SawStop Safety

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The “Original Table Saw? From an unknown source

What do Sawstops and automous vehicle have in common?

- Both used advanced sensors to monitor unsafe situations.
- Neither makes operation of respective table saws or automobiles perfectly safe and accident free.
- Understanding and intelligence during operation is still needed for safe operation of both.

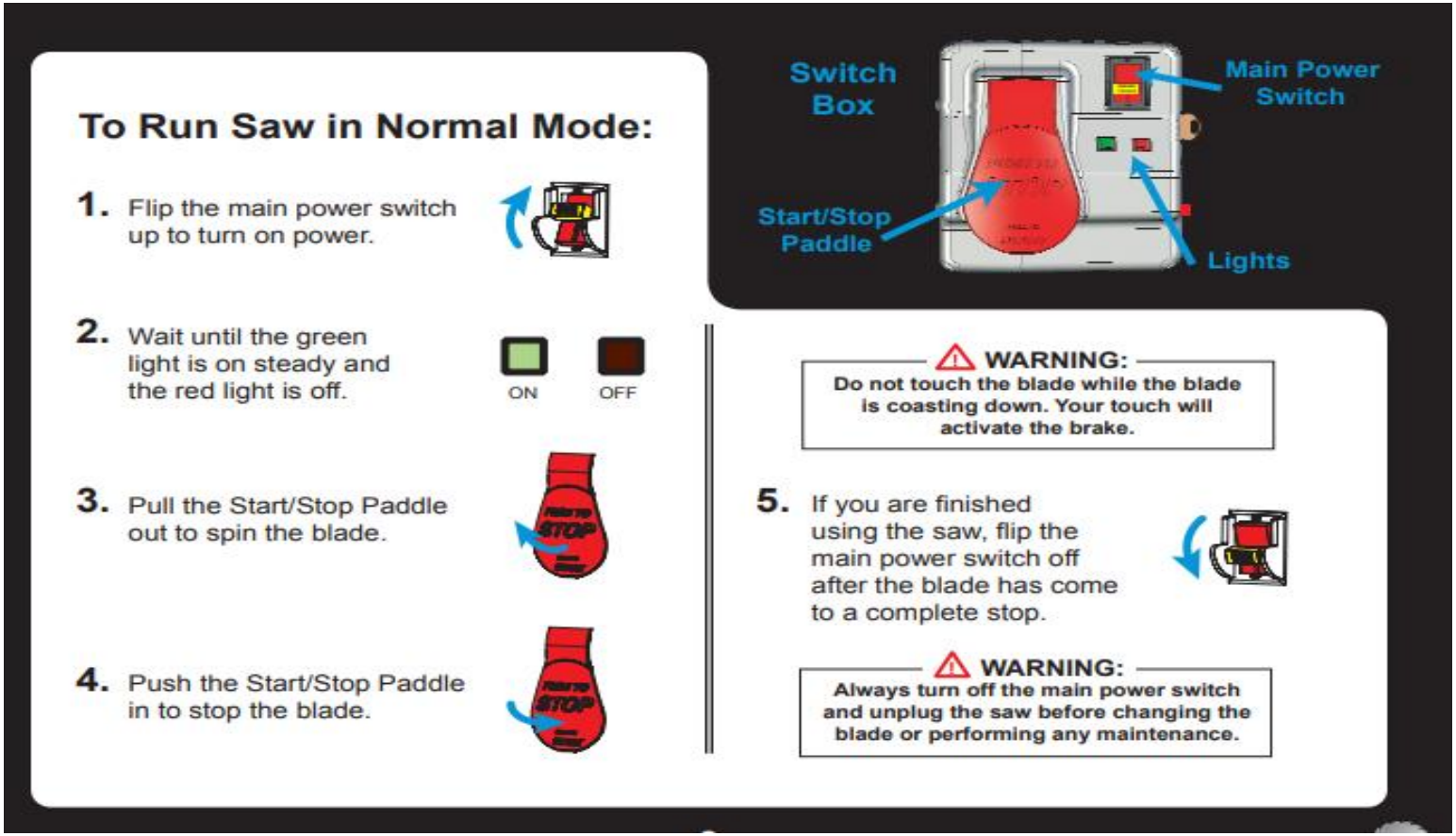
SawStop Basics

- Sensors can stop the rotating saw blade when it senses contact with a body part (or anything else that will draw down the voltage in the blade).
- A spring-loaded chunk of aluminum is fired into the saw blade in a micro second to stop the rotation of the blade and drop it below the table before the skin is cut. Injury can still occur depending on the speed of the body part as it contacts the blade.

Results

- When the SawStop mechanism fires off, the blade is often trashed and the aluminum block is sacrificed.
- Alignment of the saw should be checked when renewing the saw with a new blade and stop mechanism.
- New blade stopping cartridges cost $70 plus the cost of a new blade and labor ($$$6 pack for Dave).

Operation of SawStop



The SawStop manual has instructions to test for conductive materials

- https://www.sawstop.com/images/uploads/manuals/CNS%20Quick%20Start%20Guide%20%28Aug%2008%29.pdf
- For the classroom shop SawStop saws only dry, untreated, new wood.

But, caveats:

The sensor can be fooled if the blade contacts:

1. Wet wood,
2. Chemically or pressure treated wood,
3. Metal (nails, staples, etc.) in the wood.
4. Carbon fiber was also reported to also trigger the SawStop mechanism though this doesn't appear in the literature.

Exception

A spinning blade, coasting down will still fire off the brake, if activated, but the blade may not be trashed.

Dado Blades: Changes

- Typical Dado blades cannot be used with SawStop without changing the braking cartridge.

Important feature in a class room shop:

- The SawStop mechanism can be manually disabled, the by-pass mode!
- Why would anyone do this? If they were cutting foil backed plastic or treated wood.
- The hazard is that an operator might not re-enable the mechanism, thus making the saw less safe for future operators. *Check the manual to see if it automatically resets.*

A SawStop saw is safer but not totally safe!

- Kick-backs can still occur and cause physical damage or impalement of the operator.
- The use of the riving knife/blade splitter should/will prevent most kickbacks.
- Be mindful that the 12” minimum length still applies. The wood must be controlled at all times.
- Wood can still be pinched by embedded stresses in the wood.

Change of Shop Practices

- Do not remove table insert.
- Do not remove riving knife.
- Do not change the blades.

As all actions have the potential for firing the brake cartridge.

Take Aways; Things are Different Now

- Do not under any conditions disable any school SawStop machines.
- Continue to abide by the minimum 12” length rule.
- Do not cut any used or chemically treated wood in school.
- Do not attempt to use dado blades.
- Check wood carefully for embedded nails, staples, and other metal objects.

Important, especially home users!

Read the manual:

- https://www.sawstop.com/images/uploads/manuals/CNS%20Quick%20Start%20Guide%20%28Aug%2008%29.pdf