

Replacing the CP4425-RGB and CP4435-RGB Power Supply

This document provides instructions on how to upgrade the power supply for the CP4425-RGB and CP4435-RGB projector models.

Use these instructions to replace a GSP750PS12 power supply with a HDS1500PS12 or to replace an HDS1500PS12 with a GSP750PS12. Replacing involves removing both the 12V and 48V power supplies, transferring the 48V supply to a new bracket, adding the new 12V supply to the bracket, and re-installing the supplies in the projector.

Affected products

The following products are affected:

- CP4425-RGB
- CP4435-RGB

Tools required

The following tools are required.

- 2 mm hex screwdriver
- 2.5 mm hex screwdriver
- 3 mm hex screwdriver
- #2 Phillips screwdriver
- 6 mm Allen key
- 13 mm wrench (adjustable wrench or vice-grips also work)

Parts required

The following components are required.

Parts to replace a GSP750PS12 with a HDS1500PS12 power supply

- PS RH support bracket (P/N: 000-107006-XX)
- PS LH support bracket (P/N: 011-107845-XX)

- M4 screw RM 27 SKBT 06093—Quantity 8 (P/N 012-102223-XX)
- M3 screw RM 31 SKSK 08081—Quantity 8 (P/N: 012-102020-XX)
- 12V PSU (HDS1500) to housekeeping board harness (P/N: 001-115007-XX)
- 1500 W to 12V power supply (P/N: 002-121461-XX), with the following parts pre-attached:
 - In-Line harness to PS TB 1.5 kW (P/N: 001-113569-XX)
 - M8 screw RM 14 SKSK 16211—Quantity 2 (P/N: 012-100113-XX)
 - Washer RM 02 8.5X14.8X2.0 011—Quantity 2 (P/N: 012-100073-XX)
 - Washer RM 01 8.4X16X1.6 011—Quantity 2 (P/N: 012-101068-XX)
 - Nut RM07 M8x13x6.5 011—Quantity 2(P/N:012-103454-XX)

Parts to replace a HDS1500PS12 power supply with a GSP750PS12 power supply

- PS RH support bracket (P/N: 011-110244-XX)
- PS LH support bracket (P/N: 011-110243-XX)
- M4 screw RM 27 SKBT 06093—Quantity 8 (P/N:012-102223-XX)
- M3 Screw RM 27 SKBT 06180—Quantity 8 (P/N: 012-100612-XX)
- M3 screw RM 31 SKSK 08081—Quantity 8 (P/N: 012-102020-XX)
- 12V PSU (GSP750PS12) to housekeeping board harness (P/N:001-114841-XX)
- 750 W to 12V power supply (P/N: 002-122119-XX), with the following parts pre-attached:
 - In-Line harness to PS TB 1.5 kW (P/N: 001-113569-XX)
 - #2 Phillips screws (Qty 2)



Replacing the GSP750PS12 power supply

This section provides details on how to replace a GSP750PS12 power supply with a HDS1500PS12 power supply.

Removing the existing GSP750PS12 power supply

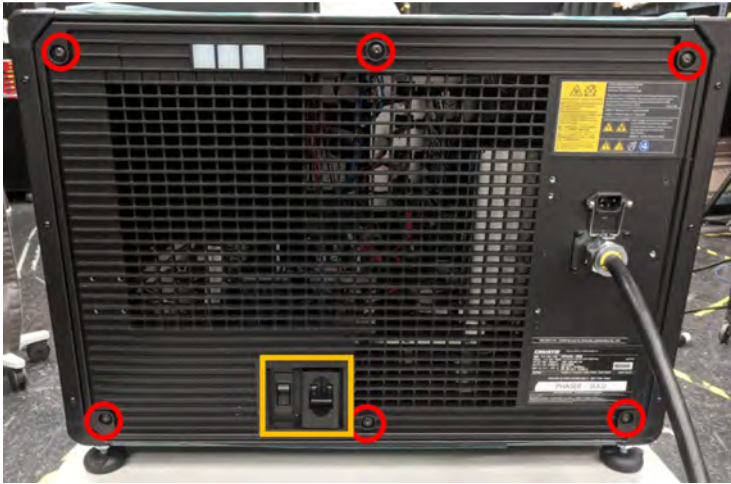
Follow these procedures to remove the existing power supply assembly.



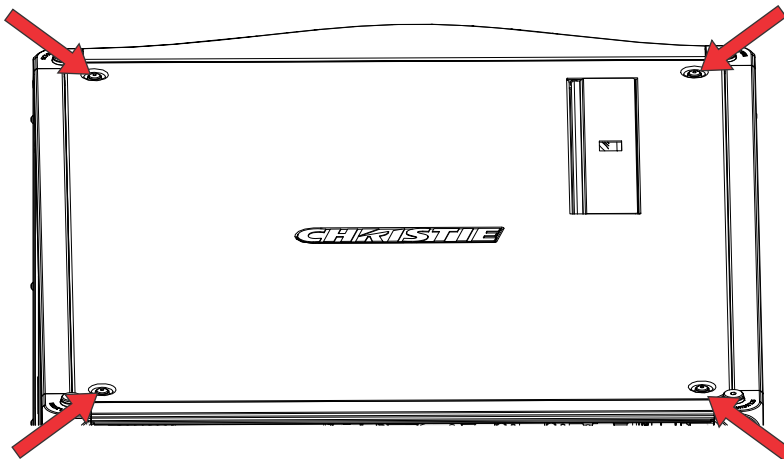
Warning! If not avoided, the following could result in death or serious injury.

- SHOCK HAZARD! Disconnect the product from AC before installing, moving, servicing, cleaning, removing components, or opening any enclosure. Inputs A and B must be removed prior to servicing.

1. Verify the breakers are turned off and the unit is disconnected from AC power.
2. Loosen the six screws securing the back panel.



