5 Engine Serial No. V10038 which is configured to the EPR Modifier No. 07 and variant No. 10 configuration.

(Condition 6) V2530-A5 Engine Serial No. V10018, V10022 and V10029 which are configured to the EPR Modifier No. 08 and variant No. 10 configuration.

B. Reason

(1) Condition

Data Entry Plug configurations which have three pin jumpers with common grounds for the EPR Modifier can revert to a lower EPR Modifier number (thrust loss) and go undetected in the event of an open ground connection.

(2) Background

It was found that this situation could cause a lower EPR modifier (thrust loss) in certain conditions.

(3) Objective

To change the modifier wiring configuration and ensure that the open ground will fail safe.

(4) Substantiation

Successful analytical review.

(5) Effects of Bulletin on Workshop Procedures:

Removal/Installation	Not affected
Disassembly/Assembly	Not affected
Cleaning	Not affected
Inspection/Check	Not affected
Repair	Not affected
Testing	Not affected

(6) Supplemental Information

None.

C. Description

(1) Change the wiring configuration for Data Entry Plug Assemblies so that it is not possible for a wire to go open and for the condition not be found by the Electronic Engine Control (EEC).

(2) Provide a new six lead jumper for new ground pins in the engine pressure ratio modifier.

(3) To identify Data Entry Plug Assemblies (DEP) with a new part number.

(4) To change the DEP part number on the Engine Identification Plate.

D. Approval

The Part Number Changes and/or part modifications described in Section 2 and 3 of this Service Bulletin have been shown to comply with the applicable Federal Aviation Regulations and are FAA-APPROVED for the Engine Model listed.

E. Compliance

Category Code 3.

Accomplish within 750 flight hours.

Manpower

Estimated Manhours to incorporate the full intent of this Bulletin:

Venue		Estimated Manhours
(1) In service (Condition 1)	TOTAL	45 minutes
(a) To gain access		9 minutes
(b) Remove and rework the data entry plug assembly		18 minutes
(c) Identify and install the data entry plug assembly		5 minutes
(d) Change the Data Entry Plug part number on the engine identification plate		2 minutes
(e) Assemble and connect the Data Entry Plug Assembly		1 minute
(f) To return to a flyable status ..		10 minutes
(2) In service (Condition 2)	TOTAL	40 minutes
(a) To gain access		9 minutes
(b) Remove and rework the data entry plug assembly		13 minutes
(c) Identify and install the data entry plug assembly		5 minutes
(d) Change the Data Entry Plug part number on the engine identification plate		2 minutes
(e) Assemble and connect the Data Entry Plug Assembly		1 minute
(f) To return to a flyable status ..		10 minutes
(3) In service (Condition 3)	TOTAL	23 minutes
(a) To gain access		9 minutes
(b) Identify the data entry plug assembly to the new part number		2 minutes

(c) Change the data entry plug part number on the engine identification plate .. .. .. 2 minutes

(d) To return to a flyable status .. 10 minutes

(4) In service (Condition 4) TOTAL 45 minutes

(a) to gain access .. .. 9 minutes

(b) Remove and rework the data entry plug assembly .. .. 18 minutes

(c) Identify and install the data entry plug assembly .. .. 5 minutes

(d) Change the Data Entry Plug part number on the engine identification plate .. .. .. 2 minutes

(e) Assemble and connect the Data entry Plug Assembly .. .. 1 minute

(f) To return to a flyable status .. 10 minutes

(5) In service (Condition 5) TOTAL 40 minutes

(a) To gain access .. .. 9 minutes

(b) Remove and rework the data entry plug assembly .. .. 13 minutes

(c) Identify and install the data entry plug assembly .. .. 5 minutes

(d) Change the Data Entry Plug part number on the engine identification plate .. .. 2 minutes

(e) Assemble and connect the Data Entry Plug Assembly .. .. 1 minute

(f) To return to a flyable status .. 10 minutes

(6) In service (Condition 6) TOTAL 23 minutes

(a) To gain access .. .. 9 minutes

(b) Identify the data entry plug assembly to the new part number .. .. 2 minutes

(c) Change the data entry plug part number on the engine identification plate .. .. .. 2 minutes

(d) To return to a flyable status .. 10 minutes

G. Material - Price and Availability

(1) Modification Kit not required.

(2) See "Material Information" section for prices and availability of future spares.

H. Tooling - Price and Availability

The following tools are required to accomplish Sub-division 2 of this Service Bulletin:

Tool No.	Qty	Description	Function	Avail.
IAE 1J12018	1	EEC Harness Wrench	Torque Data Entry Plug	(1)

Tool No.	Qty	Description	Function	Avail.
IAE 1P16271	1	DEP Holding Fixture	Hold Data Entry Plug	(1)
IAE 2P16369	1	DEP Tester Box	Check Data Entry Plug Wiring	(1)

Standard Tools:

The following standard tools are required to accomplish Sub-division 2 of this Service Bulletin:

MS27495R20	1	Contact Removal Tool	Remove Contacts	-
MS27495A20	1	Contact Installation Tool	Install Contacts	-
TG-70	1	Strap Wrench (or Equivalent)	Remove the backshell	(2)

(1) Indicates that Tool Design Aperture Cards are currently available from IAE.

(2) The tools can be purchased from the following supplier:

Daniels Manufacturing Corporation
6103 Anno Ave.
Orlando, FL USA 3280-5033

I. Weight and Balance

(1) Weight change .. .. .. None

(2) Moment arm .. .. .. No effect

(3) Datum .. .. Engine front mount centerline (Powerplant station P.P.S.100)

J. Electrical Load Data

This Service Bulletin has no effect on the aircraft electrical load.

K. Reference

(1) Internal Reference No.

93VZ013

93VC510

93VC510A

(2) Other References

V2500 Aircraft Maintenance Manual

V2500 Engine Illustrated Parts Catalog.

V2500 Standard Practices Manual

L. Other Publications Affected

None.

2. Accomplishment Instructions

A. Prerequisite Instructions

(1) On the aircraft panel 115VU, put a warning notice to tell the persons not to start the engine.

(2) On the aircraft panel 50VU, make sure that the ON legend on the EDG FADEC GND PWR push button switch is OFF and install a warning notice.

(3) Open the Fan Cowls by the use of the approved procedure in Reference (1), Chapter/Section 71-13-00, (TASK 71-13-00-010-010).

NOTE: It is highly recommended that you make a record of the Data Entry Plug wire configuration after DEP removal. This will keep the related EPR Modifier, Engine Serial Number, Variant Number and applicable wire combinations available for use later. If a connector is damaged and a new connector must be wired this information is necessary.

V2500-A5 jumpered wiring configurations may also be determined by the information given in Paragraph B.

B. V2500-A5 Wire Configurations

(1) The pin hole letters in the DEP connector which are jumpered to input Engine Serial Numbers are shown below. DEP connector pin holes with letters in the lower line are jumpered to pin holes with letters in the upper line.

Upper Line	W	V	k	s	i	U	t	K	d	p	n	J	H
Lower Line	j*	j*	j*	j*	h*	h*	h*	c*	c*	c*	c*	b*	b*
	-	-	-	-	--	--	--	---	---	---	----	----	----
NV	1	2	4	8	16	32	64	128	256	512	1024	2048	4096

NOTE: *In some cases connector holes h and b are used in VARIANT NO. wiring and connector holes c and j are used in EPR Modifier wiring. Determine which holes are to be connected for ENGINE SERIAL NUMBER, VARIANT NO. and EPR MODIFIER before you select the required jumpers.

(2) A combination is a pin hole letter from the lower line and a pin hole letter directly above it from the upper line.

Examples: J and W, c and p are combinations. The term combination is used in the procedure given below.

(3) A Numerical Value (NV) is assigned to each combination. This NV is used in the procedure given below.

Jumper Pin Selection Procedure (See Examples 1, 2 and 3)

Step 1 Get the engine serial number. This will be a number from 10,001 to 18,190 (utilization of the entire lower line is an invalid state).

Step 2 Use a value of 10,000 and add to it the largest NV listed above that is not more than the engine serial number.

Step 3 Make a record of the combination of two pin hole letters that match this NV.

Step 4 Subtract this NV from the engine serial number (or the remainder when you do this step again).

Step 5 Choose the highest NV that is not more than the remainder from Step 4.

Step 6 Make a record of the combination of two pin hole letters that match this NV.

Step 7 Do Steps 4, 5 and 6 as necessary, until the remainder exactly matches an NV.

Step 8 Make a record of the combination of two pin hole letters that exactly match the final NV.

The combinations recorded from the above steps are the pin holes that must be jumpered for an Engine Serial Number.

NOTE: Do not use engine serial numbers V10000 (all open connections) and V18191 (complete upper and lower line are closed connections).

For DEP Part Number 2A3106 (CL01):

VARIANT No.	ENG. RATING	THRUST LEVEL	BUMP No.	CHANNEL A	CHANNEL B	JUMPER TYPE	No. REQ.
10	3	30K	00	Jump b* to F, Y to C and Z* to D	Jump h* to S, N to q and g* to f	2 pin	6
30	6	27K	00	Jump b* to F, Y to B, Y to C, Y to X and Z* to D	Jump h* to S, N to e, N to q, N to M and g* to f	4 pin 2 pin	2 4

NOTE: *In some cases, connector holes b and h are used in engine serial number wiring and connector holes g and Z are used in the EPR modifier wiring. Determine which holes are to be connected for engine serial number, EPR modifier and variant number wiring before you select the required jumpers.

