# Table of Contents

1 12 VDC Horn Installation ................................................................. 1
   Equipment ....................................................................................... 1
   Location .......................................................................................... 1
   Horn Interface Card & 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

A Reference Drawings ......................................................................... 9
12 VDC Horn Installation

Reference Drawings:
- Wiring Guide; Gyrus Outdoor Horn Kits .......................................................... DWG-3068821

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 & 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:
- Horn Card Installation; Gyrus Driver............................................................. DWG-3067686

- 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:
Plate Assy: Outdoor SCBD 12VDC Horn- AS5K .................................................. DWG-128944

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:
Horn Assembly ..................................................................................................... DWG-320004

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:
Template, Hole Drilling, Trumpet Horn .............................................................. DWG-83502
F.Assy: 12V DC Horn Mounting- Outdoor LED SCBD ........................................ DWG-3067687

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:
- 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:
- Assy; 12V DC Compact Horn, 120V or 240V, Gyrus Driver ..................................... DWG-3054721

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 Conversion Kit, for 12V Trumpet Assy ............................................. DWG-270554
- 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:
  Wiring Guide; Gyrus Outdoor Horn Kits .......................................................... DWG-3068821

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:
  Horn Card Installation; Gyrus Driver ................................................................. DWG-3067686

- 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:
- Template, Hole Drilling, Trumpet Horn ................................................................. DWG-83502
- 120V AC Horn Mounting, Outdoor Sports .............................................................. DWG-1055044
- Horn Mtg Instructions; 120V, TI-2003, Gyrus Driver .............................................. DWG-3054691
- Horn Card Installation; Gyrus Driver ................................................................ DWG-3067686

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:
- Schematic: 120VAC Trumpet Horn ........................................................................ DWG-132173
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:
Horn Assembly.....................................................................................................DWG-320004

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.
This page intentionally left blank.
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
- Horn Assembly........................................................................... DWG-320004
- Assembly Horn Kit Option ................................................... DWG-321327
- 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
This page intentionally left blank.
THE DOTTED LINE INDICATES THE 2" KNOCKOUT

LINE UP THE DOTTED LINE WITH THE EDGES OF THE KNOCKOUT. DRILL THE 7/32" 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.
HORN PLATE

P1
1  BLK
2  WHT

T1
5

C1

3300kF

CR1

RED

BLK

E1184

@2

LS1

REV  DATE:  PER CN-88357 REPLACED E-1084 W/ E-1184
08  13 SEP 19  BY:  KDM

REV  DATE:  SWITCHED TRANSFORMER TERMINAL 10 AND 6
07  27 MAR 17  BY:  BTA  PER EC-23483

REV  DATE:  ADDED WIRE COLOR FROM TRANSFORMER TO CR1
06  08 OCT 12  BY:  JML  PER EC-7744

REV  DATE:  REMOVED OUTDOOR LED DRIVE FROM SCHEMATIC
05  13 APR 07  BY:  CHO

TITLE:  STANDARD SCOREBOARDS
PROJECT:  SCHEMATIC- OUTDOOR SCBD 12VDC TRUMPET HORN- ASSY
DRAWN:  JCM
JOB NO.  P1091
SHEET  128938  08  1

DIM UNITS:  INCHES [MILLIMETERS]
SHEET:  1
REV:  08
DATE:  06MAR00
SCALE:  NONE
FUNCTION:  DO NOT SCALE DRAWING

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. OR ITS WHOLLY OWNED SUBSIDIARIES. COPYRIGHT 2017 DAKTRONICS, INC. (USA).
BLACK AND WHITE WIRES INTERCHANGIBLE

BLK & WHT WIRE CAN BE INTERCHANGED @ HORN TERMINAL

0A-1647-0072 120V HORN KIT. AN OLDER KIT IS 0A-1192-1112.

USED THE 12FT HORN CABLE WITH 0A-1192-1685 HORN INTERFACE ASSY, IN THIS 120V HORN KIT AND CONNECT TO HORN.

