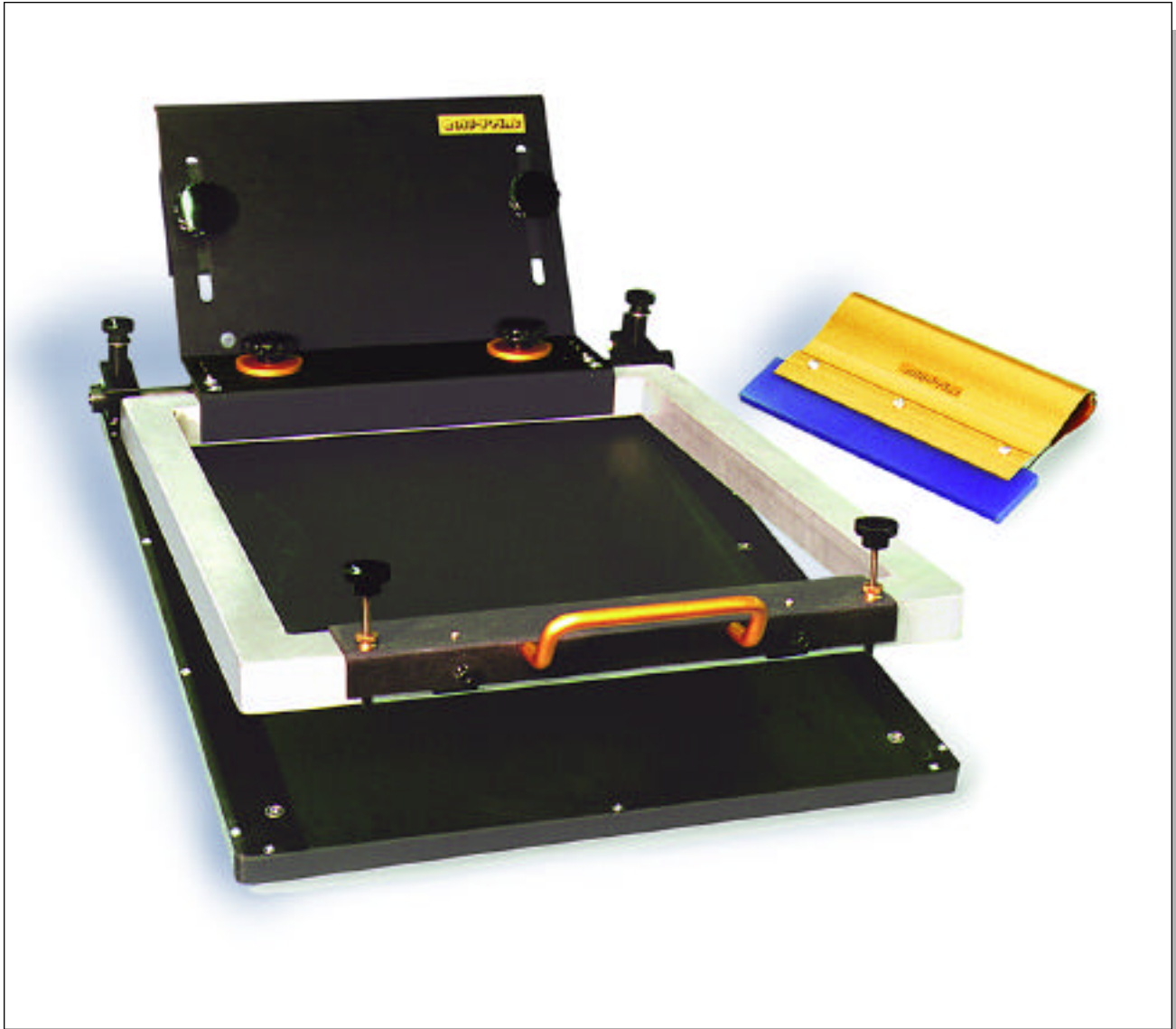


OPERATING INSTRUCTIONS  
for  
**Gold-Print™**  
**Model SPR-10**  
Screen and Stencil Printer



## TABLE OF CONTENTS

INSTALLATION.....	3
Z ADJUSTMENTS.....	3
X, Y & Ø ADJUSTMENTS .....	4
CIRCUIT BOARD POSITIONING .....	5
ILLUSTRATIONS.....	6
MAINTENANCE.....	6

## INSTALLATION

The model SPR-10 is a manual stencil or screen printer requiring no air or electricity for operation. The SPR-10 should be placed on a sturdy work table approximately 28" from the floor to provide a comfortable area for the operator.

