

# Wireless Portable & Standard Pace Clock and Shot Clock



## User Guide



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# Table of Contents

Set up & Operation .....	1
General Information .....	1
Battery	
Wall Mount	
Legs	
Intensity Setting	
Channel Setting	
Pace Clock .....	3
Without Timer or Controller.....	3
Wireless Operation	
With Timer or Controller.....	3
Shot Clocks .....	5
Battery	
With CTS timer .....	5
Using Clock to display game time.....	5
Specifications .....	7

# Set up & Operation

Thank you for purchasing a Colorado Time Systems Wireless Portable or Standard Pace Clock/Shot Clock. Setting up your pace clock/shot clock is very straightforward.

## General Information

### Battery

An optional internal battery can supply power to the clock. If you did not order this option, and would like to do so, contact CTS customer service by email at [support@coloradotime.com](mailto:support@coloradotime.com) or by phone at +1 970-667-1000 or 800-287-0653.

A fully charged battery will run the unit for a minimum of 6 hours. Leave the unit plugged in overnight to fully charge the battery after use. The battery charges any time the unit is plugged in to AC power.

### Wall Mount

The pace clock can be mounted on the wall. First determine the location for your pace clock. It is your responsibility to choose a location where the wall composition or mounting structure can support the 29 lb (13.2 Kg) weight of the pace clock. Use appropriate mounting hardware for the wall substrate, weight of the clock and its environment. The keyhole slots in the back of the clock are .359 inches at the bottom to accommodate the head of the screw, and .172 inches at the top, to accommodate the shank of a #8 screw. They are 25.00 inches apart center to center and 2.50 inches below the top of the clock. Installation must meet all national and local codes.

### Legs

The clock includes legs. If you would like to use the legs, attach them with the hardware included to the threaded mounting holes in the bottom of the clock.

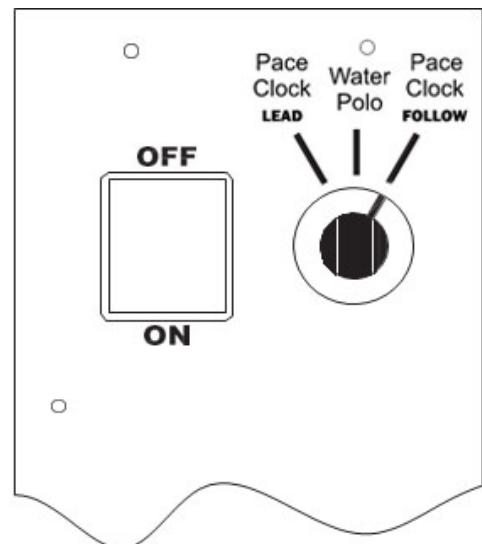
### Intensity Setting

Use the dial on the front panel to set the intensity of the LED digits as follows:

When the clock is turned on, it will first display in for Intensity -- either in LO or in HI. While in is displayed, the dial adjusts the intensity of the display. When the dial is set to Water Polo or Pace Clock Lead, the intensity will be high; when the dial is set to Pace Clock Follow, the intensity will be low.

### Channel Setting

After the dial has been in the same intensity setting for 4 seconds, the clock will display CH for wireless channel. While CH is displayed, the dial changes the clock's wireless transmission/reception channel. When the dial is set to Water Polo or Pace Clock Lead, the channel will be 4; when the dial is set to Pace Clock Follow, the channel will be 2. All clocks that you want to display the same information must be set to the same channel.



After the dial has been in the same channel setting for 4 seconds, the clock will display the firmware revision, and then the current mode. At this point, the dial changes the mode. The dial will change only the mode until the clock is turned off and then on again.

These settings are automatically saved; when the clock is turned off and on again, it will restore the previously set intensity and channel information until those settings are changed as described above.

# Pace Clock

## Without Timer or Controller

To run a single standalone pace clock, set the front panel switch to Pace Clock Lead.

To run a series of pace clocks without an external controller, set the front panel switch on the first pace clock to Pace Clock Lead. Set the other pace clock(s) to Pace Clock Follow. Connect the pace clocks with data cables using the round 4-pin (RS-485) connectors. All connected pace clocks will display the same information.

Turn on the pace clock(s) with the power switch on the front panel. The pace clock(s) will begin counting up from zero, displaying time as minutes and seconds. After displaying 59:59, the display will roll over to 00:00.

