



# WTTC

# Water Polo

## User Instructions

Colorado Time Systems

Corporate Office  
1551 East 11th Street  
Loveland, CO 80537 USA

Sales: 1-800-279-0111 or +1 970-667-1000

Service: 1-800-287-0653 or +1 970-667-1000  
FAX: +1 970-667-1032

Web: [www.coloradotime.com](http://www.coloradotime.com)  
Email: [support@coloradotime.com](mailto:support@coloradotime.com)

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.

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.
2. This device must accept any interference received, including interference that may cause undesired operation.

Unauthorized modifications or changes made to this device not expressly approved by the party responsible for compliance will void the user's authority to operate the equipment.

## Table of Contents

Introduction .....	5
Location .....	5
Connections .....	6
Power Switch .....	6
Scoreboard Ports .....	6
RSR Connection .....	6
USB Ports .....	6
Basic Operation .....	7
Water Polo .....	8
Clock Operations.....	8
Team Operations .....	9
Advanced options:.....	10
Editing game time & shot time	
Run/Stop/Reset Units (RSR)	
Game Settings .....	11
Penalty Shootout.....	13

## Introduction

Thank you for purchasing Colorado Time Systems' Wireless Tabletop Controller (WTTC). This manual will cover the standard operation and settings of the WTTC console as well as the settings and operations specific to Water Polo.

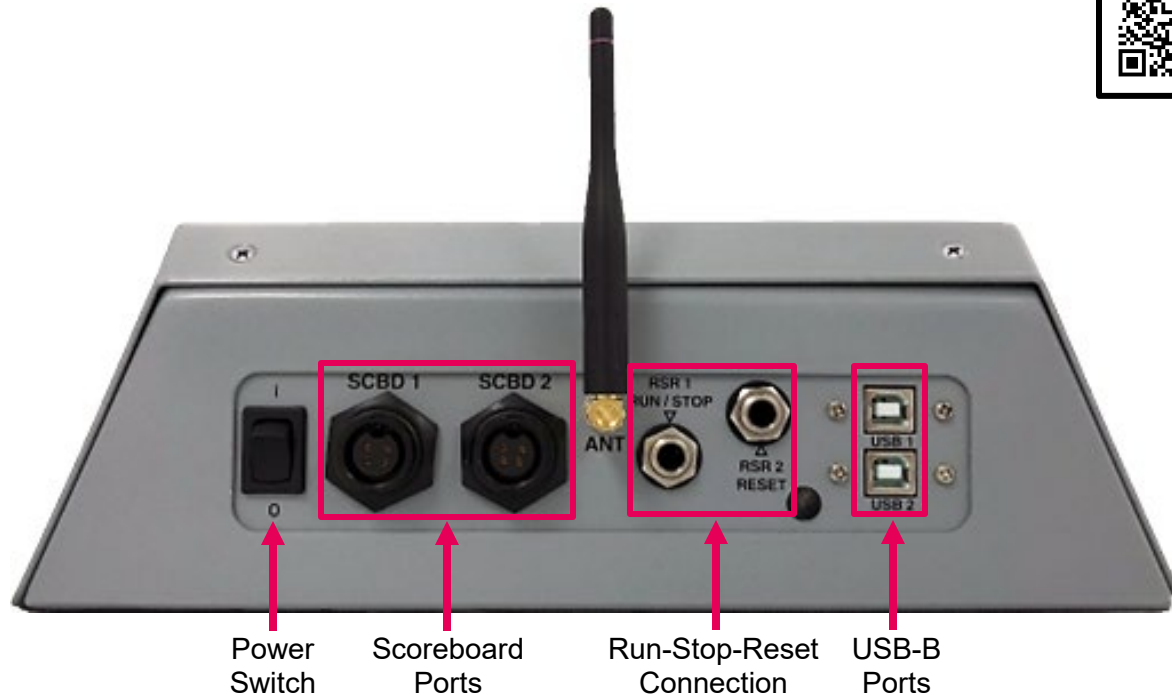
## Location

Select an appropriate location for your WTTC.

Wireless signals are subject to interference from many sources, including Wi-Fi, cell towers, fire stations, airports and more. It is possible that a channel and PAN will work today when your facility is empty and not work as well during an event with spectators with cell phones, and staff with walkie talkies. If this happens, experiment to find a better channel and PAN as needed.