The Printer is packed in its carton with the frame, base unit, and the counterweight disassembled for shipping. Remove the items carefully from carton.

### System Inventory:

1. Base unit
2. One (1) tubular or (1) foil frame
3. Counterweight assembly with:
  - a. One (1) weight for tubular frame
  - b. Two (2) weights for foil frame
4. Two (2) socket head cap screws (in bag)
5. One (1) 5/32 allen key (plus 1/8" allen key for foil frame only)
6. One (1) squeegee

Assemble the SPR-10 unit as follows: (Refer to Fig. 1)

1. Mount the counterweight assembly to the 2 aluminum blocks at the rear of base unit using two (2) large hand knobs with large gold washers.
2. Align stencil frame in "U" bracket of counterweight assembly and position frame flush with top of bracket. (lift frame up)
3. To secure frame, insert and tighten two (2) socket head cap screws, one at bottom of each left & right "L" mounting bracket. Tighten with 5/32 allen key.
4. Slide counterweight until screen balances and remains stationary in the upright position. Secure in position with lock knobs. (This can be easily adjusted during printing set-up.)

## CIRCUIT BOARD POSITIONING

The locating method recommended for the SPR-10 is use of a straight edge left or right and a stop pin (block) towards the rear. Ensure that these stops are below the height of the board.

1. Position circuit board on pressure plate, visually align as close as possible to line up with holes in stencil
2. Raise stencil.
4. With board in position, attach 2 "L" stops at rear corners of board with tape on each corner (ensure snug fit)
3. For fine stencil to board adjustment, refer to X, Y and Theta alignment on page 4.

For small production runs, the board stops can be two blank boards similar to the ones to be printed arranged in an "L" shape (right or left) and double stick taped to the pressure plate. Because of variations in edge registration of some boards, it may be necessary to do a visual alignment before each print. Ensure that the surrounding boards are the same height as the ones to be printed. Use masking tape on the pressure plate to shim the board to the correct height. Each strip of masking tape is approximately .006" thick.

NOTE: For pin positioning of circuit boards, contact factory for recommended methods.

\*If using a screen, foil or untensioned stencil, it's important to support the area around the PCB with boards of identical thickness to prevent screen damage. This step is optional with a tensioned stencil.

## Z-AXIS ADJUSTMENTS

Z-Axis, or the height of the screen above the board, is referred to as the stand-off height.

To adjust the rear stand-off height: (Fig. 1)

1. Turn left and right rear Z Axis Thumb Screws simultaneously to move rear frame up and down.
  - a. Simultaneous clockwise turning will lower the rear stand-off height.
  - b. Simultaneous counter-clockwise turning will raise the rear stand-off height.

To adjust the front stand-off height: (Fig. 2)

1. Turn the top thumb screws (front left and right) to raise or lower each corner.
  - a. Simultaneous clockwise turning will raise the front stand-off height.
  - b. Simultaneous counter-clockwise turning will lower the front stand-off height.
2. Manually tighten both locknuts.

**Before the printing operation**, it is recommended to test for even stand-off height. Use a feeler gauge at the 4 corners of the screen or stencil frame to confirm a uniform stand-off height above the PCB. Fine tune as necessary.

