

Starters' Sound System Set-up & Notes on Use

These are notes concerning the operation of the starter's sound system purchased by BC Athletics in June 2013. The notes include suggestions for set up, use in meets, as well as notes on problems arising with the system and proposed solutions.

This sound system is best reserved for championship or other meets where you have a full start crew plus volunteers.

Speakers and Tripods

1. To set up the large, speaker tripods, loosen the bottom bolt first.
2. Pull the tripod legs apart and pull up on the bottom of the central shaft until the tripod is at the desired height. You can adjust the tripod so that it is quite high, but this is unlikely to be useful for track events.
3. Tighten the bottom bolt to hold the tripod in place.
4. Place the speakers on top of the tripods. Be careful; the speakers merely rest on top, and they should not be carried as a unit with the tripods unless you hold them vertically and carefully support both the speaker/amplifier and tripod.

Amplifier and Tripod

1. The amplifier sits on top of the smallest tripod, which is set up in the same manner as the speaker tripods.
2. Again, the amp just rests on top of the tripod, so they cannot be moved together unless held vertically and both items are supported carefully.
3. On the back of the power-hungry amplifier is a sliding door concealing 10 D cell batteries, arranged 5 batteries per side. **It is critical that you begin each meet with a new set of 10 batteries and have another full complement of batteries available. Our plan for 2014 is to move to rechargeable batteries or a power pack accessory. To conserve power and prevent the amp from powering down unexpectedly, turn it off when it is not in use—between races and during meal or other breaks.**
4. Plug the male end of the speaker cables into the speaker jacks at the right side of the amplifier's control panel.
5. Plug the cable for the wired handheld mike into jack #1 in the centre of the control panel.
6. The volume control dial is on the extreme left of the panel (I am still not clear what the other two dials activate, so trial and error).

Sound System Components and Size

1. There is a lot to carry with this baby. Its three tripods travel in a five-foot-long soft zippered bag along with some garbage bags that we've included to protect the speakers from wet weather. A soft-sided, rolling suitcase carries the speakers, amplifier, cables, and multiple mikes, including a lapel mike and a headset mike. It should also include a new set of batteries. Neil **recommends packaging one suitcase with only a speaker, its tripod and the connection cord. That way, it can be left in the car or at home if no long races are scheduled that day, See point #2 below.**
2. **If no 400's or 4 x 400's are scheduled, you may consider using only one speaker.**
3. Moving it around the track to different start lines takes some serious labour as there are three tripods, two speakers, one amplifier, and various cables and mikes.
4. The 10-foot cable for the wired mike, moreover, constrains the positioning of the starter's stand and the amplifier to within about a maximum of six to eight feet from one another.
5. Fortunately, the speaker cables from the amp are about 40 feet in length, so you can arrange the speakers closer to the track on staggered starts for optimum coverage.

General-Use Guidelines

This system is not as portable as a megaphone or Howard's little speaker and mike system. Thus, I wouldn't recommend it for club meets where you have to move around a lot or are under a lot of time pressure.

When this system is used, it is best to plan ahead. Try, for instance, to leave one of the two speakers and its tripod at the major staggered start for the day (e.g., 400 m, 200 m) and to move only the other speaker and tripod, as well as the amp and mike, of course, to the start lines for other races. Alternatively, you could supplement this system with a more portable megaphone. See sample plan for 2013 Legion Championships on the following page.

There are lots of small pieces (mics, cords, adapters, etc.) that could easily be dropped, forgotten or lost. We have an inventory sheet taped to one of the boxes in the suitcase – please check what you receive against this list to ensure you aren't missing something before you start the meet. Also check to ensure everything gets put back in the bags (1 suitcase and 1 "ski" bag for tripods are going to Langley in August 2013) before leaving the track. It is probably best for multi-day meets to arrange with the meet director to store this equipment in a secure, locked, and dry location at the venue overnight.

Wjk
August 7, 2013

Legion Championships (August 9-11, 2013) Speaker Placement Plan

Friday

- Beginning of day, place a speaker at the 400 m start area in anticipation of the 3 p.m. 400 staggered starts
- Start the 2:00–2:50 p.m. chute starts with the second speaker alone.
- Likewise use only the second speaker for the two 200 m races at midday.
- Start all 1200 m and 1500 m races with a megaphone.

