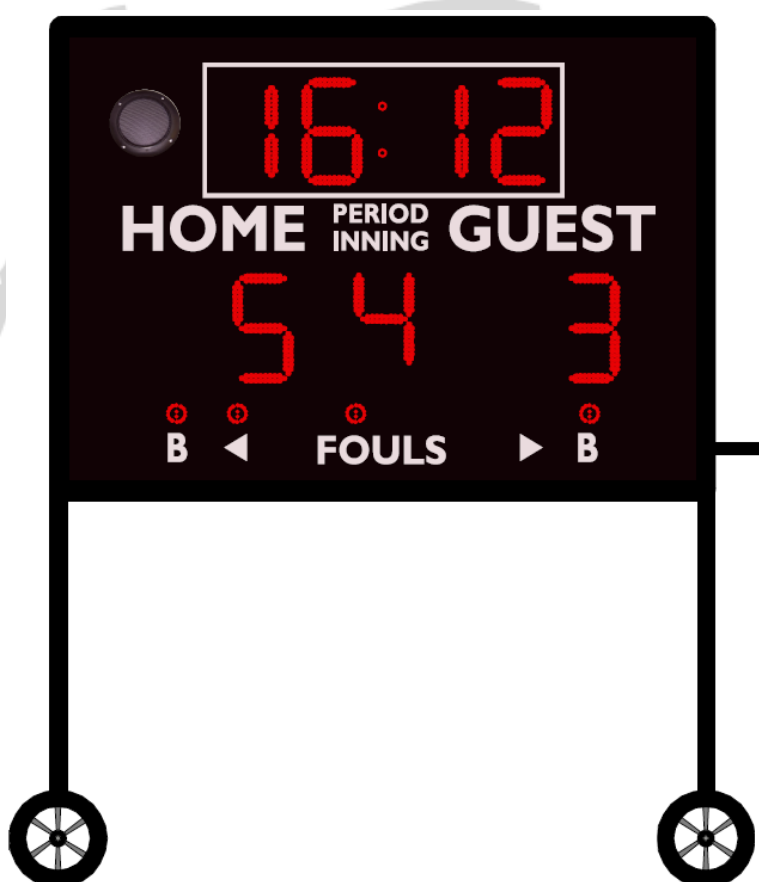


VARSITY
SCOREBOARDS

SPORTABLE
SCOREBOARDS®

ASSEMBLY and OPERATING
INSTRUCTIONS FOR



MS-4

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 risks 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.

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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.

MS-4 PARTS LIST

Standard Parts

- 1 – 10 volt, 3 amp AC Wall Adapter
- 1 – Handheld Cable Controller
- 1 – Standard Communication Cable (10' length)
- 1 – Keypad Insert Set
- 1 – Leg Assembly

Optional Parts

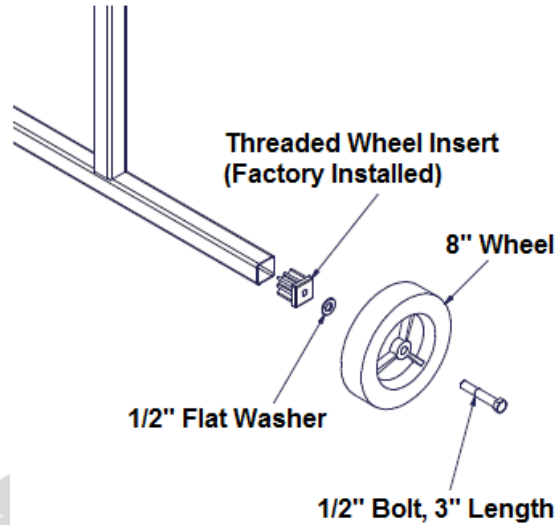
- 1 – Sponsor Panel
- 1 – Communication Cable Extensions (these come in 25' and 100' lengths)
- 1 – Wireless Handheld Controller (this will take the place of the cable operated handheld controller cables)
- 1 – Wireless Receiver (will be factory built into scoreboard with the wireless option)

