



**INDOOR LED BAR DIGIT HOCKEY SCOREBOARD
INSTRUCTION MANUAL**

REVISION DATE: 02-02-09

PART#: 98-0006-05



SERVICE & CUSTOMER INFORMATION

CUSTOMER MUST HAVE PART NUMBER WHEN ORDERING ITEMS THROUGH THE SERVICE DEPARTMENT.

IF FURTHER HELP IS NEEDED CONTACT A FAIR-PLAY SERVICE REP IN YOUR FAIR-PLAY DEALER ORGANIZATION OR PHONE THE FAIR-PLAY HELP DESK AT (800) 462-2716.

TO AID YOU IN YOUR DISCUSSIONS WITH SERVICE REPS, WE SUGGEST THAT YOU RECORD THE FOLLOWING:

MODEL NUMBER: _____

FAIR-PLAY SALES ORDER NUMBER: _____
(THIS NUMBER IS FOUND IN THE UPPER RIGHT HAND CORNER OF THE PACKING SLIP AND INVOICE.)

INSTALLATION DATE: _____

WARRANTY: A COPY OF THE **FIVE-YEAR LIMITED WARRANTY** IS ENCLOSED.

FAIR-PLAY SCOREBOARDS

INSTRUCTION DRAWING LIST

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ELECTRICAL PARTS AND HARNESSSES FOR LED BAR SCOREBOARDS..... 98-0021-03

CHART FOR SCOREBOARD DETAILS

WARRANTY

INTRODUCTION

Your scoreboard is economical and professional looking, which is designed to meet the needs of high school and college level facilities. This instruction booklet will provide you with information to install and troubleshoot your scoreboard. If further assistance is needed, contact your local authorized Fair-Play Representative or contact the Fair-Play Help Desk at 1-800-462-2716.

- **Ventilation:** Install product so that air flow is not restricted. Customer's structure must allow for the free flow of outside ambient air to the product, without recirculation of air. Warranty will be void if components fail due to air flow restrictions.

INSTALLATION

Your scoreboard requires a 120 VAC, 60 Hz, 2-wire grounded power supply at the scoreboard (1 or 2 circuits - ref. chart) and at the control location. The control cable consists of a single 1-pair #22 gauge shielded cable. The installation drawing provided is a typical wall-mounted installation.

Fair-Play assumes no responsibilities for installations done by others. When deciding where to install the scoreboard, the board **MUST NOT** be hung from or mounted to a non-rigid support. **Wall mounting is the preferred method of installation.** If wall mounting is not available, an optional suspension installation may be accomplished by following these simple guidelines:

1. Suspension cables must be attached to each of the u-bolts located on the top edge of scoreboard only. Attaching to other parts of the cabinet may result in damage to your scoreboard. Special care must be taken when selecting cables or chains for suspension mounting. Cables or chains must be rated a minimum of 1,200 lbs. per cable (2 or 4 cables required depending on model).
2. If the optional suspension mounting is chosen, the means of suspension (cables, chains, etc.) must be vertical (parallel to each other). If cables are not mounted parallel, damage could result to your scoreboard.
3. Only pendant signs, models PDI-XXXX series, provided by Fair-Play, are permitted to be attached to a suspended scoreboard. No more than two signs per scoreboard. No rear illuminated signs, message displays, or any other equipment is permitted to be suspended by the scoreboard.
4. No sectional or scoreboard models containing a "V" (XX-XXXX-V-XXXX) are permitted to be suspended.

FAILURE TO FOLLOW THESE GUIDELINES COULD RESULT IN INJURY OR DEATH.

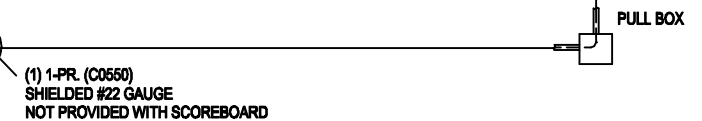
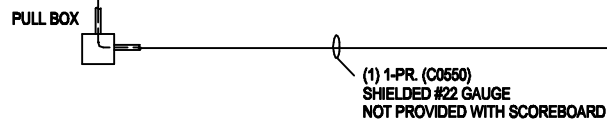
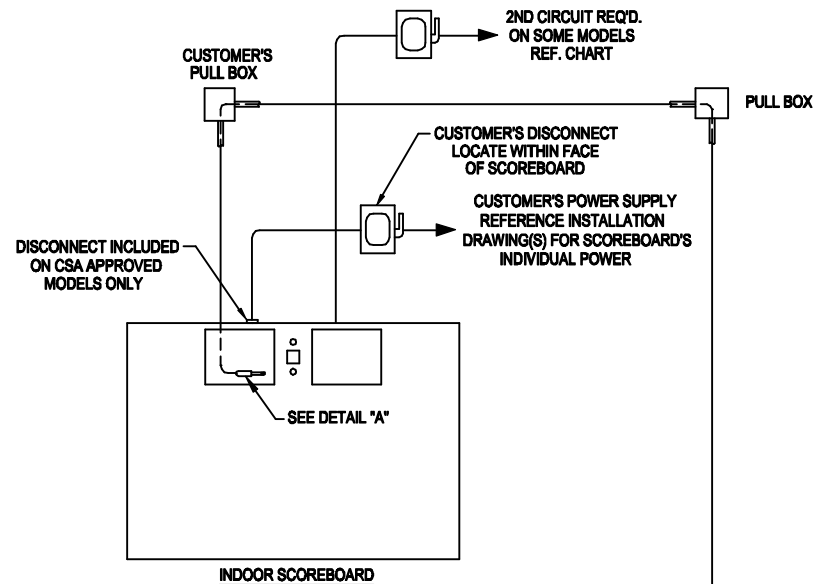
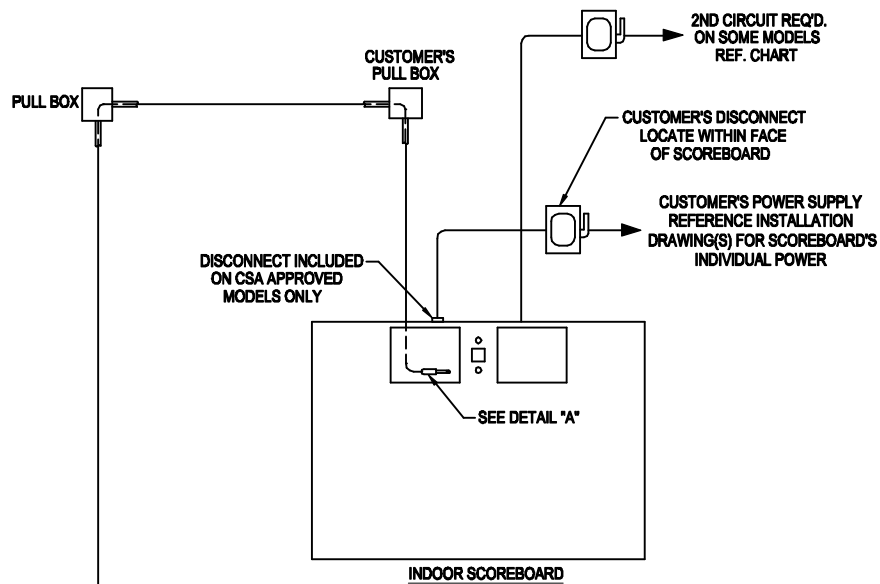
The following items must be considered when installing your new scoreboard. Any technical questions should be directed towards a qualified technician.

1. The control data cable and power cables must be routed in separate conduit.
(Placing low voltage data cables with high voltage power cable will create a safety hazard and/or cause damage to your equipment.)
2. Data cables may be paralleled from one scoreboard to the next. Ref. Appendix A of the MP-70 user guide for the correct procedure.
3. Connect the shield wire of the data cable at one end only.
(Connecting the shield at both ends may cause a ground loop, which could lead to erratic operation of the scoreboard.)
4. The 4x4 data hook-up box provided with your system must be located within ten feet of the control operating location. A ten foot cable is provided; longer cables are available at an additional cost. Contact your local Fair-Play Representative or the Fair-Play Service Department if required.
5. The power hook-up box is located behind the minutes digits in your scoreboard. The box contains a black "L1", white "L0", and a green "earth ground" wire each capped with a wire nut. Using the supplied wire nuts, make your branch circuit connections accordingly, making sure all exposed wire is enclosed by the wire nuts. If your model requires two circuits for operation, you will find (2) black, (2) white, & (1) green all individually capped with wire nuts. Note: Some models will use one circuit, but have (2) black, (2) white, & (1) green each color capped together with a wire nut.
**No branch circuit supplied to your scoreboard should be rated in excess of 120 VAC, 15 AMPS.
Providing a branch circuit higher in rating could result in fire and/or damage to your equipment.**
6. Switch power off to the system when not in use. The control console should be disconnected and placed in a storage closet to protect against theft and/or vandalism.

Safety Feature

Fair-Play incorporates the following safety feature on all indoor LED BAR scoreboard models. A lit segment will travel between several digits when 120 VAC power remains connected to the scoreboard. This feature alerts persons who service the equipment that there is a potential danger of electrical shock if power is not disconnected.

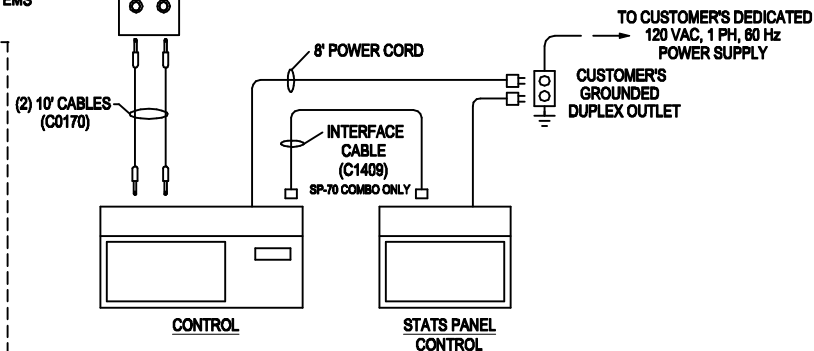
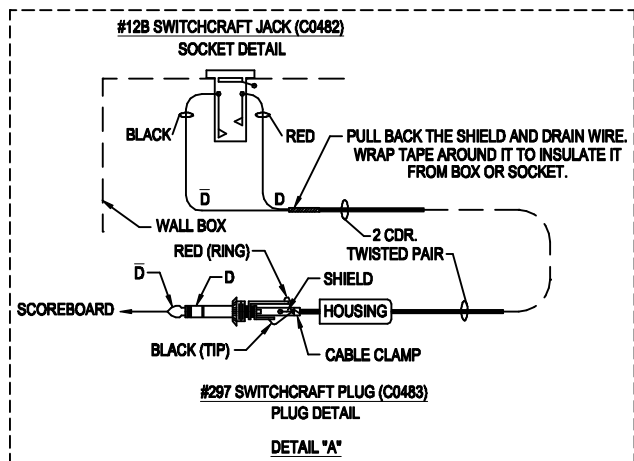
If problems develop after the installation is complete, contact your Fair-Play representative or the Fair-Play Help Desk.



1-PAIR (C0550)
SHIELDED #22 GAUGE

HOOK-UP BOX BB-6200-CS/2
SYNCHRONIZED SCOREBOARD SYSTEMS
HOOK-UP BOX BB-6200-CS
SINGLE SCOREBOARD SYSTEMS

ONLY USED FOR SYNCHRONIZED INSTALLATIONS



IMPORTANT SAFETY & OPERATING INSTRUCTIONS:

1. SCOREBOARD POWER SUPPLY - THIS SCOREBOARD IS DESIGNED TO OPERATE FROM A 120 VAC SUPPLY. UNREASONABLE VOLTAGES CAN BE DAMAGING. (SEE LAMP LIFE - NOTE #5)
2. CONTROL POWER - A 120 VAC SUPPLY WITH A 3-POLE GROUNDING TYPE RECEPTACLE IS REQUIRED AT THE CONTROL LOCATION. THE GROUNDING POLE MUST BE PROVIDED FOR THE EQUIPMENT TO OPERATE PROPERLY.
3. POWER WIRES SHOULD BE ROUTED IN SEPARATE CONDUIT FROM CONTROL CABLES.
4. VENTILATION - THE SCOREBOARD BACK INCORPORATES LOUVERS FOR AIR CIRCULATION. INSTALL SCOREBOARD SO AIR FLOW IS NOT RESTRICTED.
5. LAMP LIFE - LAMP LIFE MAY BE REDUCED SIGNIFICANTLY WHEN CONDITIONS EXIST THAT CAUSE VIBRATION, KNOCKS, HIGH OPERATING VOLTAGE, OR HIGH OPERATING TEMPERATURES. INSTALL SCOREBOARD TO MINIMIZE THESE CONDITIONS. WIRE GUARDS ARE SOMETIMES USED.
6. ALL CONTROL CABLES MUST BE CONTINUOUS FROM SCOREBOARD TO CONTROL. NO SPLICES OR CONNECTIONS TO BE USED EXCEPT AT SCOREBOARD AND CONTROL.

