

SS4000  
OPERATOR MANUAL

The 4000 Series Sport System (SS4000) console is the latest in the line of scoreboard controllers developed and manufactured by American Sign and Indicator (AS&I).

The console face contains the system keyboard overlay on the left, a sport keyboard overlay on the right, the local display, and the TIMER switch. The system overlay controls features common to all sports and by exchanging one sport overlay for another, one console can be used to score a variety of sports. On the local display you may view numeric information before it appears on the scoreboard and data describing the system's operations. The TIMER switch is the most convenient way to start and stop the scoreboard clock which, depending upon the sport, counts up or down.

The rear panel contains the POWER ON/OFF switch, power cord receptacle, RESET button, and connectors for the sign data cable and optional equipment cables.

### Overlays

The bold-faced words are defined in the glossary.

The mylar overlays cover dome keys that flex to provide tactile feedback when they are pressed. Allow one-half second between key depressions.

The system overlay includes the number keypad and the keys to set and display **time-of-day** (TOD) and game time. Other features controlled from the system overlay include ad panel lights, audible signals, clearing and blanking the scoreboard, and sport or team name modes.

When you remove the console grid and install a different sport overlay, an optical sensor recognizes the overlay and sets up the software for the new sport or you may enter a sport code to manually set up the software. In the team name mode, the keys of the sport overlay produce the characters or functions on the lower right corner of each key.

### Local Display

As you press the keys on the number keypad, the numbers appear on the local display. Error messages designated by number and operating descriptions also appear on the local display. The error messages inform you that an operation was attempted that could not be completed. The operating descriptions may be words or abbreviations and, in some cases, the seven-segment format used by the local display produces letters in an unconventional manner. For example, a Z appears as a 2 and a B appears as an 3.

### Main Timer

The main timer counts up or down, depending on the sport, and the time is presented simultaneously on the local display and the scoreboard clock. The spring-loaded TIMER switch as well as the GAME TIME keys and an optional Auxiliary Timer Control may be used to start and stop the main timer. Note that when the clock is counting the run light is on and time-of-day is not available.

### Rear Panel

Facing the rear panel, the POWER ON/OFF switch is located at the upper right. The receptacle below the POWER switch accepts a power cord with a three-prong plug. To the left of the power cord receptacle is a small compartment with a sliding plastic window that contains the fuse and the voltage selector printed circuit (PC) card. Pressing the RESET button (between connectors J2 and J3) sets up the system's software when there has been an equipment malfunction. The light emitting diodes (LEDs) labeled L1 and L2 indicate the presence of data being transmitted to the scoreboard. The SIGN DATA connector accepts the cable from the scoreboard and the AUXILIARY TIMER CONTROL connector accepts the cable from a remote timer control.

### Backup Battery

If AC power to the SS4000 is interrupted, three decimal points appear on the local display and the console continues to operate from a backup battery for up to one hour. When normal power is restored, the SS4000 automatically recharges the battery.

## Instruction Cards

The instruction cards list and define the keys for each overlay. In most cases, when you press a key, the local display and the scoreboard will respond. These responses are listed under the Local Display and Scoreboard column headings. The number symbol (#) is a place holder for numbers that appear on the local display and scoreboard. Please note that all the sports or features on the cards may not operate in your system; however, the local display will respond when you press the overlay keys even though your scoreboard remains unaffected.

## SPECIFICATIONS

### Power Requirements

Input Voltage	Frequency	Consumption	Fuse
115 vac	60 Hz	250 watts	1 amp Slo-Blo
230 vac	50 Hz	250 watts	0.5 amp Slo-Blo

### Physical

Width	Depth	Height	Weight
25.5 in.	12.5 in.	5.5 in.	12.5 lbs
64.3 cm	31.8 cm	14.0 cm	5.7 kg

### Environment

Temperature	Relative Humidity
32 <sup>o</sup> F to 122 <sup>o</sup> F 0 <sup>o</sup> C to 50 <sup>o</sup> C	0% - 100% (no condensation)

## OPERATION

### Exchanging Overlays

To exchange sport overlays, remove the console grid by sliding it down the channels. As you slide the grid down against the springs in the lower end of the channels, lift the top of the grid out. Replace only the right-hand overlay.

