**Title: Procedure for Indentifying A 75um vs. 100um Mirror Aperature**
7540-025345-A

_____APPROVED ENGINEERING CHANGE NOTICE (ECN) ON FILE IN_____
NANOMETRICS DOCUMENT CONTROL

Title: Procedure for Indentifying A 75um vs. 100um Mirror Aperture

| REV LTR | NUMBER / DATE / ORIGINATOR | | REVISION HISTORY |
|---|---|---|---|
| A | ECO # 04/12/2006 | James Dougherty | New Procedure |

THIS DOCUMENT CONTAINS (4) GRAPHICS
CHANGED GRAPHICS (PAGE - )

## 1. APPLICABILITY

Verify or identify use of an installed 75um or 100um Mirror Aperture.

## 2. OVERVIEW

This procedure is used to verify or identify the use of an installed 75um or 100um Mirror Aperture in the Optics Head.

## 3. ELECTRICAL WORK TYPE - PER SEMI STANDARD S2-0200

Type 2: Equipment is energized. Energized circuits are covered or insulated.

## 4. CHEMICALS AND GASES

No precautions required.

## 5. SIGN-OFF INSTRUCTIONS

Personnel performing this procedure must initial each approval line located next to the left margin for procedural step, notes, and requirements.

## 6. REQUIRED SYSTEM STATUS

The following status conditions must be met before starting this procedure:

No process active

## 7. SAFETY REQUIREMENTS

_____ All personnel must be aware of and practice all safety precautions stated in the “Nanometrics Illness and Injury Prevention Specification.”

_____ Wear PPE appropriate for the chemistry used on the tool. This is likely addressed with standard cleanroom attire and latex gloves and safety glasses.

_____ All personnel must be aware of and practice all ESD Precautions stated in the “Nanometrics Electro Static Discharge (ESD) Specification” Procedure Number 7500-024869.

**CAUTION:** The component(s) referenced in this specification may be ESD Sensitive! To prevent damage, use proper grounding techniques, such as wearing a wrist strap.

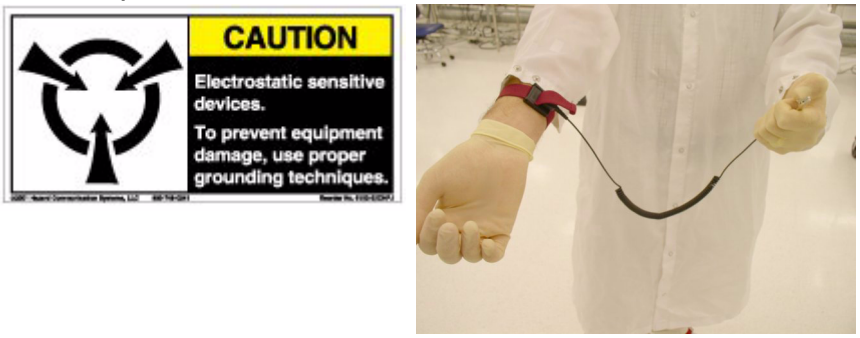



**Figure 1** ESD Caution

## 8. SPECIALTOOLS / TEST EQUIPMENT / FIXTURES

_____ None

## 9. REQUIRED / REFERENCED DOCUMENTATION

_____ Nanometrics Illness and Injury Preventive Specification, P/N 7500-010550

_____ Nanometrics Electro Static Discharge (ESD) Specification, P/N 7500-024869

## 10. PARTS / CONSUMABLES

_____ None

**Table 1: Bill of Materials Used In This Procedure**

| Quantity | Part Number | Description |
|---|---|---|
| | | |
| | | |
| | | |
| | | |

