



## DOCUMENT CHANGE REQUEST

DCR number 2

Changes required for: MRB decision

Originator: Baviere

Date: 2002/11/27

Date sent: 2002/11/27

Organisation: CNES

Status: IMPLEMENTED

Title: Generic Specification for Relays Electromagnetic Non-Latching

Number: 3601

Issue: 1

Other documents affected:

3602-1

Page:

Paragraph:

Original wording:

Proposed wording:

Justification:

Attachments:

Attachment\_DCR\_2.pdf, null

Modifications:

N/A

Approval signature:

Date signed:

2002-11-27

**SEC**

# DOCUMENTATION CHANGE REQUEST

TO BE COMPLETED BY ORIGINATOR

Change request No. (4)

 Originator (1)  
**Ph. BAVIERE**  
 Affiliation  
**CNES**

 Originator signature (2)  
 Date: **22/10/2002**

 NA or ESA representative signature (3)  
**J-P BUSSENOT**  
 Date: **24/10/2002** pp S. Thaler.
**2**

Page 1 of [ 7 ] (5)

DOCUMENT AFFECTED

Other documents affected (10)

 Doc. No. (6)  
**3601**  
**3602**

 Status (7)  
**5-**  
**5-**

 Title (8)  
**GENERIC SPEC-RELAYS NON-LATCHING**  
**GENERIC SPEC-RELAYS LATCHING**
**No**
 Paragraph(s) and page(s) affected (9)  
**para. 8.2.3(d), Chart V**

PROPOSED WORDING OF CHANGE

(11)

Addition of Overload to LAT level 3 Ass./Capab Tests.  
 See attached mark-up pages for details

Continuation sheet(s) attached

 Yes  No

JUSTIFICATION

(12)

MRB decision following NCCS 2CLEA202 about GP250

Continuation sheet(s) attached

 Yes  No
 Changes required for: Procurement (project)  Qualification  MRB decision  (13)  
 General Improvement of Spec.  Other 

RESERVED FOR USE BY SCC SECRETARIAT

Date of registration:

Order of Priority for Appr. / Impl.: 1 (high)  2 (medium)  3 (low) Attachments: Qualification Status: Qualified  In process of qualification 

RESERVED FOR USE BY APPROVING AUTHORITY

Approved

 Yes  NoPriority  1 

Date and signature

  
**09.01.2004**
Reference to ~~sec~~ decision **PSWG**  
**& Mr Neuhing**

Approved wording if different from box 11 or reason for rejection

(14)

**as is**

Continuation sheet(s) attached

 Yes  No

ESA/SCC 3601 DCR2. change sheets.

S. Thaler  
18/10/02



europaean space agency  
agence spatiale européenne

Pages 1 to 38

RELAYS, ELECTROMAGNETIC,



NON-LATCHING

ESA/SCC Generic Specification No. 3601



space components  
coordination group

Issue/Rev.	Date	Approved by	
		SCCG Chairman	ESA Director General or his Deputy
Issue 5	April 1999		

		<p>ESA/SCC Generic Specification No. 3601</p>		<p>PAGE 14 ISSUE 5</p>
---	---	---	--	----------------------------

8.2.3 Lot Acceptance Level 3 Testing (LA3)

Lot acceptance level 3 tests are designated as the electrical subgroup and comprise electrical measurements of characteristics and tests to prove the assembly capability of the component. For LA3 testing, the following requirements and conditions shall apply:-

- (a) LA3 testing shall be performed by the Manufacturer's quality assurance personnel using dedicated quality assurance equipment whenever possible. LA3 testing shall not be a repetition of routine measurements made by production personnel during final production tests and screening and electrical measurements.
- (b) When tests to Tables 2 and 3 of the Detail Specification have been performed on a sample basis, then the components for LA3 testing shall be selected from this sample.
- (c) The electrical measurements for LA3 are considered to be non-destructive and therefore components so tested may form part of the delivery lot.
- (d) The solderability and terminal strength tests are considered to be destructive and therefore components so tested shall not form part of the delivery lot. *Post screening electrical rejects may be used for these tests. Post screening visual rejects may be used for these tests at the discretion of the manufacturer.*
- (e) When required in the purchase order, the Manufacturer shall notify the Orderer at least 2 working weeks before the commencement of LA3 testing. The Orderer shall indicate immediately whether or not he intends to witness the tests.

