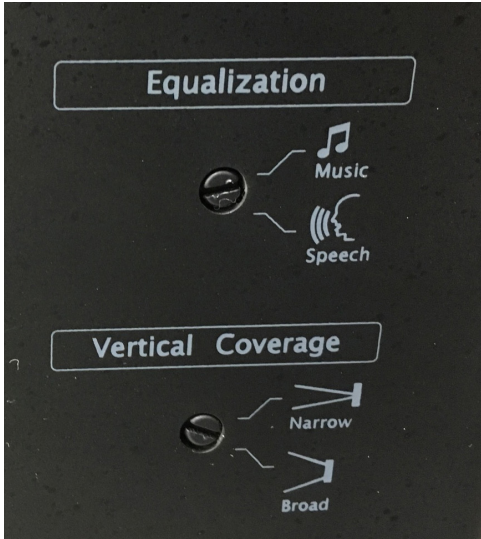
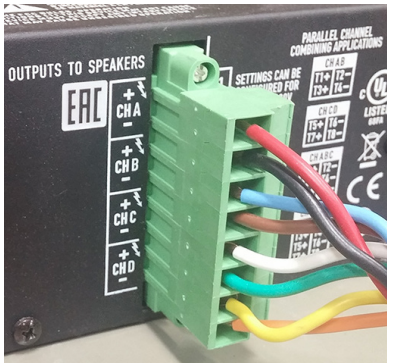


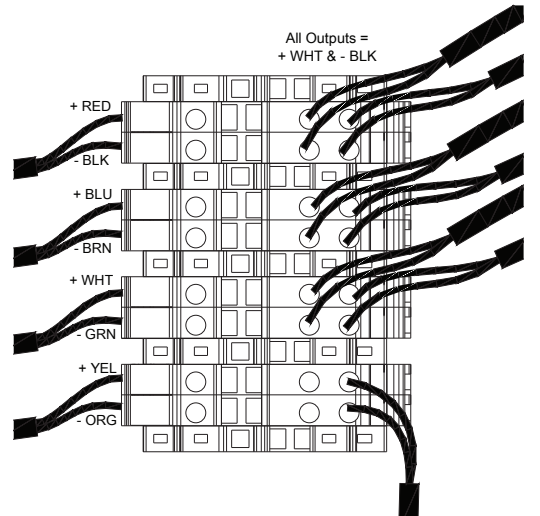
Task (Major Step)	Process / Key Points / Reason Why (if applicable)	Tools Required / Reference Materials
THESE ARE FIELD SERVICE INSTALLATION INSTRUCTIONS. REFER TO SUBCONTRACTOR SCOPE OF WORK FOR THEIR RESPONSIBILITIES.		
1. Receive Equipment <input type="checkbox"/> Unload equipment from truck <input type="checkbox"/> Store control equipment in secure location	a. Equipment for audio system is generally crated together. b. Store all control equipment in a secure location to prevent damage or theft.	Sportsound Indoor SSN-250 Audio System Installation Manual (DD3580600) This manual includes all drawings referenced below.
2. Inspect Equipment for Damage <input type="checkbox"/> Inspect equipment for dirt/damage <input type="checkbox"/> Clean/repair/report dirt/damage to PM	a. Visually inspect the exterior finish of all items for deep scratches, dents, chips, etc. b. Contact PM/PC about any damaged goods.	<ul style="list-style-type: none"> mild soap nonabrasive cloth
3. Install Speaker Cluster <input type="checkbox"/> Hang and assemble speaker cluster <input type="checkbox"/> Verify proper rigging <input type="checkbox"/> Install Speaker J-box	a. Mounting options vary. Follow drawings for proper mounting. b. Verify proper assembly and rigging - connections are tight and made properly. c. Install Speaker J-box near speaker cluster to ceiling structure.	<ul style="list-style-type: none"> Section 3 of Installation Manual DWG-3393643, DWG-3394171, and/or Site-Specific Drawings Tools to install hardware
4. Aim and Set Speakers <input type="checkbox"/> Aim speakers to fit venue <input type="checkbox"/> Record Angles: Column 1: _____ Column 2: _____ Court 1: _____ Court 2: _____	a. Speakers need to be aimed properly to fit venue. A good starting point is 10 degrees down. b. Verify Equalization switch is set to Music on column speakers. c. Verify Vertical Coverage switch is set to Broad on column speakers.	<ul style="list-style-type: none"> Section 3 of Installation Manual DWG-1200806 Tools to adjust hardware, small flat screwdriver
