# OUTDOOR SCOREBOARD HORNS

INSTALLATION MANUAL P1192

> DD3088739 Rev 04 03 August 2021





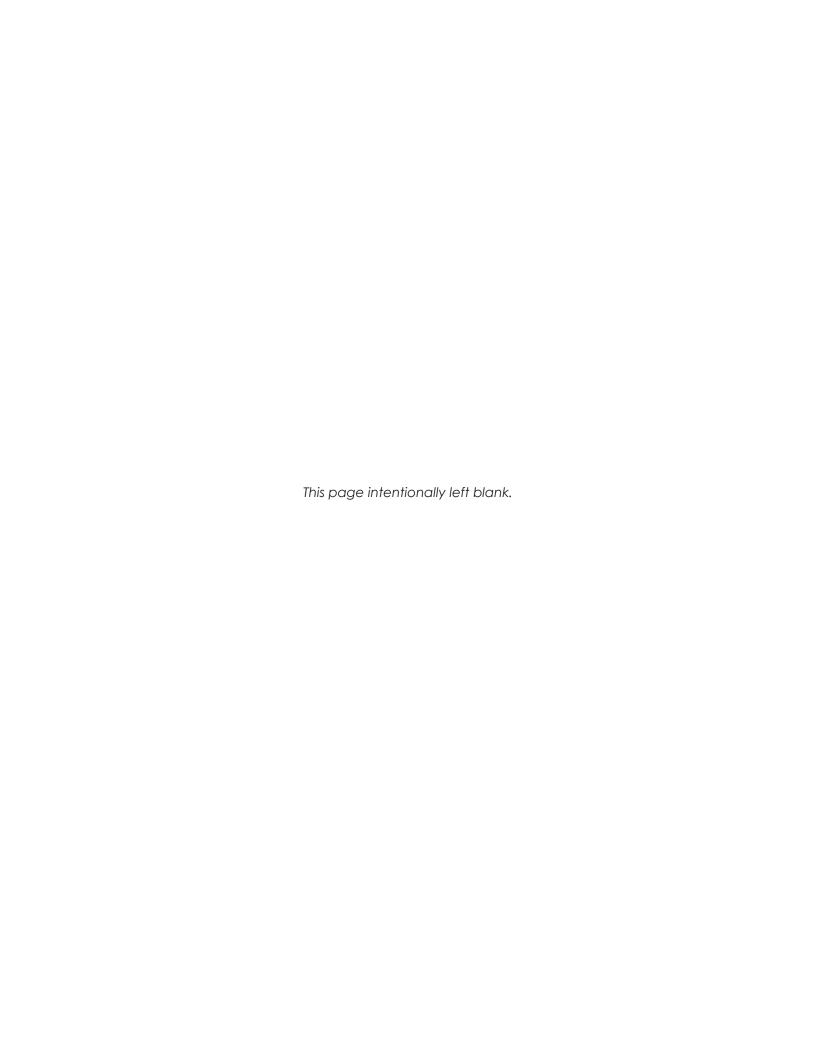
#### Copyright © 2015-2021

All rights reserved. While every precaution has been taken in the preparation of this manual, the publisher assumes no responsibility for errors or omissions. No part of this book covered by the copyrights hereon may be reproduced or copied in any form or by any means—graphic, electronic, or mechanical, including photocopying, taping, or information storage and retrieval systems—without written permission of the publisher.

Daktronics trademarks are property of Daktronics, Inc. All other trademarks are property of their respective companies.

# **Table of Contents**

1	12 VDC Horn Installation	1
	Equipment	1
	Location	1
	Horn Interface Card and Horn Plate Assembly	1
	Horn Interface Card Installation	1
	Horn Plate Assembly Installation	2
	Trumpet Horn Installation	2
	Preparation	2
	Installation	2
	TI-2003 12 VDC Horn	3
	Compact Horn Replacement	3
	Schematics	3
2	120 VAC Trumpet Horn Installation	4
	Equipment	4
	Location	4
	Basic Horn Installation	4
	Complete Horn Installation	4
	Horn Interface Card Installation	4
	Horn Installation	5
	Schematics	5
3	24 VDC Trumpet Horn Installation (Solar Power Option Only)	6
	Equipment	6
	Location	6
	Horn Preparation	6
	Horn Installation	6
۸	Poterance Drawings	0



# 1 12 VDC Horn Installation

#### **Reference Drawings:**

Refer to DWG-3068821 in Appendix A for general wiring details of LED scoreboard horns.

The following section describes the 12 VDC trumpet horn installation and compact horn replacement for an LED scoreboard. Assemblies are available for both 120 and 240 VAC scoreboards.

Note: Disconnect power to the scoreboard before installing the horn!

# Equipment

The trumpet horn kit consists of:

- a horn
- a metal mounting angle (trumpet horn only)
- a metal enclosure and 12 volt power plate assembly
- a horn interface card and harness
- assorted #10 screws, tapping screws, and nuts

#### Location

The horn entrance panel is typically located in the center of the lower half of the scoreboard (refer to the component location drawings included in the scoreboard manual for specific location). The horn will be mounted directly to this entrance panel. The panel may be secured only by screws, or it may have hinges to swing open.

# Horn Interface Card and Horn Plate Assembly

- If the horn kit was ordered with the scoreboard, the horn interface card and horn
  plate assembly were likely installed at the factory; skip ahead to Trumpet Horn
  Installation (p.2).
- If these components have not been installed, follow the instructions under **Horn** Interface Card Installation (p.1) and Horn Plate Assembly Installation (p.2).

#### Horn Interface Card Installation

#### **Reference Drawings:**

- Current 120 VAC horn card part number: 0P-1192-0399
- Current 240 VAC horn card part number: 0P-1150-0255

Attach the horn interface card inside the scoreboard driver enclosure and make the proper wiring connections from the horn interface card to the driver per **DWG-3067686**.

# **Horn Plate Assembly Installation**

#### **Reference Drawings:**

**DWG-128944** shows the components of the horn plate assembly.

- 1. Open the horn entrance panel as described in **Location (p.1)**.
- 2. On the interior of the back panel of scoreboard, drill two 5/32" holes 4" apart (these holes may have been pre-drilled at the factory). The enclosure is to be attached to the inside of the scoreboard and accessible when the entrance panel is opened.

**Note:** Be careful not to damage any internal components when drilling!

- 3. Attach the enclosure to the scoreboard using the #10 tapping screws provided.
- **4.** Attach the plate assembly to the enclosure using #10 tapping screws provided.
- 5. Attach the cover to the enclosure using the #10 tapping screws provided.

# Trumpet Horn Installation

## **Preparation**

#### **Reference Drawings:**

- 1. Insert bushings into the appropriate 3/8" holes in the mounting angle.
- 2. Thread the two gray wires from the horn through the top of the mounting angle.
- 3. Attach the horn to the mounting angle using the #10 hardware provided.
- 4. Thread the two gray wires through the 3/8" hole in the rear of the mounting angle.

#### Installation

#### **Reference Drawings:**

1. Locate the horn entrance panel as described in **Location (p.1)**. Remove the 2" knockout on this panel. If a knockout has not been provided, use **DWG-83502** as a guide to drill one 3/8" hole and two 7/32" holes in the panel.

**Note:** Be careful not to damage any internal components when drilling!

- 2. Thread the two gray wires from the horn through the knockout (or 3/8" hole) in the scoreboard access panel.
- 3. Place horn/angle bracket assembly over the 2" knockout and 7/32" holes in the front panel of the scoreboard and attach using #10 hardware provided.
- **4.** Using the wiring nuts provided, connect one gray wire from the horn to the black wire from the plate assembly. Connect the other gray wire to the red wire.
- **5.** Route the 2-pin horn plate plug labeled **P3** to jack **J3** on the horn interface card, per **DWG-3067687**. If the harness does not reach, connect the 2-pin to 2-pin extension cable between the horn plate and the horn interface card as needed.
- 6. Close and secure the horn entrance panel.
- 7. To test the horn, power on the scoreboard and control console, and press HORN.

#### TI-2003 12 VDC Horn

#### **Reference Drawings:**

Harness: TI-2003, TI-2010, TI-2015 Horn Signal Cable	DWG-316634
Horn; 12VDC Trumpet, 120V Input, TI-2003	DWG-3026331
Horn Card Installation; Gyrus Driver	DWG-3067686

Refer to **DWG-3067686** for horn card installation. One main difference from the standard horn card installation, as illustrated in **DWG-316634**, is the 4-pin to 9-pin cable that connects from **J2** on the horn card to digit jack **J5** on the driver. This is to allow the horn to sound Shot/Stall Time =0 or Delay of Game =0.

Refer to DWG-3026331 for instructions to mount a 12VDC trumpet horn to the TI-2003.

# Compact Horn Replacement

#### **Reference Drawings:**

The compact horn is standard on certain scoreboards. Therefore, this section discusses the replacement of an existing horn.

- 1. Locate the horn entrance panel as described in Location (p.1) and open it.
- 2. Unscrew the wiring nuts that connect the existing horn to the plate assembly.
- 3. Remove the #10 hardware securing the existing horn.
- 4. Cut the two-pin plug off the new horn and strip 5/32" of insulation from each wire.

**Note:** Remember what wire was connected to which pin of the plug!

- **5.** Using the wiring nuts provided, connect the Pin 2 wire from the horn to the black wire from the plate assembly. Connect the Pin 1 wire to the red wire.
- **6.** Attach the new horn to the bracket using the #10 hardware.
- 7. Make wiring connections between the horn interface card, the horn plate assembly, and the existing scoreboard driver per **DWG-3054721**.
- 8. Close and secure the horn entrance panel.
- 9. To test the horn, power on the scoreboard and control console, and press HORN.

