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# **Mini-PROTEAN<sup>®</sup>3 Cell**

## **Instruction Manual**

**Catalog Numbers**

**165-3301**

**165-3302**

**BIO-RAD**

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## Section 1

### General Information

#### 1.1 Introduction

The Mini-PROTEAN 3 cell runs both hand cast gels and Ready Gel precast gels interchangeably. The Mini-PROTEAN 3 system includes a casting stand and glass plates with permanently bonded gel spacers that simplify hand casting and eliminate leaking during casting. The cell can run one or two gels, and the mini tank is compatible with other Bio-Rad electrode modules for tank blotting, 2-D electrophoresis, and electro-elution.

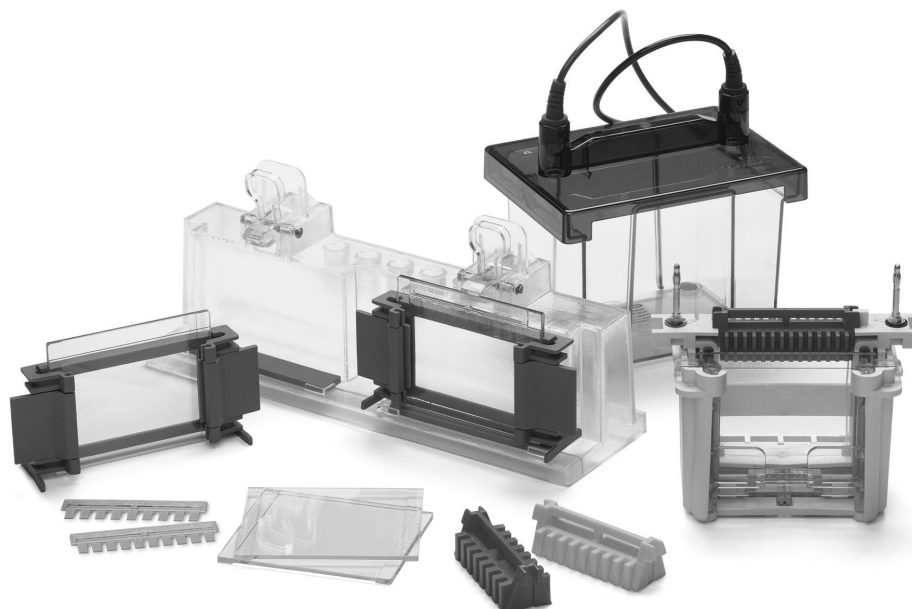


Fig. 1. Mini-PROTEAN 3 system components.

## 1.2 Components

To get the best performance from your Mini-PROTEAN 3 cell, familiarize yourself with the components by assembling and disassembling the cell before using it (refer to Figures 1 and 2).

Spacer Plate	The Spacer Plate is the taller glass plate with gel spacers permanently bonded. Spacer Plates are available in 0.5 mm, 0.75 mm, 1.0 mm, and 1.5 mm thicknesses, which are marked directly on each Spacer Plate.
Short Plate	The Short Plate is the shorter, flat glass plate that combines with the Spacer Plate to form the gel cassette sandwich.
Casting Frame	The Casting Frame, when placed on the benchtop, evenly aligns and secures the Spacer Plate and the Short Plate together to form the gel cassette sandwich prior to casting.
Gel Cassette Assembly	One Casting Frame, a Spacer Plate, and a Short Plate form one Gel Cassette Assembly.
Casting Stand	The Casting Stand secures the Gel Cassette Assembly during gel casting. It contains pressure levers that seal the Gel Cassette Assembly against the casting gaskets.
Gel Cassette Sandwich	A Spacer Plate and Short Plate with polymerized gel form a Gel Cassette Sandwich after casting.
Combs	A selection of molded combs is available.
Buffer Dam	The molded, one-piece buffer dam is used when running only one gel.
Electrode Assembly	The Electrode Assembly holds the Gel Cassette Sandwich. It houses the sealing gasket, the upper and lower electrodes and the connecting banana plugs. The anode (lower electrode) banana plug is identified with a red marker and the cathode (upper electrode) banana plug with a black marker.
Clamping Frame	The Clamping Frame holds the Electrode Assembly and Gel Cassette Sandwich in place. Its pressure plates and closure cams seal the Gel Cassette Sandwich against U-shaped gaskets on the Electrode Assembly to form the inner buffer chamber.
Inner Chamber	The Electrode Assembly, two Gel Cassette Sandwiches or one gel cassette sandwich and a buffer dam, and the Clamping Frame form the Inner Chamber.
Mini Tank and Lid	The Mini Tank and Lid combine to fully enclose the inner chamber during electrophoresis. The lid cannot be removed without disrupting the electrical circuit. The Mini Tank and Lid are also compatible with other Bio-Rad electrode modules for blotting, first dimension 2-D, and electro-elution.