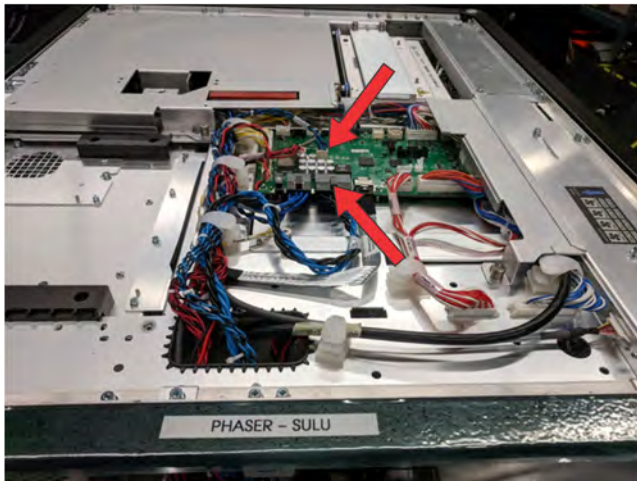
3. Remove the four screws securing the top panel.



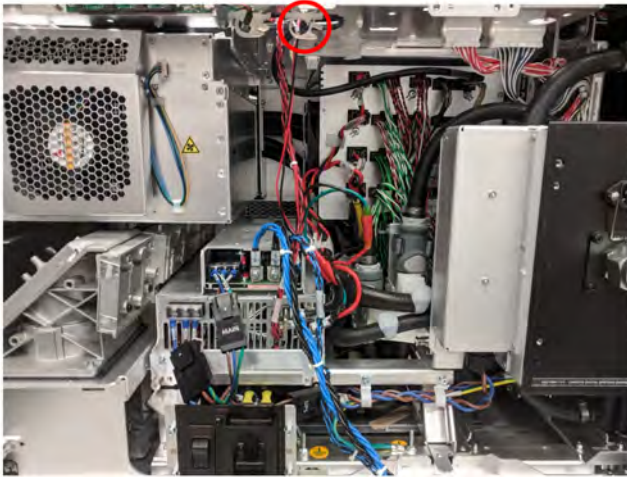
4. Open the light engine security door.
5. Reach into the projector near the top panel and pull the plunger (a yellow label is nearby).



6. While pulling the plunger, remove the top panel.
7. Disconnect connectors J110 and J112 from the housekeeping board.

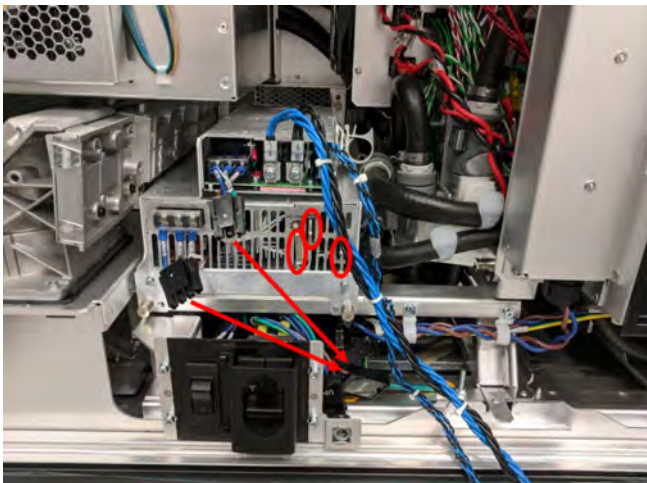


8. Undo the clips on the top structure and free the harness.
9. Remove all the harnesses from the top right clip.

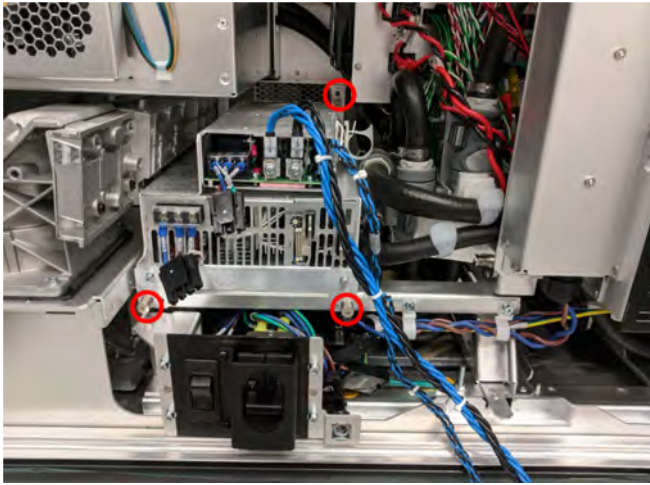


10. Disconnect the communication connector (48V_CN2) on the bottom power supply.
11. Remove the +48V (red) and 48V_RTN (black) harness from the bottom power supply.
12. Route this harness out of the clip on the side of the power supply assembly and tuck it out of the way to the right.
13. Disconnect the Molex AC inline connectors and tuck them downward to the right of the breakers.

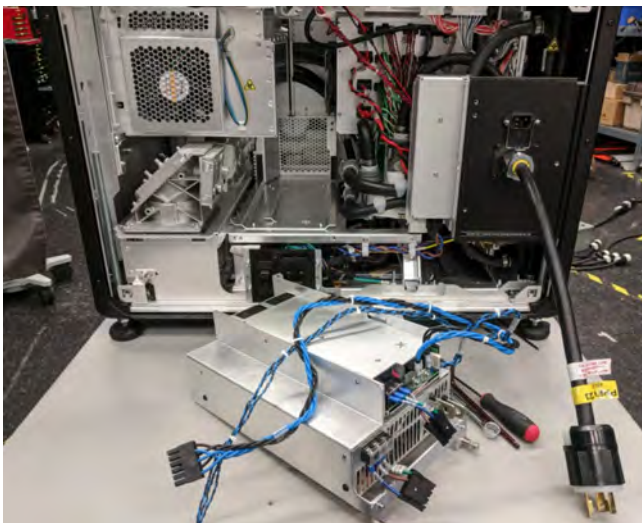
Make sure the connectors are snug as the entire power supply assembly will be sliding out of the projector in the next step; otherwise, the assembly will get caught on the wires and connectors.



