Fair-Play

A TRANS·LUX® COMPANY

LED SEGMENT TIMER
INSTRUCTION MANUAL

REVISION DATE: 09-14-06
PART#: 98-0025-01

Fair-Play

A TRANS·LUX® COMPANY

SERVICE & CUSTOMER INFORMATION

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

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

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

MODEL NUMBER:_____

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

INSTALLATION DATE:_____

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

FAIR-PLAY SCOREBOARDS

DES MOINES, IOWA

INSTRUCTION DRAWING LIST

LED SEGMENT TIMER

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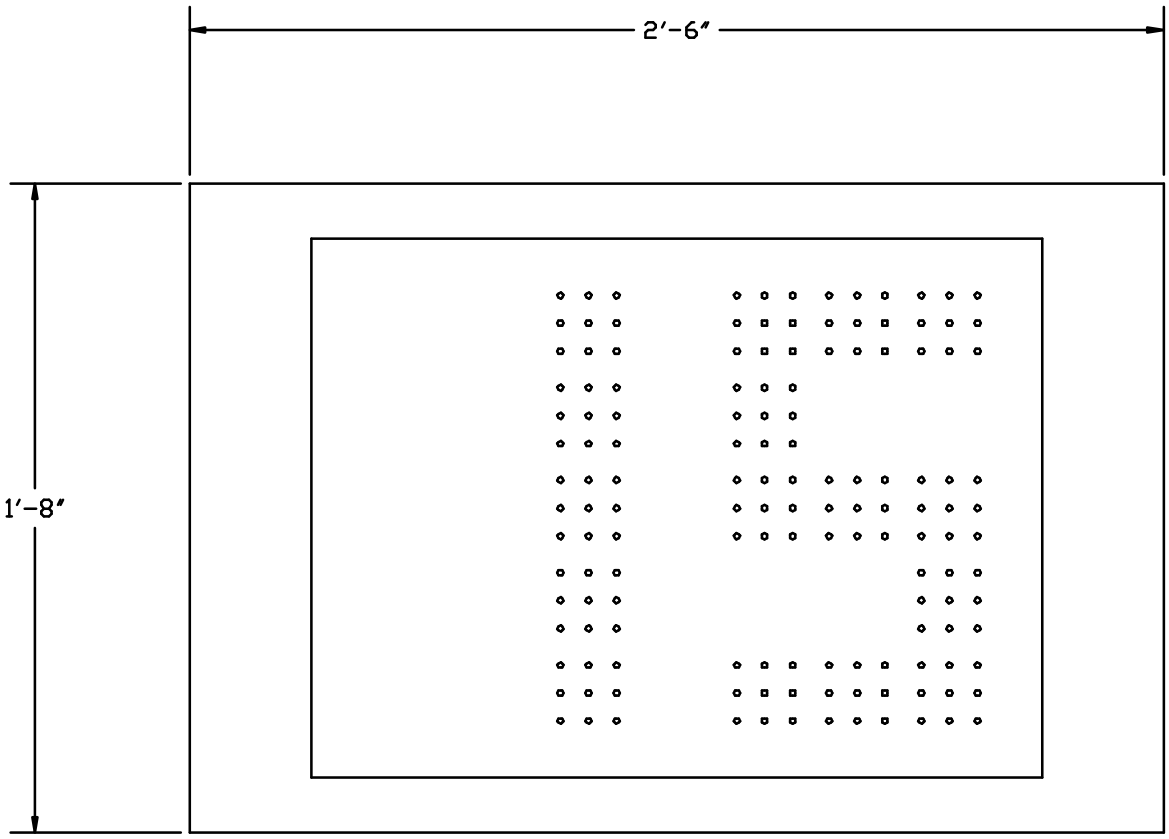

REV. 09-24-01

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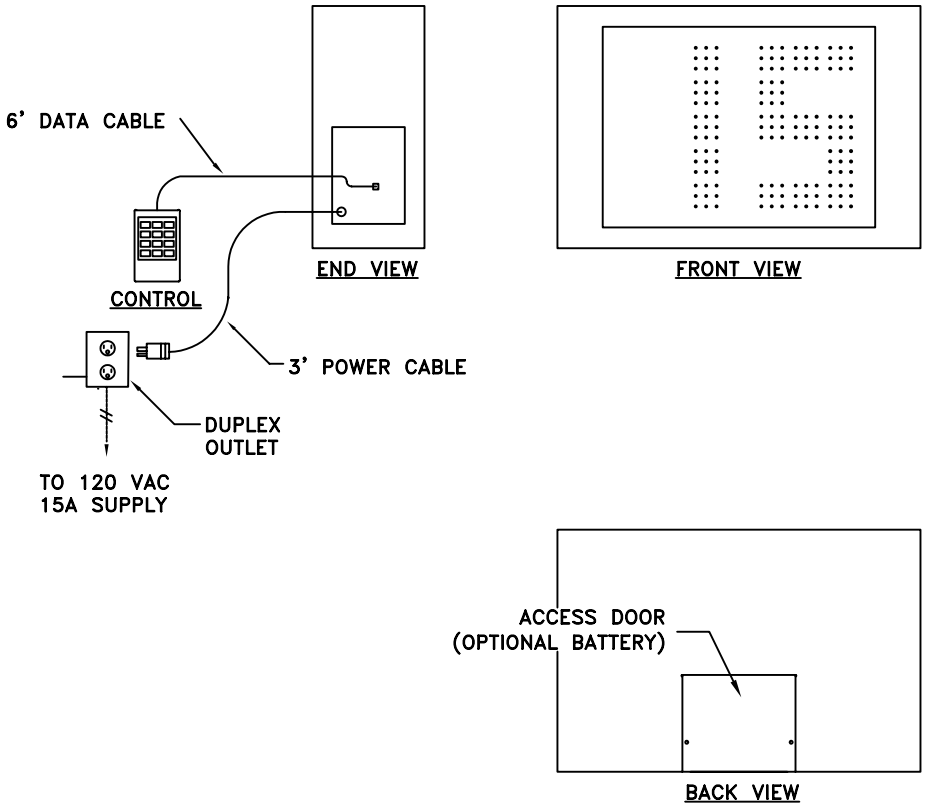


SEG–815

SIZE: 30" X 20" X 9.25"

POWER: 120 VAC, 50/60 Hz, 1 PH. SUPPLY.
(OPTIONAL 12VDC BATTERY) 29 WATTS.

CONTROL CABLE: 6 CDR. PHONE CABLE.

WIRING DRAWING: 12–0815–02

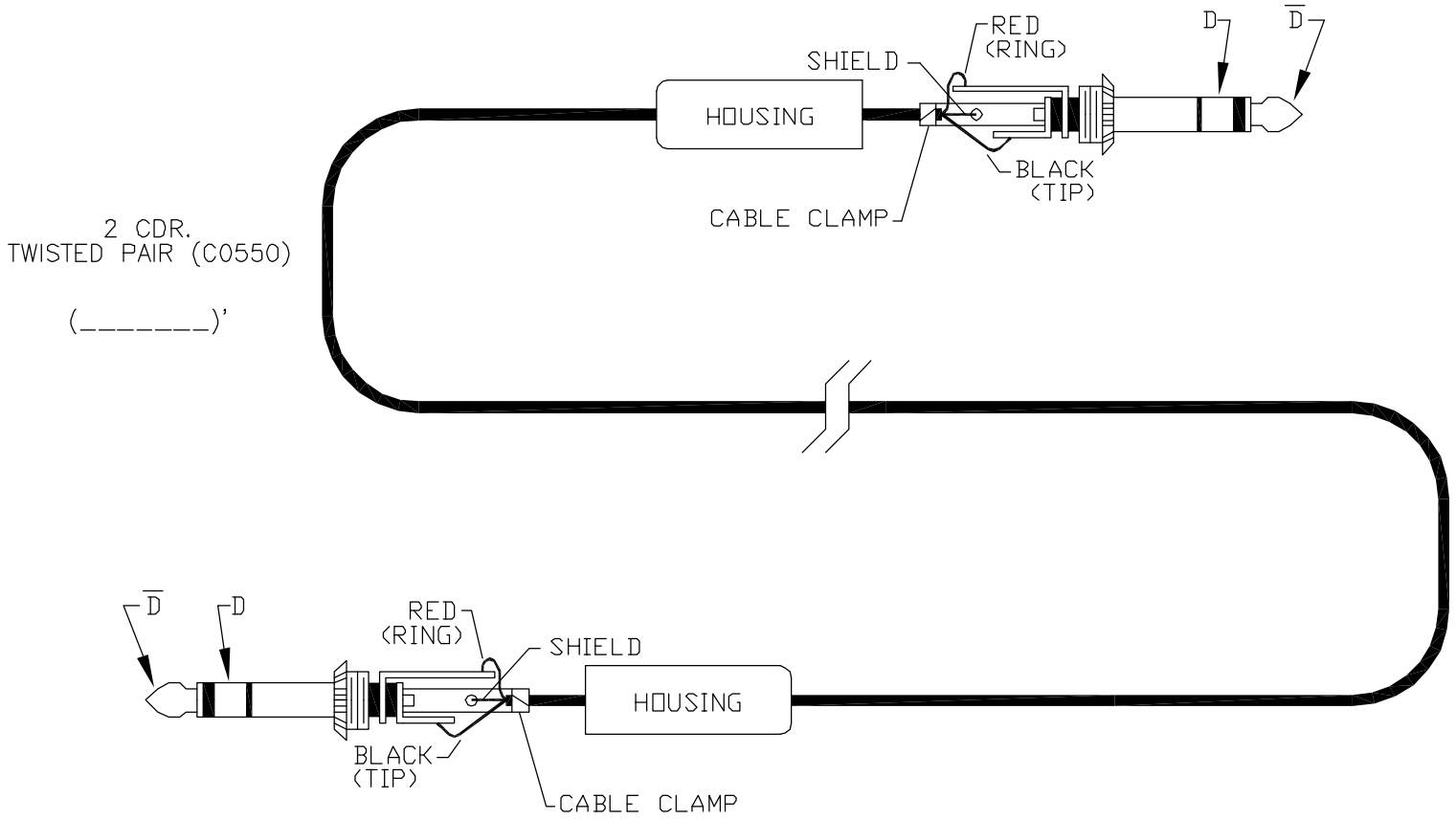
WEIGHT: 37 LBS. WITH BATTERY
28 LBS WITH OUT BATTERY

