



# VariQuest® Cutout Maker 2800

## Digital Die-Cut Machine

### User's Guide

This page is intentionally left blank

## Copyright

This manual is copyrighted with all rights reserved. No portion of this manual may be copied or reproduced by any means without the prior consent of Varitronics, LLC.

While every precaution has been taken in preparation of this document, Varitronics assumes no liability to any party for any loss or damage caused by errors or omissions or by statements resulting from negligence, accident or any other cause. Varitronics further assumes no liability for incidental or consequential damages arising from the use of this document. Varitronics disclaims all warranties of merchantability or fitness for a particular purpose.

Varitronics reserves the right to make changes without further notice to any product or system herein to improve reliability, function or design.

Reproduction of this material, in part or whole, is strictly prohibited without the written permission of Varitronics, LLC. For more information contact: VariQuest<sup>®</sup> at 7200 93rd Avenue North, Suite 120, Brooklyn Park, MN 55445 USA

## Trademarks

VariQuest is a registered trademark of Varitronics, LLC.

All other brand or product names referenced in this manual are trademarks or registered trademarks of their respective companies or organizations.

7200 93rd Ave. N., Suite 120, Brooklyn Park, MN 55445 Phone: 800-328-0585

## Standard Warranty

Varitronics, LLC warrants the equipment and accessories comprising the **VariQuest® Cutout Maker 2800** will be free from defects in material and workmanship for one (1) year from the date of customer purchase. Original serial number must appear on product. Removal of serial numbers will void this warranty and any equipment and accessories that have been altered or modified in any way and are not as originally purchased will void this warranty.

Varitronics will at its option repair, replace or refund the purchase price of any accessories, supplies or equipment found to be defective under this warranty.

THIS WARRANTY IS EXPRESSLY IN LIEU OF ALL OTHER WARRANTIES, INCLUDING BUT NOT LIMITED TO ANY IMPLIED WARRANTY OF MERCHANTABILITY OR WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE.

In the event of breach of this expressed warranty, or any other warranty, whether expressed or implied, Varitronics liability shall be limited to the remedy provided by the preceding paragraph. IN NO EVENT WILL VARITRONICS BE LIABLE FOR ANY DIRECT, INCIDENTAL, OR CONSEQUENTIAL DAMAGES, NOR WILL VARITRONICS EVER BE LIABLE FOR BREACH OF WARRANTY, WHETHER EXPRESSED OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OF THE MERCHANTABILITY OR FITNESS, IN AN AMOUNT GREATER THAN THE PURCHASE PRICE OF THE PRODUCTS DESCRIBED BY THIS EXPRESSED WARRANTY. No agent, distributor, salesperson, wholesaler or retail dealer has authority to bind Varitronics to any other affirmation, representation or warranty concerning these goods.

### FCC Notice

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of more of the following measures:

- Connect the equipment into an outlet on a different circuit.
- Consult the dealer or an experienced radio/TV technician for help.

**CAUTION:** Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

### EMC (Electromagnetic Compatibility Notice)

This Class B digital apparatus meets all requirements of the Canadian Interference Causing Equipment Regulations.

Cet appareil numérique de la classe B respecte toutes les exigences du Règlement sur le matériel brouilleur du Canada.

## Safety Information

The instructions in this manual have been labeled with various types of caution and warning messages.

The symbols preceding these messages indicate information that must be followed to avoid damage to property or injury to users of the Cutout Maker or people in the vicinity of the Cutout Maker.

The degrees of damage or injury that may result from failing to properly follow the instructions in this manual are classified as follows:

---

 **WARNING**

Improper use of the Cutout Maker may result in serious injury or death.

---

 **CAUTION!**

Improper use of the Cutout Maker may result in injury or damage to property.

---

### Warning Symbols

Different types of instructions are labeled with the following symbols (other symbols are also used in this manual):

 **Warning**

---



- **Connect the Cutout Maker to a 120V-240V power source ONLY.**  
Connecting to a power source of any other voltage may result in fire or electrical shock.
  - **Do not damage, crease or fold the power cord.**  
Altering the power cord, placing heavy objects on it or allowing it to become damaged, creased or folded may result in fire or electrical shock.
  - **Do not connect the Cutout Maker to a two-way or multiple-way extension cord.**  
Doing so may result in fire or electrical shock.
  - **Never insert or remove the power plug with wet hands.**  
Doing so may result in electrical shock.
  - **Do not remove the gantry cover or base shroud from the Cutout Maker.**  
Doing so may result in electrical shock.
-

 **Warning**



- **Always hold the plug firmly when removing it from the power socket. Do not simply pull on the cord.**

Pulling on the cord to remove the plug from the power socket or applying excessive force when doing so may damage the cord, which may in turn result in fire or electrical shock.

- **If the Cutout Maker overheats, emits smoke, or gives off an unusual odor, turn off the power switch immediately and remove the plug from the power socket.**

If these problems occur, contact your Cutout Maker dealer. Continuing to use the Cutout Maker after such problems occur, may result in fire or electrical shock.

- **If metal objects, water, or other liquids get inside the unit, turn off the power switch immediately and remove the plug from the power socket.**

If this problems occurs, contact your Cutout Maker dealer. Continuing to use the Cutout Maker after this problem occurs, may result in fire or electrical shock.



- **Always be sure the Cutout Maker is properly grounded.**

Failing to do so may cause power leakages, which may in turn result in fire or electrical shock. If for some reason you are unable to ground the unit, contact your Cutout Maker dealer for instructions.



- **Never disassemble or modify the Cutout Maker.**

Doing so may result in fire or electrical shock. If the Cutout Maker breaks down, turn off the power switch, remove the plug from the power socket and contact your Cutout Maker dealer.

# TABLE OF CONTENTS

## **1 Features, Accessories, and Materials**

<b>Features</b>	<b>1-1</b>
<b>System Accessories</b>	<b>1-2</b>
<b>Materials</b>	<b>1-2</b>
<i>Paper Classifications</i>	1-2
<i>Classifications for Unspecified Paper Types</i>	1-3

## **2 Components and Specifications**

<b>Components</b>	<b>2-1</b>
<i>Perspective View</i>	2-1
<i>Gantry Cover Open</i>	2-1
<i>Side View</i>	2-2
<i>Control Panel</i>	2-2
<b>Specifications</b>	<b>2-3</b>
<i>Cutout Maker 2800 Technical Data Sheet</i>	2-3

## **3 Getting Started**

<b>Unpacking and Positioning</b>	<b>3-1</b>
<i>Unpacking the Cutout Maker</i>	3-1
<i>Verifying Packaging Contents</i>	3-2
<i>Positioning the Cutout Maker</i>	3-2
<b>Setting up the Cutout Maker</b>	<b>3-3</b>
<i>Connecting the Power Cord</i>	3-3
<b>Connecting the Cutout Maker</b>	<b>3-4</b>
<i>Connecting to a VariQuest<sup>®</sup> Design Center</i>	3-4
<i>Connecting to a Personal Computer</i>	3-4

## **4 Operating the Cutout Maker**

<b>Loading Material</b>	<b>4-1</b>
<b>Typical Operating Sequence</b>	<b>4-2</b>
<i>Operating Example</i>	4-2

## 5 Maintenance

Maintenance Summary	5-1
<i>Replacing the Cutting Blade</i>	5-2
<i>Replacing the Cutting Mat</i>	5-6
<i>Oil Gantry Rails</i>	5-10
<i>Clean Tip Sensor</i>	5-11
<i>Change the Cutter Housing Tip</i>	5-12
<i>User Calibration</i>	5-13

## 6 Troubleshooting

Process	6-1
<i>Tips</i>	6-1
Troubleshooting	6-2
Error Codes	6-4
Servicing the Cutout Maker	6-6

# 1 FEATURES, ACCESSORIES, AND MATERIALS

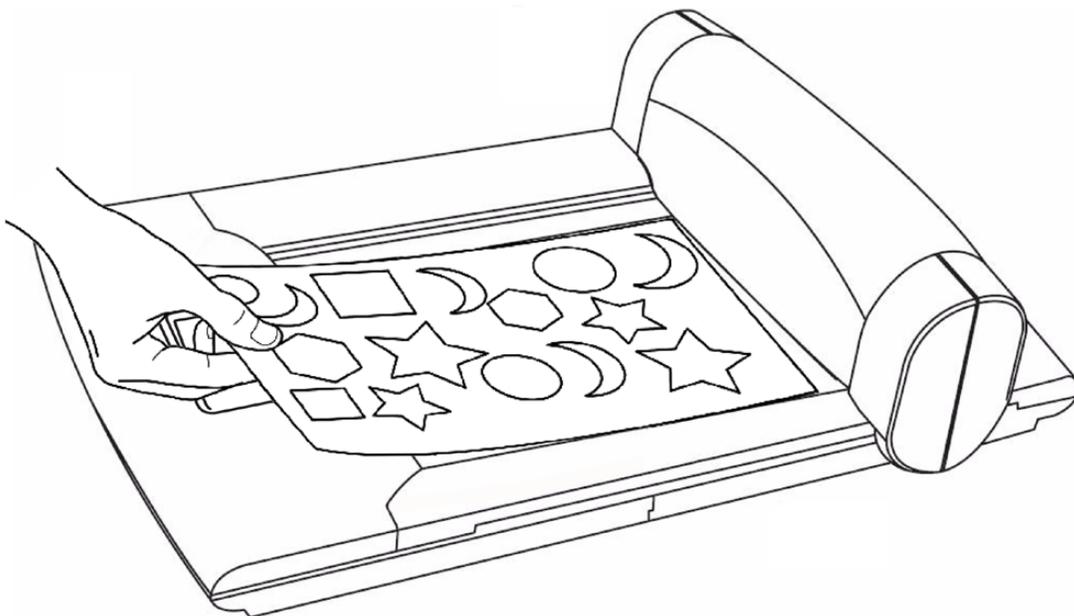
This chapter provides an overview of the **VariQuest<sup>®</sup> Cutout Maker 2800** features, accessories and materials.

The chapter contains the following sections:

- » [Features..... page 1-1](#)
- » [System Accessories..... page 1-2](#)
- » [Materials..... page 1-2](#)

## Features

- The Cutout Maker is designed to allow even first-time users to quickly produce high quality cutout shapes from sheets of construction paper, cold laminated construction paper, card stock, bond paper, **VariQuest<sup>®</sup> Vinyl Sheets** and **VariQuest<sup>®</sup> Magnetic Sheets**.
- You can easily create single or multiple cutouts using the **VariQuest<sup>®</sup> Design Center Software**.
- A two-button control panel with an LCD display is provided for controlling the Cutout Maker and displaying status and error messages.
- Choose from a variety of types and sizes of materials. **VariQuest<sup>®</sup> Design Center Software** provides automatic setup selections for shapes, fonts and collections.

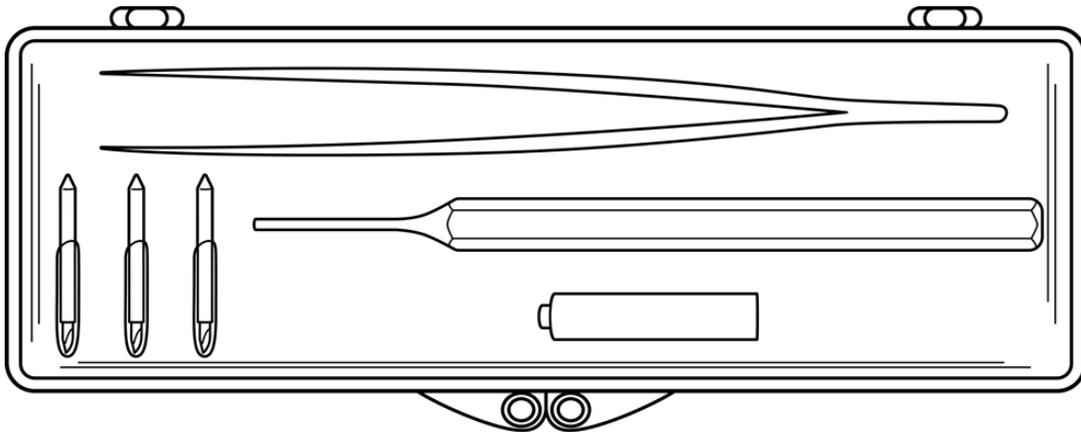


With the **VariQuest<sup>®</sup> Cutout Maker 2800** and **VariQuest<sup>®</sup> Design Center Software**, you can produce a variety of cutout shapes, fonts and collections.

## System Accessories

The Cutout Maker comes with a *Starter Maintenance Kit* that contains:

- Blades (3-pack)
- Blade/Chad Removal Tool
- Tweezers
- Calibration Tool



## Materials

### CAUTION!

Use of material other than that specified for use with the Cutout Maker may result in poor cut quality and damage to the blade.