For DEP Part Number 2A3106 (CL01):

EPR Modifier	Channel A	Channel B	Jumper	Jumper Qty
04	No jumpers	Jumper g to r	2 pin*	1
05	Jumper Z to a	No jumper	2 pin*	1
06	Jumper Z to m	No jumper	2 pin*	1
07	Jumper Z to m and c to a	Jumper g to r	2 pin*	3
08	No jumpers	Jumper g to P	2 pin*	1
09	Jumper Z to a	Jumper g to r and j to P	2 pin*	3
10	Jumper Z to m	Jumper g to r and j to P	2 pin*	3
11	Jumper Z to m and c to a	Jumper g to P	2 pin*	3

NOTE: *In some cases, connector holes g and Z are used in the variant number wiring and connector holes c and j are used in Engine Serial Number Wiring. Determine which holes are to be connected for the engine serial number, EPR modifier and Variant number (if applicable) before you select the required jumpers.

C. Rework Instructions - Condition 1 (For V2500-A5 Engine Serial Numbers V10013, V10016, V10017, V10019, V10020, V10023 which are configured to the EPR modifier No. 09 configuration and variant number 30:

(1) Disconnect the Data Entry Plug Assembly (DEP) from the Electronic Engine Control (EEC). Refer to Figure 1.

(a) Disconnect the DEP from the Electronic Engine Control (EEC) connector. Use the IAE 1J12018 EEC Harness Wrench (1 off).

NOTE: Do not remove the Data Entry Plug Connecting Chain/Cable from Flange FC to do the modification.

(b) Put a special plastic cap on the EEC connector. This will protect it from unwanted fluids and materials.

(2) Remove the Backshell from the DEP connector as follows:

(a) Remove and discard the lockwire that safeties the nut to the backshell.

(b) Install the DEP onto the IAE 1P16271 holding fixture (1 off) by Figure 2 and proceed as follows:

1 Align the main key on the DEP connector with the holding fixture main key-way

2 Use light hand pressure to engage the DEP with the holding fixture and tighten it with your hand.

CAUTION: MAKE SURE THE BACKSHELL DOES NOT TURN WHEN YOU LOOSEN THE BACKSHELL NUT. IF THE BACKSHELL TURNS DAMAGE TO THE JUMPERS CAN OCCUR.

3 Remove the backshell from the DEP connector. Use a strap wrench TG-70 or equivalent, to loosen the backshell nut.

(c) Remove the anti-vibration rubber.

(d) Attach a metal tag, or equivalent, which has the engine serial number on it, to the DEP connector.

(3) Make a record of the the DEP connector wiring configuration.

(a) Install the DEP connector into the 2P16369 Tester Box (1 off). See Figures 3 and 4.

NOTE: Before you make a record of the jumper wire configuration of the DEP connector, push the light test switch to ensure all the lettered indicator lights go on and work correctly.

(b) With each selection of the selector switch, push the DEP connector test switch and record the jumpered wire combination on the work sheet. See Figures 3 and 4.

Example: If the selector switch is on the letter j and lights W, V and k are on, the combination j-W-V-k is a 4 pin jumper.

(4) Do a modification to 2A2309 Data Entry Plug Assembly (Reference (2), Chapter/Section 73-22-35, Fig/Item No.01-100) and identify as follows:

Procedure	Supplementary Information
(a) Locate the serial number jumper wire with the letter j. This can be a 2, 3, or 4 pin jumper.	Refer to Figure 5, Example 1.
(b) Remove the serial number jumper and the four pin EPR Modifier/ variant jumper g-r-P-f as follows:	Refer to Figure 6.
1 Remove the jumpered wire contact pins.	
2 Use the MS27495R20 Contact Remove Tool (1 off), or equivalent and a small piece of straight wire, such as a straightened paper clip.	
3 Discard the jumper.	
(c) Install the new serial number/ EPR modifier jumper.	Refer to Figure 7.

NOTE: The serial number/EPR modifier jumper will be configured exactly the same as the old serial number jumper, but with the additional letter pin P.

IE: If the old jumper was a three pin jumper, the new jumper will be a four pin jumper using the same wiring configuration as the old jumper plus the letter P.

1 Hold the connector with your hand.

2 Make a selection of the correct jumper (3, 4 or 5).

3 Push the jumper ends into the connector holes you opened before.

a Use your hands

b Fill all the holes you opened before, and one additional hole P.

CAUTION: DO NOT APPLY STRONG FORCE TO THE INSERTION TOOL WHEN YOU PUSH THE JUMPER. THIS COULD CAUSE DAMAGE TO THE COLLET.

4 Push the contacts into the connector until the shoulder of the contact is locked by the collet.

a Use the MS27495A20 Insertion Tool (1 off).

b Push each contact a little at a time.

NOTE: When the collet locks the contact, the collet makes a light click sound.

5 Remove the insertion tool.

6 Pull back lightly on the jumper end to make sure the contact is locked in the collet.

NOTE: The contact is correctly locked if the jumper does not move rearward.

(d) Install a new 3 pin (g-r-f) EPR modifier/Variant jumper.

1 Hold the connector with your hand.

2 Use a new 2A2304 (3 pin) jumper.

3 Push each of the three jumper leads into the connector holes with the MS27495A20 Insertion Tool (1 off).

CAUTION: DO NOT APPLY STRONG FORCE TO THE INSERTION TOOL WHEN YOU PUSH THE JUMPER. THIS COULD CAUSE DAMAGE TO THE COLLET.

4 Use the insertion tool to push the contacts into the holes in the connector, until the shoulder of each contact becomes locked by the applicable collet.

5 Remove the insertion tool.

6 Pull back lightly on the jumper end to make sure the contact is locked in the collet.

NOTE: The contact is correctly locked if the jumper does not move rearward.

(e) Do a check of the new DEP wiring configuration.

1 Make a record of the configuration change accomplished in steps (c) and (d) on a new worksheet.

2 Do a test of the DEP connector using the IAE 2P16369 Tester Box (1 off).

3 Compare the results of the test with the worksheet.

D. Assembly Instructions

(1) Install the backshell to the connector.

NOTE: Make sure that sealing plugs are installed into all open holes in the connector.

(2) Install the connector on the IAE 1P16271 Holding Fixture (1 off) as follows:

(a) Align the main key on the DEP connector with the holding fixture main key way.

(b) Use light hand pressure to engage the connector with the holding fixture and tighten it with your hand.

(3) align the back ends of the the jumpers with the holes in the anti-vibration rubber and install the backshell onto the connector.

CAUTION: MAKE SURE THE BACKSHELL DOES NOT TURN WHEN YOU TIGHTEN THE BACKSHELL NUT. IF THE BACKSHELL TURNS, DAMAGE TO THE JUMPER WIRE CAN OCCUR.

(4) Engage the nut of the backshell with the threads on the connector. Torque the nut to 53 to 58 lb-in (5,988 to 6,553 Nm). Use the TG-70 Strap Wrench (1 off), or equivalent.

(5) Safety the nut with CoMat 02-138 Lockwire.

(6) Identify the DEP backshell with the new part number by the procedure given in Reference (3), Chapter/Section 70-09-00, Marking of Parts.

NOTE: If there is no area on the backshell to make marks, you will have to use a new backshell.

(a) Write the new part number 2A3106 CL01 and cross out the old part number 2A2309 CL3. See Figure 8.

(b) Use the vibration peen method.

(7) Identify the Engine Identification Plate with the new DEP Assembly part number by the procedure given in Reference (3), Chapter/Section 70-09-00 Marking of Parts.

NOTE: If there is no area on the Engine Identification Plate to make marks, you will have to use a new Engine Identification Plate. Contact your IAE representative to obtain a new Engine Identification Plate.

(a) Write the new part number 2A3106 CL01 and cross out the old part number 2A2309 CL3. See Figures 9 and 10.

(b) Use the vibration peen method.

E. Rework Instructions - Condition 2 (For V2500-A5 Engine Serial Number V10024, V10060 and V10063 that incorporate the EPR modifier No. 07 configuration:

(1) Do Paragraph C steps (1) through (3).

(2) Do a modification to 2A2309 Data Entry Plug Assembly (Reference (2), Chapter/Section 73-22-35, Fig/Item No.01-100) and identify as follows:

Procedure	Supplementary Information
(a) Remove the four pin EPR modifier jumper Z-m-a-D as follows:	Refer to Figure 11
1 Remove the jumpered wire contact pins.	Refer to Figure 6.
2 Use the MS27495R20 contact tool (1 off), or equivalent, and a small piece of straight wire, such as a straightened paper clip.	
3 Discard the jumper.	
(b) Install the 3 pin EPR Modifier/ Variant jumper Z-m-D and the 2 pin EPR Modifier jumper c-a.	Refer to Figure 7 and Figure 11.

1 Use the procedure given in Paragraph C. Step (4), (d), substeps 1 through 6.

(c) Install the 2 pin EPR Modifier jumper c-a by the procedure that follows:

1 Put the new 2A2315 (2 pin) jumper into the MS27495A20 Contact Insertion Tool.

2 Hold the connector with your hand.

CAUTION: DO NOT APPLY STRONG FORCE TO THE INSERTION TOOL WHEN YOU PUSH THE JUMPER. THIS COULD CAUSE DAMAGE TO THE COLLET.

