

Statistics Controller User's Guide



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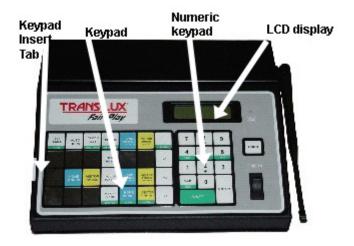
Introduction

The SP-70 Statistics Controller is a companion piece to the MP-70 Scoreboard Controller. Operating in conjunction, these two controls keep spectators informed by displaying game and player data on properly equipped Fair-Play scoreboards.

The intended purpose of the SP-70 is to delegate the task of tracking individual player statistics to one control operator, while another control operator tracks main scoreboard functions such as game clock start/stop, team scores, period, etc., via an MP-70 or equivalent control. This division of labor allows each control operator to focus their attention exclusively on a particular task, resulting in more timely and accurate presentation of a game's statistical information.

The SP-70 will control the presentation of individual player statistics on the "wing panels" or "side panels" (known as player "stats" panels) of your scoreboard. It can run the older 5-line Telelite model "stats" displays as well as the newer 5-line and 6-line Bar Digit and LED technology displays. In addition, it can also operate 15 player lineup panels. These have 5 lamps or spots in a row for each player and an additional lamp to indicate whether the player is in or out of the game.

The figure on the following page acquaints you with the major components of the SP-70.



About this user guide

This User Guide will acquaint you with the SP-70 Statistics Control. It includes chapters on:

- Common Functions, such as Entering Team Lineups, Editing a Player's Record, and Displaying Players in a Game, on PAGE 11.
- Sport-specific settings, including Basketball on PAGE 17, and Volleyball on PAGE 19.
- Wireless settings on PAGE 29.
- Battery options and maintenance, on PAGE 23.
- Programing and changing system settings, on PAGE 51.
- Troubleshooting, on PAGE 57.

This User Guide can also be found at the Fair-Play product Web site. The following URL (Web site address) will take you to the online User Guide. http://www.fair-play.com/asp/productslist.asp

Conventions used in this guide

The following conventions are used throughout this manual to help you identify actions, terms, hints, notes, and warnings.

• ALL CAPITALIZED non-bold large text describes either 1.) Modes of your control's functionality, such as PROGRAM mode or TEST mode; or 2.) a message or prompt displayed on the control's LCD.

Example: In PROGRAM mode, you will see the LCD display the message "CHANGE SPORT?"

• **BOLD and ALL CAPITALIZED** text, such as that shown at left, highlights buttons or switches you must use to complete an action.

Example: Press the **ENTER** button to complete the action.

• CROSS-REFERENCE small text, such as the blue color, all-capitalized small text shown at left, indicates a hypertext link to a cross-reference in another part of this user guide. If you are viewing this user guide in Adobe PDF format, you can automatically jump to the text described in the cross-reference by placing your cursor over the text and pressing the left-hand button on your computer's mouse.

Example: See "INTRODUCTION" ON PAGE 1 for the beginning of this chapter.



Note: A note, such as this one, provides additional information. It may also discuss other procedures to think about.

Getting help

If you experience trouble with your Trans-Lux/Fair-Play equipment and controller after reviewing this manual and following our installation information, you may want to consult a Trans-Lux/Fair-Play service representative in your Trans-Lux/Fair-Play dealer organization or call the Trans-Lux Help Desk for further assistance. The Trans-Lux/Fair-Play Web site, www.fair-play.com, can help you find the dealer nearest to your location. The Trans-Lux Help Desk can be reached at at (800) 462-2716.

Contacting the help desk

The Help Desk provides technical support and product assistance for all Trans-Lux and Fair-Play manufactured products. It is open between 8 a.m. and 7 p.m. Monday through Friday, Eastern Standard Time. The Help Desk is organized to assist with all types of questions and issues, including:

- Requests for Return Material Authorization of equipment to be repaired
- Requests for Warranty Parts Exchange
- Product selection and upgrade assistance.

When you call the Help Desk, you can expedite your calls by having the following information immediately available:

- Sales order number.
- Model number of sign.
- Software that you are running.

Ordering items

Fair-Play always recommends that our customers retain an inventory of spare parts for "game day" emergency purposes. If you would like to order additional scoreboard components or controllers, please contact the Fair-Play Service Department at (800) 316-5555. When contacting the Fair-Play Service Department, it is always helpful to have your scoreboard model number and sales order number information handy.

Necessary information

Before contacting Trans-Lux Fair-Play, please write down the information requested in the following spaces. This will help you answer questions your service representative may ask. In addition, locate the warranty information packaged with the SP-70 before calling.

Trans-Lux Fair-Play Model Number

Trans-Lux Fair-Play sales order number

Name of company or dealer that Fair-Play equipment was purchased from:

Important precautions

- Read this manual thoroughly before setting up or operating the SP-70.
- Do not drop the SP-70.
- Avoid exposing the SP-70 to liquids or moisture.
- Be sure the power cord is protected from hot surfaces, sharp edges, and anything else that could damage it. (Doesn't apply to battery controls.)
- For your safety, the SP-70 features a three-pronged, grounded power cord. Connect this cord only to a standard 120-volt grounded outlet. If a 120-volt grounded outlet for a three-pronged plug is unavailable, have one installed by a qualified electrician. (This doesn't apply to battery controls.)
- Unplug the SP-70 when it is not in use. To unplug it, grasp the plug at the outlet; do not pull on the cord. (This doesn't apply to battery controls.)
- The SP-70 contains no user-serviceable parts. To avoid personal injury or damage to the SP-70's components, do not disassemble the controller. Refer any repairs to a qualified techician.
- When an extension cord is necessary, use only a three-pronged cord with grounded, polarized connectors. Avoid placing the cord where someone may trip over it or unplug it accidentally. (Doesn't apply to battery controls.)
- Do not expose the SP-70 to direct sunlight or extreme temperatures for extended periods.

Setting up the SP-70

If you need help connecting the SP-70 to either the MP-70 or the scoreboard statistics panels, see "SETUP" ON PAGE 21.

You may also need to configure the SP-70 for the type of scoreboard you are operating. While this is normally done at the factory, you may need to complete this step in certain situations.

