

# Starting Races with Electronic Starting Equipment

## How it Works

1. We start races “electronically” using a hand-held Start Device (Figure 1). When you press ‘Start’, the device produces a loud bang (through the connected loud speaker) and simultaneously sends a message to the computer at the finish line to start its timers.
2. As runners pass through the ‘gates’ at the finish line, the computer detects and records the time. Each runner then presents him/herself to the Recorder who enters into the computer their Shirt number against their Lane number (races run wholly in lanes) or Finishing position.

## Equipment

3. You will need the following equipment:
  - a. **Start Device (v3.0) + Lapel Mic + Cable + Loudspeaker + (optionally) Flasher Unit<sup>1</sup>** - Confirm with the Recorder that it is “paired” and ready to go. When at the start line, place the loudspeaker some distance from your position (to minimise acoustic feedback from the Loudspeaker) and facing toward the runners.  
  
The connections between the above devices are shown in diagrams at the end of this document.
  - b. **Walkie-Talkie** – set channel to same as used by the Recorder at Finish Line; For communication with the Recorder or the Events Coordinator, as required.

## Procedure

4. When required, advise the recorder (by Walkie-Talkie) what distance of race(s) you are about to start & update him whenever you move to a different start line (distance).
5. If the Light on the start device is **solid green** (not blinking), the computer is ready for a race to commence. If it is not solid green, wait, or ask the Recorder for his status.
6. When the Light is **solid green**, and when you are *ready to commence a race*, press the “push to talk” button on the side of the Start Device once – this causes the light to turn a **Reddish/Green**. Pressing “Start” anytime within the next 12 seconds will start the race<sup>2</sup>. If the 12 secs timer expires before you have pushed Start, press “push to talk” again.
7. To start a race (while the Light is **Reddish/Green**), stand up and speak into the Lapel Mic (or into the Device if there’s no Lapel Mic), giving the appropriate Starting instructions (“on your mark...etc....”), then press Start.

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<sup>1</sup> Flasher unit required when connecting Wirelessly to Loudspeaker(s).

<sup>2</sup> That is – the Loudspeaker will sound a bang, and the Computer at the finish line will start its timers.

8. The Light should now be *flashing* indicating the Computer received the start signal. Prepare the next set of runners, await a solid Green Light, and resume at step 6.

## False Starts

9. If there is a false start, press “Start” again (*within 5 seconds or so of race start*) – this produces another “bang” - to call the runners back. Wait for the light to return to solid green before resuming at step 6.

## Precautions

10. Try to keep the Start Device in a vertical position (the small antenna upright) ‘visible’ from the finish line. Between races, rest it on a table if available, rather than the ground.
11. Be careful **NOT** to press the TRIGGER/ON/OFF button (which would turn the device OFF) and require re-pairing with the computer.
12. Clear “line of sight” is needed between your position and the Recorder’s position to ensure no interfere with visual and electronic communication.
13. The loudspeaker bang is quite loud. Ensure no person’s head is in the immediate vicinity of the output of the speaker cone when pressing Start.