3 Push one end of the jumper into one of the holes in the connector until the shoulder of the contact becomes locked in the collet.

NOTE: When the collet locks the contact, the collet makes a light click sound.

4 Pull back lightly on the jumper end to make sure the contact is locked in the collet.

NOTE: The contact is correctly locked if the jumper does not move rearward.

5 Do steps 1 through 4 again for the other end of the jumper and the remaining connector hole.

(d) Do a check of the new DEP wiring configuration.

1 Make a record of the configuration change accomplished in steps (a) thru (c) on a new worksheet.

2 Do a test of the DEP connector using the IAE 2P16369 Tester box (1 off).

3 Compare the results of the test with the worksheet.

(e) Assemble the Data Entry Plug Assembly and identify by the instructions given in Paragraph D.

(f) Identify the Engine Data Plate by the instructions given in Paragraph D.

F. Rework Instructions - Condition 3 (For V2500-A5 Engine Serial Numbers V10012, V10015, V10021, V10027, V10030, V10043 and V10049 that incorporate the EPR modifier 08 configuration:

(1) Identify the DEP backshell with the new part number by the procedure given in Reference (3), Chapter/Section 70-09-00, Marking of Parts.

NOTE: If there is no area on the backshell to make marks, you will have to use a new backshell.

(a) Write the new part number 2A3106 CL01 and cross out the old part number 2A2309 CL3. See Figure 8.

(b) Use the vibration peen method.

(2) Identify the Engine Identification Plate with the new DEP Assembly part number by the procedure given in Reference (3), Chapter/Section 70-09-00 Marking of Parts.

NOTE: If there is no area on the Engine Identification Plate to make marks, you will have to use a new Engine Identification Plate. Contact your IAE representative to obtain a new Engine Identification Plate.

(a) Write the new part number 2A3106 CL01 and cross out the old part number 2A2309 CL3. See Figures 9 and 10.

(b) Use the vibration peen method.

G. Rework Instructions - Condition 4 (For V2500-A5 Engine Serial Number V10037 which is configured to the EPR modifier No. 09 configuration and variant Number 10:

(1) Do Paragraph C steps (1) through (3).

(2) Do a modification to 2A2309 Data Entry Plug Assembly (Reference (2), Chapter/Section 73-22-35, Fig/Item No.01-100) and identify as follows:

Procedure	Supplementary Information
(a) Locate the three pin serial jumper W-k-j and the four pin EPR Modifier/Variant jumper g-r-P-f.	Refer to Figure 12.
(b) Remove the three pin serial number jumper and the four pin EPR Modifier/Variant jumper as follows:	Refer to Figure 6.
1 Remove the jumpered wire contact pins.	
2 Use the MS27495R20 Contact Removal Tool (1 off), or equivalent and a small piece of straight wire, such as a straightened paper clip.	
3 Discard the jumper.	
(c) Install the new serial number/ EPR modifier jumper W-k-j-P.	Refer to Figure 7.
1 Hold the connector with your hand.	
2 Make a selection of the 4 pin jumper 2A2305.	
3 Push the jumper ends into the connector holes W-k-j-P.	
a Use your hands.	
CAUTION: DO NOT APPLY STRONG FORCE TO THE INSERTION TOOL WHEN YOU PUSH THE JUMPER. THIS CAN CAUSE DAMAGE TO THE COLLET.	
4 Push the contacts into the connector until the shoulder of the contact is locked by the collet.	
a Use the MS27495A20 Insertion Tool (1 off).	

b Push each contact a little at at a time.

NOTE: When the collet locks the contact, the collet makes a light click sound.

5 Remove the insertion tool.

6 Pull back lightly on the jumper end to make sure the contact is locked in the collet.

NOTE: The contact is correctly locked if the jumper does not move rearward.

(d) Install a new 3 pin (g-r-f) EPR modifier/variant jumper.

1 Hold the connector with your hand.

2 Use a new 2A2304 (3) pin jumper.

3 Push each of the three jumper leads into the connector holes with the MS27495A20 Insertion Tool (1 off).

CAUTION: DO NOT APPLY STRONG FORCE TO THE INSERTION TOOL WHEN YOU PUSH THE JUMPER. THIS COULD CAUSE DAMAGE TO THE COLLET.

4 Use the insertion tool to push the contacts into the holes in the connector, until the shoulder of each contact becomes locked by the applicable collet.

5 Remove the insertion tool.

6 Pull back lightly on the jumper end to make sure the contact is locked in the collet.

NOTE: The contact is correctly locked if the jumper does not move rearward.

(e) Do a check of the new DEP wiring configuration.

1 Make a record of the configuration change accomplished in steps (c) and (d) on a new worksheet.

2 Do a test of the DEP connector using the IAE 2P16369 Tester Box (1 off).

3 Compare the results of the test with the worksheet.

(f) Assemble the Data Entry Plug Assembly and identify by the instructions given in Paragraph D.

(g) Identify the Engine Data Plate by the instructions given in Paragraph D.

H. Rework Instructions - Condition 5 (For V2500-A5 Engine Serial Number V10038 that incorporate the EPR modifier No. 07 configuration:

(1) Do Paragraph C. steps (1) through (3).

(2) Do a modification to 2A2309 Data Entry Plug Assembly (Reference (2), Chapter/Section 73-22-35, Fig/Item No. 01-100) and identify as follows:

Procedure	Supplementary Information
(a) Remove the four pin EPR modifier jumper Z-m-a-D as follows:	Refer to Figure 13.
1 Remove the jumpered wire contact pins.	Refer to Figure 6.
2 Use the MS27495R20 contact tool (1 off), or equivalent, and a small piece of straight wire, such as a straightened paper clip.	
3 Discard the jumper.	
(b) Install the 3 pin EPR Modifier/ Variant jumper Z-m-D and the 2 pin EPR Modifier jumper c-a.	Refer to Figure 7 and Figure 13.
1 Use the procedure given in Paragraph C. Step (4), (d), substeps 1 through 6.	

(c) Install the 2 pin EPR Modifier jumper c-a by the procedure that follows:

1 Put the new 2A2315 (2 pin) jumper into the MS27495A20 Contact Insertion Tool.

2 Hold the connector with your hand.

CAUTION: DO NOT APPLY STRONG FORCE TO THE INSERTION TOOL WHEN YOU PUSH THE JUMPER. THIS COULD CAUSE DAMAGE TO THE COLLET.

3 Push one end of the jumper into one of the holes in the connector until the shoulder of the contact becomes locked in the collet.

NOTE: When the collet locks the contact, the collet makes a light click sound.

4 Pull back lightly on the jumper end to make sure the contact is locked in the collet.

5 Do steps 1 through 4 again for the other end of the jumper and the remaining connector hole.

(d) Do a check of the new DEP wiring configuration.

1 Make a record of the configuration change accomplished in steps (a) thru (c) on a new worksheet.

2 Do a test of the DEP connector using the IAE 2P16369 Tester Box (1 off).

3 Compare the results of the test with the worksheet.

(e) Assemble the Data Entry Plug Assembly and identify by the instructions given in Paragraph D.

(f) Identify the Engine Data Plate by the instructions given in Paragraph D.

I. Rework Instructions - Condition 6 (For V2500-A5 Engine Serial Numbers V10018, V10022 and V10029 that incorporate the EPR modifier 08 configuration:

(1) Identify the DEP backshell with the new part number by the procedure given in Reference (3), Chapter/Section 70-09-00, Marking of Parts.

NOTE: If there is no area on the backshell to make marks, you will have to use a new backshell.

(a) Write the new part number 2A3106 CL01 and cross out the old part number 2A2309 CL3. See Figure 8.

(b) Use the vibration peen method.

(2) Identify the Engine Identification Plate with the new DEP Assembly part number by the procedure given in Reference (3), Chapter/Section 70-09-00 Marking of Parts.

NOTE: If there is no area on the Engine Identification Plate to make marks, you will have to use a new Engine Identification Plate. Contact your IAE representative to obtain a new Engine Identification Plate.

(a) Write the new part number 2A3106 CL01 and cross out the old part number 2A2309 CL3. See Figures 9 and 10.

(b) Use the vibration peen method.