WATER INGRESS
NO ADDITIONAL PENETRATIONS MAY BE CREATED IN THE PRODUCT UNLESS THEY ARE SEALED PER NEMA 4 STANDARD. ALL FIELD PENETRATIONS MUST BE TESTED USING A STREAM OF WATER POURED FROM A CONTAINER LOCATED NOT LESS THAN 6" AWAY HORIZONTALLY. WARRANTY WILL BE VOID IF THIS TESTING IS NOT COMPLETED DURING INSTALLATION, OR IF THERE IS WATER INGRESS FROM FIELD MODIFICATIONS. ANY CABINETS LOCATED ABOVE THE PRODUCT MUST NOT ALLOW WATER TO BUILD UP AND THEN FLOW THROUGH CONDUITS INTO THE PRODUCT. PENETRATIONS BETWEEN PRODUCT AND HIGHER CABINETS MUST BE SEALED BETWEEN THE CABINET INTERNAL SPACES USING WATER TIGHT CABLE TO CONDUIT SEALS. HOLES REMAINING FROM EYE BOLT REMOVAL MUST BE FILLED, SEALED AND TESTED.

VENTILATION
INSTALL PRODUCT SO THAT AIR FLOW IS NOT RESTRICTED. CUSTOMER'S STRUCTURE MUST ALLOW FOR THE FREE FLOW OF OUTSIDE AMBIENT AIR TO THE PRODUCT, WITHOUT RECIRCULATION OF AIR. WARRANTY WILL BE VOID IF COMPONENTS FAIL DUE TO AIR FLOW RESTRICTIONS.

092401 WJG

FAIR–PLAY SCOREBOARDS PO BOX 1847 DES MOINES, IOWA 50305–1847
FACTORY ADDRESS 1700 DELAWARE AVE. DES MOINES, IOWA 50317–2999
PHONE 515–265–5305



PLUG DETAIL

(#297 PLUG)

(C0483) 2-REQ'D

FAIRTRON CORPORATION FAIR-PLAY SCOREBOARDS DIV. CORPORATE OFFICES 1700 DELAWARE AVE. DES MOINES, IA 50317	DESIGNED BY MEB	A	DATE 12-7-96	SCALE NONE
	DRAWN BY MEB	TITLE	WIRING #297 PLUGS W/2 CDR. CABLE	
	APPROVED BY			
	TOLERANCES (EXCEPT AS NOTED)			
	DECIMAL ± 0.015"			DWG. NO.
	FRACTIONAL ± 1/32"			ZN-6-A391-3

OPERATING INSTRUCTIONS – SEGMENT TIMER

98-0025-01-2
FAIR-PLAY SCOREBOARDS
DES MOINES, IOWA

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I. INTRODUCTION

Your SEG-815 SEGMENT TIMER is a portable, multi-function display that can be used for a variety of sports timing applications from football to water polo. It is designed to meet the needs of high school, college, and professional level facilities. It is powered by plugging into a standard 120VAC-wall outlet, and can also be equipped with an optional 12VDC rechargeable battery, which can provide at least 4 hours of operation.

Its primary function is that of a programmable timer, which can be used to organize up to fifteen (15) distinct training intervals (*segments*) and break times typical to most sports training practice sessions. As the SEG-815 automatically sequences through the interval times programmed for each practice drill or routine, the coaching staff can devote full attention to training their athletes.

The SEG-815 is also designed to accept data signals from other ***FAIR-PLAY*** controls, which will allow it to serve as a delay of game field timer for football or a shot clock for basketball.

This instruction booklet will provide you with information on how to install, program and operate the ***FAIR-PLAY*** sports training SEGMENT TIMER system. A troubleshooting document (doc. # 01-0008-03, referenced in the table of contents) has also been included for your convenience. If further assistance is needed, please contact your local authorized ***FAIR-PLAY*** representative, or call the ***FAIR-PLAY*** Service Department using the telephone numbers listed below.

IF YOU HAVE ANY QUESTIONS PLEASE CALL THE *TRANS-LUX / FAIR-PLAY* HELP DESK AT:

TELEPHONE (800) 747-5305 or (800) 462-2716

FAX / MESSAGE (770) 447-8128

PLEASE VISIT THE ***TRANS-LUX / FAIR-PLAY*** WEBSITE:
WWW.FAIR-PLAY.COM

II. FEATURES

GFCI POWER CABLE

Proper grounding of the electrical circuits and display structure is an important safety and operational aspect of any electrical device. The SEG-815 power cord includes a built-in ground fault circuit interrupt (GFCI) for your protection during outdoor use. Under normal conditions, if an electrical fault is detected the interrupt circuit will break the primary power connection.

Reference **Illustration A** below. Again, under normal conditions when the GFCI power cable is plugged into a correctly wired 120 VAC power source, the POWER INDICATOR LAMP will illuminate. If the lamp doesn't light up, try firmly pressing the RESET button labeled "R". If the lamp still doesn't come on, refer to the troubleshooting document (doc. # 01-0008-03) referenced in the table of contents. To test the ground fault circuit, firmly press the TEST button labeled "T". The POWER INDICATOR LAMP should immediately extinguish to indicate a protected circuit. If it doesn't, please contact your local authorized ***FAIR-PLAY*** representative or call the ***FAIR-PLAY*** Service Department to arrange for service of the power cable.

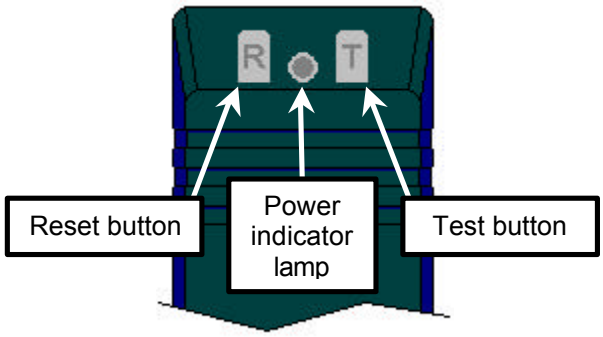


Illustration A

POWER REQUIREMENTS

The SEG-815's GFCI power cable is wired for connection into a standard 120-volt single-phase 2-wire grounded power supply outlet.

An optional factory installed battery** is also available for use as a portable power source with a minimum of 4 hours run time. Recharging the battery requires connection to a standard 120-volt single-phase 2-wire grounded power supply outlet.

** *The battery option is factory installed ONLY ~ retrofit kits **are not** available!*

POWER COMPARTMENT

Reference the power compartment **Illustration**s **B1** (non-battery models) and **B2** (battery option models). The power compartment is positioned behind a sliding door located on the left-hand side of the SEG-815. For access, slide the door upwards using the recessed finger grip. Power compartment components common to both battery and non-battery models include the 06-0815-03 control, one 6-foot length of control cable (part number 16-5004-01), one 120VAC-power cord with built in GFCI, one fuse block, and two (2) control connection ports.

