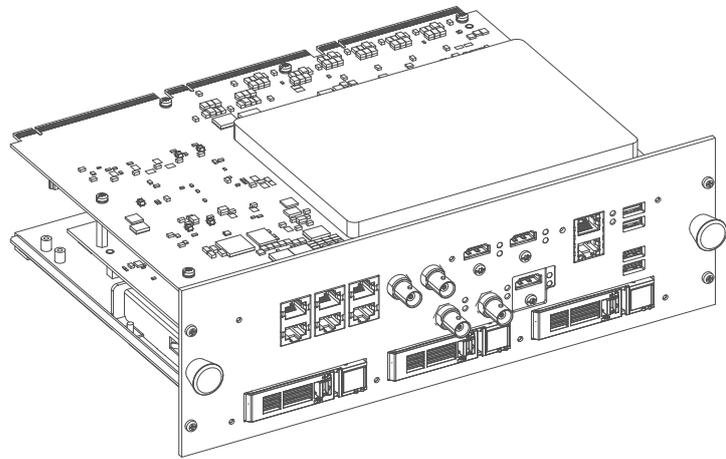


# ICMP / ICMP-X



## Service Manual

## **Product revision**

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### **Barco NV**

Beneluxpark 21, 8500 Kortrijk, Belgium  
[www.barco.com/en/support](http://www.barco.com/en/support)  
[www.barco.com](http://www.barco.com)

### **Registered office: Barco NV**

President Kennedypark 35, 8500 Kortrijk, Belgium  
[www.barco.com/en/support](http://www.barco.com/en/support)  
[www.barco.com](http://www.barco.com)

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# Safety

# 1

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## About this chapter

Read this chapter attentively. It contains important information to prevent personal injury while servicing the ICMP. Furthermore, it includes several cautions to prevent damage to the ICMP. Ensure that you understand and follow all safety guidelines, safety instructions and warnings mentioned in this chapter before servicing the ICMP. After this chapter, additional “warnings” and “cautions” are given depending on the service procedure. Read and follow these “warnings” and “cautions” as well.



**WARNING:** This manual is only intended for qualified service personnel.

## Clarification of term “ICMP” used in this document

When referring in this document to the term “ICMP” means that the content is applicable for following Barco products:

- ICMP
- ICMP-X

## 1.1 Safety Instructions



**WARNING:** Before removing/replacing any projector components, disconnect the power to the unit mains terminals.

### Safety Instructions

1. Before returning an instrument to the customer, always make a safety check of the entire instrument, including, but not limited to, the following items:
  - a) Be sure that no built-in protective devices are defective and/or have been defeated during servicing. (1) Protective shields are provided on this chassis to protect both the technician and the customer. Correctly replace all missing protective shields, including any removed for servicing convenience. (2) When reinstalling the chassis and/or other assembly in the cabinet, be sure to put back in place all protective devices, including, but not limited to, insulating materials, barriers, covers/shields, and isolation resistor/capacitor networks. Do not operate this instrument or permit it to be operated without all protective devices correctly installed and functioning. Service people who defeat safety features or fail to perform safety checks may be liable for any resulting damage.
  - b) Be sure that there are no cabinet openings through which an adult or child might be able to insert their fingers and contact a hazardous voltage. Such openings include, but are not limited to, (1) excessively wide cabinet ventilation slots, and (2) an improperly fitted and/or incorrectly secured cover panels.
  - c) Leakage Current Hot Check. With the instrument completely reassembled, plug the AC line cord directly into a 220 V AC outlet (Do not use an isolation transformer during this test). Use a leakage current tester or a metering system that is designed to comply with the new IEC, ANSI and UL standards. With the instrument AC switch first in the on position and then in the off position, measure from a known earth ground (metal waterpipe, conduit, etc.) to all exposed metal parts of the instrument (antennas, handle bracket, metal cabinet, screwheads, metallic overlays, control shafts, etc.), especially any exposed metal parts that offer an electrical return path to the chassis. Any current measured must not exceed 3,5 mA. Reverse the instrument power cord plug in the outlet and repeat test. **ANY MEASUREMENTS NOT WITHIN THE LIMITS SPECIFIED HEREIN INDICATE A POTENTIAL SHOCK HAZARD THAT MUST BE ELIMINATED BEFORE RETURNING THE INSTRUMENT TO THE CUSTOMER OR BEFORE CONNECTING ACCESSORIES.**

#### AC Leakage Test

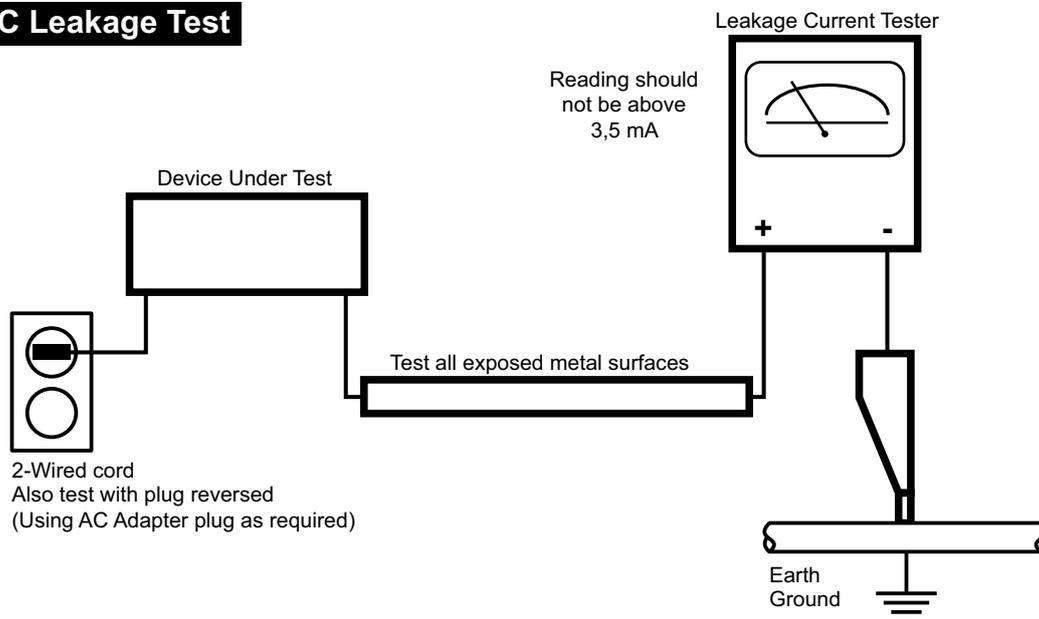


Image 1-1

- d) Ultraviolet Radiation exposure - Warning: This lamp can cause serious skin burn and eye inflammation from shortwave ultraviolet radiation if not operated in enclosed fixtures. DO NOT operate this lamp in a fixture with a missing or broken lens cover.
- e) Ozone: Operating lamp generates ozone gas which is harmful to the respiratory system. Therefore the lamp should be operated in adequately ventilated equipment.

2. Read and comply with all caution and safety-related notes on or inside the projector cabinet or on the projector chassis, or on the picture tube.
3. Design Alteration Warning - Do not alter or add to the mechanical or electrical design of this apparatus. Design alterations and additions, including, but not limited to, circuit modifications and the addition of items such as auxiliary audio and/or video output connections, might alter the safety characteristics of this apparatus and create a hazard to the user. Any design alterations or additions may void the manufacturer's warranty and may make you, the servicer responsible for personal injury or property damage resulting therefrom.
4. Lamp explosion Protection Warning – The lamp in this projector operates with a high internal pressure and there is a slight risk that the lamp may explode, particularly if it is used beyond its rated life. Do not remove, install, or otherwise handle the lamp in any manner without first putting on shatterproof goggles equipped with side shields. People not so equipped must be kept safely away while lamps are handled. Keep the lamp away from your body. For continued explosion protection, replace the lamp only with one of the same type number. Always replace the lamp before the rated life time.
5. Hot Chassis Warning - This projector chassis has two ground systems: the primary ground system is formed by the negative voltage of the rectified mains (power) and is only used as a reference in primary circuits; the secondary ground system is connected to earth ground via the earth conductor in the mains (power) lead. Separation between primary and secondary circuits is performed by the safety isolation transformers. Components bridging these transformers are also safety components and must never be defeated or altered. All user-accessible conductive parts must be connected to earth ground, or are kept at SELV (Safety Extra Low Voltage).
6. Observe original lead dress. Always inspect in all areas for pinched, out-of-face, or frayed wiring. Do not change spacing between components, and between components and the printed-circuit board. Check AC power cord for damage. Take extra care to assure correct lead dress in the following areas:
  - a) near sharp edges
  - b) near thermally hot parts - be sure that leads and components do not touch thermally hot parts
  - c) the AC supply
  - d) high voltage
7. Components, parts, and/or wiring that appear to have overheated or are otherwise damaged should be replaced with components, parts, or wiring that meet original specifications. Additionally, determine the cause of overheating and/or damage and, if necessary, take corrective action to remove any potential safety hazard.
8. PRODUCT SAFETY NOTICE - Many electrical and mechanical parts have special safety-related characteristics some of which are often not evident from visual inspection, nor can the protection they give necessarily be obtained by replacing them with components rated for higher voltage, wattage, etc. Use of a substitute replacement that does not have the same safety characteristics as the recommended replacement part in BARCO service data parts list might create shock, fire, and/or other hazards. Product Safety is under review continuously and new instructions are issued whenever appropriate. For the latest information, always consult the appropriate current BARCO service literature.
9. Do not spray chemical on or near this instrument or any of its assemblies.
10. Electrostatically Sensitive (ES) Devices Some semiconductor (solid state) devices can be damaged easily by static electricity. Such components commonly are called Electrostatically Sensitive (ES) Devices. Examples of typical ES devices are integrated circuits and some field-effect transistors and semiconductor "chip" components. The following techniques should be used to help reduce the incidence of component damage caused by static electricity:
  - a) Immediately before handling any semiconductor-equipped assembly, drain off any electrostatic charge on your body by touching a known earth ground. Wear a commercially available high impedance discharging wrist strap device.
  - b) After removing an electrical assembly equipped with ES devices, place the assembly on a static dissipative surface such as a 3M No 8210 table mat, to prevent electrostatic charge buildup or exposure of the assembly.
  - c) Do not use freon-propelled chemicals. These can generate electrical charges sufficient to damage ES devices.
  - d) Do not remove a replacement ES device from its protective package until immediately before you are ready to install it (Most replacement ES devices are packaged with leads electrically shorted together by conductive foam, aluminium foil or comparable conductive material).
  - e) Immediately before removing the protective material from the leads of a replacement ES device, touch the protective material to the chassis or circuit assembly into which the device will be installed. CAUTION: Be sure no power is applied to the chassis or circuit, and observe all other safety precautions.

- f) Minimize bodily motions when handling unpacked replacement ES devices (Otherwise harmless motion such as the brushing together of your clothes fabric or the lifting of your foot from a carpeted floor can generate static electricity sufficient to damage an ES device).

# General

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## About this chapter

This chapter contains some general information on the ICMP (Integrated Cinema Media Processor) such as the location of the main components, the LEDs status, the essential role of the battery in the ICMP, etc.

## About ICMP Servicing

As Barco strictly adheres to Digital Cinema rules regarding content protection, service technicians are mandated to follow the repair procedures as described within this service manual:

- Repair on module level is strictly prohibited.
- Failures are to be resolved by means of board or part swap as explained in this manual.
- A set of spare parts is available for the purpose of swapping.

## 2.1 ICMP Assembly overview

### Orientation and main components

ICMP assembly is composed of three superposed cards, positioned behind a front face.

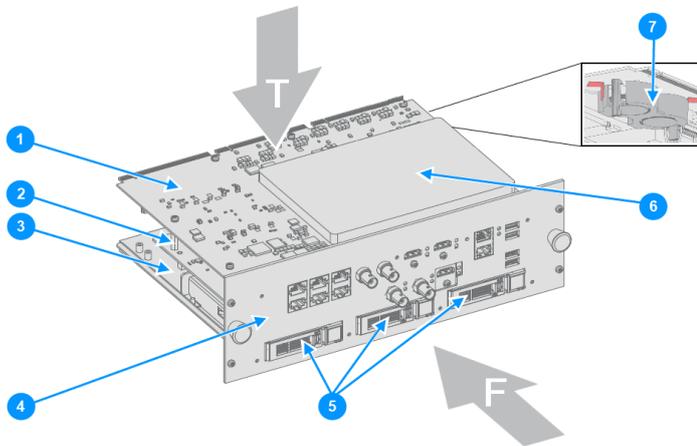


Image 2-1

- |          |                   |          |                 |
|----------|-------------------|----------|-----------------|
| <b>T</b> | Top of the ICMP   | <b>4</b> | Front face      |
| <b>F</b> | Front of the ICMP | <b>5</b> | HDDs            |
| <b>1</b> | Main board        | <b>6</b> | Security Module |
| <b>2</b> | Video mezzanine   | <b>7</b> | Battery         |
| <b>3</b> | HDD plate         |          |                 |

## 2.2 ICMP status LEDs

### ICMP status LEDs and Reset button

LEDs on ICMP front panel give information on the status of the device.

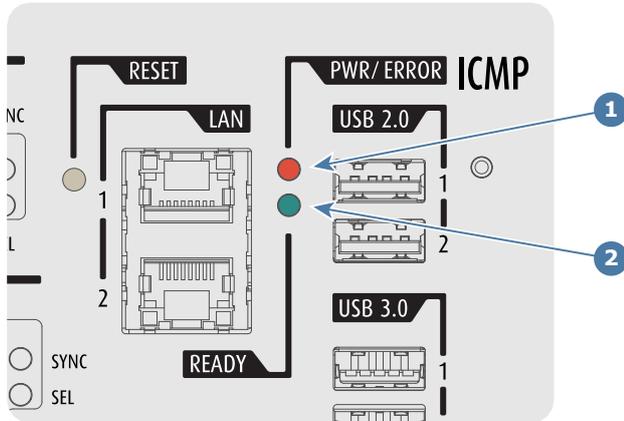


Image 2-2

- 1 Power / Error LED
- 2 Ready LED

Status overview PWR/ERROR and READY LEDs:

PWR/ERROR	READY	ICMP Status
Off	Off	Turned off
Red	Off	Board reset or FIPS error
Blinking Green	Off	Boot loader
Blinking Green	Blinking Orange	Operating System start up
Blinking Green	Orange	Security Manager - Image Integrity tests
Blinking Green	Blinking Yellow	Security Manager - Self Test
Blinking Green	Yellow	Security Manager - FPGA self-test
Green	Blinking Green	Starting Applications
Green	Green	Applications started in normal mode
Green	Orange	Applications started in degraded mode
Blinking Red	Off	FIPS error
Green	Blinking Orange	Update ongoing
Orange	Orange	Update done

## 2.3 HDD status LEDs

### HDD status LEDs

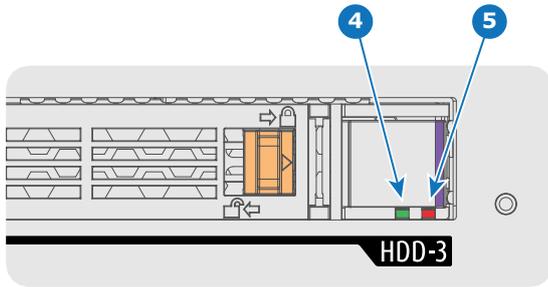


Image 2-3

- 4 HDD I/O LED  
5 RAID LED

### Status LEDs on ICMP

HDD I/O	RAID	HDD Status
Off	Off	HDD idle / disk in RAID OK.
Blinking green	Off	HDD I/O activity / disk in RAID OK.
Blinking green	Slow blinking red	HDD disks not (yet) initialized (not supported on ICMP with GEN1 storage controller).
Blinking green	Fast blinking red	HDD I/O activity / RAID rebuilding.
Off	Red	HDD idle / Disk error. Consult the following troubleshooting table for curative actions.



When entering a new HDD in an ICMP, the HDD RAID LED will be full red for a short time. This is not an error, the HDD has not yet been “recognized” by the projector and ICMP.

Once the HDD has been accepted by the ICMP, the full red LED will start blinking in accordance with the previous status table.

If the LED remains full red, an error has occurred. In this case, consult the following troubleshooting table for curative actions.

### Troubleshooting

Situation	Solution
<p>One disk failed (red LED) + <b>RAID degraded</b>. The ongoing event is not interrupted. <b>Note:</b> The disk status (RAID degraded) can be retrieved via the (Web) Commander. See user guide of the (Web) Commander.</p>	<ol style="list-style-type: none"> <li>1. Switch off the power.</li> <li>2. Replace the defect HDD with approved model of the same storage capacity. See procedure <a href="#">“Removing a HDD from the ICMP”, page 27</a>, and <a href="#">“Installing a HDD into the ICMP”, page 28</a>. Ensure to insert the HDD firmly.</li> <li>3. Switch on the power.</li> </ol> <p><b>Result:</b> As soon the new HDD is detected by the ICMP the rebuild of the RAID is started (Blinking red LED).</p>
<p>One disk failed (red LED) + Error 10580 <b>“local storage not available”</b>. <b>Note:</b> The disk status (Error code) can be retrieved via the (Web) Commander. See user guide of the (Web) Commander.</p>	<ol style="list-style-type: none"> <li>1. Switch off the power.</li> <li>2. Replace the defect HDD with approved model of the same storage capacity. See procedure <a href="#">“Removing a HDD from the ICMP”, page 27</a>, and <a href="#">“Installing a HDD into the ICMP”, page 28</a>. Ensure to insert the HDD firmly.</li> <li>3. Switch on the power.</li> </ol>

Situation	Solution
<p>Multiple disks failed (multiple red LEDs) + Error 10573 <b>“The RAID is broken”</b>.</p> <p><b>Note:</b> The disk status (RAID broken) can be retrieved via the (Web) Commander. See user guide of the (Web) Commander.</p>	<p><b>Result:</b> As soon the new HDD is detected by the ICMP the rebuild of the RAID is started (Blinking red LED).</p> <ol style="list-style-type: none"> <li>1. Switch off the power.</li> <li>2. Replace all defect HDDs with approved models of the same storage capacity. See procedure <a href="#">“Removing a HDD from the ICMP”, page 27</a>, and <a href="#">“Installing a HDD into the ICMP”, page 28</a>. Ensure to insert the HDDs firmly.</li> <li>3. Switch on the power.</li> <li>4. Start “RAID Initialize”. See user guide of the (Web) Communicator.</li> </ol> <p><b>Result:</b> a new empty RAID is created.</p>
<p>A set of HDDs initialized for a GEN 2 storage controller is installed on a GEN 1 storage controller (All red LEDs remain off) + Combination of three errors (10580 <b>“local storage not available”</b>, 10585 <b>“storage mount failed”</b>, 10573 <b>“the RAID is broken”</b>)</p> <p><b>Note:</b> The disk status (Error code) can be retrieved via the (Web) Commander. See user guide of the (Web) Commander.</p>	<ol style="list-style-type: none"> <li>1. To avoid any misidentification, double check ICMP model and if HDD model is compatible with installed storage controller (see list of HDD models validated by Barco).</li> <li>2. Start “RAID Initialize”. See user guide of the (Web) Communicator. Note that all content will be lost!</li> </ol> <p><b>Result:</b> a new empty RAID is created.</p>
<p>All HDD LEDs remain off + Error 10580 <b>“local storage not available”</b>.</p> <p><b>Note:</b> The disk status (Error code) can be retrieved via the (Web) Commander. See user guide of the (Web) Commander.</p>	<ol style="list-style-type: none"> <li>1. Switch off the power.</li> <li>2. Reseat all HDDs. See procedure <a href="#">“Removing a HDD from the ICMP”, page 27</a>, and <a href="#">“Installing a HDD into the ICMP”, page 28</a>. Ensure to insert the HDDs firmly.</li> <li>3. If problem remains try “RAID Initialize”. See user guide of the (Web) Communicator. Note that all content will be lost!</li> <li>4. If problem remains contact Service for further instructions.</li> </ol>



In case the ICMP has to be returned to factory (e.g. for repair) the non defective HDDs should be removed and kept.

## 2.4 Introduction of ICMP battery

### Functionality of battery

The battery is used to maintain the security data necessary to decoding in real-time the Digital Cinema files. If the battery is disconnected or discharged, this data will definitely be lost. In this case, the only possibility way to recover the functionality of the card is the return it to the manufacturer.



**CAUTION:** Always follow the replacement procedure described in this manual to exchange ICMP battery. Failure to follow this procedure could result in irreversible damage to the ICMP card. Refer to chapter “[Replacement of the battery](#)”, page 33.

### Locate the battery

The battery is located at the rear upper left side of the ICMP assembly. Once the ICMP assembly removed from the projector, flip the board upside-down, and place the back of the board in front of you.

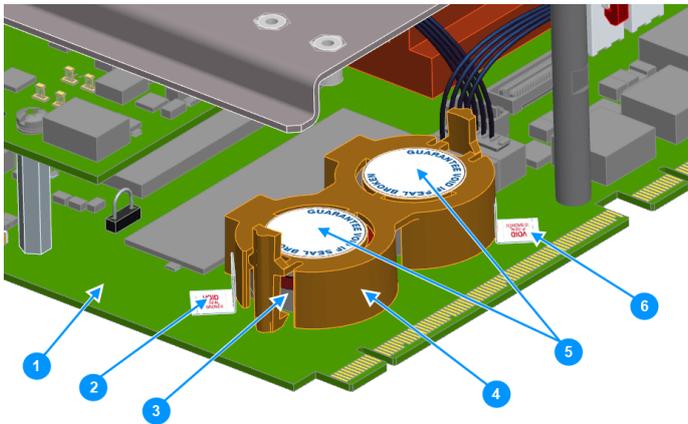


Image 2-4 ICMP battery slot with cover

- |   |  |
|---|--|
| <p><b>1</b> ICMP</p> <p><b>2</b> Tamper evident sticker</p> <p><b>3</b> Battery in his slot (under the cover)</p> | <p><b>4</b> Cover</p> <p><b>5</b> Insertion date stickers</p> <p><b>6</b> Tamper evident sticker</p> |
|---|--|

### Battery life time

An electric battery is a device based on electrochemical cells that converts stored chemical energy into electrical energy. Over time, the degradation of these elements causes a discharge of the battery.

The way to prevent a critical discharge is different if the unit where the battery is used is on stock or in use:

- for an ICMP on stock laying longer than 5 years, it's advised to yearly check the battery by measuring the voltage. Replacing the battery is necessary only if the measured voltage is lower than 2.7V! For details on the voltage measurement procedure, refer to chapter “[Battery measurement](#)”, page 32.
- for an ICMP in use in a projector, it's advised to replacing the battery only if there was a battery warning or an error shown into the (web) Communicator (or into the ICMP logfile)!



The insertion date (MM/YY) is written on a label positioned on the top of the battery cover. If no date is present, it means that the battery has never been exchanged. It is advisable to consider that this battery is more than 5 years old (check the voltage annually).

### Electric and electrostatic recommendations

The ICMP card is sensitive to electrical short-circuits. During the replacement procedure, be very careful not to touch the two connectors (positive / negative) in the battery slot with the battery or any other metallic objects. A short circuit between the two connectors would cause immediate failure of the card.

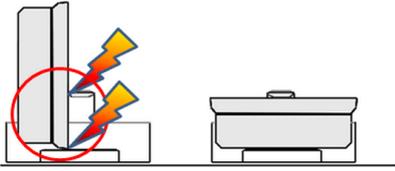


Image 2-5

After removing the ICMP assembly from the projector, it is recommended to put it on clear, stable and insulated support during all the battery replacement procedure, to avoid any accidental short-circuit.



**CAUTION:** Wear insulating gloves during the execution of the procedure to avoid short-circuit.

## 2.5 ICMP reset



This procedure requires that ICMP version 1.2.4 or later is installed.

