



Auto Racing Display Model CH-1436H

Installation & Maintenance Manual

ED 7931

**ED 7931
Project#1081
Rev. 2 - 19 August 1998**

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KTRONICS, INC.**
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Section 1 : Introduction

1.1 How To Use This Manual

This manual explains the installation and maintenance of the Daktronics CH-1436H auto racing display system. Setup of other control equipment or operation of the CHTS-300 timing console are not covered in this manual. For questions regarding the safety, installation, operation or service of this system, please refer to the telephone numbers listed on the cover page of this manual.

Important Safeguards:

1. Read and understand these instructions before installing.
2. Do not drop the control console or allow it to get wet.
3. Be sure the display is properly grounded with a ground rod at the display location.
4. *Disconnect power to the display when it is not in use.*
5. *Disconnect power when servicing the display.*
6. Do not modify the display structure or attach any panels or coverings to the display without the written consent of Daktronics, Inc.

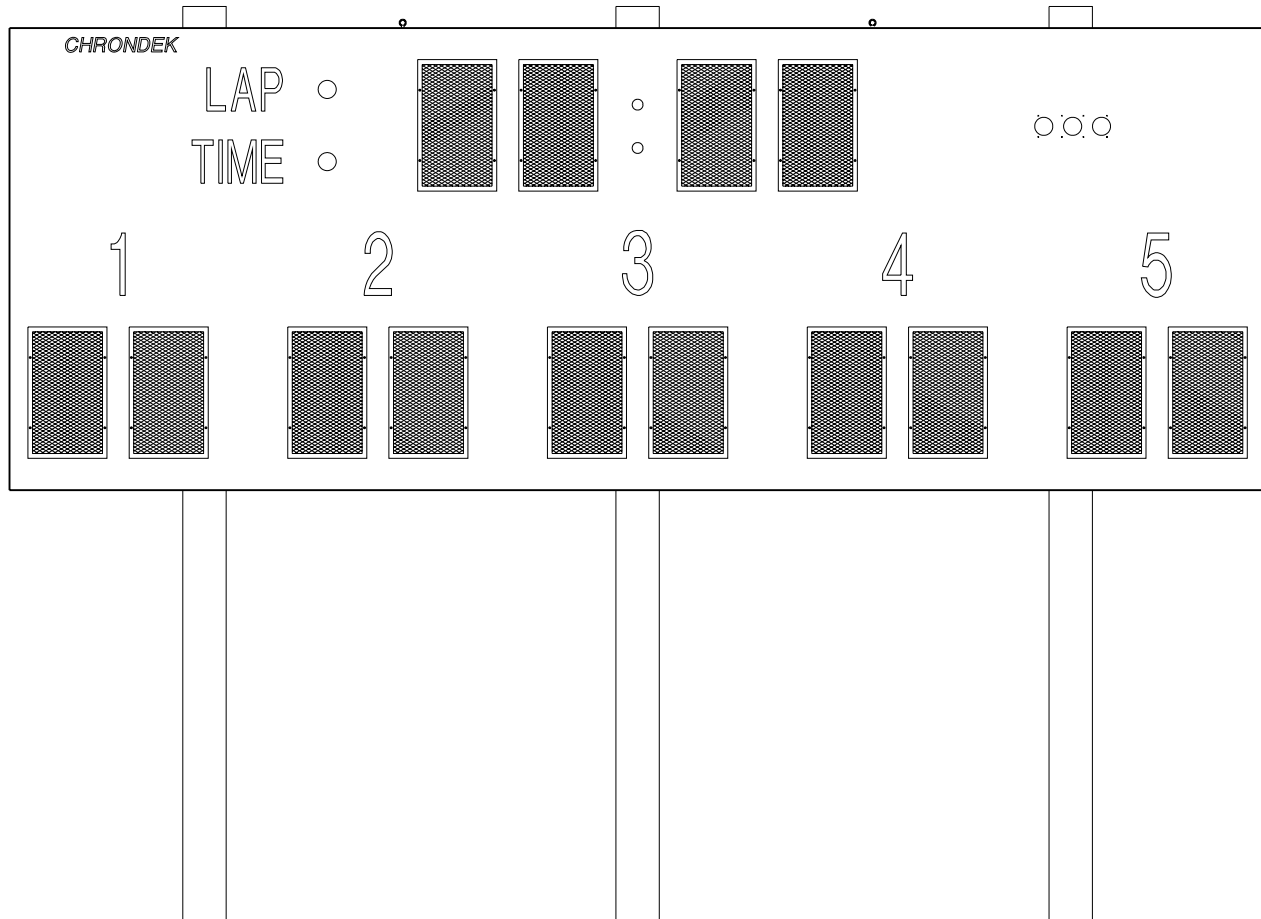
The box below illustrates Daktronics drawing numbering system. The drawing number “7087-P08A-69945” is how Daktronics identifies individual drawings. This number is located in the lower-right corner of the drawing. This manual refers to drawings by listing the last set of digits and the letter preceding them. In the example below, the drawing would be referred to as **Drawing A-69945**. Referenced drawings are inserted at the *end of the first section which references them*.

DAKTRONICS, INC. BROOKINGS, SD 57006	
PROJ:	
TITLE:	
DES. BY:	DRAWN BY: DOK DATE: 04-20-95
APPR. BY:	7087-P08A-69945
SCALE: 1=80	

1.2 Display Overview

Reference Drawing: Display, CH-1436H..... **Drawing A-63506**

Drawing A-63506 shows a Daktronics CH-1436H display. The CH-1436H display along with the use of the Daktronics timing console will display the lap number and lap time on the display.



OVERALL DIMENSIONS: 128" H x 348" W x 6" D

WEIGHT: 985 LBS

POWER REQUIREMENTS: 120/240 VAC, 40 AMPS PER LINE

MAXIMUM POWER DEMAND: 8825 WATTS WITH 30W FROSTED, 30R20 REFLECTOR LAMPS

DIGITS ARE 36" HIGH, 4 x 7 LAMP MATRICES, WITH 30W FROSTED, 30R20 REFLECTOR LAMPS.

DAKTRONICS, INC. BROOKINGS, SD 57006

PROJ: CHRONDEK

TITLE: DISPLAY, CH-1436H

DES. BY: DRAWN BY: C FICKBOHM DATE: 4 JULY 94

REVISION APPR. BY:

SCALE: 1=50

1081-R08A-63506

1	21DEC94	CHANGED LENGTH OF DISPLAY FROM 322" TO 348".	CFICK	
REV.	DATE	DESCRIPTION	BY	APPR.

Section 2 : Installation

2.1 General System

Reference Drawings:

Color Code, 25-Pin J-Box.....	Drawing A-47207
Connector Plate, CH-1436H	Drawing A-63501
Installation Specifications, CH-1436HH	Drawing A-63502
System Layout, CH-1436H	Drawing A-63503
Mounting Instructions, CH-1436H	Drawing A-63504
Component Locations, CH-1436H	Drawing A-63922
Power & Signal Entrance, CH-1436H	Drawing A-63923

Refer to **Drawing A-63503** for a general system layout.

The general procedure for installing the CH-1436H display is as follows:

1. Select beam and footing recommendations from the table below.
2. Dig the footing holes and install beams and footings.
3. Route power and signal cables to the display and control locations.
4. Mount the displays to the beams as described in **Section 2.3** and **Drawings A-63502** and **A-63504**.
5. Route power and signal wires into the displays as described in **Section 2.4** and **Drawings A-47207, A-63501, A-63922** and **A-63923**.

2.2 Beam and Footing Selection

Reference Drawing: Mounting Instructions, CH-1436H **Drawing A-63504**

The table below contains recommendations for W-shape beams and footings to support the display as shown in **Drawing A-63504**. The first column is wind velocity in miles per hour. The distance in the second column is from the ground to the bottom of the display. The choice from these columns depends upon the display location.

The beams listed below are beams which provide maximum wind load strength for the weight and cost of the beams.

Wind Speed	Height (ft)	Beam Section	Footing Depth x Dia.
70 mph	10	W8 x 15	4 ¾ ft x 3 ft
	15	W6 x 20	5 ½ ft x 3 ft
80 mph	10	W8 x 15	5 ½ ft x 3 ft
	15	W8 x 20	6 ¾ ft x 3 ft
90 mph	10	W8 x 17	6 ¼ ft x 3 ft
	15	W8 x 24	7 ft x 3 ft

The calculations for footing diameters and depths are based on the assumption that footings are in undisturbed soils, *not fill soils*. Lateral bearing capacity of 300 psf per foot of depth in natural grade was used to derive these figures.

The footing recommendations are based on the allowable soil bearing pressure of 3000 psf vertically and 300 psf/ft of depth horizontally. However, these recommendations *are suggestions only* and soil bearing pressure at the site must be determined by a sample test prior to specifying actual footings. Be sure that the installation complies with local codes and is suitable for the particular soil and wind conditions. *Daktronics assumes no responsibility for structures installed by others.* Daktronics recommends that W-sections of grade 35 steel be used for beams, and that 28-day (strength 3000 psi) concrete be used for footings.

