DBN-301 SERIES

DAKT-0203-14

DISPLAY MANUAL

P2057

DD3963126
Rev 02
17 June 2019

201 Daktronics Drive
Brookings, SD 57006-5128
www.daktronics.com/support
800.325.8766

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FCC Statement

Supplier Declaration of Conformity (SDoC)

This product complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Note: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at their own expense.

Warning: The user is cautioned that changes and modifications made to the equipment without the approval of manufacturer could void the user's authority to operate this equipment.

Industry Canada Regulatory Information

This Class A digital apparatus complies with Canadian ICES-003.
Cet appareil numérique de la classe A est conforme à la norme NMB-003 du Canada.

Inquiries

Contact Daktronics with any questions regarding our product compliance.

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Table of Contents

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1 Introduction

How to Use This Manual

This manual explains the installation, maintenance, and troubleshooting of this video display system. For additional information regarding the safety, installation, operation, or service of this system, refer to the telephone numbers listed in **Daktronics Exchange and Repair & Return Programs (p.7)**. This manual contains only generic installation topics and is not specific to a particular installation. Contract-specific information takes precedence over any general information found in this manual.

Daktronics identifies manuals by the DD number located on the cover page of each manual. For example, this manual would be referred to as **DD3963126**.

Numbering Conventions

Drawing Number

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-3911146**.

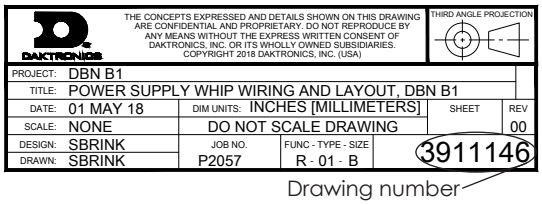

Figure 1: *Drawing Label*

All references to drawing numbers, appendices, figures, or other manuals are presented in bold typeface, as shown in the example below:

> Refer to **DWG-3911146** in **Appendix B: Reference Drawings (p.13)** for the locations of internal display components.

Part Number

Most display components within a display carry a white label that lists the part number. The component number uses the following format: 0A-XXXX-XXXX (multi-component assembly) or 0P-XXXX-XXXX (display interface board). **Daktronics Exchange and Repair & Return Programs (p.7)** contains the Daktronics Exchange Policy as well as the Repair & Return Program. Refer to these instructions if any display components need replacing or repairing. If an interface board or assembly is not found in the replacement parts list in **Replacement Parts List (p.7)**, use the label to order a replacement. **Figure 2** illustrates a typical label. The part number is in bold.

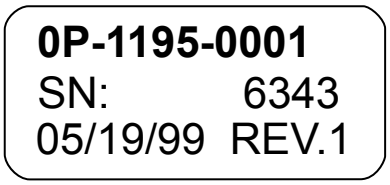

Figure 2: *Typical Label*

Part Type	Part Example	Part Number
Assembly	Display interface board and its mounting plate or bracket	0A-XXXX-XXXX
Individual display interface board	ProLink Router (PLR)	0P-XXXX-XXXX
Wire or cable	SATA cable	W-XXXX

Module Number

Figure 3 explains the module labeling method in more detail, and **Figure 4** illustrates how Daktronics numbers modules on a video display.

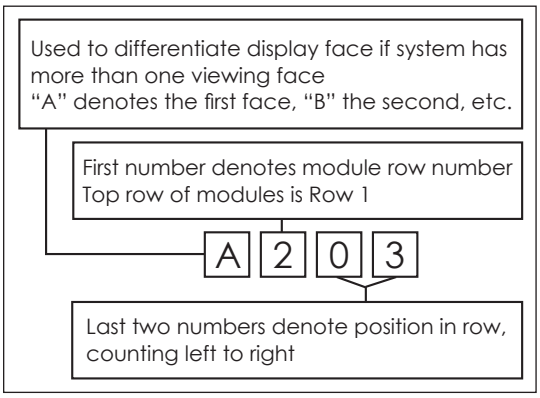

Figure 3: *Module Numbering Breakdown*

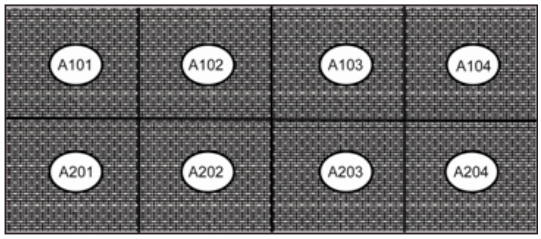

Figure 4: *Module Numbering*

Model Number

Each video display system has a model number that explains the display specifications.

DBN-301-4MN-HHHxWWW **DBN-301-6MN-HHHxWWW** **DBN-301-10MN-HHHxWWW**		
DBN-301	=	Product series
4MN 6MN 10MN	=	Pixel pitch/layout
HHH	=	Matrix height
WWW	=	Matrix width

Important Safeguards

- Read and understand the installation instructions before beginning the installation process.
- Do not drop the control equipment or allow it to get wet.
- Do not disassemble the control equipment or electronic controls of the display; failure to follow this safeguard will make the warranty null and void.
- Disconnect the display power when not in use or when servicing.
- Disconnect the display power before servicing the power supplies to avoid electrical shock. The power supplies run on high voltage and may cause injury if touched while powered.

2 Warnings/Disclaimers

Review the reference documents and drawings in **Appendix A: Reference Documents (p.11)** and **Appendix B: Reference Drawings (p.13)** prior to installation as well as during the installation process.

Display

Daktronics engineering staff must approve any changes that may affect the strength or protective integrity of the display frame or enclosures. If any modifications of this nature are made, detailed drawings of the change(s) must be submitted to Daktronics engineering staff for evaluation and approval, or the warranty will be null and void.

Displays must be lifted appropriately to ensure the display sections are not damaged. It is the installer's responsibility to ensure the installation meets all local codes and standards. All hardware processes used during display installation must meet the approved, stamped drawings from a professional engineer.

This display is intended to be installed in accordance with the requirements of Article 600 of the National Electrical Code and/or other applicable local codes. This includes proper grounding and bonding of the sign.

Only qualified individuals should access the electrical components of this display and its associated equipment.

Power

All display grounding, power routing, and termination must meet or exceed local codes and standards.

Correct power installation is imperative for display operation. These subsections give details on display power installation. Only qualified individuals should attempt the electrical installation; untrained personnel should not attempt to install displays or any of the electrical components. Improper installation could result in serious equipment damage and could be hazardous to personnel.

Ensure all external overcurrent protection meets all local and national electrical codes and is appropriately sized to the load of the sections it is terminating.

Refer to the contract-specific documentation to determine who is responsible for providing conduit and pulling cable through the conduit.

Grounding

The display must be properly grounded according to the National Electrical Code and any other local or national codes, or the warranty will be null and void.

Main Disconnect

Refer to the contract-specific Riser Diagram to determine who must supply a main distribution/disconnect and the necessary wiring for power distribution to the display.

The disconnect mechanism must be located in direct line of sight from the display it controls. This allows workers to keep the disconnect mechanism in view while performing display maintenance.

Power disconnects capable of locking in the open position may be located in an out-of-sight location.

Disconnect all power sources before servicing any part of the display.

The customer or contractor is responsible for conduit and wire unless otherwise stated on contract-specific documentation.

Power Termination

All power routing and termination must comply with local and national codes and standards. Display grounding must agree with local and national codes and standards.

Structure

It is the installer's responsibility to ensure the mounting structure and hardware are built per the stamped engineering drawings and are capable of supporting the display prior to beginning the installation.

3 Glossary

Lanyard attachment ring: a ring found on the back of each module. The lanyard attaches to the ring to keep the module from falling to the ground.

Latch release: a device that holds the module firmly to the display frame. There is one at the top of each module.

Light emitting diode (LED): a low energy, high intensity lighting unit.

Line filter: a device that removes electromagnetic noise from the power system to avoid interference with local communications channels. Line filters sometimes mount on brackets with power supplies. Other times they may mount alone on a bracket.

Louver: a plastic shade positioned horizontally above each pixel row. Louvers increase the contrast level on the display face and direct LED light for easier viewing.

Module: a display board with LEDs, a driver board or logic card, a black plastic housing, and a module latch assembly. Each module is individually removable from either the front or the rear of the display.

Pixel: the smallest single point of light on a display that can be turned on and off. For LED displays, a pixel is the smallest block of light emitting devices that can generate all available colors.

Power supply: a device that converts AC line voltage from the termination panel to low DC voltage for one or more module driver boards. One power supply may power multiple modules.

ProLink Router (PLR): a display interface board that passes display data from the control system to modules and other PLRs. The ratio of PLRs to modules varies with display application.

Termination block: an electrical point usually used to connect internal power and signal wires to wires of the same type coming into the display from an external source.

Video Image Processor (VIP): an interface that drives video to the display while also dimming, providing gamma and color controls, and displaying test patterns.

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4 Replacement Parts

Replacement Parts List

Part Description	Part Number
Cabinet fan	B-1103
Module	Contract-specific
ProLink Router (PLR)	0P-1525-0004

Daktronics Exchange and Repair & Return Programs

To serve customers' repair and maintenance needs, Daktronics offers both an exchange program and a repair & return program.

Exchange Program

Daktronics unique Exchange Program is a quick service for replacing key parts in need of repair. If a part requires repair or replacement, Daktronics sends the customer a replacement, and the customer sends the defective part to Daktronics. This decreases display downtime.

Before contacting Daktronics, identify these important part numbers:

Display Serial Number: _____

Display Model Number: _____

Contract Number: _____

Installation Date: _____

Sign Location: _____

Daktronics Customer ID Number: _____

To participate in the Exchange Program, follow these steps:

1. **Call Daktronics Customer Service.**

Market Description	Customer Service Number
Schools (primary through community/junior colleges), religious organizations, municipal clubs, and community centers	877-605-1115
Universities and professional sporting events, live events for auditoriums, and arenas	866-343-6018
Financial institutions, petroleum, sign companies, gaming, and wholesale/retails establishments	866-343-3122
Department of Transportation, mass transits, airports, and parking facilities	800-833-3157

2. **Mail the old part to Daktronics when the new exchange part is received.**

   If the replacement part fixes the problem, send in the problem part which is 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.

   Daktronics will charge for the replacement part immediately, unless a qualifying service agreement is in place. In most cases, the replacement part will be invoiced at the time it is shipped.

3. **Return the part within 30 working days if the replacement part does not solve the problem, or Daktronics will charge the full purchase price.**

   If the part is still defective after the exchange is made, please contact Daktronics Customer Service immediately. Daktronics expects immediate return of an exchange part if it does not solve the problem. Daktronics also 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.**

   Refer to the telephone number listed on the previous page.

2. **Receive a Return Materials Authorization (RMA) number before shipping.**

   Refer to the telephone number listed on the previous page.

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

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

4. **Enclose the following information:**

   - Name
   - Address
   - Phone number
   - RMA number
   - Clear description of symptoms

Shipping Address

Daktronics Customer Service
600 E 54th St N
Sioux Falls, SD 57104
Case #

Warranty & Limitation of Liability

The Daktronics Warranty & Limitation of Liability statement is located in **Appendix C: Daktronics Warranty & Limitation of Liability (p.15)**. The warranty is independent of extended service agreements and is the authority in matters of service, repair, and display operation.

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A Reference Documents

Use the following documents in the order listed:

- **DBN-301 Series Structure Placement & Verification Quick Guide (DD3979340)**
- **DBN-301 Series Section Crating Quick Guide (DD3977131)**
- **DBN-301 Series Section Basics Quick Guide (DD3981195)**
- **DBN-301 Series Section Lifting Quick Guide (DD3979694)**
- **DBN-301 Series Sectional Installation & Service Installation Quick Guide (DD3975927)**
- **DBN-301 Series Beam Shroud & Border Installation Quick Guide (DD3977596)**

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Spreader Beam Only Method

1. Position the spreader beam as shown in **Figure 1**. There are three mounting locations on each end of the beam. Refer to the supplied display section layout documentation to determine which mounting location to use. Unused mounting locations can be used for lifting.

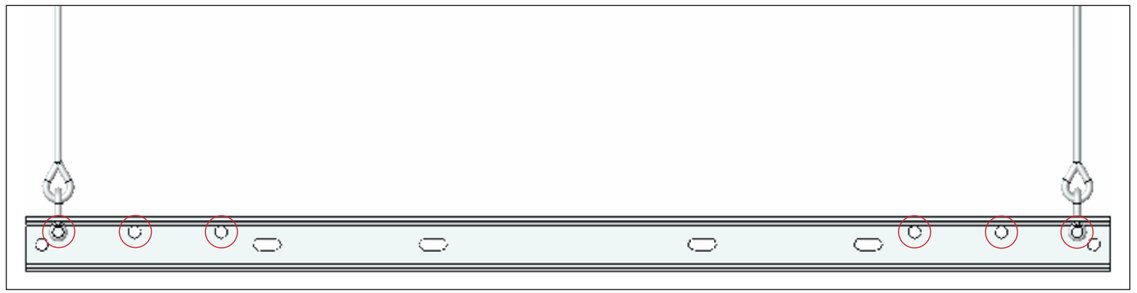

Figure 1: *Spreader Beam*

2. Attach the cables to the shackles and the shackles to both ends of the spreader beam. Ensure the shackles are secured in place.
3. Raise the entire assembly to a comfortable working height so the display sections can be positioned under the attachment points. Refer to **Figure 2** for assembled details.

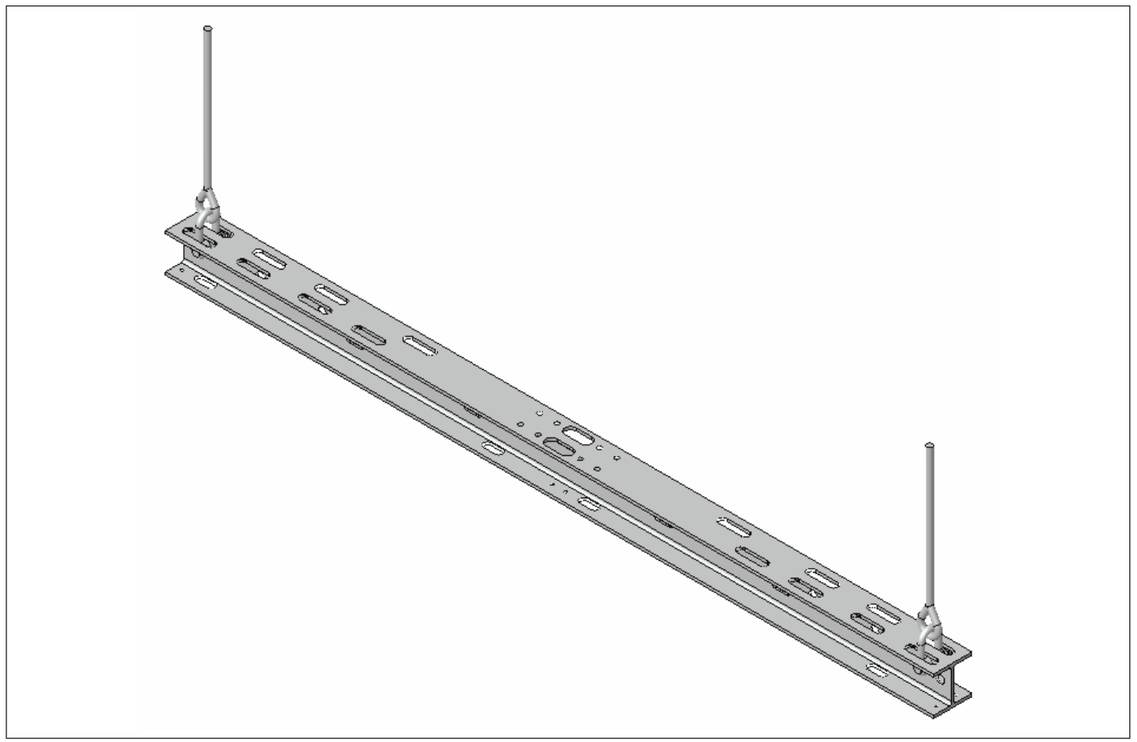

Figure 2: *Assembled Rigging (Spreader Beam)*

4. Use a 2' level to ensure the beam is as horizontal as possible for cabinet-to-cabinet alignment later.

Spreader Beam with Rotator Method

1. Attach the lifting cables to the rotator at the unused lifting locations as shown in **Figure 3**.

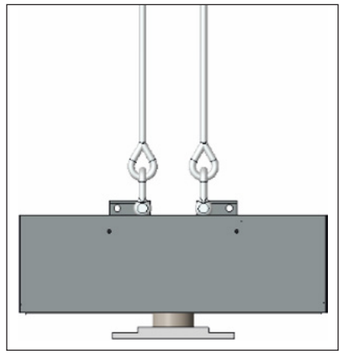

Figure 3: *Rotator*

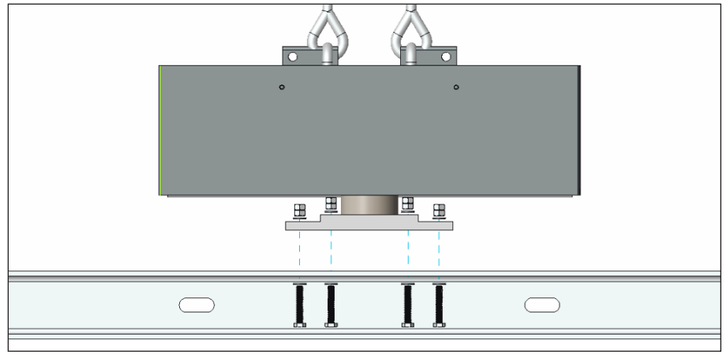

Figure 4: *Attach Rotator Assembly*

2. Attach the spreader beam to the rotator assembly with M12x70 mm long bolts, nuts, and washers as shown in **Figure 4**. Double-nut all bolt locations. Refer to **Step 2** on **DWG-3964751**. Ensure all bolt locations are used and snug-tightened per AISC 14th edition.
3. Raise the entire assembly to a comfortable working height so the display sections can be positioned under the attachment points. Refer to **Figure 5** for assembled details.

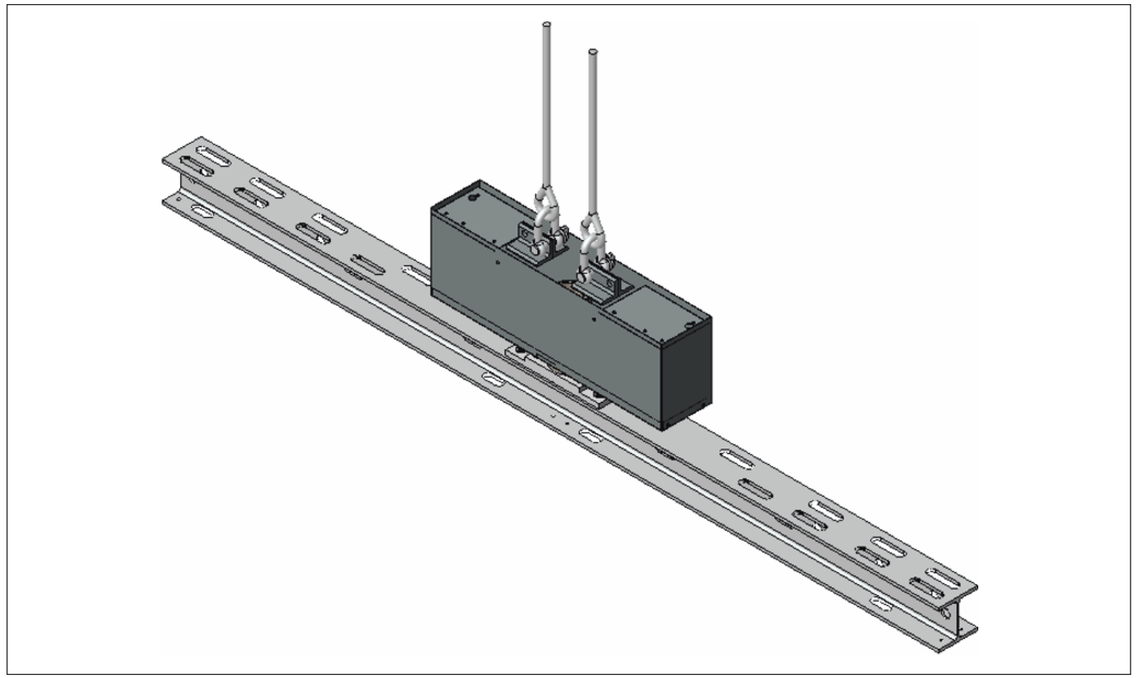

Figure 5: *Assembled Rigging (Rotator)*

4. Use a 2' level to ensure the beam is as horizontal as possible for cabinet-to-cabinet alignment later. Refer to **DWG-3964751** for additional rigging details.

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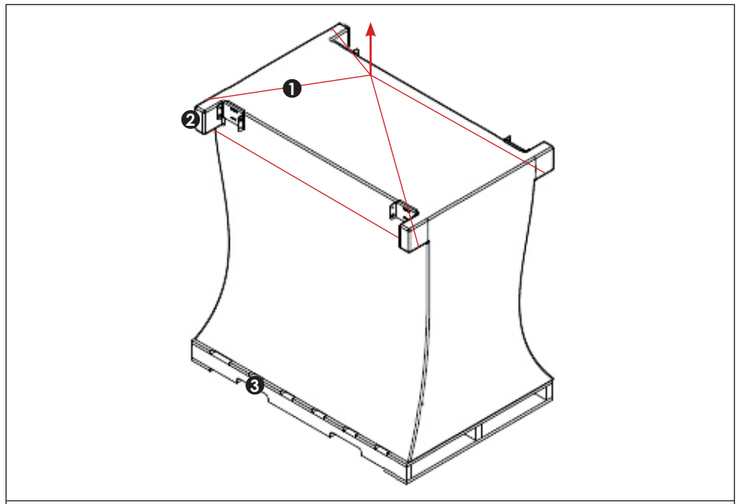
Lift

1. Lift the crates from either the forklift pockets with a forklift or from the top support brackets with a crane/straps. Never use the lift eye locations in the display sections to lift the entire crate. Refer to **Figure 1**.



1: Strap
2: Top support bracket
3: Forklift pocket

Figure 1: *Lift Methods*

2. Ensure the straps are at a minimum 45° angle or greater if using a crane/straps to lift the crates. Refer to **Figure 2**.

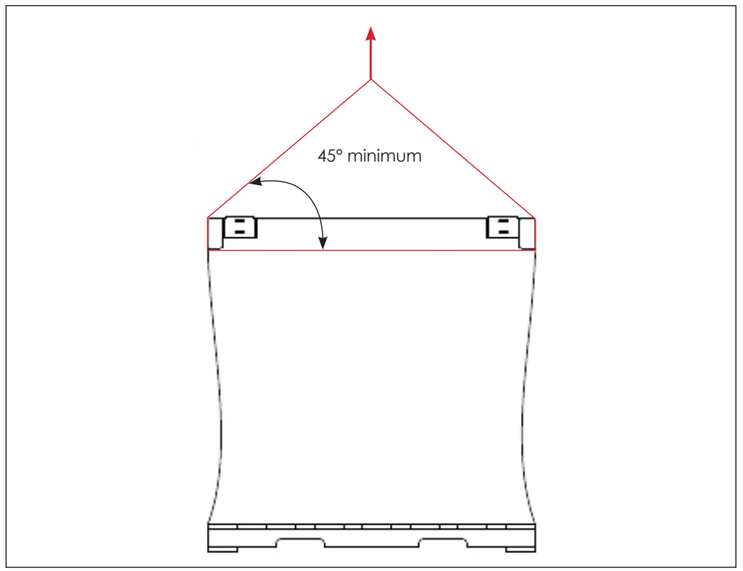


Figure 2: *Strap Angle (Side View)*

Disassemble

1. Remove the four strap brackets, stretch wrap, top cover, and top side brackets. Refer to **Figure 3**.

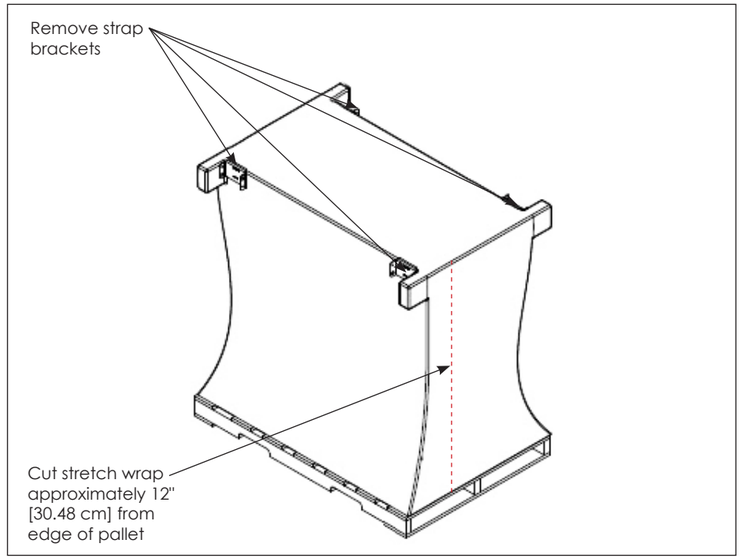


Figure 3: *Strap Brackets & Stretch Wrap*

2. Insert lift eyes in the top of the first display section. Refer to the **DBN-301 Series Section Basics Quick Guide (DD3981195)**. Attach the crane to the lift points. Refer to **Figure 4** for the section lift order and to **Stabilize (p.1)** for proper configurations.

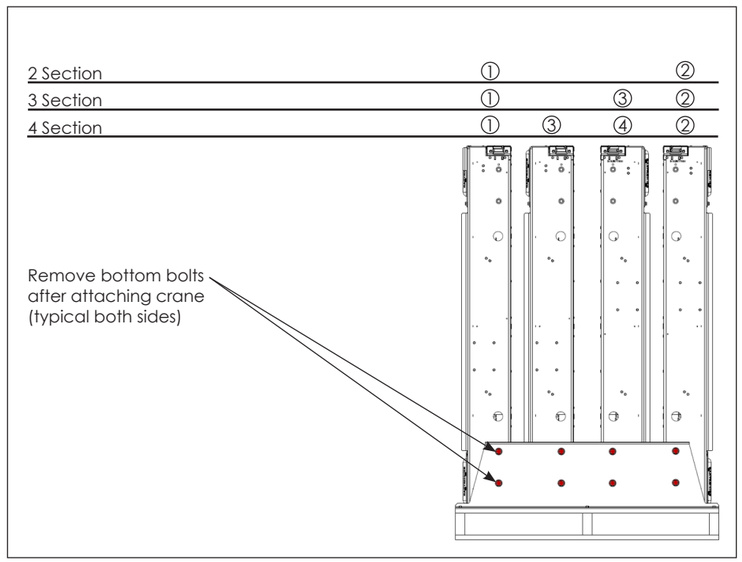


Figure 4: *Section Lift Order (Front View)*

Stabilize

Figure 5 shows stable and unstable configurations.

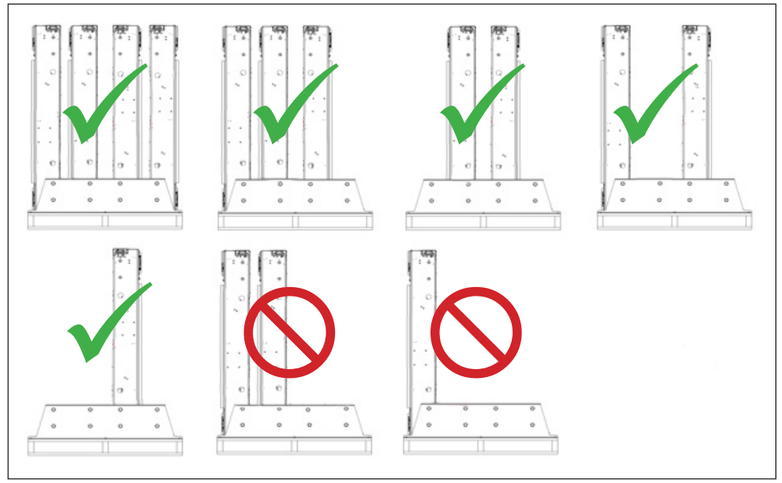


Figure 5: *Stable vs. Unstable Configurations*

Stable Configurations

- Any three or four sections
- Two middle sections
- Two outside sections
- One outside section and one opposite side middle section
- Any single section in the middle locations

Unstable Configurations

- Two sections on one side
- Any single section in the outer locations

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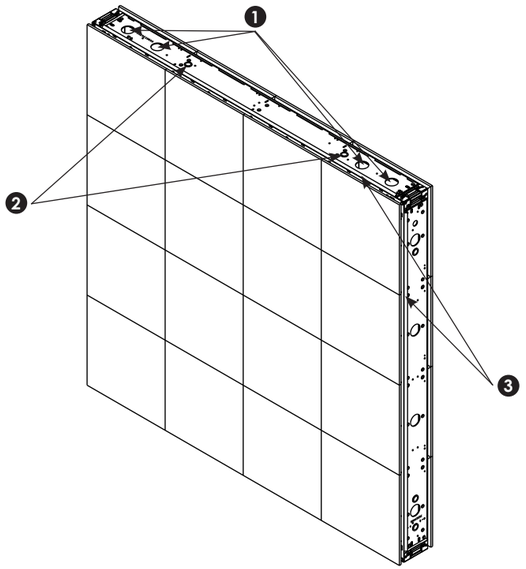
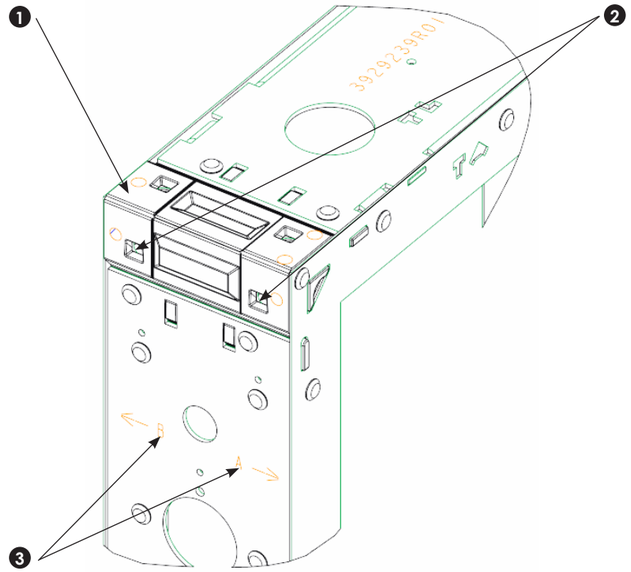


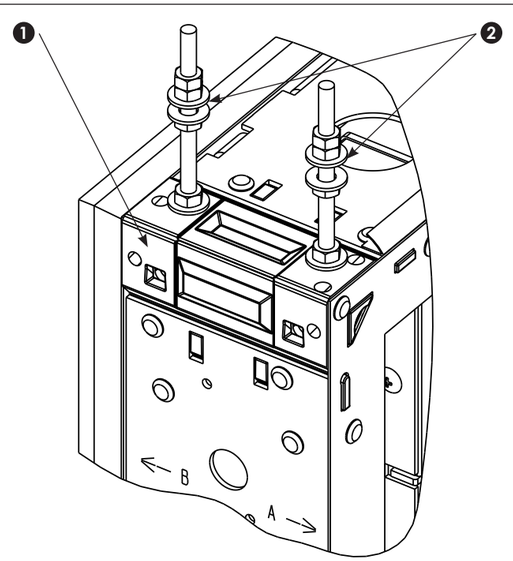
1: Power & signal entrance
2: Lift eye location (M12 threaded nutsert @ 2)
3: Light gasket

Figure 1: *Display Front*



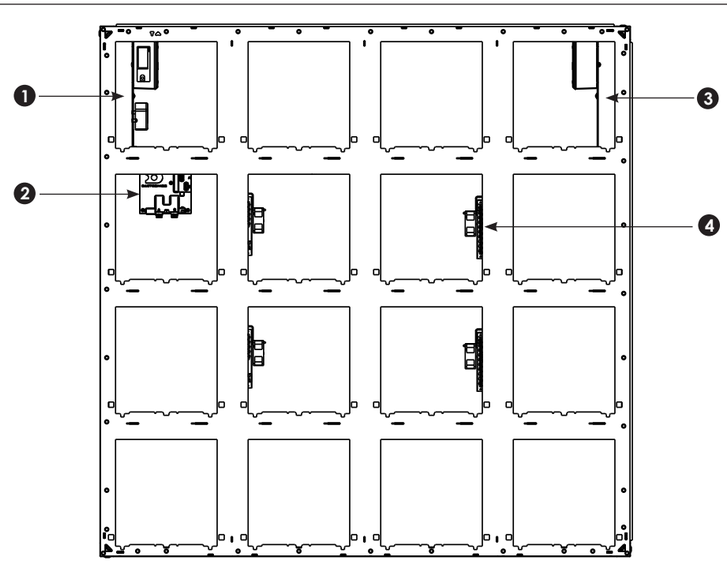
1: Corner block @ 4
2: M6 interconnect hardware location
3: Display orientation

Figure 2: *Interconnect Hardware*



1: Corner block @ 4
2: M6 hanging hardware

Figure 3: *Hanging Hardware*



1: Typical internal home run J-box location (configurable, not found in every cabinet)
2: ProLink Router (PLR) (configurable, not found in every cabinet)
3: Typical internal pass-through J-box location (configurable, not found in every cabinet)
4: Power supply

Figure 4: *Component Locations (Front View)*

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Primary Lifting Connection

Lift Eyes

- M12 lift eyes are provided with the installation hardware. Lift eyes should be installed with the hole parallel to the display face as shown in **Figure 1**.

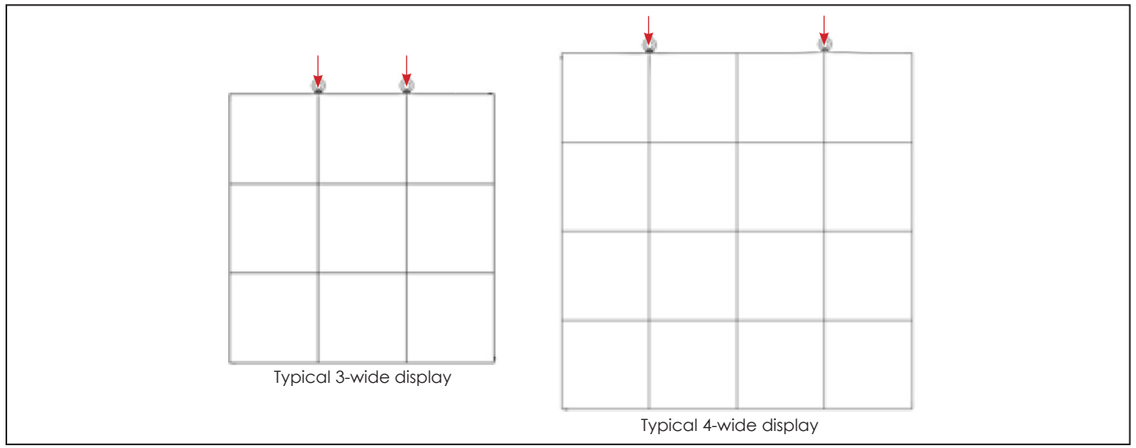

Figure 1: *Lift Eye Locations*

- Two M12 nutserts are pre-installed in the top of each display section for lifting purposes. Refer to **Figure 1** for lift eye locations.

