

Reviewed by Tony Draper

Pure Venom!

The Night Ranger II EP heli from CML...

The doorbell rings, and a package is handed over by that nice man from DHL. Rip off the brown paper (I know, what a kid!) and there in front of me is the box for the Venom Night Ranger II, all decked out in striking graphics and looking very pleased to see me. It feels like Christmas and I am a spotty youth again – hooray! It wasn't Christmas yet, however; and after insisting when my wife asked how old I was that I am seven at heart but trapped in a forty-seven-year-old body, I remembered that I am supposed to be a magazine reviewer, so I'll engage adult mode and talk seriously about this helicopter. The Night Ranger II is distributed by CML Distribution Ltd in the UK, so you should have no trouble locating an example of this helicopter at your nearest model shop. If you do have problems, pop along to CML's web site, where not only will you find a list of dealers, but a video of the Night Ranger in action; there's also a .pdf copy of the instruction manual, so you can have a sneak preview before you buy. Great service, chaps!

Assembly

There isn't any! The model comes ready to fly - moreover, the box tells you that it has been test flown at the factory, so it should also be set up and ready for action. However, look through the excellent instructions and you will be told to run through a list of checks before committing to aviation. I've outlined what I did in the "Setting-up" section of this review, so I



Instruction manual and colourful decals - important parts of any good kit!

won't duplicate it here, but one piece of advice I will give is - don't fiddle with the gyro! Yes, it's got an adjustment pot on it, but just leave it alone until you've flown the model, because in my experience it can be easily unsettled and difficult to get right again.

One thing I did change was the order of the silicone tubes that retain the battery holder in position. I have included some photos of how I made the rearrangement, which makes battery removal and fitting much easier. Once you've made this change, check that the centre of gravity hasn't been disturbed (see the instructions for further details).

Talking of the flight pack, it can be charged using the mains charger included, but just keep in mind that this is a simple device that will take about two hours to charge, so you'll need to check from time to time during the charging cycle to make sure the battery isn't getting too warm. Treat it with respect and it'll be fine, but take my advice and buy yourself a peak-detect charger and you'll benefit from much faster and safer charging. A suitable charger can be picked up for less than £30, and a charge everything-you-can-think-of unit starts at around £50. Talk to your model shop if you aren't sure.

Setting up

Straighten the main blades using a ruler or some other straight edge to double check, then eyeball the paddles to ensure that they are flat. One of the paddles on my example had got twisted in transit, so I loosened the clamp-screw and equalised it with the opposite paddle (see diagram).

Next, unplug the main motor (so that it can't spin) and connect the battery, checking that the servos are working correctly. The swash plate should follow the direction of the left stick: push forward and right, and the swash plate should lean forwards and to the right (looking from

What's in the box?

You'll find the following :

- Ready-built helicopter
- Transmitter
- Crystals
- Flight pack
- Eight AA cells for TX
- Mains charger
- Extra decals
- Instructions



Contacts

■ **CML Distribution Ltd:**
www.cmldistribution.co.uk

■ **Venom Air Corps:**
www.venom-aircorps.com



specifications

Manufacturer: Venom Air Corps
Distributor: CML Distribution
Rotor diameter: 530mm
Weight: 313g ready to fly
Power: 280 brushed motor with 800Mah 8.4v NiMh pack
Functions: Four channels with two servos and 4-in-1 mixer/gyro/ESC(s)

Price: £99.95

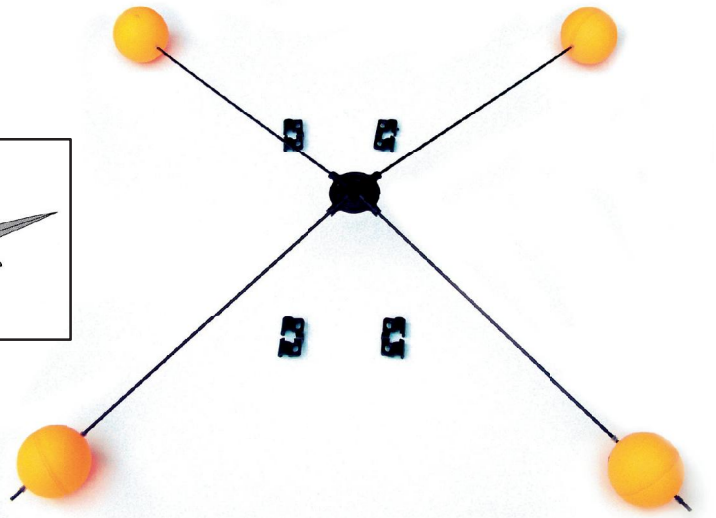
Flybar paddles in side view.