### ICMP reset possibilities

- The *Star* button on the local keypad (Not for C- and B-series)
- The ICMP reset button ( labeled *Reboot ICMP*) in the GUI of the Communicator.
- The ICMP reset button ( labeled *media server*) in the GUI of the Communicator.
- The ICMP reset button ( labeled *Reboot media server*) in the GUI of the Commander.
- The ICMP reset button ( labeled *Reboot media server*) in the GUI of the Web Commander.
- The ICMP hardware reset button located on the front panel of the ICMP (Not recommended, use only when all other reset possibilities are exhausted!)

### How to reset the ICMP?

1. Click on the *Control/ICMP/Reboot media server* in the GUI of the Web Commander

or

Click on *Control/ICMP/Reboot media server* in the GUI of the Commander



*Note:* The behavior could be different depending the projector type. Please, refer to the projector manual to obtain more details.

or

click on *Maintenance/Reboot action/media server* in the GUI of the Communicator (recommended)

or

click on *Contol/projector/power/Reboot ICMP* in the GUI of the Communicator (recommended)

or

press the *Star* button on the **local keypad** for a few seconds (Not for C- and B-series)

As a result the projector is safely prepared for the ICMP reboot. All ongoing events on the ICMP (e.g. ingest) are requested to end. After a few seconds the ICMP is requested to restart. The READY LED on the front panel of the ICMP starts to blink orange.

In case the ICMP is installed in DP4K-L series projector the lasers are switched off and the projector remains in the same mode (e.g. Conditioned). The *Star* button on the local keypad starts blinking green. After the reset of the ICMP the lasers are switched on again.

Once the READY LED lit continuous green the ICMP is up and running.

2. Did the reset of the ICMP fail?

► **If yes**, perform a hardware reset as follows:

1. switch off the lasers of the projector or switch of the projector lamp.
2. press the ICMP **hardware reset button** a few seconds (reference 3 [Image 2–6](#)) .



**Warning:** Resetting the ICMP with the hardware reset button may cause damage to the content on the HDDs. A re-configuration of the whole system may be required!

As a result the projector is safely prepared for the ICMP reboot. All ongoing events on the ICMP (e.g. ingest) are stopped immediately and the ICMP restarts.

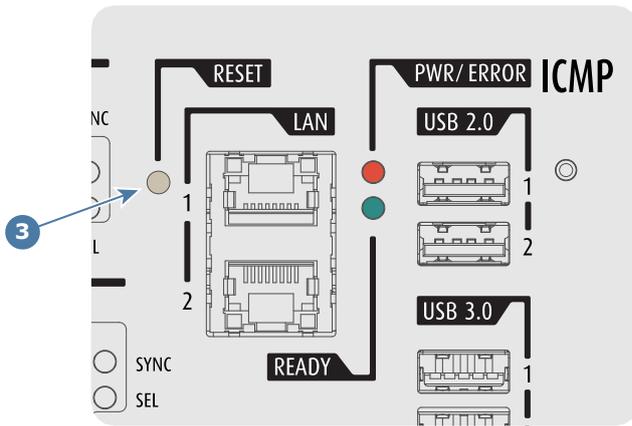


Image 2-6



**WARNING:** Resetting the ICMP with the hardware reset button may cause damage to the content on the HDDs. A re-configuration of the whole system may be required!



# Preventative maintenance actions

# 3

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## 3.1 1 year maintenance actions

### MAINTENANCE TYPE C (perform every year)



The one year maintenance actions, listed below, may **ONLY** be performed by **certified service personnel** who are familiar with potential hazards of the product and all product safety checks.

No.	Maintenance action	Remarks
1	Electronic contacts cleaning.	Please follow the procedure <a href="#">“Cleaning electronic contacts”</a> , page 52.
2	Check battery validity date on ICMP units kept on stock (not powered by a projector).	The label with the validity date is located on the battery cover. If no date is present or indicated date exceed 5 years, follow the procedure <a href="#">“Replacement of the battery”</a> , page 33.

# ICMP service procedure

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## About this chapter

This chapter describes how to removal and installation instructions of the ICMP and ICMP HDD. Furthermore, the battery replacement, the storage controller replacement and ICMP HDD are described as well.

## 4.1 Removing the ICMP



**WARNING:** Power down the projector and let it cool down before starting the installation procedure. You will find in the installation manuals of each projector the way to switch off your installation.



**CAUTION:** Wear a wrist band which is connected to the ground while handling the electrostatic discharge sensitive parts.

### Required tools

- Flat screwdriver 7 mm
- Phillips screwdriver PH2
- Torx screwdriver T10
- ESD wrist band

### How to remove the ICMP from the projector Card Cage?

1. Depending on the projector type the input cover of the projector has to be removed to access the fixation screws of the installed ICMP. Use a 7 mm flat screwdriver. For detailed instructions see User & Installation manual of the projector.
2. Release the four retaining screws at the front of the ICMP (reference 1).
3. Pull the ICMP out of its compartment.



*Note:* All connections are made via the board to board connection with the back plane.

ICMP removal from projector:

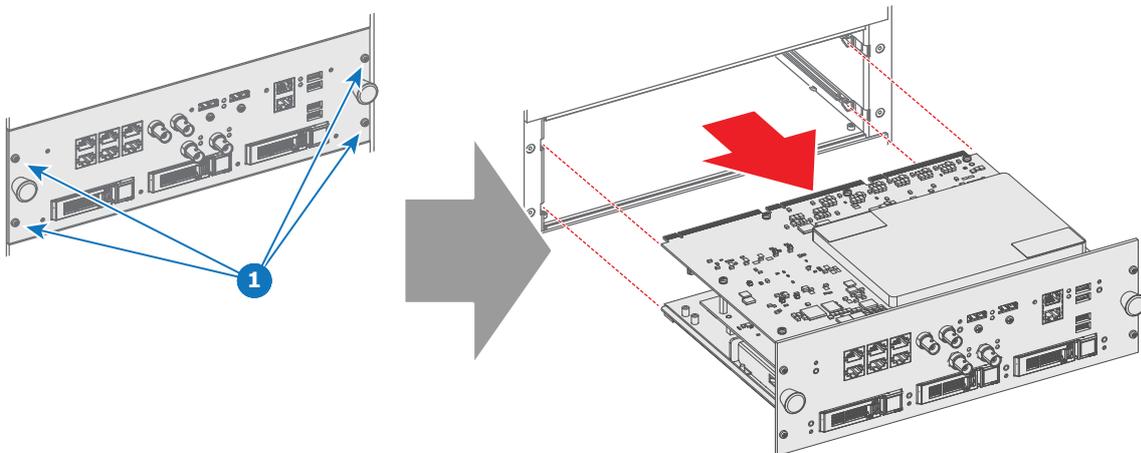


Image 4–1



Removal of the ICMP from the Card Cage of the projector will result in tamper events (service door tamper, insertion tamper).



In the ICMP, the content is stored on removable disks that allow fast recovery of this content if you have to replace an ICMP. See chapter [“Removing a HDD from the ICMP”, page 27](#).

## 4.2 Installing the ICMP



This procedure assumes that the projector has been made ICMP ready. In other words the Card Cage slots wherein the ICMP has to be inserted are empty and the latest projector software package is installed.



**CAUTION:** Wear a wrist band which is connected to the ground while handling the electrostatic discharge sensitive parts.

### Required tools

- Flat screwdriver 7 mm
- Phillips screwdriver PH2
- Torx screwdriver T10
- ESD wrist band

### How to install the ICMP into the Card Cage?

1. Gently insert the ICMP in the guides of the Card Cage as illustrated below.
  - ⚠ **Caution:** Ensure that the both sides of the ICMP are captured by the guides inside the Card Cage compartment. See detail in image below.
2. Push (apply a little pressure) on both handles until the ICMP is fully inserted and the connection is made with the back plane.
  - 📄 **Note:** All connections are made via the board to board connection with the back plane.
3. Fasten the four screws located on the ICMP front side (ref 1 to ref 4).
  - 📄 **Note:** In order to distribute the tightening forces, please take care to follow a cross coupling when screwing: first screw in the upper left screw (ref 1) and the lower right screw (ref 4), then screw in the upper right screw (ref 2) and the lower left screw (ref 3).

ICMP installation in card cage:

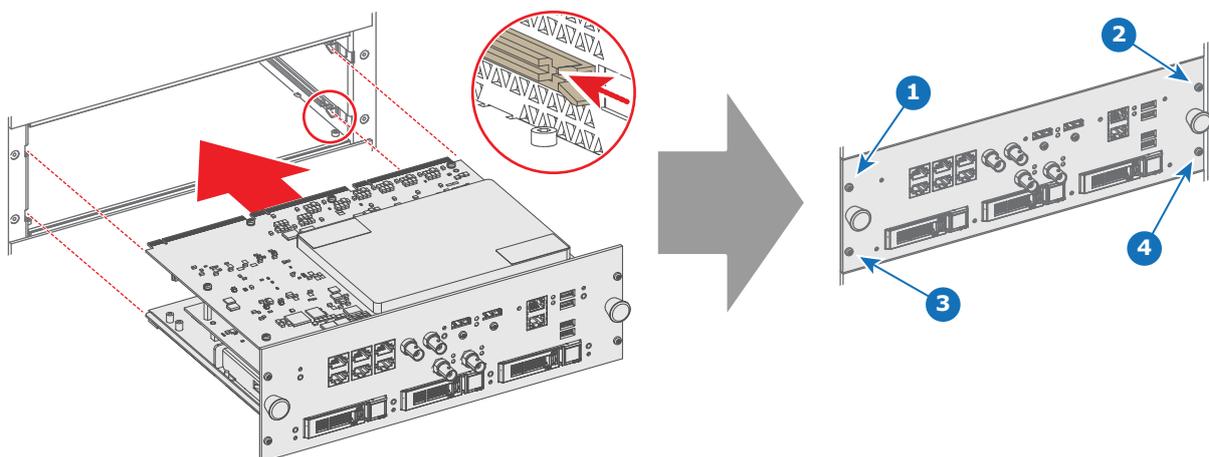


Image 4-2

4. Install the HDDs in case not yet installed. See procedure [“Installing a HDD into the ICMP”](#), page 28.
5. Install the cover of the Card Cage (not needed in case this is a DP2K S series projector). Use a 7 mm flat screwdriver.
6. Reconnect the power cord and switch on the projector.
7. Proceed with retrieving the device certificate from the ICMP for ordering the correct KDMs to play Digital Cinema Packages (DCPs). For detailed instructions see user guide of the (Web) Commander or (Web) Communicator.



Replacing the ICMP in the Card Cage of the projector will result in tamper events (service door tamper, insertion tamper). An authorization to clear the security warning on the projector, after installation, will be needed. You will find in the installation manuals of each projector the way to clear the security warnings.



In the ICMP, the content is stored on removable disks that allow fast recovery of this content if you have to replace the ICMP. See chapters [“Removing a HDD from the ICMP”, page 27](#), and [“Installing a HDD into the ICMP”, page 28](#). However, take into account that the matching KDM file must be ingested into the ICMP to play the cinema content (DCP file) available on the HDDs.



A newly installed ICMP has the factory settings. The ICMP software offers the ability to import setting parameters from a backup file. For detailed instructions see (Web) Communicator user guide.

## 4.3 Removing a HDD from the ICMP



In case the ICMP has to be returned to factory (e.g. for repair) the non defective HDDs should be removed and kept.

### How to remove a HDD ?

1. Switch off the projector.
2. Moving the latch towards the left.

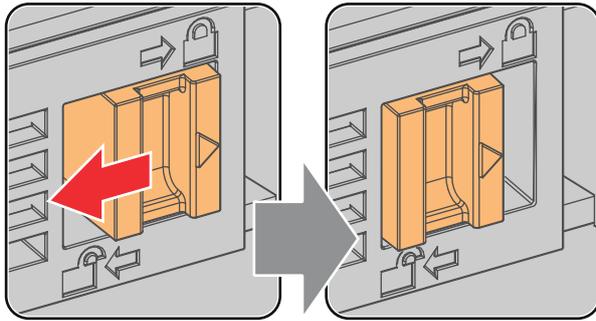


Image 4-3

3. Push the unlock button to open the handle.

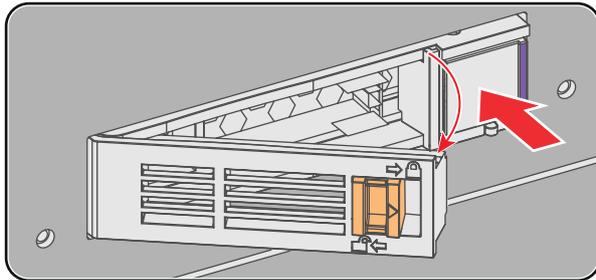


Image 4-4

4. Pull the HDD out of its slot.

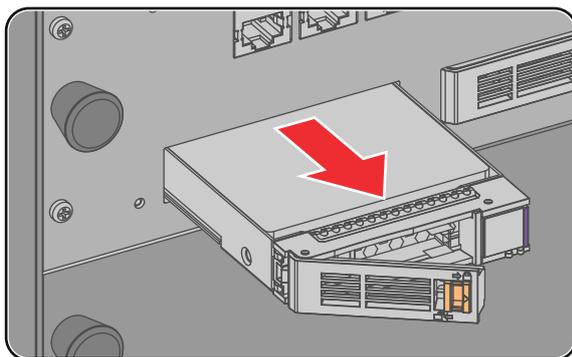


Image 4-5



To install an HDD, see the following procedure: [“Installing a HDD into the ICMP”, page 28.](#)

## 4.4 Installing a HDD into the ICMP



This procedure assumes that the HDD slot of the ICMP is empty. If not, see procedure [“Removing a HDD from the ICMP”](#), page 27.



**CAUTION:** Always use a new empty spare part HDD approved by Barco to replace a malfunction HDD. Do not use a HDD from another ICMP HDD set.



**CAUTION:** Always make sure that all HDDs in the ICMP HDD set have the same storage capacity. See label on top of the HDD to know the storage capacity.

### Re-initialization or rebuild of RAID

Installing or exchange one or several HDDs into ICMP has an impact on data presents on the already inserted drives. RAID integrity depends on the type of HDD swap. Refer to the chapter [“What are the possible HDD swaps”](#), page 30.

### How to install a HDD ?

1. Ensure that the projector is switched off.
2. Prepare the HDD for insertion by moving the latch towards the left and push the unlock button to open the handle.

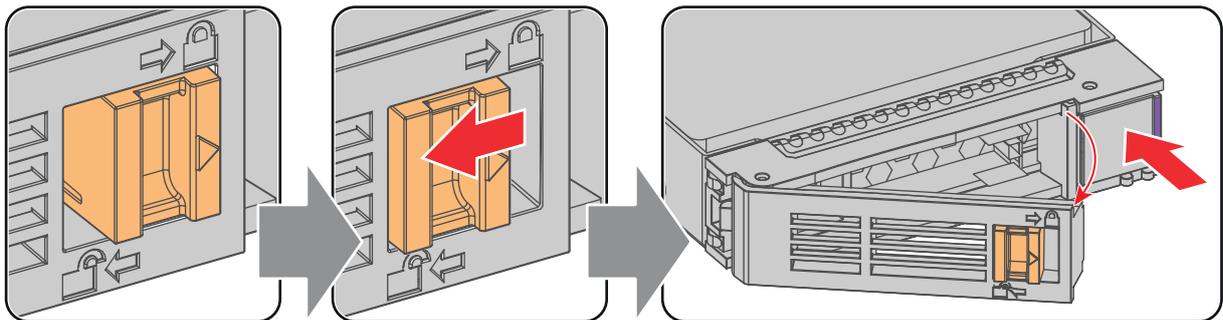


Image 4-6

3. Insert the HDD into the HDD slot. Ensure that the handle is sufficiently open so that the hook (reference 1) of the handle can pass the front plate of the ICMP.

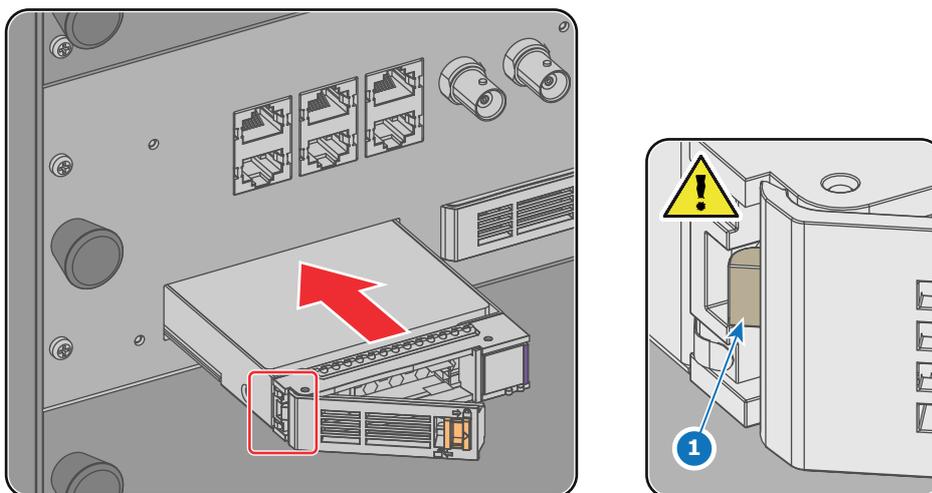


Image 4-7

4. Push the HDD completely and firmly inside its slot, close the handle, and move the latch towards the right.

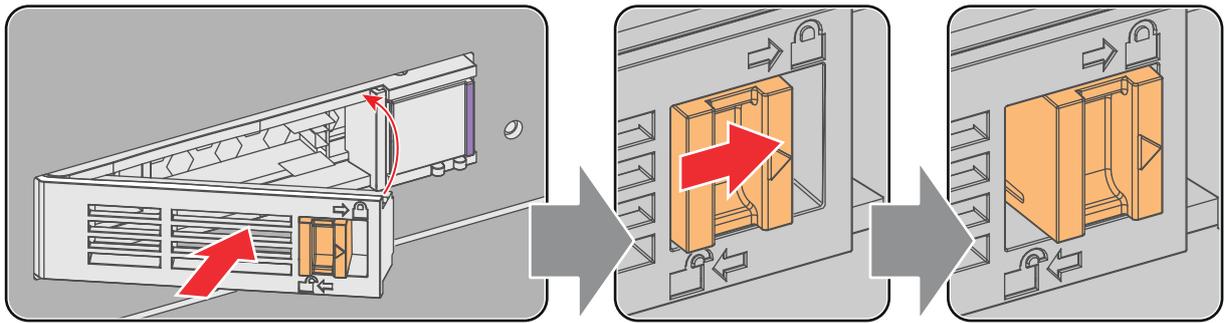


Image 4-8

5. Switch on the projector.



In case you replace one HDD (e.g. degraded mode) the ICMP automatically starts with the RAID recovery process. The red LED of the HDD which has to be rebuilt is blinking. This process takes about 200 GB per hour. Once the RAID is completed the red LED turns off.



**CAUTION:** It's strongly recommended to complete the RAID recovery process prior to starting a show. This to ensure that the content integrity is preserved and that the show is not interrupted.

## 4.5 What are the possible HDD swaps

### General

There are several possible scenarios for replacing (exchange) hard drives on the ICMP. The situation is different depending on the device type (ICMP or ICMP-X) and whether to replace one or more disks.

Continuity of data present on the disks is also impacted depending on the type of exchange. Degraded operation or RAID initialization may be required.

### List of available actions

The following table exposes all possible swaps available concerning HDDs on ICMP:



Replacing drives should always be done while the power is off.

Type of HDD swap	On ICMP	On ICMP-X
1 HDD replaced.	<ul style="list-style-type: none"> <li>Content is preserved.</li> <li>ICMP automatically starts rebuild.</li> <li>Process takes about 3-4 hours for 1TB HDD and could takes about 13-14 hours for 4TB HDD.</li> </ul>	<ul style="list-style-type: none"> <li>Content is preserved.</li> <li>ICMP-X automatically starts rebuild.</li> <li>Process takes about 3-4 hours for 1TB HDD and could takes about 13-14 hours for 4TB HDD.</li> </ul>
3 HDDs replaced separately (previous kit of one disk used three times).	<ul style="list-style-type: none"> <li>All content will be lost.</li> <li>RAID initialization need to be perform with Communicator.</li> <li>immediately usable after RAID initialization + restart (content can be ingested).</li> </ul>	<ul style="list-style-type: none"> <li>All content will be lost.</li> <li>RAID initialization need to be perform with Web Communicator.</li> <li>immediately usable after RAID initialization + restart (content can be ingested).</li> </ul>
Barco HDD replacement kit <b>without S4 ready sticker</b> (Spare part kit provided by Barco with a set of 3 hard disks configured to GEN1 storage controller).	<p>On an ICMP with GEN1 storage Controller:</p> <ul style="list-style-type: none"> <li>RAID initialization does not need to be performed.</li> <li>Content can be ingested immediately.</li> </ul> <p>On an ICMP with GEN2 storage Controller:</p> <ul style="list-style-type: none"> <li>Only usable after RAID initialization + restart.</li> <li>Content can be ingested immediately after restart.</li> </ul>	<ul style="list-style-type: none"> <li>RAID initialization needs to be perform with Web Communicator.</li> <li>immediately usable after RAID initialization + restart (content can be ingested).</li> </ul>
Barco HDD replacement kit <b>with S4 ready sticker</b> (New Spare part kit provided by Barco with a set of 3 hard disks configured to GEN2 storage controller).	<p>On an ICMP with GEN1 storage Controller:</p> <ul style="list-style-type: none"> <li>Only usable after RAID initialization with Communicator + restart (content can then be ingested immediately).</li> </ul> <p>On an ICMP with GEN2 storage Controller:</p> <ul style="list-style-type: none"> <li>RAID initialization does not need to be performed.</li> <li>Content can be ingested immediately after restart.</li> </ul>	<ul style="list-style-type: none"> <li>RAID initialization does not need to be performed.</li> <li>Content can be ingested immediately.</li> </ul>

Type of HDD swap	On ICMP	On ICMP-X
Set of 3 HDDs with content reused from an ICMP with GEN1 storage controller.	<p>On an ICMP with GEN1 storage controller:</p> <ul style="list-style-type: none"> <li>• Content is preserved but certificates (KDM) need to be re-ingested.</li> </ul> <p>On an ICMP with GEN2 storage controller:</p> <ul style="list-style-type: none"> <li>• All content will be lost.</li> <li>• Only usable after RAID initialization + restart (content can then be ingested immediately).</li> </ul>	<ul style="list-style-type: none"> <li>• All content will be lost.</li> <li>• Only usable after RAID initialization + restart (content can then be ingested immediately).</li> </ul>
Set of 3 HDDs with content reused from an ICMP-X.	<ol style="list-style-type: none"> <li>1. Unit is equipped with an GEN1 storage controller (default configuration): <ul style="list-style-type: none"> <li>- All content will be lost.</li> <li>- RAID initialization needs to be performed with Communicator.</li> </ul> </li> <li>2. Unit has been upgraded with a GEN2 storage controller (+ ICMP software 1.4.2 or higher is installed): <ul style="list-style-type: none"> <li>- Content is preserved but certificates (KDM) need to be re-ingested.</li> </ul> </li> </ol>	<ul style="list-style-type: none"> <li>• Content is preserved but certificates (KDM) need to be re-ingested.</li> </ul>

## 4.6 Battery measurement



**CAUTION:** Wear a wrist band which is connected to the ground while handling the electrostatic discharge sensitive parts.

### Important notice

Battery has a key role in the protection of security data within the ICMP. Please, before any action on the battery, refer to the chapter [“Introduction of ICMP battery”, page 16](#). This section contain important information concerning battery life time, electric and electrostatic recommendations.

### Required tools

Voltage meter

### How measure voltage of battery

1. Remove the ICMP from the projector and put it on a stable (solid), flat and insulated support. For details on the removing procedure, refer to chapter [“Removing the ICMP”, page 24](#).

2. Use voltage meter to measure the voltage of the battery:

Point one probe on the battery through its cover (do not remove battery cover to measurement the voltage), then point the other probe on an electronic contact of the printed circuit located on the side of the ICMP board.

