



National Print & Mail Division

Mass Mail

AIM Machine Operation

Job Aid

Module 1: Prepare to Run Job

Task 4: Load Paper

PROPRIETARY INFORMATION

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Task 4: Load Paper

Prerequisites Before loading the paper, you should have programmed the AIM computer.

Tools/Inputs You will need the following tools/inputs to perform this task:

- Paper
- Table (platform for placing paper not contained in a cart)
- Scotch™ Magic tape
- Box cutter (razor knife)
- 12-inch ruler
- 3-mm size Allen wrench
- Small wrench
- Small flathead screwdriver
- Tractor clamp to allow for pins to come through (one-up paper only)

Critical Aspects When loading paper, there are several critical aspects depending on the piece of equipment through which you are loading the paper or depending on whether the paper is one-up or two-up.

- If paper is one-up, assure that the following occurs:
 - The paper is lined up evenly with the FIMA
 - The both tractor clamps on the FIMA allow for the pins to come through the pin holes
- If paper is two-up, assure that the following occurs:
 - The paper is lined up evenly with the Merger and that the Merger is lined up evenly with the FIMA
 - The Merger splits the paper at exactly nine inches
 - The paper on the left side of the Merger feeds through the bottom tractor of the FIMA and that the paper on the right side of the Merger feeds through the top tractor of the FIMA
- When the paper is loaded through the FIMA, assure that the rollers on the tractor clamps holding the paper against the belt are not too tight or too loose.
- If the paper is C-STAMP, assure that the read sensors on the FIMA 2000 are set on the right side of the page (both top and bottom tractors).

Consequences:

If either the paper is not lined up or the rollers on the FIMA tractor clamps are too tight, paper jams can occur. The operator has to spend time to resolve the problem, and the forms that are mutilated (mutes) have to be reprinted and reprocessed. This costs Fidelity money in time and labor.

Steps

1. If the AIM computer has not been set up, go to Task 3.

2. Is the paper at the AIM machine?

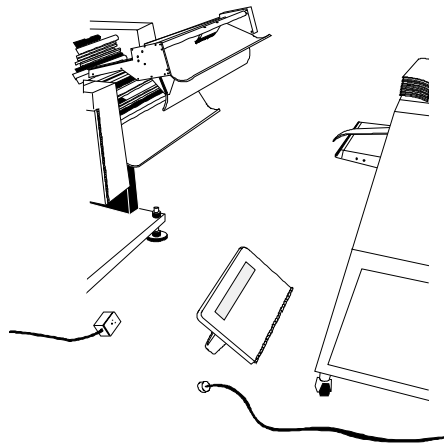
If	Then
Yes	Go to Step 3.
No	Contact the Material Handler, then go to Step 3.

3. Is paper one-up or two-up?

If	Then
One-up	Go to Step 24.
Two-up	Go to Step 4.

Setting up for
 Two-up Paper

4. If the Merger is not in front of the FIMA, place the Merger so that it is about 2 and ½ feet away from the FIMA. Make sure that the Merger is lined up exactly with the FIMA. Place the reflector midway between the Merger and the FIMA so that the light sensor under the Merger can sense the reflector (see illustration).



5. Plug in the power cord of the Merger to a power outlet.
-

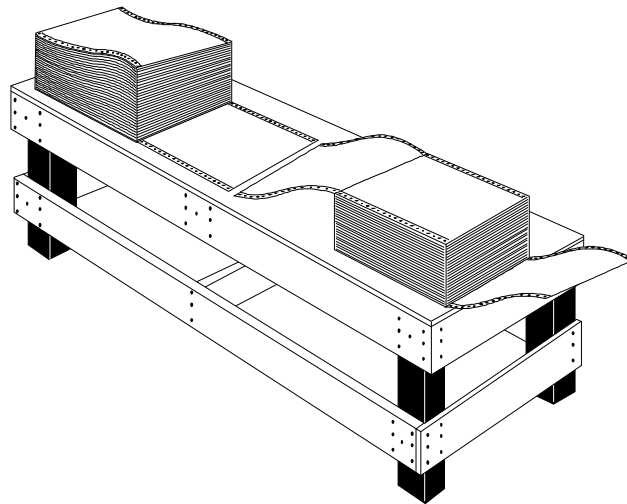
6. Is paper on a cart?

If	Then
Yes	Go to Step 8.
No	Go to Step 7.