# **Schematics**

#### **Reference Drawings:**

Schematic-Outdoor SCBD 12VDC Trumpet Horn- AS5K	DWG-128938
Schematic-Outdoor SCBD 12VDC Compact Horn	DWG-198618
240V Horn Conversation Kit, for 12V Trumpet Assy	
Schematic, 240V OD SCBD 12VDC Trumpet Horn, AS5K	DWG-325028

Refer to the appropriate drawing above for detailed horn plate wiring schematics.

# 2 120 VAC Trumpet Horn Installation

#### **Reference Drawings:**

Refer to DWG-3068821 in Appendix A for general wiring details of LED scoreboard horns.

The following section describes the 120 VAC trumpet horn installation for an LED scoreboard. Assemblies are only available for 120 VAC scoreboards.

Note: Disconnect power to the scoreboard before installing the horn!

# Equipment

The trumpet horn kit consists of:

- a horn
- · a metal mounting angle
- a horn interface card and harness
- assorted #10 screws, tapping screws, and nuts

#### Location

The horn entrance panel is typically located in the center of the lower half of the scoreboard (refer to the component location drawings included in the scoreboard manual for specific location). The horn will be mounted directly to this entrance panel. The panel may be secured only by screws, or it may have hinges to swing open.

## Basic Horn Installation

- If the horn kit was ordered with the scoreboard, the horn interface card, mounting angle, and horn body were likely installed at the factory; follow the simple instructions below.
  - a. Locate the horn entrance panel as described in Location (p.4).
  - **b.** Locate and screw the trumpet part of the horn into the horn body through the 2" knockout on this panel.
- If these components have not been installed, skip ahead to Complete Horn Installation (p.4).

# Complete Horn Installation

#### Horn Interface Card Installation

#### **Reference Drawings:**

Current 120 VAC horn card part number: 0P-1192-0399

Attach the horn interface card inside the scoreboard driver enclosure and make the proper wiring connections from the horn interface card to the driver per **DWG-3067686**.

#### Horn Installation

#### Reference Drawings:

Cemplate, Hole Drilling, Trumpet Horn	-83502
120V AC Horn Mounting, Outdoor Sports	055044
Horn Mtg Instructions; 120V, TI-2003, Gyrus Driver	054691
Horn Card Installation; Gyrus Driver	067686

1. Locate the horn entrance panel as described in **Location (p.4)**. Remove the 2" knockout on this panel. If the knockout has not been provided, use **DWG-83502** as a guide to drill one 2" hole in the panel.

Note: Be careful not to damage any internal components when drilling!

- 2. Remove the trumpet from the horn body by unscrewing it.
- 3. Mount the bracket to the scoreboard frame using #10 hardware provided, and connect the horn harness to the horn wires with included wire nuts. Refer to **DWG-1055044**. For the TI-2003 only, refer instead to **DWG-3054691**.

#### When replacing a horn:

- **a.** Use 1/4" bolts, nuts, and lock washers provided to attach the horn body to the mounting bracket so that the horn is on the same side as the short flange (the horn should be pointing downward).
- **b.** Be sure to mount the horn to the bracket so that the wires are facing the bottom of the cabinet to prevent water from running along them.
- **c.** Attach the copper ground lug to the bottom-right corner of the mounting bracket using the bolt and serrated washer and nut provided, and connect the green wire from the horn to the ground lug (does not apply to the TI-2003).
- **4.** Route the 2-pin horn plug labeled **P3** to jack **J3** on the horn interface card, per **DWG-3067686**. If the harness does not reach, connect the 2-pin to 2-pin extension cable between the horn and the horn interface card as needed.
- 5. Close the access panel and screw the trumpet back onto the horn body.
- 6. To test the horn, power on the scoreboard and control console, and press HORN.

# Schematics

#### **Reference Drawings:**

# 3 24 VDC Trumpet Horn Installation (Solar Power Option Only)

The following section describes the 24 VDC trumpet horn installation for a solar-powered LED scoreboard.

**Note:** Disconnect power to the scoreboard before installing the horn!

# Equipment

The trumpet horn kit consists of:

- a horn
- a metal mounting angle
- a 24 volt outdoor horn harness
- assorted #10 screws, tapping screws, and nuts

#### Location

The horn entrance panel is typically located in the center of the lower half of the scoreboard (refer to the component location drawings included in the scoreboard manual for specific location). The horn will be mounted directly to this entrance panel. The panel may be secured only by screws, or it may have hinges to swing open.

# Horn Preparation

#### **Reference Drawings:**

- 1. Insert bushings into the appropriate 3/8" holes in the mounting angle.
- 2. Thread the two wires from the horn through the top of the mounting angle.
- 3. Attach the horn to the mounting angle using the #10 hardware provided.
- **4.** Thread the two wires through the 3/8" hole in the rear of the mounting angle.

#### Horn Installation

#### Reference Drawings:

Template, Hole Drilling, Trumpet Horn	DWG-83502
Installation Diagram: Solar Power Scoreboard	DWG-315892
Assembly Horn Kit Option	DWG-321327

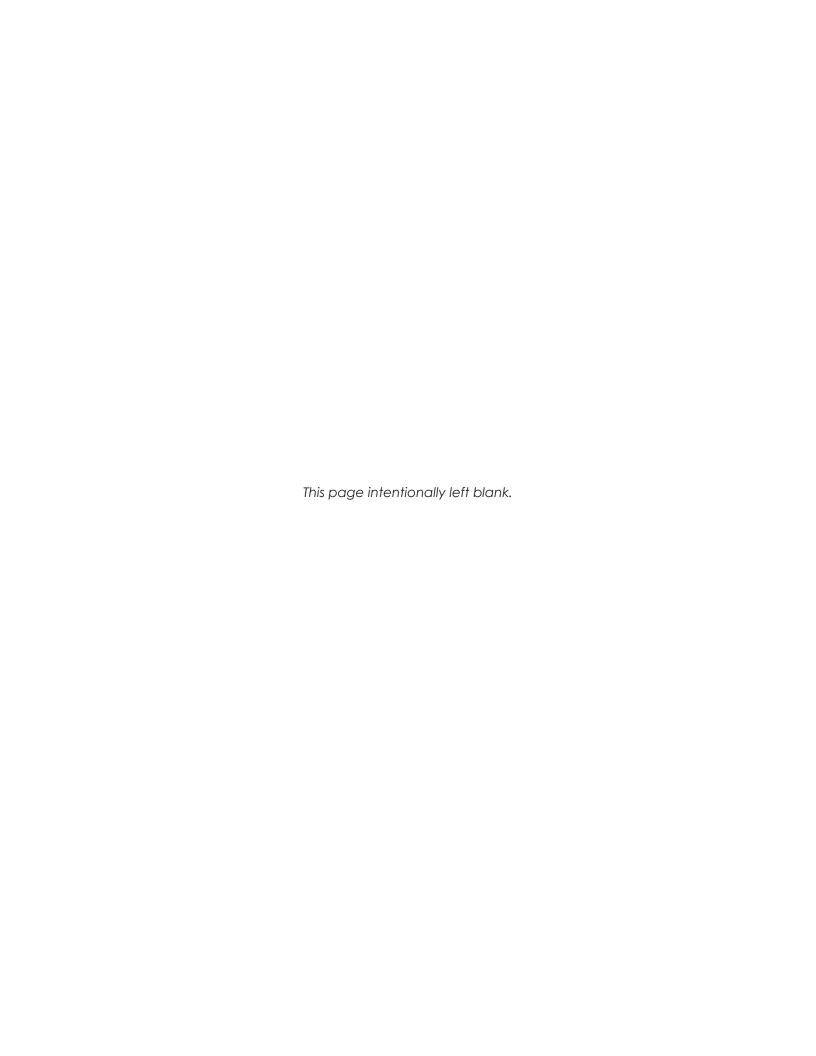
1. Locate the horn entrance panel as described in **Location (p.6)**. Remove the 2" knockout on this panel. If the knockout has not been provided, use **DWG-83502** as a guide to drill one 3/8" hole and two 7/32" holes in the panel.

**Note:** Be careful not to damage any internal components when drilling!

- 2. Thread the two wires from the horn through the knockout (or 3/8" hole) in the scoreboard access panel.
- 3. Place horn/angle bracket assembly over the knockout/hole and 7/32" holes in the front panel of the scoreboard and attach using #10 hardware provided.
- 4. Install the horn harness as shown in **DWG-321327**.

24 VDC Trumpet Horn Installation (Solar Power Option Only)

- **5.** Make wiring connections between the horn and the existing scoreboard driver per **DWG-315892**, Electrical Installation Details.
- 6. Close and secure the horn entrance panel.
- 7. To test the horn, power on the scoreboard and control console, and press HORN.