If the scoreboard does not behave as expected, verify that the proper scoreboard type has been selected as instructed in "BATTERY OPTION" ON PAGE 23.

Turning on the SP-70

Before turning on the SP-70, verify that it is connected to a standard 120-volt grounded outlet. See "IMPORTANT PRECAUTIONS" ON PAGE 7. (Doesn't apply to battery controls.)

Slide the keypad insert into the slot on the left hand side of the SP-70's keypad.

The controller's **ON/OFF** switch is located at the rear of the console. Move this switch to the **ON** position. The SP-70 displays the start-up message below. The version number may be different from the one shown here.

Selecting a sport

To select a sport, follow the steps below.

- 1. Turn off the SP-70.
- 2. Press and hold the **ENTER** key while turning on the SP-70. The prompt shown below appears on the LCD display.



- 3. Press YES (the 4 key).
- 4. With the **YES** and **NO** keys, select the desired sport (Volleyball or Basketball).
- 5. See the chapter relating to the each sport for information on these sport-specific settings. The links below will help you locate the appropriate chapter.
- "BASKETBALL" ON PAGE 17.
- "VOLLEYBALL" ON PAGE 19.



6. When you see the prompt above, press **YES** if you want to accept the new settings and exit program mode. Press **NO** if you have not yet specified the scoreboard type and data format. See "PROGRAMMING SYS-TEM SETTINGS" ON PAGE 51 for more information on these and other system settings.

Common functions

Certain functions of the SP-70 are common to both basketball and volleyball. You should become familiar with these functions before proceeding to the chapters discussing specific sports applications.

Entering team lineups

- The SP-70 allows you to enter numbers for 15 players per team.
- Enter each team's most prominent players first.
- A minimum of six players must be entered per team for the SP-70 to work properly, so if only five players are on a team, enter a phantom number such as **00** or **99** for the sixth player. If you are operating 15 player lineup panels, you need to enter all 15 players for each team.

Follow these steps to enter team lineups:

- 1. To enter home player lineup, press **ENTER LINEUP** then go to Step 2. To bypass home player lineup and proceed to enter visitor player lineup, press **ENTER LINEUP** twice then go to Step 3.
- 2. At the ENT.H.LINEUP?Y/N prompt, press **YES**.

ENT.H.LINEUP?Y/N

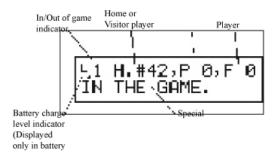
- At the H.PLAYER# prompt, type a twodigit player number then press **ENTER**. For example: for player number 5, type 05.
- Repeat Step 2 to enter 15 player numbers. Be sure to enter the most prominent players first and enter at least 6 player numbers per team. When you have entered 15 players for the home team, go to step 3.
- 3. At the ENT.V.LINEUP?Y/N prompt, press YES.
 - At the V.PLAYER# prompt, type a twodigit player number then press **ENTER**. For example: for player number 5, type 05.

ENT.V.LINEUP?Y/N

- Repeat Step 3 to enter 15 player numbers. Be sure to enter the most prominent players first and enter at least 6 player numbers per team. When you have entered fifteen players for the visitor team, the THANK-YOU message appears on the LCD display.
- 4. You may now proceed to enter game data.

Navigating within the team lineups

The **ROLL HOME** and **ROLL VISITOR** keys allow you to move between player records in the team lineups. Press **ROLL HOME** or **ROLL VISITOR** repeatedly until the desired player record appears on the LCD display. Each player record contains the information indicated in the example shown below.



Editing a player record

Follow these steps to edit the information in a player record:

- 1. Press EDIT HOME or EDIT VISITOR.
- 2. On the numeric keypad, type a two-digit player number. (For player number 5, for example, type **05**.) Then press **ENTER**.
- 3. Type a value in response to the next two prompts, pressing **ENTER** after each. In basketball applications, the SP- 70 prompts you to enter the player's points and fouls. In volleyball applications, it prompts you to enter digs and kills.

Displaying players in the game

The **IN/OUT** key allows you to control which player records appear on the scoreboard. When a player enters or leaves the game, access the player record as instructed in the first two steps under the heading "Editing a player record", and then press the **IN/OUT** key. The SP-70 control's LCD window will indicate "1" on a player record when that player is IN the game, and "0" when the player is OUT of the game, and the player record will be added or removed from the scoreboard display.

If you are using a five-player panel when the teams consist of six or more players, only the records of the five most prominent players on each team appear on the scoreboard. The SP-70 holds the remaining player records in memory. When you press **IN/OUT** to remove one of the top five players from the panel, the SP-70 replaces his or her player record with that of another player who is in the game but does not appear on the panel. When more than one player fits this description, the record highest in the team lineup takes priority.

Alternate methods of taking players in and out of the game are also available via the following two methods:

Adding a player to the game

Follow these steps to place a player in the game and display that player's statistics on scoreboards equipped with five or six player (per team) statistics panels.

- 1. Press HOME FOULS or VISITOR FOULS.
- 2. Press +2 IN/OUT.
- 3. At the PLAYER NO. prompt, type the player number and then press **ENTER**. The player's tatistics will appear in the first open position of the home or visitor statistics panel.

Removing a player from the game

Follow these steps to remove a player from the game and exclude that player's statistics from displaying on the statistics panels:

- 1. Press HOME FOULS or VISITOR FOULS.
- 2. Press +2 IN/OUT.
- 3. At the PLAYER NO. prompt, type the player number and then press ENTER. The player's statistical information will be removed from the statistics panel display, but remains in memory.

Mass player substitution

Follow these steps to remove all of the players from either team for a mass player substitution. This action will take all players out of the game who had been marked as being in the game.

- 1. Press HOME FOULS or VISITOR FOULS.
- 2. Press CLR.

The home or visitor statistics panel will go blank. You may now display statistics for the new players by placing them in the games as outline earlier in this section.

Correcting a mistake

If you make a mistake while entering a number on the numeric keypad, press **CLR**. Then enter the number again and press **ENTER**.



Note: If you press **ENTER** before correcting the mistake, the incorrect value takes effect. You must enter the information again, as instruction in the appropriate section of this manual.