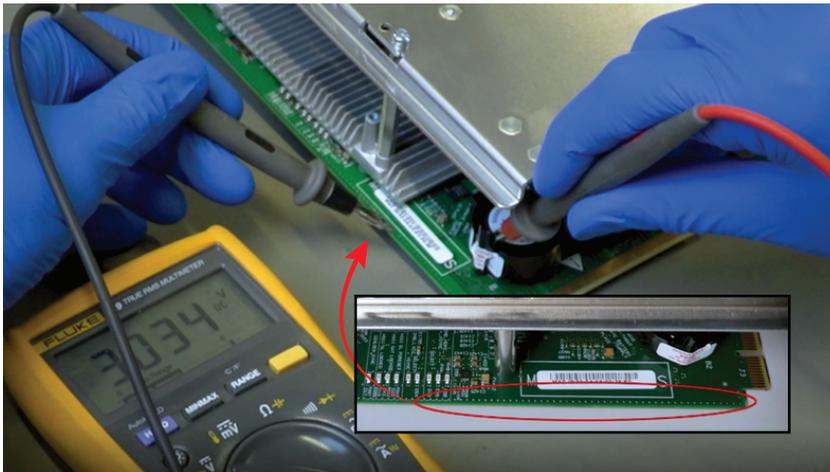


Image 4–9 ICMP battery measurement

Measured voltage is displayed on the LCD display of the voltage meter.

## 4.7 Replacement of the battery



**CAUTION:** Wear a wrist band which is connected to the ground while handling the electrostatic discharge sensitive parts.



A video "How to replace the battery of an ICMP/ICP-D" is available on the web page related to ICMP. Use your credentials to log into the Barco website.

It's highly recommended to watch the video of the battery replacement prior to start with the replacement procedure. Follow each step of the procedure precisely to prevent irreversible damage of the ICMP.

### Important notice

Battery has a key role in the protection of security data within the ICMP. Please, before any action on the battery, refer to the chapter "[Introduction of ICMP battery](#)", page 16. This section contain important information concerning battery life time, electric and electrostatic recommendations. ICMP is particularly exposed to electrical short-circuits during replacement procedure, so this is the reason why we remind you that only certified and authorized service technicians may replace the Battery of the ICMP.

This procedure must also be used with ICMP units that have been in stock for more than 5 years.

### Technical description of the battery

Model: CR2477N 3V Lithium Battery.

Dimensions:

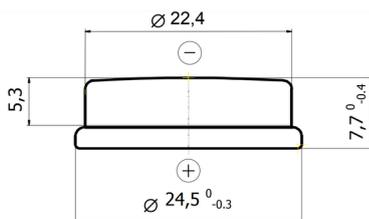


Image 4–10

Please, use only battery types recommended by Barco. Other batteries might slightly have different shape, thickness or electrical characteristics that could impact lifetime, quality or security of the ICMP.

It's strongly recommended to use the ICMP battery kit provided by Barco, or one of following types:

- Renata CR2477N
- Panasonic CR-2477/BN

Battery types in this list are given for information only. This list is subject to change. Please contact Barco service to obtain the updated list of supported battery types.

### What has to be done? (procedure overview)

Once the ICMP card is removed from the projector (refer to chapter "[Removing the ICMP](#)", page 24 ), you must:

- Remove the cover from the battery slot.
- Insert the new battery in the empty slot.
- Remove the old battery.
- Replace the cover.
- Write the insertion date (MM/YY) on the sticker.



**CAUTION:** Danger of explosion when replaced with wrong type of battery. Replace the battery only with a 3V Lithium battery which has the same CR2477N (or equivalent type recommended by Barco).



**CAUTION:** Always leave a working battery on the ICMP card. Removing all the batteries at the same time will cause immediate failure of the card and the only way to recover the functionality of the card is the return it to the manufacturer.

## Required tools

- Pen to write the date on the sticker (not included in the replacement kit that Barco offers).
- Cleaning alcohol or isopropanol with soft cloth (not included in the replacement kit that Barco offers).
- 5 cm of plastic (insulating) tube (Supplied in the replacement kit).
- Plastic (insulating) strip (Supplied in the replacement kit).
- Pair of insulating gloves (Supplied in the replacement kit).
- Anti-static placement and ESD wrist band (not included in the replacement kit that Barco offers).
- Voltage meter (not included in the replacement kit that Barco offers).

## Required parts

- CR2477N 3V Lithium Battery (Supplied in the replacement kit).
- 2 optional Tamper evident stickers (not included in the replacement kit that Barco offers for security reasons).



Before installing, it's interesting to read the date on the packaging to verify if the new battery is not over-aged and already depleted. It's also good practice to check if the voltage measured across the battery is at least 3.2v. Checking these points will guarantee you a minimum additional life of 5 years !

## Preparation

1. Wear insulating gloves (reference 1) and follow all ESD protection warnings.

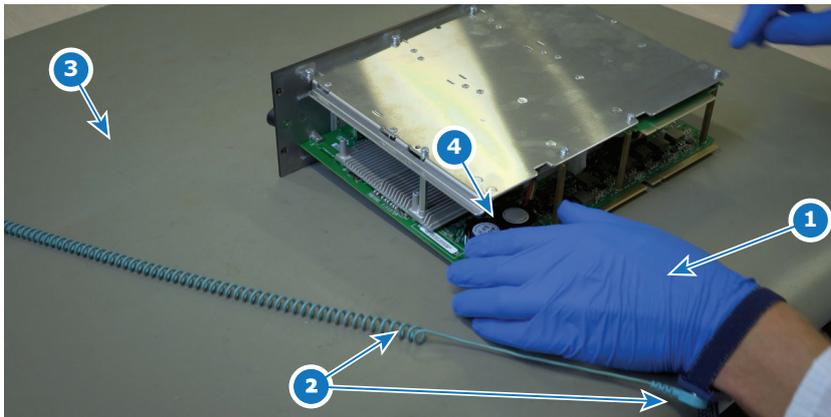


Image 4-11

- 1 Insulating gloves
- 2 ESD wrist band
- 3 Anti-static placement
- 4 ICMP battery

2. Place the ICMP on a stable (solid), flat and insulated support (reference 3). Flip that board upside-down and place the back of the board in front of you.
3. Locate the batteries slots on the board (reference 4).
4. Measure the battery voltage. For details on the voltage measurement procedure, refer to chapter "[Battery measurement](#)", page 32.

This step is recommended for ICMP units that have been in stock for more than 5 years: these units do not work but they are also not powered by the projector. You need replace the battery if the voltage is less than 2.8V. Otherwise, it is better to wait another year if the unit will not immediately used.

For ICMP units in use in a projector, this step is optional because the system has already detected a too low battery voltage and you need exchange it with a new one.

5. Measure the new battery.



Image 4–12

If the voltage of the new battery is higher than 3V then you can proceed with the replacement of the depleted battery (follow the instructions of the battery swap procedure exactly).

Do not initiate replacement procedure with new battery if the measured voltage is under 3V.



**CAUTION:** Never place the ICMP on a conductive surface. This to avoid short circuits and an empty battery.



It is recommended to hold the ICMP card against a heavier object during the execution of the procedure in order to facilitate handling: Remove or put a battery sometimes requires exercising pressure on the card.

## How to replace the ICMP battery

1. Remove the cover from the battery slot by apply a little pressure on the two hooks situated on either side of the cover.

This action that give direct access to the battery, will break the tamper evident stickers. New tamper evident stickers must be applied after new battery is installed.

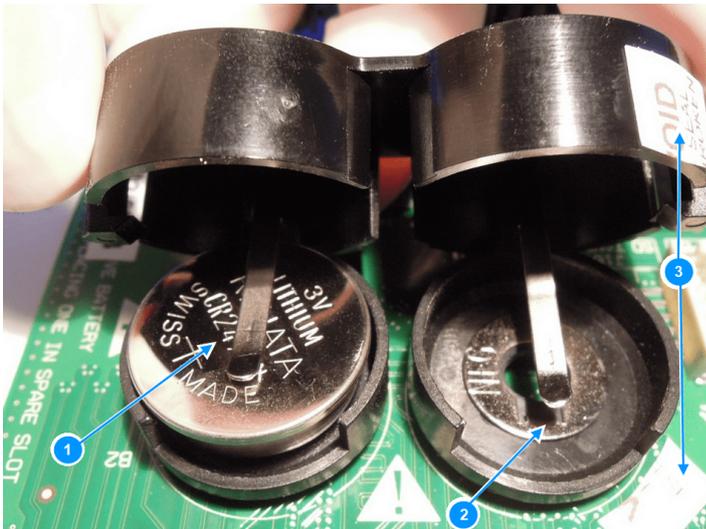


Image 4–13

- 1 Battery slot with battery inside
- 2 Empty battery slot
- 3 "Tamper evident" sticker cut in two parts.

2. Regardless of the battery slot (right or left), one of them already contains the old battery. Clean the electronic contacts of the empty battery slot with alcohol or isopropanol. Moisture might have effected the contact points towards the battery!

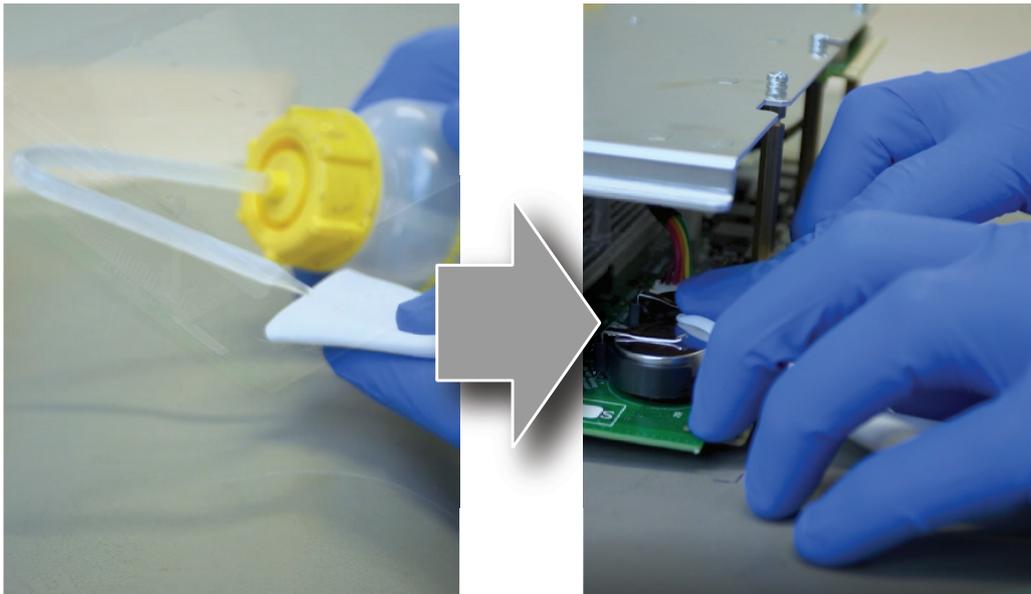


Image 4-14

**⚠ Warning:** Be very careful NOT to push the top electronic contact down to the bottom, otherwise you shorten the battery from the other slot and loose immediately the certificates of the ICMP.

3. If not already done, remove the protective foils from the plastic isolation strip (both sides) to make it transparent.

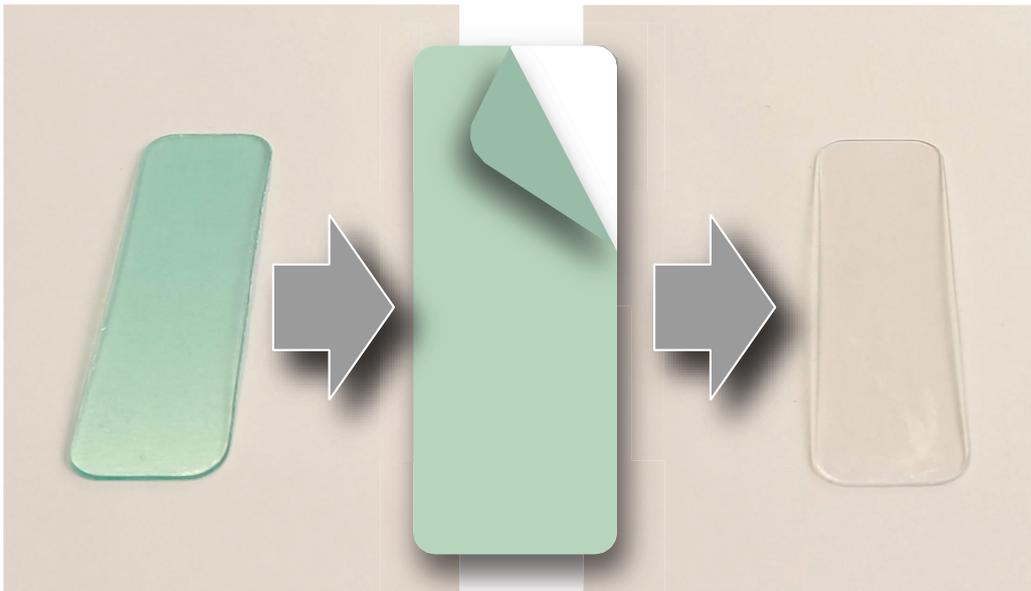


Image 4-15

4. Place the plastic isolation strip on the negative contact of the empty slot, and insert the plastic tube on the positive one.

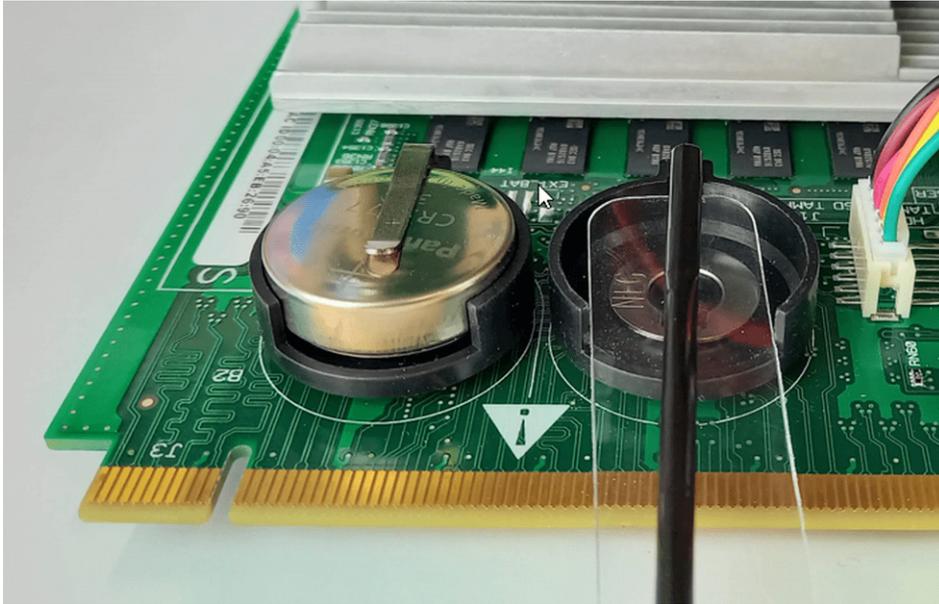


Image 4-16

- ⚠ **Caution:** Always keep the old battery in place until the new one is fully installed (correctly positioned with plastic tube and the plastic isolation strip removed).

5. Put the new battery in the empty slot.

- 👉 **Tip:** By introducing the battery on the front of the slot (where the edge is less high), you need to tilt less the battery and prevent short circuit the + and – contacts if battery angle would be inserted too steep.

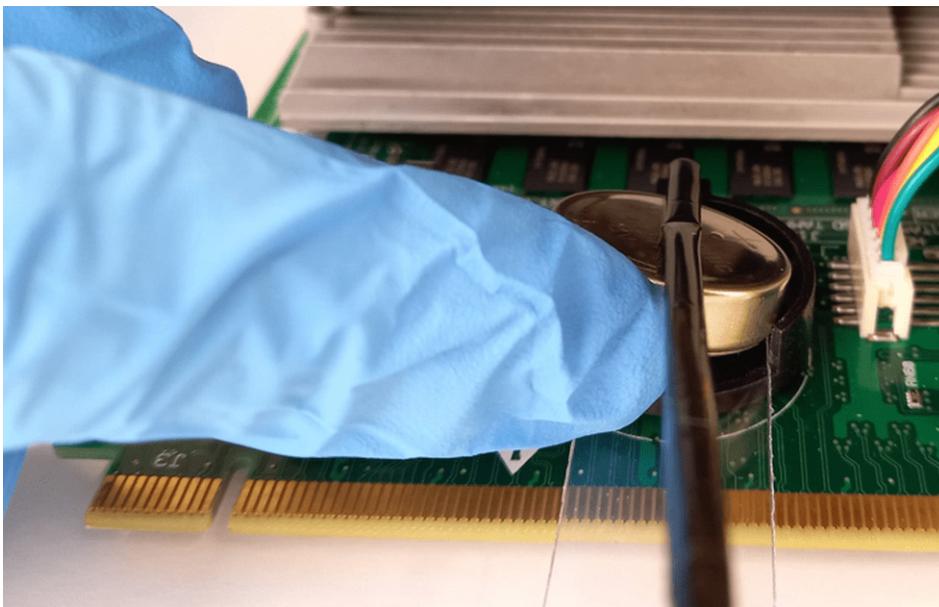


Image 4-17

- ⚠ **Caution:** CAUTION: Please insert the new battery in the correct orientation! References should be facing up.



Image 4-18

Now, there is one battery in each battery slot:

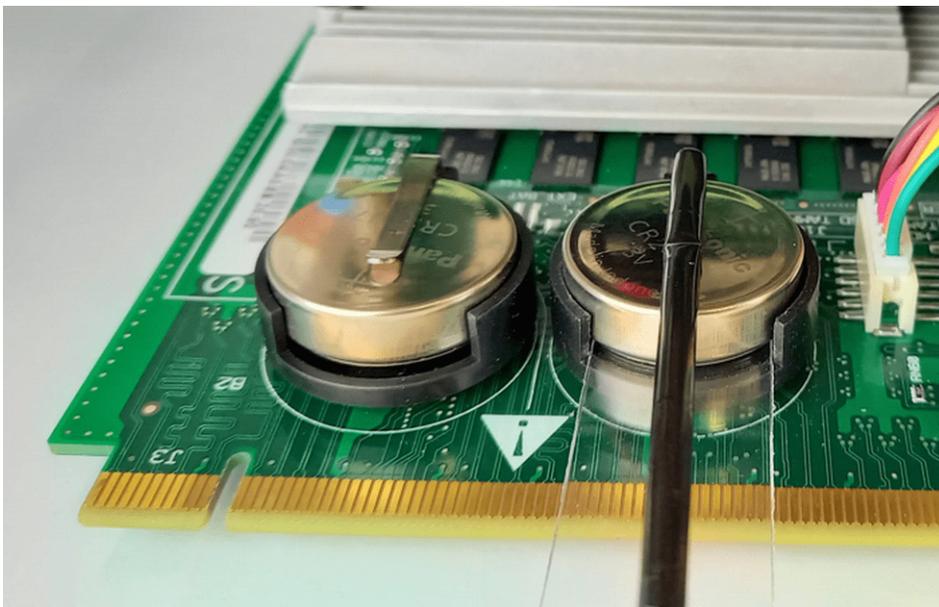


Image 4-19

6. Remove plastic isolation strip from the bottom of the battery, then gently remove the piece of plastic tube backwards in one slow move, avoid bouncing of the contact on the battery.



Image 4-20

7. Place the plastic isolation strip over the negative contact of the other slot (under the old battery), and insert the plastic tube on the positive contact (upper the old battery).



Image 4-21

8. Remove the old battery.
  - ⚠ **Caution:** Be very careful not to touch the two connectors (positive / negative) in the battery slot with the battery or any other metallic objects. A short circuit between the two connectors would cause immediate failure of the card.



Image 4-22

 *Note:* Do not bend the top contact too high during this operation.

9. Remove plastic isolation strip and the plastic tube.  
Only the new battery remains. The other slot must be empty.

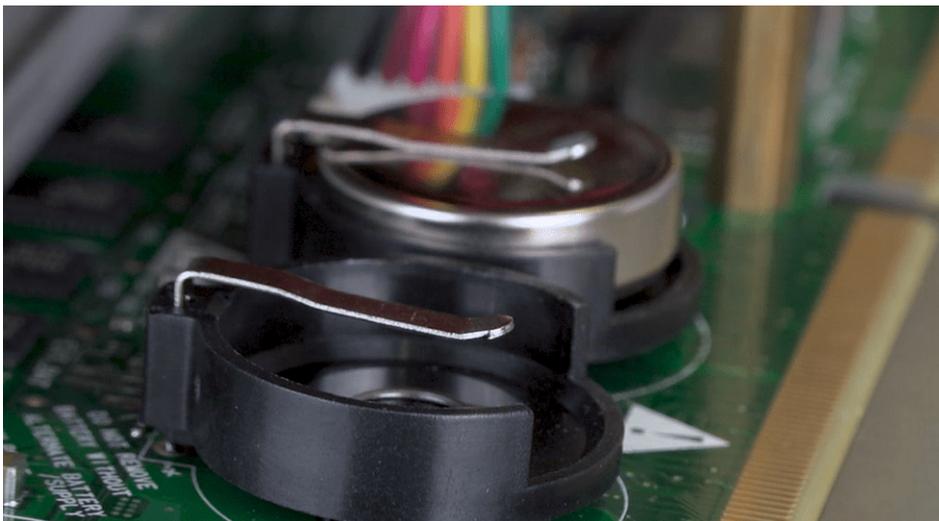


Image 4-23

10. Place the cover on the battery slot.

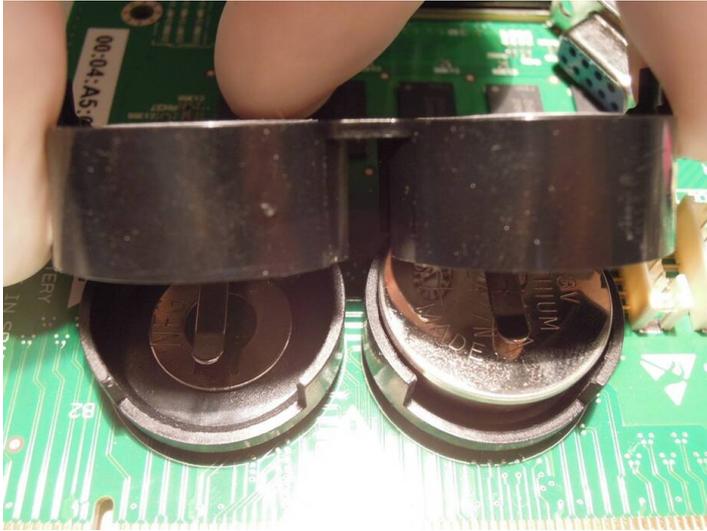


Image 4-24

11. Place two new tamper evident stickers between the cover and the card. Ensure that the tamper evident stickers do not cover the gold plated contacts of the printed circuit board.



Image 4-25

12. And finally, strike out the old insertion date on the cover and write the new one (MM/YY) on the empty location.



Image 4-26

## 4.8 Exchange storage controller process overview

### Important notice

There are two types of storage controllers with similar appearances:

- **Storage controller generation 1 (GEN 1)**, with a hardware RAID controller included. The old generation of ICMP is provided by default with this type of storage controller. New ICMP-X can't use this type of controller.
- **Storage controller generation 2 (GEN 2)**, without hardware RAID controller included (RAID is assumed by software). This type of storage controller support traditional hard drives (HDD) and solid state drives (SSD). Storage controller GEN 2 type is mandatory in ICMP-X, but it might find in old generation of ICMP after a hardware upgrade.

An upgraded ICMP with GEN 2 storage controller has a label "SSD READY - RAID GEN2" applied on front panel under the Barco logo. This sticker comes with the upgrade kit; it will only be there when the "upgrader" applied it.



Image 4–27 "SSD READY - RAID GEN2" label

### What is possible

There are two possibilities of exchange:

- **perform a standard exchange** of the failed controller (GEN 1 or GEN 2) in the field with an identical model. This operation is available on both models of ICMP.
- **perform an hardware upgrade** of storage controller GEN 1 with storage controller GEN 2 on an old generation of ICMP.



Replace a storage controller GEN 2 with a storage controller GEN 1 (hardware downgrade) is not allowed.



