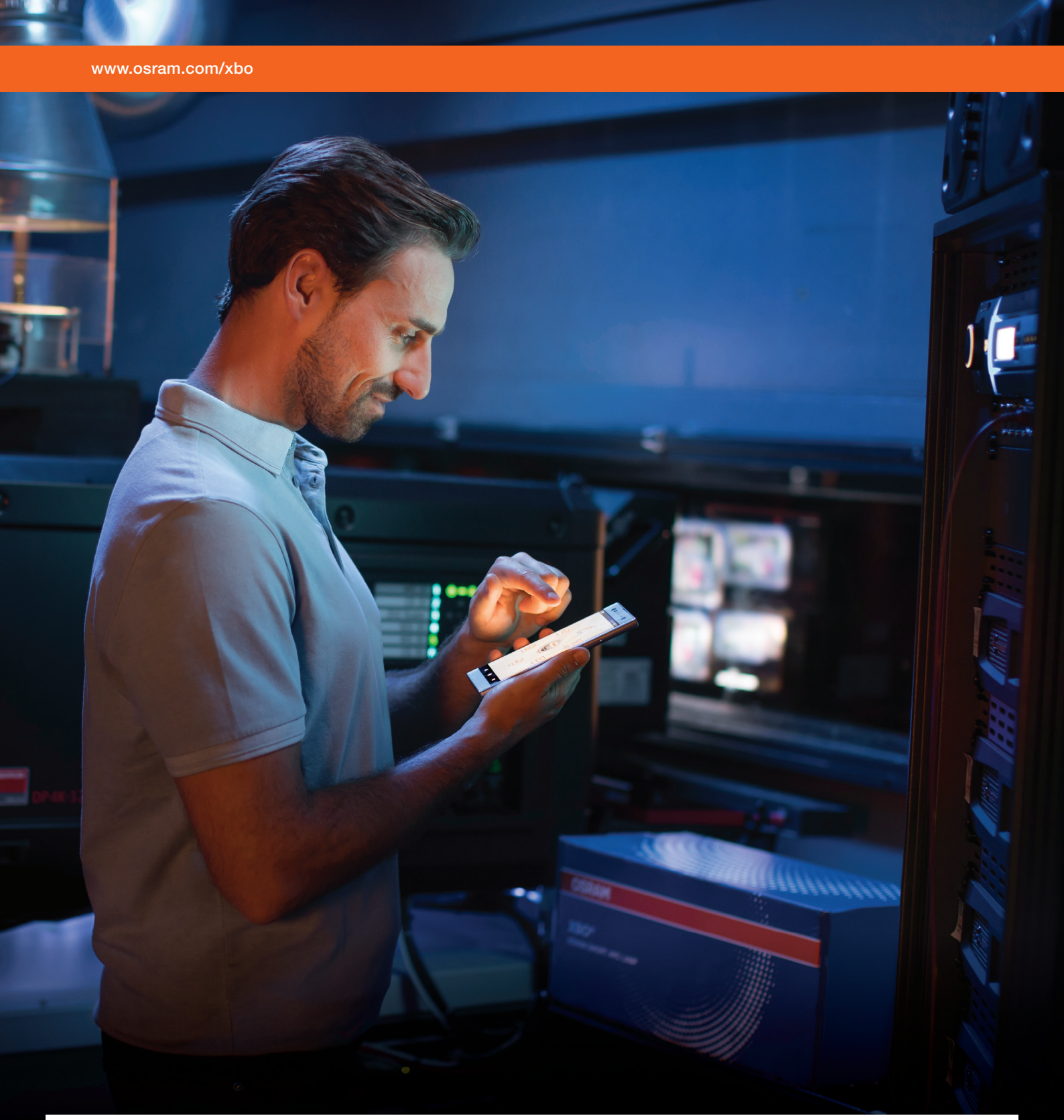
www.osram.com/xbo



Light is digital

XBO® is setting standards – on the screen and on your mobile device

Light is OSRAM

OSRAM

Light is fame
XBO® continues creating new stars

In the right light, a nameless model becomes a timeless movie star and a cinema screen becomes an exciting new world. After decades of creating stars and delivering outstanding performances, OSRAM XBO® has earned its home in the movie-making capital of the world.

