

QuickStart



User Guide

F816 Rev. 0104



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QuickStart Manual Addendum

Notice

Operation has changed slightly for entering test mode and for using the turn hand speed feature.

To enter test mode:

Best method

1. Plug an extra push button into the start system port, and plug the relay platform, touchpad and another push button into their respective ports.
2. Hold down the push button that is plugged into the start system port while triple clicking on the push button. The LED display will indicate that it has begun the test mode by lighting all LED segments for five seconds followed by "----" on the display.

Alternate method

1. Plug all components (including the start system) into their respective ports.
2. Hold down the start button on the start system while ignoring the annoying false start tone and while triple clicking on the push button. (If you have pressed the start button on the start system and held it down without letting go, you may get to skip the annoying false start tone.) The LED display will indicate that it has begun the test mode by lighting all LED segments for five seconds followed by "---" on the display.

To use the Turn Hand Speed Feature:

You can time your swimmers' breaststroke and butterfly turn speeds by using the QuickStart display, a push button and a touchpad. Plug the push button and touchpad into their appropriate ports on the QuickStart display. To initiate the Turn Speed mode you need to triple click the push button. The QuickStart display will show "HS" (Hand Speed) when it is properly in the turn Speed mode.

As with previous models of the QuickStart, when in the Turn Speed mode, QuickStart captures the time between when a swimmer's hands touch the touchpad and when his/her feet make contact for the push off. The elapsed time will be displayed on the QuickStart display and exported to the PC if connected.

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Introduction

Dear Customer:

Colorado Time Systems (CTS) thanks you for purchasing QuickStart, the start reaction time and relay exchange training tool. QuickStart is a full-featured yet easy-to-use training aide designed to help you help your swimmers achieve peak condition and fine tune their starts, turns and relay exchanges.

QuickStart was designed with coaches and swimmers in mind. In fact, many of the United States' finest coaches helped design this product by providing CTS with valuable information concerning their training needs. Thank you to all who have made this product possible.

Colorado Time Systems is committed to providing you with solutions for all your sports timing needs. The addition of QuickStart to the growing family of aquatic sports timing and training equipment from CTS is another example of our commitment to the development of competitive swimming.

QuickStart Contents

Your QuickStart package includes the following items:

- QuickStart display
- QuickStart user guide
- AC Power adapter and cable

Accessory Items (if purchased)

- PC software interface and cable
- Push button
- Relay judging platform (RJP or RJPL)
- Touchpad
- start system

Immediately upon receiving your QuickStart package, perform the following steps:

- 1) Open all boxes and remove protective packaging.
- 2) Inspect all parts for damage which may have occurred during shipment. Report any damage to freight carrier immediately.
- 3) Use the enclosed Packing List to ensure you received all items ordered. If any parts are missing, contact Colorado Time Systems' Customer Service Department immediately at, ext. 256, 800-287-1653 toll-free (US and Canada) or 970-667-1000 (international).

Scope of this User Guide

This user guide addresses all issues relating to the normal operation of QuickStart. It is written with the beginning operator in mind, but also contains detailed information of interest to experienced operators. Use the Table of Contents to locate specific information quickly.

Contents

Chapter 1 - Contains introductory and background information on the QuickStart product.

Chapter 2 - Covers setup and basic operating instructions.

Chapter 3 - This is the reference section which includes suggestions for storage and maintenance. It also includes a trouble-shooting section to answer basic product questions.

Setup/Operation

The first part of this chapter describes how to set up your QuickStart display. Setup is easy, but must be done correctly to ensure proper operation. The second part of this chapter gives you step-by-step instructions for programming and running the various training options.

Setup

Power Requirements

The QuickStart display comes with an AC power adapter and cable that plugs into any standard 110v outlet. You may also use eight standard D-size alkaline batteries.

Setting up the QuickStart display is easy. Plug in the display to a power supply using the AC power adapter and cable. Follow these instructions for each mode of operation:

Pace Clock Mode

1) Pace Clock mode: To use the display as a pace clock, you simply turn the display on using the ON/OFF switch. The pace clock will count up to 59:59 (mm:ss) and roll-over to 00:00 and begin again.