8.2.4 Lot Acceptance Level 2 Testing (LA2)

Lot acceptance level 2 testing shall comprise the tests for LA3 (electrical subgroup) plus tests on an endurance subgroup. For the electrical subgroup, the requirements and conditions as for LA3 (see Para. 8.2.3) shall apply.

For the endurance subgroup, the following shall apply:-

- (a) The tests in this subgroup are considered to be destructive and therefore components of testing level "B" so tested shall not form part of the delivery lot.

8.2.5 Lot Acceptance Level 1 Testing (LA1)

Lot acceptance level 1 testing shall comprise the tests for LA3 (electrical subgroup) and LA2 (endurance subgroup) plus tests on an environmental and mechanical subgroup. For the electrical and endurance subgroups, the requirements and conditions for LA3 (see Para. 8.2.3) and LA2 (see Para. 8.2.4) respectively shall apply.

For the environmental subgroup, the following shall apply:-

- (a) The tests in this subgroup are considered to be destructive and therefore components of testing level "B" so tested shall not form part of the delivery lot.

8.3 FAILURE CRITERIA

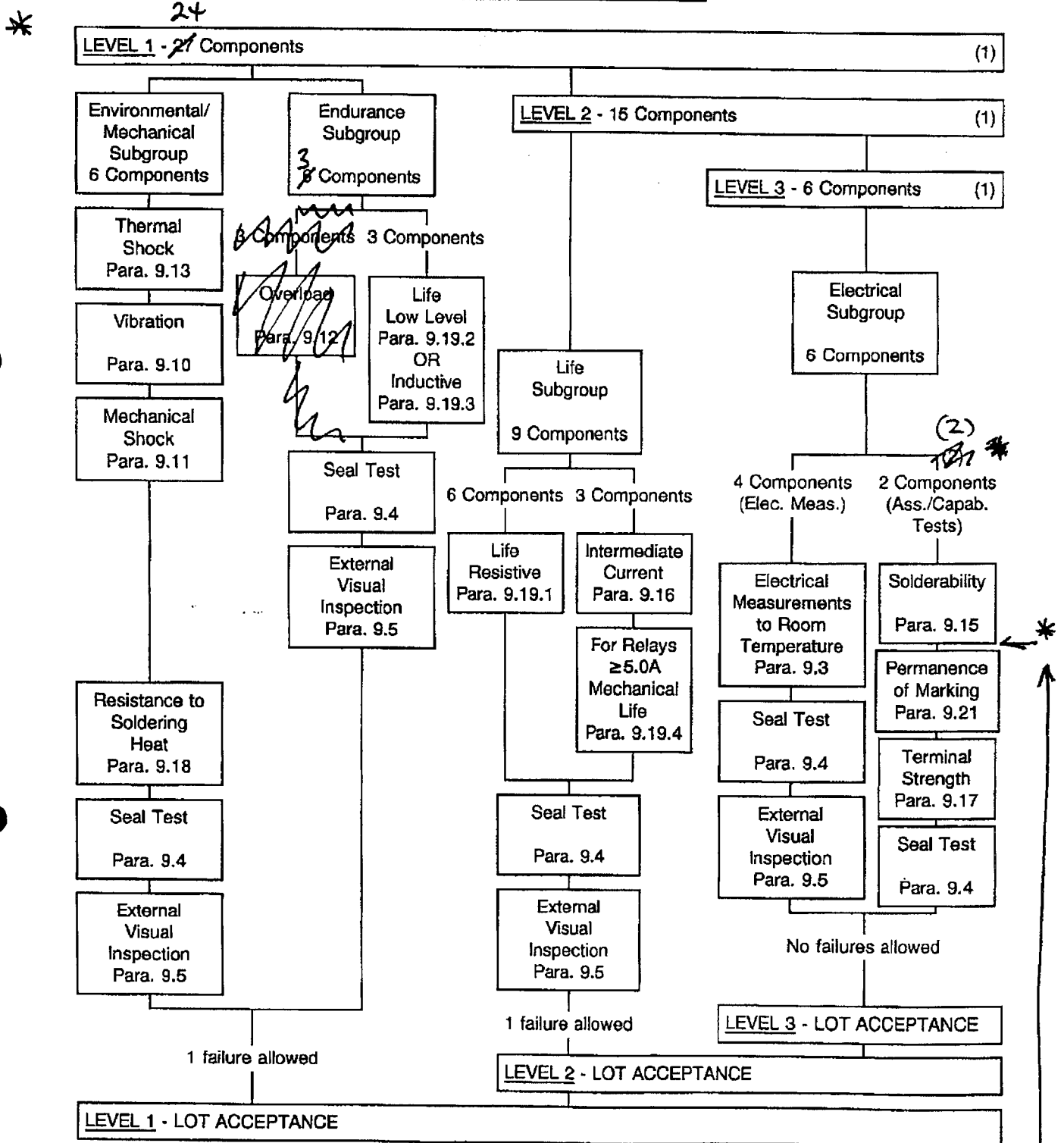
The following criteria shall apply to qualification testing and to lot acceptance testing.

