

Hand Timer Instructions

Manual timing with synchronized stopwatches is used as a backup to the electronic timing system. Volunteers are positioned at both the start and finish lines to capture start and finish times for each racer, to a resolution of 1/100th second, and to write the time on a sheet of paper. In case of failure of the electronic timing system, these times are used to calculate a racer's elapsed time. Prior to the race, stopwatches are synchronized. When pressed, the button at the top left of your stopwatch captures the current time and freezes it on the bottom line of the LCD display (where it remains until the button is pressed again). Your job is to consistently capture and record this time for each start or finish event that you observe.

The stopwatches record a continual running time at 1/100 second resolution, and feature several display modes. The Hanhart Delta E 100 watch, pictured below, displays two rows of seven digits, with the word "split" in the lower right corner of the LCD. If your watch accidentally moves out of the "time" mode (the watch pictured below is in the "lap" mode), press the mode button (the large button in the center of the watch) enough times to move back to the "time" mode. Don't worry, pressing the mode button has no effect on the running time of the watch.

The top row of digits displays the running time of day, and is not used, other than to indicate that the watch is working.

When pressed, the black button at the upper left of the watch will freeze a "timestamp" on the lower line of digits. This is what should be recorded for each start/finish racer event. The value will remain until the button is depressed again. Oddly, the times on the top and bottom lines may not agree exactly. The bottom lines on the paired, synchronized watches should be precisely the same, though.

Ideally manual timers work in pairs, with one individual capturing the times, and another recording the results. If we're short volunteers, one person can do both jobs.

At the start line, work with the start referee to make sure your position will not interfere with race operations. Watch the action of the start wand, which pops open quickly when the racer begins.

At the finish line, align yourself up to the actual finish line gates, preferably behind the reflectors. Key your response off of the same body part crossing the line for each racer, preferably the shin. For consistency, every racer should be observed from the same position.

Use your index finger to press the stopwatch button, not your thumb.

It's a long day. Bring coffee, hand warmers, a snack, and a folding chair or a 5-gallon bucket to sit on if you want.

Fill out all information requested at the top of the 'timekeeper recording form'. You will be filling out several of these sheets during the race. It is vital that the requested information on top of the form be completely filled in. It's helpful to have someone else

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record the times as you produce them, but we often don't have enough volunteers. Protecting your results from the elements in a gallon Ziploc bag is often useful.

Record the racer's bib number and the last 6 digits of the captured time on the time sheet. If, for whatever reason, you think the time you captured is inaccurate, cross it out. If you miss capturing a time for a racer, write "no time".

Don't fill in bib numbers in advance. The timekeeper recording sheet is purposely unnumbered because it is intended that you capture race events in the order that they happen (sometimes the race does not proceed in numerical bib order). Write a time for each racer that starts or that crosses the finish line. It is unnecessary for you to record anything for racers that do not start (DNS) or do not finish (DNF). This is already noted by the start and finish referees. Don't go back and change any previous entries. For instance, if there is a rerun for a racer, simply record the information on the current line. Do not alter or erase any previous information that may exist for that racer.

Before the race:

Please decide amongst yourselves who will work the top of the racecourse, and who will work the finish. Start timers will have to ride the lift and ski to the start, where they will check in with the start referee. This means that at least two individuals have to be ready to ski (boots, skis, lift ticket or race worker pass) at 9AM. Finish timers can usually walk, and don't need a lift ticket. Everyone needs to be in position before the forerunners start. Forerunners test the safety and quality of the course, as well as the timing system. We'll double check your times against the electronically captured times before starting the race to make sure they're in agreement.

Meet the electronic timing officials at the bottom of the racecourse at 9AM. Watches and clipboards will be distributed, and questions will be answered.

During the race:

Stay alert for all start and finish events. If the electronic timing fails for a racer, the manual times are the only backup.

At the start line, warn the starter if you are not ready to capture a time (stopwatch problem, blocked view). Also, always notify the starter if you miss a time, or think you have captured a bad time.

At the finish line:

Prepare yourself by staying aware of the current race order and bib number(s) on course. Listen for the bib numbers announced over the radio by the start referee. You won't have a radio, but you should be able to hear one carried by nearby officials. Notify the electronic timing person if you have a stopwatch problem, if you miss a time, or think you have captured a bad time.

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Be sure to watch for out for your own safety.

Notify the start or finish referee of any problems or concerns you may have related to the manual timing. In case of catastrophic failure of your stopwatch (batteries dead, accidentally pushed several buttons simultaneously) the timing officials have backups to the synchronized pair, and can send one to the top of the racecourse. Of course, this delays the race a bit...

Please bring, or send, the watches and manual timing sheets to the timing officials at the bottom of the racecourse immediately after each run.