Leg Assembly Parts

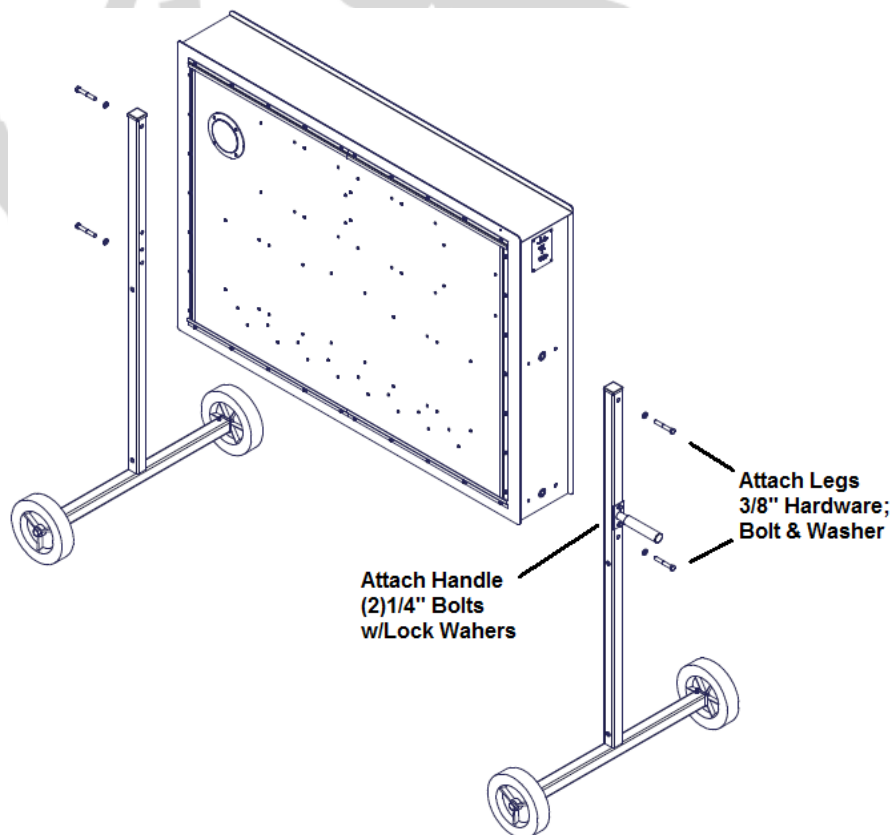
- 1 – Pulling Handle
- 2 – Legs
- 4 – Flat Washers, 1/2" (for Wheels)
- 4 – Bolts, 3/8-16X2-1/2 Zinc (for Leg Attachment)
- 4 – Split Lock Washers, 3/8" (for Leg Attachment)
- 4 – Wheels, 8" X 1 3/4"
- 4 – Bolt, 1/2-13X3" (for Wheels)
- 2 – 1/4" Bolt (for Handle)
- 2 – 1/4" Lock Washers (for Handle)

LEG ASSEMBLY INSTRUCTIONS

1. Attach the 8" Wheels to the leg that has the factory installed threaded wheel inserts. Use the provided 1/2" hardware to do so. See image below.



2. Attach the Legs to the MS-4 cabinet using the provided 3/8" hardware.



GETTING STARTED

CHANGING GAME MODES

Since this scoreboard is designed to score several different sports, it has several different modes - one for each sport that it is capable of scoring. Each game mode also has a corresponding keypad insert that helps the operator identify which keys to press for which function. When the scoreboard is first turned *ON*, a number appears briefly in the **HOME** score display. This number tells the operator what game mode the scoreboard is in. The number that appears corresponds directly to the sport's number as appears on the **GAME CODES** keypad insert.

To change game modes:

1. Insert the **GAME CODES** insert into the keypad.
2. Press and hold the **SELECT GAME** key for three seconds.
3. When the unit's display clears, press the key for the sport you wish to score. The corresponding number for the sport you selected will appear briefly in the scoreboard's **HOME** score display. When the **HOME** score display returns to "0" the unit is ready to score the selected sport.

BASIC KEYPAD FUNCTIONS

Setting the clock:

1. Press and hold the **SET CLOCK** key for three seconds.
2. After the clock's display clears, use the number keys to enter the desired period time in a four digit format. For example: to enter a period time of 8:00 press **0, 8, 0, 0**. To enter a period time of 12:00 press **1, 2, 0, 0**.

NOTE: This time will remain in memory until it is changed using the same procedure.

Operating the Clock

- To start the clock, press the **START/STOP CLOCK** key.
- To stop the clock, press the **START/STOP CLOCK** key.

NOTE: When the clock expires, the horn will automatically sound and the clock will reset to the user-preset time.

