

B94500/IB95000 WESTERN TRANSFER SYSTEM ELECTROPHORESIS

IBI's Western Transfer Protein System allows rapid transfer of protein or peptide samples or nucleic acids separated by mini-polyacrylamide gels onto 8x10cm or 10x10cm membranes. The unit accommodates two cassette sandwiches for transfer. Proteins separated by mini PAGE gels can be transferred within the electrode module by high-intensity electrical fields, while maintaining equal resolution. Depending on the molecular weight and sequence of the protein/peptide, the transfer should take 60 to 90 minutes. The unit consists of two hinged, perforated transfer cassettes, each color-coded with 1/8" acrylic and a cassette lock. The cassettes slide into an electrode module. The distance between the electrodes is 4.5cm. The blotting application is dependent on the voltage applied over the distance between the electrodes. By keeping the distance between the electrodes at a minimum, higher electrical fields are produced, thus allowing a more efficient protein transfer. The patented vented lid keeps the buffer cool during transfer; for longer runs, a stir bar can be added to recirculate the buffer, thereby eliminating heat gradients during the transfer. In extreme cases, our IBI ice-pack can be inserted into the tank for even better cooling.

ORDERING INFORMATION

CATALOG#	DESCRIPTION
IB94500	WESTERN TRANSFER SYSTEM *Comes complete with buffer tank, patented vented lid, western transfer module, filter pads, and power cords
IB95000	WESTERN TRANSFER MODULE *Comes complete with two cassettes, filter pads, and cassette locks



IB94500 comes complete with: patented vented lid, buffer tank, western transfer module, power cords, and operation manual.

Accessories and Replacement Parts

CATALOG#	DESCRIPTION
IB50500	Power Cords, Red and Black
IB94040	Replacement Tank
IB94050	Replacement Gel Capture Device
IB94060	Replacement Vented Lid
IB92072	Replacement Tank Connector Kit
IB92080	Ice Pack
IB95010	Transfer Membrane, Thin Blot Paper - 10 Pack
IB95011	Transfer Membrane, Thick Blot Paper - 10 Pack
IB95020	Transfer Membrane, 0.2µm Nitrocellulose - 10 Pack
IB95021	Transfer Membrane, 0.45 µm Nitrocellulose - 10 Pack
IB95030	Transfer Membrane, 0.2µm PVDF - 10 Pack
IB95031	Transfer Membrane, 0.45µm PVDF - 10 Pack
IB95040	Replacement Foam Filter Pads - 4 Pack

SPECIFICATIONS

	Height	Width	Length	
Unit Dimensions: (IB94500)	13.3cm	15.0cm	16.0cm	
Unit Dimensions: (IB95000)	9.0cm	6.5cm	14.0cm	
Buffer Capacity: 1200ml				
Maximum Gel Size: 10x10cm				
Voltage Limit: 100VDC				
Current Limit: 500mA				

MEMBRANE DESCRIPTION

Nitrocellulose

- Good binding capacity, proteins bind by hydrophobic interactions
- Pore size: .45μm .22μm
- Works well for Western transfers
- Amino acid analysis

- Microporous membrane modified with strongly basic charged groups
- Binds negatively charged macromolecules DNA/RNA w/low background
- Pore size: .45µm
- Can reprobe
- Works well for Southern Transfers
- Works well for Northern Transfers
- Solid-phase immobilization
- Enzyme immobilization
- Gene probe assays

PVDF

- High binding capacity
- High hydrophobic binding solvent resistance
- Compatible with protein stains and immunodetection techniques
- Pore size: .45µm
- Can reprobe
- Works well for Western Transfers
- Protein Sequencing
- Amino acid analysis
- Solid phase assay systems



IB95000 comes complete with: (2) two cassettes, (2) two cassette locks, (4) four foam filter pads, and operation manual.