Using the shifted functions

A green background on the keypad denotes the shifted functions. You must press and hold the **SHIFT** key to use these functions. The shifted functions include the following:

NEW GAME

This function clears all information from the statistics panels of the scoreboard. It designates all players as being out of the game but does not remove the team lineups from memory. To designate the starting players for the new game, follow the instructions in "DISPLAYING PLAYERS IN THE GAME" ON PAGE 13.

YES and NO

The **YES** and **NO** keys allow you to respond to prompts on the LCD display. In program mode, you do not need to press **SHIFT** to use these keys. In normal operating mode, however, you must press and hold **SHIFT** while pressing **YES** or **NO**.

NEXT

In program mode, the **NEXT** key lets you skip the current prompt without changing the corresponding value.



Basketball

Before continuing with this chapter, verify that the controller has been programmed to use the correct scoreboard type and data format as instructed in "PROGRAMMING SYSTEM SETTINGS" ON PAGE 51.

Operating the SP-70 in a basketball game

Be sure BASKETBALL appears on the LCD display when you turn it on. This indicates that basketball is the sport currently selected. If the LCD display indicates that volleyball is the selected sport, select basketball as instructed "SELECTING A SPORT" ON PAGE 9

You should also be familiar with the information in "COMMON FUNCTIONS" ON PAGE 11 before continuing with this chapter. "COMMON FUNCTIONS" ON PAGE 11 discusses several functions of the SP-70 that are important to its operation in a basketball game.

Tracking player points

- 1. Press HOME POINT DIG.
- 2. Enter the number of points scored by pressing +1, +2, +3, or -1.
- 3. On the numeric keypad, type the player number and then press **ENTER**.

Tracking player fouls

- 1. Press HOME FOUL KILL.
- 2. Press +1 to increase the player's foul count by one.
- 3. On the numeric keypad, type the player number and then press **ENTER**.



Volleyball

Before continuing with this chapter, verify that the controller has been programmed to use the correct scoreboard type and data format as instructed in "PROGRAMMING SYSTEM SETTINGS" ON PAGE 51.

Operating the SP-70 in a volleyball game

Be sure VOLLEYBALL appears on the LCD display when you turn it on. This indicates that volleyball is the sport currently selected. If the LCD display indicates that basketball is the selected sport, select volleyball as instructed on "Selecting a Sport" on PAGE 9.

You should also be familiar with the information in "COMMON FUNCTIONS" ON PAGE 11 before continuing with this chapter. "COMMON FUNCTIONS" ON PAGE 11 discusses several functions of the SP-70 that are important to its operation in a volleyball game.

Tracking digs

- 1. Press HOME POINT DIG.
- 2. Press +1 to increase the player's dig count by one.
- 3. On the numeric keypad, type the player number and then press **ENTER**.

Tracking kills

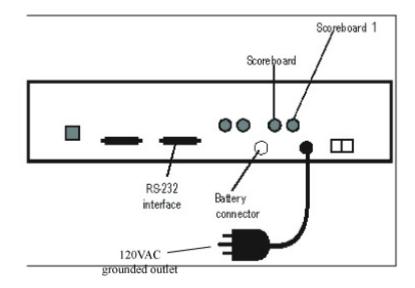
- 1. Press HOME FOUL KILL.
- 2. Press +1 to increase the player's kill count by one.
- 3. On the numeric keypad, type the player number and then press **ENTER**.



The SP-70 transmits data to the scoreboard in one of two methods: either via RS-232 interface with an MP-70 control or directly wired from the SP-70's back panel SCOREBOARD 1 or 2 output connectors to the scoreboard statistics panels through conventional data cable.

When the SP-70 is operating the older Telelite model "stats" panels, 6 player, it must be connected directly to the scoreboard via conventional two-wire data cable from SCOREBOARD 1 or 2 output connectors. When the SP-70 is controlling the newer Bar Digit and LED technology panels, it can either be wired direct to the panels or interfaced with the MP-70 control.

If the SP-70 is to be connected to an MP-70 control, attach the C1409 interface cable to the RS-232 ports of both controllers. Refer to the following figure and to the Setup chapter of the MP-70 Scoreboard Controller User's Guide, part number 98-0002-29.





The SP-70 battery option provides an on-board power source that virtually eliminates the need to plug the control into an AC voltage outlet to operate a scoreboard. AC voltage is only required during battery recharge. When the battery powered SP-70 is used in tandem with a battery powered MP-70, the scoreboard control system's versatility is significantly enhanced.

The battery pack, which is housed inside the control, is a rechargeable Nickel Metal Hydride (Ni-MH) cell assembly that has been exclusively designed and packaged for use in the SP-70 controller. Under typical operating conditions, it will generate a minimum of eight hours of control power before recharging is required. The battery charge level is continuously monitored by the control's microprocessor and is displayed on the LCD readout. The battery charger, supplied with the battery control, can be plugged in and used at any time to feed power to the control if the battery's charge is too low.

To maximize battery life, it is important to observe proper operating, recharging and storage recommendations and precautions, which are outlined in the remainder of this chapter. With proper care, the battery pack should provide years of service.

Battery control features

The physical appearance of an SP-70 control equipped with the battery option is similar to that of a control powered by AC voltage. The differences are found on the bottom and back panels. The bottom panel has a removable tray that allows quick access to the battery pack for easy inspection or replacement. The back panel has a white ON/OFF power switch instead of the black one used on AC-powered controls, and a 5/8-inch diameter circular battery charger connection port in lieu of a seven-foot power cord.

The electronic function of the battery powered SP-70 is exactly the same as its AC-powered cousin with only one notable exception – the addition of a battery charge "gas gauge" indicator. This indicator is displayed as the left-most character on the upper half of the LCD. The graphics below depict the appearance of the indicator at various charge levels.

If the battery pack discharges to an extremely low level, the control will issue an audio-visual warning. The beeper will "chirp" a rapid succession of tones, a lower case letter "e" (for "empty") will be displayed on the gas gauge indicator, and the message "BATTERY VERY LOW" will appear on the bottom half of the LCD readout.

o1 U.#37,P11.F 0 BATTERY VERY LOW

If you receive this warning, it means that the control will likely lose power within 10 minutes and one of the following three courses of action should be immediately taken:

- 1. Attach the battery charger to the controller and plug it into an AC wall power outlet. The control will then continue to run normally, but the battery won't begin charging properly until the control's power switch is turned off.
- 2. Set up and begin using a backup controller after turning off the discharged control.
- 3. Turn off the control and replace the discharged battery pack with one that is fully charged.

