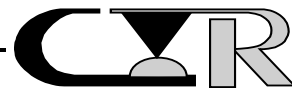


FEBRUARY 15, 2013
SUMMARY REPORT #212140
QUALIFICATION TESTING
verSI™ CONNECTOR
(ESL6004)
AIRBORN, INC.



APPROVED BY: THOMAS PEEL
PRESIDENT AND
DIRECTOR OF TEST PROGRAM DEVELOPMENT
CONTECH RESEARCH, INC.
ATTLEBORO, MA



Contech Research

An Independent Test and Research Laboratory

REVISION HISTORY

DATE	REV. NO.	DESCRIPTION	ENG.
2/15/2013	1.0	Formal Release	TP



CERTIFICATION

This is to certify that the evaluation described herein was designed and executed by personnel of Contech Research, Inc. It was performed with the concurrence of AirBorn, Inc., of Georgetown, Texas who was the test sponsor.

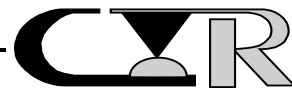
All equipment and measuring instruments used during testing were calibrated and traceable to NIST according to ISO 10012-1 and ANSI/NCSL Z540-1 and MIL-STD-45662 as applicable.

All data, raw and summarized, analysis and conclusions presented herein are the property of the test sponsor. No copy of this report, except in full, shall be forwarded to any agency, customer, etc., without the written approval of the test sponsor and Contech Research.



Approved By: Thomas Peel
President and
Director Of Test Program Development
Contech Research, Inc.
Attleboro, MA

TP:cf



SCOPE

To perform Qualification testing on verSI™ Connectors as manufactured and submitted by the test sponsor AirBorn, Inc.

APPLICABLE DOCUMENTS

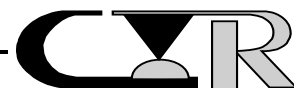
1. Unless otherwise specified, the following documents of issue in effect at the time of testing performed form a part of this report to the extent as specified herein. The requirements of sub-tier specifications and/or standards apply only when specifically referenced in this report.
2. AirBorn ESL6004, Revision D
3. MIL-DTL-83513G
4. Standards:
 - a) MIL-STD-202
 - b) EIA Publication 364

TEST SAMPLES AND PREPARATION

1. The following test samples were submitted by the test sponsor, AirBorn, Inc., for the evaluation to be performed by Contech Research, Inc.

<u>Part Number</u>	<u>mated to</u>	<u>Part Number</u>
a) VSF-04-10-50-00		VSM-04-10-250-50-00
b) VSF-06-50-50-01		VSM-06-50-250-50-01
c) CDLV01038*		VSM-04-10-080-50-00-G
d) VSRAF-04-50-50-00		VSM-04-50-080-50-00
e) VRF-04-50-50-01-G		VRRAM-04-50-50-01-G
f) VRF-04-50-50-01-G		VRRAM-04-50-50-01-G
g) VRF-06-50-50-00-G		VRM-06-50-100-50-00-G
h) VSF-04-10-50-00-G		VSRAM-04-10-50-00-G
i) VRF-04-10-50-00-N		VRD-04-10-50-01-00-100
j) VSF-06-50-50-01		N/A

-continued on next page.

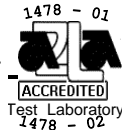


TEST SAMPLES AND PREPARATION -continued

2. The following additional materials were submitted by the test sponsor to assist and perform the testing of items listed in #1 above.

<u>Description</u>	<u>Part Number</u>
a) Vert. Brd Shock/Vib Fixture	F4233-00-000
b) Right Angle Brd Shock/Vib Fixture	F4233-00-000
c) Cable to Vert. Brd Shock/Vib Fixture	F4233-00-000
d) Vert. Brd Durability Fixture	F4233-00-000 and TP0342
e) Right Angle Brd Durability Fixture	F4233-00-000 and TP0342
f) Cable Durability Fixture	F4233-00-000 and TP0342
g) Test Pins	F4245-00-001, -002

3. The test samples as submitted were submitted by the manufacturer as being fabricated and assembled utilizing normal production techniques common for this type of product and inspected in accordance with the quality criteria as established for the product involved.
4. Test samples were supplied assembled and terminated to test boards by the test sponsor.
5. Buss wires were soldered to the test boards for LLCR, IR and DWV testing.
6. All test samples were coded and identified by the test sponsor to maintain continuity throughout the test sequences. Upon initiating testing, mated test samples remained with each other throughout the test sequences for which they were designated.
7. The test samples for vibration and shock were prepared by terminating selected positions in series for monitoring contact interruptions during vibration and/or shock.
8. Unless otherwise specified in the test procedures used, no further preparation was used.
9. All equipment and measuring instruments used during testing were calibrated and traceable to NIST according to ISO 10012-1 and ANSI/NCCL Z540-1, as applicable.



TEST SELECTION

1. See Test Plan Flow Diagram, Figure #1, for test sequences used.
2. Test set ups and/or procedures which are standard or common are not detailed or documented herein provided they are certified as being performed in accordance with the applicable (industry or military) test methods, standards and/or drawings as specified in the detail specification.

SAMPLE CODING

1. All samples were coded. Mated test samples remained with each other throughout the test group/sequences for which they were designated. Coding was performed in a manner which remained legible for the test duration.
2. The test samples were coded in the following manner:

<u>Part Number</u>	<u>ID#</u>	<u>Part Number</u>	<u>ID#</u>
a)VSF-04-10-50-00	M1.1A	VSM-04-10-250-50-00	M1.2A
b)VSF-06-50-50-01	M1.3A	VSM-06-50-250-50-01	M1.4A
c)CDLV01038*	M1.5A	VSM-04-10-080-50-00-G	M1.6A
d)VSRAF-04-50-50-00	M1.7A	VSM-04-50-080-50-00	M1.8A
e)VRF-04-50-50-01-G	M1.9A	VRRAM-04-50-50-01-G	M1.10A
f)VRF-04-50-50-01-G	M1.11A	VRRAM-04-50-50-01-G	M1.12A
g)VRF-06-50-50-00-G	M1.1B	VRM-06-50-100-50-00-G	M1.2B
h)VSF-04-10-50-00-G	M1.3B	VSRAM-04-10-50-00-G	M1.4B
i)VRF-04-10-50-00-N	M1.5B	VRD-04-10-50-01-00-100	M1.6B
j)VSF-06-50-50-01	M4.1-M4.4	N/A	