Insert the grid by placing its bottom edge into the channels first, then press the grid against the springs and guide it into the top channel.

Each time you exchange an overlay, toggle the POWER switch off and on to clear the SS4000's memory of previous scoring information. To protect the overlays, store them in the sliding tray at the left front of the console.

### Sport Codes

Sport	Number
Football	0
Baseball	1
Basketball	2
Wrestling	3
Hockey	6
Soccer	7
Track	8

To enter a sport code, type the appropriate number and press the SPORT MODE key.

**CAUTION:** Always set the POWER switch to OFF before unplugging the console. If the POWER switch is left on and the power cord is unplugged, the backup battery will run down.

### Set-Up Instructions

We strongly recommend that you learn to operate the SS4000 and scoreboard several days before a game or event.

1. Ensure that the power cord has been removed from the wall outlet and that the POWER switch is set to OFF.
2. Insert any optional equipment cables in the proper connectors.
3. Insert the sign data cable in the SIGN DATA (J4) connector.
4. If the system has an Auxiliary Timer Control, verify that the cable is inserted in the AUXILIARY TIMER CONTROL (J5) connector.
5. Plug the power cord into the console receptacle and AC wall outlet.
6. Ensure that the appropriate sport overlay is in place.
7. Set the POWER switch to ON.

8. Unplug the power cord from the wall outlet and check the local display for the three decimal points that indicate the backup battery is operating.
9. Plug the power cord back in and send some sample data to the scoreboard.
10. Verify that the DATA and CLOCK LEDs are pulsing and refer to the appropriate instruction card.

A written record of significant statistics should be kept while the sport events occur. This will enable you to quickly post information to the scoreboard if there is a malfunction and information is lost.

### Troubleshooting

If your system malfunctions, perform the following checks and operations before calling your AS&I service representative.

1. Write down the keys pressed prior to the malfunction.
2. Press the RESET button.

NOTE: If the data in the SS4000's memory has not been damaged by the malfunction, the system will restart at the point where the malfunction occurred. In rare instances, information in memory may become damaged by the malfunction and the console and scoreboard will return to the state they were in at the beginning of the game or event.

3. Enter the proper sport code.
4. Toggle the POWER switch off and on. Note that this will destroy scoring information in memory.
5. Ensure that the correct sport overlay is in place.
6. Check the power cord and backup battery.
7. Check the data cable from the J-box to the J-4 connector.
8. Check the scoreboard circuit breakers.

### Care and Maintenance

The SS4000 is designed to operate indoors or outdoors, however, it should be protected from direct exposure during inclement weather. When the console is not in use, it should be stored in a cool, dust-free place.

When you are operating the SS4000, keep the louvers along the bottom and rear clear to allow air to circulate through the cabinet. Do not allow liquids, coins, paper clips or other objects to fall through the louvers or come into contact with the circuitry.

The SS4000 surfaces and overlays may be cleaned with a mild spray cleaner and water. Cleaners with solvents should not be used. Avoid using excessive water.

This equipment generates, uses, and can radiate radio frequency energy and if not installed and used in accordance with these instructions, may cause interference to radio communications. As temporarily permitted by regulation, it has not been tested for compliance with the limits for Class A computing devices pursuant to Subpart J of Part 15 of FCC Rules, which are designed to provide reasonable protection against such interference. Operation of this equipment in a residential area is likely to cause interference in which case the user, at his own expense, will be required to take whatever measures may be required to correct the interference.

## GLOSSARY

**Ad Panels** - Backlit advertising displays for scoreboards. Ad panel keys may also control optional scoreboard modules.

**Blank** - To momentarily turn off all scoreboard modules without deleting information from the SS4000's memory.

**Clear** - To delete information from the SS4000's memory and specific scoreboard modules.

**Decrement (DEC)** - To decrease a numerical value on the scoreboard by one each time a key is pressed. The SS4000 will not decrement below zero.

