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MANDATORY SERVICE

BULLETIN

PACSB / XL / 104
ISSUE 1

RELOCATION OF GROUND TERMINATIONS

1. PLANNING INFORMATION

A.	EFFECTIVITY	All 750XL aircraft with the main battery fitted within the engine bay at the firewall up to and including S/N 222.
B.	REASON	Insufficient separation of ground terminations for individual power sources and static grounds.
C.	DESCRIPTION	This Service Bulletin provides procedures to separate the ground terminations of the battery, generator & engine ground.
D.	COMPLIANCE	At next scheduled maintenance check.
E.	APPROVAL	By delegated authority.
F.	TOOLING	N/A
G.	WEIGHT AND BALANCE	No change.
H.	REFERENCE	MOD PAC/XL/0093 (Latest Issue), Drawings P/Ns 11-81063, 11-10031, 11-81403 and 750XL Maintenance Manual.
I.	HOURS REQUIRED	4 hours.
J.	WARRANTY COVER	Normal warranty conditions apply.

2. ACCOMPLISHMENT INSTRUCTIONS

A. IDENTIFICATION OF BATTERY INSTALLATION & WORK REQUIRED:

1) At the engine cowl, open the access door (See Figure 1).

FIGURE 1 ENGINE COWL

2) Inspect the upper right internal area behind the access door (See Figure 1):
   - If the battery is fitted in this location, go to Step 3).
   - If the battery is not fitted in this location, no further action is required. Record compliance with this Service Bulletin in the Aircraft Log Book.

3) Inspect the area directly below the battery (See Figure 2):
   - If the leads are connected to a single ground stud as shown in Figure 2, go to Step 4).
   - If the leads are connected to separate/individual ground studs, no further action is required. Record compliance with this Service Bulletin in the Aircraft Log Book.