Setting up
Paper on a
Table

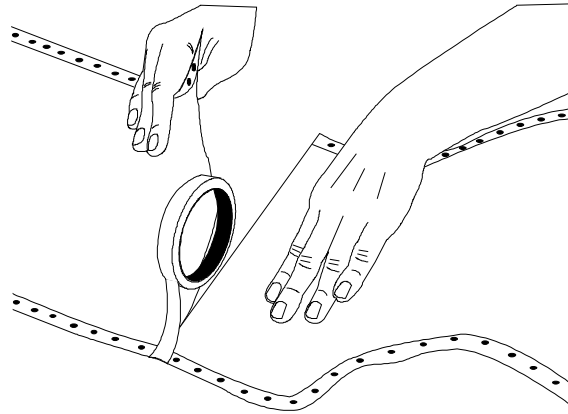
7. Place a table in front of the Merger, and then place the paper on the table. Make sure that the paper is lined up exactly with the Merger.

If there is more than one ream of paper, place the first ream so that the bottom pages are free.



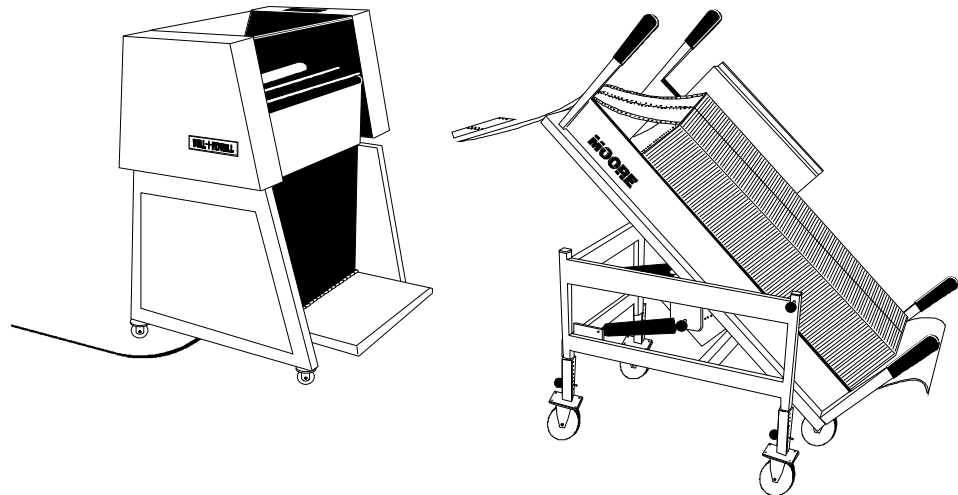
Use Scotch™ tape to tape the entire bottom edge of the last page of the first ream of paper to the top of the beginning page of the next ream of paper (see illustration).

Go to Step 13 when done.