NOTE: STATS CONTROL OPTIONAL FOR BASKETBALL/VOLLEYBALL APPLICATIONS, STATS CONTROL NOT USED FOR HOCKEY.

2	REMOVED BIDE POWER NOTE	10-28-01	DLS
1	ADDED NOTE REGARDING STATS CONTROL	04-24-00	BEW
ITEM	CHANGE	DATE	BY

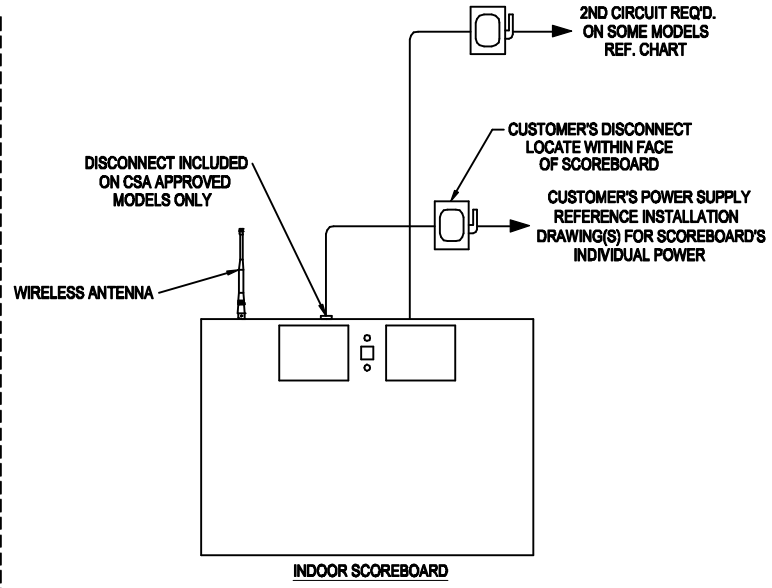
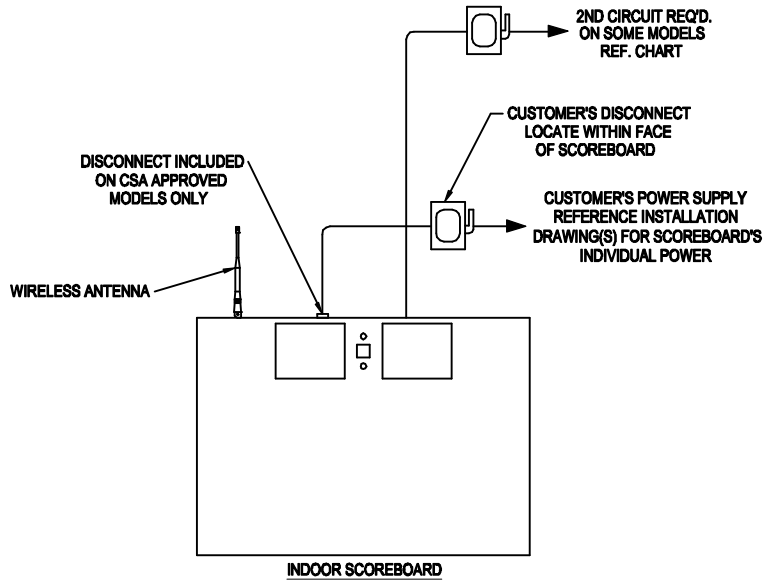
Fair-Play
A **WORLDWIDE** Company
1700 DELAWARE AVE.
DES MOINES, IA 50317

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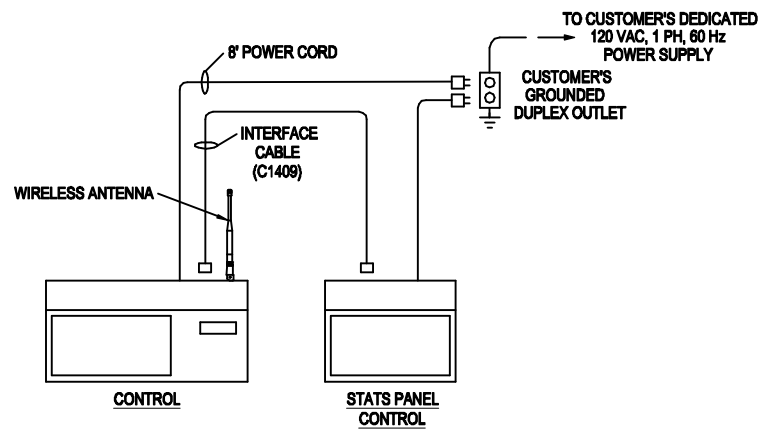
TITLE
ELECTRICAL INSTALLATION
SCHEME FOR INDOOR
SCOREBOARDS

DRAWN BY
BEW
DATE
07-26-99
SCALE
1/2"=1'-0"

MODEL:
C
DWG. NO.
01-0001-01



ONLY USED FOR SYNCHRONIZED INSTALLATIONS



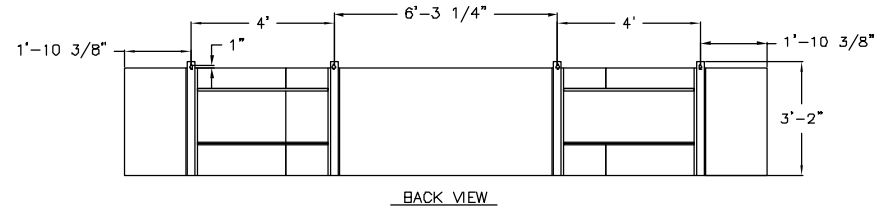
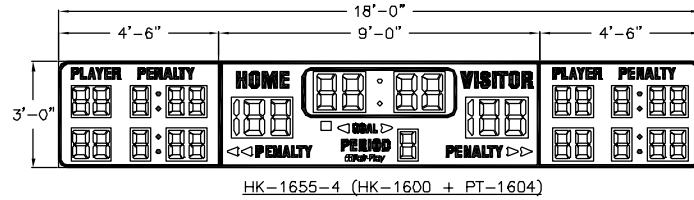
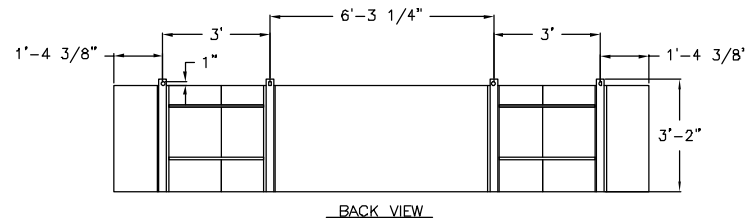
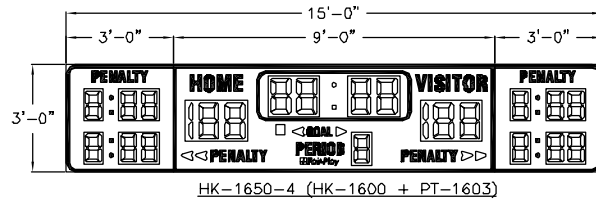
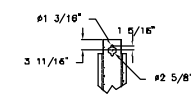
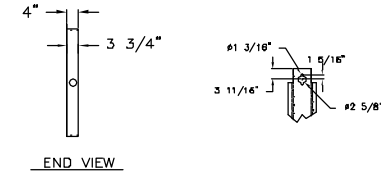
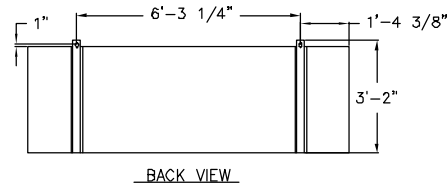
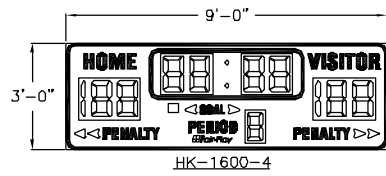
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2	REMOVED SIDE POWER NOTE	11-01-01	NWP
1	ADDED NOTE REGARDING STATS CONTROL	04-24-00	WEST
ITEM	CHANGE	DATE	BY

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A Company 1700 DELAWARE AVE. DES MOINES, IA 50317		TITLE WIRELESS ELECTRICAL INSTALLATION SCHEME FOR INDOOR SCOREBOARDS	DRAWN BY BEW DATE 01-13-00 SCALE 1/2"=1'-0"
			MODEL C DWG. NO. 01-0001-02

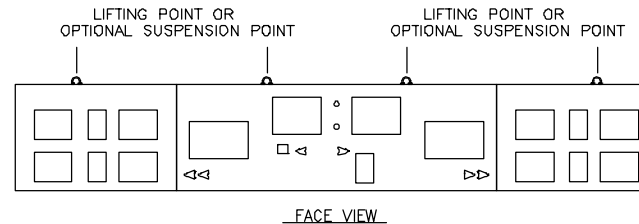


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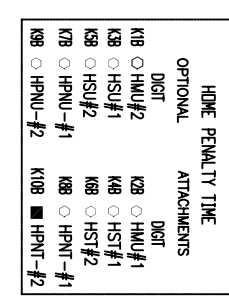
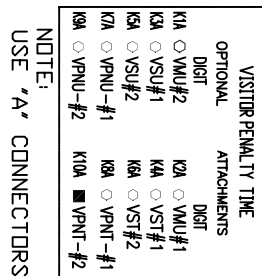
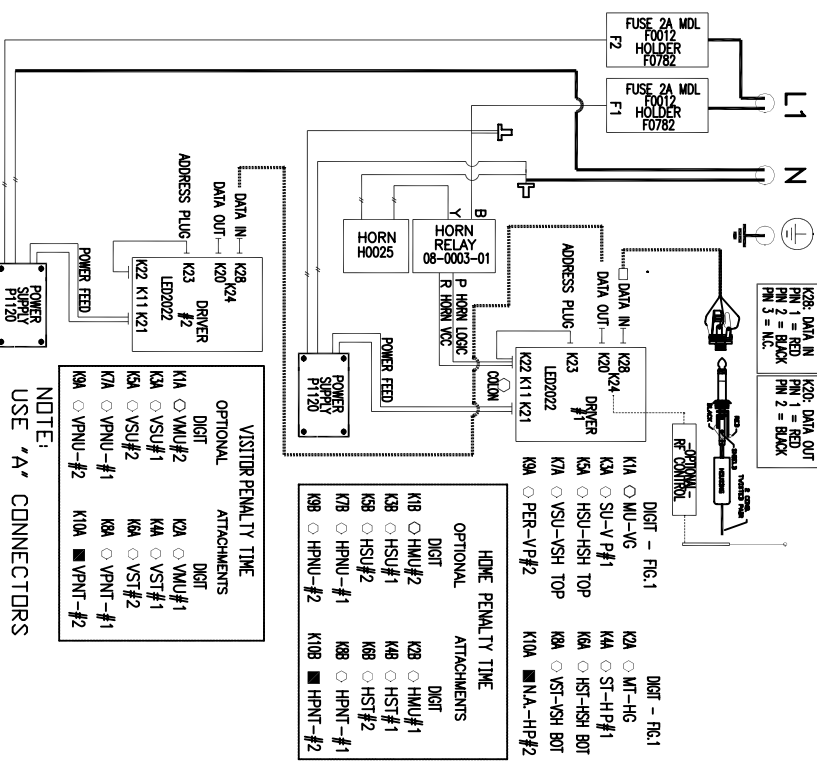
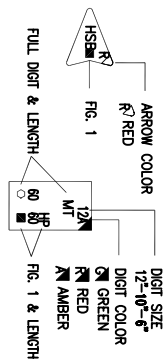
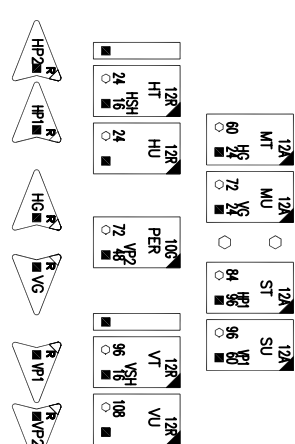
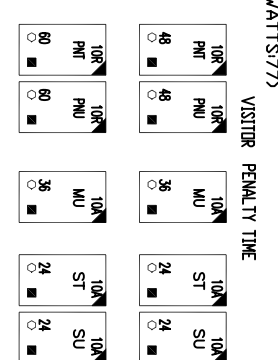
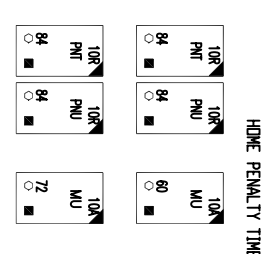
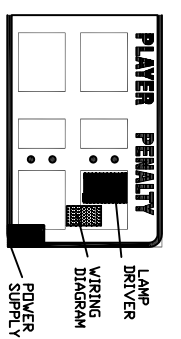
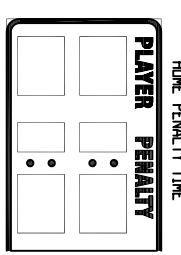
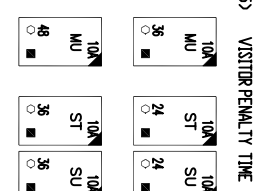
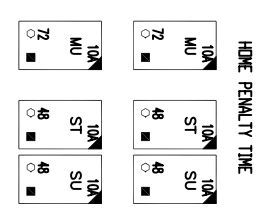
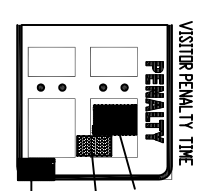
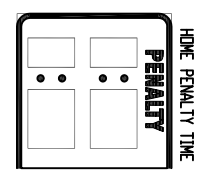
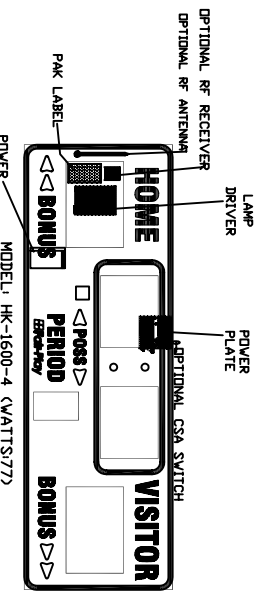
*TILE WALL INSTALLATION IT IS SUGGESTED TO USE A 3/8" TOGGLE BOLT WITH WASHER

