

WHITE
PAPER

TESTING AND CALIBRATION PERFORMANCE STATISTICS

Sample data collected 2011 - 2013

Disclaimer:

Master Calibrators Australia is an independent research and lobbying entity, and is funded by Mobile Test n Cal International Pty Ltd.

This data was taken from random samples of the testing and calibration works carried out by Mobile Test n Cal Australia Pty Ltd during the period of 2011-2013.

This data is taken from clients who abide by Electrical Safety Regulation 2002, and performing testing and calibration on a 6 monthly basis. The information in this data does not contain customer data as it was taken from a nameless sample, and therefore does not release any confidential information, however the information in this report itself is confidential and the sole property of Mobile Test n Cal Australia Pty Ltd. This information may not be used for any business or commercial purposes, and is for informational use only.

Any reproduction or use of the data in this report is strictly not allowable without written permission from the owner. Therefore written permission must be given by Mobile Test n Cal Australia Pty Ltd for any use of this data.

INTRODUCTION

Master Calibrators Australia has compiled this white paper to help members of the Electrical Industry to better understand the statistical implications of Testing and Calibration frequencies.

The white paper is based on actual failure rates, provided by industry leader Mobile Test 'n' Cal, from equipment being Tested and Calibrated at strict 6 month intervals as per best practice and various industry guidelines, standards and legislations. Statistical non-linear appreciation models have then been used to estimate failure rates if equipment were to be Tested and Calibrated at longer intervals.

The significant safety implication of these statistics, is that all equipment that fails at time of Test or Calibration, has been in use (for an unknown time since it's previous Test or Calibration), in an unsafe state. As such, a longer testing interval and higher failure rate, leads to a higher percentage of unsafe equipment being used in the field by Electrical workers.





Contents

SECTION	PAGE
Projected Glove Failures	6
Projected Rescue Kit Failures	7
Projected Mat Failures	8
Projected Calibration Failures	9
Total Sample Result Summaries	10

Appendix

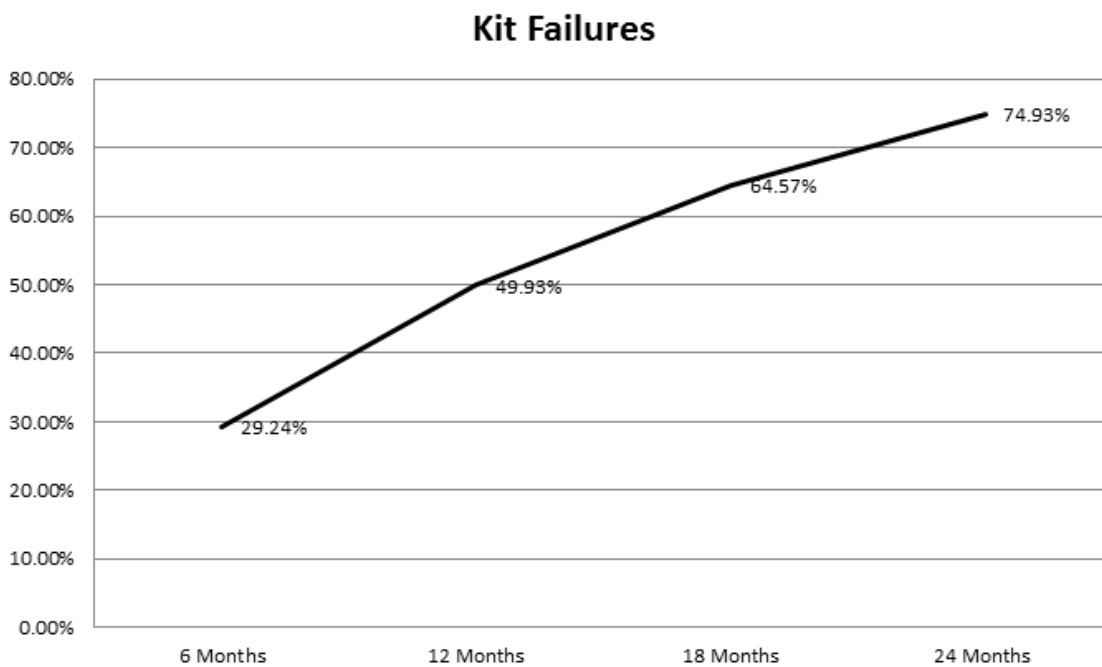
- A - Complete Glove Data
- B - Complete LVR Kit Data
- C - Complete Mat Data
- D - Complete Calibration Data