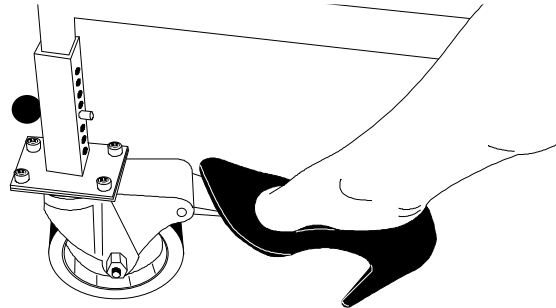


Setting up
Paper on a
Cart

8. Roll the cart to the front of the Merger and place the cart so that the paper lines up exactly with the Merger.

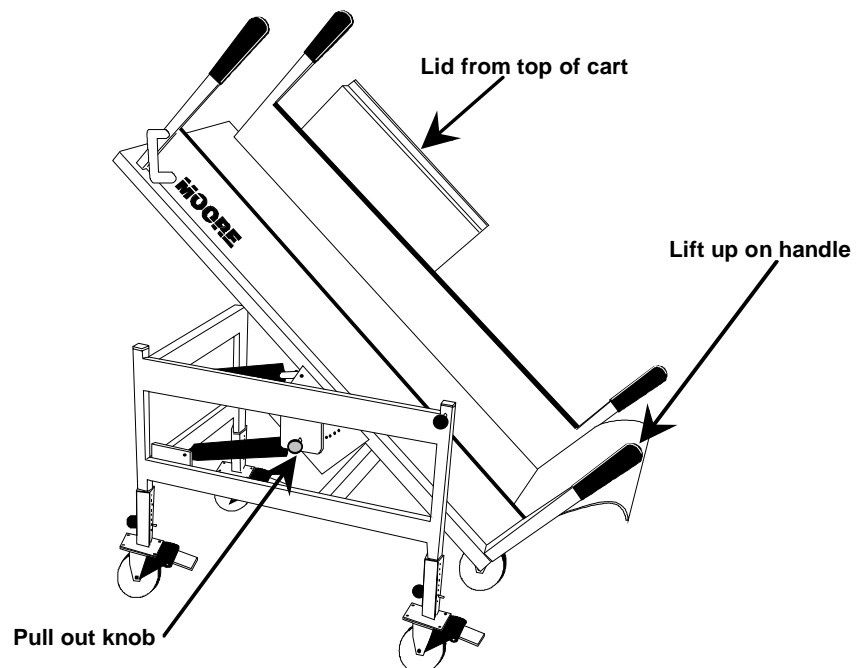


9. With your foot, push down on the brake to immobilize the wheels of the cart.

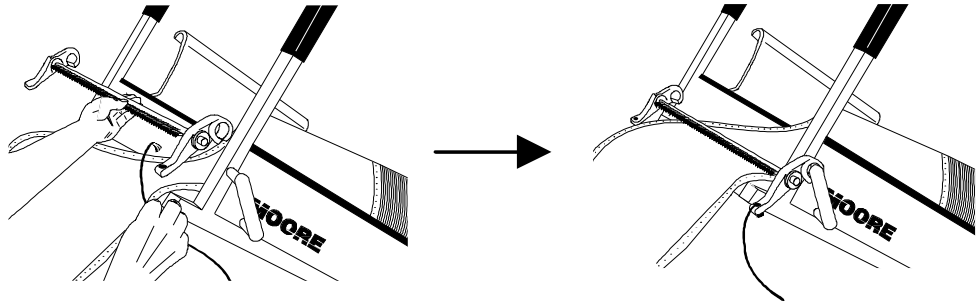


10. Remove the lid at the front of the cart and place it in the rack on the top right side of the cart (see illustration in Step 11).

11. Facing the left side of the cart, SIMULTANEOUSLY pull up on the rear handle and pull on the red knob to lower the top of the cart so that the height of the cart will not interfere with the paper being fed into the Merger.



12. Attach the grounding wire from the Merger to the grounding bar and place the bar across the front of the cart. Make sure that the paper is threaded under the grounding bar.



Go to Step 14.

Loading the
Merger

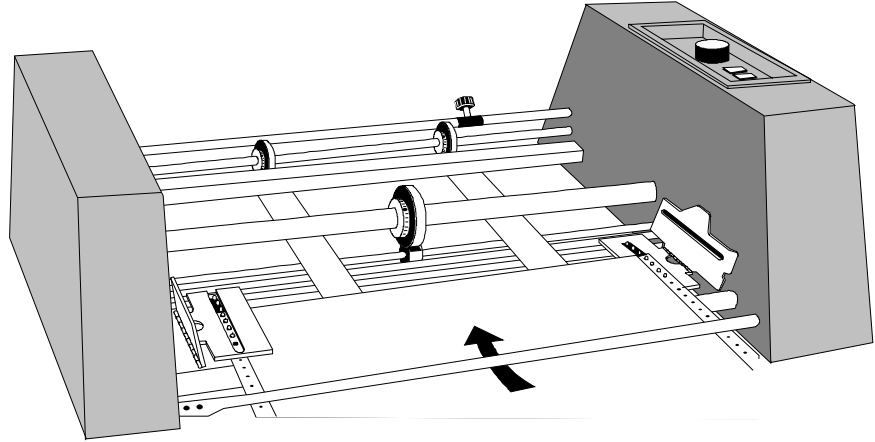
13. Make sure that the Merger is grounded to the AIM machine (power cord should contain third prong for grounding).

14. Attached to the printout are the banner page and multiple copies of the Detail Cover Page. If your Supervisor has not removed the banner page, remove it and set it aside.

Remove all the Detail Cover Pages, except the last one, and set them aside. If there is only one Detail Cover Page, remove it and set it aside.

15. Lift both the cover of the Merger and then the tractor clamps.

16. Insert the beginning of the paper under the metal bar, placing the pin holes over the pins. Be sure to line up the pin feed holes so that the paper is even.

