

Loudspeakers

Keyman 	Crew
Corey DeLoach	Melissa DeLoach; Mike Vigil; Lilia Vigil; Mike Mundell; Malachi Jenkins

Your team places and aims six passive loudspeakers, two stage monitors and the active speakers for the lobby and Accounting.

Before starting, meet Corey, review the [Loudspeakers DC-83](#), and open Sheets 1-1, 4-1 and 6-2 in the [schematics](#).

DC-83 — Saturday morning safety review

Reviewed by Ralph Ord on 5 October 2026. [Open the final PDF](#).

Job Hazard Analysis

(Job Hazard Analysis Instructions (DC-83i) must be used while completing this form.)

PROJECT TITLE	CABR-2026-10 Assembly A/V
JOB DESCRIPTION	Loudspeakers - setup and dismantling
JOB LOCATION	Imperial World Samrong - auditorium, stage and lobby
SCHEDULED START DATE	2026/10/10
EMERGENCY NUMBER(S)	093-019-4124 (Program Overseer Bo Nielsen)



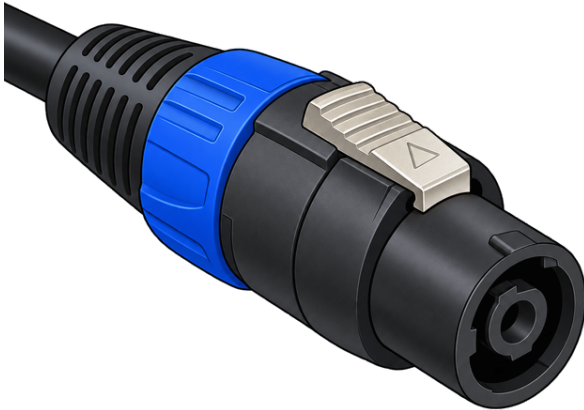
JOB STEPS		HAZARDS	CONTROL METHODS		
Move PLS-1, TP-1, ALS-4 and SES-1		Ergonomic/safety: Heavy rolling cases, up to 150 kg; crush injury.	Engineering/Admin: Wheel cases on clear route; use enough helpers; gloves/work shoes. Assigned to: Corey DeLoach		
Mount six PLS-1 speakers on TP-1		Safety: Speaker can fall; tripod can tip; legs can trip delegates.	Engineering/PPE: Stable base; one leg forward, two back (see wiki); two-person mount; sandbag, lock and wire before raising; hard hats. Assigned to: Corey DeLoach		
Position tripods and ALS-4 active speakers		Safety: Tripod legs, unstable speakers or cables can obstruct walkways and trip delegates.	Engineering/Admin: Shelter tripods inside chair sections; keep aisles/exits clear. Place ALS-4 per plan; confirm others; secure units and cables. Assigned to: Corey DeLoach		
Confirm final positions, connect and test		Electrical/physical: Damaged leads or high test level.	Admin: Keep off while connecting; coordinate power; check locks/slack. Finalize positions before sound check; do not move afterward. Test low. Assigned to: Corey DeLoach		
Lower and pack after program		Safety: Falling equipment while lowering stands.	Engineering/PPE: Clear area; hard hats; power off; lower before detaching; inventory. Assigned to: Corey DeLoach		
PREPARED BY JP Bourgeois	DATE PREPARED 2026/09/24	REVIEWED BY Ralph Ord	DATE REVIEWED 2026/10/05	REVISED BY JP Bourgeois	DATE REVISED 2026/10/04

Use additional forms as needed.

Safety:

Use two people to mount or remove a loudspeaker. Wear hard hats while working with raised speakers. Keep hands clear of moving parts. Connect the **speakON cable before raising**, and check every lock is secure before letting go.