---

There is no direct correlation between paper weight and the classification of paper as *lightweight* or *heavyweight* among manufacturers of construction paper.

Due to the large variation of paper classifications, **VariQuest<sup>®</sup>** *Cutout Maker* paper is defined below.

### **Paper Classifications**

- Light construction paper: 40-50 lbs
- Heavy construction paper: 60-80 lbs
- Cold laminated light construction paper: 40-50 lbs light construction paper + the **VariQuest<sup>®</sup>** *Cold Laminator* dual-sided laminate.
- Cold laminated heavy construction paper: 60-80 lbs heavy construction paper + the **VariQuest<sup>®</sup>** *Cold Laminator* dual-sided laminate.
- Cardstock: 80-100 lbs
- Bond (copier) paper: 20 lbs

## Classifications for Unspecified Paper Types

Refer to the following tables to determine the paper weight for unspecified paper types. These tables will help determine if you have light or heavy construction paper. Weight measurements are determined by a scale based on number of sheets and size of paper.

Lightweight Construction Paper				
	9"x12"	12"x18"	18"x24"	24"x36"
<b>100 sheets</b>	1-1.3 lbs	2-2.5 lbs	4-5 lbs	8-10 lbs
<b>200 sheets</b>	5-6.3 lbs	10-12.5 lbs	20-25 lbs	40-50 lbs

Heavyweight Construction Paper				
	9"x12"	12"x18"	18"x24"	24"x36"
<b>100 sheets</b>	1.5-2 lbs	3-4 lbs	6-8 lbs	12-16 lbs
<b>200 sheets</b>	7.5-10 lbs	15-20 lbs	30-40 lbs	60-80 lbs

## 2 COMPONENTS AND SPECIFICATIONS

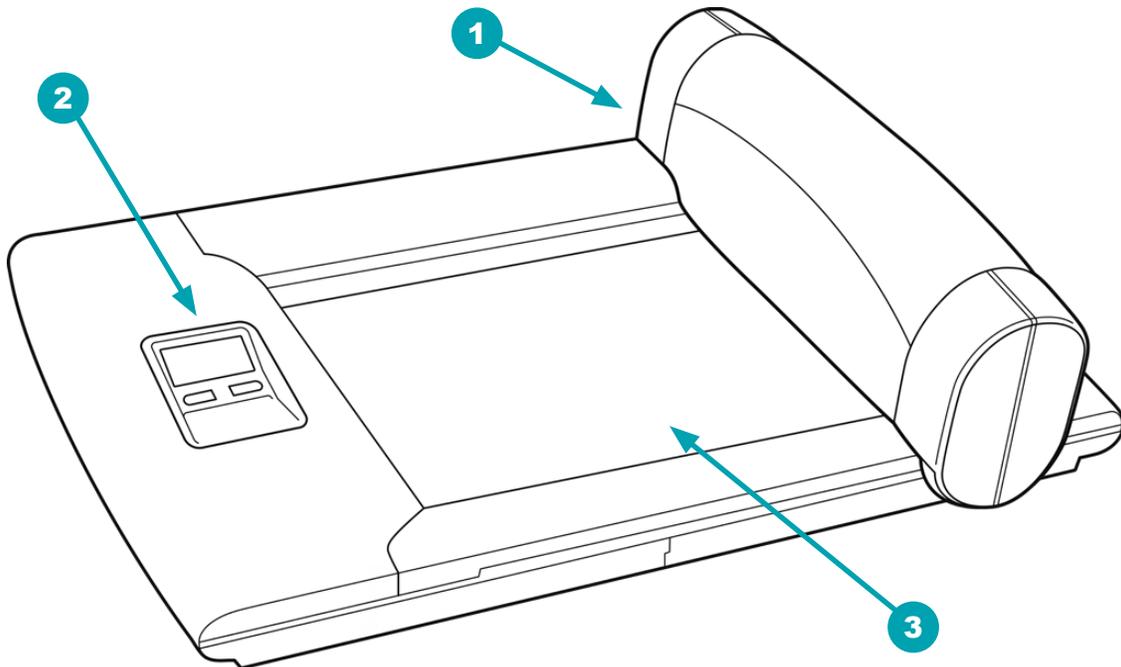
This chapter shows the locations of the major **VariQuest<sup>®</sup> Cutout Maker 2800** components and provides detailed system specifications.

The chapter contains the following sections:

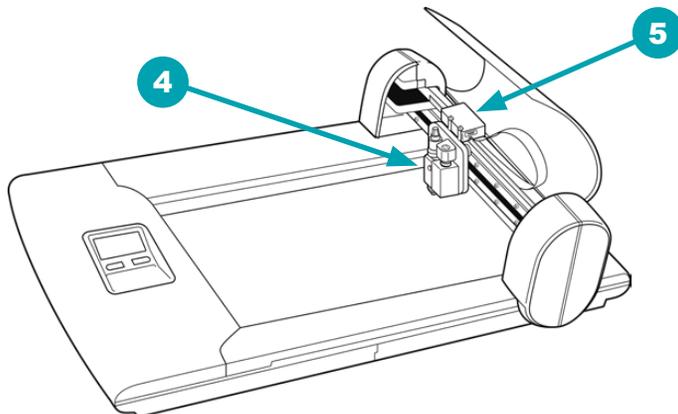
- » [Components..... page 2-1](#)
- » [Specifications..... page 2-3](#)

### Components

#### Perspective View

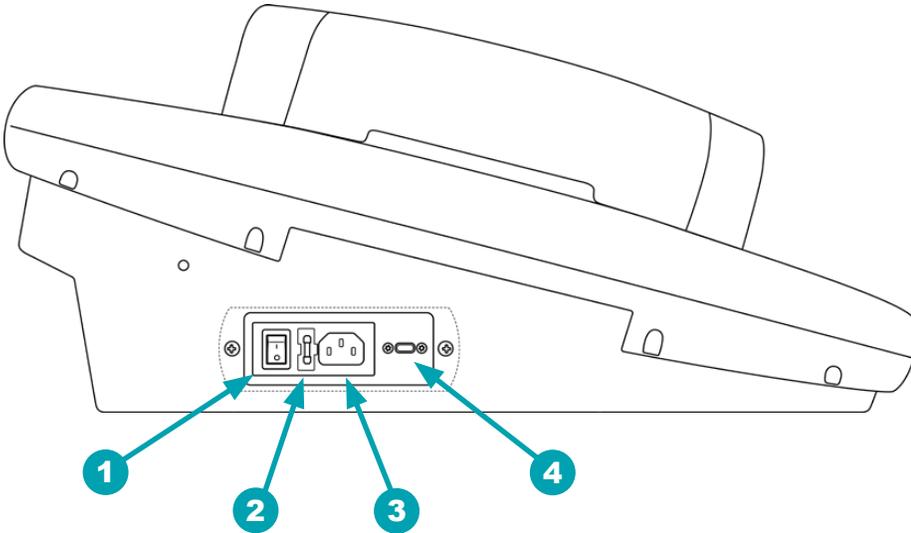


#### Gantry Cover Open



No.	Name
1	Gantry
2	Control Panel
3	Cutter Bed
4	Blade Holder Assembly
5	Blade Replacement Instructions

## Side View



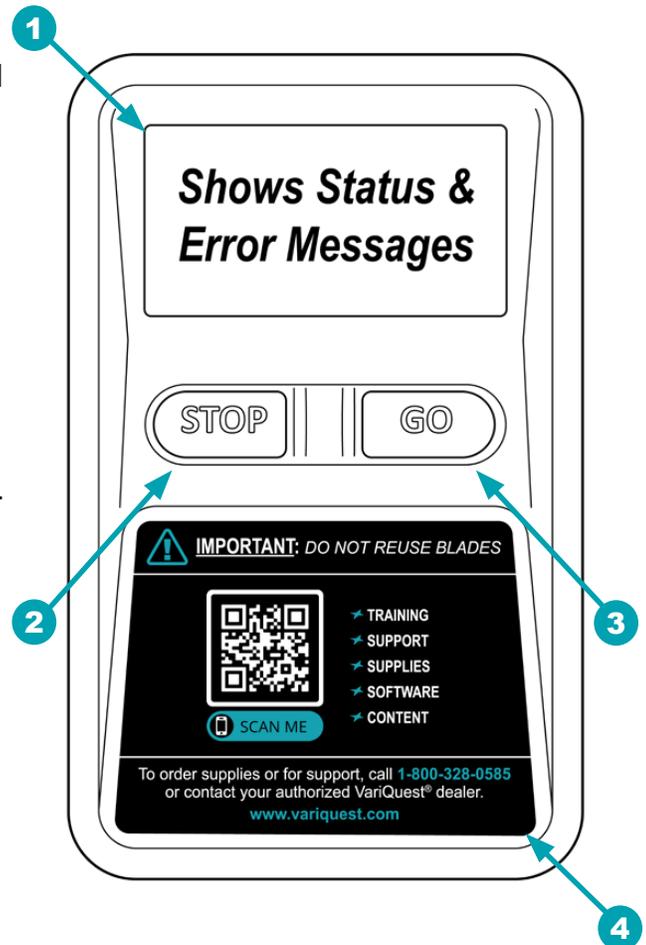
No.	Name
1	ON (I) OFF (0) Power Switch
2	DC Power Supply Fuse (2 Amp)
3	AC Power Cord Receptacle
4	USB-C Cable Receptacle

## Control Panel

The control panel provides buttons to manually start and stop cutter operation. Pressing the **GO** button starts the cutter when all of the software selections are completed and the LCD display indicates a *Ready* condition exists.

- Pressing **STOP** pauses the cutter operation.
- Pressing **GO** restarts the cutter operation from the point at which it paused.
- Pressing **STOP** a second time without pressing **GO** clears the cutter operation, retracts the cutter blade and sends the cutter blade back to the home position.

The LCD display shows the status of the operation underway and/or the error that caused the operation to stop.



No.	Name	Description
1	LCD Display	Lists cut job status (cutting, pause, error, etc.). Shows the options currently selected. Displays error messages and instructions.
2	<b>STOP</b> Button	Pauses the cut job currently in process. Pressing <b>STOP</b> while a job is paused cancels the job.
3	<b>GO</b> Button	Starts the cut job selected.
4	Supply Label	IMPORTANT reminder <b>NOT</b> to reuse blades. QR code linked to the <i>VariQuest® Resource Center</i> for ordering supplies and other exclusive benefits.

## Specifications

### Cutout Maker 2800 Technical Data Sheet

#### Output

- **Maximum cutout size:** 11-1/2" x 17-1/2"; up to 2' x 3' when tiling
- **Minimum scrap size:** 4" x 6" (101.6 mm x 152.4 mm)

#### Machine

- **Display:** 4 line, 16 characters LCD graphical display
- **Cutting speed:** up to 6" per second (simple shapes)
- **USB port:** 1
- **Dimensions:** 33" W x 21.5" D x 12.5" H
- **Weight (machine only):** 41.4 lbs
- **Weight (machine in its package):** 55 lbs

#### Materials

- **Tested & qualified materials:** construction paper, cold laminated construction paper, cardstock, bond paper, **VariQuest<sup>®</sup>** Vinyl Sheets and **VariQuest<sup>®</sup>** Magnetic Sheets
- **Material sizes:** standard construction paper 9" x 12" (228.6 mm x 304.8 mm) and 12" x 18" (304.8 mm x 457.2 mm); other standard size: 8-1/2" x 11" (215.9 mm x 279.4 mm)

#### Electrical Characteristics

- **Input current:** 2 Amps
- **Input voltages:** 100-240 VAC
- **Input frequency:** 50-60 Hz
- **Max output power:** 100 W
- **Interface:** USB-C

#### Environmental Characteristics

- **Operational requirements:** ambient temperature 32°F to 122°F (0°C to 50°C); relative humidity: 20%-80% (non-condensing)
- **Storage requirements:** ambient temperature 0°F to 140°F (18°C to 60°C); relative humidity: 10%-95% (non-condensing)

#### Agency Approvals

- **UL, CUL:** Listed to UL/CSA 60950-1:2003
- **FCC:** Meets FCC – CFR 47, part 15, Subpart B, class B emissions limit
- **Canadian standard:** Meets Canadian standard ICES-003, Issue 4:2004, class B emission limits

#### Other

- Manufactured in the USA

The information provided in this Technical Data Sheet indicates performance under normal conditions. It is intended only as a source of information without guarantee and does not constitute a warranty. Purchases may need to independently determine the suitability of these products for their specific purpose.

All brand or product names used on this sheet are trademarks or registered trademarks of their respective companies or organizations. As part of our continuous improvement, we reserve the right to change this Technical Data Sheet without notice.

