GENERATOR LINE CONTACTOR (GLC) - REMOVAL/INSTALLATION

EFFECTIVITY: ALL

1. General

   A. This section gives the procedures to remove/install the generator line contactors (GLCs).

   B. GLC 1 and GLC 3 are installed in the left electrical-power control/distribution box.

   C. GLC 2 and GLC 4 are installed in the right electrical-power control/distribution box.

   D. You can get access to GLC 1 and GLC 3 through the 223UZ panel on the left side of the cockpit in forward fuselage section II.

   E. You can get access to GLC 2 and GLC 4 through the 224NZ panel on the right side of the cockpit in forward fuselage section II.

   F. The procedures in this section are given in the sequence below. The tasks identified with (♦) are part of the Scheduled Maintenance Requirements Document (SMRD).

TASK NUMBER	*DESCRIPTION*	*EFFECTIVITY*
24-31-03-000-801-A	GENERATOR LINE CONTACTORS (GLCS) - REMOVAL	ALL
24-31-03-400-801-A	GENERATOR LINE CONTACTORS (GLCS) - INSTALLATION	ALL

TASK 24-31-03-000-801-A
EFFECTIVITY: ALL

2. GENERATOR LINE CONTACTORS (GLCS) - REMOVAL

A. General

(1) This task gives the procedure to remove the generator line contactors (GLCs).

B. References

REFERENCE	*DESIGNATION*
AMM MPP 06-41-03/100	- COMPONENT LOCATION

C. Zones and Accesses

ZONE	*PANEL/DOOR*	*LOCATION*
223	223UZ	LH forward fuselage section II
224	224NZ	RH forward fuselage section II

D. Tools and Equipment

Not Applicable

E. Auxiliary Items

Not Applicable

F. Consumable Materials

Not Applicable

G. Expandable Parts

Not Applicable

H. Persons Recommended

QTY	*FUNCTION*	*PLACE*
1	Does the task	Forward fuselage section II

I. Preparation

SUBTASK 841-002-A

(1) Make sure that the GPU pushbutton, on the electrical panel, on the overhead panel, is set at OFF (The striped bar is off).

(2) Attach a DO-NOT-SET-ON tag to the GPU pushbutton.

(3) Make sure that the BATT 1 and BATT 2 switches, on the electrical panel, on the overhead panel, are set at OFF.

(4) Attach a DO-NOT-SET-AUTO tag to the BATT 1 and BATT 2 switches.

(5) Open access panel 223UZ (AMM MPP 06-41-03/100) to remove GLC 1 or/and GLC 3.

(6) Open access panel 224NZ (AMM MPP 06-41-03/100) to remove GLC 2 or/and GLC 4.

J. Removal

SUBTASK 020-002-A

(1) Remove GLC 1 as follows (Figure 401):

(a) Disconnect the electrical connector (1) from GLC 1 (3).

(b) Remove the two bolts (14) and two washers (15) which attach the connection bar (16) to the left electrical-power control/distribution box (2).

(c) Release the electrical wire (11).

(d) Remove the nut (12) and washer (13) which attach the connection bar (16) to GLC 1 (3).

(e) Remove the connection bar (16) from the left electrical-power control/distribution box (2).

(f) Remove the two bolts (8), two lock washers (7), and two washers (6) which attach the two electrical cables (5) to the feeder protection relay (4).

(g) Remove the two electrical cables (5) from the feeder protection relay (4).

NOTE: If the electrical cables are without an identification code, identify them to make the reinstallation easier.

(h) Remove the nut (9) and washer (10) which attach the feeder protection relay (4) to GLC 1 (3).

(i) Remove the feeder protection relay (4).

(j) Remove the four screws (17) and four washers (18) which attach GLC 1 (3) to the left electrical-power control/distribution box (2).

(k) Remove GLC 1 (3).

(2) Remove GLC 2 as follows (Figure 402):

(a) Disconnect the electrical connector (17) from GLC 2 (2).

(b) Remove the two bolts (11) and two washers (10) which attach the connection bar (14) to the right electrical-power control/distribution box (1).

(c) Remove the two nuts (12) and two washers (13) which attach the connection bar (14) to the right electrical-power control/distribution box (1).

(d) Remove the connection bar (14).

(e) Remove the two bolts (6), two lock washers (5), and two washers (7) which attach the two electrical cables (4) to the feeder protection relay (3).

