

Woodshop

Basic Use and Safety



250 First Street | Woodland, CA 95695
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Woodshop

Square One Shop and Safety Policy:

In an emergency, dial 9-911

Library General and Behavior Policies apply in Square One.

The most up-to-date policies are always available for review at the front desk.

- Be **Safe**: Pay attention, follow posted procedures, and ensure proper materials are being used including eye/ear protection in the woodshop.
- Be **Curious**: Experiment, try new things, watch what other people are doing.
- Be **Respectful**: Keep your chaos contained, clean up after yourself, don't touch other people's work without asking, don't interrupt.
- Be **Aware**: Alert staff if equipment isn't functioning properly, follow staff instructions, pay attention to your project.
- Be **Prepared**: Bring your photo ID and library card, wear closed-toe shoes, secure loose or dangly objects (i.e. hair, jewelry, keys), start cleaning up 30 minutes before closing time.

Notes:

Woodshop safety rules:

Woodworking can be a safe and enjoyable hobby or vocation if you follow some basic woodworking safety rules. All of the rules are common-sense ideas, but failure to follow these rules will greatly increase the chance of injury when working with your tools. The wood shop is not the place to be in a hurry or have an "it won't happen to me" attitude. Commit these rules to habit and your woodworking experiences will be safer and much more enjoyable.

- **Always Wear Safety Equipment**

The first and most important rule of woodworking is to wear appropriate safety equipment. While hearing protection is necessary for some very noisy tools such as routers and surface planers, and latex gloves may be necessary when applying finishes, there is no time in the wood shop that you should be without your safety glasses. Put them on when you enter the shop and don't take them off until you leave.

- **Wear Appropriate Clothing**

Whenever working in the wood shop, remember to avoid loose-fitting clothing, as you wouldn't want any of your attire to become entangled in a saw blade or cutting head. Wear clothes that are comfortable for the environment in which you're working, but also will protect your body from any wayward wood chips that might result from cutting. Before beginning, remember to remove any dangling jewelry such as neck chains or bracelets.

- **Disconnect Power Before Blade Changes**

Whenever you need to change a blade or bit on a power tool, always disconnect the electricity to the power tool before even beginning the blade change. Many a woodworker has lost fingers (or worse) by forgetting this simple but very important rule.

- **Use Sharp Blades and Bits**

This one seems like a no-brainer, but a dull cutting tool is a dangerous tool. If a saw blade is not as sharp as it ideally should be, the tool and the woodworker will have to work harder to complete the desired task. In such cases, the tool will be more likely to kick back or bind. Besides, a sharper cutting tool will produce a cleaner cut, so there are more than just safety advantages here. Keep the blade sharp and clear of pitch and you'll be safer and have better results.

- **Always Check for Nails, Screws, and Other Metal**

Always check the stock you're preparing to cut for any metal (nails, screws, staples, etc.) before beginning a cut. Nails and rapidly spinning saw blades are not a good mix. Not only can this damage the cutting head and the stock, but at the very minimum, can cause the stock to kick back, which is a common cause of injury. Inspect the stock (or better yet, use a metal detector) before cutting.

- **Always Work Against the Cutter**

Woodworking power tools are designed so that the direction that the wood moves through the tool (or the direction that the tool moves across the wood) is in the opposite direction of the movement of the cutting head. In other words, a router bit or saw blade should cut against the motion and not with it. The cutter should cut *into* the stock, not with the stock.

- **Never Reach Over a Blade to Remove Cut-Offs**

When working on a table saw, miter saw, etc., never put your hands anywhere near the moving blade, especially when attempting to remove waste or cut-offs. Wait until the blade has stopped moving and then reach for the cut-off. Better yet, once the saw blade has stopped, use a piece of scrap or a push stick to move the waste away from the blade. Remember that switches can be inadvertently bumped or malfunction, so just because the blade has stopped, don't relax and put your hands too close.