## 3 GETTING STARTED

This chapter provides instructions for unpacking and setting up the **VariQuest<sup>®</sup> Cutout Maker 2800**. Keep this guide near the Cutout Maker so it can be available for reference.

The chapter contains the following sections:

- » [Unpacking and Positioning..... page 3-1](#)
- » [Setting up the Cutout Maker..... page 3-3](#)
- » [Connecting the Cutout Maker..... page 3-4](#)

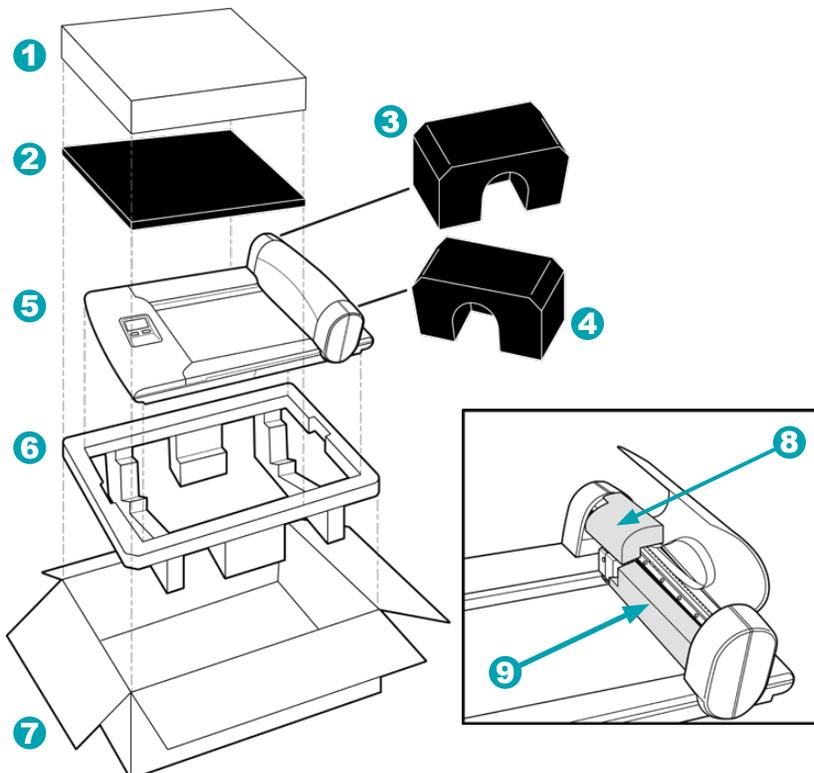
### Unpacking and Positioning

#### Unpacking the Cutout Maker

The Cutout Maker and accessories are packed in a cardboard carton with foam padding for protection during shipment. Carefully unpack the items and keep the packing materials. If you need to ship the Cutout Maker in the future, repack the system as shown in the figure.

#### **!** WARNING

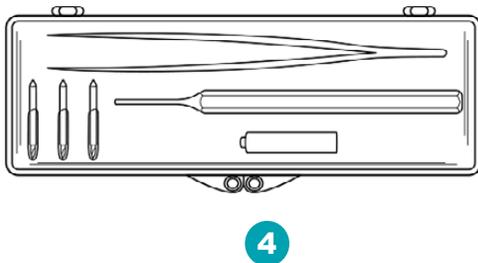
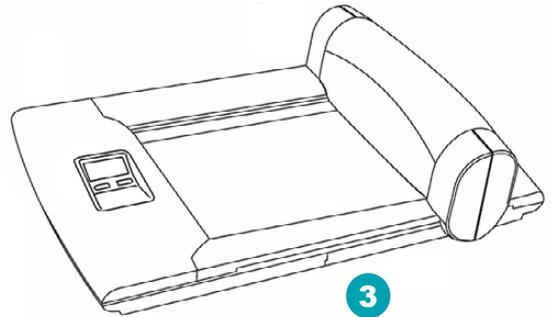
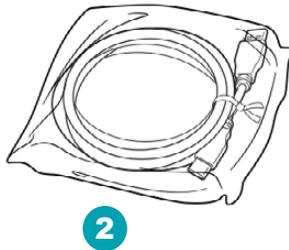
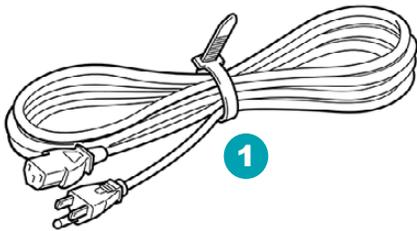
Due to the weight of the unit, we recommend that 2 people lift the Cutout Maker from the carton. To avoid personal injury, use proper lifting techniques when removing the Cutout Maker from the carton.



No.	Description
1	Cardboard Spacer
2	Packing Foam
3	End Cap (rear)
4	End Cap (front)
5	Cutout Maker 2800
6	Foam Cradle
7	Shipping Container
8	Blade Assembly Foam
9	Gantry Rail Foam

## Verifying Packaging Contents

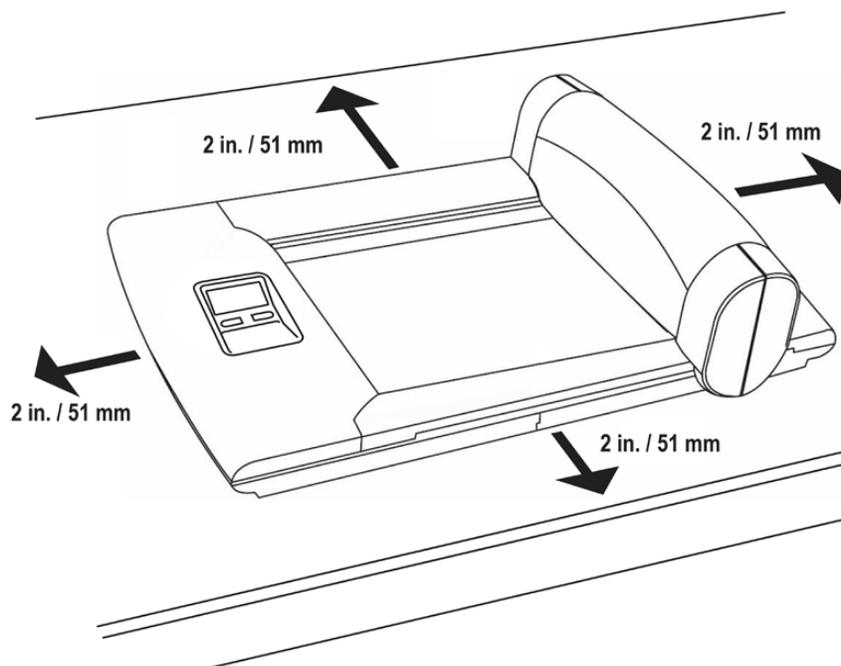
After unpacking, verify that all of the following items have been included in the Cutout Maker box:



No.	Name
1	Electrical Power Cord
2	USB-C Cable
3	Cutout Maker 2800
4	Maintenance Kit

## Positioning the Cutout Maker

To ensure proper functioning of the Cutout Maker on a work space, allow adequate space around the system as shown below.



## Setting up the Cutout Maker

### Connecting the Power Cord

**⚠ WARNING**

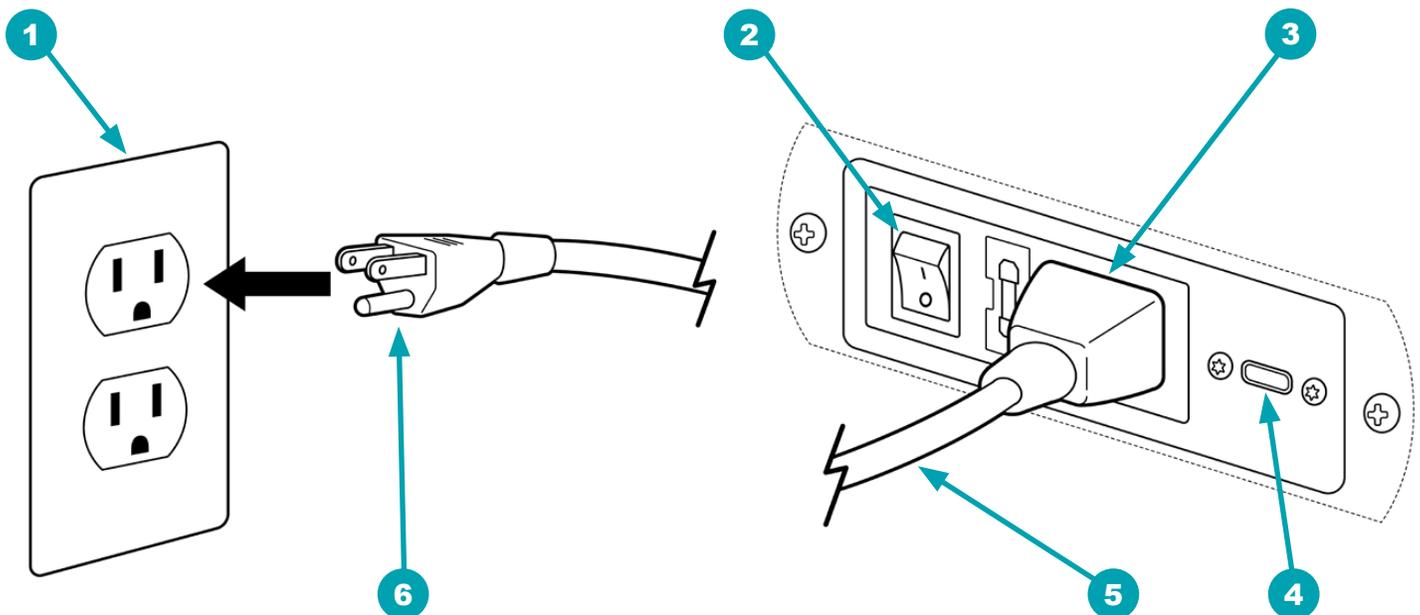
Never operate the Cutout Maker in an area where it can get wet

**⚠ CAUTION!**

*Always connect the power cord to the Cutout Maker before inserting the plug into a wall socket*

Connect the power cord to the Cutout Maker. Then insert the power plug into a grounded three-prong wall socket.

1. Set the power switch to its 0 (OFF) position.
2. The power cord has a three-prong female connector on one end that must be inserted into the male power receptacle on the left side of the Cutout Maker.
3. Plug the other end of the cord into an appropriate AC outlet (wall socket).



No.	Description
1	Wall Socket
2	Power Switch (I=ON, 0=OFF)
3	Power Cord Receptacle
4	USB-C Cable Receptacle
5	Power Cord
6	Cutout Maker Power Plug

## Connecting the Cutout Maker

### IMPORTANT

Use the USB cable supplied with the Cutout Maker to connect to the **VariQuest<sup>®</sup>** Design Center or a PC. The USB cable complies with *FCC Rules and Regulations*, Part 15 for Class B Equipment using shielded six-foot USB-C cables. Use of longer cables or unshielded cables may increase radiation emissions above the Class B limits. The power cord must be inserted into the receptacle on the left side of the Cutout Maker before connecting the communication cables.

### Connecting to a VariQuest<sup>®</sup> Design Center

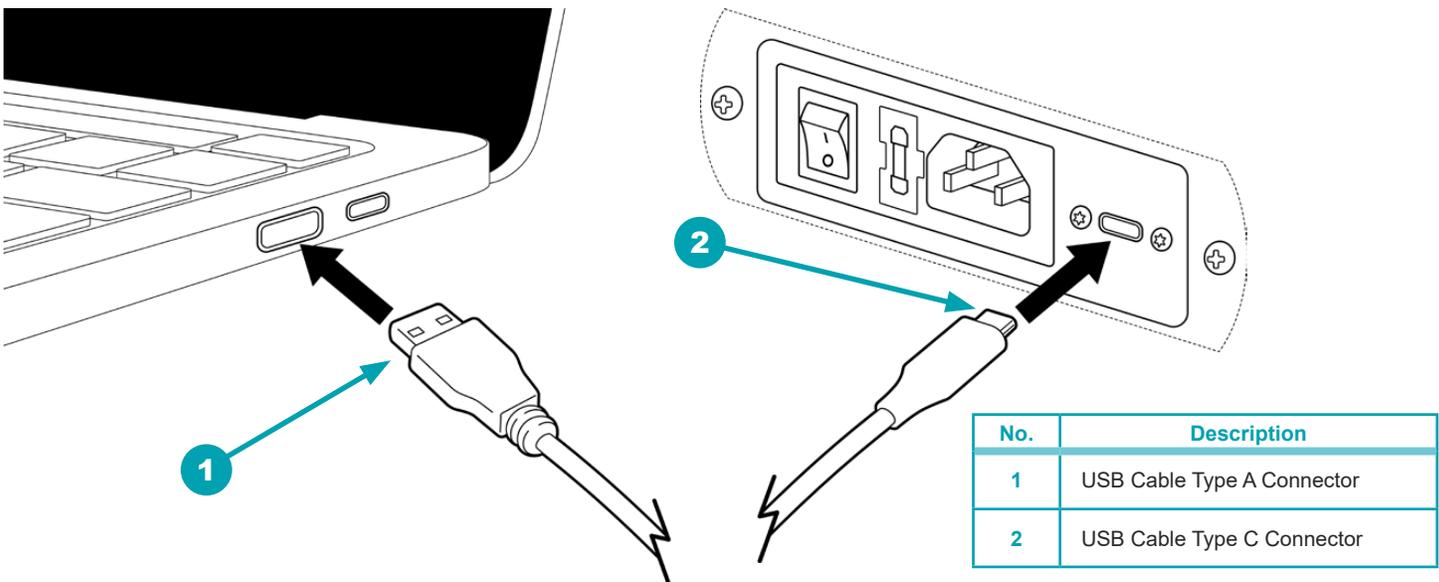
All VariQuest products can connect to the Design Center using any available USB port. Connect the Cutout Maker and other peripheral devices to one of the USB ports located on the side or rear of the VariQuest Design Center.

