Retrofitting the Christie Solaria One projector with a GDC SX-3000 IMB

This document describes the steps for installing an integrated media block (IMB) faceplate retrofit kit, allowing the use of the GDC SX-3000 third party IMB in Solaria One series projectors.

Affected products

These instructions apply to the following products

- Christie Solaria One
- Christie Solaria One+

Prerequisites

The following components are required to complete the installation.

- 100301001-C3 GDC SX-3000 for Christie S3 (Series 3) Projector, identifiable by a stiffener bar secured with Phillips screw heads on top as well as the bottom.

   The GDC SX-3000 for Christie S2 (Series 2) Projector is not compatible with this retrofit kit.

- 003-108086-01 Kit Solaria SX-3000, containing the following components:
    - Faceplate (QTY: 1)
    - EMI gaskets (QTY: 2)
    - Mounting brackets (QTY: 2)
    - Long stand-off (QTY: 1)
    - Short stand-off (QTY: 1)
    - GDC SX-3000 support bracket (QTY: 1)
    - Void warranty label (QTY: 1)
    - Electrostatic discharge bag (QTY: 1)

Required tools

The following tools are required to complete the installation.

- Electrostatic discharge mat
- Grounded electrostatic discharge wrist strap
- #1 Phillips® screwdriver
- #2 Phillips® screwdriver
- Flat screwdriver
- 14 mm wrench
- Ratchet with the following drivers:
  - 3/16 nut driver
  - 7/32 nut driver
- 2.5 mm hex driver
- Pliers

Safety precautions

To prevent personal injury and to protect the product from damage, review these important safety precautions.

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.

Caution! If not avoided, the following could result in minor or moderate injury.

- Only Christie qualified technicians are permitted to open product enclosures.

Upgrading the projector software

Before installing the faceplate kit, upgrade the projector software to Solaria Main Software v4.8.1(3).

1. On the touch panel controller (TPC), tap **Menu** > **Administrator Setup** > **Upgrade**.
2. Tap **Upload**.
3. Browse to the location of the software upgrade file.
4. Tap the upgrade file and tap **Open**.
5. In the Available Upgrade Files list, tap the upgrade file loaded in the previous step.
6. Tap **Next**.
7. To upgrade all components in the upgrade package, select **Upgrade Different Components Only (Recommended)**.
8. Tap **Next**.

Turning off the projector

Before removing the card cage, turn off the projector and disconnect it from AC power.

1. To turn off the lamp, tap and hold the lamp button on the touch panel controller (TPC).
2. To turn off the projector, tap and hold the power button on the TPC.
   The projector enters cool down mode.
3. Allow the lamp to cool for a minimum of 10 minutes.
4. Unplug the AC power cable from the projector.

Disassembling the card cage faceplate and board assembly

Complete the following procedure to remove the faceplate and board assembly from the projector and take apart the components.

1. Place the electrostatic discharge mat on a clean flat surface.
2. Put on the grounded electrostatic discharge wrist strap.

3. Cut the void warranty label.

4. Using a #2 Phillips® screwdriver, remove the eight screws securing the card cage faceplate to the card cage. Set the screws aside.

5. Using the two handles, pull the card cage faceplate assembly out of the card cage.

6. Place the assembly on the electrostatic discharge mat as shown.

7. Using a 14 mm wrench or pliers, remove the GEN Lock, Sync Out, and LTC Out nuts. Set the nuts and washers aside.

8. Using a 3/16 nut driver or pliers, remove the two nuts on either side of the AES3 input. Set the nuts aside.

9. Using a 2.5 mm hex driver, remove the left screw securing the Christie IMB to the faceplate. Set the screw aside.
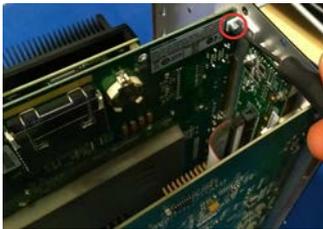
10. Rotate the assembly 180 degrees.