Sounding the Horn

- The horn will automatically sound whenever the clock expires.
- To sound the horn manually at any time, press the **HORN** key (located at the top of the keypad).

Resetting the scoreboard for a new game

- To reset the scoreboard for a new game, press and hold the **NEW GAME** key for three seconds.

BASEBALL

- Put the scoreboard in **BASEBALL** mode.
- Make sure the **BASEBALL** keypad insert is in the controller.
- To add one to *HOME*, press the **HOME SCORE** key once.
- To subtract one from *HOME*, press the **-1 HOME** key.
- To add one to *GUEST*, press the **GUEST SCORE** key once.
- To subtract one from *GUEST*, press the **-1 GUEST** key.
- To increase *BALLS*, press the **BALLS** key.
- To increase *STRIKES*, press the **STRIKES** key. When the strike key is pressed the third time *STRIKES* will clear and *OUTS* will automatically increase.
- To increase *OUTS*, press the **OUTS** key. After six outs, *INNING* will automatically increase.
- To display a *HIT*, press the **H/E** key once.
- To display an *ERROR*, press the **H/E** key twice.
- To clear *BALLS* and *STRIKES* for the next batter, press the **NEW BATTER** key.
- To increase *INNING* by one, press the **INNING** key.
- To decrease *INNING* by one, press the **EDIT** key quickly followed by the **INNING** key.

SOFTBALL/TIMED BASEBALL

- Put the scoreboard in **SOFTBALL** mode.
- Make sure the **SOFTBALL** insert is in the controller.

NOTE: SOFTBALL mode has the same functions as BASEBALL mode, with a four-digit clock. In SOFTBALL mode, the clock counts down in minutes only until it reaches two minutes. For instructions on setting the game clock, please see "Setting the Game Clock".

- To add one to *HOME*, press the **HOME SCORE** key once.
- To subtract one from *HOME*, press the **-1 HOME** key once.
- To add one to *GUEST*, press the **GUEST SCORE** key once.
- To subtract one from *GUEST*, press the **-1 GUEST** key once.

- To increase *INNING*, press the **INNING** key.
- To decrease *INNING*, press the **EDIT** key quickly followed by the **INNING** key.
- To increase *BALLS*, press the **BALLS** key.
- To increase *STRIKES*, press the **STRIKES** key. After two strikes, *OUTS* automatically increases.
- To increase *OUTS*, press the **OUTS** key.
- To display a *HIT*, press the **H/E** key once.
- To display an *ERROR*, press the **H/E** key twice.
- To clear *BALLS* and *STRIKES* for the next batter, press the **NEW BATTER** key.
- To add minutes to the clock, stop the clock by pressing the **START/STOP CLOCK** key then press the **MINUTES** key once for each minute you wish to add to the clock. To subtract one minute from the clock, press the **-1 MIN** key once for each minute you wish to subtract from the clock.
- To add seconds to the clock, stop the clock by pressing the **START/STOP CLOCK** key then press the **SECONDS** key once for each second you wish to add to the clock.
- To subtract one second from the clock, press the **-1 SEC** key once for each second you wish to subtract from the clock.

BASKETBALL

- Put the scoreboard in **BASKETBALL** mode.
- Make sure the **BASKETBALL** keypad insert is in the controller.
- To add one to the *HOME* score, press the **HOME SCORE** key once.
- To subtract one from the *HOME* score, press the **-1 HOME** key.
- To add one to the *GUEST* score, press the **GUEST SCORE** key once.
- To subtract one from the *GUEST* score, press the **-1 GUEST** key.
- The *PERIOD* will automatically increase when the clock expires at the end of each period. To manually increase the *PERIOD* at any time, press the **PERIOD** key. To decrease the *PERIOD* at any time, press the **COUNT DOWN** key quickly followed by the **PERIOD** key.
- To display the *HOME* bonus, press the **HOME BONUS** key.
- To display the *GUEST* bonus, press the **GUEST BONUS** key.
- To clear both the *HOME* and *GUEST* bonus, press the **BONUS CLEAR** key.