OSRAM XBO® historical milestones

1954 OSRAM introduces world's first XBO® lamp replacing the traditional carbon arc.

1955 XBO® 1600 W lamp introduced to Europe.

1961 Introduction of XBO® 2500 W xenon short arc lamps.

1970 XBO® lamps optimized for horizontal operation.

1980 OSRAM introduces XBO® lamps with ozone free quartz.

1983 ACADEMY AWARD® for technical achievement in development of XBO® lamps.

2000 OSRAM introduces XBO® 12.000 W lamp with the highest light output for 35 mm projection.

In 1954 an international cinema icon was born. That was when the XBO® lamp from OSRAM superseded the carbon lamp as the new standard in cinema projection. This light source was so successful in enhancing the screen presence of full-color Hollywood blockbusters that OSRAM was presented with a coveted Oscar for the XBO® lamp at the 1983 Academy Awards ceremony.

Continuously modified and improved over the years, OSRAM XBO® cinema lamps have kept pace with the switch to digital cinema since 2000. Today they represent the cutting edge of film technology – they are sturdy, durable, efficient and impress with their illuminance.

Count on OSRAM XBO® to develop glamorous new stars and new ways to shine on screen.



2001 Extended durability and enhanced warranty program of the XBO® lamp.

2002 OSRAM introduces high wattage XBO® lamps for large screens.

2006 Digital cinema lamps covering most of the digital projectors in the market.

2007 Segmentation into three application lines: Classic, Xtreme Life and Digital.

2008 Finalized mechanization of XBO® cinema lamp production with the first fully automated XBO® production of the world.

2011 Introduction of the 2nd generation of digital cinema lamps.

2012/2013 Introduction of long life lamps for digital cinema projection.

2014 60th anniversary of XBO® cinema lamps.

2018 Introduction of XBO Service Platform (app).

Light is how we see the world

Our passion for light shines on the big screen.



Going to the cinema is not just about watching blockbuster movies while eating popcorn. It's about escaping daily life and diving into another world. For more than 60 years, OSRAM XBO® lamps have delighted audiences worldwide and transformed a visit to the cinema into an experience they will remember.

The age of digital cinema has placed huge demands on projection technology, but XBO® cinema lamps have stayed one step ahead of the demands with continuous improvements and upgrades.

New digital cinema projectors and large screens require a high light output. OSRAM XBO® cinema lamps rise to the challenge with a level of luminance that guarantees brilliant, high-resolution images while maintaining the quality of the image—all with an impressive lifespan.

OSRAM XBO® product highlights in details

- Short arc with highest luminance for brighter screen illumination
- A lifetime of reliable performances with constant 6000K color temperature
- Easy to maintain
- High level of arc stability
- Hot restart and instant light on screen
- Dimmable in a wide range
- Wattage from 1200W to 8000W
- Designed to perform best within the projectors of all major manufacturers



OSRAM
XBO
Service Platform



Light is never-ending
OSRAM XBO® delivers long-lasting emotions

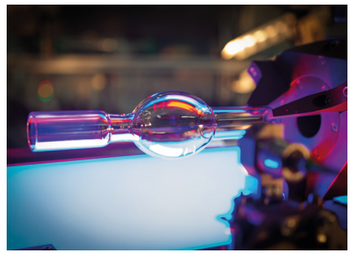
OSRAM´s passion for illuminating the world´s stories motivates continuous improvements. With our XBO® cinema lamps, we offer product exceeding the highest expectations for quality, cost-per-hour and customer service. Our large cinema lamp portfolio guarantees the ideal lamp for your theater. Reduce your cost of ownership, thanks to our new long-life generation with minimal aging over the lifetime. With XBO® digital cinema lamps, the drama remains on the screen!



