## **SureSine-300 Repair Instructions**

## **Synopsis**

Due to an issue with manufacturing, some power MOSFETs and/or diodes may be stuck to the PCB with conformal coating. This prevents a spring from firmly pressing the components to the heatsink, causing premature component failure. The SureSine must be disassembled and each of 12 components must be inspected to ensure that they are not stuck to the PCB. Stuck parts must be broke free of the conformal coating. These instructions detail the preventative action required to eliminate failure due to this issue.

## **Tools Required**

Flat-head screw driver #1 Philips screwdriver #2 Philips screwdriver Anti-static wrist strap

## Contact Information

For questions or concerns please contact:

Morningstar Corporation 1098 Washington Crossing RD Washington Crossing, PA 18977 USA

Phone: 215 321 4457 Fax: 215 321 4458

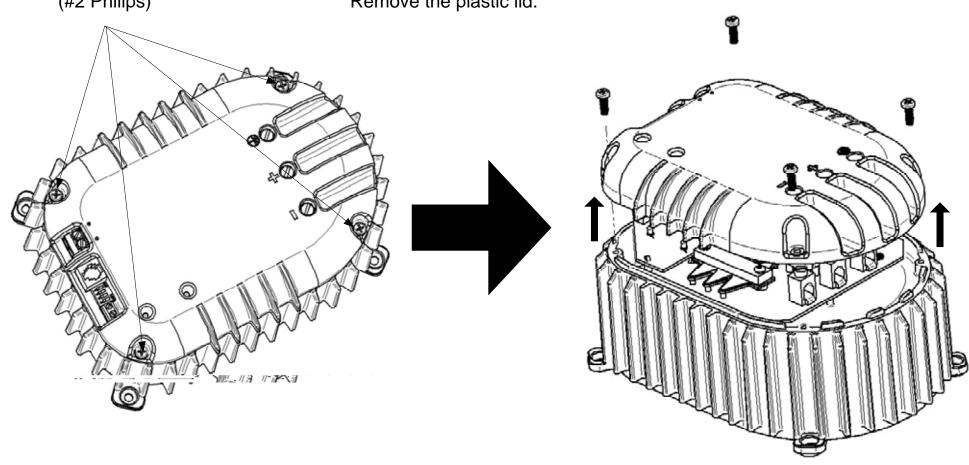
Email: info@morningstarcorp.com

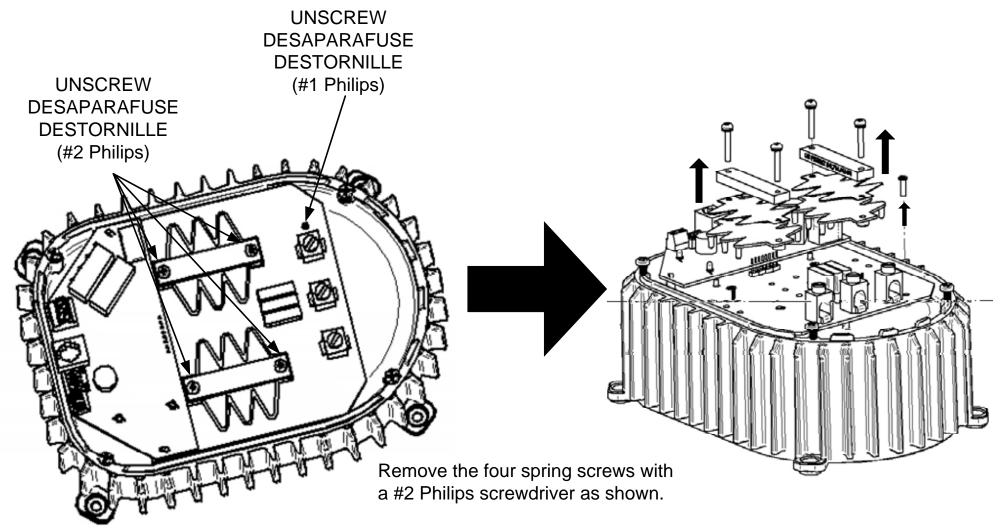
WARNING!: USE AN ANTI-STATIC STRAP WHEN HANDLING THE SURESINE PCB. STATIC CAN DAMAGE SENSITIVE ELECTRONIC COMPONENTS.

