

POWER⚡PLANE™



INSTRUCTION MANUAL

Congratulations on your purchase of the Great Planes® POWER PLANE™, the quickest and easiest way to remove wood and excess material from all your model airplane projects.

The Power Plane you have purchased is equipped with a spiral-blade rotary cutter. The depth of cut is easily adjustable from .01" – .03" [.25mm - .76mm]. You will find the instructions for adjusting and cutter replacement in this pamphlet.

Please read all the instructions and safety precautions before using your Power Plane for the first time, and be sure to practice on balsa scraps to familiarize yourself with its operation before using it on your model airplane.



P.O. Box 788 Urbana, IL 61803 (217) 398-8970

SAFETY PRECAUTIONS

KEEP OUT OF REACH OF CHILDREN. The exposed cutter can inflict severe injury, so keep this tool out of the reach of children, and never allow the cutter to contact any body part except when changing the cutter. The cutter is extremely sharp and does not need to “spin” to inflict injury.

DO NOT DISASSEMBLE. No part of the Power Plane should be disassembled, except for when servicing the cutter.

Always unplug the unit before servicing the cutter or adjusting the cutting depth, and whenever the unit is not in use. A shock hazard may exist if the unit is wet. Never use near water, in the rain, or while standing on a wet surface. Never carry the Power Plane by the cord or yank it from the receptacle.

FOR HOBBY USE ONLY. The Power Plane is made for normal, intermittent personal hobby use. It is not designed for continuous use, such as in a manufacturing operation. Do not push hard. When operating the Power Plane, apply just enough force to keep the unit cutting at a steady rate. This rate will vary depending on the type of material being cut.

USE SAFETY GLASSES AND OTHER SAFETY EQUIPMENT. Use safety goggles or safety glasses with side shields, complying with applicable safety standards and, when needed, a face shield. This applies to all persons in the work area. Do not wear loose clothing or jewelry. They can be caught in moving parts. Wear protective hair covering to contain long hair.

SECURE THE WORK. Use clamps to hold your work. It's safer than using your hands and it frees both hands to operate the tool.

AVOID UNINTENTIONAL STARTING. When positioning the unit, do not hold your fingers over the “POWER” switches.

CAUTION: If the Power Plane is dropped, the cutter may pick up debris or become deformed. Remove the cutter from the unit and insure the cutter is free of debris and dents. If the cutter is dented or deformed, replace it. Even a small dent may cause the unit to bind or cause the cutter to overheat. NEVER FILE OR RESHARPEN A DENTED OR DEFORMED CUTTING DRUM.

DANGER: KEEP FINGERS AWAY FROM CUTTING AREA. Keep fingers away from the cutter. Never hold the part being cut in the area the Power Plane will be used.

USE ONLY GENUINE GPM REPLACEMENT CUTTERS. Never substitute any cutter for the GPM cutting drum. Never use defective or incorrect cutter retainer screws. Follow cutter replacement procedures.

IF THE CUTTER BINDS OR MOTOR STALLS, RELEASE SWITCHES IMMEDIATELY.

SPECIFICATIONS

110/120 volts 60 Hz AC

Your Power Plane is designed to operate on standard household current. Lower voltage may cause loss of power and can result in overheating or reduced cutting effectiveness. Higher voltage may cause the unit to overheat and pose a fire hazard.

OPERATION



The Power Plane removes material by means of an electrically powered spiral-blade rotary cutter. The cutter

spins at high speed while effectively shaving the surface to the depth determined by the user. Both “power” buttons need to be depressed simultaneously for the Power Plane to operate. If this is your first time using the Power Plane, practice planing on scraps of 3/8" or 1/4" balsa sheet or balsa blocks until you are comfortable with the Power Plane’s operation. The tool may seem a bit awkward at first, but soon will become a workbench favorite. If you are having any difficulty using the Power Plane, read the “Troubleshooting” section and look for problems in technique or other areas that may be causing the problem.

Note: The Power Plane is designed to plane balsa wood. Using it on “soft hardwood” such as basswood may be successful if care is used. Do not attempt to use it on very hard wood such as birch, maple or oak.

Components of the Power Plane could be damaged by continuous use under strenuous cutting conditions. It should be allowed to cool for a few minutes after 10 minutes of continuous use on hard balsa, and longer if it’s being used on “soft hardwoods.”

ADJUSTMENT OF CUTTING DEPTH



Turning the depth adjustment knob clockwise will increase the cutting depth. The maximum depth of the Power Plane is .030" [.76mm].

