

# Instructions

## Gryphon

### Diamond Band Saw

model C



## Safety Precautions

- Always wear eye protection •
- Do not run blade dry •
- Keep fingers clear of moving parts •
- Lift off motor when cleaning •

## Warranty

Your new Gryphon Diamond Band Saw is warranted for one year from date of purchase. All mechanical parts with the exception of the blade, blade guide and sponge are guaranteed against failure for one year. If such a failure occurs for any reason other than abuse or misuse during this period, it will be repaired (or at our option replaced) free of charge FOB our factory. Retain your sales receipt for proof of purchase. Should repairs ever be required, return the saw to Gryphon Corporation.

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## Important~

DO NOT bend or kink your Blade. A replacement Blade will cost you about \$100. Your warranty does not cover Blades. A bent or kinked Blade will make the saw vibrate, and a badly bent Blade will not stay on the saw. Stainless Steel blades will not track on this saw.

## Unpacking~

Your shipping carton contains the following parts:

- Top Assembly
- Bottom Assembly with Guide Holder installed
- Platform
- Blade (coiled in box)
- Upper Blade Guide Holder
- 3 Guides
- Two Sponges
- Spare Lower Knob and nut
- These Instructions

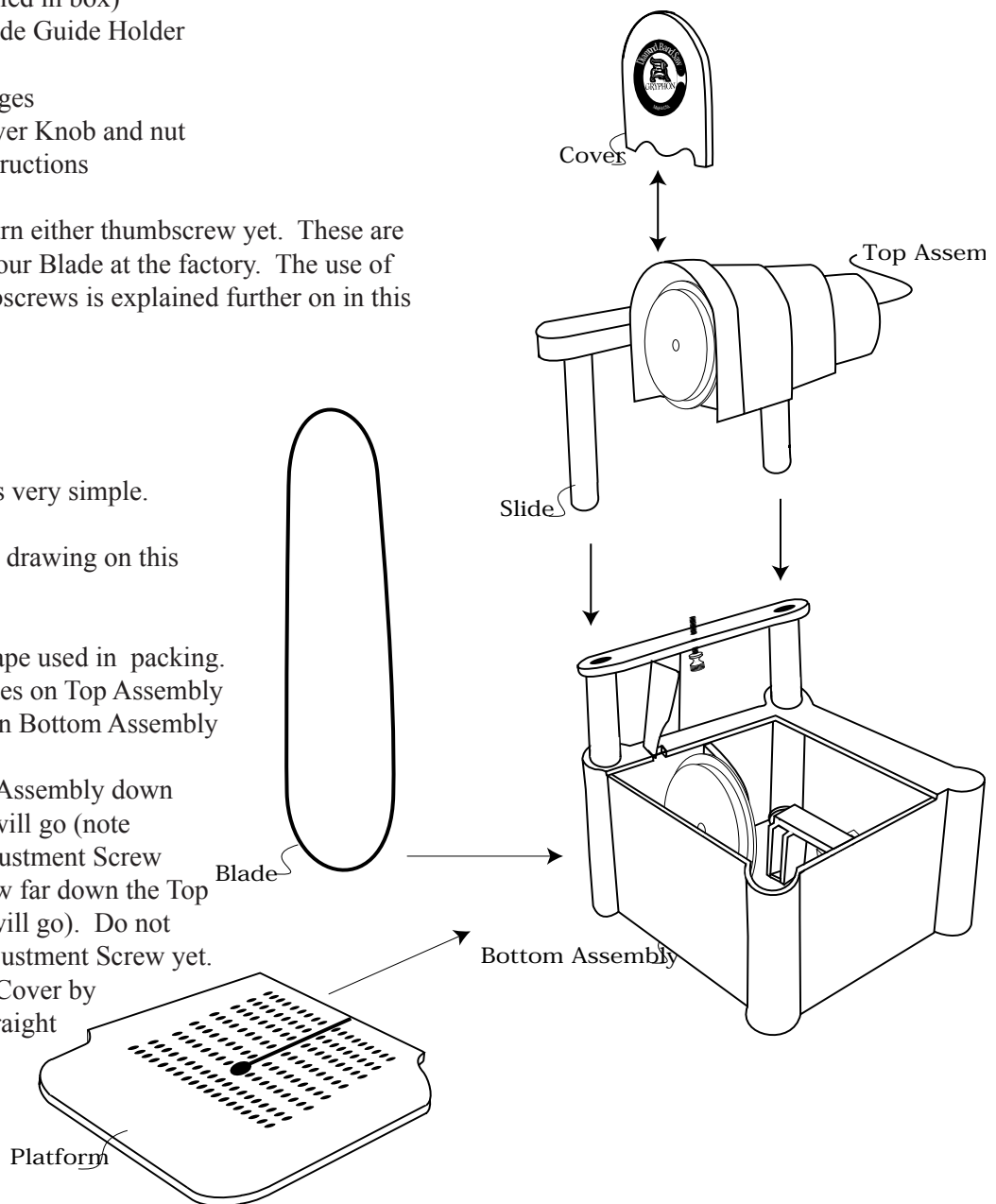
DO NOT turn either thumbscrew yet. These are preset for your Blade at the factory. The use of these thumbscrews is explained further on in this booklet.

