

ATA AIRLINES, INC.

DC TIE CONTROL UNIT & DC TIE RELAY

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CHECK BEING PERFORMED: Custom

ZONES: 212  
A/C NUMBER:  
REV. DATE: 04/21/99  
FREQUENCY: 1C

W/C NUMBER: 221F2404 DATE:  
W/O:  
JAC CODE:

MECH INSP

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CHECK OPERAION OF DC TIE RELAY.

CHECK OPERATION OF THE DC TIE CONTROL UNIT (DTCU).

1 Functional Test - DC Tie Control Unit and DC Tie Relay

A References

- 1 24-22-00/201, Electrical Power - Control
- 2 27-61-00/201, Spoiler/Speedbrake Control System

B Prepare for the Operational Test

- \_\_\_\_\_ XXXXX 1 Do the deactivation procedure for the spoilers  
(Ref 27-61-00) or remove all persons and equipment from  
the spoiler area.

WARNING: MAKE SURE THE SPOILERS ARE DEACTIVATED OR THAT ALL PERSONS AND EQUIPMENT ARE REMOVED FROM THE SPOILER AREA. POWER SOURCES ARE CHANGED AS SWITCHES ARE PUSHED OR CIRCUIT BREAKERS ARE OPENED, WHICH CAN CAUSE MOVEMENT OF THE SPOILERS. ACCIDENTAL MOVEMENT OF THE SPOILERS CAN INJURE PERSONS OR DAMAGE EQUIPMENT.

- \_\_\_\_\_ XXXXX 2 Supply electrical power (Ref 24-22-00).

- \_\_\_\_\_ XXXXX 3 Make sure these circuit breakers on the main power distribution panel (referred to as the P6 panel) are closed:

- a 6A1, BAT BUS DISTR
- b 6A2, DC STBY
- c 6A3, DC STBY BUS OFF
- d 6A4, BAT CUR MON PWR
- e 6A5, STBY PWR CONT

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- f 6A6, DC BUS TIE CONT
- g 6B4, BUS PWR CONT UNIT
- h 6C9, C BUS PWR
- i 6C10, BAT BUS CONT
- j 6C11, L DC VOLT SENSE
- k 6C17, L TRU
- l 6C23, R TRU
- m 6D1, BAT OVHT PROT
- n 6D2, BAT XFR CONT
- o 6D7, SECT 2
- p 6D8, SECT 1
- q 6D9, TIE L
- r 6D10, INV PWR TRU
- s 6D11, BAT BUS PWR TRU
- t 6G5, STBY BUS OFF LT BAT VM
- u 6H7, SECT 2
- v 6H8, SECT 1
- w 6H9, TIE R
- x 6H10, R DC VOLT SENSE
- y 6K16, AC STBY BUS PWR
- z 6L8, MAIN BAT CHGR

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- aa 6L9, HOT BAT BUS
- ab 6L10, BAT BUS PWR
- ac 6L11, INV PWR BAT
- ad 6L12, CENTER BUS DC
- ae 6M13, AC STBY BUS OFF
- af 6M14, INVERTER CENTER BUS AC
- ag 6M15, INVERTER VOLT SENSE

\_\_\_\_\_ XXXXX 4 Make sure the six EICAS circuit breakers on the overhead circuit breaker panel (referred to as the P11 panel) are closed.

\_\_\_\_\_ XXXXX 5 Make sure this circuit breaker on the right generator power panel, P32, is closed:

- a 32A8, (PLATE A), R GEN GND SVCE BUS

\_\_\_\_\_ XXXXX 6 Make sure these circuit breakers on the APU/external power panel, P34, are closed:

- a 34A16 (PLATE A), MN/APU BAT CHGR DET ENABLE
- b 34B2 (PLATE A), GROUND POWER BPCU

\_\_\_\_\_ XXXXX 7 Make sure these circuit breakers on the right miscellaneous electrical equipment panel, P37, are closed.

- a 37B2, MAIN BATTERY CHARGER
- b 37K2, APU BATTERY CHARGER

8 DC Tie Control Unit and DC Tie Relay Operational Test

\_\_\_\_\_ XXXXX a Make sure the two BUS TIE switches on the P5 panel are set to the AUTO (latched-in) position.

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NOTE: The ISLN light in each switch should be off.