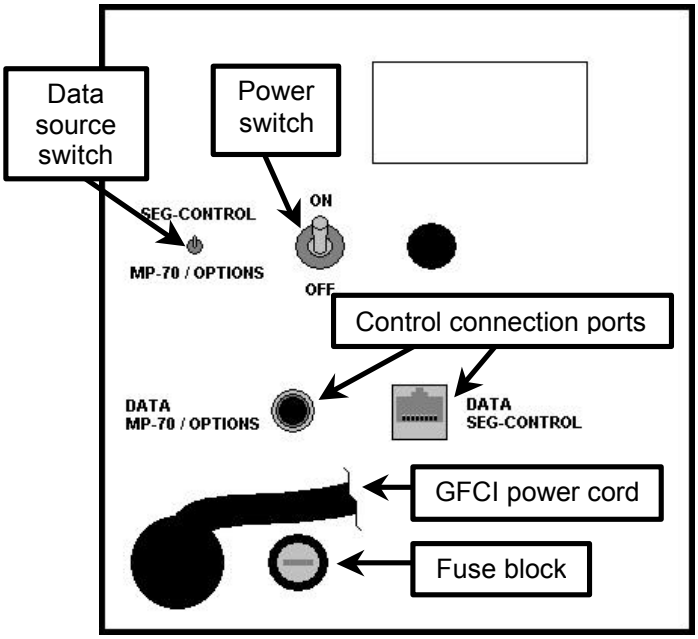


Illustration B1
Without optional battery

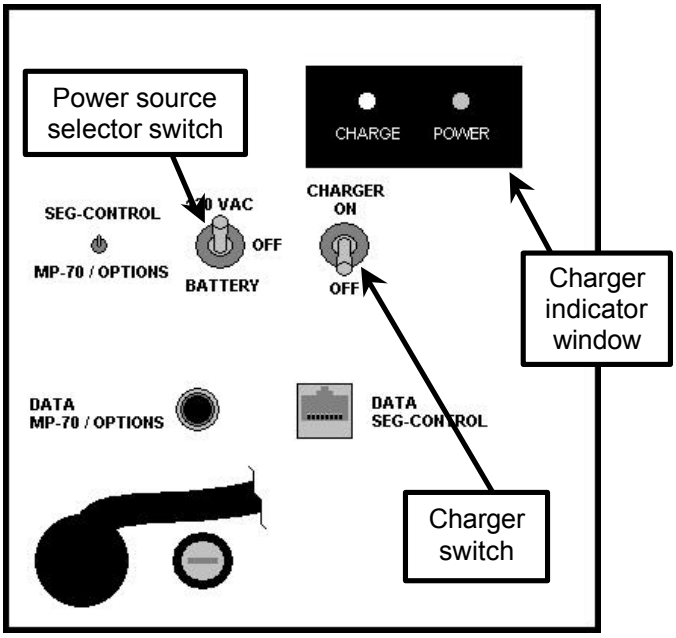


Illustration B2
With optional battery

Additionally, non-battery models of the SEG-815 have two switches: DATA SOURCE and POWER. Battery powered SEG-815's have three switches: DATA SOURCE, CHARGER, and POWER SOURCE. (See **Illustration**s **B1** and **B2** above, and **Chart A**) Battery option models also have a window to view the charger indicators. Please read OPTIONS AND ACCESSORIES (**SECTION VI**) of this manual for complete details about battery care.

SWITCH FUNCTIONS

The DATA SOURCE switch is used to select which control connection port is activated, which in turn determines the operating mode of the SEG-815.

When the DATA SOURCE switch is in the SEG-CONTROL position, the DATA SEG-CONTROL control connection port is active and the SEG-815 is set to function as programmable timer. Find detailed instructions about using the SEG-815 in this mode in **SECTION IV**, USING THE SEG-815 FOR INTERVAL TRAINING.

When the DATA SOURCE switch is in the MP-70 / OPTIONS position, the MP-70 / OPTIONS control connection port is active and the SEG-815 is set to serve as a delay-of-game clock or shot timer. Find detailed instructions about using the SEG-815 in this mode in **SECTION V**, USING THE SEG-815 AS A COUNTDOWN TIMER.

The POWER switch is installed only in non-battery models and is used to turn the SEG-815 on and off. In the ON position, 120-volts AC is supplied to the display through the GFCI power cable. The display is de-energized with this switch in the OFF position.

The POWER SOURCE switch is installed only in battery option models and is used to select which type of power will energize the SEG-815. This switch has three settings: 120 VAC, OFF, and BATTERY. In the 120 VAC position, 120-volts AC is supplied to the display through the GFCI power cable, whereas the internal 12-volt DC battery powers the display in the BATTERY position. The display is de-energized with this switch in the OFF position.

The CHARGER switch is also installed only in battery option models and is used to turn the built-in battery charger on and off. In the CHARGER ON position, 120-volts AC is supplied to the battery charger. The charger is de-energized with this switch in the OFF position. Please read OPTIONS AND ACCESSORIES (**SECTION VI**) for complete details about battery care.

Switch	Setting	Function
DATA SOURCE	**SEG–CONTROL**	Enables the DATA SEG-CONTROL control connection port to receive data. Disables the DATA MP-70 / OPTIONS control connection port and the wireless receiver option (if installed).
	MP–70 / OPTIONS	Enables the DATA MP-70 / OPTIONS control connection port to receive data, and the wireless receiver option (if installed). Disables the DATA SEG-CONTROL control connection port.
POWER (non-battery models only)	**ON**	Powers the SEG-815 with 120-VAC.
	OFF	Turns off the SEG-815.
POWER SOURCE (battery option models only)	**120 VAC**	Powers the SEG-815 with 120-VAC.
	OFF	Turns off the SEG-815
	BATTERY	Powers the SEG-815 with the internal 12-volt battery.
CHARGER (battery option models only)	**CHARGER ON**	Turns the battery charger on to charge the battery. During the charge cycle the POWER SOURCE switch must be set either to OFF or 120 VAC ~ **not BATTERY!**
	OFF	Turns off the battery charger ~ battery does not charge.

Chart A

CONTROLS

An 06-0815-03 control is included with every SEG-815 display. The 06-0815-03 is a hand-held keypad controller that is designed for exclusive use with the SEG-815 display. It is stored behind the sliding door of the power compartment for shipping. **TO OPERATE THE SEG-815 AS AN INTERVAL TRAINING TIMER, YOU MUST USE THE 06-0815-03 CONTROL**.

The SEG-815 is also designed to accept data signals from any one of the following ***FAIR-PLAY*** controls (purchased separately): MP-69, MP-70-0111, MP-70-0113, and ST-70-0111. Each of these controls requires the use of a 10-foot control cable, part number C0170 (also purchased separately), or any customer supplied cable length up to 1000'. Reference document ZN-6-A391-3 for cable wiring details. The MP-70-0211 (wireless) and MP-70-0213 (battery powered wireless) controls can also be used with SEG-815's that are equipped with the factory installed wireless option. Neither of these controls requires the C0170 control cable. Using any of the above controls, the SEG-815 can function as a delay of game field timer for football, a shot clock for basketball**, or for numerous other timing applications.

When the 06-0815-03 control (or any other control) is not in use store it in a cool, dry location.

** *External goal light option not available*.

CONTROL CABLE

A 6' control cable (part number 16-5004-01), which is used to interconnect the 06-0815-03 CONTROL and the DATA SEG-CONTROL control connection port located in the power compartment, is included with your SEG-815. An additional control cable is required to connect any control other than the 06-0815-03 to the SEG-815.

HORN

The SEG-815 includes a built-in horn. This is the only horn available for this model.

TWO-DIGIT DISPLAY

The SEG-815 SEGMENT TIMER's display window features two fifteen-inch amber LED digits. They are easy to read, even at a distance or at sharp viewing angles, and are designed for durability and low maintenance.

III. EQUIPMENT SETUP

LOCATION

The SEG-815 may be positioned to face any direction so that the spectators and the operator can see it. For maximum visibility, place it at a southern or western edge of the practice field so that the sun does not shine directly on the face of the timer display during afternoon practices. **Position the SEG-815 in a location that avoids inadvertent contact or injury to athletes**.

POWERING THE DISPLAY

Plug the SEG-815's GFCI power cable into a standard 120-volt single-phase 2-wire grounded power supply outlet. **The SEG-815 will not work if it is not plugged in.****

** *Units equipped with the battery option do not need to be plugged in to an AC power source to operate, provided that the battery has been fully charged according to the instructions of **SECTION VI** (OPTIONS AND ACCESSORIES) and the POWER SOURCE switch is set to BATTERY. Optional battery versions can operate with 120VAC power while the battery is charging.*

CONNECTING THE 06-0815-03 CONTROLLER (For interval training operation)

Reference **Illustration**s **C1** and **C2** below. Insert the modular phone connector of either end of the 16-5004-01 control cable into the jack on the top end of the 06-0815-03 controller and push it in until it "snaps" into its locked position.

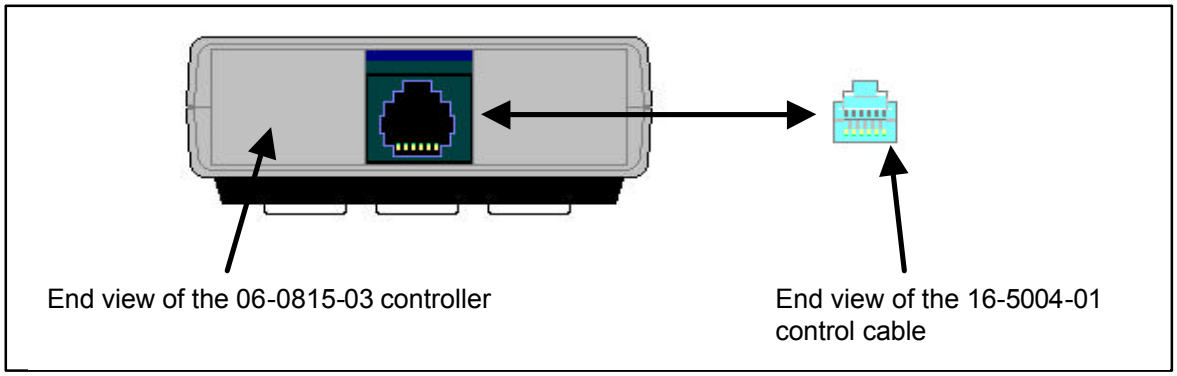


Illustration C1

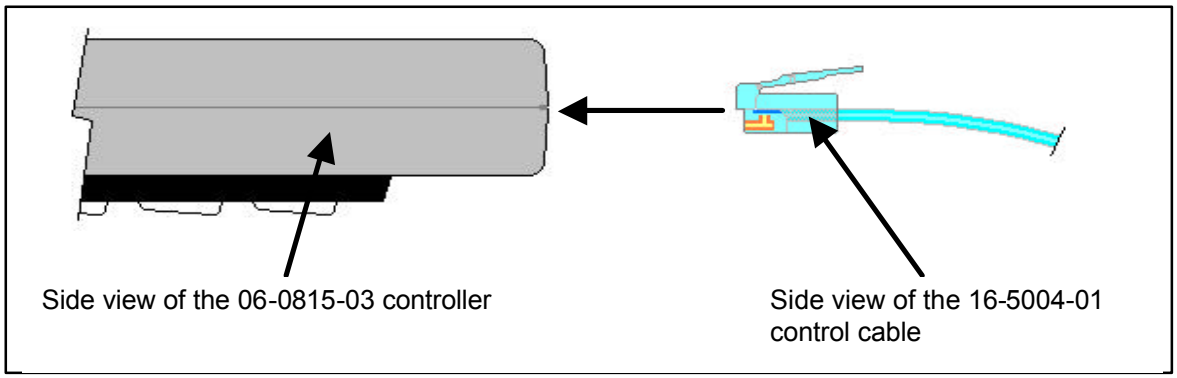


Illustration C2

Using the connector insertion method just explained, connect the opposite end of the 16-5004-01 control cable into the DATA SEG-CONTROL control connection port in the SEG-815's power compartment.