## Wireless Operation

To run a series of pace clocks wirelessly, turn the first clock on, and set the intensity to the desired setting, and select a channel and make a note of it. Then, set the dial on the first pace clock to Pace Clock Lead.

Turn on the other pace clocks, setting the intensity to the desired setting, and setting the channel to the same as the first clock. Finally, set the other pace clock(s) to Pace Clock Follow.

Within 5 seconds, the pace clock(s) will be synchronized to the first clock.

## With Timer or Controller

A pace clock or series of pace clocks can be controlled to a limited extent using a CTS timer or pace clock controller. The pace clocks will display the minutes and seconds digits of the information that is sent to scoreboard channel 01, and all connected pace clocks will display the same information.

To control a single pace clock or a series of pace clocks with a CTS timer or pace clock controller, set the front panel switch on the pace clock(s) to Pace Clock Follow. Connect one pace clock to the timer through the scoreboard output port or connect it to the pace clock controller. Use a data cable with either a round 4-pin (RS-485) connector or a quarter-inch phono connector (RS-232), whichever your timer or controller supports.

If you are connecting multiple pace clocks, connect the pace clocks to each other with the same type of data cable used to connect to the timer or controller. All connected pace clocks will display the same information.

Turn the pace clock(s) on with the power switch on the front panel. Follow the instructions in your timer Pace Clock software manual or Pace Clock Controller manual to use the pace clock(s).

# Shot Clocks

The Wireless Portable Pace Clock/Shot Clock is ideal for Water Polo with its internal battery and horn. A Wireless Standard Pace Clock/Shot Clock can be upgraded by CTS customer support to a Portable unit (with battery and horn). Contact CTS customer service by email at [support@coloradotime.com](mailto:support@coloradotime.com) or by phone at +1 970-667-1000 or 800-287-0653.

## Battery

A fully charged battery will run the unit for a minimum of 6 hours. Leave the unit plugged in overnight to fully charge the battery after use. The battery charges any time the unit is plugged in to AC power.

## With CTS timer

Set the front panel switch on the shot clocks to Water Polo. Connect one shot clock to the timer through the scoreboard output port with a data cable using either the round 4-pin (RS-485) connector or the quarter-inch phono connector (RS-232), whichever your timer supports. Connect the shot clocks to each other with the same type of data cable.

If you are also displaying game information on a scoreboard, there are two ways to connect both the scoreboard and the shot clocks to the timer.

- Connect the first shot clock and the scoreboard to the timer with data cables, using a splitter at the timer, or
- Connect the first shot clock to the timer. Connect the shot clocks and the scoreboard to each other with data cables, including the scoreboard in the chain where convenient.

Turn on the shot clocks with the power switch on the front panel. To operate properly, the timer must be set to display Scoreboard Channel 02 (shot time) on Module 03. This is the default setting. The timer will automatically start and stop the shot clocks and sound the horns. See your timer Water Polo software manual for more information about shot clocks.

## Using Clock to display game time

An additional clock with an internal horn can be used to display game time. To operate properly, the timer must be set to display Scoreboard Channel 01 (game time) on Module 01. This is the default setting.

Set this clock to Pace Clock Follow. Connect it, in whatever order is most convenient, to the series of shot clocks using a data cable of the same type as the data cables connecting the shot clocks and the timer. Turn it on with the power switch on the front panel. The timer will automatically start and stop the game clock and sound the horn at the end of each period. See your timer Water Polo software manual for more information about game time.

# Specifications

## Devices set to 115V

AMPS: 3.0 V: 115 Hz: 60

Conforms to Std. UL863

Certified to CAN/CSA Std. C22.2#207



## Devices set to 230V

AMPS: 1.5 V: 230 Hz: 50

Conforms to Std. UL863

Certified to CAN/CSA Std. C22.2#207



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For all devices:

No operator serviceable parts. Contact factory for replacement parts/service.

**CAUTION:** Servicing is to be performed only while device is disconnected from power.

**ADVERTISSEMENT:** Pour entretenir est être execute seulement pendant que l'appareil est débranché du paovoir.

Contains FCC ID: Q7V-3F090003X

For Brazil contains FCC ID: OJMTRM900TTA, Anatel: 3069-12-8396

## FCC / IC NOTICES

This device complies with Part 15 of the FCC rules. Operation of this device 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.

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

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



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