



Light is pure emotion
XBO[®] creates stars and moves audiences

Light is OSRAM

OSRAM

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:

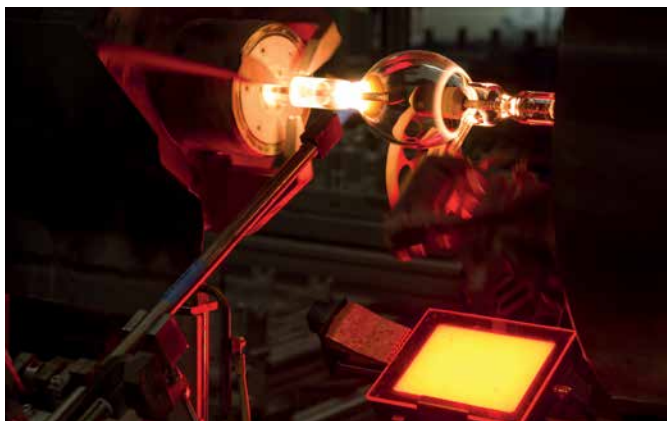
- Short arc with high luminance for brighter screen illumination
- A lifetime of reliable performances with constant 6000K color temperature
- Easy to maintain
- High level of arc stability
- Hot restart and instant light on screen
- Dimmable in a wide range
- Wattages from 1200W to 8000W
- Designed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



OSRAM quality – automatically!

XBO cinema lamps are the product of 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-america.com/cinema



XBO delivers what it promises. Guaranteed!

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

Ordering Guide

| XBO | 3000W | / | DHP | L |
|----------|---------|---|---|-------------------|
| XBO lamp | Wattage | | DHP=Digital High Performance (Barco Projectors) DHS=Digital High Performance Short (Barco Projectors) DTP=Digital Threaded Pin (Christie Projectors) DTS=Digital Threaded Super Performance (Christie Projectors) HPN=High Performance NEC HPS=High Performance Sony | Long Life Version |