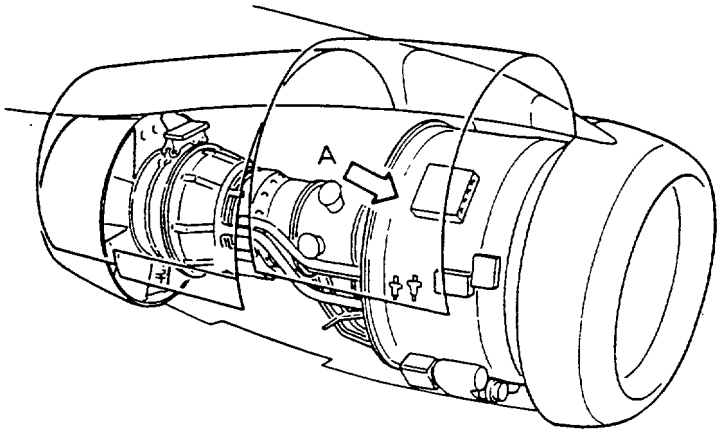
G. Post-Requisite Procedures

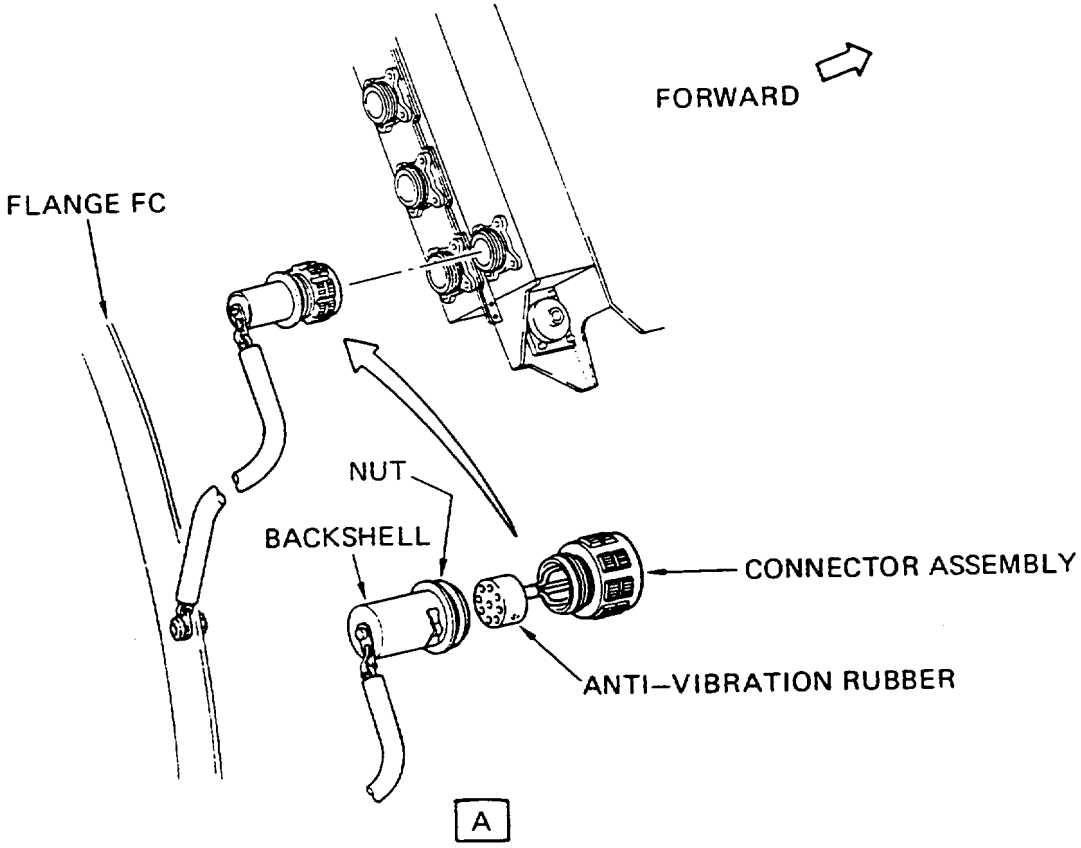
(1) Close the Fan Cowls by the use of the approved procedure in Reference (1), Chapter/Section 71-13-00 (TASK 71-13-00-410-010).

(2) Remove the warning notices.

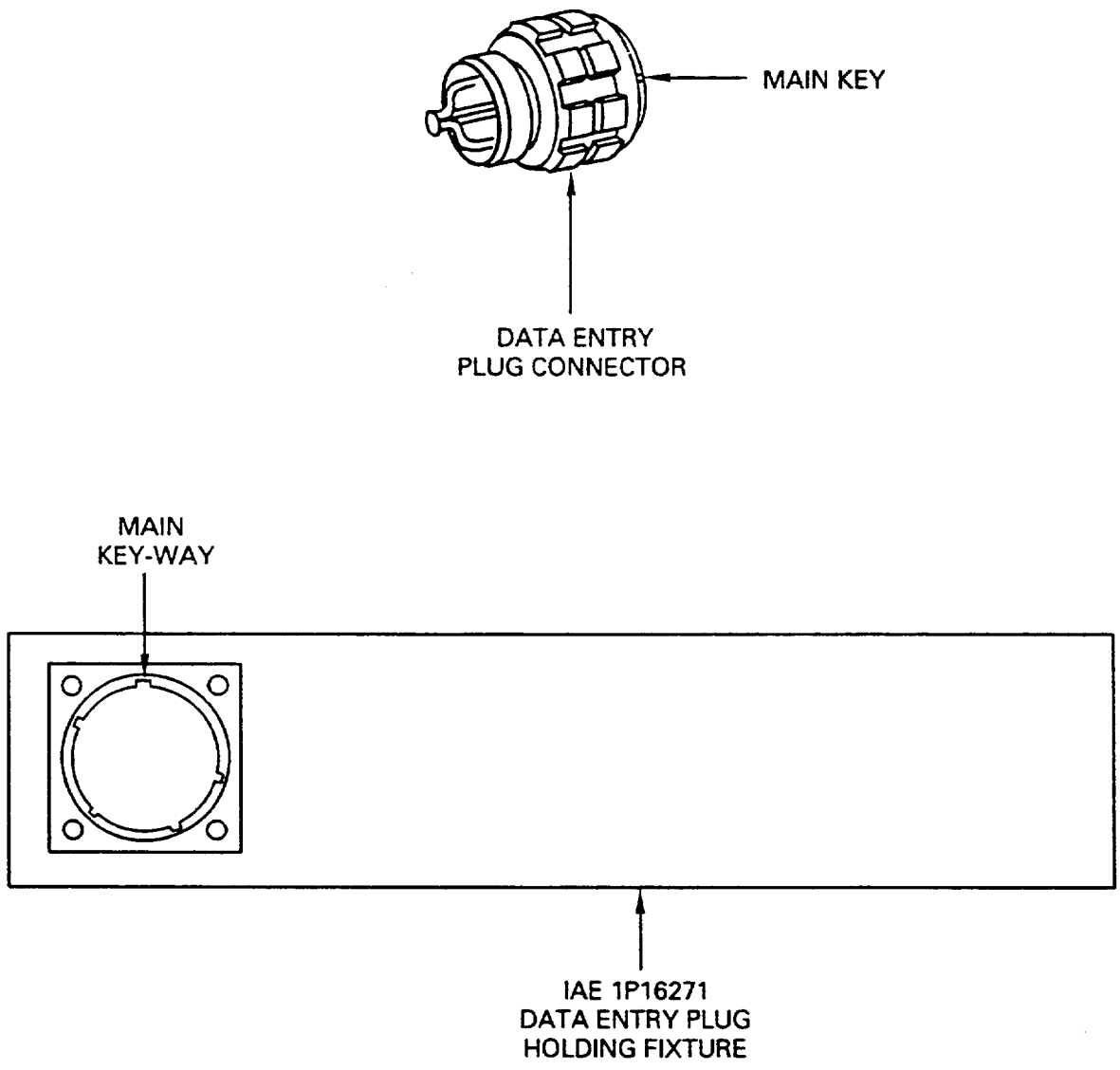
H. Recording Instructions

(1) A record of accomplishment is necessary.