- To change the *POSSESSION*, press the **JUMP POSS. CHANGE** key once.
- To add minutes to the clock, stop the clock by pressing the **START/STOP CLOCK** key then press the **+1 MINUTE** key once for each minute you wish to add to the clock.
- To subtract minutes from the clock, stop the clock by pressing the **START/STOP CLOCK** key then press the **-1 MIN** key once for each minute you wish to subtract from the clock.
- To add seconds to the clock, stop the clock by pressing the **START/STOP CLOCK** key then press the **SECONDS** key once for each second you wish to add to the clock.
- To subtract seconds from the clock, stop the clock by pressing the **START/STOP CLOCK** key then press the **-1 SEC** key once for each second you wish to subtract from the clock.
- To increase **PLAYER FOULS**, press the **PLAYER FOULS** key.

VOLLEYBALL

- Put the scoreboard in **VOLLEYBALL** mode.
- Make sure the **VOLLEYBALL** keypad insert is in the controller.
- To add one to the *HOME* score, press the **HOME SCORE** key once.
- To subtract one from the *HOME* score, press the **-1 HOME** key once.
- To add one to the *GUEST* score, press the **GUEST SCORE** key once.
- To subtract one from the *GUEST* score, press the **-1 GUEST** key once.
- To add one to *HOME GAMES WON*, press the **HOME GAMES WON** key once.
- To subtract one from the *HOME GAMES WON*, press the **COUNT DOWN** key quickly followed by the **HOME GAMES WON** key.
- To add one to the *GUEST GAMES WON*, press the **GUEST GAMES WON** key once.
- To subtract one from the *GUEST GAMES WON*, press the **COUNTDOWN** key quickly followed by the **GUEST GAMES WON** key.
- To add one to *GAME*, press the **GAME** key.
- To subtract one from *GAME*, press **COUNT DOWN** key quickly followed by the **GAME** key.
- To change the *POSSESSION/SERVER*, press the **POSS. CHANGE** key once.
- To add minutes to the clock, stop the clock by pressing the **START/STOP CLOCK** key then press the **MINUTES** key once for each minute you wish to add to the clock.
- To subtract minutes from the clock, stop the clock by pressing the **START/STOP CLOCK** key then press the **-1 MIN** key once for each minute you wish to subtract from the clock.

- To add seconds to the clock, stop the clock by pressing the **START/STOP CLOCK** key then press the **SECONDS** key once for each second you wish to add to the clock.
- To subtract seconds from the clock, stop the clock by pressing the **START/STOP CLOCK** key then press the **-1 SEC** key once for each second you wish to subtract from the clock.
- To reset the *GAME SCORE*, press the **GAME SCORE RESET** key. *GAME* will automatically increase when the **GAME SCORE RESET** key is pressed.
- To reset the *MATCH SCORE*, press the **MATCH SCORE RESET** key.

WRESTLING

- Put the scoreboard in **WRESTLING** mode.
- Make sure the **WRESTLING** keypad insert is in the controller.
- To add one to the *HOME MATCH SCORE*, press the **HOME MATCH SCORE** key once.
- To subtract one from the *HOME MATCH SCORE*, press the **COUNT DOWN** key quickly followed by the **HOME MATCH SCORE** key.
- To add one to the *GUEST MATCH SCORE*, press the **GUEST MATCH SCORE** key once.
- To subtract one from the *GUEST MATCH SCORE*, press the **COUNT DOWN** key quickly followed by the **GUEST MATCH SCORE** key.
- To clear the **HOME** and **GUEST MATCH SCORE**, press the **CLEAR** key.
- The *PERIOD* will automatically increase when the clock expires at the end of each period. To manually increase the *PERIOD* at any time, press the **PERIOD** key.
- To add minutes to the clock, stop the clock by pressing the **START/STOP CLOCK** key then press the **MINUTES** key once for each minute you wish to add to the clock.
- To subtract minutes from the clock, stop the clock by pressing the **START/STOP CLOCK** key then press the **-1 MIN** key once for each second you wish to subtract from the clock.
- To add seconds to the clock, stop the clock by pressing the **START/STOP CLOCK** key then press the **SECONDS** key once for each second you wish to add to the clock.
- To subtract seconds from the clock, stop the clock by pressing the **START/STOP CLOCK** key then press the **-1 SEC** key once for each second you wish to subtract from the clock.
- To reset for a new match, press the **COUNT DOWN** key quickly followed by the **CLEAR** key.

SOCCER/HOCKEY/WATER POLO

- Put the scoreboard in **SOCCER, HOCKEY, OR WATER POLO** mode.

