

## Logan 550-1

# Logan Simplex Classic 40 Inch Mat Cutter (Model 550-1) User Manual

Model: 550-1 Simplex Classic

## 1. INTRODUCTION

The Logan Simplex Classic 40 Inch Mat Cutter is a board-mounted cutting system designed for precise mat cutting in art and picture framing applications. This manual provides instructions for the safe and effective use of your mat cutter, covering assembly, operation, maintenance, and troubleshooting.

## 2. SAFETY INFORMATION

- Always handle blades with extreme care. Blades are sharp and can cause injury.
- Keep hands and fingers clear of the cutting path during operation.
- Ensure the mat cutter is placed on a stable, level surface before use.
- Keep children and pets away from the work area.
- Wear appropriate safety glasses to protect your eyes from debris.
- Disconnect the mat cutter from any power source if applicable (though this model is manual, general safety applies).

## 3. PACKAGE CONTENTS

Verify that all components are present before beginning assembly or operation:

- Mat board base
- Cutting heads (Bevel and Straight)
- Mat guide
- Squaring arm
- Production stops
- Instruction Manual

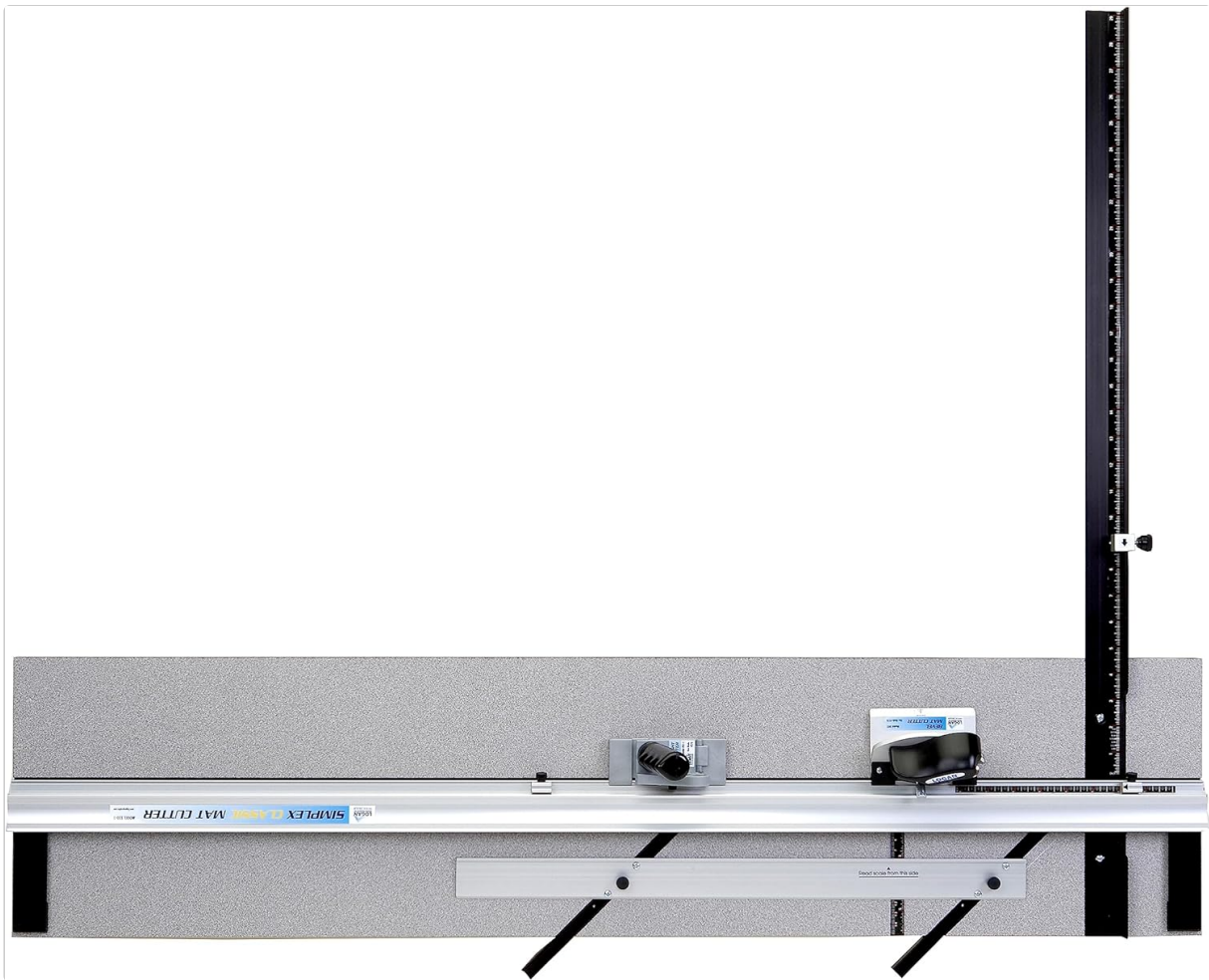


Figure 3.1: Overview of the Logan Simplex Classic 40 Inch Mat Cutter and its main components.

## 4. SETUP

Follow these steps to set up your mat cutter for initial use:

1. **Unpacking:** Carefully remove all components from the packaging. Retain packaging for future storage or transport.
2. **Assembly:** Attach the squaring arm to the mat cutter base. Ensure it is securely fastened and square to the cutting rail. Adjustments may be necessary to achieve perfect squareness.
3. **Blade Installation:** Install the appropriate blade into the desired cutting head (bevel or straight). Refer to the cutting head instructions for specific blade insertion procedures. Ensure the blade is seated correctly and securely.
4. **Workspace Preparation:** Place the mat cutter on a sturdy, flat surface. Ensure adequate space for handling mat boards up to 40 inches in length.

