All Sport® 4000 Series Control Console

Operation Manual

ED-9999

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Section 1: Introduction

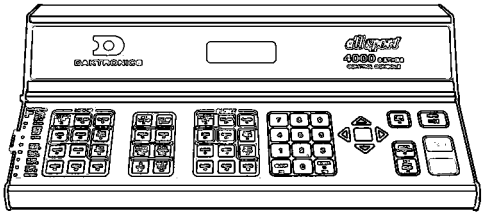
1.1 How To Use This Manual

This manual explains the operation of the All Sport® 4000 Series control console. 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. Do not let any power cord touch hot surfaces or hang over the edge of a table which would damage or cut the cord.
4. If an extension cord is necessary, use a three-pronged, polarized cord. Arrange the cord with care so it is not tripped over or pulled out.
5. Always turn off and/or unplug the control equipment when not using it. Never yank the power cord to pull the plug from the outlet. Grasp the plug and pull to disconnect.
6. To avoid electrical shock, do not disassemble the control equipment or the driver modules. Incorrect reassembly can cause electric shock, faulty operation, or permanent damage to the circuits.

1.2 Console Overview



The All Sport 4000 Series console is a state-of-the-art scoring and timing system. The console's Liquid Crystal Display (LCD) will guide you through the operation of the system.

There are four console models in the All Sport 4000 Series that differ by voltage and/or programming. This table lists these consoles:

Model #	Description
4100	120 Volt, Standard Programming
4120	230 Volt, Standard Programming
4900	120 Volt, Custom Programming
4920	230 Volt, Custom Programming

As a safety feature, this product has a 3-wire ground type plug equipped with a third (grounding) pin. This plug only fits into a grounding-type power outlet.

Note: If you are unable to insert the plug into the outlet, contact a qualified electrician to replace the obsolete outlet.

When opening the packages, inspect for shipping damage such as rattles and dents. See that all equipment is included as shown on the packing slip. Immediately report any deficiencies to

Daktronics. Save all packing materials for shipping if warranty repair or exchange is needed.

1.3 Using the Console

An uppercase word in brackets (such as [**OK**]) represents a *button* on the screen. The names or letters of *keys* on the keyboard will be given enclosed in arrows (such as <**ENTER**>) to differentiate between the screen commands.

1.4 Revision History

Version 1.0 Release Date: 1 November 1996

Initial software release.

Version 1.1 Release Date: 11 March 1997

Added Baseball Code for the new standard Baseball Scoreboards. (Code 38)

Version 1.2 Release Date: 15 July 1997

1. **New Soccer Code:** Added saves for new soccer scoreboard models. (Code 69)
2. **Speed Pitch:** Program used to register and display speed and type of pitch to a message display. Two codes were added where one displays the speed automatically and the other requires user input for display. (Code 191: manual, and Code 192: automatic)
3. **One Console Basketball Score/Player Foul Operation:** Eliminates the need for two consoles to control player foul panels and scoring. (Code 7: BB18's, Code 8: BB18A, Code 17: BB17, Code 18: BB17A)
4. **InfoSport Message Center Controller:** Controls the new single line InfoSport Message Center designed for indoor sporting applications. (Code 101)
5. **Smart Clock:** Provides remote game time control with DOG/Shot Clock control. Used in conjunction with the ProSport 6000. This provides a RTD output with game time and shot time/delay of game. (Code 111: indoor, Code 112: outdoor)
6. **Test Codes:** Added to help test the individual model of scoreboard, in both manufacturing and field testing. Currently test codes are in place for a majority of standard Basketball, Hockey, Baseball and Football boards. This is a menu option in the standard code for the particular board being tested.
7. **Time of Day:** In earlier versions when running the time-of-day code, the time was sent to more than one output. Time was displayed on other digits besides the normal clock digits on multiple driver boards. This has now been corrected by sending the time-of-day to output 1 only.
8. **1/10th Second Status:** In previous versions, the 1/10th second prompt was not always displayed after resuming a game, depending on the position remote start/stop switch. This has now been corrected. Count up/down status is also now saved. In earlier versions this always defaulted to count down on power up.
9. **Time-out Time on Clock Digits:** This change now displays the time-out time on the clock digits on the main scoreboard for basketball only.
10. **LCD Usage:** In previous versions, the second line of the LCD displayed command entry information only. It has now been revised to show limited game-in-progress information. On the majority of the sports, it will now show Home/Guest scores. With baseball, where score was already displayed on the top line, the second line displays Ball, Strike, and Out status.

11. **Hour-Minute-Second Counter:** Added to control simple 2,4, or 6-digit displays. On the smaller displays, the hours, minutes, and seconds will shift as time expires or increases. (Code 95: 2-digit, Code 96: 4-digit, Code 97: 6-digit)
12. **Shot Clock Time:** This update now blanks the shot time when it is greater than or equal to the game time. The blanking of the shot time can be enabled/disabled from the menu.
13. **Football Delay-of-Game:** Delay-of-game time can now be run independently from game time. In earlier versions, the delay-of-game time would stop if the game time was stopped and wouldn't start unless game time was running.

Version 1.3 Release Date: 2 October 1997

1. **New Judo Code:** Code for new Standard Judo Scoreboards. (Code 281)
2. **New Karate Code:** Code for new Standard Karate Scoreboards. (Code 282)
3. **New Tae Kwon Do:** Code for new Standard Tae Kwon Do Scoreboards. (Code 283)
4. **New Boxing Code:** Code for boxing on Game/Shot Clock Displays. (Code 291)
5. **New GP99 Code:** Code for GP99 include Multi Sport and segment timer. (Code 271, Code 272, & Code 274)
6. **New Finish Lynx Interface Code:** Code for interfacing to the Finish Lynx Photo Finish System. (Code 241)
7. **New Soccer RTD Code:** Code for Soccer with RTD output. (Code 242)
8. **New Volleyball Code:** Code for volleyball on standard BA-5 and BA-7. (Code 74)
9. **New Smart Console Code:** Code for Smart Clock Time of Day. (Code 113 & Code 114)

Version 1.4 Release Date: 16 March 98

1. **Reverse keyboard layout for Judo, Karate, Tae Kwon Do:** Codes with the keyboard reversed (white and red swapped) were added. (Code 284, Code 285, & Code 286)
2. **New Event Counter Codes:** Codes for event countdown, time based counter and external input counter with RTD output have been added. (Code 371 thru Code 376)
3. **New Football RTD Codes:** Code for football with RTD output. (Code 243)
4. **New Swim Multi line Code:** Code for Swim Score, Event, and Heat. (Code 244)
5. **New Wrestling Code:** Code for new Wrestling board with Blood and Injury Time. (Code 57)
6. **Time Out Time Selection:** Menu option added in basketball for display of time out time.
7. **Relay Control Selection:** Selection in Hockey menu for relay output being active on clock stop or clock equals zero.
8. **Time of Day added to RTD Data:** Soccer code 242 has Time of Day data added to RTD output.
9. **Osaekomi Timer limits changed:** The Judo Osaekomi timer has been changed due to rule changes. It is now 20 or 25 seconds instead of 25 and 30.
10. **Selection of Heat & Event number input:** The track codes 41, 42, and 43 have an added selection for displaying Heat and Event from the OmniSport input or from keyboard input.
11. **Analog Clock Control:** Soccer code 242 has had analog clock control added.

Version 1.5 Release Date: 15 July 98

1. **Dimming for Basketball:** Added a menu option in standard basketball and hockey codes to allow for dimming.
2. **Lengths added to Multi-line Swim Output:** Lengths were added to the output.

(Code 244)

3. **Day/Event Counter Output added for TI-413:** An additional output was added to handle reverse configuration of Day/Time to Time/Day.

4. **Speed Pitch Output added for TI-413:** An additional output was added to shift digits to accommodate the TI-413 layout.
5. **Power Time Interface:** Added an interface for power time information to be displayed on Football and Track scoreboards.
6. **New Tennis Code:** Added a new tennis code to operate the new standard tennis scoreboard TN-2001. (Code 220)
7. **Modified 2 Digit Timer Code 95:** Modified code to handle higher wattage lamp displays such as the TI-2003.
8. **Modified Baseball Codes 36, 38, & 40:** Modified so inning runs scores now increments 0 to 9 instead of 1 to 9.
9. **Added TK-69 Output to Track Codes :** Added output for TK-69 displays on output 3 to track codes 41, 42, 43, 45, 46, and 47.

Version 1.6 Release Date: 21 December 98

1. **Speed Pitch:** Added KPH and cycle KPH/MHP to speed pitch code.
2. **Baseball RTD Output:** Added Code 138 for baseball with RTD Output.
3. **Time Event Counter:** Revised Codes 373 & 374 for timed event counter to correct occasional lock up problem.
4. **Segment Timer:** Segment timer now has up to 99 segments, added a copy of segment times, and added saving of segment times if resume code is used.
5. **Football Menu:** Added a menu selection in football for reset/no reset on stop of the delay of game.
6. **Segment Timer:** Added codes 275 & 276 for segment timer to work on basketball, football, and wrestling WR-2024.
7. **Basketball:** Added code 161 for basketball on H-2023 with plyr/fls/points.
8. **Auto Racing:** Added codes 333 & 433 for new auto racing boards with AMB timers.
9. **Auto Racing:** Added code 995 for new auto racing boards with manual posting and timing.

Version 1.7 Release Date: 2 April 99

1. **Wrestling Advantage Timer:** Code 57 for wrestling will show advantage time on the team score digits when the advantage time is on.
2. **Baseball Timing:** Codes 30, 31, 32 and 44 have the ability to time out to hours.
3. **Auto Racing:** Added codes 334, 335, 434 and 435 for positions 16-30 and 31-45 for the AMB interface to the new AR model boards.
4. **Pitch and Speed:** Added codes 193 and 194 for the STALKER radar gun.

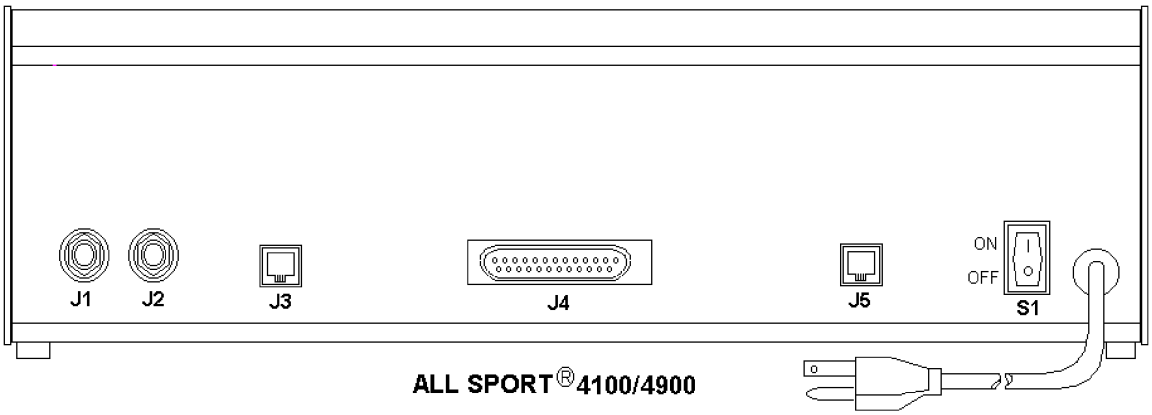
Version 1.8 Release Date: 18 November 99

1. **Wrestling Advantage Timer:** Added a blinking Bonus Light to show blood/injury time in codes 51-54.
2. **Delay of Game:** Added a option of having the clock not reset on the stop position of the switch--just on the reset button only. This is on code 82, 112.
3. **Delay of Game and Shot Clock operations:** Changed these functions so the last entered set reset time is displayed at the start of each new game on all standard Basketball and Football codes.
4. **Judo:** Modified the -1/+1 functions to show 0-9 and 0-3 on Waza Ari. These digits will immediately go to 0. The Ippon will now stop the clock when pressed. The Keikoku, Chui, Shido will do the proper increment and decrement of the digits.
5. **Tennis:** Added code 221 which is a 6 court tennis scoreboard.
6. **Basketball:** Changed the Stats codes 15, 16 to only update player-foul-points information on the main scoreboard when the Foul button is pressed.

Version 2.0 Release Date: 15 October 00

1. **AMB Interface:** Enabled AMB Interface to handle up to 8 characters in get competitor number.
2. **+2 and +3 Points:** Corrected the +2 and +3 point problem in basketball of only one point being added. This problem only happened afer team fouls +1 was pressed followed immediately by score +2 or +3.
3. **Code 502:** Added code 502 for compulink interface to 2 line scoreboards.
4. **TI-418 Outputs:** Added outputs for TI-418 for event counter codes 373, 374, 375, and 376.
5. **Code 001:** Added digit ID and walking dot test to test code 001.

Section 2: Console Connectors



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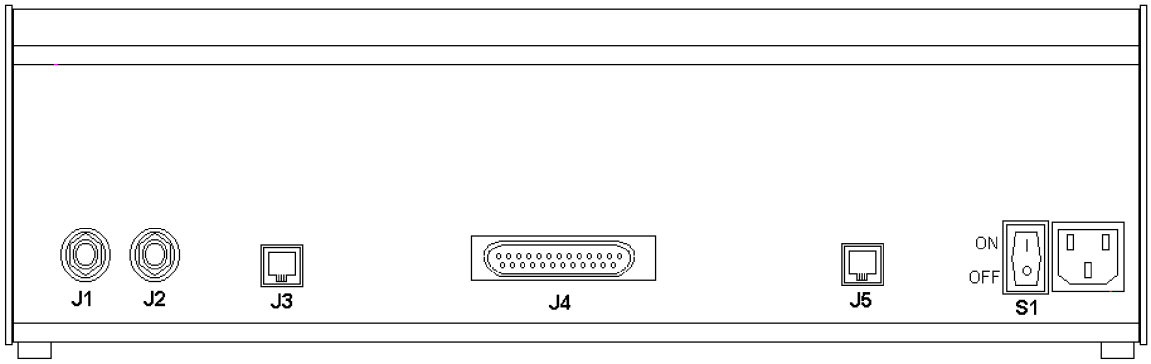


ALL SPORT® 4120/4920

J1 & J2: Scoreboard outputs
J3: Remote start/stop and the horn
J4: Main output and input port
J5: Shot clock or delay-of-game control
S1: Power switch

There are two ways to connect signal, depending on the type of installation.

- **!** One type of signal cable has a 25-pin connector on one end and a 16-pin circular plug on the other. The 25-pin connector goes into J4 of the console, and the 16-pin plug goes into the scoreboard junction box (j-box).

- **!** The second type has a $^1/_4$" headphone plug at both ends. One end goes into J1 or J2 of the console, and the other end into the scoreboard j-box.

For more information concerning various types of installations, refer to **Appendix A**.

Section 3: Basic Operation

3.1 Console Overview

Reference Drawing: Keyboard Fixed Keys . . . . . **Drawing A-54698**

The console face consists of a liquid crystal display (LCD), sport-specific insert, numeric keypad and additional keys. In most cases, the top line of the LCD shows game time, the direction the clock is counting, and whether the horn is set to automatic. The bottom line of the LCD generally shows HOME and GUEST score. Some baseball modes display BALL, STRIKE, and OUT data on the bottom line of the LCD.

Additional keys on the console include:

<**CLEAR**>: Clears the LCD of numerical information. Serves as [**NO**] for input prompts.
<**ENTER**>: Completes an action. The asterisk is a reminder that this key is to be pressed when an asterisk appears on the LCD. Serves as [**YES**] for input prompts.
<**MENU**>: Invokes sport-specific menu options (refer to **Section 3.4** for additional information)
<**AUTO HORN**! >: Turns the automatic horn on or off. If the horn is on, an H appears on the LCD
<**HORN**>: Sounds the horn as long as this key is pressed
<**COUNT UP/DOWN !**>: Sets the clock to count up or down. Press <**ENTER**> to toggle between count modes. UP is displayed on the LCD if the clock is counting up and DN if the clock is counting down.
<**SET MAIN CLOCK !**>: Sets the time on the main clock
<**START**>: Starts the main clock
<**STOP**>: Stops the main clock

Refer to **Drawing A-54698** in **Appendix A** for additional information.

3.2 Sport Inserts

Various inserts are available depending on the sport and the type of scoreboard. For safekeeping, store any unused inserts in the pocket available on the bottom of the console.

To remove a sport insert, pull on the tab that extends from the left side of the console. The insert will easily slide out. To insert a sport insert, slide it under the protective covering until it stops.

Note: On each tab is a number (ex. LL-2261). This number is used as part of the section headings in this manual. For example, the operation instructions for LL-2261 are under **Section 5.1.**

Each insert has a list of code numbers and scoreboard models. The code numbers configure the console to control the scoreboard specified by the model number. For example, code 40 enables the console to control a BA-3718 scoreboard. Code numbers also configure the console for a specific sport mode as shown on the sport insert. This enables the console to control the scoreboard as specified by keys on the insert. Codes are entered during startup. Refer to **Section 3.5** for more information on starting up the console.

Note: Daktronics recommends that a permanent marker is used to rewrite the code number on the insert. This is a precaution in case the model number is made illegible due to extensive use (that is, rubbed away, scratched, etc.).

3.3 Sport Insert Operation Concepts

A sport insert identifies the action keys required in the normal course of the insert's specific sport. In most cases, pressing a key immediately changes the scoreboard. Sometimes additional keys must be pressed. Keys that require additional information are marked by a **!**. This additional information usually is a number followed by the <**ENTER**> key.

Keys with arrows (') activate an indicator (possession, bonus, etc.) on the scoreboard. The direction of the arrow selects the appropriate team (HOME or GUEST).

Some keys have a **+1**, **+2** or **+3**. By pressing one of these keys once, the value of the corresponding field on the scoreboard (such as score or period) increments (increases) by the corresponding number on the key. A key with a **-1** decrements (decreases) by one.

On most inserts, certain keys have been grouped together under the heading HOME or GUEST. These keys are *team* keys and work the same for both teams. They affect the statistics for that one team. Keys not under one of these headings are *game* keys. They are general keys for the progress of the game (such as period or quarter).

Other keys have been blocked together to emphasize that these keys work together.

Examples

Example 1: Change the HOME score from 3 to 4.

Key	LCD
<**SCORE +1**> (Home)	H. Score ••4

Example 2: Change the GUEST score from 21 to 12.

Key	LCD
<**SCORE !**> (Guest)	G. Score •21
1	G. Score ••1
2	G. Score •12
<**ENTER**>	G. Score •12

Note: The guest score can also changed by repeatedly pressing the <**SCORE-1**> key if it is available.

3.4 Menu Key

The <**MENU**> key allows the user to select from a list of options specific for each sport. The up and down arrow keys allow the user to scroll through the menu list. All menu options require either yes or no. Pressing <**YES**> or <**NO**> will select the action and exit from the menu. Pressing any key other than <**YES**>, <**NO**> or the arrow keys will exit the menu function.

Note: Not all prompts must be answered. The following menu functions may be available:

1. RESTART GAME Y/N
   Yes - Restarts the present sport with default settings
   No - Exits menu

2. NEW CODE Y/N
   Yes - Prompts `Resume Game?,` as if power to the console had interrupted (refer to **Section 3.5**)
   No - Exits menu

3. TEAM NAME Y/N
   Yes - Prompts the user to enter team names (refer to **Section 13**)
   No - Exits menu

4. SELECT 24HR Y/N (time of day only)
   Yes - Selects 24 hour mode for time of day
   No - Selects 12 hour mode for time of day

5. SYNC SHOT CL Y/N (Basketball)
   Yes - Synchronizes the shot clock with the game clock
   No - Allows the shot clock to run independently of the game clock

   Note: When set to "Yes" (synchronous), the shot clock always stops when the game clock stops. The shot clock starts when the game clock starts (if the shot clock start switch is ON). When set to "No" (non-synchronous), the shot clock is not affected by the game clock. It starts or stops only from its own switches.

6. BLNK SHOT CL Y/N (Basketball)
   Yes - Shot clock time will blank when greater or equal to game time
   No - Shot clock time will display at all times

7. SET MAX FOUL Y/N (Basketball)
   Yes - Sets the maximum number of team fouls that will be displayed on the scoreboard. Incrementing the team fouls will not go beyond this setting.
   No - Exits Menu

8. SET PER END Y/N (Hockey, Soccer)
   Yes - Sets the period end time when clock is in count up mode
   No - Exits menu

9. SHOW TIMEOUT Y/N (Basketball)
   Yes - Sets to show time out time on scoreboard.
   No - Time out time will not show on scoreboard

10. RLY CLK STOP Y/N (Hockey)
    Yes - Sets relay to activate on clock stop.
    No - Selects relay to activate on main clock = 0:00

11. SHOW EVENT Y/N (Track)
    Yes - Selects display of Event/Heat Data from OmniSport Input.
    No - Selects display of Event/Heat Data from keyboard entry.

12. BRIGHT Y/N
Yes - Sets the display to bright
No - Sets the display to dim

13. STOP/RES DG Y/N (Football)
Yes - Sets for reset of delay of game on stop
No - Sets for no reset of delay of game on stop.

14. PRO & SPORT Y/N (Pitch & Speed)
Yes- Selects Stalker Pro Radar Gun
No- Selects Stalker Sport Radar Gun

15. SHOW ADV TIME Y/N (Wrestling)
Yes - Show advantage time on the scoreboard
No - Show team score on the scoreboard

16. TEST DISPLAY Y/N
Yes - Enters a test mode for testing display digits
No - Exits menu

Note: This is a production test option for some scoreboard models. When this option is selected the console cycles through number patterns on each group of scoreboard digits and cycles through the different digit groups on the scoreboard. Pressing the <**START**> key turns all digits on, and <**STOP**> turns all digits off. The <**SET MAIN CLOCK**> key starts the `CYCLE ALL` pattern and the <**COUNT UP/DOWN**> key starts the `CYCLE GROUP` pattern. The <**HORN**> key puts it in single step mode and can be used to step it through the test. The keys on the insert (starting in the upper left corner and from left to right) are used to select the group of digits being tested. The remote start/stop console can be used to control the test also. The <**HORN**> switch single steps through the test, the <**START**> position selects `STEP ALL` and the <**STOP**> position selects `STEP GROUP`.

3.5 Startup

When the console is turned on, it cycles through a self test, after which the LCD prompts `Resume Game?` Press <**YES**> to resume the last game stored in memory. This is useful when power to the console is lost during a game. Pressing <**NO**> will then prompt `Enter Code`. The last code used will be displayed. To accept the code shown, press <**ENTER**>. If this is not the desired code, enter a new code and press <**ENTER**>.

3.6 Time Of Day Operation

Note: This operation is only available on scoreboards equipped with a game clock. No sport insert is required for this operation. **If this code is entered while another code is running, any information entered during the first code will be lost.**

To have the game clock on the scoreboard display the time of day, enter code 99 (refer to **Section 3.4** or **3.5** to enter a code). Use the <**SET MAIN CLOCK**> key to enter the correct time of day. The menu choice `Select 24Hr` can be used to select either a 12 or 24-hour time format.

3.7 Multi-Purpose Timer Operation

This operation is available for clocks with 2, 4, or 6-digit displays. The timer counts up or down in hours, minutes, and seconds. The timer can display up to 99 hours, 59 minutes and 59 seconds. On 4-digit clocks, the display shows hours and minutes if the hours value is not zero; otherwise, it shows minutes and seconds. On 2-digit clocks, the display shows hours if not zero, shift to show minutes when hours are zero, and shift to show seconds when minutes are zero. To select the multi-purpose timer, enter one of the codes below.

Code 95 - 2 Digit Clock
Code 96 - 4 Digit Clock
Code 97 - 6 Digit Clock

Section 4: Baseball Operation

Refer to the information in **Section 3** to start up the console and use the sport insert. Read **Section 3** carefully to fully understand the following operation instructions and for **MENU KEY** operations.

4.1 Sport Insert LL-2266

Reference Drawing: Sport Insert, Baseball Codes 36;38;40&138 . . . . **Drawing A-86105**

Team Keys

<ERRORS ! >
Edits the team's number of errors

<ERRORS +1>
Increments the team's number of errors by one

<HITS ! >
Edits the team's number of hits

<HITS +1>
Increments the team's number of hits by one

<GAME RUNS ! >
Edits the number of total game runs

<INNING RUNS ! >
Edits the number of inning runs in the inning specified by **<INNING ! >**. This **will not** affect the total game runs. Refer to **Example 4.1a** at the end of this section.

<RUNS -1>
Decrements the number of inning runs and total game runs by one

<RUNS +1>
Increments the number of inning runs and total game runs by one

Game Keys

<INNING ! >
Edits the inning number

<INNING +1>
Increments the inning number by one

<PLAYER AT BAT ! >
Displays the number of the player currently at bat

<AVERAGE ! >
Displays the average of a player

<DIM>
Dims the scoreboard for night viewing. Pressing this key a second time returns the scoreboard digits to full brightness.

<OUT +1>
Increments the number of outs by one

<CLEAR HIT AND ERROR>
Clears the H/E digit or indicator on the scoreboard

<HIT>
Indicates a hit. An "H" will appear on the H/E digit on the scoreboard or an indicator will light up.

<**ERROR**>
Indicates an error. An "E" will appear on the H/E digit on the scoreboard or an indicator will light up

<**CLEAR BALL AND STRIKE**>
Sets the Ball and Strike (on the scoreboard) to zero

<**BALL +1**>
Increments the number of balls by one

<**STRIKE +1**>
Increments the number of strikes by one

Example 4.1a: The game is in the fifth inning, the home team has eight runs. Because of an error in the fourth inning, we need to go back and change the inning runs from five to six.

	Key	LCD
1	<**INNING !**>	INNING •5
2	<**4**>	INNING •4
3	<**ENTER**>	INNING •4
4	<**INNING RUNS !**> (Home)	H IN RUNS •5
5	<**6**>	H IN RUNS •6
6	<**ENTER**>	H IN RUNS •6
7	<**INNING !**>	INNING •4
8	<**5**>	INNING •5
9	<**ENTER**>	INNING •5
10	<**GAME RUNS !**> (Home)	H GM RUNS •8
11	<**9**>	H GM RUNS •9
12	<**ENTER**>	H GM RUNS •9

Steps 1-3 change the inning from five to three. Steps 4-6 change the number of runs in the third inning. Steps 7-9 change the inning number back to five. Steps 10-12 change the total game runs.

4.2 Sport Inserts LL-2264 & LL-2265

Reference Drawings:
Sport Insert, Baseball Codes 30-34, 39 . . . . . **Drawing A-86103**
Sport Insert, Baseball Codes 35, 37, 44 . . . . . **Drawing A-86104**

Note: Both inserts are identical, except the HOME and GUEST labels are on different sides.

The codes with timing (30, 31, 32 and 44) allow for times to be entered in hours, minutes and seconds.

Team Keys
<**AT BAT !**>

Indicates the team currently at bat

<ERRORS !>

Edits the team's number of errors

<ERRORS +1>

Increments the team's number of errors by one

<HITS !>

Edits the team's number of hits

<HITS +1>

Increments the team's number of hits by one

<RUNS !>

Edits the total number of runs

<RUNS +1>

Increments the total number of runs by one

Game Keys

<INNING !>

Edits the inning number

<INNING +1>

Increments the inning number by one

<PLAYER AT BAT !>

Displays the number of the player currently at bat

<AVERAGE !>

Displays the average of a player

<DIM>

Dims the scoreboard for night viewing. Pressing this key a second time will return the scoreboard digits to full brightness.

<OUT +1>

Increments the number of outs by one

<CLEAR HIT AND ERROR>

Clears the H/E digit or indicator on the scoreboard

<HIT>

Indicates a hit. An "H" will appear on the H/E digit on the scoreboard or an indicator will light up.

<ERROR>

Indicates an error. An "E" will appear on the H/E digit on the scoreboard or an indicator will light up.

<CLEAR BAL LAND STRIKE>

Sets the Ball and Strike (on the scoreboard) to zero

<BALL +1>

Increments the number of balls by one

<STRIKE +1>

Increments the number of strikes by one

4.3 Code 138 Standard RTD Item Numbers

Port configuration: 9,600 Baud Rate, 8 Data Bits, and Even Parity.

Standard RTD

Item#	Data
1	Player at bat x 10
2	Player at bat x 1
3	Average x 100
4	Average x 10
5	Average x 1
6	Ball x 1
7	Strike x 1
8	Out x 1
9	(H)it or (E)rror
10	Err Position x 1
11	Inning x 10
12	Inning x 1
13	Guest Runs x 10
14	Guest Runs x 1
15	Guest Hits x 10
16	Guest Hits x 1
17	Guest Errors x 10
18	Guest Errors x 1
19	Guest Ing 1 Runs x 1
20	Guest Ing 2 Runs x 1
21	Guest Ing 3 Runs x 1
22	Guest Ing 4 Runs x 1
23	Guest Ing 5 Runs x 1
24	Guest Ing 6 Runs x 1
25	Guest Ing 7 Runs x 1
26	Guest Ing 8 Runs x 1
27	Guest Ing 9 Runs x 1
28	Guest Ing 10 Runs x 1
29	Guest Ing 11 Runs x 1
30	Guest Ing 12 Runs x 1
31	Home Runs x 10
32	Hone Runs x 1
33	Home Hits x 10
34	Home Hits x 1
35	Home Errors x 10
36	Home Errors x 1
37	Home Ing 1 Runs x 1
38	Home Ing 2 Runs x 1
39	Home Ing 3 Runs x 1
40	Home Ing 4 Runs x 1
41	Home Ing 5 Runs x 1
42	Home Ing 6 Runs x 1
43	Home Ing 7 Runs x 1
44	Home Ing 8 Runs x 1

45	Home Ing 9 Runs x 1
46	Home Ing 10 Runs x 1
47	Home Ing 11 Runs x 1
48	Home Ing 12 Runs x 1
49	Guest Ing 1 Runs x 10
50	Guest Ing 2 Runs x 10
51	Guest Ing 3 Runs x 10
52	Guest Ing 4 Runs x 10
53	Guest Ing 5 Runs x 10
54	Guest Ing 6 Runs x 10
55	Guest Ing 7 Runs x 10
56	Guest Ing 8 Runs x 10
57	Guest Ing 9 Runs x 10
58	Guest Ing 10 Runs x 10
59	Guest Ing 11 Runs x 10
60	Guest Ing 12 Runs x 10
61	Home Ing 1 Runs x 10
62	Home Ing 2 Runs x 10
63	Home Ing 3 Runs x 10
64	Home Ing 4 Runs x 10
65	Home Ing 5 Runs x 10
66	Home Ing 6 Runs x 10
67	Home Ing 7 Runs x 10
68	Home Ing 8 Runs x 10
69	Home Ing 9 Runs x 10
70	Home Ing 10 Runs x 10
71	Home Ing 11 Runs x 10
72	Home Ing 12 Runs x 10

Section 5: Basketball Operation

Refer to the information in **Section 3** to start up the console and use the sport insert. Read **Section 3** carefully to fully understand the following operation instructions and for **MENU KEY** operations.

5.1 Sport Insert LL-2261

Reference Drawings: Insert, Codes 03, 04, 11, 12 & 161 . . . . . **Drawing A-86100**

Team Keys

<TIME OUTS LEFT ! >
Edits the number of time outs left for the team

<TIME OUT>
Indicates which team called the time out

<POSS>
Indicates which team has the next possession of the ball

<BONUS>
Indicates that a team gets a bonus

<PLAYER ! >
Used to enter the player's number to select the player's foul memory. The player's numbers **must** be entered before the game so that the **<TEAM FOULS +1>** key can be used. There are 20 player positions in memory to save player's foul data. Selecting a player's number shows the number of fouls and allows this number to be edited. Pressing the up/down arrow keys scrolls through the players while in the editing mode (refer to **Example 5.1a** at the end of this section).

<TEAM FOULS ! >
Edits the number of team fouls

<TEAM FOULS +1>
Increments the number of team fouls by one. The console prompts for the number of the player who fouled. After the player's number is entered, the player's number and fouls are shown on the scoreboard (refer to **Example 5.1b** at the end of this section).

<SCORE ! >
Edits the team score

Note: When using code 161 for H-2023 boards. The console will prompt for the player number of who made the points for score +1, +2, and +3 keys. After the player number is entered, the players number, fouls, and points are shown on the scoreboard. If individual points scoring is not desired, the players number does not have to be entered and then the <**ENTER**> key can be pressed.

<SCORE +1>
Increments the team score by one

<SCORE +2>
Increments the team score by two

<SCORE +3>
Increments the team score by three

<SCORE -1>
Decrements the team score by one

Game Keys

<SET TIME OUT ! >

Sets the length of the time out. The time out cannot be set while the clock is running.

<TIME OUT ON/OFF>

Starts and stops the time-out clock

<SET RESET TIME ! >

Sets the shot timer reset time

<SET SHOT TIME ! >

Sets the shot timer time

<DELETE PLAYER>

Deletes a player from memory. The player must first be selected using the **<PLAYER ! >** key. Refer to **Example 5.1c** at the end of this section.

<BLANK PLAYER FOUL>

Blanks the digits of the Player-Foul field on the scoreboard

<PERIOD ! >

Edits the period number

<PERIOD +1>

Increments the period number by one

Example 5.1a: Add players 21, 34 and 35 to the home roster.

	Key	LCD*
1	**<PLAYER ! >** (Home)	H.PLYR # ••
2	**<2>**	H.PLYR # •2
3	**<1>**	H.PLYR # 21
4	**<ENTER>**	01 12 F 0
5	**<PLAYER ! >** (Home)	H.PLYR # ••
6	**<3>**	H.PLYR # •3
7	**<4>**	H.PLYR # 34
8	**<ENTER>**	02 34 F 0
9	**<PLAYER ! >** (Home)	H.PLYR # ••
10	**<3>**	H.PLYR # •3
11	**<5>**	H.PLYR # 35
12	**<ENTER>**	03 35 F 0
13	**<ENTER>**	03 35 F 0

Steps 1-4 add player 21, steps 5-8 add player 34 and steps 9-13 add player 35.

Example 5.1b: Give player 21 a foul and then change player 34's fouls from zero to three.

	Key	LCD*
1	**<TEAM FOULS +1>** (Home)	H.PLYR # ••
2	**<2>**	H.PLYR # •2
3	**<1>**	H.PLYR # 21
4	**<ENTER>**	01 21 F 1
5	**<PLAYER ! >** (Home)	H.PLYR # ••
6	**<3>**	H.PLYR # •3
7	**<4>**	H.PLYR # 34
8	**<ENTER>**	02 34 F 0
9	**<3>**	02 34 F 3

10	<ENTER>	02 34 F 3

Steps 1-4 assign player 21 a foul and steps 5-10 change player 34's fouls.

Example 5.1c: Delete player 35 from the home roster

	Key	LCD*
1	<PLAYER ! > (Home)	H.PLYR # ••
2	<3>	H.PLYR # •3
3	<5>	H.PLYR # 35
4	<ENTER>	02 35 F 0
5	<DELETE PLAYER>	DELETE PLYR Y/N
6	<ENTER>	03 •• F 0
7	<ENTER>	03 •• F 0

Steps 1-4 selects player 35 and steps 5-7 delete the player from memory.

Note: When "03 35 F 0" (or something similar) is displayed, the "03" is the player's position on the player list in the console, "35" is the player's jersey number, "F" is Fouls, and "0" is the number of fouls.

5.2 Sport Insert LL-2330

Reference Drawing: Insert, BB w/SC Codes 07, 08, 17, & 18 . . . . . **Drawing A-94024**

Insert LL-2330 has two keys not found on LL-2261. Refer to **Section 5.1** for the keys in common with LL-2261.

Game Keys

<IN GAME (Y)>

Used to set a player as IN the game. The player must first be selected using **<PLAYER ! >**.

<OUT OF GAME (N)>

Used to set a player OUT of the game. The player must first be selected using **<PLAYER ! >**.

Note: Once the player is selected, either the **<IN GAME (Y)>** or **<OUT OF GAME (N)>** key can be pressed to set the player status. The IN or OUT status is set in memory when the **<ENTER>** key is pressed or either of the up/down menu arrow keys is pressed. The menu arrow keys scroll through the player list to set the IN/OUT status of all players.

5.3 Sport Insert LL-2262

Reference Drawing: Sport Insert, BB Codes 05, 06, 13, 14 . . . . . **Drawing A-86101**

Note: Use this insert with sport insert LL-2263 on another console (refer to **Section 5.4**). Refer to block diagram **A-86936** in **Appendix A** to properly set up the consoles.

Team Keys

<TIME OUTS LEFT ! >

Edits the number of time outs left

<TIME OUT >
Indicates which team called the time out

<POSS>
Indicates which team has next possession of the ball

<SCORE ! >
Edits the team score

<SCORE +1>
Increments the team score by one

<SCORE +2>
Increments the team score by two

<SCORE +3>
Increments the team score by three

<SCORE -1>
Decrements the team score by one

Game Keys

<SET TIME OUT ! >
Sets the length of the time out. The time cannot be set while the clock is running

<TIME OUT ON/OFF>
Turns the time-out clock on and off

<SET RESET TIME ! >
Sets the reset time of the shot timer

<SET SHOT TIME ! >
Sets the shot time of the shot timer

<PERIOD ! >
Edits the period number

<PERIOD +1>
Increments the period number by one

5.4 Sport Insert LL-2263

Reference Drawing: Sport Insert, Basketball Stats Codes 15&16 . . . . . **Drawing A-86102**

Note: Use this insert with sport insert LL-2262 on another console (refer to **Section 5.3**). Refer to block diagram **Drawing A-86936** in **Appendix A** to properly set up the consoles.

Team Keys

<SETUP PLAYERS ! >
Enters the player's numbers into memory. The player numbers **must** be entered before the game so that the **<PLAYER ! >** key can be used to select a player (refer to **Example 5.4a** at the end of this section).

<TEAM FOULS ! >
Edits the number of team fouls

<BONUS>
Indicates which team has the bonus

<SUB ! >
Substitutes one player for another player. First enter the number of the player to be brought in, press **<ENTER>,** then enter the number of the player being brought out and press **<ENTER>** again.

<PLAYER ! >
Selects a player number from the list created using **<SETUP PLAYERS ! >**. The up/down arrow keys

may be used to scroll through the player list after a player is selected (refer to **Example 5.4b** at the end of this section).

Game Keys

<FOULS -1>

Decrements the number of fouls by one for the selected player and also the team fouls. The **<PLAYER ! >** key must be pressed first.

<FOULS +1>

Increments the number of fouls by one for the selected player and also the team fouls. The **<PLAYER ! >** key must be pressed first.

<DISPLAY PLAYER FOUL>

Displays the number of fouls of the player who just received a foul (on scoreboard)

<BLANK PLAYER FOUL>

Blanks the digits of the Player-Foul field on the scoreboard

<IN GAME (Y)>

Indicates a player is in the game (on scoreboard). The **<PLAYER ! >** key must be pressed first.

<OUT OF GAME (N)>

Indicates a player is out of the game (on scoreboard). The **<PLAYER ! >** key must be pressed first.

<PLAYER POINTS -1>

Decrements the number of points credited to a player by one. The **<PLAYER ! >** key must be pressed first.

<PLAYER POINTS +1>

Increments the number of points credited to a player by one. The **<PLAYER ! >** key must be pressed first.

<PLAYER POINTS +2>

Increments the number of points credited to a player by two. The **<PLAYER ! >** key must be pressed first.

<PLAYER POINTS +3>

Increments the number of points credited to a player by three. The **<PLAYER ! >** key must be pressed first.

Example 5.4a: Enter home players 12, 24 and 30

	Key	LCD*
1	**<SETUP PLAYERS ! >**(Home)	01 H.PLYR ••
2	**<1>**	01 H.PLYR •1
3	**<2>**	01 H.PLYR 12
4	**<ENTER>**	02 H.PLYR ••
5	**<2>**	02 H.PLYR •2
6	**<4>**	02 H.PLYR 24
7	**<ENTER>**	03 H.PLYR ••
8	**<3>**	03 H.PLYR •3
9	**<0>**	03 H.PLYR 30
10	**<ENTER>**	04 H.PLYR ••
11	**<CLEAR>**	04 H.PLYR ••

Steps 1-4 add player 12, steps 5-7 enter player 24, and steps 8-11 add player 30.

Example 5.4b: Set home players 12, 24 and 30 to In Game. **Note:** Players must be set "In Game" before they will display on the FP-25 stats panel.

	Key	LCD*
1	<PLAYERS ! >(Home)	H.PLYR #••
2	<1>	H.PLYR #•1
3	<2>	H.PLYR #12
4	<ENTER>	01 12 F 0 P•• N
5	<IN GAME (Y)>	01 12 F 0 P•• Y
6	<9>	01 24 F 0 P•• N
7	<IN GAME (Y)>	01 24 F 0 P•• Y
8	<9>	01 30 F 0 P•• N
9	<IN GAME (Y)>	01 30 F 0 P•• Y
10	<ENTER>	ENTER COMMAND

Steps 1-4 selects player 12, steps 5 sets In Game, Step 6 selects next payer (24), step 7 sets In Game, step 8 selects next player (30), step 9 sets In Game, and step 10 exits.

Example 5.4c: Give player 12 two points and take player 30 out of the game.

	Key	LCD*
1	<PLAYER ! > (Home)	H.PLYR # ••
2	<1>	H.PLYR # •1
3	<2>	H.PLYR # 12
4	<ENTER>	01 12 F 0 P•• Y
5	<PLAYER POINTS +2>	01 12 F 0 P•2 Y
6	<ENTER>	01 12 F 0 P•2 Y
7	<PLAYER ! > (Home)	H.PLYR # ••
8	<3>	H.PLYR # •3
9	<0>	H.PLYR # 30
10	<ENTER>	01 30 F 0 P•• Y
11	<OUT OF GAME (N)>	01 30 F 0 P•• N
12	<ENTER>	01 30 F 0 P•• N

5.5 Remote Shot Clock Control

The remote shot clock control box (0A-1166-0004) plugs into J5 on the back of the All Sport console. The Shot Clock Console has a Start/Stop switch and a push-button Reset. When the Reset button is pressed, the shot clock timer is changed to the reset value. The shot clock starts when Reset switch is released. The Start/Stop switch starts and stops the shot timer when in a synchronous mode. When in synchronous mode, the timer will not run unless the main clock is on.

Section 6: Football Operation

Refer to the information in **Section 3** to start up the console and use the sport insert. Read **Section 3** carefully to fully understand the following operation instructions and for **MENU KEY** operations.

6.1 Sport Insert LL-2268

Reference Drawing: Sport Insert, Football Codes 20-27 . . . . . **Drawing A-86107**

Team Keys

<TIME OUTS LEFT ! >
Edits the number of time outs left for the team

<TIME OUT>
Indicates which team called time out

<POSS>
Indicates which team has possession of the ball

<SCORE ! >
Edits the team score

<SCORE +1>
Increments the team score by one

<SCORE +2>
Increments the team score by two

<SCORE +3>
Increments the team score by three

<SCORE +6>
Increments the team score by six

Game Keys

<SET RESET TIME ! >
Edits the reset value of the delay-of-game timer

<SET DELAY TIME ! >
Edits the time displayed on the delay-of-game timer

<SET TIME OUT ! >
Edits the length of the time out. This time cannot be set while the clock is running.

<TIME OUT ON/OFF>
Starts and stops the time-out clock

<DIM>
Dims the scoreboard for night viewing. Press this key a second time to return the digits to full brightness

<FIRST AND 10>
Set the down display to 1 and yards-to-go to 10

<DOWN +1>
Increments the number of downs by one

<YARDS TO GO ! >
Edits the number of yards-to-go

<BALL ON ! >
Edits the yard line the ball is on

<QTR ! >
Edits the quarter number
<QTR +1>
Increments the quarter number by one

6.2 Remote Delay-of-Game Control

The remote delay-of-game control box (0A-1166-0004) plugs into J5 on the back of the All Sport console. The Remote Delay-Of-Game Console has a Start/Stop switch and a push-button Reset. The clock is started when the Start/Stop switch is set to the START position. Setting the Start/Stop to the STOP position stops and resets the clock. The Reset switch resets the clock when pressed.

Section 7: Hockey Operation

Refer to the information in **Section 3** to start up the console and use the sport insert. Read **Section 3** carefully to fully understand the following operation instructions and for **MENU KEY** operations.

7.1 Sport Insert LL-2274

Reference Drawing: Sport Insert, Hockey Codes 62, 63 . . . . . **Drawing A-86114**

Team Keys

<PENALTY >

Indicates a team penalty

<PLAYER ! PENALTY ! >

Assigns a player penalty time. There are six memory slots for player penalty times. The first available penalty slot is shown on the LCD. Use the up/down arrow keys to scroll through the penalty memory. Pressing **<ENTER>** allows you to edit the selected player's penalty time. Enter the player number, press **<ENTER>**, then enter penalty time and press **<ENTER>** (refer to **Examples 7.1a** and **7.1b** at the end of this section).

<SCORE ! >

Edits the team score

<SCORE +1>

Increments the team score by one

<TIME OUTS LEFT Ž>

Edits the number of time outs left for each team

Game Keys

<ENABLE PENALTY CLOCKS>

Enables the penalty clocks to run when the game clock is running

<DISABLE PENALTY CLOCKS>

Prevents the penalty clocks from running when the game clock is running

<PERIOD ! >

Edits the period number

<PERIOD +1>

Increments the period number by one

Note: The clock can be set to count up and stop when it reaches the period end time. The menu key has a **<SET PER END>** function (refer to **Section 3.4**) that allows the period end time to be set.

Example 7.1a: Enter a two-minute penalty for player 7, a five-minute penalty for player 12 and a ten-minute penalty for player 31.