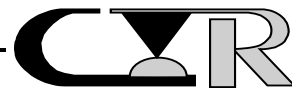
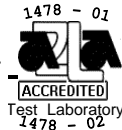
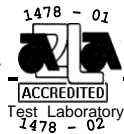
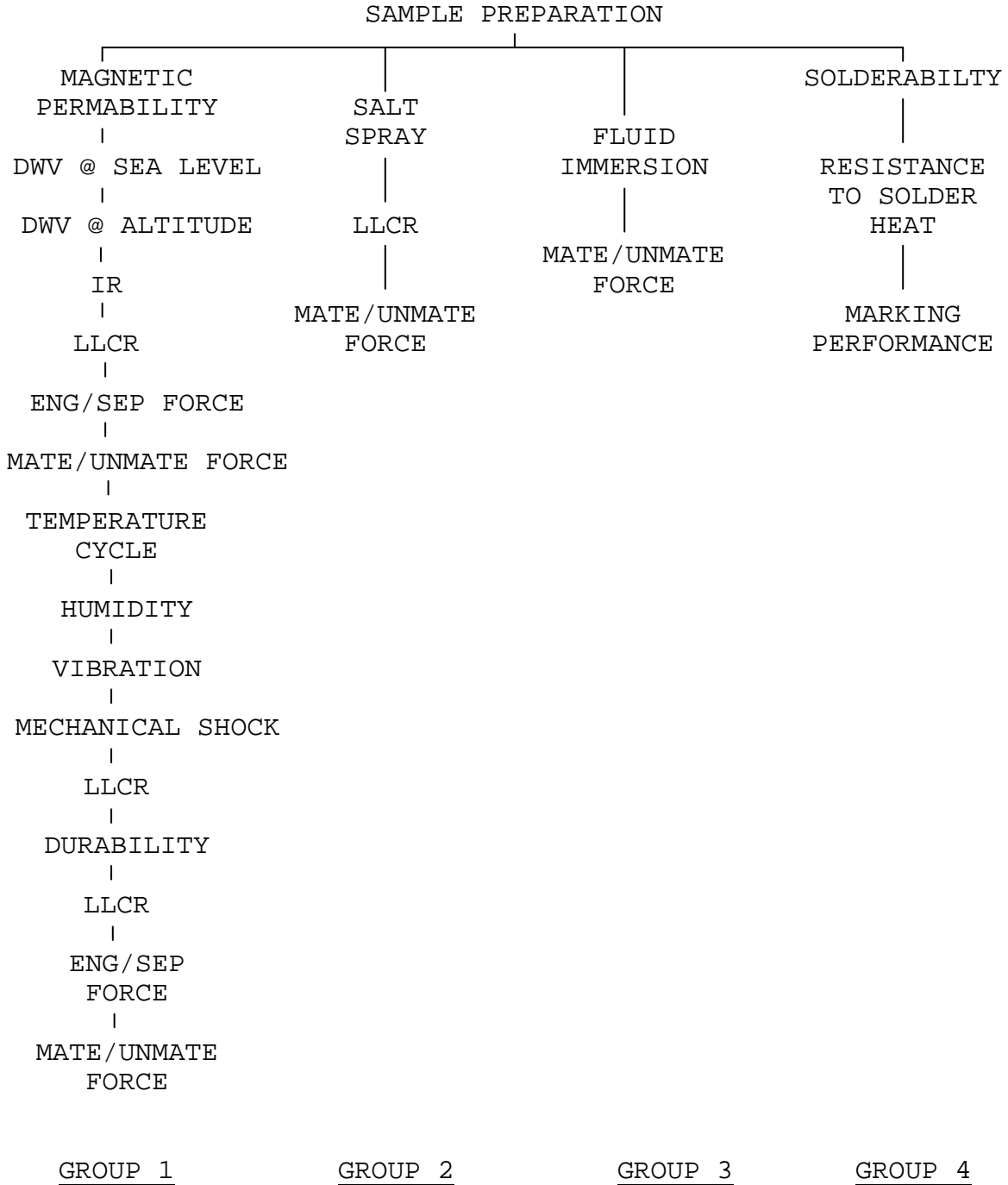


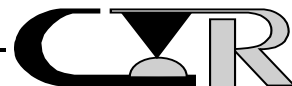
FIGURE #1

TEST PLAN FLOW DIAGRAM



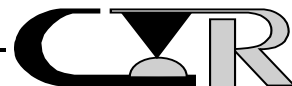
DATA SUMMARY

<u>TEST</u>	<u>REQUIREMENT</u>	<u>RESULTS</u>
<u>GROUP 1</u>		
MAGNETIC PERMEABILITY	2.0 μ MAX.	
-VSF-04-10-50-00/ VSM-04-10-250-50-00		PASSED
-VSF-06-50-50-01/ VSM-06-50-250-50-01		PASSED
-CDLV01038/ VSM-04-10-080-50-00-G		PASSED
-VSRAF-04-50-50-00/ VSM-04-50-080-50-00		PASSED
-VRF-04-50-50-01-G/ VRRAM-04-50-50-01-G		PASSED
-VRF-04-50-50-01-G/ VRRAM-04-50-50-01-G		PASSED
-VRF-06-50-50-00-G/ VRM-06-50-100-50-00-G		PASSED
-VSF-04-10-50-00-G/ VSRAM-04-10-50-00-G		PASSED
-VRF-04-10-50-00-N/ VRD-04-10-50-01-00-100		PASSED
DWV @ SEA LEVEL	NO DAMAGE, NO BREAKDOWN	
-VSF-04-10-50-00/ VSM-04-10-250-50-00		PASSED
-VSF-06-50-50-01/ VSM-06-50-250-50-01		PASSED
-CDLV01038/ VSM-04-10-080-50-00-G		PASSED
-VSRAF-04-50-50-00/ VSM-04-50-080-50-00		PASSED
-VRF-04-50-50-01-G/ VRRAM-04-50-50-01-G		PASSED
-VRF-04-50-50-01-G/ VRRAM-04-50-50-01-G		PASSED
-VRF-06-50-50-00-G/ VRM-06-50-100-50-00-G		PASSED
-VSF-04-10-50-00-G/ VSRAM-04-10-50-00-G		PASSED
-VRF-04-10-50-00-N/ VRD-04-10-50-01-00-100		PASSED