WEBSITE: WWW.IBISCI.COM

IBI UPS WESTERN BLOT TRANSFER SYSTEM INSTRUCTION MANUAL

WARRANTY, SERVICE, AND MAINTENANCE

International Biotechnology Inc.(IBI) warrants that every UPS WESTERN BLOT instrument it sells will be free from defects in materials and workmanship under normal operating conditions when it leaves the factory. Should any defects appear within the first year following delivery, the unit will be repaired or replaced free of any charge to the buyer. IBI's obligation under this warranty is specifically limited to the aforementioned replacement or repairs. This warranty is in lieu of all other warranties either express or implied.

Under this warranty, IBI's obligation with respect to transportation expenses is limited to the cost of shipping the repaired or replacement unit to the buyer, provided that such repair or replacement comes within the terms of this warranty.

The above warranty extends only to the original buyer or his assignee who has filled out and returned the enclosed warranty registration card.

To be guaranteed coverage of your UPS WESTERN BLOT under IBI's Instrument Warranty Program, complete the warranty card at the back of this manual with the required information and return the card to Shelton Scientific.

Warranty claims for unregistered units cannot be guaranteed. To make a claim against this warranty, contact the Customer Assistance Group at (800) 253-4942 or (203) 929-8999 in the U.S. At that time, the method for remedy will be determined. Under no circumstances should a unit be returned to Shelton Scientific without first obtaining a Return Authorization (RA) number. Such shipments will be refused.

Claims for shortages or damage in transit must be reported within ten (10) working days from receipt of the unit. Such claims made after this time cannot be honored.

Customer Purchase Order No	
Catalog No	
Packing Slip No	Instrument Model
Date Instrument Received	Instrument Serial No.
	· · · · · · · · · · · · · · · · · · ·

UPS Western Transfer System

The system was designed for fast, transfer of samples in 15 minutes. The system is ideal for small-scale procedures such as fragment analysis and recombinant screening of samples between 4,000bp down to 50bp. Unique sponge reservoirs supply enough buffering capacity avoiding exhausting of capacity during the electrophoresis process. The simple setup, no overlaying of buffer easy well loading.

Place the presoaked reservoirs and combs into gel tray, pore in the agarose allow gel to harden.

Please note the system was designed for quick screening maximum run time 20 minutes.

TABLE OF CONTENTS

I. MAINTENANCE

II. OPTIONS AND SPECIFICATIONS

4

A. Components and Accessories

4

B. Specifications

4

C. Sample Well Dimensions for Delrin Combs

D. Related Products

III. OPERATING INSTRUCTIONS

6

- A. Preparation of the Agarose Gel and Electrophoresis Buffer DNA 6
- B. Preparation of the Agarose Gel and Electrophoresis Buffer RNA 8
- C. Casting the Gel
- D. Removing the Comb
- E. Loading the Samples onto the Gel
- F. Electrical Connections to the Safety Lid
- G. Sample Electrophoresis
- H. Detection and Documentation of Separated Fragments

11

IV. **APPENDICES**

12

Buffers for Electrophoresis A.

12 Physical Properties of Electrophoretic Plastics B.

Replacement Parts 14 C.

V. REFERENCES

15

I. MAINTENANCE

Please handle the unit with care:

Do not expose the unit or its accessories to temperatures above 60°C.

<u>Do not</u> expose the unit to organic solvents.

Do not clean the unit with abrasive cleaners or cleaning aids.

In most cases, rinsing with deionized water will sufficiently clean the unit. For heavier dirt, use a mild cleansing solution such as dish soap (alkaline cleansers are <u>not</u> recommended). Hand wash and dry with a soft cloth.

PLEASE NOTE: The degradation of acrylic due to solvents may result in substantial discoloration, cracking, warpage, or etching of the electrophoresis unit.

<u>Do not</u> apply any of the following solvents: benzene, xylene, toluene, chloroform, carbon tetrachloride, alcohols, phenols, ketones, or esters.

<u>Do not</u> expose the Delrin combs supplied with this unit to formaldehyde for extended periods. When casting gels containing formaldehyde, remove the combs promptly upon hardening of the gel and rinse completely with deionized water.