



## Test Report Product Validation

Braganca-Paulista Electrical Components Test Laboratory  
RUA AMPERE 304 Dist. Indl I BRAGANCA PAULISTA SAO PAULO BRAZIL 12929-570

---

Report Title: HSG 6 pos. MT  
Report Number: RL140608  
Revision: O  
Date Issued: 28 jul 2014

Execution: Diogo Rojas  
Phone: 11 3404-6278

Requestor: Gentil Oliveira  
Phone: 11 3404-6341  
Address: -

Disposition of Samples: Dispose

List of Part Numbers: 493486-2, 493487-2, 493576-2

Specification: FIAT 91350/40 revision 2007, FIAT 9.91320/02 revision july 2001 and FIAT 7.Z8260 revision 2005.

©2014 Tyco Electronics Corporation All International Right Reserved. This is a Class II confidential document belonging to TE. A class II document may not be disclosed to any non-TE persons without (1) the written approval of an authorized TE manager and (2) the signing of a Confidential Disclosure Agreement.

### Scope/Abstract and Conclusions

#### Purpose

This connector validation test was performed at TE test report nr. 140208. In this validation, two tests stayed under specification (Connector mating/unmating force).

These tests were performed using 20 terminals and Product Engineering informed us that there is a new FIAT spec nr. 91350/40, where says that these tests must be performed with 15 terminals maximum.

So, this report is to complete this connector validation tests.

#### Summary

Samples approved.

## 1. RESULTS

Test Sequence/Environment	Requirements (Spec. Fiat 7.Z8260 and 9.91320/02)	Results								
Connector mating force	≤120N	Pass. <div><table><tr><td></td><td>Mating force [N]</td></tr><tr><td>Min.</td><td>59</td></tr><tr><td>Average</td><td>73,4</td></tr><tr><td>Max.</td><td>86,5</td></tr></table></div>		Mating force [N]	Min.	59	Average	73,4	Max.	86,5
	Mating force [N]									
Min.	59									
Average	73,4									
Max.	86,5									
Connector unmating force	≤120N	Pass. <div><table><tr><td></td><td>Unmating force [N]</td></tr><tr><td>Min.</td><td>35</td></tr><tr><td>Average</td><td>49,75</td></tr><tr><td>Max.</td><td>66,5</td></tr></table></div>		Unmating force [N]	Min.	35	Average	49,75	Max.	66,5
	Unmating force [N]									
Min.	35									
Average	49,75									
Max.	66,5									

## 2. SAMPLE & WIRE DESCRIPTION

The Certification of Conformance (C of C), submitted with the test request, lacked the necessary information to verify the samples tested. Therefore, the Test Lab cannot verify that the samples have been produced, inspected, and accepted as conforming to product drawing requirements, and made using the same core manufacturing processes and technologies as production or parts.

### 2.1. Group / Samples

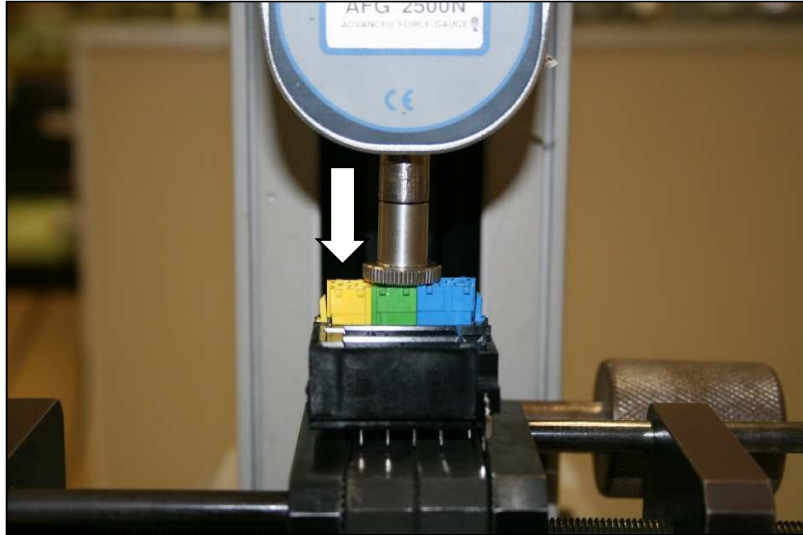
Group	Part Number	Rev.	Date Code	Sample Description	Quantity Tested
1	493486-2	C	N/A	HSG 6 POS. MT	10
1	493487-2	B	N/A	HSG 8 POS. MT	10
1	493576-2	C	N/A	HSG 6 POS. MT	10
1	964263-2	D5	N/A	Micro timer 2 REC	150
1	1897097-1	N/A	N/A	Counterpart	10

\* Information either unavailable or not provided by requestor.

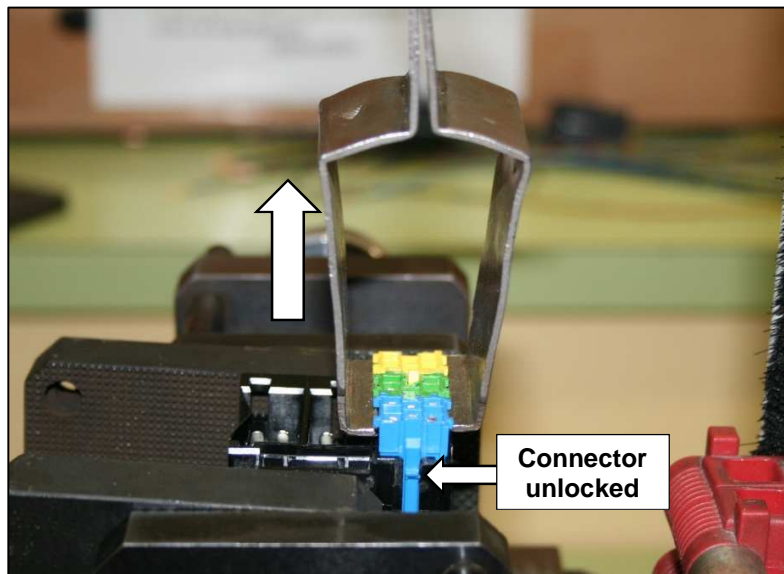
**Note:** Tests performed with terminals without crimped wire.

### 3. SAMPLE PREPARATION

#### 3.1. Connector mating force



#### 3.2. Connector unmating force



#### 4. TEST PROCEDURE

##### 4.1. Connector mating force

Measure mating force from connector to counterpart, with a 50mm/min speed.  
This test must be performed only with 15 terminals according to spec. FIAT 91350/40.

##### 4.2. Connector unmating force

Procure at least 10 connector pairs with all terminals as test specimen;  
Measure unmating force from connector to counterpart, with a 50mm/min speed.

#### 5. TEST EQUIPMENT

All equipment containing a calibration number is calibrated and traceable through TE to the National Institute of Standards and Technology (NIST).

Instrument Description	Manufacturer	Model Number	Calibration Number	Purpose
Universal tensile strength machine with digital dynamometer	Mecmesin	AFG 2500N	92-339017-090	Mating force and unmating force test

#### 6. APPROVALS

Approvals are secured electronically through the corporate document repository routing and approval system.

Testing & Report By: Diogo Rojas, Laboratory Engineer

Reviewed & Approved By: Paulo Almeida, Laboratory Coordinator