

**SPORTSOUND INDOOR SSN-150  
AUDIO SYSTEM**

**INSTALLATION MANUAL**

P1756

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Rev 07  
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**DAKTRONICS**

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# 1 Introduction


This manual explains the installation, maintenance, and troubleshooting of a Sportsound® SSN-150 Indoor Audio System with an LEA amplifier. For additional information regarding safety, installation, operation, or service, refer to **Section 6: Daktronics Exchange and Repair & Return Programs (p.18)**.

## Important Safeguards

- **Read and understand all instructions before beginning the installation process.**
- **Disconnect system power when not in use or when servicing.**
- **Do not modify the cabinet structure or attach any panels or coverings without the express written consent of Daktronics.**
- **Do not disassemble control equipment or electronic controls of the system; failure to follow this safeguard will make the warranty null and void.**
- **Do not drop the control equipment or allow it to get wet.**
- **Always turn off and/or unplug the control equipment when it is not in use. This keeps equipment protected from power spikes and lightning.**
- **Never yank the power cord from the outlet. Grasp the plug and pull to disconnect.**
- **Do not let any power cord touch hot surfaces or hang over the edge of a table that would damage or cut the cord. Arrange the cord with care so that it will not be tripped over.**
- **Inspect equipment for shipping damage such as rattles and dents, and verify that all equipment is included as itemized on the packing slip. Immediately report any problems to Daktronics; save all packing materials if exchange is necessary.**

## Resources

**Figure 1** illustrates a Daktronics drawing label. This manual refers to drawings by listing the last set of digits. In the example, the drawing would be referred to as **DWG-1007804**. All references to drawing numbers, appendices, figures, or other manuals are presented in bold typeface. Any drawings referenced in a particular section are listed at the beginning of it as shown below:

		DAKTRONICS, INC.	THE CONCEPTS EXPRESSED AND DETAILS SHOWN ON THIS DRAWING ARE CONFIDENTIAL AND PROPRIETARY. DO NOT REPRODUCE BY ANY MEANS WITHOUT THE EXPRESSED WRITTEN CONSENT OF DAKTRONICS, INC. COPYRIGHT 2010 DAKTRONICS, INC.	
BROOKINGS, SD 57006		DO NOT SCALE DRAWING		
PROJ: DAKTRONICS				
TITLE: SYSTEM RISER DIAGRAM				
DESIGN:		DRAWN: APAGE		DATE: 11 MAY 10
SCALE: NONE				
SHEET	REV	JOB NO:	FUNC-TYPE-SIZE	1007804
200	02	C17581	F-01-D	

Drawing Number

**Figure 1:** Drawing Label

### Reference Drawing:

System Riser Diagram ..... **DWG-1007804**

Daktronics identifies manuals by the DD or ED number located on the cover page.

Daktronics has a searchable knowledgebase of common questions and troubleshooting tips: [www.daktronics.com/support](http://www.daktronics.com/support).

Visit the Daktronics Support YouTube channel to learn how to properly operate Sportsound racks: [www.youtube.com/DaktronicsSupport](http://www.youtube.com/DaktronicsSupport).



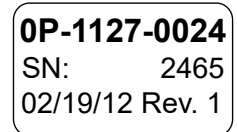
This manual is not specific to a particular installation. Project-specific information takes precedence over any other general information found in this manual. Such information may include:

- **Schematic Drawings:** describe internal power and signal wiring
- **Shop Drawings:** describe mounting methods to structural elements, access method (front or rear), and power and signal entrance points
- **System Riser Diagrams:** describe power and signal connections between system components and the control location; may also include control room layout and schematic
- **Final Assembly Drawings:** describe internal component locations and detailed product appearance with part numbers and quantities

Ensure all applicable material has been gathered before beginning the installation. Contact a Daktronics sales coordinator or project manager.

## Daktronics Nomenclature

Most components have a white label that lists the part number in bold as shown in **Figure 2**. Part numbers may also appear on illustrations and reference drawings as well as in the Bill of Materials (BOM) for the project. If a component is not found in the **Replacement Parts (p.17)**, use the label to order a replacement.



**Figure 2:** Part Label

Refer to **Section 6: Daktronics Exchange and Repair & Return Programs (p.18)** if replacing or repairing any component.

Main Component Labels	
Part Type	Part Number
Individual circuit board	0P-XXXX-XXXX
Assembly; a collection of circuit boards	0A-XXXX-XXXX
Wire or cable	W-XXXX
Fuse	F-XXXX
Transformer	T-XXXX
Metal part	0M-XXXXXXX
Fabricated metal assembly	0S-XXXXXX
Specially ordered part	PR-XXXXX-X

Accessory Labels	
Component	Label
Termination block for power or signal cable	TBXX
Grounding point	EXX
Power or signal jack	JXX
Power or signal plug for the opposite jack	PXX

## 2 Sound System Components

### Equipment Overview

The Sportsound indoor audio system consists of the following elements:

- Sound Cabinet
- Control Enclosure
- Source Equipment
- Signal Cables

### Sound Cabinet

**Figure 3** illustrates the Sportsound SSN-150 indoor sound system cabinet. This system features a line array column speaker, plus an additional low frequency driver housed in a protective cabinet 8'-0" (2.44 m) high, 2'-0" (610 mm) wide, and 1'-5" (432 mm) deep.

### Grille

The SSN-150 cabinet features a grille that consists of a woven flame resistant acoustical mesh. The printable area is 7'-8.4" (2.3 m) high by 3'-8.5" (1.1 m) wide. Refer to **DWG-1132504** in **Appendix A** for additional grille specifications.

### Drivers

Three types of drivers are used in indoor sound cabinets.

- 1" (25 mm) soft dome tweeters @ 16
- 5" (125 mm) high power drivers @ 8
- 12" (305 mm) low frequency driver @ 1

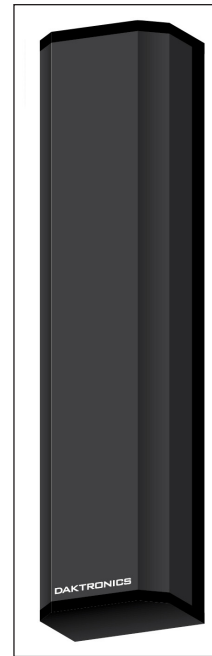
### Control Enclosure

The SSN-150 system comes with a choice of either a tilt-out control enclosure or a swing-out control enclosure.

### Tilt-Out Rack

A separate tilt-out control enclosure houses the amplifier. Refer to **Figure 4**. The lockable tilt-out rack keeps internal components safe while offering ease of service.

Refer to **Mounting the Control Enclosure (p.9)** and **Power/Signal Connections (p.10)** for more information about installing the control enclosure.



**Figure 3:** SSN-150 Cabinet



**Figure 4:** Control Enclosure – Tilt-Out Rack

## Swing-Out Rack

### Reference Drawings:

F. Assy; Wall Mount Amp Rack; LEA; SSN-150 ..... **DWG-5417874**

A separate swing-out control enclosure houses the amplifier. The lockable swing-out rack keeps internal components safe while offering ease of service.

Refer to **Mounting the Control Enclosure (p.9)** and **Power/Signal Connections (p.10)** for more information about installing the control enclosure.

**Figure 5** displays the components of the control enclosure that are visible after removing the front access door. Refer to **DWG-5417874** in **Appendix A** for component and connection locations as well as a detailed wiring schematic.



**Figure 5:** Control Enclosure – Swing-Out Rack

#	Component	Reference	Supplementary Manual
1	Power Sequencer	<b>Surge Protector (p.12)</b>	Furman CN2400S Instructions
2	Amplifier	<b>Amplifier Presets (p.12) &amp; Amplifier Indicators (p.15)</b>	LEA Connect 704 Amplifier User's Manual

All supplementary manuals are listed in **Appendix B**.

## Source Equipment

The Sportsound indoor sound cabinet is compatible with all Daktronics standard control systems. Refer to the manual provided with the control system for proper operation.

## Signal Cables

Cable specifications are as follows:

- 1 pair, 22 AWG signal cable from control enclosure to input plate (part # W-1615)
- 2 pair, 13 AWG speaker cable from cabinet to control enclosure (part # W-3902519)

**Notes:**

- Keep unbalanced cable lengths under 6' (1.8 m) to prevent unwanted noise from being picked up. Use appropriate converters to convert to balanced cables for longer cable runs if necessary. Refer to **Figure 6**.
- Run audio cables away from power cables to prevent noise.
- Audio cables must be kept separate from current loop (scoreboard control) signal cables.



**Figure 6:** *Balanced/Unbalanced Cable Comparisons*

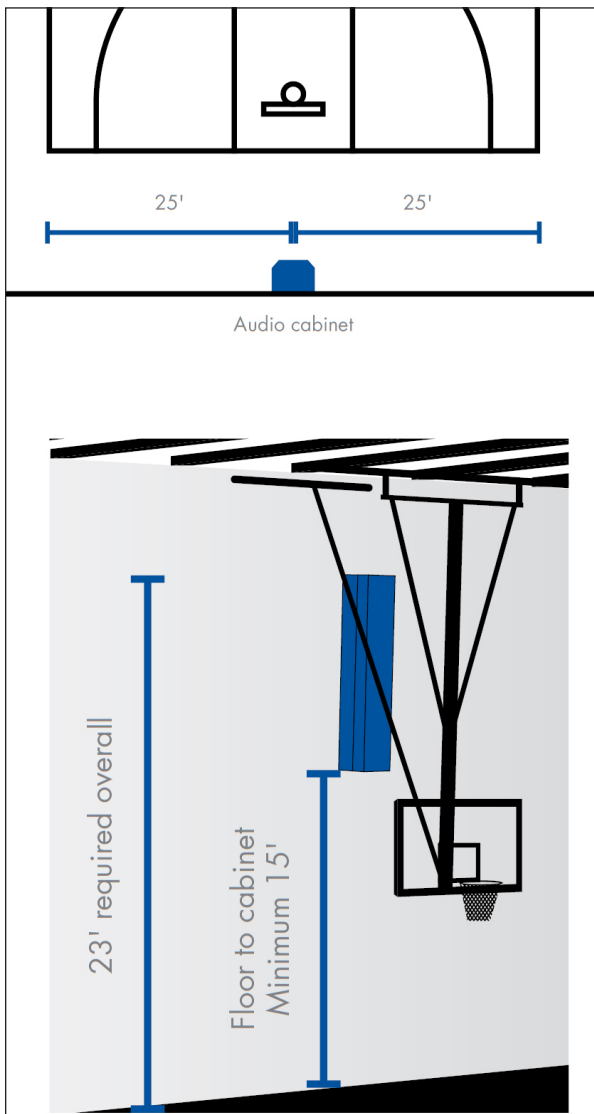
### 3 Mechanical Installation

A qualified technician must install the Sportsound sound system cabinet and control enclosure. Due to the variety of wall materials used in sports facilities, Daktronics cannot anticipate the individual installation needs or provide mounting hardware suitable for every installation. It is the installation contractor's responsibility to install the proper wall mounting hardware to ensure the cabinet is mounted safely and securely to the wall. Refer to **Appendix C** for anchorage recommendations.

**Note:** Daktronics assumes no responsibility for system damage or injury resulting from installation methods that deviate from attachment details specified on shop drawings. Daktronics also assumes no liability for system damage or injury resulting from incorrect setup or lifting methods performed by non-Daktronics employees.

#### Speaker Installation

The speaker must be installed no farther than 25' (7.6 m) offset from center court and a minimum of 15' (4.6 m) above the floor for optimal audio coverage. Refer to **Figure 7**.



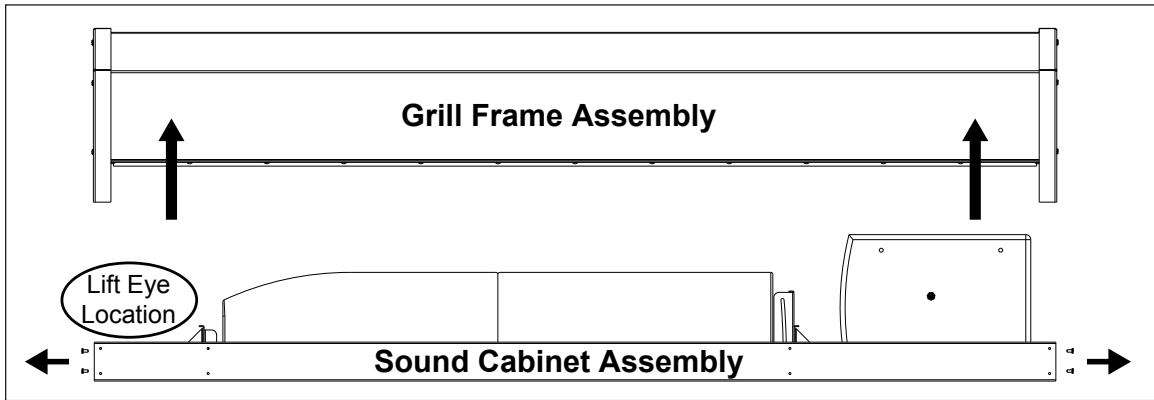
**Figure 7:** Preferred Mounting Locations

## Grille Frame Removal

### Reference Drawing:

Shop Drawing; Sound System, SSN-150 ..... DWG-1132106

Before installing the SSN-150 sound cabinet, the front grille frame assembly must be removed. Remove the four (4) rear screws on both ends of the sound cabinet, then lift the grille frame assembly off and set aside as shown in **Figure 8**. Note that two lift eyes are included inside the cabinet, toward the bottom.

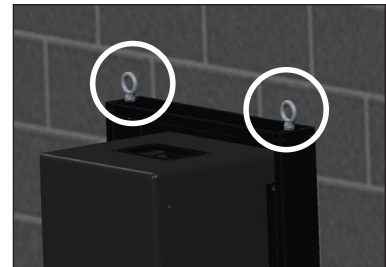


**Figure 8:** Grille Frame Assembly Removal

### Lifting

With the front grille removed, screw the two provided lift eyes into the top-rear of the cabinet. Refer to **Figure 9**. Use the lift eyes to lift the sound cabinet to the desired location on the wall.

**Note:** Daktronics assumes no liability for damages resulting from incorrect setup or lifting methods. Eyebolts are intended for lifting only. Do not attempt to permanently support the cabinet with the eyebolts or eyebolt holes.