**UNSCREW DESAPARAFUSE DESTORNILLE** (#2 Philips)

Remove the four screws with a #2 Philips screwdriver as shown.

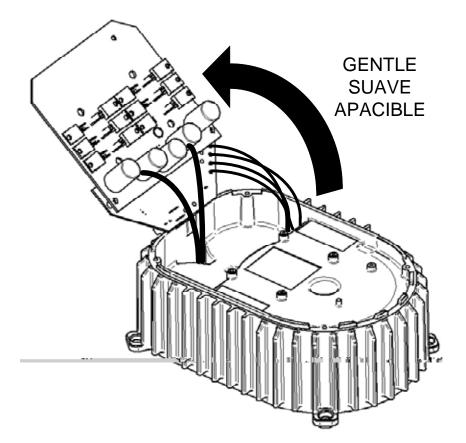
Remove the plastic lid.





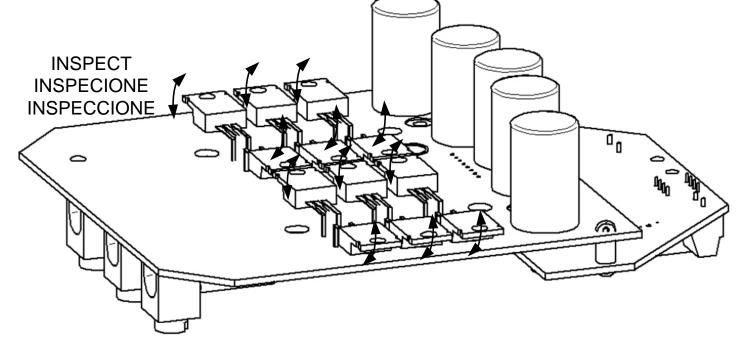
Also remove the grounding screw with a #1 Philips screwdriver as shown.

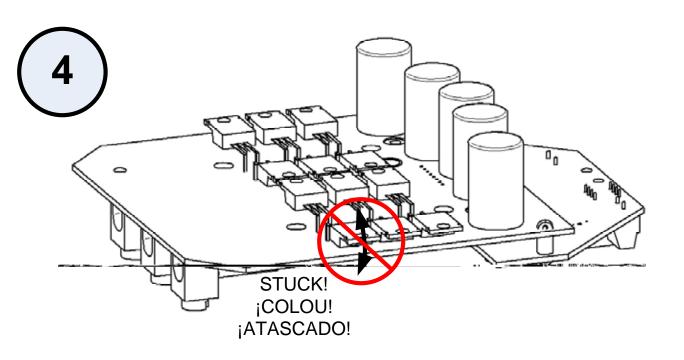




Gently separate the circuit board assembly from the aluminum body/heatsink. Lift the circuit board assembly up as shown at left.

Slightly wiggle each of the 12 components shown at right with your finger. Each component should move freely.

