



Accumulator Verification: QA-TSV-01

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This document contains information about how to verify the electrical connections inside the pack.

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Desired objectives

This test verifies all mechanical connections in the TSV circuit are electrically connected.

Required Hardware

- 1 Pack
- Simulated load
- Basic GLV safety loop
- PPE per safety plan
- Danger zone per safety plan
- Cables as specified in Appendix A
- Multi-meter
- Current probe

Required Software

None

Hardware Setup

Single pack

Since there are 4 different setups there are sometimes different wires required. If this is the case then all four are listed as:

- Pack 1
- Pack 2
- Pack 3
- Pack 4

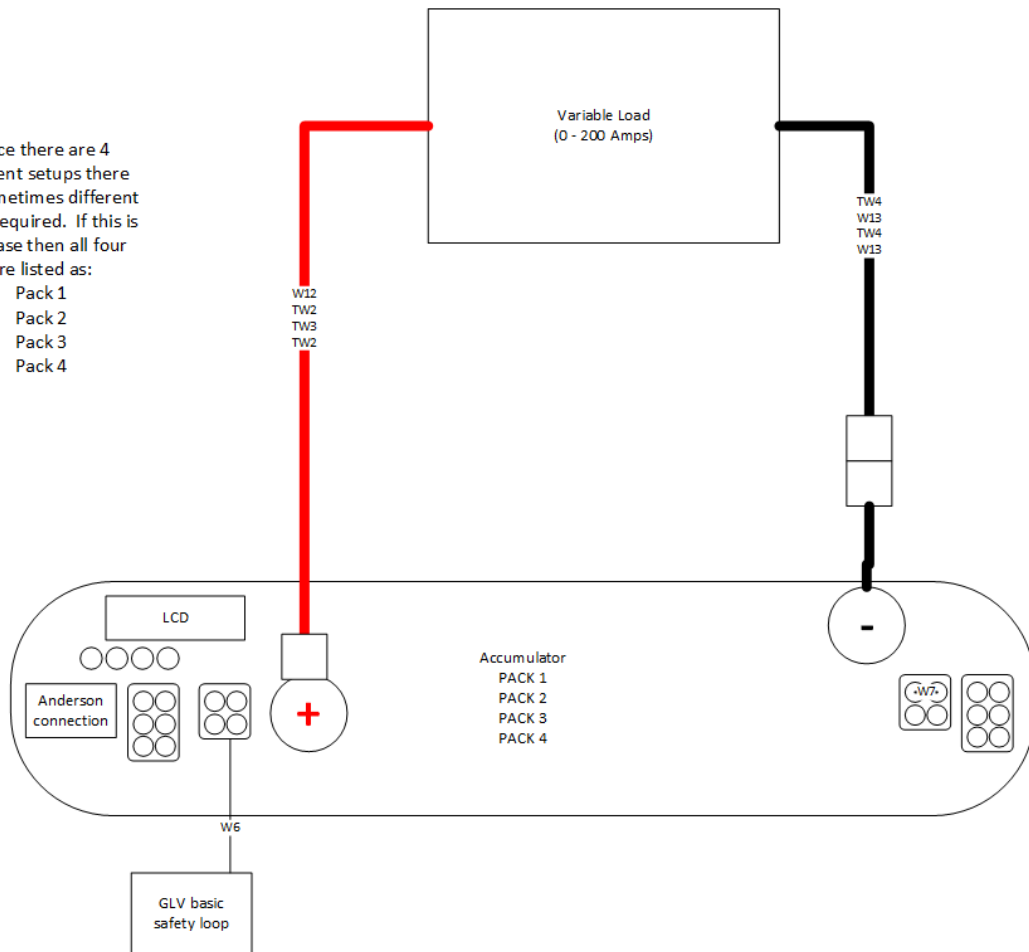


Figure 1 Single pack connections

Software Setup

N/A

Test

Suggestion: Run test at 20A.

Desired data

It is desired to get the resistance between all connections. Use the picture in Appendix B. Note that in figure five pack one has an air between X1 and X2.

Fill out attached excel document for each pack in a new sheet.