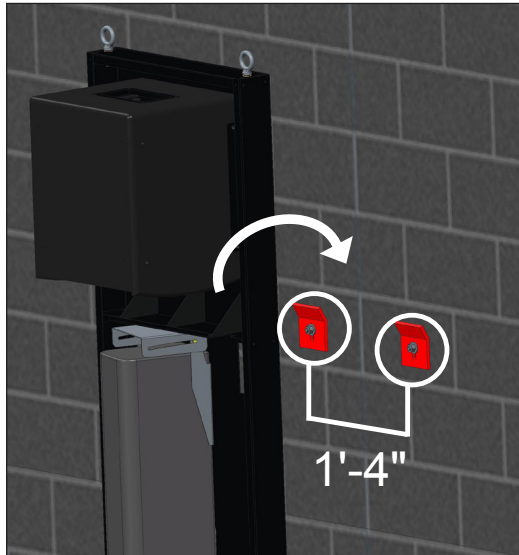
**Figure 9:** Lift Eyes

## Mounting

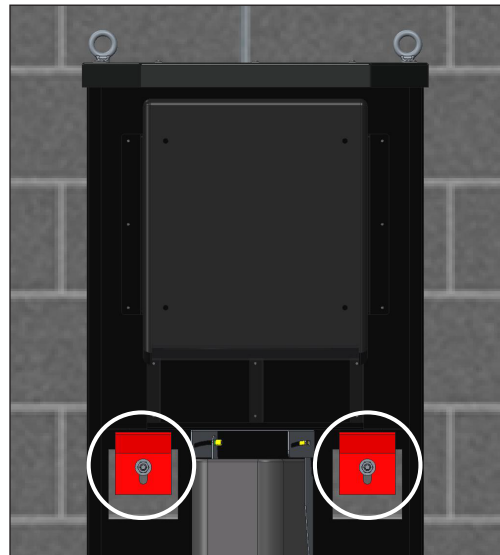
**Tools Required:** 3/4" socket, hammer drill for pre-drilling hole in wall, **DD2670874**

The rear of the SSN-150 cabinet has two square cutouts that allow it to hang on two steel clip angles mounted to the wall, 1'-4" (406 mm) apart, with 1/2" hardware. Inside the cabinet toward the bottom, additional 1/2" hardware passes through the cabinet and into the wall.

1. Bolt clip angles to the wall. Refer to **Figure 10**.
2. Hang cabinet on clip angles. Refer to **Figure 11**.

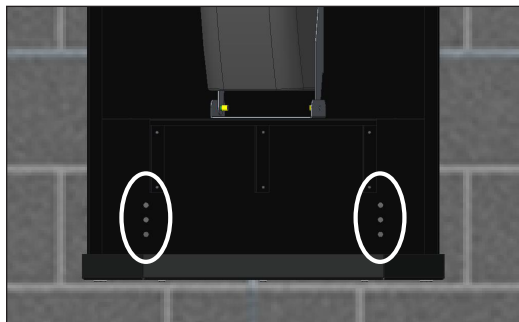


**Figure 10:** Clip Angles Bolted to Wall



**Figure 11:** Cabinet Hanging on Clip Angles

3. Bolt cabinet to the wall through holes at bottom. Refer to **Figure 12**.



**Figure 12:** Cabinet Bolted to Wall

## Aiming

**Tools Required:** 7/16" socket

Once the cabinet has been mounted in place, it may be necessary to adjust the direction of the speakers for the individual facility. **DWG-1132106** in **Appendix A** provides speaker aiming instructions as well as recommended angles to position the speakers, based on the cabinet's location in relation to the seating area(s).



## Mounting the Control Enclosure

**Note:** When used in an aquatics facility, DO NOT mount the control enclosure near the pool environment.

### Tilt-Out Rack

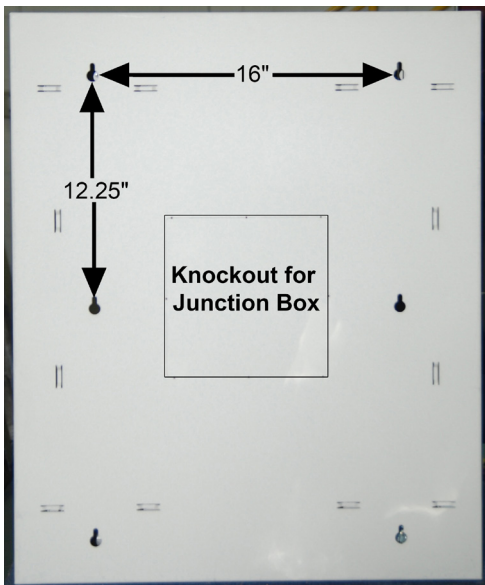
**Reference Drawing:**

Shop Drawing; Standard Indoor Sound Amp Rack Mounting ..... **DWG-1152507**

**Tools Required:** 7/16" socket

The tilt-out enclosure typically mounts in a closet adjacent to the sound system or directly on the wall using 1/4" hardware. The head of the hardware must not be larger than 5/8" or it will not fit through the keyholes on the rear of the enclosure as shown in **Figure 13**. Refer to **DWG-1152507** in **Appendix A** for additional mounting specifications.

Also notice the square knockout in the center of the enclosure for mounting directly over a power junction box.



**Figure 13:** Control Enclosure Rear View

### Swing-Out Rack

The backpan of the swing-out control enclosure mounts directly on the wall. The orientation of the backpan is determined by which way the rack will swing open. The main rack then is lifted and secured into the backpan.

Refer to the **Middle Atlantic DWR Series Instruction Sheet** shipped with the rack and listed in **Appendix B** for mounting specifications.

# 4 Electrical Installation

**CAUTION – RISK OF ELECTRIC SHOCK:** Only qualified individuals should perform power routing and termination to the system. Electrical contractors are responsible for ensuring that all electrical work meets or exceeds local and national codes. Failure to follow installation guidelines will result in audible noise on the sound system and possible damage to internal components.

**Note:** This product is not provided with mains disconnect. Customer shall provide disconnect at amplifier rack location that meets or exceeds local and national electrical codes.

## Power/Signal Connections

### Reference Drawings:

Riser; Standard Indoor Sound System; SSN-150 .....	<b>DWG-1144831</b>
SSN-100 / SSN-150 System Schematic.....	<b>DWG-5221146</b>
F. Assy; Wall Mount Amp Rack; LEA; SSN-150 .....	<b>DWG-5417874</b>

**DWG-1144831** in **Appendix A** details power and signal connections between the control enclosure, sound cabinet, and control rack.

### Signal IN

1. Install an XLR signal input plate (part # EC-1244) near the announcer’s location. The installation subcontractor is responsible for providing a 1-gang receptacle box to mount the signal input plate.

2. Terminate 1 pair, 22 AWG signal cable (part # W-1615) to the signal input plate as shown in **Figure 14** and the table at right.

<b>Pin 1:</b> Shield (GRN)
<b>Pin 2:</b> + (RED)
<b>Pin 3:</b> – (BLK)

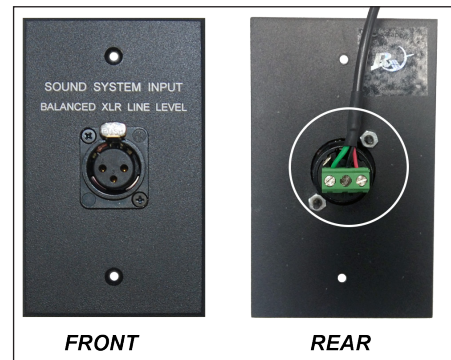
3. Route signal cable in conduit from the signal input plate to the control enclosure.

SHIELD (GRN)	– (BLK)	+ (RED)				
6	5	4	3	2	1	

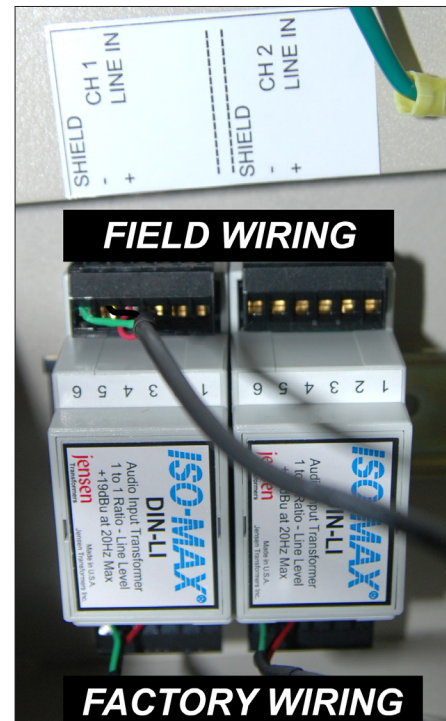
4. Unlock and open the door of the control enclosure, and terminate the signal cable per the table at right.

- For tilt-out style racks, connect to the **CH1** transformer per the labels, as shown in **Figure 15** and **DWG-5221146**.
- For swing-out style racks, connect to the **TRX1** transformer per the labels, as shown in **Figure 16** and **DWG-5417874**.

**Note:** If there is another control location, signal may also be connected to **CH2/TRX2**.



**Figure 14:** Signal Input Plate



**Figure 15:** Signal Termination – Tilt-Out Rack



**Figure 16:** Signal Termination – Swing-Out Rack

## Power IN

The system requires one (1) 20 amp, 120 VAC circuit; 2W + GND. A power cord is located inside the control enclosure.

To put the amplifier into standby mode, press the small standby button next to the rear power connector. The logo on the front of the amplifier will turn green when in standby mode. To turn the amplifier back on, press the button again. The logo on the front of the amplifier will turn blue when it is out of standby mode. To fully power down the amplifier, unplug power or turn off the power strip/sequencer in the rack.

Unplugging or turning off the power strip/sequencer in the rack is the safest method to power off the amplifier if the system will not be used for an extended period of time and to protect from surge conditions.

## Grounding

All components of an audio system – including but not limited to control equipment, and connected peripheral equipment – must be electrically grounded. Only qualified individuals may perform electrical work, including verification of ground resistance. Daktronics is not responsible for improper grounding or damage incurred as a result of improper grounding.

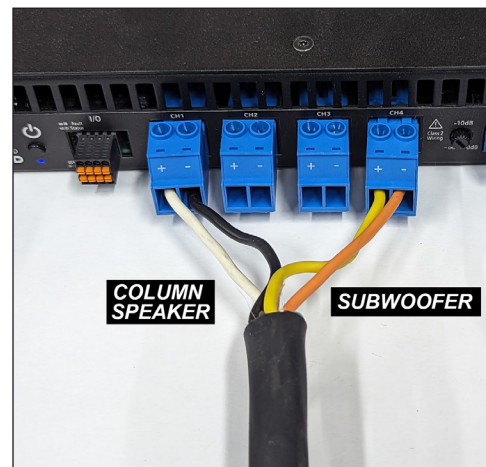
Grounding methods must meet the provisions of all applicable local and national codes. Inspect and verify all grounding methods meet the provisions of all applicable local and national codes.

Proper grounding is necessary for reliable equipment operation and general electrical safety. Failure to properly ground the sound system may void the warranty, disrupt operation, damage equipment, and cause bodily harm or death.

## Speaker Line OUT

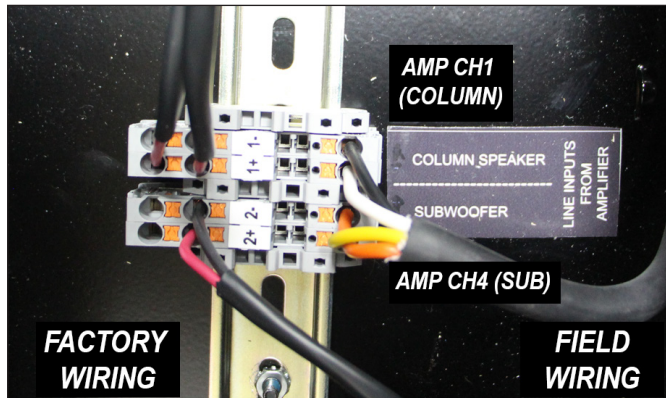
**CAUTION:** Improper wiring will result in damage to the internal circuitry of the product, and pose a potential fire hazard!

1. Connect 2 pair, 13 AWG speaker cable (part # W-3902519) to **CH1** (column speaker) and **CH4** (subwoofer) on the rear of the amplifier in the control enclosure. Refer to **Figure 17** and **DWG-5221146** or **DWG-5417874**.
2. Route speaker cables in conduit from the control enclosure to the speaker enclosure. Conduit should not be required unless specified by local electrical codes. Drill a hole in the speaker enclosure for cable/conduit installation as needed.



**Figure 17:** Speaker Line Out

3. Remove the front grille of the speaker enclosure, if not already removed. Refer back to **Figure 8**.
4. Terminate speaker cables to the terminal block in the speaker enclosure as shown in **DWG-5221146** or **DWG-5417874** and **Figure 18**.



**Figure 18:** SSN-150 Termination Block

5. Reattach the front grille once wiring terminations and speaker aiming are complete. Refer to **Speaker Installation (p.6)**.

## Amplifier Presets

If there are speech/music intelligibility issues at the venue caused by too much bass, a different amplifier preset may be required. Contact Daktronics for more information.

## Surge Protector

The power sequencer used in swing-out racks features a 20A breaker. Refer to **Figure 19**. If the breaker trips, press the small button next to the key switch to reset it. The green **POWER** and **PROTECTION OK** LED indicators should both be illuminated when the rack is plugged into a functioning outlet and powered on.



**Figure 19:** Power Sequencer Surge Protector



## 5 Troubleshooting and Replacement Parts

This section lists potential problems with the system, indicates possible causes, and suggests corrective action. This list does not include every possible problem, but it does represent some of the more common situations that may occur. If individual components fail to work, refer to troubleshooting sections in the manufacturers' manuals. If the problem persists, contact Daktronics.

**Note:** Be sure to power on the announcer's rack and cabinet breakers. Make sure all connections from source to the cabinet are complete.

### Sound Cabinet Troubleshooting

Symptom/Condition	Possible Cause	Potential Solution
Poor sound quality from cabinet (distortion)	Poor source material (CD or MP3 with heavy compression or distorted material)	Use high quality audio files (.wav).
	Clipping audio at source (announcer's rack) output	Bring source level down below clip.
	Blown driver in cabinet	Play test tones to verify defective equipment.
Audio from cabinet is intermittent	Amplifier modules within control enclosure are overdriven into protect mode	Reduce source output level.
No full-range audio	One or more outputs muted	Ensure no outputs are muted.
Microphones sound muddy; too much bass	Subwoofer set too high	Contact Daktronics to set a different amplifier preset.

### Resistance Check

Check the resistance (ohms) of the lines with an analog or digital multimeter at the back of the amplifier in the rack and/or at the speaker terminal locations within the speaker cabinet. Compare to the values shown below. Remember to disconnect opposing cables prior to measuring resistances.

1. Measure output wires on back of amplifier (disconnect harness from amplifier).

- If measurements match the values shown in **Figure 20**, this indicates everything is wired correctly, there is a solid connection, and the internal crossover in the speaker is working.
- If measurements do not match, proceed with the next step.