A note about beam nomenclature: For a typical beam, W6 x 12 for example "W" stands for "Wide-Flange Beam". The first number (6) is the approximate front to rear dimension of the beam in inches. The second number (12) is the weight per foot in pounds. This numbering is a standard in the steel industry. Widths are from 6.00 to 8.00 inches in the chart above.

2.3 Display Mounting

Reference Drawings: Mounting Instructions, CH-1436H **Drawing A-63504**

Drawing A-63504 shows the typical mounting for the display.

Note: The bolts that secure the display sections do not go through the beams, but run along both sides of the beam, clamping the display to the beams.

A mounting kit consisting of 12 mounting angles and 1/2" hardware are provided to mount the display.

1. Position the bottom display against the mounting beams and secure the bottom of the display to both beams as shown in **Drawing A-63504**.
2. Next, secure the top of the display. Once mounting angles are attached, the display may be slid up or down to the desired height.
3. Once positioned as desired, tighten all bolts.
4. Position the top display section on top of the bottom display section and secure to the beam the same way as the bottom display section was mounted.

2.4 Electrical Installation

2.4.1 Control Signal Cable

Reference Drawings: Color Code, 25-Pin J-Box **Drawing A-47207**
Component Locations, CH-1436H **Drawing A-63922**
Power&Signal Entrance, CH-1436 **Drawing A-63923**

For the display, two conductors of 24 AWG are needed. For distances up to 600 ft. or 22 AWG, up to 1000 ft. are required. Daktronics has 24 AWG direct burial cable, Daktronics part no. W-1105 with 6 conductors, and 22 AWG cable that must be pulled through the conduit before burial, Daktronics part no. W-1077 with 2 conductors.

At the control location, mount the signal J-box to a convenient location. Route the cables and connect to the wires leading from the connector in the cover according to the following table and **Drawing A-47207**.

At the display, open the bottom hinged panel covering the entrance enclosure as shown on **Drawing A-63922**. Remove the cover from the entrance enclosure. Refer to **Drawing A-63923** for an illustration of the components inside the entrance enclosure. Connect the signal wires to TB31 as indicated in the table below.

Control End			Display End
J-box Terminal No.	Wire Color	Output No.	TB31 Terminal No.
14	Red/Wht	1*	1 (+)
15	Grn/Wht		2 (-)

*Auxiliary display(s) require(s) a different output no.(s). Consult your CHTS-300 console manual.

2.4.2 Power Wiring


Reference Drawings: Connector Plate, CH-1436H **Drawing A-63501**
Power&Signal Entrance,CH-1436 **Drawing A-63923**

The CH-1436H display requires a 120/240 VAC, 40 amp circuit per line. When equipped with 30W, 30R20 reflector lamps, the maximum current draw is 54 amps.

Route power wires into the display and connect to TB41 in the entrance enclosure as shown in **Drawing A-63923**.

Connect the ground wire to E41 and to a ground rod near the display according to local codes and **Section 2.5**.

2.5 Grounding

 *Displays MUST be grounded according to the provisions outlined in Article 250 of the National Electrical Code.*

The display *must* be connected to earth-ground. Proper grounding is necessary for reliable equipment operation. It also protects the equipment from damaging electrical disturbances and lightning. **The display must be grounded as follows or the warranty will be void.**

The support structure of the display cannot be used as grounding. The support is generally embedded in concrete, and if in earth, the steel is either primed or it corrodes, making it a poor ground. Use one ground rod at each display support column.

The National Electrical Code requires the use of a lockable power disconnect near the display. Provide a lockable disconnect switch (knife switch) at the display location so that all power lines can be completely disconnected. Use a 3-conductor disconnect so that both hot lines and the neutral can all be disconnected.

There are two considerations for power installation: New Power Installation and Existing Power Installation. These two power installations differ slightly, as described in the following sections.

2.5.1 New Power Installation

The power cable *must* contain a separate earth-ground conductor. When a separate ground conductor is used, *do not* connect neutral to ground at the disconnect or at the display. This would violate electrical codes and void the warranty. Refer to **Figure 1**.

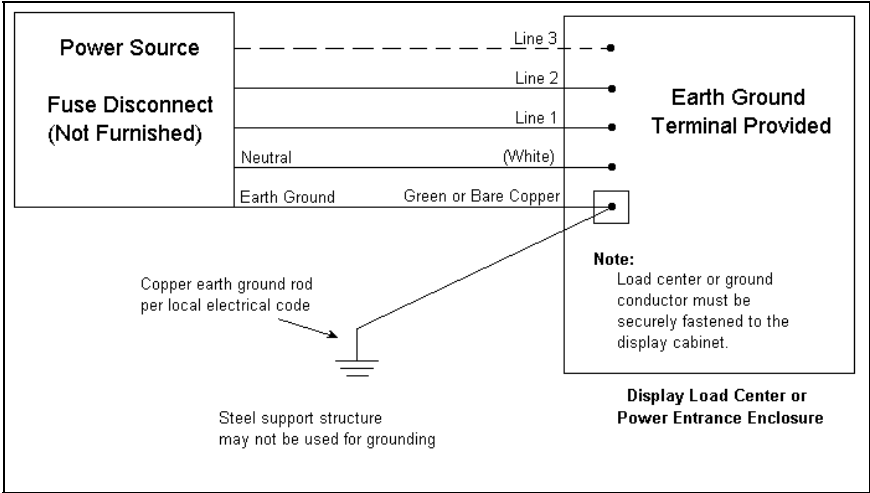


Figure 1: New Power Installation

2.5.2 Existing Power Installation

When a separate ground conductor is *not* available, connect the neutral to the earth-ground at the disconnect, *never* at the display. Refer to **Figure 2**.

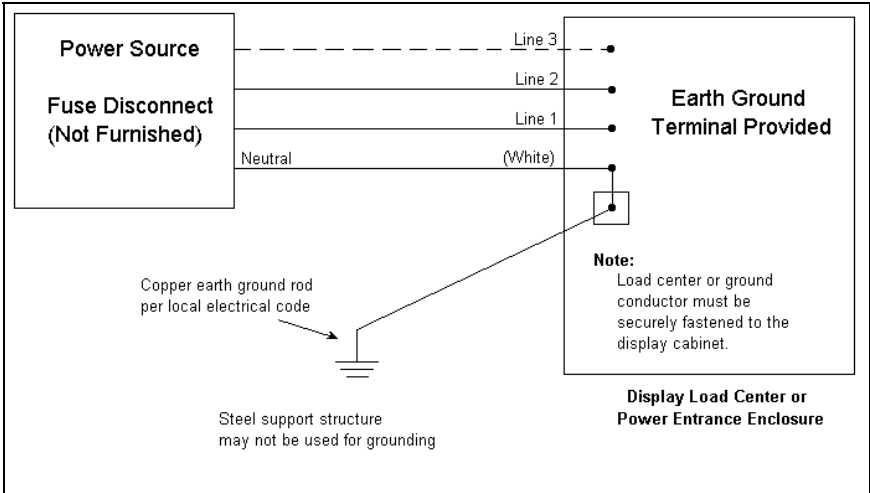
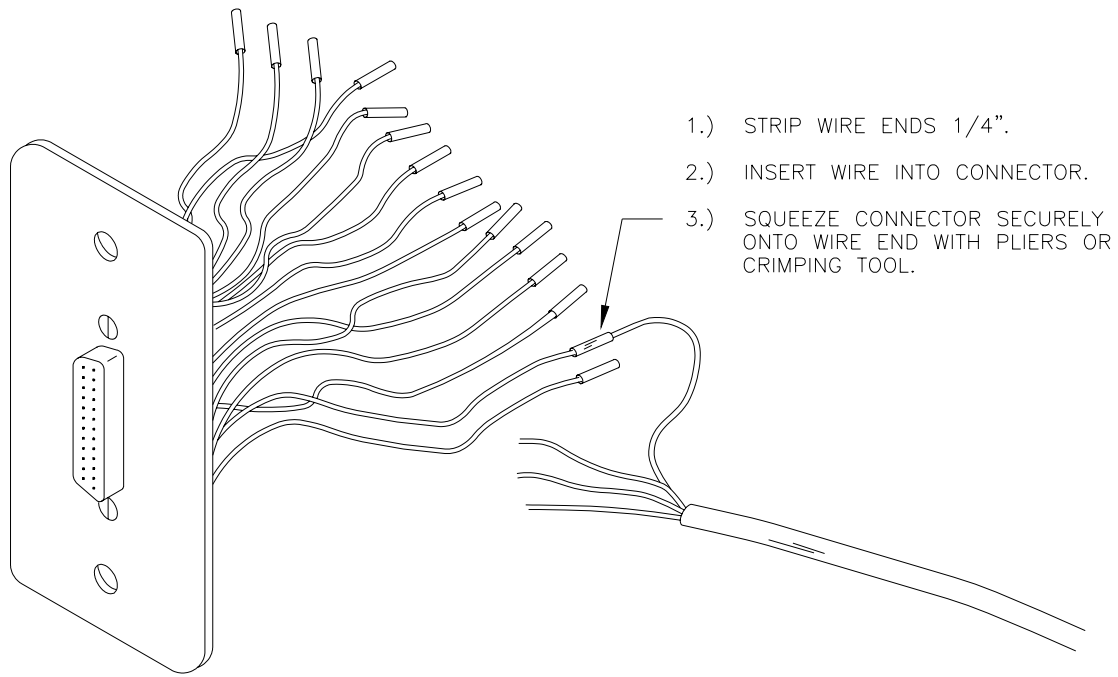


