

PMP Autumn Newsletter 2016

Welcome

Another year is coming to a close, just had to renew my driving licence again. The older I get the quicker the time seems to fly. Having said that, when the weather is as nice as it has been this summer in sunny S. Devon, time does pass quickly with so many outdoor activities to pursue. I have certainly done a lot more flying in the light evenings this year. The Pepperpot seems to have spent more time in the air than on the bench lately. I really enjoy flying this model, particularly the landings. It sets itself up beautifully on the approach. A small touch of up elevator just before touch-down to flare out and you have a three point landing that produces an involuntary smug smile!

In this newsletter there is the usual collection of issues raised by customers during our chats. Some of which may have been covered before and some new ones. Business could certainly be a lot better than it is so a few more sales plugs than normal so checkout our prices.

Telemetry

A tip passed onto me by one of my flying companions. He said he overheard it somewhere but does not remember where. Basically he was taking part in a cross country competition. The lift disappeared and he was scratching along below the skyline in poor visibility when the model 'disappeared'. Something that has happened to most of us at one time or another. Wagging the sticks proved fruitless so after a couple of seconds full 'crow' was selected and preparations made for the long walk. It was at this point my friend recalled the conversation with a fellow modeller saying you could use the model telemetry (Rx signal strength or GPS) to guide you to where the model had landed providing of course the R/C equipment had not been damaged in the 'landing' and was still working. Receiver strength was a telemetry function on this model so by monitoring the receiver strength displayed on the Tx monitor and rotating the Tx through 180 degrees he was able to establish the direction of strongest signal. Following the direction of the strongest signal he was able to walk directly to the model saving much time in fruitless searching as the model was not where he expected it to be albeit quite damaged. As a footnote I use receiver signal strength to fine tune aerial positioning on models fitted with 2.4Ghz equipment.

Setting Up Servos

This has been covered in previous newsletters but cropped up again in chats with customers over the last few months. Before fitting a servo it is imperative that the servo arm is centred, either using the transmitter with the relevant trims and sub trims set to neutral or using a servo tester set to mid point. If using a servo tester cross check with the Tx that the neutrals are the same. In my experience the servo arm is seldom at right angles to the servo case when the servo is in signal neutral. Use the transmitter sub-trim menu to correct this small error. If aileron differential is required then it is often normal practice to

fit the servo arm off-centre. If opting for this method then make sure that both aileron servos are set up the same to ensure aileron control movement is the same for both surfaces. After fitting the servos and before adjusting servo travel to obtain desired control surface movement check that on full servo deflection servo movement is not being restricted by the internal travel stops. After connecting the controls physically adjust the clevises to neutralise the control surfaces. Do NOT neutralise the controls using the Tx trims as this will introduce differential movement and may result in the servo hitting the internal travel stops with inherent risk of burning out the servo.

Throttle End point Adjustment

Sorry to repeat this as I know it is a topic that has been previously covered but we have received a number of telephone calls from customers recently that their recently purchased speed controller (ESC) does not work but the one it replaced did and nothing has changed. Nine times out of ten the cause of the problem is the pulse width (servo travel) on the throttle channel is not wide enough to arm the ESC. Speed controllers use the leading / trailing edge of the signal pulse to activate the ESC so if the pulse is too narrow then it does not trigger the arming process. Depending on brand and manufacturing variability the width of the pulse required can vary between ESCs hence the reason the new ESC did not arm. All that is required to overcome the problem is to increase travel on the throttle channel via the End Point Adjustment (EPA) menu on the Transmitter. After adjusting the EPA it is imperative that you rebind / pare the Rx to reset the throttle failsafe and carry a signal failure failsafe check observing the relevant safety precautions i.e. standing behind the propeller etc. If the motor continues to run after disabling the Tx increase the low throttle setting in the EPA menu and repeat the process.

Charging

Again a repeat, but we are still receiving calls for advice on battery charging. Basically NiMH batteries are normally charged at 10% of their capacity. Where the confusion seems to be is the Ni-HM battery capacity is displayed in milliamps and the charger displays charge current in amps to one decimal place. For standard charge write down the battery capacity in milliamps and place the decimal point four digits from the right i.e. 2000mA becomes 0.2000 Amps. The charge current is then set at 0.2A. For a slightly faster charge 0.4A can be set. Fast charges at 1C (battery capacity i.e. 2.0A) should only be used in an emergency as they shorten battery life and do not give a full charge. Procedure is select battery type (NiMH) and then set charge current.

For LiPos it is a little more complicated as the charger requires more information. First select battery type i.e. LiPo and NOT one of the variants. Then adjust the charge current to that of the battery capacity (1C) (move decimal point three digits to left) and then select the battery voltage / number of cells.

Electrics

Customers regularly pick our brains on a variety of subjects. Obviously we do our best to answer their questions but there is only so much information that can be absorbed in one telephone conversation which is why we write articles on various modelling subjects and publish them on our website. One topic that crops up on a very regular basis is that of electrics. Determining what motor to use, the Lipo cell count and speed controller ratings etc. There is a simple beginners guide to electrics on our website along with as host of other items which might be of interest. The link is <http://www.phoenixmp.com/articles/simpleelectrics.htm> . Rather than reading the article on-screen print it out. That way you will be more relaxed and probably absorb more of the information.