Start Reaction Mode

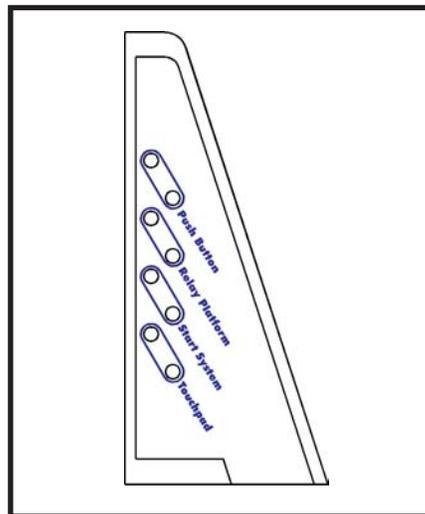


Figure 1: Detail of the banana plug ports.

2) Start Reaction mode: To set up QuickStart to test swimmer's start reaction times, you will need a push button, an electronic starting device (like the CTS Infinity or Championship Start System), and a CTS Relay Judging Platform. Plug the push button into the Push Button port, the RJP into the Relay Platform port, and the start system into the Start System port. See Figure 1 for proper placement of each plug.

Relay Exchange Mode

3) Relay Exchange mode: To set up QuickStart to test relay exchanges, you will need a push button, a CTS RJP and a CTS touchpad. Plug the push button into the Push Button port, a CTS RJP into the Relay Platform port and a CTS touchpad into the Touchpad port.

Break-out Time Mode

4) Break-out Times: The break-out time is the difference in the time between when the start system sounds and when the swimmer breaks out of the water. Break-out times can be captured by using the push button while testing Relay Exchanges or Reaction Times. Plug the push button, start system, CTS RJP and CTS touchpad into their appropriate ports.

Turn Speed Mode

5). Breastroke/Butterfly Turn Speed: QuickStart can be used to time a swimmer's turn speed during breaststroke and butterfly turns. The turn speed is the time between when a swimmer's hands touch the wall and when his/her feet make contact to push off. Turn speed can be captured by using the QuickStart display, a push button, and a CTS touchpad. Plug the push button and touchpad into their appropriate ports.

PC Interface Option

6) PC Interface Option: The swimmer's timing information can be exported to a PC via an RS-232 port located on the right side of the display. In addition, the software allows swimmers' names to be entered on the PC in a log file created of each swimmer's reaction, break-out, relay exchange or turn speed times. This information is captured in a comma-delimited file format so it can easily be imported into your favorite PC spreadsheet.

To install the QuickStart PC Logging Software to your computer's hard drive, insert the diskette into your A:\ or B:\ floppy drive. From the C:\ prompt, type either A:install or B:install. The installation software will create a new C:\CTS directory including the QuickStart software.

To set up the QuickStart to PC interface, plug the RS-232 connector cable into the RS-232 connection on the side of the display and into the COM port on the back of your PC. Power on the display and PC and run the PC logging software by typing **QSTART <Filename>** from the C:\CTS prompt. "Filename" is the name that you want to call the log file.

Press **F1** at any time while using the program for help instructions. To exit the program, simply press the **ESC** key. The program will automatically save your data to your specified file name.

Operation

Once you have set up the QuickStart training tool, you can begin training your swimmers and improving their starts and relay exchanges. Using QuickStart is not difficult, but you should read through this section to be sure you are taking full advantage of its many features.

Pace Clock Option

The QuickStart display is set up to be used as a pace clock during normal training sessions. Simply turn the display on using the ON/OFF switch and the display will begin counting up from 00:00 to 59:59. It is programmed to cycle back to 00:00 continuously every hour until the display is turned off.

Training Options

The QuickStart display was designed as a training tool to assist swimmers with their starts, turns and relay exchanges. To begin using the display to track either start reaction times, turn speeds or relay exchanges, you need to have a push button, an electronic start system, a CTS Relay Judging Platform(RJP) and a CTS touchpad. Plug the push button into the Push Button port, the RJP into the Relay Platform port, the start system into the Start System port and the touchpad into the Touchpad port. Double-click the push button to reset the display.