Using and recharging battery control

- Operating ambient temperature range: 0° to +140° F (-17.7° C to +60° C).
- Operating time: eight hours minimum, under typical conditions.
- Charging ambient temperature range: +32° to +104° F (0° C to +40°C)
- Charging time fully discharged to fully charged: 10 to 12 hours.

As with any rechargeable battery powered device, the SP-70 battery control will require you to observe some procedures and precautions not typically associated with a standard AC powered control. These recommendations are given for safety reasons – for both you and the control – and to maximize the life of the battery and its charging capacity. Take some time to become familiar with these points:

- Fully charge the battery control once before using it for the first time, or when it is brought out of extended off-season storage.
- Set the white ON / OFF power switch located on the control's back panel to the OFF position during the charging process. Battery controls will not charge properly if the power switch is in the ON position.
- Charge the battery control in a dry place with an ambient temperature between +32° and +104° F (0° C to +40° C). Never charge a control in temperatures exceeding +104° F (+ 40° C). or damage can occur to the charger, the control and / or battery pack. Optimal battery life is achieved when charging at temperatures between +68° and +86° F (+20°C and +30°C).
- Do not leave the battery control plugged into the charger for extended periods. Though doing so will not damage the battery, it is sound practice to detach the charger from the control after recharging is complete.

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- Under certain operating conditions, the charge level indicator may not accurately reflect the control's remaining battery pack charge. If the indication is not accurate, try recharging the control fully. The indication should then become accurate. However, the indication may not correct itself if the battery control has been used or left in a warm place for a long time, or as the battery pack's charging capacity degrades with age, as will happen on controls that have been used and recharged many times. In this event, we recommend replacing the battery pack.
- Turn the battery control off after every use. Failing to do so may drain the battery to a "deep discharge", which can significantly reduce battery life. You are strongly advised to maintain the battery charge at a level sufficient to keep this from happening.

If the control is operated in mild temperature environments you'll likely get substantially more than eight hours of use from a full charge. Optimal battery capacity during use is obtained at roughly +70° F (+21.1°C) and decreases as temperatures fluctuate higher or lower.

To recharge the battery, turn the control's power switch off and attach the battery charger to the circular charging port on the back of the control. Secure the charger to the control by rotating the charger's cable connection locking ring clockwise 1/4 turn, then plug the charger into an AC voltage outlet. The red LED charging indicator will illuminate. When the battery achieves full charge (after 10 to 12 hours for a fully discharged battery), the red indicator will extinguish. Disconnect the charger when recharge cycle is complete.

Short and long term storage of the battery control

- Storage ambient temperature range: -40° to +140° F (-40°C to +60°C).
- Optimal storage ambient temperature range: +55°F to +90° F (12.7°C to 32.2°C).
- Optimal storage relative humidity: 50 percent.

Even when not in use, battery controls will self-discharge over time. This self-discharge is temperature dependent. The higher the temperature of the storage environment, the greater the discharge over time. To minimize this effect, observe the following:

- When the battery control is not in use, keep it in a cool, dry place where the temperature is maintained between +55° and +90° F.
- When the battery control is not going to be used for an extended period of time, such as during a sport's off season, fully charge the control prior to storage.

Battery control safety and precautions

- Use only the specified charger or equipment for the charging function. Never modify the specified charger.
- Do not modify the SP-70 battery control internal electronics or wiring.
- Do not disassemble or modify the battery pack.
- Wear protective gloves and safety glasses and use extreme caution when handling a damaged or leaking Nickel Metal Hydride battery pack. The chemical inside the battery cells is strongly alkaline and can cause injury to the eyes and skin, and damage to clothing.
- Keep the battery control and battery pack dry.
- Keep the battery control away from fire or other sources of extreme heat. Overheated battery packs can expand and burst or explode.
- Do not short-circuit the terminals of the battery pack. This could cause the battery pack to overheat and burst or explode.
- Never expose the battery control to temperatures above +140° F., such as in a car parked in the sun or under direct sunlight. If you must use your control on hot, sunny days, try to keep it in a shaded area, such as a baseball dugout or football press box.
- Do not dispose of the battery pack in fire. Also, the disposal of Nickel Metal Hydride batteries in household or business trash may be prohibited in some areas. Consult and comply with local ordinances for approved disposal procedures.
- Do not expose the battery control to excessive mechanical shock.
- Do not use the battery pack in any other device or for any other purpose.



The SP-70 comes with a wireless option that is available for custom requests only. It is used with five-player or six-player statistics panels or lineup panels. The wireless device allows you to control stat panels or lineup panels from any location in the gym - without the need for wiring and cable conduit.

The wireless SP-70 controls are operated in a similar fashion to the SP-70 controls that have a standard cable connection. This chapter describes how the wireless control can be set up and its features programmed into the control, in the event that you may need to do this. It also features tips on operating the wireless control effectively, as well as detailed instructions for how to set up and run the control during special circumstances.

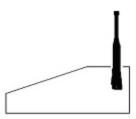


Note: The SP-70 control has been factory tested with your display, and should be ready to plug and play.

When equipped with the wireless option, the SP-70 can still operate the statistics panels using conventional control wire.

Setting up the wireless connection

The wireless SP-70 and receiving devices must be located within range of one another. The wireless system offers an approximate range of 300 feet indoors.



Operating position



Storage position

For optimal transmission:

1. Rotate the SP-70 antenna to the full upright position when using the controller. (Refer to the figures above.) Placing the antenna in any other position reduces the transmission range.

Warning: Never apply power to a wireless SP-70 control that has its antenna removed. This will immediately destroy the output amplifier on the control's transmitter card, and will void any wireless SP-70 warranty. If the antenna has been damaged, send the control to an authorized service center for repair.

2. Locate the SP-70 transmitter within an 180-degree arc in front of the scoreboard to prevent the scoreboard from blocking the signal.