the back of the model). If any of the controls are reversed or not centred, take a few moments to adjust them now rather than waiting until you've crashed ...

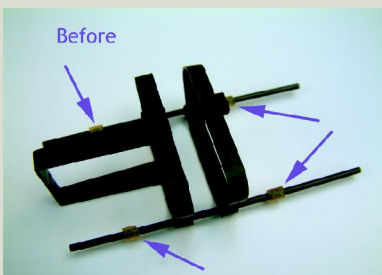
Again with the battery connected, pick up the model and, holding it well away from yourself (the battery

is a safe place to hold onto), gently increase the throttle to make the tail rotor spin. While the tail rotor is spinning, rock the helicopter clockwise and anti-clockwise; the tail rotor should speed up and slow down to counteract the motion you have induced. →

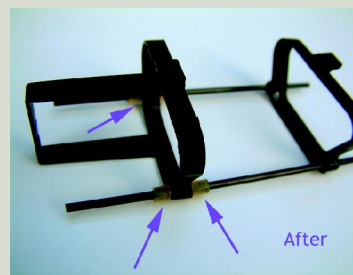


A training device like this makes initial attempts at hovering a lot less dramatic - can be found on the Internet easily.

Preparation for Flight – battery location adjustment..



Tony changed the placement of the silicone tube spacers on the battery mounting bars holding the battery holding frames in position, as shown 'Before'....

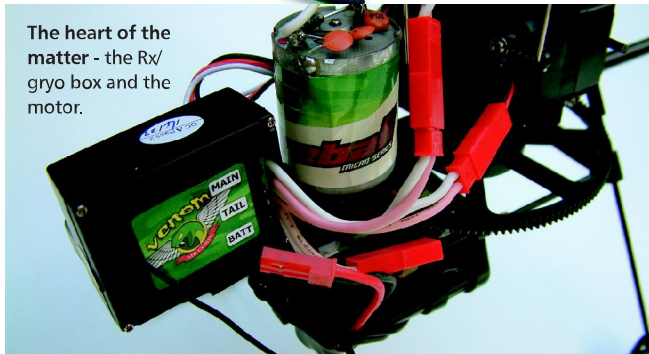


...and replaced them in position shown 'After' to make battery fitting and removal a lot easier.

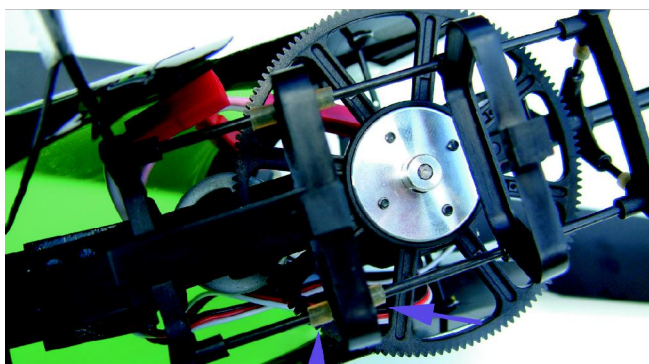


test pilot ARTIF EP 1

The clip-on slightly menacing sleek bodyshell covers all the radio and motor.



The heart of the matter - the Rx/gyro box and the motor.



Under view of the drive gear and the aluminium lower shaft support.

← Once you are happy that the functions are working correctly, disconnect the battery and reconnect the main motor. Then connect the battery again, hold the model firmly at arm's length and open the throttle.