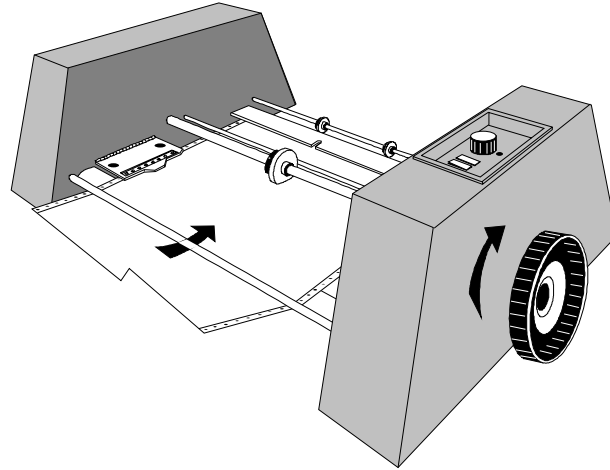


17. Close the tractor clamps and verify that the paper is flat and taut (no buckles). Does the paper lie flat?

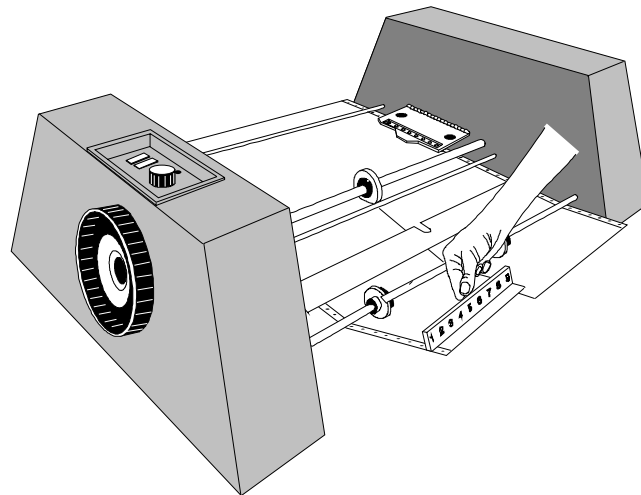
If	Then
Yes	Go to Step 19.
No	Go to Step 18.

18. Keeping the tractor clamps closed, unlock the tractor clamps and position them so that the paper lies flat.

19. Slowly turn the large round knob on the right side of the Merger to advance the paper forward one page. As the paper advances, guide the edge of the paper under the flat metal plate and under the rollers (you may have to lift the rollers). Be careful not to let the edge of the paper catch on the metal portion at the end of the Merger.



20. Using a 12-inch ruler, measure the width of each page. Is the width of each page exactly 9 inches?

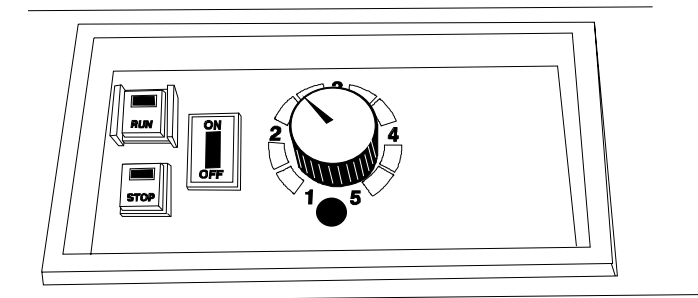


If	Then
Yes	Go to Step 22.
No	Go to Step 21.

21. Keeping the tractor clamps closed, loosen them and slide the paper left or right so that the cutting blade is exactly in the center of the paper. Tighten the clamps when done.

Repeat Steps 19–21 until each page is exactly 9 inches wide, then go to Step 22.

22. Close the cover, then turn on the power to the Merger (controls are located on the top right side of the Merger).



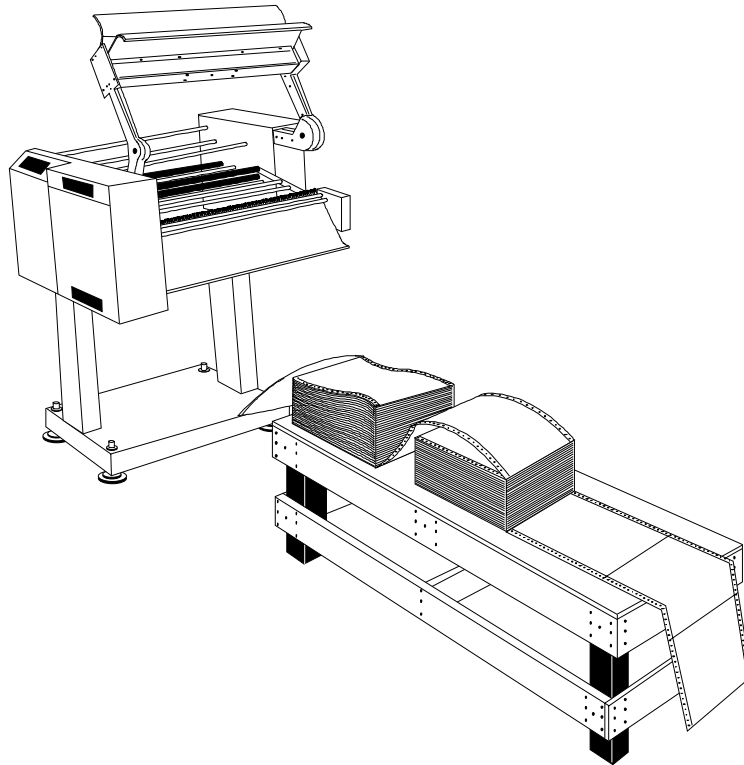
23. Press both the *STOP* and *START* buttons until the paper advances about ten feet. When done, make sure that only the *RUN* (green) button is lit, then go to Step 31.