(f) Remove the two electrical cables (4) from the feeder protection relay (3).

NOTE: If the electrical cables are without an identification code, identify them to make the reinstallation easier.

(g) Remove the nut (8) and washer (9) which attach the feeder protection relay (3) to the GLC 2 (2).

(h) Remove the four screws (15) and four washers (16) which attach GLC 2 (2) to the right electrical-power control/distribution box (1).

(i) Remove GLC 2 (2).

(3) Do the GLC 3 removal as follows (Figure 403):

(a) Disconnect the electrical connector (1) from GLC 3 (17).

(b) Remove the two bolts (7) and two washers (8) which attach the connection bar (4) to the left electrical-power control/distribution box (18) .

(c) Release the electrical wire (9).

(d) Remove the two nuts (6) and two washers (5) which attach the connection bar (4) to the left electrical-power control/distribution box (18).

(e) Remove the connection bar (4).

(f) Remove the two bolts (14), two lock washers (13), and two washers (12) which attach the two electrical cables (15) to the feeder protection relay (16).

(g) Remove the two electrical cables (15) from the feeder protection relay (16).

NOTE: If the electrical cables are without an identification code, identify them to make the reinstallation easier.

(h) Remove the nut (11) and washer (10) which attach the feeder protection relay (16) to GLC 3 (17).

(i) Remove the four screws (3) and four washers (2) which attach GLC 3 (17) to the left electrical-power control/distribution box (18).

(j) Remove GLC 3 (17).

(4) Do the GLC 4 removal as follows (Figure 404):

(a) Disconnect the electrical connector (17) from GLC 4 (2).

(b) Remove the two bolts (12) and two washers (13) which attach the connection bar (14) to the right electrical-power control/distribution box (1).

(c) Remove the nut (11) and washer (10) which attach the connection bar (14) to GLC 4 (2).

(d) Remove the connection bar (14) from the right electrical-power control/distribution box (1).

(e) Remove the two bolts (6), two lock washers (5), and two washers (7) which attach the two electrical cables (4) to the feeder protection relay (3).

(f) Remove the two electrical cables (4) from the feeder protection relay (3).

NOTE: If the electrical cables are without an identification code, identify them to make the reinstallation easier.

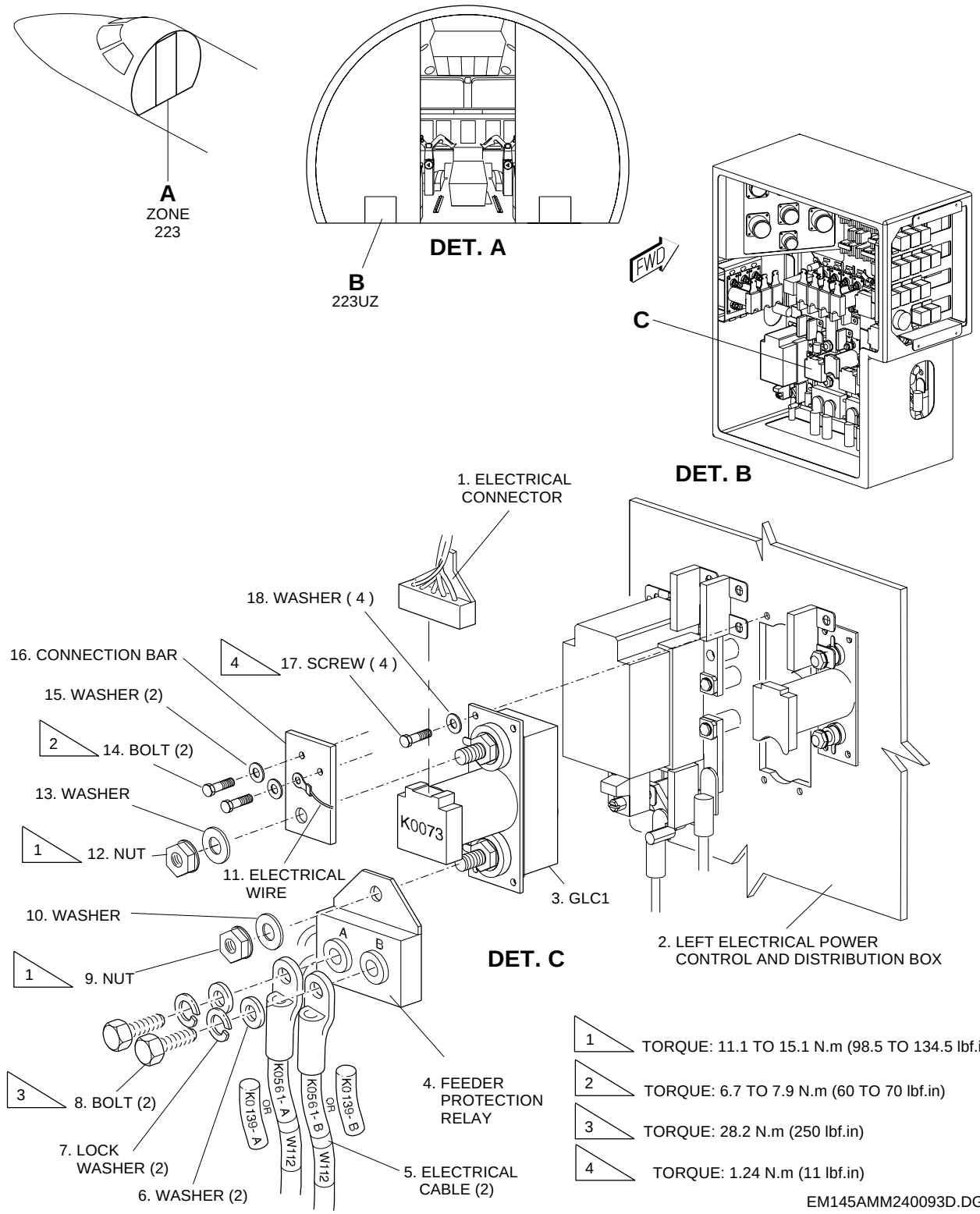
(g) Remove the nut (8) and washer (9) which attach the feeder protection relay (3) to GLC 4 (2).

