

ITEM 146-801 MOBILE CONTOUR PLOTTER



The contour plotter is a mechanical mechanism which links a drawing pen to a stylus arm. Upon contact with the body, it translates body contours to an overhead drawing board. When the finger plunger is depressed, engaging the pen, a continuous plot is drawn as the operator follows the physical contour of the patient. Marks can be made along the contour to indicate beam entry and laser light locations.

The pen can be of any type: pencil, ball point pen or fine felt tip marker. The pen is secured in a special holder with a thumb screw so that the pen tip is about 1/2" or less from the paper. The pen to paper engagement is made through a cable by a finger controlled plunger or locked in place by a locking screw. The finger engaging system is attached to the aluminum stylus arm, allowing easy engagement of the finger plunger while following the contour with the stylus. The nylon stylus tip is not cold to the touch. It is designed to permit skin contact even in the close spacing between the table top and the patient.

The drawing board can rotate 360°. It can lock at any angle, enabling lateral and sagittal contours. The counterbalanced drawing board is easily adjustable in height to accommodate different patient thicknesses and table heights commonly encountered in radiotherapy departments.

It is recommended that computer plotting paper be used for taking contours due to its paper surface hardness and smoothness. Other paper with the same characteristics will also work. The paper can be secured to the board with masking tape.

Swivel and locking casters allow the unit to be easily positioned or transported to various areas of the department.

Maintenance Check

Routinely rotate the stylus arm around a point to check the accuracy of the white plastic tip. There should be no more than a 2 mm wobble. Check for fraying of the counterweight cable in the post once a year.

Specifications

Pen Plotting Area: 47 cm H x 56 cm W

Paper Size: 54 cm x 61 cm (21" x 24")

Mechanical Tolerance: 2 mm

Drawing Pen: Pencil, ball point pen, or felt tip marker with a max. dia. of 13/32"

Overall Size: 203 cm H x 50 cm W x 90 cm L

Weight: 187 lbs.

Shipping Weight: 230 lbs.

- **Accepts all types of pens**
- **Finger plunger engaged pen**
- **360° rotatable drawing board**
- **Counterbalanced drawing board**
- **Counterbalanced base**

The Mobile Contour Plotter was developed as a simple system to accurately and rapidly transfer the patient's surface contour to a sheet of paper while the patient is on a simulator table, treatment table or stretcher. This contour drawing can then be used on treatment planning computers and in conjunction with CT information for the treatment plan. Then it can be made a permanent part of the patient's record.

Item #	Description
146-801	Mobile Contour Plotter
146-800-61	Cable Release For Pen
146-800-99	Replacement 'C' Arm
146-801-Repair	Repair of Contour Plotter

Mobile Contour Plotter Instructions

Item 146-801

1. Secure paper to contour plotter board with masking tape.
2. Place a sharp pointed pen or pencil in the holder. Adjust the pen/pencil tip to be 1/4" (6 mm) away from the paper.
3. Adjust the height of the contour plotter board to be about 6" above the patient, tighten the vertical locking lever.
4. Position the contour plotter board over the patient, making sure the board is parallel to the cross section of the patient (or the contour plane) and the center of the board is at the midline of the patient.
5. If an angled contour is necessary the plotter board can be angled to match the contour angle. To do this loosen the rotation lock, adjust plotter board to angle, then tighten rotation lock.
6. With one hand grip the stylus with your thumb, index and middle fingers. Use the thumb of the other hand to push the plunger, which engages pen/pencil to the paper.
7. To contour, lower the stylus from the magnetic lock, until the tip of the stylus contacts the desired starting point. Guide the stylus tip around the patient maintaining a light contact between stylus tip and patient surface.
8. Do a complete contour without engaging the plunger, to make sure the plotter board is aligned to the line of the contour and to verify all of the contour will be on the paper.
9. To draw contour, engage the pen/pencil by pressing the plunger and guide the stylus tip around the patient maintaining a light contact with the patient surface.
10. The stylus arm is designed so that the arm may be rotated around a vertical axis to permit reversal of stylus travel direction to optimize contact between stylus tip and patient surface. This design maintains the stylus tip at a fixed point in space while rotated about the vertical axis so that no error is introduced.
11. Multiple contours can be done by moving the couch in/out or left/right.
12. After completing contour, move stylus up to magnetic lock. Move the contour plotter away from the couch before moving patient off couch.