24. Is paper on a cart?

If	Then
Yes	Go to Step 26.
No	Go to Step 25.

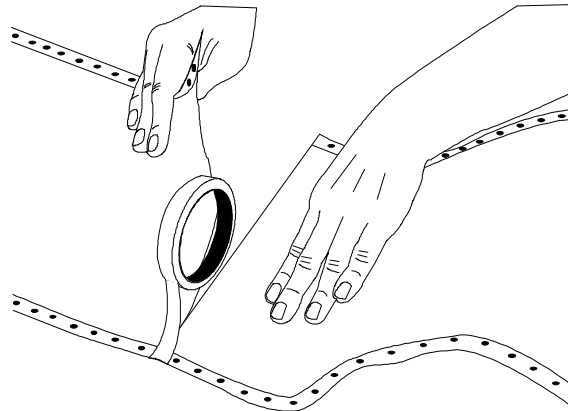
Setting up
Paper on a
Table

25. Place a table in front of the FIMA and then place the paper on the table. Make sure that the paper is lined up exactly with the FIMA.



If there is more than one ream of paper, place the first ream so that the bottom pages are free. Use Scotch™ tape to tape the entire bottom edge of the last page of the first ream of paper to the top of the beginning page of the next ream of paper.

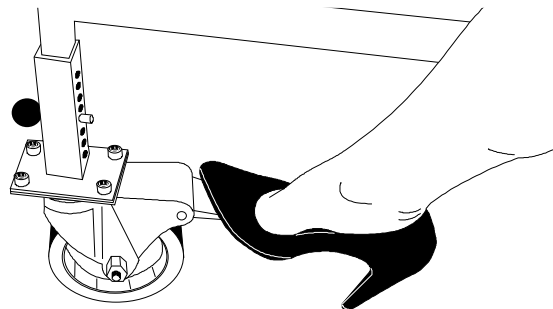
Go to Step 31 when done.



Setting up
Paper on a
Cart

26. Roll the cart to the front of the FIMA and place the cart so that the paper lines up exactly with the FIMA.

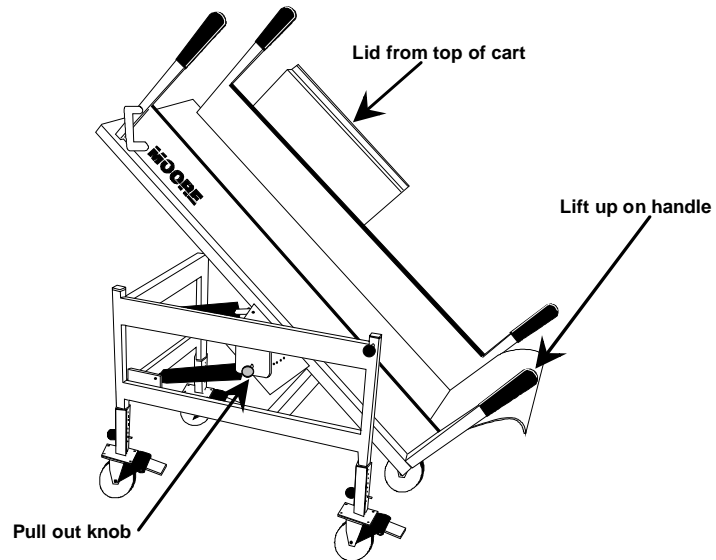
27. With your foot, push down on the brake to immobilize the wheels of the cart.



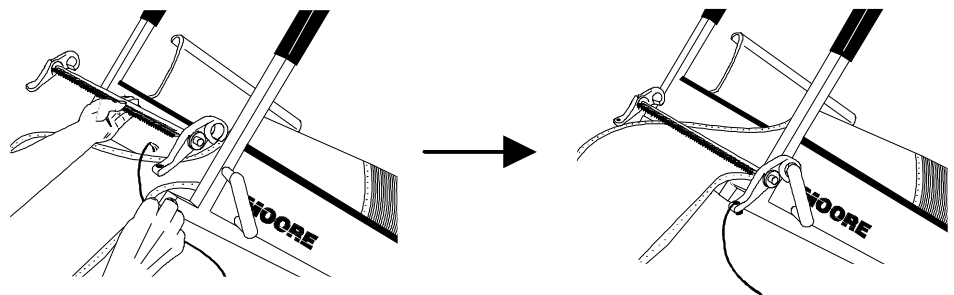
28. Remove the lid at the front of the cart and place it in the rack on the top right side of the cart. (See illustration in Step 29.)
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29. Facing the left side of the cart, SIMULTANEOUSLY pull up on the rear handle and pull on the red knob to lower the top of the cart so that the height of the cart will not interfere with the paper being fed into the FIMA.