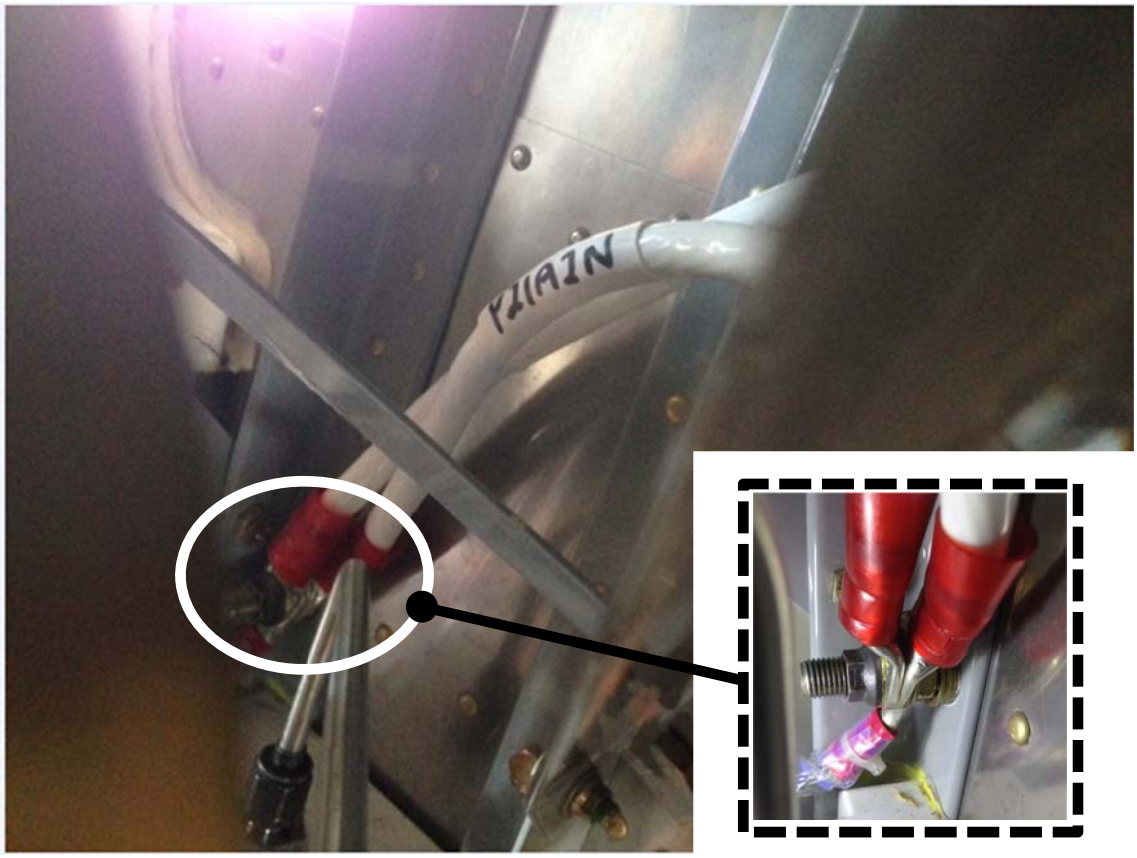

FIGURE 2 GROUND LEADS

4) Remove the upper engine cowl (Ref. 750XL MM, Chapter 71).

WARNING:	**ENSURE ALL ELECTRICAL POWER IS OFF AND THE AIRCRAFT IS PLACARDED 'DO NOT OPERATE'.**

5) Disconnect the battery terminal (See Figure 3).

FIGURE 3 BATTERY TERMINAL

6) Remove the battery (Ref. 750XL MM, Chapter 24).
7) Disconnect the battery earth lead (wire No. P1A2N) from the ground stud shown in Figure 2. Discard one locknut and **retain** one plain washer.
8) Feed the battery earth lead out of the engine bay in readiness for attaching a new ring terminal.
9) Remove and discard the existing ring terminal.
10) Prepare the wire and crimp a new P/N MS25036-126 or P/N 322125 onto the prepared end. Make sure that ring terminal is securely attached.
11) Route the wire back into the engine bay in readiness for reconnection.
12) Return to the ground stud where the battery earth lead was previously disconnected, and remove the braided engine bonding lead.

NOTE: Reuse of lock nuts should be avoided, installation of a new lock nut is recommended.

13) Identify wire No. P21A2N and make sure that it is connected to the existing stud (See Figure 4).
14) Fit the previously removed plain washer retained in step 7, then one new lock washer P/N MS35338-46 along with new locknut P/N MS21042-6, securely tighten as required.
15) Feed the engine bonding lead out of the engine bay in readiness for attaching a new ring terminal.
16) Remove and discard of the existing ring terminal.
17) Prepare the braided wire and crimp a new P/N MS25036-116 or P/N 322049 onto the prepared end. Make sure that ring terminal is securely attached.
18) Route the braided wire back into the engine bay in readiness for reconnection.
19) Return to the area directly beneath the battery and remove two bolts (See Figure 4).