*MASONRY WALL INSTALLATION IT IS SUGGESTED TO USE A 3/8" EXPANSION BOLT WITH WASHER

*IF THE OPTIONAL SUSPENSION MOUNTING IS CHOSEN, THE MEANS OF SUSPENSION (CABLES, CHAINS, ETC.) MUST BE VERTICAL (PARALLEL TO EACH OTHER). IF CABLES ARE NOT MOUNTED PARALLEL, DAMAGE COULD RESULT TO YOUR FAIR-PLAY SCOREBOARD.

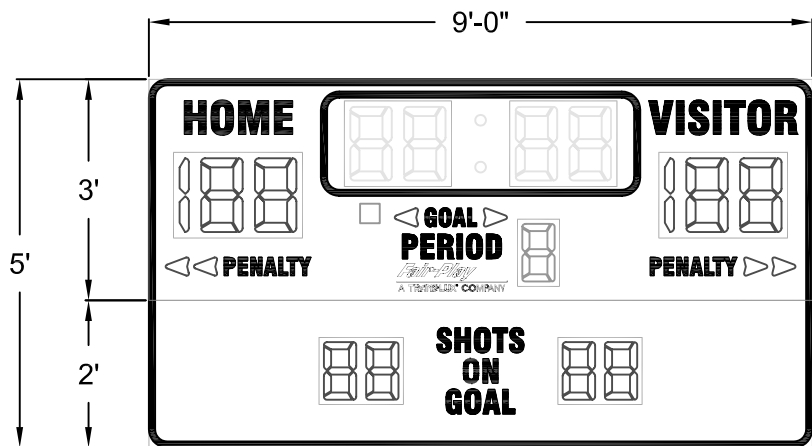


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		TITLE FACE VIEWS AND DIMENSIONS HK-1600-4 SERIES LED BAR INDOOR	DRAWN BY MSP DATE 5/1/02 SCALE
1700 DELAWARE AVE. DES MOINES, IA 50317	ORIGINAL RELEASE DATE	5/30/02 DATE	MSP BY

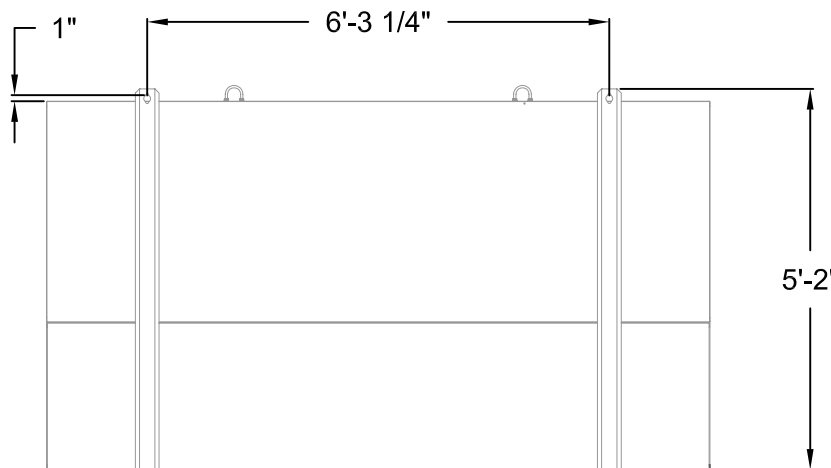


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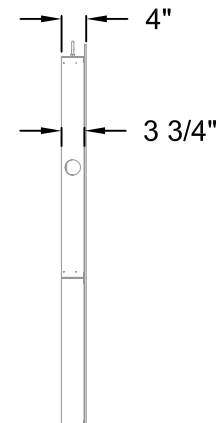
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- ALL CONNECTIONS (HEADERS) ON THE DIGITS, COLDS & ARROWS.
- *NYGEL NOT REQUIRED AT LOCATIONS: K21, K22, K20, K28, & K24 DN DRIVER LED2022
- *POWER SUPPLY: VERIFY POWER SUPPLY IS SWITCHED TO MEASURE VOLTAGE AT POWER SUPPLY=15 VOLTS DC
- *HPDT TEST REQUIREMENTS: 15 KILOVOLTS FOR 1 SECOND
- *CONTINUITY CHECK BETWEEN CABINET AND GROUND



HK-1660-4 (HK-1600 & SG-1603)



BACK VIEW



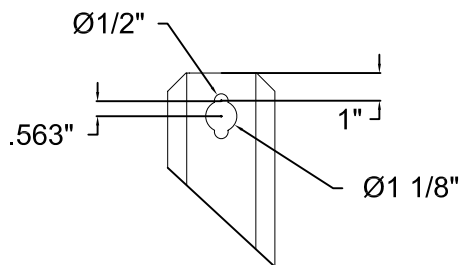
END VIEW

INSTALLATION:

*TILE WALL INSTALLATION IT IS SUGGESTED TO USE A 3/8" TOGGLE BOLT WITH WASHER

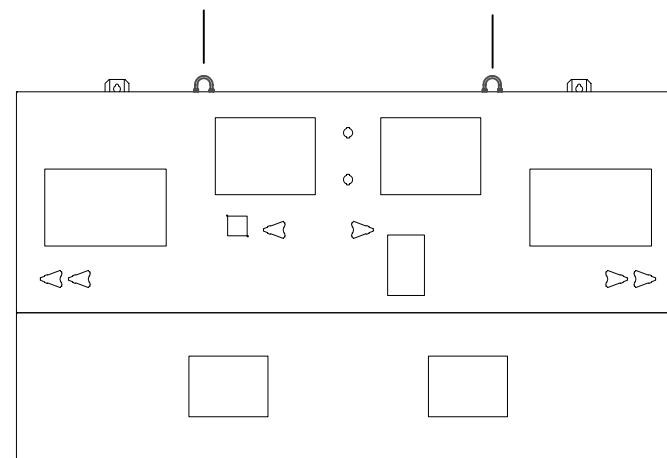
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HANGER DETAIL

LIFTING POINT OR
OPTIONAL SUSPENSION POINT



FACE VIEW

Fair-Play
A TRANS-LUX COMPANY

1700 DELAWARE AVE.
DES MOINES, IA 50317

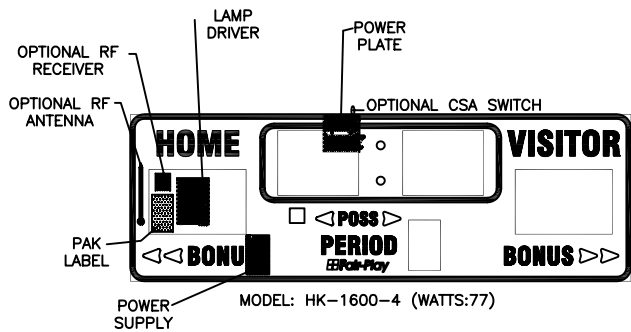
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TITLE
FACEVIEW & DIMENSIONS
HK-1660-4
LED BAR INDOOR

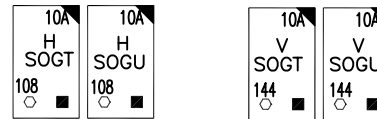
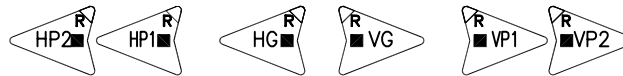
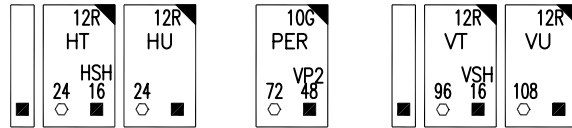
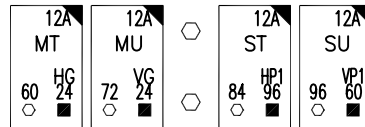
DRAWN BY
NAP
DATE
11-16-07
SCALE

MODEL:
A INDOOR
DWG. NO.
01-0004-14

OR	ORIGINAL RELEASE	11-15-07	NAP
REV.#	CHANGE	DATE	BY



SG-1603-4 (WATTS 25)



ASSEMBLY NOTES:

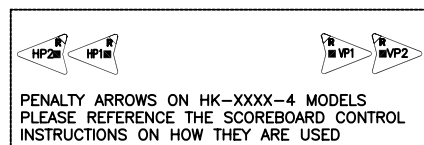
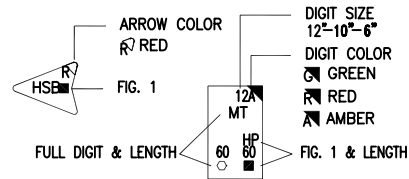
*NYOGEL 760G REQUIRED AT LOCATIONS:
K1A-K10A, K1B-K10B, K23, ON DRIVER LED2022
ALL CONNECTIONS (HEADERS) ON THE DIGITS, COLONS & ARROWS.