UBECS

Last minute item! Just had a call from a customer re UBECS. If you are fitting a UBEC or fitting out a multi-motor electric model that requires a speed controller for each motor it is important that there is only one positive supply to the receiver. If fitting a UBEC this means the positive (middle/red) lead on the ESC going the throttle channel on the receiver must be disconnected. The way we suggest doing this is, using pin, remove the lead from the plug and tape it back on itself. We do not recommend cutting as this stops the BEC on the ESC being used in future models.

The Sales Pitch

Post BREXIT and the continuing devaluation of Sterling which started a couple of years ago it is inevitable that the price of most modelling goods will go up as almost everything we buy and sell is either wholly or in part imported. We have done our best to delay these price increases at PMP by forward buying. However BREXIT is not completely to blame as for a long time there have been fundamental problems with the UK economy. We make and export too little, whilst importing too much! Our trade deficit with the rest of the world is one of the highest in the developed World.

Kit Building Time!

Now the dark evenings have arrived and a gentle stroll up lane or a trip to the flying field is no longer inviting it is time to get back in the workshop and start building next years models. There are now 15 models inc. variants in our kit range. We hope to add at least one more over the winter. Our kits are not quick build, they are however easy to build with a lot of attention to detail, quality of materials and no 'corner cutting'. In short, designed for building pleasure and not mass production. A copy of all the plans along with the instructions is available on the website (www.phoenixmp.com).

New Servo Mounts

I have recently built a new wing for my Stiletto. The original slid into the sea after the wings came off after a heavy landing on the cliff top at Aggie. In the past I have never really enjoyed fitting twin aileron servos in a foam veneer

wing. It has always left me with a feeling I could have made a better job of it so when it came to fitting the aileron servos in the new wing I took a fresh look at the task. I converted a square HS82MG servo mount into a circular mount and gave it a balsa base to lift the servo closer to the surface to increase servo arm protrusion. A custom made ply / balsa cover completed the job. What difference. It probably took a tenth of the time to do. Why did I not think of it before? Answer - I did not have a router and laser cutter. Full details and instructions are on our website (click on the *more* icon). Range currently HS82MG and KST DS135MG with the HS85 under development.

Monokote

We have just extended the range of colours we stock to include transparents and some metallic finishes. Monokote is growing popularity since the significant price increases in Oracover (Profilm) in the last year or so. It is a very similar polyester product to Oracover and just as easy to use. The roll size 1.8M x 650mm (72ins x 25.5ins) as opposed to 2M x 6mm. Our price for Monokote is currently £11.95 a roll.

2.5mm Metal Clevises

We started stocking 2.5mm accessories a couple of years ago. On some larger models the 2mm clevises do not seem quite man enough whilst 3mm clevises etc seem a bit of overkill so 2.5mm clevises etc. is a convenient compromise. Unfortunately the range at the is not quite complete as we are missing 2.5mm ball links. Incidentally we bulk buy all our clevises from a German manufacturer.

Ripmax Quartz Servos

Ripmax have just introduced a range of Quartz servos. As we already stock a number of different brands of servos we were reluctant to take on another brand. Experience has taught us that persuading customers to try a new brand of servos is always met with some reluctance. However one servo in the range caught our eye, the QZ204. It is almost a direct equivalent size wise to the Hitec HS82MG which we recommend for our kits and one we have used for a number of years. The main difference between the two are that the QZ204 is marginally larger, quicker, more powerful and digital! With a little bit of 'fettling' they will fit our HS82 servo mounts! They are also £2.00 cheaper than the HS82MG. We think they are good value for money.

Ripmax Quantum Brushless Motors

At last the Ripmax range of Quantum brushless motors are back on the shelves. The gap in availability was due the original manufacturer going bust. Mark, at Ripmax, has done a good job specking these motors as they have been equated to equivalent glow engines sizes i.e. 15, 20, 36, 40, 55 and 61. He also paid attention to motor Kv (RPM/Volt) in relation to likely model use and LiPo battery voltage / cell count. Low Kv motors either need a larger propeller or higher battery voltage (cell count) to produce the power relative to

a motor with a higher Kv. On smaller models it is not always practical to use a larger diameter propeller or increase battery voltage (cell count) to get more power from the motor.

New Spektrum 6E

We have just received stock of the new Spektrum 6E. Initial impressions are mixed. A very capable set, one or two nice features like a much improved and more robust adjustable Tx aerial. Stick tensioning and Mode changing is all carried out without taking the back off. Stick tensions, are for me, much to stiff. In trying to slacken them off I went too far and it 'fell apart in me hands Gov' so I had to take the back off to put it together again! *Tip* the bars across the top of the sticks are not 'handles' they are Mode changers. To reassemble the case the Mode slider on the back of the case must be in the central position with both stick 'handles' in the upright position. The Combo comes with the AR610 Rx. For telemetry you will need the new AR6600 Rx. Both are 6ch Rxs.

Winch For Sale

F3F winch. Sturdy construction. Professionally manufactured. Good condition. Has been used in F3F competitions. £350.00. Buyer collects but may be able to arrange delivery depending on location.

Signing Off

I have temporarily run out of topics to write about so it is time to sign off. Must make a start on my winter projects! Hope you have enjoyed reading this newsletter. If you have any relevant modelling items you would like covered or have written yourself then please contact me. Likewise feel free to lift any items of interest from our newsletters to include in your club newsletter but please include an acknowledgement. The more knowledgeable we are as modellers the more enjoyment we will get from glorious hobby and the less mistakes we will make!.

Happy Landings.

Stan & Sheila

Model Pictures

Wallaby Mk 2



Vagabond Mk 2



Cariba Mk 2



Carrera



Pepperpot



Sierra



Toledo



Circular mounts