### Connecting to a Personal Computer

The Cutout Maker provides a standard interface for connecting to a computer (USB-A connector). Connect one end of the cable provided to an available USB-A connector on the computer, and connect the remaining end to the USB-C connector on the Cutout Maker. Power on the Cutout Maker and the computer, and install the **VariQuest<sup>®</sup>** Design Center Software.



**NOTE:** Refer to the separate **VariQuest<sup>®</sup>** Design Center User's Guide for software installation.



**Note:** This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of more of the following measures:

- Connect the equipment into an outlet on a circuitry different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

## 4 OPERATING THE CUTOUT MAKER

This chapter provides instructions for operating the **VariQuest® Cutout Maker 2800**.

The following information is contained in this chapter:

- » [Loading Material..... page 4-1](#)
- » [Typical Operating Sequence..... page 4-2](#)

### Loading Material

Before loading material on the **VariQuest® Cutout Maker 2800**, you must choose the appropriate material type in the **VariQuest® Design Center Software**. This software is installed on the **VariQuest® Design Center** or on your PC. When you select the material type in the software, the Cutout Maker adjusts the output settings (blade depth, force and cutting speed) accordingly. After you have selected the material type and prepared your cut job, the control panel will instruct you to load the appropriate material on the Cutout Maker.

If you experience poor cut quality, you can adjust the material settings and increase or decrease the blade depth. Adjust this blade setting only if the blade does not cut completely through the material or cuts too deeply into the mat.

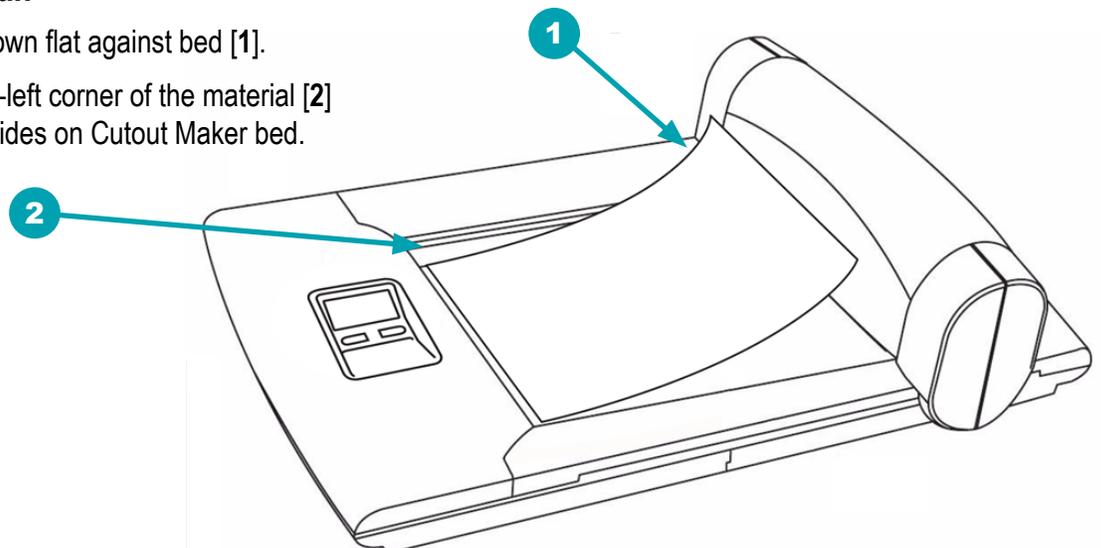
- See the **VariQuest® Design Center Software User's Guide** for detailed instructions for software setup.
- Ensure the material is loaded as shown below for proper operation of the unit. The material must lay flat on the bed, and the top left corner must be flush with the guides on the Cutout Maker.



**NOTE:** Smaller scrap sizes may move on the cutting mat. If this occurs, you may need to use a larger piece of scrap, or correct the movement by placing another piece of paper next to the paper you are cutting to increase vacuum suction.

#### To load material:

1. Press paper down flat against bed [1].
2. Ensure the top-left corner of the material [2] is flush with guides on Cutout Maker bed.



## Typical Operating Sequence

### IMPORTANT

The **VariQuest<sup>®</sup> Cutout Maker 2800** can be used only with the **VariQuest<sup>®</sup> Design Center Software**. The **VariQuest<sup>®</sup> Design Center Software** is installed on your **VariQuest<sup>®</sup> Design Center** or PC. Refer to the separate **VariQuest<sup>®</sup> Design Center User's Guide** for software installation.

After loading the materials as described in [Loading Material](#) on page 4-1, the Cutout Maker control panel will display instructions similar to the following example.

### Operating Example

#### To load cutout material:

1. Position the material on the Cutout Maker. Make sure that the top left corner is flush with the guides on the Cutout Maker bed.
2. Press **GO**.



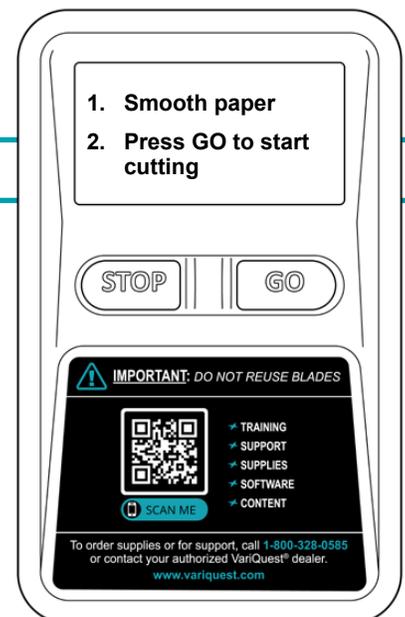
#### To smooth paper/start cut job:

1. Smooth the paper on the cutting mat.



**NOTE:** Smoothing paper on the cutting mat ensures a clean cut.

2. Press **GO** to start the cut job. Once cutting is complete, you can remove your cutout from the cutting bed.



## 5 MAINTENANCE

This chapter describes the periodic maintenance procedures required during normal operation of the VariQuest<sup>®</sup> Cutout Maker 2800.

The Maintenance Summary in this chapter is divided into these sections:

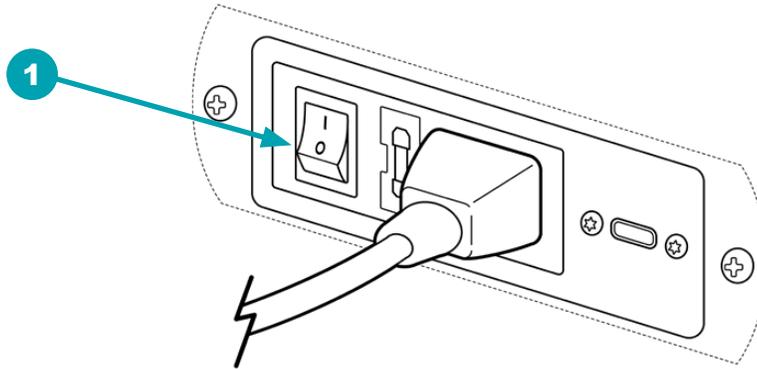
- » [Replacing the Cutting Blade..... page 5-2](#)
- » [Replacing the Cutting Mat..... page 5-6](#)
- » [Oil Gantry Rails..... page 5-10](#)
- » [Clean Tip Sensor..... page 5-11](#)
- » [Change the Cutter Housing Tip.....page 5-12](#)
- » [User Calibration..... page 5-13](#)

### Maintenance Summary

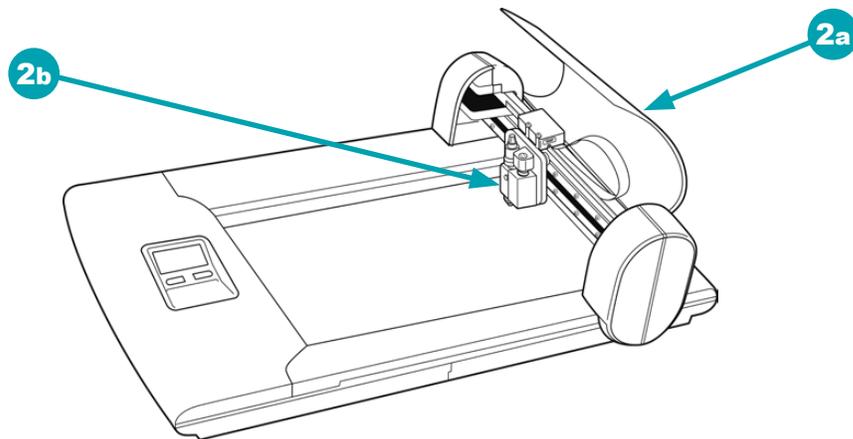
Maintenance	Occurrence	Reason for Maintenance	Description
Clean mat with Isopropyl Alcohol (IPA)	Weekly or as needed	Material to be cut moves while being cut.	Use IPA and a lint-free cloth. Turn power off. Apply IPA to cloth and wipe. Mat should be slightly tacky when rubbed with the bare hand.
Change blade	Monthly or as needed	Cutouts exhibit an unacceptable amount of tears.	See <a href="#">Replacing the Cutting Blade</a> on page 5-2.
Change mat	Yearly	Rubber mat exhibits significant wear and tear.	See <a href="#">Replacing the Cutting Mat</a> on page 5-6.
Oil gantry rails	Yearly	Rails exhibit signs of wear. Slight grinding is felt when moving cutter head manually.	See <a href="#">Oil Gantry Rails</a> on page 5-10.
Clean tip sensor	Weekly or as needed	Maintain optimum cut quality.	See <a href="#">Clean Tip Sensor</a> on page 5-11.
Change cutter housing tip	As needed	Cutouts or material is pulling around corners.	See <a href="#">Change the Cutter Housing Tip</a> on page 5-12.
User Calibration	As needed	Rectify any change in cut depth that can happen over time.	See <a href="#">User Calibration</a> on page 5-13.

## Replacing the Cutting Blade

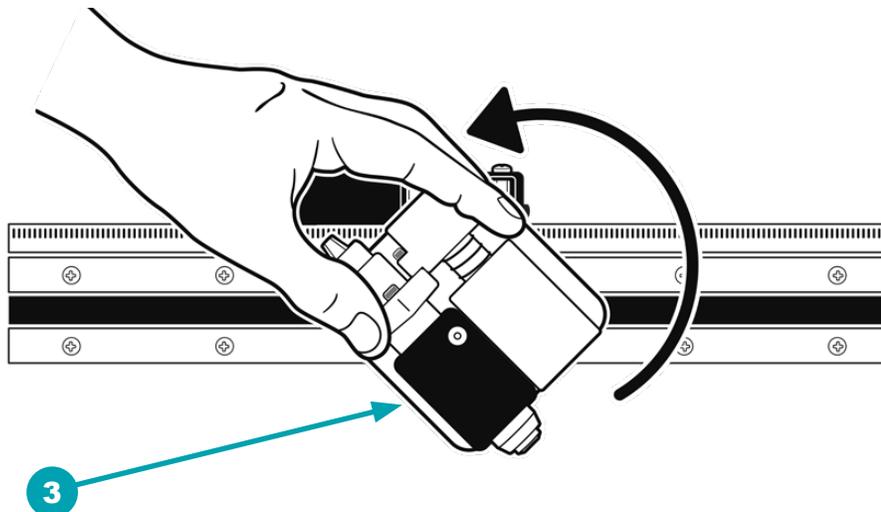
1. Make sure the power switch [1] is set to I (ON) to keep the machine ON.