If your SEG-815 is **not equipped** with the battery option, set the power compartment switches to the following positions:

- CONTROL SELECTOR = SEG-CONTROL
- POWER = ON (GFCI power cable plugged into 120-volt AC power source)

If your SEG-815 **is equipped** with the battery option, set the power compartment switches to the following positions:

- CONTROL SELECTOR = SEG-CONTROL
- POWER SOURCE = 120 VAC (GFCI power cable plugged into 120-volt AC power source)
  – **OR –**
  BATTERY (be sure battery is fully charged)
- CHARGER = OFF

CONNECTING OPTIONAL CONTROLS (For countdown timer operation)

Reference **Illustration D** below. Insert the 1/4-inch connector of either end of the C0170 control cable or other customer supplied cable (purchased separately) into either of the TIMER data output jacks located on the back panel of the optional control (purchased separately) and firmly push it all the way in. A list of qualified optional controls can be found in **SECTION II** under the heading CONTROLS.

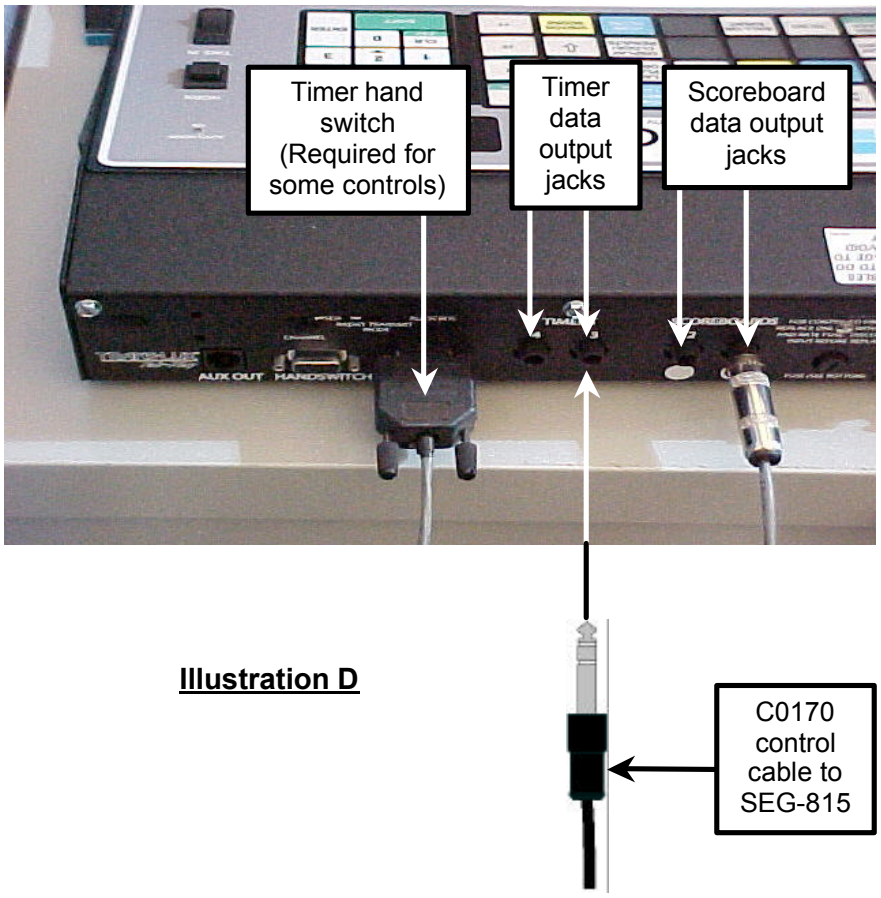


Illustration D

Connect the opposite end of the C0170 control cable into the DATA MP-70 / OPTIONS control connection port in the SEG-815's power compartment.

If your SEG-815 is **not equipped** with the battery option, set the power compartment switches to the following positions:

- CONTROL SELECTOR = MP-70 / OPTIONS
- POWER = ON (GFCI power cable plugged into 120-volt AC power source)

If your SEG-815 **is equipped** with the battery option, set the power compartment switches to the following positions:

- CONTROL SELECTOR = MP-70 / OPTIONS
- POWER SOURCE = 120 VAC (GFCI power cable plugged into 120-volt AC power source)
  – **OR –**
  BATTERY (be sure battery is fully charged)
- CHARGER = OFF

IV. USING THE SEG-815 FOR INTERVAL TRAINING

OVERVIEW

Set up the system as outlined in **SECTION III** of this manual.

The SEG-815's primary function is that of a programmable timer, which can be used to organize up to fifteen (15) distinct training intervals (*segments*) and break times typical to most sports training practice sessions. As the SEG-815 automatically sequences through the interval times programmed for each practice drill or routine, the coaching staff can devote full attention to training their athletes.

During a typical practice session, coaches will work their athletes through a series of conditioning drills or exercises designed to build the stamina, strength, agility, etc., required for a particular sport. Prior to the start of a practice, coaches will usually outline a training schedule. This schedule determines which exercise groups will be done during the practice, the order in which they will occur, the amount of time devoted to each one, and how much of a rest break (if any) to give their athletes between each exercise interval. **Chart B** illustrates what a typical training schedule might look like for a football practice.

GROUP	DURATION	EXERCISES
FORM RUNNING	15 MINUTES	3/4 JOG
		SKIPPING
		CARIOCA
2-minute break		
SPRINTS	20 MINUTES	SIDELINE SPRINTS
		LINE SPRINTS
2-minute break		
CONE FOOTWORK	15 MINUTES	QUICK FEET
		HARD CUT
		CONE RUN
2-minute break		
INNERTUBES	15 MINUTES	
2-minute break		
PLYOMETRICS	15 MINUTES	LUNGES
		KICKS
		JUMP TUCKS
		FROG SQUAT
GRASS DRILLS	20 MINUTES	BEAR CRAWL
		ROLLS
		HITTING
WEIGHT TRAINING	30 MINUTES	

Chart B

Once the training schedule is established, the SEG-815 can then be programmed and set to automatically sequence through the required times for each exercise interval from the start of the practice to the finish. This liberates the coaches from the task of manually timing the exercise intervals so they can concentrate on training their athletes.

The SEG-815 is capable of timing up to fifteen successive exercise intervals (*segments*), each variably programmable from 1 to 99 minutes, and up to fifteen break intervals, each variably programmable from 1 second to 99 minutes. Each segment is identified by a two digit number (01 to 15), which corresponds to an exercise or conditioning drill pre-determined by the coaches.

As the time assigned to a segment counts down, the segment number (01 to 15) is steadily displayed on the timer. The timer horn will sound once ~ for about two seconds ~ at the end of each segment. The timer will then immediately begin counting either the break interval (if programmed) or the next segment (if no break was programmed after the preceding segment).

If a break is programmed after a segment, the remaining break time will flash on the display as it times out, and the timer horn will sound twice ~ for about a second each blast ~ when the break ends. The timer will then immediately begin counting down the time assigned to the next segment.

PROGRAMMING SEGMENT / BREAK TIMES

The 06-0815-03 hand-held programmer is used to enter clock time values for segments and breaks. **Illustration E** highlights the main features of the programmer.

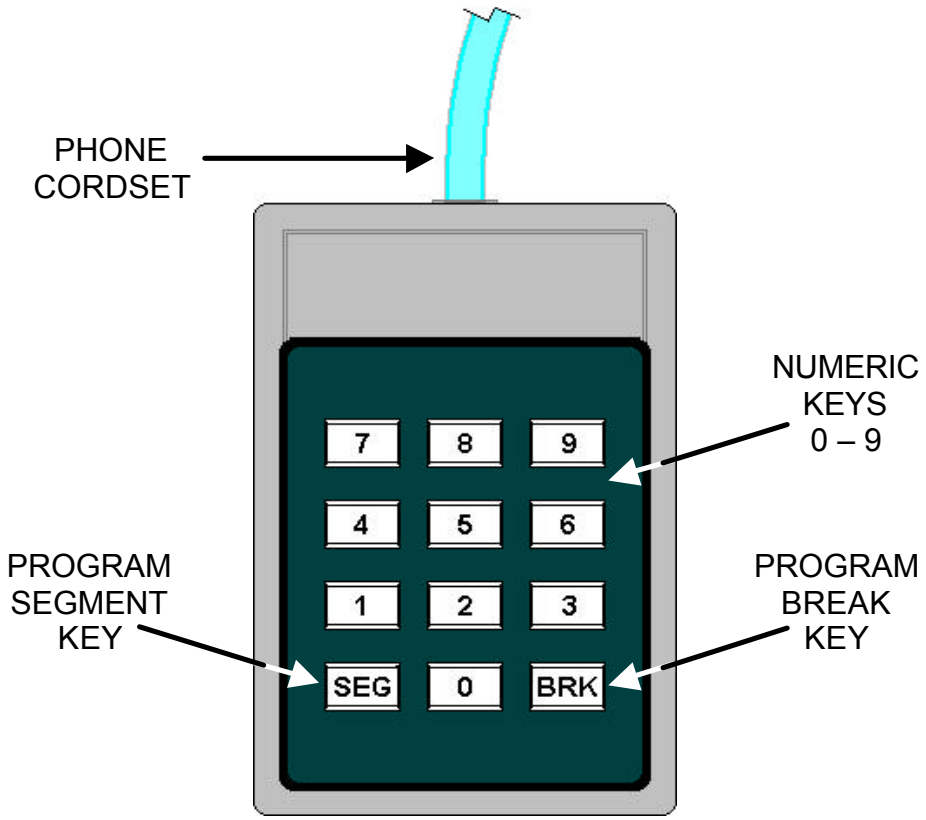


Illustration E

The SEG-815 must be connected to a power source and turned on for proper programming and operation to occur.