11. Using a 2.5 mm hex driver, remove the right screw securing the Christie IMB to the faceplate. Set the screw aside.
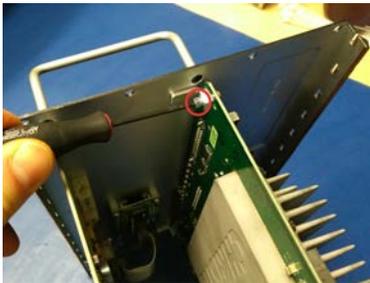
12. Using a 2.5 mm hex driver, remove the two screws on the bottom of the PIBS1 board. Set the screws aside.
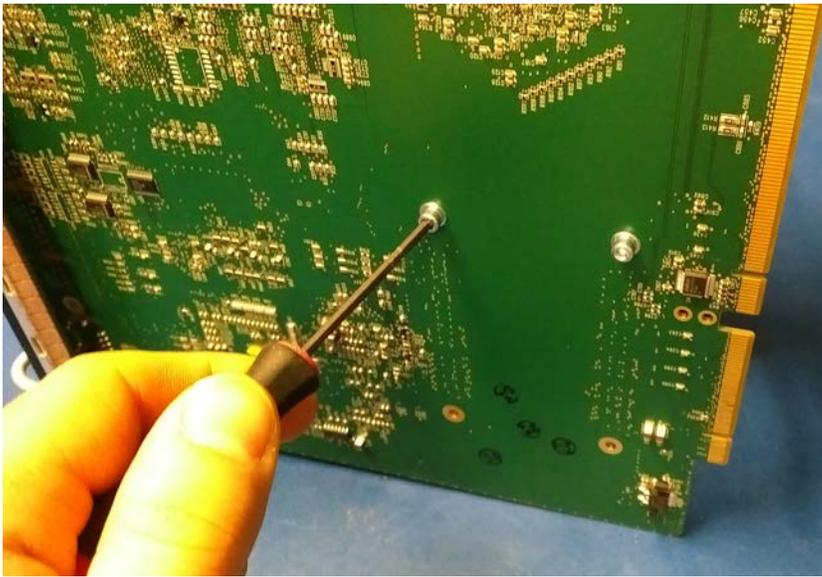
13. Carefully separate the Christie IMB from the faceplate. Set the Christie IMB and the support bracket aside.
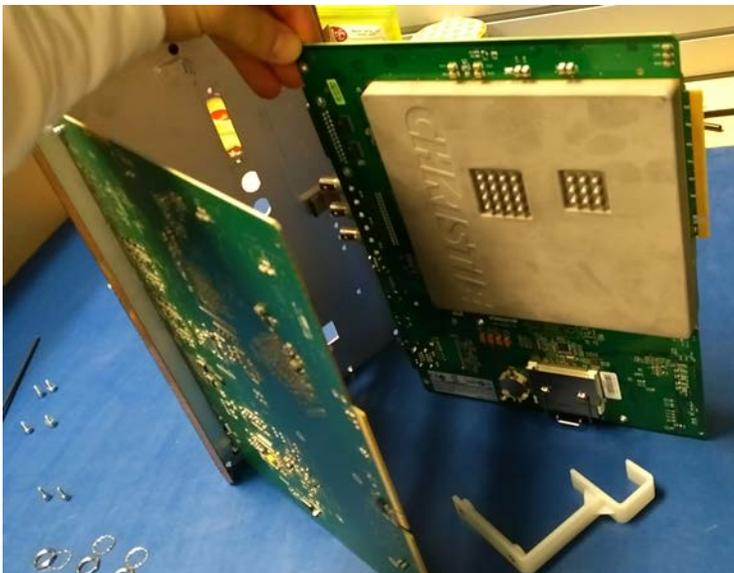
14. Using a 3/16 nut driver, remove the 3D Sync, RS 232, PIBS1, HDMI A/LEFT, and HDMI B/ RIGHT nuts. Set the nuts aside.

15. Disconnect the harness from the PIB faceplate board.

16. Using a #1 Phillips® screwdriver, remove the two screws securing the PIBS1 board to the faceplate. Set the screws aside.