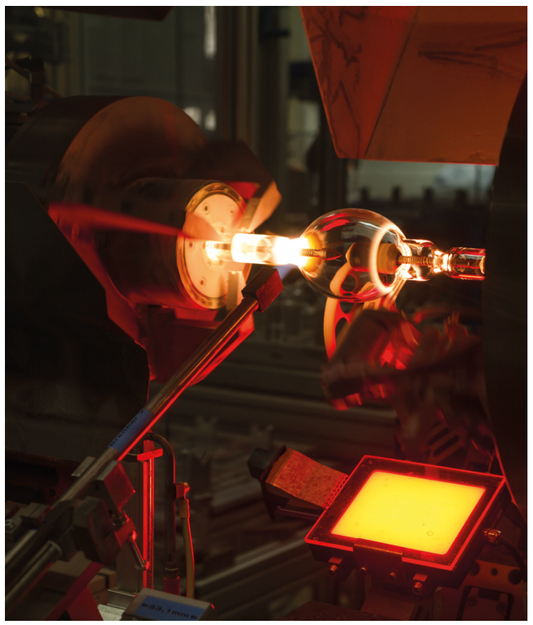


OSRAM quality – automatically!

XBO® cinema lamps are from genuine OSRAM production “Made in Germany”. The automated processing of high quality materials together with strict OSRAM Quality controls ensures a consistent high lamp standard. Experience our passion for cinema lighting by watching our latest video from our XBO® production facility in Eichstätt – www.osram.com/XBO





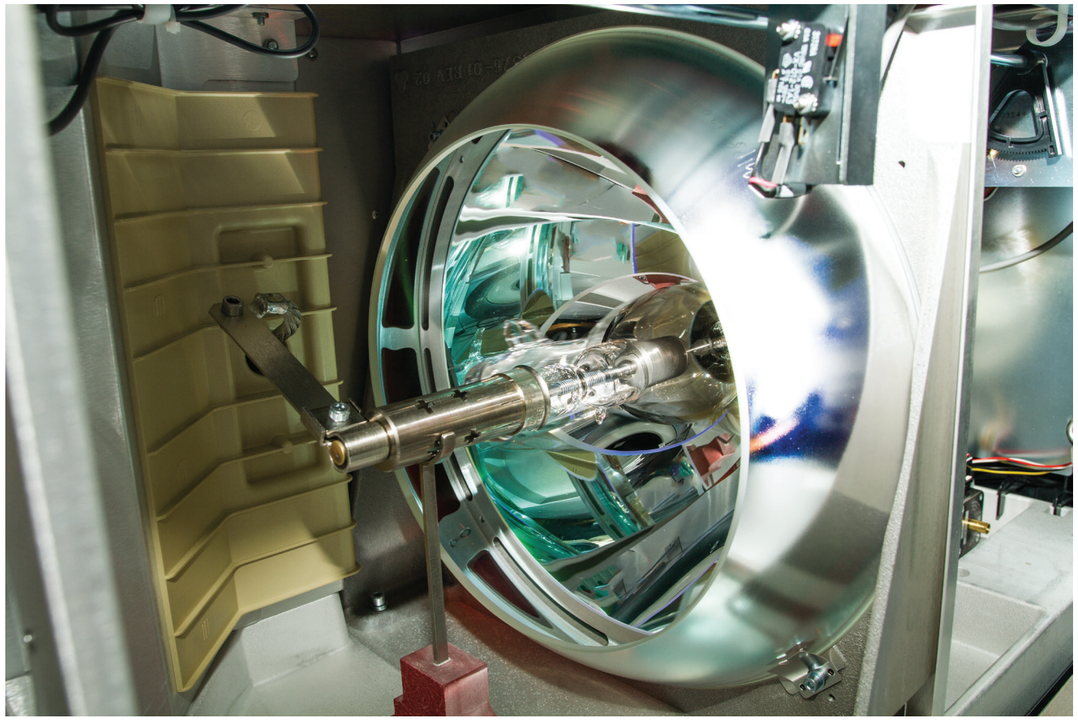


The XBO® delivers what it promises. Guaranteed!

Not only do XBO theater lamps set high quality standards, they also come with a warranty that is the best in the industry.

Light is connecting
Perfect couple: Projector and XBO®

The right partner is essential! OSRAM therefore offers a technically advanced range of XBO® cinema lamps specifically customized for all digital projectors provided by the leading manufacturers. There is a powerful and cost-effective XBO® solution for every projector and theater.



GLOBAL presence – serving our XBO® customers around the world.