14. Loosen the three screws securing the power supply.



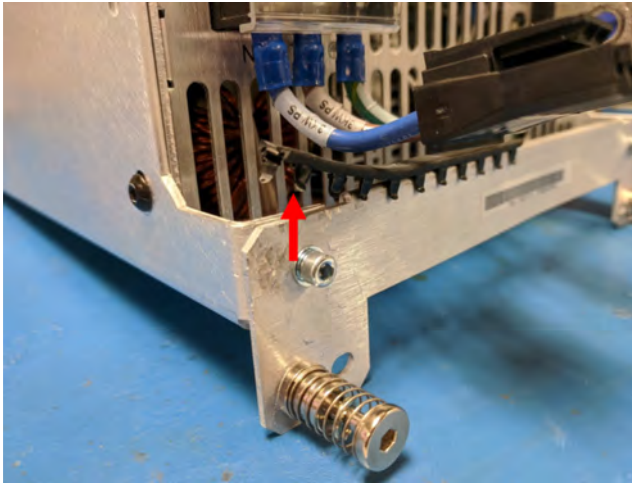
15. Remove the power supply assembly by sliding it out toward the back of the projector. Both power supplies are removed together. Slightly tilting the handle up and down as the assembly is removed can help slide it out.



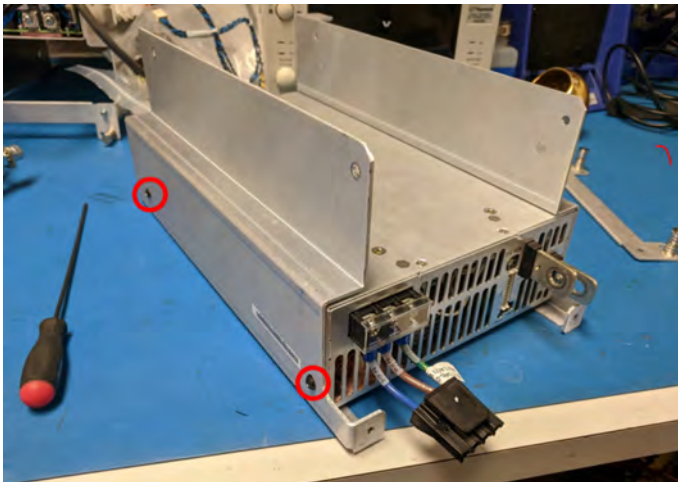
Rebuilding the GSP750PS12 power supply with a new HDS1500PS12 power supply

Follow these procedures to properly install the 12V power supply.

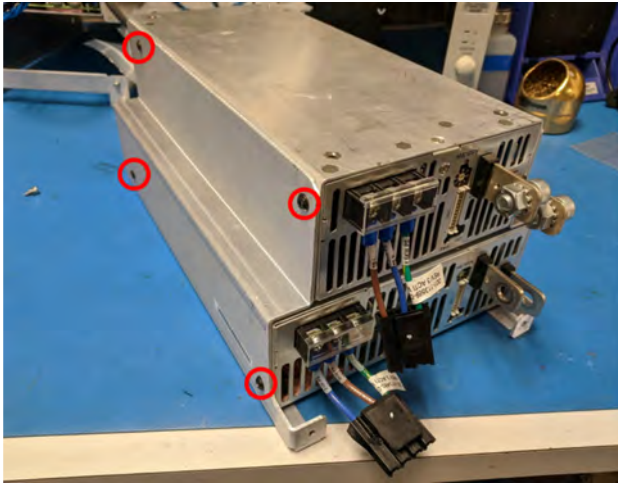
1. Partially remove the black grommet on the left side of the power supply near the 48V supply AC terminals.



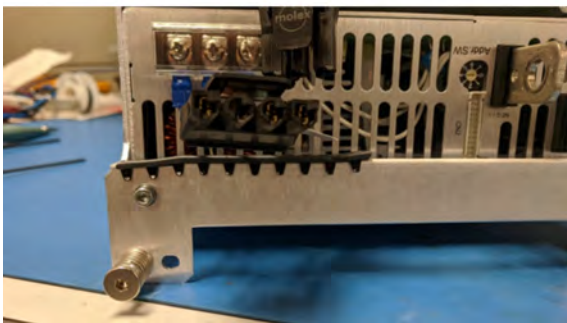
2. Remove two screws from the handle and set handle aside for use later.
3. Remove the four screws (two on each side of the upper power supply) and remove the power supply.
4. Remove the four screws (two on each side of the lower power supply) and remove the brackets.
5. Keep the 48V supply in place and move the old 12V supply and brackets out of the way.
6. Attach the new brackets to the 48V power supply.
Two screws are located on each side of the power supply. Keep these four screws loose until the next step.



7. Place the 12V supply on top of the 48V and use the four screws to secure the 12V supply to the brackets.
8. Thread these four screws lightly, then tighten all eight screws securing both 12V and 48V supplies to the brackets.



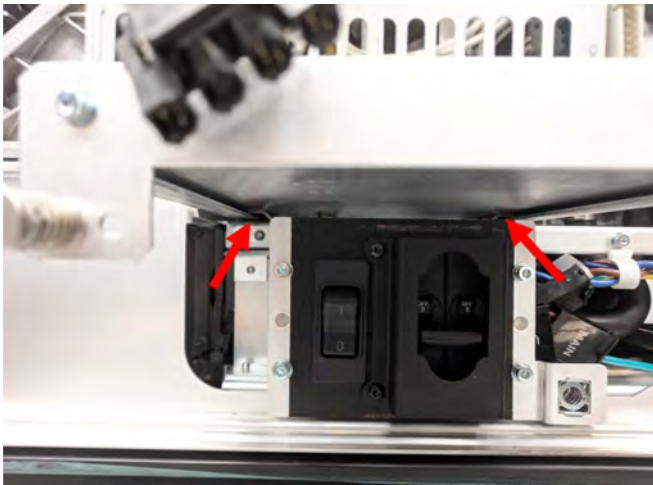
9. Reuse the old handle bracket with the grommet still partially attached and secure with the two screws.
10. Push the grommet down making sure it covers the handle bracket and the small 90° bend from the left side bracket.