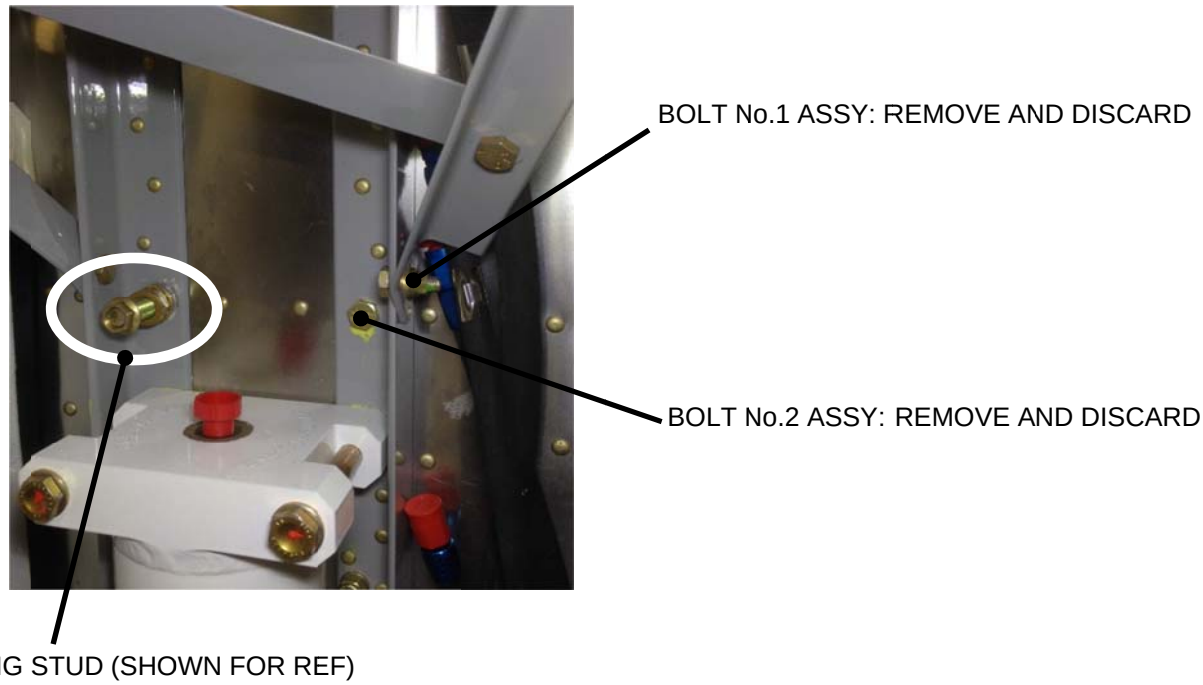

FIGURE 4 BOLT REMOVAL

NOTE: Removal of Bolt No.2 assy will require access beneath the instrument panel (See Figure 5). This may be achieved without the removal of any equipment or panels, however for ease of access it is recommended that the R.H. seat is removed.