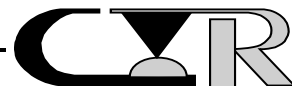
DATA SUMMARY -continued

<u>TEST</u>	<u>REQUIREMENT</u>	<u>RESULTS</u>
GROUP 1-continued		
DWV @ ALTITUDE	NO DAMAGE, NO BREAKDOWN	
-VSF-04-10-50-00/ VSM-04-10-250-50-00		PASSED
-VSF-06-50-50-01/ VSM-06-50-250-50-01		PASSED
-CDLV01038/ VSM-04-10-080-50-00-G		PASSED
-VSRAF-04-50-50-00/ VSM-04-50-080-50-00		PASSED
-VRF-04-50-50-01-G/ VRRAM-04-50-50-01-G		PASSED
-VRF-04-50-50-01-G/ VRRAM-04-50-50-01-G		PASSED
-VRF-06-50-50-00-G/ VRM-06-50-100-50-00-G		PASSED
-VSF-04-10-50-00-G/ VSRAM-04-10-50-00-G		PASSED
-VRF-04-10-50-00-N/ VRD-04-10-50-01-00-100		PASSED
INSULATION RESISTANCE	>5,000 MEGOHMS	
-VSF-04-10-50-00/ VSM-04-10-250-50-00		>50,000 MEGOHMS
-VSF-06-50-50-01/ VSM-06-50-250-50-01		>50,000 MEGOHMS
-CDLV01038/ VSM-04-10-080-50-00-G		>50,000 MEGOHMS
-VSRAF-04-50-50-00/ VSM-04-50-080-50-00		>50,000 MEGOHMS
-VRF-04-50-50-01-G/ VRRAM-04-50-50-01-G		>50,000 MEGOHMS
-VRF-04-50-50-01-G/ VRRAM-04-50-50-01-G		>50,000 MEGOHMS
-VRF-06-50-50-00-G/ VRM-06-50-100-50-00-G		>50,000 MEGOHMS
-VSF-04-10-50-00-G/ VSRAM-04-10-50-00-G		>50,000 MEGOHMS
-VRF-04-10-50-00-N/ VRD-04-10-50-01-00-100		>50,000 MEGOHMS



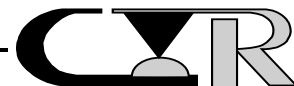
DATA SUMMARY -continued

<u>TEST</u>	<u>REQUIREMENT</u>	<u>RESULTS</u>
<u>GROUP 1-continued</u>		
LLCR	RECORD (BASELINE)	
-VSF-04-10-50-00/ VSM-04-10-250-50-00		17.5 mΩ MAX.
-VSF-06-50-50-01/ VSM-06-50-250-50-01		25.1 mΩ MAX.
-CDLV01038/ VSM-04-10-080-50-00-G		5.8 mΩ MAX.
-VSRAF-04-50-50-00/ VSM-04-50-080-50-00		25.5 mΩ MAX.
-VRF-04-50-50-01-G/ VRRAM-04-50-50-01-G		23.1 mΩ MAX.
-VRF-04-50-50-01-G/ VRRAM-04-50-50-01-G		12.4 mΩ MAX.
-VRF-06-50-50-00-G/ VRM-06-50-100-50-00-G		29.2 mΩ MAX.
-VSF-04-10-50-00-G/ VSRAM-04-10-50-00-G		335.3 mΩ MAX.
-VRF-04-10-50-00-N/ VRD-04-10-50-01-00-100		23.4 mΩ MAX.
SEPARATION FORCE	RECORD DATA	
-VSF-04-10-50-00		0.5 OZ. MIN.
-VSF-06-50-50-01		0.6 OZ. MIN.
-CDLV01038		0.5 OZ. MIN.
-VSRAF-04-50-50-00		0.6 OZ. MIN.
-VRF-04-50-50-01-G		0.7 OZ. MIN.
-VRF-04-50-50-01-G		0.6 OZ. MIN.
-VRF-06-50-50-00-G		0.5 OZ. MIN.
-VSF-04-10-50-00-G		0.6 OZ. MIN.
-VRF-04-10-50-00-N		0.7 OZ. MIN.
ENGAGEMENT FORCE	RECORD DATA	
-VSF-04-10-50-00		2.3 OZ. MAX.
-VSF-06-50-50-01		2.1 OZ. MAX.
-CDLV01038		1.8 OZ. MAX.
-VSRAF-04-50-50-00		1.9 OZ. MAX.
-VRF-04-50-50-01-G		1.9 OZ. MAX.
-VRF-04-10-50-00-N		2.0 OZ. MAX.
-VRF-04-50-50-01-G		2.1 OZ. MAX.
-VRF-06-50-50-00-G		2.1 OZ. MAX.
-VSF-04-10-50-00-G		2.1 OZ. MAX.
-VRF-04-10-50-00-N		2.1 OZ. MAX.



