CP Security Upgrade Kit Instruction Sheet

INTRODUCTION

Cinema Industry standards require high-security tamper-resistant projection heads for all cinema projectors. The most current version of the CP2000 and CP2000-X are manufactured with an electronically monitored high-security lock on the lid of the light engine compartment. Units manufactured in May 2006, or earlier, may require a retrofit of the High Security Lock, Security Switch and Interface Board. This limits access to authorized personnel, electronically logs all access to the compartment and immediately disables the current link-encrypted cinema presentation (only with CineLink 2).

The unlocked state is reported via a TPC alarm window, serial communication and SNMP (note the latter requires the "TPC-60" model [p/n 003-100231-01] of the Touch Panel Controller, new in 2006). You must lock the lid in order to remove the key and activate the switch for normal operation. The keys provided cannot be duplicated. If the keys are lost or damaged, contact your dealer or Christie for a new security lock and key set—the keys cannot be replaced individually.

This mandatory re-work for applicable projectors requires Christie's Physical Security Upgrade Kit **#003-000719-01** (board not included). The installation of the hardware will take up to 30 minutes to install. Software upgrade time will vary depending on the current version of software installed in the CP. **NOTES: 1)** *The high-security interlock requires a Type 3 Interface Board (003-120119-01 / 003-120171-01 / 004-120170-01) and main projector software v10.0.30 or higher and TPC software v2.5 or higher. If required, the Interface PCB must be purchased separately.* **2)** *Other CP panels are not removable with standard tools, or they can be removed only where there are other obstacles in place that prevent theft or tampering.*

RECOMMENDED TOOLS

• Channel-type Adjustable Pliers
• 7/16" Wrench
• #2 Phillips Screwdriver

SAFETY

⚠️ *WARNING*

This procedure must be performed by trained Christie service personnel only.

⚡ *DANGER*

Observe all high voltage and electrostatic precautions including grounding.

⚡ *DANGER*

Disconnect projector from all AC before starting this procedure.

FILE BACKUP

Prior to removing the old interface board, the following MUST occur:

• Make a backup copy of the custom files included on your system, i.e., TCGD, MCGD, Screen Files, Source Files, etc.

• Record the old IP address/subnet mask of the projector and the TPC (the IP address of the projector is stored on the interface board.)

REMOVE OLD INTERFACE BOARDS

The Processor and Interface boards are mounted vertically in the electronics Card Cage located behind the engine. Each board connects to the motherboard on the floor of the Card Cage. The Interface board is the board furthest from the light engine. To remove:

1. Remove Card Cage lid (6 screws); the lid is a snug-fit—pull up firmly (Figure 1).

2. Release side ejector hooks (Figure 2 - [EFIB/FIB Board=1; Processor Board=2; Interface Board=3]) to unseat the Processor (2) and Interface (3) boards from the motherboard. **NOTICE:** *DO NOT remove the EFIB/FIB Board.*

3. Pull the board straight up from the Card Cage (Figure 3).
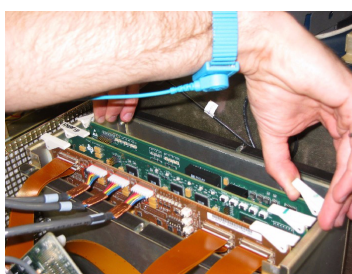

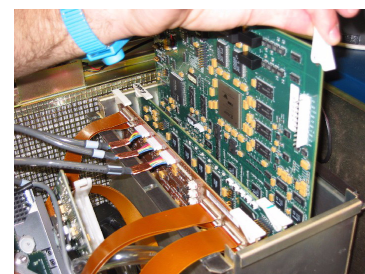*Figure 1 Remove card cage lid*

Figure 2 Release ejector hooks

Figure 3 Remove boards

INSTALL SECURITY SWITCH/HARNESS ASSEMBLY

1. Remove backing from adhisive foam tape (Figure 4).

2. Attach security switch assembly to the welded bracket just below the key lock so that the harness is facing away from the front of the projector. Ensure that edges do not stick out past the welded bracket edges. Press the assembly against the welded bracket for 10 seconds in order to ensure proper adhesion (Figure 5).

3. Install 1 metal clip at each end of the security switch assembly keeping the flat side of the clip to the inside of the welded bracket (Figure 5).

4. Route Harness Cable around the Card Cage (Figure 6).

5. Lead the Harness through opening on the Card Cage and connect the Harness to P4 connection on the motherboard (Figure 7).