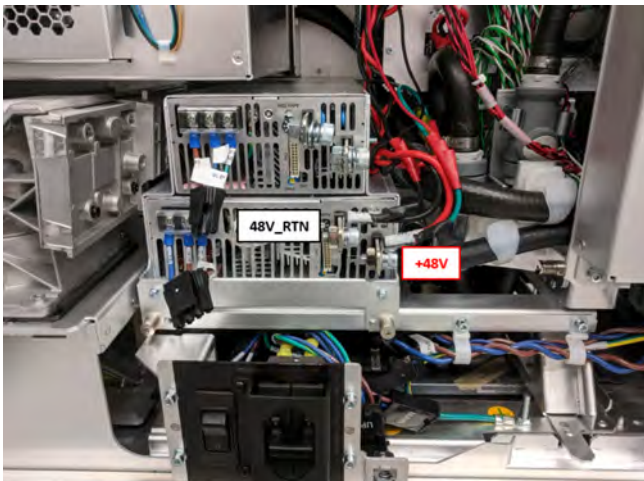
Installing the new HDS1500PS12 power supply

Follow these procedures to install the new power supply assembly in the projector.

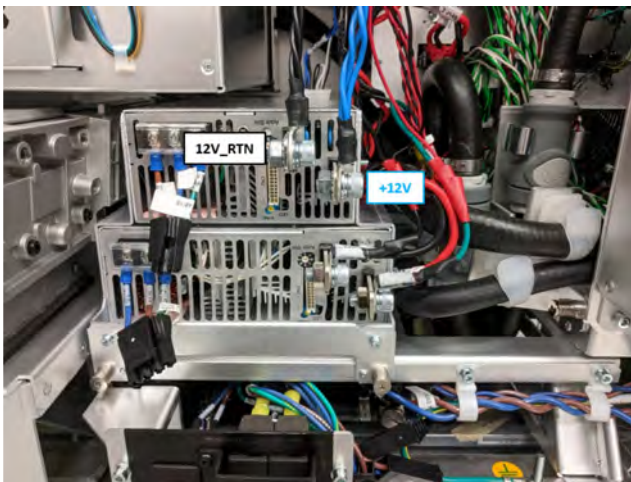
1. Line up the power supply assembly's metalwork with the guiding rails as shown.
The lowest edge of the brackets slide underneath the projector's guiding rails.



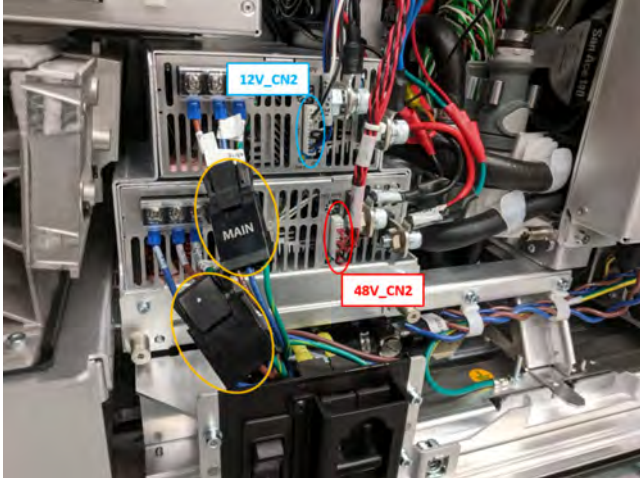
2. Tighten the three screws.
3. Attach the +48 V (red) and 48 V_RTN (black) power harness to the bottom power supply.



4. Attach the new 12V (blue) and 12V_RTN (black) power harness to the top power supply.



5. Connect the communication cables to each power supply.
The blue comm cable (12V_CN2) is for the top power supply and the red comm cable (48V_CN2) is for the bottom power supply.
6. Reconnect the Molex AC inline connectors.



7. Route the connectors of the 12V power supply to housekeeping board harness (P/N: 001-115007-XX) up toward the top structure and connect J112 and J110 to the housekeeping board.
8. Route J112 through the first clip on the top structure and J110 through all three clips.



9. Make sure all power supply harnesses are secured in right side clip beneath top structure.
10. Close the service door.
11. Re-install the top and rear panels of the projector.

Replacing the HDS1500PS12 power supply

This section provides details on how to replace a HDS1500PS12 power supply with a GSP750PS12 power supply.

Removing the existing HDS1500PS12 power supply

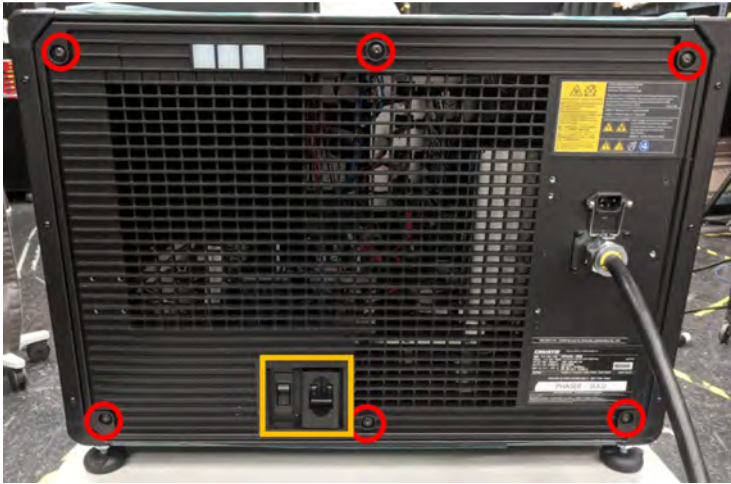
Follow these procedures to remove the existing power supply assembly.