*NYOGEL NOT REQUIRED AT LOCATIONS:
K21, K22, K20, K28, & K24 ON DRIVER LED2022

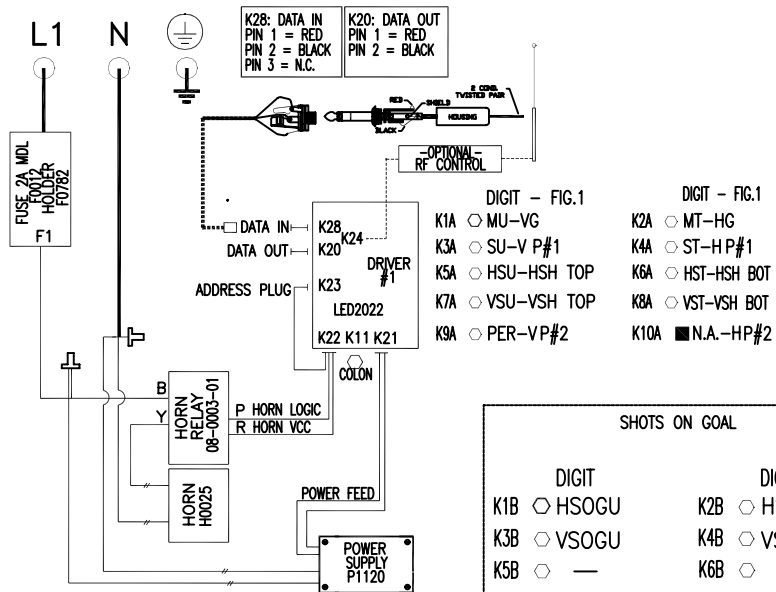
*POWER SUPPLY:
VERIFY POWER SUPPLY IS SWITCHED TO 115VAC
MEASURE VOLTAGE AT POWER SUPPLY=15 VOLTS DC

*HIPOT TEST REQUIREMENTS:
1.5 KILOVOLTS FOR 1 SECOND

*CONTINUITY CHECK BETWEEN CABINET AND GROUND

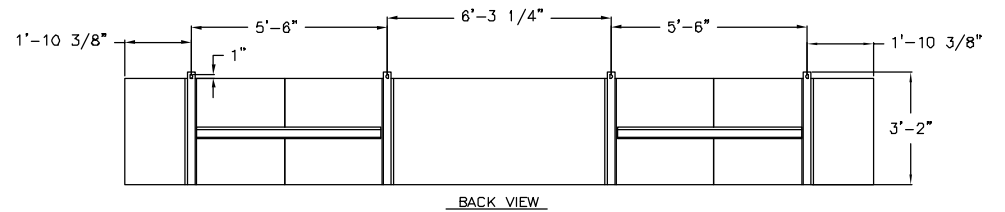
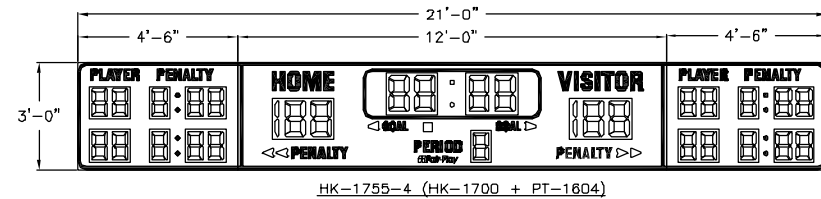
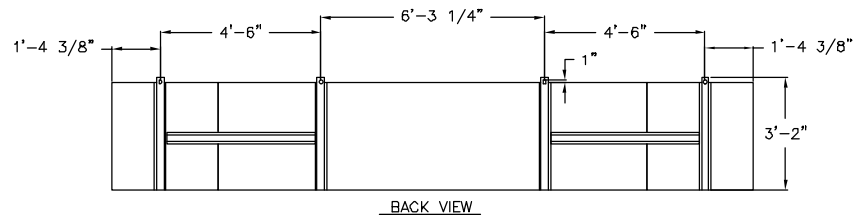
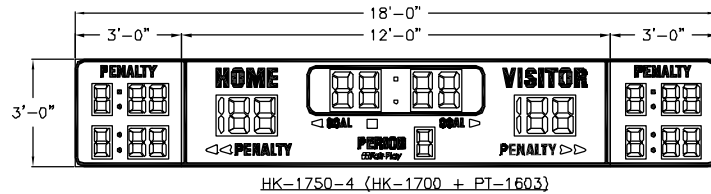
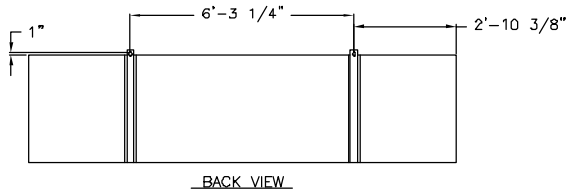
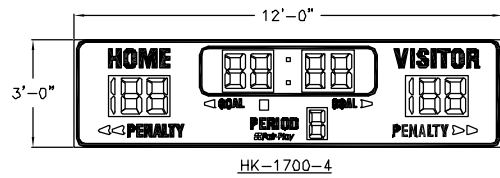


K11: COLON WIRING PIN 1 = TOP SPOT (BLUE) PIN 2 = COMMON (RED) PIN 3 = BOTTOM SPOT (BROWN)	K22: LOGIC & HORN WIRING PIN 1 = HORN LOGIC (PURPLE) PIN 6 = HORN VCC (RED) PIN 3 = ADDRESS PLUG
--	--



DIGIT - FIG.1	DIGIT - FIG.1
K1A ○ MU-VG	K2A ○ MT-HG
K3A ○ SU-V P#1	K4A ○ ST-H P#1
K5A ○ HSU-HSH TOP	K6A ○ HST-HSH BOT
K7A ○ VSU-VSH TOP	K8A ○ VST-VSH BOT
K9A ○ PER-VP#2	K10A ■ N.A.-HP#2

SHOTS ON GOAL	
DIGIT	DIGIT
K1B ○ HSOGU	K2B ○ HSOGT
K3B ○ VSOGU	K4B ○ VSOGT
K5B ○ —	K6B ○ —
K7B ○ —	K8B ○ —
K9B ○ —	K10B ■ —

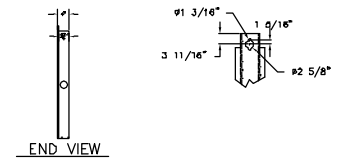
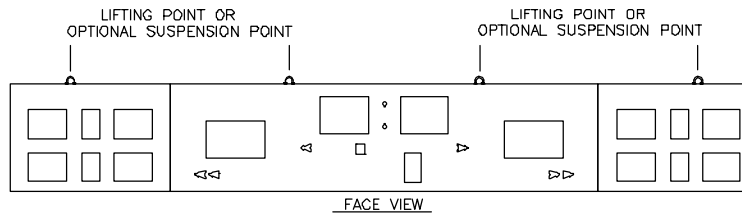


INSTALLATION:

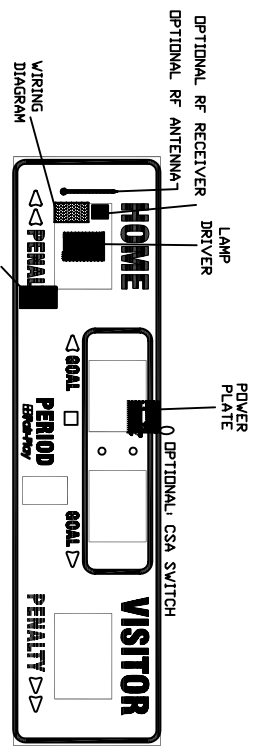
*TILE WALL INSTALLATION IT IS SUGGESTED TO USE A 3/8" TOGGLE BOLT WITH WASHER

*MASONRY WALL INSTALLATION IT IS SUGGESTED TO USE A 3/8" EXPANSION BOLT WITH WASHER

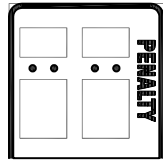
*IF THE OPTIONAL SUSPENSION MOUNTING IS CHOSEN, THE MEANS OF SUSPENSION (CABLES, CHAINS, ETC.) MUST BE VERTICAL (PARALLEL TO EACH OTHER). IF CABLES ARE NOT MOUNTED PARALLEL, DAMAGE COULD RESULT TO YOUR FAIR-PLAY SCOREBOARD.



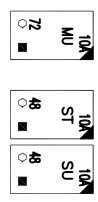
		<small>THIS DOCUMENT CONTAINS FAIR-PLAY PROPRIETARY INFORMATION. ANY DISCLOSURE, USE, OR DUPLICATION OF THE DOCUMENT OR OF ANY INFORMATION CONTAINED THEREIN FOR OTHER THAN THE SPECIFIC PURPOSE FOR WHICH IT WAS DISCLOSED IS EXPRESSLY PROHIBITED, EXCEPT AS MAY BE OTHERWISE AGREED TO IN WRITING.</small>	
		TITLE FACE VIEW & DIMENSIONS HK-1700-4 SERIES LED BAR INDOOR	DRAWN BY MSP DATE 5/1/02 SCALE
OR ORIGINAL RELEASE REV# CHANGE	5/20/01 MSP DATE BY	1700 DELAWARE AVE. DES MOINES, IA 50317	



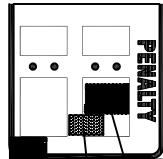
MODEL HK-1700-4 (WATTS77)



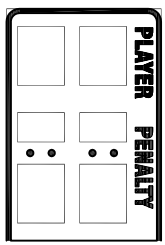
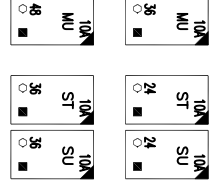
HOME PENALTY TIME



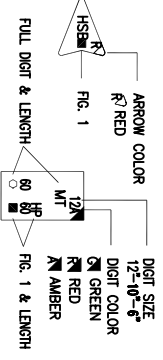
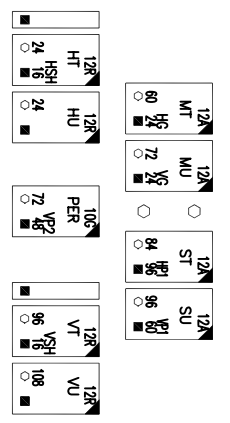
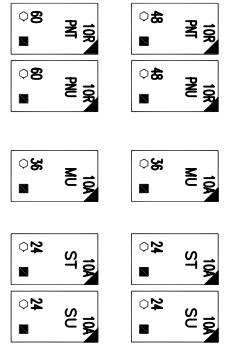
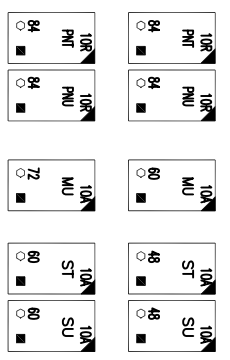
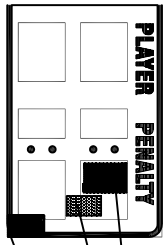
MODEL PT-1603-4 (WATTS75)



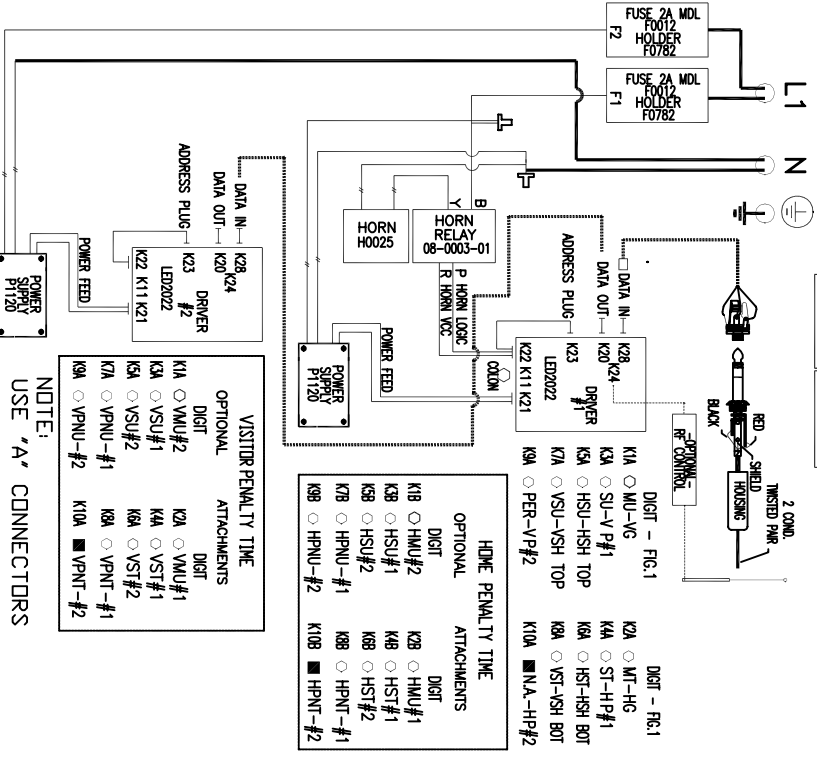
VISITOR PENALTY TIME



MODEL HK-1600-4 (WATTS77)



