

Micro-Mark[®]

340 Snyder Avenue, Berkeley Heights, NJ 07922 • Tech Support: 908-464-1094
www.micromark.com MMTechService@micromark.com

INSTRUCTIONS FOR #82211 MICROLUX BAND SAW COOLING SYSTEM

Note: These instructions are intended to complement those supplied with the Band Saw. Please follow the instructions and suggestions provided on both.

Caution: All mounting, set up and adjustment instructions should be carried out with the machine disconnected from the electrical power source. For your own safety, do not plug in the power cord until you are ready to operate the machine.

Mounting the Machine

Carefully unpack the band saw. Save the packing materials should you ever need to return the machine to us for any reason.

See Figure 1. Place the tray into position on your workbench, place the rubber sheet gasket over the mounting holes, and place the band saw into position on top of the gasket, aligning all holes properly. Using the wood screws provided in the parts bag, attach the band saw to your workbench...**it is important for your safety that the saw be securely mounted.** For portability, the saw/tray combination may be mounted to a piece of 3/4" thick plywood. The plywood can then be secured to your workbench with C-clamps.

Assembly

See Figure 2. Remove the brass fitting from the slot in the saw table. Remove the black table lock knob and spacer bushing from the machine housing. While guiding the slot in the table past the saw blade, move the table into proper position on the saw. Replace the knob and spacer bushing to lock the table into position. Replace the brass fitting in the saw table.

See Figure 3. Remove the cap from the coolant reservoir and remove the reservoir from the packing material. Remove the bag of fittings from inside the reservoir. If necessary, rotate the reservoir mounting bracket so that it is aligned with a corner of the reservoir and will clear the blade tension knob when mounted. Tighten the fitting retaining nut on the inside bottom of the reservoir. Replace the cap. Use the two machine screws from the parts bag to mount the reservoir bracket to the back of the upper saw housing. Attach a short clear tube between the barbed fitting on the bottom of the reservoir and the barbed fitting behind the blade guide.

Attach the brass barbed fitting (the one with the nut) to the hole in the tray. Use the nut on the inside of the tray so that the long clear tube may be connected between the tray and a coolant collection receptacle (not provided) placed on the floor. Tighten securely so as to prevent leakage around the fitting.

Install two brass barbed fittings to the corners of the table from below and tighten gently. Attach two short clear tubes to the fittings so that they will direct coolant (water) into the tray.

See Figure 4. A small waste removal plate should be removed from the bottom of the machine housing to allow waste to fall out during operation. Use the large allen wrench to loosen the four screws in the gray plastic machine cover, remove the cover, then remove the plate. You may want to proceed with the Set Up Adjustments given below before replacing the gray cover. **Note:** The vacuum cleaner attachment port on the back of the housing should **NOT** be used when the cooling system is in use.

Adjustments (also see Blade Changes on the next page)

Although certain basic adjustments have been made at the factory, it is good practice to double-check these settings to assure proper initial operation; transportation and unpacking may have altered them. The most important adjustment on a band saw is blade tension.

See Figure 5. The blade tension is adjusted as follows: First, back off the blade guides so they don't touch the blade; use the supplied medium-size hex key to loosen the screws holding the blade guide rollers and move them away from the blade. Now use the supplied large-size hex key to loosen the four screws holding the machine cover to the frame; remove the cover. Slightly loosen the large blade tension lock knob located on the machine housing behind the upper (idler) wheel; the knob should be loose enough to allow vertical movement of the drive wheel, but tight enough to keep the washer under the knob in contact with the machine housing. Next, carefully rotate the blade tension adjustment knob so that the blade will have enough tension to prevent slippage on the drive wheels, but not be so excessively tight to cause breakage of the blade or premature wear of the drive system bearings. A good rule of thumb is to tighten the top knob as tight as you would tighten a water tap. Tighten the lock knob after the blade tension has been adjusted.

To adjust blade tracking: Rotate the drive wheels by hand clockwise to assure the blade is tracking properly...usually up against or very near the flange on each wheel. If adjustment is needed, use the supplied small-size hex key to loosen the set screw holding the slotted guide pin located under the table near the lower (drive) wheel.

See figure 6. Adjust the position of the guide so that the saw blade tracks properly and retighten the set screw.

