# Martin Yale 1217A Autofolder 12" x 17" Paper Folding Machine

# Instruction Manual

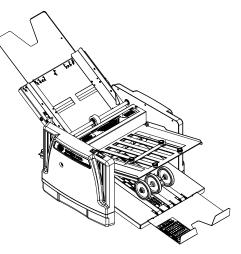


Call Us at 1-800-944-4573

# MARTIN YALE Industries

# Model 1217A AutoFolder

# Installation, Maintenance, & Operating Instructions



# Serial Number

#### Specifications

| Functional                       |
|----------------------------------|
| Paper Weight                     |
| (60 gsm – 240 gsm) or equivalent |
| Max Paper Size                   |
| Min Paper Size                   |
| Speed                            |
| Types of Folds                   |
|                                  |
|                                  |
|                                  |
| Feed Table Paper Load Capacity   |
| Sheet Capacity (Stapled)         |
| Dharainal                        |
| Physical                         |
| ColorGray/Black                  |
| Dimensions                       |
| Weight                           |
| Shipping Weight                  |
|                                  |
| Electrical                       |
| Power                            |
| Optional                         |
|                                  |
|                                  |



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#### Introduction

Thank you for selecting the Martin Yale Model 1217A AutoFolder. The model 1217A can execute various folds, including the Tri-fold, Z fold, Single fold, Double Parallel fold, Right Angle fold, Baronial fold, and certain custom folds within its paper size capacity.

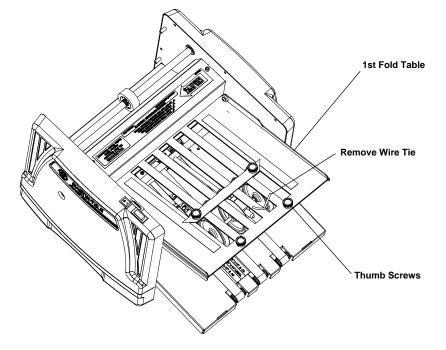
We recommend that you familiarize yourself with the AutoFolder by carefully reading this manual. This will save you time later on by avoiding the most common problems and eliminating operator associated errors.

WARNING! Never connect power to the machine until you are ready to set up and operate the model 1217A. This machine contains moving parts. During setup, operation, and maintenance, keep hands, hair, loose clothing, and jewelry, away from all moving parts. Serious bodily injury could result. Service or disassembly of the side covers should only be performed by qualified personnel with the power disconnected and locked out.

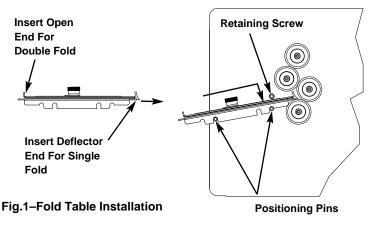
# 2.0 Installation

Carefully unpack the model 1217A. Notice that the Feed Table Assembly, the Second Fold Table Assembly, the Paper Support and Exit Tray, are packed separately within the box. These items will be installed later. Carefully inspect carton contents for damage. Report any shipping damage to the carrier and to Martin Yale Industries immediately. Reach Martin Yale by dialing (260) 563-0641.

Place the AutoFolder on a flat and level work surface. Remove the wire tie (See Figure Below). Connect power to the machine. Turn on the machine and let it run for a few minutes. There is a sheet of paper packed between the rollers that will eject on start-up. Remove it from the Conveyor Table and discard. During this process, you may hear a thumping sound caused by flat areas on the Rubber Folding Rollers. These flat areas occur during long periods of non-use and will be eliminated during this initial run. If your AutoFolder is inactive for long periods, you should repeat this process before attempting to fold paper. Failure to do so may cause folding problems.



Install the Second Fold Table Assembly by inserting it horizontally over the four silver Positioning Pins (two per side) as shown in Fig. 1. Be sure the Table Assembly passes under the two Retaining Screws (one per side). The table should then drop down over the pins and lock into position on the notches in the table's edges. The Second Fold Table Assembly can be installed in two directions. The open end towards the rollers will produce a double fold and the closed end (with silver deflector) will produce a single fold.



Install the Feed Table Assembly onto the model 1217A. Installing the Feed Table requires the red retarder press against the Feed Wheel. This is normal and will not damage the unit. Do not attempt to adjust the red retarder to assist Feed Table installation. Install the Feed Table Assembly by placing the front slots of the Feed Table Assembly onto the locating pins near the Folding Rollers (see Fig. 3), and lower onto the rear locating pins.