PROJECTED GLOVE FAILURES



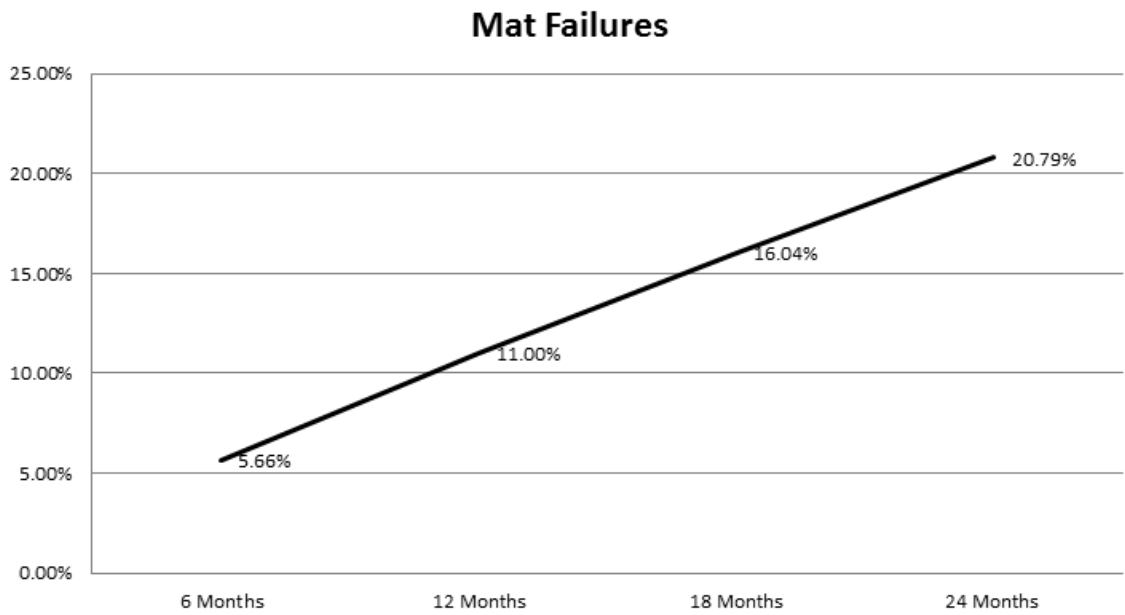
Percentage of gloves tested that are expected to fail if various test intervals are used, using the 6 monthly fail percentage rate of 8.39% found in this study, and a non-linear appreciation model. For a full breakdown of glove failures by brand please see appendix A.