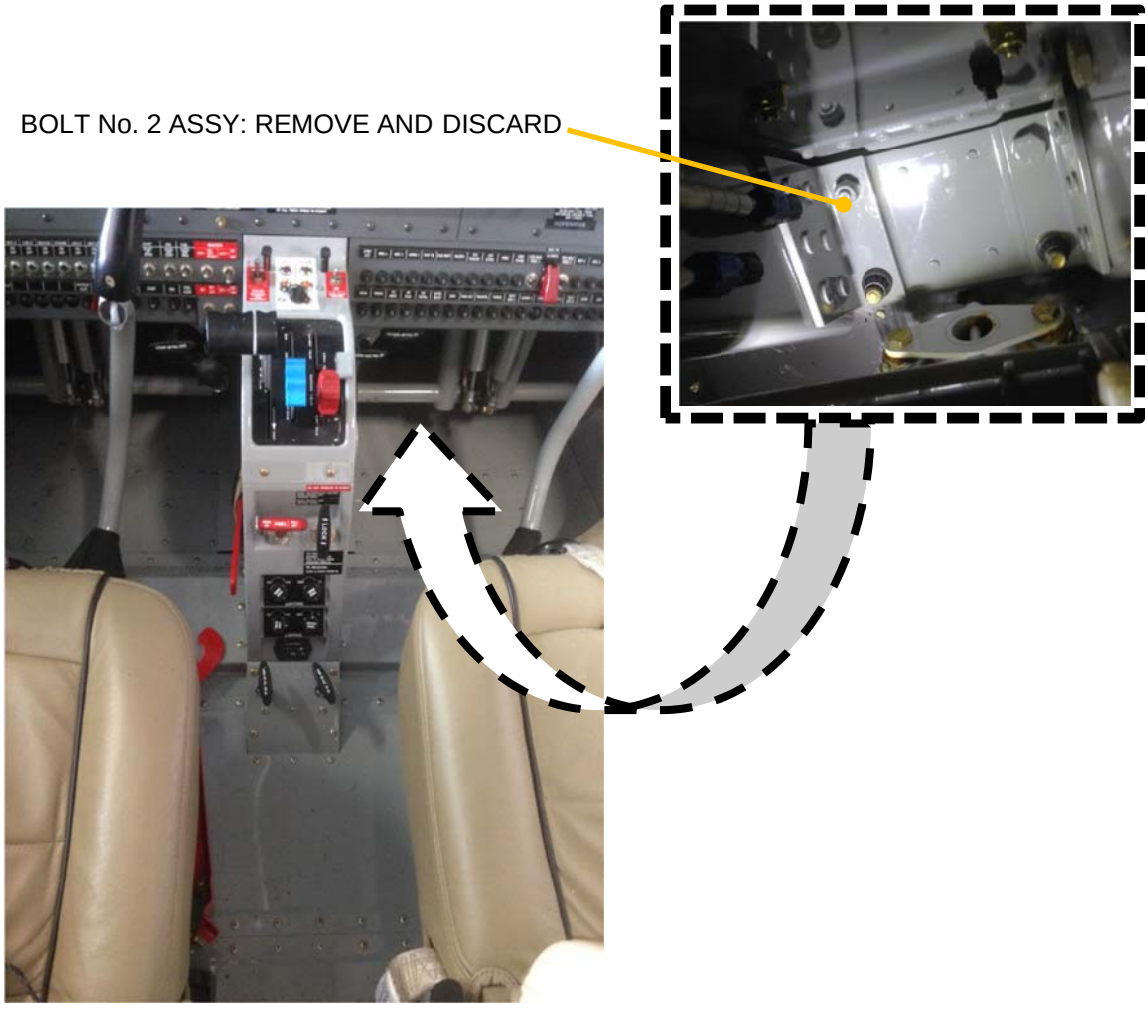

FIGURE 5 COCKPIT ACCESS

20) Return to each location where Bolts No.1 & No.2 were removed.

21) To ensure a good electrical bond, prepare the surfaces under the bolt heads and nuts in accordance with AC43.13-1B section 15, Grounding & Bonding.

22) For Bolt No.2 installation & orientation, assemble the hardware buildup shown in Figure 6.

