Before You Begin

Read and follow all instructions carefully.

⚠️ WARNING: CHOKING HAZARD: Small parts. Keep out of reach of children under 3 years of age.

- After unpacking all components, assemble band saw on a firm level surface to prevent saw from tilting and rocking.
- Be sure the power switch is in the OFF position before plugging in the band saw.
- Always disconnect band saw from electrical outlet before setting up or servicing.
- Wear proper apparel. Never wear loose fitting clothes, neckties, jewelry and gloves that may get caught in moving parts.
- Remove all wrenches before using band saw. Leaving wrenches attached while operating this tool may result in damage to the machine and/or operator.
- Always wear safety goggles. Everyday eye glasses have only impact resistant lenses; they are not safety glasses.
- Never turn on band saw while glass or working materials are touching the blade.
- Always hold material being cut firmly against cutting table.
- Feed materials at a slow easy pace into the blade. Avoid sudden twisting of the blade, which may cause kinking or breaking.
- Keep out of reach of children.
- Never leave saw running unattended. Turn power OFF when not in use.
- Do not operate while under the influence of medication or alcohol.
- To ensure top performance keep band saw properly maintained.

Contents

Your Diamond Laser 3000-XL™ has been shipped partially assembled. Carefully remove saw and parts from the packaging.

1- Band Saw Body
2- Cutting Table
3- "Ultra Plus" Filtration Reservoir
4- Recirculating water pump and valve
5- Straight Edge/Angle Cutting Guide
6- Adjusting Wrenches
7- Extra Diamond Laser Band Saw Blade
8- Extra blade guides

Assembly Instructions

A. Power Cord

The DL3000-XL power cord is securely stowed within the body of the saw.

1) To retrieve the power cord, loosen the knob on the front panel of the saw and open the cover.
2) The front panel will swing open to reveal the cord wrapped around two metal prongs.
3) Carefully remove cord and plug into an electrical outlet.
4) Return power cord to the body of the saw when storing the saw for any extended period of time (Fig.0).

B. Table Installation

1) Remove table mounting bolt and washers from the mounting block positioned directly behind the blade.
Loosen and remove the table alignment screw located on the front of the cutting table blade slot (Fig.2).

2) Place the table with the slot opening facing forward, directly behind the blade and carefully slide the diamond blade through the slot.

3) Secure cutting table to the mounting block with the table mounting bolt. Return alignment screw to the front of the cutting table and tighten.

C. Blade Installation

*Blade comes pre-installed, however should it become loose in shipment or you need to replace a blade, follow these instructions.*

1) Turn power OFF and unplug it from the outlet. Open the band saw cover by loosening the knob on the front of the saw.

2) For ease of blade installation and adjustments, remove the lower wheel water basin.

3) Loosen top wheel securing knob, located at the rear of the band saw (Fig.3).

4) Turn blade tensioning knob at the top of the saw counter-clockwise (Fig.4). This will lower the upper wheel and allow the blade to loosen. It is not necessary to completely compress the upper wheel.

5) Remove worn blade. To install a new blade center it on the lower blade wheel first (Fig.5), then center it on the upper blade wheel. If upper blade wheel is too high, lower by turning the blade tension knob counter-clockwise (Fig.4).

6) Blade should fit between the brass guides located on the upper guide block and middle groove of the lower blade guide. *(See Blade Guide Adjustment, page 4)*

7) Tighten blade by turning blade tensioning knob, at the top of the saw clockwise.

8) Once the blade is properly installed, retighten the wheel securing knob, located at the rear of the band saw (Fig.3). It may be necessary to loosen mounting bolt (Fig.1) and adjust table position to re-center blade in the table opening.

D. Water Systems

*The DL3000-XL comes equipped with a durable recirculating water pump with an “ultra-plus” filtration system to keep your machine running clean.*

1) Place the “Ultra Plus” filtration reservoir on a solid level work surface, flat-side facing forward.

2) Insert pump valve into the top of the water pump. Place pump in the left rear compartment of the reservoir (Fig.6).

3) Place the saw body on top of the reservoir, with front sides flush.

4) Connect the plastic tubing located on the back of the saw to the pump valve. Plug pump’s electrical connector into the outlet adjacent to the fuse on the left side of the band saw body (Fig.7).

5) Fill the reservoir with 2” (approximately 3 quarts) of water before use.

6) Test pump and water flow by turning on the band saw at a slow speed and watching for bubbles in the hose. Water should begin to flow freely from the water nozzle mounted on the upper blade guide block assembly.

7) If large pockets of air appear in the hose line, this may stop the flow of water to the blade. Should this occur, turn the saw OFF. Remove hose from pump nozzle, without removing...
pump from water and let hose drain. Reattach hose and start saw again. Small air bubbles may persist in the line, but these will not interfere with sufficient water flow to the blade.

8) Water flow should be directed at the front of the blade. To adjust, loosen the set screw on the side of the block, rotate nozzle into a proper position and secure in place by tightening the set screw (Fig.8).

**WARNING:** Never operate saw if there is insufficient water at the point of cutting, as this will cause damage to the blade.

