



# SERVICE BULLETIN

DATE: 25 SEPTEMBER 1998  
PAGE 1 OF 6

**MANDATORY**

\* Supercedes Service Bulletins SB369E-090, SB369F-077, SB500N-017 and SB600N-014, dated 06 July 1998. The reason for this revision is to clarify locations of various electrical components.

## SOCKET CONTACT ASSEMBLY INSPECTION

### 1. PLANNING INFORMATION

#### A. Aircraft Affected:

All McDonnell Douglas Helicopter Systems (MDHS) 369E (384E and subsequent), 369FF (076FF and subsequent) 500N and 600N series helicopters.

#### B. Assembly/Components Affected By This Notice:

Terminal Board and Relay Bracket Assembly (P/N 369D24255), HS4256-1 Relay Receptacle, and 019-0075-002 Contact Socket.

#### C. Reason:

To ensure that the sockets properly fit their corresponding pins of the affected relay. Failure to comply with the requirements of this Bulletin may affect the operation of the Battery Hi Temp or Auto Reignition Ignitor relay used on generic wired 369E, 369FF and 500N. Non-compliance may also affect the Battery Hi Temp relay, FADEC Caution Warning Signals to the indicator lights and the Voice Warning Unit, (FADEC Start relay, ECU Fail relay, Engine Out relay or Manual Mode relay) on 600N aircraft.

The problem of the incorrect socket to relay pin connection may affect the operation of the following relays on the generic wired 369E, 369FF, and 500N helicopters:

**Battery Hi Temp. Relay** (K200 - The redundant automatic disconnect of the overtemp battery may not function)

**Auto Re-ignition Igniter relay** (K104 - May not allow the igniters to automatically fire, manual override is available at the collective start switch for 369E/FF and 500N only)

The following Model 600N helicopter relays may be affected by this problem:

**Battery Hi Temp relay** (K200 - same as 369E/FF and 500N above)

#### **FADEC Related relays as noted below:**

**ECU Fail relay** (K2 - May not get a signal to ECU caution lights or voice warning pertaining to the ECU)

**Engine Out relay** (K3 - May fail to get engine out warning light or voice warning)

**Manual Mode relay** (K5 - May not get caution light/voice warning indication ECU switched to manual mode)

**FADEC start relay** (K1 - May not be able to start engine)

**MANDATORY**



DATE: 25 SEPTEMBER 1998  
 PAGE 2 OF 6

# SERVICE BULLETIN

**MANDATORY**

Voice Warning Unit (The FADEC Warning Signals (K1, K2, K3 and K5), may not get a voice warning for FADEC failures)

**D. Description:**

Procedures in this Bulletin provide owners and operators with information pertaining to inspecting various relay receptacle assemblies for proper contact socket size and fit. Relay assemblies to be inspected are the K1, K2, K3, K5, K104 and K200 (relay P/N HS 4240).  
**NOTE:** These relay positions contain the suspect 019-0075-002 sockets.

**E. Time of Compliance:**

The requirements of this Bulletin shall be accomplished at the next regularly scheduled inspection of the aircraft or within the next 30 calendar days after receipt of this Service Bulletin, which ever occurs first, but not later than August 15, 1998.

**F. FAA Approval:**

The technical design aspects of this Bulletin are FAA Approved.

**G. Manpower:**

2.0 man-hours to perform the inspection only.

**H. Interchangeability:**

None

**I. Material/Part Availability:**

Contact Commercial Suppliers.

REPLACEMENT PARTS/SUPPLIES/TOOLS			
Nomenclature	Part No.	Qty.	Source
Socket	019-0075-002	A/R	Obtain replacement sockets from your local MDHS Field Service Representative.
Socket Extraction Tool	ATV 2073	1	Astro Tool Co. 21615 S.W. TV Highway Beaverton, Oregon 97006 (503) 642-9853
Socket Crimping Tool used with:	M2252/1-01	1	Daniels Manufacturing Orlando, Florida
Die Head	TH184S	1	(407) 855-6161
GO-NO/GO Gauge	Number 60 drill bit or 0.040 in. (1.016 mm) wire gauge	1	Commercial

**J. Warranty Policy:**

Standard warranty policy applies.

