

ADL-1 Service Bulletin #1 Installation Instructions

Revision 1 2018-11-30

Please read these instruction completely before proceeding. Installation of this parts kit will provide thermal management required to run the ADL-1 using 13.8 VDC for extended print times (instructions , large pads, many pads). It WILL NOT allow operation beyond 13.8 VDC.

Tools Needed

1. 1/16 inch allen wrench (included)
2. Long shaft flat blade screwdriver (not included)

Parts List

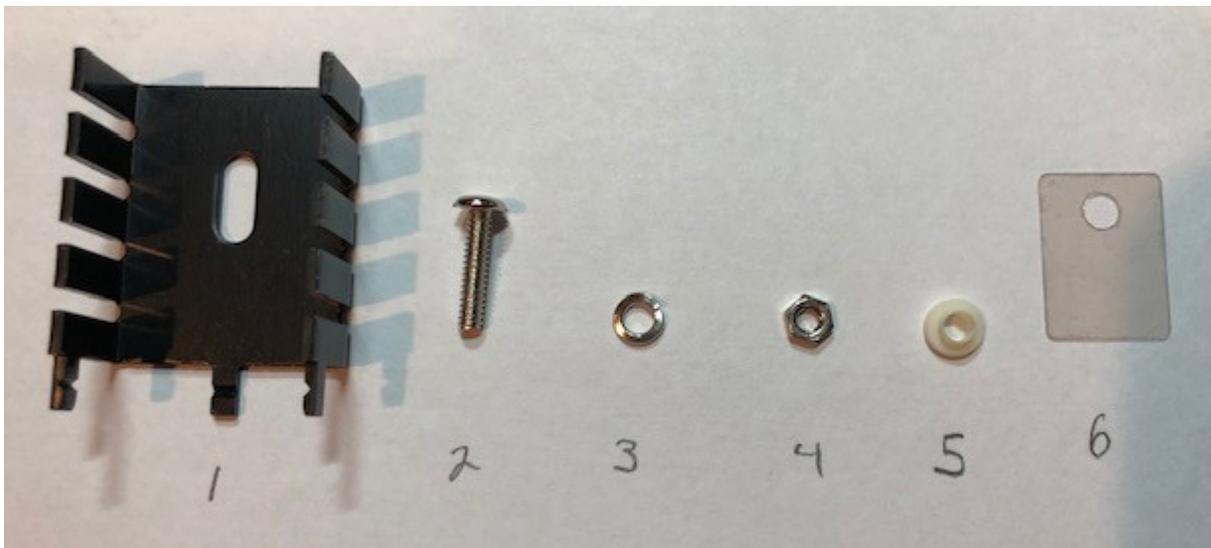


Fig 1

1. Heat Sink
2. Screw
3. Lock Washer
4. Nut
5. Plastic Insulator
6. Thermal conductive tab

Installation Procedure



Fig 2

1. Remove the panel from the case.

- a) Remove any batteries installed in the unit.
- b) Remove any spare paper roll from the unit.
- c) Using the provided 1/16 inch allen wrench, remove the 6 screws panel screws. (Fig 2)
- d) Flip the panel over by holding the sides of the print unit and lifting the panel upwards out of the case.
- e) Place panel upside down in case with the paper holder on the left. (Fig 3)