- \_\_\_\_\_ XXXXX b Make sure the bottom EICAS display is in the ECS MSG mode. Push the ECS MSG switch on the EICAS MAINT panel on the right side panel P61, if necessary.
- \_\_\_\_\_ XXXXX c Make sure the EICAS message, T-R UNIT does not show on the bottom display.
- \_\_\_\_\_ XXXXX d Push the ELEC HYD switch on the EICAS MAINT panel.
- \_\_\_\_\_ XXXXX e Make sure these values are below L and R on the bottom EICAS display:
  - 1 DC-V = 28 +/- 5
  - 2 DC-A = larger than 5
- \_\_\_\_\_ XXXXX f Open the right TRU circuit breaker 32EE2 on the P32 panel.
 

Note: On N521AT the right TRU circuit breaker is located at 6C23 on the P6 panel.
- \_\_\_\_\_ XXXXX g Make sure these values are below R on the bottom EICAS display for 11 +/- 5 seconds:
  - 1 DC-V = 0 +/- 1
  - 2 DC-A = 0
- \_\_\_\_\_ XXXXX h After 11 +/- 5 seconds make sure these values are below R on the bottom EICAS display:
  - 1 DC-V = 28 +/- 5
  - 2 DC-A = 0
- \_\_\_\_\_ XXXXX i Push the ECS MSG switch on the P61 panel.
- \_\_\_\_\_ XXXXX j Make sure the EICAS message, T-R UNIT, shows on the bottom display.

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MECH: INSP:

\_\_\_\_\_ XXXXX k Close the right TRU circuit breaker 32EE2 on the P32 panel.

Note: On N521AT the right TRU circuit breaker is located at 6C23 on the P6 panel.

\_\_\_\_\_ XXXXX l Make sure the EICAS message, T-R UNIT, still shows on the bottom display.

\_\_\_\_\_ XXXXX m Push the left BUS TIE switch on the P5 panel to the ISLN position (out position).

\_\_\_\_\_ XXXXX n Make sure the amber ISLN light in the switch comes on.

\_\_\_\_\_ XXXXX o After 3 seconds (minimum), push the left BUS TIE switch on the P5 panel to the AUTO position.

\_\_\_\_\_ XXXXX p Make sure the ISLN light in the switch goes off.

\_\_\_\_\_ XXXXX q Make sure the EICAS message, T-R UNIT, does not show on the bottom display.

\_\_\_\_\_ XXXXX r Push the ELEC HYD switch on the EICAS MAINT panel.

\_\_\_\_\_ XXXXX s Open the left TRU circuit breaker 31EE2 on the P31 panel.

Note: On N521AT the left TRU circuit breaker is located at 6C17 on the P6 panel.

\_\_\_\_\_ XXXXX t Make sure these values are below L on the bottom EICAS display:

1 DC-V = 0 +/- 1

2 DC-A = 0

\_\_\_\_\_ XXXXX u After 11 +/- 5 seconds, make sure these values are below L on the bottom EICAS display:

1 DC-V = 28 +/- 5

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2 DC-A = 0

\_\_\_\_\_ XXXXX v Press the ECS MSG switch on the EICAS MAINT panel.

\_\_\_\_\_ XXXXX w Make sure the EICAS message, T-R UNIT, shows on the bottom display.

\_\_\_\_\_ XXXXX x Close the left TRU circuit breaker 31EE2 on the P31 panel.

Note: On N521AT the left TRU circuit breaker is located at 6C17 on the P6 panel.

\_\_\_\_\_ XXXXX y Make sure the EICAS message, T-R UNIT, still shows on the bottom display.

\_\_\_\_\_ XXXXX z Push the left BUS TIE switch on the P5 panel to the ISLN positon (out position).

\_\_\_\_\_ XXXXX aa Make sure the amber ISLN light in the switch comes on.

\_\_\_\_\_ XXXXX ab After 3 seconds (minimum), push the left BUS TIE switch on the P5 panel to the AUTO position.

\_\_\_\_\_ XXXXX ac Make sure the ISLN light in the switch goes out.

\_\_\_\_\_ XXXXX ad Make sure the EICAS message, T-R UNIT, does not show on the bottom display.

C Put the Airplane Back To Its Usual Condition

\_\_\_\_\_ XXXXX 1 Do the activation procedure for the spoilers if you did the deactivation procedure (Ref 27-61-00).

\_\_\_\_\_ XXXXX 2 Remove electrical power if it is not necessary. (Ref 24-22-00)

\*\*\*\*\*END OF WORKCARD\*\*\*\*\*