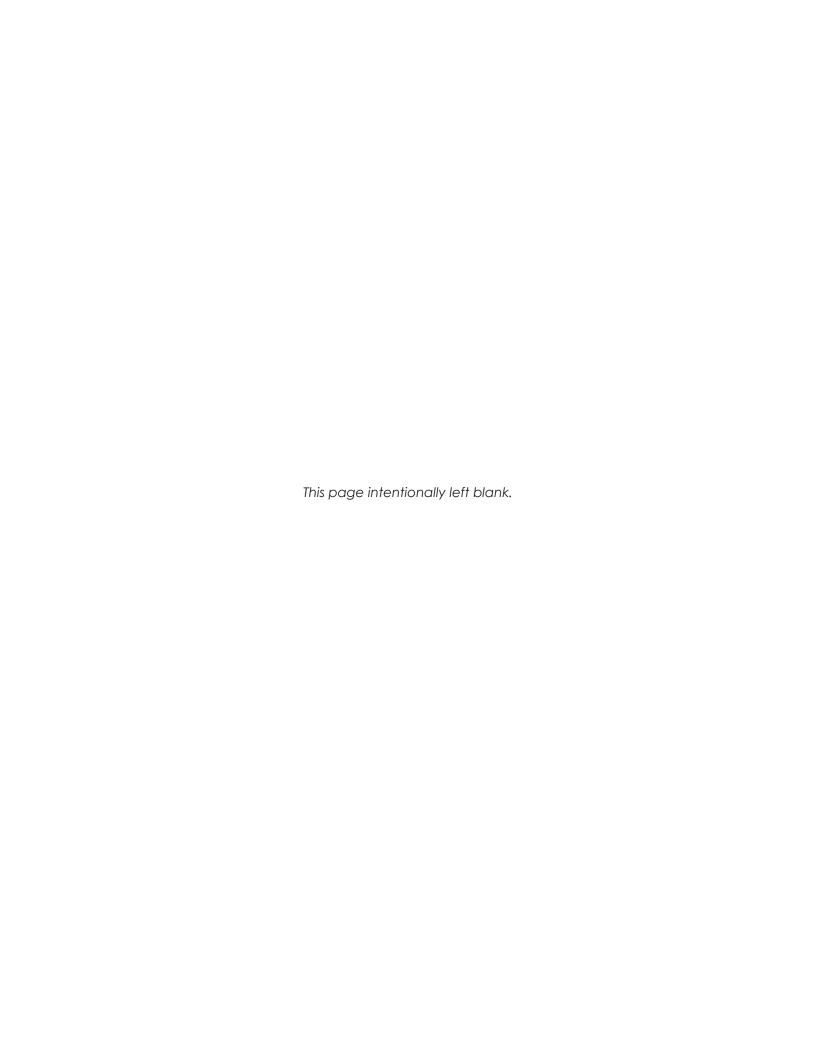


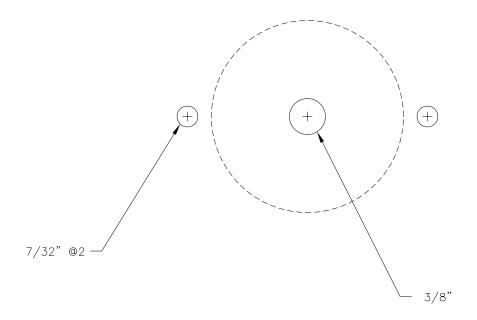
# A Reference Drawings

Any contract-specific drawings take precedence over these general drawings.

#### **Reference Drawings:**

Template, Hole Drilling, Trumpet Horn	DWG-83502
Schematic-Outdoor SCBD 12VDC Trumpet Horn- AS5K	DWG-128938
Plate Assy: Outdoor SCBD 12VDC Horn- AS5K	DWG-128944
Schematic: 120VAC Trumpet Horn	DWG-132173
Schematic-Outdoor SCBD 12VDC Compact Horn	DWG-198618
240V Horn Conversation Kit, for 12V Trumpet Assy	DWG-270554
Installation Diagram: Solar Power Scoreboard	DWG-315892
Harness: TI-2003, TI-2010, TI-2015 Horn Signal Cable	DWG-316634
Horn Assembly	DWG-320004
Assembly Horn Kit Option	
Schematic, 240V OD SCBD 12VDC Trumpet Horn, AS5K	DWG-325028
120V AC Horn Mounting, Outdoor Sports	DWG-1055044
Horn; 12VDC Trumpet, 120V Input, TI-2003	DWG-3026331
Horn Mtg Instructions; 120V, TI-2003, Gyrus Driver	DWG-3054691
Assy; 12V DC Compact Horn, 120V or 240V, Gyrus Driver	DWG-3054721
Horn Card Installation; Gyrus Driver	DWG-3067686
F.Assy: 12V DC Horn Mounting- Outdoor LED SCBD	DWG-3067687
Wiring Guide: Gyrus Outdoor Horn Kits	DWG-3068821





THE DOTTED LINE INDICATES THE 2" KNOCKOUT

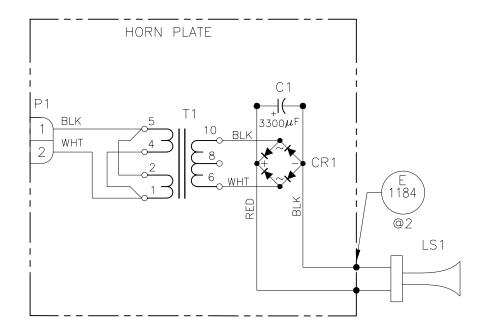
LINE UP THE DOTTED LINE WITH THE EDGES OF THE KNOCKOUT. DRILL THE  $7/32^{\circ}$  HOLES THROUGH THE PAPER.

IF NO KNOCKOUT HOLE EXISTS, DRILL 3/8" & 7/32" HOLES NEAR BOTTOM OF FRONT PANEL NEAR ENTRANCE PLATE. BE CAREFUL NOT TO DAMAGE ANY INTERNAL COMPONENTS.

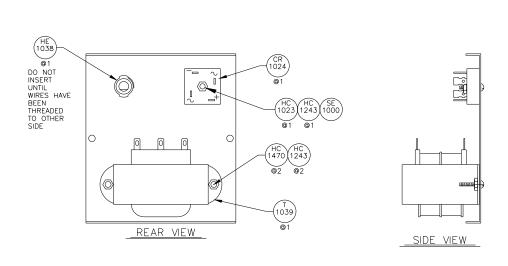
		DAKT	RONICS	, INC	). В	ROOKINGS	, SD	57006		
	PROJ: S	TANDARD	SCORE	BOAF	RDS					
	TITLE: TE	MPLATE,	HOLE	DRIL	LING,	TRUMPET	HOF	RN		
	DES. BY:			DRAW	N BY: ,	JMOEN		DATE: 20	JUN	96
	REVISION	APPR. BY:			1	001 <sub>-</sub> F	$\sim$ 7	Λ_07	z Ε Ο '	$\circ$
₹.	00	COALE	1_1			091-E	U /	$A^{-}O^{\prime}$	)こ)し).	/

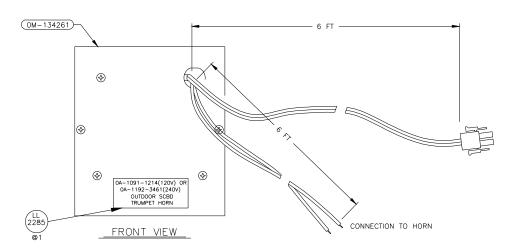
REV. DATE DESCRIPTION BY APPR.

#### 0A-1091-1214 12V TRUMPET HORN PLATE ASSY



REV 08	DATE: 13 SEP 19	PER CN-88357 REPLACED E-1084 W/ E-1184	BY: KDM	I	ARE CONF. ANY ME.	PTS EXPRESSED AND DE IDENTIAL AND PROPRIE ANS WITHOUT THE EXPI ONICS, INC. OR ITS WHO	TARY. DO NOT REPROD RESS WRITTEN CONSE	DUCE BY NT OF	THIRD ANGLE PRO	JECTION
REV 07	DATE: 27 MAR 17	SWITCHED TRANSFORMER TERMINAL 10 AND 6 PER EC-23483	BY: BTA		STANDARD SC SCHEMATIC- O		, , , , , , , , , , , , , , , , , , , ,	IMPETI	JORN AS	
REV 06	DATE: 08 OCT 12	ADDED WIRE COLOR FROM TRANSFORMER TO CR1 PER EC-7744	BY: JML	DATE:	06MAR00 NONE	DIM UNITS: INC	HES [MILLIME CALE DRAWI	TERS]	SHEET  1 OF 1	REV 08
REV 05	DATE: 13 APR 07	REMOVED OUTDOOR LED DRIVE FROM SCHEMATIC REMOVEDWIRE FROM J17	BY: DKD	DESIGN: DRAWN:	JCM		FUNC - TYPE - SIZE R - 03 - A	.,,	1289	





0A-1091-1213- 12V TRUMPET HORN KIT WITH PLATE ASSY AND HORN CARD. DS-1337

0A-1192-0093- 12V COMPACT HORN KIT WITH PLATE ASSY AND HORN CARD. DS-1520

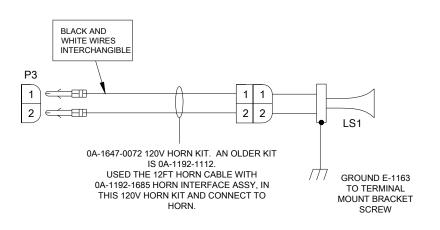
0A-1192-3455- 12V TRUMPET HORN KIT WITH PLATE ASSY, 240VAC. DS-1337

0A-1192-3585- 12V COMPACT HORN KIT WITH PLATE ASSY, 240VAC. DS-3585834

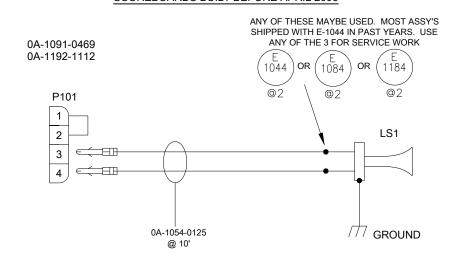
0A-1091-1240- 12V COMPACT HORN KIT WITH PLATE ASSY, 120VAC. DS-3585834

08	26 MAR 19	PER CN-75334 REPLCAING HC-1470 WITH HC-1023 ON CR-1024	мвс	
07	13 NOV 07	ADDED OA-1192-3455 TO DRAWING REFERENCE	JWC	
06	30 MAY 06	CHANGED PLUG FROM A 4 PIN TO A 2 PIN	DMD	
05	20 NOV 02	CHANGED TRANSFORMER FROM T-1042 TO T-1039	ATB	
04	16 MAY 02	REMOVED AF-1007 PER ECO 33209.	MRB	
03	24 APR 02	ADDED LL-2285 PER ECO 33163.	MRB	
02	19 APR 02	CHANGED HC-1022 TO HC-1470.	MRB	
1	29JUN00	REPLACED OM-83330 WITH OM-134261	GDB	
REV.	DATE	DESCRIPTION	BY	APPR.