Acceptable Lifting Methods

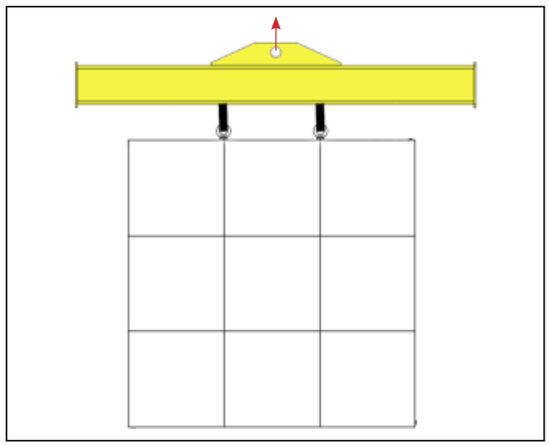

Figure 2: *Lift with Spreader Beam*

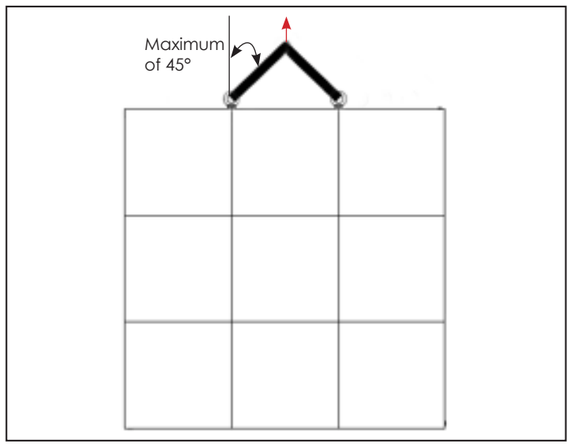

Figure 3: *Lift with Chains*

Preferred Method

- Use a spreader beam with sufficient weight capacity. Refer to **Figure 2** and **Section Sizes & Weight Estimates (p.1)**.
- Connect to both lift eye locations.
- Lift displays one section at a time (no stacking).

Alternate Method

- Use chains, cables, or straps with sufficient weight capacity. Refer to **Figure 3** and **Section Sizes & Weight Estimates (p.1)**.
- Lift at a minimum angle of 45° between each line and the sections. Refer to **Figure 3**.
- Connect to both lift eye locations.
- Lift displays one section at a time (no stacking).

Section Sizes & Weight Estimates

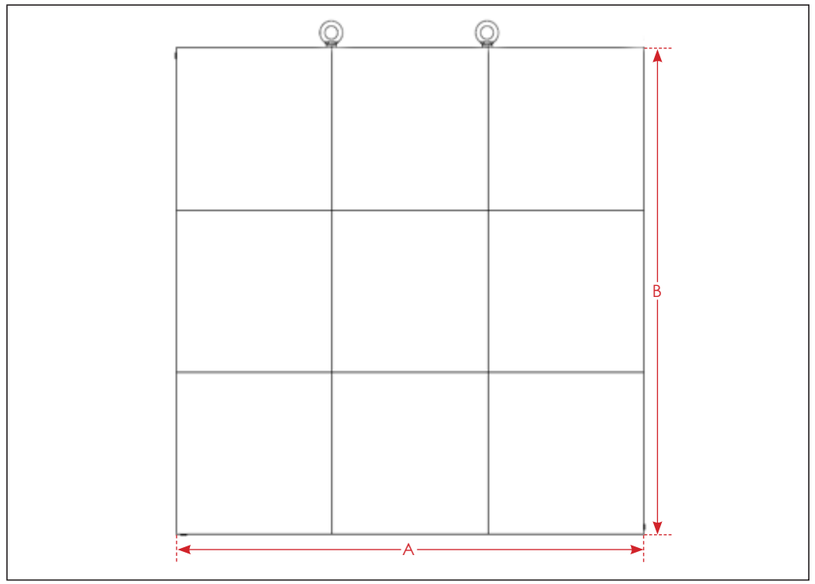

Figure 4: *Front View*

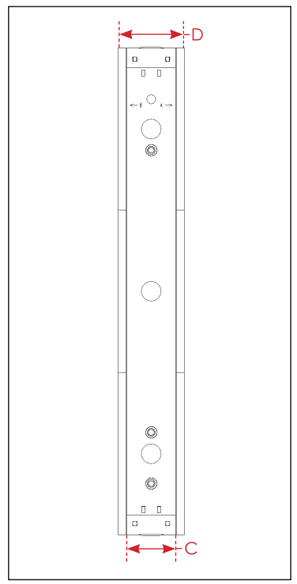

Figure 5: *Side View*

Display Size (Modules High x Modules Wide)	*Estimated Weight	Active Width Dimension A
4x4	130 lbs [60 kg]	4'-1 $^{15}/_{16}$" [1268 mm]
4x3	100 lbs [45 kg]	3'-1 $^{7}/_{16}$" [951 mm]
3x4	100 lbs [45 kg]	4'-1 $^{15}/_{16}$" [1268 mm]
3x3	75 lbs [35 kg]	3'-1 $^{7}/_{16}$" [951 mm]
Active Height Dimension B	**Active Depth Dimension C**	**Active Depth Dimension D**
4'-1 $^{15}/_{16}$" [1268 mm]	4" [100 mm]	5" [130 mm]
4'-1 $^{15}/_{16}$" [1268 mm]	4" [100 mm]	5" [130 mm]
3'-1 $^{7}/_{16}$" [951 mm]	4" [100 mm]	5" [130 mm]
3'-1 $^{7}/_{16}$" [951 mm]	4" [100 mm]	5" [130 mm]

*Estimated weights do not include border weight.

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Mechanical

Install Display

1. Identify the sections to be installed in the upper row of the display(s). Use the supplied Phillips flathead screws (Daktronics part number HC-1302) to install two top shims and a top spacer. Refer to **Figure 1** and the **DBN-301 Series Beam Shroud & Border Installation Quick Guide (DD3977596)** for details.

   The top shims and top spacer may also be installed from the inside of the display after the display is attached to the beam.

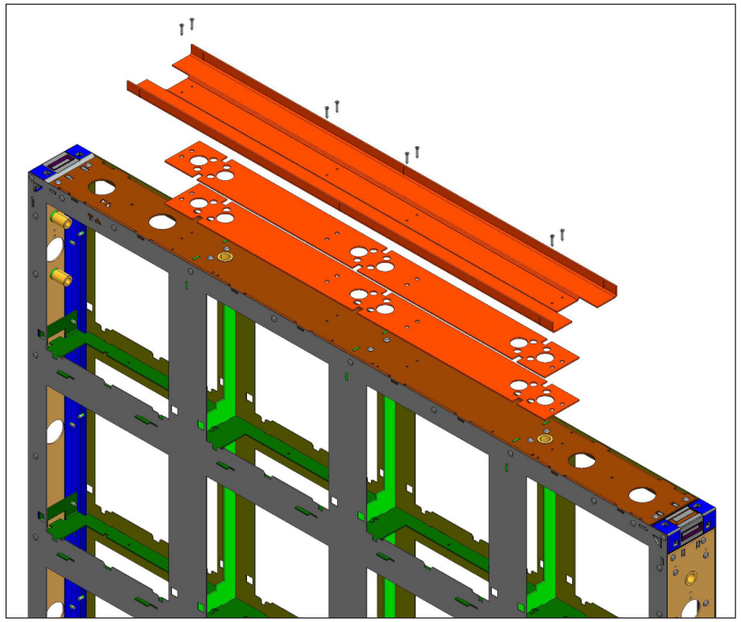

Figure 1: *Beam Top Shims & Top Spacer*

2. Remove the corner modules from the top row and set them aside. Use a flathead screwdriver, $^{5}/_{16}$" socket, or 8 mm socket to remove the retainer bracket in the upper-left corner of the display. The bracket can be accessed through the module cutout. Refer to **Figure 2** for details.

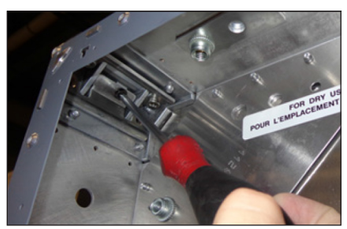

Figure 2: *Remove Retainer Bracket*

3. Insert two M6x90 mm Class 8.8 bolts (HC-3937324) with washers (HC-1090) through the corner block and use a washer and nut (HC-3937323) to secure them in place. Place an additional nut and washer to set the display-to-beam distance. Adjust the nut to measure a minimum of 1" from the top of the corner block to the top of the washer. Assemble additional nuts and washers onto bolts for **Step 6**. Refer to **Figure 3** and **Figure 4** for details.

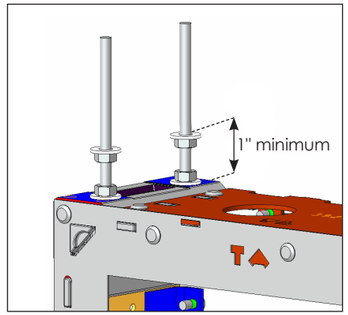

Figure 3: *Corner Block Hardware*

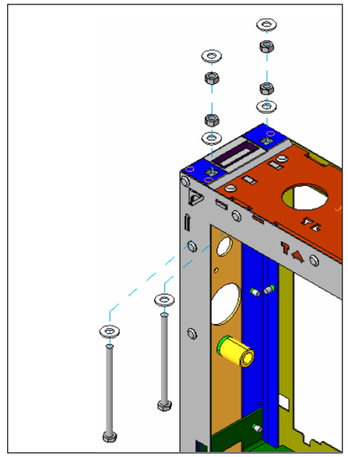

Figure 4: *Assemble Hardware*

4. Repeat **Step 1** and **Step 2** for each upper corner of the top row of cabinet(s). The sections are now ready to be installed on the spreader beam. Loosen the first nut above the corner block to allow the bolt to move during alignment. After all bolts are through the beam, retighten the nuts before leveling.

5. Review contract-specific drawings before hanging any sections in case the display is custom or has a unique configuration.

6. Start with the section assigned for the center of the top row in Face A. If there is an even amount of sections in the row, choose the section closest to the center. Position the section under the rotator beam. Gently lift the section and pass the M6 bolts through the holes in the spreader beam. Use a washer and two nuts to secure each bolt. Refer to **Figure 5** and **Figure 6**.

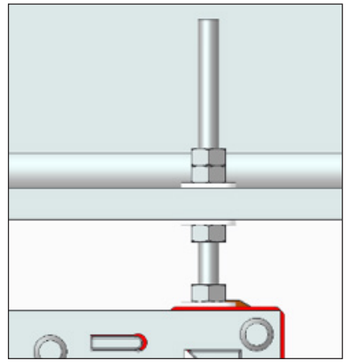

Figure 5: *Section-to-Beam Hardware*

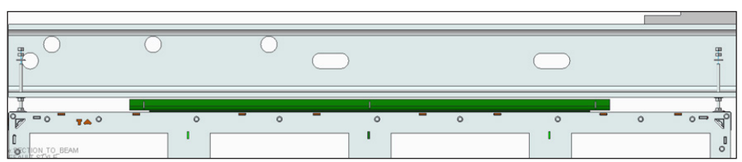

Figure 6: *Attach Section to Beam*

7. Check for even horizontal alignment with a 2' level. To adjust the section, loosen or tighten the upper M6 nuts. After leveling the section, tighten the nuts below the beam.

8. Install the adjacent sections. Repeat **Step 6**.

9. Continue installing sections in the top row of cabinets. Work from the center to the outside per **Steps 6-8** until all top row sections are installed.

10. Secure the sections together by using two M6x22 mm serrated flange bolts (HC-3464941) to connect the adjacent precision blocks from each section and then torque to 6 ft-lbs. Refer to **Figure 7** for the bolt connection between the two sections. Tighten the bolts until the vertical seam between the sections is within tolerance. Once the precision blocks are tight together, additional torque will not tighten the seams and can damage the blocks.

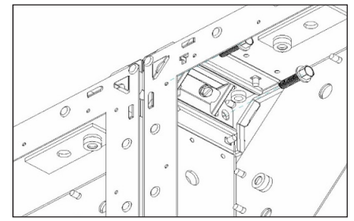

Figure 7: *Attach Section to Section*

11. Loosen the nut directly below the beam. Ensure all double nuts above the beam are in contact with the beam and all cabinets are level. Refer to **Figure 8**.

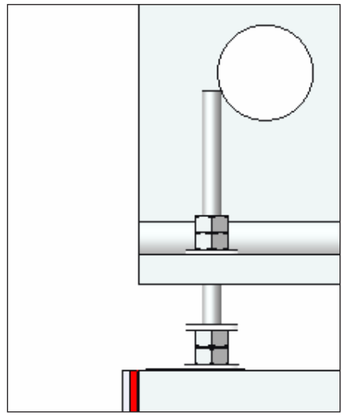

Figure 8: *Loosen Nut below Beam*

Adjust Center Seam

Precision blocks provide proper spacing at the ends of section seams, but spacing may vary in the middle where the sections come together. Additional holes are provided along both the horizontal and vertical edges of the cabinet for additional adjustment if required.

Tight Seam

1. Install the T20 TORX®-head jacking hardware (Daktronics part number HC-3829059) through the hole that does not align with the hole in the adjacent cabinet. As the hardware is tightened, the cabinets push further apart.

2. Tighten the hardware until the seam is within tolerance. Refer to the **DVN Seam Measurement Field Instructions Quick Guide (DD2090360)** for details on seam tolerance and to **Figure 9** for details on seam adjustment.

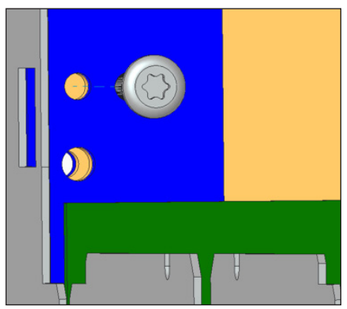

Figure 9: *Adjust Tight Center Seam*

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Wide Seam

1. Install the T20 TORX®-head jacking hardware (Daktronics part number HC-3829059) through the hole that aligns with the hole in the adjacent cabinet. As the hardware is tightened, the cabinets draw closer together.
2. Tighten the hardware until the seam is within tolerance. Refer to the **DVN Seam Measurement Field Instructions Quick Guide (DD2090360)** for details on seam tolerance and to **Figure 10** for details on seam adjustment.

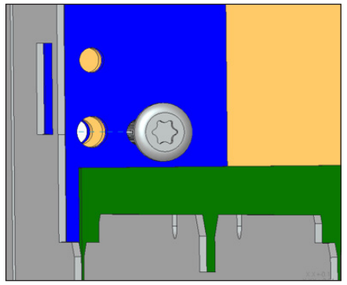

Figure 10: *Adjust Wide Center Seam*

Z-Axis

DBN-301 4 mm and 6 mm modules have eight adjustment points on the module face for horizontal and vertical seam adjustment. Refer to **Figure 11**.

Prior to adjustment, insert the 2 mm T-handle hex wrench (Daktronics part number TH-3679185) into the adjustment point and turn the adjustment screw counterclockwise to break the set screw free from the brass insert.

When possible, correct the seam by adjusting the lower side of the module seam outward until it is flush with the higher side. Insert the 2 mm T-handle hex wrench into the adjustment point, turn the adjustment screw clockwise until it contacts the face sheet, and then turn the hex wrench clockwise to drive the adjustment screw and adjust the module inward. When the set screw no longer contacts the face sheet, the module cannot draw further inward.

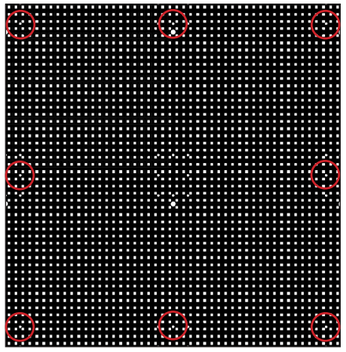

Figure 11: *Seam Adjustment Points (Front View)*

Electrical

Power

Field-supplied power to a display is routed through the top of the display with the supplied 12-3 SJOOW cable. Refer to **Figure 12**, the contract-specific Riser Diagram, **DWG-3903670**, **DWG-3903672**, and **DWG-3903674** for details.

There are two power entrance J-box methods available for incoming power termination: terminal block and plug and jack. Only one method will be used per job site. Refer to the Riser Diagram to determine the method used. J-box assemblies are supplied separately and installed in the field.

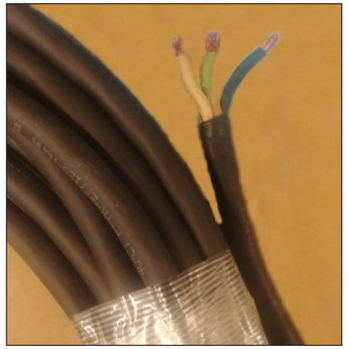

Figure 12: *12-3 SJOOW Cable*

Terminal Block J-Box

For the terminal block J-box, refer to **Figure 13**, **Figure 14**, **Figure 15**, and **Figure 16**. Refer to the contract-specific Riser Diagram, **DWG-3903670**, **DWG-3903672**, and **DWG-3903674** for J-box installation type and location, **DWG-3928461** for terminal block home run J-box (with line filter) construction details, and **DWG-3911139** for installation instructions. Field power drops supply power to both display faces in any given section.

In displays where section columns are taller than 96 modules (front and rear), MC internal flexible metallic conduit is supplied and must be installed in the field to extend power drops to lower sections. Refer to **Figure 17** and **Figure 18**. Refer to the Riser Diagram, **DWG-3903670**, **DWG-3903672**, and **DWG-3903674** for J-box installation type and location, **DWG-3911139** for J-box installation instructions, and **DWG-3933764** for pass-through J-box (**Figure 15**) construction details.

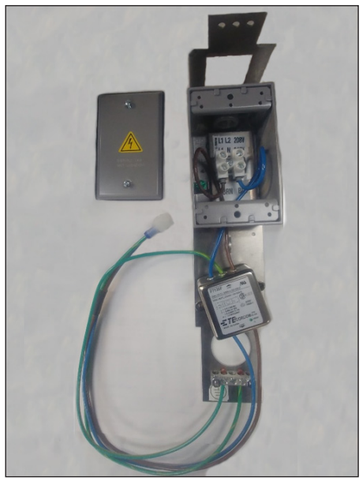

Figure 13: *Home Run J-Box*

Figure 14: *Installed Home Run J-Box*

Figure 15: *Pass-Through J-Box*

Figure 16: *Cable Connector*

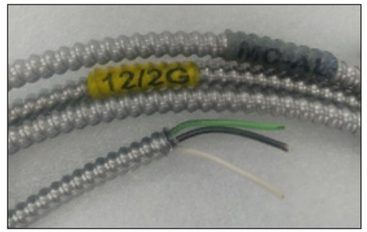

Figure 17: *Flexible Metallic Conduit*

Figure 18: *MC Connector*

Plug & Jack J-Box

For the plug and jack J-box, refer to **Figure 19**. Refer to the contract-specific Riser Diagram, **DWG-3903670**, **DWG-3903672**, and **DWG-3903674** for J-box installation type and location, **DWG-4186674** for plug and jack home run J-box (with line filter) construction details, **DWG-4202155** for wiring details, and **DWG-4202426** for installation details. The electrical installer will terminate the supplied three-pin plug (Daktronics part number P-1351) onto the field SJOOW flexible cable.

In displays where section columns are taller than 96 modules (front and rear), rough in the field power drops long enough to reach their respective home run J-box locations to make the jack-to-plug connection. Field power drops supply power to both display faces in any given section.

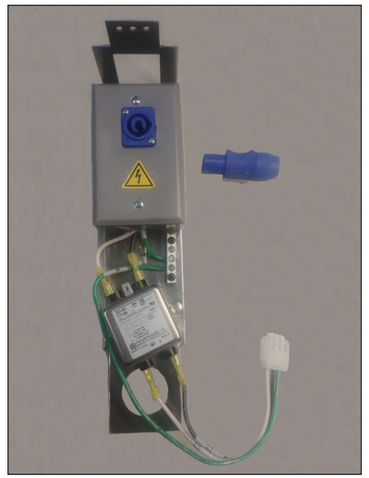

Figure 19: *Plug & Jack Home Run J-Box with Three-Pin Plug*

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General

Movable J-hooks are supplied for cable management within the web of the I-beam. Refer to **Figure 20**.

Figure 20: *Movable J-Hook*

Home run J-box assemblies use a line filter-to-Mate-N-Lok connector design for routing power to Power In jacks on the power supplies. Power supplies are wired and installed in the factory. Refer to **DWG-3917076** for individual section AC power wiring details. DC harnesses to each individual module are also installed in the factory. Refer to **DWG-3911144** for DC wiring details and to **DWG-3911146** for power supply wiring and layout details.

Field wiring to sections consists of a Mate-N-Lok connection to factory-installed AC harnesses between sections. Depending on the display, a jumper may also be supplied for horizontal interconnection of display sections. Refer to the Riser Diagram, **DWG-3903670**, **DWG-3903672**, and **DWG-3903674** for details.

ProLink Routers (PLRs) are powered off the closest available module. Refer to the Riser Diagram for detailed power information.

Signal

Depending on display application and control room design, display data may route from the control room to the display by a number of different pieces of equipment. The most common are the ProLink6 control system, the A/B transmitter interface, and the Video Image Processor (VIP) video interface itself.

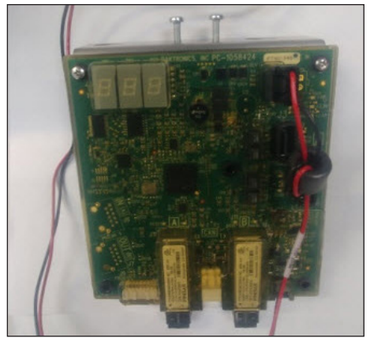

Figure 21: *PLR*

The contract-specific Signal Interconnect Drawing illustrates the signal connections from the control room to ProLink Routers (PLRs) in the display or from cabinet section to cabinet section. Refer to **Figure 21**, **DWG-3895844**, **DWG-3895994**, and **DWG-3896031**. **DWG-3911145** illustrates the signal layout of each display section. Signal wiring to and within each display face is independent of the opposite display face, but each face is wired for signal identically to the opposing face.

PLRs must be installed in the appropriate display sections with the supplied hardware. Refer to **DWG-3931970** for PLR mounting instructions and to **DWG-3895844**, **DWG-3895994**, and **DWG-3896031** to determine which sections need PLRs.

Data from the control system routes via fiber-optic cable from Fiber Port A on the VIP to the first PLR in the display. Refer to **Figure 22** and the **VIP-5000 Series Operation Manual (DD2773152)** for details. The VIP may be located in the control room or in a remote location.

Route the field fiber cable (from the control location) through the rigging entrance, then terminate directly to the first PLR. PLRs for each display face are connected with fiber. Signal exits via fiber-optic cable from Fiber Port B on the PLR and routes to Fiber Port A on the next PLR. Refer to the appropriate Signal Interconnect Drawing, **DWG-3895844**, and **DWG-3896031** for fiber routing information to the display and from section to section.

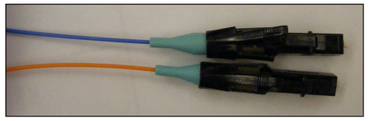

Figure 22: *Fiber Cable*

DWG-3911145 illustrates how data passes from the PLR to the modules in any given section. SATA cables are supplied for field installation between the PLR and modules and for SATA connections between sections. Refer to **Figure 23**, **Figure 24**, the appropriate Signal Interconnect Drawing, **DWG-3895844**, **DWG-3895994**, and **DWG-3896031** for details on signal routing between sections.

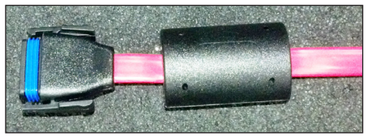

Figure 23: *SATA Cable*

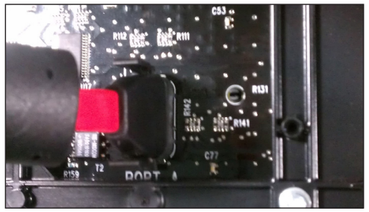

Figure 24: *SATA Connection*

If a display uses a Daktronics-supplied photo sensor, refer to **Figure 25**, **Figure 26**, **DWG-3530096**, and **DWG-3966831** for mounting and installation details.

Figure 25: *Photo Sensor*

Figure 26: *Photo Sensor on Spreader Beam*

Service

Recommended Tools

Refer to **DWG-3981738** for the recommended tools and hardware required to perform maintenance on the display.

J-Box

Refer to **DWG-3911139**, **DWG-3928461**, and **DWG-3933764** or **DWG-4186674** and **DWG-4202426** for J-box removal instructions.

Module

1. Disconnect power to the display.
2. Locate the module to remove and use the wire access tool (Daktronics part number TH-1198 for 4 mm) or the ball detent T-handle (TH-1190 for 6 or 10 mm) supplied in the toolkit to pull the magnets away from the mounting sheet.

To use the wire access tool (TH-1198), follow these steps while referring to **Figure 27**:

a. Insert one or both wires into the module holes.

b. Apply slight downward pressure and pull the module away from the mounting sheet.

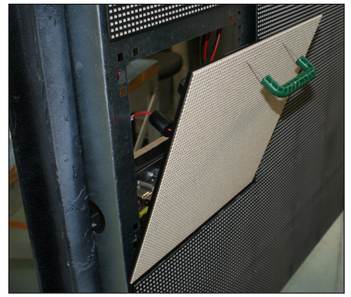

Figure 27: *Wire Access Tool*

To use the ball detent T-handle (TH-1190), follow these steps while referring to **Figure 28**:

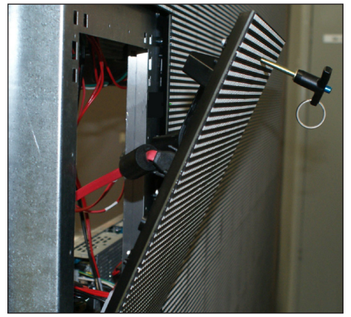

Figure 28: *Ball Detent T-Handle*

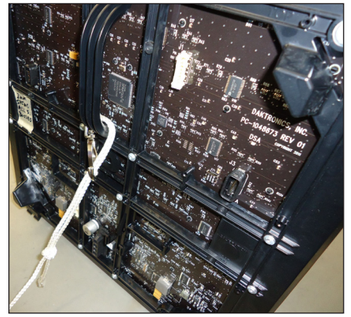

Figure 29: *Attach Lanyard to Module*

a. Depress the plunger.

b. Insert the T-handle into the hole.

c. Release the plunger.

d. Apply slight downward pressure and pull the module away from the mounting sheet.

3. Allow the module to rest on the bottom hooks and loop one end of the safety lanyard through the molded handle on the rear of the module, then clip the lanyard to itself to secure it. Attach the opposite end of the lanyard to another area of the display to prevent the module from falling if dropped. Refer to **Figure 29**.
4. Disconnect the power and signal cables from the rear of the module.

Reverse these steps to install a module in a display.

Power Supply

Refer to **DWG-3911146** and **DWG-3929260** for power supply installation, removal, and wiring instructions.

> **Note:** Disconnect all power sources before servicing the power supplies to avoid electrical shock. The power supplies run on high voltage and may cause physical injury if touched while powered.

ProLink Router

Refer to **DWG-3931970** for ProLink Router (PLR) removal instructions.

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Beam Shroud

Part Identification

The beam shroud comprises five parts: top shim, top spacer, beam shroud, beam shroud end cap, and top shroud multi-bracket. Refer to **Figure 1**, **Figure 2**, **Figure 3**, **Figure 4**, and **Figure 5**. Top shims, top spacers, and beam shrouds are available in three-wide and four-wide lengths. Part numbers are stamped onto each part for identification purposes.

Length	Daktronics Part Number
Top Shim	
Two-wide	0M-4584814
Three-wide	0M-3939202
Four-wide	0M-3939204
Top Spacer	
Two-wide	0M-4584812
Three-wide	0M-3939093
Four-wide	0M-3938646
Beam Shroud	
Two-wide	0M-4584810
Three-wide	0M-3940144
Four-wide	0M-3940146
Beam Shroud End Cap	
N/A	0M-3940464
Top Shroud Multi-Bracket	
N/A	0M-3940141
N/A	0M-4760868

Figure 1: *Top Shim*

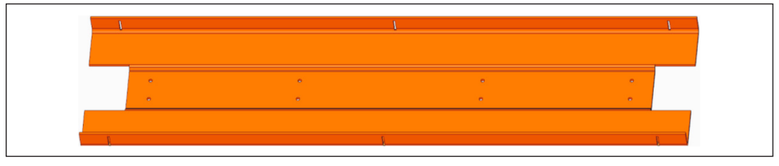

Figure 2: *Top Spacer*

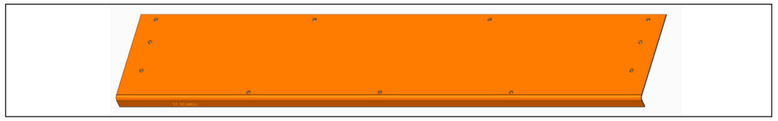

Figure 3: *Beam Shroud*

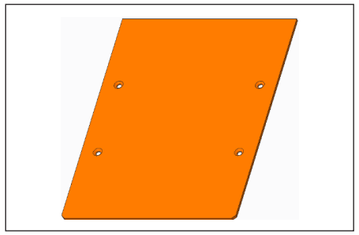

Figure 4: *Beam Shroud End Cap*

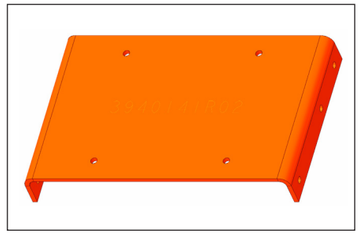

Figure 5: *Top Shroud Multi-Bracket*

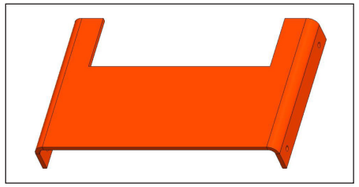

Figure 6: *Top Shroud Multi-Bracket with Rotator Cutout*

Installation

The beam shroud blocks access to final leveling and adjustment bolts/nuts. However, the top shim and top spacer can be installed before the display is hung and leveled. Refer to **Figure 7**.

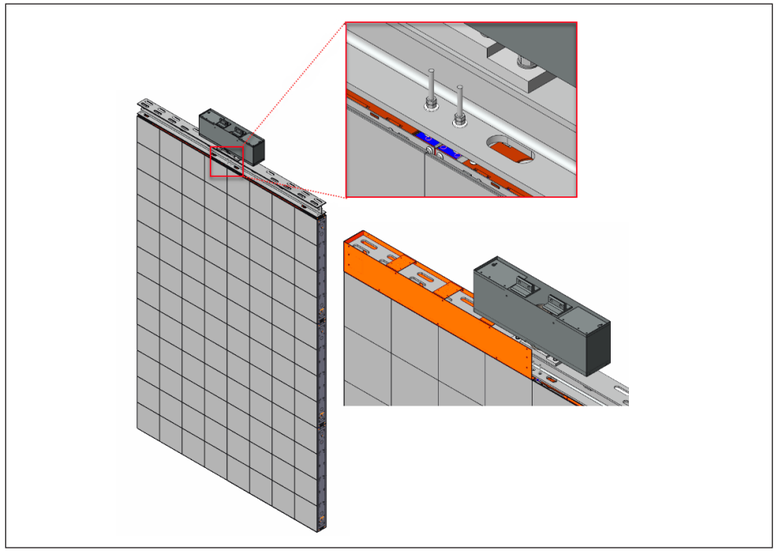

Figure 7: *Blocked Access to Bolts & Nuts*

Top Shim & Top Spacer

1. Identify the sections to be installed in the top row of the display(s).
2. Install the top shims and top spacer with the supplied Phillips flathead screws (Daktronics part number HC-1302). Refer to **Figure 8** for details.

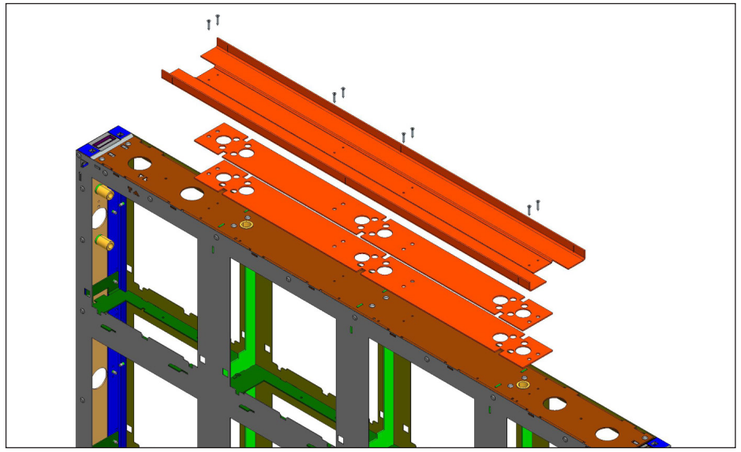

Figure 8: *Top Shims & Top Spacer*

> **Note:** The top shims and top spacer may also be installed from the inside of the display after the display is attached to the beam.

Beam Shroud, End Cap, & Multi-Bracket

The top shroud multi-bracket can be attached to the middle locations on the beam shroud to help hold the shroud in place while mounting.

1. Attach the beam shroud to the right hole in the top shroud multi-bracket with the supplied Phillips flathead screws (Daktronics part number HC-1302). Refer to **Figure 9**.

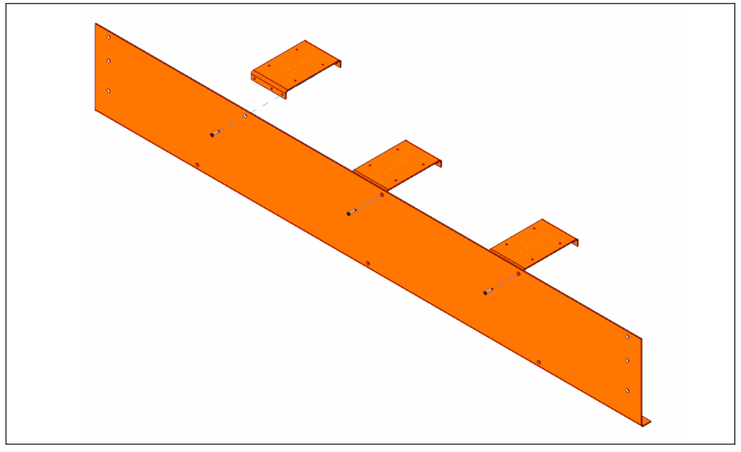

Figure 9: *Attach Beam Shroud to Multi-Bracket*

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2. Notch out a portion of the top shroud multi-bracket if structural cables interfere with the multi-bracket location. If this is not an option, skip the location.

3. Attach the beam shroud to the top spacer with the supplied Phillips flathead screws (HC-1302). Refer to **Figure 10**. Ensure the beam shroud is in the highest position to avoid collision with the module. Refer to **Figure 11**. If a gap or unevenness exists along the shroud, lower the beam shroud and top spacer.

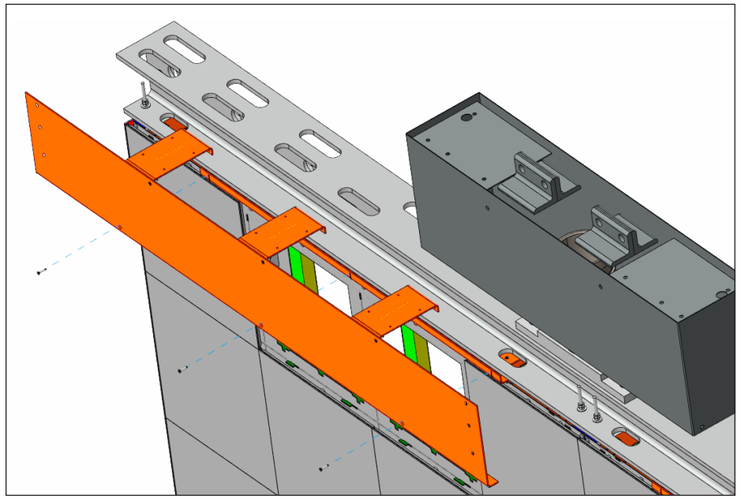

Figure 10: *Attach Beam Shroud to Top Spacer*

4. Attach the beam shroud on the other side of the beam with the supplied Phillips flathead screws (HC-1302) through the top spacer and top shroud multi-bracket.

