

# Wireless Handheld All Scoreboards Controller



User Guide



**Colorado  
TIME SYSTEMS**  
A **PLAYCORE** Company  
F970 Rev. 202103

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**Product Identification**

Product: Handheld Controller for Multisport Scoreboards  
Model Number: WHC-1

Information in this manual is subject to change without notice. Pictures and illustrations may not accurately depict your version. Please check our website for the most current information; our user manuals are available online in the customer service section of our website.

## Contents

|  |   |
|--|---|
| Product Description .....                | 1 |
| Quick Start .....                        | 1 |
| Menu Description .....                   | 3 |
| Conformity .....                         | 6 |
| North America .....                      | 7 |
| European Declaration of Conformity ..... | 8 |

# Product Description

The All Scoreboards Handheld Controller can control scoreboard displays for home and guest scores, a period display and a clock.


A button can sound the horn.

It can control a shot clock module and/or time out indicators if the controlled scoreboard is equipped with them.

The unit runs on 2 AA batteries; CTS recommends rechargeable batteries. Expected life for a pair of batteries is 8 hours.

## Quick Start

### Power On and Off

Power the controller on by pressing and holding the orange “-” key  for one second. The unit will show the CTS logo and then display the main screen for controlling scoreboards. When the “MENU” is highlighted in the display you can power the unit off by holding the “-” key for about 5 seconds.

### Navigation, Arrow Keys and Enter Key

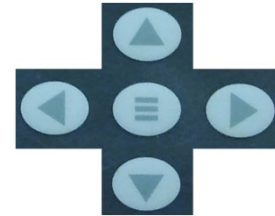
To navigate on the screen use the gray arrow keys



and the gray Enter key






in the middle of the arrow keys.



### Home Score and Guest Score


To increment the home score press the blue key . To increment the guest score

press the yellow key . Pressing and holding these keys for one second will decrement the corresponding score by one. You can also use the arrow keys to highlight

the score you wish to change and then use the orange “+” and “-” keys   to adjust up and down.

*Note – You can edit a score by a large amount in the Menu, see 3.*

### Clock


Start or stop the clock by pressing the green key .

*Note – From the Menu, you can edit the time on the clock (see page 3) and the direction of the clock (see page 3).*

### **Period**


To change the period, first use the down and up arrow keys to highlight the period field and then use the orange “+” and “-” keys to adjust the number up or down. The period indicator can display the numbers 1 through 9.

### **Horn**

Sound the horn at any time by pressing the purple key . The horn will sound for two seconds. The game horn will also sound when the clock expires. You can set the horn volume in the menu->More (see page 5).

### **Shot Clock**

If the controlled scoreboard is equipped with a shot clock module you can activate this function inside the menu->default time screen (see page 3).

The shot clock will run whenever the clock is running and can be reset by pressing the red key . When the shot clock is enabled, the shot horn will sound when the shot clock expires.

### **Time Outs**

If the controlled scoreboard is equipped with time out indicators, you can activate this function inside the menu>default time screen (see page 5). To edit time outs, use the arrow keys to highlight the time outs for the team you wish to edit and use the orange “-” and “+” keys to change the number of time outs remaining for that team.

# Menu Description

## Edit Time (Game time)

To edit the time, use the arrow keys to highlight the large digits under the word TIME and then press the enter key. Then use the left and right arrow keys to highlight the digit you wish to change. Once the correct digit is highlighted, use the orange “+” and “-” keys to adjust the digit. Exit the edit mode at any time by pressing the enter key.

*Note – You cannot enter the menu screen while the clock is running. Stop the clock with the green key if you want to enter the menu.*

## Home or Guest score

When the score needs to change by large amounts, you can put either the home score or the guest score in edit mode by first highlighting the score and then pressing the enter key. Once in edit mode, use the arrow keys to highlight the desired digit and use the orange “+” and “-” keys to adjust the digit. Then simply press the enter key again to exit the edit mode.

## MENU

At the top of the screen is the word “MENU”. You can display the menu screen by using the arrow buttons to highlight the word MENU (if it is not already highlighted) and then pressing the enter key.