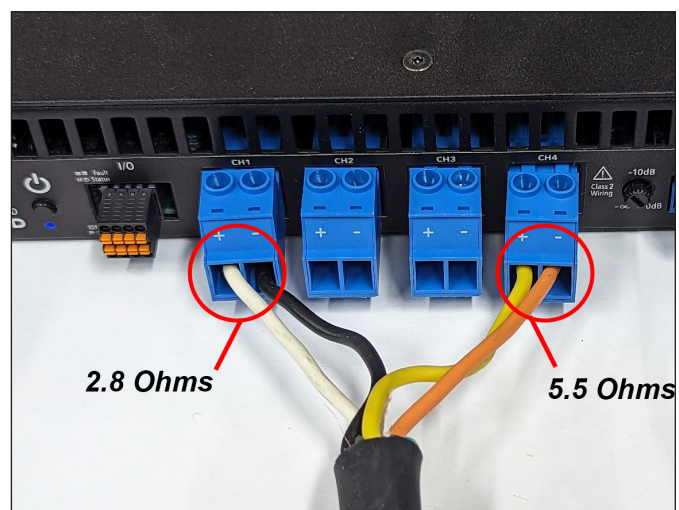
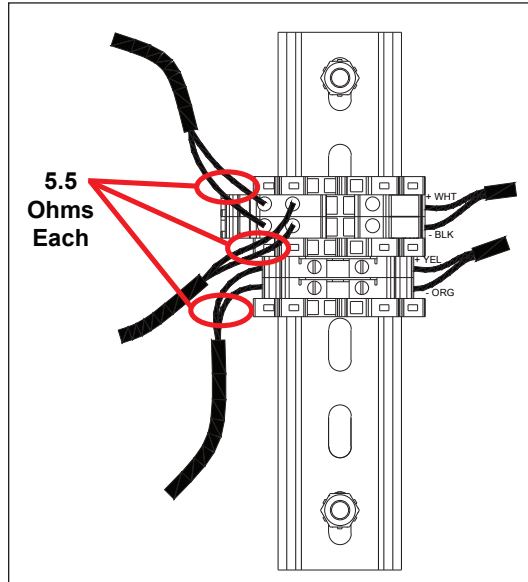


Figure 20: Resistance at Amplifier

2. Inside the speaker cabinet at the terminal block assembly, disconnect the harness side going to the speakers and measure the resistance.
  - If measurements match the values shown in **Figure 21**, this indicates that either the wiring for each channel is flipped, or the main wire pull has a problem to correct.
  - If measurements do not match, proceed with the next step.



**Figure 21:** Resistance at Terminal Block

3. Measure the terminals directly on the back of the speakers (disconnect at least one wire from terminal before measuring).
  - If measurements do not match the values shown in **Figure 22**, this indicates a bad crossover board within speaker cabinet. Contact Daktronics to replace the faulty speaker.

After taking all measurements, be sure to reconnect all cables to the correct terminals.

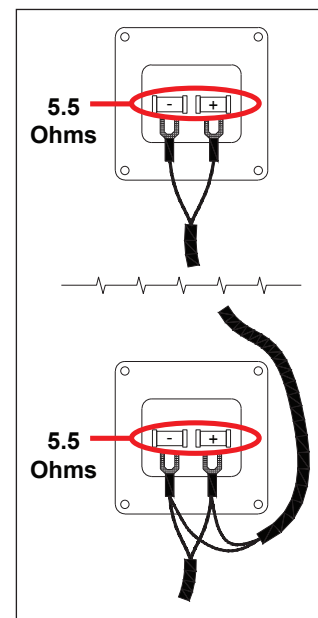
### Test Tones

One way to determine whether all the drivers are operating correctly is to play specific test tones.

- Subwoofer: 80 Hz – mute or disconnect column speaker from amplifier (**CH1 OUT**) if possible to ensure you are only listening to the subwoofer
- Low-Range\* = 150 Hz
- Mid-Range\* = 1000 Hz
- High-Range\* = 8000 Hz

\* Disconnect the subwoofer from amplifier (**CH4 OUT**) if possible to ensure you are only listening to the column speaker.

If all tones are present, the drivers are connected and operating properly. If any test tones do not play, the driver(s) may need to be replaced. Contact Daktronics.



**Figure 22:** Resistance at Speaker

## Amplifier Indicators

The amplifier in the control enclosure features several LED indicators that are helpful when trying to diagnose issues with the audio system. Refer to **Figure 23** and the following descriptions (LED color is in parentheses).

- **FAULT (Red):** Indicates channel shutdown to protect circuits.
- **THERMAL (Red):** Indicates channel is at or over temp.
- **CLIP (Red/Amber):** Red indicates a clipping signal; amber indicates channel is limiting.  
**REDUCE MIXER OUTPUT LEVEL!**
- **SIGNAL (Green):** Indicates -40 dB of signal is present; useful for troubleshooting cable runs.
- **READY (Green):** Indicates channel is ready to pass audio.

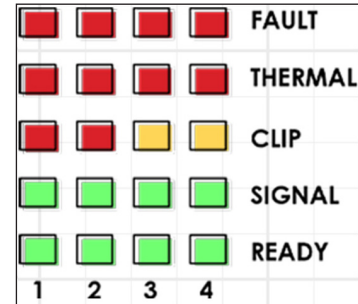


Figure 23: LED Indicators

The amplifier also includes a "shark fin" LED indicator. Refer to **Figure 24**.

- When illuminated green, the shark fin indicates that the amp is plugged in and receiving power from an AC power source, but the unit is **not on** and therefore will not pass audio.
- When illuminated blue, the shark fin indicates that the amp is powered on and able to pass audio.



Figure 24: Shark Fin

**Note:** If the shark fin stays green, it may be necessary to press the rear power button. Refer to **Figure 25**.



Figure 25: Amplifier Power Button

Refer to amplifier manual listed in **Appendix B** for more information.

## Equalization and Vertical Coverage

SSN-150 systems have two small selector switches on the side of the main vertical speaker as shown in **Figure 26**. From the factory, these switches are set to "Music" and "Broad" for optimum performance in most facilities. In some instances, however, these settings may need to be changed using a small flathead screwdriver:

- Too much bass = set **Equalization** to "Speech"
- Too much sound bouncing off the walls = set **Vertical Coverage** to "Narrow"

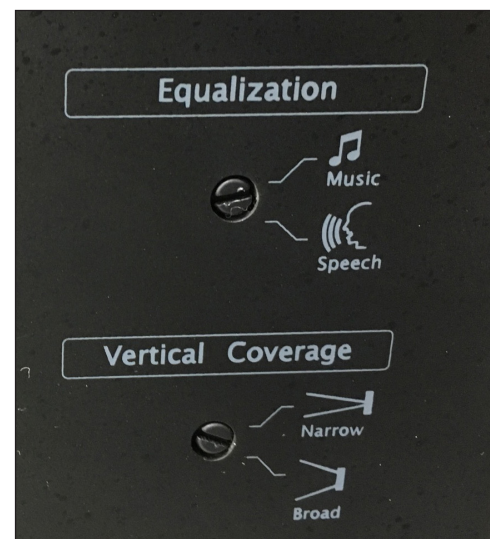


Figure 26: Main Speaker Selector Switches

## Mesh Replacement

If the front grille mesh of the SSN-150 system is damaged or just needs to be replaced with a new design, follow the steps below.

**Tools Required:** #2 Phillips Screwdriver/Bit, Cable Tie Cutter, **DWG-1132504**

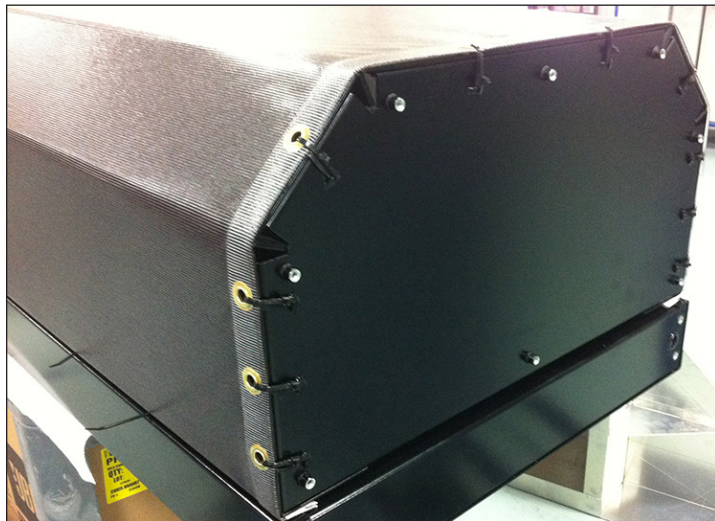
**Materials/Parts Required:** Speaker Mesh (EN-2817), 3/16" Cable Ties (HE-1011) @ 60

1. Separate the grille frame assembly from the sound cabinet by removing the four (4) rear screws on the top and bottom. Refer to **Figure 27**.



**Figure 27:** Grille Frame Assembly Screw Locations

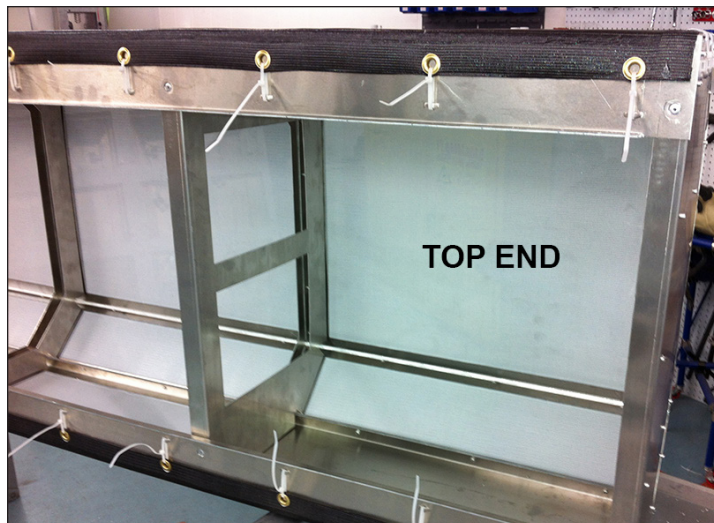
2. Take the grille frame assembly down from the wall, and place it on sawhorses or a table for best results.
3. Remove the eight (8) remaining screws on both the top and bottom of the grille frame assembly to take off the borders. Refer to **Figure 28**.



**Figure 28:** Grille Frame Assembly with Borders Removed

4. Cut every cable tie on the top, bottom, and sides of the grille assembly, and then remove the old grille mesh material.
5. Lay new grille mesh material over the grille frame assembly, paying attention to the orientation of the frame so as to not put the mesh on upside down.
6. Feed new cable ties through the bridge punches in the grille frame assembly and brass grommets on grille mesh. **Leave cable ties loose – do not tighten yet.**
7. Attach all cable ties in place, and then work all around the grille frame assembly, tightening each cable tie until mesh is taut. Refer to **Figure 29**.





**Figure 29:** Grille Frame Assembly with New Mesh & Cable Ties

8. Cut off all excess cable tie ends.
9. Reattach top and bottom borders to grille frame assembly.
10. Lift the grille frame assembly back up on the wall and reattach to the sound cabinet.  
Note that the DAKTRONICS logo should be at the bottom.

## Replacement Parts

### Sound Cabinet Components

Description	Part Number
Speaker; JBL - CBT 70J-1	A-3273
Speaker; JBL - CBT 70JE-1, Extension	A-3274
12" Low Frequency Driver	A-3895514
Replacement Speaker Mesh	EN-2817

### Control Components

Description	Part Number
Amplifier; LEA 704 (Configured)	0A-1756-1064
Surge arrest; 6 outlet power strip, 120V; black ( <i>tilt-out rack only</i> )	A-2840
Furman 20A Power Sequencer ( <i>swing-out rack only</i> )	A-3467818
Junction Box; 12 position	A-3551392
Signal Input Plate, XLR	EC-1244
Transformer; Audio Input, 1 Channel, Isolation Module	T-1130

Refer to **Section 6: Daktronics Exchange and Repair & Return Programs (p.18)** for information on exchanging or returning parts.

## 6 Daktronics Exchange and Repair & Return Programs

### Exchange Program

The Daktronics Exchange Program is a service for quickly replacing key components in need of repair. If a component fails, Daktronics sends a replacement part to the customer who, in turn, returns the failed component to Daktronics. This decreases equipment downtime. Customers who follow the program guidelines explained below will receive this service.

Before contacting Daktronics, identify these important numbers:

**Model Number:** \_\_\_\_\_

**Job/Contract Number:** \_\_\_\_\_

**Date Manufactured/Installed:** \_\_\_\_\_

**Daktronics Customer ID Number:** \_\_\_\_\_

To participate in the Exchange Program, follow these steps:

**1. Call Daktronics Customer Service.**

United States & Canada: 1-800-DAK-TRON (325-8766)

Outside the U.S. & Canada: +1-605-275-1040

**2. When the new exchange part is received, mail the old part to Daktronics.**

If the replacement part fixes the problem, send in the problem part being replaced.

- a. Package the old part in the same shipping materials in which the replacement part arrived.
- b. Fill out and attach the enclosed UPS shipping document.
- c. Ship the part to Daktronics.

**3. The defective or unused parts must be returned to Daktronics within 5 weeks of initial order shipment.**

If any part is not returned within five (5) weeks, a non-refundable invoice will be presented to the customer for the costs of replenishing the exchange parts inventory with a new part. Daktronics reserves the right to refuse parts that have been damaged due to acts of nature or causes other than normal wear and tear.

## Repair & Return Program

For items not subject to exchange, Daktronics offers a Repair & Return Program. To send a part for repair, follow these steps:

**1. Call Daktronics Customer Service.**

United States & Canada: 1-800-DAK-TRON (325-8766)

Outside the U.S. & Canada: +1-605-275-1040

**2. Receive a case number before shipping.**

This expedites repair of the part.

**3. Package and pad the item carefully to prevent damage during shipment.**

Electronic components, such as printed circuit boards, should be placed in an antistatic bag before boxing. Daktronics does not recommend using packing peanuts when shipping.

**4. Enclose:**

- name
- address
- phone number
- the case number
- a clear description of symptoms

**5. Ship to:**

Daktronics Customer Service

[Case #]

201 Daktronics Drive, Dock E

Brookings, SD 57006

## Daktronics Warranty & Limitation of Liability

The Daktronics Warranty & Limitation of Liability is located at the end of this manual. The Warranty is independent of Extended Service agreements and is the authority in matters of service, repair, and operation.

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# A Reference Drawings

Refer to **Resources (p.1)** for information regarding how to read the drawing number. Any contract-specific drawings take precedence over the general drawings.