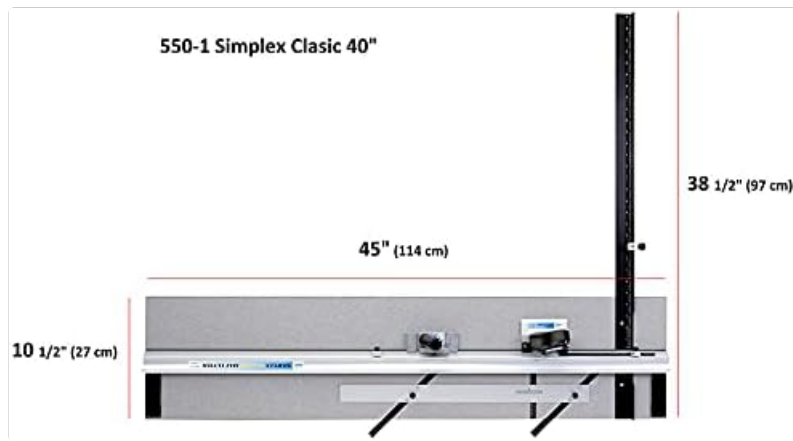


Figure 4.1: The mat cutter measures approximately 45 inches (114 cm) in width and 38 1/2 inches (97 cm) in height with the squaring arm extended. The base depth is 10 1/2 inches (27 cm).

## 5. OPERATING INSTRUCTIONS

This section details the steps for cutting mats using your Logan Simplex Classic 40 Inch Mat Cutter.

### 5.1 Preparing the Mat Board

- Measure and mark the desired opening on your mat board.
- Position the mat board against the parallel mat guide and squaring arm.
- Secure the mat board in place using clamps or by applying firm, even pressure.

### 5.2 Using the Bevel Cutting Head

The bevel cutting head is used for creating angled cuts, typically for the inner edge of a mat opening.

1. Insert a fresh blade into the bevel cutting head.
2. Adjust the blade depth as needed. A common starting point is approximately 1/8 inch beyond the mat board thickness.
3. Place the bevel cutting head onto the guide rail, aligning it with your marked cut line.
4. Engage the blade using the pivot-and-pull action. Apply consistent downward pressure while pulling the cutting head along the guide rail.
5. Utilize the anti-crawl button to prevent unintended movement during the cut.
6. Use the production stops to control the start and end points of your cuts, ensuring clean corners and preventing overcuts or undercuts.



Figure 5.1: The bevel cutting head, designed for angled cuts, showing blade adjustment and ergonomic handle.

### 5.3 Using the Straight Cutting Head

The straight cutting head is used for straight, perpendicular cuts, often for sizing the outer dimensions of a mat board.

1. Insert a fresh blade into the straight cutting head.
2. Adjust the blade depth to ensure it cuts completely through the mat board.
3. Position the straight cutting head on the guide rail, aligning it with your desired cut line.
4. Apply firm, even pressure and push the cutting head along the guide rail to make the cut.
5. Ensure the patented blade slot is clear of debris for smooth operation.



Figure 5.2: The straight cutting head, used for perpendicular cuts, featuring a comfortable grip.



Figure 5.3: Proper technique for operating the mat cutter, demonstrating hand placement and material alignment.

## 6. MAINTENANCE

Regular maintenance ensures the longevity and performance of your mat cutter.

- **Cleaning:** After each use, wipe down the mat cutter with a damp cloth to remove mat dust and debris. Avoid harsh chemicals.
- **Blade Replacement:** Blades dull over time. Replace blades frequently to ensure clean, precise cuts. Dull blades can lead to ragged edges or incomplete cuts.
- **Lubrication:** Periodically apply a small amount of silicone lubricant to the guide rail to ensure smooth movement of the cutting heads.
- **Squaring Arm Check:** Regularly check the squaring arm for accuracy. If it is not square, adjust it according to the assembly instructions.
- **Storage:** Store the mat cutter in a clean, dry environment when not in use.

## 7. TROUBLESHOOTING

Refer to this section for solutions to common issues encountered during operation.

- **Issue: Incomplete or Ragged Cuts:**  
**Solution:** This often indicates a dull blade or insufficient blade depth. Replace the blade with a new one and ensure the blade depth is adjusted correctly to cut completely through the mat board. Apply consistent pressure during the cut.
- **Issue: Blade Wandering or Curved Cuts:**  
**Solution:** Ensure the mat board is firmly secured against the parallel mat guide and squaring arm. Verify that the squaring arm is perfectly square. Apply consistent, firm pressure on the cutting head and guide rail throughout the entire cut.
- **Issue: Overcuts or Undercuts at Corners:**  
**Solution:** Adjust the production stops precisely to control the start and end points of your cuts. Practice on scrap material to fine-tune these settings.
- **Issue: Difficulty Moving Cutting Head:**  
**Solution:** Clean the guide rail to remove any debris. Apply a small amount of silicone lubricant to the guide rail.

## 8. SPECIFICATIONS

Brand	Logan
Model Number	550-1 Simplex Classic
Cutting Area Size	40 inches
Material	Aluminum
Product Dimensions	47.25 x 12 x 5 inches
Item Weight	19 Pounds
Included Components	Mat board, Cutting heads, Bevel cutter, Mat guide, Squaring arm, Production stops

## 9. WARRANTY AND SUPPORT

This Logan Simplex Classic 40 Inch Mat Cutter comes with a Limited Warranty. For specific details regarding warranty coverage, duration, and terms, please refer to the warranty documentation included with your product or contact Logan customer support directly.

For technical assistance, replacement parts, or further inquiries, please visit the official Logan Graphic Products website or contact their customer service department.