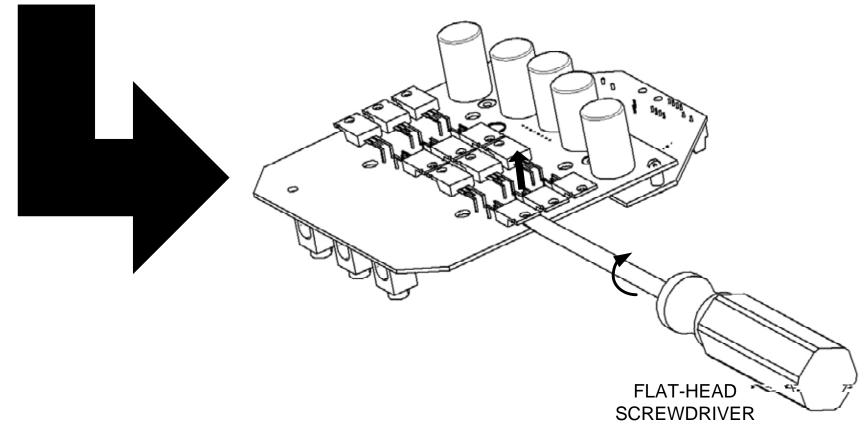


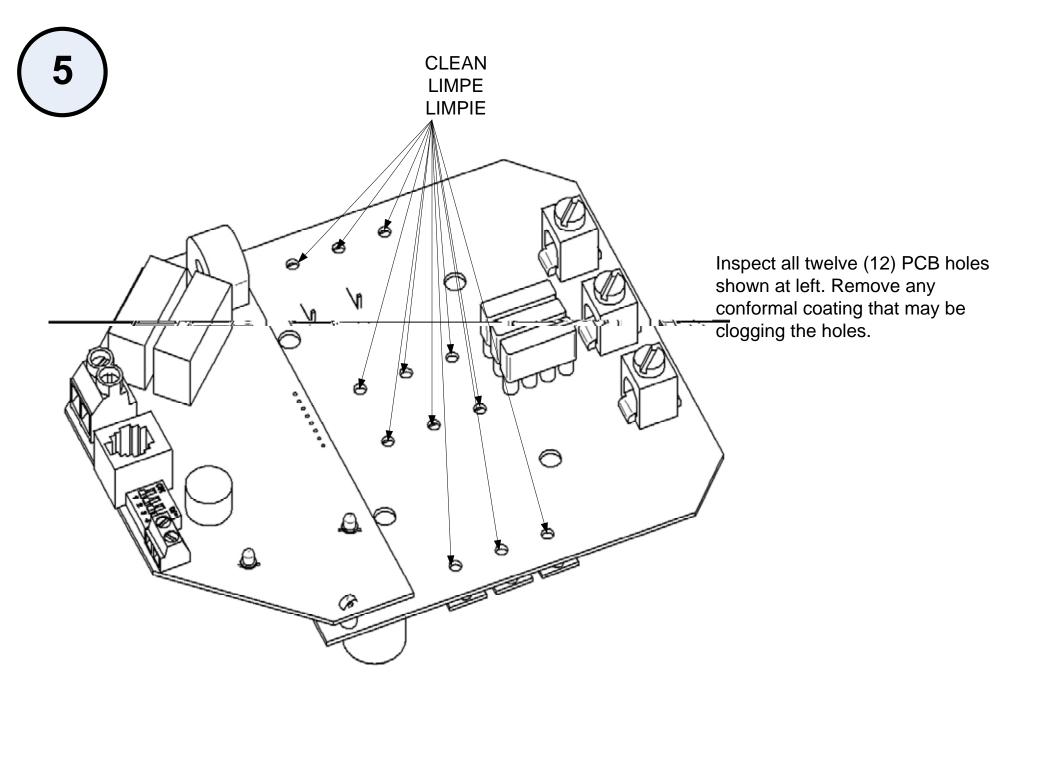


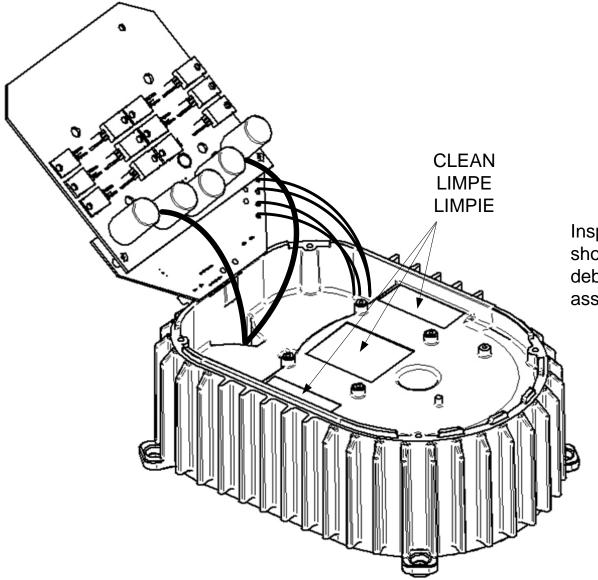
If one of the 12 components is stuck (glued down by conformal coating), it must be pried loose. Place the tip of a flat blade screwdriver between the metal tab of the component and the circuit board as shown below.