No content is lost, and no new certificate (KDM) is required when replacing a controller with an identical model.



Re-use old HDDs is possible after an hardware upgrade but it is necessary to perform a RAID initialization with (Web) Communicator, the Barco projectors configuration software. RAID initialization command erases any data present on the HDDs and the old content will be lost.

Refer to Barco website to ordering the Barco ICMP storage controller kit corresponding to the action you need perform.

### Operating time

Depending on operation type you need to perform:

- Standard exchange with identical model should take approximately 30 minutes because this action doesn't affect the content of the HDDs. There is no extra time wasted to recovering content.
- Perform an hardware upgrade of ICMP old generation take more time. A "RAID initialization" must be done and content re-loaded.



**CAUTION:** Applying next steps of this procedure without removing the hard disks may lead to severe damages of the system.

### Process to replace/upgrade storage controller

1. Remove the 3 hard disks. For details on the removing procedure, refer to chapter "[Removing a HDD from the ICMP](#)", page 27.

2. Remove the ICMP from the projector. For details on the removing procedure, refer to chapter “[Removing the ICMP](#)”, page 24.
3. Gain access to the storage controller board. For details, refer to chapter “[Gain access to the storage controller board](#)”, page 45.
4. Replacing storage controller board. For details, refer to chapter “[Replacing storage controller board](#)”, page 47.
5. Reassemble the ICMP. Follow steps of procedure used to access to storage controller board in reverse order. Refer to chapter “[Gain access to the storage controller board](#)”, page 45.
6. Installing the ICMP into the projector. For details on the ICMP installation procedure, refer to chapter “[Installing the ICMP](#)”, page 25.
7. Install the 3 hard disks. For details on the HDDs installation procedure, refer to chapter “[Installing a HDD into the ICMP](#)”, page 28.

 *Note:* it's not important in which slot or order you insert these 3 hard disks.

8. Power up the projector and check if the latest version of ICMP software package is installed. Refer to the (Web) Communicator user guide for further information.

 *Note:* GEN 2 storage controller is supported from version 1.4.2 onwards.

9. Depending the projector type removal of the ICMP from the card cage has resulted in a tamper event (service door tamper or insertion tamper). Before you can start playing content, you need to clear the error (use Dallas key, the Key button or marriage pin code depending on the type of projector). Refer to the related projector installation manual.

10. Is this an upgrade form GEN 1 storage controller to GEN 2 storage controller?  
YES: Perform 2 following actions.

- Add the label RAID GEN2 on the ICMP front panel (under the Barco logo) to indicate that the storage controller was upgraded.

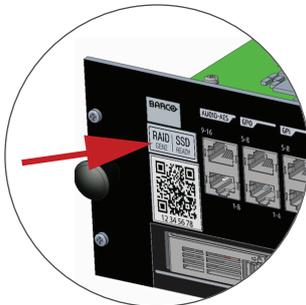


Image 4-28

- Perform a “RAID Initialize”. Refer to the Communicator user guide for further information.

## 4.9 Gain access to the storage controller board



**WARNING:** Power down the projector and let it cool down before starting the installation procedure. You will find in the installation manuals of each projector the way to switch off your installation.



**CAUTION:** Wear a wrist band which is connected to the ground while handling the electrostatic discharge sensitive parts.

### Prerequisites

This procedure assumes:

- the ICMP is removed from the projector and placed on a stable (solid), flat and insulated support.
- the 3 hard disks are removed from ICMP and put aside for future use.

### Necessary tools

- Torx screwdriver T10
- Torx screwdriver T15
- Phillips screwdriver PH2
- ESD wrist strap
- Anti-static mat



**CAUTION:** Applying next steps of this procedure without removing the hard disks may lead to severe damages of the system.

### How to access to storage controller board

1. Put the ICMP upside down in order to access the underside of the device.
2. Separate from the device the module constituted by constituted by metal plate, hard disk backplane and security board:
  - loosen the 4 x T15 screws
  - remove 2 of the 3 long spacers that hold the security board with 5 x T10 on the metal plate, as shown in [Image 4–29](#).

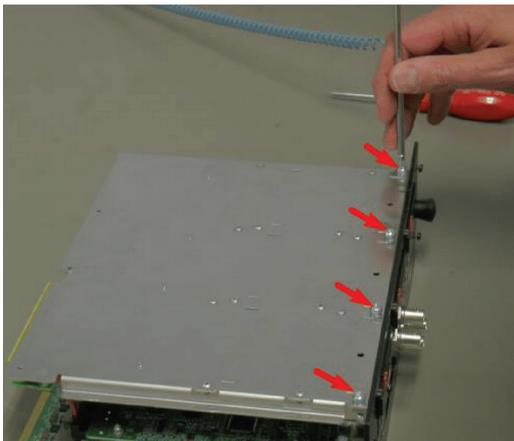
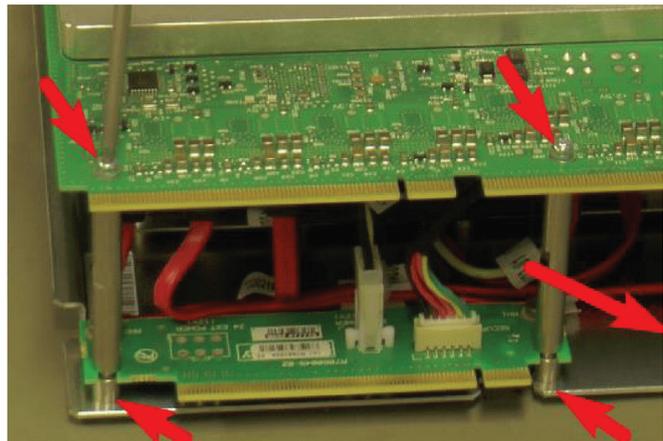


Image 4–29



3. Remove the 2 long spacers as shown in [Image 4–30](#). For this you need to loosen 5 x T10 screws.



Image 4–30

4. Carefully, put the bottom part of the ICMP upwards, as shown on [Image 4–31](#).
  -  *Tip:* It is recommended hold this part against a heavier object during the execution of the rest of procedure in order to ensure stability.



Image 4–31

5. Storage controller is now accessible.

## 4.10 Replacing storage controller board



**WARNING:** Power down the projector and let it cool down before starting the installation procedure. You will find in the installation manuals of each projector the way to switch off your installation.



**CAUTION:** Wear a wrist band which is connected to the ground while handling the electrostatic discharge sensitive parts.

### Prerequisites

This procedure assumes:

- full access to the storage controller (see procedure “[Gain access to the storage controller board](#)”, page 45).
- to be in possession of the Barco ICMP storage controller kit corresponding to the action that will be performed (upgrade or exchange).

### Necessary tools

- Torx screwdriver T10
- Torx screwdriver T15
- Phillips screwdriver PH2
- ESD wrist strap
- Anti-static mat

### How to remove storage controller board

1. Disconnect the 3 x SATA connectors from the storage controller (references 1, 2 and 3).

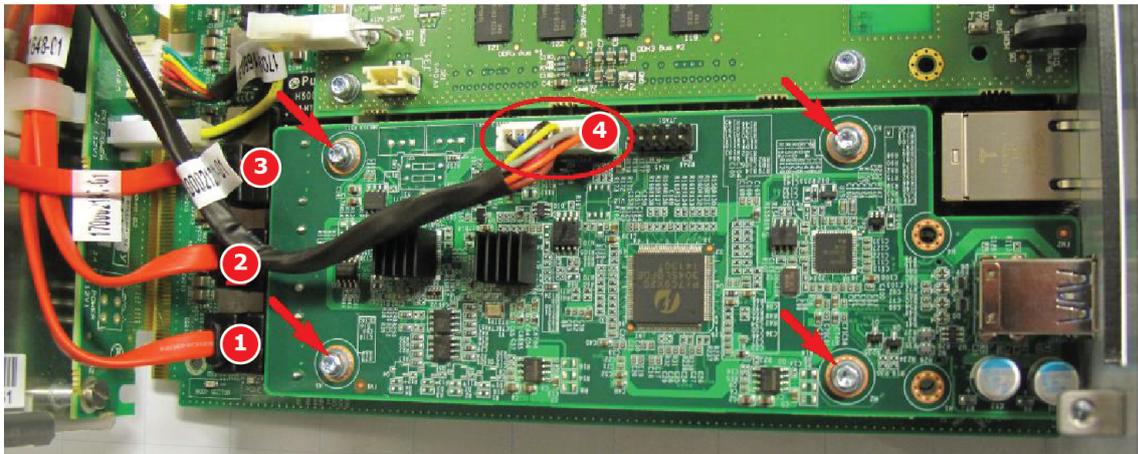


Image 4-32



*Tip:* To disconnect SATA connectors, you have to press the clips at the bottom of every connector.

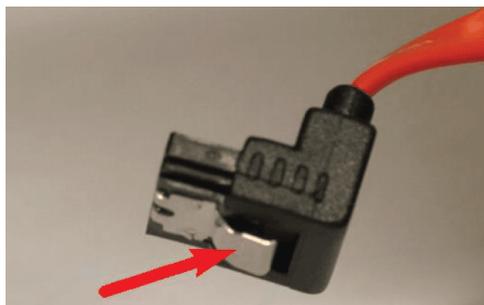


Image 4-33

2. Remove white connector (reference 4 in [Image 4-32](#)) from the storage controller.

3. Loosen the 4 x T10 screws that maintain the storage controller in place.
4. Remove storage controller board from the device.

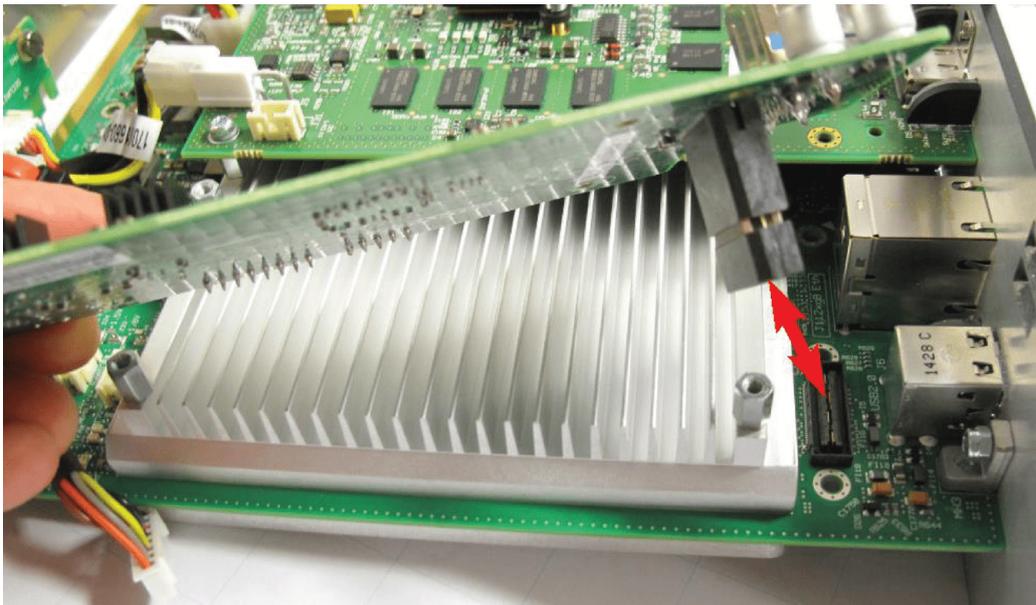


Image 4-34

### How to install storage controller board

1. Click in the white connector on the new storage controller (reference 4 in [Image 4-32](#)) before placing back the board on the main ICMP board.

**Warning:** Neglecting to click on that white connector might bend and damage the new storage controller.

2. Position the new storage controller on the ICMP module. Be careful with the connector between the main ICMP board and the storage controller ([Image 4-34](#)).
3. Tighten the 4 x T10 screws on the storage controller to lock them together.
  - 📄 *Note:* If you use a dynamometric Torx T10, you can setup this to a torque of 1 Nm.
4. Connect the 3 SATA connectors (references 1, 2 and 3 on [Image 4-32](#)).

## 4.11 Replacing internal cable set



**WARNING:** Power down the projector and let it cool down before starting the installation procedure. You will find in the installation manuals of each projector the way to switch off your installation.



**CAUTION:** Wear a wrist band which is connected to the ground while handling the electrostatic discharge sensitive parts.

### Overview

The goal of this procedure is to explain how to exchange internal cables connected between the disks backplane and the ICMP main board.

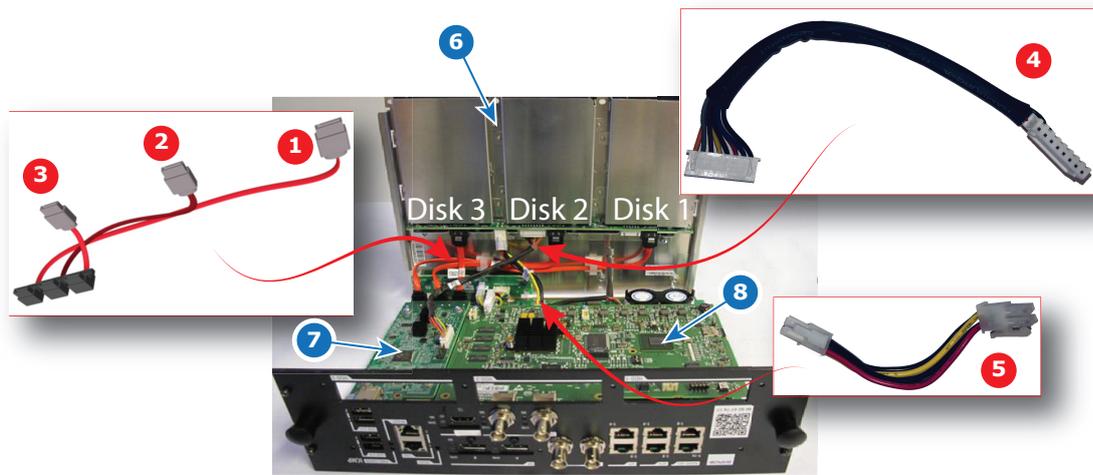


Image 4–35

Disk plate (reference 6) consists in a group three disks located on metal plate and linked together by a backplane. Power supply of this assembly is supplied by a short power cable (reference 5) that connects the backplane to the ICMP main board (reference 8).

Storage controller board (reference 7) is plugged on the main board (reference 8). This card manages the disks with a control cable (reference 4) plugged between the top of storage controller board and the disks backplane.

Data transfer is realized with three SATA cables (reference 1, 2, and 3) plugged between the back of storage controller board and the disks backplane.

SATA cables must be connected as shown in the following drawing.

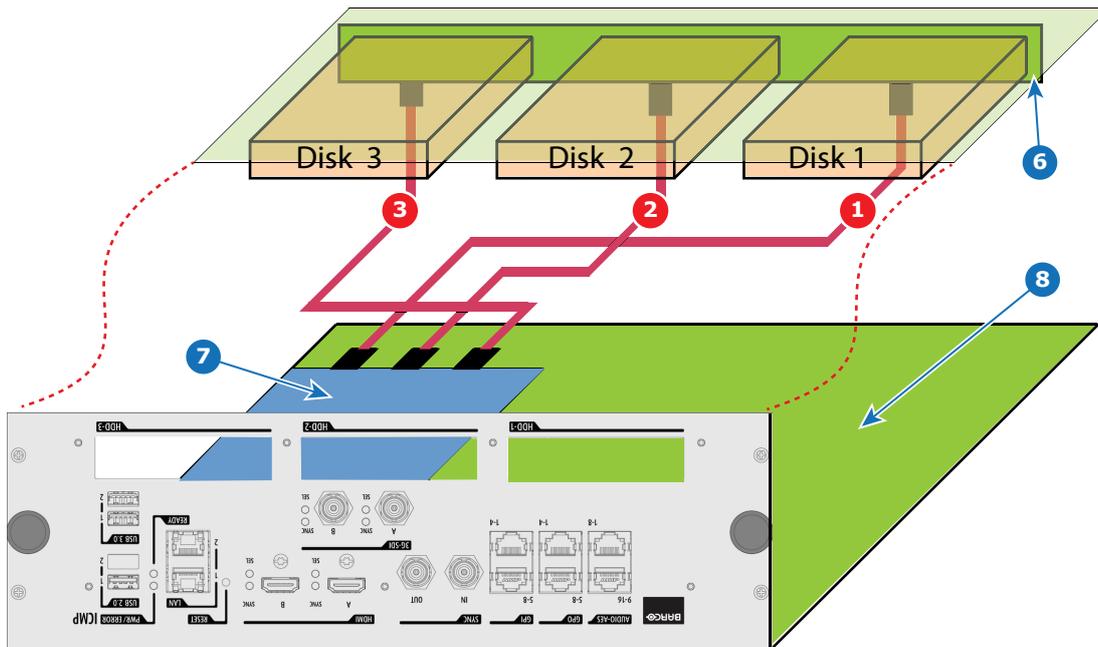


Image 4–36

The length of these three SATA cables are different to avoid connection errors:

- The longest SATA cable (reference 1) must connect the Disk 1 to storage controller via the connector closest to the side of ICMP.
- The medium SATA cable (reference 2) must connect the Disk 2 to storage controller via the connector located in the center.
- The shortest SATA cable (reference 3) must connect the Disk 3 to storage controller via the connector closest to the middle of ICMP.



To disconnect SATA connectors, you have to press the clips at the bottom of every connector.

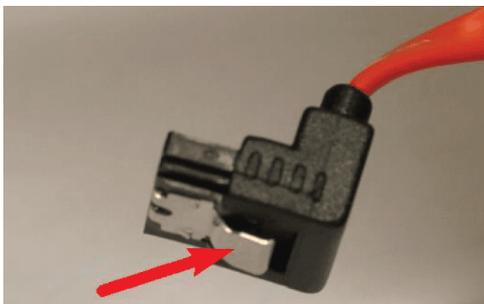


Image 4–37

## Prerequisites

This procedure assumes:

- full access to all cable connectors by Disks plate removal (see procedure “[Gain access to the storage controller board](#)”, page 45).
- to be in possession of the Barco ICMP internal cable set kit corresponding to the exchange action that will be performed.

## Necessary tools

- Torx screwdriver T10
- Torx screwdriver T15
- Phillips screwdriver PH2
- ESD wrist strap
- Anti-static mat

## How to replace internal cable harness

1. Disconnect the 3 x SATA connectors (reference 1, 2 and 3), the control cable (reference 4) and the power cable (reference 5) from the backplane.

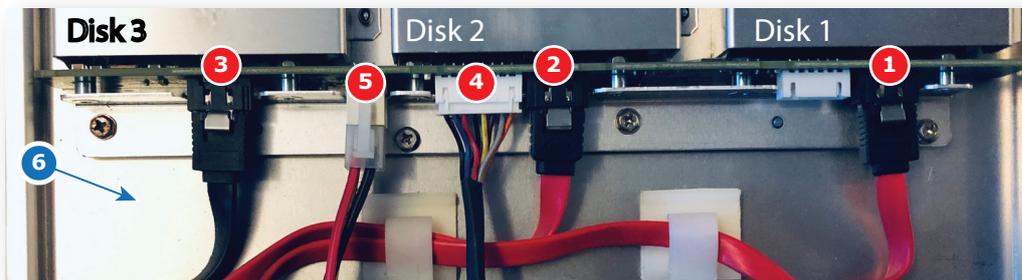


Image 4-38

2. Disconnect and remove the SATA cables (reference 1, 2, and 3) and the Control cable (reference 4) from the storage controller board (reference 7) then disconnect and remove the power cable (reference 5) from the ICMP main board.

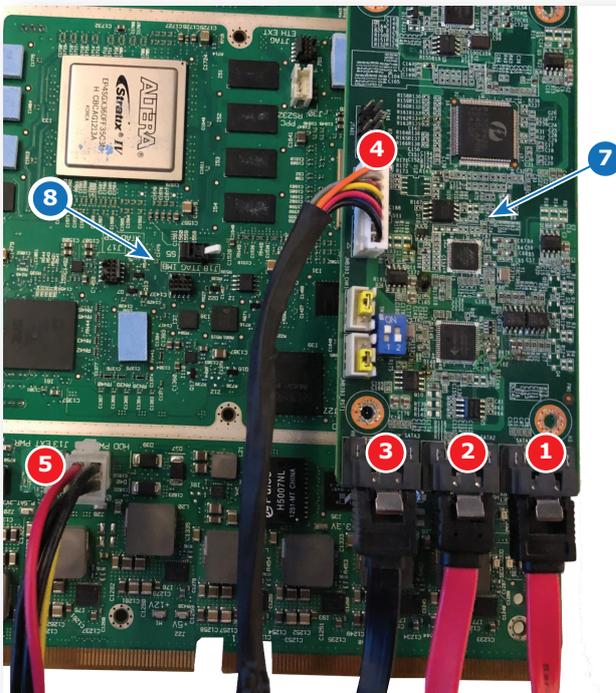


Image 4-39

3. Follow previous steps in reverse order to install the news cables then reattach the disks plate on the ICMP assembly.

## 4.12 Cleaning electronic contacts



**CAUTION:** Wear a wrist band which is connected to the ground while handling the electrostatic discharge sensitive parts.

### What has to be done?

Once the ICMP card is removed from the projector, you need to clean the connectors which are located at the back of the ICMP, in order to remove dirt, oil, grease, metallic oxides (caused by corrosion and moisture) from electronic contacts (golden contacts).

### Operating time

Cleaning the electronic contacts, between ICMP board removal from the projector and ICMP board installed back and operating, should take approximately 20 minutes.

### Required tools

- Several cotton tips (Q-Tips) or a soft and non-fluffy cloth.
- Isopropyl (IPA) alcohol (>91%) in a small bottle or in Aerosol.
- ESD wrist band

### Preparation

1. Connect and wear the ESD wrist band.
2. Remove the ICMP from the projector and put it on a stable (solid), flat and insulated support (see ICMP removing procedure)
3. Locate the connectors (golden contacts) on the board.



Image 4-40



**CAUTION:** Never place the ICMP on a conductive surface. This to avoid short circuits and an empty battery.

### How to clean the ICMP contacts

1. Depending on the alcohol container and the cleaning support you have chosen:  
Put a few drops of alcohol onto a cotton tip (Q-tip),

or

spray it on a soft and non-fluffy cloth.



Image 4-41

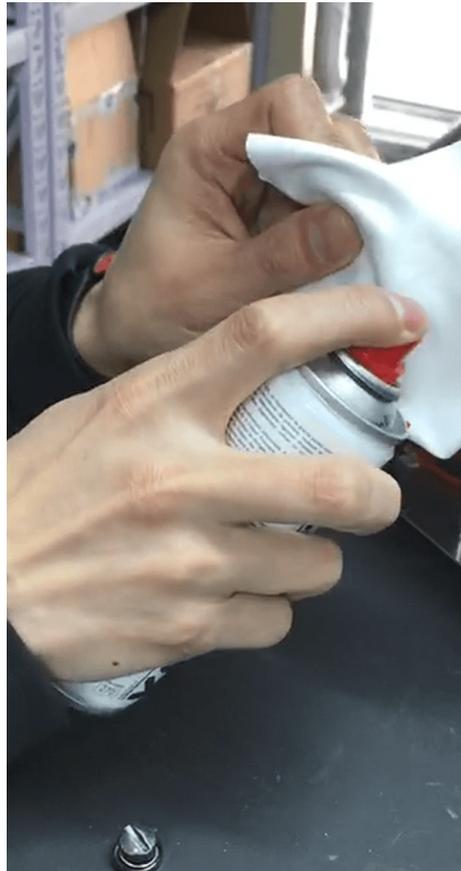


Image 4-42

2. Carefully brush the golden contacts according to the following rules:
  - Make sure to stay on golden contacts. Avoid to put alcohol on the rest of the board (especially not the components).
  - Avoid to transfer dirty and grease on the other contacts: if you use a Q-tip, do not hesitate to change when it is dirty, or if you use a light cloth, change of location on the cloth.
  - After cleaning a contact with alcohol do not touch it with your fingers. The oils from your fingers can leave a residue that will dirty the contact again.
  - Always try to follow the contact orientation with Q-Tip (or the light cloth) during the cleaning operation to avoid to transferring dirty and grease on the other contacts. This technique also has the advantage of not leaving fluff on the contacts.