(h) Remove the four screws (15) and four washers (16) which attach GLC 4 (2) to the right electrical-power control/distribution box (1).

(i) Remove GLC 4 (2).

EFFECTIVITY: ALL

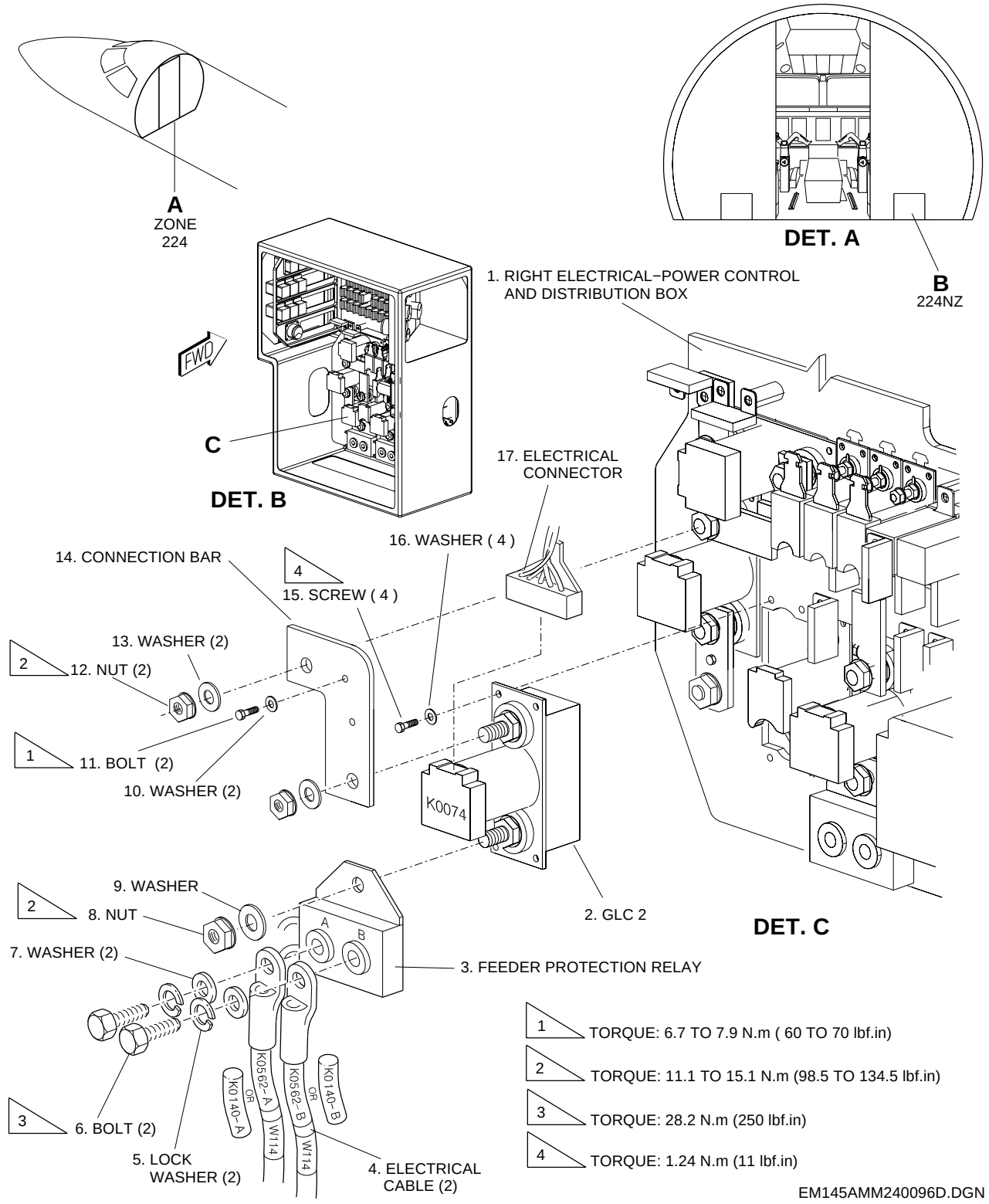
Generator Line Contactor (GLC 1) - Removal/Installation
Figure 401