2. Open the gantry top cover [2a], locate the blade holder/motor assembly [2b] and move it toward the middle of the gantry track.



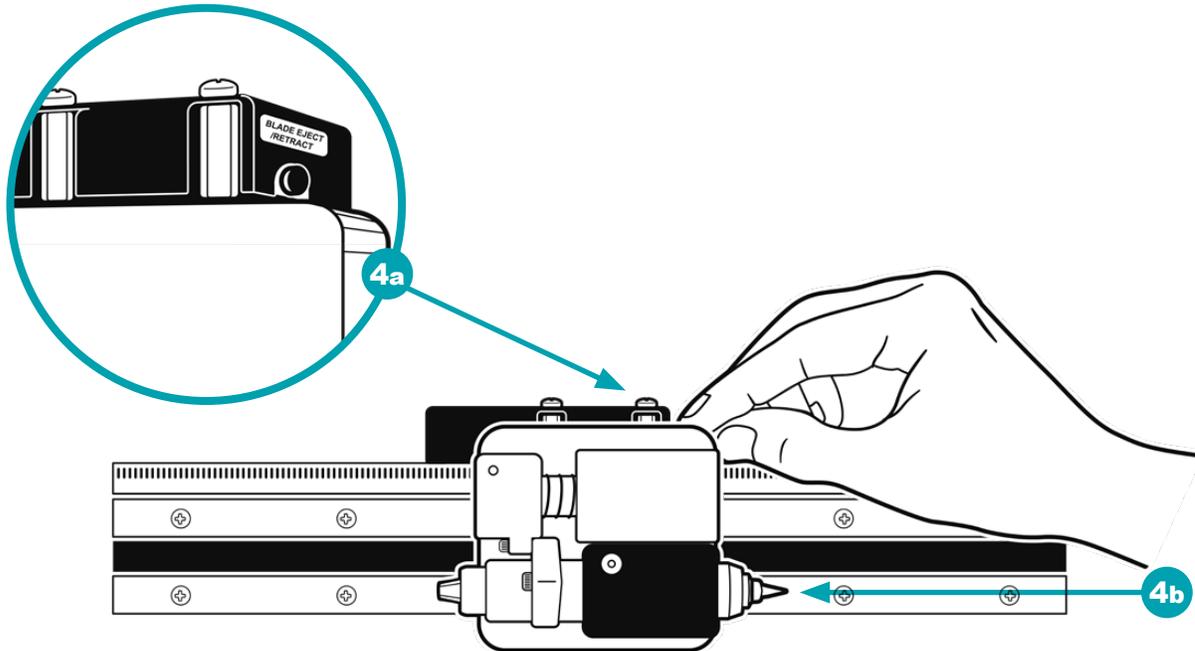
3. Rotate the blade holder [3] 90° towards the front of the unit to gain access to the blade.



4. Press the *BLADE EJECT/RETRACT* button [4a] at the top of the distribution board to eject the blade.

**CAUTION!**

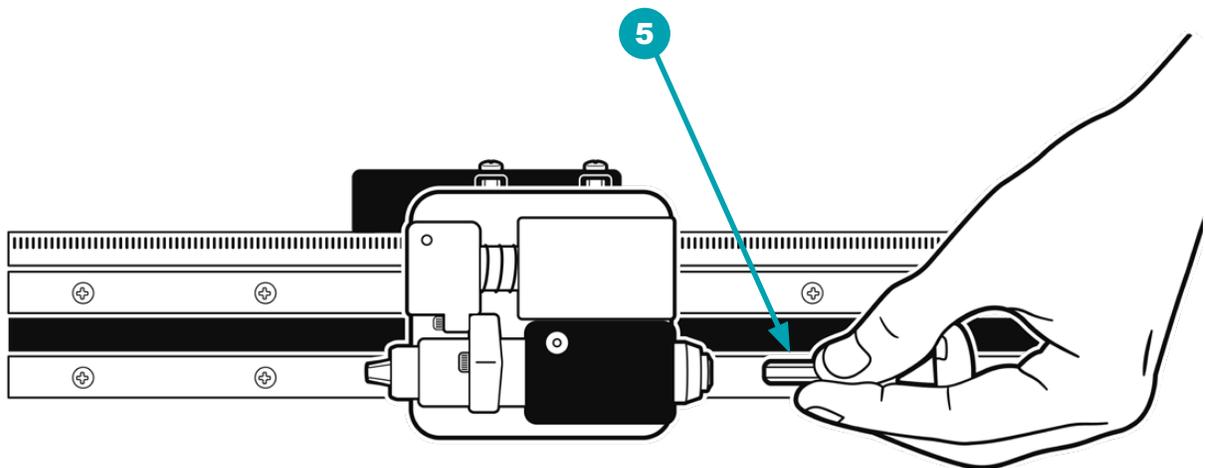
The cutter blade protrudes from the blade holder [4b] slightly even when retracted. Take care to avoid contact with the blade. Personal injury or equipment damage may result if the blade is touched.



5. Carefully remove the blade from the blade holder by grasping the cutter tip just above the blade [5].

**CAUTION!**

The cutter blade protrudes from the blade holder slightly even when retracted. Take care to avoid contact with the blade. Personal injury or equipment damage may result if the blade is touched.

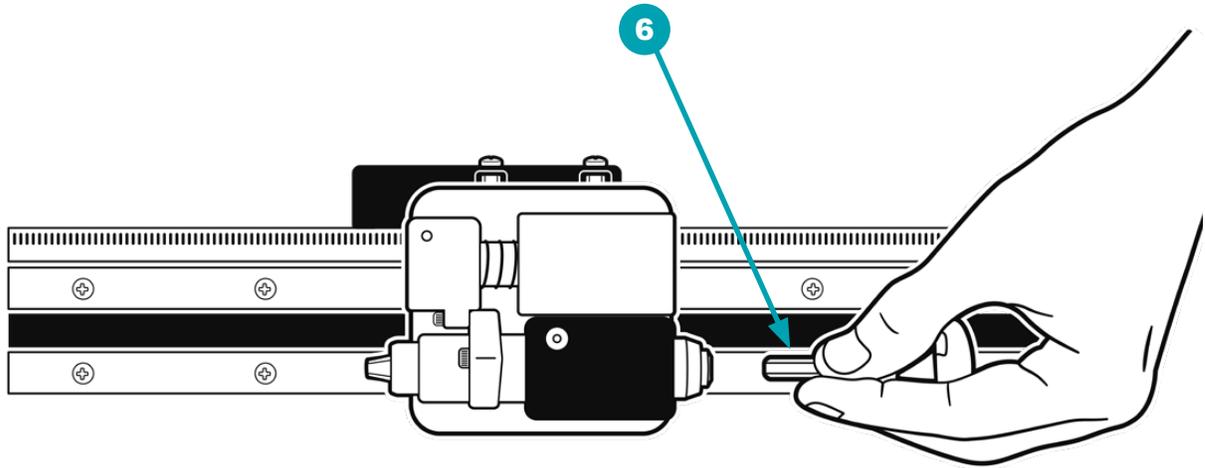


## User's Guide — Cutout Maker 2800

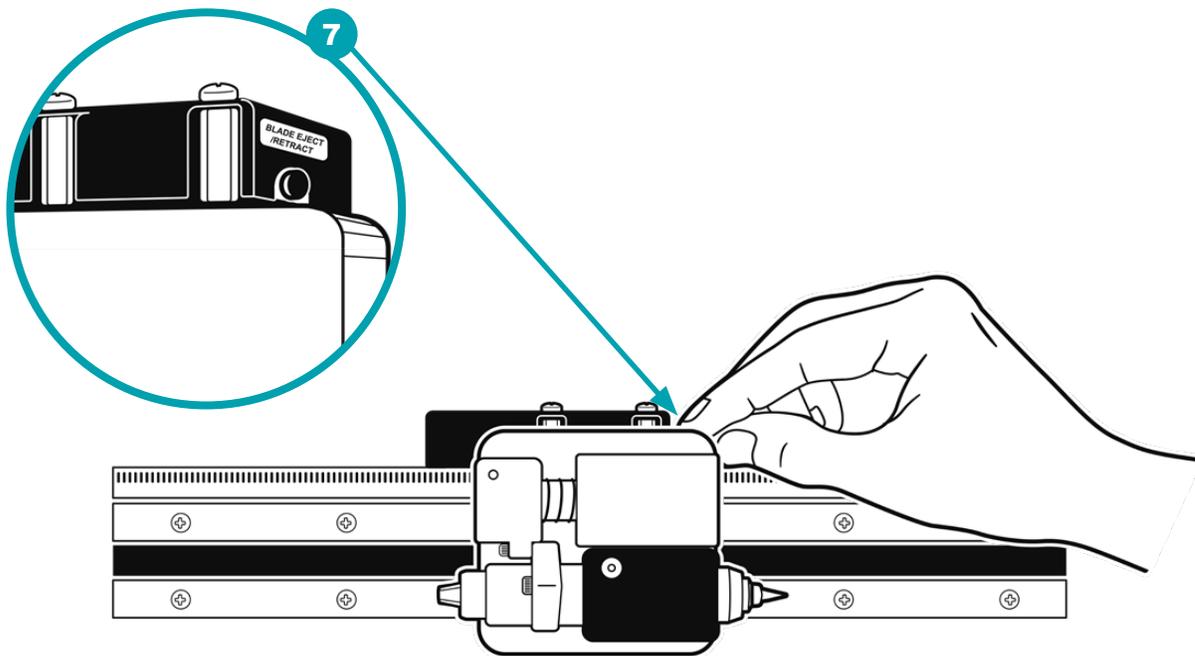
- Carefully position the blade in the blade holder [6] and insert it until only 1/4 inch of the blade protrudes from the holder.

**⚠ CAUTION!**

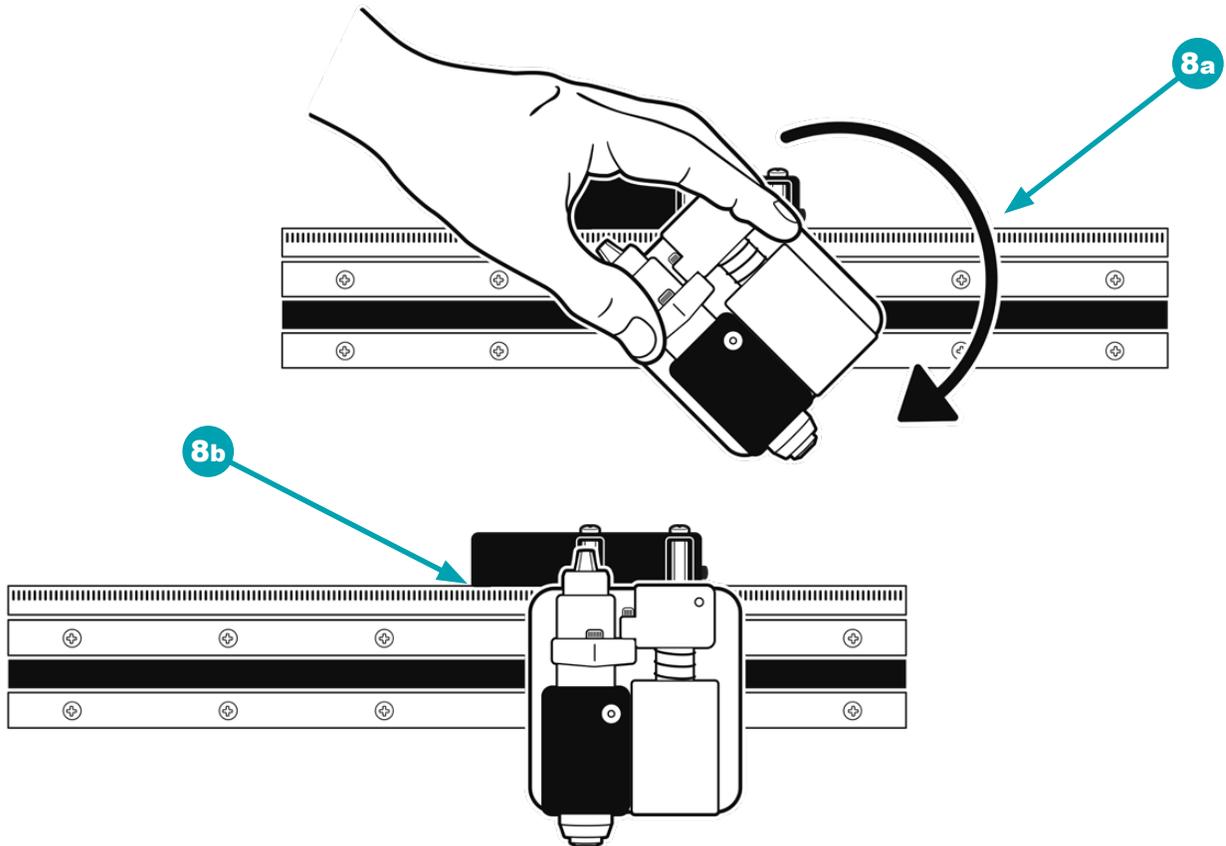
The cutter blade protrudes from the blade holder slightly even when retracted. Take care to avoid contact with the blade. Personal injury or equipment damage may result if the blade is touched.