OSRAM XBO technical data

| Product Name | Product Number | Warranty Hours (hrs) | Service | | Minimum Power (W) | Maximum Power (W) | Minimum Current (A) | Maximum Current (A) |
|------------------------------|----------------|----------------------|--------------------------------------|-------------------|-------------------|-------------------|---------------------|---------------------|
| | | | Warranty Lifetime (hrs) ¹ | Rated Wattage (W) | | | | |
| XBO 1200W/DHP | 69596 | 3000 | 3500 | 1200 | 840 | 1200 | 41 | 63 |
| XBO 1600W/DHP | 69840 | 3000 | 3300 | 1600 | 1120 | 1600 | 55 | 85 |
| XBO 2000W/DHP | 69150 | 2400 | 3000 | 2000 | 1400 | 2000 | 64 | 95 |
| XBO 2000W/DHP L | 68884 | 3300 | 3500 | 2000 | 1400 | 2000 | 60 | 90 |
| XBO 2200W/DHP | 67484 | 1500 | 1800 | 2200 | 1540 | 2200 | 68 | 95 |
| XBO 2500W/DHP | 69089 | 1700 | 2000 | 2500 | 1700 | 2500 | 63 | 95 |
| XBO 3000W/DHP | 69480 | 1500 | 1900 | 3000 | 2100 | 3000 | 77 | 113 |
| XBO 3000W/DHP L | 69048 | 1700 | 2000 | 3000 | 2100 | 3000 | 76 | 111 |
| XBO 3000W/DHS | 69462 | 1500 | 2000 | 3000 | 2100 | 3000 | 79 | 115 |
| XBO 4000W/DHP | 69481 | 1100 | 1400 | 4000 | 2940 | 4200 | 91 | 130 |
| XBO 4000W/DHP L | 69049 | 1300 | 1500 | 4000 | 2940 | 4200 | 95 | 137 |
| XBO 4500W/DHP | 69463 | 1000 | 1300 | 4500 | 3150 | 4500 | 108 | 155 |
| XBO 4500W/DHP L | 69050 | 1300 | 1500 | 4500 | 3150 | 4500 | 108 | 155 |
| XBO 6000W/DHP | 69476 | 650 | 800 | 6000 | 4500 | 6000 | 140 | 175 |
| XBO 6000W/DHP L | 69053 | 800 | 1000 | 6000 | 4500 | 6000 | 140 | 175 |
| XBO 6500W/DHP | 69523 | 500 | 750 | 6500 | 5000 | 6500 | 133 | 173 |
| XBO 6500W/DHP L | 54337 | 700 | 750 | 6500 | 5000 | 6500 | 133 | 173 |
| | | | | | | | | |
| XBO 1400W/DTS | 68891 | 3000 | 3500 | 1400 | 1000 | 1400 | 40 | 70 |
| XBO 1600W/DTS | 68892 | 3000 | 3500 | 1600 | 1100 | 1600 | 50 | 80 |
| XBO 1800W/DTS | 68880 | 1750 | 2000 | 1800 | 1260 | 1800 | 50 | 83 |
| XBO 2000W/DTS | 68881 | 1000 | 1300 | 2000 | 1400 | 2000 | 60 | 90 |
| XBO 2000W/DTP ² | 69155 | 2400 | 3000 | 2000 | 1400 | 2000 | 50 | 85 |
| XBO 2000W/DTP L ² | 68882 | 3300 | 3500 | 2000 | 1400 | 2000 | 64 | 95 |
| XBO 2100W/DTS | 68879 | 1000 | 1300 | 2100 | 1610 | 2100 | 60 | 85 |
| XBO 2300W/DTS | 68889 | 1000 | 1200 | 2300 | 1610 | 2300 | 60 | 90 |
| XBO 3000W/DTP ² | 69154 | 1500 | 1900 | 3000 | 2100 | 3000 | 90 | 120 |
| XBO 3000W/DTP L ² | 17106 | 1900 | 2100 | 3000 | 2100 | 3000 | 74 | 109 |
| XBO 3000W/DTS | 69063 | 1200 | 1500 | 3000 | 2100 | 3000 | 77 | 113 |
| XBO 4500W/DTP ² | 69459 | 1000 | 1300 | 4500 | 3150 | 4500 | 108 | 155 |
| XBO 4500W/DTP L ² | 69052 | 1300 | 1500 | 4500 | 3150 | 4500 | 108 | 155 |
| XBO 6000W/DTP ² | 69460 | 600 | 750 | 6000 | 4500 | 6000 | 140 | 175 |
| XBO 6000W/DTP L ² | 69055 | 800 | 1000 | 6000 | 4500 | 6000 | 140 | 175 |
| | | | | | | | | |
| XBO 2000W/HPS L | 68883 | 3000 | 3300 | 2000 | 1400 | 2000 | 60 | 87 |
| XBO 3000W/HPS | 69487 | 1000 | 1300 | 3000 | 1500 | 3000 | 77 | 113 |
| XBO 4200W/HPS | 60009 | 700 | 800 | 4200 | 2100 | 4200 | 73 | 137 |
| XBO 4200W/HPS L | 60008 | 1000 | 1200 | 4200 | 2100 | 4200 | 69 | 131 |
| | | | | | | | | |
| XBO 1200W/HPN | 69079 | 3000 | 3500 | 1200 | 840 | 1200 | 40 | 63 |
| XBO 2000W/HPN L | 68885 | 3000 | 3300 | 2000 | 1400 | 2000 | 60 | 85 |
| XBO 3000W/HPN | 69084 | 1500 | 1900 | 3000 | 2100 | 3000 | 77 | 108 |
| XBO 3000W/HPN L | 68840 | 1700 | 2000 | 3000 | 2100 | 3000 | 76 | 105 |
| XBO 4000W/HPN | 69060 | 650 | 750 | 4000 | 2900 | 4000 | 90 | 125 |
| XBO 4000W/HPN L | 69085 | 1100 | 1400 | 4000 | 2800 | 4000 | 90 | 125 |
| XBO 4500W/HPN | 69113 | 1000 | 1300 | 4500 | 3150 | 4500 | 108 | 150 |
| XBO 4500W/HPN L | 69051 | 1300 | 1400 | 4500 | 3150 | 4500 | 108 | 150 |
| XBO 6000W/HPN | 69123 | 650 | 800 | 6000 | 4500 | 6000 | 135 | 167 |
| XBO 6000W/HPN L | 69054 | 800 | 1000 | 6000 | 4500 | 6000 | 135 | 167 |

¹ Service Warranty Lifetime: Warranted hours in the event of a lamp rupture. Covers the cost of damage to the optical and mechanical parts of a projector that is caused solely due to a defect in the lamp's material or workmanship. For details, see our latest revision of OSRAM XBO Xenon Short Arc Lamp Limited Warranty.

² OSRAM does not recommend and will not warranty XBO lamps on "H" type power supplies because of excessive inrush current and high ripple current exceeding the OSRAM lamp specifications. With respect to other power supplies used in Christie digital projectors, they must meet OSRAM lamp specifications. Contact your OSRAM representative for additional details.