The wireless signal is largely immune to conflicting radio frequency signals from cordless telephones, cellular telephones, microwave ovens and other radio frequency devices. For more information on interference, see "RADIO FREQUENCY INTERFERENCE" ON PAGE 47

When the scoreboard is properly receiving data from the wireless SP-70, data appears on the statistics panels. If the scoreboard loses the signal, or if the signal is intermittent, the statistics panel on the scoreboard goes blank.



Note: If a scoreboard takes longer than 45 seconds to respond to a wireless transmission, it could indicate an improper equipment setup or component malfunction.

The wireless SP-70 has been programmed to use the correct scoreboard type and data format as instructed in "PROGRAMMING SYSTEM SETTINGS" ON PAGE 51.

Selecting transmission modes

Before operating the wireless SP-70, you must select a transmission mode. The wireless data link can operate in one of two modes:

- SELECT CHANNEL mode (SEL) In SEL mode, you can operate more than one display with more than one control, simultaneously, without them interfering with one another.
- ALL SCOREBOARDS mode (ALL) In ALL mode, you can synchronize multiple scoreboards to one control.

High and low power modes

The wireless data link can operate in either

- HIGH POWER mode In HIGH POWER mode, your control broadcasts a signal to the display at its maximum available power output. Under normal circumstances, set your control to HIGH POWER mode.
- LOW POWER TRANSMISSION mode Primarily used for system testing.

Viewing your settings

To view the current radio transmitter setting of your control, hold down the **SHIFT** key while pressing the **BAT/RF** key.

If your control is not battery operated, the first press will display the radio transmitter settings.



Note: If you have a battery-powered control, the first press of the BAT/RF will display the percentage of power remaining in the battery on the bottom line of the LCD. Press the key a second time to display the radio transmitter settings.

When displaying the radio transmitter settings, the bottom line of the LCD will look something like this picture shown below:

OT	88	:	TO	t
LOV	Ι, Ι	ALL	, CH5	5

- LOW or HIGH: LOW or HIGH POWER TRANSMISSION modes.
- ALL or SEL: ALL or SEL CHANNEL mode.
- CH# (0-15): Radio channel (SEL CHANNEL mode only).

Changing your settings

High power transmit

To change any or all of these three settings, hold down the **SHIFT** key and press the number **9** key. The top line of the LCD will display HIPOWER XMIT? Y/N.

- If you respond **YES**, the radio transmitter will send the radio signal at full power.
- If you respond **NO**, then the control transmit range will decrease (this is typically used for testing).



Note: If you want the ALL SCBDS feature to be disabled, a lockout jumper (Fair-Play part number C1452) is available for purchase and installation in indoor scoreboards. All indoor scoreboards are shipped without this jumper installed.

All scoreboards

The prompt ALL SCBDS? Y/N will appear next. If you respond **YES**, the radio transmitter will switch to ALL SCOREBOARDS mode. If your response is **NO**, the transmitter will switch to SEL mode.

Select channel

The final prompt in this series will be SEL.CHANNEL_0. At this prompt, you need to select your channel. Enter a one or two-digit number for the desired channel. Press **ENTER**.

More information on selecting channels is included in the following section.

Selecting channels

In SEL mode, you must select the same channel on both the SP-70 and its receiving devices (scoreboards and timers).

Valid channel numbers are 0 to 15. Most of the SP-70 controls manufactured by Fair-Play are set up at the factory to use channel 3 to control indoor scoreboards. You may keep this selection, or change it, as you prefer.

On the receiving device, the CHANNEL SELECTOR SWITCH is a 16-position rotary switch with a small arrow indicating its position. The image below shows this switch, which is located on the receiver card on your scoreboard. This switch is used to select the SEL mode radio channel. Channels 10 through 15 on M-70/50 correspond to the letters A through F on the **CHANNEL SWITCH**.





Note: Channels 0, 14, and 15 disable the radio transmitter on the SP-70 when the radio transmitter is in SEL mode. Likewise, the receiver located in a wireless scoreboard is disabled when the channel switch is set to 0, E or F.

Receiver card location

The receiver card is located in either the processor mounting area or the radio frequency data converter box of scoreboards equipped with the wireless option. See the following pictures for further details.

Reciever card: for indoor displays



Verifying your channel selection

The receiver channel should display on the scoreboard for 30 minutes after you have powered up that scoreboard. After that 30-minute period, (assuming you have an LED display), the channel display will change to a roving segment, meaning that portions of the LED lights will display in sequence.



Note: If you do not see either the channel display or the roving segment on your scoreboard, the scoreboard may have a power failure.

Verifying scoreboard signal lock

If you cannot tell what channel your scoreboard is set up to receive, you will need to find its signal lock. A signal lock takes place when the receiver card in your display has located the transmission signal from your wireless control.

To locate the operating channel, hold the **SHIFT** key, then press the **9** key. Skip the first two prompts, until you get to the SEL CHANNEL? prompt. Then, enter all of the possible channel numbers, starting with channel 1, and working up to channel 13. If the transmitter and receiver cards are both functioning properly, then the scoreboard should work on one of these 13 channels.

Turning wireless off

You will need to turn off the wireless feature if you want to hook up a wireless-equipped scoreboard to run on a conventional data cable. The procedure below describes how to turn off the wireless settings on your control.

- 1. Press SHIFT + 9.
- 2. The HIPOWER TRANSMIT? prompt appears, as shown below. Press 4/ YES.

TRANS-LUX		
HIPOWER	XMIT?	Y/N

3. The ALL SCOREBOARDS prompt appears, as shown below. Press **6**/**NO**.

	TRANS-LUX	
ALL	SCBDS?	Y/N

4. The SELECT CHANNEL NUMBER prompt appears, as shown below. You may select either 0, 14, or 15 to turn off wireless, as these channels are not used. In the example below, the user has selected 0.

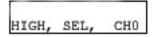
	TRANS-LUX	
SEL	CHANNEL?	0

5. At the last prompt, the settings that you have selected will display on the LCD screen. In the example below, the user has selected High-power Transmit, and has selected Channel 0.

TRANS-LUX		
HIGH,	SEL,	CH0

Note: The SEL.CHANNEL_0 prompt appears even in ALL SCOREBOARDS mode. This way, a viable channel number will be used if the control is changed to SEL channel operation.