Note: *The reset feature occurs after a one second delay. Double-click the push button and wait one second; The display will blank out when it is reset.*

“ErrX” Message

If you see a “ErrX” (where X is a number 1-4 or a ?) on the QuickStart display at any time, see the Trouble-Shooting portion of the manual. You may need to run the test program.

Using the Start Reaction Time Feature

To test a swimmer’s start reaction time, you need the QuickStart display, a push button, CTS RJP and an electronic start system. Plug in all of these components into the QuickStart display. Turn on QuickStart and double-click the push button to reset the display. You are now ready to begin training your swimmers. Use the start system to simulate the beginning of a race. The display will track the time between the sound of the start system and the time when the swimmer leaves the platform. The elapsed time, to 1/100th second, will be shown on the display and will remain until the display is reset. The reaction time will also be exported to the PC if one is connected.

Backstroke Start Reaction Times

Backstroke start reaction times can be shown as well. To set up the QuickStart display to track backstroke reaction times, unplug the RJP from the QuickStart and plug in the touchpad into the RJP port. Have the swimmer prepare for their start by placing their feet on the touchpad in their normal starting position. Next, reset the display by double-clicking the push button.

Note: *You must wait until the swimmer is on the touchpad and ready to start before resetting the display.*

Start the swimmer by using the start system. The swimmer's reaction time will appear on the QuickStart display. Wait until the next swimmer is situated on the touchpad before resetting for the next start. To return to normal mode, plug the touchpad and RJP back into their appropriate ports.

Using the Break-Out Feature

The break-out time is the difference in time between when the start system sounds and when the swimmer breaks out of the water. The time is recorded and displayed when the coach presses the push button after a start or relay exchange. The elapsed time, to 1/100th second, is shown on the display and will remain until the display is either toggled back (single-click the push button) to show the reaction time or reset (double-click the push button). The break-out time is also exported to the PC if one is connected.

Note: *Although unlikely, the break-out time can also be displayed while using the relay exchange function. In this case, the break-out time is the difference in time between when a swimmer hits the touchpad and when the next swimmer breaks out of the water.*

Using the Relay Exchange Feature

The relay exchange time is the difference in time between when a swimmer hits the touchpad and when the next swimmer takes off from the starting platform. To test relay exchanges, you need the QuickStart display, a push button, CTS RJP and a CTS touchpad.

The elapsed time, to 1/100th second, is shown on the display and will remain until the display is reset. Negative times indicate an early start. The relay exchange time will be exported to the PC if one is connected.

Using the Turn Hand Speed Feature

You can time your swimmers' breaststroke and butterfly turn speeds by using the QuickStart display, a push button and a touchpad. Plug the push button and touchpad into their appropriate ports on the QuickStart display. To initiate the Turn

Speed mode you need to press and hold down the push button for one second then double-click the push button. The QuickStart display will show “HS” (Hand Speed) when it is properly in the Turn Speed Mode.

When in the Turn Speed mode, QuickStart captures the time between when a swimmer’s hands touch the touchpad and when his/her feet make contact for the pushoff. The elapsed time will be displayed on the QuickStart display and exported to the PC if connected.

Returning to Relay
Exchange or Reaction
Time Mode

Note: Double-click the push button to prepare QuickStart for the next breaststroke or butterfly turn. To return to the relay exchange or start reaction modes, you must turn the display off then back on and double-click the push button.

Returning to Pace
Clock Mode

To return the display to the Pace Clock mode, simply unplug the RJP, touchpad, start system and push button. Turn off the display, wait a few seconds, then turn the display back on. It will begin counting from 00:00 to 59:59 as soon as it is turned back on.

Using the PC Logging
Software

To start the PC logging software, type **QSTART** <Filename> from the **C:\CTS** prompt. Upon startup of the program, a window will pop-up prompting you to select the COM port that the QuickStart display is connected to. Move the cursor right or left to select either COM1 or COM2 then press Enter.

