

Nomad

SERVICE BULLETIN

ELECTRICAL POWER – BATTERY AND EXTERNAL POWER SUPPLY– IMPROVED EARTHING POINTS (MOD N836)

1. PLANNING INFORMATION

A. Effectivity

- (1) Aircraft Affected
 - (a) All Nomad N22 and N24 series aircraft
- (2) Spares Affected
 - (a) None

B. Reason

To avoid excessive voltage drop and improve the current path for engine starts.

C. Description

Relocate the earth point for the two external power supply leads 1.15in above the existing location onto a new earthing plate with a direct bonding path to the aircraft main structure.

The earthing point for the two battery power leads has been retained at the existing location, but it has been improved by increasing the contact area offered by the original cres nut and standard washers.

D. Compliance

- (1) Compliance with this Service Bulletin is mandatory.
- (2) At the next 100 hourly inspection or within three months following receipt of this Service Bulletin, whichever comes first.

E. Approval

The requirement detailed herein has been approved by a person authorised under Civil Aviation Regulation 35 and conforms to the type certification requirements.

F. Manpower

Approximately 8 man-hours.

G. Material– Price and Availability

Contact ASTA Defence (Logistics) Customer Spare for price and availability of parts.

H. Tooling

None

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I. **Weight and Balance Change**

None

J. **References**

Maintenance Manual Chap 20-20-00

K. **Publications Affected**

Illustrated Parts Catalogue

2. **Accomplishment Instructions**

- (1) Disconnect electrical power from aircraft and isolate battery.
- (2) Gain access to LH wheel pod Stn 49.50. Disconnect earthing leads P2A2N, P2B2N, P4A2N and P4B2N and discard existing earthing hardware.
- (3) Centrally locate nut-plate attached to the Base Plate Assy PN 1D/N-81-967 over the battery power earthing point in item 1A/N-11-483 (Ref Fig 1). Drill two No 30 (0.129in/3.3mm dia.) holes using Base Plate Assy as a template. Countersink on opposite side to Base Plate Assy.
- (4) Deburr the holes and assemble using rivets PN MS20426AD4-5 (2off).
- (5) Drill 1.00in. dia hole in Stub Wing Mounting Angle PN 1B/N-11-601, 1.15in above the existing external power lead earthing point (Ref Fig 1).
- (6) Drill out 5 existing rivets marked * in Fig 1.
- (7) Centrally locate nut-plate attached to the Earthing Plate PN 1B/N-81-967 over the 1.00in dia. hole in the Stub Wing Mounting Angle PN 1B/N-11-601 and clamp in place (Ref Fig 1).
- (8) Using Earthing Plate PN 1B/N-81-967 as a template, drill two No30 (0.129in/3.3mm dia.) holes in part 1B/N-11-601. Deburr and clamp together (REF Fig 1).
- (9) Drill five No 30 (0.129in/3.3mm dia.) holes from existing structure (three top and two bottom) and one 0.2559in (6.5mm) dia hole (bottom centre) (Ref Fig 1).
- (10) Deburr holes and clean mating surfaces for electrical bonding around the three lower mounting holes, in accordance with Maintenance Manual 20-20-00, on parts 1B/N-81-967 and 1A/N-11-483.
- (11) Assemble plate to structure using seven rivets:
 - (a) Three rivets PN MS20470AD4-4 across the top edge.
 - (b) Two rivets PN MS20470AD4-4 across the centre.
 - (c) Two rivets PN MS20470AD4-5, lower left and lower right positions.
- (12) Remove all metal particles and vacuum clean all swarf from inside pod.
- (13) Insert bolt PN NAS6604-2 in 6.5mm dia hole (lower centre) from item 1B/N-81-967 side. Assemble washer PN AN960KD416 and nut PN MS21083N4to bolt (Ref Fig 2). Torque tighten to 30-40lbs.in.

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- (14) Assemble leads P2A2N and P2B2N to Base Plate 1D/N-81-967 using washers PN 1E/N81-967 adjacent to 1B/N-81-483, AN960-416 and MS35338-139 and bolt PN NAS6604-7 (Ref Fig 3).
- (15) Assemble leads P4A2N and P4B2N to item 1B/N-81-967 (Ref Fig. 2) using washers PN 1E/N-81-967 adjacent to 1B/N-81-967, AN960-416 and MS35338-139 and bolt PN NAS6604-7.
- (16) Refinish all surfaces in accordance with Maintenance Manual 20-20-00 and seal the outer perimeter and the 1.00in dia. hole perimeter, the rivet head/tails and bolt/nut/washers in the reworked area using sealing compound PR1422 Class B.
- (17) Reconnect battery.

3. MATERIAL INFORMATION

A. The following parts are required for each aircraft and are available from ASTA Defence.

Contents of Service Bulletin Kit NMD -24-6				
New Part Number	Qty.	Description	Old Part No.	Remarks
1B/N-81-967	1	Earthing Plate Assy		
1D/N-81-967	1	Base Plate Assy		
1E/N-81-967	2	Washer		

B. The following parts to be locally procured.

New Part Number	Qty.	Description	Old Part No.	Remarks
NAS6604-2	1	Bolt		
NAS6604-7	2	Bolt		
AN960-416	2	Washer		
AN960KD416	1	Washer		
MS35338-139	2	Washer, Lock Spring		
MS21083N4	1	Nut, Self Locking		
MS20426AD4-5	2	Rivet, Csk Head		
MS20470AD4-4	5	Rivet, Universal Head		
MS20470AD4-5	2	Rivet, Universal Head		

C. Consumables

Sealing Compound PR1422 Class B

4. SPECIAL TOOLS AND EQUIPMENT

None

5. RECORDING ACTION

Record compliance with Service Bulletin NMD-24-6 in Airframe Log Book.

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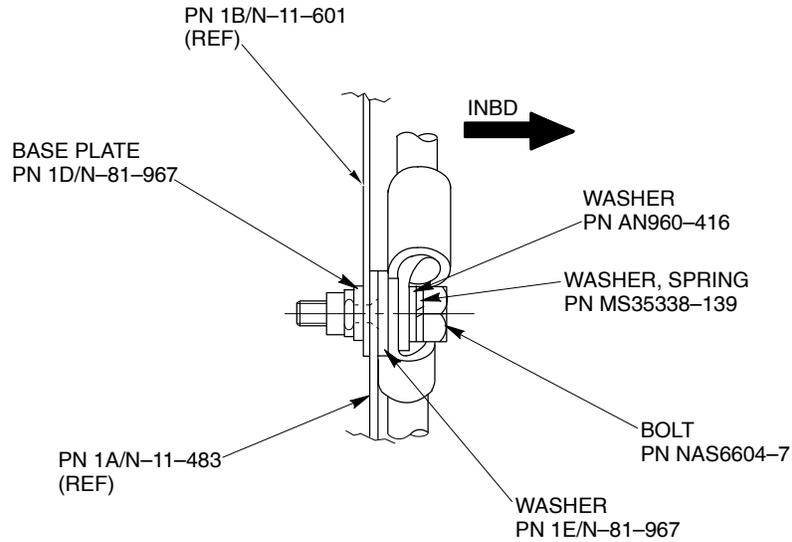


Figure 3 Battery Power Leads Base Plate/Stud Assembly