

***SPORTABLE
SCOREBOARDS***[®]
**OPERATING INSTRUCTIONS
FOR**



MODEL ST-15
5-DIGIT SPORTS TIMER

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2- YEAR WARRANTY

The scoreboard is warranted for a period of two (2) years from the date of invoice against defects in materials and workmanship. The first year of the two-year warranty period covers the cost of labor and parts when returned prepaid to a factory-authorized service center. The remaining one year of the two-year warranty period covers only parts when returned prepaid to a factory-authorized service center. Shipping back to the buyer will be surface postage prepaid, except if air or special method of return is specified, then shipping will be freight collect. No charges for time and materials used by others in making repairs or corrections will be paid by the manufacturer. Lamp bulbs, batteries and fuses are excluded from this warranty.

Warranty shall be void if any alteration or service is performed without the manufacturer's authorization; or if the equipment has been connected to incorrect power, is damaged by electrical fluctuations or is improperly grounded or improperly installed. Equipment which is subjected to accident, neglect, abuse, misuse, shipping damage, installation damage, or other natural disasters, including, but not limited to: fire, wind, lightning, and flood are not covered by this warranty.

The manufacturer neither makes nor authorizes any agent or representative to make any other warranty of fitness, or of merchantability, guarantee, or representation, express or implied, concerning its products. Critical and unforeseen factors beyond the control of the manufacture; prevent it from eliminating all risks in connection with the use of the products. Such risks occur even though the products are reasonably fit for their intended use. The Buyer and user acknowledge and assume all risk and liability resulting from the handling, storage, and use of these products, including all consequential damages resulting there from, except those expressly stated hereon.

THERE ARE NO OTHER WARRANTIES FOR THE MANUFACTURER'S SCOREBOARD PRODUCTS AND NONE WHICH EXTEND BEYOND THE DESCRIPTION ON THIS DOCUMENT.

IMPORTANT!

Warranty Activation/Installation & Completion Sign Off Sheet

NOTE: This sheet must be completely filled out and returned/faxed (270) 753-3773 to Scoreboard Service Company before your warranty can be activated.

Your Serial Number _____

Your Model Number _____

Date Purchased _____

Sales Agent _____

Person Authorizing Purchase (title) _____

Date Installation Completed _____

Company or Person Responsible
For Installation (address/phone number) _____

This document confirms that the installation for the ST-15. Scoreboard has been completed. All structural, wiring, and power requirements have been met. This unit has been tested in scoring and diagnostic modes, ensuring the functionality of the unit.

Scoring/timing equipment responsible party

Installer

So that we may better serve you, please have this information available in the event you need to call technical support. Customer Service at: 1-800-411-3136

INSTRUCTIONS FOR REPORTING SHIPPING DAMAGE

Shipping damage must be noted at the time of delivery. Consignee must note on the "Delivery Receipt" form DAMAGED. Please make notations of the type of damage to the freight and to the packaging. Ask the delivery driver to call the local terminal and report immediately. The shipper is not responsible for the shipments that are not signed for as damaged upon arrival. Please contact the manufacturer immediately to report. The shipper is responsible for filing the claim, unless shipped 3rd party.

If damage is discovered after delivery, call the delivery company to report the concealed damage and please call the manufacturer immediately to report. Concealed damage must be reported within 5 days after the delivery date. If the damages are found after this time, the manufacturer will not be responsible.

PARTS LIST

The ST-15 sports timer package includes the following:

- Model ST-15 5-digit sports timer
- Handheld controller with "SPORTS TIMER" keypad insert
- 10-ft. controller cable
- 25-ft. controller cable extension
- AC wall transformer
- Removable colon/decimal dots

OPTIONS

- Wireless Remote Control System
- Dual-Power System
- Rolling leg assembly
- 100-ft controller cable extension

IMPORTANT! BEFORE CONTINUING, CHECK TO ENSURE THAT YOU HAVE ALL OF THE COMPONENTS LISTED ABOVE. NOTIFY THE MANUFACTURER IMMEDIATELY IF ANY COMPONENT IS MISSING FROM THE FACTORY PACKAGING.