6. Remember - You can always review your wireless settings by pressing the **SHIFT** + **BAT/RF** keys. Your current wireless settings will then appear on the LCD screen, similar to the example below.



General wireless operating guidelines

- Maintain a clear, unobstructed line-of-sight between the control antenna and the receiving units. (See "SETTING UP THE WIRELESS CONNECTION" ON PAGE 30 for more information).
- When possible, tune the control transmitter and scoreboard receiver to the lowest available channel setting.
- Also when possible, operate the control with its TRANSMIT mode switch set to the SEL position.
- If more than one control is in use at a facillity, allow for at least one channel of separation between channel settings, starting with channel 1. Example:

control 1=channel 1;

control 2=channel 3;

control 3=channel 5, etc.



Note: Trans-Lux Fair-Play can arrange a recommended radio frequency channel plan for your site. Contact your sales representative for a channel plan.

- Avoid setting more than one control at a time to the ALL SCBDS mode, as this will cause the scoreboards to flicker. (For more information, see "Avoiding POTENTIAL PROBLEMS WITH MULTIPLE CONTROLS" ON PAGE 44).
- Avoid setting more than one control at a time to a particular SEL mode channel setting, as this will cause scoreboards tuned to that channel to flicker. (For more information, see "Avoiding POTENTIAL PROBLEMS WITH MULTIPLE CONTROLS" ON PAGE 44).

- Before establishing communication between a control set to ALL SCBDS and its intended receiving scoreboards, be sure to have established communication between the controls operating in the SEL mode and its intended receiving scoreboards. Otherwise, the scoreboards you intend to run with a control tuned to a particular channel in the SEL mode will be likely to lock onto the signal from the control set to ALL SCBDS, and may not respond to the intended SEL mode control when it is turned on. (For more information, see "Avoiding POTENTIAL PROBLEMS WITH MULTIPLE CONTROLS" ON PAGE 44).
- The scoreboard lamp driver circuit card can accommodate either conventional control wire hookup or wireless radio receiver, but is not designated to accept both data transmission methods simultaneously.

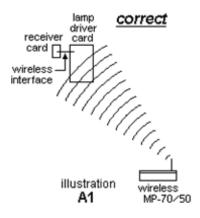
Operating wireless under special circumstances

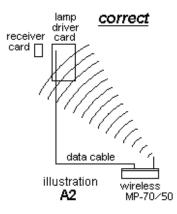
The following sections will give you pointers on setting up and operating the SP-70 control under special circumstances you may encounter. Keep in mind that:

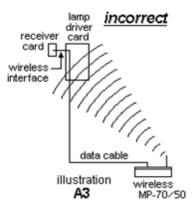
- A control set to ALL SCBDS will transmit indiscriminately to all wirelessequipped scoreboards in its range, regardless of what channel these scoreboards have their receivers set to, except for receivers equipped with a lockout jumper (part no. C1452) installed.
- A control set to the selective (SEL) transmission of channels 1-13, will transmit to all scoreboards in that vicinity that have their receivers tuned to that particular channel. Hence, a control set to channel 7 will transmit to all scoreboards in that vicinity that have their receivers set to channel 7.

Mixing wireless and conventional cable hookups

To use conventional control wire with a scoreboard, first disconnect the wireless receiver from the lamp driver card. Conversely, before using a wireless link, disconnect the conventional control wire from the lamp driver card. On indoor scoreboards, lamp driver and radio receiver cards are both located behind the home side stat panel or on the lineup panel. Attempting to simultaneously connect conventional control wire and a wireless receiver card to a lamp driver card can damage both cards. The three illustrations on the following pages display correct vs. incorrect wireless/conventional cable arrangements.







Power-up sequence for multiple controls

For systems using multiple wireless controls, observe the following powerup sequence:

- 1. Scoreboards and timers.
- The SP-70 controls set to the SEL mode. Multiple controls can utilize the SEL TRANSMIT mode, but they must each be set to different channels.
- 3. The SP-70 control set to the ALL mode. This has a limitation of ONE set of scoreboards set to ALL. Only ONE control at any given time should be set to the ALL TRANSMIT mode. No less than 45 seconds should be allowed to pass between each power-up activation. For example:
 - a. Turn power on to scoreboard 1 (CHANNEL SELECT SWITCH =4), AND SCOREBOARD 2 (channel select switch =9)
 - b. Wait 45 seconds.

Turn first SP-70 power on.

(Mode = SEL, CH4)

c. Wait 45 seconds.

Verify that the scoreboard and shot timers set to channel 4 are responding to transmission from the SP-70 set to CH4.

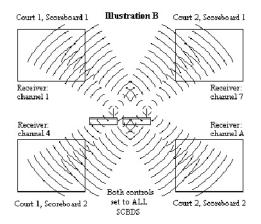
Turn second SP-70 power on (Mode SEL, CH9 or ALL).

d. Verify that the scoreboard set to channel 9 is responding to transmission from the SP-70 set to SEL CH9 or ALL.

Avoiding potential problems with multiple controls

In facilities where one or more scoreboards are already synchronized to the signal of one wireless SP-70 transmitting in ALL SCBDS mode, that control will also transmit to any other scoreboards that you set up within its proximity - regardless of what the channel setting of the new scoreboard.

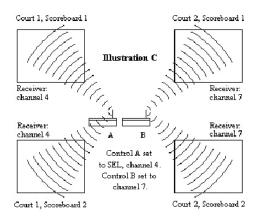
In other words, if you have a situation where two wireless scoreboards are operating on their own basketball courts, and are both operated under one control in ALL SCBDS mode, you will not be able to add and operate a new scoreboard independently, merely by using another SP-70 control set for ALL SCBDS. Instead, all of the scoreboards will display scrambled information, because each will not be able to discern which is its "correct" signal. This will result in the situation illustrated below:



The reason for these garbled signals is that the wireless specification doesn't allow the simultaneous use of more than one wireless control set to one particular channel. A situation where two or more controls are located within each other's range and set to transmit on the same channel will produce competing signals. When this happens, the scoreboards will attempt to display both of these competing signals, resulting in garbled, unintelligble digits. Fortunately, your control includes the capacity to broadcast on 14 channels, and so the maximum number of wireless controls that can be used within a local vicinity is 14.