**Default** - Mode of operation for the SS4000 when the operator takes no action.

**Direct Post** - To send numbers to the scoreboard modules.

**Increment (INC)** - To increase a numerical value on the scoreboard each time a key is pressed.

**J-Box (Junction Box)** - An enclosed panel used to connect electric circuits.

**Keypad** - A section of a keyboard with keys dedicated to similar functions. The number keypad is located on the right side of the system keyboard overlay.

**Lampbank** - A display using lamps arranged in rows and columns that can be illuminated to present information.

**Matrix (Matrices)** - Lamps or Solar disks arranged in rows and columns.

**Mode** - A state of operation for the SS4000. Examples of modes include team name or sport, time-of-day (TOD) or game time.

**Module** - Lamps grouped together on the scoreboard and used to display one aspect of the sport, for example, home or visitor score modules.

**Operating Description** - The abbreviated messages appearing on the local display that report which keys were pressed.

**Software** - The operating instructions stored in the SS4000's memory.

**Solar Matrix** - A low energy display using rows and columns of highly reflective disks to present information.

**Sport Code** - The number entered prior to pressing the SPORT MODE key that sets up the software for a specific sport.

**Time-of-Day (TOD)** - 12 hour time kept by the SS4000 and displayed on the local display and scoreboard.

**Zero** - To post a zero to a scoreboard module.



## SYSTEM OVERLAY

Key	Operating Details	Local Display	Scoreboard
HORN DISABLE	Turns horn off in case of malfunction.	HORN OFF	
HORN	Sounds horn manually.	HORN	
BELL	Sounds bell manually.	BELL	
BUZZER	Sounds buzzer manually.	BUZZER	
AD PANEL (1-4)	Turns ad panels on and off.	AD PANEL # ON AD PANEL # OFF	Ad panels, backlit displays, or optional modules turned on and off.
[SET] TIME OF DAY	Sets TOD. Displays TOD.	##:##:##	Displays 12 hour TOD.
[SET] GAME TIME	Sets game time. Displays game time.	Counts up to 99:99.99. Counts down to 00:00.	Counts up to 99:99.99. Counts down to 00:00.
START GAME TIME	Starts main timer.		
STOP GAME TIME	Stops main timer.		
SPORT MODE	Makes sport overlay key functions available (default mode).	SCORING (Name of sport)	
TEAM NAME MODE	Makes letters, punctuation marks, and character control keys on sport overlays available (see team name instructions).	ALFA ##	Available only with team name matrices.
TEAM NAME LINE LENGTH	Sets up length of team name matrices (see team name instructions).	LENTH ##	

Key	Operating Details	Local Display	Scoreboard
BLANK SCORE- BOARD	Turns all scoreboard lamps off and on.	Blinks off and on.	Turns all lamps off.
CLEAR FUNCTION	Turns lamps off and clears memory for specified scoreboard module.	CLEAR	Turns lamps off for specified module.
CLEAR ENTRY	Clears numeric information entered by mistake. Use before information is posted to the scoreboard.	Clears local display.	

#### Set Time-of-Day

Ensure that the main timer is off. Then type the time of day, for example, 1200. When you press the [SET] TIME OF DAY key, the time will display 12:00:01.

#### Delete Scoreboard Information

To zero a scoreboard module, type a zero for each digit in the module and press the appropriate function key.

To blank a scoreboard module, press the CLEAR FUNCTION key and the appropriate function key.

#### Main Timer

To measure elapsed time, zero the game time (if necessary) and start the main timer with the START GAME TIME key or TIMER switch.

To enter the count down mode, type the appropriate numbers and press the [SET] GAME TIME key. At the beginning of the event, start the main timer with START GAME TIME key or TIMER switch.

## ERROR MESSAGES

## All Overlays

Error Number	Meaning
ERROR 1	Key is undefined.
ERROR 2	Illegal value entered.
ERROR 3	Improper key sequence.
ERROR 4	Unimplemented feature.

## System Overlay Only

Error Number	Meaning
ERROR 10	Cannot set time-of-day when the main timer is running.
ERROR 11	Plus (+) and minus (-) keys cannot be used with time setting keys.