EFFECTIVITY: ALL

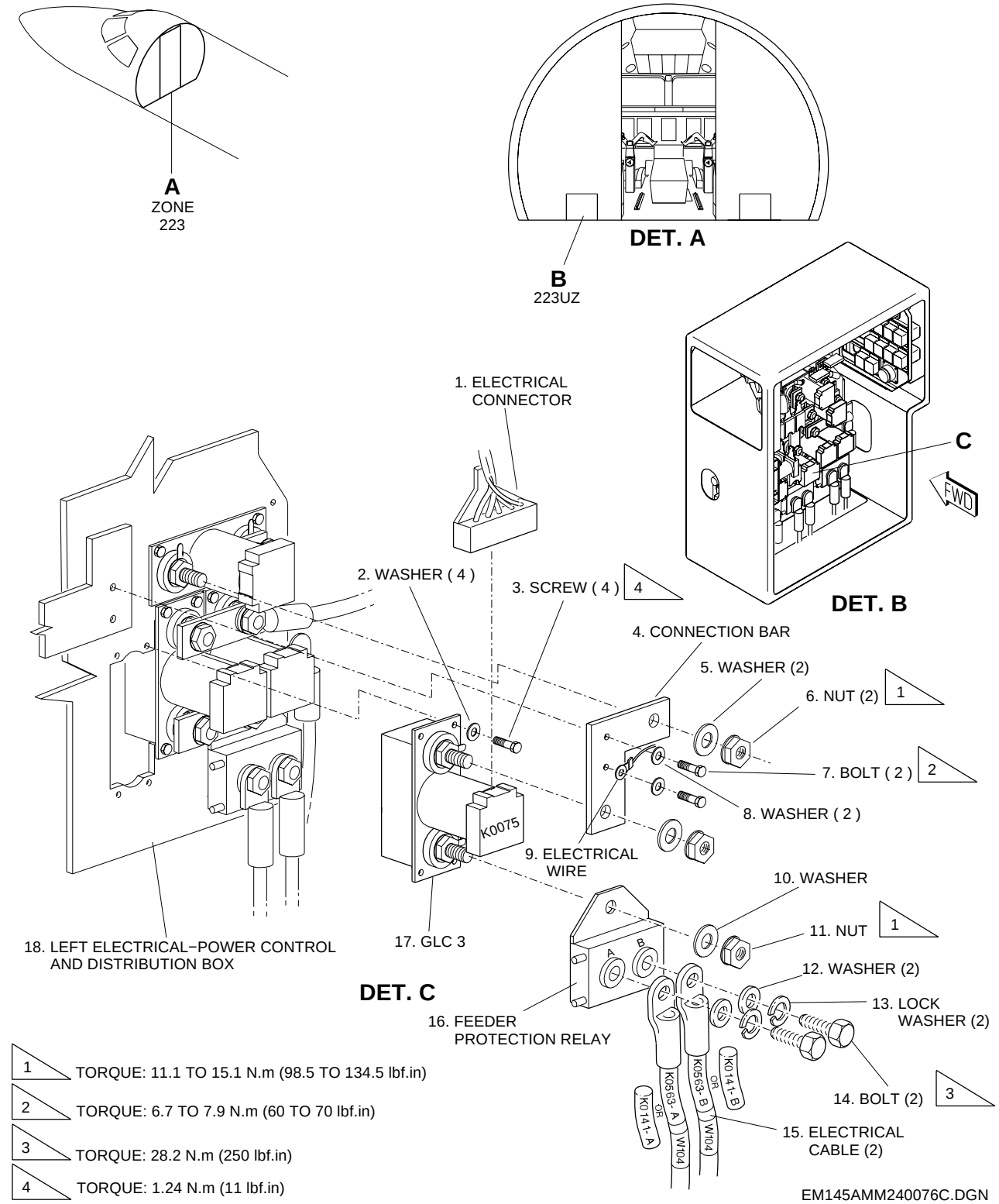
Generator Line Contactor (GLC 2) - Removal/Installation