5. Mount Control Enclosure (Amp Rack) <input type="checkbox"/> Determine location for control enclosure <input type="checkbox"/> Mount backpan to the wall <input type="checkbox"/> Mount rack to the backpan	a. The control enclosure (AKA "amp rack") should be installed in a location near the speaker cabinet easily accessible from the ground where the speaker wire will reach. b. Mount the backpan to the wall using approved hardware. c. Lift and mount the rack to the backpan using supplied hardware.	<ul style="list-style-type: none"> Section 3 of Installation Manual DWR Series Instruction Sheet (included in Appendix B of installation manual) DWG-3750728 Tools to install anchors/hardware
6. Route and Terminate 8-Conductor Speaker Cable <input type="checkbox"/> Verify cable is pulled <input type="checkbox"/> Terminate speaker cables to amp <input type="checkbox"/> Terminate speaker cables to J-box	a. Verify the speaker cable is pulled into the speaker J-box and amplifier rack. b. Terminate the speaker cable to the amplifier as shown. c. Terminate the speaker cable to the speaker J-box as shown. If these connections were done by others, double-check and verify.	<ul style="list-style-type: none"> Section 4 of Installation Manual DWG-3822601 wire stripper small flat screwdriver
7. Test and Terminate Speakers to J-box <input type="checkbox"/> Test resistance of speakers <input type="checkbox"/> Record resistance values: 1 Top: _____ 1 Bottom: _____ 2 Top: _____ 2 Bottom: _____ Court 1: _____ Court 2: _____ Subwoofer: _____ <input type="checkbox"/> Terminate the column speakers <input type="checkbox"/> Terminate the court speakers <input type="checkbox"/> Terminate the subwoofer	a. The top and bottom half of the column speakers get paralleled together in the J-box. Use fork connectors on the speaker terminals. Before J-box termination, test resistance between white and black wire of each pair. b. Both court speakers get paralleled together on the third set of terminals in the J-box. Use fork connectors on the speaker terminals. Before J-box termination, test resistance between white and black wire of each pair. c. The subwoofer gets terminated to the 4th set of terminals in the J-box. Use fork connectors on the speaker terminals. Before J-box termination, test resistance between white and black wire.	<ul style="list-style-type: none"> Section 4 of Installation Manual (see also Resistance Check in Section 5) DWG-3822601 multimeter wire stripper, crimper E-1078 fork terminals Phillips and small flat screwdrivers