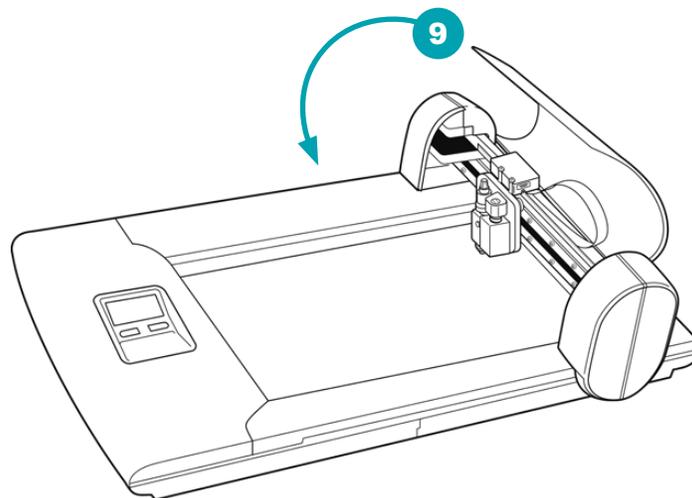
- Press the *BLADE EJECT/RETRACT* button [7] to activate the motor that pulls the blade in to its fully seated position within the housing.



8. Rotate the blade holder assembly 90° [8a] back to its operating position [8b].

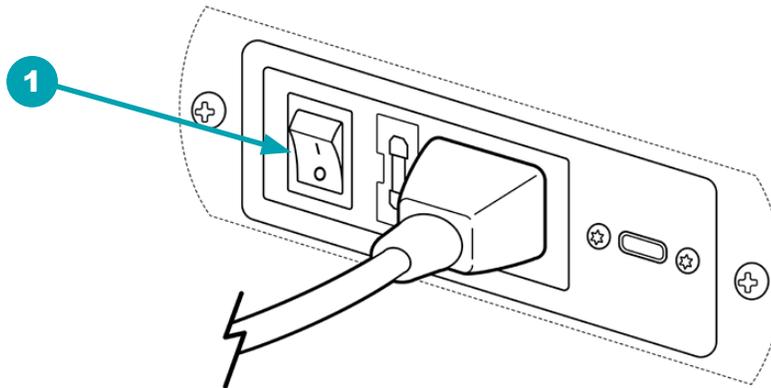


9. Close the gantry top cover [9] on the Cutout Maker.



## Replacing the Cutting Mat

1. Set the power switch [1] to 0 (OFF) to turn the machine OFF.

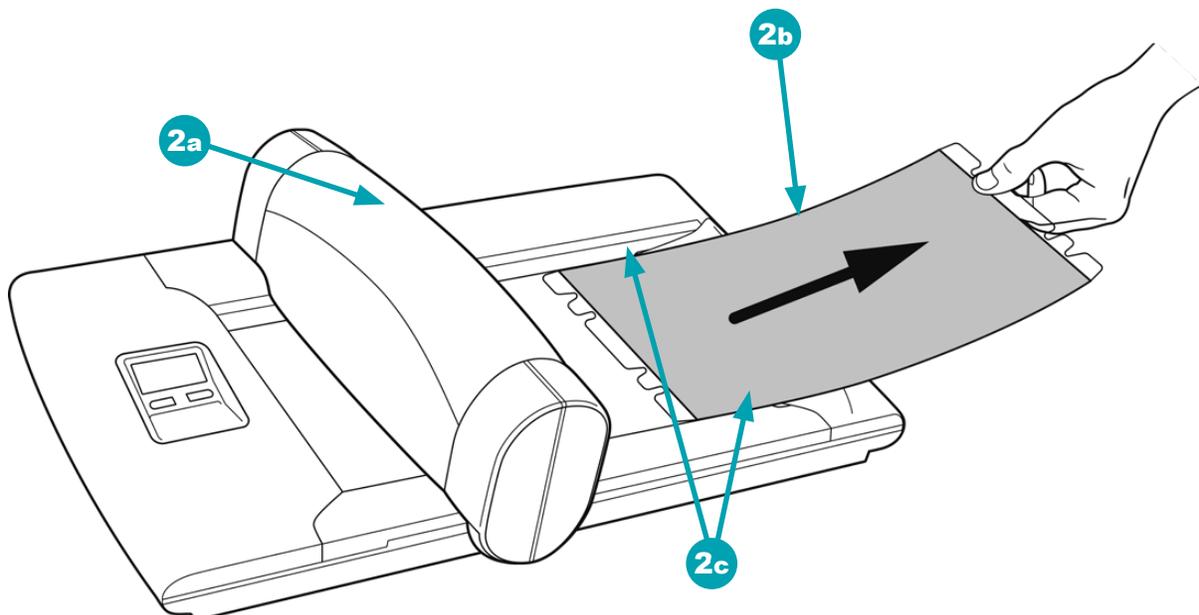


2. Slide the gantry forward [2a] and grasp the rear edge of the cutting mat. Slide the mat out (to rear) [2b] from between the channels on each side of the bed [2c].

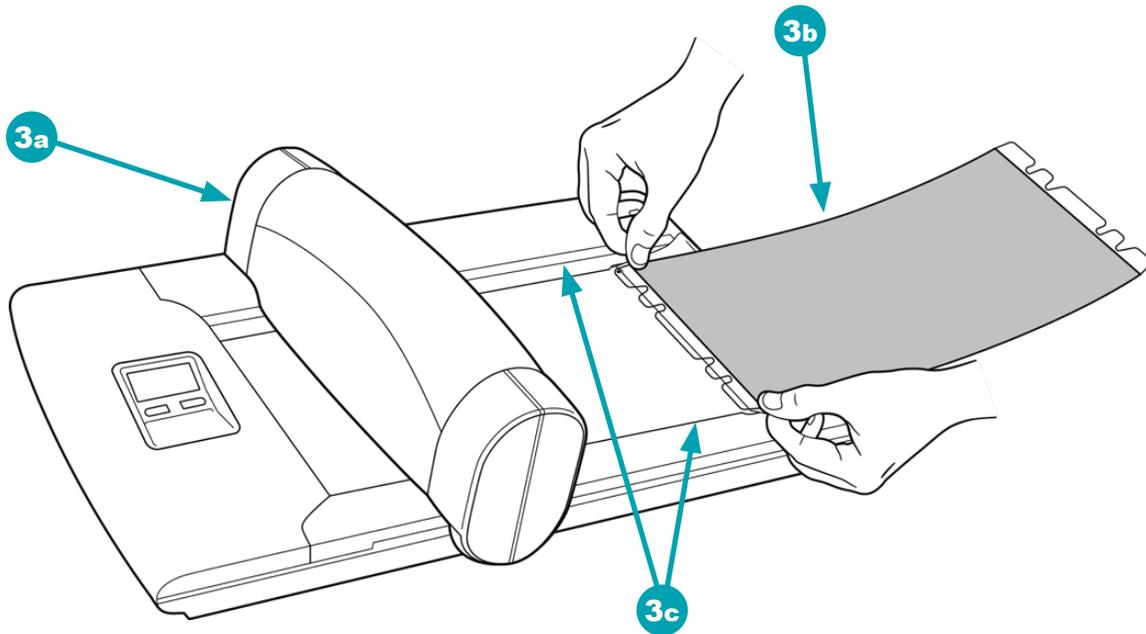


**NOTE:** The gantry may appear a bit stiff when slid forward—it is recommended to push primarily from the top of the unit.

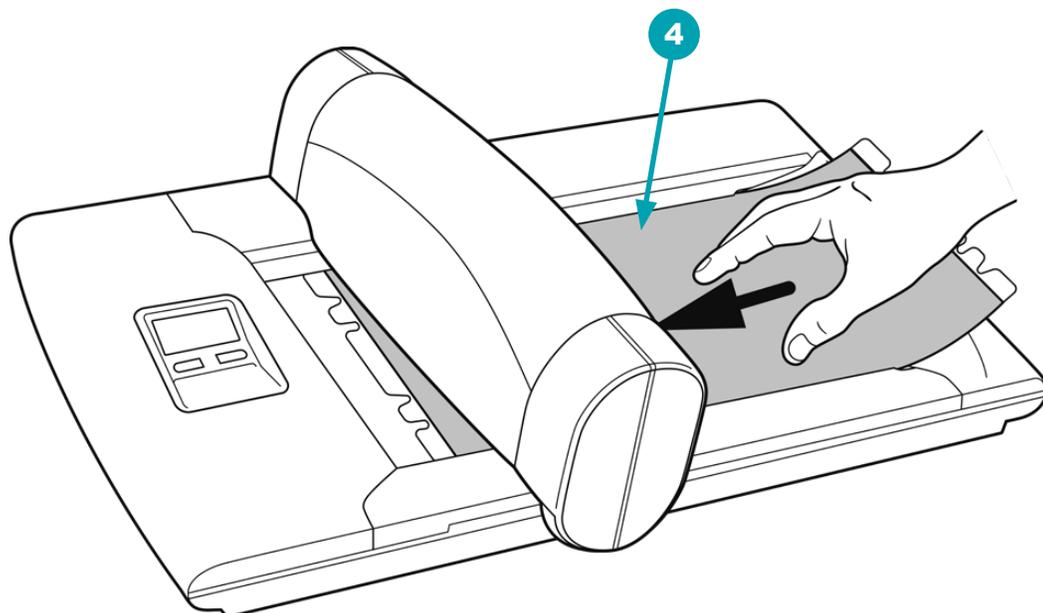
---



3. With the gantry moved forward [3a], position the cutting mat soft side up [3b] so that the sides of the mat protrude into the channels on each side of the bed [3c].