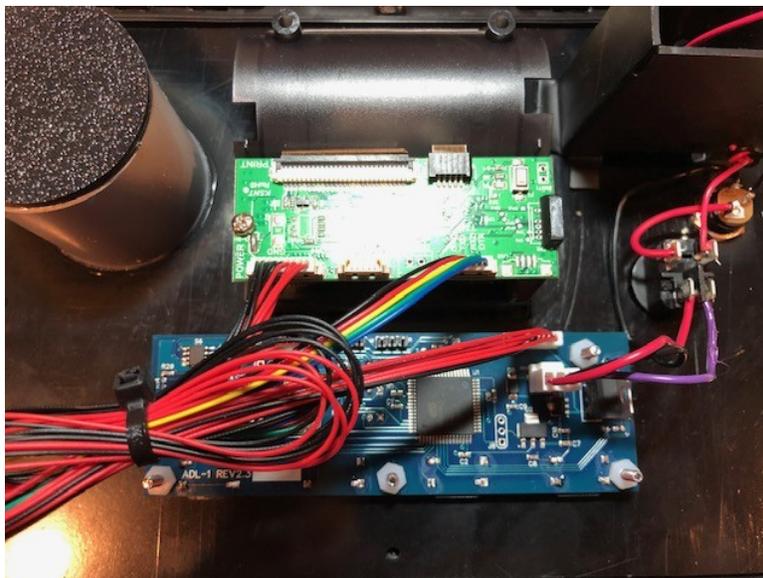


Fig 3

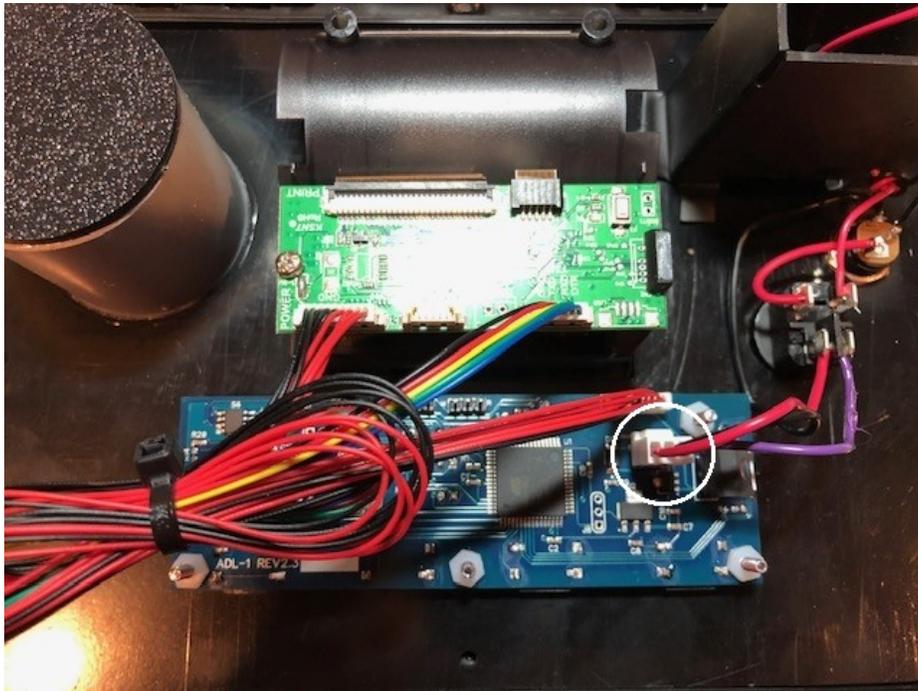


Fig 4

2. Remove power connector from circuit board. The power connector is a white rectangular connector with 3 wires, a purple, black, and red. (Fig 4)

- a) Pull the white power connector straight up and remove from the circuit board.
- b) Gently move the connector and wires out of the way of the voltage regulator.

3. Install heat sink on voltage regulator.

- a) Place screw through the spacer, with narrow end of spacer facing away from the screw head. (Fig 5)



Fig 5

- b) Place screw (1) and spacer (5) through the hole in the tab on top of the voltage regulator.

- c) Place thin thermal conductive spacer sheet (6) on the back side of the voltage regulator with the screw going through the hole in the spacer. (Fig 6)

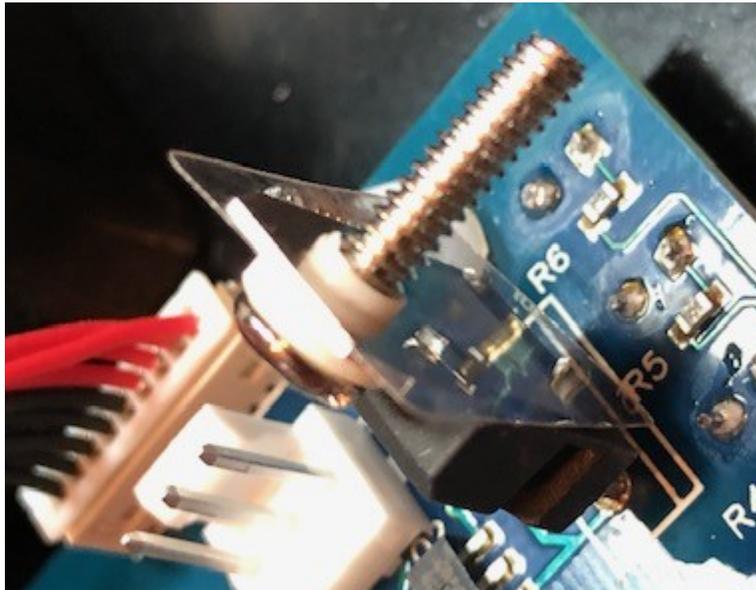


Fig 6

- d) Place the heat sink against the back of the voltage regulator with the screw going through the slot in the heat sink. Heat sink fins should be facing right and the mounting tabs facing upwards away from the circuit board. (Fig 7)