**Reference Drawings:**

Shop Drawing; Sound System, SSN-150 .....	<b>DWG-1132106</b>
Mesh Layout; Standard Indoor Audio System.....	<b>DWG-1132504</b>
Riser; Standard Indoor Sound System; SSN-150 .....	<b>DWG-1144831</b>
Shop Drawing; Standard Indoor Sound Amp Rack Mounting .....	<b>DWG-1152507</b>
SSN-100 / SSN-150 System Schematic.....	<b>DWG-5221146</b>
F. Assy; Wall Mount Amp Rack; LEA; SSN-150 .....	<b>DWG-5417874</b>

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SPORTSOUND  
INDOOR AUDIO SYSTEM

SSN-150

SUBMITTAL APPROVAL

- APPROVED  
 APPROVED AS NOTED  
 APPROVED AS NOTED & RESUBMIT



COMPANY: \_\_\_\_\_

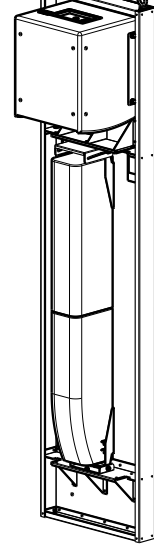
SIGNED: \_\_\_\_\_

TITLE: \_\_\_\_\_ DATE: \_\_\_\_\_

NOTES:

- 1.0 GENERAL NOTES
- 1.1 ALL DIMENSIONS IN FEET AND INCHES. DIMENSIONS ARE APPROXIMATE AND SUBJECT TO CHANGE DUE TO DETAILED DESIGN CONSIDERATIONS.
  - 1.2 TERMINAL BLOCKS FOR LANDING THE SPEAKER WIRES WILL BE PROVIDED WITHIN THE CABINET BY DAKTRONICS.
  - 1.3 HOLES FOR WIRE ENTRY TO BE PUNCHED IN CABINET BY THE ELECTRICAL SUBCONTRACTOR.
  - 1.4 LOCATION OF THE SPEAKER WIRE ENTRANCE HOLES TO BE DETERMINED BY THE CUSTOMER.
- 2.0 STRUCTURAL NOTES
- 2.1 IT WILL BE THE UNDERSTANDING OF DAKTRONICS THAT SHOP APPROVAL IMPLIES THAT A QUALIFIED ENGINEER HAS REVIEWED THE ADDITION OF THE SPEAKER CABINET LOAD TO THE BUILDING AND THAT THE BUILDING STRUCTURE HAS BEEN DEEMED ACCEPTABLE TO SUPPORT THE ADDITIONAL LOAD AS DETAILED.
  - 2.2 CABINET MATERIAL IS ALL ALUMINUM.
  - 2.3 WEIGHT OF CABINET WITH SPEAKERS: 175 LBS.
  - 2.4 THE BOTTOM OF THE CABINET SHOULD BE MOUNTED NO LESS THAN 15 FT FROM THE GYM FLOOR TO AVOID INTERFERENCE WITH THE BASKETBALL BACKBOARDS.
  - 2.5 INTERNAL SPEAKERS TO BE PROVIDED AND INSTALLED BEFORE THE CABINET ARRIVES ON SITE.
  - 2.6 DAKTRONICS DESIGNED STRUCTURE HARDWARE DOES NOT INCLUDE ANY TENSION CONTROL HARDWARE. TORQUE ON BOLTS TO FOLLOW THE "TURN OF THE NUT METHOD" OF TIGHTENING, UNLESS OTHERWISE NOTED.
- 3.0 PROJECT RESPONSIBILITIES
- 3.1 ALL ON-SITE WORK TO BE DONE IN ACCORDANCE WITH OSHA AND ALL LOCAL CODES THAT APPLY.
  - 3.2 DAKTRONICS SUBCONTRACTORS RESPONSIBLE FOR JOBSITE SAFETY.
  - 3.3 DAKTRONICS SUBCONTRACTORS ARE SOLELY RESPONSIBLE FOR THE DESIGN AND INSTALLATION OF ALL TEMPORARY BRACING AND OTHER ELEMENTS AND EQUIPMENT NECESSARY FOR A SAFE INSTALLATION.
  - 3.4 EACH SUBCONTRACTOR IS RESPONSIBLE FOR THE REMOVAL AND DISPOSAL OF WASTE MATERIALS ON THE JOBSITE.
  - 3.5 DAKTRONICS AND OWNERS SUBCONTRACTORS SHALL VERIFY ALL EXISTING DIMENSIONS AND CONDITIONS PRIOR TO INSTALLATION. NOTIFY DAKTRONICS IMMEDIATELY IF ANY DISCREPANCIES ARE FOUND.
  - 3.6 REFER TO STANDARD FORM AGREEMENT BETWEEN CONTRACTOR AND SUBCONTRACTOR (AIA-A401) AND ATTACHED DOCUMENTS FOR DETAILED SCOPE OF WORK AND RESPONSIBILITY.

LIFT EYES ARE SUPPLIED FOR INSTALLATION OF THE WALL SECTION.  
LIFTEYES ARE TO BE REMOVED BEFORE THE FRONT GRILLE IS ATTACHED.

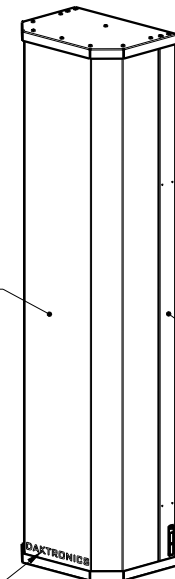


ISOMETRIC VIEW  
(GRILLE REMOVED)

ACOUSTICAL MESH TO BE APPROVED AND PRINTED PER CUSTOMER SPECIFICATIONS.  
STANDARD DESIGN AND COLOR IS BLACK.

DAKTRONICS LOGO TO BE PRINTED ON MESH OVER TOP OF CUSTOMER GRAPHICS OR COLORS.

TOP OF BLEACHER



ISOMETRIC VIEW

EXPOSED CABINET (SIDE PORTIONS, TOP AND BOTTOM) TO BE PAINTED SEMI-GLOSS BLACK OR CUSTOM COLORED PER THE CUSTOMER'S REQUEST.

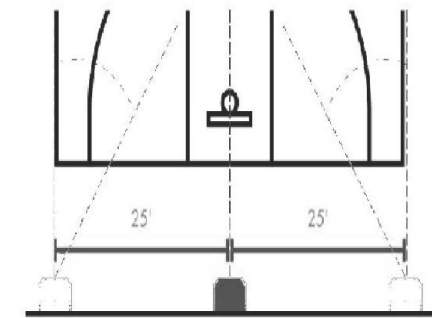
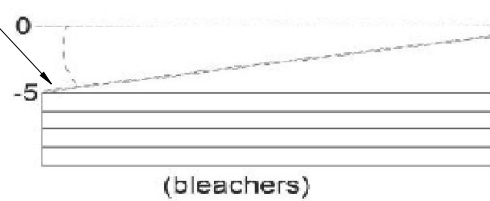
Speaker Aiming

NOTE: THIS SPEAKER CAN BE TILTED DOWNWARD OR PANNED SIDE-TO-SIDE DEPENDING ON SPEAKER CABINET LOCATION IN GYMNASIUM WITH RESPECT TO THE SEATING AREAS.

TILT THE SPEAKER DOWNWARD SUCH THAT IT AIMS AT THE UPPER MOST SEATS.  
MAXIMUM DOWNWARD TILT IS 5 DEGREES.

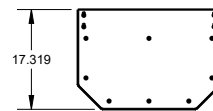
MAXIMUM SIDE-TO-SIDE PAN IS 25 DEGREES.

USE A 7/16" SOCKET AND WRENCH TO LOOSEN THE HARDWARE FOR SPEAKER AIMING.

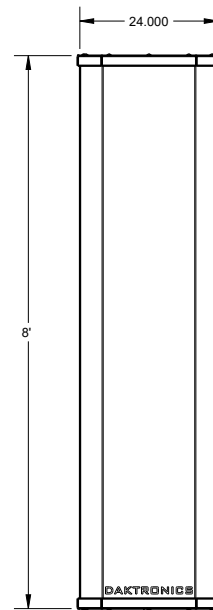


Audio cabinet

SPEAKER OFFSET DISTANCE FROM CENTERLINE (FT)	LEFT/ RIGHT SPEAKER PAN AMOUNT(DEGREES)
5	0
7.5	0
10	0
12.5	12
15	14
17.5	16
20	18
22.5	21
25	23



TOP VIEW

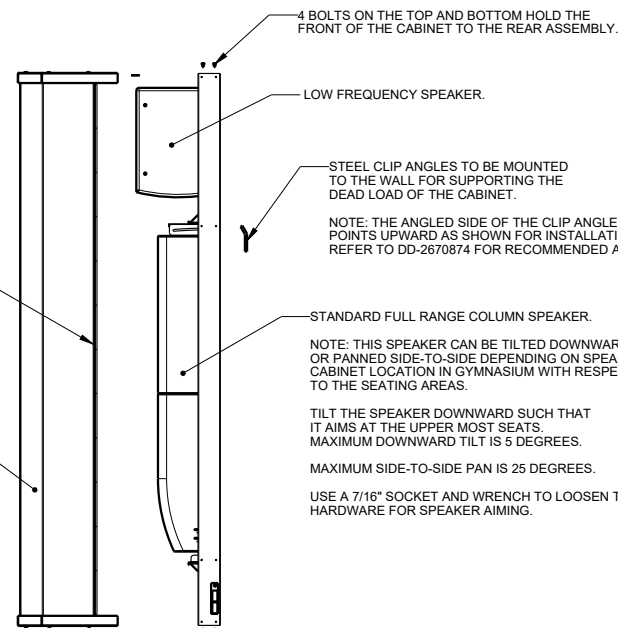


15' MINIMUM DISTANCE TO FLOOR

FRONT VIEW

ACOUSTICAL MESH WRAPS AROUND ENTIRE FACE PORTION TO THIS SEAM ON BOTH SIDES.

FRONT OF CABINET IS REMOVABLE FOR SPEAKER ACCESS AND MAINTENANCE



RIGHT SIDE VIEW  
FRONT REMOVAL SHOWN

4 BOLTS ON THE TOP AND BOTTOM HOLD THE FRONT OF THE CABINET TO THE REAR ASSEMBLY.

LOW FREQUENCY SPEAKER.

STEEL CLIP ANGLES TO BE MOUNTED TO THE WALL FOR SUPPORTING THE DEAD LOAD OF THE CABINET.

NOTE: THE ANGLED SIDE OF THE CLIP ANGLE POINTS UPWARD AS SHOWN FOR INSTALLATION. REFER TO DD-2670874 FOR RECOMMENDED ANCHORS.

STANDARD FULL RANGE COLUMN SPEAKER.

NOTE: THIS SPEAKER CAN BE TILTED DOWNWARD OR PANNED SIDE-TO-SIDE DEPENDING ON SPEAKER CABINET LOCATION IN GYMNASIUM WITH RESPECT TO THE SEATING AREAS.

TILT THE SPEAKER DOWNWARD SUCH THAT IT AIMS AT THE UPPER MOST SEATS.  
MAXIMUM DOWNWARD TILT IS 5 DEGREES.

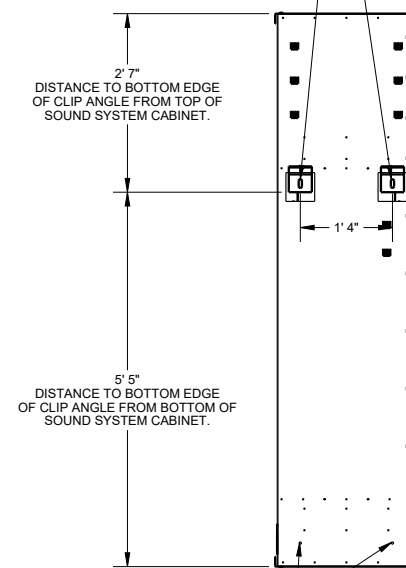
MAXIMUM SIDE-TO-SIDE PAN IS 25 DEGREES.

USE A 7/16" SOCKET AND WRENCH TO LOOSEN THE HARDWARE FOR SPEAKER AIMING.

LARGE STEEL CLIP ANGLES WILL BE ANCHORED TO THE GYMNASIUM WALL WITH 1/2" HARDWARE @ 2 LOCATIONS.  
THE BACK OF THE SPEAKER CABINET SLIDES OVER AND DOWN ON TO THE CLIP ANGLES FOR MOUNTING.

CLIPS TO BE PROVIDED BY DAKTRONICS.  
\*\*\*THE ANGLED SIDE OF THE CLIP ANGLE POINTS UPWARD FOR MOUNTING\*\*\*

MOUNTING HARDWARE TO BE PROVIDED BY INSTALLATION SUBCONTRACTOR. CONTRACTOR TO VERIFY WALL TYPE PRIOR TO INSTALLATION.



BOTTOM OF CABINET BOLTS TO WALL MATERIAL @ 2 LOCATIONS TO RESTRICT UPWARD MOVEMENT OF CABINET. ACCESS TO THE INSIDE OF THE CABINET REQUIRED TO INSTALL.