*Note – You cannot enter the menu screen while the clock is running. Stop the clock with the green key if you want to enter the menu.*

The main menu consists of several different items. Some perform a simple function while others take you to another sub-screen where you can perform additional tasks. Use the arrow keys to highlight the preferred function and press the gray enter key in the middle.

**Reset Time** – This function resets the game time to the default time setting. Selecting this function will also switch control immediately to the main scoreboard screen.

**Reset Game** – This function resets all game items to their default states. Scores are reset to zero. The period is reset to one and all clocks are reset to their default times. Selecting this function will also switch control immediately to the main scoreboard screen.

**Default Time** – This function takes you to a sub-screen where you can change several default options, including time.

**Default Time** – To change the default time, use the arrow keys to highlight the digit you wish to change and use the orange “+” and “-” keys to adjust the digit.

**Clock Dir** Clock Direction – This function allows you to set whether the game clock starts at zero and runs up to the default time or if the game clock starts at the default time and runs down to zero. This can be changed by using the arrow keys to highlight the function and then pressing the enter key to toggle to up or down.

**Shot Clock** – This function allows you to enable or disable the shot clock display. To change this setting, use the arrow keys to highlight it and press the

enter key to toggle between on and off. If the controlled scoreboard has a shot clock module, shot clock time will be displayed when this setting is turned on.

**Default Shot** – To change the default shot clock time, use the arrow keys to highlight the digit you wish to change and use the orange “+” and “-” keys to adjust the digit.

**Timeouts** – This function allows you to enable or disable the time outs remaining display. To change this setting, use the arrow keys to highlight it and press the enter key to toggle between on and off. If the controlled scoreboard has the ability to display time outs remaining, they will be displayed when this setting is turned on.

**SAVE/CANCEL** – Highlighting “SAVE” and pressing enter will save any changes and return you to the main scoreboard screen. Highlighting “CANCEL” and pressing enter will return you to the main scoreboard screen while ignoring any changes made on this screen.

**Connection** – This function takes you to a sub-screen where you can modify the wireless connection parameters. The handheld controller must match the channel, PAN ID and module of the scoreboard it is controlling, as displayed on the scoreboard at power on.

The scoreboard will test the LED segments, and then cycle through a display of Channel (indicated with “C”), PAN (indicated with “P”) and Module Address (indicated with “A”).

If it is necessary to change these settings, use the arrow keys to highlight the desired parameter and then press enter to scroll through the different options.

You can set the following items by highlighting the item with the arrow keys and changing the values with the enter key:

- PAN ID: From 0 to 15
- Channel: From 0 to 11
- Module: From 1 to 6

*CAUTION: If the handheld controller is set to different settings than the scoreboard, the board won't receive any data.*

**RSSI** – Entering the **Connection** sub-screen will automatically turn on the RSSI feature. When On, the “received signal strength” is displayed on the scoreboard. The number will be between 24 and 64 hexadecimal, so you may see both numbers and the letters A through F. The lower the number, the stronger the signal. If no number check the channel and PAN on both the WHC and the receiving device. If the number is high refer to Signal Loss Troubleshooting on page 6 .

**T-Level** – Indicates the version of radio installed in the system

**Version** – Shows the firmware version

**Program mode** – puts the device into a mode to wirelessly update the firmware (**Use only if directed to by a CTS technician.**)

**More . . .** – This function takes you to a sub-screen where you can modify several more options:

**Time of Day** – This function lets you set the time of day on the controlled scoreboard. When a scoreboard is on while its controller is turned off, the scoreboard will display time of day. To set, simply highlight this function with the arrow keys. Next, use the arrow keys to highlight

**Mode** – Pressing enter alternates between 12-hour mode and 24-hour mode.

**Time** – To change the time of day, use the arrow keys to highlight the time and use the orange “+” and “-” keys to adjust the hours or minutes.

