



## The Parts of a Drill

Its important to know how a Drill works, before you get started.....Here's the essential stuff:

### The Battery

#### 1. Battery Size and Type

Newer Cordless drills often use lithium-ion (Li-ion) batteries, known for their long life and quick charging. They come in various sizes, usually measured in volts (e.g., 12V, 18V). Higher voltage means more power, but also a heavier battery.

#### 2. Compatibility

Batteries are generally not interchangeable between different brands. It's important to use the battery designed for your specific drill to ensure optimal performance and safety. Its also important to use genuine batteries, not cheap copies. Poor quality batteries can easily cause fires.



#### 3. Chargers

Always use the charger that comes with your drill. Using a different charger can affect battery life and safety. Most chargers have indicators to show when the battery is fully charged, or switch off charging when the battery is full, helping you avoid overcharging.

#### 4. Maintenance Tips

To extend battery life, store batteries in a cool, dry place and avoid leaving them on the charger once fully charged. Regularly check for any signs of damage or wear.

#### 5. Attaching

Generally batteries either **slide** onto the drill (sometimes you need to release a catch to take them off), or they **slot** into the bottom of the drill. These can be a little bit awkward to operate when the drill is new. Usually there are two catches that you need to presee together to release the battery.

### The Chuck on a Drill



The chuck holds the drill bit or Screwdriver Bit Holder in place. To insert a Drill bit, point the chuck opening up towards you, so that you can use gravity to hole the drill bit in place. Turn ithe outside ring of the chuck one way and you will see the "jaws" close up and tighten around the drill bit. Practice inserting and removing drill bits to get comfortable.

If the drill bit keeps dropping out, you need to use a little bit more force when you tighten the Chuck

## The Hex Chuck on an Impact Driver



An Impact Driver is an Electric Screwdriver with attitude. **Its Not a Drill! Don't try to put a drill bit into the Chuck**

The chuck on an impact driver is designed specifically for hexagonal-shaped screwdriver bit holders. To use it, pull the collar down, insert the bit holder, and release the collar to lock it in place. You should be able to move it up and down without it coming out.

Avoid inserting small screwdriver bits directly into the chuck, as they can be difficult to remove. Always use a screwdriver bit holder.

## Forwards/Reverse Function



Drills have a forwards and reverse button near the trigger. This is operated with your index finger and thumb.

Arrows usually indicate the direction. If you look down at the drill from above, pushing the button in on the right will make the drill go forwards. Pushing it in from the left will put it into reverse. If the button is in the middle, it locks the drill, and stops you being able to operate the trigger.

Try not to get into the habit of putting the drill into reverse when you are using it as a drill. You only really need this function when you are using the drill as a Screwdriver. Just keep moving the drill as you're drilling. It will come out of whatever hole you have made with it, as long as it is moving.

If the drill doesn't seem to be making a hole, check the direction it is moving in. If the drill is in REVERSE, the drill bit will find it very difficult to make a hole!

## Drill Function



Cordless drills have a drill setting, usually shown by a drill bit symbol. Align the symbol with the arrow. If you aren't on the **DRILL** Function, the drill probably won't have enough power to drill a hole, so make sure that you have switched the drill to that function.

If you want the drill to be a bit less powerful when you drill, you can use the switch on the top of drill to select between 1 and 2. 2 is more powerful.

## Screwdriver Function



Most cordless drills have a screwdriver setting, marked with a screw symbol or sometimes just numbers. The Numbers indicate the torque (power). that the drill is going to use to do up, or undo a screw. Start with a lower number and increase if needed.

The drill will tell you that you are not using enough torque, by stopping turning, and making a "I can't do this" kind of noise. Just dial-up the torque, and give the drill a chance.

## Trigger

The trigger is the main control for your drill, located just below the handle. It's what you press to start the drill. The harder you press, the faster the drill spins, giving you control over the speed.

Most cordless drills have **variable speed control**, allowing you to adjust the speed based on the task. Light pressure on the trigger results in slower speeds, ideal for starting screws or drilling delicate materials. More pressure increases speed for tougher tasks.



### Precision and Control

Practicing **Trigger Control** helps you achieve precision in your work. Start slowly to ensure the drill bit is properly aligned, then gradually increase speed as needed. This technique helps prevent slipping and ensures a clean finish.

### Safety Tips

Always release the trigger before changing drill bits or adjusting settings. This ensures the drill is completely stopped and prevents accidents. It's a good idea to lock the trigger using the Forwards/Reverse Button, while you are inserting or removing a drill bit, while you get used to using the drill.

## Using a Drill - Top Tips



1. **Start Slowly:** Begin drilling at a slow speed to gauge the hardness of the material. Drilling too quickly can cause damage or make you lose control.
2. **Secure Your Work:** Ensure the material you're drilling is firmly clamped down to prevent it moving or slipping.
3. **Use the DRILL Setting:** Always set your tool to the drill mode, not the screwdriver setting. If your Drill isn't actually Drilling, check this before you blame the Drill!. Make sure that the Drill is going **FORWARDS**. Drills don't Drill in Reverse.
4. **Select the Right Drill Bit:** Use masonry bits for brick walls, and HSS or brad point bits for wood.
5. **Keep Batteries Charged:** Most drills come with two batteries. Keep the spare charged ready to swap in when you need it.

## Using a Screwdriver - Top Tips



1. **Choose the Right Screwdriver Bit:** Ensure you select the correct bit for the screw type. Know the difference between Phillips and Pozi to avoid damaging the screw.
2. **Check Your Settings:** Confirm whether you're set to go forwards or backwards. Also, adjust the torque setting to suit the task at hand.
3. **Maintain Bit Contact:** Keep the screwdriver bit firmly in the screw head to prevent it from jumping out, which can cause noise and strip the screw. Use short bursts on the trigger to start, and apply extra pressure when removing screws.
4. **Follow the Screw's Line:** Align the screwdriver with the screw's path to maintain contact. Avoid trying to straighten a screw with the screwdriver, as it won't be effective.
5. **Use Pilot Holes:** Drill pilot holes to guide the screw and prevent the wood from splitting. This ensures a smoother and more precise finish.

## Using an Impact Driver - Top Tips


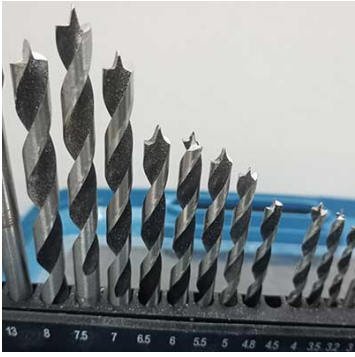



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## Drill Bits

Choosing the Right Drill Bit for the job is really Important. The Number written on the Drill bit is the diameter of the hole that it will drill. These are the three main types that you will come across:

High Speed Steel (HSS)	Brad Points	Masonry Drill Bits
		
<p>Intended to drill into metal, but great for Wood, Plasterboard &amp; Plastic</p>	<p>Designed for Drilling into Wood - they have a sharp point to grip the wood.</p> <p>Don't use them for anything else. Not as versatile as HSS bits, and a bit more expensive.</p>	<p>These are for using on Brick and Concrete Block. i.e <b>Your walls</b>. They usually have a larger flat arrow shape head. They can be used in the normal drilling function or in <b>Hammer Drill Function</b></p> <p>Choose a longer bit, if you need to drill deeper holes. Sizes <b>5, 6 and 8</b> Masonry Drill bits should cover most of your needs</p>



## Top Tip

If you are drilling into a wall and your drill is struggling, try starting with a smaller drill bit, and working up to the size that you want. This will give less resistance, and the drill won't have to work so hard.