3M SCP176 DLP projector Teardown

This is a teardown of the 3M SCP176 DLP close-throw projector.

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TOOLS:
- Phillips #1 Screwdriver (1)
- T10 Torx Security Bit Screwdriver (1)
- 5mm Nut Driver (1)
- Large Needle Nose Pliers (1)
### Step 1 — Remove the lamp

- Start the teardown process by removing the lamp. Remove the 2 black phillips screws holding down the lamp cover, then remove the 2 screws with arrows on the lamp. After this the lamp should lift out. All the screws in this step are #1 Phillips screws.

### Step 2 — Lamp Teardown

⚠️ Let me preface this step by saying how dangerous it could be if the bulb breaks. There is a hazard of broken glass and mercury in the florescent bulb. Skip this step if you choose.

- Just in case anyone needs to know, the lamp's model is an Osram P-VIP 180-230W/10 E20.6

- Remove the t-10 torx screw on the top of the lamp, and then the phillips screw holding the power connector down.
Step 3 — Lamp Teardown Part 2

- Remove the screws holding down the bracket for the lamp bulb, then remove both the bracket and the bulb.

- Remove the screws holding both the large metal piece to the base and the smaller metal pieces onto the larger one. You can then remove everything.

Step 4 — Remove the I/O cover

- Remove all the phillips screws holding down the metal shield around the ports. Also use a 5mm nut driver to remove the standoffs on the VGA and I/O control ports. You can then use pliers or a small flat head screwdriver to remove the shield.
Step 5 — Remove the top cover Part 1

- Remove all phillips screws from the back and bottom of the projector. Fortunately, none are hidden.
- See Step 6 for more details.

Step 6 — Remove the top cover Part 2

- Carefully lift the cover off of the projector as pictured. Unplug all the connectors you can reach whichever way you desire.
- Set the projector cover towards the front and unplug any remaining connectors until the cover is free.
Step 7 — Remove the fans

- Simply pull the fans out from the side of the projector and unplug them. They are contained in rubber bumpers.

Step 8 — Remove the I/O board

- Remove all phillips screws holding the I/O board and power connector on. Push the power plug to the side and remove the I/O board.
Step 9 — Remove the mainboard

- Remove the screws holding down the mainboard and lift it off the metal frame.
- The top and bottom of the boards are here for reference.

Step 10 — Remove the frame

- Remove the screws holding down the metal frame and remove it from the case.
- Pull the gray trim piece out from next to the frame and set it aside.
Step 11 — Remove the power supply

⚠️ This is an exposed power supply. Make sure it is discharged before continuing

- Remove the phillips screws from the sides of the box containing the power supply. You can now lift out the power supply.

Step 12 — Disassemble the power supply

⚠️ As I stated in step 11, this is an exposed power supply. Please make sure you have fully discharged any capacitors or other components in the power supply before continuing.

- Push up the insulating sheet, then remove the screws holding the board to the metal case. The board is now free.

- Repeat on the other side of the power supply.
Step 13 — Emptying the bottom case

- Remove any remaining screws holding down any metal pieces, including the main projector lens, and remove it.

Step 14 — Final Disassembly

- I won’t go into too much detail here, but to disassemble the main unit, unscrew the screws, remove the parts or brackets that they’re holding in, and repeat.

⚠️ Be aware of glass and be careful not to break it. It’s a mess to clean up and painful if it gets in your finger.
Step 15 — Conclusion

- To re-assemble, follow this guide in reverse order.