- **Avoid Distractions**

Distractions are a part of everyday life, and working in the wood shop is no different. When you are summoned or distracted while in the middle of performing an action with a power tool, remember to always finish the cut to a safe conclusion before dealing with the distraction. Taking your attention away from the woodworking tool is a recipe for disaster.

Equipment

Panel Saw

- The panel saw is a mounted circular saw that can make 90-degree horizontal and vertical cuts of material up to 1.5" thick, 4' tall, and as long as can fit in the room (a standard 4'x8' sheet of plywood is typical).
- The saw rides on two vertical rails and is held in place while not in operation with screw clamps.
- Smaller sizes of material can be cut on the mid-rail fence. The fence is easily removed to cut larger pieces.
- Tape measures are located horizontally on the lower rail and vertically on the saw track.
- A laser guide is located under the circular saw and is turned on with the white push button.
- Horizontal cuts can be made by securing the saw in place with the screw clamps and pulling the two plunger locks to turn the saw in place. Material is fed from the left into the saw.
- Don't put anything you don't want cut behind the saw plate – fingers, tools, etc.

Drill Press

- The drill press can make a series of vertical holes into material using standard drill bits.
- This is the most dangerous piece of equipment in Square One – it's the easiest to get caught in, and the machine won't stop pulling, regardless of what it has grabbed on to.
- The bed of the drill press can be raised or lowered to accommodate various sizes of projects. The clamp is on the left of the tower, and the crank to raise and lower it is on the right. After moving the bed, make sure the drill is going to clear the bed of the drill BEFORE turning the drill on.
- The chuck key to change the drill bits is on the right side of the drill. General use drill bits are provided; all others are supplied by the user.
- The drill is capable of a 2" throw (depth), which can be adjusted with lock nuts on the left of the drill.
- The power switch has a yellow safety key to keep it from being operated unintentionally. The drill press also has lights for general work area lighting and a laser guide crosshair to know where the drill will make holes.

Scroll Saw

- The scroll saw is used to make intricate designs into thinner pieces of material. This isn't used as much now that we have equipment such as the laser cutter. The saw blade can be loosened to cut an interior shape from a larger piece with a pilot hole to avoid sawing in through the edge.
- The saw blade cuts in both the up and down direction. A clamp is used to hold material to the bed to prevent chattering.
- Keep thumbs (and other objects not intending to be cut) out of the green area on the saw bed.
- Turn saw off and wait for the blade to stop moving before retrieving material.

Band Saw

- The band saw makes both straight and free-form cuts in material up to 3" thick. The height of the blade guard should be adjusted to have less than ½" of clearance.
- The bed can be angled, and the guides can be adjusted to create consistent cut angles.
- The saw blade only moves in one direction (as it's a band) and clamps are not needed.
- Keep thumbs (and other objects not intended to be cut) out of the green area on the saw bed.
- Turn saw off and wait for the blade to stop moving before retrieving material.

Chop Saw

- This tool is used to make quick straight or angled cuts in wood planks, plastic pipes and plywood sheets.
- The saw is latched in place down by a safety cotter pin, which is located at the base toward the rear of the tool. Push the saw blade all the way down before removing the cotter pin and do the same to put the cotter pin back in when you are done using the chop saw.
- While this device does not have a safety key, it does feature a safety trigger. You must depress the small trigger before you can pull the main power trigger.
- You can change the angle of the cut by pressing the thumb trigger on the handle in front of the circular base and rotating the handle as needed. Release the trigger to "set" the angle in place; it will only "set" when it is in a detent.
- Do not place your hands anywhere within the metal areas to the sides of the cutting blade.
- Please remember to latch the saw down in place after you are done using the tool.

Belt/Disc Sander

- The sander has 2 sanding surfaces: a belt on the top and a disc on the front. Arrows indicate the direction of the sander movement.
- Only use the top of the sander – NEVER the curved edge on the right – to prevent launching projectiles.
- Use the downward half of the disc sander for the same reason.
- The bed of the disc sander can be adjusted.