OSRAM XBO cross reference list

| Product reference | Projector type |
|----------------------------|--|
| BARCO projectors | |
| XBO 1200W/DHP | 8S ³ , 10S ³ , 12C ³ , 15C ³ , 20C ³ , 19B ⁴ , 23B ⁴ , 32B ^{5,6} |
| XBO 1600W/DHP | 8S ³ , 10S ³ , 12C ³ , 15C ³ , 20C ³ , 19B ⁴ , 23B ⁴ |
| XBO 2000W/DHP | 10S ³ , 12C ³ , 15C ³ , 20C ³ , 19B ⁴ , 23B ⁴ , 32B ^{5,6} , 1200 |
| XBO 2000W/DHP L | 10S ³ , 12C ³ , 15C ³ , 20C ³ , 19B ⁴ , 23B ⁴ , 32B ^{5,6} , 1200 |
| XBO 2200W/DHP | 10S ³ , 12C ³ , 15C ³ , 20C ³ , 19B ⁴ , 23B ⁴ , 32B ^{5,6} |
| XBO 2500W/DHP | 15C ³ , 20C ³ , 19B ⁴ , 23B ⁴ , 32B ^{5,6} , 32B ^{5,6} , 1500, 2000 |
| XBO 3000W/DHP | 15C ³ , 20C ³ , 19B ⁴ , 23B ⁴ , 32B ^{5,6} , 32B ^{5,6} , 1500, 2000 |
| XBO 3000W/DHP L | 15C ³ , 20C ³ , 19B ⁴ , 23B ⁴ , 32B ^{5,6} , 1500, 2000 |
| XBO 3000W/DHS | 32B ⁷ , 90, 100, 3000 |
| XBO 4000W/DHP | 15C, 20C ³ , 19B ⁴ , 23B ⁴ , 32B ^{5,6} , 90, 100, 2000, 3000 |
| XBO 4000W/DHP L | 15C, 20C ³ , 19B ⁴ , 23B ⁴ , 32B ^{5,6} |
| XBO 4500W/DHP | 32B ⁵ , 90, 100, 3000 |
| XBO 4500W/DHP L | 32B ⁵ , 90, 100, 3000 |
| XBO 6000W/DHP | 32B ⁵ , 90, 100, 3000 |
| XBO 6000W/DHP L | 32B ⁵ , 90, 100, 3000 |
| XBO 6500W/DHP | 32B ⁵ , 90, 100, 3000 |
| XBO 6500W/DHP L | 32B ⁵ , 90, 100, 3000 |
| CHRISTIE projectors | |
| XBO 1400W/DTS | Solaria One, Solaria One+, CP2208, CP2210, CP2215 |
| XBO 1600W/DTS | Solaria One, Solaria One+, CP2208, CP2210, CP2215 |
| XBO 1800W/DTS | CP2210, CP2215, CP2000M |
| XBO 2000W/DTS | Solaria One, Solaria One+, CP2208, CP2210, CP2215, CP2000M |
| XBO 2000W/DTP | CP2000, CP2220, CP2230, CP4220, CP4230, CP2000SB/XB/SX, CP2000ZX |
| XBO 2000W/DTP L | CP2000, CP2220, CP2230, CP4220, CP4230, CP2000SB/XB/SX, CP2000ZX |
| XBO 2100W/DTS | Solaria One, Solaria One+, CP2208, CP2210, CP2215 |
| XBO 2300W/DTS | CP2210, CP2215 |
| XBO 3000W/DTP | CP2000, CP2220, CP4220, CP2230, CP4230, CP2000ZX, CP2000SB/XB/SX |
| XBO 3000W/DTP L | CP2000, CP2220, CP4220, CP2230, CP4230, CP2000ZX, CP2000SB/XB/SX |
| XBO 3000W/DTS | CP2000, CP2220, CP4220, CP2230, CP4230, CP2000ZX |
| XBO 4500W/DTP | CP2000, CP2220, CP2230, CP4220, CP4230, CP2000SB/XB/SX |
| XBO 4500W/DTP L | CP2000, CP2220, CP2230, CP4220, CP4230, CP2000SB/XB/SX |
| XBO 6000W/DTP | CP2000, CP2220, CP2230, CP4220, CP4230, CP2000SB/XB/SX |
| XBO 6000W/DTP L | CP2000, CP2220, CP2230, CP4220, CP4230, CP2000SB/XB/SX |
| SONY projectors | |
| XBO 2000W/HPS L | SRX-R210, SRX-R220, SRX-R320 |
| XBO 3000W/HPS | SRX-R210, SRX-R220, SRX-R320 |
| XBO 4200W/HPS | SRX-R220, SRX-R320 |
| XBO 4200W/HPS L | SRX-R220, SRX-R320 |
| NEC projectors | |
| XBO 1200W/HPN | 1200C, 1600C, 2000C, 2500S ⁵ , 3200S ⁶ , 3240S ⁶ |
| XBO 2000W/HPN L | 1200C, 1600C, 2000C, 2500S ⁵ , 3200S ⁶ , 3240S ⁶ |
| XBO 3000W/HPN | 1600C, 2000C, 2500S ⁵ , 3200S ⁶ , 3240S ⁶ |
| XBO 3000W/HPN L | 1600C, 2000C, 2500S ⁵ , 3200S ⁶ , 3240S ⁶ |
| XBO 4000W/HPN | 1600C, 2000C, 2500S ⁵ , 3200S ⁶ , 3240S ⁶ |
| XBO 4000W/HPN L | 1600C, 2000C, 2500S ⁵ , 3200S ⁶ , 3240S ⁶ |
| 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 |