Figure 402



EFFECTIVITY: ALL

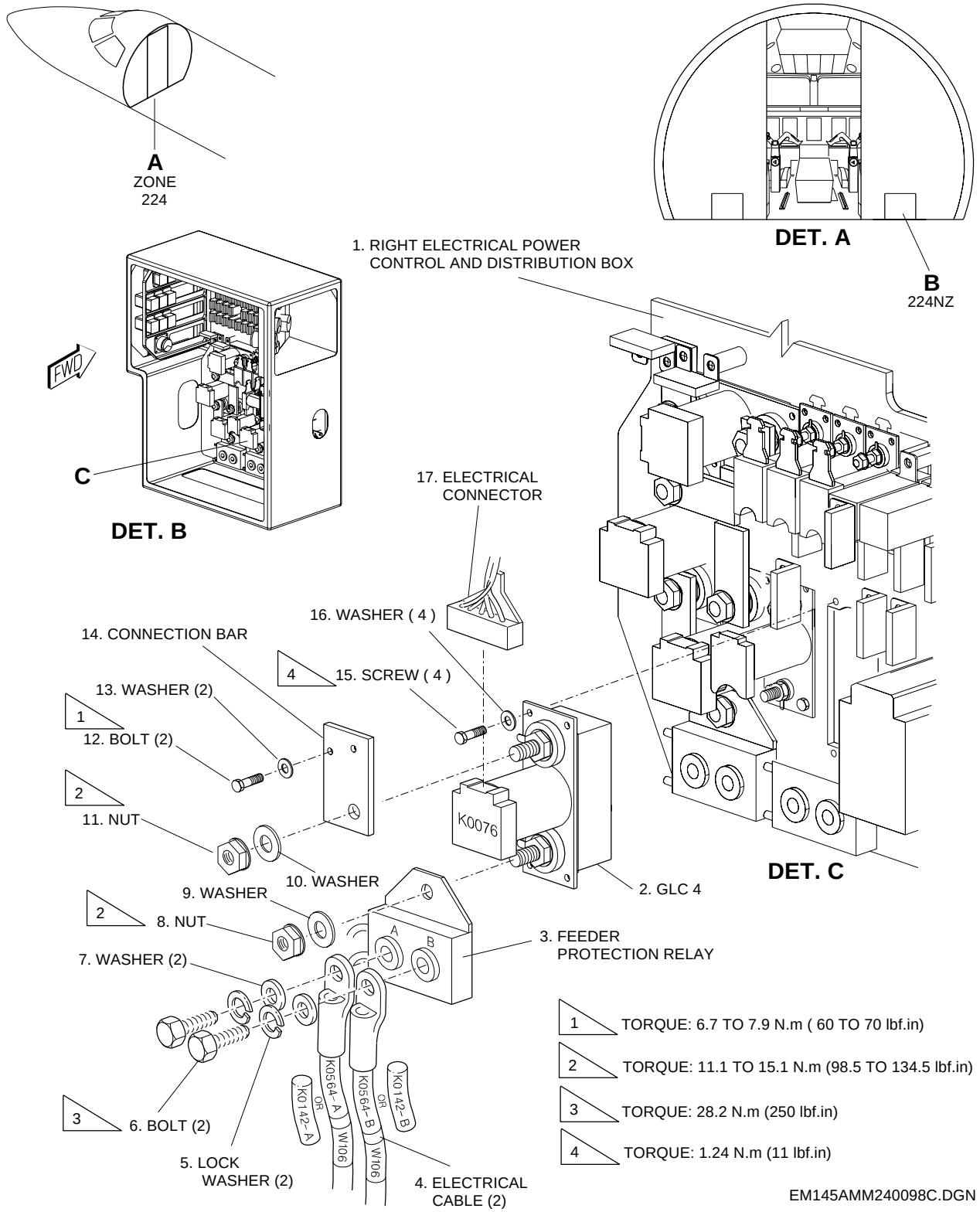
Generator Line Contactor (GLC 3) - Removal/Installation
Figure 403