Release the knob when the height of the cart is correct.



30. Attach the grounding wire from the FIMA to the grounding bar and place it across the front of the cart.



Setting up
 the FIMA

31. Attached to the printout are the banner page and multiple copies of the Detail Cover Page. If your Supervisor has not removed the banner page, remove it and set it aside.

Remove all the Detail Cover Pages, except the last one, and set them aside. If there is only one Detail Cover Page, remove it and set it aside.

32. Are you loading paper into a FIMA 90 or a FIMA 2000?

If	Then
FIMA 90	Go to Step 33.
FIMA 2000	Go to Step 35.

Setting
 FIMA
 Controls

33. On the control panel on the left-hand side of the FIMA 90, use the following chart to determine how to set the form length.

If	Then set form length	And perforation length
Standard forms	11	0
Credit card	7	0

34. On the control panel on the right-hand side of the FIMA 90, the FAC/CAF switch should be set to CAF (cut and feed).

35. Use the following chart to determine how to set the read bias (distance from probe to first read mark).

If	Then set read bias
FIMA 90	4.0
FIMA 2000	2.0

NOTE: The read bias setting for the FIMA 2000 can vary depending on the distance of the probe in relation to the first read mark. You may need to adjust the read bias up or down to get a correct reading.

36. Use the following chart to determine how to set the page scan (number of pages in the FIMA between the blades and the probe).

If form length	Then set page scan
11 inches (standard)	2
7 inches (credit card)	4

37. The probe setting should be at 1.

NOTE: The critical aspect in this step is to make sure that the red probe light is either one line above or one line below the white tick mark.

Is red probe light in the correct position?

If	The
FIMA 90	Move the probe bar in the direction of the arrow.
FIMA 2000	Change the read bias either up or down (that is, from 2.0 to 2.1 or from 2.2 to 2.1).

NOTE: The red probe light will not shift until you cycle the machine.

38. Use the following chart to determine how to set the line width ($\frac{1}{8}$ or $\frac{1}{4}$ of an inch wide).

If form length	Then set lines per inch
11 inches (standard)	8
7 inches (credit card)	6

39. Are you loading paper into either a FIMA 90 or a FIMA 2000?

If	Then
FIMA 90	Go to Step 40.
FIMA 2000	Go to Step 66.

Loading the
 FIMA 90

40. Depending on whether you are using one-up or two-up paper, you will load the paper into the FIMA 90 in different manners. Use the following chart to determine how to load paper into the FIMA 90:

If	Then
Paper is one-up	You will NOT need to use the circular knives to split the paper. Go to Step 41.
Paper is two-up	You will need to use the circular knives to split the paper. Go to Step 42.

One-up Paper

41. For one-up paper, no center cut is required. To disable the circular knives, use the Allen wrench to loosen the set screws on each knife, then slide the knives apart from each other. Tighten the screws when done.

Go to Step 44.

Two-up Paper

42. For two-up paper, a center cut is required. Use the Allen wrench to loosen the set screws on each knife, then slide the knives together at the center of where the two halves of paper will be. Make sure that the knives are lined up in relation to each other.

43. Use the Allen wrench to tighten the set screws.

Threading the Paper

44. Assure that there is no paper (forms or torn pieces) currently in the FIMA.

45. Is the FIMA powered up?

If	Then
No	Go to Step 46.
Yes	Turn off the power to the FIMA. Go to Step 46.

46. Turn on the power to the FIMA. Watch for the tractor pins to synchronize (phase) into position.

47. Move the scan bar hold-down brush to the up position.

48. Move the scan plate hold-up brush to the down position.

49. Thread the continuous form paper under the scan bar hold-down brush, through the scan plate bar, over the first form guide, then under the second form guide.

50. Lift the tractor pin feed clamps and position the paper pin feed holes over the pins. Make sure to line up the edge of the paper with the tick mark located on the right tractor. Also, make sure that the paper pin feed holes on each side are lined up with each other.

51. Close the tractor clamps. Does the paper lie flat (no buckles)?

If	Then
Yes	Go to Step 54.
No	Go to Step 52.