## Assembly~

Assembly is very simple.

Refer to the drawing on this page.

- Remove tape used in packing.
- Insert Slides on Top Assembly into Posts on Bottom Assembly as shown.
- Push Top Assembly down as far as it will go (note that the Adjustment Screw controls how far down the Top Assembly will go). Do not turn the Adjustment Screw yet.
- Remove Cover by sliding it straight up.

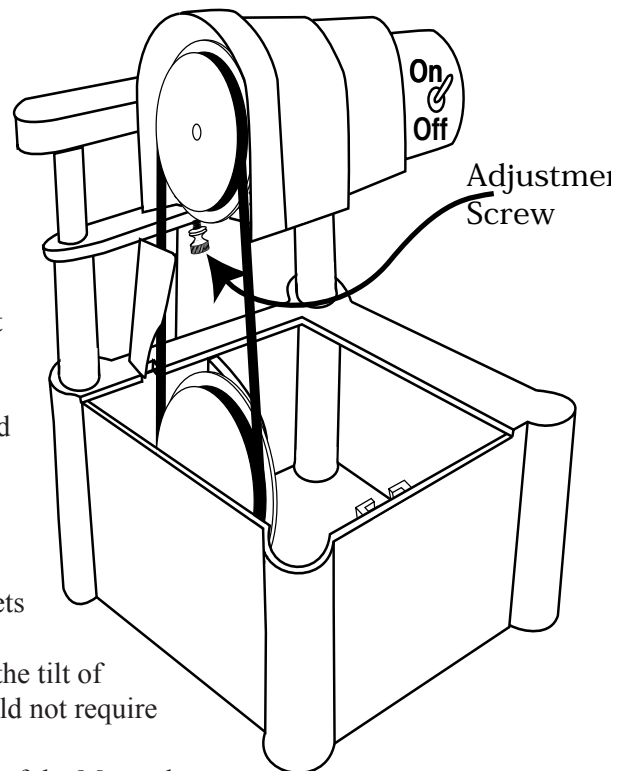


## Blade Installation~

- Remove coiled Blade from box.
- Uncoil the Blade gently. Do not bend or kink the Blade.
- Place Blade under Lower Wheel with diamond side towards the front of the saw.
- Place Blade at 9 O'clock position on Upper Wheel and rotate Upper Wheel by hand clockwise to wrap the blade over the Upper Wheel. Blade should pass through slot in Guide.
- Turn Upper Wheel by hand to test tension. Tension is correct when the Blade nearly touches the shoulder at the rear of the Upper Wheel when rotating.