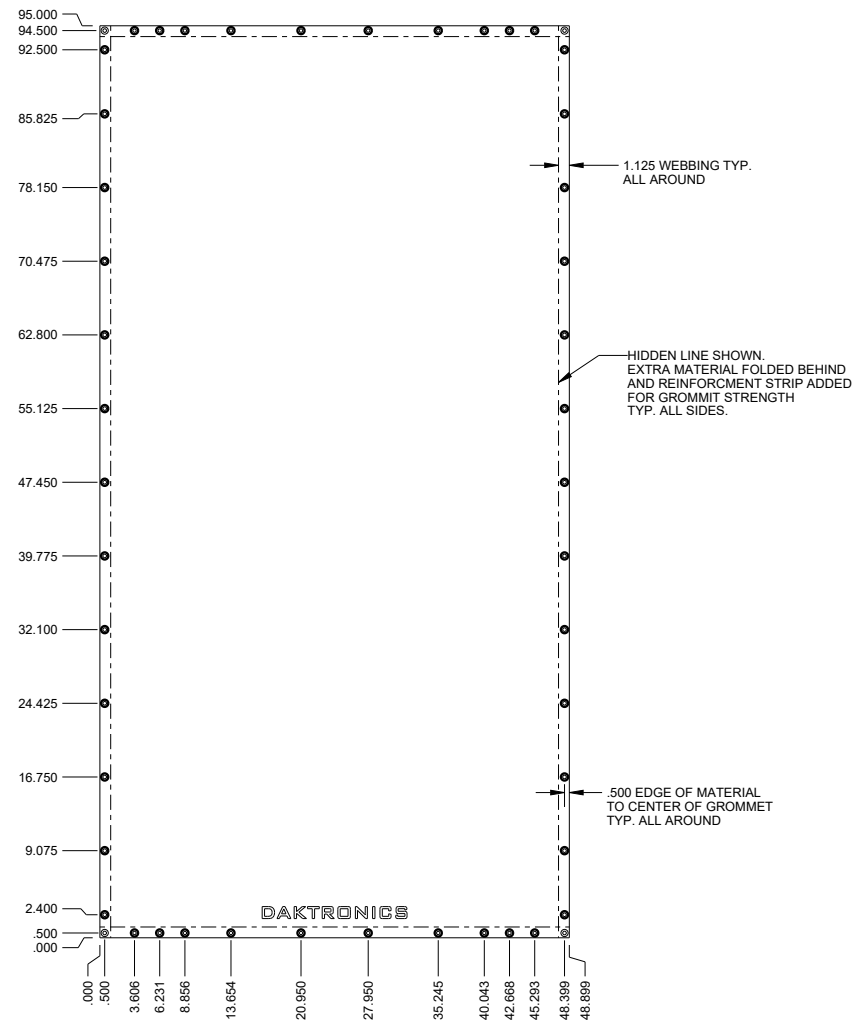
REAR VIEW

REV	DATE	DESCRIPTION	BY
02	04 APR 19	ADDED SPEAKER AIMING DETAIL	MTR
01	03 OCT 13	UPDATED PER FINAL DESIGN	JLR

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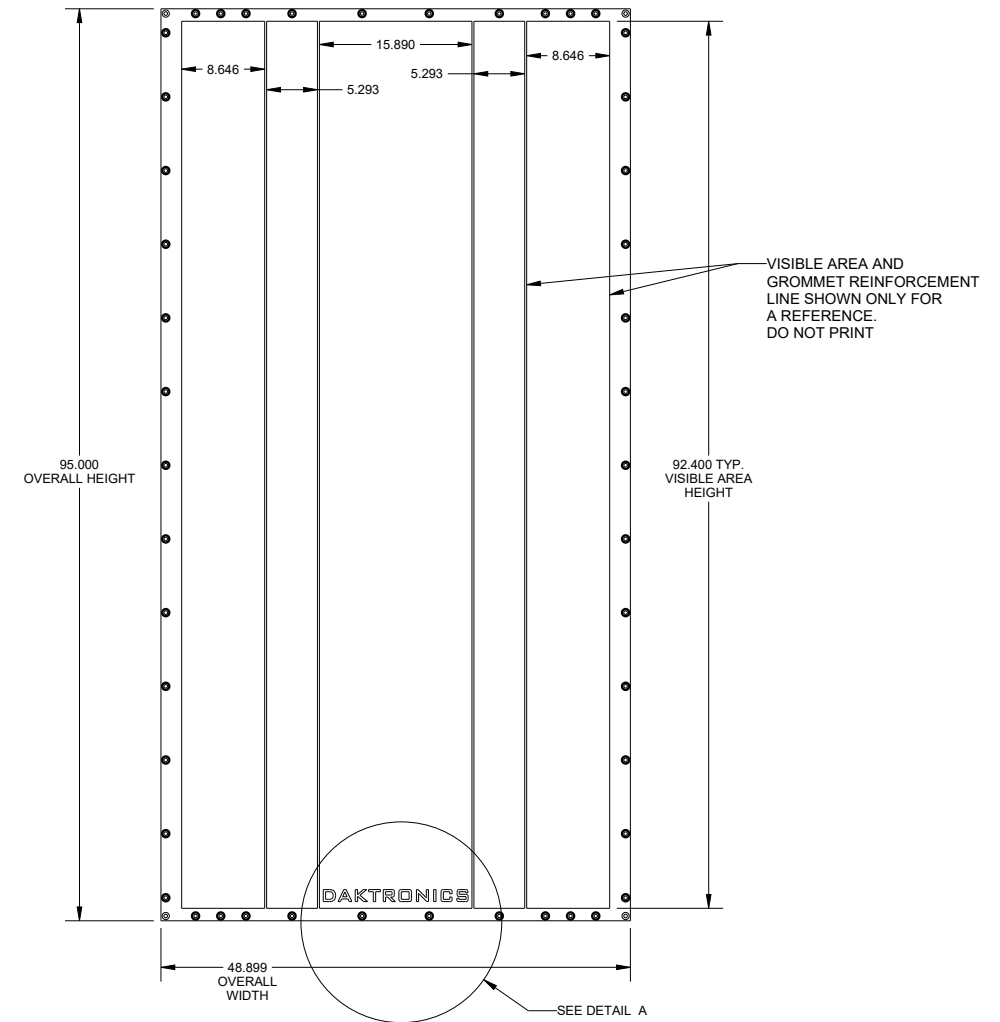
PROJECT: DAKTRONICS AUDIO SYSTEMS			
TITLE: SHOP DRAWING; SOUND SYSTEM, SSN-150			
DATE: 04-APR-19	DM UNITS: INCHES (MILLIMETERS)	SHEET	REV
SCALE: 1/20	DO NOT SCALE DRAWING	1 OF 1	02
DESIGN: JROBERS	JOB NO. P1756	FUNC. TYPE - SIZE	F - 10 - C
DRAWN: JROBERS	1132106		

**MESH GROMMET LOCATION LAYOUT**



**FRONT GROMMET LAYOUT VIEW**

**MESH GRAPHIC VISIBLE AREAS LAYOUT**



**FRONT GRAPHICS LAYOUT VIEW**

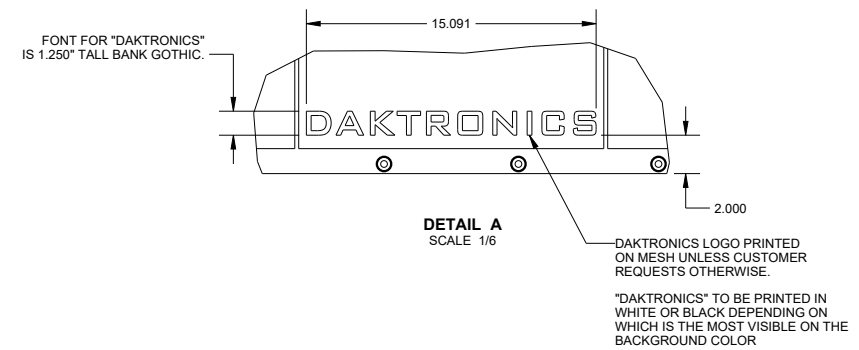
**NOTES:**

1. OVERALL DIMENSIONS ARE CRITICAL TO +/- 1/8"
2. ALL DIMENSIONS ARE IN INCHES.
3. ACOUSTICAL MESH TO BE SEAMLESS IF ONE OVERALL DIMENSION IS LESS THAN 196"
4. BACKGROUND COLOR SHALL BE PRINTED ON ENTIRE MESH LENGTH AND HEIGHT.
5. ACOUSTICAL MESH TO BE SHIPPED IN TUBE.  
(DO NOT FOLD MESH)

TOLORANCES UNLESS OTHERWISE SPECIFIED:  
 LAYOUT DIMENSIONS.....0.125  
 C-C SPACING.....0.63  
 FRONT SIZE.....0.63

**ACCOUSTICAL MESH SPECIFICATIONS**

MATERIAL:	POLYESTER
TENSILE STRENGTH:	270 X 170 LBS/IN (MIN)
FLAME RESISTANCE:	NFPA 701
FINISH:	ACRYLIC OR PVC
OPEN AREA:	30 TO 35%
UV RESISTANCE:	UV RESISTANT INK OR CLEAR COAT



**DETAIL A**  
SCALE 1/8

DAKTRONICS LOGO PRINTED ON MESH UNLESS CUSTOMER REQUESTS OTHERWISE.  
 "DAKTRONICS" TO BE PRINTED IN WHITE OR BLACK DEPENDING ON WHICH IS THE MOST VISIBLE ON THE BACKGROUND COLOR

03	11 JAN 23	PER CH-150905; ADDED ACOUSTICAL MESH SPECIFICATIONS TABLE	SRL
02	17 APR 15	CHANGED LOCATION ON CORNER HOLES	MKD 18453
01	1 OCT 13	UPDATED VIEWS AND AMDE NOTES MORE VISIBLE	TTF
REV	DATE:		BY:

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**DAKTRONICS**

PROJECT: STANDARD INDOOR AUDIO SYSTEM  
 TITLE: MESH LAYOUT; STANDARD INDOOR AUDIO SYSTEM  
 DATE: 11-JAN-23 DM UNITS: INCHES (MILLIMETERS)  
 SCALE: 1/12 DO NOT SCALE DRAWING  
 DESIGN: JROBERS  
 DRAWN: JROBERS  
 JOB NO: P1756  
 FUNC - TYPE - SIZE: E - 10 - C  
 SHEET 1  
 REV 03  
**1132504**



**SPORTSOUND  
INDOOR AUDIO SYSTEM  
SSN-150**

SUBMITTAL APPROVAL

APPROVED   
  APPROVED AS NOTED   
  APPROVED AS NOTED & RESUBMIT  
 COMPANY: \_\_\_\_\_  
 SIGNED: \_\_\_\_\_  
 TITLE: \_\_\_\_\_ DATE: \_\_\_\_\_

**SPEAKER NOTES:**

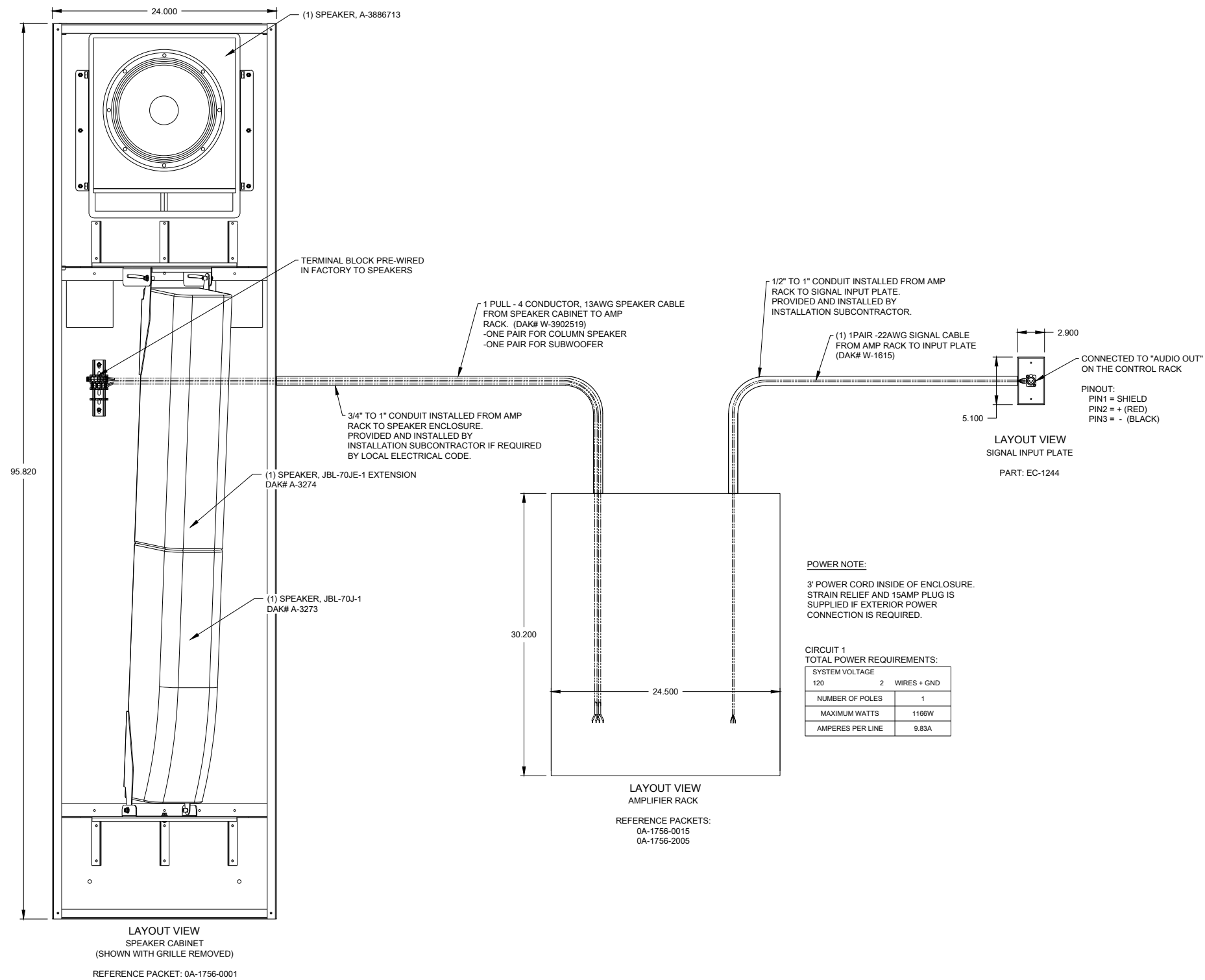
1. SPEAKER ENCLOSURE PROVIDED BY DAKTRONICS AND INSTALLED BY INSTALL SUBCONTRACTOR. FOLLOW DAKTRONICS DRAWING: 1132106 FOR PROPER INSTALLATION PROCEDURE.
2. TERMINAL BLOCK PROVIDED ON BODY OF ENCLOSURE TO TERMINATE SPEAKER CABLE.
3. REMOVE GRILLE FACE TO GAIN ACCESS TO SPEAKER TERMINATION. REFER TO SHOP DRAWING FOR GRILL REMOVAL.
4. DRILL HOLE THROUGH BODY OF ENCLOSURE FOR CONDUIT INSTALLATION.
5. SOME SITES MAY HAVE COLUMN SPEAKER EXPOSED AND NOT INSTALL IN A SPEAKER ENCLOSURE. IF SO, TERMINATION DIRECT TO SPEAKER REQUIRED. FOLLOW MANUFACTURER'S INSTRUCTIONS ON PROPER TERMINATION.

**AMPLIFIER RACK NOTES:**


1. 0A-1756-0015 AMPLIFIER TILT-OUT RACK PROVIDED BY DAKTRONICS AND INSTALLED AS SHOWN ON DWG-1152507.  
0A-1756-2005 AMPLIFIER WALL MOUNT RACK PROVIDED BY DAKTRONICS. USE RACK DOCUMENTATION FOR MOUNTING DETAILS.
2. SEE DWG-03480030 WIRING DETAILS.
3. KNOCKOUTS ON TOP OF RACK TO ACCEPT VARYING CONDUIT SIZES.

**INPUT PLATE NOTES:**

1. SIGNAL F-XLR INPUT PLATE MOUNTED PER CUSTOMER'S DIRECTION. TYPICALLY MOUNTED TO WALL BOX OR FLOOR BOX IN CLOSE PROXIMITY OF CONTROL LOCATION.
2. INPUT PLATE PROVIDED BY DAKTRONICS AND INSTALLED TO 1GANG RECEPTACLE BOX BY INSTALLATION SUBCONTRACTOR. INSTALL SUBCONTRACTOR TO PROVIDE BOX.
3. SEE DRAWING DETAIL OF PLATE AND XLR JACK FOR PINOUT.