	DAKTRONICS, INC	C. BROOKINGS, SD 57006							
PROJ: STANDARD SCOREBOARDS									
TITLE: PL	ATE ASSY: OUTDOOF	R SCBD 12VDC HORN- AS5K							
DES. BY:	DRAW	VN BY: CMCADAM DATE: 06MAR00							
REVISION	APPR. BY:	1091-E10A-128944							
08	SCALE: 1=3	1091E10A 126944							



# SCOREBOARDS BUILT BEFORE APRIL 2006



REV 10	DATE: 29 JAN 24	PER CN-172945, UPDATED GROUNDING DETAIL	BY: MTR	
REV 09	DATE: 19 DEC 19	CN93940 REMOVED WIRE NUTS/BUTT SPLICE FROM HORN WIRES. ADDED IN 2 PIN UMNL CONNECTOR ONTO HORN	BY: JSF	

DAKTRONIGS

DRAWN:

RASMUS

THE CONCEPTS EXPRESSED AND DETAILS SHOWN ON THIS DRAWING ARE CONFIDENTIAL AND PROPRIETARY. DO NOT REPRODUCE BY ANY MEANS WITHOUT THE EXPRESS WRITTEN CONSENT OF DAKTRONICS, INC. QRITS WHOLLY OWNED SUBSIDIARIES. COPYRIGHT 2019 DAKTRONICS, INC. (USA)

THIRD ANGLE PROJECTION

SHEET

REV

| Section | Sect

PROJECT: STANDARD OUTDOOR SCOREBOARDS

TITLE: SCHEMATIC: 120VAC TRUMPET HORN

DATE: 16 MAY 00 DIM UNITS: INCHES [MILLIMETERS]

SCALE: NTS DO NOT SCALE DRAWING

DESIGN: RASMUS JOB NO. FUNC-TYPE-SIZE

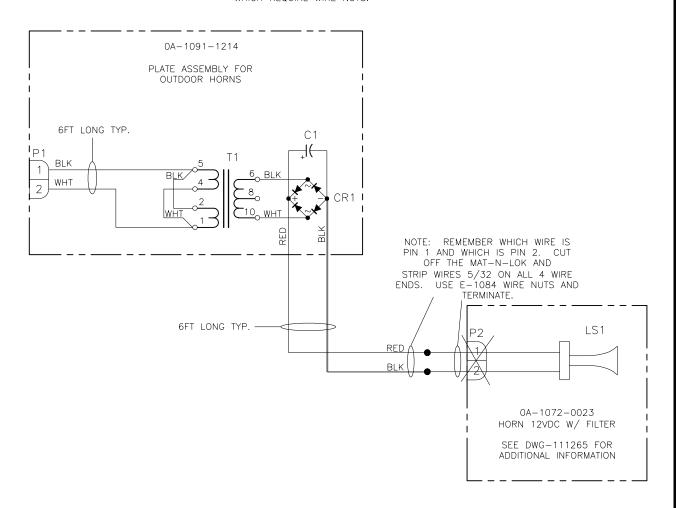
P1091

#### 0A-1192-0093 12V COMPACT HORN, 120V ACTIVATION

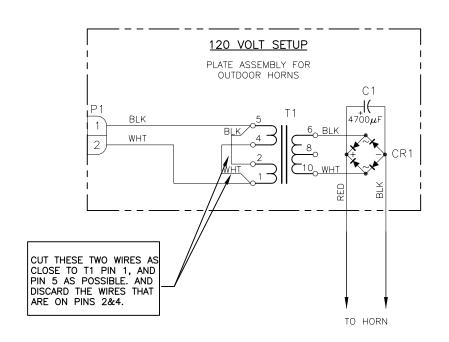
THIS ASSEMBLY INCLUDES 0A-1072-0023 HORN AND 0A-1091-1214 PLATE ASSY SHOWN HERE.

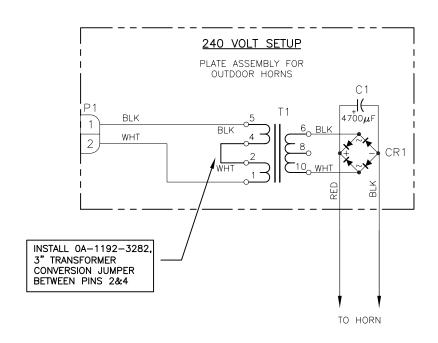
NOTE: 0A-1072-0023 HORN IS PRIMARILY USED IN A FINAL ASSEMBLY WHICH REQUIRES THE 2 PIN MAT-N-LOK.

0A-1091-1214 ASSEMBLY IS PRIMARILY USED WITH ASSEMBLIES WHICH REQUIRE WIRE NUTS.



REV	DATE:	PER EC-6420 REMOVED CAPACITOR VALUE	BY:			NICS, I SD 570	NC.	THIS DRAWING ARE O DO NOT REPRODUCE EXPRESSED WRITTEN	ESSED AND DETAILS SHOWN ON ONFIDENTIAL AND PROPRIETARY. BY ANY MEANS WITHOUT THE CONSENT OF DAKTRONICS, INC.
04	16 JUL 12		ZR	PROJ:STANDARD			'DS	COLUMNIA 2	orr barriconics, inc.
REV 03	DATE: 01 AUG 11	UPDATED DETAILS TO SHOW THE ASSEMBLY BETTER	BY: MWM	TITLE: SCHEMATIC - OUTDOOR SCBD 12VDC COMPACT HOR					
REV	DATE:	REPLACED E-1034 WITH E-1084.	BY:	DESIGN: DULSCHM SCALE: NONF		DR/	awn:DULSC	СНМ	DATE: 17 OCT 03
02	30 OCT 07	UPDATED P1 ON 0A-1192-1214 TO A 2PIN	MJK	SCALE: NONE SHEET	REV	I JOB	NO.	FUNC-TYPE-SIZE	
REV 01	DATE: 5 APR 06	UPDATED P1 ON 0A-1192-1214 TO A 2PIN	BY: DMD	SHEET	04	P119		R-03-A	198618





THE CONCEPTS EXPRESSED AND DETAILS SHOWN ON THIS DRAWING ARE CONFIDENTIAL AND PROPRIETARY. DO NOT REPRODUCE BY ANY MEANS, INCLUDING ELECTRONICALLY WITHOUT THE EXPRESSED WRITTEN CONSENT OF DAKTRONICS, INC.

COPYRIGHT 2006 DAKTRONICS, INC.

DAKTRONICS, INC. BROOKINGS, SD 57006

PROJ: OUTDOOR LED

DES. BY:

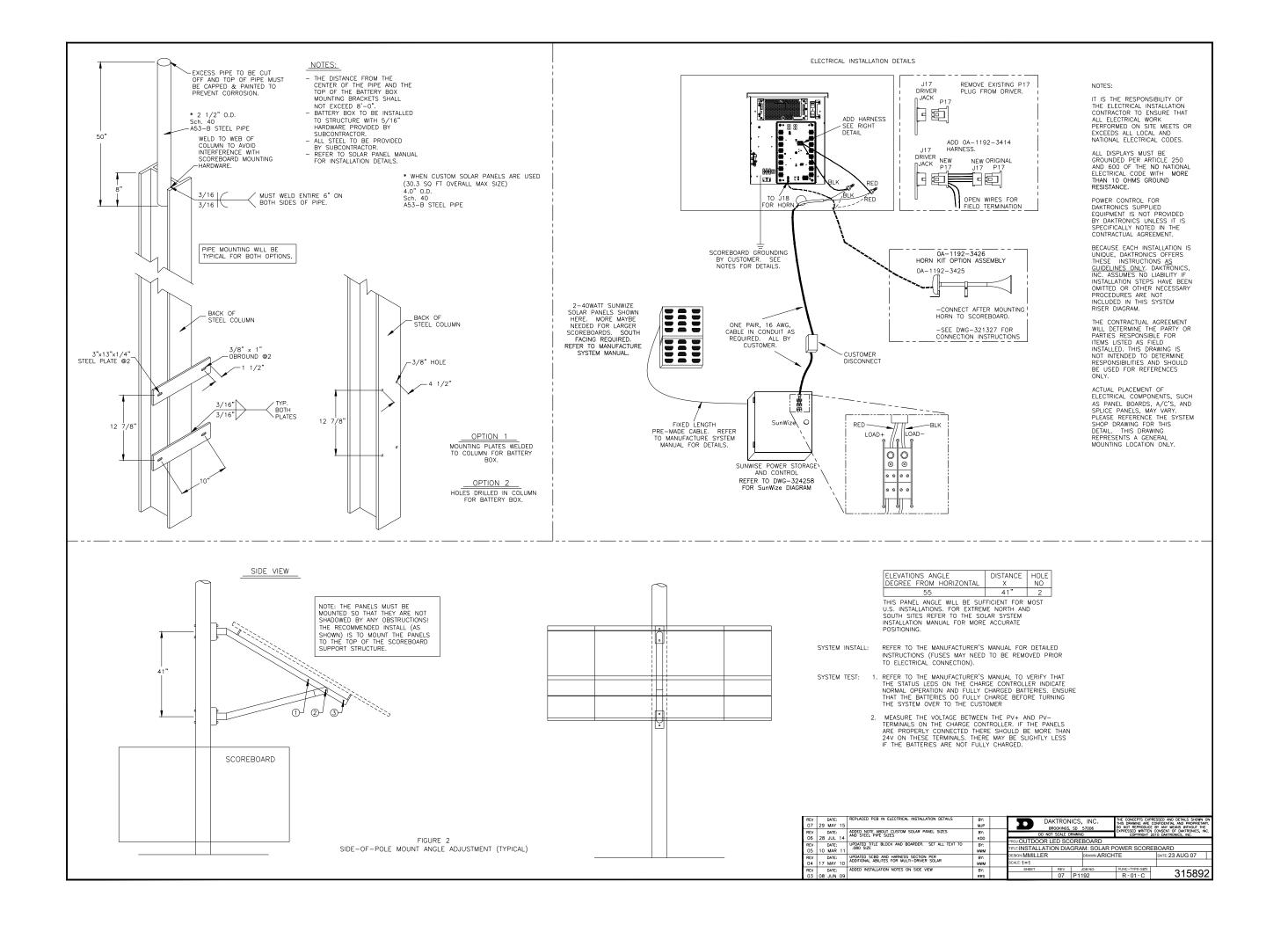
00

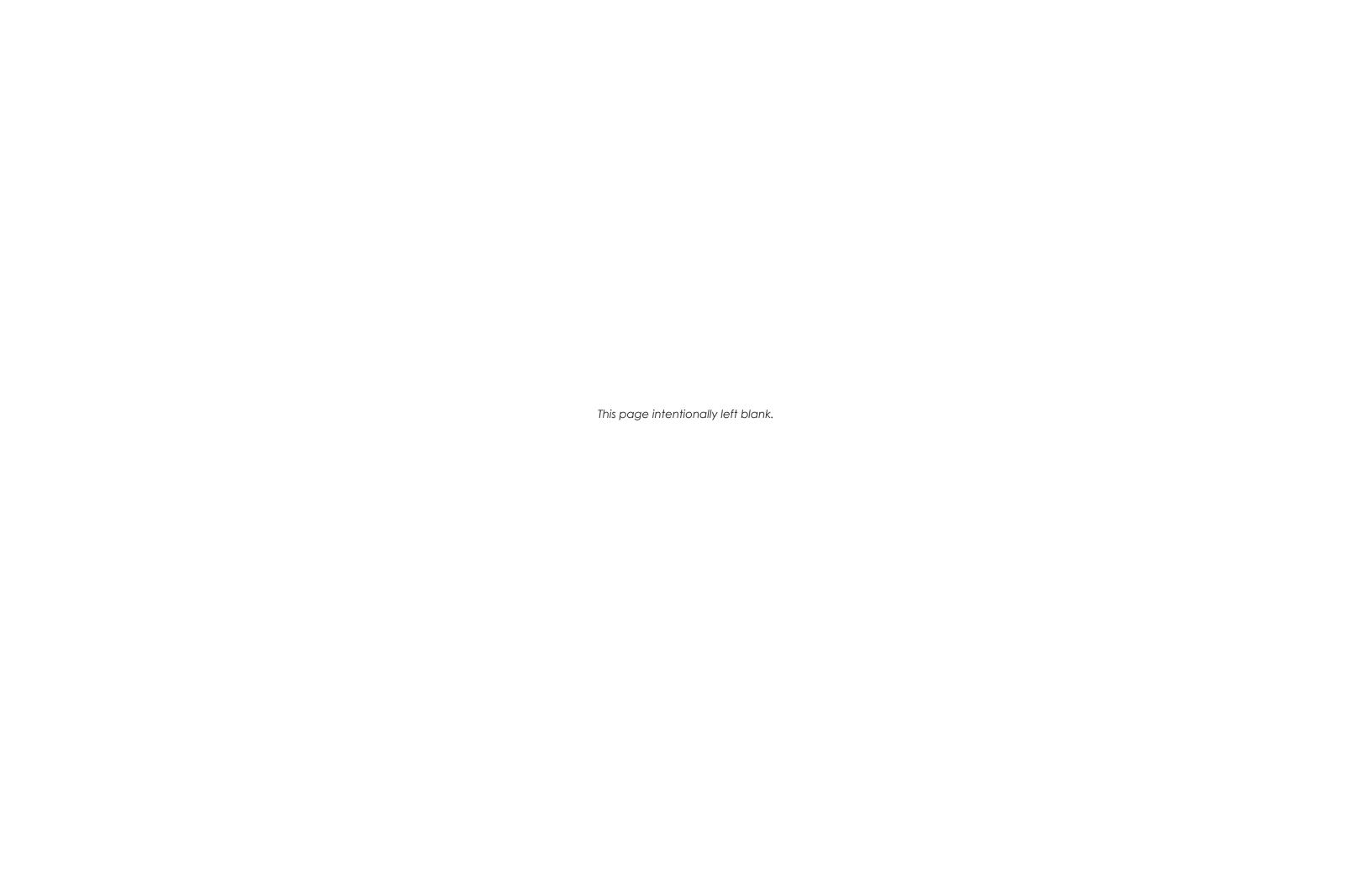
TITLE: 240V HORN CONVERSION KIT, FOR 12V TRUMPET ASSY. DRAWN BY: DDINING DATE: 27 APR 06

REVISION APPR. BY: MMILLER

1192-R01A-270554 SCALE: NONE

DESCRIPTION APPR. REV. DATE



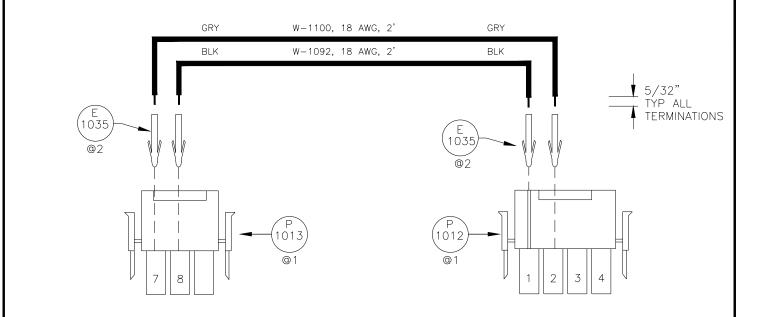


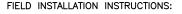
# BOTTOM VIEW P-1013

### 0A-1192-0393

#### CABLE ASSEMBLY INSTRUCTIONS:

- -CUT TWO 2' LENGTHS OF W-1100 AND W-1092
- -STRIP ALL ENDS 5/32"
- -CRIMP ALL WIRE ENDS WITH E-1035'S
- -TERMINATE WIRES PER SCHEMATIC DETAIL





-REMOVE EXISTING 4PIN TO 4PIN HORN HARNESS FROM J2 ON HORN INTERFACE CARD AND J18 OF DRIVER

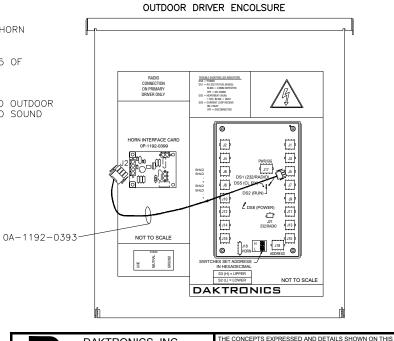
-INSTALL HORN SIGNAL CABLE (0A-1192-0393). CONNECT TO J5 OF DRIVER AND J2 OF HORN INTERFACE CARD. SEÉ BELOW

#### \*\*\*NOTF\*\*\*

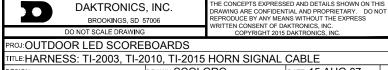
DATE:

08 JUN 15

0A-1192-0393 HARNESS IS TYPICALLY USED FOR LACROSSE AND OUTDOOR BASKETBALL APPLICATIONS WHEN HORN OPERATION IS DESIRED TO SOUND WHEN SHOT/STALL TIME =0 OR DELAY OF GAME =0



