

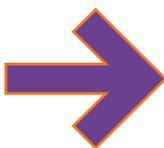
ON TEST



SERVO SAVERS



JAMIE COLE TESTS OUT THE LATEST VALUE FOR MONEY DIGITAL SERVOS FROM SAVÖX THAT HAVE RECENTLY ARRIVED ON THE SCENE FROM THE FAR EAST COURTESY OF CML DISTRIBUTION AND SEEM TO BE TAKING WHAT HAS TRADITIONALLY BEEN A DEMANDING MARKET BY STORM



Servos smervos... not the most exciting subject in the world for most, but regardless of

what you fly, or what level you are at, servos are an essential part of our hobby. In fact they are key to gaining precise control and extracting maximum performance from your model.

DIGITAL REVOLUTION

A few years ago digital servos were not on the agenda and meant nothing to anyone. Sure you had some super fast servos out there, but there was nothing that really had that 'wow' factor.

However as the hobby has progressed and the demands of the models and flying styles have

changed the servo technology has moved on and opened up a whole new world of possibilities of new manoeuvres and even the wide use of CCPM. Now you have servos that are up to the job.

WHY SPEND MONEY ON GOOD SERVOS?

The latest technologies demand more from the servos; this is especially the case when you look at the latest Spektrum, JR and Futaba transmitters. If you look at the latest Spektrum DX7se that we reviewed last month it boasts the high resolution of 2048 and 11ms update rate. To get the most benefit from this extra speed you need the latest servos. You also have 6.0V systems and you need servos that can cope with the extra voltage and loads.

The latest 3D moves such as

crack rolls, high speed aileron tick tocks etc, need the fastest servos you can get your paws on. With the larger models you also need bags of torque to make sure they can swing those blades in the right direction.

SO WHAT DO WE WANT?

We need resolution for fine control, speed to keep up with your command inputs for cyclic, but also as fast a servo as possible for the tail. You also need as much torque as possible to suit the application. As a baseline I would recommend a digital servo on all controls including the throttle where applicable. So with the above in mind what can the latest servos from Savox offer us heli boys?

I could read the corporate blurb and tell you about Savox and the quality control, the 12bits, 4096

resolution titanium servo that they were first to market with, but to be honest that's the boring stuff. What you need to know is that they are distributed by CML Distribution, are available from most reputable model shops, and they are very cost effective. In fact they are so cost effective that you can kit out a machine with three high spec CCPM servos for the same cost as a single servo with similar spec from some other more established and well known brands.

So what's in it for us? Very high spec servos, light weight with tip top specs for an affordable price. Savox has a range of servos available to suit most of our helicopter needs; from the micro to the large heli to suit from 250 to 500 electrics and 50 to 90-size nitro machines (see panel).



Savox digital servos come in all shapes and sizes so there should be one available for your application

Jargon buster

Metal gear: Most of the gear set is metal if not all, in some servos you will find a sacrificial gear just in case there is a heavy impact. This is normally a plastic gear, but is not always the case.

Titanium gear: Titanium gears are very strong and light weight

Metal cased: Some servos have metal cases, this is not normally just for show, it also acts as a heatsink for hard working digital servos.

Digital: In this context it's digital over analogue, in contrast to the analogue servo a digital servo processes the receiver positioning information in a different way. Through a microprocessor in the servo it sends an update to the motor of its required position at many times the rate of an analogue servo, literally hundreds. This constant/faster update of information means better acceleration, better holding power and the neutral or centre point dead band/ dead zone is nearly eliminated. For helis this centring ability of the servo is most noticeable and needed.

Coreless: This is a reference to the type of motor used; a coreless motor is quicker to respond than a cored motor.

Torque: A measure of how much weight the servo can shift before stalling
Speed: Normally a measure of the servo movement over 60°.

