

Whether you're a new homeowner, landscaper or a first-time ECHO chain saw owner, here are the tips you need to properly and safely handle, use and store your chain saw.

CHOOSING THE RIGHT GAS POWERED CHAIN SAW:

There are 2 Basic Types of Chain Saws

- **Top Handle** – allows the user to control the unit from the top. Primary use for work in a tree or handling low hanging branches. Professional arborists use top handle chain saws.
- **Rear Handle** – features both a front and a rear handle. This allows for greater control.



TOP HANDLE CHAIN SAW



REAR HANDLE CHAIN SAW

Consider What the Chain Saw Will Be Used for 80% of the Time

- Cutting down trees.
- Cutting firewood.
- Trimming trees/branches.

Select the Appropriate Bar Length

- 1-2 inches longer than what you will be cutting most of the time.

Miscellaneous Features to Look For

- A well-balanced saw will remain horizontal to the ground when you hold it by one hand only. *(Note: Only do this when the engine is turned off. ALWAYS operate the saw using two hands.)*
- Air filtration system with a large air intake.
- Automotive-style pleated air filter (or a felt type covered with rubber).
- Good vibration reduction system.

UNDERSTANDING YOUR CHAIN SAW FLUIDS:

Fuel & Oil

- All 2-cycle chain saws use a proper mix of gas and oil – ECHO recommends a 50:1 mix which is equal to 2.6 fluid ounce of oil for each (1) gallon of gas.
- Always be sure to mix oil that is JASO FD rated. Both ECHO's PowerBlend® and Red Armor™ oils carry these ratings. Red Armor oil includes special detergents that clean vital engine parts and keep them clean. Use ECHO's Red Armor™ Fuel (pre-mixed gas and Red Armor oil) if you prefer not having to mix your own gas and oil.
- Fill a 1-gallon gas can halfway with 89 octane fuel and then add (1) 2.6 two-stroke oil container. (*TIP: Use a new gas can specifically marked as "Mixed Fuel" to avoid any potential confusion or fuel mix up for other items in your garage that use straight gas.)
- Fill the rest of the gas can with 89-Octane gas; seal the container and then shake it up. (*Tip: Not using enough two-stroke oil will cause the engine to seize. Use 2.6 ounces per gallon of gas.)
- Don't overflow your gas tank.
- Do not mix more fuel than you plan to use in a 30-day period.
- Return unused fuel to the appropriate container.
- Mixed fuel can separate over time - be sure to shake your fuel mix before adding it to your unit.

ECHO's Red Armor™ Fuel is a pre-mixed fuel containing 93 octane gas and Red Armor oil that's ready-to-use right out of the can. This fuel mix eliminates the need to measure or mix oil. It contains no ethanol and is specifically developed at a 50:1 ratio and is the only pre-mixed fuel that uses ECHO Red Armor™ oil.



Bar & Chain Oil

- Designed to protect your chain and bar.
- Helps maintain your chain saw's performance by keeping the chain oiled throughout its operation, even at high-speeds.
- Oil is added to a separate, specific reservoir than your gas and oil mixture (*typically located closer to the bar/chain itself*).
- This oil is specifically designed for use with bar and chains and should NOT be substituted with traditional 2-cycle mix oil or motor oil.

HOW TO PROPERLY START A COLD CHAIN SAW:

- Fill it up with fuel and bar & chain oil.
- Place your chain saw in a safe starting position, on the ground with no obstructions.
- Make sure the chain brake (*the black lever at the top of your chain saw*) is activated by pushing it forward until it clicks in place.

STARTING PROCEDURE:

- Make sure your toggle switch is in the ON position.
- If your saw has a carburetor with a purge pump or bulb, gently depress the bulb 3-5 times until fuel is visible within the bulb itself.
- Pull the choke control knob all the way out.
- Put on your hearing protection, safety gloves and safety glasses and get ready to start the chain saw.
- Secure the saw by placing your foot firmly in the rear handle space and grip the front handle tightly with one hand (*for rear handle saws*).
- Pull the starter handle once or twice until the engine begins to turn over.
- Push the choke control back in.
- Pull the starter cord once more to start the engine.
- Make sure the chain saw warms up for several minutes at idle before starting to cut.
- Check to make sure bar and chain oil is pumping. Hold the saw above a light-colored background like a piece of cardboard or paper. Rev the saw for a few seconds; oil should appear on the background. (If your saw has an adjustable oiler, you can either increase or decrease the amount of oil delivered to the bar and chain to match your cutting conditions.)

Note – while the engine will run as normal, you will need to disengage the chain brake in order to make any cuts. Be sure to engage the chain brake whenever the saw is not being used to make cuts to prevent any potential accidents.

