

A. Purpose

To cut the ITO glass into standard (4" x 4") size.

B. Equipment set-up

VPI model GS-200 glass scriber with two CCD and monitors .

1. Check the pressure of compressed air.
 - (i) The input regulator reading should be about 80 psi.
 - (ii) The meter reading on the front panel should be about 24 psi.
2. Power on.
 - (i) Power on the glass scriber.
 - (ii) Power on the CCD controller computer.
 - (iii) Turn on the compressed air.
 - (iv) Turn on the vacuum pump.
3. Adjust the micrometer to make the cutting head just touch the surface of the ITO glass by setting the "HEAD" in "DOWN" position. Then set "HEAD" to "UP" and adjust the cutting depth about 0.12mm deeper than thn previous one.(for cutting 1.1 mm glass).
4. Press " RST " on keyboard.

C. Process

1. Programming (for glass type 01)
 - (i) Press " KB " and then " ED " and then " DST ". The Y-step will blink.
 - (ii) Set Y-step to 01 by pressing " 0 " " 1 ".
 - (iii) Set dim by pressing " 4 " " 0 " " 0 " " 0 ". (it means 4 inches)
 - (iv) Press " DST " and the X-step will blink.
 - (v) Set X-step to 01 by pressing " 0 " " 1 ".
 - (vi) Set X-dim to 4 by pressing " 4 " " 0 " " 0 " " 0 ".
 - (vii) Input the first off-set by pressing " OFS " " 1 " and then input the number 2.3.
 - (viii) Input the second off-set by pressing "OFS " " 2 " and then input the number 3.7.
 - (ix) Press " RST ".

Programming is completed.

2. Cut Glass.

- (i) Place the glass on the stage with
 - (a) the glass top edge coincide with both cross hairs (optical alignment)
 - and
 - (b) the left edge just touch the red marker line.
- (ii) Switch on the stage vacuum.
- (iii) Set control console (for testing).
 - (a) Set MODE to AUTO.
 - (b) Set HEAD to UP.

- (iv) Press " ALN " and then " SCR " on keyboard. The scribe will take a trial run with the cutting blade up. Observe if the settings are correct.
- (v) If the trial run is satisfactory, set the HEAD to NORM for actual scribing.
- (vi) Press " ALN " and then " SCR " on keyboard. The glass will be scribed into a 4" x 4" glass.
- (vii) Switch off the vacuum on the stage and take out the glass.

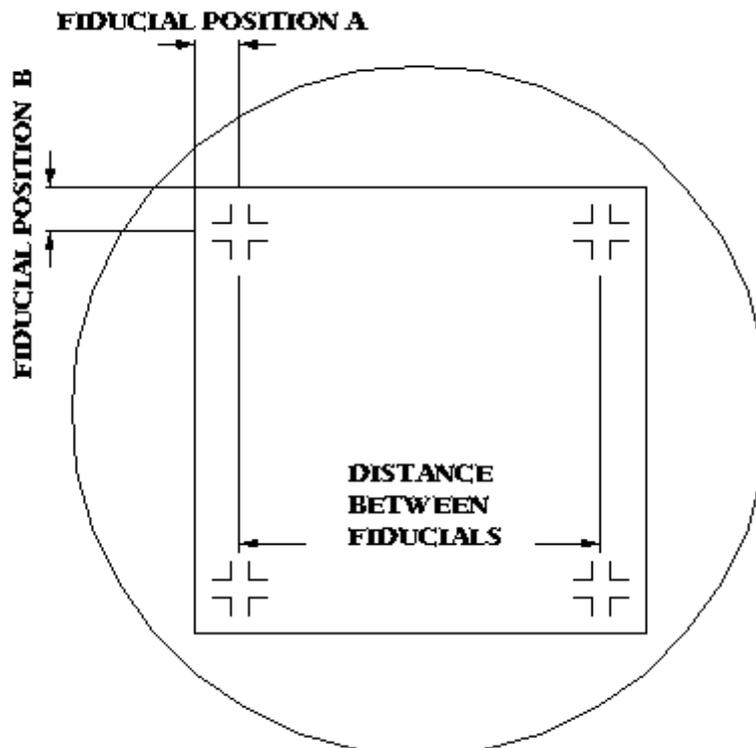
If more glasses are needed to be scribed, repeat the process from step vi after placing a new glass on stage with vacuum fixed.

D. Inspection

The scribe line should be straight and sharp without chips and other defects.

E. Equipment shut down

After all the glasses has been scribed, turn off the power of the scriber, the CCD and the vacuum pump.



Fiducial Position Diagram