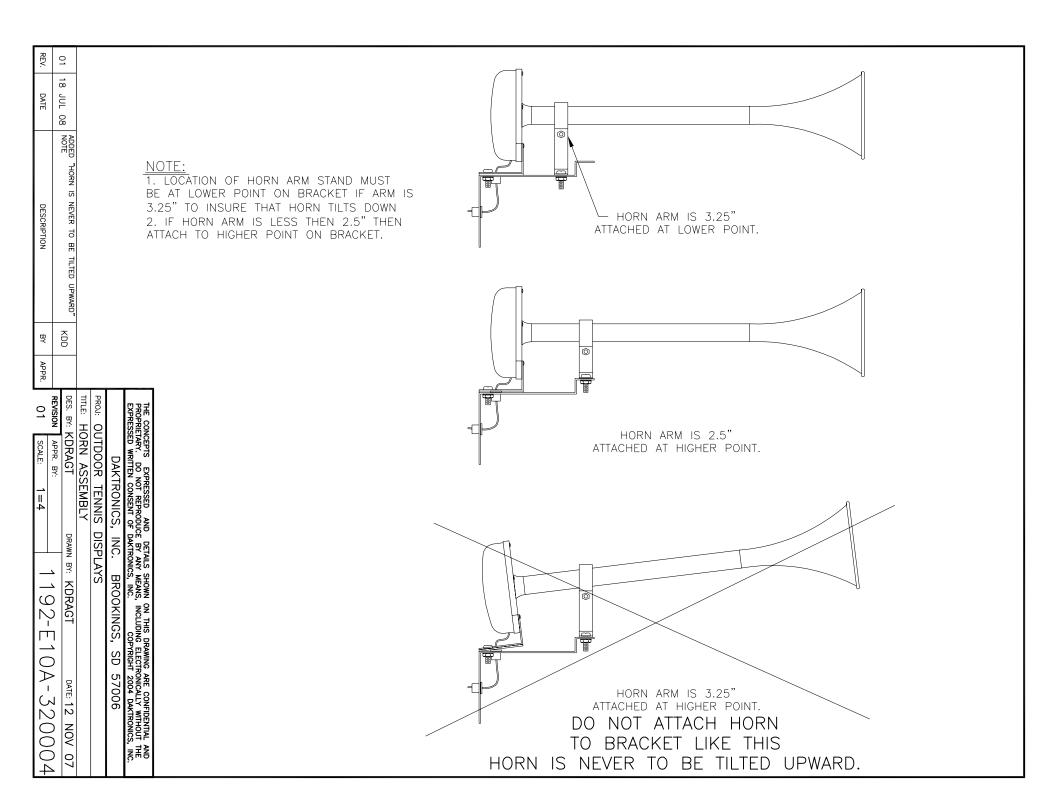
E - 10 - A



P1192

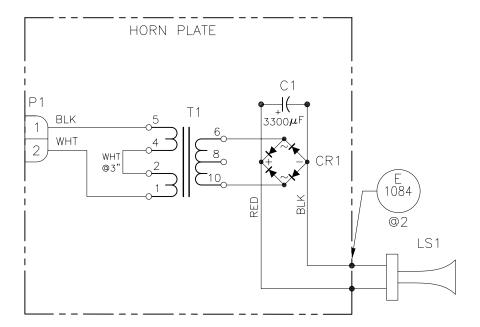
			THE HARNESS. I	1-2003,	11-2	010, 11-2013	HOKIN SIGNAL	CABLE
			DESIGN:		DRAWN: SCOLGRO		DATE: 15 AUG 07	
			SCALE: NONE					
	SWAPPED PINS 7 & 8 ON P-1013	BY:	SHEET	REV	J	JOB NO:	FUNC-TYPE-SIZE	216624
5	ADDED FIELD INSTALL PORTION AND 0A-1192-0393	DCS		01	P11	192	E-10-A	310034

DCS



#### 0A-1192-3426 HORN KIT OPTION, 24V, OUTDOOR Е 1035 1012 @4 @1 WHITE JUMPER 1 W 1079 2 @.5' RED 3 WHITE 4 5/32" **REAR VIEW P-1012** Ŵ 1079 0A-1192-3425 @2' HARNESS, 24V **OUTDOOR HORN** DS-1617 -W 1081 @2' WHITE BLUE Е 1184 @2 **GREY** RED +24V BLACK 1078 @2' NOTE: -HORN KIT OPTION ASSEMBLY (HORN AND HARNESS) ASSEMBLED IN FIELD. -CONNECT HORN AS SHOWN AFTER MOUNTING TO SCOREBOARD. -CONNECT RED AND BLACK POWER OF ASSEMBLY TO RED AND BLACK 24V POWER IN FROM SCROREBOARD USING EXISTING WIRE NUTS. -SEE DWG-315892 FOR INSTALLATION DETAIL DAKTRONICS, INC. THE CONCEPTS EXPRESSED AND DETAILS SHOWN ON THIS DRAWING ARE CONFIDENTIAL AND PROPRIETARY. DO NOT REPRODUCE BY ANY MEANS WITHOUT THE EXPRESS WRITTEN CONSENT OF DAKTRONICS, INC. COPYRIGHT 2014 DAKTRONICS, INC. BROOKINGS, SD 57006 DO NOT SCALE DRAWING PROJ:OUTDOOR LED SCOREBOARDS TITLE: ASSEMBLY HORN KIT OPTION DATE: 01 OCT 07 DRAWN: JCARLSON DESIGN: JCARLSON SCALE: NONE REV FUNC-TYPE-SIZE REPLACED E-1084 @2 W/ E-1184 @2. SHEET JOB NO: DATE: BY: 32132 01 1192 R - 10 - A 01 29 OCT 14 SMB

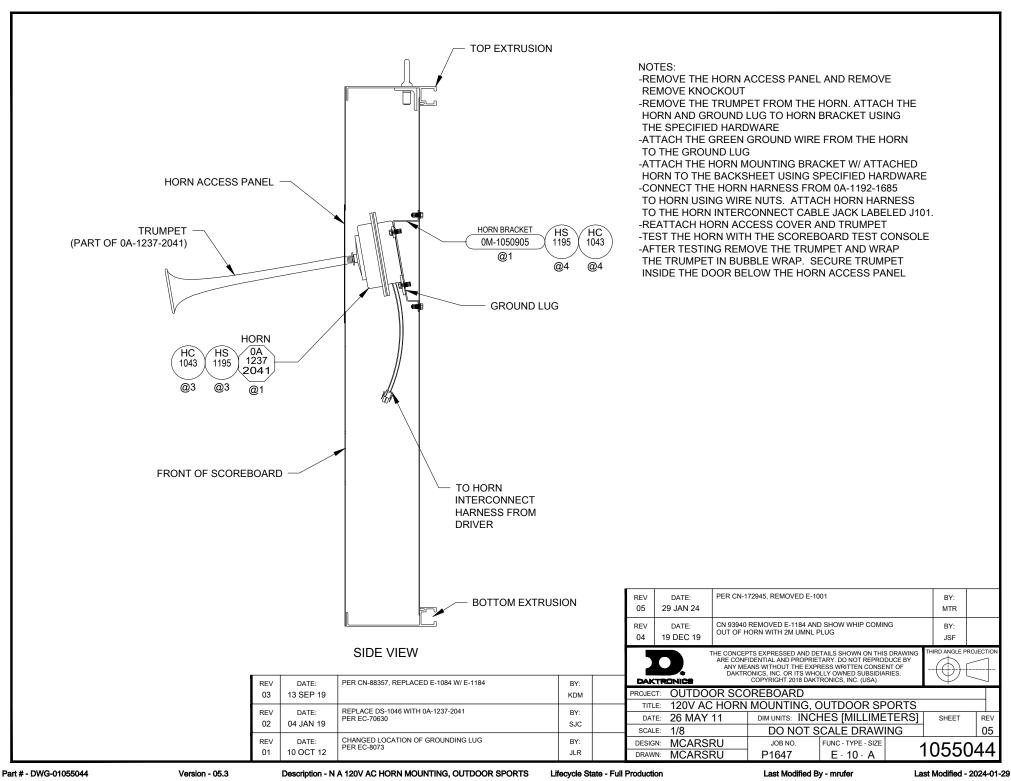
#### OA-1192-3461 12V TRUMPET HORN PLATE ASSY, 240VAC



		DAKTRONICS, INC	C. BROOKINGS, SD 57006
	PROJ: O	JTDOOR STANDARD :	SCOREBOARDS
	TITLE: S	CHEMATIC, 240V OD	SCBD 12VDC TRUMPET HORN, AS5K
	DES. BY:	DRAW	IN BY: JWCARLSO DATE: 09 NOV 07
	REVISION	APPR. BY:	1100-0071-705000
PR.	00	SCALE: NONE	1192-R03A-325028

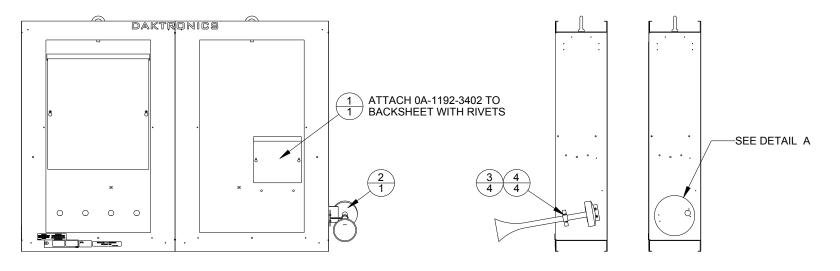
NONE

APPR. REV. DATE DESCRIPTION



3020331	E - 07 - /	P 1753	2	1 OF 1	
L	FUNC-TYPE-SIZE	JOB NO:	REV	SHEET:	REV DATE: BY:
				SCALE: 1/15	
DATE: 30-JAN-19	ZWOODWA	DRAWN: ZWOOI	ĒŢ	DESIGN: DOPPELT	
3	<b>INPUT, TI-2003</b>	MPET, 120V	<b>2VDC TRU</b>	TITLE: HORN; 12VDC TRUMPET, 120V INPUT,	
	REBOARDS	METAL SCOP	OR SHEET	PROJ: OUTDOOR SHEET METAL SCOREBOARDS	
15 DAKTRONICS, INC.	COPYRIGHT 20	VING	DO NOT SCALE DRAWING	DON	
CE BY ANY MEANS WITHOUT THE	DO NOT REPRODU	3, SD 57006	BROOKINGS, SD 57006		
THE CONCEPTS EXPRESSED AND DETAILS SHOWN ON THIS DRAWING ARE CONFIDENTIAL AND PROPRIETARY.	THE CONCEPTS EX	DAKTRONICS, INC.	DAKTROI	j	

INDEX	NAME	QTY	DESCRIPTION
1	0A-1192-3402	1	ENCLOSURE 12V HORN
2	DS-1337	1	HORN, TRUMPET, 12VDC, 4.5A, 390 +/- 15HZ, 112 DB,
3	HC-1243	4	NUT, #10-24 HEX KEPS, ZN PLTD
4	HC-1470	4	MACH SCR, #10-24 X 0.625, PHIL PAN HEAD, BLK