Install the Exit Tray onto the back edge of the Conveyor Table by inserting the two tabs on the front edge of the Exit Tray into the slots provided in the back edge of the Conveyor Table. Install the Paper Support onto the back edge of the Feed Table in the same manner as the Exit Tray.

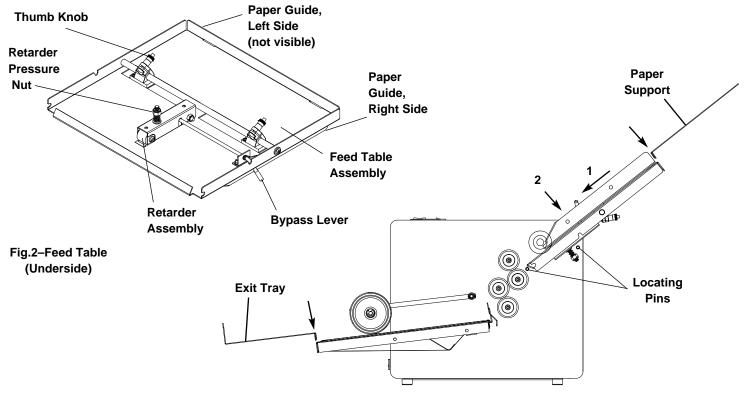


Fig.3–Feed Table Installation

# 3.0 Setup & Operation

#### 3.1 Paper Guides

The Paper Guides are pre-set for 8<sup>1</sup>/<sub>2</sub>" X 11" paper. To adjust, loosen the Thumb Knobs and slide on the shaft. Adjust the Paper Guides so that the paper is centered with the Feed Wheel. Common paper sizes are indicated on the top of the Feed Table. To use, set one Paper Guide in place by aligning the outer edge with the desired paper size mark and lock in place with the Thumb Knob. Lay a sheet of paper against the locked Paper Guide. Slide the opposite Paper Guide up to the paper and lock it in place. Leave a small gap, about 1/64" (.4mm) between the paper and guides to allow easier paper feeding. **NOTE: too much gap will cause inconsistent or crooked feeding.** 

## 3.2 Feed Adjustment

Retarder pressure is pre-set at the factory and should require no further adjustment throughout the life of the folder. However, if feeding problems occur, the retarder pressure can be adjusted by turning the retarder pressure nut (with a wrench) clockwise to increase pressure or counterclockwise to decrease pressure. The normal tendency is to place too much pressure on the retarder resulting in Feed Wheel damage. Call Martin Yale customer service at (260)-563-0641 if further assistance is needed. Through normal use, the Retarder Assembly will develop a flat wear area. When the Retarder Assembly becomes worn to the point that paper does not feed properly, rotate the Retarder as described in Section 4.3. **NOTE: The Retarder must be tightened securely in place so that it will not rotate!** 

### 3.3 Switches

Pressing the "I" on the On/Off/Momentary (I/O/(I)) Switch turns the folder on continuous run to a speed of 10,000 sheets per hour. Holding down the "(I)" on the On/Off/Momentary Switch and "I" on the Reversing Switch at the same time reverses the direction of the folder (see Reversing Label on the Right Side Cover).

## 3.4 Stacking Wheels

The function of the Stacking Wheel Assembly, which is located on the Conveyor Table, is to arrange the folded sheets into an overlapping stack. Position the Stacking Wheel Assembly so that the leading edge of a folded sheet touches the wheels when the trailing edge just falls onto the Conveyor Table. The Stack Wheel Decal gives a quick reference to the correct position based upon fold and paper size.

# 3.5 Setting for Folds (trifold, Z, double parallel, and single folds) (see Figure #4)

The model 1217A can be set up to make all standard folds. This includes the trifold, double parallel fold, Z fold, and the single fold. The fold chart on the Exit Tray illustrates the standard Fold Table Paper Stop settings for making the various types of folds in  $8^{1}/_{2}$ " x 11",  $8^{1}/_{2}$ " x 14", 11" x 17", A4, and A3. The term "1st" refers to the letter setting on the 1st Fold Table Ruler.

The term "2nd" refers to the letter setting of the 2nd Fold Table Ruler. The following instructions assume a standard  $8^{1/2}$ " x 11" sheet is being folded. Non-standard sizes should be measured and Paper Stops set according to measurements.

Use the following directions, along with the Folding Chart (Figure #4) to create all types of folds. The Folding Chart is also located on the Exit Tray for quick reference.