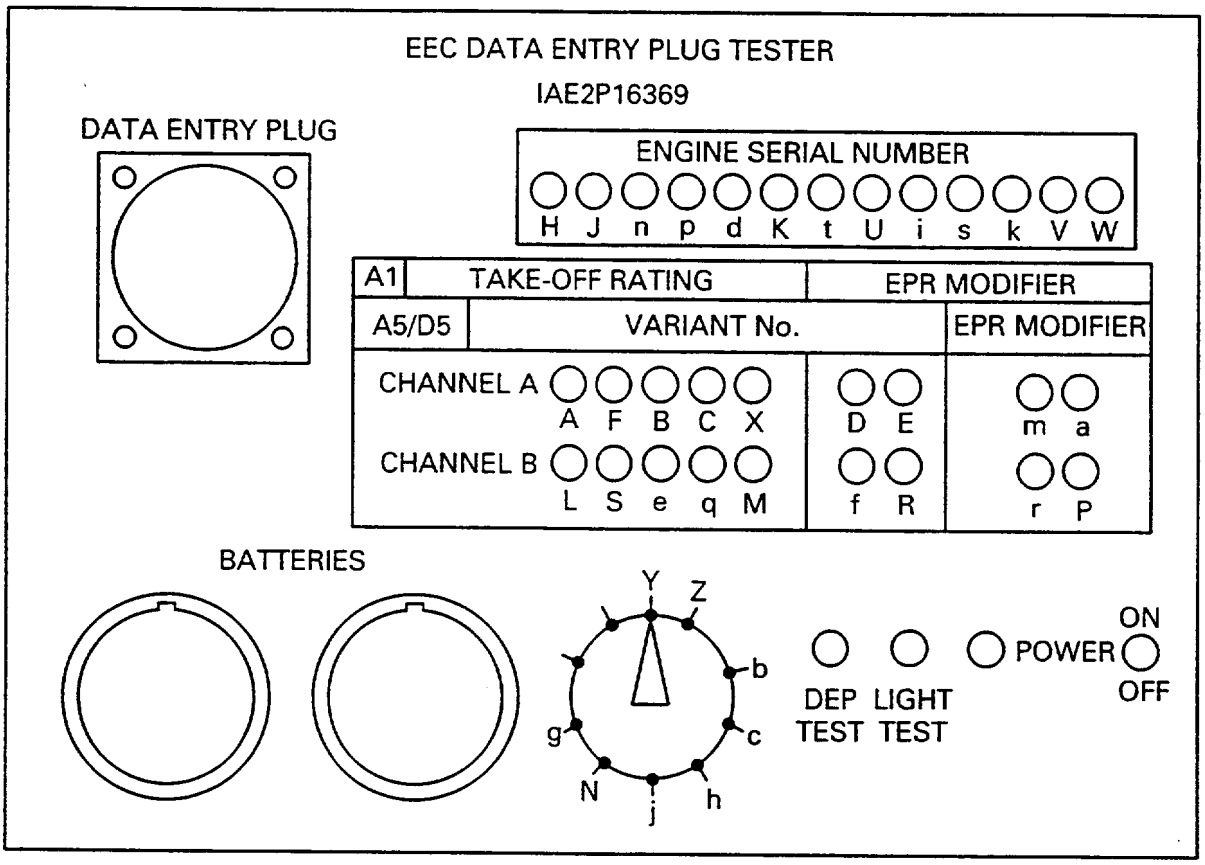




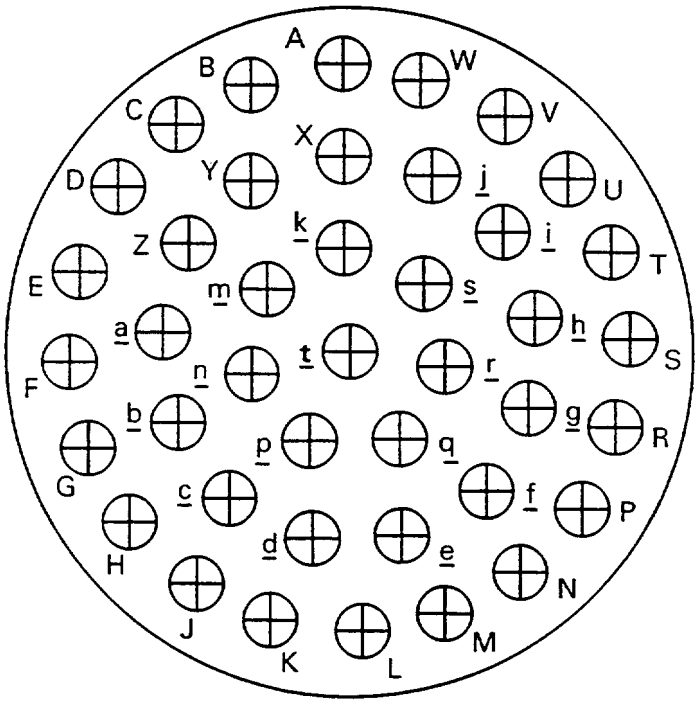
Disconnect The Data Entry Plug Assembly From The Electronic Engine Control
Fig.1