Make sure there is a clear line of sight between the controller and the scoreboard. Check for physical obstructions such as walls or other solid objects between the two and move the controller if possible.

# Connections



## Power Switch

When connected to power, flip the power switch to the “o” position to power the unit on. Flip the switch to the “i” position to power the unit off.

## Scoreboard Ports

The WTTC supports both wired and wireless connection to scoreboards and deck clocks. If a wired connection to the scoreboard(s) or deck clock(s) is desired, connect a cable from the scoreboard(s) and/or deck clocks to the scoreboard port.

## RSR Connection

Connect Run-Stop-Reset devices here to control game time and shot clock or play clock (depending on the sport).

## USB Ports

There are two USB-B ports available on the WTTC. Use the USB ports to connect the unit to the provided power supply or to an available external battery. The additional USB port can be used to connect to a Display Link Plus computer to send data to a video board.

## Basic Operation

The unit runs on A/C power or may be run on a customer supplied external battery.

An external battery must be USB Compatible and have an input and output of 5V/1.0A.

Average battery run and charge times as tested. (Note: Customer results may vary.)

Battery Capacity	3.7V 10000mAh 38Wh	3.7V 7800mAh 29Wh	3.7V 2600mAh 10Wh
Run Time	19 hours	15 hours	4.5 hours
Charge Time	28 hours	5.5 hours	3 hours

*While testing some external batteries, it was found that occasionally the WTTC turned off immediately after selecting a sport. If this occurs, simply turn the power switch off and then back on. Normal operation should resume.*

Turn on the controller and enter any sport. Press Menu and select **Hardware Options** to make global changes to the controller and scoreboard(s), regardless of the sport. When finished, press Clear to exit the menu. If anything is changed, you will be prompted to save; press Enter to save your changes if you want to keep them.

Select **Backlight**: and press enter to toggle backlighting on or off.

Select **Set Time**: and press enter. Use the keypad to enter the time of day in 24-hour mode (8:00 is 8 a.m.; 20:00 is 8 p.m.).

Select **Clock Mode**: and press enter to toggle between 12-hour and 24-hour mode. This defines how the time is displayed both on the controller and on the scoreboard.

Select **Horn Options** and press enter. Select the Horn value to change, and press enter to cycle through the options (4 volume settings and 8 tones for each horn).

Use the **Scoreboard Options** sections to configure your scoreboard(s).

- Set the **Wireless Channel** of the radio (0-11). This must match the channel of the scoreboard as displayed next to the "C" when the board is turned on.
- Set the **Wireless PAN** (personal area network) ID of the radio (0-15). This must match the PAN of the scoreboard as displayed next to the "P" when the board is turned on.
- Select **SCBD State** and press enter to toggle between On and Blank.
- Update the time of day on the scoreboard to what is set on the tabletop console by selecting **Update SCBD T.O.D** and pressing enter.
- Select **SCBD Intensity** and press enter to scroll through intensity settings 1 (low) – 7 (high) and AUTO.  
AUTO turns on the ambient light sensor for scoreboards that have one.
- Select **SCBD Self Test** and press enter to start a test of all digit segments on the scoreboard. Press enter again to turn the test off.
- The **Active Scoreboards** submenu is an advanced feature that should only be modified at the direction of CTS personnel. For normal operation, ensure that #1 is set to **ON**.
- Select **SCBD RSSI** to toggle a signal strength display on the receiving scoreboard. This number is a measure of how much wireless noise is present on the received signal. The lower the number, the better the signal quality.

**Remote Pairing** has been deprecated and may be removed in a future release.

# Water Polo



The Water Polo keyboard insert is double-sided. One side features the blue team on the left and the white team on the right. The other side reverses the two teams. Please use the insert side that aligns with your governing body's rules.

## Clock Operations



Press to start and stop the game clock. This can also be done with an RSR-1 (See RSR on page 10 for more details).



Press the HORN button to sound the horn manually. It will sound automatically at the end of a period, break/halftime and game, and optionally at the end of a time out and as a time out warning if set in the game set up menu.



Press to reset the shot clock.

The shot time can also be reset with an RSR-1; see RSR in the advanced section, below.



If the shot clock is mistakenly reset, press this key to revert to the previous shot clock time.



When enabled through the **Shot Can Stop** option under the Shot Clock menu, the Shot Clock can be stopped and started without stopping the Game Clock. The run/stop state of the shot clock is indicated on the screen of the WTTC with a play/pause icon adjacent to the shot time.