Figure 2: Old Power Installation



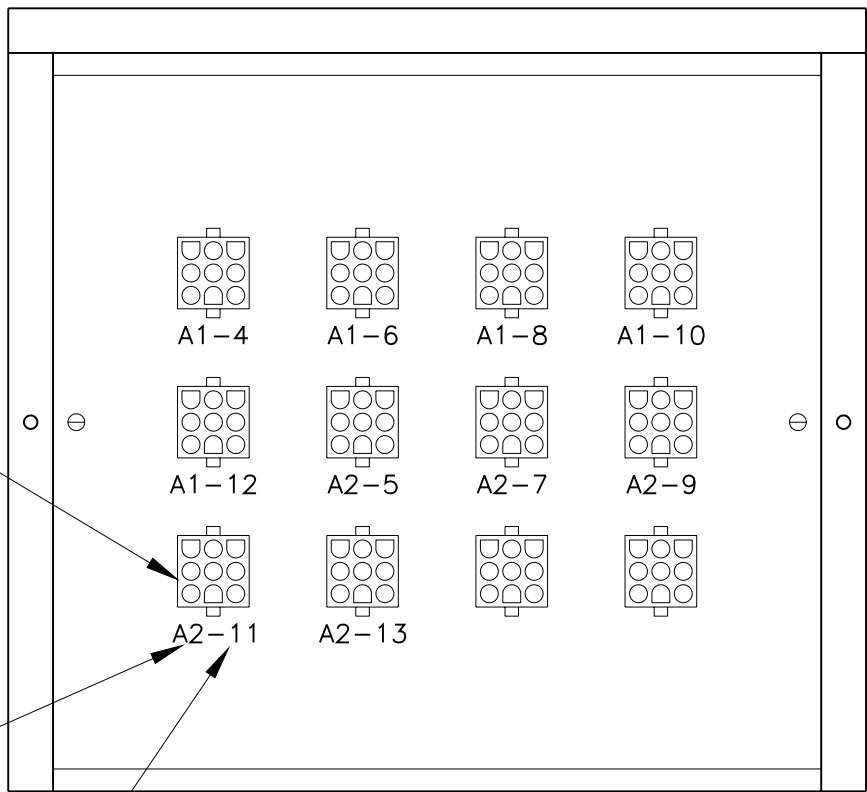
- 1.) STRIP WIRE ENDS 1/4".
- 2.) INSERT WIRE INTO CONNECTOR.
- 3.) SQUEEZE CONNECTOR SECURELY ONTO WIRE END WITH PLIERS OR CRIMPING TOOL.

PIN NO.	WIRE COLOR	FUNCTION	
1	BLACK	PHOTO 1-N	PHOTOCELL POWER INPUTS
2	WHITE	PWR 1-P	
3	RED	GND 1-N	
4	GREEN	PHOTO 2-N	
5	ORANGE	PWR 2-P	
6	BLUE	GND 2-N	
7	WHITE/BLACK	PHOTO 3-N	
8	RED/BLACK	PWR 3-P	
9	GREEN/BLACK	GND 3-N	
10	ORANGE/BLACK	PHOTO 4-N	
11	BLUE/BLACK	PWR 4-P	
12	BLACK/WHITE	GND 4-N	
14	RED/WHITE	1 SIG-P	SCOREBOARD SIGNAL OUTPUTS
15	GREEN/WHITE	1 SIG-N	
16	BLUE/WHITE	2 SIG-P	
17	BLACK/RED	2 SIG-N	
18	WHITE/RED	3 SIG-P	
19	ORANGE/RED	3 SIG-N	
22	BLUE/RED	4 SIG-P	THESE PINS TYPICALLY NOT USED BY CHTS TIMER
23	RED/GREEN	4 SIG-N	
13	ORANGE/GREEN	NOT USED	
20	BLK/WHT/RED	NOT USED	
21	WHT/BLK/RED	NOT USED	
24	RED/BLK/WHT	12 VAC	
25	GRN/BLK/WHT	12 VAC	

DAKTRONICS, INC. BROOKINGS, SD 57006

REV.	DATE	DESCRIPTION	BY	APPR.
2	10MAR97	ADDED WIRES TO PINS 13,20,21,24,25	EB	
1	4 JUN 92	CHANGED "SIGNAL INPUTS" TO "SIGNAL OUTPUTS"	C FICK	

PROJ:	CHRONDEK
TITLE:	COLOR CODE, 25-PIN J-BOX
DES. BY:	CF
DRAWN BY:	CF
DATE:	1 MAY 91
REVISION	APPR. BY: AVB
	SCALE: 1=2
1067-R10A-47207	



9-PIN JACK
(TYP)

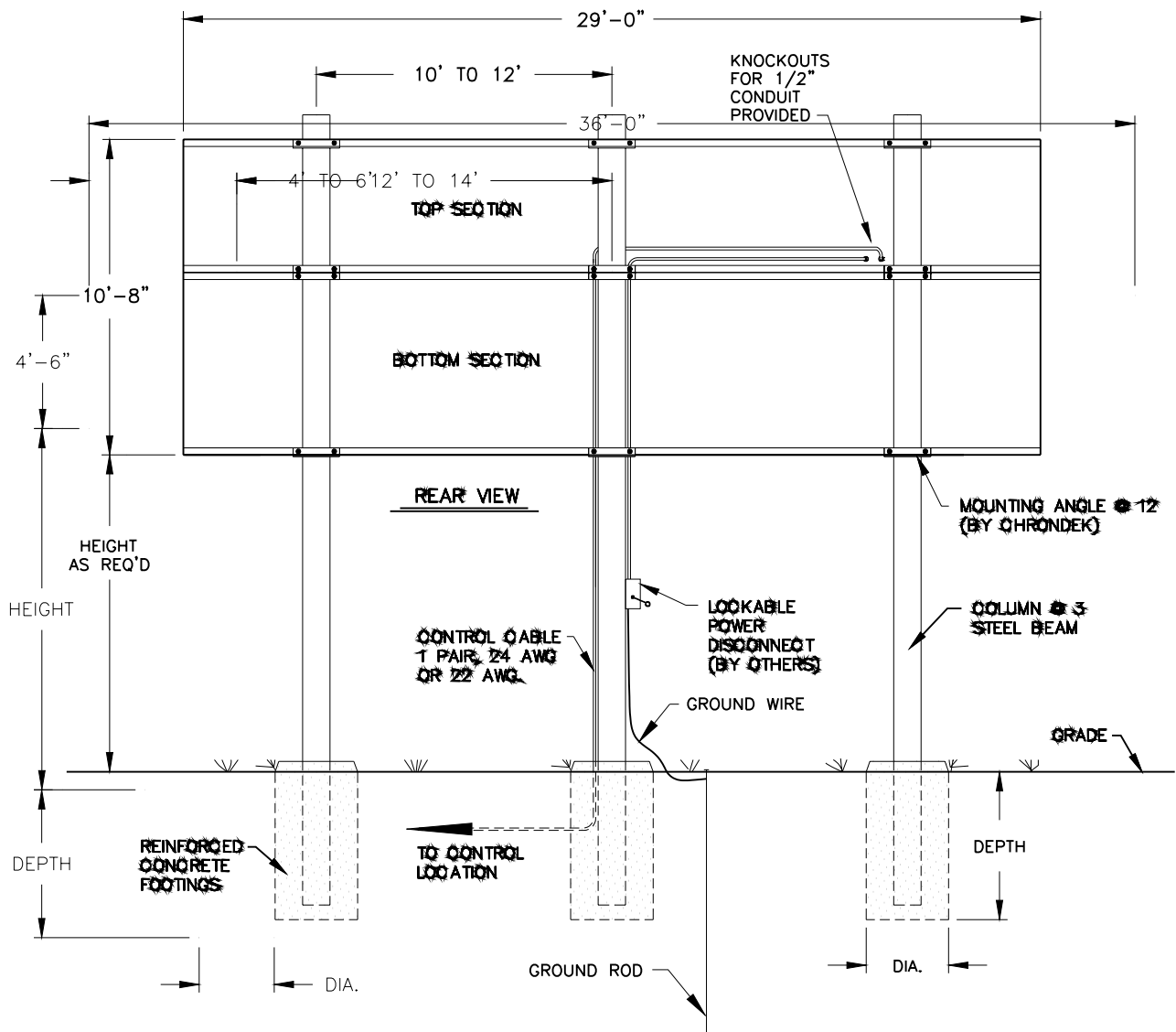
LAMP DRIVER NO.

LAMP DRIVER
PLUG/DIGIT NO.
THAT PLUGS INTO
9-PIN JACK.