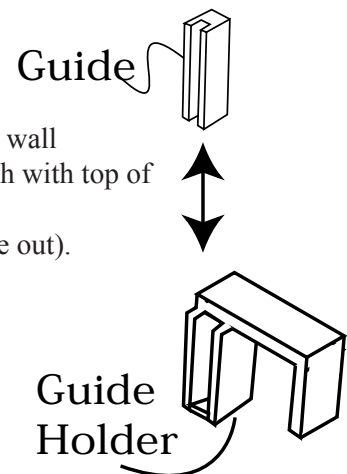
## Trial Run~

- Route power cord through the slot provided in Top Assembly and plug into a standard grounded outlet.
- While pressing down gently on the back of the Motor (to keep tension on the Blade), flip the on/off switch to the “on” position.
- By twisting the Adjustment Screw clockwise you can bring the Blade toward the front of the Upper Wheel. Excessive twisting in this direction will cause the Blade to fall off the front of the Upper Wheel.
- By twisting the Adjustment Screw counterclockwise you can bring the Blade toward the rear of the Upper Wheel. The Blade should always run near the back of the Upper Wheel, almost to the shoulder. If it runs too far back it will drag on the shoulder and be noisy and cause wear. If this happens, back off until the saw quiets down.
- Do not turn the Lower Knob. This control for the tilt of the Lower Wheel was set at the factory and should not require further attention.
- Turn the saw off while gently holding the back of the Motor down.



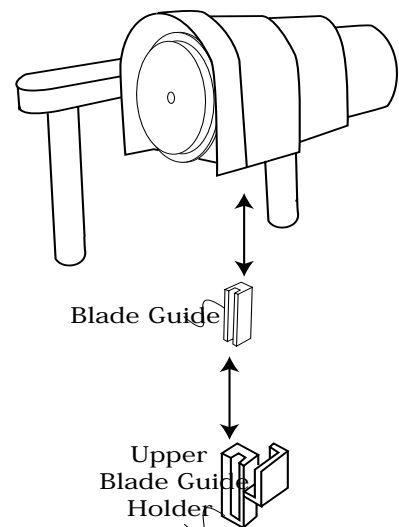
## Lower Guide Installation~

- Your saw was shipped with the Guide Holder in place. If it has become loose or fallen out in shipment, reinsert it into slot on inside wall of Chassis. Push firmly into place so that top of Guide Holder is flush with top of Chassis.
- Slide one Guide into slot on Guide Holder (slot on Guide must face out).
- Blade fits in slot of Guide.



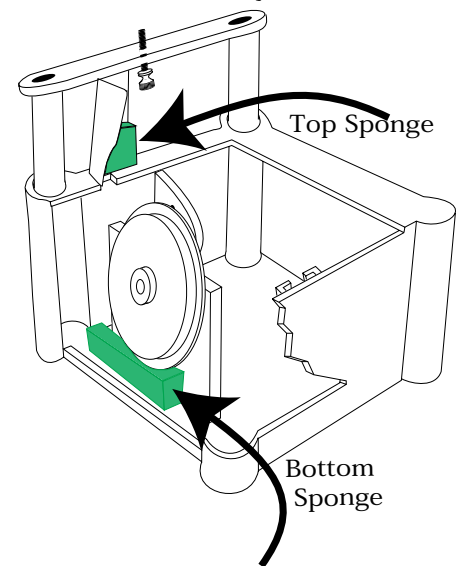
## Upper Guide Installation~

- Install a Guide into the Upper Blade Guide Holder in the same way as you installed the Guide into the Lower Guide Holder.
- Install the Upper Blade Guide Holder onto your band saw by inserting it over the rear right-hand corner of the Motor Cradle as shown. It is installed properly when the Blade exactly fits into the slot on the guide.
- The Upper Blade Guide Holder may be removed or reinstalled at any time.