EFFECTIVITY: ALL

Generator Line Contactor (GLC 4) - Removal/Installation

Figure 404



TASK 24-31-03-400-801-A
EFFECTIVITY: ALL

3. GENERATOR LINE CONTACTORS (GLCS) - INSTALLATION

A. General

(1) This task gives the procedure to install the generator line contactor (GLC).

B. References

REFERENCE	*DESIGNATION*
AMM MPP 06-41-03/100	- COMPONENT LOCATION
AMM TASK 24-31-00-700-803-A/500	MAIN GENERATION SYSTEM - OPERATIONAL TEST

C. Zones and Accesses

ZONE	*PANEL/DOOR*	*LOCATION*
223	223UZ	LH forward fuselage section II
224	224NZ	RH forward fuselage section II

D. Tools and Equipment

ITEM	*DESCRIPTION*	*PURPOSE*	*QTY*
Commercially available	Torque wrench (For the torque range, refer to the figures)	To torque the fasteners correctly	

E. Auxiliary Items

Not Applicable

F. Consumable Materials

Not Applicable

G. Expandable Parts

Not Applicable

H. Persons Recommended

QTY	*FUNCTION*	*PLACE*
1	Does the task	Forward fuselage section II

I. Installation

SUBTASK 420-002-A

(1) Install GLC 1 as follows (Figure 401):

(a) Put GLC 1 (3) in its installation position.

(b) Tighten the four screws (17) and four washers (18) which attach GLC 1 (3) to the left electrical-power control/distribution box (2).

(c) Use the torque wrench to torque each screw (17) to 1.24 N.m (11 lbf.in).

(d) Apply drop of torque seal F-925 to the screws (17) as a check mark.

(e) Tighten the nut (9) and washer (10) which attach the feeder protection relay (4) to GLC 1 (3).

(f) Use the torque wrench to torque nut (9) to 11.1 to 15.1 N.m (98.5 to 134.5 lbf.in).

(g) Apply drop of torque seal F-925 to the nut (9) as a check mark.

(h) Connect the two electrical cables (5) to the feeder protection relay (4).

CAUTION: SEE THEIR IDENTIFICATION TO MAKE SURE THAT THE ELECTRICAL CABLES ARE INSTALLED CORRECTLY AND THAT THE TORQUE VALUE IS APPLIED CORRECTLY. INCORRECT INSTALLATION OF THE CABLES WILL CAUSE IMPORTANT PROBLEMS TO THE AIRCRAFT.

(i) Tighten the two bolts (8), two lock washers (7), and two washers (6) which attach the two electrical cables (5) to the feeder protection relay (4).

(j) Use the torque wrench to torque each bolt (8) to 28.2 N.m (250 lbf.in).

(k) Apply drop of torque seal F-925 to the bolts (8) as a check mark.

(l) Put the connection bar (16) on GLC 1 (3).

CAUTION: MAKE SURE THAT THE TORQUE IS APPLIED CORRECTLY TO THE NUT. INCORRECT INSTALLATION OF THE CONNECTION BAR WILL CAUSE SERIOUS PROBLEMS TO THE AIRCRAFT.

(m) Tighten the nut (12) and washer (13) which attach the connection bar (16) to GLC 1 (3).