FRONT VIEW

DAKTRONICS, INC. BROOKINGS, SD 57006	
PROJ: CHRONDEK DISPLAYS	
TITLE: CONNECTOR PLATE, CH-1436H	
DES. BY:	DRAWN BY: C FICKBOHM DATE: 6 JULY 94
REVISION	APPR. BY:
	SCALE: 1=3
1081-R04A-63501	

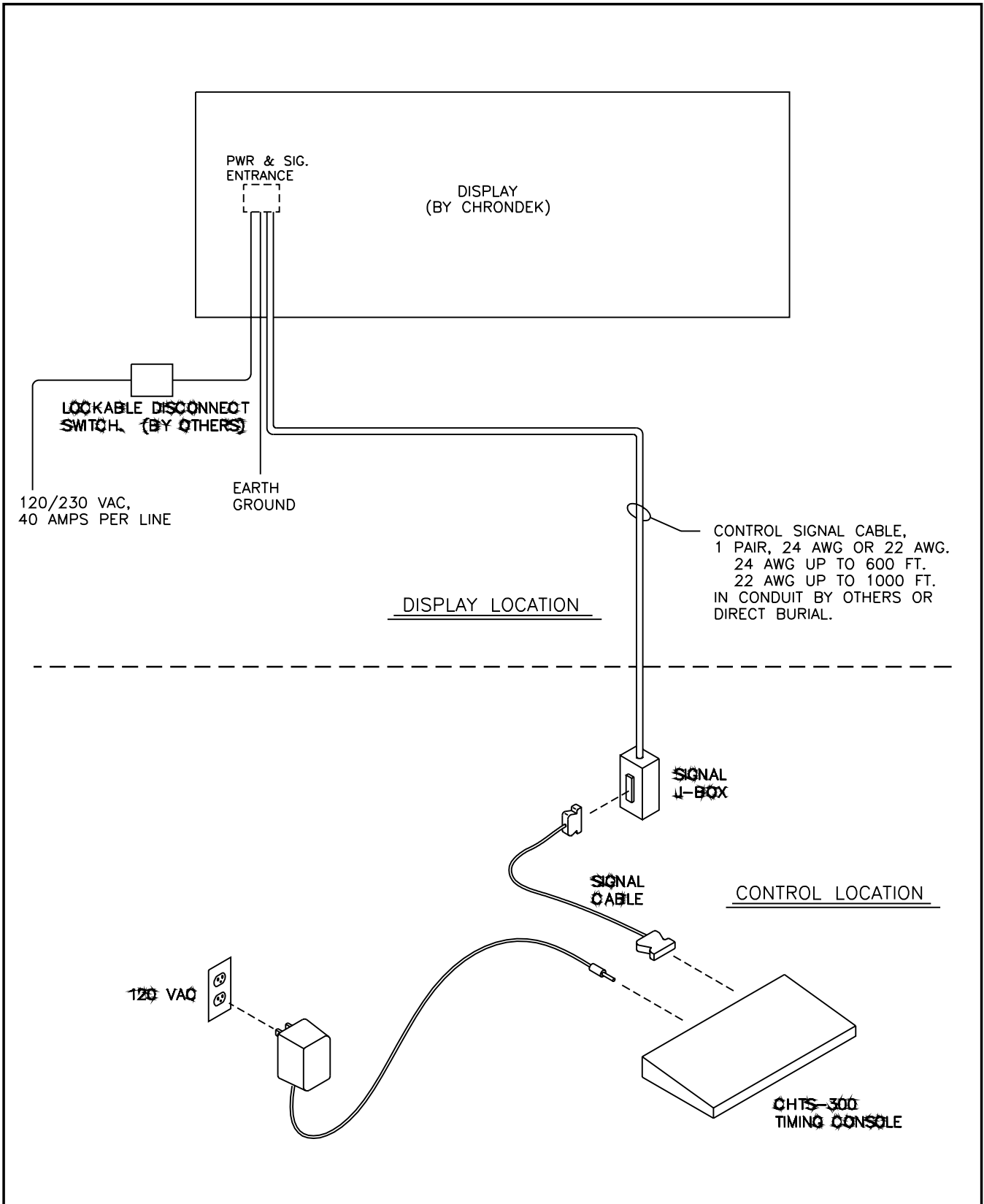
REV.	DATE	DESCRIPTION	BY	APPR.



SCOREBOARD MUST BE CONNECTED TO A GROUND ROD AT SCOREBOARD LOCATION.

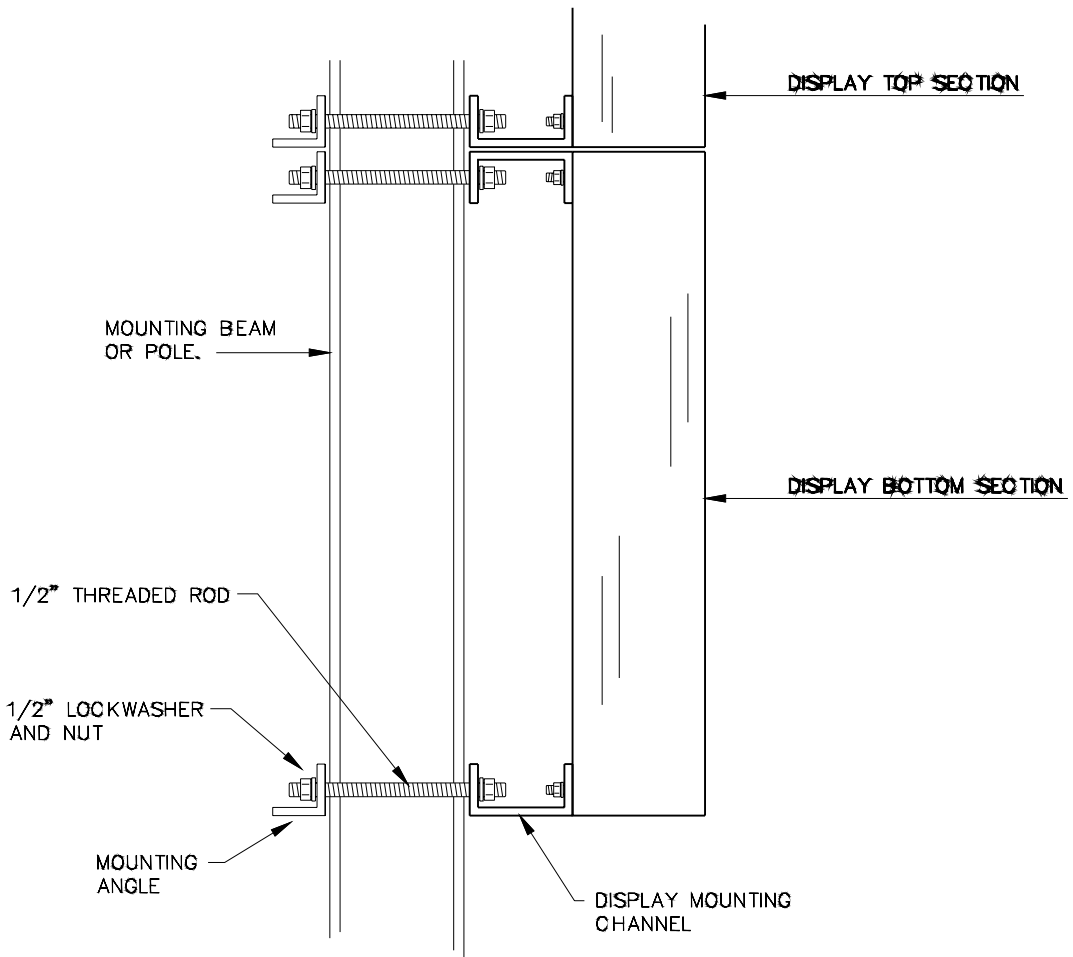
DAKTRONICS, INC. BROOKINGS, SD 57006			
PROJ: CHRONDEK			
TITLE: INSTALLATION SPECIFICATIONS, CH-1436HH			
DES. BY:		DRAWN BY: C FICKBOHM	
		DATE: 4 JULY 94	
REVISION	APPR. BY:	1081-R10A-63502	
	SCALE: 1=65		

1	21DEC94	CHANGED LENGTH OF DISPLAY FROM 26'-10" TO 29'-0".	CFICK	
REV.	DATE	DESCRIPTION	BY	APPR.



DAKTRONICS, INC. BROOKINGS, SD 57006	
PROJ: CHRONDEK DISPLAYS	
TITLE: SYSTEM LAYOUT, CH-1436H	
DES. BY:	DRAWN BY: C FICKBOHM DATE: 5 JULY 94
REVISION	APPR. BY:
	SCALE: 1=1
1081-R04A-63503	

REV.	DATE	DESCRIPTION	BY	APPR.