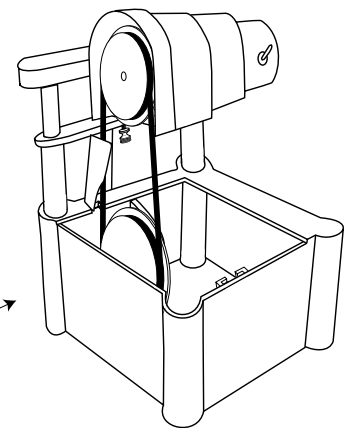
## Sponge and Water Installation~

- The sponges reduce the water splash.
- Wet both Sponges.
- Insert sponges in locations shown in cutaway drawing at right. Ridges are molded into the saw to keep the sponges in place.
- Pour water into chassis. Water level should not be higher than the top of the bottom sponge. The use of a corrosion inhibitor or other additive in the water is not recommended as it will not benefit the function of the saw.
- Rotate or replace sponges when worn.
- Additional sponges can be cut from a standard kitchen sponge available at your grocery store.



## Platform & Cover Installation~

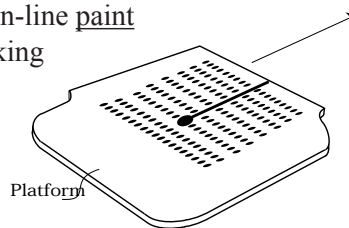
- The Platform is installed with the texture side up.
- When installed, the Platform surface will be flush with the top of the Chassis.
- Install the Platform by sliding it into place as shown. Be very careful not to nick or bend the Blade while installing the Platform.
- The Cover, which you removed to install the Blade, is reinstalled simply by sliding it down the front of the Top Assembly until it sits flush.



## Marking your Pattern~

Since the Blade carries cooling water to the glass surface, your pattern will need to be resistant to water. There are several techniques.

- Mark your pattern on the glass with a thin-line paint marker (such as the Gryphon Pattern Marking Pen). These are available from your dealer, or similar products can be obtained from artist's supply houses.
- Cover your paper pattern with clear contact paper (actually a plastic). Apply



the paper pattern to the glass with double sided tape.

- Copy your pattern onto clear plastic (use Overhead Transparency Sheets - available at your copy center or office supply store). Apply the plastic pattern to the glass with double-sided tape.

If you are using either of the last two techniques, it is recommended that you make separate patterns for each piece, rather than planning to reuse pattern pieces. It is often convenient to leave the pattern on the piece for easy identification later, particularly in projects involving small pieces, such as lamp shades.

You will find that in some cases, such as lamp shades, you will be able to place large sections of the pattern on the glass and cut several pieces at once. The blade will make a slot in the glass that is just about the same width as two pieces of foil, so you will only have to cut down the center of the pattern line to achieve a perfect fit.

## Stacking Glass~

It is possible to cut multiple pieces of glass at the same time, however it is a frustrating process since it is difficult to hold the various pieces together while cutting. If you wish to try it, there are several ways to hold the glass that are at least limitedly successful:

- Double-sided indoor-outdoor carpet tape.
- Wax.
- Duct tape or similar.

The tapes and wax will tend to “gum up” the blade, but a few cuts through single pieces of glass should remove any remaining tape residue. The pieces should be separated soon after cutting because some tape bonds will continue to strengthen if left in place.

## Cutting Glass~

When cutting, push your work with only a moderate pressure. Very heavy pressure will not result in faster cutting, and may bend the blade. When cutting curves, use only a light pressure and let the blade do the work. Aggressive pressure against the blade when cutting curves causes rapid wear to the back of the blade. Do not force the blade to follow a pattern, but rather guide the work through the blade. This will insure you of the longest possible blade life. When backing out of a slot, move the work gently to avoid pulling the blade off the wheel.

It is normal for a blade to cut more slowly as it wears. Some materials, such as lead crystal, load the blade and cutting action slows significantly after a time. Good cutting action will be immediately restored with only a little cutting into a piece of clear window glass, silicon carbide, or a brick.

