

Cleaning Parameters for Electroglas Probers EG Commander Operations

1. Purpose/Scope:

The purpose of this document is to define the parameters for using the International Test Solutions' cleaning products on the ElectroGlas Probers running with at a minimum EG Commander 6.x. The parameters set forth in this document should be used as guidelines only for establishing basic cleaning routines for "on-line" cleaning methods. Some parameters are specific to prober software version, prober model, and user requirements (Application Specific and Customer Variables) and should be set based on user intent for optimal performance of cleaning regiments. User parameters may vary with contact surface material (pad), probe tip shape and / or material and may also affect the frequency of cleaning. Misuse of cleaning parameters could potentially cause damage to probe card and/or prober. Please consult appropriate ElectroGlas Prober documentation for parameter functional details.

2. Nomenclature:

- ElectroGlas, Inc..
- ITS: International Test Solutions, Inc.
- Touchdowns: Iterations of probe tips contacting a surface (pad or cleaning material)
- MDBB: Multi Die Burnishing Block

3. Materials:

- ITS cleaning product package types
 - i. Wafer (6 inch / 150mm, 8 inch / 200mm, or 12 inch / 300mm)
 - ii. MDBB: Multi Die Burnishing Block
 - iii. Probe Clean™
 - iv. Probe Polish™
 - v. Probe Scrub™
 - vi. Probe Lap™

4. Probe Cleaning Parameters:

For detailed information on ElectroGlas cleaning parameters, please reference the appropriate documentation in the prober user's manual.

IMPORTANT: Cleaning parameters should be optimized for each particular probe application. In order to minimize the possibility of probe damage due to misapplication of cleaning parameters/options, extra care should be taken to ensure a full understanding of all cleaning parameters. Electroglas and ITS Applications Personnel will be able to assist in creation of optimal parameter setup solutions for your given application.

Probe Clean™, Probe Polish™, Probe Scrub™, and Probe Lap™ are registered trademarks of International Test Solutions.

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Cleaning parameters are custom to specific probe types and customer configuration requirements. Therefore available options/parameters will vary from customer to customer based mostly on prober customer specific software. The following examples are basic so please reference specific documentation concerning each parameter for more details.

This document provides **basic** setup guidelines only and not every parameter and setting will be discussed (for specific information please refer to ElectroGlas documentation or contact an ElectroGlas Applications Engineer).

5. Basic Cleaning Parameters:

a. Select “Product” <F7>, “Options” (O), and select “Probe Tip Clean/Test”

- Clean Type: Z-only
- Clean Every nth Touchdown: Customer Variable
- Scrub Length: 0 mm (used for Scrub only)
- Number of Rotations: 0 (used for Scrub only)
- Stroke Length: 4 mil (O.D. for most applications)
- Number of Strokes: Customer Variable
- Location of Clean: Use Pads (cleaning block)
Special Wafer (cleaning wafer)

b. Cleaning with a wafer will require the transfer of the cleaning wafer to the Auxiliary Tray below the cassette.

- Remove the cleaning wafer from the container and place the wafer in the manual tray.

CAUTION: Latex gloves should be used at all time when handling the cleaning polymer materials. Polymer working surface contamination due to fingerprints and exposure to unapproved materials and chemicals will void the warranty.

c. Set the following values on the cleaning wafer configuration screen:

- Insert Location: Aux Tray 1
- Slot Number: 1
- Wafer Diameter: 150mm or 200mm
- Cleaning Material Diameter: 140mm or 190mm
- Flat/Notch: Flat (150mm)
Notch (200mm)

d. Select <F10> or “OK” on the screen to save the values and load the cleaning wafer into Auxiliary Tray.

e. The CLEANING WAFER SETUP screen will appear on the touch screen. Enter the following values:

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Electroglas Prober

Product Installation

- Wafer Nominal Thickness: (Use specified value on label)
- Max Thickness Deviation: 2.0 mils
- Non Planarity Tolerance: 1 mil
- Validate Profiler: Enabled
- Z Overtravel: 0 mils (used for scrub only)

f. Select <F10> or “CLOSE” on the screen to save the values.

Note: XY indexing does not occur during the cleaning touchdowns; however, each cleaning recipe will move to a new location automatically. For most applications, ITS recommends that the customer use fewer touchdowns and more frequent cleaning in order to optimize the effectiveness of the cleaning product.

For questions regarding the prober operation and specific cleaning operational settings, contact your local **ElectroGlas** support representative.

For questions regarding the cleaning material, contact **International Test Solutions** at 775-284-9220, or via email at techsupport@inttest.net, to discuss your specific probe card cleaning application and requirements.

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