The blade guide rollers should now be adjusted to lightly contact the rear and sides of the blade; they should guide and support the blade to prevent blade deflection during sawing operations. Retighten the screws when adjustment is complete. Recheck the blade tracking by again turning the wheels clockwise by hand. Replace the machine cover.

Operation

You may now plug in your band saw. Turn on the power switch and again check for proper blade tracking and the position of the blade guides. Rotate the speed control knob to get a feel for the machine operation. Be sure the height of the blade guide is adjusted to just clear the top surface of the workpiece...loosen the knob behind the guide bar and adjust.

Your MicroLux Band Saw is a versatile tool which can be used in a variety of projects. In addition to stained glass, you can create intricate cuts in any hard material, such as tile, ceramics, jade, agate or other gemstones.

Several factors affect cutting speed: the intricacy of the pattern, the material thickness, the material hardness and the condition of the blade. Do not force the work through the blade. Give it time to cut properly. Allowing the work to "float" while cutting will prolong the life of the blade.

Use the valve on the bottom of the reservoir to adjust the rate of coolant (water) flow. Use just enough to keep the blade cool and wash away the cutting residue; do not flood the work. The slurry in your collection container should be disposed of properly. Washing it down a sink drain may clog the pipes.

Adjust the speed of the band saw to achieve a proper cutting action. General guidelines suggest using slow speeds for hard materials and fast speeds for soft materials. A little experimentation will determine the optimum setting for the job at hand.

See Figure 7. For angled cuts, the table may be tilted by loosening the table lock knob and tilting the table to the desired angle shown on the scale.

Blade Changes

To change a blade, remove the gray machine cover and also the brass fitting from the saw table. Reduce the blade tension until the blade can be slid off the drive wheels. Installation is the reverse of removal. Be sure the cutting edge is facing the front and that the tension and blade guides are readjusted as per the directions given on the previous page.

Maintenance

Maintaining your band saw in top condition requires only proper cleaning and adjustment. An excessive build-up of waste materials would ultimately find its way into the working parts of the machine and cause premature wear. Frequently clean out your band saw to prevent excessive waste build-up.

Keeping the blade tension and blade guides adjusted properly will prevent blade warpage and assure proper blade tracking. Check these adjustments often to assure continued trouble-free performance of your band saw.

