



Expect Service

Radiation Products Design Inc

OPERATION AND SERVICE MANUAL

RPD INFORMATION

Address	5218 Barthel Industrial Drive Albertville, MN 55301
Website	www.rpdinc.com
Email	sales@rpddinc.com
Phone	763-497-2071 or 800-497-2071
Fax	763-497-2295

RPD PRODUCT INFORMATION

RPD is an authorized distributor

Item Number	Description
278-004	Thermoplastic Dry Warmer, 15.25" L x 15" W x 4.75" H
278-006	Thermoplastic Dry Warmer, 23" L x 31.125" W x 4.437" H

PL451 & PL451A Thermoprocessors

For Planet and Other Thermoplastic Material

Operation & Service Manual

Introduction

WARNING

increasing the temperature of these units beyond 230° F can result in burns to the user.

The S&S Par Scientific ParWarmer Thermoprocessor uses safe, dry heat to soften Planet thermoplastic material to its optimal elasticity. This eliminates liquid hazards and ensures maximum comfort during application to the patient. The dry-heat system meets today's need for universal precautions to reduce cross-contamination during patient care.

The ParWarmer PL451 heats large sheets of Planet thermoplastic material, as well as multiple U-type head frames. The sliding drawer opens fully to provide maximum access to the material.

The compact ParWarmer PL451A heats sheets up to 12x12 inches or one U-type frame. With its small shape and easy lift lid, the PL451A ideally meets the needs of departments that have limited space or that require head immobilization only.

Using the PL451 and PL451A

The digital display on the front of the **PL451 and 451A** warmers indicates heater element temperature; the actual surface temperature is slightly less. Warmers will be shipped to you preset to 200° F. This is the ideal setting for most thermoplastic heating. You may wish to raise the temperature when using heavy gauge materials or very large sheets. Both units are designed to cool off rapidly when opened, therefore for best results keep units closed except when inserting or removing thermoplastic material.

PL451: Small pieces up to a size of 12" x 12" can be placed directly on the mesh cover of the heating plate. Larger pieces, especially those without frames, are easier to lift off the heater if a second piece of mesh, cut slightly larger than the thermoplastic piece to be used, is placed on the heater at the same time. This second piece of mesh enables the user to lift the thermoplastic material, via the mesh, when properly softened and carry it to the patient without mis-shaping the material in transit. Hand test the material for comfortable temperature before placing on the patient.

PL451 and PL451A take approximately 15 minutes to preheat. Material can be placed in the heater during the preheat period. The heating duration for thermoplastics is between 5 and 20 minutes depending on the thickness and size of the material, whether or not it is framed, and the temperature the Planet warmer is set to.

Planet thermoplastic material is ready for use when it turns evenly translucent. When using framed material make sure that the area nearest the frame is thoroughly heated before lifting from the mesh.

The heater can safely be left on all day. Planet material can be left on the heating bed for hours without weakening or damaging the material. Although other thermoplastic materials have been successfully heated in these warmers, it is advisable to remove the material as soon as optimum softness has been achieved. If over-warmed, some types of thermoplastics may become gummy and too soft to successfully mold.

Adjusting the Thermoplastic Control

1. Press and hold SET button.
2. Press either the up or down arrow key until display shows the desired temperature.
3. Release the SET button to complete the change.

Product Dimensions

PL451	External Dimensions: Width – 31.125", Depth – 23", Height – 4.437" Easy slide drawer – holds up to an 18" x 24" sheet
PL451A	External Dimensions: Width – 15", Depth – 15.25", Height – 4.75" Easy lift lid – holds up to a 12" x 12" sheet

Limited Warranty

S&S Par Scientific Inc. warrants this product to be free of defects in materials and workmanship. This warranty extends to the original purchaser for the period of one year from date of shipping. The warranty is limited to rectifying such defects and/or replacing such defective parts, provided the part of the product is returned, shipping charges prepaid, to the S&S factory and it is found by S&S on inspection to be defective in material or workmanship.

The determination to repair or replace items covered by the warranty shall be the sole right of S&S.

Labor costs are not covered by the warranty except that needed to replace or repair defective components in a complete product returned to the S&S factory, freight charges prepaid. Such product will then be returned to the purchaser F.O.B. factory.

Parts and products that have been improperly installed, overloaded, abused, damaged, or altered in any way are not covered by the warranty. Other than the above-described warranty, S&S Par Scientific assumes no further liability with respect to the sale or use of its products.

Requests to return merchandise must be received by the Houston office of S&S within thirty days from the date of the S&S invoice. Prior written authorization by S&S is required before merchandise is returned. Returns are F.O.B. factory and must have the shipping charges prepaid. Merchandise is subject to inspection for salable condition and a minimum handling and restocking charge of 20% or \$25.00, whichever is higher.

PL451 and PL451A Wiring Diagram

Parts List	Part Number
Thermal Fuse 152C	20-20075
Heater 12" x 12"	21-20014
Heater 18" x 24"	21-20015
Sensor	21-20016
Control Unit	21-20017
Relay	21-30019