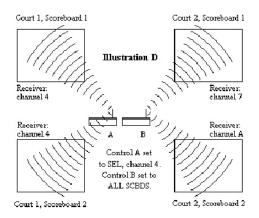
Instead, you can avoid garbling these transmission signals by setting up the controls in one of two different fashions:

• The recommended method of operating multiple scoreboards from one wireless control is to use the SEL TRANSMIT mode and tune the control and scoreboards to the same channel. As displayed below, the Court 1 scoreboards and control are tuned to channel 4 and the Court 2 scoreboards and control are tuned to channel 7. Keep in mind that this arrangement will require you to physically change the channel at one of the scoreboards of both courts if you ever want to operate all four scoreboards independently with four wireless controls. On the other hand, the benefit of this setup is that if either control ceases transmitting, the scoreboards that particular control was operating will not lock on to the signal from the other control.



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• An alternative method would be to set the two scoreboards and one control of court 1 all to the same channel and transmit wireless dat in the SEL mode. Once you have established the SEL mode wireless link on that court, you can then establish a link in the ALL SCBDS mode on court 2. (See illustration below). Again, this arrangement will require you to switch one of the court 1 scoreboards to a different channel, if you ever want to operate all four scoreboards independently with four wireless controls. The drawback of this setup is that if control A ceases transmitting, the scoreboards that control was operating could eventually lock on to the signal from control B.



Wireless Troubleshooting

The following section suggests possible solutions to problems you may encounter, including radio frequency interference, or other radio transmission problems.

Radio Frequency Interference

Under normal circumstances, other wireless signals, such as a nearby cellular phone relay tower, should not jam the wireless SP-70 during a sporting event. The control's radio signal is redundantly transmitted 16 times across a wide bandwidth using Spread Spectrum Technology - regardless of what channel or transmit mode your control is set to. Spread Spectrum Technology provides a high level of reliability, and is designed to hinder interference effects from cellular phones, cordless devices, microwaves and other Radio Frequency devices, as well as provide security from signal jamming.

However, wireless reception cabability can be affected by unrelated Radio Frequency traffic in the area. As "stray" signals increase, reception range may decrease.

In the unlikely event that you think you are experiencing Radio Frequency interference, we recommend that you change channels, which should eliminate any problems.



Note: The Federal Communications Commission (FCC) has certified that Fair-Play's wireless SP-70 device will not cause harmful interference to other FCCapproved equipment.

Scoreboard not picking up radio signal

If a scoreboard or shot timer is having difficulty locking onto the radio signal, try the following:

- 1. Make sure the control's antenna is in the upright position, with an unobstructed line of sight to the scoreboard.
- 2. Relocate the control closer to the scoreboard.
- 3. Shut off the control and scoreboards and/or shot timer power for 20 to 30 seconds, then turn them back on.
- 4. If the control is in SEL mode, switch the transmitter and receiver to a different channel from the one currently being used. Be sure to turn the scoreboard power off during this stage.

Or

Wait 20-30 seconds, and then turn the control back on.



Note: Channels 0, 14, and 15 disable the radio transmitter on the SP-70 when the radio transmitter is in SEL mode. Likewise, the receiver located in a wireless scoreboard is disabled when the channel switch is set to 0, E or F.

5. Make sure the control is programmed for high power radio transmission, as instructed at "HIGH AND LOW POWER MODES" ON PAGE 31.



Note: If you have difficulty establishing a signal lock on any display, switch ALL of your controls to high power.

6. If there has been no response to any of these possible fixes, Fair-Play recommends that you run the scoreboard with a conventional data cable for the duration of your game until you have more time to determine the cause of the problem. If you decide to do this, be sure to set the wireless SP-70's channel switch (located on the back panel) to position E, F, or 0; and the TRANSMIT mode switch to SEL. This will turn the radio transmitter off and prevent possible damage to the scoreboard's processor.

Final wireless control considerations

- In facilities that have more than one wireless scoreboard, assign a particular control for use with a particular scoreboard and apply identification labels for each control.
- Keep a record of the channels on which the scoreboard's receivers are set, and document the scoreboard Fair-Play model number. This is especially useful for facilities that have more than one scoreboard, and speeds up service processing if you should require future assistance. (For more information, see "GETTING HELP" ON PAGE 5).
- For periods of extended system inactivity, such as a school holiday or overnight, shut off power to all scoreboards, timers and controls. This will extend product life and increase the safety margin, should servicing be necessary.



Programming System Settings

The SP-70's system settings allow you to specify the type of scoreboard you are using and send data out from the control in either MP-69 or MP-70 format.

Follow these steps to adjust the system settings:

- 1. Turn off the SP-70.
- 2. Press and hold the **ENTER** key while turning on the MP-70. The CHANGE SPORT prompt appears on the LCD display.



3. Press NO. The SYSTEM prompt appears.

- PROGRAM MODE - SYSTEM? Y/N

- 4. Press YES.
- 5. Enter a response for each prompt. See "SYSTEM SETTINGS IN DETAIL" ON PAGE 52 in detail for further information on each setting.
- 6. When you see the prompt below, press **YES** if you want to accept the new settings and exit program mode.



7. Press **NO** if you want to remain in program mode to select a different sport. See "SELECTING A SPORT" ON PAGE 9 if you need help selecting a sport or changing the sport-specific settings.

System settings in detail

The following are descriptions of the options included in the SP-70's system settings.

Scoreboard type

The SP-70 must be properly configured for the type of scoreboard it is controlling. The SCBD TYPE prompt indicates the scoreboard type currently selected. In the example shown below, the current scoreboard type number is 07, which will allow the control to run scoreboard models BB-1615 and BB-1615-V.

- PROGRAM MODE - SCBD TYPE #? 07

If you want to keep the current setting, press **SHIFT+NEXT**. Otherwise, locate the scoreboard type number for your scoreboard in the table on "BOARDS SUPPORTED" ON PAGE 55. Enter this number at the SCBD TYPE prompt and then press **ENTER**.

If you do not see your scoreboard model number in the table on "BOARDS SUPPORTED" ON PAGE 55 contact the Trans-Lux Service Help Desk. See "CON-TACTING TRANS-LUX" ON PAGE 58 for more information.