EITHER MAYBE USED. SOME ASSY'S MAY HAVE BEEN SHIPPED WITH EITHER

E 1084 OR E 1184
@2 @2

@ 10'

GROUND E-1001

0A-1091-0469
0A-1192-1112

0A-1054-0125

SOME ASSY'S MAY HAVE BEEN SHIPPED WITH EITHER

ANY OF THESE MAYBE USED. MOST ASSY'S SHIPPED WITH E-1044 IN PAST YEARS. USE ANY OF THE 3 FOR SERVICE WORK

08 03 JUN 14 MWM

01 07SEP00 CMC

02 23 MAR 06 DMD

03 30 JUN 06 AFL

04 8/3/06 BDV

05 11 SEPT 06 AMG

06 13 APR 07 AMG

07 22 SEP 09 MWM

1=1

DATE: REV BY:
03 JUN 14 MWM
07 22 SEP 09 MWM
06 13 APR 07 AMG

NOTE: THIS ADDITIONAL WIRE NUMBERING MAY HAVE BEEN SHIPPED WITH OTHER ASSY'S IN THE PAST AND CAN BE USED FOR SERVICE REPLACEMENT.

00 1091 R 03 A

DRAWN: DATE:

RASMUS 16MAY00

PHOTOGRAPHS OF FIELD INSTALLATION OF METHODS

DBR 5306

PHOTOGRAPHS OF FIELD INSTALLATION OF METHODS

DBR 5306

PHOTOGRAPHS OF FIELD INSTALLATION OF METHODS

DBR 5306

PHOTOGRAPHS OF FIELD INSTALLATION OF METHODS

DBR 5306

PHOTOGRAPHS OF FIELD INSTALLATION OF METHODS

DBR 5306

PHOTOGRAPHS OF FIELD INSTALLATION OF METHODS

DBR 5306
This assembly includes OA-1072-0023 horn and OA-1091-1214 plate assy shown here.

Note: OA-1072-0023 horn is primarily used in a final assembly which requires the 2 pin mat-n-lok. OA-1091-1214 assembly is primarily used with assemblies which require wire nuts.

See DWG-111265 for additional information.
120 VOLT SETUP
PLATE ASSEMBLY FOR OUTDOOR HORNS

CUT THESE TWO WIRES AS CLOSE TO T1 PIN 1, AND PIN 5 AS POSSIBLE, AND DISCARD THE WIRES THAT ARE ON PINS 2&4.

TO HORN

240 VOLT SETUP
PLATE ASSEMBLY FOR OUTDOOR HORNS

INSTALL 0A-1192-3282, 3" TRANSFORMER CONVERSION JUMPER BETWEEN PINS 2&4

TO HORN
**SWAPPED PINS 7 & 8 ON P-1013**

**ADDED FIELD INSTALL PORTION AND P-1013 E-1035’S**

---

**FIELD INSTALLATION INSTRUCTIONS:**

- REMOVE EXISTING 4PIN TO 4PIN HORN HARNESS FROM J2 ON HORN INTERFACE CARD AND J18 OF DRIVER
- INSTALL HORN SIGNAL CABLE (OA-1192-0393), CONNECT TO J5 OF DRIVER AND J2 OF HORN INTERFACE CARD. SEE BELOW

---

**NOTE***

OA-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

---

**OUTDOOR DRIVER ENCLOSURE**

---

**HORN INTERFACE CARD OF 1192 HORN**
**NOTE:**

1. Location of Horn Arm Stand must be at lower point on bracket if arm is 3.25" to insure that horn tilts down.
2. If Horn Arm is less than 2.5" then attach to higher point on bracket.

---

Horn Arm is 3.25"
Attached at lower point.

---

Horn Arm is 2.5"
Attached at higher point.

---

Horn Arm is 3.25"
Attached at higher point.