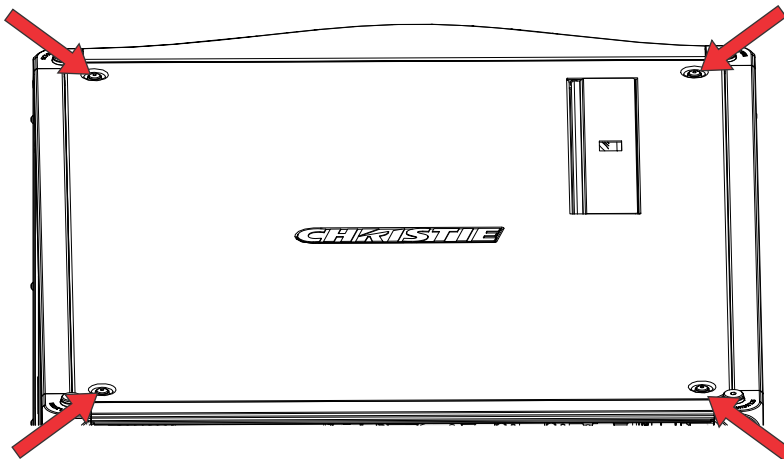
Warning! If not avoided, the following could result in death or serious injury.

- SHOCK HAZARD! Disconnect the product from AC before installing, moving, servicing, cleaning, removing components, or opening any enclosure. Inputs A and B must be removed prior to servicing.

1. Verify the breakers are turned off and the unit is disconnected from AC power.
2. Loosen the six screws securing the back panel.



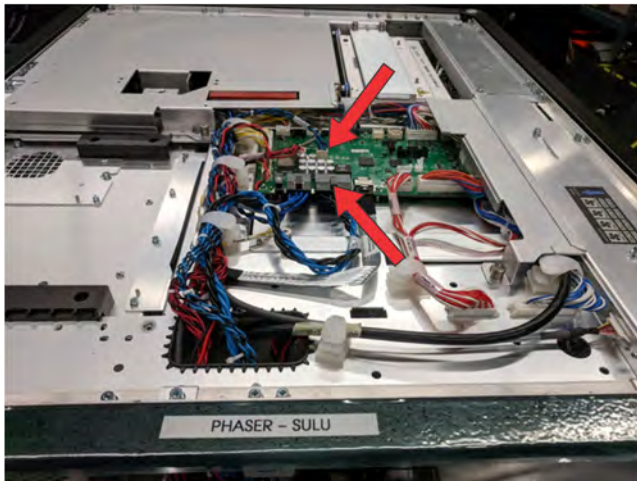
3. Remove the four screws securing the top panel.



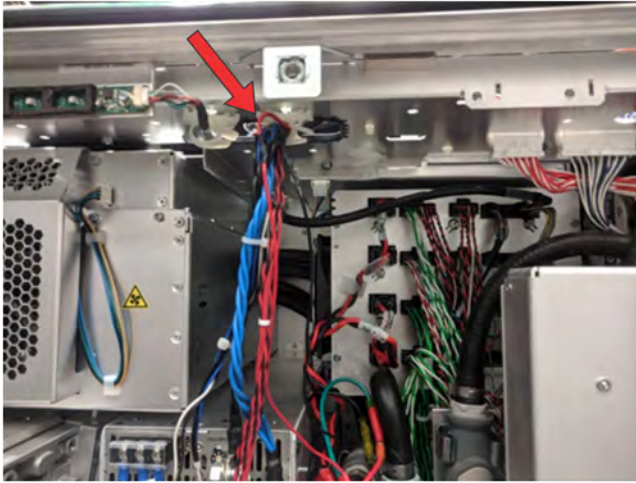
4. Open the light engine security door.
5. Reach into the projector near the top panel and pull the plunger (a yellow label is nearby).



6. While pulling the plunger, remove the top panel.
7. Unplug the J110 and J112 connectors from the housekeeping board.

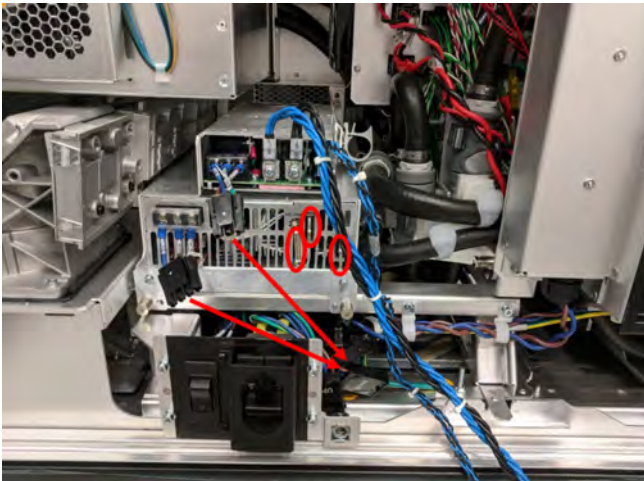


8. Undo the clips on the top structure and free the harness.
9. Remove all the harnesses from the top-right clip.

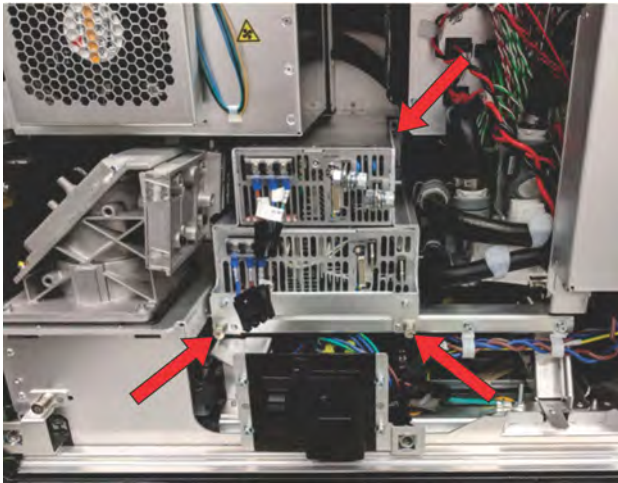


10. Disconnect the communication connector (48V_CN2) on the bottom power supply.
11. Remove the +48V (red) and 48V_RTN (black) harness from the bottom power supply.
12. Route the harness out of the clip on the side of the power supply assembly and tuck it out of the way to the right.
13. Disconnect the communication connector labeled (12V_CN2) on the upper power supply.
14. Remove the blue and black harness from the upper power supply.
15. Remove the harness from the projector.
16. Disconnect the Molex AC inline connectors and tuck them downward to the right of the breakers.