PROJECTED RESCUE KIT FAILURES



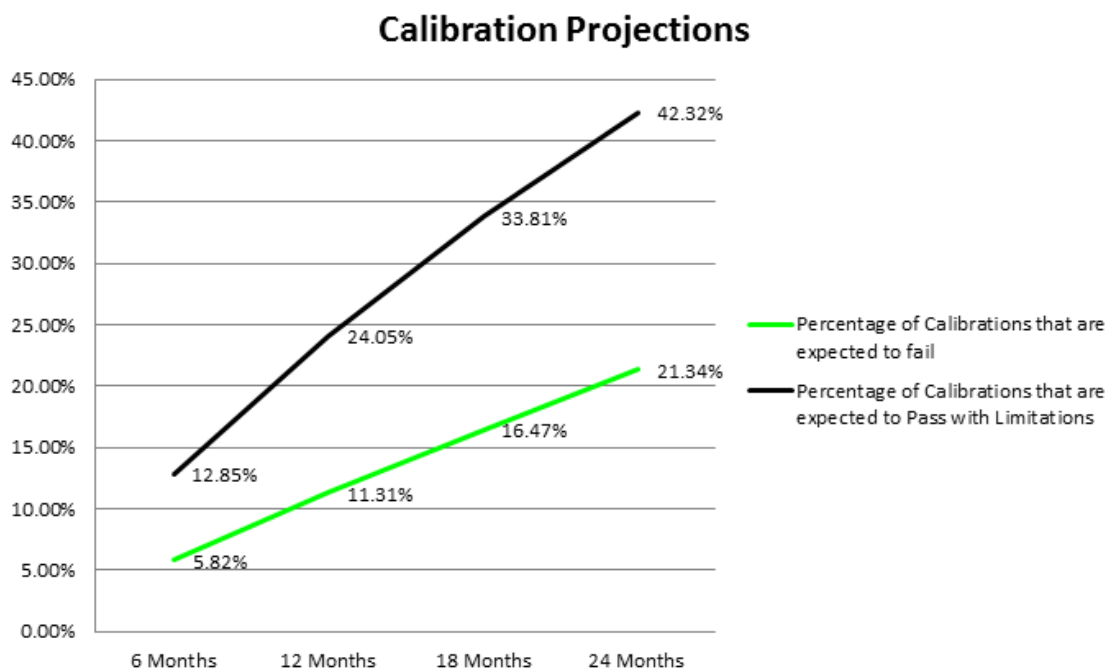
Percentage of kits tested that are expected to fail if various test intervals are used, using the 6 monthly fail percentage rate of 29.24% found in this study, and a non-linear appreciation model. For a full breakdown of kit failures by item please see appendix B.