	Key	LCD
1	<PLAYER PENALTY>	1 PL•• PN ••:••
2	<ENTER>	1 PL•• PN ••:••
3	<7>	1 PL•7 PN ••:••
4	<ENTER>	1 PL•7 PN •2:00
5	<ENTER>	1 PL•7 PN •2:00
6	<PLAYER PENALTY>	2 PL•• PN ••:••
7	<ENTER>	2 PL•• PN ••:••
8	<1>	2 PL•1 PN ••:••
9	<2>	2 PL12 PN ••:••
10	<ENTER>	2 PL12 PN •2:00
11	<5>	2 PL12 PN ••:•5
12	<0>	2 PL12 PN ••:50
13	<0>	2 PL12 PN •5:00
14	<ENTER>	2 PL12 PN •5:00
15	<PLAYER PENALTY>	3 PL•• PN ••:••
16	<ENTER>	3 PL•• PN ••:••
17	<3>	3 PL•3 PN ••:••
18	<1>	3 PL31 PN ••:••
19	<ENTER>	3 PL31 PN •2:00
20	<1>	3 PL31 PN ••:•1
21	<0>	3 PL31 PN ••:10
22	<0>	3 PL31 PN •1:00
23	<0>	3 PL31 PN 10:00
24	<ENTER>	3 PL31 PN 10:00

Steps 1-5 enter a two-minute penalty for player 7, steps 6-14 a five-minute penalty for player 12 and steps 15-24 a ten-minute penalty for player 31.

Example 7.1b: Change the penalty time for player 12 to five minutes, 30 seconds.

	Key	LCD
1	<PLAYER ! PENALTY !>	4 PL•• PN ••:••
2	<8> (up arrow)	3 PL31 PN 10:00
3	<8> (up arrow)	2 PL12 PN •5:00
4	<ENTER>	2 PL12 PN •5:00
5	<ENTER>	2 PL12 PN •2:00
6	<5>	2 PL12 PN ••:•5
7	<3>	2 PL12 PN ••:53
8	<0>	2 PL12 PN •5:30
9	<ENTER>	2 PL12 PN•5:30

Steps 1-4 find player 12 in the penalty list and steps 5-9 change the penalty time.

Section 8: Soccer Operation

Refer to the information in **Section 3** to start up the console and use the sport insert. Read **Section 3** carefully to fully understand the following operation instructions and for **MENU KEY** operations.

8.1 Sport Insert LL-2269

Reference Drawing: Sport Insert, Soccer Codes 64-68 . . . . . **Drawing A-86109**

Team Keys

<C KICKS/SAVES ! >
Edits the number of corner kicks/saves

<C KICKS/SAVES +1>
Increments the number of corner kicks/saves by one

<PENALTY>
Edits the number of penalties

<PENALTY +1>
Increments the number of penalties by one

<SHOTS ON GOAL ! >
Edits the number of shots on goal

<SHOTS ON GOAL +1>
Increments the number of shots on goal by one

<SCORE ! >
Edits the team score

<SCORE +1>
Increments the team score by one

Game Keys

<SET TIME OUT ! >
Sets the length of the time-out. The time cannot be set while the clock is running.

<TIME OUT ON/OFF>
Starts and stops the time-out clock

<DIM>
Dims the scoreboard for night viewing. Press this key a second time to return the digits to full brightness.

<HALF ! >
Edits the half number

<HALF +1>
Increments the half number by one

Note: The clock can be set to count up and stop when it reaches the period end time. The menu key has a **<SET PER END>** function (refer to **Section 3.4**) that allows the period end time to be set.

Section 9: Track/Swimming Operation

Refer to the information in **Section 3** to start up the console and use the sport insert. Read **Section 3** carefully to fully understand the following operation instructions and for **MENU KEY** operations.

9.1 Sport Insert LL-2267

Reference Drawing: Insert, Track Score Codes 41-43, 45-47,81 . . . . . **Drawing A-86106**

Team Keys

<**HOME SCORE** ! >
Edits the home team score

<**GUEST 1 SCORE** ! >
Edits the score for guest 1

<**GUEST 2 SCORE (EVENT)** ! >
Edits the score for guest 2

<**GUEST 3 SCORE (HEAT)** ! >
Edits the score for guest 3

<**SCORE +1**>
Increments the score by one

Game Keys

<**DIM**>
Dims the scoreboard for night viewing. Press this key a second time to return the digits to full brightness.

<**TRAINING MODE** ! >
Enters the training mode

<**RESET** ! >
Resets the training mode

<**PLACE** ! >
Edits the place

<**LANE** ! >
Edits the lane number

Codes 41-43 are for interfacing to an OmniSport track timer or other timers with OmniSport protocol. Codes 45-47 are for interfacing to Omega timers with extended OTR-7 protocol. Refer to **Drawings A-93764, A-95152, A-95153** and **A-95154** in **Appendix A** for the different types of interfacing.

9.2 Sport Insert LL-2372

Reference Drawing: Insert, Swim Multi line, Code 244 . . . . . **Drawing A-100151**

Team Keys

<**SCORE 1** ! >
Edits the score 1

<**SCORE 1 +1**>
Increment the score of score 1 by 1

<**SCORE 2 !** >
Edits the score 2
<**SCORE 2 +1**>
Increments the score of score 2 by 1
<**SCORE 3 !** >
Edits the score 3
<**SCORE 3 +1**>
Increment the score of score 3 by 1
<**SCORE 4**>
Edits the score 4
<**SCORE 4 +1**>
Increments the score of score 4 by 1
<**EVENT** ! >
Edits the event
<**EVENT +1**>
Increment the event by 1
<**HEAT** ! >
Edits the heat
<**HEAT +1**>
Increments the heat by 1
<**RECORD TIME !** >
Edits the record time
<**LENGTHS** ! >
Edits the number of lengths
<**LENGTHS +1**>
Increments the lengths by 1
<**LENGTHS -1**>
Decrements the lengths by 1

9.3 Sprint Timing Hardware

Reference Drawing: Setup Sprint Timer Photo Cell/Tape Switch . . . . . **Drawing A-72922**

The All Sport Sprint Timing Kit includes the following hardware devices:

1. Photo cell with junction box
2. Reflector
3. Tape Switch
4. 100 yards of tape switch cord
5. 20 foot cord to connect the photo cell junction box to the All Sport console or the side line remote start/stop junction box (refer to **Drawing A-72922**).

The photo cell has a range of 30 feet with the included reflector. The photo cell is lined up with the reflector when the LED on the photo cell is off.

9.4 Sprint Timing Operation

Install the overlay (LL-2267) onto the All Sport console. Power up the All Sport console and enter either code 41 or 43. Both codes will work on all Daktronics basketball and football scoreboards.

After the console is powered up and the code is entered, press <**TRAINING MODE**><**ENTER**>. The console is now in the training mode ready to time sprints. No further operation on the All Sport console is required. The console is automatically reset when the tape switch is activated (held down) for three seconds. The entire scoreboard will blank when the timer is reset and ready to time the sprinter. As soon as the sprinter releases the tape switch, the scoreboard will begin to display the time. The time will stop when the photo cell beam is broken. To time the next sprinter, press and hold the tape switch until the scoreboard blanks.

Section 10: Volleyball Operation

Refer to the information in **Section 3** to start up the console and use the sport insert. Read **Section 3** carefully to fully understand the following operation instructions and for **MENU KEY** operations.

10.1 Sport Insert LL-2273

Reference Drawing: Sports Insert, Volleyball Codes 71-73 . . . . . **Drawing A-86113**

Team Keys

<TIME OUTS LEFT ! >
Edits the number of time outs left for the team

<TIME OUT>
Indicates which team called the time out

<SERVE>
Indicates the team serving

<GAMES WON ! >
Edits the number of games the team has won

<GAMES WON +1>
Increments the number of games the team has won by one

<SCORE ! >
Edits the team's score

<SCORE +1>
Increments the team's score by one

Game Keys

<SET TIME OUT ! >
Sets the length of the time out. The time cannot be set while the clock is running

<TIME OUT ON/OFF>
Starts and stops the time-out clock

<GAME ! >
Edits the game number

<GAME +1>
Increments the game number by one

Section 11: Wrestling Operation

Refer to the information in **Section 3** to start up the console and use the sport insert. Read **Section 3** carefully to fully understand the following operation instructions and for **MENU KEY** operations.

11.1 Sport Inserts LL-2275 & LL-2287

Reference Drawings: Sports Insert, Wrestling Codes 51-54, 57 . . . . . **Drawing A-86115**
Sports Insert, Wrestling Codes 55, 56 . . . . . **Drawing A-86973**

Team Keys

<TEAM SCORE ! >
Edits the team score for the team

<TEAM SCORE +1>
Increments the team score for the team by one

<MATCH SCORE ! >
Edits the match score for the team

<MATCH SCORE +1>
Increments the match score for the team by one

<START INJURY TIME>
Starts injury time - can only be started if period clock is stopped

<STOP INJURY TIME>
Stops injury time - injury time must be stopped before period clock can be started

<INJURY TIME ! >
Edits injury time

<START BLOOD TIME>
Starts blood time - can only be started if period clock is stopped

<STOP BLOOD TIME>
Stops blood time - injury time must be stopped before period can be started

<BLOOD TIME ! >
Edits blood time

Game Keys

<MATCH ! >
Edits the match number

<RESET MATCH ! >
Resets the match number to zero, period time to default period time, blood and injury times to default times, and match scores to zero. When in code 57, this key will return the scoreboard to show the team score instead of advantage time.

<PERIOD ! >
Edits the period number

<PERIOD +1>
Increments the period number by one

<SET ADVANTAGE TIME ! >
Sets the advantage time. When in code 57, this key will switch the scoreboard to show advantage time inplace of the team score.

<HOME (GREEN) ADVANTAGE>

Indicates the HOME (green) advantage and starts the advantage timer. When in code 57, this key will switch the scoreboard to show advantage time inplace of the team score.

<GUEST (RED) ADVANTAGE>

Indicates the GUEST (red) advantage and starts the advantage timer. When in code 57, this key will switch the scoreboard to show advantage time inplace of the team score.

<STOP ADVANTAGE CLOCK>

Stops the advantage timer

<SET INJURY TIME DEFAULT ! >

Sets the default injury

<SET BLOOD TIME DEFAULT ! >

Sets the default blood time

<MENU KEY>

Pressing the menu key and scrolling down to the selection of “SHOW ADV TIME Y/N” will allow you to select between team score (press no) or advantage time (press yes). This is only available on code 57.

Section 12: Timing/Scoring Operation

Refer to the information in **Section 3** to start up the console and use the sport insert. Read **Section 3** carefully to fully understand the following operation instructions and for **MENU KEY** operations.

12.1 Sport Insert LL-2271

Reference Drawing: Sport Insert;4-Digit Timing/Scoring Code 10 . . . . **Drawing A-86111**

Team Keys

<SCORE ! >
Edits the team score

<SCORE +1>
Increments the team score by one

Game Keys

<DISPLAY TIME>
Displays the time on the display

<DISPLAY SCORE>
Displays the score on the display

<PERIOD ! >
Edits the period

<PERIOD +1>
Increments the period by one

12.2 Sport Insert LL-2270

Reference Drawing: Sport Insert, 2-Digit Timing Code 82 . . . . . **Drawing A-86110**

Game Keys

<DIM>
Dims the scoreboard for night viewing. Press this key a second time to return the digits to full brightness

<SET RESET ! >
Sets the reset time value

<SET OUT OF BOUNDS ! >
Sets the out-of-bounds time value

<RESET>
Resets the timer to the reset time

<OUT OF BOUNDS>
Resets the timer to the out-of-bounds time

Section 13: Team Name Operation

Refer to the information in **Section 3** to start up the console and use the sport insert. Read **Section 3** carefully to fully understand the following operation instructions and for **MENU KEY** operations.

13.1 Sport Insert LL-2276

Reference Drawing: Sport Insert, Team Name Code 98 . . . . . **Drawing A-86116**

The team name insert allows the console to be used as a keyboard to have team names appear on the team name message centers of the scoreboard. It can also be used to store and display various messages. Be sure the team names are not too long for the display.

Small 32-column displays are adequate for a few initials or a short name. Large 48-column displays can hold longer names. The particular combination of letters affects how many characters fit. For example, the letter "I" is only three columns wide while an "M" or "W" are five columns wide.

Note: When operating in the team name mode, commands and prompts appear on the message centers of the scoreboard only, not the LCD.

13.2 Entering Team Name Mode

There are two ways of entering Team Name Mode. Code 98 can be entered when the console is first powered up to enter the Team Name Mode. This mode can also be selected from the <**MENU**> key while in a specific sport mode. If this method is used, exiting from the Team Name Mode will return the operator to the sport mode with the current game retained in memory.

13.3 Selecting Sign Size

When powered up, the team name message center defaults to a sign size of 48 columns (3 lampbanks). If this is the correct size, the team names can automatically be entered.

If the sign size needs to be changed, enter one of the following combinations:

Sign Size	Keys
16 columns (1 lampbank)	<**ESC**><**1**>
32 columns (2 lampbanks)	<**ESC**><**2**>
48 columns (3 lampbanks)	<**ESC**><**3**>
64 columns (4 lampbanks)	<**ESC**><**4**>

Note: Any information visible on the display will be deleted when the sign size is changed.

13.4 Selecting Character Width

The characters in the display may be *single stroke* or *double stroke*. Double stroke characters are wider then single stroke characters, with vertical strokes two columns wide. Double stroke characters should be used when entering team abbreviations, single stroke characters for full team names. Press **<DOUBLE>** before entering each name to create double stroke characters. Press **<SINGLE>** to return to single stroke. If neither key is pressed, the characters will be single stroke.

13.5 Selecting Character Font

There are four character fonts available for the team name message center.

1. 7 high single stroke font
2. 7 high double stroke font
3. 8 high single stroke font
4. 8 high double stroke font

To choose a 7 high font (letters 7 dots high), press <**ESC**><**7**>. To choose an 8 high font, press <**ESC**>< **8**>. The fonts default to single stroke. Refer to **Section 13.4** to choose double stroke.

13.6 Selecting Bright or Dim Mode

The team name message centers can be operated in either bright (default) or dim mode. The bright mode should be used for indoor applications or during the day for outdoor applications. The dim mode should be used at night for outdoor applications.

To select the dim mode, press **<ESC><D>**; to select the bright mode, press **<ESC><B>**.

13.7 Starting the Lamp Test

The team name message centers include a lamp test to assist in finding faulty lamps. This test alternately activates the top four rows and the bottom four rows of the display at six second intervals.

To start the lamp test, press **<ESC><T>**. Press any key to end the test.

Note: The lamp test will go through one more complete rotation before exiting.

13.8 Team Name Operation Using Current Loop Boards

These operation instructions are for displays using team name message centers with current loop boards. **Section 13.9** covers team name message centers with a Venus® 100 board.

Each team name is entered as a separate message. Either the name for the left side or right side of the scoreboard may be entered first by pressing **<LEFT>** or <**RIGHT**> before entering the name. Press **<ENTER>** after each name. To clear the display, press **<ENTER>** and then **<LEFT>** or **<RIGHT>**.

Example: Enter SDSU in double stroke on the left side of the display and USD in single stroke on the right side.

1. Press <**ESC**>
2. Press <**LEFT**>
3. Type SDSU
4. Press <**ENTER**>
5. Press <**SINGLE**>
6. Press <**RIGHT**>
7. Type USD
8. Press <**ENTER**>

If the code number 98 *was not* used to enter the team name mode (and <**MENU**> was used instead while in a sport code) press <**EXIT**> to return to the sport. If the code number *was* used, select New Code from the menu to enter the specific sport code (refer to **Section 3.4**).

13.9 Team Name Operation Using A Venus 100 Board

These operation instructions are for displays with team name message centers using a Venus 100 board. The previous section (**13.8**) covers team name message centers with current loop boards.

Each team name is entered as a separate message. Type in the first team name and press <**ENTER**>. The first team name is stored as message number one. Type the second team name and press <**ENTER**>. The second team name is stored as message number two. The characters for each name appear on the left display as they are entered.

To display the name, press <**POST**>, side (<**LEFT**> or <**RIGHT**>), the message number, then <**ENTER**>. To get out of the post mode and return to the edit mode, press <**ESC**> (which will also return the operator to message number one). Up to 99 messages can be saved. To display a saved message, press <**POST**>, <**LEFT**> or <**RIGHT**>, the message number, and <**ENTER**>. To scroll through the messages from the edit mode, press <**ENTER**> to view the next message or <**BACKSPACE**> to review the previous message. To verify the message number of the message being viewed on the LCD, press <**MESSAGE #**> and the message number will be displayed on the left side of the scoreboard.

Caution: If there are 5 messages in the console and a new message is entered while viewing message #4 on the LCD, the original message #4 will be overwritten. *Remember, the message number always goes back to one every time the edit mode is entered.*

Example: Enter SDSU in double stroke on the left side of the display and USD in single stroke on the right side.

1. Press <**DOUBLE**> and type in SDSU
2. Press <**ENTER**>
3. Press <**SINGLE**> and type in USD
4. Press <**ENTER**>
5. Press <**POST**>, <**LEFT**>, <**1**>, <**ENTER**>
6. Press <**POST**>, <**RIGHT**>, <**2**>, <**ENTER**>

Section 14: Message Center Operation

Refer to the information in **Section 3** to start up the console and use the sport insert. Read **Section 3** carefully to fully understand the following operator instructions and for **MENU KEY** operations.

14.1 Sport Insert LL-2302

Reference Drawing: Insert, Message Controller Code 102 . . . . . **Drawing A-91836**

The message center insert resembles a keyboard. The insert is used to create messages/sequences or to access predefined messages/sequences that are stored in the console's memory. The insert allows unique messages to be created and linked together to create sequences.

Message Center Definitions

Message Center: Refers to the sign that displays messages; may also be called a display.
Console: The console controls what is displayed on the Message Center. Messages and sequences are created on the console**.**
Message: A message is a word or group of words in a frame; for example, "GO TEAM!" A list of predefined messages is located on the left side of the insert. Predefined messages are stored on 51-70. User-defined messages can be stored on 1-50.
Sequence: Several frames of messages make up a sequence. User-defined sequences can combine up to seven messages together to make one sequence. A list of predefined sequences is located at the top of the insert. Predefined sequences are stored on 11-20. User-defined sequences are stored on 1-10.

Keypad Definitions

<MESSAGE EDIT!>: Used to create or edit messages
<SEQUENCE EDIT!>: Used to create or edit a sequence
<SINGLE>: Selects a single-stroke font within a message
<DOUBLE>: Selects a double-stroke font within a message
<LINK MESSAGE!>: Allows several messages to be displayed in series. This key allows up to ten messages to run at any one time.
<LINK SEQUENCE!>: Allows several sequences to be displayed in series. The **<LINK SEQUENCE !>** key allows up to ten sequences to run at any one time.
<EFFECT SELECT>: Used to select a variety of creative messages and sequences. The **<EFFECT SELECT>** key selects special effects, such as messages scrolling left, right, up, or down.
<DISPLAY MESSAGE!>: Allows a message to run on the Message Center
<DISPLAY SEQUENCE !>: Allows a sequence to run on the Message Center
<STOP>: Used to blank the display on the Message Center

14.2 Message and Sequence Data

The following information designates where user-defined messages and sequences can be stored on the Message Center console. The predefined messages and sequences stored on the console are also listed.

User-defined sequences: 1-10
Predefined sequences: 11-20 (sequences stored on console are listed below)

11	**STOMP EM**
12	**VICTORY**
13	**GREAT PLAY**
14	**BALLOONS**
15	**TRUMPET**
16	**TIME OUT**
17	**TRAVELING**
18	**BUCKLE UP**
19	**DEFENSE**
20	**CONCESSIONS**

User-defined messages: 1-50
Predefined messages: 51-70 (messages stored on console are listed below)

51	**TWO POINTS**	61	**ONE SHOT**
52	**THREE POINTS**	62	**TWO SHOTS**
53	**DEFENSE**	63	**THREE SHOTS**
54	**TRAVELING**	64	**NICE PASS**
55	**CHARGING**	65	**FAST BREAK**
56	**3 SECONDS**	66	**NICE REBOUND**
57	**FOULED**	67	**NICE STEAL**
58	**NICE SHOT**	68	**TEAM WORK**
59	**TIME OUT**	69	**GOAL**
60	**SWISH**	70	**SLAPSHOT**

Messages

A message is a single frame on the message center that displays one message (refer to **Example 14.2a**). The length of message that can be displayed depends on display size and font width as shown below.

Display Size	Single Width	Double Width
64 column	12 characters	10 characters
80 column	16 characters	13 characters
96 column	19 characters	16 characters

All predefined messages and sequences fit on all three display sizes. User-defined messages should be entered and verified on the display before a game to ensure they fit the display properly.

Sequences

A sequence is a series of messages displayed together so that they are shown one after another on the message center (refer to **Example 14.2a)**. User-defined sequences can combine up to 7 messages together into one sequence. Each message can have its own effect and hold time.

The ten predefined sequences (11-20) listed on the insert are graphic animations.

Example 14.2a: Each frame represents one message. Multiple frames saved together are a sequence.

WELCOME TO	THE BIG ARENA!	LETS HEAR IT
Frame 1	Frame 2	Frame 3

FANS!!	SUPPORT	THE BEARS!!!
Frame 4	Frame 5	Frame 6

14.3 Creating and Editing Messages

Messages can appear on the display in several different styles, called *effects* (refer to **Section 14.9**).

To create a message:

1. Press <**MESSAGE EDIT**>
2. Enter a number for the message (1-50). The console stores the new message under this number. Press <**ENTER**>.
3. Type in the message. Press the shift key once to use a character in the upper left corner of a key. The shift key has to be pressed once each time a character in the upper left corner of a key is needed.
4. The left and right arrow keys can be used to move the cursor position in the message. The up and down arrow keys can be used to scroll through the message.
5. If the message is to use single stroke or double stroke fonts, the <**SINGLE**> and <**DOUBLE**> keys select that option. The font selected is shown on the LCD as SNG or DBL.
6. When finished, press <**ENTER**>.

To edit a message:

1. Press <**MESSAGE EDIT**>
2. Enter the number of the message to be edited (1-50) and press <**ENTER**>.
3. Make any desired changes.
4. When finished, press <**ENTER**>.

To erase all messages:

1. Press the <**MENU**> key and use the menu down arrow key to select the option **ERASE MESG Y/N**. Press the <**YES**> key to erase all user defined messages.

14.4 Displaying A Message

Once a message has been created, it can be displayed on the message center. In addition to the 50 user-defined messages (1-50), there are also 20 predefined messages (51-70) that can be displayed.

There are two keys used to display messages, **<DISPLAY MESSAGE>** and **<LINK MESSAGE>**. When switching between the <**DISPLAY MESSAGE**> and **<LINK MESSAGE>** keys the **<STOP>** key should be pressed to clear the display.

The <**DISPLAY MESSAGE**> key should be used when only one message displayed at a time is desired. This key clears the previous message and starts the next message selected. The **<LINK MESSAGE>** key should be used when two or more messages are to be displayed together (one after another). This key allows a quick display of several messages without editing a sequence.

The **<DISPLAY MESSAGE>** key displays one message at a time.

To display a message:

1. Press **<DISPLAY MESSAGE>**
2. Use the **<EFFECT SELECT>** key to choose the effect that complements the message (refer to **Section 14.9**)
3. Enter the number of the message to be displayed and press **<ENTER>**.
4. Repeat steps 1-3 to display a new message.
5. To end the message on display, press **<STOP>**.

14.5 Linking Messages

The **<LINK MESSAGE>** key allows messages to be displayed one after another on the display. Up to ten messages can be run at any one time. Refer to **Section 14.4** for further explanation of the **<LINK MESSAGE>** and **<DISPLAY MESSAGE>** keys.

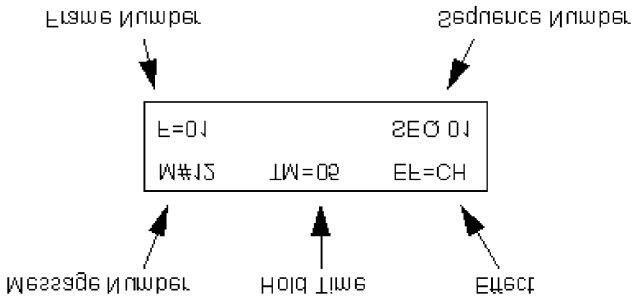
To link messages:

1. Press **<LINK MESSAGE>**
2. Enter the number of the message to be linked and press **<ENTER>**.
3. Repeat steps 1 and 2 until the desired number of messages are linked together.
4. The **<STOP>** key will blank the display and allow you to link new messages.

14.6 Creating and Editing Sequences

A *sequence* is a series of messages displayed together so that they are shown one after another on the message center. Before a sequence can be created, the messages to be displayed together must be created (refer to **Section 14.3**). Hold time, effect, and frame number can be customized for each message to appear in the sequence

Example 14.6a The Sequence Edit screen.



To create a sequence:

1. Press <**SEQUENCE EDIT**>.
2. Enter a number for the sequence (1-10). The console stores the new sequence under this number. Press <**ENTER**>.
3. Use the left and right arrow keys to select the message number and/or hold time.
   Message Number (M#): Use the number keys to set the message number.
   Hold Time (TM): Set the desired value using the number keys. The hold time is shown in tenths of a second. If the hold time is set to 15, the length of time the message will be displayed is 1.5 seconds.
   Effect (EF)**:** Use the <**EFFECT SELECT**> key to set the desired effect. Continue to press <**EFFECT SELECT**> to scroll through the effect options (refer to **Section 14.9**).
   Frame Number (F)**:** Use the up/down arrow keys to change frames in the sequence. Any frame that has the message number set to zero is the end of the sequence.
4. Repeat **Step 3** until all the desired messages have been entered.
5. When the sequence is finished press <**ENTER**>.

To edit a sequence:

1. Press <**SEQUENCE EDIT**>
2. Enter the number of the sequence (1 through 10). Press <**ENTER**>.
3. Use the left/right arrow menu keys to select the message number and/or hold time.
   Message Number (M#)**:** Use the number keys to set the message number.
   Hold Time (TM): Set the desired value using the number keys. The hold time is shown in tenths of a second (15 = 1.5 seconds).
   Effect (EF)**:** Use the <**EFFECT SELECT**> key to set the desired effect. Continue to press <**EFFECT SELECT**> to scroll through the effect options (refer to **Section 14.9**).
   Frame Number (F)**:** Use the up/down arrow keys to change frames in the sequence. Any frame that has the message number set to zero is the end of the sequence.
4. Repeat **Step 3** until all messages have been edited.
5. When all changes within the sequence have been made, press <**ENTER**>.

14.7 Displaying A Sequence

Once a sequence has been created (refer to **Section 14.6**), it can be displayed on the message center. Ten predefined sequences (11-20) are available. Up to 10 user-defined sequences can be stored on the console. Make sure the controller is set to the correct sign size before displaying a sequence (refer to **Section 14.10**).

There are two keys used to display sequences, **<DISPLAY SEQUENCE>** and **<LINK SEQUENCE>**. When switching between the **<DISPLAY SEQUENCE>** and **<LINK SEQUENCE>** keys, the <**STOP**> key should be pressed to clear the display.

The **<DISPLAY SEQUENCE>** key should be used when only one sequence is to be displayed at a time. This key clears the previous sequence and starts the next sequence selected. The **<LINK SEQUENCE>** key should be used when two or more sequences are to be displayed together (one after another).

The **<DISPLAY SEQUENCE>** key displays one sequence at a time.

To display a sequence:

1. Press **<DISPLAY SEQUENCE>:**
2. Enter the number of the sequence to be displayed and press **<ENTER>**.
3. Repeat steps 1 and 2 when a new sequence is needed.
4. To end the sequence on display, press **<STOP>**.

14.8 Linking Sequences

The **<LINK SEQUENCE>** key allows sequences to be displayed one after another on the display. The **<LINK SEQUENCE>** key allows up to ten sequences to run at any one time. Refer to **Section 14.7** for further explanation of the **<LINK SEQUENCE>** and **<DISPLAY SEQUENCE>**: keys.

To link sequences:

1. Press **<LINK SEQUENCE>.**
2. Enter the number of the sequence to be linked and press **<ENTER>**.
3. Repeat steps 1 and 2 until the desired number of sequences are linked together.
4. The **<STOP>** key will blank the display and allow you to link new sequences.

14.9 Effects

Effects are used to display messages more effectively on a message center. Refer to the following table for a description of each of the effects.

Effect	Description
CH	Displays message instantly
SL	Message scrolls in from right to left
SR	Message scrolls in from left to right
RU	Message rolls up from bottom
RD	Message rolls down from top
RR	Message rolls in from right on 5 column boundaries
RL	Message rolls in from left on 5 column boundaries
TR	Message scrolls on from right to left

To select effects:

1. While in either the **Message Edit** or **Sequence Edit** mode press **<EFFECT SELECT>**
2. Continue to press **<EFFECT SELECT>** to scroll through the effect options.
3. When the desired effect is shown on the screen it is selected.

14.10 Configure Sign Size

Press the <**MENU**> key and use the menu down arrow key to select the option `SELECT SIZE Y/N`. Press the <**YES**> key to configure the sign size. Select the appropriate sign size by pressing any menu arrow key. When the correct size is shown on the LCD, press the <ENTER> key to select it. The All Sport 4000 control console must have the correct sign size selected for animations to be displayed.

The configure sign size function only needs to be set when the MDC control board is installed or replaced. The configure sign size function should be used if messages do not appear centered on the display.

14.11 Display Test Sequences

There are two sequences available to test the pixels on the display. Sequence 21 is a moving row/column pattern, and sequence 22 is an all-on pattern. Refer to **Section 14.7** to display either of these sequences for checking display operation.

Section 15: Smart Console Operation

Refer to the information in **Section 3** to start up the console and use the sport insert. Read **Section 3** carefully to fully understand the following operator instructions and for **MENU KEY** operations.

15.1 Sport Insert LL-2333

Reference Drawing: Smart Console Codes 111, 112, 113&114 . . . . **Drawing A-93730**

The smart console is used as the digit controller for the main clock, shot clock, or delay-of-game clock. The **Smart Console** mode on the All Sport 4000 is used in conjunction with a ProSport® controller, in which the ProSport controls all other game functions. The smart console sends the timing information to the ProSport controller as RTD information.

Timer Keys

<TIMER START>
Starts the timer clock

<TIMER STOP>
Stops the timer clock

<TIMER RESET 1>
Resets the timer clock to reset value 1. The timer will not resume counting until the key is released

<TIMER RESET 2>
Resets the timer clock to reset value 2. The timer will not resume counting until the key is released

<SET TIMER TIME ! >
Sets the current value of the timer clock

<SET RESET TIME 1 ! >
Sets the value for Reset Time 1

<SET RESET TIME 2 ! >
Sets the value for Reset Time 2

<DIM>
Dims the scoreboard for night viewing. Pressing this key a second time returns the digits to full brightness

Section 16: Pitch & Speed Operation

Refer to the information in **Section 3** to start up the console and use the sport insert. Read **Section 3** carefully to fully understand the following operator instructions and for **MENU KEY** operations.

16.1 Sport Insert LL-2332

Reference Drawing: Insert, Pitch and Speed Codes 191 & 192 . . . . **Drawing A-90890**

The Pitch and Speed Operation interfaces with a JUGS radar gun and displays the speed and pitch type on a matrix display, or just the speed on a fixed digit display. It can be operated in manual control (Code 191), where the pitch type is displayed when the pitch type key is pressed, or it can operate automatically (Code 192) where the speed is displayed when the speed data is received from the radar gun.

The STALKER radar gun can be interfaced to using code 193 for manual or code 194 for automatic.

Key Functions

<PITCH KEYS>
FAST BALL, CURVE BALL, CHANGE UP etc. When the pitch type is pressed, the pitch type and the speed are sent from the console as Real Time Data (RTD) information.

<DISPLAY SPEED>
Sends the speed to the display as speed only (blank frame)

<BLANK DISPLAY>
This key blanks the speed and sends the blank frame for display

<BLANK TIME ! >
Edits the time until speed and pitch are blanked from the display. If the blank time is set to zero the console will not blank the speed and pitch type.

<SPEED ! >
Edits the speed value that is to be displayed

<SHOW MPH>
Displays the speed in MPH and stop cycling speed. This is for fixed digit displays.

<SHOW KPH>
Displays the speed in KPH and stop cycling speed. This is for fixed digit displays.

<CYCLE MPH/KPH>
When speed is displayed cycle between MPH 1st and KPH 2nd at the cycle time rate. This is for fixed digit displays.

<CYCLE KHP/MPH>
When speed is displayed cycle between KPH 1st and MPH 2nd at the cycle time rate. This is for fixed digit displays.

<CYCLE TIME ! >
Sets the time for the cycle rate in seconds.

16.2 RTD Item Numbers

The RTD items and their numbers are shown below. The speed and pitch type are included in the RTD information.

Item #	Speed
1	MPH x 100
2	MPH x 10
3	MPH x 1
4-19	Pitch type text - 16 characters
20	KPH x 100
21	KPH x 10
22	KPH x 1

16.3 Frame Number And Pitch Types

The frame number sent with each RTD frame also represents the pitch type. The pitch types for each frame number are shown below. Port configuration: 1,200 Baud Rate, 8 Data Bits, and No Parity.

Frame #	Pitch Type
1	CURVE BALL
2	SLIDER
3	SINKER
4	CHANGE UP
5	KNUCKLE BALL
6	FAST BALL
7	SPLIT FINGER
8	SCREW BALL
9	BREAKING BALL
10	(BLANK)
11	OTHER
12	USER 1
13	OFF SPEED
14	USER 2
15	USER 3
16	FORK BALL
17	USER 4
18	PALM BALL

16.4 RTD Hints For Venus Series Sequences

When creating sequences for select frame applications (especially with speed of a pitch type display), you can utilize “include” frames within the sequence to show a brief animation followed by the speed of the pitch for each type of pitch. For example, if a curve ball is selected on the All Sport console, it selects the first frame for the sequence. If this is an “include” frame, the entire include frame is run. This can be duplicated for other frames for other types of pitches. Review the Venus series operator’s manual for further discussion on Include Frame Creation and RTD frame setup.

Section 17: Tae Kwon Do

Refer to the information in **Section 3** to start up the console and use the sport insert. Read **Section 3** carefully to fully understand the following operator instructions and for **MENU KEY** operations.

17.1 Sport Insert LL-2344

Reference Drawing: Insert, Tae Kwon Do Code 283 . . . . . **Drawing A-96889**

The code for Tae Kwon Do is 283.

Competitor Keys

<D+1>, <D-1>

The "D" keys are used to increment or decrement the *point* score. To increment the score by one, press the <**D+1**> key for the appropriate competitor. Use the <**D-1**> key to decrement the score by one.

<G+1>, <G-1>

The "G" keys (Gamjeom) are for full point deduction *penalties*. To increment the penalty count by one, press the <**G+1**> key for the appropriate competitor. Use the <**G-1**> key to decrement the penalty by one.

<K+1>, <K-1>

The "K" keys (Kyong-go) are for ½ point deduction warnings. To increment the warning count by one, press the <**K+1**> key. Use the <**K-1**> key to decrement the warning count by one.

<WIN>

Pressing the <**WIN**> key will light the win indicator for the appropriate competitor.

<T>

Pressing the <**T**> key will light the check indicator for the appropriate competitor.

Match Keys

<TOTAL ON/OFF>

Pressing this key will first set the display of total points ON, so the score will show on the display. Pressing the key again will set the display of total points OFF. The total points for each competitor are calculated from scoring for all three rounds.

The total score formula is:
D (Points) - G (Penalties) - .5K (Warnings) = Total Score.

<WEIGHT CLASS !>

This key is used to show the weight class on the display.

<ROUND LENGTH !>

This key is used to set the length of the round.

<REST LENGTH !>

This key is used to set the length of the rest period.

<ROUND NO. !>

This key can be used to change the round number. The round number will be automatically incremented at the end of the rest period.

Automatic Timing

The console can be set to do automatic timing or manual timing. When set to *automatic* timing, the console will count down the round period time and sound the horn when the clock reaches 0:00. The console will then reset and begin counting down the rest period time. When it reaches 0:00, the horn will again sound. The console will reset the time for the next round and automatically start counting down.

If it is set for *manual* timing, the clock will stop at the end of each rest interval and wait for the <**START**> key to be pressed.

Automatic or manual timing is selected by pressing the <MENU> key and pressing the down arrow key until `AUTO TIMING Y/N` is shown on the LCD. Press <**Y**> for automatic or <**N**> for manual.

Section 18: Judo

Refer to the information in **Section 3** to start up the console and use the sport insert. Read **Section 3** carefully to fully understand the following operator instructions and for **MENU KEY** operations.

The Osaekomi timer will continue to count up after the match time reaches zero. It will continue to count until the maximum time is reached, or the <**SONO-MAMA**> key or <**TOKETA**> key is pressed. The Osaekomi timer will resume by pressing the <**YOSHI**> key if the timer was stopped by the <**SONO-MAMA**> key.

18.1 Sports Insert LL-2346

Reference Drawing: Insert, Judo Code 281 . . . . . **Drawing A-96891**

The code for Judo is 281.

<**RED OSAEKOMI**>

Pressing this key will start the Osaekomi timer and display it on the Red side of the scoreboard. As the Osaekomi timer counts up, it will check to see if the Red opponent has been awarded a *Wazaari* and/or the White opponent has been assessed a *Keikoku* penalty. If one or both of these conditions occur, the Osaekomi timer will stop at twenty (20) seconds and sound the horn. If neither of these conditions occur, the Osaekomi timer will stop at twenty-five (25) seconds and sound the horn. If this key is pressed while the Osaekomi timer is running and displayed on the White side of the scoreboard, the Osaekomi timer value will be copied to the Red opponent's side of the scoreboard.

<**SET RED OSAEKOMI !**>

Pressing this key when the Osaekomi and Match timers are stopped allows you to enter a new Osaekomi time for the Red competitor. Enter the new time in minutes and seconds on the number pad and press the <**ENTER**> key.

<**WHITE OSAEKOMI**>

Pressing this key will start the Osaekomi timer and display it on the White side of the scoreboard. As the Osaekomi timer counts up, it will check to see if the White opponent has been awarded a *Wazaari* and/or the Red opponent has been assessed a *Keikoku* penalty. If one or both of these conditions occur, the Osaekomi timer will stop at twenty (20) seconds and sound the horn. If neither of these conditions occur, the Osaekomi timer will stop at twenty-five (25) seconds and sound the horn. If this key is pressed while the Osaekomi timer is running and displayed on the Red side of the scoreboard, the Osaekomi timer value will be copied to the White opponent's side of the scoreboard.

<**SET WHITE OSAEKOMI !**>

Pressing this key when the Osaekomi and Match timers are stopped will allow you to enter a new Osaekomi time for the White competitor. Enter the new time in minutes and seconds on the number pad and press the <**ENTER**> key.

<**YOSHI**>

Pressing this key will *restart* the Osaekomi and Match timers if they were previously running and then stopped by the <**SONO-MAMA**> key. They will resume counting from the previous values displayed on the scoreboard when both timers stopped.

<**SONO-MAMA**>

Pressing this key will stop the Osaekomi and Match timers, but will not allow the <**RED OSAEKOMI**> or <**WHITE OSAEKOMI**> keys to restart the Osaekomi timer from zero (0). The Osaekomi and Match timers will hold their values until they are resumed by pressing the

<**YOSHI**> key.

<**TOKETA**>

Pressing this key at any time during the Osaekomi timer count stops the Osaekomi time displayed on the scoreboard. The Osaekomi timer will start at zero (0) the next time either the <**RED OSAEKOMI**> or <**WHITE OSAEKOMI**> key is pressed.

<**CLEAR**>

Pressing this key clears the Osaekomi timer count from both sides of the scoreboard. The Osaekomi timer must be stopped by pressing the <**TOKETA**> key before this key will work.

<**START**>

Pressing this key will start only the Match time count down.

<**STOP**>

Pressing this key will stop only the Match time from counting down.

<**SET MATCH TIME** ! >

Pressing this key when the Match time is stopped will allow you to enter a new match time. Enter the new time in minutes and seconds on the number pad and then press the <**ENTER**> key.

<**MANUAL HORN**>

Pressing this key will cause the horn to sound as long as the key is pressed.

<**WIN**>

Pressing the Red or White key will light the corresponding *Winner* indicator on the scoreboard and clear the opposing *Winner* indicator on the scoreboard.

<**IPPON**>

Pressing the Red or White key will light the corresponding *Ippon* and *Winner* indicators on the scoreboard and clear the opposing *Ippon* and *Winner* indicators on the scoreboard.

<**MEDICAL EXAM**>

This key controls the physician visit indicators on the scoreboard. Pressing the Red or White key once will light the first indicator for the corresponding side. Pressing the same key again will light the second indicator. Pressing the same key a third time will turn both indicators off.

<**KEIKOKU**>

Pressing the Red or White key will light the corresponding *Keikoku* penalty indicator on the scoreboard, increment the opponent's *Wazaari* by one, and display the new value on the scoreboard. Pressing the same key a second time will clear the corresponding *Keikoku* penalty indicator from the scoreboard, decrement the opponent's *Wazaari* by one, and display the new value on the scoreboard.

If the same color opponent has a lesser penalty activated when the Red or White *Keikoku* penalty is assessed, the lesser penalty indicator will be cleared from the scoreboard and the opponent's corresponding score will decrement by one.

<**WAZAARI +1**>

Pressing the Red or White key will increment the corresponding *Wazaari* by one and display the new value on the scoreboard.

<**WAZAARI -1**>

Pressing the Red or White key will decrement the corresponding *Wazaari* by one and display the new value on the scoreboard.

<**CHUI**>

Pressing the Red or White key will light the corresponding *Chui* penalty indicator on the scoreboard, increment the opponent's *Yuko* by one, and display the new value on the scoreboard. Pressing the same key a second time will clear the corresponding *Chui* penalty indicator from the scoreboard, decrement the opponent's *Yuko* by one, and display the new value on the scoreboard. If the same color opponent has a lesser penalty already activated when the Red or White *Chui* penalty is assessed, the lesser penalty indicator will be cleared on the scoreboard, and the opponent's corresponding score will decrement by one.

<**YUKO+1**>

Pressing the Red or White key will increment the corresponding *Yuko* by one and display the new value on the scoreboard.

<YUKO-1>

Pressing the Red or White key will decrement the corresponding *Yuko* by one and display the new value on the scoreboard.

<SHIDO>

Pressing the Red or White key will light the corresponding *Shido* penalty indicator on the scoreboard, increment the opponent's *Koka* by one, and display the new value on the scoreboard. Pressing the same key a second time will clear the corresponding *Shido* penalty indicator from the scoreboard, decrement the opponent's *Koka* by one, and display the new value on the scoreboard.

<KOKA+1>

Pressing the Red or White key will increment the corresponding *Koka* by one and display the new value on the scoreboard.

<KOKA-1>

Pressing the Red or White key will decrement the corresponding *Koka* by one and display the new value on the scoreboard.

<RESET>

Pressing this key and the **<ENTER>** key will set all scores to zero and set the penalty, Ippon, Winner, and Medical lights off.

Section 19: Karate

Refer to the information in **Section 3** to start up the console and use the sport insert. Read **Section 3** carefully to fully understand the following operator instructions and for **MENU KEY** operations.

19.1 Sports Insert LL-2345

Reference Drawing: Insert, Karate Code 282 . . . . . **Drawing A-96890**

The code for Karate is 282.

<W+1>, <W-1>
The "W" keys are used to increment or decrement the *W* (Wazaari) indicator. To increment the indicator by one, press the **<W+1>** key for the appropriate competitor (Red or White). Use the **<W-1>** key to decrement the indicator by one.

<H+1>, <H-1>
The "H" keys are used to increment or decrement the *H* (Hansoku) indicator. To increment the indicator by one, press the **<H+1>** key for the appropriate competitor (Red or White). Use the **<H-1>** key to decrement the indicator by one.

<M+1>, <M-1>
The "M" keys are used to increment or decrement the *M* (Mubobi) indicator. To increment the indicator by one, press the **<M+1>** key for the appropriate competitor (Red or White). Use the **<M-1>** key to decrement the indicator by one.

<J+1>, <J-1>
The "J" keys are used to increment or decrement the *J* (Jogai) indicator. To increment the indicator by one, press the **<J+1>** key for the appropriate competitor (Red or White). Use the **<J-1>** key to decrement the indicator by one.

<WIN>
Pressing the **<WIN>** key will light the win indicator for the appropriate competitor.

Section 20: Boxing

Refer to the information in **Section 3** to start up the console and use the sport insert. Read **Section 3** carefully to fully understand the following operator instructions and for **MENU KEY** operations.

20.1 Sports Insert LL-2347

Reference Drawing: Insert, Boxing Code 291 . . . . . **Drawing A-96892**

The code for boxing is 291.

<**SET ROUND TIME** ! >
Edits the length of round time
<**SET REST TIME !** >
Edits the rest time
<**ROUND NUMBER !** >
Edits round number. The round number will be automatically incremented at the end of the rest period.
<**ROUND NUMBER +1**>
Increments the round number by one
<**MAXIMUM ROUND NUMBER !** >
Edits the maximum number of rounds. The rounds will be automatically incremented up to this number.

Automatic Timing
The console can be set to do automatic or manual timing. When set to *automatic* timing, the console will count down the round time and sound the horn when the clock reaches 0:00. The console will then reset and begin counting down the rest time. When it reaches 0:00, the horn will sound again. The console will reset the time for the next round and automatically start counting down.

If it is set for *manual* timing, the clock will stop at the end of each rest interval and wait for the <**START**> key to be pressed.

Select automatic or manual timing by pressing the <**MENU**> key and pressing the down arrow key until `AUTO TIMING Y/N` is shown on the LCD. Press <**Y**> for automatic or <**N**> for manual.

Section 21: Photo Finish Interface

Refer to the information in **Section 3** to start up the console and use the sport insert. Read **Section 3** carefully to fully understand the following operator instructions and for **MENU KEY** operations.