52. Loosen the thumb screws of both the right and left tractors, then slide the tractors so that the paper lies flat, but is not stretched too tightly.

53. Tighten the thumb screws.

54. Make sure that the paper forms a straight line (from front edge of paper to rear) without any buckles. If necessary, use the Allen wrench to loosen the form guide collars and slide them along the guide rod. When properly positioned, tighten the form guides.

Phasing the
FIMA 90

55. Pull the paper from the rear so that it is taut.

56. Move the scan plate hold-down brush to the down position.

57. Move the probe plate hold-up brush to the up position.

58. Press the *PHASE* button on the control panel.

59. Press the *PHASE-IN* button on the control panel. This causes the FIMA to cycle the paper edge to the cutter.

60. Is the front edge of the paper against the cutter blades?

If	Then
Yes	Go to Step 62.
No	Go to Step 61.

61. To bring the paper to the cutter blade, use the *FINE ADJUSTMENT* located inside the left cover of the FIMA.

Adjusting the
Probe for Read
Marks

62. Does the continuous form paper contain read marks?

If	Then
No	Go to Step 63.
Yes	Go to Step 64.

63. Use a 12-inch ruler to measure the distance from the probe to the first read mark. Is the distance from the first read mark to the probe 4 inches?

NOTE: For credit card (two-up), you must position all four probes.

If	Then
Yes	Go to Step 64.
No	Adjust the probe bar to 4 inches by loosening the thumb screws located on both the right and the left side of the probe bar. Go to Step 64.

64. Compare the position of the read head on the probe to the read mark on the paper. Is the read head exactly in the middle of the read mark?

If	Then
Yes	Go to Step 65.
No	Loosen the read-head thumb screws and move the read head(s) sideways until it is lined up with the center of the read mark. Go to Step 65.

65. The FIMA 90 is loaded and ready. Go to Step 108.

Loading the
 FIMA 2000

66. Depending on whether you are using one-up or two-up paper, you will load the paper into one or both tractors of the FIMA. Use the chart below to determine into which tractors to load the paper:

If	Then
Paper is one-up	Use the bottom tractor only. Go to Step 67.
Paper is two-up	Use both tractors. (Always load the bottom tractor first.) Go to Step 77.

67. Does the paper contain pin-feed on both sides?

If	Then
No	Go to Step 77.
Yes	Go to Step 68.

One-up
 Paper

68. Do both tractor clamps contain slots that allow the tractor pins to come through?

If	Then
Yes	Go to Step 77.
No	Go to Step 69.

69. Lift the top tractor so that you can access the bottom tractor clamps.

70. Unscrew the black "C"-shaped paper guide closest to the tractor that contains the red rubber belt. Hold these aside for reattachment later.

71. Remove the plate next to the tractor.

72. Lift the red rubber belt and place it on the grooved bar at the center of the bottom tractor. This requires a bit of dexterity and strength; you may want to use a screwdriver to lift the belt past the tractor pins.

73. Use a small wrench to remove the nuts attached to the flat tractor clamp. Set the screws and nuts aside because you will need them to attach the slotted tractor clamp.

74. Use the Allen wrench to remove the bolts that attach the roller to the clamp. Remove the roller and set it aside.

75. Line up the slotted tractor clamp under the second set of screw-holes of the clamp. Make sure the slot faces the back of the FIMA. Use the screws and nuts from Step 67 to attach the slotted tractor clamp.

76. Replace the plate and the black "C"-shaped paper guide.

Adjusting the
Probes for
Read Marks

77. Does the continuous form paper contain read marks?

If	Then
No	Go to Step 83.
Yes	Go to Step 78.

78. Is paper C-STAMP?

If	Then
No	The probes that read the read marks must be located on the LEFT side of the tractors. Go to Step 79.
Yes	The probes that read the read marks must be located on the RIGHT side of the tractors. Go to Step 79.

79. Are the probes in the correct position?

If	Then
Yes	Go to Step 83.
No	Go to Step 80.

80. To position the probe, turn the screw that holds the probe clamps by turning the black handle. Be careful not to loosen it too much because the clamps will come apart, and they are difficult to put back into place.

Two-up
Paper

81. Slide the probe left or right and line up the tick mark with the center of the read mark on the paper. Tighten the screw when done.

82. For two-up paper, repeat Steps 80–81 for the upper tractor.

83. Is the FIMA powered up?

If	Then
No	Go to Step 84.
Yes	Turn off the power to the FIMA. Go to Step 84.

Threading the
Paper

84. On the left front of the FIMA, place the *RUN/PHASE* switches into the *PHASE* position (down).

85. Turn on the power to the FIMA. Watch for the tractor pins to synchronize (phase) into position.

Read the LCD display.