(n) Use the torque wrench to torque nut (12) to 11.1 to 15.1 N.m (98.5 to 134.5 lbf.in).

(o) Apply drop of torque seal F-925 to the nut (12) as a check mark.

(p) Connect the electrical wire (11).

CAUTION: MAKE SURE THAT THE TORQUE IS APPLIED CORRECTLY TO THE BOLTS. INCORRECT INSTALLATION OF THE CONNECTION BAR WILL CAUSE SERIOUS PROBLEMS TO THE AIRCRAFT.

(q) Tighten the two bolts (14) and two washers (15) which attach the connection bar (16) to GLC 1 (3).

(r) Use the torque wrench to torque each bolt (14) to 6.7 to 7.9 N.m (60 to 70 lbf.in).

(s) Apply drop of torque seal F-925 to the bolts (14) as a check mark.

(t) Connect the electrical connector (1) to GLC 1 (3).

(2) Install GLC 2 as follows (Figure 402):

(a) Put GLC 2 (2) in its installation position.

(b) Tighten the four screws (15) and four washers (16) which attach GLC 2 (2) to the right electrical-power control/distribution box (1).

(c) Use the torque wrench to torque each screw (15) to 1.24 N.m (11 lbf.in).

(d) Apply drop of torque seal F-925 to the screws (15) as a check mark.

(e) Tighten the nut (8) and washer (9) which attach the feeder protection relay (3) to GLC 2 (2).

(f) Use the torque wrench to torque the nut (8) to 11.1 to 15.1 N.m (98.5 to 134.5 lbf.in).

(g) Apply drop of torque seal F-925 to the nut (8) as a check mark.

(h) Connect the two electrical cables (4) to the feeder protection relay (3).

CAUTION: SEE THEIR IDENTIFICATION TO MAKE SURE THAT THE ELECTRICAL CABLES ARE INSTALLED CORRECTLY AND THAT THE TORQUE VALUE IS APPLIED CORRECTLY. INCORRECT INSTALLATION OF THE CABLES WILL CAUSE IMPORTANT PROBLEMS TO THE AIRCRAFT.

(i) Tighten the two bolts (6), two lock washer (5), and two washers (7) which attach the two electrical cables (4) to the feeder protection relay (3).

(j) Use the torque wrench to torque the bolts (6) to 28.2 N.m (250 lbf.in).

(k) Apply drop of torque seal F-925 to the each bolt (6) as a check mark.

(l) Put the connection bar (14) in its installation position.

CAUTION: MAKE SURE THAT THE TORQUE IS APPLIED CORRECTLY TO THE NUTS. INCORRECT INSTALLATION OF THE CONNECTION BAR WILL CAUSE SERIOUS PROBLEMS TO THE AIRCRAFT.

(m) Tighten the two nuts (12) and two washers (13) which attach the connection bar (14) to the right electrical-power control/distribution box (1).

(n) Use the torque wrench to torque the nuts (12) to 11.1 to 15.1 N.m (98.5 to 134.5 lbf.in).

(o) Apply drop of torque seal F-925 to the each nut (12) as a check mark.

(p) Tighten the two bolts (11) and two washers (10) which attach the connection bar (14) to the right electrical-power control/distribution box (1).

(q) Use the torque wrench to torque the bolts (11) to 6.7 to 7.9 N.m (60 to 70 lbf.in).

(r) Apply drop of torque seal F-925 to the each bolt (11) as a check mark.

(s) Connect the electrical connector (17) to GLC 2 (2).

(3) Install GLC 3 as follows (Figure 403):

(a) Put GLC 3 (17) in its installation position.

(b) Tighten the four screws (3) and four washers (2) which attach GLC 3 (17) to the left electrical-power control/distribution box (18).

(c) Use the torque wrench to torque the screws (3) to 1.24 N.m (11 lbf.in).

(d) Apply drop of torque seal F-925 to the each screw (3) as a check mark.

(e) Tighten the nut (11) and washer (10) which attach the feeder protection relay (16) to GLC 3 (17).

(f) Use the torque wrench to torque the nut (11) to 11.1 to 15.1 N.m (98.5 to 134.5 lbf.in).

(g) Apply drop of torque seal F-925 to the nut (11) as a check mark.

(h) Connect the two electrical cables (15) to the feeder protection relay (16).