**SET/CANCEL** – Highlighting “SET” and pressing enter will save any changes. Highlight Exit at the top of the screen and press enter to return to the main scoreboard screen. Highlighting “CANCEL” and pressing enter will return you to the main menu while ignoring any changes made on the Time of Day screen.

**Horn Level** – This function allows you to set the volume of the game and shot horns. Press enter to scroll through 1 (quietest) through 4 (loudest). Select <- Back to return to the main menu, or Exit at the top of the screen to return to the main scoreboard screen.

**Backlight** – This function allows you to set the intensity and duration of the backlight. To change, simply highlight this function with the arrow keys and then press enter to toggle through the different selections.

- OFF** Backlight is disabled
- LO** Backlight is on low intensity always
- 3 LO** Backlight is on low intensity for 3 seconds
- 5 LO** Backlight is on low intensity for 5 seconds
- 10 LO** Backlight is on low intensity for 10 seconds
- 15 LO** Backlight is on low intensity for 15 seconds
- 3 HI** Backlight is on high intensity for 3 seconds
- 5 HI** Backlight is on high intensity for 5 seconds
- 10 HI** Backlight is on high intensity for 10 seconds
- 5 HI** Backlight is on high intensity for 15 seconds

Select <-Back to return to the main menu or Exit at the top of the screen to return to the main scoreboard screen.

**Off** – In the main menu, highlight “OFF” using the arrow keys and then press the enter key to power the unit off.



# Signal Loss Troubleshooting

| Symptom   | Possible Cause  | Solution  |
|---|---|---|
| No RSSI Value shown on Scoreboard                   | <ul style="list-style-type: none"> <li>Scoreboard not powered on</li> <li>Mismatched Channel</li> <li>Mismatched PAN</li> <li>Mismatched Address</li> <li>Distance too Great</li> </ul> | <ul style="list-style-type: none"> <li>Turn Scoreboard On</li> <li>Make sure channel on transmitting and receiving devices are the same</li> <li>Make sure PAN on transmitting and receiving devices are the same</li> <li>Make sure Address on transmitting and receiving devices are the same</li> <li>Move the devices closer together</li> </ul>  |
| High RSSI values or value does not update regularly | <ul style="list-style-type: none"> <li>Distance too Great</li> <li>Radio Interference</li> <li>Damaged Antenna on Scoreboard</li> <li>Off angle reception</li> </ul>                    | <ul style="list-style-type: none"> <li>Move the devices closer together</li> <li>Select another channel on both transmitting and receiving devices. Suggest moving to one of the ends of the channel spectrum to see if the signal improves.</li> <li>Check to make sure the Antenna on the receiving device is intact.</li> <li>Change the orientation to the receiving device or transmitting device to see if the signal improves</li> </ul> |

# Conformity

## *North America*



### FCC Compliance Statement:

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Contains: FCC ID OUR-XBEEPRO or MCQ-XBEE3, 2.4GHz transmitter

Contains: Model xBeePRO Radio, IC: 4214-XBEEPRO or xBee3 Radio, IC: 1846A-XBEE3

## ***European Declaration of Conformity***

We,

Everlast Climbing Industries, Inc.  
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declare under our sole responsibility that the

Product: Wireless Handheld Controller  
Model numbers: WHC-X

to which this declaration relates is in conformity with the following European Directives:

European Council Directive 2014/35/EU (February 26<sup>th</sup> 2014) on Low Voltage Equipment Safety  
CENELEC EN 60950-1/Issue:2006/04/01, CENELEC EN 60950-22 Issued:2006/04/01

European Council Directive 2014/30/EU (February 26<sup>th</sup> 2014) on Electromagnetic Compatibility  
CISPR 22 Issue:2008/09/24, CISPR 24 Issue:2010/08/24

European Council Directive 2011/65/EU (July 21, 2011) on the Reduction of Hazardous Substances (RoHS).

European Council Directive 2012/19/EU (July 4<sup>th</sup> 2012) on waste electrical and electronic equipment (WEEE)

The Technical Construction File is maintained at the corporate headquarters of Colorado Time Systems in Colorado, USA.

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