OVERVIEW

The ST-15 is a 5-digit sports timer designed to count up or down. The timer is completely user-programmable and allows the user to set the number of clock digits, the "weight" of the digits (explained in detail later in this section), whether the timer counts up or down, the length of the horn sounding, and several other features.

The ST-15 is shipped from the factory configured as a five-digit count up timer with the digits displaying H:MM:SS (hours (1 digit), minutes (two digits), and seconds (two digits)). In configuration mode the user may specify the number of clock digits and the "weight" of each digit. Specifying the

“weight” of each digit allows the user to program the timer to display H:MM:SS, M:SS:1/10:1/100, etc. Instructions on configuring the display digits can be found in the “Configuring the Display Digits” section on page 4.

Once the display is configured the user can program the timer to count up from zero to a user-preset stopping time or down from a user-preset starting time down to zero. With the desired start or stop time programmed, the user can start or stop the clock counting with a single key press. Instructions on setting count up/count down mode as well as programming starting/stopping times can be found in the “Timer Operation” section on page 5.

The ST-15 5-digit sports timer also has a built-in **TIME OF DAY** function and can display the current time of day in either a *12-hour* or *24-hour* clock format. Detailed instructions on using the timer’s TIME OF DAY function can be found in the TIME OF DAY section on page 6.

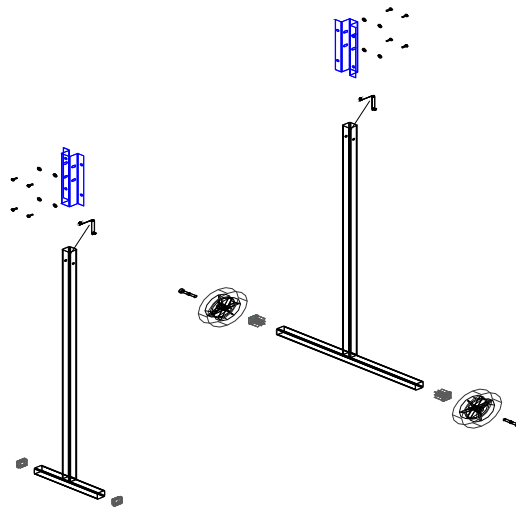
OPTIONAL ROLLING LEG ASSEMBLY INSTRUCTIONS

Leg Assembly Parts List:

- 1—Front leg
- 1 -- Wheel leg
- 8 --1/4 Flat washers
- 8 – Screw 1/4-20 X 3/4” PPH MS
- 2 – Bolts 1/2-13” X 2-1/2” NC



- 2 – Snap button dia. .375 double snap
- 2 – Brackets 4” portables
- 2—Tube caps
- 2– Inserts 1.5” tubing with 1/2” thrds.



Tools required:

- 1) Phillips head Screw driver #2 or #3

1) $\frac{3}{4}$ " socket or wrench

1. Begin by inserting the snap buttons in each leg by squeezing them together until the buttons will slide down inside the legs. Continue to push the snap button down until the buttons protrude through the holes in the legs.
2. Place a leg bracket over either leg and at the side of the ST-15 cabinet, secure the leg bracket to the side of the cabinet with (4) four each $\frac{1}{4}$ -20 screws using a Phillips head screw driver. Repeat this process for the other leg.
3. Insert the (2) two each end caps into the ends of the leg without threads.
4. Install the (2) two wheels by placing the (2) $\frac{1}{2}$ -12 x 2 $\frac{1}{2}$ " bolts through the hole in the center of the wheels and securing them to the leg with threads at the ends using a $\frac{3}{4}$ " socket or wrench.
5. Raise the ST-15 scoreboard high enough to align a hole in the bracket with the snap buttons in the leg the snap button will snap through the hole in the bracket holding it in place.

GETTING STARTED

CABLE SYSTEMS

To connect the handheld controller to the timer, plug the 5-pin male end of the control cable into the jack on the top of the controller and connect the other end of the control cable to the 9-pin connector on the timer's front switch plate labeled **FROM CONTROLLER**. If extra length is needed, use the supplied 25-ft. extension cables between the controller and the 10-ft. control cable. Since the handheld controller is powered from the display through the controller cable, there is no *POWER* switch on the handheld cable controller.