## Cutting Other Materials~

The diamond blade on your band saw is useful for cutting a variety of hard materials. Stone, tile, ceramics and similar materials can be cut as easily as glass. The speed at which the saw cuts will be determined by the thickness and the hardness of the material being cut. Harder materials will wear the blade faster. Metals are too soft to be cut by a diamond blade and will gum up the blade.

You can incorporate gemstone material such as translucent Jade or Agate into your stained glass

project for a dramatic effect. Also, mosaic work in tile, or tile in combination with other materials, is easily accomplished.

## Cleaning the Saw~

The glass dust that results from your cutting is carried to the bottom of the saw where it combines with the water to form a slurry. When the water becomes objectionably dirty you should clean out this slurry as follows:

- Remove Platform & Cover.
- Remove Blade.
- Remove Top Assembly by pulling straight up.
- Pour out dirty water outside. Do not pour into plumbing as the slurry can cause clogs.
- Use a paper towel to remove heavy slurry if required.
- Rinse out Bottom Assembly with a garden hose if desired.
- Do not use solvents to clean any part of the saw. Soapy water is all that is required.
- If you remove the Guide Holder, clean it thoroughly before replacing to insure that it fits flush.

## Adjustments~

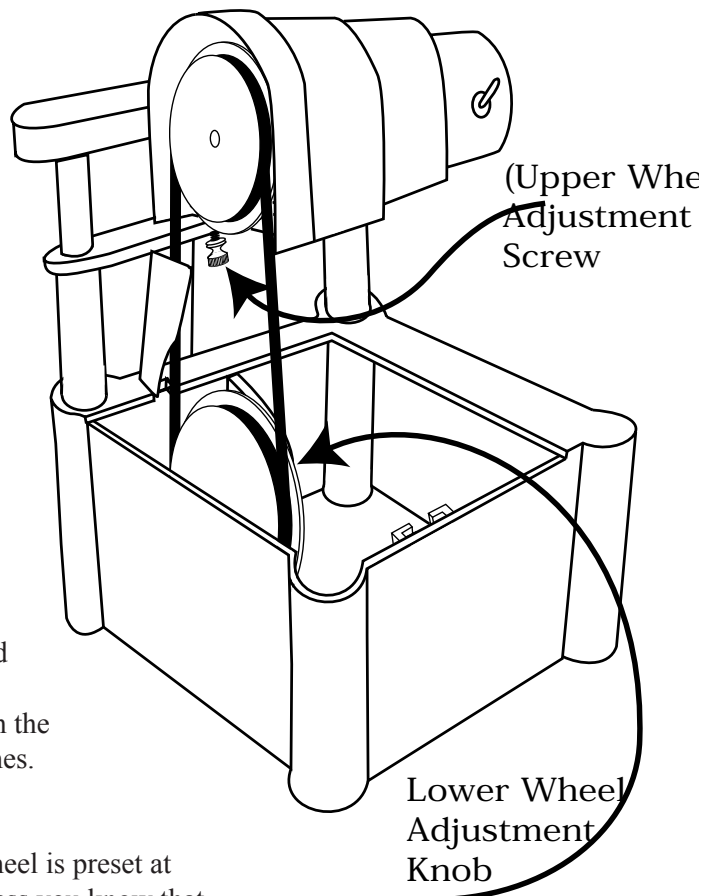
The Upper Wheel and the Lower Wheel are both adjustable for tilt. Normally, you will only need to adjust the Upper Wheel. You may need to make this adjustment from time-to-time in order to keep the blade positioned near the rear of the Upper Wheel.

### UPPER WHEEL

- Turn Adjustment Screw to raise or lower the Top Assembly as required to tension the Blade.
- Because the Motor is mounted on a pivot, the angle of the Upper Wheel will change as the tension is increased or decreased.
- The change in angle will cause the blade to run to the front or the rear of the Upper Wheel.
- Turn the Upper Wheel by hand while turning the Adjustment Screw, until the Blade runs near the rear of the Upper Wheel.
- Turn on the saw and continue turning the Adjustment Screw to lower the Top Assembly until you hear a change in sound indicating that the Blade is hitting the shoulder on the Upper Wheel. Back off on the Adjustment Screw until the noise diminishes.

