



**FACTORY TEST : HVT**

**LR15  
 DSR8401/17**

**Release, Version : 1.1**

		<b>FACTORY TEST : HVT</b>			<b>8622 512 00775</b>		<b>YR</b>	<b>07/03/06</b>
		<b>LR15</b>			<b>OLD VERSION</b>			
		<b>DSR8401/17</b>						
		<b>RELEASE</b>						
NAME: Y.RENAULT		Supers.		Version : 1.1		<b>SH.-363 - 11</b>		<b>10</b>
						<b>1</b>		<b>A4</b>
		Check		<b>Date : 2006/03/03</b>		© PHILIPS France DV -Set Top Boxes Suresnes		

# 1. History :

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**(DOC) Documentation change.** Text modification for easier understanding. Very low work impact

**(HC-D) Hardware Change : Drilling.** Needs drilling of test jig. Very high work and tooling impact.

**(HC-W) Hardware Change : Wiring.** Needs modification of wiring in tester. High work impact.

**(SC-N) Sequence Change : New.** Needs creation of new step in specification without hardware change. Average software work impact.

**(SC-C) Sequence Change : Change.** Modification in run order of the sequence. Low software work impact.

**(SC-S) Sequence Change : Suppress.** Suppression of step in sequence. Very Low software work impact.

**(PC-L) Parameter Change : Limit.** Modification of value of the limits. Low software work impact.

**(PC-S) Parameter Change : Stimuli.** Change in communication command or in test action without hardware change. Variable software work impact. For each situation, will be consider as minor or major.

**(DC) Driver Creation.** Complex software modification or new test conditions behaviour. High software work impact.

**(SD-TA) Supplier Demand : Test Adaptation.** For software adaptation or due to tester behaviour, supplier asks for modification in test specification. Variable work impact for both parties.

## Differences between version 1.0 and version 1.1 - ( Y.RENAULT: 07/03/2006)

Version	Hardware Changes		Sequence Changes			Parameter changes		Driver creation	Supplier Demand
	Drilling	Wiring	New	Changes	Suppress	Stimuli	Limit		
1.1							2		

### Major Changes

### Minor Changes

Step 10 and 20 : update of the limit

## 2. Contents :

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### 3. How to use this document

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This specific document is describing the test sequence to apply to the dedicated product. There is only one specific file per product. A product can be whether a PCB or a closed box or another element where we believe an electrical test must be performed.

In this document you will find:

- a product description that will introduce briefly what kind of element is supposedly to test
- Load and/or connector configuration to allow good testing
- Debug advices sheet for helping developpers to debug their sequence
- Stream description for defining on which pattern the video measurements must be done
- Functional test points for PCB testing
- Sequence list for the product. There is one sequence per product per tester type. In this list, you will also read if the test is referring to the generic test document our to the specific test. For test sending to the Generic file, use the Generic Test Document, where you will find the context of testing and the core idea for testing. The communication expected, the limits are given in the sequence list. For the other steps, see at the end of this document for description of the specific tests.

Consequently, you will need to have both documents to develop a tester; the Generic file for the core testing and the Specific one for everything aiming directly the test of this product. The generic file will probably not change of version during the lifetime of the product whereas the specific will require several adjustments during its creation.

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## 4. Debug Tips

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In this non-exhaustive list, you will find a range of tips to help you to cope with debugging a tester for our products. This list is based on our knowledge of our products and on experience we gained through several years of debugging dedicated testers. When having a problem or starting as new supplier, you should read this list and you may find the solution to your problem.

### 1) Entering in service mode

We developed internally a test software called Service Mode. To enter in this mode, you should run straightly the steps 450-460-470 when you have a SBE connected (flashing) or 460-470 when no SBE connected. Be careful, in some cases, you have a window to send the 'ECIVRES' command, so verify that you send command straight after receiving the 'F' (below 300ms is fine)

### 2) Video outputs

In some case, when starting video measurements, ensure that you have tuned your product (step 1220), send the PID for channel selection (step 1225) and also configured right the outputs (step 1025).

When product contains 2 tuners, an I<sup>2</sup>C switch is used to communicate with each tuner. A defective I<sup>2</sup>C switch can result in having no video in some steps.

### 3) RS232 commands

Default communication parameters are 9600 baud rate, 7 bits data, 1 stop bit, Even parity. For some application, parameters can be different, check then the specific file

### 4) Tuning problem

When your tuning is failing, verify that you have incoming signal at the RF head of your tester. Verify that the power level is strong enough to allow a correct tuning. Verify that you have send the good parameters for your tuning by testing them with a finished box and SMwin.

### 5) 'R' problem

If you do not catch the 'R' at power on, verify that your board is sending one out of the tester with product supply. If not, verify that your board contains a software. If you see the 'R' on bench, activate a Terminal communication spy that will allow you to see all communications on serial port. If you see the 'R', this means that your test sequence is not correct, otherwise you can verify that all supplies are present at right level and also if they have a nice raise up curve.

### 6) 27MHz measurements

## 5. Test Equipement

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Tester recommended for High Voltage Test are

SEFELEC DMG50PH

Or

ASSOCIATED RESEARCH HYPOPTULTRA III

## 6. Product Description

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<b>Id</b>	<b>12NC</b>
DSR8401/17	8622 512 00775
DSR8401/44	8622 512 00776
DSR8401/55	8622 512 00777

## 7. Specific Test

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# S\_0010\_MAIN\_INPUT\_TEST

## Settings / Description

### Equipment usage :

HVT tester.