WIRELESS SYSTEMS

If your unit is equipped with wireless remote control (optional) no cable connections between the handheld controller and the timer are necessary. To turn the handheld controller on, flip the controller's *POWER* switch to the **ON** position.

POWERING THE TIMER USING THE AC WALL ADAPTER

The timer is equipped to operate on 110-volt external AC power. To power the scoreboard using the AC wall adapter plug the appropriate end of the supplied 10-volt wall transformer into the receptacle on the timer's front switch plate labeled **AC POWER**. Plug the wall transformer into a 120-volt, 60 Hz, grounded AC outlet. To turn the timer on, move the timer's power switch to the **AC/INT BATT** position.

POWERING THE TIMER USING INTERNAL BATTERY (OPTIONAL)

If your timer is equipped with an optional internal battery the timer can be operated without the 10-volt AC wall transformer. To turn the timer on, move the unit's power switch to the **AC/INT BATT** position.

POWERING THE TIMER USING EXTERNAL BATTERY (OPTIONAL)

If your timer is equipped with an external battery pack (optional), the timer can be operated without the 10-volt AC wall transformer. Connect the external battery pack to the **EXT BATT**

connector on the timer's front switch plate. To turn the timer on, move the unit's power switch to the **EXT BATT** position.

CHARGING THE INTERNAL BATTERY (OPTIONAL)

The timer's internal battery is charged whenever the AC wall adapter is connected to the timer and plugged into a live AC outlet. The built-in charger is completely automatic and will not overcharge your battery, making it safe to leave the timer plugged in when not in use.

CHARGING THE EXTERNAL BATTERY (OPTIONAL)

The charger included with an external battery pack **IS NOT** automatic and must be monitored to avoid overcharging the battery. To charge the external battery using the standard charger, connect the battery to the charger and plug the charger into a live 110-volt outlet. **IMPORTANT! WHEN USING THE STANDARD CHARGER, CHARGE THE BATTERY TWO HOURS FOR EVERY ONE HOUR OF USE - NEVER EXCEED 16 HOURS TO AVOID OVERCHARGING AND DAMAGING THE BATTERY.** The optional automatic battery charger is completely automatic and will not overcharge the battery.

CONFIGURING THE DISPLAY

The ST-15 is shipped from the factory configured as follows:

1. 5-digit timer configured to display H: MM:SS (hours, minutes, and seconds)
2. count up (the timer will count up from zero to a user-preset stopping time or indefinitely if no user-preset stopping time is entered)
3. 3-second horn when a user-preset stopping time is reached in count up mode or zero is reached in count down mode

This is the most commonly used configuration for this model.

If this factory configuration suits your needs, there is no need to further configure the display. Skip to "Timer Operation" on page 7 for instructions on how to program starting/stopping times and count up/count down mode. If not, the information below will guide you in configuring the display to meet your needs.

Configuring the Display

There are seven parameters that may be set while configuring the display. Each parameter, 0-6, is assigned a value by the user during configuration. The parameter numbers, descriptions, and available settings are shown below:

Parameters Set During Configuration		
Parameter ID	Description	Settings
0	Timer Function	1 = Timer / 3 = Time of Day
1	Number of Timer Digits	1-10
2	Number of Clock Digits	1-10
3	First Clock Digit Value	see table on page 6
4	Length of Horn	0-9 seconds
5	Count Up / Count Down	0 = Count Down / 1 = Count Up

6	12/24 Hour Clock Format	0 = 12-hour / 1 = 24-hour
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To configure the items above the display must be placed in configuration mode. To do this, start with the timer's *POWER* switch in the *OFF* position. Ensure that the handheld controller is properly connected to the timer. To place the timer in configuration mode:

- Turn the timer's *POWER* switch to the appropriate *ON* position.
- Press the "9" key within one second of turning the timer's power on.
- Press the "7" key press within one second of pressing the "9" key.

