Maintenance

- Always unplug the unit when cleaning. We recommend draining any remaining coolant and rinsing out the reservoir of the work surface.
- NEVER allow the yellow motor unit to get wet or immerse it in water. Use a vacuum to remove any debris from the bottom air vents on the unit.
- Always secure the arbor to the flat side of the motor shaft. Failure to do so can scar the shaft and prevent its removal. If burrs or nicks have formed, polish up the motor shaft. Remove the arbor and laps. Hold a piece of 0000 (or finer) steel wool up to the motor shaft while the unit is running. Work down the imperfections and then wipe the shaft clean and apply a thin coating of Inland MotorShaft Lubricant, no. 50028 or petroleum jelly.
- Removing the laps and arbor after use will prevent them from seizing.
- Check the power cord periodically for cuts or damage.
- Check all coolant lines and tubes to see that they are not clogged.

Product Specifications

Convertible Motor Unit
Variable Speed Motor Unit
Permanent Magnet DC motor, rectified for AC outlets
Max Torque: 48 oz-in / Max RPM: 2800
Shaft OD: .312″ (5/16″) Stainless Steel
Available in 115V or 230/240V models

Flat Lap Machine
Work Surface: 10” x 11″
Height: 7″
Maximum Lap Diameter: 8″

Two Year Full Confidence Warranty

Parts and Accessories

Diamond Laps: Our 6″ and 8″ laps are require use of a master lap and are available in 60, 100, 170, 275, 325, 600, 1200, and 3000 grit diamond. They have a 1/2″ arbor hole for affixing to the master lap.

Master Lap: 6″ or 8″ acrylic blank for added stability. Use a single master lap with any number of same size diamond laps interchangeably or set up each lap with its own.

Polishing Products: Inland offers a range of polishing products and media. 6″ or 8″ durable wool felt pads that accept most polishing media. Polishing Powder is a specially ground cerium oxide for a high polish and great for glass. Assorted grits of highly graded diamond suspended in a latex base for consistent dispersal. **Trim Saw Conversion Kit, no. 10675:** Convert the SwapTop Grinder / Shaper into a wet operating trim saw with a 6 ½″ diamond blade. Inland no. 10675.

Grinder / Shaper Conversion Kit, no. 10655: Converts any SwapTop™ Table Saw into a diamond grinder / shaper.

Service

So that we can offer you the highest level of service possible, please take a moment to register your product by going to www.inlandcraft.com or mailing in the registration card.

Questions about your machine can be answered by visiting the Inland Craft web site at www.inlandcraft.com, watching our online videos at www.inlandcraft.com/videos, by emailing Customer Service at helpdesk@inlandcraft.com or by calling Inland Customer Service at 1-800-521-8428 Monday through Friday, 9:00 am to 5:00 PM ET.

Inland Craft Products, Co.
32052 Edward Drive
Madison Heights MI 48071
www.inlandcraft.com

Rev No. 10 Stock No. 69861680

SwapTop™ Flat Lap Machines

Users Guide

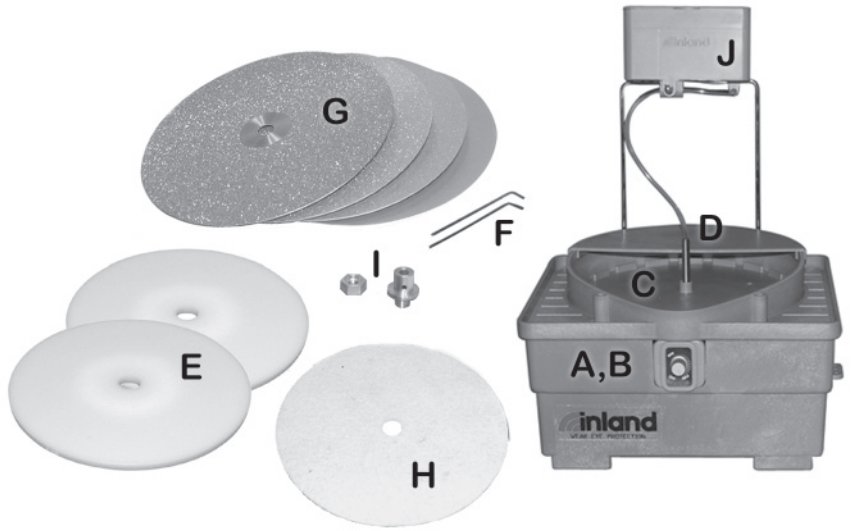
Thank you for buying this Inland product. Please read all the instructions to understand the correct components, set up, and use of your machine.

Safety

- Always wear safety glasses or goggles.
- Plug into a grounded electrical system. Do Not override the grounding system.
- Always unplug your machine when switching between set-ups, installing laps, and making adjustments.
- Place on a sturdy, level, water tolerant surface at a comfortable working height.
- Never operate with guard covers and safety features removed or disabled.

Parts List

Use the chart and picture to verify you have the parts needed for your model.