Our XBO® technical experts are always here to give competent answer and advice to any technical question. Well trained field application engineers are available wherever you are located in the world ready to assit you with any lamp issue you might have.
Also visit our distributors search tool and locate a XBO® dealer in your area.
www.osram.com/PIA_distributorsearch

Lamp installation and disposal guide

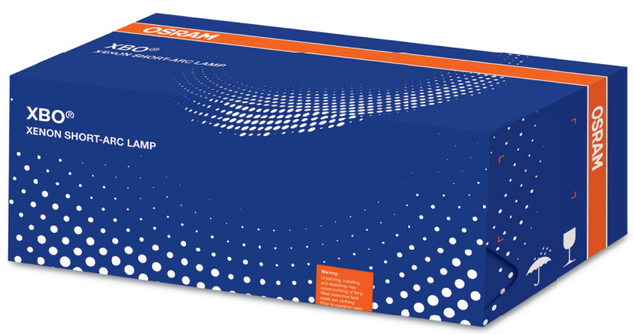
Handling and Warning
Before installing the OSRAM XBO® lamps always review the instructions supplied in the projector manufacturers' manual. Always wear safety equipment, including a protective jacket, lint-free gloves, and face shield before installing the OSRAM XBO® lamps. These items are available from your OSRAM dealer. Xenon Lamps should only be handled at room temperature. Please allow sufficient cool down time for at least 10 minutes after the lamp is turned off before open the lamp house. Turn off the electrical power prior installing, removing lamp or cleaning the lamp house. All OSRAM XBO® lamps are supplied in an OSRAM safety cover. This protects users aginst flying lamp remains in case a lamp will burst. There is enough energy stored in the lamp bulb to send quartz splinters flying several meters across a room. When the lamp is installed, its **safety cover** must not be removed until it has been fitted in the lamp housing and shortly before the housing is closed. XBO® lamps may only be held with lint-free gloves by the metal bases, never touch the glass with bare fingers! In case the quartz bulb was touched with bare fingers the fingerprints need to be removed immediately with an alcohol soaked lint-free cloth. Please avoid denting or scratching the quartz glass surface. Otherwise lamp could burst or will not reach the lifetime during later operation. OSRAM recommends realignement of the lamp after 200 hours of run time have passed. This will make up for electrode burn back and will assure best light output throughout the life time.
Useful installation videos about how to change the OSRAM XBO® lamps in different projectors can be found:
- English: www.osram.com/xbo
- German: www.osram.de/xbo

Disposal
End of life XBO® lamps can either be returned to municipal collection stations for appropriate disposal by methods consistent with modern recycling, if possible in the original transport packaging or in that of the replacement lamps shall be destroyed by the user. Observing all the precautions given in the "Installation section", it is advisable to wrap the lamps up in the safety cover and to seal the ends tightly with the enclosed hook-and-loop strips. The hook-and-loop strips have to press the fleece tightly onto the lamp bases. The lamps can then be discharged safely by free fall from a height of about 1–2 meters onto solid ground (put on safety glasses and protective clothing!). The xenon gas that escapes is not poisonous and returns to the atmosphere from where it came. The remains of the lamp can be disposed of as rubbish and the electrodes and rods (i.e. tungsten material) sent for recycling.

Transport and storage guideline

Transport of XBO® lamps
OSRAM XBO® lamps will always be supplied in original packaging. OSRAM XBO® lamps should only be shipped within its original packaging to avoid transport damages. Lamps being returned for warranty should be insured for the amount of anticipated credit and have to be shipped within original packaging.

Storage
OSRAM XBO® lamps should be stored under conditions by avoiding excessive climatic changes.



