

Application Note
ST-8300: Installing Window Heater
June 23, 2010

Introduction

Some users have reported that dew can form on the ST-8300 window when operating under very humid conditions and cooling the ST-8300 to very low temperatures. The dew formation is caused by the window being below the dew point of the air.

The Window Heater should raise the temperature of the window retainer, and thus also the window to keep the window above the dew point, and free from dew formation.

Installing the dew heater is a simple procedure, but requires using a soldering iron. If you are not comfortable using a soldering iron, you can send your ST-8300 to SBIG or your local distributor (outside the US) and we will install the heater for you.

The following procedure documents how to install the window heater.

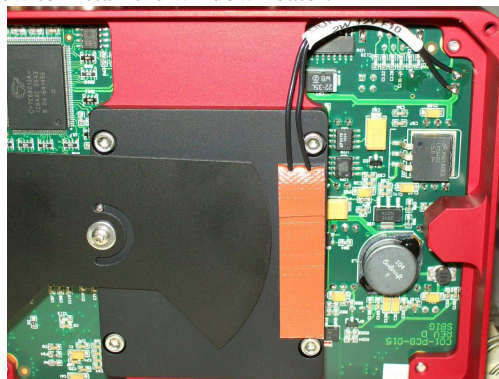


Figure 1 - Installed Heater

Step 1 – Remove the ST-8300 front cover

Unscrew the 4 socket head screws in the corners of the front cover and remove the cover.

Orient the ST-8300 on your work surface resting on the fan or handles. The connectors should be on the right, and the tripod mounting hole is closest to you.



Figure 2 - Ready for Installation

Step 2 – Prepare the heater

Remove the paper backing from the heater to expose the adhesive. Be careful not to remove the adhesive strip at the same time.

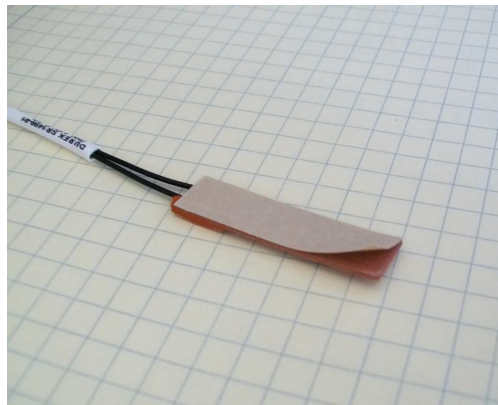


Figure 3 - Remove paper backing

Step 3 – Place heater on camera

Place the heater between the two screws on the window holder – keeping the heater as close to the bottom edge as possible. The heater wires should extend to the right, as shown. Make sure the heater does not interfere with the shutter by rotating the shutter with your finger.



Figure 4 - Initial Installation

Step 4 – Solder the heater leads to the camera

The heater leads will be soldered to two pins available near the edge of the ST-8300 printed circuit board (PCB). The pins are circled here:

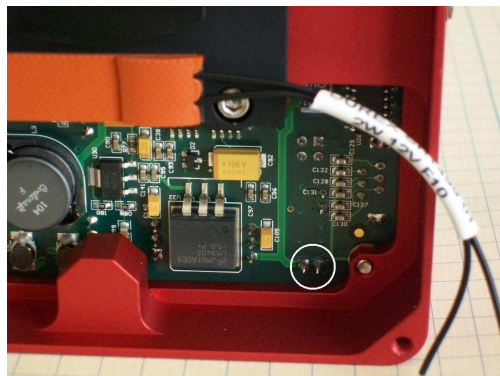


Figure 5 - Heater Pins

Solder the one heater wire to each of these pins. Either wire can connect to either pin. It is best to keep the heater wires on the outside of the pins on the PCB. Also try to keep the wires from the heater straight as they exit the heater, and bend them as far from the heater as possible to prevent damaging the connections inside the heater.

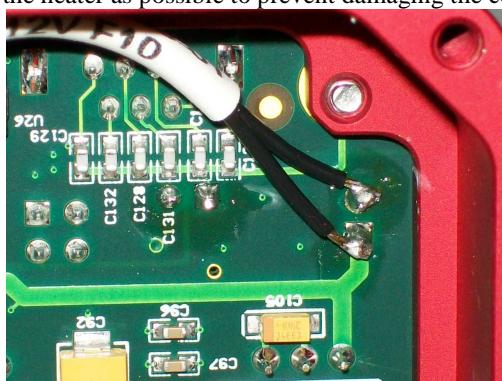


Figure 6 - Soldered leads

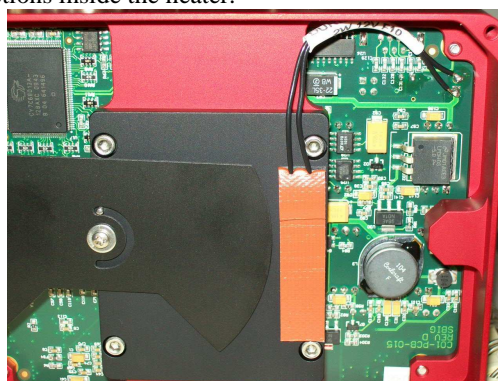


Figure 7 – Wire routine

Step 5 – Reattach the ST-8300 front cover

Be aware of the orientation of the cover. There is a clearance recess in the back of the cover for the screw in the middle of the shutter. Make sure the recess is over this screw.