

## Clear/Black 1/8" Cell Cast Acrylic

**JOHNSON**PLASTICS  
**PLUS**

**CLEAR/BLACK 1/8" CELL CAST ACRYLIC - Laser Engraving/Cutting**

AUS164



### GENERAL LASER ENGRAVING PROCESS

#### **Recommended Equipment & Accessories**

- CO2 Laser Engraver
- Clean Towel
- Soap and Water or non-alcohol cleaner

| Recommended Settings- Laser Engraving |         |
|---------------------------------------|---------|
| 50-60W lasers                         |         |
| Laser Power                           | 40-50%  |
| Laser Speed                           | 70-80%  |
| Resolution (DPI/PPI)                  | 500-600 |

### General Laser Engraving Instructions

- Place the sheet onto the laser bed and align to the zero point on the laser bed. Ensure that the matte black side is face-up for engraving.
- Remove the protective masking from the surface of the sheet.
  - If laser cutting, it is recommended to leave the protective masking on the sheet.
- Adjust the laser focus to the surface of the sheet.
- Ensure that the artwork is mirrored before sending it to the laser.
- Once the artwork is positioned and reversed/mirrored, engrave using the suggested starting settings.
  - Settings may need adjusted depending on the laser tube wattage.
- When finished, remove the sheet from the laser bed.
- If cleanup is needed, wipe the surface with mild soap and water and a clean cotton cloth or sponge.

## GENERAL LASER CUTTING PROCESS

| Recommended Settings- Laser Cutting |        |
|-------------------------------------|--------|
| 50-60W lasers                       |        |
| Laser Power                         | 70-90% |
| Laser Speed                         | 15-20% |
| Frequency (Hz)                      | 1000   |

### General Laser Cutting Instructions

- Place the sheet onto the laser bed and align to the zero point on the laser bed. The matte black side or clear/gloss side can be face-up for cutting.
  - If engraving AND cutting, it is recommended to keep the matte black side face-up so the artwork does not need to be adjusted or reoriented between the engraving and cutting steps.
- Adjust the laser focus to the surface of the sheet.
- Ensure that the artwork is oriented correctly before sending it to the laser.
  - Cutting with engraving (matte black side up) normally needs to have the artwork reversed/mirrored, including the artwork for the cut lines.

- If the sheet is gloss/clear side up, the artwork for the cut lines normally should not be reversed/mirrored.
  - Once the artwork is positioned, cut using the suggested starting settings.
    - Settings may need adjusted depending on the laser tube wattage.
  - When finished, remove the sheet and cut pieces from the laser bed.
  - If cleanup is needed, wipe the surface with mild soap and water and a clean cotton cloth or sponge.
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### **Tips and Tricks**

- To help with artwork placement, utilize the product template for this item, found on the item's product page on [JPPlus.com](http://JPPlus.com).
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### **Troubleshooting**

- The engraving is too shallow.
    - Laser power setting and/or resolution may need to be increased.
    - Laser speed setting may need to be decreased.
    - Check laser focus.
    - Check and clean laser lenses and mirrors.
    - Check laser alignment. (see laser users manual on how to check and adjust laser beam alignment)
  - The engraving is too deep.
    - Laser power setting and/or resolution may need to be decreased.
    - Laser speed setting may need to be increased.
  - The engraved area is charring/melting.
    - Laser power setting and/or resolution may need to be decreased.
    - Laser speed setting may need to be increased.
  - The edges along the laser cut line are curling.
    - Laser power setting may need to be decreased.
    - Laser speed setting may need to be increased.
    - Use a laser cutting ("honeycomb") grid insert to set the product up off of the solid metal laser bed.
    - Use air assist if available.
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### **Templates and Images**

- Visit [jpplus.com](http://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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**To order more of this product, see similar products and much more, please visit [JPPlus.com](https://jpplus.com).**

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

- Phone: 419-500-4877
- Email: [ast@jpplus.com](mailto:ast@jpplus.com)
- Schedule an appointment: [jpplusadvancedsupport.setmore.com/](https://jpplusadvancedsupport.setmore.com/)