Seven keystrokes are required to enter segment and break times. The hand held programmer will emit a beep to confirm every keystroke. Selecting either **SEG** for segment or **BRK** for break constitutes the first keystroke. For example:

Press the [SEG] key if you want to program a segment time, or the [BRK] key to program the break time.

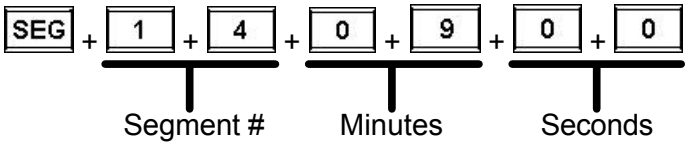
The next two keystrokes select the segment or break number you wish to program. For example:

Pressing [0] + [6] selects segment or break 06.

The last four keystrokes assign a clock time value (in minutes and seconds) to the selected segment or break. For example:

Pressing [0] + [7] + [3] + [0] assigns seven minutes and thirty seconds (07:30) to segment or break 06. **It is important to enter the leading zero for times less than 10 minutes! (Example: 07 for 7 minutes)**

To summarize, the following keystroke sequence would be used to assign 9 minutes (09:00) to segment 14:



All time entries are retained in the hand held programmer's memory until a new time is entered, even when power is removed.

To abort a key entry sequence at any point prior to pressing the final key in the sequence, simply let the programmer sit idle (don't press any further keys) for approximately 5 seconds. Since the entry sequence was not completed, the programmer will disregard it.

If a time is entered incorrectly, you will need to completely redo the seven-keystroke entry sequence.

MANAGING THE TIMING SEQUENCE

The programmer accepts invalid time value entries – such as 00:00 or 12:77 – for more efficient management of the segment timing sequence.

If an invalid time value is entered for a break time, the timer will skip that particular break and immediately begin counting the next segment time. For example: if break 02 is set for 3:60 (3 minutes and 60 seconds), the timer will count through segment 01, break 01 and segment 02, then skip break 02 and proceed immediately into counting segment 03.

If an invalid time value is entered for a segment time, the timing sequence will halt once that segment number is reached. For example: if segment 07 is set to 00:00 (zero), the timer will count through segments and breaks from segment 01 through break 06 but will not proceed any further.

OPERATING THE TIMER

To start the timing sequence, simply press the two-digit number of the segment at which you want the timer to start counting. If you want to start the count beginning at segment 01, press the 0 and 1 keys in that order. If you want to skip the first two segments and breaks and start the count at segment 03, press the 0 and 3 keys.

To manually stop the count at any point during the timing sequence, press any two digit number higher than 15 (in other words, any number from 16 to 99). This activates the stop code and halts the timing sequence. 00 will also work. **This is not a pause feature** – there is no way to resume the count at the same point at which it was halted. However, you may restart the timing sequence at any segment by keying in a two-digit segment number from 01 to 15.

Segment and break times can be programmed even as the timer is counting. This allows you to modify or correct segment and break times without halting the timing sequence.

The 06-0815-03 control will retain all programmed breaks and practice sessions, even while the timer is powered off. **Please note that this control is not environmentally protected and must be stored inside the power compartment after programming is complete.**

FAMILIARIZATION ACTIVITIES** (*Follow along with your own SEG-815 timer*)

ACTIVITY 1) How would you go about programming the SEG-815 for the training schedule outlined in **Chart B**?

ACTIVITY 2) Again referring to **Chart B**, notice that no break is scheduled between GRASS DRILLS and WEIGHT TRAINING. Obviously some time would be required to transition from the outside practice field to the weight room in the gym. How would you go about relocating the equipment?

***See the suggested answers for these activities on the next page of this manual.*

ANSWER FOR ACTIVITY 1:

Segment 01 ~ FORM RUNNING ~ followed by a two minute break
SEG, 0, 1, 1, 5, 0, 0 (Sets segment one to 15:00 minutes)
BRK, 0, 1, 0, 2, 0, 0 (Sets break one to 2:00 minutes)

Segment 02 ~ SPRINTS ~ followed by a two minute break
SEG, 0, 2, 2, 0, 0, 0 (Sets segment two to 20:00 minutes)
BRK, 0, 2, 0, 2, 0, 0 (Sets break two to 2:00 minutes)

Segment 03 ~ CONE FOOTWORK ~ followed by a two minute break
SEG, 0, 3, 1, 5, 0, 0 (Sets segment three to 15:00 minutes)
BRK, 0, 3, 0, 2, 0, 0 (Sets break three to 2:00 minutes)

Segment 04 ~ INNERTUBES ~ followed by a two minute break
SEG, 0, 4, 1, 5, 0, 0 (Sets segment four to 15:00 minutes)
BRK, 0, 4, 0, 2, 0, 0 (Sets break four to 2:00 minutes)

Segment 05 ~ PLYOMETRICS ~ go immediately into next segment
SEG, 0, 5, 1, 5, 0, 0 (Sets segment five to 15:00 minutes)
BRK, 0, 5, 0, 0, 0, 0 (Invalid time entry for break five – break is skipped)

Segment 06 ~ GRASS DRILLS ~ followed by a five minute break
SEG, 0, 6, 2, 0, 0, 0 (Sets segment six to 20:00 minutes)
BRK, 0, 6, 0, 0, 0, 0 (Invalid time entry for break six – break is skipped)

Segment 07 ~ WEIGHT TRAINING ~ practice is over after this segment
SEG, 0, 7, 3, 0, 0, 0 (Sets segment seven to 30:00 minutes)

Break 07 ~ SKIP IT
BRK, 0, 7, 0, 0, 0, 0 (Invalid time entry for break seven – break is skipped)

Segment 08 ~ HALT TIMING SEQUENCE
SEG, 0, 8, 8, 8, 8, 8 (Invalid time entry for segment eight – timing sequence halted)

The group times listed in **Chart B** were used to set the segment times shown above. If desired, the timer could also be set to count times for individual exercises within a training group. Remember that there are up to 15 segments available. The answer shown above is one of several programming possibilities.

ANSWER FOR ACTIVITY 2:

After the GRASS DRILLS are done, press the 8 key twice to activate the stop code. Then turn off and unplug the SEG-815 and carry it into the weight room. Once there you can quickly plug it back in and turn it on. Since the timer automatically retains the previously programmed times, simply press keys 0 and 7 when you're ready to commence the weight training portion of the practice. This will start the counting sequence at segment 07.

V. USING THE SEG-815 AS A COUNTDOWN TIMER

OVERVIEW

Set up the system as outlined in **SECTION III** of this manual.

The SEG-815's secondary function is that of a countdown timer, which allows it to serve as a delay of game field timer for football, a shot clock for basketball, or for numerous other timing applications. In this mode of operation the timer will respond to any one of several qualified ***FAIR-PLAY*** controls. The SEG-815 can display countdown times ranging from 99 seconds (depending on how the optional control is programmed) to zero. The horn will sound when the clock count reaches zero.

PROGRAMMING AND USING OPTIONAL CONTROLS

For specific details on programming and using optional controls to run the timer feature, refer to the operating instructions for the particular control that you are using to run the SEG-815. A list of qualified optional controls can be found in **SECTION II** under the heading CONTROLS.

VI. OPTIONS AND ACCESSORIES

WIRELESS OPTION

A factory installed wireless option is available when you purchase the SEG-815. The wireless feature will work only if you are using an optional MP-70-0211 or MP-70-0213 control, and is active only when the SEG-815 is set up to operate as a countdown timer.

The wireless option consists of a factory installed radio frequency antenna and wireless receiver. For proper operation, the wireless receiver card must be tuned to the same channel setting as the transmitter card contained in the MP-70-0211 or MP-70-0213 controls.

To set the receiver channel, use a small, 1/8-inch slotted tip screwdriver to pry the plastic hole plug (adjacent to the CHANNEL SELECTION ACCESS label) away from the back of the SEG-815. Use the same screwdriver to carefully adjust the 16-position rotary switch to the desired operating channel. Only channels 1 through D are valid, positions E, F and 0 will deactivate the receiver. Once the channel is set, press the hole plug back into place.

For specific details on programming and using wireless MP-70-021X controls to run the SEG-815 as a countdown timer refer to the MP-70 user's manual, part number 98-0002-06.

BATTERY OPTION

A factory installed battery option is available when you purchase the SEG-815. If so equipped, the SEG-815 will operate for a minimum of 4 hours from a fully charged battery. When the battery is low, the display digit LED's will become noticeably dim and the horn will sound very weak. Charge the battery as soon as possible when the display exhibits these conditions.