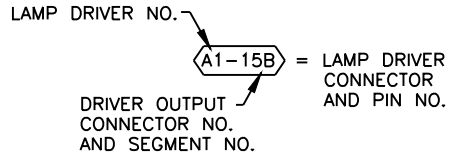
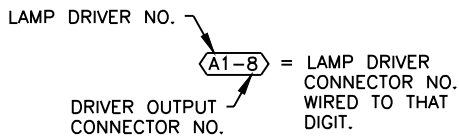
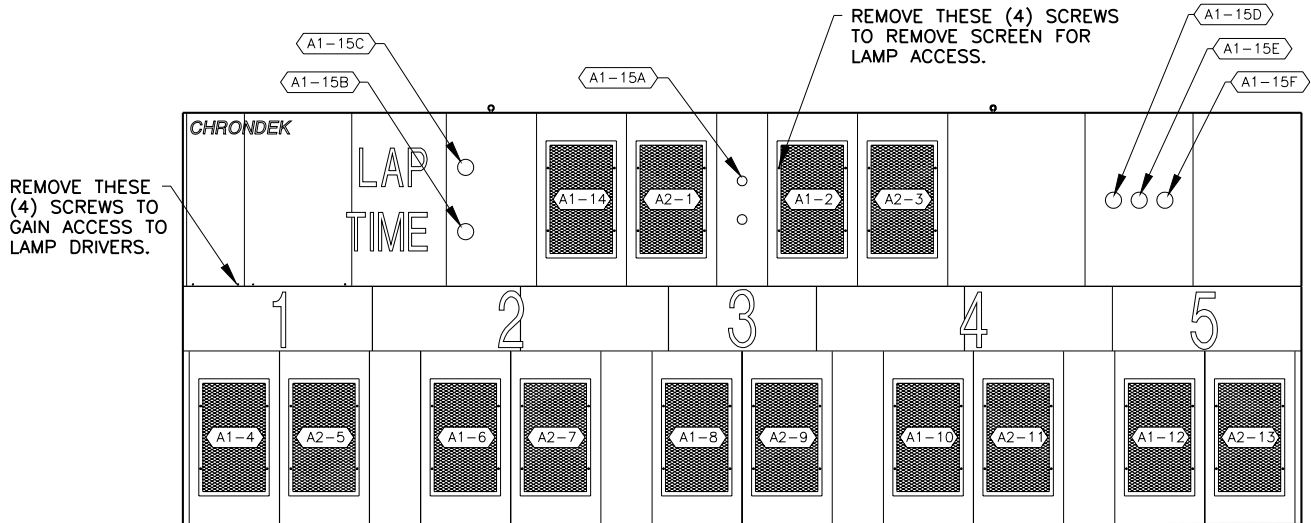
SIDE VIEW

MOUNTING INSTRUCTIONS:

- 1.) LOCATE WHERE CENTER OF BEAMS WILL BE ON BACK OF BOTTOM DISPLAY SECTION.
- 2.) DRILL $\frac{9}{16}$ " HOLES IN MOUNTING CHANNELS ON BACK OF DISPLAY, AT A DISTANCE OF ± 3.50 " OR 4.50 " FROM CENTER OF EACH BEAM.
- 3.) LIFT BOTTOM DISPLAY SECTION IN PLACE.
- 4.) ATTACH MOUNTING HARDWARE AS SHOWN ABOVE.
- 5.) DISPLAY CAN BE SLID UP OR DOWN TO HEIGHT REQUIRED.
- 6.) TIGHTEN ALL MOUNTING HARDWARE SECURELY.
- 7.) REPEAT STEPS 1 THRU 6 FOR MOUNTING OF TOP DISPLAY SECTION.

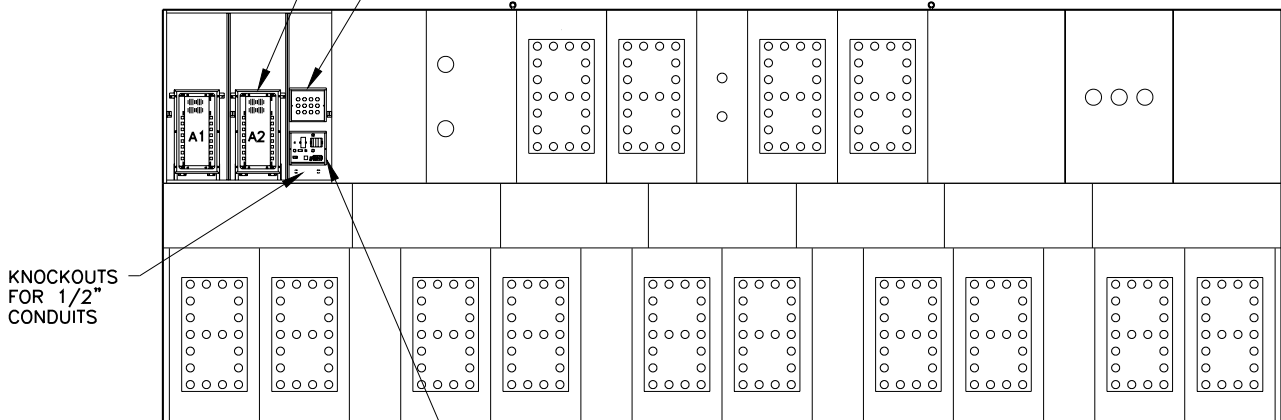
DAKTRONICS, INC. BROOKINGS, SD 57006	
PROJ: CHRONDEK DISPLAYS	
TITLE: MOUNTING INSTRUCTIONS, CH-1436H	
DES. BY:	DRAWN BY: C FICKBOHM DATE: 5 JUL 94
REVISION	APPR. BY:
	SCALE: 1=1
1081-R08A-63504	

REV.	DATE	DESCRIPTION	BY	APPR.



A1 & A2 ARE ENCLOSED LAMP DRIVERS. (COVERS REMOVED TO SHOW LAMP DRIVER)

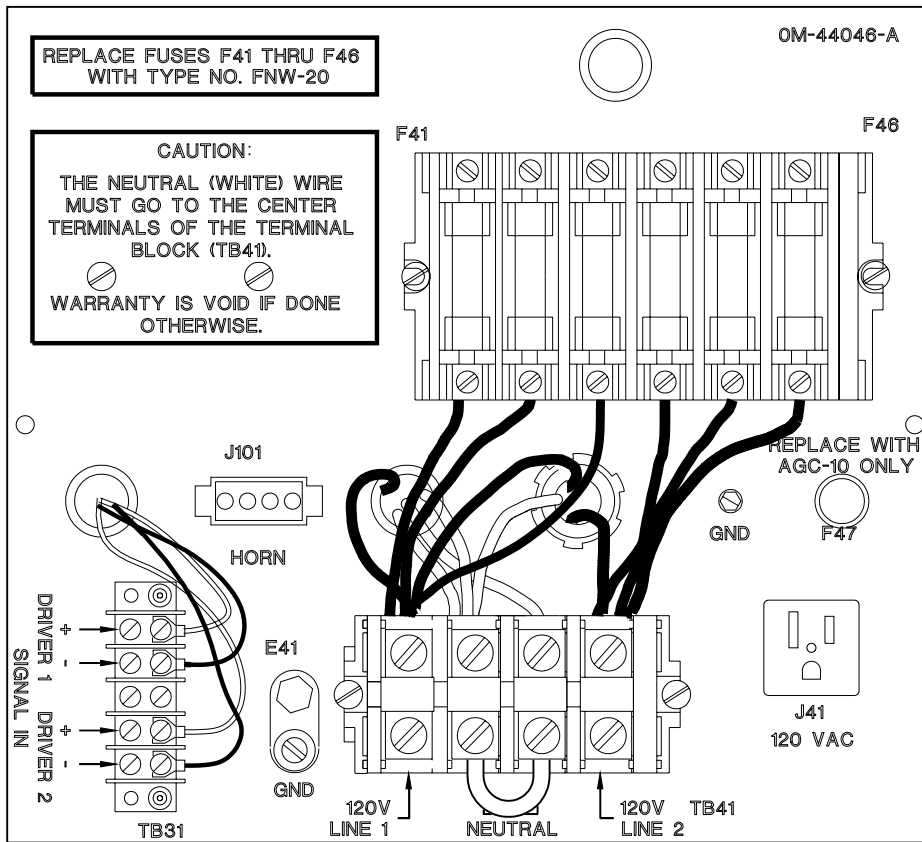
CONNECTOR PANEL FOR DIGIT HARNESS FROM BOTTOM DISPLAY SECTION.



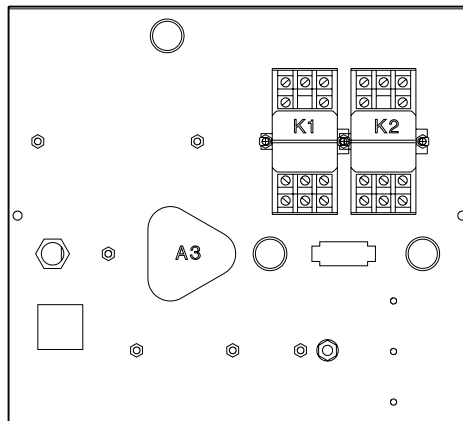
HINGED ACCESS PANELS REMOVED TO SHOW LAMP DRIVER, POWER AND SIGNAL ENTRANCE AND DIGIT HARNESS CONNECTOR PANEL LOCATIONS.