### E. Built-In Target Light


1) Using your thumbs, slide battery door and lift the mounting case (Fig.9).
2) Install 3 AA batteries. Return battery pack to the mounting case.
3) Turn ON switch located on battery case to operate light.

### F. Straight Edge/Angle Guide

1) For easy installation place guide in groove located on cutting table. Adjust guide location by removing the adjusting screw and moving guide to the various slots on the table top (Fig.10).

### Band Saw Use and Maintenance

#### A. Drive Belt Tension Adjustment and Replacement

**Drive Belt Tension Adjustment**

*A loose drive belt may result in a noticeable loss of power to the blade wheels.*

1) To tighten the drive belt, turn off saw and unplug the saw from the outlet.
2) Remove cutting table by loosening and removing mounting bolt and washer.
3) Remove all screws securing the top and rear panels encasing the motor (Fig.11).
4) Loosen both motor mount bolts using a large hex wrench (Fig.12).
5) Press the motor downward to desired belt tension and secure into position by retightening the motor mount bolts. There should be moderate give in the belt tension (1/4" flex top and bottom).

**WARNING:** Do not overtighten belt. Overtightening the drive belt will slow the motor down and damage the motor. A loose belt will not turn the blade wheels properly.

**Drive Belt Replacement**

1) To replace the drive belt, turn off saw and unplug from the outlet.
2) Remove cutting table by loosening and removing mounting bolt and washer.
3) Remove all screws securing the top and rear panel encasing the motor.
4) Remove water basin and lay saw face down on a flat surface. Remove left center screw and hold the motor plate into position.
Slightly loosen right motor mount screw (Fig.13).
5) Pivot motor slightly to the right, drive belt will loosen and can be easily pulled off the motor and pulley wheel.
6) Replace drive belt by first wrapping it around the motor pulley. Then holding the belt over the blade pulley wheel, rotate it to the right coaxing the belt onto the pulley wheel from the bottom up (Fig.14).
7) Replace and tighten motor mount plate screws and adjust belt tension as needed.
8) Return the top and rear panels encasing the motor and fasten with screws.
9) Replace cutting table.

B. Blade Tension
It is important to have the proper blade tension for optimal cutting. If the blade is too loose, it will be difficult to control and may come off of the wheels. If the blade is too tight the rubber blade wheels will start to deteriorate and put extra stress on the blade.

Once you have followed the Blade Installation directions (page 2, Section C), test the blade tension by doing the following:
1) Position the upper blade guide assembly to within 3/4" of the work table surface.
2) Open the front door of the saw to expose the upper wheel.
3) Midway between the upper wheel and upper blade guide, push on the flat side of the blade with your finger. The blade should flex 1/4" - 1/2" with moderate pressure(Fig.15).
4) To adjust blade tension, turn the blade tensioning knob at the top of the saw (page 2, Fig.4) until a 1/4" - 1/2" flex is achieved.

WARNING: If the diamond blade is too tight, breakage could occur.

C. Blade Guide Adjustment
The DL3000-XL comes with lower and upper blade guides. Proper alignment of these guides are essential for proper glass cutting and extending blade life.
1) The upper blade guide (Fig.16) should be positioned slightly behind the back of the blade. To adjust, use a small hex wrench and loosen the set screw located on the top of the blade guide block. Slide the blade guide block backward or forward to achieve proper position.
2) The blade should fit directly between the brass wing guides, located on the front of the upper blade guide block (Fig.17). These help stabilize the blade to prevent it from twisting.
3) The blade should pass through the lower blade guide block with the back edge of the blade resting just infront of the block. To adjust, loosen the set screws located on the lower blade guide mounting block and slide blade guide arm back and forward to adjust properly (Fig.16).

NOTE: Blade guides and blade tension should be adjusted after approximately 3 hours of use. Frequent replacement of blade guides is recommended to maintain cutting accuracy and extend blade life.

D. Upper Blade Guide Adjustment
The position of the upper guide should be 1/4" from the top of the material being cut.
1) To adjust height of blade guide, loosen guide tension knob on back of saw and raise or lower the guide assembly (Fig.18). If the guide does not go low enough, unscrew the knob completely and reinsert into upper hole on bar and retighten. This adjustment should allow you to lower the guide positioning even further.

**E. Straight Edge / Angle Guide**

The band saw is designed for intricate radius cuts, however the straight edge guide will permit moderate straight edge or fixed angle cutting when needed. Place work material against the straight edge guide and feed the material slowly.

**F. Ultra-Plus Filtration System**

1) The “Ultra Plus” filtration system consists of 2 removable water filters. These filters need to be cleaned periodically depending on saw usage.
2) To clean, simply remove pump, lift saw from reservoir tray and remove filters. Run filters under cool water until water runs clean. Rinse reservoir of all grit residue.
3) Reinsert filters into the reservoir tray, place saw on top of the reservoir tray and refill with cold water (Fig.19).

**G. Blade Tracking**

The top and bottom wheels of your DL3000-XL are constructed with a feature that permits wheel tilting adjustments if necessary. The blade is properly aligned when it rides on the center raised portion of the wheels.

