

- Adjust the flow of coolant onto the blade by slowly turning the coolant flow adjustment screw. Coolant flow rate should be about one drop of coolant every 4-5 seconds. Water should not flow excessively. Increase the water flow rate ONLY if a dry powder forms on the tip of the material you are sawing.
- Turn on the saw. The black control knob is located on the left side of the saw. The saw has a variable speed motor. You need to turn the knob slowly until you reach your desired sawing speed. It is not necessary to run your saw at full speed to achieve maximum cutting ability. In fact running the saw at full speed on a continual basis places extra stress on the blade and does not increase its cutting ability.
- With the saw now running, place the coral (or rock) to be cut on the work table in front of the blade. Using light pressure, guide the piece into the blade. It is important not to force or push anything into the diamond blade. Once you have the right feel, the blade will seem like it is pulling material into it. Pushing into the blade will not increase cutting speed and is more likely to bog it down. Use the speed control to adjust the sawing speed to the material being cut and intricacy involved. The tighter the cut, the slower the speed needed to maintain control and not twist the blade.
- Your blade will last longer if you do not let the motor run idly. The continuous bending and unbending that the metal experiences as it moves over the wheels causes the blade to work harden and become brittle over time. A properly used blade will often fail from this work hardening before the diamonds wear out. To maximize the value of your blade, make sure you are using the diamonds every time you make that metal bend and unbend.
- Shut off the coolant flow after use. Frequently check the reservoir level while sawing and fill as needed

## Maintenance

Maintenance to your saw is minimal but important to prolonging the life and performance of the machine.

- Saw Frame:** After each use rinse the interior of the saw with clean, fresh (no salt) water.
- The Motor:** The unit is sealed and requires no internal maintenance. Make sure to keep the entire unit clean and dry.
- Upper Drive Wheel:** Greasing the Upper Wheel bearings liberally with petroleum jelly at least every 5 hours of use will help keep salt out of the needle bearings. Do this by first emptying the coolant reservoir if need be. Tilt the saw backward at a 45° angle, and apply a generous amount of petroleum jelly to the bearing area.
- BladeSert Blade Guide:** The BladeSert will wear with saw use. The slot that the blade passes through will widen over time. Check the BladeSert for wear each time you use the saw and immediately replace when it begins to show signs of widening and wear. You can use the "X" behind the slot as a wear guide. Refer to the BladeSert Section.
- Leather Wiper:** As the end wears, reposition it, referring to Leather Wiper Section for proper placement.
- Work Table:** Periodically rinse the table with clean fresh water (no salt) to remove accumulated cutting residue.
- Large Drain Hose:** Periodically remove and rinse the drain hose and the fitting with clean, fresh water (no salt) to remove cutting residue and keep it free flowing.

## Replacement Parts

Part Name	Inland no.	Part Name	Inland no.	Part Name	Inland no.
DiamondCut Blade™	90007	Tension Block	65809116	Motor Unit - 115V	65839110
BladeSert™	90022	Upper Wheel Arbor	65809002	Speed Controller - 115V	95846020
Molded Work Table	90033	Upper Wheel w/ Bearing	65809001	Leather Wiper	90014
Blade Drip Guide	90016				

## Service

The DFS-100™ ReefKeeper™ Band Saw is covered by a 90 Day Warranty. This warranty is granted by INLAND CRAFT PRODUCTS, CO. for 90 days from the original date of purchase. If your Inland machine fails under appropriate use during the warranty period, Inland Craft will repair or replace it at our discretion. If you feel that this product is not performing properly and needs to be serviced, contact INLAND CRAFT help desk for a Return Authorization Number.

