# SERVICE DIRECTIVE BULLETIN

# SERVICE DIRECTIVE BULLETIN NO. T-030

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DATE: May 14, 2007

1. SUBJECT: Inspection of Circuit Breaker Bus Bar Installation

2. MODEL: 480B

3. EFFECTIVITY: Serial numbers 5083 through 5107

#### 4 BACKGROUND:

Enstrom has determined that bus bars connecting the circuit breakers located on the sides of the pedestal and the switch/circuit breakers on the switch panel may be installed incorrectly. When the bus bars and power wires are installed, the screws provided with the circuit breakers are replaced with longer screws to provide the proper thread engagement. While working on an aircraft in production, it was found that the standard screws were used to install the bus bars and power wires.

This Service Directive Bulletin (SDB) requires a one time inspection of the bus bar installations and if required, correcting the bus bar installation.

Technical aspects of this SDB are FAA Approved.

# 5. COMPLIANCE:

Within twenty five (25) hours time in service or at the next annual inspection, which ever occurs first, inspect the bus bar installations in accordance with paragraph 5.1 of this Service Directive Bulletin and if required, replace the mounting screws in accordance with paragraph 5.2 of this Service Directive Bulletin.

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## 5.1. INSPECTION:

#### **NOTE**

Perform all maintenance IAW the TH-28/480 Series Maintenance Manual.

- A. Disconnect the battery.
- B. Remove the trim panels from the left and right side of the pedestal using the following procedure:

#### **NOTE**

The following procedure generically applies to both the left and right side trim panels.

1. Install a loop of .020" or .025" lockwire through the face grids of low rotor and engine out warning horns (See Figure 1). Remove the outer mounting ring from the warning horns.

## **NOTE**

The lockwire is used to prevent the warning horns from being pushed into the pedestal during reinstallation of the trim panels.

- 2. Disconnect the vent ducts from the outlets.
- 3. Remove the two (2) screws from the heater outlets.
- 4. Remove the six (6) mounting screws from the customer bleed air control panel located on the end of the pedestal.
- 5. Remove the screws securing the trim panels to the pedestal.
- 6. Pull the carpeting back away from the pedestal. If required, remove the tail rotor pedal scuff panels.
- 7. Remove the trim panels.

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- C. Remove the illuminated switch/circuit breaker panel from the center pedestal using the following procedure:
  - 1. Remove the control knobs from the three (3) instrument/panel dimmer controls.
  - 2. Loosen the seven (7) illuminated panel mounting screws.
  - 3. Disconnect the illuminated panel electrical connector and remove the panel.
- D. Remove the mounting nuts and lockwashers from the circuit breakers of the bus bar segments. Remove the circuit breakers and bus bar segments from the mounting panel.
- E. Remove the four (4) mounting screws from the switch panel assembly and remove the switch panel from the pedestal.
- F. Inspect the circuit breaker bus bar and bus bar power wire installations for proper length screws (See Figure 2). They should have a minimum of 1½ to 2 threads protruding from the breaker mounting tab. If the screws are too short, remove the screws and replace with the proper length screws IAW paragraph 5.2.

## NOTE

The "standard" screws, mentioned in paragraph 4, provided with the circuit breakers are slotted/flat tip type screws. If the standard screws are installed in the bus bars and bus bar power wires, they are too short.

- G. Inspect the bus bar power wire installation on the switch panel assembly (See Figure 3). There should be 1½ to 2 threads protruding from the switch/breaker mounting tab. If the screw is too short, remove the screw and replace with the proper length screw IAW paragraph 5.2.
- E. If the bus bars and bus bar power wires are installed correctly, reinstall the circuit breaker segments; switch panel assembly; illuminated panel; and trim panels, and return the aircraft to service.

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# 5.2. REPAIR:

A. Remove screws that are too short from the bus bar and/or bus bar power wire installations and install proper length screws as required. Refer to paragraph 5.3 for the part numbers of the proper length screws. The lock washers can be reused depending on their condition; replace the lock washers as necessary.

## 5.3. PARTS:

Description	Part Number	Quantity
Screw - Bus bar to circuit breaker	MS51957-26	As Required
Screw - Bus bar power wire	MS51957-27	As Required
Screw - Switch panel bus bar power wire	MS51957-42	1 Each
Lock washer #6	MS35338-41	As required
Lock washer #8	MS35338-42	As required

- 6. SPECIAL TOOLS: None
- 7. MAN-HOURS:
  - 2 Man-hours for the visual inspection only. 3 Man-hours for the visual inspection and repair.
- 8. WARRANTY: Per Enstrom New Helicopter Warranty policy.
- 9. WEIGHT CHANGE: None
- 10. LOG BOOK ENTRY:

Enter compliance with this SDB in the aircraft maintenance records.

11. REPETITIVE INSPECTIONS: None



Figure 1. Warning Horn Lockwire Installation

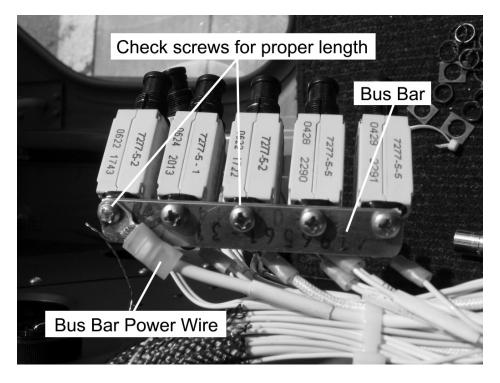


Figure 2. Circuit Breaker Bus Bar Installation

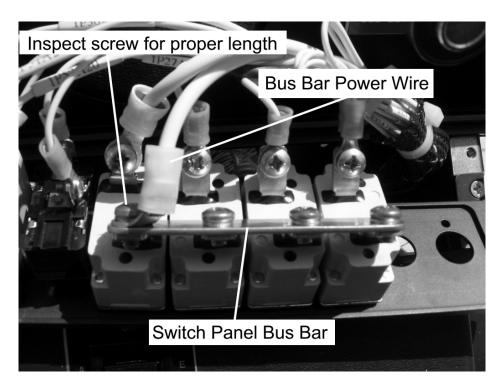


Figure 3. Switch Panel Bus Bar Installation