



eFlex 5.4 DISASSEMBLY AND CHARGING GUIDE

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1 – INTRODUCTION

This guide will help with the troubleshooting of the eFlex battery. We will show how to bypass the BMS and trickle charging an eFlex that is below the “danger zone” of ~46V. This guide is supplemental to the installation manual—please make sure you understand the proper installation before attempting to open and troubleshoot the eFlex. **Always read the warning notices on the installation manual** and take all necessary safety precautions when dealing with 48V batteries.

2 – eFlex DISASSEMBLY

Please refer to the following steps when disassembling the eFlex:

- 1) Make sure both terminals are disconnected and both communication ports are empty
- 2) Remove the ten (10) screws that attach the front plastic cover (Appendix A-1)
- 3) There is a gasket on the interface between the black plastic cover and the aluminum body. The easiest way to remove it is gently tapping a spackling knife along the perimeter of the cover (Appendix A-2)
- 4) To remove the front plastic cover, use a 2x4” and gently hammer the cover off (Appendix A-3)
- 5) Pull open the cover, taking care not to over-extend the wires connected to the cover
- 6) You should now have access to the battery internals (Appendix B-1)

3 – TRICKLE-CHARGING THE BATTERY

Once the battery covers have been removed, it is now possible to bypass the BMS and charge the cells directly.

3A – CONNECTING THE LEADS AND CHARGING

We will now connect the charger leads.

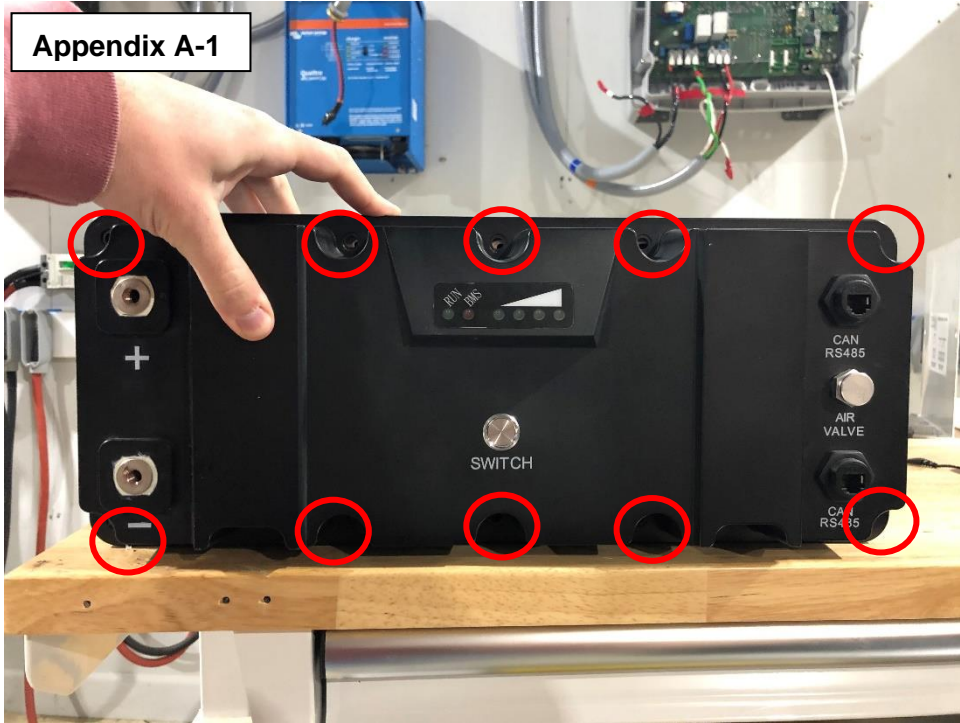
- 1) The standard color designation is **BLACK for NEGATIVE (--)** and **RED for POSITIVE (+)**
 - a. Failure to keep these consistent can lead to personal injury and/or battery shortage
- 2) Make sure the battery terminals are disconnected
- 3) Make sure the battery charger is OFF
- 4) Make sure the eFlex BMS is turned OFF
- 5) Connect the NEGATIVE (BLACK) lead clamp of the charger to the **NEGATIVE** battery lead (Appendix B-2)
- 6) Connect the POSITIVE (RED) lead clamp of the charger to the **POSITIVE** battery lead (Appendix B-2)
- 7) Turn on battery charger and charge at ~3-10A until voltage at the terminals registers ~47V
- 8) Do not measure cell voltage while battery is still receiving charge as it will not be accurate.
- 9) At ~46-48V your charge controller should be able to resume charging

5 – FURTHER HELP

Please contact techsupport@fortresspower.com with any concerns or questions.