OSRAM XBO® technical data

Product reference	Product number	Warranty h	Service warranty h	Rated wattage W	Minimum power W	Maximum power W	Minimum current A	Maximum current A
XBO® 1200W/DHP	4008321396433	3000	3800	1200	840	1200	41	63
XBO® 1600W/DHP	4052899254831	3000	3800	1600	1120	1600	57	86
XBO® 2000W/DHP	4052899013056	2400	3000	2000	1400	2000	64	95
XBO® 2000W/DHP L	4052899275638	3300	3500	2000	1400	2000	64	95
XBO® 2200W/DHP	4008321865489	1500	2000	2200	1540	2200	68	95
XBO® 2500W/DHP	4052899010413	1700	2000	2500	1700	2500	63	95
XBO® 3000W/DHP	4008321300048	1500	1900	3000	2100	3000	77	113
XBO® 3000W/DHP L	4052899212886	1900	2100	3000	2100	3000	76	111
XBO® 3000W/DHS	4008321330017	1500	2000	3000	2100	3000	77	113
XBO® 4000W/DHP	4052899091825	1100	1400	4000	2940	4200	91	130
XBO® 4000W/DHP L	4052899212879	1300	1500	4000	2940	4200	95	137
XBO® 4500W/DHP	4008321633422	1000	1300	4500	3150	4500	108	155
XBO® 4500W/DHP L	4052899343344	1300	1500	4500	3150	4500	108	155
XBO® 6000W/DHP	4052899144026	650	800	6000	4500	6000	131	174
XBO® 6000W/DHP L	4052899343405	800	1000	6000	4500	6000	131	174
XBO® 6500W/DHP	4008321676078	500	750	6500	5000	6500	133	173
XBO® 6500W/DHP L	4052899448636	700	800	6500	5000	6500	133	173
XBO® 6500W DHP XL	4052899593640	800	900	6500	5000	6500	133	173
XBO® 1400W/DTS	4052899417793	3000	3500	1400	1000	1430	40	70
XBO® 1600W/DTS	4052899417786	3000	3500	1600	1100	1600	50	80
XBO® 1800W/DTS	4052899343276	1750	2100	1800	1260	1800	50	83
XBO® 2000W/DTS	4052899308862	1100	1500	2000	1400	2000	60	90
XBO® 2000W/DTP	4008321191533	2400	3500	2000	1400	2000	64	95
XBO® 2000W/DTP L	4052899287884	3300	4000	2000	1400	2000	64	95
XBO® 2100W/DTS	4052899376328	1000	1500	2100	1610	2100	60	85
XBO® 2300W/DTS	4052899359659	1000	1200	2300	1610	2300	60	90
XBO® 3000W/DTP	4008321191540	1500	2500	3000	2100	3000	74	104
XBO® 3000W/DTP L	4052899430549	1900	2800	3000	2100	3000	74	109
XBO® 3000W/DTS	4008321645050	1000	1500	3000	2100	3000	77	113
XBO® 4500W/DTP	4008321372734	1000	1300	4500	3150	4500	108	155
XBO® 4500W/DTP L	4052899343399	1300	1500	4500	3150	4500	108	155
XBO® 6000W/DTP	4052899143975	600	750	6000	4500	6000	140	175
XBO® 6000W/DTP L	4052899343429	800	1100	6000	4500	6000	140	175
XBO® 2000W/HPS	4052899013063	2700	3000	2000	1400	2000	46	87
XBO® 2000W/HPS L	4052899287761	3000	3500	2000	1400	2000	46	87
XBO® 3000W/HPS	4052899213630	1000	1300	3000	1500	3000	60	112
XBO® 4200W/HPS	4052899202092	700	850	4200	2100	4200	73	137
XBO® 4200W/HPS L	4052899202108	1000	1200	4200	2100	4200	69	131
XBO® 1200W/HPN	4008321741547	3000	3500	1200	840	1200	41	63
XBO® 2000W/HPN	4052899013070	2400	3000	2000	1400	2000	60	85
XBO® 2000W/HPN L	4052899263437	3000	3500	2000	1400	2000	60	85
XBO® 3000W/HPN	4008321756589	1500	1900	3000	2100	3000	77	108
XBO® 3000W/HPN L	4052899301528	1900	2100	3000	2100	3000	75	103
XBO® 4000W/HPN	4052899091931	650	750	4000	2800	4000	90	125
XBO® 4000W/HPN L	4052899134829	1100	1400	4000	2800	4000	90	125
XBO® 4500W/HPN	4008321756657	1000	1300	4500	3150	4500	108	150
XBO® 4500W/HPN L	4052899343351	1300	1500	4500	3150	4500	108	150
XBO® 6000W/HPN	4052899136373	650	800	6000	4500	6000	120	163
XBO® 6000W/HPN L	4052899343412	800	1100	6000	4500	6000	120	163