5. Attach a multi-bracket to the beam shroud between spliced shrouds before mounting the next beam shroud on each face as shown in **Figure 12**.

6. Attach a multi-bracket between spliced shrouds above the beam at the location shown in **Figure 12**. If structural cables or the rotator interfere, skip the location.

   If the display is an odd number of modules wide, a multi-bracket with a rotator cutout (0M-4760868) can be substituted to clear the rotator assembly. Refer to **Figure 13**.

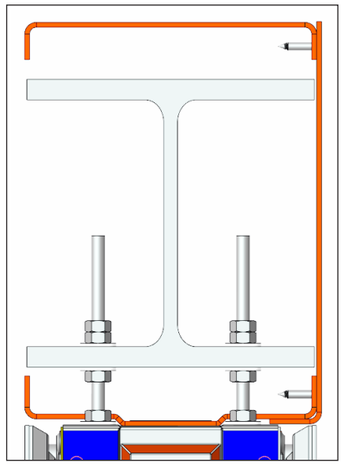

Figure 11: *Beam Shroud at Highest Position*

7. Repeat **Steps 1-4** for any additional sections.

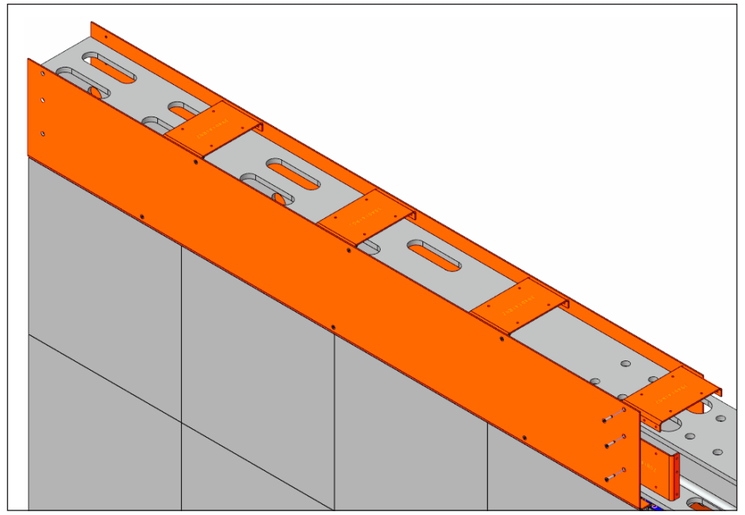

Figure 12: *Attach Multi-Bracket to Beam Shroud*

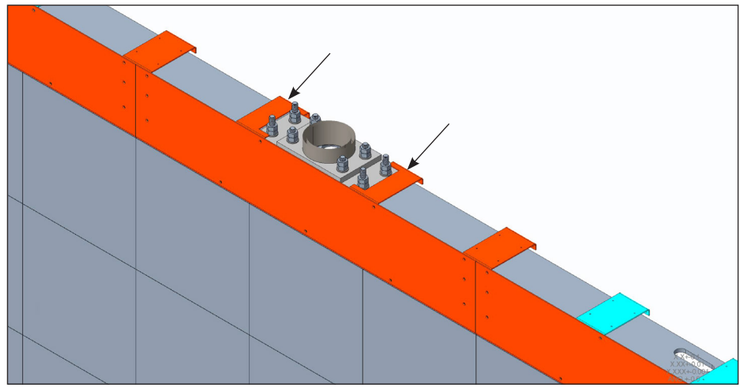

Figure 13: *Attach Multi-Bracket with Rotator Cutout (When Applicable)*

8. Attach multi-brackets to the left and right ends of the beam shrouds with the supplied Phillips flathead screws (HC-1302). Refer to **Figure 14**.

9. Layer two end caps together and attach to the multi-brackets. Refer to **Figure 14**. Ensure the end caps are flush with the border and repeat for the other end of the beam.

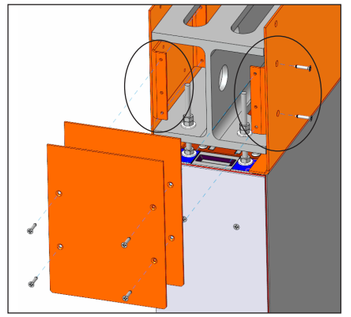

Figure 14: *Attach End Caps to Multi-Brackets*

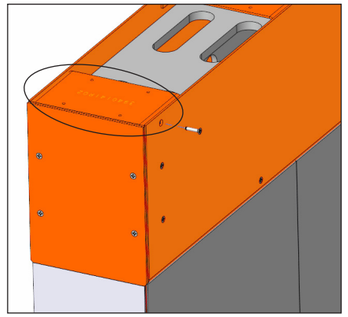

Figure 15: *Attach Multi-Bracket to Ends above Beam*

10. Attach a multi-bracket to the ends above the beam. Refer to **Figure 15**. Use the center holes and orient the bracket so it is flush with the end.

11. Ensure the beam shroud does not interfere with module removal.

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Border

Part Identification

The side and bottom borders comprise three parts: shim, spacer, and border. Refer to **Figure 1**, **Figure 2**, and **Figure 3**. Each part is available in three-long and four-long lengths. Part numbers are stamped onto the shims and spacers for identification purposes.

Length	Part Number
Shim*	
Two-long	0M-4584804
Three-long	0M-3929263
Four-long	0M-3929261
Spacer*	
Two-long	0M-4584806
Three-long	0M-3929271
Four-long	0M-3929269
Border	
Two-long	0M-4584808
Three-long	0M-3929279
Four-long	0M-3929277

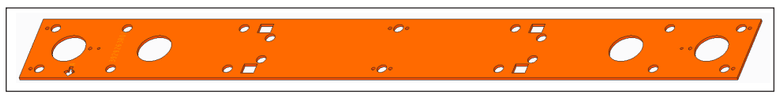

Figure 1: *Shim*

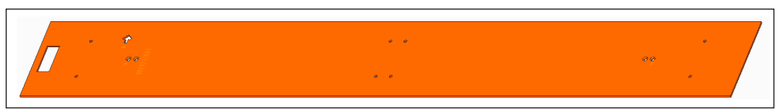

Figure 2: *Spacer*

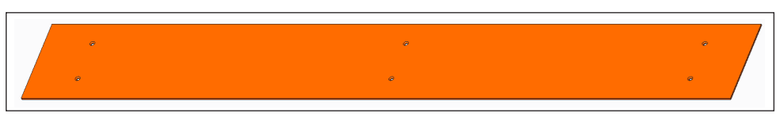

Figure 3: *Border*

*Border shims and spacers come pre-assembled with two Phillips flathead screws (Daktronics part number HC-1302). If they are separate, assemble as shown in **Figure 4** and ensure no gap exists between layers.

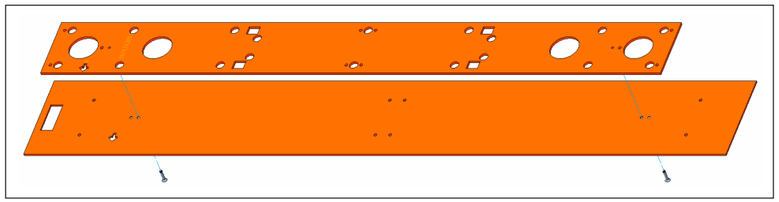

Figure 4: *Shim & Spacer Assembly*

Installation

Shim & Spacer

The shim and spacer assembly can be attached to the display with two screws before the border is mounted. Refer to **Figure 5**. This temporarily holds and aligns the assembly to the cabinet until the border is attached.

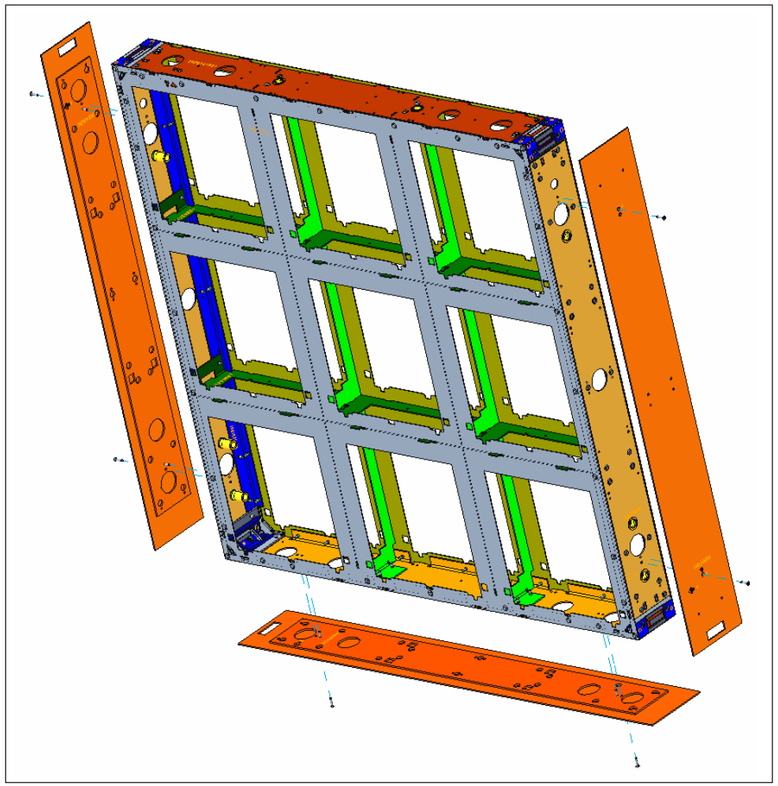

Figure 5: *Attach Shim & Spacer Assembly*

1. Locate the shim and spacer assembly that matches the height or width of the section.
2. Match the orientation with the Face A arrows as shown in **Figure 6** and verify the corner block cutout in the spacer aligns with the protruding corner block alignment feature shown in **Figure 7**.

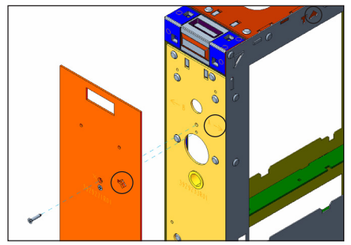

Figure 6: *Face A Alignment*

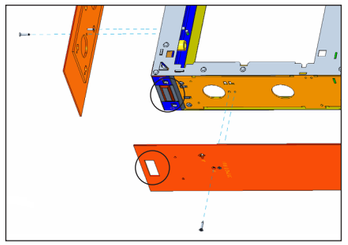

Figure 7: *Corner Block Cutout*

3. Wipe the mating surfaces clean.
4. Align the shim and spacer assembly roughly to the section perimeter with two Phillips flathead screws (Daktronics part number HC-1302) and attach the assembly to the display with two Phillips flathead screws. Ensure the screws are tight and the border sits flush.
5. Repeat these steps for the other side and bottom of the section as well as any additional sections.

The shim and spacer assembly can also be attached to the display at the same time as the border. Refer to **Border (p.3)** for instructions.

Border

Note: Handle and attach the border with care.

1. Locate the border that matches the height or width of the section.
2. Attach the border to the display with the supplied Phillips flathead screws (Daktronics part number HC-1302) through the shim and spacer assembly, starting with the center screws. Refer to **Figure 8**. Do not overtighten the screws, as they will strip out in the aluminum.
3. Repeat these steps for the other side, and bottom of the section as well as any additional sections.

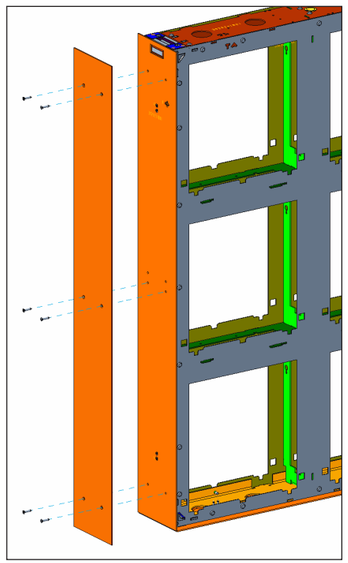

Figure 8: *Attach Border*

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B Reference Drawings

Refer to **Numbering Conventions (p.1)** for information regarding how to read the drawing number.

These drawings offer general information pertaining to most DBN-301 series displays and are listed in numeric order. Any contract-specific drawings take precedence over the general drawings.

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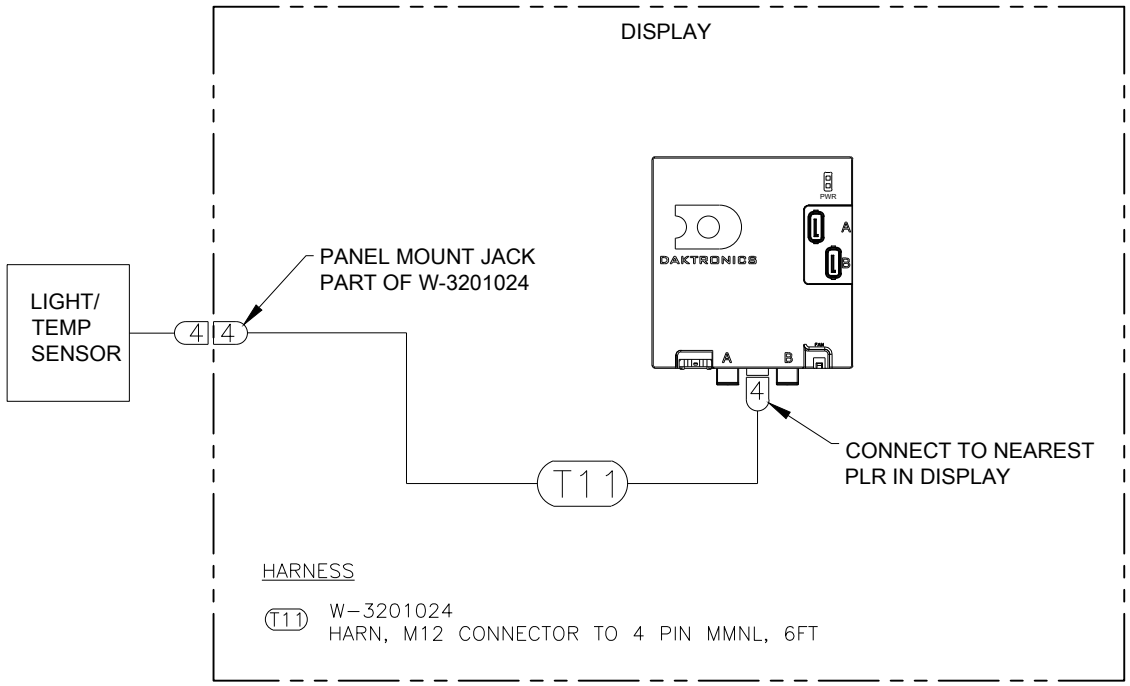
INSTALLATION NOTES

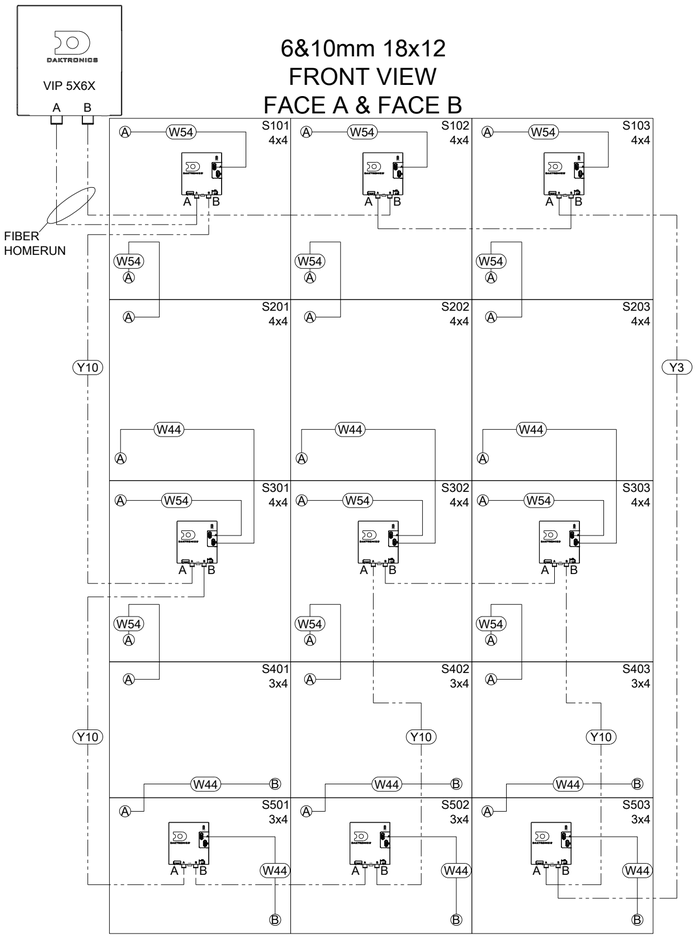
1. ENSURE DISPLAY IS PHYSICALLY MOUNTED, WITH POWER AND SIGNAL INSTALLED.
2. ENSURE POWER IS OFF BEFORE MAKING ANY ELECTRICAL AND SIGNAL TERMINATIONS.
3. CHOOSE A SUITABLE LOCATION FOR MOUNTING THE TEMP OR LIGHT SENSOR AND MOUNT AS NOTED (SEE MOUNTING DETAILS DRAWING).
4. LOCATE THE NEAREST PLR INSIDE OF THE DISPLAY IN REFERENCE TO THE MOUNTED LIGHT OR TEMPERATURE SENSOR. ONLY ONE SENSOR CAN BE CONNECTED TO EACH PLR.
5. CONNECT THE SENSOR AS DETAILED ON THIS DRAWING STARTING WITH CONNECTING W-3201024 TO THE PLR AND THEN MOUNTING THE OTHER END OF THE CABLE AS DETAILED IN THE MOUNTING DETAILS DRAWING.
6. PLUG SENSOR INTO THE PANEL MOUNTED M12 JACK INSTALLED IN STEP 5.
7. SECURE THE CABLES AS NEEDED.



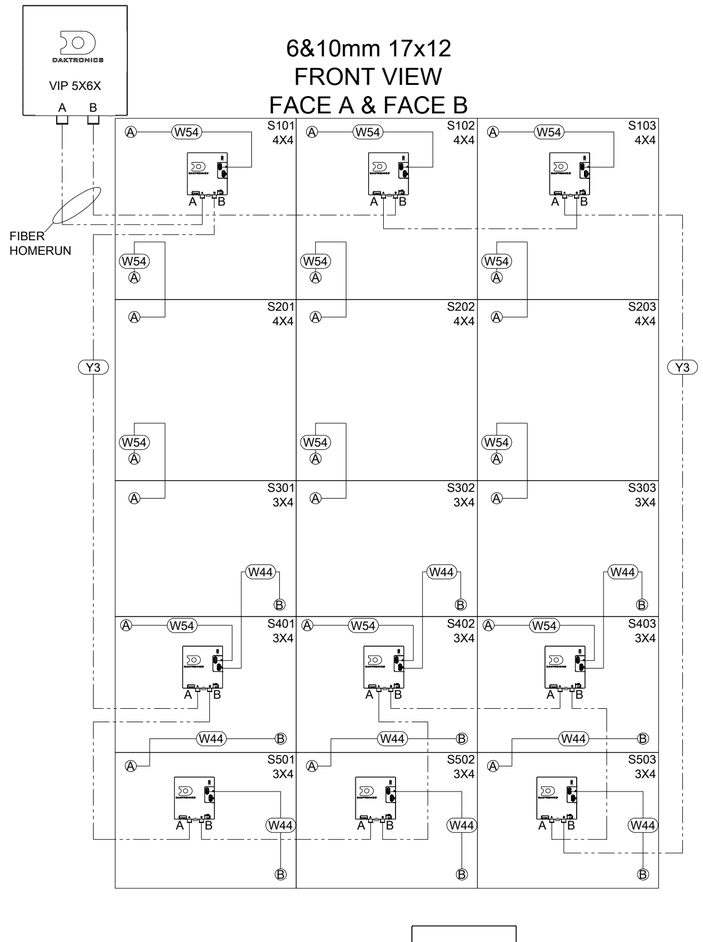
THIRD ANGLE PROJECTION

PROJECT:	DVX-2101/2801				
TITLE:	BLOCK DIAGRAM; DVX 2101/2801 W/TEMP/LIGHT SENSOR				
DATE:	15 DEC 16	DIM UNITS:	INCHES [MILLIMETERS]	SHEET	REV
SCALE:	NTS		DO NOT SCALE DRAWING		00
DESIGN:	CHAGEN	JOB NO.	FUNC - TYPE - SIZE	3530096	
DRAWN:	CHAGEN	P1983	F - 10 - A		

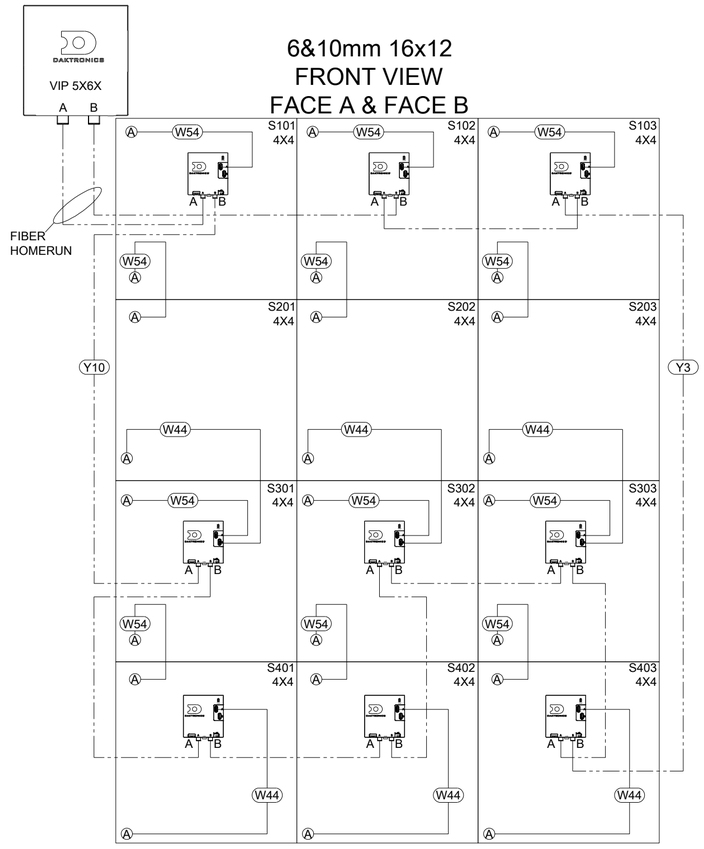
6&10mm 18x12
FRONT VIEW
FACE A & FACE B



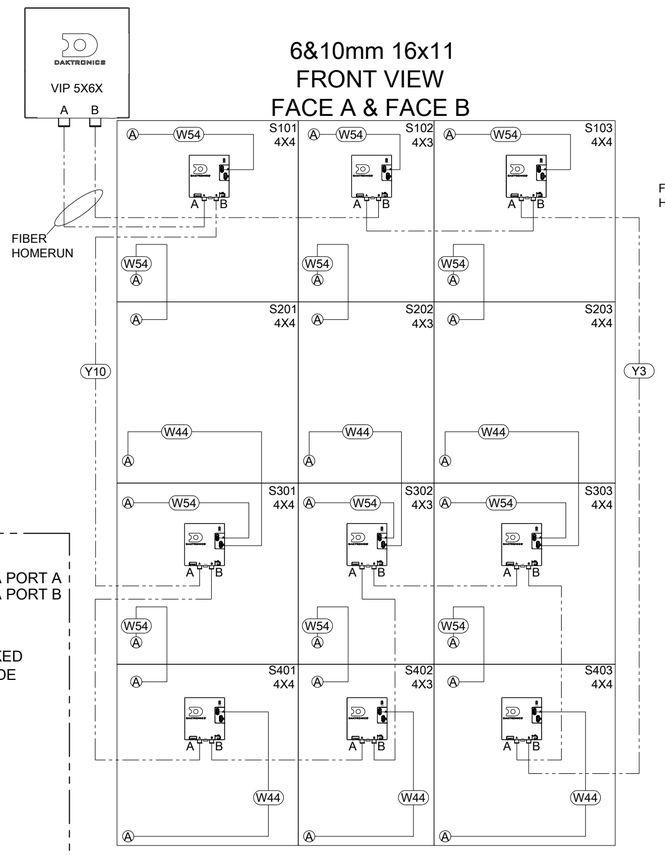
6&10mm 17x12
FRONT VIEW
FACE A & FACE B



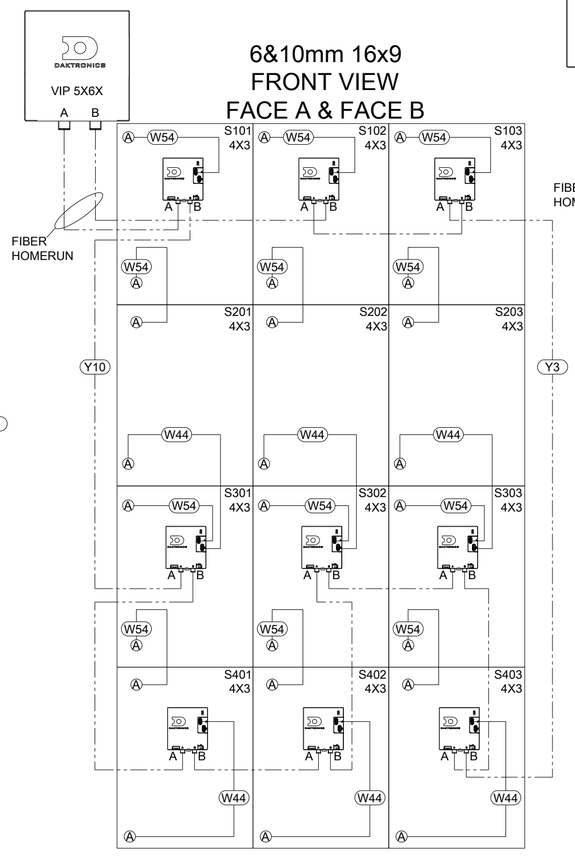
6&10mm 16x12
FRONT VIEW
FACE A & FACE B



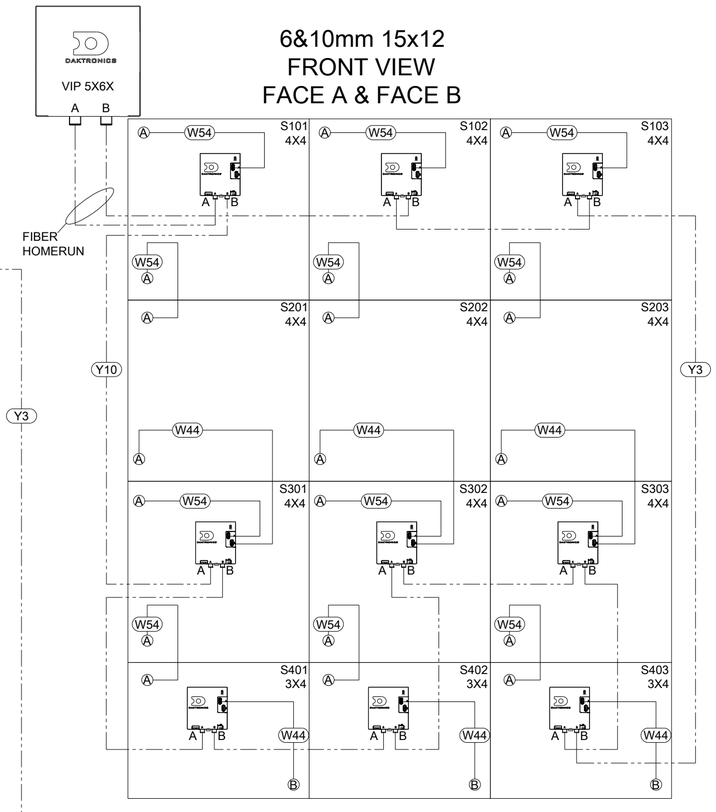
6&10mm 16x11
FRONT VIEW
FACE A & FACE B



6&10mm 16x9
FRONT VIEW
FACE A & FACE B

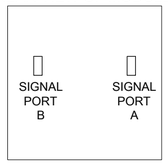


6&10mm 15x12
FRONT VIEW
FACE A & FACE B



*NOTE: EACH FACE GETS ITS OWN FIBER HOMERUN FROM THE CONTROL LOCATION. FACE 'A' AND FACE 'B' ARE WIRED FOR SIGNAL IDENTICALLY TO AND INDEPENDENTLY OF ONE ANOTHER. SEE SIGNAL LEGEND BELOW FOR FACE INDICATOR INFORMATION.

REAR VIEW OF MODULE



(A) SIGNAL PORT A OF MODULE

(B) SIGNAL PORT B OF MODULE

SIGNAL LEGEND

SATA CABLES, FIELD INSTALLED

FIBER SIGNAL CABLE, FIELD INSTALLED (INTERNAL, EXCEPT HOMERUNS)

SATA CABLES:

(W54) W-3553896 SATA CABLE; 28"

(W44) W-2889 SATA CABLE; 6FT

INTERCONNECTING FIBERS (*NOTE* ALL UNMARKED FIBERS ARE (Y1) W-1864; ALL CONNECTIONS MADE INTERNALLY, DIRECTLY TO PLR'S):

(Y1) W-1864 FIBER; 3M DUPLEX LC-LC, CROSSOVER

(Y10) W-2123 FIBER; 5M DUPLEX LC-LC, CROSSOVER

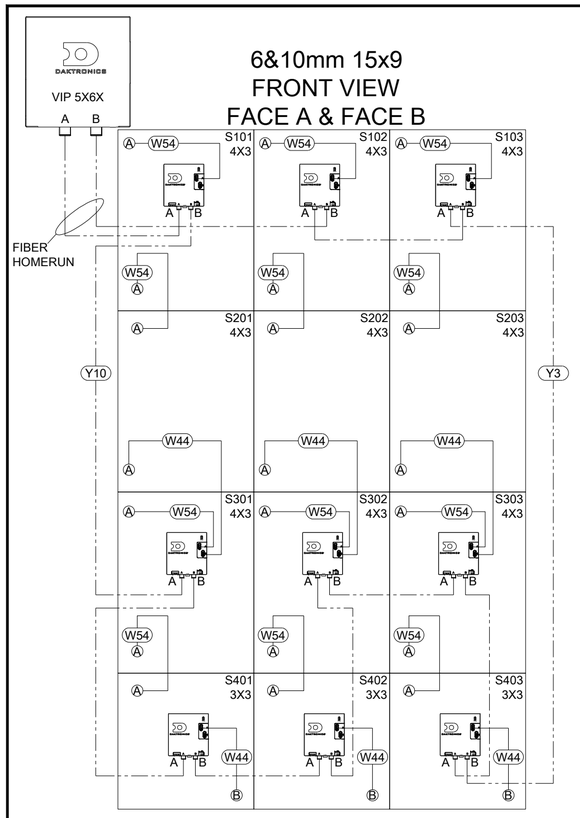
(Y3) W-1865 FIBER; 15M DUPLEX LC-LC, CROSSOVER

- FACE 'A' INDICATOR IS LOCATED AT TOP LEFT OF FACE 'A' MODSHEET USING THE FOLLOWING SYMBOL: 
- FACE 'B' INDICATOR IS LOCATED AT TOP LEFT OF FACE 'B' MODSHEET USING THE FOLLOWING SYMBOL: 

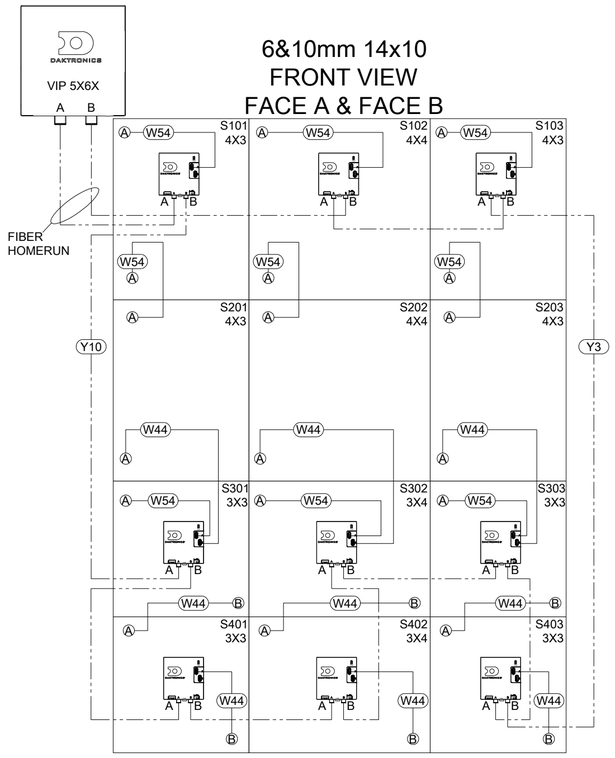
THIRD ANGLE PROJECTION

PROJECT:	DBN B1, 6&10mm COMMON DISPLAY SIZES (1of2)			
TITLE:	6&10mm SIGNAL:18x12, 17x12, 16x12, 16x11, 16x9, 15x12			
DATE:	12 APR 18	DIM UNITS: INCHES [MILLIMETERS]	SHEET	REV
SCALE:	NONE	DO NOT SCALE DRAWING		00
DESIGN:	SBRINK	JOB NO. P2057	FUNC - TYPE - SIZE F - 01 - C	3895844
DRAWN:	SBRINK			