CHARGING THE BATTERY

To charge the battery, begin by plugging the GFCI power cable into a standard 120-volt single-phase 2-wire grounded power supply outlet. Next, place the POWER SOURCE switch in the OFF or 120 VAC positions **~ NOT THE BATTERY POSITION ~** and place the switch in the CHARGER ON position to charge the battery.

NOTE: The reason for not placing the POWER SOURCE switch in the BATTERY position is that it will take much longer to complete the charge cycle and the extra power drain could potentially damage the internal charger. Place the POWER SOURCE switch in the 120 VAC position only if you intend to use the SEG-815 while the battery is charging, otherwise keep it turned OFF!

During the charge cycle, the charger's amber colored CHARGE and green colored POWER indicators will illuminate. When the charge cycle is complete, the CHARGE indicator will extinguish. At this point, the battery will be fully charged. Place the CHARGER switch in the OFF position and the POWER indicator will extinguish.

Charge cycle durations will vary depending on how much the SEG-815 has been used since the previous charge cycle, and the discharge level of the battery. **Do not leave the SEG-815 on the charge cycle for more than 24 hours!** Regularly look at the amber colored CHARGE indicator in the power compartment's charge indicator window during the charge cycle. If it is no longer illuminated, the charge

cycle is complete and the battery is fully charged. You may then place the CHARGER switch in the OFF position and use the SEG-815 as you normally would.

REPLACING THE BATTERY & BATTERY SAFETY

If you need to replace the battery, do the following:

Read the PANASONIC document titled "PRECAUTIONS FOR HANDLING SEALED LEAD-ACID BATTERIES", included in your SEG-815 documentation package.

Make sure the SEG-815's GFCI power cable is not plugged into a 120 VAC power source. Place the POWER SOURCE switch in the OFF position. Use a 1/4-inch slotted tip screwdriver to remove the two retaining screws holding the 8.5-inch by 9.5-inch battery compartment cover in place on the back of the SEG-815. Remove the cover and slide the battery outward, then carefully detach the red and black power cables from the battery terminals. Attach the red battery cable onto the positive (+) power terminal and the black battery cable to the negative (–) power terminals of the replacement battery. **DO NOT CONNECT THE CABLES ONTO THE WRONG TERMINALS AS THIS CAN CAUSE DAMAGE**! Slide the new battery back into the SEG-815. Place the cover back into position over the battery compartment and secure it with the two screws. Charge the battery as outlined on the previous page once it has been installed.

To order a replacement battery, please contact your local authorized ***FAIR-PLAY*** representative, or call the ***FAIR-PLAY*** Service Department using the telephone numbers listed in the INTRODUCTION (**SECTION I**).

If you are returning a battery for warranty reasons, the outer carton must be labeled "NONSPILLABLE".

Precautions for handling Valve-Regulated Lead-Acid Batteries

- This document should be read in its entirety and its contents fully understood before handling or using Panasonic rechargeable Valve-Regulated Lead-Acid batteries. If there are any questions, please contact Panasonic. Please keep this document available for reference. Due to the potential energy stored in the batteries, improper handling or use of the batteries by not observing the precautions listed in this document may result in bodily injury caused by electrolyte leakage, heat generation, or explosion.

* All descriptions are subject to modification without notice.

Degree of danger

1. DANGER

Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.

2. WARNING

Indicates a potentially hazardous situation which, if not avoided, could result in death or injury.

3. CAUTION

Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury, or damage to equipment.

4. RECOMMENDATION

Recommended course of action to prevent a situation that could result in damage of quality, performance or reliability of the batteries, should they be mishandled.

(Remark 1) Even in cases where lead-acid batteries are handled improperly, a situation that will result in the immediate death of the user is highly unlikely. However, we have assumed the higher DANGER level situation instead of the WARNING and CAUTION levels because the high energy stored in batteries still implies a possibility of extreme hazard which might lead to serious injury.

(Remark 2) Serious injury here would include injury, loss of eyesight, burns, electric shocks, bone fractures and poisoning that will cause permanent damage or require hospitalization or intensive treatment over an extended period. Minor injury includes slight burns and electric shock. Property damage means damage to buildings and household effects including livestock and pets.

(Remark 3) RECOMMENDATION refers to the suggested means by which to protect batteries from impaired quality, performance and reliability.

Safety Precautions

1. Environment and condition of use

DANGER

(1) Do not load valve-regulated lead-acid batteries (hereinafter described as “the battery”) in airtight equipment. Use of the battery in airtight equipment may cause explosion of the equipment or injury.

WARNING

(1) Charge the battery using a specified charger or under the charging condition specified by Panasonic. Charging the battery under any other conditions may cause the battery to overheat, emit hydrogen gas, leak, ignite, or burst.

(2) When using the battery in medical equipment*, provide a back-up system other than the main battery. Failure of the main battery in the absence of a back-up power could lead to injury.

(3) Avoid direct contact of the battery with metallic containers; acid- and heat-resistant insulators should be employed. Leakage of the battery in the absence of insulators may cause problems such as release of fumes and ignition.

(4) Do not place the battery near a device that may cause sparks (such as a switch or a fuse). The battery may generate flammable gas when charged, so remember to keep the battery away from fire oran open flame to prevent any sparks from igniting or causing explosions.

(5) Avoid placing the battery near a heat-generating part (such as a transformer). Using the battery near a heat source may cause the battery to overheat, leak, ignite, or burst.

* The battery should only be used in non life critical medical equipment. When any medical equipment incorporating a Panasonic VRLA battery is planned, please notify Panasonic.

CAUTION

(1) The operating temperature range for the battery is specified below. Use of the battery at temperatures beyond this range may cause battery damage.

Normal operating temperature of the battery is 77°F (25°C).

When discharged (equipment in use): 5°F to 122°F (-15°C to 50°C)

When charged: 32°F to 104°F (0°C to 40°C)

During storage: 5°F to 104°F (-15°C to 40°C)

(2) Do not allow the battery to be immersed in or wetted with water/sea-water; as it may corrode the battery, ignite or create an electric shock hazard.

(3) Do not place or store the battery in an automobile in hot weather, under direct sunlight, in front of a stove, or near fire. Use or storage of the battery in these places may cause battery leakage, fire or bursting.

(4) Use of the battery in a dusty environment is not recommended, as it may cause the battery to short. The battery should be periodically checked when used in such an environment.

(6) In applications which use more than one battery, first make sure of correct mutual connections between batteries, and then connect the battery with the charger or the load. Make sure to firmly connect the (+) pole of the batteries to the (+) terminal of the charger or load, and the (-) pole to the (-) terminal in the same way. If the poles/terminals of the batteries, the charger and the load are connected improperly, explosion, ignition or damage to the batteries and/or equipment may occur, causing injury to personnel in some cases.

(7) Be extremely careful not to drop the battery onto feet to avoid the possibility of serious injury.

RECOMMENDATION

(1) Avoid sudden movements or applying shocks to the battery e.g. from dropping the battery. Damage and deterioration of battery characteristics may occur if the battery is dropped.

(2) Carefully check the life characteristics of the battery when in actual loaded mode. Life of the battery may vary greatly depending on charge/discharge conditions

2. Installation

DANGER

(1) Insulate metallic tools such as torque-wrenches and wrenches with a vinyl tape, etc. Using uninsulated tools may cause a short circuit, and the heat or sparks generated by the short circuit could result in burns, damage to the battery, or ignite an explosion.

(2) Do not place the battery in a closed room or near fire. Placing the battery in such a location could result in an explosion or fire due to hydrogen gas emitted by the battery.

WARNING

(1) Do not contact any plastic or resin containing a migrating plasticizer* with the batteries. Avoid using organic solvents such as thinner, gasoline, lamp oil, benzine and liquid detergent to clean the batteries. The use of any of the above materials may cause the containers and/or the covers (ABS resin) of the batteries to crack and leak, or could ignite. Avoid using material containing a migrating plasticizer by asking the manufacturer its contents.

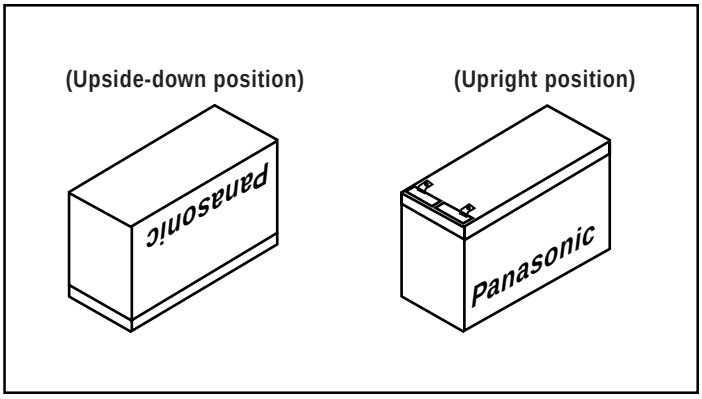
(2) Take safety measures such as wearing rubber gloves for insulation when handling a voltage of 45 V or higher. Operation without safety measures may result in electric shocks to the operator.

(3) Avoid placing the battery in an environment which is susceptible to floods. There is the possibility that if the battery is immersed in water, it may ignite or cause electric shocks to personnel.