21.1 Track Mode

There is no insert for the track mode. The code is 241.

The track mode is an interface to the photo finish timer. The All Sport console receives running time information from the photo finish timer and displays it on a running time display. The All Sport also re-sends the running time data out for use by a Venus controller.

The interface cable (0A-1065-0160) is used as shown below:

Connector	Function
25 Pin D w/ 3 Cables	Connects to All Sport
9 Pin D	Connects to Photo Finish COM Port
25 Pin D	RTD to Venus Controller
16 Pin D	Output 1 (1,2) Time of Day Output 2 (3,4) Running Time Output 3 (5,6) TOD/Running Time Output 4 (7,8) RTD

21.2 Insert LL-2350 for Soccer, Standard RTD

Configuration for soccer mode: Baud Rate 9,600, 8 Data Bits, and No Parity.

Reference Drawing: Insert, Soccer RTD, Code 242 . . . . . **Drawing A-97142**

Team Keys

<TEAM FOULS ! >
Edits the number of team fouls

<OPTION NO. 1 ! >
Edits the number for the first option

<OPTION NO. 2 ! >
Edits the number for the second option

<TEAM FOULS +1>
Increments the number of team fouls by one

<OPTION NO. 1 +1 ! >
Increments the first option by one

<OPTION NO. 2 +1>
Increments the second option by one

<SCORE ! >
Edits the team score

<SCORE +1>
Increments the team score by one

<SHOTS ON GOAL ! >
Edits the shots on goal

<SHOTS ON GOAL +1>
Increments the shots on goal by one

<CORNER KICKS ! >
Edits the corner kicks

<CORNER KICKS +1>
Increments the corner kicks by one

Game Keys

<SET TIME OF DAY ! >
Sets the time of day. The time cannot be set while the clock is running.

<PERIOD ! >
Edits the period number

<PERIOD +1>
Increments the period number by one

21.3 Standard RTD Item Numbers for Soccer

Standard RTD

Item #	Data
1	Min x 10
2	Min x 1
3	Colon
4	Sec x 10
5	Sec x 1
6	H. Score x 10
7	H. Score x 1
8	G. Score x 10
9	G. Score x 1
10	H. S.O.G. x 10
11	H. S.O.G. x 1
12	G. S.O.G. x 10
13	G. S.O.G. x 1
14	H. Corner Kicks x 10
15	H. Corner x 1
16	G. Corner Kicks x 10
17	G.Corner Kicks x 1
18	H. Team Fouls x 10
19	H. Team Fouls x 1
20	G. Team Fouls x 10
21	G. Team Fouls x 1
22	H. Option #1 x 10
23	H. Option #1 x 1
24	G. Option #1 x 10
25	G. Option #1 x 1
26	H. Option #2 x 10
27	H. Option #2 x 1
28	G. Option #2 x 10
29	G. Option #2 x 1
30	Period x 1
31	T.O.D. Hr. x 10
32	T.O.D. Hr. x 1
33	Colon
34	T.O.D. Min. x 10
35	T.O.D. Min. x 1

21.4 Insert LL-2371 for Football, Standard RTD

Reference Drawing: Insert, Football RTD, Code 243 . . . . . **Drawing A-100150**

Configuration for football: Baud Rate 9,600, 8 Data Bits, and No Parity.

Team Keys

<TIME OUTS LEFT ! >
Edits the number of time outs left for the team

<POSS>
Indicates which team has possession of the ball

<SCORE ! >
Edits the team score

<SCORE +1>
Increments the team score by one

<SCORE +2>
Increments the team score by two

<SCORE +3>
Increments the team score by three

<SCORE +6>
Increments the team score by six

Game Keys

<SET T.O.D. ! >
Edits the time of day

<SET TIME OUT ! >
Edits the length of the time out. This time cannot be set while the clock is running.

<TIME OUT ON/OFF>
Starts and stops the time-out clock

<DIM>
Dims the scoreboard for night viewing. Press this key a second time to return the digits to full brightness

<DOWN ! >
Edits the number of downs

<YARDS TO GO ! >
Edits the number of yards-to-go

<BALL ON ! >
Edits the yard line the ball is on

<QTR ! >
Edits the number of the quarter

<QTR +1>
Increments the quarter number by one

21.5 Standard RTD Item Numbers for Football

Standard RTD

Item #	Data
1	Min x 10
2	Min x 1
3	Colon
4	Sec x 10
5	Sec x 1
6	H. Score x 10
7	H. Score x 1
8	G. Score x 10
9	G. Score x 1
10	H. T.O.L. x 1
11	G. T.O.L. x 1
12	QUARTER x 1
13	DOWN x 1
14	TO GO x 10
15	TO GO x 1
16	BALL ON x 10
17	BALL ON x 1
18	H. Poss. x 10
19	G. Poss x 1
20	T.O.D. Hr. x 10
21	T.O.D. Hr. x 1
22	T.O.D. Colon
23	T.O.D. Min. x 10
24	T.O.D. Min x 1

Section 22: GP99 Multi Sport

Refer to the information in **Section 3** to start up the console and use the sport insert. Read **Section 3** carefully to fully understand the following operator instructions and for **MENU KEY** operations.

22.1 Sport Insert LL-2343

Reference Drawing: Insert, Multi Sport Code 274 . . . . . **Drawing A-96888**

The Multi Sport mode includes functions for sports with timing and scoring, baseball and volleyball.

<SHOW CLOCK>
Displays the current clock information
<PERIOD INNING GAME ! >
Edits the inning number
<PERIOD INNING GAME +1>
Increments the inning number by one
<SCORE ! >
Edits the score
<SCORE +1>
Increments the score by one

Volleyball

<SHOW VOLLEYBALL>
The clock digits on the scoreboard will display the current values of GAMES WON for two teams. The clock can continue to run in the console, even though the GAMES WON data is showing in the digits on the scoreboard.
<GAMES WON ! >
Edits game won (value 0-9)
<GAMES WON +1>
Increments the games won by one

Baseball

<SHOW BASEBALL>
Displays the current Ball, Strike and Out values. The clock can continue to run in the console, even though the baseball data is showing in the digits on the scoreboard.
<BALL +1>
Increments the number of balls by one
<STRIKE +1>
Increments the number of strike by one
<CLEAR BALL/STRIKE>
Clears the number of balls and strikes to zero.
<OUT +1>
Increments the number of outs by one

22.2 Segment Timer Sports Insert LL-2349

Reference Drawing: Insert, Segment Timer, Code 271 & 272 . . . . . **Drawing A-97141**

The segment timer utilizes all segments set to 10 minutes and the interval time set to 1 minute. The timer has a total of 99 segments that can be timed. Segment time is displayed in the clock digits, while segment number is displayed on the HOME score digits.

<**FIRST SEGMENT !** >
Edits the first segment number
<**LAST SEGMENT !** >
Edits the last segment number
<**CURRENT SEGMENT !** >
Edits the current segment number

A segment time can be copied to the next segments time by setting the current segment number to the desired segment number. The LCD will show the current segment and time. Make sure that the segment timer clock is stopped. Pressing the “up arrow” key by menu will copy this segments time to the next segment and increment the current segment number by one to the next segment. Each press of the “up arrow” will copy the time to the next higher segment.

<**RESET**>
Resets timer to the first segment number (clock must be stopped)
<**INTERVAL TIME !** >
Edits the interval time
<**SEG. NO. TIME** ! >
Edits segment number time. After pressing this key, the segment number to edit is entered and then press <**ENTER**>. The current time for that segment is shown on the LCD and can be edited. When the segment time is correct, press <**ENTER**> to accept.

Section 23 : Event Counter

Refer to the information in **Section 3** to start up the console and use the sport insert. Read **Section 3** carefully to fully understand the following operator instructions and for **MENU KEY** operations.

23.1 Sport Insert LL-2369

Reference Drawing: Insert, Event Counter Codes 371-376 . . . . . **Drawing A-58047**

The sport insert LL-2369 can be run with six operating codes. Three separate counting modes are described in the operating code sections below. The sport insert for these codes is shown in **Appendix C**.

23.2 Day and Time Event Countdown Codes 371 & 372

Code 371 - This code is used for the Venus 1500 Output. Venus 1500 configuration: Baud Rate 19,200, 8 Data Bits, and No Parity.
Code 372 - This code is used for standard RTD Output (V4600/V7000). Venus 4600 configuration: Baud Rate 9,600 8 Data Bits and Even Parity.

<VALUE/DAYS ! >
Edits the number of days (0 to 999)

<SET MAIN CLOCK ! >
Edits the amount of time (00:00.00 to 99:59.59, but normally not over 23:59.59)

<COUNT UP/DOWN ! >
Sets the clock to count up or down. Press **<ENTER>** to toggle between count modes. The current direction is shown on the LCD by the displayed time as UP or DN. The direction can only be changed when the clock is stopped.

<START>
Starts the clock. If set to count down, the console will count down the time to 0:00.00, decrement the number of days by one, and the time will go to 23:59.59. The console will continue to count down until it reaches 0 Days and 0:00.00 time, at which point the console will begin counting up and start counting up the days and time that have elapsed since the event.

<STOP>
Stops the clock. The clock must be stopped to set the time or change the clock direction.

<INCREMENT VALUE ! >
Not used for these codes.

<DECREMENT VALUE ! >
Not used for these codes.

<TIME INTERVAL ! >
Not used for these codes.

23.2.1 RTD Item Numbers

The console sends out data in a Venus 1500 RTD packet as shown below once every second for code 371, or standard V4600/V7000 RTD for code 372.

Item #	Function	Offset
01	Days x 100	0
02	Days x 10	1
03	Days x 1	2
04	Hours x 10	3
05	Hours x 1	4
06	Colon	5
07	Min x 10	6
08	Min x 1	7
09	Dec.pt.	8
10	Sec x 10	9
11	Sec x 1	10

23.3 Time Base Counter Codes 373 & 374

Code 373 - This code is used for the Venus 1500 Output. Venus 1500 configuration: Baud Rate 19,200, 8 Data Bits, and No Parity.
Code 374 - This code is used for standard RTD Output V4600/V7000. Venus 4600 configuration: Baud Rate 9,600, 8 Data Bits, and Even Parity.

<VALUE/DAYS ! >

This key is used to enter the initial value that the console should start counting from. The value can have up to 8 significant digits.

< INCREMENT VALUE ! >

This key is used to set the increment value. The increment value can have up to 4 significant digits. This value is the amount that is added to the total value every time interval.

<DECREMENT VALUE ! >

This key is used to set the decrement value. The decrement value can have up to 4 significant digits. This value is the amount that is subtracted from the total value every time interval if the increment value is set to zero.

<TIME INTERVAL ! >

This key is used to set the time period for the time between each increment or decrement of the value being counted. The time can be set from 00:00.01 to 99:59.59.

<START>

When the <**START**> key is pressed, the controller will count down the time interval to 0:00.00 and then adjust the value, changing it by the amount set in the **<INCREMENT VALUE>**. If the increment value is set to zero, the controller will decrement the value by the amount set in the **<DECREMENT VALUE>**. The controller will then reset to the last entered time interval and count down the interval again.
If larger values than 99,999,999 are tracked, then the display would need to have fixed 0's in the lower significant digits. A display could be set up with 0's in the last 3 digits, and the value could track up to 99,999,999,000. The smallest increment value of 1 would then represent 1000 being added to the total.

<STOP>

Pressing this key will stop the clock. The clock must be stopped to set the time interval.

23.3.1 RTD Item Numbers

The console sends out data in a Venus 1500 RTD packet as shown below once every second for code 373, or standard V4600/V7000 RTD for code 374.

Item #	Function	Offset
01	Value x 10,000,000	0
02	Value x 1,000,000	1
03	Value x 100,000	2
04	Value x 10,000	3
05	Value x 1,000	4
06	Value x 100	5
07	Value x 10	6
08	Value x 1	7

23.4 External Input Counter Codes 375 & 376

Code 375 - This code is used for the Venus 1500 Output. Venus 1500 configuration: Baud Rate 19,200, 8 Data Bits, and No Parity.
Code 376 - This code is used for standard RTD Output (V4600/V7000). Venus 4600 configuration: Baud Rate 9,600, 8 Data Bits, and Even Parity.

<INCREMENT VALUE ! >

This key is used to set the increment value. The increment value can have up to 4 significant digits. This value is the amount that is added to the total value every time an external switch input 1 is detected.

<DECREMENT VALUE ! >

This key is used to set the decrement value. The decrement value can have up to 4 significant digits. This value is the amount that is subtracted from the total value each time an external switch input 2 is detected.

<TIME INTERVAL ! >

Not used for these codes.

<START>

Not used for these codes.

<STOP>

Not used for these codes.

<SET MAIN CLOCK ! >

Not used for these codes.

<COUNT UP/DOWN ! >

Not used for these codes.

23.4.1 RTD Item Numbers

The console sends out data in a Venus 1500 RTD packet as shown below as data is changed or a minimum of once every second for code 375, or standard V4600/V7000 RTD for code 376.

Item #	Function	Offset
01	Value x 10,000,000	0
02	Value x 1,000,000	1
03	Value x 100,000	2
04	Value x 10,000	3
05	Value x 1,000	4
06	Value x 100	5
07	Value x 10	6
08	Value x 1	7

23.4.2 External Switch Inputs

A switch-closed input on pins 2 & 5 of switch input terminal block 1 will cause the console to add the increment value to the total value. A switch-closed input on pins 1 & 6 of switch input terminal block will cause the console to subtract the decrement value from the total value.

The external switch inputs come into the All Sport on J3. The signal cable used to connect to these inputs has a 6-pin RJ-11 on one end and a 4-pin terminal block on the other end. Refer to **Appendix A** for signal connection drawings.

23.5 System Setup/Operation

23.5.1 Venus 1500 Controlled Products

Install Venus 1500 software and create signs needed by following Venus 1500 manual (**ED-9067**) and display manual.

If supplied with a RTD message, copy to the proper directory. The supplied message is already in the display memory and can be run. To edit or create a new message go to **Section 23.5.2**.

23.5.2 Creating an RTD Message

Install Venus 1500 software and create signs needed by following Venus 1500 manual **ED-9067** and the display manual.

Use the Venus 1500 to create a message. Use the following examples to aid in creating the RTD field within the message.

Example 1: Event Counter Mode: Countdown to Millennium
This examples applies to event counter mode.

If message is as follows:

DDD Days HH Hours

Where:

DDD = RTD field showing 3 digits of days.
Offset = 0 (Refer to table below):
Length =3

HH = RTD field showing 2 digits of hours.
Offset = 3 (Refer to table below).
Length = 2

Item #	Function	Offset
01	Days x 100	0
02	Days x 10	1
03	Days x 1	2
04	Hours x 10	3
05	Hours x 1	4
06	Colon :	5
07	Min x 10	6
08	Min x 1	7
09	Dec.pt.	8
10	Sec x 10	9
11	Sec x 1	10

Example 2: Time Based Counter Mode: National Deficit
This examples applies to the time based event counter mode.

If message is as follows:

$ XX, YYY, ZZZ

Where:

XX = RTD field for data in millions.
Offset = 0 (Refer to table below):
Length = 2

YYY = RTD field for data in thousands.
Offset = 2 (Refer to table below).
Length = 3

ZZZ = RTD field for data in ones to hundreds.
Offset = 5 (Refer to table below).
Length = 3

$,, = Text

Item #	Function	Offset
01	Value x 10,000,000	0
02	Value x 1,000,000	1
03	Value x 100,000	2
04	Value x 10,000	3
05	Value x 1,000	4
06	Value x 100	5
07	Value x 10	6
08	Value x 1	7

Note: If no comma's entered: XX, YYY, ZZZ is RTD Field for Data from ones to ten million. Offset = 0 and length = 8.

Example 3: External Switch Input Mode.

If message is as follows:

XX, YYY

Where:

XX = RTD field for data in thousands.
Offset = 3 (Refer to table below).
Length = 2.

YYY = RTD field for data in ones to hundreds.
Offset = 5 (Refer to table below)
Length = 3

1 = Text

Item #	Function	Offset
01	Value x 10,000,000	0
02	Value x 1,000,000	1
03	Value x 100,000	2
04	Value x 10,000	3
05	Value x 1,000	4
06	Value x 100	5
07	Value x 10	6
08	Value x 1	7

23.5.3 Operations

- **!** Send and run message to display using Venus 1500.
- **!** Disconnect Venus 1500 and connect All Sport refer to **Drawings A-95713** or **A-95696** located in **Appendix A**.
- **!** Run the appropriate code 371, 373, or 375 on the All Sport.

23.5.4 Venus 4600 and 7000 Controlled Products

Refer to the Venus 4600 manual **ED-4602** or the Venus 7000 manual **ED-10155** for instructions on creating the RTD sequence.

23.5.5 Operation

1. Set up an RTD communications port on the Venus controller.
2. Create a sequence with an RTD frame to display the items desired and save the sequence.
3. Display the RTD sequence.
4. Connect the All Sport Controller to the Venus Controller RTD communications port. Refer to **Drawing A-100373** in **Appendix A.**
5. Run the appropriate code 372, 374 or 376 on the All Sport controller.

Section 24: Tennis Operation

Refer to the information in **Section 3** to start up the console and use the sport insert. Read **Section 3** carefully to fully understand the following operation instructions and for **MENU KEY** operations.

24.1 Sport Insert 0G-103677

Reference Drawing: Sport Insert, Tennis Code 220 . . . . . **Drawing A-103677**

Note: Top team keys score for the top of the display and the bottom team keys score for the bottom of the display.

Team Keys

<POINT >
Increments the respective players game score for normal game scoring. If <**TIE BREAK**> is pressed then the score will increment by 1.

<SCORE ! >
Edits the team score

<ADV.>
Sets respective player game score to advantage

<**DEUCE**>
Sets the current game score to deuce

<=SERVICE >
Sets respective player to serve as the server

<GAMES ! >
Edits the games won for the current set number

<GAMES+1 >
Increments the games won by 1 for the current set number

Game Keys

<SET ! >
Edits the set number

<SET+1>
Increments the set number by 1

<RESET GAME>
Resets the game score. This will also reset the tie break mode of scoring.

<RESET MATCH>
Resets the match by clearing all set scores and setting game score to zero.

<TIE BREAK>
Allows score to increment by 1 for tie break scoring. The game must be reset before tie break key will set the scoring mode to tie break.

24.2 Sport Insert 0G-124217

Reference Drawing: Sport Insert, Tennis Code 221 . . . . . **Drawing A-124217**

Sport insert 0G-124217 is used to control the scoring for up to six courts. The Game Keys are grouped under a court (Court 1, Court 2, etc.). The Match Keys are located along the left side. Use code 221 to operate the All Sport controller using this insert.

Match Keys

<HOME MATCHES ! >
Edits the matches for the home team

<HOME MATCHES +1>
Advances the matches for the home team by 1

<GUEST MATCHES ! >
Edits the matches for the guest team

<GUEST MATCHES +1>
Advances the matches for the guest team by 1

Game Keys (Courts 1 through 6)

<HOME GAMES ! >
Edits the games won for the home team.

<HOME GAMES+1>
Increments the games won by the home team by 1

<SET+1>
Increments the set number by 1

<GUEST GAMES ! >
Edits the games won for the guest team.

<GUEST GAMES+1>
Increments the games won by the guest team by 1

Section 25: Auto Racing Operation

Refer to **ED-11058** for information on auto racing operation of the All Sport 4000 series controller.

For Auto Racing using a Compulink System, refer to **Section 26.**

Section 26: Compulink Interface

Refer to the information in **Section 3** to start up the console and use the sport insert. Read **Section 3** carefully to fully understand the following operation instructions and for **MENU KEY** operations.

26.1 Sport Insert 0G-139422

Reference Drawing: Insert; A/S 4000 Loopback Test Data . . . . . **Drawing A-139422**

The All Sport code for the Compulink Interface is 502. The console receives signal input from the Compulink Timer on Pin 2 (+RX) and Pin 7 (GND) of J3 on the All Sport.

Data Format: Baud Rate 9,600, 1 Start Bit, 8 Data Bits, 2 Stop Bits, and No Parity. This application uses the language style ASCII standard. For additional infromation refer to **ED-4659, C-33/Compulink Protocol Specifications.**

When the console is running code 502 and is connected to the Compulink Timer, the console will display the race information on the drag race display.

26.2 Test Mode

The console has built in test functions for the data input and the scoreboard output. These tests will help isolate system problems and verify proper operation.

To test the scoreboard output, the **ALL ON** test and the **NUMBER TEST** keys are pressed. When pressed these keys will put the specified pattern on the scoreboard. Once data has been received from the timer, these keys will not function until the console has been restarted with code 502 again. This is to prevent the test data keys from putting up data during the race.

To test the data input the loopback test keys will be used. Pins 2 and 3 of J3 on the All Sport will need to have an electrical connection made between them. To make this connection, place a bent paper clip or a similar wire from pin 2 to pin 3 of J3. When this is done pressing any of the loopback keys will send that data out on pin 3 of J3 on the console. The data should show on the LCD on the console and also on the scoreboard. If this test works then the data input on the console is functional.

Score Test Keys

<ALL ON TEST>

This key will display an all on pattern on the scoreboard. The key will not function after data has been received from the timer.

<NUMBER TEST>

This key will display a number pattern test on the scoreboard. The key will not function after data has been received from the timer.

<DISPLAY NORMAL>

This key will return the display to normal display of the data received from the timer.

Loopback Test Keys

<TOP LEFT>

The two top left keys are used to send test data for testing of the data input on the console. This data will display on the top line of the left lane display.

<TOP RIGHT>

The two top right keys are used to send test data for testing of the data input on the console. This data will display on the top line of the right lane display.

<BOTTOM LEFT>

The two bottom left keys are used to send test data for testing of the data input on the console. This data will display on the bottom line of the left lane display.

<BOTTOM RIGHT>

The two bottom right keys are used to send data for testing of the data input on the console. This data will display on the bottom line of the right display.

The LCD will display the data that was received from the timer or the loopback test keys on the bottom line of the LCD. The LCD data will have a > symbol displayed to the left of the data.

Appendix A: Block Diagrams

Reference Drawings:

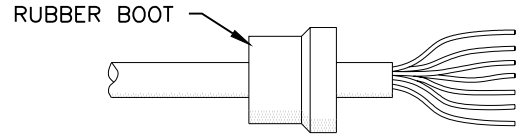
Cable; 25 Pin to 16 Pin 16 Cond . . . . . **Drawing A-31020**
Keyboard Fixed Keys . . . . . **Drawing A-54698**
Rear View, Connector Assignments . . . . . **Drawing A-87150**
Basketball Codes 03, 04, 11, 12 . . . . . **Drawing A-86935**
Basketball with Stats Panels . . . . . **Drawing A-86936**
Basketball Codes 07, 08, 17, 18 . . . . . **Drawing A-95222**
Baseball . . . . . **Drawing A-86970**
Football . . . . . **Drawing A-86971**
Hockey . . . . . **Drawing A-86972**
Set up Sprint Timer Photo Cell & Tape Switch . . . . . **Drawing A-72922**
Track . . . . . **Drawing A-93764**
Track/Football Scoreboard W/Finish Lynx in Press Box . . . . . **Drawing A-95152**
Track/Football Scoreboard W/Finish Lynx in Field . . . . . **Drawing A-95153**
Track/Football Scoreboard W/Finish Lynx in Press Box . . . . . **Drawing A-95154**
12V Hookups, Scoreboard to Console . . . . . **Drawing A-88082**
System Riser Diagram InfoSport . . . . . **Drawing A-95122**
System Riser Diagram RS/422 . . . . . **Drawing A-95713**
System Riser Diagram RS/432 . . . . . **Drawing A-95696**
System Riser Diagram V4600/V7000 . . . . . **Drawing A-100373**
All Sport Smart Console with ProSport . . . . . **Drawing A-100460**
Block Diagram; Basketball System W25 Pin . . . . . **Drawing A-104541**

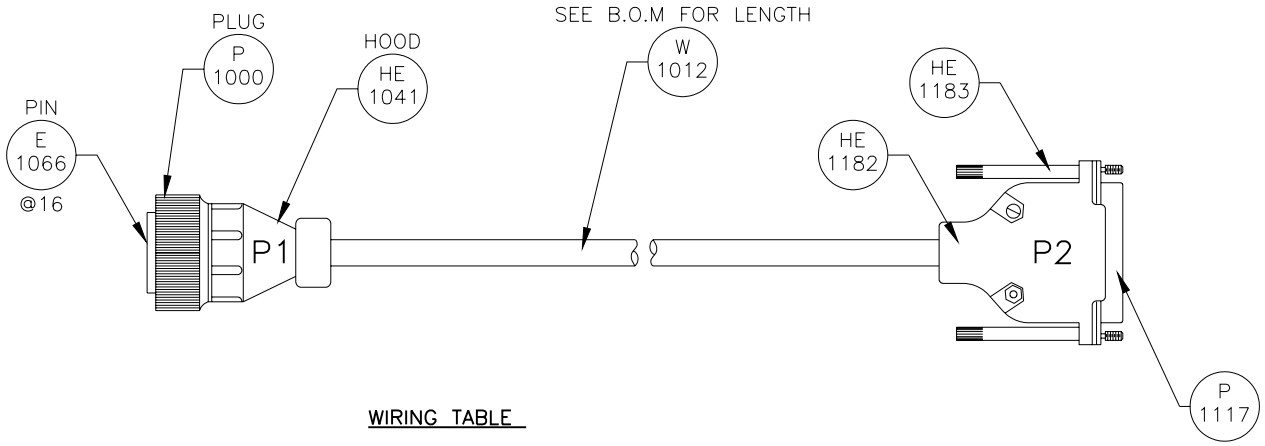
FOR 25-PIN HOOD:

SELECT THE RUBBER BOOT THAT FITS SNUGLY ON THE CABLE.

SLIDE IT ONTO THE CABLE POSITIONED AS SHOWN AND ATTACH HOOD.

TOP OF THE BOOT SHOULD BE FLUSH WITH THE HOOD, OR PROTRUDING NO MORE THAN 1/16".





WIRING TABLE

FROM	WIRE COLOR	FUNCTION	TO
P1-1	BLK	1SIG-P	P2-14
P1-2	WHT	1SIG-N	P2-15
P1-3	RED	2SIG-P	P2-16
P1-4	GRN	2SIG-N	P2-17
P1-5	ORG	3SIG-P	P2-18
P1-6	BLU	3SIG-N	P2-19
P1-7	WHT/BLK	4SIG-P	P2-22
P1-8	RED/BLK	4SIG-N	P2-7
P1-9	GRN/BLK	CLKRUN-P	P2-8
P1-10	ORG/BLK	CLKGND-N	P2-21
P1-11	BLU/BLK	STOPOUT-P	P2-11
P1-12	BLK/WHT	STOPOUT-N	P2-23
P1-13	RED/WHT	SERIN-P	P2-9
P1-14	GRN/WHT	SERIN-N	P2-10
P1-15	BLU/WHT	12V IN	P2-24
P1-16	BLK/RED	12V IN	P2-25

WIRE COLORS NOT USED

WHT/RED
ORG/RED
BLU/RED
RED/GRN

REV.	DATE	DESCRIPTION	BY	APPR.
8	16OCT00	CHANGED W-1012 FROM 10 FT TO SEE B.O.M. DUE TO VARIOUS LENGTH IN DIFFERENT PACKETS	RLONG	
7	3 MAR 91	CHANGED W-1247 TO W-1012, DELETED L-49352, ADDED HE-1182, HE-1183 AND P-1117, CHANGED WIRE COLORS IN CHART.	C FICK	
6	04NOV91	REMOVED P-1117, HE-1182, HE-1183, & W-1012. REPLACED WITH W-1247.	JLH	
5	30APR91	CHANGED 25-PIN PLUG AND HOOD PART NUMBERS TO P-1117, HE-1182, AND HE-1183. REDRAWN ON A-SIZE.	AVB	AVB

DAKTRONICS, INC. BROOKINGS, SD 57006

PROJ: ALL SPORT CONSOLES

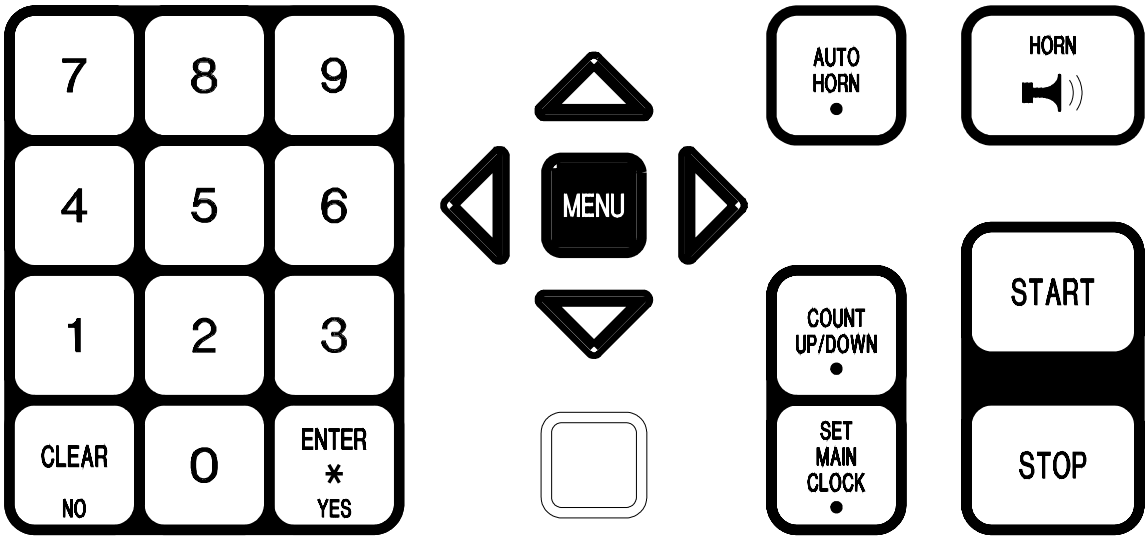
TITLE: CABLE, 25-PIN TO 16-PIN, 16-COND

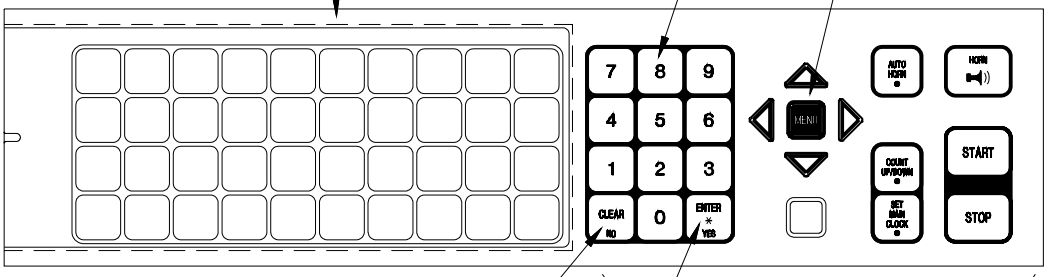
DES. BY: BLENDT DRAWN BY: BLENDT DATE: 14AUG87

REVISION 08 APPR. BY: SCALE: 1=2

1065-E07A-31020

THESE ARE THE FIXED KEYS AT THE RIGHT END OF THE KEYBOARD:





PRESS [CLEAR] TO CANCEL A FUNCTION OR TO CLEAR DATA
ALSO SERVES AT "NO" FOR SOME FUNCTIONS

PRESS [ENTER *] TO END A SEQUENCE
ALSO SERVES AS "YES" ON SOME FUNCTIONS

REV.	DATE	DESCRIPTION	BY	APPR.

DAKTRONICS, INC. BROOKINGS, SD 57006

PROJ: ALL SPORT 4000 SERIES CONSOLES

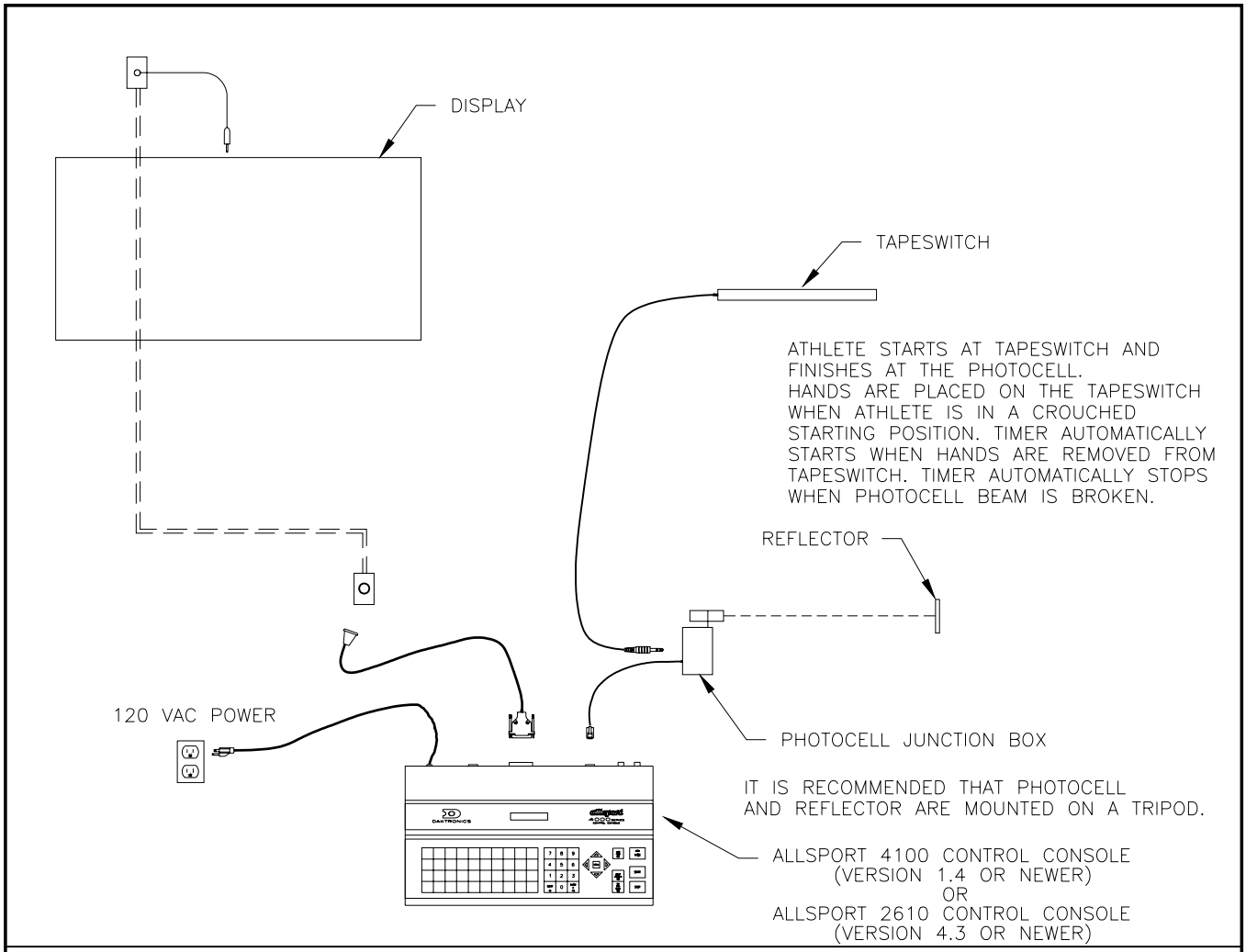
TITLE: KEYBOARD FIXED KEYS

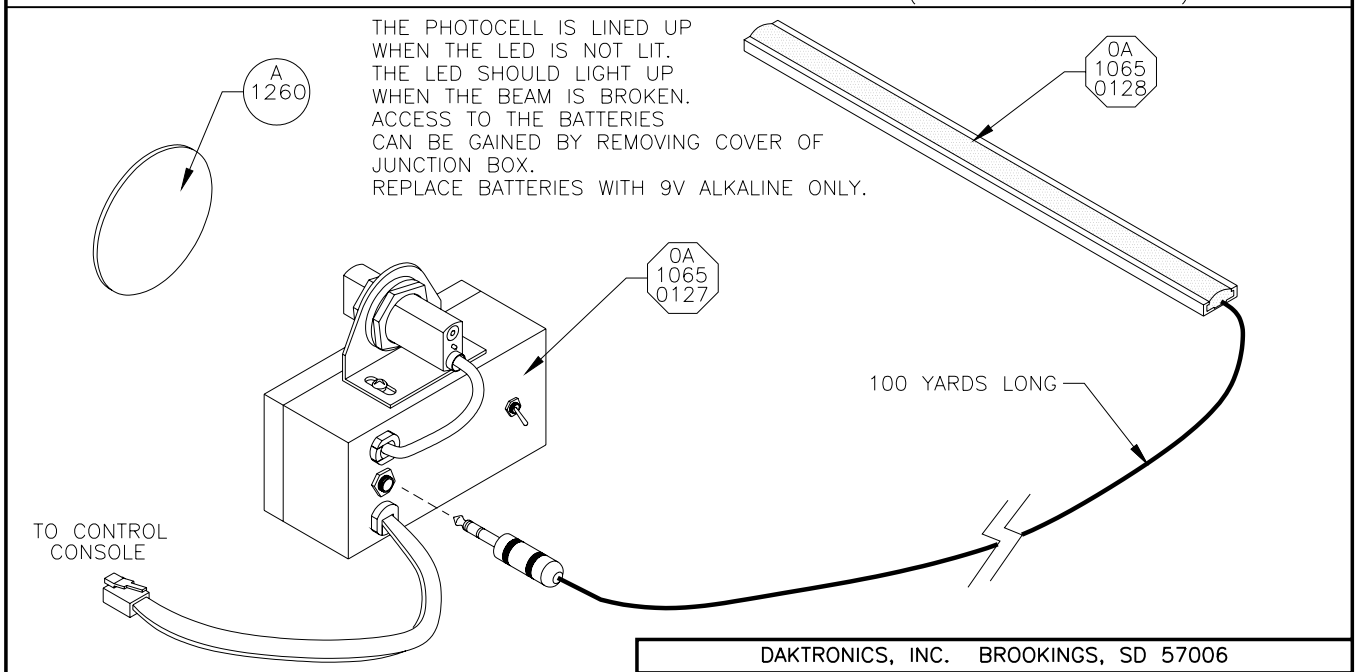
DES. BY: AVB DRAWN BY: A VANBEMMEL DATE: 21 FEB 98

REVISION APPR. BY:

SCALE: 1=1

1166-R04A-54698





REV.	DATE	DESCRIPTION	BY	APPR.
1	31AUG98	ADDED PART NUMBERS AND ADDED MODULAR PLUG AND CORD.	DDL	

DAKTRONICS, INC. BROOKINGS, SD 57006

PROJ:

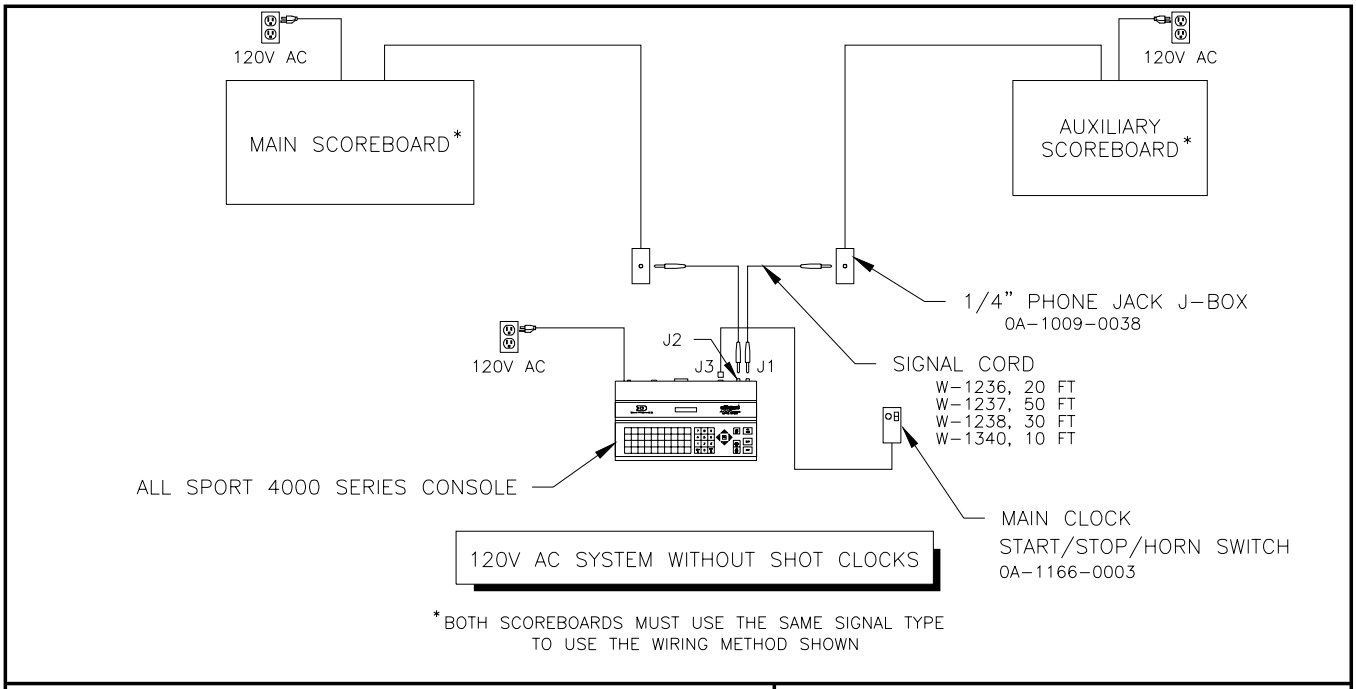
TITLE: SETUP, SPRINT TIMER PHOTOCELL AND TAPESWITCH

DES. BY: DRAWN BY: NJA DATE: 26 JUL 95

REVISION APPR. BY:

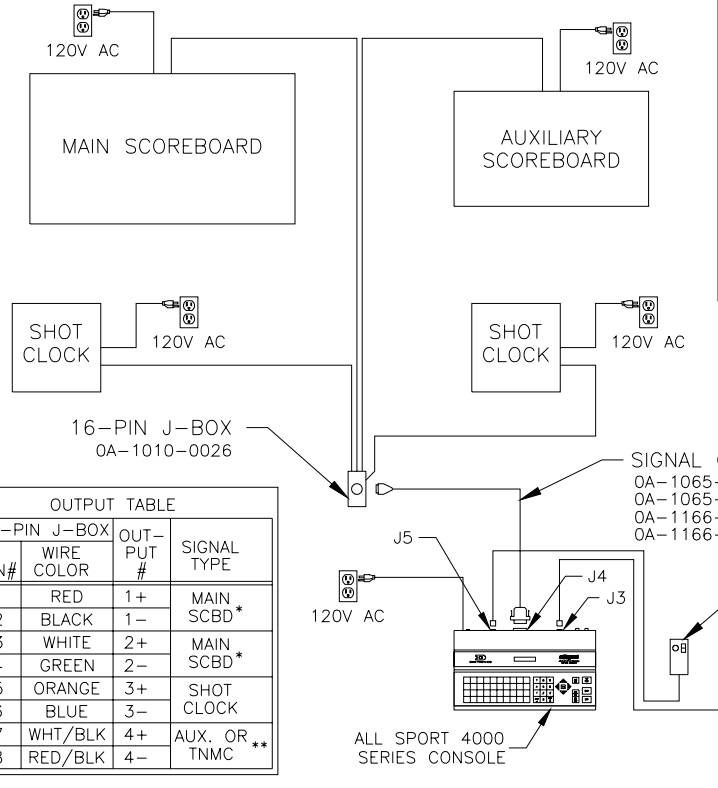
SCALE: NONE

1065-R10A-72922



120V AC SYSTEM WITHOUT SHOT CLOCKS

*BOTH SCOREBOARDS MUST USE THE SAME SIGNAL TYPE TO USE THE WIRING METHOD SHOWN



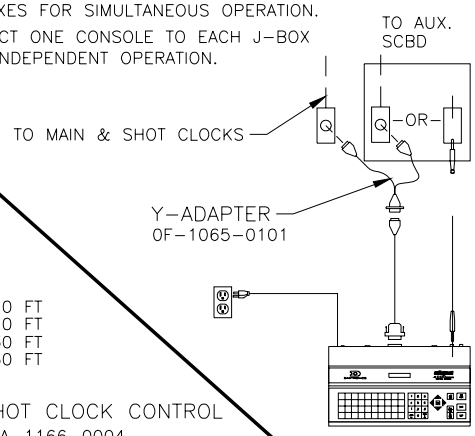
ALTERNATIVE SIGNAL HOOKUP METHOD FOR SYSTEMS WITH TWO SCOREBOARDS AND SHOT CLOCKS, OR TWO SCOREBOARDS REQUIRING DIFFERENT SIGNAL TYPES:

ONE J-BOX CONNECTS TO MAIN SCOREBOARD AND TO SHOT CLOCKS.

OTHER J-BOX CONNECTS TO AUXILIARY SCOREBOARD.

USE Y-ADAPTER TO CONNECT ONE CONSOLE TO BOTH J-BOXES FOR SIMULTANEOUS OPERATION.

CONNECT ONE CONSOLE TO EACH J-BOX FOR INDEPENDENT OPERATION.



OUTPUT TABLE

16-PIN J-BOX PIN#	WIRE COLOR	OUT-PUT #	SIGNAL TYPE
1	RED	1+	MAIN SCBD*
2	BLACK	1-	
3	WHITE	2+	MAIN SCBD*
4	GREEN	2-	
5	ORANGE	3+	SHOT CLOCK
6	BLUE	3-	
7	WHT/BLK	4+	AUX. OR TNMC **
8	RED/BLK	4-	

*MAIN SCOREBOARD SIGNAL MAY BE BB-17 OR BB-18, DEPENDING ON CODE USED.
**4TH OUTPUT IS USED FOR EITHER AUX. BB-17 SIGNAL OR TEAM NAME MESSAGE CENTER CONTROL.