□ What a speakON connector looks like



speakON cable connector

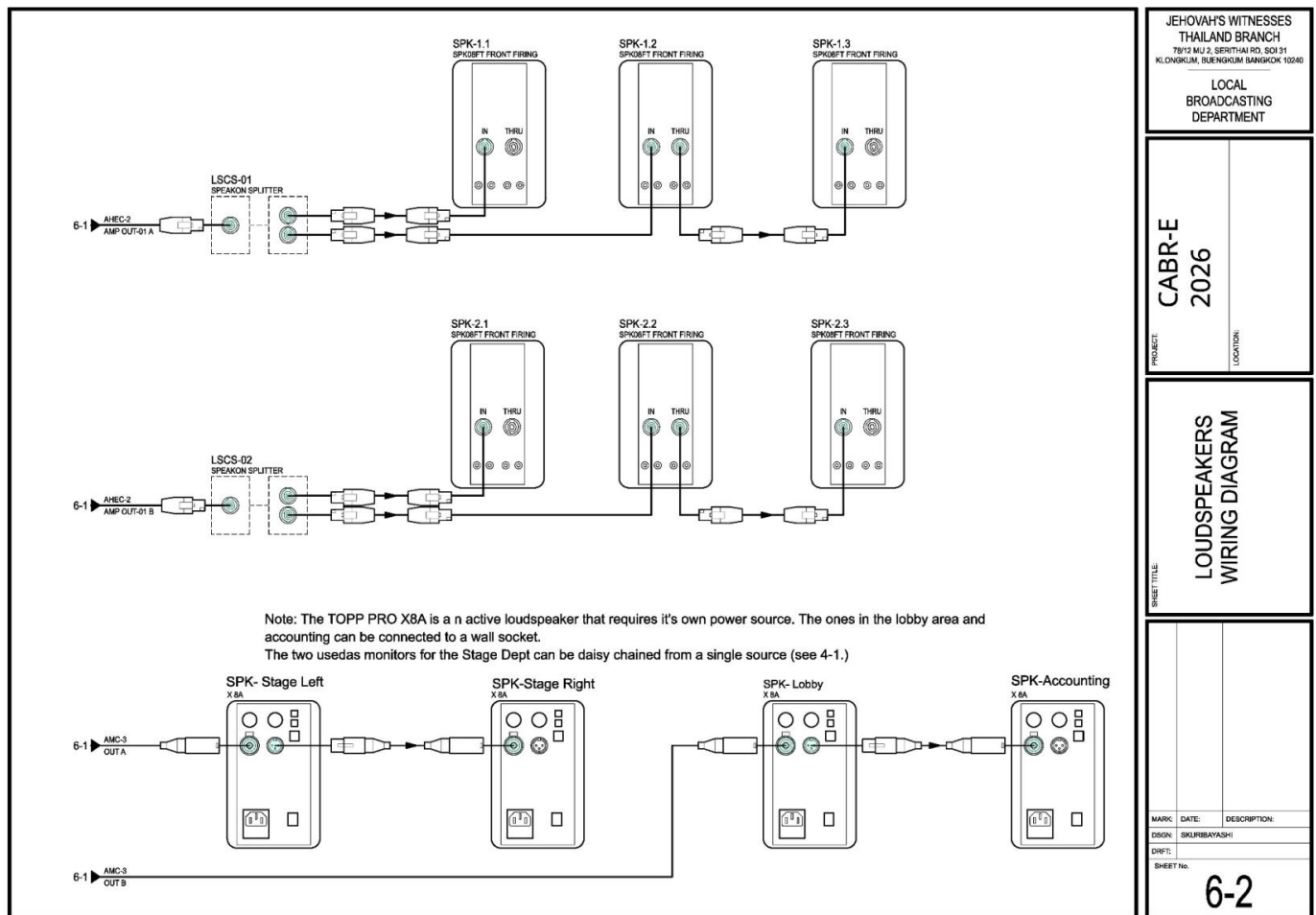
What your team does

1. With Corey, mark the six passive-speaker positions from Sheet 1-1. Keep exits and walking paths clear.
2. Set up the passive speakers using the quick guide below; complete each as far as practical before moving on.
3. Place the two stage monitors on the stage floor as shown on Sheet 4-1. Agree the exact positions with Stage.
4. Place the lobby and Accounting active speakers on stable surfaces near safe wall sockets. These speakers do not use the passive-speaker tripods.
5. For all active speakers: the labelled **XLR return cables** start at the **stage end of the AMC-3 audio multicore (snake) cable**. **Return A** feeds the stage monitors; **return B** feeds the lobby and Accounting. Audio Cabling routes and labels these runs; **your team connects them to the active speakers**. Power handles mains connections. Confirm both handoffs and final positions with those teams before final placement and testing. Keep connections accessible and cables clear of walking paths and wet areas.
6. Test every speaker with A/V Booth and walk the seating area with Alex. Adjust audio levels only as directed.