Note: If the SP-70 is connected to an MP-70 control via the RS-232 interface, both controls must be set to the same scoreboard type number and data format for the system to operate properly.

MP-69 data output

Your Fair-Play scoreboard requires data in one of two formats: MP-70 or MP-69. The table on "BOARDS SUPPORTED" ON PAGE 55 indicates which data format your scoreboard model requires. Selection of the proper data format is especially important if your SP-70 control is wired from the back panel SCOREBOARD output connectors 1 & 2 directly to the scoreboard through conventional data cable.

More clearly stated, if you are trying to run TeleLite model panels, such as would be found on a BB-6660 scoreboard, select the MP-69 data format. For the newer technology scoreboards, such as the BB-1625, select the MP-70 data format.

The SP-70 can provide data in either format. The prompt shown below allows you to specify which data format the controller provides.



To select the MP-69 format respond with **YES**, and respond with **NO** to select the MP-70 format.



Note: The MP-69 prompt will not appear if your SP-70 control is configured for wireless operation. If you have an SP-70 with the wireless option, your control has already been pre-configured to operate with MP-70 data.

Wireless system settings

The following three prompts will only appear if your control has the wireless option.

HIPOWER XMIT: Responding with **YES** will send the radio transmission at full power. Otherwise **NO** will send radio data at a reduced power rate. Respond **YES** at this prompt.

SYSTEM S	SETTINGS XMIT?Y/N
HIFUWER	VUT FAX R

ALL SCBDS: Responding with **YES** will put the radio transmitter in ALL SCOREBOARDS mode. **NO** will put the transmitter in SELect mode.

SYSTEM SETTINGS ALL SCBDS? Y/N

SEL CHANNEL: Respond with one or two-digit Select channel number. Valid entries are 0 to 15. Conclude by pressing the **ENTER** key. This number represents the radio channel number. See "BATTERY OPTION" ON PAGE 23 for a detailed explanation.

> SYSTEM SETTINGS SEL. CHANNEL? __

Exiting system settings

Respond **YES** to the prompt above to exit SYSTEM SETTINGS. Press **NO** to start over at the SCBD TYPE prompt.

Boards Supported

The SP-70 only controls the stat panel portion of your scoreboard. You will still need an MP-70 to control the tine and scoring sections of your scoreboard.

Scoreboard Type Number	Stat Panels Using MP-69 Data	Stat Panels Using MP-70 Data
05	BB-6662, BB-6760	BB-1635, BB-1635V, BB-1735, BB-1735V, BB-1855B-4 BB-1855C-4 BB-1855D-2M-4, BB-1860F-4, MP-1054-4
06	BB-6660	BB-1625, BB-1625-V, BB-1665-4
07	None	BB-1615, BB-1615V
08	None	BB-1725, BB-1725-V'
09	None	BB-1636, BB-1636-V, BB-1736, BB-1736-V
10	None	BB-1626, BB-1626-V, BB-1666-4
11	None	BB-1616, BB-1616-V
12	None	BB-1726, BB-1726-V
16	None	
17	None	

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18	None	
19	None	



Troubleshooting

This chapter will help you solve some of the most common problems you may encounter. If you need additional help, contact the Trans-Lux Service Help Desk as instructed at "CONTACTING TRANS-LUX" ON PAGE 58.

Solutions to common problems

If the problem you are experiencing fits a description below, try the solutions suggested. If you need additional help, see "Contacting Trans-Lux" on PAGE 58

Nothing appears on the statistics panel

Verify the following:

- The SP-70 power cord is connected to a 120-volt grounded outlet as instructed in "IMPORTANT PRECAUTIONS" ON PAGE 7. (Doesn't apply to battery controls.)
- Power is reaching the outlet. (Doesn't apply to battery controls.)
- When you turn on the SP-70, the start-up message at left appears on the LCD display (the version number may vary). If the LCD display is blank, try replacing the fuse on the back panel of the SP-70 with a new, properly-rated fuse.

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- The SP-70 is properly connected to the MP-70 (when used with Bar digit or LED scoreboards) or to the scoreboard (when used to run Telelite scoreboards) as instructed in "SETUP" ON PAGE 21.
- The SP-70 has been programmed correctly as instructed in "PROGRAM-MING SYSTEM SETTINGS" ON PAGE 51.
- Power to the scoreboard is turned on.
- The terminating resistor switches are adjusted properly as instructed in "SETUP" ON PAGE 21.

• The MP-70 is properly connected to the scoreboard and programmed correctly as instructed in "SETUP" ON PAGE 21 and "PROGRAMMING SYSTEM SETTINGS" ON PAGE 51 of the MP-70 Scoreboard Controller User's Guide, part number 98-0002-29.

Portions of the statistics panel do not respond

Verify the following:

- All system settings are correct as explained in "BATTERY OPTION" ON PAGE 23.
- The proper scoreboard type and data format are selected.
- Your scoreboard supports the selected sport.

Contacting Trans-Lux

If you need addition help, consult a Trans-Lux service representative in your Trans-Lux/Fair-Play dealer organization or call the Trans-Lux Service Help Desk at (800) 747-5305.

Before contacting Trans-Lux, please write down the information requested below. This will help you answer questions your service representive may ask. In addition, locate the warranty information packaged with the SP-70 before calling.

- Model Number.
- Trans-Lux/Fair-Play Scoreboard Catalog number.
- Software version number, which appears on the LCD display after you turn on the SP-70.
- Trans-Lux/Fair-Play sales order number, located in the upper right-hand corner of your shipping invoice.
- Shipping or receiving date.

10 Warranty





Please give us your input!

In an effort to provide you with the most accurate, up-to-date information possible, Trans-Lux/Fair Play has provided this form, which you can use to request any changes or updates that you think is necessary to this User Guide.

Please fill out this form, include the location of the requested change, and provide detailed comments so that we can better serve you. Mail, or FAX this form to:

Fair Play Corporation Attn: Documentation Department 6110 Aviator Drive Hazelwood, MO 63042 1.800.247.0265

(Please include Chapter title, and heading, if applicable, and the page number shown on hard copy printout).

User: Date of requested change: Location of requested change:

Requested change, and reason for request:

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