³ Barco Adapter Part Number for Cathode: R858100⁴ Barco Adapter Part Number for Cathode: R885555⁵ Barco Adapter Part Number for Cathode: R8436081⁶ Projector/Lamp combinations identified may require an anode adapter. Contact OSRAM if this is necessary.⁷ Barco Adapter Part Number for Cathode: R8436061 and Anode: R859987

Troubleshooting tips

Unexpected decreased LAMP LIFE

XBO lamps usually reach the end of their life through wear of the electrodes, which leads to an increase of flickering and decrease of light output. In case of early lamp failure, the sections below provide valuable troubleshooting help. Check them carefully before a new lamp is installed.

Lamp does not ignite

If the lamp ignites poorly or not at all, the following should be checked:

- Is the lamp type suitable for this projector?
- Is the lamp correctly installed and secured in the lamphousing as instructed by the projector and lamp manufacturer?
- Is the power lead between lamp and lamphouse connected?
- Have you selected the correct lamp type in the projector menu?
- Has the lamp already reached the end of lifetime?
- Does the cooling system work sufficiently?
- Is the projector using the latest software?

Visible flicker on screen

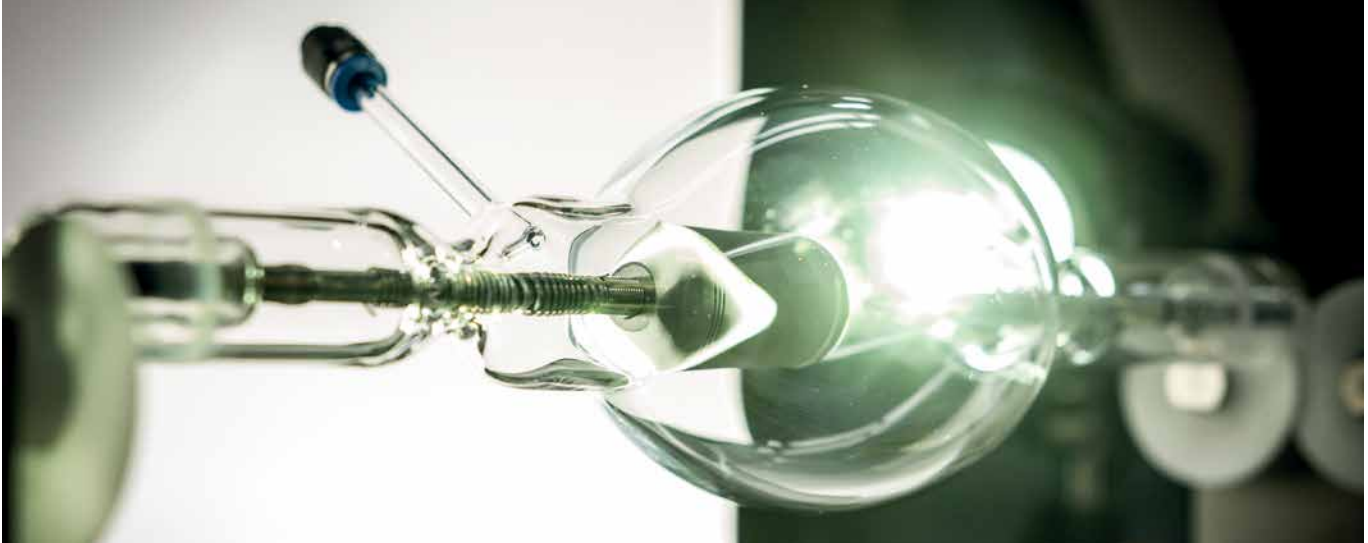
If flicker is observed after installing a new lamp, the following should be checked:

- 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 selected 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.
- Is the lamp correctly adjusted within the optical system (reflector)?

If flicker is observed during lamp lifetime, the previous and following notes on "flicker" 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 is 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 discolor from light yellow to brown and blue. If this happens:

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

Due to an incorrect lamp adjustment in the optical system, emitted radiation can 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). Possible reasons for a burst lamp:

- Lamp life beyond 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 damaged by heavy shocks, which were caused by rough transportation
- Recrystallization on the surface of the quartz glass bulb caused by fingerprints, which have not been removed
- Strong bulb blackening degrades 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 too low or has decreased rapidly, the following must be checked:

- Is the lamp type suitable for this projector?
- Has the lamp been turned on for at least 10 minutes to obtain the initial brightness?
- Have you selected 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) dusty or dirty?
- Is the lamp correctly adjusted to the optical system (reflector)?

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