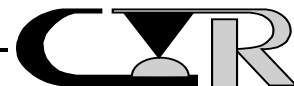
DATA SUMMARY -continued

<u>TEST</u>	<u>REQUIREMENT</u>	<u>RESULTS</u>
<u>GROUP 1-continued</u>		
MATING FORCE	RECORD DATA	
-VSF-04-10-50-00/ VSM-04-10-250-50-00		3.8 LBS MAX.
-VSF-06-50-50-01/ VSM-06-50-250-50-01		22.0 LBS MAX.
-CDLV01038/ VSM-04-10-080-50-00-G		3.2 LBS MAX.
-VSRAF-04-50-50-00/ VSM-04-50-080-50-00		14.7 LBS MAX.
-VRF-04-50-50-01-G/ VRRAM-04-50-50-01-G		20.6 LBS MAX.
-VRF-04-10-50-00-N/ VRD-04-10-50-01-00-100		3.8 LBS MAX.
-VRF-04-50-50-01-G/ VRRAM-04-50-50-01-G		26.5 LBS MAX.
-VRF-06-50-50-00-G/ VRM-06-50-100-50-00-G		19.5 LBS MAX.
-VSF-04-10-50-00-G/ VSRAM-04-10-50-00-G		3.5 LBS. MAX.
-VRF-04-10-50-00-N/ VRD-04-10-50-01-00-100		4.3 LBS MAX.
UNMATING FORCE	RECORD DATA	
-VSF-04-10-50-00/ VSM-04-10-250-50-00		3.2 LBS MAX.
-VSF-06-50-50-01/ VSM-06-50-250-50-01		21.7 LBS MAX.
-CDLV01038/ VSM-04-10-080-50-00-G		3.1 LBS MAX.
-VSRAF-04-50-50-00/ VSM-04-50-080-50-00		8.3 LBS MAX.
-VRF-04-50-50-01-G/ VRRAM-04-50-50-01-G		17.2 LBS MAX.
-VRF-04-50-50-01-G/ VRRAM-04-50-50-01-G		21.6 LBS MAX.
-VRF-06-50-50-00-G/ VRM-06-50-100-50-00-G		17.2 LBS MAX.
-VSF-04-10-50-00-G/ VSRAM-04-10-50-00-G		2.7 LBS. MAX.
-VRF-04-10-50-00-N/ VRD-04-10-50-01-00-100		3.1 LBS MAX.



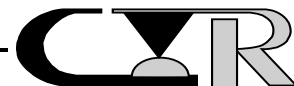
DATA SUMMARY -continued

<u>TEST</u>	<u>REQUIREMENT</u>	<u>RESULTS</u>
<u>GROUP 1-continued</u>		
TEMPERATURE CYCLE	NO DAMAGE	
-VSF-04-10-50-00/ VSM-04-10-250-50-00		PASSED
-VSF-06-50-50-01/ VSM-06-50-250-50-01		PASSED
-CDLV01038/ VSM-04-10-080-50-00-G		PASSED
-VSRAF-04-50-50-00/ VSM-04-50-080-50-00		PASSED
-VRF-04-50-50-01-G/ VRRAM-04-50-50-01-G		PASSED
-VRF-04-50-50-01-G/ VRRAM-04-50-50-01-G		PASSED
-VRF-06-50-50-00-G/ VRM-06-50-100-50-00-G		PASSED
-VSF-04-10-50-00-G/ VSRAM-04-10-50-00-G		PASSED
-VRF-04-10-50-00-N/ VRD-04-10-50-01-00-100		PASSED
PRECONDITIONING (PRIOR TO HUMIDITY)	NO DAMAGE	
-VSF-04-10-50-00/ VSM-04-10-250-50-00		PASSED
-VSF-06-50-50-01/ VSM-06-50-250-50-01		PASSED
-CDLV01038/ VSM-04-10-080-50-00-G		PASSED
-VSRAF-04-50-50-00/ VSM-04-50-080-50-00		PASSED
-VRF-04-50-50-01-G/ VRRAM-04-50-50-01-G		PASSED
-VRF-04-50-50-01-G/ VRRAM-04-50-50-01-G		PASSED
-VRF-06-50-50-00-G/ VRM-06-50-100-50-00-G		PASSED
-VSF-04-10-50-00-G/ VSRAM-04-10-50-00-G		PASSED
-VRF-04-10-50-00-N/ VRD-04-10-50-01-00-100		PASSED



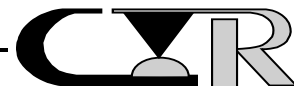
DATA SUMMARY -continued

<u>TEST</u>	<u>REQUIREMENT</u>	<u>RESULTS</u>
<u>GROUP 1-continued</u>		
IR	>1,000 MEGOHMS	
-VSF-04-10-50-00/ VSM-04-10-250-50-00		>50,000 MEGOHMS
-VSF-06-50-50-01/ VSM-06-50-250-50-01		>50,000 MEGOHMS
-CDLV01038/ VSM-04-10-080-50-00-G		>50,000 MEGOHMS
-VSRAF-04-50-50-00/ VSM-04-50-080-50-00		>50,000 MEGOHMS
-VRF-04-50-50-01-G/ VRRAM-04-50-50-01-G		>50,000 MEGOHMS
-VRF-04-50-50-01-G/ VRRAM-04-50-50-01-G		>50,000 MEGOHMS
-VRF-06-50-50-00-G/ VRM-06-50-100-50-00-G		>50,000 MEGOHMS
-VSF-04-10-50-00-G/ VSRAM-04-10-50-00-G		>50,000 MEGOHMS
-VRF-04-10-50-00-N/ VRD-04-10-50-01-00-100		>50,000 MEGOHMS
HUMIDITY	NO DAMAGE	
-VSF-04-10-50-00/ VSM-04-10-250-50-00		PASSED
-VSF-06-50-50-01/ VSM-06-50-250-50-01		PASSED
-CDLV01038/ VSM-04-10-080-50-00-G		PASSED
-VSRAF-04-50-50-00/ VSM-04-50-080-50-00		PASSED
-VRF-04-50-50-01-G/ VRRAM-04-50-50-01-G		PASSED
-VRF-04-50-50-01-G/ VRRAM-04-50-50-01-G		PASSED
-VRF-06-50-50-00-G/ VRM-06-50-100-50-00-G		PASSED
-VSF-04-10-50-00-G/ VSRAM-04-10-50-00-G		PASSED
-VRF-04-10-50-00-N/ VRD-04-10-50-01-00-100		PASSED