Set up each passive loudspeaker — CO-160a quick guide

These steps come from **CO-160a Chapter 3, Tripods (TP-1), pages 5-6, Figures 58-59**. Use the current CABR-2026 drawings for the actual speaker position, height and aiming.

Current CABR-2026 Sheet 6-2 — loudspeaker wiring



1. Open and secure the tripod — Figure 58

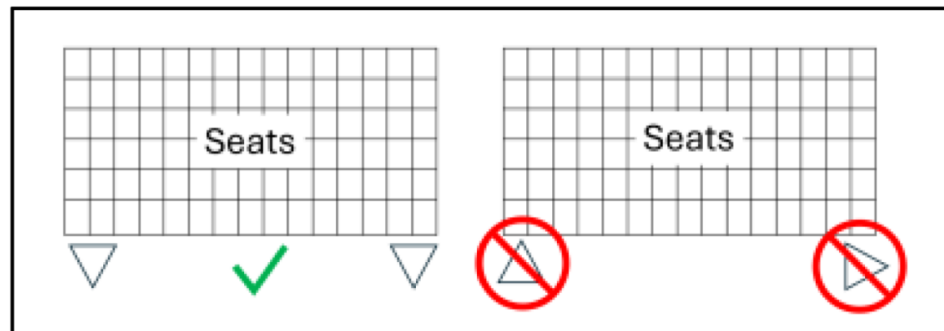
- On an even, stable surface, loosen leg clamping screw ①. Open the legs until cross braces ② are horizontal, then retighten.
- Keep one leg forward and two at the back, with the loudspeaker's tilt above the forward leg (as mentioned in the DC-83.)

View tripod orientation image

This image illustrates tripod leg orientation only. The chair blocks do **not** represent actual placement relative to chairs; use Sheet 1-1 and Corey's agreed layout.

3.7.1. Align speaker stands to avoid tripping hazards

The speaker stands have large tripod legs that present a tripping hazard. Early in setup work closely with the AV Team to ensure the positioning of these tripod speaker stands is optimized for foot traffic to prevent tripping.



- Add the **5 kg sandbags** Corey assigns.

View CO-160a Figure 58 — TP-1 tripod

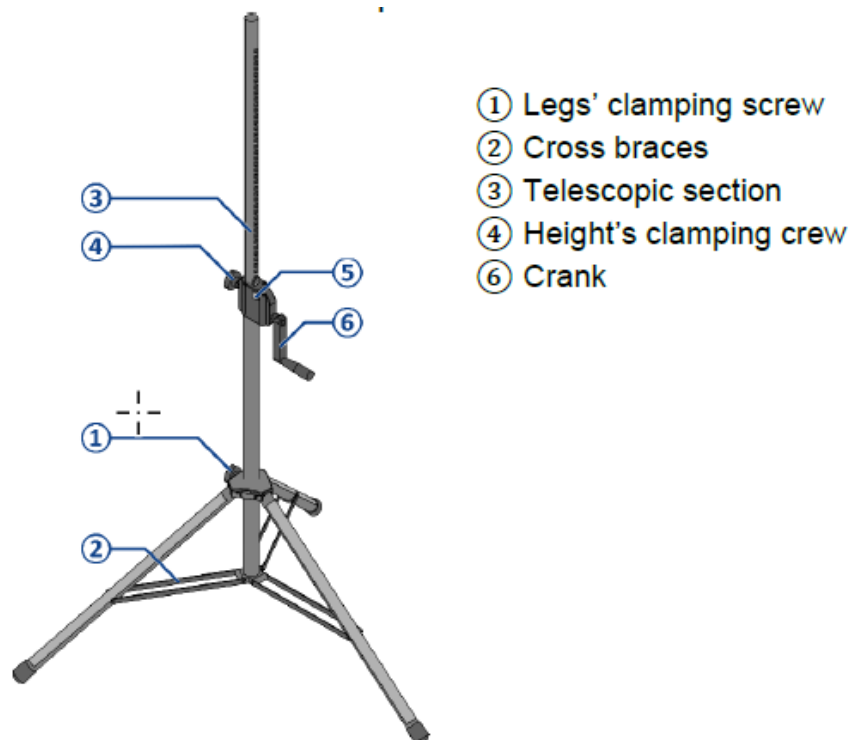


Figure 58. Tripod.