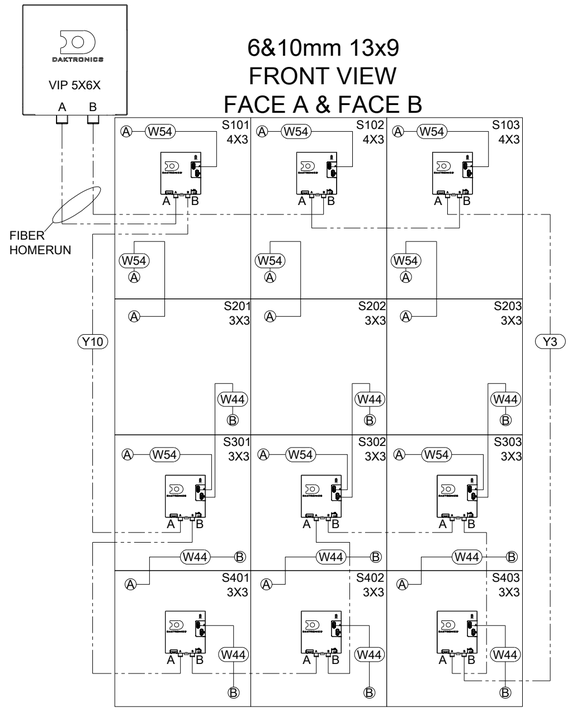
6&10mm 15x9 FRONT VIEW FACE A & FACE B



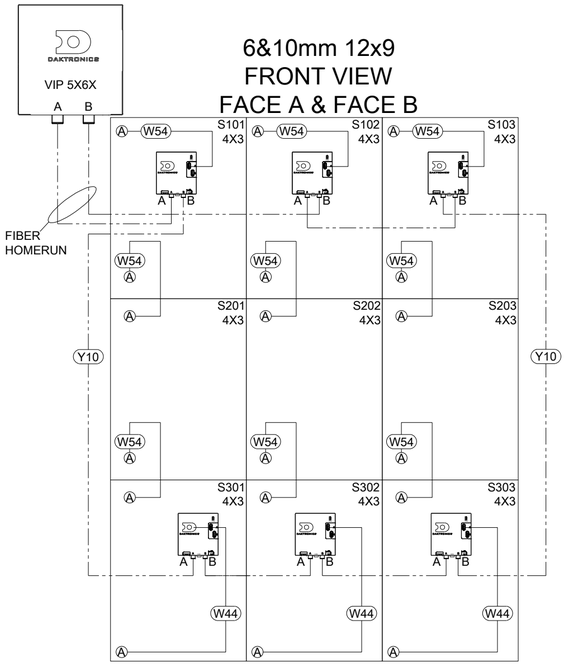
6&10mm 14x10 FRONT VIEW FACE A & FACE B



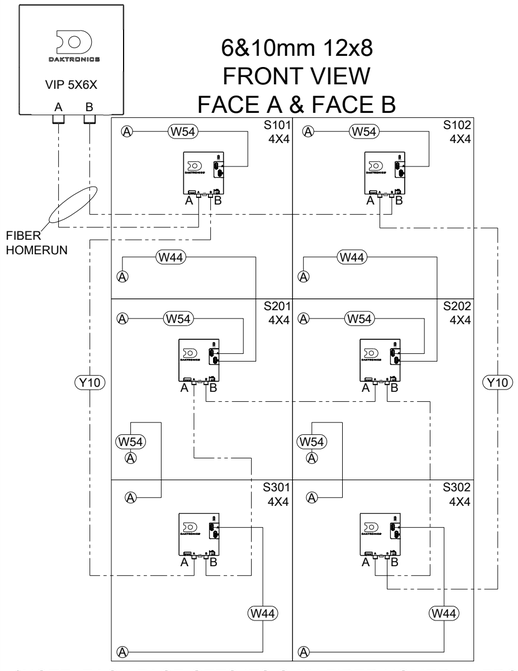
6&10mm 13x9 FRONT VIEW FACE A & FACE B



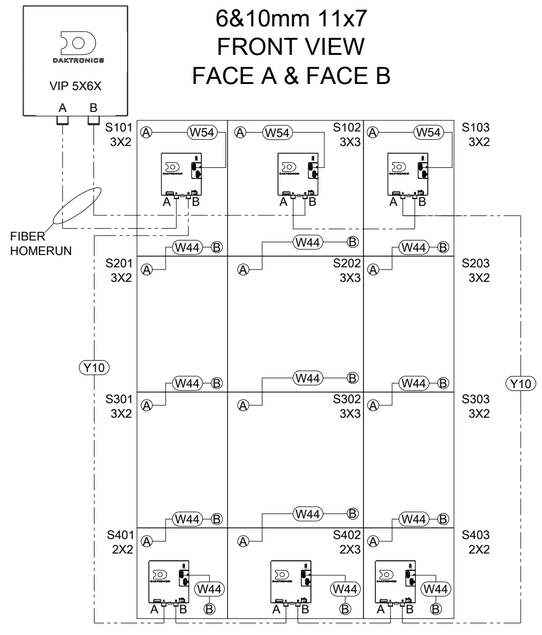
6&10mm 12x9 FRONT VIEW FACE A & FACE B



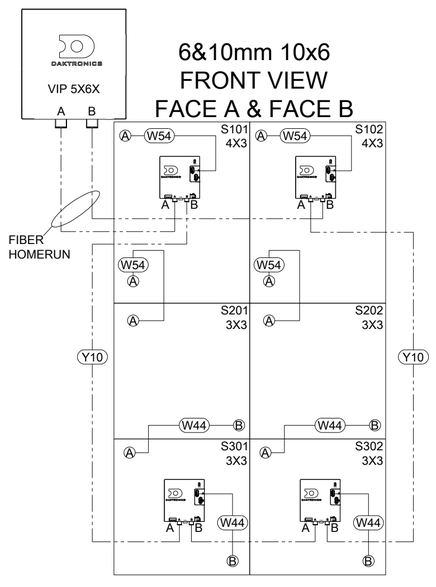
6&10mm 12x8 FRONT VIEW FACE A & FACE B



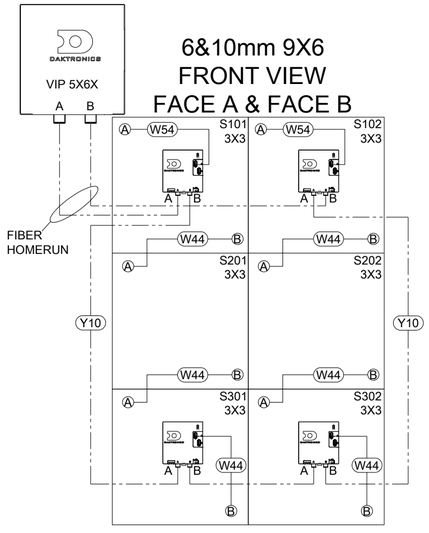
6&10mm 11x7 FRONT VIEW FACE A & FACE B



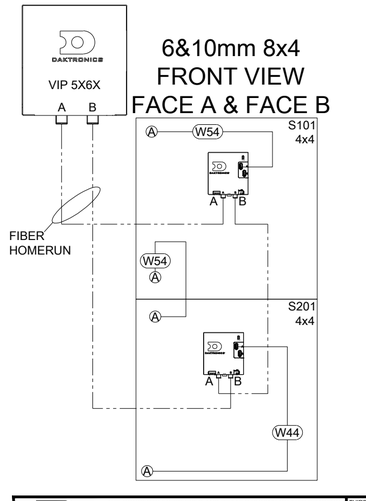
6&10mm 10x6 FRONT VIEW FACE A & FACE B



6&10mm 9X6 FRONT VIEW FACE A & FACE B



6&10mm 8x4 FRONT VIEW FACE A & FACE B



*NOTE: EACH FACE GETS ITS OWN FIBER HOMERUN FROM THE CONTROL LOCATION. FACE 'A' AND FACE 'B' ARE WIRED FOR SIGNAL IDENTICALLY TO AND INDEPENDENTLY OF ONE ANOTHER. SEE SIGNAL LEGEND BELOW FOR FACE INDICATOR INFORMATION.

SIGNAL LEGEND

SATA CABLES, FIELD INSTALLED

FIBER SIGNAL CABLE, FIELD INSTALLED (INTERNAL, EXCEPT HOMERUNS)

SATA CABLES:

W54 W-3553896 SATA CABLE; 28"

W44 W-2889 SATA CABLE; 6FT

INTERCONNECTING FIBERS (*NOTE* ALL UNMARKED FIBERS ARE Y1 W-1864; ALL CONNECTIONS MADE INTERNALLY, DIRECTLY TO PLR'S):

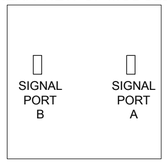
Y1 W-1864 FIBER; 3M DUPLEX LC-LC, CROSSOVER

Y10 W-2123 FIBER; 5M DUPLEX LC-LC, CROSSOVER

Y3 W-1865 FIBER; 15M DUPLEX LC-LC, CROSSOVER

- FACE 'A' INDICATOR IS LOCATED AT TOP LEFT OF FACE 'A' MODSHEET USING THE FOLLOWING SYMBOL:
- FACE 'B' INDICATOR IS LOCATED AT TOP LEFT OF FACE 'B' MODSHEET USING THE FOLLOWING SYMBOL:

REAR VIEW OF MODULE



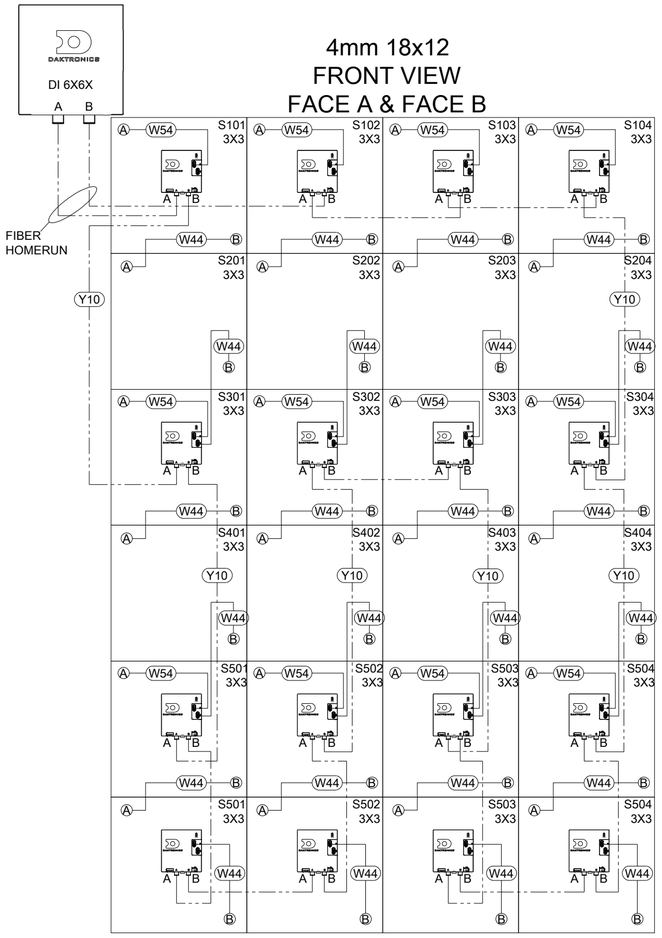
A SIGNAL PORT A OF MODULE

B SIGNAL PORT B OF MODULE

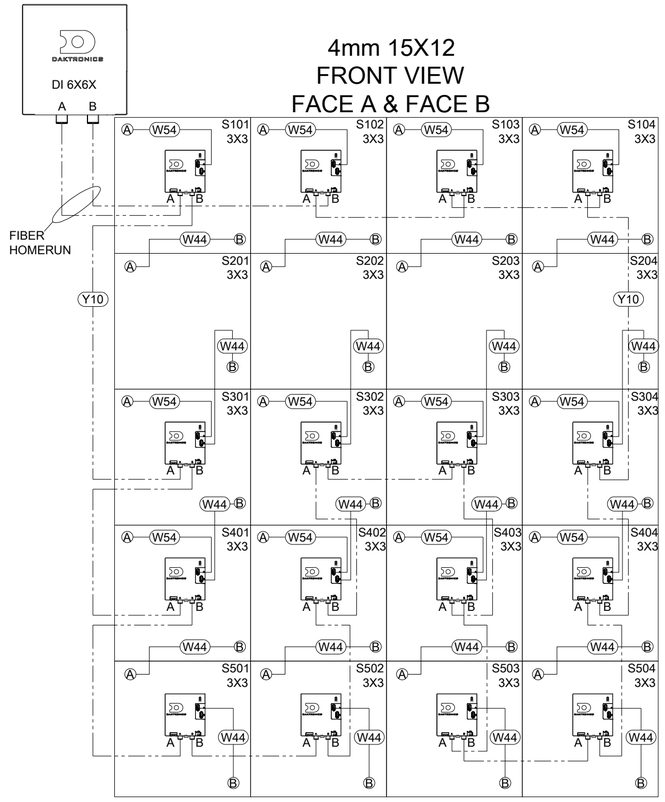
REV	DATE:		BY:
01	21 OCT 19	PER CN-91102, UPDATED SECTION SIZES FOR 11X7 DISPLAY.	SMB

THIRD ANGLE PROJECTION

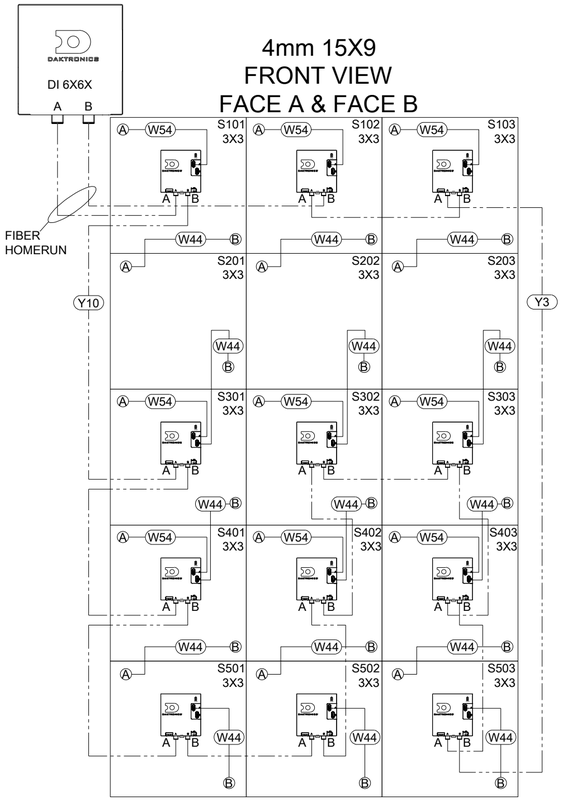
PROJECT:	DBN B1, 6&10mm STANDARD DISPLAY SIZES (2of2)		
TITLE:	6&10mm SIG: 15x9,14x10,13x9,12x9,12x8,11x7,10x6,9x6,8x4		
DATE:	12 APR 18	DIM UNITS: INCHES [MILLIMETERS]	SHEET / REV
SCALE:	NONE	DO NOT SCALE DRAWING	01
DESIGN:	SBRINK	JOB NO. P2057	FUNC - TYPE - SIZE F - 01 - C
DRAWN:	SBRINK		3895994



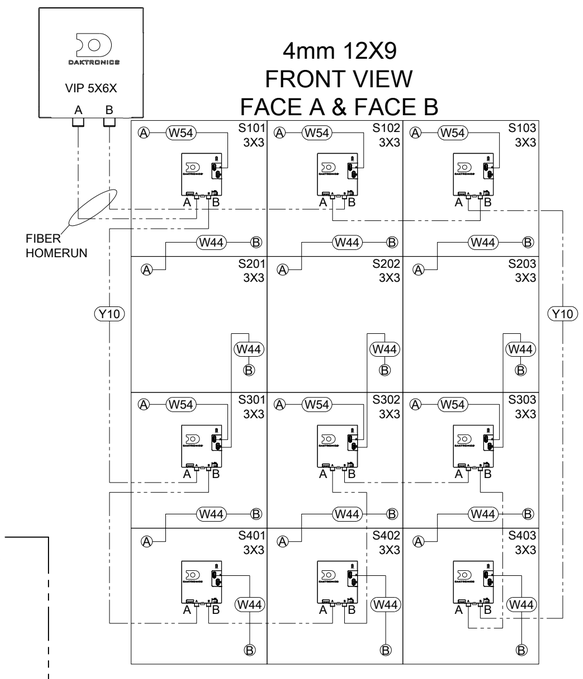
4mm 18x12
FRONT VIEW
FACE A & FACE B



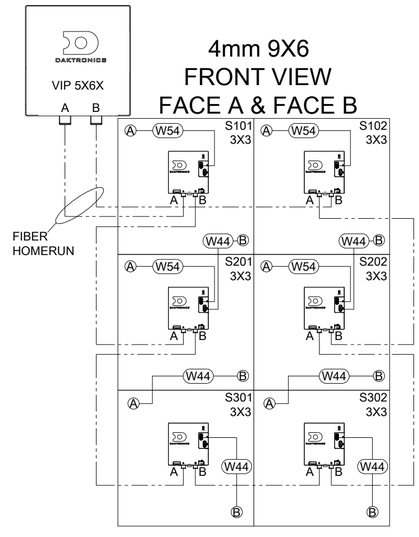
4mm 15X12
FRONT VIEW
FACE A & FACE B



4mm 15X9
FRONT VIEW
FACE A & FACE B



4mm 12X9
FRONT VIEW
FACE A & FACE B



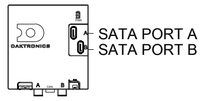
4mm 9X6
FRONT VIEW
FACE A & FACE B

*NOTE: EACH FACE GETS ITS OWN FIBER HOMERUN FROM THE CONTROL LOCATION.
FACE 'A' AND FACE 'B' ARE WIRED FOR SIGNAL IDENTICALLY TO AND INDEPENDENTLY OF ONE ANOTHER. SEE SIGNAL LEGEND BELOW FOR FACE INDICATOR INFORMATION.

SIGNAL LEGEND

SATA CABLES, FIELD INSTALLED

FIBER SIGNAL CABLE, FIELD INSTALLED (INTERNAL, EXCEPT HOMERUNS)



SATA CABLES:

(W54) W-3553896 SATA CABLE; 28"

(W44) W-2889 SATA CABLE; 6FT

INTERCONNECTING FIBERS (*NOTE* ALL UNMARKED FIBERS ARE (Y1) W-1864; ALL CONNECTIONS MADE INTERNALLY, DIRECTLY TO PLR'S):

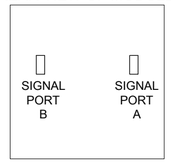
(Y1) W-1864 FIBER; 3M DUPLEX LC-LC, CROSSOVER

(Y10) W-2123 FIBER; 5M DUPLEX LC-LC, CROSSOVER

(Y3) W-1865 FIBER; 15M DUPLEX LC-LC, CROSSOVER

- FACE 'A' INDICATOR IS LOCATED AT TOP LEFT OF FACE 'A' MODSHEET USING THE FOLLOWING SYMBOL:
- FACE 'B' INDICATOR IS LOCATED AT TOP LEFT OF FACE 'B' MODSHEET USING THE FOLLOWING SYMBOL:

REAR VIEW OF MODULE



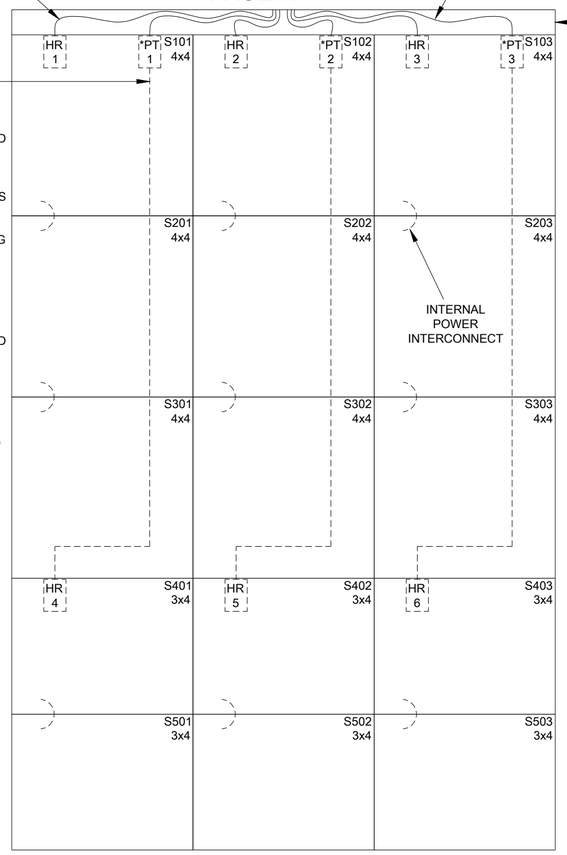
(A) SIGNAL PORT A OF MODULE

(B) SIGNAL PORT B OF MODULE

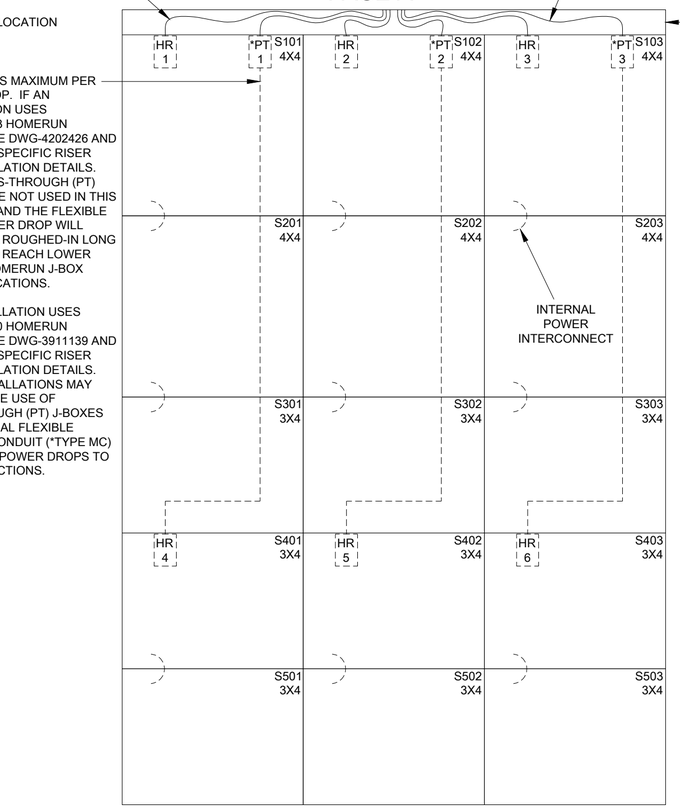
THIRD ANGLE PROJECTION

PROJECT:	DBN B1, 4mm COMMON DISPLAY SIZES (1of1)			
TITLE:	4mm SIGNAL:18x12, 15x12, 15x9, 12x9, 9x6			
DATE:	12 APR 18	DIM UNITS: INCHES [MILLIMETERS]	SHEET	REV
SCALE:	NONE	DO NOT SCALE DRAWING		00
DESIGN:	SBRINK	JOB NO.	FUNC - TYPE - SIZE	3896031
DRAWN:	SBRINK	P2057	F - 01 - C	

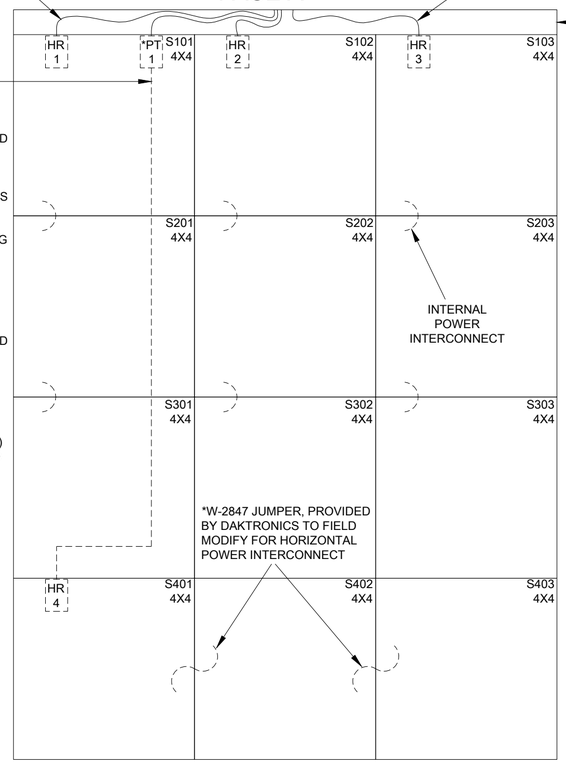
6&10mm 18x12 FRONT VIEW FACE A



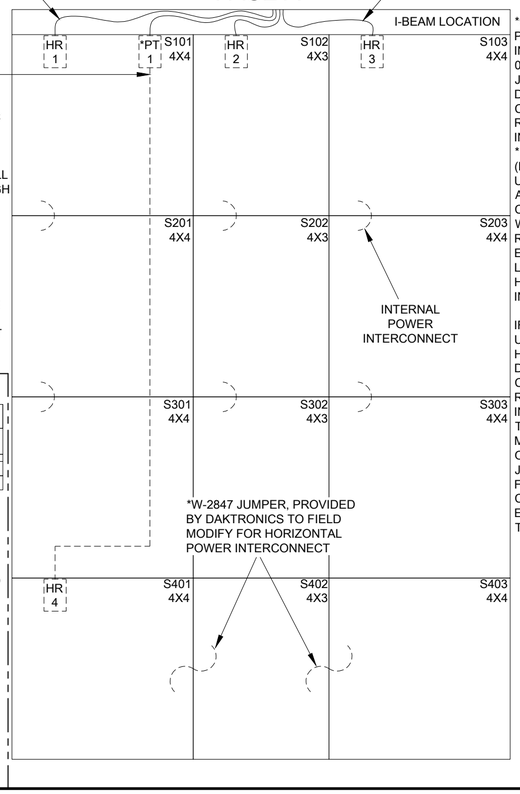
6&10mm 17x12 FRONT VIEW FACE A



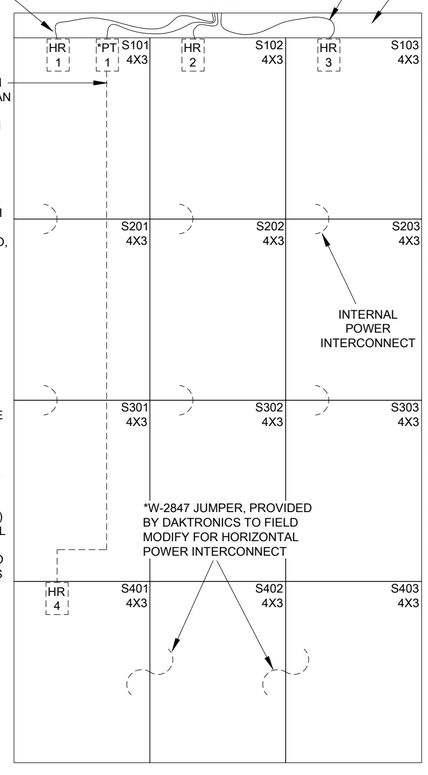
6&10mm 16x12 FRONT VIEW FACE A



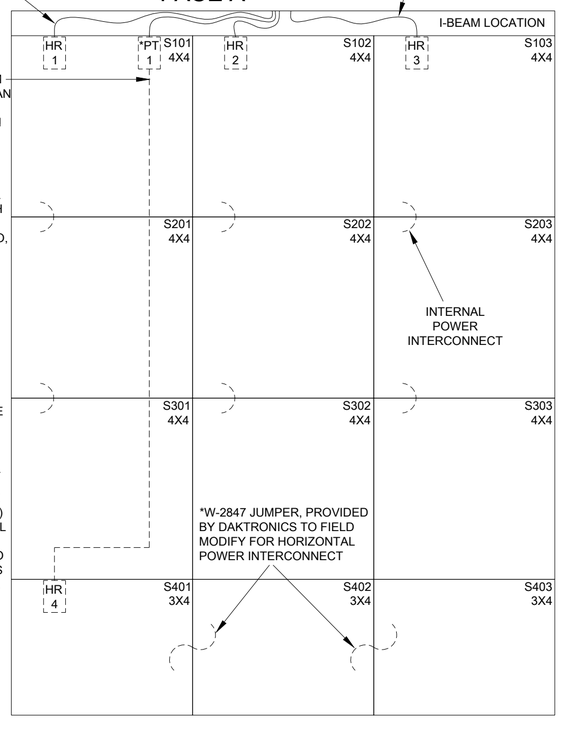
6&10mm 16x11 FRONT VIEW FACE A



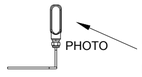
6&10mm 16x9 FRONT VIEW FACE A



6&10mm 15x12 FRONT VIEW FACE A



LIGHT SENSOR OPTION



LIGHT SENSOR, IF REQUIRED, TO BE LOCATED IN I-BEAM SHROUDING. FOLLOW INSTALL INSTRUCTIONS FROM PHOTOCELL KIT; ROUTE HARNESS FROM PHOTO CELL KIT TO NEAREST PLR.

GENERAL NOTES AND LEGEND

COMPONENT IDENTIFICATION LEGEND

ID TAG	COMPONENT DESCRIPTION	MANUFACTURER'S PART NUMBER	COMPONENT PROVIDED BY	COMPONENT INSTALLED BY
HR	*HOMERUN J-BOX	0A-1487-6863 or 0A-1487-6860	DAKTRONICS	FIELD
PT	PASS-THROUGH J-BOX	0A-1487-6861	DAKTRONICS	FIELD

*SEE CONTRACT SPECIFIC RISER DIAGRAM FOR DETAILS. 0A-1487-6863 USES A PLUG AND JACK METHOD OF WIRING (DWG-4202426); 0A-1487-6860 USES A TERMINAL BLOCK (DWG-3911139).

POWER NOTES:

- DISPLAYS ARE DOUBLE-FACED; FIELD POWER DROPS ARE SHARED BETWEEN FACES
- FACE 'A' HAS THE FACTORY PROVIDED VERTICAL POWER INTERCONNECT ON THE LEFT-HAND SIDE (WHILE FACING DISPLAY)
- FACE 'A' INDICATOR IS LOCATED AT TOP LEFT OF FACE 'A' MODSHEET USING THE FOLLOWING SYMBOL: A
- FACE 'B' INDICATOR IS LOCATED AT TOP LEFT OF FACE 'B' MODSHEET USING THE FOLLOWING SYMBOL: B
- ALL POWER DROPS ARE 20A, 208V/230V (2W+G)
- POWER DROPS LAND INTERNALLY, AT TOP SECTION IN EACH SECTION COLUMN
- VERTICAL INTERNAL POWER (MATE-N-LOK) INTERCONNECTS, UNLESS OTHERWISE NOTED
- 96 MODS PER POWER DROP MAX

REV	DATE:		BY:
01	04 JUN 19	PER CN-81317, ADDED 0A-1487-6863 PLUG AND JACK J-BOX OPTION WITH NOTES UPDATES.	SMB

THIRD ANGLE PROJECTION

PROJECT:	DBN B1, 6&10mm COMMON DISPLAY SIZES (1of2)		
TITLE:	6&10mm POWER: 18x12, 17x12, 16x12, 16x11, 16x9, 15x12		
DATE: 23 APR 18	DIM UNITS: INCHES [MILLIMETERS]	SHEET	REV
SCALE: NONE	DO NOT SCALE DRAWING		01
DESIGN: SBRINK	JOB NO. P2057	FUNC - TYPE - SIZE F - 01 - C	3903670
DRAWN: SBRINK			

6&10mm 15x9 FRONT VIEW FACE A

- 12-3 SJOOW CORD, P/N W-1711
- FIELD INSTALLED
- 20A, 208V/230V (2W+G) HOMERUN

*POWER DROP CORDS ROUTED THROUGH BEAM TO THEIR RESPECTIVE J-BOXES; USE HS-3933555'S (MAGNETIC JHOOK PROVIDED BY DAKTRONICS) TO MANAGE CABLES INTERNAL TO BEAM WEB

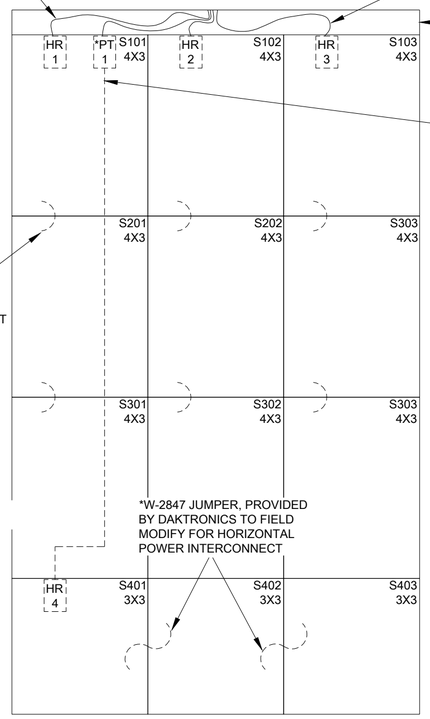
I-BEAM LOCATION

*96 MODULES MAXIMUM PER POWER DROP. IF AN INSTALLATION USES 0A-1487-6863 HOMERUN J-BOXES SEE DWG-4202426 AND CONTRACT SPECIFIC RISER FOR INSTALLATION DETAILS. *NOTE* PASS-THROUGH (PT) J-BOXES ARE NOT USED IN THIS SCENARIO, AND THE FLEXIBLE CABLE POWER DROP WILL NEED TO BE ROUGHED-IN LONG ENOUGH TO REACH LOWER SECTION HOMERUN J-BOX INSTALL LOCATIONS.

IF AN INSTALLATION USES 0A-1487-6860 HOMERUN J-BOXES SEE DWG-3911139 AND CONTRACT SPECIFIC RISER FOR INSTALLATION DETAILS. THESE INSTALLATIONS MAY REQUIRE THE USE OF PASS-THROUGH (PT) J-BOXES AND INTERNAL FLEXIBLE METALLIC CONDUIT (*TYPE MC) TO EXTEND POWER DROPS TO BOTTOM SECTIONS.