120V AC SYSTEM WITH SHOT CLOCKS

REV.	DATE	DESCRIPTION	BY	APPR.
2	18 DEC 97	REMOVED MODEL NUMBER TABLE.	MWJ	
5	01 FEB 00	ADDED NOTE ABOUT TNMC OPERATION ON THE 4TH OUTPUT.	AVB	
4	05 AUG 98	ADDED PHONO J-BOX TO ALTERNATE SIGNAL HOOKUP DIAGRAM.	MWJ	
3	16 JUNE 98	ADDED PART NUMBERS	CJB	

DAKTRONICS, INC. BROOKINGS, SD 57006

PROJ: ALL SPORT 4000

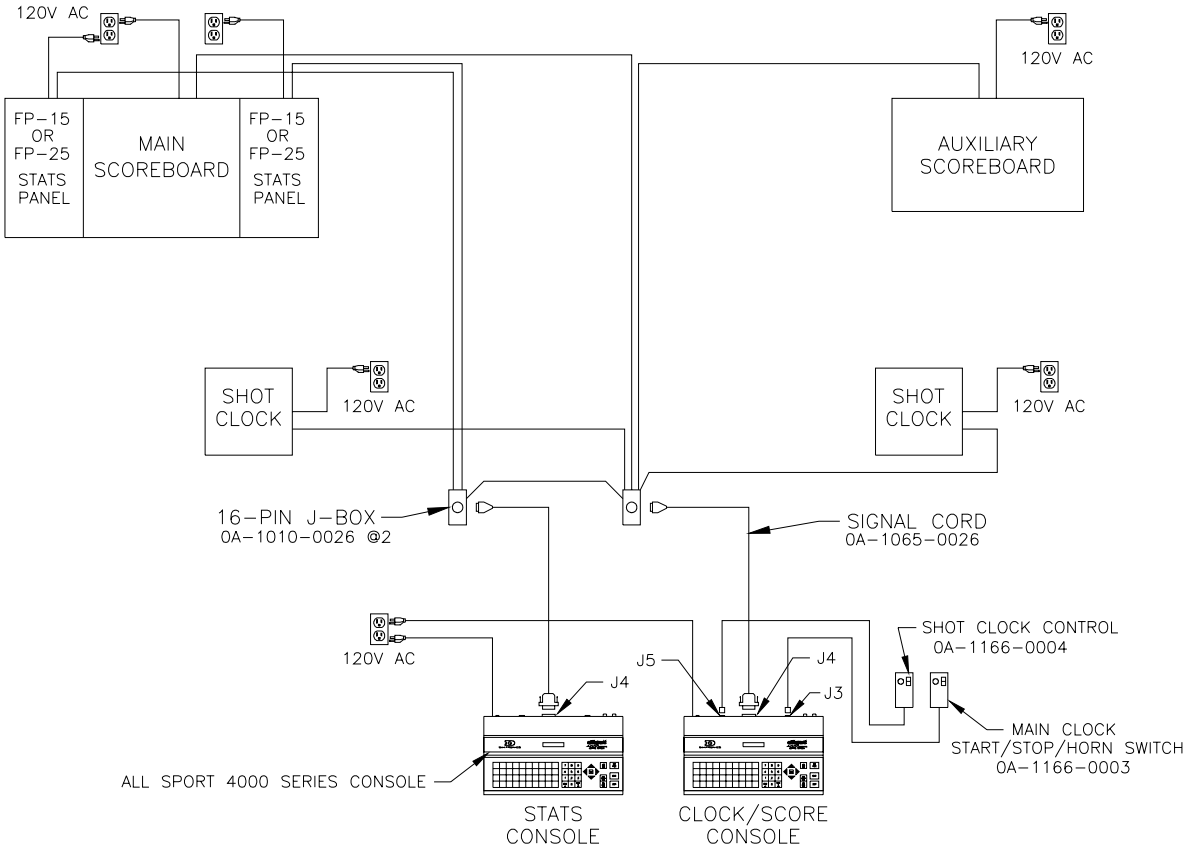
TITLE: BLOCK DIAGRAMS, BASKETBALL CODES 03, 04, 11, 12

DES. BY: DRAWN BY: A VANBEMMEL DATE: 25SEP96

REVISION APPR. BY:

SCALE: NONE

1166-R04A-86935



SYSTEM WITH STATS PANELS & SHOT CLOCKS
CODE 05, 06, 13, OR 14, AND 15 OR 16

OUTPUT TABLE, CLOCK/SCORE
CODE 05, 06, 13, OR 14

16-PIN J-BOX		OUT-PUT #	SIGNAL TYPE
PIN#	WIRE COLOR		
1	RED	1+	MAIN SCBD*
2	BLACK	1-	
3	WHITE	2+	MAIN SCBD*
4	GREEN	2-	
5	ORANGE	3+	SHOT CLOCK
6	BLUE	3-	
7	WHT/BLK	4+	AUX. BB-17
8	RED/BLK	4-	

*MAIN SCOREBOARD SIGNAL MAY BE BB-17 OR BB-18, DEPENDING ON CODE USED.

OUTPUT TABLE, STATS
CODE 15 OR 16

16-PIN J-BOX		OUT-PUT #	SIGNAL TYPE
PIN#	WIRE COLOR		
1	RED	1+	STATS DRIVER 1
2	BLACK	1-	
3	WHITE	2+	STATS DRIVER 2
4	GREEN	2-	
5	ORANGE	3+	STATS DRIVER 3
6	BLUE	3-	
7	WHT/BLK	4+	STATS DRIVER 4
8	RED/BLK	4-	

2-WIRE CONNECTION BETWEEN J-BOXES BRINGS DATA FROM STATS CONSOLE TO MAIN.

STATS J-BOX		MAIN J-BOX	
PIN#	COLOR	PIN#	COLOR
7	WHT/BLK	13	RED/WHT
8	RED/BLK	14	GRN/WHT

REV.	DATE	DESCRIPTION	BY	APPR.
2	18 DEC 97	REMOVED MODEL NUMBER TABLE.	MWJ	
1	19NOV96	CHANGED MODEL NUMBERS	AVB	AVB

DAKTRONICS, INC. BROOKINGS, SD 57006

PROJ: ALL SPORT 4000

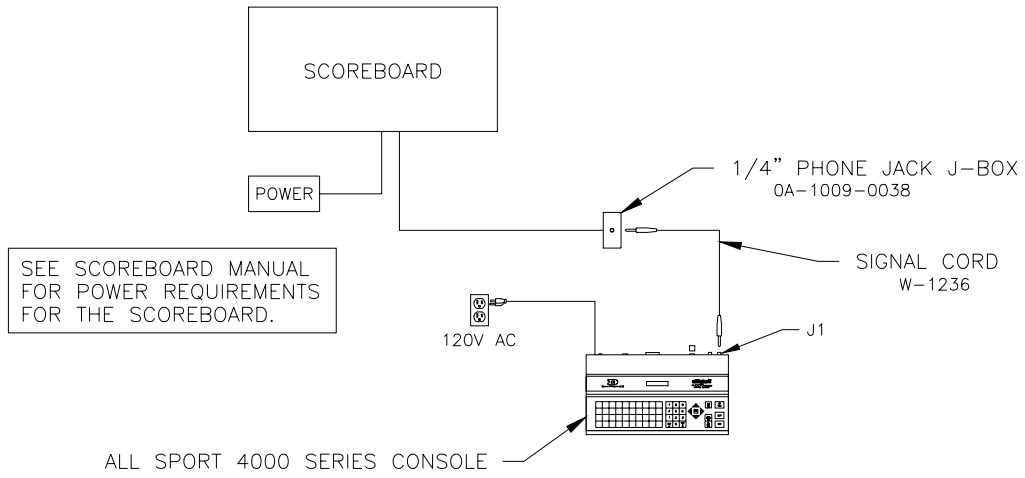
TITLE: BLOCK DIAGRAMS, BASKETBALL WITH STATS PANELS

DES. BY: DRAWN BY: A VANBEMMEL DATE: 25SEP96

REVISION APPR. BY:

SCALE: NONE

1166-R04A-86936

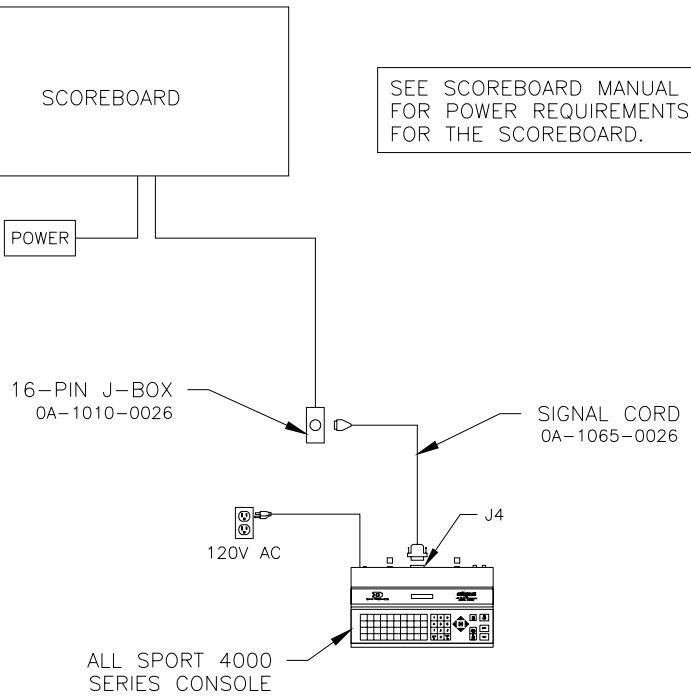


SEE SCOREBOARD MANUAL FOR POWER REQUIREMENTS FOR THE SCOREBOARD.

ALL SPORT 4000 SERIES CONSOLE PART NUMBERS:

MODEL	PART NO.	DESCRIPTION
4100	0A-1166-0001	120V STANDARD
4120	0A-1166-0005	230V STANDARD
4900	0A-1166-0007	120V CUSTOM
4920	0A-1166-0008	230V CUSTOM

BASIC SINGLE-DRIVER BASEBALL SCOREBOARD SYSTEM



SEE SCOREBOARD MANUAL FOR POWER REQUIREMENTS FOR THE SCOREBOARD.

OUTPUT TABLE

16-PIN J-BOX PIN#	16-PIN J-BOX WIRE COLOR	OUT-PUT #	SIGNAL TYPE
1	RED	1+	MAIN SCBD DRIVER 1*
2	BLACK	1-	
3	WHITE	2+	MAIN SCBD DRIVER 2*
4	GREEN	2-	
5	ORANGE	3+	MAIN SCBD DRIVER 3*
6	BLUE	3-	

*SEE SCOREBOARD INSTALLATION MANUAL FOR INFORMATION ON THE NUMBER OF DRIVERS IN THE SCOREBOARD.

MULTI-DRIVER BASEBALL SCOREBOARD SYSTEM

REV.	DATE	DESCRIPTION	BY	APPR.
1	19NOV96	CHANGED MODEL NUMBERS	AVB	AVB

DAKTRONICS, INC. BROOKINGS, SD 57006

PROJ: ALL SPORT 4000

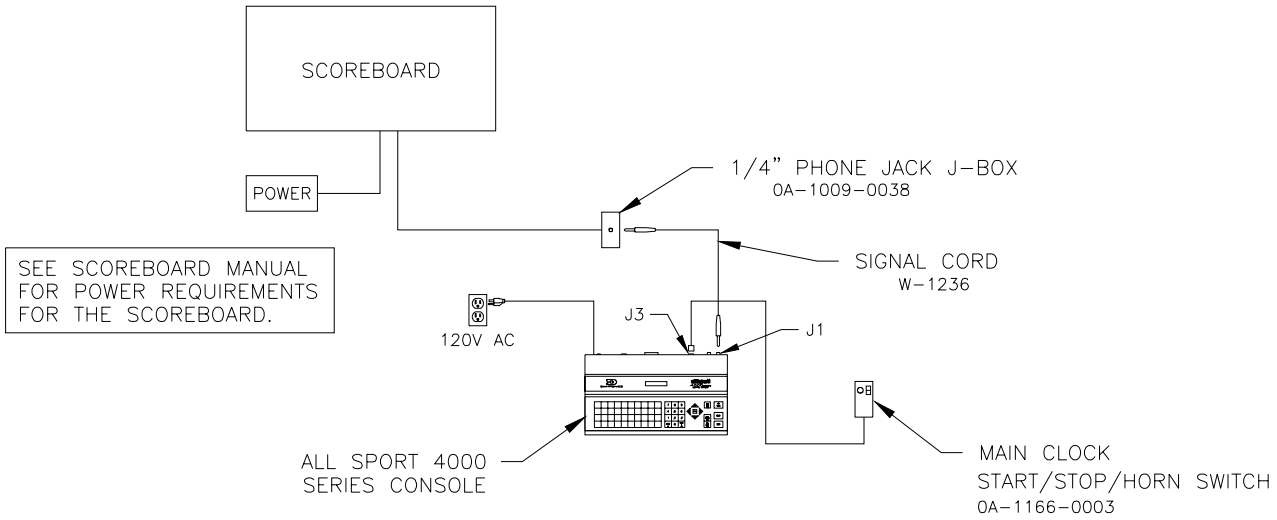
TITLE: BLOCK DIAGRAMS, BASEBALL

DES. BY: DRAWN BY: A VANBEMMEL DATE: 07OCT96

REVISION APPR. BY:

SCALE: NONE

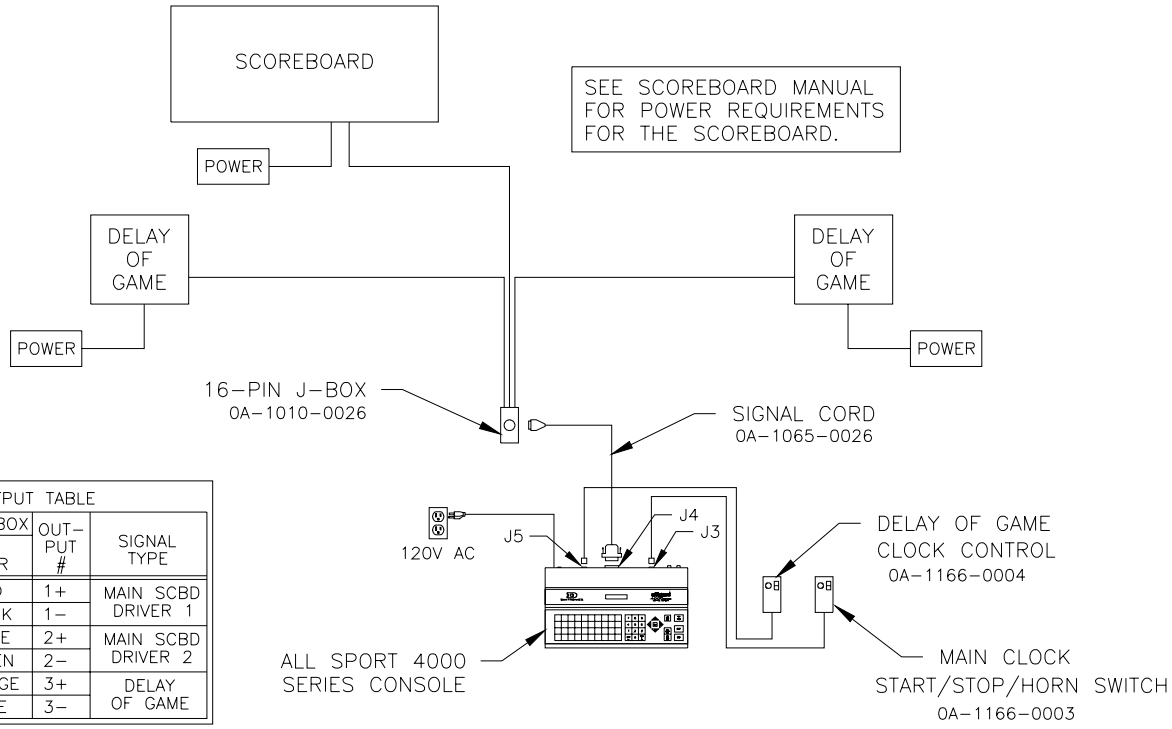
1166-R04A-86970



ALL SPORT 4000 SERIES CONSOLES MODEL AND PART NUMBERS:

MODEL	PART NO.	DESCRIPTION
4100	0A-1166-0001	120V STANDARD
4120	0A-1166-0005	230V STANDARD
4900	0A-1166-0007	120V CUSTOM
4920	0A-1166-0008	230V CUSTOM

BASIC SINGLE-DRIVER FOOTBALL OR SOCCER SYSTEM



OUTPUT TABLE

16-PIN J-BOX PIN#	16-PIN J-BOX WIRE COLOR	OUT-PUT #	SIGNAL TYPE
1	RED	1+	MAIN SCBD DRIVER 1
2	BLACK	1-	
3	WHITE	2+	MAIN SCBD DRIVER 2
4	GREEN	2-	
5	ORANGE	3+	DELAY OF GAME
6	BLUE	3-	

FOOTBALL SYSTEM WITH DELAY OF GAME CLOCKS

REV.	DATE	DESCRIPTION	BY	APPR.
1	20NOV96	CHANGED MODEL NUMBERS	AVB	AVB

DAKTRONICS, INC. BROOKINGS, SD 57006

PROJ: ALL SPORT 4000

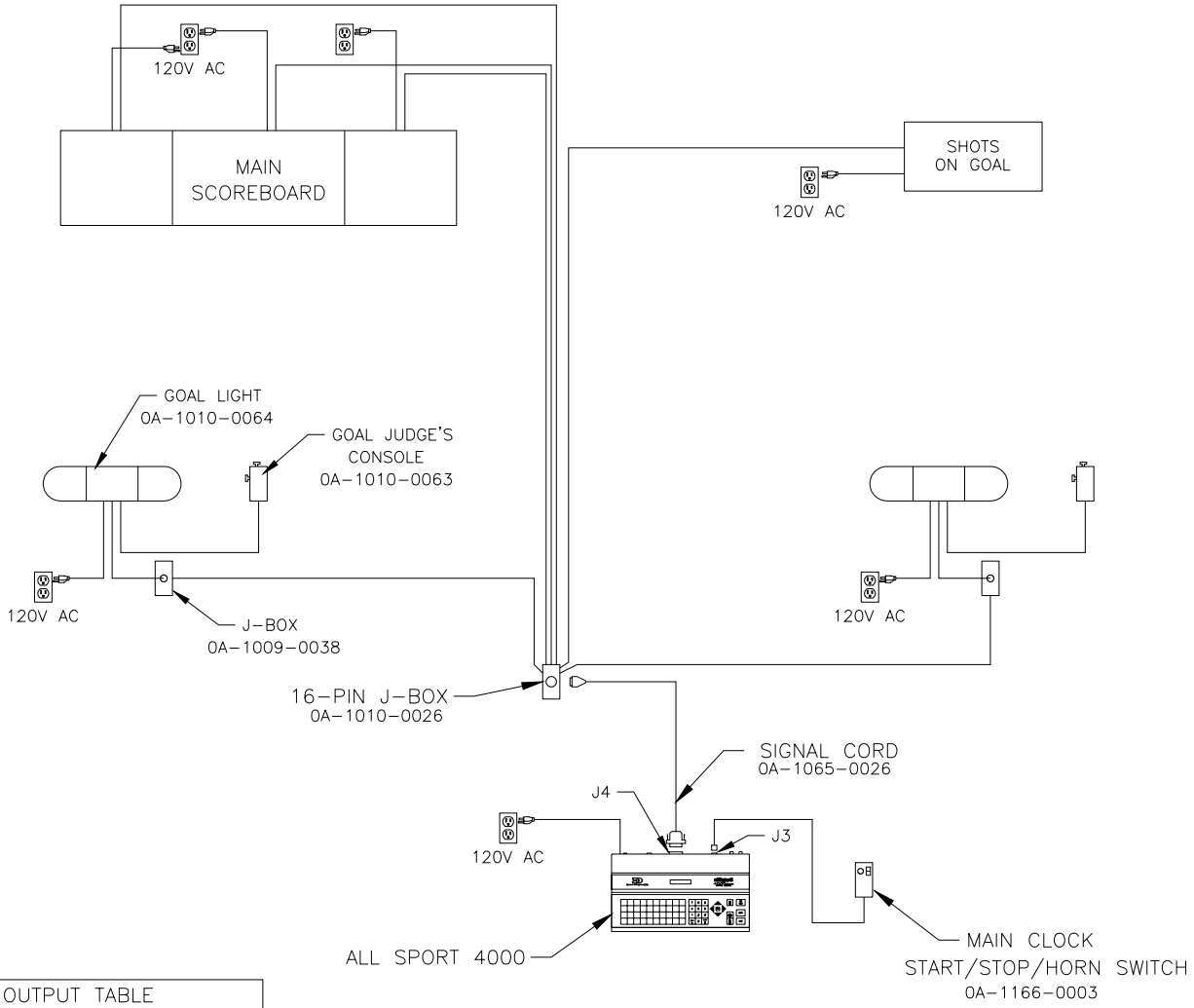
TITLE: BLOCK DIAGRAMS, FOOTBALL

DES. BY: DRAWN BY: A VANBEMMEL DATE: 25SEP96

REVISION APPR. BY:

SCALE: NONE

1166-R04A-86971



OUTPUT TABLE

16-PIN J-BOX PIN#	WIRE COLOR	OUT-PUT #	SIGNAL TYPE
1	RED	1+	SCOREBOARD DRIVER 1
2	BLACK	1-	
3	WHITE	2+	SCOREBOARD DRIVER 2
4	GREEN	2-	
5	ORANGE	3+	SCOREBOARD DRIVER 3
6	BLUE	3-	
7	WHT/BLK	4+	SHOTS ON GOAL
8	RED/BLK	4-	

GOAL LIGHT CONNECTION

16-PIN J-BOX PIN#	WIRE COLOR	FUNCTION
11	BLU/BLK	GOAL LIGHT +
12	BLK/WHT	GOAL LIGHT -

CONNECTING GOAL LIGHTS TO THE CONSOLE PROVIDES A "CLOCK STOP" TRIGGER FOR THE GOAL LIGHT.

THAT IS, THE GREEN LIGHT TURNS ON, AND THE RED LIGHT IS INHIBITED WHENEVER THE CLOCK STOP.

TO TRIGGER THE GOAL LIGHT AT THE END OF THE PERIOD ONLY, CONNECT GOAL LIGHTS TO THE SCOREBOARD.

ALL SPORT 4000 SERIES CONSOLES MODEL AND PART NUMBERS:

MODEL	PART NO.	DESCRIPTION
4100	0A-1166-0001	120V STANDARD
4120	0A-1166-0005	230V STANDARD
4900	0A-1166-0007	120V CUSTOM
4920	0A-1166-0008	230V CUSTOM

REV.	DATE	DESCRIPTION	BY	APPR.
1	20NOV96	CHANGED MODEL NUMBERS	AVB	AVB

DAKTRONICS, INC. BROOKINGS, SD 57006

PROJ: ALL SPORT 4000

TITLE: BLOCK DIAGRAM, HOCKEY

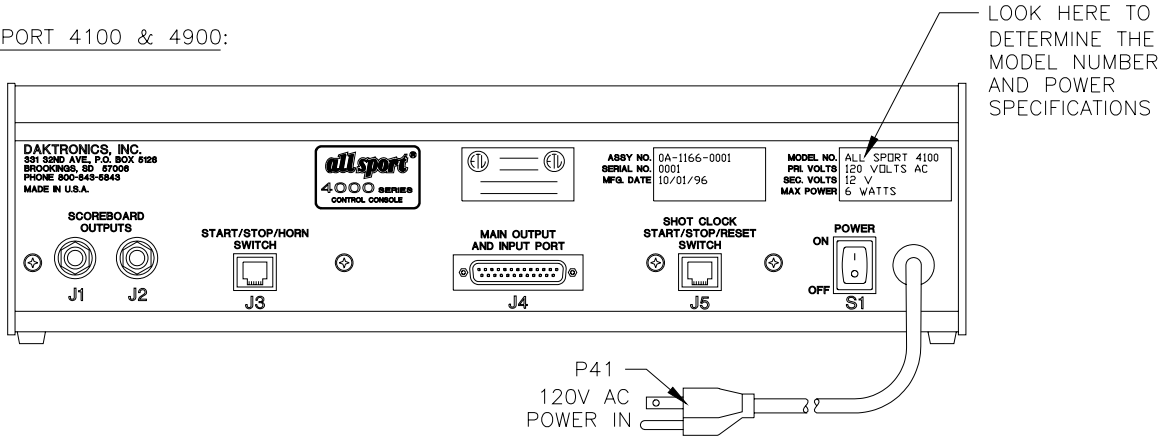
DES. BY: DRAWN BY: A VANBEMMEL DATE: 26SEP96

REVISION APPR. BY:

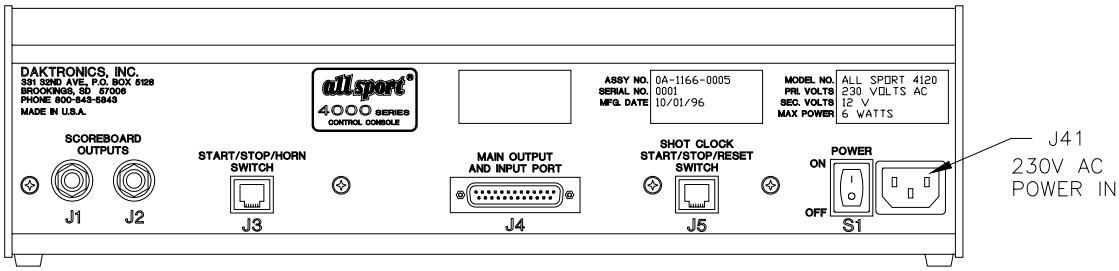
SCALE: NONE

1166-R04A-86972

ALL SPORT 4100 & 4900:



ALL SPORT 4120 & 4920:



J1 & J2 – OUTPUT #1

CONTACT	FUNCTION
TIP	CURRENT LOOP OUTPUT 1 +
RING	CURRENT LOOP OUTPUT 1 –
SHAFT	GND

J3 – START/STOP/HORN

PIN #	FUNCTION
1	SWITCH INPUT 2 –
2	SWITCH INPUT 1 –
3	SWITCH OUTPUT –
4	SWITCH OUTPUT +
5	SWITCH INPUT 1 +
6	SWITCH INPUT 2 +

J5 – SHOT CLOCK

PIN #	FUNCTION
1	SWITCH INPUT 5 –
2	SWITCH INPUT 4 –
3	SWITCH INPUT 3 –
4	SWITCH INPUT 3 +
5	SWITCH INPUT 4 +
6	SWITCH INPUT 5 +

J4 – MAIN PORT

PIN #	FUNCTION
1	EARTH
2	RS232 RECEIVE +
3	RS232 TRANSMIT +
4	
5	
6	
7	CURRENT LOOP OUTPUT 4 –
8	SWITCH INPUT 1 +
9	CURRENT LOOP INPUT +
10	CURRENT LOOP INPUT –
11	SWITCH OUTPUT +
12	
13	
14	CURRENT LOOP OUTPUT 1 +
15	CURRENT LOOP OUTPUT 1 –
16	CURRENT LOOP OUTPUT 2 +
17	CURRENT LOOP OUTPUT 2 –
18	CURRENT LOOP OUTPUT 3 +
19	CURRENT LOOP OUTPUT 3 –
20	
21	SWITCH INPUT 1 –
22	CURRENT LOOP OUTPUT 4 +
23	SWITCH OUTPUT –
24	12V AC/DC INPUT
25	12V AC/DC INPUT

FOR STANDARD CODES, THESE FUNCTIONS ARE USUALLY ASSIGNED TO THE FOLLOWING TASKS:

FUNCTION	USUAL TASK
SW IN 1	MAIN CLOCK STOP/START
SW IN 2	MAIN CLOCK HORN
SW IN 3	NOT USED
SW IN 4	SHOT/DELAY CLOCK STOP
SW IN 5	SHOT/DELAY CLOCK RESET
SW OUT	CLOCK STOP OUT
CL OUT 1	MAIN SCOREBOARD
CL OUT 2	MAIN SCOREBOARD
CL OUT 3	SHOT/DELAY CLOCK
CL OUT 4	AUX. SCBD/TEAM NAME MC

ALL SPORT 4000 SERIES MODELS

MODEL #	FUNCTION
4100	120V, STANDARD PROGRAMMING
4120	230V, STANDARD PROGRAMMING
4900	120V, CUSTOM PROGRAMMING
4920	230V, CUSTOM PROGRAMMING

REV.	DATE	DESCRIPTION	BY	APPR.
1	20NOV96	CHANGED MODEL NUMBERS	AVB	AVB

DAKTRONICS, INC. BROOKINGS, SD 57006

PROJ: ALL SPORT 4000 SERIES CONSOLES

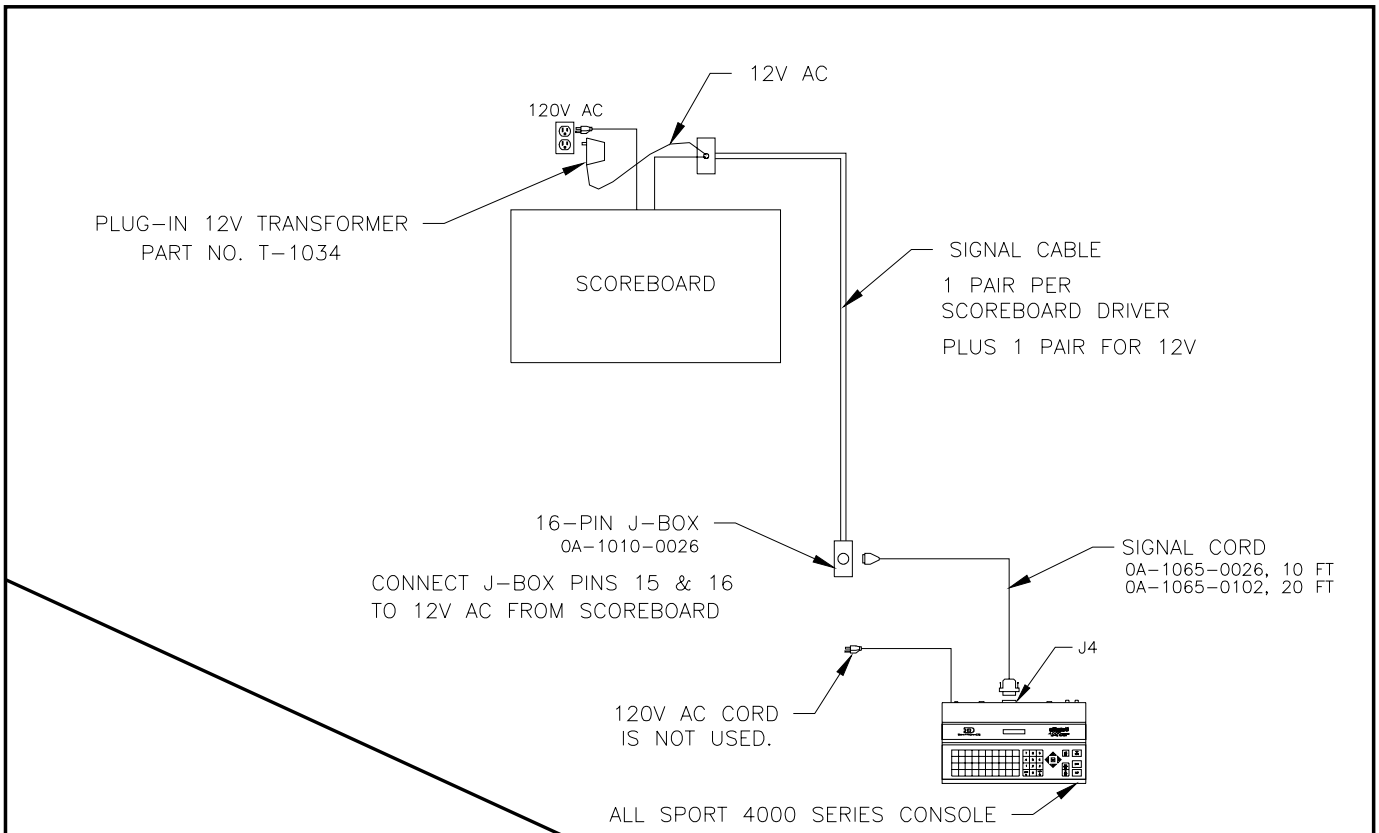
TITLE: REAR VIEW, CONNECTOR ASSIGNMENTS

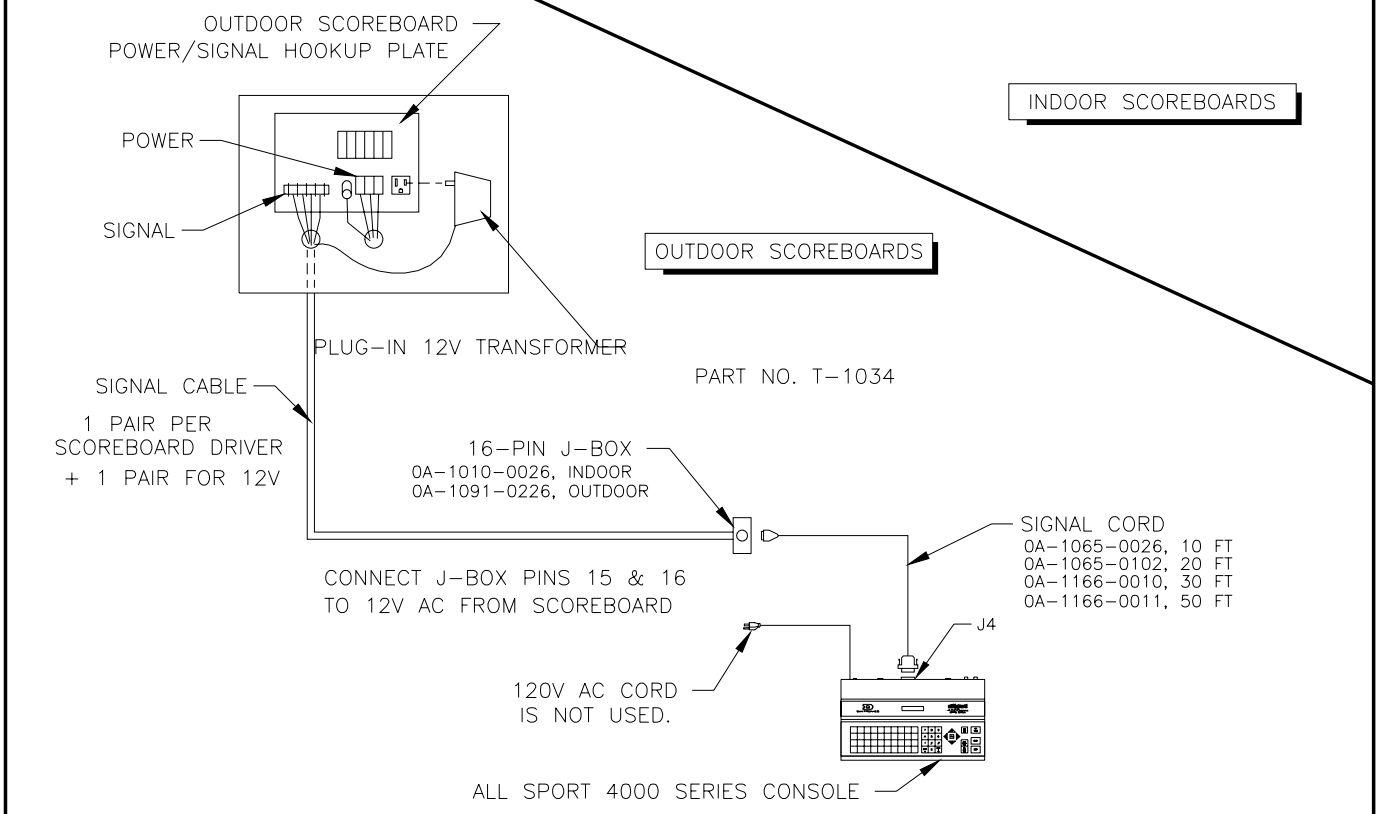
DES. BY: DRAWN BY: A VANBEMMEL DATE: 03 OCT 96

REVISION APPR. BY:

SCALE: 1=3

1166-R04A-87150





REV.	DATE	DESCRIPTION	BY	APPR.
1	16 JUNE 98	ADDED PART NUMBERS	CJB	

DAKTRONICS, INC. BROOKINGS, SD 57006

PROJ: ALL SPORT 4000 SERIES CONSOLES

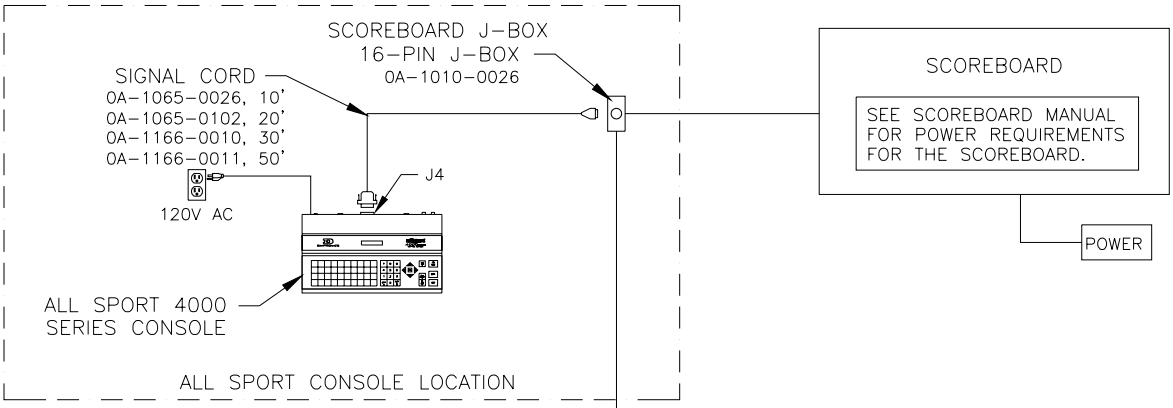
TITLE: 12V HOOKUPS, SCOREBOARD TO CONSOLE

DES. BY: AVB DRAWN BY: A VANBEMMEL DATE: 11 NOV 96

REVISION APPR. BY:

SCALE: NONE

1166-R10A-88082

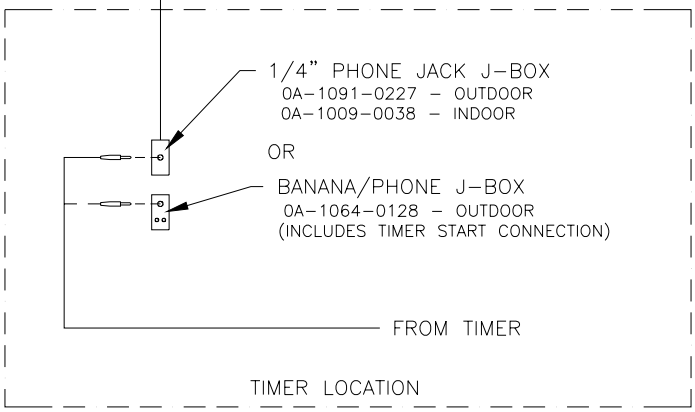


OUTPUTS TO SCOREBOARD			
16-PIN J-BOX		OUT-PUT #	SIGNAL TYPE
PIN#	WIRE COLOR		
1	RED	1+	MAIN SCBD DRIVER 1*
2	BLACK	1-	
3	WHITE	2+	MAIN SCBD DRIVER 2*
4	GREEN	2-	
5	ORANGE	3+	MAIN SCBD DRIVER 3*
6	BLUE	3-	

*SEE SCOREBOARD INSTALLATION MANUAL FOR INFORMATION ON THE NUMBER OF DRIVERS IN THE SCOREBOARD.

2-WIRE CONNECTION BETWEEN J-BOXES BRINGS TIMER DATA FROM TIMER TO ALLSPORT CONSOLE.

SCOREBOARD J-BOX		TIMER J-BOX
PIN#	WIRE COLOR	WIRE COLOR
13	RED/WHT	RED
14	GRN/WHT	BLACK

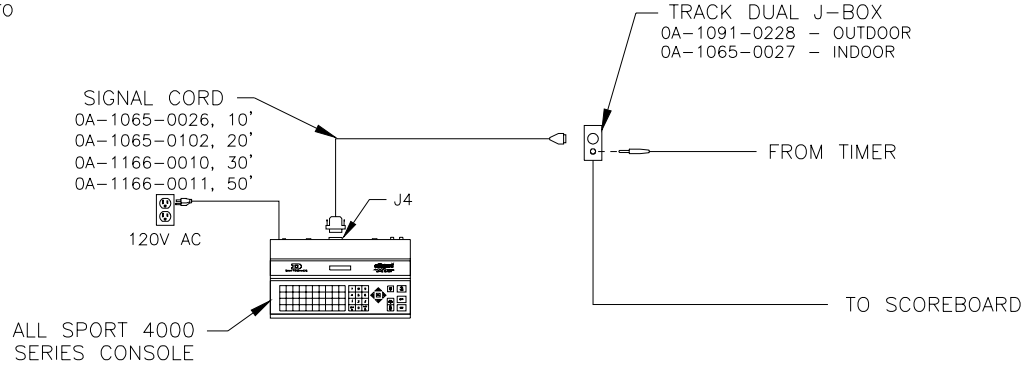


USE THIS SETUP IF THE TIMER AND ALL SPORT CONSOLE ARE TO BE AT SEPARATE LOCATIONS

FOR OMNISPORT 1000 CONNECTIONS REFER TO ED-5954.

FOR OMNISPORT 6000 CONNECTIONS REFER TO ED-8724.

USE THIS SETUP IF THE TIMER AND ALL SPORT CONSOLE ARE LOCATED TOGETHER.