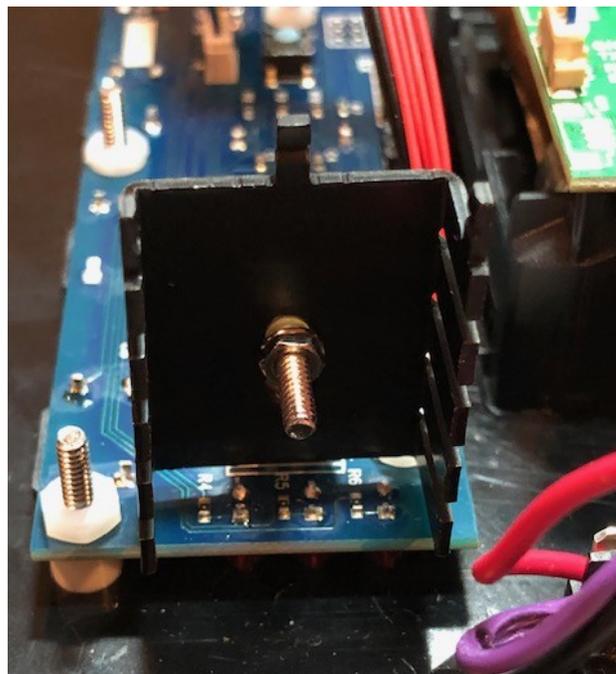


Fig 7

- e) Place lock washer (3) and nut (4) on screw and tighten snugly. Do not over tighten, it will deform the heat sink and reduce the contact surface and heat transfer.
- f) Adjust the heat sink height so the bottom of the heat sink (facing the circuit board) is not touching any components on the circuit board. It should be about 1/8th to 3/16th inch from the surface of the circuit board. (Fig 8)

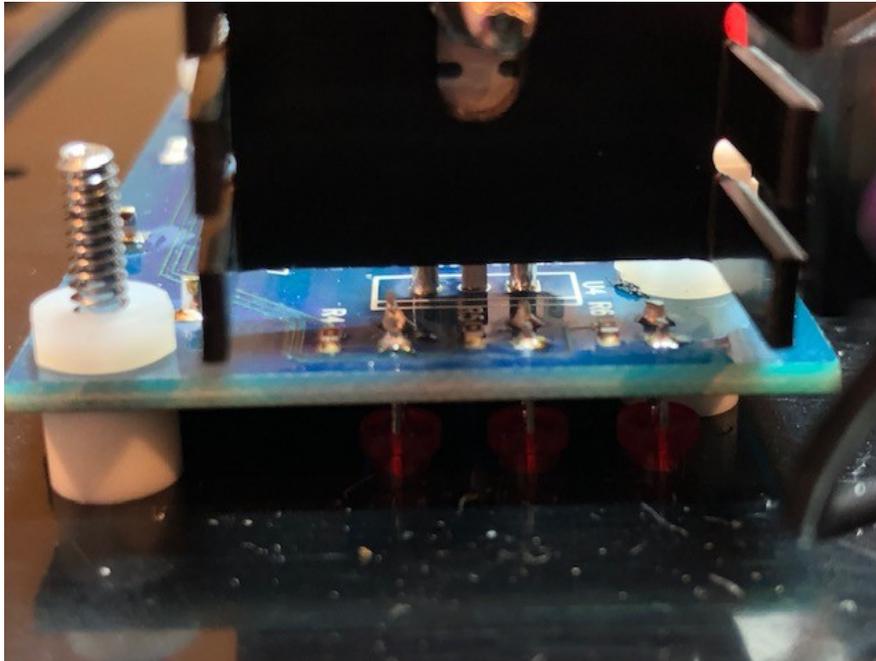


Fig 8

- 4. Reconnect the power cable, making sure the wires are not touching the heat sink.
- 5. Replace panel removed in step 1.
- 6. Replace batteries and any spare paper roll.