- ASSEMBLY NOTES:**
- *NYGEL 760G REQUIRED AT LOCATIONS: K1A-K10A, K1B-K10B, K23, DN DRIVER LED2022
 - ALL CONNECTIONS (HEADERS) ON THE DIGITS, COLDSN & ARROWS.
 - *NYGEL NOT REQUIRED AT LOCATIONS: K21, K22, K20, K28, & K24 DN DRIVER LED2022
 - *POWER SUPPLY VERIFY POWER SUPPLY IS SWITCHED TO MEASURE VOLTAGE AT POWER SUPPLY=15 VOLTS DC
 - *HPDT TEST REQUIREMENTS: 15 KILOWOLTS FOR 1 SECOND
 - *CONTINUITY CHECK BETWEEN CABINET AND GROUND



K11: COLON WIRING
 PIN 1 = TOP SPOT (BLUE)
 PIN 2 = COMMON (RED)
 PIN 3 = BOTTOM SPOT (BROWN)

K22: LOGIC & HORN WIRING
 PIN 1 = HORN LOGIC (PINK)
 PIN 2 = HORN LOGIC (RED)
 PIN 3 = ADDRESS PLUG

NOTE:
 USE 'A' CONNECTORS

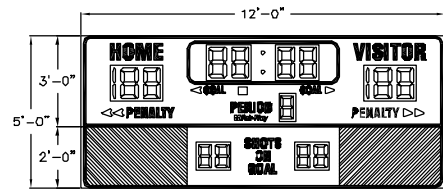
OPTIONAL ATTACHMENTS

TRANS-LUX
 LED BAR

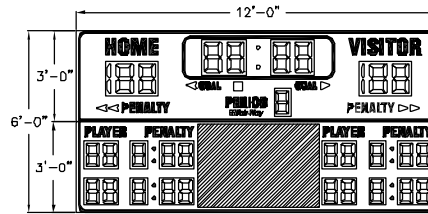
DATE: 5/7/02
 SCALE: 11-1700-05

REV. 2
 CHANGED PER 7.3 TO 'C' CONNECTIONS
 ORIGINAL REVISED
 DATE: 5/26/02
 BY: [Signature]

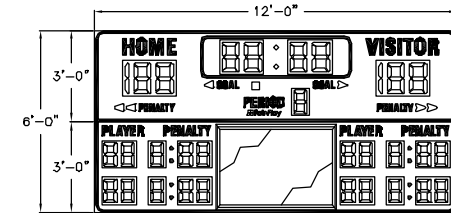
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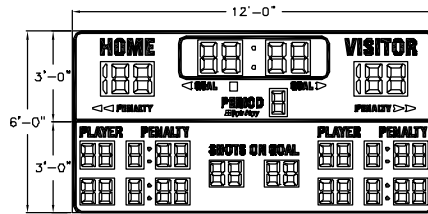
HK-1760-4 (HK-1700 + SG-1703)
(INCLUDES (2) 3'-5 3/4" X 2'-0" SIGNS)



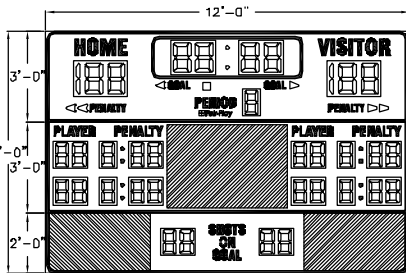
HK-1770-4 (HK-1700 + PT-1704)
(INCLUDES FDI-0436 SIGN)



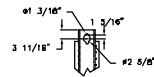
HK-1771-4 (HK-1700 + PT-1708)
(INCLUDES RII-0436 SIGN)



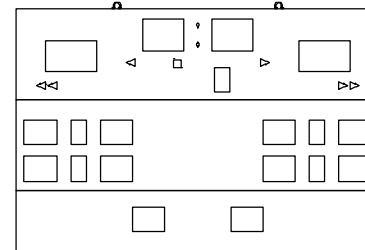
HK-1780-4 (HK-1700 + PT-1705)



HK-1790-4 (HK-1700 + SG-1703 + PT-1704)
(INCLUDES FDI-0436 SIGN, (2) 3'-5 3/4" X 2'-0" SIGNS)

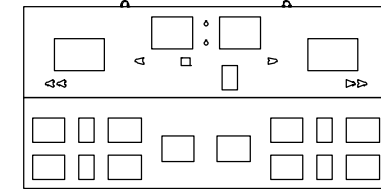


LIFTING POINT OR
OPTIONAL SUSPENSION POINT

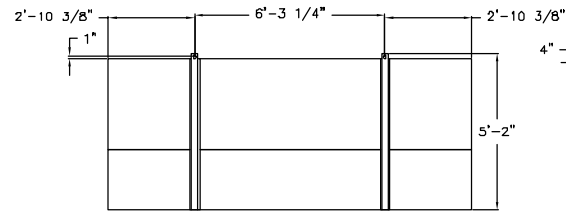


FACE VIEW

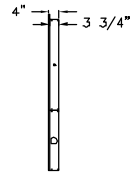
LIFTING POINT OR
OPTIONAL SUSPENSION POINT



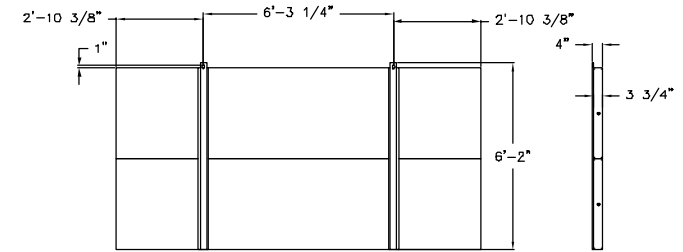
FACE VIEW



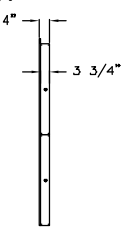
BACK VIEW



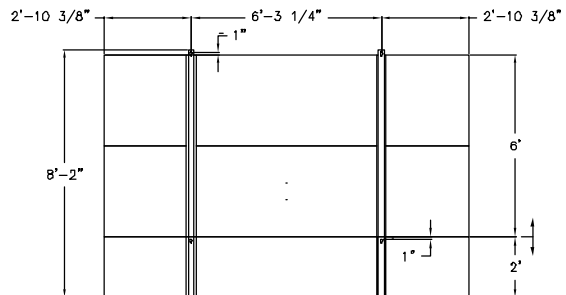
END VIEW



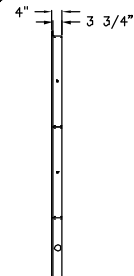
BACK VIEW



END VIEW



BACK VIEW



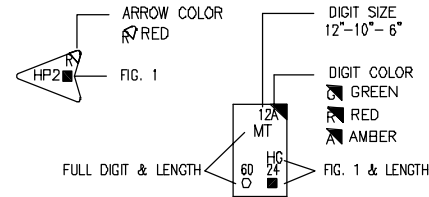
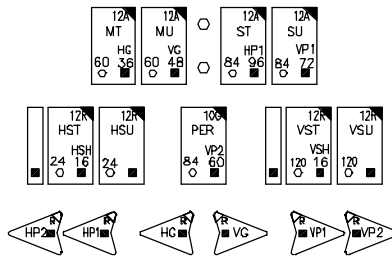
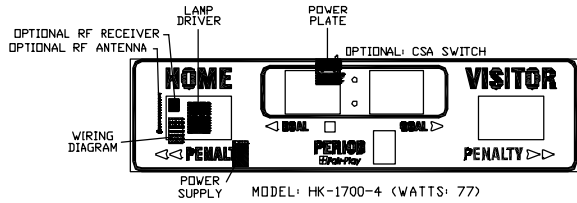
END VIEW

INSTALLATION:

*TILE WALL INSTALLATION: IT IS SUGGESTED TO USE A 3/8" TOGGLE BOLT WITH WASHER

*MASONRY WALL INSTALLATION IT IS SUGGESTED TO USE A 3/8" EXPANSION BOLT WITH WASHER

*IF THE OPTIONAL SUSPENSION MOUNTING IS CHOSEN, THE MEANS OF SUSPENSION (CABLES, CHAINS, ETC.) MUST BE VERTICAL (PARALLEL TO EACH OTHER), IF CABLES ARE NOT MOUNTED PARALLEL, DAMAGE COULD RESULT TO YOUR FAIR-PLAY SCOREBOARD.



ASSEMBLY NOTES:

*NYGEL 760G REQUIRED AT LOCATIONS:
K1A-K10A, K1B-K10B, K23, ON DRIVER LED2022
ALL CONNECTIONS (HEADERS) ON THE DIGITS,
COLONS & ARROWS.

*NYGEL NOT REQUIRED AT LOCATIONS:
K21, K22, K20, K28, & K24 ON DRIVER
LED2022

*POWER SUPPLY:
VERIFY POWER SUPPLY IS SWITCHED TO 115VAC
MEASURE VOLTAGE AT POWER SUPPLY=15 VOLTS
DC

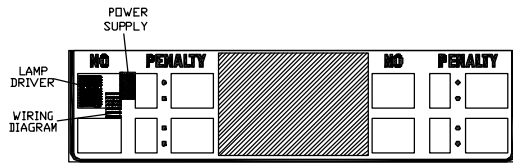
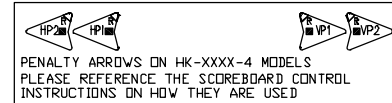
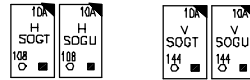
*HIPOT TEST REQUIREMENTS:
1.5 KILOVOLTS FOR 1 SECOND

*CONTINUITY CHECK BETWEEN CABINET AND
GROUND

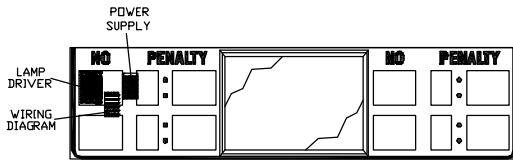
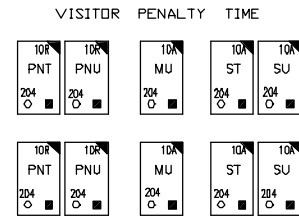
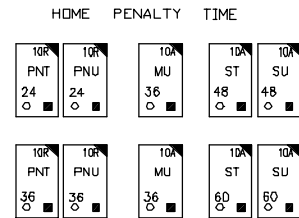
OPTIONAL BOTTOM SECTIONS



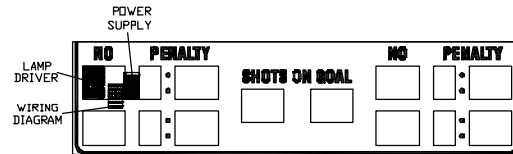
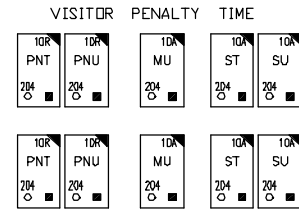
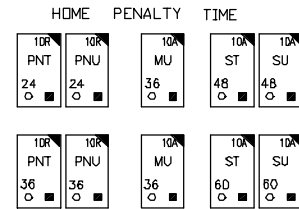
MODEL: SG-1703-4 (WATTS: 25)
(INCLUDES (2) 3'-5 3/4" X 2'-0" SIGNS)