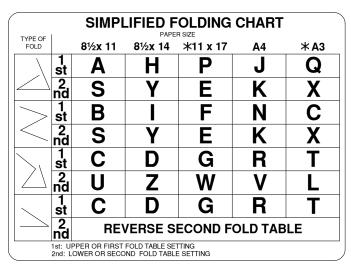
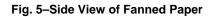


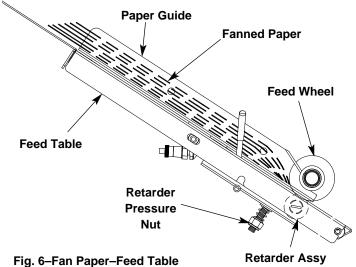
Fig. 4–Folding Chart

- 1. Loosen the Fold Table Thumb Knobs on the 1st Fold Table Assembly and move the Paper Stop to the center of the appropriate circle according to the Folding Chart. Retighten the Fold Table Thumb Knobs.
- 2. Place the 2nd Fold Table into position with the open (folding) end toward the Folding Rollers. Loosen the Fold Table Thumb Knobs on the 2nd Fold Table and move the Paper Stop to the center of the appropriate circle according to the Folding Chart. Retighten the Fold Table Thumb Knobs.
- 3. Place a sheet of the paper to be folded on the Feed Table Assembly and set the Paper Guides so that the sheet is centered under the Feed Wheel and slides freely down between the Paper Guides without excessive side play.
- 4. Make sure the red retarder presses against the Feed Wheel.
- Jog the paper to be folded on a Martin Yale Model 400 or Model 4200 Jogger for at least one minute, or hand jog. Jogging dissipates static electricity and fluffs the paper.

  Top Front
- Take a stack of jogged paper and fan the paper as indicated in Figure #5.



- Place the fanned paper onto the Feed Table Assembly (see Figure #6) with the top sheet positioned where the Feed Wheel and Retarder Assembly meet.
- 8. Hold the On/Off/Momentary Switch on the momentary position and feed one sheet through the machine until it falls onto the Exit Tray. Position the Stack Wheel Assembly so that the leading edge of a folded sheet touches the wheels when the trailing edge just falls onto the Conveyor Table.
- 9. Turn on the folder and run several sheets. Stop the folder and inspect the folded sheets for accuracy.



- Make 1st Fold corrections with the 1st Fold Table Paper Stop. Make 2nd Fold corrections with the 2nd Fold Table Paper Stop. (See Figures #7-10 for first and second fold descriptions.)
- 11. After corrections are made, turn on the folder and complete the folding job.

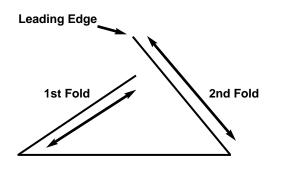
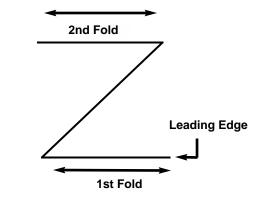


Fig.7–Tri–Fold





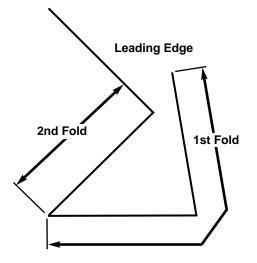
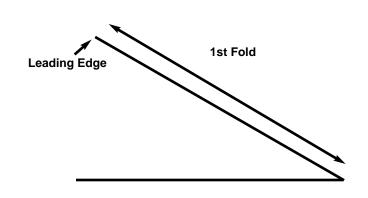


Fig. 9–Double Parallel





#### 3.6 **Right Angle and Baronial Fold Setup**

Please follow these instructions for setup of the Right Angle and Baronial folds. These two folds are not listed on the simplified folding chart. They can be accomplished in two steps.

- 1. Step one will be done automatically as in Section 3.5 for a Single Fold. Fold all the paper in half before proceeding to step two.
- 2. Step two will be done manually, one sheet at a time as in Section 3.7 Multi-Sheet Fold Set-up. Push the bypass lever and slide the single folded sheet under the Feed Wheel and into the rollers. Attempting to auto-feed stacks will result in jamming.
- 3. Step two for a Right Angle fold, adjust the 1st Fold Table for a single fold.
- 4. Step two for a Baronial fold, adjust the 1st and 2nd Fold Tables for a tri-fold.

#### 3.7 Multi-sheet Fold Setup

Please follow these instructions for folding multiple sheets. The Feed Table is equipped with a Bypass Lever which allows the Retarder Assembly to be pushed away from the Feed Wheel, thereby permitting multiple sheets to be fed directly into the fold rollers.

- 1. Set up the desired fold as described in section 3.5.
- 2. With the folder OFF, push and hold the Bypass Lever forward with one hand then pass the multiple set of paper under the Feed Wheel until it contacts the fold rollers. Note: if using stapled multiple sets, be sure to attach staples horizontally to the fold rollers and feed the stapled end first.
- 3. Press momentary (I) to turn the folder on long enough to complete the fold. Repeat steps 2 and 3 for each multi-sheet fold.