## 11. REQUIRED TRAINING LEVEL

_____ The personnel performing this procedure must be familiar with the 9010T, M and Atlas CD.

## 12. EQUIPMENT SETUP AND QUALIFICATION PROCEDURES

_____ None.

## 13. IDENTIFYING A 75UM VS. 100UM MIRROR APERTURE

_____ 13.1 Go to the **System Control**.

_____ 13.2 Click to **Move to SR Chip**.

_____ 13.3 Ensure that the **Focus Strategy** is set to **Course- Fine**.

_____ 13.4 Click on **Focus**.

_____ 13.5 Wait for focusing to be complete.

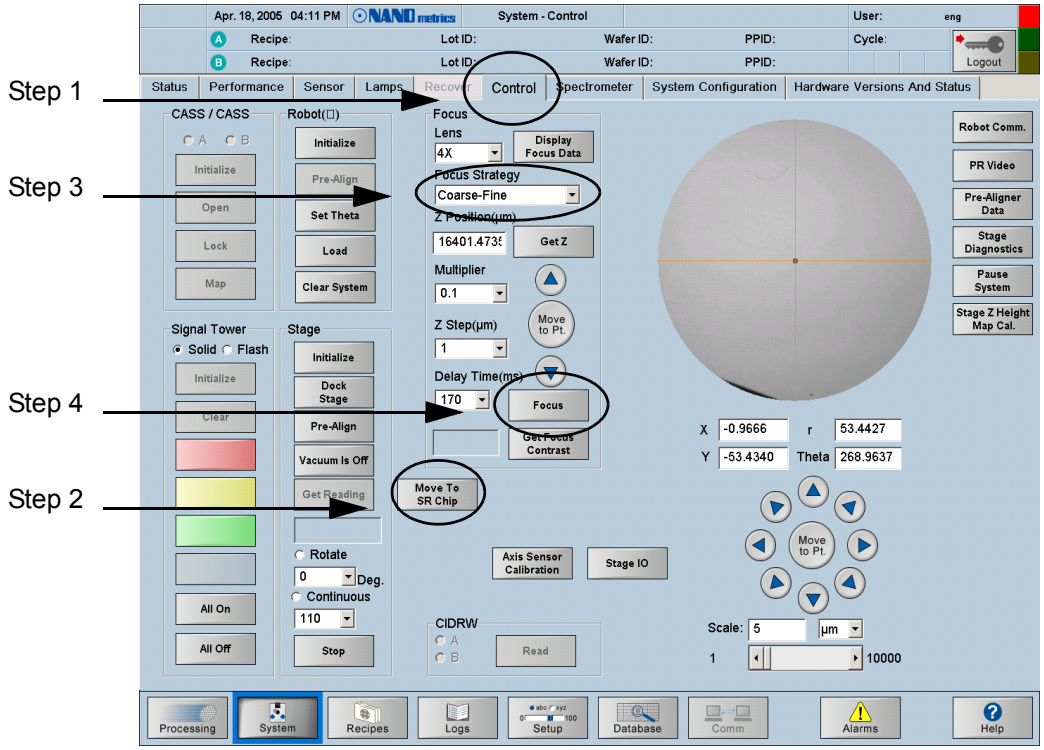



**Figure 2** System Control, Move to SR Chip, Focus Strategy, Course- Fine and Focus

_____ 13.6 Click on **PR Video**.