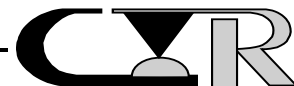
DATA SUMMARY -continued

<u>TEST</u>	<u>REQUIREMENT</u>	<u>RESULTS</u>
<u>GROUP 1-continued</u>		
IR @STEP 6	>1.0 MEGOHM	
-VSF-04-10-50-00/ VSM-04-10-250-50-00		25,000 MEGOHMS
-VSF-06-50-50-01/ VSM-06-50-250-50-01		>10,000 MEGOHMS
-CDLV01038/ VSM-04-10-080-50-00-G		>10,000 MEGOHMS
-VSRAF-04-50-50-00/ VSM-04-50-080-50-00		>800 MEGOHMS
-VRF-04-50-50-01-G/ VRRAM-04-50-50-01-G		>300 MEGOHMS
-VRF-04-50-50-01-G/ VRRAM-04-50-50-01-G		>400 MEGOHMS
-VRF-06-50-50-00-G/ VRM-06-50-100-50-00-G		>25,000 MEGOHMS
-VSF-04-10-50-00-G/ VSRAM-04-10-50-00-G		>25,000 MEGOHMS
-VRF-04-10-50-00-N/ VRD-04-10-50-01-00-100		>15,000 MEGOHMS
POST CONDITIONING	NO DAMAGE	
-VSF-04-10-50-00/ VSM-04-10-250-50-00		PASSED
-VSF-06-50-50-01/ VSM-06-50-250-50-01		PASSED
-CDLV01038/ VSM-04-10-080-50-00-G		PASSED
-VSRAF-04-50-50-00/ VSM-04-50-080-50-00		PASSED
-VRF-04-50-50-01-G/ VRRAM-04-50-50-01-G		PASSED
-VRF-04-50-50-01-G/ VRRAM-04-50-50-01-G		PASSED
-VRF-06-50-50-00-G/ VRM-06-50-100-50-00-G		PASSED
-VSF-04-10-50-00-G/ VSRAM-04-10-50-00-G		PASSED
-VRF-04-10-50-00-N/ VRD-04-10-50-01-00-100		PASSED



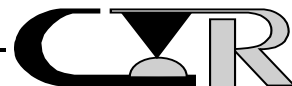
DATA SUMMARY -continued

<u>TEST</u>	<u>REQUIREMENT</u>	<u>RESULTS</u>
<u>GROUP 1-continued</u>		
INSULATION RESISTANCE	>1,000 MEGOHMS	
-VSF-04-10-50-00/ VSM-04-10-250-50-00		>50,000 MEGOHMS
-VSF-06-50-50-01/ VSM-06-50-250-50-01		>25,000 MEGOHMS
-CDLV01038/ VSM-04-10-080-50-00-G		>50,000 MEGOHMS
-VSRAF-04-50-50-00/ VSM-04-50-080-50-00		>50,000 MEGOHMS
-VRF-04-50-50-01-G/ VRRAM-04-50-50-01-G		>50,000 MEGOHMS
-VRF-04-50-50-01-G/ VRRAM-04-50-50-01-G		>50,000 MEGOHMS
-VRF-06-50-50-00-G/ VRM-06-50-100-50-00-G		>50,000 MEGOHMS
-VSF-04-10-50-00-G/ VSRAM-04-10-50-00-G		>50,000 MEGOHMS
-VRF-04-10-50-00-N/ VRD-04-10-50-01-00-100		>50,000 MEGOHMS
DWV	NO DAMAGE, NO BREAKDOWN	
-VSF-04-10-50-00/ VSM-04-10-250-50-00		PASSED
-VSF-06-50-50-01/ VSM-06-50-250-50-01		PASSED
-CDLV01038/ VSM-04-10-080-50-00-G		PASSED
-VSRAF-04-50-50-00/ VSM-04-50-080-50-00		PASSED
-VRF-04-50-50-01-G/ VRRAM-04-50-50-01-G		PASSED
-VRF-04-50-50-01-G/ VRRAM-04-50-50-01-G		PASSED
-VRF-06-50-50-00-G/ VRM-06-50-100-50-00-G		PASSED
-VSF-04-10-50-00-G/ VSRAM-04-10-50-00-G		PASSED
-VRF-04-10-50-00-N/ VRD-04-10-50-01-00-100		PASSED



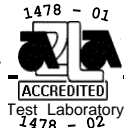
DATA SUMMARY -continued

<u>TEST</u>	<u>REQUIREMENT</u>	<u>RESULTS</u>
<u>GROUP 1-continued</u>		
VIBRATION	NO DAMAGE, NO INTERRUPTIONS AT 1.0 MICROSECOND	
-VSF-04-10-50-00/ VSM-04-10-250-50-00		PASSED
-VSF-06-50-50-01/ VSM-06-50-250-50-01		PASSED
-CDLV01038/ VSM-04-10-080-50-00-G		PASSED
-VSRAF-04-50-50-00/ VSM-04-50-080-50-00		PASSED
-VRF-04-50-50-01-G/ VRRAM-04-50-50-01-G		PASSED
-VRF-04-50-50-01-G/ VRRAM-04-50-50-01-G		PASSED
-VRF-06-50-50-00-G/ VRM-06-50-100-50-00-G		PASSED
-VSF-04-10-50-00-G/ VSRAM-04-10-50-00-G		PASSED
-VRF-04-10-50-00-N/ VRD-04-10-50-01-00-100		PASSED
MECHANICAL SHOCK	NO DAMAGE, NO INTERRUPTIONS AT 1.0 MICROSECOND	
-VSF-04-10-50-00/ VSM-04-10-250-50-00		PASSED
-VSF-06-50-50-01/ VSM-06-50-250-50-01		PASSED
-CDLV01038/ VSM-04-10-080-50-00-G		PASSED
-VSRAF-04-50-50-00/ VSM-04-50-080-50-00		PASSED
-VRF-04-50-50-01-G/ VRRAM-04-50-50-01-G		PASSED
-VRF-04-50-50-01-G/ VRRAM-04-50-50-01-G		PASSED
-VRF-06-50-50-00-G/ VRM-06-50-100-50-00-G		PASSED
-VSF-04-10-50-00-G/ VSRAM-04-10-50-00-G		PASSED
-VRF-04-10-50-00-N/ VRD-04-10-50-01-00-100		PASSED