## All Sport Overlays

Error Number	Meaning
ERROR 20	Plus (+), minus (-), or automatic operation resulted in an illegal value for this function.
ERROR 21	Direct posting, addition, and subtraction are not available with scoring keys.
ERROR 22	Absolute value of keyboard entry exceeds 199 (maximum value allowed).

## Individual Sport Overlays

If you receive an error message number between 30 and 89, refer to the instruction card for the sport overlay on the console.

## Special Messages

If errors 90 through 99 occur, write down the sequence of events that preceded the error and contact AS&I immediately.

## Team Name Mode

In the optional team name mode, short messages and team names may be displayed on scoreboard matrices. The SS4000 can control up to eight matrices; however, a typical scoreboard contains two matrices, one for each team.

The local display messages that you will encounter in the team name mode and their meanings are included in the list that follows.

Message	Meaning
EDIT #	Indicates line number selected.
LENTH #	Select line length if less than 64.
ALFA ##	Number of columns available for display. (Decreases as characters are entered.)
OUTPUT #	Indicates line where information appears.
4x7 FONT or 6x7 FONT	Indicates character font selected.
LOR CASE or UPR CASE	Indicates lower or upper shift lock.
OVERFLO	Indicates too many characters were entered.

1. If the team name matrices on your scoreboard are shorter than 64 columns, you must type the correct length and press the LINE LENGTH key before entering the team name mode each time the SS4000 is turned on.
2. If your system has more than two team name matrices, type the desired line number of the matrix on which you wish to display information and press the TEAM NAME MODE key. If your system has two matrices, you do not need to select a line number, instead, simply press the TEAM NAME MODE key. In the team name mode the letters and punctuation marks on the sport overlay become available for display. Numbers may also be entered.
3. Enter a team name or message.
4. If your system has two team name matrices, press the HOME SCORE/TEAM NAME key for line one and the VISITOR SCORE/TEAM NAME key for line two. If your system has more than two team name matrices, pressing either TEAM NAME key will output the information to the line selected in step 2. You must complete step 4 before you can return to the sport mode.
5. Press the SPORT MODE key to return to the sport mode.

FOOTBALL

Key	Operating Details	Local Display	Scoreboard
VISITOR/ HOME SCORE	Increments score by one. Use for extra points and direct posting to score module.	<u>TOD Mode</u> VIS # # H <u>Game Time Mode</u> # ##:## . # Home Main Visitor Score Timer Score (Decimal point indicates which team has possession of the ball.)	Adds one point to the score. Sends to matrices in team name mode.
TOUCH- DOWN 6 PTS.	Increments score by six.	Adds six points to the score.	Adds six points to the score.
FIELD GOAL 3 PTS.	Increments score by three.	Adds three points to the score.	Adds three points to the score.
SAFETY 2 PTS.	Increments score by two.	Adds two points to the score.	Adds two points to the score.
TIME OUTS LEFT	Decrements time-outs from three. May be used to direct post.	Decrements time-outs.	Decrements time-outs.
FIRST DOWNS	Increments total first downs.	Increments total first downs.	Increments total first downs.
BALL POSSES- SION SYMBOL	Toggles football symbol between visitor and home positions on scoreboard.	1 and 10 (First and ten) Toggles decimal point between visitor and home positions.	Toggles football symbol between visitor and home.
DOWN	Increments from one to four. May be used to direct post.	Increments from one to four.	Increments from one to four.
BALL ON 0-50	Type the yard line line number and press this key. Increments from 0 to 50.	B ON ## 1 and 10	Displays yard line number from 0 to 50.

Key	Operating Details	Local Display	Scoreboard
BALL ON 50-0	Type the yard line number and press this key. Decrements from 50 to 0.	B ON ## 1 and 10	Displays yard line number from 50 to 0.
YDS TO GO	Direct posts or decrements from ten to one.	# TO GO	Displays yards to go.
QUARTER	Increments from one to nine.	Increments from one to nine.	Increments from one to nine.

**Sport Code**

Type the number 0 and press the SPORT MODE key to score football.

## Score Football

In some cases, two operators may be needed to score football, one operator for timekeeping, and another for scoring and statistics.