PROJECTED MAT FAILURES

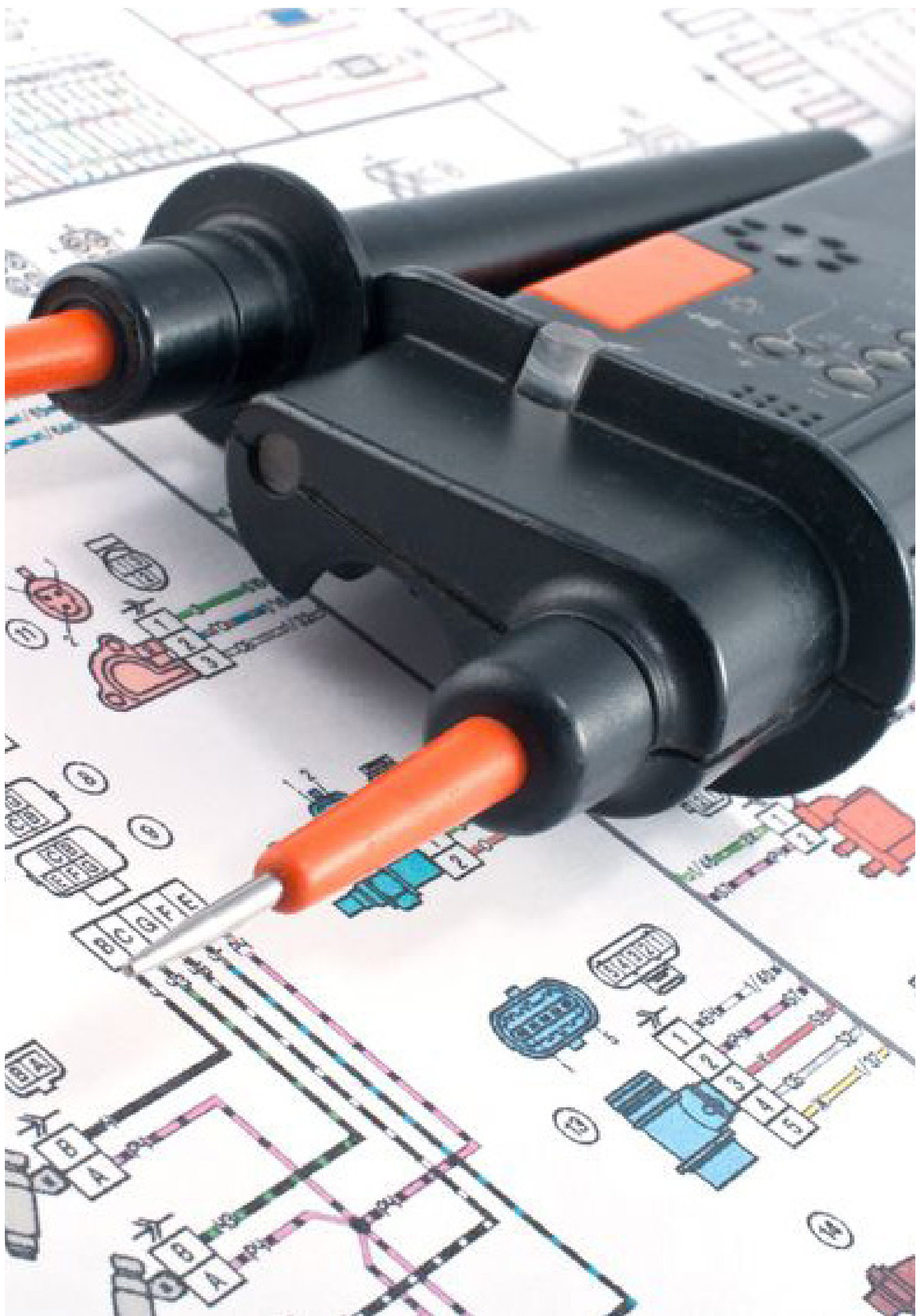


Percentage of mats tested that are expected to fail if various test intervals are used, using the 6 monthly fail percentage rate of 5.66% found in this study, and a non-linear appreciation model. For a full breakdown of mat failures by type please see appendix C.

PROJECTED CALIBRATION FAILURES

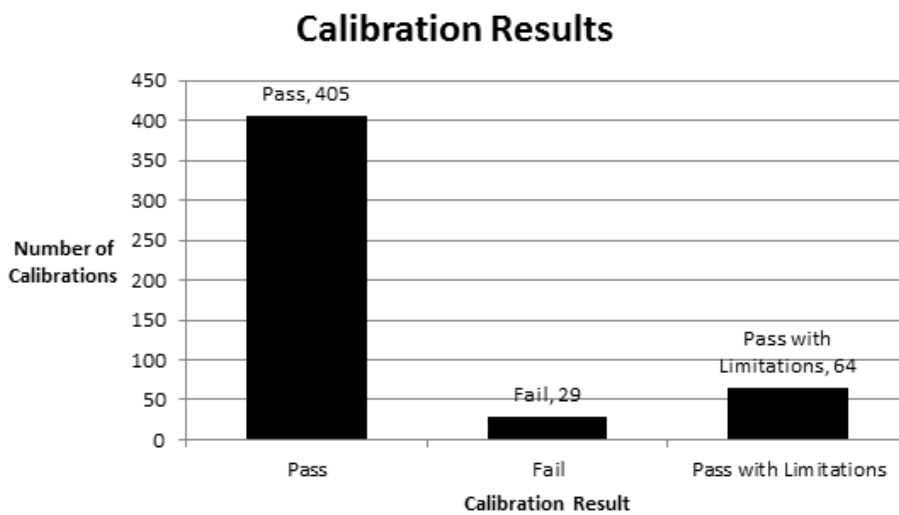


Percentage of Calibrations that are expected to fail or pass with limitations if various test intervals are used, using the fail percentage rate of 5.82% and 12.85% respectively found in this study, and a non-linear appreciation model. For a full breakdown of calibration failures and pass with limitations by brand please see appendix D.