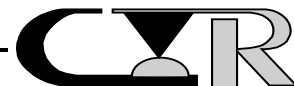
DATA SUMMARY -continued

<u>TEST</u>	<u>REQUIREMENT</u>	<u>RESULTS</u>
<u>GROUP 1-continued</u>		
LLCR	NO READING >+10.0 mΩ DIFFERENCE FROM BASELINE MEASUREMENT	
-VSF-04-10-50-00/ VSM-04-10-250-50-00		+0.6 mΩ MAX.CHG. (PASS)
-VSF-06-50-50-01/ VSM-06-50-250-50-01		+1.3 mΩ MAX.CHG. (PASS)
-CDLV01038/ VSM-04-10-080-50-00-G		+0.6 mΩ MAX.CHG. (PASS)
-VSRAF-04-50-50-00/ VSM-04-50-080-50-00		+1.1 mΩ MAX.CHG. (PASS)
-VRF-04-50-50-01-G/ VRRAM-04-50-50-01-G		+0.5 mΩ MAX.CHG. (PASS)
-VRF-04-50-50-01-G/ VRRAM-04-50-50-01-G		+0.7 mΩ MAX.CHG. (PASS)
-VRF-06-50-50-00-G/ VRM-06-50-100-50-00-G		+1.9 mΩ MAX.CHG. (PASS)
-VSF-04-10-50-00-G/ VSRAM-04-10-50-00-G		+0.4 mΩ MAX.CHG. (PASS)
-VRF-04-10-50-00-N/ VRD-04-10-50-01-00-100		+1.1 mΩ MAX.CHG. (PASS)
DURABILITY	NO DAMAGE	
-VSF-04-10-50-00/ VSM-04-10-250-50-00		PASSED
-VSF-06-50-50-01/ VSM-06-50-250-50-01		PASSED
-CDLV01038/ VSM-04-10-080-50-00-G		PASSED
-VSRAF-04-50-50-00/ VSM-04-50-080-50-00		PASSED
-VRF-04-50-50-01-G/ VRRAM-04-50-50-01-G		PASSED
-VRF-04-50-50-01-G/ VRRAM-04-50-50-01-G		PASSED
-VRF-06-50-50-00-G/ VRM-06-50-100-50-00-G		PASSED
-VSF-04-10-50-00-G/ VSRAM-04-10-50-00-G		PASSED
-VRF-04-10-50-00-N/ VRD-04-10-50-01-00-100		PASSED



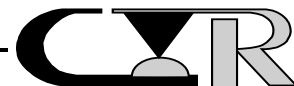
DATA SUMMARY -continued

<u>TEST</u>	<u>REQUIREMENT</u>	<u>RESULTS</u>
GROUP 1-continued		
LLCR	NO READING >+10.0 mΩ DIFFERENCE FROM BASELINE MEASUREMENT	
-VSF-04-10-50-00/ VSM-04-10-250-50-00		+0.2 mΩ MAX.CHG. (PASS)
-VSF-06-50-50-01/ VSM-06-50-250-50-01		+4.4 mΩ MAX.CHG. (PASS)
-CDLV01038/ VSM-04-10-080-50-00-G		+0.2 mΩ MAX.CHG. (PASS)
-VSRAF-04-50-50-00/ VSM-04-50-080-50-00		+0.0 mΩ MAX.CHG. (PASS)
-VRF-04-50-50-01-G/ VRRAM-04-50-50-01-G		+1.3 mΩ MAX.CHG. (PASS)
-VRF-04-50-50-01-G/ VRRAM-04-50-50-01-G		+0.2 mΩ MAX.CHG. (PASS)
-VRF-06-50-50-00-G/ VRM-06-50-100-50-00-G		+0.4 mΩ MAX.CHG. (PASS)
-VSF-04-10-50-00-G/ VSRAM-04-10-50-00-G		-0.3 mΩ MAX.CHG. (PASS)
-VRF-04-10-50-00-N/ VRD-04-10-50-01-00-100		+1.1 mΩ MAX.CHG. (PASS)
SEPARATION FORCE	RECORD DATA	
-VSF-04-10-50-00		0.6 OZ. MIN.
-VSF-06-50-50-01		0.6 OZ. MIN.
-CDLV01038		0.6 OZ. MIN.
-VSRAF-04-50-50-00		0.7 OZ. MIN.
-VRF-04-50-50-01-G		0.7 OZ. MIN.
-VRF-04-10-50-00-N		0.6 OZ. MIN.
-VRF-04-50-50-01-G		0.7 OZ. MIN.
-VRF-06-50-50-00-G		0.5 OZ. MIN.
-VSF-04-10-50-00-G		0.6 OZ. MIN.
-VRF-04-10-50-00-N		0.7 OZ. MIN.
ENGAGEMENT FORCE	RECORD DATA	
-VSF-04-10-50-00		2.3 OZ. MAX.
-VSF-06-50-50-01		2.7 OZ. MAX.
-CDLV01038		1.9 OZ. MAX.
-VSRAF-04-50-50-00		1.9 OZ. MAX.
-VRF-04-50-50-01-G		2.0 OZ. MAX.
-VRF-04-10-50-00-N		2.1 OZ. MAX.
-VRF-04-50-50-01-G		2.2 OZ. MAX.
-VRF-06-50-50-00-G		1.9 OZ. MAX.
-VSF-04-10-50-00-G		1.9 OZ. MAX.
-VRF-04-10-50-00-N		1.9 OZ. MAX.



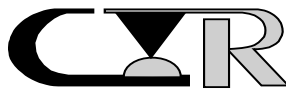
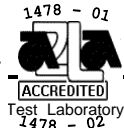
DATA SUMMARY -continued

<u>TEST</u>	<u>REQUIREMENT</u>	<u>RESULTS</u>
GROUP 1-continued		
MATING FORCE		
	RECORD DATA	
-VSF-04-10-50-00/ VSM-04-10-250-50-00		3.8 LBS MAX.
-VSF-06-50-50-01/ VSM-06-50-250-50-01		23.2 LBS MAX.
-CDLV01038/ VSM-04-10-080-50-00-G		3.9 LBS MAX.
-VSRAF-04-50-50-00/ VSM-04-50-080-50-00		14.6 LBS MAX.
-VRF-04-50-50-01-G/ VRRAM-04-50-50-01-G		17.8 LBS MAX.
-VRF-04-50-50-01-G/ VRRAM-04-50-50-01-G		18.8 LBS MAX.
-VRF-06-50-50-00-G/ VRM-06-50-100-50-00-G		22.9 LBS MAX.
-VSF-04-10-50-00-G/ VSRAM-04-10-50-00-G		3.8 LBS. MAX.
-VRF-04-10-50-00-N/ VRD-04-10-50-01-00-100		3.3 LBS MAX.
UNMATING FORCE		
	RECORD DATA	
-VSF-04-10-50-00/ VSM-04-10-250-50-00		3.6 LBS MAX.
-VSF-06-50-50-01/ VSM-06-50-250-50-01		19.7 LBS MAX.
-CDLV01038/ VSM-04-10-080-50-00-G		3.0 LBS MAX.
-VSRAF-04-50-50-00/ VSM-04-50-080-50-00		9.1 LBS MAX.
-VRF-04-50-50-01-G/ VRRAM-04-50-50-01-G		14.7 LBS MAX.
-VRF-04-50-50-01-G/ VRRAM-04-50-50-01-G		14.1 LBS MAX.
-VRF-06-50-50-00-G/ VRM-06-50-100-50-00-G		16.8 LBS MAX.
-VSF-04-10-50-00-G/ VSRAM-04-10-50-00-G		2.3 LBS. MAX.
-VRF-04-10-50-00-N/ VRD-04-10-50-01-00-100		2.2 LBS MAX.