1. Go through the set-up instructions if you have not already done so.
2. To set the main timer, type the number of minutes for the first quarter and press the [SET] GAME TIME key.
3. Ensure that the correct information is displayed on the scoreboard and that the ball possession symbol appears on the side of the scoreboard for the team that elected to receive.
4. Start the main timer at the beginning of play. *(a zero)*
5. After the runback from the kickoff, type the yard line number where the ball is placed down, and press the appropriate BALL ON key. *Perform this step each time there is a kick off or punt.*  
NOTE: There are two BALL ON keys. Use the BALL ON 0-50 key when either team has the ball on their side of the 50 yard line. Use the BALL ON 50-0 key when either team has the ball on their opponent's side of the 50 yard line.
6. As yards are gained or lost in the plays that follow, type the new yard line number and press the appropriate BALL ON key. The "yards to go" will be updated automatically.
7. When the ball changes possession, toggle the ball possession symbol.

To post a yard line number to the "ball on" module without affecting the "yards to go", you must override the automatic function by entering a zero before the yard line number. For example, if the ball is put in play on the 25 yard line and you need to enter that value on the scoreboard without changing the "yards to go", type a zero, a two, and a five, then press the appropriate BALL ON key.

To correct inaccurate information on the scoreboard, you may direct post to the game time or score modules.

After you press any of the score keys, the scoreboard will display "first and ten" and the "ball on" numbers will be deleted.

## Error Messages

Error Number	Meaning
ERROR 30	Wrong BALL ON key was pressed. The ball is on the other side of center field or the ball possession indicator is pointing to the wrong team.
ERROR 31	Cannot use the BALL ON keys to go from fourth to first down if yardage is short of first down.

## HOCKEY

Key	Operating Details	Local Display	Scoreboard
VISITOR/ HOME SCORE	Increments score by one.	<u>TOD Mode</u> VIS # # H <u>Game Time Mode</u> # ##:## # Home Main Visitor Score Timer Score	Adds one point to the score.
SHOTS ON GOAL	Increments shots- on-goal by one.	VSOT ## HSOT ##	Adds one to the shots- on-goal.
MINOR PENALTY 2 MIN	Type the player number and press this key.	VNPEN ## (Visitor minor penalty) HNPEN ## (Home minor penalty)	Posts player number. Sets penalty time to two minutes. Increments penalty list.
MAJOR PENALTY 5 MIN	Type the player number and press this key.	VJPEN ## (Visitor major penalty) HJPEN ## (Home major penalty)	Posts player number. Sets penalty time to five minutes. Increments penalty list.
MISCON- DUCT PENALTY 10 MIN	Type the player number and press this key.	VSPEN ## (Visitor misconduct penalty) HSPEN ## (Home misconduct penalty)	Posts player number. Sets penalty time to nine minutes, 59 seconds. Increments penalty list.
SELECT PENALTY LINE	Type the line number and press this key to select lines for player numbers and penalty times.	VEDIT # (Edit visitor line number) HEDIT # (Edit home line number)	Updates selected penalty line.
PLAYER NO.	Type the player number and press this key.	VPLAY ## (Visitor player number) HPLAY ## (Home player number)	Displays player number on selected penalty line.
PENALTY TIME	Type the penalty time and press this key.	VPET ### (Visitor penalty time) HPET ### (Home penalty time)	Displays penalty time on selected penalty line.



Key	Operating Details	Local Display	Scoreboard
AUTO ROLL UP ON/OFF	Turns automatic roll-up feature on and off.	ROLL ON ROLL OFF	When penalty time reaches zero, deletes player number and adds another player number (if appropriate).
VISITOR/ HOME ROLL UP	Rolls up player numbers in penalty list.	VROLL HROLL	If penalty time is zero, deletes player number from the top of the list.
PERIOD	Increments period.	PERID #	Displays period number.

### Sport Code

Type the number six and press the SPORT MODE key to score hockey.