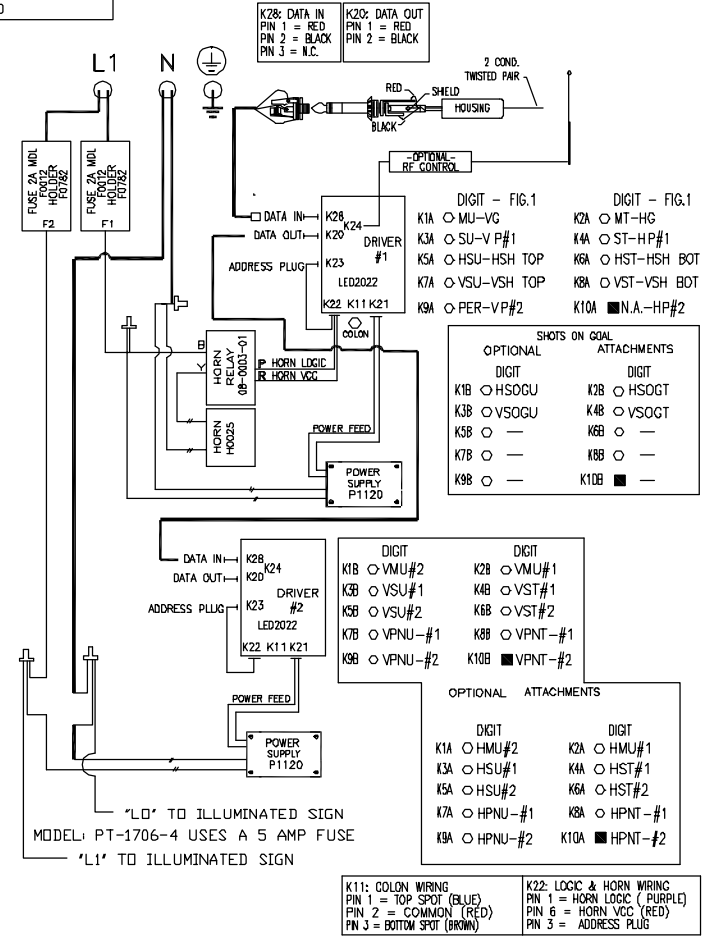
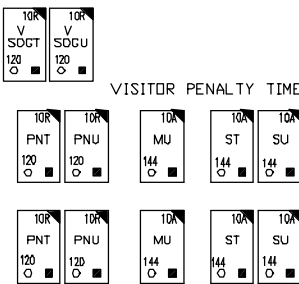
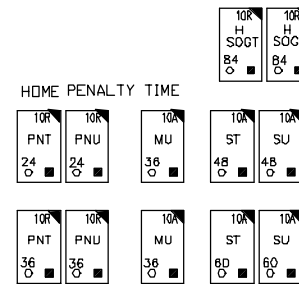
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(INCLUDES FDI-0436 SIGN)

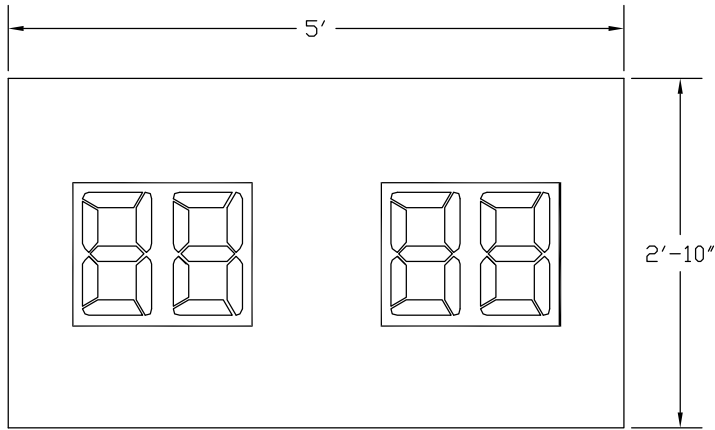


MODEL: PT-1706-4 (WATTS: 366)
(INCLUDES RII-0436 SIGN)

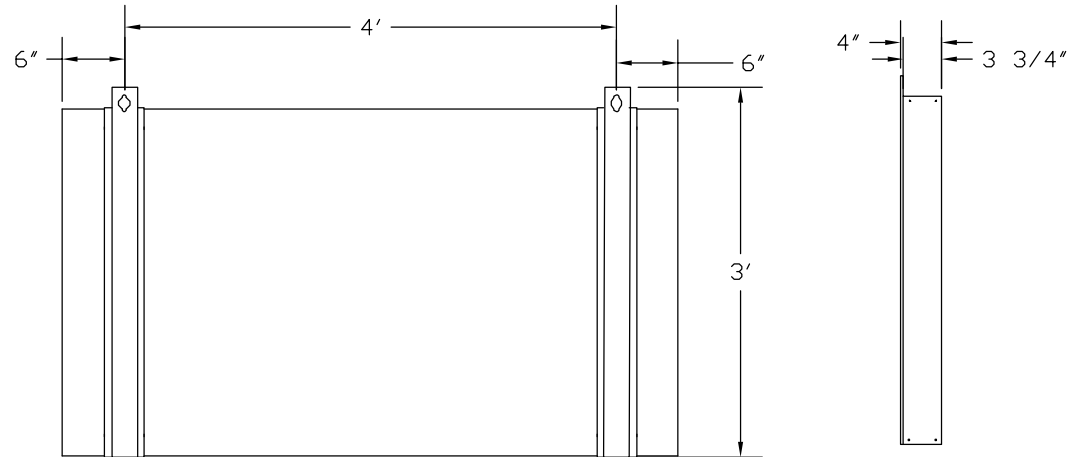


MODEL: PT-1705-4 (WATTS: 151)



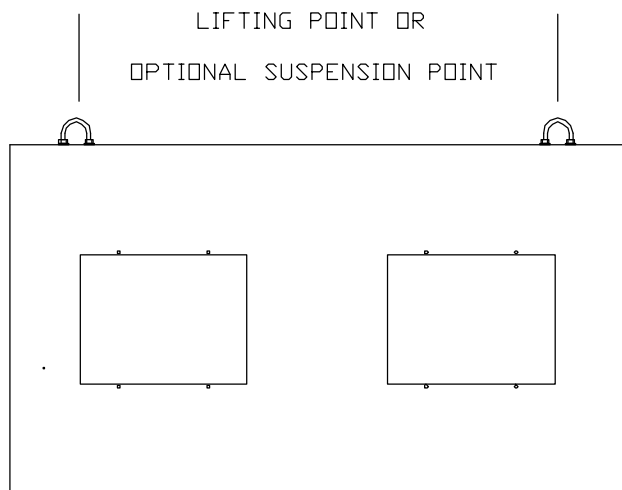


FRONT VIEW



BACK VIEW

END VIEW



LIFTING POINT OR
OPTIONAL SUSPENSION POINT

FRONT VIEW

INSTALLATION:

*TILE WALL INSTALLATION IT IS SUGGESTED TO USE A 3/8" TOGGLE BOLT WITH WASHER

*MASONRY WALL INSTALLATION IT IS SUGGESTED TO USE A 3/8" EXPANSION BOLT WITH WASHER

*IF THE OPTIONAL SUSPENSION MOUNTING IS CHOSEN, THE MEANS OF SUSPENSION (CABLES, CHAINS, ETC.) MUST BE VERTICAL (PARALLEL TO EACH OTHER). IF CABLES ARE NOT MOUNTED PARALLEL, DAMAGE COULD RESULT TO YOUR FAIR-PLAY SCOREBOARD.

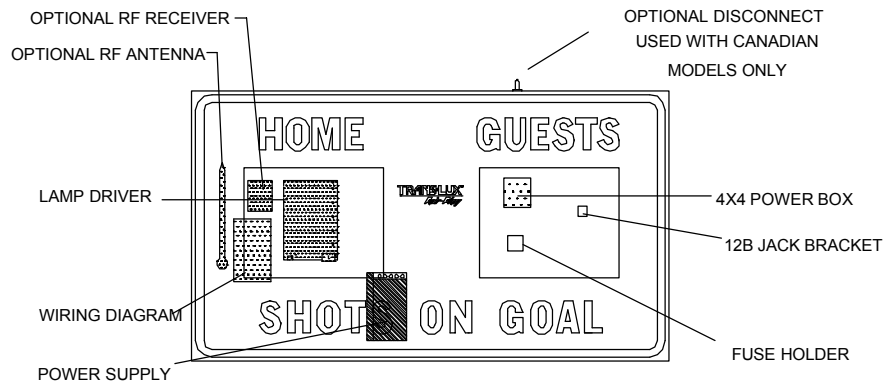
OR	ORIGINAL RELEASE	5/20/2002	NAP
REV.#	CHANGE	DATE	BY

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DES MOINES, IA 50317

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TITLE	DRAWN BY	MODEL:
FACE VIEW & DIMENSIONS	NAP	B SG-1450-4
SG-1450-4	DATE	DWG. NO.
LED BAR DIGIT	5/7/02	01-0004-13
	SCALE	
	1"=1'-0"	



ASSEMBLY NOTES:

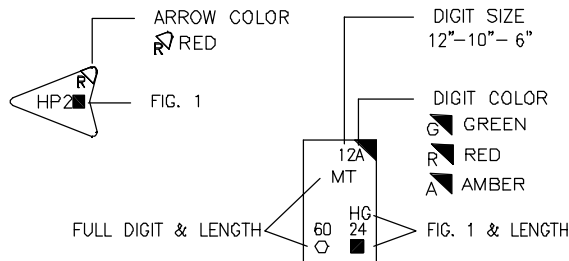
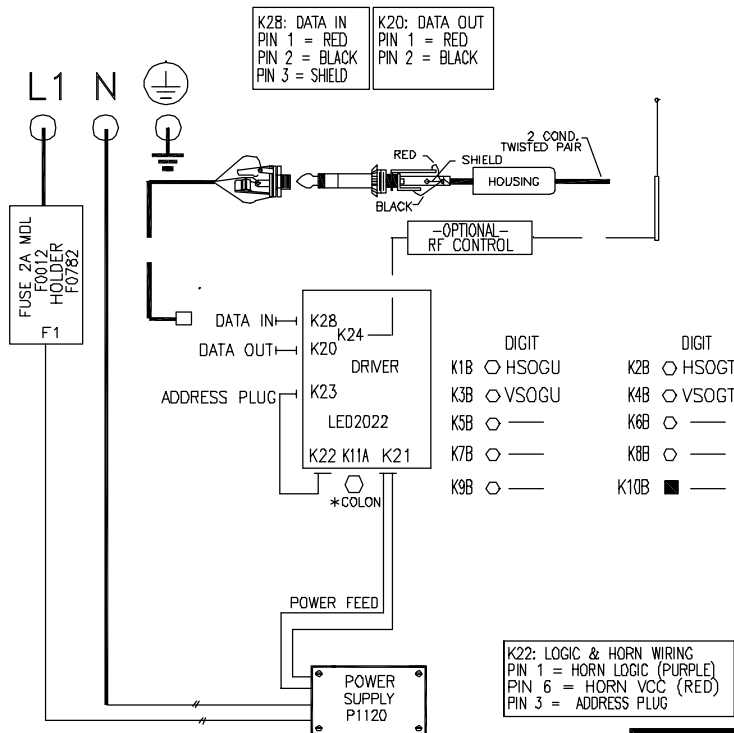
*NYOGEL 760G REQUIRED AT LOCATIONS:
K1A-K10A, K1B-K10B, K23, ON DRIVER LED2022
ALL CONNECTIONS (HEADERS) ON THE DIGITS, COLONS & ARROWS.

