Changing Times

Sanwa's increased presence in the stick competition market has benefitted from their release of the dedicated 2.4GHz Exzes X. With a new UK distributor in SMD, we got our hands on a sample to see why this radio set has become the choice of the discerning racer

Unlike much of the equipment used by RC racers, radio systems are one of those things that you only buy once every few years. At the top end of the market, radio transmitters present a significant investment and for most they are one of the best looked after pieces of kit in the racers itinerary. Transmitters are unlike cars or motors because it's difficult to perform a direct comparison between two different types or designs. It takes several meetings to get used to the physical feeling of a different transmitter, and even longer to become familiar with the user interface and functions on the digital display. With that in mind, a change of transmitter is usually something a driver will plan in advance and it usually means that a driver will remain loyal to a particular brand for many years.

The Sanwa Exzes X radio first broke cover in the UK in the hands of former IFMAR Electric Touring Car World Champion Andy Moore. Andy has been a long-time user of a competitors products so for some it was a surprise to see him move away from one of his long-term sponsors. The radio is a stick version of the World Champion-winning Sanwa M11X FHSS-3 2.4GHz radio and is used by many top drivers like Robert Pietsch who used a Exzes X to win the 2011 IFMAR 1:8 On-Road World Championship recently.

COMMITTED TO THE CAUSE

The Exzes X looks very similar to the previous Exzes model range marketed by Sanwa; it utilises the same casing and button locations, and to the untrained eve it looks identical to the previous model; the Exzes Plus. However, the Exzes X is fundamentally different in that it is a bespoke 2.4GHz unit rather than being a 40MHz system using an optional 2.4GHz module arrangement. This means that there's no separate module to plug into the back of the transmitter

and no metre-long aerial installed. Instead, the whole system is enclosed within the case and is perfectly balanced as standard.

A MATTER OF **PERSONAL** PREFERENCE

The mechanics of the transmitter can be fine-tuned to individual preference too. It is possible to rotate the throttle and steering assemblies that Sanwa refer to as "gimbals" to make the sticks move slightly more diagonally, and the length and tension of the sticks can be adjusted independently.

It is possible to assign different functions to the various buttons and knobs on the shoulders and main body of the transmitter. For example, if you would prefer to adjust the steering trim using the

buttons on the rear of the casing shoulder rather than those just below the steering stick, then this can be done with a handful of button pushes in the user menu.

Users can fine-tune each function to be more or less sensitive to adjustment as well. For example, the trim adjust buttons can be configured to move the trim neutral point by a single point with each button push or by five or more points with each button push. All this makes for a very well packaged and ergonomic design that can be customized to individual users; great!

Making the display clearer in low light conditions, there is the blue backlit display that compliments the sleek and modern look of the transmitter nicely. You can of course turn this feature off and use a standard unlit LCD screen if you wish.

TEST SESSION



100



Large display offers lots of information and details



The spring tension, gimball angle and stick height can all be adjusted



Six buttons operate the menu system

TURN ON, TUNE IN, AND DON'T COP OUT!

Speaking of turning features off; this brings us nicely onto a very important topic. Like the stereotypical men we are here at Racer, we didn't pay much attention to the thick instruction manual supplied with the Exzes X and instead chose to work out how all the functions work by switching the unit on and actually using it. It would appear that we're not alone in this approach and as a result we have come to learn some very important things, all be it somewhat later than we should have!

As you would expect with any top level transmitter, it is possible to fine tune the throttle and steering inputs by using exponential functions. Most drivers choose to run around -15 per cent steering exponential as this makes the steering response less sensitive around the neutral stick position and usually results in a car that is smoother on corner entry. We set our steering exponential in this way on our Exzes X. but were surprised to find that it didn't really make any difference compared to running no exponential at all. It was later brought to our attention that

ON TEST

We put the Exzes X to the test in an Associated TC6 touring car fitted with LRP electrics and a Sanwa SDX-801 low profile servo. The venue was West London and the first round of the 2011 BRCA 1:10 TC National Championship.

While our own B final performance had a lot to be desired, the Sanwa system didn't miss a beat all weekend. It was easy to make on-thefly changes to the servo end points and trim, and to be honest, after installing the receiver and binding it to the transmitter, no maintenance was required. We couldn't have asked for any more from a functionality and ease of use point of view.

In the past, 2.4GHz systems have been accused of lacking some 'feel' that is present with 40MHz radios, and we can certainly vouch for this having trialled some early 2.4GHz systems. However, on this occasion the transition from 40MHz to 2.4GHz was seamless and to be honest the only differences we noticed were the faster response and the fact we didn't experience a single glitch all weekend. It would seem that 2.4GHz technology has all but made the older AM and FM systems redundant, and we feel that this can only be a good thing for both the racing and recreation sectors of our hobby.





Here you can see the shape of the radio's moulding at the rear for your fingers to fll into

although you can set the exponential in this way, for it to work you have to actually turn the function on in the user menu! Needless to say we were surprised by this, as you would think that the inclusion of a function such as steering exponential would automatically mean that you want it to be turned on! So, lesson learned! We urge you to be careful of things like this. Modern transmitters are like mini computers: they are very complex and their intricate functions can often lead to more confusion about what the car is doing, rather than being a useful tuning aid.