4b/4c. Equalization & Vertical Coverage



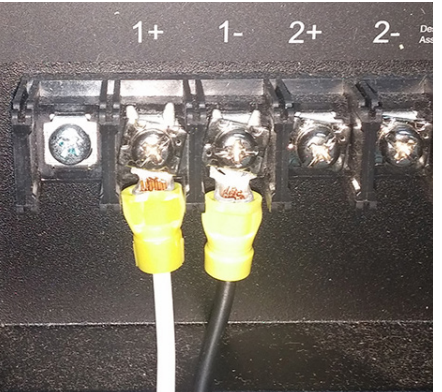
6a. Terminate Speaker Cable to Amp



6b. Terminate Speaker Cable to J-box

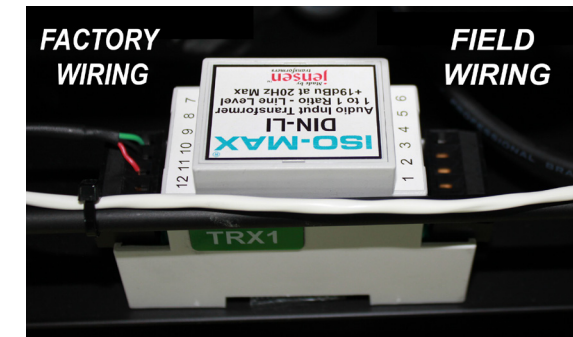


7a/7b. Fork connectors on Column & Court

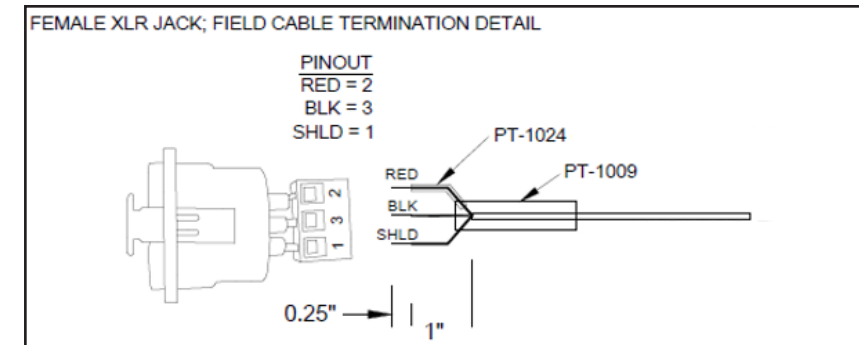


7c. Fork connectors on Subwoofer

Task (Major Step)	Process / Key Points / Reason Why (if applicable)	Tools Required / Reference Materials
8. Terminate Input Signal Cable <input type="checkbox"/> Terminate signal cable to terminal block in amp enclosure <input type="checkbox"/> Terminate signal cable to input plate	a. Terminate signal cable to TRX1 terminal block inside amp enclosure as shown. b. Terminate signal cable to terminals on input plate at audio control location as shown.	<ul style="list-style-type: none"> Section 4 of Installation Manual DWG-3750728 wire stripper small flat screwdriver
9. Ensure Proper Program Loaded in Amp <input type="checkbox"/> Ensure proper program is loaded in amp <input type="checkbox"/> Record preset used: Preset: _____	Turn the amplifier on and ensure the program on the display indicates the correct system: SSN-250 . If not, refer to manual to configure. SSN-250 is the default preset. If the customer prefers less bass, SSN-250 Low Sub or SSN-250 Lowest Sub may be used instead. Record the chosen preset if different from default. If these are not available options, contact the Help Desk.	<ul style="list-style-type: none"> Section 4 of Installation Manual
10. Connect Audio Control System <input type="checkbox"/> Connect audio control system	Connect the audio control system to the input plate if it is not already built into the control enclosure. Refer to the respective manual and support documents and videos for a guide on proper setup and operation of supplied audio control system.	<ul style="list-style-type: none"> SSR-100 Support Site SSR-200 Support Site
11. Play Test Tones <input type="checkbox"/> Play test tones and record if heard or not CH1 - 100 Hz: _____ 1 kHz: _____ 4 kHz: _____ CH2 - 100 Hz: _____ 1 kHz: _____ 4 kHz: _____ CH3 - 100 Hz: _____ 1 kHz: _____ 4 kHz: _____ <input type="checkbox"/> Unmute all amp channels	Play various test tones – available on dakfiles FTP site – to ensure you hear Lows (100Hz), Mids (1kHz), and Highs (4kHz). Use the supplied LTIBLOX device and smartphone/laptop. Ensure your devices is turned up to full output. a. Mute amplifier channels 1-3, but leave 4 unmuted. b. Using Mute buttons on amplifier: Unmute CH1, run the tones, record the results, and then Mute CH1 again. c. Repeat for CH2 and CH3. d. Unmute all amp channels.	<ul style="list-style-type: none"> Test tone files LTIBLOX (A-2755) laptop
12. Play Music Tracks <input type="checkbox"/> Play music tracks to system and record levels and measurement system used: Avg SPL reading through venue: _____ Measurement Device: _____ Measurement App: _____ <input type="checkbox"/> Ensure amp is not clipping <input type="checkbox"/> Check speaker aiming <input type="checkbox"/> Adjust Vertical Coverage/Equalization switches as needed	a. Play various music tracks on a smartphone/laptop with use of the supplied LTIBLOX device. Ensure levels throughout venue are consistent. Should be capable of achieving at least 85dB throughout seats. Measure by downloading an SPL App on your smartphone device. b. Ensure the amplifier is not clipping. c. If top or bottom of seating drops in intelligibility or level, re-aim column speakers and note new angles in Step 4 . d. If too much sound bounces back off walls, set Vertical Coverage switch on column speakers to Narrow . e. If more intelligibility is needed, set Equalization switch on column speakers to Speech .	<ul style="list-style-type: none"> LTIBLOX (A-2755) laptop SPL meter or smartphone with SPL Meter App (SPL accuracy may vary depending on app or phone type)
13. Before Leaving Site Train Customers On: <input type="checkbox"/> Proper Startup and Shutdown Procedures <input type="checkbox"/> Control system operation <input type="checkbox"/> Turn off power to amp rack and unplug source equipment when not in use <input type="checkbox"/> Hand customer manuals, quick start guides, and Daktronics contact information	a. Train customer on proper startup and shutdown procedures. b. Train customer on control system operation and best practices. c. Train customer to turn off power to amp rack and unplug source equipment when not in use to protect equipment from power surges and lightning . d. Hand customer cabinet and source equipment manuals and quick start guides. Verify they know how to contact Daktronics if a problem should arise.	all printed documentation shipped with the audio system
SO/Contract #:	Technician Name:	Date:



8a. Amp Signal Termination



8b. Input Plate Signal Termination



12b. Amp Indicators - stay below CLIP/LIM