DAKTRONICS, INC. BROOKINGS, SD 57006	
PROJ: CHRONDEK	
TITLE: COMPONENT LOCATIONS, CH-1436H	
DES. BY:	DRAWN BY: C FICKBOHM DATE: 6 JULY 94
REVISION	APPR. BY:
	SCALE: 1=55
1081-R08A-63922	

1	21DEC94	MADE DISPLAY 26" LONGER.	CFICK	
REV.	DATE	DESCRIPTION	BY	APPR.



CONNECT INCOMING SIGNAL WIRES TO THE TERMINALS MARKED FOR DRIVER 1. INSERT JUMPERS TO CONNECT THESE TERMINALS TO THE TERMINALS FOR DRIVER 2. BOTH DRIVERS SHOULD RECEIVE THE SAME SIGNAL.



DAKTRONICS, INC. BROOKINGS, SD 57006				
PROJ: CHRONDEK DISPLAYS				
TITLE: POWER & SIGNAL ENTRANCE, CH-1436H				
DES. BY:		DRAWN BY: C FICKBOHM		DATE: 06JUL94
1	11MAY95	ADDED NOTE TO JUMP DRIVER 1 AND DRIVER 2 SIGNALS TOGETHER.	AVB	AVB
REV.	DATE	DESCRIPTION	BY	APPR.
		REVISION	APPR. BY:	1081-R04A-63923
			SCALE: 1=2	

Section 3 : Maintenance & Troubleshooting



IMPORTANT NOTES:

1. Disconnect power before any repair or maintenance work is done on the display!
2. Any access to internal display electronics must be made by qualified service personnel.
3. Disconnect power when the display is not in use.

3.1 Lamp Replacement

Reference Drawing: Digit Service **Drawing A-27674**

The primary service required by the CH-1436H display is to replace burned-out lamps. Refer to **Drawing A-27674** for an illustration of how to access the digit lamps for replacement. Standard replacement lamps for the digits are 120V, 25W frosted medium base and may be obtained at your local store or directly from Daktronics, part number DS-1029. Some displays may be equipped with 120V, 30W reflector type 30R20 lamps, Daktronics part number DS-1126.

Do not use lamps larger than those originally installed in the display. Using higher power lamps will likely cause fuse failures in the display and could exceed the current levels that the display's circuits can safely handle.

3.2 Lamp Driver

Reference Drawings: Lamp Driver, 16 col. w/ Fan..... **Drawing A-37070**
Component Locations CH-1436H **Drawing A-63922**

In the display, the task of switching lamps on and off is performed by the lamp driver. **Drawing A-63922** in **Section 2** shows the location of the lamp driver in the display. **Drawing A-37070** is an illustration of the lamp driver and the fuses located in it.

The lamp driver has 21 connectors, providing power and signal inputs and outputs to digits. The functions of these connectors are as follows:

Connector Number	Function
1-16	Outputs to digits
17	Signal Input
18	Power input for outputs 1-8 (120 V)
19	Power input for driver logic and fan (120V)
20	Power input for outputs 9-16 (120V)
24	Dim option selector

In **Drawing A-63922**, the numbers on the digits refer to the lamp driver output connector wired to each digit.

3.3 Digit Segmentation

Reference Drawing: Segments, 4x7 Lamp Matrix Digit..... **Drawing A-37685**

In a digit certain lamp always go on and off together. These groupings of lamps are known as "segments". Each digit has eight segments, referred by letters A through H. **Drawing A-37685** illustrates these segments and shows which connector pin and wire color is wired to each segment.

3.4 Schematic

Reference Drawings: Schematic, Pwr & Sig, CH-1436H **Drawing A-63789**
Component Locations, CH-1436H **Drawing A-63922**
Power & Signal Entrance, CH-1436H **Drawing A-63923**

The schematic diagram in **Drawing A-63789** shows the power and signal inputs into the display and to the lamp driver. The component numbers correspond to those shown in **Drawings A-63922** and **A-63923**.

3.5 Troubleshooting

Observed Problem	Possible Cause
One lamp won't light	<ul style="list-style-type: none">• Burned-out lamp• Broken wire behind digit
Digit segment won't light	<ul style="list-style-type: none">• Broken wire• Poor contact at driver connector• Internal driver malfunction
Entire digit won't light	<ul style="list-style-type: none">• Broken wire (black)• Poor contact at connector, pin 7• Fuse blown in driver
Half the display won't light	<ul style="list-style-type: none">• Service breaker tripped• Main fuse blown• Poor contact at main power connection• P18 disconnected
Entire display won't light	<ul style="list-style-type: none">• Power disruptions• Poor signal connection• Driver logic fuse blown• Control not connected to display• P20 disconnected
Segment stays lit	<ul style="list-style-type: none">• Broken wire behind digit• Internal driver malfunction
Garbled display	<ul style="list-style-type: none">• Control malfunction• Internal driver malfunction

If a problem is observed in one digit, the cause may be isolated by swapping plugs on the driver (connect the plug from the digit into a different jack). If the same digit shows the same problem, the cause may be in the digit or the wiring. If the problem moves to another digit, then the cause is probably an internal driver problem.

Use a volt meter at driver inputs to determine if power is being supplied to the driver. An ohmmeter can be helpful in finding broken wires and bad connections. Internal electronic problems must be corrected by Daktronics or an authorized service center.

3.6 Replacement Parts

Part Name or Description	Type	Part Number
Lamp Driver		0A-1033-0122
J-Box, CHTS-300 Timer		0A-1067-0056
Fuse, Lamp Driver 10A	AGC-10	F-1006
Fuse, Driver Logic, 1/2A	AGC-1/2	F-1000
Digit Lampbank, 36" 4x7		0A-1081-0073
Digit Screen, 36" 4x7		0S-1081-0038
Socket, Med. Base		X-1046
Lamp, 25W Frosted		DS-1029
Lamp, 30 W Reflector	30R20	DS-1126
Lamp, 55W Clear Flood	55PAR38	DS-1101
Lamp, 85W Amber Flood	85PAR38	DS-1184
Lamp, 85W Green Flood	85PAR38	DS-1185
Lamp, 85W Red Flood	85PAR38	DS-1186

3.7 Unit Exchange/Replacement Procedure

Daktronics unique exchange program offers our clients the quickest, most economical way of receiving product repairs. If a component fails, Daktronics will send the customer a replacement. The customer, in turn, sends the failed component to Daktronics. This not only saves money but decreases the time the display is inoperable. Daktronics offers repair and return on a timely basis; in urgent situations, every attempt is made to ship by the fastest transit method available.

- 1. Packaging for Return:** Package and pad the item well to prevent damage during shipment. Electronic components, such as printed circuit boards, should either be installed in an enclosure or placed in an anti-static bag before boxing.

Please enclose your name and address along with a list of all the symptoms. Please be as specific as possible.

- 2. Driver Packaging Instructions:** Drivers should be placed in a static-free enclosure for return shipping. An anti-static convoluted foam packing is available from Daktronics (part number PK-1135). The shipping box (Daktronics part number PK-1006) should be used along with the foam.
- 3. Where to Send:** Contact your local representative prior to shipment to acquire a Return Material Authorization Number (RMA#). This will speed up the repair of your unit.

When returning defective items under the exchange program, please use the UPS Blue Return Tags found in the package containing the exchange unit sent from Daktronics. This will speed up the transaction and help avoid confusion when the part is returned to Daktronics. **The defective item must be returned within 15 days of receiving a replacement part.** Using the UPS Blue Return Tag immediately will eliminate the possibility of late charges being assessed against your account.