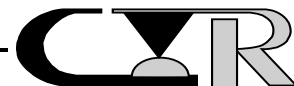
DATA SUMMARY -continued

<u>TEST</u>	<u>REQUIREMENT</u>	<u>RESULTS</u>
GROUP 2		
SALT SPRAY		
	NO CORROSION	
-VSF-04-10-50-00/ VSM-04-10-250-50-00		PASSED
-VSF-06-50-50-01/ VSM-06-50-250-50-01		PASSED
-CDLV01038/ VSM-04-10-080-50-00-G		PASSED
-VSRAF-04-50-50-00/ VSM-04-50-080-50-00		PASSED
-VRF-04-50-50-01-G/ VRRAM-04-50-50-01-G		PASSED
-VRF-04-50-50-01-G/ VRRAM-04-50-50-01-G		PASSED
LLCR		
	NO READING >+10.0 mΩ DIFFERENCE FROM BASELINE MEASUREMENT	
-VSF-04-10-50-00/ VSM-04-10-250-50-00		+0.2 mΩ MAX.CHG. (PASS)
-VSF-06-50-50-01/ VSM-06-50-250-50-01		+5.5 mΩ MAX.CHG. (PASS)
-CDLV01038/ VSM-04-10-080-50-00-G		+0.6 mΩ MAX.CHG. (PASS)
-VSRAF-04-50-50-00/ VSM-04-50-080-50-00		+4.4 mΩ MAX.CHG. (PASS)
-VRF-04-50-50-01-G/ VRRAM-04-50-50-01-G		+3.5 mΩ MAX.CHG. (PASS)
-VRF-04-50-50-01-G/ VRRAM-04-50-50-01-G		+2.5 mΩ MAX.CHG. (PASS)
MATING FORCE		
	RECORD	
-VSF-04-10-50-00/ VSM-04-10-250-50-00		5.0 LBS. MAX.
-VSF-06-50-50-01/ VSM-06-50-250-50-01		38.4 LBS. MAX.
-CDLV01038/ VSM-04-10-080-50-00-G		6.1 LBS. MAX.
-VSRAF-04-50-50-00/ VSM-04-50-080-50-00		18.4 LBS. MAX.
-VRF-04-50-50-01-G/ VRRAM-04-50-50-01-G		25.2 LBS. MAX.
-VRF-04-50-50-01-G/ VRRAM-04-50-50-01-G		26.2 LBS. MAX.



DATA SUMMARY -continued

<u>TEST</u>	<u>REQUIREMENT</u>	<u>RESULTS</u>
<u>GROUP 2 -continued</u>		
UNMATING FORCE	RECORD	
-VSF-04-10-50-00/ VSM-04-10-250-50-00		4.4 LBS. MAX.
-VSF-06-50-50-01/ VSM-06-50-250-50-01		34.0 LBS. MAX.
-CDLV01038/ VSM-04-10-080-50-00-G		2.5 LBS. MAX.
-VSRAF-04-50-50-00/ VSM-04-50-080-50-00		14.0 LBS. MAX.
-VRF-04-50-50-01-G/ VRRAM-04-50-50-01-G		23.6 LBS. MAX.
-VRF-04-50-50-01-G/ VRRAM-04-50-50-01-G		24.0 LBS. MAX.
<u>GROUP 3</u>		
FLUID IMMERSION	NO DAMAGE	
-VRF-06-50-50-00-G/ VRM-06-50-100-50-00-G		PASSED
-VSF-04-10-50-00-G/ VSRAM-04-10-50-00-G		PASSED
-VRF-04-10-50-00-N/ VRD-04-10-50-01-00-100		PASSED
MATING FORCE	RECORD	
-VRF-06-50-50-00-G/ VRM-06-50-100-50-00-G		28.7 LBS. MAX.
-VSF-04-10-50-00-G/ VSRAM-04-10-50-00-G		4.2 LBS. MAX.
-VRF-04-10-50-00-N/		5.2 LBS. MAX.
UNMATING FORCE	RECORD	
-VRF-06-50-50-00-G/ VRM-06-50-100-50-00-G		15.8 LBS. MAX.
-VSF-04-10-50-00-G/ VSRAM-04-10-50-00-G		3.0 LBS. MAX.
-VRF-04-10-50-00-N/ VRD-04-10-50-01-00-100		4.0 LBS. MAX.



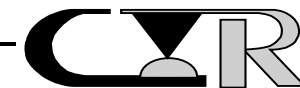
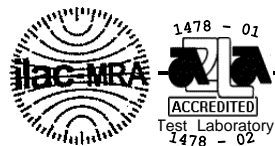
DATA SUMMARY -continued

<u>TEST</u>	<u>REQUIREMENT</u>	<u>RESULTS</u>
<u>GROUP 4</u>		
SOLDERABILITY VSF-06-50-50-01	SOLDERABLE	PASSED
RESISTANCE TO SOLDER HEAT VSF-06-50-50-01	NO DAMAGE	PASSED
MARKING PERFORMANCE VSF-06-50-50-01	NO DAMAGE	PASSED