Saturday

- If we combine the 1500 m and 3000 m RW at the beginning of the day (Peter plans to do so), position both speakers in the middle of the infield facing their respective start lines.
- Start the Octathlon 110 m hurdles and 200 m races with a single speaker.
- Start the 300 m and 200 m hurdles with both speakers (LUNCH BREAK between the 300 m and 200 m hurdles).
- Start the 3000 m with the megaphone
- Move both speakers to the 400 m and medley relay start line

Sunday

- Beginning of the day, set up one speaker at the 200 m start line.
- Use the other speaker for the pentathlon sprint hurdles at beginning of day.
- Use both speakers for all 200 m and 300 m hurdles and the 800 m.
- LUNCH BREAK
- Use both speakers for the 200 m.
- Use megaphone for 2000 m and 1500 m SC.
- Use both speakers for the 800 m pentathlon and for the 4 x 400 relays.
- Use the megaphone for the pentathlon 1000 m.

Notes on Starter's Sound System from Legion Championships August 9-11 2013

1. Good news first; the sound quality from these speakers is very good and the loudness is also very good. One speaker by itself transmitted audible and understandable speech not only to all start lines but all the way across the track (e.g., from the 1500m start line to the 100m start line area). The benefit here was that the crowd in the grandstand knew clearly when the start sequence had begun. Maureen (starter's assistant) said the tone of the sound from the speaker was an improvement over the usual megaphone. That said, the system behaved like a star athlete who performs erratically and has frequent injuries.....see below....
2. Friday morning we could not consistently get sound out of one speaker; problem was isolated (thanks to Rick Rathy's background in sound engineering) to an apparent short in the wire leading from amplifier to speaker. We thus decided to go with a single speaker set up.
3. Friday afternoon when we were beginning the 4x100 relays (and most needed this system), we could get no sound out of the one speaker we were using. We had to run the 4x100's with a megaphone as backup.
4. Saturday morning, we (it is handy to have a bunch of baby boomer males who are interested in electronics – thanks to Randy Stuart and others) isolated the problem to a possible short in the cable between microphone and amplifier. Luckily, we had a spare microphone cable to which we switched. The system worked well for all of Saturday and Sunday.
5. Because batteries had worn out so quickly during Neil's first experience at the Jack Brow meet, I brought 3 sets of batteries to the Legion Championships. We regularly turned the power off on the amp when we had any significant breaks on Friday. When we first had problems late on Friday afternoon, I presumed it was dead batteries and changed to fresh batteries to no avail. This second set of batteries lasted us through Saturday. Out of concern about a battery failure on the last day of the meet, I went to a fresh (3rd) set of batteries on Sunday morning. The 10 D Cell battery holder fits very snugly into the amplifier case and so makes it a bit time consuming to open up the battery compartment and change batteries in the midst of a busy meet.
6. Transporting the single speaker/tripod and amplifier/tripod arrangement from start line to start line was easy with 3 starters and would probably be so with 2 starters but a single starter would need help with the current set up.
7. Sometime during the first 2 days of the meet, a nut went missing for the lower bolt that tightens the bottom of the tripod. We switched tripods with no problem, but this is a reminder to have some spare nuts and to check on these parts before, during, and after meets.

Concerns arising from the above

1. Wires connecting speakers to amplifier are long but do not appear sufficiently heavy duty to manage with outdoor use. It is particularly disturbing that one of these wires has malfunctioned before even its 4th full day of use (we were getting static and erratic sound from a speaker in the Harry Jerome meet as well so the wire was probably defective even during its third day of use). It is also disturbing to have the mike cable go this early.
2. An easier – and less costly – solution to powering this device is necessary as the potential for losing power and the time involved in changing batteries in the midst of a busy meet is unacceptable. Dale and I discussed the option of an extra 10 cell battery holder that could be plugged in quickly to replace dead batteries or of having a larger case for the amp that would allow for the battery holder to sit outside the amplifier case and make for faster replacement of batteries. A recharger (suggested by Neil by email) is relatively inexpensive and we could thus use rechargeable D cell batteries much of the time.
3. A simpler transportation (from start line to start line) system is needed for a single starter.

Suggested Solutions

1. Get compensation for, or replacement of, these defective wires/cables.
2. Investigate heavier duty wires that are more compatible with the outdoor conditions common in track meets.
3. Buy battery recharger and rechargeable batteries as well as keep a stock of regular D cell batteries for back up in the competition area.
4. Buy a separate 10 D cell battery holder for quicker replacement of batteries during meets.
5. Purchase and adapt a wheeled holder for the amplifier and a speaker to make this system easier for a single starter to manage. Dale has some thoughts on this such as something smaller than the wheeled plastic box Ted has in the photofinish tent (available at Home Hardware). This could be modified to hold the amplifier (with generous access both to the battery compartment and the front control panel) as well as a speaker mounted on top with a short speaker wire between the two. This could then be wheeled (as opposed to carried) between start lines and could be supplemented with a second speaker on the staggered starts.

Wjk
August 12, 2013