

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. For ‘pack start’ races, each runner needs to present him/herself to the Recorder who enters into the computer their bib number against their finishing position. For laned races, Bib numbers are usually collected at the Start Line - see the document [“Start Line Process Overview”](#) for a description of that process.

Equipment

3. The equipment required by the starter is shown in the images later in this document. When at the start line, place the loudspeaker some distance from your position (to minimise acoustic feedback) and facing toward the runners.

The connections between the above devices are shown in diagrams at the end of this document.

Procedure

4. 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, do not start a race.
5. 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 12¹ seconds will start the race². If the 12 secs timer expires before you have pushed Start, press “push to talk” again.
6. To start a race (while the Light is **Reddish/Green**), stand up and speak into the Lapel Mic giving the appropriate Starting instructions (“on your mark...etc...”), then press Start.
7. The Light should now be *flashing* indicating the Computer received the start signal. Prepare the next set of runners (as appropriate), await a solid Green Light, and resume at step 5.

¹ This value is configurable in the RaceHQ settings on the computer laptop.

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

False Starts

8. If there is a false start, press “Start” again (*within a few 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 5.

Precautions

9. 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.
10. Be careful **NOT** to press the TRIGGER/ON/OFF button as this turns the device OFF. If this happens, press & hold the TRIGGER button until you hear a beep, then let go. That should re-pair the device with the Race computer.
11. Clear “line of sight” is needed between your position and the Recorder’s position at the Finish Line to ensure no interference with visual and electronic communication.

Start Device

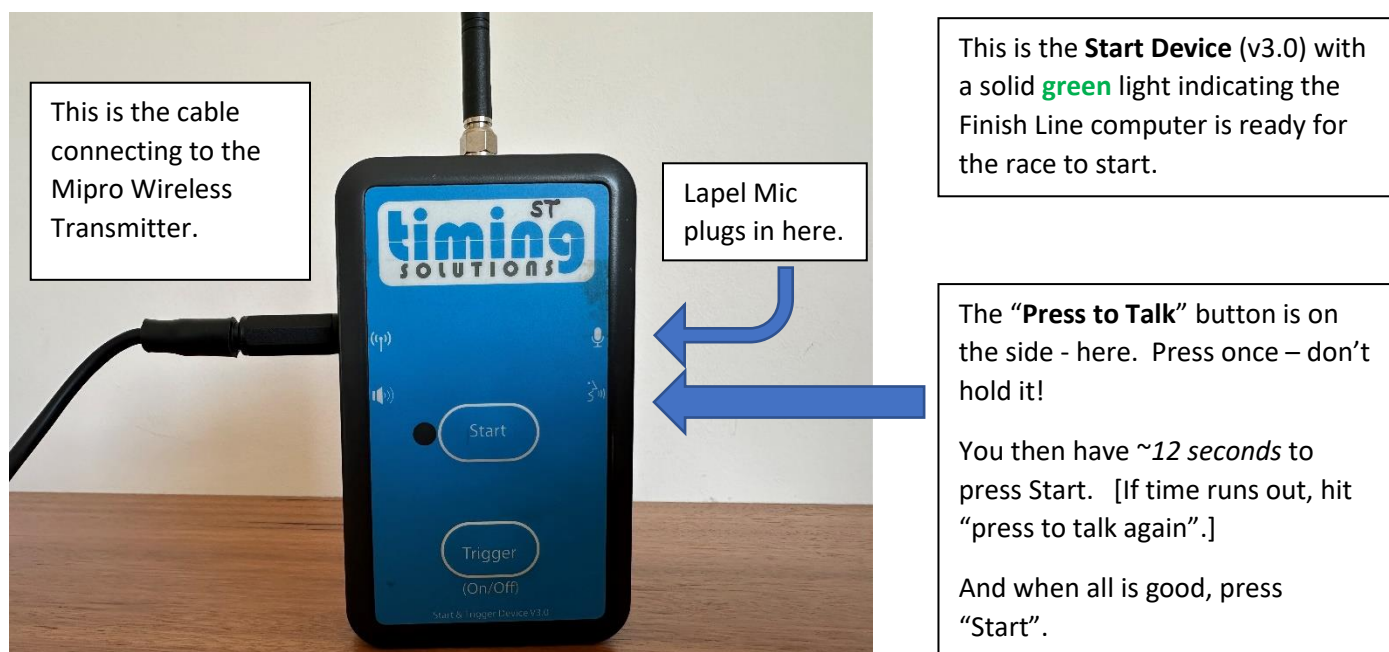


Figure 1 - Start Device with connection to Mipro Wireless Transmitter

Wireless Connection to Loudspeaker(s)