For questions or comments regarding the use of this or any Inland product, visit our website at [www.inlandcraft.com](http://www.inlandcraft.com); email us at [helpdesk@inlandcraft.com](mailto:helpdesk@inlandcraft.com); call Inland Customer Service at 1-800-521-8428 from 9 AM to 5 PM ET or write:

### Inland Craft Products

32052 Edward Drive  
Madison Heights MI 48071



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## DFS-100 ReefKeeper™ Saw

### User Guide

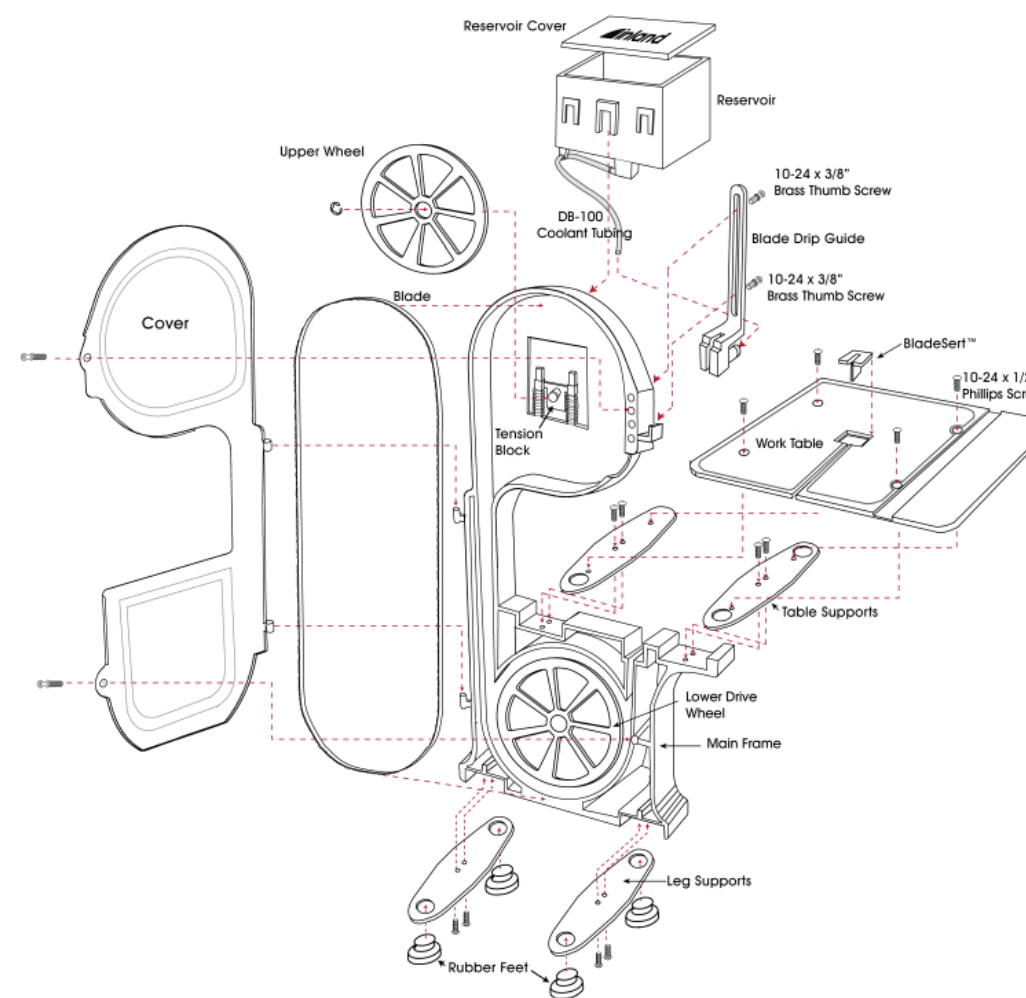
Thank you for buying this Inland product. The DFS-100 ReefKeeper saw is designed for fraggings corals. You will find it works well with both large polyp and small polyp stony corals, zooanthids, mushrooms, soft corals and live rock too. You will find that the blade tends to slice through soft tissue rather than crushing it like scissors, nippers, and shears, thus aiding in the recovery process. Please read all the instructions for set up and use of your DFS-100.

## Safety

- It is extremely important to wear proper eye protection and rubber gloves** as some corals, especially zooanthids, are toxic! We highly recommend that you wear safety goggles rather than safety glasses.
- DO NOT wear loose clothing or any accessories (long necklaces, bracelets, shirts with long fringes, and similar) that might get caught by the saw during operation.
- Use only in a properly grounded and tested outlet. Under NO circumstances should you override the grounding system or modify the plug.
- Set up your machine on a sturdy, level work surface that is water tolerant and at a comfortable height.