TOTAL SAMPLE RESULTS SUMMARY

	Tested	Pass	Fail	Fail Percentage Rate
Gloves	429	393	36	8.39%
Mats	159	150	9	5.66%
Kits	171	121	50	29.24%
TOTAL	759	664	95	12.92%





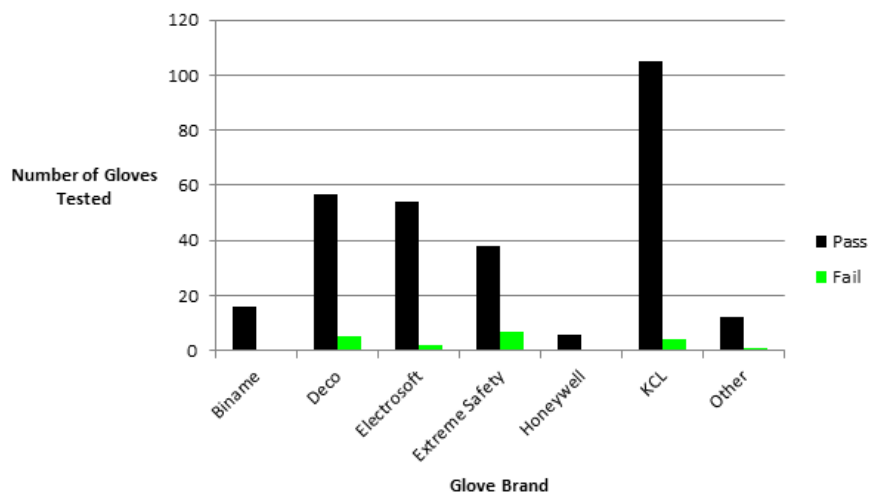
APPENDIX



COMPLETE GLOVE DATA

Glove Brand	Tested	Pass	Fail	Fail Percentage Rate
Biname	18	17	1	5.56%
Deco	102	94	8	7.84%
Electrosoft	68	63	5	7.35%
Extreme Safety	82	67	15	18.29%
Honeywell	11	9	2	18.18%
KCL	124	120	4	3.23%
Other	24	23	1	4.17%
TOTAL	429	393	36	8.39%