17. Carefully separate the PIBS1 board from the faceplate. Set the board aside.

18. Using a 7/32 nut driver or pliers, remove the four nuts securing the PIB faceplate board to the faceplate and remove the PIB faceplate board and four spacers. Set the nuts, board, and spacers aside.
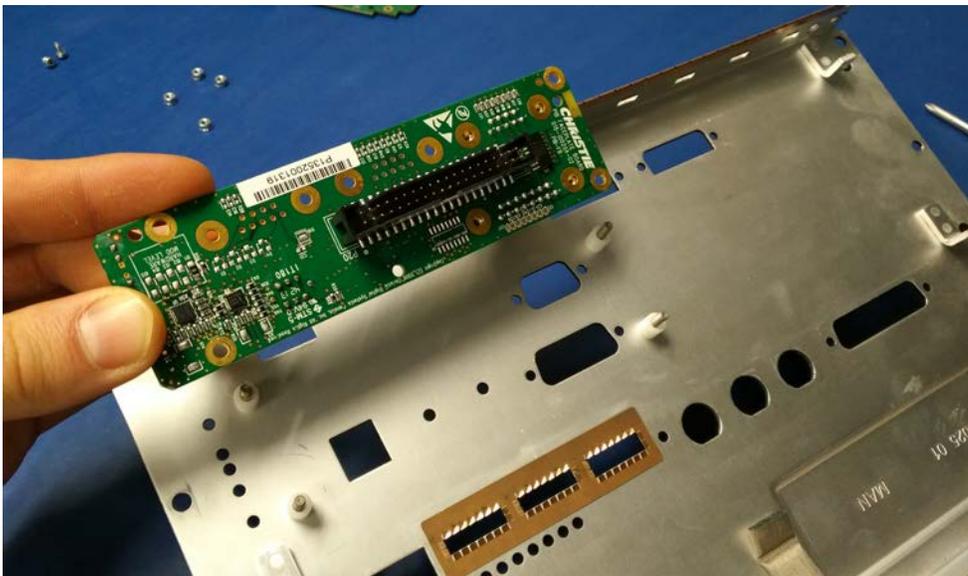
19. Using a #1 Phillips® screwdriver, remove the four screws securing the handles to the faceplate. Set the handles and screws aside.

20. Remove the EMI gasket and set it aside.
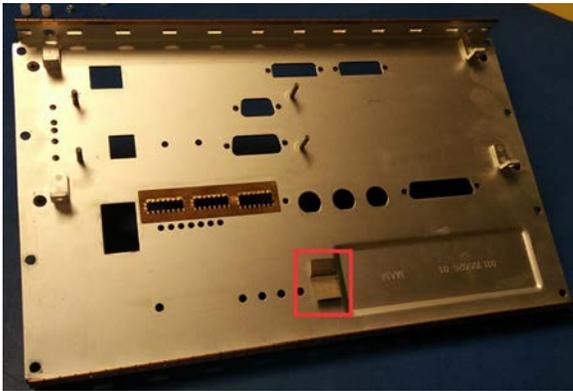
Installing the faceplate kit

Complete the following procedure to install the GDC SX-3000 IMB to the Solaria One faceplate provided in the conversion kit.

1. Place the GDC SX-3000 IMB onto the electrostatic discharge mat.

2. Using a #1 Phillips® screwdriver, remove the two screws securing the SX-3000 board to the SX-3000 faceplate.

3. Using a 3/16 nut driver or pliers, remove the two nuts on either side of the VGA input. Set the nuts aside.

4. Separate the VGA connector from the faceplate and unplug the two SATA harnesses from the SX-3000 board.

5. Using a 14 mm wrench or pliers, remove the two LTC nuts, two REF nuts, and two SDI nuts. Set the nuts and washers aside.

6. Carefully separate the SX-3000 board from the faceplate. Set the SX-3000 board aside.

7. Using a #1 Phillips® screwdriver, remove the two screws securing the ID plate to the faceplate. Set the ID plate and screws aside.

8. Using a 7/32 nut driver or pliers, remove the four nuts securing the two SATA harnesses to the faceplate. Set the nuts aside.

9. Using a flat head screwdriver, remove the two SATA harnesses from the faceplate. Set the harnesses aside.

10. Using a 7/32 nut driver or pliers, remove the two nuts securing the mounting brackets to the faceplate. Set the nuts aside.

11. Discard the SX-3000 faceplate.

12. Obtain the *SX-3000 conversion kit parts* (on page 1).

13. Insert the EMI gasket tabs through the holes on the sides of the conversion kit faceplate.

14. Pull the long flange of the EMI gasket over the edge of the faceplate.

15. Using the two nuts set aside in step 10, install the mounting brackets provided in the conversion kit to the back of the faceplate.