When enabled through the **Alt Shot Reset** option under the Shot Clock menu this key will reset the shot clock to a length different than the main shot clock time. Set the length with the “Alt Shot” option in the menu.

If required to change the game or shot time, see Edit Mode in Advanced Options on page 10.



Press to advance to the next period or break between periods. (This key is only active while the clock is stopped.)

## Team Operations

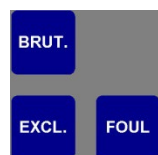
Operations for the home team use the keys on the left; those for the guest team use the keys on the right. Depending on your governing body’s rules, select the side of the keyboard insert that matches the Blue/White arrangement for your game.



Add points scored with the +1 key; subtract mistakenly added points with the -1 key. If **Track Points** is enabled, enter the cap number of the player who scored and press enter.



Start the correct timeout with the timeout keys. If pressed while a timeout is running, the timeout will end prematurely.



Use these keys to record fouls, including exclusions and brutalities. If prompted, enter the cap number of the player who committed the foul and press Enter. The **EXCL**usion and **BRUT**ality keys will automatically set the exclusion timer. If the game clock is running, the exclusion timer will start immediately.



Press these keys to clear current exclusions.




Press the **Red Card** button to eject a play from the game. After entering the player’s cap number, that play will automatically have 3 fouls assessed.



## Advanced options:

### *Starting a new game, editing game time, shot time, score, number of fouls, number of time outs remaining*

To start a new game, press , and select **NEW GAME**. This cannot be undone, so you'll be prompted to confirm this action.

 Press to activate Edit Mode. Next, press the key corresponding to the value you want to edit. Enter the new value with the numeric keypad and press Enter to enact the change. Press Clear to exit Edit Mode without making a change.

For example, to edit the home team score, press Edit Mode and then press either of the keys that modify the home team score (+1 or -1). You can edit the number of full and partial time outs remaining by selecting the respective keys. You can also edit exclusion details by pressing **Edit Mode** then **EXCL** and repeatedly pressing **EXCL** until the correct exclusion field is highlighted.

## Editing game time & shot time

Press Edit Mode and then press Run/Stop to edit the game time or press the yellow Reset key to edit the shot time. Enter the new value with the numeric keypad, and press enter to enact the change. Times can only be edited while the clock is stopped. When editing game time and shot time, you must enter the new value with tenths of a second. For example: to set the game clock to 1 minute and 20 seconds, you would enter 1:20.0.

When the numeric keypad is active for editing a data field, the battery icon is replaced by "123".

## Run/Stop/Reset Units (RSR)

Using run/stop/reset (RSR) units for time keeping: Optional run-stop-reset units allow a second or third operator to assist in controlling game time and shot time.

When a single button RSR is connected, the keyboard keys **Run/Stop** and **Reset** are inactive; **Alt Shot Reset** is still active. When a two button RSR is connected, the **Alt Shot Reset** keyboard key is also inactive.

*One RSR:* Connect to either round phone plug input on the back. The black rocker switch starts and stops the game time, and the blue reset button resets the shot clock to its default time. A two button RSR can also reset the shot clock to its alternate time.

*Two RSRs:* The one connected to Input 1 controls the game time with the rocker switch; the reset button(s) is inactive. The one connected to Input 2 controls resetting the shot clock with the reset button; the rocker switch is active to start and stop the shot time **only** if the **Shot Can Stop** option is set to Yes. A two button RSR can also reset the shot clock to its alternate time.

If you are using an RSR-1 to reset the shot clock, it will always reset to the standard reset value when the RSR button is pressed. Use the keyboard **ALT SHOT RESET** key to perform an alternate shot clock reset.



Press to see the game statistics. These can be displayed on scoreboards which have space for this. Set which statistics are kept in the Stats Options, described in Game Setup, below. To edit statistics for a player, enter the stats screen. Use the arrow keys to highlight the number to edit, press Enter, type the new number, and press Enter again. Press Clear to exit the stats screen.



When tracking fouls is enabled in the Stats menu (see Game set up, below), the cap number of the player who committed the most recent foul will display on scoreboards which have space for this. Press the Blank Player Foul when ready to stop displaying this on the scoreboard.



Use this key to simultaneously exclude a player from each team. Pressing this button will stop the game clock (if it is running) and require the operator to enter a cap number for each team. Unlike standard exclusions and brutalities, a double exclusion will not affect the value of the shot clock.

