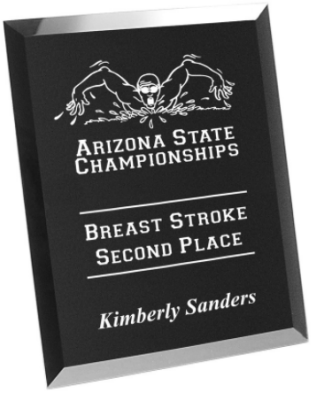
Laser Engraving Crystal Ornaments

CRYSTAL ORNAMENTS- Laser Engraving

LBKCH026 | LBKCH025 | KUS037 | LBKCH027 | LBKCH028 | LBKCH029



GENERAL LASER ENGRAVING PROCESS

Recommended Equipment & Accessories

- CO2 Laser Engraver
- Isopropyl alcohol and clean cloth
- Normal copy paper or paper towel
- Water or Window Cleaner

Recommended Settings- Laser Engraving	
40W lasers	
Laser Power	90-100%
Laser Speed	30-40%
Resolution (DPI/PPI)	500-600 DPI

Recommended Settings- Laser Engraving	
50-60W lasers	
Laser Power	70-80%
Laser Speed	25-35%
Resolution (DPI/PPI)	500-600 DPI

General Laser Engraving Instructions

- Place a piece of normal copy paper or clean dry paper towel on top of the glass/crystal surface.
- Spray the piece of paper or paper towel liberally with window cleaner or water so that the paper/towel is soaked through completely.
- Gently run your finger over the wet paper/towel to remove any air bubbles that may be underneath the paper/towel.
- Place the glass/crystal product with wet paper/towel applied onto the laser bed and position to the zero point on the laser bed.
- Adjust the laser focus to the surface of the glass product.
  - Be careful not to move the wet paper/towel while focusing the laser to prevent air bubbles or wrinkles forming underneath the wet paper/towel.
- While setting up the artwork for engraving in the layout software, make sure to set the color fill of the engraved areas to "RGB 80% Black".
- Once the artwork is set up and positioned, engrave using the suggested starting settings.
  - Settings may need adjusted depending on the laser tube wattage.
  - IMPORTANT: **The paper/towel layer must stay wet during the entire engraving process.**
    - For large engraved areas, ensure that the paper/towel layer does not dry out while the engraving is still running. If the paper/towel dries before the engraving is finished, the engraving job may need to be paused so that the paper/towel can be sprayed again with water or window cleaner.
- When finished, remove the glass product from the laser bed.
- Remove the paper/towel layer from the surface and discard.
- If window cleaner was used to spray the paper/towel, run the glass product under water to rinse of any residual window cleaner and then dry with a clean cloth or towel.

Tips and Tricks

- You can reverse engrave on Crystal Ornaments by mirroring the artwork and engraving on the back of the ornament.
- To help with artwork placement, utilize the product template for this item, found on the item's product page on jpplus.com/..

Troubleshooting

- The engraving is too light.
  - The laser power may need to be increased.
  - The laser speed may need to be decreased.
  - Check to ensure that the laser is focused properly to the surface of the wet paper/towel.
  - Make sure that the fill color of the artwork is set to 80% RGB Black. Engraving using the traditional 100% RGB Black will not produce enough micro-fracturing of the glass surface and therefore will not create as much contrast in the frosted appearance of the engraving.
- The engraving looks good, but glass chips are flaking off of the surface of the engraving.
  - Make sure that the paper/towel is wet the entire time the engraving is running.
  - The paper/towel may not be wet enough. The paper/towel needs to be soaked almost to the point that the window cleaner or water pools up on top of the glass product.
  - The engraving power may be too high and need to be decreased.
  - The engraving speed may be too low and need to be increased.
- There are inconsistencies within the engraving of the glass.
  - The glass may be chipping in tiny areas within the engraving due to the glass micro-fracturing too heavily, therefore the laser power may need to be decreased and/or the laser speed increased.
  - The paper/towel layer may be drying out during the engraving and need to be wetted again.
  - The paper/towel layer may have small air bubbles trapped underneath that were not smoothed out before engraving began.
  - Ensure that the glass is completely dry before examining the engraving quality. Any residual moisture, skin oils, etc. can migrate into the micro-fractures of the engraved glass surface and reduce the perceived contrast or frosted appearance of the engraving.

Templates and Images

- Visit jpplus.com to find the product page for this item. The product template may be found under the Tech Docs and Downloads area of the page.

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For additional product support and troubleshooting, please contact JPPlus Advanced Support Team:

- Phone: 419-500-4877
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