BASKETBALL

Key	Operating Details	Local Display	Scoreboard
VISITOR/ HOME SCORE	Increments score by one. May use to direct post.	<p style="text-align: center;">TOD Mode</p> <hr/> <p style="text-align: center;">VIS #</p> <p style="text-align: center;"># H</p> <hr/> <p style="text-align: center;">Game Time Mode</p> <hr/> <p style="text-align: center;"># #:## #</p> <p style="text-align: center;">Home Main Visitor Score Timer Score</p>	Adds one point to the score.
FIELD GOAL 2 PTS.	Increments score by two.	Adds two points to the score.	Adds two points to the score.
FIELD GOAL 3 PTS.	Increments score by three.	Adds three points to the score.	Adds three points to the score.
TIME OUTS	Indicates visitor/home time-out. Stops main timer.	VTO ON/OFF (Visitor time-out) HTO ON/OFF (Home time-out)	An arrow lights to indicate visitor or home time-out.
TEAM FOULS	Increments team fouls. May use to direct post.	VT FO ## (Visitor team fouls) HT FO ## (Home team fouls)	Displays total fouls for team.
PLAYER NO.	Type the player number and press this key.	VPLNO ## (Visitor player number) HPLNO ## (Home player number)	Displays player number next to fouls on line entered with LINE SELECT key (if appropriate).
PLAYER FOULS	Type the number of fouls and press this key.	VP FO # (Visitor player fouls) HP FO # (Home player fouls)	Displays number of fouls next to player number on line entered with LINE SELECT key (if appropriate).
PLAYER PTS	Unimplemented feature.		
VISITOR/ HOME BONUS	Turns bonus light off and on to indicate bonus free throw situation.	VBO ON/OFF (Visitor bonus) HBO ON/OFF (Home bonus)	Turns visitor/home team bonus light off or on.

Key	Operating Details	Local Display	Scoreboard
VISITOR/ HOME SELECT LINE	Type the line number (1-5) and press this key to select lines for player numbers and player fouls.	VEDIT # (Edit visitor line number.) HEDIT # (Edit home line number.)	
5, 6, 7 FOUL BONUS	Depending upon the bonus rule in effect, press the appropriate key at the start of the game.	5F BONUS 6F BONUS 7F BONUS	Bonus light comes on automatically after appropriate number of fouls.
PERIOD	Increments period.	PERID ##	Displays period number.

### Sport Code

Type the number two and press the SPORT MODE key to score basketball.

BASEBALL

Key	Operating Details	Local Display	Scoreboard
VISITOR/ HOME SCORE	Increments total score by one. May use to direct post.	<p style="text-align: center;"><u>TOD Mode</u></p> <p style="text-align: center;">VIS # # H</p> <p style="text-align: center;"><u>Game Time Mode</u></p> <p style="text-align: center;"># 1 . #</p> <p>Home Inning Visitor (Decimal point indicates which team is up to bat.)</p>	Adds one point to the total score.
RUNS THIS INNING	Increments inning scores and total score by one. Direct posting to inning score does not affect total score.	Adds one point to the inning score and total score.	Adds one point to the inning score and total score.
HITS	Increments hits. May use to direct post.	Adds one to hits.	H flashes on and off. (Does not flash in direct post.)
ERRORS	Increments errors. May use to direct post.	Adds one to errors.	E flashes on and off. (Does not flash in direct post.)
STRIKE- OUTS	Increments strike-outs.	Adds one to strike-outs.	Adds one to strike-outs.
NEXT BATTER	Calls up next batter from line-up after you enter previous batter's results.	# # HIT? Prompts for previous batter's "at bat" results.	After you answer the HIT prompt the number of the next batter and his batting average are displayed.
PLAYER # "AT BAT"	Type player number and press this key. May be used to direct post.	Displays player number and batting average if the player is on the roster.	Displays player number and batting average if the player is on the roster.
BATTING AVERAGE	Type batting average and press this key. If the player wasn't entered in the roster, this key may be used to post pinch hitter's batting average.	Displays batting average.	Displays batting average.

