



## Looking at the Garmin Xero C1 Pro chronograph

By Eric Newman

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I thought I would look at the new Garmin Xero C1 Pro<sup>1</sup> chronograph concerning archery.

Right out of the box, the biggest thing I noticed was the size of the unit. (3.03" x 2.38" x 1.36") it will be very easy to carry and set up.

Garmin lists the accuracy for a bow to be +/- .4% for a bow.

There is an app for the Xero C1 Pro called ShotView. The app lets you view detailed statistics and shot analyses recorded on your Xero C1 Pro chronograph. One advantage is you can email the data and export it to Excel. This is handy for someone who likes to track their data in a spreadsheet and compare it with other data sets.

After turning it on, it is self-explanatory on what needs to be done to get it operational. I'm not going to go into much detail here. The manual is easy to get to on the web page and understand. It would be nice if it were just a little brighter when adjusting brightness, as I need more light to see at my age—the joys of getting old.

For the setup, it shows that the arrow needs to pass over the top, with the chronograph being between 5" and 15" below the arrow. It doesn't say how far from the bow it needs to be, but it does say it needs to be at least 4 yards from the target.

Testing and comparing.

First, I needed to get a baseline for comparison. I used an Ohler 35P<sup>2</sup> chronograph with the entrance gate set at 36" from the pivot point of the bow handle mounted in my hooter shooter.

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<sup>1</sup> [Xero® C1 Pro Chronograph | Garmin](#)

<sup>2</sup> [Model 35P – Oehler-Research](#)

The bow I used is my PSE Omen S2 cam at 60.45lbs, set at 26.5" with the let-off set at 85%.

I took a small sample rate of 3 shots for a quick average.

Ohler 35p	374.8gr
shot 1	286.7
shot 2	286.6
shot 3	286.4

max	286.7
min	286.4
Std. Dev.	0.153
avg	286.6

Now that I have an average velocity with the 374.8gr arrow shooting through the Ohler chronograph, I set up the Xero C1 Pro at the same 36" from the grip pivot point and 5 yards from the target. I then set the Xero C1 Pro to be 15" below the arrow. I took a 3-shot average. Then I moved the Xero C1 Pro up 1" and repeated the process until the Xero C1 Pro was 5" below the arrow being shot.

Garmin Xero C1 chronograph Test shots 374.8gr arrow 36" from grip pivot point											
	15"	14"	13"	12"	11"	10"	9"	8"	7"	6"	5"
shot 1	282.7	282.4	283.9	281.7	283.1	283.3	282.2	282.3	283.7	285	285.3
shot 2	282.3	284.2	282.2	283.6	283.7	283.8	281.9	283.1	284	286.8	286.5
shot 3	282.3	282.8	282.8	282.2	284.7	284.1	283.3	283.3	283	284.4	285.8
Max	282.7	284.2	283.9	283.6	284.7	284.1	283.3	283.3	284	286.8	286.5
min	282.3	282.4	282.2	281.7	283.1	283.3	281.9	282.3	283	284.4	285.3
max spread	0.4	1.8	1.7	1.9	1.6	0.8	1.4	1	1	2.4	1.2
dev	0.2	0.9	0.9	1.0	0.8	0.4	0.7	0.5	0.5	1.2	0.6
avg	282.4	283.1	283.0	282.5	283.8	283.7	282.5	282.9	283.6	285.4	285.9

With the average shot through the Ohler being 286.6fps, I can now see if the Xero C1 Pro could get close to this velocity and if it matters on the 5" to 15" below the arrow set-up based on Garmin recommendations.

Looking at the average shots of the Xero C1 Pro vs the Ohler, you can see the difference between the two, with the shots on the Xero at 15" up to 7" having too much of a difference for what I consider good. Not till I got the Xero C1 Pro to 6" below the arrow did I see results I would consider accurate velocity test data.

Comparison of Xero C1 Pro vs Ohler											
	15"	14"	13"	12"	11"	10"	9"	8"	7"	6"	5"
Xero	282.4	282.4	283	282.5	283.8	283.7	282.5	282.9	283.6	285.4	285.9
Ohler	286.6	286.6	286.6	286.6	286.6	286.6	286.6	286.6	286.6	286.6	286.6
diff.	4.2	4.2	3.6	4.1	2.8	2.9	4.1	3.7	3	1.2	0.7

Now for my opinion.

Something to think about with the Xero C1 Pro is it will require it to be around 5 yards or so from the target. This could be an issue depending on how and where your setup is for testing for the velocity of a bow. I didn't test for anything less, as Garmin recommends no less than 4 yards.

If the distance from a target is not an issue, the Garmin Xero C1 Pro may be a good choice for a bow shop or home use. You will need to do a test procedure as I did to find the best location for the Xero to be set at. If you are looking at my recommendation, that would be 5"-6" below the arrow and 36" from the pivot point of the grip, with the target being 5 yards from the Xero C1 pro.

If you are looking for a chronograph for providing data or giving reviews to the public where velocity is a major part of the test or review, I would recommend the Ohler 35P for collecting velocity data.