_____ 13.7 Check mark on **Draw Circle**.

_____ 13.8 Type in **"35"** for **R=**.

_____ 13.9 Click on **Adjust Settings**.

_____ 13.10 Set **Zoom** to **8**.

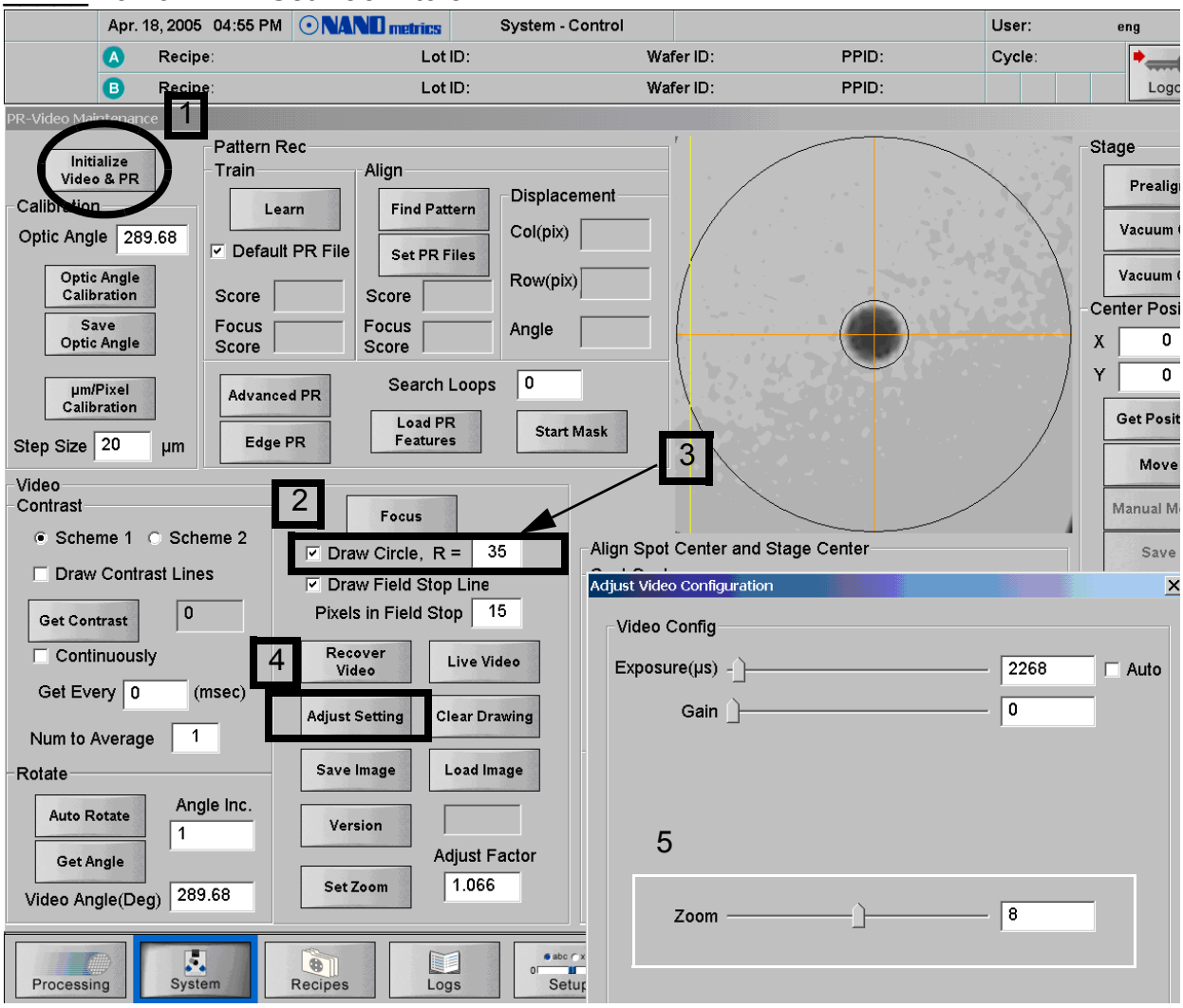



**Figure 3** PR Video, Draw Circle, "35" for R=, Adjust Settings, Zoom to 8

_____ 13.11 Examine the camera image. If the nandot (aperture) in completely and well within the draw R=35 circle, then the mirror aperture is 75um. If the nandot is as large as or larger than the circle, then the nandot is not 75um.

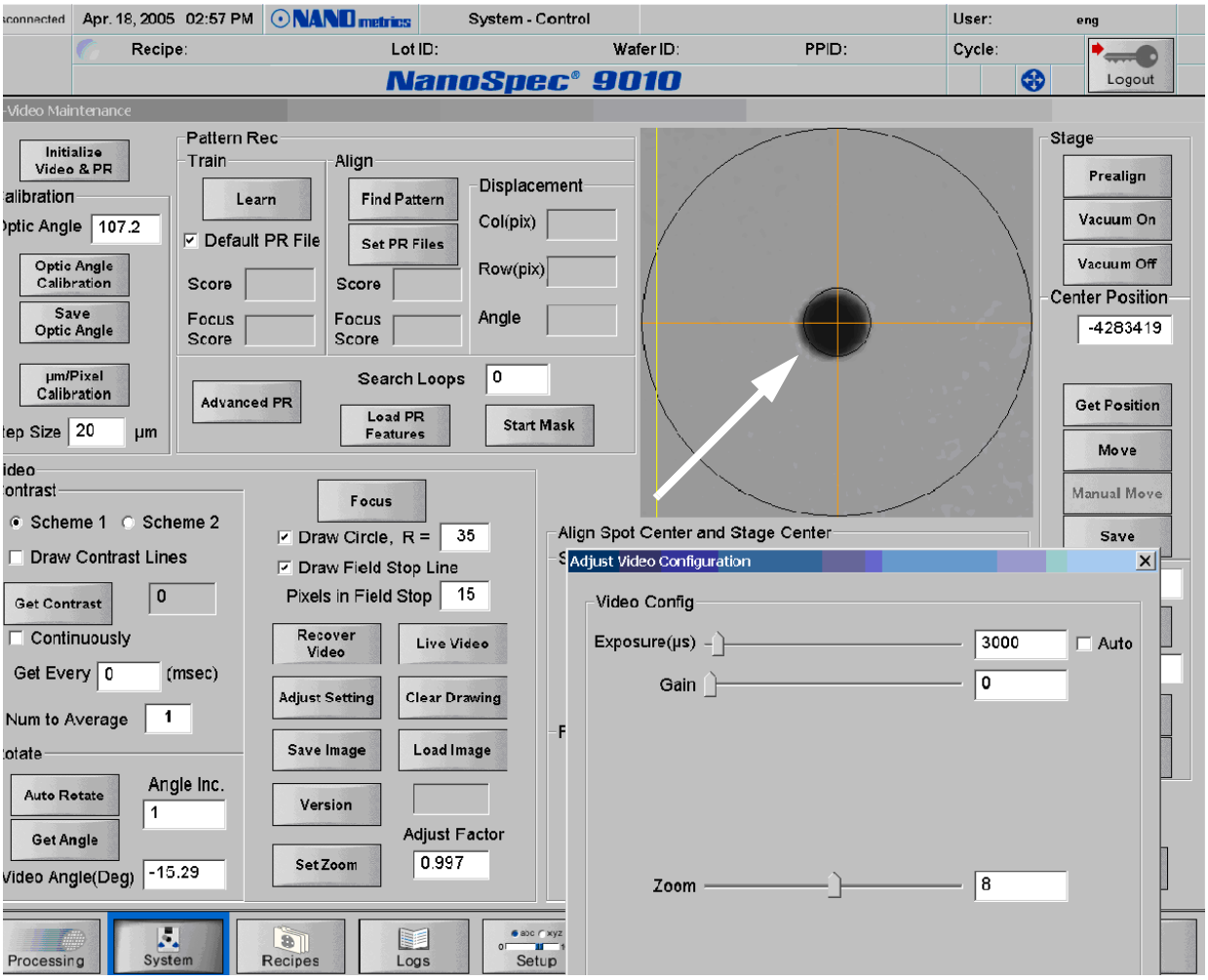



**Figure 4** If the nandot is as large as or larger than the drawn circle, then the nandot is not 75um