## Wired Connection to Loudspeaker(s)

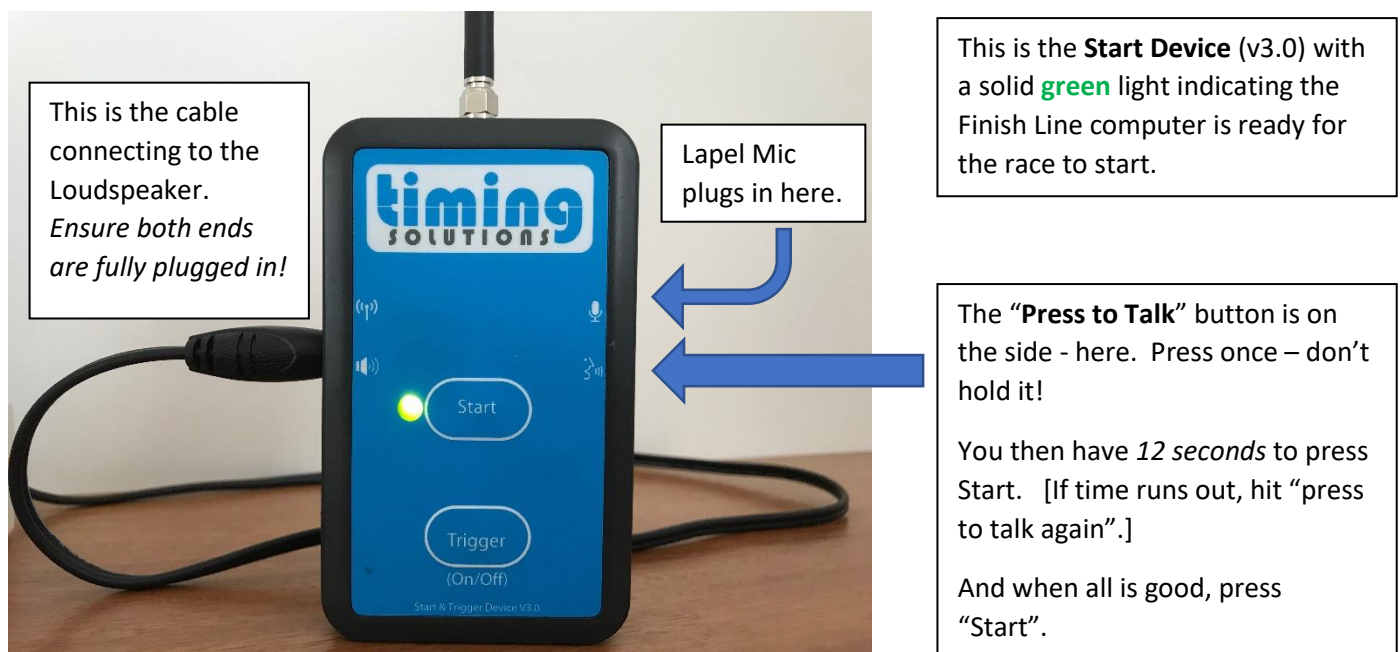


Figure 1 - Start Device with Wired Loudspeaker Connection

## Wireless Connection to Loudspeaker(s)

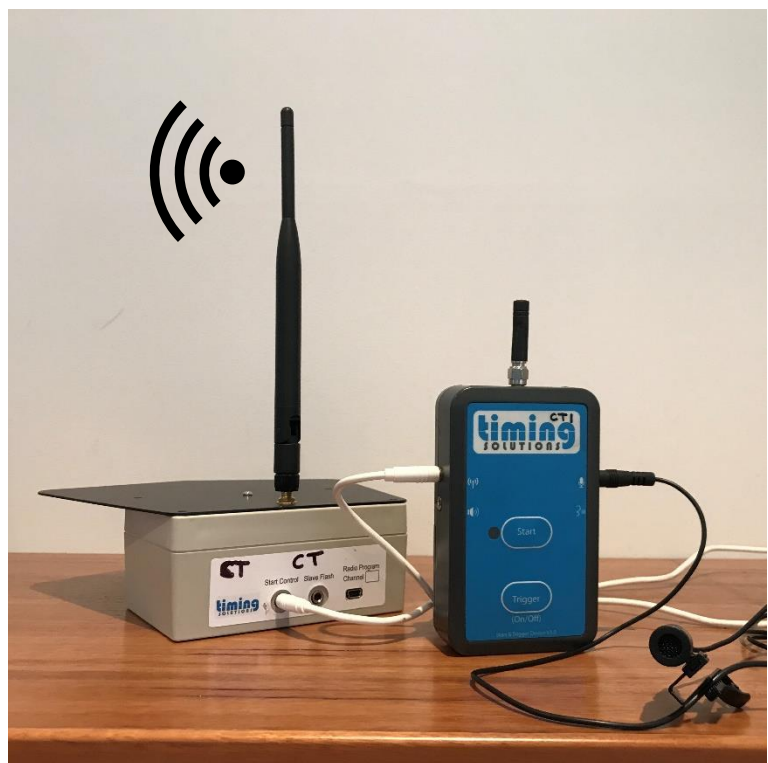


Figure 2 - Connection of Flasher Unit for Wireless connections to Speaker(s)

### Notes:

1. All devices used on a given track must “match”. Eg. On the Circular Track, the Loudspeaker must be labelled “CT...”, the Flasher Unit “CT...” and the start device should be labelled “CT...”. This is because:
  - a. The Start Device is ‘paired’ to the Track computer (labelled CT) at the finish line;
  - b. The Flasher unit and Loudspeaker(s) communicate on a specific radio channel (we use channel ‘0’ on the circular Track) which must be separate from that in use on the Straight Track (where we use channel 4).
2. The connection from the Start Device to the Flasher unit is wired. A short cable should suffice given the Loudspeakers can be as remote as required and **the flasher unit should be on a table, not the ground**. Be sure to plug the cable into the correct sockets on the Start Device & Flasher as shown in the photo.
3. For staggered starts (200m, 400m, 800m) use 2 x Loudspeakers to provide adequate sound for the Start. When moving to a Pack start race, turn off the second Loudspeaker and take the Start Device, Flasher and one Loudspeaker to the new Start Line (eg. 1500m).
4. If using the Loudspeaker(s) in a wired configuration (Figure 1), do not attach an antenna to the speaker. The antennae need to be carefully removed from the speakers when packing up and placed in the equipment carry case.