REV 04	DATE: 11 MAR 24	PER CN-174907, ADDED 0A-1756-2005 AND MADE ASSEMBLY IMAGE GENERIC. UPDATED POWER SPECS.	BY: TBS
REV 03	DATE: 25 OCT 18	UPDATE SUBWOOFER PART NUMBER	BY: CJB
REV 02	DATE: 6 MAR 18	UPDATED TRX WIRING FROM PADDED (6, 4, 1) TO STRAIGHT THROUGH (6, 3, 4) CROWN TO QSC AMPLIFIER CHANGE	BY: CJB
REV 01	DATE: 1 MAY 14	REPLACED TB-1058 AND TB-1075 WITH T-1130	BY: LCP


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**PROJECT: DAKTRONICS AUDIO SYSTEMS**  
 TITLE: RISER, STANDARD INDOOR SOUND SYSTEM, SSN-150  
 DATE: 23 JUL 13    DIM UNITS: INCHES (MILLIMETERS)    SHEET: 04  
 SCALE: 1=8    DO NOT SCALE DRAWING  
 DESIGN: DTREML    JOB NO.: P1756    FUNC. TYPE: R-10-C    1144831

# SPORTSOUND INDOOR AUDIO SYSTEM AMP RACK MOUNTING

## SUBMITTAL APPROVAL

APPROVED     APPROVED AS NOTED     APPROVED AS NOTED & RESUBMIT

COMPANY: \_\_\_\_\_

SIGNED: \_\_\_\_\_

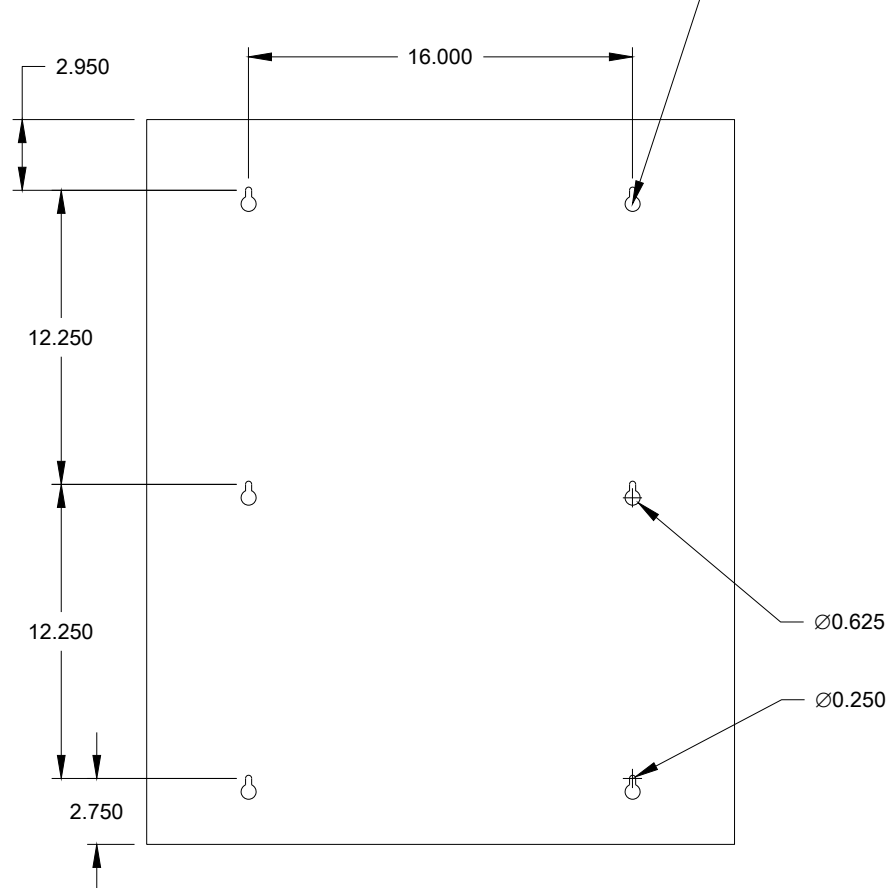
TITLE: \_\_\_\_\_ DATE: \_\_\_\_\_

### AMPLIFIER RACK NOTES:

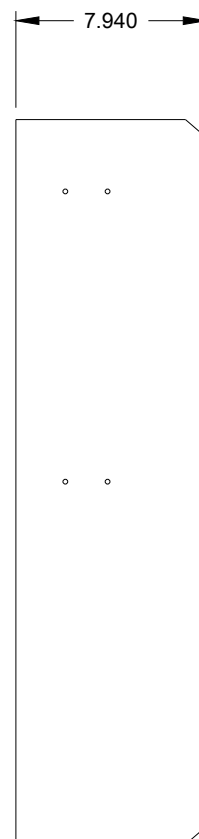
1. AMPLIFIER TILT-OUT RACK PROVIDED BY DAKTRONICS AND INSTALLED BY INSTALLATION SUBCONTRACTOR. HARDWARE TO MOUNT ENCLOSURE PROVIDED BY SUBCONTRACTOR DUE TO VARYING WALL TYPES.
2. RACK TO BE LOCATED PER CUSTOMER'S DIRECTION. TYPICALLY MOUNTED IN A CLOSET ADJACENT TO SPEAKER CABINET OR DIRECTLY ON GYM WALL.
3. KNOCKOUTS ON TOP OF RACK TO ACCEPT VARYING CONDUIT SIZES. REFER TO RISER DRAWING FOR WIRING DIRECTIONS.
4. ESTIMATED WEIGHT OF THE INSTALLED AMPLIFIER RACK AND COMPONENTS IS 75 LBS.

USE 1/4" HARDWARE MOUNTING POINTS @6 FOR HANGING THE AMPLIFIER ENCLOSURE ON THE WALL. ENSURE THAT THE HEAD OF THE BOLT USED DOES NOT EXCEED 5/8" OR IT WILL NOT CLEAR THE KEYHOLE KNOCKOUT OPENING.

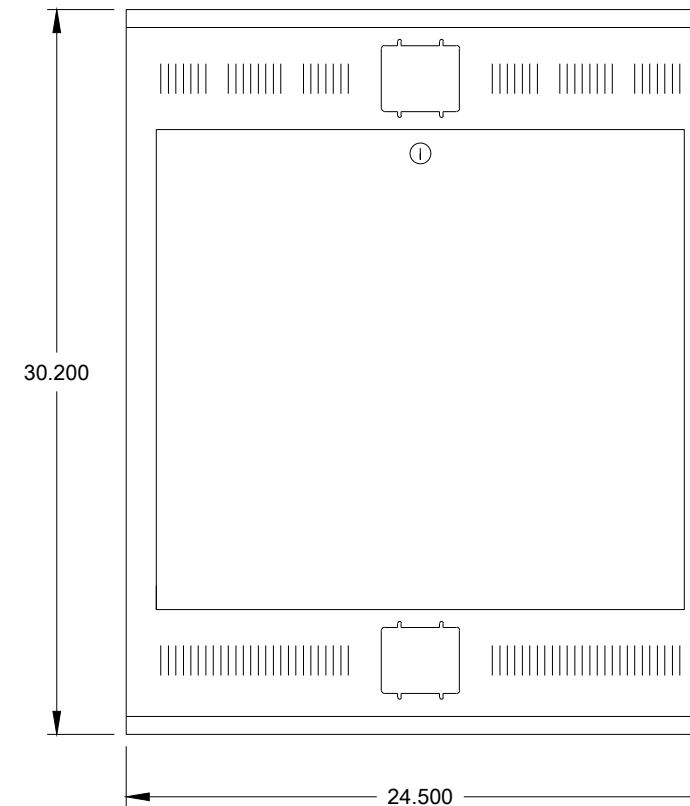
REFER TO RECOMMENDED ANCHORAGE DOCUMENT FOR EXACT HARDWARE DETAILS.



REAR VIEW



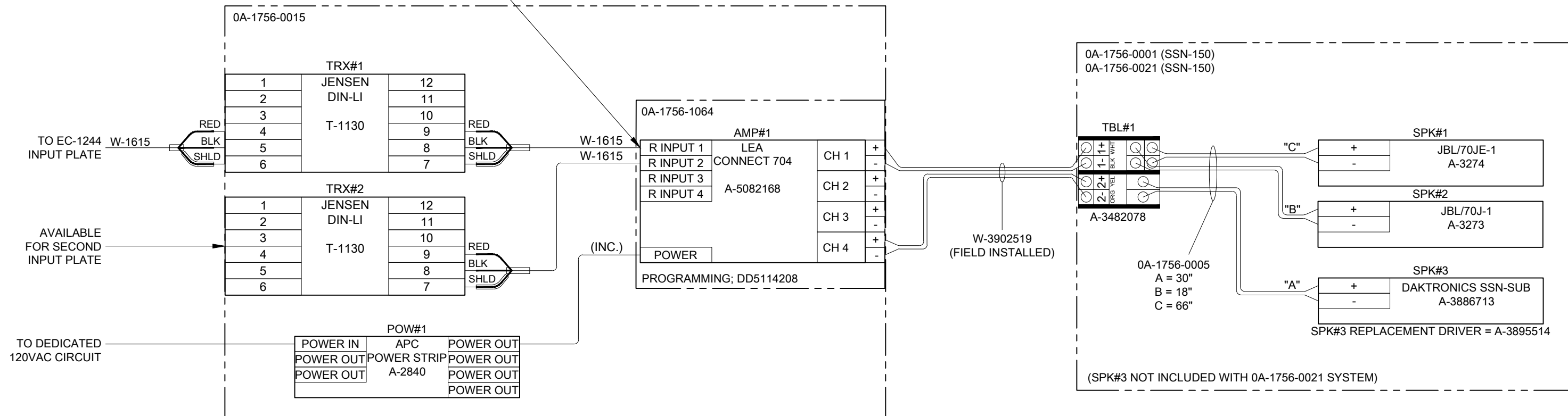
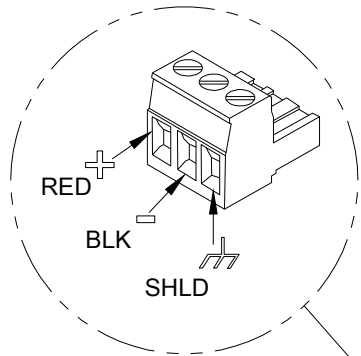
LEFT SIDE



FRONT VIEW

<b>DAKTRONICS, INC.</b> BROOKINGS, SD 57006 <small>DO NOT SCALE DRAWING</small>		<small>THE CONCEPTS EXPRESSED AND DETAILS SHOWN ON THIS DRAWING ARE CONFIDENTIAL AND PROPRIETARY. DO NOT REPRODUCE BY ANY MEANS WITHOUT THE EXPRESSED WRITTEN CONSENT OF DAKTRONICS, INC. COPYRIGHT 2013 DAKTRONICS, INC.</small>	
PROJ: DAKTRONICS AUDIO SYSTEMS - SSA-GYM1			
TITLE: SHOP DWG; STANDARD INDOOR SOUND AMP RACK MOUNTING			
DESIGN: JROBERS	DRAWN: JROBERS	DATE: 23 JUL 13	
SCALE: 1=8			
SHEET	REV	JOB NO:	FUNC - TYPE - SIZE
	00	P1756	R - 10 - B
			<b>1152507</b>

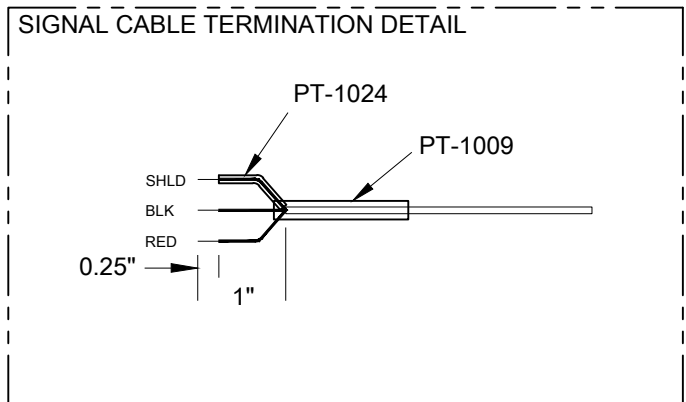
AMPLIFIER SIGNAL CONNECTOR



(SPK#3 NOT INCLUDED WITH 0A-1756-0021 SYSTEM)

**AMPLIFIER OUTPUT WIRING CHART**

OUTPUT		COLOR
CH 1	+	WHITE
	-	BLACK
CH 2	+	NA
	-	NA
CH 3	+	NA
	-	NA
CH 4	+	YELLOW
	-	ORANGE



**DAKTRONICS**

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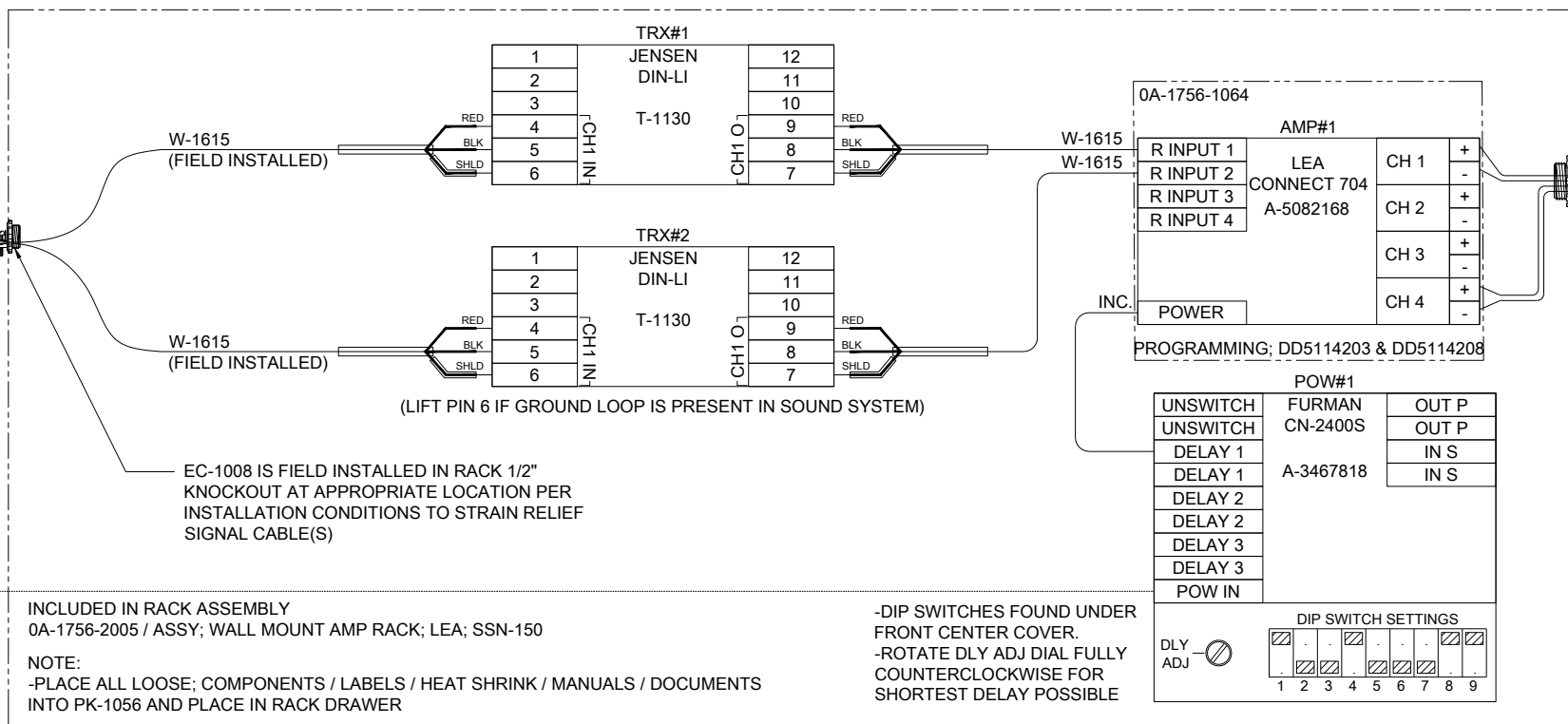
THIRD ANGLE PROJECTION

PROJECT: SPORTSOUND SYSTEMS		SHEET		REV
TITLE: SSN-100 / SSN-150 SYSTEM SCHEMATIC		DIM UNITS: INCHES [MILLIMETERS]		00
DATE: 02 MAR 23	SCALE: 1=1	DO NOT SCALE DRAWING		
DESIGN: TSPRACK	JOB NO. P1756	FUNC - TYPE - SIZE	R - 03 - B	
DRAWN: TSPRACK			<b>5221146</b>	