Turning the depth adjustment knob counterclockwise will decrease the cutting depth.

Note: It is recommended to decrease the cutting depth when using the Power Plane on harder materials. This will increase the life of the cutting drum and help keep the Power Plane from overheating.

MAINTENANCE

Unplug the power cord from the power source before cleaning or changing the cutter.

IMPORTANT: The cutter drum shaft must be kept properly lubricated. Grease the shaft after every 40 minutes of running.

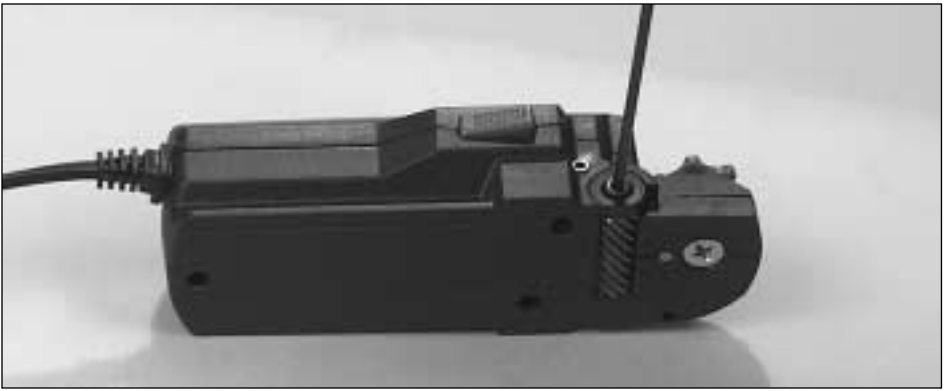
The motor and electronics are not user serviceable. Opening the unit for any reason may result in operational problems if not properly reassembled. If you do open the housing around the motor, do not under any circumstances plug in the power cord, as this would be a dangerous shock and fire hazard.

The internal fan creates a positive pressure inside the housing to aid in motor cooling and to prevent excessive sawdust from entering the unit. After approximately 2 hours of use, it is advised to blow compressed air into the unit (through the louvers) to dislodge sawdust from the electric motor. You may want to remove the cutter drum and blow out the cutter slot as well.

Wipe the outside of the unit clean with a soft, dry cloth. Do not use water or any solvents or cleaning sprays.

HOW TO CHANGE OR REMOVE THE CUTTER

It will be necessary to access the cutter periodically, to replace it, or clean out the cutter slot. Use the following sequence:



1. Remove the black cutter retaining screw, washer and cutter cover using a 3mm hex wrench. The cutter retainer screw is located on the lower right side of the planer near the front.



2. Gently and carefully lift the cutting drum straight off the cutter shaft and out of the planer body. The bronze gear on the cutter drum is part of the assembly and not removable. There are washers between the cutter and case. **Do not lose these washers!** They must be reinstalled with the new cutter drum.

3. Wrap the old cutter drum in multiple layers of tape and dispose of it.

4. **IMPORTANT:** Generously lubricate the cutter shaft using a thick, lithium base grease prior to installation. Follow steps 1 and 2 in reverse to install a new cutter. Please be very careful with a new cutter. The spiral-cut blades are very sharp.

TROUBLESHOOTING

Problem: The unit fails to operate when plugged into an outlet and the power buttons are pressed.

Action: Ensure that you are pressing both power buttons simultaneously. Plug some other appliance into the same outlet to see if there is power. If there is power, but the unit fails to operate, unplug immediately and call Hobby Services at (217) 398-8970 to arrange for a replacement. Do not attempt to service the electrical portion of the unit yourself.

Problem: Cutting is slow and difficult.

Reason #1: The cutter may be getting dull. The cutter is made of mild steel and the spiral blades should remain sharp for many cuts, but it will eventually become dull, especially if used on harder materials.

Action: Purchase and install new cutter (GPMR4040).

Reason #2: The material you are attempting to cut is too hard. The Power Plane was designed and tested for use on balsa, basswood, poplar, foam and other soft and medium soft materials. It is not to be used on birch, maple, oak or other hardwoods.

Action: Evaluate the hardness of the material. If too hard, discontinue use.

Reason #3: The cutter shaft may need to be lubricated.

Action: Grease the cutter shaft.

Problem: The unit gives off the odor of wood smoke.

Reason: There may be an excessive amount of sawdust inside the housing or trapped in the cutter slot, and this may be smoldering.

Action: This is a potential fire hazard! Unplug the unit and take it outdoors immediately. Stay outside with the unit until there is no more odor. Remove the cutter and use compressed air to blow out all sawdust.