	Name	Qty	10680	10880	10685	10885
A	Machine Base	1	yes	yes	no	no
B	Motor Unit (shown installed)	1	yes	yes	no	no
C	Removable Reservoir	1	yes	yes	yes	yes
D	Drip Guide / Cover	1	yes	yes	yes	yes
E	Master Lap	2	6″	8″	6″	8″
F	5/64” Allen Wrench	2	yes	yes	6”	8”
G	Diamond Laps	4	6″	8″	yes	yes
H	Polishing Pad	1	6″	8″	6″	8″
I	Brass Arbor & Nut	1	yes	yes	yes	yes
J	WaterDrip Kit (shown installed)	1	yes	yes	yes	yes
	Drain Tubing (not shown)	1	yes	yes	yes	yes
	14,000 Grit Diamond Cmpd (not shown)	1	yes	yes	yes	yes

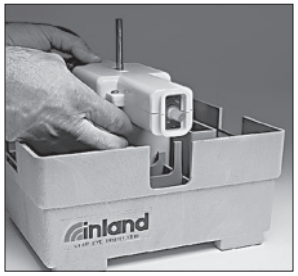
Swapping the Tops

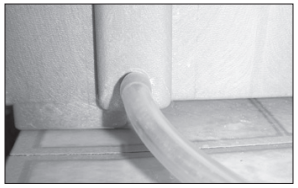
1. Unplug the machine.
2. Turn off and disconnect the water feed from the disc cover.
3. Remove all laps and discs installed.
4. Drain any coolant from the reservoir and wipe dry.
5. Push in on the spring loaded latches to release the top from the base and then lift straight up to remove.
6. Follow the instructions provided in the conversion kit to install it on to the base.

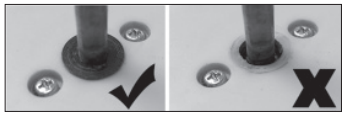
Setting Up the Flat Lap

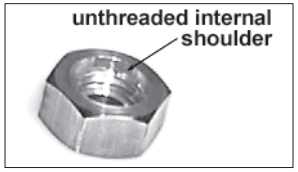
1. If your machine is set up for sawing, remove the entire table saw top, blade and blade arbor. You should have just the open base with yellow motor unit. If your machine was set up as a grinder / shaper remove the splashguard, sponge, and diamond grinding head and go to step 3.
2. Position the yellow motor unit in the base with the motor shaft vertical. Press down on the unit slowly, yet firmly until you feel it seat into the base.

   NOTE: There is a brown disk friction-fitted to the motor shaft called a “slinger". It must be in place and stay fixed to the motor shaft. Its purpose is to spin away stray drips of water or condensation from the motor workings



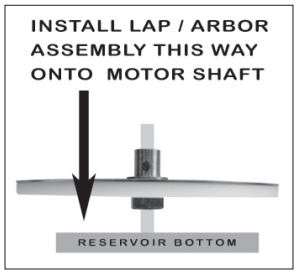






3. Install the reservoir. Make sure the spring loaded latches on each side snap into place. You should be able to lift the entire unit by the top.
4. Set up WaterDrip AddOn Kit following the instructions included with it.
5. Connect the overflow drain hose to the outlet on the bottom rear of the base. Place the end in an appropriate receptacle (not provided) to collect the overflow as the reservoir fills with water.
6. Flat laps are mounted with the brass nut and arbor. Position the diamond lap onto the arbor, add the acrylic master lap next, and then the nut is mounted with the unthreaded internal shoulder facing away from the master lap. Make sure the diamond lap and master lap are properly centered and then tighten the nut.

7. The arbor is then placed onto the motor shaft with the diamond surface on top. Lower until it hits the bottom and then raise it up 1 - 2 mm to prevent the arbor from wearing away the motor shaft tube. Secure in place with the 5/64″ allen wrench by tightening the screw against the flat part of the motor shaft.



NOTE: Failure to ensure that the arbor is (and remains) raised will wear away the motor shaft tube, which will allow water to enter and damage the motor.

8. The drip guide / cover is set in place and then plug the coolant feed hose in to the nipple of drip guide.
9. Your machine has a built in speed control unit controlled by the on / off switch found on the front of the machine. Plug the motor unit cord into an appropriate grounded wall outlet.

Grinding with the Flat Lap

1. Your machine can run 6″ or 8″ laps, or both. If you started with a 6″ machine, you can purchase and then use 8″ laps, or vice versa.
2. Never grind any material without water cooling on the diamond tool. This will keep down dust and debris, and maximize the life of your diamond laps. A water-soluble cutting additive, such as Inland’s Diamond Coolant™, no. 50011can be added if you wish.
3. The lap height SHOULD BE below the splash walls for normal use, but you can move it above the splash walls for occasional needs where the item being ground is larger than the space inside the splash walls.
4. Open the metal drip control screw just a little bit, perhaps a quarter turn. You only need a drop of water every second or two to keep the diamond tools clean and cool. However, using “too much” water will not harm a thing. If you are using a plastic tray instead (or additionally) watch it for excess liquids also.
5. Turn the speed control knob to about 3 o’clock to start grinding. ***NOTE:*** The machine will pulse at levels which are too slow for proper diamond tooling and using diamond tooling at these low speeds will cause the diamonds to wear out much more quickly.
6. For softer materials, that halfway mark might be as fast as you ever go. With harder materials, large stock removal, and more experienced “hands”, you can experiment with faster motor speeds. If you increase motor speed, you must also make sure that you are supplying enough water to the diamond tools. If powder is ever noticeable, you should increase the water supply immediately.
7. To get the most out of your diamond laps, remember to utilize the entire surface when grinding. For example, you can go right up to the outside edge of the lap when you are grinding the outside diameter of a cabochon. Because of the higher surface speed on the outside of the lap, you can more quickly shape the outside edge of a cabochon. Alternately, softer materials like silicates (glass), would fare well utilizing the slower surface speeds of the inner “edge” of the diamond laps.

Speed Control Motor Feature

The integrated speed control feature on the front of the motor allows you to adjust the lap speed. As a general rule, grind at slow speeds and polish at faster speeds. When using the 8” machine we strongly advise you not go beyond 3/4 speed as you just eat up the material you are trying to “gently” remove.