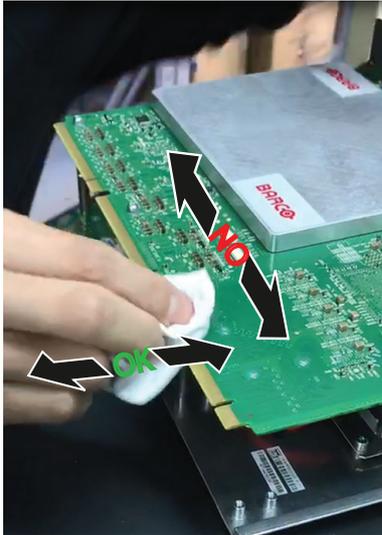


Image 4-43

- Be sure to clean all connector surfaces. The top side is clearly accessible but it is important not to forget the front side and the bottom side.

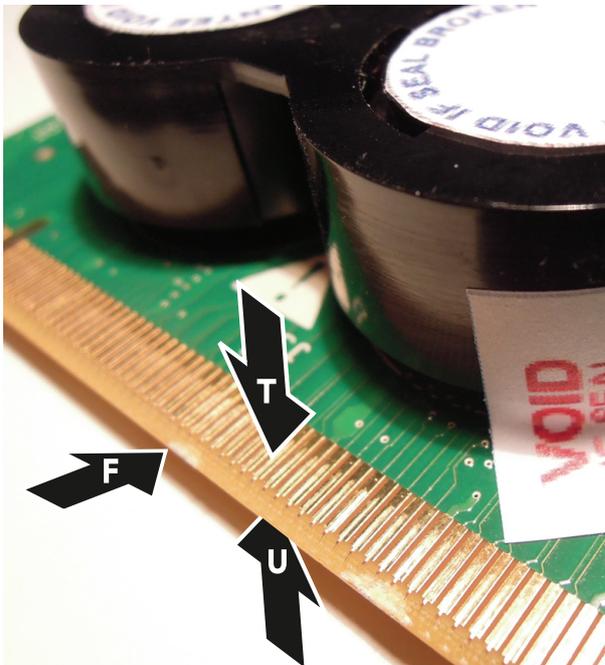


Image 4-44

- T** Top side
- F** Front side
- U** Bottom side

-  **Note:** Pay particular attention to the area indicated below. This is the part of the connector where the most part of data is transferred. It is very important to correctly clean this area.

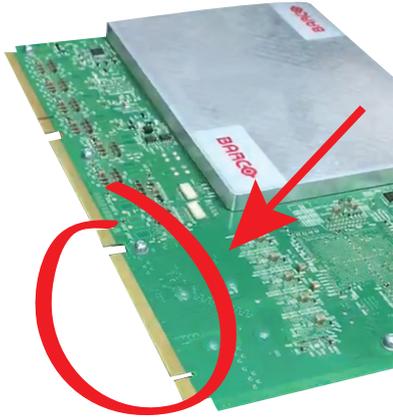


Image 4-45

3. Wait until the connector surfaces are completely dry before re-install the ICMP into the card cage of the projector.



# Troubleshooting

# 5

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## About this chapter

This chapter enumerates all ICMP related error codes which can appear on the Touch Panel display of the cinema projector or in the projector log files. Note that some codes have a warning and an error state. Some only have an error state, others have only a warning state. In case of a “warning” the projector remains to operate. Nevertheless, it is recommended to solve the problem which causing the “warning” as soon as possible otherwise, the “warning” state may turn into an “error” state which will switch off the projector consequently. In any case status of the device is indicated by the front panel LEDs (see below the section dedicated to the Front Panel LED errors).

The codes are placed in ascending order to make it easier to look up the code and find an appropriate solution.

## 5.1 Front Panel LED errors

### General

LEDs on ICMP front panel give information on the status of the device. Status LEDs are described in section [“ICMP status LEDs”, page 13](#).

The situations described in this section may be encountered when using the unit.

### Power-up troubles

Situation	Solution
Upon power-up the module doesn't reach the normal mode (green static LEDs) or the degraded mode (green and orange static LEDs) within 15 minutes. (Web) commander and (Web) Communicator GUIs are unresponsive.	Attempt to reboot the module to fix the problem. If the problem persists the module must be replaced.

### Update troubles

Situation	Solution
After an update, the module stays blocked on the status “update ongoing” or “update done” during at least 15 minutes.	Attempt to reboot the module to fix the problem.

## 5.2 Troubleshooting checklist

### Code DOC-CX10003: “system - error on power good” (Error)

Situation	Solution
The power monitoring system detected a problem on the power.	Restart the projector. If the problem persists, escalate the issue including a log package from the system.

### Code DOC-CX10004: “system - error on power sequencer” (Error)

Situation	Solution
The power monitoring system detected a problem in the power sequencer.	Restart the projector. If the problem persists, escalate the issue including a log package from the system.

### Code DOC-CX10005: “system - error on 0.9V power” (Error)

Situation	Solution
The power monitoring system detected an excursion on the 0,9V power line.	Restart the projector. If the problem persists, escalate the issue including a log package from the system.

### Code DOC-CX10006: “system - error on 2.5V power” (Error)

Situation	Solution
The power monitoring system detected an excursion on the 2,5V power line.	Restart the projector. If the problem persists, escalate the issue including a log package from the system.

### Code DOC-CX10007: “system - error on 3.3V power” (Error)

Situation	Solution
The power monitoring system detected an excursion on the 3,3V power line.	Restart the projector. If the problem persists, escalate the issue including a log package from the system.

### Code DOC-CX10008: “system - over temperature detected” (Warning)

Situation	Solution
The ambient temperature is out of range.	Check the ambient temperature of the projector. Check that the fan inlets are not blocked. Check that the air filters are free of dust.

### Code DOC-CX10009: “system - temperature to high on audio DSP” (Warning)

Situation	Solution
The temperature of the audio DSP is too high.	Check the ambient temperature of the projector. Check that the fan inlets are not blocked. Check that the air filters are free of dust.

**Code DOC-CX10010: “system - temperature to high on ICP FPGA” (Warning)**

Situation	Solution
The temperature of the ICP FPGA is too high.	Check the ambient temperature of the projector. Check that the fan inlets are not blocked. Check that the air filters are free of dust.

**Code DOC-CX10011: “system - temperature to high on IMB FPGA” (Warning)**

Situation	Solution
The temperature of the IMB FPGA is too high.	Check the ambient temperature of the projector. Check that the fan inlets are not blocked. Check that the air filters are free of dust.

**Code DOC-CX10012: “system - temperature to high on PPC” (Warning)**

Situation	Solution
The temperature of the processor is too high.	Check the ambient temperature of the projector. Check that the fan inlets are not blocked. Check that the air filters are free of dust.

**Code DOC-CX10014: “formatter - satellite configuration error” (Error)**

Situation	Solution
A configuration error was reported by one of the satellites.	Restart the projector. If the problem persists, escalate the issue including a log package from the system.

**Code DOC-CX10015: “formatter - satellite hardware mismatch” (Error)**

Situation	Solution
The three satellites are not of the same type.	Restart the projector. If the problem persists, escalate the issue including a log package from the system.

**Code DOC-CX10016: “formatter - DMD file checksum error” (Error)**

Situation	Solution
A DMD file checksum error was reported by one of the satellites.	Restart the projector. If the problem persists, escalate the issue including a log package from the system.

**Code DOC-CX10017: “formatter - sequence file checksum error” (Error)**

Situation	Solution
A sequence file checksum error was reported by one of the satellites.	Restart the projector. If the problem persists, escalate the issue including a log package from the system.

**Code DOC-CX10018: “formatter - DMD file mismatch” (Error)**

Situation	Solution
A DMD file mismatch was reported by one of the satellites.	Restart the projector. If the problem persists, escalate the issue including a log package from the system.

**Code DOC-CX10019: “formatter - sequence file mismatch” (Error)**

Situation	Solution
A sequence file mismatch was reported by one of the satellites.	Restart the projector. If the problem persists, escalate the issue including a log package from the system.

**Code DOC-CX10020: “formatter - red satellite thermal shutdown” (Error)**

Situation	Solution
A thermal shutdown was reported by the red satellite.	Restart the projector. If the problem persists, escalate the issue including a log package from the system.

**Code DOC-CX10021: “formatter - red satellite offset under voltage” (Error)**

Situation	Solution
An under voltage was reported by the red satellite.	Restart the projector. If the problem persists, escalate the issue including a log package from the system.

**Code DOC-CX10022: “formatter - red satellite reset under voltage” (Error)**

Situation	Solution
An under voltage was reported by the red satellite.	Restart the projector. If the problem persists, escalate the issue including a log package from the system.

**Code DOC-CX10023: “formatter - red satellite bias under voltage” (Error)**

Situation	Solution
An under voltage was reported by the red satellite.	Restart the projector. If the problem persists, escalate the issue including a log package from the system.

**Code DOC-CX10024: “formatter - red satellite configuration error” (Error)**

Situation	Solution
A configuration error was reported by the red satellite.	Restart the projector. If the problem persists, escalate the issue including a log package from the system.

**Code DOC-CX10025: “formatter - red satellite sri link error” (Error)**

Situation	Solution
An sri link error was reported by the red satellite.	Restart the projector. If the problem persists, escalate the issue including a log package from the system.

**Code DOC-CX10026: “formatter - red satellite in reset” (Error)**

Situation	Solution
The red satellite appears to be in reset.	Restart the projector. If the problem persists, escalate the issue including a log package from the system.

**Code DOC-CX10030: “formatter - green satellite thermal shutdown” (Error)**

Situation	Solution
A thermal shutdown was reported by the green satellite.	Restart the projector. If the problem persists, escalate the issue including a log package from the system.

**Code DOC-CX10031: “formatter - green satellite offset under voltage” (Error)**

Situation	Solution
An under voltage was reported by the green satellite.	Restart the projector. If the problem persists, escalate the issue including a log package from the system.

**Code DOC-CX10032: “formatter - green satellite reset under voltage” (Error)**

Situation	Solution
An under voltage was reported by the green satellite.	Restart the projector. If the problem persists, escalate the issue including a log package from the system.

**Code DOC-CX10033: “formatter - green satellite bias under voltage” (Error)**

Situation	Solution
An under voltage was reported by the green satellite.	Restart the projector. If the problem persists, escalate the issue including a log package from the system.

**Code DOC-CX10034: “formatter - green satellite configuration error” (Error)**

Situation	Solution
A configuration error was reported by the green satellite.	Restart the projector. If the problem persists, escalate the issue including a log package from the system.

**Code DOC-CX10035: “formatter - green satellite sri link error” (Error)**

Situation	Solution
An sri link error was reported by the green satellite.	Restart the projector. If the problem persists, escalate the issue including a log package from the system.

**Code DOC-CX10036: “formatter - green satellite in reset” (Error)**

Situation	Solution
The green satellite appears to be in reset.	Restart the projector. If the problem persists, escalate the issue including a log package from the system.

**Code DOC-CX10040: “formatter - blue satellite thermal shutdown” (Error)**

Situation	Solution
A thermal shutdown was reported by the blue satellite.	Restart the projector. If the problem persists, escalate the issue including a log package from the system.

**Code DOC-CX10041: “formatter - blue satellite offset under voltage” (Error)**

Situation	Solution
An under voltage was reported by the blue satellite.	Restart the projector. If the problem persists, escalate the issue including a log package from the system.

**Code DOC-CX10042: “formatter - blue satellite reset under voltage” (Error)**

Situation	Solution
An under voltage was reported by the blue satellite.	Restart the projector. If the problem persists, escalate the issue including a log package from the system.

**Code DOC-CX10043: “formatter - blue satellite bias under voltage” (Error)**

Situation	Solution
An under voltage was reported by the blue satellite.	Restart the projector. If the problem persists, escalate the issue including a log package from the system.

**Code DOC-CX10044: “formatter - blue satellite configuration error” (Error)**

Situation	Solution
A configuration error was reported by the blue satellite.	Restart the projector. If the problem persists, escalate the issue including a log package from the system.

**Code DOC-CX10045: “formatter - blue satellite sri link error” (Error)**

Situation	Solution
An sri link error was reported by the blue satellite.	Restart the projector. If the problem persists, escalate the issue including a log package from the system.

**Code DOC-CX10046: “formatter - blue satellite in reset” (Error)**

Situation	Solution
The blue satellite appears to be in reset.	Restart the projector. If the problem persists, escalate the issue including a log package from the system.

**Code DOC-CX10050: “gip - no SMS.be communication” (Error)**

Situation	Solution
There is an internal communication problem between two processes on the ICMP.	Restart the projector. If the problem persists, escalate the issue including a log package from the system.

**Code DOC-CX10051: “gip - write to SMS.be failed” (Error)**

Situation	Solution
There is an internal communication problem between two processes on the ICMP.	Restart the projector. If the problem persists, escalate the issue including a log package from the system.

**Code DOC-CX10052: “gip - read from SMS.be failed” (Error)**

Situation	Solution
There is an internal communication problem between two processes on the ICMP.	Restart the projector. If the problem persists, escalate the issue including a log package from the system.

**Code DOC-CX10053: “gip - write to CC failed” (Error)**

Situation	Solution
There is an internal communication problem between two processes on the ICMP.	Restart the projector. If the problem persists, escalate the issue including a log package from the system.

**Code DOC-CX10054: “gip - read from CC failed” (Error)**

Situation	Solution
There is an internal communication problem between two processes on the ICMP.	Restart the projector. If the problem persists, escalate the issue including a log package from the system.

**Code DOC-CX10055: “gip - communication error with DSP maxim1619” (Error)**

Situation	Solution
There is an I2C communication problem with the temperature sensor on the audio DSP.	Restart the projector. If the problem persists, escalate the issue including a log package from the system.

**Code DOC-CX10056: “gip - communication error with ICP maxim1619” (Error)**

Situation	Solution
There is an I2C communication problem with the temperature sensor on the ICP FPGA.	Restart the projector. If the problem persists, escalate the issue including a log package from the system.

**Code DOC-CX10057: “gip - communication error with IMB maxim1619” (Error)**

Situation	Solution
There is an I2C communication problem with the temperature sensor on the IMB FPGA.	Restart the projector. If the problem persists, escalate the issue including a log package from the system.

**Code DOC-CX10058: “gip - communication error with PPC maxim1619” (Error)**

Situation	Solution
There is an I2C communication problem with the temperature sensor on the main processor.	Restart the projector. If the problem persists, escalate the issue including a log package from the system.

**Code DOC-CX10060: “system - cpu cpld initialization failed” (Error)**

Situation	Solution
The main processor could not open the device driver for CPLD control.	Restart the projector. If the problem persists, escalate the issue including a log package from the system.

**Code DOC-CX10061: “gip - no pciexpress connection with ICP FPGA” (Error)**

Situation	Solution
The main processor could not open the device driver for the ICP FPGA.	Restart the projector. If the problem persists, escalate the issue including a log package from the system.

**Code DOC-CX10062: “system - ICMP startup process busy” (Info)**

Situation	Solution
Communication with the ICMP is already possible after startup, but some processes have not yet finished initializing.	Wait. If this status persists, escalate the issue including a log package from the system.

**Code DOC-CX10063: “gip - Slave ICMP: LTC is not locked” (Warning)**

Situation	Solution
The LTC signal from the master ICMP is not OK (Not playing)	Check LTC cabling. Restart this projector. Restart master projector. If the problem persists, escalate the issue including a log package from the system..

**Code DOC-CX10064: “gip - Slave ICMP: LTC is not alive” (Warning)**

Situation	Solution
There is no LTC signal from the master ICMP (Not playing).	Check LTC cabling. Restart this projector. Restart master projector. If the problem persists, escalate the issue including a log package from the system..

**Code DOC-CX10065: “gip - Slave ICMP: LTC is not locked” (Error)**

Situation	Solution
The LTC signal from the master ICMP is not OK (Playing).	Check LTC cabling. Restart this projector. Restart master projector. If the problem persists, escalate the issue including a log package from the system..

**Code DOC-CX10066: “gip - Slave ICMP: LTC is not alive” (Error)**

Situation	Solution
There is no LTC signal from the master ICMP (Playing).	Check LTC cabling. Restart this projector. Restart master projector. If the problem persists, escalate the issue including a log package from the system..

**Code DOC-CX10067: “gip - Slave ICMP not playing the same Videoframe” (Error)**

Situation	Solution
The slave ICMP is out of sync with the master ICMP.	Check LTC cabling. Restart this projector. Restart master projector. If the problem persists, escalate the issue including a log package from the system..

**Code DOC-CX10068: “gip - Slave ICMP receiving invalid LTC packages” (Error)**

Situation	Solution
Invalid LTC packages received while playing.	Check LTC cabling. Restart this projector. Restart master projector. If the problem persists, escalate the issue including a log package from the system..

**Code DOC-CX10070: “system - I2C error reading environment temperature” (Error)**

Situation	Solution
An I2C error occurred while reading the sensor for the ambient temperature.	Restart the projector. If the problem persists, escalate the issue including a log package from the system.

**Code DOC-CX10071: “system - I2C error reading Audio DSP temperature” (Error)**

Situation	Solution
An I2C error occurred while reading the sensor for the temperature of the indicated device.	Restart the projector. If the problem persists, escalate the issue including a log package from the system.

**Code DOC-CX10072: “system - I2C error reading ICP FPGA temperature” (Error)**

Situation	Solution
An I2C error occurred while reading the sensor for the temperature of the indicated device.	Restart the projector. If the problem persists, escalate the issue including a log package from the system.

**Code DOC-CX10073: “system - I2C error reading IMB FPGA temperature” (Error)**

Situation	Solution
An I2C error occurred while reading the sensor for the temperature of the indicated device.	Restart the projector. If the problem persists, escalate the issue including a log package from the system.

**Code DOC-CX10074: “system - I2C error reading Power PC temperature” (Error)**

Situation	Solution
An I2C error occurred while reading the sensor for the temperature of the indicated device.	Restart the projector. If the problem persists, escalate the issue including a log package from the system.

**Code DOC-CX10075: “system - HDD power error” (Error)**

Situation	Solution
The power monitoring system detected a problem with the hard disk power.	Restart the projector. If the problem persists, escalate the issue including a log package from the system.

**Code DOC-CX10076: “system - Video Mezzanine FPGA version mismatch” (Warning)**

Situation	Solution
The video mezzanine board FPGA version is not supported by the current ICMP software package.	Perform a software upgrade. If the problem persists, escalate the issue including a log package from the system.

**Code DOC-CX10080: “gip - notification test: check taillight” (Error)**

Situation	Solution
There is a warning on error on the LCD-screen of the projector.	Notice the warning or error on the LCD screen or the web communicator.

**Code DOC-CX10081: “gip - info test: check taillight” (Error)**

Situation	Solution
There is a warning on error on the LCD-screen of the projector.	Notice the warning or error on the LCD screen or the web communicator.

**Code DOC-CX10085: “image not OK” (Error)**

Situation	Solution
The ICP FPGA detected that the frame format of the received image is not OK.	Media player: check the DCP / try other DCP; alternative input: check source and cables.

**Code DOC-CX10086: “unexpected behavior: no image” (Error)**

Situation	Solution
The ICP FPGA detected that all the video data has value 0 (black).	Media player: check the DCP (e.g. try other DCP), or use (Web) Communicator to modify the settings of the Player (e.g. Increase the value of parameter 'Change dark screen detection delay'). Alternative input: check source and cables.

**Code DOC-CX10090: “system - I2C error reading enclosure temperature” (Error)**

Situation	Solution
An error occurred while reading the sensor for the temperature of the indicated device.	Restart the projector. If the problem persists, escalate the issue including a log package from the system.

**Code DOC-CX10091: “system - SPI error reading temperature on red Satellite” (Error)**

Situation	Solution
An error occurred while reading the sensor for the temperature of the indicated device.	Restart the projector. If the problem persists, escalate the issue including a log package from the system.

**Code DOC-CX10092: “system - SPI error reading temperature on green Satellite” (Error)**

Situation	Solution
An error occurred while reading the sensor for the temperature of the indicated device.	Restart the projector. If the problem persists, escalate the issue including a log package from the system.

**Code DOC-CX10093: “system - SPI error reading temperature on blue Satellite” (Error)**

Situation	Solution
An error occurred while reading the sensor for the temperature of the indicated device.	Restart the projector. If the problem persists, escalate the issue including a log package from the system.

**Code DOC-CX10094: “system - enclosure overtemperature detected” (Warning)**

Situation	Solution
The temperature of the indicated device is out of normal operating range.	Restart the projector. If the problem persists, escalate the issue including a log package from the system.

**Code DOC-CX10095: “system - temperature out of range on red satellite FPGA” (Warning)**

Situation	Solution
The temperature of the indicated device is out of normal operating range.	Restart the projector. If the problem persists, escalate the issue including a log package from the system.

**Code DOC-CX10096: “system - temperature out of range on green satellite FPGA” (Warning)**

Situation	Solution
The temperature of the indicated device is out of normal operating range.	Restart the projector. If the problem persists, escalate the issue including a log package from the system.

**Code DOC-CX10097: “system - temperature out of range on blue satellite FPGA” (Warning)**

Situation	Solution
The temperature of the indicated device is out of normal operating range.	Restart the projector. If the problem persists, escalate the issue including a log package from the system.

**Code DOC-CX10098: “system - temperature out of range on red DMD” (Warning)**

Situation	Solution
The temperature of the indicated device is out of normal operating range.	Restart the projector. If the problem persists, escalate the issue including a log package from the system.

**Code DOC-CX10099: “system - temperature out of range on green DMD” (Warning)**

Situation	Solution
The temperature of the indicated device is out of normal operating range.	Restart the projector. If the problem persists, escalate the issue including a log package from the system.

**Code DOC-CX10100: “system - temperature out of range on blue DMD” (Warning)**

Situation	Solution
The temperature of the indicated device is out of normal operating range.	Restart the projector. If the problem persists, escalate the issue including a log package from the system.

**Code DOC-CX10501: “ICMP - unexpected error” (Error)**

Situation	Solution
The operation has failed for an unexpected reason.	Retry the operation. Restart the projector if the error still occurs. If the problem persists, escalate the issue including a log package from the system.
The ICMP reports a default error status.	Restart the projector. If the problem persists, escalate the issue including a log package from the system.

**Code DOC-CX10502: “ICMP - invalid command arguments - command rejected” (Error)**

Situation	Solution
The operation requested from the user interface has failed because the data received by the ICMP are not as expected.	Check the compatibility between the Barco (Web) Commander or TMS version and the ICMP version.

**Code DOC-CX10503: “ICMP - command not implemented” (Error)**

Situation	Solution
The operation is not implemented in the current ICMP version.	The Barco (Web) Commander or TMS version is more recent than the ICMP. Check that the ICMP version is up to date.

**Code DOC-CX10504: “ICMP - update running - command rejected” (Error)**

Situation	Solution
The operation is not available while the ICMP is being updated.	Wait for the end of the update and try again.

**Code DOC-CX10505: “ICMP - system shutting down - command rejected” (Error)**

Situation	Solution
The operation is not available while the projector is entering sleep mode.	Wait for the projector to be in sleep mode, then wake the projector up to execute the operation.

**Code DOC-CX10506: “ICMP - system starting - command rejected” (Error)**

Situation	Solution
The operation is not available because the ICMP is not fully started.	Wait for the projector to be fully started.

**Code DOC-CX10507: “ICMP - invalid user login - login denied” (Error)**

Situation	Solution
The login is denied because the user name or password are not correct.	Perform a valid login.

**Code DOC-CX10508: “ICMP - insufficient user rights - command rejected” (Error)**

Situation	Solution
The operation was rejected because it requires higher user rights.	Check the current user and log in as a user with higher privileges.
The operation is not available because the current user session has expired.	Perform a valid login.

**Code DOC-CX10509: “ICMP - user not found - command rejected” (Error)**

Situation	Solution
The operation was rejected because user was not configure.	Check the user configuration.

