

Speed

DATA-ING!



A chronoscope is a good way to keep tabs on your airgun's performance and keep it on the right side of the law. Nigel Allen checks out Skan's latest model...

Above: The Skan Diamond Pro-1 hooked up to a PC and ready to be put through its paces

Above right: The 9-pin connector allows for backwards compatibility, but most modern PCs will require a USB adapter

When it comes to chronoscopes – devices that measure your airgun's power output – Skan is one of the most well-known names in the business. I've relied on them throughout my airgun career and have owned one since their inaugural SCAN 1 model in 1977. I traded it in 17 years later for a Skan Pro-1 and, it being almost another 17 years since, I've just upgraded to the latest Diamond Pro-1/ Series 3, complete with its computer interface and Chronolog software.

Not that my Skan chronos have ever let me down in the past 34 years – but the latest model has got everything I need as a professional tester. In particular, this 33rd Anniversary Model has got a few features that, for me, make it the speed meter to invest in whether you're a pro or otherwise.

Although £120 more, I chose the PC version because it automatically records the velocity/energy data to a computer – and, at my request I hasten to add, Skan has recently upgraded its Chronolog software to record up to 250 shots – previously it was limited to just 24. For the high shot-counts that today's PCPs are capable of, that's a real bonus because you can record a complete charge and work out where your fill/refill pressures are, as well as the sweet-spot of any power curve.

Suitable for all PC operating systems, once installed from the supplied CD the Chronolog software is easy to use. Initially, type in the gun's details and the pellet weight, and then all the chrono's readings are automatically stored into a file which you save in the same way you'd save any computer file. However, the integral cable that comes with the unit has an 'old-fashioned' 9-pin serial connector which won't fit some newer PCs, so you may need a serial-to-USB adapter. These are only a few pounds from computer shops or from the internet – but I wish Skan had fitted a USB connection in the first place. Their argument is that they want the system to be backward compatible – which I can fully understand.

Although the Chronolog files can only be viewed inside Skan's software, you can also export their data into other programs, like Microsoft Excel, to convert it to a graph – which I do a lot.

Handily, the Diamond can run off 12-18v AC or DC power, and comes with a 3-pin mains adapter. There's no on/off switch; once the power's on, you simply press one of the arrow buttons on the side of the metal casing and the unit cleverly does a self-check to confirm its circuitry is in order. This is a superb failsafe to have, and why I'd always want a Skan. Providing the LCD window reports 448.93, you're in business – and a press of the 'Yes' button then allows you to toggle through the various programs which are detailed in flow-chart format in the instruction manual.

You have a choice of two recording modes: continuous, which lets you shoot one shot after another; or storage, where up to 10 shots are stored

DID YOU KNOW...

- That the name SCAN 1, that of the original model, was an acronym? It stood for Speed Check At Nine (inches), the distance the chrono's sensors were spaced apart
- Skan has supplied its chronoscopes to most of the regional Police Constabularies in the UK, not to mention numerous gunmakers, gun dealers and other law enforcement agencies globally?
- Although there is no international standard for speed measurement, every Skan chrono is calibrated against a 'master unit' which is tested for accuracy each month?
- A chrono is often referred to as a chronograph? This, actually, isn't totally correct – it's really a chronoscope. More accurately, a chronograph is a chronoscope which prints out its results!



Above: The clear LED screen and four handy buttons make this a remarkably easy bit of kit to use

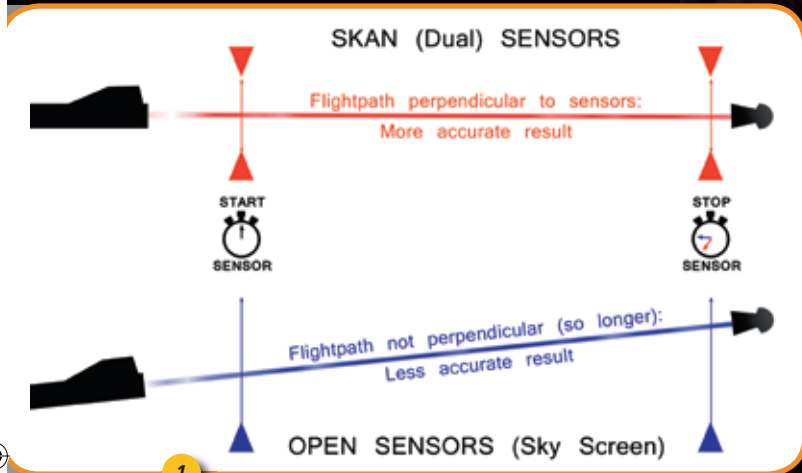


Figure 1: The Skan's dual diamond sensor configuration gives more accurate results