REV.	DATE	DESCRIPTION	BY	APPR.
03	02 APR 03	UPDATED A J-BOX PART NUMBER.	MWM	
2	15 SEP 98	ADDED NOTE FOR OMNISPORT ED'S	CJB	
1	16 JUNE 98	ADDED PART NUMBERS	CJB	

DAKTRONICS, INC. BROOKINGS, SD 57006

PROJ: ALL SPORT 4000

TITLE: BLOCK DIAGRAMS, TRACK

DES. BY: DRAWN BY: A VANBEMMEL DATE: 12 JUN 97

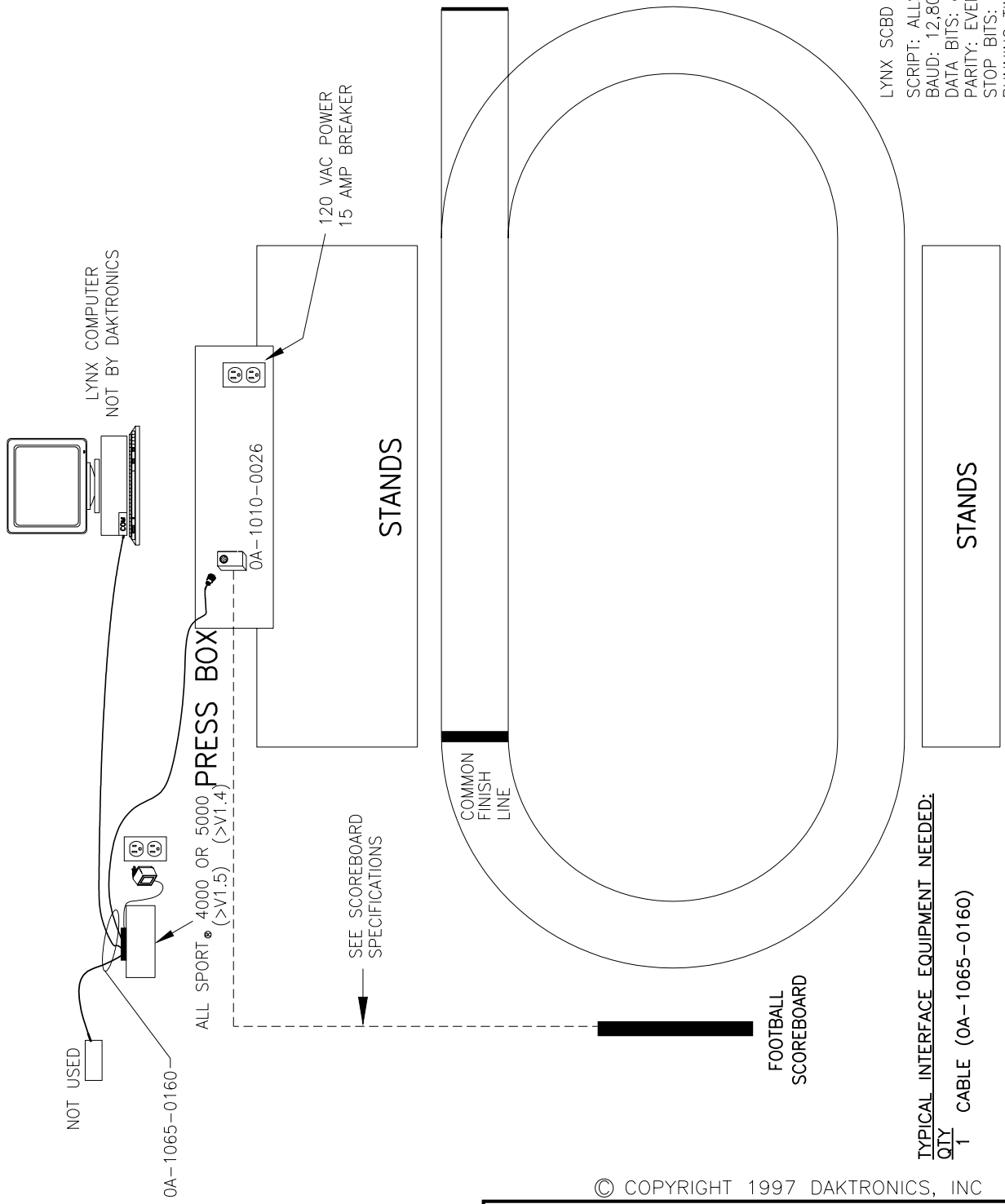
REVISION APPR. BY:

SCALE: NONE

1166-R04A-93764

TRACK SYSTEM RISER DIAGRAM

TRACK/FOOTBALL SCBD WITH FINISH LYNX AND ALL SPORT 4000



LYNX SCBD OUTPUT SETTINGS:
SCRIPT: ALLSPORT.LSS
BAUD: 12,800
DATA BITS: 8
PARITY: EVEN
STOP BITS: 2
RUNNING TIME: NORMAL
RESULTS: ON
PAGE SIZE: 1

TYPICAL INTERFACE EQUIPMENT NEEDED:
QTY
1 CABLE (0A-1065-0160)

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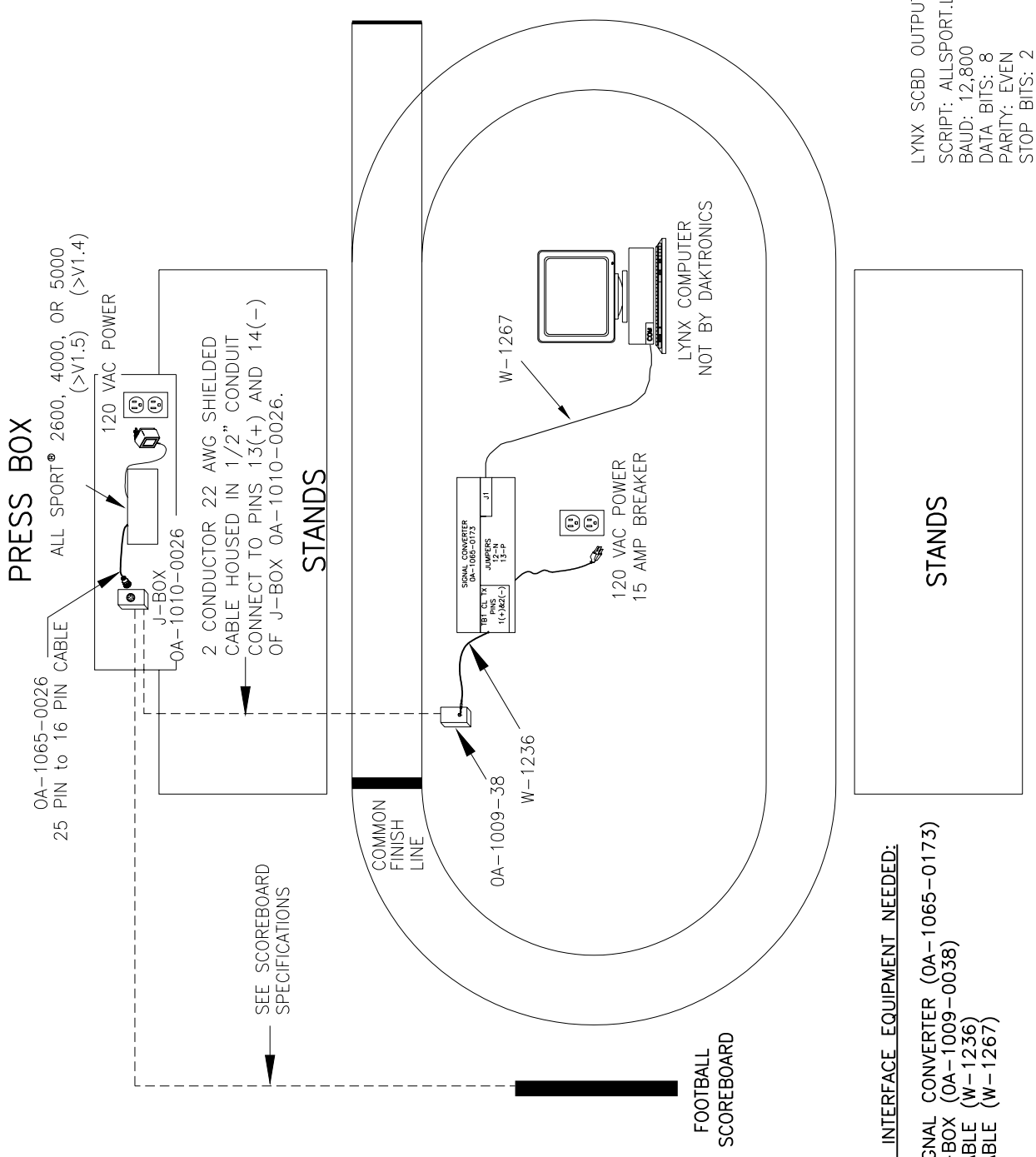
REV.	DATE	DESCRIPTION	BY	APPR.
02	05SEP01	CHANGED TEXT	GWS	JWARNE
1	15 SEP 98	ADDED LYNX SCBD OUTPUT SETTINGS	CJB	

DAKTRONICS, INC. BROOKINGS, SD 57006

PROJ: TRACK SYSTEM RISER DIAGRAM OPTION #3
TITLE: TRACK/FOOTBALL SCBD W/ FINISH LYNX, IN PRESSBOX
DES. BY: DRAWN BY: JWHITAK DATE: 07-28-97
REVISION APPR. BY:
SCALE: 1=1
1125-P08A-95152

TRACK SYSTEM RISER DIAGRAM

TRACK/FOOTBALL SCBD W/ FINISH LYNX



LYNX SCBD OUTPUT SETTINGS:
SCRIPT: ALLSPORT.LSS
BAUD: 12,800
DATA BITS: 8
PARITY: EVEN
STOP BITS: 2
RUNNING TIME: NORMAL
RESULTS: ON
PAGE SIZE: 1

TYPICAL INTERFACE EQUIPMENT NEEDED:

QTY	
1	SIGNAL CONVERTER (OA-1065-0173)
1	J-BOX (OA-1009-0038)
1	CABLE (W-1236)
1	CABLE (W-1267)

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REV.	DATE	DESCRIPTION	BY	APPR.
03	15 SEP 03	CHANGED SIGNAL CONVERTER DRAWING TO SHOW JACK NUMBERS AND PINS.	LWS	
02	05SEP01	CHANGED SOME TEXT	GWS	JWARNE
01	15 SEP 98	ADDED LYNX SCBD OUTPUT SETTINGS	CJB	

DAKTRONICS, INC. BROOKINGS, SD 57006

PROJ: TRACK SYSTEM RISER DIAGRAM OPTION #1

TITLE: TRACK/FOOTBALL SCBD W/ FINISH LYNX, IN FIELD

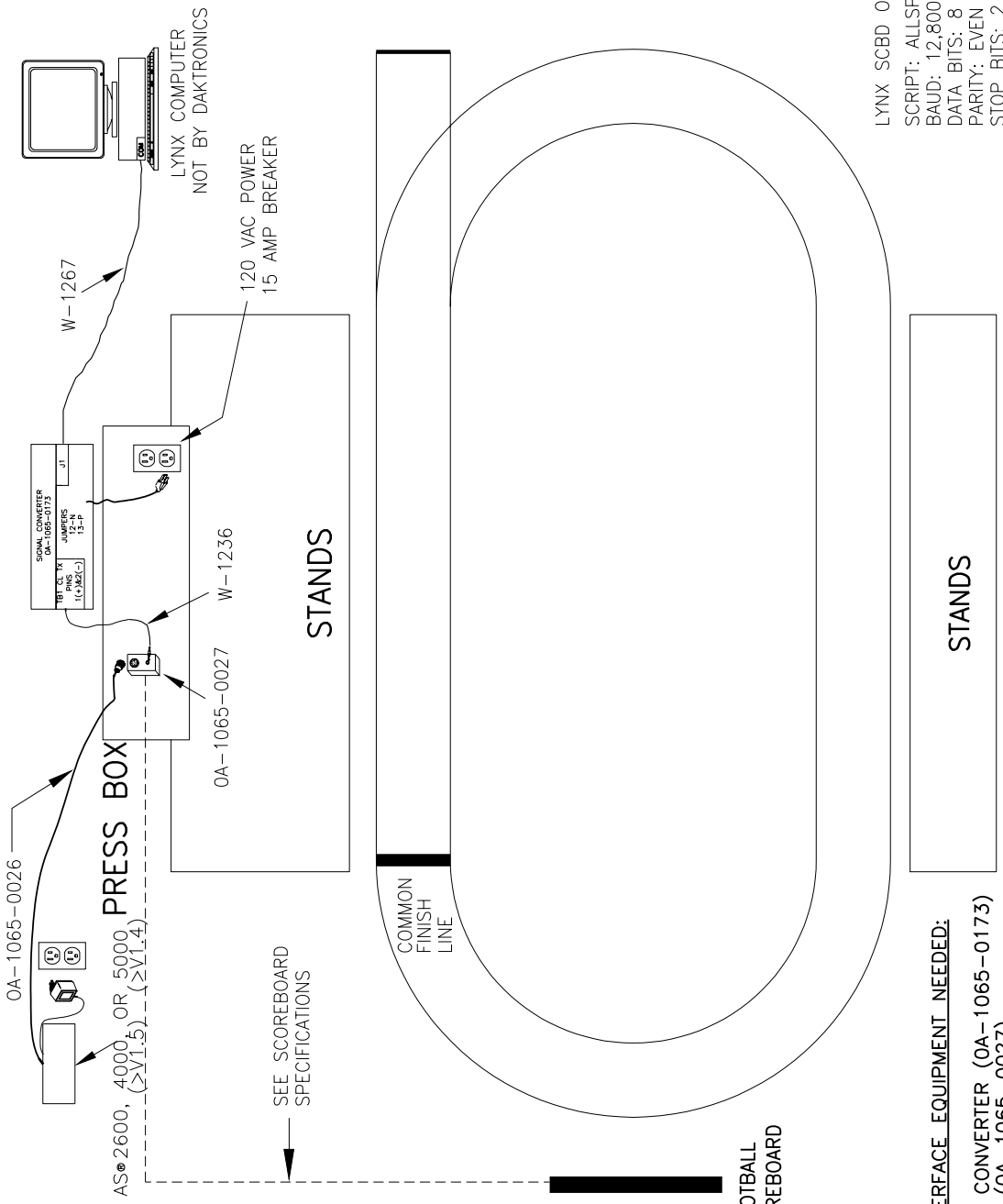
DES. BY: DRAWN BY: JWHITAK DATE: 07-28-97

REVISION 03 APPR. BY: SCALE: 1=1

1125-P08A-95153

TRACK SYSTEM RISER DIAGRAM

TRACK/FOOTBALL SCBD W/ FINISH LYNX



LYNX SCBD OUTPUT SETTINGS:

SCRIPT: ALLSPORT.LSS
BAUD: 12,800
DATA BITS: 8
PARITY: EVEN
STOP BITS: 2
RUNNING TIME: NORMAL
RESULTS: ON
PAGE SIZE: 1

TYPICAL INTERFACE EQUIPMENT NEEDED:

QTY	
1	SIGNAL CONVERTER (OA-1065-0173)
1	J-BOX (OA-1065-0027)
1	CABLE (W-1236)
1	CABLE (W-1267)

REV.	DATE	DESCRIPTION	BY	APPR.
04	15 SEP 03	CHANGED SIGNAL CONVERTER DRAWING TO SHOW JACK NUMBERS AND PINS.	LWS	
03	6 JUNE 01	ADDED AS 5000 OPTION	JDB	
02	15 SEP 98	ADDED LYNX SCBD OUTPUT SETTINGS	CJB	
01	26 JUNE 98	REVISED PART NUMBERS.	HBB	

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DAKTRONICS, INC. BROOKINGS, SD 57006

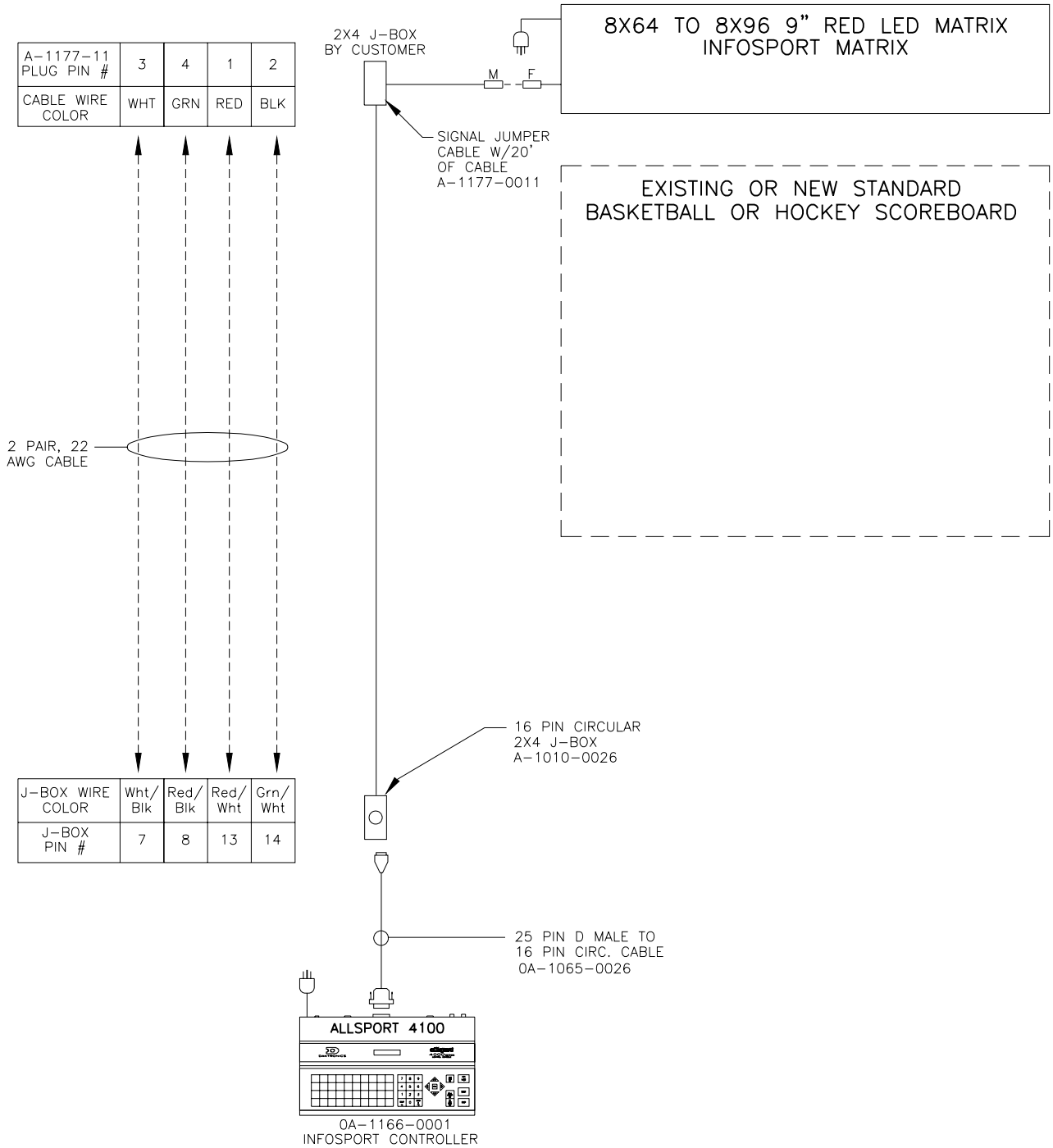
PROJ: TRACK SYSTEM RISER DIAGRAM OPTION #2

TITLE: TRACK/FOOTBALL SCBD W/ FINISH LYNX, IN PRESS BOX

DES. BY: DRAWN BY: JWHITAK DATE: 07-28-97

REVISION 04 APPR. BY: SCALE: 1=1

1125-P08A-95154



A-1177-11 PLUG PIN #	3	4	1	2
CABLE WIRE COLOR	WHT	GRN	RED	BLK

J-BOX WIRE COLOR	Wht/ Blk	Red/ Blk	Red/ Wht	Grn/ Wht
J-BOX PIN #	7	8	13	14

REV.	DATE	DESCRIPTION	BY	APPR.
1	10OCT97	REMOVED VENUS 1500 ADDED J-BOX CABLE CONNECTIONS	EB	

DAKTRONICS, INC. BROOKINGS, SD 57006

PROJ: INFOSPORT MATRIX

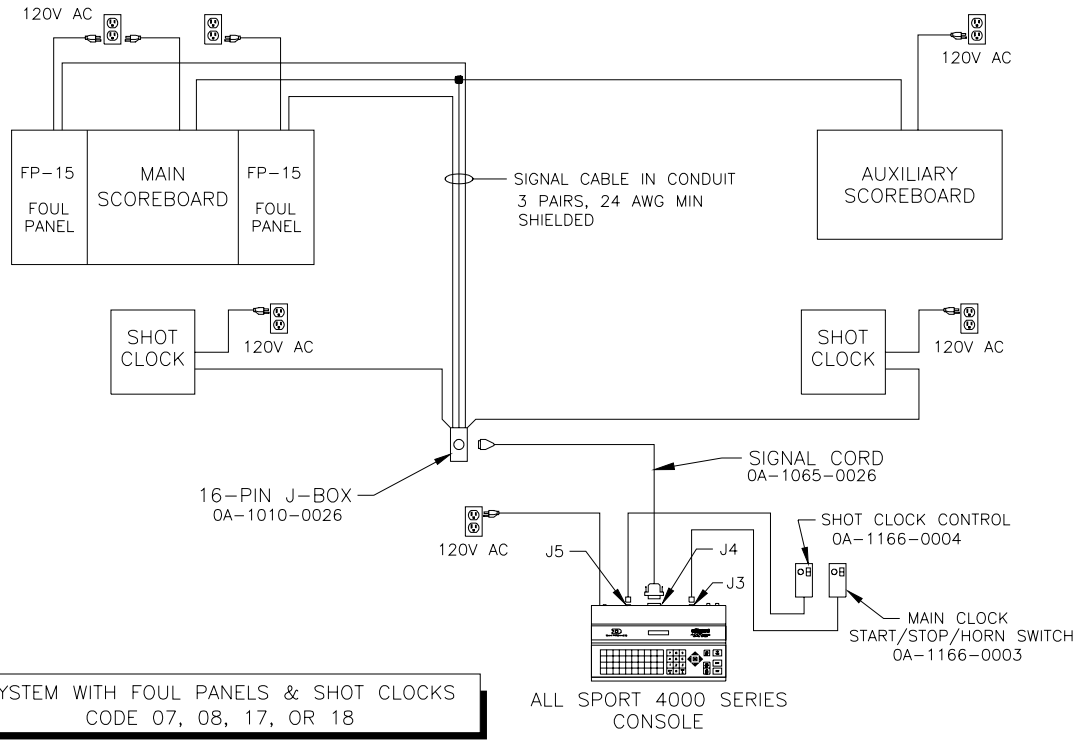
TITLE: INFOSPORT SYSTEM RISER DIAGRAM

DES. BY: EBRAVEK DRAWN BY: EBRAVEK DATE: 19MAR97

REVISION APPR. BY:

SCALE: 1=1

1177-R01A-95122



SYSTEM WITH FOUL PANELS & SHOT CLOCKS
CODE 07, 08, 17, OR 18

OUTPUT TABLE
CODE 07, 08, 17, OR 18

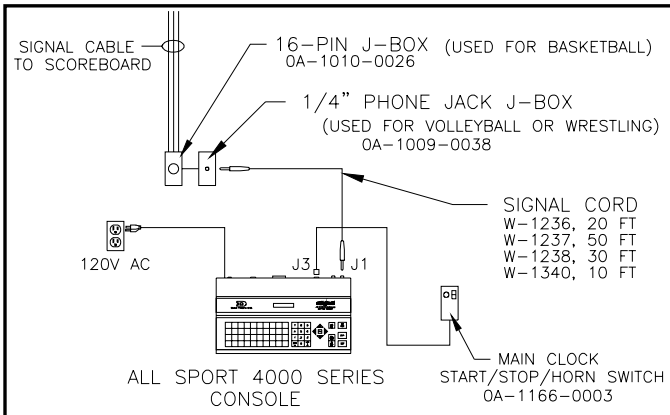
16-PIN J-BOX PIN#	16-PIN J-BOX WIRE COLOR	OUT-PUT #	SIGNAL TYPE
1	RED	1+	MAIN SCBD*
2	BLACK	1-	
3	WHITE	2+	LEFT FP-15
4	GREEN	2-	
5	ORANGE	3+	SHOT CLOCK
6	BLUE	3-	
7	WHT/BLK	4+	RIGHT FP-15
8	RED/BLK	4-	

*MAIN SCOREBOARD SIGNAL MAY BE BB-17 OR BB-18, DEPENDING ON CODE USED.

AUXILIARY SCOREBOARD MUST USE THE SAME SIGNAL TYPE AS THE MAIN SCOREBOARD.

ALL SPORT 4000 SERIES CONSOLE PART NUMBERS

MODEL	PART NO.	DESCRIPTION
4100	0A-1166-0001	120V STANDARD
4120	0A-1166-0005	230V STANDARD
4900	0A-1166-0007	120V CUSTOM
4920	0A-1166-0008	230V CUSTOM



WIRING BETWEEN J-BOXES

16-PIN J-BOX PIN#	16-PIN J-BOX WIRE COLOR	PHONE JACK J-BOX WIRE COLOR
1	RED	RED
2	BLACK	BLACK

TO USE THIS SYSTEM FOR VOLLEYBALL OR WRESTLING, INSTALL A PHONE JACK J-BOX, CONNECT TWO CONDUCTORS BETWEEN THE J-BOXES, AND CONNECT TO THE CONSOLE USING A PHONE PLUG CORD.

SYSTEM WITH FOUL PANELS & SHOT CLOCKS
VOLLEYBALL CODES 17 OR 73
WRESTLING CODES 51, 52, 53, OR 54

REV.	DATE	DESCRIPTION	BY	APPR.

DAKTRONICS, INC. BROOKINGS, SD 57006

PROJ: ALL SPORT 4000

TITLE: BLOCK DIAGRAM, BASKETBALL W/ FOULS, ONE CONSOLE

DES. BY: DRAWN BY: A VANBEMMEL DATE: 29 JUL 97

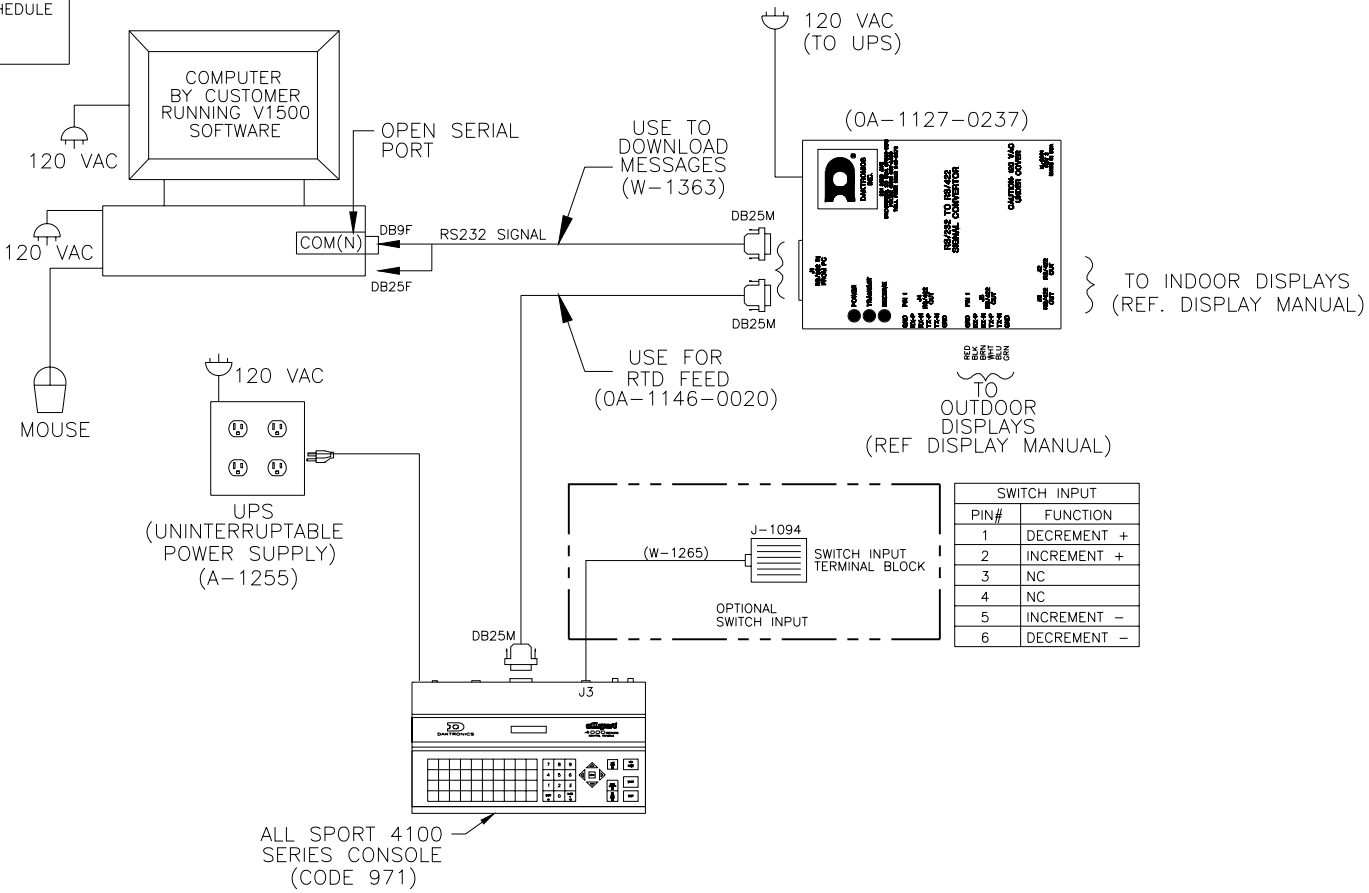
REVISION APPR. BY:

SCALE: NONE

1166-R04A-95222

REV.	DATE	DESCRIPTION	BY	APPR.
01	10 MAR 98	ADDED SWITCH INPUT TERMINAL BLOCK DETAIL	LLK	

COMPUTER SPECS
- IBM COMPATIBLE
- 486/66 OR HIGHER
- 4MB RAM
- MOUSE
- MICROSOFT WINDOWS 3.1 OR WINDOWS 95
- 1.33MB OF FREE DISK SPACE (FOR V1500 SOFTWARE)
- ADDITIONAL FREE DISK SPACE FOR MESSAGE AND SCHEDULE STORAGE.
- OPEN SERIAL PORT



SWITCH INPUT	
PIN#	FUNCTION
1	DECREMENT +
2	INCREMENT +
3	NC
4	NC
5	INCREMENT −
6	DECREMENT −

NOTES:

1. MANY DIFFERENT DISPLAY SIZES OR TECHNOLOGIES MAY BE USED.
2. USE EITHER THE DB9 OR DB25, DEPENDING ON YOUR PC'S REQUIREMENTS.
3. USE THE VENUS 1500 TO CREATE, DOWNLOAD, AND RUN MESSAGES. USE THE ALL SPORT TO SEND DATA FEED TO DISPLAYS.
4. SWITCH INPUT IS A DRY CONTACT CLOSURE.
5. SWITCHES SUPPLIED BY OTHERS.

DAKTRONICS, INC. BROOKINGS, SD 57006

PROJ: COUNTER/TIMER CONTROLLER; AS4100

TITLE: SYSTEM RISER DIAGRAM; RS/422

DES. BY: RKOERNER DRAWN BY: BBRAUN DATE: 26JAN98

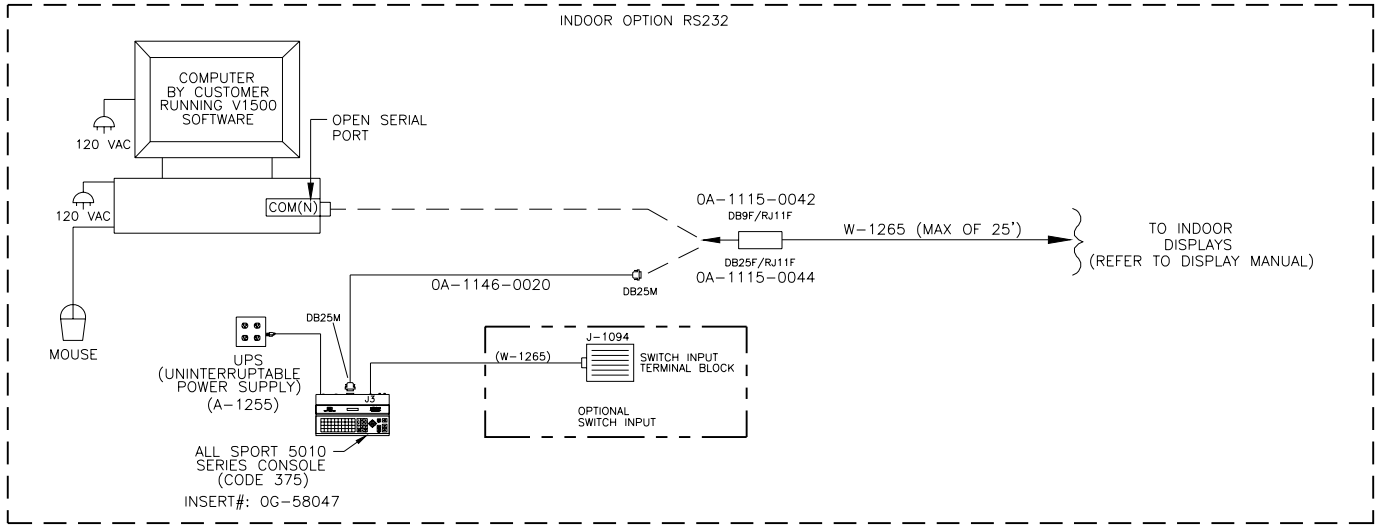
REVISION APPR. BY:

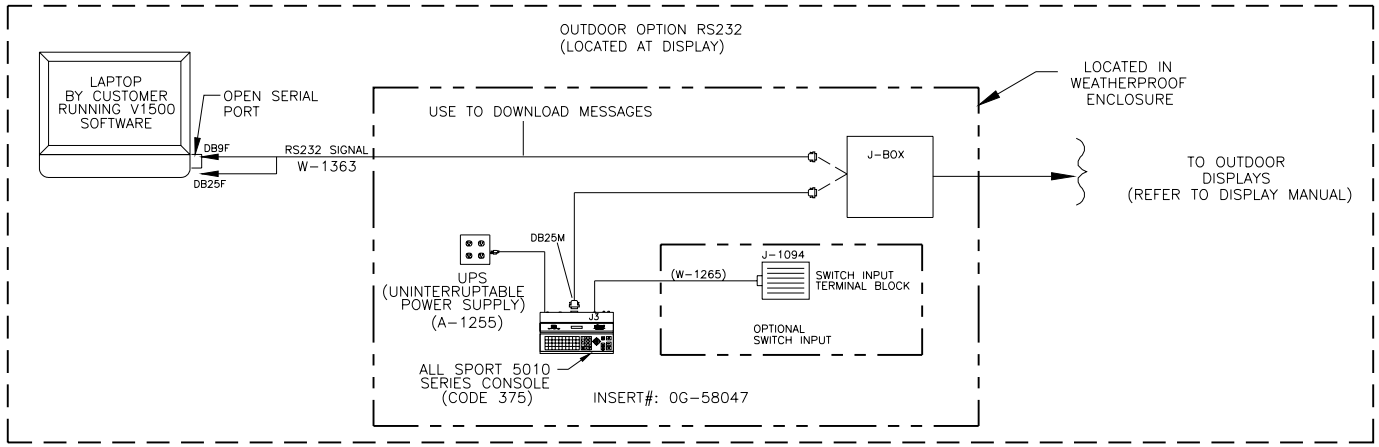
SCALE: NONE

1146-R01A-95713

REV.	DATE	DESCRIPTION	BY	APPR.
02	12 JUL 01	CHANGED TO A 5010 CONTROLLER, AND CHANGED CODE TO 375 INSTEAD OF 971. ALSO ADDED INSERT NUMBER.	NW	
01	10 MAR 98	ADDED SWITCH INPUT TERMINAL BLOCK DETAIL.	LLK	

COMPUTER SPECS
- IBM COMPATIBLE
- 486/66 OR HIGHER
- 4MB RAM
- MOUSE
- MICROSOFT WINDOWS 3.1 OR WINDOWS 95
- 1.33MB OF FREE DISK SPACE (FOR V1500 SOFTWARE)
- ADDITIONAL FREE DISK SPACE FOR MESSAGE AND SCHEDULE STORAGE.
- OPEN SERIAL PORT





NOTES:

1. MANY DIFFERENT DISPLAY SIZES OR TECHNOLOGIES MAY BE USED WITHIN NETWORK.
2. USE EITHER THE DB9 OR DB25, DEPENDING ON YOUR PC'S REQUIREMENTS.
3. USE THE VENUS 1500 TO CREATE, DOWNLOAD, AND RUN MESSAGES. USE THE ALL SPORT TO SEND DATA FEED TO DISPLAYS.
4. SWITCH INPUT IS A DRY CONTACT CLOSURE.
5. SWITCHES SUPPLIED BY OTHERS.

SWITCH INPUT	
PIN#	FUNCTION
1	DECREMENT +
2	INCREMENT +
3	NC
4	NC
5	INCREMENT −
6	DECREMENT −

DAKTRONICS, INC. BROOKINGS, SD 57006

PROJ: COUNTER/TIMER CONTROLLER; AS4100

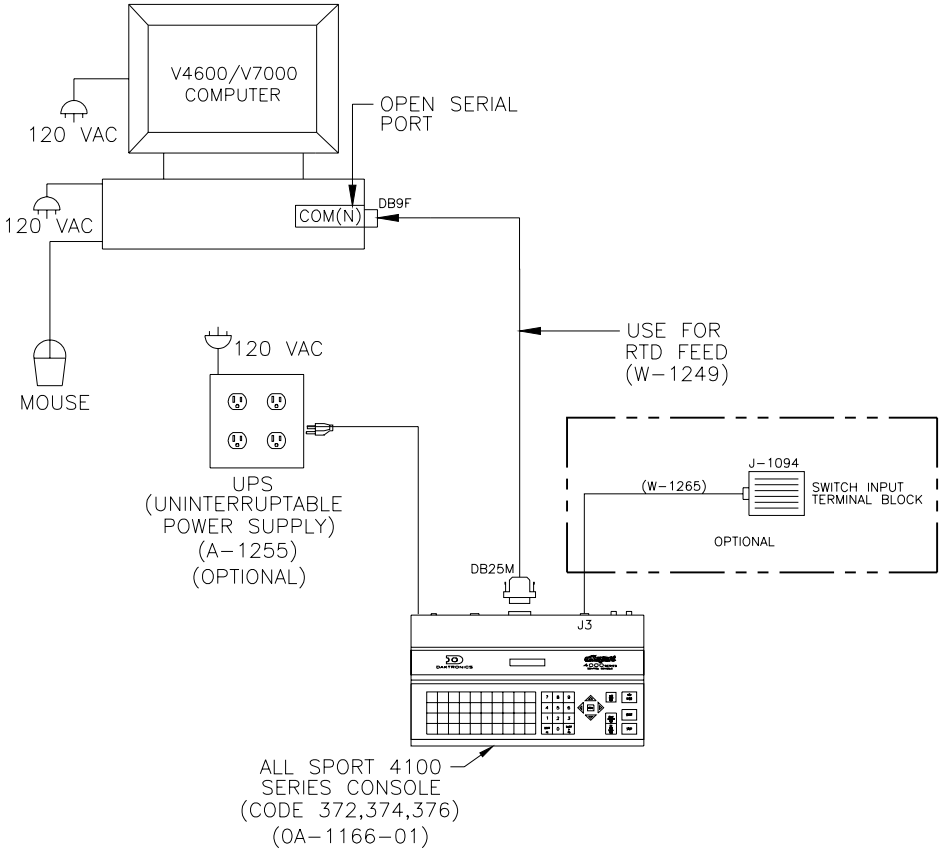
TITLE: SYSTEM RISER DIAGRAM; RS232

DES. BY: RKOERNER DRAWN BY: BBRAUN DATE: 26JAN98

REVISION APPR. BY:

SCALE: NONE

1146-R01A-95696



NOTES:

1. MANY DIFFERENT DISPLAY SIZES OR TECHNOLOGIES MAY BE USED.
2. USE EITHER THE DB9 OR DB25, DEPENDING ON YOUR PC'S REQUIREMENTS.
3. USE THE VENUS 4600/7000 TO CREATE, DOWNLOAD, AND RUN MESSAGES. USE THE ALL SPORT TO SEND DATA FEED TO DISPLAYS.
4. SWITCH INPUT IS A DRY CONTACT CLOSURE.
5. SWITCHES SUPPLIED BY OTHERS.

REV.	DATE	DESCRIPTION	BY	APPR.

DAKTRONICS, INC. BROOKINGS, SD 57006

PROJ: A/S4100

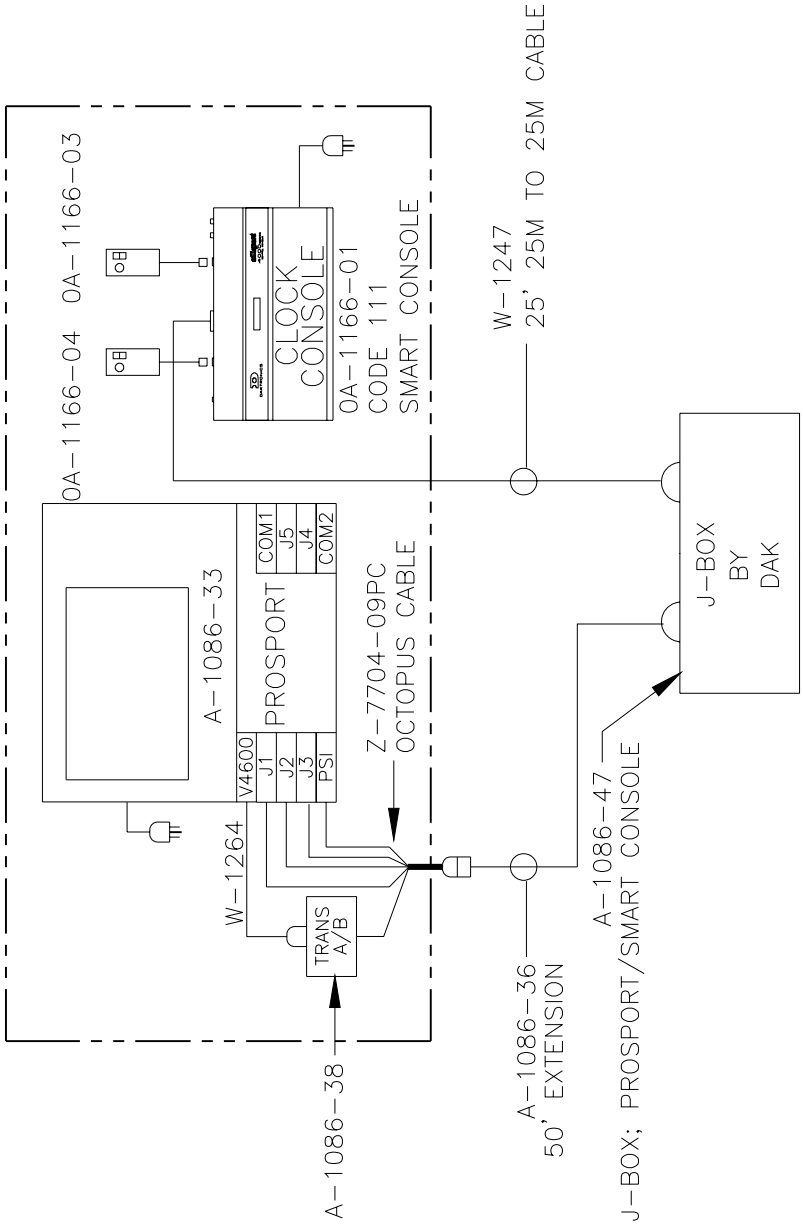
TITLE: SYSTEM RISER; COUNTER/TIMER CTRL. V4600/V7000

DES. BY: EBRAVEK DRAWN BY: CBRECZI DATE: 11 MAR 98

REVISION APPR. BY:

SCALE: 1=1

1166-R01A-100373



REV.	DATE	DESCRIPTION	BY	APPR.

DAKTRONICS, INC. BROOKINGS, SD 57006

PROJ: PROSPORT

TITLE: ALLSPORT SMART CONSOLE WITH PROSPORT

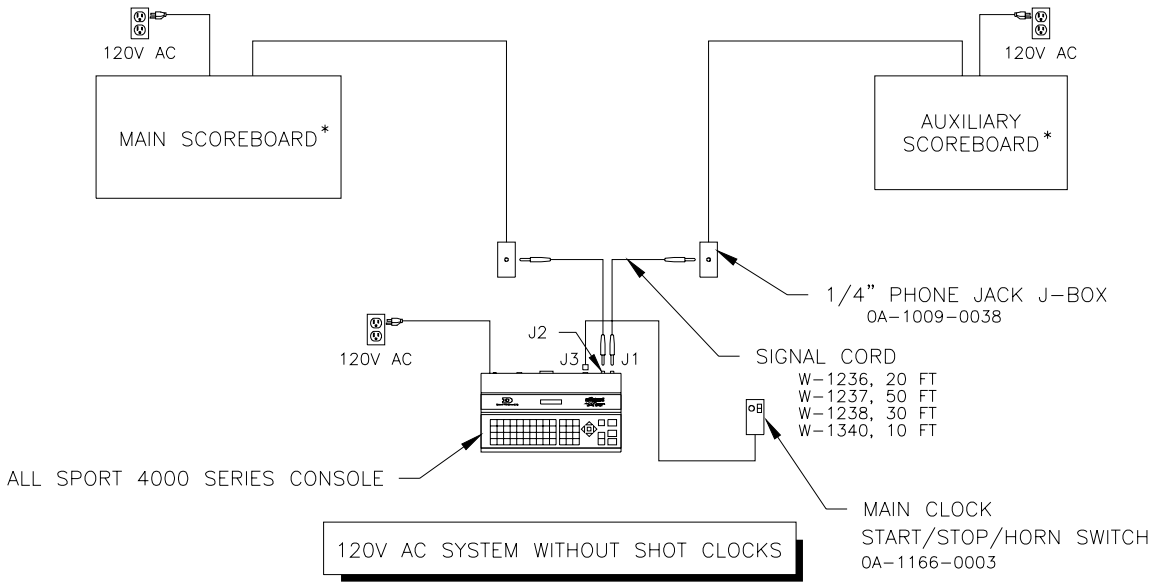
DES. BY: EBRAVEK DRAWN BY: RASMUS DATE: 30MAR98

REVISION

APPR. BY: EBRAVEK

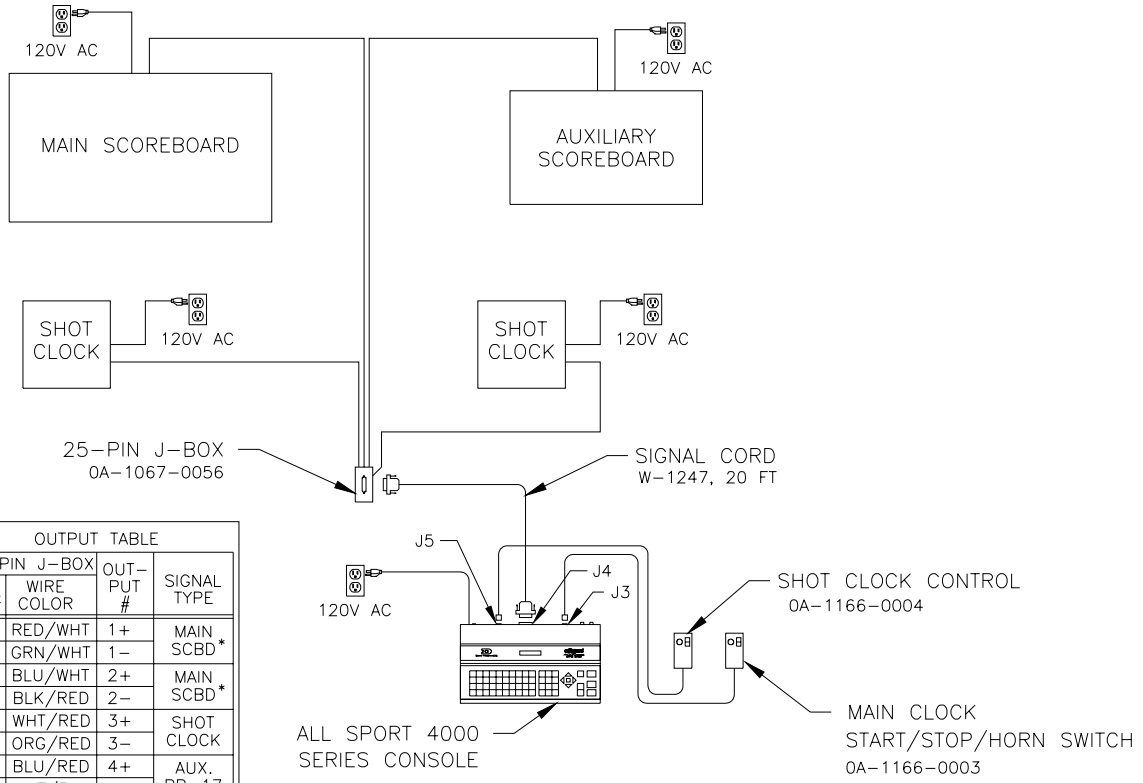
SCALE: 1=1

1086-E07A-100460



120V AC SYSTEM WITHOUT SHOT CLOCKS

*BOTH SCOREBOARDS MUST USE THE SAME SIGNAL TYPE TO USE THE WIRING METHOD SHOWN



OUTPUT TABLE

25-PIN J-BOX PIN#	WIRE COLOR	OUT-PUT #	SIGNAL TYPE
14	RED/WHT	1+	MAIN SCBD*
15	GRN/WHT	1-	
16	BLU/WHT	2+	MAIN SCBD*
17	BLK/RED	2-	
18	WHT/RED	3+	SHOT CLOCK
19	ORG/RED	3-	
22	BLU/RED	4+	AUX. BB-17
7	WHT/BLK	4-	

*MAIN SCOREBOARD SIGNAL MAY BE BB-17 OR BB-18, DEPENDING ON CODE USED.