ON POWER

The Sanwa Exzes X is compatible with a whole host of battery options to power it including the NiCd and NiMH as well as the latest Lithium technology like LiPo and LiFe. The operating voltage is between 6.5 and 11V so will cater for a 2S (3.3V each) LiFe pack up to six AA (1.5V each) Alkaline cells and anything in between. We opted to go with a Lithium pack and sourced an LRP #79921 7.4V 2S LiPo from their receiver pack range that comes with the correct connector to plug straight into the Exzes X casing. Out came the AA battery holder and in fell the tiny LiPo pack – this retails for around £32 and is rated at 2400mAh. We used some foam to hold this in place as the LiPo is about half the size of the AA holder included as standard. During testing, we found that this battery only had to be charged once a month or around four meetings, although you must remove a Lithium-based battery when charging and not use the jack in the side of the radio.

CT SESSION We were kindly supplied a Sanwa transmitter bag for us to use with our Exzes X radio – this version suits both stick and wheel varients

I BOUGHT ONE

Racer spoke to Tony Evdoka, a very well respected driver to find out why he opted to buy a Sanwa Exzes X radio...

"At the turn of the year, I just finished building my new Kyosho cars and felt I needed a change with my transmitter and this was the perfect time for me. I looked around a lot and suddenly

the Sanwa Exzes X seemed to be gaining popularity and claimed to be the fastest 2.4GHZ transmitter on the market. Being a dedicated 2.4GHz radio was a major plus for me rather than the aftermarket types available. The Exzes X really took my eye and I just went for it.
I liked it from word go and took to it like a duck to water as it just feels right in the hands for me. I like the ability to have my throttle set on a three-quarter stick with a firm brake, but I do know some top drivers have adjusted theirs to a conventional 50:50 travel with the same spring tension on the throttle and brake.

The menu is somewhat different to my old KO Propo Esprit III Universe and for sure this does require some studying to make sure you know what it can do - and it can do loads! I have also fitted a LRP LiPo battery in the back of mine and that seems to last for ever and it makes the transmitter ultra light too. I have had mine for a few months now and whether indoor or outdoor I haven't even felt a glitch. The range is brilliant too and the receiver is not big at all. It sounds like I work for Sanwa I know and I assure you I don't, but it is genuinely very difficult for me to point out any bad points on this top end transmitter. I suppose taking out the LiPo for charging is a bad point and it hasn't yet won me a National event, apart from that I highly recommend it.'



Buttons and dial on the top can be assigned to specific driver needs



The AA battery holder, but you can use NiCd, NiMH, LiPo or LiFe battery packs



Control panel – the display with all the controls either side

TRANSMITTER

There are two basic types of DSM (Digital Spectrum Modulation) technology found in 2.4GHz radio systems. The first is known as DSSS (Direct Sequence Spread Spectrum), which sees the system bind to a single frequency within the 79 of the 2.4GHz band and lock on to it.

Sanwa's latest transmitters make use of their FHSS-3 2.4GHz system. FHSS stands for 'Frequency Hopping Spread Spectrum' and is where the system constantly hops from one of the 79 available slots to another. This offers a significant benefit in that if a frequency becomes interfered, the system quickly jumps through to the next free frequency in a pseudorandom order without the user noticing. In fact with the Sanwa FHSS-3 system, the frequency of the system will change more than 2000 times in a single minute!

SANWA EXZES X SPECIFICATION

The Exzes X includes all of the features you'd expect from a top of the range transmitter. In fact the complete list of functions and capabilities is quite staggering and in fairness, it's unlikely that many of them would ever be utilised by the majority of users.

- Two or four-channel mode selectable
- 2.4GHz FHSS three-channel receiver
- Perfectly adjustable stick units
- Backlit LCD display (switchable)
- Digital trimming
- 30 model memory
- Laps, interval and countdown clocks
- Adjustable servo speed
- Traction control
- Servo monitor
- Two free mixers
- Trim expo, dual rate and sub-trim
- Failsafe for receiver battery voltage
- Sanwa Exzes X 2.4GHz FHSS3 (four-channel) radio set £419.99

SUMMARY

Sanwa has used their extensive knowledge and experience to raise the bar to new levels with a high quality, dedicated 2.4GHz radio system. More functions and features than most will ever require or desire, and despite a high price tag it will surely be the most popular stick transmitter in the UK before long.



VERDICT

① Dedicated 2.4GHz system Large display screen Customisable functions and mechanics

 Some functions have to be activated in order to work / Price

Racer Rating: ★★★★★

CONTACT:

Spire Model Distribution Ltd Unit 12 Gisborne Close Ireland Business Park Chesterfield S43 3JT

Tel: 01246 470900 F-mailsupport@s-m-d.co.uk www.s-m-d.co.uk Website: www.lrp.cc