



# MAKER LAB Safety Instructions

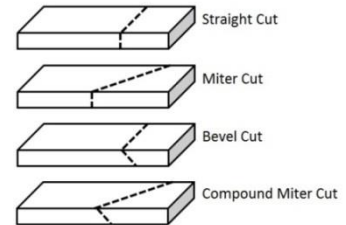
## Specialty Tool Training: Compound Miter Saw



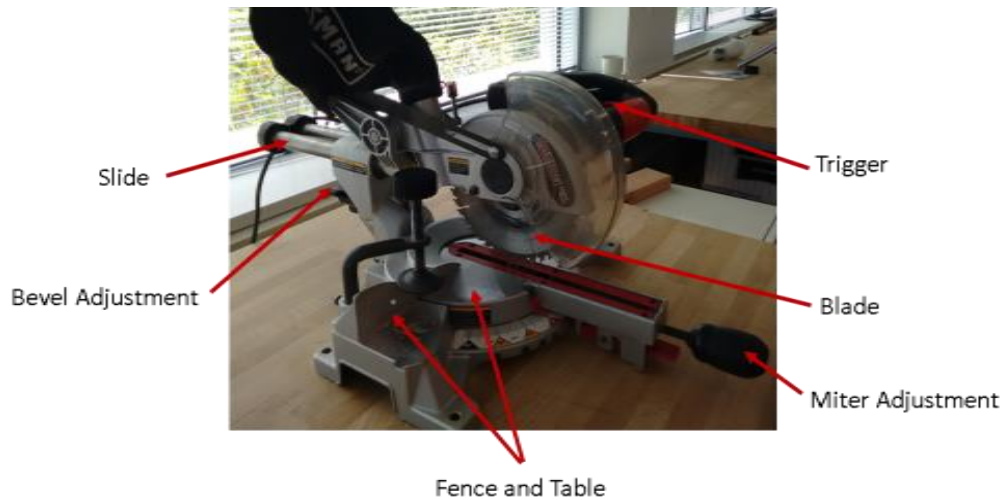
**Note:** All the instructions from Basic Training apply to Specialty Tool Training. If you have not completed Basic Training, do so before you complete Specialty Tool Training.

### Craftsman Compound Miter Saw

The Compound Miter Saw allows for making accurate cross-cuts on wood and soft plastics. A straight or square cut is a cut where the saw and saw blade make 90 degree angles with the work piece and table. A miter cut is a cut where the saw is rotated to an angle other than perpendicular to the work piece. A bevel cut is a cut when the saw blade is tilted at an angle other than perpendicular to the table. A compound cut is a cut that is both miter and beveled at the same time.



This Maker Lab Safety Instructions and Safety Training only covers the use of the Craftsman Compound Miter Saw. Individual equipment training is performed for usage of Specialty Tool Training equipment. The full list of Specialty Tools can be found on the Maker Lab Website.



**Disregarding lab rules or working unsafely will result in suspension or revocation of lab privileges depending on the severity of the infraction.**

**In an Emergency:**

**Call 4444 from the lab phone (or 408-554-4444 from a cell phone), or 911 from a cell phone.**

The Maker Lab is located in Guadalupe Hall, 3<sup>rd</sup> Floor, Room 301

**Maker Lab Website:** <http://scu.edu/engineering/makerlab/>

**Maker Lab E-mail:** [scumakerlab@gmail.com](mailto:scumakerlab@gmail.com)



# Specialty Tool Training: Compound Miter Saw Safety Guidelines

## Emergency Information

1. **Injuries:** For immediate help notify Campus Safety at x4444 (408-554-4444) and follow their direction. Do not attempt to remove foreign objects from the eye or body; it is better to have trained medical personnel remove foreign objects from the eye or body.

## Being ready to work

2. **Do not operate** equipment unless you have been properly trained to do so. If you're unsure about the safe operation of a tool or any aspect of a job – ask for help. **If you can't do a job safely, don't do it!**
3. **Never work when you are impaired.**
4. **Be prepared** and have a plan before coming to the Maker Lab.