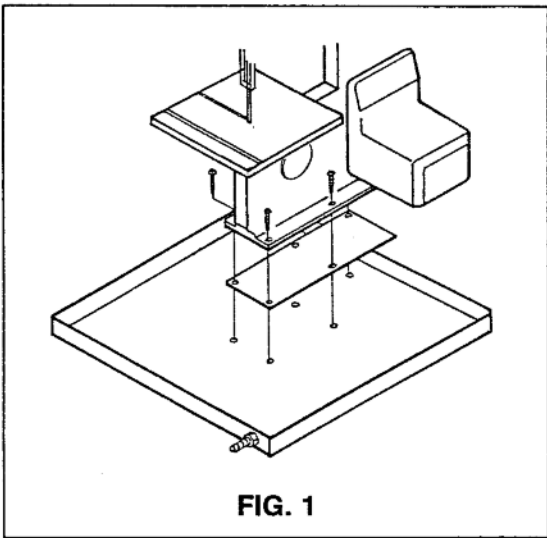


FIG. 1

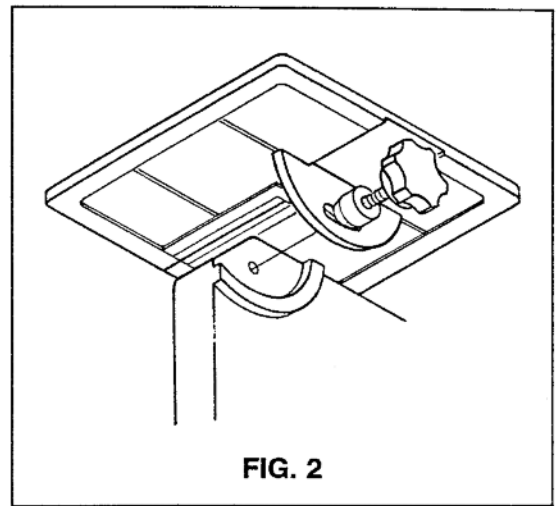


FIG. 2

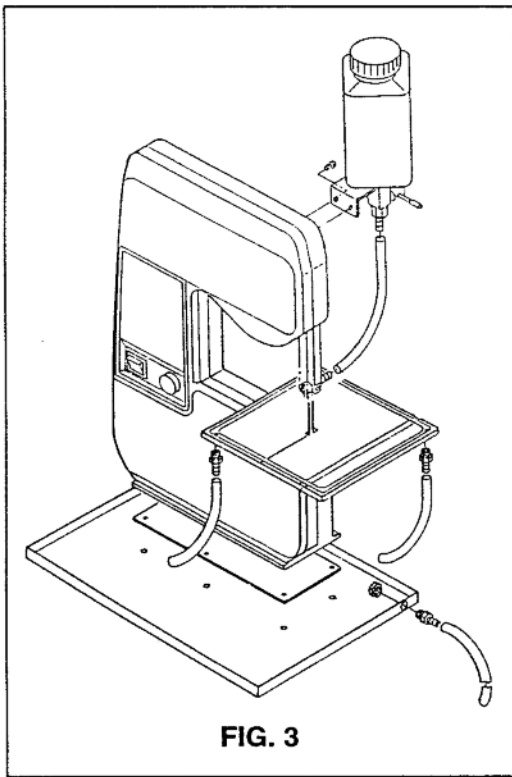


FIG. 3

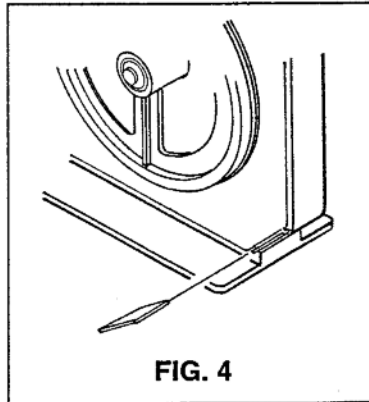


FIG. 4

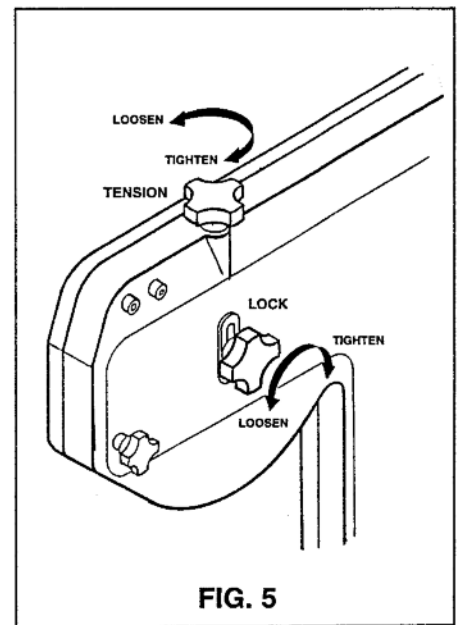