### LOWER WHEEL

- Lower Wheel. The tilt for the Lower Wheel is preset at the factory and should not be adjusted unless you know that



it has changed. To adjust the tilt, loosen the locknut on the Lower Wheel Adjustment Knob. Turn the screw clockwise to move the Blade toward the front of the Lower Wheel, counterclockwise to reverse. The angle is correct when the blade nearly touches the shoulder on the Lower Wheel and runs quietly. Tighten the locknut when the adjustment is correct.

## Replacing Lower Wheel Adjustment Knob~

If it should ever become necessary to replace the Lower Knob (used for adjusting the tilt on the Lower Wheel), proceed as follows:

(1) Remove old Lower Knob and both nuts (the rear nut is glued to the knob, and the easiest way to remove it is by cutting it off with a sharp knife).

(2) Pass new Lower Knob through hole in plastic arm.

(3) Twist two nuts half way onto Lower Knob.

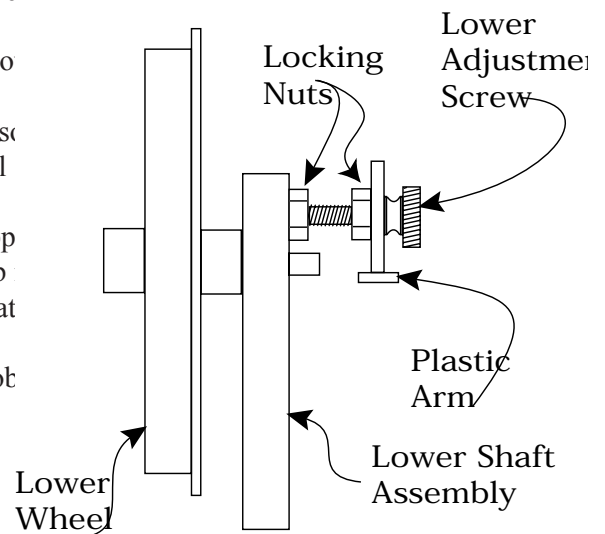
(4) Screw Lower Knob into hole in Lower Shaft Assembly.

(5) Twist nut nearest the Plastic Arm so that it almost touches Plastic Arm, but still allows knob to turn.

(6) Install the blade and rotate the Upper Wheel by hand while turning Lower Knob out until the blade runs near the shoulder at back of the Lower Wheel.

(7) Turn saw on and twist Lower Knob until blade runs quiet and almost touches shoulder of Lower Wheel.

(7) Tighten Locking Nut.



## Replacement Parts~

The following are standard replacement parts available through your dealer or directly from Gryphon.

- Replacement Diamond Blades. The Gryphon Blade furnished with your saw is the highest quality blade on the market. The Gryphon Blade is highly resistant to tearing or breaking, and if not abused should give superior service. Stainless Steel blades are not recommended.
- Blade Guides. Your saw was supplied with three extra blade Guides. To remove a worn guide slide it straight up out of the Guide Holder. Slide the new Guide in its place with the slot facing out. Your guide should be replaced when worn.
- Sponges. Sponges wear quickly and should be replaced when the water splash becomes excessive. Sponges are available inexpensively (usually in packages of four) at your grocery store. You can cut the sponges with standard scissors to fit your bandsaw.
- Wheel Belts. The Belts on each of the wheels should give many years of service, but are designed to be replaced if required. Belts are most easily replaced with the wheel removed from the saw. Refer to the instructions provide with the new Belts. In an emergency #105 rubber bands can be substituted, but these will wear quickly and may stick to the blade. If you use rubber bands, remove the Blade from the saw when you are not cutting to prevent the rubber bands from sticking to the Blade. Do not run the saw without Belts installed as rapid wear to the wheels will result.

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## Exploded View