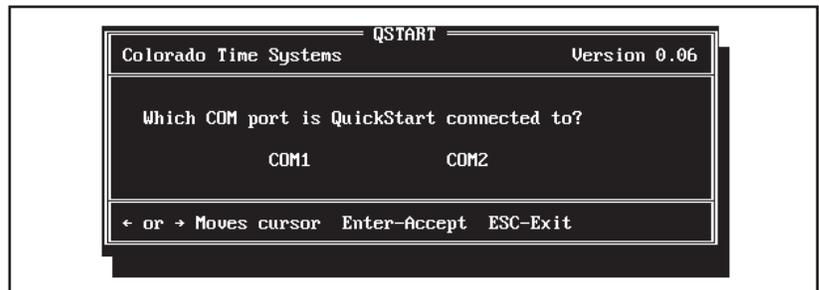


Figure 2-2 COM Port Screen

Next, a new window will appear requesting the name or names of the swimmers you will be testing. Each name can be a maximum of 20 characters. At this time, you can enter one name if testing start reaction times or two to four names if testing relay exchange times. You do not have to enter any names however.

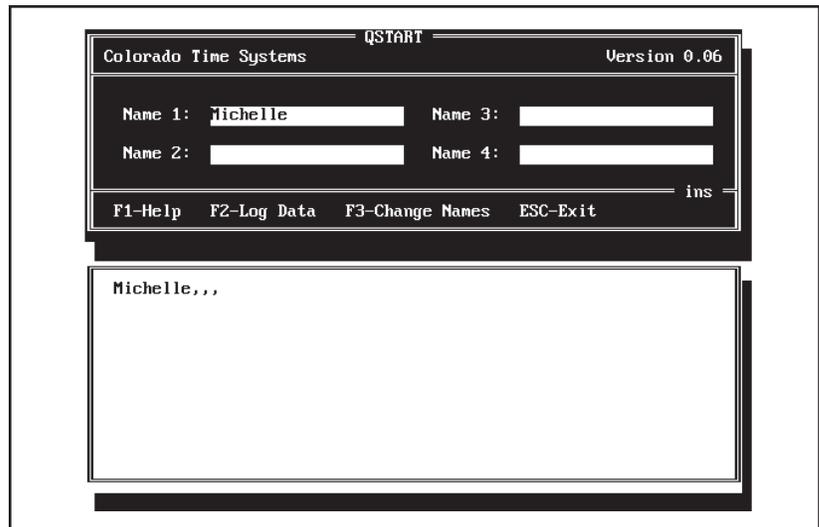


Figure 2-3 Name and Log Data Windows

Press F2 to save the names to your log file and to begin testing. As testing occurs, data will be received from the QuickStart display. Up to twenty-two lines of data can be shown on the PC screen at any one time.

Sample Log Data

The software is now ready to receive data from the QuickStart display. Upon startup of the program the following field header will be output to the data file:

```
Name
Start Reaction, Relay Exchange, Break-out, Turn Speed
```

The training data will be output to the log file in a comma-delimited format. For example, if you are testing start reaction and break-out times for a swimmer named Joe Smith, the data would look like:

```
Name
Start Reaction, Relay Exchange, Break-out, Turn Speed
Joe Smith
0.54,,4.53,
0.67,,5.27,
0.38,,3.56,
```

An example of data collected from testing two swimmers' relay exchanges is as follows:

```
Name
Start Reaction, Relay Exchange, Break-out, Turn Speed
Joe Smith, Tom Wright
,0.05,,
,-0.12,,
,0.27,,
```

Each time you want to change the swimmer name(s) in the log file, simply press **F3** to return to the name entry screen. Enter

the new names in the name entry window then press **F2** to continue testing.

When testing is completed, press **ESC** to exit the logging program. The file will automatically be saved to your computer's hard disk in the **C:\CTS** directory. The data is stored in a comma-delimited file format enabling you to import the data into your favorite spreadsheet, text or database application.

Reference

This chapter describes basic storage and maintenance suggestions and provides a trouble-shooting section that outlines answers to common product questions concerning the operation of QuickStart.

Storage and Maintenance

The QuickStart display was designed to require very little maintenance. Its compact design makes it easy to transport and setup. To protect the QuickStart display from the prolonged effects of a chlorine environment store the display, push button and cables in a cool, dry location.

If the display is left in a damp environment the input plugs may become corroded and prevent the accessory equipment from making strong contacts. If you are experiencing connection problems simply clean each connector with some Lime-A-Way® Kitchen/Bathroom cleaner and a toothbrush.