## Parts and Assembly

Check to make sure that you have all the parts listed before beginning assembly. Assembly will take about 5 minutes and only requires a Phillips screwdriver. Use the exploded drawing below to reference parts and their placement during the assembly process.



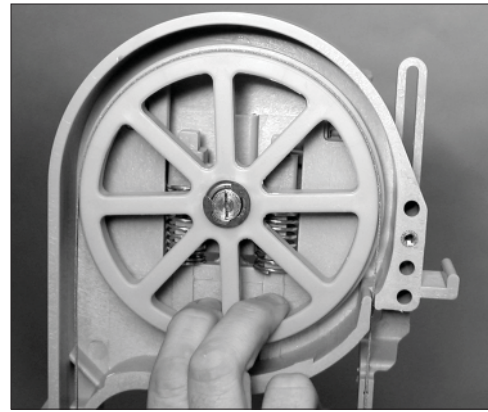
### Qty-Part No. / Part Name

- 1-90007 **DiamondCut™ Blade**
- 1-65829119 **Band Saw Drain Hose**
- 1-65809114 **Coolant Reservoir**
- 1-65809118 **Coolant Reservoir Cover**
- 1-65829184 **Band Saw Coolant Tubing**
- 4-65829173 **10-24 x 1/2" Nylon Screw**
- 1-90033 **Molded Work Table**
- 2-90022 **BladeSert™**
- 1-90016 **Blade Drip Guide**
- 1-78824055 **5/64" Long Arm Allen Wrench**
- 3-65829114 **10-24 3/4" Nylon Thumb Screw**
- 1-90014 **Leather Blade Wiper**

## Installing the Blade

When setting the saw up the first time, follow the instructions as outlined below.

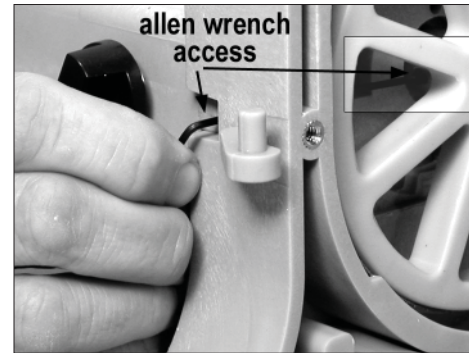
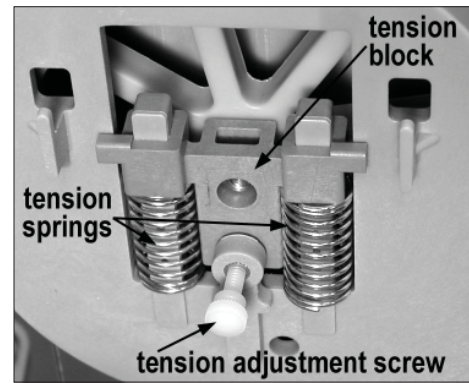
1. Open the front cover. Position the diamond blade around the lower wheel and into the right and left guide channels with the diamond surface facing the saw front. DO NOT bend or twist the blade at any time during installation or use.
2. Use one hand to grasp the bottom of the upper wheel between two spokes and gently pull the bottom of the wheel towards you (approximately 3/8" - you should feel it move easily initially and then "hit" and not want to go further without forcing), then pull the wheel down enough to place the blade around the upper wheel using your other hand.
3. Slowly release the wheel, making sure the blade remains on both wheels and passes through the right and left channels.
4. Tracking, the position of the blade on the wheels, is controlled by adjusting the tilt of the upper wheel. Check the tracking by rotating the lower drive wheel several revolutions by hand while watching the position of the blade on the wheels. The blade should remain centered on both wheels. If the blade isn't centered or comes off either wheel, you will need to adjust the tracking and alignment as outlined in the next section. If the blade rides centered on the wheels skip to Installing the Work Table.



## Adjusting Blade Tracking and Alignment

The wheels are factory aligned so that the position of the blade is controlled by adjusting the upper wheel tilt. On the back of the upper housing is the tension device with a nylon tilt adjustment screw in the middle. Be aware that any changes made to the blade position on the upper wheel will have the opposite effect on the blade's position on the lower wheel. Read through the possible problems below to find the one that best describes what is happening when you hand turned the wheel and follow the instructions for fixing it. Make all adjustments in small increments.