OSRAM XBO® cross reference list

Product reference	Projector type
BARCO projectors	
XBO® 1200W/DHP	8S, 10S, 12C, 15C, 20C, 19B, 23B, (32B)
XBO® 1600W/DHP	8S, 10S, 12C, 15C, 20C, 19B, 23B, (32B)
XBO® 2000W/DHP	10S, 12C, 15C, 20C, 19B, 23B, (32B)
XBO® 2000W/DHP L	10S, 12C, 15C, 20C, 19B, 23B, (32B)
XBO® 2200W/DHP	10S, 12C, 15C, 20C, 19B, 23B, (32B)
XBO® 2500W/DHP	15C, 20C, 19B, 23B, (32B)
XBO® 3000W/DHP	15C, 20C, 19B, 23B, (32B)
XBO® 3000W/DHP L	15C, 20C, 19B, 23B, (32B)
XBO® 3000W/DHS	32B
XBO® 4000W/DHP	20C, 19B, 23B, (32B)
XBO® 4000W/DHP L	20C, 19B, 23B, (32B)
XBO® 4500W/DHP	32B
XBO® 4500W/DHP L	32B
XBO® 6000W/DHP	32B
XBO® 6000W/DHP L	32B
XBO® 6500W/DHP	32B
XBO® 6500W/DHP L	32B
XBO® 6500W DHP XL	32B
CHRISTIE projectors	
XBO® 1400W/DTS	CP2208, CP2210, CP2215, CP2000M
XBO® 1600W/DTS	CP2208, CP2210, CP2215, CP2000M
XBO® 1800W/DTS	CP2210, CP2215, CP2000M
XBO® 2000W/DTS	CP2210, CP2215, CP2000M
XBO® 2000W/DTP	CP2220, CP4220, CP2230, CP4230, CP2000ZX, CP2000SB/XB/SX
XBO® 2000W/DTP L	CP2220, CP4220, CP2230, CP4230, CP2000ZX, CP2000SB/XB/SX
XBO® 2100W/DTS	Solaria One , One+
XBO® 2300W/DTS	CP2210; CP2215; CP2000M
XBO® 3000W/DTP	CP2220, CP4220, CP2230, CP4230, CP2000ZX, CP2000SB/XB/SX
XBO® 3000W/DTP L	CP2220, CP4220, CP2230, CP4230, CP2000ZX, CP2000SB/XB/SX
XBO® 3000W/DTS	CP2220, CP4220
XBO® 4500W/DTP	CP2230, CP4230, CP2000SB/XB/SX
XBO® 4500W/DTP L	CP2230, CP4230, CP2000SB/XB/SX
XBO® 6000W/DTP	CP2230, CP4230, CP2000SB/XB/SX
XBO® 6000W/DTP L	CP2230, CP4230, CP2000SB/XB/SX
SONY projectors	
XBO® 2000W/HPS	SRX-R320, SRX-R220
XBO® 2000W/HPS L	SRX-R320, SRX-R220
XBO® 3000W/HPS	SRX-R320, SRX-R220
XBO® 4200W/HPS	SRX-R320, SRX-R220
XBO® 4200W/HPS L	SRX-R320, SRX-R220
NEC projectors	
XBO® 1200W/HPN	1200C, 1600C, 2000C
XBO® 2000W/HPN	1200C, 1600C, 2000C
XBO® 2000W/HPN L	1200C, 1600C, 2000C
XBO® 3000W/HPN	1600C, 2000C
XBO® 3000W/HPN L	1600C, 2000C
XBO® 4000W/HPN	1600C, 2000C
XBO® 4000W/HPN L	1600C, 2000C
XBO® 4500W/HPN	2500S, 3200S, 3240S
XBO® 4500W/HPN L	2500S, 3200S, 3240S
XBO® 6000W/HPN	2500S, 3200S, 3240S
XBO® 6000W/HPN L	2500S, 3200S, 3240S

Trouble–shooting tips

Unexpected decreased LAMP LIFE
XBO® lamps usually reach the end of their life through wear of the electrodes, as this will lead to an increase of flickering and decrease of light output. In case of early lamp failure, the respective sections provide help for trouble-shooting. This should be carefully checked before a new lamp is installed.