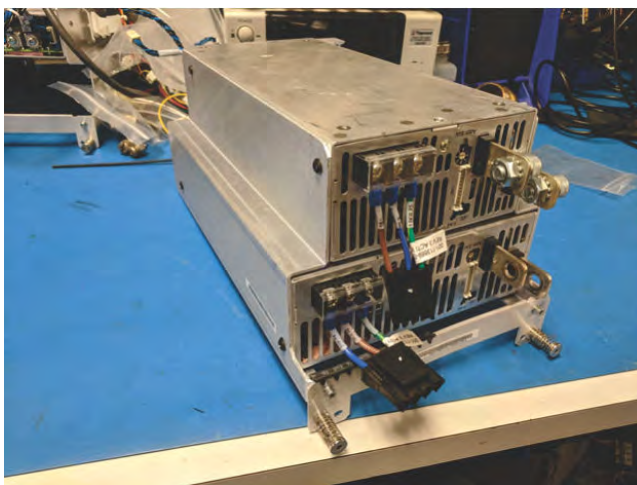
Make sure the connectors are snug as the entire power supply assembly will be sliding out in the next step; otherwise, the assembly will get caught on the wires and connectors.



17. Loosen the three screws.



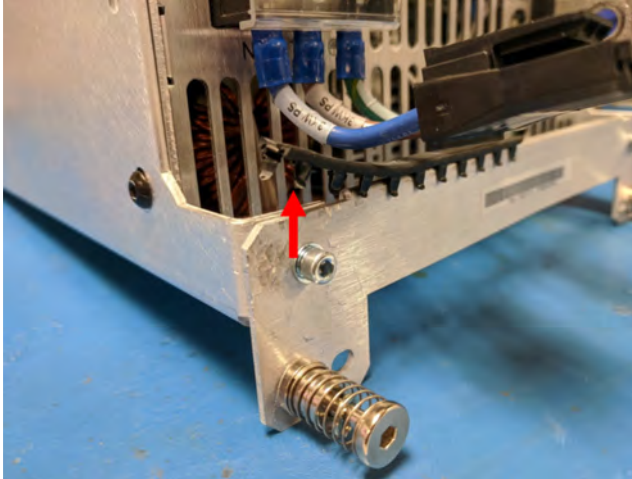
18. Remove the power supply assembly by sliding it out toward the back of the projector. Both power supplies are removed together. Slightly tilting the handle up and down as the assembly is removed can help slide it out.



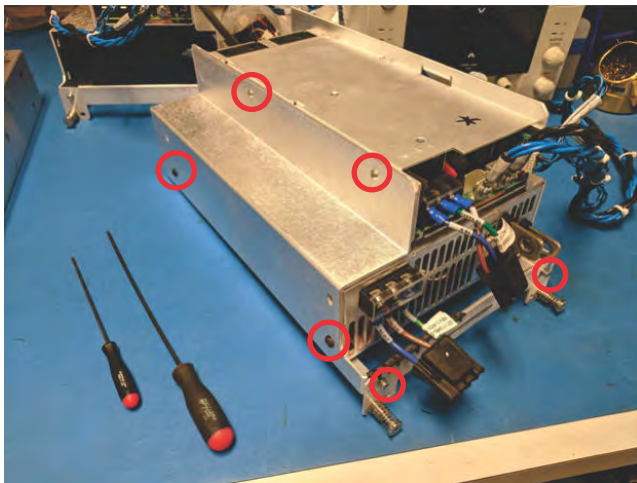
Rebuilding the HDS1500PS12 power supply with a new GSP750PS12 power supply

Follow these procedures to install the 12V power supply.

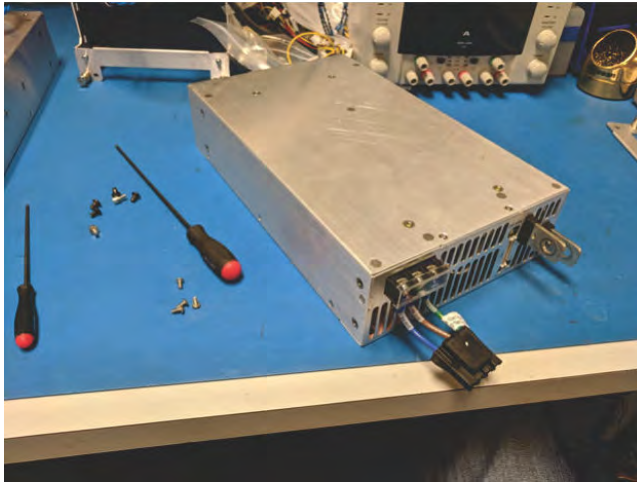
1. Partially remove the black grommet on the left side near the 48V supply AC terminals.