- Make sure the **SOCCER** keypad insert is in the controller.
- To add one to the *HOME* score, press the **HOME SCORE** key once.
- To subtract one from the *HOME* score, press the **-1 HOME** key once.
- To add one to the *GUEST* score, press the **GUEST SCORE** key once.
- To subtract one from the *GUEST* score, press the **-1 GUEST** key once.
- The *PERIOD* will automatically increase when the clock expires at the end of each period. To manually increase the *PERIOD* at any time, press the **PERIOD** key.
- To display a *GOAL* for the *HOME* team, press the **HOME GOAL** key.
- To display a *GOAL* for the *GUEST* team, press the **GUEST GOAL** key.
- To add minutes to the clock, stop the clock by pressing the **START/STOP CLOCK** key then press the **MINUTES** key once for each minute you wish to add.
- To subtract minutes from the clock, stop the clock by pressing the **START/STOP CLOCK** key then press the **-1 MIN** key once for each minute you wish to subtract from the clock.
- To add seconds to the clock, stop the clock by pressing the **START/STOP CLOCK** key then press the **SECONDS** key once for each second you wish to add.
- To subtract seconds from the clock, stop the clock by pressing the **START/STOP CLOCK** key then press the **-1 SEC** key once for each second you wish to subtract from the clock.

FOOTBALL

- Put the scoreboard in **FOOTBALL** mode.
- Make sure the **FOOTBALL** keypad insert is in the controller.
- To add one to the *HOME* score, press the **HOME SCORE** key once.
- To subtract one from the *HOME* score, press the **-1 HOME** key.
- To add one to the *GUEST* score, press the **GUEST SCORE** key once.
- To subtract one from the *GUEST* score, press the **-1 GUEST** key.
- The *PERIOD* will automatically increase when the clock expires at the end of each period. To manually increase the *PERIOD* at any time, press the **PERIOD** key. To decrease the *PERIOD*, press the **COUNT DOWN** key quickly followed by the **PERIOD** key.
- To increase *DOWN*, press the **DOWN** key.
- To display *FIRST DOWN*, press the **FIRST DOWN** key.
- To change the *POSSESSION* display, press the **POSS. CHANGE** key.

- To add minutes to the clock, stop the clock by pressing the **START/STOP CLOCK** key then press the **+1 MINUTE** key once for each minute you wish to add.
- To subtract minutes from the clock, stop the clock by pressing the **START/STOP CLOCK** key then press the **-1 MIN** key once for each minute you wish to subtract from the clock.
- To add seconds to the clock, stop the clock by pressing the **START/STOP CLOCK** key then press the **+1 SECOND** key once for each second you wish to add.
- To subtract seconds from the clock, stop the clock by pressing the **START/STOP CLOCK** key then press the **-1 SEC** key once for each second you wish to subtract from the clock.

TENNIS

- Put the scoreboard in **TENNIS** mode.
- Make sure the **TENNIS** keypad insert is in the controller.
- To increase the *LEFT GAME SCORE*, press the **LEFT GAME SCORE** key once. The score will automatically increase from 0 to 15, to 30, to 40, and into tie breakers.
- To subtract one from the *LEFT GAME SCORE*, press the **COUNT DOWN** key quickly followed by the **LEFT GAME SCORE** key.
- To increase the *RIGHT GAME SCORE*, press the **RIGHT GAME SCORE** key once. The score will automatically increase from 0 to 15, to 30, to 40, and into tie breakers.
- To subtract one from the *RIGHT GAME SCORE*, press the **COUNT DOWN** key quickly followed by the **RIGHT GAME SCORE** key.
- To increase *SET* by one, press the **SET** key.
- To increase the *LEFT SET SCORE*, press the **LEFT SET SCORE** key once
- To subtract one from the *LEFT SET SCORE*, press the **COUNT DOWN** key quickly followed by the **LEFT SET SCORE** key.
- To increase the *RIGHT SET SCORE*, press the **RIGHT SET SCORE** key once
- To subtract one from the *RIGHT SET SCORE*, press the **COUNT DOWN** key quickly followed by the **RIGHT SET SCORE** key.
- To indicate who is *SERVING*, press the **SERVING** key.
- To indicate *LEFT* or *RIGHT ADVANTAGE*, press the **ADVANTAGE** key.
- To indicate *DEUCE*, press the **DEUCE** key.
- To reset both the *HOME* and *GUEST GAME SCORE*, press the **GAME SCORE RESET**.
- To reset both the *HOME* and *GUEST SET SCORE*, press the **SET SCORE RESET**.