Problem: The motor runs, but the cutter does not cut when pressed into balsa.

Reason #1: Insure the cutting depth is properly adjusted.

Action: Turn the adjustment knob clockwise to increase the cutting depth.

Reason #2: This may be an internal problem that is not user serviceable.

Action: Call Hobby Services to arrange for repairs. (217) 398-8970. 1-YEAR LIMITED WARRANTY – *U.S.A and Canada Only.

WARRANTY

Great Planes warrants this product to be free from defects in materials and workmanship for a period of one (1) year from the date of purchase. During that period, Great Planes will, at its option, repair or replace without service charge any product deemed defective due to those

causes. You will be required to provide proof of purchase (invoice or receipt). This warranty does not cover damage caused by abuse, misuse, alteration or accident. If there is damage stemming from these causes within the stated warranty period, Great Planes will, at its option, repair or replace it for a service charge not greater than 50% of its then current retail list price. Be sure to include your daytime telephone number in case we need to contact you about your repair. This warranty gives you specific rights. You may also have other rights, which vary from state to state. *For warranty and service information if purchased outside the USA or Canada, see the additional warranty information insert (if applicable) or ask your retailer for more information.

PURCHASING REPLACEMENT BLADES

Individual replacement cutters are available at your favorite hobby retailer.

Power Plane Replacement Cutter (GPMR4040)

CONTACTING GREAT PLANES

If you have any questions regarding the Great Planes POWER PLANE, please call us at (217) 398-8970 or e-mail us at productsupport@greatplanes.com and we'll be glad to help.

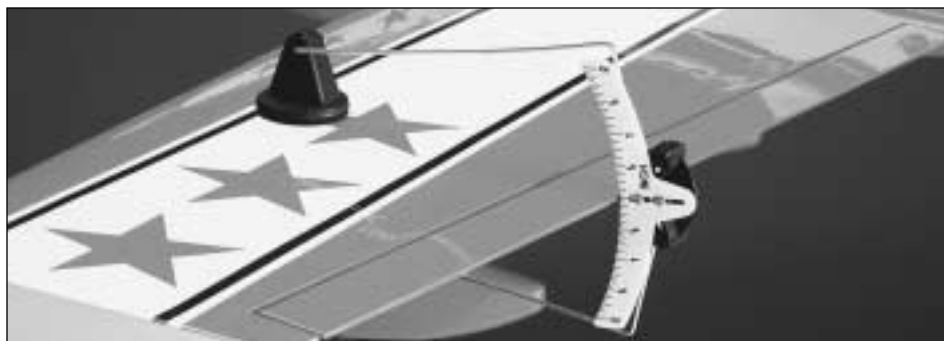
OTHER ACCESSORIES AVAILABLE FROM GREAT PLANES



Great Planes C.G. Machine™ Precision Aircraft Balancer

Accurate balancing makes trainers more stable, low-wings more agile, and pylon planes move at maximum speed. The innovative C.G.

Machine helps you achieve optimum balance easily, without measuring or marking—and without the errors that fingertip balancing can cause. You'll quickly pinpoint your plane's exact center of gravity. Then you'll know at a glance whether weight should be added, removed or relocated. The C.G. Machine works with kits and ARF models of any size and wingspan. Its slanted wire balancing posts support models weighing up to 40 pounds. **GPMR2400**



Great Planes Accu-Throw™ Control Surface Deflection Meter

One leading cause of crashes is flying an airplane with its control throws set differently from those recommended in the instructions. The Great Planes AccuThrow lets you

quickly and easily measure actual throws first, so you can make necessary corrections before you fly. Large, no-slip rubber feet provide a firm grip on covered surfaces without denting or marring the finish. Spring tension holds Accu-Throw's plastic ruler steady by each control surface. Curved to match control motions, the ruler provides exact readings in both standard or metric measurements.

GPMR2405



Great Planes Slot Machine™ Motorized Hinge Slotting Tool

You probably dread cutting hinge slots...for one project, the job can take over an hour! With the electric-powered Slot Machine, you'll safely and easily cut all of your kit's hinge slots in only about 10 minutes. The sawing action of its two blades cuts through wood — even hard spots — without gouging or compressing it like knife blades do. The result is a clean, consistent slot with room for CA to wick all around and form a dependable bond. The Slot Machine comes fully assembled with two preinstalled, replaceable blades and a rugged plastic body. U.S. Pat. 6,096,357. **GPMR4010**