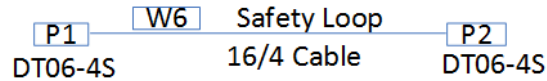
Witness/examiner signature

Date

Pass/Fail

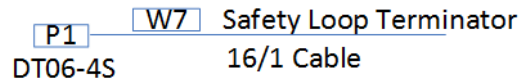
Appendix A: Wiring requirements

- 1 WHT SL1
- 2 BRN SL2
- 3 RED AIRs+
- 4 BLK AIRs-



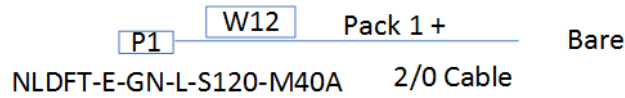
- 1 WHT SL1
- 2 BRN SL2
- 3 RED AIRs+
- 4 BLK AIRs-

- 1 WHT SL1
- 2 BRN SL2
- 3 RED AIRs+
- 4 BLK AIRs-



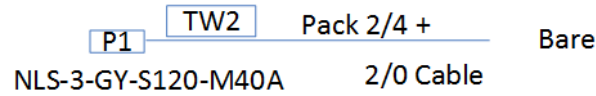
- 1 Jump pin
- 2 1 and 2
- 3 Leave pin
- 4 3 and 4

- 1 RED TSV HV



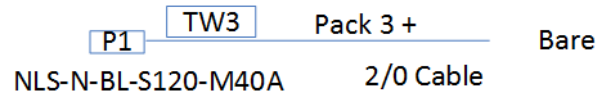
- 1 RED TSV HV

- 1 RED TSV HV



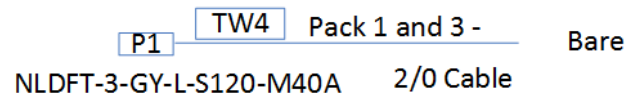
- 1 RED TSV HV

- 1 RED TSV HV



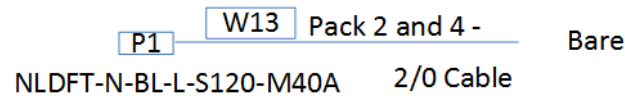
- 1 RED TSV HV

- 1 RED TSV HV



- 1 RED TSV HV

- 1 RED TSV HV



- 1 RED TSV HV

Cable	What packs use it	Total count for full test
W6	1,2,3,4	4
W7	1,2,3,4	1
W12	1	1
TW2	2,4	1
TW3	3	1
TW4	1,3	1
W13	2,4	1