1. **If the blade "walks" off the front of the upper wheel:** Tilt the top of the upper wheel backward by turning the nylon tilt adjustment screw to the right (clockwise). Make 1/2 turn adjustments and test the effect on tracking by hand turning the lower wheel. Repeat as necessary until the blade remains in the correct position.
2. **If the blade "walks" to the back of the upper wheel:** Tilt the top of the upper wheel forward by turning the nylon tilt adjustment screw to the left (counter-clockwise). Make 1/2 turn adjustments and test the effect on tracking by hand turning the lower wheel. Repeat as necessary until the blade remains in the correct position.
3. **If the blade "walks" off the lower wheel:** This indicates that the upper and lower wheels are not in alignment with each other. The lower (fixed) wheel is closer to the back of the frame than the upper (adjustable) wheel. The lower wheel should be 1/2" from the inside of the frame. You can check this with a ruler or scale. The lower wheel can be moved in or out by inserting the 5/64" long arm Allen wrench through the hole in the lower left side of the saw's frame and loosening the set screw on the brass arbor. Move the wheel to the correct position, check with the ruler or scale, and secure the set screw.



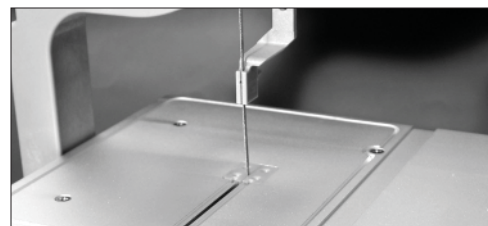
## Blade Tension

Proper blade tension is important for cutting ease and obtaining maximum blade life. The tension springs lessen the stress that twists and pulls put on the blade to maximize blade life. All Inland saws have tension springs preset for a blade 37.7" in circumference (+ or - .005") - the exact dimension of Inland brand blades. If you use an Inland blade you should never have problems with tension. Some competitors make blades that are only 37.2" and so will have too much tension on them which could shorten blade life. *We highly recommend the use of Inland brand blades for all Inland brand saws.* We are the only saw manufacturer that manufactures its own diamond products making our diamond blades significantly less expensive and designed to give you the best performance.

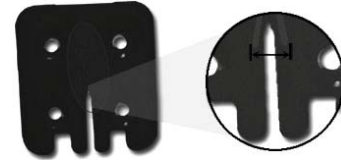
## Installing the Work Table and BladeSert™

Place the molded table on the table supports with the split facing the front of the saw. Use a flat blade screw driver to attach the table using the four (4) 10-24 1/2" Nylon Screws. Take care not to over tighten.

Place the BladeSert into the work surface making sure the blade passes through the slot and the split faces the saw front. Our patented BladeSert eliminates the need for upper blade guides by providing blade support where it is most crucial: at the point of sawing.



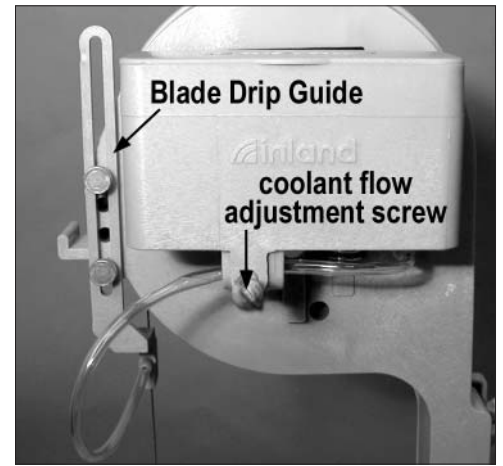
**IMPORTANT NOTE:** The BladeSert will wear with saw use and the slot that the blade passes through will widen over time. How fast this happens depends on use and your sawing style. Using a worn BladeSert allows for excess play in the blade and the blade becomes more likely to break. Check the BladeSert for wear each time you use the saw and replace the when it begins to show signs of widening and wear. You can use the "X" behind the slot as a wear guide; when the slot has worn out beyond the reach of the legs of the "X" (enhanced detail) replace it. It is also a good practice to use a new BladeSert whenever you install a new blade.