Note: Do not exceed the recommended number of pages or attempt to hand feed with the machine running as skewing and jamming will likely occur!

#### Maintenance 4.0

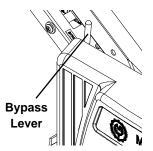
#### 4.1 Feed Wheel

After a period of normal operation, the Feed Wheel will become coated by ink, toner, lint, and other contaminant. Clean the Feed Wheel by wiping with a damp cloth containing a mild soap and water solution. **CAUTION: Do not** use rubber roller cleaner or other solvents on the Feed Wheel. To maximize the gripping power of the Feed Wheel and to remove any remaining contaminant, go over the Feed Wheel surface with medium grit emery cloth. Replace the Feed Wheel when, with a properly adjusted Retarder Assembly, a single sheet will no longer feed successfully.

#### 4.2 Folding Rollers

During normal operation, the Folding Rollers will become coated with ink, toner, lint, and various other contaminant. Contaminated Folding Rollers can cause a variety of folding problems. We recommend cleaning the Folding Rollers after every folding job, according to the following procedure. Regular cleaning will ensure optimum performance and add years of life to the Folding Rollers.

- 1. Make sure that the power to the machine has been disconnected and locked out.
- Remove the Feed Table Assembly, the 2nd Fold Table Assembly, and the Roller Cover. 2.







Fold

Fold

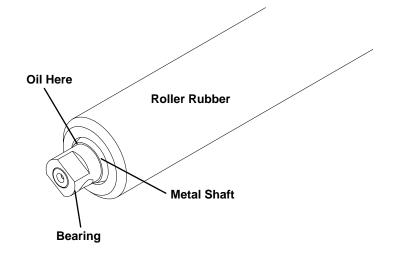
- 3. Liberally spray Martin Yale Rubber Roller Cleaner and Rejuvenator across the rollers. Roller Cleaner and Rejuvenator has been specifically formulated for use in cleaning the Folding Rollers. Use of any other cleaner may deteriorate the rollers.
- 4. Utilizing a clean cloth, briskly clean each roller until no more contaminant appear on the cloth surface. Rotate the rollers manually as described in Section 5.6 "Paper Jammed in Rollers" on page 10. Continue to clean until all roller surfaces are smooth and resilient, not hard or glazed.
- 5. If necessary, remove any glaze with a non-abrasive cleaning pad, such as a 3M Scotchbrite <sup>®</sup> pad.
- 6. After cleaning, turn on the machine and let it run a few minutes to evaporate any cleaner left on the Folding Rollers. **CAUTION: Rollers can stick together if not allowed to fully dry before storing.**

#### 4.3 Retarder Assembly

If the retarder roller has developed a flat wear area, remove the Feed Table and lay upside down to gain access to the retarder bracket. Loosen the nut on the retarding locking screw and turn retarder to expose a new surface. **Note:** Always turn the retarder in the direction of the paper travel. Re-tighten the nut to lock the retarder in this position. Note: The retarder roller should always be locked in a stationary position.

#### 4.4 Bearings

After each eight (8) hours of machine operation, thoroughly clean the Folding Rollers and remove any contaminant from the ends of the rollers and bearings. Lubricate all bearings and shafts with one drop of light machine oil on each (see Figure #11). **NOTE: Do not allow any oil to come in contact with the Folding Rollers. If oil is spilled on the Folding Rollers, remove immediately with Martin Yale Rubber Roller Cleaner and Rejuvenator.** 





# 5.0 Troubleshooting

Following are a list of possible problems, their possible causes, and suggested solutions.

#### 5.1 Folder will not start

#### Possible Cause

No electrical power to the machine.

Bearings contaminated or in need of lubrication.

#### Solution

Plug the machine into an active line.

Clean and lubricate bearings according to section 4.4 Bearings.

Electrical malfunction.

Feed Table or Fold Table in wrong position.