CAUTION: SEE THEIR IDENTIFICATION TO MAKE SURE THAT THE ELECTRICAL CABLES ARE INSTALLED CORRECTLY AND THAT THE TORQUE VALUE IS APPLIED CORRECTLY. INCORRECT INSTALLATION OF THE CABLES WILL CAUSE IMPORTANT PROBLEMS TO THE AIRCRAFT.

(i) Tighten the two bolts (14), two lock washer (13), and two washers (12) which attach the two electrical cables (15) to the feeder protection relay (16).

(j) Use the torque wrench to torque the bolts (14) to 28.2 N.m (250 lbf.in).

(k) Apply drop of torque seal F-925 to the each bolt (14) as a check mark.

(l) Put the connection bar (4) in its installation position.

CAUTION: MAKE SURE THAT THE TORQUE IS APPLIED CORRECTLY TO THE NUTS. INCORRECT INSTALLATION OF THE CONNECTION BAR WILL CAUSE SERIOUS PROBLEMS TO THE AIRCRAFT.

(m) Tighten the two nuts (6) and two washers (5) which attach the connection bar (4) to the left electrical-power control/distribution box (18).

(n) Use the torque wrench to torque the nuts (6) to 11.1 to 15.1 N.m (98.5 to 134.5 lbf.in).

(o) Apply drop of torque seal F-925 to the each nut (6) as a check mark.

(p) Connect the electrical wire (9).

(q) Tighten the two bolts (7) and two washers (8) which attach the connection bar (4) to the left electrical-power control/distribution box (18).

(r) Use the torque wrench to torque the bolts (7) to 6.7 to 7.9 N.m (60 to 70 lbf.in).

(s) Apply drop of torque seal F-925 to the each bolt (7) as a check mark.

(t) Connect the electrical connector (1) to GLC 3 (17).

(4) Install GLC 4 as follows (Figure 404):

(a) Put GLC 4 (2) in its installation position.

(b) Tighten the four screws (15) and four washers (16) which attach GLC 4 (2) to the right electrical-power control/distribution box (1).

(c) Tighten the nut (8) and washer (9) which attach the feeder protection relay (3) to GLC 4 (2).

(d) Use the torque wrench to torque the nut (8) to 11.1 to 15.1 N.m (98.5 to 134.5 lbf.in).

(e) Apply drop of torque seal F-925 to the nut (8) as a check mark.

(f) Connect the two electrical cables (4) to the feeder protection relay (3).

CAUTION: SEE THEIR IDENTIFICATION TO MAKE SURE THAT THE ELECTRICAL CABLES ARE INSTALLED CORRECTLY AND THAT THE TORQUE VALUE IS APPLIED CORRECTLY. INCORRECT INSTALLATION OF THE CABLES WILL CAUSE IMPORTANT PROBLEMS TO THE AIRCRAFT.

(g) Tighten the two bolts (6), two lock washers (5), and two washers (7) which attach the two electrical cables (4) to the feeder protection relay (3).

(h) Use the torque wrench to torque the bolts (6) to 28.2 N.m (250 lbf.in).

(i) Apply drop of torque seal F-925 to the bolts (6) as a check mark.

(j) Put the connection bar (14) in its installation position.

CAUTION: MAKE SURE THAT THE TORQUE IS APPLIED CORRECTLY TO THE NUT. INCORRECT INSTALLATION OF THE CONNECTION BAR WILL CAUSE SERIOUS PROBLEMS TO THE AIRCRAFT.

(k) Tighten the nut (11) and washer (10) which attach the connection bar (14) to GLC 4 (2).

(l) Use the torque wrench to torque the nut (11) to 11.1 to 15.1 N.m (98.5 to 134.5 lbf.in).

(m) Apply drop of torque seal F-925 to the nut (11) as a check mark.

(n) Connect the electrical connector (17) to GLC 4 (2).

J. Follow-on

SUBTASK 842-002-A

(1) Close access panel 223UZ or/and 224NZ (AMM MPP 06-41-03/100) as applicable.

(2) Remove the DO-NOT-SET-ON tag from the GPU pushbutton.

(3) Remove the DO-NOT-SET-AUTO tag from the BATT 1 and BATT 2 switches.

(4) Do the Main-Generation System Operational Test (AMM TASK 24-31-00-700-803-A/500).