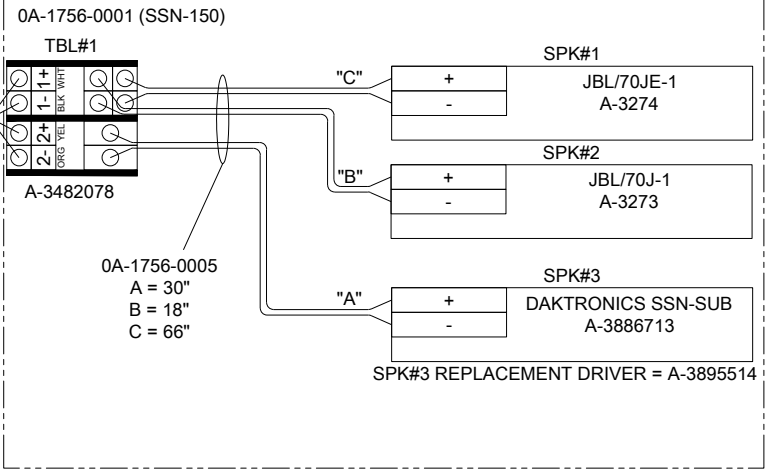
TO AUDIO INPUT PLATE (AIP#1); EC-1244

TO AUDIO INPUT PLATE (AIP#2); EC-1244

TO DEDICATED 120VAC 20A CIRCUIT (IDEALLY LOCATED IN RACK)



EC-1131 IS FIELD INSTALLED IN RACK 3/4" KNOCKOUT AT APPROPRIATE LOCATION PER INSTALLATION CONDITIONS TO STRAIN RELIEF SPEAKER CABLE FOR RISER, SEE DWG-01144831

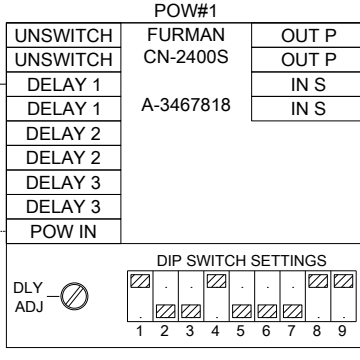


EC-1008 IS FIELD INSTALLED IN RACK 1/2" KNOCKOUT AT APPROPRIATE LOCATION PER INSTALLATION CONDITIONS TO STRAIN RELIEF SIGNAL CABLE(S)

INCLUDED IN RACK ASSEMBLY  
0A-1756-2005 / ASSY; WALL MOUNT AMP RACK; LEA; SSN-150

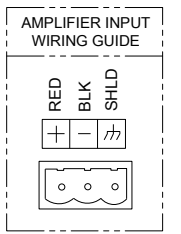
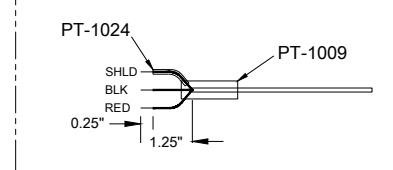
NOTE:  
-PLACE ALL LOOSE COMPONENTS / LABELS / HEAT SHRINK / MANUALS / DOCUMENTS INTO PK-1056 AND PLACE IN RACK DRAWER

-DIP SWITCHES FOUND UNDER FRONT CENTER COVER.  
-ROTATE DLY ADJ DIAL FULLY COUNTERCLOCKWISE FOR SHORTEST DELAY POSSIBLE



-SIGNAL CABLE TERMINATION DETAIL (TRX#1, TRX#2, AMP#1)

-HEAT SHRINK CUT TO 1" (SHIP EXTRA PIECES TO SITE)

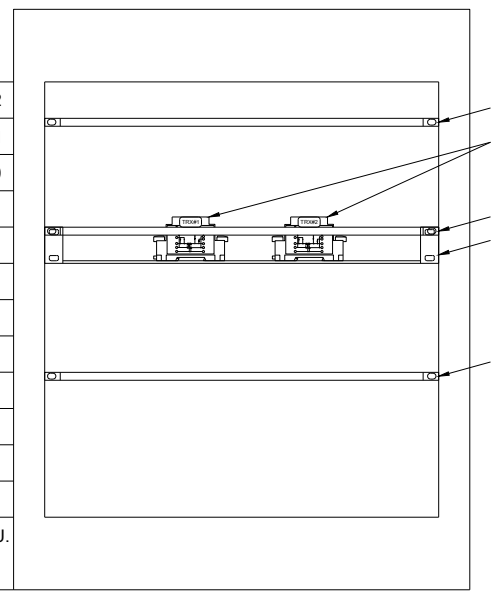
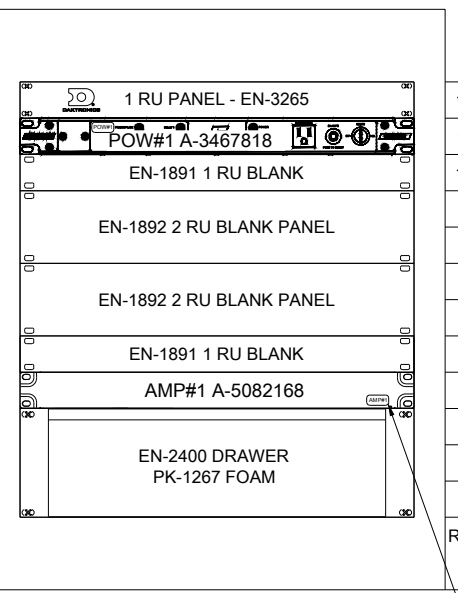
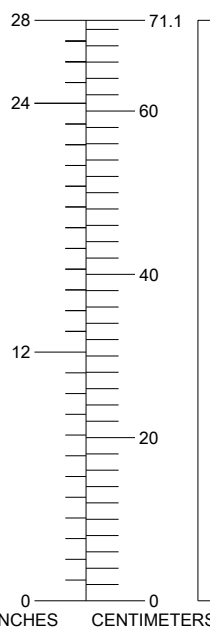


SCHEMATIC

LAYOUT

FRONT VIEW

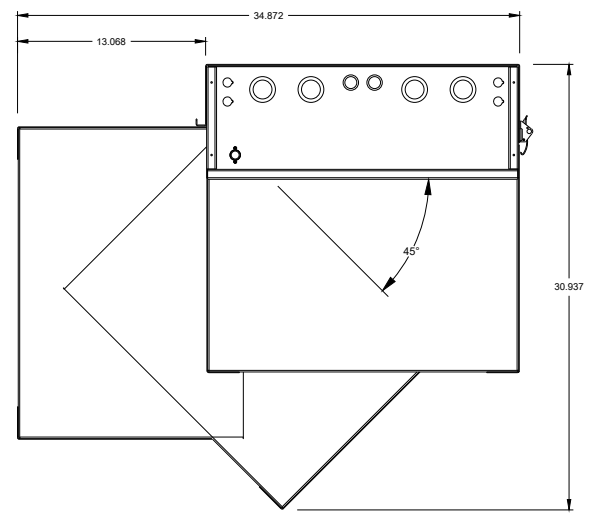
REAR VIEW



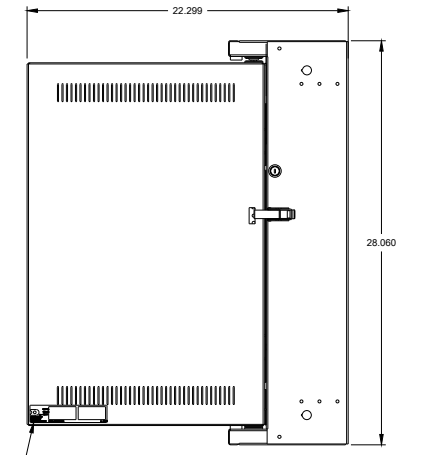
EN-2328 RACK  
EN-2327 VENTED FRONT DOOR (FIELD INSTALLED)  
EN-2326 REAR RAILS (SET RAILS 2" FROM REAR)

EQUIPMENT LABELS; DD3750959  
PLACE LL-2658 (BLK) LABELS ON FRONT  
PLACE LL-2661 (GRN) LABELS ON REAR

TOP VIEW



SIDE VIEW



LL-2285 @2

<p>DAKTRONICS, INC. 331 32ND AVE. P.O. BOX 5126 BROOKINGS, SD 57006 PHONE 1-605-697-4000</p>	ASSY NO.	0A-1756-2005 REV:##	<p>SSN-150 ~120, 60Hz MAX AMPS = 9.83 MAX WATTS = 1,166</p>
	SER. NO.	(NEXT ASSIGNED #)	
	MFG DATE	(TODAY'S DATE (MM/DD/YY))	
	WORK ORDER #		

REFERENCE PACKET; 0A-1756-2005

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<p>PROJECT: SPORTSOUND SYSTEMS</p>	<p>TITLE: F ASSY WALL MOUNT AMP RACK LEA SSN-150</p>	<p>DATE: 08 MAR 24</p>	<p>SHEET: 001</p>
<p>SCALE: 1:60</p>	<p>DO NOT SCALE DRAWING</p>	<p>DESIGN: TSPRACK</p>	<p>DRAWN: TSPRACK</p>
<p>JOB NO. P1756</p>	<p>PLANT: F-01</p>	<p>SIZE: D</p>	<p>5417874</p>

1 - 20 AMP 120 VAC CIRCUIT

	HEAT LOAD (BTU/HR)	POWER LOAD (WATTS)	WEIGHT (LBS)	WEIGHT (KGS)
RACK TOTAL	800	1166	168	76

## B Supplementary Manuals

Manuals for all standard and optional components are shipped with the audio system.

- If any product manuals are missing, lost, or damaged, visit the manufacturer's website or perform a web search for the component model number.
- When viewing a digital copy of this manual from [www.daktronics.com/manuals](http://www.daktronics.com/manuals), click on the appropriate manufacturer link below to view a component's manual. If the link is broken, visit the manufacturer's website or perform a web search for the component model number.

Component	Model Number	Manufacturer	Manual(s)
Speaker Array	CBT 70J-1 + 70JE-1	JBL <a href="http://www.jblpro.com">www.jblpro.com</a>	<a href="#">Bracket Guide</a> <a href="#">Hookup Guide</a>
Amplifier	Connect 704	LEA <a href="http://www.leaprofessional.com">www.leaprofessional.com</a>	<a href="#">User's Manual</a>
Swing-Out Wall Rack	DWR-12-26	Middle Atlantic <a href="http://www.middleatlantic.com">www.middleatlantic.com</a>	<a href="#">Instruction Sheet</a>
Power Sequencer	CN-2400S	Furman <a href="http://www.furmanpower.com">www.furmanpower.com</a>	<a href="#">Instructions</a>

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# C Anchorage Recommendations

**Reference Documents:**

SSN-150 Anchorage Recommendations ..... **DD2670874**



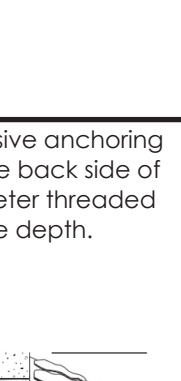

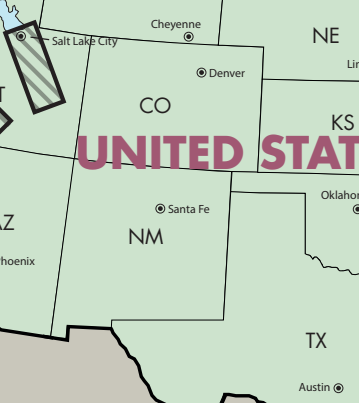

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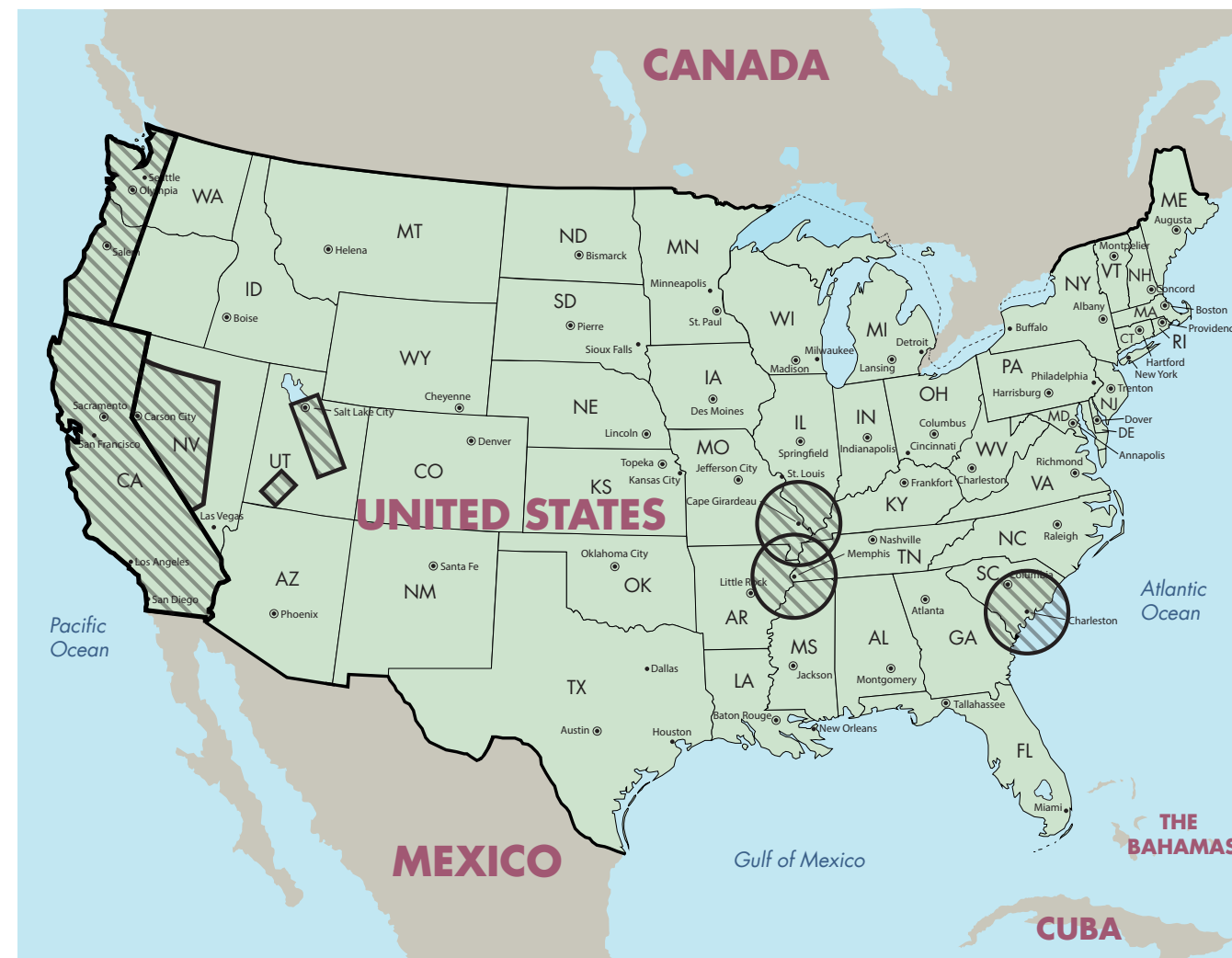


# Anchorage Recommendations For Daktronics Standard Indoor Sound (SSN-150)


**DISCLAIMER:** The following are anchorage types suggested based on the wall construction type. Daktronics makes no warranties with regard to the suggested anchorage types, and does not represent that these anchorage types will comply with the local codes of the project site. The installing party is solely responsible for designing the anchorage and ensuring that the anchorage used conforms to the codes of the local jurisdiction.