#### 5.2 Paper will not feed

**Possible Cause** Solution Feed Table not properly seated. Make sure that the Feed Table Assembly is mounted correctly on the locating pins. Paper Guides too tight (paper buckles). Adjust the Paper Guides so that a sheet slides freely down between the Paper Guides without excessive side play. Improper fanning of paper. Grasp a stack of paper and place it on its long side on a flat, level surface. Even the paper and grip it tightly with your left hand. Loosely grip the paper with your right hand and pull the paper to you until it forms a semi-circle. Now tightly grip and hold the right side as you relax your left hand grip. (See Figure 5 for diagram of properly fanned paper.) Feed Table in wrong position. Reposition the Feed Table Assembly. Worn out Feed Wheel. Replace the Feed Wheel Assembly. Feed Wheel contaminated. See instructions in section 4.1, Feed Wheels. Retarder Assembly set too tight. Readjust the Retarder Assembly. See Section 3.2. Flat area on Retarder Assembly. Reset according to instructions in Section 4.3, Feed Adjustment. Static electricity buildup. Jog paper on Martin Yale 400 or 4200 Jogger. Spray Martin Yale Static Eliminator liberally over paper edges, Feed Table Assembly, Fold Table Assemblys, Conveyor Table, and Exit Tray. Loose motor belt. Adjust or replace 140 3mm HTD Belt.

#### 5.3 Improper Stacking

**Possible Cause** Stacking Wheels improperly set. Have the model 1217A checked by a qualified electrician.

Check the position of the Feed Table Assembly and 2nd Fold Table Assembly. Reposition if necessary.

**Solution** Reset the Stacking Wheels according to instructions in Section 3.4, Stacking Wheels.

#### 5.4 Crooked Folds

#### **Possible Cause**

Excessive side play between Paper Guides.

Fold Table Paper Stops improperly set or not locked.

Paper not square.

**Contaminated Folding Rollers** 

Check the electrical ground. The Conveyor Table is equipped with an anti-static brush. To work correctly, the machine must be properly grounded through the power cord.

#### Solution

Readjust the Paper Guides and paper edges.

Readjust the Paper Stops and lock into position.

Recut paper until square or adjust Fold Table Paper Stops.

Clean according to instructions in 4.2, Folding Rollers

#### 5.5 Ink smudges on paper

Possible Cause Ink not dry.

#### Solution

Allow additional ink drying time before folding. Some inks do not dry, they only set (dry to the touch). Because of the physical nature of friction feeding, you may notice a mark on the leading edge of the paper.

Excessive toner on photocopied stock.

#### 5.6 Paper Jams

#### **Possible Cause**

More than a single sheet feeding into the folder.

Folded sheets backing into the folder.

Paper Jammed in Rollers

#### Solution

Check copy machine.

Readjust the Retarder Assembly according to the instructions in Section 3.2. Replace the Feed Wheel Assembly or rotate Retarder Assembly if necessary.

Reset the Stacking Wheels according to instructions in Section 3.4, Stacking Wheels.

To remove paper jams manually, make sure the folder is unplugged. Insert a large (3/8") flat tipped screwdriver into the slot located in the shaft, just inside the small access hole on the Right Side Cover. Turn the screwdriver clockwise to rotate rollers in a forward direction. It may be necessary to remove the 1st Fold Table top by removing the two thumbscrews and sliding it off the rubber grommets.

## 5.7 Wrinkled Paper

| <b>Possible Cause</b><br>Feed Table Paper Guides misaligned. | <b>Solution</b><br>Align Paper Guides perpendicular to the Folding<br>Rollers until paper feeds straight into the folder or call<br>for service. |
|--|--|
| Feed Table Paper Guides too tight.                           | Set Paper Guides so that a sheet slides freely down between the Paper Guides without excessive side play.  |
| Folding Roller Springs Worn.                                 | Replace with new springs.  |
| Contaminated Folding Rollers.                                | Clean according to instructions in Section 4.2, Folding Rollers.   |
| Worn Folding Rollers.  | Folding Rollers should be replaced when gaps appear between the rollers, or call for service.  |

# 5.8 Paper exits on top of Fold Table

| Possible Cause<br>Contaminated Folding Rollers. | <b>Solution</b><br>Clean according to instructions in Section 4.2, Folding<br>Rollers.  |
|---|---|
| Static Buildup.                                 | Jog paper on Martin Yale 400 or 4200 Jogger. Spray<br>Martin Yale Static Eliminator liberally over paper<br>edges, Feed Table Assembly, Fold Table Assemblys,<br>Conveyor Table, and Exit Tray. |
| Laser printed paper.                            | Reverse direction of feed.  |

# 5.9 Folds more than a single sheet of paper

| Possible Cause<br>Improper gap between Retarder Assembly and Feed Wheel. | <b>Solution</b><br>Readjust the Retarder Assembly according to instruc-<br>tions in Section 3.2, Feed Adjustment, or rotate as<br>described in Section 4.3, Retarder Assembly. |
|--|--|
| Worn Feed Wheel.   | Check to see if the Feed Wheel Assembly is worn.<br>Replace if necessary.  |



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