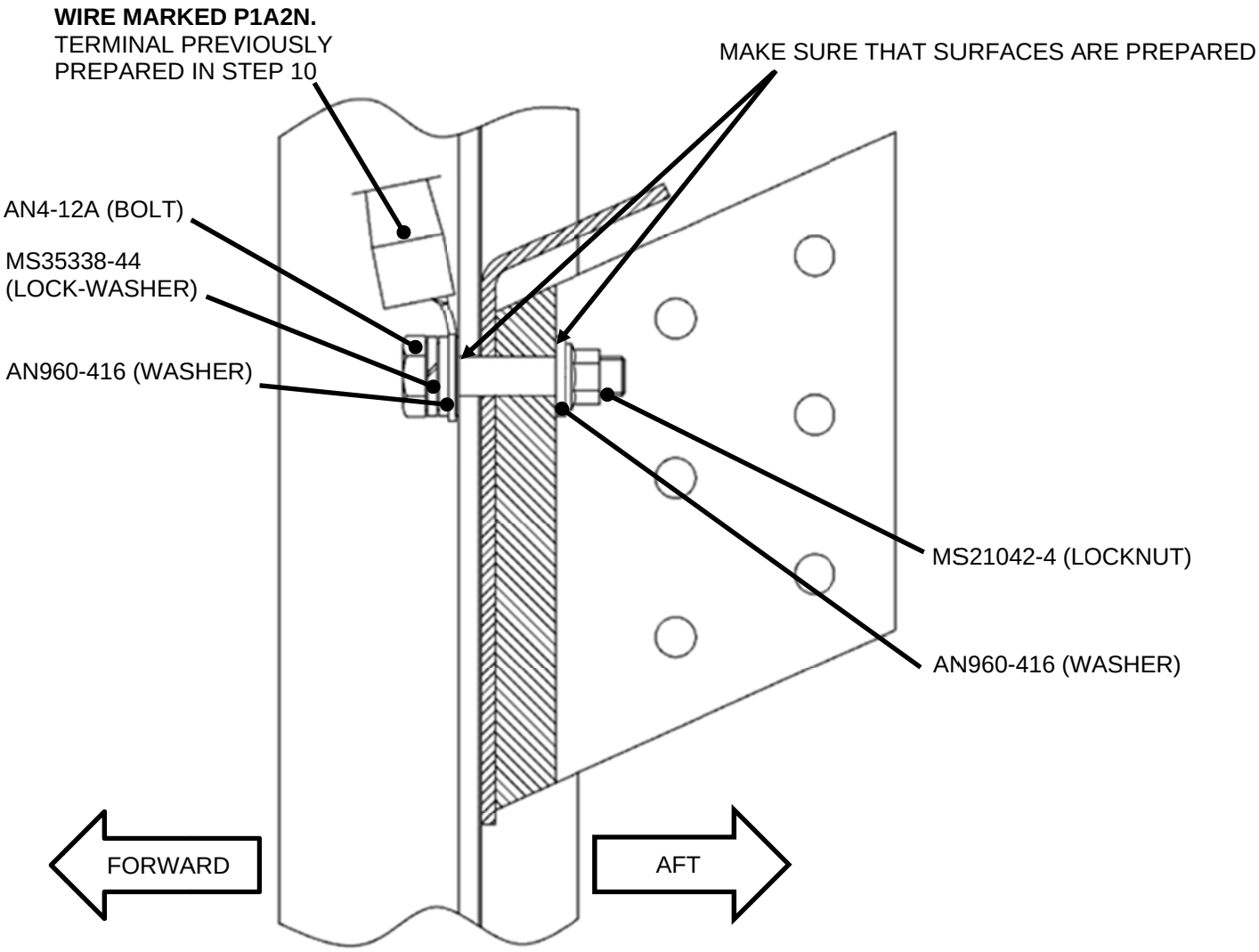

FIGURE 6 BOLT No.2 HARDWARE BUILDUP

23) Carry out a resistance check to make sure that the battery ground lead to the airframe is less than 2.5 milliohms.

24) Restore any bare metallic surfaces to prevent corrosion (Bolt No.2 assembly area).

25) Return to Figure 4 where Bolt No.1 assy was removed.

26) To ensure a good electrical bond, prepare the surfaces under the bolt heads and nuts in accordance with AC43.13-1B section 15, Grounding & Bonding.

27) For Bolt No. 1 installation & orientation, assemble the hardware buildup shown in Figure 7.