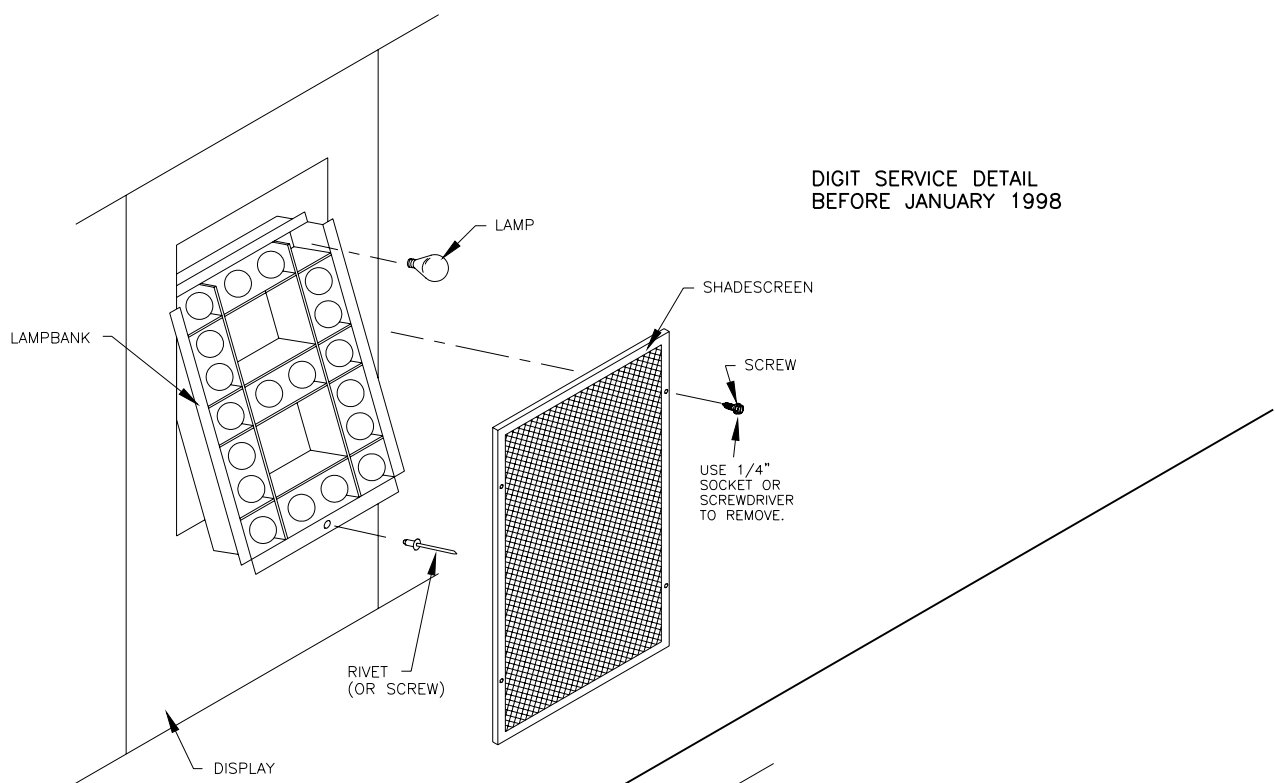
Mail: Daktronics, Inc., Customer Service

PO Box 5128
331 32nd Avenue
Brookings, SD 57006

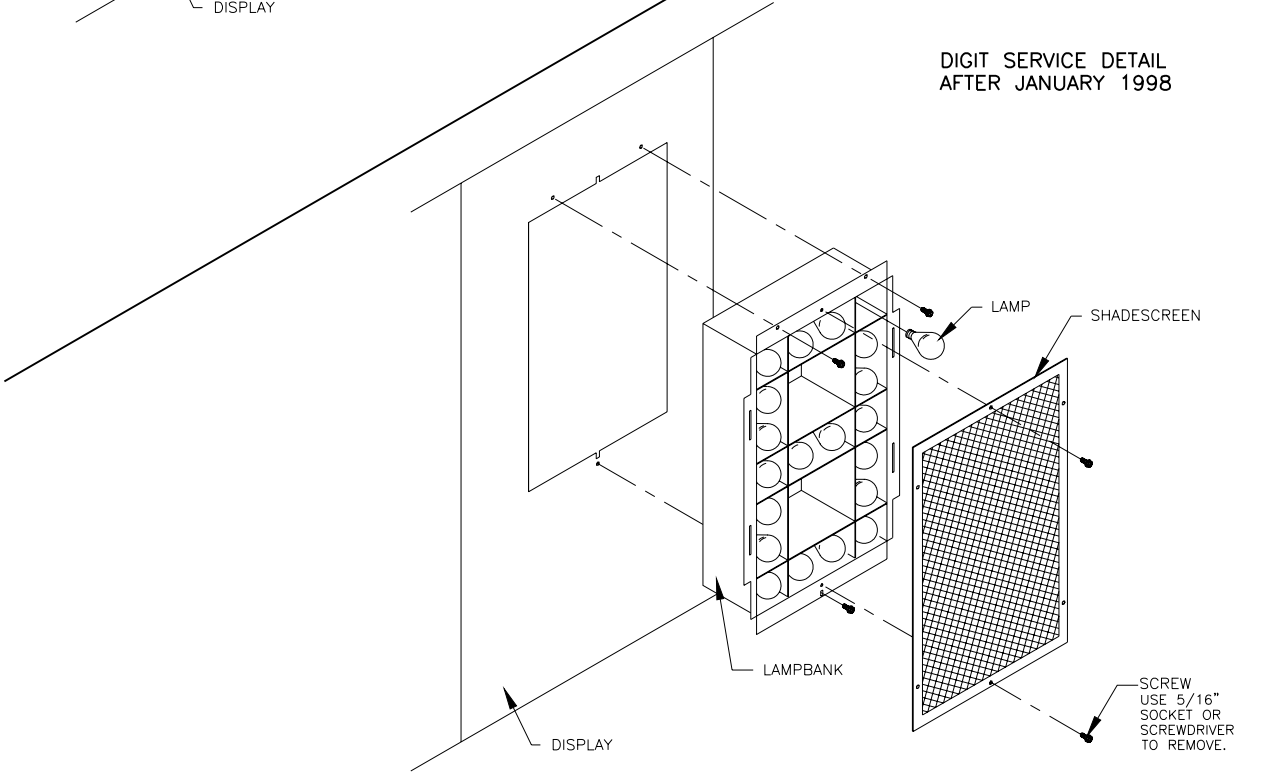
Phone: Toll Free: 1-800-843-9879
or 1-605-697-4400

Customer Service Fax: 1-605-697-4444

E-Mail: helpdesk@daktronics.com



DIGIT SERVICE DETAIL
BEFORE JANUARY 1998

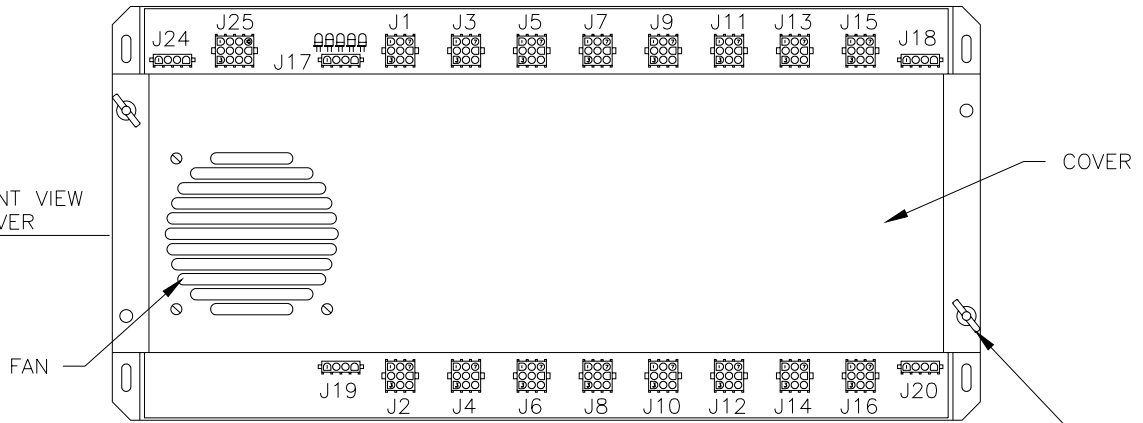


DIGIT SERVICE DETAIL
AFTER JANUARY 1998

REV.	DATE	DESCRIPTION	BY	APPR.
2	10NOV97	ADDED DIGIT SERVICE AFTER JANUARY 1998 CHANGED SCALE FROM 1=10 TO 1=15	BDP	
1	5 MAR 91	CHANGED FROM "B" TO "A" SIZE DWG.	CF	

DAKTRONICS, INC. BROOKINGS, SD 57006			
PROJ.: OUTDOOR SCOREBOARDS			
TITLE: DIGIT SERVICE			
DES. BY:	DRAWN BY: TERRY P.	DATE: 31 JULY 86	
REVISION	APPR. BY:	1064-E10A-27674	
	SCALE: 1=15		

DRIVER FRONT VIEW WITH COVER



REMOVE TWO WING NUTS TO REMOVE COVER AND GAIN ACCESS TO FUSES.

J24

PIN	FUNCTION	PIN	FUNCTION
1	NETWORK+	7	ADDR 3 -
2	NETWORK-	8	NTW GND -
3	NTWREF-P	9	NTW GND -
4	ADDR 0 -	10	FAN SW HOT
5	ADDR 1 -	11	FAN HOT
6	ADDR 2 -	12	NEUT

J17

PIN	FUNCTION
1	SIGNAL +
2	SIGNAL -
3	N.C.
4	N.C.