8.3.1 Environmental and Mechanical Test Failures

The following shall be counted as component failures:

- Components which fail during tests for which the pass/fail criteria are inherent in the test method, e.g. solderability, terminal strength, etc.

**CHART V - LOT ACCEPTANCE TESTS**



**NOTES**

1. For distribution within the sample, see Para. 8.2.2.

2. Post screening electrical rejects may be used for these tests at the discretion of the manufacturer.

Overload  
 Para. 9.12

ESA/SCC 3602 DCR 2 change sheets.

S. Thacker 18/12/02



europaean space agency  
agence spatiale européenne

Pages 1 to 37

RELAYS, ELECTROMAGNETIC,



LATCHING

ESA/SCC Generic Specification No. 3602



space components  
coordination group

Issue/Rev.	Date	Approved by	
		SCCG Chairman	ESA Director General or his Deputy
Issue 5	April 1999		

		<p>ESA/SCC Generic Specification No. 3602</p>	<p>PAGE 14 ISSUE 5</p>
---	---	---	----------------------------

### 8.2.3 Lot Acceptance Level 3 Testing (LA3)

Lot acceptance level 3 tests are designated as the electrical subgroup and comprise electrical measurements of characteristics and tests to prove the assembly capability of the component. For LA3 testing, the following requirements and conditions shall apply:-

- (a) LA3 testing shall be performed by the Manufacturer's quality assurance personnel using dedicated quality assurance equipment whenever possible. LA3 testing shall not be a repetition of routine measurements made by production personnel during final production tests and screening and electrical measurements.
- (b) When tests to Tables 2 and 3 of the Detail Specification have been performed on a sample basis, then the components for LA3 testing shall be selected from this sample.
- (c) The electrical measurements for LA3 are considered to be non-destructive and therefore components so tested may form part of the delivery lot.
- (d) The solderability and terminal strength tests are considered to be destructive and therefore components so tested shall not form part of the delivery lot. *Post screening electrical rejects may be used for these tests. Post screening visual rejects may be used for these tests at the discretion of the manufacturer.*
- (e) When required in the purchase order, the Manufacturer shall notify the Orderer at least 2 working weeks before the commencement of LA3 testing. The Orderer shall indicate immediately whether or not he intends to witness the tests.

### 8.2.4 Lot Acceptance Level 2 Testing (LA2)

Lot acceptance level 2 testing shall comprise the tests for LA3 (electrical subgroup) plus tests on an endurance subgroup. For the electrical subgroup, the requirements and conditions as for LA3 (see Para. 8.2.3) shall apply.

For the endurance subgroup, the following shall apply:-

- (a) The tests in this subgroup are considered to be destructive and therefore components of testing level "B" so tested shall not form part of the delivery lot.

### 8.2.5 Lot Acceptance Level 1 Testing (LA1)

Lot acceptance level 1 testing shall comprise the tests for LA3 (electrical subgroup) and LA2 (endurance subgroup) plus tests on an environmental and mechanical subgroup. For the electrical and endurance subgroups, the requirements and conditions for LA3 (see Para. 8.2.3) and LA2 (see Para. 8.2.4) respectively shall apply.

For the environmental subgroup, the following shall apply:-

- (a) The tests in this subgroup are considered to be destructive and therefore components of testing level "B" so tested shall not form part of the delivery lot.

## 8.3 FAILURE CRITERIA

The following criteria shall apply to qualification testing and to lot acceptance testing.