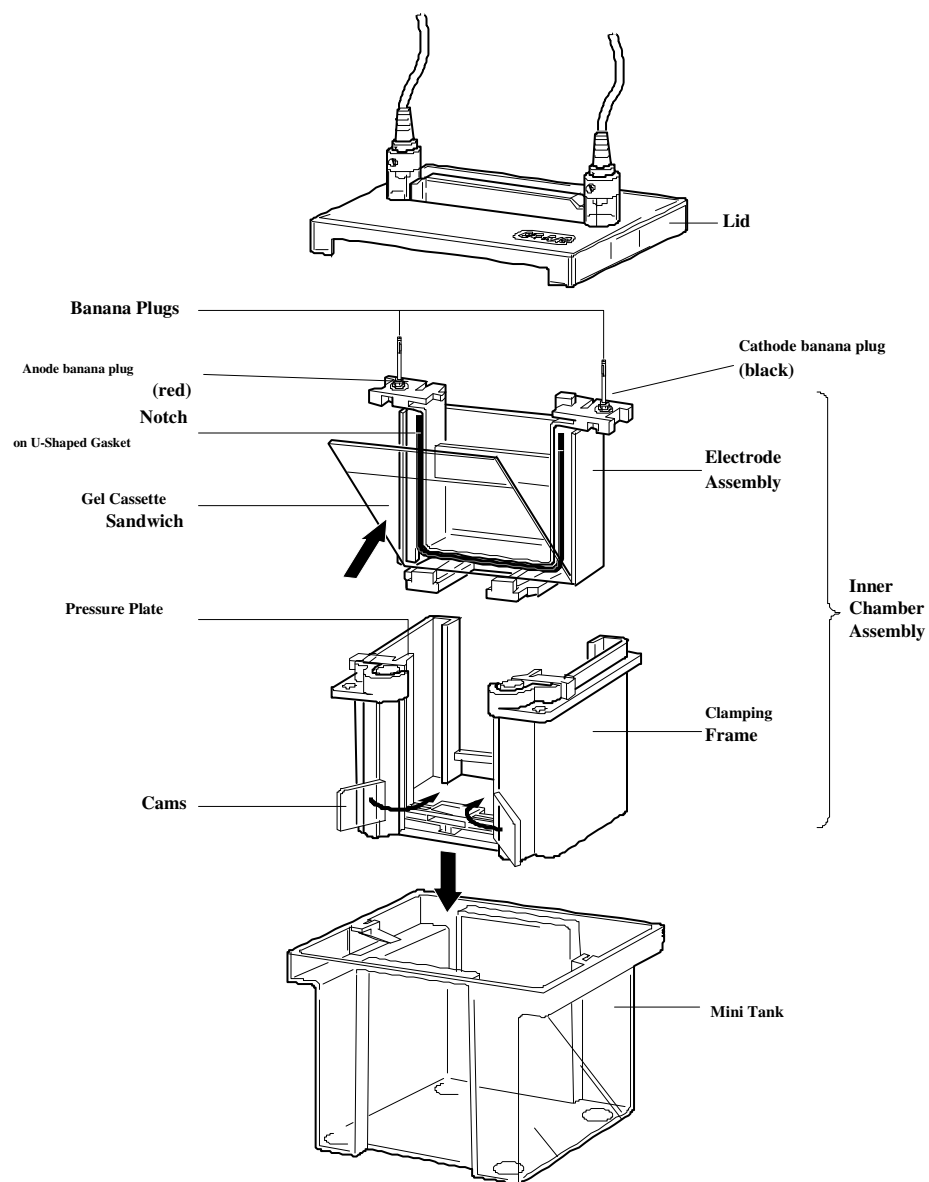


Fig. 2. Assembling the Mini-PROTEAN 3 cell.

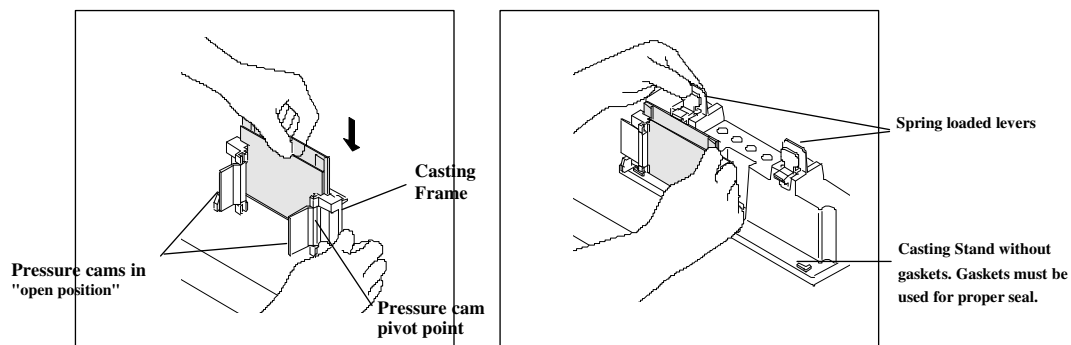


Fig. 3. Assembling the Mini-PROTEAN 3 Casting Frame and Casting Stand.