Install the Data Entry Plug Connector In the IAE 1P16271 Holding Fixture
Fig.2

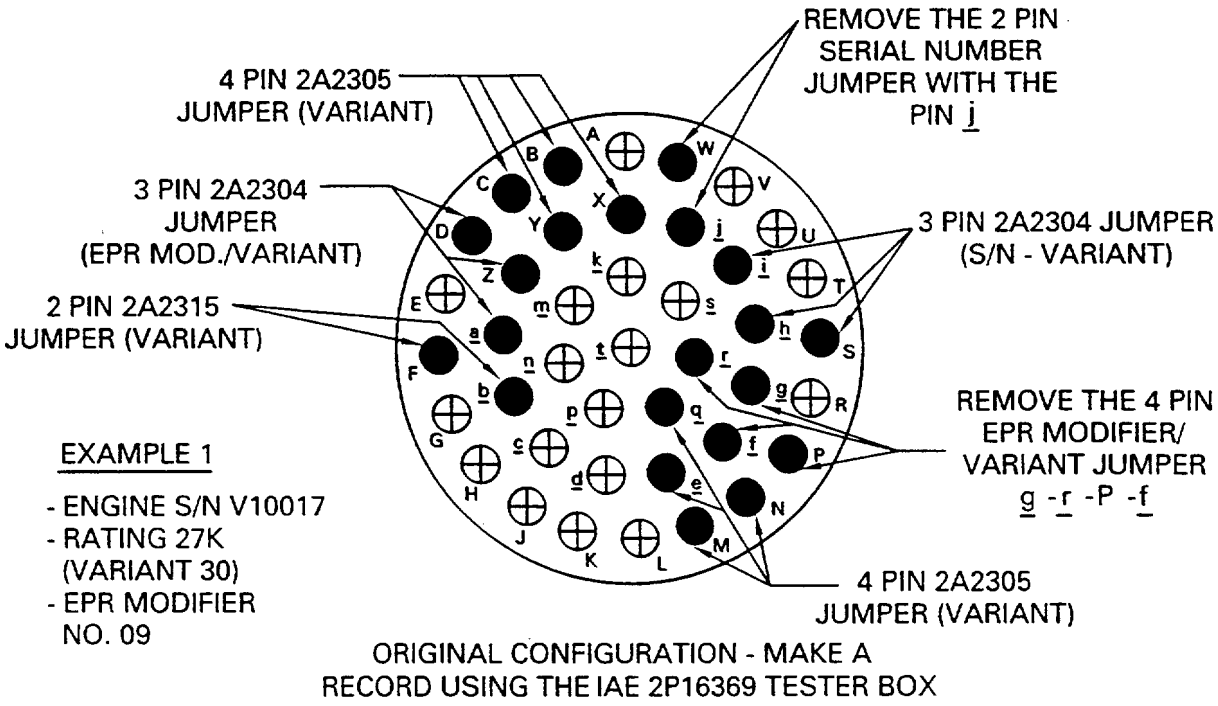


IAE 2P16369 DEP Tester
Fig.3

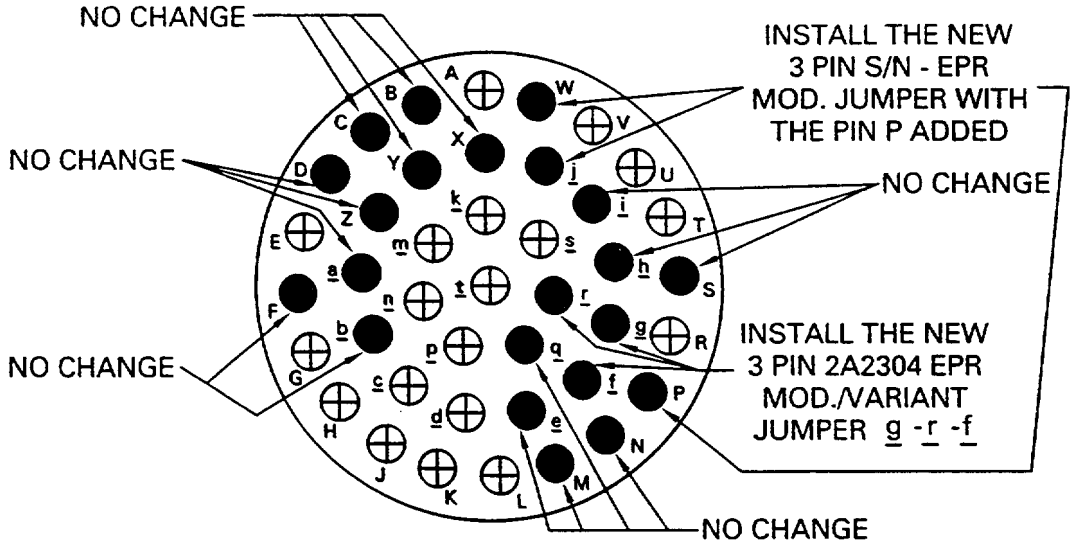


E2026

Data Entry Plug Worksheet
Fig.4



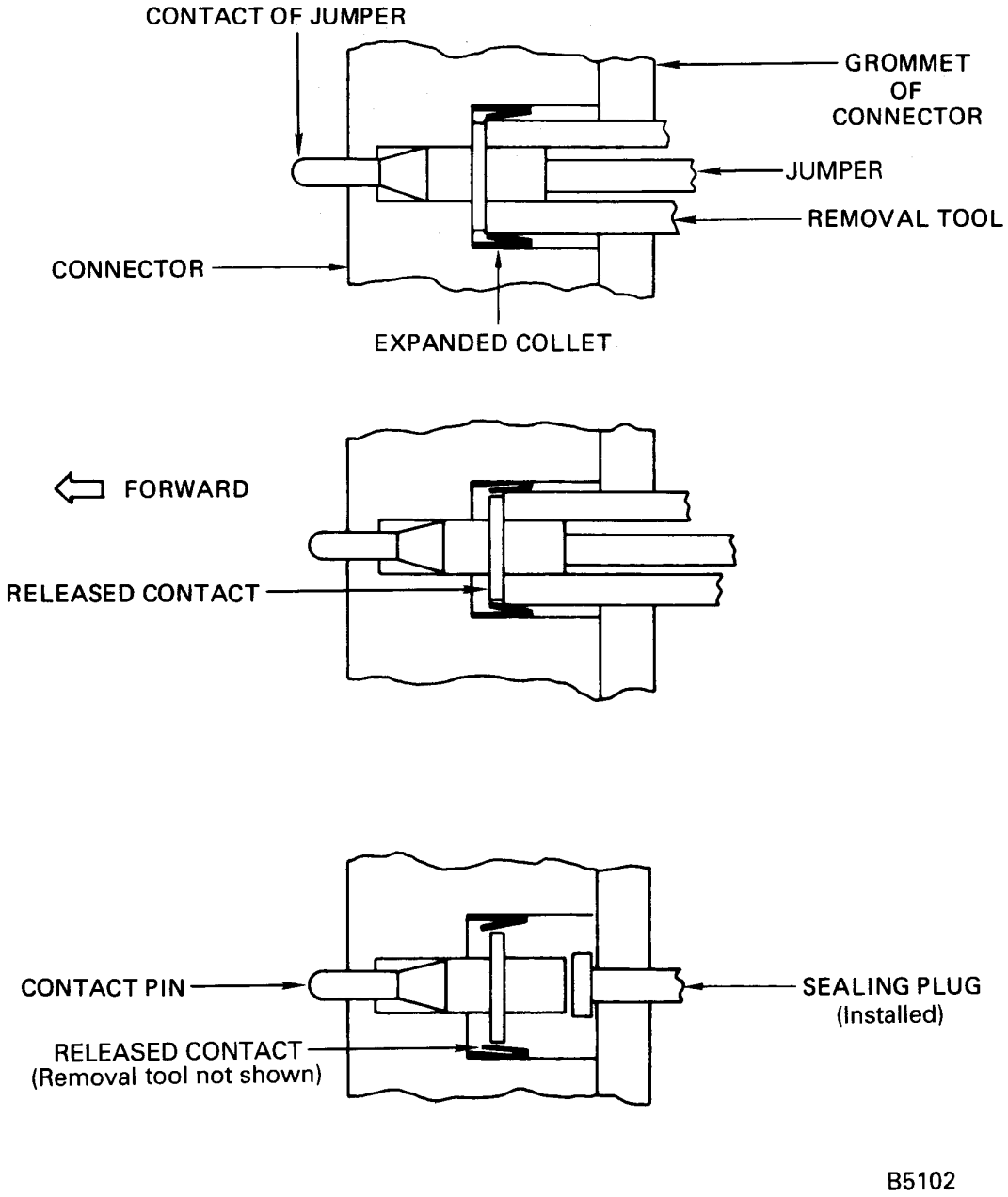
ORIGINAL CONFIGURATION - MAKE A RECORD USING THE IAE 2P16369 TESTER BOX



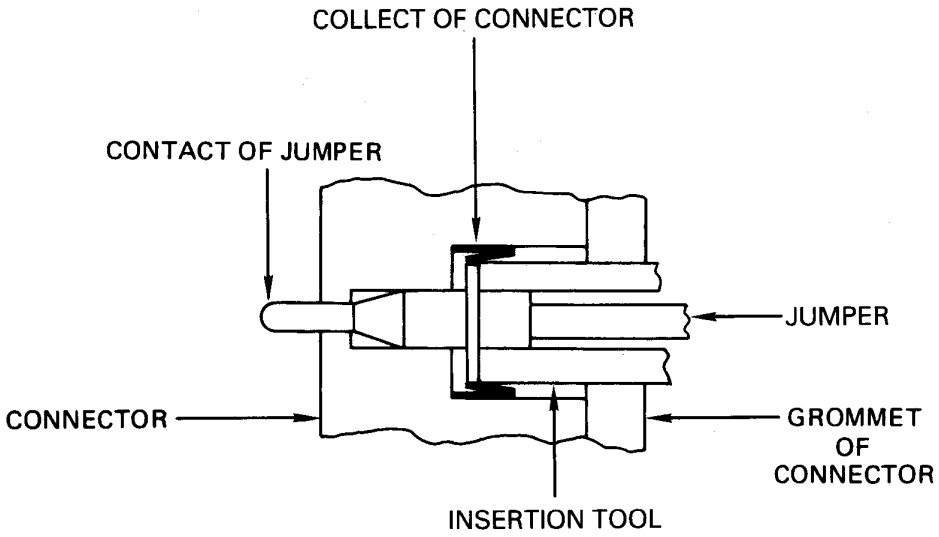
NEW CONFIGURATION - MAKE A RECORD AND CHECK USING THE IAE 2P16369 TESTER BOX

E2031

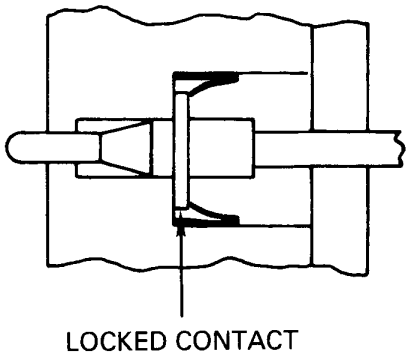
Data Entry Plug Assembly Configuration Modification (Configuration 1)
Fig.5