TECH SPEC

Savox servos	
PRODUCT TYPE:	High performance digital servos
	For full specs and latest prices visit the CML website at the address below
RRP:	From £29.99
AVAILABLE FROM:	All good model shops
UK DISTRIBUTOR:	CML Distribution
TEL:	01527 575349 www.cmldistribution.co.uk

Jamie Cole

Servo combo recommendations

Heli size	Servo	Qty	Application
250 electric	SH-0257MPG	4	All round CCPM and tail
500 electric	SH-1350	4	All round CCPM and tail
50 nitro	SC-1257TG	4	All round CCPM and tail
90nitro	SC-1257TG	4	All round CCPM and tail or SC-1258TG which is slightly more torque than the 1257.

The above recommendation is a guide, but you can tailor your setup to your exact needs. If you have a larger gas machine that needs the torque then go for the 20kg torque servos. These bad boys are still faster than the high spec servos I have in my Stratus 90, and still go very well. But if you are a hardcore 3D boy, then go for the speed. All of these servos are digital and very quick with bags of torque for the size.

REASONABLE COST

The cost of these high spec servos are very reasonable given the spec above. The highest cost from my selection above is £59.99 this compares to the nearest main stream rival at well over £100 per servo.

So what are the specs and how do they work in the real world? Well the reality is that it does what it says

on the tin. We used the SH-1350 in the review for the DX7se transmitter testing and they have been beaten to death for well over 150 flights with no issues whatsoever. They just work, throw them in and fly for fast accurate and cost effective light weight servos.

CONCLUSION AND OVERVIEW

For me this about performance, value and reliability. These guys have ticked every box with leading edge technology in digital high speed and high torque servos with rock solid state-of-the-art titanium gear sets, all this for a cost which is less than half of the main stream boys for a very similar spec servo.

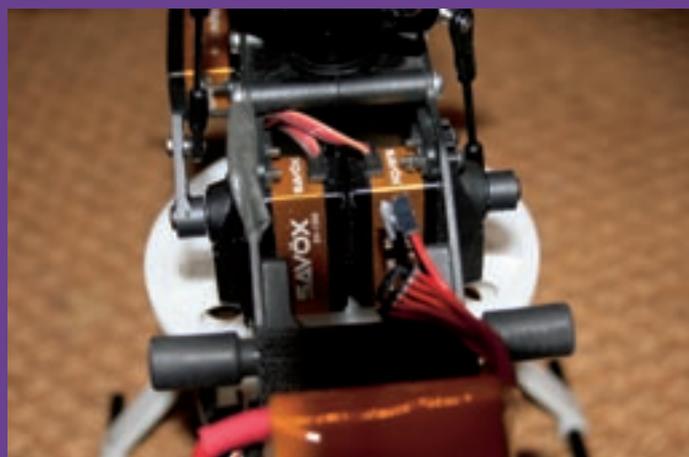
The reliability is proven to me by using the SH-1350 and SH-1257TG many times over, although I have yet to use one as a tail servo on my

90 and am more than happy to so. The jet guys are using these servos and have been for a while with great results. Jet boys don't mess with any servos they only buy the best.

I also know of some nutter who's name shall remain anonymous, who tested his first Savox servo by leaving it on a bench connected to a big fat power source for 24 hours with the servo holding the neutral position with a 1kg weight on the end for over 24 hours. Although not particularly scientific it does prove the reliability of the servo and that they stand up to a fair bit of abuse and take it in their stride.

WOULD I?

Well in short I have and I am using these Savox servos with great results. I Love 'em. Don't mistake them for a budget servo just because of their relatively low cost, they are tip top in every way. Oh and to top it off they come in a lovely little box that I now keep stuff in. These come highly recommended!



The latest Savox digital servos fitted in a T-Rex 500. These mini servos are very quick and come in at a very respectable price for the performance they offer



The Savox SH-1350 is a good all round servo that can be specified for a popular mid-size model like the T-Rex 500 for the CCPM and tail. See table for details