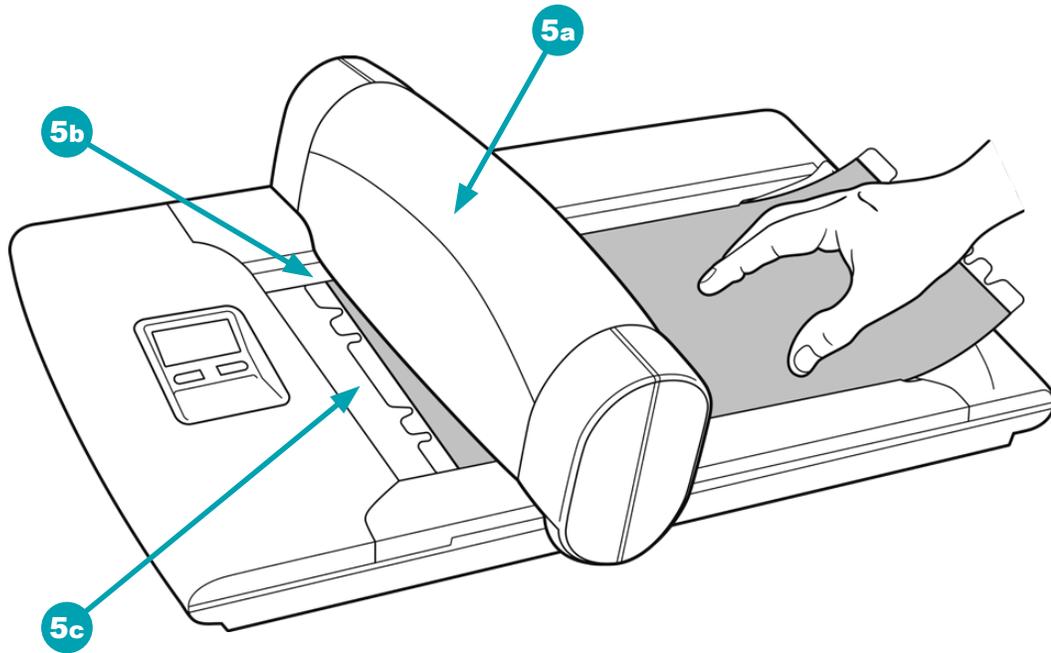


4. Guide the cutting mat forward between the channels [4] on each side of the bed.

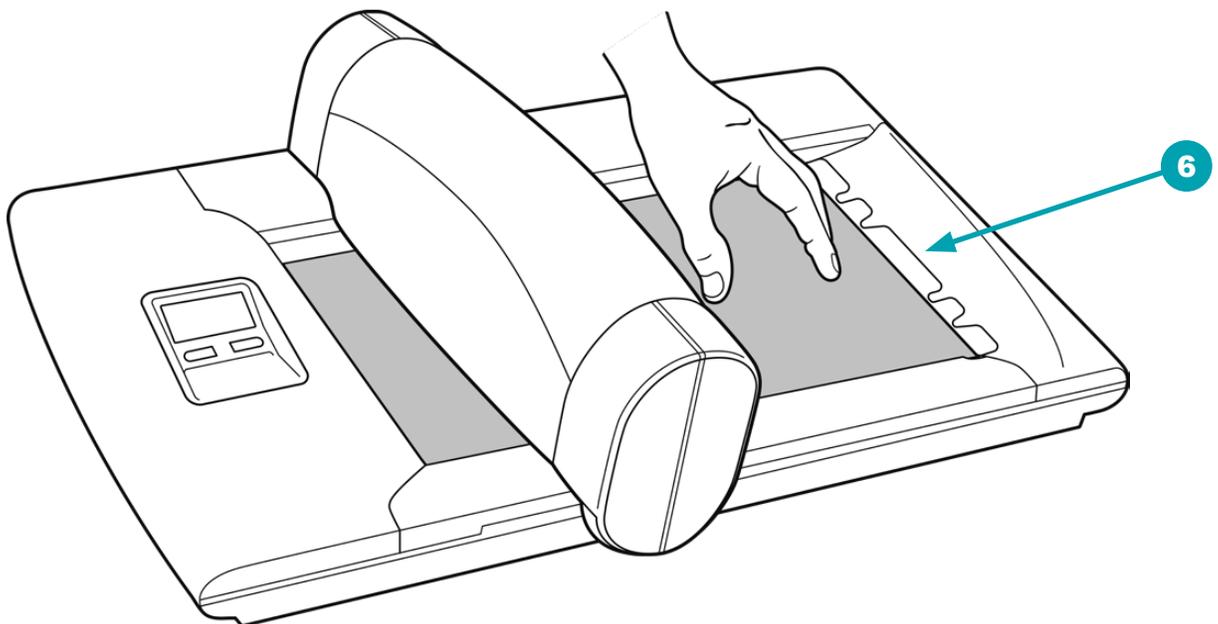


## User's Guide — Cutout Maker 2800

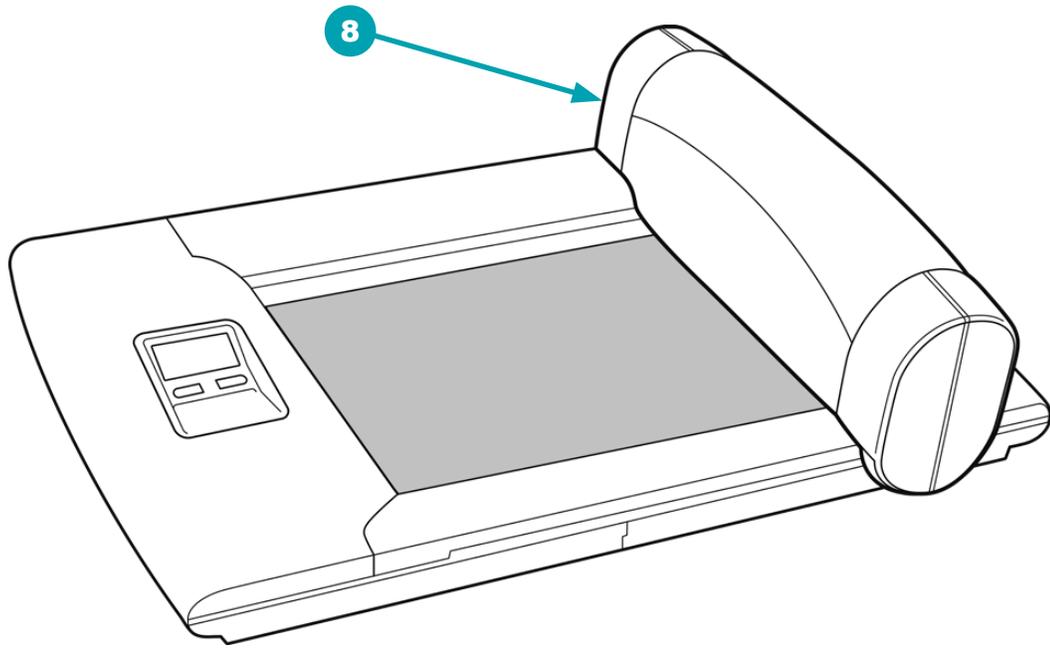
5. Continue sliding the mat forward and under the cover [5a] until the guide slots [5b] on the leading edge of the mat are fully engaged with the guides on the front end of the bed [5c].



6. With the leading edge of the mat secured, align the notches on the rear edge of the mat with the guide posts on the bed [6]. Press the mat down to secure it in position.



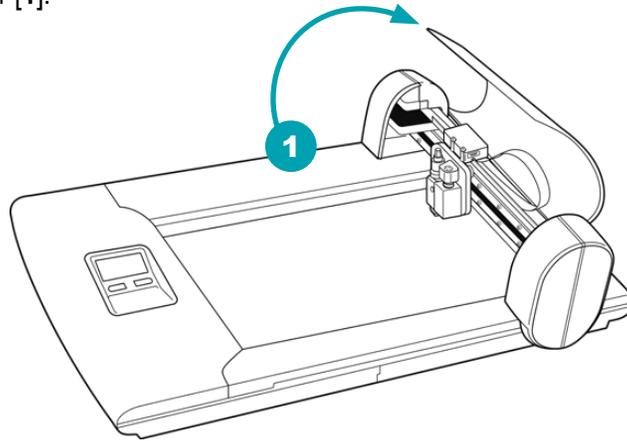
7. Turn the machine on.
8. Ensure that the gantry returns to the home position [8].



**NOTE:** In some cases, you may rotate the protective mat to make use of surface area that is not worn. Either end of the mat may be inserted into the Cutout Maker.

## Oil Gantry Rails

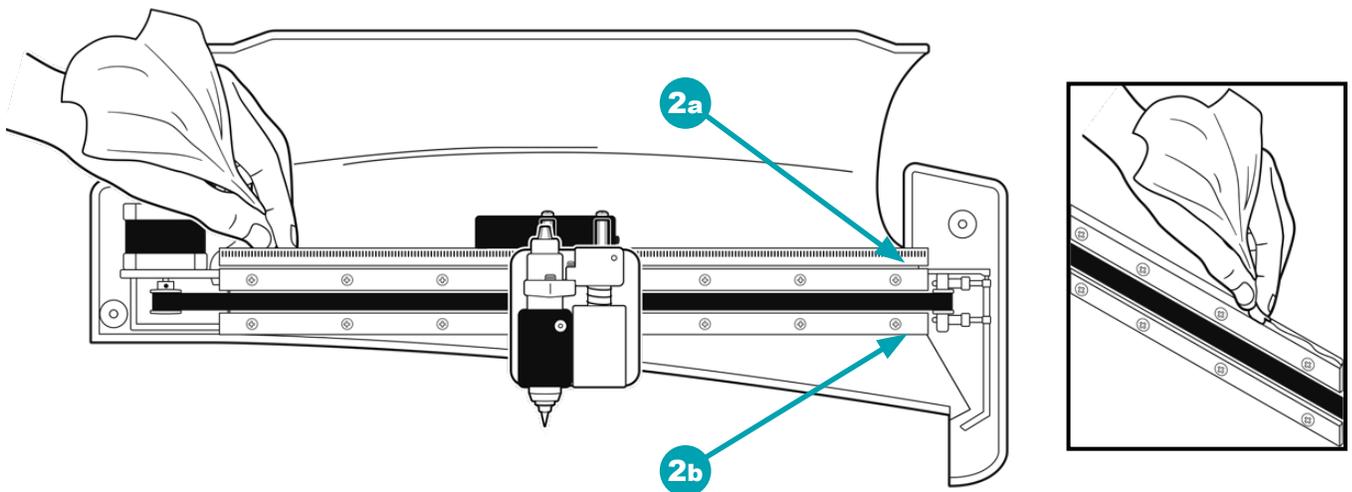
1. Lift gantry top cover [1].



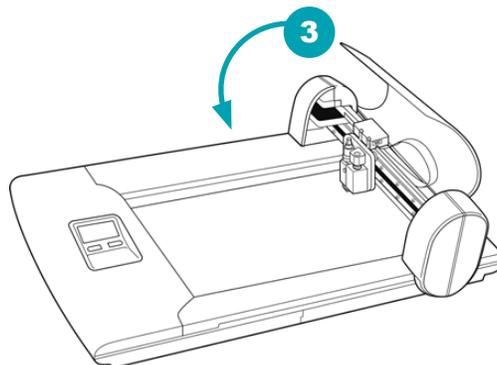
2. Apply a small amount of general household oil (such as 3-in-1 oil) to a clean cloth and wipe on exposed edge of upper [2a] and lower [2b] gantry rails.



**NOTE:** Take care not to apply too much oil. Oil should not drip or pool. Remove excess oil with a clean cloth.

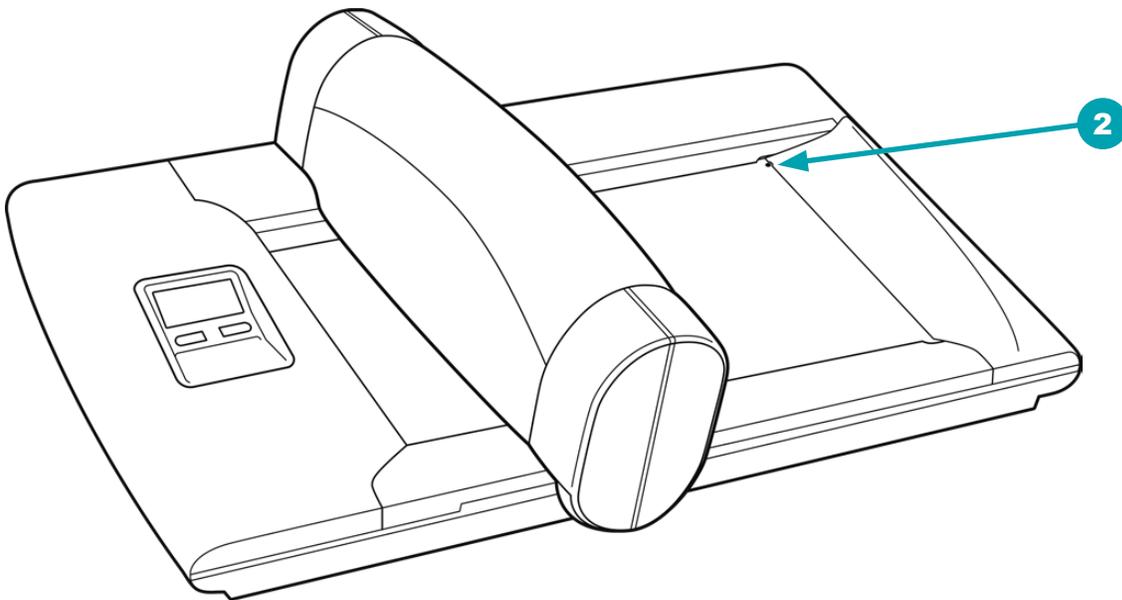


3. Close gantry top cover [3].



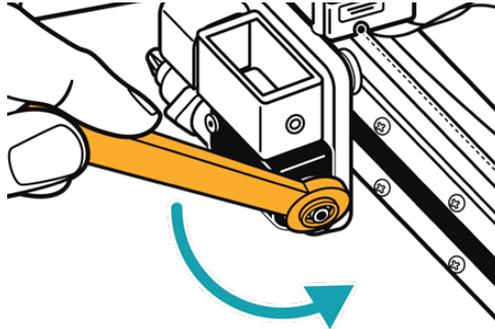
## Clean Tip Sensor

1. Check that there are no obstructions, residue or paper debris covering the tip sensor.
2. Using the tweezers and chad removal tool from the maintenance kit, remove any debris from the tip sensor location plunger [2].