Twist the screwdriver gently but firmly to free the component from the conformal coating.

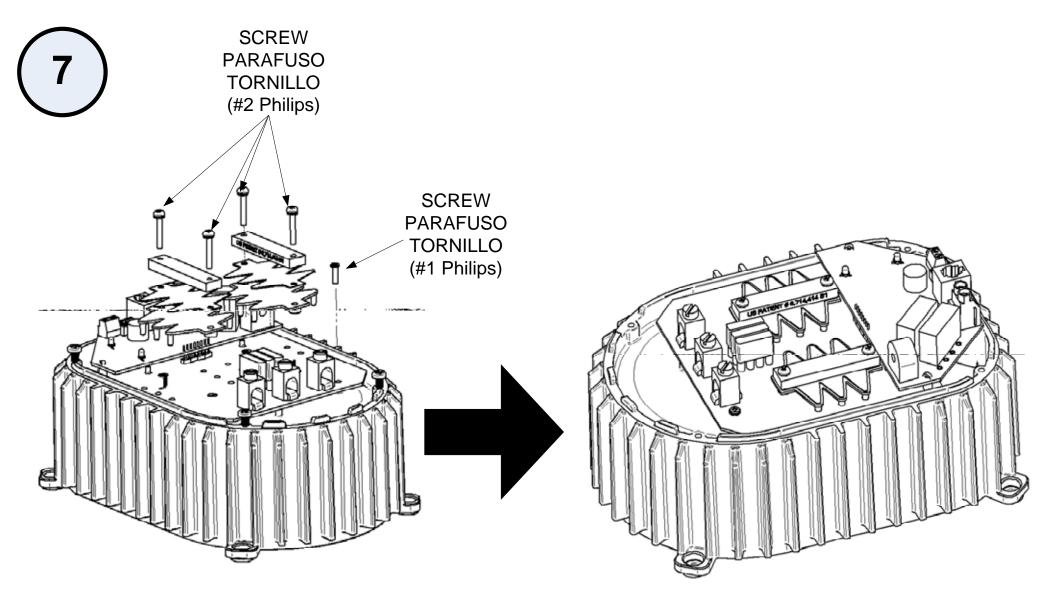
Repeat this procedure for each stuck component.





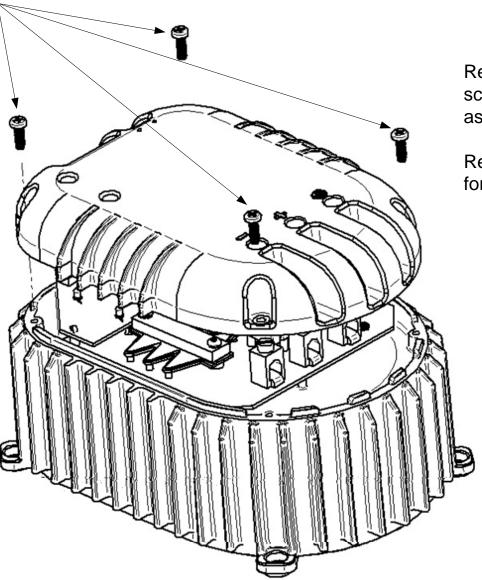


Inspect all three (3) thermal pads as shown at left. Remove any dirt, debris, or metal shards before reassembly.



Re-assemble the springs with four (4) screws and a #2 Philips screwdriver as shown. Insert and secure the ground screw with a #1 Philips screwdriver. If any screws are damaged, use replacement screws as needed.

SCREW
PARAFUSO
TORNILLO
(#2 Philips)



Replace and secure the lid with four screws with a #2 Philips screwdriver as shown.

Record the SureSine serial number for reference.