Appendix B: Measurement location images

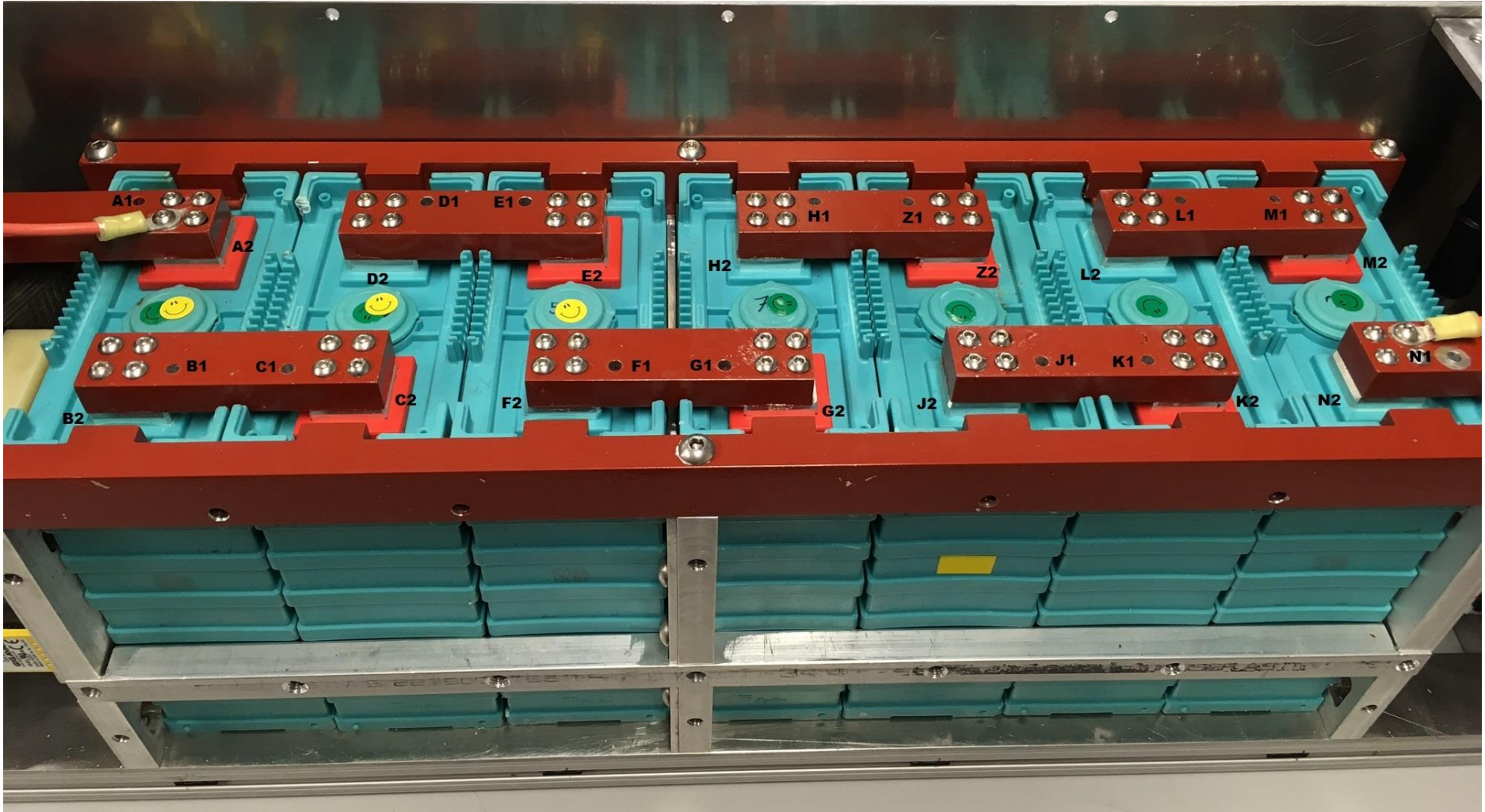


Figure 2 Top of cells

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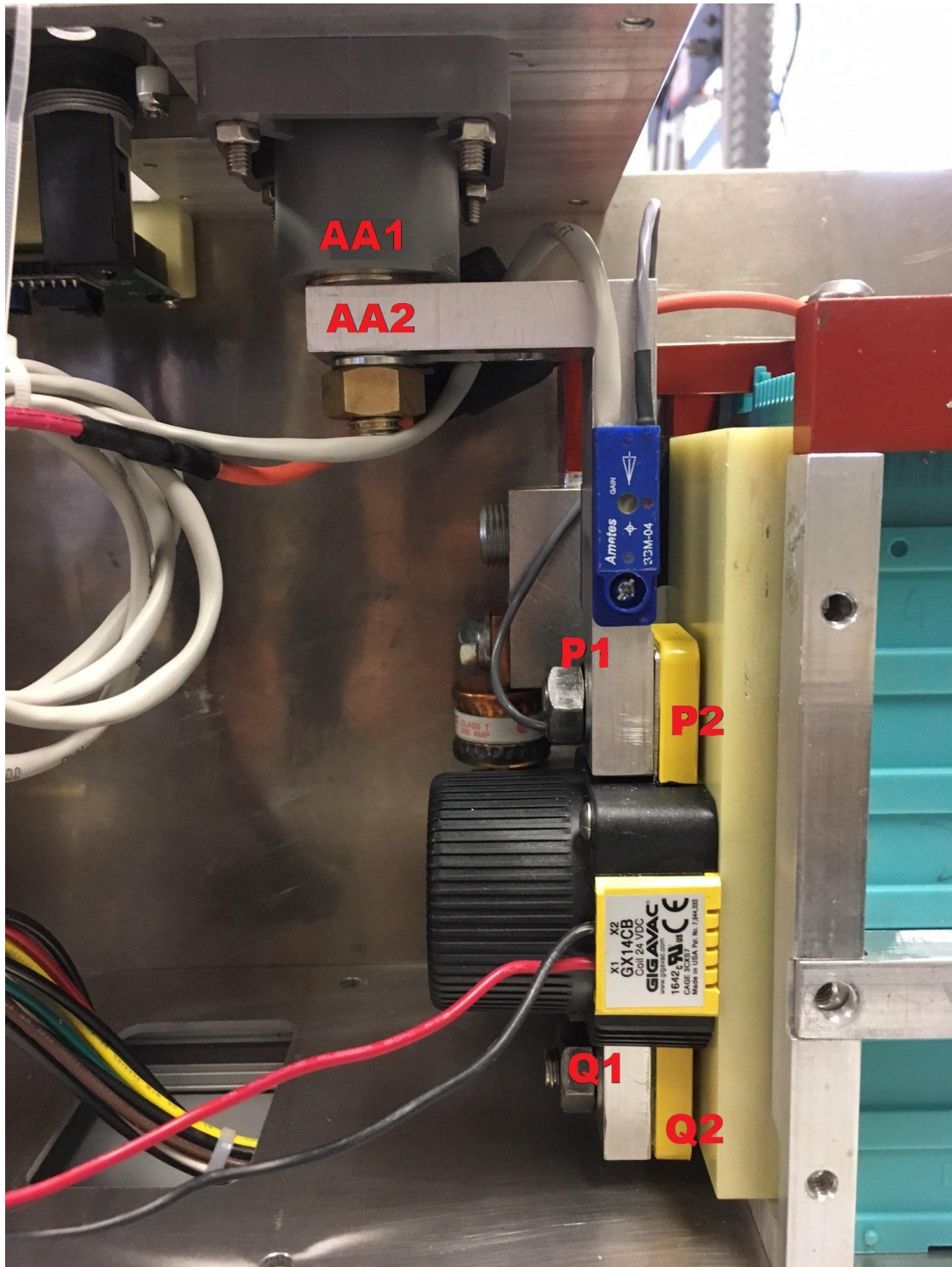


