

# E Series Mechanical Shutter Removal Instruction Sheet

#### INTRODUCTION

These instructions explain the necessary steps required to remove the mechanical shutter assembly from a Christie<sup>®</sup> E Series projector. This upgrade procedure will remove the mechanical shutter assembly, and—when upgraded to firmware version 1.0.1.2—will modify the shutter feature to function as a video mute; to produce a video black when the shutter feature is enabled.

**A WARNING** HIGH VOLTAGES MAY BE EXPOSED! Always unplug the projector prior to disassembly.

ALLOW LAMP AND PROJECTOR TO COOL DOWN! Once you have turned off the projector, allow the cooling fans to automatically turn off before disconnecting from AC and opening the projector. This takes approximately 15 minutes.

**A WARNING** OBSERVE ALL ELECTROSTATIC PRECAUTIONS! Use a grounded wrist strap when handling electronic assemblies.

#### **TOOLS REQUIRED**

- · ESD Wristband
- #0, #2 Phillips<sup>TM</sup> screwdriver
- Small jewelers flathead screwdriver
- Side cutters
- Small plastic zip tie
- Christie<sup>®</sup> E Series service manual (*020-000296-XX*)
- Firmware version 1.0.1.2 (upgrade available at www.christiedigital.com)



# **INSTRUCTIONS**

# **Remove the Top Cover**

1. Loosen (2) access screws at the rear of the projector. Open the lamp compartment lid.



2. Remove (10) black screws from under the lamp compartment lid.



3. Disconnect the harness from the colour wheel.





- 4. Pull forward and lift the lens access lid at the front of the projector.
- 5. Remove (2) black screws from under the lens access lid.



- 6. Start from the rear of the projector and lift the top cover to release it. **NOTE:** The front of the top cover is secured by (2) clips that will release when the cover is lifted from the rear.
- 7. Disconnect the LED harness from the top cover. Remove the top cover.



#### Remove the Metal Lid

1. Remove (16) silver screws from the perimeter of the metal lid.



2. Remove the metal lid.



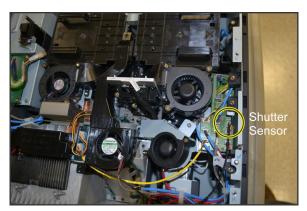
#### Remove the Mechanical Shutter

1. Remove the shutter power harness (J10) from the connector-A board.



2. Cut the plastic zip tie and remove the shutter power harness. **NOTE:** Once the shutter power harness is removed, a new zip tie can be used to secure the remaining harness wires.

3. Remove the shutter sensor harness from the connector-B board.



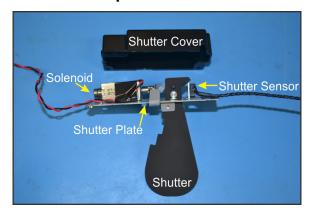
4. Remove (4) screws from the shutter cover (shown in yellow) and (2) black screws from the small DA board (shown in red).



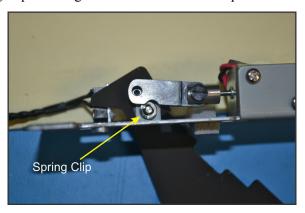
5. Remove the shutter assembly.



## **Remove the Shutter Plate Components**



- 1. Remove (2) screws securing the solenoid to the shutter plate.
- 2. Remove (1) screw securing the shutter sensor to the shutter plate.
- 3. Pry off the spring clip securing the shutter to the shutter plate. Remove the shutter.

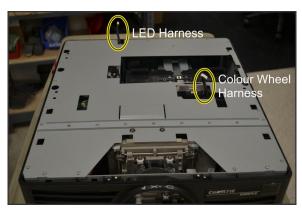


- 4. Once the shutter components have been removed from the shutter plate, install the shutter plate back into the projector.
- 5. Secure the shutter cover to the shutter plate with (4) black screws.
- 6. Secure the DA board to the shutter plate with (2) black screws.



### Replace the Metal Lid

- 1. Seat the metal lid back into the projector.
- 2. Ensure the LED harness and the colour wheel harness are sticking out of the metal lid in the correct placement.

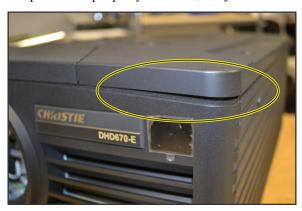


3. Secure the metal lid with (16) silver screws.

## Replace the Top Skin

1. Angle the top skin downwards at the front and ensure the front clips are attach properly.

NOTE: If the front clips are not properly attached, the front lid will not sit flush, as shown below.



- 2. Guide the colour wheel harness under the lamp compartment lid, through the small triangular opening on the top skin.
- 3. Connect the LED harness as you lower the top skin to the rear of the projector. **NOTE:** Ensure the wire-slack is fed down into the projector so it does not become pinched between the top skin and the metal lid.
- 4. Secure the top cover with (12) black screws.
- 5. Connect the colour wheel harness.
- 6. Ensure the projector firmware version is at 1.0.1.2 or higher. Upgrade the firmware if necessary. **NOTE:** *The firmware upgrade is available at www.christiedigital.com* (login required).