COLD START



HOW TO PROPERLY START A WARM CHAIN SAW:

- Fill it up with fuel and bar & chain oil.
- Place your chain saw in a safe starting position, on the ground with no obstructions.
- Make sure the chain brake (*the black lever at the top of your chain saw*) is activated by pushing it forward until it clicks in place.

STARTING PROCEDURE:

- Make sure your toggle switch is in the ON position.
- The choke control/knob can remain in the “in” position.
- Put on your hearing protection, safety gloves and safety glasses and get ready to start the chain saw.
- Secure the saw by placing your foot firmly in the rear handle space and grip the front handle tightly with one hand.
- Pull the starter handle once or twice to start the engine.*
- Make sure the chain saw warms up for several minutes at idle before starting to cut.
- Check to make sure bar and chain oil is pumping. Hold the saw above a light-colored background like a piece of cardboard or paper. Rev the saw for a few seconds; oil should appear on the background. (If your saw has an adjustable oiler, you can either increase or decrease the amount of oil delivered to the bar and chain to match your cutting conditions.)

Note – while the engine will run as normal, you will need to disengage the chain brake in order to make any cuts. Be sure to engage the chain brake whenever the saw is not being used to make cuts to prevent any potential accidents.



*EXCEPTIONS (Check your instruction manual for more information):

- Some chain saws (like ECHO's CS-310 and CS-352) have a “fast idle” starting position so the chain brake needs to be immediately disengaged upon starting to avoid damage.
- Some chain saws (like ECHO's CS-590 Timber Wolf) have a decompression valve that may need to be pushed before starting.

HOW TO PROPERLY STORE YOUR CHAIN SAW:

Drain the Fuel Before Storage

- If you leave fuel in your chain saw while storing it, it can damage your chain saw.
- Empty your fuel tank as much as possible before storing your chain saw. Using a funnel, return the un-used fuel to its original storage container. Once you've emptied the saw, start the engine and run the saw until it stops running.
- Add a fuel stabilizer to the mix to keep it from getting stale.

Inspect Your Air Filter

- Make sure the air filter is clean and there are no holes, tap it on the tool bench to help clean it off and replace it.

USING YOUR CHAIN SAW AFTER STORING:

- Check your chain to make sure it flows freely and has enough tension. While wearing gloves, lift up on the chain slightly. It should barely raise away from the bar. Consult your owner's manual for proper chain tensioning procedure if the chain is too tight or too loose.
- Make sure your bar nuts are tightened.
- Activate your chain brake.
- Make sure your air filter is free of any debris. To clean the air filter, tap it on a work bench or other flat, solid surface. Never blow compressed air directly onto your filter as it can cause holes.
- Make sure the bar and chain oil reservoir has the proper amount of oil.
- Inspect the spark plug to be sure it is free of any corrosion or debris and properly tightened.
- Check your fuel line to make sure there are no cracks.
- Make sure your starter rope is free of any fraying.

CHAIN SAW SAFETY FEATURES:

Chain Brake – when activated, this device is intended to stop the saw chain rotation immediately after a kickback has occurred. A chain brake does not prevent kickback. The chain brake can be activated both manually and automatically.

Vibration Reduction – the body of the saw is separate from the handles which reduces the amount of fatigue on your hand.

Chain Tension – you'll want to make sure your chain saw has the right amount of tension. If you pull the chain up, while wearing gloves, it should barely raise away from the bar.

CHAIN SAW SAFETY FEATURES: (cont'd)

Chain Catcher – a removable piece of aluminum or plastic that is designed to reduce the risk of the operator from being hit by a chain which has broken or derailed from the guide bar during cutting.

Tip Guard – all ECHO chain saws include a tip guard. This device is mounted to the end of the guide bar and helps to prevent the chain from hitting an obstacle. The tip guard prevents the occurrence of kickback.

Reduced Kickback Bars & Chains – ECHO saws are equipped with low-kickback bars and chains. Using these will help to reduce the occurrence of kickback.

ECHO provides both an Instruction Manual and Safety Manual with each chain saw. Be sure to read & understand both of these manuals before operating your chain saw. ECHO also provides a chain saw safety video on its website. Chain saw kickback can cause serious or fatal injuries. Read and follow the instructions provided to avoid kickback.

SAFETY GEAR:

When preparing to use your chain saw, you should wear the following:

- Leather, steel-toed shoes/boots.
- Protective chaps to cover your legs. These often contain multiple layers of protective polyester material to protect the front of your legs and calf areas during chain saw operation.
- Long sleeved shirt that is tight-fitting and won't get in the way.
- Hearing protection, eye protection and a helmet.
- Gloves – to help give you a firm grip on the chain saw.



There you have it! Now that you know how to use your ECHO chain saw, be sure to share your pictures with us and stay tuned for more ECHO power tool tips.