

#### Cinema Equipment Maintenance for Extended Shutdown Period

In response to the global outbreak of COVID-19, theatres across the country are required to temporarily cease operations which may potentially be for an extended period of time. To face this unprecedented challenge, it is important that the cinema exhibition community comes together to support each other. By doing this we will ensure that when audiences return, our cinemas will be in prime condition to welcome them.

During this time Qube Cinema would like to suggest some best practices to follow for the maintenance of the cinema equipment that might be powered off for a long time. This is a working document and will be updated from time to time.

## **Qube Digital Cinema Servers:**

- The Media Block in Qube Digital Cinema Servers contains a battery to preserve critical parameters while the system is powered off. In the event that a Media Block battery is completely depleted, the system will not allow further playback, and the Media Block will have to be returned to Qube for servicing.
- In the event that all the equipment remains powered-on during the Theatre closure then the battery will not discharge.
- Powering on the server and Media Block for a minimum period of 1 hour every month will recharge and optimize supercapacitor usage and will ensure negligible battery usage. Note that for the Media Block to be powered on, the respective projector unit must also be powered on.
- If the Qube Digital Cinema Server and its Media Block are powered off for a period of 1 month or more, and the Media Block battery was last replaced more than 5 years ago, a preventive battery replacement is recommended, prior to the extended duration power off.

# **Digital Cinema Projectors:**

- Please protect the projector against high temperatures, dust, and humidity. Exhaust duct and cable openings of the projector should be closed to stop rodents/pests from entering inside. Lens caps or other protective coverings should be placed on the outside of the lenses to keep airborne dust and dirt from settling on the glass.
- Regularly check for projector coolant leaks, air filter quality, and general environment of the projector.
- As periodic maintenance, once every week, fully turn on the projectors in normal conditions and playback test DCPs (Trailers and/or Ads are also fine) for a minimum of 3-hours continuously and make sure that they work without any issues/errors.
- The ICP board, Cinema Interface board and Enigma (Link Decryptor) board in DCI projectors hold a battery inside. If it is not possible to test-run every week then it is suggested to power on the projectors once every month for a minimum of 12-hours.
- For all Barco Series 2 projectors in operation for more than 5 years, or the last battery replacement was done more than five years back, then it is recommended to change all replaceable batteries.



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- For all Christie projectors, when powering down a projector, the security ring and service door, both must be closed.
- Please consider that if internal charging processes or battery replacement are not followed, any related error might not be covered under warranty by the projector manufacturer.

## **3D Systems:**

- 3D systems should be moved to the 2D position, away from the projector lens to avoid any physical damage.
- The polarize filter and glass opening of the 3D system should be covered to protect against dust or moisture.

### **Audio Equipment:**

- Protect the amplifiers and speakers against dust and moisture.
- Dolby Cinema Processor models CP750 and CP950 are considered safe to leave without power for extended periods.
- Dolby Cinema Processor model CP850 has a non-rechargeable battery, the recommended replacement interval for this battery is 3 years. The current voltage status of the battery can be checked by downloading a set of logs from the CP850, the information is available in the file /temp/info/SECURITY\_STATUS. The battery can be considered healthy if the battery voltage is between 3.37 and 3.7 volts. At 3.2 volts the battery should be changed as soon as possible

**Note:** In addition to the recommendations above, please understand that there is a risk of general failure from the equipment power down and power up process. It is suggested that any equipment be kept powered up where possible.

Please reach out to your local Qube technical support contact or **support@qubecinema.com** for additional information or any assistance concerning equipment maintenance. In the interest of public health, and for the safety of the Qube team, most of our support engineers are working remotely during this time, and it may take us a little longer to respond to queries, but rest assured we are there for your support.

Stay Safe!