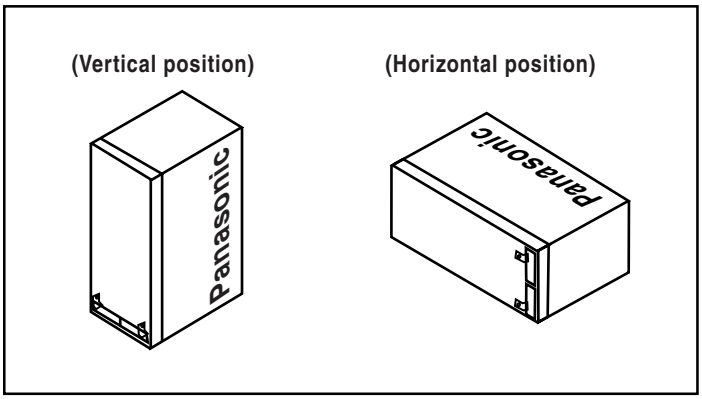
CAUTION

(1) When unpacking the battery, make sure to handle it gently. Rough handling may shock the battery, causing damage. Check that the battery is free from cracks, fractures, tipping and leakage.

(2) When loading the battery in equipment, mount it in the lower most section of the equipment in order to ensure easy checking, maintenance and replacement. Do not charge the battery in the inverted (upside-down) position: overcharging in the inverted position may cause battery leakage from the safety valve. The inverted position is demonstrated in the far left picture below where the letters “Panasonic” on the battery in the picture are inverted. The following illustrations are for explaining positions of the battery, not for showing accurate configurations for each type of battery.



* Examples of plastic or resin to avoid: Vinyl chloride, Oily rubber. Examples of acceptable types of plastic or resin: Polyolefin resin such as polypropylene or polyethylene.



(3) Do not carry the battery by hanging it from the terminal or the lead wire, as it may cause damage to the battery.
(4) When carrying the battery, exercise caution not to apply a strong shock to it by dropping it, jarring it or causing it to collide with other objects, as this may cause damage to the battery.
(5) Do not underestimate the weight of the battery. As it is heavy for its volume, careless handling of the battery may cause backache or other injuries to the operator.
(6) Do not bring covered wires containing plasticizer or non- rigid PVC sheets in contact with the battery. Do not apply organic solvents such as paint thinner, gasoline, kerosene and benzene or liquid detergents to the battery. When brought in contact with these materials, the battery case may crack, causing leakage of the battery.
(7) Do not cover the battery with a material which generates static electricity, such as a PVC sheet. A static charge may trigger fire or explosion
(8) In fastening bolts and nuts of the battery, observe the torque values specified: otherwise, sparks may be generated and damage of the terminal may occur. The fastening torque of bolts and nuts is as follows:

Bolt (nut) size (mm)			Fastening Torque		
Diameter	Pitch	Length	Nm	kg. cm.	lb. In.
M5 1.197(5)	0.031 (0.8)	0.591± 0.039 (15 ± 1)	2.0 ~ 2.9	20 ~ 30	17.3 ~ 26.0
M6 0.236(6)	0.039 (1.0)	0.7870.039 (20 ± 1)	3.9 ~ 5.4	40 ~ 55	34.6 ~ 47.6
M8 0.315(8)	0.049 (1.25)	0.7870.039 (20 ± 1)	7.8 ~ 9.8	80 ~ 100	69.3 ~ 86.6

(9) Apply insulation covers to terminals, joint parts, bolts and nuts of the battery in order to prevent electric shocks to personnel.
(10) When intending to use the battery in vibrating equipment such as motor cycles, engine driven bicycles and engine driven grass shears, please consult Panasonic in advance.
(11) Fasten the batteries firmly to the equipment to avoid the influence of vibration and/or physical shock.

RECOMMENDATION

(1) The battery and/or equipment should be installed by skilled personnel (specialists) such as personnel qualified for maintaining battery equipment. Handling of the battery by unskilled personnel may lead to dangerous errors.

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3. Preparation Prior to Operation

DANGER

(1) Be sure to provide enough insulation around the lead wires and/or plates used between the batteries and the application. Insufficient insulation may cause an electric shock, heat generating from a short circuit(or excess current) may result in an injury, burn, smoke or ignition.

CAUTION

(1) Do not connect the battery directly to a power outlet or a cigarette lighter socket of an automobile without using a charger. Direct connection to power sources may cause battery leakage, heating or bursting.
(2) Turn off the switch of the circuit when connecting the battery to a charger or a load.
(3) If newly purchased batteries exhibit any irregularities in initial use, such as rusting, heating or other problems, they should not be used. Continued use of an irregular battery may lead to leakage, fire or bursting of the battery.

REQUEST

(1) Since the batteries tend to lose a part of their capacity due to self-discharge during shipment and storage, recharge the batteries before you use them after purchase or long-term storage in order to restore their full capacity. Check for the following conditions before recharging:

Charging method	Charging condition (at 25°C)
Constant voltage	• Regulation range of the controlled voltage: 7.25V to 7.45V/6V battery, 14.5V to 14.9V/12V battery; Initial current: 0.1CA to 0.4CA; Maximum charging time: 24 hours. • Short-time charge is possible when several batteries of the same model, under the same storage conditions can be charged in series. Otherwise they can be charged separately.
Constant current	• Charging current: 0.1CA • Charging time (hours)=[Amount of self- discharge (Ah)/0.1CA] x 120% • Rough estimation of amount of self-discharge is as follows (for an example): When the storage ambient temperature is lower than 25°C, and storage time is known, assume the following amount of self-discharge:[5%/month] x storage months • Multiply this by the rated capacity (at 20 hour rate) of the battery • Regardless of the above calculation, the charge time for a refresh charge must be less than 12 hours. • When the storage ambient temperature is higher than 25°C, please consult Panasonic.

4. Unspecified Use

CAUTION

(1) Do not place the batteries in an unspecified use or they may leak, ignite, or explode.

5. Method of use

DANGER

(1) The batteries must be charged using the specified charger or by maintaining the charging conditions indicated by Panasonic. If the batteries are charged under conditions other than those specified by Panasonic, they may leak, ignite or explode.

(2) Do not connect the (+) and (-) terminals of the battery to each other with a metallic material such as wire; do not allow tools such as pipe wrenches and wrenches to touch points of different voltages on the battery; and do not bring metallic necklaces or hair pins into contact with the battery or store them together with the battery. Failure to observe these precautions may cause the battery to overheat, emit hydro gen gas, leak, ignite, or burst.

WARNING

(1) Do not throw the battery in fire nor heat the battery. The battery may burst or generate a toxic gas if placed in contact with fire.

(2) Do not attempt to disassemble, remodel or destroy the battery, as it may cause battery leakage, fire or bursting, and could also create sulfuric acid spills from the battery resulting in possible burns to personnel and damage to the immediate environment.

CAUTION

(1) Check the battery for any sign of irregularities in appearance. If there is any damage to the battery case/cover such as cracks, deformation or leakage, replace the battery with a new one. If the battery appears dirty or dusty, clean it. If a battery of irregular appearance continues to be used, decrease of capacity, leakage of electricity, fumes, ignition or other problems may result.

(2) If any irregularity is found in areas such as the charge voltage and discharge characteristics of the battery, replace it.

(3) For safety, make sure to observe the following: Otherwise, leakage, ignition or an explosion of the battery may occur.
   1) Do not charge the battery with its (+) and (-) terminals and the (+) and (-) terminals of the charger connected in reverse.
   2) Do not apply a solder directly to the battery terminals. If direct soldering is unavoidable, please contact Panasonic in advance.
   3) Avoid mixed usage of batteries differing in type, manufacturer or history of use.
   4) Do not remove or damage the outer case of the battery.
   5) Do not apply strong shocks or jolts to the battery.

(4) Do not continue to charge the battery beyond the time specified in the instructions of use of the charger. If the battery is not fully charged even after being charged for a longer time than specified, discontinue charging and remove the battery from the charger. Charging for a longer time than specified may cause the battery to leak, ignite or burst.

(5) Do not discharge the batteries beyond the maximum values indicated in the specifications. If the batteries are discharged beyond the maximum values, they may leak, ignite or explode.

(6) Children should only use the battery under the guidance of an adult who should thoroughly instruct the child on its use. During use the adult should check that the battery is used exactly as instructed.

Keep the battery beyond the reach of small children. During charging or actual use of the battery, take caution not to allow small children to remove the battery from equipment.

PROPOSITION 65 WARNING

Battery posts, terminals, and related accessories contain lead and lead compounds, chemicals known to the State of California to cause cancer and reproductive harm. Wash hands after handling.

RECOMMENDATION

(1) The recommended cut-off voltage during discharge depends on the size of the discharge current. The relationship between the storage battery discharge current and the ideal discharge cut-off voltage is described in Panasonic specifications and technical handbooks.
Do not continue discharging to the point where the voltage drops below the recommended discharge cut-off voltage.
If a storage battery that was discharged below the recommended discharge cut-off voltage is recharged, the storage battery may generate heat which could deform it or cause condensation to form on the battery casing due to the evaporation of moisture from inside the battery. Discharging below the recommended discharge cut-off voltage may also accelerate the deterioration of the battery's performance characteristics.

(2) Avoid overdischarge, and charge the battery immediately after discharge. The instruction manual of the equipment should contain information telling the user not to overdischarge the battery and to charge the battery immediately after the use of the equipment (discharge). Even if discharge of the battery is stopped before voltage decreases to such a level that the battery-driven equipment stops being operational, deterioration of the battery may be accelerated by the so-called sulphation phenomenon if it is not recharged after use. The low voltage cut-off circuit should be designed so that it can completely cut off the discharge current including a weak current.

(3) If a charge method and a charge condition other than that described in the specification and the technical brochures is to be adopted, charge/discharge characteristics and life characteristics of the battery should be thoroughly checked in advance. The adoption of adequate charge methods and adequate charge conditions are crucial to ensure safe use of the battery and for fully utilizing the battery capacity.