INTERNAL POWER INTERCONNECT

*W-2847 JUMPER, PROVIDED BY DAKTRONICS TO FIELD MODIFY FOR HORIZONTAL POWER INTERCONNECT

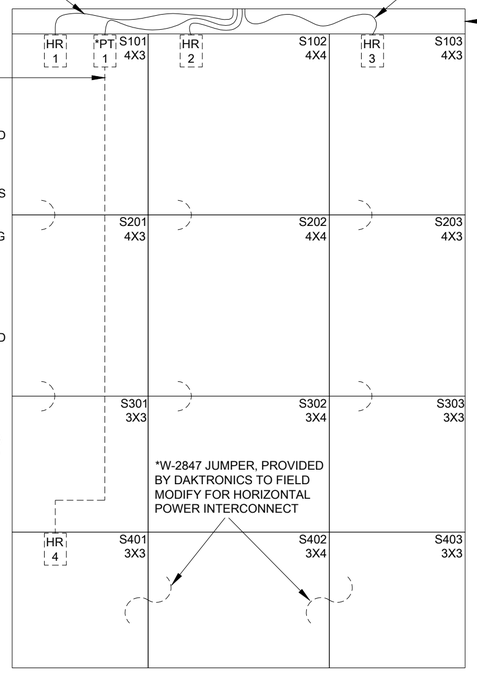


6&10mm 14x10 FRONT VIEW FACE A

- 12-3 SJOOW CORD, P/N W-1711
- FIELD INSTALLED
- 20A, 208V/230V (2W+G) HOMERUN

I-BEAM LOCATION

*W-2847 JUMPER, PROVIDED BY DAKTRONICS TO FIELD MODIFY FOR HORIZONTAL POWER INTERCONNECT

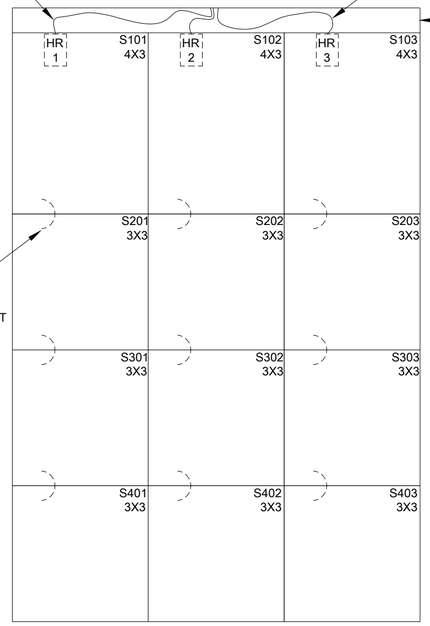


6&10mm 13x9 FRONT VIEW FACE A

*POWER DROP CORDS ROUTED THROUGH BEAM TO THEIR RESPECTIVE J-BOXES; USE HS-3933555'S (MAGNETIC JHOOK PROVIDED BY DAKTRONICS) TO MANAGE CABLES INTERNAL TO BEAM WEB

I-BEAM LOCATION

INTERNAL POWER INTERCONNECT

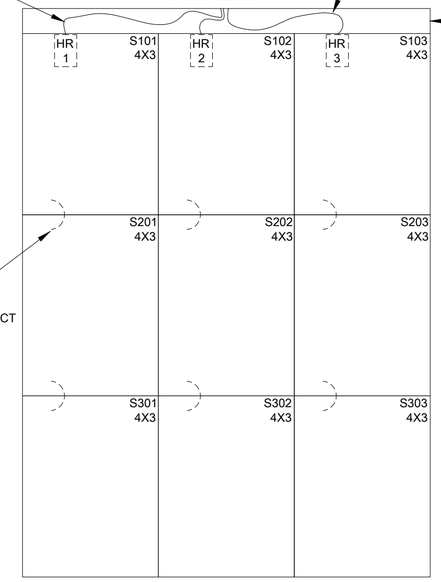


6&10mm 12x9 FRONT VIEW FACE A

- 12-3 SJOOW CORD, P/N W-1711
- FIELD INSTALLED
- 20A, 208V/230V (2W+G) HOMERUN

I-BEAM LOCATION

INTERNAL POWER INTERCONNECT



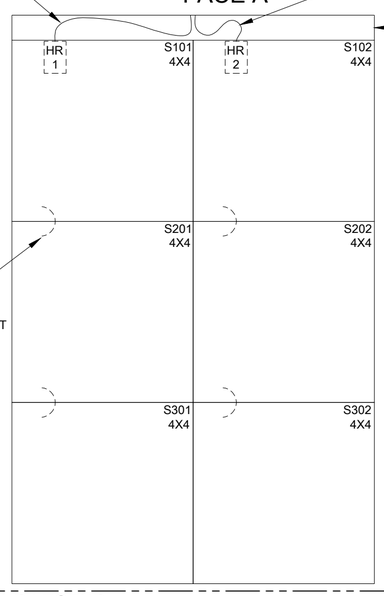
6&10mm 12x8 FRONT VIEW FACE A

- 12-3 SJOOW CORD, P/N W-1711
- FIELD INSTALLED
- 20A, 208V/230V (2W+G) HOMERUN

*POWER DROP CORDS ROUTED THROUGH BEAM TO THEIR RESPECTIVE J-BOXES; USE HS-3933555'S (MAGNETIC JHOOK PROVIDED BY DAKTRONICS) TO MANAGE CABLES INTERNAL TO BEAM WEB

I-BEAM LOCATION

INTERNAL POWER INTERCONNECT



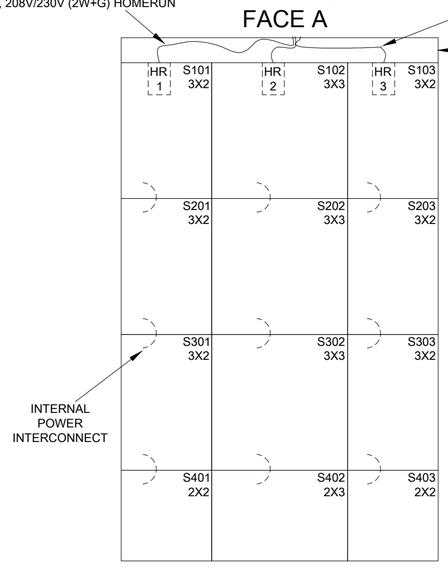
6&10mm 11x7 FRONT VIEW FACE A

- 12-3 SJOOW CORD, P/N W-1711
- FIELD INSTALLED
- 20A, 208V/230V (2W+G) HOMERUN

*POWER DROP CORDS ROUTED THROUGH BEAM TO THEIR RESPECTIVE J-BOXES; USE HS-3933555'S (MAGNETIC JHOOK PROVIDED BY DAKTRONICS) TO MANAGE CABLES INTERNAL TO BEAM WEB

I-BEAM LOCATION

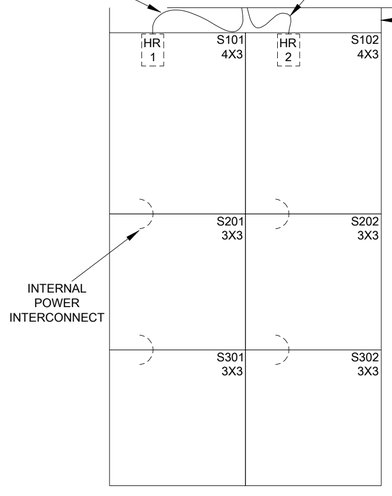
INTERNAL POWER INTERCONNECT



6&10mm 10x6 FRONT VIEW FACE A

I-BEAM LOCATION

INTERNAL POWER INTERCONNECT



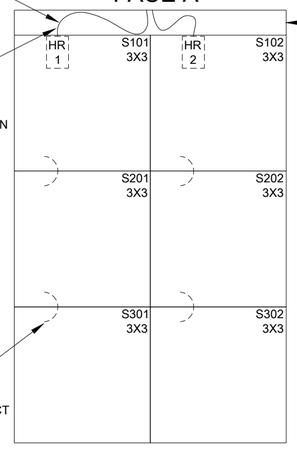
6&10mm 9X6 FRONT VIEW FACE A

*POWER DROP CORDS ROUTED THROUGH BEAM TO THEIR RESPECTIVE J-BOXES; USE HS-3933555'S (MAGNETIC JHOOK PROVIDED BY DAKTRONICS) TO MANAGE CABLES INTERNAL TO BEAM WEB

- 12-3 SJOOW CORD, P/N W-1711
- FIELD INSTALLED
- 20A, 208V/230V (2W+G) HOMERUN

I-BEAM LOCATION

INTERNAL POWER INTERCONNECT



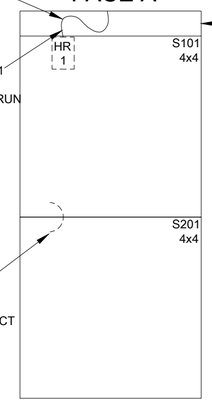
6&10mm 8x4 FRONT VIEW FACE A

*POWER DROP CORDS ROUTED THROUGH BEAM TO THEIR RESPECTIVE J-BOXES; USE HS-3933555'S (MAGNETIC JHOOK PROVIDED BY DAKTRONICS) TO MANAGE CABLES INTERNAL TO BEAM WEB

- 12-3 SJOOW CORD, P/N W-1711
- FIELD INSTALLED
- 20A, 208V/230V (2W+G) HOMERUN

I-BEAM LOCATION

INTERNAL POWER INTERCONNECT



NOTES AND LEGEND

COMPONENT IDENTIFICATION LEGEND

ID TAG	COMPONENT DESCRIPTION	MANUFACTURER'S PART NUMBER	COMPONENT PROVIDED BY	COMPONENT INSTALLED BY
HR	*HOMERUN J-BOX	0A-1487-6863 or 0A-1487-6860	DAKTRONICS	FIELD
PT	PASS-THROUGH J-BOX	0A-1487-6861	DAKTRONICS	FIELD

*SEE CONTRACT SPECIFIC RISER DIAGRAM FOR DETAILS. 0A-1487-6863 USES A PLUG AND JACK METHOD OF WIRING (DWG-4202426); 0A-1487-6860 USES A TERMINAL BLOCK (DWG-3911139).

POWER NOTES:

- DISPLAYS ARE DOUBLE-FACED; FIELD POWER DROPS ARE SHARED BETWEEN FACES
- FACE 'A' HAS THE FACTORY PROVIDED VERTICAL POWER INTERCONNECT ON THE LEFT-HAND SIDE (WHILE FACING DISPLAY)
- FACE 'A' INDICATOR IS LOCATED AT TOP LEFT OF FACE 'A' MODSHEET USING THE FOLLOWING SYMBOL:
- FACE 'B' INDICATOR IS LOCATED AT TOP LEFT OF FACE 'B' MODSHEET USING THE FOLLOWING SYMBOL:
- ALL POWER DROPS ARE 20A, 208V/230V (2W+G)
- POWER DROPS LAND INTERNALLY, AT TOP SECTION IN EACH SECTION COLUMN
- VERTICAL INTERNAL POWER (MATE-N-LOK) INTERCONNECTS, UNLESS OTHERWISE NOTED
- 96 MODS PER POWER DROP MAX

LIGHT SENSOR OPTION

PHOTO

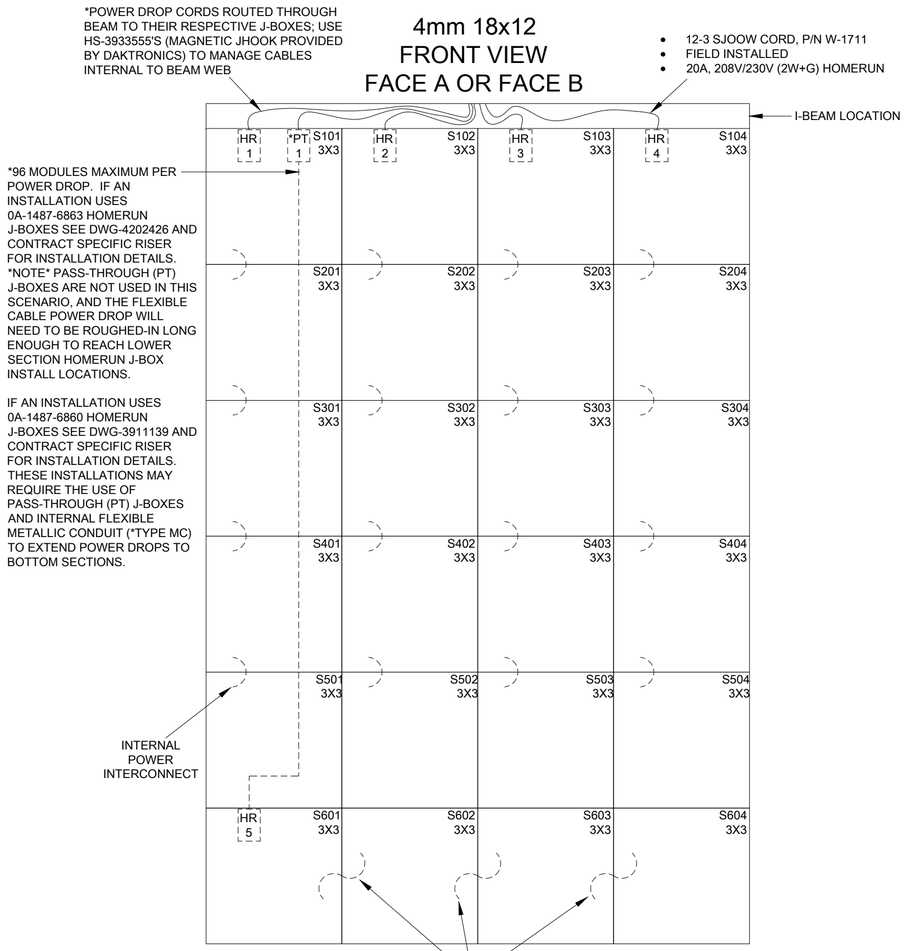
LIGHT SENSOR, IF REQUIRED, TO BE LOCATED IN I-BEAM SHROUDING. FOLLOW INSTALL INSTRUCTIONS FROM PHOTOCELL KIT; ROUTE HARNESS FROM PHOTO CELL KIT TO NEAREST PLR.

REV	DATE:		BY:
02	21 OCT 19	PER CN-91102, UPDATED SECTION SIZES FOR 11X7 DISPLAY.	SMB
01	04 JUN 19	PER CN-81317, ADDED 0A-1487-6863 PLUG AND JACK J-BOX OPTION WITH NOTES UPDATES.	SMB

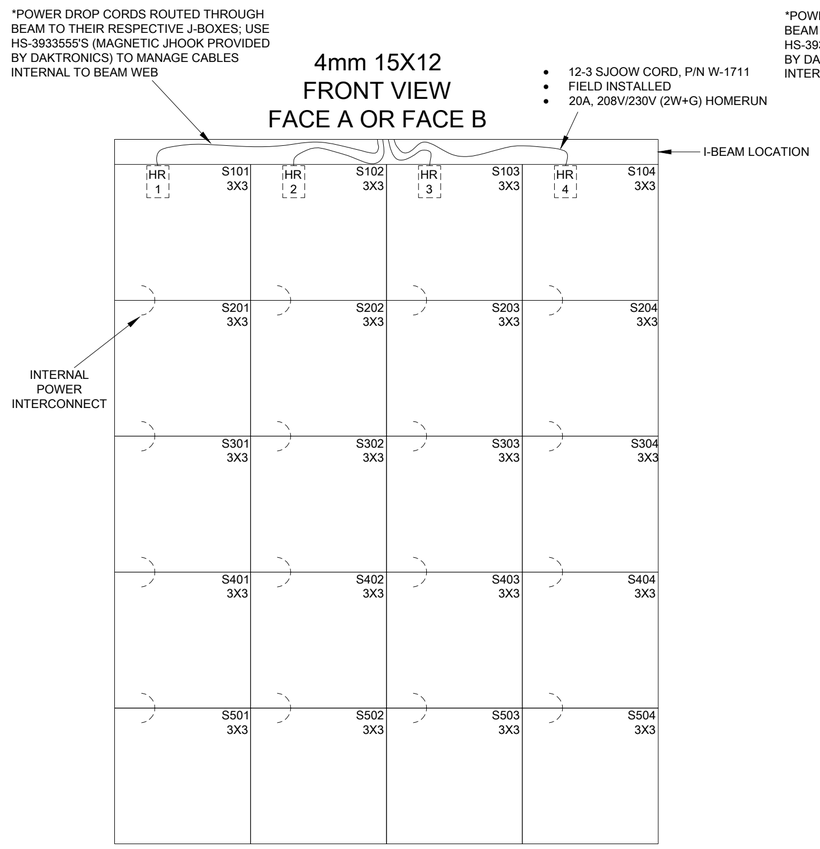
THIRD ANGLE PROJECTION

PROJECT:	DBN B1, 6&10mm COMMON DISPLAY SIZES (2of2)		
TITLE:	6&10mm PWR: 15x9,14X10,13x9,12x9,12x8,11x7,10x6,9x6,8x4		
DATE:	23 APR 18	DIM UNITS: INCHES [MILLIMETERS]	SHEET / REV
SCALE:	NONE	DO NOT SCALE DRAWING	02
DESIGN:	SBRINK	JOB NO. P2057 / FUNC - TYPE - SIZE F - 01 - C	3903672
DRAWN:	SBRINK		

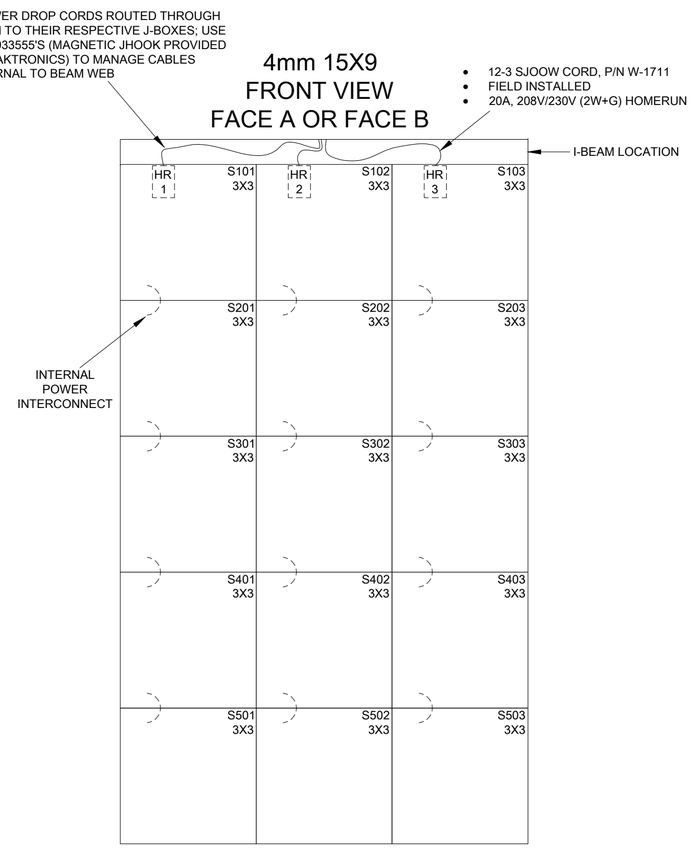
4mm 18x12 FRONT VIEW FACE A OR FACE B



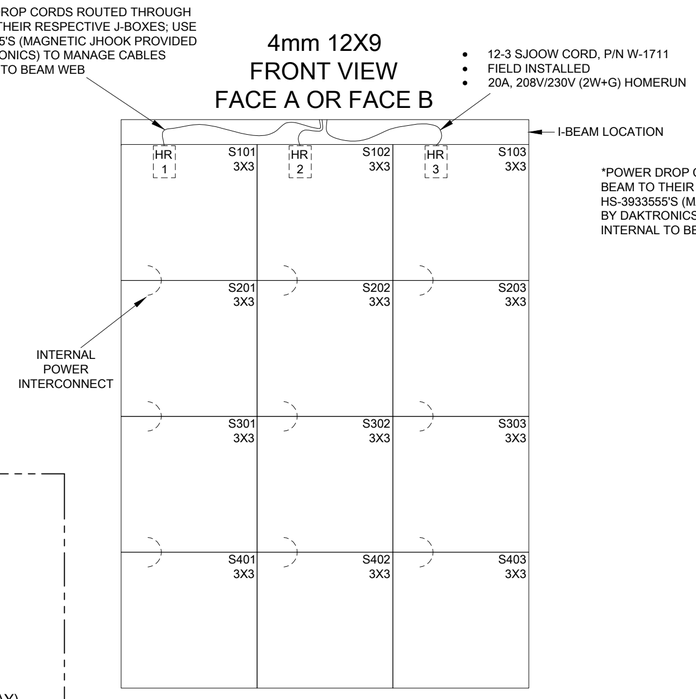
4mm 15X12 FRONT VIEW FACE A OR FACE B



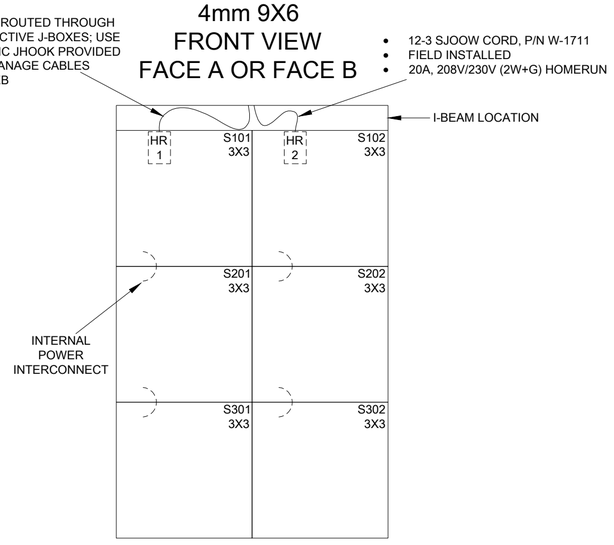
4mm 15X9 FRONT VIEW FACE A OR FACE B



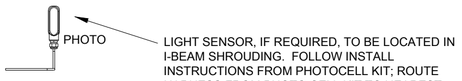
4mm 12X9 FRONT VIEW FACE A OR FACE B



4mm 9X6 FRONT VIEW FACE A OR FACE B



LIGHT SENSOR OPTION



NOTES AND LEGEND

COMPONENT IDENTIFICATION LEGEND

ID TAG	COMPONENT DESCRIPTION	MANUFACTURER'S PART NUMBER	COMPONENT PROVIDED BY	COMPONENT INSTALLED BY
HR	*HOMERUN J-BOX	0A-1487-6863 or 0A-1487-6860	DAKTRONICS	FIELD
PT	PASS-THROUGH J-BOX	0A-1487-6861	DAKTRONICS	FIELD

*SEE CONTRACT SPECIFIC RISER DIAGRAM FOR DETAILS. 0A-1487-6863 USES A PLUG AND JACK METHOD OF WIRING (DWG-4202426); 0A-1487-6860 USES A TERMINAL BLOCK (DWG-3911139).

POWER NOTES:

- DISPLAYS ARE DOUBLE-FACED; FIELD POWER DROPS ARE SHARED BETWEEN FACES
- FACE 'A' HAS THE FACTORY PROVIDED VERTICAL POWER INTERCONNECT ON THE LEFT-HAND SIDE (WHILE FACING DISPLAY)
- FACE 'A' INDICATOR IS LOCATED AT TOP LEFT OF FACE 'A' MODSHEET USING THE FOLLOWING SYMBOL:
- FACE 'B' INDICATOR IS LOCATED AT TOP LEFT OF FACE 'B' MODSHEET USING THE FOLLOWING SYMBOL:
- ALL POWER DROPS ARE 20A, 208V/230V (2W+G)
- POWER DROPS LAND INTERNALLY, AT TOP SECTION IN EACH SECTION COLUMN
- VERTICAL INTERNAL POWER (MATE-N-LOK) INTERCONNECTS, UNLESS OTHERWISE NOTED
- 96 MODS PER POWER DROP MAX

REV	DATE:	
01	04 JUN 19	PER CN-81317, ADDED 0A-1487-6863 PLUG AND JACK J-BOX OPTION WITH NOTES UPDATES.

BY: SMB

THIRD ANGLE PROJECTION

PROJECT:	DBN B1, 4mm COMMON DISPLAY SIZES (1of1)		
TITLE:	4mm POWER:18X12, 15X12, 15X9, 12X9, 9X6		
DATE: 23 APR 18	DIM UNITS: INCHES [MILLIMETERS]	SHEET	REV
SCALE: NONE	DO NOT SCALE DRAWING		01
DESIGN: SBRINK	JOB NO. P2057	FUNC - TYPE - SIZE F - 01 - C	3903674
DRAWN: SBRINK			

INDEX	NAME	PART NUMBER
1	HOMERUN JBOX ASSEMBLY	0A-1487-6860
2	PASS-THROUGH JBOX ASSEMBLY	0A-1487-6861
3	JBOX BRACKET MOUNTING SCREW	HC-3601959
4	1/2" STRAIN RELIEF/CORD CONN., CORD SIZE: .17"-.47"	EC-1176
5	3/8" MC CONN. W/ INSULATED THROAT, FITS 1/2" KO	EC-3899208

TORQUE SPECIFICATION: 15 IN-LBS

USE THE PROVIDED 10-32 X 0.25 IN. HEX WASHER HEAD SCREWS, HC-3601959 @1, TO SECURE J-BOX ASSEMBLY TO TOP OF CHASSIS. A HOLE HAS BEEN PROVIDED IN THE CORRECT MOUNTING LOCATION. TORQUE SPECIFICATION: 15 IN-LBS.

HOMERUN JBOX INSTALLATION STEPS:

1. ROUTE DAKTRONICS PROVIDED 12-3 SJOOW, P/N W-1711 THROUGH BEAM TO SECTION HOMERUN JBOX INSTALL LOCATION, REFER TO RISER FOR DETAILS.
2. WHEN USED IN TOP SECTION, USE DAKTRONICS PROVIDED CORD CONNECTOR TO TERMINATE CORD TO TOP OF HOMERUN JBOX. WHEN USED IN A LOWER SECTION - REPLACE CORD CONNECTOR WITH MC CONNECTOR, P/N EC-3899208.
3. TERMINATE WIRES (2 WIRES) TO THE TOP SIDE OF THE TERMINAL BLOCK AS INDICATED.
4. TERMINATE FIELD GROUND TO GND BAR LOCATED AT THE BOTTOM OF THE HOMERUN JBOX PLATE.
5. REPLACE JBOX COVER. INSTALL HOMERUN JBOX BY DROPPING THROUGH THE HORIZONTAL MEMBER AND THEN LIFTING INTO PLACE.
6. USE SCREW PROVIDED TO FASTEN THE HOMERUN JBOX ASSEMBLY IN PLACE.
7. CONNECT MATE N LOK FROM THE LOAD SIDE OF FILTER TO FACTORY INSTALLED INTERCONNECT.

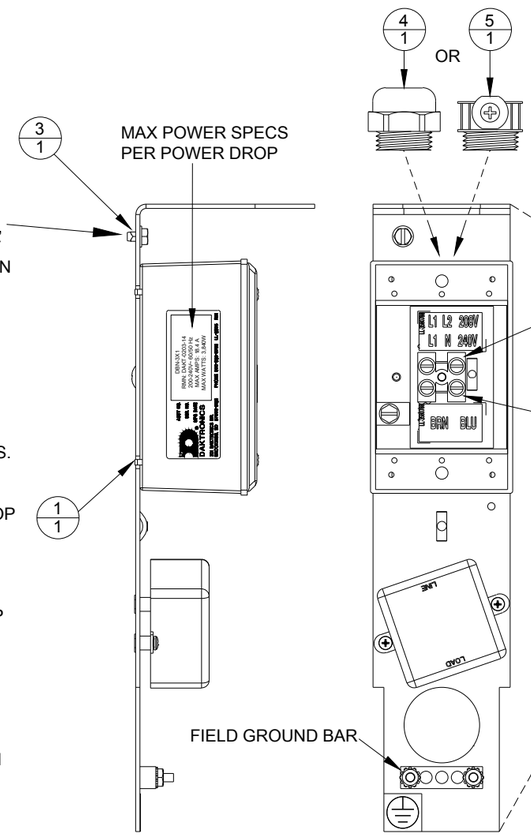


FIGURE A: HOMERUN JBOX

*ALL DISPLAYS WILL RECEIVE ONE OR MORE HOMERUN JBOXES, REFER TO RISER DIAGRAM FOR NUMBER USED, INSTALL LOCATION IS IN THE LEFT-MOST UPPER MOD BAY WHILE FACING FACE 'A', SEE FIGURE B. IN LARGER DISPLAYS ADDITIONAL HOMERUN JBOX MAY ALSO BE LOCATED IN LOWER SECTIONS, SEE RISER FOR DETAILS.

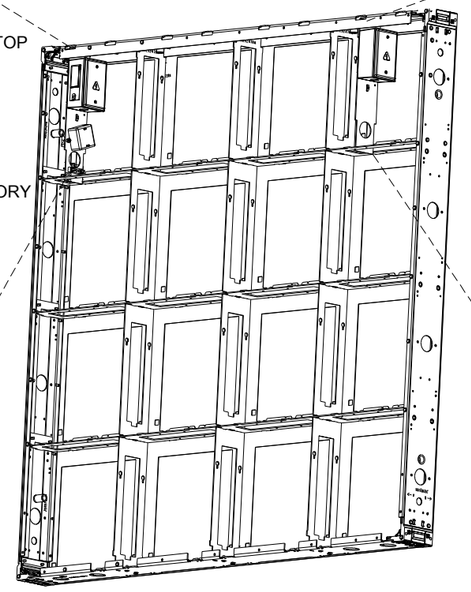


FIGURE B: 4X4 CABINET, FACE 'A' VIEW

*FACE 'A' INDICATOR IS LOCATED AT TOP LEFT OF FACE 'A' MODSHEET USING THE FOLLOWING SYMBOL:

*FACE 'B' INDICATOR IS LOCATED AT TOP LEFT OF FACE 'B' MODSHEET USING THE FOLLOWING SYMBOL: B

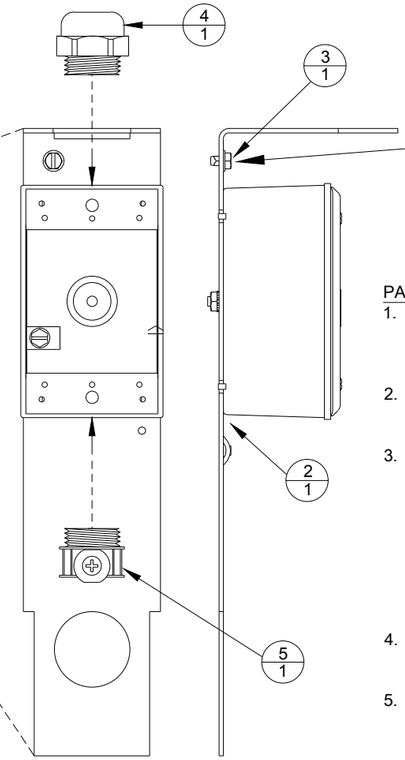


FIGURE C: PASS-THROUGH JBOX

*ONLY LARGER DISPLAYS RECEIVE PASS-THROUGH JBOX(ES), REFER TO RISER DIAGRAM FOR NUMBER USED, INSTALL LOCATION IS IN THE RIGHT-MOST UPPER MOD BAY WHILE FACING FACE 'A' - SEE FIGURE B.

USE THE PROVIDED 10-32 X 0.25 IN. HEX WASHER HEAD SCREWS, HC-3601959 @1, TO SECURE J-BOX ASSEMBLY TO TOP OF CHASSIS. A HOLE HAS BEEN PROVIDED IN THE CORRECT MOUNTING LOCATION. TORQUE SPECIFICATION: 15 IN-LBS.

PASS-THROUGH JBOX INSTALLATION STEPS:

1. ROUTE DAKTRONICS PROVIDED 12-3 SJOOW, P/N W-1711 THROUGH BEAM TO SECTION PASS-THROUGH JBOX INSTALL LOCATION, REFER TO RISER FOR DETAILS.
2. USE DAKTRONICS PROVIDED CORD CONNECTOR TO TERMINATE CORD TO TOP OF HOMERUN JBOX.
3. USE DAKTRONICS PROVIDED 12-2 METAL CLAD (MC) ARMORED CABLE, P/N W-3899197 AND MC CONNECTOR P/N EC-3899208 TO EXTEND HOMERUN VERTICALLY DOWN THROUGH SECTIONS TO HOMERUN JBOX LOCATION AS INDICATED ON THE RISER DIAGRAM - FOLLOW HOMERUN JBOX INSTALLATION STEPS TO COMPLETE HOMERUN JBOX.
4. USE APPROVED FIELD WIRING METHOD TO SPLICE THE CORD WIRES WITH THE MC WIRES. REPLACE JBOX COVER.
5. FINISH PASS-THROUGH JBOX INSTALL BY DROPPING PLATE THROUGH THE HORIZONTAL MEMBER AND THEN LIFTING INTO PLACE.
6. USE SCREW PROVIDED TO FASTEN THE PASS THROUGH JBOX ASSEMBLY IN PLACE.

POWER NOTES:

1. REFER TO CONTRACT SPECIFIC RISER DIAGRAM TO DETERMINE WHICH SECTIONS GET A FIELD POWER DROP, AND WHETHER THAT POWER DROP LANDS IN A HOMERUN OR A PASS-THROUGH JBOX.
2. POWER WILL DAISY-CHAIN INTERNALLY WITH FACTORY PROVIDED POWER INTERCONNECTS WHERE APPLICABLE. SEE VAC/PRIMARY HARNESS BLOCK DIAGRAM AND CONTRACT RISER FOR HARNESS INTERCONNECTION DETAILS.
3. ACCEPTABLE INCOMING VOLTAGE RANGE IS 208V - 240VAC (EITHER L-L-G OR L-N-G), MAXIMUM OVERCURRENT PROTECTIVE DEVICE RATING: 20A. DAKTRONICS DISPLAYS ARE CONSIDERED NON-CONTINUOUS LOADS.
4. BROWN WIRE ON FACTORY SIDE WILL ALWAYS BE LINE, BLUE WIRE ON FACTORY SIDE CAN BE EITHER 2ND LINE OR NEUTRAL, REFER TO FIGURE A.
5. FIELD WIRING TERMINATIONS ARE TO BE MADE TO THE TOP SIDE OF THE TERMINAL BLOCK INSIDE THE HOMERUN JBOX, REFER TO FIGURE A.
6. LAND FIELD GROUND CONDUCTOR TO THE GROUND BAR LOCATED AT THE BOTTOM OF THE HOMERUN JBOX ASSEMBLY, REFER TO FIGURE A.
7. IT IS THE RESPONSIBILITY OF THE ELECTRICAL INSTALLATION CONTRACTOR TO ENSURE ELECTRICAL WORK PERFORMED ON-SITE MEETS OR EXCEEDS ALL LOCAL AND NATIONAL ELECTRIC CODES FOR WIRING AND SPECIFICATIONS.

