

# Panasonic Dual Voltage Drill Drivers

Independent Review by Peter Brett

It seems like a counter intuitive idea at first, but on reflection, why not have a dual voltage tool? It just means that users have a greater choice. There are lots of reasons why having a smaller and lighter option for drilling while on a ladder is great. Equally, having the choice of extra oomph when drilling large diameter holes with a holesaw is great too. What if you had the tool and just wanted more power and capacity? The simple purchase of an 18v bigger battery will give more power and greater run time. All this is made possible by the intelligent use of electronics and Panasonic has always been one of the companies that led the way in this respect.

I was sent two Panasonic tools for this review, the EY74A1 drill driver and the EY75A1 impact driver. These can be supplied as single units or as a "twinpack" with the product code EYC200LS2G. ("twinpacks" often save money!)

I like the ergonomic design of Panasonic tools because they seem to fit my relatively small hands very well. Both drivers have generous and well-planned black rubber overmoulds that cover the handles, drill base and around the motor casings. The rubber is very grippy and dimpled in certain places so is a real enhancement of handling rather than a "me too" feature.

Each driver has a reversible belt hook, a black single finger trigger and a standard forward/lock/reverse slider switch above the trigger.

Panasonic batteries are legendary in the trade because the company is an acknowledged leader in battery technology. The new 4.2Ah lithium ion batteries combined with the smart electronics ensure a long run time and long life.

Both 14.4v and 18v lithium ion battery packs are attached using a double clip system that is very easy to use as it minimizes any friction between the components, as well as ensuring that the battery packs stay firmly in place. Definitely one of the easiest systems to operate that I have seen. The battery packs are differentiated only by the fact that the 18v pack is deeper than the 14.4v one. The lithium ion packs have a lot of electronics built in in order to maintain them at peak levels. Each battery cell is monitored for optimal discharge control as Lithium Ion cells can be vulnerable to overdischarging. Battery heat made by hard usage is also controlled and the electronics will warn the user via a flashing light on the drill to ease off before any battery damage occurs.

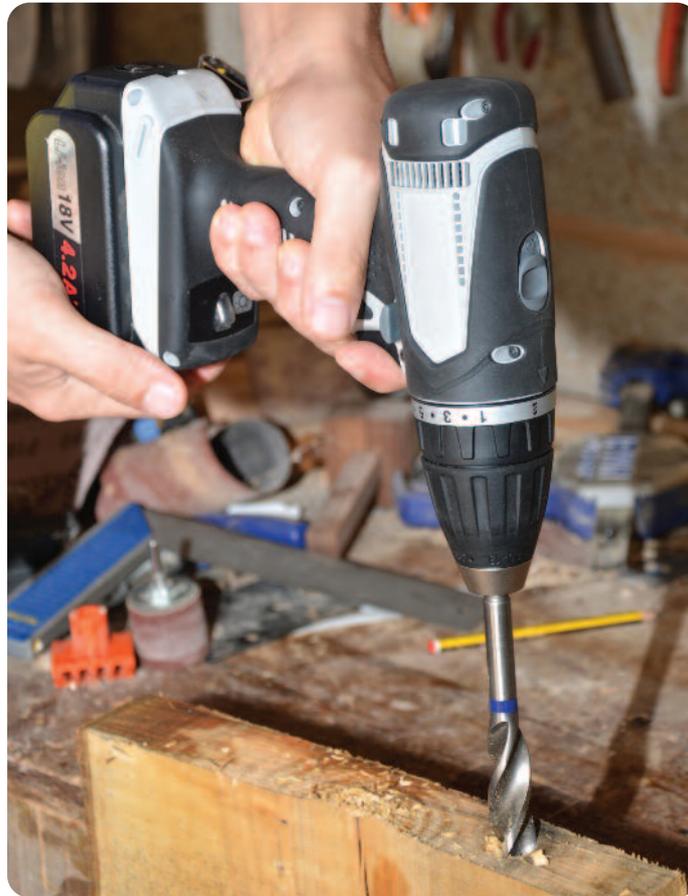
Panasonic claims that a fully charged 18v battery pack will enable one of its new drivers to drive 340 8x80mm screws into yellow pine while the

14.4v pack will top 270 screws of the same size. I can't test the claim for fear of dying of boredom, but I can believe it.

Both drivers are part of the Panasonic Tough Tool IP (Intelligent Protection) range, and I am impressed that Panasonic has had the foresight to

Clearly, a drill driver and an impact drill are different, so it's time to concentrate on the EY74A1 drill to appreciate all its features.

With either the 14.4 or the 18v battery on board the easy handling and balance of this drill doesn't seem to be much affected because the design and



go down this route. What this means in practice is that Panasonic has included a number of measures to exclude moisture and dust from the battery pack, the motor and the electronic controls. Hence there are seals around the triggers and switches and urethane layers around battery packs all of which provide good protection against "run of the mill" rain and dust hazards.

ergonomics of it are right in the first place. Most Panasonic users I have spoken to mention easy handling as one of the things they like about their tools.

The EY74A1 is quite slim, but is nevertheless quite torquey, because it is expected to be able to drill auger holes of up to 35mm diameter into softwood and be used with holesaws

commonly used by plumbers and electricians.

High and low gear are selected with a slider switch on top of the casing and the electronics can be fully used to maximize speed and efficiency when drilling. Eighteen torque positions for screwdriving are selected by means of a plastic collar with very positive click stops, so small and large screws can be driven effortlessly. When drill position is selected, the drill offers full torque and speed.

The 13mm capacity keyless chuck is quite slimline and locks with a series of audible clicks and the spindle brake stops the chuck within a second when the trigger is released.

On the base of the drill is a small LED light aimed at the chuck point. This needs to be switched on and has a timer to turn it off. Next to the light is the battery charge indicator and the battery heat warning.

When using this drill I was aware that it is a high quality product that is well designed and easy to use. It is easy to treat it as just an "ordinary" drill driver, but users should appreciate the things under the surface like the smart electronics and the IP Tough Tool protection.

Impact drivers are great for many jobs and the Panasonic EY75A1 is a "good un". It shares all the great ease of handling qualities of its siblings and a good basic design that is compact enough to work in small spaces comfortably. Working overhead with a heavy machine can be tiring too, but my guess is that it won't be too much of a problem with the EY75A1 because it is so light – a mere 1.65Kg with the heavier 18v battery pack.

The sprung collar hex chuck is secure and it is a doddle to insert and eject a wide range of hex bits.

But perhaps the thing that sets this impact driver apart is the electronically selected three-speed impact rate. For smaller screws in softer materials the impact has a slow start to enable precise starts for screws, while very demanding applications like starting self-tapping screws in metal plate use a lot more speed at first to get a "bite" into the material. The brushless motor offers a long service life and the electric brake a lot of "useability".

In short, this little compact driver was great to use on all the tasks I tried it on, from the 70mm screws into hardwood as well as self tappers into 2mm steel plate. It is just a nice little handful with enough oomph on tap.

Both these Panasonic tools are definitely worth a look – the quality and the advantages of the electronics might get you thinking. Couple this with the Panasonic Three Year Warranty on the tool itself and Two Year Warranty on the batteries and charger, and I think users could confidently buy the kit.