(4) For the cycle operation of the battery (application of the battery as the main source of power by repeating charge and discharge), use a charger which operates by controlling either the charge period or charge quantity. Continue charging the battery for the time specified or until the charge completion lamp, if provided, indicates completion of charge. If charging is suspended before completion, the service life of the battery may be shortened.

(5) Avoid parallel charging of batteries in cycle use, as this may shorten the service life of the batteries by causing an imbalance in charge/discharge state among the batteries connected in parallel.

(6) During trickle or float charge of the battery, measure the total voltage with a high-accuracy voltmeter of Class 0.5 or better. If the voltage readout does not meet the specified value, investigate the reason and take proper measures. A total voltage that is lower than the specified value indicates insufficient charge which may reduce the battery capacity; a voltage higher than specified indicates an overcharge which may shorten service life of the battery or cause problems such as thermal runaway in some cases.

(7) Make sure to turn off the switch of the battery equipment after use, otherwise excessive discharge may cause deterioration in battery performance and shorten service life.

(8) When the equipment is not used for a long period, remove the battery from the equipment, charge it fully, and store it in a place where humidity is low. Unsatisfactory storage conditions may cause deterioration in battery performance, shorten service life and could cause rust to form on the terminals.

6. Maintenance and checking

WARNING

(1) Clean the battery with a slightly damp cloth, ensure there is no excess water on the cloth by squeezing it well. Do not use a dry cloth or a duster, as it may cause the battery to generate static electricity, leading to possible ignition and bursting of the battery.

(2) Replace the battery with a new one within the time period specified in the instruction manual or equipment.

• Follow the guideline which states the battery should be replaced when its capacity has decreased to 50% of the initial capacity (at an ambient temperature of 77°F (25°C) or below). In the trickle or float application of the battery (application as stand-by power) at an ambient temperature higher than 77°F (25°C), the period for which the battery can be used before replacement is shortened by a half for every 10°C rise of temperature. When the discharge current becomes higher than 0.25 CA, the run time and battery life is also shortened.

• The usable period for the battery is markedly shortened near the end of its service life (when discharge time has decreased to 50% of the initial). This is also the period when battery problems such as internal short, dry-up of electrolyte (increase in internal resistance) and corrosion of the cathode grids will occur. Replace the battery before these conditions are reached: if the battery continues to be used under these conditions, maximum discharge current will continue flowing, which may lead to thermal runaway or leakage.

CAUTION

(1) Do not apply organic solvents such as paint thinner, gasoline, kerosene and benzene or liquid detergents to the battery. If these are brought into contact with the battery case, it may crack, causing leakage.

RECOMMENDATION

(1) Keep the terminals of the battery clean. Dirty terminals may cause inadequate contact of the battery to the equipment body, leading to power failure or charge failure.

7. Emergency measures

WARNING

(1) The battery contains diluted sulfuric acid, a very toxic substance. If the battery leaks and the liquid inside spills on the skin or clothing, immediately wash it off with plenty of clean water. If the liquid splashes into eyes, immediately flush the eyes with plenty of clean water and consult a doctor. Sulfuric acid in the eyes may cause loss of eyesight and acid on the skin will cause burns.

CAUTION

(1) If any corrosion of the terminals, leakage or deformation of the case of the battery is found, do not use the battery and turn off the power supply. If a battery which is irregular or substandard in any way continues to be used, leakage, fire or bursting of the battery may occur and there is also a potential for electric shock.

8. Storage

CAUTION

(1) Store the battery in a stable position so as to keep the terminals of the battery away from any metallic or other conductive material (including items that may fall or drop onto the battery).

(2) Protect the battery from rain. If the terminals of the battery come into contact with water, they may corrode.

(3) Keep the battery in the upright position as a general rule, and do not apply abnormally strong vibrations or shocks to the battery. Transportation of the battery in an abnormal position or the application of abnormally strong vibrations or shocks to the battery may cause damage to the battery and the deterioration of characteristics.

(4) When storing the battery, remove it from the equipment or disconnect it from the charger or the load and keep it in a place where temperature is low. Do not store the battery under direct sunlight or in high temperatures (140°F (60°C) or higher) or in a highly humid atmosphere, because rusting, deterioration of performance and life of the battery may occur.

RECOMMENDATION

(1) During storage of the battery, charge it at least once every six months (when ambient temperature is 77°F (25°C) or below). Shorten the interval of charging to a half by every 50°F (10°C) rise of ambient temperature. The rate of self discharge of the battery doubles for each 5°F (10°C) rise of ambient temperature. If the battery has been stored for a long period in a discharged state, it may not be able to regain it's capacity even if it is recharged.

(2) If the battery is stored for a year or longer without being charged, its service life may be shortened.

(3) Store the battery after fully charging it, otherwise its service life may be shortened.

(4) Use the battery as soon as possible. The battery gradually deteriorates during storage and thus its decreased capacity may be irreversible even allowing when recharged.

9. Disposal of batteries

CAUTION

(1) In countries where there are legal or voluntary regulations on the recycling of rechargeable batteries, please provide written information on recycling of rechargeable batteries with the equipment, packaging, instruction manuals, etc.

(2) Adopt methods and measures for equipment design and battery mounting that will allow for easy removal of batteries for replacement and disposal.

(3) Used batteries are recyclable. When returning used batteries, insulate their terminals with adhesive tapes, etc., otherwise the residual electricity in used batteries may cause a fire or explosion.

(4) This battery is fully recyclable and should be accepted at any location that accepts common automotive starter batteries. Examples of places that accept these batteries are: County or municipal recycling drop-off centers, scrap metal dealers, and retailers sho sell automotive replacement lead acid starter batteries. In North America, non-consumers can call 1-800-SAV-LEAD for assistance in recycling.

Refer to the SAV-LEAD section in the back of this handbook for complete instructions.

SCOREBOARD CARE – OFF SEASON

EL-1527

FAIR-PLAY SCOREBOARDS
DES MOINES, IOWA

Your Fair-Play scoreboard, when installed as directed by the installation instructions, is designed and constructed to withstand normal environmental conditions. Because of its seasonal usage, particularly outdoor football and baseball scoreboards, long life with minimum service can be expected by caring for the scoreboard during off-season.

OFF-SEASON PREVENTATIVE MAINTENANCE PROCEDURES CAN INCLUDE:

1.) Small scoreboards and portable scoreboards can be disconnected and removed from their supports and stored in an indoor location.

2.) Controls should be unplugged, placed in their carrying cases and stored in a dry location of moderate temperatures.

3.) The processors in outdoor scoreboards will benefit by their removal and storage in a dry location of moderate temperature. When left in the scoreboard they are subject to vandalism and damage from various types of weather, including lightning.

IF IT IS NOT PRACTICAL TO REMOVE THE PROCESSOR, ITS POWER AND CONTROL CONNECTORS CAN BE UNPLUGGED TO ISOLATE IT FROM EXTERNAL ELECTRICAL SOURCES. WHEN UNPLUGGING CONNECTORS, BE SURE EACH IS MARKED WITH A NUMBER OR TAPE TO INDICATE ITS CORRECT SOCKET POSITION. DRAPE THE CABLE HARNESS UP SO THE CONNECTOR DOES NOT LIE ON THE BOTTOM OF THE SCOREBOARD COMPARTMENT.

4.) The scoreboard equipment should be inspected, reassembled, and tested well before the first game of the season to allow sufficient time for the return and repair of any malfunctioning parts.

CAUTION

SERVICE THE SCOREBOARD ONLY AFTER IT IS DISCONNECTED FROM ITS POWER SOURCE.

TRANS·LUX®

TROUBLE SHOOTING OUTDOOR SCOREBOARDS

Problem:	Solution:
Scoreboard does not light or function.	**1. Check scoreboard breaker.** **2. Make sure connectors on processors are seated properly.** **3. Check power at the scoreboard. If there is no power at the scoreboard, call an electrician.**
Random lights or LED's, scoreboard not functioning correctly.	**1. Check to see if the controller is operating properly. Check power at the controller location. Check data cable plug and connectors.** **2. Plug the controller into the data in on the processor located in the scoreboard. If the scoreboard runs, you need to replace the data cable.** **3. Install spare processor, if this works send in old processor for repair.** **4. If the above steps don't work, send in the controller for repair.**
Miscellaneous lamps or LED's not lighting or staying lit all the time	**1. If a complete digit is not working, check the connector on the processor.** **2. If a single lamp is not lighting, change it with a lamp of the same type & rating. If a single LED is not lighting, change the entire 3 x 3 pixel (PCA card). Replace with correct part number located on back of card.** **3. If lamps are staying lit, install spare processor or call authorized Fair-Play dealer.**

Fair-Play
A TRANS·LUX® COMPANY

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

LIMITED SCOREBOARD WARRANTY

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

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

Fair-Play's sole obligation during the applicable warranty period is to repair or replace any defective items. Defective assemblies or components are to be returned postage prepaid to Fair-Play's service center, after obtaining a return authorization number, for repair or replacement at no cost to the owner during the applicable warranty period. Replacement parts may be either new or like-new. Return shipping costs after repair will be paid by Seller except for overnight, express or special shipping costs which shall be paid by Purchaser.

Excluded from this warranty are fuses, major components provided by other manufacturers including, but not limited to, computers, rotating signs, power distribution panels, disconnect switches and components of rear-illuminated or lighted signs. The other manufacturer's warranty will apply to such components. Also excluded from this warranty are electronic signs or message centers and related controls. These items are covered by their own specific warranty.

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

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

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

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

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

Fair-Play Scoreboards - A Division of Trans-Lux Midwest Corporation
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