2. Mount and aim the loudspeaker — Figure 59

- Set the adapter to about **5° downward** and tighten upper clamping screw ⑦. Turn lock ring ⑤ toward **OPEN**.
- With **two people**, mount the loudspeaker on the adapter.
- Turn lock ring ⑤ toward **CLOSE** until secure, then aim according to the current CABR-2026 drawing.

View CO-160a Figure 59 — tilt/angle adapter

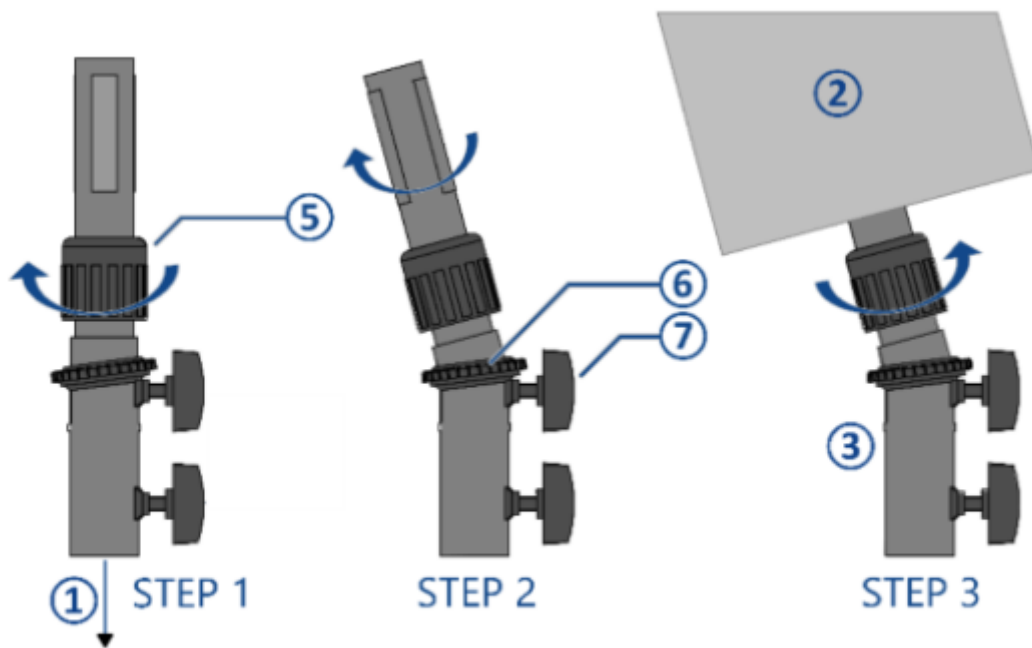


Figure 59. Tilt adapter.

3. Connect the speakON cable before raising

- Connect the correct labelled **speakON cable** from Audio Cabling **before raising the loudspeaker**.
- Leave enough slack to avoid pulling on the connector; keep the cable clear of the tripod mechanism and walkways.
- If the cable is not ready, leave the tripod lowered and return to it later.

4. Raise and lock the tripod — Figure 58

- Loosen height clamping screw ④. Hold button ⑤ while turning crank ⑥ to raise telescopic section ③ to the height in the table below.
- Release button ⑤ and continue cranking until the safety pin clicks into place.
- Tighten height clamping screw ④.
- Check the tripod, adapter, loudspeaker, sandbags, **speakON cable** and all locks before moving away.

For the keyman

Group	Position and height	Aim — about 5° down
Front: SPK-1.1, 1.2, 1.3	About 4 m from the first row; normally 2.5 m high, with 1.2 at 2.4 m	Toward sections A, B and C
Rear: SPK-2.1, 2.2, 2.3	About 3.5 m from the first row; 2.5 m high	Toward sections D, E and F

If a raised speaker is above a walkway, keep at least 2.1 m clear underneath or use a barrier.

When your speaker work is finished: Check with Lacey and help Audio Cabling with the remaining cable work.

Roll the heavy PLS-1, TP-1 and ALS-4 cases with enough helpers. See [Safety, dismantling and references](#) for Sunday’s confirmed assignments and sequence. Wait until the audience has left, power is off and the teardown briefing is finished. Lower the tripod completely before two people remove the loudspeaker.