    Ensure the top of each bracket is flat and level so the IMB board can be installed correctly.
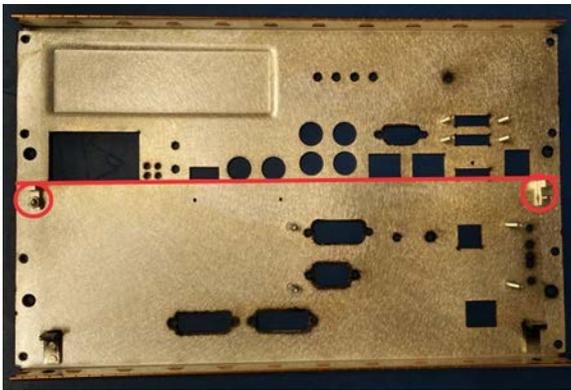
16. Using the four nuts set aside in step 8 and the harnesses set aside in step 9, install the two SATA harnesses onto the faceplate. Torque the nuts to 10 in-lb.
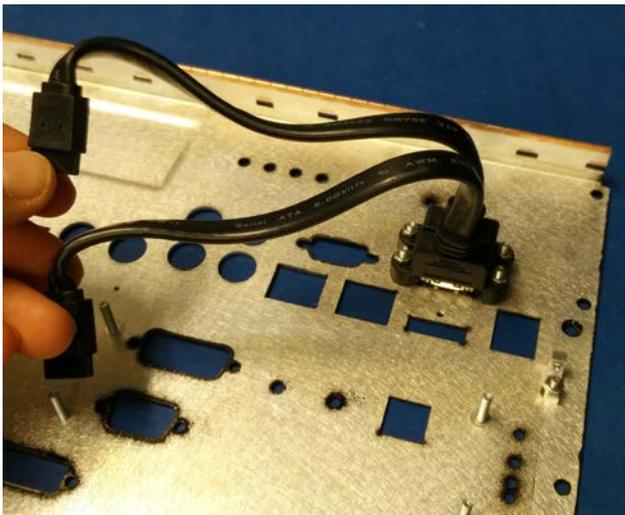
17. Place the four white spacers set aside in step 18 of the disassembly procedure onto the threaded inserts on the faceplate.
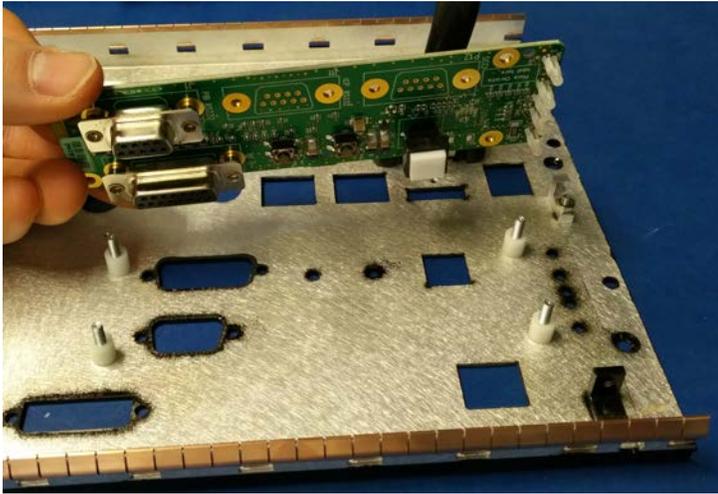
18. Place the PIB faceplate board set aside in step 18 of the disassembly procedure onto the spacers.

19. Secure the PIB faceplate board to the faceplate using the four nuts set aside in step 18 of the disassembly procedure. Torque the nuts to 10 in-lb.

20. Place the faceplate on its side.

21. Insert the PIBS1 board as shown and insert the 3D Sync, RS 232, PIBS1, HDMI A/LEFT, and HDMI B/RIGHT nuts removed in step 14 of the disassembly procedure to hold the board in place. Do not fully tighten the nuts.

22. Using the two screws set aside in step 16 of the disassembly procedure, secure the PIBS1 board to the faceplate. Torque the screws to 10 in-lb.

23. Torque the 3D Sync, RS 232, PIBS1, HDMI A/LEFT, and HDMI B/RIGHT nuts to 10 in-lb.

24. Secure the support bracket from the conversion kit to the PIBS1 board using the two screws removed in step 12 of the disassembly procedure. Torque the screws to 10 in-lb.