The aim of this test is to guarantee the isolation of the product : test on the main input of the power supply of the DUt

### From previous step :

NA

### New settings :

See connection below

Set tes parameters :

Input Voltage: 3000 V r.m.s                   + / - 3 %                   (60 Hz)

Testing time:

Increase time: 0,5 sec

Held time: 1 sec

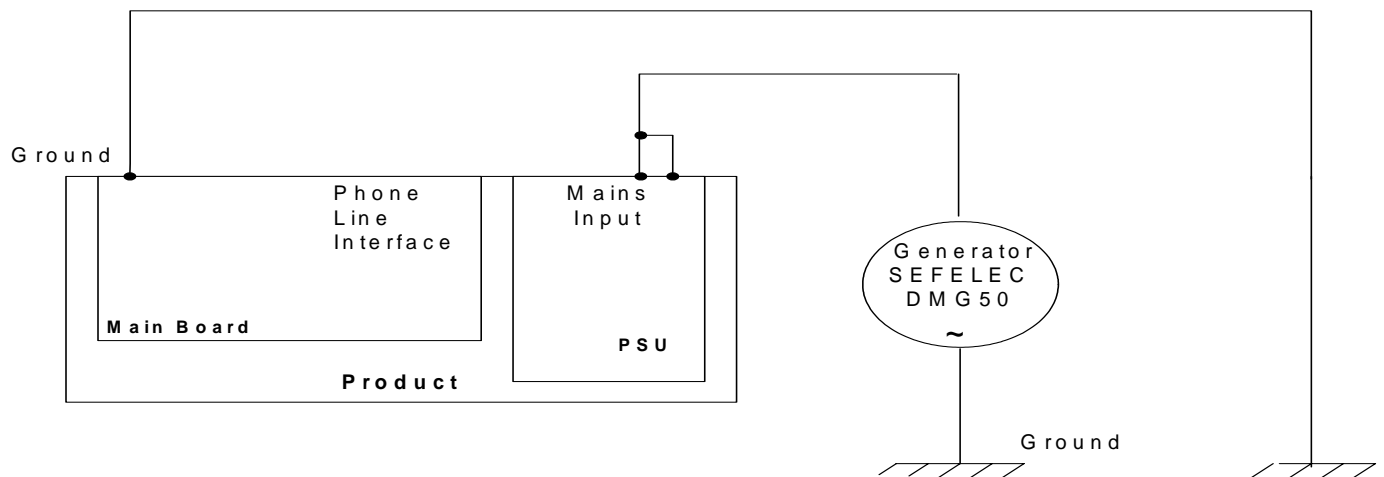
Decrease time:0,5 sec

## Measurement / Test / Check

No flash over shall occur

The tripping current should not exceed I Max = 3,50 mA

The tripping current should not be lower than I Min = 0,5 mA



# S\_0020\_TELEPHONE\_LINE\_INTERFACE\_TEST

## Settings / Description

### Equipment usage :

HVT tester.

The aim of this test is to guarantee the isolation of the product : test on the telephone line plug of the DUT

### From previous step :

NA

### New settings :

See connection below

Set tes parameters :

Input Voltage: 1500 V r.m.s                   + / - 3 %           (60 Hz)

Testing time:

Increase time: 0,5 sec

Held time: 1 sec

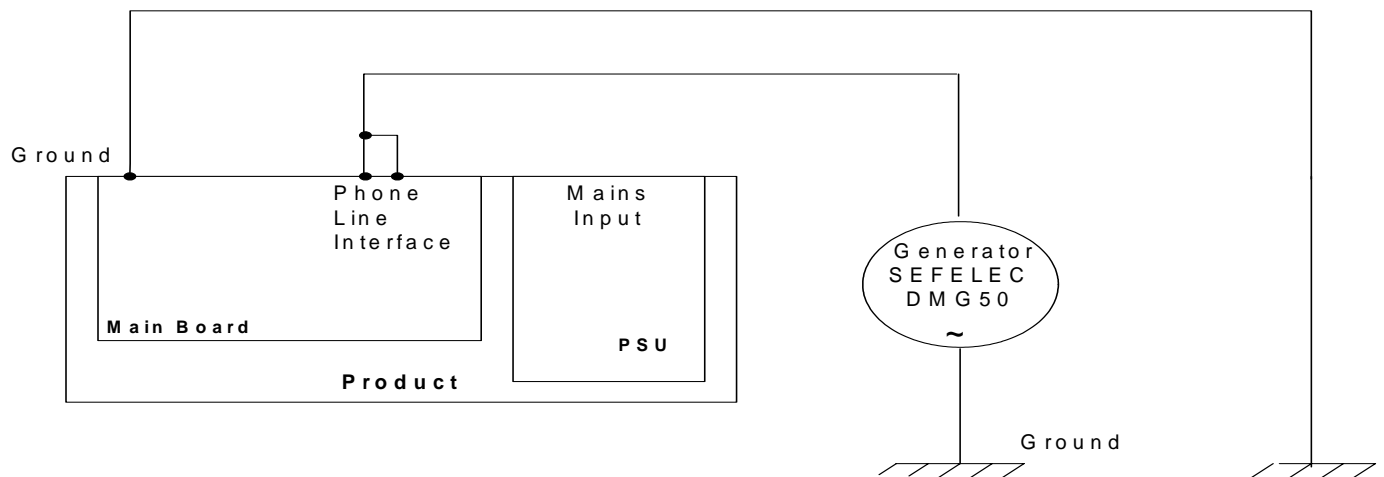
Decrease time:0,5 sec

## Measurement / Test / Check

No flash over shall occur

The tripping current should not exceed I Max = 1,5 mA

The tripping current should not be lower than I Min = 0,3 mA



# END