THIRD ANGLE PROJECTION

PROJECT:	DBN B1			
TITLE:	JBOX INSTALL & FIELD POWER CONNECTION DETAILS			
DATE: 18 JUN 18	DIM UNITS: INCHES [MILLIMETERS]		SHEET	REV
SCALE: NONE	DO NOT SCALE DRAWING			00
DESIGN: SBRINK	JOB NO. P2057	FUNC - TYPE - SIZE F - 01 - B	3911139	
DRAWN: SBRINK				

HARNESS LEGEND

Ⓐ = (S114) W-3926279
HARN; 2P M UML TO 3 4P M UML, 3 MOD 18 AWG

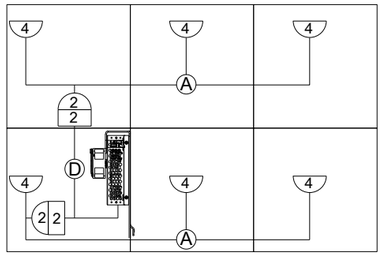
Ⓑ = (S115) W-3926274
HARN; 2P M UML TO 4 4P M UML, 4 MOD 18 AWG

Ⓒ = (S116) W-3926260
HARN; 2P M UML TO 5 4P M UML, 5 MOD 18 AWG

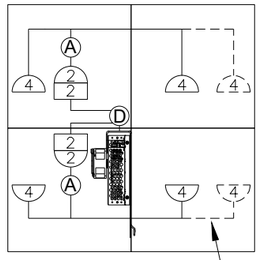
Ⓓ = (S118) W-3926411
HARN; LOCKING FORKS TO 2 2P F UMNL & 2 P MMNL

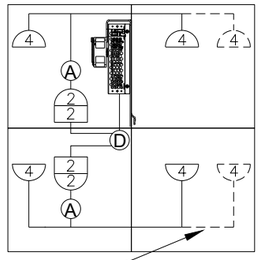
3 WIDE

2 HIGH



2 WIDE





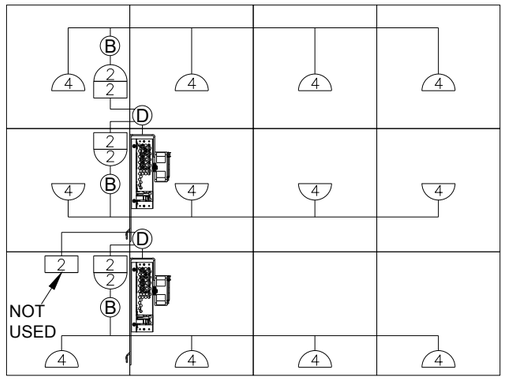
FACE A

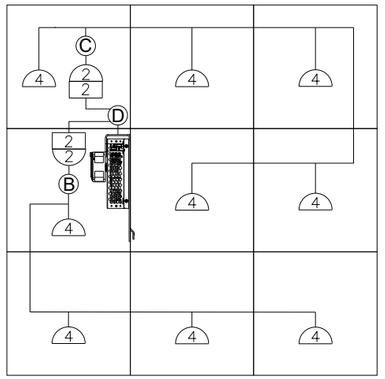
TIE BACK ANY UNUSED HARNESS

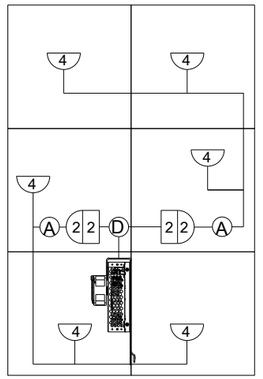
FACE B

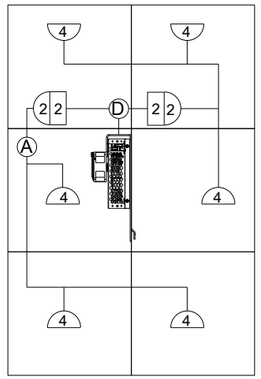
4 WIDE

3 HIGH





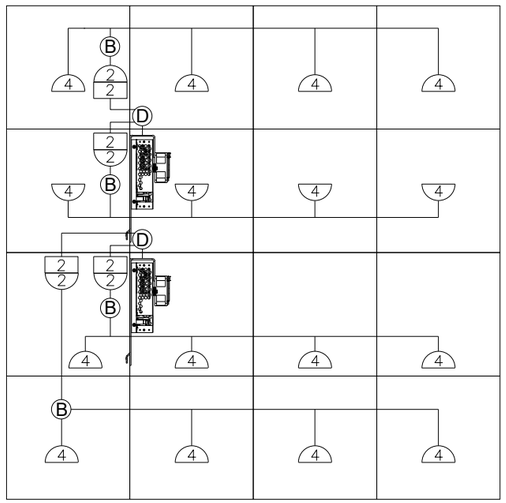


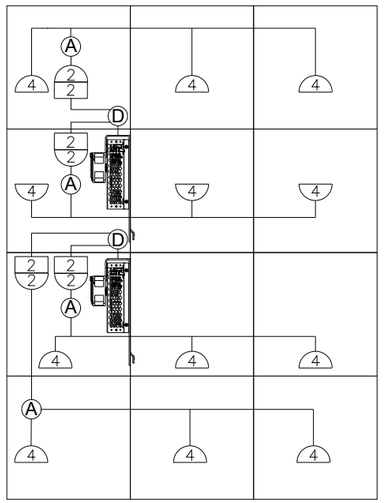


FACE A

FACE B

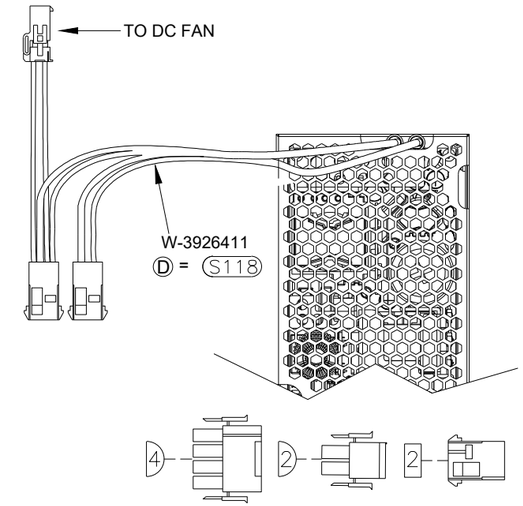
4 HIGH





SECONDARY HARNESSING NOTES:

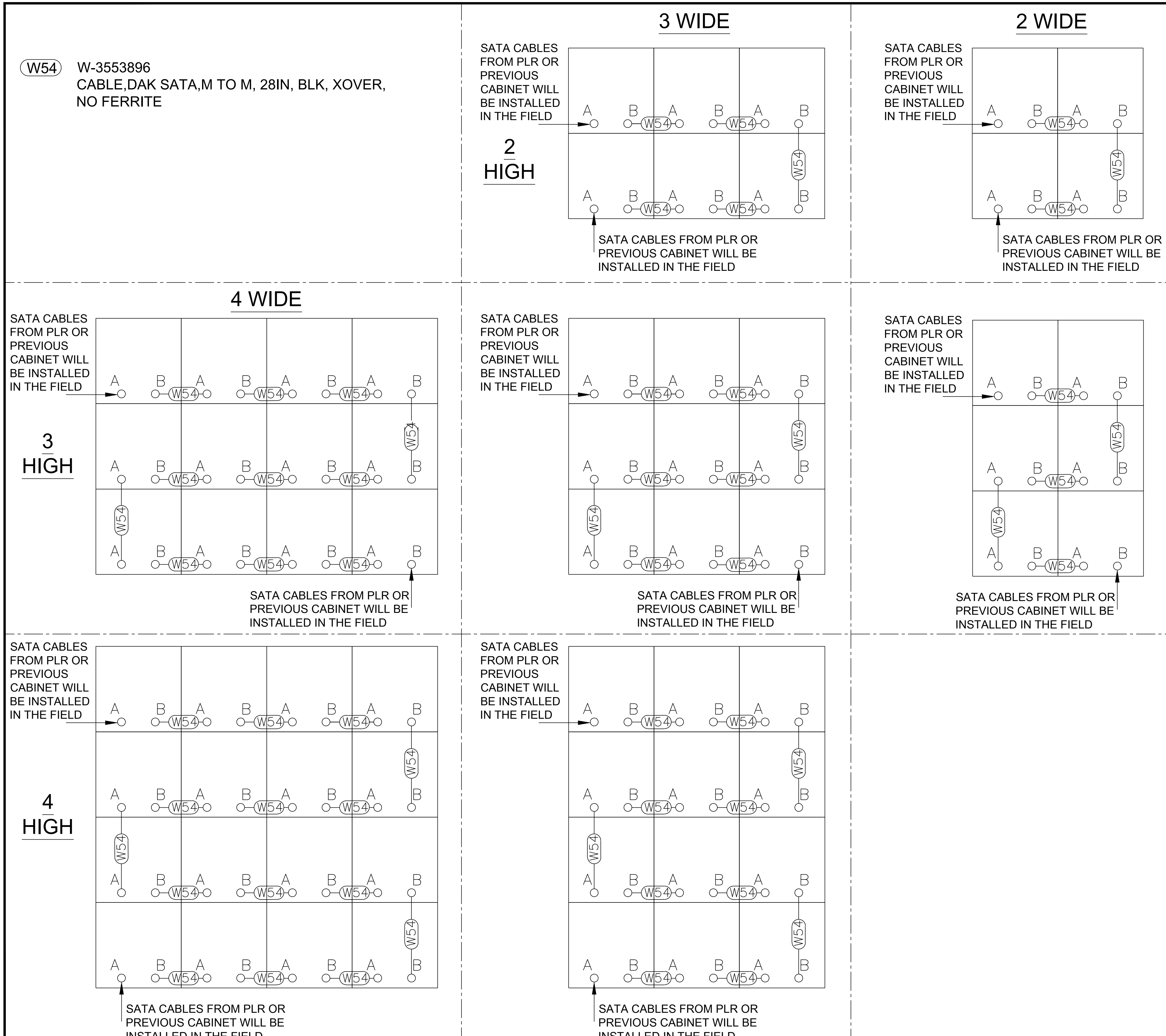
1. SECONDARY WIRING FOR FACE 'A' AND FACE 'B' ARE IDENTICAL TO AND INDEPENDENT OF ONE ANOTHER; FRONT VIEW FOR EITHER FACE SHOWN TO LEFT (FOR EXCEPTIONS - BOTH FACES ARE SHOWN).
2. FACE 'A' INDICATOR IS LOCATED AT TOP LEFT OF FACE 'A' MODSHEET USING THE FOLLOWING SYMBOL:
3. FACE 'B' INDICATOR IS LOCATED AT TOP LEFT OF FACE 'B' MODSHEET USING THE FOLLOWING SYMBOL: B
4. CONNECT TWO PIN MINI-MNL CONNECTOR SHOWN BELOW TO B-1103 FAN ON POWER SUPPLY ASSEMBLY



REV	DATE:		BY:
01	25 SEP 19	PER CN-89253, ADDED 2X2, 2X3, AND 3X2 SECTION SIZES.	SMB

THIRD ANGLE PROJECTION

PROJECT:	DBN B1			
TITLE:	BLOCK DIAGRAM; SECONDARY HARNESSING, DBN B1			
DATE:	01 MAY 18	DIM UNITS: INCHES [MILLIMETERS]	SHEET	REV
SCALE:	NONE	DO NOT SCALE DRAWING		01
DESIGN:	SBRINK	JOB NO.	FUNC - TYPE - SIZE	3911144
DRAWN:	SBRINK	P2057	R - 01 - B	



SIGNAL HARNESSING NOTES:

1. FACE 'A' AND FACE 'B' ARE WIRED FOR SIGNAL IDENTICALLY TO AND INDEPENDENTLY OF ONE ANOTHER; FRONT VIEW FOR EITHER FACE SHOWN TO LEFT
2. FACE 'A' INDICATOR IS LOCATED AT TOP LEFT OF FACE 'A' MODSHEET USING THE FOLLOWING SYMBOL:
3. FACE 'B' INDICATOR IS LOCATED AT TOP LEFT OF FACE 'B' MODSHEET USING THE FOLLOWING SYMBOL:

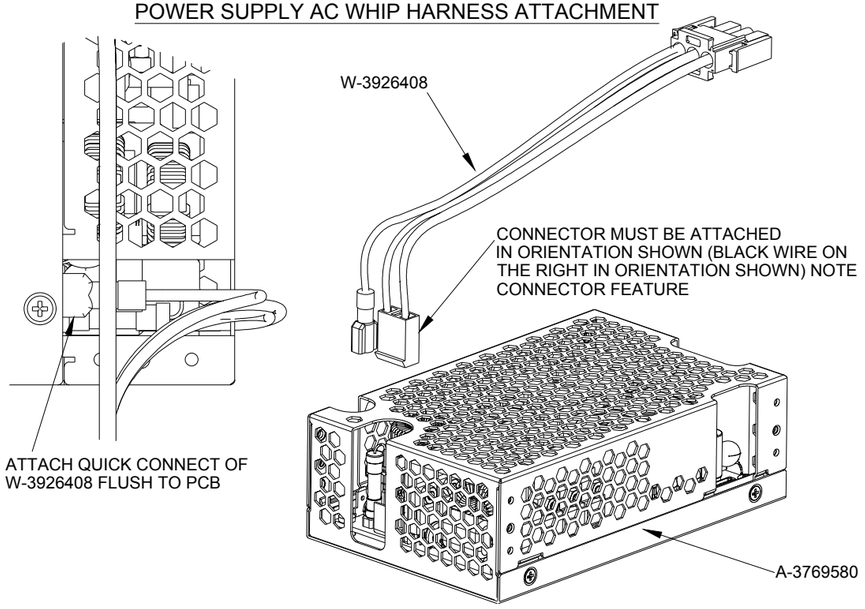
REV	DATE:		BY:
01	25 SEP 19	PER CN-89253, ADDED 2X2, 2X3, AND 3X2 SECTION SIZES.	SMB

DAKTRONICS

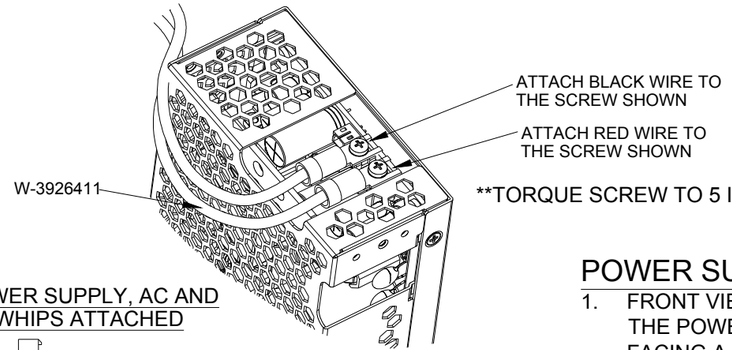
THIRD ANGLE PROJECTION

PROJECT:	DBN B1
TITLE:	BLOCK DIAGRAM; SIGNAL HARNESSING, DBN B1
DATE:	01 MAY 18
DIM UNITS:	INCHES [MILLIMETERS]
SCALE:	NONE
	DO NOT SCALE DRAWING
DESIGN:	SBRINK
DRAWN:	SBRINK
JOB NO.	P2057
FUNC - TYPE - SIZE	R - 01 - B
SHEET	3911145
REV	01

POWER SUPPLY AC WHIP HARNESS ATTACHMENT

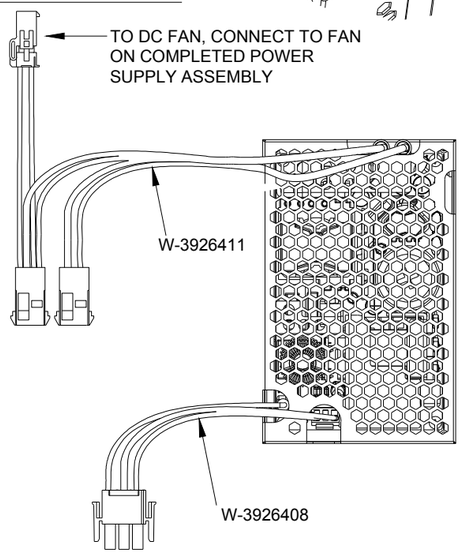


POWER SUPPLY DC WHIP HARNESS ATTACHMENT



TORQUE SCREW TO 5 IN-LBS

POWER SUPPLY, AC AND DC WHIPS ATTACHED

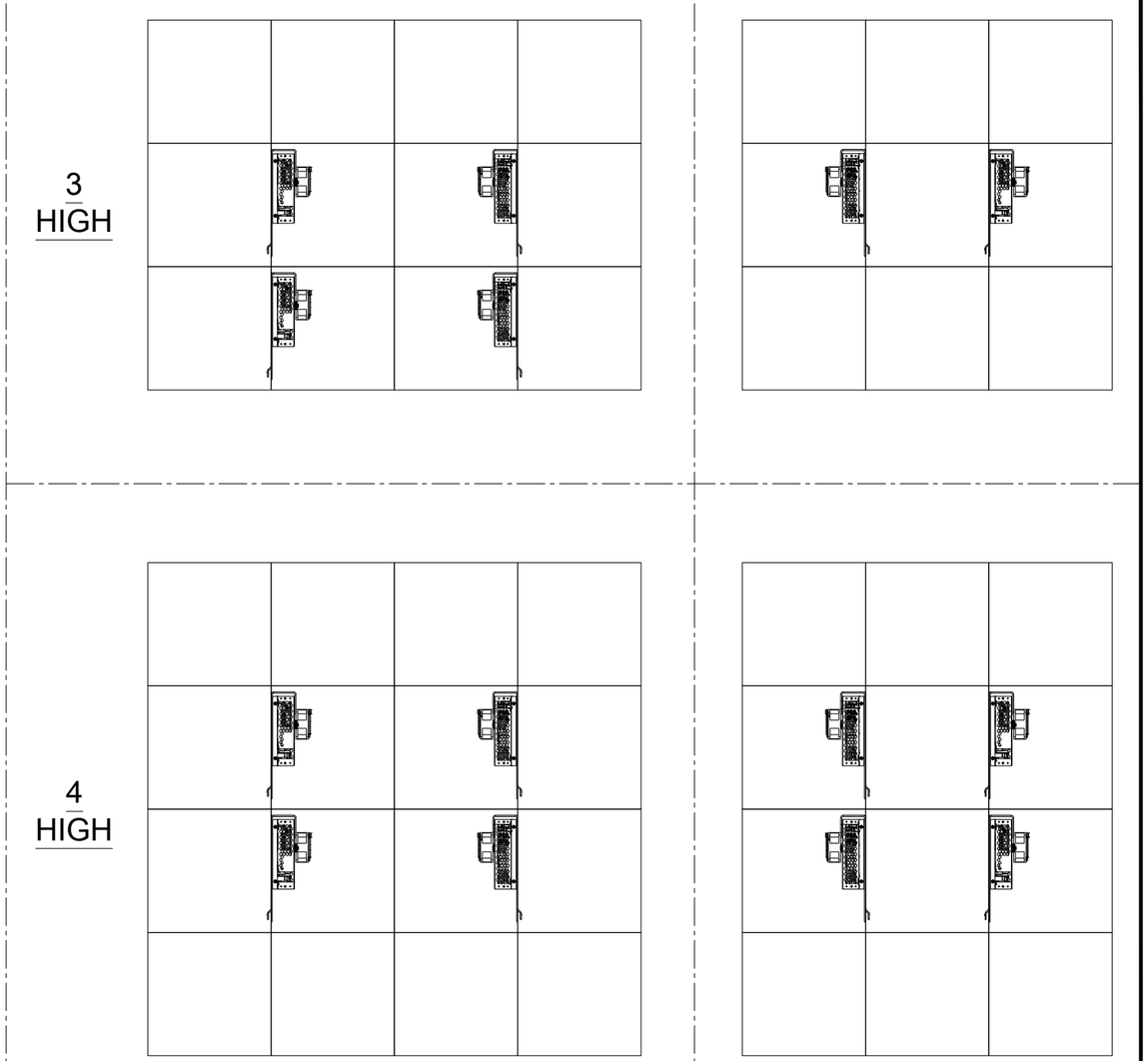


POWER SUPPLY PLACEMENT NOTES:

1. FRONT VIEW FOR EITHER FACE SHOWN TO THE RIGHT, THE POWER SUPPLY(IES) LOCATED TO THE LEFT WHILE FACING A SIDE ARE USED TO POWER MODS ON THAT SIDE
2. FACE 'A' INDICATOR IS LOCATED AT TOP LEFT OF FACE 'A' MODSHEET USING THE FOLLOWING SYMBOL:
3. FACE 'B' INDICATOR IS LOCATED AT TOP LEFT OF FACE 'B' MODSHEET USING THE FOLLOWING SYMBOL: B
4. INSTALL POWER SUPPLY ASSEMBLIES IN CABINETS AS SHOWN TO THE RIGHT. USE FINAL INTERFACE DRAWING FOR ASSEMBLY AND INSTALLATION DETAILS. CONNECT TWO PIN MINI-MNL FROM W-3926411 TO B-1103 FAN ON POWER SUPPLY ASSEMBLY

(S117) W-3926408
HARN; 3P M UMNL TO 3P MOLEX & F QUICK DISCONNECT

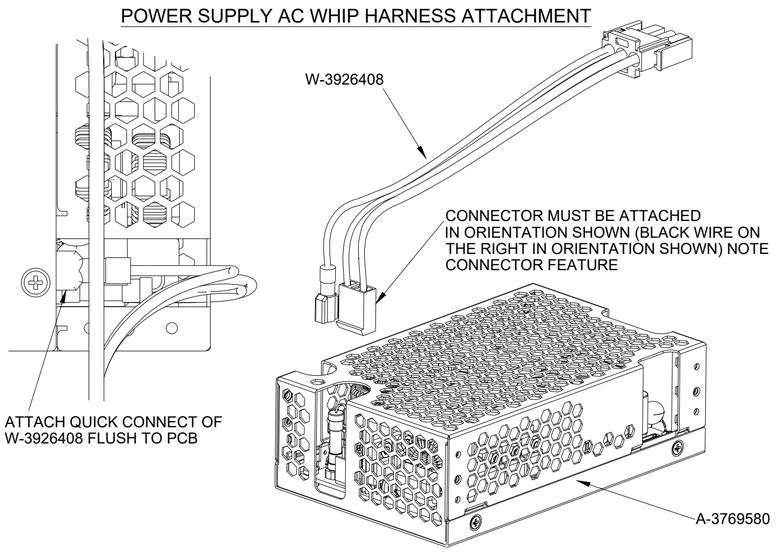
(S118) W-3926411
HARN; LOCKING FORKS TO 2 2P F UMNL & 2 P MMNL



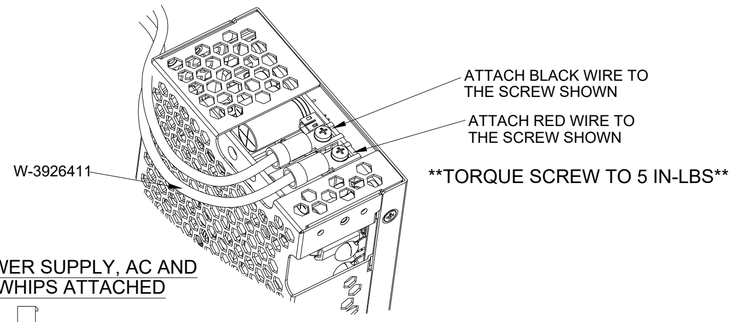
THIRD ANGLE PROJECTION

PROJECT:	DBN B1			
TITLE:	POWER SUPPLY WHIP WIRING AND LAYOUT, DBN B1			
DATE: 01 MAY 18	DIM UNITS: INCHES [MILLIMETERS]		SHEET	REV
SCALE: NONE	DO NOT SCALE DRAWING			00
DESIGN: SBRINK	JOB NO.	FUNC - TYPE - SIZE	3911146	
DRAWN: SBRINK	P2057	R - 01 - B		

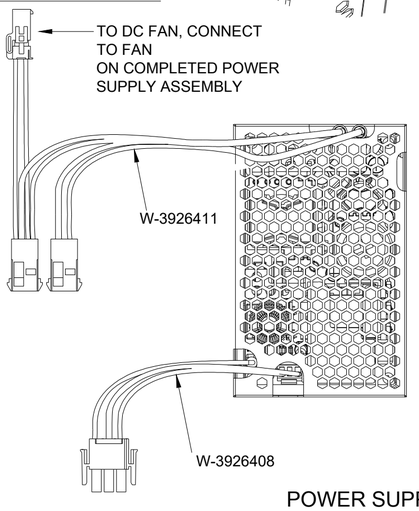
POWER SUPPLY AC WHIP HARNESS ATTACHMENT

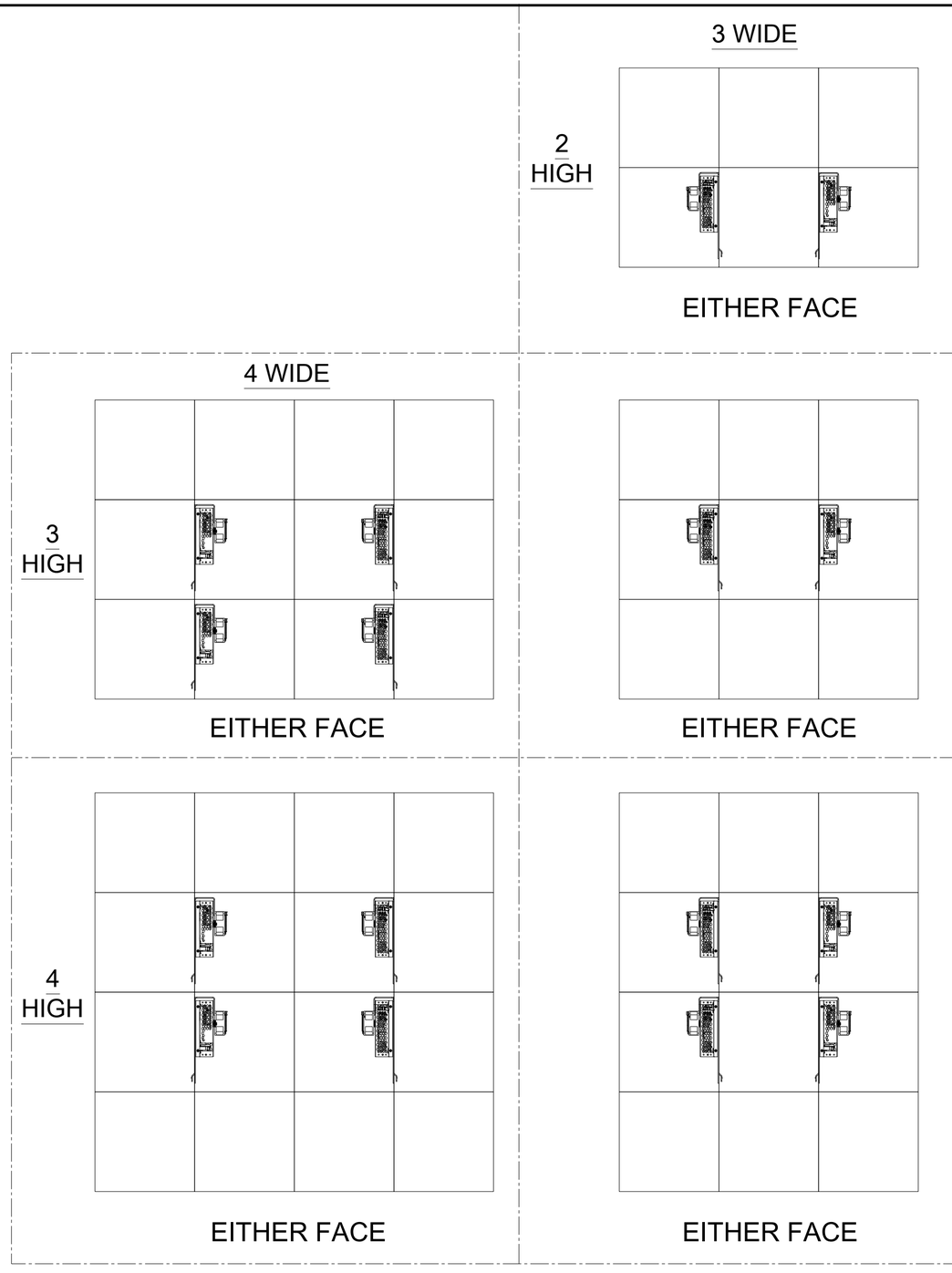


POWER SUPPLY DC WHIP HARNESS ATTACHMENT



POWER SUPPLY, AC AND DC WHIPS ATTACHED





POWER SUPPLY PLACEMENT NOTES:

1. FRONT VIEW FOR EITHER FACE SHOWN TO THE RIGHT, THE POWER SUPPLY(IES) LOCATED TO THE LEFT WHILE FACING A SIDE ARE USED TO POWER MODS ON THAT SIDE
2. FACE 'A' INDICATOR IS LOCATED AT TOP LEFT OF FACE 'A' MODSHEET USING THE FOLLOWING SYMBOL:
3. FACE 'B' INDICATOR IS LOCATED AT TOP LEFT OF FACE 'B' MODSHEET USING THE FOLLOWING SYMBOL:
4. INSTALL POWER SUPPLY ASSEMBLIES IN CABINETS AS SHOWN TO THE RIGHT. USE FINAL INTERFACE DRAWING FOR ASSEMBLY AND INSTALLATION DETAILS. CONNECT TWO PIN MINI-MNL FROM W-3926411 TO B-1103 FAN ON POWER SUPPLY ASSEMBLY

(S117) W-3926408
HARN; 3P M UMNL TO 3P MOLEX & F QUICK DISCONNECT

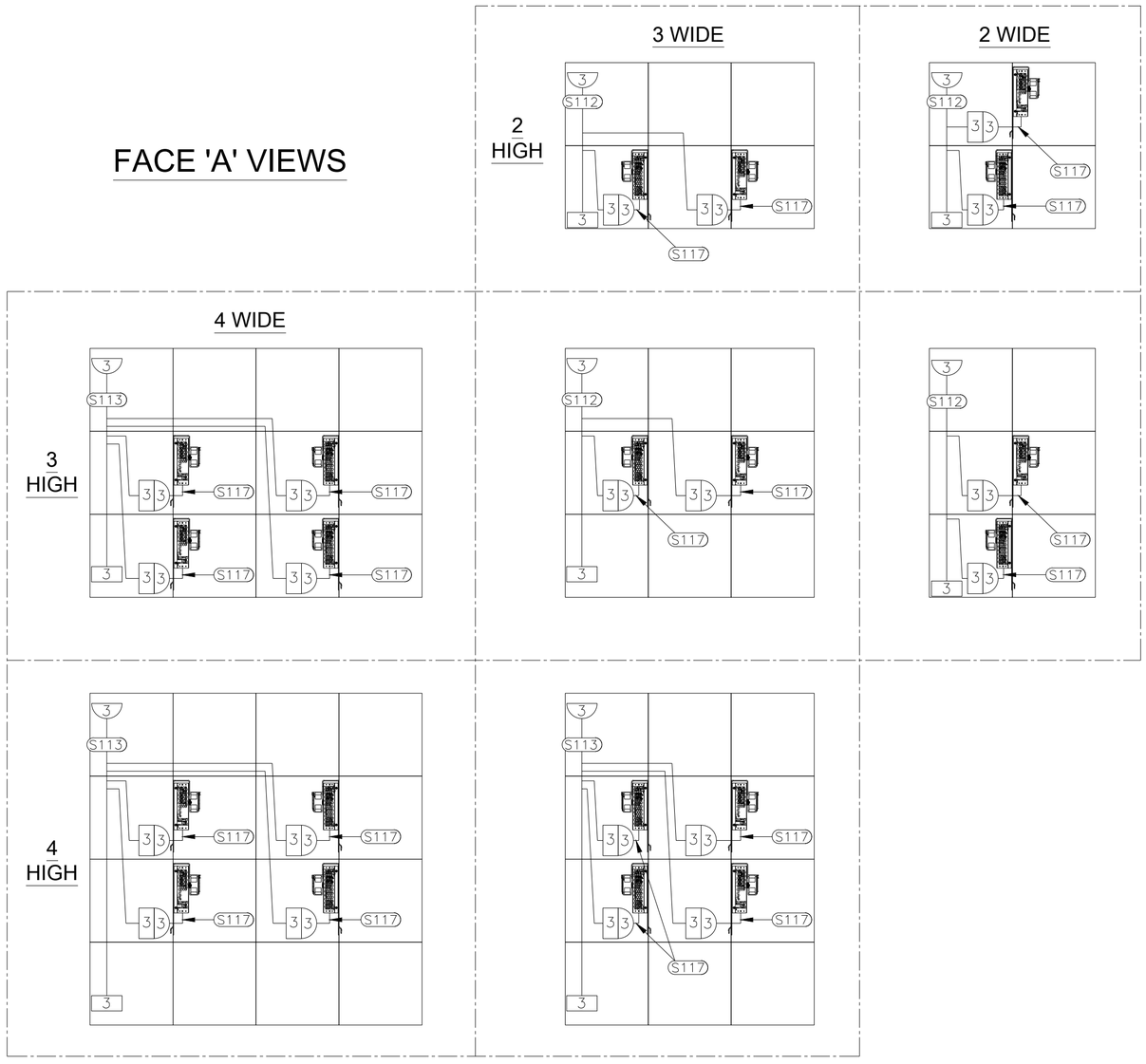
(S118) W-3926411
HARN; LOCKING FORKS TO 2 2P F UMNL & 2 P MMNL

REV	DATE:		BY:
01	25 SEP 19	PER CN-89253, ADDED 2X2, 2X3, AND 3X2 SECTION SIZES.	SMB

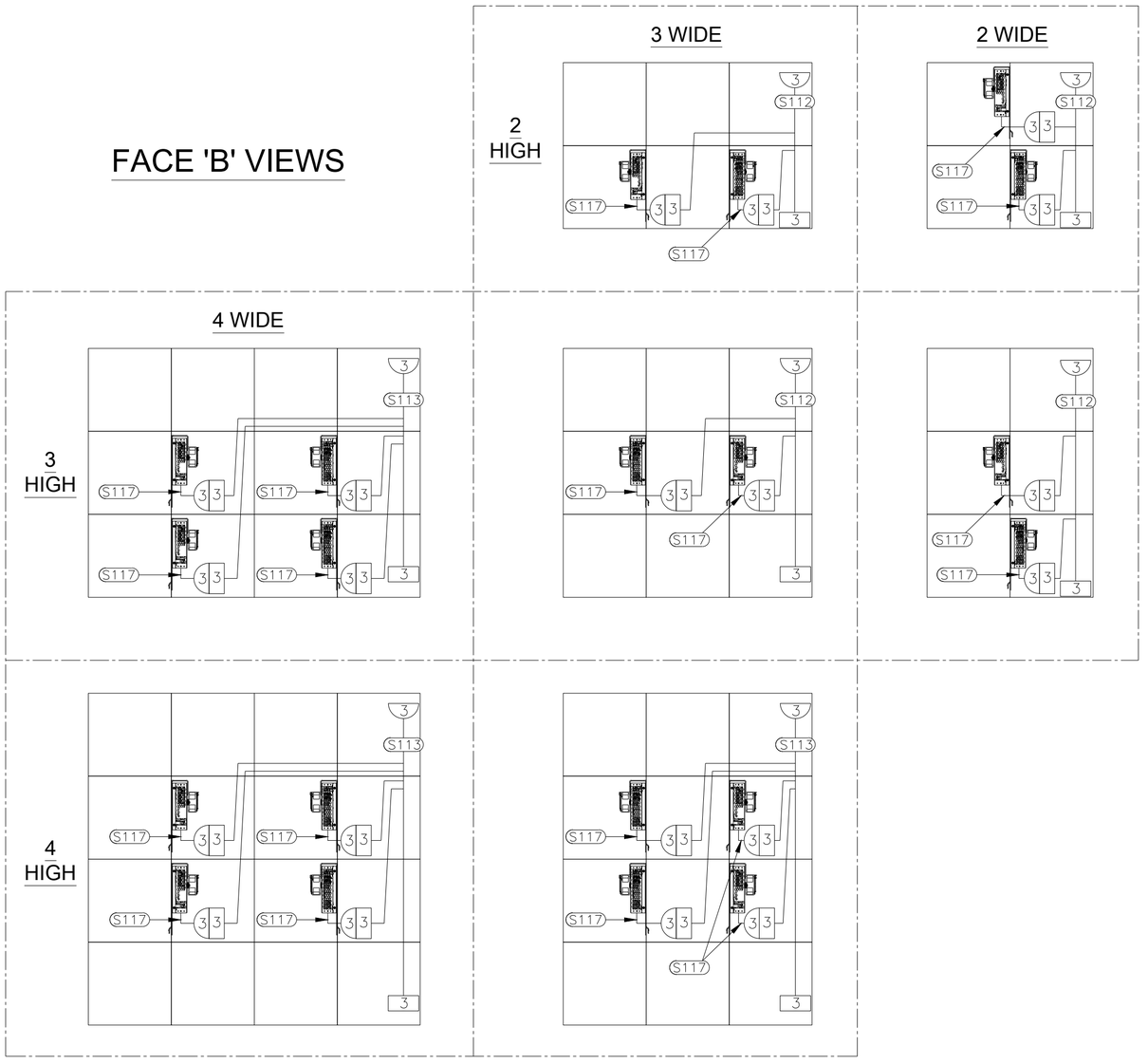
THIRD ANGLE PROJECTION

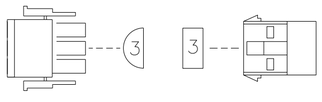
PROJECT:	DBN B1			
TITLE:	POWER SUPPLY WHIP WIRING AND LAYOUT, DBN B1			
DATE:	01 MAY 18	DIM UNITS: INCHES [MILLIMETERS]	SHEET	REV
SCALE:	NONE	DO NOT SCALE DRAWING		01
DESIGN:	SBRINK	JOB NO.	FUNC - TYPE - SIZE	3911146
DRAWN:	SBRINK	P2057	R - 01 - C	

FACE 'A' VIEWS



FACE 'B' VIEWS





(S112) W-3926399
HARN; 3P M UMLR TO 2 3P F UML AND 1 3P F UMLR

(S113) W-3926403
HARN; 3P M UMLR TO 4 3P F UML AND 1 3P F UMLR

(S117) W-3926408
HARN; 3P M UMNL TO 3P MOLEX & F QUICK DISCONNECT

PRIMARY HARNESSING NOTES:

1. ONLY ONE PRIMARY HARNESS IS REQUIRED PER CABINET, BOTH FACES ARE SHOWN TO INDICATE THAT THE PRIMARY HARNESS NEEDS TO BE ROUTED VERTICALLY, AND ON THE LEFT WHILE FACING FACE 'A' AND ON THE RIGHT WHILE FACING FACE 'B'
2. FACE 'A' INDICATOR IS LOCATED AT TOP LEFT OF FACE 'A' MODSHEET USING THE FOLLOWING SYMBOL:
3. FACE 'B' INDICATOR IS LOCATED AT TOP LEFT OF FACE 'B' MODSHEET USING THE FOLLOWING SYMBOL:

