



# ADS Capillary Regeneration Kit User Manual for ABI 3130 and 3730 Series

## Product Catalog Number:

Catalog Number	Product Name	Unit Size
150007	ADS Capillary Regeneration Kit for 3130 series	4x 7 ml
150028	ADS Capillary Regeneration Kit for 3730 series	4x 28 ml

## Introduction

ADS Capillary Regeneration Kit offers a way to completely rejuvenate the resolution of a failing capillary in a quick and easy workflow. It can revitalize your old capillaries and create significant savings.

### Recommended Use:

This Kit can be used on the capillaries that start to lose resolution or have smears in the electropherogram. Treating capillary array after every 500 runs can keep the array at the optimal operating conditions.

*Please use good lab practice and wear proper protective equipment including gloves, goggles, and coat when handling buffers supplied in this kit. Wash body part with ample amount of water immediately if it comes into contact with the buffers. Seek medical help if needed.*

### Materials provided by user:

De-ionized water, clean polymer bottle (30 ml bottle for 3730, 8 ml bottle for 3130 instrument)

## Protocol for 3730 Series

1. Start the computer and instrument and launch data collection software
2. Empty the sequencing machine's water, waste, and 1x buffer from the reservoirs and put empty ones back to hold waste products from the wash.
3. Load a bottle filled with de-ionized water onto the sequencing machine at the polymer bottle position.
4. Perform change polymer (different lot, any random numbers can be used) wizard with de-ionized water. When the system asks for bubbles visible, always click "no", even if there are bubbles. Click "Finish" without filling the array. Repeat this wizard one more time. (If there is an error message during this step, click "Clear Errors" and go to step 5).



5. In manual control, choose “polymer delivery pump” from main drop-down menu
  - ✓ Choose "Close Buffer Valve", send command
  - ✓ Choose "Home Piston", send command
  - ✓ Choose "Move Piston Down", Type maximum steps allowed (65500), send command
  - ✓ Repeat previous work in step 5 three (3) times to rinse the capillaries thoroughly
6. Go to manual control and select “Oven” from main dropdown menu. Choose “Select Oven State” and “On”, send command. Choose “Set oven temperature”, set value to “40” and send command. Note: the temperature can be set at 45 or 50C if more vigorous regeneration is desired.
7. Open door and Install Buffer 1 at polymer positions
8. Repeat step 4 -6 with Buffer 1 in the system
9. Leave the system for **60 minutes** after finishing step 8 with buffer 1 in capillaries
10. Open door and Install Buffer 2 at polymer positions
11. Repeat step 4 -6 with Buffer 2 in the system
12. Leave the system for **5 minutes** after finishing step 11 with buffer 2 in capillaries
13. Open door and Install Buffer 3 at polymer positions
14. Repeat step 4 -6 with Buffer 3 in the system
15. Leave the system for **30 minutes** after finishing step 14 with buffer 3 in capillaries
16. Open door and Install Buffer 4 at polymer positions
17. Repeat step 4 -6 with Buffer 4 in the system
18. Leave the system for **5 minutes** after finishing step 17 with buffer 4 in capillaries
19. Open door and Install a bottle filled with de-ionized water
20. Repeat step 4 -6 with water in system. Block and capillaries are now filled with water
21. Load a bottle of polymer on the instrument. Run the Change Polymer Wizard to remove all bubbles if there is any. Finish the wizard by filling the capillary array.
22. Fill all buffer and water reservoirs with fresh 1xbuffer / water.

*Please note, similar to a new capillary array, it may take one or two runs for the capillary to reach optimal performance. If more thorough regeneration is desired, the whole process can be repeated multiple times. As regeneration process will remove debris from the capillary and the connecting areas, some connections could become loose. Adjustment of the capillary position and connections may be needed.*

## Protocol for 3130 Series

1. Start the computer and instrument and launch data collection software
2. Empty the sequencing machine’s water, waste, and 1x buffer from the reservoirs and put empty ones back to hold waste products from the wash.
3. Load a bottle filled with de-ionized water onto the sequencing machine at the polymer bottle position.
4. Run “Replenish Polymer Wizard” with de-ionized water, select “Different Lot”.

*If the system during the wizard asks for bubbles visible, always click “no”, even if there are bubbles.*

Finish the wizard without filling the capillary array by click “Finish”. (If there is an error message during this step, click “Clear Errors” and go to step 5).



5. In manual control, choose “polymer delivery pump” from main drop-down menu
  - ✓ Select “Buffer Valve” and send command to close buffer valve.
  - ✓ Choose “Polymer delivery pump”
  - ✓ Choose "Home Piston", send command
  - ✓ Choose "Move Piston Down", Type maximum steps allowed (37500), send command
  - ✓ Repeat previous work in step 5 three (3) times to rinse the capillaries thoroughly
6. Go to manual control and select “Oven” from main dropdown menu. Choose “Select Oven State” and “On”, send command. Choose “Set oven temperature”, set value to “40” and send command. Note: the temperature can be set at 45 or 50C if more vigorous regeneration is desired.
7. Open door and Install Buffer 1 at polymer positions
8. Repeat step 4 -6 with Buffer 1 in the system
9. Leave the system for **60 minutes** after finishing step 7 with buffer 1 in capillaries
10. Open door and Install Buffer 2 at polymer positions
11. Repeat step 4 -6 with Buffer 2 in the system
12. Leave the system for **5 minutes** after finishing step 10 with buffer 2 in capillaries
13. Open door and Install Buffer 3 at polymer positions
14. Repeat step 4 -6 with Buffer 3 in the system
15. Leave the system for **30 minutes** after finishing step 13 with buffer 3 in capillaries
16. Open door and Install Buffer 4 at polymer positions
17. Repeat step 4 -6 with Buffer 4 in the system
18. Leave the system for **5 minutes** after finishing step 16 with buffer 4 in capillaries
19. Open door and Install a bottle filled with de-ionized water
20. Repeat step 4 -6 with water in system. Block and capillaries are now filled with water and ready to be used
21. Run the Replenish polymer wizard
  - ✓ When told to reinstall polymer, apply a fresh bottle of polymer.
  - ✓ In this last wizard, all bubbles should be gone after polymer is applied.
  - ✓ Finish the wizard by filling the capillary array. (Doors have to be closed).
  - ✓ Fill all buffer and water vials with fresh 1xbuffer / water.

*Please note, similar to a new capillary array, it may take one or two runs for the capillary to reach optimal performance. If more thorough regeneration is desired, the whole process can be repeated multiple times. As regeneration process will remove debris from the capillary and the connecting areas, some connections could become loose. Adjustment of the capillary position and connections may be needed.*