**Code DOC-CX10510: “ICMP - player requires all resources - command rejected” (Error)**

Situation	Solution
The operation was rejected because the system resources are allocated to playback.	Wait for the end of the playback and retry the operation.

**Code DOC-CX10511: “ICMP - version info read error” (Error)**

Situation	Solution
The ICMP cannot read the version info.	Restart the projector. If the problem persists, escalate the issue including a log package from the system.

**Code DOC-CX10512: “ICMP - system log export running - command rejected” (Error)**

Situation	Solution
The system log export cannot be initiated because another one is already in progress.	Retry later upon completion of the previous export.

**Code DOC-CX10513: “ICMP - started in failsafe mode” (Error)**

Situation	Solution
The system failed to start on the new version after update. The system restarted on a previous version.	Retry the update. If the problem persists, escalate the issue including a log package from the system.
The system failed to start correctly. The system restarted on a previous version.	Restart the projector. If the problem persists, escalate the issue including a log package from the system.

**Code DOC-CX10514: “ICMP - battery low warning” (Warning)**

Situation	Solution
The battery voltage is under a warning level and could soon be depleted. Replace the battery as soon as possible or the system could become totally inoperative.	Replace the ICMP battery following the Barco procedure.

**Code DOC-CX10515: “ICMP - battery low error” (Error)**

Situation	Solution
The battery voltage is under a critical level. The system is about to become or is already totally inoperative.	Replace the ICMP module and return the old one to the provider.

**Code DOC-CX10516: “ICMP - player not cleared - command rejected” (Error)**

Situation	Solution
The operation was rejected because content is loaded in the player.	Unload the content from the player and retry the operation.

**Code DOC-CX10517: “ICMP - storage busy - command rejected” (Error)**

Situation	Solution
The operation was rejected because the system storage is busy.	Wait for the storage to be available again and retry the operation.

**Code DOC-CX10518: “ICMP - memory low error - command rejected” (Error)**

Situation	Solution
The operation was rejected because the system storage is running low on memory.	Stop and wait for the end of other operations and retry.

**Code DOC-CX10519: “settings - SMPTE Sync cannot be duplicated - settings rejected” (Error)**

Situation	Solution
The update of the ICMP settings is rejected because the audio channel settings are not valid: the SMPTE Sync channel cannot be duplicated.	Remove duplicated SMPTE Sync channel from the settings.

**Code DOC-CX10520: “settings - invalid settings format - settings rejected” (Error)**

Situation	Solution
The update of the ICMP settings is rejected because the format of the settings data is not supported by the current version.	The Barco (Web) Communicator is more recent than the ICMP. Check that the ICMP version is up to date.
The update of the ICMP settings is rejected because the format of the settings data is not correct.	Check the format of the settings data. More detailed information might be found in the system log. Escalate the issue including a log package from the system.

**Code DOC-CX10521: “settings - invalid network settings - settings rejected” (Error)**

Situation	Solution
The update of the ICMP settings is rejected because the network settings are not valid.	Change the network settings in the settings data.

**Code DOC-CX10522: “settings - conflict between network addresses - settings rejected” (Error)**

Situation	Solution
The update of the ICMP settings is rejected because the network settings can cause conflicts and communication issues over the network.	Change the network settings. Make sure that the projector and the ICMP are not connected to the same network. A different network address should be set for each Ethernet port and the entered addresses cannot be in the reserved range "192.168.254.0/24".

**Code DOC-CX10523: “settings - reserved network address range - settings rejected” (Error)**

Situation	Solution
The update of the ICMP settings is rejected because the network settings are trying to use reserved network addresses.	Change the network settings. Make sure that the projector and the ICMP are not connected to the same network. A different network address should be set for each Ethernet port and the entered addresses cannot be in the reserved range "192.168.254.0/24".

**Code DOC-CX10524: “settings - duplicated automation event - settings rejected” (Error)**

Situation	Solution
The update of the ICMP settings is rejected because the automation settings data contains duplicate entries in the events section.	Change the automation events settings. Make sure all entries in the events section are using different identifiers.

**Code DOC-CX10525: “settings - duplicated automation device - settings rejected” (Error)**

Situation	Solution
The update of the ICMP settings is rejected because the automation settings data contains duplicate entries in the devices section.	Change the automation devices settings. Make sure all entries in the devices section are using different identifiers.

**Code DOC-CX10526: “settings - duplicated automation group - settings rejected” (Error)**

Situation	Solution
The update of the ICMP settings is rejected because the automation settings data contains duplicate entries in the groups section.	Change the automation groups settings. Make sure all entries in the groups section are using different identifiers.

**Code DOC-CX10527: “settings - invalid audio delay - settings rejected” (Error)**

Situation	Solution
The update of the ICMP settings is rejected because the settings data contains an invalid audio delay.	Change the audio delay value in the player settings. The audio delay is expressed in milliseconds and has a limited range from -200 to +200.

**Code DOC-CX10528: “settings - invalid audio output frequency - settings rejected” (Error)**

Situation	Solution
The update of the ICMP settings is rejected because the settings data contain an invalid audio output frequency.	Change the audio output frequency value in the player settings. The audio output frequency is expressed in Hz and can only be 48000 or 96000.

**Code DOC-CX10529: “settings - player selection not cleared - settings rejected” (Error)**

Situation	Solution
The update of the ICMP settings is rejected because it cannot be executed when a content is selected in the player.	Clear any selected content from the player and retry updating the settings. This occurs when updating settings that have an impact on the behavior of the player.

**Code DOC-CX10530: “settings - user password too weak - settings rejected” (Error)**

Situation	Solution
The update of the ICMP settings is rejected because at least one user password is not matching the minimum requirements.	Change the password to meet the requirements. Passwords have to be at least 8 characters long.

**Code DOC-CX10531: “settings - missing minimum admin and show manager user - settings rejected” (Error)**

Situation	Solution
The update of the ICMP settings is rejected because the user list does not contain the minimum required users.	Add the minimum users to the user list in the settings. The user list must always contain at least one user with the USER_ADMINISTRATOR role and one user with the USER_SHOW_MANAGER role.

**Code DOC-CX10532: “settings - conflict with reserved user - settings rejected” (Error)**

Situation	Solution
The update of the ICMP settings is rejected because the user list contains users with a reserved name.	Rename or remove users that have reserved names from the settings.

**Code DOC-CX10533: “settings - settings file not found - unable to load” (Error)**

Situation	Solution
The settings files of the ICMP are missing or are corrupted.	Restart the projector. If the problem persists, escalate the issue including a log package from the system. An update of the ICMP (in the same version or in a more recent version) can help restore the settings files.

**Code DOC-CX10534: “settings - restoring image processor files error - factory files not restored” (Error)**

Situation	Solution
An error occurred while trying to restore the Image Processor factory files (PCF...) The files could not be restored.	Restart the projector. If the problem persists, escalate the issue including a log package from the system. An update of the ICMP (in the same version or in a more recent version) can help restore the settings files.

**Code DOC-CX10535: “settings - network settings update error - settings update failed” (Error)**

Situation	Solution
An error occurred while trying to apply the network settings.	Restart the projector. If the problem persists, escalate the issue including a log package from the system..

**Code DOC-CX10536: “settings - multi-projector settings change refused - settings rejected” (Error)**

Situation	Solution
The multi-projector settings are not correct and have been rejected.	Check that the multi-projector settings are consistent.
The multi-projector settings have been rejected because the master projector is still connected on this slave.	Settings of a slave projector cannot be changed if the master projector is still connected to that slave. Remove this slave from the master settings.

**Code DOC-CX10537: “settings - test settings already running - test settings rejected” (Error)**

Situation	Solution
The test of settings has been rejected because another test of settings is already running.	Wait for the end of the previous settings test and retry. If it does not work then restart the projector and retry.

**Code DOC-CX10538: “settings - invalid system settings - settings rejected” (Error)**

Situation	Solution
The system settings are not correct and have been rejected.	Check that the system settings are consistent.

**Code DOC-CX10539: “settings - unreachable NTP server - NTP sync might not work” (Warning)**

Situation	Solution
The NTP server could not be reached.	Check the NTP server settings and the network settings. Check the system network connectivity. Make sure no firewall could block the NTP access. If needed restart the projector and retry.

**Code DOC-CX10540: “projector - communication not initialized - projector control disabled” (Error)**

Situation	Solution
The ICMP module cannot connect to the projector controller board.	Restart the projector. If the problem persists, escalate the issue including a log package from the system.

**Code DOC-CX10542: “projector - command rejected” (Error)**

Situation	Solution
The command has been rejected by the projector because it is not supported.	Some projector models may not support all commands.
The command has been rejected by the projector because it is busy.	If the projector is busy, the command might be rejected.

**Code DOC-CX10543: “projector - macro execution error” (Error)**

Situation	Solution
An error was detected during the execution of a projector macro.	Check the projector macro. Check the connectivity between the ICMP and the projector.

**Code DOC-CX10544: “projector - macro not found” (Error)**

Situation	Solution
The requested macro was not found on the projector.	Check the list of macros on the projector. Check the connectivity between the ICMP and the projector.

**Code DOC-CX10560: “automation - engine not available - cue handling rejected” (Error)**

Situation	Solution
OBSOLETE	OBSOLETE

**Code DOC-CX10561: “automation - internal login failed - player control not available” (Error)**

Situation	Solution
The automation manager could not login to the Player and will not be able to execute player actions.	Restart the projector. If the problem persists, escalate the issue including a log package from the system.

**Code DOC-CX10562: “automation - GPIO access error - GPIO status not available” (Warning)**

Situation	Solution
The physical status of GPI and GPO cannot be read by the system. GPI/O related operations may not work properly.	Restart the projector. If the problem persists, escalate the issue including a log package from the system.

**Code DOC-CX10563: “automation - device not supported - device ignored” (Warning)**

Situation	Solution
One of the devices from the automation settings is not supported in the current ICMP version. The device and related actions will be ignored.	Check the ICMP version. Edit the automation settings to change or remove the device and the related actions.

**Code DOC-CX10564: “automation - action not supported - action ignored” (Warning)**

Situation	Solution
One of the actions from the automation settings is not supported in the current ICMP version. The action will be ignored.	Check the ICMP version. Edit the automation settings to change or remove the action.

**Code DOC-CX10565: “automation - invalid action parameters - action ignored” (Warning)**

Situation	Solution
One of the actions from the automation settings is configured with incorrect parameters. The action will be ignored.	Check the ICMP version. Edit the automation settings to change or remove the action.

**Code DOC-CX10566: “automation - action execution error - action failed” (Warning)**

Situation	Solution
An error occurred while executing one of the actions from the automation settings.	Check the system log for more detailed information.

**Code DOC-CX10567: “automation - device not connected - action failed” (Warning)**

Situation	Solution
The automation action could not be executed because the connection with the device is not established.	Check the connectivity with the external device. Check the network settings and the device configuration.

**Code DOC-CX10568: “automation - cannot check full macro execution - please check the macro has been executed” (Warning)**

Situation	Solution
The execution of the macro on the projector or on an external device cannot be fully verified by the system.	Check that the requested macro has been correctly executed on the device.

**Code DOC-CX10569: “automation - referenced show not found - action ignored” (Warning)**

Situation	Solution
The automation cue reference a show that does not exist.	Check the automation cue and the list of shows.

**Code DOC-CX10573: “storage - the RAID is broken - storage is not available” (Maintenance)**

Situation	Solution
The local storage is not available because of an error on the RAID controller.	Restart the projector. If the problem persists, escalate the issue including a log package from the system.
The local storage is not available because the HDD are missing or invalid.	Insert valid HDDs in the system.

**Code DOC-CX10574: “storage - HDD size mismatch - HDD full capacity not used” (Maintenance)**

Situation	Solution
One of the HDD has a capacity larger than the expected size. The HDD is used in the RAID but not to its full capacity.	Continue using that HDD or insert a valid HDD of the same size as the other HDDs.

**Code DOC-CX10575: “storage - HDD size mismatch” (Warning)**

Situation	Solution
One of the HDD has a capacity lower than the expected size. The HDD cannot be added to the RAID.	Insert a valid HDD of the same size as the other HDD.

**Code DOC-CX10576: “storage - possible file system corruption - please run file system check” (Maintenance)**

Situation	Solution
The system detected a possible file system corruption.	Run a file system check using (Web) Communicator.

**Code DOC-CX10577: “storage - file system check running - command rejected” (Error)**

Situation	Solution
The command is rejected because a file system check is running.	Wait the end of the file system check and retry. The file system check can take several minutes to complete.

**Code DOC-CX10578: “storage - storage database update in progress - command rejected” (Error)**

Situation	Solution
The command is rejected because the system database is being updated.	Wait the end of the database update. The database update can take several minutes. Please do not try to abort the database update or to reboot the projector.

**Code DOC-CX10579: “storage - storage disabled by configuration - command not available” (Error)**

Situation	Solution
The command cannot be executed because the storage has been disabled by configuration.	Check the storage configuration.

**Code DOC-CX10580: “storage - local storage not available” (Error)**

Situation	Solution
The local storage was not detected after powering the projector because the HDD are not inserted.	Insert all the HDDs correctly.
The system reports this error but it is expected to play without HDD.	Edit the settings to indicate that the system doesn't have any local storage. All ingest, content management and scheduling will be disabled.

**Code DOC-CX10581: “storage - requested content not found” (Warning)**

Situation	Solution
The content is not present on the system anymore.	Insert all the HDDs correctly.
The content is being ingested and is not fully available yet on the system.	Wait for the end of the ingest process to use the content.
The content is listed but some files are missing.	Try to ingest the content again. Restart the projector. If the problem persists, escalate the issue including a log package from the system.
This error occurs but the content is correctly listed in the browser page.	Restart the projector. If the problem persists, delete the content and try to ingest it again. If the problem persists, escalate the issue including a log package from the system.

**Code DOC-CX10582: “storage - requested key not found” (Warning)**

Situation	Solution
The content key is not present on the system.	Check if the content key is present in the browser page. Check if the content or its keys were not deleted.
This error occurs but the content key is listed in the browser page.	Restart the projector. If the problem persists, delete the content key and try to ingest it again. If the problem persists, escalate the issue including a log package from the system.

**Code DOC-CX10583: “storage - read from storage error” (Error)**

Situation	Solution
An error occurred while reading data from the storage.	Restart the projector. If the problem persists, escalate the issue including a log package from the system.

**Code DOC-CX10584: “storage - read from database error” (Error)**

Situation	Solution
An error occurred while reading data from the database.	Restart the projector. If the problem persists, escalate the issue including a log package from the system.

**Code DOC-CX10585: “storage - the storage mount failed - cannot access storage” (Error)**

Situation	Solution
The local storage cannot be mounted.	Restart the projector. If the problem persists, escalate the issue including a log package from the system.

**Code DOC-CX10586: “storage - the RAID is degraded” (Warning)**

Situation	Solution
The local storage is degraded because one HDD has failed.	Check the LED status on all HDDs to identify the failed HDD. Replace the HDD with a new one. A RAID rebuild operation will be initiated automatically. The system should remain powered on until the rebuild is complete. If a power cycling occurs during the rebuild a new complete rebuild will start on next reboot.

**Code DOC-CX10587: “storage - HDD 1 errors detected - possible HDD 1 failure” (Warning)**

Situation	Solution
Errors have been detected on HDD 1. This HDD is probably going to fail.	Replace the HDD with a new one. A RAID rebuild operation will be initiated automatically. The system should remain powered on until the rebuild is complete. If a power cycling occurs during the rebuild a new complete rebuild will start on next reboot.

**Code DOC-CX10588: “storage - HDD 2 errors detected - possible HDD 2 failure” (Warning)**

Situation	Solution
Errors have been detected on HDD 2. This HDD is probably going to fail.	Replace the HDD with a new one. A RAID rebuild operation will be initiated automatically. The system should remain powered on until the rebuild is complete. If a power cycling occurs during the rebuild a new complete rebuild will start on next reboot.

**Code DOC-CX10589: “storage - HDD 3 errors detected - possible HDD 3 failure” (Warning)**

Situation	Solution
Errors have been detected on HDD 3. This HDD is probably going to fail.	Replace the HDD with a new one. A RAID rebuild operation will be initiated automatically. The system should remain powered on until the rebuild is complete. If a power cycling occurs during the rebuild a new complete rebuild will start on next reboot.

**Code DOC-CX10591: “check - requested content selected in player - cannot check content” (Error)**

Situation	Solution
The content integrity cannot be checked because the content is selected in the player.	Unload the content from the player and restart the integrity check operation.

**Code DOC-CX10592: “check - requested content being ingested - cannot check content” (Error)**

Situation	Solution
The content integrity cannot be checked because the content is being ingested.	Wait for the end of ingest. The ingest process already checks the content integrity in the same way.

**Code DOC-CX10593: “check - database error - cannot check content” (Error)**

Situation	Solution
The content integrity cannot be checked because a database error has occurred.	Restart the projector. If the problem persists, escalate the issue including a log package from the system.
The content integrity cannot be checked because the content is corrupted in the database.	Delete the content and ingest it back. The ingest process is also checking the content integrity.

**Code DOC-CX10594: “check - content check busy - cannot check new content” (Error)**

Situation	Solution
The content integrity cannot be checked because the integrity of another content is already being checked.	Wait for the end of the running integrity check or cancel it.

**Code DOC-CX10595: “storage - file system check already running - file system check rejected” (Error)**

Situation	Solution
The file system check cannot start because another file system operation is already running.	Wait for the end of the previous file system operation.

**Code DOC-CX10597: “storage - file system check storage mounted - file system check rejected” (Error)**

Situation	Solution
The file system check cannot start because the file system is mounted.	Restart the projector and retry.

**Code DOC-CX10598: “storage - file system check failed - file system check aborted” (Error)**

Situation	Solution
The file system check has been aborted due to an unexpected error.	Restart the projector and retry.

**Code DOC-CX10599: “storage - file system check uncorrected errors - errors left uncorrected” (Warning)**

Situation	Solution
The file system check could not fix all the errors. This should not happen on a normal storage.	Restart the projector and retry if needed.

**Code DOC-CX10600: “save show - invalid format - save show rejected” (Error)**

Situation	Solution
The show cannot be saved because the format of the show data is incorrect.	Check the compliance of the show data.
The show cannot be saved because the format of the show data is not compatible with the module version.	Check the compatibility between the Barco (Web) Commander or TMS version and the ICMP version.

**Code DOC-CX10601: “save show - show id already exists - save show rejected” (Error)**

Situation	Solution
The show cannot be saved because the unique ID is already registered in the database.	Each time a show is modified or created it must be assigned a new UUID. The Barco (Web) Commander or TMS applications should take care of that.

**Code DOC-CX10602: “save show - show selected in player - cannot save show” (Error)**

Situation	Solution
The show cannot be saved because it is selected in the player.	Unload the show from the player to be able to save a new show with the same title.

**Code DOC-CX10603: “save show - invalid title format - save show rejected” (Error)**

Situation	Solution
The show cannot be stored on the system because its title is not well formatted.	Remove any leading or trailing spaces from the show title and retry.

**Code DOC-CX10620: “content not found - cannot delete content” (Error)**

Situation	Solution
The content cannot be deleted because it is not on the local storage.	Check if the content is present in the browser page. The content may already have been deleted.
The content cannot be deleted but it is listed on the browser.	Restart the projector. If the problem persists, escalate the issue including a log package from the system.

**Code DOC-CX10621: “content selected in player - cannot delete content” (Error)**

Situation	Solution
The content cannot be deleted because it is selected in the player.	First unload the content from the player then delete the content.

**Code DOC-CX10622: “content being ingested - cannot delete content” (Error)**

Situation	Solution
The content cannot be deleted because it is being ingested.	First cancel the ingest job then delete the content if it is listed in the browser. Canceling an ingest job may result in deleting the content being ingested.

**Code DOC-CX10623: “content being checked - cannot delete content” (Error)**

Situation	Solution
The content cannot be deleted because it is being checked.	First cancel the integrity check then delete the content.

**Code DOC-CX10624: “database error - cannot delete content” (Error)**

Situation	Solution
An error occurred while removing the content from the database.	Restart the projector. If the problem persists, escalate the issue including a log package from the system.

**Code DOC-CX10625: “key being ingested - cannot delete key” (Error)**

Situation	Solution
The key cannot be deleted because it is being ingested.	First cancel the ingest job then delete the key if it is listed in the browser.

**Code DOC-CX10626: “key not found - cannot delete key” (Error)**

Situation	Solution
The key cannot be deleted because it is not on the local storage.	Check if the key is present in the browser page. The key may have already been deleted.
The key cannot be deleted but it is listed on the browser.	Restart the projector. If the problem persists, escalate the issue including a log package from the system.

**Code DOC-CX10627: “database error - cannot delete key” (Error)**

Situation	Solution
An error occurred while removing the key from the database.	Restart the projector. If the problem persists, escalate the issue including a log package from the system.

**Code DOC-CX10628: “key selected in player - cannot delete key” (Error)**

Situation	Solution
The key cannot be deleted because the related content is selected in the player.	First unload the content from the player then delete the key.

**Code DOC-CX10629: “clip referenced in a show” (Warning)**

Situation	Solution
The clip being deleted is referenced in a show.	If the deletion is confirmed, the clips will be deleted and shows referencing it will become incomplete.

**Code DOC-CX10630: “key still valid” (Warning)**

Situation	Solution
The key being deleted is still valid for playback.	If the deletion is confirmed, the related content might not play anymore if no more valid key are present on the system.

**Code DOC-CX10631: “show scheduled” (Warning)**

Situation	Solution
The show being deleted is in the schedule.	If the deletion is confirmed, the system will remove the show from the schedule.

**Code DOC-CX10632: “show is referenced by a cue” (Warning)**

Situation	Solution
The show being deleted is referenced by an automation cue.	If the deletion is confirmed, the automation cue will become invalid.

**Code DOC-CX10633: “content selected in player - changes will apply at next selection” (Warning)**

Situation	Solution
The show being modified is loaded in the player. Any change to that show will only be applied the next time it is selected.	The previous version of the show will be used by the player until the show is reloaded manually or by the scheduler.

**Code DOC-CX10640: “ingest - not available - cannot scan or ingest” (Error)**

Situation	Solution
Ingest functionality is not properly initialized.	Restart the projector. If the problem persists, escalate the issue including a log package from the system.

**Code DOC-CX10641: “ingest scan - invalid source url - cannot scan source” (Error)**

Situation	Solution
The scan failed because the source URL is not correctly formatted.	Check the remote storage settings for the selected source.
The scan failed because the source is using a protocol that is not supported by the current ICMP version.	Check the ICMP version and the protocol defined in the settings.

**Code DOC-CX10642: “ingest scan - connection to source failed - cannot scan source” (Error)**

Situation	Solution
The scan failed because the source refers to an invalid server.	Check the settings for the selected source.
The scan failed because the source refers to a server that rejects the connection.	Check that the remote server is running properly, check its configuration and logs. Some remote servers may have a limited number of connections or other restrictions.
The scan failed because the network path from the ICMP to the remote source is not correct.	Check the network configuration.

**Code DOC-CX10643: “ingest scan - timeout connecting to source - cannot scan source” (Error)**

Situation	Solution
The scan failed because the source refers to an invalid server.	Check the settings for the selected source.
The scan failed because the source refers to a server that rejects the connection.	Check that the remote server is running properly, check its configuration and logs. Some remote servers may have a limited number of connections or other restrictions.
The scan failed because the network path from the ICMP to the remote source is not correct.	Check the network configuration.

**Code DOC-CX10644: “ingest scan - source scan not started - scan report not available” (Error)**

Situation	Solution
There are no ingest scan data available because the scan of a source was not properly started.	The Barco (Web) Commander or TMS applications should start the scan of a source before reading the scan report.

**Code DOC-CX10645: “ingest scan - source scan already started - new scan request rejected” (Error)**

Situation	Solution
A new ingest scan cannot be started because a previous one is still running.	Abort the previous scan or wait for it to complete.

