Accumulator Verification: ATP-01 Greg Flynn This document contains information about how to verify the electrical connections inside the pack.	
Lafayette College: Electrical and Computer Engineering	
Accumulator Verification: ATP-01 February 14, 2017	

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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

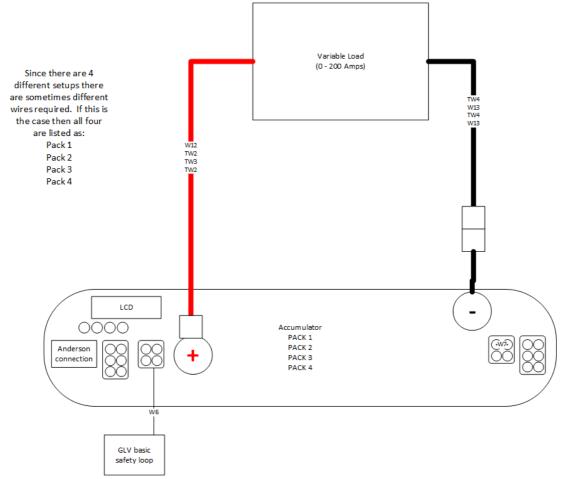


Figure 1 Single pack connections

Fill out attached excel document for each pack in a new sheet.				
Date	Pass/Fail			
	reen all connections. In ack one has an air bet ach pack in a new she			

Appendix A: Wiring requirements

1 2 3 4	WHT BRN RED BLK	SL1 SL2 AIRs+ AIRs-	P1 W6 Safety Loop DT06-4S 16/4 Cable	P2 DT06-4S	1 2 3 4	WHT BRN RED BLK	SL1 SL2 AIRs+ AIRs-
1 2 3 4	WHT BRN RED BLK	SL1 SL2 AIRs+ AIRs-	P1 W7 Safety Loop T DT06-4S 16/1 Cable	<u>ermi</u> nator	1 2 3 4	Jump 1 and Leave 3 and	2 pin
1	RED	TSV HV	W12 Pack 1 + NLDFT-E-GN-L-S120-M40A 2/0 Cab	— Bare le	1	RED	TSV HV
1	RED	TSV HV	TW2 Pack 2/4 + NLS-3-GY-S120-M40A 2/0 Cab	— Bare le	1	RED	TSV HV
1	RED	TSV HV	TW3 Pack 3 + NLS-N-BL-S120-M40A 2/0 Cab	— Bare le	1	RED	TSV HV
1	RED	TSV HV	TW4 Pack 1 and 3 - NLDFT-3-GY-L-S120-M40A 2/0 Cab	— Bare le	1	RED	TSV HV
1	RED	TSV HV	W13 Pack 2 and 4 - NLDFT-N-BL-L-S120-M40A 2/0 Cab	— Bare le	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

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Appendix B: Measurement location images

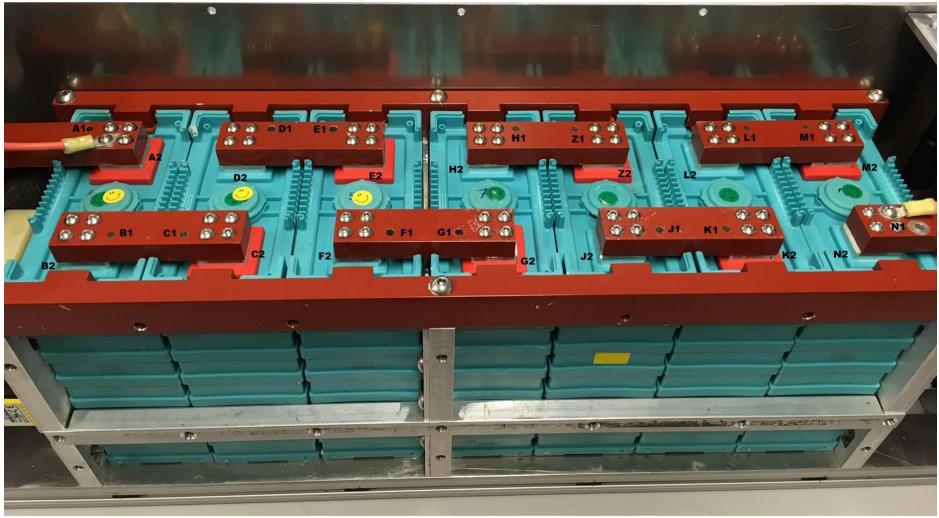


Figure 2 Top of cells

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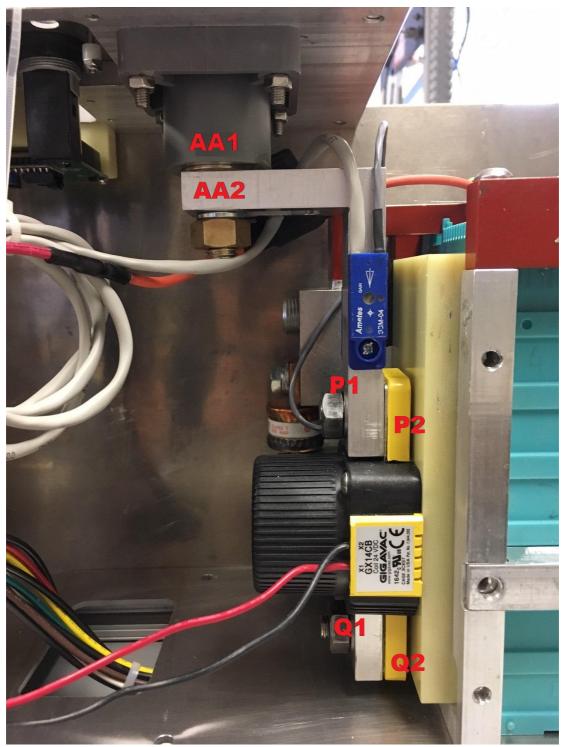


Figure 3 Positive connections front



Figure 4 Positive terminal side

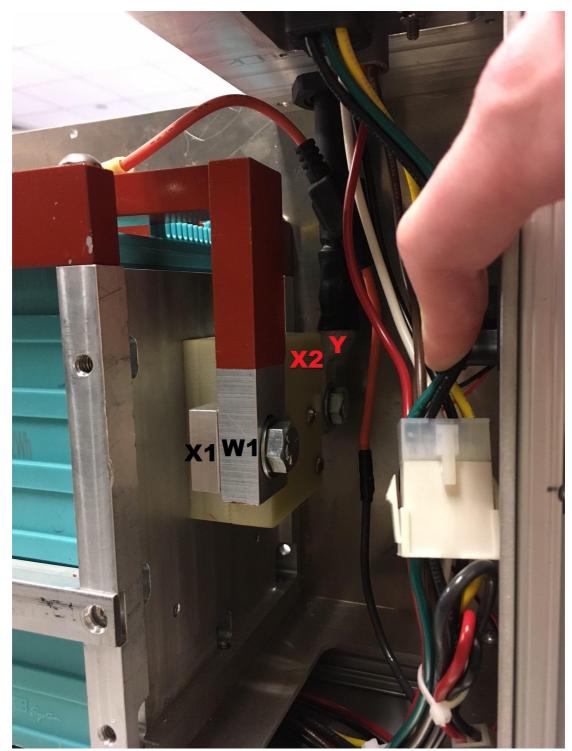


Figure 5 Negative connection side