

APPLICATION TIPS



Creating Crystal Embellishments with a Universal Laser System

Introduction

If you are using a Universal laser system to produce appliqués, cut fabric or engrave directly onto a garment, consider adding a little sparkle to your work with crystal embellishments.

Crystal embellishments are gem-like glass or plastic beads that can be used to decorate shirts, jackets, caps, jeans and other items made of natural or synthetic fabrics. The crystals are available in a wide variety of sizes, shapes and colors. To add a crystal embellishment to an item, create a pattern using your favorite Windows® graphic software program, cut and engrave the pattern on your laser system, then transfer the crystals from the pattern to a garment. The crystals are backed with a dry adhesive that will permanently bond to most fabrics when heat pressed.

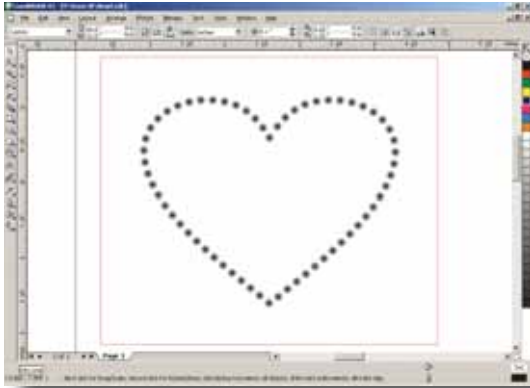
Crystal embellishments can add beauty and extra value to many of the fabric-based products you sell. In this tutorial we will take a step-by-step approach to producing crystal embellishments with your Universal laser system. We hope you will find the process rewarding and enjoyable.

Sincerely,

The Universal Laser Systems Training Staff

Creating Crystal Embellishments

Section 1: Preparing the Artwork



(GRAPHIC 1)

1.1: In this tutorial you will learn how to create the simple crystal embellishment design shown in Graphic 1.

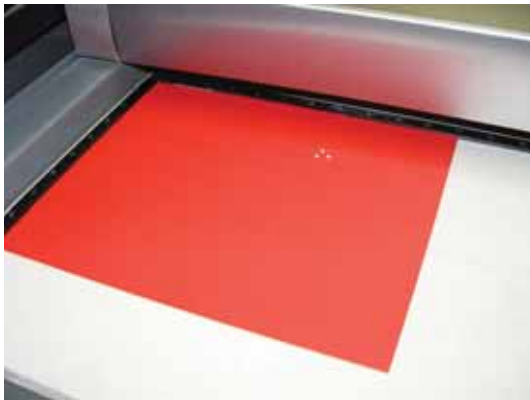
Note: If you do not have access to the file, you can create your own design in CoreIDRAW or the Windows® based graphic software of your choice.

Section 2: Adjusting the Cutting Depth

2.1: Now it is time to run a test to adjust the power settings for engraving and cutting the pattern onto a piece of mat board.

Tip: Mat board is suitable for creating semi-permanent patterns. If you plan to reuse the pattern indefinitely, you can use engraver's plastic instead of mat board.

2.2: Copy and paste a few of the circles in the CoreIDRAW file well outside of the area in which you plan to engrave.



(GRAPHIC 2)

2.3: Position a piece of mat board on the engraving table. Focus the laser and adjust the power and speed settings as necessary so that you engrave the circles deeply enough in the mat board to securely hold the crystals in place as shown in Graphic 2.

Section 3: Engraving the Pattern

3.1: Now you are ready to cut and engrave the crystal pattern. We were able to process mat board using the following settings with a 25-watt laser and 2.0 lens:

- Power = 100
- Speed = 40
- PPI = 500

3.2: The engraved mat board is shown in Graphic 3.



(GRAPHIC 3)



(GRAPHIC 4)

3.3: Remove the cut and engraved mat board pattern from the laser system and insert the crystals gem-side up into the circles as shown in graphic 4.

3.4: Lay a sheet of transparent heat-proof silicone or acrylic transfer tape over the crystals. Rub the sheet so that all of the crystals stick to it and gently lift them away from the pattern.

Section 4: Transferring the Crystal Embellishment to a Fabric or Garment

4.1: Now it is time to transfer the crystals to a fabric or garment. A professional clamshell heat transfer press provides the necessary heat and pressure to permanently fuse the beads to most types of fabrics.

Note: Crystal embellishments are manufactured with a dry adhesive coating that is activated by heat and allows the crystals to bond to various fabrics.

Note: Quality heat presses are available from Geo Knight & Co. at www.heatpress.com.

Tip: Almost any fabric you can iron will provide good results for the application of crystal embellishments. Cotton, polyester, cotton/poly blends, denim, ultra suede, tee-shirts and sweatshirts all work fine. You should not apply crystal embellishments to leather or imitation leather, oil treated fabrics, teflon or silicone-coated waterproof fabrics or any rubberized materials.

4.2: Place the fabric or garment in the heat press and smooth out any wrinkles.

4.3: Position the transfer tape holding the crystals over the spot where you wish to apply it and cover with a sheet of heat-resistant cloth to avoid scorching.



(GRAPHIC 5)

4.4: Follow the manufacturer's directions provided with the heat transfer press. In general, this means you will preheat the press to the recommended temperature, position the crystals on the garment, cover with heat transfer paper and close the press for the recommended period of time. Most quality presses provide audible or visible indicators for warm-up and application times.

4.5: After pressing, let the crystals cool completely so they are cold to the touch before removing the transfer tape.

Tip: If the crystals fall off, you probably didn't heat set them long enough for the glue to melt into the fabric. After heat setting, run your fingers across the crystals – they should be set well into the fabric and not move. If they do move, reposition and reapply heat.

Tip: It's a good idea to include material care instructions when delivering crystal embellished items. Be sure to caution your customers against washing the garment in hot water or drying with high heat. Gentle hand- or machine washing in cold water and line drying is generally recommended.