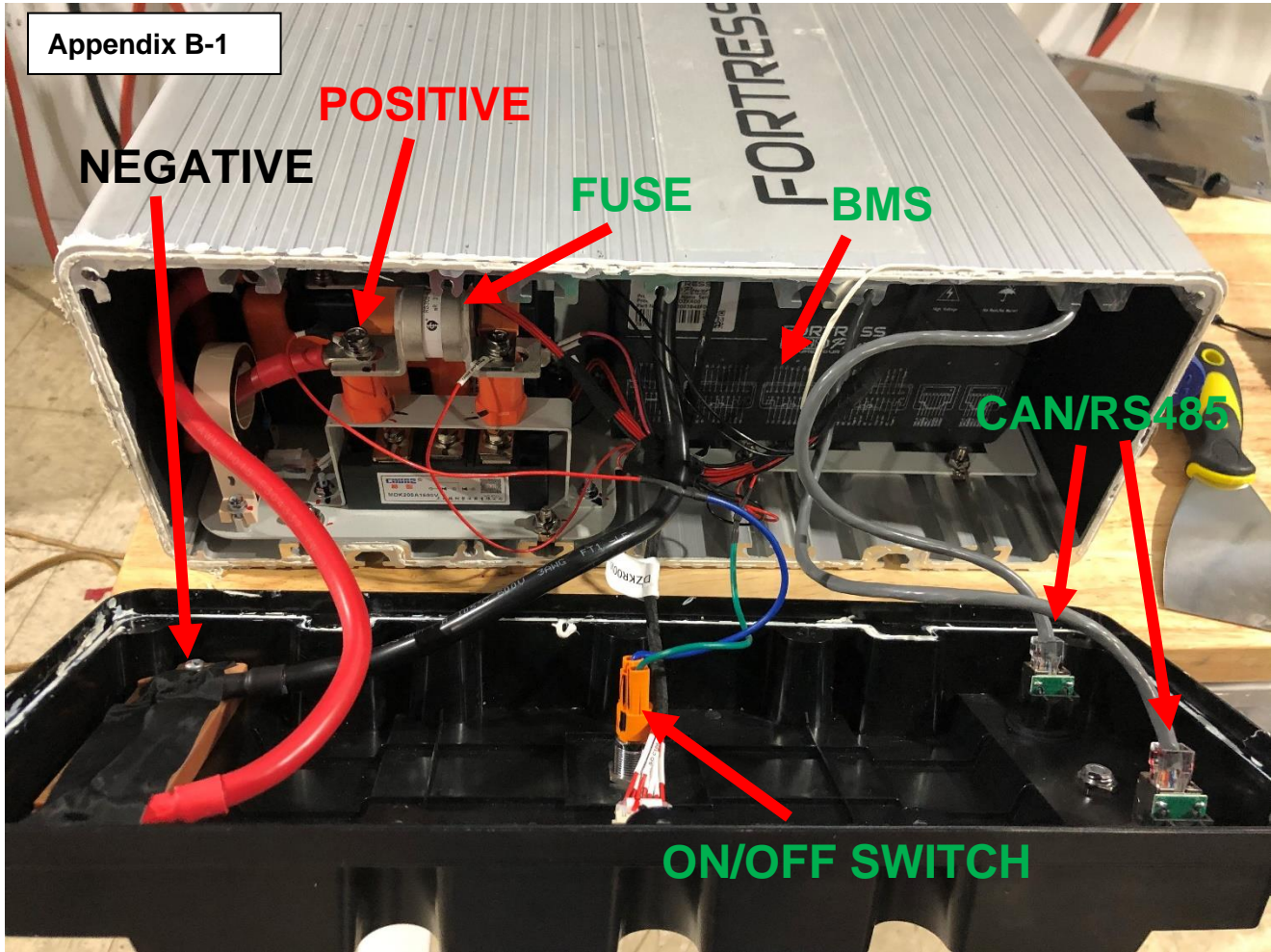
APPENDIX

APPENDIX A





APPENDIX B



Appendix B-2