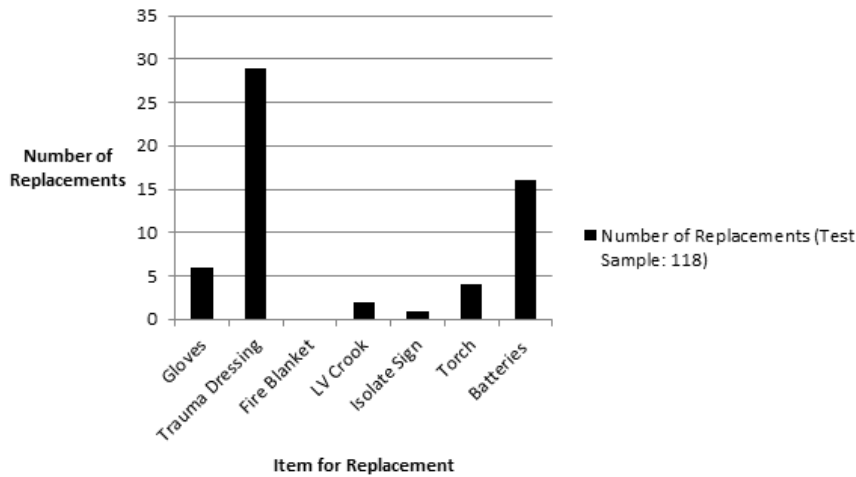
HV Testing of Gloves Results



COMPLETE GLOVE DATA

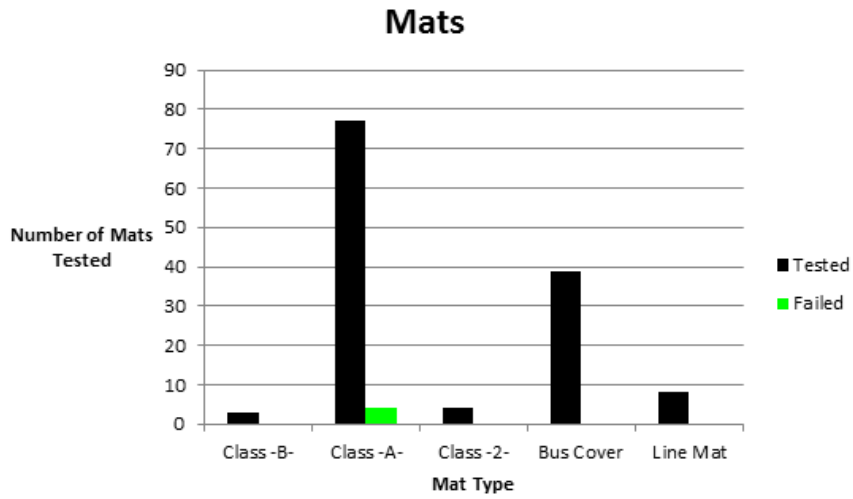
Kit Replacement Items	Tested	Pass	Fail	Fail Percentage Rate
Gloves	171	164	7	4.09%
Trauma Dressing	171	128	43	25.15%
Fire Blanket	171	169	2	1.17%
LV Crook	171	168	3	1.75%
Isolate Sign	171	169	2	1.17%
Torch	171	158	13	7.60%
Batteries	171	150	21	12.28%
TOTAL	171	121	50	29.24%

Replacement Items for LVR Kits



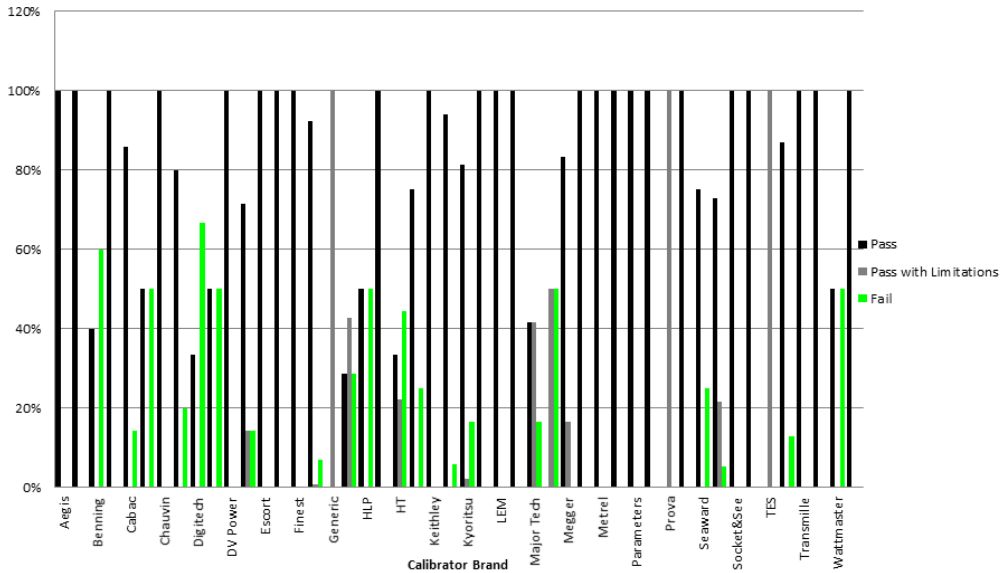
COMPLETE MAT DATA

Mats	Tested	Pass	Fail	Fail Percentage Rate
Class -B-	4	3	1	25.00%
Class -A-	95	91	4	4.21%
Class -2-	5	3	2	40.00%
Bus Cover	39	38	1	2.56%
Line Mat	16	15	1	6.25%
TOTAL	159	150	9	5.66%



COMPLETE CALIBRATION DATA

Calibration Results by Brand



Calibration Results by Meter Type