If the timer accepts the key sequence, the next-to-last digit will display a flashing "0" and the last digit will display either a "1" (if the unit was last configured as a sports timer, as is the factory default) or a "3" (if the unit was last configured as a time of day display).

If the timer displays anything other than a flashing "0" in the next-to-last digit, configuration mode wasn't properly initiated. Turn the timer off, wait ten seconds, and then try again.

Once in configuration mode, the flashing number shown in the next-to-last digit indicates the parameter to be set (0-6) and the number shown in the last digit indicates the current value for that parameter.

- To change the value for the current parameter, use the number keys on the handheld controller.
- To scroll forward to the next parameter to be set, press the *NEXT* key.
- To scroll backward to the previous parameter, press the *PREV* key.

NOTE: Once all parameters have been set, press and hold the **NEXT** key until the unit returns to display mode.

Parameter 0: Timer Function

Press "1" to configure the unit as a period timer. A "1" will be displayed in the last digit. Set parameters 1-5 then skip to "Timer Operation" on page 7.

- or -

Press "3" to configure the unit as a time of day display. A "3" will be displayed in the last digit. Set parameter 1 to "5", set parameter 2 to "4", set parameter 3 to "5", and set parameter 6 then skip to "TIME OF DAY" on page 6.

You can scroll forward and backward through the parameters to be set for the function you specified by using the *NEXT* and *PREVIOUS* keys. If you configured the unit as a period timer, only parameters 0-5 (those that must be set to use the unit as a period timer) will be available as you scroll forward and backward through the parameters to be set. If you configured the unit as a time of day display, only parameters 0 and 6 (the parameters that must be set to use the unit as a time of day display) will be available as you scroll forward and backward through the parameters to be set. Parameter 0 will always be available when in configuration mode so that the unit's function can be changed at any time.

Parameter 1: Number of Timer Digits
(Available when parameter 0 is set to “1” or “3”)

Use the number keys on the handheld controller to enter the desired number of timer digits. This value may be from “1” to “10” but “5” is recommended since the timer has 5 digits. If this parameter’s value is greater than “5” the timer will function properly, but not all of the clock digits will be displayed. However, the timer will continue to count the underplayed time internally and the displayed digits will still change accordingly.

Parameter 2: Number of Clock Digits
(Available when parameter 0 is set to “1” or “3”)

Use the number keys on the handheld controller to enter the desired number of clock digits. This value may be from “1” to “10” but the timer will not accept a value greater than the number of timer digits set in parameter 1 above.

For example, if you wish to use the unit as a sports timer (set in Parameter 0 above) and you want the timer to display HH:MM (with no seconds, etc.) then you would set the number of clock digits to four. The fifth display digit will no be used. Setting Parameter 2 allows the user to specify how many of the timer digits (set in Parameter 1 above) will be used as clock digits.

Parameter 3: First Clock Digit Value
(Available when parameter 0 is set to “1” or “3”)

Possible values for this parameter are shown in the table below:

First Clock Digit Value Settings	
Setting	Description
1	Days 10’s (XX:XX:XX.XX)
2	Day’s 1’s (X:XX:XX.XX)
3	Hours 10’s (XX:XX:XX)
4	Hours 1’s (X:XX:XX)
5	Minutes 10’s (XX:XX)
6	Minutes 1’s (X:XX)
7	Seconds 10’s (XX)
8	Seconds 1’s (X)
9	1/10 th Second (.X)
10	1/100 th Second (X)

All other clock digits are sequential from the First Clock Digit Value. Therefore, if you set the number of clock digits to “3” (set in parameter 2) and the First Clock Digit Value to “4” (set in parameter 3) the clock will display H:MM, such as 9:30 (9 hours, 30 minutes).

Examples:

- If you set the number of clock digits to “4” and want the timer to display HH:MM, set the First Clock Digit Value to “3.”

- If you set the number of clock digits to “3” and want the timer to display M:SS, set the First Clock Digit Value to “6.”
- If you set the number of clock digits to “2” and want the timer to display SS, set the First Clock Digit Value to “7.”