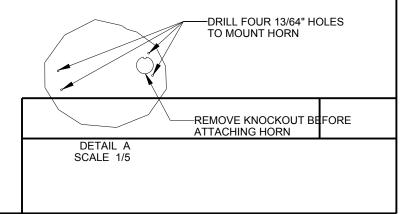


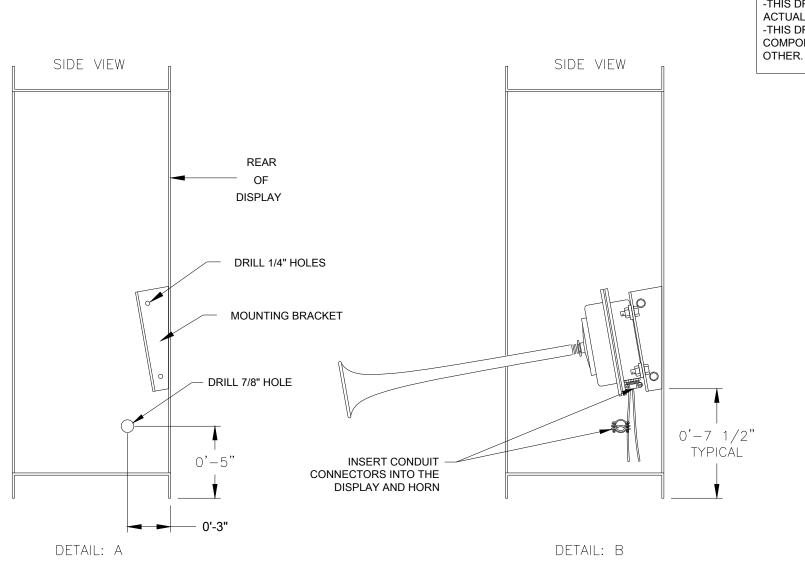
FRONT VIEW (SHOWN WITHOUT DIGITS)

SIDE VIEW

#### NOTES:

- 1. DRILL 13/64" HOLES IN PLACE OF EXISTING HOLES SHOWN IN DETAIL A
- 2. REMOVE KNOCKOUT FROM SIDE OF SCOREBOARD
- 3. ATTACH HORN AS SHOWN WITH HC-1243 NUTS AND HC-1470 SCREWS
- 4. RIVET 0A-1192-3402 HORN ENCLOSURE TO BACKSHEET BY ALIGNING PRE-PUNCHED HOLES IN BACKSHEET WITH HOLES IN THE BACKSIDE OF THE HORN ENCLOSURE



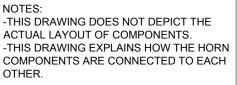


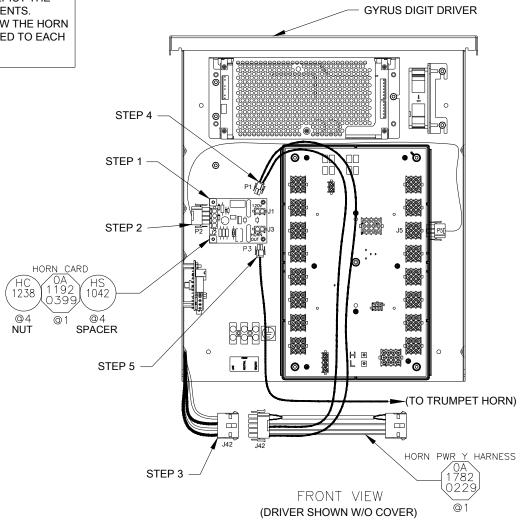
#### INSTALLATION PROCEDURE:

- 1. OPEN THE RIGHT DIGIT AND REMOVE THE COVER FROM THE DRIVER.
- 2. DRILL A 7/8" HOLE IN THE RIGHT SIDE OF THE DISPLAY PER THE DIMENSIONS SHOWN IN DETAIL A.
- 3. INSERT INCLUDED CONDUIT CONNECTORS INTO THE 7/8" HOLE AND INTO THE BOTTOM OF THE HORN AS SHOWN IN DETAIL B.
- 4. POSITION THE HORN MOUNTING BRACKET PER DETAIL B.
- 5. MARK THE MOUNTING BRACKET HOLE LOCATIONS ONTO THE SIDE OF THE DISPLAY.
- 6. DRILL 1/4" HOLES WHERE THE MOUNTING BRACKET HOLES WERE MARKED ON THE SIDE OF THE DISPLAY.
- 7. MOUNT THE HORN MOUNTING BRACKET WITH THE INCLUDED 1/4" HARDWARE.
- 8. ATTACH THE HORN TO THE BRACKET WITH INCLUDED 1/4" HARDWARE. \*THE WIRES PROTRUDE OUT THE BOTTOM OF THE HORN. MAKE SURE THE HORN IS MOUNTED WITH THE BOTTOM DOWN.
- 9. THE GROUND WIRE WILL NOT BE CONNECTED, CUT THE GREEN WIRE AS SHORT AS POSSIBLE.
- 10. ROUTE THE WIRES THROUGH THE CONDUIT AND INTO THE DISPLAY.
- 11. ONCE THE HARNESS HAS BEEN RUN THROUGH THE CONDUIT, CONNECT THE CONDUIT TO THE CONDUIT CONNECTORS IN THE SIDE OF THE DISPLAY AND THE BOTTOM OF THE HORN.

#### WIRING INSTRUCTION:

- 1. USE HARNESS 0A-1192-1686 (2-WIRE BLK AND WHT @10' LONG) AND TERMINATE THE BLACK WIRE AND THE WHITE WIRE FROM THIS HARNESS TO THE TWO WIRES COMING OUT OF THE BOTTOM OF THE HORN. USE THE INCLUDED E-1044 BUTT SPLICES TO MAKE THIS TERMINATION. NOTE: WIRES FROM THE HORN CAN CONNECT TO EITHER THE BLACK OR WHITE WIRES THIS CONNECTION IS INTERCHANGEABLE.
- 2. REFERENCE SCHEMATIC DWG-132173 FOR CONNECTIONS MADE INSIDE DISPLAY TO THE HORN CARD (0P-1192-0399) PROVIDED IN HORN ASSY KIT.
- 3. ATTACH THE COVER ONTO THE DRIVER AND ATTACH THE REMOVED DIGIT TO THE DISPLAY FACE.





#### DRIVER COMPONENTS INSTALLATION PROCEDURE:

1. FROM THE 0A-1192-1685, HORN INTERFACE CARD ASSY. MOUNT 0P-1192-0399 HORN SWITCH CARD USING HS-1042 SPACER & HC-1238 LOCK NUT.

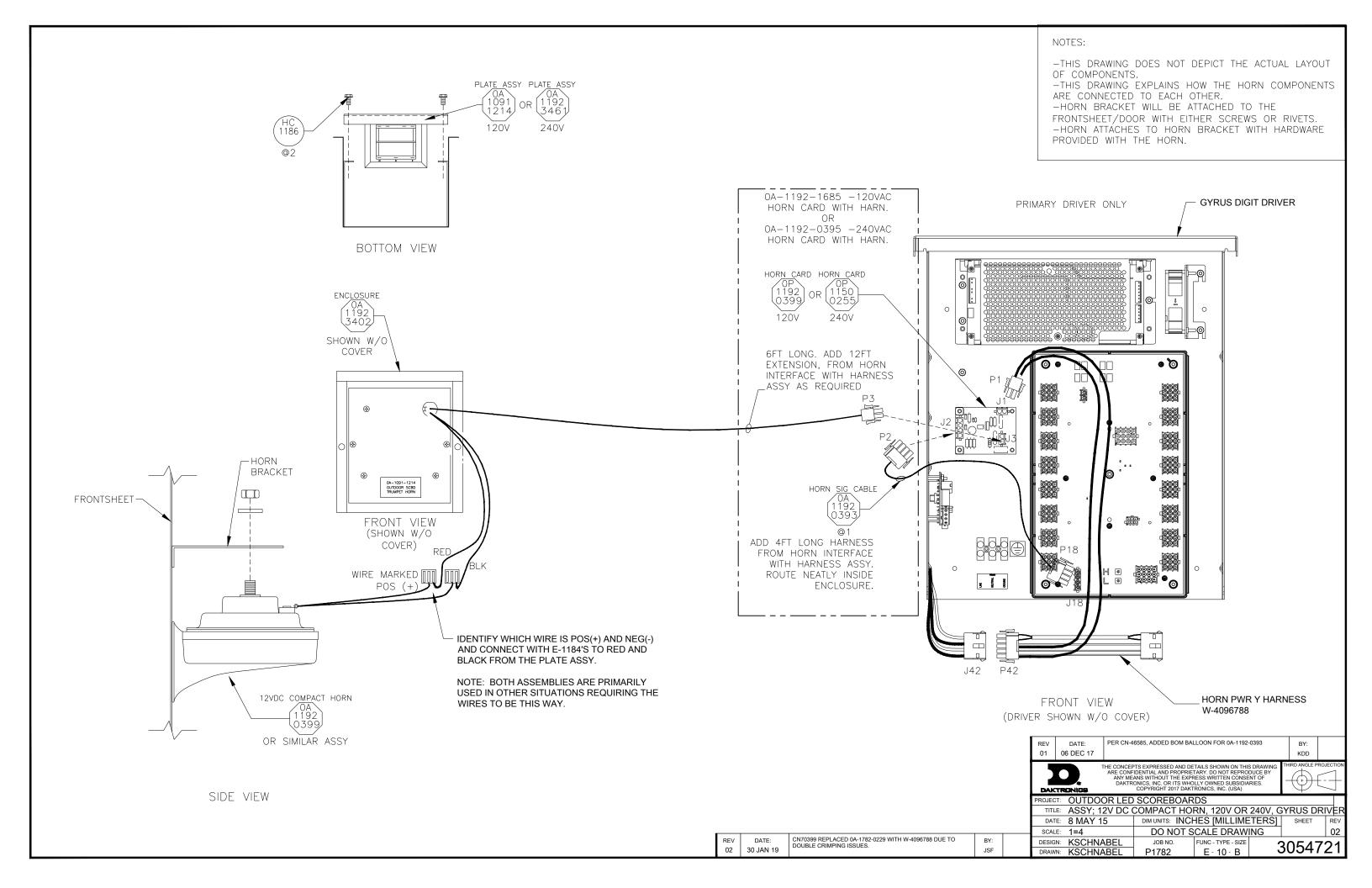
OTHER HORN SWITCH CARD PART NUMBERS ARE:

OP-1192-0399 - HORN INTERFACE; 5-35V IN, 120V OUT

OP-1150-0255 - HORN CARD FOR 240VAC INSTALLATIONS.