## Installing the Coolant Reservoir and Blade Drip Guide

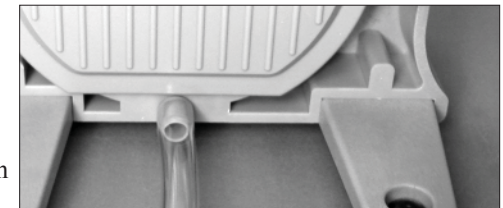
The Coolant Reservoir and Blade Drip Guide must be installed when using a diamond saw blade to supply coolant to the blade. Using coolant with a diamond blade is imperative to maintaining the cutting ability and life of the blade.

1. Attach one end of the small diameter Band Saw Coolant Tubing to the stem on the underside of the coolant reservoir. **NOTE:** Soaking the tubing in warm water makes it easier to insert onto the stem. Feed the other end through the tunnel that runs through the middle of the coolant flow adjustment nest on the reservoir underside and pull most of the tubing through.
2. Screw a 10-24 x 3/4" Nylon Thumb Screw, which serves as the coolant flow adjustment, into the brass threading on the front. Turn until it just holds in place.
3. Install the Coolant Reservoir by sliding it onto the supports located on the back of the saw, just above the tension unit. Put the Coolant Reservoir Cover in place.
4. Install the Blade Drip Guide by placing it against the upper back of the frame with the blade passing through the vertical slot in the holder front. Secure in place using the two (2) 10-24 x 3/4" Nylon Thumb Screws. The guide is adjusted by loosening the screws and sliding the guide up or down as needed.
5. Attach the other end of the Band Saw Coolant Tubing to the stem on the back of the Blade Drip Guide. **NOTE:** Soaking the tubing in warm water makes it easier to insert onto the stem.



## Installing the Drain Hose

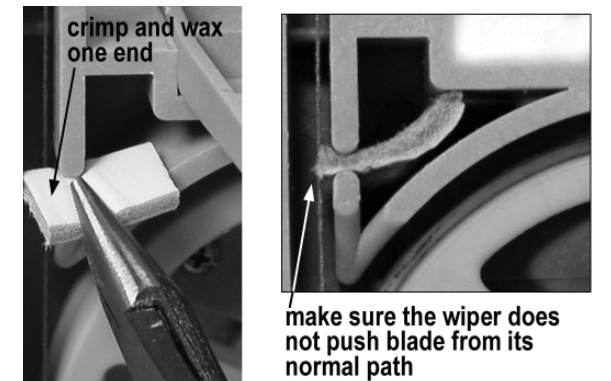
When using a diamond blade, the Band Saw Drain Hose must be installed. This is the large diameter plastic tube (about 48" long). Straighten the hose before using by soaking it in warm water a few minutes and then pull it to remove any kinks. Slide the Drain Hose onto the large stem located at the bottom front of the saw. Put the opposite end of the hose into a collection container (not included) placed below the saw. Position the saw to the front edge of your work bench with the Drain Hose laying flat and extending straight out and then down off the work bench into the collection container. **NOTE:** Periodically remove the hose and flush out any cutting residue to keep it working correctly.



## Optional Leather Wiper

The leather wiper functions to help reduce the amount of over spray that might be carried from the blade to the upper wheel chamber. To install:

1. Use a pair of pliers to compress one end of the leather wiper, clamping down hard.
2. Apply a small amount of candle wax to the crimped end.
3. Use your pliers to push the crimped end into the slot so that the edge of the leather just brushes against the blade. Make sure the wiper does not push the blade out of its normal path.



Corrosion brought on by salt is the #1 threat to your band saw. Use clean RO/DI water in the saw for coolant. Use clean fresh water on your saw for clean up. The amount of water present and the amount of time that it makes contact with the coral will not harm the animal. In fact, casual evidence suggests that fresh water may even be an advantage as it will help osmotically to destroy bacteria and other microorganisms.

## Using the Diamond Blade

1. Make sure that the coolant flow adjustment screw on the back of the reservoir is closed shut and then fill the reservoir with water.
2. Plug the saw into a grounded electrical outlet.
3. Make sure you have proper eye protection on before operating the saw.