**K. Tooling:**

Refer to Table in I.

**MANDATORY**



# SERVICE BULLETIN

DATE: 25 SEPTEMBER 1998  
PAGE 3 OF 6

**MANDATORY** **MANDATORY** **MANDATORY**

**L. Weight and Balance:**

N/A

**M. Electrical Load Data:**

N/A

**N. Other Publications Affected:**

N/A

## **2. ACCOMPLISHMENT INSTRUCTIONS**

(Ref. Figure 1 and Figure 2 )

**NOTE:** The following information should be known prior to performing the following inspection.

- The sockets that do not fit the pins have a larger opening, which is evident when viewed with the naked eye and are very loose when inserted on the relay pin.
- Discrepant sockets have two witness holes, one in the wire crimp area and another in the relay pin contact area. The correct sockets have one witness hole in the crimp area and no witness hole in the relay pin contact area.
- The color of the red paint on the discrepant socket band is dark red. The color of the paint on the correct socket is red/orange.

- (1). Access the suspect relays (Ref. CSP-HMI-3). **NOTE:** The suspect relays are located on the inboard side of the battery compartment attached to the center keel.
- (2). Remove relay to be inspected from its socket (Ref. CSP-HMI-3).

**CAUTION** Ensure gauge is inserted perpendicular to the face of the receptacle, to prevent damage to the receptacle and contact socket.

- (3). Insert the GO NO/GO gauge into every socket of relay receptacle. If gauge goes into socket, the socket is to be replaced.
- (4). Reinstall relay into socket (Ref. CSP-HMI-3).
- (5). Reinstall any panels removed for access.
- (6). Record compliance with this Bulletin in the Rotorcraft Logbook.

## **3. DISPOSITION OF PARTS REMOVED**

Scrap

## **4. COMPLIANCE RECORD**

Record compliance to this Service Bulletin in the Compliance Record section of the helicopter Log Book.

## **5. POINTS OF CONTACT**

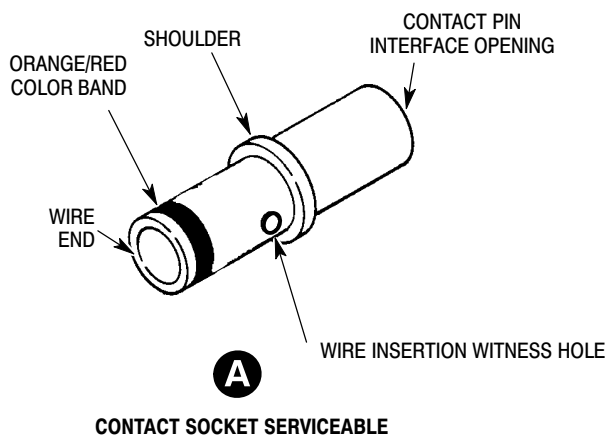
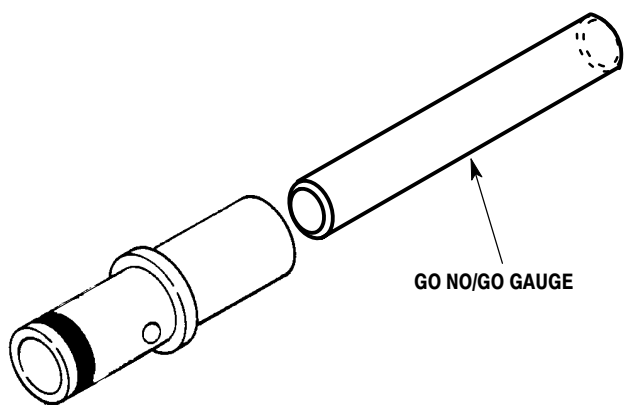
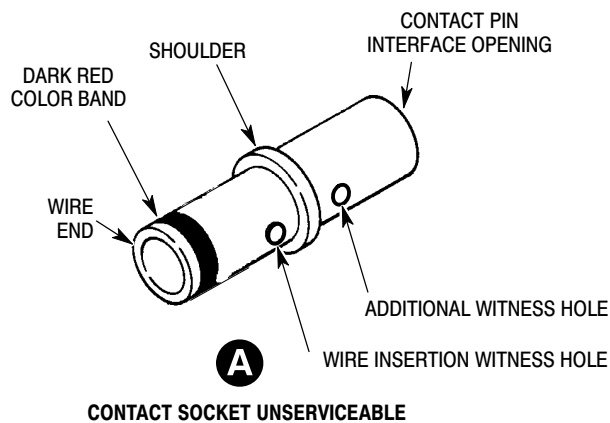
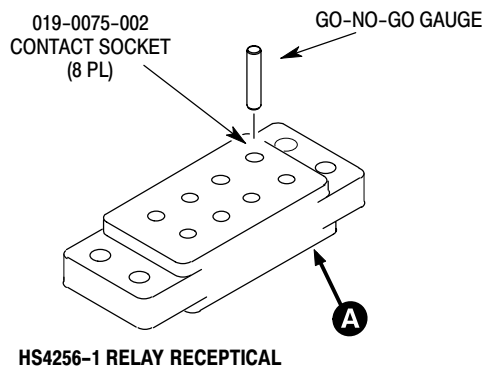
For further assistance, contact your local MDHI Field Service Representative (refer to the latest revision of the "At Your Service" handbook for address and telephone numbers) or contact the Field Service Department at MDHI, Mesa, Arizona. Telephone 1-800-388-3378 or (480) 891-6342. DATAFAX: (480) 891-6782.