6. Attach three clips to the frame with Clip opening up. Insert Cable into Clips (Figure 8). **NOTE:** *Hold clip for ten seconds to stick properly. Ensure there is no slack between Clip 1 & 2 and inside of Card Cage. Loop slack on Clip 3.*

7. Attach fourth clip to the Card Cage in the middle between P4 connection and rectangular opening where harness goes through the Card Cage. Insert Harness into clips (Figure 9).
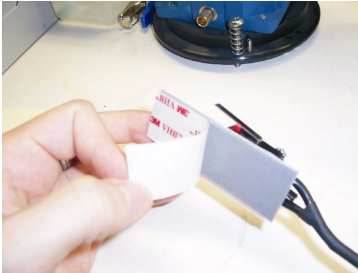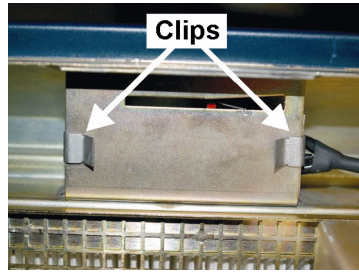
Figure 4 Remove backing from tape

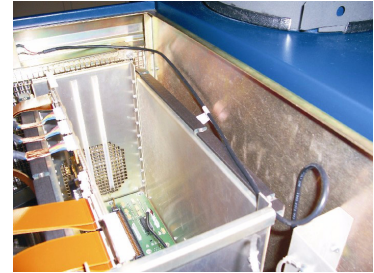*Figure 5 Place mounting bracket on frame and install clips*

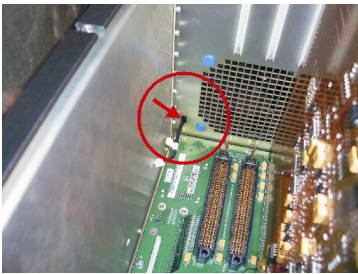*Figure 6 Route harness cable*
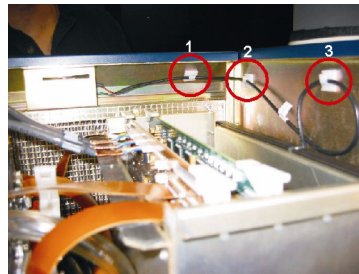
Figure 7 Route cable through opening

Figure 8 Attach 3 clips to frame and insert cable

Figure 9 Attach clip and insert cable

INSTALL NEW INTERFACE BOARDS

The section applies to all projectors containing Type 1 or Type 2 PCB Interface Boards.

Board Part Number	Name	Comments
2506940-0101	Series IS	Secure Interface Boards (current known Type 3 Boards—could change in future)
2506940-0002	Series IR	
2506940-0200	Series IRH	
2506940-0100	Series SR	Can be returned for Credit
2504913-xxxx	Series I / Series IA	Known Type 1 and Type 2 Boards—To be scrapped

NOTES: 1) *The high-security interlock requires a Type 3 Interface Board (003-120119-01 / 003-120171-01 / 004-120170-01) and main projector software v10.0.30 or higher and TPC software v2.5 or higher.* **2)** *Each Interface Board is serialized and contains a unique Digital Cinema Certificate that will need to be tracked in a Trusted Device List (TDL) database, which is an integral part of the Digital Cinema Security framework (If a device is not listed in the TDL of the Key Delivery Message (KDM) that unlocks the movies, then movies will not play on the server connected to that projector.) Follow instructions in Section 8 to update data.*

1. Insert Processor and **new** Interface boards into the appropriate side slots in the Card Cage (Figure 10).

2. Slide board to floor of motherboard until the connector sits on its mate and gently push the corners of the board down side-to-side to ensure proper insertion of the connector into its mate (Figure 11). **NOTE:** *Do not jam or force the board into the slot, as this will damage the mating connectors and/or the board.*
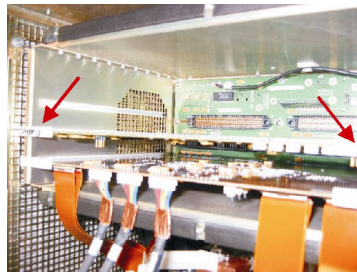

Figure 10 Insert new board

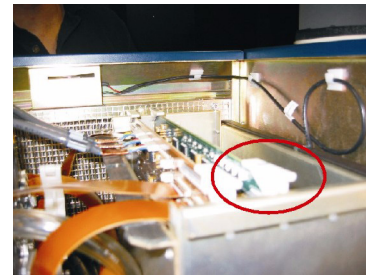**Figure 11 Push corners down side-to-side**