**DO NOT ATTACH HORN TO BRACKET LIKE THIS**

Horn is never to be tilted upward.
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 SCOREBOARD USING EXISTING WIRE NUTS.
-SEE DWG-315892 FOR INSTALLATION DETAIL
NOTES:
- REMOVE THE HORN ACCESS PANEL AND REMOVE REMOVE KNOCKOUT
- REMOVE THE TRUMPET FROM THE HORN, ATTACH THE HORN AND GROUND LUG TO HORN BRACKET USING THE SPECIFIED HARDWARE
- ATTACH THE GREEN GROUND WIRE FROM THE HORN TO THE GROUND LUG
- ATTACH THE HORN MOUNTING BRACKET W/ ATTACHED HORN TO THE BACKSHEET USING SPECIFIED HARDWARE
- CONNECT THE HORN HARNESS FROM OA-1197-1685 TO HORN USING WIRE NUTS. ATTACH HORN HARNES TO THE HORN INTERCONNECT CABLE JACK Labeled J101.
- REATTACH HORN ACCESS COVER AND TRUMPET
- TEST THE HORN WITH THE SCOREBOARD TEST CONSOLE
- AFTER TESTING REMOVE THE TRUMPET AND WRAP THE TRUMPET IN BUBBLE WRAP. SECURE TRUMPET INSIDE THE DOOR BELOW THE HORN ACCESS PANEL

SIDE VIEW

TOP EXTRUSION

HORN ACCESS PANEL

TRUMPET
(PART OF OA-1237-2041)

GROUND LUG

HORN

E 1184

@2

HORN BRACKET

DM-1050905 @1

HS 1195

HC 1043

@4

@4

SAE-1001

@1

@1

1/8

@1

@3

@3

@2

F3

FRONT OF SCOREBOARD

TO HORN INTERCONNECT HARNESS FROM DRIVER

BOTTOM EXTRUSION

REV
03
DATE:
13 SEP 19
PER CN-88357, REPLACED E-1084 W/ E-1194
BY:
KOM

REV
02
DATE:
04 JAN 19
REPLACE DS-1046 WITH OA-1237-2041
PER EC-70630
BY:
SJC

REV
01
DATE:
10 OCT 12
CHANGED LOCATION OF GROUNDING LUG
PER EC-8873
BY:
JLR

REV DATE: BY:
01 10 OCT 12 JLR
CHANGED LOCATION OF GROUNDING LUG PER EC-8873

REV DATE: BY:
02 04 JAN 19 SJC
REPLACE DS-1046 WITH 0A-1237-2041 PER EC-70630

REV DATE: BY:
03 13 SEP 19 KDM
PER CN-88357, REPLACED E-1084 W/ E-1194

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. OR ITS WHOLLY OWNED SUBSIDIARIES. COPYRIGHT 2018 DAKTRONICS, INC. (USA)
<table>
<thead>
<tr>
<th>INDEX</th>
<th>NAME</th>
<th>QTY</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0A-1192-3402</td>
<td>1</td>
<td>ENCLOSURE 12V HORN</td>
</tr>
<tr>
<td>2</td>
<td>DS-1337</td>
<td>1</td>
<td>HORN, TRUMPET, 12VDC, 4.5A, 390 +/- 15HZ, 112 DB,</td>
</tr>
<tr>
<td>3</td>
<td>HC-1243</td>
<td>4</td>
<td>NUT, #10-24 HEX KEPS, ZN PLTD</td>
</tr>
<tr>
<td>4</td>
<td>HC-1470</td>
<td>4</td>
<td>MACH SCR, #10-24 X 0.625, PHIL PAN HEAD, BLK</td>
</tr>
</tbody>
</table>

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. MARK THE MOUNTING BRACKET HOLE LOCATIONS ONTO THE SIDE OF THE DISPLAY.
5. DRILL 1/4" HOLES WHERE THE MOUNTING BRACKET HOLES WERE MARKED ON THE SIDE OF THE DISPLAY.
6. MOUNT THE HORN MOUNTING BRACKET WITH THE INCLUDED 1/4" HARDWARE.
7. 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.
8. THE GROUND WIRE WILL NOT BE CONNECTED. CUT THE GREEN WIRE AS SHORT AS POSSIBLE.
9. ROUTE THE WIRES THROUGH THE CONDUIT AND INTO THE DISPLAY.