Key	Operating Details	Local Display	Scoreboard
BALL	Increments the ball count (0-4).	Increments ball count (0-4).	Increments ball count (0-4).
STRIKE	Increments the strike count (0-3).	Increments strike count (0-3).	Increments strike count (0-3).
OUT	Increments outs (0-3).	Increments outs (0-3).	Increments outs (0-3).
ZERO BALL STRIKE	Zeros ball and strike counts.	BS -- 0 (Balls, strike--zero)	Zeros ball and strike count.
ZERO BALL STRIKE OUT	Zeros balls, strikes and outs when a side retires.	BSO -- 0 (Balls, strikes, outs--zero)	Zeros balls, strikes, and outs when a side retires.
INNING	Increments inning count (1-30).	Increments inning count (1-30).	Increments inning count (1-30).
ZERO SCORE- BOARD	Deletes scoreboard information but saves player statistics. May be used at the end of the first game of a double header.		

### Sport Code

Type the number one and press the SPORT MODE key to score baseball.

### Correcting Inning Scores

1. Type the inning numbers and press the INNING key.
2. Press the CLEAR FUNCTION key and the VISITOR or HOME RUNS THIS INNING key.
3. Post the correct inning score by typing the appropriate number and pressing the VISITOR or HOME RUNS THIS INNING key.

The [SET] GAME TIME key on the system overlay sets up the local display to present Home Score -- Inning Number -- Visitor Score. The decimal point in the local display moves to right or left when the home or visitor NEXT BATTER key is pressed.

## Player Statistics

The following keys do not affect the scoreboard; they may be used to enter team rosters and line-ups and to enter and update batting averages.

Key	Operating Details
VISITOR/ HOME ROSTER	Enter the player numbers, at bats, and hits with the number keypad and this key.
VISITOR/ HOME LINE-UP	Enter the line-up numbers (batting order) and player numbers from the number keypad and this key.
WALK?/ SACRI- FICE	Updates player's batting average when HIT? prompt appears on the local display. May also be used to clear local display when HIT? prompt appears and you don't need to update a batting average. Note that a walk or sacrifice fly has no affect on a player's batting average.
HIT?	Updates the player's batting average when the HIT? prompt appears in the local display.
OUT?/ FIELDER'S CHOICE	Updates the player's batting average when the HIT? prompt appears in the local display.

## Instructions for Player Statistics Keys

To enter the player statistics, you will need the home and visitor rosters (with all player numbers), the home and visitor line-ups, and the number of "at bats" and "hits" for each player. Make sure you press the appropriate roster and line-up keys.

1. Turn the power switch off and on to clear any statistics that may have been entered previously. This will also clear inning scores.
2. To enter the player statistics, type in a player number and press the VISITOR/HOME ROSTER key. The local display will present the player number, three zeros (or the player's batting average if one exists in memory), and the words AT BAT.
3. When BAT 000 (or the player's number of "at bats") appears on the local display, type the number of "at bats" and press the VISITOR/HOME ROSTER key; or if the number of "at bats" is correct, press only the VISITOR/HOME ROSTER key.

4. When HIT 000 (or the player's number of "hits") appears on the local display, type the number of "hits" and press the VISITOR/HOME ROSTER key; or if the number of "hits" is correct, press only the VISITOR/HOME ROSTER key.

NOTE: The SS4000 automatically computes the batting averages from the number of "at bats" and "hits". Continue to build rosters for both teams by repeating steps 2, 3, and 4 for each player.

5. To enter the team line-ups, type the batting order number (1-9) and press the VISITOR/HOME LINE-UP key.
6. With the LINE-UP prompt on the local display, type the player number for that spot in the batting order. The player number must have already been entered on the roster. Continue to build the line-ups for both teams.
7. As the lead-off batter comes up to the home plate at the start of the game, type the number one, press the VISITOR LINE-UP key, and then press the VISITOR NEXT BATTER key. The number and batting average of the lead-off batter will be posted to the scoreboard.
8. To continue through the line-up as the players come to bat, press the VISITOR NEXT BATTER key and update the previous batter's average.

To post a pinch hitter's number to the scoreboard, type the player number and press the PLAYER # AT BAT key. If the player is on the roster, his batting average will also be posted.