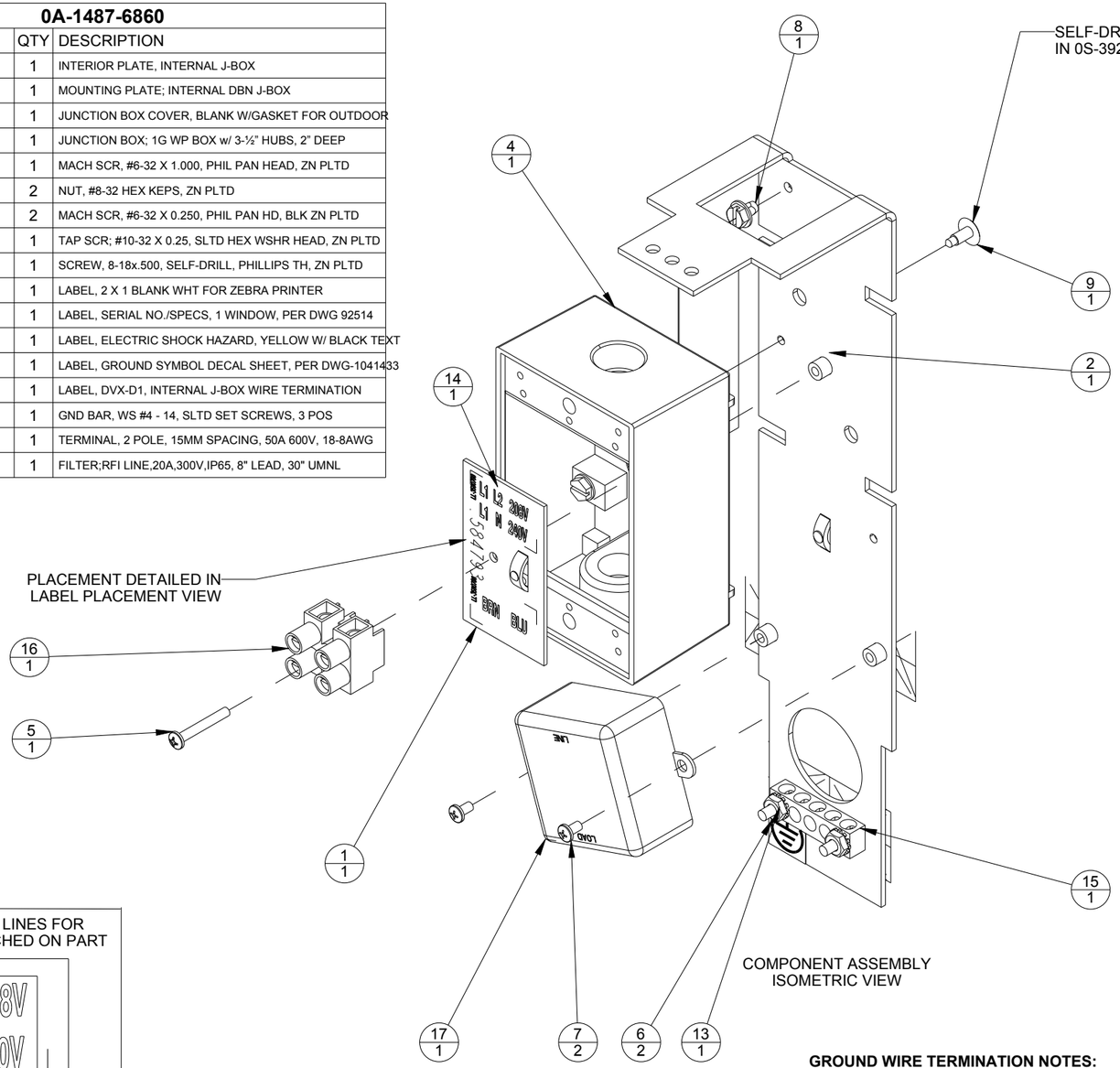
REV	DATE:		BY:	
02	25 SEP 19	PER CN-89253, ADDED 2X2, 2X3, AND 3X2 SECTION SIZES.	SMB	
01	06 AUG 18	PER CN-61407, CHANGED S113 TO S112 - CORRECT PRIMARY HARNESS.	SMB	

THIRD ANGLE PROJECTION

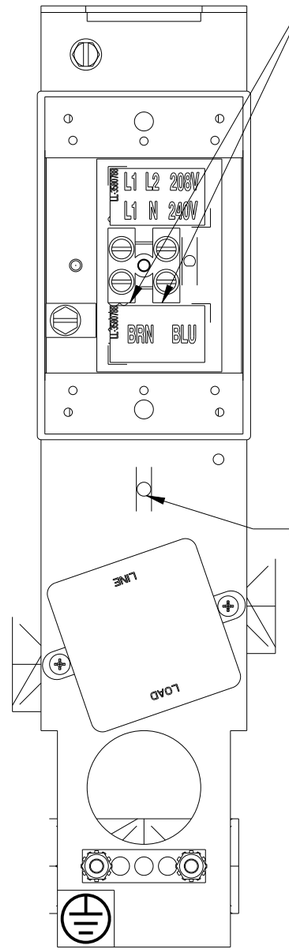
DAKTRONICS

PROJECT:	DBN B1			
TITLE:	BLOCK DIAGRAM; PRIMARY HARNESSING, DBN B1			
DATE:	09 MAY 18	DIM UNITS: INCHES [MILLIMETERS]	SHEET	REV
SCALE:	NONE	DO NOT SCALE DRAWING		02
DESIGN:	SBRINK	JOB NO. P2057	FUNC - TYPE - SIZE R - 01 - C	3917076
DRAWN:	SBRINK			

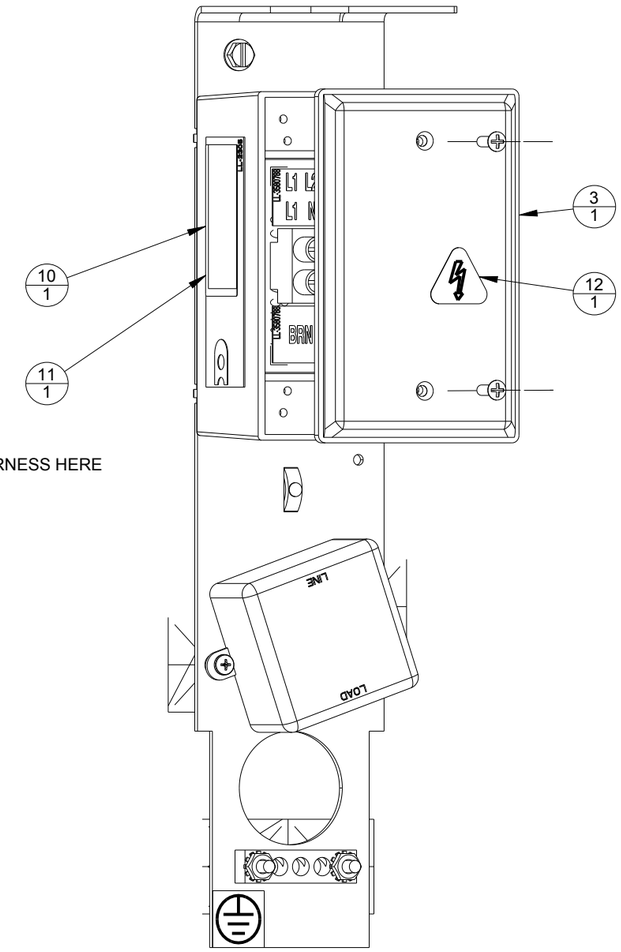
0A-1487-6860			
INDEX	NAME	QTY	DESCRIPTION
1	0M-3584793	1	INTERIOR PLATE, INTERNAL J-BOX
2	0S-3928459	1	MOUNTING PLATE; INTERNAL DBN J-BOX
3	EC-1081	1	JUNCTION BOX COVER, BLANK W/GASKET FOR OUTDOOR
4	EC-3604746	1	JUNCTION BOX; 1G WP BOX w/ 3-½" HUBS, 2" DEEP
5	HC-1141	1	MACH SCR, #6-32 X 1.000, PHIL PAN HEAD, ZN PLTD
6	HC-1354	2	NUT, #8-32 HEX KEPS, ZN PLTD
7	HC-1439	2	MACH SCR, #6-32 X 0.250, PHIL PAN HD, BLK ZN PLTD
8	HC-3601959	1	TAP SCR; #10-32 X 0.25, SLTD HEX WSHR HEAD, ZN PLTD
9	HC-3612828	1	SCREW, 8-18x.500, SELF-DRILL, PHILLIPS TH, ZN PLTD
10	LL-2285	1	LABEL, 2 X 1 BLANK WHT FOR ZEBRA PRINTER
11	LL-2305	1	LABEL, SERIAL NO./SPECS, 1 WINDOW, PER DWG 92514
12	LL-2602	1	LABEL, ELECTRIC SHOCK HAZARD, YELLOW W/ BLACK TEXT
13	LL-2812	1	LABEL, GROUND SYMBOL DECAL SHEET, PER DWG-1041433
14	LL-3580788	1	LABEL, DVX-D1, INTERNAL J-BOX WIRE TERMINATION
15	TB-1137	1	GND BAR, WS #4 - 14, SLTD SET SCREWS, 3 POS
16	TB-3565663	1	TERMINAL, 2 POLE, 15MM SPACING, 50A 600V, 18-8AWG
17	Z-3615891	1	FILTER;RFI LINE,20A,300V,IP65, 8" LEAD, 30" UMNL



COMPONENT ASSEMBLY
ISOMETRIC VIEW

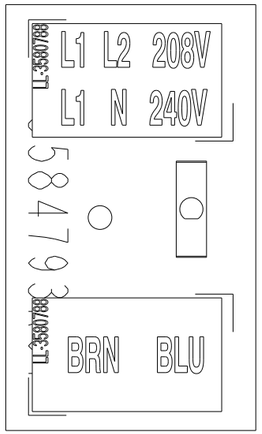


COMPONENT ASSEMBLY
FRONT VIEW



COVER ASSEMBLY
ISOMETRIC VIEW

ALIGNMENT LINES FOR
LABELS ETCHED ON PART



LABEL PLACEMENT
SCALE 1/1

GROUND WIRE TERMINATION NOTES:

1. SHORTEN EACH GROUND LEAD FROM THE FILTER HARNESSES BY 12IN TO 18IN
2. STRIP ENDS .39 IN (10MM)
3. TERMINATE TO OUTER LUGS ON GROUND BAR: TORQUE LUGS TO 25 IN-LBS

TORQUE SPECIFICATIONS

TB-3565663	10 IN-LBS
HC-1141	10 IN-LBS
HC-1354, GND BAR, TB-1137	39 IN-LBS
GND BAR TERMINAL, TB-1137	25 IN-LBS
HC-1439	10 IN-LBS
*HC-3601959	10 IN-LBS
HC-3612828	25 IN-LBS
EC-1081 COVER SCREWS	3 IN-LBS

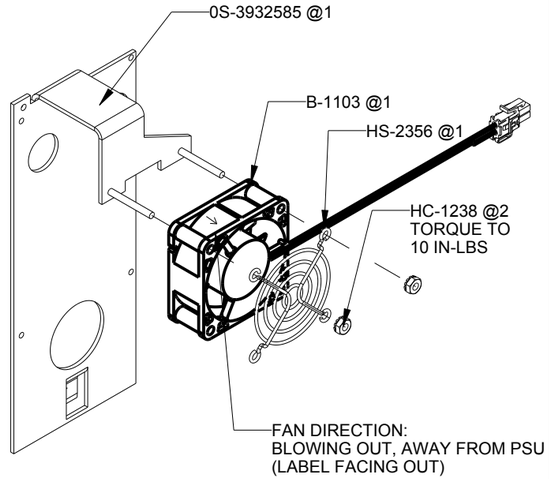
*START HC-3601959 SCREWS TO 10 IN-LBS,
THEY WILL BE REMOVED IN THE FIELD

REV	DATE:		BY:	
01	13 AUG 18	PER CN 61407: ROTATED LL-2812 180 DEGREES, ALSO ADDED GROUNDWIRE TERMINATION NOTES	JWM 17758	

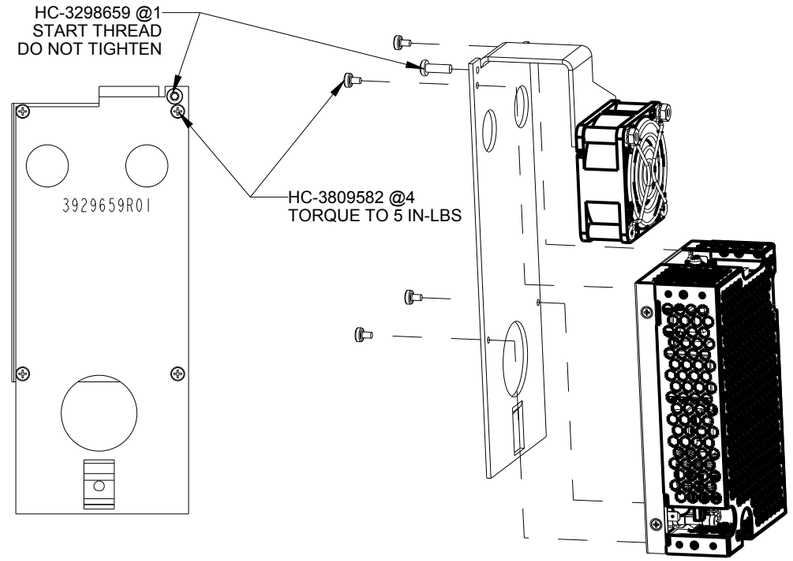
DAKTRONICS

THIRD ANGLE PROJECTION

PROJECT:	DBN PROTO			
TITLE:	ASSY; INTERNAL DBN JBOX W/ 20A, 300V POTTED FILTER			
DATE:	13-AUG-18	DIM UNITS: INCHES [MILLIMETERS]	SHEET	REV
SCALE:	1/2	DO NOT SCALE DRAWING	1 OF 1	01
DESIGN:	JMORROW	JOB NO. / FUNC - TYPE - SIZE		
DRAWN:	JMORROW	P2057 / E - 10 - B	3928461	



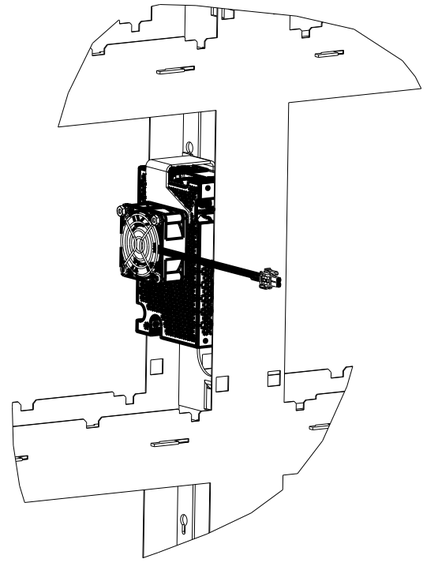
FAN TO PS BRACKET
ROTATED FRONT VIEW
SCALE 1199/3600



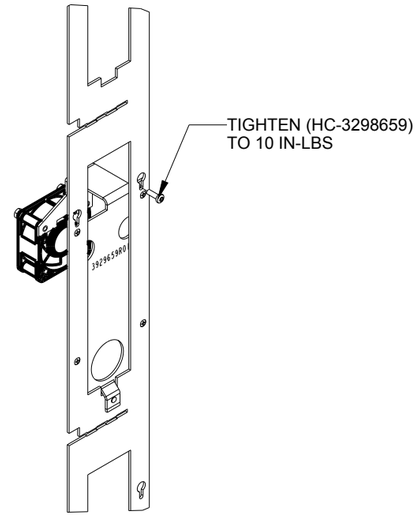
POWER SUPPLY
TO PS BRACKET
REAR VIEW
SCALE 1/3

POWER SUPPLY
TO PS BRACKET
ROTATED FRONT VIEW
SCALE 1/3

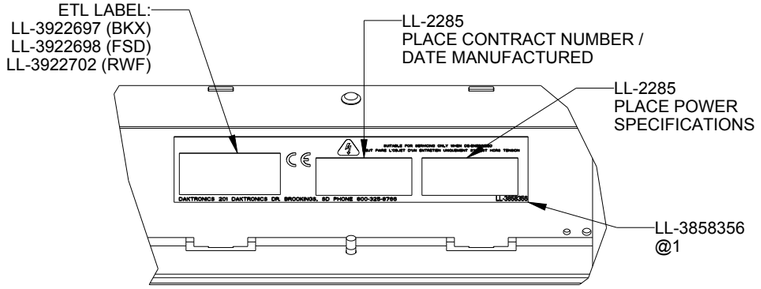
NOTE: POWER SUPPLY LOCATION IN CABINET SHOWN IN DWG-03911146



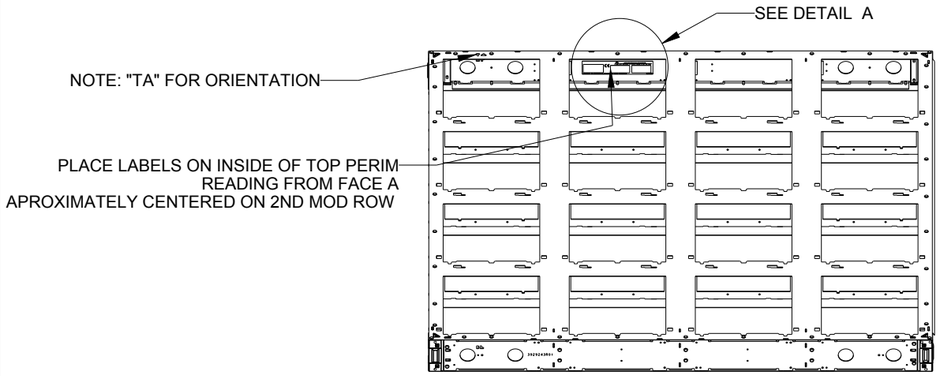
PS BRACKET
TO VERTICAL
ROTATED FRONT VIEW
SCALE 1/5



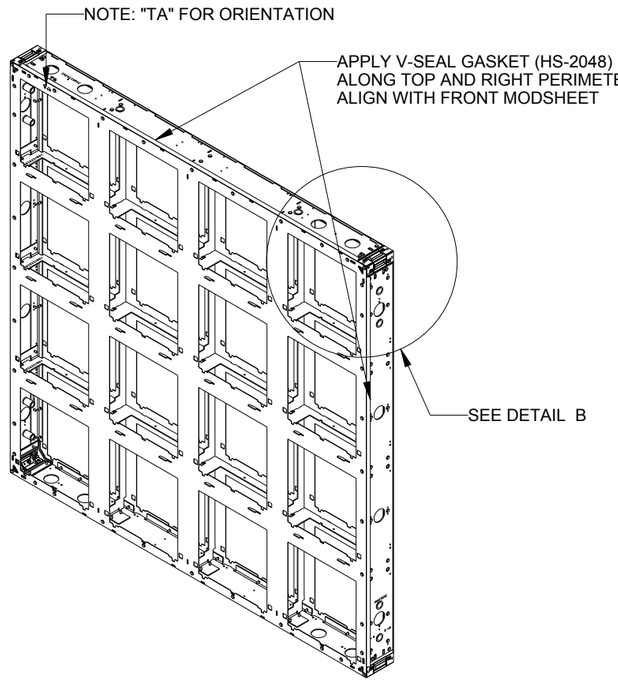
PS BRACKET
TO VERTICAL
ROTATED HIDDEN REAR VIEW
SCALE 1/5



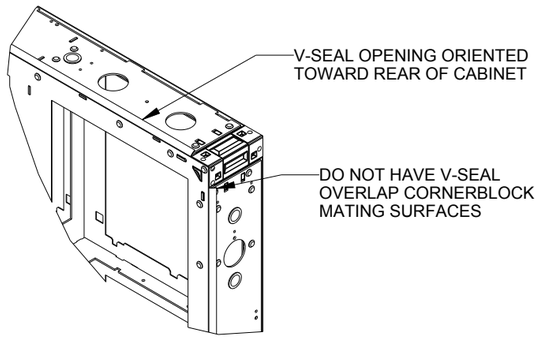
DETAIL A
SCALE 1/3



LABEL PLACEMENT
ANGLED FRONT / BOTTOM VIEW



V-SEAL TO CABINET
ROTATED FRONT VIEW



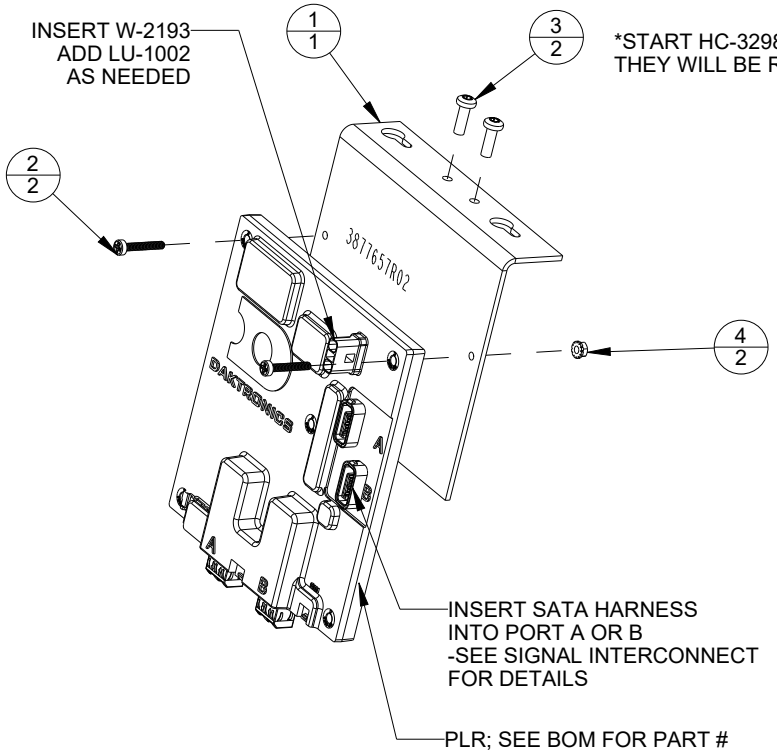
DETAIL B
SCALE 2/15

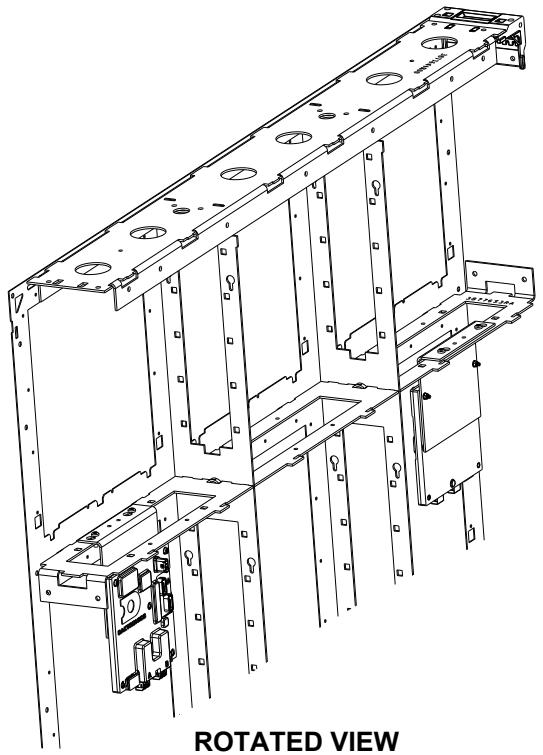
REV	DATE:		BY:
1	16 AG 18	CN-61407 MOVED LEADER NOTE SO YOU COULD SEE TEXT	MGH 10679

THIRD ANGLE PROJECTION

PROJECT:	DBN-B1			
TITLE:	FINAL INTERFACE AND LABEL PLACEMENT; DBN-B1			
DATE:	16-AUG-18	DIM UNITS: INCHES [MILLIMETERS]	SHEET	REV
SCALE:	1/15	DO NOT SCALE DRAWING	1 OF 1	01
DESIGN:	MHILLMAN	JOB NO. / FUNC - TYPE - SIZE		
DRAWN:	MHILLMAN	P2057 / E - 10 - B	3929260	

Part # - DWG-03929260 | Version - 01.2 | Description - N B FINAL INTERFACE AND LABEL PLACEMENT; DBN-B1 | Lifecycle State - Full Production | Last Modified By - rbjerke | Last Modified - 2018-08-23





ROTATED VIEW
SCALE 1/8

NOTE:
SIDE PERIMETER AND BACK PERIMETER REMOVED TO INDICATE PLR MOUNTING LOCATION IN THE SECTIONS. SEE SIGNAL INTERCONNECT TO DETERMINE WHICH SECTIONS GET A PLR.
PLR'S ARE TO BE INSTALLED TOWARD THE FACE THEY ARE PROVIDING SIGNAL TO. THEY SHOULD BE LOCATED IN THE SECOND MOD ROW FROM THE TOP IN THE OUTERMOST MOD BAY.

0A-1487-6027

INDEX	NAME	QTY	DESCRIPTION
1	0M-3877657	1	P2057_PLR_MOUNTING_PLATE
2	HC-1924	2	MACH SCR; M3 X 20, CROSS RECESSED RAISED CHEESE HEA
3	HC-3298659	2	TAP SCR; #8-32 X 0.500, TORX PAN HEAD, ZN PLTD
4	HC-3401139	2	NUT, M3 HEX KEPS, SS304

TORQUE SPECIFICATIONS

HC-1924	5 IN-LBS
*HC-3298659	10 IN-LBS
HC3401139	5 IN-LBS

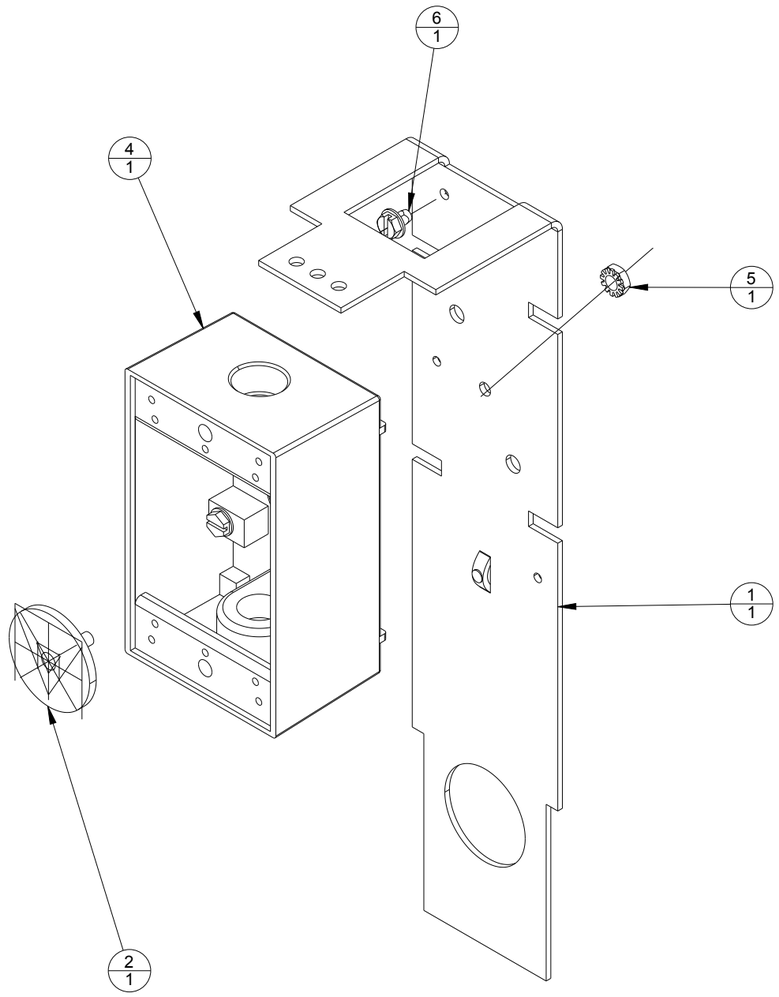
*START HC-3298659 SCREWS,
THEY WILL BE REMOVED IN THE FIELD

REV:	DATE:	DESCRIPTION:	BY:	
05	20 OCT 20	PER CN-111191; CHANGED THE LENGTH AND ANGLE OF 0M-3877657 UPDATED VIEWS	KCS 12284	
04	14 JAN 19	PER CN-67532; REMOVED PLR PART NUMBER REPLACED WITH "SEE BOM FOR PART #"	MJR 8089	
03	07 AUG 18	PER CN-61407; ADDED CORRECT W-PART, NOTE TO START SCREWS PRIOR TO SHIPPING	SMB 11884	

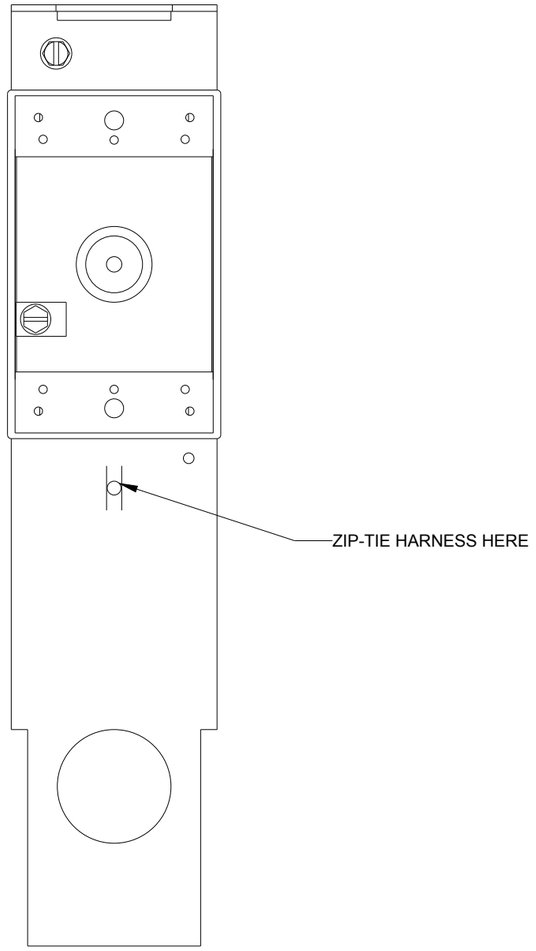
THIRD ANGLE PROJECTION

PROJECT:	DBN-B1			
TITLE:	ASSY; PLR 6052 ENCAPSULED W/MTG, DBN-B1			
DATE:	20-OCT-20	DIM UNITS: INCHES [MILLIMETERS]	SHEET	REV
SCALE:	1/3	DO NOT SCALE DRAWING		05
DESIGN:	EWOLFF	JOB NO. / FUNC - TYPE - SIZE		3931970
DRAWN:	EWOLFF	P2057 / F - 01 - A		

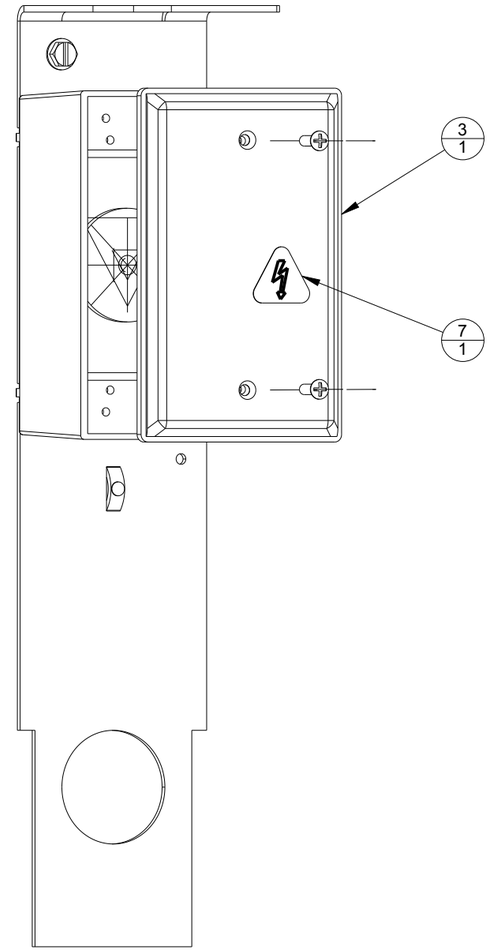
0A-1487-6861			
INDEX	NAME	QTY	DESCRIPTION
1	0M-3933102	1	MTG PLATE, JBOX AND Z-FILTER, DBN-G2
2	0S-1520-7000	1	1.5" HOLE SEAL BTM DISK INSERTION ASSY
3	EC-1081	1	JUNCTION BOX COVER, BLANK W/GASKET FOR OUTDOOR
4	EC-3604746	1	JUNCTION BOX; 1G WP BOX w/ 3-½" HUBS, 2" DEEP
5	HC-1243	1	NUT, #10-24 HEX KEPS, ZN PLTD
6	HC-3601959	1	TAP SCR; #10-32 X 0.25, SLTD HEX WSHR HEAD, ZN PLTD
7	LL-2602	1	LABEL, ELECTRIC SHOCK HAZARD, YELLOW W/ BLACK TEXT



COMPONENT ASSEMBLY
ISOMETRIC VIEW



COMPONENT ASSEMBLY
FRONT VIEW



COVER ASSEMBLY
ISOMETRIC VIEW

TORQUE SPECIFICATIONS

HC-1243	25 IN-LBS
*HC-3601959	10 IN-LBS
EC-1081 COVER SCREWS	3 IN-LBS

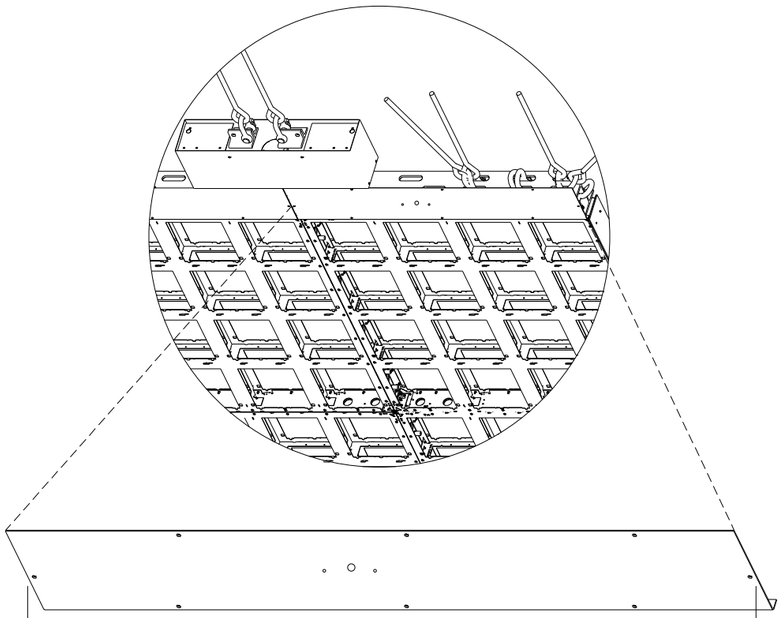
*START HC-3601959 SCREWS TO 10 IN-LBS,
THEY WILL BE REMOVED IN THE FIELD

THIRD ANGLE PROJECTION

PROJECT:	DBN PROTO			
TITLE:	ASSY; INTERNAL DBN JBOX W/ 20A, 300V POTTED FILTER			
DATE: 04-JUN-18	DIM UNITS: INCHES [MILLIMETERS]		SHEET	REV
SCALE: 1/2	DO NOT SCALE DRAWING		1 OF 1	00
DESIGN: JMORROW	JOB NO.	FUNC - TYPE - SIZE	3933764	
DRAWN: JMORROW	P2057	E - 10 - B		