If paper is	Then display should read
One-up	Job 1 Single. Go to Step 86.
Two-up	Job 2 Dual. Go to Step 86.

86. On the left front of the FIMA, place the *RUN/PHASE* switches into the *RUN* position (up).

87. To thread the paper, first raise the curved mouth of the upper tractor at the front of the FIMA, then raise the upper tractor at the back of the FIMA.

88. Feed the paper into the bottom tractor as follows:

If	Then
Paper is on a table	Use the bottom tractor only. Feed the paper into the rounded mouth of the bottom tractor. Go to Step 89.
Paper is on a cart	Use the bottom tractor only. Do NOT feed the paper into the rounded mouth of the bottom tractor. Go to Step 89.
Paper is coming from the merger	Use both tractors. As you face the back of the merger, the paper coming from the left side goes into the bottom tractor; the paper from the right side goes into the top tractor. On the bottom tractor, feed the paper into the rounded mouth of the bottom tractor. Go to Step 89.

89. Lift the hold-down brush into the up position.

90. Thread the paper under the first brush, then under the hold-down brush.

91. Next, thread the paper through the first set of paper guides (keeping the paper over the bar), then through the probe scan plates.

92. Thread the paper through the next set of paper guides and between the two bars.

93. Lift the tractor pin feed clamps and position the paper pin feed holes over the pins. Make sure to line up the edge of the paper with the tick mark located on the right tractor. Also, make sure that the paper pin feed holes on each side are lined up with each other.

94. Close the tractor clamps. Does the paper lie flat (no buckles)?

If	Then
Yes	Go to Step 97.
No	Go to Step 95.

95. Loosen the thumb screws of both the LEFT tractor, then slide the tractor so that the paper lies flat, but is not stretched too tightly.

NOTE: The right tractor lines up with the Accumulator and must remain stationary.

96. Tighten the thumb screw on the tractor clamp.

97. Stand behind the paper and make sure that the paper forms a straight line (from front edge of paper to rear) without any buckles. If necessary, loosen the form-guide collars and slide them along the guide rod. When properly positioned, tighten the form guides.

98. Lower the hold-down brush. The hold-down brush positions the paper against a sensor that detects the end of the paper stream.

99. Check the line-up of the probes with the read marks. The tick mark on the probe should be exactly in the middle of the read mark.

100. Is paper one-up?

If	Then
Yes	Go to Step 100.
No	Go to Step 107.

101. For two-up paper, lower the curved mouth of the upper tractor.

102. Thread the paper in the top tractor through the curved mouth, then follow Steps 89–100 to thread the paper in the top tractor.

103. Lower the back part of the upper tractor (closest to Accumulator) so that it lays horizontally.

104. Make sure that the paper forms a straight line (from front edge of paper to rear) without any buckles. If necessary, loosen the form-guide collars and slide them along the guide rod. When properly positioned, tighten the form guides.

105. Lower the hold-down brush. The hold-down brush positions the paper against a sensor that detects the end of the paper stream.

Phasing the
FIMA 2000

106. Use the following chart to determine how to phase the FIMA.

If	Then
One-up paper (bottom tractor only)	Press the <i>PHASE</i> button and watch for the paper to advance to the cutter blades. Go to Step 107.
Two-up paper (both tractors)	<ol style="list-style-type: none">1. Press the <i>PHASE</i> button and watch for the paper on the bottom tractor to advance to the cutter blades.2. Press the <i>SHIFT</i> and <i>PHASE</i> buttons simultaneously and watch for the paper in the upper tractor to advance to the cutter blades. Go to Step 107.

107. Look at the FIMA control panel and make sure that the *PAPER END* light is not flashing.

Is the *PAPER END* light flashing?

If	Then
No	Go to Step 108.
Yes	Check that the hold down brushes are down and that the tractors are in the proper position (down). Go to Step 108.

Setting the Folder

108. Use the following chart to determine how to set the Folder for the correct fold:

If	And	Then set measurement at
Letter-fold	Plate 2 (lower)	7 inches
	Plate 3 (upper)	Deflector up (open)
Half-fold	Plate 2 (lower)	5½ inches
	Plate 3 (upper)	Deflector down (closed)

109. To make the adjustment for plate 2, turn the thumb screws at both ends, and slide the guide up or down, using the rulers on each side. Tighten the screws when done.

110. To make the adjustment for plate 3, unlock the plate and slide it towards you and completely out of the folder.

111. Position the deflector either up (open) or down (closed). Slide plate 3 into the folder and lock it in place.

112. The paper is ready for the first cut.

End of Task 4

Go to Task 5