Figure 3 Positive connections front



Figure 4 Positive terminal side

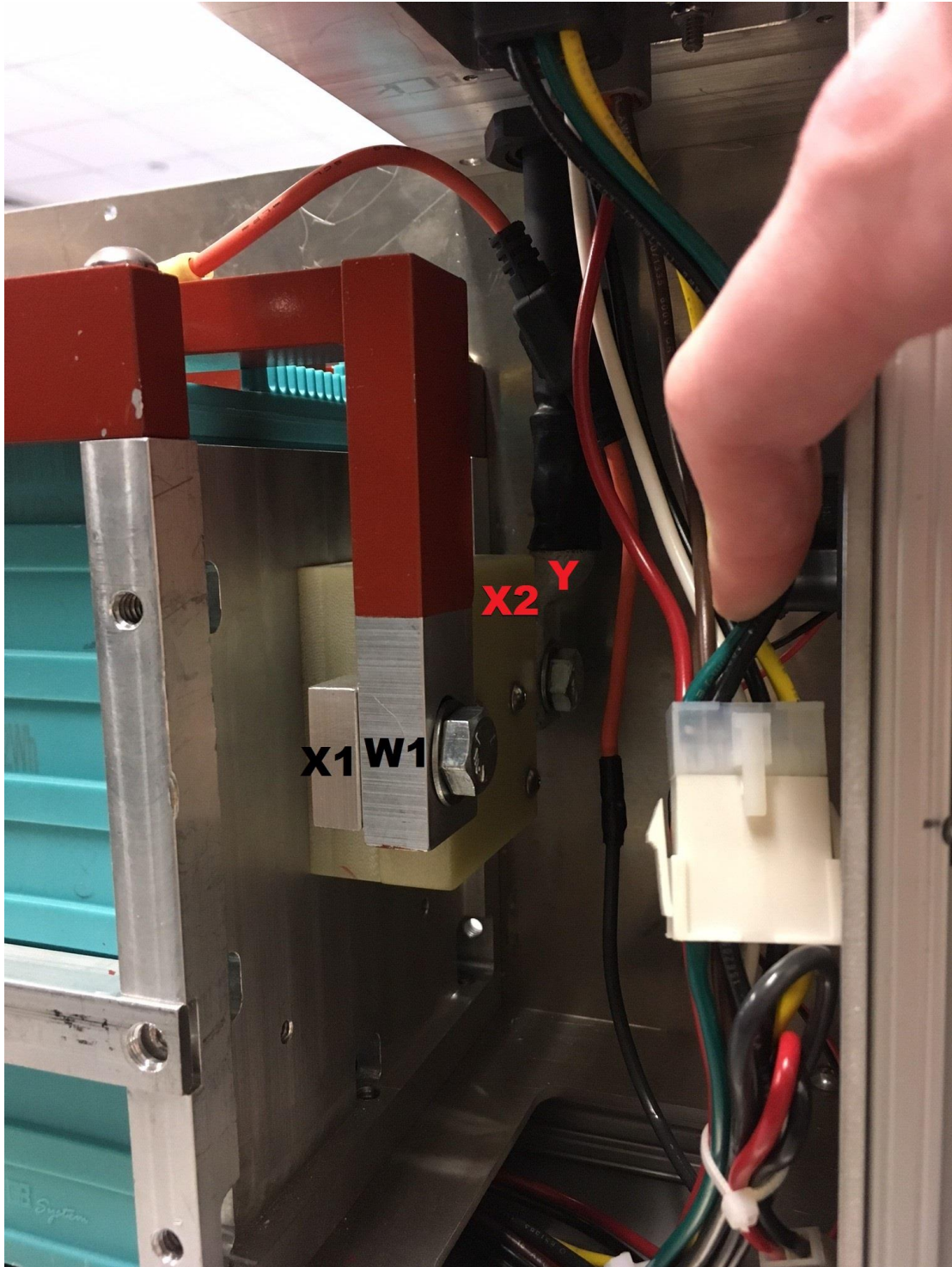


Figure 5 Negative connection side