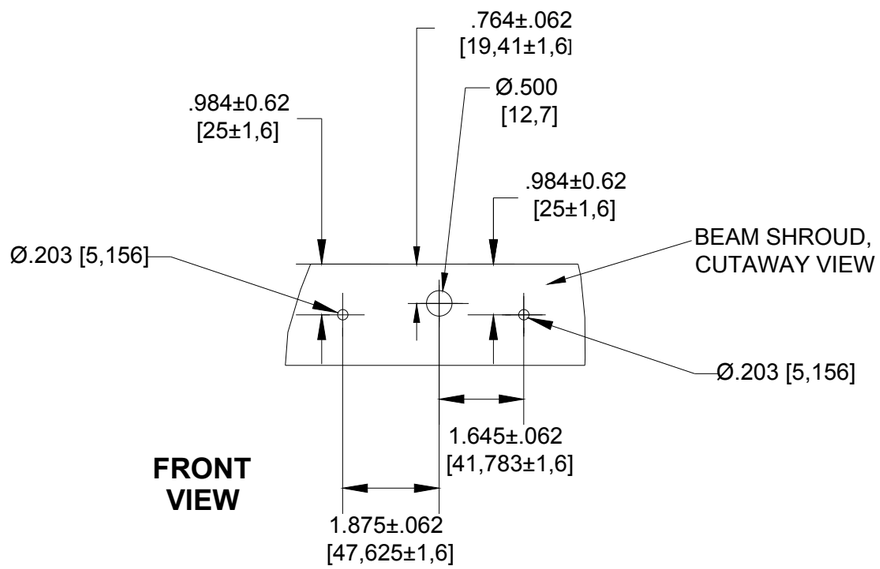
Part # - 0A-1487-6861 | Version - 00.1 | Description - INTERNAL DBN JBOX | Lifecycle State - Full Production | Last Modified By - jmorrow | Last Modified - 2018-06-04

BEAM SHROUD MODIFICATIONS FOR SINGLE DIRECTION LIGHT SENSOR



CHOOSE A LOCATION FOR THE LIGHT SENSOR ON THE BEAM SHROUD THAT MINIMIZES INTERFERENCE FROM BEHIND THE SHROUD, AND THAT MAXIMIZES LIGHT SENSOR FUNCTIONALITY AND AESTHETICS

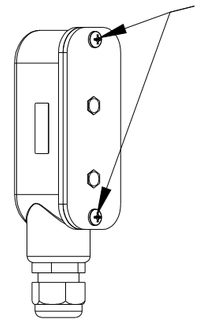
REQUIRED FIELD-DRILLED HOLES FOR LIGHT SENSOR INSTALLATION



FRONT VIEW

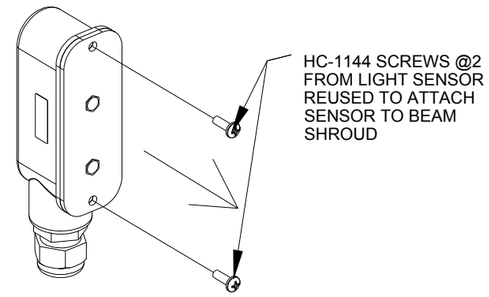
LIGHT SENSOR INSTALLATION STEPS

STEP 1 - LIGHT SENSOR



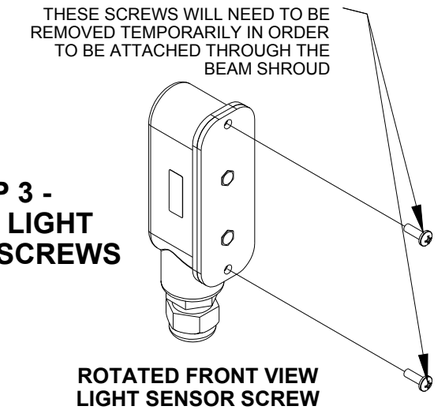
ROTATED FRONT VIEW LIGHT SENSOR ASSEMBLY

STEP 2 - REMOVE LIGHT SENSOR SCREWS



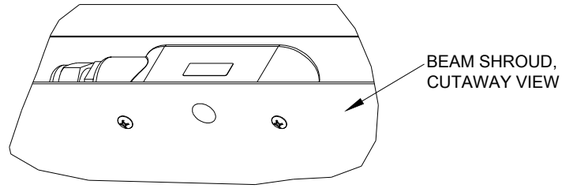
FRONT ROTATED VIEW LIGHT SENSOR TO BEAM SHROUD EXPLODED

STEP 3 - RETAIN LIGHT SENSOR SCREWS

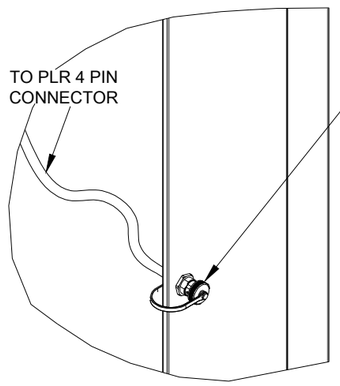


ROTATED FRONT VIEW LIGHT SENSOR SCREW REMOVED

STEP 4 - USE LIGHT SENSOR SCREWS TO ATTACH SENSOR TO BEAM SHROUD



FRONT ROTATED VIEW LIGHT SENSOR TO BEAM SHROUD ASSEMBLED



CONNECT PANEL MOUNT JACK FROM W-3201024 HARNESS, FOUND IN LIGHT SENSOR KIT, TO INTERNAL CABINET MEMBER. W-3201024 IS USED TO TRANSITION FROM LIGHT SENSOR HARNESS TO PLR.

PANEL MOUNT JACK MUST BE INSTALLED WITHIN 60" (152.4CM)OF NEAREST PLR, AND WITHIN 42" (106.68CM) OF LIGHT SENSOR.

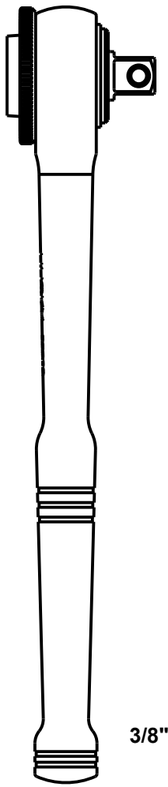
THE CONNECTION BETWEEN CABLES MAY ALSO BE MADE WITHOUT INSTALLING THE PANEL MOUNT JACK. WRAP EXCESS CABLE AND SECURE.

STEP 5 - CONNECT LIGHT SENSOR HARNESS WITH HARNESS FROM LIGHT SENSOR KIT TO TRANSITION TO PLR

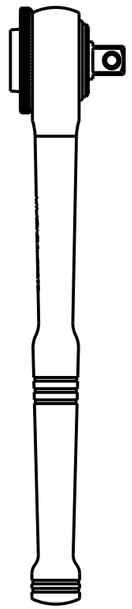
THIRD ANGLE PROJECTION

PROJECT:	DBN B1			
TITLE:	SINGLE DIRECTION LIGHT SENSOR MTG & INSTALL			
DATE: 12 JUL 18	DIM UNITS: INCHES [MILLIMETERS]		SHEET	REV
SCALE: NONE	DO NOT SCALE DRAWING			00
DESIGN: SBRINK	JOB NO.	FUNC - TYPE - SIZE	3966831	
DRAWN: SBRINK	P2057	R - 01 - B		

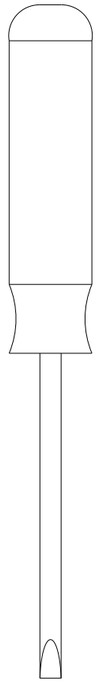
REQUIRED TOOLS (NOT PROVIDED)



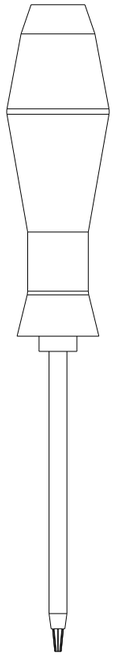
1/2" DRIVE RATCHET



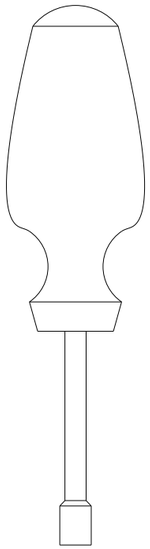
3/8" DRIVE RATCHET



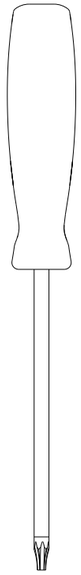
1/4" SLOTTED SCREW DRIVER



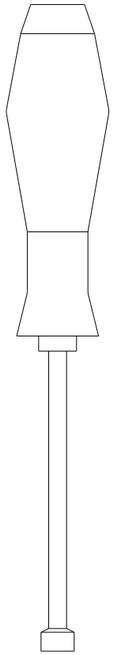
#2 PHILIPS SCREWDRIVER



5/16" NUT DRIVER



T20 TORX SCREWDRIVER

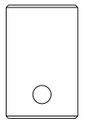


10MM NUT DRIVER

4FT LEVEL

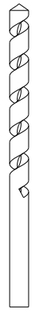
10MM SOCKET 3/8" DRIVE

PHILLIPS DRIVER



19MM SOCKET 1/2" DRIVE

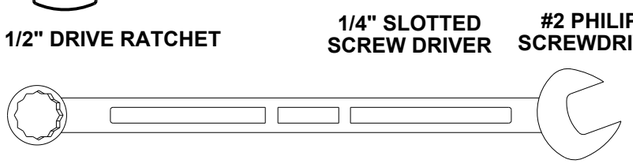
T20 TORX DRIVER



1/2" (13MM) DRILL BIT

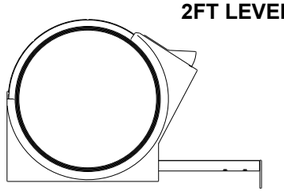
13/64" (5MM) DRILL BIT

2FT LEVEL



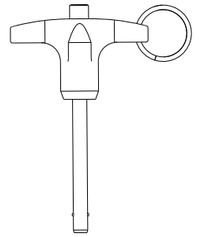
19MM COMBINATION WRENCH

10MM COMBINATION WRENCH

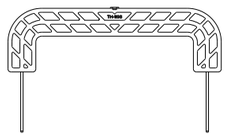


TAPE MEASURE

REQUIRED TOOLS (PROVIDED)



6/10MM HELIOS MOD REMOVAL TOOL P/N# TH-1190

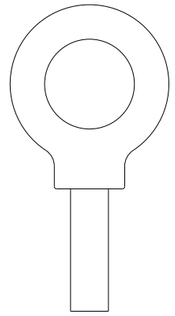


4MM HELIOS MOD REMOVAL TOOL P/N# TH-1198

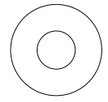
REQUIRED HARDWARE (PROVIDED)

#8-32 X .5" TAP SCREW TORX PAN HEAD USED FOR PLR AND POWER SUPPLIES PN# HC-3298659

M6X1 NUT HEX HEAD ZINC PLATED USED FOR SECTION TO BEAM CONNECTION PN# 3937323

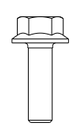


M12X1.75 - 38MM LENGTH EYE BOLT PN# HC-3485324



1/4" FLAT WASHER SAE ZINC PLATED USED FOR SECTION TO BEAM CONNECTION PN# HC-1090

M6X1 - 90MM LENGTH HEX HEAD CLASS 8.8 FULLY THREADED USED FOR SECTION TO BEAM CONNECTION PN# HC-3937324

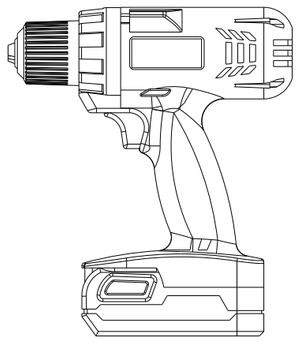


M6X1 - 22MM LENGTH HEX HEAD W/ SERRATED FLANGE USED FOR CABINET INTERCONNECT PN# HC-3464941

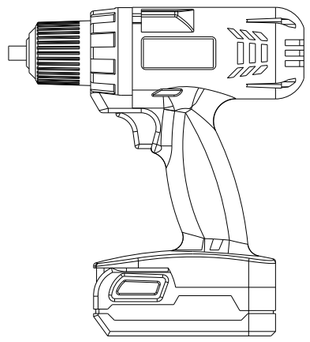
#8-32 X 0.75" TAP SCREW TORX PAN HEAD USED AS JACKING HARDWARE BETWEEN CABINETS PN# HC-3829059

#6-18 X .750" TAP SCREW BLACK PHILIPS FLAT HEAD FOR BORDERS PN# HC-3964156

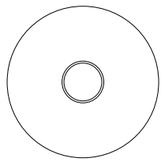
SUGGESTED TOOLS (NOT PROVIDED)



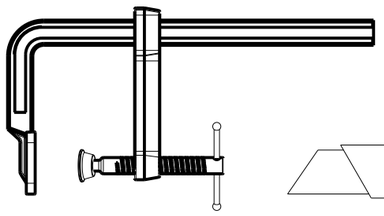
CORDLESS DRILL



CORDLESS IMPACT DRILL

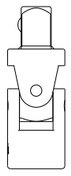


ELECTRICAL TAPE



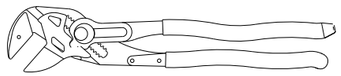
12" C-CLAMP

UTILITY KNIFE



3/8" SWIVEL EXTENSION

5/16 NUT DRIVER BIT



TONGUE AND GROOVE PLIERS (CHANNEL LOCK)

NOTES:

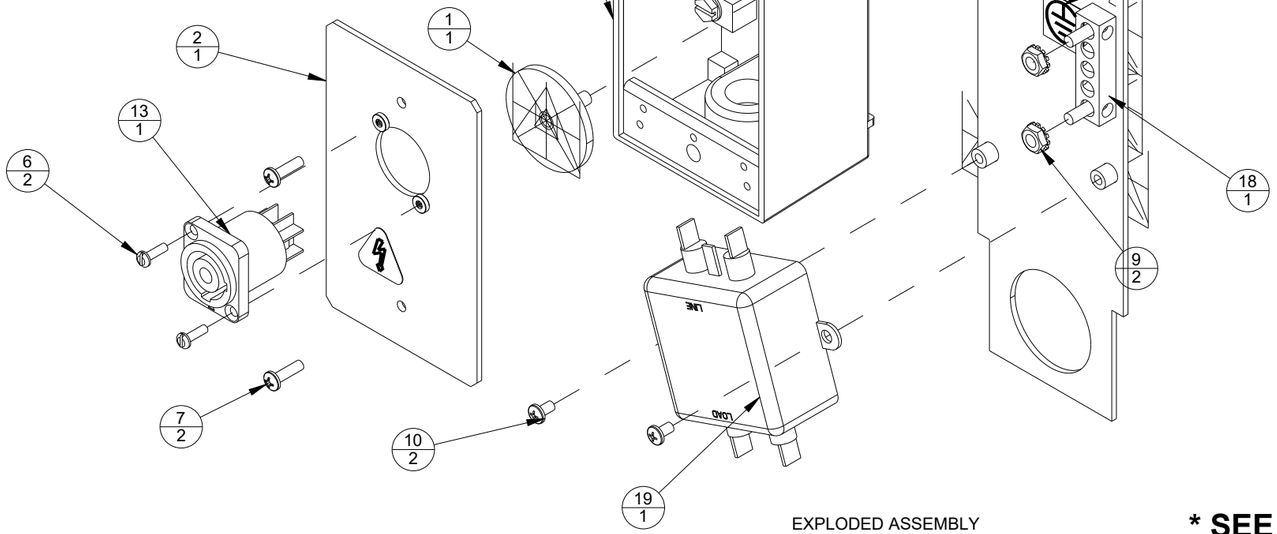
-TOOLS LISTED IN ( ) ARE SUITABLE SUBSTITUTES IF THE CORRECT SIZE IS UNAVALIABLE

REV	DATE:		BY:	

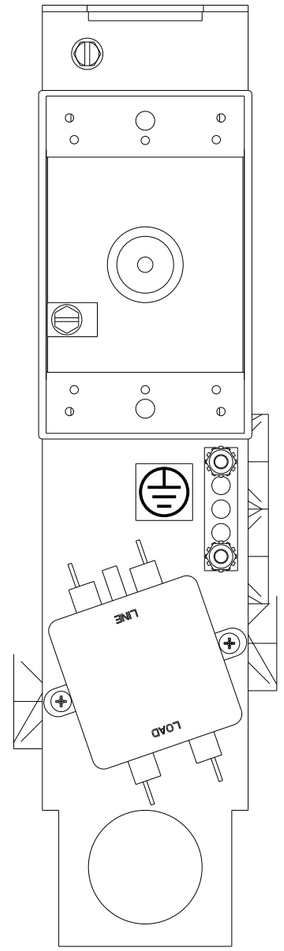
THIRD ANGLE PROJECTION

PROJECT:	DBN-301, DBN B1			
TITLE:	RECOMMENDED TOOLS AND HARDWARE; DBN B1			
DATE:	13-AUG-18	DIM UNITS: INCHES [MILLIMETERS]	SHEET	REV
SCALE:	N.A.	DO NOT SCALE DRAWING	1 OF 1	00
DESIGN:	MHILLMA	JOB NO. / FUNC - TYPE - SIZE		
DRAWN:	IFREDRI	P2057 / F - 07 - B	3981738	

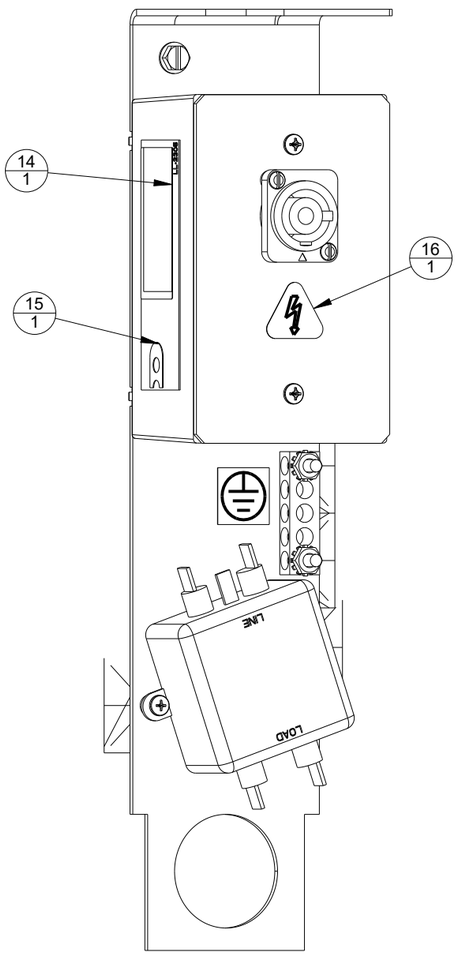
0A-1487-6863			
INDEX	NAME	QTY	DESCRIPTION
1	0S-1520-7000	1	1.5" HOLE SEAL BTM DISK INSERTION ASSY
2	0S-4182122	1	Outlet 0s assembly
3	0S-4186671	1	MOUNTING PLATE; INTERNAL J-BOX
4	EC-3604746	1	JUNCTION BOX; 1G WP BOX w/ 3-½" HUBS, 2" DEEP
5	EC-3604746_PLUG	1	PLUG FROM EC-3604746 J-BOX
6	HC-1004	2	MACH SCR, #4-40 X 0.375, PHIL PAN HEAD, ZN PLTD
7	HC-1014	2	MACH SCR, #6-32 X 0.500, PHIL PAN HEAD, ZN PLTD
8	HC-1243	1	NUT, #10-24 HEX KEPS, ZN PLTD
9	HC-1354	2	NUT, #8-32 HEX KEPS, ZN PLTD
10	HC-1439	2	MACH SCR, #6-32 X 0.250, PHIL PAN HD, BLK ZN PLTD
11	HC-3601959	1	TAP SCR; #10-32 X 0.25, SLTD HEX WSHR HEAD, ZN PLTD
12	HC-3612828	1	SCREW, 8-18x.500, SELF-DRILL, PHILLIPS TH, ZN PLTD
13	J-1493	1	JACK; 3 PIN FEM, CIRC, POWERCON, NEUTRIK, POWER IN
14	LL-2285	1	LABEL, 2 X 1 BLANK WHT FOR ZEBRA PRINTER
15	LL-2305	1	LABEL, SERIAL NO./SPECS, 1 WINDOW, PER DWG 92514
16	LL-2602	1	LABEL, ELECTRIC SHOCK HAZARD, YELLOW W/ BLACK TEXT
17	LL-2812	1	LABEL, GROUND SYMBOL DECAL SHEET, PER DWG-1041433
18	TB-1137	1	GND BAR, WS #4 - 14, SLTD SET SCREWS, 3 POS
19	Z-1007	1	FILTER; RFI LINE, B SERIES 20 AMP
20	0A-2057-9000	1	HARN; 3F UMLR TO F TERMINALS, FILTER TO POWERCON



EXPLODED ASSEMBLY
ROTATED FRONT VIEW



ASSEMBLY W/O COVER
FRONT VIEW



FULL ASSEMBLY
ISOMETRIC VIEW

*** SEE DWG-4202155 FOR HARNESS INSTALL DETAILS.**

TORQUE SPECIFICATIONS

HC-1004	5 IN-LBS
HC-1354, GND BAR, TB-1137	39 IN-LBS
GND BAR TERMINAL, TB-1137	25 IN-LBS
*HC-3601959	10 IN-LBS
HC-1014	3 IN-LBS
HC-1439	10 IN-LBS
HC-1243	25 IN-LBS
E-3604746_PLUG	10 IN-LBS
HC-3162828	25 IN-LBS

*START HC-3601959 SCREWS TO 10 IN-LBS, THEY WILL BE REMOVED IN THE FIELD

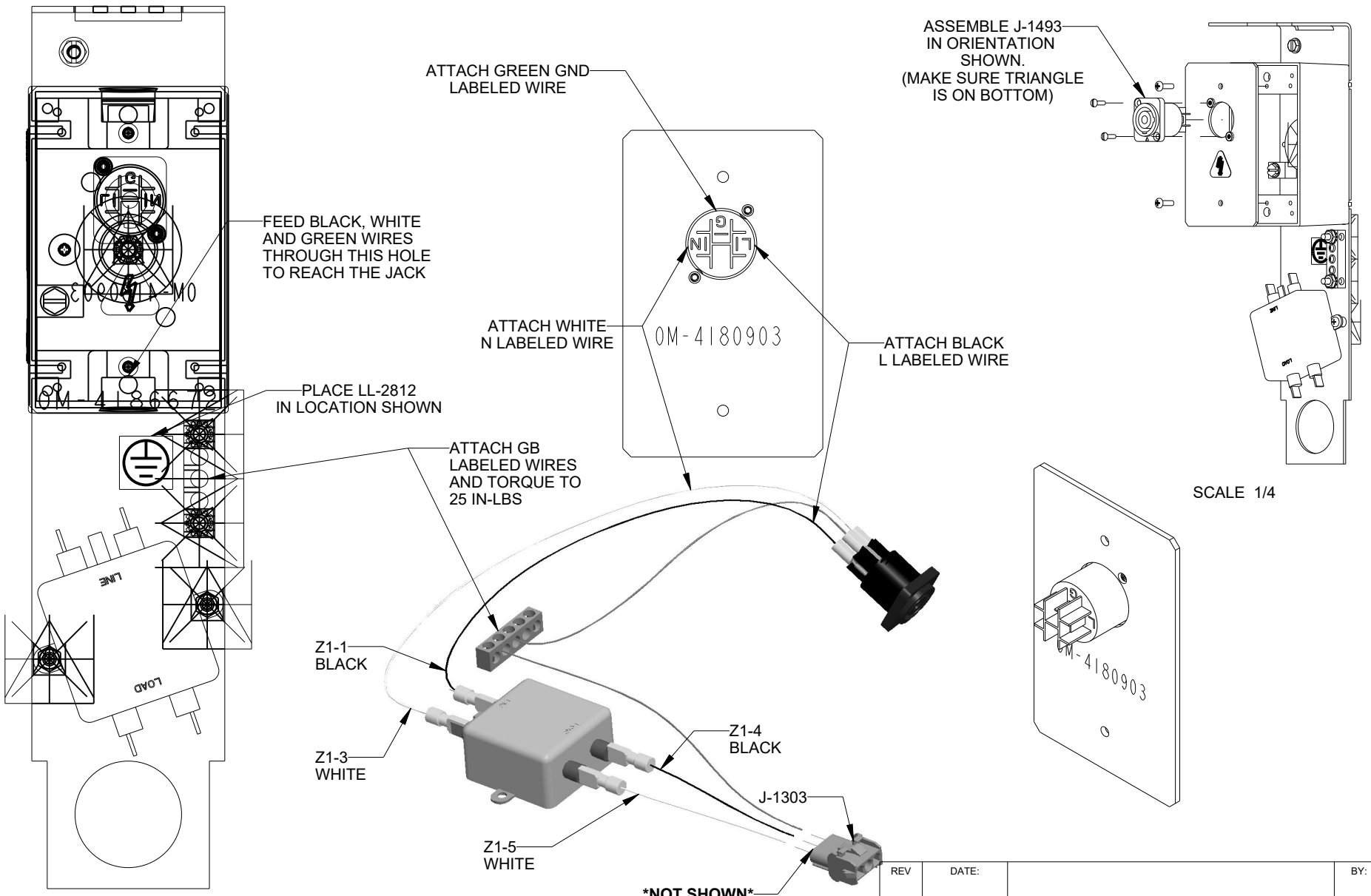
**** SHIP P-1351 @1 WITH 0A-1487-6863****

REV	DATE:		BY:	

DAKTRONICS

THIRD ANGLE PROJECTION

PROJECT:	DBN B1		
TITLE:	ASSY; DBN-301 POWERCON J-BOX W/ 20A FILTER		
DATE: 07-JUN-19	DIM UNITS: INCHES [MILLIMETERS]	SHEET	REV
SCALE: 1/2	DO NOT SCALE DRAWING	1 OF 1	00
DESIGN: AMEIDT	JOB NO. P2057	FUNC - TYPE - SIZE E - 10 - B	4186674
DRAWN: AMEIDT			



REV	DATE:		BY:	

THIRD ANGLE PROJECTION

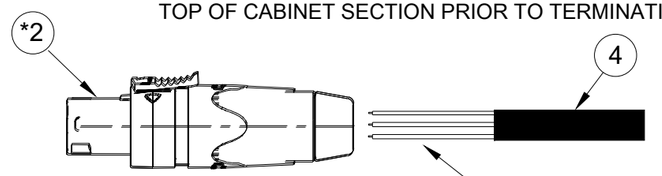
PROJECT:	DBN B1			
TITLE:	WIRING DIAGRAM; DBN-301 POWERCON J-BOX			
DATE: 07-JUN-19	DIM UNITS: INCHES [MILLIMETERS]		SHEET 1 OF 1	REV 00
SCALE: 1/2	DO NOT SCALE DRAWING			
DESIGN: AMEIDT	JOB NO. P2057	FUNC - TYPE - SIZE E - 07 - A	4202155	
DRAWN: AMEIDT				

Part # - 0A-1487-6863 Version - 00.1 Description - ASSY; DBN-301 POWERCON J-BOX W/ 20A FILTER Lifecycle State - Full Production Last Modified By - ameidt Last Modified - 2019-06-07

INDEX	NAME	PART NUMBER
1	POWERCON HOMERUN JBOX ASSEMBLY	0A-1487-6863
2	PLUG; 3 PIN FEM POWERCON, POWER IN, SCRW	P-1351
3	JBOX BRACKET MOUNTING SCREW	**HC-3601959
4	CABLE; 12AWG 3 COND SJOOW 300V	W-1711

**TORQUE SPEC: 15 IN-LBS

NOTE: POWER DROPS MUST BE ROUTED THROUGH THE BEAM AND TOP OF CABINET SECTION PRIOR TO TERMINATING THREE-PIN PLUG



SEE INSTRUCTIONS LOCATED ON THE P-1351 PLUG PACKAGE FOR PROPER INSTALLATION

ROUTE FIELD POWER DROP 12-3 SJOOW FLEXIBLE CABLE THROUGH TOP OF JBOX BRACKET AS NECESSARY

USE THE PROVIDED 10-32 X 0.25 IN. HEX WASHER HEAD SCREWS, HC-3601959 @1, TO SECURE J-BOX ASSEMBLY TO TOP OF CHASSIS. A HOLE HAS BEEN PROVIDED IN THE CORRECT MOUNTING LOCATION. TORQUE SPECIFICATION: 15 IN-LBS.

MAX POWER SPECS PER POWER DROP

FIELD GROUND BAR

HOMERUN JBOX INSTALLATION STEPS:

1. ROUTE FIELD POWER DROP 12-3 SJOOW FLEXIBLE CABLE (DAKTRONICS P/N W-1711) THROUGH BEAM AND TOP CABINET SECTION TO HOMERUN JBOX INSTALL LOCATION, REFER TO RISER FOR DETAILS.
2. TERMINATE THE PROVIDED THREE-PIN PLUGS (DAKTRONICS P/N P-1351) ONTO THE FIELD SJOOW FLEXIBLE CABLE. INSTALLATION INSTRUCTIONS ARE LOCATED ON THE PLUG PACKAGE. *NOTE: POWER DROPS MUST BE ROUTED THROUGH THE BEAM AND TOP OF THE CABINET SECTION PRIOR TO TERMINATING THREE-PIN PLUG*.
3. JBOXES ARE PROVIDED READY FOR INSTALLATION, USE SCREW PROVIDED TO FASTEN THE HOMERUN JBOX ASSEMBLY IN PLACE.
4. CONNECT FIELD INSTALLED PLUG TO J-BOX INLET.
5. CONNECT MATE N LOK FROM THE LOAD SIDE OF FILTER TO FACTORY INSTALLED INTERCONNECT.

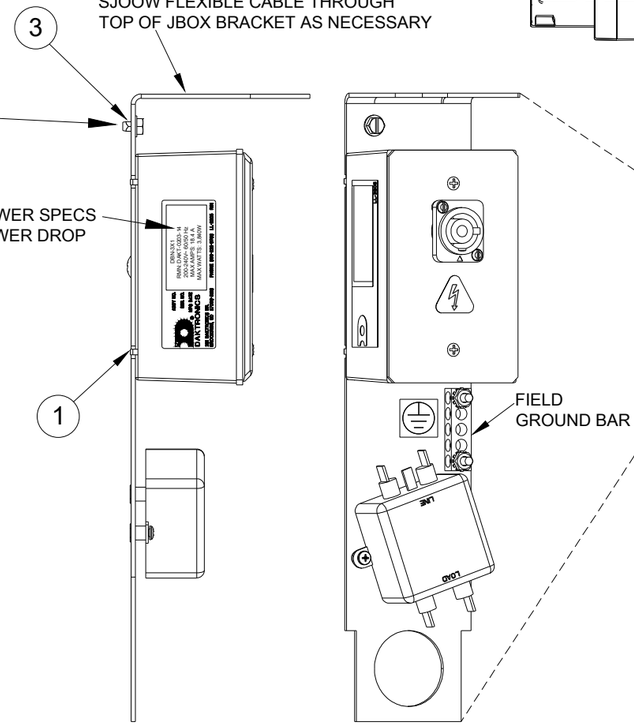


FIGURE A: HOMERUN JBOX

*ALL DISPLAYS WILL RECEIVE ONE OR MORE HOMERUN JBOXES, REFER TO RISER DIAGRAM FOR NUMBER USED, INSTALL LOCATION IS IN THE LEFT-MOST UPPER MOD BAY WHILE FACING FACE 'A', SEE FIGURE B. IN LARGER DISPLAYS ADDITIONAL HOMERUN JBOX MAY ALSO BE LOCATED IN LOWER SECTIONS, SEE RISER FOR DETAILS.

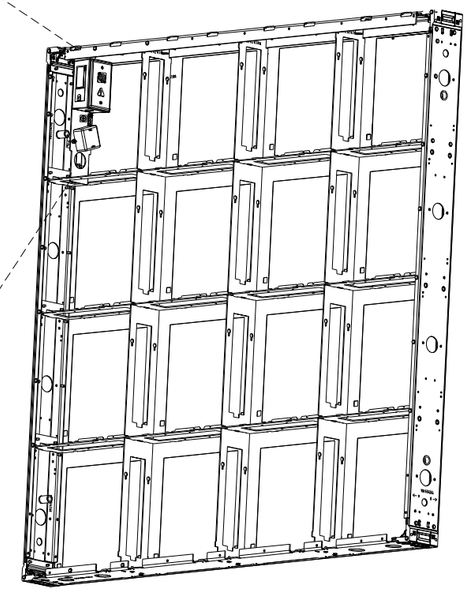


FIGURE B: 4X4 CABINET, FACE 'A' VIEW

*FACE 'A' INDICATOR IS LOCATED AT TOP LEFT OF FACE 'A' MODSHEET USING THE FOLLOWING SYMBOL:

*FACE 'B' INDICATOR IS LOCATED AT TOP LEFT OF FACE 'B' MODSHEET USING THE FOLLOWING SYMBOL: B

POWER NOTES:

1. ACCEPTABLE INCOMING VOLTAGE RANGE IS 208V - 240VAC (EITHER L-L-G OR L-N-G), MAXIMUM OVERCURRENT PROTECTIVE DEVICE RATING: 20A. DAKTRONICS DISPLAYS ARE CONSIDERED NON-CONTINUOUS LOADS.

2. REFER TO CONTRACT SPECIFIC RISER DIAGRAM TO DETERMINE WHICH SECTIONS GET A FIELD POWER DROP (12-3 SJOOW). POWER DROPS ARE TO BE ROUGHED IN LONG ENOUGH TO REACH THEIR RESPECTIVE J-BOXES, REFER TO RISER FOR DETAILS. ELECTRICIAN WILL TERMINATE THE THREE-PIN PLUGS (DAKTRONICS PART NUMBER P-1351) ONTO THE FIELD SJOOW FLEXIBLE CABLE. INSTALLATION INSTRUCTIONS ARE LOCATED ON THE PLUG PACKAGE.

3. POWER WILL DAISY-CHAIN INTERNALLY WITH FACTORY PROVIDED POWER INTERCONNECTS WHERE APPLICABLE. SEE VAC/PRIMARY HARNESS BLOCK DIAGRAM AND CONTRACT RISER FOR HARNESS INTERCONNECTION DETAILS.

4. IT IS THE RESPONSIBILITY OF THE ELECTRICAL INSTALLATION CONTRACTOR TO ENSURE ELECTRICAL WORK PERFORMED ON-SITE MEETS OR EXCEEDS ALL LOCAL AND NATIONAL ELECTRIC CODES FOR WIRING AND SPECIFICATIONS.

THIRD ANGLE PROJECTION

PROJECT:	DBN B1			
TITLE:	POWERCON JBOX WIRING AND INSTALLATION DETAILS			
DATE: 31 MAY 19	DIM UNITS: INCHES [MILLIMETERS]		SHEET	REV
SCALE: NTS	DO NOT SCALE DRAWING			00
DESIGN: SBRINK	JOB NO.	FUNC - TYPE - SIZE	4202426	
DRAWN: SBRINK	P2057	F - 01 - B		

C Daktronics Warranty & Limitation of Liability

This section includes the Daktronics Warranty & Limitation of Liability statement.

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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. 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; 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. 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

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

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	Kruibeke, Belgium
Daktronics Ireland Co. Ltd.	Ireland	Dublin, Ireland