Figure 12 Ejector hooks-properly anchored

3. If correctly seated, the side ejector hooks should be properly anchored to the Card Cage (Figure 12).

4. Replace the Card Cage Lid and secure with 6 screws removed in Step1 of section 1 (see Figure 1).

5. Use a serial connection to connect to the projector to change the IP Address/Subnet Mask of the new Interface Board to that of the Interface Board just removed. **NOTES: 1)** *If the new Interface Board IP Address is unknown, a serial connection is required.* **2)** *The TPC will not communicate with the projector until the Interface Board IP Address has been set.*

6. Upgrade to the required software release.

7. Restore all files previously backed up in Section 1.

![Christie logo]

INSTALL KEY LOCK ASSEMBLY

1. Using the channel-type pliers, remove the existing Low Security Lock from the door.

2. Place the new high-security lock in the lid opening. (Figure 13). **NOTE:** *When placing cylinder through opening, ensure that label is facing out and the lettering on face of cylinder is upright and parallel to the edge of the lid panel.*

3. Place lock washer over the cylinder (Figure 14).

4. Screw the nut onto the lock cylinder and tighten the ring using the channel-type pliers (Figure 15).

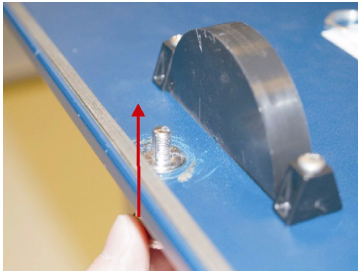5. Install latch on top of lock CAM and secure with lock washer and nut using a 7/16" wrench (Figure 16).

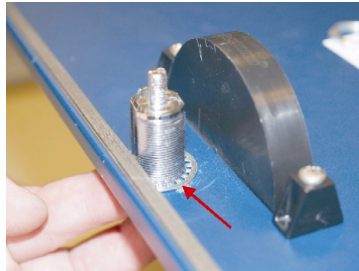**Figure 13 Insert lock cylinder through opening in lid**

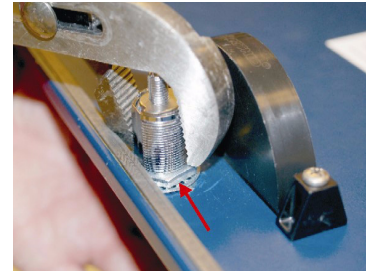**Figure 14 Place lock washer over cylinder**

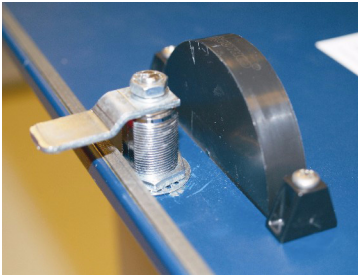**Figure 15 Place nut over cylinder and tighten**

Figure 16 Install lock cam

UPDATE & INSTALL LABELS

1. Place a Christie key FOB on the key-ring of each key and write the Projector Number on the label on the back of the key FOB (Figure 17).

2. Place the Security Warning Label on the top of the lid next to the lock (Figure 18).

3. Provide keys to the Facility Manager*.* **NOTE:** *You must emphasize the need to store each key in a separate & secure area.*

Figure 17 Write projector number on FOB

Figure 18 Place security warning label on lid

UPGRADE SOFTWARE

A software upgrade is required if the projector does not have TI v10.0.30 or higher software and TPC v2.5 or higher software. To upgrade the software:

NOTE: *If a Software Upgrade is required, you must ensure that you have all of the tools required to complete the upgrade prior to commencing. For example, a laptop, updated files, etc. This upgrade should be undertaken by Trained and Qualified Christie Service Personnel only.*

1. Download the software upgrade from the Christie Digital Systems FTP site.
2. Upload the newly downloaded software upgrades to the projector and TPC.

SECURITY UPGRADE INFORMATION REQUEST FORM

Once all of the upgrades have been completed, you are required to complete the Security Upgrade Information Request form. The information requested includes Projector S/N, Interface Board P/N and S/N, Software Version and TPC software Version.

The form can be downloaded from the following Christie Web Site:

1. Login to the Christie Website (www.christiedigital.com)
2. Select "Partner Login" from the top menu
3. Select "Dealer Login" from the dropdown menu
4. Select "Downloads" from the top menu bar
5. Enter "Email address" and "Password"
6. "Choose Product" and "Choose Model" from dropdown menu
7. Select Policies and Forms from the "Choose Download" dropdown menu
8. Select Security Upgrade Information Request form.

NOTE: *It is imperative that you complete these steps so that the information may be tracked in a Trusted Device List (TDL) database, which is an integral part of the Digital Cinema Security framework (If a device is not listed in the TDL of the Key Delivery Message (KDM) that unlocks the movies, then movies will not play on the server connected to that projector.)*

Complete instructions are included on the form.