**WIRING INSTRUCTIONS:**

1. USE HARNESS OA-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 (IP-1192-0399) PROVIDED IN HORN ASSY KIT.
3. ATTACH THE COVER ONTO THE DRIVER AND ATTACH THE REMOVED DIGIT TO THE DISPLAY FACE.

**NOTES:**

- THIS DRAWING DOES NOT DEPICT THE ACTUAL LAYOUT OF COMPONENTS.
- THIS DRAWING EXPLAINS HOW THE HORN COMPONENTS ARE CONNECTED TO EACH OTHER.

**DRIVER COMPONENTS INSTALLATION PROCEDURE:**

1. FROM THE OA-1192-1685, HORN INTERFACE CARD ASSY. MOUNT IP-1192-0399 HORN SWITCH CARD USING HS-1042 SPACER & HC-1238 LOCK NUT.
2. PLUG TI-2003 HORN SIGNAL HARNESS (OA-1192-0393) PLUG P5 INTO JACK J5 ON THE DRIVER AND PLUG P2 INTO JACK J2 OF IP-1192-0399 HORN SWITCH CARD.
3. PLUG POWER ADAPTER HARNESS OA-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 OA-1782-0299 INTO JACK J1 ON THE HORN INTERFACE CARD.
5. CONNECT HORN CABLE PLUG P3 INTO JACK J3 OF THE IP-1192-0399 AND THE OPPOSITE END ON TO THE HORN.
IDENTIFY WHICH WIRE IS POS(+) AND NEG(-)
AND CONNECT WITH E-1184'S TO RED AND
BLACK FROM THE PLATE ASSY.

NOTE: BOTH ASSEMBLIES ARE PRIMARILY
USED IN OTHER SITUATIONS REQUIRING THE
WIRES TO BE THIS WAY.

- Horn bracket will be attached to the
  front sheet/door with either screws or rivets.
- Horn attached to horn bracket with hardware
  provided with the horn.
DRIVER COMPONENTS INSTALLATION PROCEDURE:

1. FROM THE (0A-1192-1685 120 VAC) OR (0A-1192-0395 240 VAC), HORN INTERFACE CARD ASSY. MOUNT (0P-1192-0399 120 VAC) OR (0P-1150-0255 240 VAC) HORN SWITCH CARD USING HS-1042 SPACER & HC-1238 LOCK NUT.

2. 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.
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.

2. 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

1. THREAD THE TWO GRAY WIRES FROM THE HORN THROUGH THE TOP OF THE MOUNTING ANGLE.
2. ATTACH THE HORN TO THE MOUNTING ANGLE USING THE HARDWARE PROVIDED (FIGURE 1).
3. INSERT THE BUSHING INTO THE 3/8" HOLE IN THE MOUNTING ANGLE.
4. MOUNT HORN/ANGLE ASSEMBLY TO THE FACE OF THE SCOREBOARD OVER THE 2" KNOCKOUT AND 7/32" HOLES USING #10 HARDWARE PROVIDED.
5. OPEN THE HORN PANEL AND REMOVE THE COVER FROM THE ENCLOSURE.
6. 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).
7. REFER TO DWG-03067666 FOR DETAILED HORN CARD INSTALLATION.
8. ATTACH THE COVER TO THE ENCLOSURE USING #10 HARDWARE.
9. CLOSE AND SECURE THE HORN PANEL.

FIGURE 3
HORN CONNECTION

SEE DWG-3067666 FOR MORE DETAILED VIEW OF DRIVER

USE E-1014 TO CONNECT HORN TO PLATE ASSEMBLY. WIRES ARE JOINED INSIDE THE SCOREBOARD.

THE ENCLOSURE & PLATE ASSEMBLY ARE ATTACHED USING #10 HARDWARE.
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.

OUTDOOR LED SCOREBOARDS WIRING GUIDE; GYRUS OUTDOOR HORN KITS

SCOLGRO 1 JUNE 15

P1192 R 01 C

NONE

SCOLGRO

306882100
This page intentionally left blank.