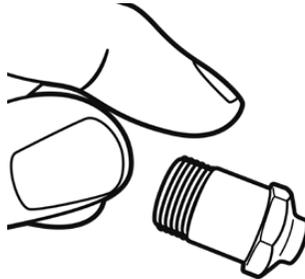


## Change the Cutter Housing Tip

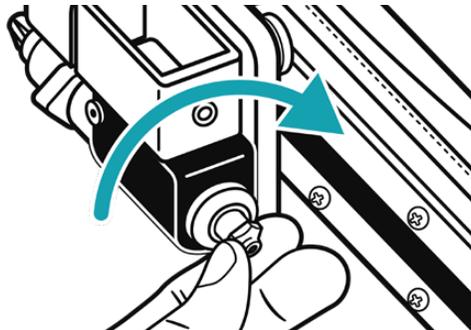
1. Remove the blade (see [Replacing the Cutting Blade](#) on page 5-2), then use the wrench provided to remove the current tip



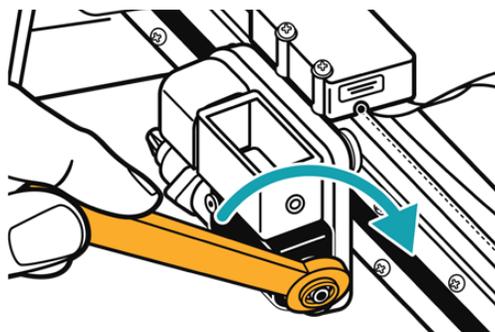
2. Replace with the new tip



3. Hand tighten the tip



4. Use the wrench for a snug fit



---

**⚠ CAUTION!**  
Do not over-tighten.

---

## User Calibration

### CAUTION!

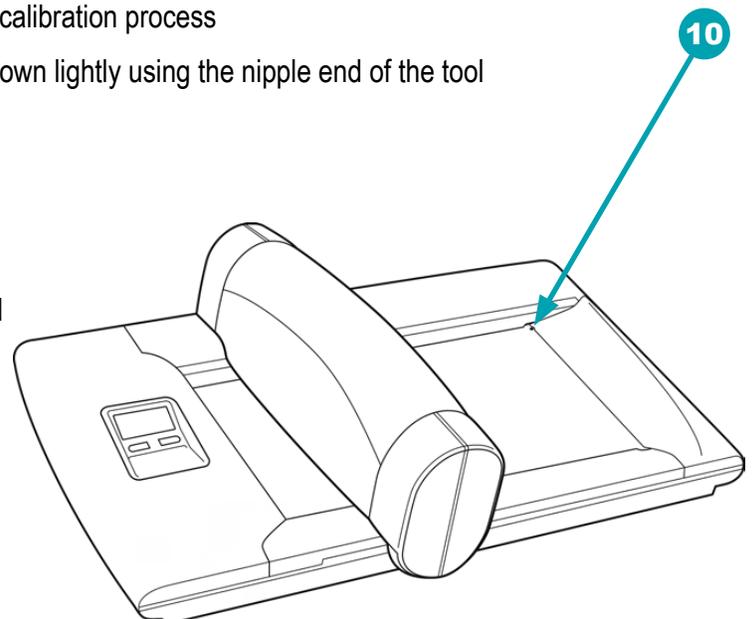
All other troubleshooting steps, such as changing the material or material settings, should be exhausted before resorting to manual calibration. *User Calibration* is not a regular step for routine Cutout Maker 2800 maintenance.

1. Move the gantry to the middle of your Cutout Maker 2800
2. Ensure that the Cutout Maker 2800 is powered *OFF*
3. Turn Cutout Maker 2800 *ON*
4. Press and hold **STOP** while powering on to reach the service menu
5. Press the **STOP** button to move selection
6. Press the **STOP** button three times to reach the calibration selection
7. Hit the green **GO** button to select calibration
8. Hit the **STOP** button to go to the *TIP SENSOR* selection
9. Hit the green **GO** button to select *TIP SENSOR*

### CAUTION!

Be sure to **ONLY** select *TIP SENSOR*. Other settings should not be touched.

10. Place **CALIBRATION TOOL** over the tip sensor [10] in the top right of the Cutout Maker, and push down slightly using the flat end of the tool until the rod is flush with the brass ring
11. Hit the green **GO** button
12. The screen will take you to the next step in the calibration process
13. Flip the **CALIBRATION TOOL** over and push down lightly using the nipple end of the tool until the tool is fully flat with the box
14. Hit the green **GO** button
15. Calibration steps are complete
16. The Cutout Maker 2800 will automatically go back to the main service menu upon successful calibration
17. Power down the Cutout Maker 2800



## 6 TROUBLESHOOTING

This chapter describes how to locate and solve problems that you may encounter while using the **VariQuest<sup>®</sup> Cutout Maker 2800**.

The following information is contained in this chapter:

- » [Process..... page 6-1](#)
- » [Troubleshooting..... page 6-2](#)
- » [Error Codes..... page 6-4](#)
- » [Servicing the Cutout Maker..... page 6-6](#)

### Process

Many problems can be traced to something as simple as a loose connection. Check the following before proceeding to the problem-specific solutions on the next page.

### Tips

In each problem-specific section on the next page, try the steps in the order suggested. This may help you solve the problem more quickly.

Keep a record of the steps you take when troubleshooting. The information may be useful to technical support or service personnel.

- Use some other electrical device to confirm that the electrical outlet is working.
- Ensure all connections are securely attached.

## Troubleshooting

Troubleshooting	
Diagnosis	Required Action
Cutout Maker does not work even though the power switch has been turned on.	<ol style="list-style-type: none"> <li>1. Verify that power cord has been plugged in properly.</li> <li>2. Verify that power switch is turned on.</li> </ol>
LCD Display does not turn on.	<ol style="list-style-type: none"> <li>1. Verify that power cord has been plugged in properly.</li> <li>2. Verify that power switch is turned on.</li> </ol>
Excessively loud noise.	<ol style="list-style-type: none"> <li>1. Oil rails (see <a href="#">Oil Gantry Rails</a> on page 5-10).</li> </ol>
<p><b>NOTE:</b> In each of the following cases, follow the 6 steps shown in the <i>Required Action</i> column.</p>	
Button presses don't seem to be working.	<ol style="list-style-type: none"> <li>1. Verify that the Design Center touch computer or PC and the Cutout Maker 2800 are turned on, and the power cord has been plugged in properly.</li> <li>2. Verify that the USB cable is plugged into the Design Center touch computer or PC and the Cutout Maker 2800.</li> <li>3. Turn the device off/on.</li> <li>4. Close, then reopen the VariQuest Software. Turn the device <b>OFF</b>, then <b>ON</b> to reestablish communication.</li> <li>5. Verify that the Design Center touch computer or PC is not prompting to install the USB driver (Found New Hardware Wizard). It is possible that the wizard is behind another window on the Design Center touch computer or PC. Run the wizard to install the USB driver, if needed.</li> <li>6. Verify that the print driver for the device is installed by opening the <i>Printers &amp; Scanners</i> control panel on the Design Center touch computer or PC, and verify that there is a printer named <i>Cutout Maker 2800</i>. Run the printer setup from the CD, if needed.</li> </ol>
The message box in the VariQuest <sup>®</sup> Software contains the following message: <i>There was an error communicating with the cutter. You will need to re-cut some or all of your job. Select OK, then select the page or pages to re-cut.</i>	
The LCD Display on the Cutout Maker doesn't change to a screen saying <i>Ready</i> when the user enters the initial Cutout Maker screen in the VariQuest Software.	
Paper tears.	<ol style="list-style-type: none"> <li>1. Change the cutter housing tip if significant use is visible.</li> <li>2. Verify correct material was selected in VariQuest Software.</li> <li>3. Change cutting blade (see <a href="#">Replacing the Cutting Blade</a> on page 5-2).</li> <li>4. Adjust material settings, see VariQuest Software User's Guide.</li> <li>5. Clean mat with isopropyl alcohol.</li> <li>6. Rotate mat 180°.</li> <li>7. Replace mat.</li> <li>8. Clean the tip sensor. See <a href="#">Clean Tip Sensor</a> on page 5-11.</li> </ol>
Paper scrunching during cutting.	<ol style="list-style-type: none"> <li>1. Change the cutting blade.</li> <li>2. Adjust the cutting blade depth 1 step negative (see <a href="#">Loading Material</a> on page 4-1). If condition persists, repeat this step.</li> <li>3. Clean tip sensor. See <a href="#">Clean Tip Sensor</a> on page 5-11.</li> </ol>

Troubleshooting	
Diagnosis	Required Action
Paper moves while cutting.	<ol style="list-style-type: none"> <li>1. Change tip</li> <li>2. Scrap paper is too small, use larger scrap paper.</li> </ol>
	<p><b>NOTE:</b> Smaller scrap sizes may move on the cutting mat. If this occurs, you may need to use a larger piece of scrap, or the movement may be corrected by placing another piece of paper next to the paper you are cutting to increase vacuum suction.</p>
	<ol style="list-style-type: none"> <li>3. Rotate mat 180°.</li> <li>4. Replace mat.</li> </ol>
Blade does not retract during blade change procedure.	<ol style="list-style-type: none"> <li>1. Power off.</li> <li>2. Power on and allow to rehome.</li> <li>3. Rotate head up, depress blade release button, cycle power.</li> <li>4. Depress blade button.</li> <li>5. If the error persists, contact your <b>VariQuest<sup>®</sup></b> dealer.</li> </ol>

## Error Codes

The following table describes the Error Codes that may appear on the control panel and corrective action required to correct the problem.



**NOTE:** Error codes contain a 2nd digit that the user does not need to be concerned with.

Error Codes	
Message Displayed	Corrective Action
<p>Cutter stalled. Check mat for obstructions. Press stop to clear error.</p> <p>Error #3 or Error #4</p>	<ol style="list-style-type: none"> <li>1. Verify that there are no obstructions on the mat.</li> <li>2. Insert new material.</li> <li>3. Verify that the correct material type is selected in the VariQuest<sup>®</sup> Software on the Design Center touch computer or the PC.</li> <li>4. Press <b>STOP</b> to clear error.</li> <li>5. Try again.</li> <li>6. If the error persists, contact your <b>VariQuest<sup>®</sup></b> dealer.</li> </ol>
<p>Sensor error. Check mat for obstructions. Press stop to clear error.</p> <p>Error #5, Error #6 or Error #13</p>	<ol style="list-style-type: none"> <li>1. Verify that there are no obstructions on the mat.</li> <li>2. Press <b>STOP</b> to clear error.</li> <li>3. Try again.</li> <li>4. If the error persists, contact your <b>VariQuest<sup>®</sup></b> dealer.</li> </ol>
<p>Tip Sensor error. Check blade position. Ensure mat is not over sensor. Press stop to clear error.</p> <p>Error #8</p>	<ol style="list-style-type: none"> <li>1. Ensure that the mat is not over the tip sensor.</li> <li>2. Remove any obstructions from the tip sensor (see <a href="#">Clean Tip Sensor</a> on page 5-11).</li> <li>3. Open gantry cover.</li> <li>4. Verify that the blade holder assembly is rotated to the operating position as shown in <a href="#">Step 8</a> on page 5-5.</li> <li>5. Rotate the blade holder 90° toward the front of the unit as shown in <a href="#">Replacing the Cutting Blade</a> on page 5-2.</li> <li>6. Ensure that the blade is installed in the blade holder.</li> <li>7. Rotate the blade holder assembly 90° to its operating position as shown in <a href="#">Step 8</a> page 5-5.</li> <li>8. Close gantry cover.</li> <li>9. Press <b>STOP</b> to clear error.</li> <li>10. Try again.</li> <li>11. If the error persists, contact your <b>VariQuest<sup>®</sup></b> dealer.</li> </ol>
<p>Job contains invalid data and cannot be cut. Press stop to clear error.</p> <p>Error #9 or Error #10</p>	<ol style="list-style-type: none"> <li>1. Select a different object size in the <b>VariQuest<sup>®</sup></b> Software on the Design Center touch computer or the PC.</li> <li>2. Press <b>STOP</b> to clear error.</li> <li>3. Try again.</li> <li>4. Replace blade and/or tip. If error persists, contact your <b>VariQuest<sup>®</sup></b> dealer.</li> </ol>

Error Codes	
Message Displayed	Corrective Action
<p>Cut speed error. Select a different object size and try again. Press stop to clear error.</p> <p>Error #11</p>	<ol style="list-style-type: none"> <li>1. Select a different object size in the <b>VariQuest<sup>®</sup></b> Software on the Design Center touch computer or the PC.</li> <li>2. Press <b>STOP</b> to clear error.</li> <li>3. Try again.</li> <li>4. If the error persists, contact your <b>VariQuest<sup>®</sup></b> dealer.</li> </ol>

## Servicing the Cutout Maker

If you are unable to solve the problem, you may need to have the Cutout Maker serviced.

***To service your Cutout Maker:***

- 1.** Write a description of the problem and a checklist of the steps you took when trying to fix the problem. This information may be useful to the service personnel.
- 2.** Contact your **VariQuest<sup>®</sup>** dealer for further instructions.
- 3.** If instructed to do so by your **VariQuest<sup>®</sup>** dealer, pack the Cutout Maker in the original carton. See [Unpacking the Cutout Maker](#) on page 3-1.

This page is intentionally left blank

# VariQuest<sup>®</sup>

Cutout Maker 2800