**MANDATORY** **MANDATORY** **MANDATORY**

DATE: 25 SEPTEMBER 1998  
PAGE 4 OF 6

# SERVICE BULLETIN

**MANDATORY**



88-761

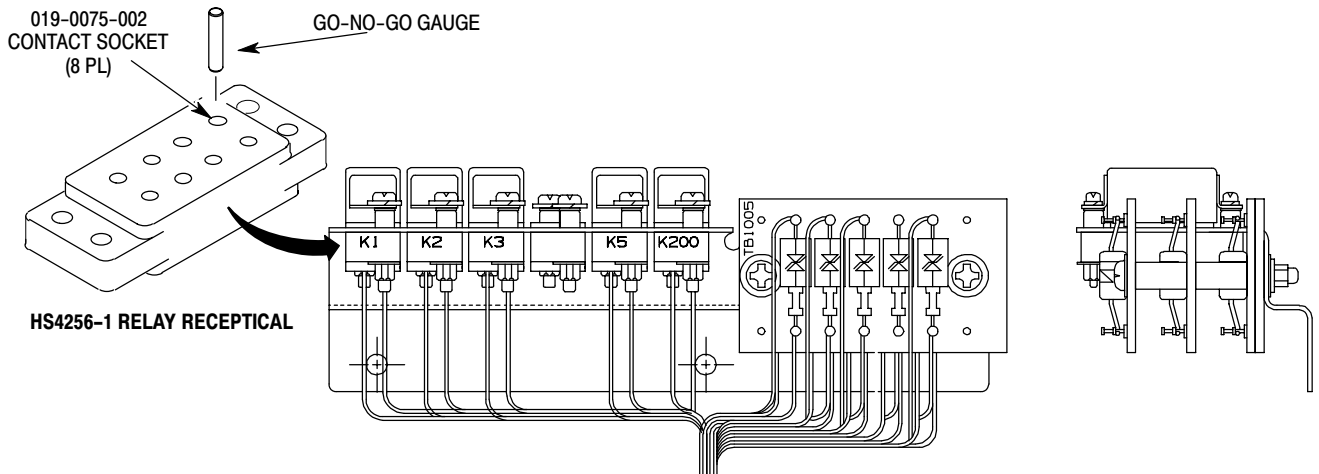
**Figure 1. Contact Socket Inspection**

**MANDATORY**

# SERVICE BULLETIN

DATE: 25 SEPTEMBER 1998  
PAGE 5 OF 6

**MANDATORY MANDATORY MANDATORY**

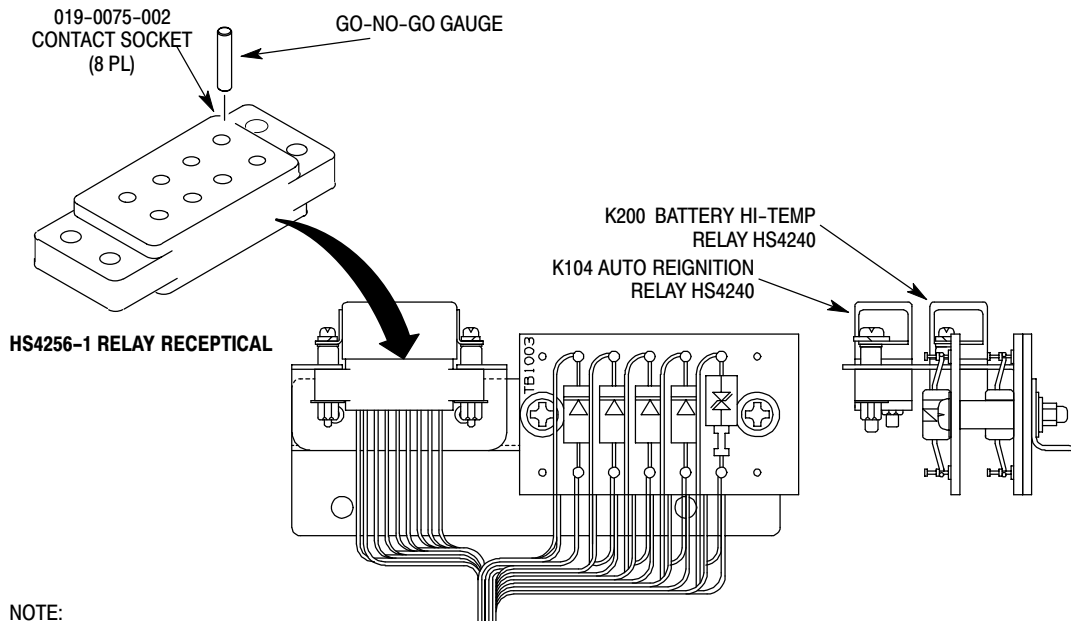


**MD600N**

369D24255-501 TERMINAL BOARD, RELAY, ASSY

**NOTE:**

1. INSPECT CONTACT SOCKETS ON THE K1 FADEC START RELAY, K2 ECU FAIL RELAY, K3 ENGINE OUT RELAY, K5 MANUAL MODE RELAY AND K200 BATTERY HI-TEMP RELAY.
2. THERE IS NO K104 RELAY ON THE MD600N.



**NOTE:**

1. INSPECT CONTACT SOCKETS ON THE K104 AUTO IGNITION RELAY AND K200 BATTERY HI-TEMP RELAY

TERMINAL BOARD AND RELAY ASSEMBLY  
EFFECTIVE: 500N/369E - 384 & SUBS/369FF - 76 & SUBS

88-764

**Figure 2. Contact Socket Assembly Inspection**

**MANDATORY MANDATORY MANDATORY**



DATE: 25 SEPTEMBER 1998  
PAGE 6 OF 6

# SERVICE BULLETIN

**/// MANDATORY ////////////////////////////////////// MANDATORY ////////////////////////////////////// MANDATORY ///**

McDonnell Douglas Helicopter Systems  
Service Bulletin Response Form

Fax to (602) 891-6782

Operator or Company Name:

Location:

Bulletin No.:

Title:

Aircraft Serial No.:

Date of Compliance:

Person Who Signed-off Bulletin:

Telephone:

Fax:

**/// MANDATORY ////////////////////////////////////// MANDATORY ////////////////////////////////////// MANDATORY ///**