EQUIPMENT LIST

ID#	Next Cal	Last Cal	Equipment Name	Manufacturer	Model #	Serial #	Accuracy	Freq. Cal
1	3/20/2013	3/20/2012	Digital Thermometer	John Fluke Mfg.	2190A	2775012	See cal cert	12 mon
14	8/2/2013	8/2/2012	Accelerometer	PCB Piezotronics	302A	7040	See Cal Cert	12 mon
16			High Vac Chamber	Edwards Co.	EIM8	1092	N/A	12 mon
27	5/21/2013	5/21/2012	Temp. Humid. Chamber	Blue M Co.	FR-256PC-1	F2-249	N/A	12 mon
55			Air Fume Hood	Labconco	47715	61279	N/A	N/A
118			Salt Spray Chamber	Harshaw	21	21-0010	N/A	Ea Test
121	4/9/2013	4/9/2012	Digital Thermometer	John Fluke MFG	2170A	3645166	See Cal Cert	12 mon
141	7/28/2013	7/28/2011	Permeability Indicator	Severn Eng.	4748	N/A	See Cal Cert	24 mon
146			Melting Pot	Waage	RSP3-5-2	N/A	N/A	N/A
162			DC Power Supply 100 Amps	Hewlett Packard	6260B	2251A-03503	See Manual	Ea Test
202			Stereo Scope	Bausch & Lomb	N/A	N/A	N/A	N/A
207	12/22/2012	12/22/2011	Micro-Ohm Meter	Keithley Co.	580	438208	See Cal Cert	12 mon
282			Vibration Shaker Table	Ling Dynamics	V-730	163	N/A	N/A
321	4/13/2013	4/13/2012	AC-DC Hipot/Megometer	Hipotronics Co.	H300B	DS16-201	See Cal Cert	12 mon
323			Computer	Legatech	286-12	N/A	N/A	N/A
466	12/15/2012	12/15/2011	Precision Resistor	Victoreen Co.	50,000 mego	N/A	± 1 %	12 mon
512			Bench Oven	Blue M Co.	POM 146C-1	CD9506	See Manual	Ea Test
488			X-Y Table	N.E.Affiliated Tech.	XY-6060	932021	N/A	N/A
550	4/24/2013	4/24/2012	Digital Thermometer	Omega	DP116-KC2	4480541	±1.1DegC	12 mon
553	5/2/2013	5/2/2012	12 channel Power Unit	PCB Piezotronics	483A	1303	See Cal Cert	12 mon
601			Computer	A.M.I.	P111-450	082714	N/A	N/A
614			Oven	Tenney Co.	TH Jr.	9712-510	See Manual	Ea Test
624	10/9/2013	10/9/2012	Air Pressure Gage	Wika	316SS	970103	±0.45	12mon
666	11/22/2012	11/22/2011	Digital Thermometer	Omega Eng.	DP116-KC2	7380236	±1.1DegC	12 mon
677	11/3/2012	11/3/2011	Micro-Ohm Meter	Keithley Instr.	580	0685122	See Cal Cert	12 mon
682	6/4/2013	6/4/2012	P.H. Meter	Omega Eng. Inc.	PHB-305	1875	±.02	12 mon
874			Computer	M&P	Vetra	us75203327	N/A	N/A
1029			Digital Miocroscope Camera	Polaroid	DMC-1	N707001AV	See Manual	N/A
1030			Microscope	Nikon	SMZ-2T	QHI-85	N/A	N/A



EQUIPMENT LIST -continued

ID#	Next Cal	Last Cal	Equipment Name	Manufacturer	Model #	Serial #	Accuracy	Freq.Cal
1045	8/14/2013	8/14/2012	Microohm Meter	Keithley	580	708216	See Cal Cert	12 mon
1175	5/7/2013	5/7/2012	Discontinuity Monitor	Metronics	DM3000-10	6-2K-1	See Cal Cert	12 mon
1240			Steam Ageing Unit	Mountaingate Eng.	SAT1-0-S1	9211-264	See Manual	N/A
1314	1/26/2013	1/26/2012	Multiplexer card	Keithley Co.	7708	0862544	See Cal Cert	12 mon
1315	1/25/2013	1/25/2012	Data Aquisition Multimeter	Keithley Co.	2700	0862680	See Cal Cert	12 mon
1339	5/22/2013	5/22/2012	Hipot Tester A/C-DC	Quad Tech	Sentry 30	2052040	See Cal Cert	12mon
1346	11/10/2012	11/10/2011	Chatter Detector	Trig Tek	850A	120	See Cal Cert	12 mon
1361	1/26/2013	1/36/2012	Multiplexer Card	Keithley	7708	0915308	See Cal Cert	12 mon
1362	5/24/2013	5/24/2011	Hydrometer	Kessler Co.	8286-C	12750	0.0001sp-gr	24 mon
1366			Main Frame	Agilent H.P.	8408A		N/A	N/A
1367			Interface	Agilent H.P.	E8491A		N/A	N/A
1368	6/7/2013	6/7/2012	Sine/Rnd Control digitizer	Agilent H.P.	E1432A	US35470169	See Manual	12 mon
1382			Force Gage Stand	Chatillon	20025	N/A	N/A	N/A
1435	10/9/2013	10/9/2012	Air Pressure Monitor	Contech Dan	C05	001	See Cal Cert	12 mon
1449			Computer	Emachines	T4010	XDF55-100-19914	N/A	N/A
1457	1/31/2013	1/31/2012	Precision Resistor	Victorine	5KMOHM	465	See Cal Cert	12 mon
1466	5/7/2013	5/7/2012	Digital Force Gage 50 lbs	Chatillon	DFE-50	T03567	See Cal Cert	12 mon
1474			Vib Pwr Amp	tira	A58312	003/06	N/A	N/A
1609	6/28/2013	6/28/2012	Vert Thermal Shock Chamber	C.S.Z.	VTS-1.0-2-2-H/AC	08-VT14810	See Manual	12 mon
1689			Programable Test Stand	Chatillon	TCD 1000-MS	25010	N/A	N/A
1727			Computer	Dell	GX620	FYF0T91	N/A	N/A
1741	5/7/2013	5/7/2012	Digital Force Gage 50 Lbs	Chatillon	EDFE-50	T15611	0.25% F.S.	12 mon
1747	5/16/2013	5/16/2012	Temp/Humidity Transmitter	Vaisala	HMT333	G5030022	See Cal Cert	12 mon