FIG. 5

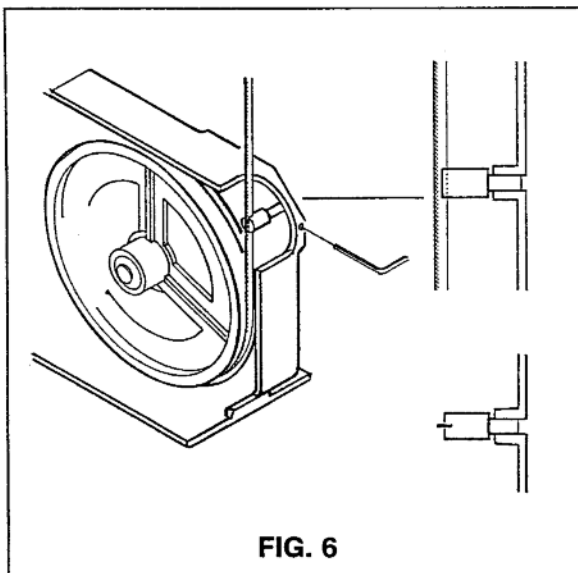


FIG. 6

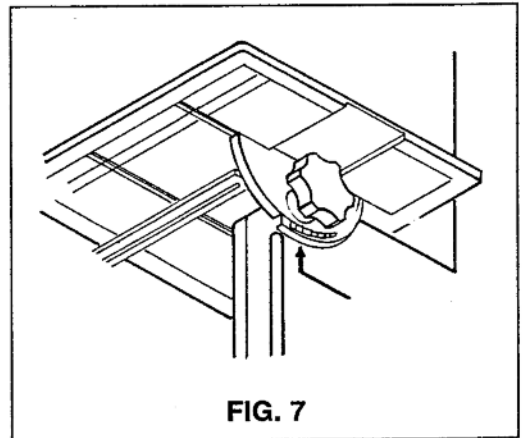
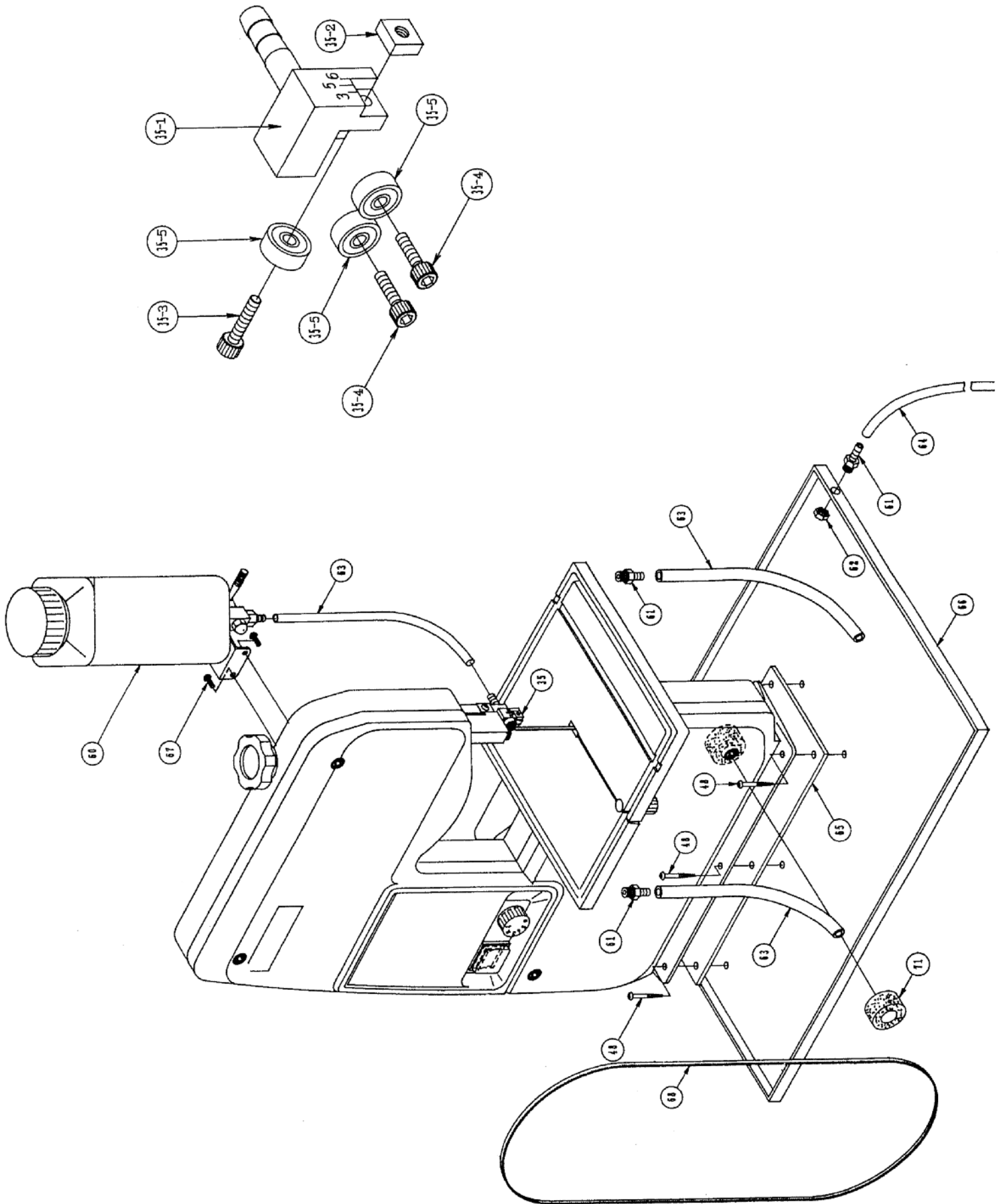


FIG. 7



MicroLux Cooling System #82211
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