25. Using a #1 Phillips® screwdriver, remove the screw from the back of the SX-3000 board.

26. Install the long 4/40 stand-off provided in the conversion kit. Torque the stand-off to 8 in-lb.

27. Connect the harness to the PIB faceplate board.

28. Place the SX-3000 board into the faceplate opening.

29. Install the two LTC nuts, two REF nuts, and two SDI washers and nuts removed in step 6. Torque the nuts to 8 in-lb.

30. Plug the two SATA harnesses into the matching connectors on the SX-3000 board.

A	Harness 3 connectors
B	Harness 2 connectors

31. Place the VGA harness and connector into the faceplate opening.

32. Insert the EMI gasket removed in step 21 of the disassembly procedure.
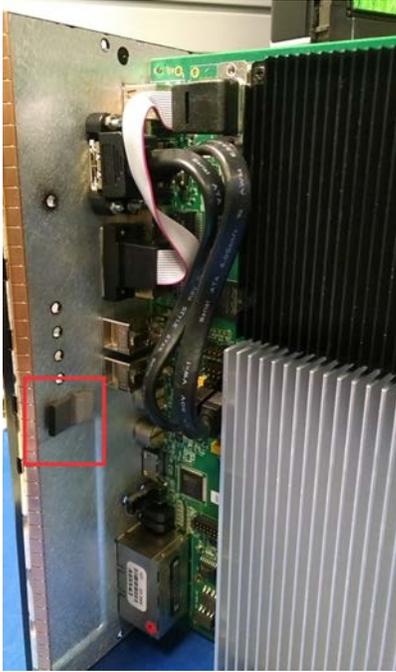
33. Using the two nuts set aside in step 3, secure the VGA connector to the faceplate. Torque the screws to 10 in-lb.

34. Using a short stand-off provided in the conversion kit and pliers, secure the end of the support bracket to the SX-3000 board.

    It may take some force to push the stand-off through the hole on the support bracket.

35. Using the handles and #1 Phillips® screws removed in step 19 of the disassembly procedure, install the handles onto the faceplate. Torque the screws to 6 in-lb.

36. Using the #1 Phillips® screws and ID plate set aside in step 8, install the ID plate onto the faceplate. Torque the screws to 6 in-lb.

37. Install the card cage faceplate assembly in the projector.

38. Using the eight #2 Phillips® screws removed in step 4 of the disassembly process, secure the card cage faceplate to the card cage. Torque the screws to 10 in-lb.

39. Apply the void warranty label as shown.

40. Place the Christie IMB (without the faceplate) into the provided electrostatic discharge bag.

41. Place the bag into the box, as shown, and cover with the top foam lid.

42. Return the Christie IMB to Christie.

Enabling the IMB

After installing the GDC SX-3000 IMB in the projector, you must enable it and activate marriage.

Complete the Marriage wizard to display secure content. Marriage permissions are required to complete marriage and only Christie accredited technicians are authorized to activate projector marriage.

The projector must not be in standby mode when activating marriage as the IMB is not powered.

1. Connect the projector to AC power and turn it on.

2. On the touch panel controller (TPC), tap **Menu** > **Administrator Setup** > **Content Devices Configuration**.

3. In the IMB Installed list, select **GDC**.

4. To verify that the IMB has been installed correctly, In the Operational Status region of the Main panel, verify that the IMB Status icon is green.

   If the icon is red, an error exists or the IMB has not been installed correctly. Use the dissasembly and installation procedures to check the IMB installation.

5. Log on to the projector with marriage permissions.

6. Tap **Menu** > **Service Setup** > **IMB Marriage**.

7. Complete the Marriage wizard.

8. Tap **Finish**.

Installing the Christie Solaria One SX-3000 IMB Faceplate Kit Instruction Sheet 23
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Technical support

Technical support for Christie products is available at:

- North and South America: +1-800-221-8025 or Support.Americas@christiedigital.com
- Europe, Middle East, and Africa: +44 (0) 1189 778111 or Support.EMEA@christiedigital.com
- Asia Pacific: +65 6877-8737 or Support.APAC@christiedigital.com
- Christie Managed Services: +1-800-550-3061 or NOC@christiedigital.com