QuickStart comes with an AC power adapter. You may use eight D-size alkaline batteries instead. If you are using batteries, remove them if you are going to store QuickStart for extended periods of time.

Trouble-Shooting

This section outlines some common questions regarding the QuickStart product. If you are experiencing problems or have questions regarding the setup or operation of QuickStart, please refer to this section before calling CTS Customer Service.

Test Program Indicator

My display shows "----". What does this mean?

The display is indicating that it is in the test mode. You can now test each of the accessory components (RJP, touchpad, or double-click the push button to reset the display to normal

operating mode.

Starting the Pace Clock

What if I want to use QuickStart as a pace clock?

Unplug all accessory items including the PC interface, RJP, touchpad, start system and push button. Turn off the display by using the ON/OFF switch located on the right side of the display. When you want to begin using the pace clock, simply turn the display back on.

Using Non-CTS Equipment

Can I use any touchpad, RJP or start system?

The QuickStart product has been tested and works with any touchpad, start system and RJP manufactured by Colorado Time Systems. It may or may not work with a non-CTS product depending on how that equipment receives and exports information.

Low Power Problems

My QuickStart display is acting funny. The LED digits are blinking.

You probably are experiencing problems associated with low power. Try plugging the display into a wall outlet using the AC power adapter or replace the batteries. If the display continues to perform poorly, make sure all of the connections are clean and plugged in correctly.

Turn the display off and back on to reset.

Showing Break-out and Start Reaction Times

How do I show the start reaction time when I'm also using the break-out feature?

After a start and break-out, QuickStart will display the break-out time until you toggle back to the start reaction time. To toggle back and forth between the break-out and start reaction times simply single-click the push button. Use a double-click on the push button to reset the display.

ErrX Messages

My screen shows "Err2." What does this mean?

This can mean one of two things. First, QuickStart may be indicating that you hit the push button too many times and the display was looking for a particular input that did not happen. QuickStart shows an error message when it receives invalid data. Simply double-click the push button, wait one second and the display will reset.

Running The Test Program

The second type of error may indicate that you have a problem with the second port connection, the Relay Platform. The "2" refers to the problem port. Follow these procedures each time you want to test the connections and components of the QuickStart training tool. The test mode program will verify

that the display and components are attached and working correctly.

Once you have plugged all the components into the display and have turned on the display, begin the test program by triple-clicking the push button. A triple-click on the push button will cause the display to enter the test mode. The LED display will indicate that it has begun the test mode by lighting all LED segments for five seconds followed by “----” on the display.

Test the first component, the RJP, by firmly pressing on it and releasing. The display will show a “CH-2” indicating that input #2 is working properly. Wait until the display clears itself and reads “----” again. Next, test out the remaining components.

If a component is malfunctioning or is not connected properly, the display will show “ErrX” where X is the problem component or connection. For example, if the touchpad is malfunctioning the display will show "Err4" indicating an error in the touchpad input. Check the connection and touchpad and perform the test again.

Exiting the Test Program

Once all components and connections have been tested you are now ready to exit the test program and begin using the training tool. To exit the test program simply double-click the push button. A double-click on the push button, at any time, will reset the display to normal operating mode. Turning off the display and back on will put the display in the Pace Clock mode.

Changing the Batteries

How do I change the batteries?

The batteries are located on the bottom of the display. Slide the bottom face plate to the side to access the batteries.

Multiple Inputs Shown on the Display

Why does QuickStart flash up a number then display a slower number for the reaction time?

The QuickStart display will track all inputs received from the Relay Judging Platform (RJP). However, it will only count the final input as valid. You may see times flash on the display if a swimmer rocks forward and back before leaving the RJP.

Loading the PC Software

How do I load the PC software?

Insert the PC diskette into your 3.5-inch floppy drive. Change directories to C:\. If using Microsoft Windows, open a DOS session and change directories until you are in your C:\ directory.

From the C:\ directory, type A:install or B:install. The installation software will create a new C:\CTS directory and install the QuickStart software. From the new C:\CTS directory, type QSTART <Filename> to launch the program.