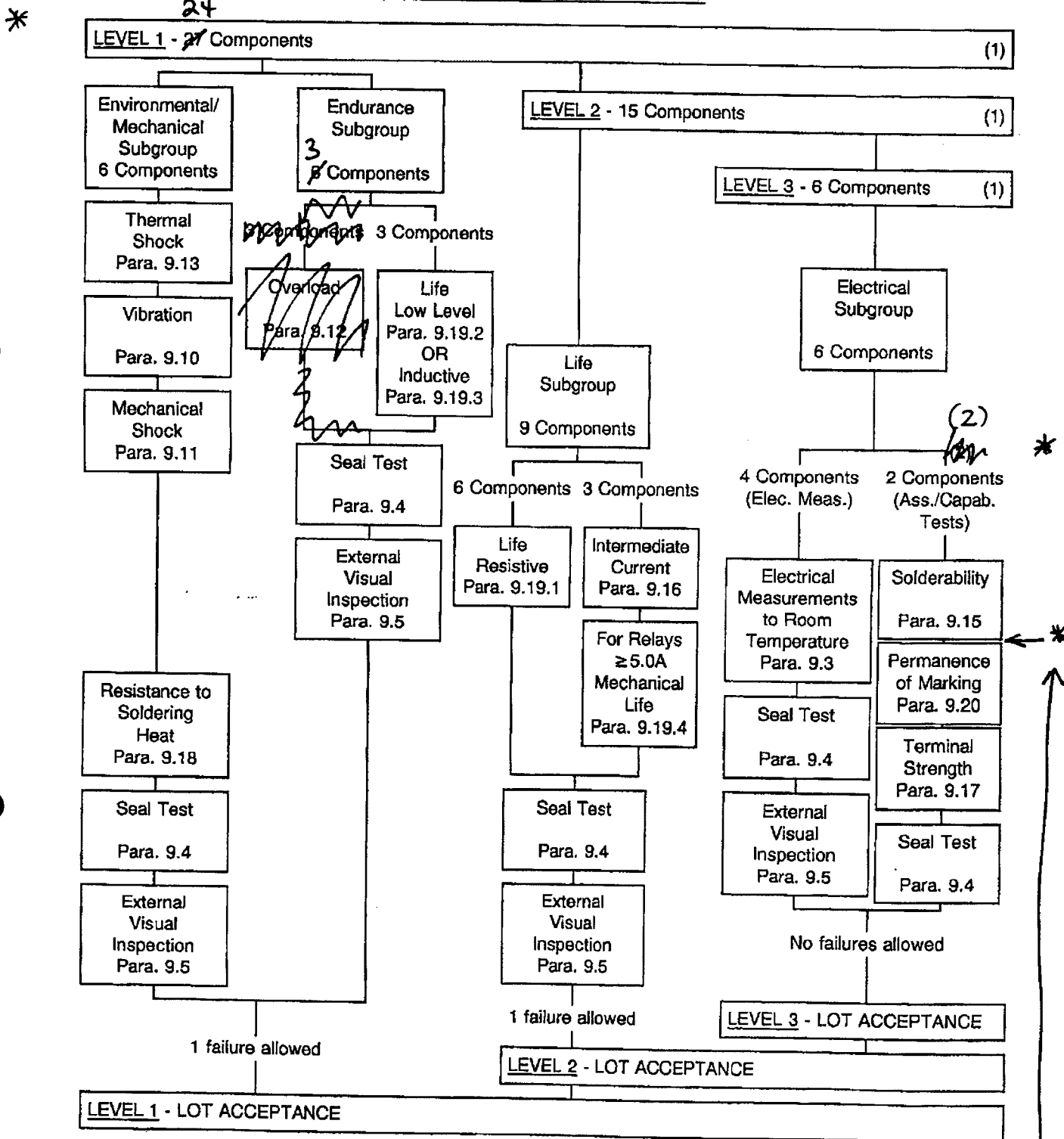
### 8.3.1 Environmental and Mechanical Test Failures

The following shall be counted as component failures:

- Components which fail during tests for which the pass/fail criteria are inherent in the test method, e.g. solderability, terminal strength, etc.



CHART V - LOT ACCEPTANCE TESTS



NOTES

1. For distribution within the sample, see Para. 8.2.2.

2. Post screening electrical rejects may be used for this test.

2. Post screening visual rejects may be used for these tests at the discretion of the manufacturer

Overload  
Para. 9.12