

Operation Procedure for WIBO1 West Bond Wire Bonder

Reference West Bond Instruction Manual

[Note the location of the various WIBO1 components in this [Video: WIBO1-00](#)]

*** Videos have no sound ***

Start Up

1. Ensure you have an active WIBO1 reservation
2. Turn the bonder power [[Video: WIBO1-02-04](#)]
3. Turn on the NEFO (Negative Electronic Flame Off) power unit
4. Turn on the microscope lamp

Set-Up

5. Choose the desired program buffer using the buffer switch. [[Video: WIBO1-05-06](#)]
Note: You may only edit your assigned program buffer (see buffer log sheet). You may not make changes to buffers assigned to other users.
6. Press EDIT to verify or modify program settings. See pages 23-25 for an explanation of the various program settings. Note that recommended values are shown on the display for each setting.
[Press NEXT or PREV to cycle through the program parameters]
[Press UP or DOWN to change a parameter]
[Press ESC to exit the EDIT mode and return to the main screen]
When prompted, use the gram gauge to calibrate the HIGH force and LOW force. Typical values for ball bonding are 45-50 grams for the HIGH force setting and about 30 grams for the LOW force setting.
7. Adjust NEFO settings if desired.
8. It is suggested that you record your settings for future reference
9. Mount your part onto the work holder [[Video: WIBO1-09](#)]
10. Turn on the hotplate temperature controller and set the desired temperature (100C is typical for ceramics) [[Video: WIBO1-10](#)]
11. Move the work holder beneath the bonding tool and adjust the work platform height (if needed). See page 15. [[Video: WIBO1-11](#)]
12. Adjust the zoom and focus of the microscope so that the area of interest on the part is in full view and is in focus. [[Video: WIBO1-12](#)]

Wire Bonding (pages 19-20)

13. To produce the first bond, use the micromanipulator to lower the bonding tool to the bond location and gently touch the tip of the tool to the bond surface. An audible beep will be heard while the bond is being made. [[Video: WIBO1-13-16](#)]
14. After completing the first bond, gently lift the micromanipulator and move the bonding tool through the looping path. When the tool has been moved to the programmed loop height an additional beep will be heard.
15. Move down toward the second bond site and gently touch the tip of the tool to the bond surface. An audible beep will be heard.

16. Completely lift up on the micromanipulator until the torch tip swings in and out below the wire to form the next ball (ball bond configuration only).
17. Repeat steps 13-17 for each bond pair.

Shut Down

18. Slide the work holder completely to the side so that no part of it remains beneath the bonding tool. [[Video: WIBO1-18-21](#)]
19. Turn off the power on all three units: bonder, NEFO, and temperature controller.
20. Turn off the microscope lamp.
21. Remove your part from the work holder. *Careful – the surface of the work holder can be very **HOT**.*
22. Stop your WIBO1 reservation