WINGS — ELECTRICAL — AFT WING BREAK CONNECTOR — INCORPORATION OF MOD N875 (N22) & N876 (N24)

1. PLANNING INFORMATION

A. Effectivity

- (1) Aircraft affected:
 - (a) **N22 Series** line sequence numbers 1 to 9, 11 to 29, 31, 33, 35, 37, 39 to 41, 43, 45, 47 to 59, 61, 63, 65 to 70, 82 to 88, 90 to 95, 97, 100, 102 to 114, 116, 118, 125,126, 131 to 134, 137, 138, 141, 143 to 170.
 - (b) **N24 Series** line sequence numbers 10, 30, 32, 34, 36, 38, 42, 44, 46, 60, 62, 64, 71 to 81, 89, 96, 98, 99, 101, 115, 117, 119 to 124, 127 to 130, 135, 136,139, 140, 142.

NOTE

Aircraft line sequence Nos 46 & 55 are exempt from the requirements of this Service Bulletin provided that log book entries confirm that alternative connectors are fitted and subsequently have not been removed for any reason.

(2) Spares Affected:

None.

B. Reason

Reports have been received of uncommanded flap extensions and incorrect stall warning indications. Contamination in the aft wing break connectors may cause such occurrences.

Reason for Revision 1

- Incorporation of Mods N875 (N22) and N876 (N24), environment resisting military specification connectors.
- (2) Conditional exemption of aircraft LS 46 & LS 55 from the requirements of Service Bulletin ANMD-57-13.

C. Description

The aft wing break connectors are to be disassembled (including strain relief) and inspected for corrosion, arcing damage, looseness of contacts and deposits between contacts at the mating faces of the connectors and at the back of the connectors in the strain relief areas.

Mods N875 and N876 replace existing D-Connectors with environment resisting connectors for improved corrosion and damage resistance.

D. Compliance

- (1) Incorporation of this Service Bulletin is mandatory.
- (2) Part A Inspection must be carried out immediately following receipt of this Service Bulletin and inspection repeated at every 300 hour inspection until Part B incorporated.
- (3) Part B Incorporate Mod N875 (or N876) within 1800 hours or 12 months, whichever occurs first.

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E. Approval

The requirement detailed herein has been approved by a person authorised under Civil Aviation Regulation 35 and conforms to Type Certification Requirements.

F. Manpower

Inspection 1 man-hour
Replacement 4 man-hours

G. Material - Price and availability

This kit is available free of charge to approved Nomad Operators upon request, from Nomad Customer Support – Boeing Aerospace Support – ASTA.

H. Tooling

None.

Weight and Balance Change

None.

J. Reference

Maintenance Manual Chap 25–20–00
Illustrated Parts Catalogue Chap 39–10–05
Wiring Diagram Manual Chap 27–50–00

K. Publications Affected

Illustrated Parts Catalogue

Wiring Diagram Manual

Inspection Requirements Manual

2. ACCOMPLISHMENT INSTRUCTIONS

A. Part A - Inspection

- (1) Set the battery switch to OFF and disconnect the aircraft battery.
- (2) Gain access to the aft wing break connector at the LH wing by removing necessary access panels. (Ref MM Chap 25–20–00).
- (3) Disconnect the aft wing break connector (Ref Fig 1) and remove the fuselage connector from the mounting bracket.
- (4) Remove the strain relief back shells from each connector to enable inspection of both sides of the contact inserts.
- (5) If the connectors are contaminated, thoroughly clean both sides of the connector using a suitable cleaning solvent.
- (6) Inspect the connectors for arcing damage, deposits between contacts and looseness of contacts. If the connectors are found to be unserviceable, omit the following steps (7), (8), (9) and (10) and proceed to Part B.
- (7) Reassemble the strain relief to each connector half and install the fuselage connector onto bracket. Reconnect the connector halves.

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WARNING

ENSURE THE AREA CONCERNED IS CLEAN AND FREE FROM FOREIGN OBJECTS BEFORE CLOSING ACCESS PANELS.

- (8) Refit the panels removed for access.
- (9) Reconnect the aircraft battery.
- (10) Check for satisfactory operation of the flaps (Refer MM Chap 27–50–00).
- B. Part B Incorporation of Mod N875 (or N876)

If the modification procedure is being carried out immediately following inspection, steps (1) and (2) below may be omitted.