Parameter 4: Horn Length

(Available only when parameter 0 is set to “1”)

Use the number keys on the handheld controller to specify how long the horn will sound, in seconds.

Parameter 5: Count Up / Count Down

(Available only when parameter 0 is set to “1”)

Press the “1” key to make the timer count up from zero to the user-programmed stopping time, if programmed. If no user-preset stopping time is entered when the timer is in count up mode, the timer will count up indefinitely. Press the “0” key to make the timer count down from the user-programmed starting time to zero.

Parameter 6: 12-hour/24-hour Clock Format

(Available only when parameter 0 is set to “3”)

Press “0” to configure the display to show the time of day in a 12-hour clock format. Press “1” to configure the display to show the time of day in a 24-hour clock format.

NOTE: Once all parameters have been set, press and hold the **NEXT** key until the unit returns to display mode.

TIMER OPERATION

When the unit is configured to count up (set in Parameter 5 on page 10) a user-preset stopping time **may** be entered, but is **optional**. If a user-preset stopping time is entered and the timer is started the timer will begin counting up from zero and stop at the user-preset stopping time. If a user-preset stopping time isn’t entered and the timer is started the timer will begin counting up from zero and will count up indefinitely until it is stopped.

When the unit is configured to count down (set in Parameter 5 on page 10) a user-preset starting time **must** be entered. Once a user-preset starting time is entered and the timer is started, the timer will begin counting down from the user-preset time to zero.

User-preset stopping times (for count up mode) and user-preset starting time (for count down mode) are entered using the same procedure.

To enter user-preset starting/stopping times:

1. Press and hold the **SET CLOCK** key until the display clears.
2. Using the numeric keypad, enter the desired starting/stopping time. The format used to enter the time will depend on the number of clock digits set in Parameter 2 on page 9.
3. Press the **NEXT** key followed by the **NEW GAME** key to set the new time.

NOTE: Failing to perform step 3 will cause the board not to display the correct time.

Examples:

- If Parameter 2 was set to 5 (5 clock digits) and Parameter 5 was set to 1 (count down) and the desired starting time is 1:30:00 (one hour, 30 minutes), the starting time would be entered by pressing 1 – 3 – 0 – 0 – 0. If the desired starting time is 45:00 (45 minutes), the starting time would be entered by pressing 0 – 4 – 5 – 0 – 0.
- If Parameter 2 was set to 4 (4 clock digits) and Parameter 5 was set to 0 (count up) and the desired stopping time is 15:00 (15 minutes), the stopping time would be entered by pressing 1 – 5 – 0 – 0. If the desired stopping time is 8:30 (8 minutes, 30 seconds), the stopping time would be entered by pressing 0 – 8 – 3 – 0.

NOTE: As shown in the examples above, when entering starting/stopping times, all digits specified in Parameter 2 must be used, sometimes making it necessary to use leading zeros in order to take up the “unused” digits.

To start/stop the timer:

- Press the **START/STOP CLOCK** key.

NOTE: Restarting a stopped timing sequence continues counting from the point at which it was stopped. It does not reset the timer and begin counting over.

To reset the time:

- stop the clock by pressing the **START/STOP CLOCK** key
- Press and hold the **NEW GAME** key until the display clears and resets.

TIME OF DAY OPERATION

If the unit was configured as a time of day display (see “Parameter 0: Timer Function” on page 5) the following parameters must also be set to the specified value before the timer can be used as a time of day display:

Parameter 1 must be set to “5”

(See “Parameter 1: Number of Timer Digits” on page 5)

Parameter 2 must be set to “4”

(See “Parameter 2: Number of Clock Digits” on page 5)

Parameter 3 must be set to “5”

(See “Parameter 3: First Clock Digit Value” on page 6)

Parameter 6 can be set to either “0” or “1”

(See Parameter 6: 12-hour/24-hour Clock Format on page 6)

To set the time of day:

1. Press and hold the **SET CLOCK** key until the display clears.

2. Use the number keys on the handheld controller to enter the time of day in either a 12-hour or 24-hour clock format, depending on the value you set for parameter 6 in configuration mode.
3. Press the **NEXT** key to save the entered time and start the clock.