*NYOGEL NOT REQUIRED AT LOCATIONS:
K21, K22, K20, K28, & K24 ON DRIVER LED2022

*POWER SUPPLY:
VERIFY POWER SUPPLY IS SWITCHED TO 115VAC
MEASURE VOLTAGE AT POWER SUPPLY=15 VOLTS DC

*HIPOT TEST REQUIREMENTS:
1.5 KILOVOLTS FOR 1 SECOND

*CONTINUITY CHECK BETWEEN CABINET AND GROUND



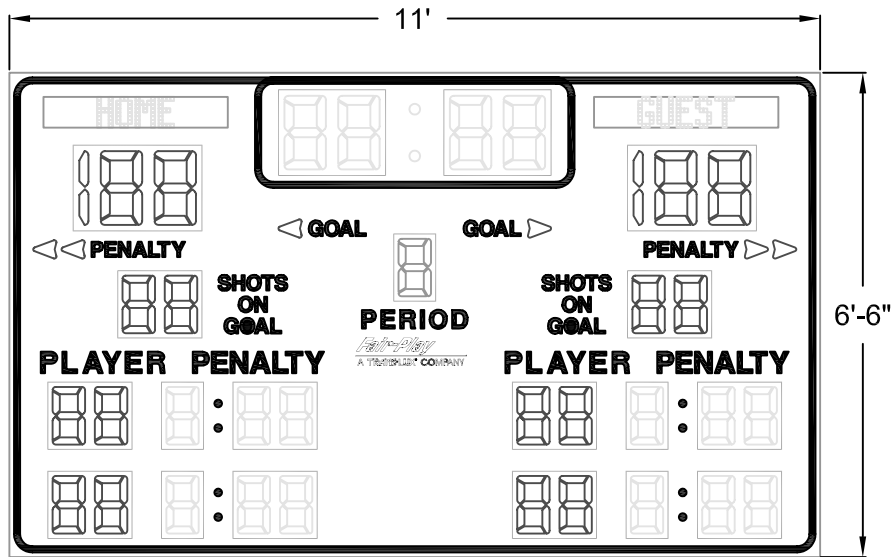
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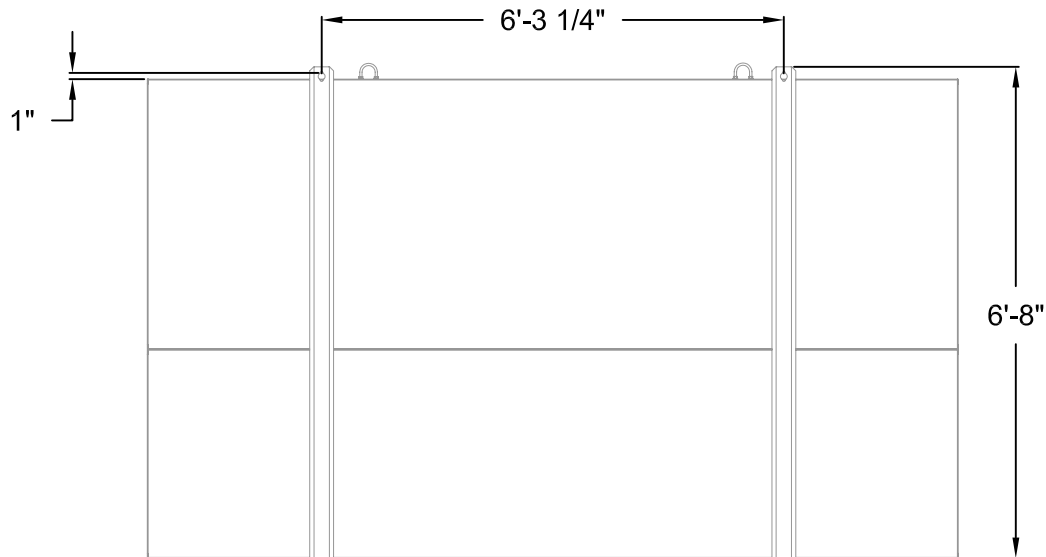
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TITLE	DRAWN BY NAP	MODEL:
TYPICAL WIRING SG-1450-4 LED BAR INDOOR SCBD	DATE 5/7/02	A SG-1450-4
	SCALE NONE	DWG. NO. 11-1450-07

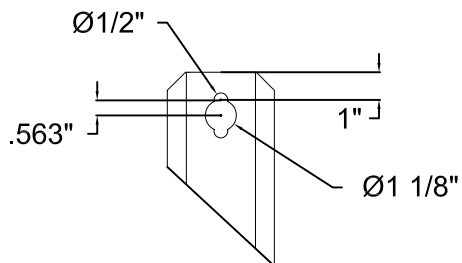
OR	ORIGINAL RELEASE	5/20/2002	NAP
REV.#	CHANGE	DATE	BY



HK-1513 WITH ITN-0832-4L-4



BACK VIEW



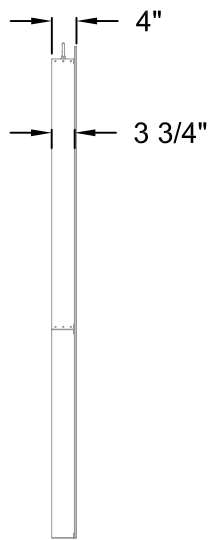
HANGER DETAIL

INSTALLATION:

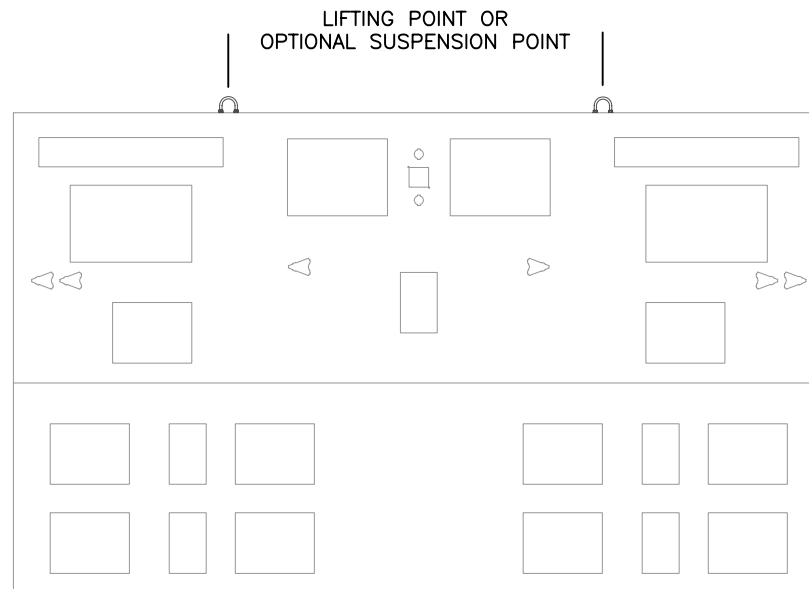
*TILE WALL INSTALLATION IT IS SUGGESTED TO USE A 3/8" TOGGLE BOLT WITH WASHER

*MASONRY WALL INSTALLATION IT IS SUGGESTED TO USE A 3/8" EXPANSION BOLT WITH WASHER

*IF THE OPTIONAL SUSPENSION MOUNTING IS CHOSEN, THE MEANS OF SUSPENSION (CABLES, CHAINS, ETC.) MUST BE VERTICAL (PARALLEL TO EACH OTHER). IF CABLES ARE NOT MOUNTED PARALLEL, DAMAGE COULD RESULT TO YOUR FAIR-PLAY SCOREBOARD.



END VIEW



FACE VIEW

Fair-Play
A TRANS-LUX COMPANY

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DES MOINES, IA 50317

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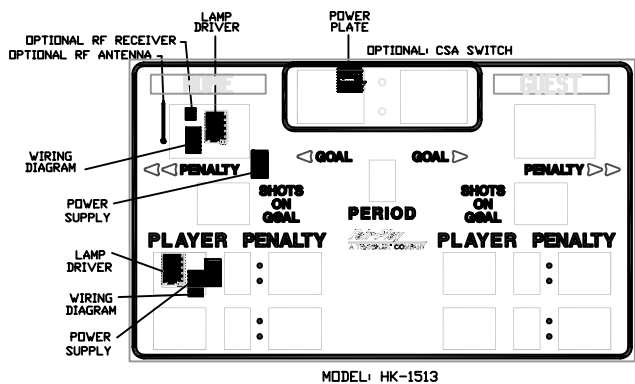
TITLE
FACEVIEW & DIMENSIONS
HK-1513
LED BAR INDOOR

DRAWN BY
NAP
DATE
02-02-09
SCALE

MODEL:
A INDOOR

DWG. NO.
01-0004-15

OR	ORIGINAL RELEASE	02-02-09	NAP
REV.#	CHANGE	DATE	BY



ASSEMBLY NOTES:

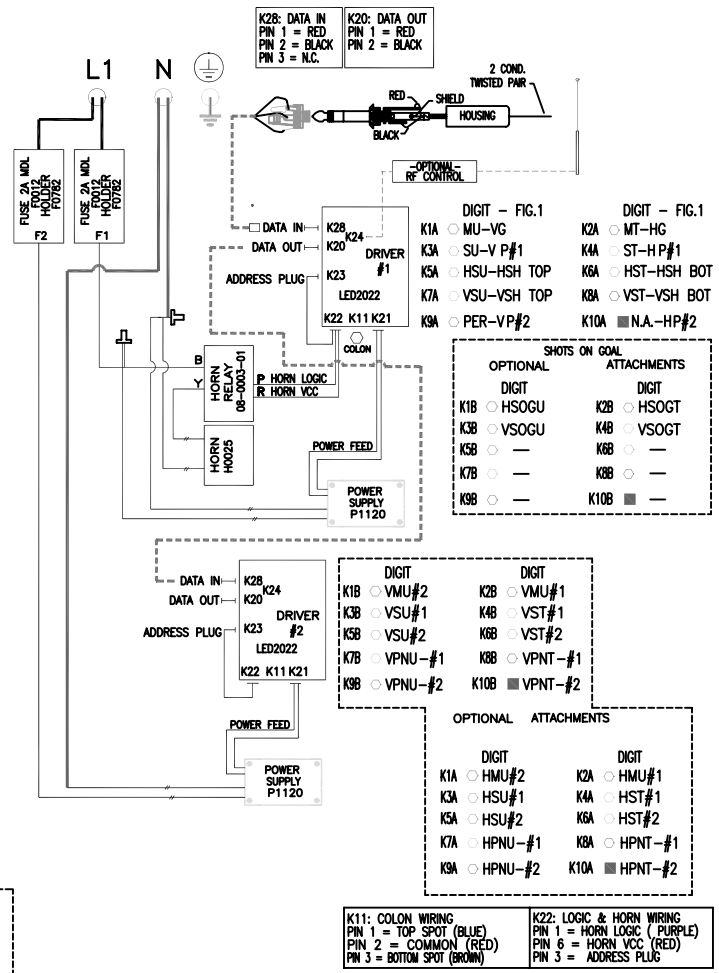
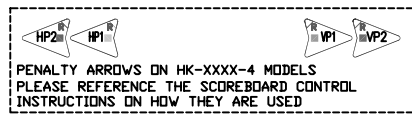
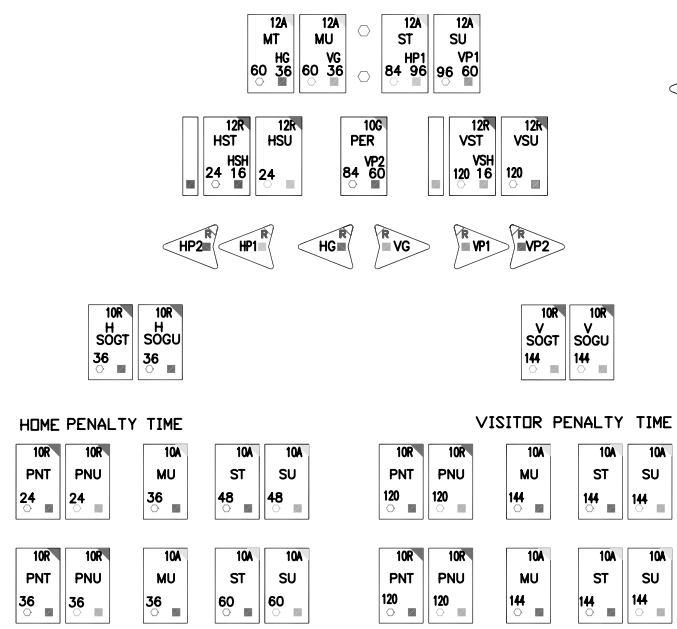
*NYOGEL 760G REQUIRED AT LOCATIONS:
K1A-K10A, K1B-K10B, K23, ON DRIVER LED2022
ALL CONNECTIONS (HEADERS) ON THE DIGITS, COLONS & ARROWS.

*NYOGEL NOT REQUIRED AT LOCATIONS:
K21, K22, K20, K28, & K24 ON DRIVER LED2022

*POWER SUPPLY:
VERIFY POWER SUPPLY IS SWITCHED TO 115VAC
MEASURE VOLTAGE AT POWER SUPPLY=15 VOLTS DC

*HIPOT TEST REQUIREMENTS:
1.5 KILOVOLTS FOR 1 SECOND

*CONTINUITY CHECK BETWEEN CABINET AND GROUND



Fair-Play
A TRANS-LUX COMPANY

1700 DELAWARE AVE.
DES MOINES, IA 50317

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TITLE: WIRING, COMP. LOCATION LED/BAR, INDOOR HOCKEY, HK-1513

DRAWN BY: NAP

DATE: 2-2-09

SCALE: 3/16" = 1'-0"

MODEL: LED/BAR, INDOOR

DWG. NO.: 92-1513-01

OR	ORIGINAL RELEASE	2-2-09	NAP
REV.#	CHANGE	DATE	BY

NOTE:
WHEN ORDERING PARTS, FAIR-PLAY PART NUMBER IS REQUIRED.