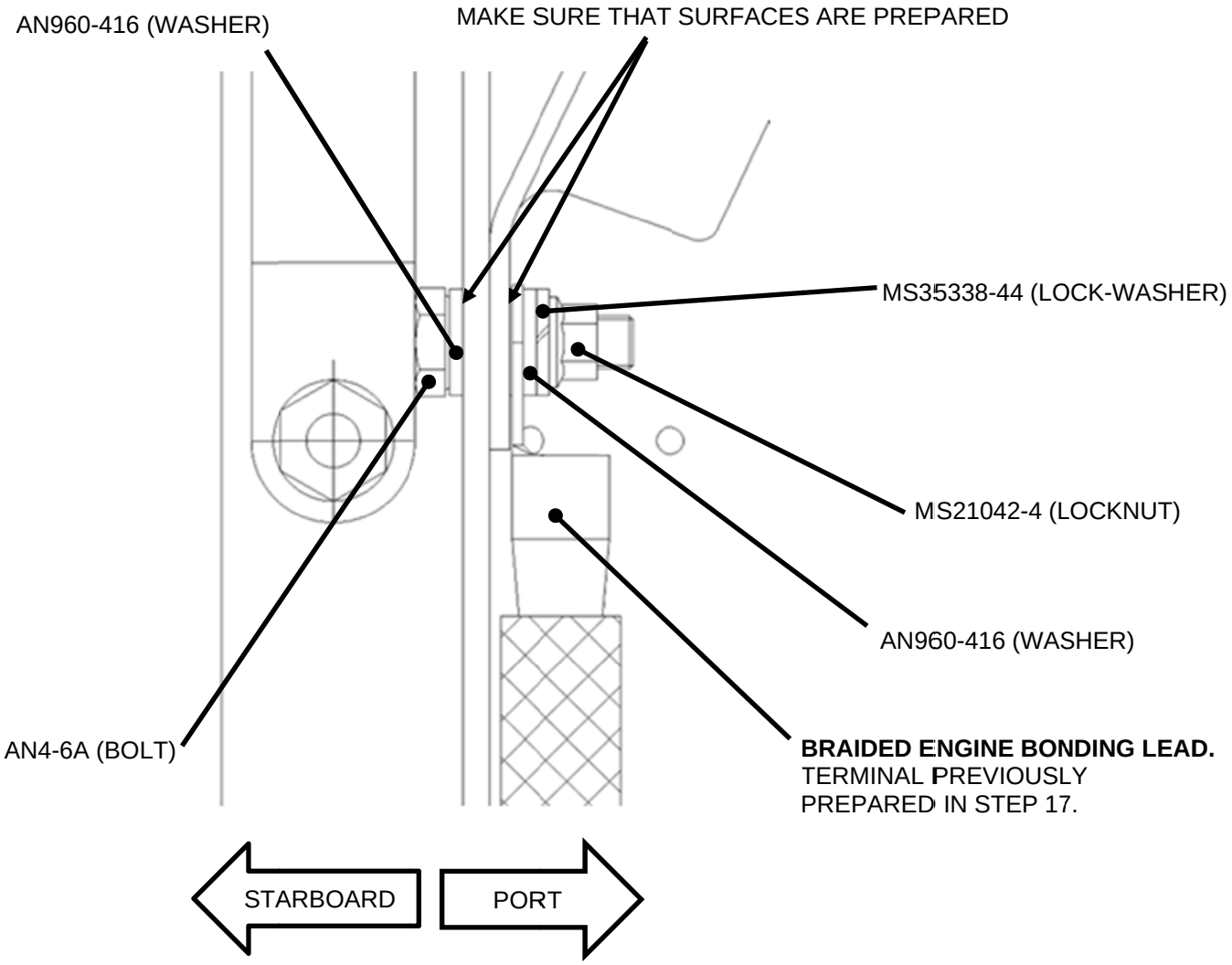

FIGURE 7 BOLT No.1 HARDWARE BUILDUP

28) Carry out a resistance check to ensure that the engine bonding lead to the airframe is less than 2.5 milliohms.

29) Restore any bare metallic surfaces to prevent corrosion (Bolt No.1 assembly area).

30) Make sure that all new terminations are securely fastened, and that rerouted cables are securely tied and prevented from riding on nearby structures.

31) Do a thorough inspection to ensure that all debris, old fastening hardware and tools have been removed.

32) Reinstall the battery (Ref. 750XL MM, Chapter 24).

33) Reconnect the previously disconnected battery terminal (See Figure 3) and make sure that it is securely attached.

34) Carry out a functional check of the battery circuit (Ref. 750XL MM, Chapter 24).

35) Carry out a functional check of the generator (Ref. 750XL MM, Chapter 24).

36) Reinstall the upper engine cowl (Ref. 750XL MM, Chapter 71).

3. CERTIFICATION

Record compliance with this Service Bulletin in the Aircraft Log Book.

4. MATERIAL REQUIRED:

Description	Part Number	Qty Required
TERMINAL, RING 1/4" 2AWG	MS25036-126 or 322125 (AMP)	1
TERMINAL, RING 1/4" 8AWG	MS25036-116 or 322049 (AMP)	1
BOLT (BOLT No.1)	AN4-6A	1
BOLT (BOLT No.2)	AN4-12A	1
NUT (LOCKING)	MS21042-4	2
NUT (LOCKING)	MS21042-6	1
WASHER (PLAIN)	AN960-416	4
LOCK WASHER	MS35338-44	2
LOCK WASHER	MS35338-46	1