**Code DOC-CX10646: “ingest scan - too many files in source - cannot scan source” (Error)**

Situation	Solution
The USB source cannot be scanned because it contains too many files. The system has a limit in the amount of data it can process.	Remove unnecessary files from the USB source and restart a scan.
The remote source cannot be scanned because it contains too many files. The system has a limit in the amount of data it can process.	Remove unnecessary files from the remote source or define several ingest sources to point to different sub-directories on the same server. Try to minimize the amount of files that will be scanned at a time.

**Code DOC-CX10647: “ingest scan - too many source parsers currently active - cannot scan source” (Error)**

Situation	Solution
A new ingest scan cannot be started because other clients are already running scans. There are not enough resources to run the scan.	Wait for other scans to end. If the problem persists, restart the projector. If the problem still persists, escalate the issue including a log package from the system.

**Code DOC-CX10648: “ingest scan - invalid CPL metadata - cannot play that CPL” (Error)**

Situation	Solution
The CPL metadata are incorrect. The edit rate, aspect ratio or other metadata are inconsistent. The CPL will not play.	Check the content with the content provider.

**Code DOC-CX10649: “ingest scan - invalid CPL body - cannot play that CPL” (Error)**

Situation	Solution
The CPL body is incorrect. No video track was found in some reels of the CPL. The CPL will not play.	Check the content with the content provider.

**Code DOC-CX10650: “ingest scan - key not matching the local certificate - cannot play with that key” (Warning)**

Situation	Solution
The content key doesn't match the certificate of the ICMP. Ingest can be executed but the player cannot use the key.	Do not ingest that key unless you want to move the local storage to an ICMP for which the key is valid. Request another key from your key provider with the correct ICMP certificate.

**Code DOC-CX10651: “ingest job - requested item not found - cannot ingest” (Error)**

Situation	Solution
The ingest job was aborted because the selected item cannot be found on the source.	Check if the item is present on the source and at the right location.

**Code DOC-CX10652: “ingest job - not enough space on local storage - cannot ingest” (Error)**

Situation	Solution
The ingest job was aborted because there is not enough disk space on the local storage.	Delete unused content from the local storage to free enough space and retry to ingest the content.

**Code DOC-CX10653: “ingest job - item selected by player - cannot ingest” (Error)**

Situation	Solution
The ingest job was aborted because the selected item is already locked by the player.	Clear the selection from the player and restart ingest.

**Code DOC-CX10654: “ingest job - ingest job id already exists - cannot add ingest job” (Error)**

Situation	Solution
The ingest job cannot be added because a job with the same unique identifier already exist.	The Barco (Web) Commander or TMS applications should create a new job with a different identifier or should not specify any identifier.

**Code DOC-CX10655: “ingest job - invalid key format - cannot ingest” (Error)**

Situation	Solution
The ingest job cannot ingest the content key because the file has an invalid format.	Check that the content key file is consistent. Note that any file copy to a USB device requires a safe eject procedure to ensure integrity of the copied data.
The ingest job cannot ingest the content key because the file format is not fully supported by the system.	Escalate the issue with log package from the system and a copy of the key file.

**Code DOC-CX10656: “ingest job - copy failed - ingest aborted” (Error)**

Situation	Solution
The ingest job failed because at least one file could not be copied to the local storage: an error occurred while reading from the source.	Check that the source can still be reached by the ICMP. Check the integrity of the source, make sure all files are accessible.
The ingest job failed because at least one file could not be copied to the local storage: the local storage is removed or has failed.	Check the health of the local storage.

**Code DOC-CX10657: “ingest job - invalid source url - cannot ingest” (Error)**

Situation	Solution
The ingest failed because the source URL is not correctly formatted.	Check the settings for the selected source.
The ingest failed because the source is using a protocol that is not supported by the current ICMP version.	Check the ICMP version and the protocol defined in the settings for the selected source.

**Code DOC-CX10658: “ingest - maximum pending job count exceeded - cannot add more jobs” (Error)**

Situation	Solution
The ingest job cannot be added because there are too many pending ingest jobs.	Wait for the end of some ingest jobs before adding more ingest requests.

**Code DOC-CX10659: “ingest - invalid or missing info from PKL - cannot ingest” (Error)**

Situation	Solution
The PKL file from the DCP does not provide enough data about assets to ingest the content.	Request a DCP with a correct and complete PKL file. The system log may provide more detailed information.

**Code DOC-CX10660: “ingest - invalid or missing UUID - cannot ingest” (Error)**

Situation	Solution
The operation on the job failed because the job identifier is missing or incorrect.	The Barco (Web) Commander or TMS applications should create a new job with a well formatted identifier or should not specify any identifier.

**Code DOC-CX10661: “ingest scan - CPL is corrupted - cannot play that CPL” (Error)**

Situation	Solution
The source DCP contains one or more corrupted files for the concerned CPL.	Request a new valid source DCP.
The system cannot parse some files of the CPL from the source DCP because they are not supported.	Update the ICMP with a version that supports the DCP files if possible.

**Code DOC-CX10662: “ingest job - invalid CPL - cannot ingest” (Error)**

Situation	Solution
The CPL was not ingested due to unexpected value.	Double check CPL.

**Code DOC-CX10663: “ingest job - corrupted CPL - CPL might not play” (Warning)**

Situation	Solution
The CPL was ingested but some assets from the source DCP are corrupted and playback could fail.	Depending on the corruption, the playback could succeed though some frames could be wrongly decoded. It is best to ingest the CPL again from a valid source DCP.

**Code DOC-CX10664: “ingest job - invalid CPL - CPL will not play” (Error)**

Situation	Solution
The CPL was only partially ingested and is marked as incomplete. Some assets from the source DCP are missing or incomplete.	Request a new valid source DCP to ingest the complete CPL.

**Code DOC-CX10665: “ingest job - incomplete immersive sound - immersive sound will not play” (Warning)**

Situation	Solution
The immersive sound track is not complete. Immersive sound will not play.	A complete and valid DCP with all immersive sound assets should be ingested.

**Code DOC-CX10666: “ingest job - corrupted immersive sound - immersive sound might not play” (Warning)**

Situation	Solution
The immersive sound track is corrupted. Immersive sound might not play correctly.	A complete and valid DCP with all immersive sound assets should be ingested.

**Code DOC-CX10680: “scheduler - invalid schedule format - schedule update rejected” (Error)**

Situation	Solution
The update of the schedule is rejected because the format of the schedule data is not correct.	Check the format of the schedule data. More detailed information might be found in the system log. Escalate the issue including a log package from the system.
The update of the schedule is rejected because the format of the schedule data is not supported by the current version.	The Barco (Web) Commander or TMS version is more recent than the ICMP. Check the ICMP version is up to date.

**Code DOC-CX10681: “scheduler - invalid schedule time range - schedule update rejected” (Error)**

Situation	Solution
The update of the schedule is rejected because the time range specified in the schedule data is incorrect.	The Barco (Web) Commander or TMS applications should provide schedule data with a correct range.

**Code DOC-CX10682: “scheduler - show title not found - cannot start show” (Warning)**

Situation	Solution
The scheduled show cannot be started because it cannot be found on the local storage.	Add the correct show or edit the schedule to play a correct show.

**Code DOC-CX10683: “scheduler - corrupted clips in the show - cannot start show” (Warning)**

Situation	Solution
The scheduled show cannot be started because the show contains clips that are marked as corrupted.	Delete and re-ingest the corrupted clips or remove the corrupted clips from the show.

**Code DOC-CX10684: “scheduler - incomplete clips in the show - cannot start show” (Warning)**

Situation	Solution
The scheduled show cannot be started because the show contains clips that are marked as incomplete.	Re-ingest the incomplete clips or remove the incomplete clips from the show.

**Code DOC-CX10685: “scheduler - system offline at show start time - show canceled” (Warning)**

Situation	Solution
The scheduled show was not started because the system was offline at the time the show should have started.	Nothing can be done, this occurred in the past. Make sure the system is online at the right time for scheduled shows to play.

**Code DOC-CX10687: “scheduler - schedule write error - schedule update rejected” (Error)**

Situation	Solution
An error occurred while updating the schedule data.	Check the schedule data. Restart the projector. If the problem persists, escalate the issue including a log package from the system.

**Code DOC-CX10688: “scheduler - login failed - player control not possible” (Error)**

Situation	Solution
The scheduler could not login to the Player and will not be able to play scheduled shows.	Restart the projector. If the problem persists, escalate the issue including a log package from the system.

**Code DOC-CX10689: “scheduler - maximum show count per day exceeded” (Error)**

Situation	Solution
The schedule update was rejected because the maximum number of shows per day has been reached.	Remove unnecessary shows from the schedule. The system limits the number of show per day to prevent TMS applications to flood the schedule.

**Code DOC-CX10700: “security - clock adjustment out of allowed range - adjustment rejected” (Error)**

Situation	Solution
The secure clock adjustment was rejected because the requested shift would exceed the allowed limit per year.	Apply a shift within the allowed range. The DCI specifies that the real-time clock of the system cannot be changed more than 6 minutes forward or backward per year starting from January, 1 of each year.

**Code DOC-CX10701: “security - log export already running - export rejected” (Error)**

Situation	Solution
The secure log export cannot be started because another export is already running.	Wait for the end of the running export or cancel it before starting a new one.

**Code DOC-CX10702: “security - log export not running - no status available” (Error)**

Situation	Solution
There are no secure log export data available because no secure log export was initiated.	TMS applications should first start a secure log export before reading the export status.

**Code DOC-CX10703: “security - certificate not found - cannot retrieve certificate” (Error)**

Situation	Solution
The requested certificate cannot be retrieved because it is not on the system.	Only certificates listed by the ICMP can be retrieved.
The requested certificate cannot be retrieved but it is listed by the system.	Restart the projector. If the problem persists, escalate the issue including a log package from the system.

**Code DOC-CX10704: “security - clock adjustment not allowed while playing - adjustment rejected” (Error)**

Situation	Solution
The secure clock adjustment was rejected because it is not allowed while a playback is running.	Wait the end of the playback and retry.

**Code DOC-CX10705: “security - clock adjustment failed - adjustment not possible” (Error)**

Situation	Solution
An unexpected error occurred during the secure clock adjustment.	Restart the projector and retry.

**Code DOC-CX10706: “security - automatic clock adjustment out of budget - auto adjustment not applied” (Maintenance)**

Situation	Solution
The secure clock cannot be automatically adjusted to the system clock because the maximum budget of this year has been consumed.	Contact the support.

**Code DOC-CX10707: “security - automatic clock adjustment configured - adjustment rejected” (Error)**

Situation	Solution
The manual adjustment of the secure clock was rejected because the secure is configured to be automatically adjusted on the system clock.	Check the system clock management.

**Code DOC-CX10720: “license - license id already exists - add license rejected” (Error)**

Situation	Solution
The license cannot be added because it is already present on the system.	Any new license must have a different unique identifier.

**Code DOC-CX10721: “license - license invalid format - add license rejected” (Error)**

Situation	Solution
The license cannot be added because it has an invalid format.	Get a correct license file. Be sure the file doesn't get corrupted when copied over different devices.
The license cannot be added because its format is not supported by the current ICMP version.	Update the ICMP or get a valid license for that version.

**Code DOC-CX10722: “license - license invalid signer thumbprint - add license rejected” (Error)**

Situation	Solution
The license cannot be added because its signer thumbprint is not correct.	Report the error and request a new license.

**Code DOC-CX10723: “license - license invalid structure id - add license rejected” (Error)**

Situation	Solution
The license cannot be added because its structure id is incorrect.	Report the error and request a new license.

**Code DOC-CX10724: “license - license decryption error - add license rejected” (Error)**

Situation	Solution
The license cannot be added because it cannot be decrypted on this system. It was probably created with another system certificate.	Report the error and request a new license. Provide this system certificate.

**Code DOC-CX10725: “license - invalid license signer chain - add license rejected” (Error)**

Situation	Solution
The license cannot be added because its signer is not correct.	Report the error and request a new license.

**Code DOC-CX10726: “license - invalid license signature - add license rejected” (Error)**

Situation	Solution
The license cannot be added because the signature is not correct. The file was probably modified or tampered.	Report the error and request a new license.

**Code DOC-CX10727: “license - license out of date - add license rejected” (Error)**

Situation	Solution
The license cannot be added because it is not valid anymore.	Report the error and request a new license.

**Code DOC-CX10728: “license - license outside signer time window - add license rejected” (Error)**

Situation	Solution
The license cannot be added because the signer time window is not respected.	Report the error and request a new license.

**Code DOC-CX10729: “license - license file cannot be saved - add license rejected” (Error)**

Situation	Solution
The license cannot be added because an error occurred while storing the license.	Restart the system and retry.

**Code DOC-CX10730: “license - license not found - cannot retrieve license” (Error)**

Situation	Solution
The license cannot be retrieved because the unique identifier is not found on the system.	Check the license is still present on the system.

**Code DOC-CX10731: “license - license not yet active - inactive license” (Error)**

Situation	Solution
The license cannot be added because its validity time window has not started yet.	Wait for the validity period else report the error and request a new license.

**Code DOC-CX10732: “license - license out of date - out-of-date license” (Error)**

Situation	Solution
The license cannot be added because its validity time window has ended.	Report the error and request a new license.

**Code DOC-CX10733: “delete license - license not found - cannot delete license” (Error)**

Situation	Solution
The license cannot be deleted because the unique identifier is not found on the system.	Check the license is still present on the system.

**Code DOC-CX10734: “license - license file cannot be deleted - cannot delete license” (Error)**

Situation	Solution
The license cannot be deleted because it is not allowed. Some licenses cannot be deleted and require the install of another license to be removed.	Report the error and request a new license.

**Code DOC-CX10735: “license - no valid Live IP Streaming license found - live support disabled” (Error)**

Situation	Solution
No valid Live IP Streaming license is present on the system. The streaming of live content is not be allowed.	Report the error and request a new license.

**Code DOC-CX10736: “license - no video mezzanine or version too low - live support disabled” (Error)**

Situation	Solution
The video mezzanine board is not present.	The Live IP Streaming support requires a mezzanine board. If the ICMP front plate has no 3G-SDI ports, the video mezzanine board is not present.
The video mezzanine board was not updated with the correct version.	Update the video mezzanine board with the board with the specific update package. If this does not work, contact support.

**Code DOC-CX10737: “missing license - cannot play content” (Error)**

Situation	Solution
The license required to play the content is missing or has expired.	Contact the content provider to request a valid license.

**Code DOC-CX10738: “license expiration warning - please request a license extension” (Maintenance)**

Situation	Solution
A license will expire in the next 2 months.	Request a new valid license before the end of the validity period.

**Code DOC-CX10750: “settings - clip title already exist - cannot save clip” (Error)**

Situation	Solution
The clip title already exist on the system and the new clip cannot be saved.	Delete the existing clip before saving the new one.

**Code DOC-CX10751: “settings - invalid clip title - cannot save clip” (Error)**

Situation	Solution
The clip title is not valid.	Enter a valid clip title.

**Code DOC-CX10752: “settings - invalid clip properties - cannot save clip” (Error)**

Situation	Solution
Some clip properties are not valid.	Check the clip properties.

**Code DOC-CX10753: “settings - clip not found - cannot delete clip” (Error)**

Situation	Solution
The clip cannot be deleted because it is not found on the system.	Check the clip is still present on the system.

**Code DOC-CX10754: “settings - insufficient hardware revision for multi-projector sync - sync might fail” (Warning)**

Situation	Solution
The hardware revision of the ICMP is lower than the one required for multi-projector setups. The sync signal can be unstable.	Exchange the ICMP with a more recent one.

**Code DOC-CX10800: “module - mezzanine - not up-to-date” (Warning)**

Situation	Solution
The video mezzanine board is not running with the expected version.	Try to update the mezzanine or the complete ICMP.

**Code DOC-CX10801: “battery is low - this will make your ICMP non-functional” (Warning)**

Situation	Solution
The battery voltage is under a warning level and could be soon depleted. Replace the battery as soon as possible or the system could become totally inoperative.	Replace the ICMP battery following the Barco procedure as soon as possible.

**Code DOC-CX10802: “battery is low - this will make your ICPD non-functional” (Warning)**

Situation	Solution
The battery voltage is under a warning level and could be soon depleted. Replace the battery as soon as possible or the system could become totally inoperative.	Replace the ICPD battery following the Barco procedure as soon as possible.

**Code DOC-CX10803: “battery is depleted - this will make your ICMP non-functional” (Error)**

Situation	Solution
The battery voltage is under a critical level. The system is about to become or is already totally inoperative.	Replace the ICMP battery following the Barco procedure as soon as possible. If the module is non-functional you will need to replace it with a new one.

**Code DOC-CX10804: “battery is depleted - this will make your ICPD non-functional” (Error)**

Situation	Solution
The battery voltage is under a critical level. The system is about to become or is already totally inoperative.	Replace the ICPD battery following the Barco procedure as soon as possible. If the module is non-functional you will need to replace it with a new one.

**Code DOC-CX10805: “a reboot of the ICMP is required to apply changes” (Maintenance)**

Situation	Solution
A change was made on the module and a reboot is required to take it into account.	Reboot the module to take the change into account.

**Code DOC-CX10806: “a reboot of the ICPD is required to apply changes” (Maintenance)**

Situation	Solution
A change was made on the module and a reboot is required to take it into account.	Reboot the module to take the change into account.

**Code DOC-CX10890: “unexpected behavior: light off while playing” (Warning)**

Situation	Solution
A show playlist is playing in scheduled mode but the projector light is still off.	Turn the projector light on or adjust the dark-screen detection configuration to adapt the behavior.

**Code DOC-CX10891: “playing from a fallback URL” (Warning)**

Situation	Solution
The player is playing content from a fallback URL due to an error while playing it from the local storage.	<p>The player should play the content from the remote location. Once the show is complete:</p> <ul style="list-style-type: none"> <li>• make sure the local storage is healthy.</li> <li>• check the integrity of the content on the local storage. If needed delete and ingest that content again from a valid source.</li> </ul>

**Code DOC-CX10892: “marker was not found after the current timeline position” (Warning)**

Situation	Solution
The "Jump To Marker" could not be executed because no marker cue was found in the playlist after the current timeline position.	Check the show playlist and current timeline position.

**Code DOC-CX10893: “invalid clips skipped during playback” (Warning)**

Situation	Solution
Some invalid clips of the playlist have been skipped during last playback.	Check the clips of the playlist loaded in the player. Fix the invalid clips and reload the show or continue playing without those clips.

**Code DOC-CX10894: “invalid clips detected - they will be skipped during playback” (Warning)**

Situation	Solution
Some invalid clips of the playlist will be skipped during playback. This error will be reported after selection, before start of the playback.	Check the clips of the playlist loaded in the player. Fix the invalid clips and reload the show or continue playing without those clips.

**Code DOC-CX10895: “player - missing license to play HFR content in 4K - play will be done in 2K” (Warning)**

Situation	Solution
The player loaded 4K HFR clips but the "4K-60fps" license is not present on the system. Those clips will be played in 2K only.	Request the license or play the content in 2K.

**Code DOC-CX10896: “player - invalid frame index - play might fail” (Warning)**

Situation	Solution
The system detected an invalid frame index in the content stream. The playback may be unreliable and you may experience audio or video artefacts.	Check the DCP. Assets duration should match the reel duration.

**Code DOC-CX10897: “player - source read error - play might fail” (Warning)**

Situation	Solution
An error occurred while reading from the source material because the source storage is disconnected or in error.	Check the source storage connection and health. If needed, reload the content to play.

**Code DOC-CX10898: “player - buffering in progress” (Warning)**

Situation	Solution
The player buffers have depleted and the player is trying to refill them.	Check the source storage connection and health. If needed, reload the content to play.

**Code DOC-CX10899: “player - unsupported source url - command rejected” (Error)**

Situation	Solution
The content storage url does not refer to a supported scheme. ICMP version 1.3.1 supports playback from the local storage NFS share or from a USB3.0 device	Change the storage access url to a supported scheme. This may required new configuration on the source library.

**Code DOC-CX10900: “player - command rejected” (Error)**

Situation	Solution
The command was rejected because the player is busy with some operation.	Wait for the player to end the current operation.
The command was rejected because the player has been busy with some operation for several minutes: player is stalled.	Restart the projector. If the problem persists, escalate the issue including a log package from the system.

**Code DOC-CX10901: “player - storage not available - selection failed” (Error)**

Situation	Solution
The player cannot select content because the HDDs for the local storage are not present.	Insert HDDs for the local storage.
The player cannot select content because the local storage was not mounted.	Restart the projector. If the problem persists, escalate the issue including a log package from the system.
The player cannot select content because the local storage is in error.	Repair or replace the failed HDDs.

**Code DOC-CX10903: “player - content not found - selection failed” (Error)**

Situation	Solution
The player cannot select content because it is not on the local storage.	Check that the content is present on the local storage.

**Code DOC-CX10904: “player - content read error - selection failed” (Error)**

Situation	Solution
The player cannot select content because an error occurred while reading the content.	Restart the projector. If the problem persists, escalate the issue including a log package from the system.

**Code DOC-CX10905: “player - content ingest running - selection failed” (Error)**

Situation	Solution
The player cannot select content because the content is being ingested.	Wait for the end of ingest before playing the content.

**Code DOC-CX10906: “player - content check running - selection failed” (Error)**

Situation	Solution
The player cannot select content because the content integrity check is running.	Wait for the end of the integrity check before playing the content or cancel the integrity check operation.

**Code DOC-CX10907: “player - content not supported - selection failed” (Error)**

Situation	Solution
The player cannot select content because it refers to unsupported material.	Check the specification of the current version.
The player cannot select content because it refers to unsupported material in the current version.	Check the specification of the current version.

**Code DOC-CX10908: “player - no valid clip found - selection failed” (Error)**

Situation	Solution
The player cannot select content because it found no valid clip to play.	Check validity of selected clips.

**Code DOC-CX10909: “player - maximum clip count exceeded - selection failed” (Error)**

Situation	Solution
The player cannot select content because it refers to more than the allowed clip count.	Reduce the number of clips in the show.

**Code DOC-CX10910: “player - maximum key count exceeded - selection failed” (Error)**

Situation	Solution
The player cannot select content because it refers to more than the allowed asset key count.	Reduce the number of encrypted clips in the show. Note that an encrypted clips usually refers to several asset keys.

### Code DOC-CX10911: “player - incomplete content - selection failed” (Error)

Situation	Solution
The player cannot select content because it refers to incomplete content.	Ingest the incomplete or missing clips.

### Code DOC-CX10912: “player - bad content integrity - playback can fail” (Warning)

Situation	Solution
The player selected content that was marked as corrupted. The play can start but it could run into issues depending on the corruption type.	It is highly recommended to delete and re-ingest corrupted content. If the source DCP is corrupted, then a healthy DCP should be requested. The playback of such content can create picture or audio artefacts or could simply fail.

### Code DOC-CX10913: “player - hash from CPL and PKL do not match - selection failed” (Error)

Situation	Solution
The player selected content that contains inconsistent assets hash codes. The hash codes are invalid in the DCP itself.	Request a new DCP from the content provider with matching hash codes between the PKL and the CPL. The DCI does not allow encrypted content to play if the hash codes don't match.

### Code DOC-CX10914: “player - subtitles preprocessing error - cannot play” (Error)

Situation	Solution
The subtitles cannot be played because the assets are invalid and cannot be processed.	Request a new DCP from the content provider with correct subtitles.
The subtitles cannot be played because an error occurred during pre-processing.	Restart the projector. If the problem persists, escalate the issue including a log package from the system.

### Code DOC-CX10915: “player - subtitles validation error - cannot play” (Error)

Situation	Solution
The subtitles cannot be played because they are not valid and are rejected by the renderer.	Request a new DCP from the content provider with correct subtitles.
The subtitles cannot be played because they are not supported by the renderer.	Update the ICMP or get a content version with subtitles supported by the current ICMP version.

**Code DOC-CX10916: “player - captions preprocessing error - cannot play” (Error)**

Situation	Solution
The closed captions cannot be played because the assets are invalid and cannot be processed.	Request a new DCP from the content provider with correct closed captions.
The closed captions cannot be played because an error occurred during pre-processing.	Restart the projector. If the problem persists, escalate the issue including a log package from the system.