120V AC SYSTEM WITH SHOT CLOCKS USING 25-PIN J-BOX

DAKTRONICS, INC. BROOKINGS, SD 57006

PROJ: ALL SPORT 4000

TITLE: BLOCK DIAGRAM, BASKETBALL SYSTEM W/25-PIN

DES. BY: DRAWN BY: A VANBEMMEL DATE: 06 JUL 98

APPR. BY:

SCALE: NONE

1166-R04A-104541

REV.	DATE	DESCRIPTION	BY	APPR.

Appendix B: Output Codes

The following tables describe what is on each output of every code in the All Sport 4000. At the end of each table there is a list of scoreboards that are supported under each output.

B.1 Test Code

CODE NO	OUTPUT 1	OUTPUT 2	OUTPUT 3	OUTPUT 4
01	Test Data	Test Data	Test Data	Test Data

B.2 Basketball Code

CODE NO	OUTPUT 1	OUTPUT 2	OUTPUT 3	OUTPUT 4
03	BB-18	BB-18	G/S Clock	BB-17
04	BB-18A	BB-18A	G/S Clock	BB-17A
05*	BB-18	BB-18	G/S Clock	BB-17
06*	BB-18A	BB-18A	G/S Clock	BB-17A
07	BB-18	FP-15 (Driver 1)	G/S Clock	FP-15 (Driver 2)
08	BB-18A	FP-15 (Driver 1)	G/S Clock	FP-15 (Driver 2)
11	BB-17	BB-17	G/S Clock	BB-17
12	BB-17A	BB-17A	G/S Clock	BB-17A
13*	BB-17	BB-17	G/S Clock	BB-17
14*	BB-17A	BB-17A	G/S Clock	BB-17A
15*	FP-15 (Driver 1)	FP-15 (Driver 2)	-	FP-15 (Driver 4**)
16*	FP-25 (Driver 1)	FP-25 (Driver 2)	-	FP-25 (Driver 4**)
17	BB-17	FP-15 (Driver 1)	G/S Clock	FP-15 (Driver 2)
18	BB-17A	FP-15 (Driver 1)	G/S Clock	FP-15 (Driver 2)
161	H-2023 (Driver 1)	H-2023 (Driver 2)	G/S Clock	H-2023 (Driver 3)

BB-18 includes BB-1113S, BB-1113B, BB-1813S, BB-1813B & BB-144CL, BB-2021, BB-2025
BB-18A includes BB-1113S, BB-1113B, BB-1813S-A, BB-1813B-A & BB-114CL
BB-17 includes BB-1013S, BB-1013B, BB-1713S, BB-1713B, BB-87 & BB-10
BB-17A includes BB-1013S, BB-1013B, BB-1713S-A, BB-1713B-A & BB-87
*Codes 05, 06, 13, 14, 15 & 16 are to be used in two console mode.
**Codes15 & 16 4th output is used as an input to time/score console.

B.3 Four-Digit Timing/Scoring

CODE NO	OUTPUT 1	OUTPUT 2	OUTPUT 3	OUTPUT 4
10	PCS-413S	PCS-413S	PCS-413S	PCS-413S

PCS-413S includes PCS-413, TI-413 & TI-418

B.4 Football

CODE NO	OUTPUT 1	OUTPUT 2	OUTPUT 3	OUTPUT 4
20	FB-8	FB-8	DG-230	-
21	FB-14	FB-14	DG-230	-
22	FB-1514	FB-1514	DG-230	-
23	FB-11TS	FB-11TS	DG-230	-
24	FB-12	FB-12	DG-230	-
25	MS-9	MS-9	DG-230	-
26	FB-16T (Driver 1)	FB-16T (Driver 2)	DG-230	-
27	FB-18 (Driver 1)	FB-18 (Driver 2)	DG-230	-

FB-8 includes FB-8S, S-8FB, FB-824 & SO-918
FB-14 includes FB-13S & FB-14TS
FB-1514 includes FB-14S, FB-15ST, FB-1424 , FB-1430, FB-1524 & FB-1530
FB-12 includes FB-12 & FB/BA-12
MS-9 includes MS-9 & MS-918
FB-18 includes FB-18TS, FB-1630, FB-1730, FB-1830 & FB-1624

B.5 Baseball/Softball

CODE NO	OUTPUT 1	OUTPUT 2	OUTPUT 3	OUTPUT 4
30*	FB-16 (Driver 1)	FB-16 (Driver 2)	-	-
31*	MS-9	MS-9	-	-
32*	FB-14	FB-14	-	-
33	FB-15	FB-15	-	-
34	FB-12	FB-12	-	-
35	BA-15	BA-15	-	-
36	BA-36 (Driver 1)	BA-36 (Driver 2)	BA-36 (Driver 3)	-
37	BA-518	BA-518	-	-
38	BA-2001 (Driver 1)	BA-2001 (Driver 2)	BA-2001 (Driver 3)	-
39	FB-16	FB-16	-	-
40	BA-37 (Driver 1)	BA-37 (Driver 2)	BA-37 (Driver 3)	-
44*	BA-718	BA-718	-	-
138	BA-2001 (Driver 1)	BA-2001 (Driver 2)	BA-2001 (Driver 3)	RTD

FB-16 includes FB-16T, FB-18TS, FB-1624, FB-1630, FB-1730 & FB-1830
MS-9 includes MS-9 & MS-918
FB-14 includes FB-14S, FB-15TS, FB-1424, FB-1524, FB-1430 & FB-1530
FB-15 includes FB-14S, FB-15TS, FB-1424, FB-1524, FB-1430, FB-1530 & BA-1018
FB-12 includes FB/BA-12
BA-15 includes BA-1518 & BA-1524
BA-36 includes BA-36, BA-43, BA-3624 & BA-4324
BA-518 includes BA-815, BA-518A, BA-618 & BA-624
FB-16 includes FB-16T, FB-18TS, FB-1630, FB-1730 & FB-1830
BA-37 includes BA-3718 & BA-3724
BA-2001 includes BA-2001 & BA-2002
*Codes 30, 31, 32 & 44 have a time of day clock.

B.6 Track

CODE NO	OUTPUT 1	OUTPUT 2	OUTPUT 3	OUTPUT 4
41	FB-15	FB-15	TK-69	-
42	FB-14	FB-14	TK-69	-
43	FB-16 (Driver 1)	FB-16 (Driver 2)	TK-69	-
45	FB-15	FB-15	TK-69	-
46	FB-14	FB-14	TK-69	-
47	FB-16 (Driver 1)	FB-16 (Driver 2)	TK-69	-

FB-15 include FB-14S, FB-15TS, FB-1424, FB-1524, FB-1430 & FB-1530
FB-14 include FB-14TS
FB-16 include FB-16T, FB-18TS, FB-1630, FB-1730 & FB-1830

B.7 Wrestling

CODE NO	OUTPUT 1	OUTPUT 2	OUTPUT 3	OUTPUT 4
51	BB-17	BB-17	-	BB-17
52	BB-17A	BB-17A	-	BB-17A
53	BB-18	BB-18	-	BB-17
54	BB-18A	BB-18A	-	BB-17A
55	Matside® II (Driver 1)	Matside II (Driver 2)	-	
56	Matside II	Matside II	-	-
57	WR-2024 (Driver 1)	BB-18A	BB-18	BB17

BB-17 includes BB-1013S, BB-1013B, BB-1713S, BB1713B, BB-87 & BB-10
BB-17A includes BB-1013S, BB1013B, BB-1713S-A, BB1713B-A & BB-87
BB-18 includes BB-1113S, BB-1113B, BB-1813S, BB-1813B & BB-144CL
BB-18A includes BB-1113S, BB-1113B, BB-1813S-A, BB1813B-A & BB-114CL
Matside II code 55 has the advantage time clock; code 56 does not have the advantage time clock.

B.8 Hockey

CODE NO	OUTPUT 1	OUTPUT 2	OUTPUT 3	OUTPUT 4
62	H-20 (Driver 1)	H-20 (Driver 2)	H-20 (Driver 3)	SG-4
63	H-24 (Driver 1)	H-24 (Driver 2)	H-24 (Driver 3)	SG-4

H-20 includes H-20, H-28, H-80 & H-112
H-24 includes H-24, H-32, H-96 & H-128
SG-4 includes SG-413 shots on goal option for H-20 & H-24 boards.

B.9 Soccer

CODE NO	OUTPUT 1	OUTPUT 2	OUTPUT 3	OUTPUT 4
64	SO-1624 (Driver 1)	SO-1624 (Driver 2)	-	-
65	FB-824	FB-824	-	-
66	MS-916	MS-916	-	-
67	SO-1424	SO-1424	-	-
68	FB-1624 (Driver 1)	FB-1624 (Driver 2)	-	-
69	SO-1930 (Driver 1)	SO-1930 (Driver 2)	-	-

FB-824 includes FB-824, SO-824 & S0-918
SO-1424 includes SO-1424, FB-1424, FB-1524 & FB-1530
FB-1624 includes FB-1624, FB-1630, FB-1730 & FB-1830
SO-1930 includes SO-1830, SO-1930, SO-2030

B.10 Volleyball

CODE NO	OUTPUT 1	OUTPUT 2	OUTPUT 3	OUTPUT 4
71	BB-10	BB-10	-	BB-10
72	VB-87	VB-87	-	VB-87
73	BB-18	BB-18	-	BB-18
74	BA-5, BA-7	BA-5, BA-7	-	-

BB-10 includes BB-1013S, BB-1013B, BB-1713S, BB1713B, BB-1713S-A, BB1713B-A, and BB-10
BB-18 includes BB-1113S, BB-1113B, BB-1813S, BB-1813B, BB-1813S-A, and BB1813B-A

B.11 Team Score

CODE NO	OUTPUT 1	OUTPUT 2	OUTPUT 3	OUTPUT 4
81	SS-127	SS-127	-	-

B.12 Two-Digit Timing

CODE NO	OUTPUT 1	OUTPUT 2	OUTPUT 3	OUTPUT 4
82	DG-230	DG-230	-	-

DG-230 includes DG-230, DG-236, TI-213 & TI-218

B.13 Team Name

CODE NO	OUTPUT 1	OUTPUT 2	OUTPUT 3	OUTPUT 4
98	-	-	-	Team Name

Team Name includes models with team name message centers.

B.14 Time Of Day

CODE NO	OUTPUT 1	OUTPUT 2	OUTPUT 3	OUTPUT 4
99	TOD	-	-	-

TOD includes all models with clocks.

B.15 Message Controller

CODE NO	OUTPUT 1	OUTPUT 2	OUTPUT 3	OUTPUT 4
101	-	-	-	Info Sport

B.16 Smart Console

CODE NO	OUTPUT 1	OUTPUT 2	OUTPUT 3	OUTPUT 4
111	G/S Clock	G/S Clock	5 Digit Clock	RTD
112	DG 230	G/S Clock	4 Digit Clock	RTD

B.17 Pitch & Speed

CODE NO	OUTPUT 1	OUTPUT 2	OUTPUT 3	OUTPUT 4
191	Digit 123	TI-418, CT-2001	DG230	RTD
192	Digit 123	TI-418, CT-2001	DG230	RTD
193	Digit 123	TI-418, CT-2001	DG230	RTD
194	Digit 123	TI-418, CT-2001	DG230	RTD

B.18 Multi-Purpose Timer (2, 4, or 6-digit)

CODE NO	OUTPUT 1	OUTPUT 2	OUTPUT 3	OUTPUT 4
95	2 Digit Clock	-	-	-
96	4 Digit Clock	-	-	-
97	6 Digit Clock	-	-	-

B.19 Shots On Goal

CODE NO	OUTPUT 1	OUTPUT 2	OUTPUT 3	OUTPUT 4
196	SG-4	SG-4	SG-4	RTD
197	Period - SOG	Period - SOG	-	RTD

B.20 GP99 Multi Sport

CODE NO	OUTPUT 1	OUTPUT 2	OUTPUT 3	OUTPUT 4
274	GP99	-	-	-
271	GP99	-	-	-
272	GP99	-	-	-
275	BB and FB Models	-	-	-
276	WR-2024	-	-	-

B.21 Judo

CODE NO	OUTPUT 1	OUTPUT 2	OUTPUT 3	OUTPUT 4
281	WR-2021	WR-2021	WR-2021	WR-2021
284	WR-2021	WR-2021	WR-2021	WR-2021

B.22 Karate

CODE NO	OUTPUT 1	OUTPUT 2	OUTPUT 3	OUTPUT 4
282	WR-2022	WR-2022	WR-2022	WR-2022
285	WR-2022	WR-2022	WR-2022	WR-2022

B.23 Tae Kwon Do

CODE NO	OUTPUT 1	OUTPUT 2	OUTPUT 3	OUTPUT 4
283	WR-2023	WR-2023	WR-2023	WR-2023
286	WR-2023	WR-2023	WR-2023	WR-2023

B.24 Boxing

CODE NO	OUTPUT 1	OUTPUT 2	OUTPUT 3	OUTPUT 4
291	BB-2018	-	-	-

B.25 Photo Finish Interface

CODE NO	OUTPUT 1	OUTPUT 2	OUTPUT 3	OUTPUT 4
241	TIME OF DAY	RUN TIME	TOD/RUN TIME	RTD
242	TIME OF DAY	RUN TIME	TOD/RUN TIME	RTD
243	TIME OF DAY	GAME TIME	TOD/GAME TIME	RTD
244	SCORE	EVENT/HEAT	-	MULTILINE

B.26 Event Counter

CODE NO	OUTPUT 1	OUTPUT 2	OUTPUT 3	OUTPUT 4
371	DAY/TIME	TIME/DAY	-	VENUS 1500 RTD
372	DAY/TIME	TIME/DAY	-	STANDARD RTD
373	VALUE	-	-	VENUS 1500 RTD
374	VALUE	-	-	STANDARD RTD
375	VALUE	-	-	VENUS 1500 RTD
376	VALUE	-	-	STANDARD RTD

B.27 Tennis

CODE NO	OUTPUT 1	OUTPUT 2	OUTPUT 3	OUTPUT 4
220	TN-2001	-	-	-

B.28 Auto Racing

CODE NO	OUTPUT 1	OUTPUT 2	OUTPUT 3	OUTPUT 4
301, 401	CH-2001 Pos 1	Pos 2	Pos 3	-
302, 402	CH-2001 Pos 4	Pos 5	Pos 6	-
303, 403	CH-2001 Pos 7	Pos 8	Pos 9	-
304, 404	CH-2001 Pos 10	Pos 11	Pos 12	-
	10 Position Pylon			
316, 311, 411	Pos 1-10 (Driver 1)	(Driver 2)	(Driver 3)	-
317, 312, 412	Pos 11-20 (Driver 1)	(Driver 2)	(Driver 3)	-
318, 313, 413	Pos 21-30 (Driver 1)	(Driver 2)	(Driver 3)	-
319, 314, 414	Pos 31-40 (Driver 1)	(Driver 2)	(Driver 3)	-
	15 Position Pylon			
326, 321, 421	Pos 1-15 (Driver 1)	(Driver 2)	(Driver 3)	-
327, 322, 422	Pos 16-30 (Driver 1)	(Driver 2)	(Driver 3)	-
328, 323, 423	Pos 31-45 (Driver 1)	(Driver 2)	(Driver 3)	-
331, 431	CH-14XX (Driver 1)	(Driver 2)	4 Digit Timer	-
332, 432	CH-16XX (Driver 1)	(Driver 1)	4 Digit Timer	-
333, 433	AR-XXXX Pos 1-5	Pos 6-10	Pos 11-15	-
334, 434	AR-XXXX Pos 16-20	Pos 21-25	Pos 26-30	-
335, 435	AR-XXXX Pos 31-35	Pos 36-40	Pos 41-45	
	15 Position Pylon			
991	Pos 1-5	Pos 6-10	Pos 11-15	-
	10 Position Pylon			
992	(Driver 1)	(Driver 2)	(Driver 3)	-
933	CH-14XX (Driver 1)	(Driver 2)	4 Digit Timer	-
994	CH-16XX (Driver 1)	(Driver 1)	4 Digit Timer	-
995	AR-XXXX Pos 1-5	Pos 6-10	Pos 11-15	-

B. 29 Compulink Interface

CODE NO	OUTPUT 1	OUTPUT 2	OUTPUT 3	OUTPUT 4
502	Top Line & Btm Line	Top Line & Btm Line	-	-

Appendix C: Sport Inserts

The following drawings are copies of the sport inserts that can be used in case one is lost. If the insert number is known (by looking at the operation page for the sport), refer to the following list for the corresponding drawing number. The drawings have been filed in numerical order, but for your convenience, the listing has been broken down by sport.

To use the temporary insert, make a full-size photocopy of the page and carefully cut out the insert. To order a replacement insert, refer to the numbers on the cover page of this manual.

Auto Racing

LL-2407 . . . . . **Drawing A-100149**
LL-2408 . . . . . **Drawing A-102196**

Baseball

LL-2264 . . . . . **Drawing A-86103**
LL-2265 . . . . . **Drawing A-86104**
LL-2266 . . . . . **Drawing A-86105**

Basketball

LL-2261 . . . . . **Drawing A-86100**
LL-2262 . . . . . **Drawing A-86101**
LL-2263 . . . . . **Drawing A-86102**
LL-2330 . . . . . **Drawing A-94024**

Boxing

LL-2347 . . . . . **Drawing A-96892**

Compulink

0G-139422 . . . . . **Drawing A-139422**

Event Counter

LL-2369 . . . . . **Drawing A-58047**

Football

LL-2268 . . . . . **Drawing A-86107**
LL-2371 . . . . . **Drawing A-100150**

Hockey

LL-2274 . . . . . **Drawing A-86114**

Judo

LL-2346 . . . . . **Drawing A-96891**
Drawing A-98376

Karate

LL-2345 . . . . . **Drawing A-96890**

Drawing A-98374

Message Controller
LL-2302 . . . . . **Drawing A-91836**

Multi Sport
0G-96888 . . . . . **Drawing A-96888**

Pitch And Speed
LL-2332 . . . . . **Drawing A-90890**

Shots On Goal
LL-2334 . . . . . **Drawing A-94925**

Smart Console
LL-2333 . . . . . **Drawing A-93730**

Soccer
LL-2269 . . . . . **Drawing A-86109**
LL-2350 . . . . . **Drawing A-97142**

Tae Kwon Do
LL-2344 . . . . . **Drawing A-96889**
Drawing A-98375

Team Name
LL-2276 . . . . . **Drawing A-86116**

Tennis
0G-103677 . . . . . **Drawing A-103677**
0G-124217 . . . . . **Drawing A-124217**

Test Console
LL-2272 . . . . . **Drawing A-86112**

Timing/Scoring
LL-2270 . . . . . **Drawing A-86110**
LL-2271 . . . . . **Drawing A-86111**
LL-2349 . . . . . **Drawing A-97141**

Track/Swimming
LL-2267 . . . . . **Drawing A-86106**
LL-2372 . . . . . **Drawing A-100151**

Volleyball

LL-2273 . . . . . **Drawing A-86113**

Wrestling

LL-2275 . . . . . **Drawing A-86115**
LL-2287 . . . . . **Drawing A-86973**

REV.	DATE	DESCRIPTION	BY	APPR.
2	29 JUL 99	CHANGED PART NUMBER FROM LL-2369 TO OG-58047.	AVB	AVB
1	26 OCT 98	ADDED CODE 377	DDL	

DAKTRONICS, INC. BROOKINGS, SD 57006

PROJ:

TITLE: INSERT, EVENT COUNTER CODES 371-376

DES. BY: AVB DRAWN BY: A VANBEMMEL DATE: 18 FEB 98

REVISION APPR. BY:

SCALE: 1=1

1166-R08A-58047

REV.	DATE	DESCRIPTION	BY	APPR.
1	27SEP96	DELETED CODES 07, 08, 17, 18.	AVB	AVB

4	13 JAN 99	CHG CODE 111 TO 161.	AVB	
3	07DEC98	ADDED CODE 111	DDL	
2	16APR98	ADDED BB-2021 AND 2025 TO INSERT.	DDL	
REV.	DATE	DESCRIPTION	BY	APPR.

DAKTRONICS, INC. BROOKINGS, SD 57006

PROJ: ALL SPORT 4000

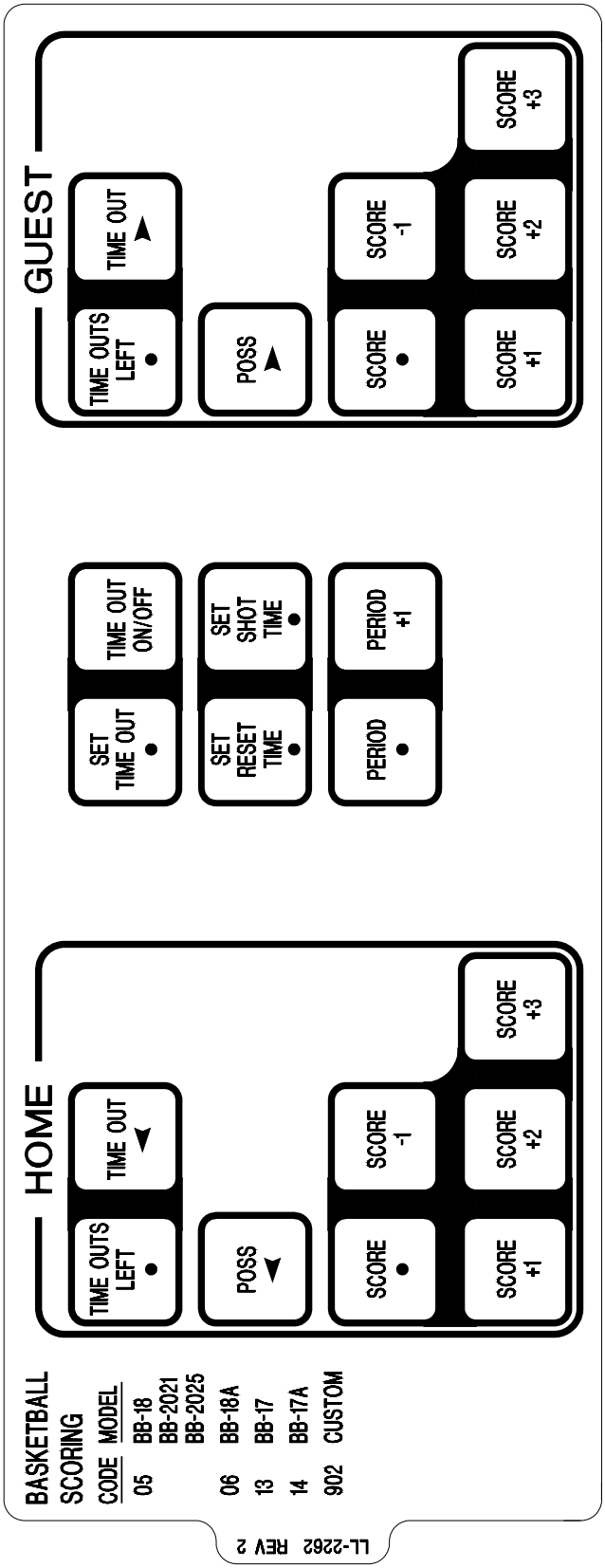
TITLE: SPORT INSERT, BASKETBALL WITH SHOT CLOCK

DES. BY: AVB DRAWN BY: A VANBEMMEL DATE: 27 AUG 96

REVISION APPR. BY:

SCALE: 1=1

1166-R08A-86100



REV.	DATE	DESCRIPTION	BY	APPR.
2	16APR98	ADDED BB-2021 AND 2025 TO INSERT.	DDL	
1	16 OCT 96	UPDATED INSERT TO REV 1 TO MATCH THE SPECIFICATION DRAWING.	AVB	AVB

DAKTRONICS, INC. BROOKINGS, SD 57006

PROJ: ALL SPORT 4000

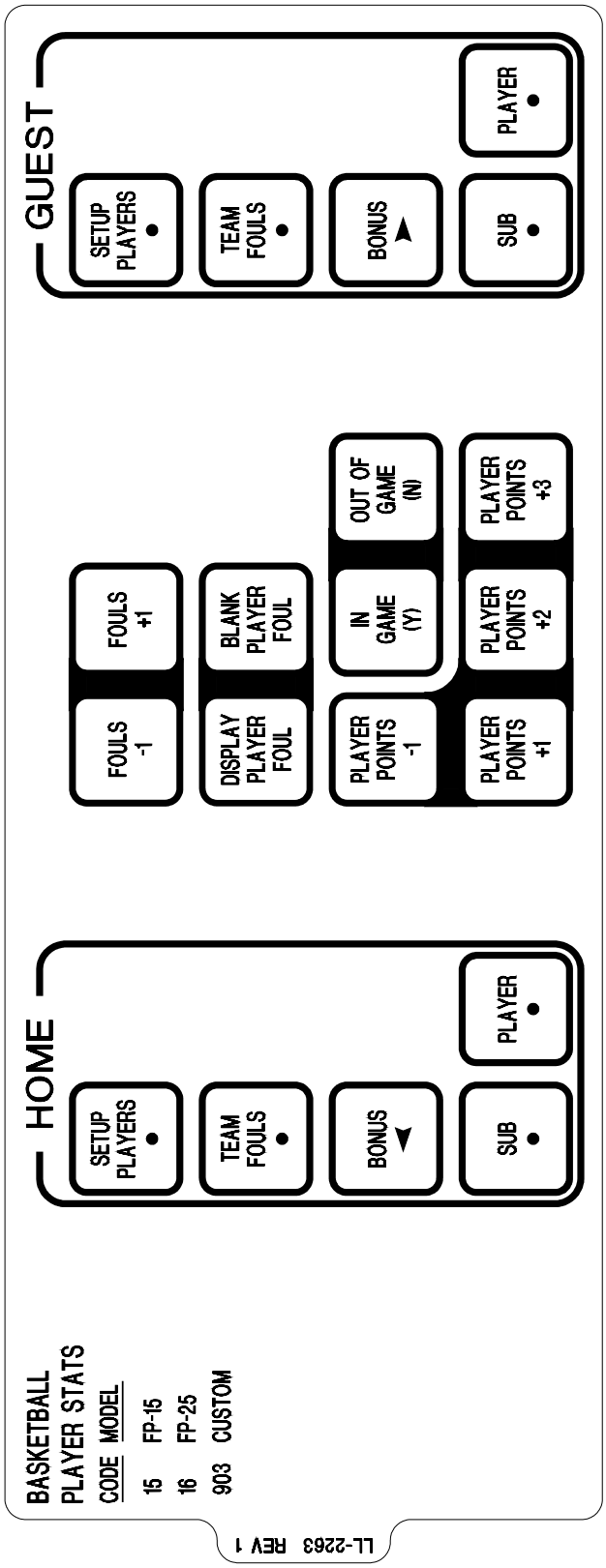
TITLE: SPORT INSERT, BASKETBALL CODES 05, 06, 13, 14

DES. BY: AVB DRAWN BY: A VANBEMMEL DATE: 28AUG96

REVISION APPR. BY:

SCALE: 1=1

1166-R08A-86101



REV.	DATE	DESCRIPTION	BY	APPR.
1	16 OCT 96	UPDATED INSERT TO REV 1 TO MATCH THE SPECIFICATION DRAWING.	AVB	AVB

DAKTRONICS, INC. BROOKINGS, SD 57006

PROJ: ALL SPORT 4000

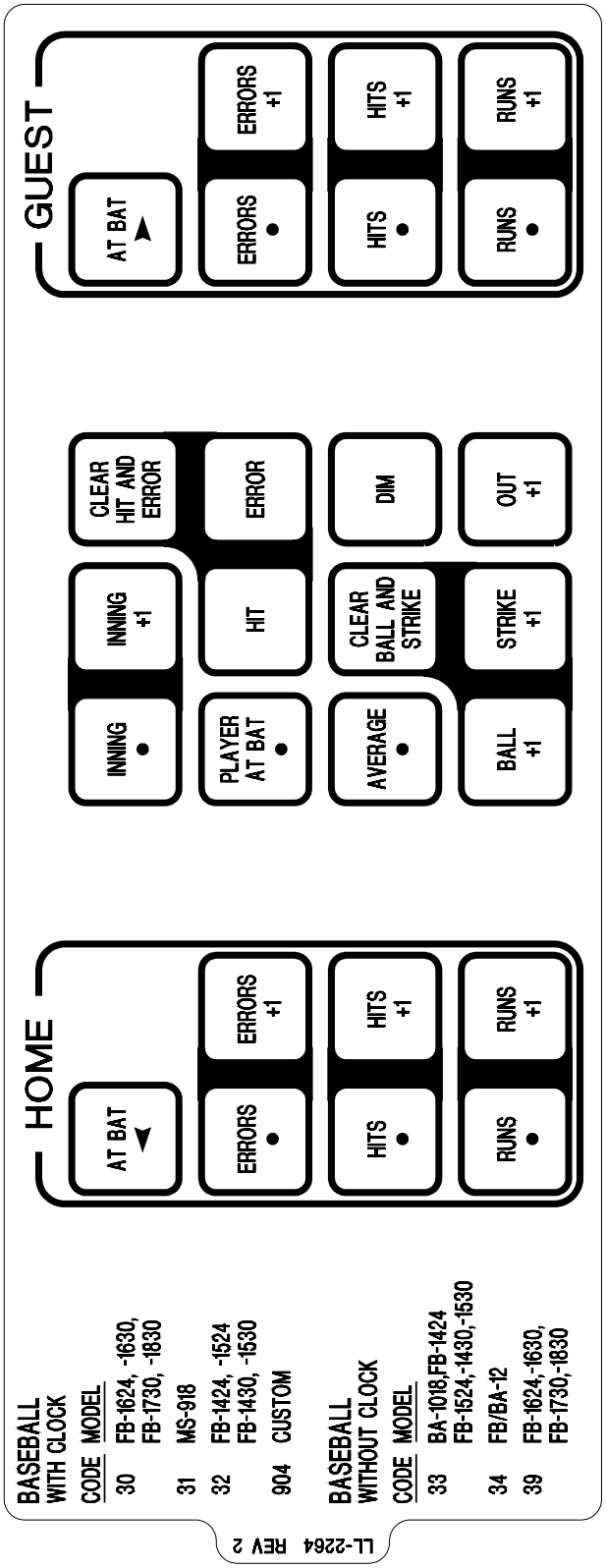
TITLE: SPORT INSERT, BASKETBALL STATS CODES 15 & 16

DES. BY: AVB DRAWN BY: A VANBEMMEL DATE: 28 AUG 96

REVISION APPR. BY:

SCALE: 1=1

1166-R08A-86102



REV.	DATE	DESCRIPTION	BY	APPR.
2	29 SEP 97	ADDED MODEL BA-1018 TO CODE 33, MODEL FB-1624 TO CODE 39.	AVB	AVB
1	16 OCT 96	UPDATED INSERT TO REV 1 TO MATCH THE SPECIFICATION DRAWING.	AVB	AVB

DAKTRONICS, INC. BROOKINGS, SD 57006

PROJ: ALL SPORT 4000

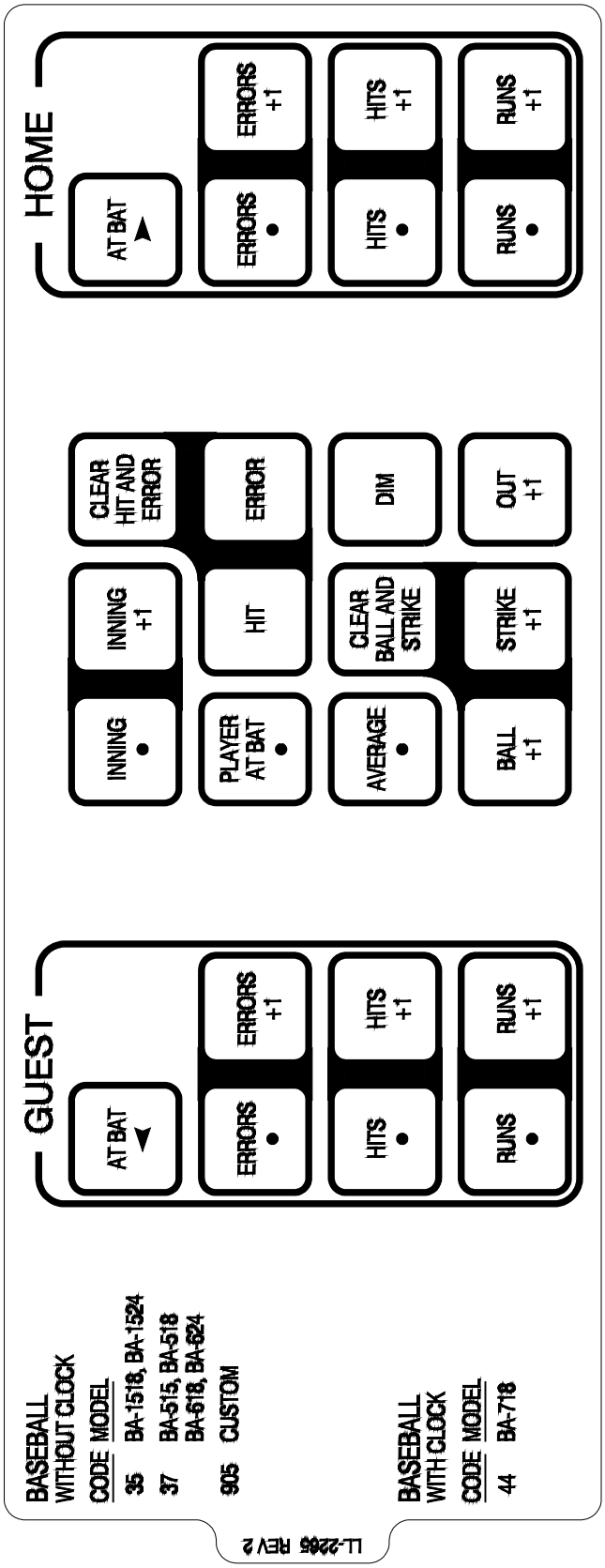
TITLE: SPORT INSERT, BASEBALL CODES 30-34, 39

DES. BY: AVB DRAWN BY: A VANBEMMEL DATE: 28AUG96

REVISION APPR. BY:

SCALE: 1=1

1166-R08A-86103



REV.	DATE	DESCRIPTION	BY	APPR.
2	17 JUN 99	ADDED MODEL BA-1524.	AVB	AVB
1	16 OCT 96	UPDATED INSERT TO REV 1 TO MATCH THE SPECIFICATION DRAWING.	AVB	AVB

DAKTRONICS, INC. BROOKINGS, SD 57006

PROJ: ALL SPORT 4000

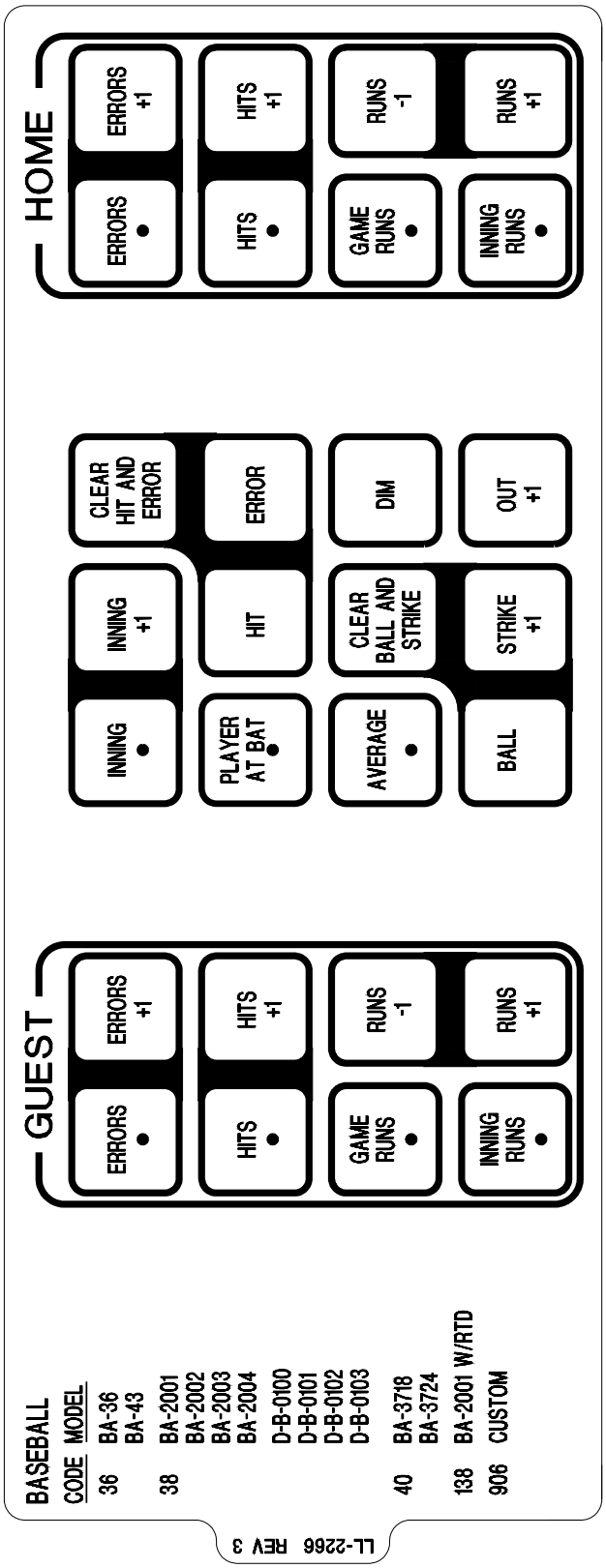
TITLE: SPORT INSERT, BASEBALL CODES 35, 37, 44

DES. BY: AVB DRAWN BY: A VANBEMMEL DATE: 28 AUG 96

REVISION APPR. BY:

SCALE: 1=1

1166-R08A-86104



REV.	DATE	DESCRIPTION	BY	APPR.
3	07 DEC 98	ADDED CODE 138	DDL	
2	27 MAR 97	ADDED CODE 38 AND RELATED MODELS.	AVB	AVB
1	16 OCT 96	UPDATED INSERT TO REV 1 TO MATCH THE SPECIFICATION DRAWING.	AVB	AVB

DAKTRONICS, INC. BROOKINGS, SD 57006

PROJ: ALL SPORT 4000

TITLE: SPORT INSERT, BASEBALL CODES 36, 40

DES. BY: AVB DRAWN BY: A VANBEMMEL DATE: 28 AUG 96

REVISION APPR. BY:

SCALE: 1 = 1

1166-R08A-86105

REV.	DATE	DESCRIPTION	BY	APPR.
1	30JUN98	ADDED CODES 45, 46, 47.	DDL	

DAKTRONICS, INC. BROOKINGS, SD 57006

PROJ: ALL SPORT 4000

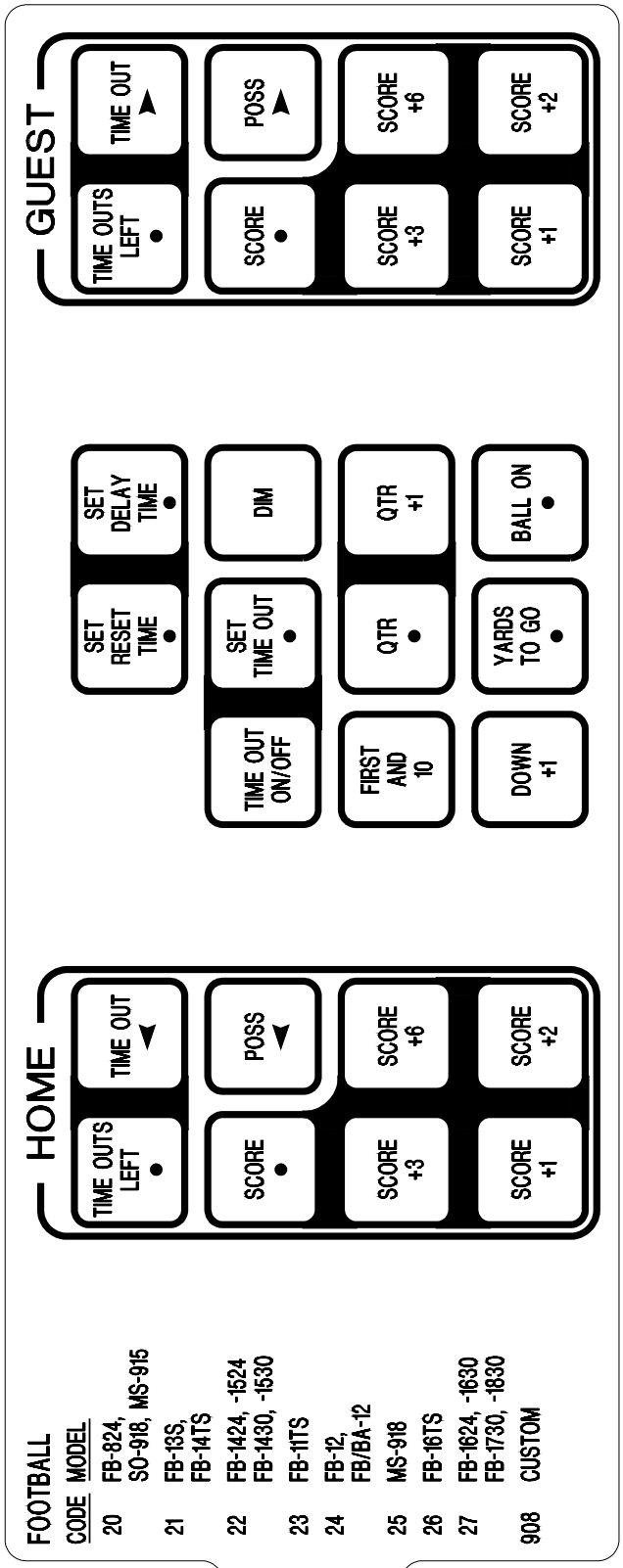
TITLE: SPORT INSERT, TRACK/TEAM SCORE CODES 41-43, 81

DES. BY: AVB DRAWN BY: A VANBEMMEL DATE: 28 AUG 96

REVISION APPR. BY:

SCALE: 1=1

1166-R08A-86106



REV.	DATE	DESCRIPTION	BY	APPR.
3	20 JAN 00	ADDED MS-915 TO DWG	JNILSE	
2	24 JUN 97	ADDED MODEL FB-1624.	AVB	AVB
1	16 OCT 96	UPDATED INSERT TO REV 1 TO MATCH THE SPECIFICATION DRAWING.	AVB	AVB

DAKTRONICS, INC. BROOKINGS, SD 57006

PROJ: ALL SPORT 4000

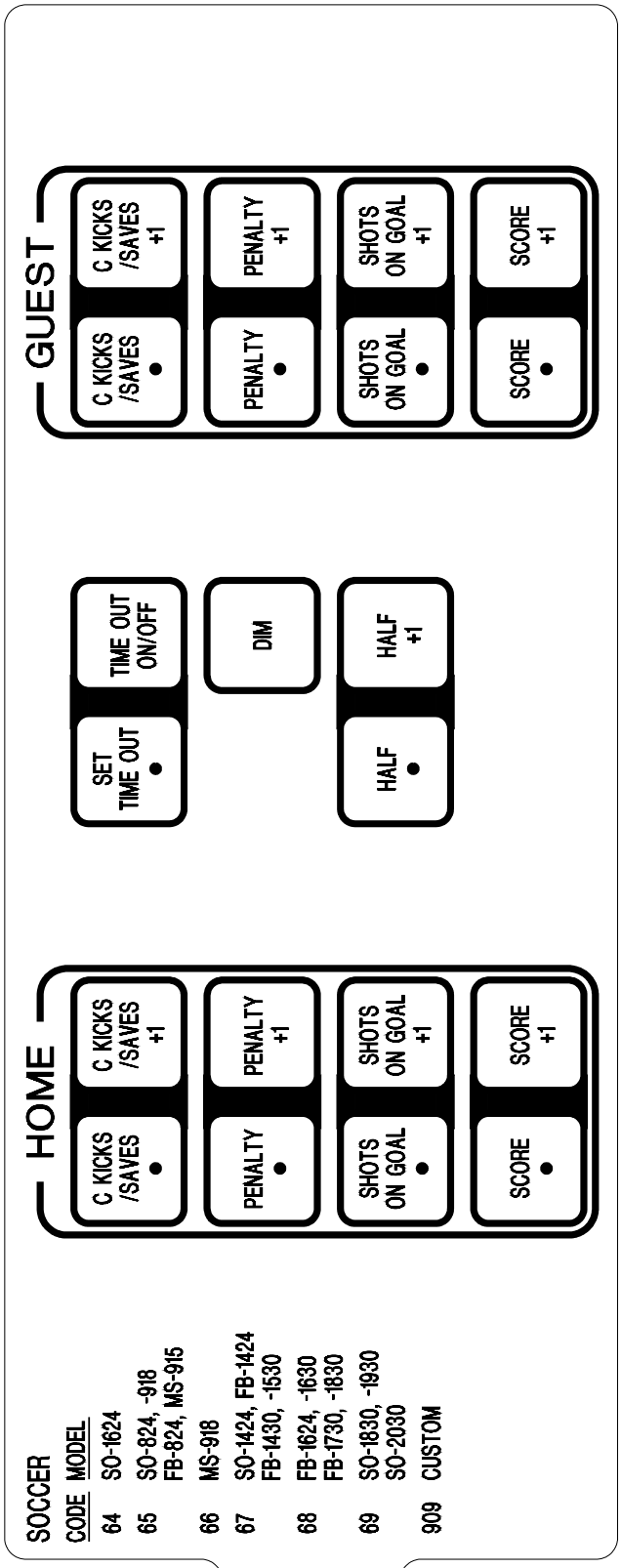
TITLE: SPORT INSERT, FOOTBALL CODES 20-27

DES. BY: AVB DRAWN BY: A VANBEMMEL DATE: 28 AUG 96

REVISION APPR. BY:

SCALE: 1=1

1166-R08A-86107



REV.	DATE	DESCRIPTION	BY	APPR.
3	20 JAN 00	ADDED MS-915	JNILSE	
2	24 JUN 97	ADDED MODELS SO-1830, -1930, -2030	AVB	AVB
1	16 OCT 96	UPDATED INSERT TO REV 1 TO MATCH THE SPECIFICATION DRAWING.	AVB	AVB

DAKTRONICS, INC. BROOKINGS, SD 57006

PROJ: ALL SPORT 4000

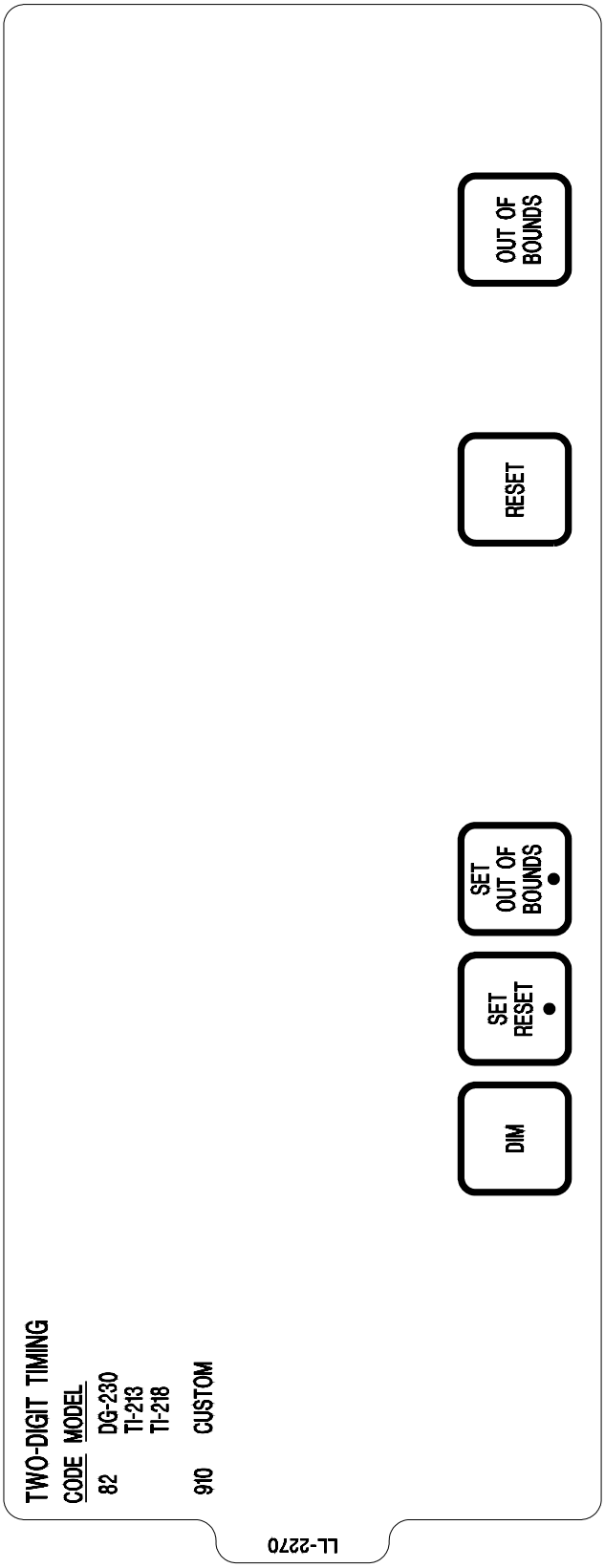
TITLE: SPORT INSERT, SOCCER CODES 64-68

DES. BY: AVB DRAWN BY: A VANBEMMEL DATE: 28 AUG 96

REVISION APPR. BY:

SCALE: 1=1

1166-R08A-86109



REV.	DATE	DESCRIPTION	BY	APPR.