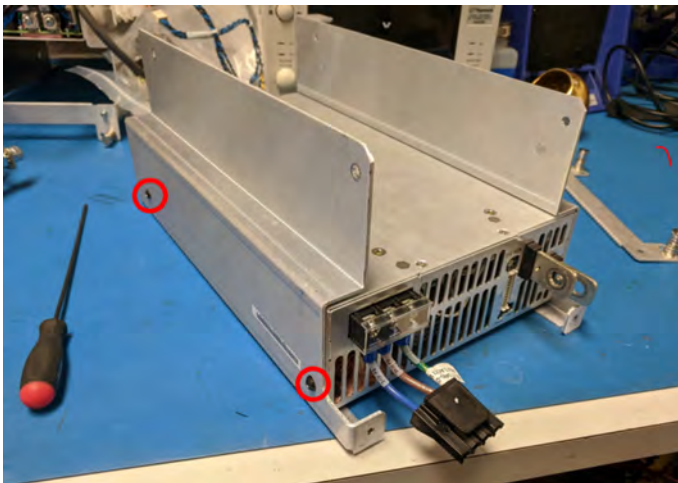
2. Remove the two screws from the handle and set handle aside for use later.
3. Remove the four screws (two on each side of the upper power supply) and remove the power supply.
4. Remove the four screws (two on each side of the lower power supply) and remove the brackets.



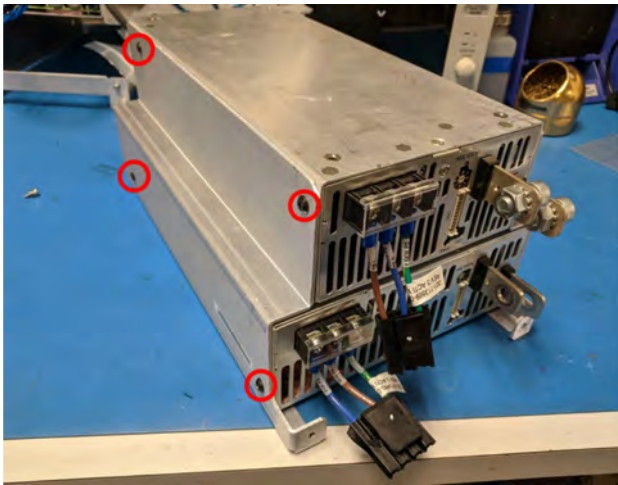
5. Keep the 48V supply in place and move the old 12V supply and brackets out of the way.



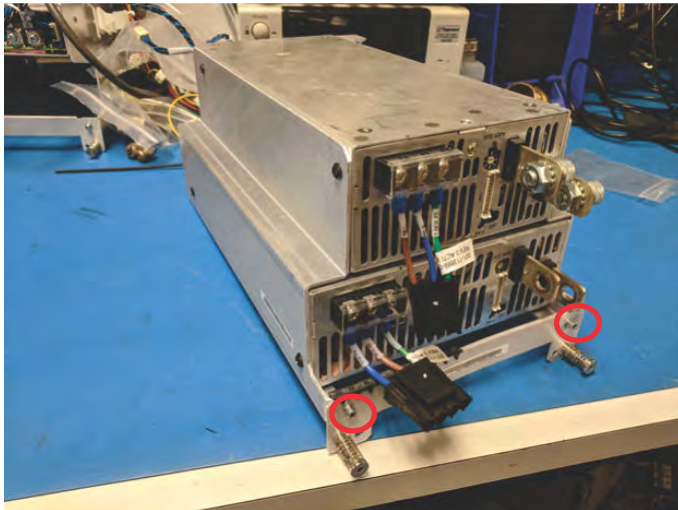
6. Attach the new brackets to the 48V power supply.
Two screws are on each side of the power supply. Keep these four screws loose until the next step.



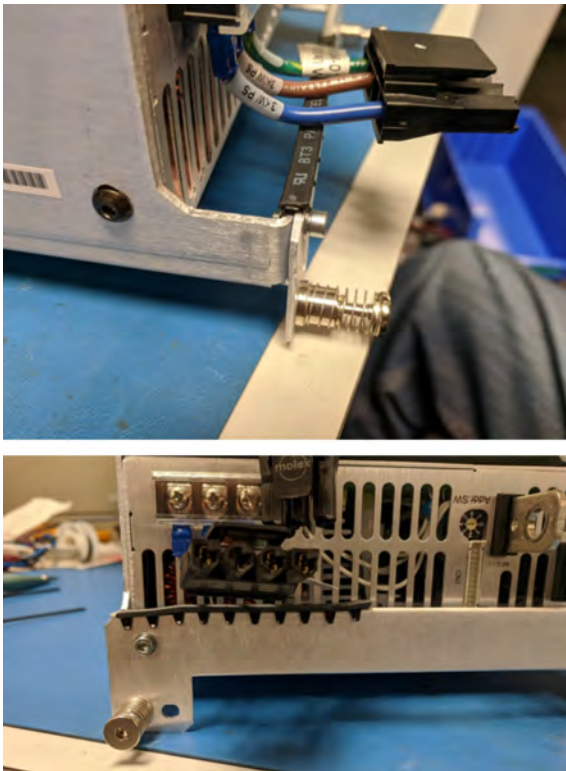
7. Place the 12V power supply on top of the 48V power supply and use four screws to secure the 12V power supply to the brackets.
8. Thread the four screws lightly, then tighten all eight screws securing both power supplies to the brackets.



9. Reuse the old handle bracket with the grommet still partially attached and secure with the two screws.



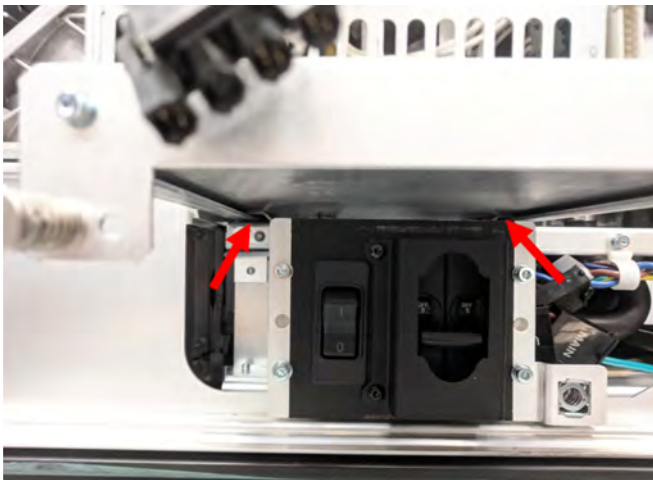
10. Push the grommet down making sure it covers the handle bracket and the small 90° bend from the left side bracket.