**Upper Wheel Tracking Adjustment**

Run saw at minimal speed. Slightly loosen the wheel securing knob. Locate the two set screws above and below the wheel securing knob (Fig.20). Using a small hex wrench tighten top set screw to bring upper wheel forward. Tighten bottom set screw to bring upper wheel backward. Adjust until blade runs centered on the guide wheel.

**Lower Wheel Tracking Adjustment**

Run saw at minimal speed. Open front panel of saw. Locate the set screw parallel to the lower wheel (Fig.21). Using a small hex wrench loosen set screw. Please note, when set screw is loosened, the arm and the wheel will move as a unit. Move forward to position blade to the back of the wheel; move backward to position to the front of the wheel. Once blade is centered on the lower wheel, tighten set screw and close front of saw.

**Quick Tips**

1) When cutting materials, the highest blade speed will usually result in fast and smooth cutting. Use a slower speed when working with delicate materials or making very tight turning radius.
2) Do not force materials into the blade. Ease the materials into the blade, turning as you go to create your
pattern. Avoid twisting the blade on tight curves.
3) To back out of a cut, turn saw OFF and ease material away from blade.
4) Clean band saw after each use with lukewarm water. If using the recirculating pump, run clean water through pump until it runs clear and the water tube appears clean.
5) When not in use, loosen blade wheel tension. When storing for extended periods, remove blade and drive belt, then store.

Troubleshooting

**Problem:** Work material becomes jammed.
**Cause:** Twisted blade from forcing work materials into the blade.
**Solution:** Before freeing any jammed materials, turn OFF power switch and wait until all moving parts have stopped. Open saw casing door and rotate the top wheel counter clockwise until blade is freed from work material. Gently free work material, holding blade against the blade guides to prevent it from stretching or badly twisting. Inspect blade for kinks and ensure there is no remaining debris in the blade path which may have caused the jam.

**Problem:** Saw runs slowly or stops while cutting
**Cause 1:** Drive belt slippage.
**Solution 1:** See Band Saw Use and Maintenance Drive Belt Tension-Section A.
**Cause 2:** Blade is “gummed-up” due to cutting soft materials or tape.
**Solution 2:** Cut several inches of clear window glass, this will clean the residue off the blade surface.

**Problem:** Blade breakage
**Solution:** Do not force material into the blade. Ease the materials being cut into the blade, turning it as you go to create your cut. Avoid twisting the blade on tight curves.

Additional Parts

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<tr>
<th>Item</th>
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<tbody>
<tr>
<td>DL3000-XL DRIVE BELT</td>
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<td>DL3000-XL BLADE GUIDES</td>
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<tr>
<td>DL3000-XL STAINLESS STEEL BLADE</td>
<td>22</td>
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<tr>
<td>DL3000-XL WOOD BLADE</td>
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Blade Repair Service

Diamond Tech offers a blade repair service should a blade break with ample diamond remaining. Return blade, indicating saw model and payment to Diamond Tech, Blade Repair Service, 5600 Airport Blvd, Suite C; Tampa, FL 33634. For International and special handling, please include extra postage and shipping instructions.

**Blade Repair Fees (U.S. Dollars):**
Speedster, Speedster-XL, DL1000, DL3000..................................................... $25.00
DL3000-XL, DL5000.......................................................................................... $45.00
Diamond Tech
Diamond Laser Band Saw Series - 3 Year Warranty

All Diamond Tech band saws and accessories are manufactured to high quality standards and are serviced by highly qualified technicians.

The Diamond Laser 3000-XL is warranted to the original purchaser for three full years from the original purchase date. During the three year period, if you feel the DL3000-XL is not performing properly and needs to be serviced, contact Diamond Tech at 1-800-937-9593 or email info@dticrafts.com for a Return Authorization Number. Equipment will not be accepted at Diamond Tech without a Return Authorization Number.

If returning your band saw for evaluation or repair, be sure to include your Name, Address, Daytime Phone Number with Area Code and a letter explaining the specific problem you are encountering. You will be contacted if any necessary parts or service are not covered under the warranty.

Date of purchase __ / __ / __

Mark the Return Authorization Number clearly on every package! Do not send this product back without such prior authorization! Return postage and insurance are the responsibility of the consumer. Diamond Tech will return your band saw postage paid and insured if under warranty. The DL3000-XL is warranted against defective materials or workmanship. If the DL3000-XL suffers damage due to customer modifications and/or is used for any application other than that for which it was designed, this warranty is void. This warranty does not include damage due to: (A) neglect (B) accident (C) unreasonable use (D) improper maintenance (E) any other causes not attributed to defects in material or workmanship. This warranty specifically excludes the Diamond Laser Blade and Blade Guides. Any implied or otherwise explicit guarantees made through merchantiser of this product are not covered in this warranty coverage agreement and are expressly disclaimed.

IMPORTANT NOTE: This machine was designed for certain applications only. Diamond Tech strongly recommends that this machine NOT be modified and/or used for any application other than that for which it was designed. If you have any questions relative to its application, please contact us and we will advise as to its proper use.

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