- The horn will automatically sound whenever the clock expires.

TRACK (COUNT UP)

- Put the scoreboard in **TRACK** mode.
- Make sure the **TRACK** keypad insert is in the controller.

NOTE: In TRACK (COUNT UP) mode, when the clock is started the time will be displayed in minutes and seconds. The 1/10's and 1/100's of a second will be blanked out until the clock is stopped, at which time the 1/10's and 1/100's of a second will be displayed in the GUEST SCORE display.

- To start the clock, press the **START/STOP CLOCK** key.
- To stop the clock, press the **START/STOP CLOCK** key.
- To view the *LAP TIME* while allowing the clock to continue to count internally, press the **START/STOP LAP** key.
- To return the clock to counting, press the **START/STOP LAP** key again.
- To increase the *LAP* indicators, press the **LAP S** key.
- With the clock stopped, the **1/100 TIME** key may be used to adjust the clock in order to display the official time. The clock will be increased by 1/100 of a second each time the **1/100 TIME** key is pressed. To subtract 1/100 of a second from the clock, stop the clock by pressing the **START/STOP CLOCK** key then press the **COUNT DOWN** key quickly followed by the **1/100 TIME** key.

TIMED WORKOUT

- Put the scoreboard in **TIMED WORKOUT** mode.
- Make sure the **TRACK** keypad insert is in the controller.

NOTE: In TIMED WORKOUT mode, the clock will count up to or down from a user-preset time while displaying the current cycle number (up to eight cycles). When the clock expires the horn will sound, the cycle indicator will increase by one, and the clock will reset and immediately begin counting again.

- To start the clock *COUNTING UP*, press the **START/STOP CLOCK** key. The clock will count up from 00:00 to the user-preset time.
- To start the clock *COUNTING DOWN*, press the **COUNT DOWN** key quickly followed by the **START/STOP CLOCK** key. The clock will count down from the user-preset time to 00:00.

- To make the clock count up again, stop the clock by pressing the **START/STOP CLOCK** key and then start the clock again by pressing the **START/STOP CLOCK** key.
- To stop the clock, press the **START/STOP CLOCK** key.
- To reset the clock, press the **COUNT DOWN** key quickly followed by the **RESET** key.

TIME OF DAY

NOTE: In TIME OF DAY mode, the scoreboard's clock displays the time of day in hours and minutes. The scoreboard can be placed in TIME OF DAY mode from any other game mode, as long as the clock is stopped.

Setting the Clock:

1. Press **COUNTDOWN** quickly followed by the **HORN** key (located at the top of the keypad).
2. After the clock blanks out, use the number keys to enter the time of day in a 12-hour clock format. For example, to enter a time of 9:30, press **COUNT DOWN** quickly followed by **HORN** quickly followed by **0, 9, 3, 0**. To enter a time of 12:15, press **COUNT DOWN** quickly followed by **HORN** quickly followed by **1, 2, 1, 5**.

Starting the Clock

- To start the clock in **TIME OF DAY** mode, press the **COUNT DOWN** key quickly followed by the key to its right (the lower right-hand corner of the keypad).
- To return to game mode, press the **COUNT DOWN** key quickly followed by the key to its left (the lower left-hand corner of the keypad).