**Code DOC-CX10917: “player - captions validation error - cannot play” (Error)**

Situation	Solution
The closed captions cannot be played because they are not valid and are rejected by the renderer.	Request a new DCP from the content provider with correct closed captions.
The closed captions cannot be played because they cannot be accessed by the caption rendering device.	Check the network path between the projector and the caption rendering device.
The closed captions cannot be played because they are not supported by the caption rendering device.	Check the caption rendering device specifications.

**Code DOC-CX10918: “player - image processor not available - cannot play” (Error)**

Situation	Solution
The play cannot start because there's no connection with the image processor software.	Restart the projector. If the problem persists, escalate the issue including a log package from the system.

**Code DOC-CX10920: “player - assets read error - selection failed” (Error)**

Situation	Solution
The player selection failed because an error occurred while reading content assets. One or more assets are corrupted.	Check the content integrity. Delete corrupted content and ingest it again. The system log may provide more details about the corrupted content.
The playback failed because an error occurred while reading content assets. One or more assets are corrupted.	Check the content integrity. Delete corrupted content and ingest it again. The system log may provide more details about the corrupted content.

**Code DOC-CX10921: “player - assets missing - selection failed” (Error)**

Situation	Solution
The player selection failed because some assets are missing.	Ingest the content that is incomplete to add the missing assets.

**Code DOC-CX10922: “player - IMB not available - cannot play” (Error)**

Situation	Solution
The play cannot start because there's no connection with the IMB.	Restart the projector. If the problem persists, escalate the issue including a log package from the system.

**Code DOC-CX10923: “player - CPL not compliant with SMPTE 429-7 - cannot play” (Error)**

Situation	Solution
The play cannot start because one of the CPLs is not SMPTE compliant.	Request a SMPTE compliant CPL from the content provider.

**Code DOC-CX10924: “player - invalid CPL signature - cannot play” (Error)**

Situation	Solution
The play cannot start because one of the CPLs has an invalid signature.	Request a CPL with a valid signature from the content provider.

**Code DOC-CX10925: “player - invalid CPL signer chain - cannot play” (Error)**

Situation	Solution
The play cannot start because the signature of one CPL was generated with an invalid or non-compliant signer chain.	Request a CPL that is signed with a valid signer chain from the content provider.

**Code DOC-CX10926: “player - invalid CPL envelopped digest - cannot play” (Error)**

Situation	Solution
The play cannot start because one of the CPL digests used for the signature does not match.	Request a CPL with a valid signature from the content provider.

**Code DOC-CX10927: “player - missing CPL assets - cannot play” (Error)**

Situation	Solution
The play cannot start because one of the CPLs is missing one or more assets.	Ingest the CPL that is incomplete to add the missing assets.

**Code DOC-CX10928: “player - corruption in CPL assets - play might fail” (Warning)**

Situation	Solution
The play can start but one or more assets are corrupted and could cause problems or failure during playback.	It is highly recommended to delete and re-ingest corrupted content. If the source DCP is corrupted, then a healthy DCP should be requested. The playback of such content can create picture or audio artefacts or could simply fail.

**Code DOC-CX10929: “player - integrity check initialization error - cannot play” (Error)**

Situation	Solution
The security module cannot compute valid integrity check values because the content HMAC values are incorrect.	Request a DCP with valid HMAC values from the content provider.
The security module cannot compute valid integrity check values because the content HMAC values are not supported.	Update the ICMP to a version supporting the HMAC values.

**Code DOC-CX10930: “player - no valid KDM found - cannot play” (Error)**

Situation	Solution
The play cannot start because there are no valid KDMs for at least one of the encrypted clips.	Ingest a valid KDM for the encrypted CPL.

**Code DOC-CX10931: “player - KDM not found - selection failed” (Error)**

Situation	Solution
The selection in the player failed because the requested KDM is missing on the local storage.	Check that the KDM is listed in the content browser. Delete the KDM and ingest it again.

**Code DOC-CX10932: “player - KDM read error - selection failed” (Error)**

Situation	Solution
The selection in the player failed because the system failed to read the requested KDM file.	Delete the corrupted KDM and ingest it again.
The selection in the player failed because the system failed to read information for the requested KDM in the database.	Restart the projector. If the problem persists, delete the KDM and ingest it again. If the problem persists, escalate the issue including a log package from the system.

**Code DOC-CX10933: “player - KDM not compliant with standard (SMPTE 430-1) - cannot play” (Error)**

Situation	Solution
The play cannot start because one KDM is not compliant with SMPTE 430-1 standard.	Request a KDM that is SMPTE 430-1 compliant. More details can be found in the syslog.

**Code DOC-CX10934: “player - invalid KDM signer chain - KDM rejected” (Error)**

Situation	Solution
The play cannot start because the signature of one KDM was generated with an invalid or non-compliant signer chain.	Request a KDM that is signed with a valid signer chain from the content provider.

**Code DOC-CX10935: “player - invalid KDM envelopped digest - KDM rejected” (Error)**

Situation	Solution
The play cannot start because one of the KDM digests used for the signature does not match.	Request a KDM with a valid signature from the content provider.

**Code DOC-CX10936: “player - invalid KDM signature - KDM rejected” (Error)**

Situation	Solution
The play cannot start because one of the KDMs has an invalid signature.	Request a KDM with a valid signature from the content provider.

**Code DOC-CX10937: “player - asset keys invalid match in the KDM - KDM rejected” (Error)**

Situation	Solution
The play cannot start because one of the KDMs is referencing keys that are not matching with the keys referenced by the CPL.	Request a KDM or a CPL with matching decryption keys.

**Code DOC-CX10938: “player - invalid trusted device list in the KDM - KDM rejected” (Error)**

Situation	Solution
The play cannot start because one of the KDMs contains an invalid trusted device list (TDL).	Request a KDM with a valid or a generic TDL. Note the ICMP is a permanently married system and doesn't process the TDL but it needs to check that the TDL is properly formatted. For the same reason, the ICMP only provides one certificate while separate IMB - ICP configurations (non-permanently married) would provide 2 distinct certificates.

**Code DOC-CX10939: “player - missing trusted device list in the KDM - KDM rejected” (Error)**

Situation	Solution
The play cannot start because one of the KDMs does not contain a trusted device list (TDL). The KDM should at least reference a generic TDL.	Request a KDM with a valid or a generic TDL. Note the ICMP is a permanently married system and doesn't process the TDL but it needs to check that the TDL is properly formatted. For the same reason, the ICMP only provides one certificate while separate IMB - ICP configurations (non-permanently married) would provide 2 distinct certificates.

**Code DOC-CX10940: “player - KDM not matching the IMB certificate - KDM rejected” (Error)**

Situation	Solution
The play cannot start because one of the KDMs is not targeted for the current ICMP certificate. The KDM is targeted for another device with another certificate.	Ingest a KDM for the current ICMP certificate. The certificate can be exported from the about box of the Barco (Web) Commander or from Barco (Web) Communicator.

**Code DOC-CX10941: “player - KDM decryption error - KDM rejected” (Error)**

Situation	Solution
The play cannot start because one of the KDMs could not be decrypted.	Restart the projector. If the problem persists, escalate the issue including a log package from the system.
The play cannot start because one of the KDMs is invalid and cannot be decrypted.	Check the system log and request a new KDM.

**Code DOC-CX10942: “player - unvalidated CPL referenced in KDM - KDM rejected” (Error)**

Situation	Solution
The play cannot start because the targeted KDM is referencing a CPL that was not previously validated. TMS application is trying to load a CPL with an explicit KDM which is not matching.	For such operations, TMS applications should provide a correct explicit KDM that matches the selected CPL.

**Code DOC-CX10943: “player - Media Player input used - input switching rejected” (Error)**

Situation	Solution
The system cannot switch to an alternative input because the Media Player input is currently used: a playback is running.	Wait for the end of the playback or stop the current playback before switching to the alternative input.
The system cannot switch to an alternative input because the Media Player input is currently used: the scheduler is enabled.	Disable the scheduler and stop any running playback before switching to the alternative input.

**Code DOC-CX10944: “player - service door tamper - cannot play” (Error)**

Situation	Solution
The play cannot start because a service door tamper is being reported.	Close the service door and clear the tamper from the projector.

**Code DOC-CX10945: “player - board insertion tamper - cannot play” (Error)**

Situation	Solution
<p>The play cannot start because an insertion tamper is being reported. The insertion tamper is triggered when the ICMP is removed from a projector but is only reported when inserted in a new projector.</p>	<p>Make sure the board is properly inserted and clear the insertion tamper from the projector.</p>

**Code DOC-CX10946: “player - no show selected” (Error)**

Situation	Solution
<p>The selected show cannot be returned. A TMS application is trying to read the selected show from the player but nothing is currently selected.</p>	<p>TMS applications should first select a content in the Player in order to read the selected show.</p>

**Code DOC-CX10947: “player - Media Player input not selected - cannot play” (Error)**

Situation	Solution
<p>The playback cannot start because the Media Player input is not the active input. An alternative input is currently selected.</p>	<p>Execute a macro on the projector to select the Media Player input before starting the playback.</p>

**Code DOC-CX10948: “player - incomplete content (no picture found) - selection failed” (Error)**

Situation	Solution
<p>The player cannot play the selected content because it cannot identify the video asset.</p>	<p>The content is probably ill-formed or is using obsolete specifications. Get a valid source DCP with a correct version of the content.</p>
<p>The player cannot play the selected content because it does not support the type of video asset.</p>	<p>Update the ICMP with a version that supports that type of content.</p>

**Code DOC-CX10949: “player - KDM outside signer time window - KDM rejected” (Error)**

Situation	Solution
<p>The play cannot start because one of the KDM validity is outside of the signer validity period.</p>	<p>Request a KDM with a correct validity period from the content provider.</p>

**Code DOC-CX10950: “player - slave player not connected - cannot play” (Error)**

Situation	Solution
The play cannot start because a slave projector is not connected.	Check the connectivity between the master and the slave projectors.

**Code DOC-CX10951: “player - selection failed on slave player - cannot play” (Error)**

Situation	Solution
The play cannot start because the selection failed on a slave projector.	Check the error that occurred on the slave projectors. In case of show format error, try to modify the show on the master using the Web Commander application and then retry.

**Code DOC-CX10952: “player - play failed on slave player - cannot play” (Error)**

Situation	Solution
The play cannot start because the play command failed on a slave projector.	Check the error that occurred on the slave projectors.

**Code DOC-CX10953: “player - change position failed on slave player - cannot play” (Error)**

Situation	Solution
The play cannot start because the change position command failed on a slave projector.	Check the error that occurred on the slave projectors.

**Code DOC-CX10954: “player - slave player not in slave mode - cannot play” (Error)**

Situation	Solution
The play cannot start because a slave projector is not in slave mode anymore.	Connect to the slave projectors, make sure the slave mode is active, reload the content on the master projector and retry.

**Code DOC-CX10955: “player - stop failed on slave player” (Error)**

Situation	Solution
The stop command failed on a slave projector.	Check the error that occurred on the slave projectors.

**Code DOC-CX10956: “player - clear failed on slave player” (Error)**

Situation	Solution
The clear command failed on a slave projector.	Check the error that occurred on the slave projectors.

**Code DOC-CX10957: “player - slave player not in expected state - cannot play” (Error)**

Situation	Solution
The play cannot start because the player of a slave projector is not in the expected state.	Check the state and any error that occurred on the slave projectors.

**Code DOC-CX10958: “player - missing license on master player - playing in standalone mode” (Warning)**

Situation	Solution
The expected multi-projector license is not present or not valid on the master. The master can be in standalone mode only.	Check the license on the master and request a new one.

**Code DOC-CX10959: “player - command disabled in current player mode” (Error)**

Situation	Solution
The command is rejected because it is not allowed in the current player mode.	Change the player mode and retry.

**Code DOC-CX10960: “player - selection failed on slave - playing in standalone mode” (Warning)**

Situation	Solution
The selection failed on a slave projector. The master can play in standalone mode.	Check the error that occurred on the slave projectors.

**Code DOC-CX10961: “player - invalid insert show cue - incomplete playlist” (Warning)**

Situation	Solution
The player could not dynamically insert show referenced by a cue into the selected content. The show to insert does not exist or is used.	Check that the show referenced by the cue exist and that it is valid.

**Code DOC-CX10962: “player - slave command rejected - not a Barco client” (Error)**

Situation	Solution
The slave projector rejects the command because it is reserved internal use.	Reserved API call cannot be used by TMS or any client.

**Code DOC-CX10963: “player - license not allowing C-KDM key type - key rejected” (Error)**

Situation	Solution
The C-KDM key type is not accepted because no valid license is present to support them.	Request a KDM or request a license to support C-KDM only or both KDM and C-KDM.

**Code DOC-CX10964: “player - license not allowing KDM key type - key rejected” (Error)**

Situation	Solution
The KDM key type is not accepted because no valid license is present to support them. A C-KDM license is probably installed.	Request a C-KDM or request a license to support KDM only or both KDM and C-KDM.

**Code DOC-CX10965: “player - key store failed - key rejected” (Error)**

Situation	Solution
The key could not be stored by the security manager. The key cannot be used for playback.	Clear the player and reload the content. If this fails, restart the projector and retry. If this still fails, contact support.

**Code DOC-CX10966: “player - no remaining key credit - cannot play” (Error)**

Situation	Solution
The key is not valid anymore because the playback budget has been fully consumed.	Request a new C-KDM to get new playback credits.

**Code DOC-CX10967: “player - invalid key signature - key rejected” (Error)**

Situation	Solution
The play cannot start because one of the KDM has an invalid signature.	Request a KDM with a valid signature from the content provider.

**Code DOC-CX10968: “player - invalid key signer chain - key rejected” (Error)**

Situation	Solution
The play cannot start because the signature of one KDM was generated with an invalid or not compliant signer chain.	Request a KDM that is signed with a valid signer chain from the content provider.

**Code DOC-CX10969: “player - key decryption error - key rejected” (Error)**

Situation	Solution
The play cannot start because one of the KDM could not be decrypted.	Restart the projector. If the problem persists, escalate the issue including a log package from the system.
The play cannot start because one of the KDM is invalid and cannot be decrypted.	Check the system log and request a new KDM.

**Code DOC-CX10970: “player - invalid xml document - key rejected” (Error)**

Situation	Solution
The play cannot start because the key is not a well formed xml document. It is probably corrupted.	Request a new valid key by the content key provider.

**Code DOC-CX10971: “player - degraded mode - master/slave sync may be temporarily unavailable” (Warning)**

Situation	Solution
The communication between the master and slave projectors is broken. The playback may continue till the end of the current clip then only the master will continue the playback.	Check the connectivity between the master and the slave projectors. If restored before the end of the current clip, the playback may continue as normal else the master player will go to the standalone mode.

**Code DOC-CX10972: “player - reverted to standalone playback - master/slave sync is ignored” (Warning)**

Situation	Solution
The communication between the master and slave projectors is broken. The playback could not be synchronized anymore. The master player is playing in standalone mode.	Restore the communication and reload the content on the master.

**Code DOC-CX10973: “player - no valid key found - cannot play” (Error)**

Situation	Solution
The play cannot start because there are no valid key for at least one of the encrypted clips.	Ingest a valid key for the encrypted CPL.

**Code DOC-CX10974: “player - key not found - selection failed” (Error)**

Situation	Solution
The selection in the player failed because the requested key is missing on the local storage.	Check the key is listed in the content browser. Delete the key and ingest it again.

**Code DOC-CX10975: “player - key read error - selection failed” (Error)**

Situation	Solution
The selection in the player failed because the system failed to read the requested key file.	Delete the corrupted key and ingest it again.
The selection in the player failed because the system failed to read information for the requested key in the database.	Restart the projector. If the problem persists, delete the key and ingest it again. If the problem persists, escalate the issue including a log package from the system.

**Code DOC-CX10976: “player - key not compliant with standard (SMPTE 430-1) - cannot play” (Error)**

Situation	Solution
The play cannot start because one key is not compliant with SMPTE 430-1 standard.	Request a key that is SMPTE 430-1 compliant. More details can be found in this syslog.

**Code DOC-CX10977: “player - invalid key envelopped digest - key rejected” (Error)**

Situation	Solution
The play cannot start because one of the key digest used for the signature does not match.	Request a key with a valid signature from the content provider.

**Code DOC-CX10978: “player - asset keys invalid match in the key - key rejected” (Error)**

Situation	Solution
The play cannot start because one of the key is referencing keys that are not matching with the keys referenced by the CPL.	Request a key or a CPL with matching decryption keys.

**Code DOC-CX10979: “player - invalid trusted device list in the key - key rejected” (Error)**

Situation	Solution
The play cannot start because one of the key contains an invalid trusted device list (TDL).	Request a key with a valid or a generic TDL. Note the ICMP is a permanently married system and doesn't process the TDL but it needs to check the TDL is properly formatted. For the same reason, the ICMP only provides one certificate while separate IMB - ICP configurations (non-permanently married) would provide 2 distinct certificates.

**Code DOC-CX10980: “player - missing trusted device list in the key - key rejected” (Error)**

Situation	Solution
The play cannot start because one of the key does not contain a trusted device list (TDL). The key should at least reference a generic TDL.	Request a key with a valid or a generic TDL. Note the ICMP is a permanently married system and doesn't process the TDL but it needs to check the TDL is properly formatted. For the same reason, the ICMP only provides one certificate while separate IMB - ICP configurations (non-permanently married) would provide 2 distinct certificates.

**Code DOC-CX10981: “player - key not matching the IMB certificate - key rejected” (Error)**

Situation	Solution
The play cannot start because one of the key is not targeted for the current ICMP certificate. The key is targeted for another device with another certificate.	Ingest a key for the current ICMP certificate. The certificate can be exported from the about box of the Barco Web Commander or from Barco (Web) Communicator.

**Code DOC-CX10982: “player - unvalidated CPL referenced in key - key rejected” (Error)**

Situation	Solution
The play cannot start because the targeted key is referencing a CPL that was not previously validated. TMS application is trying to load a CPL with an explicit key which is not matching.	For such operations, TMS applications should provide a correct explicit key that matches the selected CPL.

**Code DOC-CX10983: “player - key outside signer time window - key rejected” (Error)**

Situation	Solution
The play cannot start because one of the key validity is outside of the signer validity period.	Request a key with a correct validity period from the content provider.

**Code DOC-CX10984: “player - limited playback - scheduled mode not allowed” (Error)**

Situation	Solution
The scheduler cannot play the loaded show because the playback has limitation and cannot start at the beginning of the show playlist. It will be the case if the key budget only allows to play the end of a content.	Play the show in manual mode or request a new key to have more budget to play the content.

**Code DOC-CX10985: “player - immersive sound renderer error - immersive sound inactive” (Warning)**

Situation	Solution
Immersive sound cannot be validated by the immersive sound renderer or sound processor. Immersive sound will not play.	Check the communication with the immersive sound renderer or sound processor. Reload the content and retry. If the communication cannot be restored. Restart both the projector and the immersive sound renderer.

**Code DOC-CX10986: “player - missing immersive sound assets - immersive sound skipped” (Warning)**

Situation	Solution
Some clips are missing immersive sound assets. Those clips will be played without immersive sound.	Check the content and ingest the missing assets.

**Code DOC-CX10987: “player - corrupted immersive sound assets - immersive sound might fail” (Warning)**

Situation	Solution
Some clips contains corrupted immersive sound assets. The playback of immersive sound may fail or cause artefacts.	Check the content and ingest the corrupted assets.

**Code DOC-CX10988: “player - no valid immersive sound key found - immersive sound skipped” (Warning)**

Situation	Solution
Some clips are missing immersive sound keys. Those clips will be played without immersive sound.	Request the keys for the immersive sound renderer.

**Code DOC-CX10989: “player - immersive sound assets read error - immersive sound skipped” (Warning)**

Situation	Solution
Some immersive sound assets could not be read properly. Those clips will be played without immersive sound.	Reload the content. If this fails, restart the projector and retry. If this still fails try to delete and ingest the content again.

**Code DOC-CX10990: “player - automatic input selection warning - play might fail” (Warning)**

Situation	Solution
An error was detected during the automatic input selection. The playback on that input may be incorrect.	Check the output on the screen. Check the macro used to select the input. Activate the macro manually if needed but also check the player status.

**Code DOC-CX10991: “player - mezzanine communication error - live IP not available” (Error)**

Situation	Solution
The communication with the mezzanine board is in error. The live IP streaming is not possible.	Retry or restart the projector. If the problem persists, escalate the issue including a log package from the system.

**Code DOC-CX10992: “player - live IP source selection error - live IP not available” (Error)**

Situation	Solution
The selection of the live IP source has Check the live IP source and connectivity.	Retry or restart the projector. If the problem persists, escalate the issue including a log package from the system.

**Code DOC-CX10993: “player - aux. content renderer not ready - aux. content may not play” (Warning)**

Situation	Solution
One or more connected auxiliary content renderer device(s) are not ready in time. Playback is starting without them. Auxiliary content like closed captions or immersive sound might not play correctly.	Check the auxiliary content renderer devices and connectivity with the ICMP. Reload the content. Retry or restart the projector or the rendering device. If the problem persists, escalate the issue including a log package from the system and, if possible, from the rendering device.

**Code DOC-CX10994: “player - ADSP communication error - invalid audio” (Error)**

Situation	Solution
The communication with the audio processing module is in error. The audio will not play correctly and could generate noise.	Restart the ICMP. If the problem persists, escalate the issue including a log package from the system.

**Code DOC-CX10995: “player - ADSP input audio delay error - delay not applied” (Error)**

Situation	Solution
The audio settings for the alternative input could not be applied on the embedded sound processor. The audio is in error.	Retry or restart the projector. If the problem persists, escalate the issue including a log package from the system.

**Code DOC-CX10996: “player - ADSP error - format configuration failed” (Error)**

Situation	Solution
The audio channel configuration could not be applied to the embedded sound processor. The audio is in error.	Restart the projector. If the problem persists, escalate the issue including a log package from the system.

**Code DOC-CX10997: “player - IMB input switching error - input switching failed” (Error)**

Situation	Solution
The input switching has failed due to an error in the IMB.	Retry or restart the projector. If the problem persists, escalate the issue including a log package from the system.

**Code DOC-CX10998: “player - IMB error - play failed” (Error)**

Situation	Solution
The playback failed because an error occurred on the IMB.	Restart the projector. If the problem persists, escalate the issue including a log package from the system.

**Code DOC-CX10999: “player - IMB error - format configuration failed” (Error)**

Situation	Solution
The playback failed because an error occurred while applying the format on the IMB.	Restart the projector. If the problem persists, escalate the issue including a log package from the system.

## 5.3 List of abnormal behavior and possible solutions

### General

This chapter enumerates a list of possible abnormal behavior that could be meet and proposes solutions.

#### Abnormal behavior list

Description	Proposed solutions
Image artefacts like missing colors or noise in colors.	<ul style="list-style-type: none"> <li>• Check the software version and update if necessary. Please follow the procedure available in installation manual.</li> <li>• Clean the gold contacts. Please follow the procedure “<a href="#">Cleaning electronic contacts</a>”, page 52.</li> </ul>
Satellite board communication and/or configurations errors.	<ul style="list-style-type: none"> <li>• Check wiring from the backplane to the satellite board (bad cable or loose connector).</li> <li>• Clean the gold contacts. Please follow the procedure “<a href="#">Cleaning electronic contacts</a>”, page 52.</li> </ul>

## List of tools

5 cm of plastic (insulating) tube (Supplied in the replacement kit).  
Anti-static placement and ESD wrist band (not included in the replacement kit that Barco offers).  
Cleaning alcohol or isopropanol with soft cloth (not included in the replacement kit that Barco offers).  
ESD wrist band  
Flat screwdriver 7 mm  
Isopropyl (IPA) alcohol (>91%) in a small bottle or in Aerosol.  
Pair of insulating gloves (Supplied in the replacement kit).  
Pen to write the date on the sticker (not included in the replacement kit that Barco offers).  
Phillips screwdriver PH2  
Plastic (insulating) strip (Supplied in the replacement kit).  
Several cotton tips (Q-Tips) or a soft and non-fluffy cloth.  
Torx screwdriver T10  
Voltage meter  
Voltage meter (not included in the replacement kit that Barco offers).



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