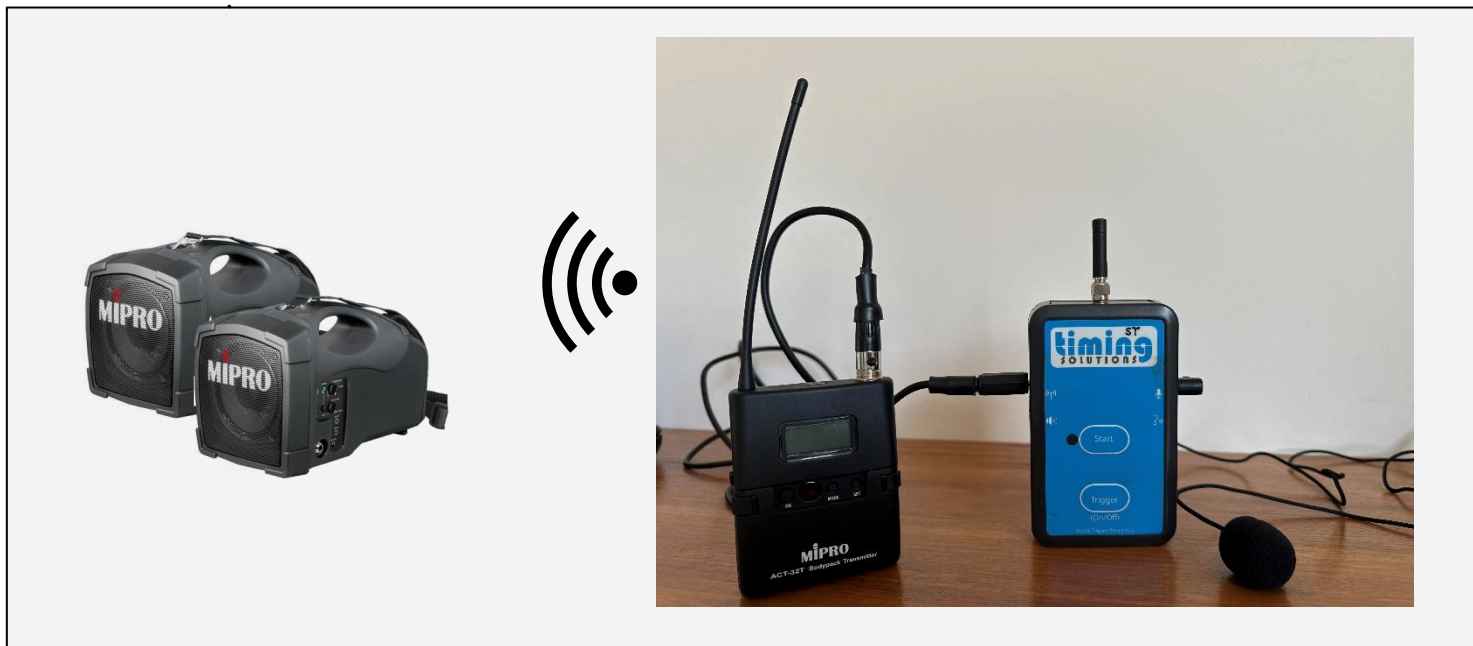


Figure 2 – Start Device and interconnected Equipment with wireless connection to Speakers

Notes:

1. All devices used on a given track must “match”. Eg. On the Circular Track, the Start Device, the Mipro Transmitter and the Loudspeaker(s) must all be matched³ (eg. labelled “CT...”). This is because:
 - a. The Start Device is ‘paired’ to the Track computer (labelled CT) at the finish line;
 - b. The Mipro Wireless Transmitter and Loudspeaker(s) communicate on a specific radio channel (we use **channel ‘1’** on the circular Track) which must be separate from that in use on the Straight Track (where we use **channel ‘2’**).
2. The connection from the Start Device to the Mipro Transmitter is wired. Be sure to plug the cable into the correct socket on the Start Device as shown in the photo. This is a custom-made cable so treat it carefully!
3. For staggered starts use at least 2 x Loudspeakers (200m, 400m, 800m) to provide adequate sound for the Start. When moving to a Pack start race, turn off the unused Loudspeaker(s) and take the Start Device, Transmitter & one Loudspeaker to the new Start Line (eg. 1500m).

³ The Mipro equipment and the Start Device don’t *really* have to match, but it is convenient to keep them together. The Mipro transmitter on the CT is set to a higher wireless power level given greater distance to speakers.