Lamp does not ignite
If the lamp does ignite poorly or not at all the following has to be checked:

- Is the lamp type suitable for this projector?
- Is the lamp correct fitted regarding the installation instruction provided by projector and lamp manufacturer?
- Is the power lead between lamp and lamp house connected?
- Have you set the correct lamp type in the projector menu?
- Has the lamp already reached the end of life time?
- Does the cooling system work sufficient?
- Does the projector run with the latest software?

Visible Flickering on screen
If flicker is observed after installing a new lamp, the following has to be checked:

- Is the lamp type suitable for this projector?
- Has the lamp been turned on for at least 10 minutes, to obtain thermal stabilization?
- Have you set the correct lamp type in the projector menu?
- Is the lamp being operated within the correct projector settings for current and power range?
- Please check for strong vibration by lamp cooling and exhaust fans?
- Is the lamp correctly adjusted within the optical system (reflector)?

If flicker is observed during lamp lifetime, the previous and the followings need to be checked:

- Adjust the lamp one more time in the optical system (reflector)! Due to the burn back effect of the electrode the brightest point of the light arc will shift out of alignment within the reflector focus
- Set the lamp power to at least 85% of maximum power





Discoloration of lamp bases, cable and cable lugs
XBO® lamps produce an extremely high level of heat. Most of the heat must be dissipated by convection and radiation. Thermal blockages and excessive temperatures must be avoided.
If the upper limit of 230°C is exceeded, the lamp bases and cable discolour from light yellow till brown and blue.

- Check the lamp cooling and exhaust fans
- Check air filters for lamp cooling, they may be blocked
- Loose screws or insufficient electrical cable connection are decreasing the contact
- Wrong electrical current and lamp power settings
- Check the adjustment of the lamp in the optical system (reflector)

Due to an incorrect lamp adjustment in the optical system, emitted radiation could focus on lamp bases and cable.

Burst lamp
XBO® lamps are made of quartz glass and have a high internal pressure (about 60 bar in operation). However, they are very safe and burst lamps are rare. Possible reasons for a burst lamp:

- Lamp life exceeded over the Osram “Service Warranty”
- Incorrect lamp installation
- Wrong electrical current and lamp power settings
- Insufficient lamp cooling system, blocked air filters
- Scratches on the outer skin of the quartz
- Slightly damages by heavy shocks which were caused by rough transport
- Recrystallization on the surface of the quartz glass bulb caused by fingerprints which have not been removed
- Strong bulb blackening degrade the emission of radiation by the quartz bulb and causes a rise in lamp bulb temperature and pressure

Not enough light
If the initial light output is to low or has decreased rapidly, the following must be checked:

- Is the lamp type suitable for this projector?
- Does the lamp have turned on for at least 10 minutes, to obtain the initial brightness?
- Have you set the correct lamp type in the menu?
- Is the lamp being operated within the correct Lamp current and power range?
- Is strong bulb blackening visible?
- Is the optical system (reflector, lenses) very dusty and soiled?
- Is the lamp correctly adjusted to the optical system (reflector)?

Light is access

The XBO® Service Platform: Your all-access pass to our expertise

The OSRAM XBO® Service Platform puts the comprehensive knowledge of OSRAM's cinema lighting professionals at your fingertips. Our new app for Android and iOS is an industry first, designed with cinema technicians in mind. The XBO® Service Platform is an easy to use and time-saving tool offering the following functions:

General XBO® product information
- Find product-related information, such as technical data and warranty timeframes, for each lamp type according to the projector type

Training & technical support
- Get a view of the XBO® lamp production
- Learn how to install OSRAM's XBO® lamps in various projector types
- Troubleshoot the lamp issues with helpful videos and step-by-step instructions

News
- Get the latest scoop on events, product launches and promotions

OSRAM XBO® contacts
- Reach our local and global XBO® experts easily

The XBO® customers odering lamps directly from OSRAM are even able to submit the claims within the OSRAM XBO® Service Platform.

Download the app and have more than 60 years of XBO® lighting expertise with you at all times!

OSRAM XBO Service Platform

Download now!

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