## Personal Protection

5. **Never work alone.** At least two people must be in the lab at all times when operating power tools and equipment. An approved Maker Lab Supervisor must be present.
6. **Must wear safety glasses with side shields.**
7. **Wearing ear plugs** and/or ear muffs is recommended.
8. **Wearing a dust mask** is recommended.
9. Wear the appropriate apparel. **Do not wear gloves.** Roll long sleeves up.
10. Long hair must be tied back and no loose jewelry.

## Shop and Tools

11. **Always keep aisles, exits and access to emergency equipment** (fire extinguishers, fire alarms, first aid kit) clear at all times.
12. **Become familiar** with how the Compound Miter Saw works and the dangers before using it. Ask for help!
13. **Verify** the overall condition of the equipment (e.g., dull blade, damaged power cord, visible cracks, motor air slots containing debris, alignment of moving parts, function of arm and guard, or defects in the tool housing or anything that would compromise the safe use of the Compound Miter Saw).
14. Make sure you are the only person in the operator's zone
15. **Never** leave tool running unattended. Turn power OFF. Wait for all moving parts to stop.
16. Keep the floor around the machines clean, dry, and free from trip hazards.
17. The machine must be **shut off** before cleaning and performing set-ups.

*Sign and date in space provided, verifying you have received a copy of and have read and understand the safety instructions.*

**Name:** \_\_\_\_\_ **SCU ID:** \_\_\_\_\_

**Signature:** \_\_\_\_\_ **Date:** \_\_\_\_\_



## Specialty Tool Training: Compound Miter Saw

You may not operate the Compound Miter Saw without the requisite training and approval from the Maker Lab Staff.

1. Always wear safety eye protection (safety glasses).
2. Always hold the work firmly against the fence and table. Use clamp wherever possible.
3. Keep hands out of the path of the blade. Never reach around the saw blade.
4. Always make sure all handles are tight before cutting.
5. Always check the blade for cracks or damage before operation.
6. Always keep the blade guards in place and use at all times.
7. Keep good footing and balance. Keep your face and body to one side, out of the line of a possible kickback. Never stand in the line of the blade.
8. Never apply lubricants to the blade when it is running.
9. Never cut metals or masonry products with this tool.
10. Never use the miter saw in an area with flammable liquids or gases.
11. If the saw makes an unfamiliar noise or vibrates, stop immediately. Turn the saw OFF.
12. Shut off the power before servicing or adjusting the tool.

### Specifications

- Material: Wood and wood-like products
- Crosscut: 2x8 inches; Miter 45°: 2x6 in; Bevel 45°: 1-1/2x8 in; 45° Miter and 45°Bevel: 1-1/2x6 in

### Operation

A User Manual is available which goes into more detail about the operation and settings.

1. Setup the Compound Miter Saw before operation
  - a. Adjust the Compound Miter Saw and check for damaged parts before plugging the tool in
  - b. Remove adjusting wrench from the tool before turning it on
2. Inspect your work piece to make sure there are no nails or foreign objects in the part being cut.
3. Make sure all clamps and locks are tight and there is no excessive play in any parts.
  - a. Provide adequate support to the sides of the saw table for long work pieces.
  - b. Use a different tool for any work piece that can't be held in a solidly braced, fixed position
4. Set up the cut
  - a. Clamp the work piece against the fence to prevent movement.
  - b. Place hands at least 6-3/4 in. away from either side of the blade path.
  - c. With the power switch Off, bring the saw blade down to the work piece to see the cutting path of the blade
5. Make the cut
  - a. Make sure the blade is not contacting the work piece before the switch is turned ON.
  - b. Squeeze trigger switch and allow the motor to come up to full speed before starting a cut.
  - c. Lower blade into work piece with a firm downward motion. Do not force the blade.
  - d. After completing the cut, release the trigger and wait for the blade to stop before returning the saw to the raised position. If the blade does not stop within 10 sec, unplug the saw.
6. Finishing
  - a. Disconnect the saw from the power source and clean the machine when finished using
  - b. Make sure the work area is clean before leaving the machine.