## Game Settings



Press to set up your game with the five main sub-menus: Default Times, Shot Clock settings, Exclusion Options, Time Out options, and Statistics options.

Use the **Default Times** section to set period length, length of the break between periods, halftime length, and overtime length.

You can enable a warning horn to sound prior to the end of the breaks. If you do not wish to sound a warning horn, set this option to 0:00

You can also select what action to take at the end of a period. By default, the controller will advance to the next break and auto-start the break clock. You can opt to advance to the break but not start the break clock. You can also opt to remain at the end of the current period which requires the operator to manually advance to the break and start the clock. Note: at the end of a break, if either “advance to break” option is selected, the controller will advance to the next game period but will never automatically start the clock.

Use the **Shot Clock** section to:

- toggle the shot clock on or completely off
- set the default reset value for the shot clock
- enable the alternate shot clock
- set the default alternate reset value for the shot clock
- enable independent run/stop control of the shot clock
- set what do display when shot time is greater than the time remaining in the period
  - o Normal Operation, Blank Shot Clock, Shot Clock synchronized with Game Clock

Use the **Exclusion** options to set the length of exclusions and brutalities. There is an option to control whether exclusions clear automatically when a goal is scored. There are also two options which control the placement of exclusions on the scoreboard. You can opt to always place Brutalities in slot C. You can also choose to automatically “roll-up” exclusions when higher placed exclusions expire. (Note: if brutalities are set to always appear in slot C, they will not roll up when higher exclusions expire).

Use the **Time Out** options to set the full and partial time out details, including number of each time out a team receives at the beginning of each half, length, and horn details. Use Full or Part TO Horn to toggle whether the game horn sounds automatically at the end of a timeout. Use Full or Part TO Warn to set the amount of time before the end of the timeout that a warning horn will sound. Set to 0 for no warning horn.

Use the **More Options** menu to set whether to track fouls (including exclusions and brutalities) and points by player number, and to set the number of fouls at which a player fouls out of the game.

To accommodate the rules and norms of different governing bodies, you can select which team is on the left-hand side of the LCD display: white or blue. Use the corresponding side of the keyboard insert to match the LCD display.


There is also an option to control what is display on the main clock during a time out. You can display either the (stopped) game time or the running timeout time. Optionally you can combine the number of Full and Partial timeouts (for numeric scoreboards which only include a single digit for timeouts remaining).

You can also choose **Hardware Options** to set the global settings for all sports on this console. This menu is described Basic Operation section, and includes wireless settings, scoreboard intensity, horn tones, backlight setting on the console, and other hardware-specific options.

Select **Go to Penal. Shot** to switch to penalty shootout mode. See Penalty Shootout.

# Penalty Shootout

The **Penalty Shootout** mode is designed to work exclusively with CTS' DisplayLink Plus and your LED video board. It allows for the display of made and missed penalty shots during the shootout phase of a game.

From **Water Polo**, you can enter the **Penalty Shootout** mode by click  then selecting **Go to Penal. Shot**. Even though the WTTTC will change its display, all the details of the current water polo game are still active in the background. No data will be lost.


There is no need to change your keyboard insert when running **Penalty Shootout** mode. All operations are conducted with the number pad.

When you first enter **Penalty Shootout** mode, the first shot for the left team will be highlighted. This mode will use the same White/Blue or Blue/White setting that was set in water polo.

If you need to change the currently active team, use the Up or Down arrows on the number pad. If you need to change the currently selected shot, without changing the team, use the left and right arrows on the number pad.

Use the **Enter** button to mark a shot as "Made". Use the **0 (Zero)** button to mark a shot as missed. You can also use the **Clear** button to erase the status the currently selected shot.

The team score for the penalty shootout phase will automatically adjust as shots are marked as made and missed.

 In the menu for **Penalty Shootout**, you can select **ANOTHER ROUND?** to clear the shots made/missed but keep the score. You can also select **CLEAR PENALTIES** which will clear shots made/missed and reset the score. Both of these options are irreversible and require confirmation. Finally, you can **RETURN TO POLO** to exit Penalty Shootout mode.



Customer Service Department  
[www.coloradotime.com](http://www.coloradotime.com)  
Email: [support@coloradotime.com](mailto:support@coloradotime.com)  
Phone: +1 970-667-1000  
Toll Free U.S. and Canada 800-287-0653  
Fax: +1 970-667-1032