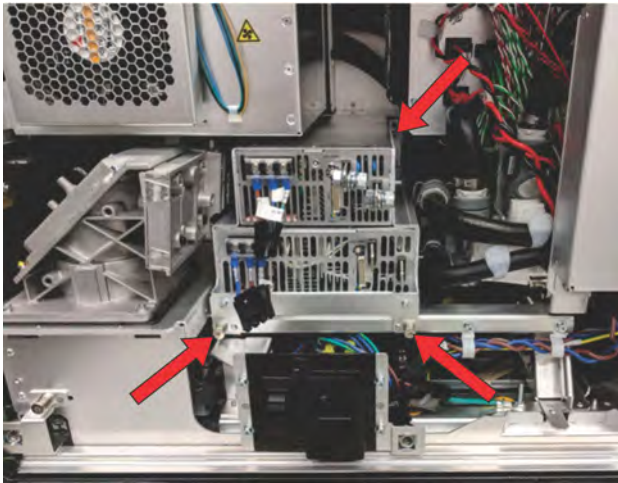
Installing the new GSP750PS12 power supply

Follow these procedures to install the new power supply assembly in the projector.

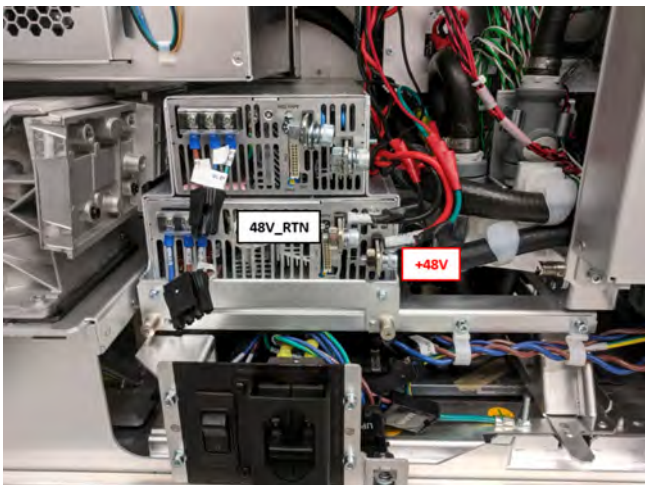
1. Line up the power supply assembly's metalwork with the guiding rails as shown. The lowest edge of the brackets slide underneath the projector's guiding rails.



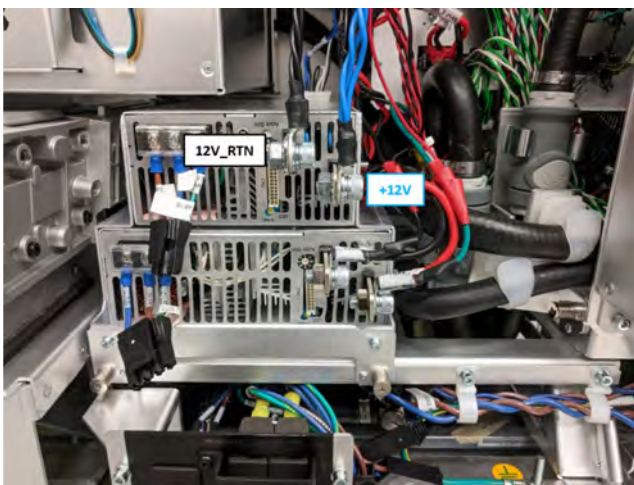
2. Tighten the three screws.



3. Attach the +48V (red) and 48 V_RTN (black) power harness to the bottom power supply.



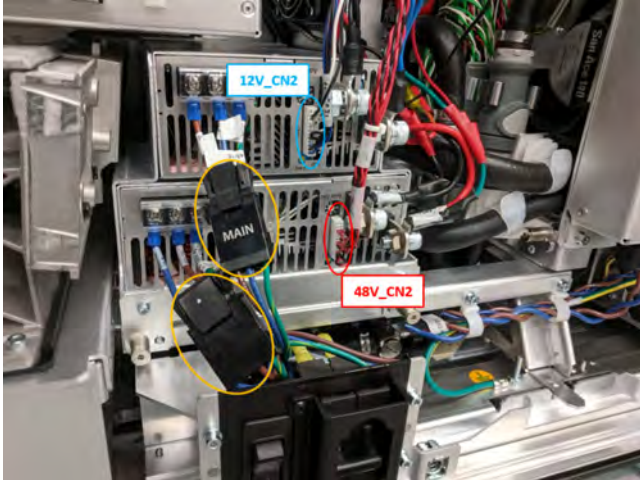
4. Attach the new 12V (blue) and 12V_RTN (black) power harness to the top power supply.



5. Connect the communication cables to each power supply.

The blue comm cable (12V_CN2) is for the top power supply and the red comm cable (48V_CN2) is for the bottom power supply.

6. Reconnect the Molex AC inline connectors.



7. Route the connectors of the 12V power supply to housekeeping board harness (P/N: 001-115007-XX) up toward the top structure and connect J112 and J110 to the housekeeping board.
8. Route J112 through the first clip on the top structure and J110 through all three clips.



9. Make sure all power supply harnesses are secured in right side clip beneath top structure.
10. Close the service door.
11. Re-install the top and rear panels of the projector.

Technical support

Technical support for Christie Cinema products is available at:

- Support.cinema@christiedigital.com
- +1-877-334-4267

- Christie Professional Services: +1-800-550-3061 or NOC@christiedigital.com