

BenchPro™ 4100 Card Processing Station

Catalog no. WP0001

25-1050 Version A; 9 December 2008

QUICK
REFERENC
CARD

Instructions for using the BenchPro™ 4100 Card Processing Station to perform routine fluid processing steps for western blot protocols are described below. For detailed instructions, see the manual supplied with the instrument or download the manual from www.invitrogen.com.

Preparing Reagents

Prepare reagents at the same dilution ratios used for your current blotting protocol, or according to manufacturer directions.

Reagents can be prepared in the calibrated containers supplied with the unit, or prepared separately and transferred into the supplied containers.

Use the volumes recommended in the table to fill each container depending upon whether a full- or half-sized membrane will be blotted.

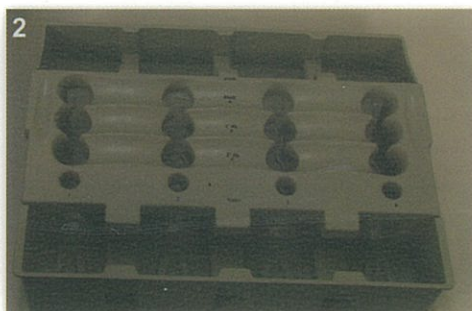
Tray Label	Container	Reagent	Half Blot	Full Blot	Maximum Volume
Wash	Reagent bottle	Wash buffer	13 ml*	18 ml*	250 ml
A	Reagent vial	Blocking solution	13 ml	18 ml	25 ml
B	Reagent vial	Primary antibody	13 ml	18 ml	25 ml
C	Reagent vial	Secondary antibody	13 ml	18 ml	25 ml
Rinse	Reagent bottle	Deionized water	13 ml*	18 ml*	125 ml

*Multiply this volume by the number of times the step using this reagent is performed. Add an additional 10 ml volume to the wash and rinse bottles to allow the card tips to remain immersed in liquid. For example, a half blot protocol using ten washes, needs 140 ml of Wash buffer ((10 × 13 ml) + 10 ml).

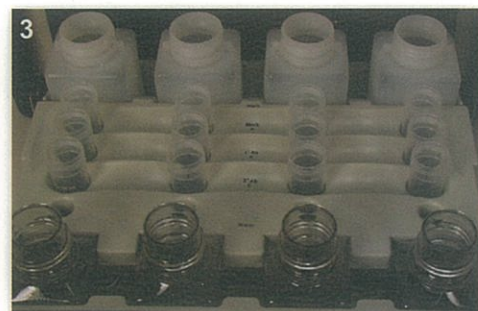
Assembling the Reagent Tray



1. Open the drawer unit and place the waste basin into the drawer.



2. Place the Reagent Tray Bottom on a benchtop. Place the Reagent Tray Top on the Reagent Tray Bottom.

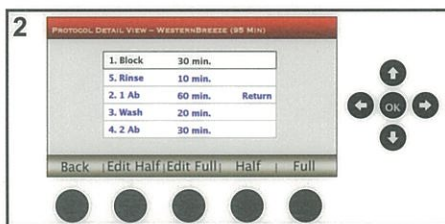


3. Remove the caps from filled reagent containers and place them starting from the rear of the tray as labeled on the tray top (see table above). Place the reagent tray assembly in the Waste Basin. Close the Reagent Drawer unit completely.

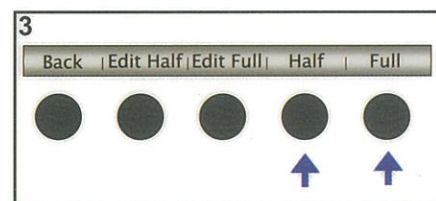
Selecting a Pre-programmed Protocol



1. After turning on the unit, use the Up/Down arrow keys to select the desired program, then press OK.



2. Verify protocol steps on the Protocol Detail View screen. Navigate with the Up/Down arrow keys.



3. Select the Half or Full option to run a protocol for a half or full membrane, respectively.

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BenchPro™ 4100 Card Processing Station

Loading the Card

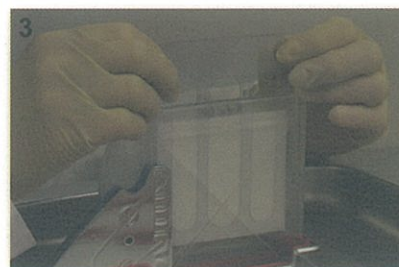


1. Hold card by grip area and insert into slot such that the card tips are inserted into the appropriate filled reagent containers.



2. Wash transferred membrane briefly, then place it into an open Blot Holder such that no edges protrude from the holder.*

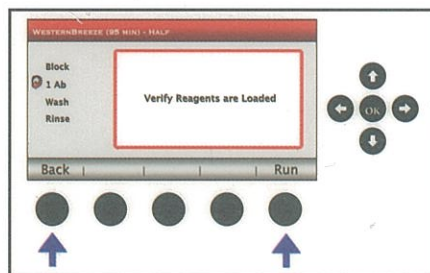
Do not let the membrane dry out.



3. Hold the sides of the Blot Holder together and slide it into the blot chamber of the card.

*For previously washed and dried membranes; a) rinse nitrocellulose membranes in water twice for 5 minutes; b) re-wet PVDF membranes in methanol, then wash twice in water for 5 minutes.

Running the Protocol



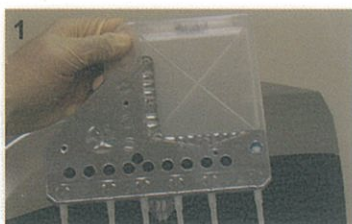
Start the run from the **Run** screen, by pressing **Run**. To return to the **Protocols** screen, press **Back**.

When the run starts, the status light will change to green, and fluid will enter the card.

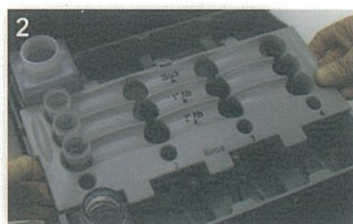
Upon completion of the protocol the instrument will beep, and display a flashing green light. The digital display shows the message **Protocol Holding**. Press the **Complete** key to drain the card.

Remove the Blot Holder from the card as soon as possible after the card has drained. Remove the membrane from the holder with forceps and proceed to your detection protocol.

Disassembly Procedure for the BenchPro™ 4100



1. Remove the card and dispose of it appropriately.
Do not reuse cards.



2. Open the Reagent Drawer and remove the tray assembly.
Dispose of unused reagents appropriately.



3. If the autodrain was not used, remove the waste basin and dispose of contents appropriately.
Clean the basin by rinsing with water.

4. To run the protocol again, press the **Back** function key to return to the **Protocols** screen.

Refill reagent tubes, and repeat the procedure described on this sheet with a new card.

If a second run is not needed, turn the power switch on the left side of the unit **OFF**.

Replacing a Fuse

Make sure the power is switched to **OFF** before replacing the fuse. Open the fusebox and replace the burned out fuse with new 250 V, 1.25 A fuse. Refer to the manual for more detailed instructions.

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