J1 - J16

PIN	FUNCTION
1	SEG C
2	SEG B
3	SEG A
4	SEG F
5	SEG E
6	SEG D
7	COMMON
8	SEG H
9	SEG G

J18

PIN	FUNCTION
1	LAMP NEUT
2	LAMP NEUT
3	LAMP HOT 1, 3, 5, 7
4	LAMP HOT 2, 4, 6, 8

J24

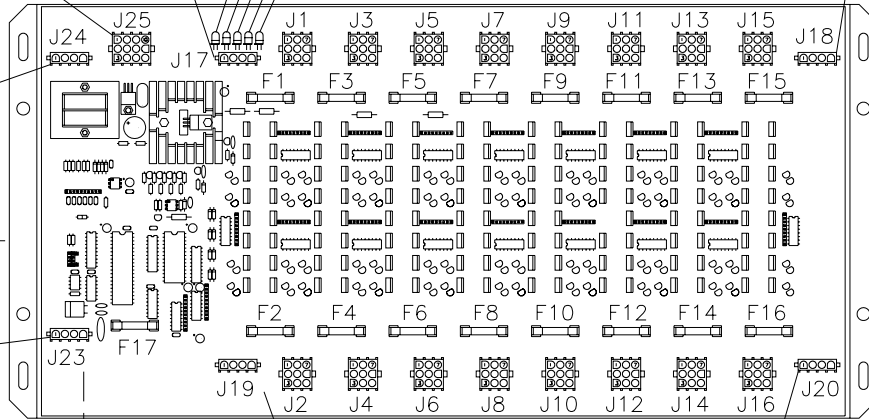
PIN	FUNCTION
1	-5V
2	DIM SEL 1
3	-5V
4	DIM SEL 2

DRIVER FRONT VIEW WITH COVER REMOVED

J23

PIN	FUNCTION
1	FAN SW HOT
2	N.C.
3	FAN HOT
4	NEUT

PLUG FROM FAN IN COVER CONNECTS TO J23



J19

PIN	FUNCTION
1	NEUTRAL
2	NEUTRAL
3	120V HOT
4	120V HOT

J20

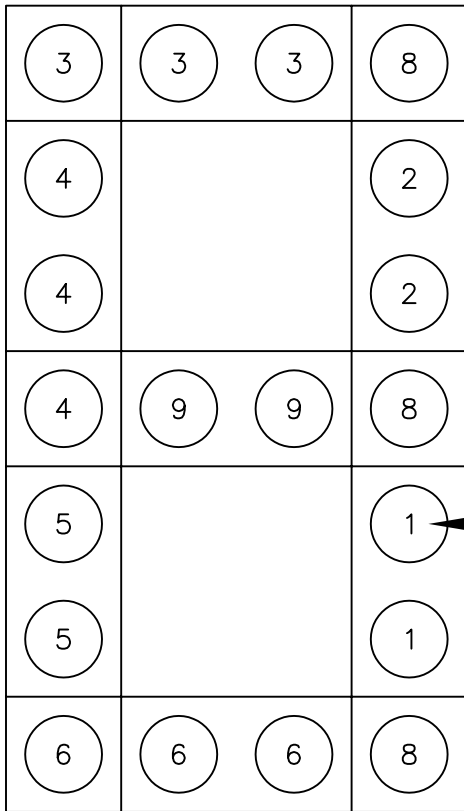
PIN	FUNCTION
1	LAMP NEUT
2	LAMP NEUT
3	LAMP HOT 9,11,13,15
4	LAMP HOT 10,12,14,16

F1 THRU F16 ARE TYPE AGC-10, DAKTRONICS PART NUMBER F-1006. F17 IS TYPE AGC-1/2, DAKTRONICS PART NUMBER F-1000

DAKTRONICS, INC. BROOKINGS, SD 57006

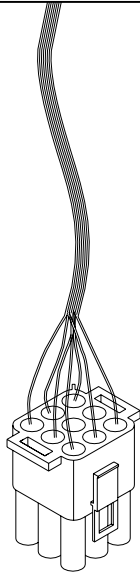
REV.	DATE	DESCRIPTION	BY	APPR.
2	29 APR 97	ADDED TABLES OF PINS AND FUNCTIONS.	AVB	AVB
1	5 MAR 91	CHANGED FROM "B" TO "A" SIZE DWG.	CF	

PROJ:	MULTIPLEX CONTROLLERS
TITLE:	LAMP DRIVER, 16 COL., W/FAN
DES. BY:	JLH
DRAWN BY:	JLH
DATE:	20 FEB 89
REVISION	APPR. BY:
SCALE:	1=5
1033-R04A-37070	



4 x 7 LAMP MATRIX DIGIT

CONNECTOR PIN NUMBER
WIRED TO THAT SEGMENT

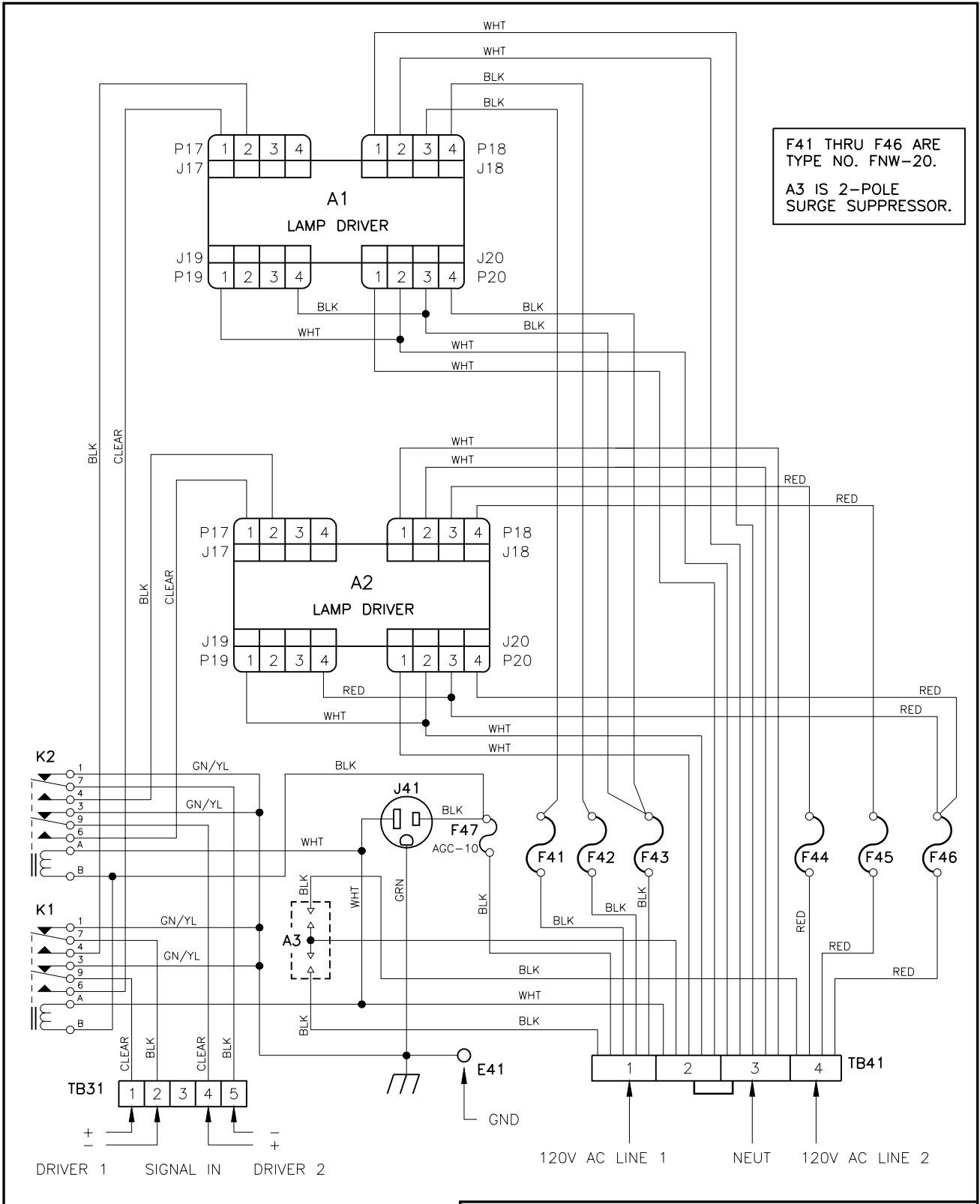


LAMP DRIVER
CONNECTOR

COLOR CODE		
PIN NO.	WIRE COLOR	DRIVER SEGMENT
1	ORANGE	C
2	RED	B
3	BROWN	A
4	BLUE	F
5	GRN OR PNK	E
6	YEL OR TAN	D
7	BLACK	COMMON
8	GRAY	H
9	VIOLET	G

DAKTRONICS, INC. BROOKINGS, SD 57006		
PROJ: OUTDOOR SCOREBOARDS		
TITLE: SEGMENTS, 4 x 7 LAMP MATRIX DIGIT		
DES. BY:	DRAWN BY: AVB	DATE: 18 APR 89
REVISION	APPR. BY:	1064-R04A-37685
	SCALE: 1=1	

1	5 MAR 91	CHANGED FROM "B" TO "A" SIZE DWG.	CF	
REV.	DATE	DESCRIPTION	BY	APPR.



F41 THRU F46 ARE
TYPE NO. FNW-20.
A3 IS 2-POLE
SURGE SUPPRESSOR.

DAKTRONICS, INC. BROOKINGS, SD 57006

PROJ: CHRONDEK DISPLAYS

TITLE: SCHEMATIC, PWR & SIG, CH-1436H

DES. BY: DRAWN BY: C FICKBOHM DATE: 28 JUNE 94

REV.	DATE	DESCRIPTION	BY	APPR.

REVISION	APPR. BY:

1081-R03A-63789

SCALE: 1=1