CHARGING THE BATTERY

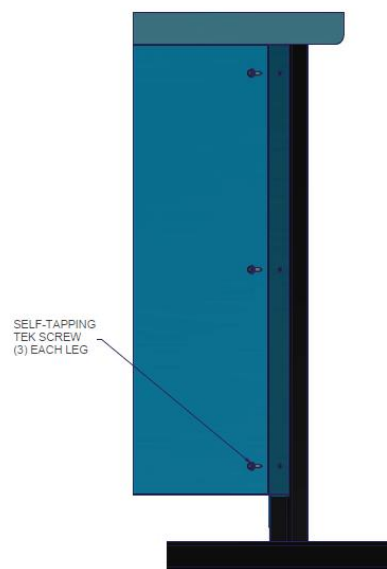
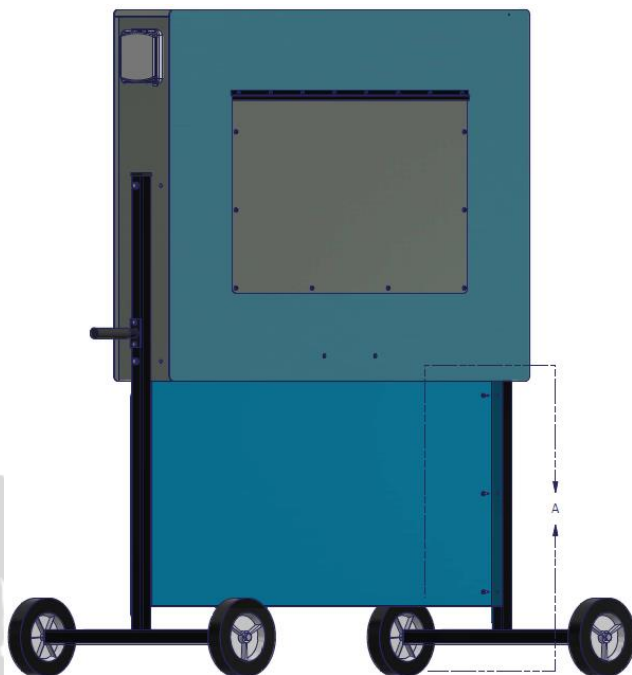
Scoreboards equipped with a built-in battery will automatically charge whenever the unit is plugged in to an AC power source via the supplied wall transformer. Whenever the scoreboard is not in use, the unit should be left plugged in so that the battery can fully charge. The battery's internal charger is fully automatic and will not allow the battery to be overcharged.

STORAGE

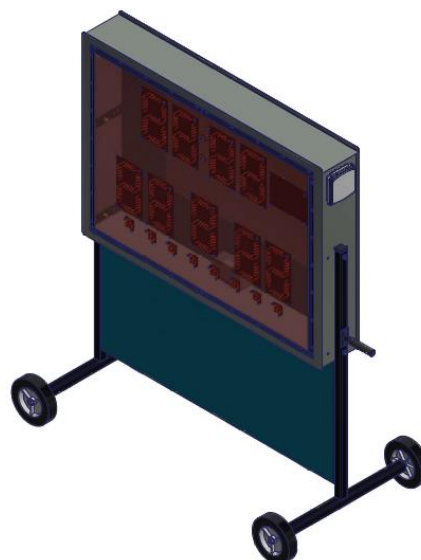
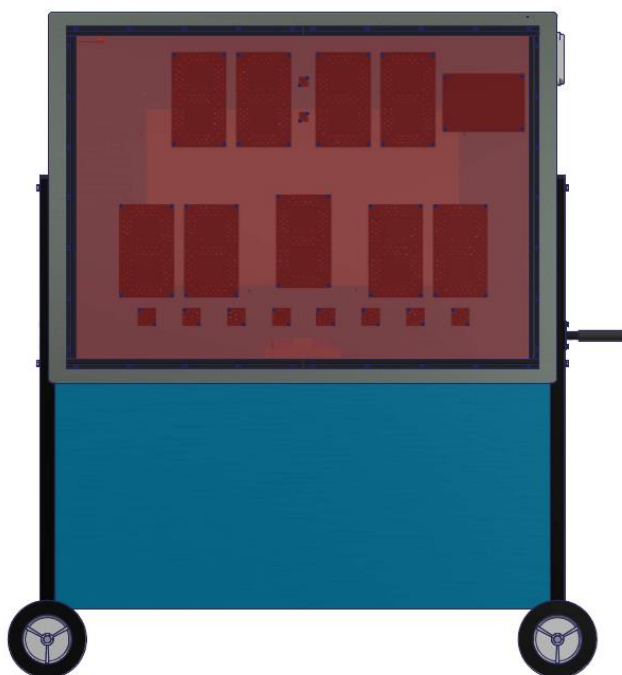
- Turn the **POWER** switch on both the scoreboard and controller **OFF**. Disconnect cable controllers from the scoreboard. Failure to do so may result in discharged batteries in both the scoreboard and controller.
- If the scoreboard is equipped with an internal battery and an automatic battery charger, always leave the unit plugged in to an AC power source whenever the unit is not in use.

OPTIONAL SPONSOR PANEL

Below are some images showing how the optional sponsor panel is installed between the legs with the provided self-tapping screws.



DETAIL A



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 this unit has been tested in scoring and diagnostic modes, ensuring the functionality of the unit.

Scoring/timing equipment responsible party

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