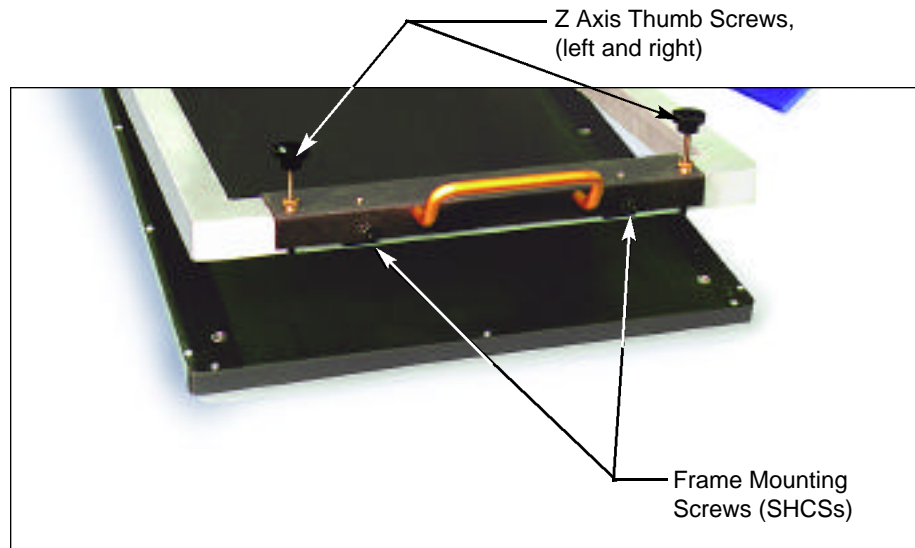
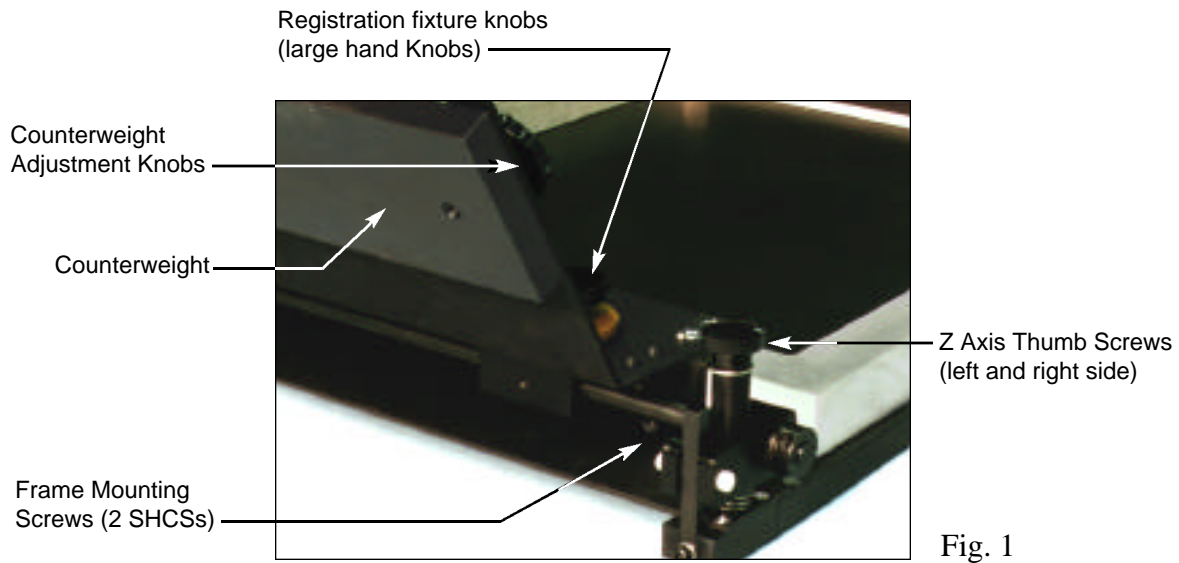
## X, Y and THETA AXIS ALIGNMENT

The SPR-10 has a unique, quick and efficient way of aligning the stencil to the pads on the circuit boards:

1. Position the circuit board on the pressure plate as described in the Circuit Board Positioning section. (Pg. 5.)
2. Loosen the two (2) large hand knobs at rear of printer.
3. Grasp screen frame at 2 opposite corners.
4. Align the stencil with the pads on the substrate by looking through the screen or stencil openings while moving the stencil manually until the pads align exactly.
5. Lock the 2 large hand knobs at the rear of printer.

NOTE: Several test prints are recommended to verify fine registration.

## ILLUSTRATIONS



## MAINTENANCE

1. Clean the unit thoroughly after each use. Use solvent to remove any ink or paste deposits.
2. The unit will give you years of reliable service. Lubrication is not necessary.