- (1) Set the battery switch to OFF and disconnect the aircraft battery.
- (2) Gain access to the aft wing break connector as per Para 2.A.(2).
- (3) At the end of the wing flap microswitch cable, check wire idents on each wire (renew if necessary). Remove and discard plug (M24308/3–2), junction shell (DA24658) and lock assemblies (D20419–16).
- (4) At the end of the fuselage component of cable, check wire idents on each wire (renew if necessary). Remove the connector from the mounting bracket. Remove and discard plug (M24308/1–2), junction shell (DA24658) and screwlocks (D20418–2).
- (5) Prepare tail ends of wing cable wires, re-identify loom and connect to Connector Plug (MS3476L14–19P or alternative) in accordance with Figure 2 (N22) or Figure 3 (N24).
- (6) Prepare tail ends of fuselage cable wires, re-identify loom and connect to Connector Receptacle (MS3470L14–19S or alternative) in accordance with Figure 2 (N22) or Figure 3 (N24).
- (7) Attach new Connector Mounting Bracket (1A/N-81-966) as per Figure 4 with rivets (MS20470AD4-4).
- (8) Attach Receptacle to mounting bracket with screws (MS35206–216), washers (AN960KD4) and nuts (MS21044N04). Attach wing cable plug to fuselage Receptacle and secure.
- (9) Fasten wing cable to flange of diaphragm (1/N-11-344) using cable clip (NX3) and rivet (CR3223-5-04).
- (10) Check both wing and fuselage cables are free of obstruction or fouling.
- (11) Check the electrical circuit for continuity (Ref Wiring Diagram Manual Chap 27–50–00).

WARNING

ENSURE THE AREA CONCERNED IS CLEAN AND FREE FROM FOREIGN OBJECTS BEFORE CLOSING ACCESS PANELS.

- (12) Refit the panels removed for access.
- (13) Reconnect the aircraft battery.
- (14) Check for satisfactory operation of the flaps (Ref MM Chap 27–50–00).

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3. MATERIAL INFORMATION

A. Parts Required per Aircraft

New Parts - Kit, ANMD-57-13 consisting of the following:					
Part No	Description	Qty	Instruction/Disposition		
1A/N-81-966	Bracket, Connector Mounting	1			
MS3476L14-19P	Connector, Plug	1			
MS3126F14-19P	Connector, Plug - Alternative		Includes backshell		
M85049/52-1-14N	Backshell				
MS3417-14N	Backshell – Alternative	2			
MS3470L14-19S	Connector, Receptacle	1			
MS3120F14-19S	Connector, Receptacle - Alternative	1	Includes backshell		
NX3	Clip	1			
CR3223-5-04	Rivet, blind universal head		CherryMax		
MS20470AD4-4	Rivet, solid universal head	2			
CR3223-4-02	Rivet, blind universal head - Alternative	2	CherryMax		
	Sleeve, PVC, White, 10 mm x 1.5"	2			

Parts Removed						
Part No	Description	Qty	Instruction/Disposition			
M24308/3-2	Connector, Plug	1	Discard			
DA24658	Junction Shell	1	Discard			
D20419-16	Lock Assembly	2	Discard			
M24308/1-2	Connector, Receptacle	1	Discard			
DA24658	Junction Shell	1	Discard			
D20418-2	Screwlock	2	Discard			

4. SPECIAL TOOLS AND EQUIPMENT

None.

5. **RECORDING ACTION**

Record compliance with Service Bulletin ANMD-57-13 Rev 1 in the Airframe Log Book.

