

INCH-POUND

MIL-R-5757G
 AMENDMENT 3
 16 November 1994
 SUPERSEDING
 AMENDMENT 2
 3 May 1984

MILITARY SPECIFICATION

RELAYS, ELECTROMAGNETIC,
GENERAL SPECIFICATION FOR

This amendment forms a part of MIL-R-5757G, dated 22 March 1982,
 and is approved for use by all Departments and Agencies of the
 Department of Defense.

PAGE 3

- * STANDARDS, MILITARY: Delete "MIL-STD-105 - Sampling Procedures and Tables for Inspection by Attributes."

PAGE 4

- * 3.4.1: End of paragraph, add: "Tin plating shall have a minimum lead content of 3 percent."

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TABLE VIII, following the title, add "3/".

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TABLE VIII, following footnote 2/, add:

"3/ This table is not to be used for statistical failure rate computation because of the limited number of samples and the lack of their selection on a totally random basis."

- * 4.5.4a, line 2: Delete "mber" and substitute "number".

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- * 4.7.1.2.1, delete and substitute:

"4.7.1.2.1 Sampling plan. Run-in (when specified) in subgroup 1 and all inspections in subgroup 2 and subgroup 3 shall be performed on each relay offered for inspection, except as noted. Except for the internal moisture inspection (when specified), sampling and disposition shall be as specified in table IX. For the internal moisture inspection (when specified), a sample of parts shall be randomly selected in accordance with table IXa. If one or more defects are found, the lot shall be rescreened and the defective parts removed. A new sample of parts shall then be randomly selected in accordance with table IXa. If one or more defects are found in the second sample, the lot shall be rejected and shall not be supplied to this specification."

* TABLE IX, delete and substitute:

* TABLE IX Group A inspection.

Inspection	Requirement paragraph	Test method paragraph	Sampling plan
<u>Subgroup 1</u>			
Internal moisture (when specified)	3.6	4.8.2	See table IXa.
Run-in (when specified)	3.7	4.8.3	100% inspection; discard all failed relays.
<u>Subgroup 2 1/</u>			
Insulation resistance	3.10	4.8.6	<div style="display: flex; align-items: center; justify-content: center;"> <div style="border-left: 1px dashed black; border-right: 1px dashed black; height: 100px; margin-right: 10px;"></div> <div style="text-align: left;"> <p>100% inspection; discard all failed relays.</p> </div> </div>
Dielectric withstanding voltage	3.11	4.8.7	
Electrical characteristics:			
Static contact resistance (or voltage drop)	3.12.1	4.8.8.1	
Pickup, hold, and dropout voltage	3.12.2	4.8.8.2	
DC coil resistance	3.12.3	4.8.8.3	
Operate and release time	3.12.5	4.8.8.5	
Contact bounce	3.12.6	4.8.8.6	
<u>Subgroup 3</u>			
Solderability	3.8	4.8.4	<div style="display: flex; align-items: center; justify-content: center;"> <div style="border-left: 1px dashed black; border-right: 1px dashed black; height: 100px; margin-right: 10px;"></div> <div style="text-align: left;"> <p>2/ 100% inspection 3/ 100% inspection; discard all failed relays. 5/</p> </div> </div>
Seal	3.9	4.8.5	
Visual and mechanical inspection (external) 4/	3.1, 3.4, 3.5, 3.36, and 3.37	4.8.1	

1/ Inspection sequence is optional.

2/ Solderability shall be required on two sample relays selected at random from each formed lot. In the event of a failure, the entire lot shall be reworked and a second random sample taken. When rework requires the replating of the relay, the entire lot shall be resubmitted for all group A inspections after passing solderability. If the rework requires only the solder dipping of the terminals, the entire lot shall be resubmitted for subgroup 2 and subgroup 3 testing after passing solderability.

3/ Seal failures may be reworked and resubmitted for all group A inspections.

4/ Physical dimensions and weight shall be measured on two sample units per lot.

5/ Minor defects such as marking may be reworked. "

* After table IX, add

* TABLE IXa. Sampling plan for group A, internal moisture (when specified).

Lot size	Sample size
1 to 25	3
26 to 50	5
51 to 90	6
91 to 150	7
151 to 280	10
281 to 500	11

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- * 4.7.2.2.3, line 6: Delete "Accepance" and substitute "Acceptance"
- 4.8.3, line 2: Delete "operations" and "operations rate" and substitute "cycles" and "cycling rate", respectively.

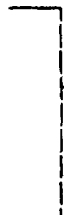
PAGE 19

- * 4.8.4b: Delete in its entirety.
- * 4.8.5.2.1a: Delete "Mehtod" and substitute "Method".

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TABLE XI: Delete and substitute:

* TABLE XI. Test details for dielectric withstanding voltage.

Points of application	Test voltage
Between case, frame or enclosure, and between open contacts in the energized and deenergized position Between case, frame or enclosure, and coil(s) Between all contacts and coil(s) Between open contacts in the energized and deenergized position Between coils of dual-coil relays Between contact poles in the energized and deenergized position	 1,000 volts ac plus twice the rated voltage, or as specified (see 3.1).

PAGE 30

- * 4.8.27, line 5: Delete "operations" and substitute "cycles".

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- * 4.8.28, line 2: Delete "operations" and substitute "cycles".

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- * 4.8.29, line 2: Delete "operations" and substitute "cycles".
- * 4.8.29.1, line 1: Delete "operations" and substitute "cycles".
- * 4.8.30, line 9: Delete "opeation;" and substitute "operation;".
- * 4.8.30, line 10: Delete "other-wise" and substitute "otherwise".

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- * 4.8.30 (continued), line 1: Delete "specified" and substitute "specified".
- * 4.8.30 (continued), line 2: Delete "operations" and substitute "cycles".
- * 4.8.30.1, line 1: Delete "operations" and substitute "cycles"
- * 4.8.30.2, line 1: Delete "operations" and substitute "cycles"

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- * 6.1, line 9. Delete "Established" and substitute "Established".
- * 6.1.3, NOTE, line 2 and line 3. Delete "operations" and substitute "cycles".
- * 6.1.4, NOTE, line 5 Delete "operate" and substitute "cycle".

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- * 6.2.3am: Delete "operations" and substitute "cycles".

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- * 6.7 (continued), Chatter, contact, line 1: Delete "cntacts" and substitute "contacts"
- * 6.7 (continued), Chatter, contact, line 2: Delete "vibratton" and substitute "vibration".
- * 6.7 (continued), Contact bounce, line 2: Delete "inpact" and substitute "impact".

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- * 6.7 (continued), Saturation, line 2: Delete "curent" and substitute "current".

The margins of this amendment are marked with an asterisk to indicate where changes (additions, modifications, corrections, deletions) from the previous amendment were made. This was done as a convenience only and the Government assumes no liability whatsoever for any inaccuracies in these notations. Bidders and contractors are cautioned to evaluate the requirements of this document based on the entire content irrespective of the marginal notations and relationship to the last previous amendment.

CONCLUDING MATERIAL

Custodians:

Army - ER
Navy - EC
Air Force - 85

Preparing activity:

DLA - ES

(Project 5945-0934)

Review activities:

Army - AT, AV, ME, MI
Navy - AS, MC, OS
Air Force - 99