The anchors listed have installation requirements specific to their intended use and must be followed. The installer will ensure proper drilling of CMU hollow block to prevent blowout of the internal block wall. The following anchors correspond to the regions shown in **Figure 22-1 of ASCE 7-05**, modified in this document to give clear representation of seismic zones. Reference **DWG-1132106** for installation procedures of audio cabinet.

Wall Material	Speaker Cabinet Anchor Recommendations (by Region)*	
	Contiguous US – EXCLUDING shaded areas of map	Contiguous US, Alaska, & Hawaii – INCLUDING shaded areas of map
Concrete, normal weight, 3000 psi; minimum member thickness 4"	1/2" ITW Red Head Large Diameter Tapcon anchor, 2-1/2" minimum embedment depth 	
Hollow CMU Block	1/2" Hilti HLC carbon sleeve anchor, 1-1/2" minimum embedment depth (required to fasten sleeve into standard block wall) 	HBU-38 Red Head Umbrella A7 adhesive anchoring system; umbrella is to be flush with the back side of the mounting surface. Use 1/2" diameter threaded rod at appropriate length per surface depth. 
Grouted CMU Block	1/2" Hilti HLC carbon sleeve anchor, 1-1/2" minimum embedment depth 	1/2" ITW Red Head threaded rod with A7 adhesive in grout-filled concrete masonry, 4-1/4" minimum embedment depth 
	1/2" ITW Red Head Large Diameter Tapcon anchor, 2-1/2" minimum embedment depth 	



\*Alaska and Hawaii not shown – these states would be completely shaded.

Wall Material	Control Enclosure Anchor Recommendations (by Region)*
	Contiguous US, Alaska, & Hawaii – INCLUDING shaded areas of map
<ul style="list-style-type: none"> <li>Concrete, normal weight, 3000 psi; minimum member thickness 4"</li> <li>Hollow CMU Block</li> <li>Grouted CMU Block</li> </ul>	1/4" ITW Red Head Tapcon concrete anchor, 1" minimum embedment depth 

**Note:** For SSR-WR units (DWR-12-26), a washer is recommended between the head of the anchor and the rack.

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## **D Daktronics Warranty & Limitation of Liability**

This section includes the Daktronics Warranty & Limitation of Liability statement (SL-02374).

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# DAKTRONICS WARRANTY & LIMITATION OF LIABILITY

This Warranty and Limitation of Liability (the "Warranty") sets forth the warranty provided by Daktronics with respect to the Equipment. By accepting delivery of the Equipment, Purchaser and End User agree to be bound by and accept these terms and conditions. Unless otherwise defined herein, all terms within the Warranty shall have the same meaning and definition as provided elsewhere in the Agreement.

DAKTRONICS WILL ONLY BE OBLIGATED TO HONOR THE WARRANTY SET FORTH IN THESE TERMS AND CONDITIONS UPON RECEIPT OF FULL PAYMENT FOR THE EQUIPMENT

## 1. Warranty Coverage.

- A. Daktronics warrants to the original end user (the "End User", which may also be the Purchaser) that the Equipment will be free from Defects (as defined below) in materials and workmanship for a period of one (1) year (the "Warranty Period"). The Warranty Period shall commence on the earlier of: (i) four weeks from the date that the Equipment leaves Daktronics' facility; or (ii) Substantial Completion as defined herein. The Warranty Period shall expire on the first anniversary of the commencement date.

"Substantial Completion" means the operational availability of the Equipment to the End User in accordance with the Equipment's specifications, without regard to punch-list items, or other non-substantial items which do not affect the operation of the Equipment

- B. Daktronics' obligation under this Warranty is limited to, at Daktronics' option, replacing or repairing, any Equipment or part thereof that is found by Daktronics not to conform to the Equipment's specifications. Unless otherwise directed by Daktronics, any defective part or component shall be returned to Daktronics for repair or replacement. This Warranty does not include on-site labor charges to remove or install these components. Daktronics may, at its option, provide on-site warranty service. Daktronics shall have a reasonable period of time to make such replacements or repairs and all labor associated therewith shall be performed during regular working hours. Regular working hours are Monday through Friday between 8:00 a.m. and 5:00 p.m. at the location where labor is performed, excluding any holidays observed by Daktronics.
- C. Daktronics shall pay ground transportation charges for the return of any defective component of the Equipment. All such items shall be shipped by End User DDP Daktronics designated facility per Incoterms® 2020. If returned Equipment is repaired or replaced under the terms of this Warranty, Daktronics will prepay ground transportation charges back to End User and shall ship such items DDP End User's designated facility per Incoterms® 2020; otherwise, End User shall pay transportation charges to return the Equipment back to the End User and such Equipment shall be shipped Ex Works Daktronics designated facility per Incoterms® 2020. All returns must be pre-approved by Daktronics before shipment. Daktronics shall not be obligated to pay freight for any unapproved return. End User shall pay any upgraded or expedited transportation charges
- D. Any replacement parts or Equipment will be new or serviceably used, comparable in function and performance to the original part or Equipment and warranted for the remainder of the Warranty Period. Purchasing additional parts or Equipment from the Seller does not extend the Warranty Period.
- E. Defects shall be defined as follows. With regard to the Equipment (excepting LEDs), a "Defect" shall refer to a material variance from the design specifications that prohibit the Equipment from operating for its intended use. With respect to LEDs, "Defects" are defined as LED pixels that cease to emit light. Unless otherwise expressly provided, this Warranty does not impose any duty or liability upon Daktronics for partial LED pixel degradation. Notwithstanding the foregoing, in no event does this Warranty include LED pixel degradation caused by UV light. This Warranty does not provide for the replacement or installation of communication methods including but not limited to, wire, fiber optic cable, conduit, trenching, or for the purpose of overcoming local site interference radio equipment substitutions.

EXCEPT AS OTHERWISE EXPRESSLY SET FORTH IN THIS WARRANTY, TO THE MAXIMUM EXTENT PERMITTED BY APPLICABLE LAW, DAKTRONICS DISCLAIMS ANY AND ALL OTHER PROMISES, REPRESENTATIONS AND WARRANTIES APPLICABLE TO THE EQUIPMENT AND REPLACES ALL OTHER WARRANTIES OR CONDITIONS, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTIES OR CONDITIONS OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR ACCURACY OR QUALITY OF DATA. OTHER ORAL OR WRITTEN INFORMATION OR ADVICE GIVEN BY DAKTRONICS, ITS AGENTS OR EMPLOYEES, SHALL NOT CREATE A WARRANTY OR IN ANY WAY INCREASE THE SCOPE OF THIS LIMITED WARRANTY.

THIS LIMITED WARRANTY IS NOT TRANSFERABLE.

## 2. Exclusion from Warranty Coverage

This Warranty does not impose any duty or liability upon Daktronics for any:

- A. damage occurring at any time, during shipment of Equipment unless otherwise provided for in the Agreement. When returning Equipment to Daktronics for repair or replacement, End User assumes all risk of loss or damage, agrees to use any shipping containers that might be provided by Daktronics, and to ship the Equipment in the manner prescribed by Daktronics;
- B. damage caused by: (i) the improper handling, installation, adjustment, use, repair, or service of the Equipment, or (ii) any physical damage which includes, but is not limited to, missing, broken, or cracked components resulting from non-electrical causes;



# DAKTRONICS WARRANTY & LIMITATION OF LIABILITY

altered, scratched, or fractured electronic traces; missing or gauged solder pads; cuts or clipped wires; crushed, cracked, punctured, or bent circuit boards; or tampering with any electronic connections, provided that such damage is not caused by personnel of Daktronics or its authorized repair agents;

- C. damage caused by the failure to provide a continuously suitable environment, including, but not limited to: (i) neglect or misuse; (ii) improper power including, without limitation, a failure or sudden surge of electrical power; (iii) improper air conditioning, humidity control, or other environmental conditions outside of the Equipment's technical specifications such as extreme temperatures, corrosives and metallic pollutants; or (iv) any other cause other than ordinary use;
- D. damage caused by fire, flood, earthquake, water, wind, lightning or other natural disaster, strike, inability to obtain materials or utilities, war, terrorism, civil disturbance, or any other cause beyond Daktronics' reasonable control;
- E. failure to adjust, repair or replace any item of Equipment if it would be impractical for Daktronics personnel to do so because of connection of the Equipment by mechanical or electrical means to another device not supplied by Daktronics, or the existence of general environmental conditions at the site that pose a danger to Daktronics personnel;
- F. statements made about the product by any salesperson, dealer, distributor or agent, unless such statements are in a written document signed by an officer of Daktronics. Such statements as are not included in a signed writing do not constitute warranties, shall not be relied upon by End User and are not part of the contract of sale;
- G. damage arising from the use of Daktronics products in any application other than the commercial and industrial applications for which they are intended, unless, upon request, such use is specifically approved in writing by Daktronics;
- H. replenishment of spare parts. In the event the Equipment was purchased with a spare parts package, the parties acknowledge and agree that the spare parts package is designed to exhaust over the life of the Equipment, and as such, the replenishment of the spare parts package is not included in the scope of this Warranty;
- I. security or functionality of the End User's network or systems, or anti-virus software updates;
- J. performance of preventive maintenance;
- K. third-party systems and other ancillary equipment, including without limitation front-end video control systems, audio systems, video processors and players, HVAC equipment, batteries and LCD screens;
- L. incorporation of accessories, attachments, software or other devices not furnished by Daktronics; or
- M. paint or refinishing the Equipment or furnishing material for this purpose.

### 3. Limitation of Liability

- A. Daktronics shall be under no obligation to furnish continued service under this Warranty if alterations are made to the Equipment without the prior written approval of Daktronics.
- B. It is specifically agreed that the price of the Equipment is based upon the following limitation of liability. In no event shall Daktronics (including its subsidiaries, affiliates, officers, directors, employees, or agents) be liable for any claims asserting or based on (a) loss of use of the facility or equipment; lost business, revenues, or profits; loss of goodwill; failure or increased cost of operations; loss, damage or corruption of data; loss resulting from system or service failure, malfunction, incompatibility, or breaches in system security; or (b) any special, consequential, incidental or exemplary damages arising out of or in any way connected with the Equipment or otherwise, including but not limited to damages for lost profits, cost of substitute or replacement equipment, down time, injury to property or any damages or sums paid to third parties, even if Daktronics has been advised of the possibility of such damages. The foregoing limitation of liability shall apply whether any claim is based upon principles of contract, tort or statutory duty, principles of indemnity or contribution, or otherwise
- C. In no event shall Daktronics be liable for loss, damage, or injury of any kind or nature arising out of or in connection with this Warranty in excess of the Purchase Price of the Equipment. The End User's remedy in any dispute under this Warranty shall be ultimately limited to the Purchase Price of the Equipment to the extent the Purchase Price has been paid.

### 4. Assignment of Rights

- A. The Warranty contained herein extends only to the End User (which may be the Purchaser) of the Equipment and no attempt to extend the Warranty to any subsequent user-transferee of the Equipment shall be valid or enforceable without the express written consent of Daktronics.

### 5. Governing Law; Election of Remedies

- A. The rights and obligations of the parties under this Warranty shall not be governed by the provisions of the United Nations Convention on Contracts for the International Sales of Goods of 1980. The parties consent to the application of the laws of the State of South Dakota to govern, interpret, and enforce each of the parties' rights, duties, and obligations arising from, or relating in any manner to, the subject matter of this Warranty, without regard to conflict of law principles.
- B. Any dispute, controversy or claim arising from or related to this Warranty, the parties shall first attempt to settle through negotiations. In the event that no resolution is reached, then such dispute, controversy, or claim shall be resolved by final and binding arbitration under the Rules of Arbitration of the International Chamber of Commerce. The language of the arbitration

# DAKTRONICS WARRANTY & LIMITATION OF LIABILITY

shall be English. The place of the arbitration shall be Sioux Falls, SD. A single arbitrator selected by the parties shall preside over the proceeding. If a single arbitrator cannot be agreed upon by the parties, each party shall select an arbitrator, and those arbitrators shall confer and agree on the appointed arbitrator to adjudicate the arbitration. The arbitrator shall have the power to grant any provisional or final remedy or relief that it deems appropriate, including conservatory measures and an award of attorneys' fees. The arbitrator shall make its decisions in accordance with applicable law. By agreeing to arbitration, the Parties do not intend to deprive any court of its jurisdiction to issue a pre-arbitral injunction, pre-arbitral attachment, or other order in aid of arbitration proceedings and the enforcement of any award. Without prejudice to such provisional remedies as may be available under the jurisdiction of a court, the arbitrator shall have full authority to grant provisional remedies and to direct the Parties to request that any court modify or vacate any temporary or preliminary relief issued by such court, and to award damages for the failure of any Party to respect the arbitrator's orders to that effect.

## 6. Availability of Extended Service Agreement

- A. For End User's protection, in addition to that afforded by the warranties set forth herein, End User may purchase extended warranty services to cover the Equipment. The Extended Service Agreement, available from Daktronics, provides for electronic parts repair and/or on-site labor for an extended period from the date of expiration of this warranty. Alternatively, an Extended Service Agreement may be purchased in conjunction with this Warranty for extended additional services. For further information, contact Daktronics Customer Service at 1-800-DAKTRONics (1-800-325-8766).

### Additional Terms applicable to sales outside of the United States

The following additional terms apply **only** where the installation site of the Equipment is located outside of the United States of America.

1. In the event that the installation site of the Equipment is in a country other than the U.S.A., then, notwithstanding Section 5 of the Warranty, where the selling entity is the entity listed in Column 1, then the governing law of this Warranty is the law of the jurisdiction listed in the corresponding row in Column 2 without regard to its conflict of law principles. Furthermore, if the selling entity is an entity listed in Column 1, then the place of arbitration is listed in the corresponding row in Column 3.

Column 1 (Selling Entity)	Column 2 (Governing Law)	Column 3 (Location of Arbitration)
Daktronics, Inc.	The state of Illinois	Chicago, IL, U.S.A.
Daktronics Canada, Inc.	The Province of Ontario, Canada	Toronto, Ontario, Canada
Daktronics UK Ltd.	England and Wales	Bristol, UK
Daktronics GmbH	The Federal Republic of Germany	Wiesbaden, Germany
Daktronics Hong Kong Limited	Hong Kong, Special Administrative Region of the P.R.C.	Hong Kong SAR
Daktronics Shanghai Co., Ltd.	The Peoples Republic of China	Shanghai, P.R.C.
Daktronics France, SARL	France	Paris, France
Daktronics Japan, Inc.	Japan	Tokyo, Japan
Daktronics International Limited	Macau, Special Administrative Region of the P.R.C.	Macau SAR
Daktronics Australia Pad Ltd	Australia	Sydney, Australia
Daktronics Singapore Pte. Ltd	Singapore	Singapore
Daktronics Brazil LTDA	Brazil	São Paulo, Brazil
Daktronics Spain S.L.U.	Spain	Madrid, Spain
Daktronics Belgium N. V	Belgium	Kruikeke, Belgium
Daktronics Ireland Co. Ltd.	Ireland	Dublin, Ireland

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