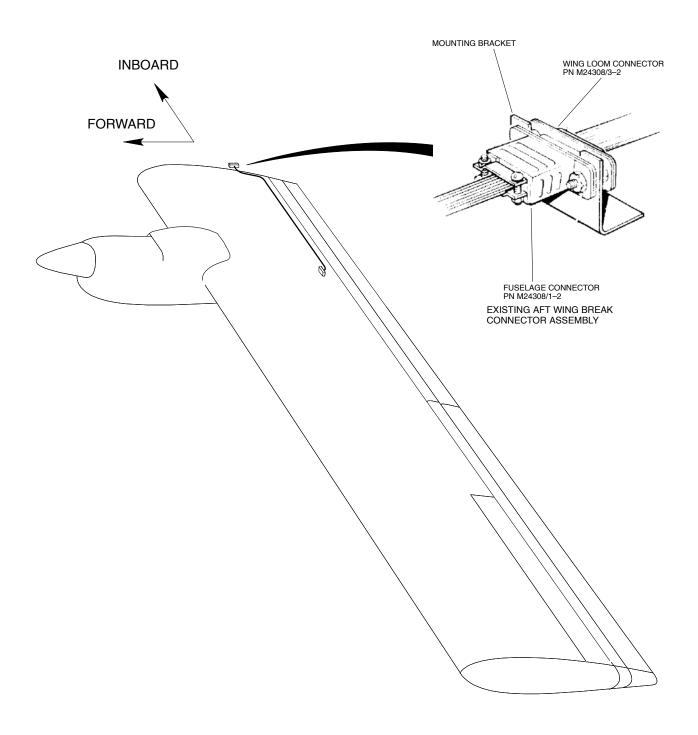


Figure 1 Aft Wing Break Connector - Inspection

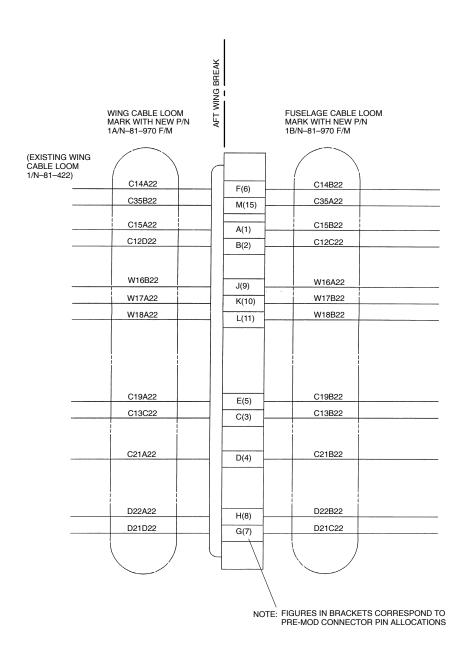


Figure 2 Schematic of Connector Wiring – N22 (Mod N875)

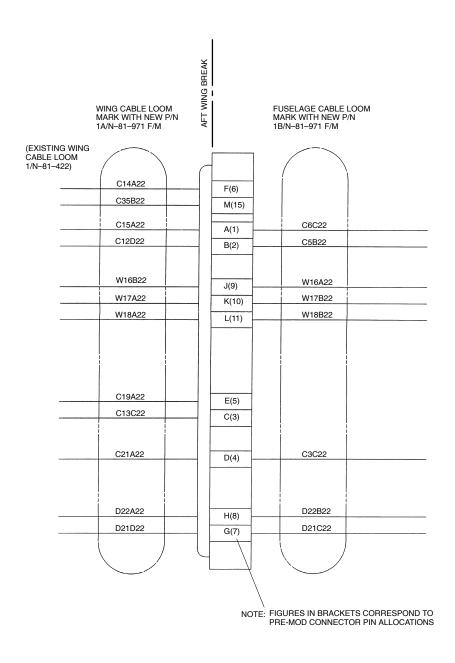


Figure 3 Schematic of Connector Wiring – N24 (Mod N876)

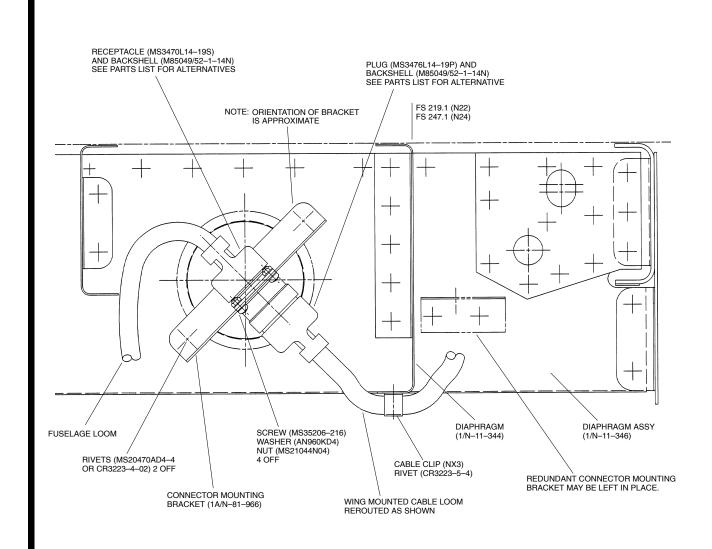


Figure 4 Revised Cable Connector Mounting