DAKTRONICS, INC. BROOKINGS, SD 57006

PROJ: ALL SPORT 4000

TITLE: SPORT INSERT, 2-DIGIT TIMING CODE 82

DES. BY: AVB DRAWN BY: A VANBEMMEL DATE: 28 AUG 96

REVISION APPR. BY:

SCALE: 1=1

1166-R08A-86110

REV.	DATE	DESCRIPTION	BY	APPR.

DAKTRONICS, INC. BROOKINGS, SD 57006

PROJ: ALL SPORT 4000

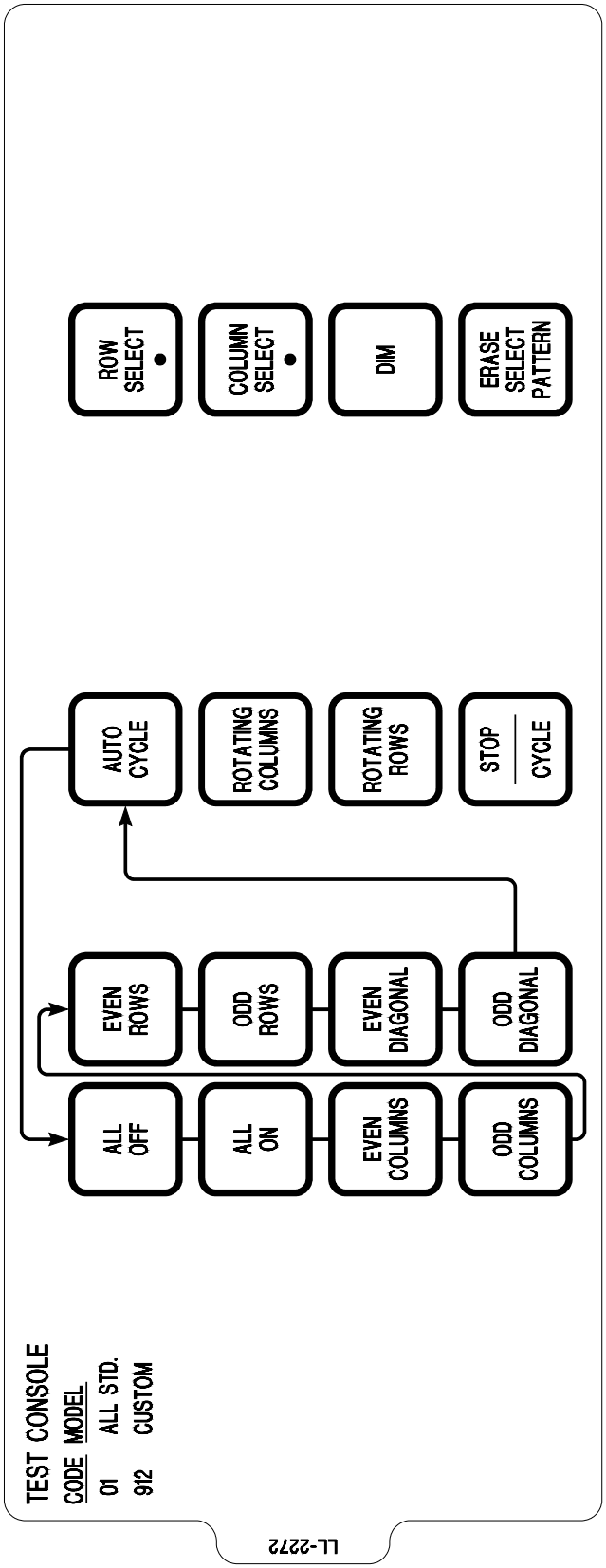
TITLE: SPORT INSERT, 4-DIGIT TIMING/SCORING CODE 10

DES. BY: AVB DRAWN BY: A VANBEMMEL DATE: 28 AUG 96

REVISION APPR. BY:

SCALE: 1=1

1166-R08A-86111



REV.	DATE	DESCRIPTION	BY	APPR.

DAKTRONICS, INC. BROOKINGS, SD 57006

PROJ: ALL SPORT 4000

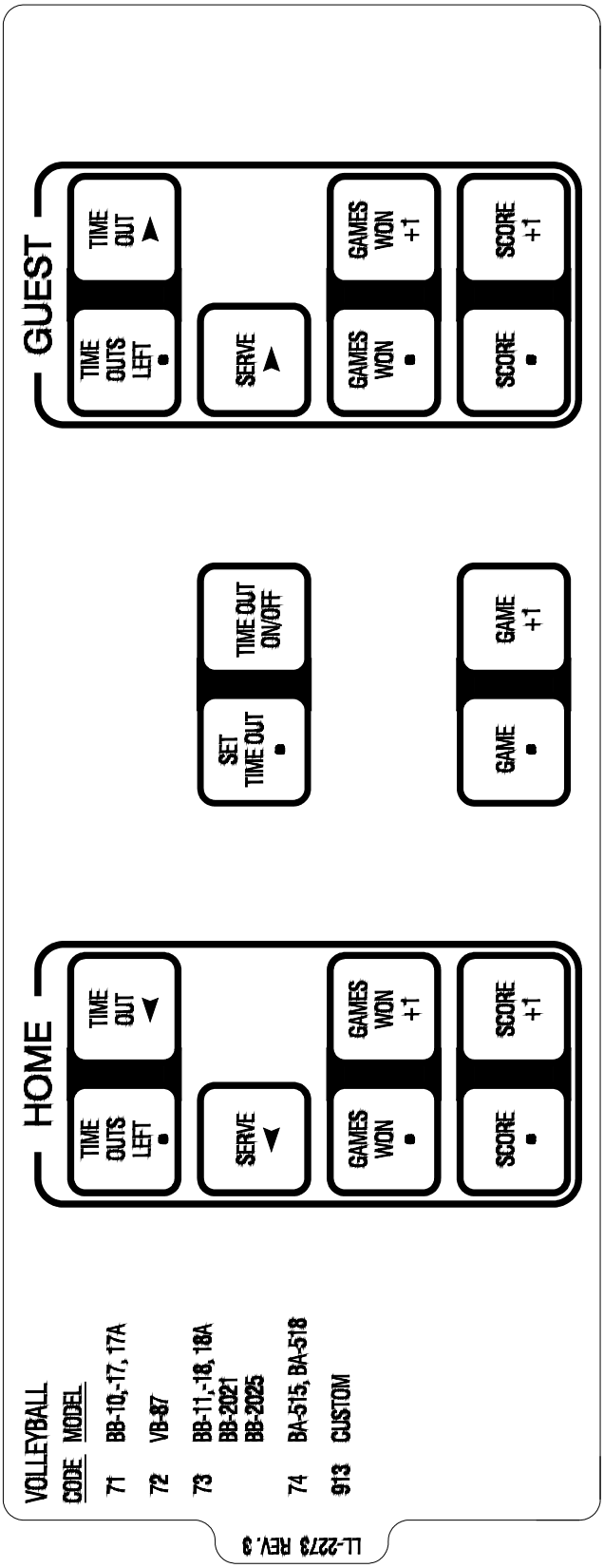
TITLE: SPORT INSERT, TEST CONSOLE CODE 01

DES. BY: AVB DRAWN BY: A VANBEMMEL DATE: 28 AUG 96

REVISION APPR. BY:

SCALE: 1=1

1166-R08A-86112



REV.	DATE	DESCRIPTION	BY	APPR.
3	02 MAR 00	ADDED CODE 74	AVB	AVB
2	16APR98	ADDED BB-2021 AND 2025 TO INSERT.	DDL	
1	16 OCT 96	UPDATED INSERT TO REV 1 TO MATCH THE SPECIFICATION DRAWING.	AVB	AVB

DAKTRONICS, INC. BROOKINGS, SD 57006

PROJ: ALL SPORT 4000

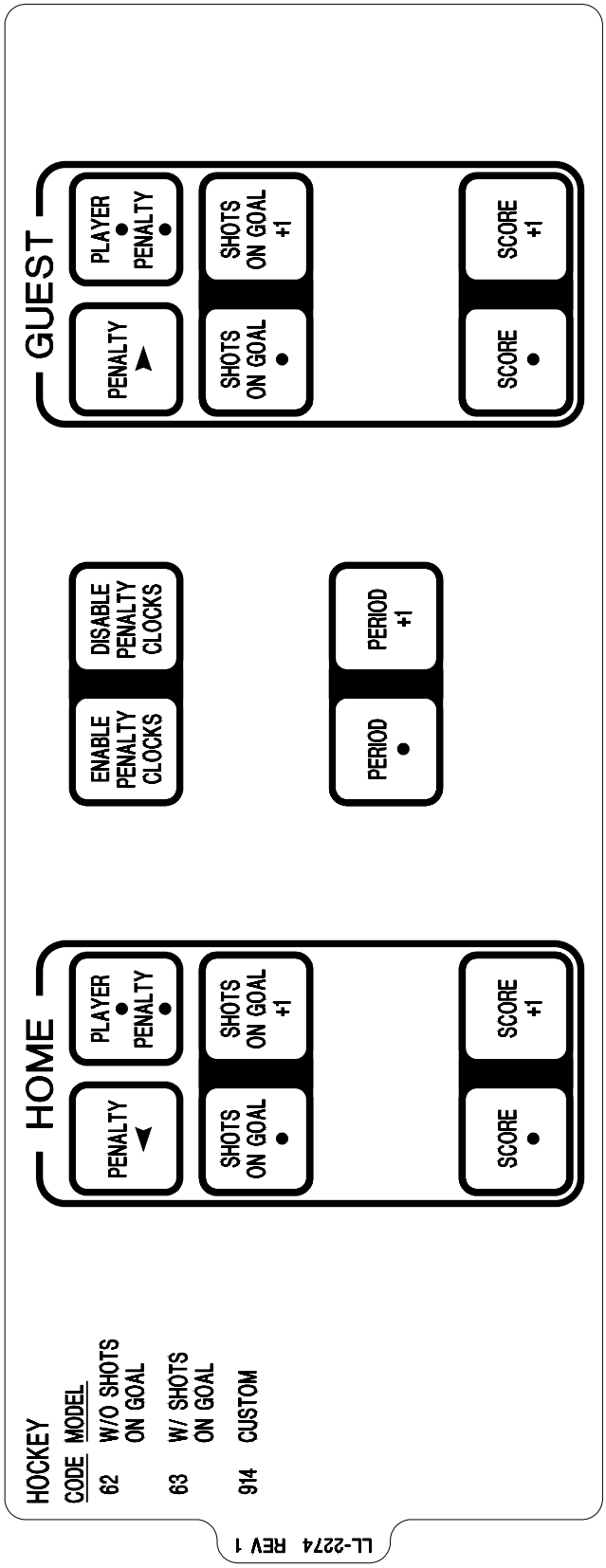
TITLE: SPORT INSERT, VOLLEYBALL CODES 71–73

DES. BY: AVB DRAWN BY: A VANBEMMEL DATE: 28 AUG 96

REVISION APPR. BY:

SCALE: 1=1

1166-R08A-86113



REV.	DATE	DESCRIPTION	BY	APPR.
1	16 OCT 96	UPDATED INSERT TO REV 1 TO MATCH THE SPECIFICATION DRAWING.	AVB	AVB

DAKTRONICS, INC. BROOKINGS, SD 57006

PROJ: ALL SPORT 4000

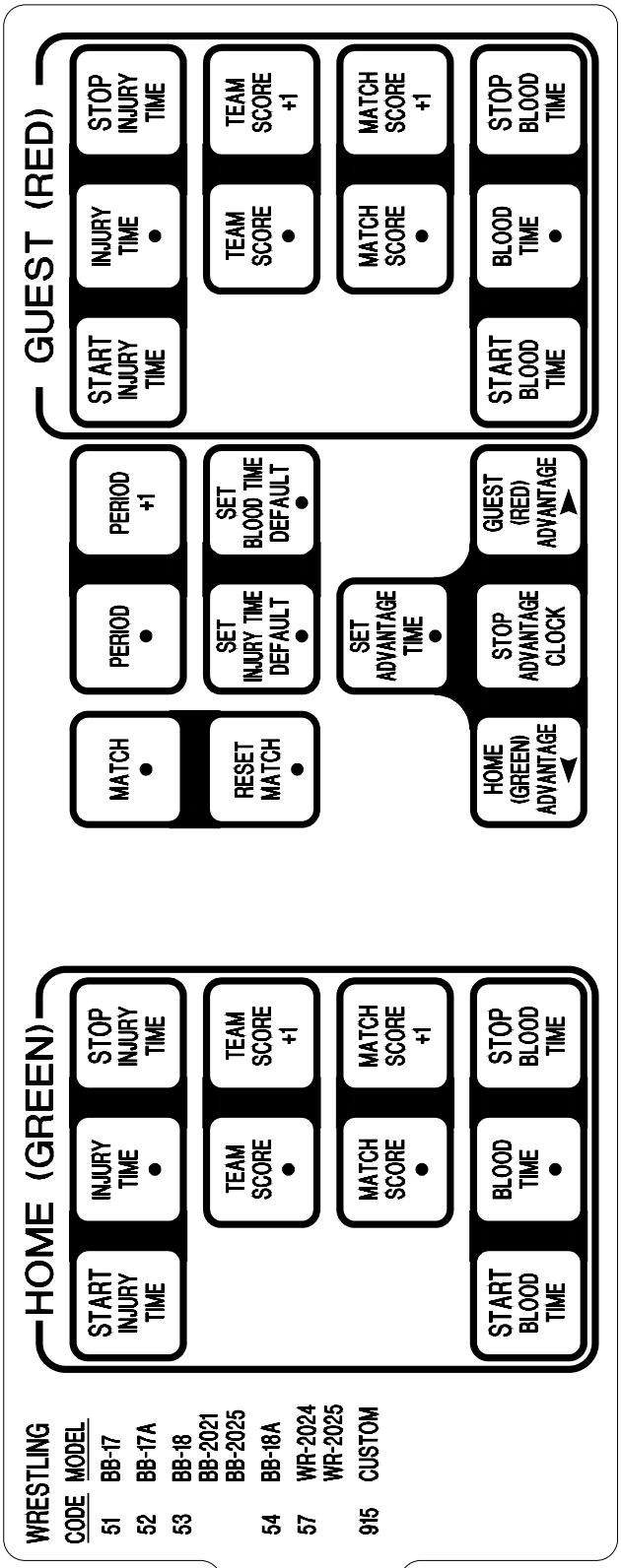
TITLE: SPORT INSERT, HOCKEY CODES 62, 63

DES. BY: AVB DRAWN BY: A VANBEMMEL DATE: 28 AUG 96

REVISION APPR. BY:

SCALE: 1=1

1166-R08A-86114



REV.	DATE	DESCRIPTION	BY	APPR.
3	16APR98	ADDED BB-2021 AND 2025 TO INSERT.	DDL	
2	09 MAR 98	ADDED INJURY TIME AND BLOOD TIME FUNCTIONS.	AVB	AVB
1	16 OCT 96	UPDATED INSERT TO REV 1 TO MATCH THE SPECIFICATION DRAWING.	AVB	AVB

DAKTRONICS, INC. BROOKINGS, SD 57006

PROJ: ALL SPORT 4000

TITLE: SPORT INSERT, WRESTLING CODES 51–54

DES. BY: AVB DRAWN BY: A VANBEMMEL DATE: 28 AUG 96

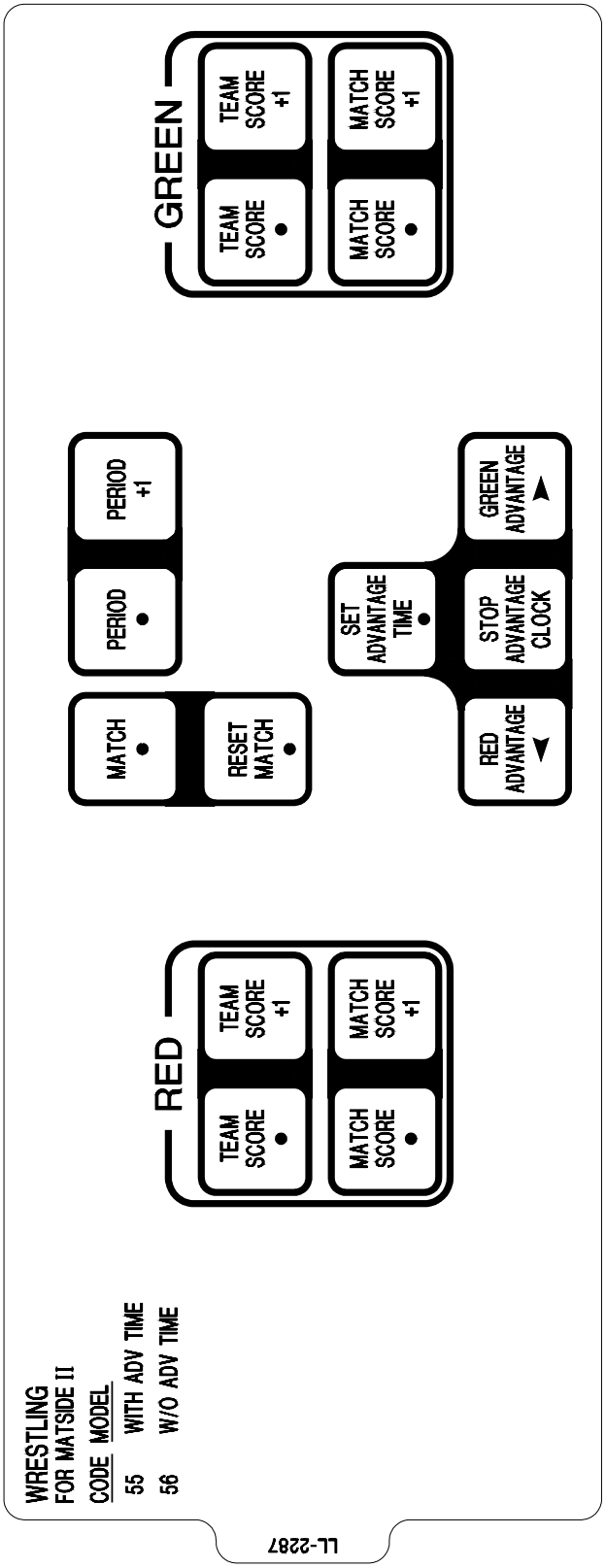
REVISION APPR. BY:

SCALE: 1=1

1166-R08A-86115

DAKTRONICS, INC. BROOKINGS, SD 57006				
PROJ: ALL SPORT 4000				
TITLE: SPORT INSERT, TEAM NAME CODE 98				
DES. BY: AVB	DRAWN BY: A VANBEMMEL	DATE: 28 AUG 96		
REVISION	APPR. BY:			
	SCALE: 1=1	1166-R08A-86116		

REV.	DATE	DESCRIPTION	BY	APPR.



REV.	DATE	DESCRIPTION	BY	APPR.

DAKTRONICS, INC. BROOKINGS, SD 57006

PROJ: ALL SPORT 4000

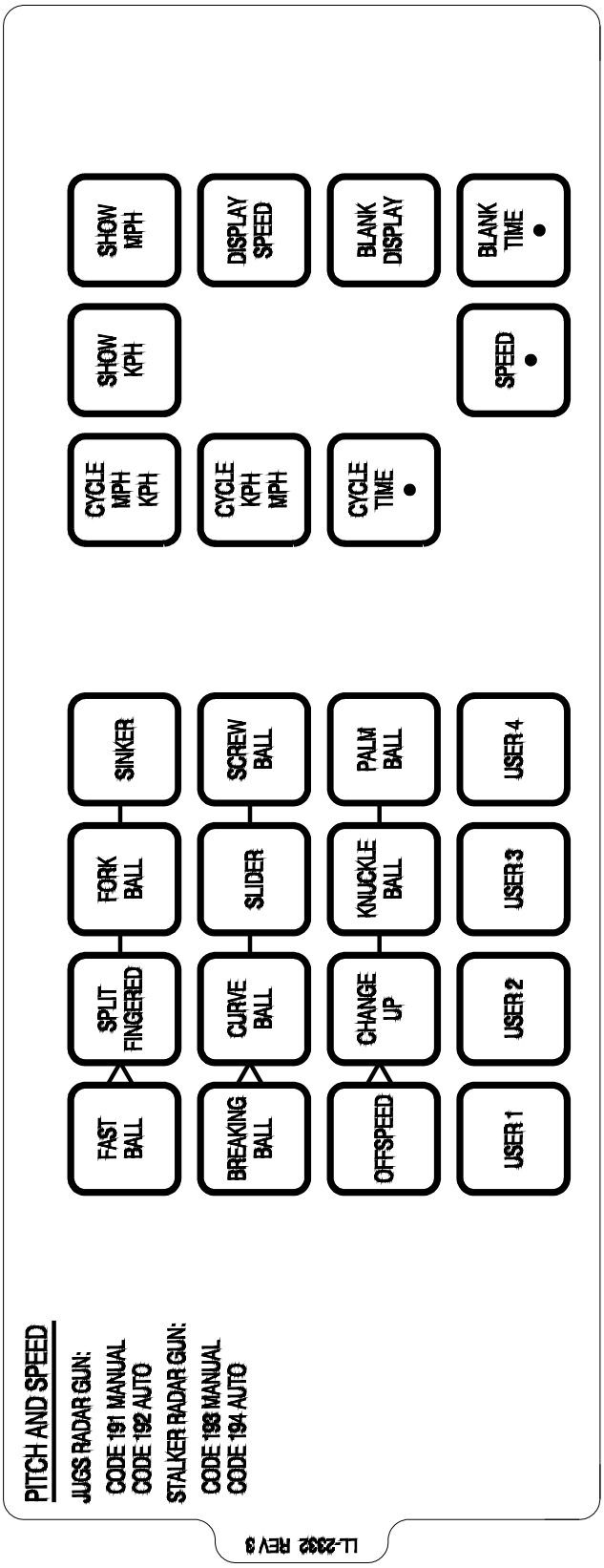
TITLE: SPORT INSRT, WRESTLING CODES 55 & 56

DES. BY: AVB DRAWN BY: A VANBEMMEL DATE: 26SEP96

REVISION APPR. BY:

SCALE: 1=1

1166-V07A-86973



REV.	DATE	DESCRIPTION	BY	APPR.
3	30 MAR 99	ADDED CODE DESTINCTIONS FOR JUGS AND STALKER RADAR CODES.	MWJ	
2	07DEC98	ADDED MPH AND KPH BUTTONS	DDL	
1	4/9/97	ADDED SPLIT FINGERED, SCREW BALL	CDA	

DAKTRONICS, INC. BROOKINGS, SD 57006

PROJ:

TITLE: INSERT, PITCH AND SPEED CODES 191 – 194

DES. BY: AVB DRAWN BY: A VANBEMMEL DATE: 27 FEB 97

REVISION APPR. BY:

SCALE: 1 = 1

7494-R08A-90890

REV.	DATE	DESCRIPTION	BY	APPR.

DAKTRONICS, INC. BROOKINGS, SD 57006

PROJ: ALL SPORT 4000

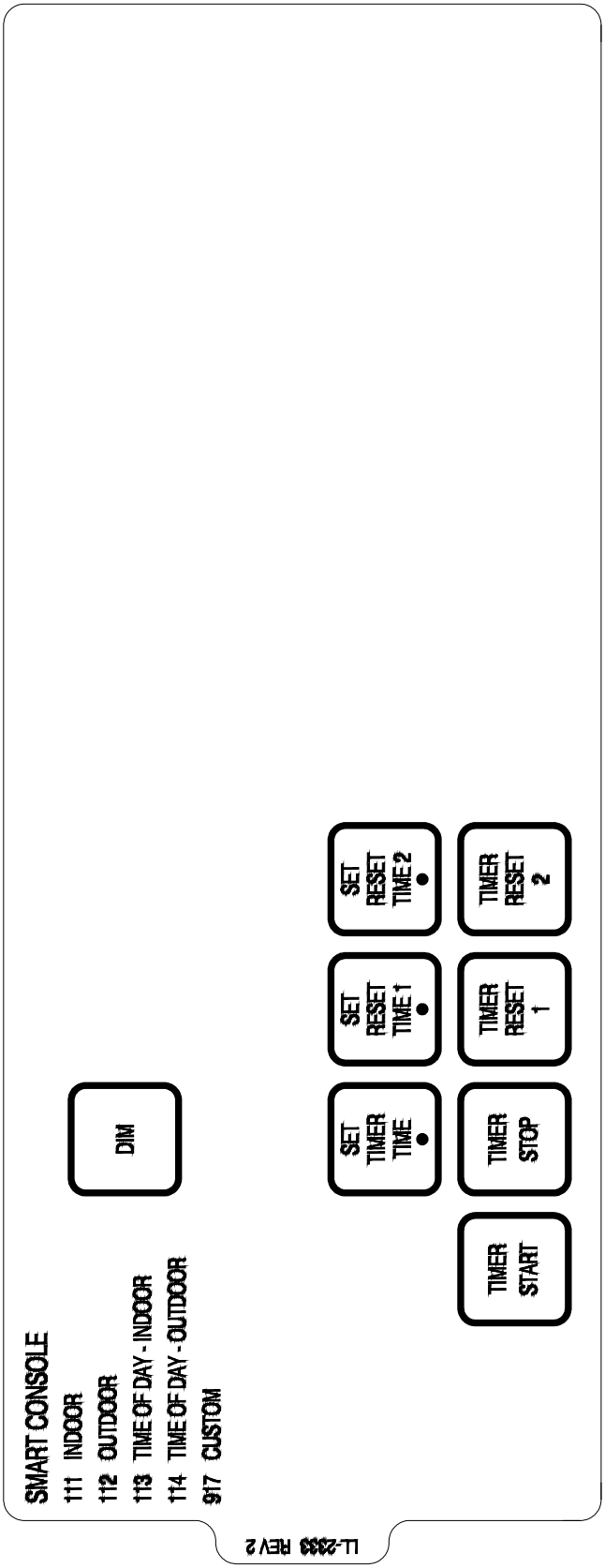
TITLE: INSERT, MESSAGE CONTROLLER CODE 101

DES. BY: AVB DRAWN BY: A VANBEMMEL DATE: 03 APR 97

REVISION APPR. BY:

SCALE: 1=1

1166-R08A-91836



REV.	DATE	DESCRIPTION	BY	APPR.
2	15 MAR 99	ADDED CUSTOM CODE 917.	DDL	
1	10 SEP 97	ADDED CODES 113 AND 114.	AVB	AVB

DAKTRONICS, INC. BROOKINGS, SD 57006

PROJ: ALL SPORT 4000

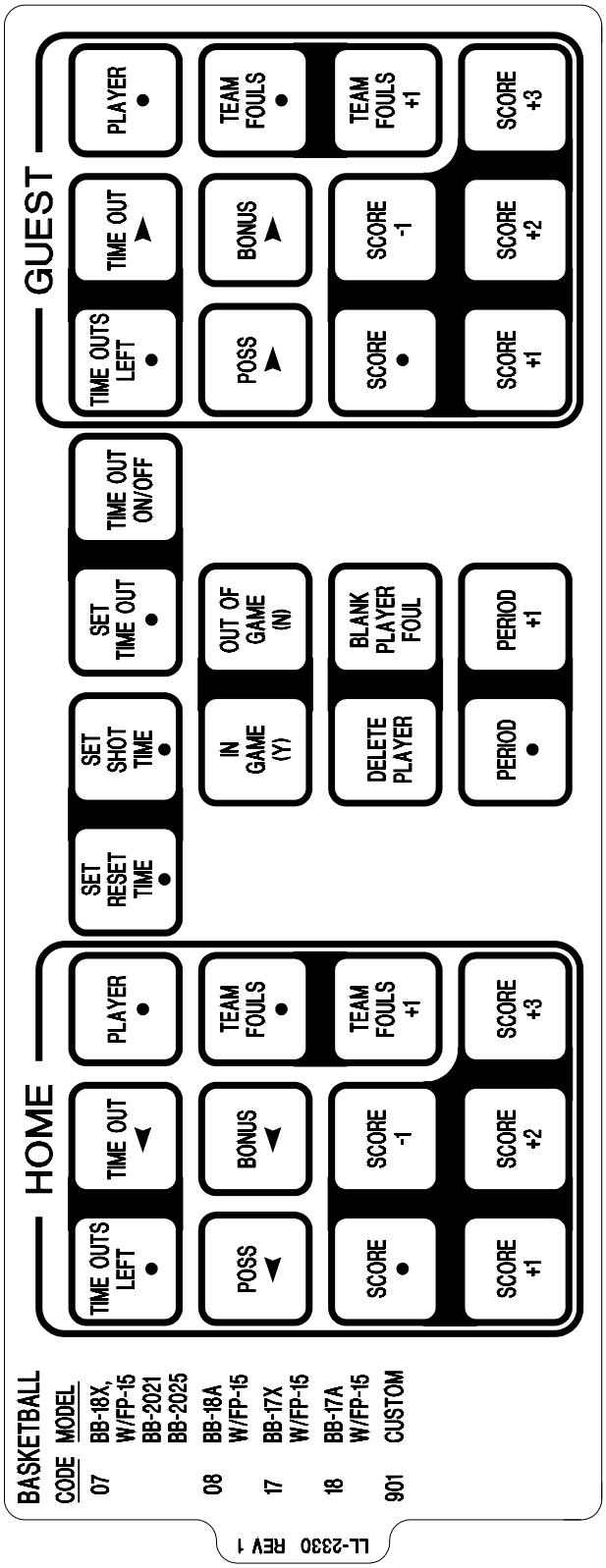
TITLE: INSERT, SMART CONSOLE

DES. BY: BCARSRUD DRAWN BY: MBESSLE DATE: 11 JUN 97

REVISION APPR. BY:

SCALE: 1 = 1

1166-R08A-93730



REV.	DATE	DESCRIPTION	BY	APPR.
1	16APR98	ADDED BB-2021 AND 2025 TO INSERT.	DDL	

DAKTRONICS, INC. BROOKINGS, SD 57006

PROJ: ALL SPORT 4000

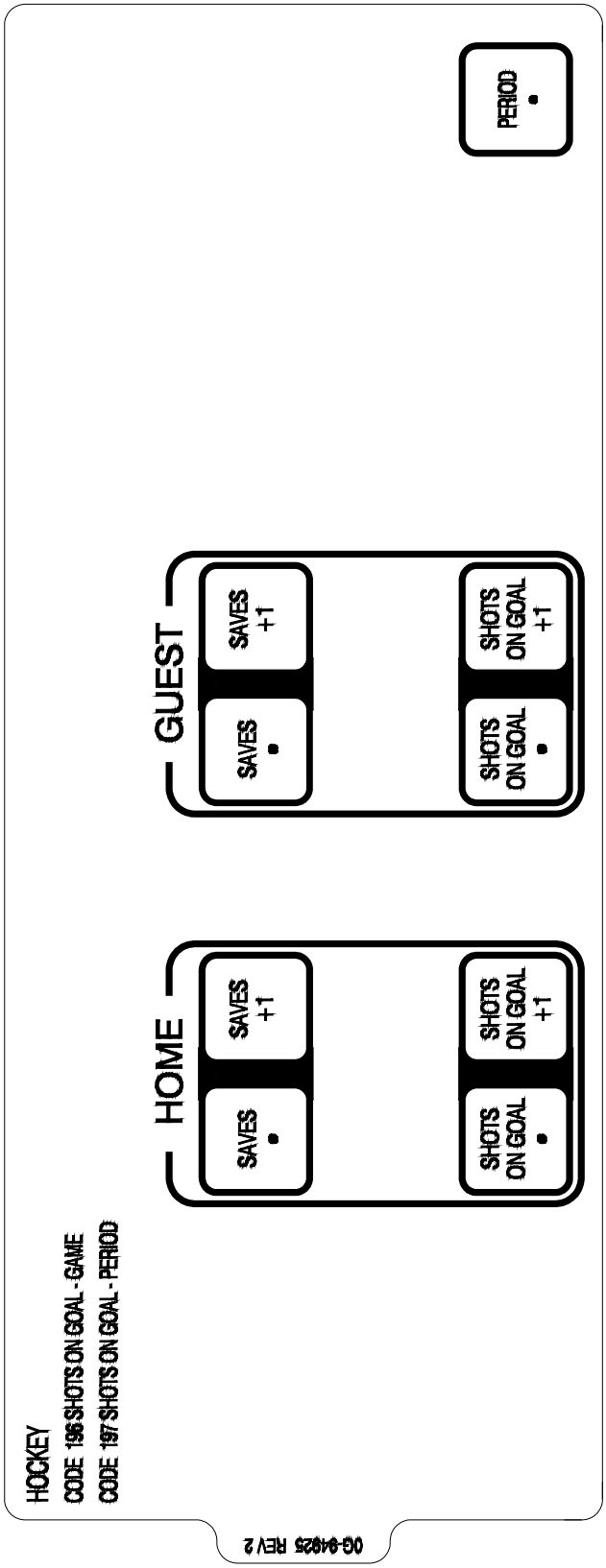
TITLE: SPORT INSERT, BASKETBALL WITH SHOT CLOCK

DES. BY: AVB DRAWN BY: M BESSLER DATE: 24JUN97

REVISION APPR. BY:

SCALE: 1=1

1166-R08A-94024



REV.	DATE	DESCRIPTION	BY	APPR.
2	12 NOV 99	CHANGED PART NUMBER FROM LL-2334 TO 0G-94925.	AVB	AVB
1	02 OCT 97	CHANGED TITLE, CORRECTED STRIPES	AVB	AVB

DAKTRONICS, INC. BROOKINGS, SD 57006

PROJ: ALL SPORT 4000

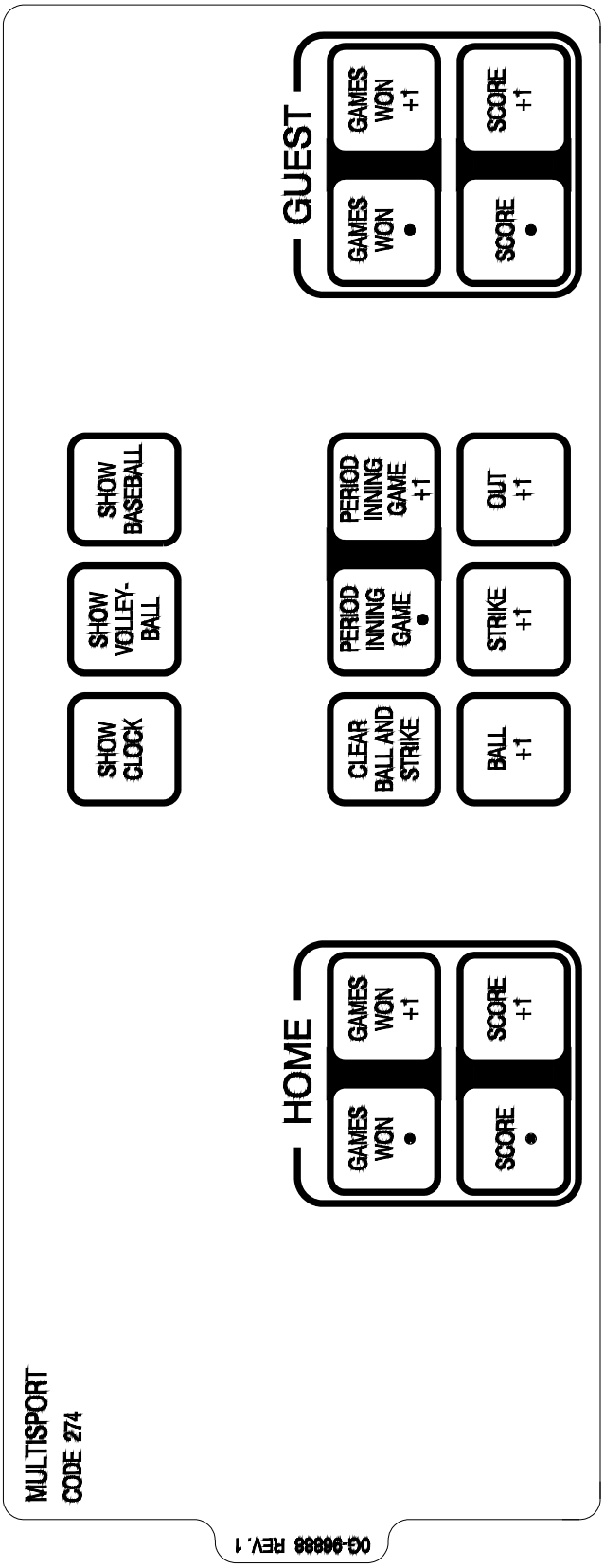
TITLE: INSERT, CODES 196 & 197, HOCKEY

DES. BY: BCARSRUD DRAWN BY: MBESSLER DATE: 22JUL97

REVISION APPR. BY:

SCALE: 1=1

1166-R08A-94925



REV.	DATE	DESCRIPTION	BY	APPR.
1	28 JUL 99	CHANGED PART NUMBER TO OG-96888	AVB	AVB

DAKTRONICS, INC. BROOKINGS, SD 57006

PROJ:

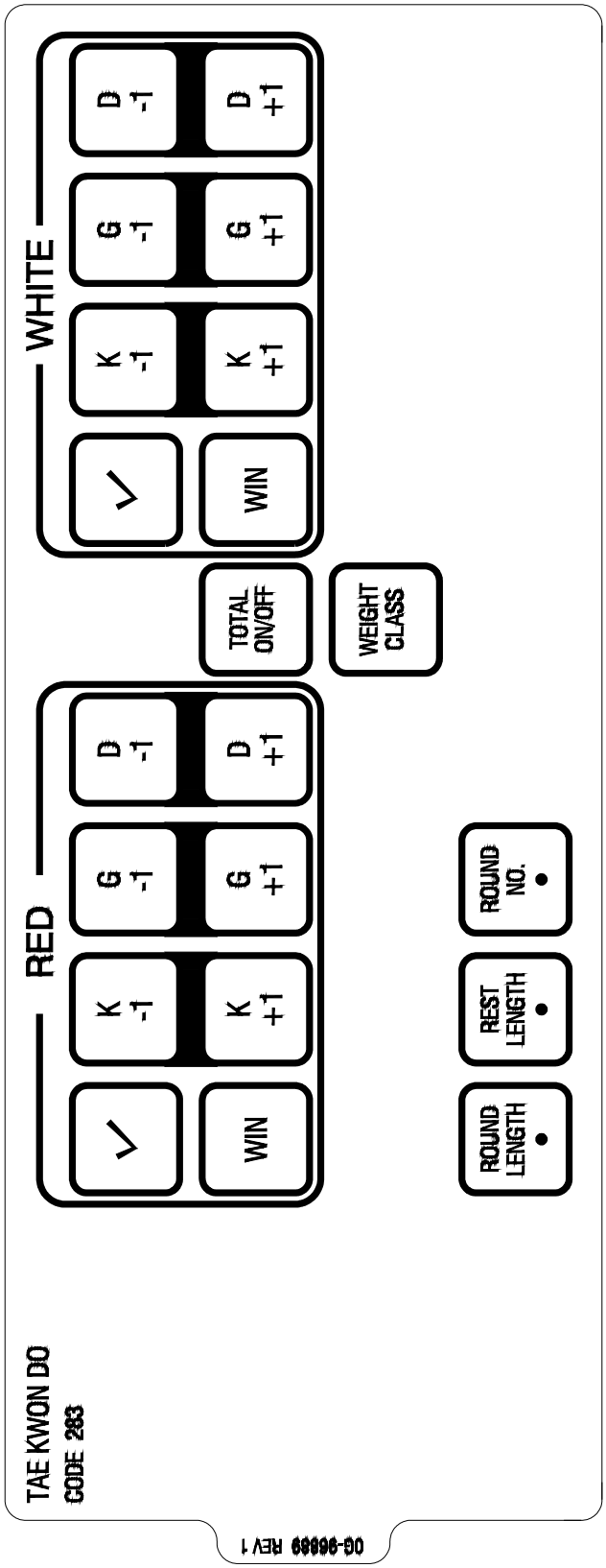
TITLE: INSERT, MULTISPORT CODE 274

DES. BY: AVB DRAWN BY: A VANBEMMEL DATE: 26 SEP 97

REVISION APPR. BY:

SCALE: 1=1

1166-R08A-96888



REV.	DATE	DESCRIPTION	BY	APPR.
01	01 JUL 99	CHANGED PART NUMBER TO OG-96889	AVB	AVB

DAKTRONICS, INC. BROOKINGS, SD 57006

PROJ:

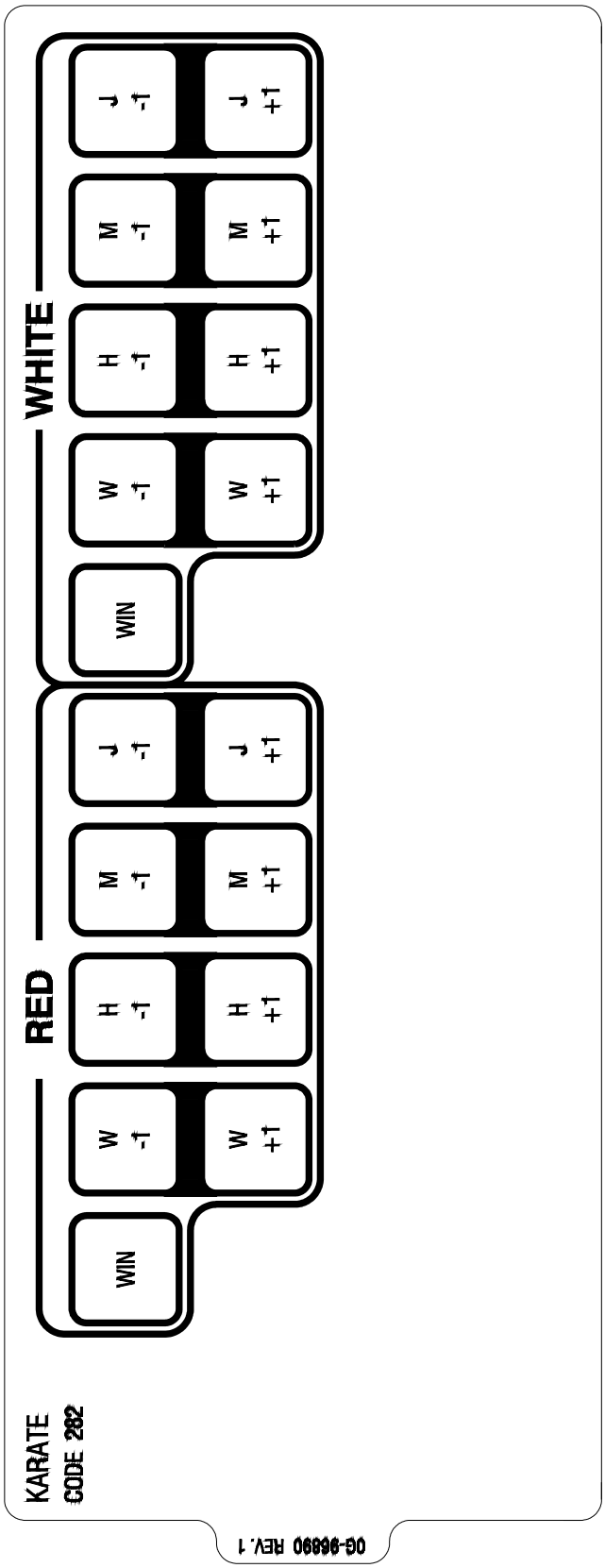
TITLE: INSERT, TAE KWON DO CODE 283

DES. BY: AVB DRAWN BY: A VANBEMMEL DATE: 26 SEP 97

REVISION APPR. BY:

SCALE: 1=1

1166-R08A-96889



REV.	DATE	DESCRIPTION	BY	APPR.
1	19 JUN 00	CHANGED PART NUMBER TO FROM LL-2345 TO OG-96890.	AVB	AVB

DAKTRONICS, INC. BROOKINGS, SD 57006

PROJ:

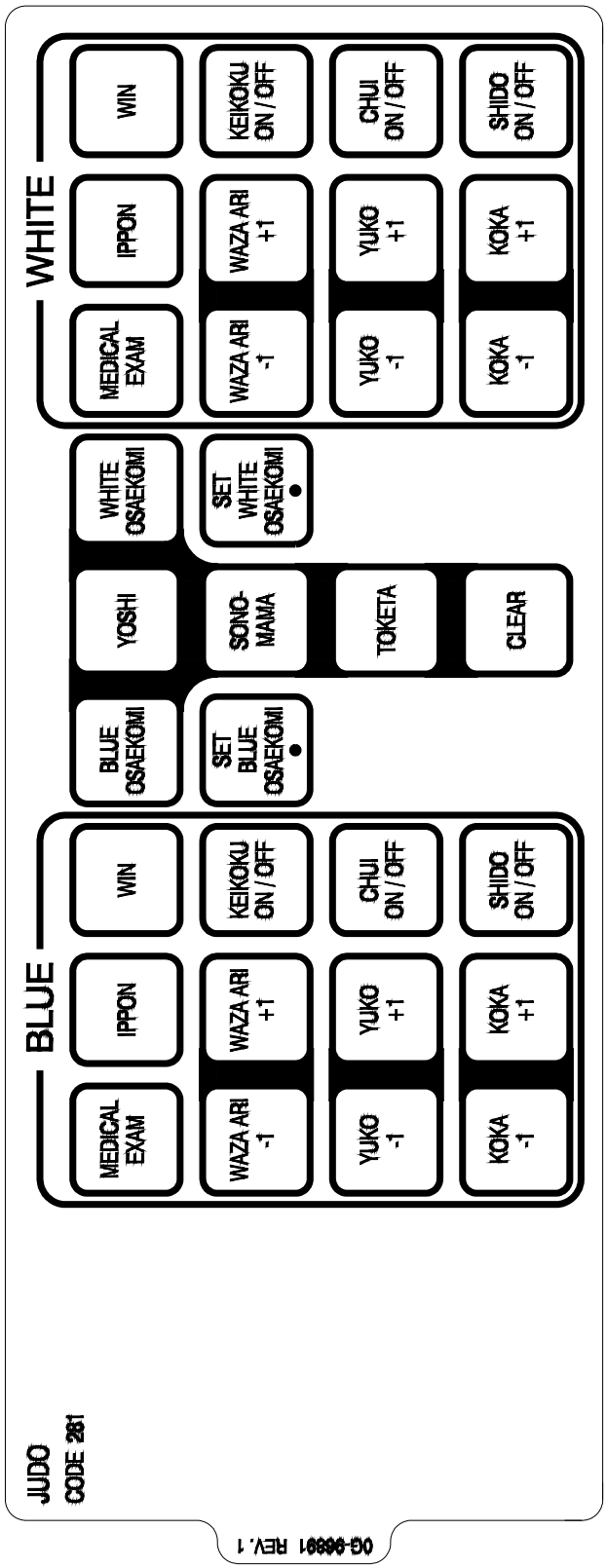
TITLE: INSERT, KARATE CODE 282

DES. BY: AVB DRAWN BY: A VANBEMMEL DATE: 26 SEP 97

REVISION APPR. BY:

SCALE: 1=1

1166-R08A-96890



REV.	DATE	DESCRIPTION	BY	APPR.
1	21 SEP 99	CHG TEXT "RED" TO "BLUE" CHG PART NO. FROM LL-2346 TO 0G-96891	AVB	AVB

DAKTRONICS, INC. BROOKINGS, SD 57006

PROJ:

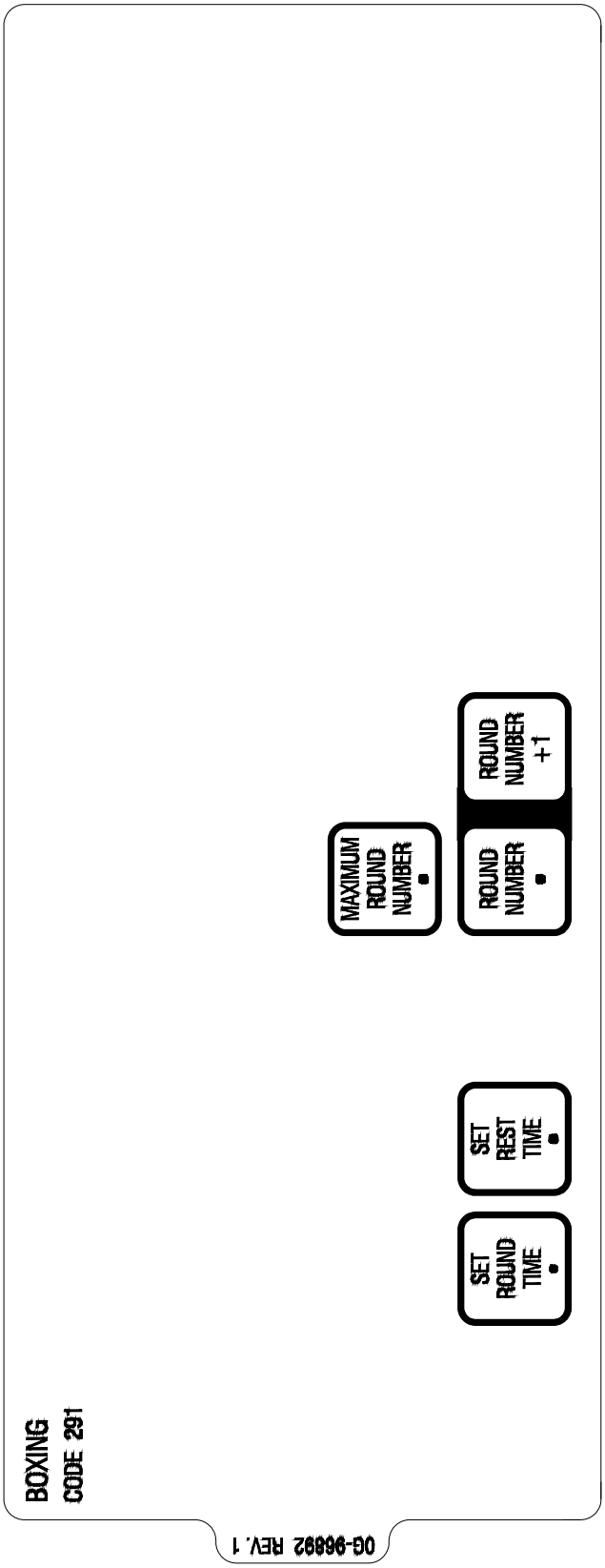
TITLE: INSERT, JUDO CODE 281

DES. BY: AVB DRAWN BY: A VANBEMMEL DATE: 26 SEP 97

REVISION APPR. BY:

SCALE: 1=1

1166-R08A-96891



REV.	DATE	DESCRIPTION	BY	APPR.
1	11 APR 01	CHANGED PART NUMBER FROM LL-2347 TO OG-96892	AVB	

DAKTRONICS, INC. BROOKINGS, SD 57006

PROJ:

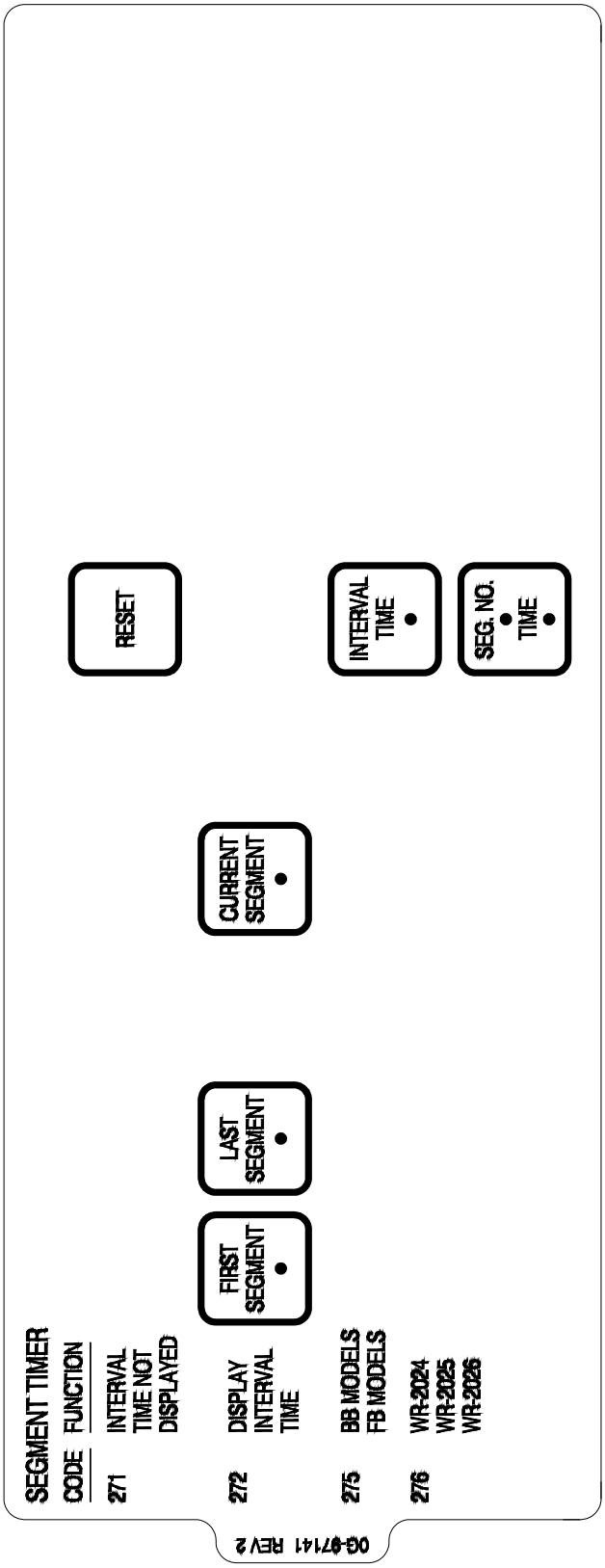
TITLE: INSERT, BOXING CODE 291

DES. BY: AVB DRAWN BY: A VANBEMMEL DATE: 26 SEP 97

REVISION APPR. BY:

SCALE: 1=1

1166-R08A-96892



REV.	DATE	DESCRIPTION	BY	APPR.
2	15 JUL 99	CHANGED PART NUMBER TO 0G-97141. MOVED SOME TEXT, CHANGED FONTS	AVB	AVB
1	07DEC98	ADDED CODES 275 & 276	DDL	

DAKTRONICS, INC. BROOKINGS, SD 57006

PROJ:

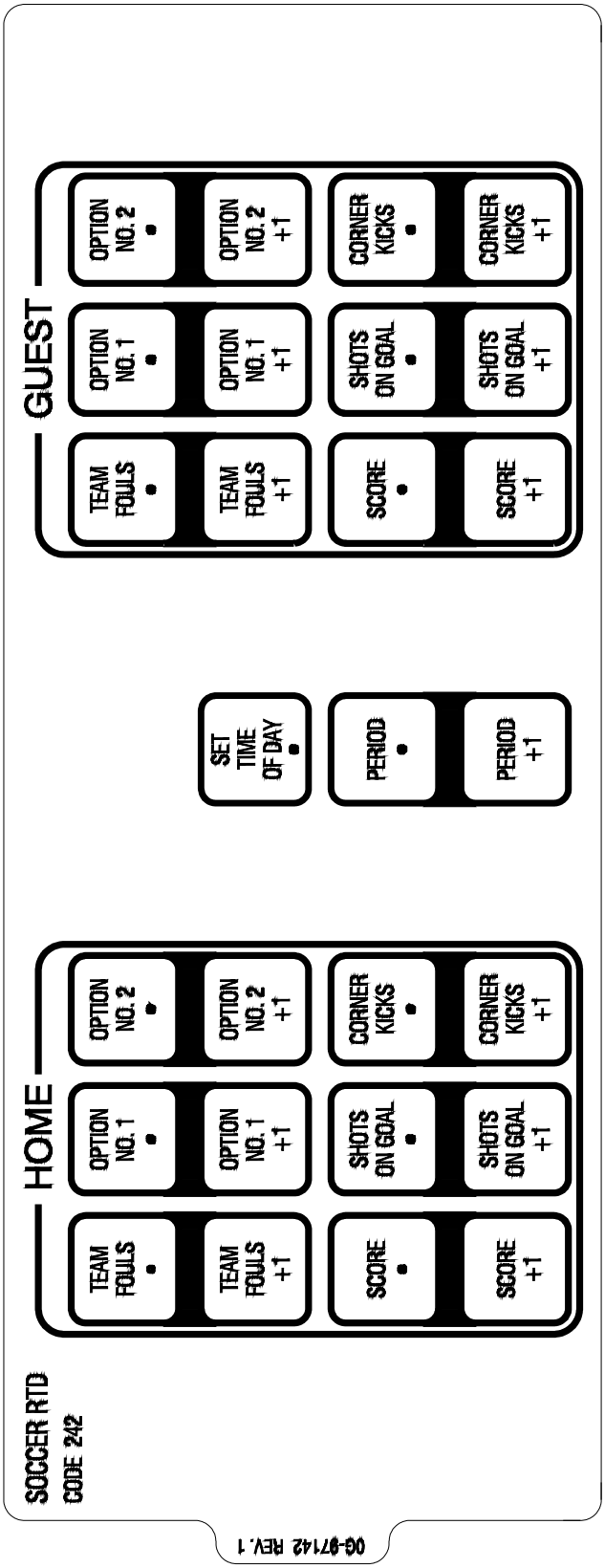
TITLE: INSERT, SEGMENT TIMER

DES. BY: AVB DRAWN BY: A VANBEMMEL DATE: 02 OCT 97

REVISION APPR. BY:

SCALE: 1 = 1

1166-R08A-97141



REV.	DATE	DESCRIPTION	BY	APPR.
1	15 SEP 99	CHANGED PART NUMBER FROM LL-2350 TO OG-97142.	AVB	AVB

DAKTRONICS, INC. BROOKINGS, SD 57006

PROJ:

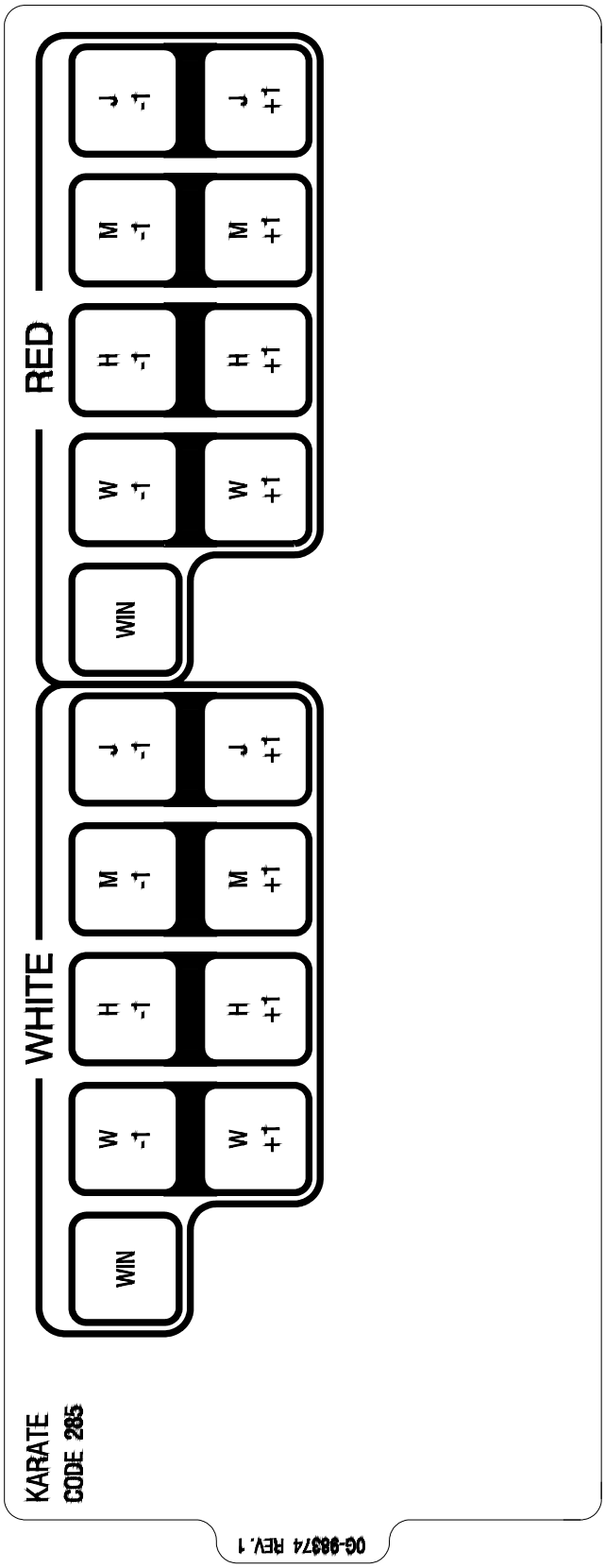
TITLE: INSERT, SOCCER RTD CODE 242

DES. BY: AVB DRAWN BY: A VANBEMMEL DATE: 02 OCT 97

REVISION APPR. BY:

SCALE: 1=1

1166-R08A-97142



REV.	DATE	DESCRIPTION	BY	APPR.
1	19 JUN 00	CHANGED PART NUMBER TO 0G-98374	AVB	AVB

DAKTRONICS, INC. BROOKINGS, SD 57006

PROJ:

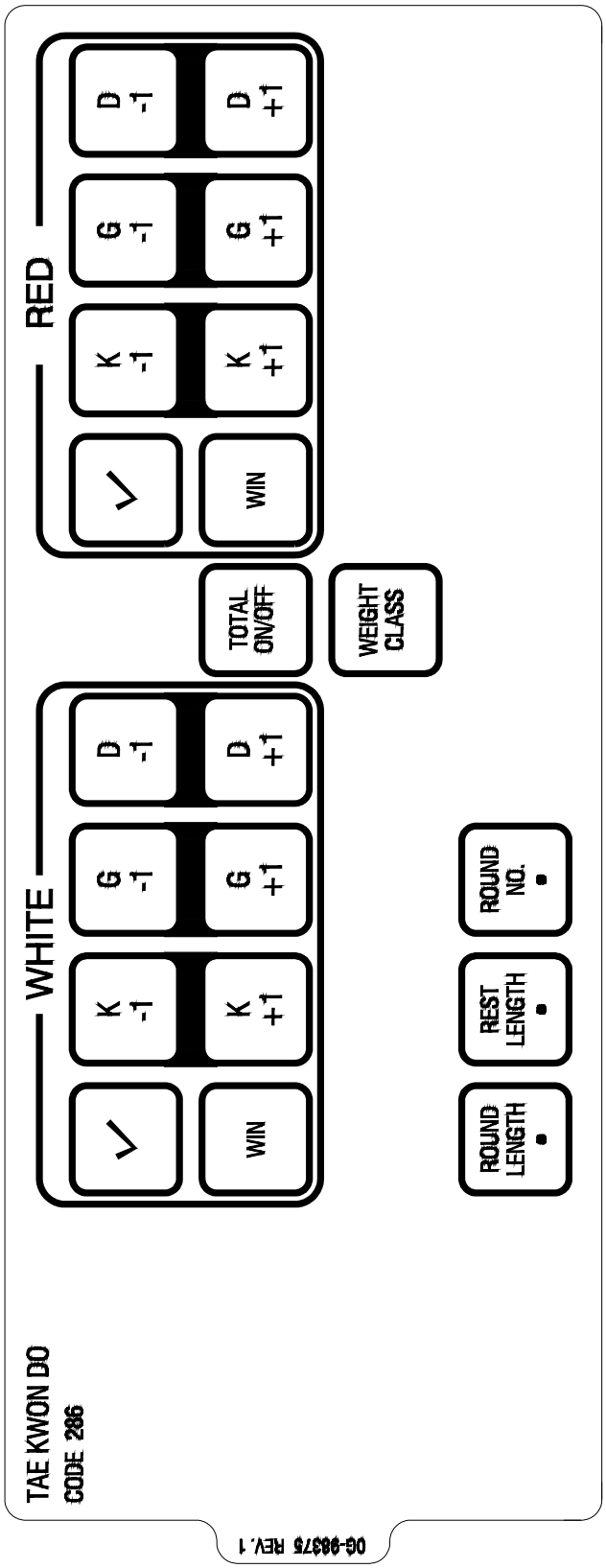
TITLE: CUSTOM INSERT, KARATE CODE 285

DES. BY: AVB DRAWN BY: D DELEEUW DATE: 11 NOV 97

REVISION APPR. BY:

SCALE: 1=1

1166-R08A-98374



REV.	DATE	DESCRIPTION	BY	APPR.
1	19 JUN 00	CHANGED PART NUMBER TO 0G-98375	AVB	

DAKTRONICS, INC. BROOKINGS, SD 57006

PROJ:

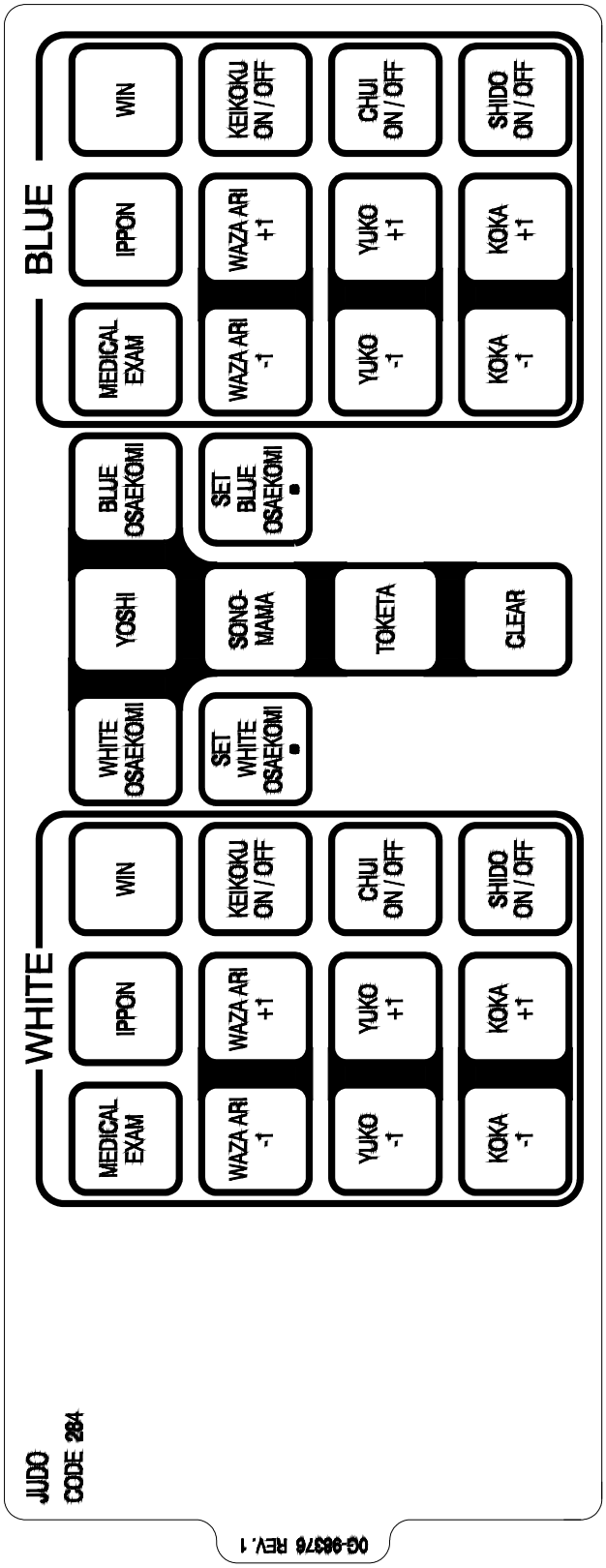
TITLE: CUSTOM INSERT, TAE KWON DO CODE 286

DES. BY: AVB DRAWN BY: D DELEEUW DATE: 11 NOV 97

REVISION APPR. BY:

SCALE: 1=1

1166-R08A-98375



REV.	DATE	DESCRIPTION	BY	APPR.
1	16 NOV 99	CHANGED RED TO BLUE CHANGED PART NUMBER TO OG-98376	AVB	

DAKTRONICS, INC. BROOKINGS, SD 57006

PROJ:

TITLE: CUSTOM INSERT, JUDO CODE 284

DES. BY: AVB DRAWN BY: D DELEEUW DATE: 11 NOV 97

REVISION APPR. BY:

SCALE: 1=1

1166-R08A-98376

REV.	DATE	DESCRIPTION	BY	APPR.
4	26 OCT 00	ADDED AR-7XXX TO POS 1-45	NSW	
3	30 MAR 99	ADDED AMB MODELS 334 & 335. ADDED MANUALS 434 & 435.	MWJ	
2	12 NOV 98	MADE INTO LL PART NUMBER	DDL	
1	02NOV98	ADDED AMB 333 MANUAL 433	DDL	

DAKTRONICS, INC. BROOKINGS, SD 57006

PROJ:

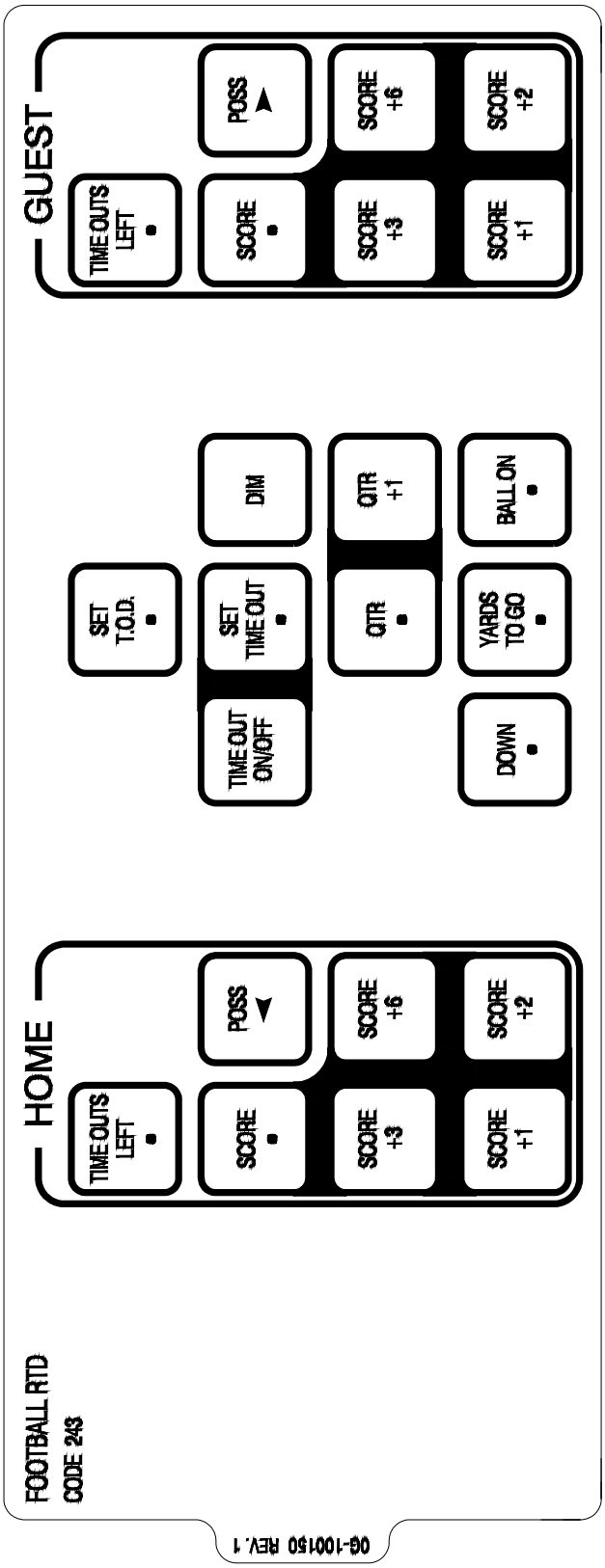
TITLE: INSERT, TRANSPONDER INTERFACE CODE

DES. BY: AVB DRAWN BY: A VANBEMMEL DATE: 05 MAR 98

REVISION 04 APPR. BY:

SCALE: 1=1

8039-R08A-100149



REV.	DATE	DESCRIPTION	BY	APPR.
1	29 NOV 99	CHANGED PART NUMBER FROM LL-2371 TO 0G-100150.	AVB	AVB

DAKTRONICS, INC. BROOKINGS, SD 57006

PROJ:

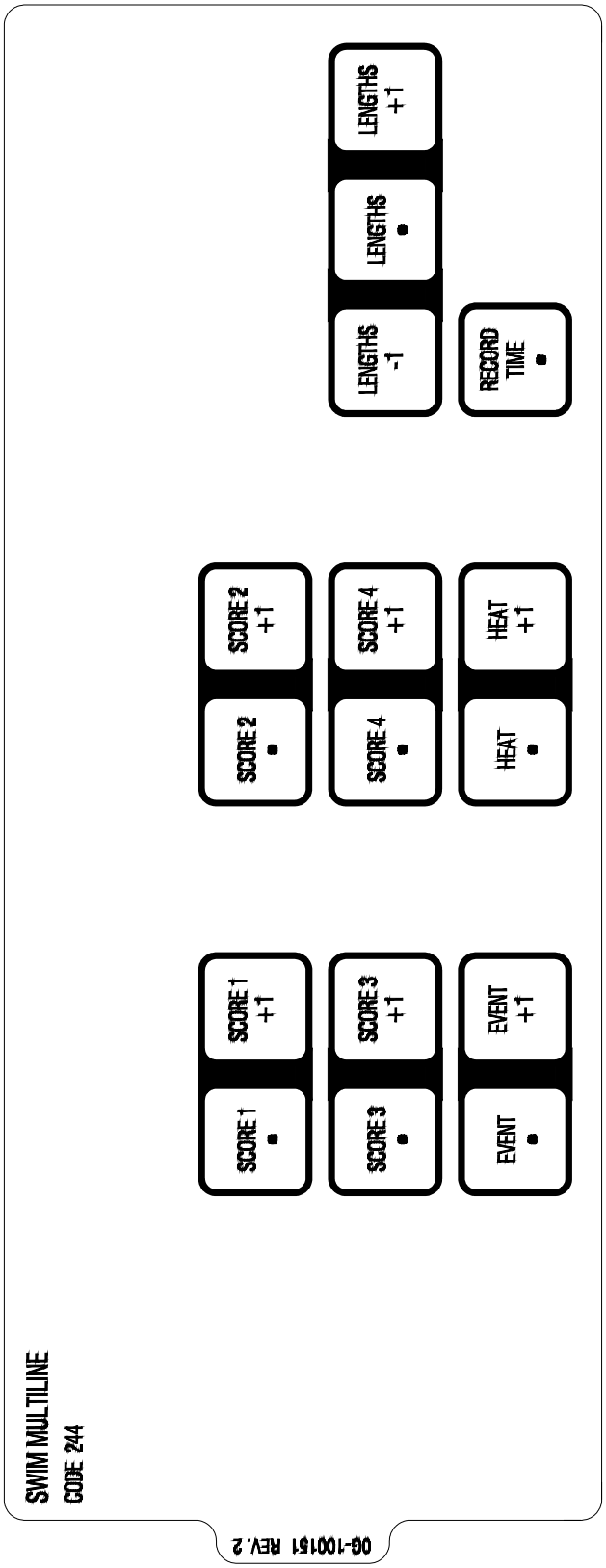
TITLE: INSERT, FOOTBALL RTD, CODE 243

DES. BY: AVB DRAWN BY: A VANBEMMEL DATE: 05 MAR 98

REVISION APPR. BY:

SCALE: 1=1

1166-R08A-100150



REV.	DATE	DESCRIPTION	BY	APPR.
2	15 MAY 00	CHANGED PART NUMBER FROM LL-2372 TO 0G-100151.	AVB	
1	30JUN98	ADDED LENGTHS KEYS.	DDL	

DAKTRONICS, INC. BROOKINGS, SD 57006

PROJ:

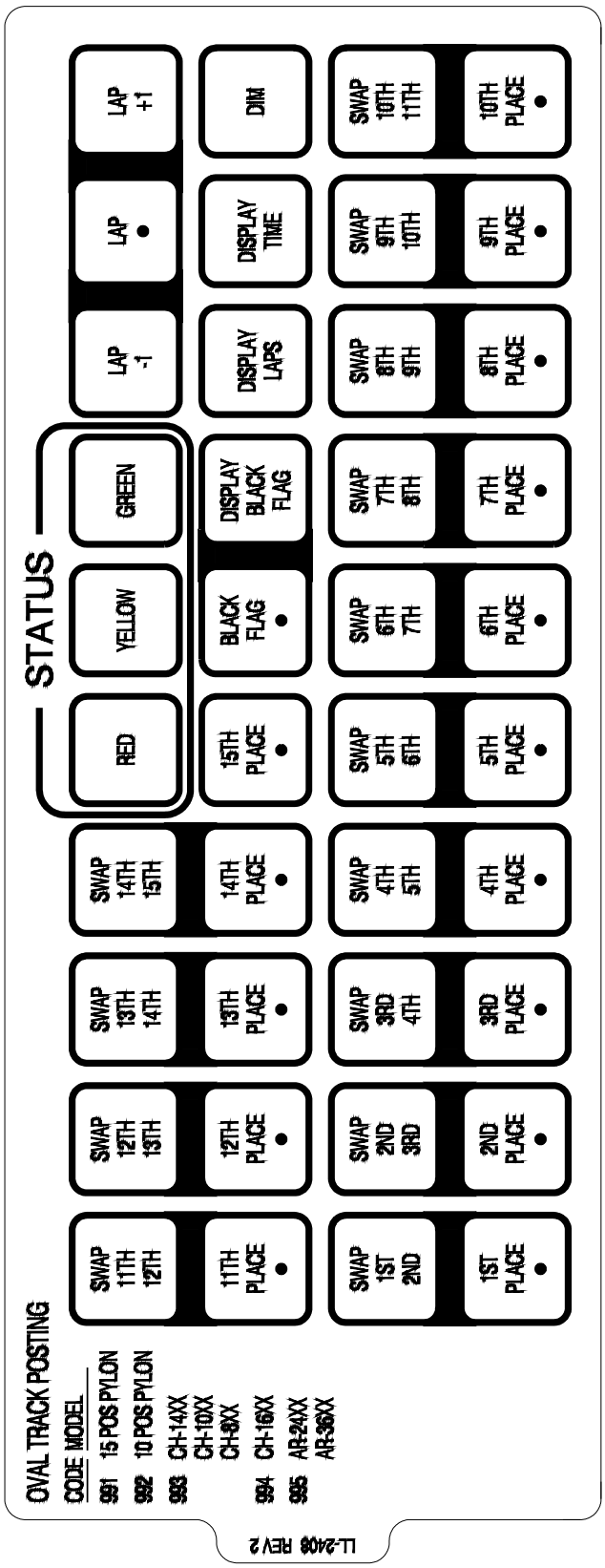
TITLE: INSERT, SWIM MULTILINE, CODE 244

DES. BY: AVB DRAWN BY: A VANBEMMEL DATE: 05 MAR 98

REVISION APPR. BY:

SCALE: 1=1

1166-R08A-100151



REV.	DATE	DESCRIPTION	BY	APPR.
2	12 NOV 98	MADE INTO A LL PART NUMBER	DDL	
1	02NOV98	ADDED CODE 995 AND BLACK FLAG KEYS	DDL	

DAKTRONICS, INC. BROOKINGS, SD 57006

PROJ:

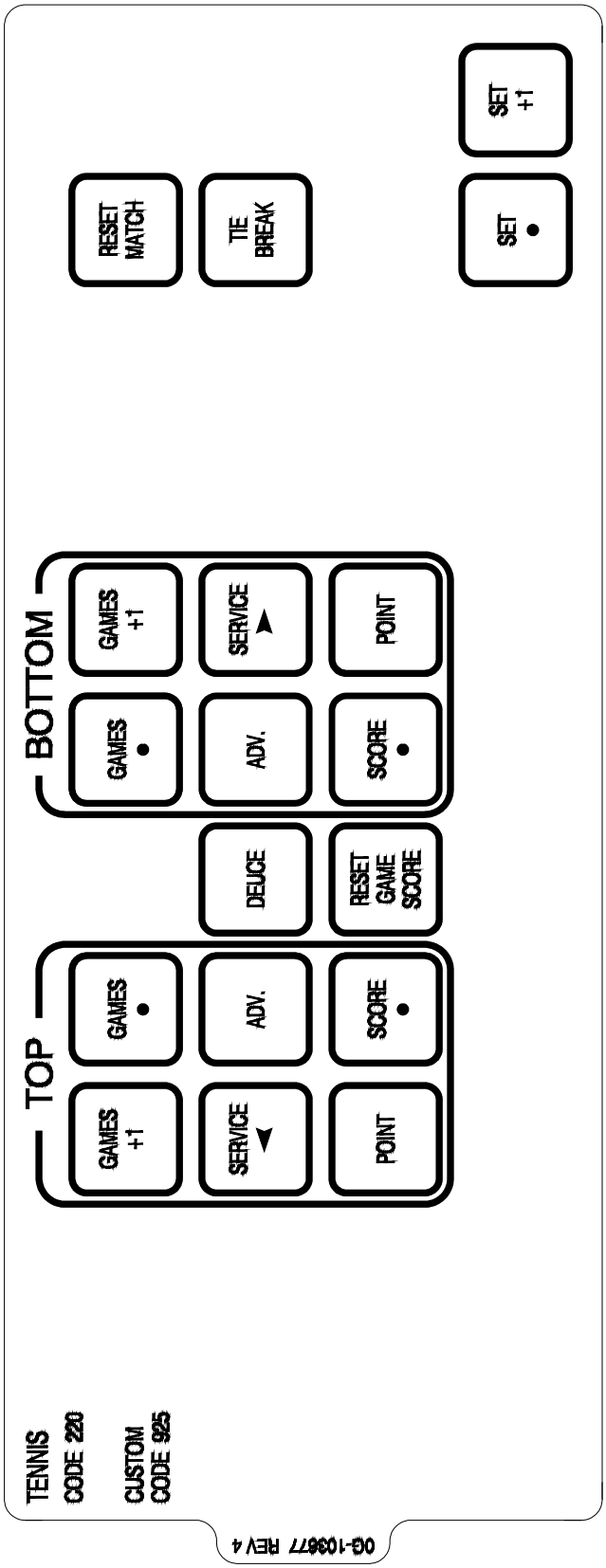
TITLE: INSERT; OVAL TRACK POSTING

DES. BY: AVB DRAWN BY: DDELEEUW DATE: 28APR98

REVISION APPR. BY:

SCALE: 1=1

7843-R08A-102196



REV.	DATE	DESCRIPTION	BY	APPR.
4	19 OCT 99	ADDED CUSTOM CODE 925	AVB	AVB
3	08 JUN 99	CHANGED PART NUMBER FROM LL-2398 TO 0G-103677.	AVB	AVB
2	27 JUL 98	CHANGED LABEL PART NUMBER.	DDL	
1	30 JUN 98	CHANGED TO BE A LABEL PART NUMBER.	DDL	

DAKTRONICS, INC. BROOKINGS, SD 57006

PROJ:

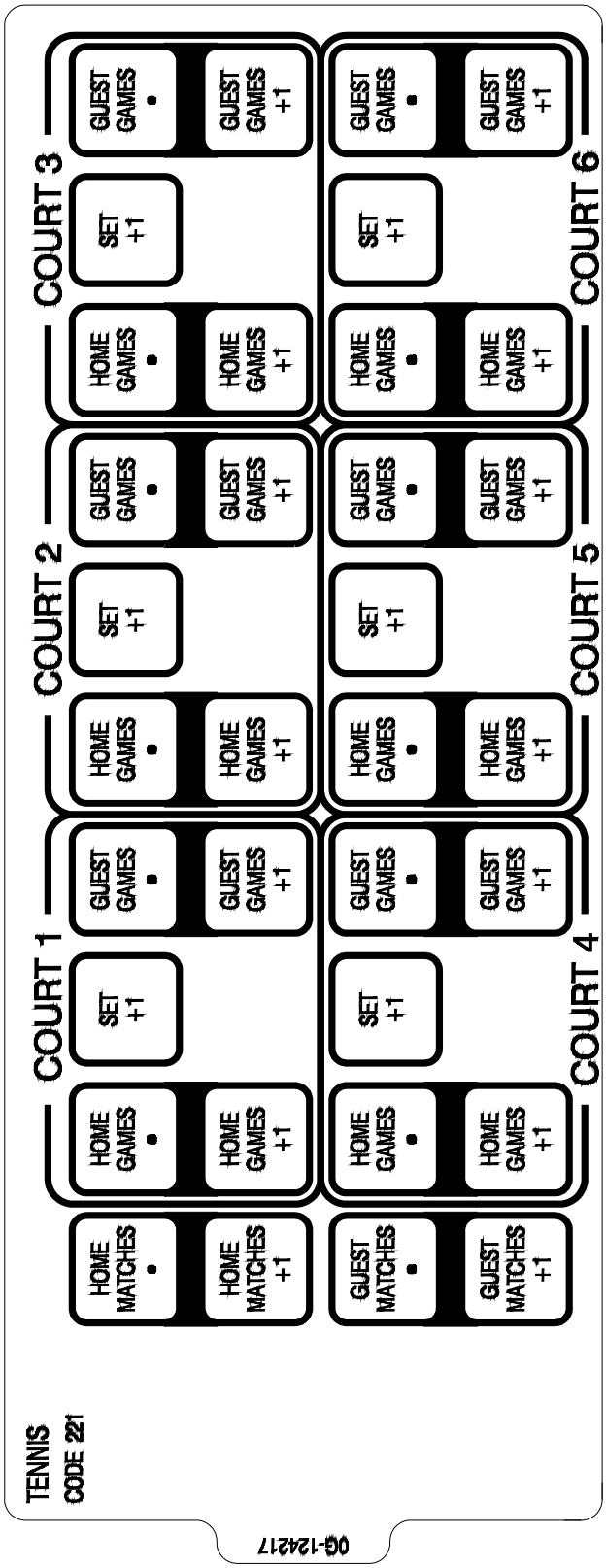
TITLE: INSERT, TENNIS

DES. BY: AVB DRAWN BY: MJORDAN DATE: 10 JUN 98

REVISION APPR. BY:

SCALE: 1=1

1166-R08A-103677



REV.	DATE	DESCRIPTION	BY	APPR.

DAKTRONICS, INC. BROOKINGS, SD 57006

PROJ:

TITLE: INSERT, TENNIS CODE 221

DES. BY: AVB DRAWN BY: A VANBEMMEL DATE: 18 NOV 99

REVISION APPR. BY:

SCALE: 1=1

8046-R08A-124217

REV.	DATE	DESCRIPTION	BY	APPR.
1	12 OCT 01	CHANGED PROJECT # FROM P1196 TO P1166	NW	

DAKTRONICS, INC. BROOKINGS, SD 57006

PROJ:

TITLE: INSERT; A/S 4000 LOOPBACK TEST DATA

DES. BY: EB DRAWN BY: NSW DATE: 3 OCT 00

REVISION APPR. BY:

SCALE: 1=1

1166-E07A-139422