1 SCOPE

The purpose of this document is to detail the use of the Tencor Surfscan 364. All users are expected to have read and understood this document. It is not a substitute for in-person training on the system and is not sufficient to qualify a user on the system. Failure to follow guidelines in this document may result in loss of privileges.

2 REFERENCE DOCUMENTS

- Tencor Surfscan 364

3 DEFINITIONS

n/a

4 TOOLS AND MATERIALS

4.1 General Description – The Surfscan will detect particles on a bare substrate using a HeNe laser.

5 SAFETY PRECAUTIONS

5.1 The tool should not be operated without the covers in place due to high voltages and lasers.

6 INSTRUCTIONS

6.1 Operating the System

6.1.1 Turn on the power on the back right of the control unit.

6.1.2 Select the proper program by selecting a number and pressing ENT. Program 1 is fixed and should not be changed. Other programs are open. The display will indicate P1 for Program 1.
6.1.3 Set **Threshold/Sort Limit** switch to **Threshold**. The LED should be off.

6.1.4 If any of the Bins need to be edited, push the **Bin#**, type in the correct value and push enter. The screen will go blank after each entry.

6.1.5 For **Program 1** verify that the Bins are set to the following limits:

- Bin 1 – 1.0um
- Bin 2 – 2.0um
- Bin 3 – 5.0um
- Bin 4 – 10.0um

6.1.6 Set the other parameters as follows and press enter:

- Substrate size – 4 or 6 inch
- Edge exclusion – 5mm
- Exclusion form – 1
- Print form – 0
- ID numbers – 1

6.1.7 Set **Threshold/Sort Limit** switch to **Sort Limit**. The LED will be on.

6.1.8 The **Bin limits** are typically set to 1000.

6.1.9 The PMT Gain is set to 1.80.

6.1.10 Load the wafer on the wafer arm with the major flat to the right, and turn on the vacuum.

6.1.11 Press the green **Start** button to automatically scan the wafer. The wafer will return done.

6.1.12 Remove the wafer.

6.1.13 Turn off the power switch.

6.1.14 This system does not currently have any data capture.

### 6.2 Resetting the System

6.2.1 If the wafer arm does not come all the way out, press the orange **Track Reset** button.
<table>
<thead>
<tr>
<th>Summary of Changes</th>
<th>Originator</th>
<th>Rev/Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Original Issue</td>
<td>Sean O'Brien</td>
<td>A-05/19/2009</td>
</tr>
</tbody>
</table>