LED BAR DIGIT HARNESSSES

LED BAR DIGIT ADDRESS PLUG

CONNECTOR = AMP 640620-8 (C1254)
PIN = AMP 770904-3 (C1253)
DOCUMENT REF. 16-0009-01

REPLACEMENT INDIVIDUAL PARTS LIST	
DESCRIPTION	F.P. PART#
LED DIGIT (LED2022) DRIVER ASSEMBLY	06-2022-01
LED AMBER	D0273
LED RED	D0272
LED GREEN	D0274
CONNECTOR AMP 640601-2, 2-PIN	C0913
CONNECTOR AMP 640601-3, 3-PIN	C1020
CONNECTOR AMP 103957-1	C1249
CONNECTOR AMP 103957-2	C1248
CONNECTOR AMP 640601-8	C0966
ALT. CONNECTOR AMP 640428-8	
CONNECTOR AMP 640431-9	C1247
STRAIN RELIEF 643067-9	C1270
CONNECTOR 104257-4	C1521
CONNECTOR AMP 640620-8	C1254
CONNECTOR AMP 641522-2	
CONNECTOR AMP 641522-3	
PIN AMP 770904-3, 3-PIN	C1253
POWER SUPPLY, 15VAC@12.5A	P1120

ADDRESS PLUG GROUNDED PIN	#22 GAUGE WIRE COLOR	PART#
81	1, 8	RED UL1061 (W0031) C1384
82	2, 8	BLUE UL1061 (W0026) C1385
83	1, 2, 8	BLACK UL1061 (W0025) C1386
84	3, 8	BLUE/BLACK UL1061 (W0130) C1451
91	1, 5, 8	RED/BLACK UL1007 (W0132) C1549
B1	1, 5, 6, 8	GRAY UL1061 (W0027) C1387
B2	2, 5, 6, 8	ORANGE UL1061 (W0029) C1388
B3	1, 2, 5, 6, 8	YELLOW UL1061 (W0044) C1389
B4	3, 5, 6, 8	GREEN UL1061 (W0299) C1390
B5	1, 3, 5, 6, 8	PURPLE UL1061 (W0030) C1391
B6	2, 3, 5, 6, 8	BROWN UL1061 (W0076) C1392
B7	1, 2, 3, 5, 6, 8	WHITE UL1061 (W0032) C1393
B8	4, 5, 6, 8	BLUE/WHITE UL1061 (W0119) C1394
B9	1, 4, 5, 6, 8	YELLOW/BLACK UL1061 (W0133) C1535
B10	2, 4, 5, 6, 8	BROWN/WHITE UL1061 (W0121) C1536
C1	1, 7, 8	ORANGE/BLACK UL1061 (W0131) C1395
C2	2, 7, 8	PURPLE/WHITE UL1061 (W0135) C1626
A1	1, 6, 8	ORANGE/WHITE UL1061 (W0120) C1476
A3	1, 2, 6, 8	WHITE/BLACK UL1061 (W0018) C1477
85	1, 3, 8	RED/WHITE UL1061 (W0134) C1604
87	1, 2, 3, 8	PURPLE/WHITE UL1061 (W0135) C1605
8C	3, 4, 8	PURPLE/BLACK UL1061 (W0136) C1606

LED BAR DIGIT FIG. 1 HARNESS

CONNECTOR = AMP 640601-3 (C1020)
PIN 1 = GRAY, SEG.
PIN 2 = RED, COMMON
PIN 3 = N.C.
DOCUMENT REF. 16-0013-01

LENGTH	F.P. PART#
12"	C1397
16"	C1416
24"	C1398
36"	C1399
48"	C1400
60"	C1401
72"	C1402
96"	C1403

DATA CONVERTER INTERFACE HARNESS

COMPLETE ASSEMBLY = C1396
CONNECTOR = AMP 104257-4
DOCUMENT REF. 16-0012-01

PIN#	COLOR	LENGTH
1	RED	6"
2	GREEN	6"
3	BLUE	6"
4	WHITE	6"
5	BLACK	6"

LED COLON HARNESS

CONNECTOR = AMP 1-640601-3 (C1020)
PIN 1 = BLUE (#22 UL1007) TOP SPOT
PIN 2 = RED (#22 UL007) COMMON
PIN 3 = BROWN (#22 UL1007) BOTTOM SPOT
DOCUMENT REF. 16-0014-01

COMPLETE ASSEMBLY	PIN#	COLOR	LENGTH
C1404	1	BLUE	84"
	2	RED	84"
	3	BROWN	72"
C1512	1	BLUE	144"
	2	RED	144"
	3	BROWN	132"

DIGIT TO DRIVER HARNESS

CONNECTOR = AMP 640431-9 (C1247)
STRAIN RELIEF = 643067-9 (C1270)
DOCUMENT REF. 16-0001-01

COMPLETE HARNESS

PIN#	COLOR	BAR SEG.	LED SEG.	LENGTH	F.P. PART#
1	BROWN	A	A	24"	C 1278
2	RED	B	B	36"	C1279
3	ORANGE	C	C	48"	C1280
4	YELLOW	D	D	60"	C1281
5	GREY	E	VLED	72"	C1282
6	BLUE	F	E	84"	C1283
7	PURPLE	G	F	96"	C1284
8	WHITE	FIG. 1	G	108"	C1288
9	BLACK	COMMON	H	120"	C1289
				144"	C1290
				204"	C1456
				216"	C1490
				228"	C1491
				240"	C1505
				300"	C1506

K10 ADAPTOR HARNESS

COMPLETE ASSEMBLY = C1417
CONNECTOR = AMP 640431-9 (C1247)
CONNECTOR = AMP 641522-2
CONNECTOR = AMP 641522-3
STRAIN RELIEF = 643067-9 (C1270)
DOCUMENT REF. 16-0017-01

CONNECTOR	PIN#	COLOR	F.P.#	F.P.#	LENGTH
AMP 640431-9	5	RED	W0015	W0015	8"
	8	WHITE	W0016	W0016	8"
	9	BLACK	W0008	W0008	4"
AMP 641522-2	1	WHITE	W0016		
	2	BLACK	W0008		
AMP 641522-3	1	BLACK	W0008		
	2	RED	W0015		
	3	N.C.			

LED BAR DIGIT INDOOR HOCKEY SCOREBOARD DATA CHART

	SCBD. TYPE	WIRELESS OPTIONAL	SIZE		EST. WT. (LBS.)	POWER				CTRL	HANGER DIM. REFERENCE DRAWING
			"A" LENGTH	"B" HEIGHT		CIRCUITS REQ'D.	CIRCUIT #1 (WATTS)	CIRCUIT #2 (WATTS)	TOTAL WATTS		
HK-1513	14	X	11'-0"	6'-6"	413	1	360		360	1,2	01-0004-15
HK-1600-4	00	X	9'-0"	3'-0"	120	1	77		77	1, 2, 3	01-0004-10
HK-1650-4	13	X	15'-0"	3'-0"	180	1	153		153	1, 2	01-0004-10
HK-1655-4	13	X	18'-0"	3'-0"	126	1	203		203	1, 2	01-0004-10
HK-1660-4	01	X	9'-0"	5'-0"	220	1	102		102	1, 2	01-0004-14
HK-1700-4	00	X	12'-0"	3'-0"	150	1	77		77	1, 2, 3	01-0004-11
HK-1750-4	13	X	18'-0"	3'-0"	140	1	153		153	1, 2	01-0004-11
HK-1755-4	13	X	21'-0"	3'-0"	250	1	203		203	1, 2	01-0004-11
HK-1760-4	01	X	12'-0"	5'-0"	240	1	102		102	1, 2	01-0004-12
HK-1770-4	13	X	12'-0"	6'-0"	300	1	203		203	1, 2	01-0004-12
HK-1771-4	13	X	12'-0"	6'-0"	450	1	366		366	1, 2	01-0004-12
HK-1780-4	14	X	12'-0"	6'-0"	300	1	228		228	1, 2	01-0004-12
HK-1790-4	14	X	12'-0"	8'-0"	390	1	228		228	1, 2	01-0004-12
SG-1450-4	14	X	5'-0"	2'-10"	52	1	30		30	1, 2	01-0004-13

MODEL #: -4 = LED BAR DIGIT

CONTROLS: 1=MP-70
2=HC-70 (OPTIONAL)
3=MP-50

* POWER IS 120 VAC, 60 Hz, 2 WIRE.

* CONTROL CABLE TYPICAL=C0550, 1 PAIR, 22 GAUGE ((1) PER SCOREBOARD)

LAMP TYPE: LED



TRANS-LUX MIDWEST CORPORATION
d.b.a. Fair-Play Scoreboards

LIMITED SCOREBOARD WARRANTY

Fair-Play provides a limited five-year warranty when its permanently mounted scoreboards and scoreboard controllers are operated and maintained according to the owner's instructions furnished with the equipment. Such limited warranty is two years for portable scoreboards. This warranty covers all electronic components, including LEDs, for five or two years as applicable from the date of invoice that prove to be defective in material or workmanship. Our #161 and #655-type indoor lamps are warranted on a ten-year factory exchange basis from the date of invoice.

Warranted for one year are mechanical control panel switches, connectors, horns and visual goal indicators. Wireless control components are warranted for two years. Wireless control devices even if not defective may not function reliably in certain environments or otherwise due to outside causes beyond Seller's control, including but not limited to cell phones or portable computers. In the event it is determined a wireless device during the ninety (90) day period following shipment does not function in accordance with its specification without repeated errors or is otherwise consistently unreliable, and Seller determines repair or replacement thereof is not likely to improve performance, at Purchaser's request, upon return to Seller postage prepaid in like new condition within such time period, Seller's sole obligation shall be to refund the entire purchase price of such device. Thereafter Seller's sole obligation shall be to repair or replace, other non-wireless defective components for the balance of the warranty period without responsibility or liability for claims for unreliable performance not due to defects. Batteries, battery packs and battery recharging equipment are warranted for thirty (30) days, except for defects arising from misuse, abuse, negligence or other exclusions set forth below. In no event will Fair-Play have any obligation for any damage caused by defective batteries, battery packs and battery recharging equipment. Also warranted for 30 days are outdoor portable scoreboard carts.

Fair-Play's sole obligation during the applicable warranty period is to repair or replace any defective items. Defective assemblies or components are to be returned postage prepaid to Fair-Play's service center, after obtaining a return authorization number, for repair or replacement at no cost to the owner during the applicable warranty period. Replacement parts may be either new or like-new. Return shipping costs after repair will be paid by Seller except for overnight, express or special shipping costs which shall be paid by Purchaser. Excluded from this warranty are fuses, major components provided by other manufacturers including, but not limited to, computers, rotating signs, power distribution panels, disconnect switches and components of rear-illuminated or lighted signs. The other manufacturer's warranty will apply to such components. Also excluded from this warranty are electronic signs or message centers and related controls. These items are covered by their own specific warranty. The warranty will be suspended as to units for which the purchaser is in default of payment in accordance with the agreed Terms of Payment. In the event the purchaser remits the full amount due in immediately available funds on a unit for which the warranty was suspended, the warranty will be reinstated for the remaining balance of the original warranty period without allowance for the time period of the suspension. The warranty does not apply to units that have been stolen.

THIS WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES OF SELLER, EXPRESS OR IMPLIED, AND, EXCEPT TO THE EXTENT HEREIN PROVIDED, SELLER DOES NOT MAKE ANY WARRANTY WHATSOEVER INCLUDING, WITHOUT LIMITATION, ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR USE OR PURPOSE.

Fair-Play shall not be liable for any incidental, special or consequential damages nor any other loss that may arise in connection with its warranted equipment or any claims under this warranty. (Individual states may have limitations on the length of implied warranties.)

This warranty does not cover shipping damages or problems which result from improper installation of your equipment. (Promptly inspect shipment for visible or concealed damages and report immediately to the delivering carrier.)

Under no circumstances shall this warranty apply if the warranted products have been subject to abuse, misuse, neglect, sabotage, acts of terrorists, negligence, accident, or any casualties or abnormal conditions, including without limitation fire, civil disorders, war, flood, lightning or acts of God. Nor does this warranty cover labor or damage resulting from, or problems caused by, any repair, alteration, modification, or adjustment of the warranted scoreboards or components not performed by Fair-Play.

This warranty extends only to the original end-user purchaser of the warranted products, and is not transferable. For information on extended warranties contact your Fair-Play dealer. In the event authorized Fair-Play dealers make extensions to or provide additional service for Fair-Play products, Fair-Play assumes no liability therefore other than the specific warranty set forth above in this Limited Warranty.

Trans-Lux Midwest Corporation

Fair-Play Scoreboards - A Division of Trans-Lux Midwest Corporation
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Internet Address - www.fair-play.com