TRACK

Key	Operating Details	Local Display	Scoreboard
VISITOR/ HOME SCORE	Increments score by one. May use to direct post.	<u>TOD Mode</u> VIS # # H <u>Game Time Mode</u> ##:##.## Time	Displays visitor and home scores.
LAPS REMAIN- ING	Direct posts laps remaining and then decrements.	#	Displays laps remaining.
EVENT	Direct posts event number.	#	Displays event number.
LAP SPLIT	With main timer running, displays time for last lap and laps completed.	SPLIT	Single lap ##:##.## Cumulative laps ##:##.##
BLANK SPLITS	Blanks lap split and cumulative lap modules.	OFF ON	Turns time, decimal point, and colon on/off.
COLONS ON/OFF	Turns colon off to post distance measurements.	OFF ON	Turns colon on/off.
DECIMAL ON/OFF	Turns decimal point off to post distance measurements.	OFF ON	Turns decimal point on/off.
TEAM NAME #	Direct posts for custom track scoreboards.		
TEAM NAME SCORE	Direct posts for custom track scoreboards.		
1ST-8TH PLACE TIME	Direct posts first through eighth place times. Type the time (without colons or decimal points) and press the appropriate key.	Displays runners' times.	Displays runners' times.
RUNNER #1-#8	Direct posts eight runner numbers. Type a runner number and press the appropriate key.	Displays runners' numbers.	Displays runners' numbers.



### Main Timer

When the main timer is running, it will display minutes, seconds, and tenths of seconds (##:##.#). When the main timer has stopped, it will display hundredth seconds also (##:##.##).

### Sport Code

Type the number eight and press the SPORT MODE key to score track.

SOCCKER

Key	Operating Details	Local Display	Scoreboard
VISITOR HOME SCORE	Increments score by one.	<u>TOD Mode</u> <u>VIS #</u> # H <u>Game Time Mode</u> <u># ##:## #</u> Home Time Visitor	Adds one point to the score.
SHOTS ON GOAL	Increments shots-on- goal.	Adds one to shots- on-goal.	Adds one to shots- on-goal.
CORNER KICKS	Increments the number of corner kicks.	Adds one to corner kicks.	Adds one to corner kicks.
TEAM FOULS	Increments the number of team fouls.	Adds one to team fouls.	Adds one to team fouls.
SHOOT- OUT	Increments the number of "shoot-outs."	Adds one to "shoot-outs."	Adds one to "shoot-outs."
POSSES- SION SYMBOL	Toggles the posses- sion symbol between the home or visitor position on the scoreboard.		
PERIOD	Indicates either one or two.	Indicates either one or two.	Indicates either one or two.
OVER- TIME	Increments from one to nine.	Increments from one to nine.	Increments from one to nine.

Sport Code

Type the number seven and press the SPORT MODE key to score soccer.

## WRESTLING

Key	Operating Details	Local Display	Scoreboard
VISITOR/ HOME SCORE	Increments team score by one.	<u>TOD Mode</u> <u>VIS #</u> # H <u>Game Time Mode</u> <u># ##:## #</u> Home Time Visitor	Adds one point to the team score.
MATCH SCORE 1 PT.	Increments match score by one.	Adds one point to the match score.	Adds one point to the match score.
MATCH SCORE 2 PTS.	Increments match score by two.	Adds two points to the match score.	Adds two points to the match score.
TIME- OUT	Turns time-out arrows on and off.	VTO ON/OFF (Visitor time-out) HTO ON/OFF (Home time-out)	An arrow lights to indicate visitor or home time-out.
START ADVANTAGE TIMER	Starts advantage timer (counting up).	VAD ON (Visitor advantage) HAD ON (Home advantage)	Advantage timer counts up if opponent had no advantage time. Otherwise, it decrements opponent's advantage time.
STOP ADVANTAGE TIMER	Stops advantage timer.	VAD OFF (Visitor advantage) HAD OFF (Home advantage)	Advantage timer must be cleared or zeroed.
MATCH	Indicates the match number from one to nine.	Indicates the match number from one to nine.	Indicates the match number from one to nine.

## Sport Code

Type the number three and press the SPORT MODE key to score wrestling.