Removal of Jumpers
Fig.6

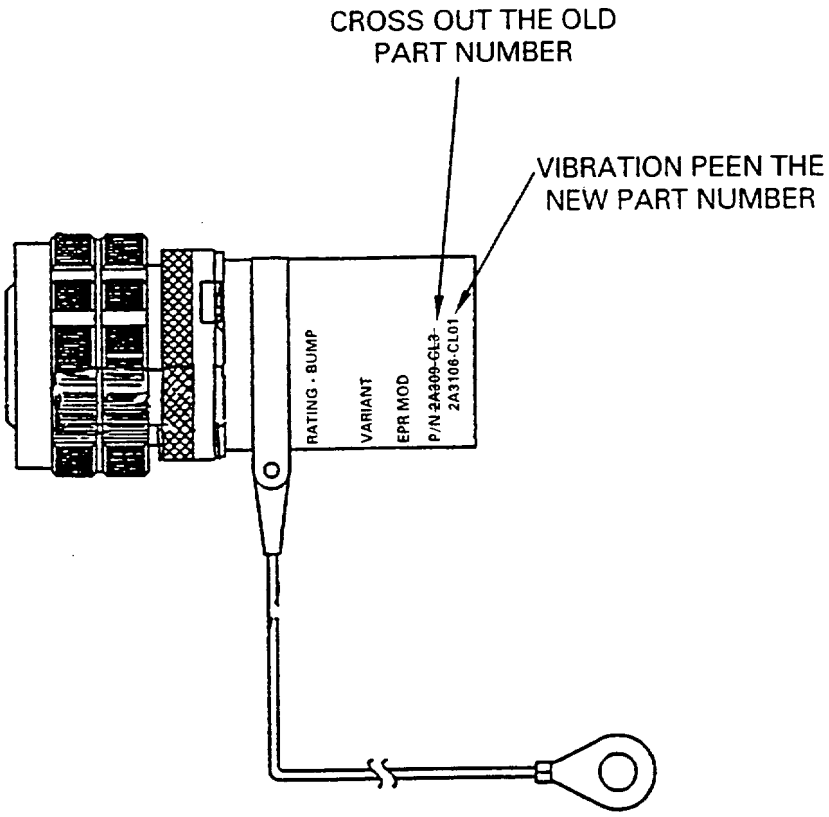


FORWARD



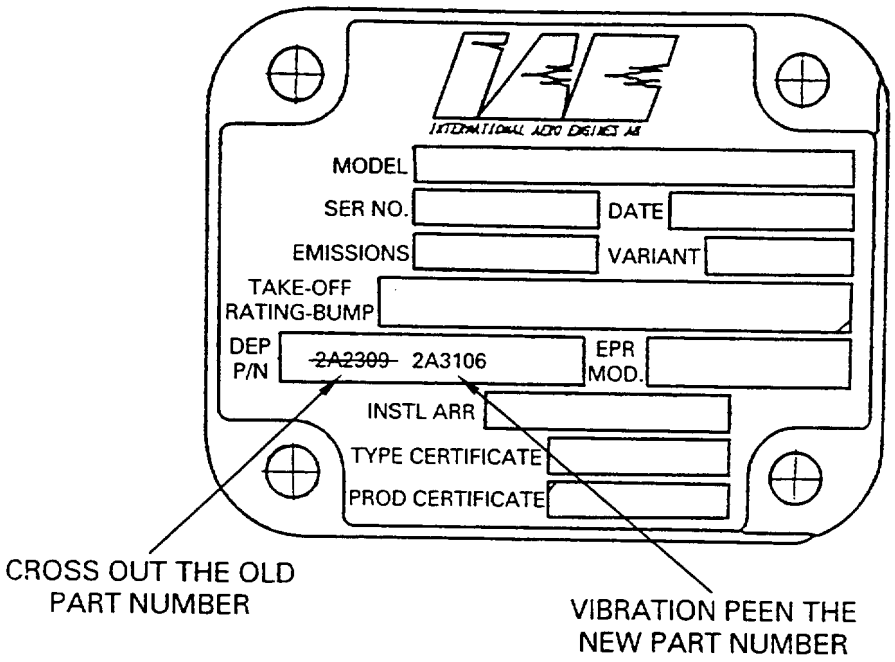
B5115

Installation of Jumpers
Fig.7



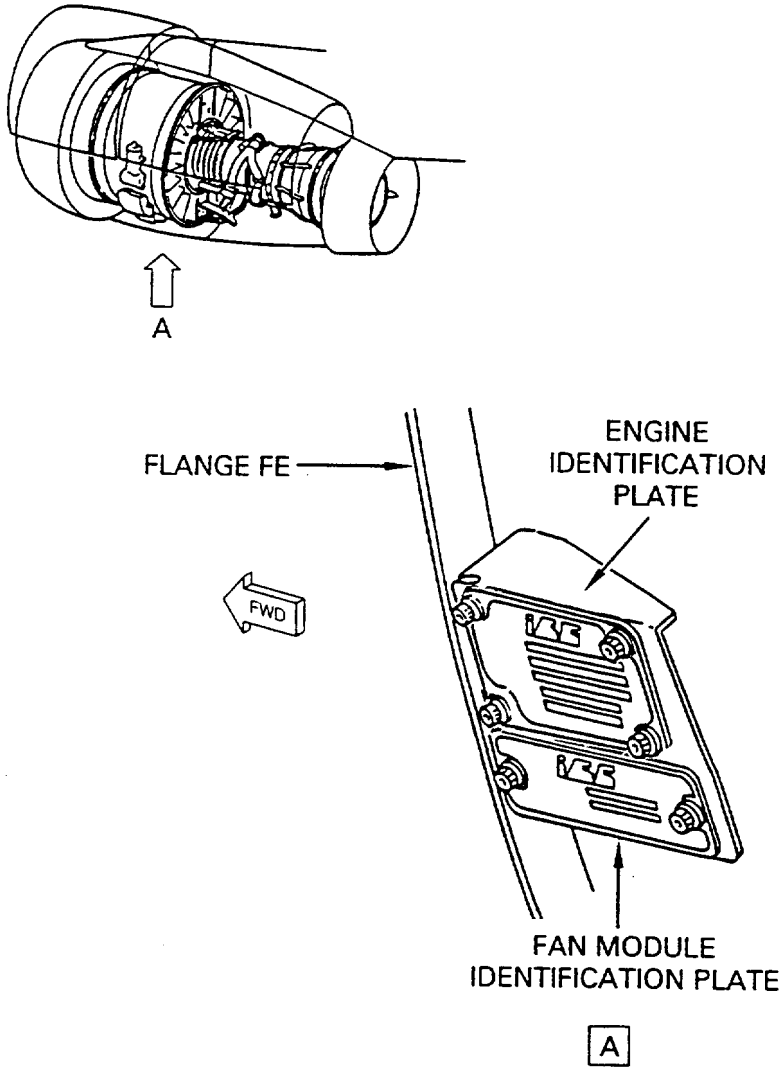
E2029

Identification Data Entry Plug Assembly to The New Part Number
Fig.8

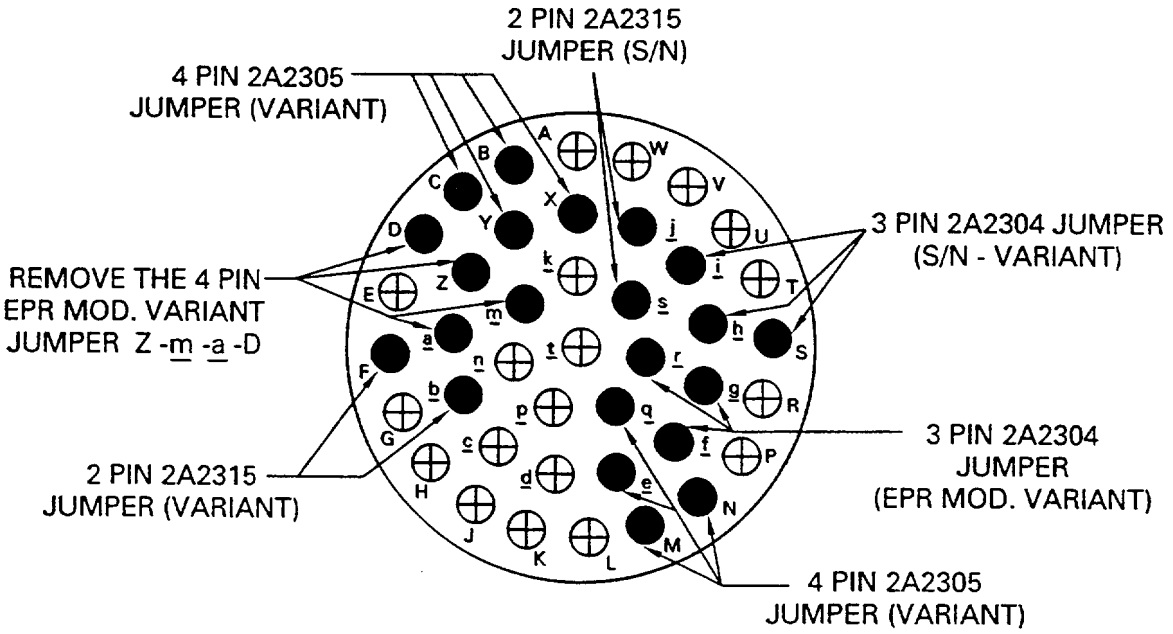


E2027

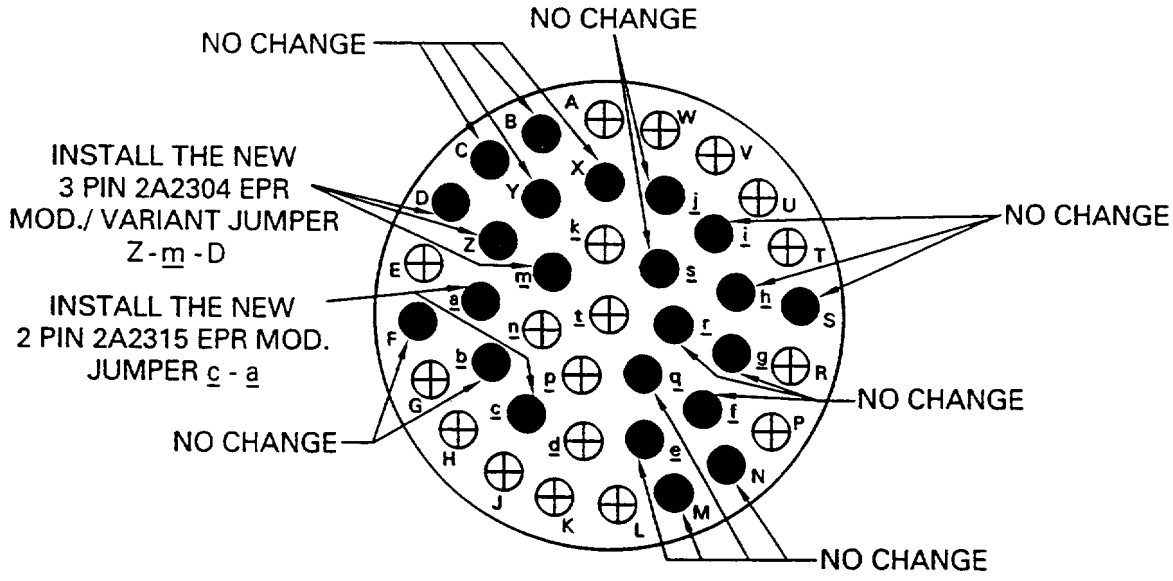
Mark The Engine Identification Plate
Fig.9