Shot No.	Weight	Velocity	Energy
1	0.80	787.80	91.91
2	0.80	790.27	91.84
3	0.80	792.89	91.97
4	0.80	788.37	91.34
5	0.80	792.90	91.34
6	0.80	788.27	91.24
7	0.80	782.70	91.91
8	0.80	782.70	91.91
9	0.80	782.70	91.91
10	0.80	782.70	91.91
11	0.80	782.70	91.91
12	0.80	782.70	91.91
13	0.80	782.70	91.91
14	0.80	782.70	91.91
15	0.80	782.70	91.91
16	0.80	782.70	91.91
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21	0.80	782.70	91.91
22	0.80	782.70	91.91
23	0.80	782.70	91.91
24	0.80	782.70	91.91
25	0.80	782.70	91.91
26	0.80	782.70	91.91

Figure 2: The bundled Chronolog software makes data recording a breeze

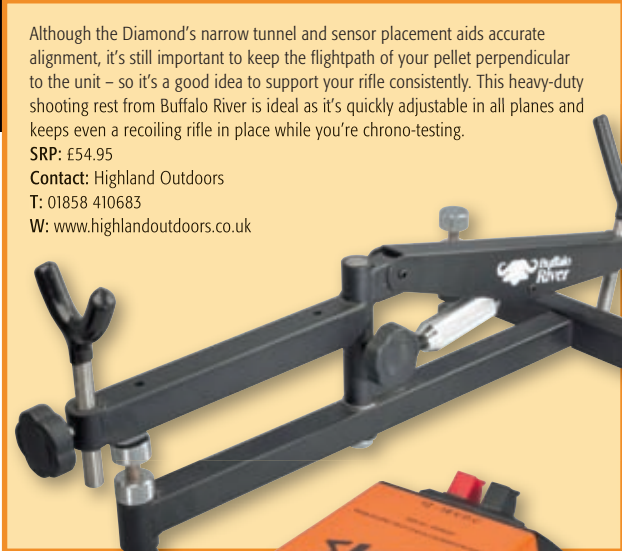
in any of five directories – A, B, C, D and E. This is especially handy when you're checking the performance of differing pellets, as it summarises the sequence, giving you the minimum, maximum and mean statistics. All modes let you input the weight of the pellet and read out the results in both velocity (feet per second to 1/100th sec) and energy (ft/lb to three decimal places).

The unit takes its name from the diamond-shaped aperture you shoot through – and while this narrow tunnel makes setting up the chrono a bit fiddly by comparison with the 'open sensor' variety, it's actually the reason why the Skan is so accurate. Inside are two, dual banks of infra-red sensors that trigger the sophisticated circuitry, but they're positioned so that the pellet flies across them pretty much perpendicularly.

As you can see from figure 1, if the pellet flies through at an angle – as it would an open sensor, or sky screen – it covers a greater distance, resulting in an incorrect calculation. This isn't the case with the dual diamond sensors, so you're assured of a highly-accurate result.

While I've always been impressed by the worth of my previous two Skan chronos, I've got to say that I'm over the moon with my third, and doubt I'll ever make use of its five-year warranty. Additionally, I simply don't understand how I've managed the last 34 years without a computer link-up – and with Chronolog recording 250 shots, my testing life is about to become a whole lot easier. That, alone, is worth every penny of the Skan's asking price. ●

SRP: £290 with serial interface and software; £170 standard unit.
Contact: Skan AR
T: 01787 227567
W: www.skanar.co.uk



Although the Diamond's narrow tunnel and sensor placement aids accurate alignment, it's still important to keep the flightpath of your pellet perpendicular to the unit – so it's a good idea to support your rifle consistently. This heavy-duty shooting rest from Buffalo River is ideal as it's quickly adjustable in all planes and keeps even a recoiling rifle in place while you're chrono-testing.
SRP: £54.95
Contact: Highland Outdoors
T: 01858 410683
W: www.highlandoutdoors.co.uk