- 2. PLUG TI-2003 HORN SIGNAL HARNESS (0A-1192-0393) PLUG P5 INTO JACK J5 ON THE DRIVER AND PLUG P2 INTO JACK J2 OF 0P-1192-0399 HORN SWITCH CARD.
- 3. PLUG POWER ADAPTER HARNESS 0A-1782-0299 PLUG P42 INTO JACK J42 ON THE HARNESS LEAVING THE DIGIT DRIVER.
- CONNECT PLUG P1 OF THE POWER HARNESS COMING FROM ADAPTER HARNESS 0A-1782-0299 INTO JACK J1 ON THE HORN INTERFACE CARD.
- CONNECT HORN CABLE PLUG P3 INTO JACK J3 OF THE 0P-1192-0399 AND THE OPPOSITE END ON TO THE HORN.

Officer	00	P17		E - 10 - B	305469	
SHEET	REV	J	IOB NO:	FUNC-TYPE-SIZE	00-100	
SCALE: 1=5						
DESIGN: KSCHNABE				NABEL	DATE: 8 MAY 15	
TITLE:HORN MTG	INSTRU	JCTI	ONS; 120V, 1	TI-2003, GYRUS DRIVER		
PROJ: SCOREBOA	RDS					
DO NO	DO NOT SCALE DRAWING				2015 DAKTRONICS, INC.	
	KTRON BROOKING		THE CONCEPTS EXPRESSED AND DETAILS SHOWN ON TH DRAWING ARE CONFIDENTIAL AND PROPRIETARY. DO N REPRODUCE BY ANY MEANS WITHOUT THE EXPRESS WRITTEN CONSENT OF DAKTRONICS. INC.			



#### GYRUS DRIVER ASSEMBLY GYRUS DIGIT DRIVER NOTES: -THIS DRAWING DOES NOT DEPICT THE ACTUAL LAYOUT OF COMPONENTS. -THIS DRAWING EXPLAINS HOW THE HORN 0 COMPONENTS ARE CONNECTED TO EACH 0 OTHER. 0 STEP 4 -€ • STEP 1 -0 WHEN CONNECTED TO TI-2003 OR TI-2015, CONNECT TO PLUG J5. STEP 2 HORN CARD HORN CARD Ĭ92 OR 1042 @1 @1 @4 NUT **SPACER** STEP 5 (TO TRUMPET HORN) HORN PWR Y HARNESS STEP 3 FRONT VIEW @1 (DRIVER SHOWN W/O COVER)

#### DRIVER COMPONENTS INSTALLATION PROCEDURE:

- FROM THE (0A-1192-1685 120 VAC) OR (0A-1192-0395 240 VAC), HORN INTERFACE CARD ASSY. MOUNT (0P-1192-0399 120 VAC) OR (OP-1150-0255 240 VAC) HORN SWITCH CARD USING HS-1042 SPACER & HC-1238 LOCK NUT.
- FROM 0A-1192-1685, LOCATE 4 PIN (P18) TO 4 PIN (P2) HARNESS. PLUG P18 INTO LED DRIVER J18. PLUG OTHER END P2 INTO J2 ON OP-1192-0399 HORN CARD.
- 3. PLUG POWER ADAPTER HARNESS 0A-1782-0299 PLUG P42 INTO JACK J42 ON THE HARNESS LEAVING THE DIGIT DRIVER.
- 4. CONNECT PLUG P1 OF THE POWER HARNESS COMING FROM ADAPTER HARNESS 0A-1782-0299 INTO JACK J1 ON THE HORN INTERFACE CARD.
- 5. CONNECT HORN CABLE PLUG P3 INTO JACK J3 OF THE 0P-1192-0399 AND THE OPPOSITE END ON TO THE HORN.

	DA	AKTRO	NICS	, INC.	DRAWING ARE CONFIDI	SSED AND DETAILS SHOWN ON THIS ENTIAL AND PROPRIETARY. DO NOT	
		BROOKING	S, SD 5	57006	REPRODUCE BY ANY MEANS WITHOUT THE EXPRESS WRITTEN CONSENT OF DAKTRONICS, INC.		
	DO NOT SCALE DRAWING					15 DAKTRONICS, INC.	
	PROJ:SCOREBOAL	RDS					
	TITLE:HORN CARD	) INSTA	LLA	TION; GYRUS	S DRIVER		
	DESIGN: KSCHNAB SCALE: 1 = 5			DRAWN: BGAUGHAN		DATE: 29 MAY 15	
	SHEET	REV	J	IOB NO:	FUNC-TYPE-SIZE	2007000	
		00	P11	192	R - 03 - A	3067686	

#### GYRUS DRIVERS

#### FOR COMPLETE INSTALLATION INSTRUCTIONS, REFER TO HORN MANUAL.

#### MOUNTING ENCLOSURE TO INSIDE OF SCOREBOARD

- 1. OPEN THE HORN PANEL AND LOCATE THE ENTRANCE PLATE. DRILL TWO 5/32" HOLES 4 INCHES APART IN THE BACK OF THE SCOREBOARD NEAR THE ENTRANCE PLATE.
- ATTACH THE ENCLOSURE TO THE INSIDE OF THE SCOREBOARD OVER THE 5/32" HOLES USING #10 TAPPING SCREWS. ATTACH THE PLATE ASSEMBLY TO THE ENCLOSURE USING #10 HARDWARE. REMOVE 2" KNOCKOUT IN THE HORN PANEL AND DRILL TWO 7/32" HOLES USING THE TEMPLATE DRAWING A-83502. IF NO KNOCKOUT EXISTS, USE THE TEMPLATE TO DRILL ONE 8/32" HOLE AND TWO 7/32" HOLES IN THE PANEL.

#### MOUNTING HORN TO SCOREBOARD FACE

- THREAD THE TWO GRAY WIRES FROM THE HORN THROUGH THE TOP OF THE MOUNTING ANGLE.
- ATTACH THE HORN TO THE MOUNTING ANGLE USING THE HARDWARE PROVIDED

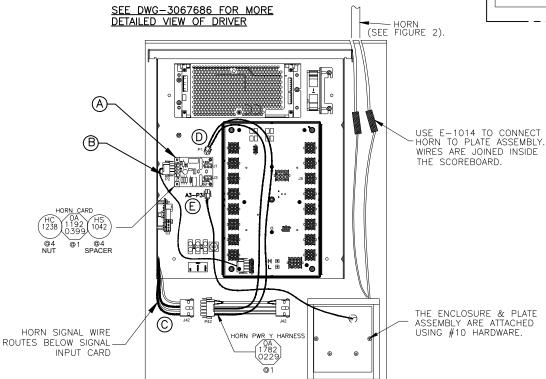
- INSERT THE BUSHING INTO THE 3/8" HOLE IN THE MOUNTING ANGLE.

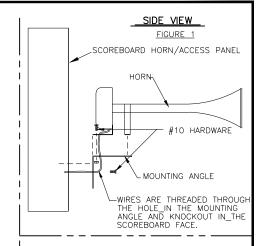
  MOUNT HORN/ANGLE ASSEMBLY TO THE FACE OF THE SCOREBOARD OVER THE KNOCKOUT AND 7/32" HOLES USING #10 HARDWARE PROVIDED.

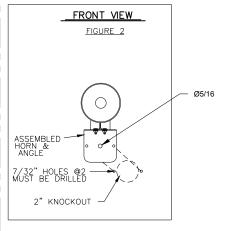
  OPEN THE HORN PANEL AND REMOVE THE COVER FROM THE ENCLOSURE.

  USING THE WIRE NUTS PROVIDED CONNECT ONE GRAY WIRE FROM THE HORN TO THE BLACK WIRE FROM THE PLATE ASSEMBLY. CONNECT THE OTHER GRAY WIRE TO THE RED WIRE (FIGURE 3)
- REFER TO DWG-03067686 FOR DETAILED HORN CARD INSTALLATION.
- ATTACH THE COVER TO THE ENCLOSURE USING #10 HARDWARE.
- CLOSE AND SECURE THE HORN PANEL.









THE CONCEPTS EXPRESSED AND DETAILS SHOWN ON THIS DRAWING ARE CONFIDENTIAL AND PROPRIETARY. DO NOT REPRODUCE BY ANY MEANS WITHOUT THE EXPRESS WRITTEN CONSENT OF DAKTRONICS, INC. COPYRIGHT 2015 DAKTRONICS, INC.

PROJ:SCOREBOARDS		
TITLE:F. ASSY: 12V DC HORN	<b>MOUNTING - OUTDOOR LE</b>	D SCBD
DESIGN: KSCHNAB	DRAWN: BGAUGHA	DATE: 29 MAY 15
SCALE: 1=1/		

DAKTRONICS, INC.

BROOKINGS, SD 57006

DO NOT SCALE DRAWING

SHEET REV JOB NO FUNC-TYPE-SIZE 3067687 P1091 00 E-10-A