Location of The Engine Identification Plate
Fig.10

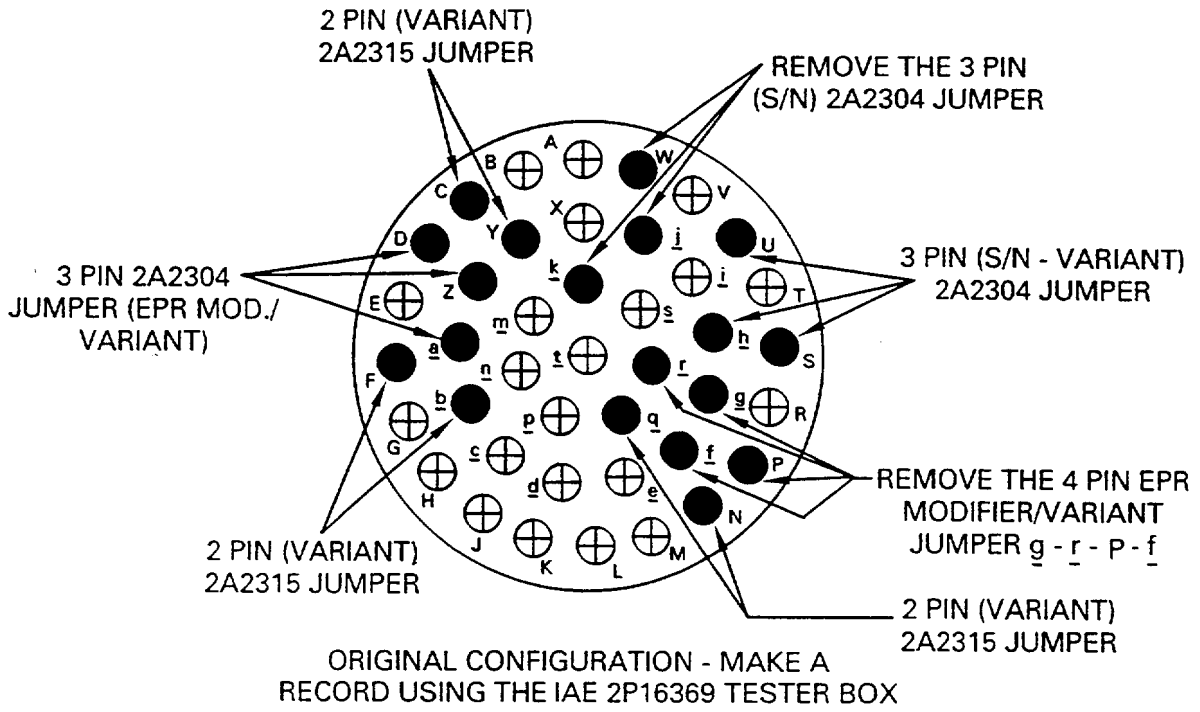


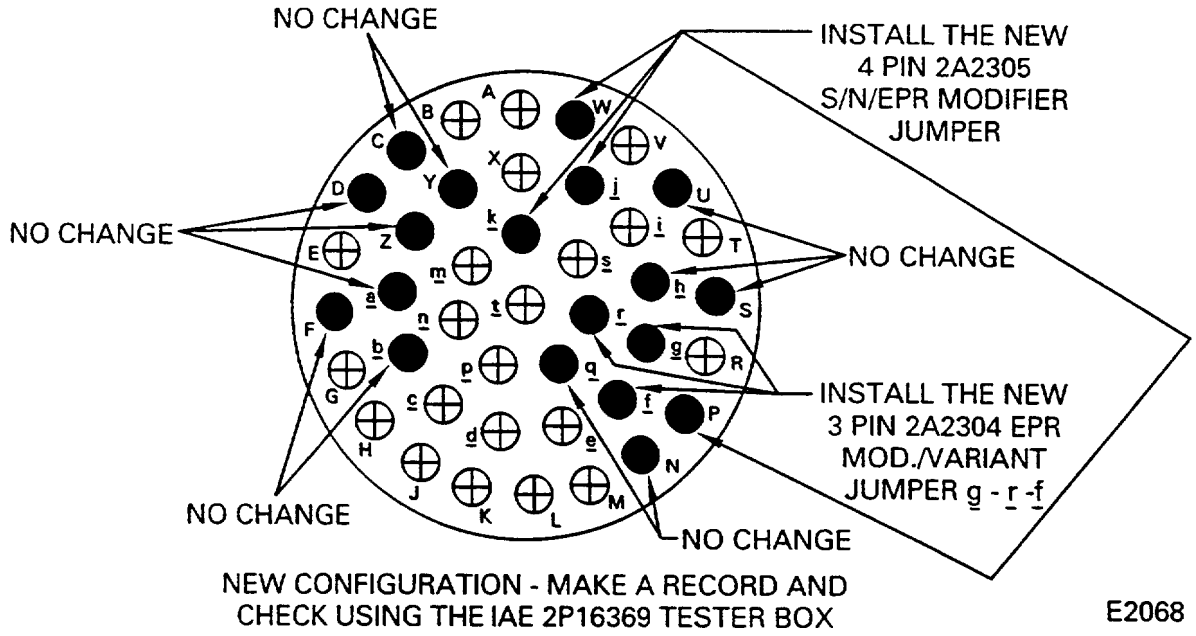
ORIGINAL CONFIGURATION - MAKE A
RECORD USING THE IAE 2P16369 TESTER BOX



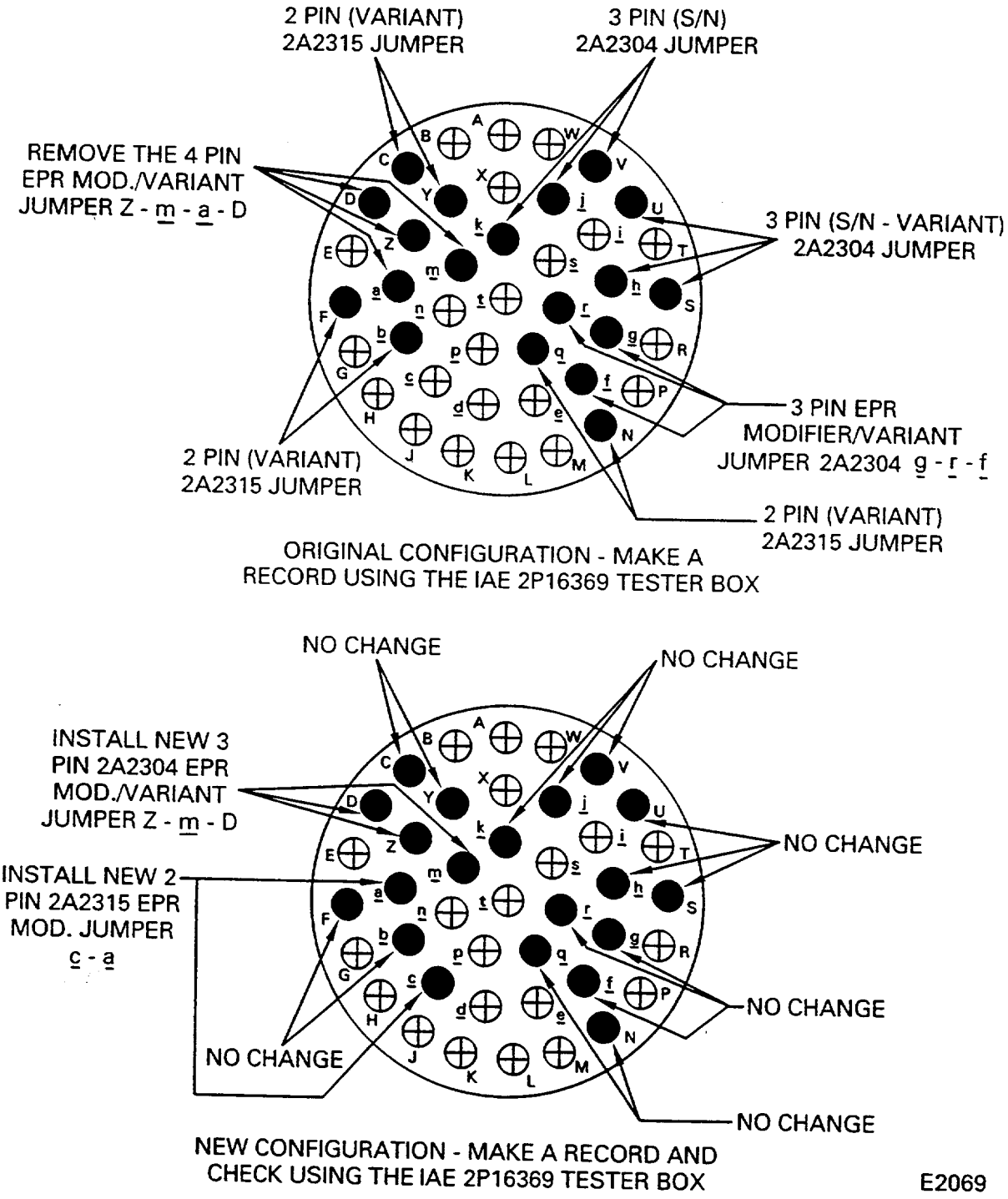
NEW CONFIGURATION - MAKE A RECORD AND
CHECK USING THE IAE 2P16369 TESTER BOX E2030

Data Entry Plug Configuration Modification (Configuration 2)
Fig.11





Data Entry Plug Configuration Modification (Configuration 4)
Fig.12



Data Entry Plug Configuration Modification (Configuration 5)
Fig.13

3. Material Information

Applicability: For each V2500 Engine to incorporate this Bulletin.

A. Kits associated with this Bulletin:

None.

B. Parts affected by this Bulletin:

New Part No. (ATA No.)	Qty.	Est'd Unit Price ($)	Keyword	Old Part No. (IPC No.)	Instructions Disposition
2A3106 (73-22-35)	1	-	.Kit Assembly Data Entry Plug	2A2309 (01-100)	(S1) (1D) (A) (B)
2A3104 (73-22-35)	1	-	..Lead, Electrical (6 Pin)	-	(S1) (A)
5A1465 (72-32-85)	A/R*	-	Plate, Engine	- (03-120)	(A)
2A2303 (72-22-35)	A/R*	-	Backshell Assembly	(01-125)	(C)

C. Instruction/Disposition Code Statements:

(S1) New parts coded (S1) must replace old parts coded (S1) in a complete set per Engine.
(1D) New part can be obtained by rework and reidentification.
(A) New part is currently available.
(B) Old part will continue to be available for use at other locations.
(C) New parts are currently available for sale if damage occurs during rework.

*NOTE: A new Engine Identification Plate and a new Backshell Assembly will be necessary if there is not sufficient space to mark the new Data Entry Plug Assembly part number.

NOTE: The estimated 1994 unit prices shown are provided for planning purposes only and do not constitute a firm quotation. Consult the IAE Price Catalog or contact IAE's Spare Parts Sales Department for information concerning firm prices.