You'll find that one blade has white trim tape on it, which helps with checking the blade tracking. My example was fine, with the

blades seen as a single blur when viewed from the side. If one blade is running higher than the other, you'll need to gently twist the lower blade (with the battery disconnected) to increase its pitch, then try again. Assuming the blades are straight and tracking is close, you should experience little vibration when you open the throttle. If, on the other hand, the



PRE-FLIGHT

If you have never flown a model helicopter of this type before, buy or make a training undercarriage. You can buy devices that'll fit this model for less than a fiver on the Internet (see photo). Remember that the Night Ranger isn't a toy, and it isn't easy for a beginner to just pick up and fly. Helicopter flying is a skill that must be mastered, but it is incredibly satisfying when you can do it. If you can already fly a helicopter, then moving from your big .50-powered ship to this will take a bit of getting used to: it is more responsive and slightly less stable than a bigger model. On the other hand, if you can fly the Night Ranger, you'll be well on the way to being able to fly any other helicopter on the market.

IN-FLIGHT HANDLING

Anyway, enough of my ramblings – how did I get on? I took the Night Ranger out into my back garden on a still and cold November afternoon. After one final check, I opened the throttle and she was straight up into the hover. The first thing I noticed was that the gyro maintains a vice-like grip on the tail, so apart from the odd minor correction, the helicopter stayed locked in the hover and facing away from me. The second thing I noticed was just how responsive and powerful the motor is on this model. It may not be brushless and it may not sport a trendy Li-Po battery, but this old-tech solution works brilliantly and doesn't need to be changed.

Moving-off showed smooth control, and the helicopter can easily make the transition from forward flight back to the hover, enabling it to be flown in tight spaces. This is a fixed-pitch model, so true aerobatics can't be attempted, but throttle response is good enough for delicate control and in normal flight you won't feel disadvantaged by the simplicity of the design. If you are new to helicopter flying, you'll also benefit from the ruggedness of the components when the inevitable crashes occur.

As stated in the instructions, you really do get around ten minutes of flying time per charge, which is more than ample - and again vindicates the low-tech approach of this model.

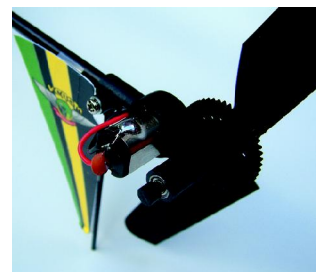
On the afternoon of the test flight it was too dark for outdoor photography, and after having waited forever (or so it seemed) for another suitable slot, I ended up getting my wife Liz to photograph the Night Ranger in the kitchen, which does at least show that it can be flown in a small space.

PILOT'S VERDICT

I really like the Night Ranger: it handles well, the gyro does what it's supposed to do, and there is plenty of power on tap from the flight pack/motor combination. I can see hours of fun ahead at our regular winter indoor events, followed by plenty of garden sorties once spring has sprung.

model wobbles badly, you need to go through the checks again (misaligned blades would be the most likely cause).

All of this may seem long-winded and complicated, but it doesn't take long and will help familiarise you with the workings of the helicopter. Remember that this is a "real" model helicopter and needs to be treated with respect. 🌟



Checklist - recommended extras...

- You don't have to have these extra bits, but they may help!
- Peak-detect fast charger
- Extra flight packs
- Training undercarriage (if you're a learner)

Summary

The Venom Night Ranger is smooth and stable (for a small, conventional helicopter) and has bags of response. It is strong enough to survive the inevitable carnage of learning, and once mastered it will give the tyro pilot a grounding in everything needed for a future in helicopter flying. Night Ranger is a lot more demanding than the clutch of contra-rotating choppers currently on the market, and you will struggle for a while to master it; but you can't beat the elation you'll experience the first time you genuinely take off, hover, move around a bit and land again under your own control. If you can already fly, but are looking for a model to fly in your back garden, kitchen or local sports hall, you'll get a lot of pleasure from the Night Ranger. It can offer the ideal way to keep your skills honed whilst your larger and more costly helicopters stay warmly cosseted over the winter. A cracking little model – well done, Venom!