

MIL-P-7788E  
AMENDMENT 1  
16 April 1979

## MILITARY SPECIFICATION

### PANELS, INFORMATION, INTEGRALLY ILLUMINATED

This amendment forms a part of Military Specification MIL-P-7788E dated 15 May 1977, and is approved for use by all Departments and Agencies of the Department of Defense.

#### PAGE 1

1.2.1, Class 1-R, line 3: Delete "red" and substitute "Instrument and Panel Lighting (IPL)-Red".

Class 1-W, line 3: Delete "white" and substitute "Instrument and Panel Lighting (IPL)-White".

After the above, insert

"Class 1-BW. Panels having the background of the front face of the panel finished with black and the integral illumination Blue-Filtered White."

Class 2-R, line 3: Delete "red" and substitute "Instrument and Panel Lighting (IPL)-Red".

Class 2-W, line 3: Delete "white" and substitute "Instrument and Panel Lighting (IPL)-White".

After the above, insert

"Class 2-BW. Panels having the background of the front face of the panel finished with gray and the integral illumination Blue-Filtered White."

1.2.2, Type III, line 2: After "utilizing" insert "MS25237 lamps in."

#### PAGE 3

Delete MIL-H-7083 and title and substitute "MIL-H-83282 Hydraulic Fluid, Synthetic Hydrocarbon Base; Aircraft".

Delete "MIL-P-13949" between "MIL-L-25467 and MIL-I-46058".

Delete "MIL-C-55032/109" and substitute "MIL-C-55302/109".

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3.4.1.1, line 2: After "assembly" insert "and the collar shall extend  $0.140 \pm 0.010$  inch from the rear surface of the panel."

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3.4.1.1, line 3: After "assembly" insert "and the collar shall extend a minimum of 0.130 inch from the rear surface of the panel".

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3.4.1.4, line 5: Delete "shall be 28-volt based lamps removable from the front of the panel. A second option would be 5-volt lamps arranged in series-parallel circuits and soldered to a separate circuit board." and substitute "shall be 5-volt lamps arranged in series-parallel circuits and soldered to a separate circuit board. If the panel is too small for this arrangement, a second option shall be 28-volt based lamps removable from the front of the panel."

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3.5, Delete complete paragraph and substitute the following:

"3.5 Illumination. Each Type II? panel shall meet the specified illumination requirements with MS25237 lamps operating at  $0.34 \pm 0.02$  spherical candela installed in each lampholder. Each Type IV and V panel shall meet the specified brightness requirement with the lamps specified in 1.2.2 and listed in 6.12 operating at  $5.0 \pm 0.05$  volts for IPL Red and IPL White and  $4.5 \pm 0.05$  volts for Blue-Filtered White. When 28 volt lamps are used, brightness requirements shall be met at  $28.0 \pm 0.15$  volts. Each Type VI panel shall meet the specified brightness requirement with the lamps operating at  $115.0 \pm 1.2$  volts,  $400 \pm 20$  Hz. Except for Type VI panels, all lamps shall be operated from DC power for test purposes.

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4.2.1, line 2: Delete "of a given manufacturer's part number" and substitute "made using a given manufacturing process".

line 3: After "Figure 1." insert "However, if multiple processes are to be qualified, reduced number of samples may be authorized by the qualifying activity.

NOTE: The term "process", as used in this context, is defined as the total manufacturing plan, including materials and techniques by which panels are fabricated.

line 8: After "Samples" insert "Manufacturers of MS90335 connectors may obtain qualification by the same procedure outlined herein for panels, except that ten samples of each connector shall be submitted and requirements are controlled by MS90335."

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4.2.1.1, No. 5 and 6 (Control), line 2: Delete "(b) color of Light 4.4.11". (Color covered by Illumination Test per paragraph 4.4.12 and the test methods are described in paragraph 4.4.11.)

4.2.2.1, line 4: Delete "(c) Color of light 4.4.11".

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4.2.2.1.1: Delete paragraph (c).

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4.2.2.1.1: Delete paragraph (d).

4.2.2.1.3, line 8: Delete "the required brightness ratio as specified in 3.5.2 shall not be exceeded," and substitute "the total spread in the brightness data shall not exceed the tolerances specified in 3.5.3."

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4.4.2.1 (d): Delete "MIL-H-7083" and substitute "MIL-H-83282".

4.4.4, line 2: After "of" insert "method 507.1 of".

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4.4.5.1, line 4, Delete "65°C (85°F)" and substitute "-65°C (-85°F)".

4.4.5.2, (b), line 4: Delete "3" and substitute "2.5".

line 5: After "panels" add "respectively".

4.4.6.1, line 9: Delete "16 to 20" and substitute "13 to 27".

line 10: Delete "0.0025" and substitute "0.003".

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4.4.16, line 1: After "IV" insert "and V" and delete "only" and substitute "(except front relampable)".

line 6: Delete "3.5.3" and substitute "3.5.4".

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6.2, (d): Delete sentence.

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6.3, line 10: After "obtained from the" delete the balance of the sentence and substitute "Commanding Officer, Naval Avionics Center (D/432), 21st and Arlington Avenue, Indianapolis, IN 46218".

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6.5, line 5: Delete the NAVAIR address and substitute Naval Avionics Center Address as shown in 6.3 of this amendment.

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6.10 Delete "Naval Avionics Facility" and substitute "Naval Avionics Center".

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6.12 Delete from list the following lamps:

"MS24515 - 682AS15	W-L-00111/26"
"MS90451 - 6802AS15	W-L-00111/15"
"MS90452 - 6803AS15	W-L-00111/19"
"MS24367 - 680AS15	W-L-00111/30"

6.12, lines 9, 10, 11, 12:

Delete "MS94451-" and substitute "MS90451-"

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Figure 2: Delete "16<sup>0</sup> to 20<sup>0</sup>" and substitute "13<sup>0</sup> to 27<sup>0</sup>".  
Delete "0.0025" and substitute ".003".

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Figure 3: Delete "15 in." and substitute "18 in.".

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Figure 4: At the end of the note after "fonts", insert "however, measurements should be made in the center of the points as shown".

Custodians:

Army - AV  
Navy - AS  
Air Force - 11

Preparing Activity:

Navy - AS  
(Project No. 6220-0269)

Review Activities:

Army - MI  
Navy - MC, SH  
Air Force - 11, 99